

# **AGENDA**

**CITY OF TAYLOR, TEXAS**  
**CITY COUNCIL MEETING**  
CITY HALL, COUNCIL CHAMBERS, 400 PORTER STREET

JUNE 13, 2019, 6:00 P.M.

## **CALL TO ORDER AND DECLARE A QUORUM**

## **INVOCATION**

## **PLEDGE OF ALLEGIANCE**

## **CITIZENS COMMUNICATION**

*(The City Council welcomes public comments on items not listed on the agenda. However, the Council cannot respond until the item is posted on a future meeting agenda. Registration forms are available at the sign in table.)*

## **CONSENT AGENDA**

*(The Consent Agenda includes non-controversial and routine items that the Council may act on with one single vote. The Mayor or any Council member may pull any item from the Consent Agenda to discuss and act upon individually on the Regular Agenda.)*

1. Approve minutes from May 23, 2019. (Dianna Barker)
2. Consider Resolution R19-17, adopting the FEMA approved 2019-2024 FEMA Taylor/Thrall/LBCWCID Hazard Mitigation Action Plan (HAZMAP) (Chief Baum)
3. Consider a request from Habitat for Humanity of Williamson County for the waiver of City fees for houses constructed by Habitat in Taylor. (Tom Yantis)
4. Consider Tax Increment Financing (TIF) Fund application from 2<sup>nd</sup> & Main Lofts for a Fire Suppression and Alarm System at 100 E. 2<sup>nd</sup> Street. (Tom Yantis)
5. Consider Approving the Purchase of the Police Department's and Fire Departments Public Safety Radio Replacement System with Motorola. (Chief Fluck)

## **PUBLIC HEARINGS / ORDINANCES**

6. Hold a Public Hearing and consider introducing Ordinance 2019-19, to rezone approximately 39.32 acres, more or less; located at the northeast intersection of Old Georgetown Road and NW Carlos G. Parker Blvd. (Tom Yantis)

## **REGULAR AGENDA; REVIEW/DISCUSS AND CONSIDER ACTION**

7. Consideration and Possible Action on Authorizing Professional Engineering Services for the 2019 Infrastructure Bond to HDR Engineering, Inc. & Halff Associates, Inc. (Jim Gray/ Kelly Kaatz/ Jacob Walker)
8. Consider proposed streets for 2019 Street Maintenance and consider an Interlocal Agreement with Williamson County for street maintenance on shared roadways. (Jim Gray/Jacob Walker)
9. Receive update on Givens Community Center design. (Kelly Kaatz)
10. Consider Bid Award for the 2019 Gateway Sign Project. (Jacob Walker)
11. Consider approving Memorandum of Understanding (MOU) between City of Taylor and Good Life Taylor. (Larry Foos)

The City Council may take action on any executive session item listed on this agenda after they reconvene into regular session.

**Executive Session I.** The Taylor City Council will conduct a closed executive meeting under Section 551.071 of the Texas Government Code in order to meet with its City Attorney on a matter in which the duty of the Attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas authorize and allow such a closed meeting and which Rules conflict with the Texas Open Meetings Act.

a. Project 72800

**Executive Session II.** The Taylor City Council will conduct a closed executive meeting under Section 551.071 of the Texas Government Code in order to meet with its City Attorney on a matter in which the duty of the Attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas authorize and allow such a closed meeting and which Rules conflict with the Texas Open Meetings Act.

a. Jacky Jones vs City of Taylor

## ADJOURN

The Council may vote and/or act upon each of the items listed in this Agenda. The Council reserves the right to retire into executive session concerning any of the items listed on this Agenda, whenever it is considered necessary and legally justified under the Open Meetings Act including: Section 551.071 (Consult with attorney); Section 551.072 (Real Property); Section 551.073 (Gifts and Donations); Section 551.074 (Personnel Matters); Section 551.076 (Security Devices); and Section 551.087 (Economic Development). I certify that the notice of meeting was posted in the Taylor City Hall Lobby before 6:00 p.m. on June 10, 2019 and remained posted for at least 72 hours continuously before the scheduled time of said meeting. I further certify that the following news media was notified of this meeting: Taylor Press.

In compliance with the ADA the City Hall and Council Chambers is wheelchair accessible. Reasonable accommodations will be provided for persons attending city council meetings in need of special assistance. Please contact the City Clerk at least 24 hours prior to the meeting for special assistance.

Posted By: Dianna Barker Date 6-10-19  
Dianna Barker, City Clerk





***City Council Meeting  
June 13, 2019  
Transmittal Letter***

STRATEGIC PILLAR

☐ Streets/Infrastructure

☒ Quality of Life

☐ Economic Vitality

**Agenda Item #:** 1  
**Agenda Title:** Approve minutes from the May 23, 2019 regular Council meeting.  
**Council Action to be taken:** Approve by consent or approve with corrections if needed  
**Department Submitted:** City Clerk  
**Staff Contact:** Dianna Barker

**1. PURPOSE/DESCRIPTION**

Pursuant to the Open Meetings Law, Chapter 551, Local Government Code and in accordance with the authority contained in Section 551.021 and the City Charter, the Minutes of each City Council meeting must be recorded, compiled and approved by the City Council in subsequent meetings. The purpose of this item is to conform to these legal requirements.

**2. STAFF ANALYSIS (Why and How)**

N/A

**3. RECOMMENDATION**

Approve as submitted or amend with changes noted.

**4. FUNDING SOURCE**

N/A

**5. TIMELINE**

N/A

**6. PRIOR COUNCIL ACTIONS TAKEN**

N/A

|                                                  |
|--------------------------------------------------|
| <b>7. OTHER OPTIONS (In order of preference)</b> |
|--------------------------------------------------|

N/A

|                       |
|-----------------------|
| <b>8. ATTACHMENTS</b> |
|-----------------------|

1a. [May 23, 2019 minutes](#)

**City of Taylor**  
**Regular City Council Meeting**  
**Taylor City Hall, Council Chambers, 400 Porter Street**  
**May 23, 2019 at 6:00 p.m.**

Mayor Brandt Rydell declared a quorum and called the meeting to order at 6:00 p.m. with the following present:

Mayor Pro-Tem Dwayne Ariola  
Council Member Robert Garcia  
Council Member Mitch Drummond  
Council Member Gerald Anderson

Jeff Jenkins, Interim City Manager  
Ted Hejl, City Attorney  
Dianna Barker, City Clerk

**INVOCATION** – Commander Branson gave the invocation.

**PLEDGE OF ALLEGIANCE**

**PROCLAMATIONS**

1. **National Public Works Week, May 19-25**  
Councilmember Anderson read and presented the proclamation to Director of Public Works Jim Gray and staff members of Public Works.

**CITIZENS COMMUNICATION**

Tom Mowdy, 1805 Covey Ave. – Concerned about what he considers crimes committed by Taylor Housing Authority and requested the Mayor and City Attorney do something about it.  
Sheena Neisen, 1121 W. 7<sup>th</sup> St. - Concerned about cars parked in front of her house, causing her to not be able to get her son to the sidewalk and into cars safely and easily. Ms. Neisen requested the city put up a handicap sign in front of her residence and pass an ordinance prohibiting the blocking of sidewalks. Ms. Neisen also requests something be done about the late and loud parties being held next door to her. Many businesses located on Main Street do not have proper handicap parking signs.

**CONSENT AGENDA**

2. **Approve minutes from May 9, 2019 regular Council meeting and May 14, 2019 special called Council meeting.**
3. **Consider Ordinance 2019-14, prohibiting smoking at Pierce Park (Skate Park).**
4. **Approve 1-year extension to Auditing agreement with Brooks Watson & Company.**
5. **Concur with preliminary financials for April 2019**

*Motion was made by Mayor Pro-Tem Ariola to approve the consent agenda items as presented. Motion was seconded by Councilmember Drummond. Motion carried unanimously.*

**REGULAR AGENDA; REVIEW/DISCUSS AND CONSIDER ACTION**

6. **Receive evaluation of open container ordinance adopted June 14, 2018 regarding alcoholic beverages in the Central Business District.**  
Police Chief Fluck stated that for the eleven months since this ordinance was approved by City Council, the Police Department has had no reported issues of violations or non-compliance. The

Police Department has not received nor responded to any calls for service relating to this ordinance, has not observed any violations, and has not taken any enforcement actions nor issued any citations for non-compliance. The Police Department recommends the continuance of the Ordinance.

*Motion was made by Councilmember Drummond to receive the evaluation as presented. Motion was seconded by Mayor Pro-Tem Ariola. Motion carried unanimously.*

**7. Discuss and consider Heritage Square rental policy and fee schedule.**

Larry Foos, Director of Parks & Recreation, stated this item is coming back to Council from a previous meeting with requested changes. Staff feels the amphitheater and pavilion in Heritage Square should be rented only to groups putting on events that are open to the public. Mr. Foos presented and went over the rental policy and a proposed fee schedule.

*Motion was made by Councilmember Drummond to approve the Heritage Square rental policy and fee schedule as presented. Motion was seconded by Mayor Pro-Tem Ariola. Motion carried unanimously.*

Mayor Rydell read the executive session meeting announcement and adjourned into executive session at 6:31p.m.

**Executive Session I.** The Taylor City Council will conduct a closed executive meeting under Section 551.071 of the Texas Government Code in order to meet with its City Attorney on a matter in which the duty of the Attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas authorize and allow such a closed meeting and which Rules conflict with the Texas Open Meetings Act.

a. Givens Community Center

The Council reconvened into regular session at 7:08p.m.

*Motion was made by Councilmember Garcia to move forward with discussions with Welfare Workers Club (WWC) on the design of the new Community Center and have staff negotiate an agreement to allow the WWC to coordinate events at the facility. Motion was seconded by Councilmember Anderson. Motion carried unanimously.*

**ADJOURN**

With no further action Mayor Rydell declared the meeting adjourned at 7:10p.m.

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Brandt Rydell, Mayor

ATTEST:

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Dianna Barker, City Clerk



## ***City Council Meeting June 13, 2019 Transmittal Letter***

### STRATEGIC PILLAR

- ☐ Streets/Infrastructure
- ☒ Quality of Life
- ☐ Economic Vitality

**Agenda Item #:** 2

**Agenda Title:** **Consider Resolution R19-17, adopting the FEMA approved 2019-2024 FEMA Taylor/Thrall/LBCWCID Hazard Mitigation Action Plan (HAZMAP)**

**Council Action to be taken:** Adopt plan

**Department Submitted:** Fire

**Staff Contact:** Daniel Baum, Fire Chief

### **1. PURPOSE/DESCRIPTION**

Consider and adopt the FEMA approved 2019-2024 FEMA Taylor/Thrall/LBCWCID Hazard Mitigation Action Plan (HAZMAP).

### **2. STAFF ANALYSIS (How and Why)**

Under the Disaster Mitigation Act of 2000, the Federal Emergency Management Agency (FEMA) requires communities to develop a mitigation plan to minimize or eliminate the long-term risk to human life and property from known hazards. Mitigation is defined by FEMA as sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. Hazards that may pose risk and potentially result in disaster include but are not limited to drought, flood, hurricanes, tornados, and wildfires.

Communities with a FEMA-approved plan are eligible for certain grant funding under the Hazard Mitigation Assistance (HMA) program to fund critical projects such as buyouts and structural elevation of repetitive flood loss structures, drainage projects and hardening critical facilities to minimize future damage from natural disasters that affect the planning area.

The Taylor/Thrall/LBCWCID HAZMAP consists of the City of Taylor, the City of Thrall, and the Lower Brushy Creek Water Control Improvement District.

The participating jurisdictions have been working with Langford Community Management as grant consultant, once FEMA funding was acquired, in order to develop a plan to offer practical approaches and examples for how the communities and water district can engage in effective planning to reduce long-term risk from natural hazards and disasters.

The Plan has been reviewed and approved by FEMA and now, with an approved plan, the participating jurisdictions are eligible to apply for HMA grants for critical hazard mitigation projects as funding becomes available.

In order to keep the plan current and relevant to the communities, the Plan includes a suggested update process for the jurisdiction to complete each year. Also included in the plan is a suggested timeline for the Five Year Update which is to be completed before the plan expires in 2024.

### **3. RECOMMENDATION**

Staff recommends adoption of the Hazard Mitigation Action Plan.

### **4. FUNDING SOURCE**

N/A

### **5. TIMELINE**

N/A

### **6. PRIOR COUNCIL ACTIONS TAKEN**

N/A

### **7. OTHER OPTIONS (In order of preference)**

N/A

### **8. ATTACHMENTS**

2a [Resolution R19-17](#)

2b [FEMA approved plan](#)

## **RESOLUTION R19-17**

### **A RESOLUTION APPROVING THE TAYLOR/THRALL/LBCWCID HAZARD MITIGATION ACTION PLAN**

WHEREAS, natural hazards within the City of Taylor Texas, historically have caused disasters with losses of life and property and natural resources damage; and

WHEREAS, the Federal Disaster Mitigation Act of 2000 and Federal Emergency Management Agency (FEMA) require communities to adopt a hazard mitigation action plan to be eligible for the full range of pre-disaster and post disaster federal funding for mitigation purposes; and

WHEREAS, FEMA requires the communities update Hazard Mitigation Action Plan every five years in order to be eligible for the full range of pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, the City of Taylor has assessed the community's potential risks and hazards and is committed to planning for a sustainable community and reducing the long-term consequences of natural and man-caused hazards; and

WHEREAS, the Taylor/Thrall/LBCWCID Hazard Mitigation Action Plan outlines a mitigation vision, goals and objectives; assesses risk from a range of hazards; and identifies risk reduction strategies and actions for hazards the threaten the community.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Taylor/Thrall/LBCWCID Hazard Mitigation Action Plan is approved in its entirety;
2. The City of Taylor will pursue available funding opportunities for implementation of the proposals designated therein, and will, upon receipt of such funding or other necessary resources, seek to implement the actions contained in the mitigation strategies;
3. The City of Taylor vests with the City of Thrall and the LBCWCID the responsibility, authority and means to inform all parties of this action; assure that the Hazard Mitigation Plan will be reviewed at least annually; and that any needed adjustments will be presented to the City Council for consideration; and
4. The City of Taylor agrees to take such other action as may be reasonably necessary to carry out the objectives of the Plan and report on progress as required by FEMA and the Texas Division of Emergency Management (TDEM).

PASSED AND ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2019

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Brandt Rydell, Mayor, City of Taylor

ATTEST:

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Dianna Barker, City Clerk

# 2018 Hazard Mitigation Plan

ADOPTION DATE?



Taylor Thrall LBCWCID  
HAZARD MITIGATION



Prepared for:  
City of Taylor, Texas

City of Thrall, Texas

Lower Brushy Creek WCID

LANGFORD  
COMMUNITY MANAGEMENT SERVICES

2901 CR 175  
Leander • Texas • 78641



9225 Bee Cave Rd • Building A  
• Suite 200 • Austin • Texas •  
78733 TBPE Firm No. F-18320



## Contents

|                                                               |      |
|---------------------------------------------------------------|------|
| 1. Planning Process .....                                     | 1-1  |
| 1.1. Introduction .....                                       | 1-1  |
| 1.5. Federal and State Authority .....                        | 1-5  |
| 1.8. Building the Planning Team .....                         | 1-6  |
| 1.10. Public Involvement .....                                | 1-9  |
| 1.11. Integrating Existing Plans and Studies .....            | 1-9  |
| 1.12. Plan Maintenance and Continued Public Involvement ..... | 1-10 |
| 1.13. Plan Monitoring, Evaluating, and Updating .....         | 1-12 |
| 2. Hazard Assessment .....                                    | 2-1  |
| 2.1. Introduction .....                                       | 2-1  |
| 2.1.1. Use of CHAMPS Data .....                               | 2-1  |
| 2.2. Past Disaster Declarations .....                         | 2-1  |
| 2.3. Hazards Profiled .....                                   | 2-3  |
| 2.4. Hazard Classification .....                              | 2-5  |
| 2.5. Dam Failure .....                                        | 2-8  |
| 2.5.1. Dam Failure Location .....                             | 2-8  |
| 2.5.2. TCEQ Regulatory Oversight .....                        | 2-10 |
| 2.5.4. Dam Failure Probability and History .....              | 2-10 |
| 2.5.5. Dam Failure Impact and Vulnerability .....             | 2-11 |
| 2.5.6. Warning Time .....                                     | 2-18 |
| 2.5.7. Secondary Hazards .....                                | 2-19 |
| 2.5.8. Problem Statement .....                                | 2-19 |
| 2.6. Flood .....                                              | 2-20 |
| 2.6.1. Types and Location of Flooding .....                   | 2-20 |
| 2.6.2. Historical Flood Events .....                          | 2-23 |
| 2.6.3. Extent of Flooding .....                               | 2-24 |
| 2.6.4. Flooding Probability, Impact and Vulnerability .....   | 2-25 |
| 2.6.5. NFIP Program Information .....                         | 2-27 |
| 2.6.1. Problem Statement .....                                | 2-28 |

|         |                                                |      |
|---------|------------------------------------------------|------|
| 2.7.    | Tornado .....                                  | 29   |
| 2.7.1.  | Tornado Location.....                          | 2-29 |
| 2.7.2.  | Historical Tornadoes in Williamson County..... | 2-29 |
| 2.7.3.  | Tornado Extent .....                           | 2-31 |
| 2.7.4.  | Tornado Probability .....                      | 2-31 |
| 2.7.5.  | Tornado Impact and Vulnerability.....          | 2-31 |
| 2.7.6.  | Problem Statement.....                         | 2-32 |
| 2.8.    | Windstorm.....                                 | 2-33 |
| 2.8.1.  | Windstorm History .....                        | 2-33 |
| 2.8.2.  | Windstorm Location .....                       | 2-33 |
| 2.8.3.  | Windstorm Extent.....                          | 2-34 |
| 2.8.4.  | Windstorm Probability.....                     | 2-35 |
| 2.8.5.  | Windstorm Impact and Vulnerability .....       | 2-35 |
| 2.8.6.  | Problem Statement.....                         | 2-36 |
| 2.9.    | Hail .....                                     | 2-37 |
| 2.9.1.  | Hail History.....                              | 2-37 |
| 2.9.2.  | Hail Location.....                             | 2-38 |
| 2.9.3.  | Hail Extent .....                              | 2-38 |
| 2.9.4.  | Hail Probability .....                         | 2-39 |
| 2.9.5.  | Hail Impact and Vulnerability.....             | 2-39 |
| 2.9.6.  | Problem Statement.....                         | 2-40 |
| 2.10.1. | Drought History .....                          | 2-41 |
| 2.10.2. | Drought Location and Probability.....          | 2-41 |
| 2.10.3. | Drought Extent .....                           | 2-44 |
| 2.10.4. | Drought Impact and Vulnerability.....          | 2-44 |
| 2.10.5. | Problem Statement.....                         | 2-44 |
| 2.11.   | Extreme Heat.....                              | 2-45 |
| 2.11.1. | Extreme Heat History .....                     | 2-45 |
| 2.11.2. | Extreme Heat Location .....                    | 2-46 |
| 2.11.3. | Extreme Heat Extent .....                      | 2-46 |
| 2.11.4. | Extreme Heat Probability .....                 | 2-47 |

|         |                                                         |      |
|---------|---------------------------------------------------------|------|
| 2.11.5. | Extreme Heat Impact and Vulnerability .....             | 2-47 |
| 2.11.6. | Problem Statement.....                                  | 2-47 |
| 2.12.   | Winter Storm.....                                       | 2-48 |
| 2.12.1. | Winter Storm History .....                              | 2-48 |
| 2.12.2. | Winter Storm Location.....                              | 2-49 |
| 2.12.3. | Winter Storm Extent .....                               | 2-49 |
| 2.12.4. | Winter Storm Probability, Impact and Vulnerability..... | 2-50 |
| 2.12.5. | Problem Statement.....                                  | 2-50 |
| 2.13.   | Lightning.....                                          | 2-51 |
| 2.13.1. | Historical Lightning Information.....                   | 2-51 |
| 2.13.2. | Lightning Location .....                                | 2-52 |
| 2.13.3. | Lightning Extent .....                                  | 2-52 |
| 2.13.4. | Lightning Probability & Vulnerability.....              | 2-54 |
| 2.13.5. | Impact of Lightning .....                               | 2-54 |
| 2.13.6. | Problem Statement.....                                  | 2-54 |
| 2.14.   | Wildfire.....                                           | 2-56 |
| 2.14.1. | Wildfire History.....                                   | 2-56 |
| 2.14.2. | Wildfire Location.....                                  | 2-56 |
| 2.14.3. | Wildfire Extent.....                                    | 2-57 |
| 2.14.4. | Wildfire Probability .....                              | 2-57 |
| 2.14.5. | Wildfire Impact and Vulnerability.....                  | 2-58 |
| 2.14.6. | Problem Statement.....                                  | 2-59 |
| 2.15.   | Expansive Soils .....                                   | 2-60 |
| 2.15.1. | Expansive Soils History .....                           | 2-60 |
| 2.15.2. | Expansive Soils Location .....                          | 2-60 |
| 2.15.3. | Expansive Soils Extent.....                             | 2-61 |
| 2.15.4. | Expansive Soils Probability.....                        | 2-61 |
| 2.15.5. | Expansive Soils Impact and Vulnerability .....          | 2-62 |
| 2.15.6. | Problem Statement.....                                  | 2-62 |
| 2.16.   | Train Derailment.....                                   | 2-63 |
| 2.16.1. | Train Derailment History.....                           | 2-63 |

|           |                                                                 |      |
|-----------|-----------------------------------------------------------------|------|
| 2.16.2.   | Train Derailment Location .....                                 | 2-63 |
| 2.16.3.   | Train Derailment Extent.....                                    | 2-66 |
| 2.16.4.   | Train Derailment Probability.....                               | 2-66 |
| 2.16.5.   | Train Derailment Impact and Vulnerability.....                  | 2-67 |
| 2.16.6.   | Problem Statement.....                                          | 2-67 |
| 3.        | Mitigation Strategy .....                                       | 3-1  |
| 3.1.      | State of Texas Mitigation Goals.....                            | 3-1  |
| 3.2.      | Community Mitigation Goals.....                                 | 3-1  |
| 3.2.1.    | City of Taylor Comprehensive Plan Integration .....             | 3-2  |
| 3.3.      | Problem Statements by Community and Hazard.....                 | 3-2  |
| 3.4.      | Community Capabilities for Mitigation .....                     | 3-5  |
| 3.4.1.    | Expanding and Improving Capabilities.....                       | 3-7  |
| 3.4.2.    | Mitigation Actions and their Implementation .....               | 3-8  |
| 3.4.3.    | Incorporating the Plan into Other Planning Mechanisms.....      | 3-8  |
| 3.4.4.    | Benefit-Cost and Technical Feasibility .....                    | 3-9  |
| 3.4.5.    | Mitigation Action Summaries .....                               | 3-10 |
| 3.5.      | Prioritization.....                                             | 3-10 |
| Table 1.  | Critical Facilities in Taylor.....                              | 1-4  |
| Table 2.  | Critical Facilities in Thrall.....                              | 1-5  |
| Table 3.  | Summary of Declared Disasters.....                              | 2-2  |
| Table 4.  | Summary of Hazards Profiled.....                                | 2-3  |
| Table 5.  | Hazard Definitions .....                                        | 2-4  |
| Table 6.  | Location Classification Criteria .....                          | 2-5  |
| Table 7.  | Hazard Extent Classification .....                              | 2-5  |
| Table 8.  | Probability Thresholds for Future Events .....                  | 2-7  |
| Table 9.  | Impact Classification .....                                     | 2-7  |
| Table 10. | Hazard Status of LBCWCID Dams.....                              | 2-9  |
| Table 11. | Extreme Rain Events.....                                        | 2-23 |
| Table 12. | Top Flood Events (Williamson County) .....                      | 2-24 |
| Table 13. | Flooding Impact and Vulnerabilities (1%) per effective FIS..... | 2-27 |
| Table 14. | NFIP Policy Statistics.....                                     | 2-28 |
| Table 15. | NFIP Claims Statistics .....                                    | 2-28 |
| Table 16. | Historical Tornado Impact.....                                  | 2-30 |
| Table 17. | Windstorm History (Williamson County) .....                     | 2-33 |

|                                                                                       |      |
|---------------------------------------------------------------------------------------|------|
| Table 18. Severe Wind Frequency and Historical Losses (Williamson County) .....       | 2-36 |
| Table 19. Hail Event History (Williamson County) .....                                | 2-37 |
| Table 20. Hail Extent Reference Table .....                                           | 2-39 |
| Table 21. Drought History (Williamson County).....                                    | 2-41 |
| Table 22. Extreme Heat History (Williamson County) .....                              | 2-45 |
| Table 23. Extreme Heat Frequency and Historical Losses (Williamson County).....       | 2-45 |
| Table 24. Top Winter Storm Events (Williamson County).....                            | 2-49 |
| Table 25. Winter Storm Frequency and Historical Losses.....                           | 2-50 |
| Table 26. Lightning Activity Level Description .....                                  | 2-52 |
| Table 27. Lightning Events by Impact (Williamson County).....                         | 2-53 |
| Table 28. Lightning Event Frequency and Losses (Williamson County) .....              | 2-54 |
| Table 29. Impact and Vulnerability of Train Derailment.....                           | 2-67 |
| Table 30. Hazard Summary for the Planning Area .....                                  | 2-68 |
| Table 31. Hazard Summary for the City of Taylor.....                                  | 2-68 |
| Table 32. Hazard Summary for the City of Thrall .....                                 | 2-69 |
| Table 33. Integration of Taylor Comprehensive Plan Objectives .....                   | 3-2  |
| Table 34. Problem Statements .....                                                    | 3-2  |
| Table 35. Community Capabilities Summary.....                                         | 3-5  |
| Table 36. Conceptual Cost Planning Classification.....                                | 3-9  |
|                                                                                       |      |
| Figure 1. Overview of the Hazard Mitigation Planning Process.....                     | 1-1  |
| Figure 2. General Location Map .....                                                  | 1-2  |
| Figure 3. Planning Area and Critical Resources .....                                  | 1-3  |
| Figure 4. Population Density.....                                                     | 1-4  |
| Figure 5. Taylor-Thrall-LBCWCID MHMAP Timeline 2017-2018.....                         | 1-6  |
| Figure 6. CORE Team organization and integration with public and review agencies..... | 1-7  |
| Figure 7. Breakout session with LBCWCID.....                                          | 1-7  |
| Figure 8. CORE Team meeting at Taylor City Hall.....                                  | 1-8  |
| Figure 9. Public input from February public meetings in Thrall and Taylor.....        | 1-9  |
| Figure 10. 5-year plan for monitoring, evaluating and updating the HMAP. ....         | 1-14 |
| Figure 11. Dam/Levee Failure Hazard Map .....                                         | 2-9  |
| Figure 12. Dam/Levee Failure Risk, City of Taylor.....                                | 2-12 |
| Figure 13. Dam/Levee Failure Risk, City of Thrall.....                                | 2-16 |
| Figure 14. Cross-section schematic of Dam #25.....                                    | 2-19 |
| Figure 15. Flood Risk (1%) Planning Area .....                                        | 2-21 |
| Figure 16. Flood Risk (1%) in Taylor.....                                             | 2-22 |
| Figure 17. Flood Risk (1%) in Thrall .....                                            | 2-23 |
| Figure 18. May 2015 Flooding in Taylor.....                                           | 2-25 |
| Figure 19. RiskMAP figure showing areas of flood risk .....                           | 2-26 |
| Figure 20. History and Damage Magnitude of Tornado Events (Williamson County).....    | 2-29 |

|                                                                                              |      |
|----------------------------------------------------------------------------------------------|------|
| Figure 21. February 2017 Tornado Event.....                                                  | 2-31 |
| Figure 22. Windstorm Event Location .....                                                    | 2-34 |
| Figure 23. February 2017 Wind Event .....                                                    | 2-35 |
| Figure 24. Hail Location (by size, inch diameter) .....                                      | 2-38 |
| Figure 25. Drought Location and Extent, Statewide, (Keetch-Byram Index, April 9, 2017) ..... | 2-43 |
| Figure 26. Drought Location and Extent, Planning Area (KBDI, June 2018).....                 | 2-44 |
| Figure 27. Heat index table (Source: NWS) .....                                              | 2-46 |
| Figure 28. Winter Storm Events by Percentile.....                                            | 2-48 |
| Figure 29. Lightning Events by Percentile (Williamson County, mid-top 20%) .....             | 2-51 |
| Figure 30. Fire Intensity.....                                                               | 2-57 |
| Figure 31. Texas Wildfire Risk Assessment map, April 2017.....                               | 2-58 |
| Figure 32. Expansive Soils Map.....                                                          | 2-61 |
| Figure 33. Train Derailment Vulnerabilities, Planning Area.....                              | 2-63 |
| Figure 34. Train Derailment Vulnerability, City of Taylor .....                              | 2-64 |
| Figure 35. Train Derailment Vulnerability, City of Taylor, Detail.....                       | 2-65 |
| Figure 36. Train Derailment Vulnerability, City of Thrall.....                               | 2-66 |

Attachment A: Community Input Survey

Attachment B: Mitigation Actions

Attachment C: Prioritization

# 1. Planning Process

## 1.1. Introduction

Hazard mitigation is the sustained actions taken to reduce or eliminate long-term risks or loss of human life and property from hazards. Mitigation is an investment in the community's safety and sustainability for the future. It is important because it allows the community to identify policies and actions that can be implemented over long term timelines to reduce risk and future losses. The purpose of this multi-jurisdictional plan is to prepare the cities of Taylor and Thrall along with the Lower Brushy Creek (LBC) WCID for hazards that they face. Multi-Jurisdictional plans will be beneficial to these entities because they allow for better communication and coordination amongst regional boundaries. Taylor, Thrall, and LBC WCID are located in eastern central Texas within Williamson County, and are referred to collectively in this plan as the "planning area". This is their first multijurisdictional Hazard Mitigation Plan; previous hazard efforts were incorporated within the County's Plan, though lacked enough specificity to guide Taylor and Thrall. Upper Brushy Creek WCID, the upstream district neighbor to LBCWCID has recently completed its own Hazard Mitigation Plan.

The general planning process is designed to be continuous, ensuring that the planning area and resources are identified, the public is engaged, an analysis is performed to assess risk, a strategy is developed, and over time the plan is kept current in order to create a safe and resilient community.



**Figure 1. Overview of the Hazard Mitigation Planning Process.**



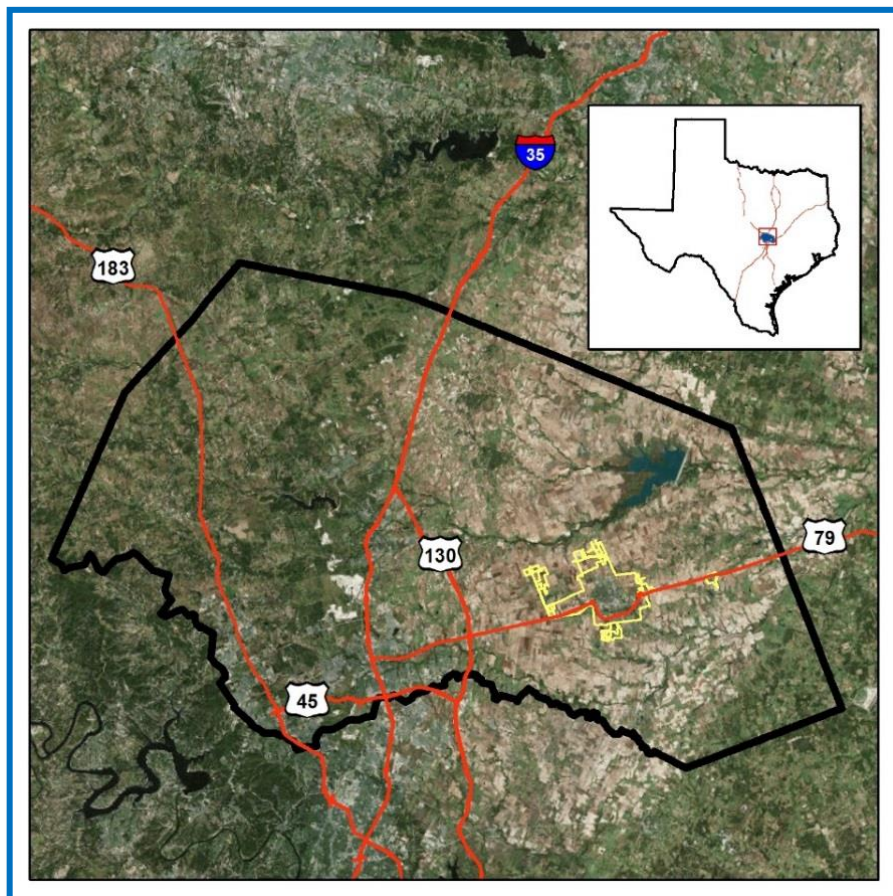
## 1.2. The Planning Area

The participants selected the planning area to be the area covered by each jurisdiction (City of Taylor corporate limits and ETJ, City of Thrall corporate limits and ETJ, and the Lower Brushy Creek WCID up to the Williamson County line).

This planning area, comprises some 244 square miles (156,161 acres), along with some of the critical facilities in each community, as well as the floodplains, are shown in Figure 2 below.

As some of the LBC planning area includes portions of Milam County, and in particular one dam site, the risk analysis includes those portions where data is available. However, data is not always immediately available for Milam County, and as such, is not included for many hazards. The

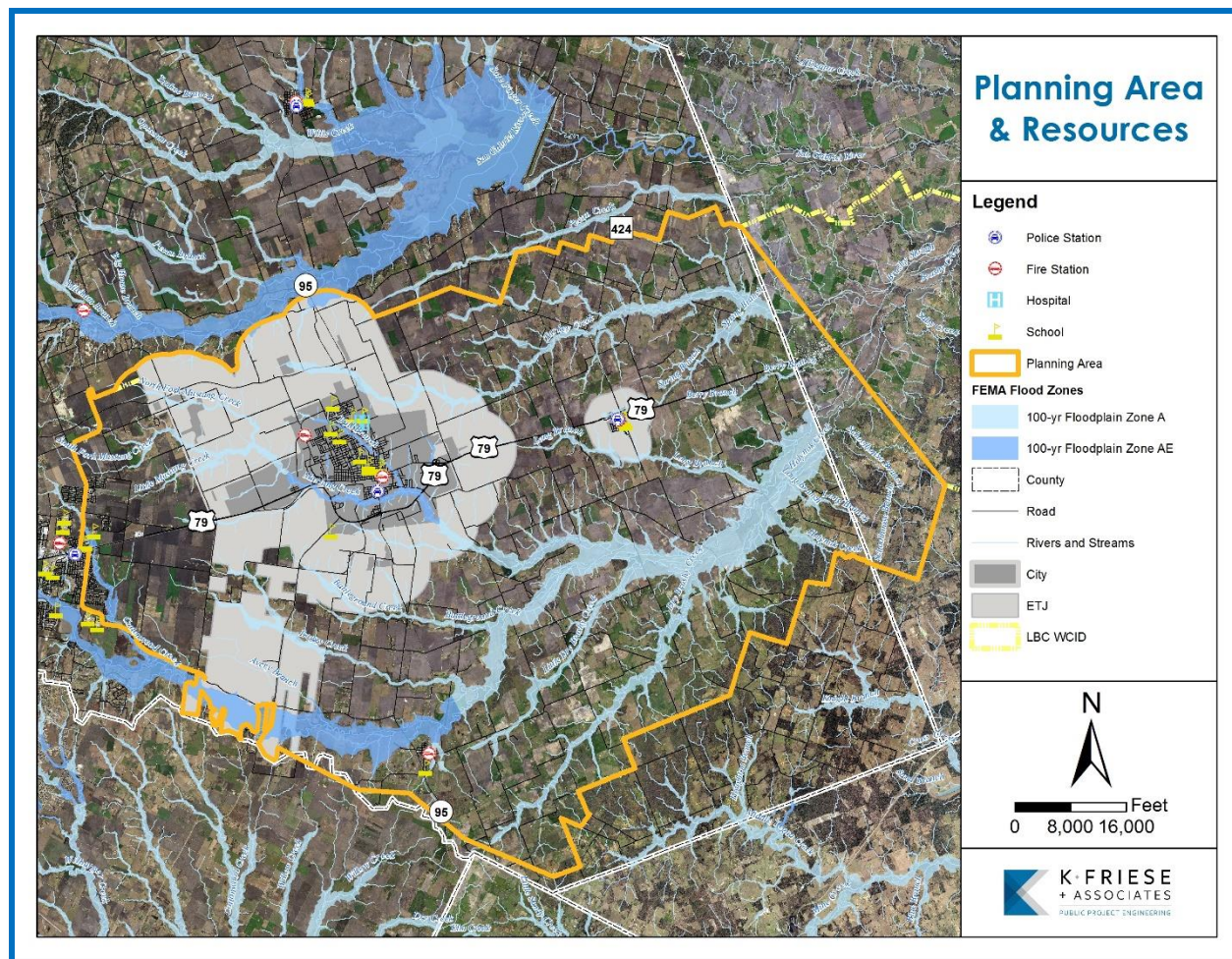
planning area ends at the Williamson – Milam County line, except as noted, where data is available and was included.<sup>1</sup>



**Figure 2. General Location Map**

<sup>1</sup> For this reason, the boundary appears different in some exhibits. The committee determined in discussion that this did not over or under-represent risk, as the inclusion of data where available accurately presented the risk as known.





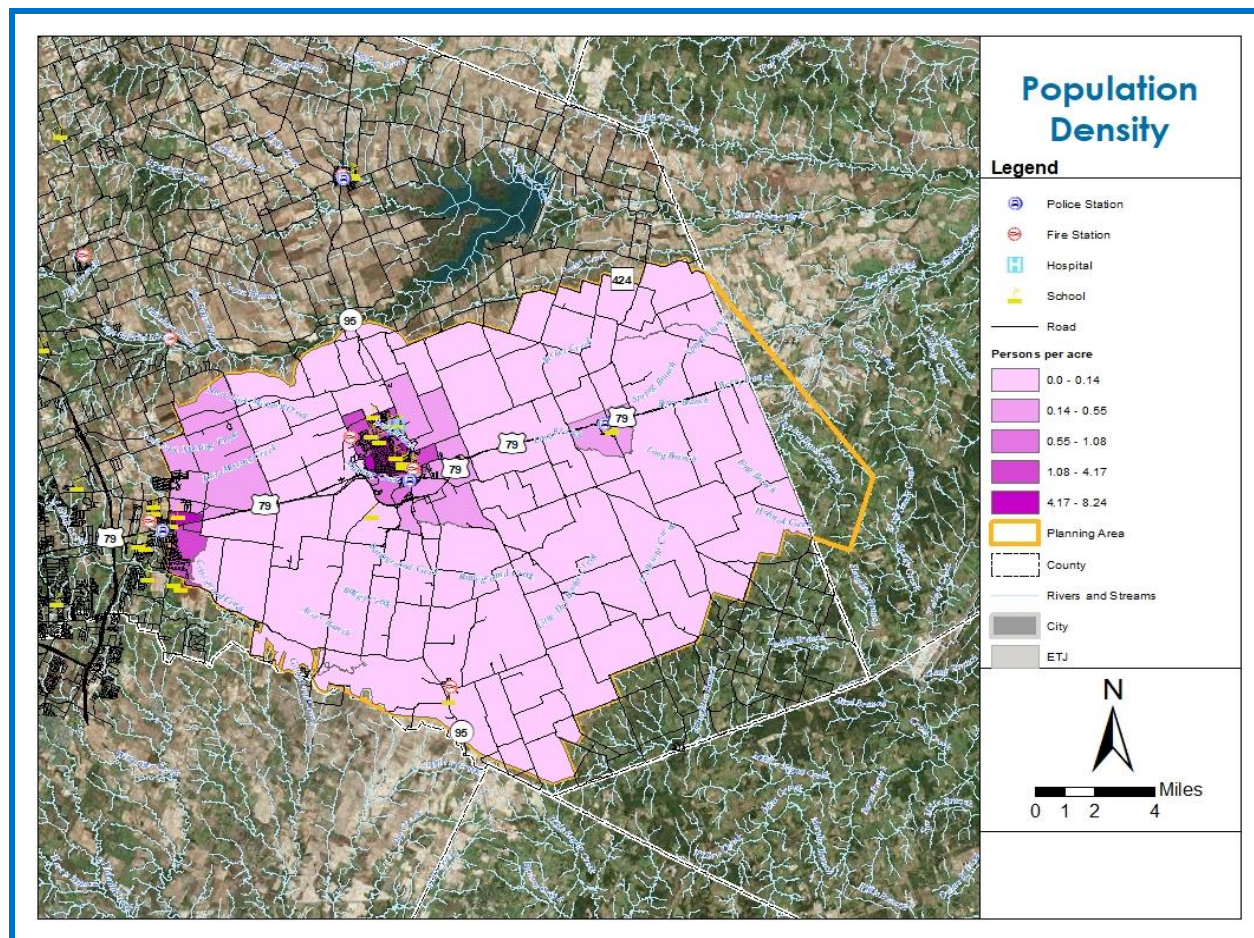
**Figure 3. Planning Area and Critical Resources**

### 1.3. Population

The total population of the planning area, is estimated at 33,790, as of January 1, 2016.<sup>2</sup> Of this population, approximately 17,217 are estimated to live in the City of Taylor and 931 are estimated to live in the City of Thrall. Thus, the population is approximately 53.7% urban and 46.3% rural, although many residents of these cities may not consider their living arrangement to be characterized as “urban”. The following figure shows the spatial distribution of population, indicated in average persons per acre.

<sup>2</sup> Analysis of 2010 Census Block Group data from American Fact Finder, using Texas State Data Center estimated growth rates from 2010-2016.





**Figure 4. Population Density**

#### 1.4. Critical Facilities

Within each city jurisdiction are critical facilities which are important from a critical response perspective (in a disaster event), or also in terms of protection of vulnerable populations (e.g. school or hospital). The following are identified as critical facilities within the communities of Taylor and Thrall. Lower Brushy Creek WCID does not have any facilities other than the damsites, themselves.

**Table 1. Critical Facilities in Taylor**

|                                               |
|-----------------------------------------------|
| City Administration Building (Porter St.)     |
| Fire Station (E. 3 <sup>rd</sup> Street)      |
| Fire Station (Carlos Parker Blvd.)            |
| Police Department (Pecan St.)                 |
| Taylor Wastewater Treatment Plant (Larry St.) |
| Taylor ISD Administration                     |

|                                                                           |
|---------------------------------------------------------------------------|
| TH Johnson Elementary School                                              |
| Naomi Pasemann Elementary School                                          |
| Main St. Intermediate School                                              |
| Taylor Middle School                                                      |
| Legacy Early College High School                                          |
| Taylor High School                                                        |
| Baylor Scott & White Hospital (Mallard Ln.)                               |
| SPJST Skilled Nursing/Rehabilitation/Memory Care Center (Old Granger Rd.) |
| Taylor Municipal Airport                                                  |
| Electric Reliability Council of Texas (Airport Rd.)                       |
| T. Don Hutto Residential Center (Correctional Institution)                |
| Louie Mueller Barbecue (Included in this list <i>ad oculos</i> )          |

**Table 2. Critical Facilities in Thrall**

|                                   |
|-----------------------------------|
| Thrall City Hall                  |
| Thrall Fire Department            |
| Thrall Elementary School          |
| Thrall Middle School              |
| Thrall High School                |
| Thrall Wastewater Treatment Plant |

### 1.5. Federal and State Authority

The Hazard Mitigation Grant Program (HMGP) is authorized by section 404 of the amended Robert T. Stafford Disaster Relief and Emergency Act to provide post disaster stated wide Federal Emergency Management Agency (FEMA) funding for eligible mitigation projects. The statewide emergency management program is intended to ensure that government, both state and local, respond to and cover from emergencies and disasters. It also supports programs that prevent or lessen the impact of emergencies and disasters. The Texas Division of Emergency Management (TDEM) implements programs that increase public awareness, coordinate emergency planning, provides specialized training for emergency responders and local officials, and administers disaster recovery and hazard mitigation programs in the State of Texas.

### 1.6. Local Authority

The City of Taylor is a home rule municipality organized under Chapter 43 of the Texas Local Government Code.

The City of Thrall is a general law municipality organized under Chapter 43 of the Texas Local Government Code.

Lower Brushy Creek WCID is a special purpose district (originally Brushy Creek Water Control and Improvement District No. 1), as outlined in House Bill No. 53 1, Chapter 341, 55th Regular Session of the Texas Legislature in 1957, and which follows:

"Sec. 6. For the purpose of providing dams, structures, projects, and works of improvement for flood prevention, the conservation and development of water, and for other necessary plants, facilities, and equipment in connection therewith....

Sec. 7. The fact that the State as a whole has a vital interest in the conservation of its waters, that said District should proceed as quickly as possible with its water program so the waters of the State can be preserved, ...."

The bill unanimously passed the House on April 4, 1957, unanimously passed the Senate on May 14 1957, was approved and became effective on May 3 1, 1957. The purpose adopted by the original WCID was subsequently retained by each new district after the original district was divided in the November 2001 general election. However, at the time of this plan, the District does not have a source of revenue, although a ballot measure was placed in the November 6, 2018 elections for consideration which would allow the Board to impose ad valorem taxes.

### 1.7. Plan Schedule

The Plan was carried out in three phases, as depicted in Figure 1 above. As shown in the figure below, the majority of planning activities followed the schedule.

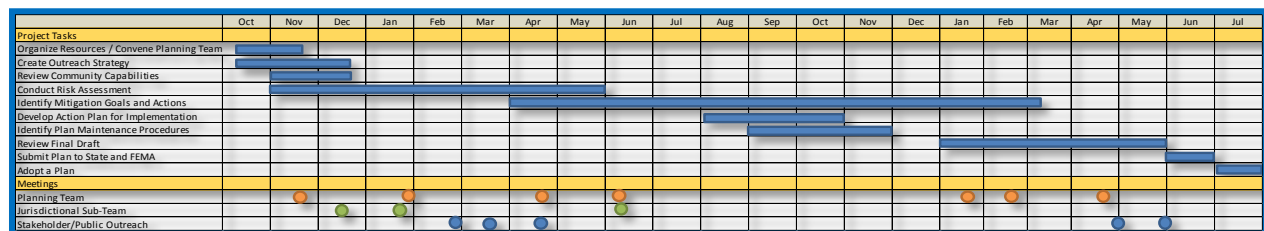


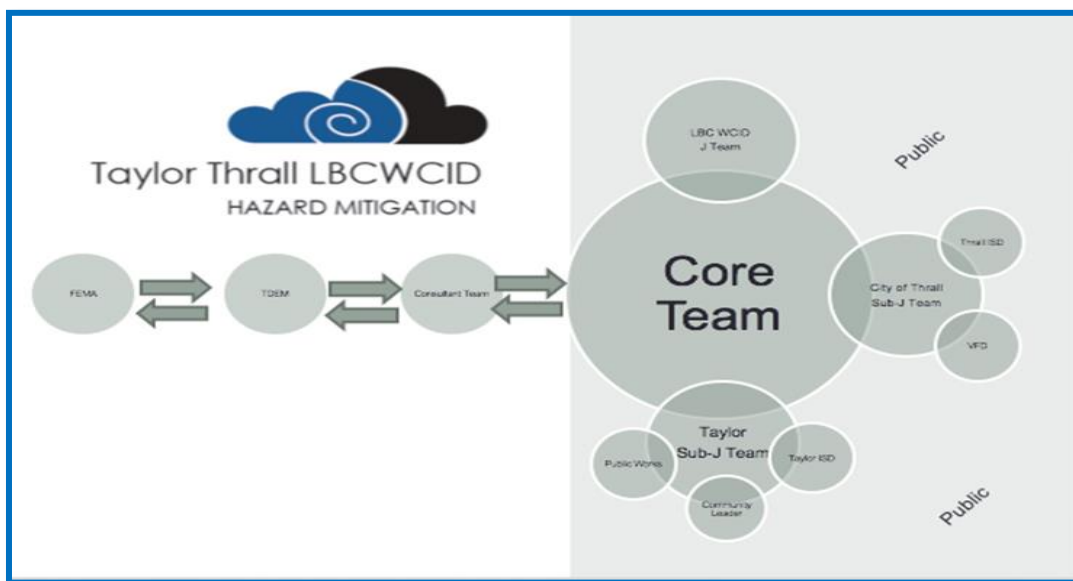
Figure 5. Taylor-Thrall-LBCWCID MHMAP Timeline 2017-2018.

### 1.8. Building the Planning Team

The first step in building the planning team was the creation of the CORE Team. The Committee is headed by Fire Chief Pat Ekiss of the City of Taylor, and consists of the following members:

- Mr. Noel Bernal, Assistant City Manager, City of Taylor
- Mr. Isaac Turner, City Manager, City of Taylor
- Police Chief Whitney Whitworth, City of Thrall
- Mr. Jim Clarno, District Manager, Lower Brushy Creek WCID

The CORE Team is supported by Langford Community Management Services, Inc. and Moody Engineering, Inc.



**Figure 6. CORE Team organization and integration with public and review agencies.**

Each team member of the core team is responsible for meeting internally with staff to review technical information and disseminate information from the core team meetings and discuss at a “sub-jurisdictional” level. In the case of the City of Taylor, this included department heads and supervisors for departments responsible for mitigation actions. In the case of the City of Thrall, this included the Council. In the case of Lower Brushy Creek WCID, this included the Board of Directors as the District has no paid staff.



**Figure 7. Breakout session with LBCWCID.**





Figure 8. CORE Team meeting at Taylor City Hall.

The communities reached out via email to Williamson County, Taylor ISD, Thrall ISD, and the City of Coupland with an invitation to be participants, and if not as direct participants, as stakeholders – recognizing that these entities are subject to the same risk, and as such, stakeholders in mitigation.



**Thrall Police Department**  
Chief Whitney Whitworth  
102 S. Main St. / PO Box 535  
Thrall, Texas 76578  
Ph. 512.898.5407  
Fax 512.898.5560  
ThrallPD@austin.rr.com



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---

**Date:** January 27<sup>th</sup> 2017  
**Time:** 10 am to 12 pm  
**Subject:** Jurisdictional sub team meeting  
**Location:** Thrall Police Department

**Present:**  
 Whitney Whitworth, Thrall Police  
 Tommy Hooker, Thrall ISD Superintendent  
 Mark Muellenberg, Thrall VFD  
 Ryan Collett, Stiles Foundation Manager

Whitworth explained purpose of core team and jurisdictional sub team and direction of the team.  
 Roll out of the survey was discussed, Hooker asked about students participating.  
 Whitworth explained that he was not aware of a prohibition regarding age as long as the person lives within boundaries.  
 Hooker agreed to post a link to the survey on the school web site.  
 The group discussed possible issues with local hazards.  
 The group discussed the public meeting that is approaching and inquired about what input will be requested from public.  
 Group discussed survey questions which I was unable to provide at the time.  
 Maps had not been provided so we used maps of city boundaries.  
 Group discussed community awareness as well as ways to bring further awareness into the area and school with education programs.  
 All parties were appreciative to have been included in the team and all expressed further interest.

**TAYLOR SUB-JURISDICTIONAL MEETING NOTES**

---

**Date:** January 19, 2017  
**Time:** 1:30 PM – 3 PM  
**Subject:** Sub-Jurisdictional Meeting  
**Location:** Taylor City Hall  
**Present:** Taylor Ministerial Alliance: Christ Fellowship Church Pastor Jeff Ripple  
 City of Taylor: Fire Chief Pat Ekiss, Public Works Director Matthew Rector, Taylor Police Commander Jeff Lagrone, and Assistant City Manager Noel Bernal  
 Taylor ISD: Deputy Superintendent Richard Kolek

---

*The following items are believed to have been discussed at the above dated meeting. Unless adjustments are requested, these minutes will be filed as official documentation for this project.*

**Summary of Hazard Mitigation Planning Process**

- Fire Chief Ekiss provided a review of the Multi-jurisdictional Hazard Mitigation Action planning grant received by the City of Taylor. He further explained the role of the City of Thrall and the Lower Brushy Creek Water Control and Improvement District (LBCWCID) as formal participants.
- The purposes of the sub-jurisdictional meeting and the CORE group were discussed.

**Review and discussion of the Planning Area, Base Maps, Points of Interest and Available Data**

- A large City of Taylor base map was presented and discussed.
- A map of LBCWCID's service area was also shared with the group as well as the project timeline.
- TISD and Taylor Ministerial Alliance were asked to provide feedback on the maps and their capabilities.
- The group discussed rescheduling the first Public Workshop until mid or late February for additional planning time.

**Community Outreach**

- Fire Chief Ekiss and ACM Noel Bernal will meet with the Public Information Officer, Jill Nalley, to discuss public outreach efforts for all three jurisdictions. More time will be needed to notify the public.

**Survey**

- The survey questions were reviewed. Mr. Kolek with Taylor ISD offered the portal used by the TISD communications officer for survey and flyer distribution.
- Additional comments on the survey will be provided prior to distribution, if any.
- The group discussed adding the word "demolition" after railroad in the hazards list.
- Survey will be deployed a week before the public meeting which may change since there was a one-month delay in having the first sub-jurisdictional meeting.

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 7876 FIRM #0000 • P: 512.338.1700 • F: 512.338.1790 • WWW.KPRIMO.COM

All meetings of the CORE Team were open to the public and were held at City Hall in Taylor.

## 1.9. Community Survey

To solicit input from the public, a survey was developed and deployed online on February 14, 2017 and was completed on March 27, 2017 with a total of 314 responses. The survey asked questions of the community, in order to assess the community's perception of risk, preparedness, preferred means of communication, prioritization, agency awareness, and some hazard mitigation measures. The survey and responses are included in Attachment A.

### 1.10. Public Involvement

The CORE Team meetings were all open to the public, as posted, and then 2 public meetings were held on February 27, 2017 (Taylor) and May 17, 2017 (Thrall) and May 24, 2018 (Thrall).

At the public meeting of February 2017, comments were received from the public and considered in the mitigation strategy development.



Figure 9. Public input from February public meetings in Thrall and Taylor.

### 1.11. Integrating Existing Plans and Studies

The consultant team reviewed the following documents for integration into the Hazard Mitigation Plan.

| Document                                      | Information Utilized                                                                                                                              |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 2004 Comprehensive Plan of the City of Taylor | Population and growth trends; Economic basis; Housing type and distribution; General road network; General utility locations and growth patterns. |

|                                                        |                                                                                                                                        |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Code of Ordinances of the City of Taylor               | Enforcement authority for land use, building regulations, flood damage prevention, utility standards                                   |
| 2017 Vision & Growth Sector Plan of the City of Taylor | Specific land use policy and economic growth strategy; Verification of policy to avoid flood risk areas; Most current planning effort. |
| 2014 Impact Fee Study Update of the City of Taylor     | Planned capital projects which might be leveraged for funding support/incorporation of mitigation activities.                          |
| 2017-2022 Capital Improvements Plan                    | Planned capital projects which might be leveraged for funding support/incorporation of mitigation activities.                          |
| Emergency Action Plans of the Lower Brushy Creek WCID  | Risk classification; Downstream impacts                                                                                                |

## 1.12. Plan Maintenance and Continued Public Involvement

### *Plan Maintenance Procedure*

The cities of Taylor, Thrall and the Lower Brushy Creek WCID (herein called Participating Jurisdictions or Jurisdictions) will be responsible for further development and implementation of their mitigation actions. As indicated in the FEMA Hazard Mitigation Action Plan (herein called the Plan), each action has been assigned to a specific department within each jurisdiction.

### *Process of Incorporation*

Once FEMA has approved the plan, the Participating Jurisdictions will adopt the plan through their governing boards and implement actions they have agreed to based on their priority of need and funding availability. The Participating Jurisdictions will review their planning documents and update them to include the mitigation actions through program mechanisms, plans and codes as they are developed, along with any new planning documents that are adopted by their governing boards, where it is applicable. As potential funding becomes available, each jurisdiction will assess their mitigation action priorities and seek funding to implement actions. There is an estimated time frame listed for each mitigation action in order to be able to monitor timely implementation.

Participating team members for the participating jurisdictions will conduct periodic reviews of plans and policies, once per year at a minimum, and analyze the need for amendments in light of the approved Plan. The planning team will review all their comprehensive land use plans, capital improvement plans, annual budget reviews, emergency operations or management plans, transportation plans, and any building codes to guide and control development. The Participating Jurisdictions will ensure that capital improvement planning in the future will also contribute to the goals of this hazard mitigation plan to reduce the long-term risk to life and property from all hazards.



Within one year of formal adoption of the hazard mitigation plan, existing planning mechanisms will be reviewed by each jurisdiction consistent with this Plan. Additionally, the Jurisdictions will work to advance the goals of the Plan through its routine, ongoing, long-range planning, budgeting, and work processes.

This section identifies types of planning mechanisms and examples of methods for incorporating the Plan into other planning efforts. The team members listed will be responsible for the review of these planning mechanisms and their incorporation of the Plan.

### *Methods of Incorporation of the Plan*

- *Grant Applications*

As grant funding comes available for the mitigation projects, the Plan will be evaluated by the participating jurisdictions and grant applications will be pursued as evaluated. If priorities have changed and a new project has developed, an amendment to the Plan will be considered and submitted to FEMA, if necessary.

- *Annual Budget Review*

Through their yearly budgetary review process and approval with their governing boards, the Plan and mitigation actions will also be reviewed and considered each year within the 5-year Plan. Necessary match requirements will be considered by the appropriate department (engineering, planning, code enforcement, etc.) in the annual budget and grant funding sought out by each jurisdiction to achieve the needed mitigation action.

- *Regulatory and Capital Improvement and Comprehensive Plans*

Currently, the Participating Jurisdictions have various regulatory plans in place as previously identified in the Existing Plans and Studies such as Emergency Action Plans of Lower Brushy Creek WCID, 2004 Taylor Comprehensive Plan, Taylor Code Ordinance, 2014 Taylor Impact Fee Study, 2017-2022 Taylor Capital Improvement Plan. The Plan will be consulted when the City departments and the LBCWCID governing board review, develop or revise their current regulatory planning mechanisms as needed.

### *Monitoring and Evaluation*

It is necessary that periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. Federal and state statutes and regulations often change thus needing to ensure that the Plan is in compliance.

The Planning Team will do their due diligence to monitor, review and update the Plan. This section outlines those procedures by indicating the department and title of the party responsible for Plan monitoring, updating, and review of the Plan.

### The Taylor, Thrall and Lower Brushy Creek WCID Planning Team

| <b>Jurisdiction</b>     | <b>Title</b>           |
|-------------------------|------------------------|
| City of Taylor          | Assistant City Manager |
| City of Taylor          | City Manager           |
| City of Taylor          | Fire Chief             |
| City of Thrall          | Police Chief           |
| City of Thrall          | Mayor                  |
| Lower Brushy Creek WCID | District Manager       |

## 1.13. Plan Monitoring, Evaluating, and Updating

### *Monitoring*

Designated Planning Team members as shown in this section are responsible for monitoring, updating, and reviewing the Plan. The responsible individuals indicated will be responsible for monitoring the Plan on an annual basis. Monitoring with the Planning team will take place in order to review and incorporate any relevant planning documents that are developed or updated. Aspects of the annual monitoring include working with the jurisdictions' governing boards to assure the incorporation of the identified mitigation actions as planning mechanisms are updated/developed; reviewing mitigation actions to see if they need to be re-evaluated or changed during the next update; evaluating the overall Plan as necessary to assure relevance to any new data or hazards that have arisen since the adoption of the plan; and monitoring plan maintenance to ensure that the defined process is being followed, on an annual basis, throughout the entire planning process.

After the annual monitoring review, the Planning Team will develop a brief report stating any changes needed for the Plan, such as a mitigation action that has changed based on need. The brief report developed by the Planning Team will report the particulars involved in developing a new action into a project, and possibly amend the Plan.

### *Evaluation*

During the annual evaluation process, the Planning Team will re-assess the risks to see if there have been any changes; assure that the implementation of the mitigation actions are on schedule; detect if there are any obstacles in the implementation goals such as funding, political, legal, or coordination within departments; changes in each department programs/goals that affect mitigation priorities.

The annual evaluation process is necessary in order to identify any changes needed for the update and to make any necessary changes/amendments to the Plan to keep it relevant for the communities in order to mitigate the identified hazards.

### *Updating Plan Amendments*

As with any living document, minor technical changes may be made to update the Taylor, Thrall and Lower Brushy Creek WCID Hazard Mitigation Plan. In order to maintain the integrity of the original Plan, any major changes to mitigation actions or the overall direction of the Plan or the policies contained within it, must be subject to formal adoption by each city and then the amendment will be transmitted to TDEM.

In determining whether to recommend approval or denial of a Plan amendment request, the participating jurisdiction governing boards will consider the following factors:

- Errors or omissions made in the identification of issues or needs during the preparation of the Plan;
- New issues or needs that were not adequately addressed in the Plan; and
- Changes in information, data, or assumptions from those on which the Plan was based.

### *Five (5) Year Review and Update*

At the end of three years from the approval date, the Plan will be thoroughly reviewed by the Planning Team to determine if there have been any significant changes in the planning area that require changes in the types of mitigation actions that were adopted in the original plan. Examples of factors that may affect the content of the Plan include new development in identified hazard areas, increased exposure to hazards, disaster declarations, increase or decrease in capability to address hazards, and changes to federal or state legislation.

This annual Plan evaluation and update process enables the Participating Jurisdictions to keep their Hazard Mitigation Plan relevant by assuring that their mitigation actions are accomplishing the goals that were set out to do while also being able to identify those mitigation actions, due from a myriad of reasons, that might have not been successful in meeting the original goals. Identification of those obstacles will be cited within the report and changes will be identified.

As it may be necessary for the development of the five year update for the Plan to obtain grant funding, the Planning Team should meet to review the Plan and discuss the timelines for grant and planning cycles in order to be pro-active and start the process before the five year period ends. Often times the timelines for grant and planning cycles can be in excess of a year to apply and receive funding.

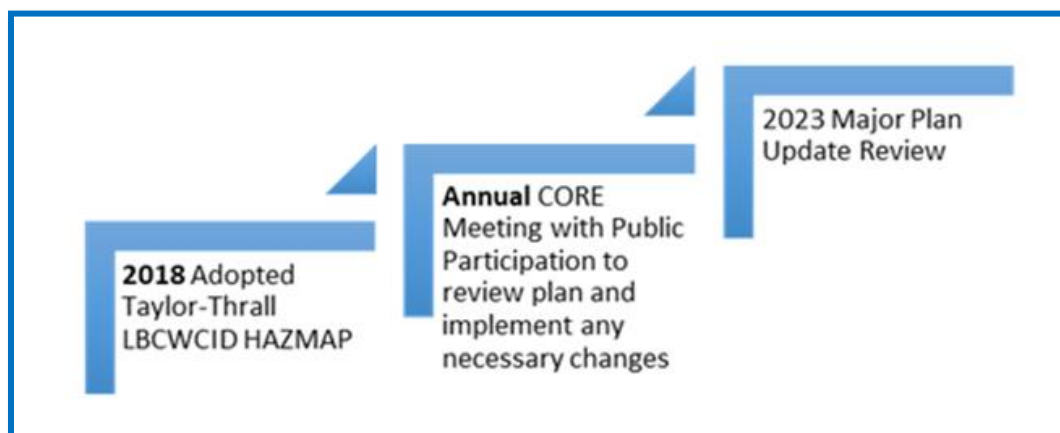
Once the Plan review has been completed, any necessary updates and revisions agreed upon by the Planning Team will be reported and implemented upon necessary reporting procedures and the Plan amendment process outlined herein. Upon completion of the review, update and amendment process, the revised Plan will be submitted to TDEM for final review and approval in coordination with FEMA.

### *Continued Public Involvement*

As public input remains to be an integral part of the Plan, the public will be involved in the annual review and updates. Needed changes or suggestions to improve the Plan will provide opportunities for public input. The Plan will be on Taylor's and Lower Brushy Creek WCID website and available for public review in Thrall's city hall where the public is invited to provide ongoing feedback through email to both city offices.

The Planning team may also develop a voluntary citizen/stakeholder group from both cities that were involved in the Plan's development to provide feedback on an annual basis. It is vital that the public and stakeholders maintain a vested interest in the Participating Jurisdictions Plan in order to assure the relevant functionality of the Plan as it pertains to the overall mitigation goals to assure the community's health, safety and welfare in the mitigation of possible hazards for both communities.

The Planning team is also responsible to notify the media, including local newspaper and radio stations, to notify the public of any maintenance or periodic review activities during the implementation, monitoring and evaluation phases. In addition, the media/Facebook and Twitter will be contacted to cover any updates, status of grant applications, project implementation to keep the stakeholders and public apprised of potential opportunities to fund and implement Plan identified mitigation projects.



**Figure 10. 5-year plan for monitoring, evaluating and updating the HMAP.**

## 2. Hazard Assessment

### 2.1. Introduction

The communities evaluated a large number of data sources to determine a relative sense of the history, location, extent, impact and vulnerability of each hazard. For each hazard, the communities utilized the most granular data available. In many cases, the reporting for these hazards is not given below the county level. Where available, we have presented more localized maps or table summaries; however, where reported at a smaller scale than the participating jurisdiction, the intent is that this includes and represents the risk to the communities. In all cases, the hazards were evaluated historically through 2018, although in some instances the data sources report through 2013. In these cases, the additional more recent information – if applicable – were described.

#### *2.1.1. Use of CHAMPS Data*

At the beginning of the plan development, the consulting team and CORE team utilized statistical data developed by the Texas Geographic Society (TGS) in 2013, at the county level, to assess history, probability, and extent of the hazards. This project of TGS was known as the CHAMPS project. Shortly after development of the final draft of this plan (August 2018), TGS issued updated CHAMPS reports, which also include forecasts of losses for the period 2019-2023. These forecasts establish county-level base rates of occurrence and loss, which are then applied on an areal pro-rated basis to produce forecasts for the sub-county-level communities. While reported here, these forecasts should be understood as a broad-brush technique for planning purposes. Much of the localized data collection that was included in this Chapter outside of the CHAMPS format recognizes the differing risk profiles faced in this area of eastern Williamson County relative to western portions of the county. For example, the risk of expansive soils and wildfire are very different in Taylor than in Cedar Park, and these distinctions would not be reflected in the CHAMPS forecasts. This plan clarifies in the location discussion for each hazard whether the risk data is “countywide” or whether more site-specific, as the data allows.

### 2.2. Past Disaster Declarations

FEMA maintains records on Federally Declared Disasters, dating back to 1953. The types are classified: major disaster, emergency, and fire management assistance. Data on Presidential Disaster Declarations characterize some natural disasters that have affected the area. In 1965, the Federal government began to maintain records of events determined to be significant enough to warrant declaration of a major disaster by the President of the United States. Presidential Disaster Declarations are made at the county level and are not specific to any one city or sub-area. The following are a list of declared disasters, emergencies, and fire management assistance granted

in Williamson County dating back to 1974. It is very likely that other incidents have occurred prior to this time.

**Table 3. Summary of Declared Disasters**

| Disaster Number | Declaration Date | Disaster Type | Incident Type   | Title                                                      | Incident Begin Date | Incident End Date | Declared Co./Area   |
|-----------------|------------------|---------------|-----------------|------------------------------------------------------------|---------------------|-------------------|---------------------|
| 4269            | 4/25/2016        | DR            | Severe Storm(s) | Severe Storms and Flooding                                 | 4/17/2016           | 4/30/2016         | Williamson (County) |
| 4266            | 3/19/2016        | DR            | Severe Storm(s) | Severe Storms, Tornadoes and Flooding                      | 3/7/2016            | 3/29/2016         | Williamson (County) |
| 4223            | 5/29/2015        | DR            | Severe Storm(s) | SEVERE STORMS, TORNADOES, STRAIGHT-LINE WINDS AND FLOODING | 5/4/2015            | 6/22/2015         | Williamson (County) |
| 4029            | 9/9/2011         | DR            | Fire            | WILDFIRES                                                  | 8/30/2011           | 12/31/2011        | Williamson (County) |
| 2963            | 9/6/2011         | FM            | Fire            | MOONGLOW FIRE                                              | 9/5/2011            |                   | Williamson (County) |
| 2949            | 8/15/2011        | FM            | Fire            | HORSESHOE FIRE                                             | 8/15/2011           |                   | Williamson (County) |
| 2922            | 6/16/2011        | FM            | Fire            | GRAND MESA FIRE                                            | 6/16/2011           | 6/19/2011         | Williamson (County) |
| 3294            | 9/10/2008        | EM            | Hurricane       | HURRICANE IKE                                              | 9/7/2008            | 9/26/2008         | Williamson (County) |
| 2785            | 8/7/2008         | FM            | Fire            | FLORENCE FIRE                                              | 8/7/2008            | 8/14/2008         | Williamson (County) |
| 3284            | 3/14/2008        | EM            | Fire            | WILDFIRES                                                  | 3/14/2008           | 9/1/2008          | Williamson (County) |
| 1709            | 6/29/2007        | DR            | Severe Storm(s) | SEVERE STORMS, TORNADOES, AND FLOODING                     | 6/16/2007           | 8/3/2007          | Williamson (County) |
| 1624            | 1/11/2006        | DR            | Fire            | EXTREME WILDFIRE THREAT                                    | 11/27/2005          | 5/14/2006         | Williamson (County) |
| 1606            | 9/24/2005        | DR            | Hurricane       | HURRICANE RITA                                             | 9/23/2005           | 10/14/2005        | Williamson (County) |
| 3261            | 9/21/2005        | EM            | Hurricane       | HURRICANE RITA                                             | 9/20/2005           | 10/14/2005        | Williamson (County) |
| 3216            | 9/2/2005         | EM            | Hurricane       | HURRICANE KATRINA EVACUATION                               | 8/29/2005           | 10/1/2005         | Williamson (County) |
| 3171            | 2/1/2003         | EM            | Other           | LOSS OF THE SPACE SHUTTLE COLUMBIA                         | 2/1/2003            | 2/1/2003          | Williamson (County) |
| 3142            | 9/1/1999         | EM            | Fire            | EXTREME FIRE HAZARDS                                       | 8/1/1999            | 12/10/1999        | Williamson (County) |
| 1239            | 8/26/1998        | DR            | Severe Storm(s) | TROPICAL STORM CHARLEY                                     | 8/22/1998           | 8/31/1998         | Williamson (County) |



|      |            |    |                    |                                           |            |            |                        |
|------|------------|----|--------------------|-------------------------------------------|------------|------------|------------------------|
| 3113 | 9/10/1993  | EM | Drought            | EXTREME FIRE<br>HAZARD                    | 8/30/1993  | 11/15/1993 | Williamson<br>(County) |
| 930  | 12/26/1991 | DR | Flood              | SEVERE<br>THUNDERSTORMS                   | 12/20/1991 | 1/14/1992  | Williamson<br>(County) |
| 828  | 5/19/1989  | DR | Severe<br>Storm(s) | SEVERE STORMS,<br>TORNADOES &<br>FLOODING | 5/4/1989   | 6/7/1989   | Williamson<br>(County) |
| 454  | 11/30/1974 | DR | Flood              | SEVERE STORMS<br>& FLOODING               | 11/30/1974 | 11/30/1974 | Williamson<br>(County) |

### 2.3. Hazards Profiled

The Texas Department of Emergency Management requires every plan to address the risks associated with the following 15 natural hazards, though each hazard does not have to be considered in the final plan. FEMA uses the DHS Risk Lexicon definition for natural hazards as a source of harm or difficulty created by a meteorological, environmental, or geological event. The planning committee reviewed their jurisdictions needs related to hazards and decided the hazards represented in the table below could have an effect on the jurisdictions.

**Table 4. Summary of Hazards Profiled**

| <b>Hazard</b>                     | <b>Profiled</b>       | <b>Discussion/Consideration</b>                                                                                         |
|-----------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Floods</b>                     | Taylor/Thrall/LBCWCID | Floods frequently occur                                                                                                 |
| <b>Hurricanes/Tropical Storms</b> | No                    | Inland location protects from this hazard; Effects of flooding and windstorms profiled in lieu of this hazard directly. |
| <b>Wildfire</b>                   | Taylor/Thrall/LBCWCID | Occasionally occurs                                                                                                     |
| <b>Tornado</b>                    | Taylor/Thrall/LBCWCID | Occasionally occurs                                                                                                     |
| <b>Drought</b>                    | Taylor/Thrall/LBCWCID | Occasionally occurs                                                                                                     |
| <b>Coastal Erosion</b>            | No                    | Inland location protects from this hazard                                                                               |
| <b>Dam/Levee Failure</b>          | Taylor/Thrall/LBCWCID | Limited but devastating if occurs                                                                                       |
| <b>Earthquakes</b>                | No                    | Not located on a fault line; no history of record                                                                       |
| <b>Expansive Soils</b>            | Taylor/Thrall/LBCWCID | Problematic in most areas, though can be mitigated                                                                      |
| <b>Extreme Heat</b>               | Taylor/Thrall         | Frequently occurs                                                                                                       |
| <b>Hailstorm</b>                  | Taylor/Thrall         | Rarely occurs                                                                                                           |
| <b>Land Subsidence</b>            | No                    | Not located in area losing ground water or highly erosive; no historic occurrence of record.                            |
| <b>Severe Winter Storms</b>       | Taylor/Thrall         | Rarely occurs                                                                                                           |
| <b>Windstorms</b>                 | Taylor/Thrall         | Occasionally occurs                                                                                                     |
| <b>Lightning</b>                  | Taylor/Thrall         | Occasionally occurs                                                                                                     |
| <b>Train Derailment</b>           | Taylor/Thrall         | Has occurred in past with negative effects                                                                              |

The committee decided to include train derailments as a potential hazard due to the potential of derailments along the major transportation corridors in both Taylor and Thrall, and based on public concern brought forward at the public meeting on February 27, 2018.

The definition of each hazard can be found in the table below. Definitions were compiled either directly from FEMA or other area hazard mitigation plans.

**Table 5. Hazard Definitions**

| <b>Hazard</b>               | <b>Description</b>                                                                                                                                                                                                                      |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Floods</b>               | Flooding is a general or temporary condition of partial or complete inundation of water, usually floodplains. The floodplain is an area of land susceptible to being inundated by floodwater from any source. <sup>3</sup>              |
| <b>Wildfire</b>             | Wildfires are an unplanned, unwanted fire burning in a natural area, like a forest, grassland, or prairie. Buildings and human development that are susceptible for wildfires are considered the wildland urban interface. <sup>4</sup> |
| <b>Tornado</b>              | A tornado is a narrow, violently rotating column of air that extends from the base of a thunderstorm to the ground. <sup>5</sup>                                                                                                        |
| <b>Drought</b>              | A deficiency in precipitation over an extended period, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and/o people. <sup>6</sup>                                               |
| <b>Dam/Levee Failure</b>    | Dam/Levee failure can occur with little warning from intense storms, flash flooding, or engineering failures. Flooding can occur within minutes or hours of a failure.                                                                  |
| <b>Expansive Soils</b>      | Expansive Soils expand when water is added, and shrink when they dry out. This movement can cause homes to move unevenly and crack. <sup>7</sup>                                                                                        |
| <b>Extreme Heat</b>         | Extreme Heat is a condition when temperatures hover above local excessive heat criteria combined with high humidity levels.                                                                                                             |
| <b>Hailstorm</b>            | Hail is showery precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter. <sup>8</sup>                                                                                                                 |
| <b>Severe Winter Storms</b> | A condition when temperatures hover below freezing and can include ice, snow, and sleet.                                                                                                                                                |
| <b>Windstorms</b>           | Severe wind storms can occur alone, or when accompanied by severe thunderstorms. Flying debris can cause major damage to utilities, infrastructure, and property.                                                                       |
| <b>Lightning</b>            | These are sudden charges of electricity that develop from storms or excessive heat.                                                                                                                                                     |

<sup>3</sup> FEMA Definitions <https://www.fema.gov/national-flood-insurance-program/definitions#F>

<sup>4</sup> How to Prepare for a Wildfire, FEMA [https://www.fema.gov/media-library-data/1409003859391-0e8ad1ed42c129f11fbc23d008d1ee85/how\\_to\\_prepare\\_wildfire\\_033014\\_508.pdf](https://www.fema.gov/media-library-data/1409003859391-0e8ad1ed42c129f11fbc23d008d1ee85/how_to_prepare_wildfire_033014_508.pdf)

<sup>5</sup> Severe Weather 101, National Severe Storms Laboratory, <http://www.nssl.noaa.gov/education/svrwx101/tornadoes/>

<sup>6</sup> Drought Public Face Sheet, National Weather Service <http://www.nws.noaa.gov/om/brochures/climate/DroughtPublic2.pdf>

<sup>7</sup> Geologic Hazards, FEMA [https://www.fema.gov/media-library-data/20130726-1545-20490-9696/mhira\\_n2.pdf](https://www.fema.gov/media-library-data/20130726-1545-20490-9696/mhira_n2.pdf)

<sup>8</sup> National Weather Service <http://w1.weather.gov/glossary/index.php?letter=h>

## 2.4. Hazard Classification

One of the most important aspects of the hazard mitigation process is to define the classifications for each hazard. The location, extent, probability, and over significance must be taken into account to create a hazard profile. The Plan utilized the definitions in FEMA's Local Mitigation Planning Handbook to create these classifications.

The **location** is the geographic area affected by a hazard. The table below shows these threshold definitions as they were applied to the risk analysis.

**Table 6. Location Classification Criteria**

| Location (Geographic Area Affected) |                                                                         |
|-------------------------------------|-------------------------------------------------------------------------|
| <b>Negligible</b>                   | Less than 10% of the planning area or isolated single-point occurrences |
| <b>Limited</b>                      | 10 – 25% of the planning area or limited single-point occurrences       |
| <b>Significant</b>                  | 25 – 75% of planning area or frequent single-point occurrences          |
| <b>Extensive</b>                    | 75 – 100% of planning area or consistent single-point occurrences       |

The **extent** is the maximum probable extent a hazard can impact a community, or the magnitude/strength of a hazard.

**Weak:** Limited classification on scientific scale, slow speed on onset or short duration of event, resulting in little to no damage

**Moderate:** Moderate classification on scientific scale, fast speed of onset or long duration of event, resulting in devastating damage and loss of service for days

**Severe:** Severe classification on scientific scale, fast speed of onset or long duration of events, resulting in devastating damage and loss of services for weeks or months

**Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions

The table below displays the various extents for the natural hazards mentioned above.

**Table 7. Hazard Extent Classification**

| Hazard           | Scale                                      | Weak | Moderate    | Severe | Extreme |
|------------------|--------------------------------------------|------|-------------|--------|---------|
| <b>Dam/Levee</b> | Dam safety "hazard potential" <sup>9</sup> | Low  | Significant |        | High    |

<sup>9</sup> What is a High-Hazard Potential Dam? <http://www.damsafetyaction.org/TX/about-eaps/what.php>

|                             |                                                    |                                                                                                       |                                   |                                                                                                                                                          |                                                                                                             |
|-----------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Wildfire</b>             | Characteristic Fire Intensity Scale <sup>10</sup>  | 1                                                                                                     | 2,3                               | 4                                                                                                                                                        | 5                                                                                                           |
| <b>Floods</b>               | Flood Zones <sup>11</sup>                          | Zone B or Zone X                                                                                      |                                   | Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30 |                                                                                                             |
| <b>Tornado</b>              | Enhanced Fujita Tornado Damage Scale <sup>12</sup> | EF0 (65-85mph)                                                                                        | EF1,E F2 (86-110mph; 111-135 mph) | EF3, EF4 (136-165 mph; 166-200 mph)                                                                                                                      | EF5 (>200 mph)                                                                                              |
| <b>Drought</b>              | Drought Severity Index (Keetch-Byram)              | 200                                                                                                   | 400                               | 600                                                                                                                                                      | 800                                                                                                         |
| <b>Expansive Soils</b>      | Plasticity Index (ASTM D-4289) <sup>13</sup>       | 0-15                                                                                                  | 10-35                             | 20-55                                                                                                                                                    | 55+                                                                                                         |
| <b>Extreme Heat</b>         | NWS Heat Index <sup>14</sup>                       | Caution                                                                                               | Extreme Caution                   | Danger                                                                                                                                                   | Extreme Danger                                                                                              |
| <b>Hailstorm</b>            | Inches Diameter <sup>15</sup>                      | <3/4"                                                                                                 | ¾"-2-1/4"                         | 2-1/4"-3-1/2"                                                                                                                                            | >3-1/2"                                                                                                     |
| <b>Severe Winter Storms</b> | National Weather Service <sup>16</sup>             | Winter weather advisories, freezing rain advisories, Wind chill advisories, Lake effect snow advisory |                                   | Blizzard watches, winter storm watches, wind chill watches, lake effect snow watches                                                                     | Blizzard warnings, winter storm warnings, ice storm warnings, wind chill warning, lake effect snow warnings |
| <b>Windstorms</b>           | Beaufort Wind Scale <sup>17</sup>                  | 0 – 3                                                                                                 | 4 – 6                             | 7 – 9                                                                                                                                                    | 10 - 12                                                                                                     |
| <b>Lightning</b>            | Lightning Activity Level <sup>18</sup>             | 1                                                                                                     | 2 – 3                             | 4 – 5                                                                                                                                                    | 6                                                                                                           |

<sup>10</sup> Wildfire Risk Assessment Portal <https://www.texaswildfirerisk.com/>

<sup>11</sup> Flood Zones <https://www.fema.gov/flood-zones>

<sup>12</sup> Fujita Tornado Damage Scale <http://www.spc.noaa.gov/faq/tornado/ef-scale.html>

<sup>13</sup> ASTM D4829-11 Standard Test Method for Expansion Index of Soils <https://www.astm.org/Standards/D4829.htm>

<sup>14</sup> NWS Heat Index [http://www.nws.noaa.gov/om/heat/heat\\_index.shtml](http://www.nws.noaa.gov/om/heat/heat_index.shtml)

<sup>15</sup> The Torro Hail Scale (<http://www.torro.org.uk/hscale.php>) was reviewed but simple inch-diameter was selected due to more common reporting and local understanding.

<sup>16</sup> Winter Weather Warnings, Watches, and Advisories <http://www.nws.noaa.gov/om/winter/ww.shtml>

<sup>17</sup> Beaufort Wind Scale <http://www.spc.noaa.gov/faq/tornado/beaufort.html>

<sup>18</sup> Lightning Activity Level <http://graphical.weather.gov/definitions/defineLAL.html>

The **probability of future** events is the likelihood of the hazard occurring over a set time period. The probability over time will vary by hazard based upon the historical availability of data for each hazard.

**Table 8. Probability Thresholds for Future Events**

| <b>Probability of Future Events</b> |              |
|-------------------------------------|--------------|
| <b>Unlikely</b>                     | Less than 1% |
| <b>Occasional</b>                   | 1% to 10%    |
| <b>Likely</b>                       | 10% to 90%   |
| <b>Highly Likely</b>                | 90% to 100%  |

The **impact** of the hazard is the consequence or effect of the hazard on the community and its assets.

**Table 9. Impact Classification**

| <b>Impact</b> |                                                                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Low</b>    | Two or more of the criteria fall in lower classifications or the event has minimal impacts on the planning area.                                      |
| <b>Medium</b> | Middle ranges of classifications and the event's impacts on the planning area are noticeable but no devastating.                                      |
| <b>High</b>   | High classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area |

## 2.5. Dam Failure

Dam failure is a collapse or breach in a dam. While most dams have storage volumes small enough that failures have little or no repercussions, dams with large storage amounts can cause significant downstream flooding in the event of a breach. Dam failures in the United States typically occur from any one or combination of the following:

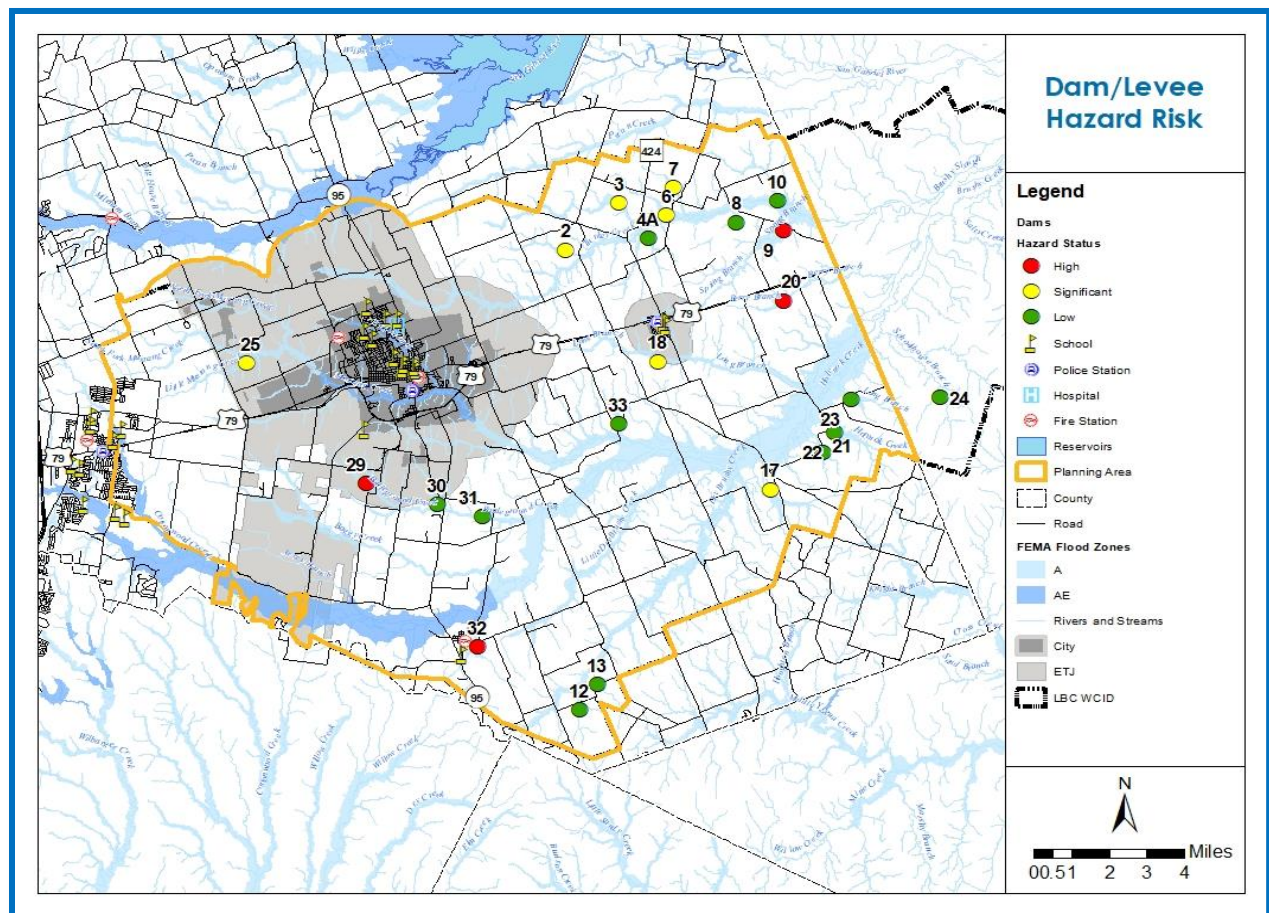
- Overtopping of the primary dam structure is often a precursor of dam failure. National statistics show that overtopping due to inadequate spillway design, debris blockage of spillways, or settlement of dam crest account for 34% of all dam failures.
- Foundation defects due to differential settlement, slides, slope instability, uplift pressures, and foundation seepage can also cause dam failure. These account for 30% of all dam failures.
- Failure due to piping and seepage accounts for 20% of all failures according to the Association of State Dam Safety Officials (ASDSO). These are caused by internal erosion due to piping and seepage, erosion along hydraulic structures, such as spillways, erosion due to animal burrows, and cracks in the dam structure.
- Other causes of dam failure, approximately 16%, include deterioration and erosion, settlement and auxiliary spillway headcutting. Auxiliary Spillway Headcutting is seen through a noticeable discontinuity in flow surface within the auxiliary spillway. There are three phases: 1. Vegetal cover failure, 2. Concentrated flow erosion, and 3. Headcut advancement.

Historically, hundreds of dam failures have occurred throughout the U.S. according to ASDSO. These failures have caused immense property and environmental damages. As the nation's dams age and population increases, the potential for deadly dam failures grows. It is unknown how many dam failures have occurred in the U.S., but they have been documented in every state. From January 1, 2005 through June 2013, State dam safety programs reported 173 dam failures and 587 "incidents" that, without intervention, would likely have resulted in dam failure.

### *2.5.1. Dam Failure Location*

The Lower Brushy Creek Water Control and Improvement District is responsible for the operation and maintenance of 23 dams. The Lower Brushy Creek WCID provides over \$1.4 million in annual benefits including \$113,000 in annual flood control reduction benefits to bridges and numerous county, state, and federal roads according to the Natural Resource Conservation Center.





**Figure 11. Dam/Levee Failure Hazard Map**

As seen in the map above, one of the dams of particular interest is located near Taylor's airport and the Electric Reliability Council of Texas (ERCOT). Another dam is just south of Taylor that is considered of high hazard threat that could potentially affect Taylor's ETJ. Thrall has one dam located within its 1-mile radius that is considered significant threat level. Due to Milam County data deficiencies, there is no floodplain data available for the planning area that encompasses this subarea, which includes Dam 24. Dam 24 is considered low Hazard Status though and not a dam of priority for hazard mitigation. The table below shows the location and extent (Hazard Status) of the hazards for dams and levees within the planning area. **Overall, the location is considered limited as it affects less than 25% of the planning area** (Ref. Table 6).

**Table 10. Hazard Status of LBCWCID Dams**

| Dam Number | Location                    | TCEQ Hazard Status | Extent (Ref. Table 5) | Breach Analysis Complete |
|------------|-----------------------------|--------------------|-----------------------|--------------------------|
| 29         | Taylor, Southern end of ETJ | High               | Severe-Extreme        | Yes                      |

|                      |                                                  |             |                |     |
|----------------------|--------------------------------------------------|-------------|----------------|-----|
| <b>32</b>            | Lower Brushy WCID                                | High        | Severe-Extreme | Yes |
| <b>20</b>            | Thrall                                           | High        | Severe-Extreme | Yes |
| <b>9</b>             | Far Eastern Williamson County                    | High        | Severe-Extreme | No  |
| <b>25</b>            | Taylor, airport and ERCOT                        | Significant | Moderate       | Yes |
| <b>2,3,6,7,17</b>    | Far Eastern Williamson County                    | Significant | Moderate       | No  |
| <b>18</b>            | Thrall                                           | Significant | Moderate       | Yes |
| <b>8,10,21,22,23</b> | Far Eastern Williamson County                    | Low         | Weak           | No  |
| <b>30</b>            | Taylor, Southern end of ETJ<br>Lower Brushy WCID | Low         | Weak           | No  |
| <b>31</b>            | Taylor, Southern end of ETJ<br>Lower Brushy WCID | Low         | Weak           | No  |
| <b>33</b>            | Lower Brushy WCID                                | Low         | Weak           | No  |

### *2.5.2. TCEQ Regulatory Oversight*

The TCEQ Dam Safety Program (defined in the Texas Administrative Code Chapter 299) regulates both private and public dams in Texas. TCEQ staff periodically inspect dams that pose a high or significant hazard and makes recommendations and reports to dam owners to help them maintain safe facilities. TCEQ requires that dam owners of high hazard structures maintain, regularly inspect, and develop an EAP for each structure. There are specific requirements for performance of an exercise of EAP procedures every 5 years. TCEQ maintains guidelines for dam design, dam maintenance, dam hydrologic/hydraulic study, dam inspection, and EAP preparation. A breach analysis is the engineering analysis performed on a structure to determine the potential inundation zone.

### *2.5.3. Dam Failure Extent*

The District has developed dam breach inundation maps for all of the completed Emergency Action Plans, to estimate the flood extent associated with dam failure for scenarios defined by TCEQ guidelines. TCEQ has recently (Summer 2017) reclassified several of the dams in the District's service area, and has asked that full breach analyses are performed to verify the reclassification. Thus, a data gap exists here with respect to the recently reclassified dams. Table 10 above also describes the extent as defined in Table 7: Hazard Classification Extent.

### *2.5.4. Dam Failure Probability and History*

There are no historic breaches known associated with the District's structures.

**The probability of failure is considered “unlikely”**, referring to Table 8 above. It is not possible to present a meaningful statistical likelihood of failure due to the lack of historic record, although through the TCEQ classifications, the annual chance of occurrence is most likely between 0.1% and 0.01%. The dams are regularly inspected and maintained per State requirements.

#### *2.5.5. Dam Failure Impact and Vulnerability*

**The impact of a dam failure is “high”**, as described in Table 9 above, especially considering the vulnerability of populations and critical facilities as described below, although the probability of an event is unlikely. This “tail risk” is an important mitigation objective. Vulnerability is not known in detail for those damsites which have not had a breach analysis performed. This reflects a partial data gap with respect to the hazard analysis. See Table 10 above for an accounting of those structures which have had a breach analysis performed. It should be noted that the information developed in a breach analysis is a specialized engineering analysis which requires careful interpretation by qualified emergency management professionals and engineers. The information provided in this Plan is intended to be illustrative, in that it reflects the most forward findings of the breach analysis contained in the Emergency Action Plans; however, the full engineering and risk analysis context of those analyses must be taken into account in making any interpretation of the information. The LBCWCID staff and local and county emergency officials should be consulted with any specific questions concerning the analyses, and what conclusions can be reached as may pertain to specific properties or elements of interest.

#### **Taylor**

Taylor's southern neighborhoods and western areas could be affected by a potential dam break at sites 25 and 29, as shown in Figure 12. The following table describes the impacts to Taylor critical infrastructure in a breach of Dam 25. The term “impacts” in this type of analysis does not necessarily mean inundation. Impacts could take many forms – from erosion, to saturation, to debris deposition, to disruption of access or utility service – as well as many others which are not even contemplated. With that in mind, owners/representatives the elements of interest listed below should contact the local emergency management officials to review the full context and details of the Emergency Access Plans to understand their potential localized risks.

**Table 11. Dam 25: Breach Potential Impacts in Taylor and its ETJ**

|                              |                          |
|------------------------------|--------------------------|
| Taylor Municipal Airport     | 2 <sup>nd</sup> Street   |
| CR 403                       | US 79                    |
| Edmond St.                   | Alliance Chemical        |
| T. Don Hutto Center (Prison) | Rio Grande St. (S and W) |
| S. Main St.                  | Union Pacific RR         |



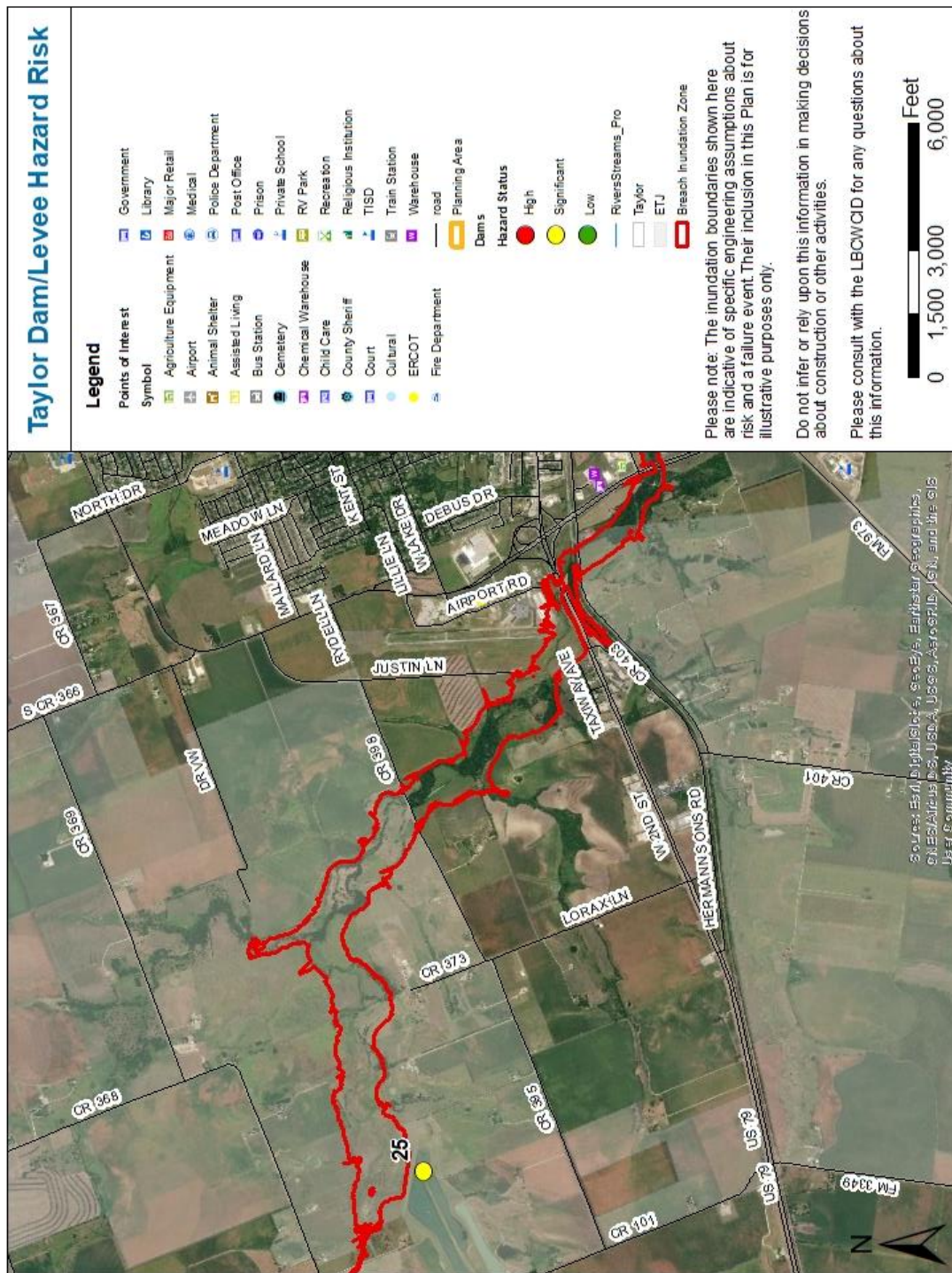


Figure 12. Dam/Levee Failure Risk, City of Taylor (Dam 25)

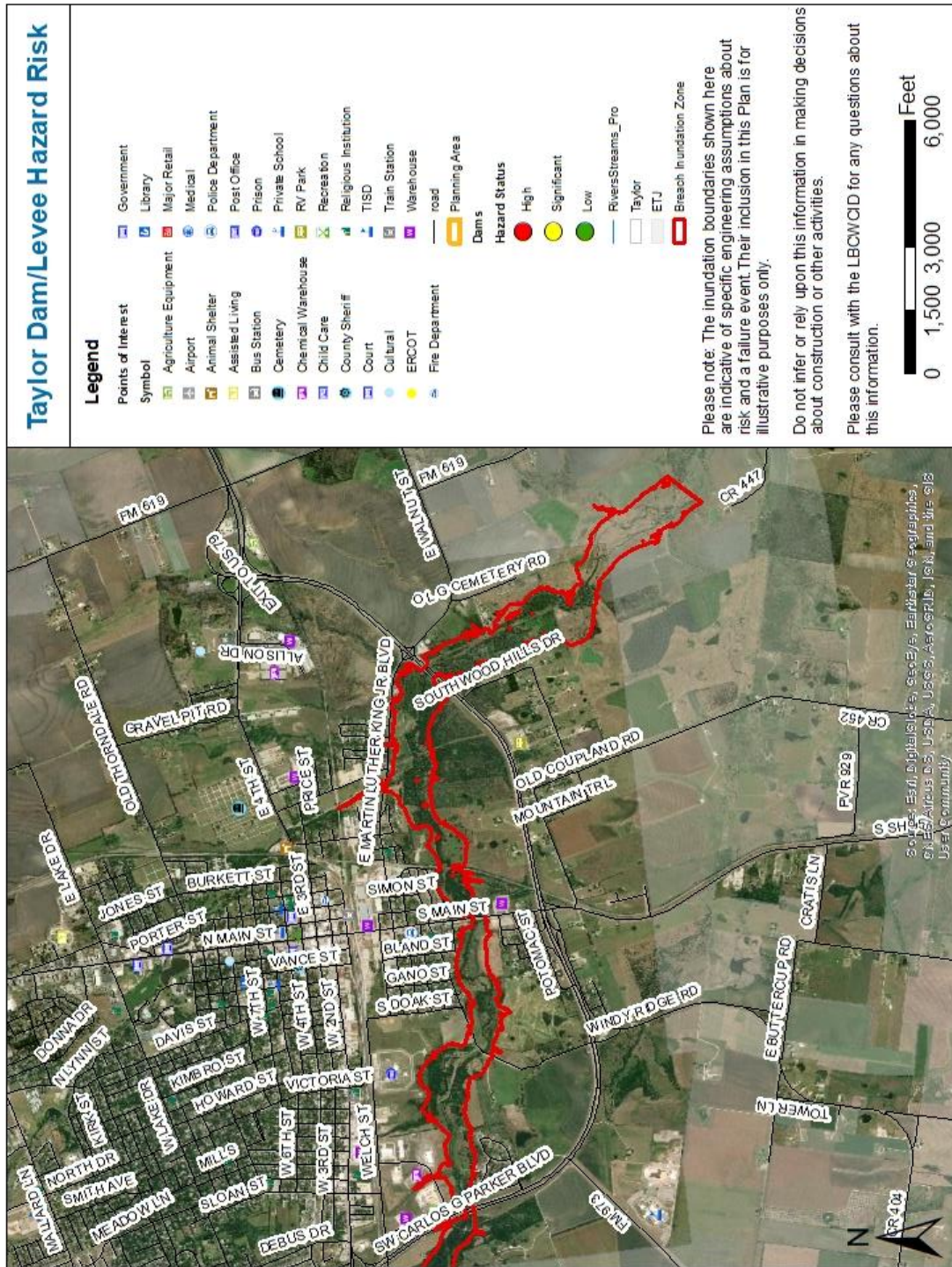


Figure 12, cont'd.



Dam 29 is of a particular threat due to being a high hazard dam and also being in such close proximity to Taylor. The floodplain also shows the flooding throughout the southwestern corner of the city's ETJ. To its south, Dam 32 is a high hazard dam outside of Taylor's ETJ.

The following table describes the infrastructure and elements of interest in the event of a breach analysis of Dams 29 and 32.

**Table 12. Dams 29 & 32 Potential Breach Impacts**

| <b>Dam 29</b>    | <b>Dam 32</b>    |
|------------------|------------------|
| CR 405           | FM 1466          |
| CR 406           | CR 456           |
| CR 497           | Union Pacific RR |
| SH 95            |                  |
| Union Pacific RR |                  |
| Dams 30 & 31     |                  |

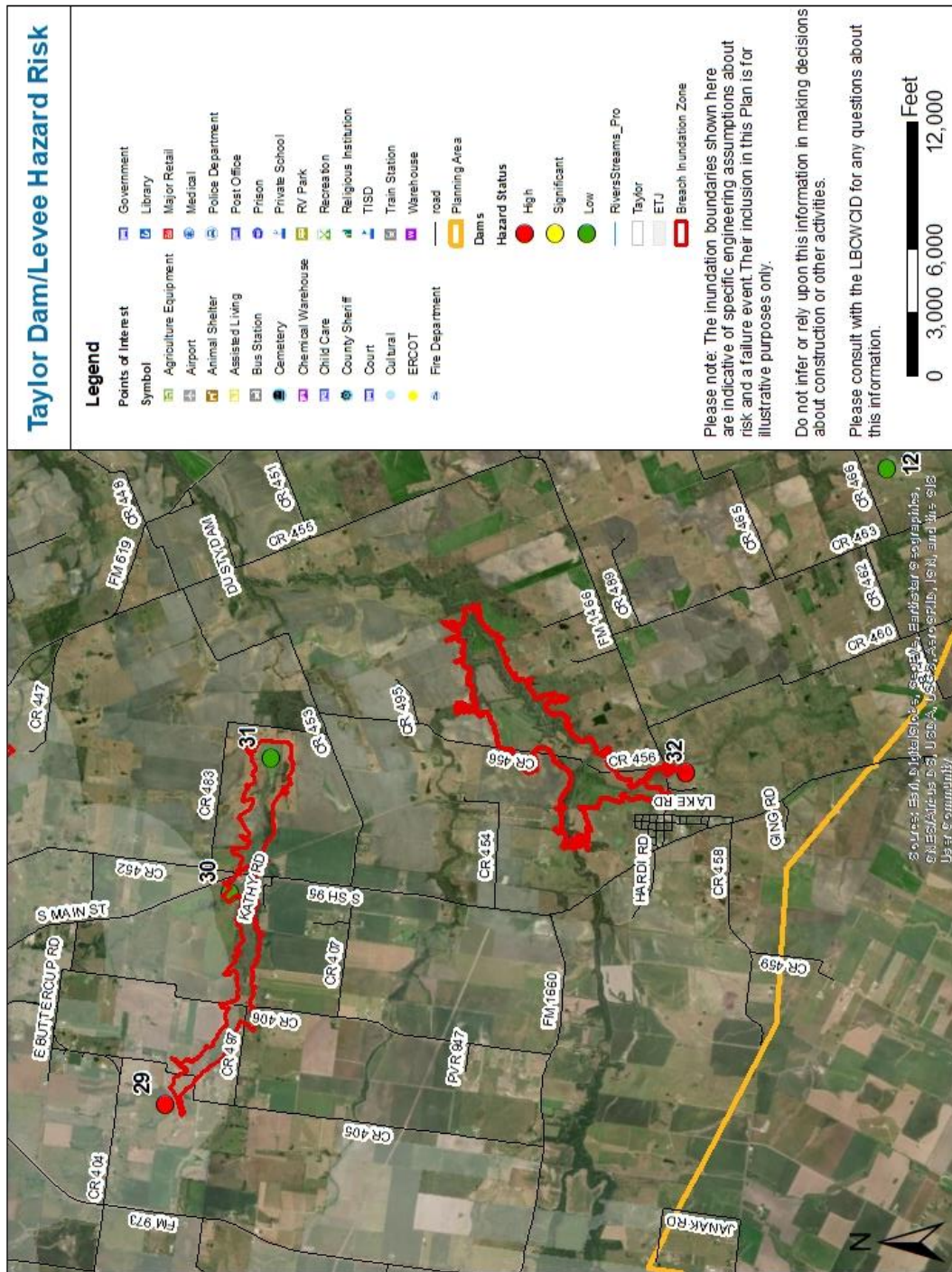


Figure 13. Taylor Dam/Levee Failure (Dam 29 & 32)



## Thrall

Thrall's main concern for dam breaches could come from Dam 18, which is on the southern end of Thrall's ETJ boundary, as shown in Figure 14 below. The Thrall wastewater treatment plant would likely be impacted, as well as CR 424. Below CR 424, the inundation area is agriculturally used land, although CR 435 is also impacted.

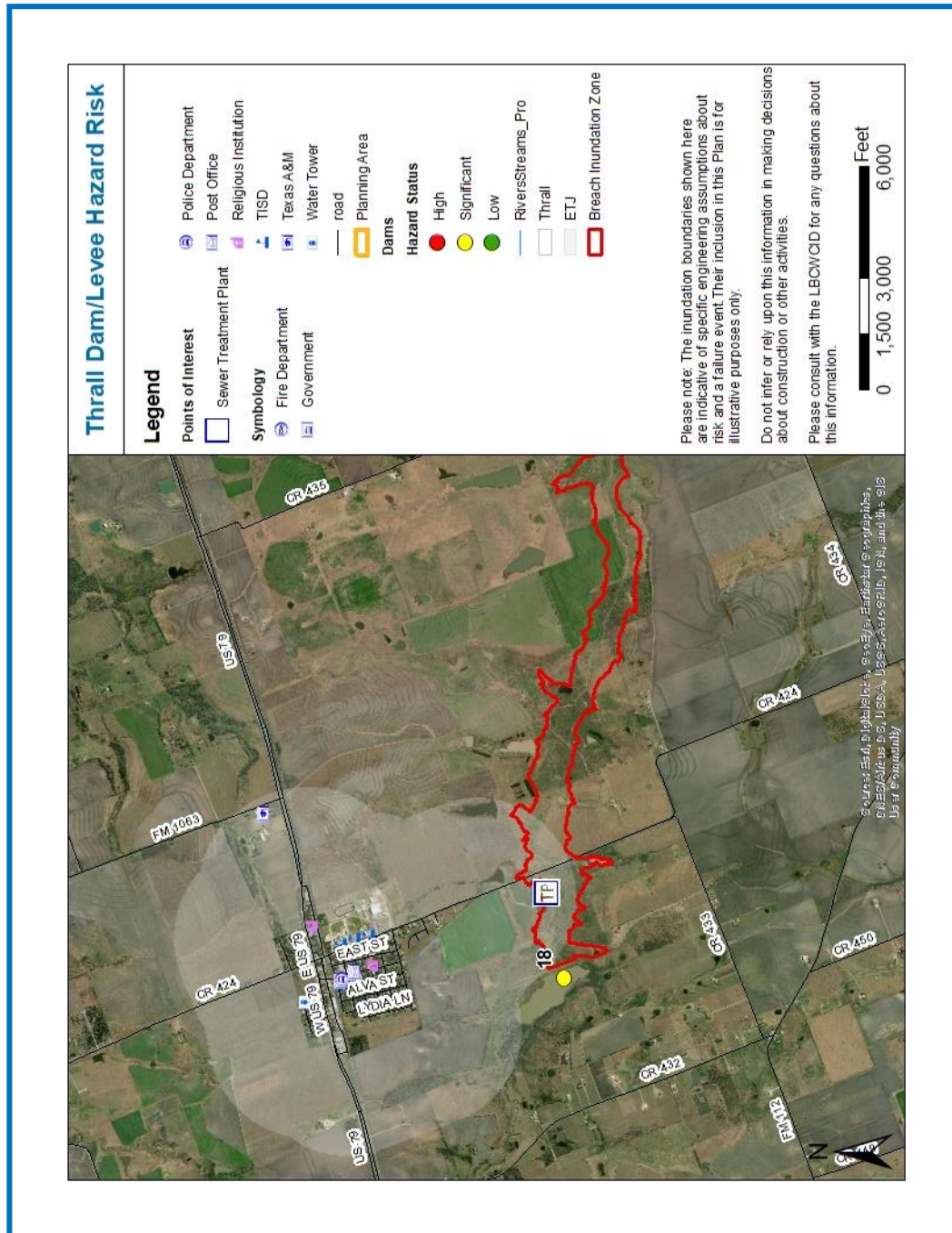


Figure 14. Dam/Levee Failure Risk, City of Thrall (Dam 18)

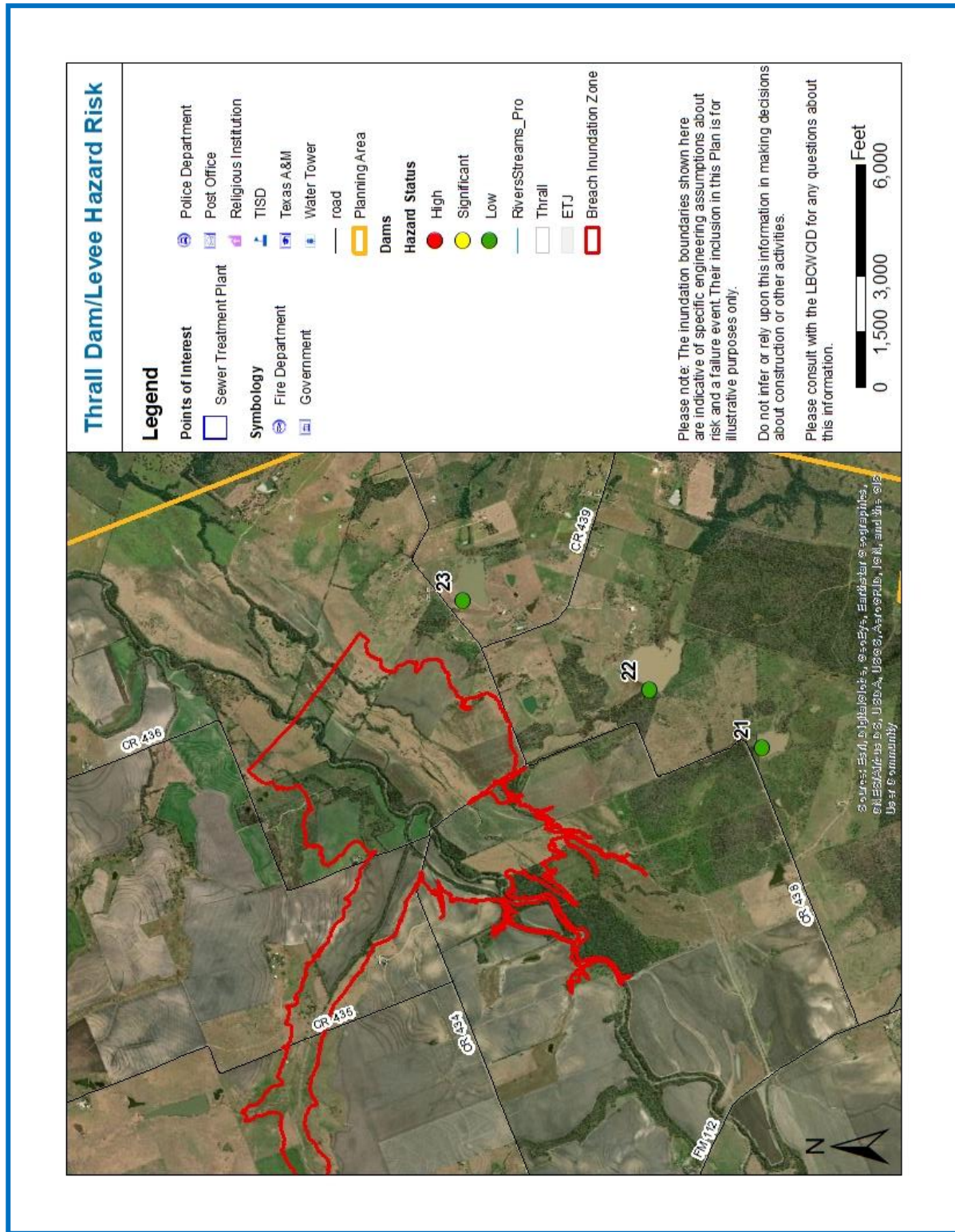


Figure 14, cont'd.



### Lower Brushy Creek WCID Eastern Service Area

The eastern boundary of the LBCWCID service area is near the county boundary to Milam County. The City of Thorndale (offered a role in participation and stakeholding) lies outside of the planning area although a breach analysis has extended through its jurisdiction. Williamson County Roads CR 436 and CR 437 are impacted in a breach event.

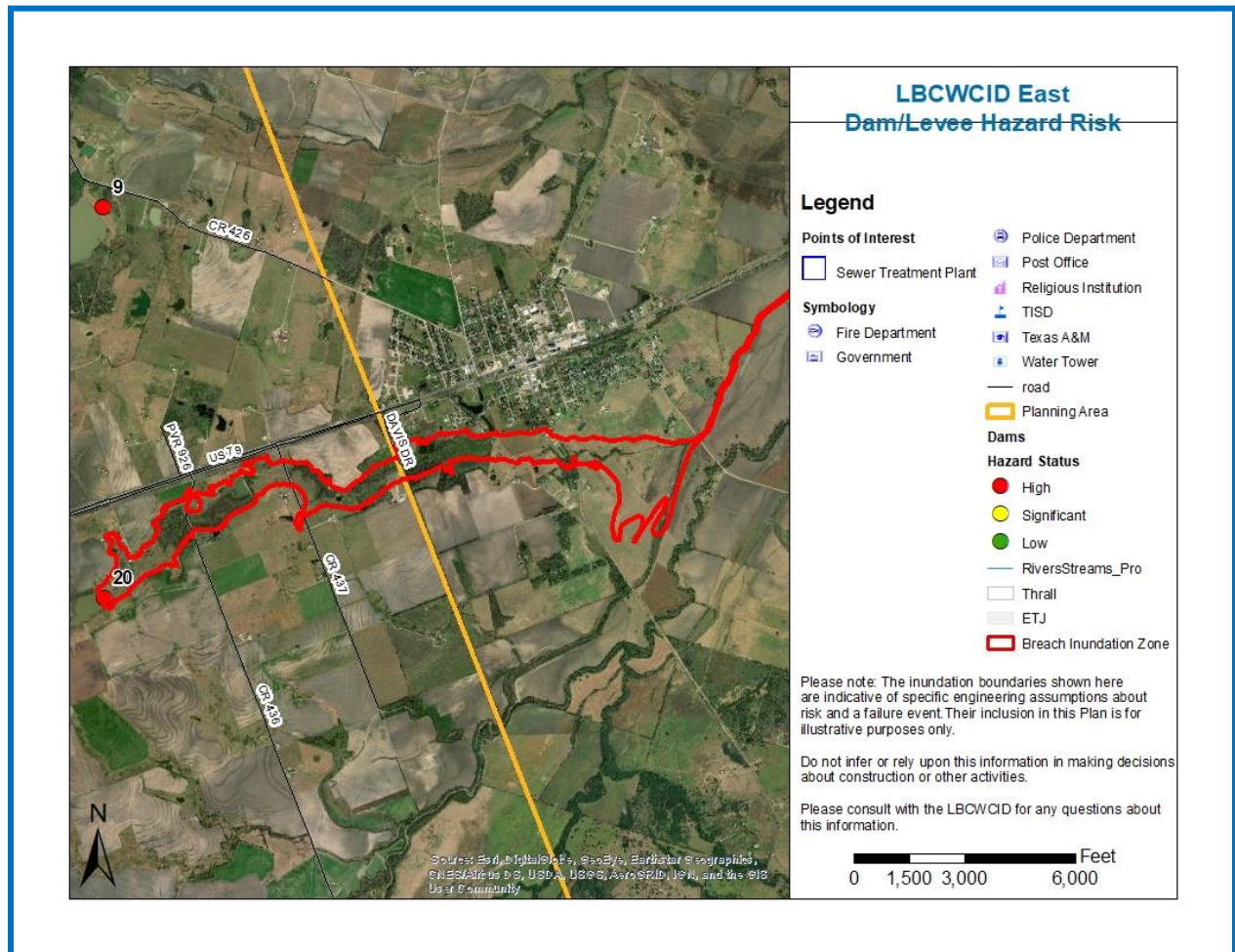


Figure 15. LBCWCID East Dam Failure (Dam 20)

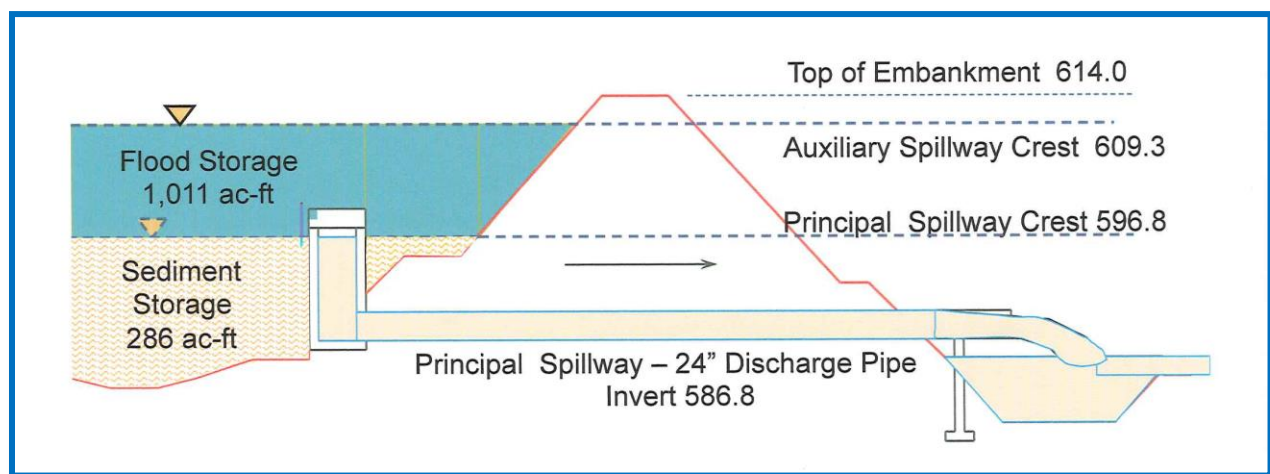
#### 2.5.6. Warning Time

Warning time for dam failure varies depending on the cause of the failure. In events of extreme precipitation, evacuations can be planned with sufficient time. In the event of a structural failure, there may be no warning time. A dam's structural type also affects warning time. Earthen dams do not tend to fail completely or instantaneously. Once a breach is initiated, discharging water erodes the breach until either the reservoir water is depleted or the breach resists further erosion. The time of breach formation ranges from a few minutes to a few hours (USACE 1997). **Emergency**

**action plans for two high-hazard dams within the District are on file with TCEQ and the Williamson County EOC, and with the local emergency managers in Taylor and Thrall.**

### *2.5.7. Secondary Hazards*

Dam failure can cause severe downstream flooding, potentially leading to the primary hazards of loss of life, and property damage, depending on the magnitude of the failure. Secondary hazards include transmittal downstream transmission of eroded embankment materials with associated deposition at road crossings, culverts, and within planned channel flood conveyance area, worsening flooding and increasing the primary hazards. Dam breach floods also overtop and disrupt emergency access routes. In a further example specific to Thrall, the wastewater treatment plant could be impacted by a breach of Site #18.



**Figure 16. Cross-section schematic of Dam #25.**

### *2.5.8. Problem Statement*

Although a probability of dam failure cannot be given, the community expects issues with dams in the future given their age and maintenance funding concerns described here. There are several high and significant hazard classification damsites in the planning area which present a risk of damage to property and critical infrastructure, and potentially lives, if no mitigation is undertaken. In the City of Taylor, dam site #25 is a significant hazard classification, and lies upstream of critical regional infrastructure. A high hazard class dam (Site #29) threatens roadways and private property in the City's ETJ. In the City of Thrall, dam site #18 is a significant hazard classification and lies upstream of the City's sewer plant. A breach would cause significant long-term complications if not addressed. The LBCWCID has 3 high hazard and 2 significant hazard damsites in its service area, but LBCWCID does not have a revenue source to address long-term maintenance.

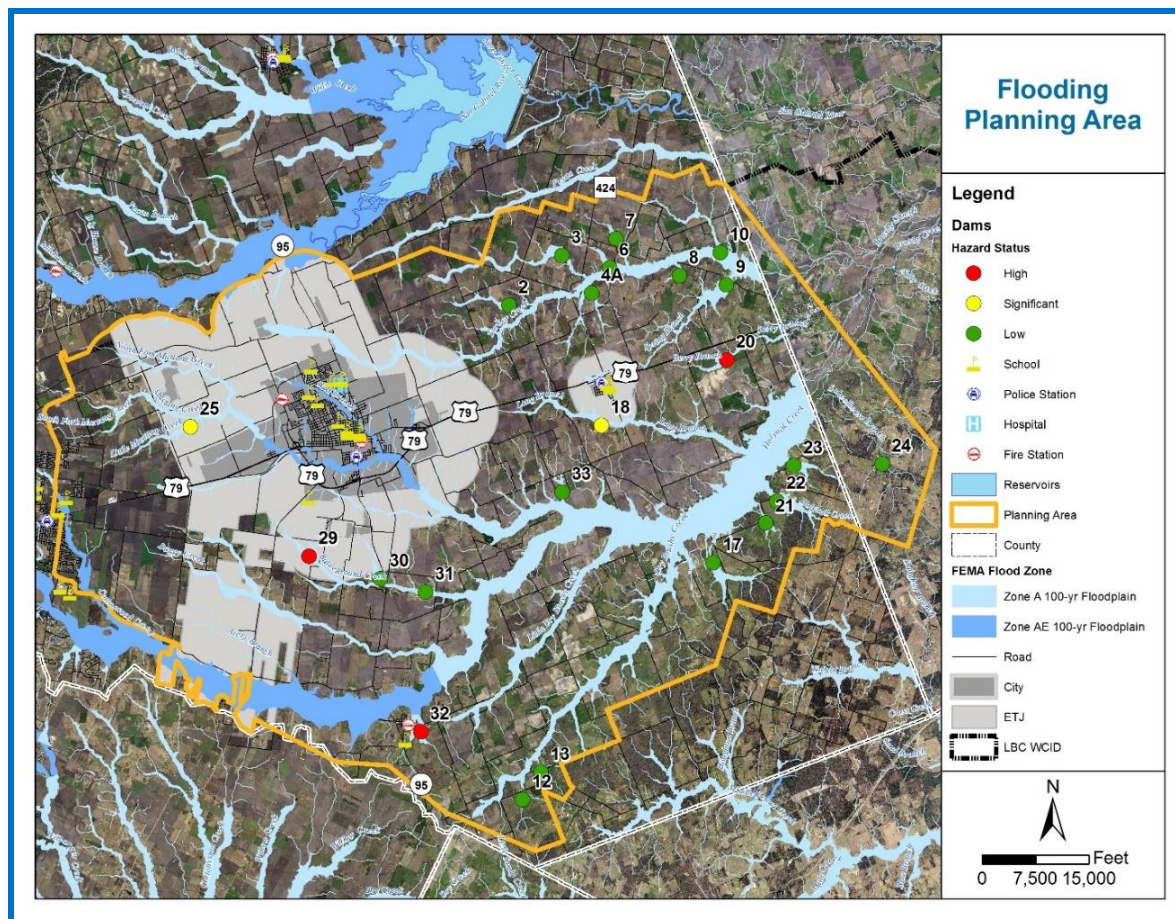
## 2.6. Flood

### *2.6.1. Types and Location of Flooding*

Flooding is sometimes discussed in two presentations: localized and riverine. Localized flooding occurs when the smaller-scale systems for drainage do not perform effectively and cannot move water from an area receiving rainfall to the natural drainage channel. Riverine flooding is sometimes referred to as “out-of-bank” flooding and concerns the larger drainage system. For the purposes of this plan, and for FEMA and flood insurance program purposes, riverine flooding is the primary concern. Often, when improvements are made to the larger system, the relief propagates upstream to the localized areas. Flooding can also result from dam failure, which is discussed separately within this plan.

Within the Planning Area, the digital Flood Insurance Rate Map (DFIRM) published by FEMA shows the areas of predicted flood risk, based upon the 1% annual chance event. **For this level of flood risk, the location affected can be classified as “limited”**, as it impacts less than 25% of the planning area (Ref. Table 6). While this assessment focuses on the 1% event, it is still important to note that the communities are still also impacted by more frequent events (4%, 10%, 50%, for example). And, it is also important to recognize that less frequent, but more severe events (such as a 0.5% or 0.1% event) are still possible and demand preparedness.





**Figure 17. Flood Risk (1%) Planning Area**

The **City of Taylor** is a participating community in the National Flood Insurance Program. This means that as the city has adopted regulations designed to guide development away from flood hazard areas, flood insurance is available to property owners in the city limits. (Flood insurance is also available to residents outside of the city limits, since Williamson County is a participating community). The City most recently updated its Flood Damage Prevention regulations in 2008, and these are codified under Chapter 7, Article II of the City Code. The NFIP has conducted detailed studies within the Taylor corporate limits, although the ETJ remains "Zone A Approximate". The regulations aim to reduce flood losses by: (1) *Restrict[ing] or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;* (2) *Requir[ing] that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;* (3) *Control[ling] the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;* (4) *Control[ling] filling, grading, dredging and other development which may increase flood damage;* (5) *Prevent[ing] or regulat[ing] the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other*

lands.<sup>19</sup> A floodplain development permit is required for any new or renovated construction which is situated within a special flood hazard area.

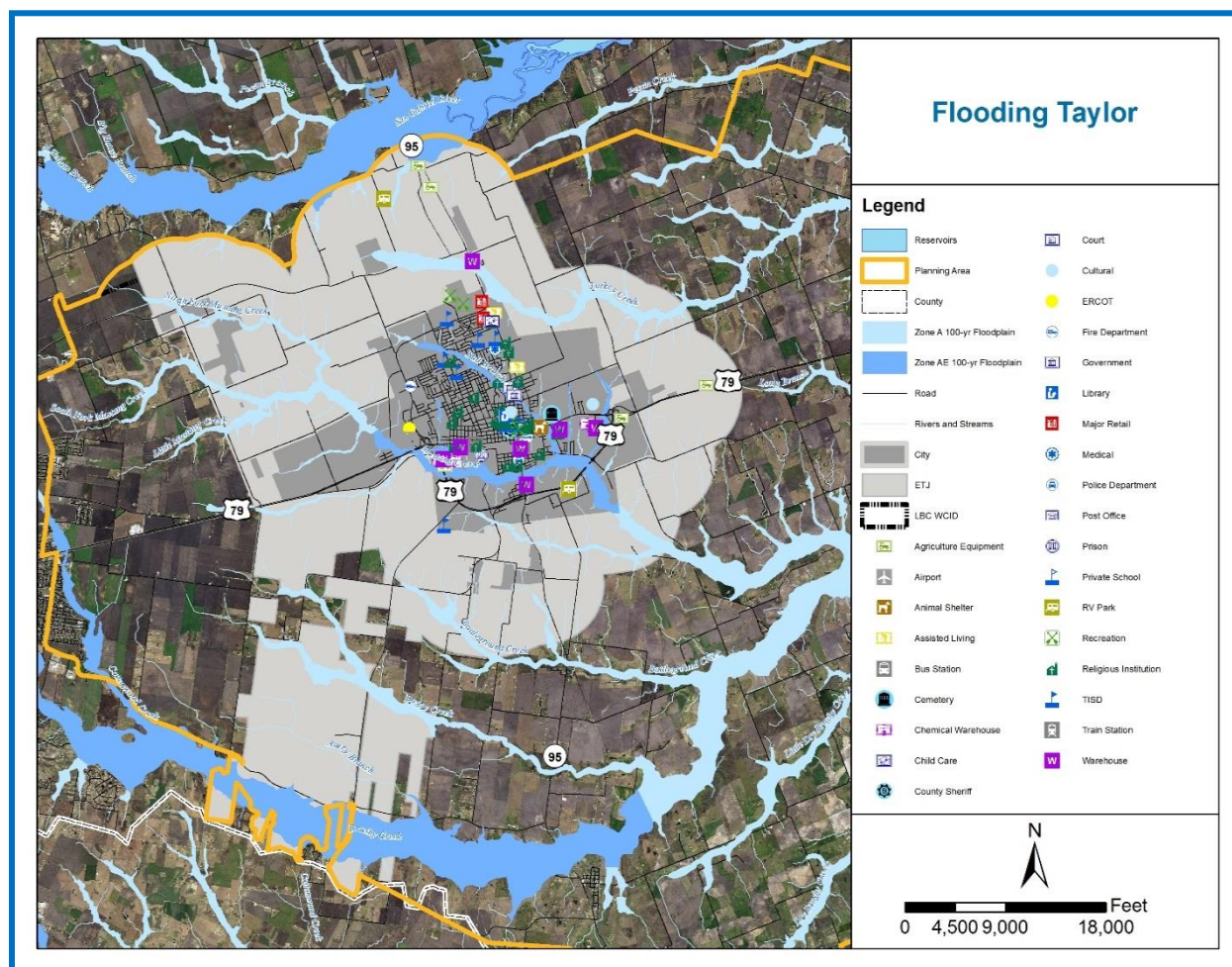
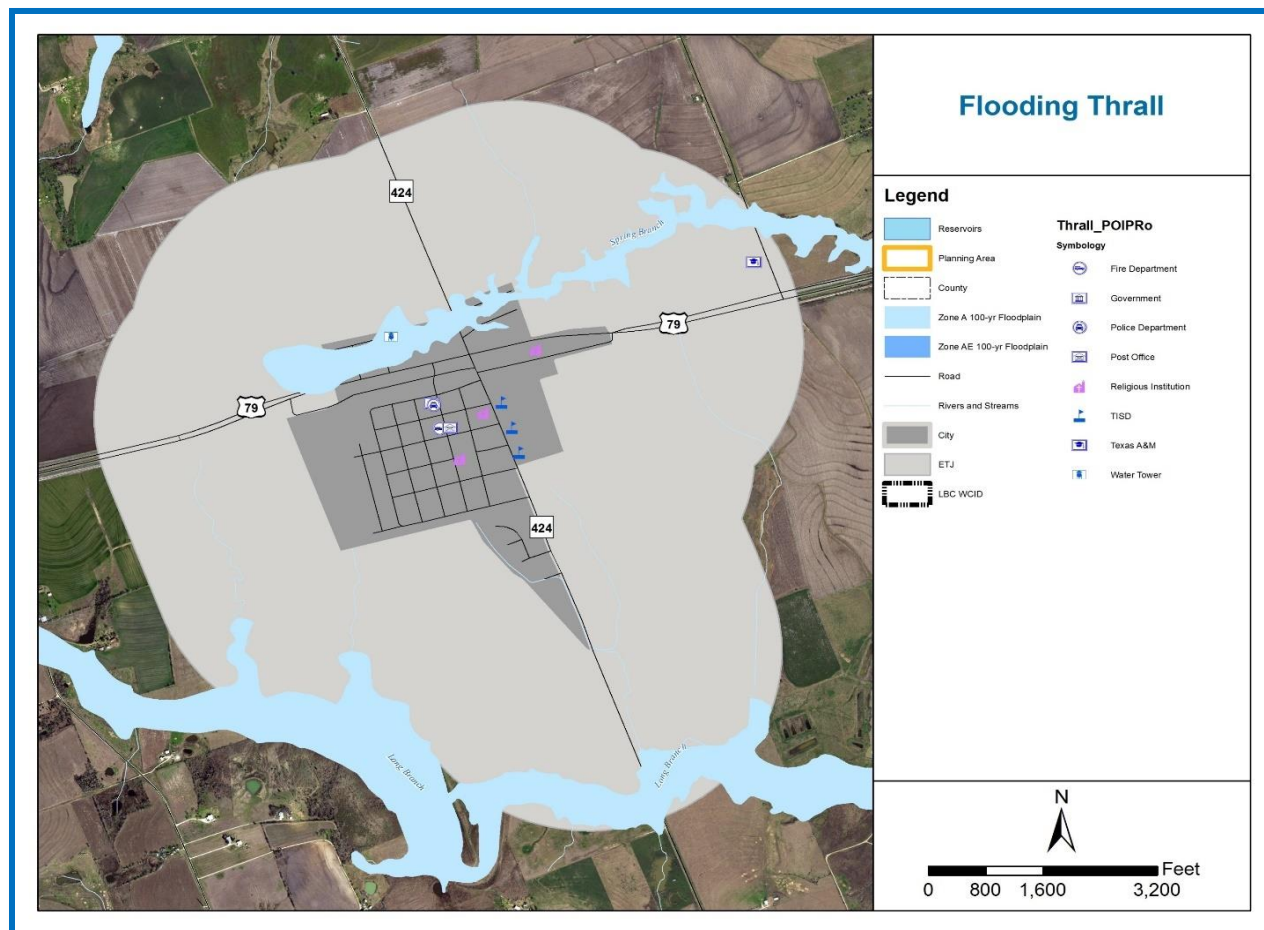


Figure 18. Flood Risk (1%) in Taylor

The **City of Thrall** is a participating community in the National Flood Insurance Program. There are no areas of detailed study within the City of Thrall or its ETJ. This means that there are no base flood elevations established. Thrall integrates flood damage prevention regulations into its building permit review process.

<sup>19</sup>Ord. No. 2008-36, and Sec. 7-21 of the Code of Ordinances





**Figure 19. Flood Risk (1%) in Thrall**

### 2.6.2. Historical Flood Events

Historical evidence shows that Taylor and Thrall are both susceptible to flooding, not just from extreme rainfall events but also due to the clay-like compact soils and inadequate drainage present in the planning area. It is likely that additional flooding occurrences have gone unreported. This record of *extreme* rainfall data was obtained through community input and through the Williamson County Historical Commission.

**Table 13. Extreme Rain Events**

| Date              | Location | Inches of Rain | Deaths |
|-------------------|----------|----------------|--------|
| Sep. 9 – 10, 1921 | Taylor   | 23.11          | 87     |
| Sep. 9 – 10, 1921 | Thrall   | 38.21          |        |

The following table summarizes major flood events of record through 2013, as reported in Williamson County. In addition, the Memorial Day flood event of 2015 was a significant event in the City of Taylor.

Table 14. Top Flood Events (Williamson County)

| Williamson County<br>Top Flood Events Table |            |          |                                      |  |
|---------------------------------------------|------------|----------|--------------------------------------|-------------------------------------------------------------------------------------|
| Date                                        | Fatalities | Injuries | Property<br>Damage<br>(2012 Dollars) | Crop<br>Damage<br>(2012 Dollars)                                                    |
| 5/13/1980                                   | 0          | 2        | \$13,815,789                         | \$1,381,579                                                                         |
| 12/19/1991                                  | 0          | 0        | \$1,597,687                          | \$159,769                                                                           |
| 6/22/1997                                   | 0          | 0        | \$709,459                            | \$70,946                                                                            |
| 11/15/2001                                  | 2          | 10       | \$648,148                            | \$0                                                                                 |
| 6/26/2007                                   | 0          | 0        | \$552,632                            | \$0                                                                                 |
| 6/5/1985                                    | 0          | 0        | \$535,714                            | \$535,714                                                                           |
| 5/29/1987                                   | 0          | 0        | \$504,808                            | \$0                                                                                 |
| 6/28/2007                                   | 0          | 0        | \$165,789                            | \$0                                                                                 |
| 10/26/2004                                  | 0          | 0        | \$120,690                            | \$0                                                                                 |
| 10/17/1998                                  | 0          | 0        | \$112,000                            | \$28,000                                                                            |
| 6/8/1997                                    | 0          | 0        | \$70,946                             | \$0                                                                                 |
| 7/1/2001                                    | 0          | 0        | \$64,815                             | \$0                                                                                 |
| 10/28/1960                                  | 0          | 0        | \$55,970                             | \$0                                                                                 |
| 5/1/2000                                    | 0          | 0        | \$53,165                             | \$0                                                                                 |
| 5/29/1995                                   | 0          | 0        | \$45,000                             | \$0                                                                                 |
| 3/8/1995                                    | 0          | 0        | \$30,000                             | \$0                                                                                 |
| 4/4/1997                                    | 0          | 0        | \$28,378                             | \$0                                                                                 |
| 1/9/1991                                    | 0          | 0        | \$28,226                             | \$2,823                                                                             |
| 7/10/1999                                   | 0          | 0        | \$27,632                             | \$0                                                                                 |
| 4/4/1997                                    | 0          | 0        | \$21,284                             | \$0                                                                                 |
|                                             |            |          |                                      | 11/14/2013                                                                          |

20

### 2.6.3. Extent of Flooding

Flood event severity is a complex science studied by hydrologists and engineers. The severity of a flood is affected by the topography, the soil characteristics, the amount of pervious and impervious surfaces, and rainfall intensity and duration. Urbanization also contributes to flood severity. Floods events can last anywhere from a couple of hours to a several days.

<sup>20</sup> Source: This data produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina.

A Flood Zone provides a measure of a flood's intensity and magnitude. A base flood is defined by FEMA as a flood having a one percent chance of being equaled or exceeded in any given year. It is also known as the "100-year flood" or the "1% annual chance event". The base flood is the national standard used by the National Flood Insurance Program. Flood zones are delineated on Flood Insurance Rate Maps, and the depths of flooding can be interpreted from the summary data and profiles in the Flood Insurance Study.

**The extent of flooding ranges from weak to extreme**, as indicated in the historical record and as planned for in the future. This determination comes from a review of the FEMA DFIRM data, correlated to Table 7. Flood events in excess of a 1% annual chance event are expected. A 1% annual chance event can result in flooding depths of 0-36".



Figure 20. May 2015 Flooding in Taylor.<sup>21</sup>

#### *2.6.4. Flooding Probability, Impact and Vulnerability*

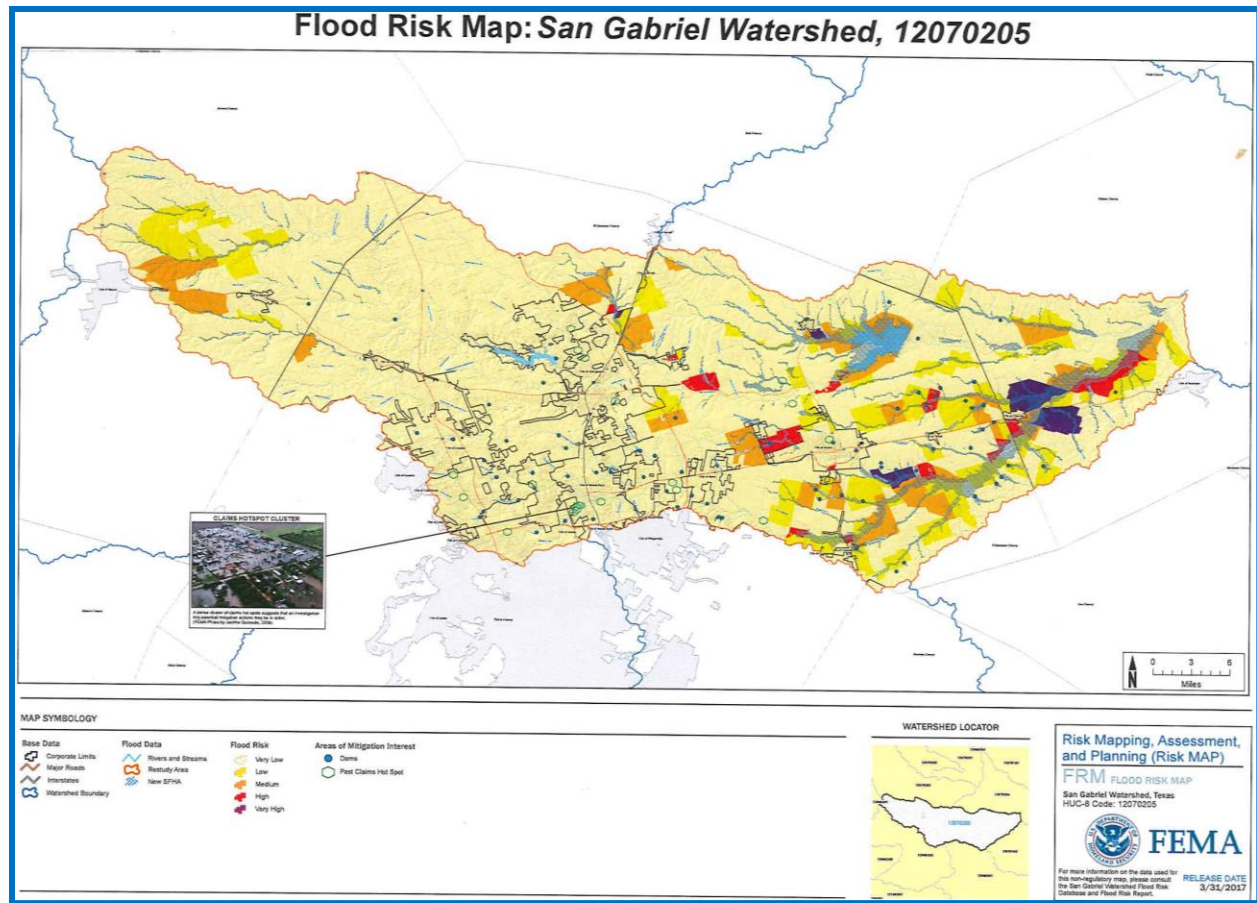
From a statistical viewpoint, the probability of a flood in the planning area is 81% in any given year. For this reason, **the probability of future events is considered "likely"**. (Refer to Table 8).

The participating jurisdictions also consulted FEMA's Risk Mitigation, Assessment, and Planning (Risk MAP) product. The final version of the Risk MAP product differed from interim product and detailed documentation was not available, and therefore was not seen to add standalone value to this analysis. However, although it can't be properly sourced, it did offer some confirmation of areas seen by local officials as "higher risk".

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<sup>21</sup> Source: <http://www.mystatesman.com/news/local/taylor-still-struggling-recover-from-may-floods/5qjjfCgGQcBolQOU8TIFqL/>





**Figure 21. RiskMAP figure showing areas of flood risk. This document could not be sourced, so is not relied upon for this analysis.**

The impact of a flood can be measured in terms of loss of life, injury, and property damage. Based upon the data reported to FEMA to-date, there have been 4 deaths, 12 injuries, and property damage estimated at \$400,000 - \$710,000 on an annualized basis.<sup>22</sup> The 2018 CHAMPS report estimates that flooding has resulted in more than \$530,000 of annualized losses in Taylor and more than \$8,000 in annualized losses in Thrall.

Although the impact depends greatly upon the nature of the rainfall and flood event itself, we do know from an analysis of Williamson County Appraisal District records that there is as much as \$127M of improvement value at risk within the planning area.<sup>23</sup> The 2018 CHAMPS report offers a forecast of more than \$157,000 per year in Taylor in the next five years, and \$91,000 in Thrall.

**The impact is therefore described as “medium” to “high”** (ref. Table 9), assuming a continued trend of population growth.

<sup>22</sup> CHAMPS 2013 and 2018 Williamson County Report (ref. Exhibit 3.5.6)

<sup>23</sup> GIS analysis of parcels affected by (“intersect the source layer feature”) 1% annual chance FEMA floodplain, total improvement value of \$126,637,883 per 2017 tax values.

The following table summarizes the impact and vulnerability of a 1% annual chance (100-year) flood event in the planning area and within each respective community.

**Table 15. Flooding Impact and Vulnerabilities (1%) per effective FIS**

| <b>Community/Named Stream</b>                        | <b>Likely Impact</b>                                                             | <b>Vulnerabilities</b>                                                                                                                                                                                       |
|------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Taylor / Mustang Creek/N. Fork Mustang Creek/Trib. 1 | Roadways inundated; 0-204" depths <sup>24</sup>                                  | Taylor Municipal Airport<br>ERCOT<br>US 79<br>5 businesses<br>Union Pacific Railroad                                                                                                                         |
| Taylor / Bull Branch Creek                           | Roadways inundated; 0-180" depths; Some homes with minor flooding. <sup>25</sup> | Multiple residences (approx. 20-30)<br>Multiple businesses<br>3 Churches<br>Access to Baylor Scott & White Medical Center<br>Bull Branch Park<br>Murphy Park<br>Moody House Museum<br>Union Pacific Railroad |
| Thrall / Site 18 Tributary (Zone A)                  | Thrall Water Treatment Plant 0-48" depth of flooding <sup>26</sup>               | Thrall WTP<br>FM 424                                                                                                                                                                                         |
| Thrall N. Tributary (Zone A)                         | Flooding 0-24" of as many as 23 residences <sup>27</sup>                         | Homes along N. and S. Barker St.                                                                                                                                                                             |

#### *2.6.5. NFIP Program Information*

As stated in 2.6.1 above, the communities of Taylor and Thrall are participants in the National Flood Insurance Program. The NFIP is available to property owners outside of the cities, and in the LBCWCID service area, and administered through Williamson County (not a part of this Plan).

The following is a summary of policies<sup>28</sup>:

<sup>24</sup> Effective FIS Profile panel numbers Vol 2, 160P-168P.

<sup>25</sup> Effective FIS Profile panel numbers Vol 3, 59-62P.

<sup>26</sup> No profile data available for unnamed tributary, Zone A. Estimated from aerial photography and USGS 1:24000 product.

<sup>27</sup> No profile data available for unnamed tributary, Zone A. Estimated from aerial photography and USGS 1:24000 product.

<sup>28</sup> <https://bsa.nfipstat.fema.gov/reports/1011.htm#TXT>

**Table 16. NFIP Policy Statistics**

| Community       | Total Number of Policies | Written Insurance in Force (\$) | Written Premium in Force (\$) |
|-----------------|--------------------------|---------------------------------|-------------------------------|
| TAYLOR, CITY OF | 56                       | 13,032,500                      | 25,116                        |
| THRALL, CITY OF | 4                        | 852,000                         | 2,220                         |

The following is a summary of claims<sup>29</sup>:

**Table 17. NFIP Claims Statistics**

| Community       | Total Claims | Closed | Open | Closed w/o Payment | Total Payments (\$) |
|-----------------|--------------|--------|------|--------------------|---------------------|
| TAYLOR, CITY OF | 23           | 18     | 0    | 5                  | 283,081.94          |
| THRALL, CITY OF | n/a          | n/a    | n/a  | n/a                | n/a                 |

Repetitive Loss properties are those insured properties which have had multiple claims within a successive period, and are priority properties for removing from the floodplain. This information has been requested at multiple times from the Texas Water Development Board during the plan development and public input stage, but has not been received in written form. The TWDB reports from FEMA database that there are no more than 3 repetitive loss properties in the City of Taylor and none in the City of Thrall.

### *2.6.1. Problem Statement*

Looking forward, the Planning Area is subject to frequent flooding. Older areas of settlement are at higher risk. New development is well-regulated, but there are still gaps in detailed information. Taylor's floodplains are well regulated in outward areas of the city, but legacy problems exist in the oldest parts of the city. The Mustang Creek watershed is in a critical, growing area of the city but is not understood in engineering detail.

The floodplains in Thrall are Zone A mapped, which means that little detail is known, and no base flood elevations exist. The effect of dam storage on the floodplains is not fully understood in engineering detail. Current impoundment capacity is not known. LBCWCID does not administer the NFIP, although it does play a role in the risk of flooding.

<sup>29</sup> <https://bsa.nfipstat.fema.gov/reports/1040.htm#48>

## 2.7. Tornado

### 2.7.1. Tornado Location

Tornados form based upon meteorological conditions, not based upon geographic constraints or political and administrative boundaries. Therefore, the entire planning area is uniformly subject to tornado risk. Although the history of tornados (see below) suggests that they are in one sense “isolated, single-point occurrences”, because they are possible in the entire planning area, the location could be said to be **extensive as opposed to negligible** (see Table 6), which reflects a proactive position of emergency preparedness.

### 2.7.2. Historical Tornados in Williamson County

There are records of tornados of varying strength in Williamson County (EF0-EF5 on the Enhanced Fujita scale). The following figure shows the past damages associated with these tornados over time.

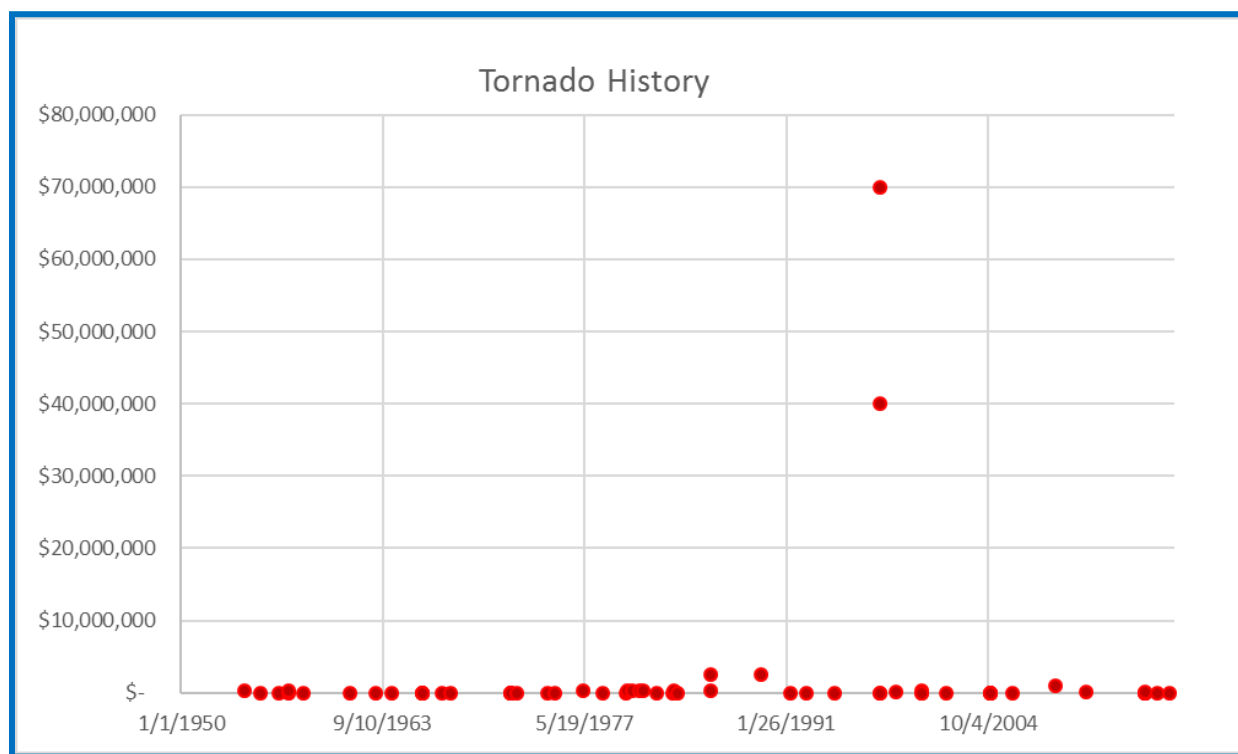


Figure 22. History and Damage Magnitude of Tornado Events (Williamson County)

**Table 18. Historical Tornado Impact**

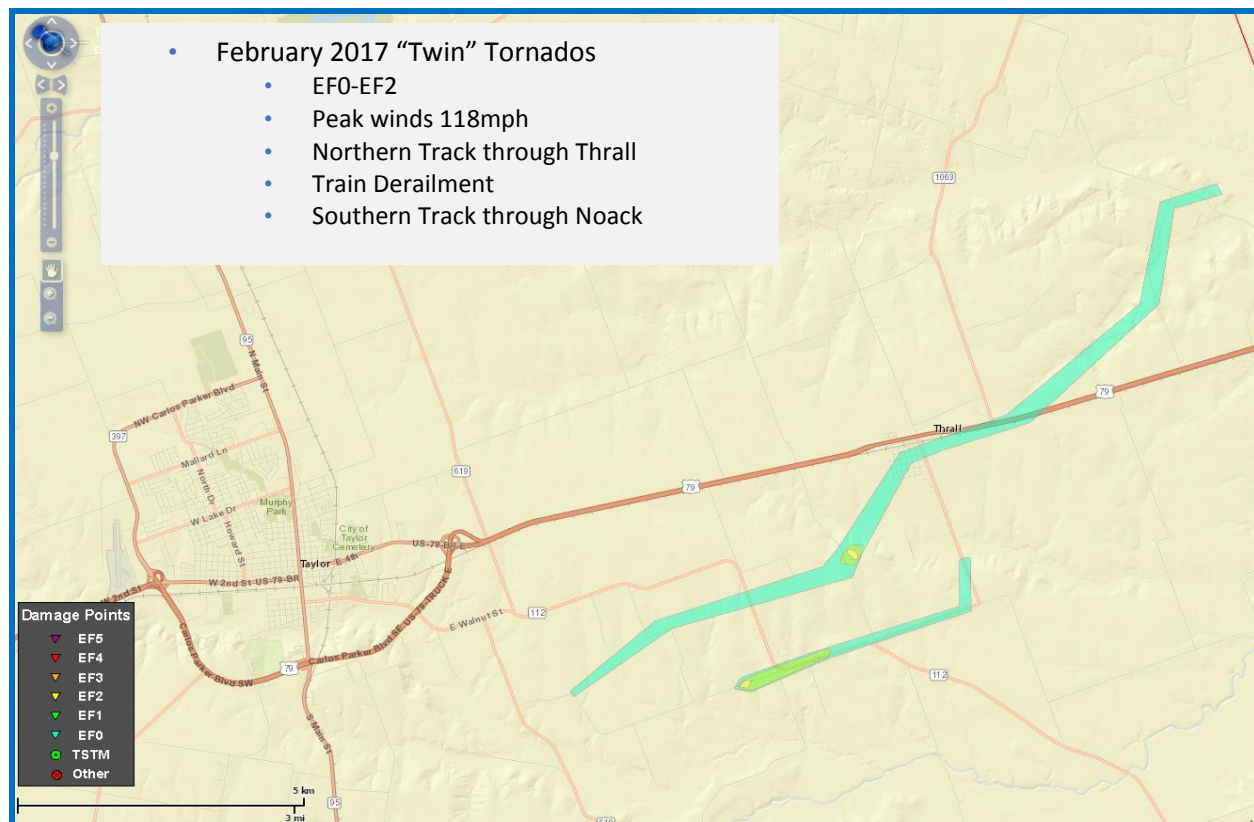
| <b>Year</b> | <b>Magnitude (Fujita)<sup>30</sup></b> | <b>Injuries</b> | <b>Fatalities</b> | <b>Estimated Property Loss</b> |
|-------------|----------------------------------------|-----------------|-------------------|--------------------------------|
| <b>1954</b> | 3                                      | 6               | 0                 | \$50,000 - \$500,000           |
| <b>1956</b> | 2                                      | 0               | 0                 | \$5,000 - \$50,000             |
| <b>1958</b> | 1                                      | 0               | 0                 | <\$50                          |
| <b>1961</b> | 1                                      | 0               | 0                 | Unknown                        |
| <b>1971</b> | 2                                      | 0               | 0                 | \$50,000 - \$500,000           |
| <b>1972</b> | 0                                      | 0               | 0                 | Unknown                        |
| <b>1976</b> | 0                                      | 0               | 0                 | \$5,000 - \$50,000             |
| <b>1978</b> | 2                                      | 0               | 0                 | \$5,000 - \$50,000             |
| <b>1980</b> | 1                                      | 0               | 0                 | Unknown                        |
| <b>1983</b> | 1                                      | 0               | 0                 | \$50,000 - \$500,000           |
| <b>1983</b> | 0                                      | 0               | 0                 | <\$50                          |
| <b>1991</b> | 0                                      | 0               | 0                 | Unknown                        |
| <b>2001</b> | 0                                      | 0               | 0                 | Unknown                        |
| <b>2004</b> | 0                                      | 0               | 0                 | Unknown                        |

In the middle of the night between February 19<sup>th</sup> and 20<sup>th</sup>, 2017 during the period of this plan development, a pair of small tornados formed and swept through rural areas between Taylor and Thrall, resulting in 2 injuries, a train derailment and damage to a number of small structures<sup>31</sup>.

<sup>30</sup> Historical record presents as Fujita Scale, as Enhanced Fujita didn't become operational until 2007.

<sup>31</sup> Source & Note: NWS Corrected Public Information Statement (Austin/San Antonio) 210 PM Tue Feb 21, 2017  
PRELIMINARY & Subject to change by NWS  
(<http://mesonet.agron.iastate.edu/wx/afos/p.php?pil=PNSEWX&e=201702212010>)





**Figure 23. February 2017 Tornado Event**

### 2.7.3. Tornado Extent

The Enhanced Fujita scale is used to measure tornado severity, and a Tornado of EF0-EF2 corresponds with a **weak-to-moderate extent** (Ref. Table 7). **It is possible and probable that tornadoes up to an EF5 may affect the planning area**, despite the historical record indicating very few tornadoes above a F2.

### 2.7.4. Tornado Probability

The expected annual chance of a tornado occurring in the planning area is 47% for the period of record. Thus, the probability of a tornado occurring is considered **likely** (Ref. Table 8).

### 2.7.5. Tornado Impact and Vulnerability

Historically, there have been 29 deaths and 68 injuries attributable to tornadoes in Williamson County, producing annualized damages of \$3.2M. The 2018 CHAMPS report estimates that in the preceding two decades (1996-2016), there have been approximately \$6 million in losses as a result of tornado events in Taylor, and approximately \$330,000 in losses in Thrall. All of the critical facilities in Taylor and Thrall, as summarized in Tables 1 and 2 above, are vulnerable. Looking forward, the **impact for all of Taylor, Thrall and the Lower Brushy Creek WCID service area can range from low to high**, depending on the location and the population/structure density,

and the highly unpredictable nature of tornados (Ref. Table 9). The 2018 CHAMPS further forecasts more than \$1.7M in annual damages as a result of tornado events over the next five years.

#### *2.7.6. Problem Statement*

Given the likelihood of experiencing up to at least an EF4 tornado, the following statements describe the problem the community faces moving forward. The entire community is susceptible, with an expected 47% annual chance of occurrence. Community shelters and warning technology are available but may not reach all of the population. The LBCWCID does not have infrastructure or lives which may be directly at risk.

## 2.8. Windstorm

### 2.8.1. Windstorm History

The following table summarizes the top severe windstorm events in Williamson County, ranked according to property damage<sup>32</sup>. In addition to these listed below, the area experienced severe winds in May 2015, and as described in more detail in Section 2.8.3, another event in February 2017.

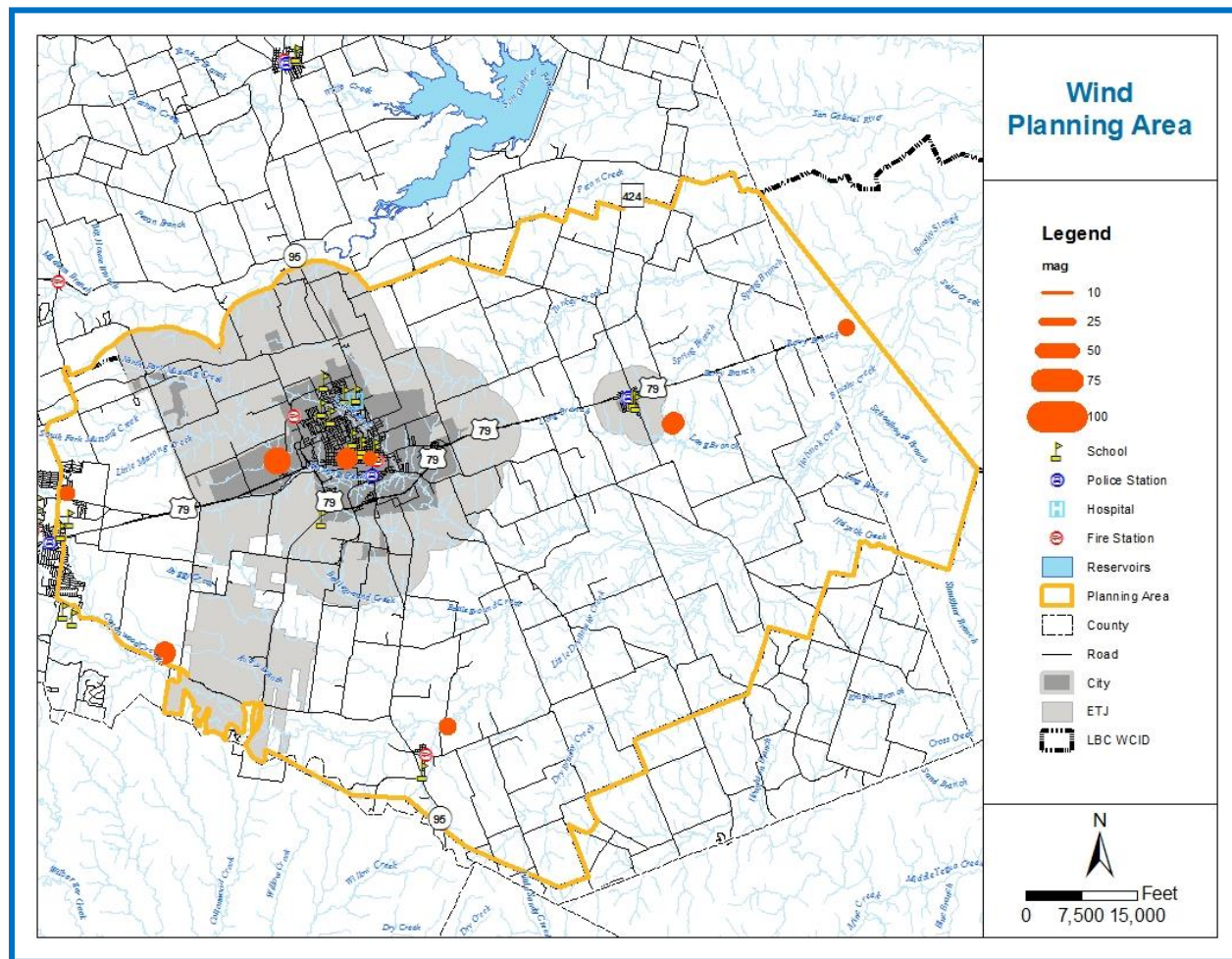
**Table 19. Windstorm History (Williamson County)**

| Williamson County<br>Top Severe Thunderstorm-Wind Events Table |            |          |                                      |  |
|----------------------------------------------------------------|------------|----------|--------------------------------------|-----------------------------------------------------------------------------------|
| Date                                                           | Fatalities | Injuries | Property<br>Damage<br>(2012 Dollars) | Crop<br>Damage<br>(2012 Dollars)                                                  |
| 9/7/1995                                                       | 0          | 0        | \$1,500,000                          | \$75,000                                                                          |
| 5/13/1980                                                      | 0          | 0        | \$1,381,579                          | \$138,158                                                                         |
| 9/10/1987                                                      | 0          | 0        | \$1,009,615                          | \$0                                                                               |
| 5/12/1982                                                      | 0          | 0        | \$715,909                            | \$238,636                                                                         |
| 5/13/1980                                                      | 0          | 0        | \$690,789                            | \$0                                                                               |
| 3/12/1971                                                      | 0          | 0        | \$690,789                            | \$0                                                                               |
| 2/13/1969                                                      | 0          | 0        | \$671,355                            | \$0                                                                               |
| 5/20/2001                                                      | 0          | 0        | \$388,889                            | \$64,815                                                                          |
| 5/27/2002                                                      | 0          | 0        | \$316,265                            | \$126,506                                                                         |
| 8/25/2009                                                      | 0          | 0        | \$267,857                            | \$0                                                                               |
| 5/14/2008                                                      | 0          | 0        | \$212,121                            | \$0                                                                               |
| 6/26/2002                                                      | 0          | 0        | \$189,759                            | \$0                                                                               |
| 7/10/1979                                                      | 0          | 0        | \$159,091                            | \$0                                                                               |
| 2/25/1998                                                      | 0          | 0        | \$140,000                            | \$28,000                                                                          |
| 8/6/1980                                                       | 0          | 1        | \$138,158                            | \$0                                                                               |
| 8/22/1980                                                      | 0          | 0        | \$138,158                            | \$0                                                                               |
| 10/12/2001                                                     | 0          | 0        | \$129,630                            | \$0                                                                               |
| 3/12/2001                                                      | 0          | 0        | \$129,630                            | \$0                                                                               |
| 6/16/2002                                                      | 0          | 0        | \$126,506                            | \$0                                                                               |
| 6/26/2002                                                      | 0          | 0        | \$126,506                            | \$0                                                                               |
|                                                                |            |          |                                      | 11/14/2013                                                                        |

### 2.8.2. Windstorm Location

<sup>32</sup> Source: This table was produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina.

The following map shows the spatial distribution of major windstorm events, as a limited reflection of their spatial occurrence. Essentially, all locations within the planning area are equally susceptible to windstorm damage, and **therefore the location is classified as negligible**. (Ref. Table 6, noting isolated point occurrences.)



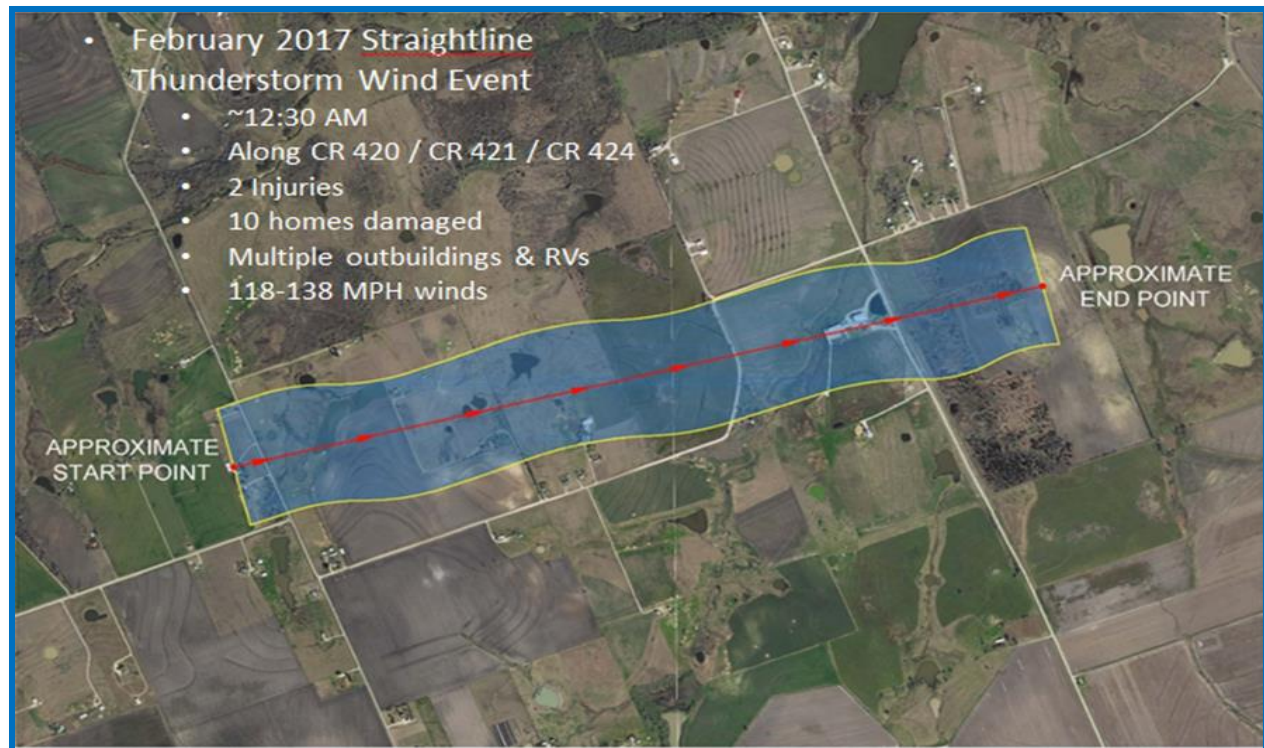
**Figure 24. Windstorm Event Location**

### 2.8.3. Windstorm Extent

Windstorms can be measured in terms of a Beaufort scale, although in the planning area, these events and their extent are discussed simply in terms of "miles per hour" recorded (up to 100 mph). In addition to the February 2017 tornados described above, a straight-line wind event occurred north of Thrall, as is summarized in the following figure<sup>33</sup>:

<sup>33</sup> NWS Corrected Public Information Statement (Austin/San Antonio) 1210 PM Tue Feb 21, 2017  
PRELIMINARY & Subject to change by NWS  
(<http://mesonet.agron.iastate.edu/wx/afos/p.php?pil=PNSEWX&e=201702211810>)





**Figure 25. February 2017 Wind Event**

**The extent is classified as moderate**, due to the fast speed of onset and extent of damage where habitable structures are affected (Ref. Table 7).

#### *2.8.4. Windstorm Probability*

**The probability of a windstorm occurrence is considered highly likely** (Ref. Table 8), as the annual chance recurrence is 128% (i.e., there will likely be more than one event per year).

#### *2.8.5. Windstorm Impact and Vulnerability*

**The impact of a windstorm occurrence is considered medium** (Ref. Table 9) despite the high likelihood of occurrence, because the impacts will be noticeable but generally not devastating. Windstorms produce flying debris and can damage structures and cause injury if precautions are not taken. The actual impact expected depends on the location and severity of the event, and the relative structural resilience of the structures in its path. The 2018 CHAMPS report estimates that severe winds have resulted in annualized losses of more than \$125,000 in Taylor in the period 1996-2016 and \$6,800 in Thrall. The following table represents the historical perspective of impact.<sup>34</sup>

<sup>34</sup> Source: This table was produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina



**Table 20. Severe Wind Frequency and Historical Losses (Williamson County)**

| Williamson County Severe Thunderstorm-<br>Wind Frequency & Historical Losses |             |                                    |                                   |  |
|------------------------------------------------------------------------------|-------------|------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|
| NUMBER OF<br>EVENTS                                                          | FATALITIES  | INJURIES                           | FREQUENCY:<br>RETURN PERIOD (YRS) | FREQUENCY:<br>ANNUAL CHANCE (%)                                                     |
| 68                                                                           | 1           | 16                                 | 0.78                              | 128                                                                                 |
| PROPERTY<br>DAMAGE                                                           | CROP DAMAGE | PROPERTY DAMAGE<br>(ADJUSTED 2012) | CROP DAMAGE<br>(ADJUSTED 2012)    | ANNUALIZED<br>DAMAGE<br>(2012 DOLLARS)                                              |
| \$13,795,859                                                                 | \$1,597,500 | \$33,161,571                       | \$4,080,744                       | \$702,685                                                                           |
|                                                                              |             |                                    |                                   | 11/2/2013                                                                           |

Portions of the communities of Taylor and Thrall which were built prior to 1980 are generally thought to be at higher risk of sustaining damage, due to the lack of required strapping. All of the critical facilities in Taylor and Thrall, as summarized in Tables 1 and 2 above, are vulnerable. However, there is no statistical evidence to sustain this theory at the present time. Lower Brushy Creek WCID does not have any infrastructure which would be subject to damage at this time.

The 2018 CHAMPS report offers a five year forecast of annualized damages (2019-2023) of approximately \$35,000 in Taylor and \$1,900 in Thrall.

#### *2.8.6. Problem Statement*

Given the likelihood of experiencing winds of up to at least 100 miles per hour, the following statements describe the problem the community faces moving forward. The entire community is susceptible, with an expected 128% annual chance of occurrence (i.e. more than once per year). Taylor and Thrall have higher concentrations of structures, many of which were constructed before the adoption of codes, which may be damaged. The LBCWCID does not have infrastructure or lives which may be directly at risk, although if future telemetry equipment is installed, it would be affected.

## 2.9. Hail

### 2.9.1. Hail History

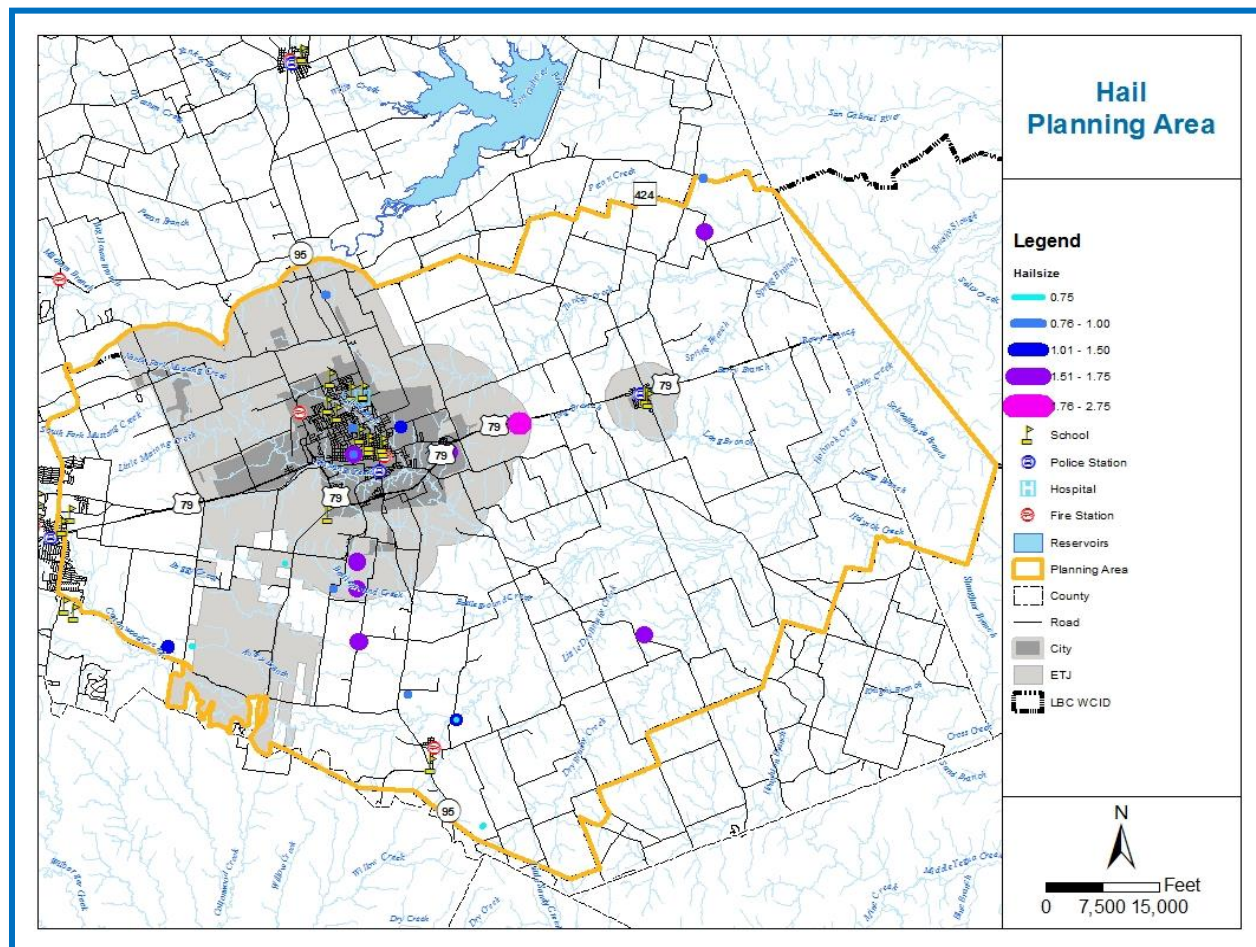
The following table describes hail history in Williamson County<sup>35</sup>, of which the planning area is a subset.

**Table 21. Hail Event History (Williamson County)**

| Williamson County<br>Top Hail Events Table |            |          |                                      |  |
|--------------------------------------------|------------|----------|--------------------------------------|------------------------------------------------------------------------------------|
| Date                                       | Fatalities | Injuries | Property<br>Damage<br>(2012 Dollars) | Crop<br>Damage<br>(2012 Dollars)                                                   |
| 5/23/1975                                  | 0          | 5        | \$2,625,000                          | \$262,500                                                                          |
| 5/8/1980                                   | 0          | 5        | \$1,381,579                          | \$1,381,579                                                                        |
| 5/16/1981                                  | 0          | 0        | \$1,250,000                          | \$1,250,000                                                                        |
| 4/19/1982                                  | 0          | 0        | \$1,193,182                          | \$119,318                                                                          |
| 3/12/1976                                  | 0          | 2        | \$1,009,615                          | \$100,962                                                                          |
| 3/12/1971                                  | 0          | 0        | \$690,789                            | \$0                                                                                |
| 10/18/1960                                 | 0          | 0        | \$375,000                            | \$0                                                                                |
| 5/20/2001                                  | 0          | 0        | \$259,259                            | \$0                                                                                |
| 5/25/1976                                  | 0          | 0        | \$201,923                            | \$2,019                                                                            |
| 5/24/1981                                  | 0          | 0        | \$187,500                            | \$125,000                                                                          |
| 3/3/1964                                   | 0          | 0        | \$187,500                            | \$0                                                                                |
| 4/7/1980                                   | 1          | 3        | \$138,158                            | \$138,158                                                                          |
| 5/7/1980                                   | 0          | 3        | \$138,158                            | \$1,381,579                                                                        |
| 6/4/1983                                   | 0          | 0        | \$114,130                            | \$0                                                                                |
| 5/1/2000                                   | 0          | 0        | \$106,329                            | \$199,367                                                                          |
| 3/30/1976                                  | 0          | 0        | \$33,654                             | \$3,365                                                                            |
| 5/17/1995                                  | 0          | 0        | \$30,000                             | \$75,000                                                                           |
| 10/17/1996                                 | 0          | 0        | \$21,875                             | \$0                                                                                |
| 4/24/1976                                  | 0          | 0        | \$20,192                             | \$0                                                                                |
| 4/14/1977                                  | 0          | 0        | \$18,750                             | \$18,750                                                                           |
|                                            |            |          |                                      | 11/14/2013                                                                         |

<sup>35</sup> Source: This table was produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina

There is some geospatial record of hail more specific to the planning area, which provides an insight into the size of hail reported. The hail history record from the CHAMPS reporting in 2018 was also reviewed again prior to this draft, and did not show additional events for the planning area. It is also likely that hail has occurred and was not reported as a major event to federal databases. Therefore, the record reflects through August 2018.



**Figure 26. Hail Location (by size, inch diameter)**

### 2.9.2. Hail Location

Hail does not occur predictably in certain areas more frequently than others, within the planning area. Therefore all areas are uniformly subject to the risk of hail. Those which are more densely populated, and therefore have more structures and property, are more likely to experience damage. For this reason, due to the limited single-point occurrences, the location of hail is considered **limited**. (Ref. Table 6)

### 2.9.3. Hail Extent

The extent of hail depends on the size of the hailstones, and based upon the history of hail in the planning area is considered for the purposes of this plan as **weak to moderate** (Ref. Table 7). The

historical information and local media reporting use “inch diameter” as the scale. Therefore, the Torro scale was not used for this plan, although it can be compared by the following table:

| Torro Hail Size Code | Diameter Range (mm) | Description                | Diameter Range (inches) |      | Typical Damage Impacts <sup>36</sup>                                                             |
|----------------------|---------------------|----------------------------|-------------------------|------|--------------------------------------------------------------------------------------------------|
| 0                    | 5-9                 | Pea                        | 0.20                    | 0.35 | No damage                                                                                        |
| 1                    | 10-15               | Mothball                   | 0.39                    | 0.59 | Slight general damage to plants, crops                                                           |
| 2                    | 16-20               | Marble, grape              | 0.63                    | 0.79 | Significant damage to fruit, crops, vegetation                                                   |
| 3                    | 21-30               | Walnut                     | 0.83                    | 1.18 | Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored  |
| 4                    | 31-40               | Pigeon's egg > squash ball | 1.22                    | 1.57 | Widespread glass damage, vehicle bodywork damage                                                 |
| 5                    | 41-50               | Golf ball > Pullet's egg   | 1.61                    | 1.97 | Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries              |
| 6                    | 51-60               | Hen's egg                  | 2.01                    | 2.36 | Bodywork of grounded aircraft dented, brick walls pitted                                         |
| 7                    | 61-75               | Tennis ball > cricket ball | 2.40                    | 2.95 | Severe roof damage, risk of serious injuries                                                     |
| 8                    | 76-90               | Large orange > Soft ball   | 2.99                    | 3.54 | (Severest recorded in the British Isles) Severe damage to aircraft bodywork                      |
| 9                    | 91-100              | Grapefruit                 | 3.58                    | 3.94 | Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open |
| 10                   | >100                | Melon                      | 4.00                    | +    | Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open |

**Table 22. Hail Extent Reference Table**

#### *2.9.4. Hail Probability*

The probability of a hail event occurring in any given year is 58%, based on the CHAMPS evaluation of the period of record. It is therefore considered **likely** (Ref. Table 8).

#### *2.9.5. Hail Impact and Vulnerability*

Hail has resulted in one fatality, 18 injuries, and an annualized damage of \$300,000 across Williamson County for the period of record (2013 CHAMPS reporting). According to the 2018

<sup>36</sup> <http://www.torro.org.uk/hscale.php>

CHAMPS report, hail has produced more than \$15,000 in annualized damages over the period 1996-2016, in Taylor and Thrall. Within the planning area as a whole, it is considered to have a **medium impact** (Ref. Table 9). Population centers, including all critical facilities (Ref. Tables 1 and 2 above), are considered the most vulnerable. The CHAMPS report forecasts future annualized damages of more than \$14,600 in Taylor and \$200 in Thrall for the period 2019-2023.

#### *2.9.6. Problem Statement*

Given the history of hail, these events (including experiencing stones up to 2.75" (TORRO 7)) can be expected into the future. The entire planning area is susceptible, though the most potential for property damage or injury is always within the more densely populated areas (Taylor and Thrall). LBCWCID does not have any facilities which are subject to hail damage, although if future telemetry equipment is installed, these facilities would be affected.



## 2.10. Drought

### 2.10.1. Drought History

The table below includes a list of the most significant drought events in Williamson County that occurred between 1960 and 2010.<sup>37</sup> These are listed in order of the reported property damage (adjusted to 2012 dollars). Drought is known to have set in at other times in the area's history, but understanding drought requires looking beyond a few points in history.

**Table 23. Drought History (Williamson County)**

| Williamson County<br>Top Drought Events Table |            |          |                                      |  |
|-----------------------------------------------|------------|----------|--------------------------------------|------------------------------------------------------------------------------------|
| Date                                          | Fatalities | Injuries | Property<br>Damage<br>(2012 Dollars) | Crop<br>Damage<br>(2012 Dollars)                                                   |
| 8/1/1996                                      | 0          | 0        | \$911,458                            | \$1,822,917                                                                        |
| 5/1/1996                                      | 0          | 0        | \$883,838                            | \$1,767,677                                                                        |
| 6/1/1996                                      | 0          | 0        | \$883,838                            | \$1,767,677                                                                        |
| 7/1/1996                                      | 0          | 0        | \$883,838                            | \$1,767,677                                                                        |
| 5/1/1977                                      | 0          | 0        | \$26,408                             | \$264,085                                                                          |
| 7/1/2009                                      | 0          | 0        | \$0                                  | \$3,403                                                                            |
| 8/1/2009                                      | 0          | 0        | \$0                                  | \$5,179                                                                            |
|                                               |            |          |                                      | 11/14/2013                                                                         |

### 2.10.2. Drought Location and Probability

Drought can occur anywhere in the State, and its location is **constantly changing and relative**. There are multiple indices used to classify drought. The Keetch-Byram Drought Index (KBDI) is an index used to determining forest fire potential. The drought index is based on a daily water balance, where a drought factor is balanced with precipitation and soil moisture (assumed to have a maximum storage capacity of 8-inches) and is expressed in hundredths of an inch of soil moisture depletion.

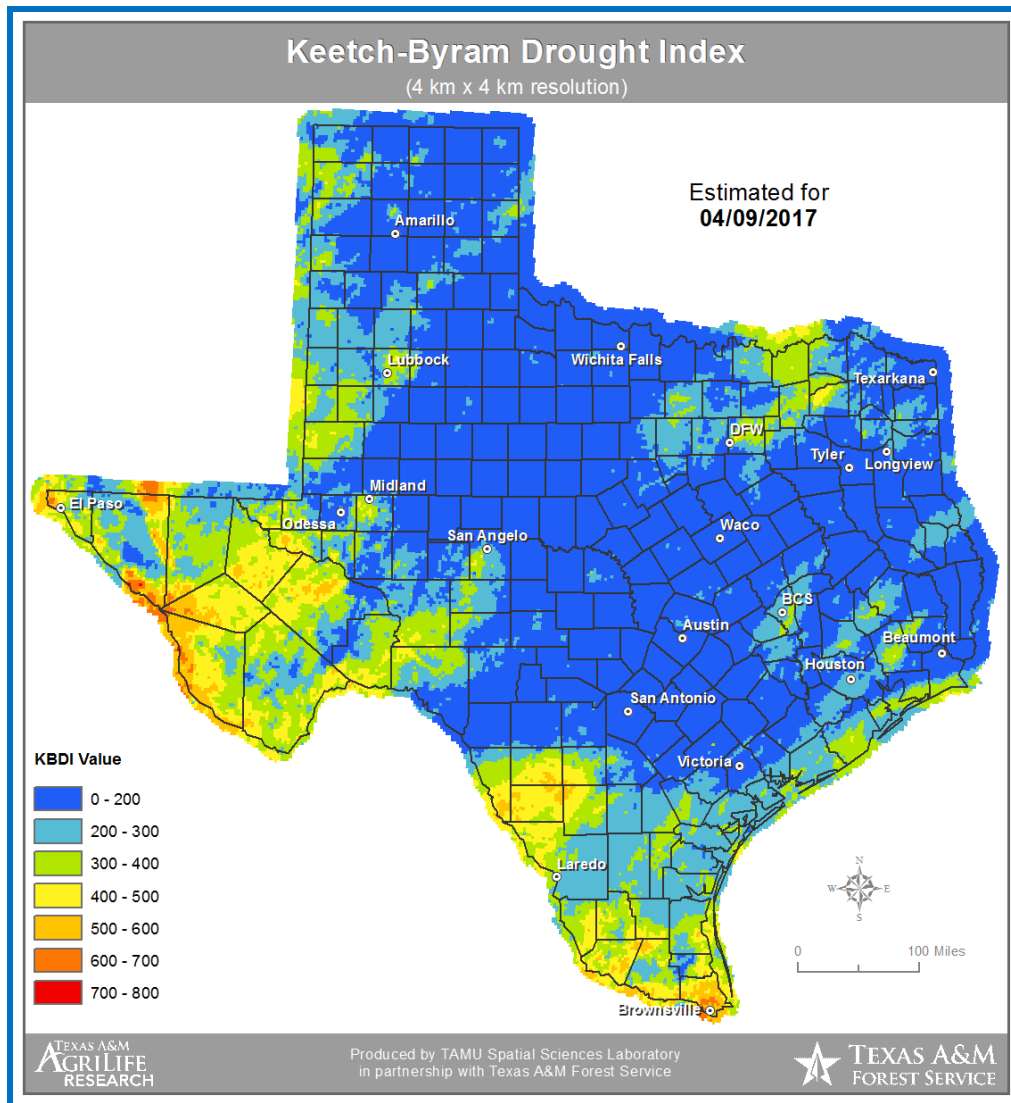
<sup>37</sup> Source: This table was produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina.

The drought index ranges from 0 to 800, where a drought index of 0 represents no moisture depletion, and an index of 800 represents absolutely dry conditions. Presently, this index is derived from ground-based estimates of temperature and precipitation derived from weather stations and interpolated manually by experts at the Texas Forest Service (TFS) for counties across the state. Researchers at Texas A&M University are working with the TFS to derive this index from AVHRR satellite data and NEXRAD radar rainfall within a GIS.<sup>38,39</sup> Since the Texas Forest Service is a critical partner in wildfire mitigation and response, the Keetch-Byram Index is utilized as a basis for determining risk. **Based on the historical record, the probability of drought is 13% in a given year for Williamson County**, which would be considered **likely** (Ref. Table 8). Based on the fact that it can occur anywhere in the planning area as a non-point event, the **location is considered extensive** (Ref. Table 6).

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<sup>38</sup> More information on the Keetch-Byram Index is available at [http://twc.tamu.edu/docs/TFS\\_KBDI\\_Update.pdf](http://twc.tamu.edu/docs/TFS_KBDI_Update.pdf)

<sup>39</sup> <http://sslarcims3.tamu.edu/KBDI/>



**Figure 27. Drought Location and Extent, Statewide, (Keetch-Byram Index, April 9, 2017)**

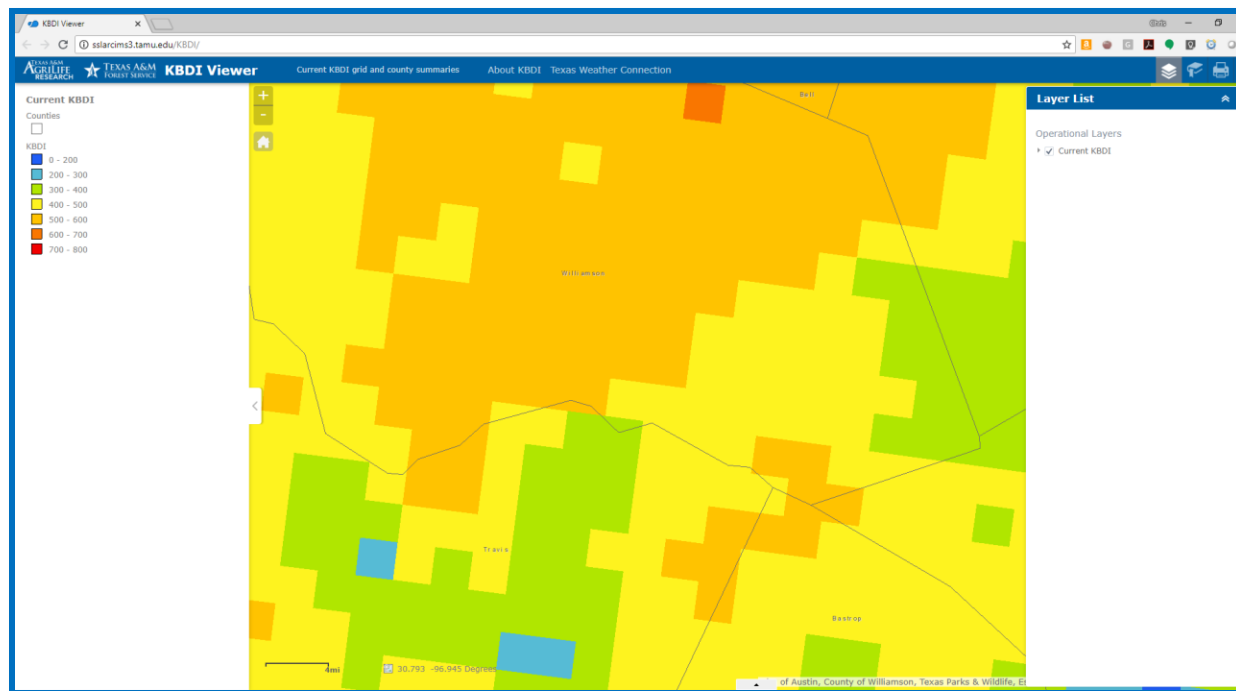


Figure 28. Drought Location and Extent, Planning Area (KBDI, June 2018).

### 2.10.3. Drought Extent

Historically, drought **extent** has ranged from **weak to severe** (Ref. Table 7), and is constantly changing with weather patterns. Such variability is expected into the future.

### 2.10.4. Drought Impact and Vulnerability

The impact of droughts recognized in the historical record has been equated to approximately \$207,000 in annualized damage within Williamson County, the most localized reporting data available (CHAMPS). The **impact** has historically been **low** (Ref. Table 9). Rural and elderly populations are most vulnerable to drought. Drought places on stress on water supplies and the ability to fight fires, if water supplies are impacted.

### 2.10.5. Problem Statement

The community expects continued drought events in its future, up to and including the top end of the Keetch-Byram Index. The entire planning area is susceptible, and water supplies are controlled by a few regional partners and an uncertain availability of groundwater. Taylor has the largest concentration of water users in the smallest area of land. Thrall has limitations to its water supply. LBCWCID stores water, though not in large enough quantities to reverse drought.

## 2.11. Extreme Heat

### 2.11.1. Extreme Heat History

There is very limited historical data about extreme heat in the planning area, though it is likely that extreme heat events have occurred in the past and not been recorded. The following table includes the two extreme heat events of record in Williamson County<sup>40</sup>.

**Table 24. Extreme Heat History (Williamson County)**

| Williamson County<br>Top Extreme Heat Events Table |            |          |                                   |  |
|----------------------------------------------------|------------|----------|-----------------------------------|------------------------------------------------------------------------------------|
| Date                                               | Fatalities | Injuries | Property Damage<br>(2012 Dollars) | Crop Damage<br>(2012 Dollars)                                                      |
| 7/1/1980                                           | 0          | 1        | \$14,698                          | \$1,469,765                                                                        |
| 7/25/2000                                          | 1          | 0        | \$0                               | \$0                                                                                |
|                                                    |            |          |                                   | 11/14/2013                                                                         |

Losses attributable to extreme heat and other relevant metrics are presented in the table below<sup>41</sup>:

**Table 25. Extreme Heat Frequency and Historical Losses (Williamson County)**

| Williamson County<br>Extreme Heat Frequency & Historical Losses |             |                                    |                                   |  |
|-----------------------------------------------------------------|-------------|------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------|
| NUMBER OF<br>EVENTS                                             | FATALITIES  | INJURIES                           | FREQUENCY:<br>RETURN PERIOD (YRS) | FREQUENCY:<br>ANNUAL CHANCE (%)                                                       |
| 2                                                               | 1           | 1                                  | 26.50                             | 4                                                                                     |
| PROPERTY<br>DAMAGE                                              | CROP DAMAGE | PROPERTY DAMAGE<br>(ADJUSTED 2012) | CROP DAMAGE<br>(ADJUSTED 2012)    | ANNUALIZED<br>DAMAGE<br>(2012 DOLLARS)                                                |
| \$5,319                                                         | \$531,915   | \$14,698                           | \$1,469,765                       | \$28,009                                                                              |
|                                                                 |             |                                    |                                   | 11/2/2013                                                                             |

<sup>40</sup> Source: This table was produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina.

<sup>41</sup> Source: This table was produced from data collected from several national sources, but primarily from NOAA's National Climatic Data Center (NCDC). The data used here is compiled and distributed by the Hazards and Vulnerability Research Institute [SHELDUS dataset v.9], University of South Carolina.



### 2.11.2. Extreme Heat Location

Extreme heat typically affects the entire planning area at one time, therefore **the location is considered extensive** (Ref. Table 6). The National Weather Service has characterized the summers in the Austin area as follows: *"Summers in Austin are long and hot. Normal highs reach 90 degrees by May 30th and remain above 90 until September 19th. Temperatures reach their peak in the first half of August, with normal highs in the upper 90s and lows in the mid-70s. The hottest temperature on record is 112 degrees, which was reached on September 5th, 2000 and again on August 28th, 2011. Normal summer overnight lows range from the low to mid 70s. Southeast winds transporting moisture from the Gulf of Mexico can increase humidity values, taking heat indices up above 110 degrees on occasion. The hottest summer on record occurred in 2011, in which there were 90 days with temperatures reaching or exceeding 100 degrees."*<sup>42</sup>

### 2.11.3. Extreme Heat Extent

The most dangerous aspect of extreme heat is when high relative humidity persists in concert with high air temperatures, and for this phenomenon the concept of heat index is employed, to describe the dangers associated with extreme heat.

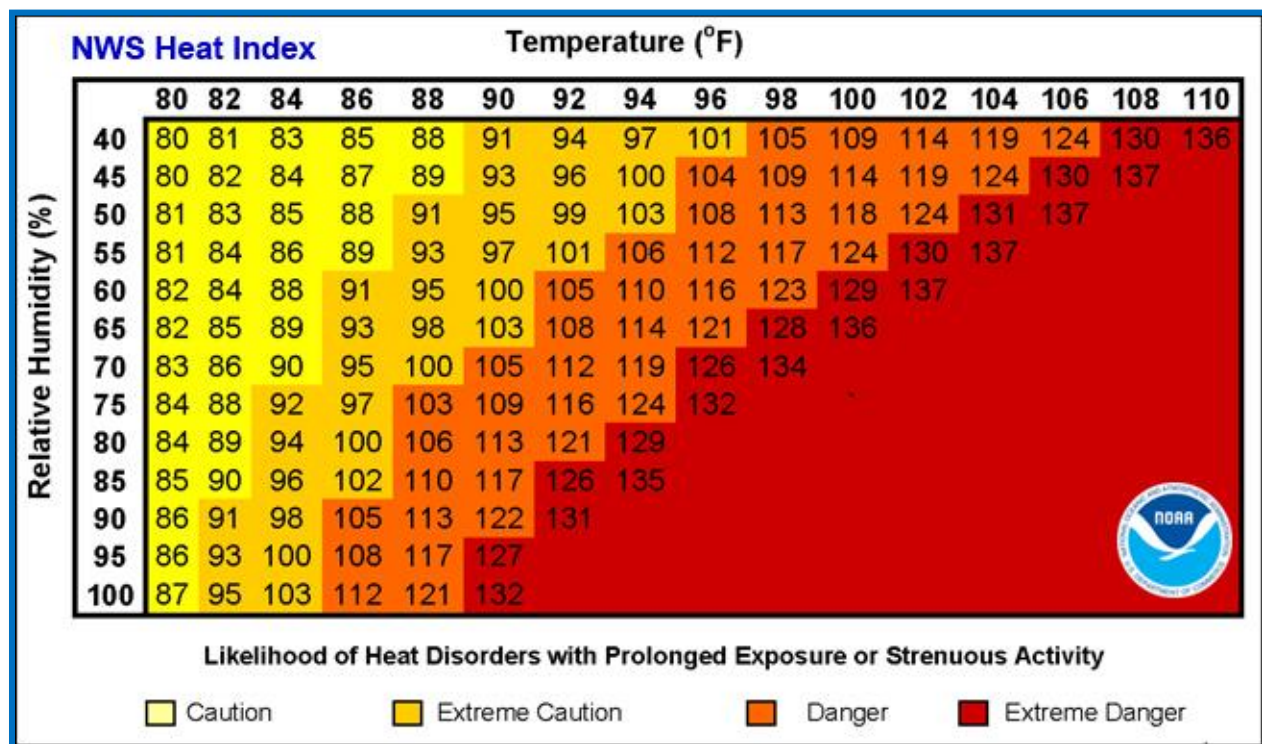


Figure 29. Heat index table (Source: NWS)

<sup>42</sup> <https://www.weather.gov/media/ewx/climate/ClimateSummary-ewx-Austin.pdf>

The **extent of extreme heat events** is generally thought to be **weak-moderate**, according to the classification criteria, **given the short duration and little damage** (Ref. Table 7). However, if the extreme heat extends to a large portion of the state, electricity demand to power cooling and refrigeration increases multifold, and the Electric Reliability Council of Texas (ERCOT), which monitors the distribution of electricity throughout the state grids, is located in Taylor and may be affected.

#### *2.11.4. Extreme Heat Probability*

Historically, the annual change of recurrence for extreme heat is 4%. This is considered **occasional** (Ref. Table 8).

#### *2.11.5. Extreme Heat Impact and Vulnerability*

The impact of extreme heat is borne primarily by residents, and particularly impacting to the young, elderly, and poor. Prolonged exposure can result in dehydration, heat exhaustion, and possibly heat stroke, which may be fatal. Physical damage in the communities can be to pavement and infrastructure, such as water and electricity, though this is not of a level which is beyond the repair and restoration capacities of the public utilities. Therefore, the impact is considered to be **medium** (Ref. Table 9).

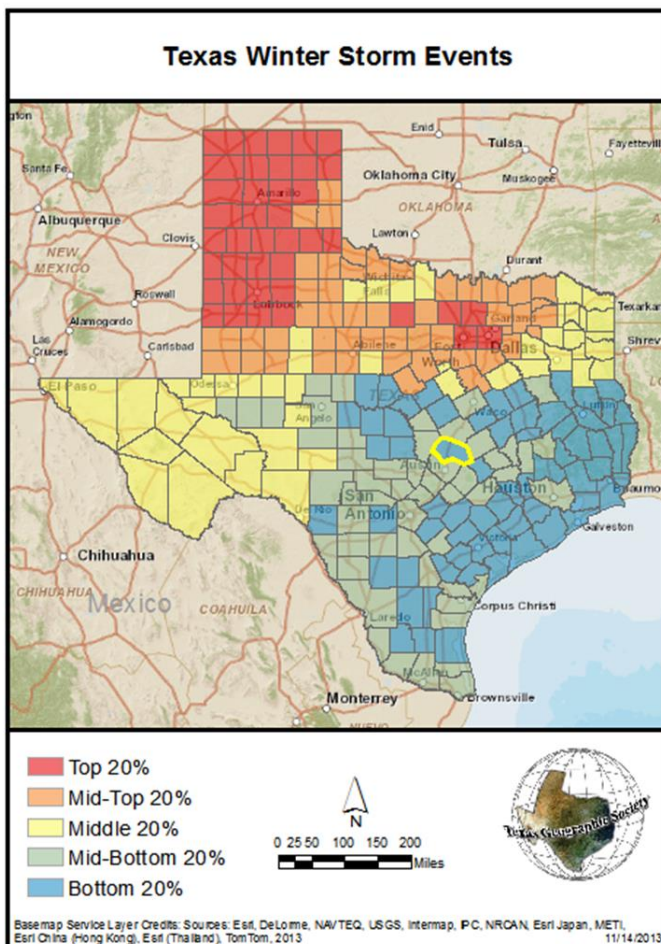
#### *2.11.6. Problem Statement*

The entire planning area will continue to be subject to extreme heat waves, including air temperatures as high as 110 degrees, and heat indices as high as 120 degrees. These heat waves disproportionately affect vulnerable populations, such as the young, elderly and poor. Taylor has the largest housing stock, which will be in need of weatherization in the future. Extreme heat does not affect LBCWCID, although it can exacerbate expansive soil concerns and the dam embankments.

## 2.12. Winter Storm

### 2.12.1. Winter Storm History

The map below displays the number of extreme winter storm events reported between 1960 and 2010 for all Texas Counties. Williamson County is ranked in the Bottom 20% of Texas counties, based on the 12 extreme winter storm events that have been reported over the period. The Committee assumed that data for Williamson County as a whole was representative of the planning area.



**Figure 30. Winter Storm Events by Percentile**

The table below includes a list of up to twenty of the most significant extreme winter storm events in Williamson County that occurred between 1960 and 2010. These are listed in order of the reported property damage (adjusted to 2012 dollars). This review was supplemented with a review of the NCEI Storm Events Database 1996 to 2017, which showed that there were no county-wide impacts from cold weather resulting in losses. The area experienced a cold snap in 2008, although this does not appear to have reflected losses in the NCEI datasets.

Table 26. Top Winter Storm Events (Williamson County)

| Williamson County<br>Top Winter Storm Events Table |            |          |                                      |  |
|----------------------------------------------------|------------|----------|--------------------------------------|------------------------------------------------------------------------------------|
| Date                                               | Fatalities | Injuries | Property<br>Damage<br>(2012 Dollars) | Crop<br>Damage<br>(2012 Dollars)                                                   |
| 1/9/1962                                           | 0          | 0        | \$147,642                            | \$147,642                                                                          |
| 2/1/1996                                           | 0          | 0        | \$115,132                            | \$3,838                                                                            |
| 1/10/1982                                          | 0          | 0        | \$74,574                             | \$74,574                                                                           |
| 1/11/1982                                          | 0          | 0        | \$74,574                             | \$0                                                                                |
| 1/15/2007                                          | 0          | 0        | \$72,267                             | \$0                                                                                |
| 2/4/1989                                           | 0          | 0        | \$10,467                             | \$10,467                                                                           |
| 1/8/1973                                           | 0          | 0        | \$10,335                             | \$1,033,465                                                                        |
| 12/10/1972                                         | 0          | 0        | \$1,088                              | \$0                                                                                |
| 3/29/1987                                          | 0          | 0        | \$0                                  | \$72,634                                                                           |
| 3/18/1980                                          | 0          | 0        | \$0                                  | \$14,698                                                                           |
| 4/14/1980                                          | 0          | 0        | \$0                                  | \$14,698                                                                           |
| 3/2/1980                                           | 0          | 0        | \$0                                  | \$146,976                                                                          |
|                                                    |            |          |                                      | 11/14/2013                                                                         |

### 2.12.2. Winter Storm Location

The entire planning area is equally subject to winter storms. There is no geographic distinction which would subject one area from another, within the overall planning area, to higher or lower risk of extended freezing temperatures and/or precipitation. Elevated highway overpasses (found on US 79 in Taylor) and some smaller bridge crossings on state and county roads are often subject to freezing conditions, which can result in vehicle collisions if the right combination of precipitation and cold are present. The location is therefore considered **extensive**. (Ref. Table 6).

### 2.12.3. Winter Storm Extent

The extent of a winter storm is a function of sustained temperatures below freezing, freezing precipitation, and winds. Information statements are issued by the National Weather Service: advisories, watches, warnings. The most severe storms are called blizzards. As described in Figure 28 above, the planning area is not subject to blizzards. Historically, the area is most affected by sustained temperatures below freezing, and the accumulation of ice on property and agricultural product. These events generally do not last more than several days. The **extent** is therefore considered **weak**, given the short duration of events historically. (Ref. Table 7). The region should continue to expect NWS advisories, watches, and warnings into the future.

#### 2.12.4. Winter Storm Probability, Impact and Vulnerability

The table below includes summary information of the historical winter storm events for Williamson between 1960 and 2010. It includes frequency and annualized damage (dollar loss) calculations.

**Table 27. Winter Storm Frequency and Historical Losses**

| Williamson County<br>Winter Storm Events Frequency & Historical Losses |             |                                    |                                   |  |
|------------------------------------------------------------------------|-------------|------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|
| NUMBER OF<br>EVENTS                                                    | FATALITIES  | INJURIES                           | FREQUENCY:<br>RETURN PERIOD (YRS) | FREQUENCY:<br>ANNUAL CHANCE (%)                                                     |
| 12                                                                     | 0           | 0                                  | 4.42                              | 23                                                                                  |
| PROPERTY<br>DAMAGE                                                     | CROP DAMAGE | PROPERTY DAMAGE<br>(ADJUSTED 2012) | CROP DAMAGE<br>(ADJUSTED 2012)    | ANNUALIZED<br>DAMAGE<br>(2012 DOLLARS)                                              |
| \$234,366                                                              | \$355,900   | \$506,079                          | \$1,518,992                       | \$38,209                                                                            |
|                                                                        |             |                                    |                                   | 11/2/2013                                                                           |

This summary shows that there is a nearly one-in-four chance of occurrence in any given year, which can be considered **"likely"** (Ref. Table 8).

This information also suggests that crop damage is a significant portion of damages experienced. In a winter storm event, damages are dependent on the combination of precipitation and the timing and duration of freezing temperatures. Impacts may be icing of streets, power lines, trees, sidewalks – which can bring about accidents, physical injuries and loss of power. If power is lost due to ice accumulation, the most vulnerable residents are often adversely affected because their heating source may be lost. This includes the elderly and poor. **The impact is generally understood to be low**, due to the historically expected, short durations of these events. (Ref. Table 9)

#### 2.12.5. Problem Statement

Looking forward to mitigation, the entire planning area is subject to severe winter storms as experienced in the past, though the duration of these events is short. The City of Taylor has several overpasses which are susceptible to icing in a severe winter storm event. The City of Thrall has some vulnerable populations which may be susceptible in a winter storm. The LBCWCID does not have facilities which are at risk in a severe winter storm.



## 2.13. Lightning

### 2.13.1. Historical Lightning Information

The map below displays the number of lightning events reported between 1960 and 2010 for all Texas Counties. Williamson County is ranked in the Mid-Top 20% of Texas counties, based on the 7 lightning events that have been reported over the period. An additional lightning event was indicated in 2015, according to a review of the NCEI Storm Events Database which summarized through 2017. The Committee reviewed this information and determined that it appropriately reflected the risk present in the planning area.

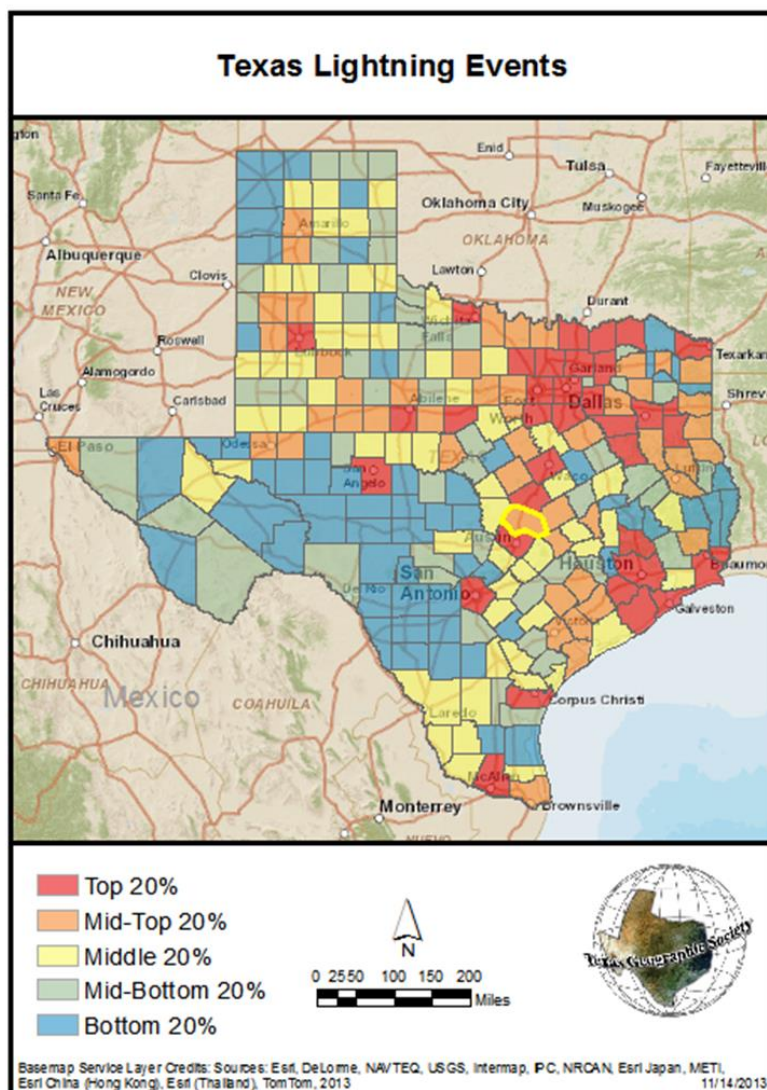


Figure 31. Lightning Events by Percentile (Williamson County, mid-top 20%)

### 2.13.2. Lightning Location

All portions of the planning area are equally subject to lightning strikes, and is therefore considered **extensive**. (Ref. Table 6). Towers, structures which are taller than the surrounding area are more susceptible to strikes than low-lying areas. Lightning moves from areas of high static charge to negative charge and is conducted through water vapor, metal, and live trees, for example.

### 2.13.3. Lightning Extent

When lightning strikes, it may cause instant damage to buildings, trees, towers, and electrical infrastructure. A lightning strike may contain as much as 5 billion joules of energy. The amount of energy depends on many factors, including the total charge differential and the thickness of the plasma channel. At that amount of energy being discharged, however, the exact amount of energy discharge is not important – it can be fatal and cause instant damage.

The lightning activity level (LAL) is a common parameter<sup>43</sup> that is part of fire weather forecasts nationwide. LAL is a measure of the amount of lightning activity using values 1 to 6 where:

**Table 28. Lightning Activity Level Description**

| LAL | Cloud & Storm Development                                                                                                                                                                                                                                     | Lightning Strikes/15 min |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 1   | No thunderstorms.                                                                                                                                                                                                                                             | -                        |
| 2   | Cumulus clouds are common but only a few reach the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly virga, but light rain will occasionally reach the ground. Lightning is very infrequent. | 1-8                      |
| 3   | Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation area. Light to moderate rain will reach the ground, and lightning is infrequent.                                           | 9-15                     |
| 4   | Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common and lightning is frequent.                                                            | 16-25                    |
| 5   | Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent and intense.                                                                         | >25                      |
| 6   | Similar to LAL 3 except thunderstorms are dry.                                                                                                                                                                                                                |                          |

<sup>43</sup> <http://www.prh.noaa.gov/hnl/pages/LAL.php>

Thus, the extent can vary, but LAL scale values of 5 are not uncommon. Therefore, **the extent is described as severe** (per Table 7).

The table below includes a list of up to twenty of the most significant lightning events in Williamson County that occurred between 1960 and 2010. These are listed in order of the reported property damage (adjusted to 2012 dollars).

**Table 29. Lightning Events by Impact (Williamson County).**

| Williamson County<br>Top Lightning Events Table |            |          |                                      |  |
|-------------------------------------------------|------------|----------|--------------------------------------|-------------------------------------------------------------------------------------|
| Date                                            | Fatalities | Injuries | Property<br>Damage<br>(2012 Dollars) | Crop<br>Damage<br>(2012 Dollars)                                                    |
| 9/19/1980                                       | 0          | 0        | \$138,158                            | \$0                                                                                 |
| 4/17/2008                                       | 0          | 0        | \$31,818                             | \$0                                                                                 |
| 5/28/1979                                       | 0          | 0        | \$15,909                             | \$0                                                                                 |
| 6/14/1981                                       | 0          | 0        | \$12,500                             | \$0                                                                                 |
| 5/14/2008                                       | 0          | 0        | \$5,303                              | \$0                                                                                 |
| 10/6/1981                                       | 0          | 0        | \$1,250                              | \$0                                                                                 |
| 7/19/1998                                       | 1          | 0        | \$0                                  | \$0                                                                                 |
|                                                 |            |          |                                      | 11/14/2013                                                                          |

The table below includes summary information of the historical lightning events for Williamson County between 1960 and 2010. It includes frequency and annualized damage (dollar loss) calculations.

**Table 30. Lightning Event Frequency and Losses (Williamson County)**

| Williamson County Lightning Event<br>Frequency & Historical Losses |             |                                    |                                   |  |
|--------------------------------------------------------------------|-------------|------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|
| NUMBER OF<br>EVENTS                                                | FATALITIES  | INJURIES                           | FREQUENCY:<br>RETURN PERIOD (YRS) | FREQUENCY:<br>ANNUAL CHANCE (%)                                                     |
| 7                                                                  | 1           | 0                                  | 7.57                              | 13                                                                                  |
| PROPERTY<br>DAMAGE                                                 | CROP DAMAGE | PROPERTY DAMAGE<br>(ADJUSTED 2012) | CROP DAMAGE<br>(ADJUSTED 2012)    | ANNUALIZED<br>DAMAGE<br>(2012 DOLLARS)                                              |
| \$95,500                                                           | \$0         | \$204,938                          | \$0                               | \$3,867                                                                             |
|                                                                    |             |                                    |                                   | 11/2/2013                                                                           |

#### *2.13.4. Lightning Probability & Vulnerability*

While the risk of lightning strike causing death is very small, relative to the population, lightning causing property damage is an expected event in the planning area. The **probability** (annual chance frequency of 13%) is therefore considered **likely** (ref. Table 8). The committee agreed that this figure of 13% underrepresents the true occurrence of lightning, as it is experienced to some level at least once per year. The committee discussed that the 13% figure most likely refers to recorded events which have produced significant damage.

There is risk of injury or death where people are outdoors in open spaces during a thunderstorm event which produces lightning. This hazard can be effectively mitigated. In a neighboring community in 2014, a child was struck by lightning during an open athletic event, and eventually died as a result of that event.

All of the critical facilities in Taylor and Thrall, as summarized in Tables 1 and 2 above, are vulnerable to lightning.

#### *2.13.5. Impact of Lightning*

**The impact of a strong lightning event is considered high**, (Ref. Table 9), due to its likely occurrence, with severe strength over a significant to extensive portion of the planning area. Additionally, lightning is a concern as an ignition source for wildfires, and for the potential to interrupt emergency management communications.

For the period 1996-2016, the 2018 CHAMPS report estimates that lightning has resulted in approximately \$1,600 in annualized damages in Taylor and \$25 in Thrall. Looking forward, the communities of Taylor and Thrall combined could expect less than \$500 per year in annualized damages over the period of 2019-2023, per the 2018 CHAMPS reporting.

#### *2.13.6. Problem Statement*

The entire planning area is subject to lightning up to and including LAL 5, multiple times per year, though the most densely settled are most susceptible to damage, injury, or loss of life. Taylor is the most densely populated area and has the most infrastructure susceptible to lightning damage or injury. Thrall also has public and private infrastructure susceptible to lightning damage. Lightning does not affect existing LBCWCID facilities, although if future telemetry equipment is installed, it would be affected. Advanced warning of this hazard will be key to mitigation.



## 2.14. Wildfire

A wildfire is any outdoor fire that is not controlled, supervised, or arranged. Wildfire probability depends on local weather conditions and topographic factors; outdoor activities such as camping, debris burning, and construction; and the degree of public cooperation with fire prevention measures. Wildfires can result in widespread damage to property and loss of life. Lightning can cause, and drought and extreme heat can induce, wildfire events.

### *2.14.1. Wildfire History*

Significant Texas wildfire seasons occurred in the following years<sup>44</sup>:

- 1996: 2,808 wildfires burned 226,575 acres \*
- 1998: 2,793 wildfires burned 197,571 acres \*
- 2000: 2,758 wildfires burned 211,939 acres \*
- 2006: 23,198 wildfires burned 2 million acres and destroyed 413 homes
- 2008: 20,482 wildfires burned 1.6 million acres and destroyed 256 homes
- 2009: 17,488 wildfires burned 726,502 acres and destroyed 436 homes
- 2011: 31,453 wildfires burned 4 million acres and destroyed 2,947 homes

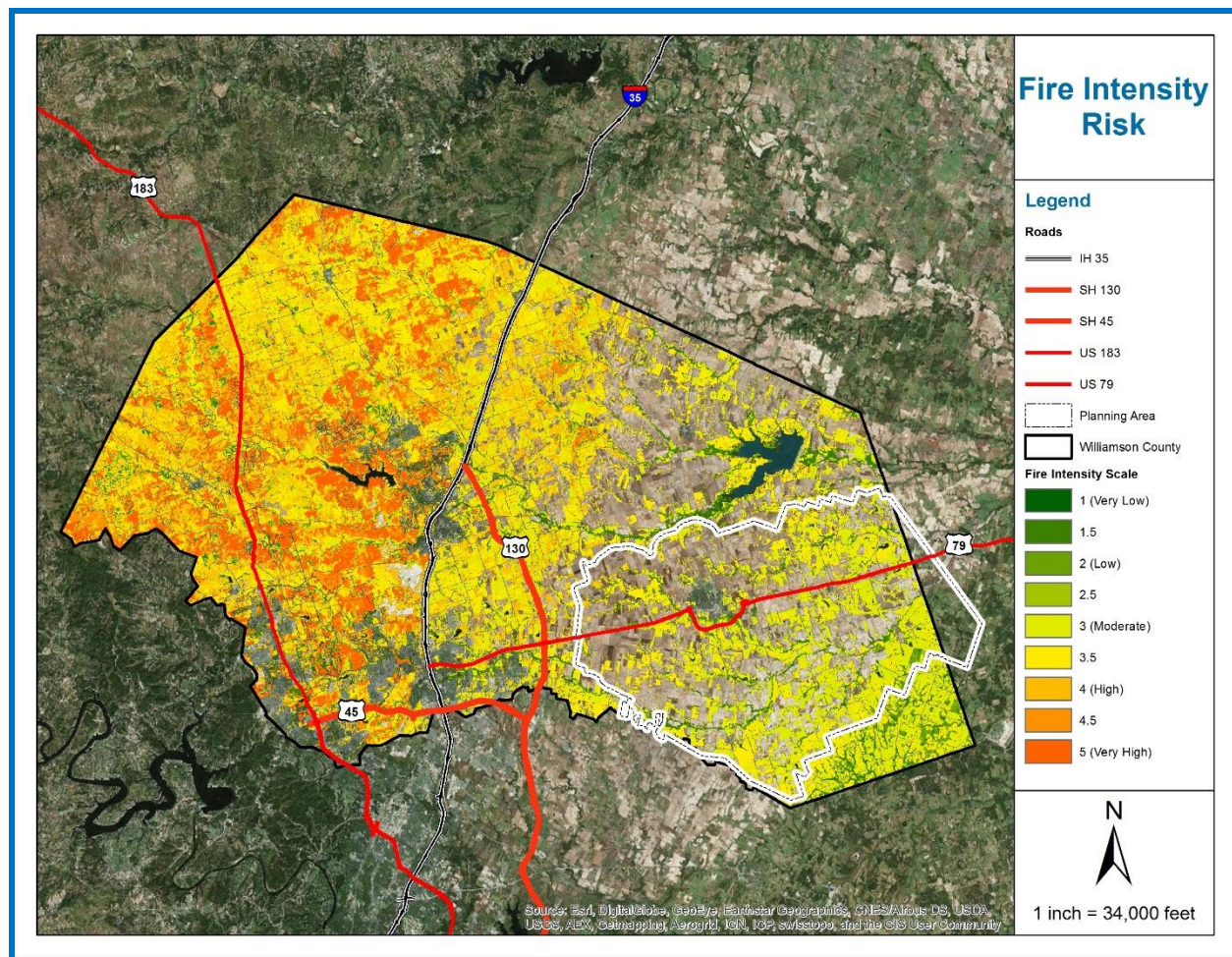
In Williamson County, there were significant wildfire events in 2008 and 2011. As this draft of the report is underway, the Thrall emergency responders are working brush fires in the area.

### *2.14.2. Wildfire Location*

The risk of wildfire is not uniform within Williamson County, as it is largely a function of the density/availability of fuels, moisture, and the proximity of ignition sources. For example, the fire risk in western Williamson County (Leander, Cedar Park) is much greater due to the density of ashe juniper and topography. The fire risk parameters are monitored via the Texas Wildfire Risk Assessment Project. However, due to the uniformity of the blackland prairie and larger areas of cultivation, the location of wildfire is generally uniform within the planning area. For this reason, the profile for wildfire risk is the same for both Taylor and Thrall, and for the LBCWCID. This is subject to change, however, and is carefully monitored by emergency management officials. Generally speaking, the **location** of the hazard could be considered **extensive**, since it is potentially possible across 100% of the planning area (Ref. Table 6).

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<sup>44</sup> [http://tfsweb.tamu.edu/uploadedFiles/FRP/New\\_-\\_Mitigation/Safety\\_Tips/2011%20Texas%20Wildfires.pdf](http://tfsweb.tamu.edu/uploadedFiles/FRP/New_-_Mitigation/Safety_Tips/2011%20Texas%20Wildfires.pdf)



**Figure 32. Fire Intensity**

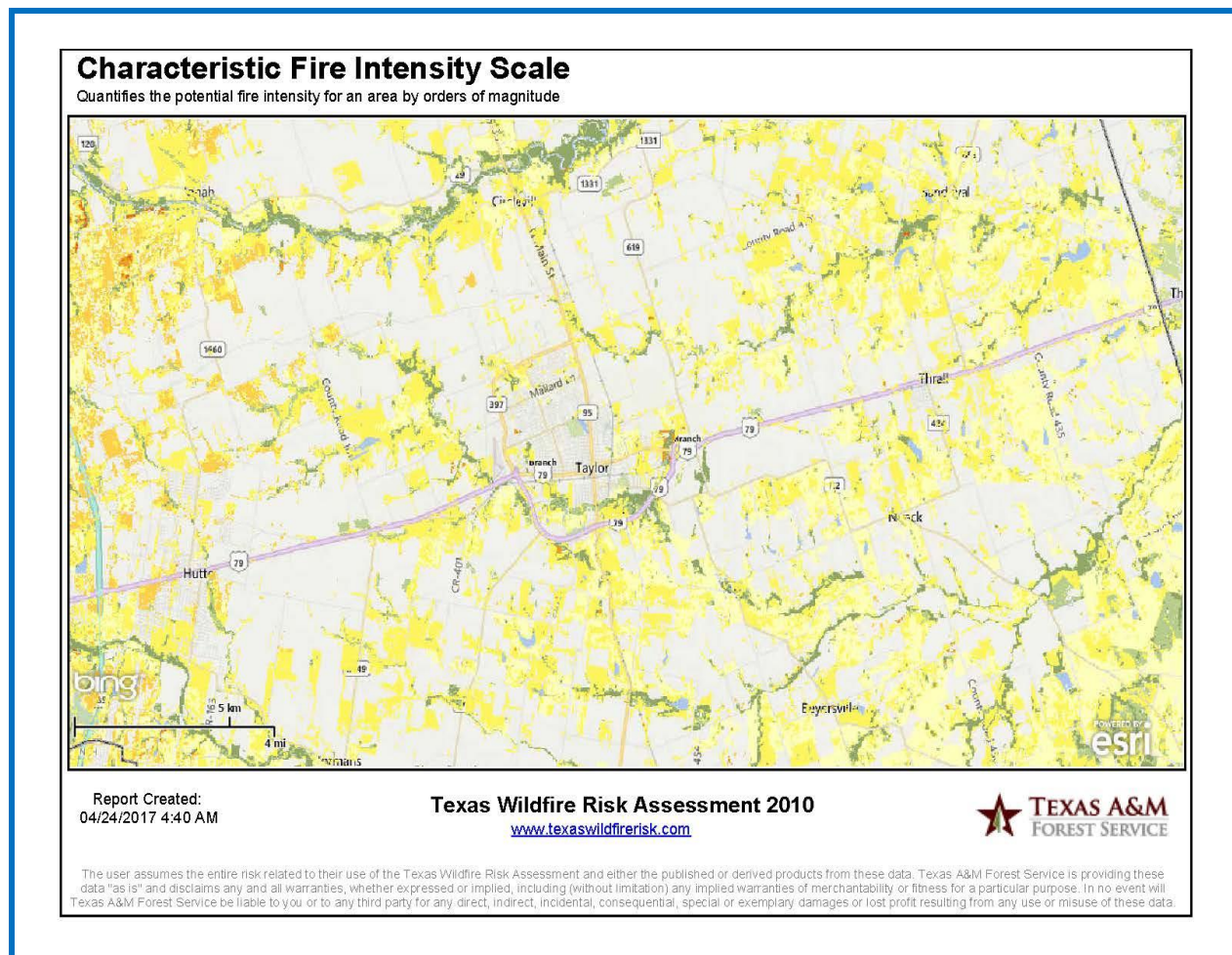
#### 2.14.3. Wildfire Extent

The **extent** of the wildfire is considered **severe**, given the potential for a fast speed of onset, and the potential for devastation (Ref. Table 7). As wildfire risk is closely related to drought (a key distinction being the presence of fuels), the Keetch-Byram Index is also an indicator of fire risk. The Texas A&M University Forest Service produces a dynamic conditions map known as the Characteristic Fire Intensity Scale, which utilizes Geographic Information Systems and remote sensing data to relate a scale of wildfire risk, from 1 through 5. It is possible for the planning area to experience high levels, although there is generally not the presence of high intensity fuels in the planning area as seen on the Balcones Escarpment to the west.

#### 2.14.4. Wildfire Probability

Given the limited historical information recorded, it is not possible to determine a numeric probability within a reasonable level of confidence. However, it is generally thought to be a **likely-highly likely** event due to the presence of fuels of sufficient density, and with growth around the wildland-urban interface, increasing sources of ignition (Ref. Table 8).





**Figure 33. Texas Wildfire Risk Assessment map, April 2017.**

#### *2.14.5. Wildfire Impact and Vulnerability*

The **impact** of fire is potentially extreme, **high**, and catastrophic (Ref. Table 9). Although many safeguards are in place in the planning area, and directly within the communities of Taylor and Thrall, the potential exists for severe impact. MEI's estimate of the potential property value at risk is 10% of the improvement value within the planning area, or \$137,000,000. Taylor has more limited area of its city limits at risk. In Thrall, there is slightly more area at risk. All of the critical facilities in Taylor and Thrall, as summarized in Tables 1 and 2 above, are vulnerable. LBCWCID does not have infrastructure which is at direct risk, although there is concern about fire destroying vegetation on the embankments which serve to stabilize the soil structure.

The 2018 CHAMPS report estimates that in Taylor, nearly \$85,000 of annualized loss has occurred over the 12-year base period.<sup>45</sup> In Thrall, the CHAMPS report estimates approximately \$4,700 in annualized loss for this same period. The 2018 CHAMPS reporting provides a forecast of nearly

<sup>45</sup> The period 1994-2016 is assumed here. The CHAMPS reporting indicates a 12-year base period, but does not specify what years.

\$45,000 annually in Taylor and nearly \$2,500 annually in Thrall, for the period 2019-2023. The ERCOT center, in the City of Taylor's ETJ, is a critical piece of regional electric infrastructure. However, these conditions are constantly changing, and thus for practical planning purposes the entire planning area should be considered at equal risk.

#### *2.14.6. Problem Statement*

The community expects to see continued wildfires into the future, up to and including a Level 4 on the Characteristic Fire Intensity Scale. The planning area is very reliant upon the City of Taylor capabilities, and those of Williamson County to address wildfire risk. However, generally, the risk is not as high as in the western portions of the county. Taylor, which has a full-time paid fire department, has access to equipment. However, there is a growing area at the rural fringe, which has less infrastructure. Thrall must rely upon its regional partners, although Thrall PD routinely is first response to calls. LBCWCID does not have infrastructure which is at direct risk, although there is concern about fire destroying vegetation on the embankments which serve to stabilize the soil structure.

## 2.15. Expansive Soils

Expansive soils are a known hazard in the planning area. The most common means of quantifying the relative “expansiveness” of soil used in engineering contexts (and consequently in decisions about locating and constructing critical infrastructure and buildings) is the “plasticity index”, or simply PI.<sup>46</sup>

### *2.15.1. Expansive Soils History*

The Blackland prairie ecological regime is - pardon the pun – grounded in the expansive nature of this prairie soil. The first settlers of the area left copious accounts of the soils being thick and shrinking and swelling. There are no official local records kept of expansive soil damages with either city, the WCID, or the county. Therefore, with respect to previous occurrences, there is simply a data deficiency. Given the anecdotal experience with Blackland clay and the agricultural roots of the community, it is widely understood that expansive soils have been here for millenia, and have created difficulty in shaping the built environment for centuries.

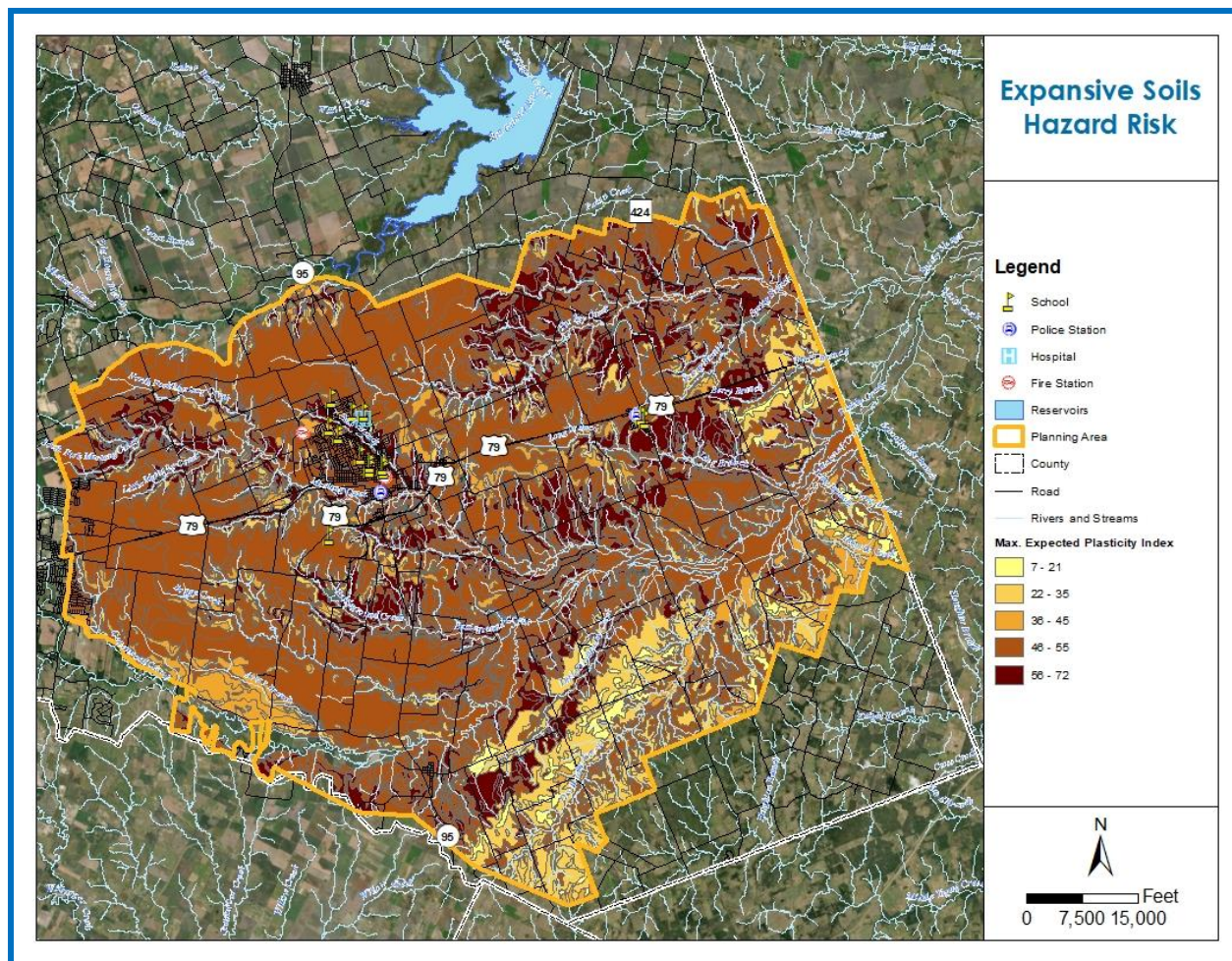
### *2.15.2. Expansive Soils Location*

The following map was prepared from National Resource Conservation Service soil map data, first developed in the 1930s, demonstrating the relative location of soils which are prone to shrink and swell (darker color corresponds to higher plasticity index). This map confirms the local experience, i.e. with the exception of negligible pockets, the entire planning area contains highly expansive soil. **Thus, the location of expansive soils is considered extensive** (Ref. Table 6).

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<sup>46</sup> The range in water content over which soil material is plastic. The value is the difference between the liquid limit and plastic limit of thoroughly puddled soil material that has passed a number 40 sieve (0.43 mm). The plastic limit is the water content at the boundary between the plastic and semisolid states. Values are typically placed in interpretive classes.





**Figure 34. Expansive Soils Map**

### *2.15.3. Expansive Soils Extent*

**The extent of expansive soil damage can be classified as moderate - high** (Ref. Table 7), due to the broad presence of high shrink-swell soils (Plasticity Index range of 40+) as characterized by soil scientists<sup>47</sup> (Ref. Figure 32) and the potential disruption to building foundations and critical infrastructure, such as pipe infrastructure and roads. Construction is usually not undertaken without some sort of site-specific mitigative measure, such as importation of low PI material or excavation to more stable layers.

### *2.15.4. Expansive Soils Probability*

There is a 95% chance that expansive soils will be encountered in the planning area, which means that it is **highly likely to impact human activity** if not mitigated (Ref. Table 8).

<sup>47</sup> ASTM D4829-11 Standard Test Method for Expansion Index of Soils

#### *2.15.5. Expansive Soils Impact and Vulnerability*

**The impact is considered high** (Ref. Table 9) not simply from the immediate point of occurrence effects, but due to the secondary effects, such as disruption of infrastructure, and due to the significant extent of the hazard. This means that vulnerable populations, who may in fact be residing in structures with foundations which are unaffected, may be affected due to the secondary systems which serve them, such as water lines and roads. Additionally, the critical facilities in Taylor and Thrall (described in Tables 1 and 2 above), are potentially vulnerable. It is known, for example, that the Police Department in Taylor is affected by expansive soil issues. The LBCWCID dams, and all critical facilities in the planning area, are and should be monitored into the future for expansive soil movement.

#### *2.15.6. Problem Statement*

More than 90% of the planning area is faced with expansive soils, and will continue to be into the future. Taylor and Thrall can apply this knowledge to all new construction. LBCWCID must continue to monitor its dam facilities for signs of expansion/contraction.



## 2.16. Train Derailment

### 2.16.1. Train Derailment History

The planning area is bisected in both directions (east-west, north-south) by lines of the Union Pacific. There is a switch yard at Taylor, and the railroad has been an important component of the city's history. There is not a single data source available to review train derailment history within the community, although as it was discussed in committee meetings, there were two incidences within the last two years according to local emergency management personnel.

### 2.16.2. Train Derailment Location

As the communities grew around the railroad infrastructure, the lines are part of the fabric of the communities. A derailment thus has the potential to cause disruption or even major damage, simply due to its proximity to properties within the communities, transportation, and commerce.

The figures below show the properties located within 500 feet of the railroad lines (orange) and within one half mile of the lines. The **location** is considered to be **limited** (Ref. Table 6).

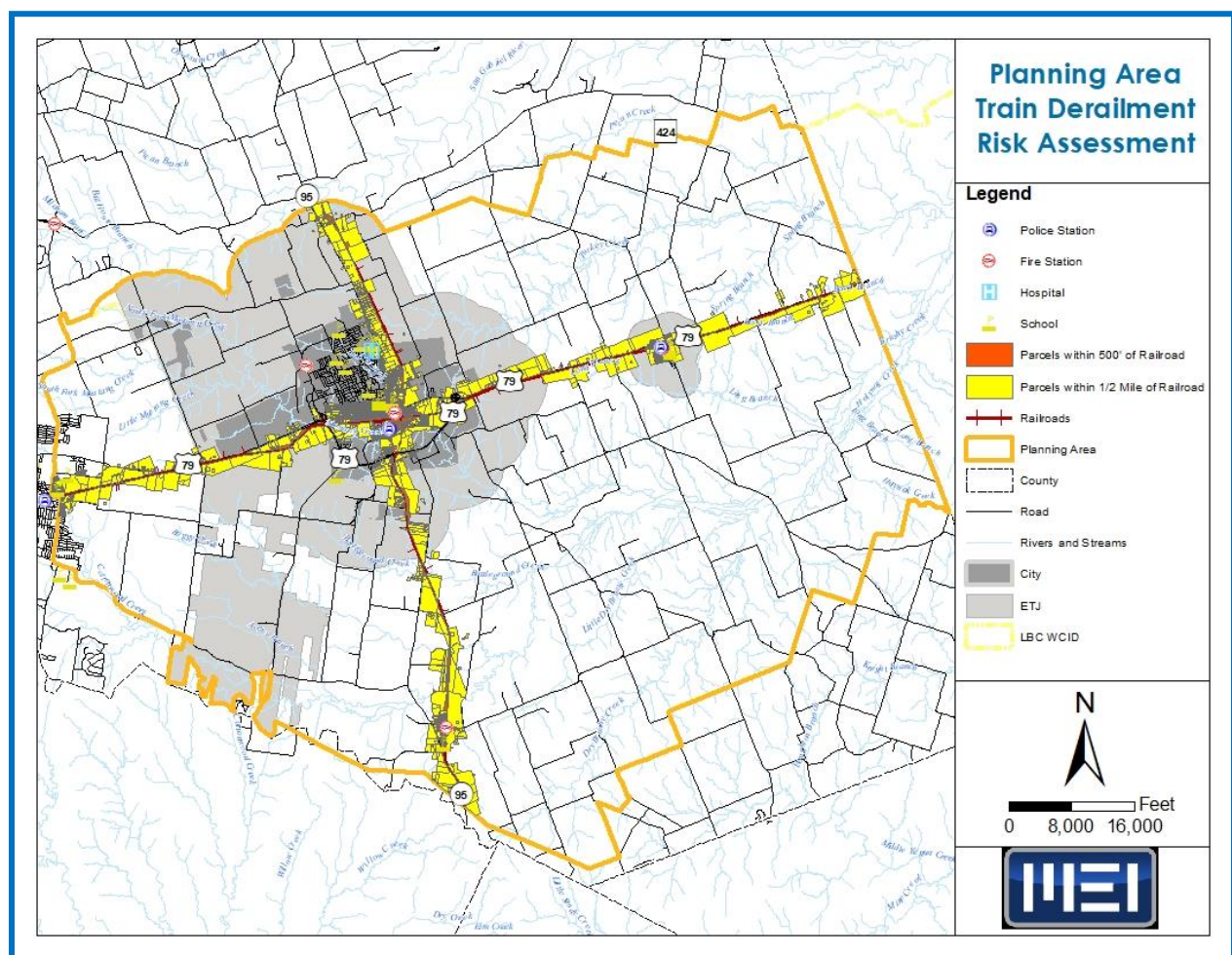
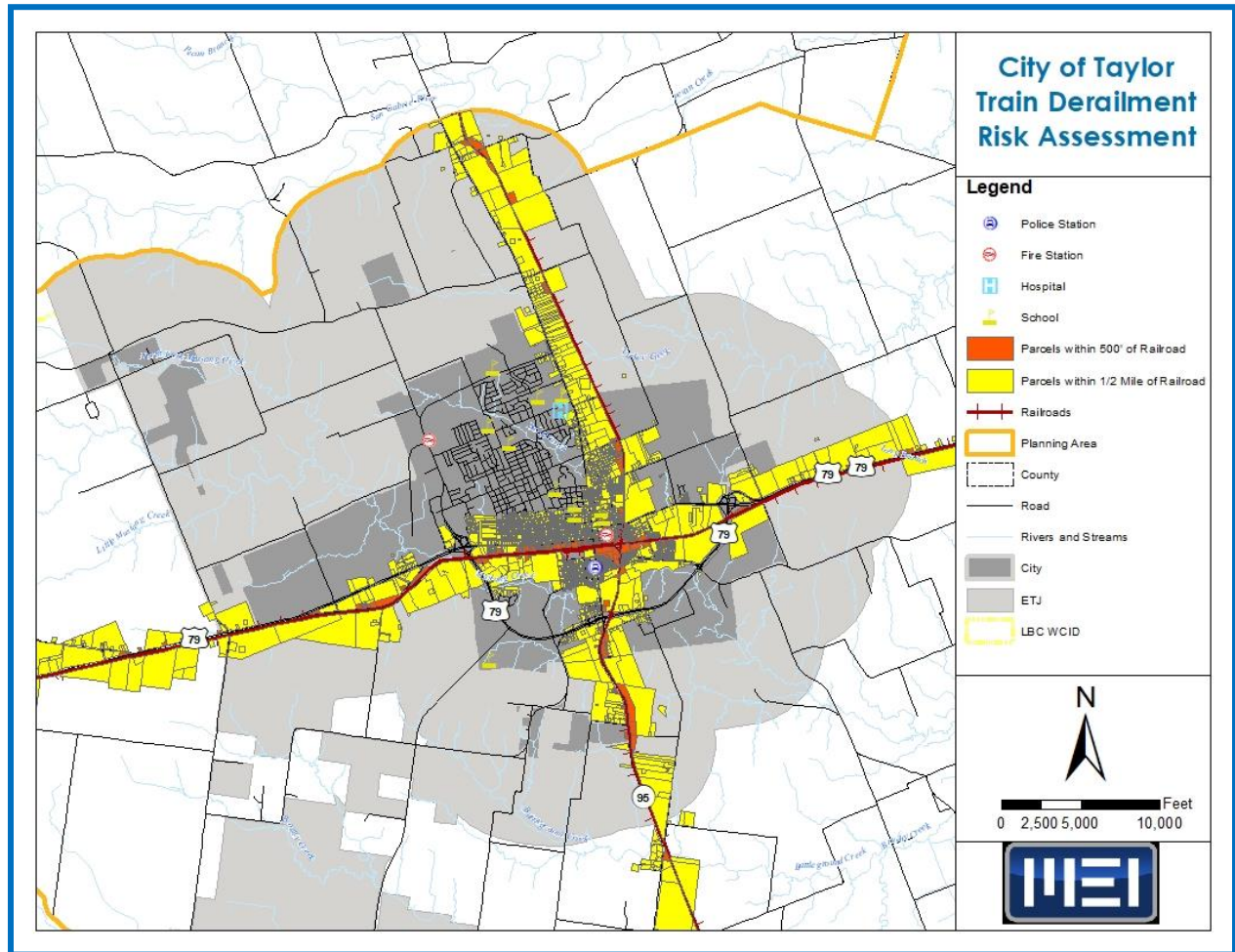


Figure 35. Train Derailment Vulnerabilities, Planning Area

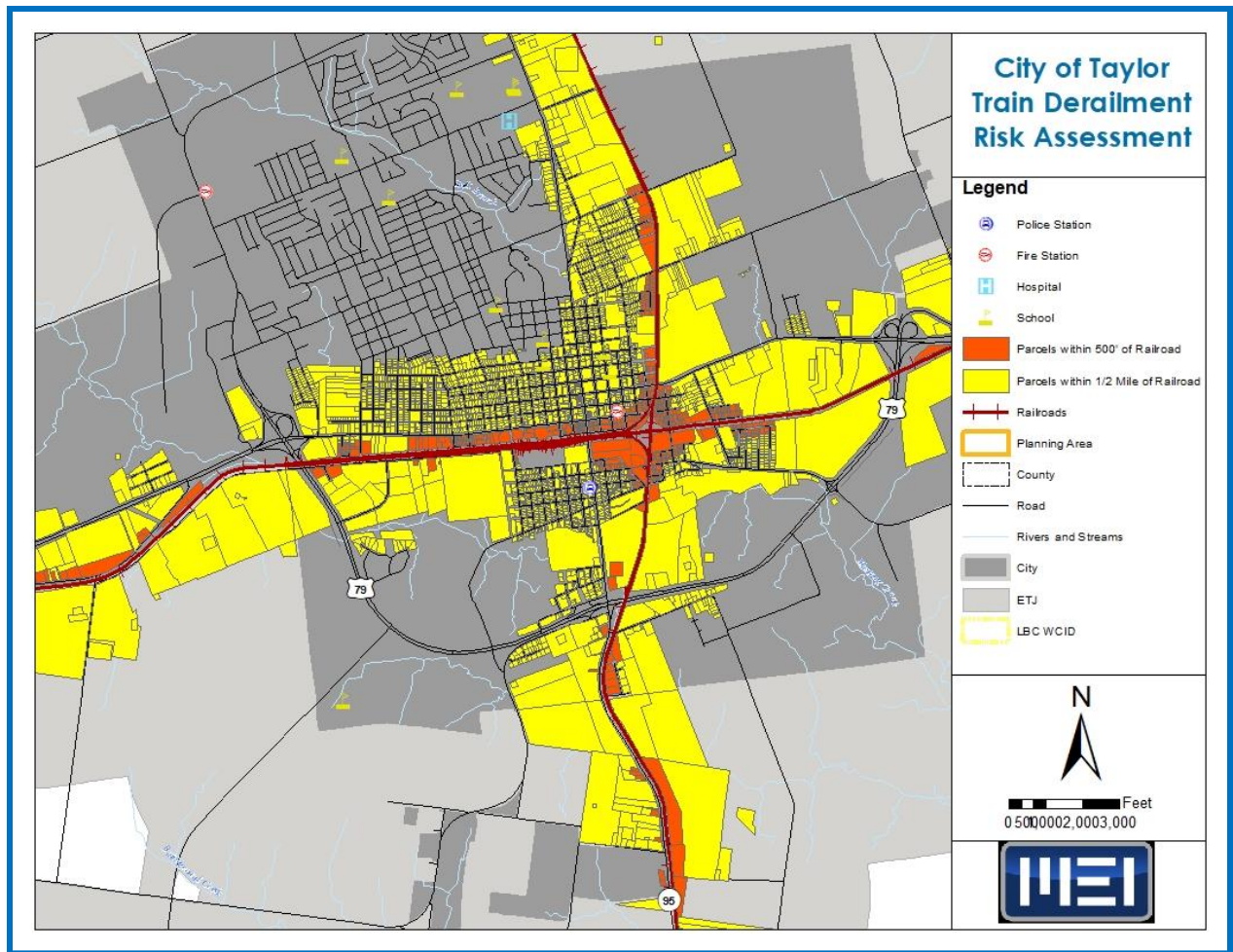
Given the switch yard in Taylor and the size of the community, it is more at risk in terms of the geographic area affected than Thrall, or the planning area as a whole.



**Figure 36. Train Derailment Vulnerability, City of Taylor**

A more detailed view of Taylor's downtown indicates the potential for impact to a densely occupied area.

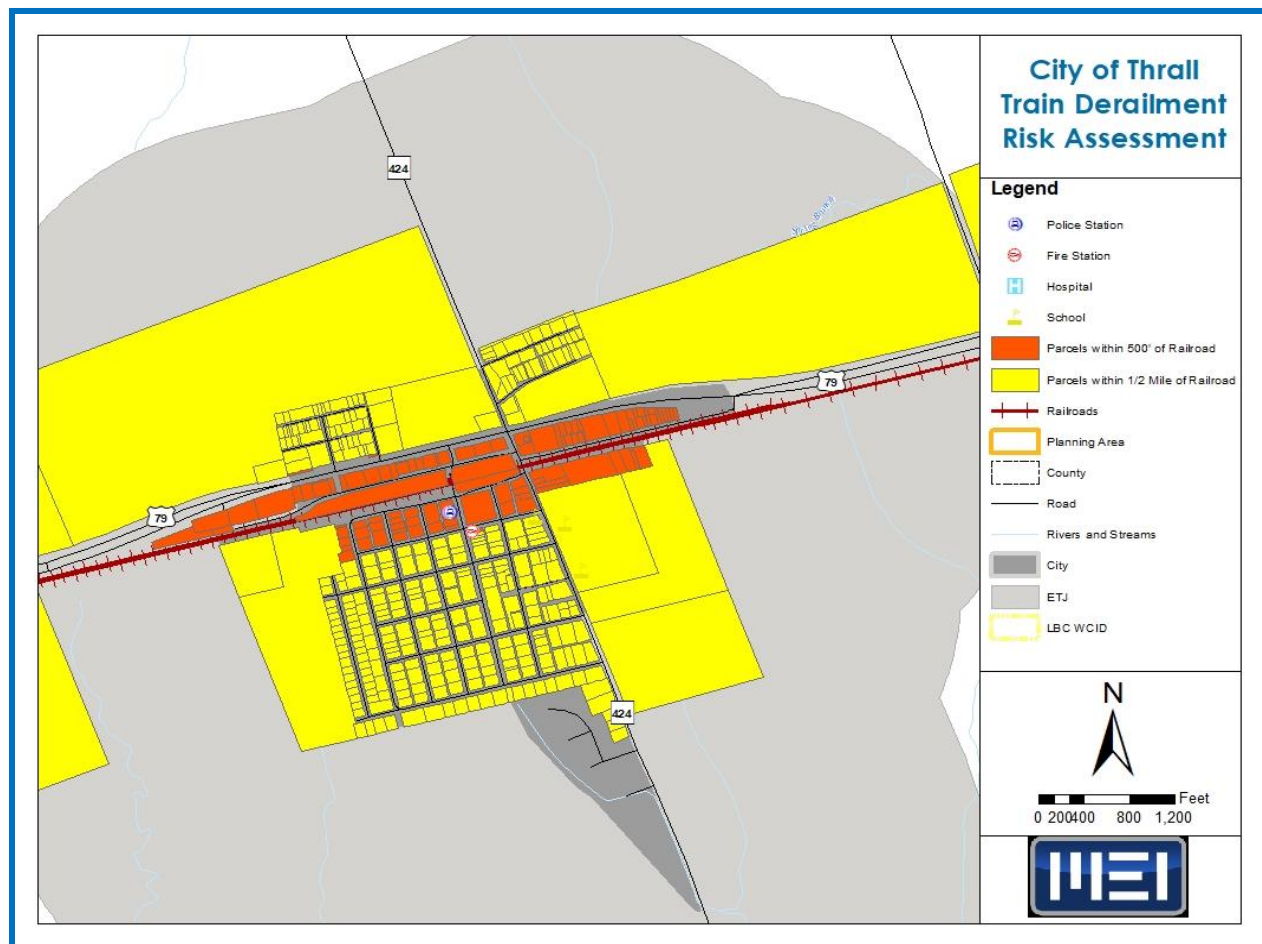




**Figure 37. Train Derailment Vulnerability, City of Taylor, Detail**

In Thrall, the most densely developed portions of the community are within one-half mile of the railroad line, as can be seen in the next figure.





**Figure 38. Train Derailment Vulnerability, City of Thrall**

### *2.16.3. Train Derailment Extent*

The **extent** of a train derailment event depends on the nature of the specific incident, considering variables such as speed, presence of other vehicles, and loads (e.g. chemical loads). However, it is generally thought by the committee to be **severe**, due to the fast speed of onset and the potential for devastating damage and loss of services for extended periods of time (Ref. Table 7).

### *2.16.4. Train Derailment Probability*

The Union Pacific Railroad is a proactive agent in mitigating the risk of derailment, but the nature of this risk is very complex. The committee noted that Union Pacific have always been responsive and effective in their response to an event. During the planning process, a derailment occurred as a result of a windstorm, for example. Other derailments have been the result of switching equipment issues, and collisions at at-grade crossings, for example. Although a reliable statistical recurrence cannot be determined from the lack of historical record available, the **probability of future events is considered likely**, given the occurrences within the last two years of recent memory. (Ref. Table 8).

### 2.16.5. Train Derailment Impact and Vulnerability

The impact of a train derailment depends to a great extent upon the specific incident, and the specific location, cargo, accessibility, time of day, weather factors, etc.. Generally, based upon past events, however, the **impacts are considered medium**. (Ref. Table 9).

To understand the potential impact and vulnerability, however, a GIS analysis of population and property-at-risk was performed and is summarized in the following table:

**Table 31. Impact and Vulnerability of Train Derailment**

| <b>Location</b>                   | <b>Est. Population Affected<sup>48</sup></b> | <b>Property-at-Risk<sup>49</sup></b> | <b>Critical Facilities at Risk</b>                |
|-----------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------|
| Thrall, within 500' of railroad   | 200                                          | \$3,200,000                          | Police Department                                 |
| Thrall, within ½ mile of railroad | 1,000                                        | \$13,000,000                         | Police Department/VFW Hall                        |
| Taylor, within 500' of railroad   | 750                                          | \$23,000,000                         | Fire Station                                      |
| Taylor, within ½ mile of railroad | 5,800                                        | \$120,000,000                        | Fire Station, Police Station, Two Private Schools |
| Planning Area                     | 16,000                                       | \$35,000,000 - \$380,000,000         | As listed above                                   |

### 2.16.6. Problem Statement

The railroad has been a part of the history of the communities of Taylor and Thrall for more than a century, and is expected to continue as part of the interregional infrastructure. With that will always come the risk of events.

<sup>48</sup> Source: 2010 Census Block Group data, prorated by area intersection, rounded up.

<sup>49</sup> Source: 2017 Williamson County Appraisal District improvement value data, by intersection, rounded up.

## 2.17. Hazard Summary

The following table summarizes the overall risk to the planning area.

**Table 32. Hazard Summary for the Planning Area**

| <b>Hazard</b>              | <b>Location</b> | <b>Maximum Extent</b> | <b>Probability</b> | <b>Overall Significance Rating</b> |
|----------------------------|-----------------|-----------------------|--------------------|------------------------------------|
| <b>Dam/Levee Failure</b>   | Limited         | Severe                | Unlikely           | Medium                             |
| <b>Wildfire</b>            | Extensive       | Moderate              | Highly Likely      | High                               |
| <b>Floods</b>              | Limited         | Moderate              | Likely             | Medium                             |
| <b>Tornado</b>             | Extensive       | Weak-Moderate         | Likely             | High                               |
| <b>Drought</b>             | Extensive       | Weak-Severe           | Likely             | Low                                |
| <b>Expansive Soils</b>     | Extensive       | Moderate              | Highly Likely      | High                               |
| <b>Extreme Heat</b>        | Extensive       | Weak                  | Occasional         | Medium                             |
| <b>Hail</b>                | Limited         | Weak-Moderate         | Likely             | Medium                             |
| <b>Severe Winter Storm</b> | Extensive       | Weak                  | Likely             | Low                                |
| <b>Windstorms</b>          | Negligible      | Moderate              | Highly Likely      | Medium                             |
| <b>Lightning</b>           | Extensive       | Severe                | Likely             | Low                                |
| <b>Train Derailment</b>    | Limited         | Severe                | Likely             | Medium                             |

The following table summarizes the overall risk to the City of Taylor.

**Table 33. Hazard Summary for the City of Taylor**

| <b>Hazard</b>              | <b>Location</b> | <b>Maximum Extent</b> | <b>Probability</b> | <b>Overall Significance Rating</b> |
|----------------------------|-----------------|-----------------------|--------------------|------------------------------------|
| <b>Dam/Levee Failure</b>   | Limited         | Severe                | Unlikely           | Medium                             |
| <b>Wildfire</b>            | Limited         | Moderate              | Likely             | Medium                             |
| <b>Floods</b>              | Limited         | Severe                | Likely             | Medium                             |
| <b>Tornado</b>             | Extensive       | Weak-Moderate         | Likely             | High                               |
| <b>Drought</b>             | Extensive       | Weak-Severe           | Likely             | Low                                |
| <b>Expansive Soils</b>     | Extensive       | Moderate              | Highly Likely      | High                               |
| <b>Extreme Heat</b>        | Extensive       | Weak                  | Occasional         | Medium                             |
| <b>Hail</b>                | Limited         | Weak-Moderate         | Likely             | Medium                             |
| <b>Severe Winter Storm</b> | Extensive       | Weak                  | Likely             | Low                                |
| <b>Windstorms</b>          | Negligible      | Moderate              | Likely             | Medium                             |
| <b>Lightning</b>           | Extensive       | Severe                | Likely             | Low                                |
| <b>Train Derailment</b>    | Extensive       | Severe                | Likely             | Medium                             |

The following table summarizes the overall risk to the City of Thrall.

**Table 34. Hazard Summary for the City of Thrall**

| <b>Hazard</b>              | <b>Location</b> | <b>Maximum Extent</b> | <b>Probability</b> | <b>Overall Significance Rating</b> |
|----------------------------|-----------------|-----------------------|--------------------|------------------------------------|
| <b>Dam/Levee Failure</b>   | Limited         | Severe                | Unlikely           | Medium                             |
| <b>Wildfire</b>            | Extensive       | Weak-Moderate         | Likely             | Medium                             |
| <b>Floods</b>              | Limited         | Severe                | Likely             | Medium                             |
| <b>Tornado</b>             | Extensive       | Weak-Moderate         | Likely             | High                               |
| <b>Drought</b>             | Extensive       | Weak-Severe           | Likely             | Low                                |
| <b>Expansive Soils</b>     | Extensive       | Moderate              | Highly Likely      | High                               |
| <b>Extreme Heat</b>        | Extensive       | Weak                  | Occasional         | Medium                             |
| <b>Hail</b>                | Limited         | Weak-Moderate         | Likely             | Medium                             |
| <b>Severe Winter Storm</b> | Extensive       | Weak                  | Likely             | Low                                |
| <b>Windstorms</b>          | Negligible      | Moderate              | Likely             | Medium                             |
| <b>Lightning</b>           | Extensive       | Severe                | Likely             | Low                                |
| <b>Train Derailment</b>    | Extensive       | Severe                | Likely             | Medium                             |

### 3. Mitigation Strategy

#### 3.1. State of Texas Mitigation Goals

The following goals have been established in the State Hazard Mitigation Plan:

**Goal 1** Reduce or eliminate hazardous conditions that may cause loss of life

**Goal 2** Reduce or eliminate hazardous conditions that may inflict injuries

**Goal 3** Reduce or eliminate hazardous conditions that can cause property damages

**Goal 4** Reduce or eliminate hazardous conditions that degrade important natural Resources

**Goal 5** Reduce or eliminate repetitive losses due to frequent probability of occurrence

**Goal 6** Lessen economic impact within communities when hazards occur

#### 3.2. Community Mitigation Goals

Consistent with the State Mitigation Goals, the following goals have been established by the Committee for the Taylor-Thrall-LBCWCID Planning Area.

**Goal 1:** Reduce community exposure to hazardous conditions which may cause injury or loss of life.

**Goal 2:** Reduce community exposure to hazardous conditions which may cause property damages.

**Goal 3:** Reduce community exposure to repetitive losses due to frequent events, especially for vulnerable populations.

**Goal 4:** Promote individual responsibility and proactive mitigation through the timely dissemination of facts about hazards.

**Goal 5:** Promote a well-coordinated regional emergency management response in recognition of the fact that hazards do not respect jurisdictional boundaries.

**Goal 6:** Respect and protect natural systems



### 3.2.1. City of Taylor Comprehensive Plan Integration

Three specific objectives of the City of Taylor's Comprehensive Plan are particularly applicable and have been integrated into the mitigation action planning, and these are noted in the Mitigation Action Summaries for the City of Taylor. These are:

**Table 35. Integration of Taylor Comprehensive Plan Objectives**

| <b>2004 Comprehensive Plan Objective</b> | <b>Description</b>                                                                                                                                                                              |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Objective H1</b>                      | Stabilize neighborhoods with sound, but aging housing through requiring and assisting in the rehabilitation of substandard housing and the demolition of dilapidated housing throughout Taylor. |
| <b>Objective L4</b>                      | Preserve and enhance Downtown and Downtown Neighborhoods character and economic investment                                                                                                      |
| <b>Objective HH4</b>                     | Work with local organizations and providers to support services to meet food, clothing, shelter, transportation and other basic material needs.                                                 |

### 3.3. Problem Statements by Community and Hazard

The mitigation actions are intended to address problems relative to each hazard in the community. The following statements guide the mitigation actions.

**Table 36. Problem Statements**

| <b>Hazard</b>            | <b>Planning Area Problem Statement</b>                                                                                                                                                                                    | <b>Taylor Problem Statement</b>                                                                                                                                                                           | <b>Thrall Problem Statement</b>                                                                                                                                        | <b>LBCWCID Problem Statement</b>                                                                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dam/Levee Failure</b> | There are several high and significant hazard classification damsites in the planning area which present a risk of damage to property and critical infrastructure, and potentially lives, if no mitigation is undertaken. | Dam site #25 is a significant hazard classification, and lies upstream of critical regional infrastructure. A high hazard class dam (Site #29) threatens roadways and private property in the City's ETJ. | Dam site #18 is a significant hazard classification and lies upstream of the City's sewer plant. A breach would cause significant long-term concerns if not addressed. | The District has 3 high hazard and 2 significant hazard damsites in its service area, but LBCWCID does not have a revenue source to address long-term maintenance. |
| <b>Wildfire</b>          | The planning area is reliant upon City of Taylor capabilities and Williamson                                                                                                                                              | Taylor is served by a full, paid fire department with access to equipment.                                                                                                                                | Thrall is a small community with development at the rural fringe. Thrall relies upon                                                                                   | LBCWCID does not have infrastructure which is at direct risk of wildfire damage, but would be                                                                      |

|                |                                                                                                                                                                                       |                                                                                                                                                                                                                                                      |                                                                                                                           |                                                                                                                                                                                                                                    |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | County capabilities to address wildfire risk. However, the wildfire risk is not as high as in western parts of Williamson County.                                                     | However, much of the area at risk is in the rural fringe, which has less infrastructure.                                                                                                                                                             | regional partners and all community resources.                                                                            | concerned about fire destabilizing embankments. LBCWCID could offer small sources of water for fire fighting.                                                                                                                      |
| <b>Floods</b>  | The Planning Area is subject to frequent flooding. Older areas of settlement are at higher risk. New development is well-regulated, but there are still gaps in detailed information. | Taylor's floodplains are well regulated in outward areas of the city, but legacy problems exist in the oldest parts of the city. The Mustang Creek watershed is in a critical, growing area of the city but is not understood in engineering detail. | The floodplains in Thrall are Zone A mapped, which means that little detail is known, and no base flood elevations exist. | The effect of dam storage on the floodplains is not fully understood in engineering detail. Current impoundment capacity is not known. LBCWCID does not administer the NFIP, although it does play a role in the risk of flooding. |
| <b>Tornado</b> | The entire planning area is susceptible to a tornado event. Community shelters and warning technology are available but may not reach all of the population.                          | Taylor has some warning technology, but it may not reach as much of the population as needed.                                                                                                                                                        | Thrall has no tornado-proof community shelter and existing warning technology may not reach all of the population.        | The District does not have infrastructure or lives which may directly be at risk.                                                                                                                                                  |
| <b>Drought</b> | The entire planning area is susceptible to drought, and water supplies are controlled by a few regional partners and an uncertain groundwater availability.                           | Taylor has the largest concentration of water users in the smallest area of land.                                                                                                                                                                    | Thrall has limitations to its water supply.                                                                               | LBCWCID by definition stores water, though not in large enough quantities to reverse drought.                                                                                                                                      |

|                            |                                                                                                                          |                                                                                                                                               |                                                                                                                                       |                                                                                                                                   |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Expansive Soils</b>     | Almost all of the planning area is susceptible to expansive soils.                                                       | Taylor can apply its knowledge of the risk to all new construction.                                                                           | Thrall can apply its knowledge of the risk to all new construction. However, there are several existing facilities which need repair. | LBCWCID must monitor its facilities for signs of expansion/contraction.                                                           |
| <b>Extreme Heat</b>        | The entire planning area is subject to extreme heat waves. These disproportionately affect vulnerable populations.       | Taylor has the largest housing stock which will be in need of weatherization. Extreme heat disproportionately affects vulnerable populations. | Extreme heat disproportionately affects vulnerable populations.                                                                       | Extreme heat does not affect the LBCWCID facilities though it can exacerbate expansive soil concerns.                             |
| <b>Hail</b>                | The entire planning area is subject to hail, though the most densely settled areas are most susceptible to damage.       | Taylor is the most densely populated area and has the most infrastructure susceptible to hail damage.                                         | Thrall also has public and private infrastructure susceptible to hail damage.                                                         | Hail does not affect existing LBCWCID facilities, although if future telemetry equipment is installed, it would be affected.      |
| <b>Severe Winter Storm</b> | The entire planning area is subject to severe winter storms, though the duration of these events is short.               | The City of Taylor has several overpasses which are susceptible to icing in a severe winter storm event.                                      | The City of Thrall has some vulnerable populations which may be susceptible in a winter storm.                                        | The LBCWCID does not have facilities which are at risk in a severe winter storm.                                                  |
| <b>Windstorms</b>          | The entire planning area is subject to windstorms, though the most densely settled areas are most susceptible to damage. | Taylor is the most densely populated area and has the most infrastructure susceptible to windstorm damage.                                    | Thrall also has public and private infrastructure susceptible to windstorm damage.                                                    | Windstorm does not affect existing LBCWCID facilities, although if future telemetry equipment is installed, it would be affected. |
| <b>Lightning</b>           | The entire planning area is subject to lightning, though the most densely settled areas are most susceptible             | Taylor is the most densely populated area and has the most infrastructure susceptible to                                                      | Thrall also has public and private infrastructure susceptible to lightning damage.                                                    | Lightning does not affect existing LBCWCID facilities, although if future telemetry equipment is installed, it would be affected. |

|                         |                                                                                                                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                         |                                                  |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
|                         | to damage, injury or loss of life.                                                                                                                | lightning damage or injury.                                                                                                                                                                                                                               |                                                                                                                                                         |                                                  |
| <b>Train Derailment</b> | Train derailment is a likely event which could affect the most densely populated areas of Taylor and Thrall. Mutual aid and response is critical. | Taylor could be severely impacted by a train derailment, depending on the specific event. A fire station and two private schools are within a critical risk zone of the railroad. Taylor's risk is greatest, due to the track exposure at the switchyard. | A large portion of the City of Thrall, including critical facilities are at risk of damage, injury to persons, depending on the specifics of the event. | The LBCWCID is not impacted by train derailment. |

### 3.4. Community Capabilities for Mitigation

The capabilities available for the mitigation partners vary depending on their mission, statutory authority, and size. Taylor is a complex, mid-sized home rule municipality while Thrall is a small general law municipality. The LBCWCID has a solitary charge and authority – administering the dam structures within its defined district – but it has no revenue source other than grants, and no employees. The following tables summarize the capabilities of each entity, from the planning and regulatory authority, to their administrative and technical, to their financial, and education and outreach capabilities. It is very clear from this review that each entity is working to the limits of their capabilities to protect the community from multiple hazards.

**Table 37. Community Capabilities Summary**

| <b>Planning and Regulatory</b>      | <b>City of Thrall</b> | <b>City of Taylor</b>                                                      | <b>Lower Brushy Creek WCID</b>                                                                                    |
|-------------------------------------|-----------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Comprehensive Plans</b>          | N/A                   | Adopted Dec. 2004; 2017 Vision "Sector Plans"                              | FNI Plan 2010, WCID submitted grant applications for repairs to several sites based on NRCS engineering estimates |
| <b>Capital Improvement Programs</b> | N/A                   | 5yr CIP (2017-2022)                                                        | FNI Plan 2010, WCID submitted grant applications for repairs to several sites based on NRCS engineering estimates |
| <b>Economic Development Plan</b>    | N/A                   | Developed and Implemented by TEDC. In Place since 1994 as a Type 4A funded | N/A                                                                                                               |

|                                                                                                                                                                                                        |          |                                                                                                                               |                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Transportation Plans</b>                                                                                                                                                                            | N/A      | Adopted Thoroughfare Plan Dec. 2004                                                                                           | N/A                                                                                  |
| <b>Emergency Operation Plans</b>                                                                                                                                                                       | N/A      | In place, 5yr update approved 2016                                                                                            | EAP complete for site 32, need plans for Sites 18, 20, 25, and 29 to meet TCEQ regs. |
| <b>Continuity of Operations Plan</b>                                                                                                                                                                   | N/A      | N/A                                                                                                                           | N/A                                                                                  |
| <b>Stormwater Management Plan</b>                                                                                                                                                                      | N/A      | N/A                                                                                                                           | N/A                                                                                  |
| <b>Community Wildlife Protection Plan</b>                                                                                                                                                              | N/A      | N/A                                                                                                                           | N/A                                                                                  |
| <b>Zoning ordinances</b>                                                                                                                                                                               | N/A      | Adopted April 2001 with updates 2002-2016                                                                                     | N/A - WCID has no authority                                                          |
| <b>Building Codes</b>                                                                                                                                                                                  | In Place | Adopted the 2009 Int'l Building Code                                                                                          | N/A - WCID has no authority                                                          |
| <b>Subdivision Ordinance</b>                                                                                                                                                                           | N/A      | Adopted April 2001 with amendment May 2016                                                                                    | N/A - WCID has no authority                                                          |
| <b>Floodplain Ordinance</b>                                                                                                                                                                            | N/A      | Adopted Sept. 2008                                                                                                            | N/A - WCID has no authority                                                          |
| <b>Brownfields Redevelopment Plan</b>                                                                                                                                                                  | N/A      | N/A                                                                                                                           | N/A                                                                                  |
| <b>Administrative and Technical – This refers to staff, skills, and tools a community has. So provide staff numbers and any credentials or certificate trainings in reference to hazard mitigation</b> |          |                                                                                                                               |                                                                                      |
| <b>Engineers</b>                                                                                                                                                                                       | In Place | Sledge Engineering (City Engineer)                                                                                            | Jim Clarno is a registered professional engineer                                     |
| <b>Planners</b>                                                                                                                                                                                        | N/A      | City's Development Services Director certified by the American Institute of Certified Planners. Also employs a Senior Planner | none                                                                                 |
| <b>GIS Analysts</b>                                                                                                                                                                                    | N/A      | Has staff with GIS knowledge and skills                                                                                       | none                                                                                 |
| <b>Building inspectors</b>                                                                                                                                                                             | N/A      | Has Building Official and subcontracts its building inspections services                                                      | N/A                                                                                  |
| <b>Emergency managers</b>                                                                                                                                                                              | In Place | Fire Chief serves as Emergency Management Coordinator (EMC)                                                                   | Jim Clarno                                                                           |
| <b>Grant writers</b>                                                                                                                                                                                   | In Place | City consults with Langford Community Management Services Inc.                                                                | Jim Clarno                                                                           |
| <b>Chief Building Official</b>                                                                                                                                                                         | In Place | Has a Building Official on staff                                                                                              | N/A                                                                                  |



|                                                                                                                             |          |                                                                                                                                                                                    |                                     |
|-----------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Floodplain Administrator</b>                                                                                             | In Place | City's consulting engineer provides floodplain administration services                                                                                                             | N/A                                 |
| <b>Financial – resources that a jurisdiction has access to or is eligible to use to fund mitigation efforts</b>             |          |                                                                                                                                                                                    |                                     |
| <b>Operating budgets</b>                                                                                                    | In Place | In Place, fiscal year 2018 is \$28.7 million, City's 5yr CIP is \$79 million                                                                                                       | Limited by lack of taxing authority |
| <b>Stormwater utility fees</b>                                                                                              | N/A      | Municipal Utility Drainage System established Aug. 2010                                                                                                                            | N/A                                 |
| <b>Development impact fees</b>                                                                                              | N/A      | Adopted Dec. 2002; Updated every 5 years as required under statute.                                                                                                                | Yes, if within dam easement         |
| <b>Education and Outreach – programs and methods already in place that could be used to implement mitigation activities</b> |          |                                                                                                                                                                                    |                                     |
| <b>School programs</b>                                                                                                      | In Place | Approx. 2,600 students per year on EDITH and public safety practices                                                                                                               | none                                |
| <b>Firewise communities</b>                                                                                                 | N/A      | 2 public safety programs per year pertaining to urban interface and mitigation                                                                                                     | N/A                                 |
| <b>Storm Ready communities</b>                                                                                              | N/A      | 2 NWS storm spotter trainings per year and a tornado awareness class                                                                                                               | none                                |
| <b>Hazard awareness campaigns (e.g. Tornado Awareness Month)</b>                                                            | In Place |                                                                                                                                                                                    | none                                |
| <b>Public Information Officer</b>                                                                                           | In Place | City employs a Public Information Officer (PIO)                                                                                                                                    | none                                |
| <b>Community newsletter</b>                                                                                                 | In Place | City publishes a monthly community newsletter that includes periodic updates on safety initiatives                                                                                 | none-website being developed        |
| <b>Other</b>                                                                                                                |          |                                                                                                                                                                                    |                                     |
|                                                                                                                             |          | In 2015, The City installed a Thor Guard Lightning systems at all public parks, including a partnership with Taylor ISD for installation of the system at TISD athletic facilities |                                     |

### 3.4.1. Expanding and Improving Capabilities

Each year, as prescribed in the city charters, the Cities of Taylor and Thrall enter a budget planning process. The communities' needs and obligations are reconciled with expected revenues from

various sources (including ad valorem tax, sales tax, utility fees, permit and licensing fees, and even grants), and prioritized by the Council in the form of an annual budget.

To expand and improve upon hazard mitigation capabilities, the Cities can add staff, programs, and capital items, which would be incorporated into the appropriate departmental budgets and approved as part of the overall Annual Budget.

LBCWCID is essentially in a nascent stage, and its first priority- so that it might be able to take on basic operational charges – is for the establishment of a source of dedicated revenue. This is very clearly the District's top priority.

### *3.4.2. Mitigation Actions and their Implementation*

The communities' mitigation actions are a system of protection against these natural hazards. Some actions serve to mitigate against multiple hazards. Each action has a lead entity, and may or may not have supporting entities, from within the organization or outside (regional partner). The mitigation actions also include a suggestion of the most likely sources of funding. In most cases, they are initiated with local funds, which may be leveraged with grant funds.

### *3.4.3. Incorporating the Plan into Other Planning Mechanisms*

Apart from the budget process described above, there are multiple other planning processes which can inform and be informed by the Hazard Mitigation Plan. In the case of the City of Taylor, these plans include: the Comprehensive Plan (incl. the Future Land Use Plan), Sector Plans, Capital Improvements Plans (for various utilities), Thoroughfare/Transportation Plans, and the Water Conservation and Drought Contingency Plans. These plans are often developed at non-overlapping cycles, as the needs are determined by Council and Staff to take up that particular planning process. It becomes the responsibility of Department heads (Planning Director, Fire Chief, Public Works Director, Assistant City Manager, Police Chief) to work together to solicit input from other departments as each steps into the planning cycle for that Department's charge.

A typical planning process for developing a plan might include:

- Assessment of Baseline Condition
- Review of Existing Documents
- Public Input
- Determination of Goals and Objectives
- Analysis of Trends
- Technical Detail
- Action Itemization and Prioritization
- Funding Plan
- Review, Public Comment
- Adoption

Several opportunities for broader public involvement is usually involved. The initial stage of parallel document review is an important opportunity to incorporate hazard mitigation goals. Additionally, there are often other advisory bodies which can provide review and reminder of goals incorporation, such as the Planning and Zoning Commission.

For the City of Thrall, being a much smaller community, the Annual Budget process is the time at which the plan is incorporated into other documents.

For LBCWCID, the Annual Budget process is also the point in the year in which all of the activities for the year (and their respective encumbrances) are set forth. The Emergency Action Plans are the essential planning documents which are developed to contain the critical engineering technical detail. These documents are generally not intended to be for public review and scrutiny, as the information in them should not be interpreted by unqualified persons. These plans are, however, reviewed and approved by TCEQ and shared with emergency management personnel across the county.

#### *3.4.4. Benefit-Cost and Technical Feasibility*

Benefit-cost is a means of assessing whether the risk mitigated is cost-effective relative to its implementation cost. For many projects which are complex or involve considerable amounts of engineering, the most accurate assessment benefit-cost is not known at the conceptual stage, and is determined in the preliminary engineering phase of project implementation. Other actions are known and proven to be cost effective in other communities, such as education materials or NOAA weather radios or standby generators. The experience and judgment of the CORE Team was utilized heavily in this assessment to arrive at a “likely cost”, as the scope of this plan could not include detailed cost assessment or comparisons. In any case, prior to submitting an application for funding, the entity would undertake a cost-benefit analysis using the specific information available.

For these conceptual planning purposes, costs are given in the following terms:

**Table 38. Conceptual Cost Planning Classification**

| LIKELY COST           | SYMBOL   |
|-----------------------|----------|
| \$0-\$25,000          | \$       |
| \$25,000 - \$100,000  | \$\$     |
| \$100,000 - \$500,000 | \$\$\$   |
| \$500,000 +           | \$\$\$\$ |

The technical feasibility of a mitigation action means that the situation for which the action is proposed allows for the mitigation solution, and that the technical capability exists to implement the mitigation.

#### *3.4.5. Mitigation Action Summaries*

The tables provided in **Attachment B** summarize the 93 mitigation actions for the participating entities, City of Taylor, City of Thrall, and Lower Brushy Creek WCID. The mitigation actions can take the form of Structural/Infrastructure, Environmental Protection, Public Education, Regulation/Ordinance, or Initiatives. Some actions may involve multiple categories. (These are indicated in Attachment B to speed review.)

#### *3.4.6. Lower Brushy Creek WCID Mitigation Actions*

It should be noted that the mitigation actions for Lower Brushy Creek WCID were not grouped by hazard, as some hazards simply don't affect this entity (that does not have employees or structural facilities) in the same way it affects the facilities and operations and community members of a city.

Lower Brushy Creek WCID has limited statutory ability to implement mitigation outside of its core concern for dam safety, and by way of logic, flooding. Specifically, the WCID was authorized for formation under H.B. 531, Chapter 341, of the 55<sup>th</sup> Legislature (1957) with the narrow purpose of "[Sec. 6] ...providing dams, structures, projects and works of improvement for flood prevention, the conservation and development of water, and for other necessary plants, facilities, and equipment in connection therewith...". This mandate means that LBCWCID is specifically the key participant in this planning process as far as dam safety and flooding is concerned, and to a lesser degree in dealing with drought concerns, but they must rely upon their mitigation partners to implement mitigation for other hazards, such as extreme heat, severe winter weather, and hail.

Importantly, Lower Brushy Creek WCID does not have a source of revenue, which is why its first Action is to seek this authority from the voters in the district.

#### *3.4.7. Public Education as a Central Common Component*

Public Education related to **all hazards** will continue to be provided by placing literature and resources at city hall, on the website, and other locations as opportunities come available. Public Education is also accomplished in some of the City of Taylor mitigation actions which involve community outreach, since this small-scale outreach provides direct opportunities to educate the most vulnerable populations on the hazards.

### **3.5. Prioritization**

The CORE Team reviewed the possibility of incorporating more quantitative methods for cost-benefit analysis, following the guidance of FEMA 386-5 *Using Benefit-Cost Review in Mitigation Planning*, but recognized that because of the incorporation of many non-structural measures and

the level of precision available in assessing cost and damage avoided, keeping with a qualitative approach made more sense, and would be easier to incorporate in the participating entities' other plans. Moreover, the CORE Team recognized that attempting to perform detailed cost- and benefit analysis without sufficient engineering information would not be a fair or accurate analysis of the concept, and that it was more in line with standard practice to prepare such detail once an engineering assessment had been done for the specific project, and which would include an alternatives analysis.

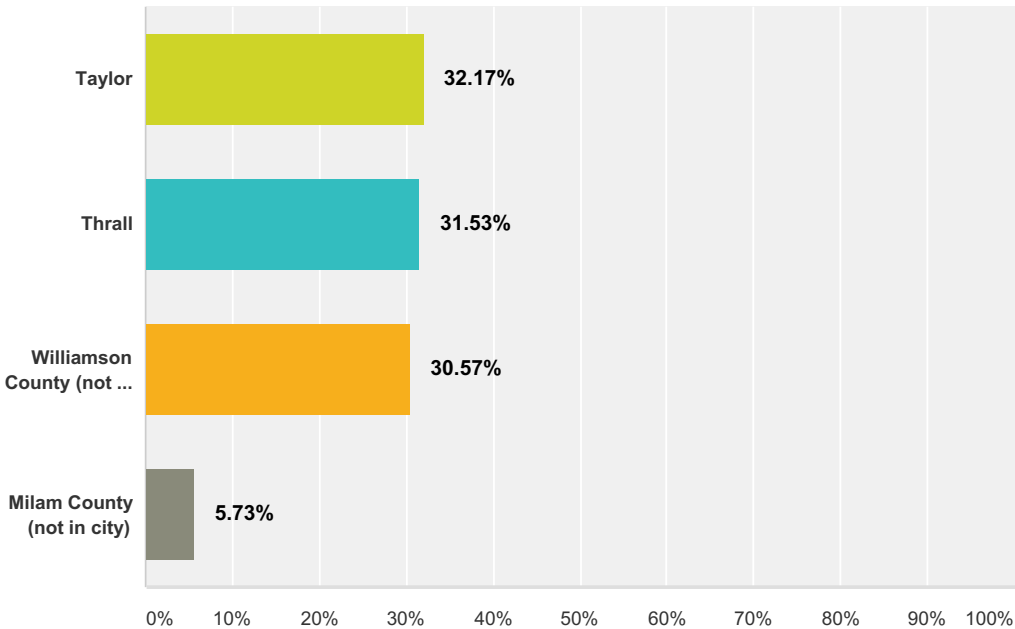
Therefore, in order to determine a priority for implementation, and a general sense of the phasing and implementation, the CORE Team performed a Prioritization Exercise using a STAPLEE criteria, qualitative prioritization tool. STAPLEE is an acronym for Socially Acceptable, Technically Feasible, Administratively Possible, Politically Acceptable, Legal, Economically Sound, Environmentally Sound.

Given the CORE Team's desire to work together to address hazard risk and integrate existing planning, the scoring matrix includes two bonus possibilities. The local representative for each community scored each mitigation action. These worksheets are presented here as Attachment C.



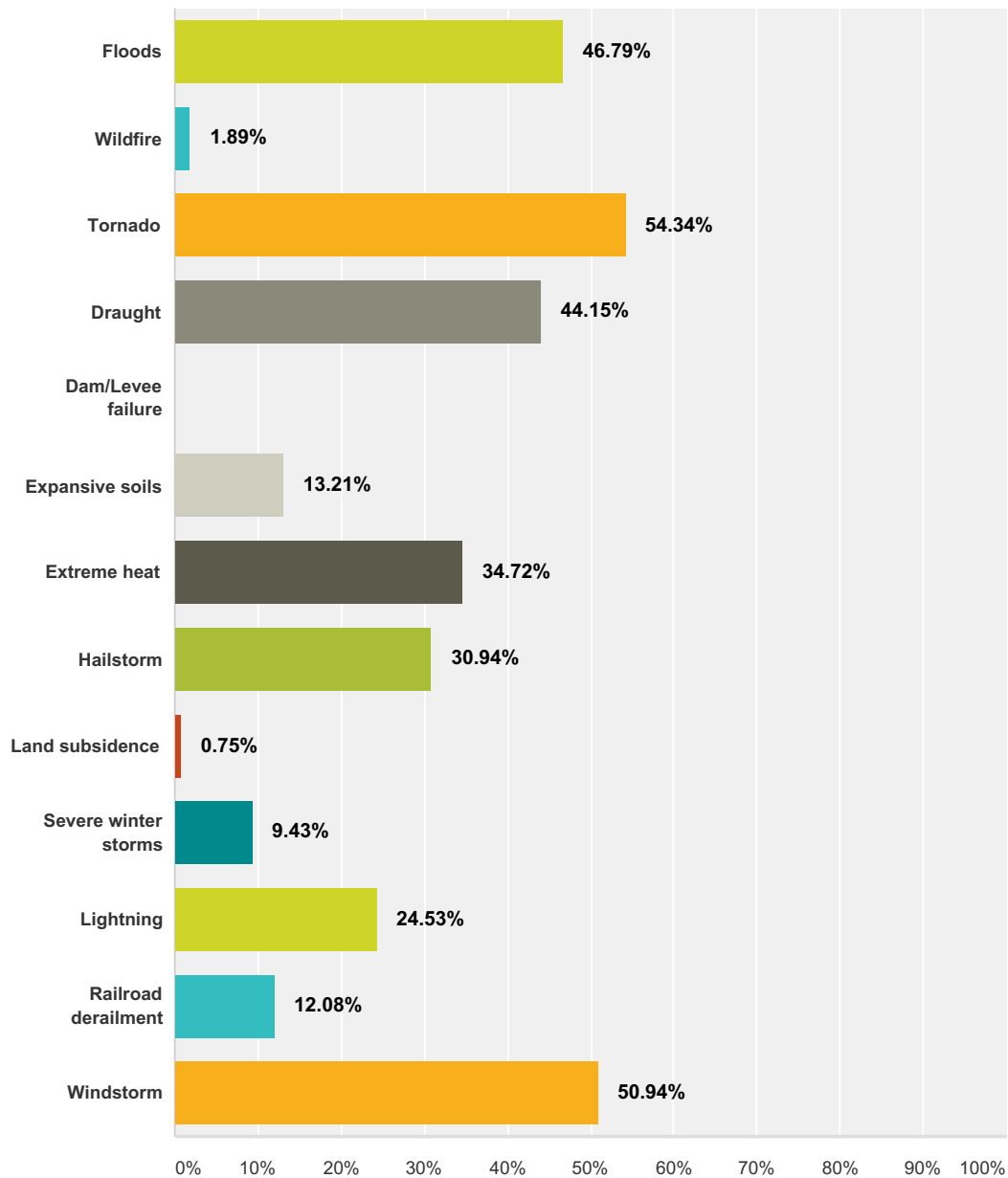
Q1 Please tell us where you live

Answered: 314 Skipped: 1



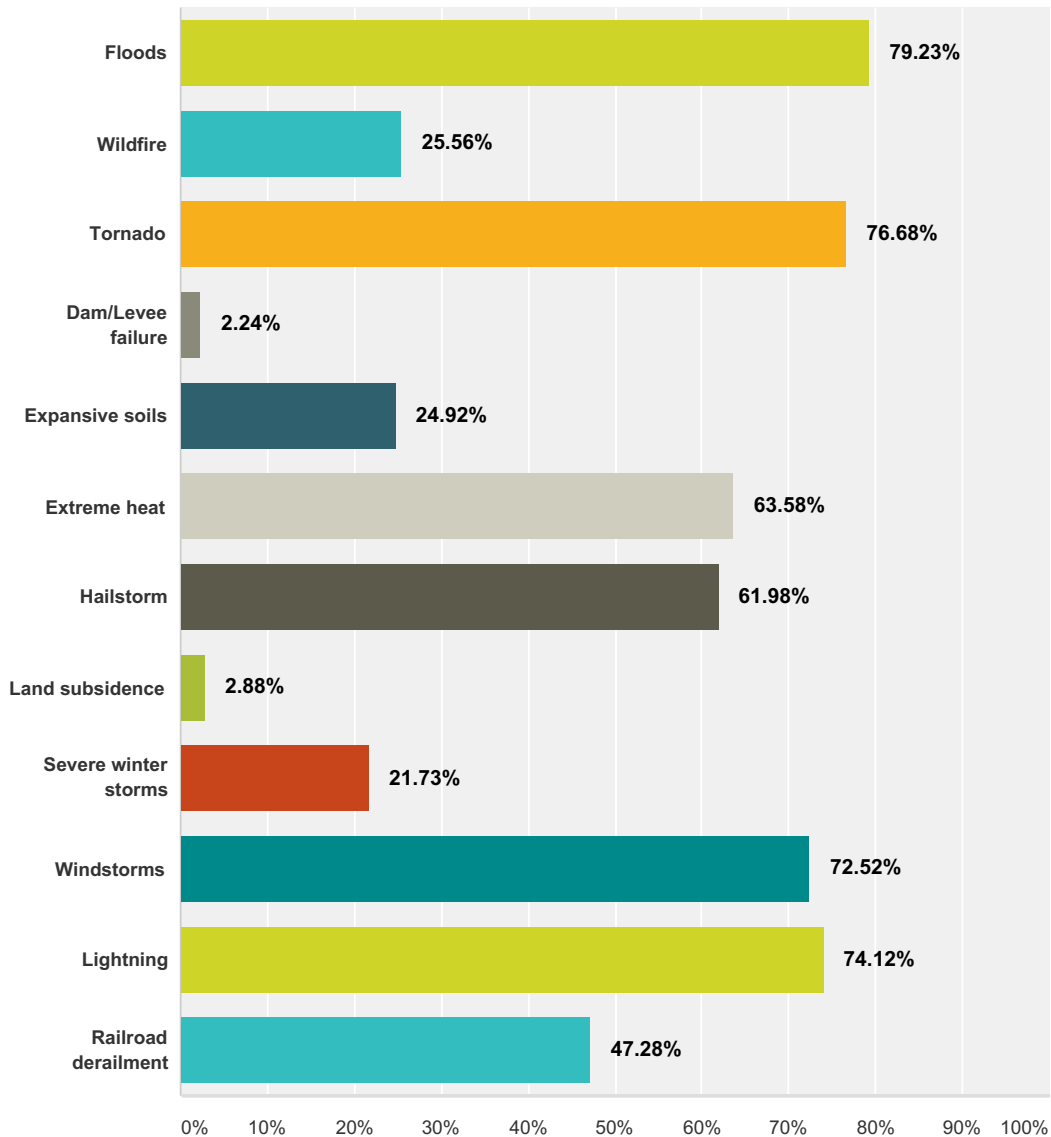
## Q2 While living here, have you ever been a victim of a disaster?

Answered: 265 Skipped: 50



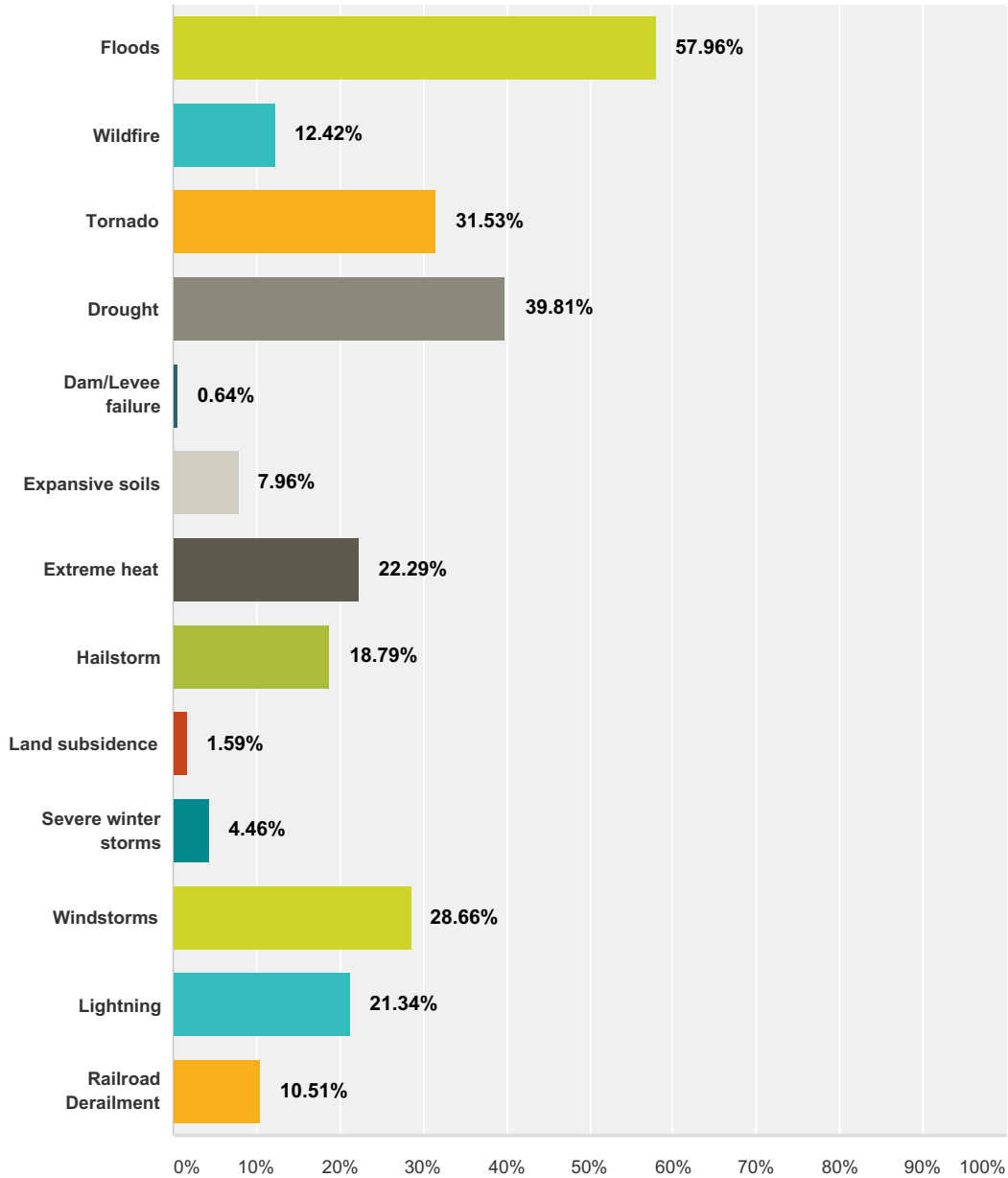
**Q3 Which of the following are likely to occur in Taylor, Thrall, or your area at least once during your lifetime?**

Answered: 313 Skipped: 2



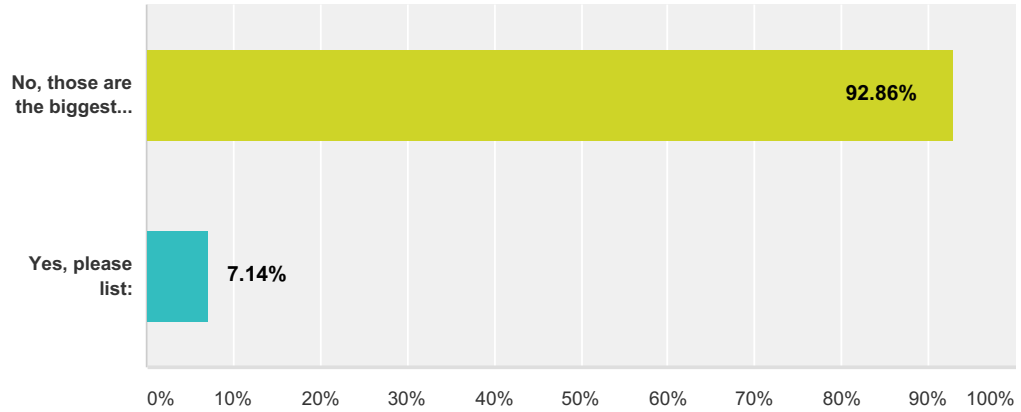
**Q4 Which two are most likely to occur in Taylor, Thrall, or your area at least once in your lifetime:**

Answered: 314 Skipped: 1



**Q5 There are other hazard risks in Taylor or Thrall than those listed above which concern me:**

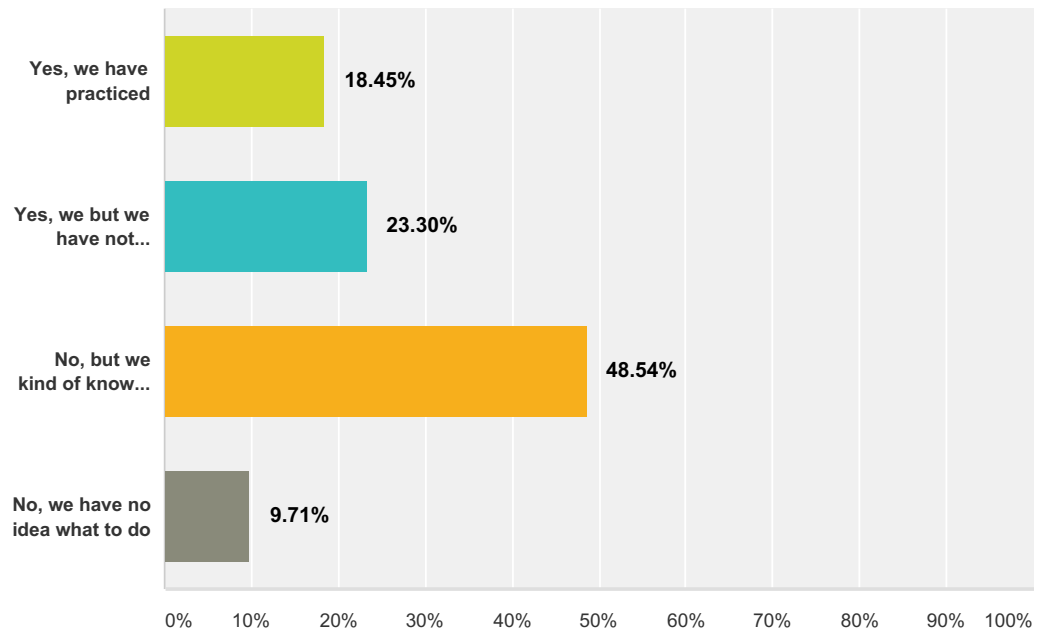
Answered: 294 Skipped: 21





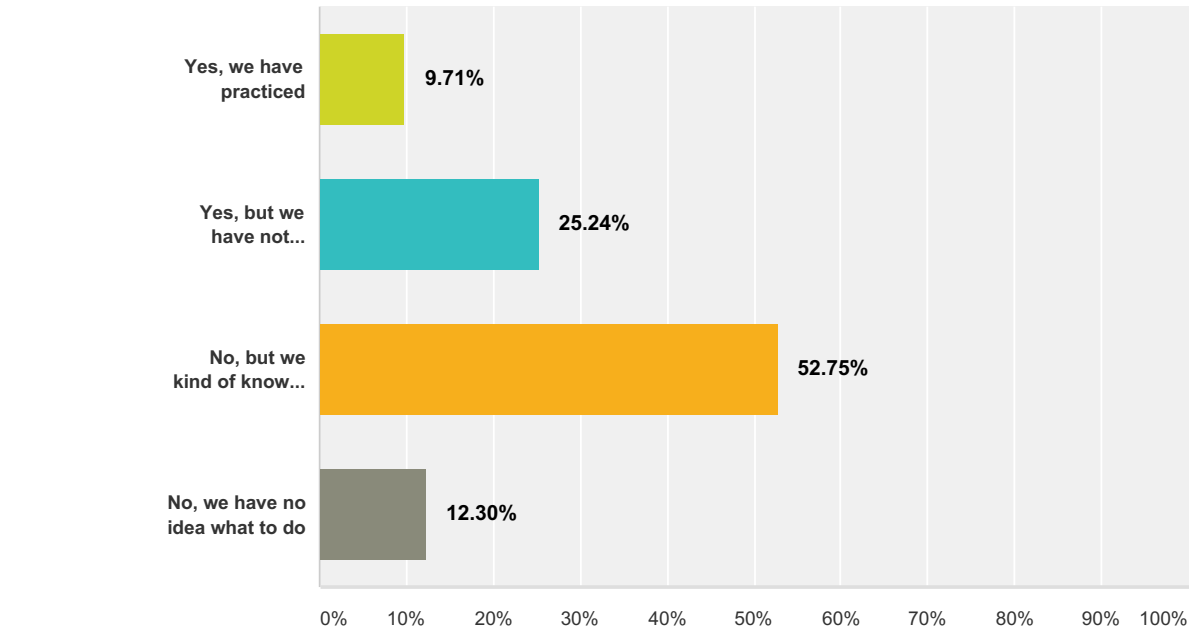
## Q6 My household has a plan in the event of a flood:

Answered: 309 Skipped: 6



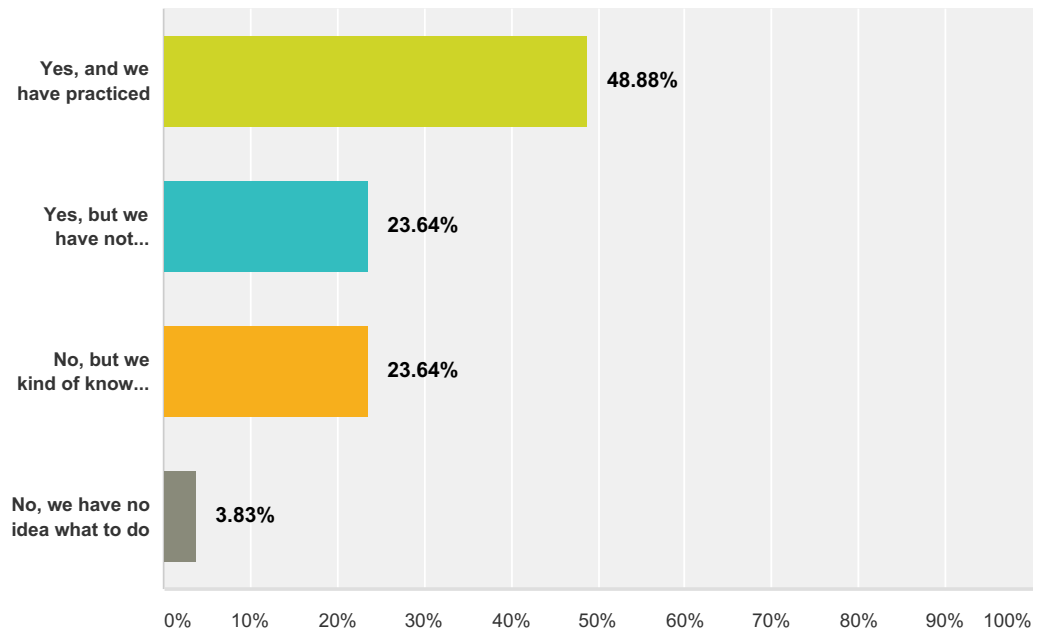
**Q7 My household has a plan for evacuating in the event of a wildfire:**

Answered: 309 Skipped: 6



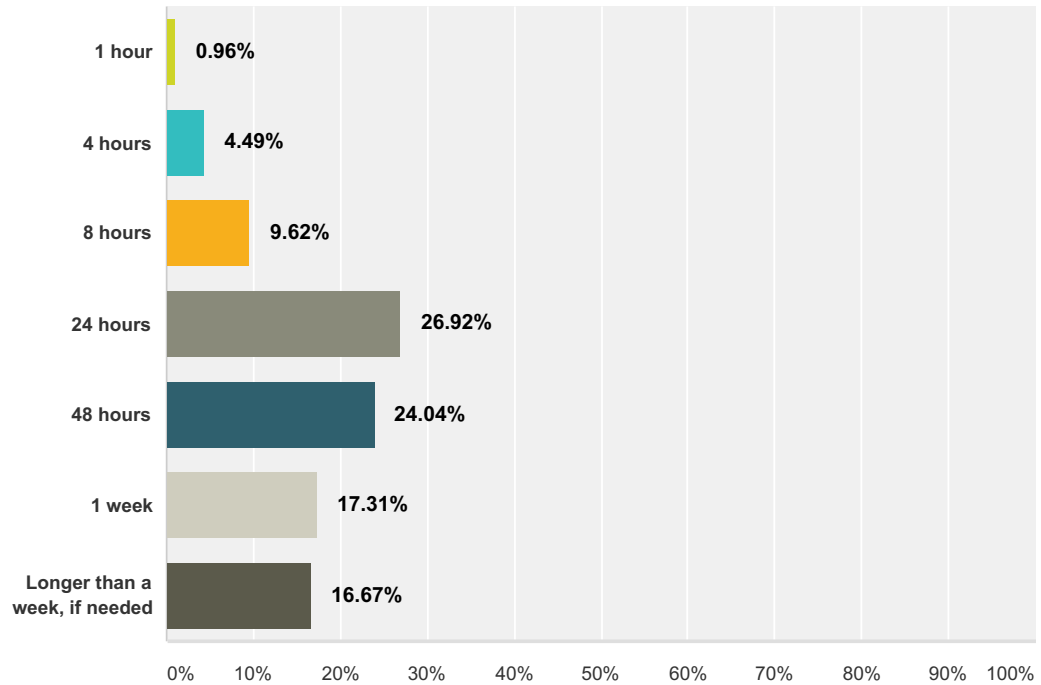
### Q8 My household has a plan in the event of a tornado:

Answered: 313 Skipped: 2



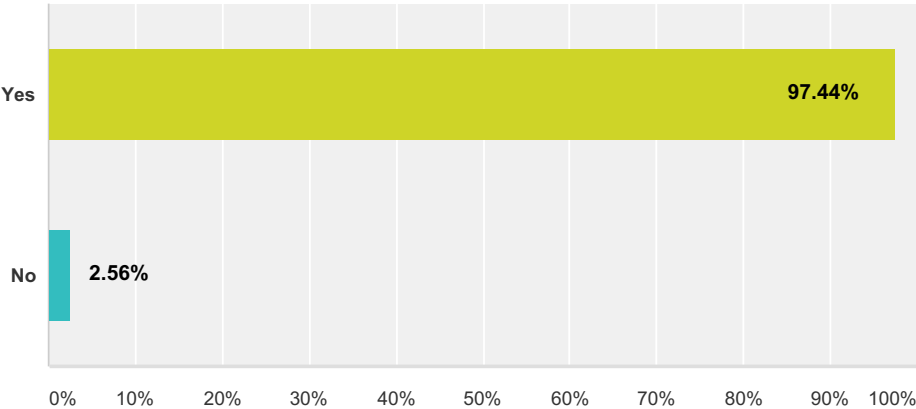
**Q9 The longest amount of time my household could go without power and avoid major risk to personal health and safety would be:**

Answered: 312 Skipped: 3



**Q10 Without looking at a map, I know where the closest hospital is to where I live**

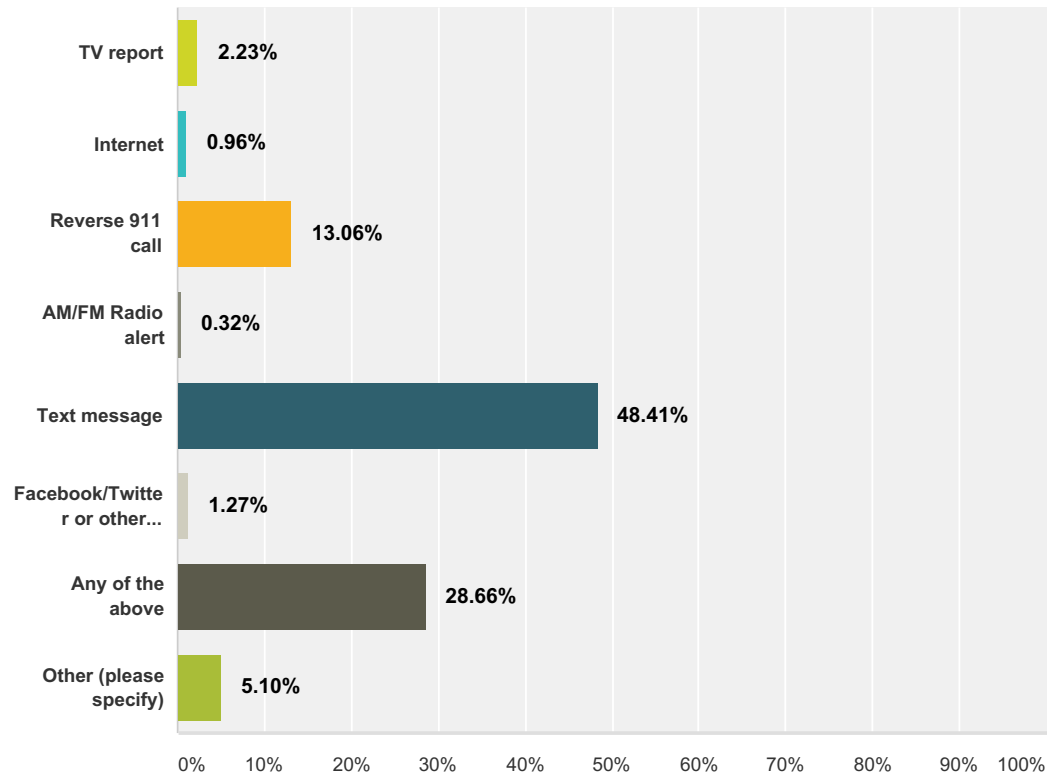
Answered: 313 Skipped: 2





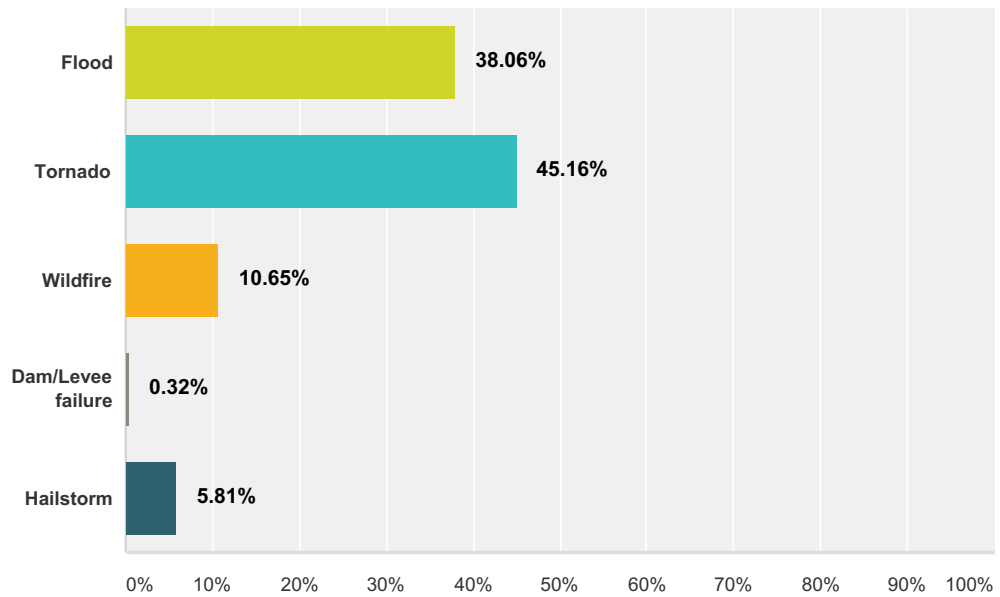
**Q11 Which of the following would be the best way to alert you and your household to an imminent disaster:**

Answered: 314 Skipped: 1



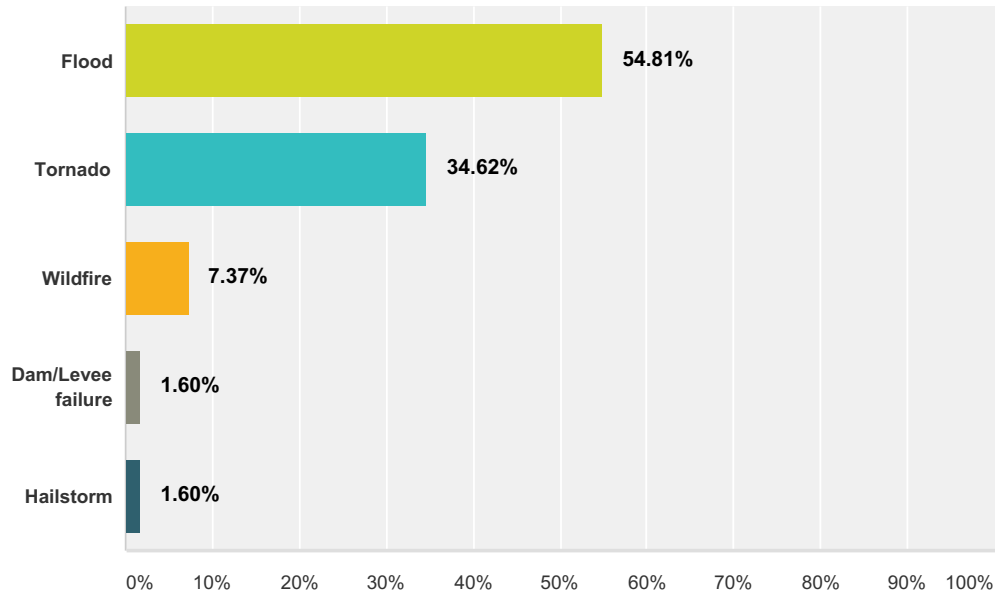
**Q12 Say that you had an annual household budget of \$100 to reduce the risk present to you and your household to various hazards. Which hazard would you prioritize that money to reduce your exposure to the following events:**

Answered: 310 Skipped: 5



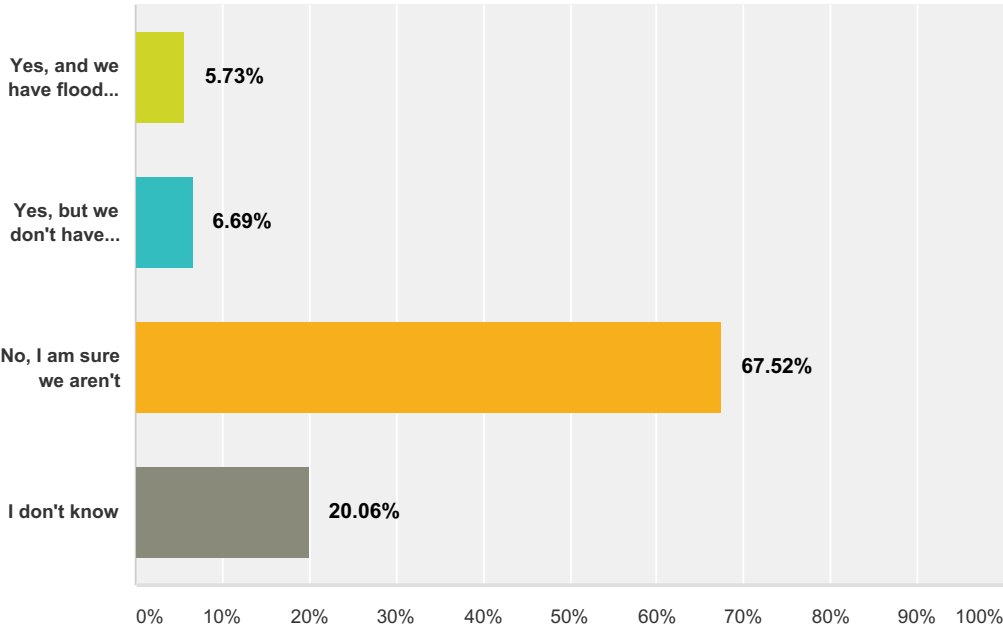
**Q13 If you were on the city council and had only \$100 of tax revenue to reduce the community's exposure to the following hazards, which hazard would you prioritize?**

Answered: 312 Skipped: 3



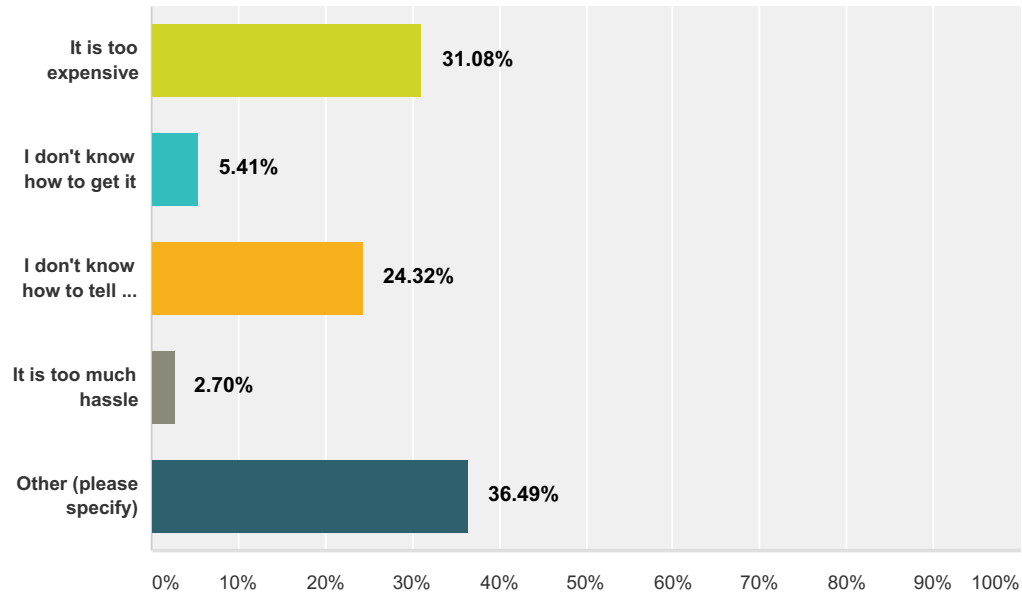
Q14 Do you live in a floodplain?

Answered: 314 Skipped: 1



**Q15 If you answered “yes, but we don’t have flood insurance”, what are the reasons why you haven’t purchased flood insurance?**

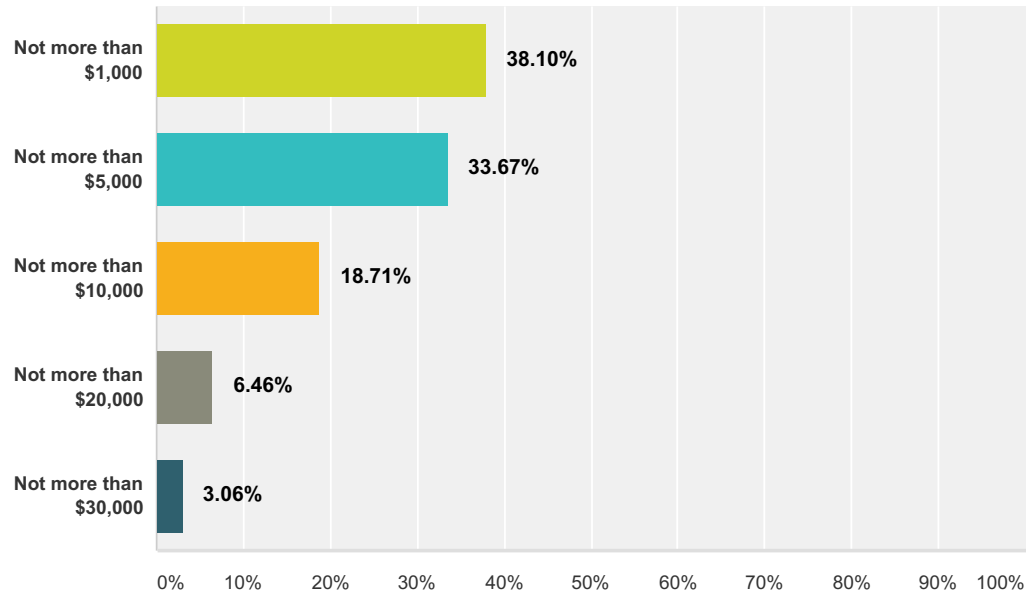
Answered: 74 Skipped: 241





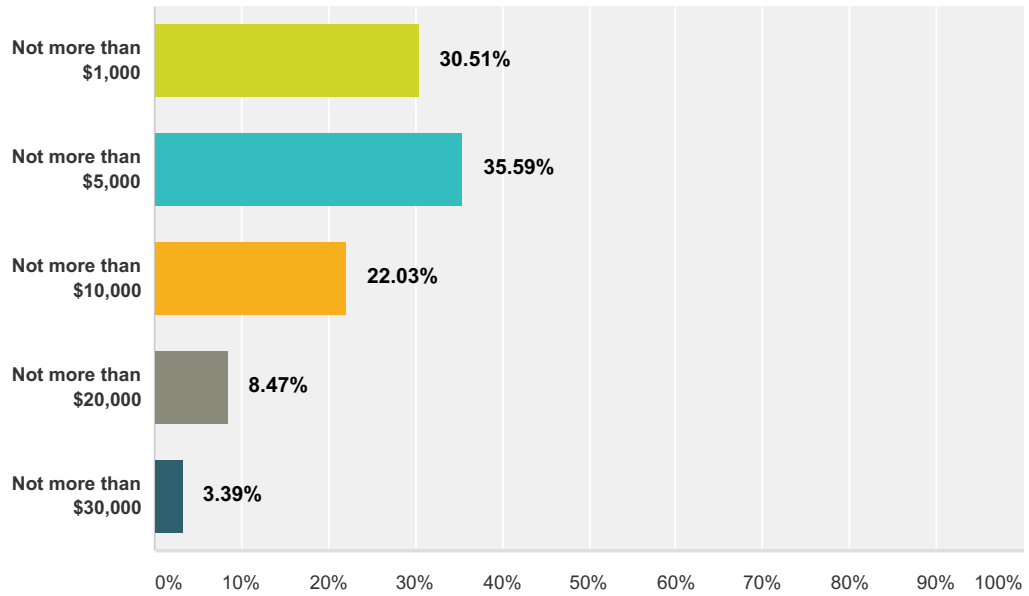
**Q16 How much more would you be willing to pay for a house that has built-in safety features designed to reduce your risk during a wildfire event?**

Answered: 294 Skipped: 21



**Q17 How much more would you be willing to pay for a house that had built-in safety features designed to reduce your risk to a flooding event?**

Answered: 295 Skipped: 20



City of Taylor

| Hazard | Haz-ID | ID     | Mitigation Action                                                                                                                                                                                                                               | Further Goals | Other Hazards Addressed | Lead & Supporting Entities          | Potential Funding Sources                               | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                              |
|--------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------|-------------------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLOOD  | F-1    | TAY-1  | Install an emergency warning system. Conduct a feasibility study that evaluates the coverage area, property ownership and availability, power requirements, telemetry requirements, technology, cost, and other local considerations. [I], [Ed] | 1,2,3,4,5     | Tornado                 | Taylor Emergency Manager; Taylor PD | Local (Departmental Budget); HMGP; TWDB                 | B/C: The 2016 tornado experience indicates that sirens are effective in warning the public. (\$) TF: Proven technology.                                                                                                                     |
|        | F-2    | TAY-2  | Install a stream gage network on Mustang Creek. Conduct a feasibility study which identifies optimal locations, technology, site-specific requirements, and other local considerations. [I]                                                     | 1,2,3,5,6     | Dam Failure             | LBCWCID; Taylor EM                  | Local (Departmental Budget); HMGP; PDM; FMA; TWDB       | B/C: The Mustang Creek Watershed Study provides the basis for making detailed cost-benefit. (\$\$) TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis.  |
|        | F-3    | TAY-3  | Phase I: Study the Mustang Creek Watershed for flood protection options, including the feasibility of a regional detention facility. Phase II: Implement the project recommendations of the engineering study. [I]                              | 1,2,3,6       | Dam Failure             | Taylor City Engineer; LBCWCID       | Local (Departmental Budget); TWDB; PDM; HMGP; FMA: CDBG | B/C: The Mustang Creek Watershed Study provides the basis for making detailed cost-benefit. (\$\$) TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis.  |
|        | F-4    | TAY-4  | Conduct "tabletop exercises" with emergency response personnel from multiple agencies, to determine further mitigation opportunities and response vulnerabilities. [I]                                                                          | 1,2,3,5       | All                     | Taylor Emergency Manager; Taylor PD | Local (Departmental Budget)                             | B/C: Exercises are critical ways to learn at minimal cost. (\$) TF: Proven feasible with prior action.                                                                                                                                      |
|        | F-5    | TAY-5  | Referring to the Mustang Creek Watershed study, determine the appropriateness of an increased BFE elevation requirement. [Reg]                                                                                                                  | 1,2,3,6       |                         | Taylor Floodplain Administrator     | Local Departmental Budget                               | B/C: Applying to new construction, some increased cost of compliance, though with detailed watershed study will be based on sound technical data. (\$) TF: Primary means of regulating development in floodplain.                           |
|        | F-6    | TAY-6  | Enter the Community Rating System (CRS) program to enable reduced insurance premiums within the community. [Reg]                                                                                                                                | 1,2,3,4,6     |                         | Taylor Floodplain Administrator     | Local Departmental Budget                               | B/C: Administrative cost vs. long-term benefit. (\$) TF: Voluntary program.                                                                                                                                                                 |
|        | F-7    | TAY-7  | Consider the establishment of a voluntary "acquisition and demolition program", "acquisition and structure relocation program", "structure elevation program" to address repetitive loss, floodprone properties. [I], [Env]                     | 1,2,3         |                         | Taylor Floodplain Administrator     | Local (Departmental Budget); HMGP; SRL; FMA; PDM; CDBG  | B/C: Administrative cost vs. long-term benefit. (\$-\$\$) TF: Voluntary program.                                                                                                                                                            |
|        | F-8    | TAY-8  | Perform a detailed study of the Bull Branch watershed, including a dam safety study of the City Lake dam and downstream. [I]                                                                                                                    | 1,2,3         | Dam Failure             | Taylor City Engineer                | Local (Departmental Budget); TWDB                       | B/C: The Bull Branch Watershed Study provides the basis for making detailed cost-benefit. (\$-\$\$) TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis. |
|        | F-9    | TAY-9  | Provide education materials online, and to real estate and insurance agencies, to increase community understanding of flood insurance. Hold a town hall meeting with NFIP representatives to discuss the insurance purchase process. [Ed]       | 1,2,3,4,6     |                         | Taylor Floodplain Administrator     | Local Departmental Budget                               | B/C: Administrative cost is minimal (\$) TF: The City has a website and access to published materials.                                                                                                                                      |
|        | F-10   | TAY-10 | Phase I: Perform a study to evaluate upstream detention options for the Bull Branch watershed. Phase II: Construct a drainage infrastructure facility in accordance with the engineering recommendations of the study. [I], [S/I]               | 1,2,3,6       |                         | Taylor City Engineer                | Local (Departmental Budget); TWDB; PDM; HMGP; FMA: CDBG | B/C: The Bull Branch Watershed Study provides the basis for making detailed cost-benefit. (\$-\$\$) TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis. |

City of Taylor

| Hazard      | Haz-ID | ID     | Mitigation Action                                                                                                                                                                                                                           | Further Goals | Other Hazards Addressed                      | Lead & Supporting Entities                                        | Potential Funding Sources                               | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                                                                                          |
|-------------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DAM FAILURE | DF-1   | TAY-11 | Support the rehabilitation / improvement of Dam #25, as carried out by LBCWCID [S/I]                                                                                                                                                        | 1,2,3,4,5,6   | Flood                                        | LBCWCID, NRCS, Taylor City Engineer                               | NRCS; HMGP; PDM; FMA                                    | B/C: Rehabilitation plan engineering in process to determine costs, benefits are in excess of \$10M (\$\$\$\$); TF: In accordance with engineered plans and specifications.                                                                                                                                                             |
|             | DF-2   | TAY-12 | Study the Mustang Creek Watershed for flood protection options, including the feasibility of a regional detention facility. [I]                                                                                                             | 1,2,3,4,5,6   | Flood                                        | Taylor City Engineer, LBCWCID                                     | Local (Departmental Budget); TWDB; PDM; HMGP; FMA; CDBG | B/C: The Mustang Creek Watershed Study provides the basis for making detailed cost-benefit. (\$\$) TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis. A second regional detention facility could take pressure off of the existing dam structures. |
|             | DF-3   | TAY-13 | Install remote monitoring equipment (water level, video, rainfall) at Dam #25. [S/I], [I]                                                                                                                                                   | 1,2,3,4,5,6   | Flood                                        | LBCWCID, City of Taylor Engineering, IT, Public Works Departments | TWDB; PDM; NRCS                                         | B/C: Capital cost is minimal; maintenance cost is minimal; could provide early warning of failure for EOC. (\$) TF: Remote transmitting needs to be determined.                                                                                                                                                                         |
|             | DF-4   | TAY-14 | Perform a detailed study of the Bull Branch watershed, including a dam safety study of the City Lake dam and downstream. [I]                                                                                                                | 1,2,3,4,5,6   | Flood                                        | Taylor City Engineer                                              | Local departmental budget; TWDB                         | B/C: The Bull Branch Watershed Study provides the basis for making detailed cost-benefit. (\$\$) TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis.                                                                                                |
| Hazard      | Haz-ID | ID     | Mitigation Action                                                                                                                                                                                                                           | Further Goals | Other Hazards Addressed                      | Lead & Supporting Entities                                        | Potential Funding Sources                               | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                                                                                          |
| TORNADO     | T-1    | TAY-15 | Build a Safe Room near the geographic center of the population. Conduct a feasibility study to evaluate site options, including utilities, transportation, proximity to vulnerable populations, cost, and other local considerations. [S/I] | 1,2,4,5       | Wind; Lightning; Hail; Severe Winter Weather | Taylor EM; Taylor PD; Taylor FD                                   | Local; HMGP; PDM                                        | B/C: Site to be determined, based on site selection constraints/land availability and programmatic requirements. (\$\$-\$\$\$) TF: Feasibility addressed in initial stage of site selection, alternatives evaluation.                                                                                                                   |
|             | T-2    | TAY-16 | Install an emergency warning system. Conduct a feasibility study that evaluates the coverage area, property ownership and availability, power requirements, telemetry requirements, technology, cost, and other local considerations. [S/I] | 1,2,4,5       | Wind; Lightning; Hail; Severe Winter Weather | Taylor EM; Taylor PD; Taylor FD                                   | Local; HMGP                                             | B/C: Site to be determined, based on land availability and programmatic requirements (\$-\$\$\$). TF: Feasibility addressed in initial stage of site selection, alternatives evaluation.                                                                                                                                                |
|             | T-3    | TAY-17 | Enhance the Shelter Management Plan through a review of available spaces and education of other partners about the City of Taylor's capabilities. [Reg]                                                                                     | 1,2,4,5       | Wind; Lightning; Hail; Severe Winter Weather | Taylor EM                                                         | Local                                                   | B/C: Low administrative cost (\$). TF: Updating existing plan based on internal discussions.                                                                                                                                                                                                                                            |

City of Taylor

| Hazard   | Haz-ID | ID     | Mitigation Action                                                                                                                                                                   | Further Goals | Other Hazards Addressed        | Lead & Supporting Entities                | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                        |
|----------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|-------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DROUGHT  | D-1    | TAY-18 | Implement Automatic Meter Reading instrumentation for all meters in the City to enable closer monitoring of water use, and early leak detection. [S/I]                              | 2,3,6         | Expansive Soils                | Taylor City Engineer; Taylor Public Works | Local; TWDB               | B/C: Number of meters to be changed out still TBD. Upfront cost high; long-term benefit. (\$\$\$); TF: Common modernization practice.                                                 |
|          | D-2    | TAY-19 | Develop a rebate/conservation program that incentivizes low-flow fixtures. [I], [Reg]                                                                                               | 6             |                                | Taylor Utilities; Building Inspections    | Local                     | B/C: Can prove effective, rebate amount can be set to match budget considerations and benefit/cost. (\$-\$\$); TF: Administrative incentive program is feasible.                      |
|          | D-3    | TAY-20 | Review and incorporate LEED design goals for all new public facilities [Reg]                                                                                                        | 6             | Winter Weather; Extreme Heat   | Taylor City Manager                       | Local                     | B/C: Higher upfront costs, long-term benefits. (\$-\$\$); TF: LEED incorporates many proven technologies.                                                                             |
|          | D-4    | TAY-21 | Develop and implement a rainwater harvesting program [I], [Ed]                                                                                                                      | 2,6           | Extreme Heat                   | Taylor Utilities; Taylor City Engineer    | Local                     | B/C: Can prove effective, rebate amount can be set to match budget considerations and benefit/cost. (\$); TF: Administrative incentive program is feasible. Reduce irrigation demand. |
|          | D-5    | TAY-22 | Establish a treated effluent program for city facilities, including parks and the cemetery. Incorporate this action into the Drought Contingency Plan and the Wastewater CIP. [S/I] | 2,3,6         | Wildfire                       | Taylor Utilities; Taylor City Engineer    | Local; TWDB               | B/C: Study required to determine benefit-cost breakpoint (\$-\$\$). TF: Increasingly used technology.                                                                                 |
| Hazard   | Haz-ID | ID     | Mitigation Action                                                                                                                                                                   | Further Goals | Other Hazards Addressed        | Lead & Supporting Entities                | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                        |
| WILDFIRE | WF-1   | TAY-23 | Provide education materials, such as the FireWise program, to all new residents, neighborhood associations, under fire department page on City website. [Ed]                        | 1,2,4,5,6     |                                | Taylor FD                                 | Local; TFS; AFG           | B/C: Minimal cost (printing materials) (\$). TF: Some printed material, integrated digital versions to city website.                                                                  |
|          | WF-2   | TAY-24 | Provide NOAA Weather Radios to alert residents of evacuation. [I]                                                                                                                   | 1,2,3,4,5     | All                            | Taylor EM                                 | Local                     | B/C: NOAA Weather Radios known cost effective (\$). TF: Ease of distribution and messaging.                                                                                           |
|          | WF-3   | TAY-25 | Coordinate multiple large brush pickup events/dates per year to enable fuel reduction on private property. [I], [Ed]                                                                | 1,2,3,4,5     | Lightning; Windstorm; Wildfire | Taylor EM                                 | Local                     | B/C: Leverages private investment on private property as an incentive, providing distributed public benefit (\$-\$\$). TF: There is an existing framework/process for brush pickup.   |
| Hazard   | Haz-ID | ID     | Mitigation Action                                                                                                                                                                   | Further Goals | Other Hazards Addressed        | Lead & Supporting Entities                | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                        |
| HAIL     | H-1    | TAY-26 | Install a membrane roof at the Fire Station. [S/I]                                                                                                                                  | 1,2,3         |                                | Taylor FD; Taylor Building Official       | Local; HMGP; PDM; AFG     | B/C: Can avoid damage in the most common hailstorms (\$). TF: Depends on building roof type.                                                                                          |
|          | H-2    | TAY-27 | Install a membrane roof at City Hall [S/I]                                                                                                                                          | 1,2,3         |                                | Taylor Building Official                  | Local; HMGP; PDM          | B/C: Can avoid damage in the most common hailstorms (\$). TF: Depends on building roof type.                                                                                          |
|          | H-3    | TAY-28 | Install a membrane roof at the Utilities building. [S/I]                                                                                                                            | 1,2,3         |                                | Taylor Building Official                  | Local; HMGP               | B/C: Can avoid damage in the most common hailstorms (\$). TF: Depends on building roof type.                                                                                          |
|          | H-4    | TAY-29 | Construct canopies at Police Department and Public Works Department to provide cover for the fleets. [S/I]                                                                          | 1,2,3         |                                | Taylor PD; Taylor Public Works Director   | Local; HMGP               | B/C: Can avoid damage in the most common hailstorms (\$). TF: Actual implemented system depends on specific site constraints.                                                         |

## City of Taylor

| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                    | Further Goals                              | Other Hazards Addressed | Lead & Supporting Entities                  | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                  |
|-----------------------|--------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------|---------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXPANSIVE SOIL        | ES-1   | TAY-30 | Distribute a set of educational materials about expansive soils and mitigation practices related to foundation design, slab perimeter watering. [Ed] | 2,3,4                                      |                         | Taylor Building Official                    | Local                     | B/C: Materials compiled from outside sources can keep costs low, distribution methods to be discussed. (\$) TF: Information easily assembled and distributed.                                                   |
|                       | ES-2   | TAY-31 | Develop a Pavement Management System for City Streets, to track repairs, known issue areas, and the use of different pavement designs over time. [I] | 2,3,4                                      |                         | Taylor Public Works; Taylor City Engineer   | Local                     | B/C: Planning and administrative tool, utilizing GIS. (\$) TF: The City is increasing its use of GIS.                                                                                                           |
|                       | ES-3   | TAY-32 | Develop enhanced standards for water line installations, which provide additional separation and restraint from expansive soils. [Reg]               | 2,3,4                                      | Drought                 | Taylor Public Works; Taylor City Engineer   | Local; CDBG               | B/C: Planning and administrative tool. (\$) TF: Bedding and mechanical restraint are known mitigation actions to reduce the impact of expansive soil.                                                           |
|                       | ES-4   | TAY-33 | Complete repairs at the Police Department caused by expansive soil. [S/I]                                                                            | 2,3,4                                      |                         | Taylor Police Chief; Building Official      | Local                     | B/C: This is a critical facility that is damaged by expansive soil. (\$-\$\$) TF: The problem is repairable.                                                                                                    |
|                       | ES-5   | TAY-34 | Where recommended by geotechnical consultant, excavate and replace expansive soil with stable material for all new city facilities. [I]              | 2,3,4                                      |                         | Taylor City Engineer; Building Official     | Local                     | B/C: Determined by geotechnical investigation and building footprint. (\$-\$\$) TF: Removes the hazard.                                                                                                         |
| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                    | Further Goals                              | Other Hazards Addressed | Lead & Supporting Entities                  | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                  |
| EXTREME HEAT          | EH-1   | TAY-35 | Review and incorporate LEED design goals for all new public facilities and retrofits. [Reg]                                                          | 1,2,4,6                                    | Winter Weather; Drought | Taylor Building Official                    | Local                     | B/C: Higher upfront costs, long-term benefits. (\$-\$\$); TF: LEED incorporates many proven technologies.                                                                                                       |
|                       | EH-2   | TAY-36 | Install emergency generators at all plants/pump stations, and at City Hall [S/I]                                                                     | 1,2,4,6                                    | All                     | Taylor EM; Public Works Director            | Local; HMGP               |                                                                                                                                                                                                                 |
|                       | EH-3   | TAY-37 | Identify options through the LIHEAP Program to assist non-profits, churches with renovation activities. [I], [Ed]                                    | 1,2,3,6<br>Comp Plan Objectives H1 and HH4 | Winter Weather; Drought | Taylor Planning Director; Building Official | Local; LIHEAP             | B/C: LIHEAP programs bring costs within reach for residents who need this assistance. (\$) TF: Doors, windows, insulation are proven to reduce electric consumption in peak cooling periods.                    |
| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                    | Further Goals                              | Other Hazards Addressed | Lead & Supporting Entities                  | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                  |
| SEVERE WINTER WEATHER | WW-1   | TAY-38 | Identify LIHEAP Program options to assist non-profits, churches, in providing emergency heaters to vulnerable populations. [I], [Ed]                 | 1,2,3,6<br>Comp Plan Objective HH4         | Extreme Heat; Drought   | Planning Director; Community Development    | Local; LIHEAP             | B/C: LIHEAP programs bring costs within reach for residents who need this assistance. (\$) TF: Doors, windows, insulation are proven to reduce electric consumption in peak cooling periods.                    |
|                       | WW-2   | TAY-39 | Review and incorporate LEED design goals for all new public facilities and retrofits. [Reg]                                                          | 2,3,6                                      | Extreme Heat; Drought   | Taylor Building Official                    | Local                     | B/C: Higher upfront costs, long-term benefits. (\$); TF: LEED incorporates many proven technologies.                                                                                                            |
|                       | WW-3   | TAY-40 | Purchase sanding equipment/spreader for the Public Works Department [I]                                                                              | 1,2,3                                      |                         | Public Works                                | Local                     | B/C: Equipment can serve city for many years, given low use, and can be purchased used (\$). TF: Sand is an effective measure in critical areas.                                                                |
| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                    | Further Goals                              | Other Hazards Addressed | Lead & Supporting Entities                  | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                  |
| LIGHTNING             | L-1    | TAY-41 | Purchase detection equipment for all school facilities and youth activity programs, and incorporate education about lighting hazard. [Ed]            | 1,2,3,4                                    |                         | Parks Director                              | Local; HMGP               | B/C and TF: Equipment is low-cost and easy to operate.                                                                                                                                                          |
|                       | L-2    | TAY-42 | Review and assess the lightning protection system at all water tower facilities; Make improvements as recommended by MEP Engineer. [S/I]             | 1,2,3,4                                    |                         | Public Works Director                       |                           | B/C: A single lightning strike could impact water flow and firefighting capability for large areas of the City if not undertaken. TF: The assessment is straightforward and the cost to retrofit minimal (\$\$) |
|                       | L-3    | TAY-43 | Purchase detection equipment for public works department [S/I]                                                                                       | 1,2,3,4                                    |                         | Public Works Director                       | Local; HMGP               | B/C and TF: Equipment is low-cost and easy to operate.                                                                                                                                                          |



## City of Taylor

| Hazard           | Haz-ID | ID     | Mitigation Action                                                                                                                                                       | Further Goals                        | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources          | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                     |
|------------------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------|----------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WINDSTORM        | W-1    | TAY-44 | Review and upgrade the emergency notification system as necessary. [I]                                                                                                  | 1,2,3,4,5                            |                         | Taylor EM                  | Local; HMGP; Homeland Security     | B/C: Has been under discussion, is popular means of communication for citizens. (\$\$) TF: Upgrades need to be applied to broaden reach/increase awareness.                                        |
|                  | W-2    | TAY-45 | Prepare/submit an application for Storm Ready Designation to the National Weather Service that attests to the community's level of preparedness for severe weather. [I] | 1,2,3,4,5                            | All                     | Taylor EM                  | Local                              | B/C: Application can be made with existing staff (\$) TF: Application and subsequent public awareness are feasible.                                                                                |
|                  | W-3    | TAY-46 | Review building code for opportunities to harden new construction. [Reg]                                                                                                | 1,2,3,4,5<br>Comp Plan Objective H1. | Tornado                 | Taylor Building Official   | Local                              | B/C: Review of codes to determine potential risk reduction vs. cost to implement is nominal. (\$) TF: The City of Taylor has adopted and enforces very modern codes.                               |
|                  |        |        |                                                                                                                                                                         |                                      |                         |                            |                                    |                                                                                                                                                                                                    |
| Hazard           | Haz-ID | ID     | Mitigation Action                                                                                                                                                       | Further Goals                        | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources          | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                     |
| TRAIN DERAILMENT | TrD-1  | TAY-47 | Purchase radio equipment to ensure communications interoperability. [I]                                                                                                 | 1,2,3,4,5                            | All                     | Taylor EM                  | Local; JAG; AFG; Homeland Security | B/C: In a regional situation, communications is essential. (\$\$) TF: The essence of the action; determining what is necessary.                                                                    |
|                  | TrD-2  | TAY-48 | Develop ready-kits to enhance local hazardous materials response capabilities [I]                                                                                       | 1,2,4,5,6                            |                         | Taylor FD                  | Local; AFG; Homeland Security      | B/C: Benefit is in terms of damage avoided. Cost is in ready equipment and supplies (\$). TF: Feasible solutions are available; these must be coordinated with the railroad depending on cargo.    |
|                  | TrD-3  | TAY-49 | Develop neighborhood-level plans for resident response and protection. [I], [Ed]                                                                                        | 1,2,4,5,6<br>Comp Plan Objective L4  | All                     | Taylor EM                  | Local                              | B/C: Benefit is in terms of knowledge shared. Cost is minimal in workshops/staff time (\$). TF: The neighborhood level plans can be done separately or in conjunction with other planning efforts. |
|                  | TrD-4  | TAY-50 | Ensure that the Fire Station located within closest proximity to the railroad has all necessary material response capabilities. [I]                                     | 1,2,4,5,6                            |                         | Taylor FD                  | Local; AFG; Homeland Security      | B/C: Benefit is in terms of damage avoided. Cost is in ready equipment and supplies (\$). TF: Feasible solutions are available; these must be coordinated with the railroad depending on cargo.    |
|                  | TrD-5  | TAY-51 | Conduct tabletop exercises with Union Pacific to strengthen response capability and communications.                                                                     | 1,2,3,4,5                            |                         | Taylor EM                  | Local; JAG; AFG; Homeland Security | B/C: Exercises are critical ways to learn at minimal cost (\$), including many intangibles. TF: Proven feasible with prior action.                                                                 |

City of Thrall

| Haz+A44<br>+A1:I59 | Haz-ID | ID     | Mitigation Action                                                                                                                                                                                                                                                                                                   | Further<br>Goals | Other Hazards<br>Addressed                        | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                           |
|--------------------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------|----------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FLOOD              | F-1    | THR-1  | Phase I: Conduct an engineering study to determine the optimal improvements to drainage in the Barker St. neighborhood. Phase II: Construct the Barker St. Drainage Improvements Project to maximize flood protection in the area around Barker St. and the unnamed tributary, Zone A floodplain in the City. [S/I] | 1,2,3            |                                                   | Mayor; City Engineer             | Local; HMGP; PDM; FMA; CDBG     | B/C: The concept will involve improved crossings and downstream conveyance, which should yield lower flood elevations for multiple frequency events. Pending completion of preliminary engineering (\$\$) TF: Hydraulically feasible; will likely require some ROW or easement acquisition. |
|                    | F-2    | THR-2  | Provide education materials online, and to real estate and insurance agencies, to increase community understanding of flood insurance. Hold a town hall meeting with NFIP representatives to discuss the insurance purchase process. [Ed]                                                                           | 1,2,3,4,6        |                                                   | Mayor; Floodplain Administrator  | Local (Departmental Budget)     | B/C: Administrative cost is minimal (\$) TF: The City has a website and access to published materials.                                                                                                                                                                                      |
|                    | F-3    | THR-3  | Conduct a detail-level study of the Brushy Creek tributaries in the City of Thrall and its ETJ. [I]                                                                                                                                                                                                                 | 1,2,3,5,6        |                                                   | Mayor; City Engineer             | Local; TWDB                     | B/C: A detailed H&H Study provides the basis for establishing detailed base flood elevations and alternative cost-benefit analysis. (\$-\$) TF: The study will provide new regulatory BFEs for new development with accurate maps.                                                          |
| Hazard             | Haz-ID | ID     | Mitigation Action                                                                                                                                                                                                                                                                                                   | Further<br>Goals | Other Hazards<br>Addressed                        | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                           |
| DAM FAILURE        | DF-1   | THR-4  | Evaluate the feasibility of a levee system to protect the wastewater treatment plant. [I], [S/I]                                                                                                                                                                                                                    | 1,2,3,6          | Flood                                             | Mayor; City Engineer             | Local; HMGP; PDM; FMA USACE     | B/C: The concept is to evaluate the potential as a viable option, among several. Pending completion of preliminary engineering (\$\$) TF: Hydraulically feasible; unknown is the level of protection obtainable for a PMF.                                                                  |
|                    | DF-2   | THR-5  | Evaluate the feasibility of building a new wastewater treatment plant. [I], [S/I]                                                                                                                                                                                                                                   | 1,2,3,6          | Flood                                             | Mayor; City Engineer             | Local; CDBG                     | B/C: This is the counteroption to the levee system. Preliminary engineering would be required to determine a new potential site with many factors for consideration (\$\$). TF: Technical feasibility is the purpose of the investigation.                                                  |
|                    | DF-3   | THR-6  | Conduct "tabletop exercises" with emergency response personnel from multiple agencies to determine further mitigation opportunities and response vulnerabilities. [I]                                                                                                                                               | 1,2,5            | All                                               | Emergency Manager; PD; FD        | Local; Regional Partners        | B/C: Exercises are critical ways to learn at minimal cost (\$), including many intangibles. TF: Proven feasible with prior action.                                                                                                                                                          |
|                    | DF-4   | THR-7  | Require additional review of land subdivisions in the vicinity of the breach inundation zone. [Reg]                                                                                                                                                                                                                 | 1,2,5            | All                                               | Mayor; City Engineer             | Local                           | B/C: Regulation would be limited to area within vicinity, in order to incorporate detailed information, cost is to private entity, which may be offset through density transfer, for example. TF: Amendment of the subdivision regulations required.                                        |
| Hazard             | Haz-ID | ID     | Mitigation Action                                                                                                                                                                                                                                                                                                   | Further<br>Goals | Other Hazards<br>Addressed                        | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                           |
| TORNADO            | T-1    | THR-8  | Build a Safe Room near the geographic center of the population [S/I]                                                                                                                                                                                                                                                | 1,2              | Wind Storm; Lightning; Derailment; Winter Weather | Mayor; Emergency Manager         | HMGP; PDM                       | B/C: Site to be determined, based on site selection constraints/land availability and programmatic requirements. (\$\$-\$\$\$) TF: Feasibility addressed in initial stage of site selection, alternatives evaluation.                                                                       |
|                    | T-2    | THR-9  | Participate in the State program for Residential Saferooms. [I], [S/I]                                                                                                                                                                                                                                              | 1,2              | Wind Storm; Lightning; Derailment; Winter Weather | Mayor; Emergency Manager         | HMGP; PDM;                      | B/C: Leverages the investment (up to \$6,000) of private capital and land. (\$\$) TF: Depending on soil and land availability.                                                                                                                                                              |
|                    | T-3    | THR-10 | Install emergency generators at the sewer plant and all well facilities. [S/I]                                                                                                                                                                                                                                      | 1,2,4            | All                                               | Mayor; Emergency Manager         | Local; HMGP                     | B/C: The risk of long-term power failure during a hazard event and the resulting impact to the community is not acceptable. TF: Proven backup.                                                                                                                                              |
|                    | T-4    | THR-11 | Determine the most appropriate location for an emergency warning system and install. [I]                                                                                                                                                                                                                            | 1,2,4            | Wind Storm; Derailment                            | Mayor; Emergency Manager         | Local; HMGP                     | B/C: The 2016 tornado experience indicates that sirens are effective in warning the public. (\$) TF: Proven technology.                                                                                                                                                                     |

## City of Thrall

| Hazard         | Haz-ID | ID     | Mitigation Action                                                                                                                                 | Further<br>Goals | Other Hazards<br>Addressed | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources     | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                                                                                                                                             |
|----------------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|----------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DROUGHT        | D-1    | THR-12 | Implement Automatic Meter Reading instrumentation for all meters in the City. [I], [S/I]                                                          | 2,6              | Wildfire                   | Mayor; City Engineer             | Local; TWDB                         | B/C: Number of meters to be changed out still TBD. Upfront cost high; long-term benefit. (\$\$\$); TF: Common modernization practice.                                                                                                                                                                                                                                                                         |
|                | D-2    | THR-13 | Develop a rebate/conservation program that incentivizes low flow fixtures. [Reg]                                                                  | 2,6              |                            | Mayor                            | Local; TWDB                         | B/C: Can prove effective, rebate amount can be set to match budget considerations and benefit/cost. (\$-\$\$); TF: Administrative incentive program is feasible.                                                                                                                                                                                                                                              |
|                | D-3    | THR-14 | Enhance treatment capabilities at the 3 existing wells. [S/I]                                                                                     | 2,6              | Wildfire                   | Mayor; City Engineer             | Local; TWDB                         | B/C: Enhancing treatment capabilities has been identified as a critical need to build resilience in the water system. Costs are unknown until an engineering feasibility is performed (\$-\$\$\$); TF: Enhanced treatment has been successful at maximizing well efficiency in other communities. It is unknown how feasible this will be for Thrall. Preliminary engineering/feasibility must be determined. |
|                | D-4    | THR-15 | Develop and construct a reclaimed (effluent reuse) facility and distribution network in connection with work on the wastewater treatment plant.   | 2,6              | Wildfire                   | Mayor; City Engineer             | Local; TWDB                         | B/C: Enhancing treatment capabilities has been identified as a critical need to build resilience in the water system. Costs are unknown until an engineering feasibility is performed (\$-\$\$\$); TF: Enhanced treatment has been successful at maximizing well efficiency in other communities. It is unknown how feasible this will be for Thrall. Preliminary engineering/feasibility must be determined. |
| Hazard         | Haz-ID | ID     | Mitigation Action                                                                                                                                 | Further<br>Goals | Other Hazards<br>Addressed | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources     | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                                                                                                                                             |
| WILDFIRE       | WF-1   | THR-16 | Provide education materials to the public, such as the FireWise program, to address properties at the rural fringe. [Ed]                          | 1,2,4            | All                        | Emergency Manager                | Local; TFS                          | B/C: Minimal cost (printing materials) (\$). TF: Some printed material, integrated digital versions to city website.                                                                                                                                                                                                                                                                                          |
|                | WF-2   | THR-17 | Review radio interoperability; determine common technology; purchase additional equipment as necessary [I]                                        | 1,2,5            | All                        | Emergency Manager                | Local; JAG; COPS; Homeland Security | B/C: In a regional situation, communications is essential. (\$\$) TF: The essence of the action; determining what is necessary.                                                                                                                                                                                                                                                                               |
|                | WF-3   | THR-18 | Review building codes to strengthen fire resistance in new and renovation construction. [Reg]                                                     | 1,2              |                            | Mayor; Emergency Manager         | Local                               | B/C: Review of codes to determine potential risk reduction vs. cost to implement is nominal. (\$) TF: The International WUI code has been developed and has been adopted by many communities.                                                                                                                                                                                                                 |
| Hazard         | Haz-ID | ID     | Mitigation Action                                                                                                                                 | Further<br>Goals | Other Hazards<br>Addressed | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources     | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                                                                                                                                             |
| HAIL           | H-1    | THR-19 | Install a membrane roof at City Hall [S/I]                                                                                                        | 1,2              |                            | Mayor                            | Local; HMGP                         | B/C: Can avoid damage in the most common hailstorms (\$). TF: Depends on building roof type.                                                                                                                                                                                                                                                                                                                  |
|                | H-2    | THR-20 | Construct canopies at Police Department and Public Works Department to provide cover for the fleets. [S/I]                                        | 1,2              |                            | Mayor; PD; PW                    | Local; HMGP                         | B/C: Can avoid damage in the most common hailstorms (\$). TF: Common construction (steel frame and metal panels).                                                                                                                                                                                                                                                                                             |
|                | H-3    | THR-21 | Install tempered glass at City Hall [S/I]                                                                                                         | 1,2              | Windstorm                  | Mayor                            | Local                               | B/C: Upfront cost part of broader modernization will increase safety at city hall (\$-\$\$). TF: Tempered glass resists flying debris and hail and avoids dangerous shattering.                                                                                                                                                                                                                               |
| Hazard         | Haz-ID | ID     | Mitigation Action                                                                                                                                 | Further<br>Goals | Other Hazards<br>Addressed | Lead &<br>Supporting<br>Entities | Potential<br>Funding<br>Sources     | (B/C) Benefit-Costs<br>(TF) Technical Feasibility                                                                                                                                                                                                                                                                                                                                                             |
| EXPANSIVE SOIL | ES-1   | THR-22 | Conduct soil stabilization improvements and/or foundation repairs at all City Facilities [S/I]                                                    | 2                |                            | Mayor                            | Local; HMGP; PDM; FMA               | B/C: Existing city facilities have damage which can be repaired. Making the repairs allows for efficient use of existing city facilities. (\$-\$\$) TF: Foundation repair is commonly performed, and an engineering assessment is recommended.                                                                                                                                                                |
|                | ES-2   | THR-23 | Develop a set of educational materials about expansive soils and mitigation practices related to foundation design, slab perimeter watering. [Ed] | 4                |                            | Mayor; Building Official         | Local                               | B/C: Minimal cost (printing materials) (\$). TF: Some printed material, integrated digital versions to city website. Could be developed in cooperation with Texas A&M.                                                                                                                                                                                                                                        |
|                | ES-3   | THR-24 | Review building codes to strengthen resilience in new and renovation construction. [Reg]                                                          | 2                | Wind; Tornado              | Mayor; Building Official         | Local                               | B/C: Review of codes to determine potential risk reduction vs. cost to implement is nominal. (\$) TF: The International Building Code has been developed and has been adopted by many communities.                                                                                                                                                                                                            |

## City of Thrall

| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                                             | Further Goals                        | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                    |
|-----------------------|--------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------|----------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXTREME HEAT          | EH-1   | THR-25 | Review and incorporate LEED design goals for all new public facilities and retrofits. [Reg]                                                                                   | 2,6                                  | Winter Weather          | Mayor; Building Official   | Local                     | B/C: Higher upfront costs, long-term benefits. (\$-\$\$); TF: LEED incorporates many proven technologies.                                                                                                                                                         |
|                       | EH-2   | THR-26 | Identify options through the LIHEAP Program to assist non-profits, churches. [I], [Ed]                                                                                        | 2,3,6                                | Winter Weather          | Mayor; Building Official   | Local; LIHEAP             | B/C: LIHEAP programs bring costs within reach for residents who need this assistance. (\$) TF: Doors, windows, insulation are proven to reduce electric consumption in peak cooling periods.                                                                      |
|                       | EH-3   | THR-27 | Start a fan program to offer fans to vulnerable populations. [I]                                                                                                              | 2,3,6                                |                         | Mayor; PD                  | Local                     | B/C: Fans are inexpensive and combined with outreach is an important community building tool. (\$) TF: Proven technology to bring some comfort in situations; more important though is that the community is engaging a vulnerable population.                    |
|                       | EH-4   | THR-28 | Form a non-profit partnership with Opportunities Williamson/Burnet Counties. [I]                                                                                              | 2,3,6                                | Winter Weather          | Mayor                      | Local                     | B/C: This existing non-profit has been doing outreach and solving housing-related problems for decades in the broader region. (\$-\$\$). TF: More information available at: <a href="http://www.opportunitiesforwbc.org/">http://www.opportunitiesforwbc.org/</a> |
| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                                             | Further Goals                        | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                    |
| SEVERE WINTER WEATHER | WW-1   | THR-27 | Identify LIHEAP Program options to assist non-profits, churches, in providing emergency heaters to vulnerable populations. [I], [Ed]                                          | 2,3                                  |                         | Mayor; PD                  | Local; LIHEAP             | B/C: LIHEAP programs bring costs within reach for residents who need this assistance. (\$) TF: Doors, windows, insulation are proven to reduce electric consumption in peak heating periods.                                                                      |
|                       | WW-2   | THR-28 | Purchase and install an emergency generator for City Hall. [I]                                                                                                                | 1,2,5                                | All                     | Mayor; PD                  | Local; HMGP               | B/C: In event of an ice-induced widespread power failure, the EOC at City Hall would not be operational. (\$); TF: Generators are proven technology.                                                                                                              |
| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                                             | Further Goals                        | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                    |
| LIGHTNING             | L-1    | THR-29 | Expand/enhance detection equipment for use by Police Department. [S/I]                                                                                                        | 1,4                                  | All                     | PD                         | Local                     | B/C and TF: Equipment is low-cost and easy to operate.                                                                                                                                                                                                            |
|                       | L-2    | THR-30 | Assess the need for and install lightning protection at city wells. [S/I]                                                                                                     | 1,2                                  |                         | Mayor; Public Works        | Local; HMGP; PDM; FMA     | B/C: One lightning strike can impact the entire water system, therefore the cost should be well invested. TF: Pending assessment, the equipment is easily installed.                                                                                              |
|                       | L-3    | THR-31 | Purchase surge equipment for city hall. [S/I]                                                                                                                                 | 1,2                                  | All                     | Mayor                      | Local                     | B/C and TF: Equipment is low-cost and easy to operate.                                                                                                                                                                                                            |
| Hazard                | Haz-ID | ID     | Mitigation Action                                                                                                                                                             | Further Goals                        | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                    |
| WINDSTORM             | W-1    | THR-32 | Review and upgrade the emergency notification system as necessary. [I]                                                                                                        | 1,2,3,4,5                            |                         | Taylor EM                  | Local; HMGP               | B/C: Has been under discussion, is popular means of communication for citizens. (\$\$) TF: Upgrades need to be applied to broaden reach/increase awareness.                                                                                                       |
|                       | W-2    | THR-33 | Prepare/submit an application for Storm Ready Designation to the National Weather Service that attests to the community's level of preparedness for severe weather. [I], [Ed] | 1,2,3,4,5                            | All                     | Taylor EM                  | Local                     | B/C: Application can be made with existing staff (\$) TF: Application and subsequent public awareness are feasible.                                                                                                                                               |
|                       | W-3    | THR-34 | Review building code for opportunities to harden new construction. [Reg]                                                                                                      | 1,2,3,4,5<br>Comp Plan Objective H1. | Tornado                 | Taylor Building Official   | Local                     | B/C: Review of codes to determine potential risk reduction vs. cost to implement is nominal. (\$) TF: The City of Taylor has adopted and enforces very modern codes.                                                                                              |

## City of Thrall

| Hazard           | Haz-ID | ID     | Mitigation Action                                                                                    | Furthers Goals | Other Hazards Addressed | Lead & Supporting Entities | Potential Funding Sources     | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                     |
|------------------|--------|--------|------------------------------------------------------------------------------------------------------|----------------|-------------------------|----------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TRAIN DERAILMENT | TrD-1  | THR-35 | Purchase radio equipment to ensure communications interoperability. [I]                              | 5              | All                     | Emergency Manager          | Local; JAG; Homeland Security | B/C: In a regional situation, communications is essential. (\$\$) TF: The essence of the action; determining what is necessary.                                                                    |
|                  | TrD-2  | THR-36 | Enhance local hazardous materials response capabilities with materials, equipment, and training. [I] | 1,2,5,6        |                         | Emergency Manager          | Local; AFG; Homeland Security | B/C: Benefit is in terms of damage avoided. Cost is in ready equipment and supplies (\$). TF: Feasible solutions are available; these must be coordinated with the railroad depending on cargo.    |
|                  | TrD-3  | THR-37 | Develop a neighborhood-level response plan. [I], [Ed]                                                | 1,2            | All                     | Mayor                      | Local                         | B/C: Benefit is in terms of knowledge shared. Cost is minimal in workshops/staff time (\$). TF: The neighborhood level plans can be done separately or in conjunction with other planning efforts. |
|                  | TrD-4  | THR-38 | Establish an EOC outside of the potential area of impact, but within the city limits. [Reg] [I]      | 1,2,3,4,5      |                         | Mayor; Emergency Manager   | Local                         | B/C: Benefit in terms of damage to current EOC, which is potentially impacted in derailment. (\$\$) TF: New construction.                                                                          |

## Lower Brushy Creek WCID

| ID     | Mitigation Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Hazards Addressed                    | Lead & Supporting Entities                 | Potential Funding Sources                                                       | (B/C) Benefit-Costs (TF) Technical Feasibility                                                                                                                                                                                                                                                                                                                                        |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LBC-1  | <b>Implement District fees through an election.</b> The District needs a reliable revenue source to perform inspections, routine maintenance, deferred maintenance, produce local match for more grants, and eventually leverage bond funds to complete its mission. [Reg]                                                                                                                                                                                                                                                                                             | Dam Safety; Flood                    | LBCWCID                                    | -                                                                               | B/C - Establishing a revenue source is imperative for the District to be able to maintain infrastructure. There is legal cost associated with bringing forward the election. (\$). TF - The District may under its enabling legislation implement a fee, but it requires voter approval.                                                                                              |
| LBC-2  | <b>Complete Emergency Action Plans for all Significant and High Hazard Dams.</b> TCEQ requires all significant and high hazard dams to have an Emergency Action Plan (EAP) on file. Currently, there is an approved EAP for Site 32 and a draft EAP for Site 20. Both of these are high hazard dams. At this time, EAPs are needed for Site 9 (high hazard) and for Sites 2, 3, 6, 7, 17, 18 (significant hazard). As additional dams are reclassified, additional dams will require EAPs. [I]                                                                         | Dam Safety; Flood                    | LBCWCID; Williamson County; USDA; TCEQ     | LBCWCID; USDA; HMGP                                                             | B/C - Performing updated PMF analyses on all dams is a priority item to accurately assess the risk to the community. (\$\$). TF - This cannot be performed without a revenue source, either ad valorem tax adoption by the community, or by a grant from USDA or HMGP.                                                                                                                |
| LBC-3  | <b>Develop and implement an Education Program.</b> The District does not have an education program for residents, governmental entities and schools to explain how the dams operate and their benefits. [Ed]                                                                                                                                                                                                                                                                                                                                                           | Dam Safety; Flood; All Hazard        | LBCWCID; USDA; Williamson County           | USDA; TSSWCB                                                                    | B/C: Education is a very inexpensive way to bring awareness and keep lives and property safe. (\$). TF: There are materials which exist and may be adapted for LBCWCID use.                                                                                                                                                                                                           |
| LBC-4  | <b>Rehabilitate Dam #25, Dam #18, Dam #9 and Dam #29.</b> Applications for grant assistance to rehabilitate all high hazard dams should be filed with the USDA-NRCS and the Texas State Soil and Water Conservation Board. [S/I]                                                                                                                                                                                                                                                                                                                                       | Dam Safety; Flood                    | LBCWCID; USDA; TSSWCB; TCEQ                | USDA; TSSWCB; HMGP; LBCWCID                                                     | B/C - Prior analysis indicates that this is essential. (\$\$\$-\$\$\$\$). TF - A design can be performed, but must be funded as soon as possible.                                                                                                                                                                                                                                     |
| LBC-5  | <b>Perform a detailed hydrologic &amp; hydraulic study of the Mustang Creek watershed.</b> Flooding from Upper Mustang Creek has had significant impacts on the City of Taylor and its residents. [S/I], [Env]                                                                                                                                                                                                                                                                                                                                                         | Flood                                | City of Taylor; LBCWCID; TWDB              | City of Taylor; LBCWCID; TWDB                                                   | B/C: The Mustang Creek Watershed Study provides the basis for making detailed cost-benefit. (\$\$)<br>TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis.                                                                                                                                         |
| LBC-6  | <b>Study, develop a plan, and install a stream gage network on Mustang Creek.</b> Over time, this will enable a more accurate hydrologic model of the creek and its tributaries, particularly with regard to hydrograph timing and the effects of regional storage. [I]                                                                                                                                                                                                                                                                                                | Flood                                | City of Taylor; LBCWCID; TWDB              | City of Taylor; LBCWCID; TWDB; USDA; HMGP                                       | B/C: The Mustang Creek Watershed Study provides the basis for making detailed cost-benefit. (\$\$)<br>TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis.                                                                                                                                         |
| LBC-7  | <b>Develop an additional regional detention basin in the Mustang Creek watershed.</b> Site 25 controls approximately 25% of the drainage area in this basin. A second flood retarding structure would greatly reduce flooding and damage within and downstream. This would be a joint project with the City and other partners. [S/I]                                                                                                                                                                                                                                  | Flood                                | City of Taylor; LBCWCID; TWDB              | City of Taylor; LBCWCID; TWDB; USDA; HMGP; FMA; PDM                             | B/C: The Mustang Creek Watershed Study provides the basis for making detailed cost-benefit. (\$\$)<br>TF: The study will examine multiple options and proposes those that are most feasible and cost-effective on a watershed/regional basis.                                                                                                                                         |
| LBC-8  | Implement real-time water level monitoring technology at all impoundments. Water level gauges located at high and significant hazard sites would allow the WCID and emergency management partners access to real-time water levels during major rainfall events without needing "boots on the ground". These gauges would supplement EAPs for dams and allow emergency management personnel to plan for notifications and evacuations. Key bridges and creek crossings should also have similar gauges to assist county personnel with planning for road closings. [I] | Flood; Dam Safety; Wildfire          | LBCWCID; USGS; Williamson County           | LBCWCID; TWDB; HMGP; PDM; FMA                                                   | B/C: Real-time monitoring provides a timing edge to respond to potential disaster. Cost to install is negligible (\$ per site; \$\$\$\$ District-wide) and there is ongoing maintenance cost. TF: The technology exists and would need to be researched and evaluated in detail.                                                                                                      |
| LBC-9  | <b>Remove silt/sediment to restore storage volumes to design capacity and store more water for agricultural use and/or firefighting.</b> The dams were designed with sediment storage capacity, which may be able to provide flood storage if the sediment is removed. A bathymetric study would be the first step to determining if there is potential at each site and how much volume could potentially be reclaimed. [S/I]                                                                                                                                         | Flood; Dam Safety; Drought; Wildfire | LBCWCID; USDA                              | LBCWCID; USDA                                                                   | B/C: The benefit-cost at each site varies, but should be evaluated (\$\$). Sites with multiple use opportunities (ag use, wildfire fighting) should be prioritized. TF: Reclamation by dredging is feasible; the limits need to be determined in an assessment phase. Flood detention capability could be assessed after development of an H&H analysis, such as in item LBC-4 above. |
| LBC-10 | <b>Upgrade stream crossings on CR 368 and CR 369.</b> While these are County structures, their improvement should be evaluated in the context of the PMF analyses. [S/I]                                                                                                                                                                                                                                                                                                                                                                                               | Flood                                | Williamson County; City of Taylor; LBCWCID | Williamson County; City of Taylor impact fees (CR 368); LBCWCID; HMGP; FMA; PDM | B/C: A preliminary engineering study is necessary to determine the optimized sizing of the stream crossings, a determination of no adverse impact, environmental considerations, and the cost. TF: An upgraded stream crossing reduces water surface profiles at roadway elevations.                                                                                                  |



## Lower Brushy Creek WCID

|        |                                                                                                                                                                                                                        |                                                     |                                            |                                                            |                                                                                                                                                                                                                                                                                                                      |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LBC-11 | <b>Upgrade stream crossings on CR 445 and CR 424.</b> While these are County structures, their improvement should be evaluated in the context of the PMF analyses. [S/I]                                               | Flood                                               | Williamson County; City of Taylor; LBCWCID | Williamson County; City of Taylor; LBCWCID; HMGP; FMA; PDM | B/C: A preliminary engineering study is necessary to determine the optimized sizing of the stream crossings, a determination of no adverse impact, environmental considerations, and the cost. (\$) TF: An upgraded stream crossing reduces water surface profiles at roadway elevations.                            |
| LBC-12 | <b>Install cameras/surveillance equipment at dam access points.</b> Remotely operated cameras will enhance security at these sites. [I]                                                                                | Dam Safety                                          | LBCWCID                                    | LBCWCID; TWDB; Homeland Security                           | B/C: Real-time monitoring provides a timing edge to respond to potential disaster. Cost to install is negligible (\$ per site; \$\$\$ District-wide) and there is ongoing maintenance cost. TF: The technology exists and would need to be researched and evaluated in detail.                                       |
| LBC-13 | <b>Construct all telemetry equipment (see LBC-8 and LBC-12) to be able to withstand severe winds, hail, and lightning.</b> Additional hardening features should be considered during the design evaluation. [S/I]      | Lightning; Windstorm; Tornado; Hail                 | LBCWCID; USGS; Williamson County           | LBCWCID; TWDB; HMGP; PDM; FMA                              | B/C: Structural hardening of the telemetry equipment protects the investment. This may involve housing or additional stiffening design on towers. (\$ per site) TF: There is easily room at each site to accommodate these hardening techniques.                                                                     |
| LBC-14 | <b>Inspect all dams on an annual basis</b> for structural integrity, vegetative cover, erosion and expansion concerns. [I], [Env]                                                                                      | Dam Safety; Expansive Soil                          | LBCWCID                                    | LBCWCID; USDA                                              | B/C: An inspection program is very cost-effective relative to the potential risks. (\$-\$) TF: No issues other than funding curb its feasibility.                                                                                                                                                                    |
| LBC-15 | <b>Strengthen access restrictions to the dam site.</b> The precise improvements to each site are unique and should be prioritized by LBCWCID. In each case, limiting vehicular access with a gate is envisioned. [S/I] | Dam Safety                                          | LBCWCID                                    | LBCWCID                                                    | B/C: The costs will vary, but are foreseen as cost-beneficial to avoid damage, whether willful or accidental. Multiple secondary benefits ensue. (\$) TF: The feasibility of a gate and the particulars of construction/limits of construction will vary from site to site, but generally this is a common practice. |
| LBC-16 | <b>Purchase a NOAA Weather Radio for the District Manager's Office.</b> [I]                                                                                                                                            | Windstorm; Tornado; Severe Winter Weather; Wildfire | LBCWCID                                    | LBCWCID                                                    | B/C: Early warning of impending natural hazards is a very cost-effective way of allowing the District Manager time to make any necessary decisions. (\$) TF: Weather radios are proven technology.                                                                                                                   |
| LBC-17 | <b>Provide information flyers about the risks of hail, extreme heat, and expansive soils to the public at the District Office in Georgetown.</b> [Ed]                                                                  | Hail, Extreme Heat, Expansive Soil                  | LBCWCID                                    | LBCWCID                                                    | B/C/TF: Printed materials can easily be made available to the public by keeping them in the reception area of the District Office. (\$)                                                                                                                                                                              |
| LBC-18 | <b>Construct irrigation piping at each dam site which can be used to moisture condition areas of expansive soil.</b> [S/I, Env]                                                                                        | Expansive Soil; Extreme Heat                        | LBCWCID                                    | LBCWCID                                                    | B/C/TF: As part of a slope maintenance program, irrigation piping can effectively keep expansive soils from shrinking, as designed by an engineer. (\$\$)                                                                                                                                                            |

**STAPLEE Rating**

The project was evaluated based on STAPLEE criteria on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration.

(1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Within next 2 years --> Immediate

2-3 years --> Near

3-5 years-->Short

More than 5 years-->Long

| ID     | Mitigation Action                                                                                                                                                                                                                     | Socially Acceptable | Technically Feasible | Administratively Possible | Politically Acceptable | Legal | Economically Sound | Environmentally Sound | BONUS (5 pts): Addresses Multiple Hazards | BONUS (5 pts): Complements Another Entity's Efforts | TOTAL SCORE | TIMEFRAME (use the dropdown list and key above) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-------------------------------------------------|
| TAY-47 | Purchase radio equipment to ensure communications interoperability                                                                                                                                                                    | 5                   | 5                    | 5                         | 5                      | 5     | 3                  | 5                     | 5                                         | 5                                                   | 43          | Near                                            |
| TAY-51 | Conduct tabletop exercises with Union Pacific to strengthen response capability and communications.                                                                                                                                   | 3                   | 3                    | 5                         | 5                      | 5     | 4                  | 5                     | 5                                         | 5                                                   | 40          | Short                                           |
| TAY-33 | Complete repairs at the Police Department caused by expansive soil.                                                                                                                                                                   | 4                   | 4                    | 4                         | 4                      | 5     | 4                  | 4                     | 5                                         | 5                                                   | 39          | Long                                            |
| TAY-4  | Conduct "tabletop exercises" with emergency response personnel from multiple agencies, to determine further mitigation opportunities and response vulnerabilities.                                                                    | 4                   | 4                    | 4                         | 4                      | 5     | 4                  | 4                     | 4                                         | 5                                                   | 38          | Immediate                                       |
| TAY-44 | Review and upgrade the emergency notification system as necessary.                                                                                                                                                                    | 4                   | 4                    | 4                         | 4                      | 4     | 4                  | 4                     | 5                                         | 3                                                   | 36          | Short                                           |
| TAY-49 | Develop neighborhood-level plans for resident response and protection                                                                                                                                                                 | 4                   | 4                    | 3                         | 4                      | 5     | 4                  | 5                     | 5                                         | 2                                                   | 36          | Short                                           |
| TAY-50 | Ensure that the Fire Station located within closest proximity to the railroad has all necessary material response capabilities.                                                                                                       | 5                   | 5                    | 3                         | 4                      | 5     | 4                  | 5                     |                                           | 5                                                   | 36          | Long                                            |
| TAY-1  | Install an emergency warning system. Conduct a feasibility study that evaluates the coverage area, property ownership and availability, power requirements, telemetry requirements, technology, cost, and other local considerations. | 3                   | 5                    | 5                         | 5                      | 5     | 3                  | 3                     | 5                                         | 1                                                   | 35          | Short                                           |
| TAY-31 | Develop a Pavement Management System for City Streets, to track repairs, known issue areas, and the use of different pavement designs over time.                                                                                      | 4                   | 4                    | 4                         | 4                      | 5     | 4                  | 4                     |                                           | 5                                                   | 34          | Immediate                                       |
| TAY-17 | Enhance the Shelter Management Plan through a review of available spaces and education of other partners about the City of Taylor's capabilities.                                                                                     | 4                   | 4                    | 4                         | 4                      | 5     | 4                  | 2                     | 3                                         | 3                                                   | 33          | Short                                           |
| TAY-39 | Review and incorporate LEED design goals for all new public facilities and retrofits.                                                                                                                                                 | 4                   | 4                    | 4                         | 3                      | 5     | 4                  | 5                     |                                           | 3                                                   | 32          | Immediate                                       |
| TAY-45 | Prepare/submit an application for Storm Ready Designation to the National Weather Service that attests to the community's level of preparedness for severe weather.                                                                   | 4                   | 4                    | 3                         | 4                      | 5     | 3                  | 5                     |                                           | 4                                                   | 32          | Near                                            |
| TAY-43 | Purchase detection equipment for public works department                                                                                                                                                                              | 3                   | 4                    | 4                         | 3                      | 5     | 3                  | 5                     | 3                                         | 1                                                   | 31          | Near                                            |
| TAY-40 | Purchase sanding equipment/spreader for the Public Works Department                                                                                                                                                                   | 4                   | 3                    | 2                         | 5                      | 5     | 3                  | 3                     | 5                                         |                                                     | 30          |                                                 |
| TAY-48 | Develop ready-kits to enhance local hazardous materials response capabilities                                                                                                                                                         | 4                   | 4                    | 4                         | 4                      | 4     | 2                  | 5                     |                                           | 3                                                   | 30          | Long                                            |
| TAY-9  | Provide education materials online, and to real estate and insurance agencies, to increase community understanding of flood insurance. Hold a town hall meeting with NFIP representatives to discuss the insurance purchase process.  | 4                   | 4                    | 4                         | 4                      | 5     | 4                  | 3                     |                                           | 1                                                   | 29          | Immediate                                       |

**STAPLEE Rating**

The project was evaluated based on STAPLEE criteria on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration.

(1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Within next 2 years --&gt; Immediate

2-3 years --&gt; Near

3-5 years--&gt;Short

More than 5 years--&gt;Long

| ID     | Mitigation Action                                                                                                                                                                                                                     | Socially Acceptable | Technically Feasible | Administratively Possible | Politically Acceptable | Legal | Economically Sound | Environmentally Sound | BONUS (5 pts): Addresses Multiple Hazards | BONUS (5 pts): Complements Another Entity's Efforts | TOTAL SCORE | TIMEFRAME (use the dropdown list and key above) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-------------------------------------------------|
| TAY-35 | Review and incorporate LEED design goals for all new public facilities and retrofits.                                                                                                                                                 | 3                   | 4                    | 4                         | 4                      | 5     | 5                  | 4                     |                                           |                                                     | 29          | Immediate                                       |
| TAY-6  | Enter the Community Rating System (CRS) program to enable reduced insurance premiums within the community.                                                                                                                            | 4                   | 4                    | 4                         | 3                      | 5     | 4                  | 2                     | 2                                         |                                                     | 28          | Immediate                                       |
| TAY-8  | Perform a detailed study of the Bull Branch watershed, including a dam safety study of the City Lake dam and downstream.                                                                                                              | 4                   | 4                    | 4                         | 4                      | 5     | 3                  | 4                     |                                           |                                                     | 28          | Near                                            |
| TAY-13 | Install remote monitoring equipment (water level, video, rainfall) at Dam #25.                                                                                                                                                        | 3                   | 3                    | 1                         | 3                      | 2     | 2                  | 4                     | 5                                         | 5                                                   | 28          |                                                 |
| TAY-24 | Provide NOAA Weather Radios to alert residents of evacuation.                                                                                                                                                                         | 4                   | 4                    | 4                         | 4                      | 5     | 3                  | 3                     | 1                                         |                                                     | 28          | Near                                            |
| TAY-25 | Coordinate multiple large brush pickup events/dates per year to enable fuel reduction on private property.                                                                                                                            | 4                   | 4                    | 4                         | 4                      | 5     | 3                  | 4                     |                                           |                                                     | 28          | Near                                            |
| TAY-29 | Construct canopies at Police Department and Public Works Department to provide cover for the fleets.                                                                                                                                  | 3                   | 4                    | 4                         | 4                      | 5     | 4                  | 4                     |                                           |                                                     | 28          | Near                                            |
| TAY-36 | Install emergency generators at all plants/pump stations, and at City Hall                                                                                                                                                            | 4                   | 4                    | 4                         | 4                      | 5     | 3                  | 4                     |                                           |                                                     | 28          | Short                                           |
| TAY-46 | Review building code for opportunities to harden new construction.                                                                                                                                                                    | 2                   | 4                    | 3                         | 2                      | 4     | 2                  | 4                     | 5                                         | 2                                                   | 28          | Immediate                                       |
| TAY-3  | Phase I: Study the Mustang Creek Watershed for flood protection options, including the feasibility of a regional detention facility. Phase II: Implement the project recommendations of the engineering study.                        | 3                   | 4                    | 3                         | 3                      | 5     | 2                  | 4                     |                                           | 3                                                   | 27          | Short                                           |
| TAY-15 | Build a Safe Room near the geographic center of the population. Conduct a feasibility study to evaluate site options, including utilities, transportation, proximity to vulnerable populations, cost, and other local considerations. | 3                   | 3                    | 3                         | 3                      | 5     | 3                  | 3                     | 3                                         | 1                                                   | 27          | Short                                           |
| TAY-32 | Develop enhanced standards for water line installations, which provide additional separation and restraint from expansive soils.                                                                                                      | 3                   | 4                    | 4                         | 3                      | 5     | 4                  | 4                     |                                           |                                                     | 27          | Short                                           |
| TAY-11 | Support the rehabilitation of Dam #25, as carried out by LBCWCID                                                                                                                                                                      | 3                   | 4                    | 4                         | 3                      | 3     | 3                  | 3                     |                                           | 3                                                   | 26          | Near                                            |
| TAY-23 | Provide education materials, such as the FireWise program, to all new residents, neighborhood associations, under fire department page on City website.                                                                               | 4                   | 4                    | 3                         | 4                      | 5     | 3                  | 3                     |                                           |                                                     | 26          | Long                                            |
| TAY-10 | Phase I: Perform a study to evaluate upstream detention options for the Bull Branch watershed. Phase II: Construct a drainage infrastructure facility in accordance with the engineering recommendations of the study.                | 4                   | 3                    | 3                         | 4                      | 5     | 3                  | 3                     |                                           |                                                     | 25          | Immediate                                       |
| TAY-18 | Implement Automatic Meter Reading instrumentation for all meters in the City to enable closer monitoring of water use, and early leak detection.                                                                                      | 4                   | 4                    | 4                         | 4                      | 5     | 4                  |                       |                                           |                                                     | 25          | Short                                           |
| TAY-38 | Identify LIHEAP Program options to assist non-profits, churches, in providing emergency heaters to vulnerable populations.                                                                                                            | 4                   | 3                    | 3                         | 3                      | 5     | 2                  | 5                     |                                           |                                                     | 25          | Immediate                                       |

**STAPLEE Rating**

The project was evaluated based on STAPLEE criteria on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration.

(1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)

Within next 2 years --> Immediate

2-3 years --> Near

3-5 years-->Short

More than 5 years-->Long

| ID     | Mitigation Action                                                                                                                                                                       | Socially Acceptable | Technically Feasible | Administratively Possible | Politically Acceptable | Legal | Economically Sound | Environmentally Sound | BONUS (5 pts): Addresses Multiple Hazards | BONUS (5 pts): Complements Another Entity's Efforts | TOTAL SCORE | TIMEFRAME (use the dropdown list and key above) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-------------------------------------------------|
| TAY-19 | Develop a rebate/conservation program that incentivizes low-flow fixtures.                                                                                                              | 2                   | 3                    | 3                         | 3                      | 5     | 3                  | 4                     |                                           |                                                     | 23          | Long                                            |
| TAY-26 | Install a membrane roof at the Fire Station.                                                                                                                                            | 3                   | 3                    | 3                         | 3                      | 5     | 3                  | 3                     |                                           |                                                     | 23          | Immediate                                       |
| TAY-27 | Install a membrane roof at City Hall                                                                                                                                                    | 3                   | 3                    | 3                         | 3                      | 5     | 3                  | 3                     |                                           |                                                     | 23          | Immediate                                       |
| TAY-28 | Install a membrane roof at the Utilities building.                                                                                                                                      | 3                   | 3                    | 3                         | 3                      | 5     | 3                  | 3                     |                                           |                                                     | 23          | Short                                           |
| TAY-2  | Install a stream gage network on Mustang Creek. Conduct a feasibility study which identifies optimal locations, technology, site-specific requirements, and other local considerations. | 3                   | 3                    | 3                         | 3                      | 5     | 2                  | 3                     |                                           |                                                     | 22          | Near                                            |
| TAY-21 | Develop and implement a rainwater harvesting program                                                                                                                                    | 2                   | 3                    | 3                         | 3                      | 5     | 2                  | 4                     |                                           |                                                     | 22          | Near                                            |
| TAY-37 | Identify options through the LIHEAP Program to assist non-profits, churches with renovation activities.                                                                                 | 4                   | 2                    | 2                         | 4                      | 3     | 3                  | 4                     |                                           |                                                     | 22          | Short                                           |
| TAY-22 | Establish a treated effluent program for city facilities, including parks and the cemetery. Incorporate this action into the Drought Contingency Plan and the Wastewater CIP.           | 2                   | 2                    | 3                         | 3                      | 5     | 3                  | 3                     |                                           |                                                     | 21          | Long                                            |
| TAY-5  | Referring to the Mustang Creek Watershed study, determine the appropriateness of an increased BFE elevation requirement.                                                                | 2                   | 3                    | 2                         | 2                      | 5     | 3                  | 3                     |                                           |                                                     | 20          | Long                                            |
| TAY-41 | Purchase detection equipment for all school facilities and youth activity programs.                                                                                                     | 2                   | 3                    | 3                         | 2                      | 5     | 2                  | 3                     |                                           |                                                     | 20          | Long                                            |
| TAY-42 | Review and assess the lightning protection system at all water tower facilities; Make improvements as recommended by MEP Engineer.                                                      | 2                   | 3                    | 3                         | 2                      | 5     | 2                  | 3                     |                                           |                                                     | 20          | Near                                            |
| TAY-7  | Consider the establishment of a "voluntary acquisition program" to purchase repetitive loss, floodprone properties.                                                                     | 3                   | 3                    | 3                         | 3                      | 3     | 2                  | 2                     |                                           |                                                     | 19          | Near                                            |
| TAY-34 | Where recommended by geotechnical consultant, excavate and replace expansive soil with stable material for all new city facilities.                                                     | 2                   | 2                    | 2                         | 2                      | 5     | 2                  | 4                     |                                           |                                                     | 19          | Short                                           |
| TAY-30 | Distribute a set of educational materials about expansive soils and mitigation practices related to foundation design, slab perimeter watering.                                         | 2                   | 2                    | 2                         | 2                      | 5     | 2                  | 2                     |                                           |                                                     | 17          | Immediate                                       |

City of Thrall

**STAPLEE Rating**

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|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-------------------------------------------------|
| THR-6  | Conduct "tabletop exercises" with emergency response personnel from multiple agencies, to determine further mitigation opportunities and response vulnerabilities.                                                                   | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 5                                                   | 45          | Short                                           |
| THR-28 | Purchase and install a standby generator for City Hall                                                                                                                                                                               | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 5                                                   | 45          | Near                                            |
| THR-10 | Determine the most appropriate location for an emergency warning system and install.                                                                                                                                                 | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 1                                                   | 41          | Long                                            |
| THR-32 | Review and upgrade the emergency notification system as necessary.                                                                                                                                                                   | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 1                                                   | 41          | Short                                           |
| THR-37 | Develop a neighborhood-level response plan                                                                                                                                                                                           | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 1                                                   | 41          | Long                                            |
| THR-2  | Provide education materials online, and to real estate and insurance agencies, to increase community understanding of flood insurance. Hold a town hall meeting with NFIP representatives to discuss the insurance purchase process. | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 3                                         | 1                                                   | 39          | Short                                           |
| THR-8  | Participate in the State program for Residential Saferooms                                                                                                                                                                           | 5                   | 5                    | 5                         | 5                      | 5     | 3                  | 5                     | 5                                         | 1                                                   | 39          | Near                                            |
| THR-35 | Purchase radio equipment to ensure communications interoperability                                                                                                                                                                   | 3                   | 3                    | 5                         | 5                      | 5     | 3                  | 3                     | 5                                         | 5                                                   | 37          | Short                                           |
| THR-14 | Provide wildfire education materials to the public, such as through the FireWise program to address properties at the rural fringe.                                                                                                  | 3                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 1                                         | 1                                                   | 35          | Long                                            |
| THR-30 | Assess the need for and install lightning protection at city wells                                                                                                                                                                   | 3                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 1                                         | 1                                                   | 35          | Immediate                                       |
| THR-33 | Prepare/submit an application for Storm Ready Designation to the National Weather Service that attests to the community's level of preparedness for severe weather.                                                                  | 5                   | 5                    | 3                         | 5                      | 5     | 3                  | 5                     | 3                                         | 1                                                   | 35          | Long                                            |
| THR-38 | Establish an EOC outside of the potential area of impact, but within the city limits                                                                                                                                                 | 3                   | 3                    | 3                         | 3                      | 3     | 5                  | 5                     | 5                                         | 5                                                   | 35          | Short                                           |

# City of Thrall

## STAPLEE Rating

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Within next 2 years --> Immediate

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| ID     | Mitigation Action                                                                                                                                                                                                                                                                                             | Socially Acceptable | Technically Feasible | Administratively Possible | Politically Acceptable | Legal | Economically Sound | Environmentally Sound | BONUS (5 pts): Addresses Multiple Hazards | BONUS (5 pts): Complements Another Entity's Efforts | TOTAL SCORE | TIMEFRAME (use the dropdown list and key above) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-------------------------------------------------|
| THR-1  | Phase I: Conduct an engineering study to determine the optimal improvements to drainage in the Barker St. neighborhood. Phase II: Construct the Barker St. Drainage Improvements Project to maximize flood protection in the area around Barker St. and the unnamed tributary, Zone A floodplain in the City. | 3                   | 5                    | 3                         | 5                      | 5     | 3                  | 5                     | 3                                         | 1                                                   | 33          | Long                                            |
| THR-17 | Install a membrane roof at City Hall                                                                                                                                                                                                                                                                          | 5                   | 5                    | 5                         | 5                      | 5     | 3                  | 3                     | 1                                         | 1                                                   | 33          | Near                                            |
| THR-25 | Start a fan program to offer fans to vulnerable populations                                                                                                                                                                                                                                                   | 5                   | 5                    | 3                         | 5                      | 5     | 5                  | 3                     | 1                                         | 1                                                   | 33          | Short                                           |
| THR-19 | Install tempered glass at City Hall                                                                                                                                                                                                                                                                           | 3                   | 5                    | 5                         | 3                      | 5     | 3                  | 3                     | 3                                         | 1                                                   | 31          | Long                                            |
| THR-22 | Review building codes to strengthen resilience in new and renovation construction                                                                                                                                                                                                                             | 5                   | 3                    | 3                         | 5                      | 5     | 5                  | 3                     | 1                                         | 1                                                   | 31          | Long                                            |
| THR-4  | Evaluate the feasibility of a levee system to protect the wastewater treatment plant                                                                                                                                                                                                                          | 5                   | 3                    | 3                         | 3                      | 3     | 1                  | 5                     | 5                                         | 1                                                   | 29          | Short                                           |
| THR-20 | Conduct foundation repairs at all City Facilities                                                                                                                                                                                                                                                             | 3                   | 5                    | 3                         | 5                      | 5     | 3                  | 3                     | 1                                         | 1                                                   | 29          | Near                                            |
| THR-7  | Build a Safe Room near the geographic center of the population                                                                                                                                                                                                                                                | 5                   | 1                    | 3                         | 3                      | 3     | 1                  | 5                     | 5                                         | 1                                                   | 27          | Short                                           |
| THR-15 | Review radio interoperability; determine common technology; purchase additional equipment as necessary                                                                                                                                                                                                        | 1                   | 1                    | 1                         | 5                      | 5     | 1                  | 3                     | 5                                         | 5                                                   | 27          | Short                                           |
| THR-18 | Construct canopies at Police Department and Public Works Department to provide cover for the fleets.                                                                                                                                                                                                          | 3                   | 3                    | 3                         | 5                      | 5     | 3                  | 3                     | 1                                         | 1                                                   | 27          | Long                                            |
| THR-36 | Enhance local hazardous materials response capabilities with materials, equipment, and training                                                                                                                                                                                                               | 3                   | 1                    | 1                         | 5                      | 3     | 3                  | 5                     | 3                                         | 3                                                   | 27          | Long                                            |
| THR-3  | Conduct a detail-level study of the Brushy Creek tributaries in the City of Thrall and its ETJ                                                                                                                                                                                                                | 3                   | 3                    | 1                         | 3                      | 3     | 1                  | 5                     | 1                                         | 5                                                   | 25          | Short                                           |
| THR-5  | Evaluate the feasibility of building a new wastewater treatment plant                                                                                                                                                                                                                                         | 3                   | 3                    | 1                         | 3                      | 3     | 1                  | 5                     | 5                                         | 1                                                   | 25          | Immediate                                       |
| THR-21 | Develop a set of educational materials about expansive soils and mitigation practices related to foundation design, slab perimeter watering.                                                                                                                                                                  | 3                   | 3                    | 3                         | 3                      | 3     | 3                  | 5                     | 1                                         | 1                                                   | 25          | Long                                            |
| THR-26 | Form a non-profit partnership with Opportunities Williamson/Burnet Counties                                                                                                                                                                                                                                   | 3                   | 3                    | 5                         | 3                      | 3     | 3                  | 3                     | 1                                         | 1                                                   | 25          | Near                                            |



# City of Thrall

## STAPLEE Rating

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Within next 2 years --> Immediate

2-3 years --> Near

3-5 years --> Short

More than 5 years --> Long

| ID     | Mitigation Action                                                                                                          | Socially Acceptable | Technically Feasible | Administratively Possible | Politically Acceptable | Legal | Economically Sound | Environmentally Sound | BONUS (5 pts): Addresses Multiple Hazards | BONUS (5 pts): Complements Another Entity's Efforts | TOTAL SCORE | TIMEFRAME (use the dropdown list and key above) |
|--------|----------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-------------------------------------------------|
| THR-31 | Purchase surge equipment for city hall                                                                                     | 3                   | 3                    | 3                         | 3                      | 5     | 3                  | 3                     | 1                                         | 1                                                   | 25          | Immediate                                       |
| THR-34 | Review building code for opportunities to harden new construction.                                                         | 3                   | 1                    | 1                         | 5                      | 5     | 1                  | 3                     | 5                                         | 1                                                   | 25          | Near                                            |
| THR-11 | Implement Automatic Meter Reading instrumentation for all meters in the City                                               | 3                   | 1                    | 1                         | 5                      | 5     | 1                  | 5                     | 1                                         | 1                                                   | 23          | Short                                           |
| THR-12 | Develop a rebate/conservation program that incentivizes low-flow fixtures                                                  | 3                   | 1                    | 1                         | 3                      | 5     | 3                  | 5                     | 1                                         | 1                                                   | 23          | Immediate                                       |
| THR-24 | Identify options through the LIHEAP Program to assist non-profits, churches                                                | 3                   | 3                    | 3                         | 3                      | 3     | 3                  | 3                     | 1                                         | 1                                                   | 23          | Immediate                                       |
| THR-27 | Identify LIHEAP Program options to assist non-profits, churches, in providing emergency heaters to vulnerable populations. | 3                   | 3                    | 3                         | 5                      | 3     | 1                  | 3                     | 1                                         | 1                                                   | 23          | Near                                            |
| THR-23 | Review and incorporate LEED design goals for all new public facilities and retrofits.                                      | 3                   | 3                    | 1                         | 3                      | 3     | 3                  | 3                     | 1                                         | 1                                                   | 21          | Short                                           |
| THR-29 | Expand/enhance detection equipment for use by Police Department                                                            | 3                   | 3                    | 3                         | 3                      | 3     | 1                  | 3                     | 1                                         | 1                                                   | 21          | Short                                           |
| THR-16 | Review building codes to strengthen fire resistance in new and renovation construction.                                    | 3                   | 1                    | 1                         | 3                      | 5     | 1                  | 3                     | 1                                         | 1                                                   | 19          | Long                                            |
| THR-13 | Enhance treatment capabilities at the 3 existing wells.                                                                    | 1                   | 1                    | 1                         | 1                      | 3     | 1                  | 1                     | 1                                         | 1                                                   | 11          | Short                                           |
| THR-9  | Install emergency generators at the sewer plant and all well facilities                                                    | 1                   | 1                    | 1                         | 1                      | 1     | 1                  | 1                     | 1                                         | 1                                                   | 9           | Near                                            |

Lower Brushy Creek WCID

| STAPLEE Rating                                                                                                                                    |                                                                                                                                   |                     |                      |                           |                        |       |                    |                       |                                           |                                                     |             | Within next 2 years --> Immediate |                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------|---------------------------|------------------------|-------|--------------------|-----------------------|-------------------------------------------|-----------------------------------------------------|-------------|-----------------------------------|-------------------------------------------------|
| The project was evaluated based on STAPLEE criteria on a scale of 1 to 5 indicating the extent to which this action satisfies each consideration. |                                                                                                                                   |                     |                      |                           |                        |       |                    |                       |                                           |                                                     |             | 2-3 years --> Near                |                                                 |
| (1= Does Not Satisfy 3 = Moderately Satisfies 5 = Strongly Satisfies)                                                                             |                                                                                                                                   |                     |                      |                           |                        |       |                    |                       |                                           |                                                     |             | 3-5 years --> Short               |                                                 |
|                                                                                                                                                   |                                                                                                                                   |                     |                      |                           |                        |       |                    |                       |                                           |                                                     |             | More than 5 years --> Long        |                                                 |
| ID                                                                                                                                                | Mitigation Action                                                                                                                 | Socially Acceptable | Technically Feasible | Administratively Possible | Politically Acceptable | Legal | Economically Sound | Environmentally Sound | BONUS (5 pts): Addresses Multiple Hazards | BONUS (5 pts): Complements Another Entity's Efforts | TOTAL SCORE |                                   | TIMEFRAME (use the dropdown list and key above) |
| LBC-4                                                                                                                                             | Rehabilitate Dam #25, Dam #18, Dam #9 and Dam #29.                                                                                | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 40          |                                   | Near                                            |
| LBC-5                                                                                                                                             | Perform a detailed hydrologic & hydraulic study of the Mustang Creek watershed.                                                   | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 0                                         | 5                                                   | 40          |                                   | Short                                           |
| LBC-6                                                                                                                                             | Study, develop a plan, and install a stream gage network on Mustang Creek.                                                        | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 0                                         | 5                                                   | 40          |                                   | Long                                            |
| LBC-8                                                                                                                                             | Implement real-time water level monitoring technology at all impoundments.                                                        | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 40          |                                   | Long                                            |
| LBC-10                                                                                                                                            | Upgrade stream crossings on CR 368 and CR 369.                                                                                    | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 0                                         | 5                                                   | 40          |                                   | Short                                           |
| LBC-11                                                                                                                                            | Upgrade stream crossings on CR 445 and CR 424.                                                                                    | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 0                                         | 5                                                   | 40          |                                   | Long                                            |
| LBC-13                                                                                                                                            | Construct all telemetry equipment (see LBC-8 and LBC-12) to be able to withstand severe winds and lightning.                      | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 40          |                                   | Long                                            |
| LBC-14                                                                                                                                            | Inspect all dams on an annual basis for structural integrity, vegetative cover, erosion and expansion concerns.                   | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 40          |                                   | Long                                            |
| LBC-16                                                                                                                                            | Purchase a NOAA Weather Radio for the District Manager's Office.                                                                  | 5                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 40          |                                   | Long                                            |
| LBC-2                                                                                                                                             | Complete Emergency Action Plans for all Significant and High Hazard Dams.                                                         | 3                   | 5                    | 5                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 38          |                                   | Long                                            |
| LBC-1                                                                                                                                             | Implement District fees through an election.                                                                                      | 3                   | 5                    | 5                         | 3                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 36          |                                   | Long                                            |
| LBC-3                                                                                                                                             | Develop and implement an Education Program.                                                                                       | 5                   | 3                    | 3                         | 5                      | 5     | 5                  | 5                     | 5                                         | 0                                                   | 36          |                                   | Long                                            |
| LBC-7                                                                                                                                             | Develop an additional regional detention basin in the Mustang Creek watershed.                                                    | 3                   | 3                    | 3                         | 3                      | 5     | 3                  | 5                     | 0                                         | 5                                                   | 30          |                                   | Long                                            |
| LBC-12                                                                                                                                            | Install cameras/surveillance equipment at dam access points.                                                                      | 5                   | 5                    | 3                         | 5                      | 3     | 3                  | 5                     | 0                                         | 0                                                   | 29          |                                   | Immediate                                       |
| LBC-9                                                                                                                                             | Remove silt/sediment to restore storage volumes to design capacity and store more water for agricultural use and/or firefighting. | 3                   | 3                    | 3                         | 3                      | 3     | 3                  | 3                     | 5                                         | 0                                                   | 26          |                                   | Long                                            |
| LBC-15                                                                                                                                            | Strengthen access restrictions to the dam site.                                                                                   | 3                   | 3                    | 3                         | 3                      | 3     | 3                  | 3                     | 0                                         | 0                                                   | 21          |                                   | Immediate                                       |



2901 CR 175  
Leander • Texas • 78641



9225 Bee Cave Rd • Building A  
• Suite 200 • Austin • Texas •  
78733 TBPE Firm No. F-18320



***City Council Meeting  
June 13, 2019  
Transmittal Letter***

STRATEGIC PILLAR

- ☐ Streets/Infrastructure
- ☐ Quality of Life
- ☐ Economic Vitality

**Agenda Item #:** 3

**Agenda Title:** Discuss and consider a request from Habitat for Humanity of Williamson County for the waiver of City fees for houses constructed by Habitat in Taylor.

**Council Action to be taken:** Consider waiving City fees for Habitat for Humanity

**Department Submitted:** Development Services

**Staff Contact:** Tom Yantis, Director of Development Services

**1. PURPOSE/DESCRIPTION**

Habitat for Humanity provides new houses and home repair services for families in Taylor whose income is below 80% of the median income in Williamson County. In an effort to continue to be able to provide those opportunities for lower income families in Taylor, Habitat has requested that the City Council authorize the waiver of City fees for their construction and repair of houses in Taylor.

**2. STAFF ANALYSIS (How and Why)**

The waiver of City fees will allow Habitat to continue to provide affordable housing and home repair services in Taylor.

**3. RECOMMENDATION**

The City has historically waived fees for Habitat for Humanity and staff recommends that City Council authorize the continued waiver of fees.

**4. FUNDING SOURCE**

The waiver of fees will impact the permit revenue line items of the General Fund.

**5. TIMELINE**

N/A

## **6. PRIOR COUNCIL ACTIONS TAKEN**

In April 2008, the City Council approved a memorandum of understanding with Habitat for Humanity of Williamson County for the transfer of city-owned lots on Doak Street for the construction of new houses by Habitat. In that MOU the Council authorized the waiver of City fees for the construction of those homes.

## **7. OTHER OPTIONS (In order of preference)**

Council may choose not to waive City fees for Habitat or may choose to only waive a portion of the fees.

## **8. ATTACHMENTS**

3a [Request from Habitat for Humanity for fee waivers](#)



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Joe Land  
Quest Software, Inc.

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**Executive Director**  
Debbie Hoffman

**2018-19 Community Supporters**  
City of Georgetown  
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Lola Wright Foundation  
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TX State Affordable Housing Corp.  
Wells Fargo  
Williamson County

***Building strength, stability and self-reliance since 1999***

May 22, 2019

Mr. Tom Yantis  
Assistant City Manager/Director of Development Services  
City of Taylor  
400 Porter Street  
Taylor, Texas 76574

RE: PERMIT FEE WAIVER REQUEST

Mr. Yantis,

Habitat for Humanity of Williamson County (HFHWC) is committed to creating opportunities for families to obtain homeownership and to sustain home ownership. We meet this mission by constructing houses and repairing homes for families making no more than 80% of Williamson County's median income.

Since 2008, HFHWC has built 8 homes in Taylor and sold those to families who did not qualify for a market rate mortgage. In addition, 4 homeowners whose income is no more than 50% of the median Williamson County income have received home repair services. Currently, HFHWC is building a home on Frink Street and is in process of repairing 2 existing homes.

HFHWC is committed to continuing to partner with families in Taylor who need safe, decent and affordable housing. Our affiliate owns 2 more lots on Frink Street, Taylor, on which single family homes will be built. In addition, HFHWC and Taylor Housing Authority is finalizing a partnership agreement to serve more families.

City of Taylor has consistently waived permit fees for home construction and home repairs completed by HFHWC. I ask that HFHWC continues to receive that waiver.

Please let me know if you have any questions. I will be glad to meet with you or other City of Taylor representatives to discuss HFHWC plans for the community of Taylor.

Sincerely,

A handwritten signature in blue ink that reads "Debbie Hoffman".

Debbie Hoffman  
Executive Director

512-863-4344 WilliamsonHabitat.org  
Georgetown ReStore  
2108 North Austin Avenue  
Georgetown, TX 78626

Administrative Office  
P. O. Box 737  
Georgetown, TX 78627

Round Rock ReStore  
3016 Gattis School Road  
Round Rock, TX 78664





***City Council Meeting  
June 13, 2019  
Transmittal Letter***

STRATEGIC PILLAR

- ☐ Streets/Infrastructure
- ☒ Quality of Life
- ☒ Economic Vitality

**Agenda Item #:** 4

**Agenda Title:** Consider Tax Increment Financing (TIF) Fund application from 2<sup>nd</sup> & Main Lofts (c/o Douglas Moss) for a Fire Suppression and Alarm System at 100 E. 2nd Street.

**Council Action to be taken:** Consider approving application

**Department Submitted:** Development Services

**Staff Contact:** Tom Yantis, Director of Development Services

**1. PURPOSE/DESCRIPTION**

The City of Taylor Tax Increment Reinvestment Zone (TIRZ) #1 has established a grant program to assist downtown property owners with the cost of installing fire suppression systems in existing buildings. This agenda item is for the Council to consider an application for grant funds by 2<sup>nd</sup> & Main Lofts for their building at 100 E. 2<sup>nd</sup> Street.

**2. STAFF ANALYSIS (How and Why)**

The purpose of the grant fund is to facilitate the installation of fire suppression systems in existing buildings in downtown as they are rehabilitated.

**3. RECOMMENDATION**

The Tax Increment Reinvestment Zone Board of Directors considered this grant application at their meeting on May 22, 2019 and unanimously recommended awarding \$25,000 in grant funds from the FY 2019-20 TIF budget to 2<sup>nd</sup> & Main Lofts for the building at 100 E. 2<sup>nd</sup> Street.

Staff recommends authorizing the City Manager to prepare and execute an agreement with 2<sup>nd</sup> & Main Lofts for grant funding of \$25,000 from the FY 2019-20 Tax Increment Fund for the installation of a fire suppression system at 100 E. 2<sup>nd</sup> Street.

**4. FUNDING SOURCE**

FY 2019-20 proposed Tax Increment Fund line item 119-520-819 in the amount of \$25,000. This is the proposed funding for FY 2019-20 and is subject to final budget approval by the TIF Board and City Council.

|                    |
|--------------------|
| <b>5. TIMELINE</b> |
|--------------------|

The application was submitted on March 13, 2019

The TIF Board recommended approval of the request on May 22, 2019

|                                       |
|---------------------------------------|
| <b>6. PRIOR COUNCIL ACTIONS TAKEN</b> |
|---------------------------------------|

N/A

|                                                  |
|--------------------------------------------------|
| <b>7. OTHER OPTIONS (In order of preference)</b> |
|--------------------------------------------------|

Council may deny the grant application.

|                       |
|-----------------------|
| <b>8. ATTACHMENTS</b> |
|-----------------------|

4a [Grant application for 2<sup>nd</sup> & Main Lofts](#)



## **TAYLOR TAX INCREMENT FINANCING (TIF) FUND GRANT APPLICATION**

Taylor Main Street seeks to improve the image of downtown through the historic restoration and rehabilitation of commercial buildings. As an economic incentive, Taylor Main Street has designed the fire suppression system grant program.

Date: **March 13, 2019**

Applicant Name: **2<sup>nd</sup> & Main Lofts (c/o Douglas Moss)**

Applicant Mailing Address: **812 George Street; Taylor, Texas 76574**

Applicant Email Address: **dmoos@publicsketch.com**

Address of property for which grant is being requested: **100 East 2<sup>nd</sup> Street (corner of Main St)**

Describe the proposed project for which grant is being requested: **A new fire sprinkler and fire alarm system for both floors of the two buildings (approximately 12,500 square feet)**

Amount of funds being requested: **\$25,000.**

How the funds will be used: **Payment to the contractor for the installation of the fire sprinkler and fire alarm system.**

Describe why the funds are needed: **This renovation and restoration project is a major project in the Taylor community. Getting investors for the project has been difficult because there is still not strong support for investing in the transformation of downtown by potential investors. To make the project happen, we are attempting to assemble a diverse group of funds to create a project of excellence for downtown Taylor and the residents. The funds received from this grant will be impactful in helping make the project budget work.**

Page 2

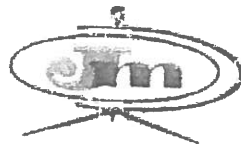
March 13, 2019

**Private Capital Investment:** The total project costs currently anticipated is \$2.5 Million. This includes acquisition, construction costs, soft costs, etc. We are funding this entire project with a substantial amount of capital from Douglas Moss; a small number of private investors; state and federal historic tax credits; the City of Taylor Façade and Paint grants; and bank financing.

Please submit all bids received for work for which grant funds are being requested. See Attached documents

A handwritten signature in dark ink, appearing to be "J.W. L.", written over a horizontal line.

Signature of applicant



**Electronic ENGINEERING, Inc.**

1934 Waukesha

Pflugerville, TX. 78660

Phone 512-244-1212 Fax 512-218-0909

Service Areas: Austin, Corpus Christi, Dallas, San Antonio, Waco, Houston, Rio Grande Valley

ACR-75275-062 SCR-0121 ECR-932 80883

CONTRACT AND PROPOSAL

**Project:** 2nd & Main Lofts  
100 E. Second Street  
Taylor, TX 76574

**Date:** 9/12/2018

**Contractor:** Public Sketch, LLC

**Email:** [dharrison@publicsketch.com](mailto:dharrison@publicsketch.com)

**Attention:** Darwin Harrison

**Fire Sprinkler scope of work:**

Furnish and install a complete Automatic Fire Sprinkler system for the above referenced project. Design, materials, fabrication, and installation will be in accordance with NFPA 13, IBC 2015, project plans, specifications and applicable local codes and requirements.

**Our proposal includes furnishing and/or installing the following:**

1. Design a retrofit wet pipe sprinkler system to protect all areas of the new tenant finishout, specified building only, based on light hazard in accordance with NFPA #13.
2. Add new sprinkler piping exposed in all areas, unless otherwise noted.
3. All work shall begin at new fire riser room, 1 ft above finished floor.
4. Fire caulking and sleeves as required for penetrations at fire rated wall assemblies.
5. Interior piping to be black steel.
6. Sprinklers in exposed areas shall be upright, ceiling areas will be semi-recessed pendant style.
7. Proposal is based on adequate water supply provided by others.
8. Proposal is based on Architect/Engineers providing electronic AutoCAD files of the building as needed to assist in completion of submittal/shop drawings at no additional cost to JM Electronic Engineering, customer will need to provide original sprinkler drawings.
9. Sprinkler system is solely configured for new space and remodel of specified 1st and 2nd floors specified by supplied prints.
10. PLEASE NOTE ALL PIPE AND HANGERS WILL BE COORDINATED BEFORE TIN CEILINGS GO IN, ALL PIPE WILL BE HUNG FROM EXISTING WOOD BEAMS, JM WILL NOT ADD NEW HEADERS FOR PIPING.
11. FDC will be on outside wall of building per fire marshal specifications or where fire lane is specified.

**Codes Referenced:** NFPA #13 IBC 2015

**Fire Sprinkler Price:** FORTY FOUR THOUSAND TWO HUNDRED SEVENTY DOLLARS AND ZERO CENTS (\$44,270.00)

**ADDER:** Standpipe in stairs if required \$7500.00

**Payment Terms:** 50 % DOWN PAYMENT DUE BEFORE DESIGN, monthly progress reports thereafter with balance due upon completion.

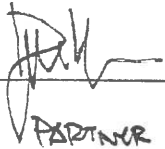
**Lump Sum price INCLUDES all TAX ON MATERIALS ONLY.**

**Exclusions:**

1. All underground piping including any piping associated with remote fire department connections.  
(Proposed scope of work shall start inside the building)
2. Overtime, after hours or fast track of permits and inspection.
3. Any costs associated with acquiring CAD background files.
4. Painting and/or preparing of pipe to receive paint and/or pipe markers.
5. Electrical wiring of any kind.
6. Insulation/freeze protection for any and all piping / or outside non-combustible overhangs.
7. Adequate water supply, fire pump or backflow protection.
8. Payment and Performance Bonds (Bonds if required can be provided for a premium of 2 1/2% of the total contract amount)
9. Stand Pipe, knox box or any bracing of existing structure to support weight of sprinkler pipe.
10. Coring of an existing structural beams to run sprinkler pipe through.
11. Temporary Fire Protection While Under Construction..

We thank you for the opportunity to provide this proposal. If you have any questions please feel free to call me at 512-244-1212. We respectfully request a bid tabulation of this project.

Fire Sprinkler

Accepted By: 

Title: PARTNER

Phone: 917-576-7044

Fax: \_\_\_\_\_

JMEE Rep: \_\_\_\_\_

Angel Padilla

Signature: \_\_\_\_\_

Email: \_\_\_\_\_

angel.padilla@jmee.com

Phone: \_\_\_\_\_

512-244-1212





**Electronics ENGINEERING, Inc.**  
LIFE SAFETY CODE SPECIALISTS

## PROPOSAL

SILENT KNIGHT by Honeywell FARENHYT DISTRIBUTOR

Service Areas: Austin, Corpus Christi, Dallas, Houston, Rio Grande Valley, San Antonio, Waco  
Licenses (Fire Alarm: ACR-1750518 - Fire Sprinkler: SCR-0121 - Fire Extinguisher: ECR-932 - Security: B08883)  
HUB CERTIFICATION #49215

Date: September 12, 2018

To: 2nd & Main Lofts, LLC / Public Sketch, LLC  
100 East Second Street  
Taylor, Texas 76574

Phone: (805) 543-8302

Attn: Darwin Harrison

Email: dharrison@publicsketch.com

Project: 2nd & Main Lofts

Scope of Work:

Main fire alarm panel shall be: Silent Knight IFP-300

Control & Initiation Devices

- 1 - fire alarm control panel
- 1 - pull station addressable
- 16 - smoke detector addressable
- 13 - sounder base (low frequency)
- 2 - monitor module addressable (fire sprinkler)
- 1 - wall mount document cabinet with usb storage

Notification Devices

- 2 - horn/strobe wall mount
- 2 - strobe wall mount
- 1 - 24v weatherproof bell

Project Specifics:

- 1. The Silent Knight IFP-300 can provide up to 300 internal points & can be networked to 32 additional panels.
- 2. Provision of horn & strobe notification only. See attached design drawing for additional clarification.
- 3. Cable, labor, permit, submittals to the authority having jurisdiction, final testing and commissioning.

Mechanical Specifics:

- 1. No units were shown to be over 2,000 CFM so therefore HVAC monitoring & controls has been excluded.
- 2. No Gas was shown to be within the building so therefore CO detection has been excluded.

Sprinkler Specifics:

- 1. Provision of monitoring of the fire sprinkler system. Unless listed sprinkler devices have been excluded.
- 2. Provision of an external waterproof bell to activate on water flow detection.
- 3. If required monitoring of a pump controller has been excluded & would require additional pricing.

Monitoring Specifics:

- 1. The new Fire Alarm Panel includes onboard Telephone & IP monitoring capability with point ID reporting.
- 2. Dedicated telephone/network cabling will need to be provided and installed by others.
- 3. For telephone monitor (2) non-digital (POTS) first in line telephone numbers must be provided.
- 4. For IP monitoring the network equipment must have un-switched power with appropriate battery backup.
- 5. A monitoring agreement between JMEE & the building owner will be required before monitoring can be setup.

Addendums: N/A

Exclusions:

- 1. Conduit, raceways, back boxes, T-bar supports, penetrations, coring, fire caulking, patching, painting and wall repairs.
- 2. Overtime, after hours, fast track or bonding fees.
- 3. Changes to the design by the AHJ during the submittal approval process.
- 4. Any costs associated with acquiring CAD background drawings.
- 5. 120VAC dedicated branch circuits to control and power supply panels.
- 6. Communications cable for off site monitoring.

Tax:

- 1. Lump Sum tax has been included in the Base Price.

Base Price: \$8,835.00

Eight Thousand Eight Hundred Thirty Five Dollars And No Cents

50% down before work begins with remaining due upon completion.

We thank you for the opportunity to provide this proposal. If you have any questions please feel free to call me at 512-656-9265 or email me directly at james.hollingsworth@jmee.com.

James Hollingsworth  
Estimator

Accepted

Title

Date

JM Electronic Engineering, Inc.

1934 Waukesha Drive, Pflugerville, Texas 78660 512-244-1212 fax 512-218-0909 www.jmee.com  
Protecting Life & Property for Over 50 Years

Date: July 19, 2018

Reference: 2<sup>nd</sup> & Main

Attn: Darwin Harrison

Plan Date: June 28<sup>th</sup>, 2018

Architech: HOLZMAN

## **BID PROPOSAL - FIRE SPRINKLER SYSTEM**

### **SCOPE OF WORK:**

Subject to the terms and conditions below, Koetter Fire Protection will provide labor and material to install a new automatic fire sprinkler system into the new building as specified, in accordance with the National Fire Protection Association's guidelines.

- Provide plans to acquire permits and approvals from the City of Taylor Fire Department.
- Fire sprinkler work to begin at a 6" flanged outlet inside the building. The supply piping to that point is by others.
- The system is wet pipe type. The design is for Light Hazard occupancy. The design density is 0.10 gpm over 1500 sq.ft. The sprinkler alarm devices are riser check valve, water flow switch, and electric bell (wiring by others).
- Sprinklers in areas with suspended ceilings to be recessed type (standard and extended coverage). These sprinklers are centered in the ceiling tiles. Sprinklers in areas without ceilings to be standard brass upright or pendent (standard and extended coverage).
- Thread end pipe to be black schedule 40 and have cast iron screwed fittings. Groove end pipe to be black thin wall and have groove couplings and fittings.
- Main & Branchline Piping to be exposed.
- A certified and tested backflow preventer is provided inside the building at the point of supply entry.
- Hanger assemblies and materials to be per NFPA requirements.
- Our standard one-year warranty is included. Any work performed by other than Koetter Fire Protection may void that warranty.

Addenda Reviewed: None

Drawings: A-201, A-101, A-102

Specifications: NFPA 13

**Fire Sprinkler System**

|                       |                     |
|-----------------------|---------------------|
| Material              | \$ 31,567.00        |
| Labor                 | \$ 12,708.00        |
| 8.25% tax on Material | \$ 2,604.28         |
| <b>Total</b>          | <b>\$ 46,879.28</b> |
|                       |                     |

### **CONDITIONS:**

- This proposal, and the price enumerated herein, is automatically null and void after thirty (30) days from the above date.
- Add 1.5% to the total price below if bonds (performance or payment bonds) are required.
- Should a subcontract agreement or other similar document be executed by the parties on, in conjunction with, or after acceptance of this Proposal, the terms of this Proposal shall be identified as a part of and are hereby

incorporated by reference into any such instrument as if fully set forth at length therein. If there is a conflict between this Proposal and any such document, this Proposal controls.

- A minimum three (3) week written notice to proceed is required with this project in order for Koetter Fire Protection to efficiently schedule design and shop drawings.

**EXCLUSIONS:** *The items listed below are not included and are expressly excluded from the above scope and price:*

- Testing water supplies for MIC
- Appropriate treatment for MIC prior to filling piping with water
- Premium Time, after hours or weekend work
- Fire Pump systems or storage tanks.
- Removal, replacement or repair of existing ceilings to install fire sprinkler piping.
- Adequate heat in all areas containing sprinkler piping
- Adequate water supply.
- Galvanized piping.
- Schedule 40 piping.
- Preparation (and/or removal) of sprinklers to receive paint
- Freeze Protection
- Anti-freeze sprinkler system
- Automatic sprinkler protection of outside canopies
- Structural supports
- Bonds (Performance and Maintenance)
- Cleaning, painting, or marking of piping.
- All electrical work.

**EXCLUDE THE APPROVAL OF THE FOLLOWING:**

Factory Mutual • Industrial Risk Insurers • Kemper Insurance • Texas State Board of Insurance (effective August 1994) • Any "Owner's insurance underwriter" or other third party not expressly identified in the project specifications • Insurance Services Office (ISO) • Professional Engineer Stamp on all shop drawings •

**TERMS:**

Upon acceptance by your signature below, and unless otherwise agreed by in writing, the terms of this proposal are as follows:

1. 90% of all materials, labor, and equipment supplied each month will be paid by you on or before thirty (30) days following submission of an invoice or application for payment (progress payments) by Koetter Fire Protection. Final payment shall be made to Koetter Fire Protection on or before thirty (30) days after final completion of the work. Koetter Fire Protection does not assume and expressly disclaims any responsibility for non-payment to you by the project owner(s) of any progress or final payments, and your obligation to make such payments to Koetter Fire Protection is not contingent in any way upon your receipt of like payment(s) from the project owner(s).
2. Koetter Fire Protection agrees to indemnify you and the project owner from any reasonable losses due to personal injury or property damage directly caused by or arising directly from, in whole or in part, an act or omission of Koetter Fire Protection or anyone directly employed by Koetter Fire Protection, but only to the percentage and extent of negligence Koetter Fire Protection contributing to loss.
3. Should Koetter Fire Protection's work be delayed, accelerated, hindered, interfered with, or obstructed in any manner and by any person or entity other than Koetter Fire Protection, you agree, in addition to giving an extension of time for performance, to reimburse Koetter Fire Protection for all costs, including overhead and profit, associated therewith.

**Please sign in the space provided below indicating your acceptance of this bid proposal. After signing, please return the original to our office and retain a copy for your files. Koetter Fire Protection, by**

**submitting this proposal and offer, does not agree or become bound to perform the work indicated above unless and until the original, signed proposal is returned.**

We appreciate your consideration of Koetter Fire Protection as your fire protection contractor. If we can be of assistance in this or any other matter, please do not hesitate to call.

Sincerely,  
Koetter Fire Protection of Austin, LLC

By: Ezequiel D. Moncivais

Name: Ezequiel D. Moncivais

Date: July 19, 2018

**- ACCEPTANCE CLAUSE-**

By signature below, we hereby agree, accept, and authorize Koetter Fire Protection, Inc. to proceed with the work described above under the terms and upon the conditions described herein.

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



***City Council Meeting  
June 13, 2019  
Transmittal Letter***

STRATEGIC PILLAR

☐ Streets/Infrastructure

☒ Quality of Life

☐ Economic Vitality

**Agenda Item #:** 5

**Agenda Title:** Consider Approving the Purchase of the Police Department's and Fire Department's Public Safety Radio Replacement System with Motorola

**Council Action to be taken:** Approve Purchase

**Department Submitted:** Police and Fire

**Staff Contact:** Henry Fluck, Chief of Police  
Daniel Baum, Fire Chief

**1. PURPOSE/DESCRIPTION**

City Council has approved the purchase of the Police Department's and Fire Department's End of Life Radio Replacement System as part of the larger Public Safety Communications Bond Project for the amount of approximately \$1.2 million.

**2. STAFF ANALYSIS (How and Why)**

The Police Department and Fire Department have requested a needed upgrade to purchase radio replacements and approve the purchase with Motorola for the amount of \$600,459.74. The current radio system has reached the end of life. Motorola has sent "Intent to Cancel" notifications. The equipment is no longer being manufactured nor is its replacement parts. Service support is ending. The Williamson County Emergency Communications System is a Motorola user to include the Williamson County Sheriff's Department, Williamson County Constable's Precincts 1-4, Hutto Police Department, Round Rock Police and Fire Department, Georgetown Police and Fire Department, Liberty Hill Police Department, Leander Police and Fire Department, and Cedar Park Police and Fire Department.

The Console Systems Purchase Agreement has been reviewed by our Project Consultant Mission Critical Partners for technical adequacy.

Motorola is part of the Houston-Galveston Area Cooperative (H-GAC) purchasing program that assists local governments in reducing costs through this government-to-government procurement service.

### **3. RECOMMENDATION**

Approve the purchase with Motorola for the Police and Fire End of Life Radio Replacement project for the amount of \$600,459.74.

### **4. FUNDING SOURCE**

Funded from Bond Proceeds.

|                                                          |                     |
|----------------------------------------------------------|---------------------|
| Police Department Handheld and In-car Radio Replacement  | \$182,237.82        |
| Police Department MCC 7500 IP Console Upgrade            | \$166,718.00        |
| Fire Department Radio Replacement                        | <u>\$251,503.92</u> |
| Total Motorola Radio and Console Replacement and Upgrade | \$600,459.74        |

The maintenance cost is a recurring cost funded from the operating budgets for both the Police Department and Fire Department.

Police and Fire Handheld/Portable Radios and In-Car Radios are covered under a 5-year Factory Warranty. After 5 years, (which begins upon receipt of equipment), maintenance agreement payments based on number of handheld/portable and in-car radios will be due. This will be an annual payment.

Police Dispatch Consoles are covered for the first year with a 24/7 Full Support Warranty. After the first year, (which begins after system acceptance sign-off), maintenance agreement payments quoted by Motorola will be due. According to the 2 year quote provided by Motorola, there will be a 1% increase each year (which is included in the estimated annual projections below).

The annual on-going maintenance costs are projected to be:

|        |                               |
|--------|-------------------------------|
| Year 1 | No Cost                       |
| Year 2 | \$23,284.68 (Police Only)     |
| Year 3 | \$23,983.20 (Police Only)     |
| Year 4 | \$24,215.84 (Police Only)     |
| Year 5 | \$24,443.47 (Police Only)     |
| Year 6 | \$30,013.37 (Police and Fire) |



## **5. TIMELINE**

We have reached end of life for Police Consoles (Service Support End Date 6-30-18) and are near the end of life for both Police and Fire Portable Radios and In-car Radios (Service Support End Date 12-31-19).

## **6. PRIOR COUNCIL ACTIONS TAKEN**

City Council approved the issuance of Bonds for the Public Safety Communications System for approximately \$1.2 million. City Council approved the contract for Mission Critical Partners for professional and technical services as Project Consultant for the amount of \$86,686.00. City Council approved the contract with Superion LLC for the purchase of the Police CAD (Computer Aided Dispatch) and Police RMS (Records Management System).

## **7. OTHER OPTIONS (In order of preference)**

1. Approve a contract for another Radio System provider.
2. Not approve a contract for any Radio System provider.

## **8. ATTACHMENTS**

- 5a [Police Department Handheld and In-Car Radio Replacement Costs](#)
- 5b [Police Department Radio Console Upgrade Costs](#)
- 5c [Fire Department Radio Replacement Costs](#)
- 5d [On-going Maintenance Costs](#)



Account Manager: Clay Cassard  
6500 River Place Blvd, Austin TX 78730

Date: 5/23/19

Quote#: scc52319

City of Austin Contract Number: City of Austin Discount

|                              |                  |                  |
|------------------------------|------------------|------------------|
| Prepared For: City of Taylor | Ship to Address: | Bill to Address: |
| Phone Number:                |                  |                  |
| Email :                      |                  |                  |
| Agency: Beth Wilkes          |                  |                  |
| Customer #:                  |                  |                  |

| Item                                      | Qty | Description                                    | Model       | List Price | Contract Price | Extended  |
|-------------------------------------------|-----|------------------------------------------------|-------------|------------|----------------|-----------|
| <b>APX6000 700/800 MODEL 3.5 PORTABLE</b> |     |                                                |             |            |                |           |
| 29                                        |     | APX6000 700/800 MODEL 3.5 PORTABLE             | H98UCH9PW7B | \$3,455.00 | 2,453.05       | 71,138.45 |
| 29                                        |     | ADD: ASTRO DIGITAL CAI OPERATION               | Q806        | \$515.00   | 365.65         | 10,603.85 |
| 29                                        |     | ADD: SMARTZONE OPERATION                       | H38         | \$1,200.00 | 852.00         | 24,708.00 |
| 29                                        |     | ADD: P25 9600 BAUD TRUNKING                    | Q361        | \$300.00   | 213.00         | 6,177.00  |
| 29                                        |     | ADD: ADVANCED SYSTEM KEY - HARDWARE KEY        | QA01648     | \$5.00     | 3.55           | 102.95    |
| 29                                        |     | ADD: APX 6000 RADIO AUTHENTICATION             | QA01767     | \$100.00   | 71.00          | 2,059.00  |
| 29                                        |     | ENH: MULTIKEY                                  | H869        | \$330.00   | 234.30         | 6,794.70  |
| 29                                        |     | ENH: MULTIKEY CREDIT                           | Credit      | (\$330.00) | -234.30        | -6,794.70 |
| 29                                        |     | ADD: 5 YEAR SERVICE FROM THE START LITE        | Q887        | \$162.00   | 162.00         | 4,698.00  |
| 29                                        |     | STD                                            | QA07577     | \$135.00   | 95.85          | 2,779.65  |
| 29                                        |     | ADD: EXTREME 1-SIDED NOISE REDUCTION           | QA01833     | \$25.00    | 17.75          | 514.75    |
| <b>RADIO ENHANCEMENTS</b>                 |     |                                                |             |            |                |           |
| 29                                        |     | ADD: TDMA OPERATION                            | QA00580     | \$450.00   | 319.50         | 9,265.50  |
| 29                                        |     | ADD: PROGRAMMING OVER P25 (OTAP)               | G996        | \$100.00   | 71.00          | 2,059.00  |
| 29                                        |     | Digital Tone Signaling Flash Upgrade           | GA09000AA   | \$150.00   | 106.50         | 3,088.50  |
| 29                                        |     | ADD: GROUP SERVICES                            | QA09008     | \$150.00   | 106.50         | 3,088.50  |
| 29                                        |     | RM DELIVERY OPTION - EMAIL radioshop@wilco.org | UA00049AA   | \$0.00     | 0.00           | 0.00      |
| 29                                        |     | GATRRS REGIONAL PROMO                          | PROMO       | (\$300.00) | -300.00        | -8,700.00 |

Accessories

|    |                                                   |                 |                 |                   |          |
|----|---------------------------------------------------|-----------------|-----------------|-------------------|----------|
| 29 | CHARGER, SINGLE-UNIT, IMPRES 2, 3A, 115VAC, US/NA | NNTN8860A       | \$150.00        | 112.50            | 3,262.50 |
|    | <b>HIGH CAPACITY LI-ION IMPRES 2 4500 MAH</b>     |                 | <b>\$200.00</b> |                   |          |
| 29 | <b>UL/CSA</b>                                     | <b>NNTN8921</b> |                 | 150.00            | 4,350.00 |
| 29 | IMPRES RSM DSPLY W JACK, W CHNL                   | HMN4104A        | \$375.00        | 281.25            | 8,156.25 |
| 29 | RX ONLY EARPIECE W/TRANSLUCENT TUBE               | RLN6424         | 80.00           | 60.00             | 1,740.00 |
|    |                                                   |                 | <b>TOTAL</b>    | <b>149,091.90</b> |          |

## APX6500 7/800 MHZ MID POWER MOBILE

|   |                                         |               |                   |                 |                  |
|---|-----------------------------------------|---------------|-------------------|-----------------|------------------|
| 9 | APX6500 7/800 MHZ MID POWER MOBILE      | M25URS9PW1 N  | \$2,438.00        | <b>1,730.98</b> | <b>15,578.82</b> |
| 9 | ENH: ASTRO DIGITAL CAI OP APX           | G806          | \$515.00          | <b>365.65</b>   | <b>3,290.85</b>  |
| 9 | ENH: SMARTZONE OPERATION APX6500        | G51           | \$1,200.00        | <b>852.00</b>   | <b>7,668.00</b>  |
| 9 | ADD: ADVANCED SYSTEM KEY - HARDWARE KEY | QA01648       | \$5.00            | <b>3.55</b>     | <b>31.95</b>     |
| 9 | ADD: TDMA OPERATION                     | GA00580       | \$450.00          | <b>225.00</b>   | <b>2,025.00</b>  |
| 9 | ADD: GROUP SERVICES                     | GA09008       | \$150.00          | <b>75.00</b>    | <b>675.00</b>    |
| 9 | ADD: P25 TRUNKING SOFTWARE              | G361          | \$300.00          | <b>213.00</b>   | <b>1,917.00</b>  |
| 9 | ADD: APX O5 CONTROL HEAD                | G442          | \$432.00          | <b>306.72</b>   | <b>2,760.48</b>  |
| 9 | ADD: CONTROL HEAD SOFTWARE              | G444          | \$0.00            | <b>0.00</b>     | <b>0.00</b>      |
| 9 | ADD: DASH MOUNT                         | G66           | \$125.00          | <b>88.75</b>    | <b>798.75</b>    |
| 9 | ADD: ANT 3DB LOW-PROFILE 762-870        | G174          | \$43.00           | <b>30.53</b>    | <b>274.77</b>    |
| 9 | ADD: KEYPAD MIC GCAI                    | W20           | \$180.00          | <b>127.80</b>   | <b>1,150.20</b>  |
| 9 | ADD: SPKR 15W WATER RESISTANT           | G831          | \$60.00           | <b>42.60</b>    | <b>383.40</b>    |
| 9 | ENH: OVER THE AIR PROVISIONING          | G996          | \$100.00          | <b>50.00</b>    | <b>450.00</b>    |
| 9 | ADD: RS232 PACKET DATA INTERFACE        | INCLUDED      | \$0.00            | <b>0.00</b>     | <b>0.00</b>      |
| 9 | ADD: APX6500 RADIO AUTHENTICATION       | GA01767       | \$100.00          | <b>50.00</b>    | <b>450.00</b>    |
| 9 | ADD: MULTIPLE KEY ENCRYPTION OPERATION  | W969          | \$330.00          | <b>234.30</b>   | <b>2,108.70</b>  |
| 9 | <b>MULTIKEY CREDIT</b>                  | <b>CREDIT</b> | <b>(\$330.00)</b> | <b>-330.00</b>  | <b>-2,970.00</b> |
| 9 | ADD: 5 YEAR SERVICE FROM THE START LITE | GA00318       | \$246.00          | <b>246.00</b>   | <b>2,214.00</b>  |
| 9 | ENH: APX GPS ACTIVATION                 | INCLUDED      | \$0.00            | <b>0.00</b>     | <b>0.00</b>      |
| 9 | RADIO MANAGEMENT SOFTWARE               | T7914         | \$100.00          | <b>71.00</b>    | <b>639.00</b>    |

|   |                                                |           |            |         |           |
|---|------------------------------------------------|-----------|------------|---------|-----------|
| 9 | RM DELIVERY OPTION - EMAIL radioshop@wilco.org | UA00049AA | \$0.00     | 0.00    | 0.00      |
| 9 | GATRRS REGIONAL PROMO                          | PROMO     | (\$300.00) | -300.00 | -2,700.00 |

|   |                                                                       |       |
|---|-----------------------------------------------------------------------|-------|
| 9 | SPECIAL PACKAGE TRADE IN (Only Valid if<br>Purchahsed as one Package) | TRADE |
|---|-----------------------------------------------------------------------|-------|

|         |           |
|---------|-----------|
| TOTAL   | 36,745.92 |
| -400.00 | -3,600.00 |

|             |            |
|-------------|------------|
| GRAND TOTAL | 182,237.82 |
|-------------|------------|

# MCC7500E CONSOLE LIFECYCLE REPLACEMENT PROJECT



The design, technical, pricing, and other information ("Information") furnished with this submission is proprietary information of Motorola Solutions, Inc. ("Motorola") and is submitted with the restriction that it is to be used for evaluation purposes only. To the fullest extent allowed by applicable law, the Information is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the Information without the express written permission of Motorola.

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Motorola Solutions, Inc.  
2120 W Braker Lane  
Austin Texas 78758  
USA

May 17, 2019

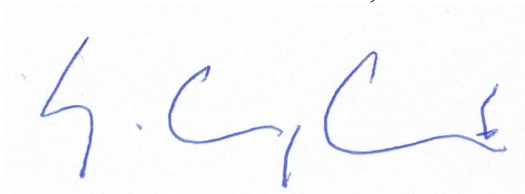
Beth Wilkes  
City of Taylor  
500 S Main Street  
Taylor, TX 76574  
RE: City of Taylor MCC7500e Console Lifecycle Replacement Project

Dear Ms. Wilkes

Motorola Solutions, Inc. (Motorola) is pleased to present to you the enclosed proposal for the City of Taylor MCC7500e Console Lifecycle Replacement Project. The Proposal is based upon and subject to the terms and conditions of the H-GAC Agreement executed in May of 2018 (RA-0518) and consists of this cover letter, the Statement of Work, the System Description, Equipment List, and the HGAC Communications System Purchase Agreement (SPA).

The Proposal is valid for ninety (90) days from the date of this letter and is subject to the terms and conditions of the attached HGAC System Purchase Agreement, or a negotiated version thereof. Motorola would be happy to discuss any concerns the County may have with the Proposal.

Sincerely,  
MOTOROLA SOLUTIONS, INC.



Clay Cassard  
Area Sales Manager



# TABLE OF CONTENTS

## Section 1

|                                                 |     |
|-------------------------------------------------|-----|
| System Description .....                        | 1-1 |
| 1.1 System Overview.....                        | 1-1 |
| 1.2 System Design .....                         | 1-1 |
| 1.2.1 System Component .....                    | 1-2 |
| 1.2.2 Console Control Station Integration ..... | 1-3 |
| 1.2.3 Instant Recall Recorder .....             | 1-3 |
| 1.2.4 Dispatch Consolettes Antenna System ..... | 1-3 |
| 1.2.5 Ethernet Link Requirements .....          | 1-4 |
| 1.2.6 Dispatch Site Rack Diagram .....          | 1-4 |
| 1.3 Electrical and Heat Requirements .....      | 1-5 |
| 1.4 Cutover.....                                | 1-6 |

## Section 2

|                      |     |
|----------------------|-----|
| Equipment List ..... | 2-1 |
|----------------------|-----|

## Section 3

|                                     |     |
|-------------------------------------|-----|
| Statement of Work .....             | 3-1 |
| 3.1 Motorola Responsibilities ..... | 3-1 |
| 3.2 Assumptions.....                | 3-1 |

## Section 4

|                            |     |
|----------------------------|-----|
| Acceptance Test Plan ..... | 4-1 |
|----------------------------|-----|

## Section 5

|                                   |     |
|-----------------------------------|-----|
| Service/Warranty .....            | 5-1 |
| 5.1 Motorola System Support ..... | 5-1 |

## Section 6

|                       |     |
|-----------------------|-----|
| Pricing Summary ..... | 6-1 |
|-----------------------|-----|

## Section 7

|                           |     |
|---------------------------|-----|
| Terms and Conditions..... | 7-1 |
|---------------------------|-----|

## Section 8

|                      |     |
|----------------------|-----|
| Our Commitment ..... | 8-1 |
|----------------------|-----|



# SYSTEM DESCRIPTION

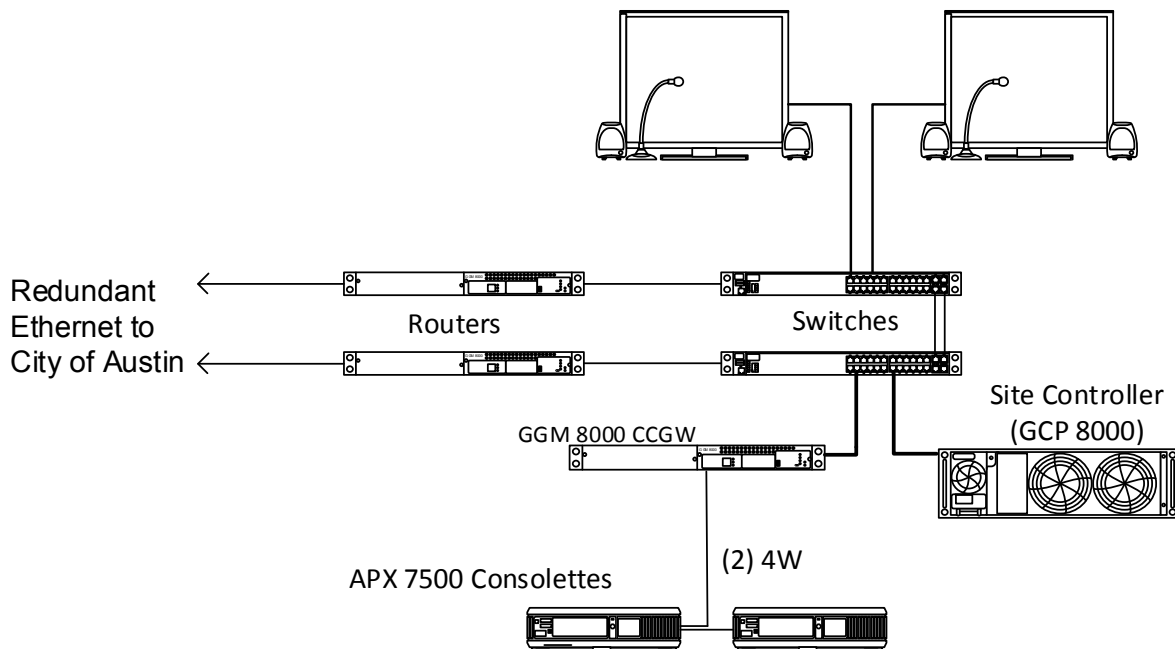
## 1.1 SYSTEM OVERVIEW

Motorola Solutions is pleased to provide the City of Taylor with an IP based mission critical dispatch. The proposal is for two MCC 7500E dispatch consoles, console site network equipment to connect to the Master Site, and two consolette radios to provide wireless communication to users not tied to the system and the capability for fallback trunking communication. Motorola recommends two site links to the GATRRS Master Site located at CTECC for link redundancy and reliability.

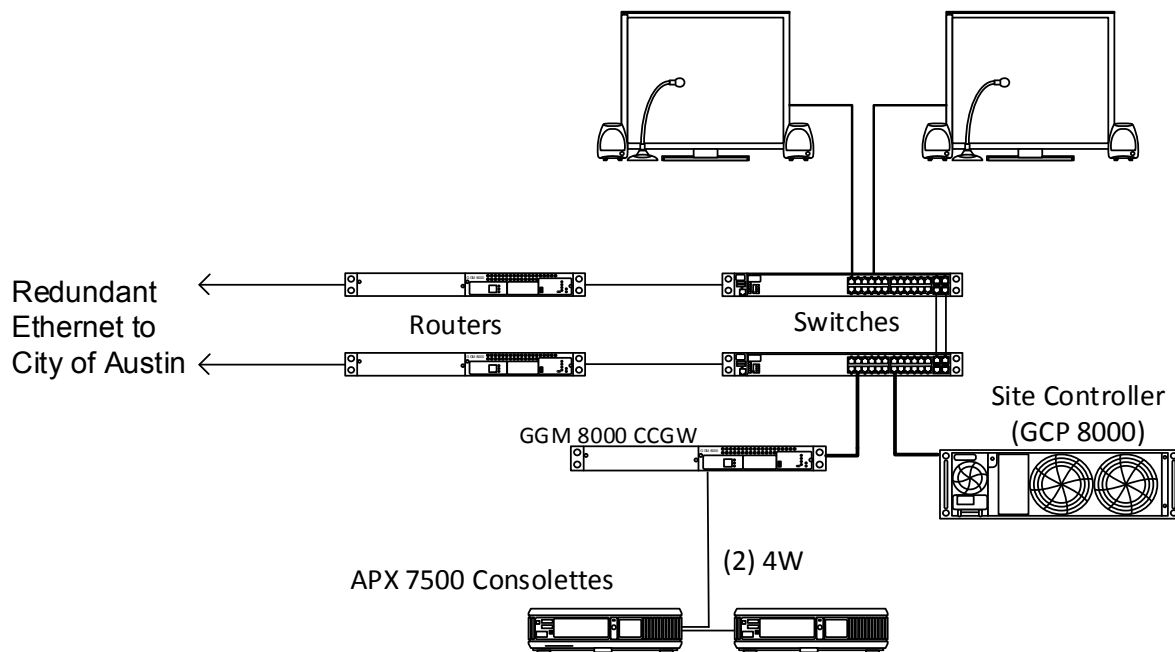
In the unlikely event the dispatch center loses both site links, the operator positions will not have a direct wireline communication with the radio system but will still have access to the radio system via the RF interface, the consolettes radios.

A description of the features, benefits, system architecture, hardware components, and software components are provided in this system description.

## 1.2 SYSTEM DESIGN



**Figure 1-1 depicts a high level block diagram of the proposed MCC 7500E dispatch center solution for City of Taylor Dispatch.**



**Figure 1-2: City of Taylor Dispatch Center Diagram**

## 1.2.1 System Component

The offering composes of the IP based MCC 7500E consoles, the network equipment, radios, and equipment for fallback operation. The console site network equipment provides a wireline connectivity to the GATRRS 7.17 core while the fallback equipment and radio serve two purposes: to provide continued wireless communication to users not tied to the system and fall back trunking communication in the event the console site or RF site loses connectivity to the core.

With the IP based console, the City of Taylor will no longer be limited to the number of radios to communicate with users on the GATRRS system. Additional talkgroups can be created without the need of additional radios.

The following list highlights the major components of the console site offering.

### Dispatch Equipment

- Qty (1) MCC7500 Console License set.
- Qty (2) MCC7500E Dispatch Consoles, each including the following:
  - Qty (1) Z2 Mini Workstation with dual NIC.
  - Qty (1) 19" LCD Monitor, Black, Non-touch.
  - Qty (1) MCC 7500E IP Console Application.
  - Qty (1) USB Audio Interface Module.
  - Qty (1) 30 Radio Resource License.
  - Qty (1) Speaker set.
  - Qty (1) MCC Series Desktop Gooseneck Microphone.
  - Qty (1) Headset W/ PTT.
  - Qty (1) Dual Pedal Footswitch.
  - Qty (1) Enhanced IRR Software License.
- Qty (2) GGM8000 Gateway Routers.
- Qty (1) GGM8000 4 port Conventional Channel Gateways.

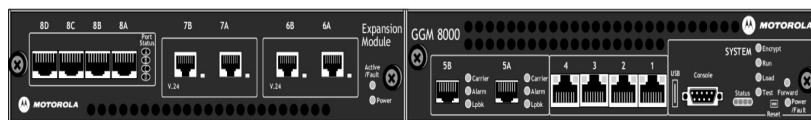
- Qty (2) 24 port Ethernet switches.
- Qty (1) GCP 8000 Site Controller.
- Qty (1) 7.5" Rack.
- Qty (2) APX 7500 7/800 Consolettes.
  - Includes Antenna System.

#### Spare

- Qty (1) GGM 8000 CCGW.
- Qty (1) 24 port Ethernet Switch.
- Qty (1) USB Audio Interface Module (AIM).
- Qty (2) Speaker.
- Qty (1) Gooseneck Microphone.
- Qty (1) Headset Jack.
- Qty (1) Workstation PC.

## 1.2.2 Console Control Station Integration

Control stations are more integrated with the ASTRO 25 trunking systems. Integration of control stations (and conventional base stations) into the ASTRO 25 network is accomplished in MCC 7500 architecture with Conventional Channel Gateways (CCGWs). Control stations are connected to the CCGW with four-wire tone or E&M connections. The CCGW performs the analog to digital audio conversion.



**Figure 1-3: Standard GGM 8000 Gateway**

A Conventional Site Controller (CSC) is added to the architecture to allow dispatch console users to continue wireless communication via the control stations in the event that the connectivity to the zone controller is lost. This proposal includes one CSC at the console site. Only one conventional site controller is required per console site. The single conventional site controller is capable of supporting the full set of dispatch consoles.

## 1.2.3 Instant Recall Recorder

The Enhanced Instant Recall Recorder (IRR) application on the MCC7500E is capable of recording four audio types that appear on the dispatch console position on which it is installed. Depending on the configuration, the IRR application records one or more types of audio:

- Inbound audio from the currently selected channels.
- Outbound audio from the microphone to the selected channels.
- Outbound audio from the microphone to the unselected channels.
- Tones generated by the dispatch console that appear in the speakers of the dispatch console.

## 1.2.4 Dispatch Consolettes Antenna System

The solution includes two 7/800 antennas for the two control stations. The antennas shall be mounted on the roof top. Motorola assumes a standoff to mount the proposed antennas is available.

## 1.2.5 Ethernet Link Requirements

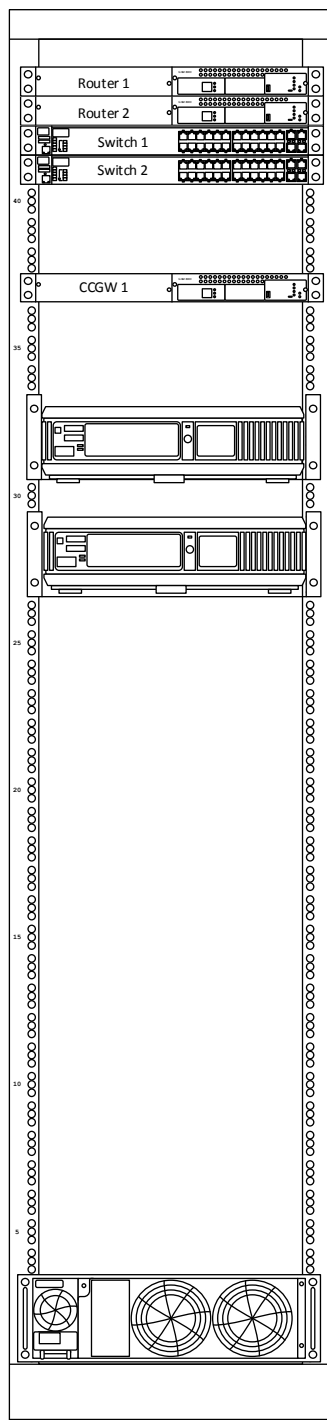
The MCC 7500 console site will connect to the Greater Austin/Travis Regional Radio System through two (2) dedicated redundant Ethernet links. The customer shall be responsible to provide two links which meets the requirements below and ITU-T Y.1564 testing specifications to meet optimal performance. Motorola recommends diverse routes since these Ethernet links are to provide redundancy for the console system.

- Bandwidth (Mbps): 1 Mbps.

## 1.2.6 Dispatch Site Rack Diagram

Figure 1-3 below is rack diagram of the proposed dispatch solution at the City of Taylor dispatch center:





**Figure 1-4: Dispatch Center Solution Rack Diagram**

## 1.3 ELECTRICAL AND HEAT REQUIREMENTS

All equipment provided in this proposal is based on 120VAC. No backup power, generator or UPS, is provided with this quote. Please see Table 1-1 for the power and heat specifications of the proposed equipment for the dispatch solution at the City of Taylor dispatch center:



**Table 1-1: AC/HVAC Sizing for Motorola Provided Equipment at Main Dispatch**

| Device                           | QTY | PWR (W) / Device | Total PWR (W) | BTU / HR / Device | Total BTU / HR | PS        |
|----------------------------------|-----|------------------|---------------|-------------------|----------------|-----------|
| <b>DISPATCH ROOM</b>             |     |                  |               |                   |                |           |
| <b>Monitor</b>                   | 1   | 156              | 156           | 532               | 532            | 1         |
| <b>Z2 Mini</b>                   | 1   | 200              | 200           | 683               | 683            | 1         |
| <b>AIM</b>                       | 1   | 6.2              | 6.2           | 21                | 21             | 1         |
| <b>Speakers</b>                  | 2   | 41               | 41            | 140               | 140            | 2         |
| <b>Dispatch Room Total</b>       |     |                  | <b>403.2</b>  |                   | <b>1376</b>    | <b>5*</b> |
| <b>DISPATCH EQUIPMENT ROOM</b>   |     |                  |               |                   |                |           |
| <b>GGM 8000 Router</b>           | 2   | 45               | 90            | 153               | 306            | 2         |
| <b>LAN Switch</b>                | 2   | 20               | 40            | 68                | 136            | 2         |
| <b>GCP 8000 Conv. Site Cntrl</b> | 1   | 180              | 180           | 614               | 614            | 1         |
| <b>APX 7500 Console</b>          | 2   | 253              | 506           | 863               | 1726           | 2         |
| <b>CCGW</b>                      | 1   | 45               | 45            | 153               | 153            | 1         |
| <b>Total</b>                     |     |                  | <b>861</b>    |                   | <b>2935</b>    | <b>8</b>  |

This design requires an individual circuit for each dispatch position. One dedicated 20 Ampere 120 VAC outlet grounded per R56 guidelines should be provided per operator position within 5 feet of each dispatch.

The dedicated outlet and power strip shall only be used to supply power to the equipment as provided in this proposal. Additional devices that have not been accounted for in the circuit load could cause a circuit overload and will be the responsible of the customer.

**\*NOTE: the above value in the Dispatch Room Is per position. The proposal is for two consoles. The site should provide the required power and HVAC for the proposed design.**

## 1.4 CUTOVER

A detailed cutover process will be discussed with the customer during the DDR process. It shall outline the requirements and steps that will be taken during the cutover process to ensure minimal interruption of service.

# EQUIPMENT LIST

| QTY | DESCRIPTION                                                            |
|-----|------------------------------------------------------------------------|
| 1   | MASTER SITE CONFIGURATION                                              |
| 1   | ADD: WINDOWS SUPPLEMENTAL TRANS CONFIG                                 |
| 1   | ADD: MCC7500 CONSOLE LICENSES (QTY 5)                                  |
| 1   | MCC 7500E DISPATCH POSITION LICENSES                                   |
| 2   | ADD: BASIC CONSOLE OPERATION                                           |
| 2   | ADD: ASTRO 25 TRUNKING OPERATION                                       |
| 2   | ADD: ADVANCED CONVENTIONAL OPERATION                                   |
| 2   | ADD: 30 RADIO RESOURCES LICENSE                                        |
| 2   | ADD: ENHANCED IRR                                                      |
| 1   | MCC 7500E SOFTWARE DVD                                                 |
| 2   | TECH GLOBAL EVOLUTION SERIES 19INCH NON TOUCH                          |
| 2   | HP Z2 MINI ARM WALL VESA MOUNT                                         |
| 2   | Z2 MINI WORKSTATION 258G 8G NON RET                                    |
| 2   | WINDOWS SUPPLEMENTAL TRANS CONFIG                                      |
| 4   | SPEAKER, DESKTOP, USB                                                  |
| 4   | ADD: POWER SUPPLY WITH DC CORD                                         |
| 4   | ADD: AC LINE CORD, NORTH AMERICA                                       |
| 4   | ADD: USB CABLE, TYPE A TO TYPE C, 4.5M                                 |
| 2   | USB AUDIO INTERFACE MODULE                                             |
| 2   | MCC SERIES DESKTOP GOOSENECK MICROPHONE                                |
| 4   | MCC SERIES HEADSET JACK                                                |
| 2   | HDST MODULE BASE W/PTT, 15 FT CBL                                      |
| 2   | SUPRAPLUS SINGLE MUFF HEADSET                                          |
| 2   | PROVIDES ONE DUAL PEDAL FOOTSWITCH FOR USE WITH MOTOROLA MCC 7500 DISP |
| 2   | MCAFFEE WINDOWS AV CLIENT                                              |
| 2   | STARTECH 7 PORT USB 3.0 HUB                                            |
| 2   | 2930F 24-PORT SWITCH                                                   |
| 2   | FRU: 1M DAC CABLE                                                      |
| 2   | GGM 8000 GATEWAY                                                       |
| 2   | ADD: AC POWER                                                          |
| 1   | GCP 8000 SITE CONTROLLER                                               |
| 1   | ADD: ASTRO SYSTEM RELEASE 7.17                                         |
| 1   | ADD: QTY (1) SITE CONTROLLER                                           |
| 1   | ADD: RACK MOUNT HARDWARE                                               |



| QTY | DESCRIPTION                                                        |
|-----|--------------------------------------------------------------------|
| 1   | MCC 7500 CONVEN SITE OPER                                          |
| 1   | GGM 8000 GATEWAY                                                   |
| 1   | ADD: AC POWER                                                      |
| 1   | ADD: LOW DENSITY ENH CONV GATEWAY                                  |
| 1   | SEVEN AND A HALF FOOT RACK                                         |
| 2   | SPD, SHIELDED RJ-45 JACK, SINGLE LINE GBE (1000MBPS) R56 COMPLIANT |
| 2   | RACK MOUNT GROUND BAR, 19 IN FOR TSJ AND WPH SERIES DATA SPDS      |
| 1   | GGM 8000 GATEWAY                                                   |
| 1   | ADD: AC POWER                                                      |
| 1   | ADD: LOW DENSITY ENH CONV GATEWAY                                  |
| 1   | USB AUDIO INTERFACE MODULE                                         |
| 2   | SPEAKER, DESKTOP, USB                                              |
| 1   | ADD: USB CABLE, TYPE A TO TYPE C, 4.5M                             |
| 1   | MCC SERIES DESKTOP GOOSENECK MICROPHONE                            |
| 1   | MCC SERIES HEADSET JACK                                            |
| 1   | Z2 MINI WORKSTATION 258G 8G NON RET                                |
| 1   | 2930F 24-PORT SWITCH                                               |
| 1   | FRU: 1M DAC CABLE                                                  |
| 2   | 7/800 SINGLE BAND APX7500                                          |
| 2   | ADD: CONTROL STATION POWER SUPPLY                                  |
| 2   | ADD: 7/800MHZ PRIMARY BAND                                         |
| 2   | ADD: ASTRO DIGITAL CAI OPERATION                                   |
| 2   | ENH: SMARTZONE OPERATION APX                                       |
| 2   | ENH: P25 TRUNKING SOFTWARE APX                                     |
| 2   | ENH: OVER THE AIR PROVISIONING                                     |
| 2   | APX MOBILE RADIO AUTHENTICATION                                    |
| 2   | ADD: O5 CONTROL HEAD                                               |
| 2   | ADD: APX CONTROL HEAD SOFTWARE                                     |
| 2   | ADD: REMOTE MOUNT MID POWER                                        |
| 2   | ADD: MULTIPLE KEY ENCRYPTION OPERATION                             |
| 2   | ADD: AES/DES-XL/DES-OFB ENCRYPTION                                 |
| 2   | ADD: NO RF ANTENNA NEEDED                                          |
| 2   | ADD: NO MICROPHONE NEEDED                                          |
| 2   | ADD: NO SPEAKER NEEDED                                             |
| 2   | ADD:CBL REMOTE MOUNT 10 FEET                                       |
| 2   | ADD: NO GPS ANTENNA NEEDED                                         |
| 2   | ADD: STATUS/MESSAGE 8                                              |
| 2   | ADD: 3Y ESSENTIAL SERVICE                                          |



| QTY | DESCRIPTION                                                             |
|-----|-------------------------------------------------------------------------|
| 2   | ASSEMBLY,ACCESSORY,APX CONSOLETTTE RACK MOUNT TRAY<br>HARDWARE KIT      |
| 2   | WIDEBAND FIBERGLASS OMNI ANTENNA 746-869 NFM BULKHEAD                   |
| 4   | ANTENNA MOUNTING BRACKET                                                |
| 2   | L4TNM-PSA TYPE N MALE PS FOR 1/2 IN CABLE                               |
| 4   | 221213 CABLE WRAP WEATHERPROOFING                                       |
| 4   | SG12-12B2U, SUREGROUND 1/2", 48"                                        |
| 2   | L4TNF-PSA TYPE N FEMALE PS FOR 1/2 IN CABLE                             |
| 2   | RF SPD, 125-1000MHZ DC BLOCK FLANGE MT NM ANTENNA, NF<br>EQUIPMENT SIDE |
| 2   | F4PNMV2-HC 1/2" TYPE N MALE PLATED CONNECTOR                            |
| 2   | F1PNM-HC 1/4" TYPE N MALE CONNECTOR FOR FSJ1-50A CABLE                  |
| 220 | LDF4-50A CABLE: 1/2" LDF HELIAX POLY JKT PER FOOT                       |
| 150 | FSJ1-50A CABLE: 1/4" SUPERFLEX POLY JKT PER FOOT                        |



# STATEMENT OF WORK

## 3.1 MOTOROLA RESPONSIBILITIES

- Assign a project manager
- Coordinate and schedule a Kickoff Meeting with the Customer
- Run the Kickoff Meeting and record and distribute meeting minutes.
  - Anticipated personnel from Motorola include the Motorola Project Manager (PM) and System Engineer.
- Attend any required site walks.
  - Anticipated personnel from Motorola include a System Engineer
- Setup and run a 'Customer Design Review' meeting in order to go over the design
- Motorola will oversee the following installation work by the Motorola shop.
  - Installation of (2) two MCC 7500E Operator Positions and each will include the following:
    - ◆ Qty (1) Z2 Mini Workstation with dual NIC.
    - ◆ Qty (1) 19" LCD Monitor, Black, Non-touch.
    - ◆ Qty (1) MCC 7500E IP Console Application.
    - ◆ Qty (1) USB Audio Interface Module.
    - ◆ Qty (1) 30 Radio Resource License.
    - ◆ Qty (1) Speaker set.
    - ◆ Qty (1) MCC Series Desktop Gooseneck Microphone.
    - ◆ Qty (1) Headset W/ PTT.
    - ◆ Qty (1) Dual Pedal Footswitch.
    - ◆ Qty (1) Enhanced IRR Software License.
  - Installation of the following Equipment
    - ◆ Qty (2) GGM8000 Gateway Routers.
    - ◆ Qty (1) GGM8000 4 port Conventional Channel Gateways.
    - ◆ Qty (2) 24 port Ethernet switches.
    - ◆ Qty (1) GCP 8000 Site Controller.
    - ◆ Qty (1) 7.5" Rack.
    - ◆ Qty (2) APX 7500 7/800 Consolelettes.
      - Includes Antenna System.
- Motorola will generate the acceptance test plan and perform the testing
- Motorola will connect all the equipment
- Motorola will confirm everything is according to R56 standard

## 3.2 ASSUMPTIONS

Motorola has based the system design on information gathered from meeting with the Customer. All assumptions have been listed below for review. Should Motorola's assumptions be deemed incorrect or not agreeable to the customer, a revised proposal with the necessary changes and adjusted costs may be required. Changes to the equipment or scope of the project after contract may require a change order

- All work is to be performed during normal work hours, Monday through Friday 8:00 a.m. to 5:00 p.m.



- This proposal does not include any towers, building, shelter, or other equipment or civil work not specifically outlined in the System Description or Statement of Work.
- City of Taylor is responsible for providing environmental controls to meet the Heating, Ventilation and Air Conditioning (HVAC) and humidity environments as defined in the Motorola document, Standards and Guidelines for Communication Sites (R56) at the equipment room.
- The existing furniture can accommodate the proposed consoles.
- The customer is responsible for ensuring that the dispatch equipment room provides space for the dispatch equipment, primary and backup power, electrical panels, lightning and grounding protection, and building penetrations.
- Motorola recommends the customer to provide generator and UPS backup power that are adequately sized to provide backup power for the proposed console and control stations as defined in this proposal.
- The MCC 7500E requires the core to be on system release A7.17.2 or later. Motorola assumes the implementation shall occur when the core is on release A7.17.2 or later.
- The customer shall be responsible for programming the proposed radios.
- No coverage guarantee is included in this proposal.
- Motorola will not run any RF analysis for the radios as part of this proposal.
- The site links shall be demarked no further than 15 ft from the proposed network equipment.
- The customer is responsible to verify the antenna standoff can be installed on the roof and that it shall not compromise the building structure. The customer shall be responsible for any remediation required to accommodate the proposed solution.



# ACCEPTANCE TEST PLAN

Testing of the proposed equipment is included. This includes the following:

- Test features and functionality are in accordance with manufacturers' specifications.
- Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.

A detailed Acceptance Test Plan will be developed upon purchase and will be reviewed during the Project Kickoff/Design Review meeting.





# SERVICE/WARRANTY

## 5.1 MOTOROLA SYSTEM SUPPORT

Our standard commercial warranty covers on-site response during normal business hours; it also provides for the repair or replacement of defective hardware components.

In addition to the standard commercial warranty, specially selected support services will be delivered in conjunction with the one-year warranty period. After the warranty period expires, these customized support services may be purchased at your option under a maintenance and support agreement. The customized warranty support services to be provided may include the following additional services:

- Infrastructure Repair with Advanced Replacement.
- Dispatch Service.
- Network Monitoring.
- Technical Support.
- On-Site Infrastructure Response (24×7).



# PRICING SUMMARY

Motorola's system solution and services are priced as follows:

Total solution price per equipment and services outlined in this proposal

| Description                                                      | Total               |
|------------------------------------------------------------------|---------------------|
| MIP5000 Console Project                                          | \$250,997.00        |
| City of Austin Discount / HGAC                                   | (\$59,279.00)       |
| Special GATRRS Networked System Discount (Valid through 6-25-19) | (\$25,000.00)       |
| <b>Grand Total</b>                                               | <b>\$166,718.00</b> |

| Description                                  | Total       |
|----------------------------------------------|-------------|
| <b>Project price breakdown (Discounted):</b> |             |
| <i>Equipment</i>                             | \$94,790.00 |
| <i>Services</i>                              | \$71,928.00 |
| <b>Services Breakdown:</b>                   |             |
| Project Management                           | \$16,909    |
| Motorola Engineering / System Technologist   | \$28,073    |
| Motorola Subcontracting                      | \$22,552    |
| 24 x7 Warranty Wrap / SUA                    | \$4,394     |



SECTION 7

# TERMS AND CONDITIONS

Terms and Conditions are included on the following pages.



## **SYSTEM PURCHASE AGREEMENT (Radio Systems)**

THIS AGREEMENT ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, by and between Motorola Solutions, Inc., a Delaware corporation duly authorized to conduct business in the State of Texas ("Motorola" or "Seller") and \_\_\_\_\_, a body corporate and politic ("Purchaser").

### **WITNESSETH:**

WHEREAS, the Purchaser desires to purchase a Communications System; and

WHEREAS, Motorola desires to sell a Communications System to Purchaser; and

WHEREAS, Houston-Galveston Area Council ("H-GAC"), acting as the agent for various local governmental entities who are "End Users" under interlocal agreements (including the Purchaser) has solicited proposals for radio communications equipment and conducted discussions with Motorola concerning its proposal and, where applicable, in accordance with the competitive procurement procedures of Texas law; and

WHEREAS, H-GAC and Motorola entered into that certain Contract dated as of May 1, 2018 (the "Contract"), which provided that End Users may purchase radio communications equipment from Motorola pursuant to certain terms contained therein; and

WHEREAS, pursuant to Article 6 of the Contract, Motorola and Purchaser now wish to enter into this System Purchase Agreement to delineate the specific terms of the purchase of radio communications equipment from Motorola by the Purchaser.

THEREFORE, the parties hereby enter into an agreement pursuant to which Motorola shall perform the work and furnish the equipment and services as more fully set forth herein and in the following exhibits, which are either attached hereto or incorporated by reference and hereby made a part of this Agreement:

Exhibit A      General Provisions.

Exhibit B      Motorola Software License Agreement.

Exhibit C      Technical and Implementation Documents, consisting of: \_\_\_\_\_  
all dated \_\_\_\_\_.

Exhibit D      Motorola/H-GAC Contract dated May 1, 2018.

Exhibit E      Warranty and Maintenance Plan and Service Terms and Conditions (if applicable).

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

## **Section 1      SCOPE OF WORK**

A.      Motorola shall furnish all of the equipment and software as outlined in Exhibit C and provide the tools, supplies, labor and supervision necessary for the installation of the items purchased in accordance with Exhibit C.

B.      In addition to responsibilities described in the Statement of Work, Purchaser shall perform the following coincident with the performance of this Agreement:

- (1)      Provide a designated Project Director.
- (2)      Provide ingress and egress to Purchaser's facilities and/or sites as requested by Motorola and have such facilities available for installation of the equipment to be installed.
- (3)      Provide adequate telephone or other communications lines (including modem access and adequate interfacing networking capabilities) for the installation, operation and support of the equipment.
- (4)      Provide adequate space, air conditioning and other environmental conditions, and adequate and appropriate electrical power outlets, distribution, equipment and connections for the installation, operation and support of the equipment.
- (5)      Provide a designated work area with adequate heat and light, and a secure storage area for equipment delivered to the Purchaser. The Purchaser shall be solely liable for loss or damage to equipment prior to, during and following installation when such equipment is on or within Purchaser's facilities and/or vehicles.

## **Section 2      SITES**

This Agreement is predicated on the utilization of sites and site configurations, which have been selected either by the Purchaser or by Motorola and set forth in Exhibit C. In either situation, should it be determined by either Motorola or Purchaser during the course of performance on this Agreement that the sites or configuration selected are no longer available or desired, new or replacement sites or configuration will be selected and approved by both Motorola and the Purchaser. If any price or schedule adjustments are necessary as a result of these new or replacement sites, such adjustments will be added to this Agreement by change order in accordance with Section 4 of the General Provisions.

## **Section 3      SUBSURFACE/STRUCTURAL CONDITIONS**

This Agreement is predicated upon normal soil conditions defined by E.I.A. standard RS-222 (latest revision). Should Motorola encounter subsurface, structural, adverse environmental and/or latent conditions at any site differing from those indicated on the specifications, or as used in the preparation of the bid price, the Purchaser will be given immediate notice of such conditions before they are further disturbed. Thereupon, Motorola and the Purchaser shall

promptly investigate the conditions and, if found to be different, will adjust the plans and/or specifications as may be necessary. Any changes that cause an adjustment in the contract price or in time required for the performance of any part of the contract shall result in a contract modification in accordance with Section 4 of the General Provisions.

#### **Section 4      PERIOD OF PERFORMANCE**

A.      Motorola projects that it will be able to obtain final acceptance and completion of the Acceptance Test Plan within the time interval specified in Exhibit C (if applicable). A more detailed timeline shall be provided to Purchaser after the design review and customer kick-off meeting.

B.      Whenever a party knows or reasonably should know that any actual or potential condition due to circumstances beyond its control is delaying or threatens to delay the timely performance of the work, the party shall within thirty (30) days give the other party notice thereof and may request an extension of time to perform the work.

C.      In order to successfully integrate and implement this project, shipments will be made F.O.B. Destination to Purchaser facilities, local Motorola staging facilities, warehousing facilities, or any combination thereof. It is agreed that this plan is acceptable to Purchaser and that Motorola will advise prior to shipment of actual destination and that Purchaser will accept shipment, and make payment as required by this Agreement.

D.      It is also agreed that equipment shipping dates reflected in this Agreement are estimates only, and that shipment may be made at any time prior to, or subsequent to these estimated shipping dates.

#### **Section 5      ACCEPTANCE CRITERIA**

A.      Motorola will test the Communications System in accordance with the Acceptance Test Plan. System acceptance will occur upon the successful completion of such testing ("System Acceptance") at which time both parties shall promptly execute a certificate of system acceptance. If the Acceptance Test Plan includes separate tests for individual subsystems or phases of the System, both parties shall promptly execute certificates of subsystem acceptance upon the successful completion of testing of such subsystems or phases. Minor omissions or variances in performance which do not materially affect the operation of the Communications System as a whole will not postpone System Acceptance. Purchaser and Motorola will jointly prepare a list of such omissions and variances which Motorola will correct according to an agreed upon schedule.

B.      Motorola agrees to notify Purchaser when the Communications System is ready for acceptance testing. Motorola and Purchaser agree to commence acceptance testing within ten (10) business days after receiving such notification. If testing is delayed for reasons within the control of Purchaser or its employees, contractors, agents or consultants for more than ten (10) business days after notification, final payment will be due within thirty (30) days after such notification and the Warranty Period will commence immediately.

C. Motorola may, but is not obligated to, issue written authorization for Purchaser to use the Communications System or its subsystem(s) for limited training or testing purposes, prior to the completion of testing by Motorola. Any use of the Communications System without prior written authorization by Motorola shall constitute System Acceptance.

## **Section 6      PAYMENT SCHEDULE**

A. Motorola agrees to sell all of the equipment and perform the services as outlined in the Scope of Work, and Purchaser agrees to buy the aforementioned equipment and services for the sum of \_\_\_\_\_ (\$\_\_\_\_\_), which includes the H-GAC administration fee. The final price may be adjusted by change orders approved pursuant to Statement of Work attached hereto as Exhibit "C". Customer affirms that a purchase order or notice to proceed is not required for contract performance or for subsequent years of service, if any, and that Customer will appropriate funds according to the Payment Schedule. The Customer will pay all invoices as received from Motorola and any changes in scope will be subject to the change order process as described in this Agreement. At the time of execution of this Agreement, the Customer will provide all necessary reference information to include on invoices for payment in accordance with this Agreement.

B. Payments to Motorola shall be made according to the following milestones:

1. 20% of the total contract price is due when Purchaser executes this Agreement;
2. 60% of the total contract price will be invoiced immediately after the Equipment is shipped from Motorola's facilities;
3. 10% of the total contract price will be invoiced immediately after the Equipment is installed at the sites specified in the Exhibits; and
4. 10% of the total contract price will be invoiced immediately after System Acceptance.

Motorola reserves the right to make partial shipments of equipment and to request payment upon shipment of such equipment. In addition, Motorola reserves the right to invoice for installations or civil work completed on a site-by-site basis, when applicable.

C. In the event of failure or delay by the Purchaser in providing sites, space, approvals, licenses, or any other Purchaser obligations required preceding delivery of Motorola equipment, it is agreed that Motorola, at its sole discretion, may ship equipment as planned and that the Purchaser will accept the equipment and make payment in accordance with the terms of this Agreement. Any additional costs incurred by Motorola for storage of equipment will be invoiced and paid by Purchaser.

D. Payments to Motorola shall be made as follows:



- (i) Motorola shall immediately forward an invoice for the payment requested in Section 6(B) above to Purchaser.
- (ii) Purchaser shall pay the Motorola invoice within thirty (30) calendar days of receipt.

E. Motorola will pay H-GAC's administrative fee in accordance with the payment terms of Motorola/H-GAC Contract dated May 1, 2018.

F. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the date as set forth above and continues until the date of Final Project Acceptance or expiration of the Warranty Period, whichever occurs last.

## **Section 7 PROJECT MANAGEMENT**

A. If the size or complexity of the project warrants, Motorola will assign a Project Manager, who is authorized to exercise technical direction of this project. Motorola, at any time, may designate a new or alternate Project Manager with written notice to Purchaser and H-GAC.

B. All matters affecting the terms of this Agreement or the administration thereof shall be referred to Motorola's cognizant Contract Administrator who shall have authority to negotiate changes in or amendments to this Agreement.

## **Section 8 NOTICE ADDRESSES**

A. Motorola Solutions, Inc.  
500 W. Monroe Street, 43rd Floor  
Chicago, IL 60661  
Attn.: Law Department

B.

C. Houston-Galveston Area Council  
3555 Timmons Lane, Suite 120  
Houston, Texas 77027  
Attn.: Public Services Manager

## **Section 9 ORDER OF PRECEDENCE**

In the event of an inconsistency in this Agreement, the inconsistency shall be resolved in the following order:

The main body of this Agreement.

Exhibit A General Provisions.

Exhibit B Motorola Software License.

Exhibit C Technical and Implementation Documents, consisting of: \_\_\_\_\_.

Exhibit E Warranty and Maintenance Plan and Service Terms and Conditions (if applicable)

Exhibit D Motorola/H-GAC Contract dated May 1, 2018.

## **Section 10 DISPUTES**

Motorola and the Purchaser will attempt to settle any claim or controversy arising out of this Agreement through consultation and negotiation in good faith and a spirit of mutual cooperation. If those attempts fail, then the dispute will be mediated by a mutually acceptable mediator to be chosen by Motorola and the Purchaser within thirty (30) days after written notice by one of the parties demanding non-binding mediation. Neither party may unreasonably withhold consent to the selection of a mediator. Motorola and the Purchaser will bear their own costs but will share the cost of the mediator equally. By mutual agreement, however, Motorola and Purchaser may postpone mediation until both parties have completed some specified but limited discovery about the dispute. The parties may also agree to replace mediation with some other form of non-binding alternate dispute resolution procedure ("ADR").

Any dispute which cannot be resolved between the parties through negotiation or mediation within two (2) months of the date of the initial demand for it by one of the parties may then be submitted to a court of competent jurisdiction in Texas. Both Motorola and Purchaser consent to jurisdiction over it by such a court. All communications pursuant to the negotiation and mediation will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. The use of any ADR procedures will not be considered under the doctrine of laches, waiver or estoppel to affect adversely the rights of either party. Nothing shall prevent either of the parties from resorting to the judicial proceedings mentioned in this paragraph if (a) good faith efforts to attempt resolution of the dispute under these procedures have been unsuccessful or (b) interim relief from the court is necessary to prevent serious and irreparable injury to one of the parties or others.

## **Section 11 SEVERABILITY**

If any portion of this Agreement or any exhibits hereto is held to be invalid, such provision or portion of such provision shall be considered severable, and the remainder of this Agreement shall not be affected.

## **Section 12 HEADINGS AND SECTION REFERENCES**

The headings given to the paragraphs are inserted for convenience only and are in no way to be construed as part of this Agreement or as a limitation of the scope of the particular paragraph to which the heading refers.

### **Section 13 SURVIVAL OF TERMS**

The following provisions will survive the expiration or termination of this Agreement for any reason: Section 6 (Payment Schedule) if any payment obligations exist; Section 9 (Order of Precedence); Section 10 (Disputes); Section 11 (Severability); Section 12 (Headings and Section References); Section 13 (Survival of Terms) and Section 14 (Full Agreement).

### **Section 14 FULL AGREEMENT**

This Agreement and its Exhibits constitute the final expression of the agreement of the parties and supersedes all previous agreements and understandings, whether written or oral, relating to the work. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which shall constitute one and the same instrument. A facsimile copy or computer image, such as a PDF or tiff image, or a signature shall be treated as and shall have the same effect as an original signature. In addition, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. This Agreement may not be altered, amended, or modified except by written instrument signed by duly authorized representatives of the parties. The preprinted terms and conditions found on any Purchaser purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each party signs that document.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the last day and year written below.

**MOTOROLA SOLUTIONS, INC.**

**PURCHASER**

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_  
(Print - Block Letters)

Name: \_\_\_\_\_  
(Print - Block Letters)

Title: \_\_\_\_\_  
(Print - Block Letters)

Title: \_\_\_\_\_  
(Print - Block Letters)

Date: \_\_\_\_\_

Date: \_\_\_\_\_



**EXHIBIT A**  
**GENERAL PROVISIONS**  
**MOTOROLA SOLUTIONS, INC.**

**Section 1      STANDARDS OF WORK**

Motorola agrees that the performance of work described in this Agreement and pursuant to this Agreement shall be done in a professional manner and shall conform to professional standards. All packaging and packing shall be in accordance with good commercial practice.

**Section 2      TAXES**

The prices set forth in the Agreement are exclusive of any amount for Federal, State or Local excise, sales, lease, gross income service, rental, use, property, occupation or similar taxes. If any taxes are determined applicable to this transaction or Motorola is required to pay or bear the burden thereof, the Purchaser agrees to pay to Motorola the amount of such taxes and any interest or penalty thereon no later than thirty (30) days after receipt of an invoice therefor.

**Section 3      SHIPPING, TITLE AND RISK OF LOSS**

All sales and deliveries are F.O.B. Destination. Motorola reserves the right to make deliveries in installments and the Agreement shall be severable as to such installments. Title to the equipment shall pass to the Purchaser upon receipt at the F.O.B. Destination. After delivery to the F.O.B. Destination, risk of loss and damage to the articles shall be borne by the Purchaser. The above notwithstanding, title to software and any third party supplied software shall not pass upon payment of the license fee therefor or under any circumstances.

**Section 4      CHANGES IN THE WORK**

A. The Purchaser may, at any time, by written order, make changes within the general scope of the work, including but not limited to revisions of, or additions to, portions of the work, or changes in method of shipment or packaging and place of delivery.

B. If any order under this Section 4 causes an increase or decrease in the cost of or time required for the performance of any part of the work under this Agreement, an equitable adjustment shall be made in the Agreement price or delivery schedule, or both, and the Agreement shall be modified in writing accordingly. Motorola is not obligated to comply with any order hereunder unless and until the parties reach agreement as to the aforementioned equitable adjustment and same is reflected as an addendum to this Agreement.

## **Section 5      LIMITATION OF LIABILITY**

Except for personal injury or death, Motorola's total liability whether for breach of contract, warranty, negligence, indemnification, strict liability in tort or otherwise, is limited to the price of the particular products or services sold hereunder with respect to which losses or damages are claimed. IN NO EVENT WILL MOTOROLA BE LIABLE FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW. This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action shall be brought for any breach of this contract more than two (2) years after the accrual of such cause of action except for money due upon an open account.

## **Section 6      EXCUSABLE DELAYS**

A. Neither Motorola nor the Purchaser shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but are not be limited to, acts of God; fire; strikes; material shortages; compliance with laws or regulations; riots; acts of war; or any other conditions beyond the reasonable control of the party or parties.

B. Delays as identified herein may cause an impact on the Period of Performance stated in the Agreement. Such delays will be subject to an Agreement addendum as described in Section 4.

## **Section 7      DEFAULT**

A. If either party fails to perform a material obligation under this Agreement, the other party may consider the non-performing party to be in default (unless such failure has been caused by the conditions set forth in Section 6 of these General Provisions) and may assert a default claim by giving the non-performing party a written and detailed notice of default. Except for a default by Purchaser for failing to pay any amount when due under this Agreement which must be cured immediately, the defaulting party will have thirty (30) days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, provide a written cure plan. The defaulting party will begin implementing the cure plan immediately after receipt of notice by the other party that it approves the plan. If Purchaser is the defaulting party, Motorola may stop work on the project until it approves the Purchaser's cure plan.

B. If a defaulting party fails to cure the default as provided above in Section 7.A, unless otherwise agreed in writing, the non-defaulting party may terminate any unfulfilled portion of this Agreement. In the event of termination for default, the defaulting party will promptly return to the non-defaulting party any of its confidential information. If Purchaser is the non-defaulting party, terminates this Agreement as

permitted by this Section, and completes the System through a third party, Purchaser may as its exclusive remedy recover from Motorola reasonable costs incurred to complete the System to a capability not exceeding that specified in this Agreement less the unpaid portion of the contract price. Purchaser will mitigate damages and provide Motorola with detailed invoices substantiating the charges. In the event Purchaser elects to terminate this Agreement for any reason other than default, Purchaser shall pay Motorola for the conforming Equipment and/or Software delivered and all services performed through the date of termination.

## **Section 8        DELAYS BY PURCHASER**

If the Purchaser is responsible for delays in the schedule set forth in the Agreement, the Purchaser shall be liable for actual costs incurred by Motorola resulting from these delays if Motorola requests compensation. Such charges may include, but are not limited to, additional Engineering; rescheduling charges; storage charges; maintenance charges; and transportation charges. The Purchaser shall have the option to attempt to minimize actual costs incurred by storing and transporting equipment at its own expense. Such delays will be subject to an Agreement addendum as described in Section 4.

## **Section 9        LICENSES/AUTHORIZATION**

The Purchaser is solely responsible for obtaining any licenses or other authorizations required by the Federal Communications Commission and for complying with FCC rules. Neither Motorola nor any of its employees is an agent or representative of the Purchaser in FCC matters or otherwise. Motorola, however, may assist in the preparation of the license application at no charge to the Purchaser. Purchaser acknowledges that project implementation is predicated on receipt of proper FCC licensing.

## **Section 10       INDEMNIFICATION**

Motorola agrees to and hereby indemnifies and saves Purchaser harmless from all liabilities, judgments, costs, damages and expenses which may accrue against, be charged to, or recovered from the Purchaser by reason of or on account of damage to the tangible property of the Purchaser or the property of, injury to, or death of any person, to the extent and in the proportion that such damage or injury is caused by Motorola's negligent acts or omissions or that of its employees, subcontractors, or agents while on the premises of the Purchaser during the delivery and installation of the communications equipment. IN NO EVENT WILL MOTOROLA BE LIABLE FOR INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

## **Section 11       WARRANTIES**

A.     WARRANTY PERIOD. Upon System Acceptance, the System Functionality representation described below is fulfilled. The Equipment and Motorola Software is warranted for a period of one (1) year after System Acceptance ("Warranty Period") in accordance with the applicable limited warranties shown below. In no event will the



warranty period last longer than eighteen (18) months after the Equipment and Software is shipped from Motorola. Purchaser must notify Motorola in writing if Equipment or Motorola Software does not conform to these warranties no later than one month after the expiration of the Warranty Period.

B. **SYSTEM FUNCTIONALITY.** Motorola represents that the Communications System will satisfy the functional requirements in Exhibit C. Upon System Acceptance, this System Functionality representation is fulfilled. After System Acceptance, the Equipment Warranty set forth below and the Software Warranty set forth in the Software License Agreement will apply.

Motorola will not be responsible for performance deficiencies of the System caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System provided hereunder. Additionally, Motorola will not be responsible for System performance when the functionality is reduced for reasons beyond Motorola's control including, but not limited to, i) an earthquake, adverse atmospheric conditions or other natural causes; ii) the construction of a building that adversely affects the microwave path reliability or RF coverage; iii) the addition of additional frequencies at System sites that cause RF interference or intermodulation; iv) Purchaser changes to load usage and/or configuration outside the parameters specified in Exhibit C; v) any other act of parties who are beyond Motorola's control, including Purchaser or its employees, contractors, consultants or agents.

C. **EQUIPMENT WARRANTY.** Motorola warrants the Equipment against material defects in material and workmanship under normal use and service during the Warranty Period. Unless otherwise specified in writing, the Warranty Period for non-Motorola manufactured Equipment will be as stated in this Section. At no additional charge and at its option, Motorola will either repair the defective Equipment, replace it with the same or equivalent Equipment, or refund the purchase price of the defective Equipment, and such action on the part of Motorola will be the full extent of Motorola's liability hereunder. Repaired or replaced Equipment is warranted for the balance of the original applicable warranty period. All replaced parts of the Equipment shall become the property of Motorola.

#### THIS WARRANTY DOES NOT APPLY TO

- a) Defects or damage resulting from use of the Equipment in other than its normal and customary manner.
- b) Defects or damage occurring from misuse, accident, liquids, neglect or acts of God.
- c) Defects or damage occurring from testing, maintenance, installation, alteration, modification, or adjustment not provided by Motorola pursuant to this System Purchase Agreement.

- d) Breakage of or damage to antennas unless caused directly by defects in material or workmanship.
- e) Equipment that has been subjected to unauthorized modifications, disassembly or repairs (including the addition to the Equipment of non-Motorola supplied equipment if not authorized by Motorola) which adversely affect performance of the Equipment or interfere with Motorola's normal warranty inspection and testing of the Equipment to verify any warranty claim.
- f) Equipment that has had the serial number removed or made illegible.
- g) Batteries (because they carry their own separate limited warranty).
- h) Freight costs to the repair depot.
- i) Equipment that has been subject to illegal or unauthorized alteration of the software/firmware in the Equipment.
- j) Scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment.
- k) Software.
- l) Normal or customary wear and tear.

D. Motorola Software Warranty. Motorola Software is warranted in accordance with the terms of the Software License Agreement attached as Exhibit B.

E. These express limited warranties as set forth in this Section are extended by Motorola to the original end user purchasing or leasing the System for commercial, industrial, or governmental use only, and are not assignable or transferable. These are the complete warranties for the Equipment and Software provided pursuant to this Agreement.

F. THESE WARRANTIES ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE EQUIPMENT. IN NO EVENT WILL MOTOROLA BE LIABLE FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE EQUIPMENT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

## **Section 12      CONFIDENTIAL INFORMATION**

Motorola proprietary computer programs will be released in accordance with the Software License provisions set forth elsewhere, if applicable. All other material and information of confidential nature marked Motorola PROPRIETARY and/or CONFIDENTIAL will be released as necessary under the following conditions:

- (1) Purchaser shall exercise reasonable and prudent measures to keep these items in confidence.
- (2) Purchaser shall not disclose these items to third parties without prior written permission, unless Motorola makes them public or Purchaser learns them rightfully from sources independent of Motorola, or it is required by law to be disclosed.
- (3) Motorola, where necessary, retains the right to prescribe specific security measures for the Purchaser to follow to maintain the confidentiality.

In the event disclosure of such information is necessary, a separate Non-Disclosure Agreement will be required.

## **Section 13      SOFTWARE LICENSE**

A. Motorola Software. Any Motorola Software furnished will be licensed to Purchaser solely according to the terms and restrictions of the Software License Agreement attached as Exhibit B. Purchaser hereby accepts all of the terms and restrictions of the Software License Agreement.

B. Non-Motorola Software. Any Non-Motorola Software furnished by Motorola will be subject to the terms and restrictions of its copyright owner unless such copyright owner has granted to Motorola the right to sublicense such Non-Motorola Software pursuant to the Software License Agreement, in which case the Software License Agreement (including any addendum to satisfy such copyright owner's requirements) shall apply and the copyright owner will have all of Motorola's rights and protections under the Software License Agreement.

## **Section 14      PATENT INDEMNIFICATION**

A. Motorola will defend at its expense any suit brought against Purchaser to the extent it is based on a third-party claim alleging that the Equipment manufactured by Motorola or the Motorola Software ("Motorola Product") directly infringes a United States patent or copyright ("Infringement Claim"). Motorola's duties to defend and indemnify are conditioned upon: Purchaser promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all negotiations for its settlement or compromise; and Purchaser providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim. In addition to Motorola's obligation to defend, and subject to the

same conditions, Motorola will pay all damages finally awarded against Purchaser by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

B. If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Purchaser the right to continue using the Motorola Product; (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or (c) accept the return of the Motorola Product and grant Purchaser a credit for the Motorola Product, less a reasonable charge for depreciation. The depreciation amount will be calculated based upon generally accepted accounting standards.

C. Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon: (a) the combination of the Motorola Product with any software, apparatus or device not furnished by Motorola; (b) the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Motorola Product; (c) Motorola Product designed or manufactured in accordance with Purchaser's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions; (d) a modification of the Motorola Product by a party other than Motorola; (e) use of the Motorola Product in a manner for which the Motorola Product was not designed or that is inconsistent with the terms of this Agreement; or (f) the failure by Purchaser to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. In no event will Motorola's liability resulting from its indemnity obligation to Purchaser extend in any way to royalties payable on a per use basis or the Purchaser's revenues, or any royalty basis other than a reasonable royalty based upon revenue derived by Motorola from Purchaser from sales or license of the infringing Motorola Product.

D. This Section 14 provides Purchaser's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Purchaser has no right to recover and Motorola has no obligation to provide any other or further remedies, whether under another provision of this Agreement or any other legal theory or principle, in connection with an Infringement Claim. In addition, the rights and remedies provided in this Section 14 are subject to and limited by the restrictions set forth in Section 5.

## **Section 15     DISCLAIMER OF PATENT LICENSE**

Nothing contained in this Agreement shall be deemed to grant, either directly or by implication, estoppel, or otherwise, any license under any patents or patent applications of Motorola, except that Purchaser shall have the normal non-exclusive royalty-free license to use that is implied, or otherwise arises by operation of law, in the sale of a product.

## **Section 16     WAIVER**

Failure or delay on the part of Motorola or Purchaser to exercise a right or power hereunder shall not operate as a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the waiving party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.

## **Section 17      GOVERNING LAW**

This Agreement shall be governed by and construed in accordance with the laws of the State of Texas.

## **Section 18      ASSIGNABILITY**

Except as provided herein, neither party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other party, which consent will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Purchaser. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement..

## **Section 19      SURVIVAL OF TERMS**

The following provisions will survive the expiration or termination of this Agreement for any reason: Section 2 (Taxes); Section 5 (Limitation of Liability); Section 7 (Default); Subsection 11.F (Disclaimer of Implied Warranties); Section 12 (Confidential Information); Section 13 (Software License); and Section 16 (Waiver); Section 17 (Governing Law) and Section 19 (Survival of Terms).

## **Section 20      ADMINISTRATOR LEVEL ACCOUNT ACCESS**

Motorola will provide Purchaser with Administrative User Credentials. Purchaser agrees to only grant Administrative User Credentials to those personnel with the training or experience to correctly use the access. Purchaser is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Purchaser may be asked to provide valid Administrative User Credentials when in contact with Motorola System support. Purchaser understands that changes made as the Administrative User can significantly impact the performance of the System. Purchaser agrees that it will be solely responsible for any negative impact on the System or its users by any such changes. System issues occurring as a result of changes made by an Administrative User

may impact Motorola's ability to perform its obligations under the Agreement or its Maintenance and Support Agreement. In such cases, a revision to the appropriate provisions of the Agreement, including the Statement of Work, may be necessary. To the extent Motorola provides assistance to correct any issues caused by or arising out of the use of or failure to maintain Administrative User Credentials, Motorola will be entitled to bill Purchaser and Purchaser will pay Motorola on a time and materials basis for resolving the issue.

## **Section 21     MAINTENANCE SERVICE**

If this Agreement contains a Warranty and Maintenance Plan, then, during the Warranty Period, in addition to warranty services, Motorola will provide maintenance services for the Equipment and support for the Motorola Software pursuant to the terms of this Agreement, including the Warranty and Maintenance Plan and Service Terms and Conditions. Such services and support are included in the Contract Price. If Customer wishes to purchase additional maintenance and support services during the Warranty Period, or any maintenance and support services after the Warranty Period, the description of and pricing for such services will be set forth in a separate document. Unless otherwise agreed by the Parties in writing, the terms and conditions applicable to such maintenance and support will be Motorola's standard Service Terms and Conditions, together with the appropriate statements of work.

## **Exhibit B**

### **Software License Agreement**

This Exhibit B, Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and \_\_\_\_\_ ("Licensee").

For good and valuable consideration, the parties agree as follows:

#### **Section 1            DEFINITIONS**

1.1        "Designated Products" means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.

1.2        "Documentation" means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).

1.3        "Open Source Software" means software with either freely obtainable source code, license for modification, or permission for free distribution.

1.4        "Open Source Software License" means the terms or conditions under which the Open Source Software is licensed.

1.5        "Primary Agreement" means the agreement to which this exhibit is attached.

1.6        "Security Vulnerability" means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or the system damaged.

1.7        "Software" (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

#### **Section 2            SCOPE**

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary Software or products containing embedded or pre-loaded proprietary Software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee's use of the Software and Documentation.

#### **Section 3            GRANT OF LICENSE**

3.1.       Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola's copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.



3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software, the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; (ii) identify the Open Source Software and provide Licensee a copy of the applicable Open Source Software License (or specify where that license may be found); and, (iii) provide Licensee a copy of the Open Source Software source code, without charge, if it is publicly available (although distribution fees may be applicable).

#### **Section 4                    LIMITATIONS ON USE**

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; *provided* that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning, if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4. When using Motorola's Radio Service Software ("RSS"), Licensee must purchase a separate license for each location at which Licensee uses RSS. Licensee's use of RSS at a licensed location does not entitle Licensee to use or access RSS remotely. Licensee may make one copy of RSS for each licensed location. Licensee shall provide Motorola with a list of all locations at which Licensee uses or intends to use RSS upon Motorola's request.

4.5. Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's premises, books and records, upon reasonable

prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

## **Section 5 OWNERSHIP AND TITLE**

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or, provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

## **Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY**

6.1. The commencement date and the term of the Software warranty will be a period of ninety (90) days from Motorola's shipment of the Software (the "Warranty Period"). If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software.

6.2 Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are described in the Primary Agreement.

**6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.**

## **Section 7 TRANSFERS**

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than RSS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; *provided* that Licensee transfers all copies of the Software and Documentation to the transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

## **Section 8            TERM AND TERMINATION**

8.1        Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2        Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3        Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

## **Section 9            UNITED STATES GOVERNMENT LICENSING PROVISIONS**

This Section applies if Licensee is the United States Government or a United States Government agency. Licensee's use, duplication or disclosure of the Software and Documentation under Motorola's copyrights or trade secret rights is subject to the restrictions set forth in subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19 (JUNE 1987), if applicable, unless they are being provided to the Department of Defense. If the Software and Documentation are being provided to the Department of Defense, Licensee's use, duplication, or disclosure of the Software and Documentation is subject to the restricted rights set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (OCT 1988), if applicable. The Software and Documentation may or may not include a Restricted Rights notice, or other notice referring to this Agreement. The provisions of this Agreement will continue to apply, but only to the extent that they are consistent with the rights provided to the Licensee under the provisions of the FAR or DFARS mentioned above, as applicable to the particular procuring agency and procurement transaction.

## **Section 10          CONFIDENTIALITY**

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and confidential information and are Motorola's trade secrets. Licensee will not disclose the Software and Documentation to any third party except as permitted by this Agreement or expressly in writing by Motorola. Licensee will take necessary and appropriate precautions to maintain the confidentiality and guard against the unauthorized disclosure of the Software and Documentation. Licensee will limit access

to the Software and Documentation only to Licensee's employees who "need to know" and are authorized to use the Software and Documentation as permitted by this Agreement.

## **Section 11        LIMITATION OF LIABILITY**

The Limitation of Liability provision is described in the Primary Agreement.

## **Section 12        NOTICES**

Notices are described in the Primary Agreement.

## **Section 13        GENERAL**

13.1.    COPYRIGHT NOTICES. The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2.    COMPLIANCE WITH LAWS. Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3.    ASSIGNMENTS AND SUBCONTRACTING. Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.4.    GOVERNING LAW. This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

13.5.    THIRD PARTY BENEFICIARIES. This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.6.    SURVIVAL. Sections 4, 5, 6.4, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.7.    ORDER OF PRECEDENCE. In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

13.8    SECURITY. Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third party Software to limit Security Vulnerabilities. While no software can be

guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps set forth in Section 6 of this Agreement.

**Exhibit C**

**Technical and Implementation Documents**

**SEE MOTOROLA'S PROPOSAL DATED \_\_\_\_\_**

**Exhibit D**

**Motorola/H-GAC Contract dated May 1, 2018.**



**Exhibit E**  
**Service Terms and Conditions**

Motorola Solutions, Inc. ("Motorola") and the customer named in this Agreement ("Customer") hereby agree as follows:

**Section 1      APPLICABILITY**

These Service Terms and Conditions apply to service contracts whereby Motorola will provide to Customer either (1) maintenance, support and/or other services under a Motorola Service Agreement, or (2) installation services under a Motorola Installation Agreement.

**Section 2      DEFINITIONS AND INTERPRETATION**

2.1 "Agreement" means these Service Terms and Conditions; the cover page for the Service Agreement or the Installation Agreement, as applicable; and any other attachments, all of which are incorporated herein by this reference. In interpreting this Agreement and resolving any ambiguities, these Service Terms and Conditions take precedence over any cover page, and the cover page takes precedence over any attachments, unless the cover page or attachment states otherwise.

2.2 "Equipment" means the equipment that is specified in the attachments or is subsequently added to this Agreement.

2.3 "Services" means those installation, maintenance, support, training, and other services described in this Agreement.

**Section 3      ACCEPTANCE**

Customer accepts these Service Terms and Conditions and agrees to pay the prices set forth in the Agreement. This Agreement becomes binding only when accepted in writing by Motorola. The term of this Agreement begins on the "Start Date" indicated in this Agreement.

**Section 4      SCOPE OF SERVICES**

4.1. Motorola will provide the Services described in this Agreement or in a more detailed statement of work or other document attached to this Agreement. At Customer's request, Motorola may also provide additional services at Motorola's then-applicable rates for the services.

4.2. If Motorola is providing Services for Equipment, Motorola parts or parts of equal quality will be used; the Equipment will be serviced at levels set forth in the manufacturer's product manuals; and routine service procedures that are prescribed by Motorola will be followed.

4.3. If Customer purchases from Motorola additional equipment that becomes part of the same system as the initial Equipment, the additional equipment may be added to this Agreement and will be billed at the applicable rates after the warranty for the additional equipment expires.

4.4. All Equipment must be in good working order on the Start Date or when additional equipment is added to the Agreement. Upon reasonable request by Motorola, Customer will provide a complete serial and model number list of the Equipment. Customer must promptly notify Motorola in writing when any Equipment is lost, damaged, stolen or taken out of service. Customer's obligation to pay Service fees for such Equipment will terminate at the end of the month in which Motorola receives the written notice.

4.5. Customer must specifically identify any Equipment that is labeled intrinsically safe for use in hazardous environments.

4.6. If Equipment cannot, in Motorola's reasonable opinion, be properly or economically serviced for any reason, Motorola may modify the scope of Services related to such Equipment; remove that Equipment from the Agreement; or increase the price to Service such Equipment.

4.7. Customer must promptly notify Motorola of any Equipment failure. Motorola will respond to Customer's notification in a manner consistent with the level of Service purchased as indicated in this Agreement.

## **Section 5 EXCLUDED SERVICES**

5.1. Service excludes the repair or replacement of Equipment that has become defective or damaged from use in other than the normal, customary, intended, and authorized manner; use not in compliance with applicable industry standards; excessive wear and tear; or accident, liquids, power surges, neglect, acts of God or other force majeure events.

5.2. Unless specifically included in this Agreement, Service excludes items that are consumed in the normal operation of the Equipment, such as batteries or magnetic tapes.; upgrading or reprogramming Equipment; accessories, belt clips, battery chargers, custom or special products, modified units, or software; and repair or maintenance of any transmission line, antenna, microwave equipment, tower or tower lighting, duplexer, combiner, or multicoupler. Motorola has no obligations for any transmission medium, such as telephone lines, computer networks, the internet or the worldwide web, or for Equipment malfunction caused by such transmission medium.

## **Section 6 TIME AND PLACE OF SERVICE**

Service will be provided at the location specified in this Agreement. When Motorola performs service at Customer's location, Customer will provide Motorola, at no charge, a non-hazardous work environment with adequate shelter, heat, light, and power and with full and free access to the Equipment. Waivers of liability from Motorola or its subcontractors will not be imposed as a site access requirement. Customer will provide all information pertaining to the hardware and software elements of any system with which the Equipment is interfacing so that Motorola may perform its Services. Unless otherwise stated in this Agreement, the hours of Service will be 8:30 a.m. to 4:30 p.m., local time, excluding weekends and holidays. Unless otherwise stated in this Agreement, the price for the Services exclude any charges or expenses associated with helicopter or other unusual access requirements; if these charges or expenses are reasonably incurred by Motorola in rendering the Services, Customer agrees to reimburse Motorola for those charges and expenses.

## **Section 7 CUSTOMER Contact**

Customer will provide Motorola with designated points of contact (list of names and phone numbers) that will be available twenty-four (24) hours per day, seven (7) days per week, and an escalation procedure to enable Customer's personnel to maintain contact, as needed, with Motorola.

## **Section 8 PAYMENT**

Unless alternative payment terms are stated in this Agreement, Motorola will invoice Customer in advance for each payment period. All other charges will be billed monthly, and Customer must pay each invoice in U.S. dollars within thirty (30) days of the invoice date. Customer will reimburse Motorola for all property taxes, sales and use taxes, excise taxes, and other taxes or assessments that are levied as a result of Services rendered under this Agreement (except income, profit, and franchise taxes of Motorola) by any governmental entity.

## **Section 9 WARRANTY**

Motorola warrants that its Services under this Agreement will be free of defects in materials and workmanship for a period of ninety (90) days from the date the performance of the Services are completed. In the event of a breach of this warranty, Customer's sole remedy is to require Motorola to re-perform the non-conforming Service or to refund, on a pro-rata basis, the fees paid for the non-conforming Service. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## **Section 10 DEFAULT/TERMINATION**

10.1. If either party defaults in the performance of this Agreement, the other party will give to the non-performing party a written and detailed notice of the default. The non-performing party will have thirty (30) days thereafter to provide a written plan to cure the default that is acceptable to the other party and begin implementing the cure plan immediately after plan approval. If the non-performing party fails to provide or implement the cure plan, then the injured party, in addition to any other rights available to it

under law, may immediately terminate this Agreement effective upon giving a written notice of termination to the defaulting party.

10.2. Any termination of this Agreement will not relieve either party of obligations previously incurred pursuant to this Agreement, including payments which may be due and owing at the time of termination. All sums owed by Customer to Motorola will become due and payable immediately upon termination of this Agreement. Upon the effective date of termination, Motorola will have no further obligation to provide Services.

## **Section 11      LIMITATION OF LIABILITY**

Except for personal injury or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of twelve (12) months of Service provided under this Agreement. ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT. No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than two (2) years after the accrual of such cause of action, except for money due upon an open account. This limitation of liability will survive the expiration or termination of this Agreement and applies notwithstanding any contrary provision.

## **Section 12      EXCLUSIVE TERMS AND CONDITIONS**

12.1. This Agreement supersedes all prior and concurrent agreements and understandings between the parties, whether written or oral, related to the Services, and there are no agreements or representations concerning the subject matter of this Agreement except for those expressed herein. The Agreement may not be amended or modified except by a written agreement signed by authorized representatives of both parties.

12.2. Customer agrees to reference this Agreement on any purchase order issued in furtherance of this Agreement, however, an omission of the reference to this Agreement will not affect its applicability. In no event will either party be bound by any terms contained in a Customer purchase order, acknowledgement, or other writing unless: the purchase order, acknowledgement, or other writing specifically refers to this Agreement; clearly indicate the intention of both parties to override and modify this Agreement; and the purchase order, acknowledgement, or other writing is signed by authorized representatives of both parties.

## **Section 13      PROPRIETARY INFORMATION; CONFIDENTIALITY; INTELLECTUAL PROPERTY RIGHTS**

13.1. Any information or data in the form of specifications, drawings, reprints, technical information or otherwise furnished to Customer under this Agreement will remain Motorola's property, will be deemed proprietary, will be kept confidential, and will be promptly returned at Motorola's request. Customer may not disclose, without Motorola's written permission or as required by law, any confidential information or data to any person, or use confidential information or data for any purpose other than performing its obligations under this Agreement. The obligations set forth in this Section survive the expiration or termination of this Agreement.

13.2. Unless otherwise agreed in writing, no commercial, financial or technical information disclosed in any manner or at any time by Customer to Motorola will be deemed secret or confidential. Motorola will have no obligation to provide Customer with access to its confidential and proprietary information, including cost and pricing data.

13.3. This Agreement does not grant directly or by implication, estoppel, or otherwise, any ownership right or license under any Motorola patent, copyright, trade secret, or other intellectual property including any intellectual property created as a result of or related to the Equipment sold or Services performed under this Agreement.

#### **Section 14      FCC LICENSES AND OTHER AUTHORIZATIONS**

Customer is solely responsible for obtaining licenses or other authorizations required by the Federal Communications Commission or any other federal, state, or local government agency and for complying with all rules and regulations required by such agencies. Neither Motorola nor any of its employees is an agent or representative of Customer in any governmental matters.

#### **Section 15      COVENANT NOT TO EMPLOY**

During the term of this Agreement and continuing for a period of two (2) years thereafter, Customer will not hire, engage on contract, solicit the employment of, or recommend employment to any third party of any employee of Motorola or its subcontractors without the prior written authorization of Motorola. This provision applies only to those employees of Motorola or its subcontractors who are responsible for rendering services under this Agreement. If this provision is found to be overly broad under applicable law, it shall be modified as necessary to conform to such law.

#### **Section 16      MATERIALS, TOOLS AND EQUIPMENT**

All tools, equipment, dies, gauges, models, drawings or other materials paid for or furnished by Motorola for the purpose of this Agreement will be and remain the sole property of Motorola. Customer will safeguard all such property while it is in Customer's custody or control, be liable for any loss or damage to this property, and return it to Motorola upon request. This property will be held by Customer for Motorola's use without charge and may be removed from Customer's premises by Motorola at any time without restriction.

#### **Section 17      GENERAL TERMS**

17.1. If any court renders any portion of this Agreement unenforceable, the remaining terms will continue in full force and effect.

17.2. This Agreement and the rights and duties of the parties will be governed and interpreted in accordance with the laws of the State of Texas.

17.3. Failure to exercise any right will not operate as a waiver of that right, power, or privilege.

17.4. Neither party is liable for delays or lack of performance resulting from any causes that are beyond that party's reasonable control, such as strikes, material shortages, or acts of God.

17.5. Motorola may assign its rights and obligations, and may subcontract any portion of its performance, under this Agreement.

17.6. If Motorola provides Services after the termination or expiration of this Agreement, the terms and conditions in effect at the time of the termination or expiration will apply to those Services and Customer agrees to pay for those services on a time and materials basis at Motorola's then effective hourly rates.

# OUR COMMITMENT

Motorola Solutions connects people through technology. Businesses and government agencies around the world turn to Motorola Solutions innovations when they want highly connected teams that have the information they need throughout their workdays and in the moments that matter most to them.

You can find Motorola Solutions products and services in a wide range of workplaces. From the retail floor to the warehouse floor, and from the small town police station to the most secure government offices, our products support customers who make up the diverse global economy. We are proud that our products support mobile transactions of all kinds, as well as the safety and security of citizens everywhere.

Our customers rely on us for the expertise, services and solutions we provide, trusting our years of invention and innovation experience. By partnering with customers and observing how our products can help in their specific industries, we are able to enhance our customers' experience every day.

## **Motorola Solutions—An Industry Leader**

Motorola Solutions serves both enterprise and government customers with core markets in public safety government agencies and commercial enterprises. Our leadership in these areas includes public safety communications from infrastructure to applications and devices such as radios as well as task-specific mobile computing devices for enterprises. We produce advanced data capture devices such as barcode scanners and RFID (radio-frequency identification) products for business. We make professional and commercial two-way radios for a variety of markets, and we also bring unlicensed wireless broadband capabilities and wireless local area networks—or WLAN—to retail enterprises

## **Pioneering New Areas of Cognitive Research**

As an industry leader in government and public safety, we design and develop devices including radios and the infrastructure that supports them. Our mission-critical design philosophy led to our new High Velo County Human Factors investigation, an area of cognitive research that helps us develop products for first responders by working with them in crisis situations to study their communication needs. We take what we learn in the field and bring it back to the lab to create products that will function under extreme conditions and networks that will reliably support those products.

## **Our Focus: Our Customers**

Working with our global channel partner community, Motorola Solutions reaches an extensive customer base, from small businesses to Fortune 500 companies. Our focus is on developing integrated end-to-end solutions that deliver a clear return on investment, and our products empower individuals through seamless connectivity.





Account Manager: Clay Cassard  
2120 W Breaker Lane Suite P  
Austin Texas 78758

Date: 03/05/19  
Quote#: scc3119b  
Contract Number: City of Austin

|                                |                  |                  |
|--------------------------------|------------------|------------------|
| Prepared For: Chief Ekiss      | Ship to Address: | Bill to Address: |
| Phone Number:                  | TBD              | TBD              |
| Email :                        |                  |                  |
| Agency: Taylor Fire Department |                  |                  |
| Customer #:                    |                  |                  |

| Item                                        | Qty | Description                                   | Model        | List Price | Contract Price | Extended   |
|---------------------------------------------|-----|-----------------------------------------------|--------------|------------|----------------|------------|
| <b>APX 8000 ALL BAND PORTABLE MODEL 3.5</b> |     |                                               |              |            |                |            |
| <b>(700/800/VHF)</b>                        |     |                                               |              |            |                |            |
| 20                                          |     | APX 8000 ALL BAND PORTABLE MODEL 3.5          | H91TGD9PW7 N | \$6,292.00 | 4,467.32       | 89,346.40  |
| 20                                          |     | ENH: APX8000XE RUGGED RADIO                   | QA02006      | \$800.00   | 568.00         | 11,360.00  |
| 20                                          |     | ALT:APX 8000 HOUSING GREEN                    | QA01427      | \$25.00    | 17.75          | 355.00     |
| 20                                          |     | ADD: ASTRO DIGITAL CAI OPERATION              | Q806         | \$515.00   | 365.65         | 7,313.00   |
| 20                                          |     | ADD: SMARTZONE OPERATION                      | H38          | \$1,500.00 | 1,065.00       | 21,300.00  |
| 20                                          |     | ADD: P25 9600 BAUD TRUNKING                   | Q361         | \$300.00   | 213.00         | 4,260.00   |
| 20                                          |     | ADD: TDMA OPERATION                           | QA00580      | \$450.00   | 319.50         | 6,390.00   |
| 20                                          |     | ADD: 5 YEAR SERVICE FROM THE START LITE       | Q887         | \$213.00   | 213.00         | 4,260.00   |
| 20                                          |     | ADD: ADVANCED SYSTEM KEY - HARDWARE KEY       | QA01648      | \$5.00     | 3.55           | 71.00      |
| 20                                          |     | ADD: PROGRAMMING OVER P25 (OTAP)              | G996         | \$100.00   | 71.00          | 1,420.00   |
| 20                                          |     | ADD: P25 LINK LAYER AUTHENTICATION            | QA01767      | \$100.00   | 71.00          | 1,420.00   |
| 20                                          |     | ENH: MULTIKEY                                 | H869         | \$330.00   | 234.30         | 4,686.00   |
| 20                                          |     | MULTIKEY CREDIT                               | CREDIT       | (\$330.00) | -330.00        | -6,600.00  |
| 20                                          |     | DEL: DELETE UHF BAND                          | QA05509      | -800       | -568.00        | -11,360.00 |
| 20                                          |     | Digital Tone Signaling Flash Upgrade          | GA09000AA    | \$150.00   | 106.50         | 2,130.00   |
| 20                                          |     | RM DELIVERY OPTION - EMAIL radioshop@wilco.og | UA00049AA    | \$0.00     | 0.00           | 0.00       |
| 20                                          |     | ADD: GROUP SERVICES                           | GA09008      | \$150.00   | 106.50         | 2,130.00   |
| 20                                          |     | ADD: APX Personnel Accountability             | Q445         | \$150.00   | 106.50         | 2,130.00   |

**Radio Total 140,611.40**

#### ACCESSORIES

|                                                 |                                                   |              |            |          |            |
|-------------------------------------------------|---------------------------------------------------|--------------|------------|----------|------------|
| ISA 12.12.01-2015 and CAN /CSA C22.2 No. 213-15 |                                                   |              |            |          |            |
| 20                                              | IMPRES 2 Lilon 3400 mAh                           | PMNN4504     | \$150.00   | 112.50   | 2,250.00   |
|                                                 | AUDIO ACCESSORY-AUDIO ADAPTER,NEXT GEN FIRE       | PMMN4107ABLK | \$550.00   |          |            |
| 20                                              | RSM MODEL 1.5 BLK                                 |              |            | 412.50   | \$8,250.00 |
|                                                 | CHARGER, SINGLE-UNIT, IMPRES 2, 3A, 115VAC, US/NA | NNTN8860A    | \$150.00   |          |            |
| 3                                               |                                                   |              |            | 112.50   | \$337.50   |
|                                                 | IMPRES MULTI UNIT CHARGER with DISPLAY            | NNTN7073B    | \$1,485.00 |          |            |
| 2                                               | US/NA/CA/LA                                       |              |            | 1,113.75 | \$2,227.50 |
| 17                                              | IMPRES VEHICULAR CHARGER (FULL KIT)               | NNTN7624B    | \$390.00   | 312.00   | 5,304.00   |

|                        |                  |
|------------------------|------------------|
| <b>Accessory Total</b> | <b>18,369.00</b> |
|------------------------|------------------|

|              |                   |
|--------------|-------------------|
| <b>Total</b> | <b>158,980.40</b> |
|--------------|-------------------|

|   |          |         |           |
|---|----------|---------|-----------|
| 5 | Trade In | -400.00 | -2,000.00 |
|   | Promo    | -300    | -6,000.00 |

|                         |                   |
|-------------------------|-------------------|
| <b>Total with Promo</b> | <b>150,980.40</b> |
|-------------------------|-------------------|

**APX8500 Dual BAND MP MOBILE - Single Band Remote  
Mount Dual Head 02**

|   |                                         |              |            |          |          |
|---|-----------------------------------------|--------------|------------|----------|----------|
| 2 | APX8500 ALL BAND MP MOBILE              | M37TSS9PW1 N | \$4,770.00 | 3,386.70 | 6,773.40 |
| 2 | ENH: ASTRO DIGITAL CAI OP APEX          | G806         | \$515.00   | 365.65   | 731.30   |
| 2 | ENH: SMARTZONE OPERATION APX            | G51          | \$1,500.00 | 1,065.00 | 2,130.00 |
| 2 | ADD: P25 TRUNKING SOFTWARE              | G361         | \$300.00   | 213.00   | 426.00   |
| 2 | ADD: ADVANCED SYSTEM KEY - HARDWARE KEY | QA01648      | \$5.00     | 3.55     | 7.10     |
| 2 | ADD: APX O2 CONTROL HEAD (Grey)         | GA00804      | \$492.00   | 349.32   | 698.64   |
| 2 | ADD:IMPACT GREEN COLOR HOUSING (O2)     | G201         | \$25.00    | 17.75    | 35.50    |
| 2 | ADD: APX CONTROL HEAD SOFTWARE          | G444         | \$0.00     | 0.00     | 0.00     |
| 2 | ADD: REMOTE MOUNT MID POWER             | G67          | \$297.00   | 210.87   | 421.74   |
| 2 | ADD: ALL BAND MOBILE ANTENNA (7/8/V/U)  | GA01513      | \$95.00    | 67.45    | 134.90   |
| 2 | ADD: GPS/WI-FI ANTENNA                  | GA00226      | \$75.00    | 53.25    | 106.50   |
| 4 | ADD: NON KEYPAD MIC                     | W22          | \$72.00    | 51.12    | 204.48   |
| 4 | ADD: AUXILARY SPKR 7.5 WATT             | B18          | \$60.00    | 42.60    | 170.40   |
| 2 | ADD: 4 YR SFS LITE                      | GA00318      | \$363.00   | 257.73   | 515.46   |
| 2 | ADD: DIGITAL TONE SIGNALING             | GA09000      | \$150.00   | 106.50   | 213.00   |
| 2 | ADD: MULTIPLE KEY ENCRYPTION OPERATION  | W969         | \$330.00   | 234.30   | 468.60   |



|   |                                          |            |            |         |           |
|---|------------------------------------------|------------|------------|---------|-----------|
| 2 | Multikey Credit                          | CREDIT     | (\$330.00) | -234.30 | -468.60   |
| 2 | ADD: TDMA OPERATION                      | GA00580    | \$450.00   | 319.50  | 639.00    |
| 2 | ENH: OVER THE AIR PROVISIONING           | G996       | \$100.00   | 71.00   | 142.00    |
| 2 | ADD: APX MOBILE RADIO AUTHENTICAT        | GA01767    | \$100.00   | 71.00   | 142.00    |
| 2 | ADD: GROUP SERVICES                      | GA09008    | \$150.00   | 106.50  | 213.00    |
| 2 | DEL: DELETE UHF BANDGA05509681(\$800.00) | GA05509681 | (\$800.00) | -568.00 | -1,136.00 |
| 2 | RADIO MANAGEMENT SOFTWARE                | T7914      | \$100.00   | 71.00   | 142.00    |
| 2 | RM DELIVERY OPTION - radioshop@wilco.org | UA00049AA  | \$0.00     | 0.00    | 0.00      |

|                           |                               |         |          |        |        |
|---------------------------|-------------------------------|---------|----------|--------|--------|
| <b>Dual Head Hardware</b> |                               |         |          |        |        |
| 2                         | ADD: DUAL-CONTRL HD HARDWARE  | GA00092 | \$570.00 | 404.70 | 809.40 |
| 2                         | ADD: REMOTE MOUNT CBL 17 FEET | G628    | \$15.00  | 10.65  | 21.30  |
| 2                         | ADD:CBL REMOTE MOUNT 75 FEET  | G607    | \$45.00  | 31.95  | 63.90  |

|                    |                  |
|--------------------|------------------|
| <b>GRAND TOTAL</b> | <b>13,605.02</b> |
|--------------------|------------------|

|       |         |         |
|-------|---------|---------|
| PROMO | -300.00 | -600.00 |
|-------|---------|---------|

|                         |                  |
|-------------------------|------------------|
| <b>TOTAL WITH PROMO</b> | <b>13,005.02</b> |
|-------------------------|------------------|

|                                       |                                         |              |            |          |           |
|---------------------------------------|-----------------------------------------|--------------|------------|----------|-----------|
| <b>APX8500 Single Head, Dual Band</b> |                                         |              |            |          |           |
| 15                                    | APX8500 ALL BAND MP MOBILE              | M37TSS9PW1 N | \$4,770.00 | 3,386.70 | 50,800.50 |
| 15                                    | ENH: ASTRO DIGITAL CAI OP APEX          | G806         | \$515.00   | 365.65   | 5,484.75  |
| 15                                    | ENH: SMARTZONE OPERATION APX            | G51          | \$1,500.00 | 1,065.00 | 15,975.00 |
| 15                                    | ADD: P25 TRUNKING SOFTWARE              | G361         | \$300.00   | 213.00   | 3,195.00  |
| 15                                    | ADD: ADVANCED SYSTEM KEY - HARDWARE KEY | QA01648      | \$5.00     | 3.55     | 53.25     |
| 15                                    | ADD: O5 CONTROL HEAD                    | G442         | \$432.00   | 306.72   | 4,600.80  |
| 15                                    | ADD: APX CONTROL HEAD SOFTWARE          | G444         | \$0.00     | 0.00     | 0.00      |
| 15                                    | ADD: DASH MOUNT                         | G66          | \$125.00   | 88.75    | 1,331.25  |
| 15                                    | ADD: ALL BAND MOBILE ANTENNA (7/8V/U)   | GA01513      | \$95.00    | 67.45    | 1,011.75  |

|                             |                                              |            |            |         |           |
|-----------------------------|----------------------------------------------|------------|------------|---------|-----------|
| 15                          | ADD: GPS/WI-FI ANTENNA                       | GA00226    | \$75.00    | 53.25   | 798.75    |
| 15                          | ADD: KEYPAD MIC GCAI                         | W20        | \$180.00   | 127.80  | 1,917.00  |
| 15                          | ADD: AUXILARY SPKR 7.5 WATT                  | B18        | \$60.00    | 42.60   | 639.00    |
| 15                          | ADD: 4 YR SFS LITE                           | GA00318    | \$363.00   | 257.73  | 3,865.95  |
| 15                          | ADD: DIGITAL TONE SIGNALING                  | GA09000    | \$150.00   | 106.50  | 1,597.50  |
| 15                          | ADD: MULTIPLE KEY ENCRYPTION OPERATION       | W969       | \$330.00   | 234.30  | 3,514.50  |
| 15                          | Multikey Credit                              | CREDIT     | (\$330.00) | -234.30 | -3,514.50 |
| 15                          | ADD: TDMA OPERATION                          | GA00580    | \$450.00   | 319.50  | 4,792.50  |
| 15                          | ENH: OVER THE AIR PROVISIONING               | G996       | \$100.00   | 71.00   | 1,065.00  |
| 15                          | ADD: APX MOBILE RADIO AUTHENTICAT            | GA01767    | \$100.00   | 71.00   | 1,065.00  |
| 15                          | ADD: GROUP SERVICES                          | GA09008    | \$150.00   | 106.50  | 1,597.50  |
| 15                          | DEL: DELETE UHF BANDGA05509681(\$800.00)     | GA05509681 | (\$800.00) | -568.00 | -8,520.00 |
| 15                          | RADIO MANAGEMENT SOFTWARE                    | T7914      | \$100.00   | 71.00   | 1,065.00  |
| 15                          | RM DELIVERY OPTION - EMAIL Catherine Roberts | UA00049AA  | \$0.00     | 0.00    | 0.00      |
| <b>OPTIONAL ACCESSORIES</b> |                                              |            |            |         |           |
| 3                           | ADD: CNTRL STATION PWR SUPPLY APX8500        | G91        | \$269.00   | 201.75  | 605.25    |
| 3                           | ADD: CONTROL STATION OPERATION               | W665       | \$70.00    | 52.50   | 157.50    |
| 3                           | DECK TOP MICROPHONE                          | RMN5070    | \$169.00   | 126.75  | 380.25    |
| 4                           | KEYPAD MICROPHONE - MOBILE                   | HMN4079    | \$180.00   | 135.00  | 540.00    |

|              |         |                  |
|--------------|---------|------------------|
| <b>TOTAL</b> |         | <b>94,018.50</b> |
| 5 Trade In   | -400.00 | -2,000.00        |
| PROMO        | -300.00 | -4,500.00        |

|                    |                  |
|--------------------|------------------|
| <b>GRAND TOTAL</b> | <b>87,518.50</b> |
|--------------------|------------------|

|                                  |                   |
|----------------------------------|-------------------|
| <b>TOTAL RADIO PACKAGE TOTAL</b> | <b>251,503.92</b> |
|----------------------------------|-------------------|

## MOTOROLA EQUIPMENT PROJECTED MAINTENANCE COSTS

|                         |                        |            |             | YEAR 1      | YEAR 2              | YEAR 3              | YEAR 4              | YEAR 5              | YEAR 6              |
|-------------------------|------------------------|------------|-------------|-------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                         |                        |            |             | 2019/2020   | 2020/2021           | 2021/2022           | 2022/2023           | 2023/2024           | 2024/2025           |
|                         | COST PER YEAR PER ITEM | # OF ITEMS | ANNUAL COST |             |                     |                     |                     |                     |                     |
| POLICE HANDHELD RADIOS  | \$ 66.00               | 29         | \$ 1,914.00 |             |                     |                     |                     |                     | \$ 1,914.00         |
| POLICE IN-CAR RADIOS    | \$ 100.80              | 9          | \$ 907.20   |             |                     |                     |                     |                     | \$ 907.20           |
| FIRE HANDHELD RADIOS    | \$ 66.00               | 35         | \$ 2,310.00 |             |                     |                     |                     |                     | \$ 2,310.00         |
| FIRE IN-CAR RADIOS      | \$ 100.80              | 2          | \$ 201.60   |             |                     |                     |                     |                     | \$ 201.60           |
| POLICE CONSOLES         |                        |            |             | \$ -        | \$ 23,284.68        | \$ 23,983.20        | \$ 24,215.84        | \$ 24,443.47        | \$ 24,680.57        |
| <b>ANNUAL TOTAL DUE</b> |                        |            |             | <b>\$ -</b> | <b>\$ 23,284.68</b> | <b>\$ 23,983.20</b> | <b>\$ 24,215.84</b> | <b>\$ 24,443.47</b> | <b>\$ 30,013.37</b> |

Police and Fire Handheld/Portable Radios and In-Car Radios are covered under a 5-year Factory Warranty. After 5 years, (which begins upon receipt of equipment), maintenance agreement payments based on number of handheld/portable and in-car radios will be due. This will be an annual payment.

Police Dispatch Consoles are covered for the first year with a 24/7 Full Support Warranty. After the first year, (which begins after system acceptance sign-off), maintenance agreement payments quoted by Motorola will be due. According to 2 year quote provided by Motorola, there will be a 1% increase each year (which is included in the estimated annual projections above). This payment can be paid annually or monthly.

Motorola pricing is tentative, for budgeting purposes. Prices may increase slightly in the next few years.



## ***City Council Meeting June 13, 2019 Transmittal Letter***

### STRATEGIC PILLAR

- ☐ Streets/Infrastructure
- ☒ Quality of Life
- ☒ Economic Vitality

**Agenda Item #:** 6

**Agenda Title:** Conduct Public Hearing and consider introducing Ordinance 2019-19 to rezone approximately 39.00 acres, more or less; located at the northeast intersection of Old Georgetown Road and NW Carlos G. Parker Blvd, Williamson County, Texas, from Rural/Agricultural Zoning District (R/A) to approximately 22.67 acres of General Commercial Zoning District (B-2) and 16.33 acres of Multi-Family Zoning District (MF-2).

**Council Action to be taken:** Hold public hearing and introduce Ordinance 2019-19

**Department Submitted:** Development Services

**Staff Contact:** Tom Yantis, Development Services Director

### **1. PURPOSE/DESCRIPTION**

The proposal is to rezone approximately 39.00 acres, more or less, more particularly described by Williamson Central Appraisal District Parcel R018646; legally described as; part of and out of William J. Baker Survey, Abstract No. 65, located at the northeast intersection of Old Georgetown Road (CR 366) and N.W. Carlos G. Parker Boulevard (SH 397), Williamson County, Texas, from Rural/Agricultural Zoning District (R/A) to 22.67 acres of General Commercial (B-2) and 16.33 acres of Multi-Family Zoning Districts (MF-2).

The applicant is proposing to re-zone the subject property, which has been used for agricultural purposes, for future development. The subject property is located at the northeast intersection of Old Georgetown Road and Carlos G. Parker Parkway; along approximately 1,100 feet on the west side of Old Georgetown Road and approximately 2,000 feet of the north side of Carlos G. Parker Parkway. The future plans include a variety of commercial land uses on the southwest corner of the tract. On the northeast corner of the subject property, the applicant is proposing multi-family development. The applicant intends to develop the south side of N.W. Carlos G. Parker with commercial land uses as well. That tract is already zoned for commercial land uses.

The applicant recently purchased the subject property and the tract directly across N.W. Carlos G. Parker to develop for commercial and multi-family uses. While the land on the south side of Carlos G. Parker is already zoned for commercial uses, the land fronting on

the north side of N.W. Carlos G. Parker is zoned for agricultural land uses. For the proposed commercial and multi-family development to move forward a re-zoning to General Commercial (B-2) and Multi-Family Zoning Districts (MF-2) is necessary.

## 2. STAFF ANALYSIS (How and Why)

The Future Land Use Plan map identifies the subject property as an area for Commercial and Multi-Family residential land uses. The graphic representation on the map is intended to help the Planning and Zoning Commission, City Council, and residents visualize the desired future land development pattern in the community. It is meant to guide us with regard to general land use patterns rather than a rigid, parcel-specific mandate for how land shall be developed. The land use narratives associated with the land use classifications on the FLUP are consistent with development proposed by the applicant and support the request to rezone.

**Commercial (Red):** Includes operations involving sales, repair and/or storage of goods, services and equipment. Examples of these include retail centers, supermarkets, restaurants and entertainment facilities automobile repair, contractor sales and storage, home furnishings, showrooms, truck rentals and self-storage facilities. These uses are best located along major arterials in conjunction with other more intense uses such as industry.

**Multi-Family Residential (Orange):** Multi-family residential dwellings, typically identified as duplexes, triplexes, fourplexes, and apartments. Unlike the other residential categories, this classification generates sufficient traffic and utility impacts to be treated as nonresidential uses and is best located at the intersections of major arterials.

## 3. RECOMMENDATION

Hold Public Hearing and introduce Ordinance 2019-19.

The Planning and Zoning Commission held a public hearing and made a recommendation for approval on this re-zoning at their May 14, 2019 meeting.

## 4. FUNDING SOURCE

N/A

## 5. TIMELINE

Consider ordinance approval at June 27, 2019 meeting.

## 6. PRIOR COUNCIL ACTIONS TAKEN

N/A

## 7. OTHER OPTIONS (In order of preference)

Council could deny or table the request.

|                       |
|-----------------------|
| <b>8. ATTACHMENTS</b> |
|-----------------------|

- 6a [Ordinance 2019-19](#)
- 6b [Deed](#)
- 6c [M&B Map](#)
- 6d [Metes and Bounds](#)
- 6e [Staff Report](#)
- 6f [Zoning Map](#)
- 6g [Future Land Use Plan Map](#)
- 6h [Presentation](#)
- 6i [Proposed zoning map](#)

## **ORDINANCE NO. 2019-19**

**AN ORDINANCE CHANGING THE ZONING OF PROPERTY DESCRIBED AS RURAL/AGRICULTURAL ZONING DISTRICT (R/A) TO 22.67 ACRES OF GENERAL COMMERCIAL ZONING DISTRICT (B-2) AND 16.33 ACRES OF MULTI-FAMILY ZONING DISTRICT (MF-2) OF LAND APPROXIMATELY 39.00 ACRES, MORE PARTICULARLY DESCRIBED BY WILLIAMSON CENTRAL APPRAISAL DISTRICT PARCEL R018646; PART OF AND OUT OF WILLIAM J. BAKER SURVEY, ABSTRACT NO. 65, LOCATED AT THE NORTHEAST INTERSECTION OF OLD GEORGETOWN ROAD (CR 366) AND N.W. CARLOS G. PARKER BOULEVARD (SH 397), TAYLOR, WILLIAMSON COUNTY, TEXAS.; AMENDING THE OFFICIAL ZONING MAP OF THE CITY OF TAYLOR, TEXAS, TO SHOW THE ZONING CHANGE ADOPTED HEREIN; PROVIDING A SAVINGS CLAUSE.**

**WHEREAS**, the Taylor City Council conducted a public hearing on June 13, 2019, to consider the request made by D&L Land Development LLC, which property is legally described in Exhibit "A" attached hereto and incorporated by reference herein for all purposes ("Property"), to change the zoning for the Property from Rural/Agricultural Zoning District (R/A) to 22.67 acres of General Commercial Zoning District (B-2) and 16.33 acres of Multi-Family Zoning District (MF-2); and

**WHEREAS**, the Planning and Zoning Commission, after proper notice, conducted a public hearing on May 14, 2019, to consider the zoning request, and recommended the zoning change to the City Council; and

**WHEREAS**, the City Council, after the public hearing, approves the request for the Property zoning change.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF TAYLOR, TEXAS, that:**

**SECTION 1.** The facts and recitations contained in the preamble of this Ordinance are hereby declared to be true and correct and are incorporated by reference herein and made a part hereof, as if copied verbatim.

**SECTION 2.** The Property is changed from Rural/Agricultural Zoning District (R/A) to 22.67 acres of General Commercial Zoning District (B-2) and 16.33 acres of Multi-Family Zoning District (MF-2).

**SECTION 3.** The Official Zoning map of the City of Taylor, Texas, is changed to show the Property zoning district changed from Rural/Agricultural Zoning District (R/A) to 22.67 acres of General Commercial Zoning District (B-2) and 16.33 acres of Multi-Family Zoning District (MF-2).



**SECTION 4.** All other terms and conditions contained in the official zoning map, except as amended herein, shall continue and remain in full force and effect.

**SECTION 5.** Should any section, paragraph, clause, phrase, or provision of this Ordinance be adjudged invalid or held unconstitutional, the same shall not affect the validity of this Ordinance as a whole or any part of the provisions thereof, other than the part so decided to be invalid or unconstitutional.

**SECTION 6.** In accordance with Article VIII of the City Charter, Ordinance 2019-19 was introduced before the Taylor City Council on the \_\_\_\_\_ day of June, 2019,

PASSED, APPROVED, and ADOPTED on the \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Brandt Rydell, Mayor

ATTEST:

\_\_\_\_\_  
Dianna Barker, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Ted W. Hejl,  
City Attorney

**NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.**

**WARRANTY DEED WITH VENDOR'S LIEN**

Date: February 5, 2019, but effective February 6, 2019

Grantor: LANNEN LAND, INC., a Texas Corporation

Grantor's Mailing Address: 1781 Osage Bend  
Fayetteville, Washington County,  
Arkansas 72701

Grantee: D&L LAND DEVELOPMENT, LLC,  
a Texas Limited Liability Company

Grantee's Mailing Addresses: 2950 Joe DiMaggio Blvd.  
Round Rock, Williamson County,  
Texas 78665

Consideration:

TEN DOLLARS (\$10.00), and other good and valuable consideration cash to Grantor paid by the Grantee hereinafter named, the receipt of which is hereby acknowledged and confessed, and for the payment of which no right or lien, expressed or implied, is retained; and for further consideration of the sum of FIVE HUNDRED FIFTY-ONE THOUSAND SIX HUNDRED TWENTY-EIGHT AND NO/100 DOLLARS (\$551,628.00), as evidenced by one certain promissory purchase money note, executed by Grantee and payable to the order of ROUND TOP STATE BANK, bearing interest as therein provided, being secured by the vendor's lien hereinafter retained and additionally secured by a Deed of Trust lien, with power of sale, to Johnnie

Mikeska, Trustee;

Property (including any improvements):

Being a 50.29 acre tract of land out of the W.J. Baker Survey, Abstract Number 65, in Williamson County, Texas, same being that certain Lannen Land, Inc. 50.30 acre tract Recorded in Document Number 2006050184, Official Public Records of Williamson County, Texas; said 50.29 acres of land to be more particularly described by metes and bounds in Exhibit "A" attached hereto and incorporated by reference herein for all purposes; together with any improvements, attachments and appurtenance thereto; SAVE AND EXCEPT that certain 4.581 acre tract of land conveyed to the State of Texas by L.S. Lannen and Rhoda B. Lannen in Deed recorded in Volume 766, Page 782, Deed Records of Williamson County, Texas.

Reservations from Conveyance: None

Exceptions to Conveyance and Warranty:

Easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded restrictions, reservations, covenants, conditions, oil and gas leases, mineral severances, and other instruments, other than liens and conveyances, that affect the property; rights of adjoining owners in any walls and fences situated on a common boundary; any discrepancies, conflicts, or shortages in area or boundary lines, or any encroachments or protrusions, or any overlapping of improvements; and taxes for 2019, the payment of which Grantee assumes, the same having been prorated to the delivery of this Deed; and subsequent assessments for that and prior years due to change in and usage, ownership, or both, the payment of which Grantee assumes.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and

appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's successors, and assigns forever. Grantor binds Grantor and Grantor's successors to warrant and forever defend all and singular the Property to Grantee and Grantee's successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

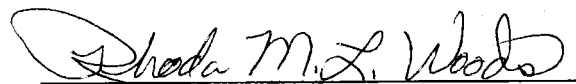
ROUND TOP STATE BANK, at the request of Grantee, has paid in cash to Grantors that portion of the purchase price of the Property that is evidenced by the note. The first and superior vendor's lien against and superior title to the Property are retained for the benefit of ROUND TOP STATE BANK and are transferred to ROUND TOP STATE BANK without recourse against Grantor.

The vendor's lien against and superior title to the Property are retained until each note described is fully paid according to its terms, at which time this Deed will become absolute.

When the context requires, singular nouns and pronouns include the plural.

Grantee is purchasing the Property in an "as is" condition with no representations made or implied as to the quality, fitness, or condition of the Property by the Grantor. Grantee is purchasing the Property based solely upon its inspection and is not relying on any representations made by Grantor. No representations of the use, fitness, size, quality or any other matters concerning the Property have been made by Grantor to Grantees. Grantor warrants only title to the Property as set forth in this Deed.

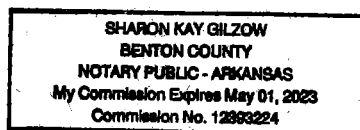
LANNEN LAND, INC.,  
a Texas Corporation



By: Rhoda M.L. Woods  
Its: President

STATE OF ARKANSAS,  
COUNTY OF WASHINGTON.

BEFORE ME, the undersigned authority, on <sup>Feb 5 2019</sup> ~~this day~~ personally appeared Rhoda M.L. Woods, President of Lannen Land, Inc., a Texas Corporation, known to me to be the persons whose names are subscribed to the foregoing instrument, and swore and acknowledged to me that she executed the same for the purposes and consideration therein expressed, and in the capacity therein stated and as the act and deed of the Corporation.



*Sharon Kay Gilzow*  
Notary Public in and for *Sharon Kay Gilzow*  
The State of Arkansas

Type of Document: Warranty Deed with  
Vendors' Lien

RETURN TO: *(Ed)*  
AUSTIN TITLE COMPANY  
THE SUMMIT AT LA FRONTERA  
810 HESTERS CROSSING, #155  
ROUND ROCK, TX 78681-7841  
GF: *ACT 18010422-653*

## EXHIBIT "A"

BEING A 50.29 ACRE TRACT OF LAND OUT OF THE W.J. BAKER SURVEY, ABSTRACT NUMBER 65, IN WILLIAMSON COUNTY, TEXAS, SAME BEING THAT CERTAIN LANNEN LAND, INC. 50.30 ACRE TRACT RECORDED IN DOCUMENT NUMBER 2006050184, OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS. SAID 50.29 ACRES OF LAND TO BE MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING at a highway concrete monument found in the easterly right-of-way line of C.R. 366, at the northwest corner of that certain Daryl R. Neans 0.53 acre tract recorded in Document Number 2004014708, Official Public Records, said county, same being the southwest corner of said 50.30 acre tract and the southwest corner hereof;

THENCE North 21 degrees 42 minutes 37 seconds West, along said easterly right-of-way line and said 50.30 acre tract westerly line, 1,123.90 feet to a point in the southwest corner of that certain Ronnie C. Zett 9.50 acre tract recorded in Document Number 2011011168, Official Public Records, said county, same being the northwest corner of said 50.30 acre tract and the northwest corner hereof;

THENCE North 68 degrees 26 minutes 30 seconds East, along said 9.50 acre tract southerly line, that certain Ronald G. Rhodes 4.01 acre tract recorded in Volume 2459, Page 601, Deed Records, said county southerly line, that certain Kevin Lynn Drapela & Cori-Beth Tuite 3.32 acre tract recorded in Document Number 2016072992, Official Public Records, said county southerly line, that certain Florence Fay Finn 6.67 acre tract recorded in Document Number 2018054138, official Public Records, said county southerly line, that certain Hilda Hanson 5.0 acre tract as recorded in Document Number 2013022199, Official Public Records, said county southerly line, that certain Caroline S. Lefler 6.98 acre tract recorded in Document Number 2011073622, Official Public Records, said county southerly line, and said 50.30 acre tract northerly line, 1,951.20 feet to an iron rod found in the southwest corner of that certain Patricia A. Greinart 43.0 acre tract as recorded in Document Number 2014029950, Official Public Records, said county, also being the northwest corner of Lot One, Block One, First Assembly of God Church Subdivision Lot One, Block One, recorded in Document Number 2011001491, Official Public Records, said county, same being the northeast corner of said 50.30 acre tract and the northeast corner hereof;

THENCE South 22 degrees 02 minutes 10 seconds East, along said 8.329 acre tract westerly line, that certain TW Ford, LP 1.0 acre tract as recorded in Document Number 2017010899, Official Public Records, said county westerly line, and said 50.30 acre tract easterly line, 736.41 feet to an iron rod found in the northerly right-of-way line of FM 397, same being the southwest corner of said 1.0 acre tract and an angle point hereof;

THENCE South 22 degrees 33 minutes 33 seconds East, through said Right-of Way, with the easterly line of said 50.30 acre tract, 121.56 feet to an iron rod found in the southerly right-of-way line of said FM 397, in the northerly line of that certain Weinritter Realty, LP. 85.277 acre tract as recorded in Document Number 2009013705, Official Public Records, said county;

THENCE South 22 degrees 02 minutes 39 seconds East, along said 85.227 acre tract northerly line and said 50.30 acre tract easterly line, 260.95 feet to an iron rod found, same being the southeast corner of said 50.30 acre tract and the southeast corner hereof;

THENCE South 68 degrees 21 minutes 56 seconds West, along said 85.227 acre tract northerly line and said 50.30 acre tract southerly line, 1,505.21 feet to an iron rod found in said southerly right-of-way line, same being the northwest corner of said 85.22 acre tract and an angle point hereof;

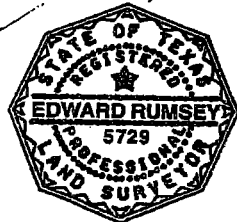
THENCE South 67 degrees 36 minutes 40 seconds West, through said right-of-way, with the southerly line of said 50.30 acre tract, 194.11 feet to an iron rod found for the northeast corner of said 0.53 acre tract, said northerly right-of-way line for an angle point hereof.

THENCE South 68 degrees 23 minutes 33 seconds West, along said 0.53 acre tract northerly line and said 50.30 acre tract southerly line, 259.39 feet to the POINT OF BEGINNING.

SAVE AND EXCEPT THAT CERTAIN 4.581 ACRE TRACT OF LAND CONVEYED TO THE STATE OF TEXAS BY L.S. LANNEN AND RHODA B. LANNEN IN DEED RECORDED IN VOLUME 766, PAGE 782, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS.

THIS LEGAL DESCRIPTION IS TO BE USED IN CONJUNCTION WITH THE ATTACHED SURVEY PLAT (BY SEPARATE INSTRUMENT) ONLY.

EDWARD RUMSEY  
TX R.E.L.S. No. 5729  
JOB # A120698



12-20-2018  
Date

**ELECTRONICALLY RECORDED  
OFFICIAL PUBLIC RECORDS**

**2019009739**

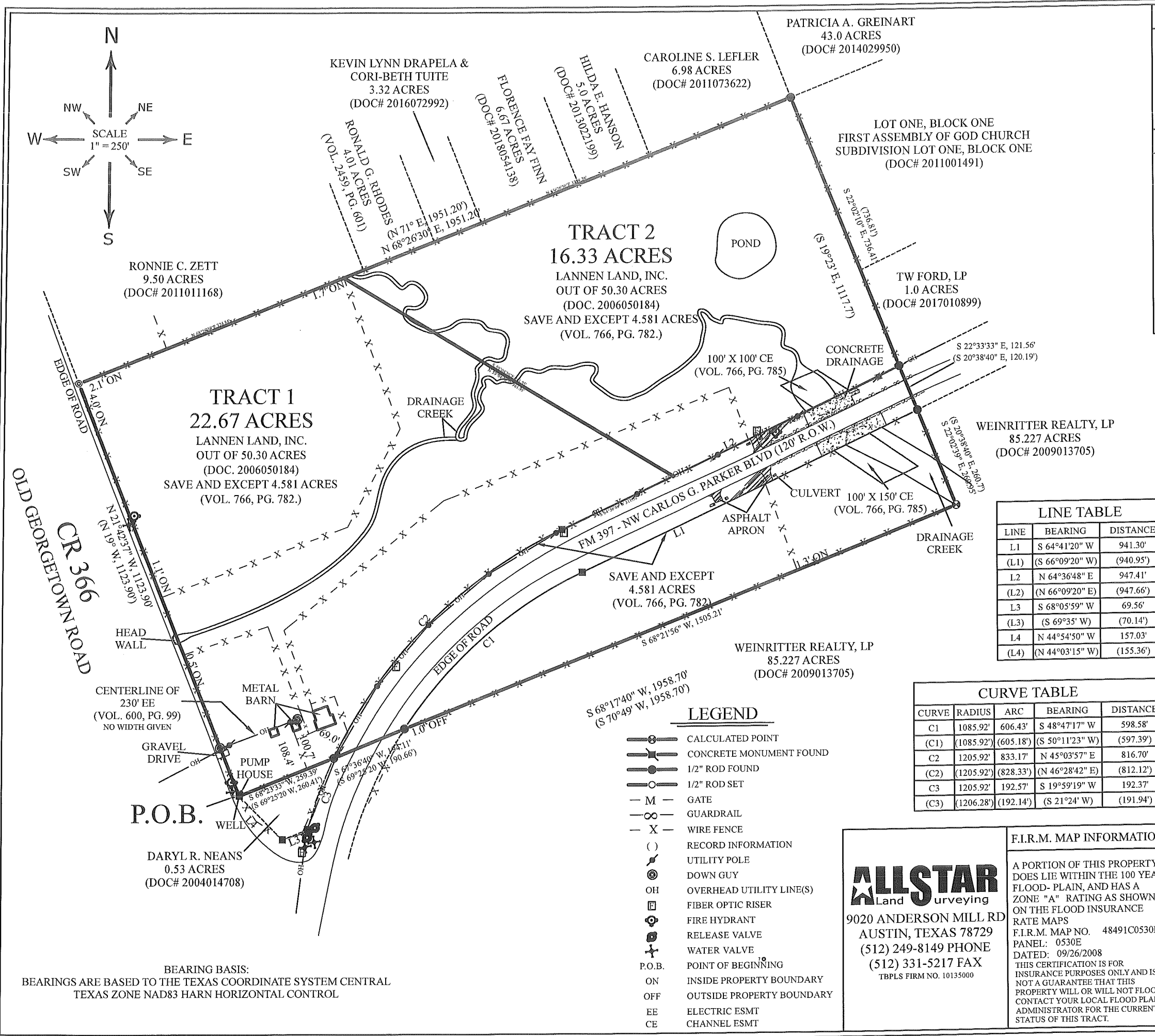
Pages: 6 Fee: \$37.00  
02/06/2019 03:31 PM



*Nancy E. Rister*

Nancy E. Rister, County Clerk  
Williamson County, Texas





**RESTRICTIONS**

SUBJECT TO A BLANKET TYPE WATER LINE EASEMENT GRANTED TO JONAH WATER SUPPLY CORP. IN VOL. 564, PG. 62.

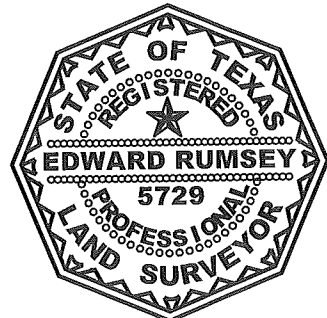
SUBJECT TO AN ELECTRIC AND TELEPHONE LINES AND SYSTEMS EASEMENT GRANTED TO TEXAS POWER & LIGHT COMPANY AND SOUTHWESTERN BELL TELEPHONE COMPANY IN VOL. 600, PG. 99.

SUBJECT TO A CHANNEL EASEMENT FOR HIGHWAY PURPOSES GRANTED TO THE STATE OF TEXAS IN VOL. 766, PG. 785.

**LEGAL DESCRIPTION**

BEING A 50.29 ACRE TRACT OF LAND OUT OF THE W.J. BAKER SURVEY, ABSTRACT NUMBER 65, IN WILLIAMSON COUNTY, TEXAS, SAME BEING THAT CERTAIN LANNEN LAND, INC. 50.30 ACRE TRACT RECORDED IN DOCUMENT NUMBER 2006050184, OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS. SAID 50.29 ACRES OF LAND TO BE MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS IN EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF.

SAVE AND EXCEPT THAT CERTAIN 4.581 ACRE TRACT OF LAND CONVEYED TO THE STATE OF TEXAS BY L.S. LANNEN AND RHODA B. LANNEN IN DEED RECORDED IN VOLUME 766, PAGE 782, DEED RECORDS OF WILLIAMSON COUNTY, TEXAS.



TO THE LIEN HOLDER AND / OR OWNERS OF THE PREMISES SURVEYED AND TO:

**AUSTIN TITLE**

I DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE OF THE PROPERTY LEGALLY DESCRIBED HEREON AND THAT THERE ARE NO BOUNDARY LINE CONFLICTS, ENCROACHMENTS OVERLAPPING OF IMPROVEMENTS, OR ROADS IN PLACE, EXCEPT AS SHOWN HEREON, AND CERTIFIES ONLY TO THE LEGAL DESCRIPTION AND EASEMENTS SHOWN ON THE REFERENCED TITLE COMMITMENT. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF AN ABSTRACT OF TITLE.

| F.I.R.M. MAP INFORMATION                                                                                                                                  |  | ADDRESS                                                                             |                        |             |               |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------|------------------------|-------------|---------------|------------|
| <b>ALLSTAR</b><br>Land surveying<br>9020 ANDERSON MILL RD<br>AUSTIN, TEXAS 78729<br>(512) 249-8149 PHONE<br>(512) 331-5217 FAX<br>TBPLS FIRM NO. 10135000 |  | <b>D&amp;L LAND DEVELOPMENT LLC</b><br>0 CR 367<br>TAYLOR, WILLIAMSON COUNTY, TEXAS |                        |             |               |            |
|                                                                                                                                                           |  | SURVEY DATE:                                                                        | DECEMBER 20, 2018      | FILED BY:   | CHRIS ZOTTER  | 12/18/2018 |
|                                                                                                                                                           |  | TITLE CO.:                                                                          | AUSTIN TITLE           | CALC. BY:   | CHRIS ZOTTER  | 12/19/2018 |
|                                                                                                                                                           |  | G.F. NO.:                                                                           | AUT-57-653-AUT18010422 | DRAWN BY:   | DAMIAN SMITH  | 12/20/2018 |
|                                                                                                                                                           |  | JOB NO.:                                                                            | A1206918               | RPLS CHECK: | EDWARD RUMSEY | 12/20/2018 |

EXHIBIT "A"

BEING A 22.67 ACRE TRACT OF LAND OUT OF THE W.J. BAKER SURVEY, ABSTRACT NUMBER 65, IN WILLIAMSON COUNTY, TEXAS, AND BEING OUT OF THAT CERTAIN D&L LAND DEVELOPMENT, LLC 50.29 ACRE TRACT RECORDED IN DOCUMENT NUMBER 2019009739, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS, SAID 22.67 ACRES OF LAND TO BE MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING at a highway concrete monument found in the easterly right-of-way line of C.R. 366, at the northwest corner of that certain Daryl R. Neans 0.53 acre tract recorded in Document Number 2004014708, Official Public Records, said county, same being the southwest corner of said 50.29 acre tract and the southwest corner hereof;

THENCE North 21 degrees 42 minutes 37 seconds West, along said easterly right-of-way line and said 50.29 acre tract westerly line, 1,123.90 feet to a point in the southwest corner of that certain Ronnie C. Zett 9.50 acre tract recorded in Document Number 2011011168, Official Public Records, said county, same being the northwest corner of said 50.29 acre tract and the northwest corner hereof;

THENCE North 68 degrees 26 minutes 30 seconds East, along said 9.50 acre tract southerly line, and said 50.29 acre tract northerly line, 724.84 feet to the northeast corner hereof;

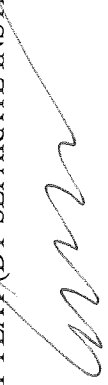
THENCE South 59 degrees 04 minutes 36 seconds East, through said 50.29 acre tract, 981.95 feet to the northerly right-of-way line of FM 397, for the southeast corner hereof;

THENCE along said FM 397, through said 50.29 acre tract, the following 2 calls,

1. South 64 degrees 36 minutes 48 seconds West, 311.52 feet to the beginning of a curve to the left having a radius of 1,205.92 feet,
2. Along said curve to the left whose chord bears, South 45 degrees 03 minutes 57 seconds West, 816.70 feet to an iron rod found in said line, at the northeast corner of said 0.53 acre tract, same being in the southerly line of said 50.29 acre tract, for an angle corner in the southerly line hereof;

THENCE South 68 degrees 23 minutes 33 seconds West, along said 0.53 acre tract northerly line and said 50.29 acre tract southerly line, 259.39 feet to the **POINT OF BEGINNING**.

THIS LEGAL DESCRIPTION IS TO BE USED IN CONJUNCTION WITH THE ATTACHED SURVEY PLAT (BY SEPARATE INSTRUMENT) ONLY.

  
EDWARD RUMSEY  
TX R.P.L.S. No. 5729

JOB # A0516319 - A1206918 22.67 ACRES

06-03-2019  
Date



EXHIBIT "B"

BEING A 16.33 ACRE TRACT OF LAND OUT OF THE W.J. BAKER SURVEY, ABSTRACT NUMBER 65, IN WILLIAMSON COUNTY, TEXAS, AND BEING OUT OF THAT CERTAIN D&L LAND DEVELOPMENT, LLC 50.29 ACRE TRACT RECORDED IN DOCUMENT NUMBER 2019009739, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS, SAID 16.33 ACRES OF LAND TO BE MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING at an iron rod found in the northerly right-of-way line of FM 397, at the southwest corner of that certain TW Ford, LP 1.0 acre tract as recorded in Document Number 2017010899, Official Public Records, said county, same being in the easterly line of said 50.29 acre tract, for the southeast corner hereof;

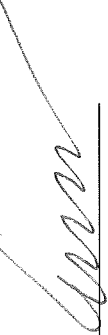
THENCE South 64 degrees 36 minutes 38 seconds West, along said right-of-way line, through said 50.29 acre tract, 635.90 feet for the southwest corner hereof;

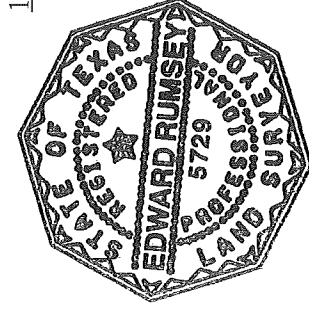
THENCE North 59 degrees 04 minutes 36 seconds West, continuing through said 50.29 acre tract, 981.95 feet to the southerly line of that certain Ronnie C. Zett 9.50 acre tract recorded in Document Number 2011011168, Official Public Records, said county, same being in the northerly line of said 50.29 acre tract, for the northwest corner hereof;

THENCE North 68 degrees 26 minutes 30 seconds East, along said 9.50 acre tract southerly line, that certain Ronald G. Rhodes 4.01 acre tract recorded in Volume 2459, Page 601, Deed Records, said county southerly line, that certain Kevin Lynn Drapela & Cori-Beth Tuite 3.32 acre tract recorded in Document Number 2016072992, Official Public Records, said county southerly line, that certain Florence Fay Finn 6.67 acre tract recorded in Document Number 2018054138, official Public Records, said county southerly line, that certain Hilda Hanson 5.0 acre tract as recorded in Document Number 2013022199, Official Public Records, said county southerly line, that certain Caroline S. Lefler 6.98 acre tract recorded in Document Number 2011073622, Official Public Records, said county southerly line, and said 50.29 acre tract northerly line, 1,226.36 feet to an iron rod found in the southwest corner of that certain Patricia A. Greinart 43.0 acre tract as recorded in Document Number 2014029950, Official Public Records, said county, also being the northwest corner of Lot One, Block One, First Assembly of God Church Subdivision Lot One, Block One, recorded in Document Number 2011001491, Official Public Records, said county, same being the northeast corner of said 50.29 acre tract, for the northeast corner hereof;

THENCE South 22 degrees 02 minutes 10 seconds East, along said 8.329 acre tract and said 1.0 acre tract and said Lot One westerly line, along the easterly line of said 50.29 acre tract, 736.41 feet to the **POINT OF BEGINNING**.

THIS LEGAL DESCRIPTION IS TO BE USED IN CONJUNCTION WITH THE ATTACHED SURVEY PLAT (BY SEPARATE INSTRUMENT) ONLY.

  
EDWARD RUMSEY  
TX R.P.L.S. No. 5729  
JOB # A0516319 - A120698 16.33 ACRES



12-20-2018  
Date

**City of Taylor**  
**PZ-2019-1123**  
**Zoning Map Amendment**  
**Staff Report**

**Requested Action:** Zoning Map Amendment to the official zoning map to re-zone approximately 39.00 acres Rural/Agricultural Zoning District (R/A) to 22.67 acres of General Commercial (B-2) and 16.33 acres of Multi-Family Zoning Districts (MF-2).

**Applicant:** D&L Land Development LLC/Dean Truong

**Subject Property:** Is approximately 39.00 acres, more particularly described by Williamson Central Appraisal District Parcel R018646; part of and out of William J. Baker Survey, Abstract No. 65, located at the northeast intersection of Old Georgetown Road (CR 366) and N.W. Carlos G. Parker Boulevard (SH 397), Williamson County, Texas.

**Parcel Information**

**Current Zoning:** Rural/Agricultural Zoning District (R/A)

**Current Use:** Agricultural

**Proposed Zoning:** General Commercial (B-2) and Multi-Family Zoning Districts (MF-2)

**Future Land Use Plan:** Commercial and Multi-Family

**Adjacent Parcel Information**

| <b>Direction</b> | <b>Land Use</b>                     | <b>Zoning</b>                                                                      |
|------------------|-------------------------------------|------------------------------------------------------------------------------------|
| <b>North</b>     | Agricultural/Single-Family          | Single-Family Residential (R-1)                                                    |
| <b>South</b>     | N.W. Carlos G. Parker Blvd., R.O.W. | Local Commercial (B-1) across the right-of-way                                     |
| <b>East</b>      | Religious Institution               | Rural/Agricultural (R/A) and Local Commercial (B-1)                                |
| <b>West</b>      | Old Georgetown Road R.O.W.          | Local Commercial (B-1) and Single-Family Residential (R-1) across the right-of-way |

**Purpose:**

The applicant is proposing to re-zone the subject property, which has been used for agricultural purposes, for future development. The subject property is located at the northeast intersection of Old Georgetown Road and Carlos G. Parker Parkway; along approximately 1,100 feet on the east side of Old Georgetown Road and approximately 2,000 feet of the north side of Carlos G. Parker Parkway. The future plans include a variety of commercial land uses on the southwest corner of the tract. On the northeast corner of the subject property, the applicant is proposing multi-family development. The applicant intends to develop the south side of N.W. Carlos G. Parker with commercial land uses as well. That tract is already zoned for commercial land uses.

The applicant recently purchased the subject property and the tract directly across N.W. Carlos G. Parker to develop for commercial and multi-family uses. While the land on the south side of Carlos G. Parker is already zoned for commercial uses, the land fronting on the north side of N.W. Carlos G. Parker is zoned for agricultural land uses. For the proposed commercial and multi-family development to move forward a re-zoning to General Commercial (B-2) and Multi-Family Zoning Districts (MF-2) is necessary.

### **Staff Analysis:**

As City Staff we are charged with using the Comprehensive Plan as a guide to make recommendations to the Planning and Zoning Commission on proposed re-zoning requests.

The Comprehensive Plan includes Land Use Goals and Objectives along with associated actions to achieve those objectives. Some of the relevant Comprehensive Plan goals, objectives and actions to consider for this re-zoning case include:

*Land Use Goal: A variety of safe, attractive, accessible, high quality residential, commercial, industrial, and recreational land to meet the needs of Taylor's current and future population while preserving the historical structures and small town atmosphere of the City.*

**Objective L1:** *Provide suitable areas for a variety of residential types and densities.*

**Action L1.1:** *Identify appropriate residential development areas on Future Land Use Plan (site suitability, access, utilities).*

**Objective L3:** *Provide viable retail, office and industrial areas that support opportunities for economic development.*

**Action L3.5:** *Locate large commercial and industrial activities along the more accessible roadways, ones that can handle truck traffic without negatively impacting adjacent residential land uses—the Loop, appropriate portions of Business 79, FM 397 FM 973.*

The Future Land Use Plan map identifies the subject property as an area for Commercial and Multi-Family residential land uses. The graphic representation on the map is intended to help the Planning and Zoning Commission, City Council, and residents visualize the desired future land development pattern in the community. It is meant to guide us with regard to general land use patterns rather than a rigid, parcel-specific mandate for how land shall be developed. The land use narratives associated with the land use classifications on the FLUP are consistent with development proposed by the applicant and support the request to rezone.

**Commercial (Red):** *Includes operations involving sales, repair and/or storage of goods, services and equipment. Examples of these include retail centers, supermarkets, restaurants and entertainment facilities automobile repair, contractor sales and storage, home furnishings, showrooms, truck rentals and self-storage facilities. These uses are best located along major arterials in conjunction with other more intense uses such as industry.*

**Multi-Family Residential (Orange):** *Multi-family residential dwellings, typically identified as duplexes, triplexes, fourplexes, and apartments. Unlike the other residential categories, this classification generates sufficient traffic and utility impacts to be treated as nonresidential uses and is best located at the intersections of major arterials.*

In addition to the Land Use Objectives, the Comprehensive Plan includes general Planning Principles and Policy Guides, which are used to make land use decisions and zoning regulations. Some of the relevant statements include:

### ***In General***

- *Neighboring land uses should not detract from the enjoyment or value of properties.*
- *Potential negative land use impacts (noise, odor, pollution, excessive light, traffic, etc.) should be considered and minimized.*
- *Transportation access and circulation should be provided for uses that generate large numbers of trips. Pedestrian and bicycle access should be addressed where appropriate.*
- *Compatibility with existing uses should be maintained. Well-planned, mixed uses that are compatible are to be encouraged.*
- *Adequate public infrastructure and facilities should be provided to support development, thereby encouraging prudent growth management.*

#### ***Retail/Office***

- *Neighborhood retail and service uses should be located at intersections of arterial or collector streets or at the edge of neighborhood areas unless appropriately placed within a planned development.*
- *Retail development should be clustered throughout the City and convenient to residential areas.*
- *Buffers should separate retail/office uses and residential areas.*
- *Office and professional uses should be compatible with nearby residential areas and other uses through appropriate building height limitations and adequate buffering and landscaping that encourage pedestrian access.*
- *Low-intensity office and professional uses should provide a transition between more intense uses and residential areas.*

#### ***Commercial***

- *Commercial areas should include a range of development types to serve regional as well as local needs, from large commercial developments to smaller, freestanding commercial sites.*
- *Commercial development should be concentrated in nodes at intersections and along major arterials and collectors that are designed and constructed to accommodate heavy traffic.*
- *Parcels should be large enough to accommodate commercial use.*
- *Commercial uses with more intensive operational or traffic service characteristics should be located away from most residential areas.*
- *Buffers should separate commercial uses from residential areas, especially where the commercial use involves visible storage or display of merchandise or materials.*
- *Landscaping should be included in all commercial development for screening as well as to provide visual continuity and compatibility with adjacent uses while encouraging pedestrian access or use.*

#### **Staff Recommendation**

Staff recommends approval of the requested re-zonings as the request is consistent with the Comprehensive Plan and the Future Land Use Plan.

#### **Planning and Zoning Commission Recommendation**

The Planning and Zoning Commission is charged with reviewing all requests for re-zoning and making a recommendation to City Council either in favor of or in opposition to each request.

In determining a recommendation of approval for the re-zoning request, the Planning and Zoning Commission considered the following factors:

- **Is the re-zoning consistent with the Comprehensive Plan?**

The staff analysis indicates this request to re-zone a parcel of land, consisting of just under 40 acres, to B-2 and MF-2 is consistent with the Comprehensive Plan. As stated above in the analysis, the request to re-zone the subject property promotes **Objectives 1 and 3. Action L1.1** (identify appropriate locations for residential land uses on the FLUP) and **Action L3.5** (orient commercial development on appropriately classified roadways) were completed as part of the subject property was classified Multi-Family and Commercial on the FLUP.

The applicant's request is consistent with the land use classifications on the Future Land Use Plan map and the land use narratives in Chapter 4 - Land Use of the Comprehensive Plan. The culmination of the different aspects of the land planning process is the re-zonings that will set the stage for future development and further the **Land Use Goal A** *a variety of safe, attractive, accessible, high quality residential, commercial, industrial, and recreational land to meet the needs of Taylor's current and future population while preserving the historical structures and small town atmosphere of the City.*

The re-zoning would further the goals in the Comprehensive Plan and is in line with best practices and policies mentioned previously in this report.

- **Is the re-zoning compatible with the surrounding area?**

The staff analysis indicates this proposed re-zoning is compatible with the surrounding area. To the north, the property is zoned for single-family residential land uses and appears to be used for agricultural purposes. There are existing safeguards to mitigate different land uses, e.g., screening requirements and Performance Standards. To the south, the land across Carlos G. Parker is vacant and currently zoned B-1. As stated in the purpose statement, the subject property owner acquired the tract to the south of Carlos G. Parker Blvd also and is planning to develop commercial land uses in the future so the proposed re-zoning is compatible with the existing commercial zoning and the future commercial development. The properties to the west, across Old Georgetown Road are used for religious purposes and single-family residential and zone B-1 and R-1, which is compatible with and will compliment additional commercial and multi-family zoning. To the east, the subject property is next to a religious facility and farmland, which are zoned R/A and B-1, respectively. The proposed rezoning to MF-2 is compatible with the existing land uses and zoning.

- **Does the re-zoning promote the public health, safety, or general welfare?**

Staff analysis indicates the rezoning of the subject property to B-2 and MF-2 will promote public health, safety and welfare. The purpose of the Planning Principles and Policy Guide in the Comprehensive Plan is to promote the health, safety and general welfare by promoting safe, orderly and economically sustainable development. To ensure the principles and policies are followed there are ordinances. The proposed development will comply with all ordinances ensuring that concerns with regard to public health, safety and general welfare are addressed. The Zoning Ordinance requires compliance with the standards set forth in the designated districts. Additionally, district requirements are

tailored to the type of land use i.e., requirements for residential land uses are not the same as requirements for commercial land uses. There are regulations to ensure compatibility. For example, any non-residential land use is required to screen when adjacent to residential land uses and zoning districts. There are other regulations in the City's development ordinances such as performance standards to minimize any adverse effects on adjacent properties and to enhance design standards to ensure cohesiveness. In addition to meeting regulations the proposed development that would require the re-zoning will provide access to new retail and residential choices.

- **Is adequate infrastructure available or planned to meet the needs of the proposed land use?**

There is infrastructure in the area to serve the proposed development if the zoning designation were to be changed. Any extensions of water or sewer to the private property would be the responsibility of the property owner. Old Georgetown Road is classified as a Major Arterial on the City's Thoroughfare Plan and Carlos G. Parker is classified as a Minor Arterial. The road classifications are appropriate for the proposed zoning designations of B-2 and MF-2. Any right-of-way dedication will occur during the platting process.

- **Do current conditions indicate that a re-zoning is necessary?**

At this time, the City of Taylor is experiencing growth; however, the subject property's zoning designation of R/A is not consistent with the FLUP. Re-zoning would be necessary for the land to be developed for commercial and multi-family land uses, which is consistent with the adopted FLUP and Comprehensive Plan. This re-zoning would possibly fill a need for new multi-family housing in Taylor. Additionally, for the City to increase revenues development is necessary and at times rezoning to promote development must occur.

Attachments:

1. Location Map
2. Future Land Use Plan Map
3. Proposed Zoning Map
4. Proposed Ordinance 2019-19
5. Zoning Exhibit

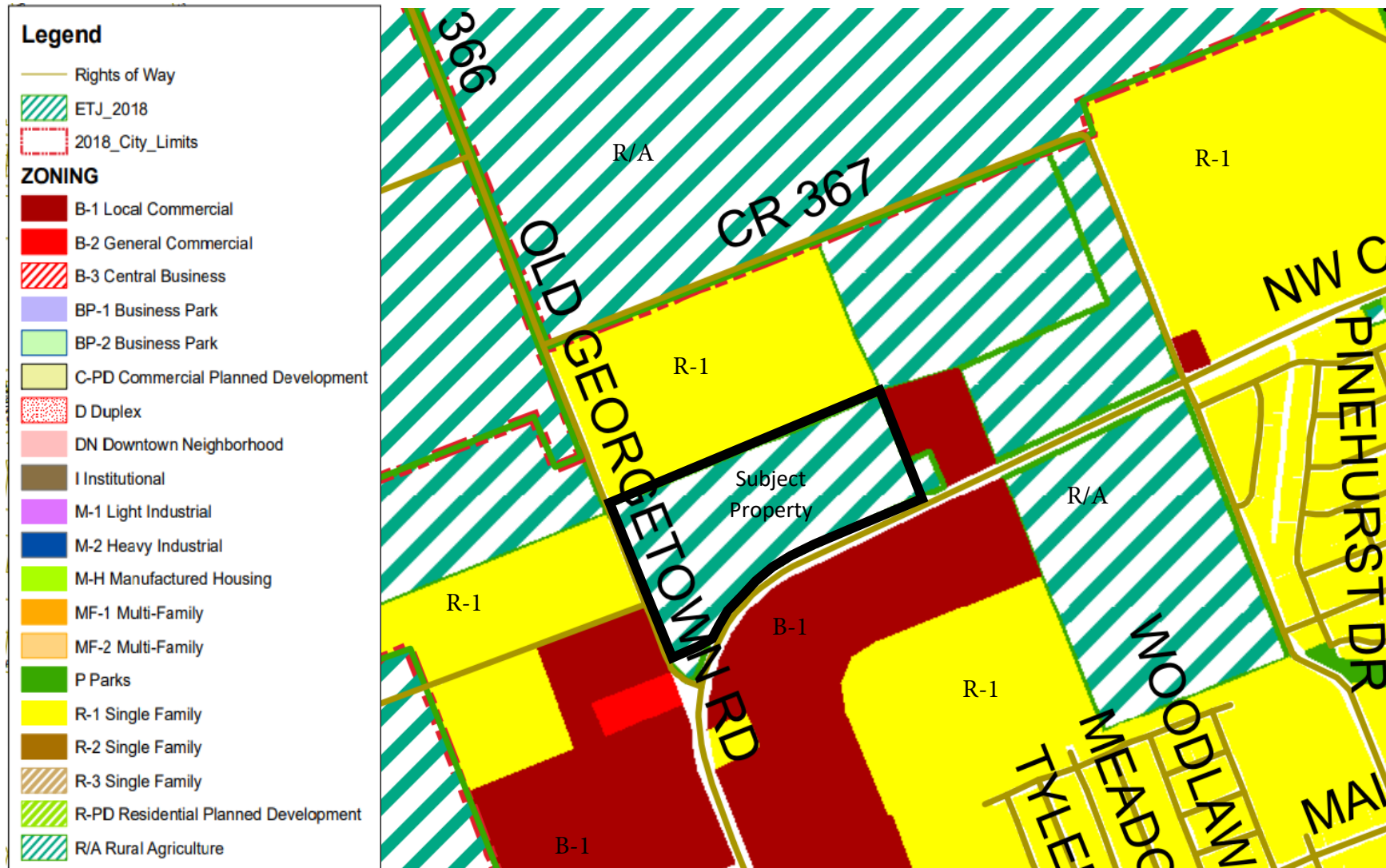


## Attachment 1

Rezoning R/A to GC and MF2

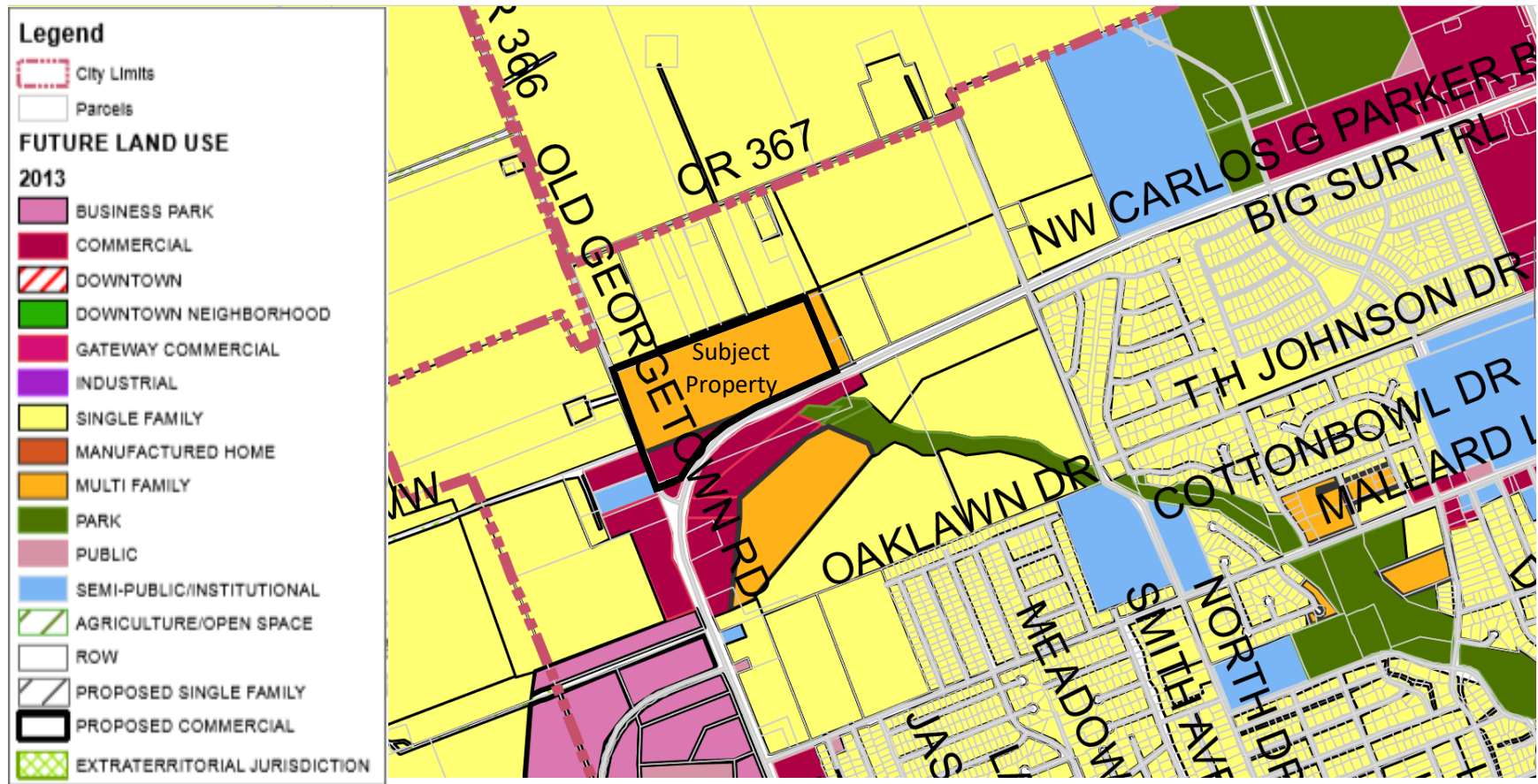
The northeast intersection of Old Georgetown Road and NW Carlos G. Parker

Approximately 39.32 acres



## Attachment 2

Future Land Use Plan Map  
Commercial and Multi-Family





# City of Taylor City Council Commission June 13, 2019

# PZ-2019-1123

## Ordinance 2019-19

39.00 acres, more or less, more particularly described by Williamson Central Appraisal District Parcel R018646; legally described as part of and out of William J. Baker Survey, Abstract No.65, City of Taylor, located at the northeast corner of Old Georgetown Road and N.W. Carlos G. Parker Boulevard, Taylor, Williamson County, Texas.

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# Rezoning

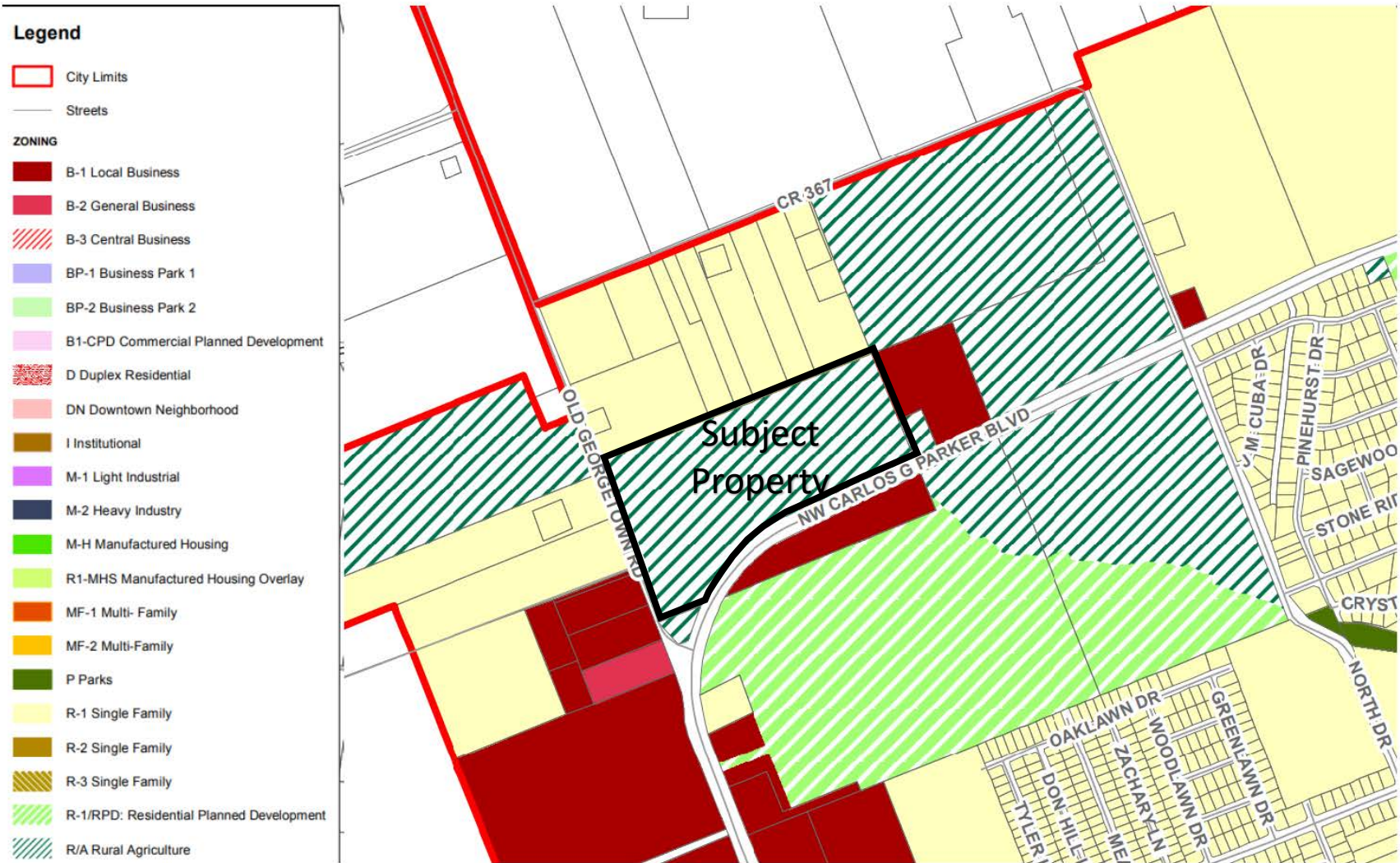
**FROM:** Rural Agriculture Zoning District (R/A)

**TO:** 22.67 Acres of General Commercial Zoning District (GC)  
and 16.33 of Multi-Family Zoning District (MF-2)

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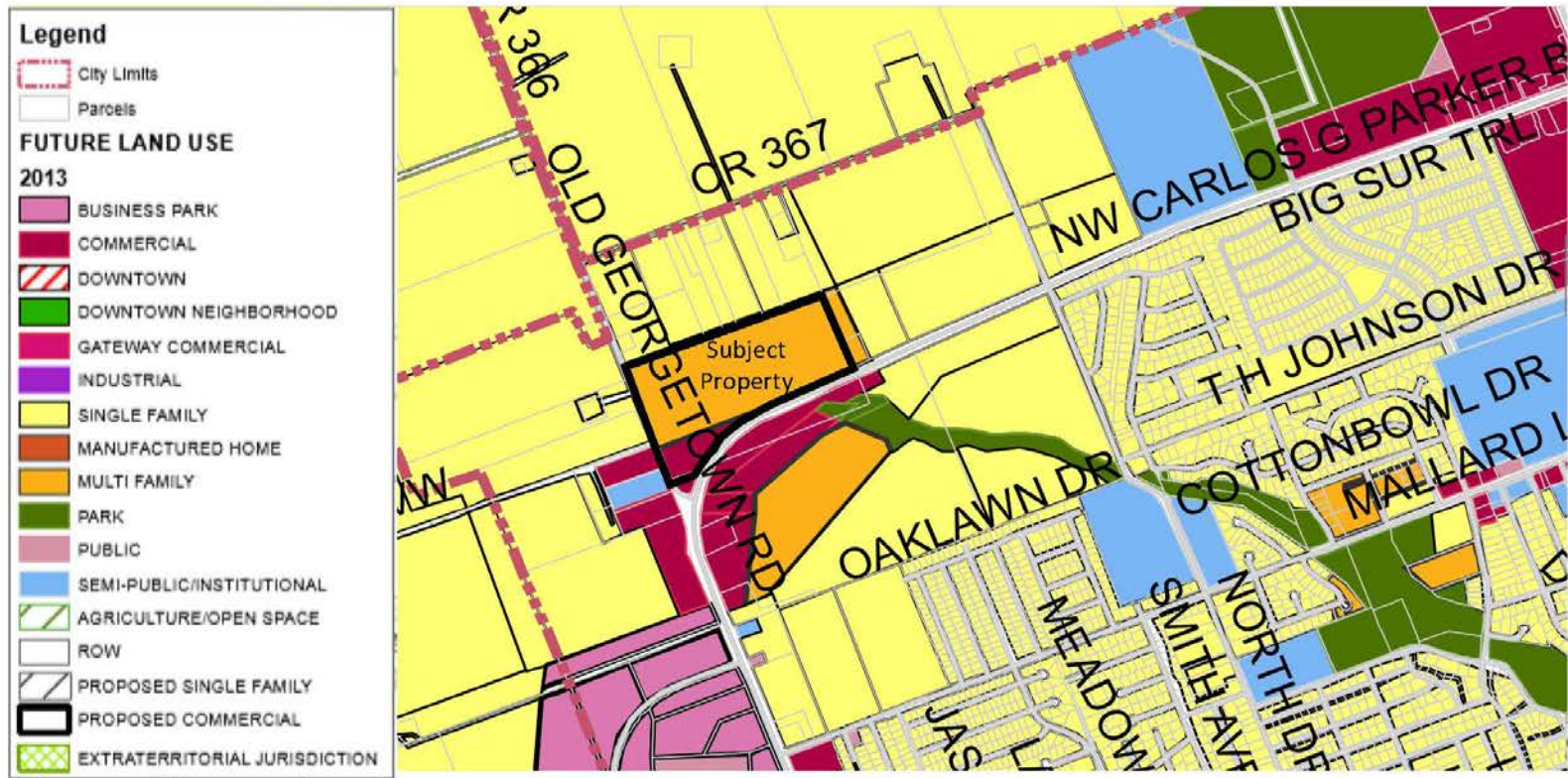


# Current Zoning



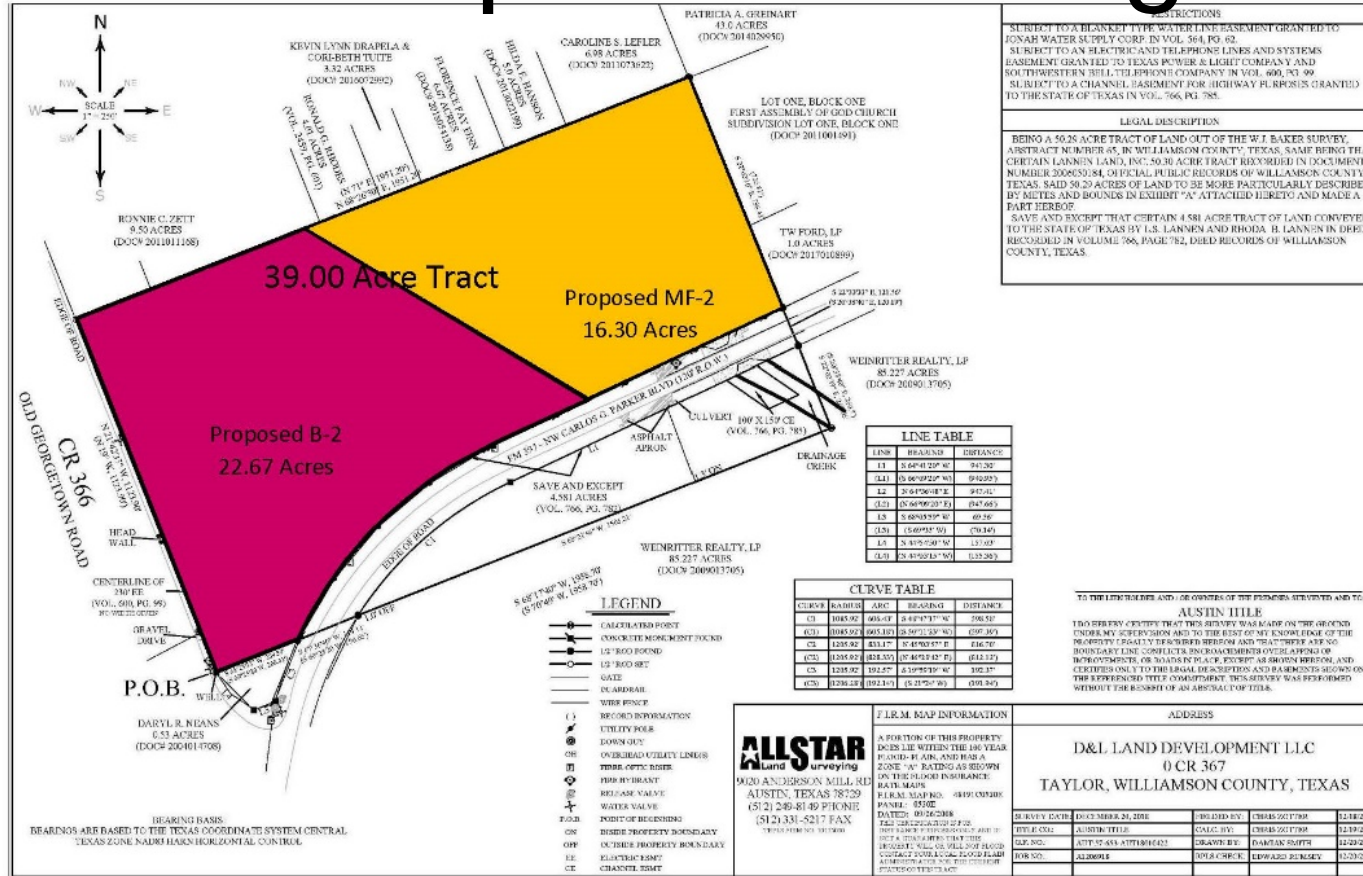
# Future Land Use Map

Future Land Use Plan Map  
Commercial and Multi-Family





# Proposed Zoning





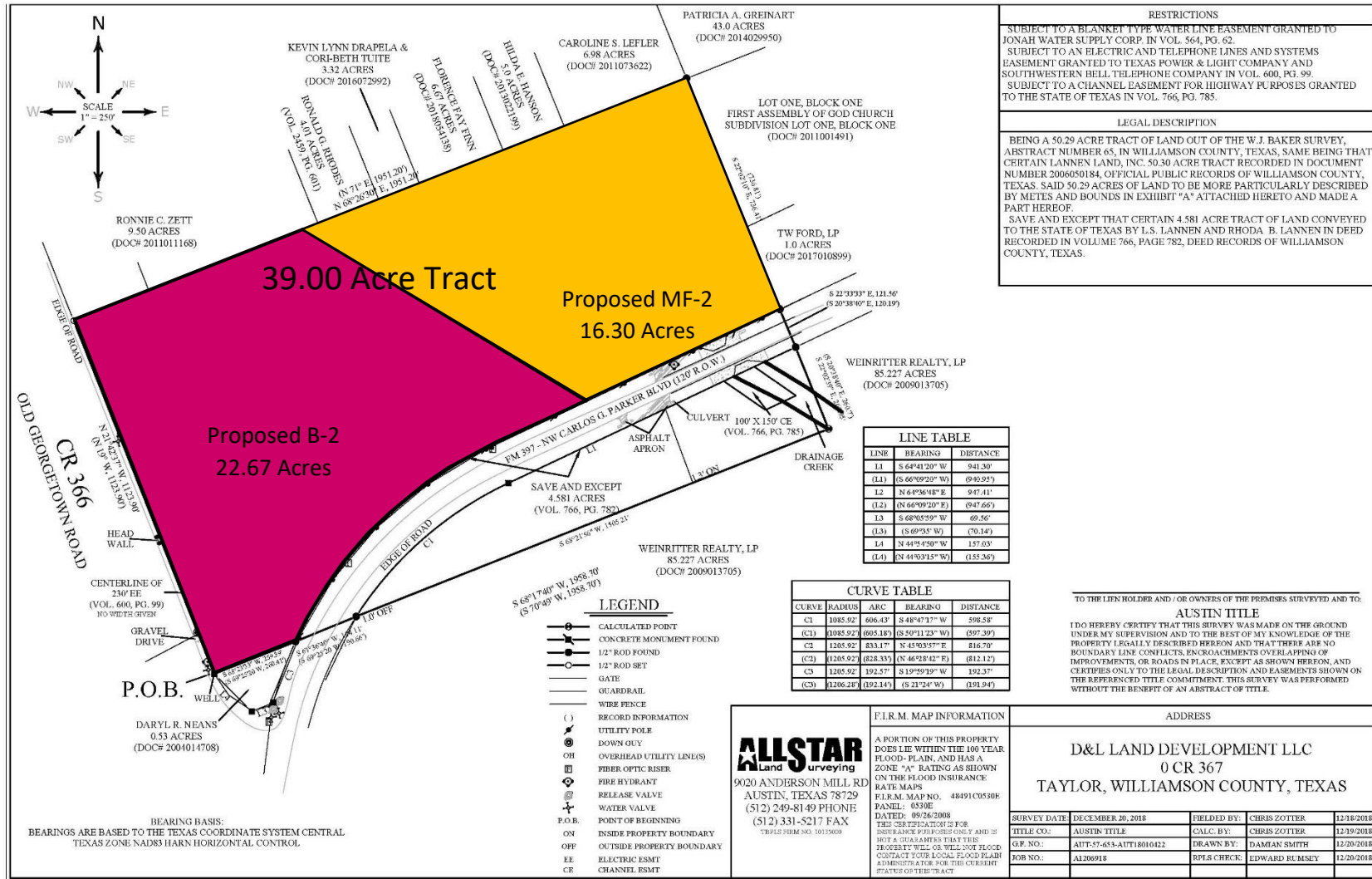
# **Staff Analysis**

- **The re-zoning is consistent with Future Land Use map**
  - **The requested zoning designations would be appropriate at the intersection of two arterials**
  - **Infrastructure is available**
- 
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# Recommendation

P and Z recommend approval of the re-zoning.

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## ***City Council Meeting June 13, 2019 Transmittal Letter***

### STRATEGIC PILLAR

☒ Streets/Infrastructure

☐ Quality of Life

☐ Economic Vitality

**Agenda Item #:** 7

**Agenda Title:** **Consideration and Possible Action on Authorizing Professional Engineering Services for the 2019 Infrastructure Bond to HDR Engineering, Inc. & Halff Associates, Inc. (Jim Gray/ Kelly Kaatz/ Jacob Walker)**

**Council Action to be taken:** Consideration and Possible Action on Authorizing Professional Engineering Services for the 2019 Infrastructure Bond to HDR Engineering, Inc. & Halff Associates, Inc.

**Department Submitted:** Public Works

**Staff Contact:** Jim Gray, Director of Public Works

### **1. PURPOSE/DESCRIPTION**

This item refers to two proposals from HDR and Halff, requested by City staff, to develop Plans, Specifications, and Estimates (PS&E) for the 2019 Infrastructure Bond streets and drainage projects selected by City Council on March 14, 2019.

### **2. STAFF ANALYSIS (How and Why)**

On March 14, 2019, HDR presented potential street reconstruction projects to City Council, ranked based on condition, parcels, and other criteria. City Council selected 3<sup>rd</sup> Street (150' East of Shaw to Davis Street), Wabash Street (Beech Street to S Main Street), N Lynn Street (Gilmore Street to W Lake Drive), and W Lake Drive (NW Carlos G Parker Blvd. to Old Georgetown Road). City Council chose Edmonds Street (Drainage Project Phase II), and Mills Street (Drainage Project Phase III) for reconstruction associated with MDUS. New water and wastewater lines will be installed as part of each reconstruction project. The total length of reconstructed streets will be approximately 7,400' (1.4 miles).

HDR's proposal of \$936,280.15 is for engineering, design, coordination, and bid services for 3<sup>rd</sup> Street, Wabash Street, N Lynn Street, and W Lake Drive. Halff's proposal of \$398,485.00 is for engineering, design, coordination, and bid services for Edmonds Street (Phase II) and Mills Street (Phase III) as well as 1st/Royal/Walnut drainage and detention improvements. Both proposals include Project Management, Field Surveying,

Geotechnical, Utility Coordination, Environmental Coordination, Traffic Signal Coordination (W. Lake St.), Preliminary Layout, PS&E, and Bid Phase Services. HDR will develop PS&E for N Lynn Street from Davis Street to Gilmore Street and will include it with the bid if it fits within the proposed construction budget.

Estimated design fees per roadway project are listed in the table below for HDR's services. Some of the effort overlaps since all projects are being designed simultaneously, but the breakdown below demonstrates a general level of effort per project.

| ESTIMATED FEE PER PROJECT |               |
|---------------------------|---------------|
| PROJECT                   | FEE           |
| 3rd Street                | \$ 227,937.10 |
| Wabash Street             | \$ 216,913.95 |
| N Lynn Street             | \$ 251,059.24 |
| W Lake Drive              | \$ 240,369.86 |
| Total Fee                 | \$ 936,280.15 |

Construction Services are not part of these proposals and will be authorized separately when the project construction timelines are known (for more accurate costs). Construction Services from HDR are estimated at \$556,103.04 and Construction Services from Halff are estimated at \$271,650.00.

### 3. RECOMMENDATION

Recommend approval of the two proposals from HDR Engineering, Inc. and Halff Associates, Inc. for the development of 2019 Infrastructure Bond selected street PS&E and authorization of the City Manager to enter into a contract with HDR Engineering, Inc. and Halff Associates, Inc. to perform the work.

### 4. FUNDING SOURCE

2019 Infrastructure Bond - \$936,280.15 (HDR services), \$398,485 (Halff services)

### 5. TIMELINE

Survey, Geotechnical, and begin Utility Coordination: Approximately 2 months from NTP.

PS&E and continue Utility Coordination: Approximately 8 months from completion of Survey and Geotechnical.

Bid Phase Services: Approximately 2 months from completion of PS&E, depending on City Council dates.

|                                       |
|---------------------------------------|
| <b>6. PRIOR COUNCIL ACTIONS TAKEN</b> |
|---------------------------------------|

March 14, 2019 – City Council approved selected streets and requested proposals for engineering services.

|                                                  |
|--------------------------------------------------|
| <b>7. OTHER OPTIONS (In order of preference)</b> |
|--------------------------------------------------|

1. Amend selected projects and design services
2. Reject any or all of the proposals for professional services associated with the 2019 Infrastructure Bond.

|                       |
|-----------------------|
| <b>8. ATTACHMENTS</b> |
|-----------------------|

- 7a – [2019 Infrastructure Bond proposal from HDR \(Task Order #6\)](#)  
7b – [2019 Infrastructure Bond proposal from Halff](#)  
7c – [2019 Infrastructure Bond powerpoint](#)

## **TASK ORDER No. 6**

This Task Order pertains to an Agreement by and between the City of Taylor, Texas, ("OWNER"), and HDR Engineering, Inc. ("ENGINEER"), dated April 18, 2018, ("the Agreement"). Engineer shall perform services on the project described below as provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Task Order shall supplement the Agreement as it pertains to the project described below.

**Task Order Number: 6**

**Project Name: 2019 Infrastructure Bond**

- **3<sup>rd</sup> Street (150' East of Shaw to Davis Street)**
- **Wabash Street (Beech Street to S Main Street)**
- **N Lynn Street (Gilmore Street to W Lake Drive)**
- **W Lake Drive (NW Carlos G Parker Blvd. to Old Georgetown Road)**

### **Part 1.0 Project Description:**

The project consists of street reconstruction including subgrade, road base, asphalt, curb and gutter, ribbon curb, driveways, sidewalks, culverts, ditches, waterline improvements, and wastewater line improvements for 3rd Street (150' East of Shaw Street to Davis Street), Wabash Street (Beech Street to S Main Street), N Lynn Street (Gilmore Street to W Lake Drive), and W Lake Drive (NW Carlos G Parker Blvd to Old Georgetown Road). Work on W Lake Drive will require signal modification at the intersection of W Lake Drive with NW Carlos G Parker Boulevard.

### **Part 2.0 Scope of Service to be performed by the Engineer on the Project:**

The ENGINEER shall provide engineering services, described below, required for the preparation of plans, specifications, and estimates (PS&E) for each of the four roadway projects. The reconstruction of the roadway will maintain existing drainage patterns, maintain intersection controls, and match existing driveway locations. Any changes including, but not limited to, roadway geometry, cross section, or other improvements not detailed within this task order will require a new task order and additional fee. 3<sup>rd</sup> Street, Wabash Street, and N Lynn Street are classified as local streets. W Lake Drive is classified as a collector street. Scope of services are further described as follows:

#### **Task 1: Project Management**

The ENGINEER shall:

1. Prepare monthly progress reports including past activities, planned activities, action items, and overall project status.
2. Perform project coordination:
  - a. Perform work in accordance with the OWNER's latest practices, criteria, specifications, policies, and procedures.
  - b. Prepare, distribute, and file electronic correspondence.
  - c. Document phone calls and conference calls as required during the project to coordinate the work for various team members and sub-consultants.
3. Meet on a scheduled basis with the OWNER to review project progress (6 meetings with minutes, attended by PM and PE).



4. Prepare and execute contracts with sub consultants, monitor sub consultant activities (staff and schedule), and review and recommend approval of sub consultant invoices.
5. Coordinate and submit for TDLR review.

## **Task 2: Field Surveying**

A design survey is defined as the combined performance of research, field work, analysis, computation, and documentation necessary to provide detailed topographic (3-dimensional) mapping of a project site. A design survey may include, but need not be limited to locating existing rights-of-way, topographic features to create cross-sections and Digital Terrain Models (DTM), above ground location of utility features, location of existing manholes (top rim and flow line elevations) and other structures, review of right-of-way maps, and establishing control points. Design surveys and construction surveys shall be performed under the supervision of a RPLS currently registered with the Texas Board of Professional Land Surveying (TBPLS) and shall adhere to all rules, regulations, and policies as set forth by the Texas Board of Professional Land Surveyors and Texas Society of Professional Surveyors Manual of Practice for Surveying.

The ENGINEER shall:

1. Generate, recover, and/or verify existing horizontal and vertical project primary control at the site, if any, and reconcile the control to known existing intersecting project.
2. Establish or densify additional secondary control as needed for the project to collect data along the length of the project.
3. Perform differential leveling through all of the project control (primary and secondary) to establish or extend vertical control for the project.
4. Perform a topographic/design survey (1 foot contour interval) within the project limits, including all roadway approaches 200' from the intersection of Carlos G Parker Blvd and W Lake Drive. The topographic/design survey includes, but is not necessarily limited to: roadway surfaces, ditches, major grade breaks, culverts (type, size, and invert), inlets, metal beam guard fence, fences, driveways, mailboxes, traffic and other signs, mailbox turnouts, striping, visible topographic features, visible above ground utilities, and manhole inverts.
5. Survey drainage structures within limits. The ENGINEER shall make reasonable effort to obtain flowlines of silted structures and provide sufficient secondary measurements that such information may be deduced in the event of heavily silted conditions in lieu of extensive excavation at the time of survey.
6. Establish locations for trees that are 12 inches in diameter and larger, and note the size and species.
7. Request an 811 utility locate and City utility locate for the affected areas and tie markings and visible utilities within the project limits. The information gathered will be integrated appropriately into the deliverables.
8. Process the collected information into a 1 foot contour DTM file.
9. Field verify right-of-way monumentation, files for connecting projects, and other evidence to depict the existing right-of-way lines (or alignments) for the intersecting roads at the terminus points of the project.

### **Deliverables:**

1. Digital Terrain Models (DTM) and DGN files of the topographic survey.
2. Survey Control Sheets, including coordinate system, grid to surface adjustment factor, and coordinates of each control point.

### **Task 3: Geotechnical**

The ENGINEER shall:

1. Determine the location of proposed soil borings, perform subsurface exploration, and prepare boring logs.
2. Perform laboratory testing including moisture content, Atterberg Limits (plasticity), grain size analyses, sulfate content, lime series, California Bearing Ratio, and proctor. The actual type and number of laboratory tests will be based on the subsurface conditions encountered in the borings. All geotechnical work will be performed in accordance with the American Society for Testing Materials (ASTM) test procedures. All soil classification will be done in accordance with the Unified Soil Classification System.
3. Prepare signed and sealed geotechnical report including the following:
  - a. A summary of field and laboratory testing,
  - b. Boring maps and boring logs,
  - c. A review of general site conditions including descriptions of the site, the subsurface stratigraphy, groundwater conditions, and the presence and condition of fill materials, if encountered,
  - d. Flexible pavement component thickness recommendations.

#### **Deliverables:**

1. Geotechnical Report with recommended pavement sections.

### **Task 4: Utility Coordination**

The ENGINEER shall identify conflicts between existing utilities in the project area and new facilities associated with the proposed project. This task will include the following:

1. Confirm POC's, send out formal Notification Letters communicating project timeline, timeline needs
2. Create and maintain Utility Communication Log tracking correspondence with utility companies, to include record documents collection (QL-D).
3. Preparation of Existing Utility Layout (includes proposed roadway, proposed features, aerial background and preferred options with utilities getting assigned a distinct linestyle for ease of visual identity (Includes QL-B and QL-A to be provided by City locates).
4. Coordinate and Conduct utility coordination meetings (incl meeting minutes) (Assume 1 joint in-person meeting for all corridors, MAX, attended by PM and PE)
5. Identify utility conflicts with proposed improvements and constructability of improvements with labeling corresponding numerical ID
6. Create and maintain Utility Conflict Matrix identifying each Conflict ID
7. Prepare SUE work plan and coordinate City crew to obtain additional horizontal and/ or depth information (QL-B/ QL-A).
8. Calculate conflict confirmation/ clearance with pavement/ drainage/ all improvements and design information including proposed water, wastewater and storm sewer.
9. Provide Calculation Binder showing evidence of all information used to confirm/ clear EACH conflict
10. Provide formal QC of Utility Layout, Conflict Matrix utilizing Calculation Binder.
11. Upon confirmation of all conflicts, work with design team(s) and utility companies to obtain a solution to resolve each conflict. Solutions may include design modifications, protect in place, or relocation of facility.
12. Review confirmed utility conflicts with each utility company and determine best mitigation.
13. Coordinate with each utility company to determine: design time, long-lead material time, moratorium periods, bidding/ award time, construction time and removal/ proper abandonment.

14. Prepare Proposed Utility layout.
15. Assist utility companies in the relocation design by providing interim over-the-shoulder reviews on their relocation design plans (Assuming MAX of 2 utilities).
16. Review/ sign-off final relocation plan (Compatibility with road/ drainage improvements, Compliance to Design Criteria Manual, Utility Accommodations Rules and/ or applicable Regulations, Constructability, Schedule/ sequencing for Installations, Cutovers and customer outages, removal/ abandonment of facilities).
17. Provide a finalized utility layout, conflict matrix and evidence.

## **Task 5: Environmental Coordination**

The ENGINEER shall:

1. Perform desktop research to obtain readily-available, digital environmental constraints information from appropriate local, state, and federal agencies. The ENGINEER will conduct a cultural resources records review to determine the extent of previous studies and identify known historic or archeological sites in or near the proposed project area, including a search of archeological records maintained by the Texas Archeological Research Laboratory and a review of the Texas Historic Sites Atlas maintained by the Texas Historical Commission (THC) for cemeteries and recorded historical markers, properties, or districts listed in the National Register of Historic Places (NRHP) located within the project area. This task will include a review of current protected species lists from the Texas Parks and Wildlife Department (TPWD) and U.S. Fish and Wildlife Service (USFWS), and a search request from the Texas Natural Diversity Database (TXNDD). National Wetlands Inventory (NWI) maps and current aerial photography will be reviewed for surface water features that may be considered waters of the U.S. that would be affected by the proposed project. Data collected through this task will be stored in Geographical Information Systems (GIS) format.
2. Perform on windshield survey to verify the location of any environmental constraints identified during the desktop research.
3. Map known environmental constraints within the project corridor using GIS.
4. Develop an environmental constraints analysis report to be kept in the project file as evidence of coordination.

Assumptions:

- No impacts to jurisdictional wetlands or other waters of the U.S. are anticipated. Delineation and permitting coordination under Section 404 of the Clean Water Act for potentially jurisdictional waters of the U.S., including wetlands, is excluded.
- Impacts to state and/or federally-listed threatened and endangered species are not anticipated as the projects are mostly developed residential neighborhoods and suitable habitat capable of supporting listed species is not anticipated to be present. No additional right-of-way (ROW) is anticipated for the proposed project; therefore, a habitat assessment for the project is not included in this task order. This task order excludes threatened and endangered species surveys and formal consultation with TPWD and/or the USFWS.
- A Phase I Environmental Site Assessment per current ASTM standards is not part of this task order. This task order also excludes ordering a vendor-supplied hazardous materials database report and performing surveys/investigations that involve sampling and laboratory analysis (e.g., hazardous materials sampling and analysis, asbestos surveys, and lead-based paint surveys).
- As a political subdivision of the State, cities must notify THC prior to commencing any project on public land that will involve 5 or more acres of ground disturbance; 5,000 or more cubic yards of earth moving; will occur in a historic district; or will affect recorded archeological site. Coordination

of the proposed project with the THC is not part of the task order. If required, advance project coordination of the proposed project with the THC would be performed under a supplemental agreement. This scope of services also excludes effort to obtain and Antiquities Permit from the THC, preparation of a research design, performing cultural resources reconnaissance or intensive surveys (i.e., on the ground or archival research and shovel testing/deep trenching), excavation of any resources for eligibility for listing in the NRHP, evaluation of effects on NRHP-eligible or NRHP-listed sites, or development of mitigation plans.

### **Task 6: Traffic Signal Coordination**

Modifications to the existing traffic signal at W Lake Drive and Carlos G Parker Boulevard are anticipated due to roadway reconstruction on W Lake Drive, and installation of sidewalks and ped ramps within the intersection. The traffic signal will be designed to TxDOT standards. As part of design services, the ENGINEER shall:

1. Conduct a field review of the intersection to note and verify physical constraints, power connection, utility placement, and any other details necessary for signal plan preparation.
2. Meet with electric company in the field to discuss pole locations and power source for the signals. One (1) meeting is assumed for budget purposes.
3. Obtain as-built drawings for the existing traffic signal at W Lake Drive and Carlos G Parker Boulevard, from TxDOT.
4. Prepare draft traffic signal plans and temporary signal plans at 50% design level, as noted under Task 8.
5. Coordinate with City and TxDOT staff for review of signal plans at 50% design level.
6. Prepare final traffic signal plans and temporary signal plans at 100% design level, addressing all previous comments, as noted under Task 8.

### **Task 7: Preliminary Layout**

Once Tasks 2 and 3 are complete, the ENGINEER shall prepare:

1. Refine preliminary layout previously developed.
2. Present preliminary layouts to the OWNER and incorporate comments into Task 8.

### **Task 8: Plan, Specification, and Estimate Preparation**

The ENGINEER shall prepare plans, specifications, and estimates necessary for construction of the project in accordance with the City of Taylor Engineering Manual. The plans shall include the following:

1. Title Sheet, with project information, limits, location map, signature blocks, and other City information.
2. Index of Sheets, with plan sheets and standards.
3. Project Layout Sheets, showing the location of major work items.
4. Existing and proposed Typical Section Sheets, with dimensioned roadway widths, cross slopes, station limits, and pavements sections.
5. General Notes, necessary for construction of the project, including a basis of estimate.
6. Summary Sheets, with quantities broken down by discipline.
7. Traffic Control Plan, including narrative, detours, phasing, and standards.
8. Survey Control Sheets, as specified under Field Surveying.
9. Horizontal Alignment Data Sheets, with information necessary to establish project controls.
10. Removal plan sheets.

11. Plan and Profile Sheets, with station and offsets of roadway geometry, drainage structure locations with flow lines, signing, and striping.
12. Side Street Plan & Profile Sheets, with station and offsets of cross street roadway geometry and spot grading for curb returns.
13. Driveway Detail Sheets, with driveway dimensions, profiles and spot grading.
14. Drainage Area Maps.
15. Hydrologic and Hydraulic Tables with 25 & 100 year calculated flows per the City of Taylor Engineering Manual for drainage areas, ditches, culverts, and storm sewers.
16. Storm Sewer Plan and Profile Sheets.
17. Water Line Sheets, showing locations and profiles for replacement of existing lines as well as new lines. This work includes the following assumptions:
  - a. W. Lake Drive: approximately 800 linear feet of existing 8-inch waterline will be replaced with a new 8-inch waterline between Old Georgetown Road and Carlos G Parker Blvd.
  - b. Wabash St.: approximately 1,430 linear feet of existing 2-inch waterline will be replaced with a new 8-inch waterline between S. Main St. and Beech St.
  - c. 3<sup>rd</sup> St.: approximately 1,190 linear feet of existing 8-inch waterline will be replaced with a new 8-inch waterline between Davis St. and the alley between Park and Shaw St.
  - d. N. Lynn St.: approximately 2,440 linear feet of existing 8-inch and 6-inch waterline will be replaced with a new 8-inch waterline between W. Lake Dr. and Davis St.
  - e. The City will provide available construction drawings, asbuilt drawing or other information for the existing waterlines to be replaced.
  - f. The assumed sizes will be coordinated with the extent possible with the Water Master Plan, which is being executed in a separate Task Order.
  - g. The design documents will show and quantify service relocations based on the surveyor's field survey information showing sewer services, meters, number of residential lots, etc. The contractor will be responsible for the relocations and will coordinate and obtain from the City any needed right-of-entry approvals and permits. The contract documents will require the contractor utilize a licensed plumbing contractor to install the services, and will also require the contractor to restore any damage or disturbed property.
18. Wastewater Line Sheets, showing locations and profiles for replacement of existing lines as well as new lines.
  - a. Wabash St.: approximately 1,430 linear feet of existing 6" wastewater line will be replaced with a new 8-inch wastewater line.
  - b. 3<sup>rd</sup> St.: approximately 1,190 linear feet of existing 8-inch and 12-inch wastewater line will be replaced a new 8-inch and 12-inch line.
  - c. N. Lynn St.: approximately 2,440 linear feet of existing 8-inch wastewater line will be replaced with a new 8-inch wastewater line. This includes rerouting a portion of the wastewater line between W, Lake Dr, and Otis St. currently located behind houses on private property to the right-of-way. This will also require rerouting services between W. Lake Dr. and Otis St.
  - d. The City will provide available construction drawings, asbuilt drawing or other information for the existing wastewater lines to be replaced.
  - e. The assumed sizes will be coordinated with the extent possible with the Wastewater Master Plan, which is being executed in a separate Task Order.
  - f. The design documents will show and quantify service relocations based on the surveyor's field survey information showing sewer services, meters, number of residential lots, etc. The contractor will be responsible for the relocations and will coordinate and obtain from the City any needed right-of-entry approvals and permits. The contract documents will

require the contractor utilize a licensed plumbing contractor to install the services, and will also require the contractor to restore any damage or disturbed property.

19. Traffic Signal Sheets, for W Lake Drive intersection with Carlos G Parker Boulevard, to include the following:
  - a. Existing traffic signal layout
  - b. Proposed traffic signal layout
  - c. Signing and phasing
  - d. Conduit and Conductor Schedules
  - e. Elevations
  - f. Vehicle Detection Layout
  - g. Traffic signal foundation sheet
20. Temporary Traffic Signal Plans for the intersection of W Lake Drive and Carlos G Parker Boulevard, to include the following sheets for up to two phases of construction:
  - a. Temporary traffic signal layouts
  - b. Temporary signing, phasing, and conductor schedules
  - c. Temporary elevation sheets
  - d. Temporary traffic signal pole and span wire detail sheets
21. Stormwater Pollution Prevention Plan (SW3P) Narrative, for permitting.
22. SW3P Plan Sheets, with temporary and permanent Best Management Practices (BMPs).
23. Applicable City and TxDOT standards.
24. Cross Sections at 50' intervals showing existing and proposed ground.

At 50% and 100%, the ENGINEER shall:

25. Tabulate project quantities and develop an Engineer's Estimate of probable construction costs.
26. Prepare construction schedule.
27. Perform QA/QC of the design and deliverables, address comments.
28. Address and incorporate OWNER comments.
29. Prepare each deliverable.

Additionally, the ENGINEER shall:

30. Prepare the bid documents including all forms, contracts, and specifications.

The ENGINEER will develop the full design and associated sheets for N Lynn Street, but will adjust the bid limits of construction based on available construction budget. Design assumes replacement of all existing water and wastewater lines as well as the relocation of one wastewater line running underneath an existing residence on N Lynn Street. This includes replacement of service lines up to the right of way or meter. The scope of the drainage aspects of the project include driveway culverts, gutters, and ditches as well as storm sewer on W Lake.

**Deliverables:**

1. PDF of the Final Plans and Cross Sections.
2. PDF of the Engineer's Estimate.
3. PDF of the Estimated Construction Schedule
4. PDF of Project Manual (Contract/Bid Documents).
5. Three (3) hard copies of each PDF, as requested by the OWNER.

**Task 9: Bid Phase Services**

The ENGINEER shall prepare and conduct two (2) project bids, including the following for each:

1. Conduct the pre-bid conference, including agenda preparation and meeting minutes.
2. Respond to contractor questions and issue one (1) addendum prior to Bid Opening.
3. Conduct the Bid Opening, including minutes, if necessary.
4. Prepare Bid Tabs, Recommendation of Award, and conformed contract documents for OWNER execution.

**Deliverables:**

1. PDF of the Bid Tabulation and recommendation of award.

### **Part 3.0 Owner's Responsibilities:**

The OWNER shall be responsible for, and the ENGINEER may rely upon, the accuracy and completeness of all requirements, instructions, reports, data, and other information furnished by the OWNER to the ENGINEER pursuant to this Agreement.

The OWNER shall coordinate and, as necessary, attend meetings with the ENGINEER either by phone or in person during design and bidding of the project.

The OWNER shall coordinate and, as necessary, obtain right-of-entry for any access required on private property to perform design services.

### **Part 4.0 Periods of Service:**

The ENGINEER is authorized to begin services as of the date of Notice to Proceed (NTP).

Estimated Project Schedule:

Survey, Geotechnical, and begin Utility Coordination: 60 working days from NTP.

PS&E and continue Utility Coordination: 240 working days from completion of Survey and Geotechnical.

Bid Phase Services: 60 working days from completion of PS&E, depending on City Council dates.

### **Part 5.0 Engineer's Fee:**

The OWNER shall pay the ENGINEER for the services set forth in Part 2.0 on a lump sum basis. Proposed fees are as follows:



| TASK                                               | FEE                  |
|----------------------------------------------------|----------------------|
| 1. Project Management                              | \$ 40,944.00         |
| 2. Field Surveying                                 | \$ 125,123.25        |
| 3. Geotechnical                                    | \$ 30,975.00         |
| 4. Utility Coordination                            | \$ 71,408.00         |
| 5. Environmental Coordination                      | \$ 21,360.00         |
| 6. Traffic Signal Coordination                     | \$ 4,108.00          |
| 7. Preliminary Layout                              | \$ 16,860.00         |
| 8. Plans, Specifications, and Estimate Preparation | \$ 599,903.50        |
| 9. Bid Phase Services                              | \$ 19,432.00         |
| Direct Expenses                                    | \$ 6,166.40          |
| <b>TOTAL DESIGN FEE:</b>                           | <b>\$ 936,280.15</b> |
| <b>FOR ESTIMATION PURPOSES ONLY:</b>               |                      |
| <b>Construction Administration and Inspection</b>  | <b>\$ 556,103.04</b> |

Construction Phase Services and Construction Observation have been provided for budget estimate purposes. A Supplemental Agreement will be required for the formal addition of such services into the overall proposal. The rates and estimates provided above will have to be revisited based on the duration of time elapsed when the City elects to incorporate such services.

## Part 6.0 Other:

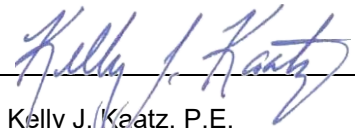
N/A.

This Task Order is executed this \_\_\_\_\_ day of \_\_\_\_\_, 2018

CITY OF TAYLOR, TEXAS  
"OWNER"

HDR ENGINEERING, INC.  
"ENGINEER"

BY: \_\_\_\_\_

BY:  \_\_\_\_\_

NAME: \_\_\_\_\_

NAME: Kelly J. Keatz, P.E.

TITLE: City Manager

TITLE: Senior Vice President

ADDRESS: 400 Porter St.

ADDRESS: 710 Hesters Crossing, Suite 150

Taylor, TX 76574

Round Rock, TX 78681



May 31, 2019

030244.007

Mr. Jim Gray  
Public Works Director  
City of Taylor  
1424 N. Main Street  
Taylor, TX 76574

**Re: Professional Services for City of Taylor 2019 CIP Bond Projects**

Dear Mr. Gray:

Enclosed is the requested proposal for the City Council selected 2019 CIP Bond projects. Two of the selected locations, Edmonds/Mills Phases 2 & 3, and 1<sup>st</sup>/Royal/Walnut will have construction documents prepared and construction phase services provided. The McLain and Travis Street locations will have construction documents prepared however neither location is anticipated to go to construction at this time.

Halff can begin work immediately upon receipt of a written notice to proceed. If you have any questions, please feel free to call me at (512) 777-4606. We look forward to continue working with you to serve the City of Taylor and its citizens.

Sincerely,

**HALFF ASSOCIATES, INC.**

A handwritten signature in blue ink, appearing to read "Dan Franz", is written over a light blue circular stamp.

Dan Franz, P.E., CFM  
Public Works Team Leader

Attachments: Exhibit A Scope of Services  
Exhibit B Standard Agreement and Conditions

## **EXHIBIT A**

### **SCOPE OF SERVICES FOR CITY OF TAYLOR 2019 CIP BOND PROJECTS**

The Engineer will provide engineering services for development of final design plans, project manual and specifications, and construction phase services of specific locations identified in Half's Municipal Drainage Utility System (MDUS) evaluations. A brief description of each location:

#### **Edmond and Mills Street Phase 2 & 3 Improvements**

Project is anticipated to include reconstruction of approximately 2,000 linear feet of street, water line and wastewater line, installation of approximately 2,000 feet of enclosed storm sewer, and reconstruction of approximately 20 driveway approaches.

#### **1<sup>st</sup>-Royal-Walnut Drainage/Detention Improvements**

Project is anticipated to include construction of an 11 acre-foot capacity detention pond along Gravel Pit Draw, just north of the Union Pacific Railroad.

The scope is divided into the following six tasks, each described in more detail below:

- Task 1:** Project Management
- Task 2:** Data Collection: Geotechnical, Survey, Environmental Services
- Task 3:** Utility Coordination and Subsurface Utility Engineering (SUE)
- Task 4:** Construction Plan Preparation
- Task 5:** Bid Phase Services

It is anticipated that the Edmonds Phases and 1<sup>st</sup>/Royal/Walnut locations will be bid concurrently.

---

#### **Task 1: Project Management**

##### ***1.1 Coordination***

Engineer shall designate one Texas Registered Professional Engineer as the Project Manager responsible for Project management, coordination, and communications. Engineer will coordinate all proposed improvements with the ongoing designs with the City's third party Engineer (HDR). Engineer and HDR will coordinate on deliverables and correspondence to be used for City staff and management purposes for the associated Projects.

##### ***1.2 Administration***

Engineer will manage Project activities, direct the project team/staff, attend meetings with City staff, handle deliverables, and keep records of project communications / files. Engineer will prepare Monthly Invoices billed as a percentage complete per task and Progress Reports. These Reports will include:

- Tasks completed during the reporting period & planned for upcoming periods.

- Issues encountered and recommended actions to address them.
- Overall Project status and development progress, including a tabulation of Tasks showing percentage complete, and supporting documentation

## **Task 2: Data Collection**

### **2.1        *Geotechnical***

See Attachment “A” for detailed scopes of service from Raba-Kistner Consultants, Inc. In addition, Halff Associates will provide coordination needed with the Geotechnical Engineer for design and preparation of the construction documents under **Task 1: Project Management**.

### **2.2        *Surveying***

#### **2.2.1        *Survey Control***

- Survey Control will be provided for the following sites:
  - Edmond/Mills
  - 1<sup>st</sup>/Royal/Walnut
- Halff shall assure compliance and adherence to all rules, regulations and policies as set forth by the Texas Board of Professional Land Surveyors and Texas Society of Professional Surveyors Manual of Practice for Surveying.
- Halff will recover existing or establish new survey control sufficient to complete the project. Final Horizontal coordinates will be provided in the Texas State Plane Coordinate System, Central Zone (4203) in US Survey Feet on the NAD83/93 datum.
- Vertical positions should be provided on NAVD88 datum

#### **2.2.2        *Topographic Survey***

- Topographic Survey will be provided for the following sites:
  - Edmond/Mills (ROW to ROW)
  - 1<sup>st</sup>/Royal/Walnut (~2.6 acre tract for proposed detention pond)
- Perform field survey of the streets, will include top back of curb, gutter elevation, and centerline of street.
- Obtain spot elevations on driveways at the first joint back from the street edge.
- Obtain break lines and spot elevations sufficient for 1-ft contour intervals.
- Obtain tree survey in undeveloped areas for trees > 6” caliper.
- Obtain line and grade on handicap ramps, crosswalks, and sidewalks.
- Field tie above ground visible improvements.
- Behind curbs, tie visible utility locations, including ties to above-ground features, such as power poles, valves, and other features to the right-of-way line (i.e. edges of pavement, curbs and gutter, sidewalks every 50 feet, building corners etc.) either found by our surveyors or located for us by utility companies and/or other agencies. One-call will be notified prior to acquisition of survey. Halff shall not

be liable for utilities not identified as part of the one-call at the time of survey.  
*Note: does NOT include tying irrigation heads; irrigation heads are often below the grass and not readily visible/locatable.*

- Provide spot elevations at center point of manhole covers and access vaults outside of pavement.
- Provide location, pipe size (if possible) and invert elevation of existing storm drain structures at inlets, manholes, and culverts only.
- Process field collected data for field survey.
- Perform quality control for survey requirements.
- Extract spot elevations and break lines into DTM.
- Extract and prepare triangulated irregular network into DTM.
- Load 1-foot contour information.

### 2.2.3 *Right-of-Way Research*

Determine apparent right-of-way based on plat research (*Legal lot lines will not be established*) for:

- Mills Street from Cecelia to McLain

Establish legal lot lines and incorporate into CAD design files for:

- Mills Street from Cecelia to McLain

### 2.2.4 *Property Acquisition*

Two (2) metes and bounds descriptions and accompanying sketches to be prepared by a State of Texas Registered Professional Land Surveyor describing the two tracts associated with property/easement acquisition necessary for the 1<sup>st</sup>-Royal-Walnut project.

## 2.3 *Environmental Services*

- Halff will perform desktop research to obtain readily-available, digital environmental constraints information from appropriate local, state, and federal agencies. Halff will conduct a cultural resources records review to determine the extent of previous studies and identify known historic or archaeological sites in or near the proposed project area, including a search of archeological records maintained by the Texas Archeological Research Laboratory and a review of the Texas Historic Sites Atlas maintained by the Texas Historical Commission (THC) for cemeteries and recorded historical markers, properties, or districts listed in the National Register of Historic Places (NRHP) located within the project area. This task will include a review of current protected species lists from the Texas Parks and Wildlife Department (TPWD) and the U.S. Fish and Wildlife Service (USFWS), and a search request from the Texas Natural Diversity Database (TXNDD). National Wetlands Inventory (NWI) maps and current aerial photography will be reviewed for surface water features that may be considered waters of the U.S. that would be affected by the proposed project. Data collected through this task will be stored in Geographic Information Systems (GIS) format.

- Perform one field reconnaissance survey to verify the location of any environmental constraints identified during the desktop research.
- Map known environmental constraints within the project corridor using GPS.
- Incorporate all findings from the tasks above into the Environmental Constraints Summary.

*Environmental assumptions/exclusions (all locations):*

- Phase I Environmental Site Assessments per current ASTM standards are not part of the scope of services. This scope of services also excludes ordering a vendor-supplied hazardous materials database report and performing surveys/investigations that involve sampling and laboratory analysis (e.g., hazardous materials sampling and analysis, asbestos surveys, and lead-based paint surveys).
- As a political subdivision of the State, the City of Taylor must notify the THC prior to commencing any project on public land that will involve 5 or more acres of ground disturbance; 5,000 or more cubic yards of earth moving; will occur in a historic district; or will affect a recorded archeological site. Coordination of the proposed project with the THC is not part of the scope of services. If required, advance project coordination of the proposed project with the THC would be performed under a supplemental agreement. This scope of services also excludes effort to obtain an Antiquities Permit from the THC, preparation of a research design, performing cultural resources reconnaissance or intensive surveys (i.e., on the ground or archival research and shovel testing/deep trenching), evaluation of any resources for eligibility for listing in the NRHP, evaluation of effects on NRHP-eligible or NRHP-listed sites, or development of mitigation plans.

*Environmental assumptions/exclusions (Edmond/Mills location):*

- No impacts to jurisdictional wetlands or other waters of the U.S. are anticipated. Delineation and permitting coordination under Section 404 of the Clean Water Act for potentially jurisdictional waters of the U.S., including wetlands, is not included in this scope of work. If after further investigation it is determined that waters of the U.S. will be impacted, then Section 404 permitting services can be provided as a supplemental task.
- Impacts to state and/or federally-listed threatened and endangered species are not anticipated as the project corridor appears mostly developed by residential neighborhoods and suitable habitat capable of supporting listed species is not anticipated to be present. Other than temporary construction easements in some driveways, no additional right-of-way (ROW) is anticipated for the proposed project; therefore, a detailed habitat assessment for the project is not included in this scope of services. This scope of services also excludes threatened and endangered species presence-absence surveys and consultation with the TPWD and/or the USFWS.

*Environmental assumptions/exclusions (1<sup>st</sup>/Royal/Walnut location):*

- Gravel Pit Draw may be considered a water of the U.S. However, preparation of a waters of the U.S. delineation report and permitting coordination under Section 404 of the Clean Water Act for potentially jurisdictional waters of the U.S., including wetlands, is not included in this scope of work. If necessary, Section 404 permitting services can be provided as a supplemental task.
- This scope of services excludes threatened and endangered species presence-absence surveys and consultation with the TPWD and/or the USFWS.

***TASK 2 Deliverables:***

- Geotechnical Reports:
  - Edmond/Mills – 1<sup>st</sup>/Royal/Walnut
- CAD files of topographic survey:
  - Edmond/Mills
  - 1<sup>st</sup>/Royal/Walnut
- Easement Metes and Bounds:
  - 1<sup>st</sup>/Royal/Walnut
- Environmental Constraints Summaries:
  - Edmond/Mills
  - 1<sup>st</sup>/Royal/Walnut

**Task 3: Utility Coordination and Subsurface Utility Engineering (SUE)**

***3.1 Utility Coordination***

Engineer will identify conflicts between existing utilities in the project area and new facilities associated with the proposed project. The utility companies will be responsible for preparing design solutions for their affected utilities. This task will include the following project sites and activities:

- Project Sites:
  - Edmond/Mills
  - 1<sup>st</sup>/Royal/Walnut
- Each utility company will be contacted for plans showing the location of their existing and planned facilities.
- Provide developed plans (hard copy and electronic) to utility companies at 60 and 90% percent complete stage, and at the final plan stage (100%) showing proposed improvements with all conflicts clearly identified.
- Formally request solutions to mitigate the impacts to their facilities.
- Coordinate with utility companies and obtain utility relocation designs and proposed relocation dates.

### 3.2 *Subsurface Utility Engineering (SUE)*

Halff will perform SUE in accordance with ASCE CI/ASCE 38-02 “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.” This standard defines the following Quality Levels:

**Quality Level-A:** Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents.

**Quality Level-B:** Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality Level-B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

**Quality Level-C:** Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to Quality Level-D information.

**Quality Level-D:** Information derived from existing records or oral recollections.

#### **Quality Level-A Utility Test Holes (Vacuum Excavation):**

Test holes will be performed on various utilities at locations specified by the City of Taylor and/or Halff’s Design Engineer. Halff will cut up to a 12” square test hole, excavate down to utility, record the depth to top of utility, backfill & compact the hole, and restore the surface to its original condition. An iron rod with cap or “x-cut” will be set to mark the approximate centerline location of the utility. A jackhammer will be utilized for work to be performed in asphalt and concrete areas. The number of test holes included in this Scope of Services per location are as follows:

- Edmond/Mills: Up to six (6) test holes

#### **Quality Level-B Utility Designating:**

Halff will designate the approximate horizontal position of conductive/toneable utilities within the project limits using geophysical prospecting equipment and mark using paint and/or pin flags. We anticipate the designation utilities including buried communication, electric, natural gas, petroleum pipeline, traffic signal, water, and waste water/sanitary sewer. The approximate lineal footage of utility designation for each location is as follows:

- Edmond/Mills & 1<sup>st</sup>/Royal/Walnut: 7,000 linear feet

Designation of irrigation lines, HDPE lines, gathering lines, asbestos concrete and/or pvc lines, as well as pvc lines without tracer wire or access are not part of this Scope of Services.



Because of limited utility record information and the possibility of non-conductive/un-toneable utilities, Halff cannot guarantee all utilities will be found and marked within the project limits.

**Quality Level-C Surveying:**

Quality Level-B Utility Designation paint markings, pin flags, and above ground utility appurtenances as well the iron rod with cap or “x-cut” for Quality Level-A Test Holes will be surveyed and tied utilizing project survey control provided by The City of Taylor and/or Halff’s Design Engineer.

**Quality Level-D Records Research:**

Available Records will be provided to Halff by The City of Taylor. Halff will perform additional utility record research as needed to successfully complete the project.

Because there are situations where the utility does not have a metallic composition, a metallic tracer line attached, or access to insert a tracer line, the approximate location of the utility may be determined by the use of utility records and direct correspondence with the utility owner/representative. In these areas, the information will be considered Quality Level-D, depicted according to utility record information only.

**SUE Field Manager / Professional Engineer:**

A SUE Field Manager will be on-site for a portion of this project for field crew supervision, field quality control, and coordination with on-site personnel. A Professional Engineer will be responsible for QA/QC, management of the contract, coordination with the project team and signing the final deliverables if required.

**Right-of-Entry:**

Right-of-Entry is not part of this Scope of Services as work is anticipated within the existing road right-of-way. If right-of-entry is required, it will be performed and provided to Halff by The City of Taylor. Halff will coordinate with property owner(s) once right-of-entry has been obtained.

**Permitting:**

Street Cut permits will be coordinated with The City of Taylor as required.

**Work Zone Traffic Control:**

Halff will provide standard temporary work zone traffic control consisting of cones and free-standing signage for this project. This Scope of Services does not include lane closure(s), flag person(s), changeable message board(s), arrow board(s) and/or engineered traffic control plans.

If an engineered traffic control plan is required for permit approval or if unique traffic control conditions exist, Halff will notify The City of Taylor and submit a supplemental agreement for authorization prior to proceeding with additional work.

**Schedule:**

Halff will complete the Quality Level-B Utility Designation investigation within Thirty (30) calendar days upon receipt of written notice to proceed from The City of Taylor.

Halff will complete the Quality Level-A Test Hole services within Thirty (30) calendar days upon receipt of the test hole layout from The City of Taylor and/or Halff's design engineer and approved permits from The City of Taylor.

Due to uncontrollable factors such as ground conditions, weather, and safety hazards, Halff reserves the right to request more time to facilitate field efforts should one of these circumstances exist.

Work performed in the right-of-way shall be performed Monday through Friday, 9 am to 4 pm and Saturday and Sunday, 7 am to 7 pm barring foul weather.

***TASK 3 Deliverables:***

- Deliverables for the Quality Level-B 2D Utility Designation will be 11-in. x 17-in. SUE plan sheets depicting the findings of the investigation. Electronic files will be provided in MicroStation and/or AutoCAD format along with PDFs and photos.
- Deliverables for the Quality Level-A Test Hole excavations will be an 8.5-in. x 11-in. Test Hole Data Form for each Test Hole performed indicating depth, size, location, and other notable characteristics of the utility. Electronic files will be provided in MicroStation and/or AutoCAD format along with PDFs and photos.

**Task 4: Construction Plan Preparation**

Preparation and design of the construction plans shall be in accordance with the City of Taylor Engineering Manual (Version – NOV 2009). Construction documents will be prepared into two (2) separate bid packages for the Edmond & Mills and 1<sup>st</sup>/Royal/Walnut locations. This Scope of Services assumes that the Edmond and Mills Street Phase 2 & 3 Improvements and the 1<sup>st</sup>/Royal/Walnut projects will be advanced into construction.

Construction plans will consist of the following:

- Project Title Sheet
- Project Layout sheets
- Survey Control Sheets
- Removal/Demolition Sheets
- Drainage Area Maps and Calculations
- Erosion and Control Sheets
- Detail Sheets
- Grading Plan Sheets (as necessary)
- Storm Sewer Plan and Profile Sheets (as necessary)
- Traffic Control Sheets (as necessary)
- Water Line Plan and Profile Sheets (as necessary)
- Wastewater Line Plan and Profile Sheets (as necessary)

#### **4.1        *Project Specific Design Assumptions***

##### **Edmond and Mills Street Phase 2 & 3 Improvements**

The roadway section is anticipated to be a two lane, 30 foot wide, local street with curb and gutter.

The scope of the drainage aspects of the project will consist of installing an enclosed storm sewer system to convey storm runoff from the intersection of Mills Street and McLain Street, south through the Edmond and Mills corridor, to storm inlets on the north side of 6<sup>th</sup> Street. Curb inlets and roadside drainage inlets will be placed along Edmond Street and Mills Street from McLain Street south to 7<sup>th</sup> Street in order to capture local runoff into the enclosed storm sewer system.

The existing water line will be replaced from:

- Edmond Street from 7<sup>th</sup> Street to Cecelia Street
- Cecelia Street from Edmond Street to Mills Street
- Mills Street from Cecelia Street to Adams Street

Proposed size is anticipated to be 8" and located within the ROW.

The existing wastewater line will be replaced from:

- Edmond Street from 6<sup>th</sup> Street to Cecelia Street
- Cecelia Street from Edmond Street to Mills Street
- Mills Street from Cecelia Street to McLain Street

Proposed size is anticipated to be 8" and located within the ROW.

##### **1<sup>st</sup>-Royal-Walnut Drainage/Detention Improvements**

The scope of the drainage aspects of the project will consist of constructing a detention pond along Gravel Pit Draw to reduce flooding in the homes between 1<sup>st</sup> Street and Royal Street, north of Walnut Street (FM 112). Design and analysis are based on recommendations in the Memorandum dated November 2017 for the Hydrologic & Hydraulic Analysis of Gravel Pit Draw from UPRC Bridge to East Walnut Street.

In addition to construction plan and bid package preparation, the following tasks will be performed for final detention pond analysis and sizing:

- Utilize the hydrologic and hydraulic models developed in the Memorandum "Hydrologic & Hydraulic Analysis of Gravel Pit Draw from UPRC Bridge to East Walnut Street".
- Conduct site visit to understand existing drainage patterns.
- Validate Existing Condition hydrologic simulation is accurate for on-site and off-site runoff based site survey and field visit. This includes verifying drainage basins, revising hydrologic parameters and updating the hydrologic analysis parameters as needed.
- Conduct a schematic hydrologic simulation to evaluate the mitigation potential of the proposed pond. This task includes evaluating the required and provided detention pond size and required outfall structure.

***TASK 4 Deliverables:***

***Edmond/Mills, 1<sup>st</sup>/Royal/Walnut:***

One for each individual construction plan set and bid package.

- 60% Construction Documents (11"x17" plan sheets) and Estimate. Three (3) hard copies along with a PDF will be provided.
- 90% Construction Documents (11"x17" plan sheets), draft Project Manual, and updated Estimate. Three (3) hard copies along with a PDF will be provided.
- Final Bid Set (11"x17" plan sheets), Project Manual, Final Engineer's Estimate. Three (3) hard copies along with a PDF will be provided.

**Task 5: Bid and Construction Phase Services**

***5.1 Public Meeting***

- Attend one (1) public meeting for each project (Edmond/Mills/ and 1<sup>st</sup>/Royal/Walnut). Open house format - no formal presentation to be prepared by engineer; city will handle public notifications and meeting space.

***5.2 Bid Phase***

- Attend one (1) pre-bid meeting at City for each project (Edmond/Mills and 1<sup>st</sup>/Royal/Walnut) and answer bidder questions.
- Provide assistance to the City in responding to questions from contractors and prepare up to two (2) bid addenda as necessary.
- Attend bid opening at City.
- Prepare bid evaluation and tabulation.

***TASK 5 Deliverables:***

- Color Project Exhibit roll plot for public meeting
- Bid tabulation and recommendation

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## Fee Summary

Payment for services is on a lump sum basis. Hourly rates are listed below:

| <b>Job Title</b>             | <b>Hourly Rate</b> |
|------------------------------|--------------------|
| Project Manager/Sr QC        | \$225              |
| Senior Project Engineer (PE) | \$185              |
| Project Engineer (PE)        | \$145              |
| Engineer in Training I       | \$105              |
| CADD/GIS Tech                | \$85               |
| Administrative Assistant     | \$75               |

Estimated fees are shown below:

| <b>TASK SUMMARY - EDMOND/MILLS &amp; 1ST/ROYAL/WALNUT</b>            | <b>FEES</b>          |
|----------------------------------------------------------------------|----------------------|
|                                                                      |                      |
| <b>Task 1: Project Management</b>                                    | <b>\$ 9,000.00</b>   |
| <b>Task 2: Data Collection</b>                                       | <b>\$ 64,490.00</b>  |
| <b>Task 3: Utility Coordination and SUE</b>                          | <b>\$ 23,730.00</b>  |
| <b>Task 4: Construction Plan Preparation</b>                         | <b>\$ 288,625.00</b> |
| <b>Task 5: Bid Phase Services</b>                                    | <b>\$ 12,640.00</b>  |
| <b>TOTAL</b>                                                         | <b>\$ 398,485.00</b> |
|                                                                      |                      |
| <b>FOR ESTIMATION PURPOSES ONLY:<br/>Construction Phase Services</b> | <b>\$ 25,200.00</b>  |
| <b>Construction Observation and Inspection Services</b>              | <b>\$ 246,450.00</b> |

Construction Phase Services and Construction Observation have been provided for budget estimate purposes. A Supplemental Agreement will be required for the formal addition of such services into the overall proposal. The rates and estimates provided above will have to be revisited based on the duration of time elapsed when the City elects to incorporate such services.

## **ITEMS EXCLUDED FROM SCOPE OF SERVICES**

1. Design of roadway illumination or electrical
2. Design of storm water detention for Edmond/Mills
3. Design of water quality treatment systems
4. Design of franchised utility adjustments
5. Design of wastewater utility adjustments for 1<sup>st</sup>/Royal/Walnut
6. Analyzing or simulating water supply networks
7. Design of landscaping, irrigation, or hardscape (enhanced flatwork) facilities
8. Public Outreach beyond the scope identified above
9. Attendance in public meetings other than what is specified in this proposal
10. Coordination with TCEQ, FEMA, TxDOT or any other jurisdictional entity not identified in this proposal.
11. Property acquisition or negotiations beyond the scope identified above
12. Filing fees, permit fees
13. Construction staking
14. Quality control and material testing services during construction beyond the scope identified above.
15. Any services performed during construction of the project, including but not limited to attending preconstruction meetings, field meetings, reviewing contractor submittals and shop drawings, responding to contractor requests for information, reviewing pay requests, attending walkthrough, etc.
16. Construction Observation and Inspection Services
17. Reviewing and evaluating alternate designs proposed by contractor
18. Engineers certificates. The Engineer shall not be required to execute any documents subsequent to the signing of this Agreement that in any way might, in the judgment of the Engineer, increase the Engineer's risk or the availability or cost of his professional or general liability insurance.

Any additional services required beyond those specifically identified in this proposal are beyond the scope of services to be provided. Additional services, if requested, will be separately identified and negotiated and such additional scope and commensurate fee will be authorized under a supplemental agreement to this proposal/contract.

# ATTACHMENT A

[Delivery by Email: [aDutton@Halff.com](mailto:aDutton@Halff.com)]

Proposal No. PAA19-037-00  
April 2, 2019

Mr. Andy Dutton, P.E.  
Halff Associates, Inc.  
9500 Amberglen Boulevard,  
Building F, Suite 125  
Austin, Texas 78729



P 512.339.1745 F 512.339.6174  
TBPE Firm F-3257

**RE: Proposal for Geotechnical Engineering Study  
Walnut and 1<sup>st</sup> Street Improvements - Detention Pond  
Taylor, Texas**

Dear Mr. Dutton:

RABA KISTNER Consultants Inc. (RKCI) is pleased to submit this proposal for Geotechnical Engineering Services for the above referenced project. The broad objectives of our study will be to determine subsurface conditions and provide general recommendations and construction guidelines for a detention pond. Described in this proposal are:

- our understanding of pertinent project characteristics;
- our proposed scope for field and laboratory study;
- our proposed scope for engineering evaluation and reporting;
- our tentative project schedule; and
- our lump sum study cost.

### **Project Description**

Under consideration in this study is a detention pond to be located on a 2.6-acre site east of Scott Street and Price Street in Taylor, Texas. The scope of services for the detention pond will include general foundation recommendations and construction guidelines.

Based on a Google Earth image, the site is an undeveloped tract of land with scattered trees and shrub brush. Site accessibility with a truck mounted drilling will be contingent on the softness of the ground surface and the thickness of the existing vegetation.

**Additional Services** As an addition to the scope of services provided herein, and independent of our final geotechnical report for this project, RKCI will update our final geotechnical report for Edmond and Mills Streets, Phases II and III, RKCI Project No. AAA16-081-00, dated November 2016.

### **Field Study**

To explore subsurface soil conditions at this site, RKCI will drill 3 borings within the footprint of the proposed detention pond. The borings will be advanced to approximate depths of 15 ft below the existing ground surface utilizing a truck mounted drilling rig.

Samples will be taken using conventional Shelby-tube and split-spoon sampling techniques. The borings will be located in the field utilizing a recreation grade hand-held GPS device. Our scope of service does not include surveying in the boring locations. The boring will be backfilled utilizing auger cuttings generated during drilling activities.

Samples collected will be retained in our laboratory for 30 days after submittal of the final geotechnical report.



Proposal No. PAA19-037-00  
April 2, 2019

### **Laboratory Testing**

Upon completion of the subsurface exploration, a testing program will be designed to define the strength and classification characteristics of the foundation soils. The laboratory testing program is anticipated to include moisture content tests, Atterberg Limits (plasticity) tests, unconfined compression tests, and grain size analyses. However, the actual type and number of laboratory tests will be based on the subsurface conditions encountered in the borings. The laboratory testing will be performed in general accordance with applicable ASTM standards.

### **Engineering Report (Walnut and 1<sup>st</sup> Street Improvements)**

The results of the field and laboratory phases of the study will be reviewed by our staff of engineers and geologists. The results of our review, together with the supporting field and laboratory data, will be presented in a written, engineering report. The Geotechnical Engineering Report will include the following information and recommendations, if applicable:

- A summary of the field and laboratory sampling and testing program,
- Boring location map and boring logs;
- Laboratory testing results;
- General site conditions to include geology, subsurface stratigraphy, groundwater conditions, and the presence of fill material, if encountered.
- Foundation design recommendations and considerations, including:
  - Potential Vertical Rise (PVR) estimation;
  - methods for reducing PVR;
  - allowable bearing pressures for pond structures;
  - lateral earth pressures for retaining structures.
- Foundation construction considerations, including:
  - site preparation;
  - select fill material specifications;
  - shallow excavations;
  - excavation considerations; and
  - fill/embankment placement and compaction.

Final site grading plans will be helpful information in the preparation of our engineering recommendations. In the absence of site grading information, we will prepare recommendations based on the existing topography. The final report will be reproduced in an electronic copy delivered via PDF.

### **Updated Engineering Report (Edmond and Mills Streets - Phases II and III)**

In November 2016, RKCI performed a final geotechnical report for Edmond and Mills Streets, Phases II and III. RKCI will evaluate the information presented in our previous report and update it accordingly based on new information for the pipeline. Given the asphalt pavement issues observed in Phase I, RKCI will also evaluate our previously provided pavement recommendations. If no there are no changes to the recommendations provided in our 2016 report, RKCI will provided a signed/sealed memo stating that our previous recommendations remain valid for any new conditions.

Proposal No. PAA19-037-00  
April 2, 2019

### **Tentative Project Schedule**

Based on our present workload and weather permitting, we anticipate that we could begin the field exploration phase of this study within 3 to 4 working days of receiving your written authorization, provided the site is accessible to our truck-mounted drill rig. The field exploration and laboratory testing phase of the study is expected to take approximately 3 to 5 working days to complete. Engineering analyses and preparation of the engineering report is expected to take one to two weeks to complete. We will be pleased to provide the design team with verbal design information as the data becomes available, once drilling has been completed.

Recently central Texas has experienced consistent rain events thus contributing to wet and soft ground surfaces, which have created conditions that prohibit drilling access. The provided timeline above is based on immediate accessibility and does not take into account weather delays and/or accessibility due to inclement weather. RKCI will have better understanding of existing site conditions and accessibility of a drilling rig once we have had an opportunity to visit and stake the site.

### **Project Cost**

The total lump sum cost for the study scope outlined herein is as follows:

|                                                                                                              |                   |
|--------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Geotechnical Engineering Report Deliverable</b><br>(Walnut and 1 <sup>st</sup> Street Improvements)       | \$4,800.00        |
| <b>Updated Geotechnical Engineering Report Deliverable</b><br>(Edmond and Mills Streets - Phases II and III) | \$1,200.00        |
| <b>TOTAL:</b>                                                                                                | <b>\$6,000.00</b> |

As previously mentioned, the subject area is undeveloped and there are trees and shrub brush that occupy the 2.6-acre site. Cost estimates for brush clearing can range from \$1,200 to \$2,800. Prior to proceeding with this additional scope of services, RKCI will contact the client and provide an estimate for this additional scope if required.

Should unusual soil conditions be encountered in the field that indicates the desirability of significantly broadening the scope of the study, we will contact you to receive authorization before proceeding with any additional work. Additional services will be billed on a unit basis in accordance with our standard fees as indicated on the attached Schedule of Fees for Professional Services.

If available, we request that the Client provide RKCI with a recent plat of the project site, a drawing illustrating existing and proposed construction locations, and preliminary site grading plans prior to the start of our field exploration services. Also, it is our understanding that the Client will provide access to all boring locations for a conventional, truck-mounted drilling rig and that the Client will provide underground utility clearance. RKCI will assist in locating underground utilities, provided the Client submits documentation of existing utility locations. RKCI will take all precautions to prevent damage to property; however, RKCI cannot be responsible for tire rutting, or damage of landscaping.

It should be noted that our study scope and project cost does include professional time and travel expenses for participation in at least one design team meeting located no further than Fort Hood.

Proposal No. PAA19-037-00  
April 2, 2019

Furthermore, our estimate includes professional time for plan review to determine whether the drawings comply with the intent of the geotechnical recommendations.

### **Acceptance**

We appreciate the opportunity of submitting this contract and look forward to working with you in the development of this project, which will be carried out in accordance with this letter and the following attachments:

| <u>Attachment</u> | <u>Description</u>            |
|-------------------|-------------------------------|
| I                 | Standard Terms and Conditions |
| II                | Schedule of Fees              |

Please return one signed copy of this letter proposal to provide written authorization for our firm to complete work on the services outlined herein. Our invoices are due and payable upon receipt at P.O. Box 971037, Dallas, Texas 75397-1037.

RKCI considers the data and information contained in this proposal to be proprietary. This statement of qualifications and any information contained herein shall not be disclosed and shall not be duplicated or used in whole or in part for any purpose other than to evaluate this proposal.

Very truly yours,

**RABA KISTNER CONSULTANTS, INC.**

  
Yvonne Garcia Thomas, P.E.  
Vice President

Accepted

By:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Typed or Printed Name

YGT: tlc

Attachments: I & II

\_\_\_\_\_  
Title

Copies Submitted: Above (1)

**\* Note: If signed by other than addressee,  
please provide the following information.**

**See Note**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Contact Email Address

\_\_\_\_\_  
Company Address

\_\_\_\_\_  
Company Phone

\_\_\_\_\_  
Company City, State & Zip

\_\_\_\_\_  
Company Fax

# ATTACHMENT B

[Delivered by Email to: ADutton@half.com]  
PAD19-058-00  
April 22, 2019, Revision 2

Mr. Andy Dutton  
Halff Associates, Inc.  
9500 Amberglen Blvd, Bldg F, Suite 125  
Austin, TX 78729



P 512.339.1745 F 512.339.6174  
TBPE Firm F-3257

**Re: Construction Materials Testing Services  
Edmonds Mills St., Phases 2 and 3  
1<sup>st</sup> and Walnut Detention Pond  
Taylor, Texas**

Dear Mr. Dutton:

**RABA KISTNER Consultants, Inc. (RKCI)** is pleased to submit our proposal to provide the construction materials observation and testing services on the project referenced above.

We propose an estimated budget of **\$18,000** for testing and observation services for the referenced project. This budget is based on our understanding of the project, an estimate of quantities, and past experience with similar projects. A cost estimate breakdown is presented in the attached spreadsheet. Construction sequencing, delays, and the number of times that the client or their representative requests our services will affect the suggested budget. Services will be provided on a call-out basis for the cost-estimate spreadsheet attached to this proposal. The scope of work includes the observation and testing of the following construction materials:

- Laboratory testing, in-place field nuclear density testing,
- Concrete compressive strength specimen sampling, testing, and reporting,
- Asphalt testing and observation

This proposal may serve as RKCI's work agreement for the referenced project. Please sign this proposal, initial every page of each attachment, fill out the Report Distribution List, and return one signed original to our office as authorization for RKCI to provide these services. If you choose to issue your own purchase order or work agreement, please reference our proposal number.

Thank you for allowing RKCI the opportunity to submit our proposal for the construction materials observation and testing services. We have a fully equipped AASHTO Accredited laboratory and we look forward to providing these services to you during the construction of this project. If you have any questions concerning our proposal or need any additional information, please call us at (512) 339-1745.

Very truly yours,

**RABA KISTNER CONSULTANTS, INC.**

Approved  
By:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed or Typed Name)

David A. Brown  
Lead COMET Estimator  
DB: me

\_\_\_\_\_  
(Title)

Attachments: Cost Estimate Breakdown  
Scope of Work  
Report Distribution  
Terms and Conditions

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Date)

April 22, 2019, Revision 2

| COST ESTIMATE BREAKDOWN                                                                                                                                                          |                   |                                                          |                    |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------|--------------------|-------------|
| Project Name:                                                                                                                                                                    |                   | Edmonds Mills Street Ph 2 & 3 Revision 1                 |                    |             |
|                                                                                                                                                                                  |                   | 1st and Walnut Detention Pond                            |                    |             |
| Project Location:                                                                                                                                                                |                   | Taylor, Texas                                            |                    |             |
| Contact Name:                                                                                                                                                                    |                   | Mr. Andy Dutton, PE                                      |                    |             |
| Client:                                                                                                                                                                          |                   | Halff Associates, Inc                                    |                    |             |
| Address:                                                                                                                                                                         |                   | 9500 Amberglen Blvd., Bldg F, Suite 125                  |                    |             |
| City/State /Zip                                                                                                                                                                  |                   | Austin/TX/78729                                          |                    |             |
| E-Mail:                                                                                                                                                                          |                   | <a href="mailto:aDutton@Halff.com">aDutton@Halff.com</a> |                    |             |
|                                                                                                                                                                                  |                   |                                                          |                    |             |
| TESTING/OBSERVATION ITEM                                                                                                                                                         | UNIT COST         | UNIT                                                     | ESTIMATED QUANTITY | COST        |
|                                                                                                                                                                                  |                   |                                                          |                    | EXTENSION   |
| SOILS                                                                                                                                                                            |                   |                                                          |                    |             |
| Laboratory Testing                                                                                                                                                               |                   |                                                          |                    |             |
| Moisture Density Relationship, TxDOT or ASTM<br>(Includes Atterberg Limits and Sieve Analysis)                                                                                   | \$350.00          | each                                                     | 4                  | \$1,400.00  |
| Lime Series Curve                                                                                                                                                                | \$290.00          | each                                                     | 1                  | \$290.00    |
| Sulfate Testing                                                                                                                                                                  | \$90.00           | each                                                     | 2                  | \$180.00    |
| Field Testing/Observation                                                                                                                                                        |                   |                                                          |                    |             |
| In-Place Nuclear Densities                                                                                                                                                       | \$13.00           | each                                                     | 104                | \$1,352.00  |
| Lime Depth Checks (Phenolphthalene Method)                                                                                                                                       | \$15.00           | each                                                     | 12                 | \$180.00    |
| Materials Technician                                                                                                                                                             | \$45.00           | hour                                                     | 87                 | \$3,915.00  |
| Vehicle Travel Charge                                                                                                                                                            | \$45.00           | trip                                                     | 27                 | \$1,215.00  |
| Subtotal                                                                                                                                                                         |                   |                                                          |                    | \$8,532.00  |
|                                                                                                                                                                                  |                   |                                                          |                    |             |
| CONCRETE                                                                                                                                                                         |                   |                                                          |                    |             |
| Laboratory Testing                                                                                                                                                               |                   |                                                          |                    |             |
| Concrete Compressive Strength Cylinders                                                                                                                                          | \$13.00           | each                                                     | 50                 | \$650.00    |
| Field Testing/Observation                                                                                                                                                        |                   |                                                          |                    |             |
| Materials Technician                                                                                                                                                             | \$45.00           | hour                                                     | 50                 | \$2,250.00  |
| Materials Technician (overtime)                                                                                                                                                  | \$63.00           | hour                                                     | 0                  | \$0.00      |
| Vehicle Travel Charge                                                                                                                                                            | \$45.00           | trip                                                     | 20                 | \$900.00    |
| Subtotal                                                                                                                                                                         |                   |                                                          |                    | \$3,800.00  |
|                                                                                                                                                                                  |                   |                                                          |                    |             |
| ASPHALT                                                                                                                                                                          |                   |                                                          |                    |             |
| Laboratory Testing                                                                                                                                                               |                   |                                                          |                    |             |
| Bag Sample (Extraction, Gradation, A/C content,<br>Molding Specimens, Laboratory Density of Molded<br>Specimens, Stability Test, Hveem, Maximum<br>Theoretical Specific Gravity) | \$340.00          | each                                                     | 4                  | \$1,360.00  |
| Density of Asphalt Cores                                                                                                                                                         | \$80.00           | each                                                     | 4                  | \$320.00    |
| Field Testing/Observation                                                                                                                                                        |                   |                                                          |                    |             |
| Materials Technician                                                                                                                                                             | \$45.00           | hour                                                     | 30                 | \$1,350.00  |
| Vehicle Travel Charge                                                                                                                                                            | \$45.00           | trip                                                     | 5                  | \$225.00    |
| Subtotal                                                                                                                                                                         |                   |                                                          |                    | \$3,255.00  |
|                                                                                                                                                                                  |                   |                                                          |                    |             |
| PROJECT ADMINISTRATION                                                                                                                                                           |                   |                                                          |                    |             |
| Project Coordinator                                                                                                                                                              | \$65.00           | hour                                                     | 6                  | \$390.00    |
| Project Engineer                                                                                                                                                                 | \$150.00          | hour                                                     | 2                  | \$300.00    |
| Subtotal                                                                                                                                                                         |                   |                                                          |                    | \$690.00    |
|                                                                                                                                                                                  |                   |                                                          |                    |             |
| Reporting, Engineer Review, and Report Distribution                                                                                                                              | 10% of total cost |                                                          |                    | \$1,627.70  |
| GRAND TOTAL                                                                                                                                                                      |                   |                                                          |                    | \$17,904.70 |

Terms and Conditions  
**SCOPE OF WORK**  
**Construction Materials Testing Services**  
**Edmonds Mills St., Phases 2 and 3**  
**1<sup>st</sup> and Walnut Detention Pond**  
**Taylor, Texas**

**General:**

1. We understand that Halff Associates will require the services of experienced engineering technicians as scheduled by you or your representatives. Client will incur a 3-hour minimum charge per each site visit. We request twenty-four (24) hour notification to properly schedule our work.
2. Service charges are based on the hourly rates stated herein and will be assessed from the time the Engineer or Technician leaves our office until he returns from the project.
3. A vehicle travel charge will be assessed for round-trip travel from our office to the project site, material supplier, etc. and back to our office. The charges from our office to the project site will be as follows:

|                               |           |
|-------------------------------|-----------|
| Travel Time (Round Trip)..... | 1.5 Hour  |
| Vehicle Travel Charge .....   | \$45 Trip |

4. Our total cost of services is based upon the assumption that this project will require a technician on site during normal work hours. Services requested during days and/or hours requiring overtime rates may significantly increase the total cost of services shown herein. Normal work hours are defined as Monday through Friday, 7:00 am to 5:00 pm. Overtime rates will be assessed for services performed outside of normal work hours and/or after eight (8) hours of work per day.
5. Invoices will be submitted monthly for work in progress in our standard format. Our invoices are due and payable upon receipt at P.O. Box 971037, Dallas, Dallas County, Texas 75397-1037. All parties hereby agree that this agreement upon acceptance will be performable in Bexar County, Texas. In the event that the State of Texas legislates a sales tax on professional services, the amount of tax applicable will be added to the appropriate service rate charged by Raba-Kistner Consultants, Inc.
6. A 10 percent project engineer review, administration, and report distribution cost will be added to all invoices.
7. Raba-Kistner will utilize the on-site initial field curing facilities provided by the contractor. The cost of providing and maintaining these initial curing facilities is not included in our proposal.

### REPORT DISTRIBUTION LIST

Please provide RKCI with project distribution for our submittal of reports on this project. Unless otherwise indicated, testing and observation reports will be distributed via email.

Client: \_\_\_\_\_  
\_\_\_\_\_

Attention: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Architect: \_\_\_\_\_  
\_\_\_\_\_

Attention: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Engineer: \_\_\_\_\_  
\_\_\_\_\_

Attention: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Contractor: \_\_\_\_\_  
\_\_\_\_\_

Attention: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Other: \_\_\_\_\_  
\_\_\_\_\_

Attention: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

**Please return this Attachment via fax or mail with signed Authorization.**



**EXHIBIT B**  
**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES ON A**  
**DEFINED SCOPE OF SERVICES BASIS**

This Agreement for Professional Engineering Services, hereinafter called "Agreement," is entered into by the City of Taylor a **Municipal Corporation** of the State of **Texas**, hereinafter referred to as "Client", duly authorized to act by the **City Council** of said Client, and **HALFF ASSOCIATES, INC.**, a Texas corporation, acting through a duly authorized officer, herein called "Engineer," relative to Engineer providing professional engineering services to the Client. Client and Engineer when mentioned collectively shall be referred to as the "Parties".

**W I T N E S S E T H:**

For the mutual promises and benefits herein described, the Client and Engineer agree as follows:

**I. Term of Agreement.** This Agreement shall become effective on the date of its execution by both Parties, and shall continue in effect thereafter until terminated as provided herein.

**II. Services to be Performed by Engineer.** Engineer shall provide to the Client basic engineering services as described in the scope of services attachment and fully incorporated herein as "**Exhibit A**" which services may include, but will not be limited to, those services normally rendered by an engineer to a Municipal Corporation. Engineer shall perform its obligations under this agreement as an independent contractor and not as an agent or fiduciary of any other party.

**III. Compensation** - Client agrees to pay monthly invoices or their undisputed portions within 30 days of receipt. Payment later than 30 days shall include interest at 1 percent (1%) per month or lesser maximum enforceable interest rate, from the date the Client received the invoice until the date Engineer receives payment. Such interest is due and payable when the overdue payment is made.

It is understood and agreed by the Parties that Engineer's receipt of payment(s) from Client is not contingent upon Client's receipt of payment, funding, reimbursement or any other remuneration from others.

Time-related charges will be billed as specified in this Agreement. Unless stated otherwise in this Agreement, direct expenses, subcontracted services and direct costs will be billed at actual cost plus a service charge of 10 percent. Mileage will be billed at current IRS rates.

**IV. Client's Obligations.** The Client agrees that it will (i) designate a specific person to act as the Client's representative, (ii) provide Engineer with any previous studies, reports, data, budget constraints, special Client requirements, or other pertinent information known to the Client, when necessitated by a project, (iii) Client agrees to provide site access, and to provide those services described in the attached Scope of Services assist Engineer in obtaining access to property necessary for performance of Engineer's work for the Client, (iv) make prompt payments in response to Engineer's statements and (v) respond in a timely fashion to requests from Engineer. Engineer is entitled to rely upon and use, without independent verification and without liability, all information and services provided by the Client or the Client's representatives.

**V. Termination of Work** - Either the Client or the Engineer may terminate this Agreement at any time with or without cause upon giving the other Party ten (10) calendar days' prior written notice. Client agrees that termination of Engineer for Client's convenience shall only be utilized in good faith, and shall not be utilized if either the purpose or the result of such termination is the performance of all or part of Engineer's services under this Agreement by Client or by another service provider. Following Engineer's receipt of such termination notice the Client shall, within ten (10) calendar days of Client's receipt of Engineer's final invoice, pay the Engineer for all services rendered and all costs incurred up to the date of Engineer's receipt of such notice of termination.

**VI. Ownership of Documents** - Upon Engineer's completion of services and receipt of payment in full, Engineer shall grant to Client a non-exclusive license to possess the final drawings and instruments produced in connection with Engineer's performance of the work under this Agreement, if any. Said drawings and instruments may be copied, duplicated, reproduced and used by Client for the purpose of constructing, operating and maintaining the improvements. Client agrees that such documents are not intended or represented to be suitable for reuse by Client or others for

purposes outside the Scope of Services of this Agreement. Notwithstanding the foregoing, Client understands and agrees that any and all computer programs, GIS applications, proprietary data or processes, and certain other items related to the services performable under this Agreement are and shall remain the sole and exclusive property of Engineer and may not be used or reused, in any form, by Client without the express written authorization of Engineer. Client agrees that any reuse by Client, or by those who obtain said information from or through Client, without written verification or adaptation by Engineer, will be at Client's sole risk and without liability or legal exposure to Engineer or to Engineer's employees, agents, representatives, officers, directors, affiliates, shareholders, owners, members, managers, attorneys, subsidiary entities, advisors, subconsultants or independent contractors or associates. Engineer may reuse all drawings, reports, data and other information developed in performing the services described by this Agreement in Engineer's other activities.

**VII. Notices.** Any notices to be given hereunder by either party to the other may be affected either by personal delivery, in writing, or by registered or certified mail.

**VII. Sole Parties and Entire Agreement.** This Agreement shall not create any rights or benefits to anyone except the Client and Engineer, and contains the entire agreement between the parties. Oral modifications to this Agreement shall have no force or effect.

**IX. Insurance.** Engineer shall, at its own expense, purchase, maintain and keep in force throughout the duration of this Agreement and for a period of four (4) years thereafter, professional liability insurance. The limits of liability shall be \$1,000,000 per claim and in the aggregate. Engineer shall submit to the Client a certificate of insurance prior to commencing any work for the Client.

**X. Prompt Performance by Engineer.** All services provided by Engineer hereunder shall be performed in accordance with the degree of care and skill ordinarily exercised under similar circumstances by competent members of the engineering profession in the State of Texas applicable to such engineering services contemplated by this Agreement.

**XI. Client Objection to Personnel.** If at any time after entering into this Agreement, the Client has any reasonable objection to any of Engineer's personnel, or any personnel, professionals and/or consultants retained by Engineer, Engineer shall promptly propose substitutes to whom the Client has no reasonable objection, and Engineer's compensation shall be equitably adjusted to reflect any difference in Engineer's costs occasioned by such substitution.

**XII. Assignment and Delegation.** Neither the Client nor Engineer may assign their rights or delegate their duties without the written consent of the other party. This Agreement is binding on the Client and Engineer to the fullest extent permitted by law. Nothing herein is to be construed as creating any personal liability on the part of any Client officer, employee or agent.

**XIII. Jurisdiction and Venue** - This Agreement shall be administered under the substantive laws of the State of **Texas** (and not its conflicts of law principles) which shall be used to govern all matters arising out of, or relating to, this Agreement and all of the transactions it contemplates, including without limitation, its validity, interpretation, construction, performance and enforcement. Exclusive venue shall lie in any court of competent jurisdiction in **Williamson County, Texas**.

**XIV. Integration, Merger and Severability** – This Agreement and the Scope of Services, including fee and schedule are fully incorporated herein and represent the entire understanding of Client and Engineer. No prior oral or written understanding shall be of any force or effect with respect to those matters covered herein. The Agreement may not be modified or altered except in writing signed by both Parties. This Agreement constitutes, represents and is intended by the Parties to be the complete and final statement and expression of all of the terms and arrangements between the Parties to this Agreement with respect to the matters provided for in this Agreement. This Agreement supersedes any and all prior or contemporaneous agreements, understandings, negotiations, and discussions between the Parties and all such matters are merged into this Agreement. Should any one or more of the provisions contained in this Agreement be determined by a court of competent jurisdiction or by legislative pronouncement to be void, invalid, illegal, or unenforceable in any respect, such voiding, invalidity, illegality, or unenforceability shall not affect any other provision hereof, and this Agreement shall be considered as if the entirety of such void, invalid, illegal, or unenforceable provision had never been contained in this Agreement.

**XV. Exclusivity of Remedies** – The Parties acknowledge and agree that the remedies set forth in this Agreement, including those set forth in Article XIX. Agreed Remedies are and shall remain the Parties' sole and exclusive remedy with respect to any claim arising from, or out of, or related to, the subject matter of this Agreement. The Parties agree that Engineer is to have no liability or responsibility whatsoever to Client for any claim(s) or loss(es) of any nature, except as set forth in this Agreement. No Party shall be able to avoid the limitations expressly set forth in this Agreement by electing to pursue some other remedy.

**XVI. Timeliness of Performance** - Engineer shall perform its professional services with due and reasonable diligence consistent with sound professional practices.

**XVII. Dispute Resolution.** In the event of any disagreement or conflict concerning the interpretation of this Agreement, and such disagreement cannot be resolved by the signatories hereto, the signatories agree to schedule a series of no less than two meetings of senior personnel of Client and Engineer in which the disagreement or conflict will be discussed. The first of such meetings will be scheduled as soon as possible following identification of such disagreement or conflict and the second meeting must occur within thirty (30) days following the initial meeting. Subsequent meetings, if any may be scheduled upon mutual agreement of the parties. The parties agree that these two meetings are conditions precedent to the institution of legal proceedings unless such meetings will adversely affect the rights of one or more of the parties as such rights relate to statutes of limitation or repose.

**XVIII. Signatories.** The Client and Engineer mutually warrant and represent that the representation of each who is executing this Agreement on behalf of the Client or Engineer, respectively, has full authority to execute this Agreement and bind the entity so represented.

**XIX. PROJECT ENHANCEMENT - IF DUE TO ANY ALLEGED OR ACTUAL BREACH OF CONTRACT, NEGLIGENCE, ERROR, OR DEFICIENCY IN THE SERVICES OF ENGINEER OR ANY OF ITS CONSULTANTS, ANY ITEM, COMPONENT, OR CONDITION OF THE SERVICES IS INACCURATE OR OMITTED FROM ANY OF THE DESIGN DOCUMENTS PRODUCED THROUGH ENGINEER'S SERVICES, ENGINEER'S AND ITS CONSULTANT'S LIABILITY, IF ANY, SHALL BE LIMITED TO THE DIFFERENCE BETWEEN: I) THE COST OF ADDING, CORRECTING OR REPLACING THE ITEM AT THE TIME THE ERROR IS DISCOVERED, AND II) THE COST HAD THE ITEM OR COMPONENT BEEN INCLUDED OR CORRECT IN THE DESIGN DOCUMENTS PROVIDED PRIOR TO THE TIME CONSTRUCTION BEGAN. HOWEVER, IF THE CORRECTION TO THE DESIGN PROVIDES ADDED VALUE, UPGRADE, OR ENHANCEMENT TO THE PROJECT OF CLIENT/OWNER, THE AMOUNT OF DAMAGES, IF ANY, SHALL BE ADJUSTED DOWN BASED ON SUCH ADDED VALUE, UPGRADE, OR ENHANCEMENT OF THE PROJECT. CLIENT/OWNER SHALL BE RESPONSIBLE FOR ANY COST OR EXPENSE ASSOCIATED WITH THE CORRECTION THAT PROVIDES ADDED VALUE, UPGRADE, OR ENHANCEMENT OF THE PROJECT. IN NO EVENT AND REGARDLESS OF THE LEGAL THEORY OR FACTUAL BASIS OF ANY CLAIM, SHALL ENGINEER'S OR ITS CONSULTANT'S LIABILITY INCLUDE ANY COST OR EXPENSE THAT PROVIDES ADDED VALUE, UPGRADE, OR ENHANCEMENT OF THE PROJECT. IN ADDITION, IF ANY SUCH ITEM, COMPONENT, OR CONDITION HAS AN IDENTIFIABLE USEFUL LIKE THAT IS LESS THAN THE BUILDING ITSELF, THE DAMAGES OF THE CLIENT/OWNER SHALL BE REDUCED TO THE EXTENT THAT THE USEFUL LIFE OF THE COMPONENT WILL BE EXTENDED BY THE REPLACEMENT THEREOF.**

**XX. AGREED REMEDIES**

**A. IT IS THE INTENT OF THE PARTIES TO THIS AGREEMENT THAT ENGINEER'S SERVICES UNDER THIS AGREEMENT SHALL NOT SUBJECT ENGINEER'S INDIVIDUAL EMPLOYEES, OFFICERS OR DIRECTORS TO ANY PERSONAL LEGAL EXPOSURE FOR CLAIMS AND RISKS ASSOCIATED WITH THE SERVICES PERFORMED OR PERFORMABLE UNDER THIS AGREEMENT. FOR PROJECTS/SERVICES PERFORMED IN FLORIDA OR PURSUANT TO FLORIDA LAW, FLORIDA STATUTE 558.0035 STATES THAT, AN INDIVIDUAL EMPLOYEE OR AGENT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.**

**B. IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS OF THE PROJECT TO BOTH THE CLIENT AND THE ENGINEER, AND ACKNOWLEDGING THAT THE ALLOCATION OF RISKS AND LIMITATIONS OF REMEDIES ARE BUSINESS UNDERSTANDINGS BETWEEN THE PARTIES AND THESE RISKS AND REMEDIES SHALL APPLY TO ALL POSSIBLE LEGAL THEORIES OF RECOVERY. CLIENT FURTHER AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, AND**

**NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS AGREEMENT OR ANY REFERENCE TO INSURANCE OR THE EXISTENCE OF APPLICABLE INSURANCE COVERAGE, THAT THE TOTAL LIABILITY, IN THE AGGREGATE, OF THE ENGINEER AND ENGINEER'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND SUBCONSULTANTS TO THE CLIENT OR TO ANYONE CLAIMING BY, THROUGH OR UNDER THE CLIENT, FOR ANY AND ALL CLAIMS, LOSSES, COSTS OR DAMAGES WHATSOEVER ARISING OUT OF, RESULTING FROM, OR IN ANY WAY RELATED TO, THE SERVICES UNDER THIS AGREEMENT FROM ANY CAUSE OR CAUSES OF THE ENGINEER OR THE ENGINEER'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND SUBCONSULTANTS, SHALL NOT EXCEED THE ENGINEER'S FEE FOR THE SERVICES PERFORMED UNDER THIS AGREEMENT OR \$50,000, WHICHEVER IS GREATER. INCREASED LIMITS MAY BE NEGOTIATED FOR ADDITIONAL FEE.**

**C. NOTWITHSTANDING ANY OTHER PROVISION OF THE AGREEMENT, ENGINEER SHALL HAVE NO LIABILITY TO THE CLIENT FOR CONTINGENT, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF USE, REVENUE OR PROFIT; OPERATING COSTS AND FACILITY DOWNTIME; OR OTHER SIMILAR BUSINESS INTERRUPTION LOSSES, HOWEVER, THE SAME MAY BE CAUSED.**

**D. CLIENT MAY NOT ASSERT ANY CLAIM AGAINST ENGINEER AFTER THE SHORTER OF (1) 3 YEARS FROM SUBSTANTIAL COMPLETION OF SERVICES GIVING RISE TO THE CLAIM, OR (2) THE STATUTE OF LIMITATION PROVIDED BY LAW.**

**E. IT IS UNDERSTOOD AND AGREED BY BOTH PARTIES TO THIS AGREEMENT THAT THE FIRST TEN DOLLARS (\$10.00) OF REMUNERATION PAID TO CONSULTANT UNDER THIS AGREEMENT SHALL BE IN CONSIDERATION FOR INDEMNITY/INDEMNIFICATION PROVIDED FOR IN THIS AGREEMENT.**

**XXI. WAIVER** - Any failure by Engineer to require strict compliance with any provision of this Agreement shall not be construed as a waiver of such provision, and Engineer may subsequently require strict compliance at any time, notwithstanding any prior failure to do so.

**IN WITNESS WHEREOF**, the parties, having read and understood this Agreement, have executed such in duplicate copies, each of which shall have full dignity and force as an original, on the \_\_\_\_ day of \_\_\_\_\_, 2019.

**HALFF ASSOCIATES, INC.**

**CLIENT: CITY OF TAYLOR, TEXAS**

By:

Signature

Dan Franz

Printed Name

Public Works Team Leader

Title

4/22/19

Date

By:

Signature

Brian LaBorde

Printed Name

City Manager

Title

Date



# 2019 Infrastructure Bond

Council Date: 6/13/2019

# Bond Summary

PRELIMINARY PROJECT BUDGETS

| PROJECT LIST                                                | District | SREETS (TUF)   |                   | DRAINAGE (MDUS) |                   | UTILITY        |                   | PROGRAM TOTALS  |                   | Total           |
|-------------------------------------------------------------|----------|----------------|-------------------|-----------------|-------------------|----------------|-------------------|-----------------|-------------------|-----------------|
|                                                             |          | Construction   | Design/CE&I (25%) | Construction    | Design/CE&I (25%) | Construction   | Design/CE&I (25%) | Construction    | Design/CE&I (25%) |                 |
| <b>STREETS (TUF)</b>                                        |          |                |                   |                 |                   |                |                   |                 |                   |                 |
| 3RD STREET* ( <i>Shaw to Davis</i> )                        | 2        | \$643,000.00   | \$160,750.00      | \$66,000.00     | \$16,500.00       | \$552,000.00   | \$138,000.00      | \$1,261,000.00  | \$315,250.00      | \$1,576,250.00  |
| CDBG Funding                                                |          | \$407,000.00   | \$83,000.00       | \$0.00          | \$0.00            | \$0.00         | \$0.00            | \$407,000.00    | \$83,000.00       | \$490,000.00    |
| 3rd Street Remaining Costs                                  |          | \$236,000.00   | \$77,750.00       | \$66,000.00     | \$16,500.00       | \$552,000.00   | \$138,000.00      | \$854,000.00    | \$232,250.00      | \$1,086,250.00  |
| N. LYNN STREET ( <i>W. Lake to Gilmore</i> )                | 4        | \$804,000.00   | \$201,000.00      | \$0.00          | \$0.00            | \$452,000.00   | \$113,000.00      | \$1,256,000.00  | \$314,000.00      | \$1,570,000.00  |
| W. LAKE DRIVE ( <i>Carlos Parker to Old Georgetowr</i> )    | 3        | \$539,000.00   | \$134,750.00      | \$140,000.00    | \$35,000.00       | \$112,000.00   | \$28,000.00       | \$791,000.00    | \$197,750.00      | \$988,750.00    |
| WABASH STREET ( <i>South Main to Beech</i> )                | 1        | \$762,000.00   | \$190,500.00      | \$53,000.00     | \$13,250.00       | \$432,000.00   | \$108,000.00      | \$1,247,000.00  | \$311,750.00      | \$1,558,750.00  |
| <b>DRAINAGE (MDUS)</b>                                      |          |                |                   |                 |                   |                |                   |                 |                   |                 |
| EDMONDS PHASE 2 ( <i>6th St. to Cecelia</i> )               | 2        | \$408,764.53   | \$102,191.13      | \$531,035.47    | \$132,758.87      | \$333,100.00   | \$83,275.00       | \$1,272,900.00  | \$318,225.00      | \$1,591,125.00  |
| EDMONDS PHASE 3 ( <i>Cecelia to Mclain</i> )                | 2        | \$497,364.53   | \$124,341.13      | \$520,235.47    | \$130,058.87      | \$283,400.00   | \$70,850.00       | \$1,301,000.00  | \$325,250.00      | \$1,626,250.00  |
| 1ST/ROYAL/WALNUT**                                          | 1        |                |                   | \$386,880.00    | \$71,720.00       |                |                   | \$386,880.00    | \$71,720.00       | \$458,600.00    |
| MCLAIN                                                      | 1        |                |                   | \$196,000.00    | \$49,000.00       |                |                   | \$196,000.00    | \$49,000.00       | \$245,000.00    |
| <b>UTILITIES</b>                                            |          |                |                   |                 |                   |                |                   |                 |                   |                 |
| Wastewater Treatment Plant - Replace Influent Pumps & Valve |          |                |                   |                 |                   | \$1,180,000.00 |                   | \$1,180,000.00  | \$0.00            | \$1,180,000.00  |
| Water & Wastewater Trouble Areas and Point Repairs          |          |                |                   |                 |                   | \$550,000.00   |                   | \$550,000.00    | \$0.00            | \$550,000.00    |
| Wastewater Lift Station Portable Generator                  |          |                |                   |                 |                   | \$100,000.00   |                   | \$100,000.00    |                   | \$100,000.00    |
| SUBTOTALS                                                   |          | \$3,247,129.06 | \$830,532.27      | \$1,893,150.94  | \$448,287.74      | \$3,994,500.00 | \$541,125.00      | \$9,134,780.00  | \$1,819,945.00    | \$10,954,725.00 |
| DISCIPLINE TOTALS                                           |          | \$4,077,661.33 |                   | \$2,341,438.68  |                   | \$4,535,625.00 |                   | \$10,954,725.00 |                   | \$10,954,725.00 |
| BOND BUDGET                                                 |          | \$4,120,000.00 |                   | \$2,300,000.00  |                   | \$4,650,000.00 |                   |                 |                   | \$11,070,000.00 |
| BOND BUDGET REMAINING                                       |          | \$42,338.67    |                   | -\$41,438.67    |                   | \$114,375.00   |                   |                 |                   | \$115,275.00    |

\*Uses CDBG Funding for Street Construction

\*\*Includes \$100,000 of property acquisition

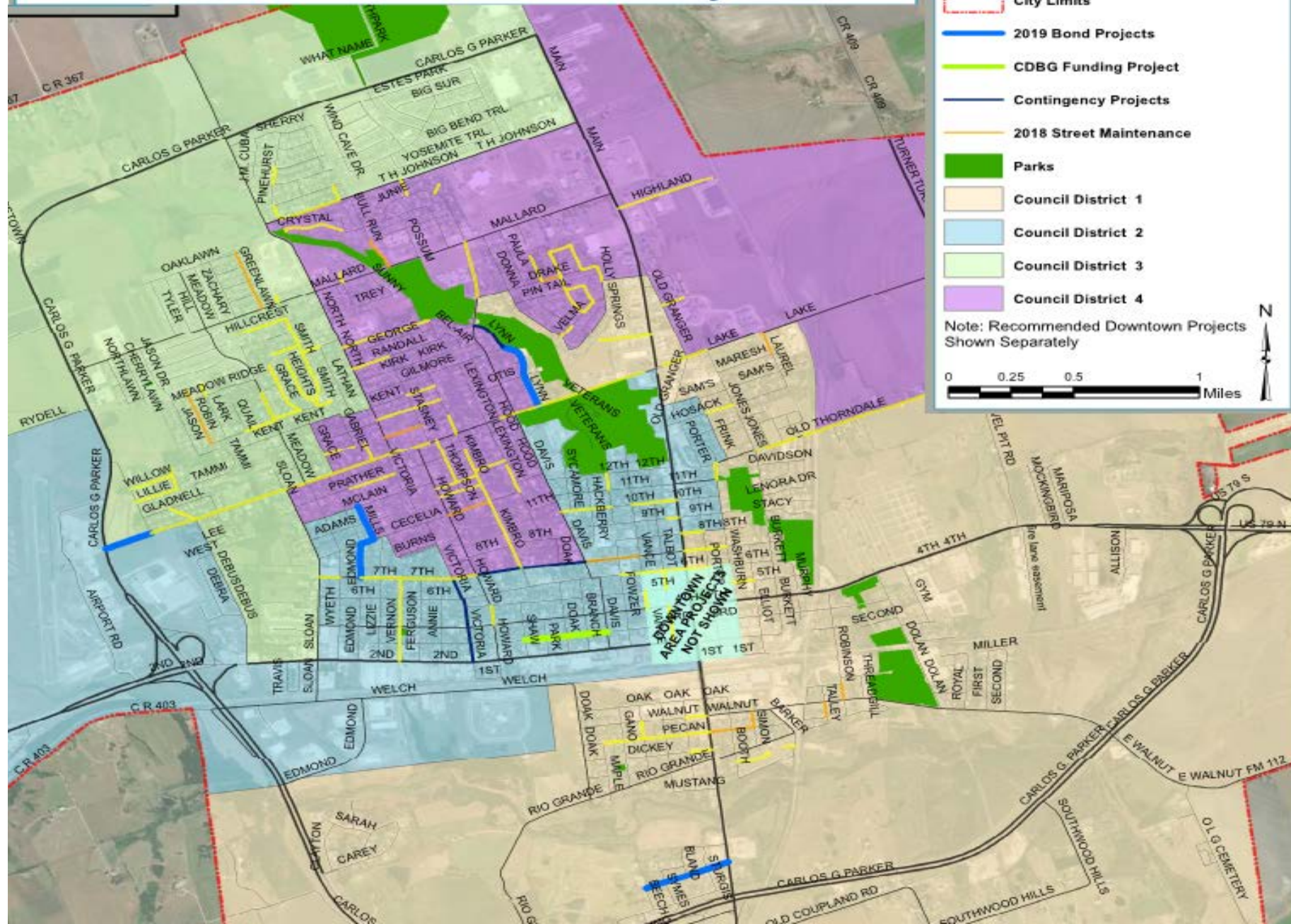


# Street and Drainage Projects



# City of Taylor

## Potential Reconstruction Projects





# Preliminary Reconstruction Exhibits

EDMOND PH2 - \$1,591,400

EDMOND PH3 - \$1,871,300



# Preliminary Reconstruction Exhibits

LYNN STREET - \$1,570,000



W LAKE DR - \$988,750





# Preliminary Reconstruction Exhibits

WABASH STREET - \$1,558,750



3<sup>RD</sup> STREET - \$1,576,250



# Next Steps

- Survey/Geotech/Utility Coordination – 2 Months
  - Engineering/Design/Plan Set – 8 Months
  - Bid Phase – 2 Months
  - Construction Sequencing will be determined during Design Phase
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## ***City Council Meeting*** ***June 13, 2019*** ***Transmittal Letter***

### STRATEGIC PILLAR

☒ Streets/Infrastructure

☐ Quality of Life

☐ Economic Vitality

**Agenda Item #:** 8

**Agenda Title:** **Consideration and Possible Action on  
2019 Street Maintenance Program (Jim Gray/ Jacob  
Walker)**

**Council Action to be taken:** Consideration and Possible Action on (1) approval of Interlocal Agreement and authorization of the City Manager to enter into an Interlocal Agreement with Williamson County, (2) authorization of the City Manager to enter into contract with DIJ Construction for striping services, and (3) approval of 2019 Street Maintenance mill & overlay selected streets and to solicit bids from contractors to perform the work.

**Department Submitted:** Public Works

**Staff Contact:** Jim Gray, Director of Public Works  
Jacob Walker, HDR Engineering, Inc.

### **1. PURPOSE/DESCRIPTION**

This item is related to the annual maintenance program for identified city streets.

### **2. STAFF ANALYSIS (How and Why)**

The purpose of the 2019 Street Maintenance Program is to prevent street conditions from deteriorating, thus preventing the need for expensive repairs or full reconstruction. Streets have been identified for maintenance using visual inspection and prioritization based on distress as well as maintenance need. All identified streets were classified either by having structural failures or functional failures. Maintenance is not to be performed on streets with structural failures unless said failures are localized, where repair of the failure would prevent further deterioration of the street. Maintenance includes crack sealing, seal coats, mill, and overlay of identified streets. Crack sealing will be performed “in house” by the City of Taylor Public Works staff using a separate budget.

This year, the City has the opportunity to partner with Williamson County for a cost effective seal coat of CR 368, CR 369, and Cottonrows Lane within the City limits. The mechanism for the partnership will be through an Interlocal Agreement that has been reviewed and accepted by the City Attorney. Williamson County will contract out the work

as part of their maintenance program and the City will reimburse the county. The increase in project quantities will benefit both parties through economy of scale. The estimated reimbursement is \$60,000 and the maximum reimbursement set forth in the Interlocal Agreement is \$80,000. Since restriping will not be covered by the Agreement, the City will need to contract directly for striping. Williamson County uses DIJ Construction for striping, who will honor the same unit prices they charge the County. The estimated striping cost is \$18,000. Both the reimbursement and the striping will come from this year's street maintenance budget. For the purposes of estimation, a \$10,000 contingency is included (estimated reimbursement will be \$70,000).

The City will contract out mill and overlay in addition to the county partnership. The 2019 Street Maintenance bid documents are ready to solicit bids. Striping of stop bars is included in the Mill & Overlay contract. However, small quantity and mobilization for a striping subcontractor means prices are likely to be high. The City may opt to stripe stop bars with City crews as a cost savings measure, which allows for additional asphalt quantity.

See table below for the 2019 Street Maintenance Program budget, allocation between Council Districts, and selected streets list. This year's program is estimated to maintain 10 streets for a total of 2.83 miles of streets. The parking on Sunny (Rank 38), Grace (Rank 25), Crystal (Rank 27), and continuation of Holly Springs (Rank 41) will be the contingency projects, to be completed if funds allow.

#### **2019 Street Maintenance Program Budget**

|                                  |           |
|----------------------------------|-----------|
| Budget:                          | \$450,000 |
| Withheld for City Maintenance:   | \$50,000  |
| Williamson County Seal Coat:     | \$88,000  |
| Mill & Overlay Contract:         | \$274,000 |
| Engineering & Materials Testing: | \$38,000  |

#### **Estimated Council District Allocations**

| <b>District</b> | <b>Estimated Allocation</b> | <b>Length</b> | <b>Type</b>    |
|-----------------|-----------------------------|---------------|----------------|
| 1               | \$75,500                    | 2,025'        | Mill & Overlay |
| 2               | \$88,000                    | 8,653'        | Seal Coat      |
| 3               | \$91,700                    | 2,385'        | Mill & Overlay |
| 4               | \$81,200                    | 1,853'        | Mill & Overlay |

## 2019 Street Maintenance List

|  |                                                                                                                    |
|--|--------------------------------------------------------------------------------------------------------------------|
|  | Completed in 2018                                                                                                  |
|  | Recommended for 2019                                                                                               |
|  | Recommend Separate Package Due to Curb Costs                                                                       |
|  | Removed From List (5th is downtown, Meadow cracks are widening, Debra & Thomas in good condition, McClure failing) |
|  | Street in Good Condition, Delay Maintenance Until Needed                                                           |

| Rank | Street Name   | From          | To         | Length | Width | District | PCI | Total Cost    | Cost/SY  |
|------|---------------|---------------|------------|--------|-------|----------|-----|---------------|----------|
| 1    | Cecelia       | Thompson      | Howard     | 355    | 21    | 4        | 100 | \$ 9,303.66   | \$ 11.24 |
| 1    | Cecelia       | Kimbro        | Thompson   | 338    | 21    | 4        | 100 | \$ 8,865.44   | \$ 11.24 |
| 2    | Simon         | MLK           | Pecan      | 292    | 30    | 1        | 100 | \$ 10,826.85  | \$ 11.13 |
| 3    | Robinson      | Frank         | MLK        | 319    | 30    | 1        | 100 | \$ 11,827.96  | \$ 11.13 |
| 4    | 7th           | Fowzer        | Davis      | 540    | 40    | 2        | 100 | \$ 56,081.60  | \$ 23.37 |
| 4    | 7th           | Vance         | Fowzer     | 360    | 40    | 2        | 100 | \$ 37,387.74  | \$ 23.37 |
| 5    | Grace St      | Cul-De-Sac    | Blackland  | 306    | 30    | 3        | 100 | \$ 14,989.23  | \$ 11.24 |
| 6    | Robin         | Hidden Meadow | Boyer Dr.  | 1085   | 27    | 3        | 100 | \$ 35,899.99  | \$ 11.24 |
| 7    | Drake         | Holly         | Mildred    | 320    | 27    | 4        | 100 | \$ 10,651.75  | \$ 11.10 |
| 8    | Pecan         | Booth         | Main       | 318    | 30    | 1        | 100 | \$ 11,790.88  | \$ 11.12 |
| 8    | Pecan         | Simon         | Booth      | 367    | 30    | 1        | 100 | \$ 13,607.71  | \$ 11.13 |
| 9    | Fisher        | Stasny        | North      | 611    | 27    | 4        | 100 | \$ 20,202.87  | \$ 11.23 |
| 10   | Greenlawn     | Mallard       | Oaklawn    | 1147   | 27    | 3        | 100 | \$ 47,439.30  | \$ 13.79 |
| 11   | Laurel        | Lake          | Maresh     | 461    | 22    | 1        | 100 | \$ 12,504.71  | \$ 11.10 |
| 12   | Bull Run      | Mallard       | Cottonbowl | 500    | 27    | 4        | 100 | \$ 16,773.90  | \$ 11.18 |
| 13   | Talley        | MLK           | Pecan      | 296    | 30    | 1        | 100 | \$ 10,975.16  | \$ 11.12 |
| 14   | Holly Springs | Dahlberg      | 200' South | 200    | 27    | 1 & 4    | 100 | \$ 6,657.34   | \$ 11.10 |
| 15   | Brookwood     | Davis         | Cul-De-Sac | 340    | 26    | 1        | 58  | \$ 46,400.00  | \$ 32.91 |
| 16   | Jason         | Boyer Dr.     | Kent       | 1249   | 26    | 3        | 71  | \$ 49,800.00  | \$ 12.67 |
| 17   | Possum        | Cottonbowl    | Mallard    | 597    | 26    | 4        | 53  | \$ 44,600.00  | \$ 25.86 |
| 18   | 5th           | Talbot        | Vance      | 350    | 46    | 2        | 55  | \$ 22,700.00  | \$ 12.69 |
| 19   | 7th           | Talbot        | Vance      | 350    | 36    | 2        | 46  | \$ 117,000.00 | \$ 83.57 |
| 20   | 7th           | Main          | Talbot     | 370    | 36    | 2        | 48  | \$ 123,800.00 | \$ 83.65 |
| 21   | Rick          | Doak          | Maple      | 332    | 21    | 1        | 41  | \$ 9,900.00   | \$ 12.77 |
| 22   | Kimbro        | Lake          | Speegle    | 357    | 21    | 4        | 58  | \$ 59,500.00  | \$ 71.43 |
| 23   | Meadow Ln.    | Mallard       | Muscovy    | 1185   | 51    | 3        | 90  | \$ 84,900.00  | \$ 12.64 |
| 24   | Cotton Rows   | CR 368        | Cul-De-Sac | 1118   | 21    | 2        | 58  | \$ 87,391.31  | \$ 4.33  |
|      | CR 368        | CR 101        | 5185       | 5185   | 21    | 2        | 57  |               |          |
|      | CR 369        | CR 101        | 2350       | 2350   | 21    | 2        | 57  |               |          |
| 25   | Grace Ln      | Old Granger   | Cul-De-Sac | 366    | 36    | 4        | 67  | \$ 21,800.00  | \$ 14.87 |
| 24   | Dahlberg      | Holly Springs | Main       | 635    | 36    | 1 & 4    | 73  | \$ 32,200.00  | \$ 12.68 |



|    |               |            |            |      |    |       |    |              |          |
|----|---------------|------------|------------|------|----|-------|----|--------------|----------|
| 25 | Talbot        | 6th        | 7th        | 334  | 21 | 2     | 70 | \$ 10,000.00 | \$ 12.84 |
| 26 | Woodlawn      | Mallard    | Oaklawn    | 1136 | 26 | 3     | 72 | \$ 41,900.00 | \$ 12.67 |
| 27 | Crystal       | Cottonbowl | Mallard    | 604  | 26 | 4     | 56 | \$ 22,100.00 | \$ 12.67 |
| 28 | Debra         | West       | Thomas     | 1161 | 31 | 2     | 75 | \$ 50,600.00 | \$ 12.65 |
| 29 | Talbot        | 7th        | 8th        | 330  | 21 | 2     | 75 | \$ 9,800.00  | \$ 12.73 |
| 30 | McClure       | Hood       | Davis      | 246  | 21 | 4     | 58 | \$ 7,400.00  | \$ 12.89 |
| 31 | Davis         | 3rd        | 2nd        | 358  | 21 | 2     | 79 | \$ 10,600.00 | \$ 12.69 |
| 31 | Davis         | 5th        | 4th        | 354  | 21 | 2     | 80 | \$ 10,600.00 | \$ 12.83 |
| 31 | Davis         | 6th        | 5th        | 350  | 21 | 2     | 84 | \$ 10,400.00 | \$ 12.73 |
| 31 | Davis         | 4th        | 3rd        | 350  | 21 | 2     | 84 | \$ 10,400.00 | \$ 12.73 |
| 32 | Drake         | Mildred    | Cherrywood | 360  | 27 | 4     | 58 | \$ 13,500.00 | \$ 12.74 |
| 33 | Cedarlawn     | Greenlawn  | Woodlawn   | 457  | 26 | 3     | 72 | \$ 16,700.00 | \$ 12.65 |
| 34 | Fisher        | Kimbrow    | Stassney   | 452  | 27 | 4     | 58 | \$ 24,400.00 | \$ 18.07 |
| 35 | Thomas        | Debra      | Debus      | 311  | 31 | 2     | 79 | \$ 13,700.00 | \$ 12.79 |
| 36 | Tammi         | Gladnell   | Kent       | 1387 | 26 | 3     | 73 | \$ 55,900.00 | \$ 12.65 |
| 37 | Thomas        | Debra      | Cul-De-Sac | 568  | 31 | 2     | 80 | \$ 24,800.00 | \$ 12.68 |
| 38 | Sunny         | Cul-De-Sac | Mallard    | 583  | 26 | 4     | 59 | \$ 26,100.00 | \$ 15.60 |
|    | Sunny         | Parking    | Cul-De-Sac |      |    | 4     | 59 | \$ 21,200.00 | \$ 21.97 |
| 39 | Paula         | Mallard    | Drake      | 1137 | 26 | 4     | 59 | \$ 41,700.00 | \$ 12.69 |
| 40 | James         | Thompson   | Kimbrow    | 354  | 21 | 4     | 60 | \$ 12,100.00 | \$ 14.65 |
| 41 | Holly Springs | Cherrywood | Dahlberg   | 458  | 27 | 4     | 62 | \$ 17,200.00 | \$ 12.74 |
|    | Holly Springs | 200' South | Culvert    | 310  | 27 | 1 & 4 | 72 | \$ 13,400.00 | \$ 14.68 |
| 42 | Crystal Cove  | Cul-De-Sac | Crystal    | 292  | 26 | 4     | 65 | \$ 10,800.00 | \$ 12.80 |
| 43 | Thompson      | Speegle    | Alexander  | 520  | 18 | 4     | 68 | \$ 13,200.00 | \$ 12.69 |
| 44 | Stasny        | Kent       | Wallace    | 273  | 21 | 4     | 73 | \$ 8,200.00  | \$ 12.87 |
| 45 | Stasny        | Randall    | Kirk       | 266  | 21 | 4     | 73 | \$ 8,000.00  | \$ 12.88 |
| 46 | Cottonbowl    | Possum     | Crystal    | 511  | 26 | 4     | 73 | \$ 46,600.00 | \$ 31.57 |
| 47 | Cottonbowl    | Crystal    | Davis      | 289  | 26 | 4     | 73 | \$ 10,600.00 | \$ 12.69 |
| 48 | Stasny        | Fisher     | Lake       | 350  | 21 | 4     | 75 | \$ 10,400.00 | \$ 12.73 |
|    | Dickey        | Sturgis    | Main       | 348  | 26 | 1     | 62 | \$ 12,800.00 | \$ 12.79 |
|    | Dickey        | Bland      | Sturgis    | 359  | 26 | 1     | 48 | \$ 13,700.00 | \$ 13.31 |
|    | Dickey        | Symes      | Bland      | 352  | 26 | 1     | 45 | \$ 13,400.00 | \$ 13.18 |
|    | Dickey        | Gano       | Symes      | 329  | 26 | 1     | 46 | \$ 12,100.00 | \$ 12.72 |
|    | Dickey        | Maple      | Gano       | 331  | 26 | 1     | 46 | \$ 12,100.00 | \$ 12.64 |
|    | Dickey        | Doak       | Maple      | 306  | 26 | 1     | 45 | \$ 11,400.00 | \$ 12.74 |
|    | Crystal       | Cristal CV | Bull Run   | 369  | 26 | 4     | 56 | \$ 13,700.00 | \$ 12.84 |
|    | MLK           | Sturgis    | Main       | 361  | 26 | 1     | 66 | \$ 42,100.00 | \$ 40.36 |
|    | Stasney       | Wallace    | Fisher     | 355  | 21 | 4     | 71 | \$ 12,500.00 | \$ 15.08 |
|    | Cypress Cove  | Woodlawn   | Greenlawn  | 459  | 26 | 3     | 73 | \$ 16,900.00 | \$ 12.75 |
|    | Maplelawn     | Woodlawn   | Greenlawn  | 458  | 26 | 3     | 73 | \$ 16,900.00 | \$ 12.78 |



### **3. RECOMMENDATION**

Recommend (1) approval of Interlocal Agreement and authorization of the City Manager to enter into an Interlocal Agreement with Williamson County, (2) authorization of the City Manager to enter into contract with DIJ Construction for striping services, and (3) approval of 2019 Street Maintenance mill & overlay selected streets and proceed to solicit bids from contractors to perform the work.

### **4. FUNDING SOURCE**

Funding for the Street Maintenance Program is through the TUF Fund. The TUF generates approximately \$770,000.00 per year. The total funds for this year's Street Maintenance Program will be \$400,000.00 for Seal Coat/Mill & Overlay and \$50,000.00 to the Public Works Department Street Crew.

### **5. TIMELINE**

Williamson County has bid the seal coat work. Anticipated completion by August. For the mill & overlay contract, estimated 45 days to bid and award the work. Estimated 45 days for completion.

### **6. PRIOR COUNCIL ACTIONS TAKEN**

N/A

### **7. OTHER OPTIONS (In order of preference)**

1. Adjust selected streets for maintenance
2. Edit or Reject ILA with Williamson County
3. Delay bid advertisement for 2019 Street Maintenance Project for reevaluation

### **8. ATTACHMENTS**

- 8a – [2019 Street Maintenance Program presentation](#)  
8b – [Williamson County and City of Taylor Interlocal Agreement](#)  
8c – [Exhibit A for ILA with City](#)



# 2019 Street Maintenance Program

Council Date: 6/13/2019

# Topics

- Program Overview
  - Partnership with Williamson County
  - 2019 Selected Streets
  - 2019 Program Budget
  - Summary
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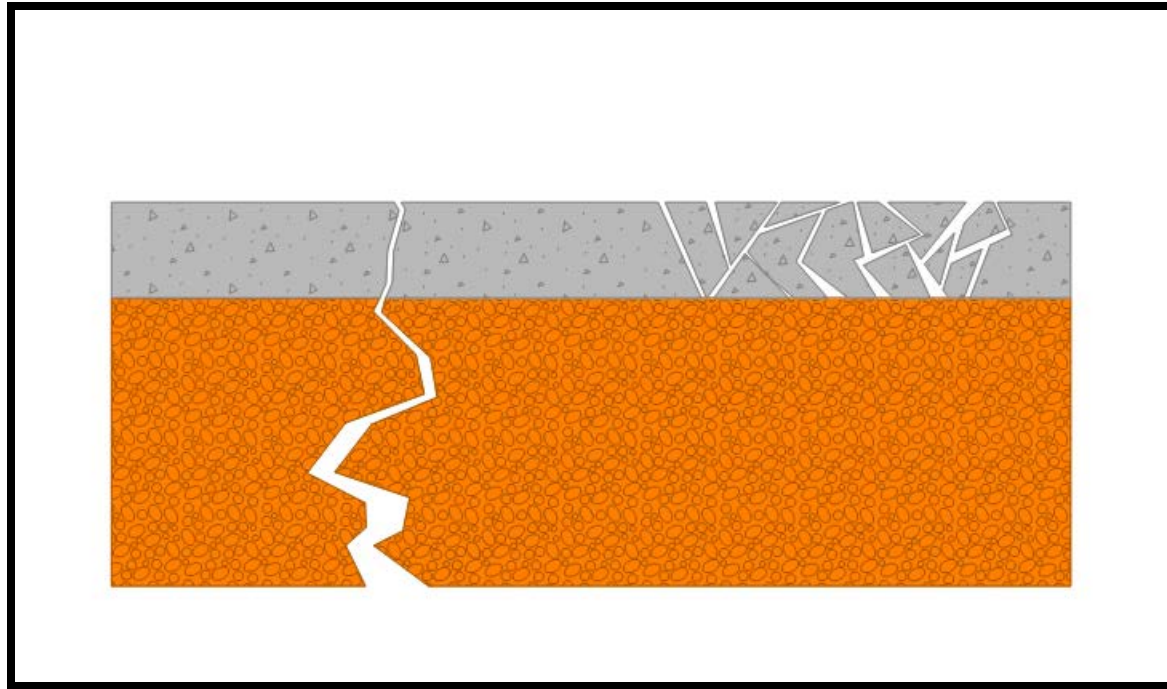


# Program Overview

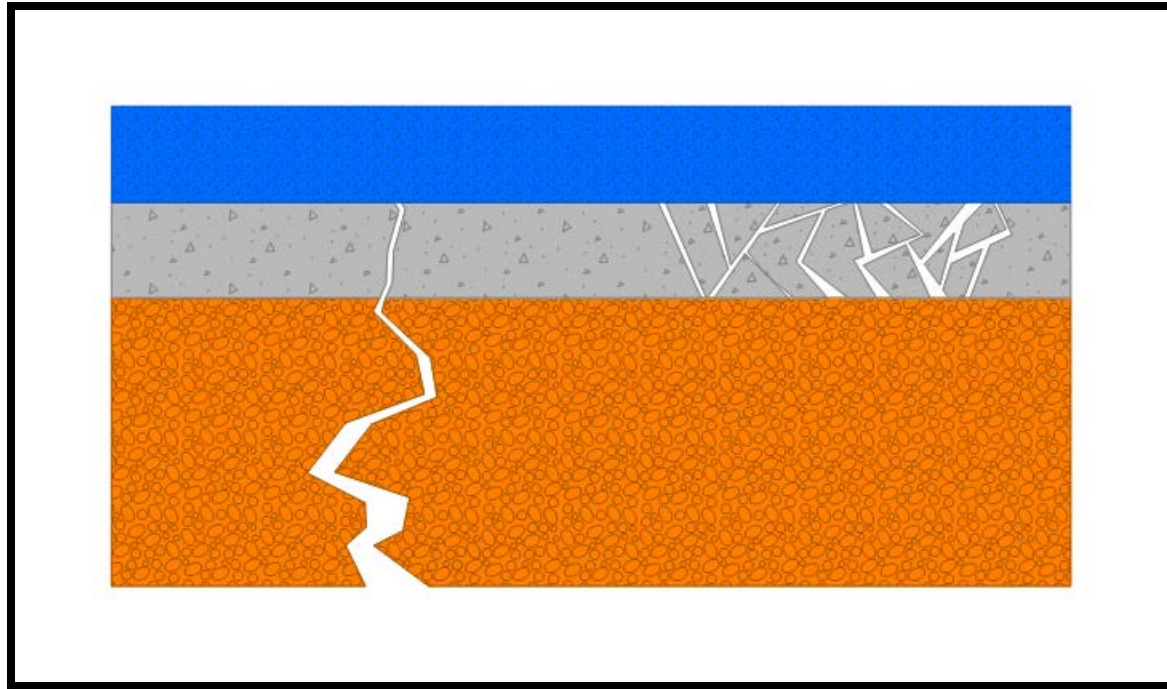
# Program Purpose:

- Extend the life of existing pavement with surface treatments in order to prevent costly full depth repairs.
- Program addresses functional failures only.
- Program only repairs isolated structural failures (isolated bump or dip).
- The program does not:
  - Flatten out frequent bumps and dips.
  - Repair curb
  - Repair base or subgrade

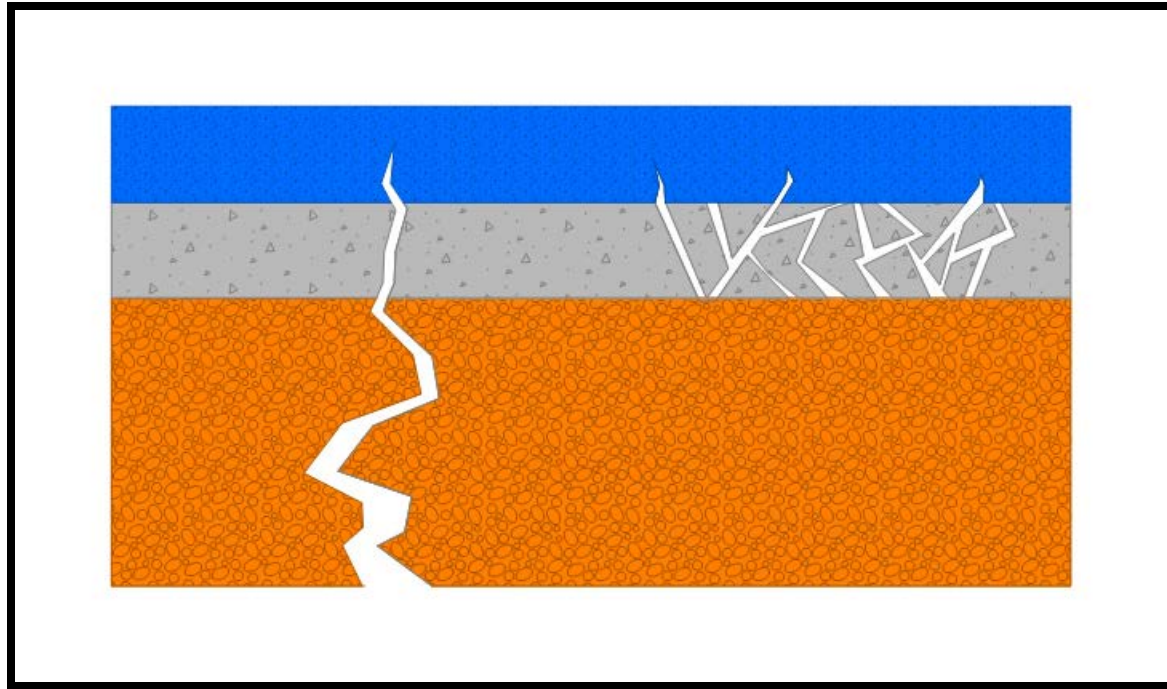
# What's the difference between a Functional and Structural failure and why does it matter?



# What's the difference between a Functional and Structural failure and why does it matter?

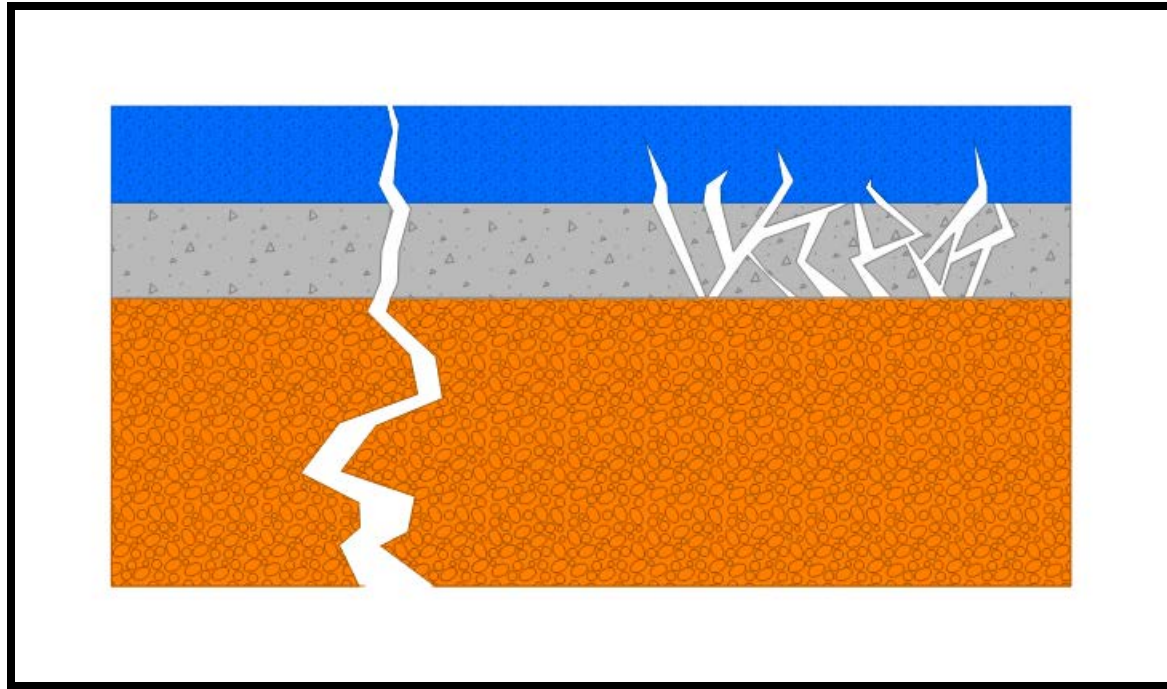


# What's the difference between a Functional and Structural failure and why does it matter?





# What's the difference between a Functional and Structural failure and why does it matter?



## 2015 Surface Treatment on Functional Failure



## 2015 Surface Treatment on Structural Failure





# Crack Seal

- Liquid asphalt injected into cracks.
- Prevents water infiltration & limits spreading
- To be done by the City of Taylor Public Works Department staff
- Separate Budget
- Monitor to detect structural failure



# Mill & Overlay

- Old asphalt with extensive wear and cracking will be milled out and replaced
- Millings will be stockpiled for use by the City
- Proposed on streets with high probability of seeing full 10-15 year life





# Patching

- Repair isolated bumps, pot holes, depressions, etc. with asphalt
- Only used for small percent of street area, otherwise not cost effective
- Not recommended if curb needs to be replaced (due to small quantity cost)





# Partnership with Williamson County

# Seal Coat (Chip Seal)

- In 2019, Williamson County will seal coat CR 368 & CR 369
- The City owns a portion of both roads
- The City will reimburse the county for extending their limits onto the City sections
- The City will self-perform the prep work for the streets before the Contractor is on-site.
- Larger quantities means better pricing for both parties





# 2019 Selected Streets



# 2019 Street Maintenance Program



Seal Coat by Williamson County

## Legend

- No Proposed Work
- 2019 Street Reconstruction
- 2018 Street Maintenance
- 2019 Street Maintenance
- Council District 1
- Council District 2
- Council District 3
- Council District 4

# 2019 Street Maintenance List

|      |               | Completed in 2018                                                                                                  |            |        |       |          |     |               |          |
|------|---------------|--------------------------------------------------------------------------------------------------------------------|------------|--------|-------|----------|-----|---------------|----------|
|      |               | Recommended for 2019                                                                                               |            |        |       |          |     |               |          |
|      |               | Recommend Separate Package Due to Curb Costs                                                                       |            |        |       |          |     |               |          |
|      |               | Removed From List (5th is downtown, Meadow cracks are widening, Debra & Thomas in good condition, Mcclure failing) |            |        |       |          |     |               |          |
|      |               | Street in Good Condition, Delay Maintenance Until Needed                                                           |            |        |       |          |     |               |          |
| Rank | Street Name   | From                                                                                                               | To         | Length | Width | District | PCI | Total Cost    | Cost/SY  |
| 1    | Cecelia       | Thompson                                                                                                           | Howard     | 355    | 21    | 4        | 100 | \$ 9,303.66   | \$ 11.24 |
| 1    | Cecelia       | Kimbrow                                                                                                            | Thompson   | 338    | 21    | 4        | 100 | \$ 8,865.44   | \$ 11.24 |
| 2    | Simon         | MLK                                                                                                                | Pecan      | 292    | 30    | 1        | 100 | \$ 10,826.85  | \$ 11.13 |
| 3    | Robinson      | Frank                                                                                                              | MLK        | 319    | 30    | 1        | 100 | \$ 11,827.96  | \$ 11.13 |
| 4    | 7th           | Fowzer                                                                                                             | Davis      | 540    | 40    | 2        | 100 | \$ 56,081.60  | \$ 23.37 |
| 4    | 7th           | Vance                                                                                                              | Fowzer     | 360    | 40    | 2        | 100 | \$ 37,387.74  | \$ 23.37 |
| 5    | Grace St      | Cul-De-Sac                                                                                                         | Blackland  | 306    | 30    | 3        | 100 | \$ 14,989.23  | \$ 11.24 |
| 6    | Robin         | Hidden Meadow                                                                                                      | Boyer Dr.  | 1085   | 27    | 3        | 100 | \$ 35,899.99  | \$ 11.24 |
| 7    | Drake         | Holly                                                                                                              | Mildred    | 320    | 27    | 4        | 100 | \$ 10,651.75  | \$ 11.10 |
| 8    | Pecan         | Booth                                                                                                              | Main       | 318    | 30    | 1        | 100 | \$ 11,790.88  | \$ 11.12 |
| 8    | Pecan         | Simon                                                                                                              | Booth      | 367    | 30    | 1        | 100 | \$ 13,607.71  | \$ 11.13 |
| 9    | Fisher        | Stasny                                                                                                             | North      | 611    | 27    | 4        | 100 | \$ 20,202.87  | \$ 11.23 |
| 10   | Greenlawn     | Mallard                                                                                                            | Oaklawn    | 1147   | 27    | 3        | 100 | \$ 47,439.30  | \$ 13.79 |
| 11   | Laurel        | Lake                                                                                                               | Maresh     | 461    | 22    | 1        | 100 | \$ 12,504.71  | \$ 11.10 |
| 12   | Bull Run      | Mallard                                                                                                            | Cottonbowl | 500    | 27    | 4        | 100 | \$ 16,773.90  | \$ 11.18 |
| 13   | Talley        | MLK                                                                                                                | Pecan      | 296    | 30    | 1        | 100 | \$ 10,975.16  | \$ 11.12 |
| 14   | Holly Springs | Dahlberg                                                                                                           | 200' South | 200    | 27    | 1 & 4    | 100 | \$ 6,657.34   | \$ 11.10 |
| 15   | Brookwood     | Davis                                                                                                              | Cul-De-Sac | 340    | 26    | 1        | 58  | \$ 46,400.00  | \$ 32.91 |
| 16   | Jason         | Boyer Dr.                                                                                                          | Kent       | 1249   | 26    | 3        | 71  | \$ 49,800.00  | \$ 12.67 |
| 17   | Possum        | Cottonbowl                                                                                                         | Mallard    | 597    | 26    | 4        | 53  | \$ 44,600.00  | \$ 25.86 |
| 18   | 5th           | Talbot                                                                                                             | Vance      | 350    | 46    | 2        | 55  | \$ 22,700.00  | \$ 12.69 |
| 19   | 7th           | Talbot                                                                                                             | Vance      | 350    | 36    | 2        | 46  | \$ 117,000.00 | \$ 83.57 |
| 19   | 7th           | Main                                                                                                               | Talbot     | 370    | 36    | 2        | 48  | \$ 123,800.00 | \$ 83.65 |
| 20   | Rick          | Doak                                                                                                               | Maple      | 332    | 21    | 1        | 41  | \$ 9,900.00   | \$ 12.77 |
| 21   | Kimbrow       | Lake                                                                                                               | Speegle    | 357    | 21    | 4        | 58  | \$ 59,500.00  | \$ 71.43 |
| 22   | Meadow Ln.    | Mallard                                                                                                            | Muscovy    | 1185   | 51    | 3        | 90  | \$ 84,900.00  | \$ 12.64 |
| 23   | Cotton Rows   | CR 368                                                                                                             | Cul-De-Sac | 1118   | 21    | 2        | 58  | \$ 87,391.31  | \$ 4.33  |
|      | CR 368        | CR 101                                                                                                             | 5185       | 5185   | 21    | 2        | 57  |               |          |
|      | CR 369        | CR 101                                                                                                             | 2350       | 2350   | 21    | 2        | 57  |               |          |
| 24   | Grace Ln      | Old Granger                                                                                                        | Cul-De-Sac | 366    | 36    | 4        | 67  | \$ 21,800.00  | \$ 14.87 |



# 2019 Street Maintenance List

|      |               | Completed in 2018                                                                                                  |            |        |       |          |     |              |          |
|------|---------------|--------------------------------------------------------------------------------------------------------------------|------------|--------|-------|----------|-----|--------------|----------|
|      |               | Recommended for 2019                                                                                               |            |        |       |          |     |              |          |
|      |               | Recommend Separate Package Due to Curb Costs                                                                       |            |        |       |          |     |              |          |
|      |               | Removed From List (5th is downtown, Meadow cracks are widening, Debra & Thomas in good condition, McClure failing) |            |        |       |          |     |              |          |
|      |               | Street in Good Condition, Delay Maintenance Until Needed                                                           |            |        |       |          |     |              |          |
| Rank | Street Name   | From                                                                                                               | To         | Length | Width | District | PCI | Total Cost   | Cost/SY  |
| 25   | Dahlberg      | Holly Springs                                                                                                      | Main       | 635    | 36    | 1 & 4    | 73  | \$ 32,200.00 | \$ 12.68 |
| 26   | Talbot        | 6th                                                                                                                | 7th        | 334    | 21    | 2        | 70  | \$ 10,000.00 | \$ 12.84 |
| 27   | Woodlawn      | Mallard                                                                                                            | Oaklawn    | 1136   | 26    | 3        | 72  | \$ 41,900.00 | \$ 12.67 |
| 28   | Crystal       | Cottonbowl                                                                                                         | Mallard    | 604    | 26    | 4        | 56  | \$ 22,100.00 | \$ 12.67 |
| 29   | Debra         | West                                                                                                               | Thomas     | 1161   | 31    | 2        | 75  | \$ 50,600.00 | \$ 12.65 |
| 30   | Talbot        | 7th                                                                                                                | 8th        | 330    | 21    | 2        | 75  | \$ 9,800.00  | \$ 12.73 |
| 31   | McClure       | Hood                                                                                                               | Davis      | 246    | 21    | 4        | 58  | \$ 7,400.00  | \$ 12.89 |
| 32   | Davis         | 3rd                                                                                                                | 2nd        | 358    | 21    | 2        | 79  | \$ 10,600.00 | \$ 12.69 |
| 32   | Davis         | 5th                                                                                                                | 4th        | 354    | 21    | 2        | 80  | \$ 10,600.00 | \$ 12.83 |
| 32   | Davis         | 6th                                                                                                                | 5th        | 350    | 21    | 2        | 84  | \$ 10,400.00 | \$ 12.73 |
| 32   | Davis         | 4th                                                                                                                | 3rd        | 350    | 21    | 2        | 84  | \$ 10,400.00 | \$ 12.73 |
| 33   | Drake         | Mildred                                                                                                            | Cherrywood | 360    | 27    | 4        | 58  | \$ 13,500.00 | \$ 12.74 |
| 34   | Cedarlawn     | Greenlawn                                                                                                          | Woodlawn   | 457    | 26    | 3        | 72  | \$ 16,700.00 | \$ 12.65 |
| 35   | Fisher        | Kimbrow                                                                                                            | Stassney   | 452    | 27    | 4        | 58  | \$ 24,400.00 | \$ 18.07 |
| 36   | Thomas        | Debra                                                                                                              | Debus      | 311    | 31    | 2        | 79  | \$ 13,700.00 | \$ 12.79 |
| 37   | Tammi         | Gladnell                                                                                                           | Kent       | 1387   | 26    | 3        | 73  | \$ 55,900.00 | \$ 12.65 |
| 38   | Thomas        | Debra                                                                                                              | Cul-De-Sac | 568    | 31    | 2        | 80  | \$ 24,800.00 | \$ 12.68 |
| 39   | Sunny         | Cul-De-Sac                                                                                                         | Mallard    | 583    | 26    | 4        | 59  | \$ 26,100.00 | \$ 15.60 |
|      | Sunny         | Parking                                                                                                            | Cul-De-Sac |        |       | 4        | 59  | \$ 21,200.00 | \$ 21.97 |
| 40   | Paula         | Mallard                                                                                                            | Drake      | 1137   | 26    | 4        | 59  | \$ 41,700.00 | \$ 12.69 |
| 41   | James         | Thompson                                                                                                           | Kimbrow    | 354    | 21    | 4        | 60  | \$ 12,100.00 | \$ 14.65 |
| 42   | Holly Springs | Cherrywood                                                                                                         | Dahlberg   | 458    | 27    | 4        | 62  | \$ 17,200.00 | \$ 12.74 |
|      | Holly Springs | 200' South                                                                                                         | Culvert    | 310    | 27    | 1 & 4    | 72  | \$ 13,400.00 | \$ 14.68 |
| 43   | Crystal Cove  | Cul-De-Sac                                                                                                         | Crystal    | 292    | 26    | 4        | 65  | \$ 10,800.00 | \$ 12.80 |
| 44   | Thompson      | Speegle                                                                                                            | Alexander  | 520    | 18    | 4        | 68  | \$ 13,200.00 | \$ 12.69 |
| 45   | Stasny        | Kent                                                                                                               | Wallace    | 273    | 21    | 4        | 73  | \$ 8,200.00  | \$ 12.87 |
| 46   | Stasny        | Randall                                                                                                            | Kirk       | 266    | 21    | 4        | 73  | \$ 8,000.00  | \$ 12.88 |
| 47   | Cottonbowl    | Possum                                                                                                             | Crystal    | 511    | 26    | 4        | 73  | \$ 46,600.00 | \$ 31.57 |
| 48   | Cottonbowl    | Crystal                                                                                                            | Davis      | 289    | 26    | 4        | 73  | \$ 10,600.00 | \$ 12.69 |
| 49   | Stasny        | Fisher                                                                                                             | Lake       | 350    | 21    | 4        | 75  | \$ 10,400.00 | \$ 12.73 |

# 2019 Street Maintenance List

|      |              | Completed in 2018                                                                                                  |           |        |       |          |     |              |          |
|------|--------------|--------------------------------------------------------------------------------------------------------------------|-----------|--------|-------|----------|-----|--------------|----------|
|      |              | Recommended for 2019                                                                                               |           |        |       |          |     |              |          |
|      |              | Recommend Separate Package Due to Curb Costs                                                                       |           |        |       |          |     |              |          |
|      |              | Removed From List (5th is downtown, Meadow cracks are widening, Debra & Thomas in good condition, McClure failing) |           |        |       |          |     |              |          |
|      |              | Street in Good Condition, Delay Maintenance Until Needed                                                           |           |        |       |          |     |              |          |
| Rank | Street Name  | From                                                                                                               | To        | Length | Width | District | PCI | Total Cost   | Cost/SY  |
|      | Dickey       | Sturgis                                                                                                            | Main      | 348    | 26    | 1        | 62  | \$ 12,800.00 | \$ 12.79 |
|      | Dickey       | Bland                                                                                                              | Sturgis   | 359    | 26    | 1        | 48  | \$ 13,700.00 | \$ 13.31 |
|      | Dickey       | Symes                                                                                                              | Bland     | 352    | 26    | 1        | 45  | \$ 13,400.00 | \$ 13.18 |
|      | Dickey       | Gano                                                                                                               | Symes     | 329    | 26    | 1        | 46  | \$ 12,100.00 | \$ 12.72 |
|      | Dickey       | Maple                                                                                                              | Gano      | 331    | 26    | 1        | 46  | \$ 12,100.00 | \$ 12.64 |
|      | Dickey       | Doak                                                                                                               | Maple     | 306    | 26    | 1        | 45  | \$ 11,400.00 | \$ 12.74 |
|      | Crystal      | Cristal CV                                                                                                         | Bull Run  | 369    | 26    | 4        | 56  | \$ 13,700.00 | \$ 12.84 |
|      | MLK          | Sturgis                                                                                                            | Main      | 361    | 26    | 1        | 66  | \$ 42,100.00 | \$ 40.36 |
|      | Stasney      | Wallace                                                                                                            | Fisher    | 355    | 21    | 4        | 71  | \$ 12,500.00 | \$ 15.08 |
|      | Cypress Cove | Woodlawn                                                                                                           | Greenlawn | 459    | 26    | 3        | 73  | \$ 16,900.00 | \$ 12.75 |
|      | Maplelawn    | Woodlawn                                                                                                           | Greenlawn | 458    | 26    | 3        | 73  | \$ 16,900.00 | \$ 12.78 |



# 2019 Program Budget

# \$450,000 Budget

- \$50,000 Withheld for City Maintenance
  - Crack Sealing, Pothole Filling, Etc.
  - Will include painting stop bars for Mill & Overlay streets
- \$88,000 for Wilco Seal Coat
  - Cotton Rows Ln, CR 368, and CR 369
  - 1.64 Miles (~\$4.33/SY)
- \$274,000 for Mill & Overlay
  - 1.19 Miles (~\$13.50/SY)
- \$38,000 for Engineering & Materials Testing

# Estimated District Allocations

| District | Estimated Allocation | Length | Type           |
|----------|----------------------|--------|----------------|
| 1        | \$75,500             | 2,025' | Mill & Overlay |
| 2        | \$88,000             | 8,653' | Seal Coat      |
| 3        | \$91,700             | 2,385' | Mill & Overlay |
| 4        | \$81,200             | 1,853' | Mill & Overlay |



# Summary

- Street Maintenance Program addresses functional (surface) issues only
  - The City will partner with Williamson County for cost effective seal coat of rural roads
  - The 2019 budget of \$450,000 is expected to maintain 10 streets for a total of 2.83 miles of streets
- 
- A decorative horizontal bar at the bottom of the slide, featuring a green-to-dark-green gradient.

**INTERLOCAL AGREEMENT REGARDING  
ROADWAY SEAL COATING INSIDE TAYLOR CITY LIMITS**

|                      |   |                             |
|----------------------|---|-----------------------------|
| THE STATE OF TEXAS   | § |                             |
|                      | § | KNOW ALL BY THESE PRESENTS: |
| COUNTY OF WILLIAMSON | § |                             |

**THIS INTERLOCAL AGREEMENT REGARDING ROADWAY SEAL COATING INSIDE TAYLOR CITY LIMITS (“Agreement”)** is entered into between City of Taylor, a home rule city and political subdivision of the State of Texas situated in Williamson County (“the **City**”) and Williamson County, a political subdivision of the State of Texas (the “**County**”). In this Agreement, the City and the County are sometimes individually referred to as “**a Party**” and collectively referred to as “**the Parties**”.

**WHEREAS**, the County is, has been and will be in the process of seal coating county roads throughout the county during fiscal year (FY) 2019 (the “County Project”); and

**WHEREAS**, this Agreement sets forth the terms and conditions pursuant to which the County shall seal coat the portions of roadways (without the prep work nor restriping) inside the city limits. Location of work sites is attached hereto as “Exhibit A” and incorporated herein by reference.

**NOW, THEREFORE**, in consideration of the foregoing premises and the mutual promises and agreements of the Parties contained in this Agreement, the Parties agree as follows:

**I.  
STATEMENT OF INTENT**

**1.01 General.** The purpose of this Agreement is to provide for the County’s seal coating of the portions of roadways inside the city limits caused by the County’s seal coating county roads throughout the county during FY 2019 (the “City Project”).

**1.02 Seal Coating of Roadways.** The County will, at its own expense, seal coat the Roadways as described in the construction plans and the specifications associated with the construction plans (the “Plans and Specifications”) within existing city right-of-way.

The Plans and Specifications are those prepared by the County, to be dated in May of 2019 and entitled County Road Seal Coat FY 19.

**1.03 Continuation of Service.** The County agrees that the County Project shall be undertaken so as to minimize any lane closures to the traveling public.

## **II. CONSTRUCTION OF PROJECT**

**2.01 General.** The Parties mutually acknowledge and agree that the County shall, at its own expense, construct all physical improvements that constitute the Project.

**2.02 Construction Plans.** The County shall submit the Project Plans and specifications related to seal coating of the roadways, and any changes or modifications thereto, to the City prior to commencing construction.

**2.03 Inspection.** The County shall inspect the Project Plans and the physical improvements during construction.

**2.04 Repayment of Costs.** The City shall reimburse the County for all costs that the County incurs for construction related to the seal coating of roadways as stated herein (the "City Reimbursement").

(a) The City Reimbursement shall be in an amount not to exceed Eighty Thousand Dollars (\$80,000). The final amount of the City Reimbursement will be based upon the actual contracting costs incurred by the County for the proposed seal coat work inside the City limits. All invoices shall be presented to the City as soon as possible after the City has accepted the City Project.

(b) The City Reimbursement shall be payable to the County within 60 days after the City has finally accepted the City Project. Said acceptance will not be unreasonably withheld.

**2.05 Texas Prompt Payment Act Compliance.** Payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. An invoice shall be deemed overdue the 31st day after the later of (1) the date the goods or services are received under the contract; (2) the date the performance of the service under the contract is completed; or (3) the date the City receives an invoice for the goods or services. Interest charges for any overdue payments shall be paid by licensee in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of the fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

**2.06 Insurance, Bonds and Warranties.** The County shall require the contractor for the Project to name the City as an additional insured on any policies related to the Project. The County shall require the contractor to provide bid bonds, performance bonds, payment bonds and warranty bonds. The County shall transfer any warranties for the Project to the City upon final completion and acceptance of the project.

### **III. DISPUTES**

#### **3.01 Material Breach; Notice and Opportunity to Cure.**

(a) In the event that one Party believes that another Party has materially breached one of the provisions of this Agreement, the non-defaulting Party will make written demand to cure and give the defaulting Party up to 30 days to cure such material breach or, if the curative action cannot reasonably be completed within 30 days, the defaulting Party will commence the curative action within 30 days and thereafter diligently pursue the curative action to completion. Notwithstanding the foregoing, any matters specified in the default notice which may be cured solely by the payment of money must be cured within 10 days after receipt of the notice. This applicable time period must pass before the non-defaulting Party may initiate any remedies available to the non-defaulting party due to such breach.

(b) Any non-defaulting Party will mitigate direct or consequential damage arising from any breach or default to the extent reasonably possible under the circumstances.

(c) The Parties agree that they will negotiate in good faith to resolve any disputes and may engage in non-binding mediation, arbitration or other alternative dispute resolution methods as recommended by the laws of the State of Texas.

**3.02 Equitable Relief.** In recognition that failure in the performance of the Parties' respective obligations could not be adequately compensated in money damages alone, the Parties agrees that after providing notice and an opportunity to cure in accordance with Section 3.01 above, the Parties shall have the right to request any court, agency or other governmental authority of appropriate jurisdiction to grant any and all remedies which are appropriate to assure conformance to the provisions of this Agreement. The defaulting Party shall be liable to the other for all costs actually incurred in pursuing such remedies, including reasonable attorney's fees, and for any penalties or fines as a result of the failure to comply with the terms including, without limitation, the right to obtain a writ of mandamus or an injunction requiring the governing body of the defaulting party to levy and collect rates and charges or other revenues sufficient to pay the amounts owed under this Agreement.

**3.03 Agreement's Remedies Not Exclusive.** The provisions of this Agreement providing remedies in the event of a Party's breach are not intended to be exclusive remedies. The Parties retain, except to the extent released or waived by the express terms of this Agreement, all rights at law and in equity to enforce the terms of this Agreement.

### **IV. GENERAL PROVISIONS**

**4.01 Authority.** This Agreement is made in part under the authority conferred in Chapter 791, *Texas Government Code*.

**4.02 Severability.** The provisions of this Agreement are severable and, if any provision of this Agreement is held to be invalid for any reason by a court or agency of competent

jurisdiction, the remainder of this Agreement will not be affected and this Agreement will be construed as if the invalid portion had never been contained herein.

**4.03 Payments from Current Revenues.** Any payments required to be made by a Party under this Agreement will be paid from current revenues or other funds lawfully available to the Party for such purpose.

**4.04 Cooperation.** The Parties agree to cooperate at all times in good faith to effectuate the purposes and intent of this Agreement.

**4.05 Entire Agreement.** This Agreement contains the entire agreement of the Parties regarding the subject matter hereof and supersedes all prior or contemporaneous understandings or representations, whether oral or written, regarding the subject matter and only relates to those portions of the County Project shown in the Project Plans.

**4.06 Amendments.** Any amendment of this Agreement must be in writing and will be effective if signed by the authorized representatives of the Parties.

**4.07 Applicable Law; Venue.** This Agreement will be construed in accordance with Texas law. Venue for any action arising hereunder will be in Williamson County, Texas.

**4.08 Notices.** Any notices given under this Agreement will be effective if (i) forwarded to a Party by hand-delivery; (ii) transmitted to a Party by confirmed telecopy; or (iii) deposited with the U.S. Postal Service, postage prepaid, certified, to the address of the Party indicated below:

**CITY:**

City of Taylor, Texas  
Jim Gray (or his successor in office)  
Director of Public Works  
1424 N Main St  
Taylor, TX 76574

City of Taylor, Texas  
Jeffery Jenkins (or his successor in office)  
Interim City Manager  
400 Porter Street  
Taylor, TX 76574

**COUNTY:**

Williamson County  
710 Main Street, Suite 101  
Georgetown, Texas 78626  
Attn: Judge Bill Gravell, Jr.  
Telephone: (512) 943-1665

**4.09 Counterparts; Effect of Partial Execution.** This Agreement may be executed simultaneously in multiple counterparts, each of which will be deemed an original, but all of which will constitute the same instrument.

**4.10 Authority.** Each Party represents and warrants that it has the full right, power and authority to execute this Agreement.

**4.11 Termination for Convenience.** This agreement may be terminated at any time, prior to the construction contract execution date, at the option of either party, without future or prospective liability for performance upon giving thirty (30) days written notice thereof. In the event of termination, each party will only be liable for its pro rata share of services rendered and goods actually received.

**4.12 No Waiver of Sovereign Immunity or Powers.** Nothing in this agreement will be deemed to constitute a waiver of sovereign immunity or powers of The County, the Williamson County Commissioners Court, or the Williamson County Judge.

*(SIGNATURES ON FOLLOWING PAGE)*

**ATTEST:**

\_\_\_\_\_  
City Clerk

**CITY OF TAYLOR:**

By: \_\_\_\_\_  
Printed Name: Brian LaBorde  
Title: City Manager  
Date: \_\_\_\_\_

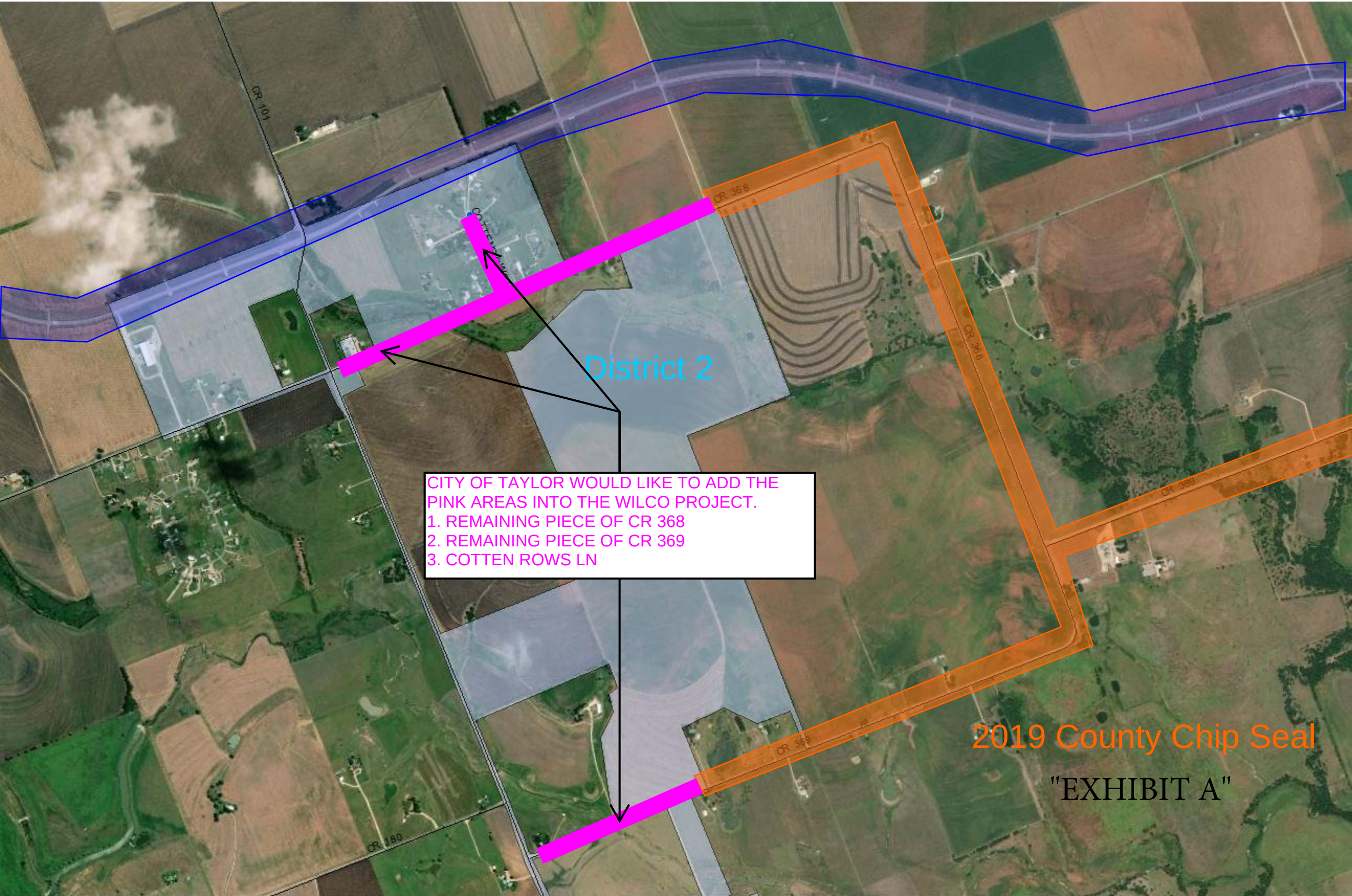
**ATTEST:**

\_\_\_\_\_  
County Clerk

**WILLIAMSON COUNTY:**

By: \_\_\_\_\_  
Printed Name: Bill Gravell, Jr.  
Title: County Judge  
Date: \_\_\_\_\_





District 2

CITY OF TAYLOR WOULD LIKE TO ADD THE PINK AREAS INTO THE WILCO PROJECT.  
1. REMAINING PIECE OF CR 368  
2. REMAINING PIECE OF CR 369  
3. COTTEN ROWS LN

2019 County Chip Seal

EXHIBIT A





***City Council Meeting  
June 13, 2019  
Transmittal Letter***

STRATEGIC PILLAR

☒ Streets/Infrastructure

☐ Quality of Life

☐ Economic Vitality

**Agenda Item #:** 9

**Agenda Title:** **Project Update on the Dickey-Givens Center**

**Council Action to be taken:** Receive update and Approve updated site within Robinson Park

**Department Submitted:** Public Works

**Staff Contact:** Jim Gray, Director of Public Works  
Kelly Kaatz, HDR Engineering

**1. PURPOSE/DESCRIPTION**

This item provides an update on the Dickey-Givens Community Center.

**2. STAFF ANALYSIS (How and Why)**

HDR performed an assessment of the existing building and found that priority needed to be given to address the basic structural conditions. Cost estimates were reviewed and assessed and the cost to fully renovate the existing building far exceed available funding. A cost estimate to construct a new building of similar size and design was made and it was found to be less costly to construct a new structure. Meetings were held with the Givens Community Center stakeholders and the consensus was to pursue construction of a new building and pursue additional funds to implement this option.

The City has received two individual CDBG Grants totaling \$300,000 in funding for the project. Langford & Associates representatives met with the Taylor Conservation & Heritage Society (TCHS) in January and the TCHS (501(c)(3)) has partnered with the Welfare Workers Club and will serve as the applicant for two foundation grants, Leo L. Livingston Foundation and The Meadows Foundation.

The original plan was to construct a new building in proximity to the existing building. However, recent investigations have discovered that the existing site is composed of fill material which will significantly complicate construction. As a result, alternative sites within Robinson Park were investigated and a revised site within the park is recommended. The site is approximately 1,000 feet east of the existing building, near the corner of MLK Jr. Blvd and S. Dolan Street. It is within close proximity to various park amenities including the pavilion, splash pad, playground, and basketball court. The building is

proposed to be located south of the existing parking lot for the pavilion and to make joint use of the existing parking lot. The topography of the site is relatively level and utilities are available.

### **3. RECOMMENDATION**

Receive update and approve the new location for the community center within Robinson Park near the corner of MLK Jr. Blvd and S. Dolan St.

### **4. FUNDING SOURCE**

#### Construction of Building Only

Awarded CDBG Grant (2015 funds) - \$150,000

Awarded CDBG Grant (2017 funds) - \$150,000

#### Construction of drainage, parking, landscaping and a portion of new building

Submitted application for Meadows Foundation Grant for \$150,000 (pending)

Submitted application for Leo Livingston Foundation Grant for \$10,000 (pending)

### **5. TIMELINE**

Complete building design, obtain revised site survey and updated geotechnical report for the new site. Prepare bid documents for advertisement in July 2019.

### **6. PRIOR COUNCIL ACTIONS TAKEN**

Council applied and accepted a CDBG grant in 2014 / 2017 for the improvements to Dickey-Givens Community Center. Council received an update on May 24, 2018, June 28, 2018, October 25, 2018, and February 14, 2019.

### **7. OTHER OPTIONS (In order of preference)**

N/A

### **8. ATTACHMENTS**

9a [Power Point presentation](#)



**Givens Community Center – Existing Site**





**Givens Community Center – Existing Interior**





EXISTING SITE

Fannie  
Robinson Park

Givens Community Center – Site Options









Parcel R019063 within Robinson Park



Fannie Robinson Park

SPLASH PAD

PLAYGROUND

PAVILION

BASKETBALL COURT

OVERFLOW PARKING

SHARED PARKING LOT WITH PAVILION

EXISTING BUILDING

PROPOSED NEW SITE

Carolina St

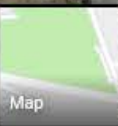
Fannie Robinson Park Pavilion

Solan St

E M.L.K. Jr Blvd

E Rio Grande St

Google



Jerusalem Coastal Church

Threadgill St

112

112

112









## ***City Council Meeting June 13, 2019 Transmittal Letter***

### STRATEGIC PILLAR

- ☒ Streets/Infrastructure
- ☐ Quality of Life
- ☐ Economic Vitality

**Agenda Item #:** 10  
**Agenda Title:** **Consider Bid Award for the 2019 Gateway Sign Project**

**Council Action to be taken:** Approval of award to Fazzone Construction Co., Inc. and authorize City Manager to enter into a contract.

**Department Submitted:** Public Works

**Staff Contact:** Jim Gray, Public Works Director  
Jacob Walker, HDR Engineering

### **1. PURPOSE/DESCRIPTION**

This item is related to the contract award for the 2019 Gateway Sign Project. The project includes the gateway sign, earthwork, landscaping, irrigation, electrical work for the sign installation, and an add-alternate bid for an access driveway. The project location is on the corner of Eastbound US-79 and Hermann Sons Road.

### **2. STAFF ANALYSIS (How and Why)**

The City has had an established budget of \$350,000 out of the TIF aimed to fund 2 turn-key Gateway Sign projects as well as City Wayfinding Signage.

In 2015-2016, The City contracted with SEC Planning to perform design services associated with the Gateway Sign Project. In 2018, The City directed HDR to perform project management, design, and real estate acquisition services to complete the Gateway Sign Project. In 2018, The City also contracted for survey and geotechnical testing/engineering services and purchased the land for the sign. A summary of these expenditures is described in the table below:

**TIF Projects - Gateway Sign**

**BUDGET:** \$ 350,000

**YTD EXPENDITURES**

| <b>119-520-519</b> | <b>Other Professional Services</b> | <b>FY 15-16</b>  | <b>FY 16-17</b>  | <b>FY 17-18</b>  | <b>FY 18-19</b>  | <b>Total</b>      |
|--------------------|------------------------------------|------------------|------------------|------------------|------------------|-------------------|
| Design             | SEC Planning                       | \$ 12,252        | \$ 32,710        | \$ 818           | \$ 7,957         | \$ 53,736         |
| Survey             | Gorrondona & Assoc.                |                  |                  | \$ 8,970         |                  | \$ 8,970          |
| Engineering        | HDR Engineering                    |                  |                  | \$ 6,298         | \$ 16,583        | \$ 22,881         |
| Land Acquisition   | Longhorn Title Co.                 |                  |                  | \$ 20,294        |                  | \$ 20,294         |
| Geotechnical       | Raba Kistner, Inc.                 |                  |                  |                  | \$ 4,300         | \$ 4,300          |
| <b>Sub-Total:</b>  |                                    | <b>\$ 12,252</b> | <b>\$ 32,710</b> | <b>\$ 36,380</b> | <b>\$ 28,840</b> | <b>\$ 110,182</b> |

| <b>119-520-539</b> | <b>Other Contract Services</b> | <b>FY 15-16</b> | <b>FY 16-17</b> | <b>FY 17-18</b> | <b>FY 18-19</b> |  |
|--------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|--|
| Advertising        | Taylor Press                   |                 |                 |                 | \$ 168          |  |
| <b>Sub-Total:</b>  |                                |                 |                 |                 | <b>\$ 168</b>   |  |

**EXPENDITURES:** \$ 110,350

**TIF Balance:** \$ 239,650.38

The project advertised to bid on April 14, 2019, and bids were opened on May 1, 2019. There were three responsive bidders for the project: Fazzone Construction Co., Inc., Westar Construction, Inc. and Landart America, LLC. Fazzone Construction was low bidder for both the base bid and total bid. See table below for the summary of bid documents and bid prices received.

| <b>Contractor</b>                    | <b>Bid Bond Provided &amp; Signed</b> | <b>Bid Proposal Submitted &amp; Signed</b> | <b>Qualification for Award</b> | <b>Base Bid Price</b> | <b>Total Bid Price (Including Driveway &amp; Culverts)</b> |
|--------------------------------------|---------------------------------------|--------------------------------------------|--------------------------------|-----------------------|------------------------------------------------------------|
| <b>Fazzone Construction Co, Inc.</b> | <b>Yes</b>                            | <b>Yes</b>                                 | <b>Yes</b>                     | <b>\$218,996.91</b>   | <b>\$280,201.41</b>                                        |
| Westar Construction, Inc.            | Yes                                   | Yes                                        | Yes                            | \$295,311.25          | \$341,781.25                                               |
| Landart America, LLC                 | Yes                                   | Yes                                        | Yes                            | \$298,915.30          | \$354,809.73                                               |

Based on the evaluation (see attachment), Fazzone Construction was ranked highest with a score of 100.

HDR conducted reference checks with General Contractors and a municipality that has contracted with Fazzone Construction and the responses were very favorable on their performance. Fazzone Construction has an extensive history of sign projects in Central Texas, including the City of Round Rock Gateway Sign on Southbound IH-35 at Westinghouse Rd. They have strong relevant street work experience in the type of work for the 2019 Gateway Sign Project. All respondents are capable of performing the work for the project and their bids are within a reasonable margin. Based on the information presented, HDR recommends the City of Taylor accept the base bid of Fazzone Construction Co., Inc. in the amount of \$218,996.91.

If the construction project is awarded, there will need to be third party materials testing contracted to test the earthwork and structural concrete associated with the sign

construction. Considering the expenditures already spent, the bid price, and the estimated additional materials testing cost, the TIF balance would be approximately \$16,653.47. A summary of expected costs is summarized in the table below:

|                             |           |                   |
|-----------------------------|-----------|-------------------|
| <b>TIF Balance:</b>         | <b>\$</b> | <b>239,650.38</b> |
| <b>Fazzone Construction</b> | <b>\$</b> | <b>218,996.91</b> |
| <b>Materials Testing</b>    | <b>\$</b> | <b>4,000.00</b>   |
| <b>Budget Remaining</b>     | <b>\$</b> | <b>16,653.47</b>  |

The original budget of \$350,000 was created to fund two turn-key gateway sign projects and city-wide wayfinding signage. If this contract is awarded, there will only be funding available for the one gateway sign project.

### **3. RECOMMENDATION**

Recommend council approve \$218,996.91 budget for the base bid 2019 Gateway Sign Project and award contract to Fazzone Construction Co., Inc.

### **4. FUNDING SOURCE**

TIF Fund

### **5. TIMELINE**

Staff requests Council to approve the budget and contract award. If approved, the contractor will

- Notice of Award – June 14th
- Executed Contract, Bonds, and Proof of Insurance – June 21th
- Notice to Proceed – June 24th
- Substantial Completion – October 22nd
- Final Completion – November 21st

### **6. PRIOR COUNCIL ACTIONS TAKEN**

2-23-16 - Agreement w/SEC for professional landscape and architectural design services signed.

1-4-19 – Agreement w/Raba-Kistner for Geotechnical Engineering Study signed.

### **7. OTHER OPTIONS (In order of preference)**

1. Award total-bid contract to Fazzone Construction Co., Inc.  
(will require additional funding beyond TIF balance for project)
2. Award contract to Westar Construction, Inc. or Landart America, LLC  
(will require additional funding beyond TIF balance for project)
3. Reject all bidders
4. Pursue redesign and rebidding
5. Pursue wayfinding signage

|                       |
|-----------------------|
| <b>8. ATTACHMENTS</b> |
|-----------------------|

- 10a [Recommendation of Award letter from HDR with supporting documents.](#)
- 10b [Final Plan Set](#)





May 29, 2019

Mr. Brian LaBorde  
City Manager  
City of Taylor  
400 Porter Street  
Taylor, TX 76574

RE: 2019 Gateway Sign Project-Recommendation to Award Construction Contract

Dear Mr. LaBorde,

On May 1, 2019, The City of Taylor and HDR Engineering, Inc. opened bids for the 2019 Gateway Sign Project. The project includes the gateway sign, earthwork, landscaping, irrigation, and electrical work for the installation of a city gateway sign, as well as an access driveway as an alternate bid. Three (3) contractors, Fazzone Construction Co., Inc., Weststar Construction, and Landart America, submitted sealed bids with base bid (total bid) prices of \$218,996.91 (\$280,201.41), \$295,311.25 (341,781.25), and \$298,915.30 (354,809.73), respectively. A detailed bid tabulation has been published and is enclosed for your review. Based upon our review of the bids received, Fazzone Construction Co., Inc. is low bidder with both base bid and total bid of \$218,996.91 (\$280,201.41).

HDR corrected rounding errors in the bids from Fazzone Construction and Landart America, which did not substantially affect the total bid price. The low-bid contractor, Fazzone Construction, submitted a bid that was 1% higher than the preliminary estimate. Based on the scoring criteria in the project documents attached, Fazzone Construction scored highest with a 100, followed by Landart America and Weststar with a 73 and 54 respectively. Based on the information presented, HDR recommends the City of Taylor accept the base bid only of Fazzone Construction Co., Inc. in the amount of \$218,996.91.

A background check was performed via procurement of a Dun & Bradstreet comprehensive financial report, which indicates that Fazzone Construction Co., Inc. has a solid financial standing, credit rating, and payment history. Additionally, HDR conducted a reference checks with other firms and Cities who have done business with Fazzone Construction Co., Inc. in the past, with satisfactory results.

We will prepare the Notice of Intent to Award and other contract documents to be forwarded to Fazzone Construction Co., Inc., for execution if the City of Taylor concurs with this recommendation.

Sincerely,  
HDR Engineering, Inc.

Jacob Walker, P.E.

cc: Jim Gray

attachments: 1. Certified Bid Tabulation  
2. Contractor Scoring Results  
3. Bid Opening Sign-In Sheet  
4. Contractors' Bid Documents

| Base Bid |                  |                                                           |      |                    |                      |               |                     |               |                 |               |
|----------|------------------|-----------------------------------------------------------|------|--------------------|----------------------|---------------|---------------------|---------------|-----------------|---------------|
| Item No. | Spec.            | Item Description                                          | Unit | Estimated Quantity | Fazzone Construction |               | Westar Construction |               | Landart America |               |
|          |                  |                                                           |      |                    | Unit Price           | Total         | Unit Price          | Total         | Unit Price      | Total         |
| 1        | 100 6001         | PREPARING ROW                                             | LS   | 1                  | \$ 1,890.00          | \$ 1,890.00   | \$ 1,000.00         | \$ 1,000.00   | \$ 7,914.29     | \$ 7,914.29   |
| 2        | 132 6003         | EMBANKMENT (FINAL)(ORD COMP)(TY B)                        | LS   | 1                  | \$ 7,200.90          | \$ 7,200.90   | \$ 5,700.00         | \$ 5,700.00   | \$ 8,402.68     | \$ 8,402.68   |
| 3        | 2300             | SITE GRADING                                              | LS   | 1                  | \$ 9,450.00          | \$ 9,450.00   | \$ 7,500.00         | \$ 7,500.00   | \$ 6,364.29     | \$ 6,364.29   |
| 4        | 506 6002         | ROCK FILTER DAMS (INSTALL) (TY 2)                         | LF   | 63                 | \$ 40.95             | \$ 2,579.85   | \$ 30.00            | \$ 1,890.00   | \$ 129.60       | \$ 8,164.80   |
| 5        | 506 6011         | ROCK FILTER DAMS (REMOVE)                                 | LF   | 63                 | \$ 13.23             | \$ 833.49     | \$ 3.00             | \$ 189.00     | \$ 68.03        | \$ 4,285.89   |
| 6        | 506 6038         | TEMP SEDMT CONT FENCE (INSTALL) (SILT FENCE)              | LF   | 104                | \$ 2.21              | \$ 229.84     | \$ 6.00             | \$ 624.00     | \$ 5.44         | \$ 565.76     |
| 7        | 506 6039         | TEMP SEDMT CONT FENCE (REMOVE)                            | LF   | 104                | \$ 0.95              | \$ 98.80      | \$ 2.00             | \$ 208.00     | \$ 1.89         | \$ 196.56     |
| 8        | 1000 6001        | LANDSCAPE MAINTENANCE                                     | MO   | 12                 | \$ 530.00            | \$ 6,360.00   | \$ 600.00           | \$ 7,200.00   | \$ 961.54       | \$ 11,538.48  |
| 9        | PER PLAN DETAILS | MONUMENT SIGN                                             | LS   | 1                  | \$ 120,583.16        | \$ 120,583.16 | \$ 170,000.00       | \$ 170,000.00 | \$ 184,045.10   | \$ 184,045.10 |
| 10       | 506 6020         | STABILIZED CONSTRUCTION ENTRANCE (INSTALL)                | CY   | 25                 | \$ 63.00             | \$ 1,575.00   | \$ 50.00            | \$ 1,250.00   | \$ 170.77       | \$ 4,269.25   |
| 11       | 506 6024         | STABILIZED CONSTRUCTION ENTRANCE (REMOVE)                 | CY   | 25                 | \$ 31.50             | \$ 787.50     | \$ 10.00            | \$ 250.00     | \$ 57.14        | \$ 1,428.50   |
| 12       | PER PLAN DETAILS | UPLIGHTS FOR TREE LIGHTING                                | EA   | 9                  | \$ 945.00            | \$ 8,505.00   | \$ 1,400.00         | \$ 12,600.00  | \$ 703.23       | \$ 6,329.07   |
| 13       | PER PLAN DETAILS | DURAFLEX LIGHTING ON SURFACE PERIMETER OF SIGN            | LS   | 1                  | \$ 8,120.00          | \$ 8,120.00   | \$ 9,000.00         | \$ 9,000.00   | \$ 5,421.48     | \$ 5,421.48   |
| 14       | PER PLAN DETAILS | ELECTRICAL                                                | LS   | 1                  | \$ 4,292.00          | \$ 4,292.00   | \$ 15,000.00        | \$ 15,000.00  | \$ 11,127.09    | \$ 11,127.09  |
| 15       | 2810             | IRRIGATION SYSTEM                                         | EA   | 1                  | \$ 2,900.00          | \$ 2,900.00   | \$ 7,500.00         | \$ 7,500.00   | \$ 980.15       | \$ 980.15     |
| 16       | 2810             | TREE BUBBLERS - 2 PER SHADE TREE, ONE PER ORNAMENTAL TREE | EA   | 30                 | \$ 67.28             | \$ 2,018.40   | \$ 150.00           | \$ 4,500.00   | \$ 63.23        | \$ 1,896.90   |
| 17       | 2810             | SEED PERMANENT SPRAY IRRIGATION                           | SF   | 6,530              | \$ 0.46              | \$ 3,003.80   | \$ 1.00             | \$ 6,530.00   | \$ 0.54         | \$ 3,526.20   |
| 18       | 2810             | TEMPORARY IRRIGATION UNTIL ESTABLISHMENT                  | SF   | 4,087              | \$ 0.14              | \$ 572.18     | \$ 0.75             | \$ 3,065.25   | \$ 0.24         | \$ 980.88     |
| 19       | 2810             | BED DRIP IRRIGATION                                       | SF   | 1,409              | \$ 1.33              | \$ 1,873.97   | \$ 1.00             | \$ 1,409.00   | \$ 0.85         | \$ 1,197.65   |
| 20       | 2490             | QUERCUS VIRGINIANA/ SOUTHERN LIVE OAK                     | EA   | 2                  | \$ 754.00            | \$ 1,508.00   | \$ 1,100.00         | \$ 2,200.00   | \$ 639.40       | \$ 1,278.80   |
| 22       | 2490             | ILEX VOMITORIA/ YAUPON HOLLY                              | EA   | 3                  | \$ 290.00            | \$ 870.00     | \$ 150.00           | \$ 450.00     | \$ 287.25       | \$ 861.75     |
| 23       | 2490             | LAGERSTROEMIA INDICA 'TUSCARORA' / CRAPE MYRTLE           | EA   | 4                  | \$ 290.00            | \$ 1,160.00   | \$ 150.00           | \$ 600.00     | \$ 279.52       | \$ 1,118.08   |
| 24       | 2490             | LANTANA CAMARA 'NEW GOLD'/ NEW GOLD LANTANA               | EA   | 50                 | \$ 31.90             | \$ 1,595.00   | \$ 28.00            | \$ 1,400.00   | \$ 23.96        | \$ 1,198.00   |
| 26       | 2490             | LIGUSTRUM JAPONICUM 'VARIEGATUM'/ VARIEGATED PRIVET       | EA   | 5                  | \$ 31.90             | \$ 159.50     | \$ 28.00            | \$ 140.00     | \$ 21.71        | \$ 108.55     |
| 28       | 2490             | SALVIA GREGGII/ AUTUMN SAGE                               | EA   | 28                 | \$ 31.90             | \$ 893.20     | \$ 24.00            | \$ 672.00     | \$ 22.48        | \$ 629.44     |
| 29       | 2490             | MUHLENBERGIA CAPILLARIS/ GULF MUHLY                       | EA   | 31                 | \$ 31.90             | \$ 988.90     | \$ 22.00            | \$ 682.00     | \$ 21.71        | \$ 673.01     |
| 30       | 2490             | AGAVE AMERICANA/ CENTURY PLANT                            | EA   | 3                  | \$ 73.08             | \$ 219.24     | \$ 125.00           | \$ 375.00     | \$ 82.02        | \$ 246.06     |
| 31       | 2490             | DASYLIRION WHEELERI/ WHEELER SOTOL                        | EA   | 11                 | \$ 31.90             | \$ 350.90     | \$ 45.00            | \$ 495.00     | \$ 27.90        | \$ 306.90     |
| 32       | 2490             | HESPERALOE PARVIFOLORA/ RED YUCCA                         | EA   | 10                 | \$ 31.90             | \$ 319.00     | \$ 40.00            | \$ 400.00     | \$ 25.58        | \$ 255.80     |
| 33       | 2490             | OPUNTIA ENGELMANII/ CACTUS APPLE                          | EA   | 10                 | \$ 110.20            | \$ 1,102.00   | \$ 90.00            | \$ 900.00     | \$ 120.77       | \$ 1,207.70   |
| 34       | 2490             | PLANT BED SOIL MIX (PRO-GRO SOIL MIX OR APPROVED EQUAL)   | CY   | 19                 | \$ 92.80             | \$ 1,763.20   | \$ 95.00            | \$ 1,805.00   | \$ 58.16        | \$ 1,105.04   |
| 35       | 2490             | IMPORTED SHREDDED BLACK HARDWOOD MULCH, SPREAD            | CY   | 9                  | \$ 116.00            | \$ 1,044.00   | \$ 55.00            | \$ 495.00     | \$ 57.01        | \$ 513.09     |
| 36       | 2486             | BERMUDA SEED TIF 419                                      | SF   | 10,614             | \$ 0.19              | \$ 2,016.66   | \$ 0.50             | \$ 5,307.00   | \$ 0.08         | \$ 849.12     |
| 38       | 2490             | CHOCOLATE LOAM TOP SOIL                                   | CY   | 66                 | \$ 58.00             | \$ 3,828.00   | \$ 75.00            | \$ 4,950.00   | \$ 38.13        | \$ 2,516.58   |
| 39       | 2490             | NEW MEXICO RIVER GRAVEL                                   | SF   | 389                | \$ 4.06              | \$ 1,579.34   | \$ 6.00             | \$ 2,334.00   | \$ 1.41         | \$ 548.49     |
| 40       | 2490             | STEEL EDGING (3/16" X 4") BROWN                           | LF   | 297                | \$ 4.64              | \$ 1,378.08   | \$ 3.00             | \$ 891.00     | \$ 5.71         | \$ 1,695.87   |
| 41       | 2490             | FILTER FABRIC / WEED BARRIER                              | SF   | 400                | \$ 0.87              | \$ 348.00     | \$ 2.00             | \$ 800.00     | \$ 0.42         | \$ 168.00     |
| 42       |                  | MISCELLANEOUS WORK ALLOWANCE                              | LS   | 1                  | \$ 15,000.00         | \$ 15,000.00  | \$ 15,000.00        | \$ 15,000.00  | \$ 15,000.00    | \$ 15,000.00  |
|          |                  |                                                           |      |                    | Total:               | \$ 218,996.91 | Total:              | \$ 295,311.25 | Total:          | \$ 298,915.30 |
|          |                  |                                                           |      |                    |                      |               | % Over Low          | 35%           | % Over Low      | 36%           |

| Alternate Bid 1 - Driveway and Culvert |          |                                    |      |                    |                      |              |                     |               |                 |               |
|----------------------------------------|----------|------------------------------------|------|--------------------|----------------------|--------------|---------------------|---------------|-----------------|---------------|
| Item No.                               | Spec.    | Item Description                   | Unit | Estimated Quantity | Fazzone Construction |              | Westar Construction |               | Landart America |               |
|                                        |          |                                    |      |                    | Unit Price           | Total        | Unit Price          | Total         | Unit Price      | Total         |
| 1                                      | 100 6001 | PREPARING ROW                      | LS   | 1                  | \$ 1,890.00          | \$ 1,890.00  | \$ 7,500.00         | \$ 7,500.00   | \$ 6,006.35     | \$ 6,006.35   |
| 2                                      | 110 6001 | EXCAVATION                         | LS   | 1                  | \$ 2,205.00          | \$ 2,205.00  | \$ 7,500.00         | \$ 7,500.00   | \$ 4,357.14     | \$ 4,357.14   |
| 3                                      | 132 6003 | EMBANKMENT (FINAL)(ORD COMP)(TY B) | LS   | 1                  | \$ 1,890.00          | \$ 1,890.00  | \$ 2,500.00         | \$ 2,500.00   | \$ 3,481.20     | \$ 3,481.20   |
| 4                                      | 464 6003 | RC PIPE (CLIII)(18IN)              | LF   | 82                 | \$ 176.40            | \$ 14,464.80 | \$ 65.00            | \$ 5,330.00   | \$ 79.29        | \$ 6,501.78   |
| 5                                      | 467 6363 | SET(TYII)(18IN)(RCP)(R:1)(P)       | EA   | 2                  | \$ 5,355.00          | \$ 10,710.00 | \$ 2,500.00         | \$ 5,000.00   | \$ 2,201.79     | \$ 4,403.58   |
| 6                                      | 530 6004 | DRIVEWAYS (CONC)                   | SY   | 180                | \$ 157.50            | \$ 28,350.00 | \$ 90.00            | \$ 16,200.00  | \$ 170.23       | \$ 30,641.40  |
| 7                                      | 2486     | BERMUDA SEED TIF 419               | SY   | 169                | \$ 6.30              | \$ 1,064.70  | \$ 10.00            | \$ 1,690.00   | \$ 0.72         | \$ 121.68     |
| 8                                      | 2490     | CHOCOLATE LOAM TOP SOIL            | CY   | 10                 | \$ 63.00             | \$ 630.00    | \$ 75.00            | \$ 750.00     | \$ 38.13        | \$ 381.30     |
|                                        |          |                                    |      |                    | Total:               | \$ 61,204.50 | Total:              | \$ 46,470.00  | Total:          | \$ 55,894.43  |
|                                        |          |                                    |      |                    |                      |              | Bid Total:          | \$ 280,201.41 | Bid Total:      | \$ 341,781.25 |
|                                        |          |                                    |      |                    |                      |              |                     |               | Bid Total:      | \$ 354,809.73 |
|                                        |          |                                    |      |                    |                      |              | % Over Low          | 22%           | % Over Low      | 27%           |

*Jacob E. Walker, P.E.*

I, Jacob Walker, P.E. do hereby certify that this bid tabulation is accurate and true.

Bid Bond:  
Price Proposal:  
Addendum 1:

"=Updated for Unit Price Rounding"

| Included | Signed | Included | Signed | Included | Signed |
|----------|--------|----------|--------|----------|--------|
| X        | X      | X        | X      | X        | X      |
| X        | X      | X        | X      | X        | X      |
| X        | X      | X        | X      | X        | X      |

| Evaluation Criteria                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Max Points | Contractor |           |           |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|-----------|-----------|
|                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | Fazzone    | Westar    | Landart   |
| <b>Background, Experience, Qualifications, and Safety Program</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>30</b>  | <b>30</b>  | <b>24</b> | <b>30</b> |
| a.                                                                | Current business organizational structure, type of business structure; stability of organization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2          | 2          | 2         | 2         |
| b.                                                                | Number of years performing construction-contracting work under current name and/or previous business name(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3          | 3          | 3         | 3         |
| c.                                                                | Availability of equipment and facilities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5          | 5          | 5         | 5         |
| d.                                                                | Summarize your FIRM'S experience and competence relevant to the proposed project. Briefly describe three (3) completed projects that demonstrate your capabilities to perform this work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5          | 5          | 5         | 5         |
| e.                                                                | Provide qualifications and experience of the CONSTRUCTION TEAM that will be directly involved in the Project, including their experience with similar projects, the number of years with the FIRM, and their city(s) of residence. Include as applicable; Project Managers, Superintendents, Safety Coordinator.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 5          | 5          | 2         | 5         |
| f.                                                                | Identify and describe the CONSTRUCTION TEAM'S past experience for providing construction services that are MOST RELATED TO THIS PROJECT within the last five (5) years. List the projects in order of priority, with the most relevant project listed first. Provide the following information for each project listed:<br>1. Project name, amount, location, and description<br>2. Final construction cost<br>3. Name of Project Manager (individual responsible to the Owner for the overall success of the project)<br>4. Name of Project Superintendent (individual responsible for coordinating the day to day work)<br>5. References<br>a. The Owner's representative who served as the day-to-day liaison during construction, including telephone number<br>b. Architect/Engineer's name and representative who served as the day-to-day liaison during construction, including telephone number<br>References shall be considered relevant based on specific project participation and experience with the Respondent. The Owner may contact references during any part of this process. The Owner reserves the right to contact any other references at any time during the evaluation process. | 5          | 5          | 2         | 5         |
| g.                                                                | Safety Program<br>1. Describe your FIRM's job site safety program for this Project and specific safety policies in which employees must be in compliance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5          | 5          | 5         | 5         |
| <b>Proposed Plan, Schedule, and Quality Control Program</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>30</b>  | <b>30</b>  | <b>12</b> | <b>30</b> |
| a.                                                                | Describe your proposed work plan for this project.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6          | 6          | 0         | 6         |
| b.                                                                | Describe your construction management approach and ability to coordinate work with all subcontractors and suppliers in order to meet the deadlines established in the submitted construction schedule.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6          | 6          | 0         | 6         |
| c.                                                                | Describe your ability to complete the project within the schedule taking into account existing commitments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6          | 6          | 0         | 6         |
| d.                                                                | Describe your back-up/contingency plan for any unanticipated delays.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6          | 6          | 6         | 6         |
| e.                                                                | Describe your quality control program.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6          | 6          | 6         | 6         |
| <b>Price</b>                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>40</b>  | <b>40</b>  | <b>18</b> | <b>13</b> |
| <b>Total</b>                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>100</b> | <b>100</b> | <b>54</b> | <b>73</b> |

## Bid Opening Attendance

Project: **City of Taylor – Gateway Sign**

Subject: Bid Opening

Date: Wednesday, May 1, 2019, 2 PM

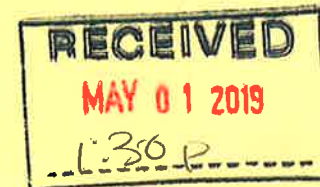
Location: City of Taylor City Hall, 400 Porter St., Taylor, TX 76574

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Fazzone Construction Co.  
LLC.  
1302 West Blanco  
San Antonio TX 78232

The City of Taylor  
400 Porter Street, Taylor,  
TX 76574

Proposal Enclosed:  
2019 Gateway Sign  
Project



*Shah Navam*

## BID FORM

### 2019 Gateway Sign Project

#### ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

***City of Taylor, Texas***

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

#### ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

2.02 BIDDER will sign and deliver the required number of counterparts of the AGREEMENT with the Bonds and other documents required by the Bidding Requirements within 7 days after the date of OWNER's Notice of Award.

#### ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| <u>Addendum No.</u> | <u>Addendum, Date</u>                                                                         |
|---------------------|-----------------------------------------------------------------------------------------------|
| Addendum No 1       | 4/25/2019  |
| _____               | _____                                                                                         |
| _____               | _____                                                                                         |
| _____               | _____                                                                                         |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

#### **ARTICLE 4 – BIDDER'S CERTIFICATION**

##### **4.01 Bidder certifies that:**

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and



Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

#### ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 120 calendar days, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 150 calendar days.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

#### ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
  - B. List of Project References;
  - C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
  - D. Required Bidder Qualification Statement with supporting data; and
- 7.03 Other Requirements

#### ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

#### ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

Fazzone Construction Co., LLC.

By:

*[Signature]*



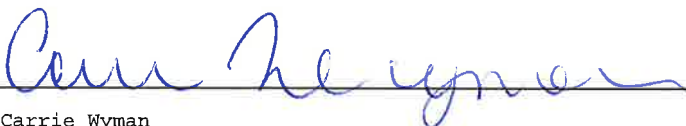
*[Printed name]*

Paul Whetstone

*(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest:

*[Signature]*



*[Printed name]*

Carrie Wyman

**Title:**

Project Coordinator

**Submittal Date:**

05/01/19

**Address for giving notices:**

1302 West Blanco

San Antonio TX 78232

**Telephone Number:**

512-335-3711

**Fax Number:**

**Contact Name and e-mail address:**

Paul Whetstone Paul@fazzzoneconstruction.com

**Bidder's License No.:**

*(where applicable)*

ARTICLE 5 - BASIS OF BID

5.01 Bidder will complete the work in accordance with the Contract Documents for the following prices.

| BASE BID |          |                                                                                                                                                                                                                                           |      |                    |             |                       |
|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------|-----------------------|
| ITEM NO. | SPEC.    | ITEM DESCRIPTION                                                                                                                                                                                                                          | UNIT | ESTIMATED QUANTITY | UNIT PRICE  | TOTAL ESTIMATED PRICE |
| 1        | 100 6001 | PREPARING ROW (CLEARING, GRUBBING AND ANY SITE PREP)                                                                                                                                                                                      | LS   | 1                  | \$ 1,890.00 | \$ 1,890.00           |
| 2        | 132 6003 | EMBANKMENT (FINAL)(ORD COMP)(TY B) (ALL EMBANKMENT FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.) (ESTIMATED AT 127 CY)                                                                 | LS   | 1                  | \$ 7,200.90 | \$ 7,200.90           |
| 3        | 2300     | SITE GRADING (TO INCLUDE FINE GRADING & ALL HERBICIDE TREATMENTS FOR INSTALLATION OF ALL HARDSCAPE AND LANDSCAPE ITEMS AS SHOWN IN THE BID DOCUMENTS. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.) | LS   | 1                  | \$ 9,450.00 | \$ 9,450.00           |
| 4        | 506 6002 | ROCK FILTER DAMS (INSTALL) (TY 2)                                                                                                                                                                                                         | LF   | 63                 | \$ 40.95    | \$ 2,579.85           |
| 5        | 506 6011 | ROCK FILTER DAMS (REMOVE)                                                                                                                                                                                                                 | LF   | 63                 | \$ 13.23    | \$ 833.49             |
| 6        | 506 6038 | TEMP SEDMT CONT FENCE (INSTALL) (SILT FENCE)                                                                                                                                                                                              | LF   | 104                | \$ 2.21     | \$ 229.32             |
| 7        | 506 6039 | TEMP SEDMT CONT FENCE (REMOVE) (SILT FENCE)                                                                                                                                                                                               | LF   | 104                | \$ 0.95     | \$ 98.28              |

| BASE BID |                  |                                                                                                                                                                                                                                                                                                        |      |                    |               |                       |
|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|---------------|-----------------------|
| ITEM NO. | SPEC.            | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                       | UNIT | ESTIMATED QUANTITY | UNIT PRICE    | TOTAL ESTIMATED PRICE |
| 8        | 1000 6001        | LANDSCAPE MAINTENANCE<br>(PRICE INCLUDES CORRECTION OF DEFICIENCIES FOR ITEMS IN SPEC 02490 AND 02486)                                                                                                                                                                                                 | MO   | 12                 | \$ 530.00     | \$ 6,360.00           |
| 9        | PER PLAN DETAILS | MONUMENT SIGN<br>(PRICE TO INCLUDE CONSTRUCTION AND INSTALLATION OF MONUMENT SIGN. INCLUDING LUMP SUM COST FOR SIGN LIGHTING. STRUCTURAL DESIGN TO BE PROVIDED BY A TEXAS LICENSED STRUCTURAL ENGINEER. DRAWINGS TO BE SUBMITTED TO OWNER / OWNERS REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION.) | LS   | 1                  | \$ 120,583.16 | \$ 120,583.16         |
| 10       | 506 6020         | STABILIZED CONSTRUCTION ENTRANCE (INSTALL)                                                                                                                                                                                                                                                             | CY   | 25                 | \$ 63.00      | \$ 1,575.00           |
| 11       | 506 6024         | STABILIZED CONSTRUCTION ENTRANCE (REMOVE)                                                                                                                                                                                                                                                              | CY   | 25                 | \$ 31.50      | \$ 787.50             |
| 12       | PER PLAN DETAILS | UPLIGHTS FOR TREE LIGHTING<br>(PRICE TO INCLUDE ALL ACCESSORIES, INCLUDED BUT NOT LIMITED TO TRANSFORMERS, MOUNTING, J BOXES, ROUGH-IN, HAND HOLES, PULL BOXES, ETC. AS REQUIRED PER CODE. INSTALLATION TO BE DONE BY A TEXAS LICENSED ELECTRICIAN.)                                                   | EA   | 9                  | \$ 945.00     | \$ 8,505.00           |

| BASE BID |                  |                                                                                                                                                                                                                                                                                                                                            |      |                    |             |                       |
|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------|-----------------------|
| ITEM NO. | SPEC.            | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                           | UNIT | ESTIMATED QUANTITY | UNIT PRICE  | TOTAL ESTIMATED PRICE |
| 13       | PER PLAN DETAILS | DURAFLEX LIGHTING ON SURFACE PERIMETER OF SIGN<br>(PRICE TO INCLUDE ALL ACCESSORIES, INCLUDED BUT NOT LIMITED TO TRANSFORMERS, MOUTING, J BOXES, ROUGH-IN, HAND HOLES, PULL BOXES, ETC. AS REQUIRED PER CODE. INSTALLATION TO BE DONE BY A TEXAS LICENSED ELECTRICIAN.) (ESTIMATED AT 60 LF)                                               | LS   | 1                  | \$ 8,120.00 | \$ 8,120.00           |
| 14       | PER PLAN DETAILS | ELECTRICAL<br>(ELECTRICAL CONNECTIONS FROM OWNER PROVIDED ELECTRICAL METER TO SIGN AND ALL REQUIRED CONNECTIONS NECESSARY TO POWER MONUMENT SIGN, INSTALLATION TO BE DONE BY A TEXAS LICENSED ELECTRICIAN)                                                                                                                                 | LS   | 1                  | \$ 4,292.00 | \$ 4,292.00           |
| 15       | 2810             | IRRIGATION SYSTEM (INCLUSINVE OF ALL WORK<br>CONNECTING TO THE METER, FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO BACKFLOW PREVENTER, CHECK VALVES, SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS) | EA   | 1                  | \$ 2,900.00 | \$ 2,900.00           |

**BASE BID**

| ITEM NO. | SPEC. | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                 | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL ESTIMATED PRICE |
|----------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|------------|-----------------------|
| 16       | 2810  | TREE BUBBLERS - 2 PER SHADE TREE, ONE PER ORNAMENTAL TREE<br>(FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS) | EA   | 30                 | \$ 67.28   | \$ 2,018.40           |
| 17       | 2810  | SEED PERMANENT SPRAY IRRIGATION (FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS)                              | SF   | 6530               | \$ 0.46    | \$ 3,029.92           |
| 18       | 2810  | TEMPORARY IRRIGATION UNTIL ESTABLISHMENT,<br>(FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS)                 | SF   | 4087               | \$ 0.14    | \$ 568.91             |

| BASE BID |       |                                                                                                                                                                                                                                                                            |      |                    |            |                       |
|----------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|------------|-----------------------|
| ITEM NO. | SPEC. | ITEM DESCRIPTION                                                                                                                                                                                                                                                           | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL ESTIMATED PRICE |
| 19       | 2810  | BED DRIP IRRIGATION,<br>(FOR ALL EQUIPMENT AND LABOR, INCLUDED<br>BUT NOT LIMITED TO SLEEVES, PVC CLASS 200,<br>PVC SCHEDULE 40, FITTINGS, NOZZLES,<br>VALVES, VALVE BOXES, CONTROLLER, FLOW<br>SENSOR, RAIN/FREEZE SENSOR, DECODERS,<br>AND INCLUSIVE OF ALL INCIDENTALS) | SF   | 1409               | \$ 1.33    | \$ 1,879.61           |
| 20       | 2490  | QUERCUS VIRGINIANA/ SOUTHERN LIVE OAK<br>(3" CAL. 12-15' HT X 8' SPD CONT. GRWN.)                                                                                                                                                                                          | EA   | 2                  | \$ 754.00  | \$ 1,508.00           |
| 22       | 2490  | ILEX VOMITORIA/ YAUPON HOLLY<br>(1" CAL. 6' H X 4 SPD CONT. GRWN.)                                                                                                                                                                                                         | EA   | 3                  | \$ 290.00  | \$ 870.00             |
| 23       | 2490  | LAGERSTROEMIA INDICA<br>'TUSCARORA'/ CRAPE MYRTLE<br>(1" CAL. @ 3 TRUNKS MIN. 8-9' H X 3-<br>4' SPD CONT. GRWN.)                                                                                                                                                           | EA   | 4                  | \$ 290.00  | \$ 1,160.00           |
| 24       | 2490  | LANTANA CAMARA 'NEW GOLD'/ NEW GOLD<br>LANTANA<br>(3 GAL. CONT.)                                                                                                                                                                                                           | EA   | 50                 | \$ 31.90   | \$ 1,595.00           |
| 26       | 2490  | LIGUSTRUM JAPONICUM<br>'VARIEGATUM'/ VARIEGATED PRIVET (5 GAL.<br>CONT.)                                                                                                                                                                                                   | EA   | 5                  | \$ 31.90   | \$ 159.50             |
| 28       | 2490  | SALVIA GREGGII/ AUTUMN SAGE (3 GAL.<br>CONT.)                                                                                                                                                                                                                              | EA   | 28                 | \$ 31.90   | \$ 893.20             |
| 29       | 2490  | MUHLENBERGIA CAPILLARIS/ GULF MUHLY<br>(3 GAL. CONT.)                                                                                                                                                                                                                      | EA   | 31                 | \$ 31.90   | \$ 988.90             |



| BASE BID       |       |                                                                |      |                    |            |                       |
|----------------|-------|----------------------------------------------------------------|------|--------------------|------------|-----------------------|
| ITEM NO.       | SPEC. | ITEM DESCRIPTION                                               | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL ESTIMATED PRICE |
| 30             | 2490  | AGAVE AMERICANA/ CENTURY PLANT (7 GAL. CONT.)                  | EA   | 3                  | \$ 73.08   | \$ 219.24             |
| 31             | 2490  | DASYLIRION WHEELERI/ WHEELER SOTOL (5 GAL. CONT.)              | EA   | 11                 | \$ 31.90   | \$ 350.90             |
| 32             | 2490  | HESPERALOE PARVIFOLORA/ RED YUCCA (5 GAL. CONT.)               | EA   | 10                 | \$ 31.90   | \$ 319.00             |
| 33             | 2490  | OPUNTIA ENGELMANII/ CACTUS APPLE (10 GAL. CONT.)               | EA   | 10                 | \$ 110.20  | \$ 1,102.00           |
| 34             | 2490  | PLANT BED SOIL MIX (PRO-GRO SOIL MIX OR APPROVED EQUAL)        | CY   | 19                 | \$ 92.80   | \$ 1,763.20           |
| 35             | 2490  | IMPORTED SHREDDED BLACK HARDWOOD MULCH, SPREAD                 | CY   | 9                  | \$ 116.00  | \$ 1,044.00           |
| 36             | 2486  | BERMUDA SEED TIF 419                                           | SF   | 10614              | \$ 0.19    | \$ 2,031.52           |
| 38             | 2490  | CHOCOLATE LOAM TOP SOIL (SEED TOPSOIL AREAS ESTIMATE AT 66 CY) | CY   | 66                 | \$ 58.00   | \$ 3,828.00           |
| 39             | 2490  | NEW MEXICO RIVER GRAVEL                                        | SF   | 389                | \$ 4.06    | \$ 1,579.34           |
| 40             | 2490  | STEEL EDGING (3/16" X 4") BROWN                                | LF   | 297                | \$ 4.64    | \$ 1,378.08           |
| 41             | 2490  | FILTER FABRIC / WEED BARRIER                                   | SF   | 400                | \$ 0.87    | \$ 348.00             |
| 42             |       | MISCELLANEOUS WORK ALLOWANCE                                   | LS   | 1                  | \$ 15000   | \$ 15000              |
| TOTAL BASE BID |       |                                                                |      |                    |            | \$ 219,039.22         |

**ALTERNATE BID 1 – DRIVEWAY AND CULVERT**

| ITEM NO.              | SPEC.    | ITEM DESCRIPTION                                                                                                                                                               | UNIT | ESTIMATED QUANTITY | UNIT PRICE  | TOTAL ESTIMATED PRICE |
|-----------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------|-----------------------|
| 1                     | 100 6001 | PREPARING ROW (CLEARING, GRUBBING AND ANY SITE PREP)                                                                                                                           | LS   | 1                  | \$ 1,890.00 | \$ 1,890.00           |
| 2                     | 110 6001 | EXCAVATION<br>(ALL EXCAVATION FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.)<br>(ESTIMATED AT 22 CY)                         | LS   | 1                  | \$ 2,205.00 | \$ 2,205.00           |
| 3                     | 132 6003 | EMBANKMENT (FINAL)(ORD COMP)(TY B)<br>(ALL EMBANKMENT FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.)<br>(ESTIMATED AT 19 CY) | LS   | 1                  | \$ 1,890.00 | \$ 1,890.00           |
| 4                     | 464 6003 | RC PIPE (CLIII)(18IN)                                                                                                                                                          | LF   | 82                 | \$ 176.40   | \$ 14,464.80          |
| 5                     | 467 6363 | SET(TYII)(18IN)(RCP)(R:1)(P)                                                                                                                                                   | EA   | 2                  | \$ 5,355.00 | \$ 10,710.00          |
| 6                     | 530 6004 | DRIVEWAYS (CONC)                                                                                                                                                               | SY   | 180                | \$ 157.50   | \$ 28,350.00          |
| 7                     | 2486     | BERMUDA SEED TIF 419                                                                                                                                                           | SY   | 169                | \$ 6.30     | \$ 1,064.70           |
| 8                     | 2490     | CHOCOLATE LOAM TOP SOIL                                                                                                                                                        | CY   | 10                 | \$ 63.00    | \$ 630.00             |
| TOTAL ALTERNATE BID 1 |          |                                                                                                                                                                                |      |                    |             | \$ 61,204.50          |

NOTE: PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.  
ALLOWANCE DOLLARS ARE TO BE USED ONLY AT THE DIRECTION OF THE CITY.

Total Base Bid + Alternate Bid 1 Price

\$ 280,243.72

Two Hundred and Eighty Thousand Two Hundred and Forty Three Dollars and Seventy Two Cents

**BID BOND****TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA**  
Hartford, Connecticut 06183

KNOWN ALL BY THESE PRESENTS, That we, Fazzone Construction Company, Inc. , as Principal, and Travelers Casualty and Surety Company of America, as Surety, are held and firmly bound unto City of Taylor , as Obligee, in the sum of Five Percent of Amount Bid Dollars (\$ 5% ) for the payment of which we bind ourselves, and our successors and assigns, jointly and severally, as provided herein.

WHEREAS, Principal has submitted or is about to submit a bid to the Obligee on a contract for Taylor Gateway Sign ("Project").

NOW, THEREFORE, the condition of this bond is that if Obligee accepts Principal's bid, and Principal enters into a contract with Obligee in conformance with the terms of the bid and provides such bond or bonds as may be specified in the bidding or contract documents, then this obligation shall be void; otherwise Principal and Surety will pay to Obligee the difference between the amount of Principal's bid and the amount for which Obligee shall in good faith contract with another person or entity to perform the work covered by Principal's bid, but in no event shall Surety's and Principal's liability exceed the penal sum of this bond.

Signed this 1st day of May , 2019 .

Fazzone Construction Company, Inc.

(Principal)

By: 

Travelers Casualty and Surety Company of America

By: 

Courtney J. Goulding

, Attorney-in-Fact



## POWER OF ATTORNEY

Farmington Casualty Company  
Fidelity and Guaranty Insurance Company  
Fidelity and Guaranty Insurance Underwriters, Inc.  
St. Paul Fire and Marine Insurance Company  
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company  
Travelers Casualty and Surety Company  
Travelers Casualty and Surety Company of America  
United States Fidelity and Guaranty Company

Attorney-In Fact No. 230196

Certificate No. 006807610

**KNOW ALL MEN BY THESE PRESENTS:** That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

William H. Pitts Jr., John E. Alford, Wesley M. Pitts, Douglas J. Wealty, Cynthia Giesen, Courtney J. Goulding, and William E. Gellhausen

of the City of Austin, State of Texas, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 20th day of May, 2016.

Farmington Casualty Company  
Fidelity and Guaranty Insurance Company  
Fidelity and Guaranty Insurance Underwriters, Inc.  
St. Paul Fire and Marine Insurance Company  
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company  
Travelers Casualty and Surety Company  
Travelers Casualty and Surety Company of America  
United States Fidelity and Guaranty Company



State of Connecticut  
City of Hartford ss.

By: \_\_\_\_\_

Robert L. Raney, Senior Vice President

On this the 20th day of May, 2016, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.  
My Commission expires the 30th day of June, 2021.



Marie C. Tetreault  
Marie C. Tetreault, Notary Public

### **IMPORTANT NOTICE**

To obtain information or make a complaint:

You may call Travelers Casualty and Surety Company of America and its affiliates' toll-free telephone number for information or to make a complaint at:

**1-800-328-2189**

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

**1-800-252-3439**

You may write the Texas Department of Insurance:

P. O. Box 149104  
Austin, TX 78714-9104  
Fax: (512) 475-1771  
Web: <http://www.tdi.state.tx.us>  
E-mail: [ConsumerProtection@tdi.state.tx.us](mailto:ConsumerProtection@tdi.state.tx.us)

#### **PREMIUM OR CLAIM DISPUTES:**

Should you have a dispute concerning your premium or about a claim you should contact your Agent or Travelers first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

#### **ATTACH THIS NOTICE TO YOUR BOND:**

This notice is for information only and does not become a part or condition of the attached document and is given to comply with Texas legal and regulatory requirements.

## SUPPLEMENTARY INSTRUCTIONS TO RESPONDENTS

### Section 16. AWARD OF CONTRACT – Competitive Sealed Proposals; Part 16.7 is supplemented with the following:

#### 1. BACKGROUND, EXPERIENCE, QUALIFICATIONS AND SAFETY PROGRAM

The Owner will consider the following during the evaluation process:

- a. Current business organizational structure, type of business structure; stability of organization  
**- Fazzone Construction Co., LLC. is a family owned and operated general contractor providing specialized site construction services to Austin, San Antonio and surrounding areas. The company currently operates a commercial building division and a commercial hardscapes division.**
- b. Number of years performing construction-contracting work under current name and/or previous business name(s)  
**- 62 years operating as a commercial construction company. 57 years in Central Texas**
- c. Availability of equipment and facilities  
**- Warehouse and shop located in Cedar Park Texas, 2 excavators, 1 bobcat, power tools, applicable hand/small tools, 4 trucks and trailers.**
- d. Summarize your FIRM'S experience and competence relevant to the proposed project. Briefly describe three (3) completed projects that demonstrate your capabilities to perform this work.  
**- City of Round Rock Gateway sign. Large gateway sign located along I-35 completed for the City of Round Rock. Scope included installation of large signage, electrical, landscape and irrigation.**  
**- Orchard Ridge Entryway. Entrance scope included site grading, masonry monument tower, electrical, hardscapes, landscape and irrigation.**  
**-Teravista Entryway. Scope included masonry hardscapes, entry sign installation, electrical, landscape and irrigation.**
- e. Provide qualifications and experience of the CONSTRUCTION TEAM that will be directly involved in the Project, including their experience with similar projects, the number of years with the FIRM, and their city(s) of residence. Include as applicable; Project Managers, Superintendents, Safety Coordinator.  
**-Paul Whetstone –Sr. Project manager. Project manager in two previous gateway signs, city of Buda and city of Round rock. 12 years with Fazzone Construction Company. City of residence Leander TX**  
**-Gene Davis – Sr. Site Superintendent. Leading site supervisor in several large entry way project along with the site supervisor for the Round Rock gateway sign. Employed with Fazzone construction for 11 years. City of residence Cedar Park TX**  
**- Carrie Wyman- project coordinator. Administrative and safety support. Employed with Fazzone Construction for 1.5 years. City of residence Leander, TX.**

- f. Identify and describe the CONSTRUCTION TEAM'S past experience for providing construction services that are MOST RELATED TO THIS PROJECT within the last five (5) years. List the projects in order of priority, with the most relevant project listed first. Provide the following information for each project listed:
1. Project name, amount, location, and description  
**- Round Rock City Gateway Sign, \$225,388.35, Round Rock TX, Gateway sign for the city of Round Rock Texas.**
  2. Final construction cost  
**- \$225,388.35**
  3. Name of Project Manager (individual responsible to the Owner for the overall success of the project)  
**-Paul Whetstone**
  4. Name of Project Superintendent (individual responsible for coordinating the day to day work)  
**- Gene Davis**
  5. References
    - a. The Owner's representative who served as the day-to-day liaison during construction, including telephone number  
**- Laton Carr City of Round Rock 512-218-3238**
    - b. Architect/Engineer's name and representative who served as the day-to-day liaison during construction, including telephone number  
**-Brandon Hay Backer-Aicken & Assoc.**References shall be considered relevant based on specific project participation and experience with the Respondent. The Owner may contact references during any part of this process. The Owner reserves the right to contact any other references at any time during the evaluation process.

m. Safety Program

1. Describe your FIRM's job site safety program for this Project and specific safety policies in which employees must be in compliance.  
**-Current safety program includes a written injury and illness prevention plan that documents job safety and health requirements. Required safety training for all employees. General safe working practices and specific training for specialized practices within the organization. Safety program includes retention of training documents, OSHA record keeping along with properly implemented Hazard Communications with where to access Material Safety Data Sheets for chemicals on jobsites.**

2. PROPOSED PLAN, SCHEDULE & QUALITY CONTROL PROGRAM

- a. Describe your proposed work plan for this project.  
**- This project will require a long lead time for the signage due to the size and required engineering. Submittals will be initiated in the beginning of the project to get the production process started. Once approved engineering and signage production begins. This process will start prior to ground breaking. A preconstruction meeting will be held prior to ground break to discuss potential issues and resolution. We will mobilize the project, install erosion controls and construction entrance. Site work will begin, including installation of the culvert and driveway, at this time the initial site grading and underground utilities will be placed. From there we will install all concrete including the footer for the sign. Installation of masonry elements, along with the sign installation will be completed next. We then will complete electrical, final grading, irrigation installation and landscape. Demobilization and final clean up. See attached Schedule.**

- b. Describe your construction management approach and ability to coordinate work with all



subcontractors and suppliers in order to meet the deadlines established in the submitted construction schedule.

**- A traditional project management approach will be used on this project. This technique uses clear milestones between tasks. Set due dates, deliverables and client expectations are all set in a clear project timeline organized on Microsoft Project. A high percentage of our subcontractors are prime subcontractors that work well within our established deadlines. Clear an open communication on the project will be one of the prevailing concentrations.**

- c. Describe your ability to complete the project within the schedule taking into account existing commitments.

**- We have evaluated the activities, sequences and the resources needed for this project and have determined it is within our resources to complete this project along with our prior commitments.**

- d. Describe your back-up/contingency plan for any unanticipated delays.

**- Our risk management plan includes avoiding unnecessary risk, setting realistic deadlines that are reflective of all risk and priorities. Providing once again working goals, benchmarks and milestones. Known project delays are minimized by being aware of the project and its goals, scheduling wisely, following the set project process and communicating often.**

- e. Describe your quality control program.

**- Program includes an organization chart with detailed job descriptions including qualifications and training and who is responsible for what. Work verification detailing who is responsible for what within the organization. Materials purchasing and receiving plan includes submittals for owner improvement along with material inspection upon arrival. Qualified suppliers and vendors who provide adequate specified materials. Quality Feedback Assurance completed by site supervisor and project manager along with non-compliance reports. Processes for corrective action due to noncompliance in the QMS program.**

### **3. PRICE**

The Proposal with the lowest price total will receive the maximum points available for the price portion of the selection criteria. The other proposals will receive 1 point less for every percent higher than the lowest price.

### **4. FORMAT OF PROPOSALS**

- a. Proposals shall be prepared SIMPLY AND ECONOMICALLY, providing a straightforward, CONCISE description of the respondent's ability to meet the requirements of this CSP. Emphasis shall be on the QUALITY, completeness, clarity of content, responsiveness to the requirements, and an understanding of Owner's needs.
- b. Respondents shall carefully read the information contained in this RFCSP and submit a complete response to all requirements and questions as directed. Incomplete Proposals will be considered nonresponsive and subject to rejection.
- c. Proposals and any other information submitted by respondents in response to this CSP shall become the property of the Owner.
- d. The Respondent must designate any portion of its Technical Proposal, which contains trade secrets, or other proprietary data.

Submission of a Proposal indicates Respondent's acceptance of the evaluation technique and Respondent's recognition that some subjective judgments must be made by the Owner during the evaluation.

**END OF SECTION**

| ID | Task Mode | Task Name                         | Duration        | Start              | Finish              | Predecessors | Resource Names | 28, '19<br>M   T   W   T   F |
|----|-----------|-----------------------------------|-----------------|--------------------|---------------------|--------------|----------------|------------------------------|
| 1  |           | <b>Taylor Gateway Sign</b>        | <b>120 days</b> | <b>Tue 4/30/19</b> | <b>Mon 10/14/19</b> |              |                |                              |
| 2  |           | <b>Mobilization</b>               | <b>90 days</b>  | <b>Tue 4/30/19</b> | <b>Mon 9/2/19</b>   |              |                |                              |
| 3  |           | set staging area                  | 5 days          | Tue 6/18/19        | Mon 6/24/19         |              |                |                              |
| 4  |           | delivery port toilet              | 1 day           | Tue 6/25/19        | Tue 6/25/19         |              |                |                              |
| 5  |           | initial layout                    | 1 day           | Tue 6/25/19        | Tue 6/25/19         |              |                |                              |
| 6  |           | engineering of sign               | 25 days         | Tue 4/30/19        | Mon 6/3/19          |              |                |                              |
| 7  |           | sign order and production         | 65 days         | Tue 6/4/19         | Mon 9/2/19          |              |                |                              |
| 8  |           | <b>erosion control</b>            | <b>7 days</b>   | <b>Wed 6/26/19</b> | <b>Thu 7/4/19</b>   |              |                |                              |
| 9  |           | install construction entrance     | 1 day           | Wed 6/26/19        | Wed 6/26/19         |              |                |                              |
| 10 |           | intall erosion controls           | 6 days          | Thu 6/27/19        | Thu 7/4/19          |              |                |                              |
| 11 |           | <b>Site Work</b>                  | <b>13 days</b>  | <b>Fri 7/5/19</b>  | <b>Tue 7/23/19</b>  |              |                |                              |
| 12 |           | Driveway culvert installation     | 6 days          | Fri 7/5/19         | Fri 7/12/19         |              |                |                              |
| 13 |           | Rough in                          | 7 days          | Mon 7/15/19        | Tue 7/23/19         |              |                |                              |
| 14 |           | Swell install                     | 6 days          | Wed 7/24/19        | Wed 7/31/19         |              |                |                              |
| 15 |           | Concret headwall                  | 6 days          | Thu 8/1/19         | Thu 8/8/19          |              |                |                              |
| 16 |           | Initial site grading              | 7 days          | Fri 7/5/19         | Mon 7/15/19         |              |                |                              |
| 17 |           | Concrete driveway                 | 6 days          | Tue 7/16/19        | Tue 7/23/19         |              |                |                              |
| 18 |           | Concrete footing                  | 2 days          | Tue 7/16/19        | Wed 7/17/19         |              |                |                              |
| 19 |           | masonry                           | 18 days         | Thu 7/18/19        | Mon 8/12/19         |              |                |                              |
| 20 |           | Electrical/Irrigation Underground | 8 days          | Tue 7/16/19        | Thu 7/25/19         |              |                |                              |
| 21 |           | Install Sign                      | 30 days         | Tue 9/3/19         | Mon 10/14/19        |              |                |                              |

Project: Project Schedule2  
Date: Wed 5/1/19

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Progress

Manual Progress

| ID | Task Mode | Task Name                                 | Duration | Start        | Finish       | Predecessors | Resource Names | 28, '19 | M | T | W | T | F |
|----|-----------|-------------------------------------------|----------|--------------|--------------|--------------|----------------|---------|---|---|---|---|---|
| 22 |           | Landscape sodding/top soil/mulch/planting | 18 days  | Tue 10/15/19 | Thu 11/7/19  | 21           |                |         |   |   |   |   |   |
| 23 |           | electrical finalization                   | 5 days   | Fri 11/8/19  | Thu 11/14/19 | 22           |                |         |   |   |   |   |   |
| 24 |           | Demobilization                            | 2 days   | Fri 11/15/19 | Mon 11/18/19 | 23           |                |         |   |   |   |   |   |
| 25 |           | Final Clean Up                            | 5 days   | Tue 11/19/19 | Mon 11/25/19 | 24           |                |         |   |   |   |   |   |
| 26 |           | Final Walk                                | 1 day    | Tue 11/26/19 | Tue 11/26/19 | 25           |                |         |   |   |   |   |   |

Project: Project Schedule2  
Date: Wed 5/1/19

Task

Split

Milestone Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

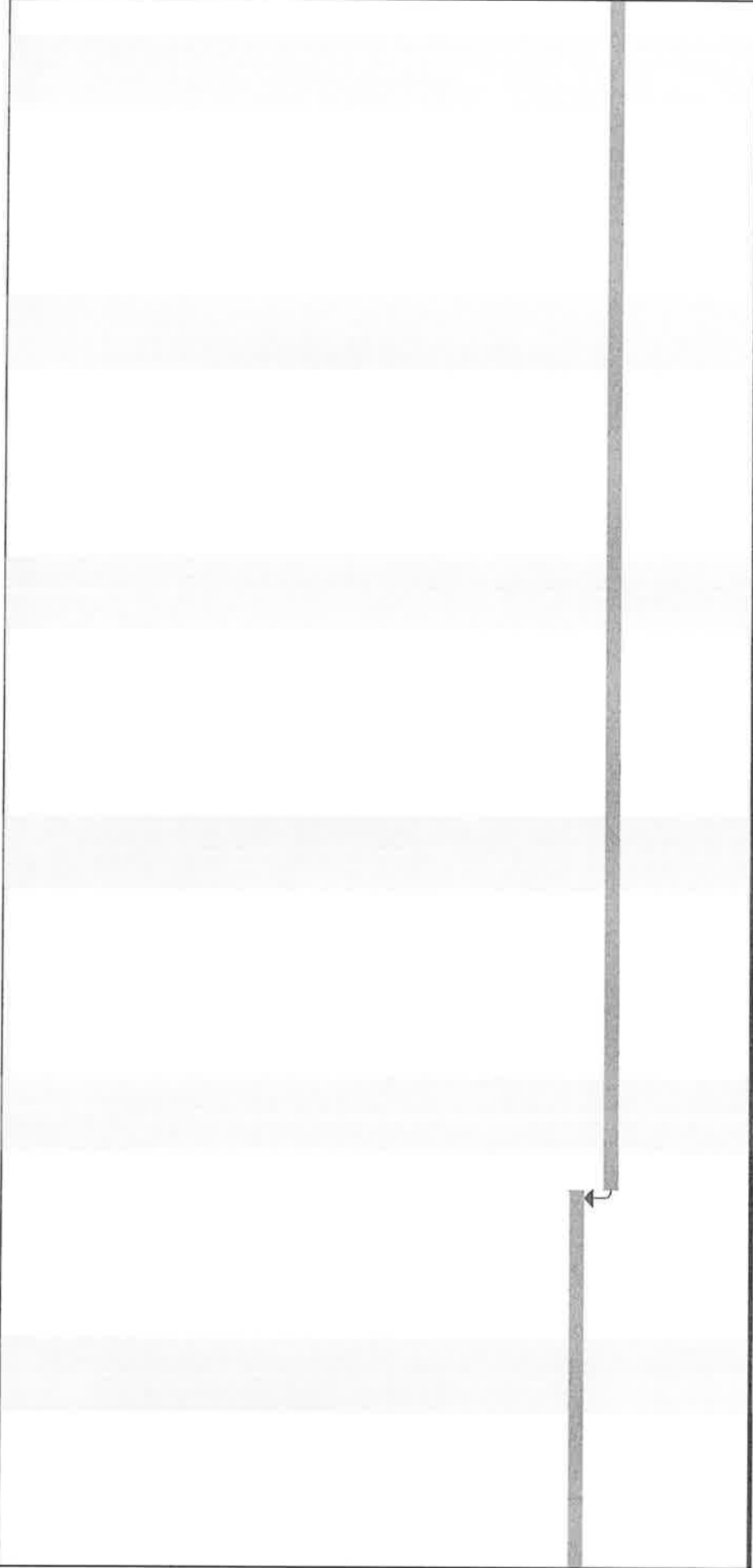
External Milestone

Deadline

Progress

Manual Progress

|            |   |   |   |   |   |   |             |   |   |   |   |   |   |             |   |   |   |   |   |   |             |   |   |   |   |   |   |            |   |   |   |   |   |   |            |   |   |   |   |   |   |
|------------|---|---|---|---|---|---|-------------|---|---|---|---|---|---|-------------|---|---|---|---|---|---|-------------|---|---|---|---|---|---|------------|---|---|---|---|---|---|------------|---|---|---|---|---|---|
| May 5, '19 |   |   |   |   |   |   | May 12, '19 |   |   |   |   |   |   | May 19, '19 |   |   |   |   |   |   | May 26, '19 |   |   |   |   |   |   | Jun 2, '19 |   |   |   |   |   |   | Jun 9, '19 |   |   |   |   |   |   |
| F          | S | S | M | T | W | T | F           | S | S | M | T | W | T | F           | S | S | M | T | W | T | F           | S | S | M | T | W | T | F          | S | S | M | T | W | T | F          | S | S | M | T | W | T |



|                                                |                    |  |                       |  |
|------------------------------------------------|--------------------|--|-----------------------|--|
| Project: Project Schedule2<br>Date: Wed 5/1/19 | Task               |  | Inactive Summary      |  |
|                                                | Split              |  | Manual Task           |  |
|                                                | Milestone Summary  |  | Duration-only         |  |
|                                                | Project Summary    |  | Manual Summary Rollup |  |
|                                                | Inactive Task      |  | Manual Summary        |  |
|                                                | Inactive Milestone |  | Start-only            |  |
|                                                |                    |  | Finish-only           |  |

May 5, '19 May 12, '19 May 19, '19 May 26, '19 Jun 2, '19 Jun 9, '19

F S S M T W T F S S M T W T F S S M T W T F S S M T W T

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

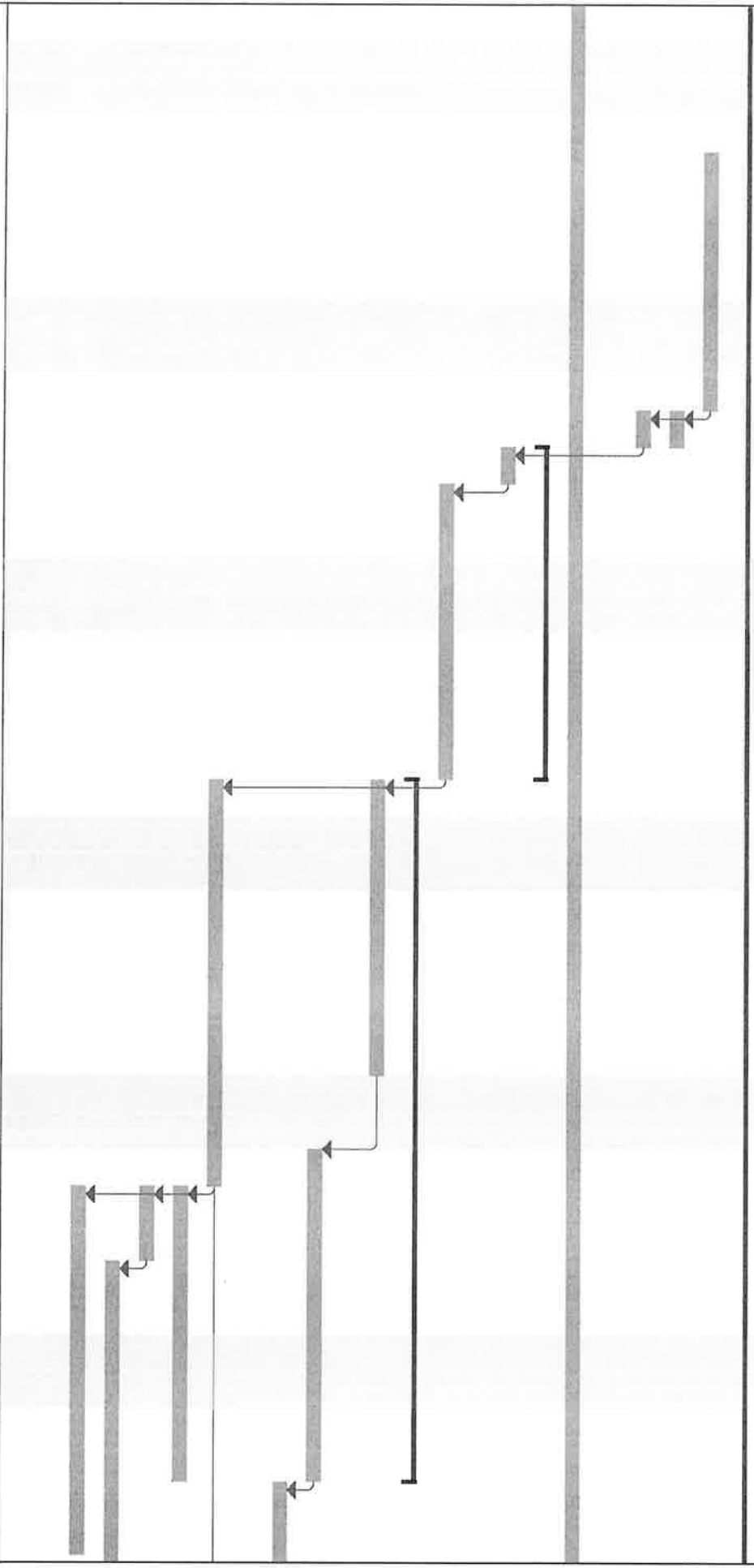
Progress

Manual Progress

Project: Project Schedule2

Date: Wed 5/1/19

Page 4

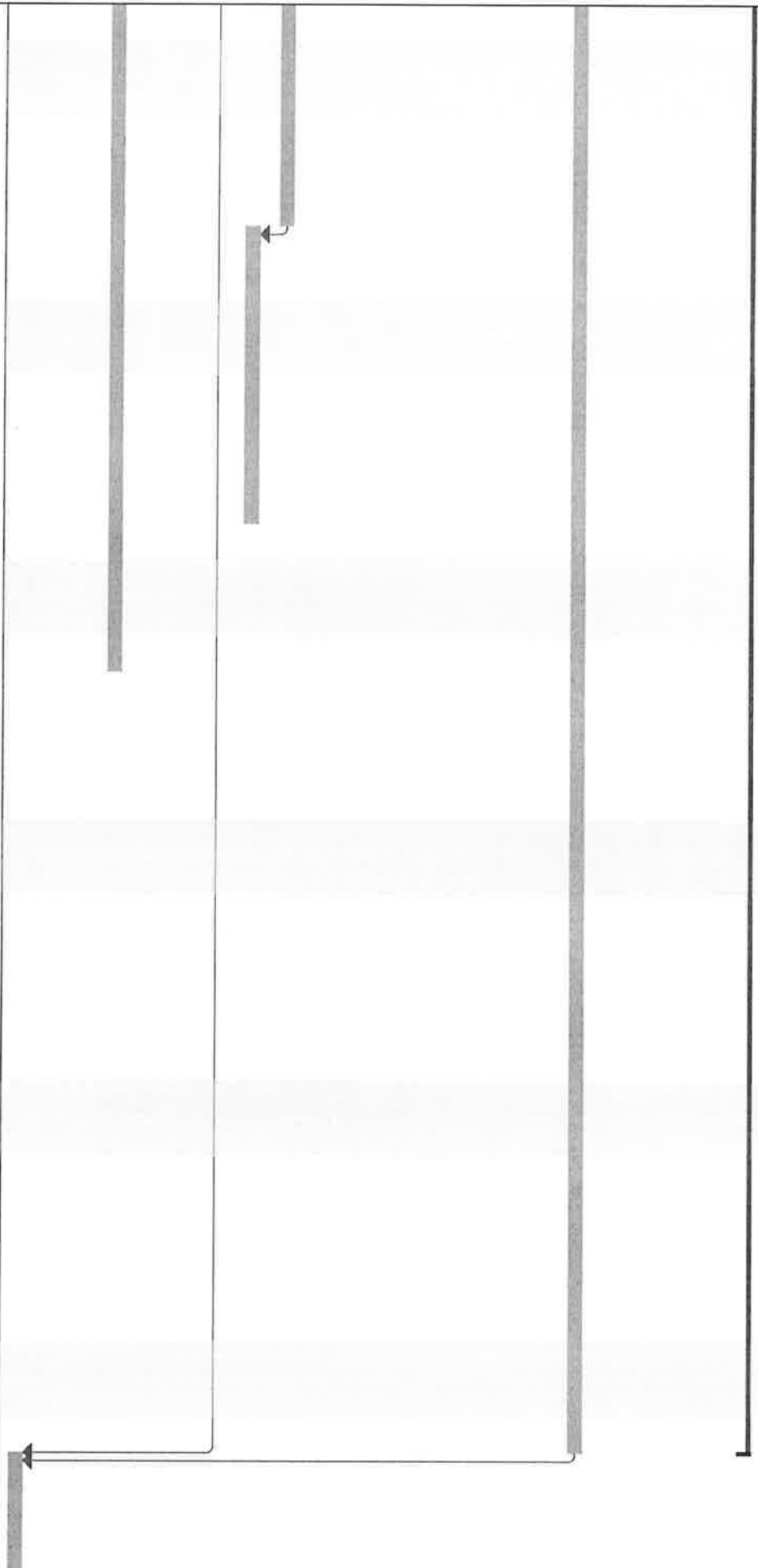


Project: Project Schedule2  
Date: Wed 5/1/19

|                    |                       |                    |
|--------------------|-----------------------|--------------------|
| Task               | Inactive Summary      | External Tasks     |
| Split              | Manual Task           | External Milestone |
| Milestone          | Duration-only         | Deadline           |
| Summary            | Manual Summary Rollup | Progress           |
| Project Summary    | Manual Summary        | Manual Progress    |
| Inactive Task      | Start-only            |                    |
| Inactive Milestone | Finish-only           |                    |







Project: Project Schedule2  
Date: Wed 5/1/19

Project: Project Schedule2  
Date: Wed 5/1/19

|                    |                                                                                   |                       |                                                                                     |                    |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|
| Task               |  | Inactive Summary      |  | External Tasks     |  |
| Split              |  | Manual Task           |  | External Milestone |  |
| Milestone          |  | Duration-only         |  | Deadline           |  |
| Summary            |  | Manual Summary Rollup |  | Progress           |  |
| Project Summary    |  | Manual Summary        |  | Manual Progress    |  |
| Inactive Task      |  | Start-only            |  |                    |                                                                                     |
| Inactive Milestone |  | Finish-only           |  |                    |                                                                                     |

Project: Project Schedule2  
 Date: Wed 5/1/19

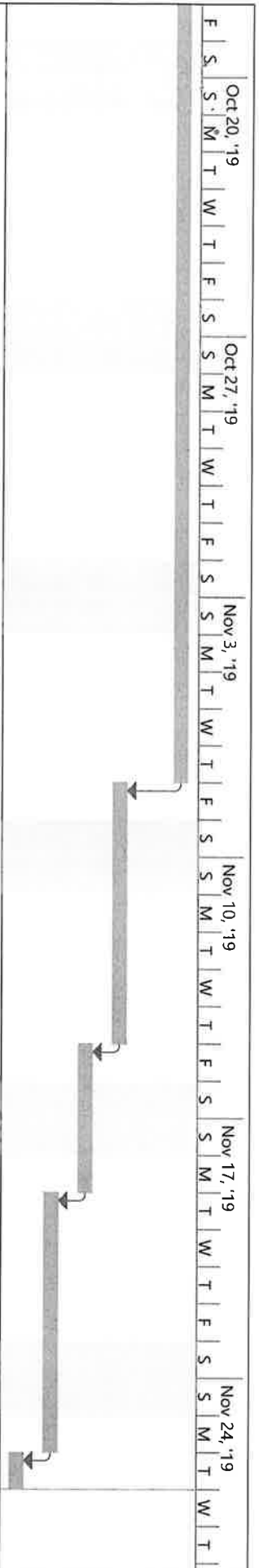
|                    |                                                                                   |                       |                                                                                     |                    |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|
| Task               |  | Inactive Summary      |  | External Tasks     |  |
| Split              |  | Manual Task           |  | External Milestone |  |
| Milestone          |  | Duration-only         |  | Deadline           |  |
| Summary            |  | Manual Summary Rollup |  | Progress           |  |
| Project Summary    |  | Manual Summary        |  | Manual Progress    |  |
| Inactive Task      |  | Start-only            |  |                    |                                                                                     |
| Inactive Milestone |  | Finish-only           |  |                    |                                                                                     |

Project: Project Schedule2  
Date: Wed 5/1/19

|                    |                                                                                   |                       |                                                                                     |                    |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|
| Task               |  | Inactive Summary      |  | External Tasks     |  |
| Split              |  | Manual Task           |  | External Milestone |  |
| Milestone          |  | Duration-only         |  | Deadline           |  |
| Summary            |  | Manual Summary Rollup |  | Progress           |  |
| Project Summary    |  | Manual Summary        |  | Manual Progress    |  |
| Inactive Task      |  | Start-only            |  |                    |                                                                                     |
| Inactive Milestone |  | Finish-only           |  |                    |                                                                                     |

Project: Project Schedule2  
Date: Wed 5/1/19

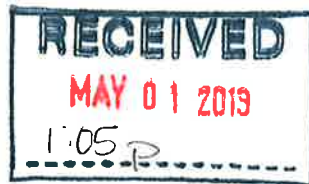
|                    |                                                                                   |                  |                                                                                     |                    |                                                                                     |
|--------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|
| Task               |  | Inactive Summary |  | External Tasks     |  |
| Split              |  | Manual Task      |  | External Milestone |  |
| Milestone Summary  |  | Duration-only    |  | Progress           |  |
| Project Summary    |  | Manual Summary   |  | Manual Progress    |  |
| Inactive Task      |  | Start-only       |  |                    |                                                                                     |
| Inactive Milestone |  | Finish-only      |  |                    |                                                                                     |



|                            |                       |
|----------------------------|-----------------------|
| Project: Project Schedule2 |                       |
| Date: Wed 5/1/19           |                       |
| Task                       | Inactive Summary      |
| Split                      | Manual Task           |
| Milestone                  | Duration-only         |
| Summary                    | Manual Summary Rollup |
| Project Summary            | Manual Summary        |
| Inactive Task              | Start-only            |
| Inactive Milestone         | Finish-only           |
|                            | External Tasks        |
|                            | External Milestone    |
|                            | Deadline              |
|                            | Progress              |
|                            | Manual Progress       |



City of Taylor  
400 Porter Street  
Taylor, Texas 76574



Shae  
Havam

**BID ENCLOSED**

Proposal for:  
**City of Taylor – 2019  
Gateway Sign**

**Bid Date: May 1, 2019**

**Bid Time: 2:00 p.m. CDT**

Submitted by:

Landart America, LLC

13306 Wright Road

Buda, TX 78610

512-295-7535 ext 215

**BID FORM**  
**2019 Gateway Sign Project**

**ARTICLE 1 - BID RECIPIENT**

1.01 This Bid is submitted to:

*City of Taylor, Texas*

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 - BIDDER'S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

2.02 BIDDER will sign and deliver the required number of counterparts of the AGREEMENT with the Bonds and other documents required by the Bidding Requirements within 7 days after the date of OWNER's Notice of Award.

**ARTICLE 3 - BIDDER'S REPRESENTATIONS**

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| <u>Addendum No.</u> | <u>Addendum, Date</u> |
|---------------------|-----------------------|
| Addendum No 1       | 4/25/2019             |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

**ARTICLE 4 - BIDDER'S CERTIFICATION**

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

**ARTICLE 5 - BASIS OF BID**

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

| BASE BID |                  |                                                                                                                                                                                                                                                                                                     |      |                    |              |                       |
|----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|--------------|-----------------------|
| ITEM NO. | SPEC.            | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                    | UNIT | ESTIMATED QUANTITY | UNIT PRICE   | TOTAL ESTIMATED PRICE |
| 1        | 100 6001         | PREPARING ROW {CLEARING, GRUBBING AND ANY SITE PREP}                                                                                                                                                                                                                                                | LS   | 1                  | \$7,914.29   | \$7,914.29            |
| 2        | 132 6003         | EMBANKMENT {FINAL}{ORD COMP}{TY B) {ALL EMBANKMENT FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.) {ESTIMATED AT 127 CY)                                                                                                                           | LS   | 1                  | \$8,402.68   | \$8,402.68            |
| 3        | 02300            | SITE GRADING {TO INCLUDE FINE GRADING & ALL HERBICIDE TREATMENTS FOR INSTALLATION OF ALL HARDSCAPE AND LANDSCAPE ITEMS AS SHOWN IN THE BID DOCUMENTS. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.)                                                           | LS   | 1                  | \$6,364.29   | \$6,364.29            |
| 4        | 506 6002         | ROCK FILTER DAMS {INSTALL} {TY 2)                                                                                                                                                                                                                                                                   | LF   | 63                 | \$129.60     | \$8,164.74            |
| 5        | 506 6011         | ROCK FILTER DAMS {REMOVE}                                                                                                                                                                                                                                                                           | LF   | 63                 | \$68.03      | \$4,285.71            |
| 6        | 506 6038         | TEMP SEDMT CONT FENCE {INSTALL} {SILT FENCE)                                                                                                                                                                                                                                                        | LF   | 104                | \$5.44       | \$565.71              |
| 7        | 506 6039         | TEMP SEDMT CONT FENCE {REMOVE} {SILT FENCE)                                                                                                                                                                                                                                                         | LF   | 104                | \$1.89       | \$196.43              |
| BASE BID |                  |                                                                                                                                                                                                                                                                                                     |      |                    |              |                       |
| ITEM NO. | SPEC.            | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                    | UNIT | ESTIMATED QUANTITY | UNIT PRICE   | TOTAL ESTIMATED PRICE |
| 8        | 1000 6001        | LANDSCAPE MAINTENANCE {PRICE INCLUDES CORRECTION OF DEFICIENCIES FOR ITEMS IN SPEC 02490 AND 02486)                                                                                                                                                                                                 | MO   | 12                 | \$961.54     | \$11,538.48           |
| 9        | PER PLAN DETAILS | MONUMENT SIGN {PRICE TO INCLUDE CONSTRUCTION AND INSTALLATION OF MONUMENT SIGN. INCLUDING LUMP SUM COST FOR SIGN LIGHTING. STRUCTURAL DESIGN TO BE PROVIDED BY A TEXAS LICENSED STRUCTURAL ENGINEER. DRAWINGS TO BE SUBMITTED TO OWNER / OWNERS REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION.) | LS   | 1                  | \$184,045.10 | \$184,045.10          |

|    |                     |                                                                                                                                                                                                                                                                       |    |    |                 |                   |
|----|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----------------|-------------------|
| 10 | 506 6020            | STABILIZED CONSTRUCTION ENTRANCE<br>{INSTALL}                                                                                                                                                                                                                         | CY | 25 | <b>\$170.77</b> | <b>\$4,269.29</b> |
| 11 | 506 6024            | STABILIZED CONSTRUCTION ENTRANCE<br>{REMOVE}                                                                                                                                                                                                                          | CY | 25 | <b>\$57.14</b>  | <b>\$1,428.57</b> |
| 12 | PER PLAN<br>DETAILS | UPLIGHTS FOR TREE LIGHTING<br>{PRICE TO INCLUDE ALL ACCESSORIES,<br>INCLUDED BUT NOT LIMITED TO<br>TRANSFORMERS, MOUTING, J BOXES,<br>ROUGH-IN, HAND HOLES, PULL BOXES, ETC.<br>AS REQUIRED PER CODE. INSTALLATION TO<br>BE DONE BY A TEXAS LICENSED<br>ELECTRICIAN.) | EA | 9  | <b>\$703.23</b> | <b>\$6,329.07</b> |

**BASE BID**

| ITEM<br>NO. | SPEC.               | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                        | UNIT | ESTIMATED<br>QUANTITY | UNIT PRICE         | TOTAL ESTIMATED<br>PRICE |
|-------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|--------------------|--------------------------|
| 13          | PER PLAN<br>DETAILS | DURAFLEX LIGHTING ON SURFACE<br>PERIMETER OF SIGN<br>{PRICE TO INCLUDE ALL ACCESSORIES,<br>INCLUDED BUT NOT LIMITED TO<br>TRANSFORMERS, MOUTING, J BOXES,<br>ROUGH-IN, HAND HOLES, PULL BOXES, ETC.<br>AS REQUIRED PER CODE. INSTALLATION TO<br>BE DONE BY A TEXAS LICENSED<br>ELECTRICIAN.)<br>{ESTIMATED AT 60 LF}                                                                    | LS   | 1                     | <b>\$5,421.48</b>  | <b>\$5,421.48</b>        |
| 14          | PER PLAN<br>DETAILS | ELECTRICAL<br>{ELECTRICAL CONNECTIONS FROM OWNER<br>PROVIDED ELECTRICAL METER TO SIGN AND<br>ALL REQUIRED CONNECTIONS NECESSARY<br>TO POWER MONUMENT SIGN,<br>INSTALLATION TO BE DONE BY A TEXAS<br>LICENSED ELECTRICIAN)                                                                                                                                                               | LS   | 1                     | <b>\$11,127.09</b> | <b>\$11,127.09</b>       |
| 15          | 02810               | IRRIGATION SYSTEM<br>{ <del>INCLUSINVE OF ALL WORK CONNECTING TO<br/>THE METER, FOR ALL EQUIPMENT AND<br/>LABOR, INCLUDED BUT NOT LIMITED TO<br/>BACKFLOW PREVENTER, CHECK VALVES,<br/>SLEEVES, PVC CLASS 200, PVC SCHEDULE 40,<br/>FITTINGS, NOZZLES, VALVES, VALVE BOXES,<br/>CONTROLLER, FLOW SENSOR, RAIN/FREEZE<br/>SENSOR, DECODERS, AND INCLUSIVE OF ALL<br/>INCIDENTALS</del> } | EA   | 1                     | <b>\$980.15</b>    | <b>\$980.15</b>          |

**BASE BID**

| ITEM<br>NO. | SPEC. | ITEM DESCRIPTION | UNIT | ESTIMATED<br>QUANTITY | UNIT PRICE | TOTAL ESTIMATED<br>PRICE |
|-------------|-------|------------------|------|-----------------------|------------|--------------------------|
|-------------|-------|------------------|------|-----------------------|------------|--------------------------|

|    |       |                                                                                                                                                                                                                                                                                                  |    |      |         |            |
|----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|---------|------------|
| 16 | 02810 | TREE BUBBLERS - 2 PER SHADE TREE, ONE PER ORNAMENTAL TREE<br>{FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS) | EA | 30   | \$63.23 | \$1,896.90 |
| 17 | 02810 | SEED PERMANENT SPRAY IRRIGATION<br>{FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS)                           | SF | 6530 | \$0.54  | \$3,526.20 |
| 18 | 02810 | TEMPORARY IRRIGATION UNTIL ESTABLISHMENT,<br>{FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS)                 | SF | 4087 | \$0.24  | \$980.88   |

**BASE BID**

| ITEM NO. | SPEC. | ITEM DESCRIPTION                                                                                                                                                                                                                                            | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL ESTIMATED PRICE |
|----------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|------------|-----------------------|
| 19       | 02810 | BED DRIP IRRIGATION,<br>{FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS) | SF   | 1409               | \$0.85     | \$1,197.65            |
| 20       | 02490 | QUERCUS VIRGINIANA/ SOUTHERN LIVE OAK<br>{3" CAL. 12-15' HT X 8' SPD CONT. GRWN.}                                                                                                                                                                           | EA   | 2                  | \$639.40   | \$1,278.80            |
| 22       | 02490 | ILEX VOMITORIA/ YAUPON HOLLY<br>{1" CAL. 6' H X 4 SPD CONT. GRWN.}                                                                                                                                                                                          | EA   | 3                  | \$287.25   | \$861.75              |
| 23       | 02490 | LAGERSTROEMIA INDICA 'TUSCARORA'/<br>CRAPE MYRTLE<br>{1" CAL. @ 3 TRUNKS MIN. 8-9' H X 3- 4' SPD CONT. GRWN.}                                                                                                                                               | EA   | 4                  | \$279.52   | \$1,118.08            |

|    |       |                                                                          |    |    |         |            |
|----|-------|--------------------------------------------------------------------------|----|----|---------|------------|
| 24 | 02490 | LANTANA CAMARA 'NEW GOLD'/ NEW GOLD LANTANA<br>{3 GAL. CONT.}            | EA | 50 | \$23.96 | \$1,198.00 |
| 26 | 02490 | LIGUSTRUM JAPONICUM 'VARIEGATUM'/<br>VARIEGATED PRIVET<br>{5 GAL. CONT.} | EA | 5  | \$21.71 | \$108.55   |
| 28 | 02490 | SALVIA GREGGII/ AUTUMN SAGE<br>{3 GAL. CONT.}                            | EA | 28 | \$22.48 | \$629.44   |
| 29 | 02490 | MUHLENBERGIA CAPILLARIS/ GULF MUHLY<br>{3 GAL. CONT.}                    | EA | 31 | \$21.71 | \$673.01   |

**BASE BID**

| ITEM NO.       | SPEC. | ITEM DESCRIPTION                                                  | UNIT | ESTIMATED QUANTITY | UNIT PRICE  | TOTAL ESTIMATED PRICE |
|----------------|-------|-------------------------------------------------------------------|------|--------------------|-------------|-----------------------|
| 30             | 02490 | AGAVE AMERICANA/ CENTURY PLANT<br>{7 GAL. CONT.}                  | EA   | 3                  | \$82.02     | \$246.06              |
| 31             | 02490 | DASYLIRION WHEELERI/ WHEELER SOTOL<br>{5 GAL. CONT.}              | EA   | 11                 | \$27.90     | \$306.90              |
| 32             | 02490 | HESPERALOE PARVIFOLORA/ RED YUCCA<br>{5 GAL. CONT.}               | EA   | 10                 | \$25.58     | \$255.80              |
| 33             | 02490 | OPUNTIA ENGELMANII/ CACTUS APPLE<br>{10 GAL. CONT.}               | EA   | 10                 | \$120.77    | \$1,207.70            |
| 34             | 02490 | PLANT BED SOIL MIX {PRO-GRO SOIL MIX OR<br>APPROVED EQUAL}        | CY   | 19                 | \$58.16     | \$1,105.04            |
| 35             | 02490 | IMPORTED SHREDDED BLACK HARDWOOD<br>MULCH, SPREAD                 | CY   | 9                  | \$57.01     | \$513.09              |
| 36             | 02486 | BERMUDA SEED TIF 419                                              | SF   | 10614              | \$0.08      | \$849.12              |
| 38             | 02490 | CHOCOLATE LOAM TOP SOIL<br>{SEED TOPSOIL AREAS ESTIMATE AT 66 CY} | CY   | 66                 | \$38.13     | \$2,516.58            |
| 39             | 02490 | NEW MEXICO RIVER GRAVEL                                           | SF   | 389                | \$1.41      | \$548.49              |
| 40             | 02490 | STEEL EDGING {3/16" X 4"} BROWN                                   | LF   | 297                | \$5.71      | \$1,695.87            |
| 41             | 02490 | FILTER FABRIC / WEED BARRIER                                      | SF   | 400                | \$0.42      | \$168.00              |
| 42             |       | MISCELLANEOUS WORK ALLOWANCE                                      | LS   | 1                  | \$15,000.00 | \$15,000.00           |
| TOTAL BASE BID |       |                                                                   |      |                    |             | \$298,914.99          |

**ALTERNATE BID 1 - DRIVEWAY AND CULVERT**

| ITEM NO.              | SPEC.    | ITEM DESCRIPTION                                                                                                                                                               | UNIT | ESTIMATED QUANTITY | UNIT PRICE        | TOTAL ESTIMATED PRICE |
|-----------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|-----------------------|
| 1                     | 100 6001 | PREPARING ROW {CLEARING, GRUBBING AND ANY SITE PREP}                                                                                                                           | LS   | 1                  | <b>\$6,006.35</b> | <b>\$6,006.35</b>     |
| 2                     | 110 6001 | EXCAVATION<br>{ALL EXCAVATION FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.}<br>{ESTIMATED AT 22 CY}                         | LS   | 1                  | <b>\$4,357.14</b> | <b>\$4,357.14</b>     |
| 3                     | 132 6003 | EMBANKMENT {FINAL}{ORD COMP}{TY B)<br>{ALL EMBANKMENT FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.}<br>{ESTIMATED AT 19 CY} | LS   | 1                  | <b>\$3,481.20</b> | <b>\$3,481.20</b>     |
| 4                     | 464 6003 | RC PIPE {CLIII}{18IN}                                                                                                                                                          | LF   | 82                 | <b>\$79.29</b>    | <b>\$6,501.78</b>     |
| 5                     | 467 6363 | SET{TYII}{18IN}{RCP}{R:1}{P}                                                                                                                                                   | EA   | 2                  | <b>\$2,201.79</b> | <b>\$4,403.58</b>     |
| 6                     | 530 6004 | DRIVEWAYS {CONC}                                                                                                                                                               | SY   | 180                | <b>\$170.23</b>   | <b>\$30,641.14</b>    |
| 7                     | 02486    | BERMUDA SEED TIF 419                                                                                                                                                           | SY   | 169                | <b>\$0.72</b>     | <b>\$121.68</b>       |
| 8                     | 02490    | CHOCOLATE LOAM TOP SOIL                                                                                                                                                        | CY   | 10                 | <b>\$38.13</b>    | <b>\$381.30</b>       |
| TOTAL ALTERNATE BID 1 |          |                                                                                                                                                                                |      |                    |                   | <b>\$55,894.17</b>    |

NOTE: PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.  
ALLOWANCE DOLLARS ARE TO BE USED ONLY AT THE DIRECTION OF THE CITY.

**Total Base Bid + Alternate Bid 1 Price** <sup>\$</sup>Three Hundred Fifty-Four Thousand Eight Hundred Nine Dollars & Sixteen Cents  
(use words)



\*Bidder acknowledges that {1} each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and {2} estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

#### ARTICLE 6 - TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete within 120 calendar days, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 150 calendar days.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

#### ARTICLE 7 - ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Project References;
- C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- D. Required Bidder Qualification Statement with supporting data; and

7.03 Other Requirements

#### ARTICLE 8 - DEFINED TERMS

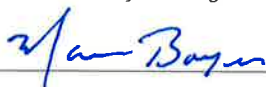
8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

#### ARTICLE 9 - BID SUBMITTAL

BIDDER: {Indicate correct name of bidding entity}

By:

{Signature}



{Printed name} Marc Boyer, Chief Financial Officer

{If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.}

Attest:

{Signature}

{Printed name}



Letitia Gammage Hite

Title: Estimator

Submittal Date: 01 May 2019

Address for giving notices: PO Box 1438 Buda, TX 78610 (Accounting)/13306 Wright Road Buda, TX 78610 (Physical)

Telephone Number: 512-295-7535 ext 215

Fax Number: 512-675-2701

Contact Name and e-mail address: Leti Hite, [estimating@landartamerica.com](mailto:estimating@landartamerica.com) or [leti@landartamerica.com](mailto:leti@landartamerica.com)

Bidder's License No.:

{where applicable}

# Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

## Bid Bond

### CONTRACTOR:

(Name, legal status and address)

Landart America, LLC  
13306 Wright Road  
Buda, TX 78610

### SURETY:

(Name, legal status and principal place of business)

American Contractors Indemnity Company dba Texas Bonding Company  
801 S. Figueroa Street, Suite 700  
Los Angeles, CA 90017

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

### OWNER:

(Name, legal status and address)

City of Taylor  
400 Porter Street  
Taylor, TX 76574

**BOND AMOUNT:** \$ Five Percent (5%) of the Total Amount Bid

### PROJECT:

(Name, location or address, and Project number, if any)

2019 Gateway Sign Project, Taylor, TX

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 25th day of April 2019

  
(Witness)

Landart America, LLC

(Principal)

(Seal)

  
(Title)

American Contractors Indemnity Company dba Texas Bonding Company

(Surety)

(Seal)

  
(Title) Ginger Hoke, Attorney-in-Fact

  
(Witness) Jessica Potts





**TOKIO MARINE  
HCC**

## POWER OF ATTORNEY

**AMERICAN CONTRACTORS INDEMNITY COMPANY TEXAS BONDING COMPANY  
UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY**

KNOW ALL MEN BY THESE PRESENTS: That American Contractors Indemnity Company, a California corporation, Texas Bonding Company, an assumed name of American Contractors Indemnity Company, United States Surety Company, a Maryland corporation and U.S. Specialty Insurance Company, a Texas corporation (collectively, the "Companies"), do by these presents make, constitute and appoint:

Mark DeWitt, Donald G. Stitts, Ginger Hoke or Jacqueline Kirk of Dallas Texas

its true and lawful Attorney(s)-in-fact, each in their separate capacity if more than one is named above, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver **any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed** \*\*\*\*\*Ten Million\*\*\*\*\* Dollars (\*\*\$10,000,000.00\*\*). This Power of Attorney shall expire without further action on April 23<sup>rd</sup>, 2022. This Power of Attorney is granted under and by authority of the following resolutions adopted by the Boards of Directors of the Companies:

*Be it Resolved*, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

*Attorney-in-Fact* may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings, including any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts, and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and effected by the Corporate Secretary.

*Be it Resolved*, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, The Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 1<sup>st</sup> day of June, 2018.

**AMERICAN CONTRACTORS INDEMNITY COMPANY TEXAS BONDING COMPANY  
UNITED STATES SURETY COMPANY U.S. SPECIALTY INSURANCE COMPANY**

State of California

County of Los Angeles



By:

Daniel P. Aguilar, Vice President

*A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.*

On this 1<sup>st</sup> day of June, 2018, before me, Sonia O. Carrejo, a notary public, personally appeared Daniel P. Aguilar, Vice President of American Contractors Indemnity Company, Texas Bonding Company, United States Surety Company and U.S. Specialty Insurance Company who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

(seal)



I, Kio Lo, Assistant Secretary of American Contractors Indemnity Company, Texas Bonding Company, United States Surety Company and U.S. Specialty Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Los Angeles, California this 25 day of april, 2019.

Corporate Seals  
Bond No. \_\_\_\_\_

Agency No. 17077



Kio Lo, Assistant Secretary

# Texas Bonding Company

## TEXAS COMPLAINT NOTICE

### IMPORTANT NOTICE

1. To obtain information or make a complaint;
2. You may contact your agent.
3. You may call the company's toll free telephone number for information or to make a complaint at:

**1-800-486-6695**

4. You may also write to the company at:

601 S. Figueroa Street, Suite 1600  
Los Angeles, CA 90017

5. You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights, or complaints at:

**1-800-252-3439**

6. You may write to the Texas Department of Insurance at:

Consumer Protection (111-1A)  
P.O. Box 149091  
Austin, TX 78714-9091  
Fax No. (512) 490-1007  
Web: <http://www.tdi.texas.gov>  
E-mail: [ConsumerProtection@tdi.texas.gov](mailto:ConsumerProtection@tdi.texas.gov)

7. **PREMIUM OR CLAIM DISPUTES:**

Should you have a dispute concerning your premium or about a claim you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

8. **ATTACH THIS NOTICE TO YOUR POLICY**

This notice is for information only and does not become a part or condition of the attached document.

### AVISO IMPORTANTE

Para obtener informacion o para someter una queja:

Puede comunicarse con su agente.

Usted puede llamar al numero de telefono gratis de la compania's para informacion o para someter una queja al:

**1-800-486-6695**

Usted tambien puede escribir a la compa  a:

601 S. Figueroa Street, Suite 1600  
Los Angeles, CA 90017

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos, o quejas al:

**1-800-252-3439**

Puede escribir al Departamento de Seguros de Texas al:

Consumer Protection (111-1A)  
P.O. Box 149091  
Austin, TX 78714-9091  
Fax No. (512) 490-1007  
Web: <http://www.tdi.texas.gov>  
E-mail: [ConsumerProtection@tdi.texas.gov](mailto:ConsumerProtection@tdi.texas.gov)

### DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concerniente a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

### UNA ESTE AVISO A SU POLIZA

Esta aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.



PO Box 1438  
Buda, TX 78610

Phone: (512) 295-7535  
Residential Div. Fax: (512) 295-7536  
Commercial Div. Fax: (512) 675-2701  
[www.landartamerica.com](http://www.landartamerica.com)

## SUPPLEMENTARY INSTRUCTIONS TO RESPONDENTS

### Section 16. AWARD OF CONTRACT – Competitive Sealed Proposals; Part 16.7 is supplemented with the following:

#### 1. BACKGROUND, EXPERIENCE, QUALIFICATIONS AND SAFETY PROGRAM

The Owner will consider the following during the evaluation process:

- a. Current business organizational structure, type of business structure; stability of organization.  
**Landart America LLC is a Texas Limited Liability Company and is owned by Chad Hawkins.**
- b. Number of years performing construction-contracting work under current name and/or previous business name(s)  
**Landart America LLC has been in business for eight (8) years.**
- c. Availability of equipment and facilities  
**Please see attached list of equipment. Our shop is located in Buda, TX.**
- d. Summarize your FIRM'S experience and competence relevant to the proposed project. Briefly describe three (3) completed projects that demonstrate your capabilities to perform this work.  
**Our organization is experienced in landscape, irrigation and hardscape, attached you will find a list of five (5) completed projects with the scope of work outlined for the City of Taylor Gateway Sign.**
- e. Provide qualifications and experience of the CONSTRUCTION TEAM that will be directly involved in the Project, including their experience with similar projects, the number of years with the FIRM, and their city(s) of residence. Include as applicable; Project Managers, Superintendents, Safety Coordinator.  
**Please see attached resumes.**
- f. Identify and describe the CONSTRUCTION TEAM'S past experience for providing construction services that are MOST RELATED TO THIS PROJECT within the last five (5) years. List the projects in order of priority, with the most relevant project listed first. Provide the following information for each project listed:
  1. Project name, amount, location, and description
  2. Final construction cost
  3. Name of Project Manager (individual responsible to the Owner for the overall success of the project)
  4. Name of Project Superintendent (individual responsible for coordinating the day to day work)
  5. References
    - a. The Owner's representative who served as the day-to-day liaison during construction, including telephone number
    - b. Architect/Engineer's name and representative who served as the day-to-day liaison during construction, including telephone number.





PO Box 1438  
Buda, TX 78610

Phone: (512) 295-7535  
Residential Div. Fax: (512) 295-7536  
Commercial Div. Fax: (512) 675-2701  
[www.landartamerica.com](http://www.landartamerica.com)

References shall be considered relevant based on specific project participation and experience with the Respondent. The Owner may contact references during any part of this process. The Owner reserves the right to contact any other references at any time during the evaluation process.

**Please see attached list of projects.**

**m. Safety Program**

1. Describe your FIRM's job site safety program for this Project and specific safety policies in which employees must be in compliance.

**Landart America LLC, recognizes that a Landart worker or employee is any person affected or associated in any way by the scope of Landart business. Landart recognizes workers and employees drive our business. As the most critical resource, employees/workers will be safeguarded through training, provision of appropriate work surroundings and procedures that foster protection of health and safety. All work conducted by LANDART AMERICA employees will consider the intent of this policy. No duty, no matter what its perceived result, will be deemed more important than employee health and safety.**

**Landart America LLC, is firmly committed to the safety of our employees. We will do everything possible to prevent workplace accidents and we are committed to providing a safe working environment for all employees.**

**We value our employees not only as employees but also as human beings critical to the success of their family, and the local community.**

**Employees are encouraged to report any unsafe work practices or safety hazards encountered on the job. All accidents/incidents (no matter how slight) are to be immediately reported to the supervisor on duty.**

**A key factor in implementing this policy will be the strict compliance to all applicable federal, state and local policies and procedures. Failure to comply with these policies may result in disciplinary actions.**

**Landart's complete Safety Manual is available upon request.**



PO Box 1438  
Buda, TX 78610

Phone: (512) 295-7535  
Residential Div. Fax: (512) 295-7536  
Commercial Div. Fax: (512) 675-2701  
[www.landartamerica.com](http://www.landartamerica.com)

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## 2. PROPOSED PLAN, SCHEDULE & QUALITY CONTROL PROGRAM

### Proposed work plan:

- A. Submittals→mobilization→grading→structural concrete→run utilities→install sign & masonry→landscape and re-veg.
- B. The project will be assigned to a project manager and project coordinator, they will work with our superintendents, crews, and subcontractors required to maintain our schedule proactively to avoid delays.
- C. This schedule of 120 days is more than enough time to complete the scopes required. We will ensure the sign company will hit the deadline as they are the largest opportunity for delays.
- D. Our back up plan is to use multiple crews if needed to expedite the project due to unexpected delays. We have over 30 construction teams company wide and this project typically will require 1-2.
- E. We manage quality control by our project managers making site visits at all critical stages, our superintendents will be onsite every 24-48 hours during construction, and our crews upload photos daily to our portal- for all to review.





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#### Available Equipment List

|                                                                                                                                                                                                                             |       |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------|
| Rock Trencher Ditch Witch 5700                                                                                                                                                                                              | Owned | Available |
| Rock Trencher Ditch Witch 3700                                                                                                                                                                                              | Owned | Available |
| Chain Trencher Ditch Witch with RT 45                                                                                                                                                                                       | Owned | Available |
| (2) CAT 272D Skid Steers                                                                                                                                                                                                    | Owned | Available |
| (5) CAT 259D Skid Steer (w/tracks)                                                                                                                                                                                          | Owned | Available |
| (3) Mini-ex CAT 303E                                                                                                                                                                                                        | Owned | Available |
| (2) Toro Walk Behind Trencher                                                                                                                                                                                               | Owned | Available |
| Attachments<br>(7) Skid Steer Forks<br>(2) Jackhammer – Mini Ex<br>(1) Auger – Mini Ex & Skid Steer<br>Auger Bits 9", 12", 18", 24", 36"<br>Grappler Arm<br>Versa Rake for Skid Steer<br>(1) Skid Steer Trencher Attachment | Owned | Available |
| (6) Generators 1600                                                                                                                                                                                                         | Owned | Available |
| (6) Skill Quickie Saws                                                                                                                                                                                                      | Owned | Available |
| (12) Chain Saws & Misc.                                                                                                                                                                                                     | Owned | Available |
| (1) Georgia Buggy                                                                                                                                                                                                           | Owned | Available |
| (2) Power Roller                                                                                                                                                                                                            | Owned | Available |

We will lease additional equipment if necessary to complete job within timeline.

---

**CONSTRUCTION EXPERIENCE DOCUMENTATION FORM**

**EXPERIENCE ITEM NUMBER:** 1

Project Number: 2160051

Does Bidder plan to self perform this work? YES ( ☒ ) NO ( ☐ )

If "NO", provide the following Subcontractor information:

Company Name: \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Number of years Subcontractor has been in business under current company name: \_\_\_\_\_

Name of Project: Retreat at Dripping Springs-Landscaping, Entry Monument, Amenity Center & Pool Services

Location: Dripping Springs, TX

OWNER's Name: Brookfield Residential RDS LCC

OWNER's Address: 11501 Alterra Pkwy., Suite 100, Austin, TX 78758

OWNER's Contact Person: Jessica King, PM

Phone/Fax No.: 940-395-1609

Initial Contract Price: \$827,008.58

Final Contract Price: \$901,033.62

Contract Start Date: \_\_\_\_\_ (Date of Notice To Proceed)

Contract Time: \_\_\_\_\_ ( ) Calendar Days ( ) Working Days

Contract Substantial Completion Date: \_\_\_\_\_

Actual Substantial Completion Date: \_\_\_\_\_

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Description and why it is comparable to the size, scope, and/or complexity for this item:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

**CONSTRUCTION EXPERIENCE DOCUMENTATION FORM**

**EXPERIENCE ITEM NUMBER:** 2

Project Number: 3170003

Does Bidder plan to self perform this work? YES (☒) NO (☐)

If "NO", provide the following Subcontractor information:

Company Name: \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Number of years Subcontractor has been in business under current company name:

\_\_\_\_\_

Name of Project: Easton Park - Phase 1A Landscaping

Location: E. William Cannon Dr., Austin, TX

OWNER's Name: Carma Easton LLC c/o Brookfield Residential (Texas) LLC

OWNER's Address: Domain 7, 11501 Alterra Pkwy., Ste 100, Austin, TX 78758

OWNER's Contact Person: Luke Gosda

Phone/Fax No.: 512-391-1345

Initial Contract Price: \$730,475.23

Final Contract Price: \$701,512.41

Contract Start Date: 03/10/2017 (Date of Notice To Proceed)

Contract Time: 90 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 06/14/2017

Actual Substantial Completion Date: 06/14/2017

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

N/A

Project Description and why it is comparable to the size, scope, and/or complexity for this item:

This project consisted of installation of landscape and irrigation, concrete sidewalks and stone boulders along the entrance of E. William Cannon and McKinney Parkway.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

**CONSTRUCTION EXPERIENCE DOCUMENTATION FORM**

**EXPERIENCE ITEM NUMBER:** 3

Project Number: 3170150

Does Bidder plan to self perform this work? YES ( ☒ ) NO ( ☐ )

If "NO", provide the following Subcontractor information:

Company Name: \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Number of years Subcontractor has been in business under current company name:  
\_\_\_\_\_

Name of Project: Fairways at Crystal Falls II Section 6 (Wildrock at Crystal Falls)

Location: 3200 Crystal Falls Pkwy., Leander, TX 78641

OWNER's Name: Brookfield Residential (Texas) LLC

OWNER's Address: \_\_\_\_\_

OWNER's Contact Person: Eric Rome

Phone/Fax No.: 512-539-3674

Initial Contract Price: \$494,141.53

Final Contract Price: \$515,596.53

Contract Start Date: 09/2017 (Date of Notice To Proceed)

Contract Time: 180 (X) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 03/2018

Actual Substantial Completion Date: 03/2018

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

N/A

Project Description and why it is comparable to the size, scope, and/or complexity for this item:

Construction of the landscape improvements, design/build irrigation system, turn-key installation, stabilized DG and other scopes.

---

**CONSTRUCTION EXPERIENCE DOCUMENTATION FORM**

**EXPERIENCE ITEM NUMBER:** 4

Project Number: 2160061

Does Bidder plan to self perform this work? YES ( ☒ ) NO ( ☐ )

If "NO", provide the following Subcontractor information:

Company Name: \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Number of years Subcontractor has been in business under current company name:

\_\_\_\_\_

Name of Project: Beaver Creek Park

Location: Wells Branch & Heatherwild, Pflugerville, TX

OWNER's Name: KB Home Lone Star, Inc.

OWNER's Address: 10800 Pecan Park Blvd., Ste 200, Austin, TX 78750

OWNER's Contact Person: David Garza

Phone/Fax No.: 512-651-8057

Initial Contract Price: \$177,540.84

Final Contract Price: \_\_\_\_\_

Contract Start Date: 03/03/2016 (Date of Notice To Proceed)

Contract Time: 30 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 03/30/2016

Actual Substantial Completion Date: \_\_\_\_\_

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

N/A

Project Description and why it is comparable to the size, scope, and/or complexity for this item:

New landscaping, irrigation, post tension concrete basketball court, concrete sidewalks. This was the first project in which Landart was involved in a post tension concrete project which was very involved and included a lot of close attention to detail and coordination with the coring company and cable which included 3386 total feet of strand - 52 fabricated cables with 52 stressing ends, 52 90deg PF and 0 chairs. 104 anchors and 104 wedges.

---

**CONSTRUCTION EXPERIENCE DOCUMENTATION FORM**

**EXPERIENCE ITEM NUMBER:** 5

Project Number: 3170033

Does Bidder plan to self perform this work? YES ( ☒ ) NO ( ☐ )

If "NO", provide the following Subcontractor information:

Company Name: \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Number of years Subcontractor has been in business under current company name:

\_\_\_\_\_

Name of Project: Crescent Bluff Entry

Location: 4501 W. Hwy., 29, Georgetown, TX 78628

OWNER's Name: Zamin, LP

OWNER's Address: 6335 Camp Bullis Rd., San Antonio, TX 78257

OWNER's Contact Person: Rajeev Puri

Phone/Fax No.: 210-698/2996

Initial Contract Price: \$680,792.63

Final Contract Price: \$637,130.65

Contract Start Date: 03/14/2017 (Date of Notice To Proceed)

Contract Time: 90 (X) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 08/2017

Actual Substantial Completion Date: 08/2017

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

Delays were caused due to multiple changes made by the client and landscape architect.

\_\_\_\_\_

\_\_\_\_\_

Project Description and why it is comparable to the size, scope, and/or complexity for this item:

Project consisted of developing and building of new entry to subdivision off of Hwy 29. Scopes

of work included but were not limited to new entry concrete sidewalks, new irrigation systems,

new landscape, stone boulders.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

---

**PROJECT MANAGER & SUPERINTENDENT EXPERIENCE**  
**SOFTSCAPE - Landscape, Planting, Metal Edging & Irrigation.**

**Project Manager (name):** Chet Demore

**Superintendent (name):** Michael Menefee



580 New Country Rd.  
Kyle, Tx 78610  
214-878-7473  
chet@landartamerica.com

## CHET DEMORE

**OBJECTIVE** Show skills learned with over 10 years' experience in the residential & development irrigation and landscape field.

---

**PROFESSIONAL  
ACHIEVEMENTS**

**RESIDENTIAL OPERATIONS MANAGER**

Maintained steady growth, by expanding client base  
Responsible for building a strong team, which maintained our reputation of great customer service.  
Designed over 3000 residential irrigation systems.

**COMMERCIAL LANDSCAPING OPERATIONS MANAGER**

Successfully awarded bids and completed large scale development projects within timeline of contracts.  
Achieved steady growth of division, and increased customer service.  
Implemented cloud based program for project management, and payroll purposes.  
Implemented safety procedures to ensure safe jobsites.  
Designed large scale commercial irrigation systems.

---

**SKILLS**

Licensed Irrigator: LI16104, June 2007-present  
Licensed Backflow Tester: BP13391 November 2010-present  
OSHA 10 Certified  
Irrigation design in CAD and Procontractor Studio  
Landscape design in CAD and Procontractor Studio

---

**WORK HISTORY**

**RESIDENTIAL AREA MANAGER, LANDART LLC, LEANDER, TX**

May 2006-April 2011

**RESIDENTIAL AREA MANAGER, LANDART AMERICA LLC, BUDA, TX**

April 2011-September 2014

**COMMERCIAL LANDSCAPING OPERATIONS MANAGER, LANDART AMERICA LLC, BUDA, TX**

September 2014- present

EDUCATION

**SAMUEL CLEMENS HIGH SCHOOL, GRADUATED 2003**

**LANDSCAPE IRRIGATOR LICENSING COURSE, MARCH 2007**

**BACKFLOW PREVENTION ASSEMBLY TESTER PRACTICAL SKILLS COURSE, SEPT. 2010**

---

REFERENCES

**MICHEAL SLACK**

VP Land Resources, Taylor Morrison Homes

(512) 532-2127

**RYAN MATTOX**

Community Development Manager, Lennar Homes

(512) 531-1375

**DAVID GARZA**

Community Development Manager, KB Homes

(512) 651-8057



## OFFICIAL RESULTS REPORT

F12 - National Standard Building  
Contractor (B)



Name: Chet Demore

Candidate ID: ICNON146061

Address: 13306 Wright Rd.

Date: 1/18/2019

Buda, Tx 78610 TX 78610

### EXAMINATION RESULT: PASS

Congratulations! You have passed the above-named examination. You will be able to verify your pass status on the ICC website within 48-72 business hours after your exam. **Please contact your participating jurisdiction if you wish to pursue licensing.**

A passing score on this examination satisfies the testing requirements for licensure only, and does not guarantee that licensing will be granted. The candidate must also satisfy all local ordinance requirements in each jurisdiction where licensing is desired.

It is extremely important that you notify Pearson VUE and ICC of any changes in name and/or address to avoid the possibility of future correspondence not being received. Please contact both Pearson VUE at 877-234-6082 and ICC at 888-422-7233 ext. 5524 with changes to your name and address.

ICC reserves the right to amend or withhold any examination scores if, in its sole opinion, there is adequate reason to question their validity.

*The authenticity of this score report can be validated by using Pearson VUE's Online Score Report Authentication found at:*

*[www.PearsonVUE.com/authenticate](http://www.PearsonVUE.com/authenticate)*

*Digital embossing eliminates the possibility of unauthorized embossing of counterfeit score reports.*

Registration Number: **346744103**

Validation Number: **790121982**

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

*Be it known that*

**CHET E DEMORE**

*has fulfilled the requirements in accordance with the  
laws of the State of Texas for*

**LICENSED IRRIGATOR**

*License Number:* LJ0016104

*Issue Date:* 05/24/2016

*Expiration Date:* 05/30/2019



*Executive Director*

*Texas Commission on Environmental Quality*

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

*Be it known that*

**CHET E DEMORE**

*has fulfilled the requirements in accordance with the  
laws of the State of Texas for*

**BACKFLOW PREVENTION ASSEMBLY TESTER**

*License Number:* **BP0013391**

*Issue Date:* **10/31/2016**

*Expiration Date:* **11/05/2019**



*Executive Director*

*Texas Commission on Environmental Quality*

# Certificate of Completion



360training

This Certifies That

Chet Demore

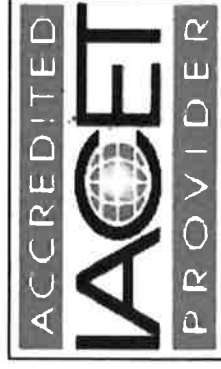
is awarded this certificate for

OSHA 10 Hour Outreach Training Program - Construction

360training.com, Inc. is authorized by IACET to offer 1.0 CEUs for this program

**Credit Hours: 10.00**

**Completion Date: 07/18/2016**



Marie Athey  
Marie Athey, Trainer C 0026383 and G 0034871

"As an OSHA authorized trainer, I verify that I have conducted this OSHA outreach training class in accordance with OSHA Outreach Training Program requirements. I will document this class to my authorizing OSHA training organization. Upon successful review of my documentation, I will provide each student their completion card within 90 days of the end of the class."

360training.com, Inc. is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU.

360training.com ♦ 13801 Burnet Rd., Suite 100 ♦ Austin, TX 78727 ♦ 877.881.2235 ♦ [www.360training.com](http://www.360training.com)

**Michael Menefee**  
**Superintendent/Project Manager**

**OBJECTIVE:**

I am seeking a work atmosphere where I can apply my leadership experience, demonstrate my personality of being goal oriented, organized, and motivated. I work well in a team based atmosphere as well as independently. I enjoy the opportunity to be challenged in all aspects of my life

**WORK EXPERIENCE:**

**Superintendent for Commercial Landscape & Irrigation**  
*Landart America, LLC - Buda, Texas*

2015 - Present

- Oversee, monitor and orchestrate all day-to-day field activities for commercial landscape and irrigation projects
- Manage crews on job sites, order materials, ensures materials are delivered to appropriate projects
- Keep the project on schedule by daily comparing project progress to the project schedule, alert the Project Manager of any deviation from the project schedule

**Foreman/ Superintendent**  
*Greater Texas landscapes - Austin, Texas*

2011 - 2015

- Managed commercial irrigation and landscape construction installations to ensure sure projects ended on time, and on budget

**Superintendent**  
*Phoenix Irrigation - Austin, Texas*

2007 - 2009

- Oversee the installation and completion of irrigation systems and landscape designs for million dollar commercial projects
- Ensure projects start and finish on schedule and on budget while managing several projects

**Irrigation Manager**  
*TruGreen LandCare - San Antonio, Texas*

2005 - 2007

- Maintained monthly irrigation reports for commercial and high end residential projects
- Troubleshoot irrigation systems, sell clients on repairs and/or upgrades to their system to better their needs
- Ensured systems functioned properly for seasonal color change, retained customer base as well as gaining new clients

**Irrigation Manager**  
*Outdoor Solutions - Austin, Texas*

2000 - 2005

- Designed, installed, and repaired irrigation systems
- Budgeted and tracked inventory
- Managed customer retention

**EDUCATION:**

*Saint Leo University - Tampa, Florida*  
Business Administration and Computer Science, 1994 - 1997

**CERTIFICATIONS/LICENSES:**

OSHA 10 and Licensed Irrigator



**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

*Be it known that*

**MICHAEL L MENEFEE**

*has fulfilled the requirements in accordance with the  
laws of the State of Texas for*

**LICENSED IRRIGATOR**

License Number: L10008441

Issue Date: 07/07/2010

Expiration Date: 06/30/2019



*Executive Director*

*Texas Commission on Environmental Quality*



This card certifies that:

**MICHAEL MENEFEE**

has completed a 10-Hour OSHA Hazard Recognition Training  
for the Construction Industry.

  
Director: **Scott MacKay**

  
Trainer: **Taylor Sikes**

**01/27/2013**

Grad. Date:

---

**PROJECT MANAGER & SUPERINTENDENT EXPERIENCE**  
**HARDSCAPE -Monuments with Signage, Masonry Walls,**  
**Electric, Cedar Fence and Iron Fence.**

**Project Manager (name):** Thomas Burkhardt

**Superintendent (name):** Lupe Vega

## **Thomas Burkhardt**

700 Mount Lookout Drive  
Canyon Lake, Tx 78133

## **RESUME**

(512) 540-1267  
thomas@landartamerica.com

### **SUMMARY OF QUALIFICATIONS**

Highly motivated professional with exceptional leadership and communication skills. Self-motivated, results-driven problem solver who possesses excellent sales, design, computer, marketing, negotiation and managerial skills. Experienced in all facets of the construction industry from methods and materials to installation.

### **PROFESSIONAL EXPERIENCE AND ACCOMPLISHMENTS**

#### **MANAGEMENT:**

- Business development, negotiations, quality assurance
- Success in leading and motivating both clients and associates
- Work with architects and engineers on project concerns and modifications
- Hired, trained, mentored, and managed staff with a focus on delivering exceptional customer service.
- Commitment to clients' needs
- Handle day to day operational task, scheduling, budgeting, purchasing, invoicing, estimating
- Strong multi tasker
- Quick thinker and problem solver
- Proficient in excel – created streamlined estimate spreadsheet for bidding purposes

#### **CONSTRUCTION:**

- Comprehensive experience with ground up construction
- Twenty-Five plus years in the construction industry from earth work through finish out
- Pre Engineering of structural framing with metal and engineered beams
- In depth knowledge of structural elements for foundations and framing
- Consistently run 10-12 projects simultaneously in the Austin & San Antonio areas
- Supervise 5 daily crews and all contractors
- Seven years' experience installing underground utilities (phone, electric, gas, CATV)
- Hands on experience in framing, concrete, masonry, sheetrock, painting, MEP's, swimming pool, landscape, irrigation
- Experience with city planning and permitting in Austin, San Antonio and surrounding cities
- Experienced equipment operator of motor graders, wheel loaders, excavators, dozers, scrapers, compactors, skid steers, backhoes
- Stick framing, trusses, metal fabrication, installation

#### **SALES:**

- Built new hardscape division too multi-million dollars in 18 months
- Built million-dollar residential design / build construction company (average size project \$85,000 with or without a pool)
- Increased clients' budgets on average of 30% by offering options & design changes; created a necessity rather than "want" concept
- Reorganized and marketed Computer Services which led to a 600% increase in average monthly sales within three months, enabling company to acquire substantial commercial accounts, including \$186,000 Network Solution for Calhoun City School System
- Compiled a client base worthy of generating average monthly sales of \$500,000 in computer equipment
- Achieved Salesman of the Month for six consecutive months
- Increased computer firm's sales to \$500,000+ in first 12 months by offering service contracts, networks, office automation and brand name computers

#### **DESIGN:**

- Master planned backyard architecture – outdoor living, pools, kitchens, remodels and themed designs
- Designed and build sophisticated and complicated outdoor structures
- Strong background in hardscape design and creating unique, innovative "Alfresco Living Areas."
- Creativity in unique and innovative projects to capitalize on outdoor living
- Created a marketing plan to develop a referral base worthy of million-dollar company
- Design masterpiece projects from conception thru completion using AutoCAD
- Innovations conceived through problem solving solutions: Gravity Structures, Directional Shade Structures, Eclectic Reflections and Transitional Designs
- Designed advertising material – logos, flyers, brochures, business cards, literature, company bio, and web site

---

**PROJECT NO. 1:**

Name of Project: Vizcaya Ph1 Hardscape

Location: Round Rock, Texas

OWNER's Name and Address: Taylor Morrison of Texas, Inc.

OWNER's Contact Person: Brad Garner, Land Developer

Phone/Fax No.: 737-781-8418/

Initial Contract Price: 490,526.07

Final Contract Price: 587,173.35

Contract Start Date: 01/05/2015 (Date of Notice To Proceed)

Contract Time: 150 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 06/05/2015

Actual Substantial Completion Date: 06/05/2015

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

Owner requested change for extra monuments, cast stone and roof tile, electrical services, extra walls, additional irrigation and landscape.

Project Description and why it is comparable to this Contract:

This project consisted of new construction of an entry tower; primary entry sign and neighborhood sign; enhanced paving at entry; in-ground tower wash; installation of a pet waste station and 6' backed bench with armrests; pond foundation Vertex pond aeration system; electric service for underground installation for pond and meter base. This project showed the capabilities Landart has to perform the work for complex projects and showed teamwork by working/coordinating with other trades and contractors on the project.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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**PROJECT NO. 2:**

Name of Project: Easton Park - Phase 1

Location: William Cannon Dr., Austin, TX

OWNER's Name and Address: Carma Easton LLC on behalf of Pilot Knob MUD

OWNER's Contact Person: Luke Gosda

Phone/Fax No.: 512-391-1345

Initial Contract Price: 730,475.23

Final Contract Price: 701,512.41

Contract Start Date: 03/10/2017 (Date of Notice To Proceed)

Contract Time: 90 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 06/14/2017

Actual Substantial Completion Date: 06/14/2017

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

N/A

Project Description and why it is comparable to this Contract:

Completed and succeeded in the construction of concrete footers; masonry work on the  
primary entry; paving for the walking trail; columns and screen walls; controlled entry  
gates; lighting; site furnishings and electric service while installing light poles and working  
close with Bluebonnet Electric. Installed water meters along with full landscape and  
irrigation systems.

---

**PROJECT NO. 3:**

Name of Project: Retreat at Dripping Springs

Location: Dripping Springs, TX

OWNER's Name and Address: Brookfield Residential

OWNER's Contact Person: Jessica King

Phone/Fax No.: 940-395-1609

Initial Contract Price: 827,008.58

Final Contract Price: \$901,033.62

Contract Start Date: 03/21/2016 (Date of Notice To Proceed)

Contract Time: 160 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 11/11/2016

Actual Substantial Completion Date: 11/11/2016

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

Extension was made to contract due to various changes by the developer and delays in  
City/Fire Marshall approval.

---

Project Description and why it is comparable to this Contract:

New construction consisted of: Entry monument; landscape & irrigation system of entry/  
amenity center and model homes; concrete sidewalks; building permits; new electric  
service for entry mechanical gates and lighting. Sitework at amenity area for building  
structure with bathrooms with accessorites; kitchen and swimming pool. This project  
allowed us to work with trades Landart had not worked with before such as granite counter  
tops installers.

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**PROJECT NO. 4:**

Name of Project: Arcadia Ridge - Monumentation and Tower

Location: Potrerco Rd. & Arcadia Path, San Antonio, TX

OWNER's Name and Address: CTMGT Rancho Del Lago, LLC a Texas LLC

OWNER's Contact Person: Eugene Patillo, Bitterblue, Inc.

Phone/Fax No.: 210-828-6131 ext. 112

Initial Contract Price: \$227,819.26

Final Contract Price: \$232,706.26

Contract Start Date: 05/2015 (Date of Notice To Proceed)

Contract Time: 70 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: \_\_\_\_\_

Actual Substantial Completion Date: \_\_\_\_\_

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

Project was extended due to city water delays, utilities and other City requirements.

Project Description and why it is comparable to this Contract:

New construction of entry boulevard to Arcadia Ridge subdivision which included: Footers for main entry sign, masonry tower, carpentry, roofing, backfill and drainage, electrical and lighting, new service panel, meter base, 1500 conduit. This project also included landscape and irrigation, see below.



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**PROJECT NO. 5:**

Name of Project: Arcadia Ridge - Planting and Irrigation

Location: Potrenco Rd. and Arcadia Path, San Antonio, TX

OWNER's Name and Address: CTMGT Rancho Del Lago, LLC a Texas LLC, 1301 Municipal Way, Ste. 200, Grapevine, TX 76051

OWNER's Contact Person: Eugene Patillo, Bitterblue, Inc.

Phone/Fax No.:            /           

Initial Contract Price: \$462,027.26

Final Contract Price: \$485,517.04

Contract Start Date: 11/2015 (Date of Notice To Proceed)

Contract Time: 70 (x) Calendar Days ( ) Working Days

Contract Substantial Completion Date: 01/2016

Actual Substantial Completion Date: 06/2016

If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each.

Extensions were given for project due to delays with city water, utilities and other requirements

Project Description and why it is comparable to this Contract:

Installation and planting of new irrigation system, planting, flowers, and perennials, turf and native seed in coordination with our hardscape crews and city utilities. Due to no city water provided Landart had to provide and pay for a temporary water hydrant meter.

**Westar Construction, Inc.**

**4500 Williams Dr. Suite 212- PMB 411**

**Georgetown, TX 78633**

**Sealed Bid/ CSP:**

**"2019 Gateway Sign"**

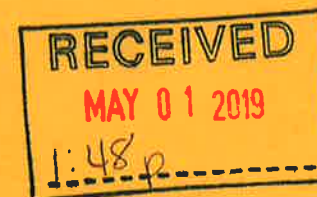
**Due: May 1, 2019 @ 2:00 pm**

**City of Taylor**

**400 Porter St.**

**Taylor, TX 76574**

RECEIVED  
APPROX  
NO 10



Shae Navarro

# OKLAHOMA SURETY COMPANY

P. O. Box 1409  
TULSA, OKLAHOMA 74101

## BID BOND

KNOW ALL MEN BY THESE PRESENTS: That We, Westar Construction, Inc.

as Principal, and the **OKLAHOMA SURETY COMPANY**, a corporation organized and existing under the laws of the State of Ohio, and authorized

to do business in the State of Texas as Surety are held and firmly bound unto the

City of Taylor

as Oblige, in the amount of 5% Five percent of the amount bid DOLLARS,

lawful money of the United States of America, to the payment of which sum of money well and truly to be made, the said Principal and Surety bind themselves, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH**, that, if the Oblige shall make an award to the principal for:

2019 Gateway Sign Project

according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Oblige in accordance with the terms of said proposal or bid and award and shall give bond for the faithful performance thereof, with the **OKLAHOMA SURETY COMPANY** as Surety or with other Surety or Sureties approved by the Oblige; or if the Principal shall, in case of failure so to do, pay to the Oblige the damages which the Oblige may suffer by reason of such failure not exceeding the penalty of this bond, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect.

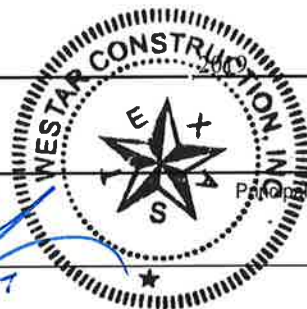
Signed, sealed and dated this 30th day of April

Witness

Westar Construction, Inc.

BY

MARK WILKINSON, PRESIDENT



(Seal)

**OKLAHOMA SURETY COMPANY**

BY

John W. Schuler

Attorney-in-fact

(Seal)

# OKLAHOMA SURETY COMPANY

1437 SOUTH BOULDER, SUITE 200 · TULSA, OKLAHOMA 74119 · 918-587-7221 · FAX 918-588-1253

## POWER OF ATTORNEY

**KNOW ALL MEN BY THESE PRESENTS:** That the **OKLAHOMA SURETY COMPANY**, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof. **Steven W. Dobson, Lanny W. Land and John W. Schuler, all of AUSTIN, TX**

IN WITNESS WHEREOF, the **OKLAHOMA SURETY COMPANY** has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 22 day of December, 2016



ATTEST:

## OKLAHOMA SURETY COMPANY

Sharon Hackl  
SHARON HACKL Secretary

Todd Bazata  
TODD BAZATA VICE PRESIDENT

On this 22 day of December, 2016 before me personally appeared TODD BAZATA, to me known, being duly sworn, deposes and says that s/he resides in Broken Arrow, Oklahoma, that s/he is a Vice President of **Oklahoma Surety Company**, the company described in and which executed the above instrument; that s/he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of her/his office under the By-Laws of said Company, and that s/he signed his name thereto by like authority.

STATE OF OKLAHOMA }  
COUNTY OF TULSA } SS



Commission # 11008253

My Commission expires: 09-08-19

Julie Callahan  
JULIE CALLAHAN Notary Public

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of **Oklahoma Surety Company** by unanimous written consent dated September 25, 2009.

**RESOLVED:** That the President, the Executive Vice President, the several Senior Vice Presidents and Vice Presidents or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

**RESOLVED FURTHER:** That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

## CERTIFICATION

I, SHARON HACKL Secretary of **Oklahoma Surety Company**, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of September 25, 2009 have not been revoked and are now in full force and effect.

Signed and sealed this 30th day of April, 2019



Sharon Hackl  
SHARON HACKL Secretary

VOID IF BOX IS EMPTY

## BID FORM

### 2019 Gateway Sign Project

#### ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

*City of Taylor, Texas*

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

#### ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

2.02 BIDDER will sign and deliver the required number of counterparts of the AGREEMENT with the Bonds and other documents required by the Bidding Requirements within 7 days after the date of OWNER's Notice of Award.

#### ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| <u>Addendum No.</u> | <u>Addendum, Date</u> |
|---------------------|-----------------------|
| Addendum No 1       | 4/25/2019             |
| _____               | _____                 |
| _____               | _____                 |
| _____               | _____                 |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

#### **ARTICLE 4 – BIDDER'S CERTIFICATION**

##### **4.01 Bidder certifies that:**

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and



4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

| BASE BID |          |                                                                                                                                                                                                                                              |      |                    |                                   |                                       |
|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-----------------------------------|---------------------------------------|
| ITEM NO. | SPEC.    | ITEM DESCRIPTION                                                                                                                                                                                                                             | UNIT | ESTIMATED QUANTITY | UNIT PRICE                        | TOTAL ESTIMATED PRICE                 |
| 1        | 100 6001 | PREPARING ROW (CLEARING, GRUBBING AND ANY SITE PREP)                                                                                                                                                                                         | LS   | 1                  | \$ 1,000 <sup>00</sup>            | \$ 1,000 <sup>00</sup>                |
| 2        | 132 6003 | EMBANKMENT (FINAL)(ORD COMP)(TY B)<br>(ALL EMBANKMENT FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.)<br>(ESTIMATED AT 127 CY)                                                              | LS   | 1                  | \$ 5,700 <sup>00</sup>            | \$ 5,700 <sup>00</sup>                |
| 3        | 02300    | SITE GRADING<br>(TO INCLUDE FINE GRADING & ALL HERBICIDE TREATMENTS FOR INSTALLATION OF ALL HARDSCAPE AND LANDSCAPE ITEMS AS SHOWN IN THE BID DOCUMENTS. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.) | LS   | 1                  | \$ 7,500 <sup>00</sup>            | \$ 7,500 <sup>00</sup>                |
| 4        | 506 6002 | ROCK FILTER DAMS (INSTALL) (TY 2)                                                                                                                                                                                                            | LF   | 63                 | \$ 30 <sup>00</sup>               | \$ 1890 <sup>00</sup>                 |
| 5        | 506 6011 | ROCK FILTER DAMS (REMOVE)                                                                                                                                                                                                                    | LF   | 63                 | \$ <del>30</del> 30 <sup>00</sup> | \$ <del>1890</del> 1890 <sup>00</sup> |
| 6        | 506 6038 | TEMP SEDMT CONT FENCE (INSTALL) (SILT FENCE)                                                                                                                                                                                                 | LF   | 104                | \$ <del>6</del> 6 <sup>00</sup>   | \$ <del>624</del> 624 <sup>00</sup>   |
| 7        | 506 6039 | TEMP SEDMT CONT FENCE (REMOVE) (SILT FENCE)                                                                                                                                                                                                  | LF   | 104                | \$ 2 <sup>00</sup>                | \$ 208 <sup>00</sup>                  |



| BASE BID |                  |                                                                                                                                                                                                                                                                                                        |      |                    |                          |                          |
|----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|--------------------------|--------------------------|
| ITEM NO. | SPEC.            | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                       | UNIT | ESTIMATED QUANTITY | UNIT PRICE               | TOTAL ESTIMATED PRICE    |
| 8        | 1000 6001        | LANDSCAPE MAINTENANCE<br>(PRICE INCLUDES CORRECTION OF DEFICIENCIES FOR ITEMS IN SPEC 02490 AND 02486)                                                                                                                                                                                                 | MO   | 12                 | \$ 600 <sup>00</sup>     | \$ 7,200 <sup>00</sup>   |
| 9        | PER PLAN DETAILS | MONUMENT SIGN<br>(PRICE TO INCLUDE CONSTRUCTION AND INSTALLATION OF MONUMENT SIGN. INCLUDING LUMP SUM COST FOR SIGN LIGHTING. STRUCTURAL DESIGN TO BE PROVIDED BY A TEXAS LICENSED STRUCTURAL ENGINEER. DRAWINGS TO BE SUBMITTED TO OWNER / OWNERS REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION.) | LS   | 1                  | \$ 170,000 <sup>00</sup> | \$ 170,000 <sup>00</sup> |
| 10       | 506 6020         | STABILIZED CONSTRUCTION ENTRANCE (INSTALL)                                                                                                                                                                                                                                                             | CY   | 25                 | \$ 50 <sup>00</sup>      | \$ 1,250 <sup>00</sup>   |
| 11       | 506 6024         | STABILIZED CONSTRUCTION ENTRANCE (REMOVE)                                                                                                                                                                                                                                                              | CY   | 25                 | \$ 10 <sup>00</sup>      | \$ 250 <sup>00</sup>     |
| 12       | PER PLAN DETAILS | UPLIGHTS FOR TREE LIGHTING<br>(PRICE TO INCLUDE ALL ACCESSORIES, INCLUDED BUT NOT LIMITED TO TRANSFORMERS, MOUNTING, J BOXES, ROUGH-IN, HAND HOLES, PULL BOXES, ETC. AS REQUIRED PER CODE. INSTALLATION TO BE DONE BY A TEXAS LICENSED ELECTRICIAN.)                                                   | EA   | 9                  | \$ 1,400 <sup>00</sup>   | \$ 12,600 <sup>00</sup>  |

| BASE BID |                  |                                                                                                                                                                                                                                                                                                                                               |      |                    |                                |                                |
|----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|--------------------------------|--------------------------------|
| ITEM NO. | SPEC.            | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                                              | UNIT | ESTIMATED QUANTITY | UNIT PRICE                     | TOTAL ESTIMATED PRICE          |
| 13       | PER PLAN DETAILS | DURAFLEX LIGHTING ON SURFACE PERIMETER OF SIGN<br><br>(PRICE TO INCLUDE ALL ACCESSORIES, INCLUDED BUT NOT LIMITED TO TRANSFORMERS, MOUNTING, J BOXES, ROUGH-IN, HAND HOLES, PULL BOXES, ETC. AS REQUIRED PER CODE. INSTALLATION TO BE DONE BY A TEXAS LICENSED ELECTRICIAN.)<br>(ESTIMATED AT 60 LF)                                          | LS   | 1                  | \$<br><br>9,000 <sup>00</sup>  | \$<br><br>9,000 <sup>00</sup>  |
| 14       | PER PLAN DETAILS | ELECTRICAL<br><br>(ELECTRICAL CONNECTIONS FROM OWNER PROVIDED ELECTRICAL METER TO SIGN AND ALL REQUIRED CONNECTIONS NECESSARY TO POWER MONUMENT SIGN, INSTALLATION TO BE DONE BY A TEXAS LICENSED ELECTRICIAN)                                                                                                                                | LS   | 1                  | \$<br><br>15,000 <sup>00</sup> | \$<br><br>15,000 <sup>00</sup> |
| 15       | 02810            | IRRIGATION SYSTEM<br><br>(INCLUSIVE OF ALL WORK CONNECTING TO THE METER, FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO BACKFLOW PREVENTER, CHECK VALVES, SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS) | EA   | 1                  | \$<br><br>7,500 <sup>00</sup>  | \$<br><br>7,500 <sup>00</sup>  |

| BASE BID |       |                                                                                                                                                                                                                                                                                                                              |      |                    |                            |                              |
|----------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|----------------------------|------------------------------|
| ITEM NO. | SPEC. | ITEM DESCRIPTION                                                                                                                                                                                                                                                                                                             | UNIT | ESTIMATED QUANTITY | UNIT PRICE                 | TOTAL ESTIMATED PRICE        |
| 16       | 02810 | TREE BUBBLERS - 2 PER SHADE TREE,<br>ONE PER ORNAMENTAL TREE<br><br>(FOR ALL EQUIPMENT AND LABOR,<br>INCLUDED BUT NOT LIMITED TO<br>SLEEVES, PVC CLASS 200, PVC<br>SCHEDULE 40, FITTINGS, NOZZLES,<br>VALVES, VALVE BOXES, CONTROLLER,<br>FLOW SENSOR, RAIN/FREEZE SENSOR,<br>DECODERS, AND INCLUSIVE OF ALL<br>INCIDENTALS) | EA   | 30                 | \$<br><br>150 <sup>2</sup> | \$<br><br>4500 <sup>2</sup>  |
| 17       | 02810 | SEED PERMANENT SPRAY IRRIGATION<br><br>(FOR ALL EQUIPMENT AND LABOR,<br>INCLUDED BUT NOT LIMITED TO<br>SLEEVES, PVC CLASS 200, PVC<br>SCHEDULE 40, FITTINGS, NOZZLES,<br>VALVES, VALVE BOXES, CONTROLLER,<br>FLOW SENSOR, RAIN/FREEZE SENSOR,<br>DECODERS, AND INCLUSIVE OF ALL<br>INCIDENTALS)                              | SF   | 6530               | \$<br><br>1 <sup>12</sup>  | \$<br><br>6530 <sup>1</sup>  |
| 18       | 02810 | TEMPORARY IRRIGATION UNTIL<br>ESTABLISHMENT,<br><br>(FOR ALL EQUIPMENT AND LABOR,<br>INCLUDED BUT NOT LIMITED TO<br>SLEEVES, PVC CLASS 200, PVC<br>SCHEDULE 40, FITTINGS, NOZZLES,<br>VALVES, VALVE BOXES, CONTROLLER,<br>FLOW SENSOR, RAIN/FREEZE SENSOR,<br>DECODERS, AND INCLUSIVE OF ALL<br>INCIDENTALS)                 | SF   | 4087               | \$<br><br>0.75             | \$<br><br>3065 <sup>25</sup> |

| BASE BID |       |                                                                                                                                                                                                                                                             |      |                    |                           |                              |
|----------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|---------------------------|------------------------------|
| ITEM NO. | SPEC. | ITEM DESCRIPTION                                                                                                                                                                                                                                            | UNIT | ESTIMATED QUANTITY | UNIT PRICE                | TOTAL ESTIMATED PRICE        |
| 19       | 02810 | BED DRIP IRRIGATION,<br>(FOR ALL EQUIPMENT AND LABOR, INCLUDED BUT NOT LIMITED TO SLEEVES, PVC CLASS 200, PVC SCHEDULE 40, FITTINGS, NOZZLES, VALVES, VALVE BOXES, CONTROLLER, FLOW SENSOR, RAIN/FREEZE SENSOR, DECODERS, AND INCLUSIVE OF ALL INCIDENTALS) | SF   | 1409               | \$<br><br>1 <sup>00</sup> | \$<br><br>1409 <sup>00</sup> |
| 20       | 02490 | QUERCUS VIRGINIANA/ SOUTHERN LIVE OAK<br>(3" CAL. 12-15' HT X 8' SPD CONT. GRWN.)                                                                                                                                                                           | EA   | 2                  | \$<br>1100 <sup>00</sup>  | \$<br>2200 <sup>00</sup>     |
| 22       | 02490 | ILEX VOMITORIA/ YAUPON HOLLY<br>(1" CAL. 6' H X 4 SPD CONT. GRWN.)                                                                                                                                                                                          | EA   | 3                  | \$ 150 <sup>00</sup>      | \$ 450 <sup>00</sup>         |
| 23       | 02490 | LAGERSTROEMIA INDICA<br>'TUSCARORA'/ CRAPE MYRTLE<br>(1" CAL. @ 3 TRUNKS MIN. 8-9' H X 3-4' SPD CONT. GRWN.)                                                                                                                                                | EA   | 4                  | \$<br>150 <sup>00</sup>   | \$<br>600 <sup>00</sup>      |
| 24       | 02490 | LANTANA CAMARA 'NEW GOLD'/ NEW GOLD LANTANA<br>(3 GAL. CONT.)                                                                                                                                                                                               | EA   | 50                 | \$<br>28 <sup>00</sup>    | \$<br>1400 <sup>00</sup>     |
| 26       | 02490 | LIGUSTRUM JAPONICUM<br>'VARIEGATUM'/ VARIEGATED PRIVET<br>(5 GAL. CONT.)                                                                                                                                                                                    | EA   | 5                  | \$<br>28 <sup>00</sup>    | \$<br>140 <sup>00</sup>      |
| 28       | 02490 | SALVIA GREGGII/ AUTUMN SAGE<br>(3 GAL. CONT.)                                                                                                                                                                                                               | EA   | 28                 | \$<br>24 <sup>00</sup>    | \$<br>672 <sup>00</sup>      |
| 29       | 02490 | MUHLBERGIA CAPILLARIS/ GULF MUHLY<br>(3 GAL. CONT.)                                                                                                                                                                                                         | EA   | 31                 | \$<br>22 <sup>00</sup>    | \$<br>682 <sup>00</sup>      |

| BASE BID       |       |                                                                      |      |                    |                      |                        |
|----------------|-------|----------------------------------------------------------------------|------|--------------------|----------------------|------------------------|
| ITEM NO.       | SPEC. | ITEM DESCRIPTION                                                     | UNIT | ESTIMATED QUANTITY | UNIT PRICE           | TOTAL ESTIMATED PRICE  |
| 30             | 02490 | AGAVE AMERICANA/ CENTURY PLANT<br>(7 GAL. CONT.)                     | EA   | 3                  | \$ 125 <sup>00</sup> | \$ 375 <sup>00</sup>   |
| 31             | 02490 | DASYLIRION WHEELERI/ WHEELER<br>SOTOL<br>(5 GAL. CONT.)              | EA   | 11                 | \$ 45 <sup>00</sup>  | \$ 495 <sup>00</sup>   |
| 32             | 02490 | HESPERALOE PARVIFOLORA/ RED<br>YUCCA<br>(5 GAL. CONT.)               | EA   | 10                 | \$ 40 <sup>00</sup>  | \$ 400 <sup>00</sup>   |
| 33             | 02490 | OPUNTIA ENGELMANII/ CACTUS<br>APPLE<br>(10 GAL. CONT.)               | EA   | 10                 | \$ 90 <sup>00</sup>  | \$ 900 <sup>00</sup>   |
| 34             | 02490 | PLANT BED SOIL MIX (PRO-GRO SOIL MIX<br>OR APPROVED EQUAL)           | CY   | 19                 | \$ 95 <sup>00</sup>  | \$ 1805 <sup>00</sup>  |
| 35             | 02490 | IMPORTED SHREDDED BLACK<br>HARDWOOD MULCH, SPREAD                    | CY   | 9                  | \$ 55 <sup>00</sup>  | \$ 495 <sup>00</sup>   |
| 36             | 02486 | BERMUDA SEED TIF 419                                                 | SF   | 10614              | \$ 0.50              | \$ 5307 <sup>00</sup>  |
| 38             | 02490 | CHOCOLATE LOAM TOP SOIL<br>(SEED TOPSOIL AREAS ESTIMATE AT<br>66 CY) | CY   | 66                 | \$ 75 <sup>00</sup>  | \$ 4950 <sup>00</sup>  |
| 39             | 02490 | NEW MEXICO RIVER GRAVEL                                              | SF   | 389                | \$ 6 <sup>00</sup>   | \$ 2334 <sup>00</sup>  |
| 40             | 02490 | STEEL EDGING (3/16" X 4") BROWN                                      | LF   | 297                | \$ 3 <sup>00</sup>   | \$ 891 <sup>00</sup>   |
| 41             | 02490 | FILTER FABRIC / WEED BARRIER                                         | SF   | 400                | \$ 2 <sup>00</sup>   | \$ 800 <sup>00</sup>   |
| 42             |       | MISCELLANEOUS WORK ALLOWANCE                                         | LS   | 1                  | \$ 15000             | \$ 15000               |
| TOTAL BASE BID |       |                                                                      |      |                    |                      | \$ 29531 <sup>25</sup> |

| ALTERNATE BID 1 – DRIVEWAY AND CULVERT |          |                                                                                                                                                                                |      |                    |                       |                         |
|----------------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-----------------------|-------------------------|
| ITEM NO.                               | SPEC.    | ITEM DESCRIPTION                                                                                                                                                               | UNIT | ESTIMATED QUANTITY | UNIT PRICE            | TOTAL ESTIMATED PRICE   |
| 1                                      | 100 6001 | PREPARING ROW (CLEARING, GRUBBING AND ANY SITE PREP)                                                                                                                           | LS   | 1                  | \$ 7500 <sup>00</sup> | \$ 7500 <sup>00</sup>   |
| 2                                      | 110 6001 | EXCAVATION<br>(ALL EXCAVATION FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.)<br>(ESTIMATED AT 22 CY)                         | LS   | 1                  | \$ 7500 <sup>00</sup> | \$ 7500 <sup>00</sup>   |
| 3                                      | 132 6003 | EMBANKMENT (FINAL)(ORD COMP)(TY B)<br>(ALL EMBANKMENT FOR PROJECT. PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.)<br>(ESTIMATED AT 19 CY) | LS   | 1                  | \$ 2500 <sup>00</sup> | \$ 2500 <sup>00</sup>   |
| 4                                      | 464 6003 | RC PIPE (CLIII)(18IN)                                                                                                                                                          | LF   | 82                 | \$ 65 <sup>00</sup>   | \$ 5330 <sup>00</sup>   |
| 5                                      | 467 6363 | SET(TYII)(18IN)(RCP)(R:1)(P)                                                                                                                                                   | EA   | 2                  | \$ 2500 <sup>00</sup> | \$ 5000 <sup>00</sup>   |
| 6                                      | 530 6004 | DRIVEWAYS (CONC)                                                                                                                                                               | SY   | 180                | \$ 90 <sup>00</sup>   | \$ 16,200 <sup>00</sup> |
| 7                                      | 02486    | BERMUDA SEED TIF 419                                                                                                                                                           | SY   | 169                | \$ 10 <sup>00</sup>   | \$ 1690 <sup>00</sup>   |
| 8                                      | 02490    | CHOCOLATE LOAM TOP SOIL                                                                                                                                                        | CY   | 10                 | \$ 75 <sup>00</sup>   | \$ 750 <sup>00</sup>    |
| TOTAL ALTERNATE BID 1                  |          |                                                                                                                                                                                |      |                    |                       | \$ 46,470 <sup>00</sup> |

NOTE: PRICES TO INCLUDE ALL LABOR, SUPERVISION AND EQUIPMENT TO BE USED FOR THE PROJECT.  
ALLOWANCE DOLLARS ARE TO BE USED ONLY AT THE DIRECTION OF THE CITY.

Total Base Bid + Alternate Bid 1 Price

\$ 341,781<sup>25</sup>

THREE HUNDRED FORTY ONE THOUSAND SEVEN HUNDRED EIGHTY <sup>ONE</sup> ~~THOUSAND~~  
(use words)  
DOLLARS AND TWENTY FIVE CENTS



Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

#### ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 120 calendar days, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 150 calendar days.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

#### ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
  - B. List of Project References;
  - C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
  - D. Required Bidder Qualification Statement with supporting data; and
- 7.03 Other Requirements

#### ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

#### ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

Westar Construction, Inc.

By:

*[Signature]*

*[Printed name]*

Mark Williamson

*(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest:

*[Signature]*

*[Printed name]*

Lamont Navarrette



Title: Secretary

Submittal Date: 5-1-2019

Address for giving notices:

4500 Williams Dr. Suite 212-PMB 411

Georgetown, TX 78633

Telephone Number: 512-630-5930

Fax Number: 512-233-0691

Contact Name and e-mail address: Lamont Navarrette. 512-630-5930

Bidder's License No.: \_\_\_\_\_  
(where applicable)



# WESTAR CONSTRUCTION INCORPORATED

May 1, 2019

City of Taylor  
400 Porter St.  
Taylor, TX 76574

Re. 2019 Gateway Sign Project- Bidder's Qualifications

Sir/ Madam,

Westar Construction, Inc. is a General Contractor specializing in Governmental Projects including, parks; hike & bike trails; sidewalks; curb & gutter; water, wastewater, and storm sewer projects; boulder and concrete retaining walls; and many other projects.

Attached are both current and past experience lists detailing our extensive work for many local city, county, mud, and other entities. These lists include contact information for references. We have contracted and completed many projects for local City and County governmental entities. We are also currently completing the Taylor Skate Park for the City which is located in downtown Taylor. Attached is a bio of myself, Mark Williamson, President, showing my history, experience and contact information. Westar Construction is based out of Georgetown, TX and most of our work is local to the Central Texas area.

Westar has had no reportable incidents of OSHA Violations in it's history. Westar's Worker's Compensation Experience Rating has been: .89 for 2016 & 0.91 for 2017.

Westar implements job site safety trainings specific for each project and conducts tool talks with it's employees on a weekly basis. Any employee found in violation of the safety program is immediately reported.

Westar is committed to meeting the project schedule and will provide a Gantt Chart schedule showing the project completion of items listed in the bid form, should it receive this contract.

This is an aggressive timeline. Should rain or unknown conditions cause delay, Westar Construction will make every attempt to continue working on other items so as to limit the delays effect on the overall completion date. However, delays due to adverse or wet weather or unknown conditions is out of our control. Westar is confident however in completing the project as stated.

Should you have any questions, please do not hesitate to contact me.

Regards,



Mark A. Williamson  
President

4500 Williams Dr. Suite 212-PMB 411, Georgetown TX 78628  
Ph 512-848-3253 E-mail: [mark@westarconstruction.com](mailto:mark@westarconstruction.com) FAX 512-233-0691



## Westar Construction, Inc. Current Work in Progress

| Start Date | Compl. Date | Name of Project                            | Scope                                                                                                                                                                                                                                                                                                                  | Project Value | Pct. Compl. | Location of Project (City/ State) | Owner Name      | Owner / Rep Contact Name- Reference | Owner Contact/ References Phone # | % of Work by Own Forces | Design Consultant- Contact Info                   |
|------------|-------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------|-----------------------------------|-----------------|-------------------------------------|-----------------------------------|-------------------------|---------------------------------------------------|
| March 2019 | June 2019   | <u>Richards Park Flatwork Improvements</u> | Install concrete flatwork and trails along new City baseball fields at existing city sports complex.                                                                                                                                                                                                                   | \$180,000.00  | 99%         | Brady, TX                         | City of Brady   | Dennis Jobe, Parks Director         | 214-695-8142                      | 95%                     | Luck Design Group, Brent Luck, LSA 512-810-0684   |
| Dec 2018   | June 2019   | <u>Benbrook Ranch Improvements Ph3</u>     | Install new baseball field at existing city sports complex. Including: Concrete walkways, 52 LF pre-engineered steel pedestrian bridge, fencing, dugouts, shade structures, hydroseed, electrical & irrigation                                                                                                         | \$477,000.00  | 30%         | Leander, TX                       | City of Leander | Tyler Bybee, PM City of Leander     | 512-528-9909                      | 95%                     | Luck Design Group, Brent Luck, LSA 512-810-0684   |
| Sept 2018  | June 2019   | <u>2018 Skate Park Project</u>             | Demolition of HMAAC and curbing, sidewalks, ramps, structural retaining walls, driveways, HMAAC paving, landscape, irrigation, handrails, shade structure, site furnishings, site electrical & related items. Also including repairing an existing city road with lime treated subgrade, geogrid, base & HMAAC paving. | \$590,000.00  | 75%         | Taylor, TX                        | City of Taylor  | Jim Gray, Public Works Director     | 512-365-7669                      | 95%                     | HDR Engineering, Jacob Walker, PE, (512) 685-2938 |



# Westar Construction, Inc,

## PAST PROJECT EXPERIENCE/ REFERENCES

\*Westar was the General Contractor on each project, unless otherwise noted.

| Project Completion | Name of Project                            | Contract Amount | Location of Project (City/State) | Description                                                                                                                                                                                                     | Owner Name            | Owner Contact Name/ Reference                                 | Owner Contact/ Phone #                                   | % of Work by Own Forces |
|--------------------|--------------------------------------------|-----------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------|----------------------------------------------------------|-------------------------|
| 2019               | <u>Mason Creek Trail</u>                   | \$355,720.00    | Leander, TX                      | New 2900 LF concrete hike and bike trail along Mason Creek Trail including a low water crossing, handrail, crosswalks- striping & signage, 18"-24" RCP drainage, headwalls and SETs                             | City of Leander, TX   | Mark Tummons, Parks Director                                  | 512.528.9909                                             | 100%                    |
| 2018               | <u>Sun City Cattlemans Nature Trail</u>    | \$35,000.00     | Georgetown, TX                   | 1.6 miles of 76 foot wide nature trail including mulching debris and placing mulch along trail, including rock armored drainage crossings and placing trail emergency markers                                   | Pulte Homes- Sun City | Kath Korbett, Sun City Trailblazers Hiking Club, 512.680.3881 | Stephen Ashlock, VP Land Development- Pulte 512.532.3354 | 100%                    |
| 2018               | Old McDade Rd. Culvert Replacement Project | \$87,700.00     | Elgin, TX                        | Remove existing damaged road crossing (entire roadway width), install new Double Barrel 28 LF of 6'x4' Precast reinforced box culverts with headwalls/wingwalls. Recompact road subgrade to existing elevation. | Bastrop County, TX    | Myles Milburn, Road & Bridge Superintendent Pct. 4            | 512.304.0873                                             | 100%                    |

|      |                                                                                    |                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                          |              |      |
|------|------------------------------------------------------------------------------------|----------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------|--------------|------|
| 2018 | San Gabriel Park Improvements Phase 1                                              | \$2,800,000.00 | Georgetown, TX | 3 new small pavilions, 3 large pavilions, 2 large restroom buildings, 180 LF of adjusting 12" dia waterline including thrust restraints, 5 ea cut & cap existing 8"-12" waterlines, 2 ea 8" wet taps including gate valves, 250 LF 2" water service lines, 2 eas tie in 2" waterline into existing 12" waterline, 2 ea water meter assemblies, 150 LF 6" Wastewater lines, 2 ea wastewater cleanouts, 2 ea connect to existing 8" wastewater lines, 13,000 SY of HMAC parking lot and roads, spring renovation along the San Gabriel River, 4000 LF of concrete sidewalk/ hike & bike trail; new play equipment, water/wastewater/storm utilities, 4000 CY of installing a new drainage channel, 175 LF of 7'x3' reinforced box culverts & 8 concrete headwalls | City of Georgetown            | Dave Mellass, LSA-PM, City of Georgetown | 512.930.3596 | 80%  |
| 2018 | Meadows at Chandler Creek MUD Park Basketball Repair & Tiger Trail Sidewalk Repair | \$25,000.00    | Round Rock, TX | 2 EA Storm water drain inlet boxes including drain lines and SET, grading, new and repaired concrete sidewalks to maintain ADA standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Meadows of Chandler Creek MUD | Herb Edmonson- Gray Engineering inc.     | 512.844.7226 | 100% |
| 2018 | Meadows at Chandler Creek Maintenance                                              | \$28,000.00    | Round Rock, TC | Raise/Repair Storm water & Sewer manholes, and install play much in playgrounds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Meadows of Chandler Creek MUD | Herb Edmonson- Gray Engineering inc.     | 512.844.7226 | 100% |
| 2018 | Brushy Creek Regional Trail Repair                                                 | \$218,000.00   | Cedar Park, TX | Remove 1300 LF of existing damaged granite trail and wall and replace with new concrete trai, architectural guardrail & new structural retaining wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Williamson County, TX         | Randy Bell- Park Director                | 512.943.1922 | 100% |

|      |                                                                |              |                |                                                                                                                                                                                                                                                                                                                       |                       |                                                                  |              |                                                             |
|------|----------------------------------------------------------------|--------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------|--------------|-------------------------------------------------------------|
| 2018 | <u>Pecan St. Culvert Replacement Project</u>                   | \$240,000.00 | Granger, TX    | Remove of existing failed drainage structure under city road and install NEW: 120 LF of 10x6' reinforced box culverts, 1100 SY HMMAC road, 400 LF of sidewalk, and 800 LF of new curb & gutter                                                                                                                        | City of Granger       | Scott Murrain, BSP<br>Engineers                                  | 512.759.2500 | 80%                                                         |
| 2017 | <u>Sun City Queen Tract Nature Trail</u>                       | \$102,000.00 | Georgetown, TX | 24,000 LF of 6 foot wide nature trail including mulching debris and placing mulch along trail, including rock armored drainage crossings and placing trail emergency markers                                                                                                                                          | Pulte Homes- Sun City | Kath Kortett, Sun City Trailblazers Hiking Club,<br>512.680.3881 | 512.680.3881 | Stephen Ashlock, VP Land Development- Pulte<br>512.532.3355 |
| 2017 | Courthouse Pavers                                              | \$75,000.00  | Georgetown, TX | Install 5000 SF of new brick pavers around county courthouse including, base, concrete, sand, and pavers                                                                                                                                                                                                              | Williamson County, TX | Gary Wilson, Facilities Director                                 | 512.943.1599 | 80%                                                         |
| 2017 | Brady Lake Boat Ramp                                           | \$96,000.00  | Brady, TX      | Remove existing dock and replace with new floating boat dock walkway & floating boat dock. Including sidewalk and ADA parking spaces                                                                                                                                                                                  | City of Brady         | Peter Lamont, Director of Community Services                     | 325.597.2152 | 65%                                                         |
| 2017 | Brushy Creek Lake Park Restroom Renovation & Parking Expansion | \$267,500.00 | Cedar Park, TX | 28 parking space expansion of an existing parking lot including ribbons curbs, striping & signage. Also included a renovation and expansion of an existing park restroom doubling it in size including demo, new CMU, new cedar framed metal roof, all new plumbing fixtures and electrical fixtures, new partitions. | City of Cedar Park    | Shawn Cooper, City of Cedar Park                                 | 512.401.5502 | 100%                                                        |

|      |                                                        |              |                |                                                                                                                                                                                                |                                |                                                 |              |      |
|------|--------------------------------------------------------|--------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------|--------------|------|
| 2017 | Pepper Rock Park<br>Parking Lot                        | \$129,000.00 | Round Rock, TX | Addition of a 29 parking space parking lot to an existing park, including: concrete curbs, concrete sidewalks, firehydrant, HMA/C, striping, irrigation & landscape                            | Brushy Creek M.U.D.            | Rachel Hagan- BCMUD                             | 512.255.7871 | 100% |
| 2017 | <u>City of Llano- Main St. Renovations</u>             | \$183,000.00 | Llano, TX      | Remove and replace concrete sidewalks along and infront of historical buildings in downtown, including, curb & gutter, handicap parking spaces, and aluminum ADA ramps for access to buildings | City of Llano                  | Tex Toller, City of Llano                       | 512-656-8839 | 100% |
| 2017 | University Ave.<br>CDBG Sidewalks<br>Project           | \$161,583.00 | Georgetown, TX | 1100 LF of sidewalks along state highway in downtown area, including ramps, handrail, and retaining walls                                                                                      | City of Georgetown             | Joel Weaver, City of Georgetown                 | 512.931.1923 | 100% |
| 2016 | Sun City Burr Oak<br>Nature Trail                      | \$15,000.00  | Georgetown, TX | 5000 LF of 6 feet wide nature trail including grading, clearing/pruning trees, concrete armored drainage crossings and related items                                                           | Sun City Community Association | Kath Korbett, Sun City Trailblazers Hiking Club | 512.680.3881 | 100% |
| 2016 | Sun Tree Park<br>Parking Lot & ADA<br>Sidewalk Repairs | \$31,000.00  | Austin, TX     | Add 2 new handicap parking spaces to existing park parking lot and remove and replace sidewalks/ramps to rehab them to ADA standards                                                           | Riverplace MUD                 | Herb Edmonson- Gray Engineering inc.            | 512.844.7226 | 100% |
| 2016 | 3rd St. CDBG<br>Sidewalks                              | \$112,804.00 | Georgetown, TX | 1000 LF of new City sidewalks along neighborhood streets including ADA ramps and railing, and handicap curb ramps.                                                                             | City of Georgetown, TX         | Joel Weaver, CIP PM                             | 512.931.7698 | 100% |
| 2016 | MCC Park Exposed<br>Aggregate Sidewalk<br>Repair       | \$39,000.00  | Round Rock, TX | Remove and replace 1100 LF of 6' wide exposed aggregate sidewalk in community park.                                                                                                            | Meadows of Chandler Creek MUD  | Herb Edmonson- Gray Engineering inc.            | 512.844.7226 | 100% |
| 2016 | Brady Creek Trail                                      | \$283,000.00 | Brady, TX      | New 4400 LF concrete trail, 8 feet wide, with handrails, concrete rip rap and related items                                                                                                    | City of Brady                  | Peter Lamont, Director of Community Services    | 325.597.2152 | 100% |

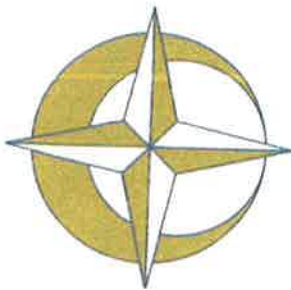


|      |                                                          |              |                                                        |                                                                                                                                                                                                                                                                                                                                                                |                                                         |                                      |              |      |
|------|----------------------------------------------------------|--------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------|--------------|------|
| 2016 | Blanco River- River Rd. Slope Stabilization              | \$464,865.00 | San Marcos, TX                                         | Demo existing damaged headwall and RCP along banks of the Blanco River. Install new 48-in RCP, 84-in manhole, a double barrel 48-in RCP Concrete Headwall, & MSE with 50 Each of 6'x4'x3' stacked limestone boulders for a retaining wall to stabilize bank erosion in this area. All work is being done in the bottom of the Blanco River and up it's slope.. | City of San Marcos                                      | Rey Garcia, P.E., City of San Marcos | 512.393.8130 | 90%  |
| 2016 | Lick Creek Park- Deer Run Pedestrian Bridge Repair       | \$44,437.00  | College Station, TX                                    | Stabilize bank under one side of pedestrian bridge utilizing rock rip rap and 75 LF of 10' tall gabion baskets                                                                                                                                                                                                                                                 | City of College Station                                 | Rusty Warnke                         | 979-764-3731 | 100% |
| 2015 | Williamson County- Radio Tower Maintenance               | \$24,000.00  | Various Radio Tower Sites throughout Williamson County | Repair various Radio Tower Sites for Williamson County Facilities Dept. - road repair, culvert/driveway installation, radio tower yard maintenance, and clean up                                                                                                                                                                                               | Williamson County, TX                                   | Christi Stromberg                    | 512.943.3377 | 100% |
| 2015 | Chandler Creek MUD Park- Park Maintenance/ Flood Repairs | \$12,000.00  | Round Rock, TX                                         | Raise/Repair Storm water & Sewer manholes, and repair flood damaged fence                                                                                                                                                                                                                                                                                      | Chandler Creek M.U.D.                                   | Herb Edmonson- Gray Engineering Inc. | 512.844.7226 | 100% |
| 2015 | Upper Brushy Creek WCID- Emergency Dam 22 Repair         | \$40,000.00  | Hutto, TX                                              | Emergency Flood Repair for damages of storms from Memorial Day 2015. Including dam reinforcements by installing 3000 CY of large 18"-36" stone rip rap on face of dam and building an access road.                                                                                                                                                             | Upper Brushy Creek Water Control & Improvement District | Ruth Haberman, P.E.- General Manager | 512-284-7685 | 100% |

|      |                                                                            |                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                                        |              |      |
|------|----------------------------------------------------------------------------|----------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------|--------------|------|
| 2015 | Pflugerville ISD-<br>Delco Primary<br>School ADA<br>Sidewalk and<br>Ramps  | \$49,600.00    | Austin, TX     | New school sidewalk and ADA Ramps leading<br>to playscape area                                                                                                                                                                                                                                                                                                                                                                 | Pflugerville ISD      | Arthur Carrasco,<br>Pflugerville ISD   | 512.845.3044 | 100% |
| 2015 | Madelia Hilliard<br>CDBG Sidewalk<br>Improvements                          | \$63,600.00    | Georgetown, TX | Remove and replace sidewalk in city<br>neighborhood on and adjacent to City<br>neighborhood center, adding handicap<br>accessible ramps and walks.                                                                                                                                                                                                                                                                             | City of Georgetown    | Ken Taylor/ City of<br>Georgetown      | 512.818.2477 | 100% |
| 2014 | Sonterra Center                                                            | \$150,000.00   | Jarrell, TX    | New 6"-8" WWV line with connections, services<br>& manholes. Subcontractor of Lockhart<br>Excavation                                                                                                                                                                                                                                                                                                                           | Manny Akiva           | Brice Lockhart- Lockhart<br>Excavation | 254.855.3504 | 100% |
| 2014 | Chandler Creek<br>M.U.D. Park- Creek<br>Drainage and Trail<br>Improvements | \$48,000.00    | Round Rock, TX | 135 LF of 4'-10' Tall Gabion Baskets installed<br>along creek to repair erosion of channel,<br>regrading of channel/granite/concrete trail<br>repair, metal handrail repair, and headwall<br>repair                                                                                                                                                                                                                            | Chandler Creek M.U.D. | Heb Edmonson- Gray<br>Engineering Inc. | 512.844.7226 | 100% |
| 2014 | Ronald Reagan<br>Waterline *<br>Subcontractor to<br>Lockhart Excavation    | \$1,600,000.00 | Leander, TX    | 8400 LF extension to existing City of Leander<br>24" waterline along Ronald Reagan Blvd. and<br>crossing the San Gabriel River. Included 220<br>LF of 42" steel encasement, 120 LF concrete<br>pipe encasement, 71 LF concrete trench cap,<br>11 EA 30" Gate Valves, 6 EA 12" Gate<br>Valves, 25 EA Fire Hydrants, asphalt cutting<br>& repair, and required testing. Project site<br>included limestone rock and groundwater. | City of Leander, TX   | Milton Kokel                           | 512.563.7552 | 70%  |

|      |                                                                                    |              |                |                                                                                                                                                                                                                                                                                                                                     |                                              |                                        |                          |      |
|------|------------------------------------------------------------------------------------|--------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------|--------------------------|------|
| 2014 | Fredrickson Ranch<br>Offsite Waterline*<br>Subcontractor to<br>Lockhart Excavation | \$800,000.00 | Georgetown, TX | 10,000 LF of 12" waterline for new subdivision including related items. Project included rock.                                                                                                                                                                                                                                      | City of Georgetown, TX-<br>Fredrickson Ranch | David Munk or Bobby<br>Fredrickson     | Munk- (512) 930-<br>2572 | 70%  |
| 2014 | Oxford Blvd. Culvert<br>Replacement                                                | \$300,000.00 | Round Rock, TX | Remove: 4 barrel CMP crossing, 2 manholes, HMAC, remediate Asbestos concrete water pipe, WW line. Install: 4 ea 5x8 RBC, 2 wingwalls, gabion mattresses, concrete rip rap, stone rip rap, 2 ea 5' curb inlets, 2 ea 4' Dia MHS, 1 ea 5' Dia MH, 18" RCP, 24" RCP, relocate waterline with tap, sidewalks, handrail and curb/gutter. | City of Round Rock, TX                       | Randy Crum                             | 512.844.7226             | 75%  |
| 2014 | Safe Routes to<br>School Serving<br>Mitchell Elementary<br>School                  | \$406,000.00 | Georgetown, TX | TXDOT FUNDED: 4401 LF concrete sidewalk 8 feet wide, 40 LF steel pedestrian bridge, 2x3' RBC with headwall and stone rip rap, CMP, concrete flume underdrain, topsoil and revegetation                                                                                                                                              | City of Georgetown, TX                       | Joel Weaver                            | 512.931.7699             | 90%  |
| 2014 | Sonterra Apartments                                                                | \$125,000.00 | Jarrell, TX    | W, WW, Storm utilities for new apartment complex including 6"-8" WW lines, manholes, and service. Subcontractor of Lockhart Excavation                                                                                                                                                                                              | Manny Akiva                                  | Brice Lockhart- Lockhart<br>Excavation | 254.855.3504             | 100% |
| 2014 | 9th St. @ Church St.<br>Patio                                                      | \$23,000.00  | Georgetown, TX | Reinforced concrete retaining wall, curb/gutter, concrete dumpster pad with decorative stone masonry wall, and concrete stairs                                                                                                                                                                                                      | City of Georgetown, TX                       | David Pierce- City of<br>Georgetown    | 512-508-6782             | 100% |
| 2014 | Georgetown Airport-<br>Advanced Jet<br>Services Drainage<br>Project                | \$103,500.00 | Georgetown, TX | Repair and completion of storm drainage including earthen ditch, HMAC Road cut/ patch with 150 LF Double Barrel 24" RCP & 175 LF of 18" HDPE drainage utilities                                                                                                                                                                     | City of Georgetown, TX                       | Joel Weaver, CIP PM                    | 512.931.7698             | 100% |

|      |                                                                                                                           |              |                                   |                                                                                                                                                                                                                                                                                                                                                                       |                                                         |                                       |              |      |
|------|---------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------|--------------|------|
| 2013 | Berry Springs Park Dam Repair                                                                                             | \$280,000.00 | Georgetown, TX                    | Demo of existing damaged rock dam, install new 140 feet long 15 Foot tall structural concrete dam with wall stem, spread footer, and outflow apron. Included pond cleanout and regrading. Dam detains a pond fed by natural springs (Berry Springs).                                                                                                                  | Williamson County, TX                                   | Randy Bell- Park Director             | 512.943.1922 | 95%  |
| 2013 | Dam Maintenance 2013                                                                                                      | \$62,500.00  | Round Rock, TX & Pflugerville, TX | Installation of approximately 1500 LF roads each atop 2 Flood Control Dams on Texas Crushed Stone Property. Repair of an approximately 1700 LF road atop the Flood Control Dam at Meadowlake Park in North Round Rock. Repair of an approximately 700 LF road atop the Flood Control Dam off County Rd. 139 in Pflugerville. Repair of 3 dams caused by flood damage. | Upper Brushy Creek Water Control & Improvement District | Ruth Haberman, P.E.- General Manager  | 512-284-7685 | 100% |
| 2013 | Wave Pool Structural Concrete Wall Repair                                                                                 | \$20,100.00  | Seguin, TX                        | Repair existing structural concrete retaining walls damaged by chlorine chemical contamination, including injected crack sealing, removing and replacing rebar, and removing and replacing concrete. Electrical and Plumbing repairs, and replacing galvanized steel grating                                                                                          | City of Seguin, TX                                      | Crystal Miranda- Parks Superintendent | 830.401.2485 | 100% |
| 2013 | Chandler Creek M.U.D. Park- Parking Expansion (subcontracted entire project from Keystone Construction, Inc.- Austin, TX) | \$62,000.00  | Round Rock, TX                    | Expanding parking in existing MUD Park. Including site demo, subgrade prep, base installation, concrete curbs and sidewalks, concrete channel and HMAC paving.                                                                                                                                                                                                        | Chandler Creek M.U.D.                                   | Herb Edmonson- Gray Engineering Inc.  | 512.452.0371 | 100% |



# WESTAR CONSTRUCTION INCORPORATED

## CORPORATE RESOLUTION

Be it resolved by the Board of Directors of Westar Construction, Inc., that Mark A. Williamson is hereby authorized to execute a bid submittal to the City of Taylor, TX for the 2019 Gateway Sign Project.

Lamont Navarrette, Secretary, is authorized to attest the signature binding the corporation.

Westar Construction, Inc.  
Corporate Name

By: 

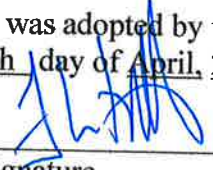
Title: President



  
Secretary of Corporation

## CERTIFICATION

I, Lamont Navarrette, certify that the above resolution was adopted by the Board of Directors of Westar Construction, Inc. at a meeting on the 26th day of April, 2019.

  
Signature

Lamont Navarrette  
Secretary



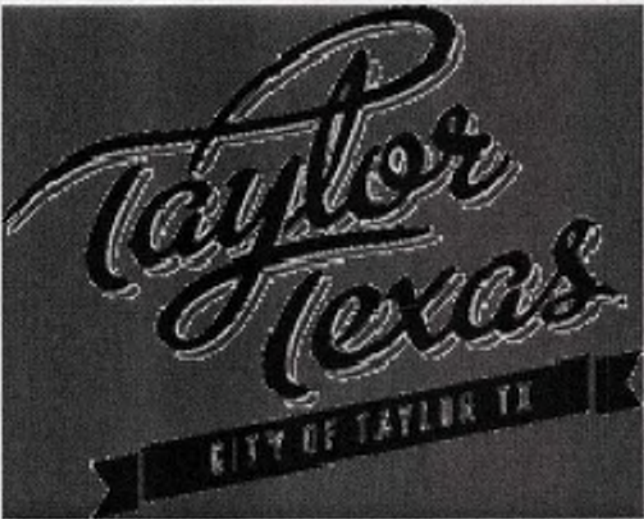
DEVELOPMENT PLANS FOR:

CITY OF TAYLOR

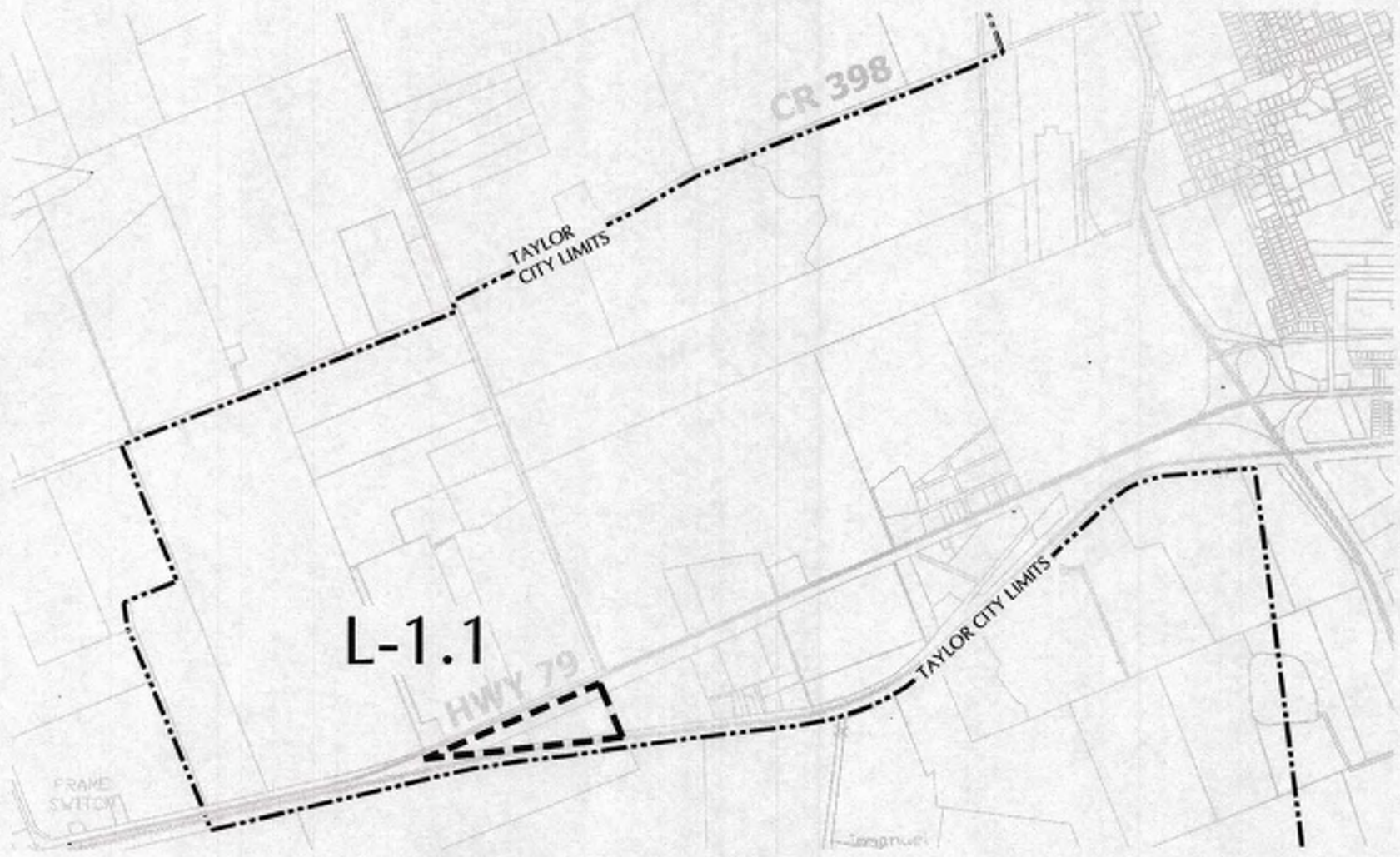
2019 GATEWAY SIGN

HWY 79  
Taylor, Texas  
Williamson County

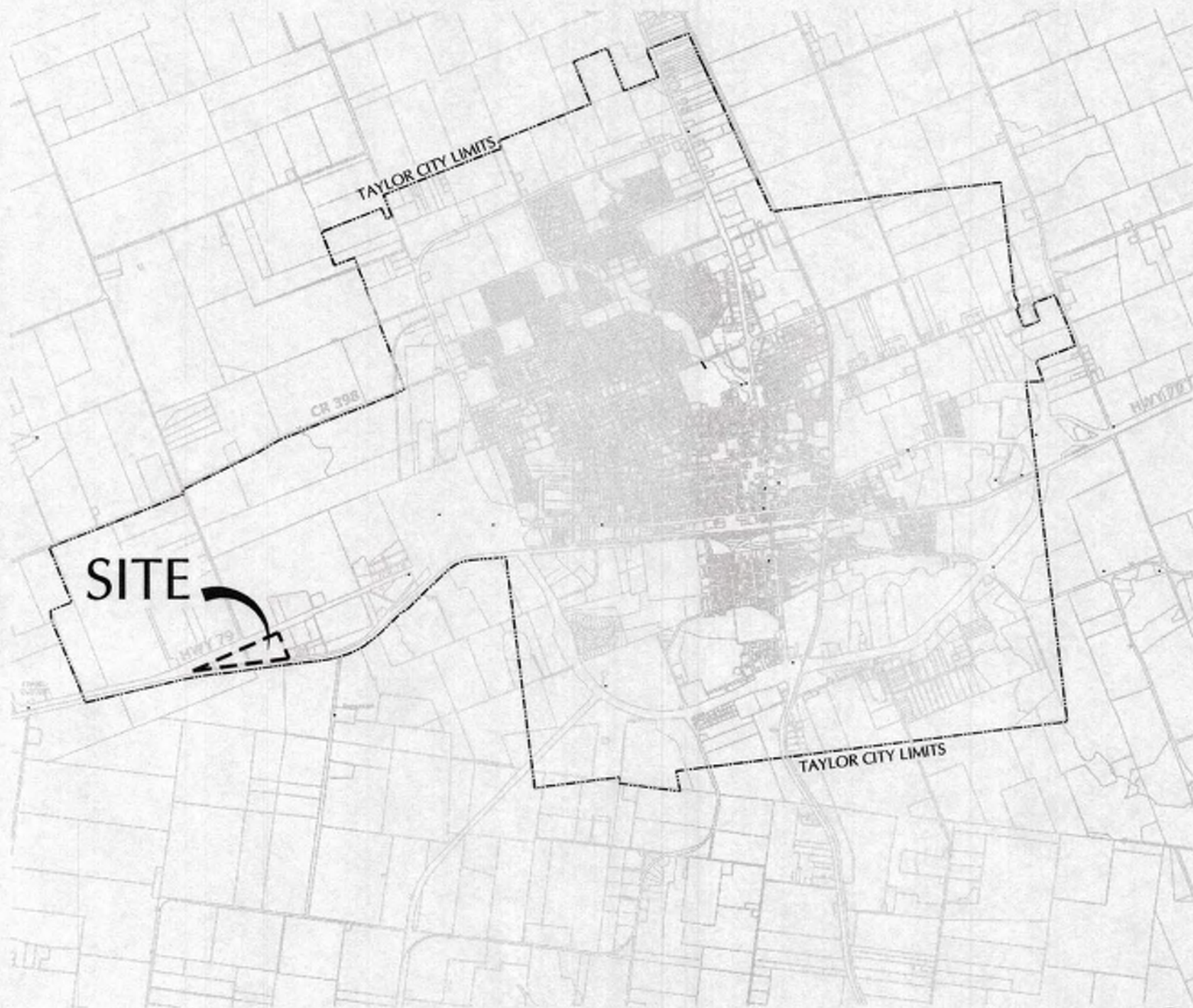
April 5, 2019



CITY OF TAYLOR  
400 PORTER STREET  
TAYLOR, TEXAS 76574  
Phone: 512.352.3675



SHEET KEY  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE

INDEX OF SHEETS

| SHEET NO. | TITLE                                     | REVISED SHEETS |
|-----------|-------------------------------------------|----------------|
| COVER     |                                           |                |
| LN-1      | NOTES                                     |                |
| L-1.1     | PLAN LAYOUT                               |                |
| L-1.2     | TEMPORARY EROSION CONTROL                 |                |
| LD-1      | GATEWAY SIGN DETAILS                      |                |
| L-4.0     | LIGHTING PLAN                             |                |
| L-4.1     | LIGHTING DETAILS                          |                |
| LPN-1     | PLANTING NOTES AND SCHEDULE               |                |
| LP-0      | OVERALL PLANTING PLAN LAYOUT              |                |
| LP-1      | PLANTING PLAN                             |                |
| LPD-1     | PLANTING DETAILS                          |                |
| LI-1      | IRRIGATION DIAGRAM                        |                |
| CP-1      | GATEWAY SIGN DRIVEWAY AND CULVERT PLAN    |                |
| CP-2      | SAFETY END TREATMENT AND DRIVEWAY DETAILS |                |

*[Signature]*  
CITY ENGINEER

4/12/2019  
DATE

4-12-2019  
DATE



04/05/2019



Texas Law Requires 48 hours of Notice Prior to Digging, Excluding Weekends and Holidays.  
Call before you dig, wait the required amount of time, respect the marks, and dig with care!

|                             |            |                                                                                            |  |
|-----------------------------|------------|--------------------------------------------------------------------------------------------|--|
| Project No.: 150129-TAYL    |            | Revision                                                                                   |  |
| Issue                       |            | 1.                                                                                         |  |
| 1. CLIENT REVIEW SET        | 12/14/2018 | 2.                                                                                         |  |
| 2. CITY SUBMITTAL           | 01/29/2019 | 3.                                                                                         |  |
| 3. BID SET                  | 04/05/2019 | 4.                                                                                         |  |
| 4.                          |            | 5.                                                                                         |  |
| 5.                          |            | 6.                                                                                         |  |
| 6.                          |            | 7.                                                                                         |  |
| 7.                          |            | 8.                                                                                         |  |
| 8.                          |            | 9.                                                                                         |  |
| 9.                          |            | 10.                                                                                        |  |
| 10.                         |            | 11.                                                                                        |  |
| 11.                         |            | 12.                                                                                        |  |
| 12.                         |            |                                                                                            |  |
| Drawn By: MPP               |            | Reviewed By: MB, BD                                                                        |  |
| © 2019<br>SEC Planning, LLC |            | Drawing Path<br>P:\150129-TAYL\Cadfiles\LA\Hwy79-Gateway Sign\Cadfiles\LA\Sheets\Cover.dwg |  |

Statement of Jurisdiction  
The Texas Board of Architectural Examiners has jurisdiction over complaints regarding the professional practices of persons registered as landscape architects in Texas. The Texas Board of Architectural Examiners may be contacted by post at 333 Guadalupe, Suite 2-350, Austin, Texas 78701, by phone at (512) 305-9000 or fax (512) 305-8900.



GENERAL CONSTRUCTION NOTES

- These drawings and documents are submitted to the Owner of the project for review and approval prior to any release for bidding or construction. Contractors shall receive all bid information, instructions, bid forms, general terms and conditions, and all other required clarification from the Owner's Authorized Representative administering this project. Unless otherwise indicated, the Owner's Representative for this project shall be a specifically designated Landscape Architect from SEC Planning. The contractor will also be required to coordinate and correspond with the Landscape Architect from SEC Planning and key consultants for the Owner.
- These drawings supplement other contractual information which includes Bid Instructions and Project Specifications. Anything mentioned in the Project Specifications and not in the drawings, or vice-versa, shall be of like effect as if shown on or mentioned in both. In case of a discrepancy between Drawings or Project Specifications, the matter shall be immediately submitted to the Owners Representative; without his decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. The contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, he shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.
- The intent of these drawings, details and associated specifications is for the Contractor to provide the Owner with a complete, accurate, functionally and technically sound project as generally described in these documents. In most cases, unless explicitly noted otherwise, drawing symbols are used to represent complete-in-place systems to be provided as part of the base bid. All elements shown or implied by the drawings, if not specifically detailed or specified, shall be installed per building codes, manufacturer's recommendations, state highway department standards, city standards and specifications and standard industry practices.
- All work within this project shall conform to current local codes, ordinances, as well as all other applicable governing regulations in effect.
- All range points, ties, benchmarks or other survey control points which may be encountered during construction, must be preserved or modified/recorded by a registered surveyor at the Contractor's expense. Immediately upon discovery, the Contractor shall notify the Owner's Representative of any survey control points found and obtain direction prior to proceeding with construction.
- The Contractor shall coordinate and obtain all permits which are necessary to perform the proposed work. Owner is to pay for all construction permits unless otherwise indicated in the Contract Documents. Contractor shall obtain, at his expense, all specialty permits needed for specific items included with the work, unless otherwise indicated in the Contract Documents. Should the Contractor commence work, prior to obtaining the required permits or jurisdictional approvals, the Contractor shall be responsible corrections, modifications, replacement or removal of the non-permitted work.
- It is the Contractor's responsibility to be aware of and comply with all notifications and inspection requirements of the Jurisdiction.
- Unless specifically noted otherwise in the Contract Documents, the Contractor shall obtain and coordinate all technical tests and reports by a certified independent laboratory or agency as outlined in the Specifications or these Drawings. The Owner may, at the Owner's sole discretion, provide separate testing and/or inspection service and the Contractor is required to fully coordinate with those consultants/contractors. Owner is to pay for all soils and materials testing.
- An Existing Condition Survey may have been provided to the Owner by registered surveyors under separate contracts for the basis of design. It is not to be considered as part of these Contract Documents. If provided, these survey plans may have been reformatted and included in these documents. The Contractor is required to visit the site to verify information. Without exception, any deviations or omissions found between these plans and existing site conditions shall immediately be brought to the attention of the Owner's Representative, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the "Owner-Contractor Agreements/Contracts". For official survey information, Contractor may wish to contact the Owner, or Owner's surveyor at the Contractors expense.
- Existing utility information and utility information for proposed work by others that is shown in these documents is approximate and for general information only. It is not intended to depict exact locations of all utilities. The Contractor shall notify all utility companies to stake and field verify the locations including depths of all utilities (existing, proposed by others, or currently under construction), prior to commencing any related operations. Contractor shall maintain utility locations/structures during all remaining phases of work. The Contractor shall report to the Owner's Representative any utilities that may conflict with proposed work. This Contractor shall explore, understand, and coordinate (with subcontractors and others) all utilities impacts prior to submitting bid and shall be responsible for any modifications or damages to utility lines, structures or injuries therefrom. For existing utility information contact Texas 811. A minimum notice of 3 business days in advance of locational needs is required.
- These drawings do not specify safety materials, staffing, equipment, methods or sequencing to protect persons and property. It shall be the Contractor's sole responsibility to direct and implement safety operations, staffing, procedures to protect the Owner and his representatives, new improvements, property, other contractors, the public and others.
- The Contractor shall meet periodically with the Owner's Representative to determine marshalling areas, on-site storage, and contractor staff parking and to coordinate security issues, construction sequencing/phasing, scheduling, and maintaining public, emergency, handicapped or operations access before starting the related work. The Contractor shall meet any "Construction Criteria" or requirements shown on any Contract Documents, phasing plans or any imposed plan by the Owner as a part of the Base Bid.
- Some work in this Contract may occur concurrent with work by others. Phasing, sequencing and coordination, with work by others, and on-going facility operations in and around the site area, is a part of the scope of work for this project. Notice to proceed with work in any general area shall be obtained from the Owner.
- The Contractor will be required to complete all the work of this project according to these proposed drawings or subsequent clarification. A strict period of performance, including dates of substantial completion (for all and/or portions) and liquidation damages may be an integral element of the Contract.
- Any site improvements requiring removal under this contract shall be properly and legally disposed off-site or, at the Owner's option, surrendered/stockpiled in an approved on-site location per the direction of the Owner or Owner's Representative.
- The Contractor is required to maintain a complete and "up-to-date" set of all Contract Documents, including clarifications, change orders, etc., in good condition, at the construction site at all times. This set of documents will be made immediately available for review by the Owner's Representative and/or authorized Consultants upon request. Complete "As-Built" drawings and document submittals are also a requirement of this contract.
- Maintenance, warranties and performance guarantees may be a requirement of this contract - see specifications.
- Notes and details on specific drawings shall take precedence over general notes and typical details. The Contractor shall refer to all other Division Notes, Sheets Notes, Drawings and Project Contract Documents for additional information.
- Contractor shall refer to other related drawings for all other related improvements that will impact this project and require coordination. Drawings may be made available to the Contractors at request.

TREE PROTECTION NOTE

- All existing trees shall be protected from construction activities within construction zone. During which time, the use of a silt or chain link fence is required around each singular or group of protected trees. Parking of construction vehicles, equipment, and stockpiles within tree root zones is strictly prohibited. Contractor shall be responsible for any damage incurred to existing trees, including replacement, fees, fines or reimbursement to owner for said damages and, or to the City or Jurisdiction with governing authority per the Tree Ordinance.

OAK WILT PREVENTION NOTE

- If Oak Wilt is found on site within work zone, owner must be notified and the following procedures must be followed in accordance with USDA standards, (<http://www.na.fs.fed.us>) including disinfecting construction removal devices, tree removal and treatment to prevent development of spore mats. These treatments include debarking, chipping and drying the wood, covering dead wood with plastic, burying the edges for six months and air drying for a similar amount of time to kill fungus and associated insects off site at state designated facility.

SIDEWALK NOTES:

- Layout of concrete walkways shall be staked in the field and review by the Owner or Owner's Representative prior to construction. At that time walk may be adjusted as needed, using the Hardscape Plan as a guide. All grades and layout shall be confirmed prior to construction. Notify Owner and Owner's Representative of any conflicts or deviations to the issued plans.
- All pedestrian paths shall be in compliance with all current Texas Accessibility Standards (T.A.S.) and ADA standards.
- All walkway grades shall have a running slope of no greater than 4.7% (1:21) and a cross-slope that is not greater than 1.5% (1:66).
- Slopes at or between 5.0% (1:20) and 8.3% (1:12) must have hand rails on both sides with ADA compliant level landings, and cross-slopes shall not exceed 1.5% (1:66).

HARDSCAPE LAYOUT AND INSTALLATION

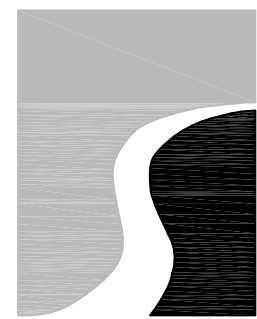
- All work shown shall be field staked and subject to field verification, review and approval by the Owner or Owner's Representative prior to any constructions or demolition. Field staking of all proposed work and adjacent construction (even if future work by others) may be required by the Owner's Representative prior to approval of all improvements and adequate stakes shall be provided by Contractor's surveyor.
- To expedite, the layout of the site layout coordinates and/or grids may have been established in the Drawings. These points shall be field staked by the Contractor's surveyor as a part of this contract. The establishment of these points shall be approved by the Owner's Representative prior to any construction in these areas and will assist the Contractor in the layout of all site improvements as shown on drawing or otherwise.
- The construction tolerances for this project are minimal and the dimensions shown are to be strictly adhered to.
- Computed dimensions shall take precedence over scaled dimensions. Large scale drawings shall take precedence over small scale drawings. Dimensions shown with (+/-) shall be the only layout information allowed to vary, and may only vary to the tolerances given.
- The Contractor is responsible to provide complete-in-place systems, and a complete project. Any intermittent or periodic approvals received for portions of work, stakes, grades, or forms (by the Owner or Owner's Representative, Architects, Engineers, or others) shall not waive the Contractor's requirements to comply with the intent of any and all portions of this contract.
- All locations for walks, roads, swales, walls, curbs, structures etc. shall be staked by the Contractor. All layout information is based on ground coordinates and the Contractor shall meet with the owner's surveyors and engineers to clarify all datum, benchmark and control point requirements. Specific layout information will be provided to the Contractor by the Owner's Representative in AutoCAD (dwg) format when requested.
- It is the intent and requirement of this contract to provide curvilinear walks, walls and curbs with smooth transitions and arcs (both horizontal and vertical). Straight segments and abrupt transitions will not be accepted unless shown as such on the plans. Wood curving forms may be required to obtain the proper effects.
- Hardscape improvements that are to be constructed per the drawings, shall be coordinated on site with the Owner's Representative, and be field staked or painted for approval of layout by the Owner's Representative prior to installation. Notify the Owner's Representative a minimum of 24 hours in advance for review. Improvements installed without field approval by Owner's Representative may be rejected and will be replaced at Contractors expense.
- All lot fencing or lot screen walls shall be placed on the property line or property boundary. Contractor shall confirm final location by field staking, to be reviewed by the Owner or Owner's Representative prior to construction.

GRADING NOTES

- The Contractor shall obtain and review the Summary Report and Recommendations prepared by the geotechnical engineers and fully understand the existing soil conditions encountered prior to submitting bid. The Contractor shall comply with all recommendations made by the geotechnical engineers, civil engineers, structural engineers and Owner's Representative, as designated in the soil report, on these drawings, specified, or as directed during field observations and inspections.
- All earthwork operations will be subject to full inspection and regular testing by a qualified soils and materials engineer and this Contractor shall be responsible to coordinate scheduling, notification and procuring test results and documentation as required. The Contractor shall notify the Owner's Representative of any subsoil conditions encountered, which vary from those found during previous soil investigations and/or that may not have been known during design. Any failed tests which must be retested will be a Contractor's expense.
- All earthwork operations shall be conducted in strict compliance with the project specifications including but not limited to:
  - Full locating, investigating and protection of ALL existing utilities to remain.
  - Removal of any organic materials or debris.
  - Stripping and stockpiling of all topsoil in approved location(s).
  - Removal of all unstable fill materials encountered.
  - Scarification and re-compaction to the minimum depth as specified and/or directed within all areas to receive fill, pavements or structures.
  - All classifications of "excavation" as required to meet proposed lines, grades, typical cross sections and improvement elevations.
  - Placement, shaping, and structural compaction of all classifications of "fill" or "embankment" as required to meet proposed lines, grades, typical cross sections and improvement elevations.
  - Providing dewatering, optimum moisture control, climate protection, dust control, erosion control and all other specified treatments.
  - Replacement of topsoil after grading changes have been accomplished.
- See, and comply with, all specifications for depth of moisture density treatments, controls and compaction requirements.
- These grading plans are intended to show vertical control of the site and are based upon the benchmarks, existing elevations and topography as provided by the Owner's surveyor. However, the Contractor, upon submittal of bid, agrees to accept the site grades and make all adjustments required to accomplish the work as proposed. Additionally proposed design elevations for adjacent construction projects may have to be incorporated if necessary. (Construction drawings for work by others, if applicable, are available upon request). Staking of future adjacent improvements, by this contract phase or by others, may be required if directed by the Owner's Representative to ensure proper coordination and requested staking is to be provided as part of this Base Bid.
- This Contractor shall verify all existing grades to remain and all adjacent new construction grades for compliance with those shown, prior to bid and construction. All deviations or conflicts with proposed work shall be reported immediately (with follow-up written) notice within 24 hours to the Owner's Representative for direction to proceed, but will not be considered as basis for additional payment except as allowed in change order process per General Conditions and Supplementary Conditions under the existing "Owner-Contractor Agreements/Contracts".
- The plans may call for specific temporary benchmarks to be transferred to the site by a certified surveyor and accurately established on site as a part of this contract. Contractor shall verify all benchmarks and information used in design and compare to existing conditions.
- It is this Contractor's responsibility to provide proper positive drainage throughout this contract area. Field conditions shall be verified in conjunction with the proposed elevations to ensure that adequate drainage is provided. Report deviations or conflicts to Owner's Representative. Unless otherwise indicated, minimum slope for paved surfaces shall be 1% and minimum slope for non-paved areas shall be 2%. Slope away from all structures shall be 3% minimum, for a distance of 5' minimum. Maximum ground slopes to be 4' horizontal to 1' vertical, unless otherwise approved in advance.
- All design elevations shown are "finished grades" unless otherwise indicated. Contractors shall refer to drawings, details and specifications regarding depth of sub-grade materials required to construct project improvements.
- All topsoil and/or drainage way muck excavation shall be saved and stockpiled in approved locations for future use.

LIGHTING

- Landscape lighting system is to be installed by a licensed electrician with documented experience in installing lighting systems of similar scope within the last two years. The Contractor is to supply a complete lighting system including all associated equipment such as conduit, weather proof and/or water proof junction boxes, ballasts, connectors, harnesses, time clocks, photocells, etc.
- The Contractor is in charge of design and installation of all electrical and lighting installation for signs. The Contractor shall review proposed layout of lighting system and all related equipment locations with the Owner or Owner's Representative prior to commencing installation.
- The Contractor is responsible for coordinating electrical connections to the Owner provided meters on site.
- After installation the Contractor will be required to adjust light fixtures until the Owner's Representative is satisfied with the desired effect. This will require the Contractor and/or the Contractor's electrician to meet with the Owner and Owner's Representative after sunset. This adjustment is to be included in the base Bid amount.
- The Contractor shall provide a two year warranty on all equipment including lamps, ballasts and installation.
- Independent ballasts, if required, shall be "ganged" in an inconspicuous, accessible location in a horizontal, weatherproof box or tray near ground level. Mounting of ballast in trees will not be allowed without written authorization from the Owner's Representative.
- All exposed boxes, trays, conduit, etc. shall be painted by the contractor to blend in with surrounding landscape elements.
- All equipment shall be UL listed and installation shall comply with N.E.C. and all other applicable codes.
- All lights are to be controlled by a photocell on and timer off system unless specified otherwise on the drawings.
- All wire run underground must be in rigid conduit.
- Plan layout of underground wiring to minimize disturbance to the roots of existing trees. If underground wiring must pass through the critical root zone of protected trees, trenching and related work must be performed by hand. No mechanical trenching is permitted within the Critical Root Zone.
- Tree lighting (if applicable):
  - Install Karlock (or equal) flexible conduit from base of tree to a minimum eight foot height above ground. At the end of the conduit install a waterproof hub (for single cable) or W-P bell box for multiple cables. Paint conduit and box to match tree trunk. Use SJO electrical cord from conduit to light fixture. Attach cord to tree using long galvanized cord staples or other approved method. Provide a 36" loop of extra cord at the light fixture to allow for light adjustment and tree growth.
  - Attach light fixtures to trees utilizing galvanized mounting plates drilled for hub connection with a minimum of two mounting screws. Mounting screws are to be 1/4-20 threads x 5" length (one end wood screw threads and the other end bolt threads). Install at least two inches of thread into tree and install with at least two inches between tree and mounting plate.
  - All tree downlights are to be mounted in the top third of the tree canopy.
  - All fixtures are to be located, adjusted as needed and shielded to prevent glare, light trespass on to adjacent properties or Rights-of-way.



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04/05/2019

2019 GATEWAY SIGN  
LANDSCAPE DEVELOPMENT PLANS  
HWY 79  
TAYLOR, TEXAS

Drawing File Name

Issued:  
1. CLIENT REVIEW SET 12/14/2018  
2. CITY SUBMITTAL 02/14/2019  
3. BID SET 04/05/2019  
4.  
5.

Revisions:

1.  
2.  
3.  
4.  
5.

Issue Date: 04/05/2019

Drawn By: MPP

Reviewed By: BD, MB

Project No.  
150129-TAYL

CONSTRUCTION  
NOTES

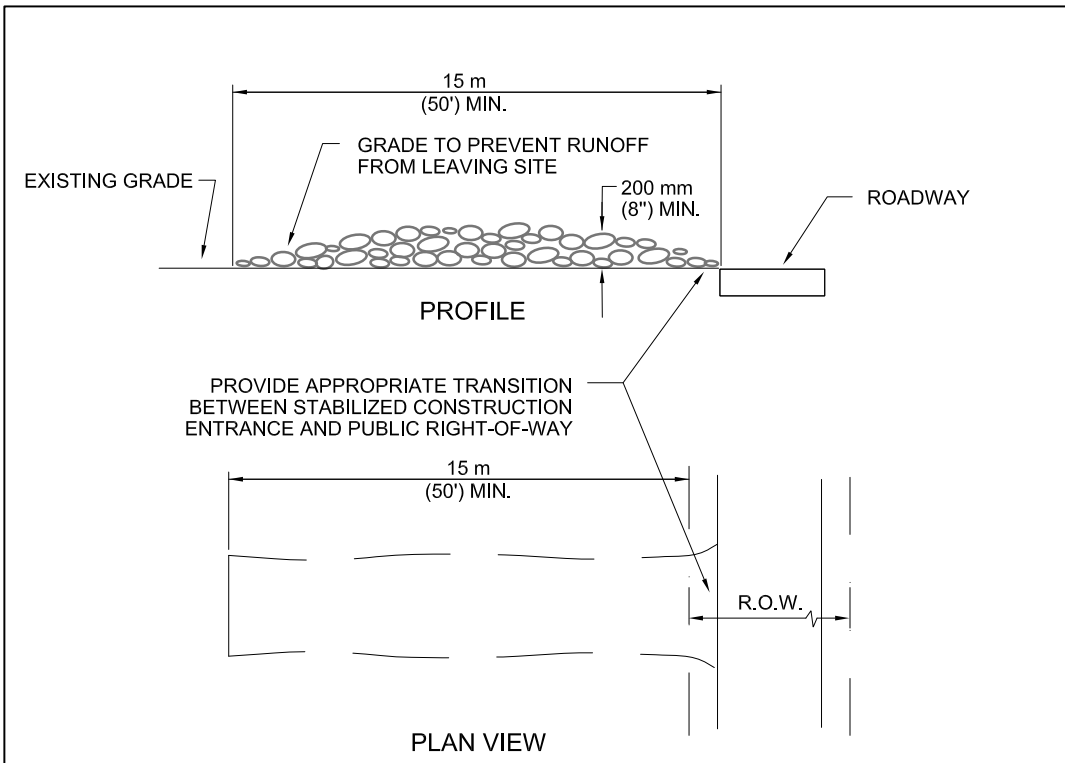
Sheet No.  
LN-1

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THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.





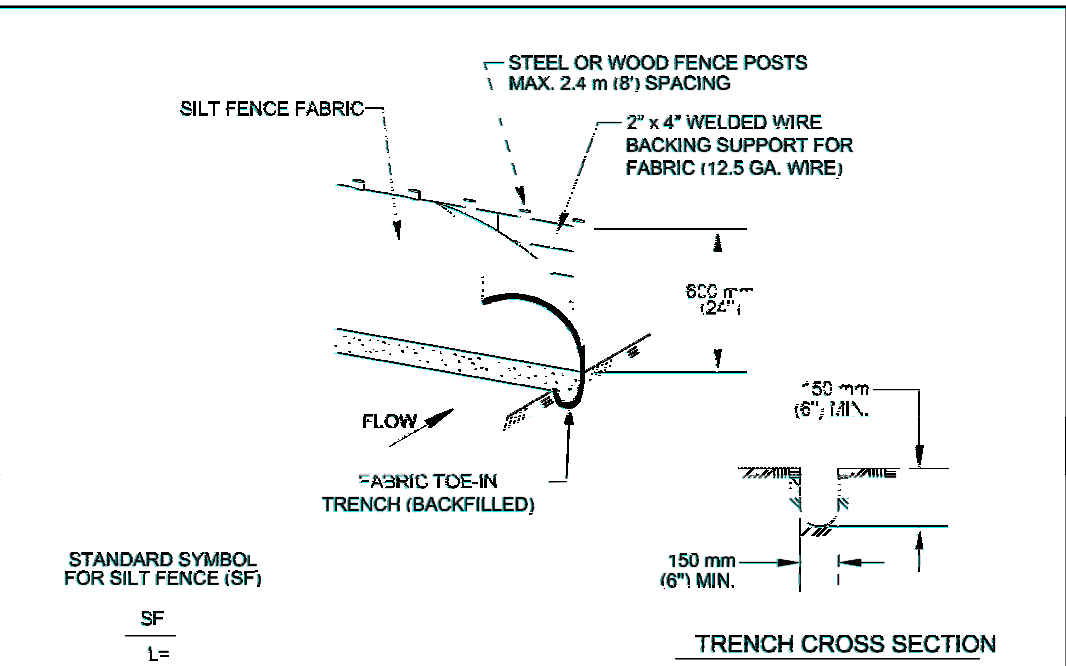
NOTES:

1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

| CITY OF AUSTIN                          |  | STABILIZED CONSTRUCTION ENTRANCE                                                    |  |
|-----------------------------------------|--|-------------------------------------------------------------------------------------|--|
| WATERSHED PROTECTION DEPARTMENT         |  | STANDARD NO.                                                                        |  |
| RECORD COPY SIGNED BY L. PATRICK MURPHY |  | 5/23/00                                                                             |  |
| ADOPTED                                 |  | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |  |
|                                         |  | 641S-1                                                                              |  |

### 1 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE



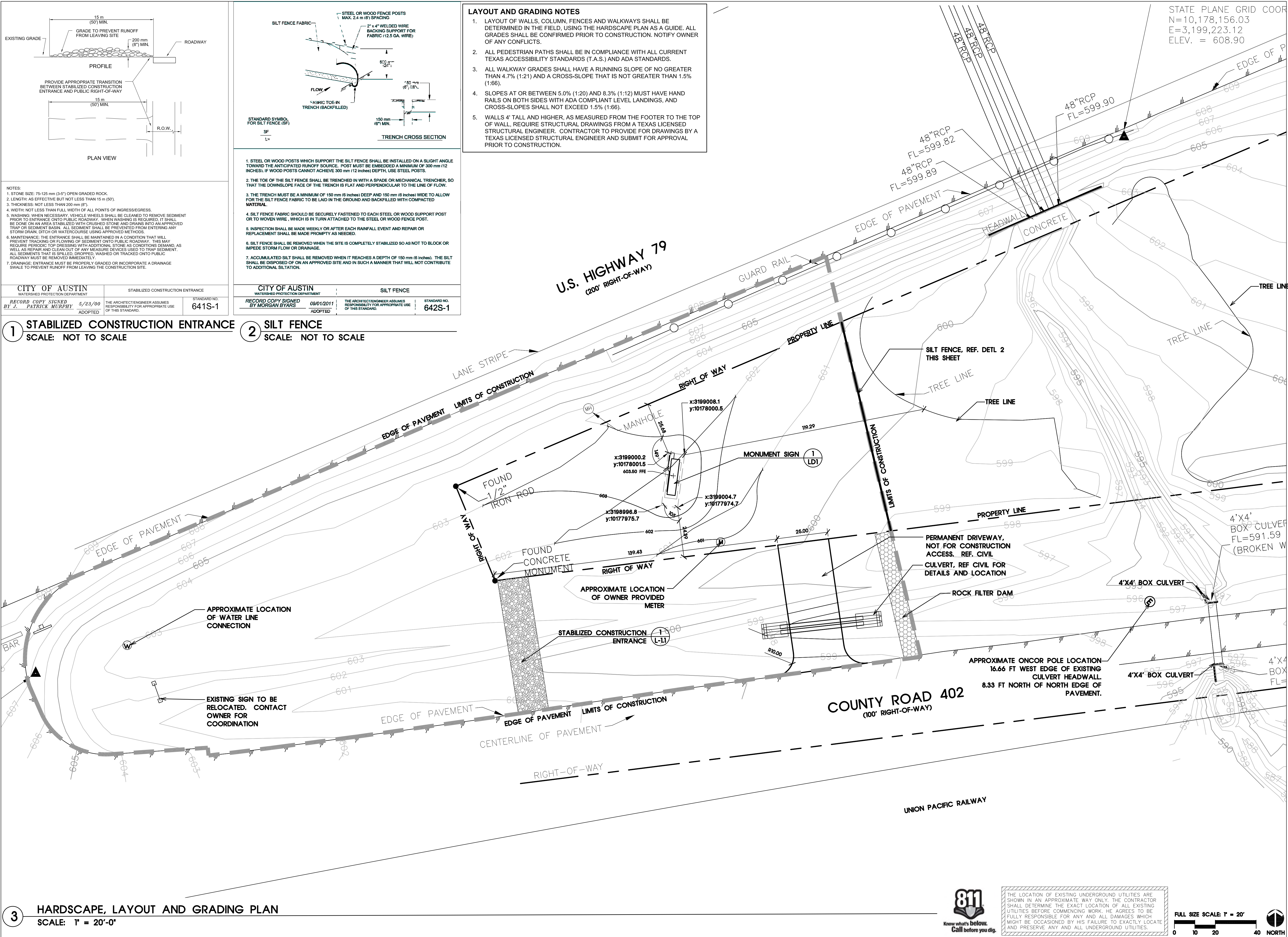
1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

| CITY OF AUSTIN                     |  | SILT FENCE                                                                          |  |
|------------------------------------|--|-------------------------------------------------------------------------------------|--|
| WATERSHED PROTECTION DEPARTMENT    |  | STANDARD NO.                                                                        |  |
| RECORD COPY SIGNED BY MORGAN BYARS |  | 09/01/2011                                                                          |  |
| ADOPTED                            |  | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |  |
|                                    |  | 642S-1                                                                              |  |

### 2 SILT FENCE

SCALE: NOT TO SCALE

- #### LAYOUT AND GRADING NOTES
1. LAYOUT OF WALLS, COLUMN, FENCES AND WALKWAYS SHALL BE DETERMINED IN THE FIELD, USING THE HARDSCAPE PLAN AS A GUIDE. ALL GRADES SHALL BE CONFIRMED PRIOR TO CONSTRUCTION. NOTIFY OWNER OF ANY CONFLICTS.
  2. ALL PEDESTRIAN PATHS SHALL BE IN COMPLIANCE WITH ALL CURRENT TEXAS ACCESSIBILITY STANDARDS (T.A.S.) AND ADA STANDARDS.
  3. ALL WALKWAY GRADES SHALL HAVE A RUNNING SLOPE OF NO GREATER THAN 4.7% (1:21) AND A CROSS-SLOPE THAT IS NOT GREATER THAN 1.5% (1:66).
  4. SLOPES AT OR BETWEEN 5.0% (1:20) AND 8.3% (1:12) MUST HAVE HAND RAILS ON BOTH SIDES WITH ADA COMPLIANT LEVEL LANDINGS, AND CROSS-SLOPES SHALL NOT EXCEED 1.5% (1:66).
  5. WALLS 4' TALL AND HIGHER, AS MEASURED FROM THE FOOTER TO THE TOP OF WALL, REQUIRE STRUCTURAL DRAWINGS FROM A TEXAS LICENSED STRUCTURAL ENGINEER. CONTRACTOR TO PROVIDE FOR DRAWINGS BY A TEXAS LICENSED STRUCTURAL ENGINEER AND SUBMIT FOR APPROVAL PRIOR TO CONSTRUCTION.



### 3 HARDSCAPE, LAYOUT AND GRADING PLAN

SCALE: 1" = 20'-0"

**SEC Planning**

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RECEIVED LANDSCAPE ARCHITECT  
STATE OF TEXAS  
04/05/2019

## 2019 GATEWAY SIGN LANDSCAPE DEVELOPMENT PLANS HWY 79 TAYLOR, TEXAS

| Drawing File Name    |            |
|----------------------|------------|
| Issued:              |            |
| 1. CLIENT REVIEW SET | 12/14/2018 |
| 2. CITY SUBMITTAL    | 02/14/2019 |
| 3. BID SET           | 04/05/2019 |
| 4.                   |            |
| 5.                   |            |
| Revisions:           |            |
| 1.                   |            |
| 2.                   |            |
| 3.                   |            |
| 4.                   |            |
| 5.                   |            |
| Issue Date:          | 04/05/2019 |

Drawn By: MPP  
Reviewed By: BD, MB

Project No.  
150129-TAYL

PLAN LAYOUT

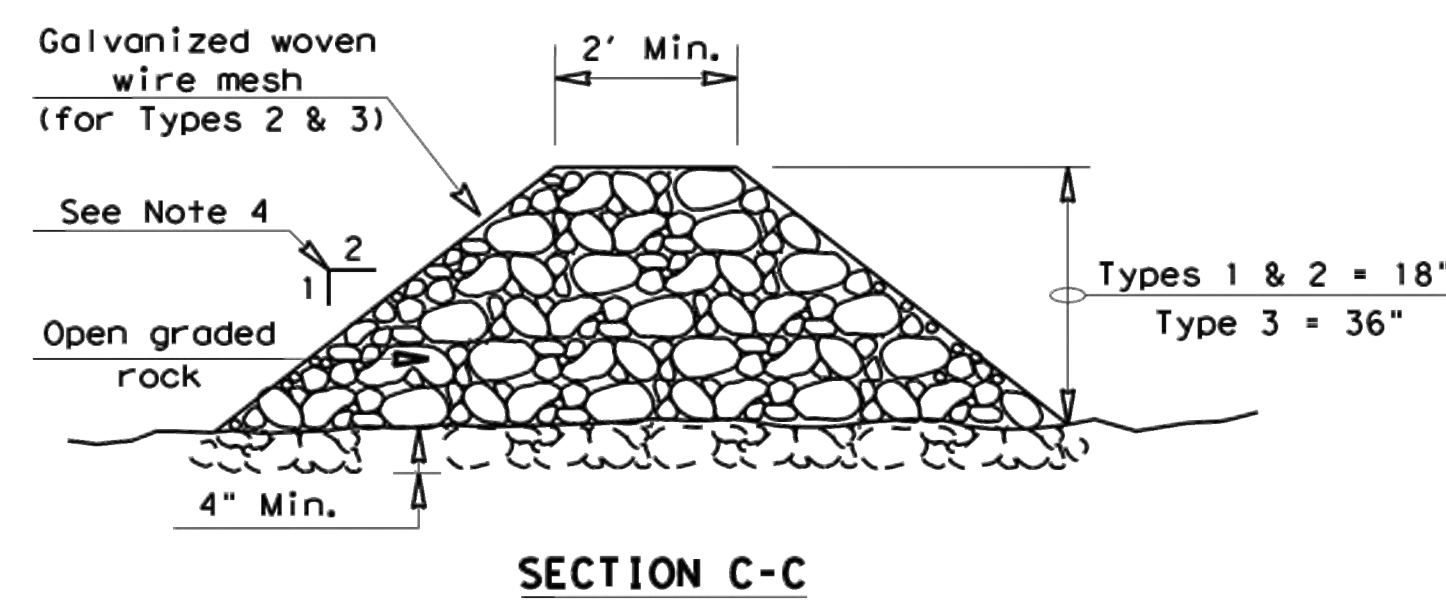
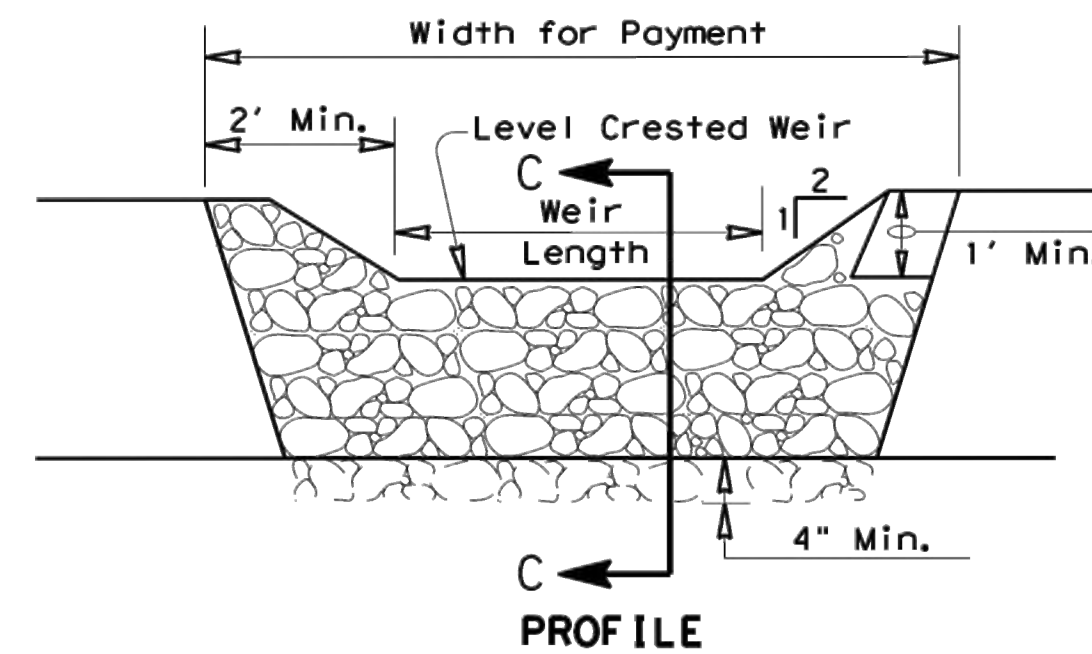
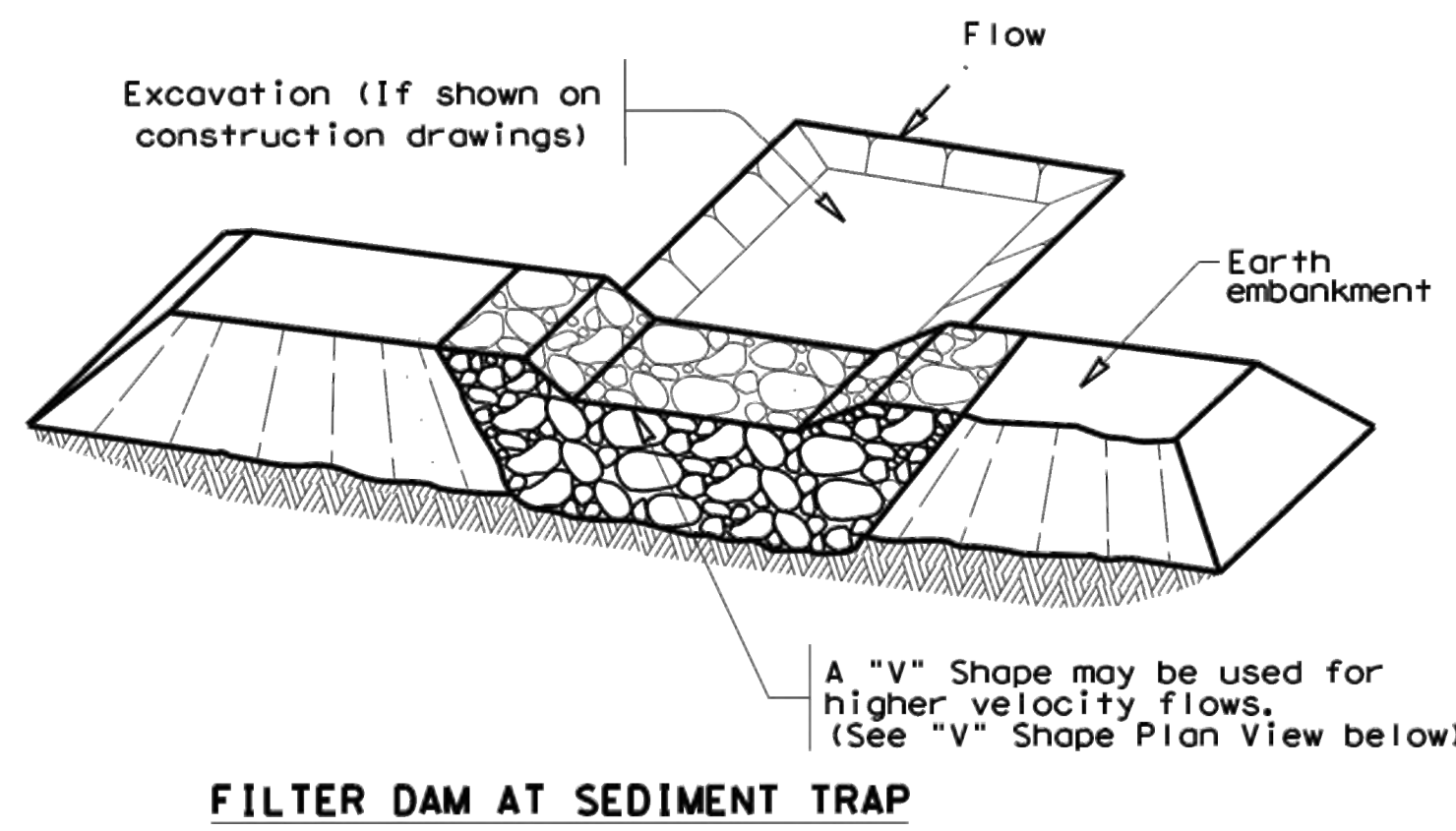
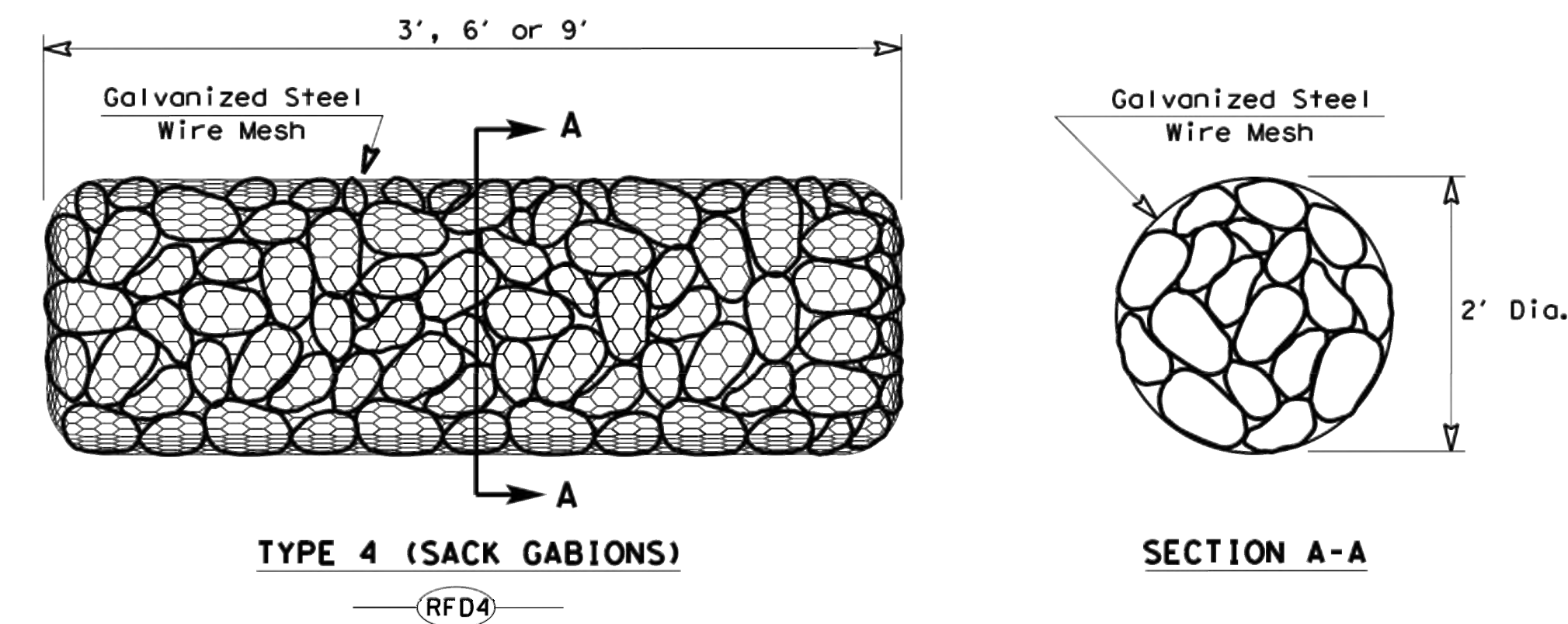
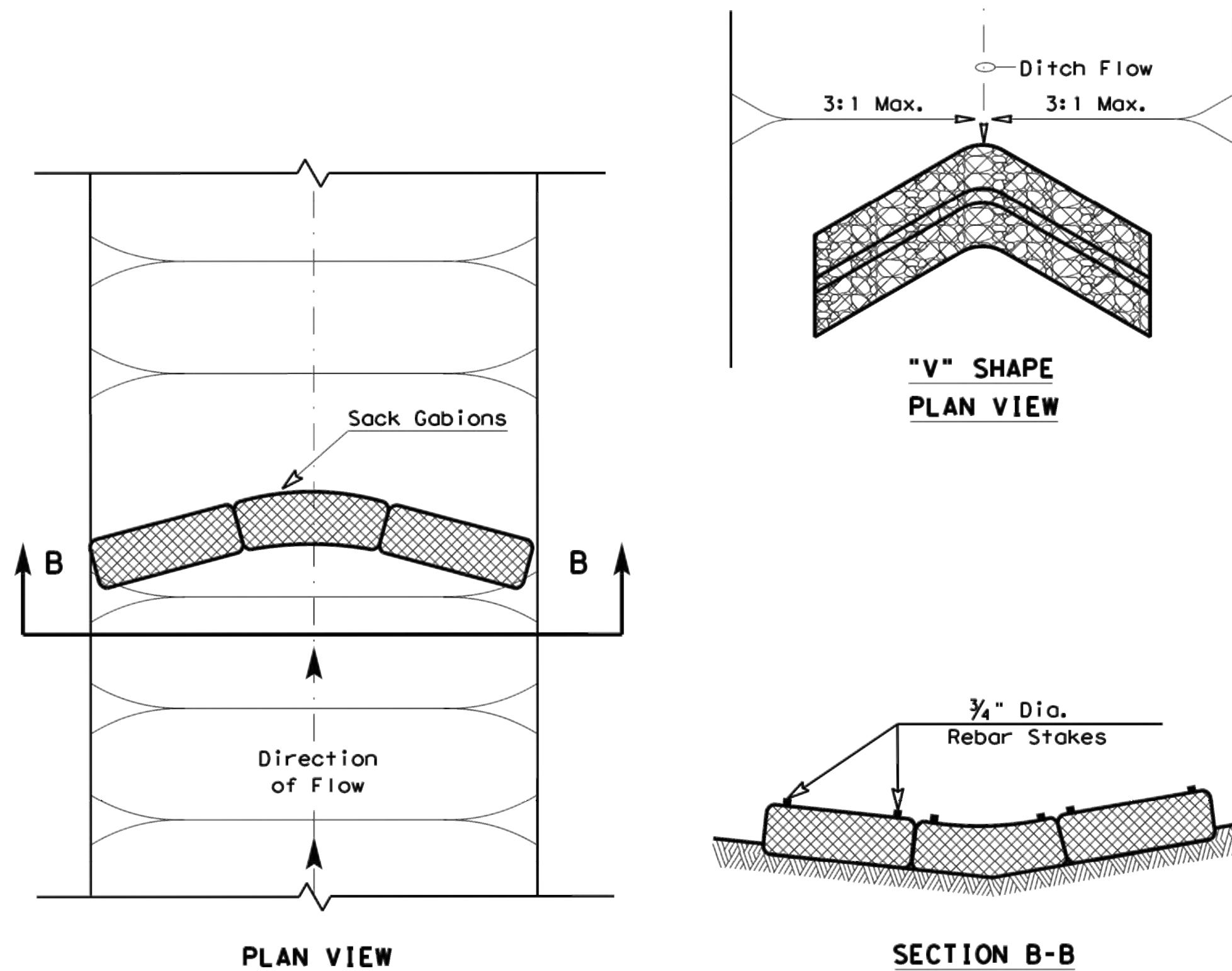
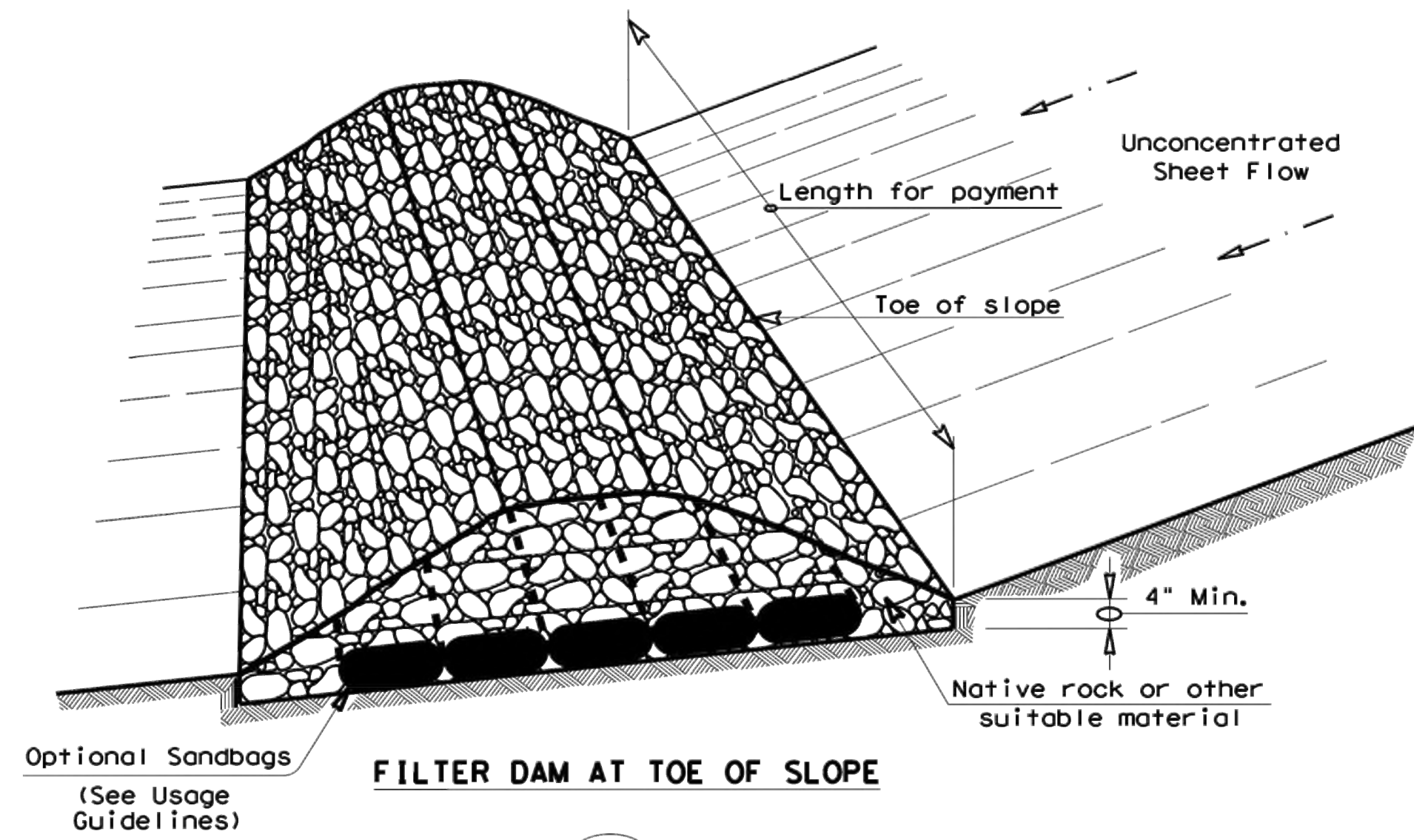
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L-1.1

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DATE: FILE:



#### ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT<sup>2</sup> of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

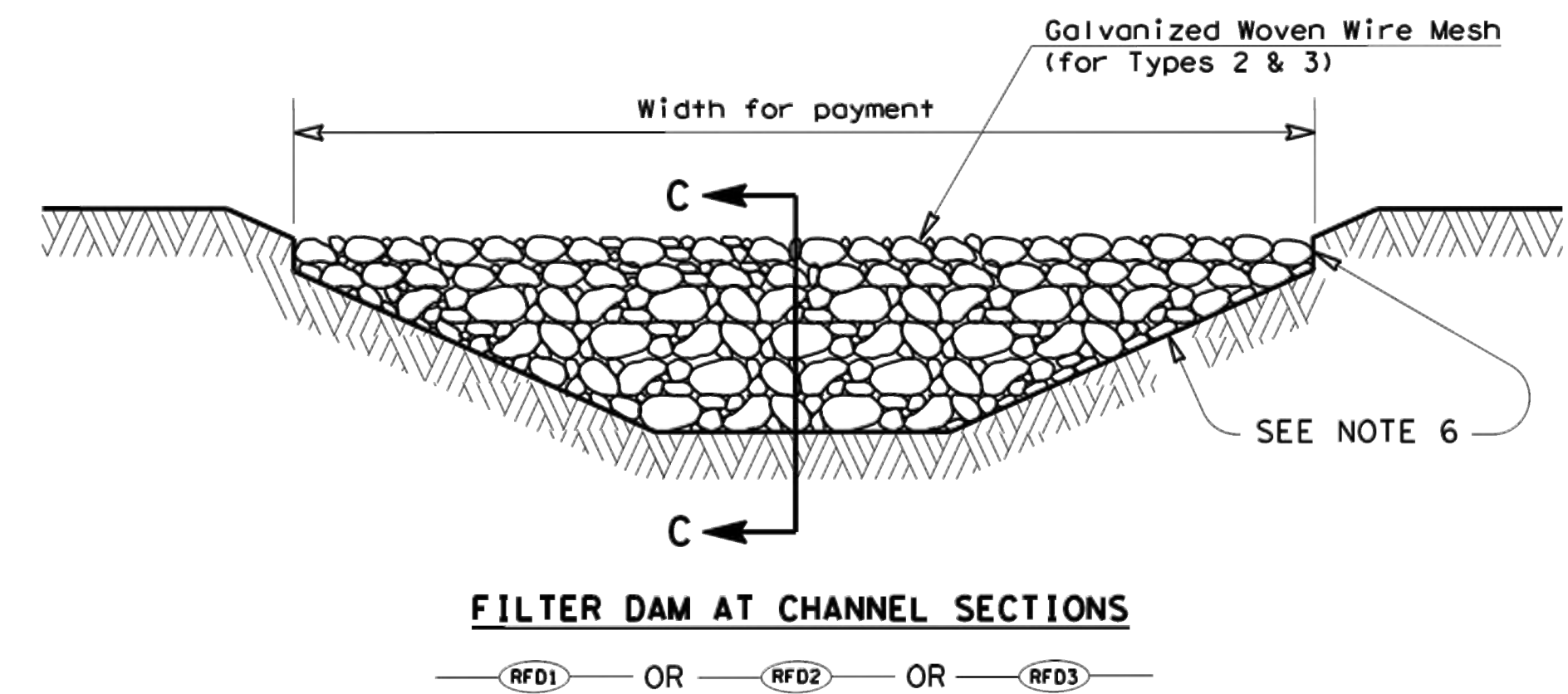
Type 1 (18" high with no wire mesh) (3" to 6" aggregate): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approximately 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh) (3" to 6" aggregate): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh) (4" to 8" aggregate): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions) (3" to 6" aggregate): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

Type 5: Provide rock filter dams as shown on plans.



#### GENERAL NOTES

- If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
- Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
- The rock filter dam dimensions shall be as indicated on the SW3P plans.
- Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
- Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
- Filter dams should be embedded a minimum of 4" into existing ground.
- The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
- Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. For in stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
- Sack Gabions should be staked down with 3/4" dia. rebar stakes, and have a double-twisted hexagonal weave with a nominal mesh opening of 2 1/2" x 3 1/4".
- Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.

#### PLAN SHEET LEGEND

- Type 1 Rock Filter Dam (RFD1)  
Type 2 Rock Filter Dam (RFD2)  
Type 3 Rock Filter Dam (RFD3)  
Type 4 Rock Filter Dam (RFD4)

|                                                                  |           |                          |           |
|------------------------------------------------------------------|-----------|--------------------------|-----------|
| Texas Department of Transportation                               |           | Design Division Standard |           |
| TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES |           |                          |           |
| ROCK FILTER DAMS                                                 |           |                          |           |
| EC(2)-16                                                         |           |                          |           |
| FILE: ec216                                                      | DN: TxDOT | CK: KM                   | DW: VP    |
| © TxDOT: JULY 2016                                               | CONT      | SECT                     | JOB       |
| REVISIONS                                                        | DIST      | COUNTY                   | SHEET NO. |



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



04/05/2019

## 2019 GATEWAY SIGN LANDSCAPE DEVELOPMENT PLANS HWY 79 TAYLOR, TEXAS

Drawing File Name

Issued:  
1. CLIENT REVIEW SET 12/14/2018  
2. CITY SUBMITTAL 02/14/2019  
3. BID SET 04/05/2019  
4.  
5.  
Revisions:  
1.  
2.  
3.  
4.  
5.  
Issue Date: 04/05/2019

Drawn By: MPP  
Reviewed By: BD, MB

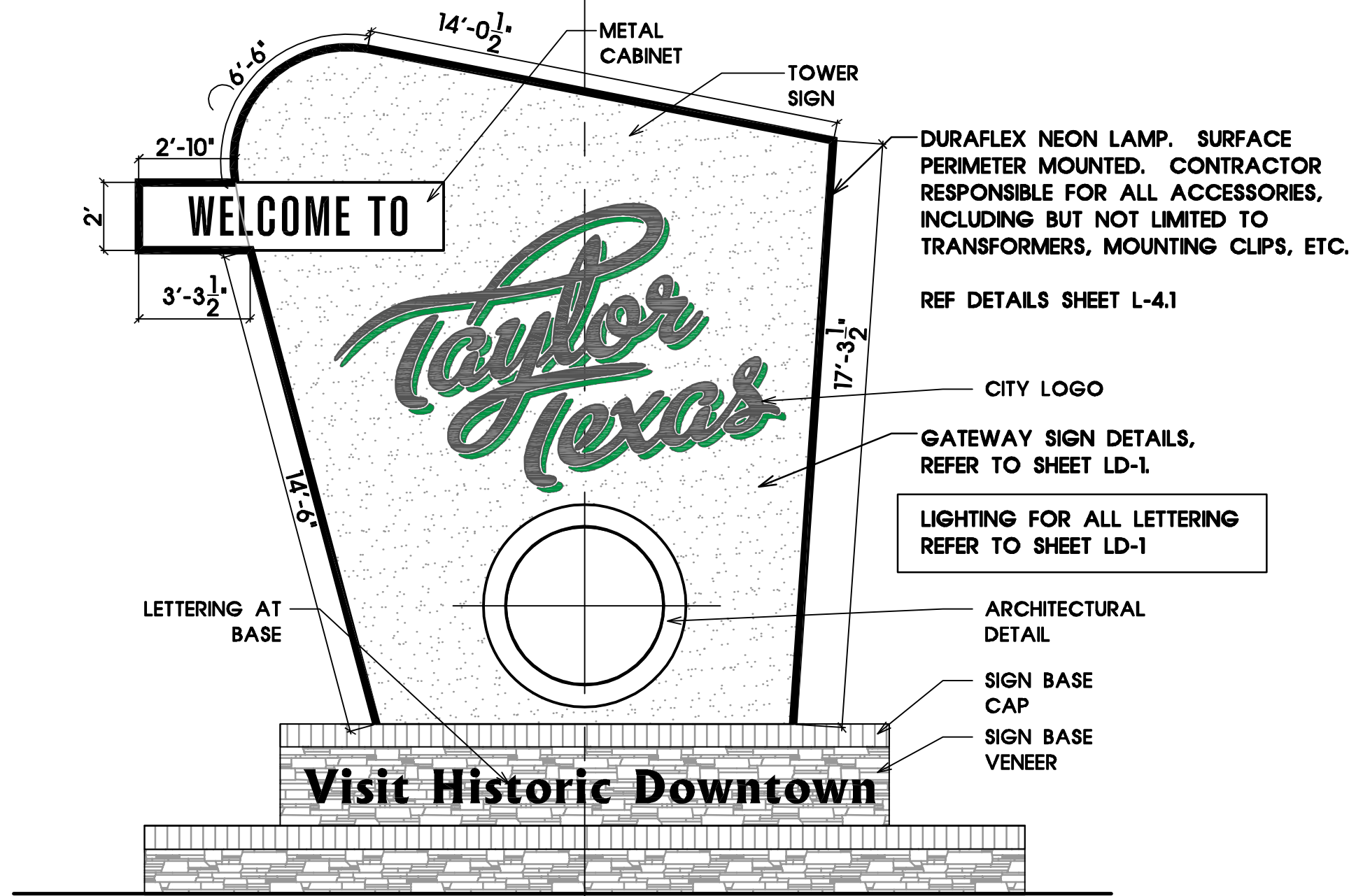
Project No.  
150129-TAYL

TEMPORARY EROSION  
CONTROL MEASURES

Sheet No.  
L-1.2

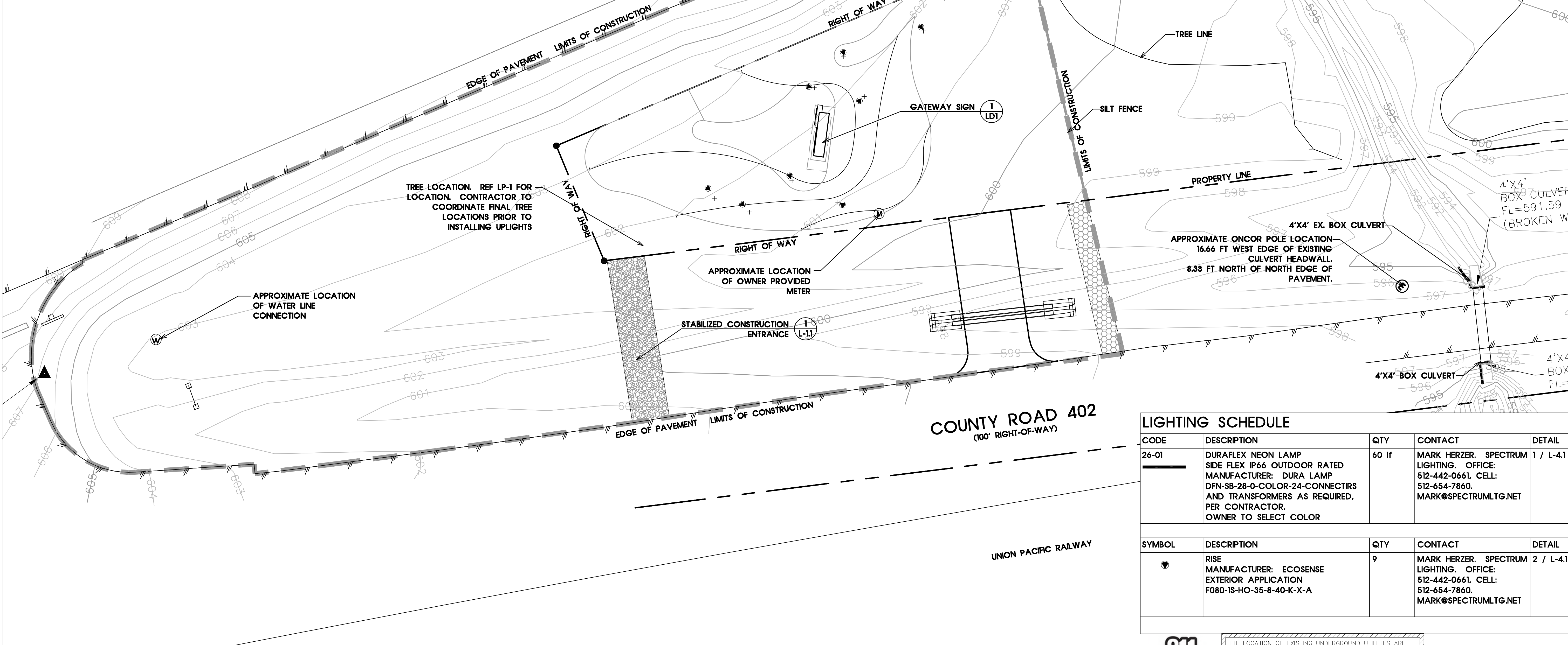
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- LIGHTING NOTES**
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ALL REQUIRED CONDUIT AND WIRE FOR A COMPLETE INSTALLATION. HOMERUN FROM THE FIRST DEVICE TO PANEL SHALL BE INDICATED ON AS-BUILT DRAWINGS.
  2. PROVIDE DEDICATED NEUTRAL FOR ALL BRANCH CIRCUITS.
  3. THE LIGHTING FIXTURES SPECIFIED DO NOT SHOW ALL OF THE OPTIONS REQUIRED FOR INSTALLATION. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED MOUNTING EQUIPMENT, FLANGE KITS, SUPPORTS, PENDANTS, REQUIRED FOR THE SPECIFIC LOCATION AND CEILING/ WALL TYPE.
  4. COORDINATE EQUIPMENT REQUIREMENTS (LOCATIONS, CONNECTION TYPE, CONTROLS LOAD, VOLTAGE, ETC.) WITH OTHER TRADES PRIOR TO EQUIPMENT ORDERING AND ROUGH-IN.
  5. VERIFY EQUIPMENT CONNECTION TYPE (RECEPTACLE OR HARD-WIRED CONNECTION) WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN, AND PROVIDE REQUIRED RECEPTACLE OR CONNECTION.
  6. UTILITY COORDINATION: CONTRACTOR IS RESPONSIBLE FOR CONNECTIONS TO THE SIGN THIS INCLUDES BUT IS NOT LIMITED TO COORDINATION AND SCHEDULING WITH UTILITY COMPANIES, VAULTS, TRENCHING, CONDUIT, HAND HOLES, PULL BOXES, ETC. AS REQUIRED BY CITY UTILITIES.

**1 SIGN PERIMETER LIGHT LOCATION**  
SCALE: 1/4" = 1' - 0"



**2 LIGHTING LAYOUT PLAN**  
SCALE: 1" = 20'-0"

**LIGHTING SCHEDULE**

| CODE  | DESCRIPTION                                                                                                                                                                                   | QTY   | CONTACT                                                                                                    | DETAIL    |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------|-----------|
| 26-01 | DURAFLEX NEON LAMP<br>SIDE FLEX IP66 OUTDOOR RATED<br>MANUFACTURER: DURA LAMP<br>DFN-SB-28-0-COLOR-24-CONNECTIRS<br>AND TRANSFORMERS AS REQUIRED,<br>PER CONTRACTOR.<br>OWNER TO SELECT COLOR | 60 lf | MARK HERZER, SPECTRUM<br>LIGHTING, OFFICE:<br>512-442-0661, CELL:<br>512-654-7860.<br>MARK@SPECTRUMLTG.NET | 1 / L-4.1 |

| SYMBOL | DESCRIPTION                                                                        | QTY | CONTACT                                                                                                    | DETAIL    |
|--------|------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------|-----------|
| ●      | RISE<br>MANUFACTURER: ECOSENSE<br>EXTERIOR APPLICATION<br>F080-IS-HO-35-8-40-K-X-A | 9   | MARK HERZER, SPECTRUM<br>LIGHTING, OFFICE:<br>512-442-0661, CELL:<br>512-654-7860.<br>MARK@SPECTRUMLTG.NET | 2 / L-4.1 |

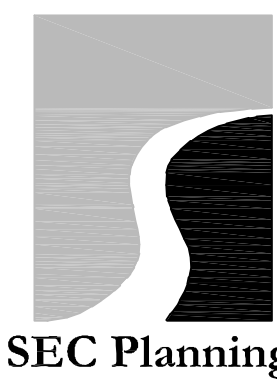


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FULL SIZE SCALE: 1" = 20'



STATE PLANE GRID COOR  
N=10,178,156.03  
E=3,199,223.12  
ELEV. = 608.90



PLANNING  
LANDSCAPE ARCHITECTURE  
COMMUNITY BRANDING  
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City of Taylor

400 Porter Street  
Taylor, Texas 78574  
T: 512.532.3675

04/25/2019

**2019 GATEWAY SIGN  
LANDSCAPE DEVELOPMENT PLANS  
HWY 79  
TAYLOR, TEXAS**

Drawing File Name

Issued:  
1. CLIENT REVIEW SET 12/14/2018  
2. CITY SUBMITTAL 02/14/2019  
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4. SHEET REPLACEMENT 04/25/2019

Revisions:

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Issue Date: 04/25/2019

Drawn By: MPP

Reviewed By: BD, MB

Project No.

150129-TAYL

**LIGHTING PLAN  
LAYOUT**

Sheet No.

L-4.0

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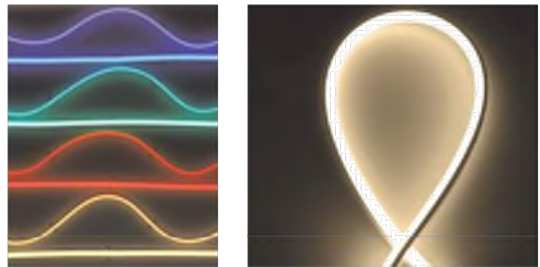
DFN-SB-28-0-COLOR-24-Connectors and Transformers as Required

## DURAFLEX NEON™ SIDE Flex IP66 OUTDOOR

### Key Features

- Energy efficient LED flexible light strip for continuous constant color in linear applications
- Available in top-bend profile for arcing applications or side-bend profile
- Manufactured to specified lengths with factory attached end preps and various connector options for project requirements and efficient power configurations.
- Max continuous length: up to 30' per run (2.8W/ft) up to 20' per run (4.2W/ft)
- Multiple dimming options available.

**Flexible LED luminaire**  
Extremely flexible continuous illumination flexible luminaire for varied indoor and outdoor architectural applications.



### Details

Spacing 0.33" OC LED Spacing  
LEDs 36 LEDs per foot  
Wattage 2.8W/ft / 4.2W/ft  
Color Temp 2700K / 3000K / 3500K / 4000K / Red 630nm / Green 530nm / Blue 470nm / Yellow 590nm / Orange 605nm

**Color Consistency** Advanced LED binning with +/- 2-step MacAdam Ellipses  
**CRI** +95 CRI  
**End Preps** Factory attached end preps available (See Page 2).  
**Field Cuts** See page 2 for manufacturer cut zones.  
**Mounting** Mounting clip or aluminum mounting channel options.  
**Lens Options** Extruded Silicone with Milky White diffusion lens with 240 degree visibility.

**Installation** Factory manufactured lengths with 12" IP66 connection lead with 12" power feed. To be completed with clip or channel mountings. Minimum bend diameter 2in.

**Power Supply** Listed Class 2 output, 24V DC power supply required.  
**Certifications** cULus Class 2 Listed  
Tested in accordance with LM-79-08  
\*Title 24 commercial installation compliant.

**Compliance** ROHS compliant  
MRI Safe, driver to be mounted outside of MRI room  
**Warranty** 3 year warranty

### Fixture Data

| Model           | Efficacy*<br>lm/W | Ln/Ft | W/Ft | Model         | W/Led | Viewing<br>Angle | Lifespan at<br>90% drive |
|-----------------|-------------------|-------|------|---------------|-------|------------------|--------------------------|
| SIDE Flex 3000K | 63                | 263   | 42   | Color 2.8W/ft | 0.08W | 120°             | 50,000hrs                |
|                 | 71                | 198   | 2.8  | White 4.2W/ft | 0.3W  | 120°             | 50,000hrs                |

\* Meets Title 24 High efficiency rating.  
\* LEDs operating at 90% of LED manufacturers maximum current rating.

### LED Data

| Model         | W/Led | Viewing<br>Angle | Lifespan at<br>90% drive |
|---------------|-------|------------------|--------------------------|
| Color 2.8W/ft | 0.08W | 120°             | 50,000hrs                |
| White 4.2W/ft | 0.3W  | 120°             | 50,000hrs                |

\* LEDs operating at 90% of LED manufacturers maximum current rating.

### Ordering Guide

| PRODUCT CODE | PROFILE       | WATTAGE                       | IP RATING                 | COLOR TEMP                              | VOLTAGE     | END PREP | MOUNTING | POWER SUPPLY |
|--------------|---------------|-------------------------------|---------------------------|-----------------------------------------|-------------|----------|----------|--------------|
| DFN          | DuraFlex Neon | SB — SIDE Flex                | 42 — 4.2W/ft (White ONLY) | O — Outdoor (IP66)                      | 27 — 2700K  |          |          |              |
|              |               | 28 — 2.8W/ft (White or Color) |                           | 30 — 3000K                              | 24 — 24 VDC |          |          |              |
|              |               |                               |                           | 35 — 3500K                              |             |          |          |              |
|              |               |                               |                           | 40 — 4000K                              |             |          |          |              |
|              |               |                               |                           | RD — Red 630nm                          |             |          |          |              |
|              |               |                               |                           | GR — Green 530nm                        |             |          |          |              |
|              |               |                               |                           | BL — Blue 470nm                         |             |          |          |              |
|              |               |                               |                           | YL — Yellow 590nm                       |             |          |          |              |
|              |               |                               |                           | OR — Orange 605nm                       |             |          |          |              |
|              |               |                               |                           | 2200K and 2400K available upon request. |             |          |          |              |

## ECOSENSE

OVERVIEW • SPECIFICATIONS • ORDERING

INTERIOR • EXTERIOR | F080 SINGLE

| DATE | PROJECT | FIRM | TYPE |
|------|---------|------|------|
|------|---------|------|------|

RISE IS A SYSTEM OF BEAUTIFULLY DESIGNED OUTDOOR RATED LUMINAIRES THAT PROVIDE EFFICIENT AND POWERFUL LIGHT USING THE LATEST IN LED TECHNOLOGY. RISE F080 SINGLE IS A POWERFUL AND COMPACT LED LIGHT FIXTURE, DELIVERING UP TO 745 LUMENS, THAT CAN BE USED IN SPOT, ACCENT, LANDSCAPE AND FLOODLIGHT APPLICATIONS. ITS UNIQUE "MACRO" LOCK FEATURE ALLOWS FOR FULL 180 DEGREE TILT AND 360 DEGREE PAN AIMABILITY USING ONLY ONE TWIST.

### FEATURES :

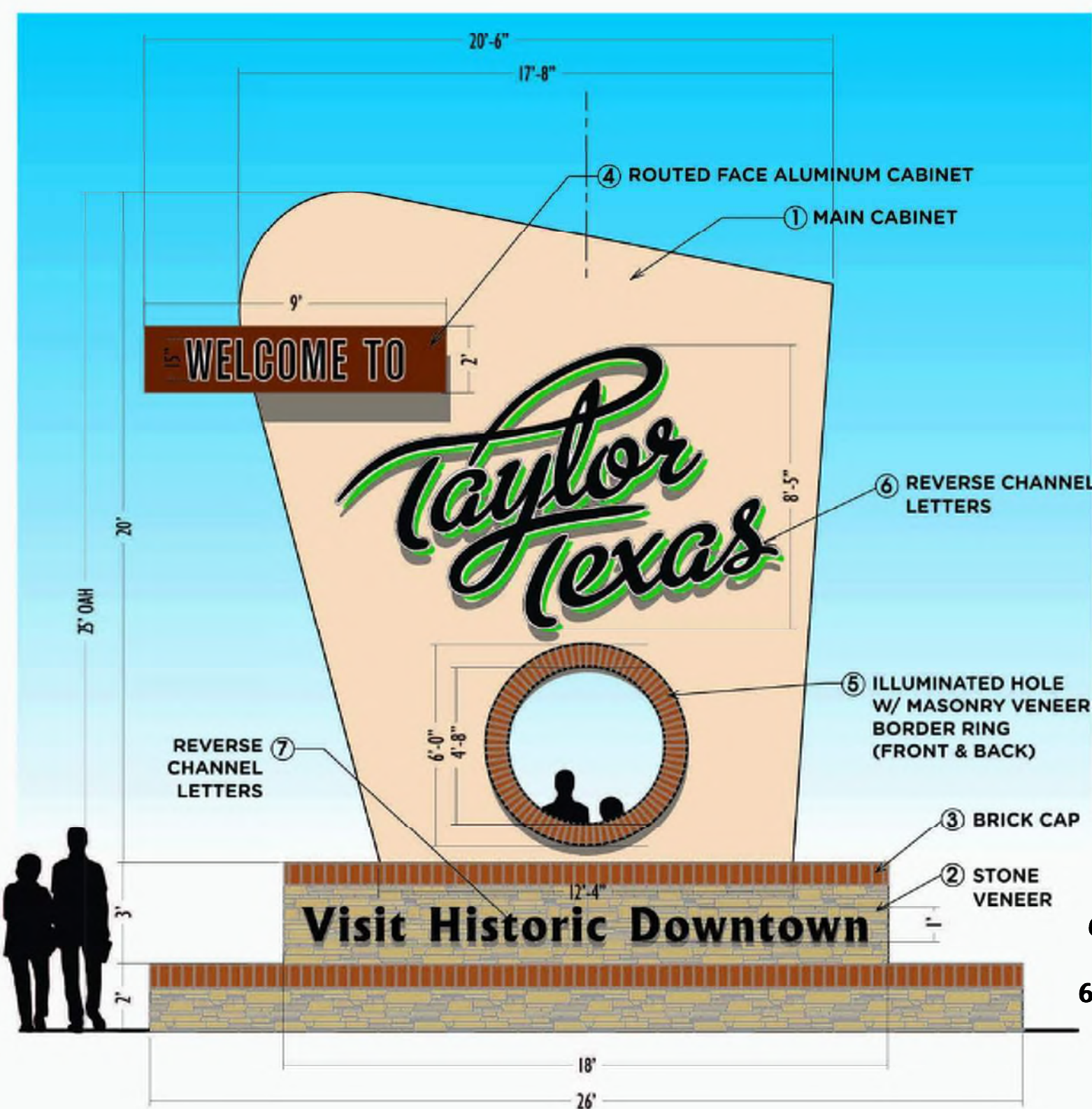
- POWERFUL CBCP
- ONLY 5" LASER SPOT
- EXTREMELY COMPACT
- POWERFUL OUTPUT 300-745LMs
- MACRO™ LOCK - 180° TILT AND 360° PAN
- 11 UNIQUE BEAM ANGLES
- MULTIVOLT (100V-277V)
- 8 CCTS: 2200K THROUGH 6500K
- 80+ AND 90+ CRI
- DIMMABLE TO 5%
- IP66 RATED

(2) F080-1S-HO-35-8-15-FINISH-X-A  
(1) F080-1S-HO-35-8-E-1-FINISH-X-A

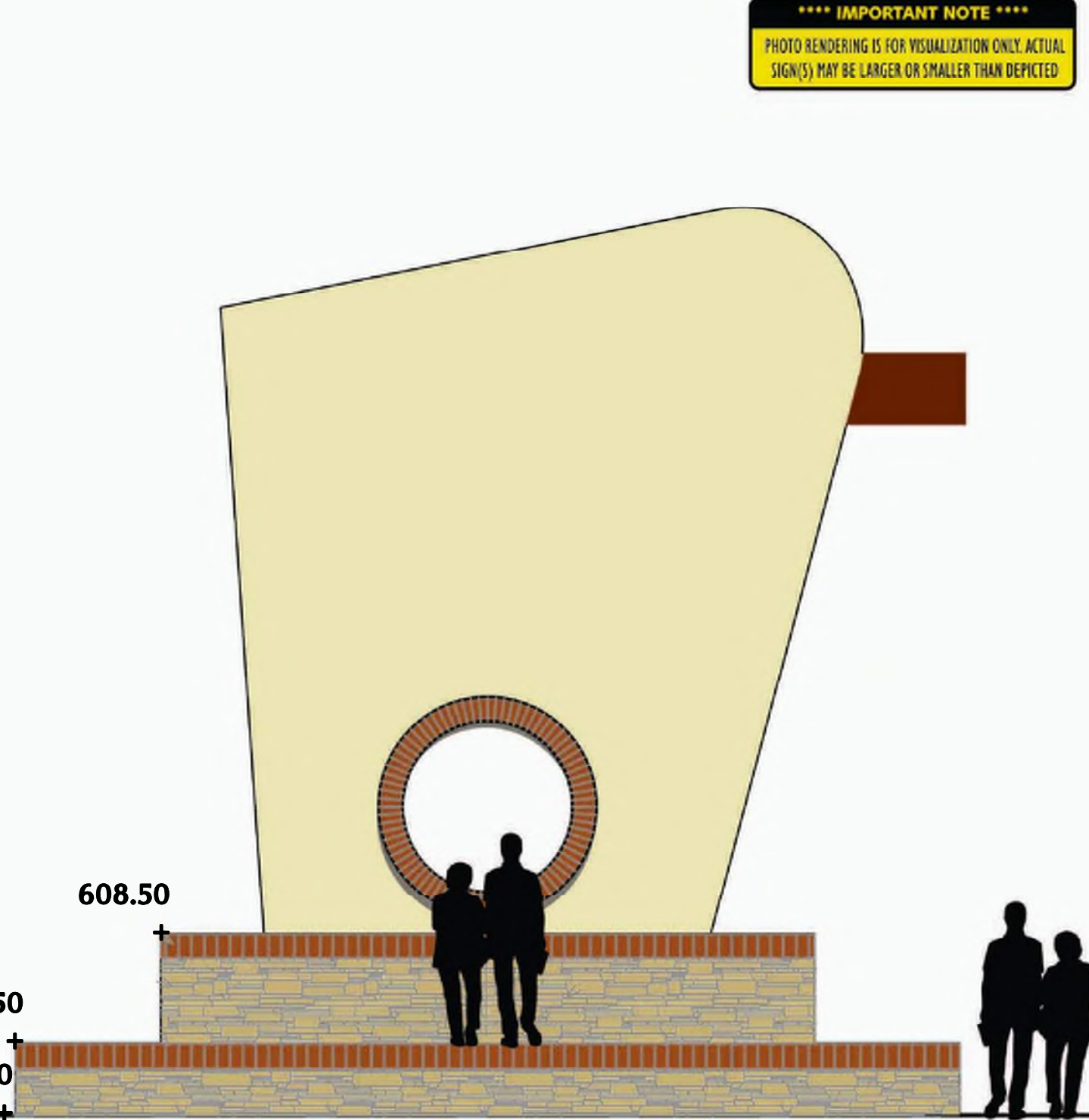


| FIXTURE MODEL | FIXTURE CONFIG. | POWER/ LUMEN OUTPUT*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CCT/ COLOR | CRI | BEAM ANGLE | FINISHES | ACCESSORIES | WIRING AND MOUNTING |
|---------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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| F080          | 1S              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|               | HC Single Head  | LO - Low Output<br>22 - 2200K<br>25 - 3500K<br>27 - 2700K<br>30 - 3000K<br>35 - 3500K<br>40 - 4000K<br>42 - 4200K<br>45 - 4500K<br>50 - 5000K<br>55 - 5500K<br>60 - 6000K<br>65 - 6500K<br>70 - 7000K<br>75 - 7500K<br>80 - 8000K<br>85 - 8500K<br>90 - 9000K<br>95 - 9500K<br>100 - 10000K<br>105 - 10500K<br>110 - 11000K<br>115 - 11500K<br>120 - 12000K<br>125 - 12500K<br>130 - 13000K<br>135 - 13500K<br>140 - 14000K<br>145 - 14500K<br>150 - 15000K<br>155 - 15500K<br>160 - 16000K<br>165 - 16500K<br>170 - 17000K<br>175 - 17500K<br>180 - 18000K<br>185 - 18500K<br>190 - 19000K<br>195 - 19500K<br>200 - 20000K<br>205 - 20500K<br>210 - 21000K<br>215 - 21500K<br>220 - 22000K<br>225 - 22500K<br>230 - 23000K<br>235 - 23500K<br>240 - 24000K<br>245 - 24500K<br>250 - 25000K<br>255 - 25500K<br>260 - 26000K<br>265 - 26500K<br>270 - 27000K<br>275 - 27500K<br>280 - 28000K<br>285 - 28500K<br>290 - 29000K<br>295 - 29500K<br>300 - 30000K<br>305 - 30500K<br>310 - 31000K<br>315 - 31500K<br>320 - 32000K<br>325 - 32500K<br>330 - 33000K<br>335 - 33500K<br>340 - 34000K<br>345 - 34500K<br>350 - 35000K<br>355 - 35500K<br>360 - 36000K<br>365 - 36500K<br>370 - 37000K<br>375 - 37500K<br>380 - 38000K<br>385 - 38500K<br>390 - 39000K<br>395 - 39500K<br>400 - 40000K<br>405 - 40500K<br>410 - 41000K<br>415 - 41500K<br>420 - 42000K<br>425 - 42500K<br>430 - 43000K<br>435 - 43500K<br>440 - 44000K<br>445 - 44500K<br>450 - 45000K<br>455 - 45500K<br>460 - 46000K<br>465 - 46500K<br>470 - 47000K<br>475 - 47500K<br>480 - 48000K<br>485 - 48500K<br>490 - 49000K<br>495 - 49500K<br>500 - 50000K<br>505 - 50500K<br>510 - 51000K<br>515 - 51500K<br>520 - 52000K<br>525 - 52500K<br>530 - 53000K<br>535 - 53500K<br>540 - 54000K<br>545 - 54500K<br>550 - 55000K<br>555 - 55500K<br>560 - 56000K<br>565 - 56500K<br>570 - 57000K<br>575 - 57500K<br>580 - 58000K<br>585 - 58500K<br>590 - 59000K<br>595 - 59500K<br>600 - 60000K<br>605 - 60500K<br>610 - 61000K<br>615 - 61500K<br>620 - 62000K<br>625 - 62500K<br>630 - 63000K<br>635 - 63500K<br>640 - 64000K<br>645 - 64500K<br>650 - 65000K<br>655 - 65500K<br>660 - 66000K<br>665 - 66500K<br>670 - 67000K<br>675 - 67500K<br>680 - 68000K<br>685 - 68500K<br>690 - 69000K<br>695 - 69500K<br>700 - 70000K<br>705 - 70500K<br>710 - 71000K<br>715 - 71500K<br>720 - 72000K<br>725 - 72500K<br>730 - 73000K<br>735 - 73500K<br>740 - 74000K<br>745 - 74500K<br>750 - 75000K<br>755 - 75500K<br>760 - 76000K<br>765 - 76500K<br>770 - 77000K<br>775 - 77500K<br>780 - 78000K<br>785 - 78500K<br>790 - 79000K<br>795 - 79500K<br>800 - 80000K<br>805 - 80500K<br>810 - 81000K<br>815 - 81500K<br>820 - 82000K<br>825 - 82500K<br>830 - 83000K<br>835 - 83500K<br>840 - 84000K<br>845 - 84500K<br>850 - 85000K<br>855 - 85500K<br>860 - 86000K<br>865 - 86500K<br>870 - 87000K<br>875 - 87500K<br>880 - 88000K<br>885 - 88500K<br>890 - 89000K<br>895 - 89500K<br>900 - 90000K<br>905 - 90500K<br>910 - 91000K<br>915 - 91500K<br>920 - 92000K<br>925 - 92500K<br>930 - 93000K<br>935 - 93500K<br>940 - 94000K<br>945 - 94500K<br>950 - 95000K<br>955 - 95500K<br>960 - 96000K<br>965 - 96500K<br>970 - 97000K<br>975 - 97500K<br>980 - 98000K<br>985 - 98500K<br>990 - 99000K<br>995 - 99500K<br>1000 - 100000K<br>1005 - 100500K<br>1010 - 101000K<br>1015 - 101500K<br>1020 - 102000K<br>1025 - 102500K<br>1030 - 103000K<br>1035 - 103500K<br>1040 - 104000K<br>1045 - 104500K<br>1050 - 105000K<br>1055 - 105500K<br>1060 - 106000K<br>1065 - 106500K<br>1070 - 107000K<br>1075 - 107500K<br>1080 - 108000K<br>1085 - 108500K<br>1090 - 109000K<br>1095 - 109500K<br>1100 - 110000K<br>1105 - 110500K<br>1110 - 111000K<br>1115 - 111500K<br>1120 - 112000K<br>1125 - 112500K<br>1130 - 113000K<br>1135 - 113500K<br>1140 - 114000K<br>1145 - 114500K<br>1150 - 115000K<br>1155 - 115500K<br>1160 - 116000K<br>1165 - 116500K<br>1170 - 117000K<br>1175 - 117500K<br>1180 - 118000K<br>1185 - 118500K<br>1190 - 119000K<br>1195 - 119500K<br>1200 - 120000K<br>1205 - 120500K<br>1210 - 121000K<br>1215 - 121500K<br>1220 - 122000K<br>1225 - 122500K<br>1230 - 123000K<br>1235 - 123500K<br>1240 - 124000K<br>1245 - 124500K<br>1250 - 125000K<br>1255 - 125500K<br>1260 - 126000K<br>1265 - 126500K<br>1270 - 127000K<br>1275 - 127500K<br>1280 - 128000K<br>1285 - 128500K<br>1290 - 129000K<br>1295 - 129500K<br>1300 - 130000K<br>1305 - 130500K<br>1310 - 131000K<br>1315 - 131500K<br>1320 - 132000K<br>1325 - 132500K<br>1330 - 133000K<br>1335 - 133500K<br>1340 - 134000K<br>1345 - 134500K<br>1350 - 135000K<br>1355 - 135500K<br>1360 - 136000K<br>1365 - 136500K<br>1370 - 137000K<br>1375 - 137500K<br>1380 - 138000K<br>1385 - 138500K<br>1390 - 139000K<br>1395 - 139500K<br>1400 - 140000K<br>1405 - 140500K<br>1410 - 141000K<br>1415 - 141500K<br>1420 - 142000K<br>1425 - 142500K<br>1430 - 143000K<br>1435 - 143500K<br>1440 - 144000K<br>1445 - 144500K<br>1450 - 145000K<br>1455 - 145500K<br>1460 - 146000K<br>1465 - 146500K<br>1470 - 147000K<br>1475 - 147500K<br>1480 - 148000K<br>1485 - 148500K<br>1490 - 149000K<br>1495 - 149500K<br>1500 - 150000K<br>1505 - 150500K<br>1510 - 151000K<br>1515 - 151500K<br>1520 - 152000K<br>1525 - 152500K<br>1530 - 153000K<br>1535 - 153500K<br>1540 - 154000K<br>1545 - 154500K<br>1550 - 155000K<br>1555 - 155500K<br>1560 - 156000K<br>1565 - 156500K<br>1570 - 157000K<br>1575 - 157500K<br>1580 - 158000K<br>1585 - 158500K<br>1590 - 159000K<br>1595 - 159500K<br>1600 - 160000K<br>1605 - 160500K<br>1610 - 161000K<br>1615 - 161500K<br>1620 - 162000K<br>1625 - 162500K<br>1630 - 163000K<br>1635 - 163500K<br>1640 - 164000K<br>1645 - 164500K<br>1650 - 165000K<br>1655 - 165500K<br>1660 - 166000K<br>1665 - 166500K<br>1670 - 167000K<br>1675 - 167500K<br>1680 - 168000K<br>1685 - 168500K<br>1690 - 169000K<br>1695 - 169500K<br>1700 - 170000K<br>1705 - 170500K<br>1710 - 171000K<br>1715 - 171500K<br>1720 - 172000K<br>1725 - 172500K<br>1730 - 173000K<br>1735 - 173500K<br>1740 - 174000K<br>1745 - 174500K<br>1750 - 175000K<br>1755 - 175500K<br>1760 - 176000K<br>1765 - 176500K<br>1770 - 177000K<br>1775 - 177500K<br>1780 - 178000K<br>1785 - 178500K<br>1790 - 179000K<br>1795 - 179500K<br>1800 - 180000K<br>1805 - 180500K<br>1810 - 181000K<br>1815 - 181500K<br>1820 - 182000K<br>1825 - 182500K<br>1830 - 183000K<br>1835 - 183500K<br>1840 - 184000K<br>1845 - 184500K<br>1850 - 185000K<br>1855 - 185500K<br>1860 - 186000K<br>1865 - 186500K<br>1870 - 187000K<br>1875 - 187500K<br>1880 - 188000K<br>1885 - 188500K<br>1890 - 189000K<br>1895 - 189500K<br>1900 - 190000K<br>1905 - 190500K<br>1910 - 191000K<br>1915 - 191500K<br>1920 - 192000K<br>1925 - 192500K<br>1930 - 193000K<br>1935 - 193500K<br>1940 - 194000K<br>1945 - 194500K<br>1950 - 195000K<br>1955 - 195500K<br>1960 - 196000K<br>1965 - 196500K<br>1970 - 197000K<br>1975 - 197500K<br>1980 - 198000K<br>1985 - 198500K<br>1990 - 199000K<br>1995 - 199500K<br>2000 - 200000K<br>2005 - 200500K<br>2010 - 201000K<br>2015 - 201500K<br>2020 - 202000K<br>2025 - 202500K<br>2030 - 203000K<br>2035 - 203500K<br>2040 - 204000K<br>2045 - 204500K<br>2050 - 205000K<br>2055 - 205500K<br>2060 - 206000K<br>2065 - 206500K<br>2070 - 207000K<br>2075 - 207500K<br>2080 - 208000K<br>2085 - 208500K<br>2090 - 209000K<br>2095 - 209500K<br>2100 - 210000K<br>2105 - 210500K<br>2110 - 211000K<br>2115 - 211500K<br>2120 - 212000K<br>2125 - 212500K<br>2130 - 213000K<br>2135 - 213500K<br>2140 - 214000K<br>2145 - 214500K<br>2150 - 215000K<br>2155 - 215500K<br>2160 - 216000K<br>2165 - 216500K<br>2170 - 217000K<br>2175 - 217500K<br>2180 - 218000K<br>2185 - 218500K<br>2190 - 219000K<br>2195 - 219500K<br>2200 - 220000K<br>2205 - 220500K<br>2210 - 221000K<br>2215 - 221500K<br>2220 - 222000K<br>2225 - 222500K<br>2230 - 223000K<br>2235 - 223500K<br>2240 - 224000K<br>2245 - 224500K<br>2250 - 225000K<br>2255 - 225500K<br>2260 - 226000K<br>2265 - 226500K<br>2270 - 227000K<br>2275 - 227500K<br>2280 - 228000K<br>2285 - 228500K<br>2290 - 229000K<br>2295 - 229500K<br>2300 - 230000K<br>2305 - 230500K<br>2310 - 231000K<br>2315 - 231500K<br>2320 - 232000K<br>2325 - 232500K<br>2330 - 233000K<br>2335 - 233500K<br>2340 - 234000K<br>2345 - 234500K<br>2350 - 235000K<br>2355 - 235500K<br>2360 - 236000K<br>2365 - 236500K<br>2370 - 237000K<br>2375 - 237500K<br>2380 - 238000K<br>2385 - 238500K<br>2390 - 239000K<br>2395 - 239500K<br>2400 - 240000K<br>2405 - 240500K<br>2410 - 241000K<br>2415 - 241500K<br>2420 - 242000K<br>2425 - 242500K<br>2430 - 243000K<br>2435 - 243500K<br>2440 - 244000K<br>2445 - 244500K<br>2450 - 245000K<br>2455 - 245500K<br>2460 - 246000K<br>2465 - 246500K<br>2470 - 247000K<br>2475 - 247500K<br>2480 - 248000K<br>2485 - 248500K<br>2490 - 249000K<br>2495 - 249500K<br>2500 - 250000K<br>2505 - 250500K<br>2510 - 251000K<br>2515 - 251500K<br>2520 - 252000K<br>2525 - 252500K<br>2530 - 253000K<br>2535 - 253500K<br>2540 - 254000K<br>2545 - 254500K<br>2550 - 255000K<br>2555 - 255500K<br>2560 - 256000K<br>2565 - 256500K<br>2570 - 257000K<br>2575 - 257500K<br>2580 - 258000K<br>2585 - 258500K<br>2590 - 259000K<br>2595 - 259500K<br>2600 - 260000K<br>2605 - 260500K<br>2610 - 261000K<br>2615 - 261500K<br>2620 - 262000K<br>2625 - 262500K<br>2630 - 263000K<br>2635 - 263500K<br>2640 - 264000K<br>2645 - 264500K<br>2650 - 265000K<br>2655 - 265500K<br>2660 - 266000K<br>2665 - 266500K<br>2670 - 267000K<br>2675 - 267500K<br>2680 - 268000K<br>2685 - 268500K<br>2690 - 269000K<br>2695 - 269500K<br>2700 - 270000K<br>2705 - 270500K<br>2710 - 271000K<br>2715 - 271500K<br>2720 - 272000K<br>2725 - 272500K<br>2730 - 273000K<br>2735 - 273500K<br>2740 - 274000K<br>2745 - 274500K<br>2750 - 275000K<br>2755 - 275500K<br>2760 - 276000K<br>2765 - 276500K<br>2770 - 277000K<br>2775 - 277500K<br>2780 - 278000K<br>2785 - 278500K<br>2790 - 279000K<br>2795 - 279500K<br>2800 - 280000K<br>2805 - 280500K<br>2810 - 281000K<br>2815 - 281500K<br>2820 - 282000K<br>2825 - 282500K<br>2830 - 283000K<br>2835 - 283500K<br>2840 - 284000K<br>2845 - 284500K<br>2850 - 285000K<br>2855 - 285500K<br>2860 - 286000K<br>2865 - 286500K<br>2870 - 287000K<br>2875 - 287500K<br>2880 - 288000K<br>2885 - 288500K<br>2890 - 289000K<br>2895 - 289500K<br>2900 - 290000K<br>2905 - 290500K<br>2910 - 291000K<br>2915 - 291500K<br>2920 - 292000K<br>2925 - 292500K<br>2930 - 293000K<br>2935 - 293500K<br>2940 - 294000K<br>2945 - 294500K<br>2950 - 295000K<br>2955 - 295500K<br>2960 - 296000K<br>2965 - 296500K<br>2970 - 297000K<br>2975 - 297500K<br>2980 - 298000K<br>2985 - 298500K<br>2990 - 299000K<br>2995 - 299500K<br>3000 - 300000K<br>3005 - 300500K<br>3010 - 301000K<br>3015 - 301500K<br>3020 - 302000K<br>3025 - 302500K<br>3030 - 303000K<br>3035 - 303500K<br>3040 - 304000K<br>3045 - 304500K<br>3050 - 305000K<br>3055 - 305500K<br>3060 - 306000K<br>3065 - 306500K<br>3070 - 307000K<br>3075 - 307500K<br>3080 - 308000K<br>3085 - 308500K<br>3090 - 309000K<br>3095 - 309500K<br>3100 - 310000K<br>3105 - 310500K<br>3110 - 311000K<br>3115 - 311500K<br>3120 - 312000K<br>3125 - 312500K<br>3130 - 313000K<br>3135 - 313500K<br>3140 - 314000K<br>3145 - 314500K<br>3150 - 315000K<br>3155 - 315500K<br>3160 - 316000K<br>3165 - 316500K<br>3170 - 317000K<br>3175 - 317500K<br>3180 - 318000K<br>3185 - 318500K<br>3190 - 319000K<br>3195 - 319500K<br>3200 - 320000K<br>3205 - 320500K<br>3210 - 321000K<br>3215 - 321500K<br>3220 - 322000K<br>3225 - 322500K<br>3230 - 323000K<br>3235 - 323500K<br>3240 - 324000K<br>3245 - 324500K<br>3250 - 325000K<br>3255 - 325500K<br>3260 - 326000K<br>3265 - 326500K<br>3270 - 327000K<br>3275 - 327500K<br>3280 - 328000K<br>3285 - 328500K<br>3290 - 329000K<br>3295 - 329500K<br>3300 - 330000K<br>3305 - 330500K<br>3310 - 331000K<br>3315 - 331500K<br>3320 - 332000K<br>3325 - 332500K<br>3330 - 333000K<br>3335 - 333500K<br>3340 - 334000K<br>3345 - 334500K<br>3350 - 335000K<br>3355 - 335500K<br>3360 - 336000K<br>3365 - 336500K<br>3370 - 337000K<br>3375 - 337500K<br>3380 - 338000K<br>3385 - 338500K<br>3390 - 339000K<br>3395 - 339500K<br>3400 - 340000K<br>3405 - 340500K<br>3410 - 341000K<br>3415 - 341500K<br>3420 - 342000K<br>3425 - 342500K<br>3430 - 343000K<br>3435 - 343500K<br>3440 - 344000K<br>3445 - 344500K<br>3450 - 345000K<br>3455 - 345500K<br>3460 - 346000K<br>3465 - 346500K<br>3470 - 347000K<br>3475 - 347500K<br>3480 - 348000K<br>3485 - 348500K<br>3490 - 349000K<br>3495 - 349500K<br>3500 - 350000K<br>3505 - 350500K<br>3510 - 351000K<br>3515 - 351500K<br>3520 - 352000K<br>3525 - 352500K<br>3530 - 353000K<br>3535 - 353500K<br>3540 - 354000K<br>3545 - 354500K<br>3550 - 355000K<br>3555 - 355500K<br>3560 - 356000K<br>3565 - 356500K<br>3570 - 357000K<br>3575 - 357500K<br>3580 - 358000K<br>3585 - 358500K<br>3590 - 359000K<br>3595 - 359500K<br>3600 - 360000K<br>3605 - 360500K<br>3610 - 361000K<br>3615 - 361500K<br>3620 - 362000K<br>3625 - 362500K<br>3630 - 363000K<br>3635 - 363500K<br>3640 - 364000K<br>3645 - 364500K<br>3650 - 365000K<br>3655 - 365500K<br>3660 - 366000K<br>3665 - 366500K<br>3670 - 367000K<br>3675 - 367500K<br>3680 - 368000K<br>3685 - 368500K<br>3690 - 369000K<br>3695 - 369500K<br>3700 - 370000K<br>3705 - 370500K<br>3710 - 371000K<br>3715 - 371500K<br>3720 - 372000K<br>3725 - 372500K<br>3730 - 373000K<br>3735 - 373500K<br>3740 - 374000K<br>3745 - 374500K<br>3750 - 375000K<br>3755 - 375500K<br>3760 - 376000K<br>3765 - 376500K<br>3770 - 377000K<br>3775 - 377500K<br>3780 - 378000K<br>3785 - 378500K<br>3790 - 379000K<br>3795 - 379500K<br>3800 - 380000K<br>3805 - 380500K<br>3810 - 381000K<br>3815 - 381500K<br>3820 - 382000K<br>3825 - 382500K<br>3830 - 383000K<br>3835 - 383500K<br>3840 - 384000K<br>3845 - 384500K<br>3850 - 385000K<br>3855 - 385500K<br>3860 - 386000K<br>3865 - 386500K<br>3870 - 387000K<br>3875 - 387500K<br>3880 - 388000K<br>3885 - 388500K<br>3890 - 389000K<br>3895 - 389500K<br>3900 - 390000K<br>3905 - 390500K<br>3910 - 391000K<br>3915 - 391500K<br>3920 - 392000K<br>3925 - 392500K<br>3930 - 393000K<br>3935 - 393500K<br>3940 - 394000K<br>3945 - 394500K<br>3950 - 395000K<br>3955 - 395500K<br>3960 - 396000K<br>3965 - 396500K<br>3970 - 397000K<br>3975 - 397500K<br>3980 - 398000K<br>3985 - 398500K<br>3990 - 399000K<br>3995 - 399500K<br>4000 - 400000K<br>4005 - 400500K<br>4010 - 401000K<br>4015 - 401500K<br>4020 - 402000K<br>4025 - 402500K<br>4030 - 403000K<br>4035 - 403500K<br>4040 - 404000K<br>4045 - 404500K<br>4050 - 405000K<br>4055 - 405500K<br>4060 - 406000K<br>4065 - 406500K<br>4070 - 407000K<br>4075 - 407500K<br>4080 - 408000K<br>4085 - 408500K<br>4090 - 409000K<br>4095 - 409500K<br>4100 - 410000K<br>4105 - 410500K<br>4110 - 411000K<br>4115 - 411500K<br>4120 - 412000K<br>4125 - 412500K<br>4130 - 413000K<br>4135 - 413500K<br>4140 - 414000K<br>4145 - 414500K<br>4150 - 415000K<br>4155 - 415500K<br>4160 - 416000K<br>4165 - 416500K<br>4170 - 417000K<br>4175 - 417500K<br>4180 - 418000K<br>4185 - 418500K<br>4190 - 419000K<br>4195 - 419500K<br>4200 - 420000K<br>4205 - 420500K<br>4210 - 421000K<br>4215 - 421500K<br>4220 - 422000K<br>4225 - 422500K<br>4230 |            |     |            |          |             |                     |





1 PROPOSED FACE VIEW  
SCALE: 1/4" = 1'-0"



2 PROPOSED BACK VIEW  
SCALE: 1/4" = 1'-0"

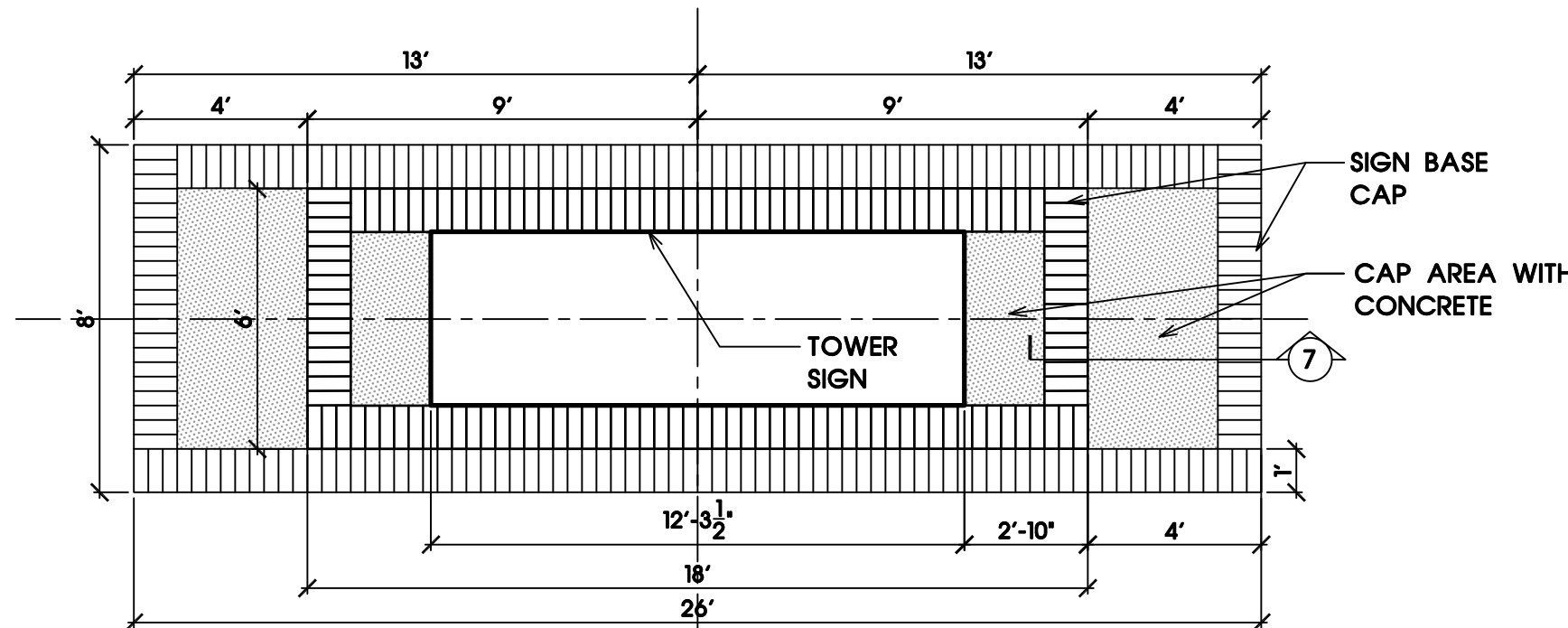


5 PROPOSED NIGHT VIEW  
SCALE: 1/4" = 1'-0"

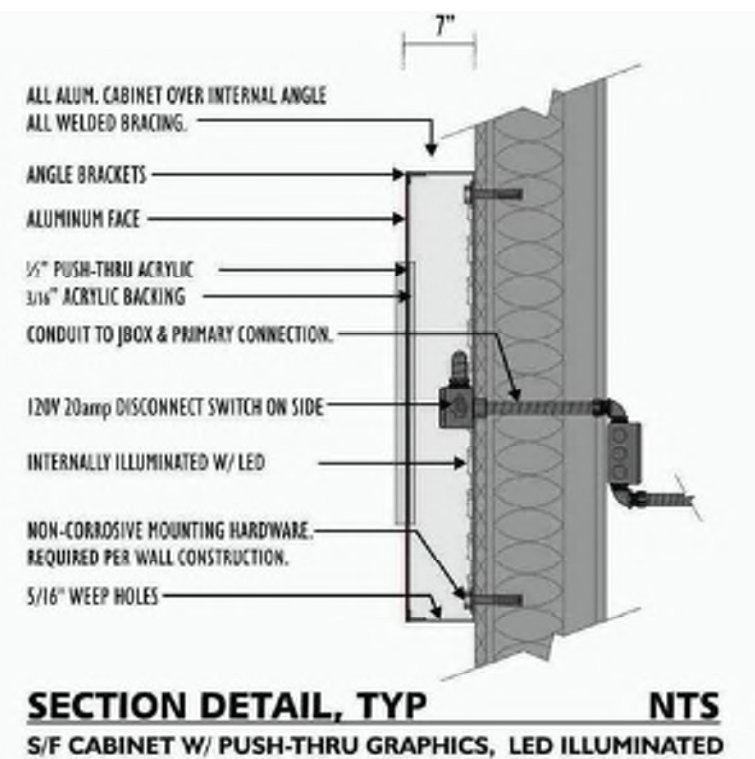
- METAL NOTES:**
1. ALL METAL IS TO BE CAPPED WITH WELDED CAP, UNLESS OTHERWISE NOTED.
  2. ALL CONNECTIONS TO BE WELDED UNLESS OTHERWISE NOTED.
  3. ALL WELDS GROUND SMOOTH, NO SLAGS, DRIPS, ETC. WILL BE ACCEPTED.
  4. ALL METAL SHALL BE PRIMED PRIOR TO DELIVERY ON SITE.
  5. ALL WELDS SHALL BE PRIMED AFTER FABRICATION.
  6. ALL METAL SHALL BE PAINTED.
  7. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF METAL SIGN PANELS AND LETTERING FOR APPROVAL, TWO WEEKS MINIMUM, PRIOR TO CONSTRUCTION.

\*NOTE: A MOCK-UP OF ALL STONE WALLS, STONE CAPS, METAL WORK, AND STUCCO FINISHES MUST BE PROVIDED BY CONTRACTOR. A 4' TALL X 6' WIDE MOCK-UP OF ALL WALL TYPES MUST BE PROVIDED FOR OWNER APPROVAL. WRITTEN APPROVAL MUST BE ATTAINED FROM LANDSCAPE ARCHITECT AND/OR OWNER PRIOR TO CONSTRUCTION.

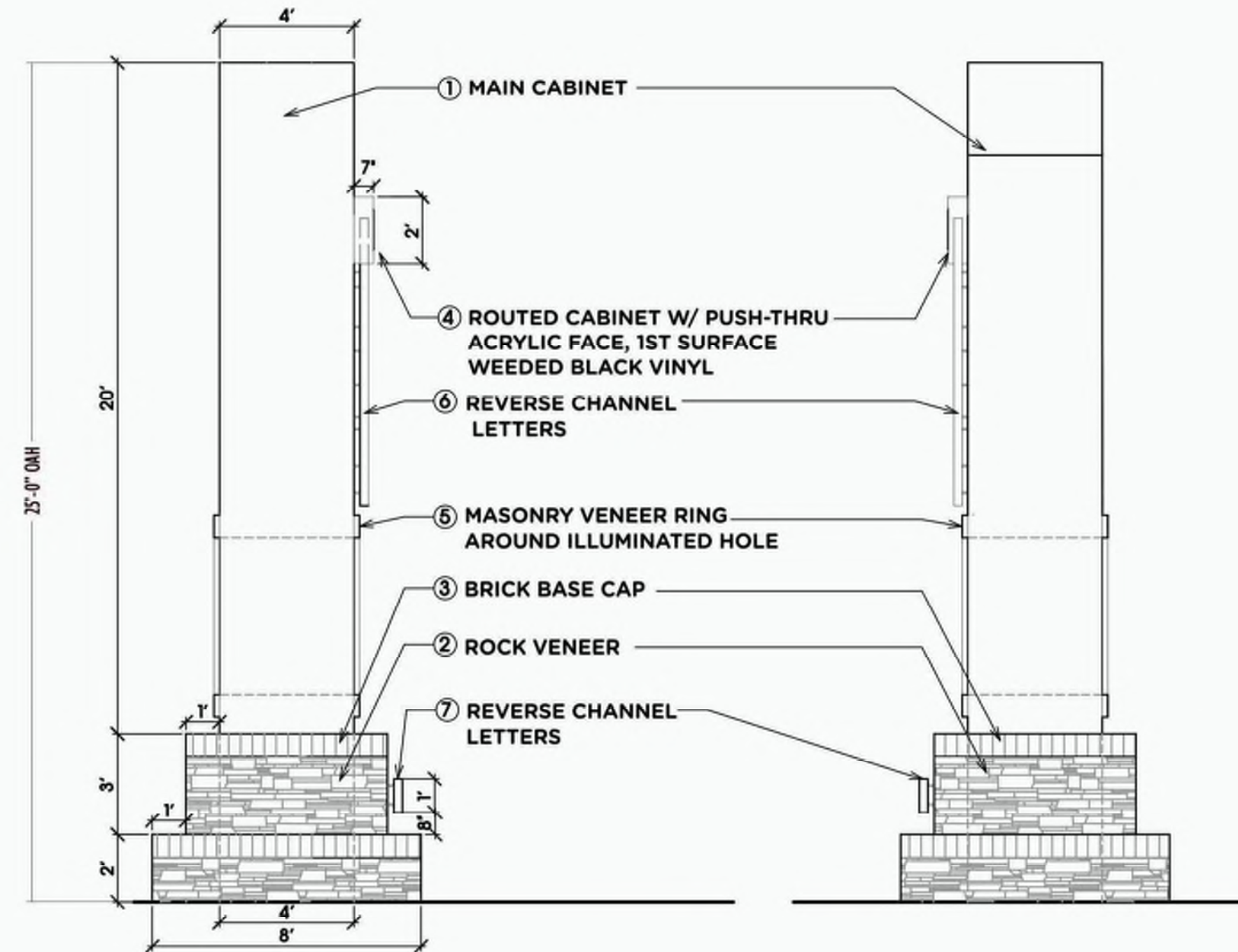
ALL FOOTINGS AND STRUCTURE CAVITIES TO BE DESIGNED BY A TEXAS LICENSED STRUCTURAL ENGINEER.



7 BASE PLAN  
SCALE: 1/4" = 1'-0"

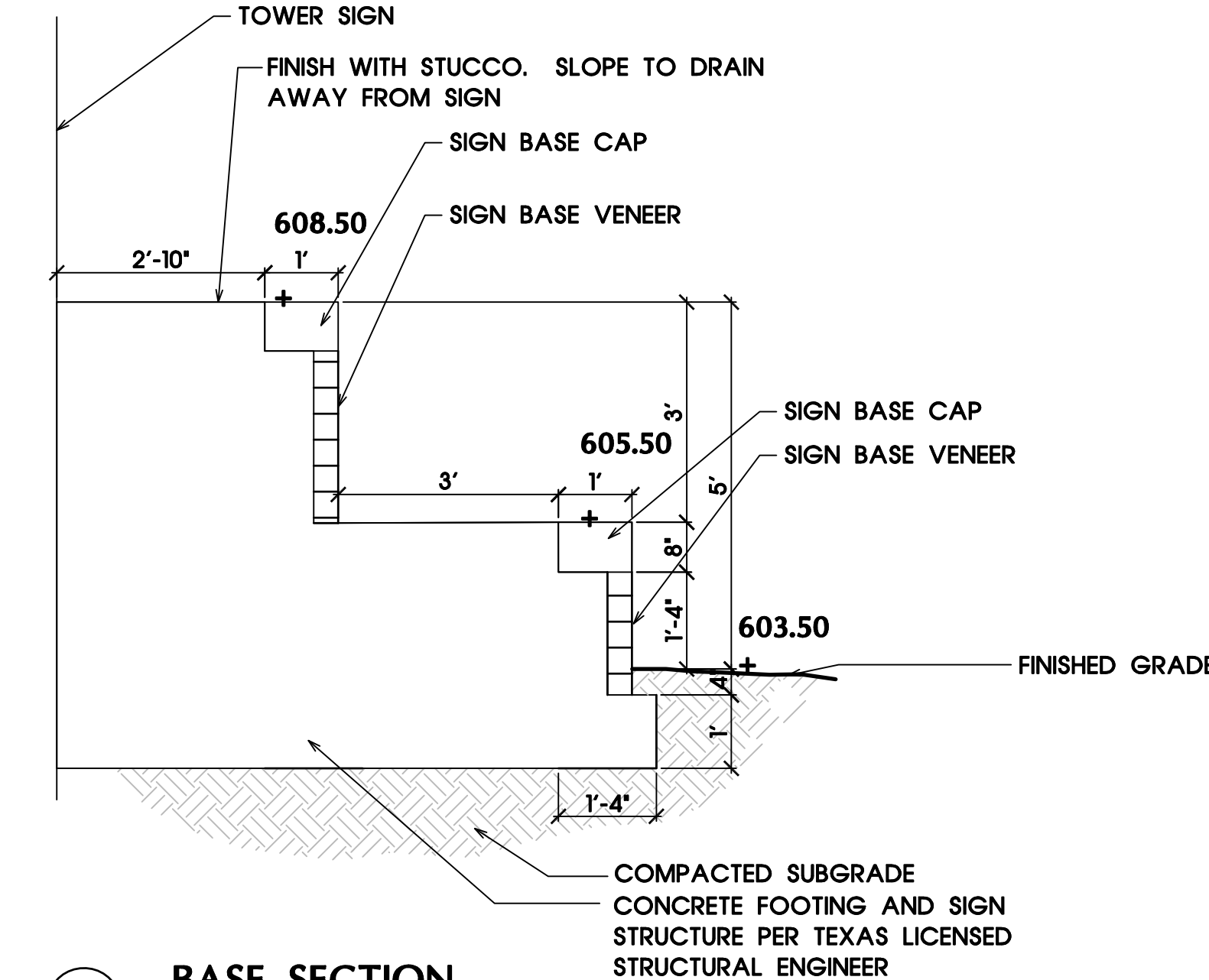


6 SECTION DETAIL  
SCALE: 1/4" = 1'-0"

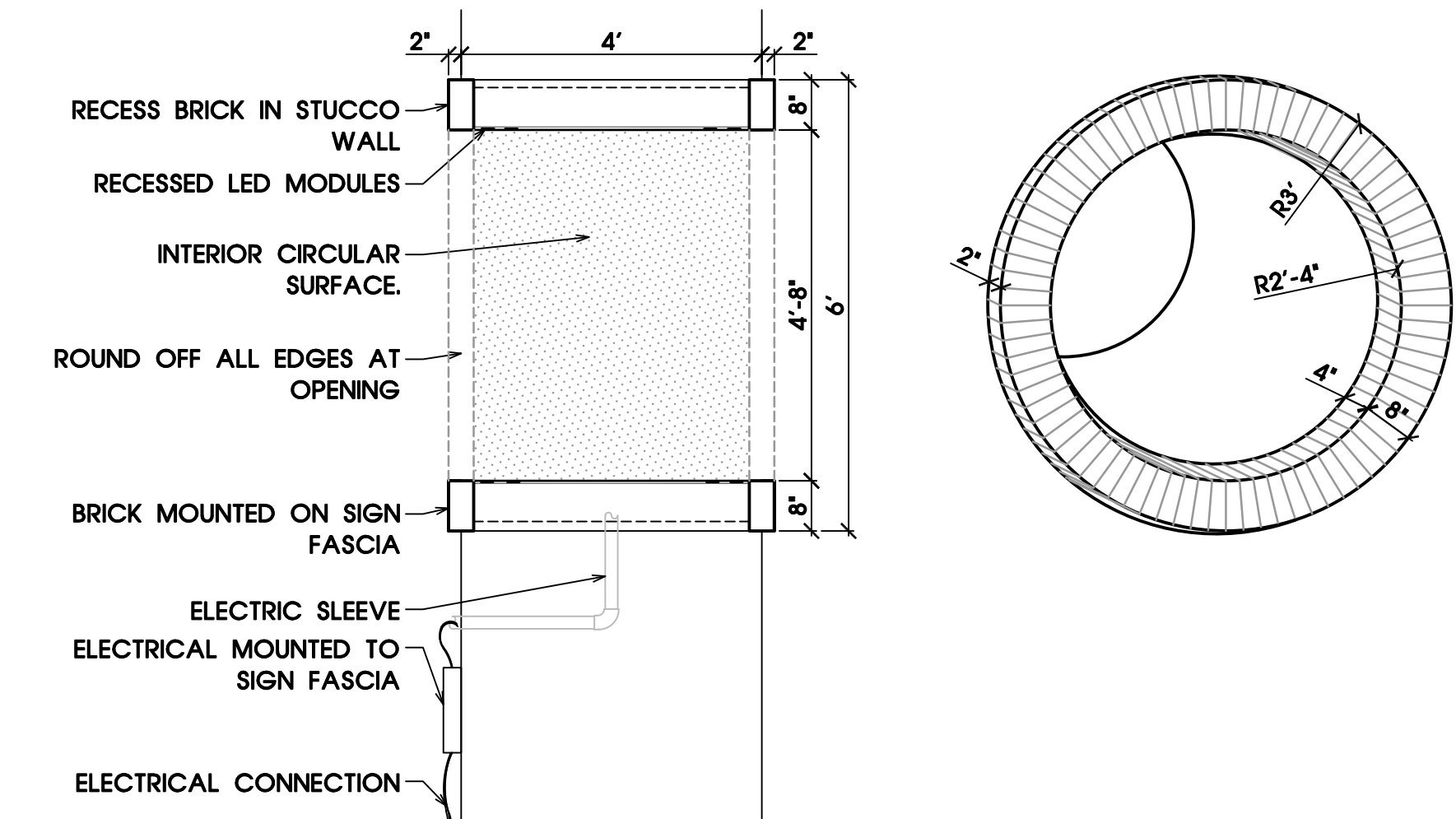


3 PROPOSED LEFT ELEVATION  
SCALE: 1/4" = 1'-0"

4 PROPOSED RIGHT ELEVATION  
SCALE: 1/4" = 1'-0"



8 BASE SECTION  
SCALE: 1/4" = 1'-0"



9 ARCHITECTURAL DETAIL  
SCALE: 1/2" = 1'-0"

# SINGLE FACE MONUMENT

SCALE: 1/4" = 1'-0"

FOOT: CLIENT SUPPLIED

AREA: 650 SQ. FT.

## SCOPE OF WORK:

FABRICATE AND INSTALL

## QUANTITY:

ONE (1)

## MAIN CABINET:

ALUMINUM SKINNED CABINET W/ WELDED INNER FRAME, TEXTURED PAINT TO MATCH PANTONE 7506 C, ILLUMINATED CUT-OUT HOLE SKINNED W/ TRANSLUCENT POLY CARBONATE COVERING GREEN LED MODULES, BRICK VENEER BORDER RING SURROUNDING HOLE ON FRONT & BACK OF MONUMENT

## SMALLER CABINET:

ALUMINUM SKINNED CABINET W/ WELDED INNER FRAME, ROUTED ALUMINUM FACE BACKED W/ WHITE 1/2" ACRYLIC W/ 1ST SURFACE WEARDED BLACK VINYL PAINT CABINET TO MATCH PANTONE 1615 C

## LOGO

### CHANNEL LETTERS:

**FACES:** -125" ALUMINUM PREFINISHED WHITE PAINTED BLACK W/ WHITE OUTLINE

**RETURNS:** -5" X .063" PREFINISHED "BRUTE GREEN"

**STAND-OFFS:** -2" PTM PANTONE 7506 C

**BACKS:** -CLEAR POLYCARBONATE

## BASE MOUNTED

### CHANNEL LETTERS:

**FACES:** -125" ALUMINUM PREFINISHED BLACK

**LOGO RETURNS:** -5" X .063" PREFINISHED BLACK

**STAND-OFFS:** -2" PAINTED BLACK

**BACKS:** -CLEAR POLYCARBONATE

## ILLUMINATION:

WHITE LEDS, GREEN LEDS IN LOGO LETTERS, GREEN LEDS IN MAIN CABINET CUT-OUT

## BASE:

BRICK AND STONE VENEER BASE

## MOUNTING:

INSTALLED ON SITE AS PER ENGINEERING SPECS

PANTONE 7506 C

PANTONE 1615 C

BLACK

BRUTE GREEN

## \*\*\* PLEASE READ AND INITIAL \*\*\*

**ELECTRICAL CONNECTION:** LEWIS SIGN ONLY CONNECTS TO EXISTING POWER(S) BOX WITHIN 10' OF SIGN. IF PRIMARY POWER(S) BOX IS FURTHER THAN 10' UP, FINAL CONNECTION TO BE BY CLIENT'S ELECTRICALIAN.

### CLIENT INITIALS:

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

**MATERIAL SPECIFICATIONS:**

**TOWER SIGN:**  
STUCCO COAT FINISH COAT LAYERS  
ACCORDING TO MANUFACTURERS  
SPECIFICATIONS AND INSTRUCTIONS. FINISH  
TEXTURE TO BE SMOOTH SAND FINISH.  
COLOR TO BE DETERMINED.

**SIGN BASE VENEER:**  
MODULAR BRICK VENEER, RUNNING BOND  
PATTERN  
COLOR: TBD

**SIGN BASE CAP:**  
UTILITY BRICK 8\"/>

**METAL CABINET:**  
7\"/>

**LETTERING:** WELCOME TO  
TYPE: AKZIDENZ GROTESK BE McCh  
SIZE: 14\"/>

**ARCHITECTURAL DETAIL:**  
3\"/>

**INNER RADIUS 2'-4\"/>**

**CITY LOGO:**  
LOGO PROVIDED BY CLIENT.  
PUSH THROUGH ACRYLIC WITH ALUMINUM  
OVERLAY. 2\"/>

**LETTERING AT BASE:**  
TYPE: ALBERTUS EXTRA BOLD  
SIZE: 12\"/>

- OWNER WILL SUPPLY LOGO TEMPLATE TO  
APPROVED CONTRACTOR; FINAL  
LAYOUT TO BE APPROVED BY OWNER  
BEFORE INSTALLATION.

REFER TO SHEET L-4.0 AND L-4.1 FOR  
ADDITIONAL LIGHTING



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04/05/2019

2019 GATEWAY SIGN  
LANDSCAPE DEVELOPMENT PLANS  
HWY 79  
TAYLOR, TEXAS

Drawing File Name

Issued:  
1. CLIENT REVIEW SET 12/14/2018  
2. CITY SUBMITTAL 02/14/2019  
3. BID SET 04/05/2019  
4.  
5.

Revisions:  
1.  
2.  
3.  
4.  
5.

Issue Date: 04/05/2019

Drawn By: MPP  
Reviewed By: BD, MB

Project No.  
150129-TAYL

GATEWAY SIGN  
DETAILS

Sheet No.  
LD-1

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THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.





PLANTING NOTES  
GENERAL

- Contractor shall be responsible for becoming aware of all related existing conditions, utilities, pipes and structures, etc. prior to bidding and construction. The Contractor shall be held responsible for contacting all utility companies for field location of all underground utility lines, including depths, prior to any excavation. The Contractor shall notify the Owner's representative of apparent conflicts with construction and utilities so that adjustments can be planned prior to installation. Contractor shall take sole responsibility for any and all cost or other liabilities incurred due to damage of said utilities/structures/etc.
- The Contractor shall not willfully proceed with construction as designed when it is apparent that unknown obstructions and/or grade differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the Owner's Representative for clarification. The Contractor shall assume full responsibility for all liabilities, including necessary revisions due to failure to give such notification.
- The Contractor shall take all necessary scheduling and other precautions to avoid climatic damage to plants. A "planting" of specific calendar days is required to be submitted by the Contractor for approval and planting operations should occur per this approved schedule.
- If conflicts arise between size of areas and plans, Contractor is required to contact Owner's Representative for resolution. Failure to make such conflicts known to the Owner's Representative will result in Contractor's liability to relocate the materials.
- Planting mix to be loam top soil fertile, friable, natural topsoil of loamy character. 'chocolate brown' in color, without admixture of subsoil material obtained from a well-drained arable site, reasonably free from clay clumps, coarse sands, stones, plants, roots, sticks and other foreign materials with the pH range to match existing soil conditions. Soil containing Nut Grass, Dallis Grass, Johnson Grass or other aggressive weed will be rejected.
- It is the Contractor's responsibility to furnish all plant materials free of pests or plant diseases. Pre-selected or "tagged" material must be inspected by the Contractor and certified pest and disease free. It is the Contractor's obligation to maintain and warranty all plant materials per the specifications. All plants shall be subject to Owner's approval prior to installation.
- Where provided, area takeoffs and plant quantity estimates in plant list are for information only. Contractor is responsible to do their own quantity take-offs for all plant materials and sizes shown on plans. In case of any discrepancies, plans take precedence over call-outs and/or the plant list(s).
- Contractor shall provide "per-unit costs" for every size of plant material, and by type, as called out on Planting Plans in the Bid Proposal. Unit cost to include the plant material itself and installation, including all labor, amendments, fertilizers, warranty, etc., as detailed and specified for each size, "complete in place".
- The Contractor is responsible to restore all areas of the site, or adjacent areas, where disturbed by operations of or related to the Contractor's work. Sod areas disturbed shall be restored with new sod. Native areas disturbed, if not already improved to meet other requirements of this contract, shall be restored consistent with type, rates and species of existing condition.
- During plant establishment, native and wetland areas shall be protected from sedimentation and erosion. Prior to construction activities, native and wetland areas outside of the project limits shall be protected with silt fence.
- All plants shall be nursery grown, Grade 1 plants meeting American Nursery and Landscape Association (ANLA) standards set forth in the "American Standard for Nursery Stock" (ANSI Z60.1-2004). Plants are to be typical in shape and size for species. Plants shall not be root-bound or loose in their containers. Handle all plants with care in transporting, planting and maintenance until inspection and final acceptance.
- Warranty: Provide a one-year replacement warranty for all plant materials. Warranty shall cover plants which have died or partially died (thereby ruining their natural shape), but shall not include damage by vandalism, browsing, hail, abnormal freezes, drought or negligence by the Owner. The Warranty is intended to cover Contractor negligence, infestations, disease and damage or shock to plants. Plants replaced under Warranty will be warranted for one year following replacement.
- When planting trees and shrubs in existing natural areas, minimize disturbance to adjacent existing vegetation.
- Soil conditioner to be 'Back to Earth' composted cotton burrs, or equivalent.
- Fertilizer: Commercial fertilized shall be a complete organic fertilizer.
- Plant names may be abbreviated on the drawings. See plant legend for symbols, abbreviations, botanical/common names, sizes, estimated quantities (if given) and other remarks.

TREE PROTECTION NOTE:

- all existing trees shall be protected from construction activities within construction zone, during which time, the use of a silt or chain link fence is required around each singular or group of protected trees, parking of construction vehicles, equipment, and stockpiles within tree root zones is strictly prohibited, contractor shall be responsible for any damage incurred to existing trees, including replacement or reimbursement to owner for said damages.

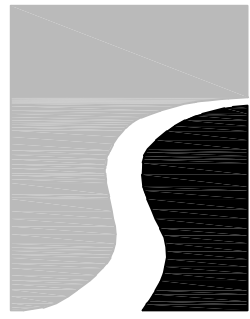
OAK WILT PREVENTION NOTE:

if oak wilt is found on site within work zone, owner must be notified and the following procedures must be followed in accordance with usda standards, (<http://www.na.fs.fed.us>) including disinfecting construction removal devices, tree removal and treatment to prevent development of spore mats, these treatments include debarking, chipping and drying the wood, covering dead wood with plastic, burying the edges for six months and air drying for a similar amount of time to kill fungus and associated insects off site at state designated facility.

PLANT SCHEDULE

| TREES                     | QTY | BOTANICAL NAME / COMMON NAME                       | CONT               | CAL                     | HT/SPD          | NOTES                   |
|---------------------------|-----|----------------------------------------------------|--------------------|-------------------------|-----------------|-------------------------|
| QUVI                      | 2   | Quercus virginiana / Southern Live Oak             | Container Grown    | 3"Cal                   | 12-15 H X 8 Spd |                         |
|                           |     |                                                    |                    |                         |                 |                         |
| ORNAMENTAL TREE           | QTY | BOTANICAL NAME / COMMON NAME                       | CONT               | CAL                     | HT/SPD          | NOTES                   |
| ILVO                      | 3   | Ilex vomitoria / Yaupon Holly                      | Container Grown    | 1"Cal                   | 6 H X 4 Spd     |                         |
| LATU                      | 4   | Lagerstroemia indica Tuscarora / Crape Myrtle      | Container Grown    | 1" Cal @ 3 trunks, min. | 8-9 H X 3-4 Spd | Must be from a Single R |
|                           |     |                                                    |                    |                         |                 |                         |
| ANNUALS/PERENNIALS        | QTY | BOTANICAL NAME / COMMON NAME                       | CONT               | NOTES                   |                 |                         |
| LANG                      | 50  | Lantana camara New Gold / New Gold Lantana         | 3 gal, conf. grwn  |                         |                 |                         |
|                           |     |                                                    |                    |                         |                 |                         |
| EVERGREEN SHRUBS (3-6 HT) | QTY | BOTANICAL NAME / COMMON NAME                       | CONT               | NOTES                   |                 |                         |
| LISIV                     | 5   | Ligustrum japonicum Variegatum / Variegated Privet | 5 gal, conf. grwn  |                         |                 |                         |
| SAGR                      | 28  | Salvia greggii / Autumn Sage                       | 3 gal, conf. grwn  |                         |                 |                         |
|                           |     |                                                    |                    |                         |                 |                         |
| GRASSES                   | QTY | BOTANICAL NAME / COMMON NAME                       | CONT               | NOTES                   |                 |                         |
| MUCA                      | 31  | Muhlenbergia capillaris / Gulf Muhly               | 3 gal, conf. grwn  |                         |                 |                         |
|                           |     |                                                    |                    |                         |                 |                         |
| SUCCULENTS                | QTY | BOTANICAL NAME / COMMON NAME                       | CONT               | NOTES                   |                 |                         |
| AGAM                      | 3   | Agave americana / Century Plant                    | 7 gal, conf. grwn  | unbroken blades         |                 |                         |
| DAWH                      | 11  | Dasyllirion wheeleri / Wheeler Sotol               | 5 gal, conf. grwn  | unbroken blades         |                 |                         |
| HEPA                      | 10  | Hesperaloe parviflora / Red Yucca                  | 5 gal, conf. grwn  |                         |                 |                         |
| OPEN                      | 10  | Opuntia engelmannii / Cactus Apple                 | 10 gal, conf. grwn |                         |                 |                         |

| Gateway Sign                         |        |       |                                                                                                                              |                                                                               |
|--------------------------------------|--------|-------|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 4/24/2019                            |        |       |                                                                                                                              |                                                                               |
| TURF GRASS/ PLANT BEDS               |        |       |                                                                                                                              |                                                                               |
| NAME                                 | TOTAL  | UNITS | DESCRIPTION                                                                                                                  |                                                                               |
| Plant Bed                            | 1,021  | sf    |                                                                                                                              |                                                                               |
|                                      | 19     | cy    | Plant Mix                                                                                                                    | 6" depth (Pro-Gro Soil Mix by Whittlessey Landscape Supply or approved equal) |
|                                      | 9      | cy    | Mulch                                                                                                                        | 3" Depth (Black Hardwood Mulch)                                               |
| Bermuda Grass Seed/ Cynodon dactylon | 10,614 | sf    |                                                                                                                              |                                                                               |
|                                      | 1,179  | sy    |                                                                                                                              |                                                                               |
|                                      | 66     | cy    | Top Soil                                                                                                                     | 2" Depth (Chocolate Loam)                                                     |
| MISCELLANEOUS                        |        |       |                                                                                                                              |                                                                               |
| NAME                                 | TOTAL  | UNITS | DESCRIPTION                                                                                                                  | COMMENTS                                                                      |
| Steel Edging                         | 297    | l.f.  | 3/16" thick, brown. Install on areas as shown per plans.                                                                     |                                                                               |
|                                      |        |       | Steel edge stakes to face planting plan area.                                                                                |                                                                               |
| New Mexico River Gravel              | 389    | s.f.  | 3" depth , 40% at 2" dia., 30% dia., at 6" dia., 10% at 12" dia. Provide for weed barrier. Submit samples prior to delivery. |                                                                               |
| Filter Fabric / Weed Barrier         | 400    | s.f.  | Type or approved equal. Install under river rock gravel as shown per plans and details.                                      |                                                                               |
| Silt Fence                           | 104    | l.f.  | Ref Detail 2, sheet L-1.1                                                                                                    |                                                                               |
| Stabilized Construction Entrance     | 25     | c.y.  | Ref Detail 1 sheet L-1.1                                                                                                     |                                                                               |
| Rock Filter Dam                      | 63     | l.f.  | Ref. Detail sheet L-1.2                                                                                                      |                                                                               |



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04/25/2019

2019 GATEWAY SIGN  
LANDSCAPE DEVELOPMENT PLANS  
HWY 79  
TAYLOR, TEXAS

Drawing File Name

Issued:  
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5.

Revisions:

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4. \_\_\_\_\_  
5. \_\_\_\_\_

Issue Date: 04/25/2019

Drawn By: MPP

Reviewed By: BD, MB

Project No.  
150129-TAYL

PLANTING  
NOTES

Sheet No.  
LP-N1

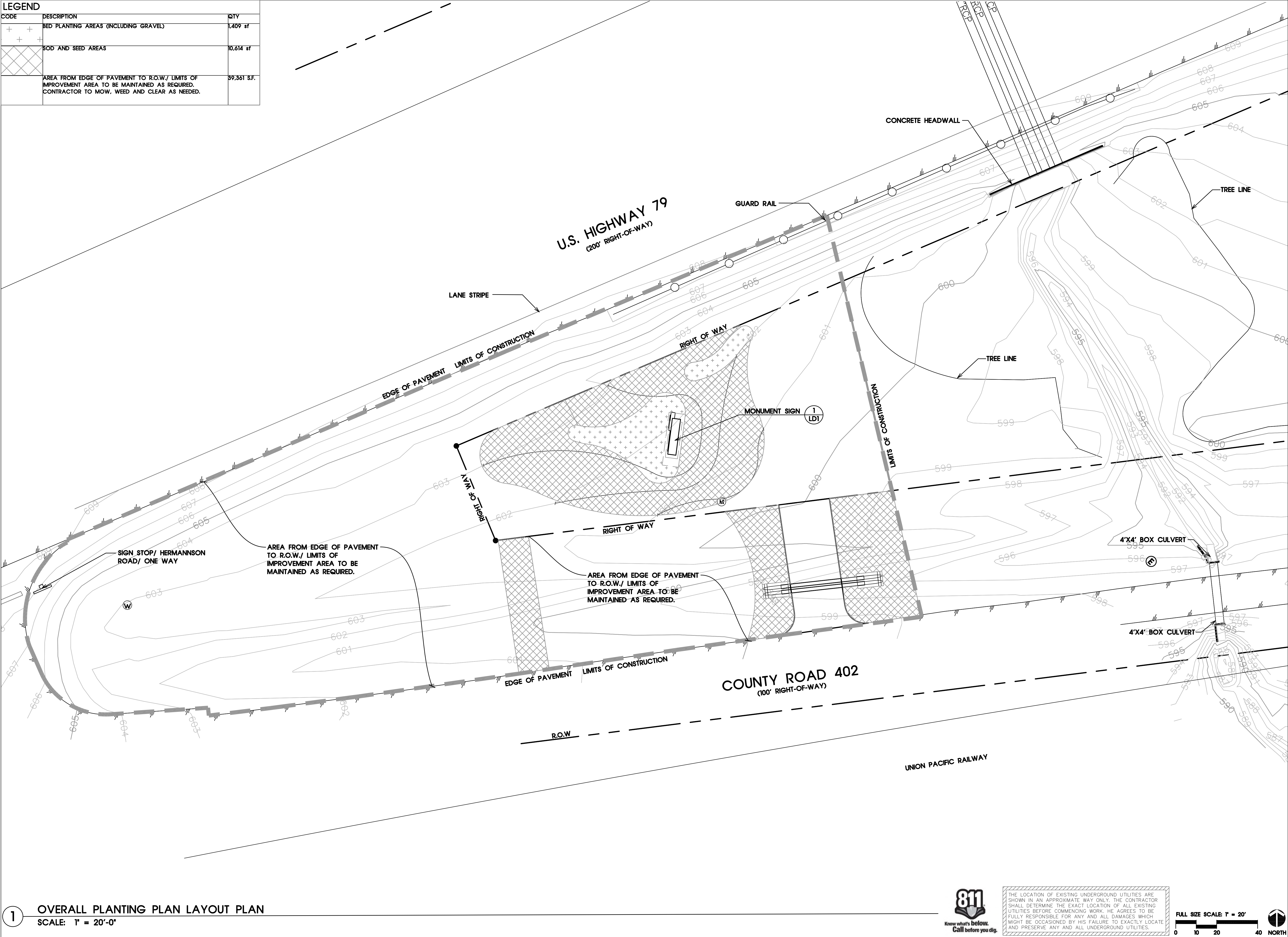
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| LEGEND |                                                                                                                                             |             |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| CODE   | DESCRIPTION                                                                                                                                 | QTY         |
| ++     | BED PLANTING AREAS (INCLUDING GRAVEL)                                                                                                       | 1,409 sf    |
| +      | SOD AND SEED AREAS                                                                                                                          | 10,614 sf   |
|        | AREA FROM EDGE OF PAVEMENT TO R.O.W./ LIMITS OF IMPROVEMENT AREA TO BE MAINTAINED AS REQUIRED. CONTRACTOR TO MOW, WEED AND CLEAR AS NEEDED. | 39,361 S.F. |



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04/25/2019

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LANDSCAPE DEVELOPMENT PLANS  
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TAYLOR, TEXAS**

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| 4. SHEET REPLACEMENT | 04/25/2019 |
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150129-TAYL

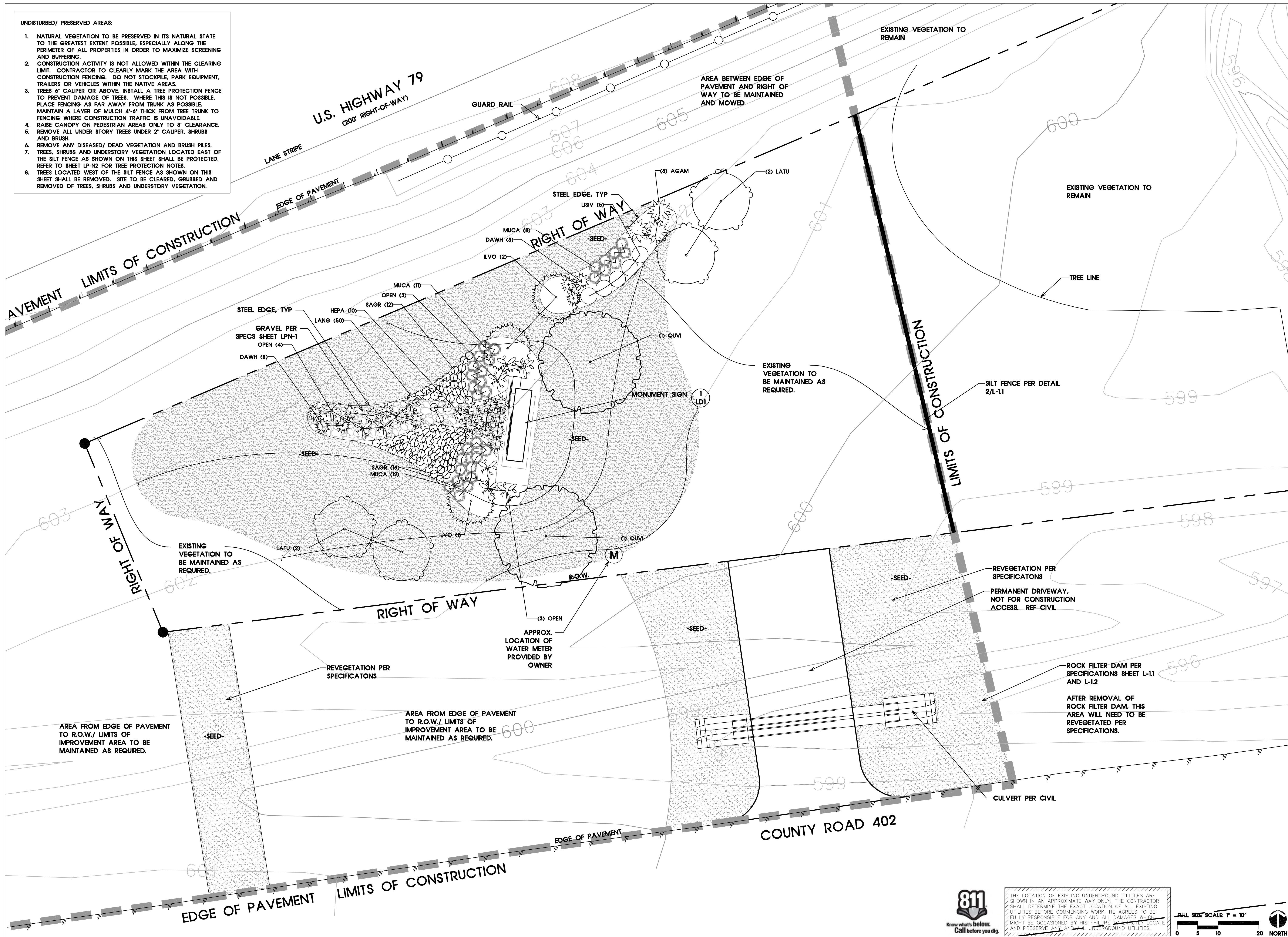
**OVRALL PLANTING  
PLAN LAYOUT**

Sheet No.  
LP-1.0

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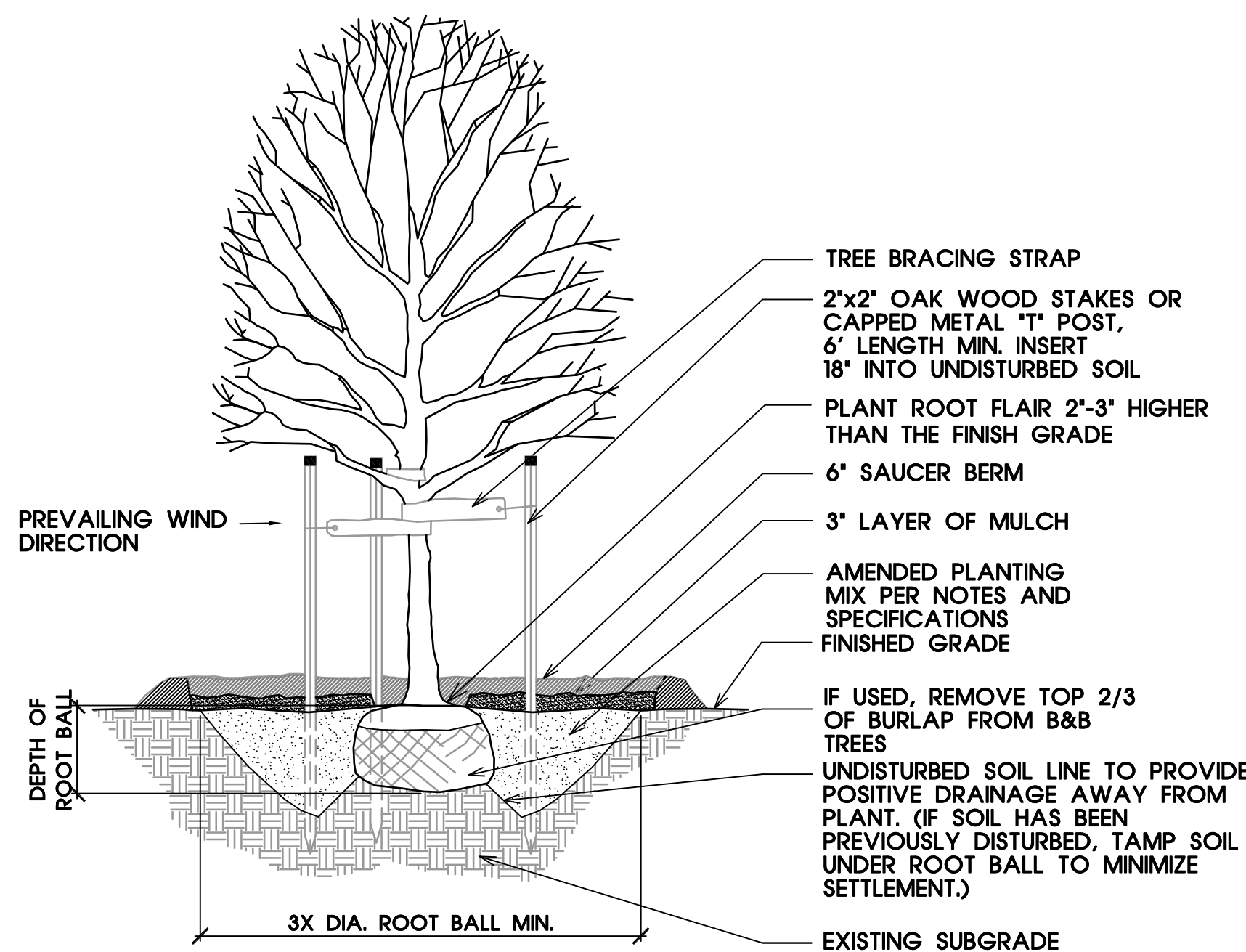
Project No.  
150129-TAYL

PLANTING PLAN

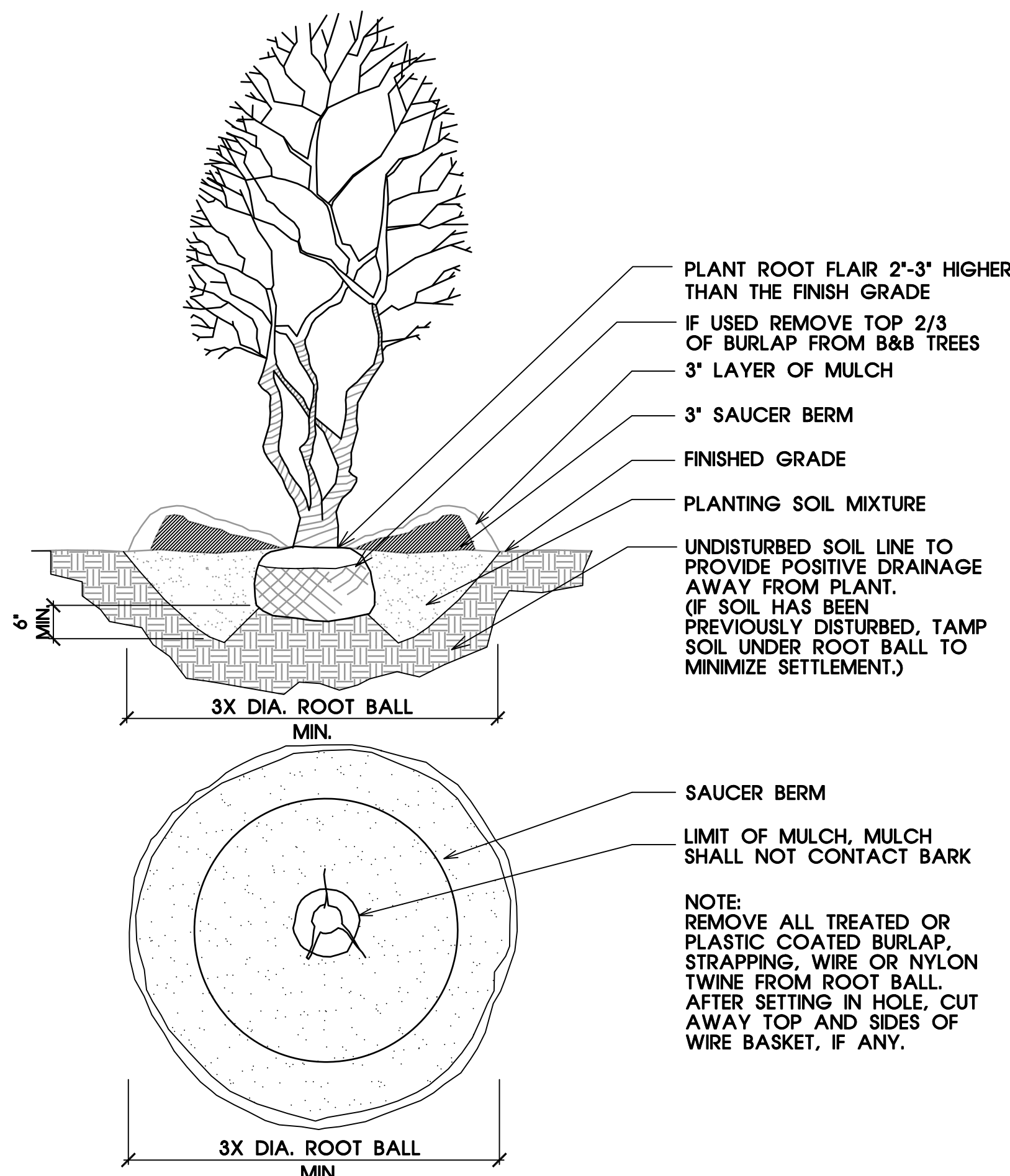
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1 TREE PLANTING  
SCALE: N.T.S.



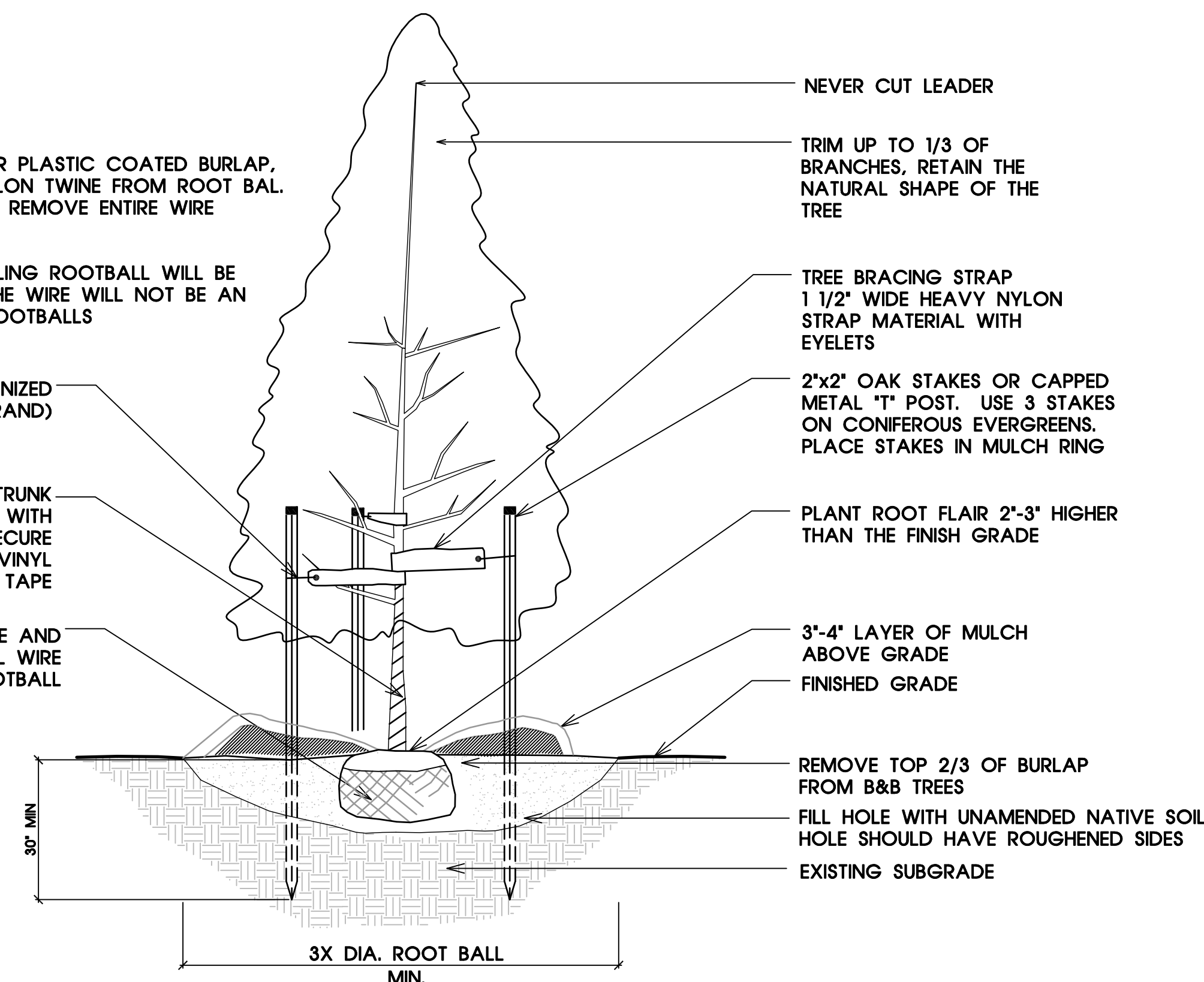
2 TREE PLANTING - MULTISTEM  
SCALE: N.T.S.

NOTES:

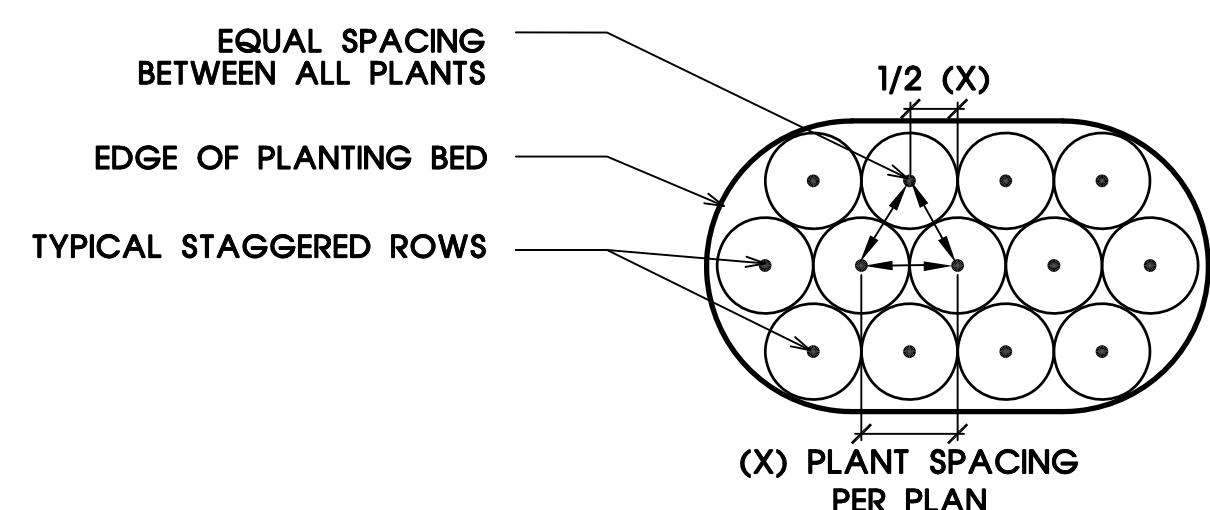
REMOVE ALL TREATED OR PLASTIC COATED BURLAP, STRAPPING, WIRE OR NYLON TWINE FROM ROOT BAL. BEFORE SETTING IN HOLE, REMOVE ENTIRE WIRE BASKET.

ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE WIRE WILL NOT BE AN EXCUSE FOR DAMAGE ROOTBALLS

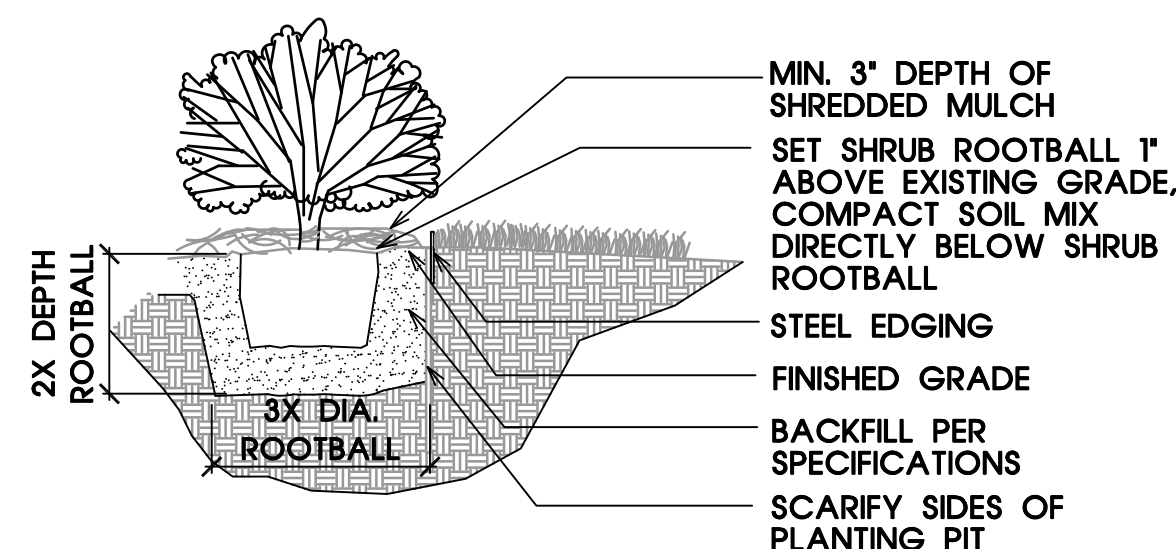
16 GAUGE GALVANIZED WIRE (DOUBLE STRAND)  
WRAP ENTIRE SURFACE OF TRUNK TO SECOND BRANCH WITH APPROVED TREE WRAPPING. SECURE AT 2' INTERVALS WITH VINYL ELECTRICAL TAPE  
CUT ALL TWINE AND REMOVE ALL WIRE FROM UNDER ROOTBALL



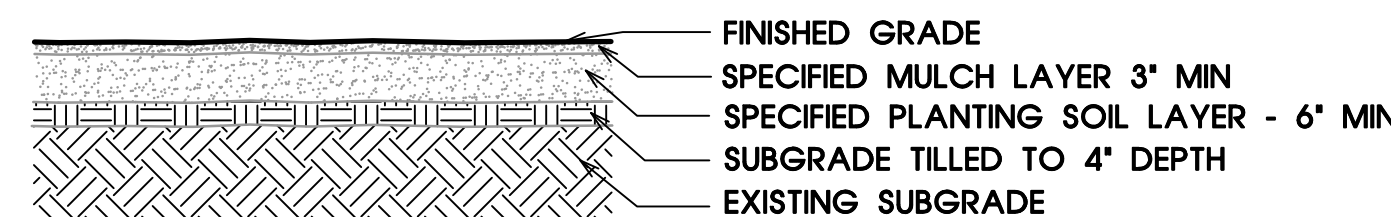
3 TREE PLANTING - CONIFER  
SCALE: N.T.S.



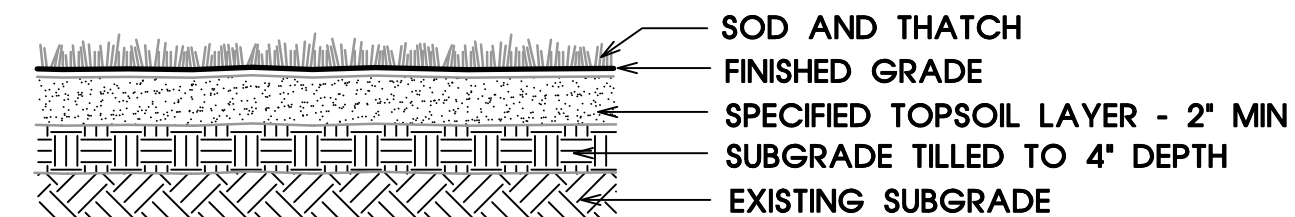
4 PLANTING BED PLAN  
SCALE: N.T.S.



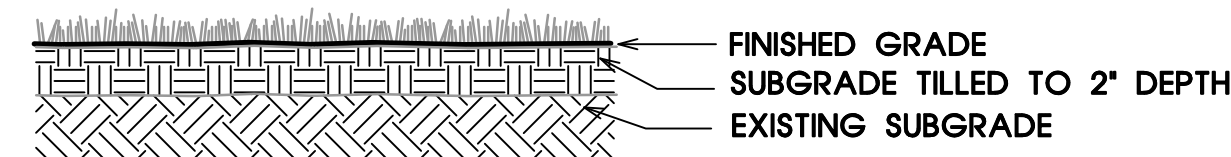
5 SHRUB BED PLANTING  
SCALE: N.T.S.



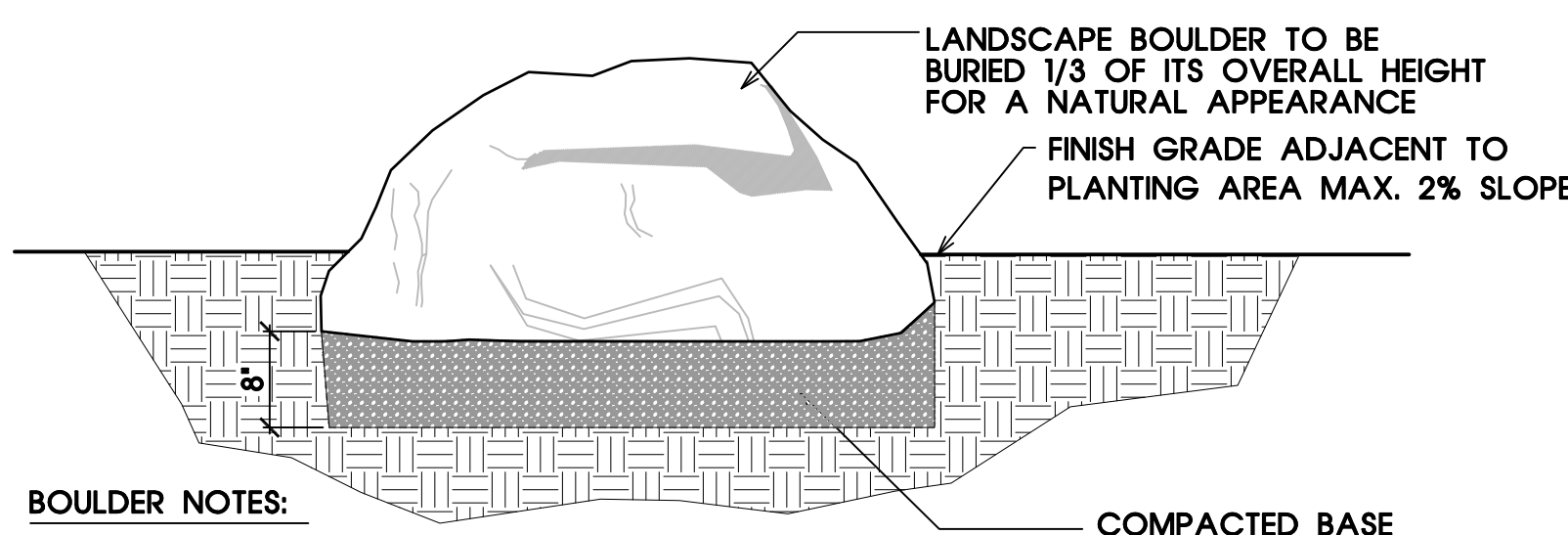
6 ORNAMENTAL GRASSES/ PERENNIAL/ ANNUAL BED AREAS



7 TURF SOD AREAS  
SCALE: N.T.S.



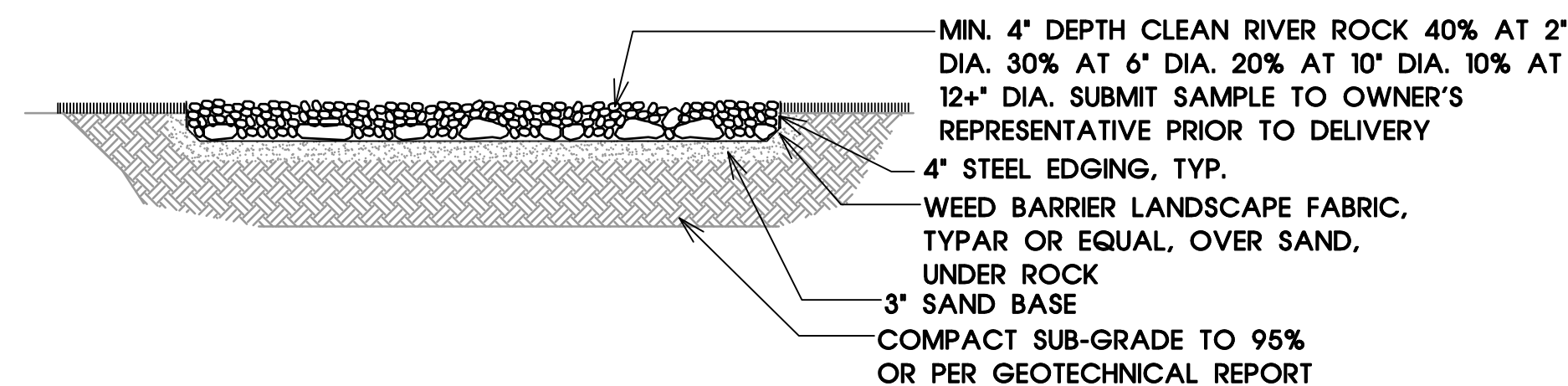
8 TURF SEED AREAS  
SCALE: N.T.S.



9 LANDSCAPE BOULDER PLACEMENT  
SCALE: N.T.S.

BOULDER NOTES:

1. BOULDERS SHALL BE CLEANED PRIOR TO INSTALLATION.
2. ALL BOULDERS SHALL BE INTEGRAL IN COMPOSITION W/ NO GOUGES/ NICKS CAUSED BY MACHINERY OR CONTAIN OTHER MAN MADE SCARING.



10 RIVER ROCK / DECOMPOSED GRANITE BED  
SCALE: N.T.S.

Drawing File Name

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| 1. CLIENT REVIEW SET | 12/14/2018 |
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Drawn By: MPP

Reviewed By: BD, MB

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150129-TAYL

PLANTING  
DETAILS

Sheet No.

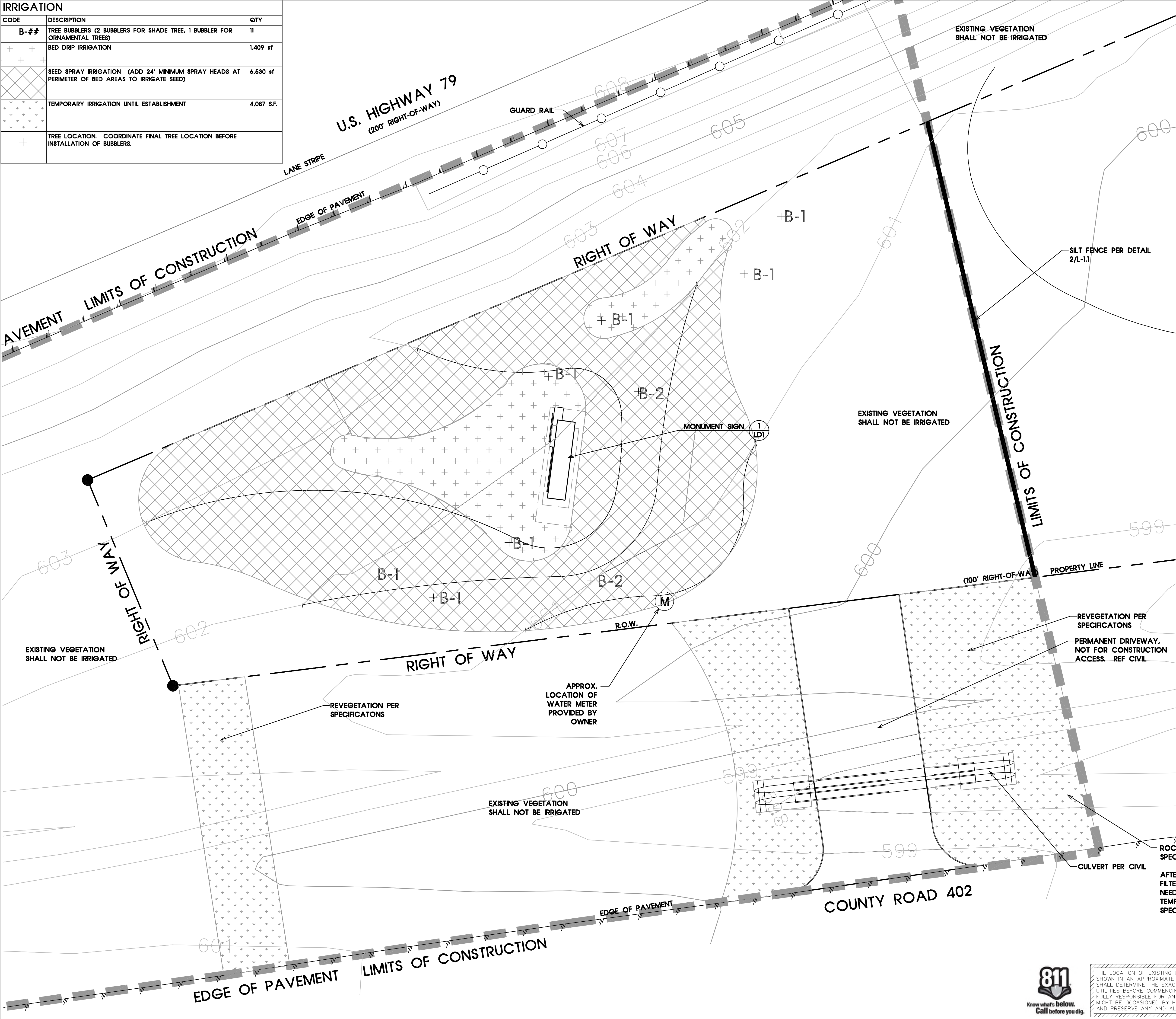
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| IRRIGATION |                                                                                                |            |
|------------|------------------------------------------------------------------------------------------------|------------|
| CODE       | DESCRIPTION                                                                                    | QTY        |
| B-##       | TREE BUBBLERS (2 BUBBLERS FOR SHADE TREE, 1 BUBBLER FOR ORNAMENTAL TREES)                      | 11         |
| +          | BED DRIP IRRIGATION                                                                            | 1,409 sf   |
| +          | SEED SPRAY IRRIGATION (ADD 24" MINIMUM SPRAY HEADS AT PERIMETER OF BED AREAS TO IRRIGATE SEED) | 6,530 sf   |
| +          | TEMPORARY IRRIGATION UNTIL ESTABLISHMENT                                                       | 4,087 S.F. |
| +          | TREE LOCATION. COORDINATE FINAL TREE LOCATION BEFORE INSTALLATION OF BUBBLERS.                 |            |



- IRRIGATION GENERAL NOTES:
- CONTRACTOR TO OBTAIN ALL PERMITS AND LICENSES APPLICABLE PRIOR TO THE START OF WORK.
  - ALL REQUIRED LANDSCAPE AREAS SHALL BE IRRIGATED PER APPLICABLE LOCAL ORDINANCES AND TCEQ REGULATIONS.
  - DRIP IRRIGATION SHALL BE PLACED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. EXTEND DRIP LINES TO IRRIGATE PLANTING ADJACENT TO PLANT BEDS.
    - MAXIMUM DRIP LATERAL LENGTH SHALL NOT EXCEED MANUFACTURER SPECIFICATIONS
  - ANY QUANTITIES SHOWN ARE APPROXIMATE. VERIFY QUANTITIES AND PROVIDE ALL LABOR, MATERIALS, AND DEVICES NECESSARY TO COMPLETE THE IRRIGATION SYSTEM.
  - THE LAYOUT SHOWN IS DIAGRAMMATIC. DO NOT PLACE LINES OR DEVICES IN THE CRITICAL ROOT ZONE OF ANY TREE, OR IN PAVEMENT AREAS, OR AREAS THAT CONFLICT WITH PROPER INSTALLATION AND FUNCTION OF THE SYSTEM.
  - SITE CONDITIONS:
    - VERIFY AND MARK THE LOCATION OF ALL ON-SITE UTILITIES WHICH MIGHT BE AFFECTED BY THE IRRIGATION SYSTEM.
    - VERIFY AND MARK THE LOCATION OF ALL BURIED CABLES, CONDUITS, PIPING, ETC. PRIOR TO TRENCHING OR DIGGING. CALL TEXAS 811 PER TEXAS UTILITIES CODE TITLE 5 CHAPTER 251 UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY.
    - ADJUST THE DESIGN AS NECESSARY, TOGETHER WITH THE LICENSED IRRIGATOR, AND OWNERS, TO SUIT SITE CONDITIONS, ELEVATIONS AND GRADES BEFORE PROCEEDING WITH WORK.
    - PROTECT FROM DAMAGE AS NECESSARY, EXISTING PROPERTY, EXISTING LANDSCAPE FEATURES, PLANT MATERIAL, STRUCTURES, THIS WORK IN PROGRESS, AND THE WORK OF OTHER TRADES.
  - PROVIDE PROFESSIONAL GRADE VALVE BOXES LARGE ENOUGH TO ACCOMMODATE VALVES AND OTHER DEVICES SHOWN IN THE DETAILS. BOX EXTENSIONS MAY BE REQUIRED. GROUND BOXES SHALL BE CONSTRUCTED OF MATERIALS SUFFICIENT IN STRENGTH TO ACCEPT LOADS (PEDESTRIAN OR VEHICULAR) REQUIRED BASED ON ACTUAL INSTALLATION LOCATION.
  - PRESSURE REGULATING COMPONENT(S) SHALL BE REQUIRED WHERE STATIC PRESSURE EXCEEDS MANUFACTURER'S RECOMMENDED OPERATING RANGE.
  - SEE DETAILS FOR OTHER REQUIRED MATERIALS AND DEVICES.
  - PIPING AND FITTINGS:
    - MAINLINE IRRIGATION SYSTEM PIPING 3" AND LARGER SHALL BE BELL & GASKETED SCHEDULE 40 PVC PIPE. LATERAL IRRIGATION SYSTEM PIPING 3" AND LARGER SHALL BE BELL & GASKETED SCHEDULE 40 PVC PIPE.
    - ALL PIPING SHALL UTILIZE THRUST BLOCKS AT PIPE CONNECTIONS PER DETAILS. WHERE LEEMCO FITTING/JOINT RESTRAINTS ARE USED THRUST BLOCKS MAY BE EXCLUDED.
    - ALL PIPES AND ELECTRICAL BUNDLES PASSING BENEATH DRIVEWAYS OR PAVED AREAS MUST BE SLEEVED WITH SCHEDULE 40 PVC PIPE WITH SOLVENT WELDED JOINTS. SLEEVE DIAMETER MUST EQUAL TWICE THAT OF THE PIPE OR SIZED AS SHOWN ON PLANS.
    - ALL PVC PIPE FITTINGS SHALL BE PRIMED WITH A COLORED PRIMER, PRIOR TO APPLYING PVC CEMENT.
    - IRRIGATION MAINLINE AND LATERALS 4" AND LARGER SHALL UTILIZE LEEMCO FITTINGS/JOINT RESTRAINTS AS PER MANUFACTURER SPECIFICATIONS.
    - ALL LATERAL PIPE SHALL BE BURIED TO A MIN. DEPTH OF 6"
    - ALL MAINLINE PIPE SHALL BE BURIED TO A DEPTH OF 18". WHERE CONDITIONS PROHIBIT THIS DEPTH, A MIN. DEPTH OF 6" MAY BE USED WHEN APPROVED BY THE LICENSED IRRIGATOR
  - EXCAVATION:
    - EXCAVATE TO DEPTHS REQUIRED TO PROVIDE 4" DEPTH OF SAND BEDDING FOR PIPING WHEN ROCK OR OTHER UNSUITABLE BEARING MATERIALS ARE ENCOUNTERED
- EXCAVATE TRENCHES AND INSTALL PIPING AND FILL DURING THE SAME WORKING DAY. DO NOT LEAVE OPEN TRENCHES OR PARTIALLY FILLED TRENCHES OPEN OVERNIGHT
- IRRIGATION CONTROLLER AND SYSTEM SHALL BE EQUIPPED WITH AN EVAPOTRANSPIRATION SENSOR FOR DAILY WEATHER ADJUSTMENT TO RUN TIMES. THE E/T SENSOR SHALL HAVE RAIN/FREEZE SHUTOFF.
    - IRRIGATION CONTROLLER SHALL BE EQUIPPED WITH A FLOW SENSOR
    - IRRIGATION CONTROLLER SHALL BE PROGRAMMED PRIOR TO PROJECT CLOSEOUT
  - BACKFLOW PREVENTION
    - BACKFLOW PREVENTION VALVES SHALL BE INSTALLED IN AN INSULATED ENCLOSURE

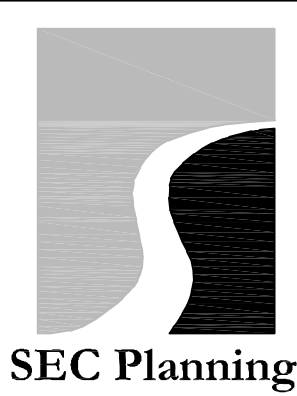
ROCK FILTER DAM PER SPECIFICATIONS AND SHEET L-12

AFTER REMOVAL OF ROCK FILTER DAM, THIS AREA WILL NEED TO BE REVEGETATED AND TEMPORARILY IRRIGATED PER SPECIFICATIONS.



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

FULL SIZE SCALE: 1" = 10'



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City of Taylor

400 Porter Street  
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04/25/2019

2019 GATEWAY SIGN  
LANDSCAPE DEVELOPMENT PLANS  
HWY 79  
TAYLOR, TEXAS

Drawing File Name

Issued:  
1. CLIENT REVIEW SET 12/14/2018  
2. CITY SUBMITTAL 02/14/2019  
3. BID SET 04/05/2019  
4. SHEET REPLACEMENT 04/25/2019

Revisions:

1.  
2.  
3.  
4.  
5.  
Issue Date: 04/25/2019

Drawn By: MPP

Reviewed By: BD, MB

Project No. 150129-TAYL

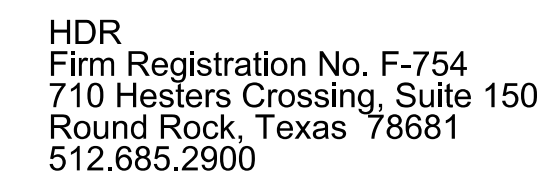
IRRIGATION  
DIAGRAM

Sheet No.

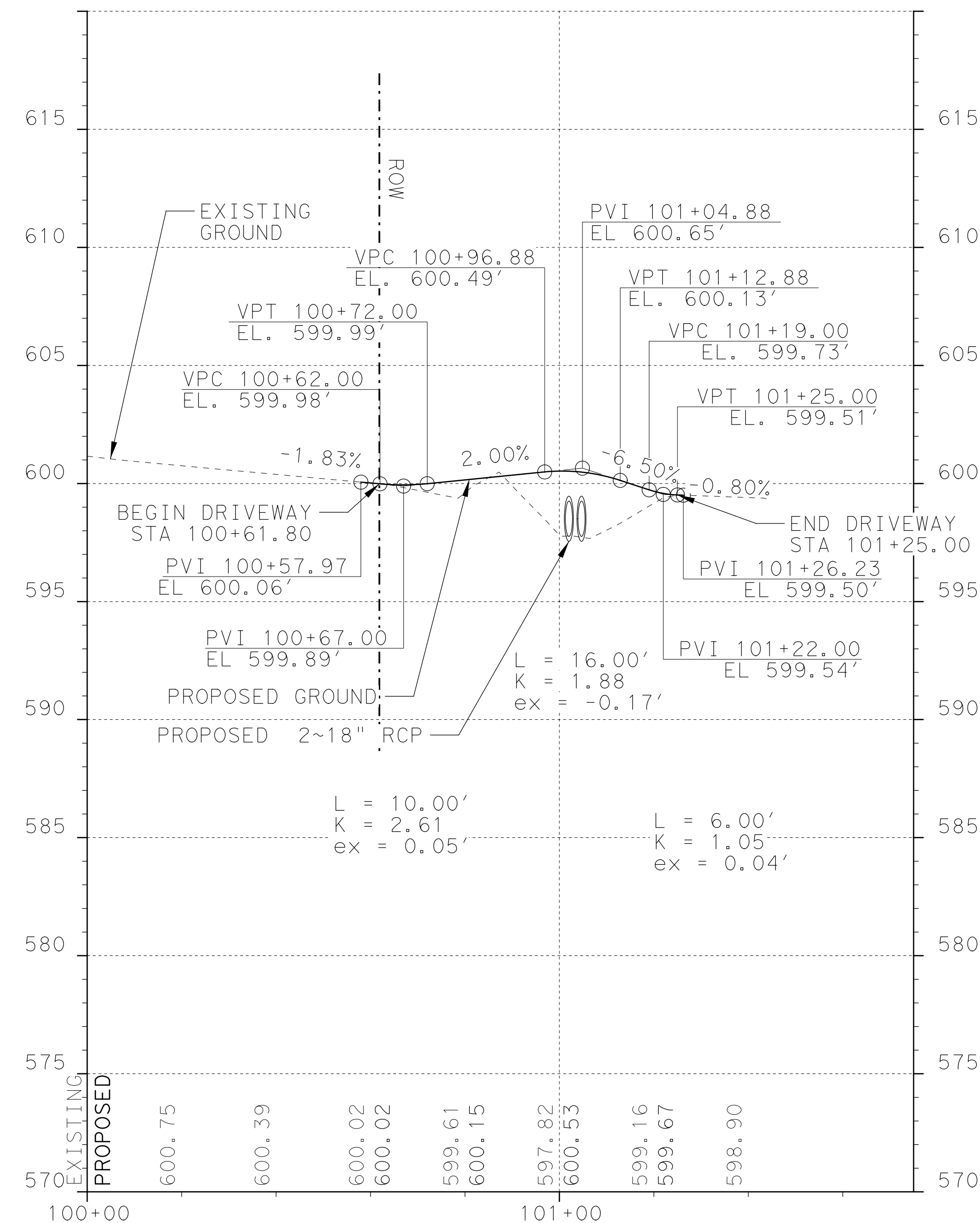
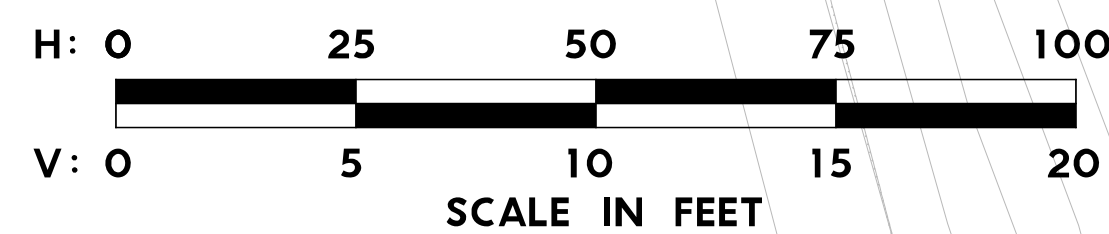
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TAYLOR, TEXAS 76574  
T:512-532-3675

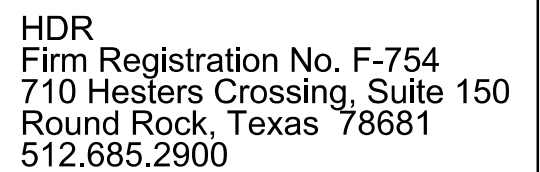


1. ALL STATION AND OFFSET ARE FROM "C DRY" UNLESS OTHERWISE INDICATED.
2. ALL RADIUS DIMENSION ARE TAKE FROM THE EDGE OF PAVEMENT (EOP).
3. CONTRACTOR RESPONSIBLE TO VEGETATE ANY ADDITIONAL DISTURBED AREA NOT CALLED OUT IN PLANS. PROVIDE SEEDING AND TOPSOIL FOR THESE AREAS. SUBSIDIARY TO PERTINENT ITEMS.
4. FERTILIZER AND VEGETATIVE WATERING CONSIDER SUBSIDIARY TO PERTINENT ITEMS.

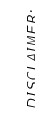
|                   |                                |                                               |                  |
|-------------------|--------------------------------|-----------------------------------------------|------------------|
| ITEM              | 464                            | 467                                           | 530              |
|                   | 6003                           | 6363                                          | 6004             |
|                   | 464 6003                       | 467 6363                                      | 530 6004         |
|                   | RC PIPE<br>(CL<br>III) (18 IN) | SET (TY II)<br>(18 IN)<br>(RCP) (6:<br>1) (P) | DRIVEWAYS (CONC) |
|                   | LF                             | EA                                            | SY               |
| GATEWAY SIGN PLAN | 82                             | 2                                             | 180              |

[illegible]





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TAYLOR, TEXAS 76574  
T:512-532-3675



| Normal Flow<br>1 D. | Conc.<br>Riprap<br>(%) | Pipe<br>Culvert<br>Spd < G | Single<br>Barrel<br>< Q1 | Multi-<br>Barrel<br>< Q2 | Conditions for<br>use of<br>Cross Pipes | Cross<br>Pipe<br>Size   |
|---------------------|------------------------|----------------------------|--------------------------|--------------------------|-----------------------------------------|-------------------------|
| 12"                 | 0.6                    | 9"                         | 2' - 1"                  | 1' - 9"                  |                                         |                         |
| 15"                 | 0.7                    | 11"                        | N/A                      | 2' - 2"                  |                                         |                         |
| 18"                 | 0.8                    | 1' - 2"                    | 2' - 10"                 | 2' - 10"                 | 3 or more Pipe Culverts                 | 3" Std<br>(3,500" O.D.) |
| 21"                 | 0.9                    | 1' - 4"                    | N/A                      | 3' - 2"                  | 3 or more Pipe Culverts                 | 4" Std<br>(4,000" O.D.) |
| 24"                 | 0.9                    | 1' - 7"                    | N/A                      | 3' - 6"                  | 3 or more Pipe Culverts                 | 4" Std<br>(4,500" O.D.) |
| 27"                 | 1.0                    | 1' - 8"                    | N/A                      | 3' - 11"                 | 2 or more Pipe Culverts                 | 4" Std<br>(4,500" O.D.) |
| 30"                 | 1.1                    | 1' - 10"                   | N/A                      | 4' - 2"                  | All Pipe Culverts                       | 5" Std<br>(5,000" O.D.) |
| 33"                 | 1.2                    | 1' - 11"                   | 4' - 2"                  | 4' - 5"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 36"                 | 1.3                    | 2' - 1"                    | 4' - 5"                  | 4' - 9"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 42"                 | 1.5                    | 2' - 4"                    | 4' - 11"                 | 5' - 5"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 48"                 | 1.7                    | 2' - 7"                    | 5' - 5"                  | 6' - 0"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 54"                 | 2.0                    | 3' - 1"                    | 5' - 11"                 | 6' - 8"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 60"                 | 2.2                    | 3' - 6"                    | 6' - 5"                  | 4' - 8"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 66"                 | 2.4                    | 3' - 3"                    | 6' - 11"                 | 7' - 10"                 | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |
| 72"                 | 2.7                    | 3' - 4"                    | 7' - 5"                  | 8' - 9"                  | All Pipe Culverts                       | 5" Std<br>(5,500" O.D.) |

- 1 The proper installation of the first Cross Pipe is critical for vehicle safety. The top of the first Cross Pipe must be at or below the top of the first Reinforced Concrete Pipe Culvert.
- 2 Size of Cross Pipes, except the first bottom pipe, shall be as shown in the PIPE SIZE table. The first bottom pipe shall be 36" or 48" in diameter.
- 3 The third Cross Pipe from the bottom of the Culvert shall always be installed using a bolted connection. Care shall be taken to ensure the bolted connection is installed in the Cross Pipe so as to permit disassembly of the bolted connection. For all other connections, if the bolted connection option, all other Cross Pipes may also be installed using the bolted connection details.
- 4 Where the Slope is less than 1% in the plans, a Cross Slope of 6:1 or flatter is required for vehicle safety. Riprap placed beyond the limits shown will be paid as shown in the table below.
- 5 Riprap quantities are for one end of one reinforced concrete Pipe Culvert. For multiple pipe culverts or for Corrugated Metal Pipe Culverts, the Riprap quantities shall be based on Riprap quantities are for Contractor's information only.

**GENERAL NOTES:**

Cross Pipes are designed for a traversing load of 10,000 pounds at 10' on center as recommended by Research Report 10-2 "Safety Treatment of Roadside Parallel Bridge Structures", Texas Transportation Institute, 1989.

Minimum Safety Treatment is herein set intended for use in those installations where out of control vehicles are likely to strike the structure.

Cross Pipes, and all necessary inverts shall be Concrete RCP conforming to the requirements of Item 432, "RtPipes".

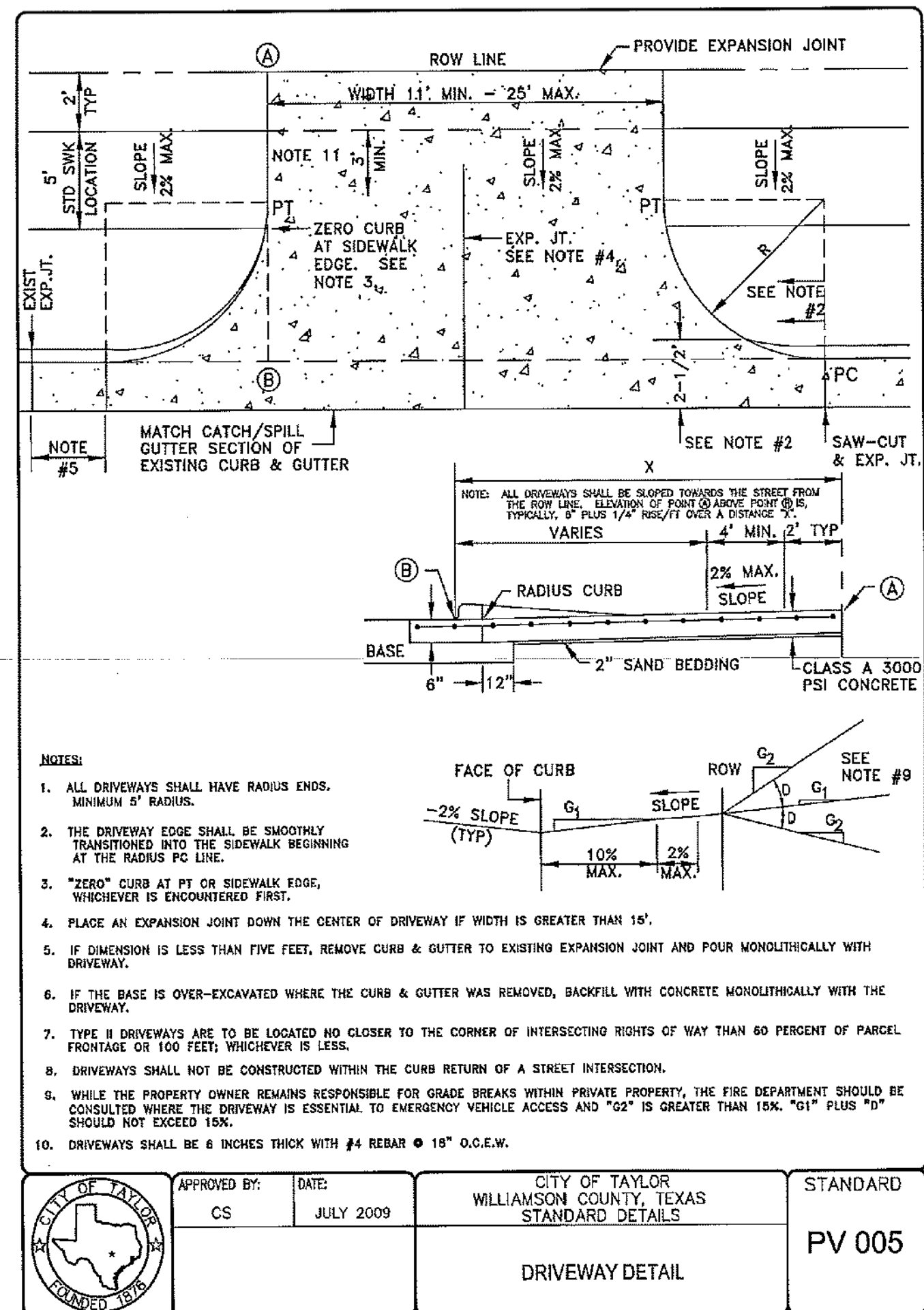
Synthetic Fibers listed on the "Fibers for Concrete" Material List shall be used in the concrete for all steel reinforcing in RCP concrete unless noted otherwise.

Minimum Safety Treatment shall be in accordance with the Bld for each Safety End Treatment.

Cross Pipes shall conform to the requirements of ASTM A53, Schedule 40, and shall be galvanized in accordance with ASTM B633, Type III. Bolts and nuts shall conform to ASTM A307.

Steel reinforcement shall be galvanized in accordance with the specifications for galvanized steel reinforcing, shall be galvanized after fabrication. Galvanized damaged during transport and fabrication shall be repainted in accordance with the specifications.

|                                                                                                                           |                                                                                                |          |           |         |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------|-----------|---------|
| <br>Texas Department of Transportation | Bridge<br>Division<br>Standard                                                                 |          |           |         |
|                                                                                                                           | SAFETY END TREATMENT<br>FOR 12" DIA TO 72" DIA<br>PIPE CULVERTS<br>TYPE II ~ PARALLEL DRAINAGE |          |           |         |
| <h1>SETP-PD</h1>                                                                                                          |                                                                                                |          |           |         |
| FILE: setp5a.dgn                                                                                                          | DN: GAF                                                                                        | CV: CAF  | NO: JRP   | CC: GAF |
|  February 2010<br>REVISED              | DIST: SEPT<br>JWB                                                                              | PROJECT: |           |         |
| 11-20 Add note for<br>Synthetic Fences                                                                                    | DIST:                                                                                          | COUNTY:  | SHEET NO: |         |



Garrett Walker, PE

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| NO. | DATE | ISSUE |
|-----|------|-------|
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PROJECT NO.  
**150129-TAYL**

**SHEET TITLE**

**SAFETY END  
TREATMENT AND  
DRIVEWAY DETAILS**

SHEET NO. **CP-2**





## City Council Meeting June 13, 2019

### STRATEGIC PILLAR

- ☐ Streets/Infrastructure
- ☒ Quality of Life
- ☐ Economic Vitality

**Agenda Item #:** 11

**Agenda Title:** Consider approving a Memorandum of Understanding (MOU) between the City of Taylor and Good Life Taylor.

**Council Action to be taken:** Approve by consent or approve with corrections if needed.

**Department Submitted:** Parks and Recreation

**Staff Contact:** Larry Foos, Director

### 1. PURPOSE/DESCRIPTION

The purpose of this item is to consider a MOU with Good Life Taylor for the establishment of a Percussion Park Playground in Murphy Park.

### 2. STAFF ANALYSIS (Why and How)

The City and Good Life Taylor desire to design and potentially construct a Percussion Park Creative Playground in Murphy Park at the current sand volleyball area. Good Life has offered to pay for the development of a concept plan and to fund the playground. The City will apply for the Texas Parks and Wildlife Grant in the amount of \$75,000, which, if granted, will be applied to the playground construction cost. The City will pay any cost for writing the grant application for the Texas Parks and Wildlife grant.

If constructed, playground ownership shall be with the City and playground maintenance will be determined by the City. Good Life agrees to discuss with the City ways they can help with maintenance, which could lead to future agreements between the two parties.

### 3. RECOMMENDATION

Staff recommends approval of the MOU.

### 4. FUNDING SOURCE

General Fund

### 5. TIMELINE

Effective upon approval

|                                       |
|---------------------------------------|
| <b>6. PRIOR COUNCIL ACTIONS TAKEN</b> |
|---------------------------------------|

N/A

|                                                  |
|--------------------------------------------------|
| <b>7. OTHER OPTIONS (In order of preference)</b> |
|--------------------------------------------------|

N/A

|                       |
|-----------------------|
| <b>8. ATTACHMENTS</b> |
|-----------------------|

11a [Memorandum of Understanding \(MOU\)](#)

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
GOOD LIFE TAYLOR, TEXAS  
AND  
THE CITY OF TAYLOR, TEXAS**

**RECITALS:**

This Memorandum of Understanding is by and between the CITY OF TAYLOR, TEXAS, a Texas home rule municipal corporation ("CITY") and GOOD LIFE TAYLOR, a Texas non-profit corporation ("GOOD LIFE") regarding the establishment of a Percussion Park Creative Playground ("Playground") in Taylor Murphy Park ("Park") at the current sand volleyball pit area.

WHEREAS, CITY and GOOD LIFE desire to design and potentially construct a Percussion Park Creative Playground in the Park with an understanding with the City stated herein; and

WHEREAS, GOOD LIFE has offered to fund and pay for the Playground concept plan and to fund and pay for the Playground, except as herein further provided; and

WHEREAS, the CITY has offered to apply for a Texas Parks and Recreation Grant in the amount of Seventy-Five Thousand Dollars and No/100 (\$75,000.00) which, if granted, will be applied to the Playground construction cost; and

WHEREAS, the CITY has further offered to waive construction permit fees for the Playground if constructed; and

WHEREAS, the City will own the Playground if completed and no right or title of ownership will be granted to GOOD LIFE to the Playground or to Park property; and

WHEREAS, if GOOD LIFE completes and submits a concept plan for the Playground, the City will determine, at the sole option of the CITY, if the Playground is a viable public Park facility; and

WHEREAS, the CITY and GOOD LIFE agree this Memorandum of Understanding is for discussion purposes only and no final action or authority is granted to GOOD LIFE or for construction of the Playground.

THEREFORE, the CITY and Good Life desire to implement this Memorandum of Understanding regarding the Playground.

### **MEMORANDUM OF UNDERSTANDING**

1. The Recitals are incorporated into this Memorandum by reference.
2. GOOD LIFE, if it undertakes the Playground as a project, shall be responsible for and shall pay all Playground concept plan costs and Playground construction costs.
3. The City retains the right to review the Playground concept plan with no obligation upon the City to allow construction of the Playground in the Park.
4. In the event the City takes formal action to allow construction of the Playground in the Park, the construction will be directed by and under the authority of the City.
5. The City will apply for a Texas Parks and Wildlife grant in the amount of Seventy-Five Thousand and NO/100 Dollars (\$75,000.00) if the CITY takes formal action approving the Playground, which grant approval remains solely within the authority of the Texas Parks and Wildlife Department of the State of Texas. The City will pay any cost for writing the grant application for the Texas Parks and Wildlife grant.
6. The CITY will waive all Playground construction permit fees if the City approves construction of the Playground.
7. Playground ownership, if constructed, shall be with the CITY and Playground maintenance shall be determined by the CITY. GOOD LIFE agrees to discuss with the CITY ways they can help with the maintenance, which could lead to future agreements between the two parties.
8. GOOD LIFE will provide the CITY information reasonably required regarding the Playground and this Memorandum of Understanding.

Dated this the 13th day of June 2019.

**GOOD LIFE TAYLOR, TEXAS**

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By:  
Its: President

**CITY OF TAYLOR, TEXAS,  
a home rule City**

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By: Brian LaBorde  
Its: City Manager