College Station, TX

City Hall
1101 Texas Ave
College Station, TX 77840

Meeting Agenda - Final

City Council Regular

Thursday, November 9, 2017 | **7:00 PM** | **City Hall Council Chambers**

1. Pledge of Allegiance, Invocation, Consider absence request.

Presentation

• Proclamation for the 50th Anniversary of Bryan-College Station Regional Association of Realtors.

• Proclamation in recognition of College Station Utilities Lineman Jacob Rowe for outstanding performance in 2nd Annual Apprentice Lineman Rodeo.

Hear Visitors: During this time a citizen may address the City Council on any item which does not appear on the posted Agenda. Registration forms are available in the lobby and at the desk of the City Secretary. This form should be completed and delivered to the City Secretary by 5:30 PM on the day of the Council meeting. Upon stepping to the podium the speaker must state their name and city of residence, including the state of residence if the city is located out of state. Each speaker's remarks are limited to three minutes. A series of timer lights will change from green to yellow and an alarm will sound after two and one-half minutes to signal thirty seconds remaining to conclude the remarks. At three minutes the timer light will change to red and the final alarm will sound. The speaker must then conclude the remarks. The City Council will listen and receive the information presented by the speaker, ask staff to look into the matter, or place the issue on a future agenda. Topics of operational concerns shall be directed to the City Manager. Comments should not personally attack other speakers, Council or staff.

Consent Agenda

At the discretion of the Mayor, individuals may be allowed to speak on a Consent Agenda Item. Individuals who wish to address the City Council on a consent agenda item not posted as a public hearing shall register with the City Secretary prior to the Mayor's reading of the agenda item. Registration forms are available in the lobby and at the desk of the City Secretary.

2. Presentation, possible action, and discussion of consent agenda items which consists of ministerial or "housekeeping" items required by law. Items may be removed from the consent agenda by majority vote of the Council.

2a. 17-0667 Presentation, possible action, and discussion of minutes for:
• October 26, 2017 Workshop
• October 26, 2017 Regular

Sponsors: Smith

Attachments: WKSHP102617 DRAFT Minutes

RM102617 DRAFT Minutes

2b. 17-0640 Presentation, possible action, and discussion regarding the creation of an Architectural Advisory Committee.

Sponsors: Smith

Attachments: Architectural Advisory Committee Resolution

2c. 17-0379 Presentation, possible action, and discussion regarding a participation agreement between the City of College Station and OGC Greens Prairie Investors, LLC to share the costs of constructing intersection improvements at Greens Prairie Road and Arrington Road.

Sponsors: Harmon

Attachments: signed OGC participation agreement

2d. 17-0581 Presentation, possible action, and discussion regarding an interlocal agreement for cost sharing withTexas A&M University for pedestrian improvements at the intersections of FM 60 with Discovery Drive and the Large Animal Clinic driveway.

Sponsors: Rother

Attachments: TAMU ILA Univ Dr Imp 10-11-17

2e. 17-0638 Presentation, possible action, and discussion regarding ratification of Change Order #1 to contract #17300305 with Blastco for a credit of $51,185.04 and ratification of a new emergency contract #18300040 with Blastco for $135,887.30 to repair the concrete foundation in Clarifier 3A at the Carters Creek Wastewater Treatment Plant.

Sponsors: Coleman

2f. 17-0641 Presentation, possible action, and discussion regarding the approval of a construction contract (Contract No. 18300026) with Palasota Contracting, LLC, in the amount of $651,494.05, for the construction of the Greens Prairie and Arrington Road Intersection Improvements Project.

Sponsors: Harmon

Attachments: 18-004 Tab

GP-Arrington Signal Project Location Map

2g. 17-0642 Presentation, possible action, and discussion regarding a $439,126 construction contract (17300565) with Marek Brothers Construction, Inc. for Traffic Operations Center renovations.

Sponsors: Harmon

2h. 17-0644 Presentation, possible action, and discussion on an ordinance amending Chapter 38, "Traffic and Vehicles," Article VI "Traffic Schedules," Section 38-1014 "Traffic Schedule XIV, No Parking Here to Corner and No Parking Any Time," of the Code of Ordinances of the City of College Station, Texas, by removing parking on Cooner Street from Texas to around the Cul-de-sac to the intersection with MacArthur, by providing a severability clause; declaring a penalty; and providing an effective date.

Sponsors: Eller

Attachments: 1 - Ordinance

2 - Map

Regular Agenda

Individuals who wish to address the City Council on an item posted as a public hearing shall register with the City Secretary prior to the Mayor's announcement to open the public hearing.· A speaker who wishes to include computer-based information while addressing the Council must provide the electronic file to the City Secretary by noon of the Council meeting day when the presentation is planned. The Mayor will recognize individuals who wish to come forward to speak for or against the item. Upon stepping to the podium the speaker must state their name and city of residence, including the state of residence if the city is located out of state. On items related to land use and those that would directly impact the speaker's residence or neighborhood, the speaker is encouraged to identify their College Station neighborhood. Each speaker's remarks are limited to three minutes. A series of timer lights will change from green to yellow and an alarm will sound after two and one-half minutes to signal thirty seconds remaining to conclude the remarks. At three minutes the timer light will change to red and the final alarm will sound. The speaker must then conclude the remarks. After a public hearing is closed, there shall be no additional public comments. If Council needs additional information from the general public, some limited comments may be allowed at the discretion of the Mayor.

1. 17-0654 Public Hearing, presentation, possible action, and discussion regarding an ordinance amending the Comprehensive Plan - Eastgate Neighborhood Plan, Chapter 1 - Community Character, “Site Development Area 1 - Lincoln Avenue” to allow for vehicular access to Lincoln Avenue for a tract approximately 7.5 acres being generally located at 801 Lincoln Avenue.

Sponsors: Helton

Attachments: Background Information

Aerial & Land Use Exhibit

Comp Plan Map

Eastgate Neighborhood Plan Redline Exhibit

Ordinance

2. 17-0655

Public Hearing, presentation, possible action, and discussion regarding an ordinance amending Appendix "A", "Unified Development Ordinance," Section 4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from GS General Suburban to PDD Planned Development District on approximately 7.5 acres of land being situated in the Richard Carter Survey, Abstract No. 8, College Station, Brazos County, Texas, and being generally located at 801 Lincoln Avenue.

Sponsors: Helton

Attachments:
- Background Information
- SAM & Aerial
- Concept Plan
- Bulk Variance Letter
- Ordinance

3. 17-0651

Public Hearing, presentation, possible action, and discussion approving an ordinance vacating and abandoning a 0.132 acre portion of Right-of-Way of Corsair Drive, lying along Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas.

Sponsors: Cotter

Attachments:
- VICINITY MAP
- LOCATION MAP
- Ordinance
- Exhibit A

4. 17-0652

Public Hearing, presentation, possible action, and discussion approving an ordinance vacating and abandoning a 0.083 acre portion of a 20 foot wide Public Utility Easement lying within Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas.

Sponsors: Cotter

Attachments:
- VICINITY MAP
- LOCATION MAP
- Ordinance
- Exhibit A

5. 17-0671

Presentation, possible action, and discussion regarding an appointment to the Brazos Central Appraisal District.

Sponsors: Smith

6. Presentation, possible action, and discussion on future agenda items and review of standing list of Council generated agenda items: A Council Member may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting.

7. Adjourn.

The City Council may adjourn into Executive Session to consider any item listed on this agenda if a matter is raised that is appropriate for Executive Session discussion. An announcement will be made of the basis for the Executive Session discussion.

APPROVED

City Manager

I certify that the above Notice of Meeting was posted at College Station City Hall, 1101 Texas Avenue, College Station, Texas, on November 3, 2017 at 5:00 p.m.

City Secretary

This building is wheelchair accessible. Persons with disabilities who plan to attend this meeting and who may need accommodations, auxiliary aids, or services such as interpreters, readers, or large print are asked to contact the City Secretary's Office at (979) 764-3541, TDD at 1-800-735-2989, or email adaassistance@cstx.gov at least two business days prior to the meeting so that appropriate arrangements can be made. If the City does not receive notification at least two business days prior to the meeting, the City will make a reasonable attempt to provide the necessary accommodations.

Penal Code § 30.07. Trespass by License Holder with an Openly Carried Handgun.

"Pursuant to Section 30.07, Penal Code (Trespass by License Holder with an Openly Carried Handgun) A Person Licensed under Subchapter H, Chapter 411, Government Code (Handgun Licensing Law), may not enter this Property with a Handgun that is Carried Openly."

Codigo Penal § 30.07. Traspasar Portando Armas de Mano al Aire Libre con Licencia.

"Conforme a la Seccion 30.07 del codigo penal (traspasar portando armas de mano al aire libre con licencia), personas con licencia bajo del Sub-Capitulo H, Capitulo 411, Codigo de Gobierno (Ley de licencias de arma de mano), no deben entrar a esta propiedad portando arma de mano al aire libre."

Legislation Details (With Text)

File #:	17-0667	**Version:**	1	**Name:**	Minutes
Type:	Minutes			**Status:**	Consent Agenda
File created:	10/31/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion of minutes for: • October 26, 2017 Workshop • October 26, 2017 Regular				
Sponsors:	Tanya Smith				
Indexes:					
Code sections:					
Attachments:	WKSHP102617 DRAFT Minutes RM102617 DRAFT Minutes				

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion of minutes for:
• October 26, 2017 Workshop
• October 26, 2017 Regular

Relationship to Strategic Goals:

- Good Governance

Recommendation(s): Approval

Summary: None

Budget & Financial Summary: None

Attachments:

• October 26, 2017 Workshop
• October 26, 2017 Regular

MINUTES OF THE CITY COUNCIL WORKSHOP
CITY OF COLLEGE STATION
OCTOBER 26, 2017

STATE OF TEXAS §
§
COUNTY OF BRAZOS §

Present:
Karl Mooney, Mayor

Council:
Blanche Brick
Jerome Rektorik
Linda Harvell
Barry Moore
Julie Schultz
James Benham – arrived late

City Staff:
Kelly Templin, City Manager
Chuck Gilman, Deputy City Manager
Carla Robinson, City Attorney
Tanya Smith, City Secretary
Yvette Dela Torre, Deputy Local Registrar

Student Liaison
Tory Oxendahl, Municipal Affairs

1. Call to Order and Announce a Quorum is Present

With a quorum present, the Workshop of the College Station City Council was called to order by Mayor Mooney at 4:31 p.m. on Thursday, October 26, 2017 in the Council Chambers of the City of College Station City Hall, 1101 Texas Avenue, College Station, Texas 77840.

2. Executive Session

In accordance with the Texas Government Code §551.071-Consultation with Attorney, Legal Advice, and §551.074-Personnel, the College Station City Council convened into Executive Session at 4:31 p.m. on Thursday, October 26, 2017 in order to continue discussing matters pertaining to:

A. Consultation with Attorney to seek advice regarding pending or contemplated litigation; to wit:

- Kathryn A. Stever-Harper as Executrix for the Estate of John Wesley Harper v. City of College Station and Judy Meeks; No. 15,977-PC in the County Court No. 1, Brazos County, Texas; and
- McCrory Investments II, LLC d/b/a Southwest Stor Mor v. City of College Station; Cause No. 17-000914-CV-361; In the 361st District Court, Brazos County, Texas

- City of College Station v. Gerry Saum, Individually, and as Independent Executrix of the Estate of Susan M. Wood, Deceased; Cause No. 17-002742-CV-361; In the 361st District Court, Brazos County, Texas

B. Consultation with attorney to receive legal advice; to wit:
- Legal advice concerning property acquisition generally west of the intersection at Cain the Road and Wellborn Road in College Station, Texas

C. Deliberation on the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer; to wit:
- Council Self Evaluation
- City Manager

The Executive Session recessed at 6:05 p.m.

3. <u>Take action, if any, on Executive Session.</u>

No action was required from Executive Session.

4. <u>Presentation, possible action and discussion on items listed on the consent agenda.</u>

Items *2d,* and *2j* were pulled from Consent for clarification.

(2d): Timothy Crabb, Director of Electricity Services, gave clarification on the Wood Pole Treatment and Inspections contract being a two year contract instead of a one year, which is due to spreading the cost over two budget years.

(2j): David Schmitz, Director of Parks and Recreation, gave clarification on the language that changed the Parkland Dedication ordinance's exhibits requested by Council on the October 12th meeting. This includes: extending the right to refund term to "10 years" from 5 years, and added the verbiage to include "encumbered by contract or purchase order or extended" in relation to the use of collected Parkland dedication fees. Also, language was added to change the ordinance for the right to refund to be automatic and not by request.

5. <u>Presentation, possible action, and discussion regarding an update on the City's Extraterritorial Jurisdiction and annexation plans, including the status of current non-annexation development agreements.</u>

Lance Simms, Director of Planning and Development, presented an overview of the City's Extraterritorial Jurisdiction (ETJ) and annexation plans with an emphasis on the status of non-annexation development agreements. Mr. Simms stated that given several non-annexation development agreements are expiring soon, staff is seeking direction regarding the next steps.

<u>Recommendations:</u>
- Pursue new agreements with owners of property between Carter Creek and SH 30
- Pursue new agreements with owners of property along SH 6 South at Peach Creek

- Pursue annexation of properties on west side of City

Council concurred with staff recommendations.

6. <u>Presentation, possible action, and discussion concerning the City Internal Auditor's Audit of the Public Works Sanitation Division.</u>

Madison Rorshach, Assistant Internal Audit, presented the City Internal Auditor's Audit of the Public Works Sanitation Division. He offered eight recommendations that they felt would aid the Division in addressing our findings.

<u>Recommendations from the Audit:</u>

1. Covering recommendations 1 and 2: Investigate routing methods to increase employee and citizen accountability.
2. Covering recommendations 3 and 4: Adjust some workforce management strategies including hiring guidelines and employee advancement systems.
3. Covering recommendations 5, 6, and 7: Revise some City policies to better reflect Sanitation needs including collection scheduling and construction and development standards.
4. Covering recommendation 8: Develop Sanitation safety videos for the public.

MOTION: Upon a motion made by Councilmember Rektorik and a second by Councilmember Schultz, the City Council voted seven (7) for and none (0) opposed, to approve the Audit of the Public Works Sanitation Division. The motion carried unanimously.

7. <u>Presentation, possible action, and discussion on a sanitation rate study.</u>

Seth Cunningham and Scott Pasternak with Burns and McDonnell, presented Council a rate study for the commercial collection operation performed by Burns & McDonnell in 2016. He stated based on the results of that study, a residential collection rate study was also requested. So in 2017, Burns & McDonnell updated the 2016 commercial rate study and completed the residential rate study.

<u>Key Findings and Recommendations:</u>

1. Current rates do not recover cost of service
2. Revenue for multi-family should be allocated based on which operation provides service
3. All rate scenarios meet fiscal policy at the end of 5 years, but only Scenario 3 is projected to meet it every year of forecast
4. Based on the benchmark analysis, the City's rates are competitive with other similar cities
5. City Staff recommends Rate Scenario 3

Staff is seeking further direction from Council.

MOTION: Upon a motion made by Councilmember Brick and a second by Councilmember Rektorik, the City Council voted two (2) for and five (5) opposed, with Councilmembers Rektorik,

Harvell, Moore, Schultz, and Benham voting against, to approve the sanitation rate study. The motion failed.

Council directed staff to look more into the market data, comparative information, and other options, then bring back to Council.

8. Presentation, possible action, and discussion regarding the creation of an Architectural Advisory Committee.

Tanya McNutt, City Secretary, and Erica Wozniak, Project Manager-Vertical Design and Construction, presented Council recommendations on the creation of an Architectural Advisory Committee.

Council directed staff to move forward with the Architectural Advisory Committee which includes; architectural theme of the building, architectural compatibility with the community, site layout, the vertical and horizontal structure, and exterior material colors; all qualifications recommended by staff, and must be a resident of College Station; three council members and two citizens with staggering 1 to 2 year term limits, appointed by application process, with appointments on January 11, 2018.

9. Council Calendar

Council reviewed the calendar.

10. Discussion, review and possible action regarding the following meetings: Animal Shelter Board, Annexation Task Force, Arts Council of Brazos Valley, Arts Council Sub-committee, Audit Committee, Bicycle, Pedestrian, and Greenways Advisory Board, Bio-Corridor Board of Adjustments, Blinn College Brazos Valley Advisory Committee, Brazos County Health Dept., Brazos Valley Council of Governments, Bryan/College Station Chamber of Commerce, Budget and Finance Committee, BVSWMA, BVWACS, Compensation and Benefits Committee, Experience Bryan-College Station, Design Review Board, Economic Development Committee, FBT/Texas Aggies Go to War, Historic Preservation Committee, Interfaith Dialogue Association, Intergovernmental Committee, Joint Relief Funding Review Committee, Landmark Commission, Library Board, Metropolitan Planning Organization, Parks and Recreation Board, Planning and Zoning Commission, Research Valley Partnership, Research Valley Technology Council, Regional Transportation Committee for Council of Governments, Sister Cities Association, Transportation and Mobility Committee, TAMU Economic Development, TAMU Student Senate, Texas Municipal League, Twin City Endowment, Walk with the Mayor, YMCA, Youth Advisory Council, Zoning Board of Adjustments.

Councilmember Brick reported on the Transportation Meeting.

Councilmember Schultz reported on the RVP.

11. Adjournment

There being no further business, Mayor Mooney adjourned the workshop of the College Station City Council at 7:56 p.m. on Thursday, October 26, 2017.

_____
Karl Mooney, Mayor

ATTEST:

_____
Tanya Smith, City Secretary

MINUTES OF THE REGULAR CITY COUNCIL MEETING
CITY OF COLLEGE STATION
OCTOBER 26, 2017

STATE OF TEXAS §
§
COUNTY OF BRAZOS §

Present:
Karl Mooney, Mayor

Council:
Blanche Brick
Jerome Rektorik
Linda Harvell
Barry Moore
Julie Schultz
James Benham

City Staff:
Kelly Templin, City Manager
Chuck Gilman, Deputy City Manager
Carla Robinson, City Attorney
Tanya Smith, City Secretary
Yvette Dela Torre, Deputy Local Registrar

Student Liaison
Tory Oxendahl, Municipal Affairs

Call to Order and Announce a Quorum is Present

With a quorum present, the Regular Meeting of the College Station City Council was called to order by Mayor Mooney at 8:05 p.m. on Thursday, October 26, 2017 in the Council Chambers of the City of College Station City Hall, 1101 Texas Avenue, College Station, Texas 77840.

1. Pledge of Allegiance, Invocation, consider absence request.

Proclamation recognizing Marci Rodgers for her service to the senior community sponsored by the Senior Advisory and Historic Preservation Committees.

Mayor Mooney presented the proclamation recognizing Marci Rodgers for her years of service to the City of College Station and to the Senior Advisory and Historic Preservation Committees.

Hear Visitors Comments

Bobby Cater, Northgate, came before Council regarding pedestrian safety in Northgate. Mr. Cater requested Council to conduct a traffic study for Northgate District.

CONSENT AGENDA

2a. Presentation, possible action, and discussion of minutes for:

- **October 12, 2017 Workshop Meeting**
- **October 12, 2017 Regular Meeting**

2b. Presentation, possible action, and discussion regarding a construction contract (Contract No. 17300529) with McDonald Municipal and Industrial-A Division of C.F. McDonald Electric, Inc., in the amount of $1,968,469 for the Carters Creek Wastewater Treatment Plant Electrical Improvements Project and Resolution No. 10-26-17-2b Declaring Intention to Reimburse Certain Expenditures with Proceeds From Debt.

2c. Presentation, possible action, and discussion on a professional services contract (Contract No. 18300036) with Jones & Carter, Inc. in the amount of $419,000, for the final design and construction phase services of the Royder Road Phase 2 Project and approval of Resolution No. 10-26-17-2c declaring intention to reimburse certain expenditures with proceeds from debt.

2d. Presentation, possible action, and discussion regarding awarding a two year contract for Wood Pole Treatment and Inspections with Smith Mountain Investments, LLC. in the amount of $312,177.50 per year.

2e. Presentation, possible action, and discussion approving Resolution No. 10-26-17-2e authorizing expenditures to the Aggieland Humane Society, Inc. in the amount of $263,047.

2f. Presentation, possible action, and discussion regarding approval of a Semi-Annual Report on Small Area Impact Fees 92-01, 97-01, 97-02B, 99-01, 03-02, and System-Wide Impact Fees for Water, Wastewater, and Roadway.

2g. Presentation, possible action, and discussion on approval of the 2017 Property Tax Roll in the amount of $43,300,208.53.

2h. Presentation, possible action, and discussion regarding the annual master purchase agreement 14-419 with the Reynolds Company for Rockwell Automation SCADA products and services not to exceed $150,000.

2i. Presentation, possible action, and discussion regarding Ordinance No. 2017-3952 approving the attached Participation Agreement with College Station Town Center, Inc., to share the cost of constructing a 48" sanitary sewer trunk line in the Medical District and approval of Resolution No. 10-26-17-2i declaring intention to reimburse certain expenditures with proceeds from debt.

2j. Presentation, possible action, and discussion regarding approval of Ordinance No. 2017-3953 amending Chapter 12, "Unified Development Ordinance", Section 12-8.8 (A) "Purpose", Section 12-8.8(C)(9) "Use of Fees", Section 12-8.8(F)(2) "Special Fund; Right to Refund"; of the Code of Ordinances of the City of College Station, Texas; setting forth rules and regulations relating to Parkland Dedication; providing a severability clause; declaring a penalty; and providing an effective date.

MOTION: Upon a motion made by Councilmember Benham and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to approve the Consent Agenda. The motion carried unanimously.

REGULAR AGENDA

1. Public Hearing, presentation, possible action, and discussion regarding Ordinance 2017-3954 amending Appendix "A", "Unified Development Ordinance," Section 4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, by changing the zoning district boundaries from GC General Commercial and GS General Suburban to GC General Commercial and NAP Natural Areas Protected for approximately 0.62 acres of land, generally located at 1600 Texas Avenue South. Case # REZ2017-000022.

Madison Thomas, Planning and Development, stated that the applicant is requesting a rezoning from GC General Commercial and GS General Suburban to approximately 0.51 acres of GC General Commercial and approximately 0.11 acres of NAP Natural Areas Protected in order improve the already existing commercial development on the portion of the property that is currently zoned GC. The Natural Areas Protected area would provide a designated buffer area along the creek. The current commercial use is on the portion of the property that is designated as commercial. Ms. Thomas, state however, due to the remainder of this property being zoned GS General Suburban, the commercial portion is not able to further expand on the property. General Suburban uses would not be ideal here due to the size, location, and close proximity of roads and commercial uses.

The Planning and Zoning Commission heard this item at their October 5th meeting and voted unanimously to recommended approval.

At approximately 8:19 p.m., Mayor Mooney opened the Public Hearing.

There being no comments, the Public Hearing was closed at 8:19 p.m.

MOTION: Upon a motion made by Councilmember Schultz and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to adopt Ordinance 2017-3954, amending Appendix "A", "Unified Development Ordinance," Section 4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, by changing the zoning district boundaries from GC General Commercial and GS General Suburban to GC General Commercial and NAP Natural Areas Protected for approximately 0.62 acres of land, generally located at 1600 Texas Avenue South. The motion carried unanimously.

2. Presentation, possible action, and discussion on a location for the City of College Station Gateway Monument SH 6 South.

Donald Harmon, Director of Public Works, gave a brief overview of the completion of the first gateway monument near the city limit on north SH 6. He also presented the next gateway monument is proposed for south SH 6, which the direction on May 25, 2017, was for staff to return to Council with the item after the legislative session, including special sessions, had been concluded. Staff's concern being that proposed municipal annexation legislation may have an

influence on the decision regarding location of the monument. Staff is seeking Council's direction by vote on the location of the monument.

MOTION: Upon a motion made by Councilmember Benham and a second by Councilmember Rektorik, the City Council voted seven (7) for and none (0) opposed, to approve the south SH 6 location for the gateway monument. The motion carried unanimously.

3. Presentation, possible action, and discussion on future agenda items and review of standing list of Council generated agenda items: A Council Member may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting.

Councilmember Benham requested for future item on options of light operations.

Councilmember Benham requested for future item on RFI's for private waste collections.

Councilmember Schultz requested that her prior requested items be discussed before she her term is up in November.

Councilmember Rektorik requested for future item on codes and regulations that we can require, that we can streamline for contractors.

Councilmember Rektorik requested future agenda item on why Lick Creek Park and Veterans Park not included in the Community Park numbers and how to include it into the plan.

Councilmember Rektorik requested future agenda item on the funding of Christmas in the Park.

4. Adjournment.

There being no further business, Mayor Mooney adjourned the Regular Meeting of the City Council at 8:35 p.m. on Thursday, October 26, 2017.

_____
Karl Mooney, Mayor

ATTEST:

_____
Tanya Smith, City Secretary

Legislation Details (With Text)

File #:	17-0640	**Version:**	2	**Name:**	Architectural Advisory Committee Resolution
Type:	Presentation			**Status:**	Consent Agenda
File created:	10/18/2017			**In control:**	City Council Regular
On agenda:				**Final action:**	
Title:	Presentation, possible action, and discussion regarding the creation of an Architectural Advisory Committee.				
Sponsors:	Tanya Smith				
Indexes:					
Code sections:					
Attachments:	Architectural Advisory Committee Resolution				

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding the creation of an Architectural Advisory Committee.

Relationship to Strategic Goals:
Good Governance

Recommendation(s): Approval

Summary: Based on feedback given at the October 2, 2017 special Council Meeting, staff is bringing forward an item to discuss the creation and composition of an Architectural Advisory Committee.

Budget & Financial Summary: N/A

Attachments:
1. Resolution

RESOLUTION NO._____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS, CREATING AN ARCHITECTURAL ADVISORY COMMITTEE.

WHEREAS, the City Council of the City of College Station desires to have an Architectural Advisory Committee to review and make recommendations on scope and schematic design for the exterior of vertical projects and the aesthetic finishes on linear projects; and

WHEREAS, the City Council believes the creation of an Architectural Advisory Committee will help to provide consistency in projects' architectural themes, their compatibility with other community buildings, and to maintain the desired community aesthetics including exterior material and color selection; and

WHEREAS, the City Council believes the creation of an Architectural Advisory Committee will help to provide cohesive site layouts and site utilization of city properties; and

WHEREAS, the City Council believes the creation of an Architectural Advisory Committee will help to provide consistent aesthetics among city signage, sidewalks, trails, and medians; and

WHEREAS, the City Council will seek qualified individuals to serve on the Architectural Advisory Committee with previous experience in architectural, engineering or construction related fields such as a: licensed architect, licensed landscape architect, professional engineer, urban planner, commercial contractor / construction project manager, commercial interior design professional or commercial real estate developer; and

WHEREAS, the Architectural Advisory Committee will work closely with city staff throughout a projects schematic design process; now, therefore

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That the City Council of the City of College Station agrees to create an Architectural Advisory Committee.

PART 2: That the Architectural Advisory Committee shall be composed of five (5) individuals; including, no more than three (3) councilmembers and two (2) qualified and experienced individuals appointed through an application process.

PART 3: That the City Council of the City of College Station gives the committee the following charge: "Review and make recommendations on scope and schematic design for the exterior of vertical projects and the aesthetic finishes on linear projects."

PART 4: That the City Council of the City of College Station shall have the authority to appoint remove, and fill vacancies for all members of the Architectural Advisory Committee, including the chair and co-chair.

PART 5: That this resolution shall take effect immediately from and after its passage.

ADOPTED this _____ day of _____, 2017.

ATTEST:

_____

City Secretary

APPROVED:

_____

Mayor

APPROVED

_____

City Attorney

Legislation Details (With Text)

File #:	17-0379	**Version:**	1	**Name:**	Margraves Participation Agreement
Type:	Agreement			**Status:**	Consent Agenda
File created:	7/13/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion regarding a participation agreement between the City of College Station and OGC Greens Prairie Investors, LLC to share the costs of constructing intersection improvements at Greens Prairie Road and Arrington Road.				
Sponsors:	Donald Harmon				
Indexes:					
Code sections:					
Attachments:	signed OGC participation agreement				

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding a participation agreement between the City of College Station and OGC Greens Prairie Investors, LLC to share the costs of constructing intersection improvements at Greens Prairie Road and Arrington Road.

Relationship to Strategic Goals:

- Core Services and Infrastructure

Recommendation(s): Staff recommends approval of the agreement.

Summary: This project consists of the construction of a traffic signal and intersection improvements at the intersection of Greens Prairie and Arrington Road. During design of the project, the owner of a nearby tract (Margraves Tract) submitted a Traffic Impact Analysis (TIA) as part of the preliminary phase of a single family residential development. The TIA showed the need for capacity improvements at the intersection. Since the intersection improvements were in design, it was decided these improvements would be added to the design and construction of the project. This agreement with the owner of the tract, OGC Greens Prairie Investors, LLC, is for costs associated with the improvements from the TIA. The owner will submit payment in the amount of $152,800 for the City to construct these improvements. This is an estimated amount and once the project is complete, there will be a final project accounting to determine actual costs.

Budget & Financial Summary: Budget in the amount of $790,000 has been included for intersection improvements at Greens Prairie Road and Arrington Road project in the Streets Capital Improvement Projects Fund. The budget does not account for the expenditures outlined in this participation agreement and, therefore, the budget will be adjusted as part of a future budget amendment. The expenditures will be offset by the $152,800 payment from OGC Greens Prairie Investors, LLC.

Reviewed and Approved by Legal: Yes

Attachments:

1. Participation Agreement

CITY OF COLLEGE STATION
PARTICIPATION AGREEMENT
FOR CONSTRUCTING PUBLIC INFRASTRUCTURE

This Agreement is entered into by and between the **City of College Station**, a Texas Home Rule Municipal Corporation (hereinafter "City"), and **OGC GREENS PRAIRIE INVESTORS, LLC,** a Texas limited liability company (hereinafter "Developer"), both the City and Developer are hereinafter collectively referred to respectively as the "Party" or "Parties".

WHEREAS, Developer is developing property within the City of College Station city limits, more particularly described in **Exhibit "D"** (the "Development"); and

WHEREAS, the City is constructing certain public roadway and associated infrastructure improvements at the intersection of Arrington and Greens Prairie Roads and Developer is or will be required to construct certain public roadway and associated infrastructure at such intersection related to the Development; and

WHEREAS, City is required or desirous of assuming some responsibility for construction of certain public roadway and associated infrastructure affecting the Development; and

WHEREAS, the City and Developer will receive benefits from participation in the construction of certain public roadway and associated infrastructure as set forth in this Agreement; and

WHEREAS, because of this and in order to comply with City's overall development plan both Developer and City agree that it is in the best interests of the public for the Parties to construct certain identified public roadway and associated infrastructure; and

WHEREAS, the City Engineer has reviewed the data, reports and analysis, including that provided by Developer's engineers, and determined that certain such public roadway and associated infrastructure qualifies for City-Developer participation; and

WHEREAS, both Parties agree as to the nature and proportion of participation as further recited herein and as may be required by applicable law including Chapter 212, Subchapter C, Developer Participation in Contract for Public Improvement and Chapter 252, Purchasing and Contracting Authority of Municipalities of the Texas Local Government Code; and

NOW, THEREFORE, for and in consideration of the recitations above and the promises and covenants herein expressed, the Parties hereby agree as follows:

ARTICLE I
DEFINITIONS

1.1 Approved Plans means the plans and specifications that meet the requirements of this Participation Agreement, the City of College Station Codes and Ordinances and any other applicable laws and that have been procured, reviewed and approved by the City of College Station relating to the Project which are identified on **Exhibit "B"** with the portion of the Project that Developer is participating in being identified as Bid Alternate #1 in such plans, subject to Change Orders reviewed and approved in advance by City and Developer, such approval not to be unreasonably withheld, conditioned or delayed.

1.2 City or College Station means the City of College Station, a Texas Home Rule Municipal Corporation located at 1101 Texas Avenue, College Station, Texas 77840.

1.3 Developer means **OGC Greens Prairie Investors**, LLC a **Texas limited liability company,** whose principal office is located at **2800 S. Texas Avenue, Suite 401, Bryan, Texas 77802.**

1.4 Effective Date. The date on which this Agreement is duly approved by both Parties.

1.5 Final Completion means that all the work on the Project has been completed in accordance with Approved Plans, all final punch list items have been inspected and satisfactorily completed, all payments to materialmen and subcontractors have been certified as completed, all documentation, and all closeout documents have been executed and approved by the City as required, all Letters of Completion and other City documentation have been issued for the Project, all reports have been submitted and reporting requirements have been met.

1.6 City Participation Costs means all costs of the Project other than the cost of the portion of the Project identified as Bid Alternate #1 on the Approved Plans.

1.7 Developer Participation Costs means the cost of the improvements shown in the Approved Plans for the Project as Bid Alternative 1.

1.8 Intentionally deleted.

1.9 Project means the design and construction of **Greens Prairies Road and Arrington Road Intersection** improvements shown on **Exhibit "A"** in accordance with the Approved Plans.

1.10 Project Costs means the full actual cost of services, materials and labor for construction of the Project in accordance with the Approved Plans. All Project Costs and estimates shall be reviewed and approved by the City Engineer and Developer.

ARTICLE II
COST PARTICIPATION

2.1 Agree to Participate. City and Developer agree to cost participate in the Project as follows: Developer will be responsible for the Developer Participation Costs and City will be responsible for the City Participation Costs. The actual rate of participation by both the City and Developer will be based upon the final actual cost of the Project as reflected by the breakdown of costs required pursuant to this Agreement.

2.2 Competitive Bidding. The Project must be competitively bid pursuant to Chapter 252 of the Texas Local Government Code, as amended.

a. City shall pay for all costs associated with advertising, printing, and distributing plans and specifications for the Project, and

b. City will be responsible for placing the advertisements, obtaining bids, negotiating proposals, and awarding bids.

2.3 Developer Participation Costs. City's Engineer's sealed detailed cost estimate of the Developer Participation Costs is attached hereto and incorporated herein as **Exhibit "C".**

2.4 Developer Payment. Upon execution of this Agreement by Developer, Developer shall tender to City, within thirty (30) calendar days after City Council approval of this Agreement, the Developer's full payment for the amount of the estimated Developer Participation Costs, as established in **Exhibit "C"**. Upon Final Completion of the Project, a final true-up of Project Costs will be conducted within sixty (60) days after Final Completion using all payment receipts and a final breakdown of Project Costs. Through the final Project Costs true-up process, if a Party is determined to owe the other Party additional payment, such payment shall be made to the other Party within twenty-one (21) calendar days of presentment of an invoice by the Party owed payment.

ARTICLE III
GOVERNMENTAL IMMUNITY

3.1 BY ENTERING INTO THIS AGREEMENT, THE CITY DOES NOT CONSENT TO SUIT; WAIVE ITS GOVERNMENTAL IMMUNITY OR THE LIMITATIONS AS TO DAMAGES UNDER THE TEXAS TORT CLAIMS ACT.

3.2 Survival. All provisions of this Article III, including, but not limited to, governmental immunity, survive termination or expiration of this Agreement.

ARTICLE IV
PROJECT AND CONSTRUCTION

4.1 Independent Contractor. The Parties agree: (a) all employees, volunteers, and personnel of Developer and its contractors and subcontractors are the responsibility of Developer and will not be deemed employees or agents of City for any purpose; and (b) all employees, volunteers, and personnel of City and its contractors and subcontractors are the responsibility of City and will not be deemed employees of agents of Developer for any purpose. Nothing in this Agreement will establish a joint venture between the Developer and the City.

4.2 Requirements of Applicable Rules Remain. This Agreement does not alter, amend modify or replace any other requirements contained in the Code of Ordinances of the City of College Station, Texas, Unified Development Ordinance of the City of College Station, or other applicable law. This Agreement is not meant to satisfy additional obligations or requirements that may be necessitated by current or future development of the Developer's property or other tracts.

4.3 Traffic Impact Analysis. The Parties acknowledge and agree that (a) Developer engaged Kimley Horn to prepare a Traffic Impact Analysis dated May, 2017 of the Development at its then-current proposed zoning density, estimated traffic levels, and conditions (the "TIA"); (b) the traffic mitigation measures required of and provided by the portion of the Project identified in Bid Alternate #1 of the Approved Plans are not required until later phases of the Development; and (c) the traffic mitigation measures set forth in the TIA that are required of and provided by the portion of the Project identified in Bid Alternate #1 of the Approved Plans satisfy all traffic mitigation required of the Development at the intersection of Greens Prairie Road and Arrington Road as it is currently configured, based upon the TIA and its assumptions regarding the proposed zoning density, estimated traffic levels, and as such Development is described in the TIA. Upon completion of the portion of the Project identified in Bid Alternate #1 of the Approved Plans, the Parties agree that, notwithstanding any other development or changes in use in the area in the vicinity of the Development, and so long as Development is not expanded or increased in housing or building density, estimated traffic levels, or other Development related conditions that result in increased traffic levels, Developer will not be required to make or provide for any further traffic mitigation measures at the intersection of Greens Prairie Road and Arrington Road in connection with the Development. All provisions of this Section 4.3 survive termination or expiration of this Agreement.

4.4 Completion of Project. The City will complete the Project within two (2) years after payment of Developer Participation Costs by Developer.

4.5 Road Impact Fee Credit. Based upon the number of service units and amount of roadway facilities impact fees assessed on this Development at the time of platting or the issuance of building permits, and pursuant to Section 107-73 of the College Station Code of Ordinances and Texas Local Government Code Section 395.023, Developer or the owner of the Development may apply for a credit against roadway facilities impact fees for any construction of, contributions to, or dedications of off-site roadway facilities agreed to or required by a political subdivision as a condition of development approval for this Development and will

receive a credit for all eligible expenses in accordance with Chapter 395 of the Texas Local Government Code. All provisions of this Section 4.5 survive termination or expiration of this Agreement.

ARTICLE V
GUARANTEE OF PERFORMANCE AND PAYMENT

5.1 Bonding Requirements of City. The City shall require its construction contractor(s) to provide performance bonds to ensure construction of the Project. For Projects exceeding fifty thousand dollars ($50,000) in total value, City will ensure its contractor performing the Project executes a payment bond to ensure payment to subcontractors and vendors. Bonds shall be on a City-approved form, be executed by a corporate surety according to Chapter 2253 of the Texas Government Code, and be for the full cost of the construction contract to which the Project relates.

ARTICLE VI
GENERAL PROVISIONS

6.1 Amendments. No amendment to this Agreement will be effective and binding unless and until it is reduced to writing and signed by duly authorized representatives of both Parties.

6.2 Choice of Law and Venue. This Agreement has been made under and shall be governed by the laws of the State of Texas. Performance and all matters related thereto shall be in Brazos County, Texas, United States of America.

6.3 Authority to enter into Agreement. Each party represents that it has the full power and authority to enter into and perform this Agreement. Specifically, the person executing this Agreement on behalf of each party has been properly authorized and empowered to enter into this Agreement. The person executing this Agreement on behalf of Developer represents that he or she is authorized to sign on behalf of Developer and agrees to provide proof of such authorization to the City upon request.

6.4 Agreement read. The Parties acknowledge that they have read, understand and intend to be bound by the terms and conditions of this Agreement.

6.5 Notice. Any notice sent under this Agreement, except as otherwise expressly required herein, shall be hand delivered, written and mailed, or sent by electronic or facsimile transmission confirmed by mailing written confirmation at substantially the same time as such electronic or facsimile transmission, or personally delivered to an officer of the receiving party at the following addresses:

To Developer:
OGC Greens Prairie, LLC
Attn: R. Hunter Goodwin
2800 S. Texas Ave., Suite 401
Bryan, TX 77802

To City:
City of College Station
Capital Improvement Projects (CIP)
P.O. Box 9960
College Station, TX 77842

With copies to:
City Attorney and City Manager
P.O. Box 9960
College Station, TX 77842

Each party may change its address by written notice in accordance with this section. Any communication addressed and mailed in accordance with this section shall be deemed to be given when so mailed, any notice so sent by electronic or facsimile transmission shall be deemed to be given when receipt of such transmission is acknowledged, and any communication so delivered in person shall be deemed to be given when receipted for by, or actually received by, the party.

6.6 Term. This Agreement will terminate after expiration of the warranty period, subject to survival of other provisions, as indicated. The Agreement term may be extended by mutual written agreement of the Parties.

6.7 Binding Effect. The rights and obligations of this Agreement are binding upon the parties and their successors and permitted assigns.

6.8 Intentionally deleted.

6.9 Assignment. This Agreement and the rights and obligations contained herein may not be assigned by Developer without the prior written approval of the City.

6.10 Default. In the event of a breach of this Agreement by Developer, City may terminate this Agreement and exercise any and all legal remedies.

6.11 Severability. In the event any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect the other provisions, and in lieu of each provision that is invalid, illegal or unenforceable, there shall be added a new provision to this Agreement as similar in terms to such invalid, illegal, or unenforceable provision as may be possible and yet be valid, legal and enforceable, by means of good faith negotiation by the Parties to this Agreement or by reform by a court of competent jurisdiction.

6.12 Duplicate Originals. The parties may execute this Agreement in duplicate originals, each of equal dignity.

6.13 Recitals. The "WHEREAS" clauses set forth above are expressly incorporated in and form part of the terms of this Agreement.

6.14 Captions. The captions contained in this Agreement are for convenience of reference only and in no way limit or enlarge the terms and conditions of this Agreement.

6.15 Singular and Plural. All references to the plural herein shall also mean the singular and to the singular shall also mean the plural unless the context otherwise requires.

6.16 Ambiguity. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Agreement.

6.17 No Third Party Beneficiaries. No person or entity shall be a third party beneficiary to this Agreement or shall have any right or cause of action hereunder; provided, the owner(s) of all or any portion of the Development shall be a third party beneficiary of the terms of Sections 4.3 and 4.5 of the Agreement.

6.18 No Partnership. This Agreement and the transactions and performances contemplated hereby shall not create any manner of partnership, joint venture or similar relationship between the Parties.

6.19 Exhibits. All exhibits to this Agreement are incorporated and made part of this Agreement for all purposes.

List of Exhibits:

A. Schematic Depiction of Project
B. Project Plans
C. Engineer's stamped and sealed estimate of costs and breakdown for Project and Participation Costs
D. Legal Description of Development

OGC GREENS PRAIRIE INVESTORS, LLC

BY: _____

Printed Name: R Hunter Goodwin

Title: Member

Date: 9/22/17

CITY OF COLLEGE STATION

BY: _____
City Manager
Date: _____

APPROVED

_____
City Attorney
Date: _____

_____
Assistant City Manager/CFO
Date: _____

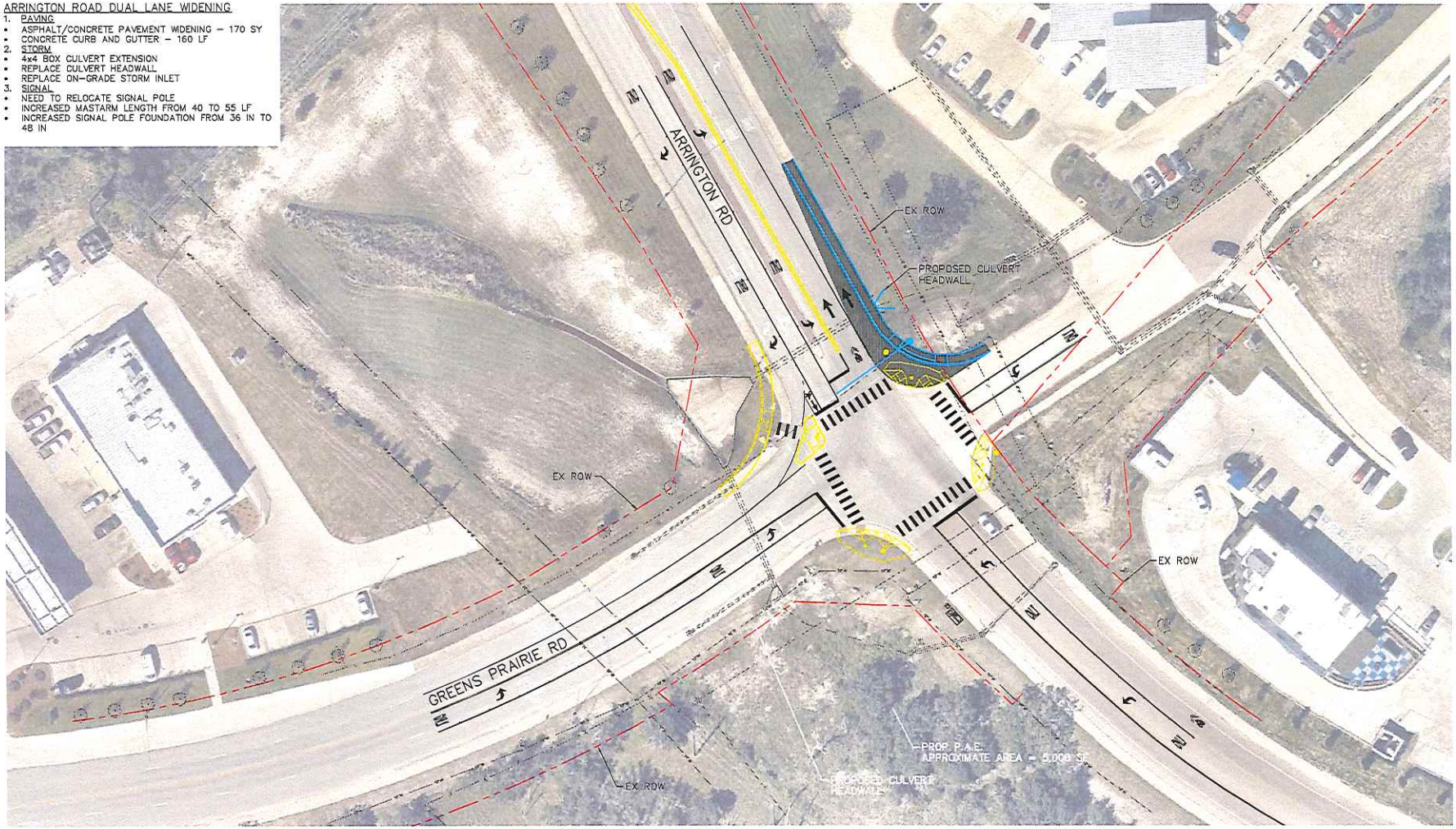
Exhibit A
Schematic Depiction of Project

See attached.

Kimley»Horn

ARRINGTON ROAD DUAL LANE WIDENING

1. PAVING
   - ASPHALT/CONCRETE PAVEMENT WIDENING – 170 SY
   - CONCRETE CURB AND GUTTER – 160 LF
2. STORM
   - 4x4 BOX CULVERT EXTENSION
   - REPLACE CULVERT HEADWALL
   - REPLACE ON-GRADE STORM INLET
3. SIGNAL
   - NEED TO RELOCATE SIGNAL POLE
   - INCREASED MASTARM LENGTH FROM 40 TO 55 LF
   - INCREASED SIGNAL POLE FOUNDATION FROM 36 IN TO 48 IN



March 2016

Arrington Road Widening Improvements

Figure 1

Exhibit B
Project Plans

Plans for the Project depicted in Exhibit A are shown as Bid Alternate #1 in the plan set prepared by Kimley Horn & Associates under KHA #0612714160 dated August 2017 and entitled "The City of College Station Construction Plans for Greens Prairie Road and Arrington Road Traffic Signal and Intersection Improvements" with the following modifications:

1. Sheet C4.01- lane markings shown in the existing right turn lane from Arrington Road onto WD Fitch and the new straight only markings shown in the far left lane of Arrington Road approaching WD Fitch are not to be included in Bid Alternate #1 costs.
2. Sheet C5.01 – only the notes located on the right side of Arrington Road on the sheet are to be included in the Bid Alternate #1 costs.

Exhibit C
Engineer's Stamped and Sealed Estimate of Costs and Breakdown for Project and Participation Costs

See attached

Kimley-Horn and Associates, Inc. | Opinion of Probable Construction Cost

Client:	City of College Station	Date:	6/9/2017
Project:	Greens Prairie and Arrington - Arrington Dual Left Widening	Prepared By:	DES
KHA No.:	061271416	Checked By:	CBS

Title: Greens Prairie and Arrington - Arrington Dual Left Widening | Sheet 1 of 1

Item No.	TxDOT Spec	Item Description	Total Quantity	Unit	Unit Price	Item Cost
1	01 71 13	MOBILIZATION (ADDITIONAL)	1	LS	$ 6,000.00	$ 6,000.00
2	01 55 26	TRAFFIC CONTROL (ADDITIONAL)	2	MO	$ 5,000.00	$ 10,000.00
3	31 23 00	EXCAVATION AND EMBANKMENT	1	LS	$ 5,000.00	$ 5,000.00
4	31 25 13	EROSION AND SEDIMENTATION CONTROL	1	LS	$ 2,000.00	$ 2,000.00
5	----- -----	ROW PREPERATION (ADDITIONAL)	1	LS	$ 4,000.00	$ 4,000.00
6	0104 6001	REMOVING CONC (PAV)	30	SY	$ 36.00	$ 1,080.00
7	0104 6015	REMOVING CONC (SIDEWALKS)	100	SY	$ 23.00	$ 2,300.00
8	0104 6022	REMOVING CONC (CURB AND GUTTER)	170	LF	$ 25.00	$ 4,250.00
9	0105 6015	REMOVING STAB BASE & ASPH PAV (8"-10")	40	SY	$ 20.00	$ 800.00
10	32 11 16	6" STABILIZED SUBGRADE	240	SY	$ 5.00	$ 1,200.00
11	32 11 29	LIME	5	TON	$ 175.00	$ 875.00
12	32 11 14	8" CRUSHED LIMESTONE BASE (TY-A OR B,GR-1 OR 2)	170	SY	$ 50.00	$ 8,500.00
13	32 12 16	2" HMACP (PG70-22)	170	SY	$ 45.00	$ 7,650.00
14	32 16 13	CONCRETE CURB AND GUTTER	160	LF	$ 40.00	$ 6,400.00
15	32 16 13.01	4" CONCRETE SIDEWALK	910	SF	$ 7.00	$ 6,370.00
16	TXDOT 160	FURNISH AND INSTALL 4" TOPSOIL	110	SY	$ 6.00	$ 660.00
17	32 92 23	BLOCK SODDING	110	SY	$ 5.00	$ 550.00
18	33 40 03	10' CURB INLET W/ EXTENSION	1	EA	$ 10,000.00	$ 10,000.00
19	TXDOT 450	HANDRAIL	10	LF	$ 120.00	$ 1,200.00
20	TXDOT 531	TY-5 PED CURB RAMP	1	EA	$ 2,500.00	$ 2,500.00
21	34 41 13	INSTALL ROAD SIGN	3	EA	$ 600.00	$ 1,800.00
22	34 41 13	REMOVE ROAD SIGN	3	EA	$ 150.00	$ 450.00
23	TXDOT 666	4" THERMOPLASTIC STRIPING SOLID WHITE LINE	220	LF	$ 1.20	$ 264.00
24	TXDOT 666	24" THERMOPLASTIC STRIPING SOLID WHITE LINE	100	LF	$ 5.50	$ 550.00
25	TXDOT 666	THERMOPLASTIC SOLID WHITE PVMT MARKING - SHARROW	1	EA	$ 100.00	$ 100.00
26	TXDOT 677	REMOVAL OF 24" PVMT MARKINGS	30	LF	$ 6.00	$ 180.00
27	6000 6021	INSTALL ROADWAY ILLUM ASSEMBLY (HPS)	1	EA	$ 3,700.00	$ 3,700.00
28	6000 6022	REMOVE ROADWAY ILLUM ASSEMBLY (HPS)	1	EA	$ 300.00	$ 300.00
29	0466 6153	WINGWALL (FW - 0) (HW=6 FT)	1	EA	$ 10,000.00	$ 10,000.00
30	0462 6049	CONC BOX CULV (4 FT X 4 FT)(EXTEND)	20	LF	$ 650.00	$ 13,000.00
31	0416 6034	DRILL SHAFT (TRF SIG POLE) (48 IN)	22	LF	$ 425.00	$ 9,350.00
32	0618 6030	CONDT (PVC) (SCH 40) (3") (BORE)	15	LF	$ 20.00	$ 300.00
33	0620 6009	ELEC CONDR (NO.6) BARE	5	LF	$ 1.25	$ 6.25
34	0684 6031	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	15	LF	$ 2.25	$ 33.75
35	0684 6033	TRF SIG CBL (TY A)(14 AWG)(7 CONDR)	5	LF	$ 2.50	$ 12.50
36	0684 6049	TRF SIG CBL (TY A)(16 AWG)(3 CONDR)	5	LF	$ 2.00	$ 10.00
37	0686 6059	INS TRF SIG PL AM(S)1 ARM(55')LUM (POWDER COATED)	1	EA	$ 500.00	$ 500.00
38	XXXX XXXX	ENGINEERING DESIGN FEE	1	LS	$ 11,800.00	$ 11,800.00

Subtotal:		$ 133,800.00
Conting. (%,+/-)	15%	$ 19,000.00
Total:		**$ 152,800.00**

Basis for Cost Projection:

- [x] No Design Completed
- [ ] Preliminary Design
- [ ] Final Design

This total does not reflect engineering or technical services.

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

STATE OF TEXAS
C. B. SHAMBURGER
8637
LICENSED
PROFESSIONAL ENGINEER

C. Shamburger
6-9-17

Exhibit D
Legal Description of Development

Field notes of a 368.57 acre tract or parcel of land, lying and being situated in the A. Babille Survey Abstract No. 75 and in the William Clark Survey, Abstract No. 101, College Station, Brazos County, Texas, and being part of the 369.894 acre tract described in the following three instruments:

1. Nina Benware Margraves to Green Prairie Ranch, Limited recorded Volume 2747, Page 111, of the Official Records of Brazos County, Texas;

2. Nancy Margraves Hoover to Green Prairie Ranch, Limited recorded in Volume 2747, Page 121, of the Official Records of Brazos County, Texas;

3. Ross D. Margraves, Jr. to Green Prairie Ranch, Limited recorded in Volume 2747, Page 131, of the Official Records of Brazos County, Texas;

and said 369.894 being more particularly described as follows:

BEGINNING at a ½" iron rod found at a 20" post oak tree fence corner found marking the common corner between the beforementioned 369.894 acre tract and a 10.000 acre tract described in the deed to James R. Saunders recorded in Volume 334, Page 191, of the Deed Records of Brazos County, Texas, said corner being an ell corner of the 369.894 acre tract;

THENCE N 44° 08' 50" E along the common line between the beforementioned 369.894 acre tract and the beforementioned 10.000 acre tract (no fence), for a distance of 361.11 feet to a ½" iron rod and cap set at the lower east corner of the said 10.000 acre tract and in the fenced west line of Arrington Road;

THENCE along the fenced west line of Arrington Road, as follows:

S 00° 01' 11" E for a distance of 265.25 feet to a 4" creosote post,

S 02° 03' 56" E crossing a cattle guard entrance for a distance of 154.82 feet to a "T" post,

S 00° 46' 35" E for a distance of 143.42 feet to a "T" post,

S 00° 38' 22" W for a distance of 457.47 feet to a 3" cedar post,

S 01° 49' 31" W for a distance of 393.47 feet to a ½" iron rod and cap set in the common line between the beforementioned 369.894 acre tract and a 300 acre tract described in the deed to Jerry Windham, recorded in Volume 315, Page 734, of the Deed Records of Brazos County, Texas, from which a 6" creosote fence post bears S 01° 50' W - 17.9 feet;

THENCE S 44° 07' 51" W along the common line between the beforementioned 369.894 acre tract and the beforementioned 300 acre tract, adjacent to a fence, for a distance of 2860.99 feet to a ½" iron rod and cap set at the common corner between the said 369.894 acre tract and the 300 acre tract, from which a 10" creosote post fence corner bears S 45° 19' E - 2.1 feet;

THENCE along the common line between the beforementioned 369.894 acre tract lying to the northeast, and the following two tracts lying to the southwest: the beforementioned Windham - 300 acre tract and a 230.13 acre tract described in the deed to Jerry Windham, recorded in Volume 502, Page 672, of the Deed Records of Brazos County, Texas, adjacent to a fence, as follows:

N 45° 19' 13" W for a distance of 812.20 feet to a ½" iron rod and cap set in the middle of an H-Brace at the common corner between the beforementioned 300 acre tract and the beforementioned 230.13 acre tract,

N 46° 15' 06" W for a distance of 2021.67 feet to a dead tree fence corner,

N 46° 39' 49" E for a distance of 335.77 feet to an 8" creosote post fence corner,

N 41° 37' 40" W for a distance of 1990.85 feet to a ½" iron rod and cap set at a 10 " creosote post fence corner marking the north corner of the said 230.13 acre tract and in the southeast fenced line of Green Prairie Road West;

THENCE along the fenced southeast line of Green Prairie Road, as follows:

N 45° 03' 31" E for a distance of 1610.40 feet to a 4" x 4" fence post at a cattle guard entrance,

N 43° 52' 23" E for a distance of 1464.25 feet to a ½" iron rod found marking the west corner of a 3.811 acre - Tract Two described in the deed to Jason Storm, recorded in Volume 10460, Page 41, of the Official Records of Brazos County, Texas, and in the northeast line of the beforementioned 369.894 acre tract, from which a 6" creosote post fence corner bears S 35° 06' W - 2.1 feet;

THENCE along the common line between the beforementioned 369.894 acre tract, lying to the southwest, and the following 8 tracts, lying to the northeast:

1) the beforementioned Storm - 3.811 acre tract,

2) a 1.24 acre - Tract One described in the deed to Jason Storm, recorded in Volume 10460, Page 41, of the Official Records of Brazos County, Texas,

3) a 1.45 acre tract described in the deed to Matt Medlock recorded in Volume 699, Page 656, of the Official Records of Brazos County, Texas,

4) a 1.46 acre tract described in the deed to Anthony Medlock recorded in volume 7239, Page 22, of the Official Records of Brazos County, Texas, (see Tract One of Volume 1407, Page 250, of the Official Records of Brazos County, Texas, for description),

5) a 1.50 acre tract described in the deed to William S. Steele, recorded in Volume 582, Page 682, of the Deed Records of Brazos County, Texas,

6) a 1.50 acre tract described in the deed to The Bank of America, N.A., recorded in Volume 11211, Page 29, of the Official Records of Brazos County, Texas,

7) the remainder of a 29.476 acre tract described in the deed to James Willard Craig, Jr., recorded in Volume 875, Page 269, of the Official Records of Brazos County, Texas, and

8) the beforementioned Saunders - 10.000 acre tract, adjacent to a fence, as follows:

S 44° 28' 16" E for a distance of 52.86 feet to a ½" iron rod and cap set,

S 47° 00' 17" E for a distance of 202.30 feet to a 12" post oak tree,

S 46° 40' 49" E for a distance of 145.33 feet to a 3/8" iron rod found,

S 47° 13' 09" E for a distance of 175.00 feet to a 3/8" iron rod found bent, marking the common corner between the beforementioned Storm - 1.24 acre tract, and the beforementioned Medlock - 1.45 acre tract,

S 45° 47' 36" E for a distance of 233.06 feet to a ½" iron rod and cap set at the common corner between the beforementioned Medlock - 1.45 acre tract and the beforementioned Medlock - 1.46 acre tract,

S 46° 13' 04" E for a distance of 233.34 feet to a ½" iron rod and cap set at the common corner between the beforementioned Medlock - 1.46 acre tract and the beforementioned Steele - 1.50 acre tract,

S 45° 23' 10" E for a distance of 233.20 feet to a 3/8" iron rod found marking the common corner between the beforementioned Steele - 1.50 acre tract and the beforementioned Bank of America - 1.50 acre tract,

S 45° 41' 39" E for a distance of 164.41 feet to a ½" iron rod and cap set,

S 45° 55' 03" E for a distance of 74.15 feet to a ½" iron rod found marking the common corner between the beforementioned Bank of America - 1.50 acre tract and the beforementioned Craig - remainder of the 29.476 acre tract,

S 45° 57' 18" E for a distance of 762.79 feet to a ½" iron rod found marking the common corner between the beforementioned Craig remainder of the 29.476 acre tract and the beforementioned Saunders - 10.000 acre tract,

S 49° 28' 01" E for a distance of 22.82 feet to a 36" dead tree,

S 46° 02' 52" E for a distance of 392.37 feet to an 18" post oak tree,

S 45° 11' 38" E for a distance of 441.53 feet to a 30" dead post oak tree,

S 42° 50' 01" E for a distance of 675.32 feet to the PLACE OF BEGINNING, containing 368.57 acres of land, more or less.__

College Station, TX

City Hall
1101 Texas Ave
College Station, TX 77840

Legislation Details (With Text)

File #:	17-0581	**Version:**	2	**Name:**	Interlocal Agreement - FM 60 Signals
Type:	Agreement			**Status:**	Consent Agenda
File created:	9/22/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion regarding an interlocal agreement for cost sharing withTexas A&M University for pedestrian improvements at the intersections of FM 60 with Discovery Drive and the Large Animal Clinic driveway.				
Sponsors:	Troy Rother				
Indexes:					
Code sections:					
Attachments:	TAMU ILA Univ Dr Imp 10-11-17				

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding an interlocal agreement for cost sharing withTexas A&M University for pedestrian improvements at the intersections of FM 60 with Discovery Drive and the Large Animal Clinic driveway.

Relationship to Strategic Goals:

- Core Services and Infrastructure

Recommendation(s): Staff recommends approving the ILA.

Summary: With the student population growth on campus, more and more pedestrians are crossing at the FM 60 intersections with Discovery Drive and the Large Animal Clinic driveway. The City of College Station has been monitoring these intersections for a few years and has been coordinating with Texas A&M University on some improvements. Because the University was planning several developments in the area, it was decided to hold off on any pedestrian improvements until the development plans were finalized so as not to install something that would conflict with the TAMU development. TAMU and the City worked together to develop the construction plans for the pedestrian improvements at the intersections. The City will pay for the installation of new pedestrian signals and the University will pay for the sidewalk, ramps, and striping. This ILA specifies each agencies' responsibilities during and after construction.

Budget & Financial Summary: Budget was included for traffic signal projects in the FY18 budget as part of the Capital Improvement Program. A portion of this budget will be used for City's share of this ILA. These funds originated from Certificates of Obligation issued in FY17.

Attachments:

1. Interlocal Agreement

INTERLOCAL AGREEMENT BETWEEN
THE CITY OF COLLEGE STATION AND
TEXAS A&M UNIVERSITY
FOR FM 60 IMPROVEMENTS

This Agreement ("Agreement") is effective on the date of the last party signing the Agreement making it fully executed ("Effective Date") and is by and between **TEXAS A&M UNIVERSITY** ("Texas A&M"), a member of The Texas A&M University System, an agency of the State of Texas, and the **CITY OF COLLEGE STATION,** a Texas Home Rule Municipal Corporation, ("College Station").

WHEREAS, Texas Government Code, Chapter 791, also known as the Interlocal Cooperation Act, authorizes local governments to contract with each other to perform functions or services each party to the contract is authorized to perform individually; and

WHEREAS, College Station and Texas A&M intend to make public safety improvements along FM 60 near Veterinary Way and along FM 60 at Discovery ("Project") as shown in the Project Specifications attached in **Exhibit A**; and

WHEREAS, College Station and Texas A&M each desire to enter into an Interlocal Agreement to provide for certain public safety improvements constructed as part of the Project; and

WHEREAS, College Station and Texas A&M each represent it is authorized to enter into this Agreement; and

NOW, THEREFORE, in consideration of the recitals and mutual covenants made by Texas A&M and College Station to be respectively kept and performed, the parties agree as follows:

SECTION I
PURPOSE OF AGREEMENT

The purpose of this Agreement is to establish the responsibilities of Texas A&M and College Station regarding the Project.

SECTION II
TERM

This Agreement remains in effect from the Effective Date until the Project is substantially completed and accepted in writing by College Station and Texas A&M.

SECTION III
COLLEGE STATION'S COST PARTICIPATION

3.1 Agree to Participate. College Station agrees to participate with payment in the below stated portions of the Project according to the Engineer's Cost Estimate attached in **Exhibit B**.

3.2 Payment Invoice. Texas A&M will send College Station a detailed invoice for payment within thirty (30) days after substantial completion of the Project and acceptance by College Station and Texas A&M. Texas A&M shall provide College Station with reasonable documentation of costs upon written request.

3.3 Time of Payment. After receipt of the detailed invoice, College Station agrees it will pay Texas A&M any undisputed costs within thirty (30) days of receipt of the detailed invoice.

SECTION IV
PROJECT DESCRIPTION AND RESPONSIBILITIES

4.1 FM 60 and Discovery Drive.

a. Project Description. According to the Project Specifications attached in **Exhibit A**, the existing intersection and traffic signal is to be updated to include new curb ramps on the northwest, southwest, and southeast corners as well as the northeast corner island. New pedestal poles, pedestrian signal heads, push buttons, ground boxes, conduit, cable, signs and additional signal equipment will be required for this signal modification. All pedestrian signal equipment shall meet the City of College Station's equipment specifications. Striping improvements will be made at the intersection including crosswalks and stop bars.

b. College Station Responsibility. According to the Engineer's Cost Estimate attached in **Exhibit B**, College Station is responsible for all reasonable costs associated with the signal modification portion of the Project. This includes the new pedestal poles, pedestrian signal heads, push buttons, ground boxes conduit, cable, signs and signal equipment. College Station will also be responsible for the cost associated with the contractor's removal of any existing pedestrian signal equipment. College Station will be responsible for the operation and maintenance of these improvements after the warranty period expires.

c. Texas A&M Responsibility. According to the Engineer's Cost Estimate attached in **Exhibit B**, Texas A&M is responsible for all other costs associated with the Project. This will include project management, project mobilization, any management fees, demolition of existing concrete, new pedestal pole bases, new sidewalk paving, ADA ramps, cross walk and stop bar striping and any warranty work.

4.2 FM 60 & Veterinary Way.

a. Project Description. According to the Project Specifications attached in **Exhibit A**, the existing intersection and traffic signal is to be updated to include new curb ramps on the southwest and southeast corners. New pedestal poles, pedestrian signal heads, push buttons, ground boxes, conduit, cable, signs and additional signal equipment will be required for this signal modification. All pedestrian signal equipment shall meet the City of College Station's equipment specifications. Striping improvements will be made at the intersection including crosswalks and stop bars.

b. College Station Responsibility. According to the Engineer's Cost Estimate attached in **Exhibit B**, College Station is responsible for all reasonable costs associated with the signal modification portion of the Project. This includes the new pedestal poles, pedestrian signal heads, push buttons, ground boxes conduit, cable, signs and signal equipment. College Station will also be responsible for the cost associated with the contractor's removal of any existing pedestrian signal equipment. College Station will be responsible for the operation and maintenance of these improvements after the warranty period expires.

c. Texas A&M Responsibility. According to the Engineer's Cost Estimate attached in **Exhibit B**, Texas A&M is responsible for all other costs associated with the Project. This will include project management, project mobilization, any management fees, demolition of existing concrete, new pedestal pole bases, new sidewalk paving, ADA ramps, cross walk and stop bar striping and any warranty work.

4.3 Competitively Bid. Texas A&M will competitively bid and award the Project according to the State of Texas procurement requirements under Texas Education Code to a qualified contractor to make the necessary public safety improvements**.** Texas A&M shall lawfully process and prepare bids, proposals and requests for qualifications and other procurement activity as may be required for the procurement and construction of the Project.

4.4 Project Manager. Texas A&M will serve as project manager for the construction contract, for the construction and implementation of the Project. As project manager, Texas A&M will secure all the necessary approvals and permits for the Project.

SECTION V
MODIFICATION OF AGREEMENT

The terms and conditions of this Agreement may be modified at any time by the mutual written consent of both parties; however, no amendment or modification to this Agreement is effective unless and until it is reduced to writing and signed by duly authorized representatives of both parties.

SECTION VI
WRITTEN NOTICE

Unless otherwise specified, written notice will be deemed to have been duly served if delivered in person to the individuals listed below or if delivered or sent certified mail to the business address below. Each party will have the right to change its business address by at least thirty (30) calendar days written notice to the other party.

TEXAS A&M
Transportation Services
1250 TAMU
College Station, TX
77843-1250

TEXAS A&M
With a Copy to
Department of Contract
Administration
1182 TAMU
College Station, TX 77843-
1260

COLLEGE STATION
Public Works Director
P.O. Box 9960
College Station, TX 77842

SECTION VII
GOVERNMENTAL AGENCIES

7.1 College Station expressly acknowledges Texas A&M is an agency of the State of Texas and Texas A&M acknowledges College Station is a Texas Home Rule Municipal Corporation. Nothing in this Agreement will be construed as a waiver or relinquishment by Texas A&M or College Station of its right to claim such exemptions, privileges and immunities as may be provided by law, consent to be sued or waiver of limitations of damages under the Texas Tort Claims Act.

7.2 College Station and Texas A&M each, to the extent permitted by laws of the State of Texas and the Texas Constitution, individually agree to hold the other harmless from and against any and all claims, losses, damages, causes of action, suits, and liabilities of every kind, including all expenses of litigation, court costs, and attorney's fees, for injury or death of any person, for damage to any property, arising out of or in connection with the obligations pursuant to this Agreement, except to the extent that any such claim, loss, damage, cause of action, suit, or liability arises from the negligence or willful misconduct of the party to be held harmless.

SECTION VIII
WAIVER

Failure of any party, at any time, to enforce a provision of this Agreement, in no way constitutes a waiver of that provision, nor in anyway affects the validity of this Agreement, any part of this Agreement, or the right of the party thereafter to enforce each and every provision of this Agreement. No term of this Agreement will be deemed waived or breach excused unless such waiver is in writing and signed by the party claiming to have waived. Furthermore, any consent to or waiver of a breach will not constitute consent to or waiver of or excuse of any other different or subsequent breach.

SECTION IX
INVALIDITY

If any portion of this Agreement is held invalid, illegal or unenforceable by a court or other tribunal of competent jurisdiction, the validity, legality, and enforceability of the remaining provisions will not in any way be affected or impaired. The parties will use their best efforts to replace the respective provisions of this Agreement with legal terms and conditions approximating the original intent of the parties.

SECTION X
ENTIRE AGREEMENT

It is understood this Agreement contains the entire agreement between the parties and supersedes any and all prior agreements, arrangements, or understandings between the parties relating to the subject matter. No oral understandings, statements, promises, or inducements contrary to the terms of this Agreement exist. This Agreement cannot be changed or terminated orally. No verbal agreement or conversation with any officer, agent or employee of College Station or Texas A&M, either before or after the execution of this Agreement, affects or modifies any terms or obligations of this Agreement.

SECTION XI
CHOICE OF LAW

This Agreement is governed by the laws of the State of Texas.

SECTION XII
PLACE OF PERFORMANCE

Performance of this Agreement is in Brazos County, Texas

SECTION XIII
AUTHORITY

Each party has full power and authority to enter into and perform under this Agreement, and the person signing this Agreement on behalf of each party has been properly authorized and empowered to enter into this Agreement. The persons executing this Agreement represent that they have authorization to sign on behalf of their respective entities.

SECTION XIV
AGREEMENT READ

Each party acknowledges that it has read, understands and intends to be bound by the terms and conditions of this Agreement.

SECTION XV
MULTIPLE ORIGINALS

It is understood and agreed this Agreement may be executed in a number of identical counterparts with each deemed an original for all purposes.

IN WITNESS OF THIS AGREEMENT, College Station and Texas A&M**,** through their duly appointed agents, have executed this Agreement in duplicate originals.

TEXAS A&M UNIVERSITY

By:_____

Printed Name:_____

Title:_____

Date: _____

CITY OF COLLEGE STATION

By:_____
Mayor
Date: _____

ATTEST:

_____
City Secretary
Date: _____

APPROVED:

_____
City Manager
Date: _____

_____
City Attorney
Date: _____

_____
Assistant City Manager/CFO
Date: _____

EXHIBIT A
PROJECT SPECIFICATIONS

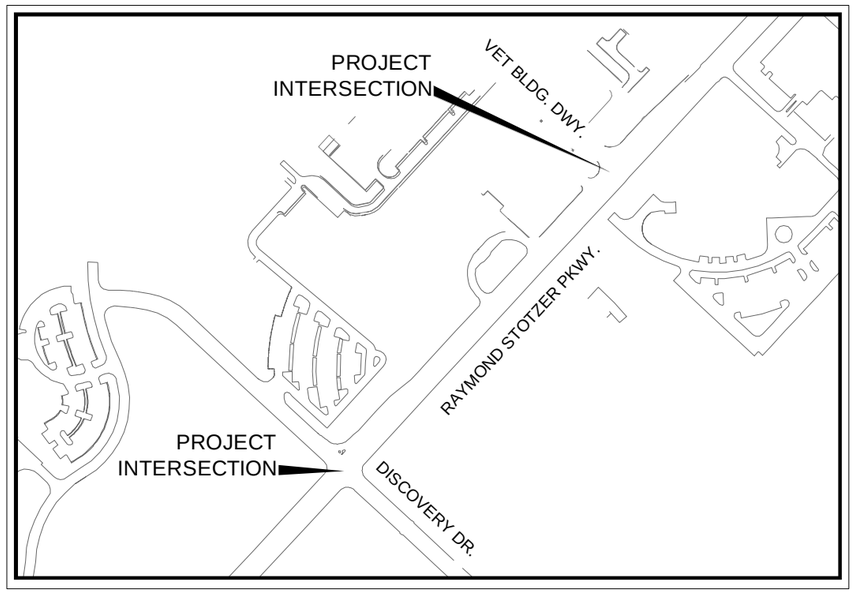
CONSTRUCTION PLANS FOR

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS

RAYMOND STOTZER PKWY. & DISCOVERY DR.
RAYMOND STOTZER PKWY. & VETERINARY BUILDING DRIVEWAY

TEXAS A&M UNIVERSITY

COLLEGE STATION, TEXAS



VICINITY MAP
N.T.S.

JULY 2017

OWNER'S REPRESENTATIVE

SSC Service Solutions
PREMIUM FACILITY SUPPORT FOR EDUCATION

600 AGRONOMY ROAD
1371 TAMU
COLLEGE STATION, TX 77843-1371
TBPE REGISTRATION NO. F-14676
PH. (979) 446-2403
CONTACT: MIKAEL OLSEN, PHD., P.E.

ENGINEER

Kimley»Horn

2800 SOUTH TEXAS AVENUE
SUITE 201
BRYAN, TX 77802
TBPE REGISTRATION NO. F-928
PH. (979) 775-9595
CONTACT: CHRIS HARRIS, P.E.

No.	REVISIONS	DATE	BY

Kimley»Horn

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TEXAS REGISTERED ENGINEERING FIRM F-928
801 CHERRY STREET, UNIT 11, SUITE 950
FORT WORTH, TEXAS 76102
PHONE: 817-339-4531
WWW.KIMLEY-HORN.COM

7/25/2017
STATE OF TEXAS
CHRIS HARRIS
114222
LICENSED
PROFESSIONAL ENGINEER

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
CHECKED BY SRA

COVER

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
1

Plotted By:Ciarkowski, Matt Sheet Set:Kha Layout:Layout1 July 25, 2017 04:06:36pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalk\CADD\SHEETS\00E_COVER.dwg
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	SHEET NO.	GENERAL
	1	COVER SHEET
	2	SHEET INDEX
	3A-3F	TRAFFIC SIGNAL GENERAL NOTES
	4	QUANTITY SUMMARY
	SHEET NO.	RAYMOND STOTZER PKWY. AND DISCOVERY DR.
	5	EXISTING CONDITIONS AND REMOVALS LAYOUT
	6	PROPOSED TRAFFIC SIGNAL LAYOUT
	7	PAVEMENT MARKINGS
	8	RAMP LAYOUT
	SHEET NO.	RAYMOND STOTZER PKWY. AND VETERINARY BUILDING DWY.
	9	EXISTING CONDITIONS AND REMOVALS LAYOUT
	10	PROPOSED TRAFFIC SIGNAL LAYOUT
	11	PAVEMENT MARKINGS
	12	RAMP LAYOUT
	SHEET NO.	TxDOT STANDARDS
*	13	BC(1)-14
*	14	BC(2)-14
*	15	BC(3)-14
*	16	BC(4)-14
*	17	BC(5)-14
*	18	BC(6)-14
*	19	BC(7)-14
*	20	BC(8)-14
*	21	BC(9)-14
*	22	BC(10)-14
*	23	BC(11)-14
*	24	BC(12)-14
*	25	WZ(BTS-1)-13
*	26	WZ(BTS-2)-13
*	27	TS-FD-12
*	28	ED(1)-14
*	29	ED(3)-14
*	30	ED(4)-14
*	31	ED(8)-14
*	32	PM(1)-12
*	33	PM(3)-12
*	34	CCCG-12
*	35	PED-12A(1)
*	36	PED-12A(2)
*	37	PED-12A(3)
*	38	PED-12A(4)

* THE STANDARD SHEETS SPECIFICALLY IDENTIFIED IN THIS INDEX OF SHEETS, HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

_____, P.E. 7/25/2017

MATT CIARKOWSKI, P.E. DATE

No.	REVISIONS	DATE	BY

Kimley»Horn
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FORT WORTH, TEXAS 76102
PHONE: 817-335-6511
WWW.KIMLEY-HORN.COM

7/25/2017

STATE OF TEXAS
MATT CIARKOWSKI
114222
PROFESSIONAL ENGINEER

KHA PROJECT 066077916

DATE JULY 2017

SCALE AS SHOWN

DESIGNED BY MEC

DRAWN BY MEC

CHECKED BY SRA

SHEET INDEX

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
2

Plotted By:Ciarkowski, Matt Sheet Set:Kha Layout:Layout1 July 25, 2017 04:07:02pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalks\CADD\SHEETS\00E_SHEET_INDEX.dwg
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Project Number: **Sheet:**

Highway: **FM 60** **Control:**

County: **BRAZOS**

GENERAL:

Wiring coding will be done in accordance with the NEC (National Electrical Code).

Send eligible shop plan submittals with PDF attachments directly to the reviewing office.

ITEM 502 "BARRICADES, SIGNS AND TRAFFIC HANDLING"

Removal of ground mounted temporary signs and supports as specified on standard sheet BC(5), shall include the immediate backfilling of support holes with Type B embankment material and the compaction of the backfill material.

ITEM 529 "CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER"

Provide steel reinforcement in all concrete curb, gutter, and combined curb and gutter in accordance with the plans and specifications. Use synthetic fiber in lieu of steel reinforcing when approved in writing by the Engineer.

ITEM 618 "CONDUIT"

The location of conduits and ground boxes are diagrammatic only and may be shifted to accommodate field conditions as directed.

ITEM 666 "REFLECTORIZED PAVEMENT MARKINGS"

Unless authorized by the Engineer, the Contractor will not place the pavement markings on the resurfaced roadway until it has cured for 3 days.

All striping limits must be approved by the Engineer before striping operations may begin.

Use an acrylic sealer on concrete pavement.

No.	REVISIONS	DATE	BY

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PHONE: 817-339-2501
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7/25/2017

STATE OF TEXAS
MATT CLARKOWSKI
114222
PROFESSIONAL ENGINEER

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
CHECKED BY SRA

GENERAL NOTES

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
3

Plotted By:Clarkowski, Matt Sheet Set:Kha Layout:Layout1 July 25, 2017 04:07:32pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalks\CADD\SHEETS\ODE_GN.dwg
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ITEM NO.	ITEM DESCRIPTION	RAYMOND STOTZER PWKY. & DISCOVERY DR.	RAYMOND STOTZER PWKY. & VET BUILDING DWY.	TOTAL QUANTITY	UNIT
0104 6015	REMOVING CONC (SIDEWALKS)	49	50.5	99.5	SY
0104 6022	REMOVING CONC (CURB AND GUTTER)	60	0	60	LF
0104 6032	REMOVING CONC (WHEELCHAIR RAMP)	76	14	90	SY
0500 6001	MOBILIZATION	---	---	1	LS
0502 6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	---	---	1	MO
0529 6002	CONC CURB (TY II)	44	0	44	LF
0531 6003	CONC SIDEWALKS (6")	584	53	637	SY
0531 6004	CURB RAMPS (TY 1)	2	2	4	EA
0531 6006	CURB RAMPS (TY 3)	0	1	1	EA
0531 6010	CURB RAMPS (TY 7)	4	0	4	EA
0618 6029	CONDT (PVC) (SCH 40) (3")	50	100	150	LF
0620 6009	ELEC CONDR (NO.6) BARE	50	100	150	LF
0624 6010	GROUND BOX TY D (162922)W/APRON	2	0	2	EA
0624 6028	REMOVE GROUND BOX	2	0	2	EA
0666 6111	REFL PAV MRK TY I (Y)4"(SLD)(100MIL)	0	20	20	LF
0666 6036	REFL PAV MRK TY I (W)8"(SLD)(100MIL)	0	70	70	LF
0666 6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	339	316	655	LF
0666 6054	REFL PAV MRK TY I (W)(ARROW)(100MIL)	0	3	3	EA
0666 6078	REFL PAV MRK TY I (W)(WORD)(100MIL)	0	1	1	EA
0666 6207	REFL PAV MRK TY II (Y) 4" (SLD)	0	20	20	LF
0666 6178	REFL PAV MRK TY II (W) 8" (SLD)	0	70	70	LF
0666 6182	REFL PAV MRK TY II (W) 24" (SLD)	339	316	655	LF
0666 6184	REFL PAV MRK TY II (W) (ARROW)	0	3	3	EA
0666 6192	REFL PAV MRK TY II (W) (WORD)	0	1	1	EA
0677 6001	ELIM EXT PAV MRK & MRKS (4")	12	44	56	LF
0677 6003	ELIM EXT PAV MRK & MRKS (8")	5	22	27	LF
0677 6005	ELIM EXT PAV MRK & MRKS (12")	325	0	325	LF
0677 6007	ELIM EXT PAV MRK & MRKS (24")	63	65	128	LF
0677 6008	ELIM EXT PAV MRK & MRKS (ARROW)	0	1	1	EA
0677 6012	ELIM EXT PAV MRK & MRKS (WORD)	0	1	1	EA
0678 6008	PAV SURF PREP FOR MRK (24")	339	316	655	LF
0678 6009	PAV SURF PREP FOR MRK (ARROW)	0	3	3	EA
0678 6016	PAV SURF PREP FOR MRK (WORD)	0	1	1	EA
0680 6004	REMOVING TRAFFIC SIGNALS	1	1	2	EA
0682 6018	PED SIG SEC (LED)(COUNTDOWN)	8	6	14	EA
0684 6031	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	1,200	840	2,040	LF
0687 6001	PED POLE ASSEMBLY (POWDER COATED BRONZE)	2	4	6	EA
0688 6001	PED DETECT PUSH BUTTON (APS)(POLARA)(BLACK)	8	6	14	EA
9999 9999	APS (POLARA) CONTROL UNIT	1	1	2	EA

No.	REVISIONS	DATE	BY

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801 CHERRY STREET, UNIT 11, SUITE 950
FORT WORTH, TEXAS 76102
PHONE: 817-339-2501
WWW.KIMLEY-HORN.COM

7/25/2017

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
CHECKED BY SRA

QUANTITY SUMMARY

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
4

Plotted By:Ciarkowski, Matt Sheet Set:Kha Layout:Layout1 July 25, 2017 04:08:00pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalks\CADD\SHEETS\00E_QTY.dwg
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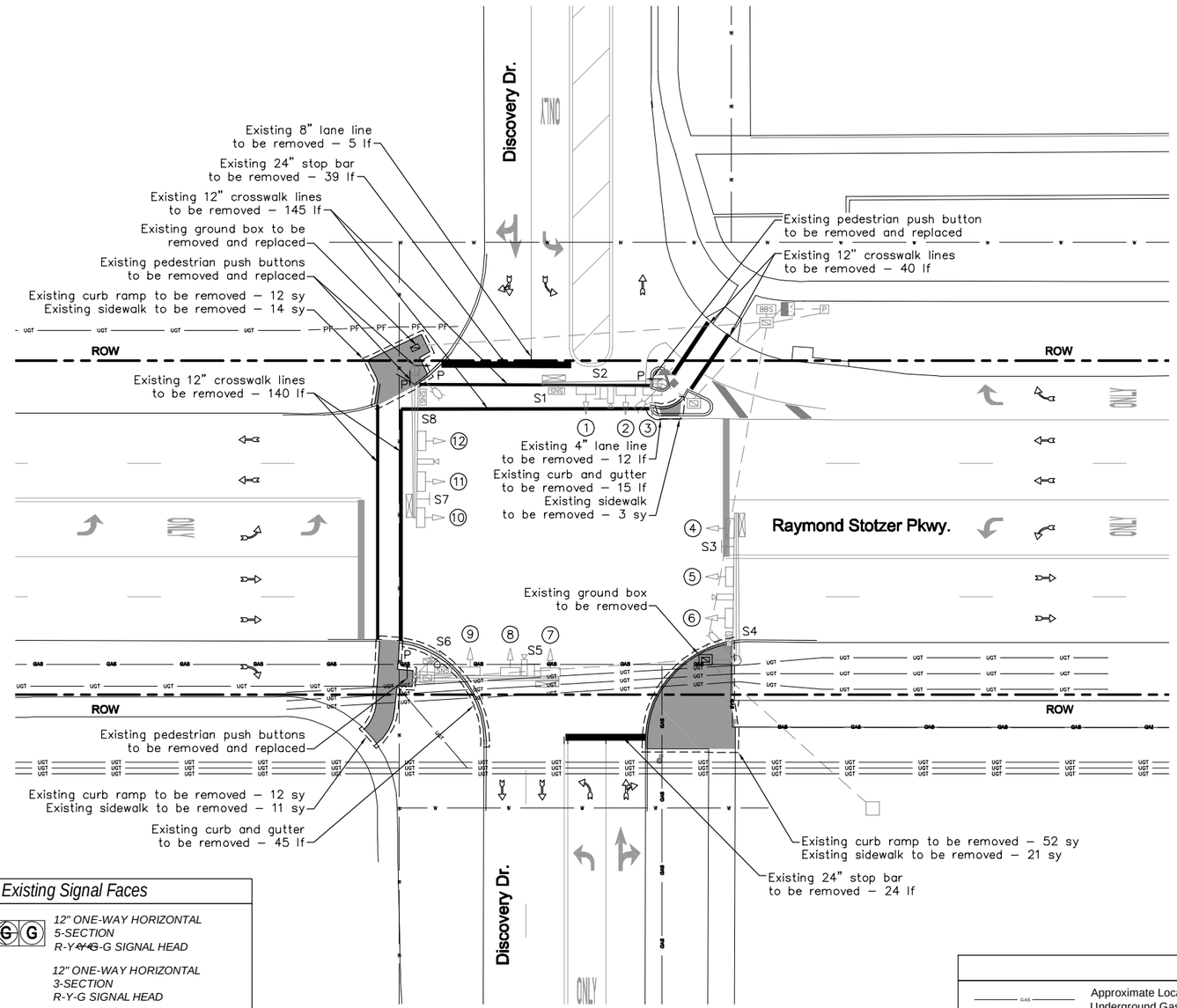
NOTES:

1. Contractor shall contact Texas 811 for location of underground utilities 72 hours prior to any excavation in area.
2. Location of utilities shown are approximate. It is the contractor's responsibility to locate all utilities (public and private) prior to commencing work.
3. Contractor shall remove and dispose of conductors/cable from abandoned conduit. Measurement and payment shall be considered subsidiary to Item 680-6004.
4. Removal of signal equipment shall be measured and paid for with Item 680-6004.
5. All salvageable traffic signal items shall remain the property of City of College Station and shall be delivered back to the City.



Existing Mast Arm Mounted Signs

Raymond Stotzer Pkwy 800
S1

Discovery Dr 200
S4

Raymond Stotzer Pkwy
S6

Discovery Dr 200
S8

LEFT TURN YIELD ON GREEN
S2, S5

LEFT TURN YIELD ON FLASHING YELLOW ARROW
S3, S7

Existing Signal Faces

R Y ~~Y~~ ~~G~~ G
1,7
12" ONE-WAY HORIZONTAL 5-SECTION R-Y~~Y~~~~G~~-G SIGNAL HEAD

R Y G
2,3,5,6,8,9,11,12
12" ONE-WAY HORIZONTAL 3-SECTION R-Y-G SIGNAL HEAD

R ~~SY~~ ~~FY~~ G
4,10
12" ONE-WAY HORIZONTAL 4-SECTION ~~R-SY-FY-G~~ SIGNAL HEAD

10
P
16"x16", LED WITH 9" FULL SYMBOL HAND/MAN, SINGLE SECTION, PEDESTRIAN SIGNAL, WITH COUNTDOWN

9"x15", R10-e COUNTDOWN SIGNS WITH AUDIBLE PEDESTRIAN SIGNAL BUTTONS

Legend

- Approximate Location of Existing Underground Gas Line
- Approximate Location of Existing Underground Telecommunication
- Approximate Location of Existing Underground Water Line
- Existing Controller / Battery Backup System
- Existing Traffic Signal Poles
- Existing Signal Head
- Existing APS Push Button / Pedestrian Signal Head
- Existing Mast Arm
- Existing Luminaire
- Existing Video Detector
- Existing Ground Box
- Existing Street Name Sign
- Existing Pedestal Service
- Existing Mast-Arm Mounted Sign
- Existing Mast-Arm Damper
- Existing PTZ Camera
- Existing Antenna
- Existing Conduit
- Direction of Traffic Flow

No.	REVISIONS	DATE	BY

Kimley»Horn
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TEXAS REGISTERED ENGINEERING FIRM F-928
801 CHERRY STREET, UNIT 11, SUITE 950
FORT WORTH, TEXAS 76102
PHONE: 817-339-6501
WWW.KIMLEY-HORN.COM

7/25/2017

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
CHECKED BY SRA

EXISTING CONDITIONS AND REMOVALS LAYOUT
RAYMOND STOTZER PKWY. AND DISCOVERY DR.

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
5

Plotted By:Ciarkowski, Matt Sheet Set:Kha Layout:Layout1 July 25, 2017 04:08:39pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalk\CADD\SHEETS\DISCOVERY\006_EXISTING_DISCOVERY.dwg
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GENERAL NOTES:

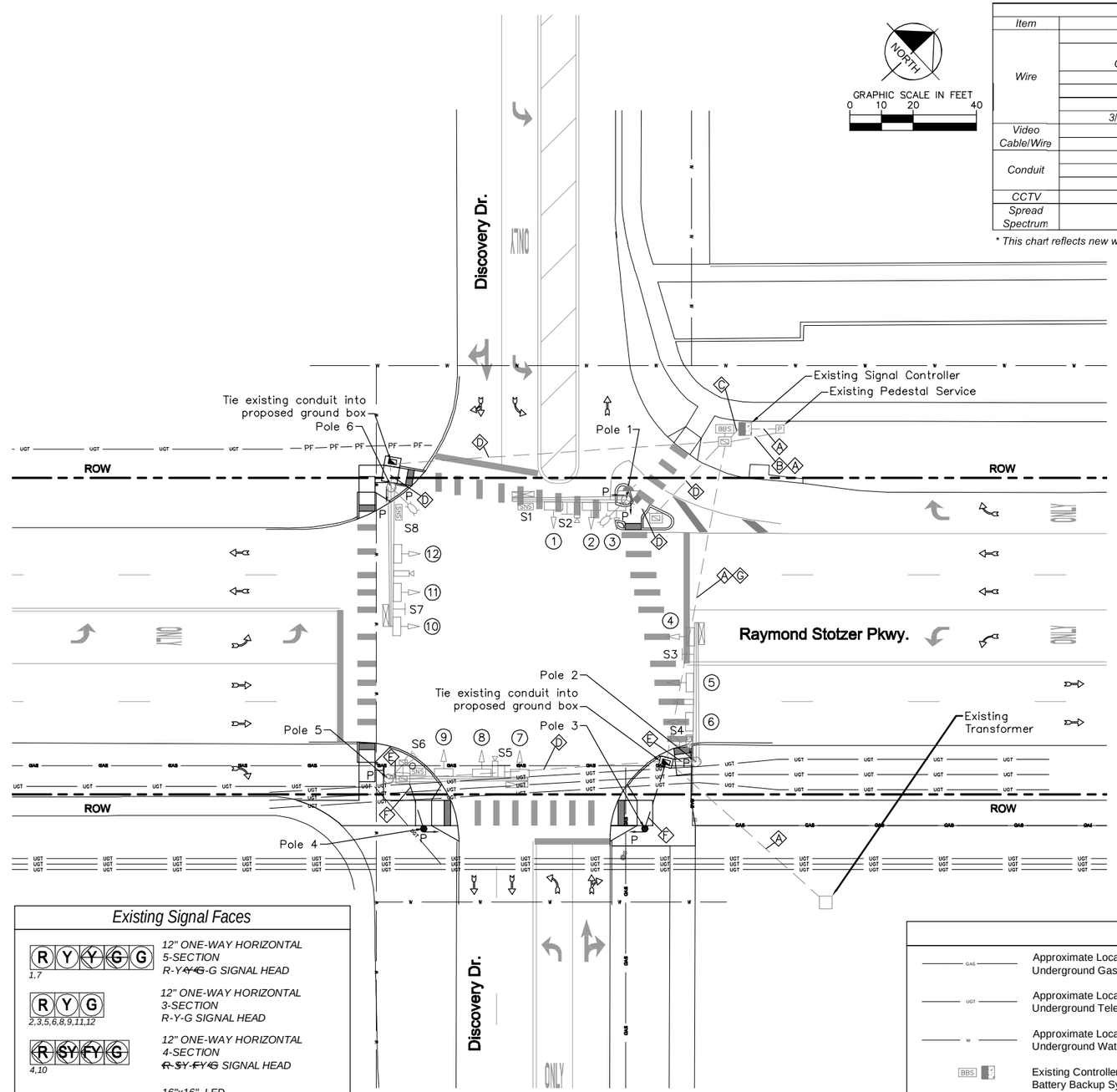
1. Location of pedestal poles and pull boxes shall be staked by the Contractor and approved by the inspector before excavation.
2. All conduits and fittings shall be made from PVC Schedule 40, gray in color.
3. Location of underground utilities are based on the most accurate information available. Contractor shall be responsible for locating all utilities in the way of construction, whether or not shown on plans.
4. Locations of existing underground conduits relative to existing traffic signal installation are based on the most accurate information available. Contractor shall be responsible for locating all underground conduit locations before excavating.
5. Existing traffic signal shall remain operational during the construction of the signal modification.
6. All construction signs and barricades shall conform to the most recent Texas Manual on Uniform Traffic Control Devices.
7. The Contractor shall replace all curbs, pavement or sidewalks damaged by his forces during construction. Such repair shall be considered incidental to this project and shall not be considered as an additional cost to the City of College Station.
8. All pavement markings shall be installed by the Contractor.
9. It shall be the responsibility of the Contractor to verify the exact location of all existing underground utilities. Furthermore, the Contractor shall contact all utility company representatives a minimum of 48 hours in advance of any excavation. Contact Texas One Call at 811.

AT LEAST 72 HOURS BEFORE DRILLING FOR POLE FOUNDATIONS OR BEGINNING TRENCHING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:

CITY ENGINEERING OFFICE	979-764-3690
CITY ELECTRICAL DIST. OFFICE	979-764-3535
CITY WATER/WASTE WATER	855-528-4278
VERIZON SOUTHWEST	972-718-1623
ATMOS	1-888-286-6700
SUDDENLINK CABLE	888-822-5151

SPECIAL NOTES:

1. Contractor shall furnish and install all materials and equipment for a complete and operational signal modification. City will not furnish any materials or equipment.
2. Contractor shall supply and install all new permanent signs.
3. Contractor shall provide and install all new conduit and wiring.
4. Existing wire between Pole 1 and controller cabinet to remain. All other wire in conduit to be removed. Existing wire in poles to remain.
5. All new pedestrian signal heads shall be L.E.D. countdown type.
6. Contractor shall exercise appropriate caution and insure that all appropriate traffic control devices called for in the traffic control plan are in place before performing any work within or near TxDOT right-of-way.
7. All new APS push button stations shall be Polara EZCommunicator 2 Wire Navigator, or approved equivalent. Push button stations shall be black.
8. Existing phasing to be modified to accommodate pedestrian phases. City is responsible for updating timing in controller cabinet.



Wire Run*								
Item	Run	A*	B*	C*	D*	E	F	G
Wire	3/C #4							
	#6 Bare Electrical Conductor (ground wire)						1	
	3-1/C #10							
	5/C #14			8	2	1	1	4
	7/C #14							
	3/C #16 Confirmation Light							
Video Cable/Wire	Beldon 8281							
	3/C #16							
Conduit	2" PVC							
	3" PVC						1	
	4" PVC							
CCTV	RG-59 Siamese Cable							
Spread Spectrum	R6-8 Coaxial							

* This chart reflects new wire only.

Existing Mast Arm Mounted Signs

Raymond Stotzer Pkwy 800
S1

Discovery Dr 200
S4

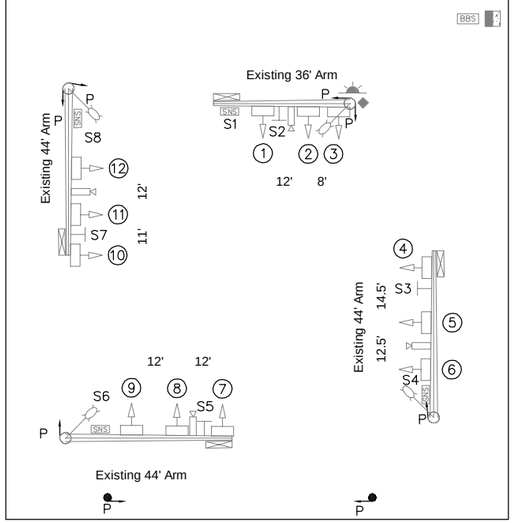
Raymond Stotzer Pkwy
S6

Discovery Dr 200
S8

LEFT TURN YIELD ON GREEN — S2, S5

LEFT TURN YIELD ON FLASHING YELLOW ARROW — S3, S7

Mast Arm and Signal Face Locations



Existing Signal Faces

R Y Y G G — 1,7 — 12" ONE-WAY HORIZONTAL 5-SECTION R-Y~~Y/G~~-G SIGNAL HEAD

R Y G — 2,3,5,6,8,9,11,12 — 12" ONE-WAY HORIZONTAL 3-SECTION R-Y-G SIGNAL HEAD

R SY FY G — 4,10 — 12" ONE-WAY HORIZONTAL 4-SECTION ~~R-SY-FY/G~~ SIGNAL HEAD

10 — P — 16"x16", LED WITH 9" FULL SYMBOL HAND/MAN, SINGLE SECTION, PEDESTRIAN SIGNAL, WITH COUNTDOWN

9"x15", R10-e COUNTDOWN SIGNS WITH AUDIBLE PEDESTRIAN SIGNAL BUTTONS

Legend

Approximate Location of Existing Underground Gas Line	Existing Street Name Sign
Approximate Location of Existing Underground Telecommunication	Existing Pedestal Service
Approximate Location of Existing Underground Water Line	Existing Mast-Arm Mounted Sign
Existing Controller / Battery Backup System	Existing Mast-Arm Damper
Existing Traffic Signal Poles	Existing PTZ Camera
Existing Signal Head	Existing Antenna
Existing APS Push Button / Pedestrian Signal Head	Existing Conduit
Existing Mast Arm	Proposed Pedestrian Signal Pole
Existing Luminaire	Proposed APS Push Button / Pedestrian Signal Head
Existing Video Detector	Proposed Conduit Bored
Existing Ground Box	Proposed Conduit Trenched
	Proposed Ground Box
	Direction of Traffic Flow

No.	REVISIONS	DATE	BY

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7/25/2017

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
CHECKED BY SRA

PROPOSED TRAFFIC SIGNAL LAYOUT RAYMOND STOTZER PKWY. AND DISCOVERY DR.

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
6

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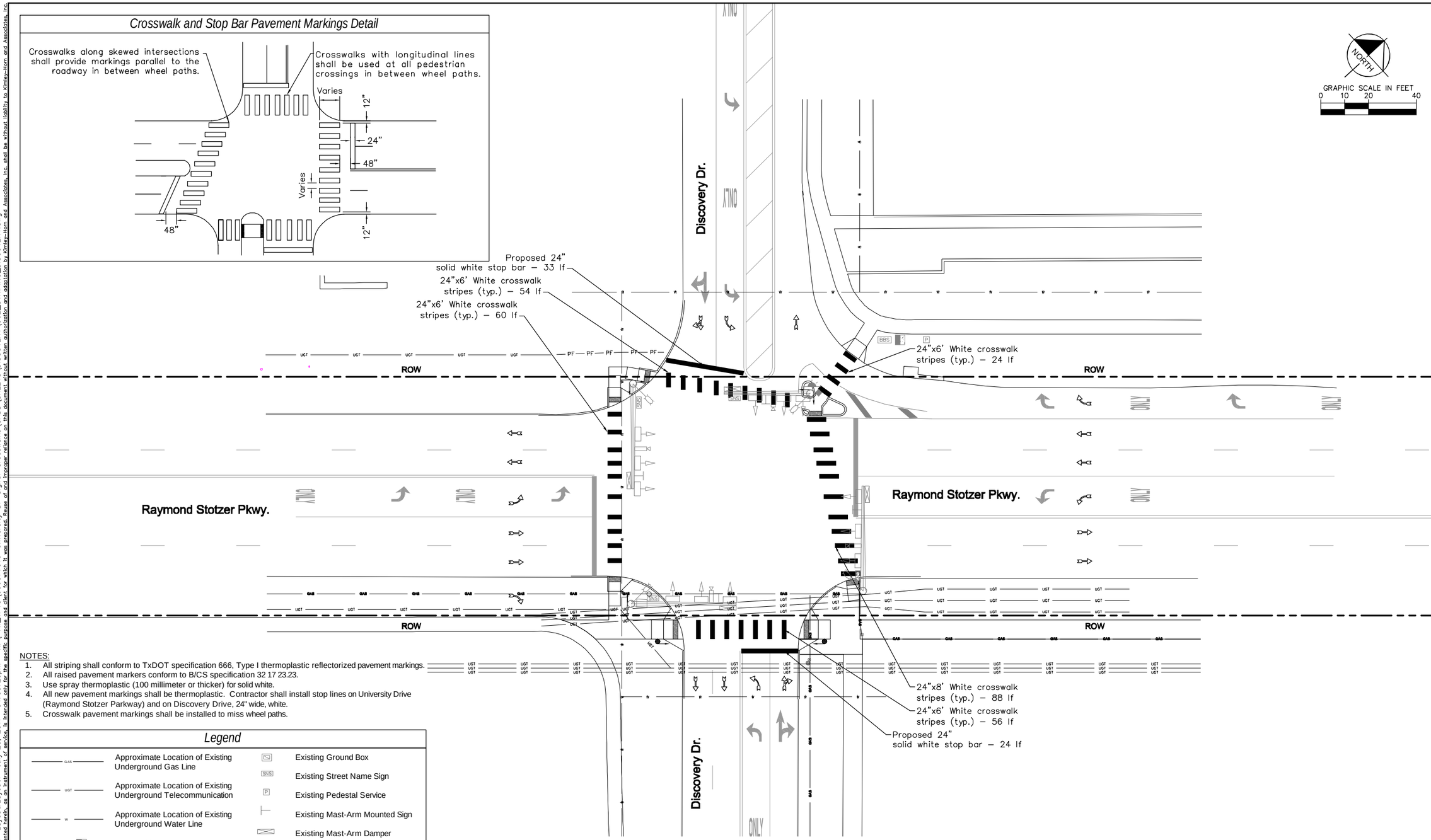
Crosswalk and Stop Bar Pavement Markings Detail



NOTES:

1. All striping shall conform to TxDOT specification 666, Type I thermoplastic reflectorized pavement markings.
2. All raised pavement markers conform to B/CS specification 32 17 23.23.
3. Use spray thermoplastic (100 millimeter or thicker) for solid white.
4. All new pavement markings shall be thermoplastic. Contractor shall install stop lines on University Drive (Raymond Stotzer Parkway) and on Discovery Drive, 24" wide, white.
5. Crosswalk pavement markings shall be installed to miss wheel paths.

Legend

GAS	Approximate Location of Existing Underground Gas Line		Existing Ground Box
UGT	Approximate Location of Existing Underground Telecommunication	SNS	Existing Street Name Sign
W	Approximate Location of Existing Underground Water Line	P	Existing Pedestal Service
BBS	Existing Controller / Battery Backup System		Existing Mast-Arm Mounted Sign
	Existing Traffic Signal Poles		Existing Mast-Arm Damper
	Existing Signal Head		Existing PTZ Camera
	Existing APS Push Button / Pedestrian Signal Head		Existing Antenna
	Existing Mast Arm		Existing Conduit
	Existing Luminaire		Proposed Pedestrian Signal Pole
	Existing Video Detector	P	Proposed APS Push Button / Pedestrian Signal Head
			Direction of Traffic Flow

No.	REVISIONS	DATE	BY

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7/25/2017

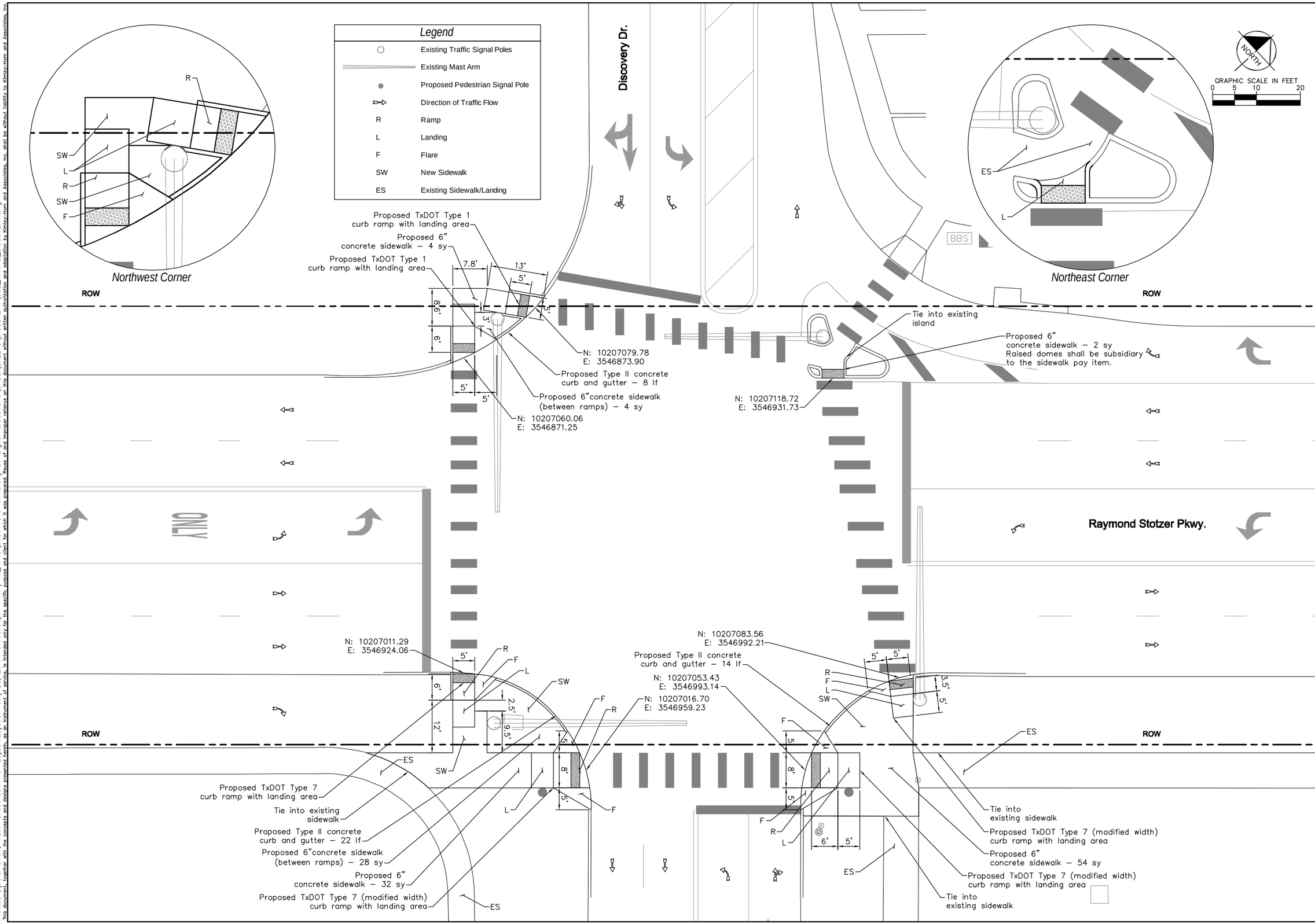
STATE OF TEXAS
MATT CIARKOWSKI
114222
PROFESSIONAL ENGINEER
LICENSED

KHA PROJECT	066077916
DATE	JULY 2017
SCALE	AS SHOWN
DESIGNED BY	MEC
DRAWN BY	MEC
CHECKED BY	SRA

PAVEMENT MARKINGS
RAYMOND STOTZER PKWY.
AND DISCOVERY DR.

RAYMOND STOTZER PKWY.
SIGNAL AND CROSSWALK
MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
7



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7/25/2017

STATE OF TEXAS
MATT CIARKOWSKI
114222
PROFESSIONAL ENGINEER

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
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RAMP LAYOUT RAYMOND STOTZER PKWY. AND DISCOVERY DR.

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
8

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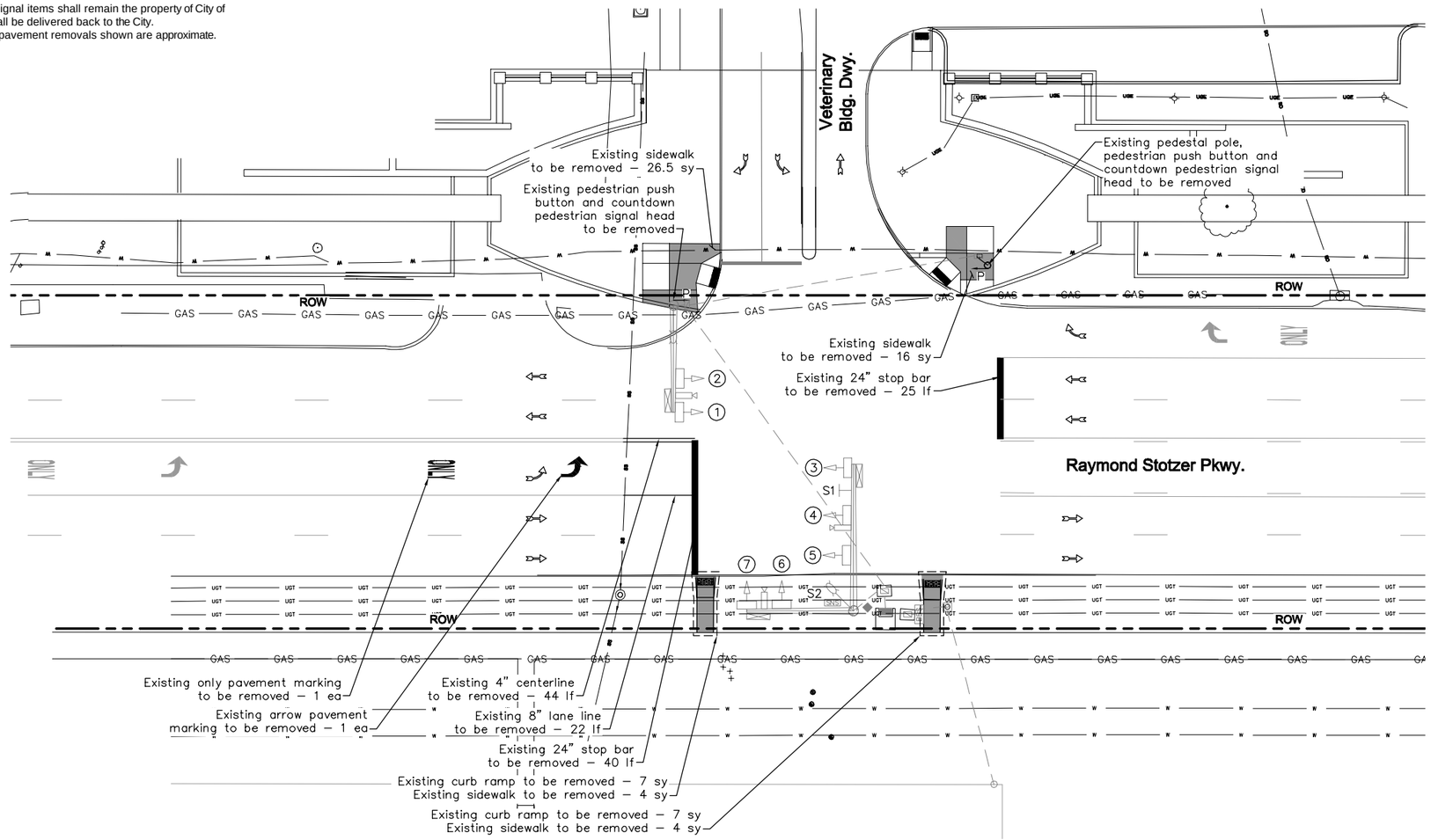
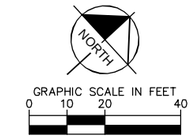
NOTES:

1. Contractor shall contact Texas 811 for location of underground utilities 72 hours prior to any excavation in area.
2. Location of utilities shown are approximate. It is the contractor's responsibility to locate all utilities (public and private) prior to commencing work.
3. Removal of signal equipment shall be measured and paid for with Item 680-6004.
4. All salvageable traffic signal items shall remain the property of City of College Station and shall be delivered back to the City.
5. Existing joint lines and pavement removals shown are approximate.





Existing Signal Faces

R Y G — 1,2,4,5,6,7 — *12" ONE-WAY HORIZONTAL 3-SECTION R-Y-G SIGNAL HEAD*

R SY FY G — 3 — *12" ONE-WAY HORIZONTAL 4-SECTION ~~R-SY-FY-G~~ SIGNAL HEAD*

10 — P — *16"x16", LED WITH 9" FULL SYMBOL HAND/MAN, SINGLE SECTION, PEDESTRIAN SIGNAL, WITH COUNTDOWN*

9"x15", R10-e COUNTDOWN SIGNS WITH PEDESTRIAN SIGNAL BUTTONS

Legend

Approximate Location of Existing Underground Gas Line	Existing Video Detector
Approximate Location of Existing Underground Telecommunication	Existing Ground Box
Approximate Location of Existing Underground Water Line	Existing Street Name Sign
Existing Controller / Battery Backup System	Existing Pedestal Service
Existing Traffic Signal Poles	Existing Mast-Arm Mounted Sign
Existing Signal Head	Existing Mast-Arm Damper
Existing Push Button / Pedestrian Signal Head	Existing PTZ Camera
Existing Mast Arm	Existing Antenna
Existing Luminaire	Existing Conduit
	Direction of Traffic Flow

Existing Mast Arm Mounted Signs

LEFT TURN YIELD ON FLASHING YELLOW ARROW — S1

Raymond Stotzer Pkwy — S2

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STATE OF TEXAS — MATT CIARKOWSKI — 114222 — LICENSED PROFESSIONAL ENGINEER

KHA PROJECT 066077916
DATE JULY 2017
SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
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EXISTING CONDITIONS AND REMOVALS LAYOUT
RAYMOND STOTZER PKWY. AND VETERINARY BUILDING DRIVEWAY

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
9

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Legend

Approximate Location of Existing Underground Gas Line	Existing Street Name Sign
	Existing Pedestal Service
Approximate Location of Existing Underground Telecommunication	Existing Mast-Arm Mounted Sign
Approximate Location of Existing Underground Water Line	Existing Mast-Arm Damper
	Existing PTZ Camera
Existing Controller / Battery Backup System	Existing Antenna
Existing Traffic Signal/Pedestal Poles	Existing Conduit
Existing Signal Head	Proposed Pedestrian Signal Pole
Existing Push Button / Pedestrian Signal Head	Proposed APS Push Button / Pedestrian Signal Head
Existing Mast Arm	Proposed Conduit Bored
Existing Luminaire	Proposed Conduit Trenched
Existing Video Detector	Proposed Ground Box
Existing Ground Box	Direction of Traffic Flow

Existing Mast Arm Mounted Signs

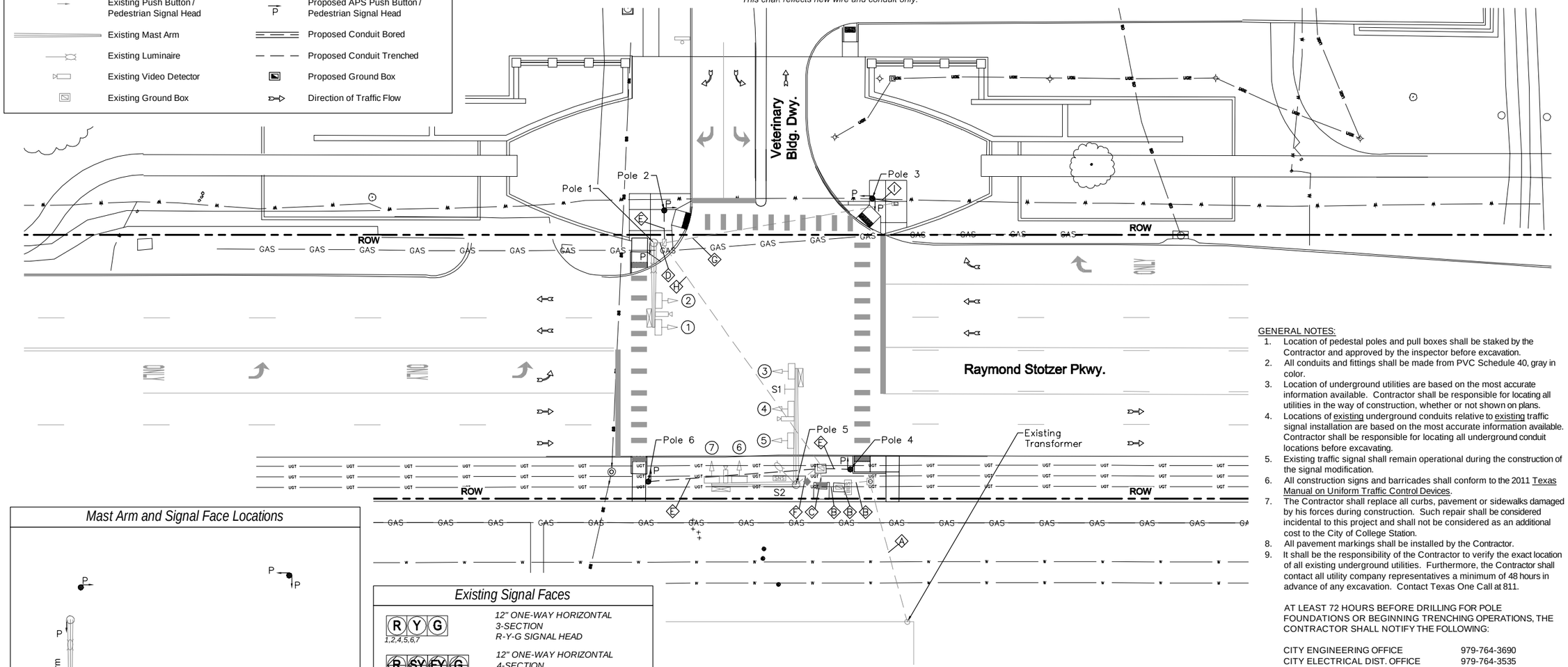
S1

Raymond Stotzer Pkwy

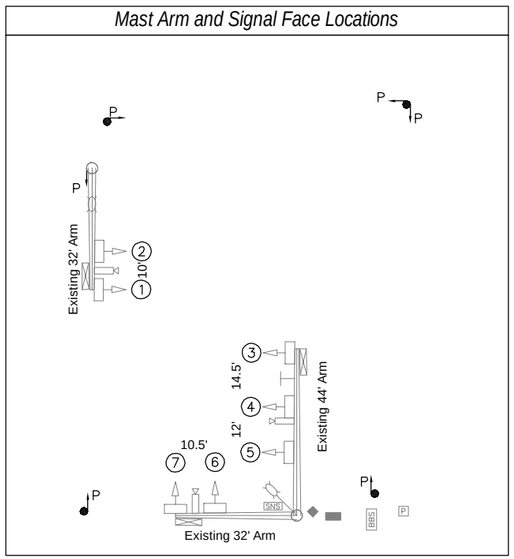
S2

Item	Run	A	B	C	D	E	F	G	H	I
		Wire Run*								
Wire	3/C #4									
	#6 Bare Electrical Conductor (ground wire)					1				1
	3-1/C #10									
	5/C #14			6	1	1		2	4	2
	7/C #14									
	3/C #16 Confirmation Light									
Video Cable/Wire	Beldon 8281									
	3/C #16									
Conduit	2" PVC									
	3" PVC					1				1
	4" PVC									
CCTV	RG-59 Siamese Cable									
Spread Spectrum	R6-8 Coaxial									

* This chart reflects new wire and conduit only.



Mast Arm and Signal Face Locations



Existing Signal Faces

R Y G — 1,2,4,5,6,7

12" ONE-WAY HORIZONTAL 3-SECTION R-Y-G SIGNAL HEAD

R SY FY G — 3

12" ONE-WAY HORIZONTAL 4-SECTION ~~R-SY-FY-G~~ SIGNAL HEAD

Proposed Signal Faces

16"x16", LED WITH 9" FULL SYMBOL HAND/MAN, SINGLE SECTION, PEDESTRIAN SIGNAL, WITH COUNTDOWN

9"x15", R10-e COUNTDOWN SIGNS WITH AUDIBLE PEDESTRIAN SIGNAL BUTTONS

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PROPOSED TRAFFIC SIGNAL LAYOUT RAYMOND STOTZER PKWY. AND VETERINARY BUILDING DRIVEWAY

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
10

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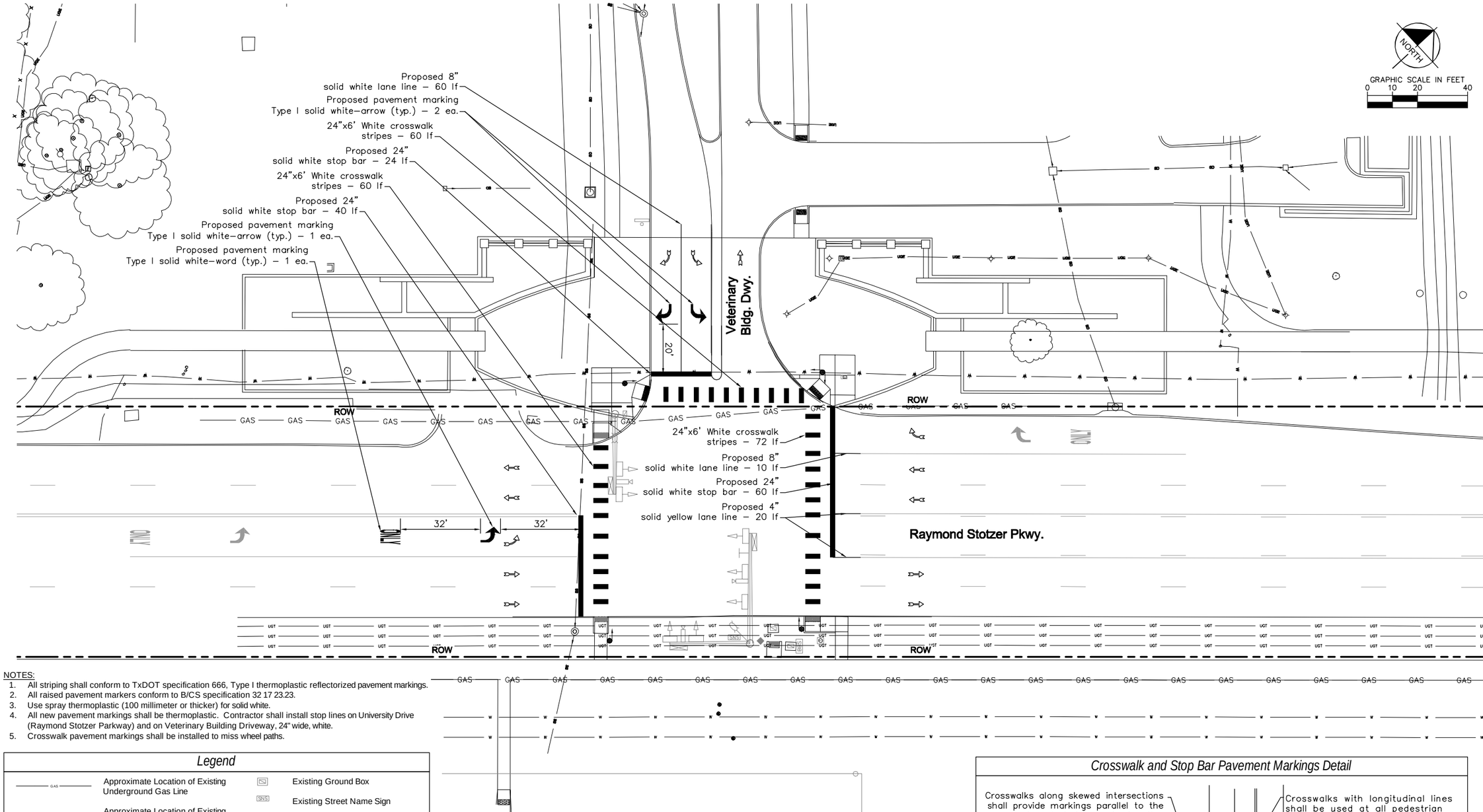

NOTES:

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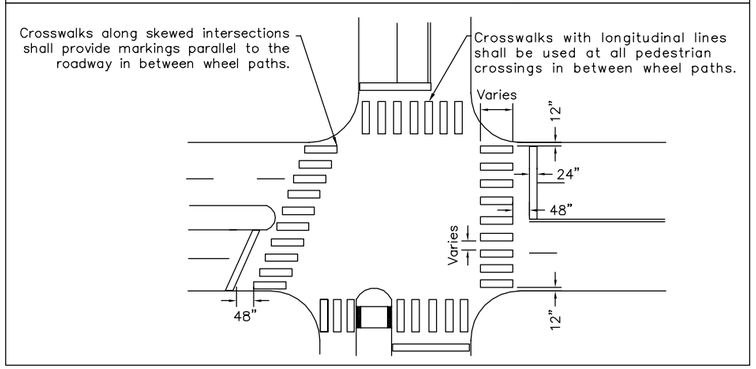
2. All raised pavement markers conform to B/CS specification 32 17 23.23.
3. Use spray thermoplastic (100 millimeter or thicker) for solid white.
4. All new pavement markings shall be thermoplastic. Contractor shall install stop lines on University Drive (Raymond Stotzer Parkway) and on Veterinary Building Driveway, 24" wide, white.
5. Crosswalk pavement markings shall be installed to miss wheel paths.

Legend

Approximate Location of Existing Underground Gas Line	Existing Ground Box
Approximate Location of Existing Underground Telecommunication	Existing Street Name Sign
Approximate Location of Existing Underground Water Line	Existing Pedestal Service
Existing Controller / Battery Backup System	Existing Mast-Arm Mounted Sign
Existing Traffic Signal Poles	Existing Mast-Arm Damper
Existing Signal Head	Existing PTZ Camera
Existing APS Push Button / Pedestrian Signal Head	Existing Antenna
Existing Mast Arm	Existing Conduit
Existing Luminaire	Proposed Pedestrian Signal Pole
Existing Video Detector	Proposed APS Push Button / Pedestrian Signal Head
	Direction of Traffic Flow

Crosswalk and Stop Bar Pavement Markings Detail



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PAVEMENT MARKINGS RAYMOND STOTZER PKWY. AND VETERINARY BUILDING DRIVEWAY

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COLLEGE STATION, TEXAS

SHEET NUMBER
11

Plotted By: Ciarkowski, Matt Sheet Set: Kha Layout: Layout1 July 25, 2017 04:11:59pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalks\CADD\SHEETS\VET_BLDG\00E_STRIPING_VET_BLDG.dwg
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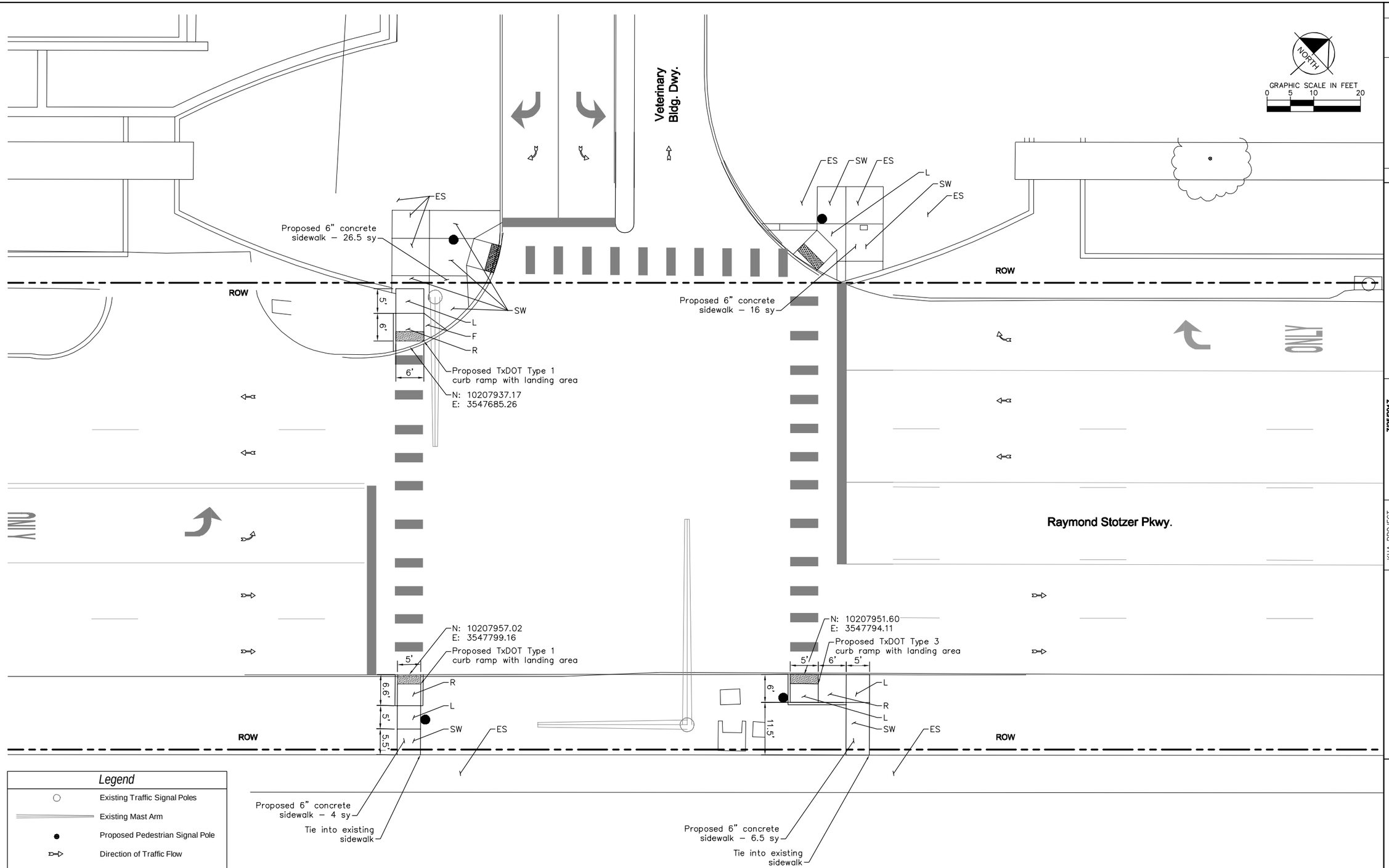

Legend

○	Existing Traffic Signal Poles
═══	Existing Mast Arm
●	Proposed Pedestrian Signal Pole
▷▷	Direction of Traffic Flow
R	Ramp
L	Landing
F	Flare
SW	New Sidewalk
ES	Existing Sidewalk/Landing

No.	REVISIONS	DATE	BY

Kimley»Horn

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7/25/2017

STATE OF TEXAS
MATT CIARKOWSKI
114222
PROFESSIONAL ENGINEER
LICENSED

KHA PROJECT 066077916

DATE JULY 2017

SCALE AS SHOWN
DESIGNED BY MEC
DRAWN BY MEC
CHECKED BY SRA

RAMP LAYOUT RAYMOND STOTZER PKWY. AND VETERINARY BUILDING DRIVEWAY

RAYMOND STOTZER PKWY. SIGNAL AND CROSSWALK MODIFICATIONS
PREPARED FOR
CITY OF COLLEGE STATION
COLLEGE STATION, TEXAS

SHEET NUMBER
12

Plotted By:Ciarkowski, Matt Sheet Set:Kha Layout:Layout1 July 25, 2017 04:12:38pm K:\FTW_TPTO\066077916-University-Dr-Signal-Crosswalks\CADD\SHEETS\VET_BLDG\00E_RAMPS_VET_BLDG.dwg
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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).

2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.

3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.

4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.

5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.

6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.

7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.

8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.

9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.

10. As shown on BC(2), the OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER (see Sign Detail G20-10T) and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. However, the TRAFFIC FINES DOUBLE sign will not be required on projects consisting solely of mobile operation work, such as striping or milling edgeline rumble strips. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits.

11. Except for devices required by Note 10, traffic control devices should be in place only while work is actually in progress or a definite need exists.

12. The Engineer has the final decision on the location of all traffic control devices.

13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY APPAREL NOTES:

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.

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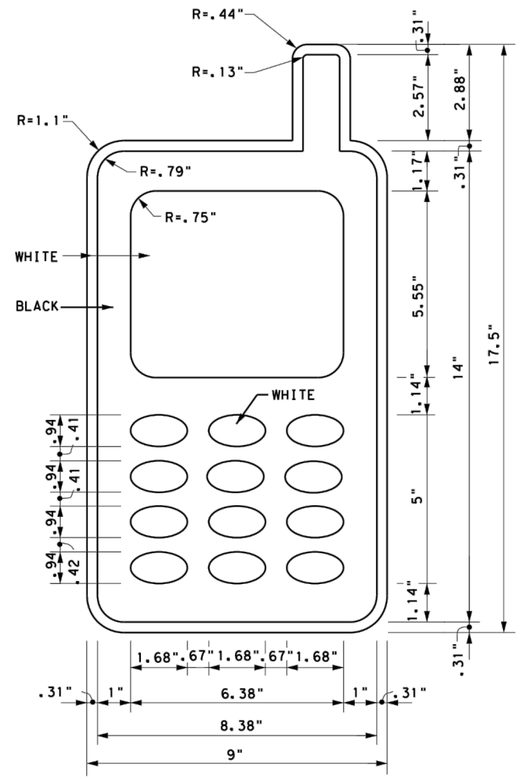

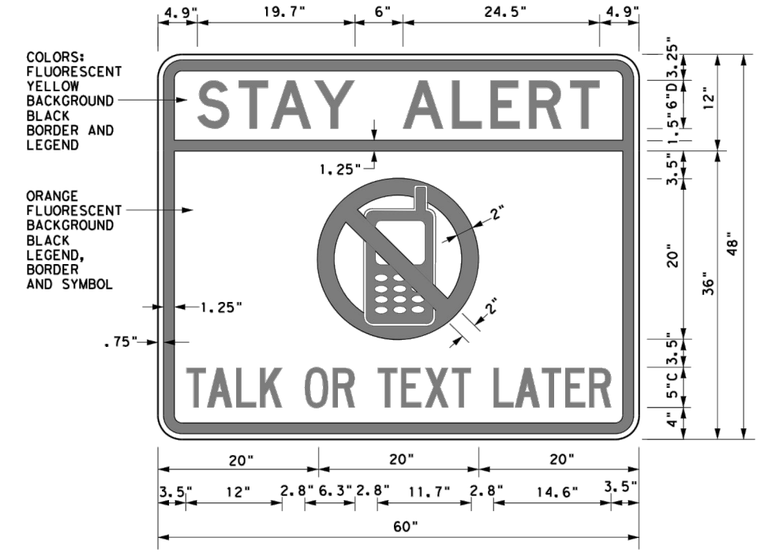

3.0" Radius, 1.25" Border, 0.75" Indent, Black on Yellow;
[STAY ALERT] Font: D
3.0" Radius, 1.25" Border, 0.75" Indent, Black on Orange;
[TALK OR TEXT LATER] Font: C specified length;

SIGN DETAIL (G20-10T)

Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found on-line at the web address given below or by contacting:

Texas Department of Transportation
Traffic Operations Division - TE
Phone (512) 416-3118

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT http://www.txdot.gov
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

BC(1)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT November 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	---	---	---	FM 60
4-03 5-10 8-14	DIST		COUNTY	SHEET NO.
9-07 7-13	BRYAN		BRAZOS	13

DATE:
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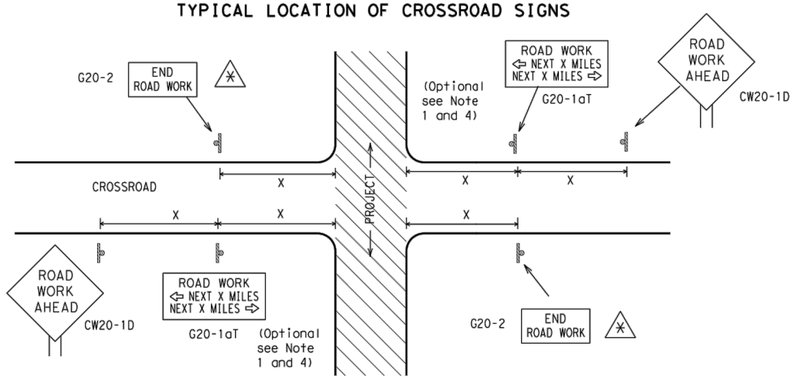
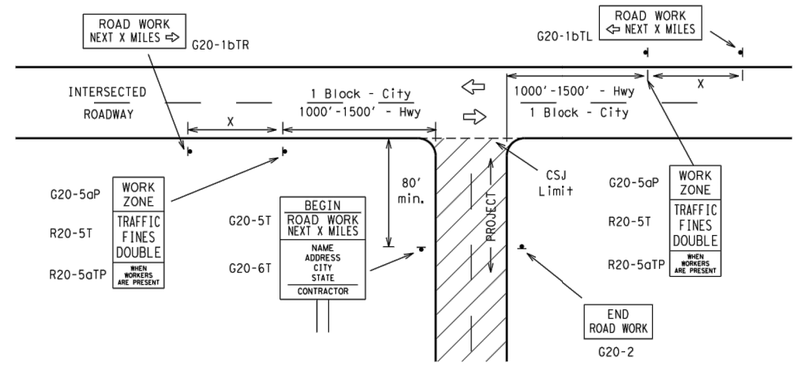
TYPICAL LOCATION OF CROSSROAD SIGNS



✳ May be mounted on back of "ROAD WORK AHEAD"(CW20-1D) sign with approval of Engineer. (See note 2 below)

1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D)sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK"(G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES"(G20-1aT)sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
2. If construction closes the road at a T-intersection the Contractor shall place the "CONTRACTOR NAME"(G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow(G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR)" signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING[1,5,6]

SIZE

Sign Number or Series	Conventional Road	Expressway/ Freeway
CW20[4] CW21 CW22 CW23 CW25	48" x 48"	48" x 48"
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"

SPACING

Posted Speed	Sign Spacing "X" △
MPH	Feet (Apprx.)
30	120
35	160
40	240
45	320
50	400
55	500[2]
60	600[2]
65	700[2]
70	800[2]
75	900[2]
80	1000[2]
✳	✳[3]

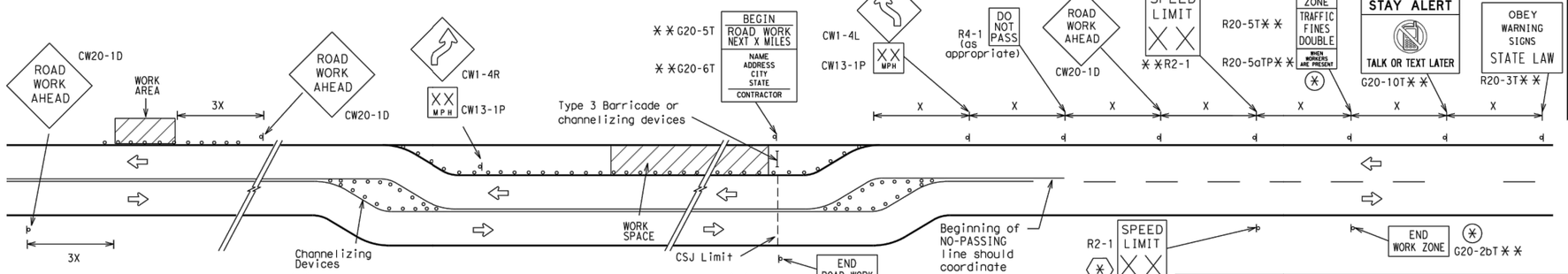
✳ For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

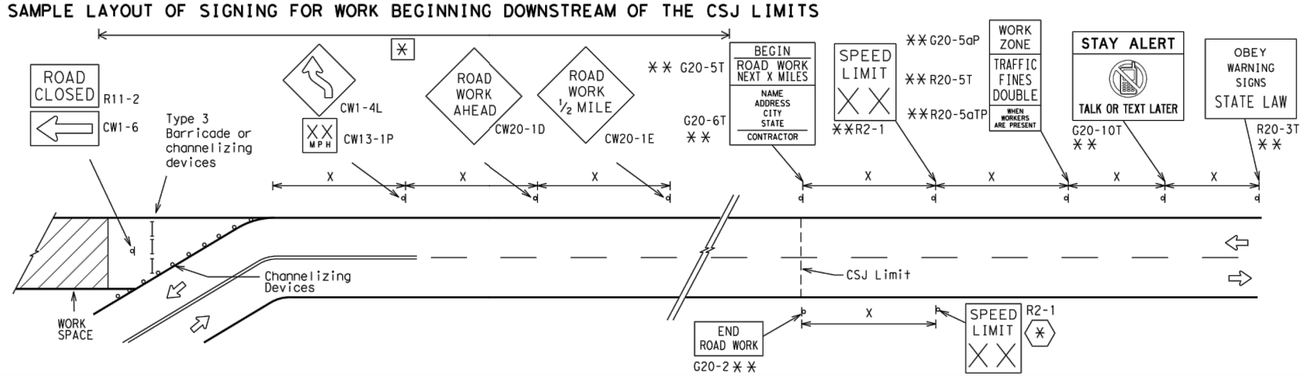
1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D)signs may be used on low volume crossroads at the discretion of the Engineer. See Note 2 under "Typical Location of Crossroad Signs".
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD"(CW20-1D)signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



NOTES

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES"(G20-5T)sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.

(✳) The "BEGIN WORK ZONE"(G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.

✳✳ Required CSJ Limit signing. See Note 10 on BC(1). TRAFFIC FINES DOUBLE signs will not be required on projects consisting solely of mobile operations work.

[✳] Area for placement of "ROAD WORK AHEAD" (CW20-1D)sign and other signs or devices as called for on the Traffic Control Plan.

(✳) Contractor will install a regulatory speed limit sign at the end of the work zone.

LEGEND

⊢⊣	Type 3 Barricade
○ ○ ○	Channelizing Devices
▬	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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REVISIONS	---	---	---	FM 60
9-07 8-14	DIST		COUNTY	SHEET NO.
7-13	BRYAN		BRAZOS	14

DATE:
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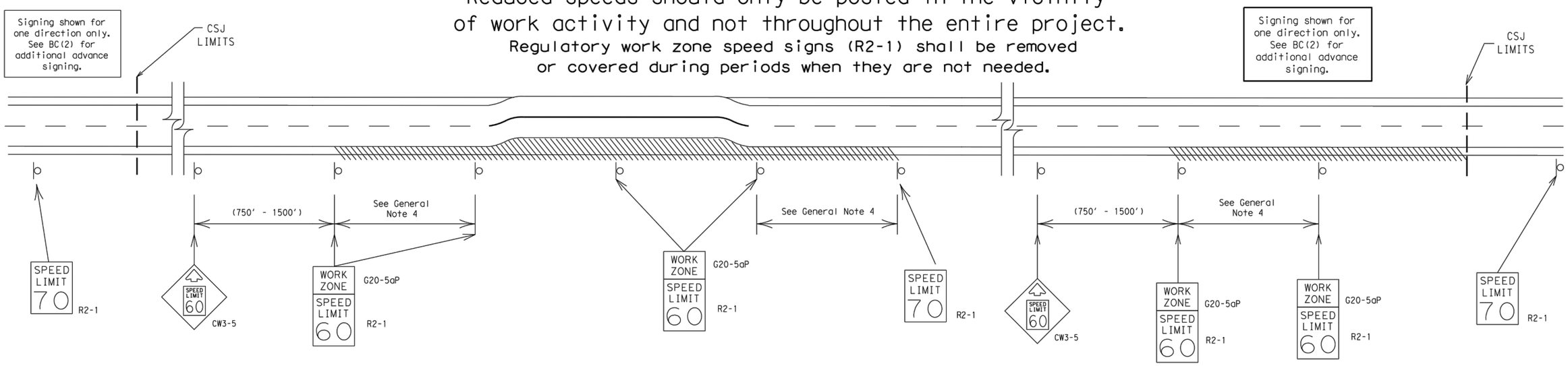
TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project.

Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

a) rough road or damaged pavement surface
b) substantial alteration of roadway geometrics (diversions)
c) construction detours
d) grade
e) width
f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the travelled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered.
(See Removing or Covering on BC(4)).

GENERAL NOTES

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
   40 mph and greater 0.2 to 2 miles
   35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the"ADVANCE SPEED LIMIT"(CW3-5)sign, "WORK ZONE"(G20-5aP) plaque and the "SPEED LIMIT"(R2-1)signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
   A. Law enforcement.
   B. Flagger stationed next to sign.
   C. Portable changeable message sign (PCMS).
   D. Low-power (drone) radar transmitter.
   E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only.
   Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

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SHEET 3 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC(3)-14

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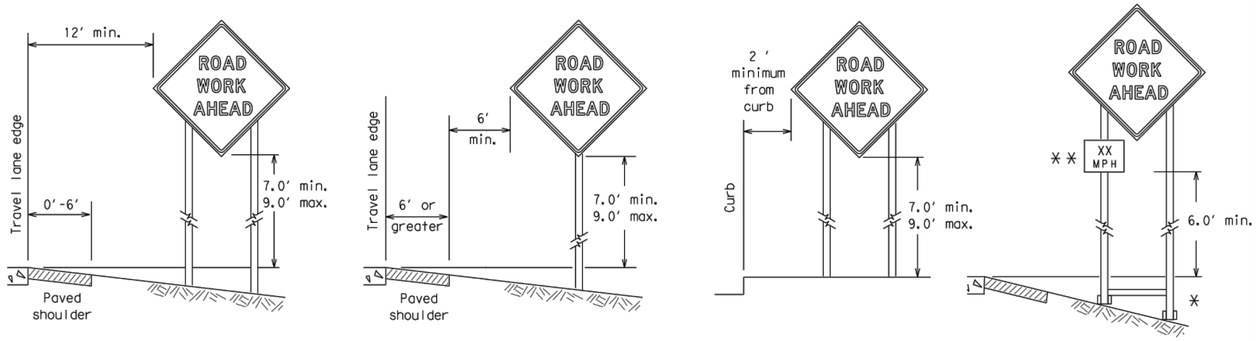
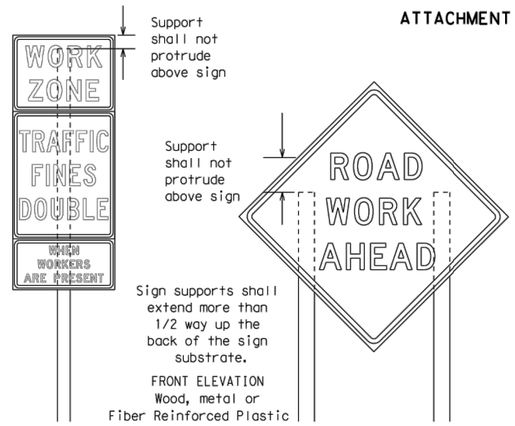
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



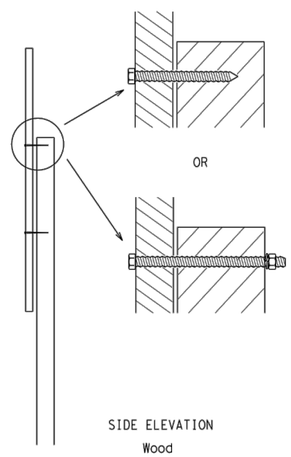
✳ When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

✳✳ When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

ATTACHMENT FOR SIGN SUPPORTS



Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the spice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

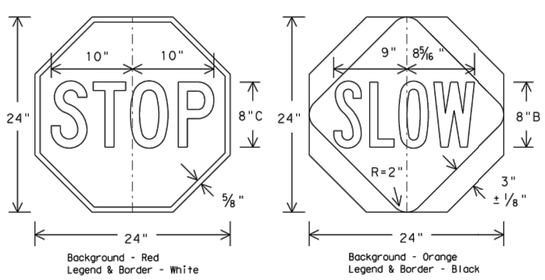


Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

STOP/SLOW PADDLES

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24" as detailed below.
2. When used at night, the STOP/SLOW paddle shall be retroreflectorized.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMUTCD.



CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

1. Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
2. When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC sheets or the CWZTCD. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
5. The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
7. The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
8. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
9. The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

1. The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
   a. Long-term stationary - work that occupies a location more than 3 days.
   b. Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
   c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
   d. Short, duration - work that occupies a location up to 1 hour.
   e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

1. The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
2. The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate sign height.
5. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

1. The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

1. The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
2. "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
3. All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

1. All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
3. Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
4. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

1. Flags may be used to draw attention to warning signs. When used the flag shall be 16 inches square or larger and shall be orange or fluorescent red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

BC(4)-14

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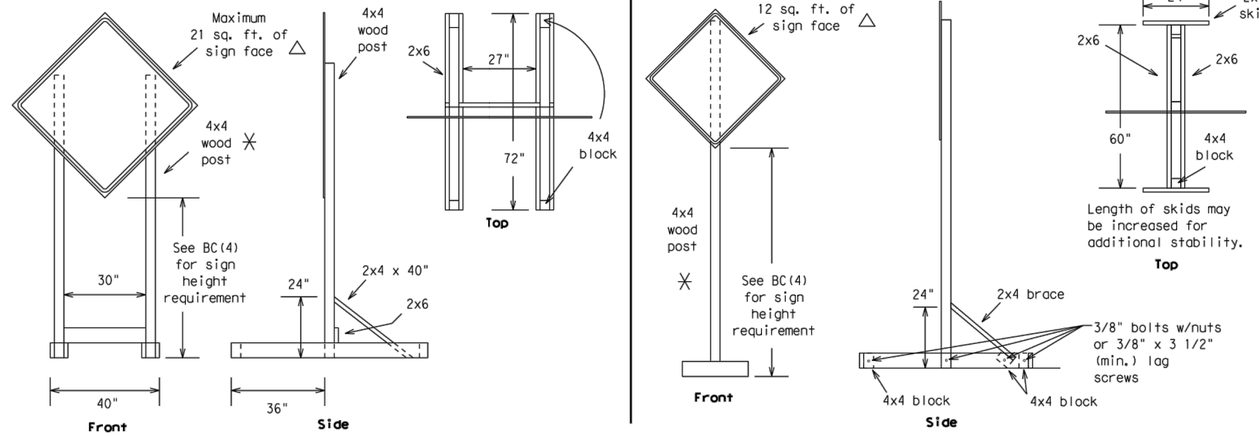
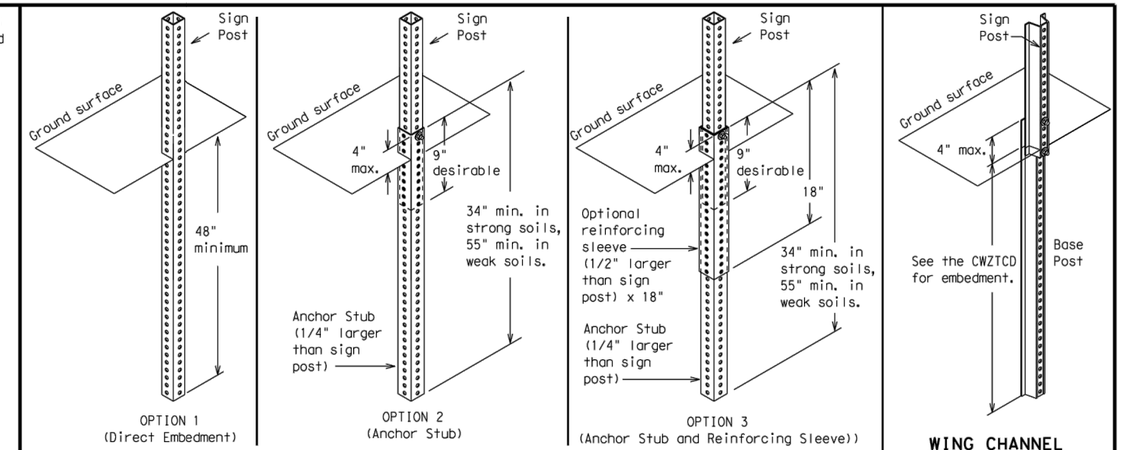


SKID MOUNTED WOOD SIGN SUPPORTS

LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS □

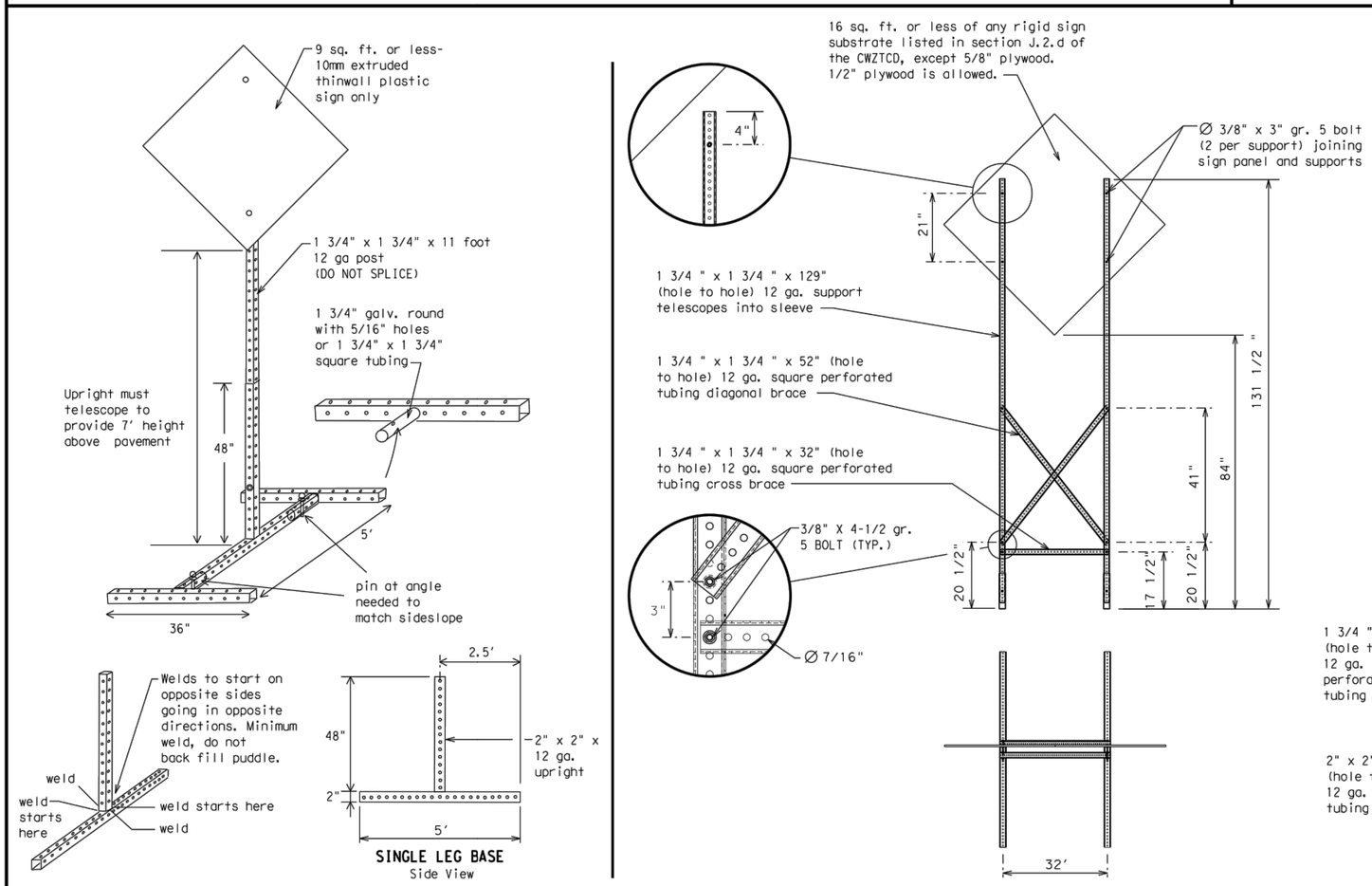


PERFORATED SQUARE METAL TUBING

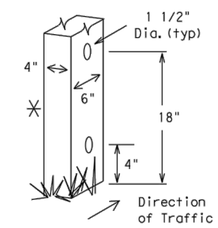
WING CHANNEL
Lap-splice/base bolted anchor

GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support.
The maximum sign square footage shall adhere to the manufacturer's recommendation.
Two post installations can be used for larger signs.



SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS



Nominal Post Size	Number of Posts	Maximum Sq. feet of Sign Face	Minimum Soil Embedment	Drilled Hole(s) Required
4 x 4	1	12	36"	NO
4 x 4	2	21	36"	NO
4 x 6	1	21	36"	YES
4 x 6	2	36	36"	YES

WOOD POST SYSTEM FOR GROUND MOUNTED SIGN SUPPORTS

WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

□ See BC(4) for definition of "Work Duration."

✳ Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.

△ See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC(5)-14

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

PORTABLE CHANGEABLE MESSAGE SIGNS

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
3. Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
8. The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMUTCD.
15. PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
16. Each line of text should be centered on the message board rather than left or right justified.
17. If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy	HOV
Vehicle Highway	HWY
Hour(s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT

WORD OR PHRASE	ABBREVIATION
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Monday	MON
Normal	NORM
North	N
Northbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

Roadway designation # IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE	FRONTAGE ROAD CLOSED
ROAD CLOSED AT SH XXX	SHOULDER CLOSED XXX FT
ROAD CLSD AT FM XXXX	RIGHT LN CLOSED XXX FT
RIGHT X LANES CLOSED	RIGHT X LANES OPEN
CENTER LANE CLOSED	DAYTIME LANE CLOSURES
NIGHT LANE CLOSURES	I-XX SOUTH EXIT CLOSED
VARIOUS LANES CLOSED	EXIT XXX CLOSED X MILE
EXIT CLOSED	RIGHT LN TO BE CLOSED
MALL DRIVEWAY CLOSED	X LANES CLOSED TUE - FRI
XXXXXXXX BLVD CLOSED	

Other Condition List

ROADWORK XXX FT	ROAD REPAIRS XXXX FT
FLAGGER XXXX FT	LANE NARROWS XXXX FT
RIGHT LN NARROWS XXXX FT	TWO-WAY TRAFFIC XX MILE
MERGING TRAFFIC XXXX FT	CONST TRAFFIC XXX FT
LOOSE GRAVEL XXXX FT	UNEVEN LANES XXXX FT
DETOUR X MILE	ROUGH ROAD XXXX FT
ROADWORK PAST SH XXXX	ROADWORK NEXT FRI-SUN
BUMP XXXX FT	US XXX EXIT X MILES
TRAFFIC SIGNAL XXXX FT	LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

MERGE RIGHT	FORM X LINES RIGHT
DETOUR NEXT X EXITS	USE XXXXX RD EXIT
USE EXIT XXX	USE EXIT I-XX NORTH
STAY ON US XXX SOUTH	USE I-XX E TO I-XX N
TRUCKS USE US XXX N	WATCH FOR TRUCKS
WATCH FOR TRUCKS	EXPECT DELAYS
EXPECT DELAYS	PREPARE TO STOP
REDUCE SPEED XXX FT	END SHOULDER USE
USE OTHER ROUTES	WATCH FOR WORKERS
STAY IN LANE *	

Location List

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
XXXXXXX TO XXXXXXX
US XXX TO FM XXXX

Warning List

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

** Advance Notice List

TUE-FRI XX AM- X PM
APR XX- XX X PM-X AM
BEGINS MONDAY
BEGINS MAY XX
MAY X-X XX PM - XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM- XX AM

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
6. For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

1. When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
2. When symbol signs, such as the "Flagger Symbol"(CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
3. When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
4. A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

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BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC(6)-14

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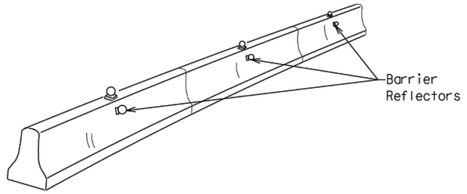
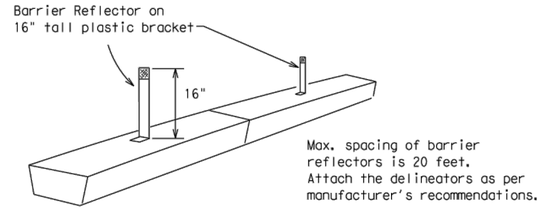
1. Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
2. Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.

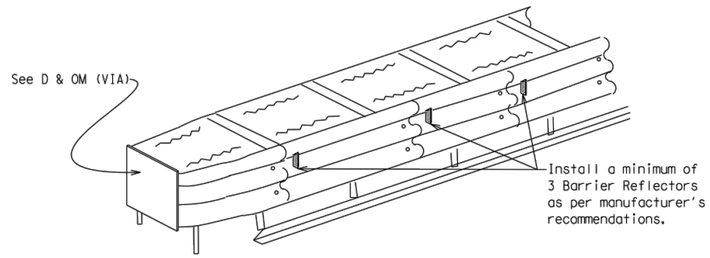


CONCRETE TRAFFIC BARRIER (CTB)

3. Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
4. Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional)while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
5. When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
6. Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
7. Maximum spacing of Barrier Reflectors is forty (40) feet.
8. Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
9. Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
10. Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
11. Single slope barriers shall be delineated as shown on the above detail.



LOW PROFILE CONCRETE BARRIER (LPCB)

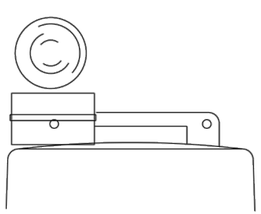


DELINEATION OF END TREATMENTS

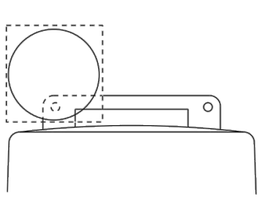
END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet crashworthy standards as defined in the National Cooperative Highway Research Report 350. Refer to the CWZTCD List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square.Must have a yellow reflective surface area of at least 30 square inches

WARNING LIGHTS

1. Warning lights shall meet the requirements of the TMUTCD.
2. Warning lights shall NOT be installed on barricades.
3. Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B_{FL} or C_{FL} Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
4. Type-C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
5. The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
6. When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
7. When used to delineate curves, Type-C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
8. The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

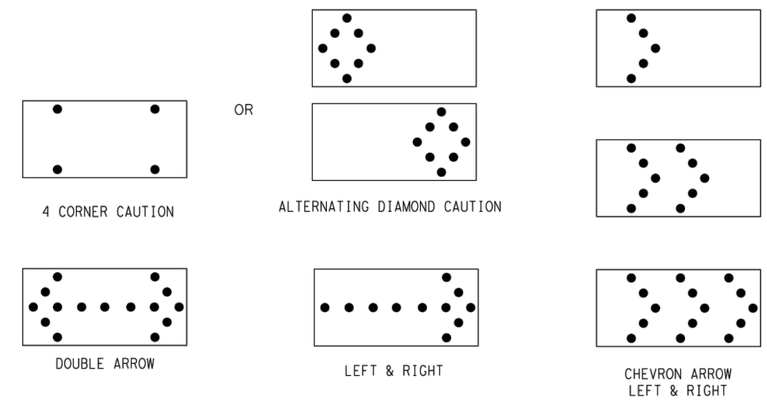
1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
4. Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
5. Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
6. Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
7. The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

1. A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
2. The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CWZTCD.
3. The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
4. Round reflectors shall be fully reflectorized, including the area where attached to the drum.
5. Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
6. The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-Type B or Type C.
7. When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
8. The warning reflector should be mounted on the side of the handle nearest approaching traffic.
9. The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

1. The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
2. Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
3. The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
4. The Flashing Arrow Board should be able to display the following symbols:



5. The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
6. The straight line caution display is NOT ALLOWED.
7. The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
8. Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
9. The sequential arrow display is NOT ALLOWED.
10. The flashing arrow display is the TxDOT standard; however, the sequential Chevron display may be used during daylight operations.
11. The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
12. A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
13. A full matrix PCMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
14. Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS

TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION

Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the National Cooperative Highway Research Report No. 350 (NCHRP 350) or the Manual for Assessing Safety Hardware (MASH).
2. Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
3. Refer to the CWZTCD for a list of approved TMAs.
4. TMAs are required on freeways unless otherwise noted in the plans.
5. A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
6. The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

Texas Department of Transportation

Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC(7)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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9-07 8-14	DIST		COUNTY	SHEET NO.
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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

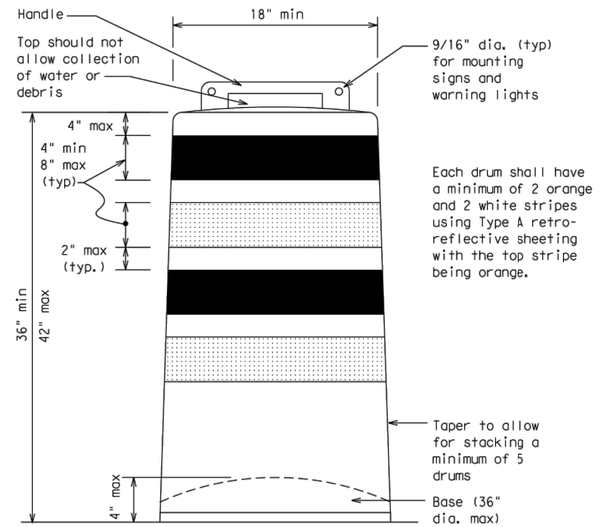
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

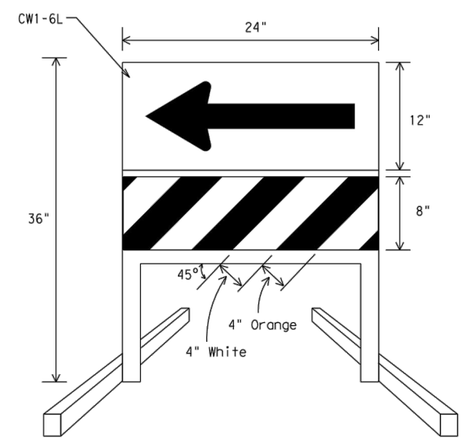
RETROREFLECTIVE SHEETING

1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.

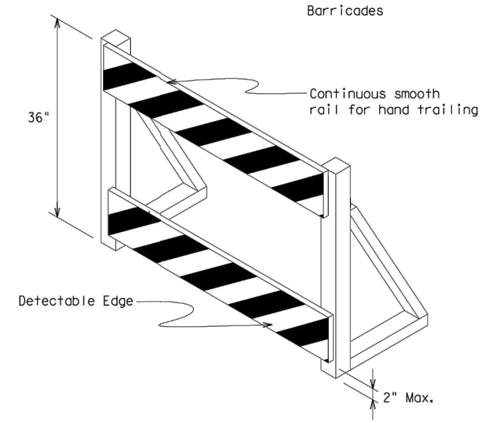




DIRECTION INDICATOR BARRICADE

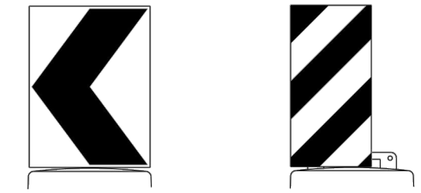
1. The Direction Indicator Barricade may be used in tapers, transitions, and other areas where specific directional guidance to drivers is necessary.
2. If used, the Direction Indicator Barricade should be used in series to direct the driver through the transition and into the intended travel lane.
3. The Direction Indicator Barricade shall consist of One-Direction Large Arrow (CW1-6) sign in the size shown with a black arrow on a background of Type B_{FL} or Type C_{FL} Orange retroreflective sheeting above a rail with Type A retroreflective sheeting in alternating 4" white and orange stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Sheeting types shall be as per DMS 8300.
4. Double arrows on the Direction Indicator Barricade will not be allowed.
5. Approved manufacturers are shown on the CWZTCD List. Ballast shall be as approved by the manufacturers instructions.

This detail is not intended for fabrication. See note 3 and the CWZTCD list for providers of approved Detectable Pedestrian Barricades



DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades may use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign (Maximum Sign Dimension) Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer

12" x 24" Vertical Panel mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(8)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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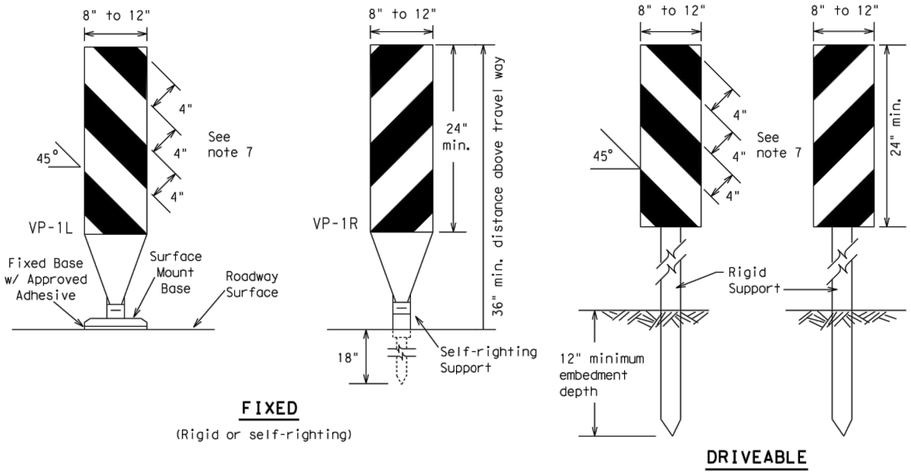
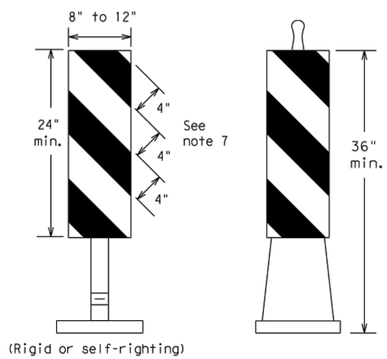


FIXED

(Rigid or self-righting)

DRIVEABLE

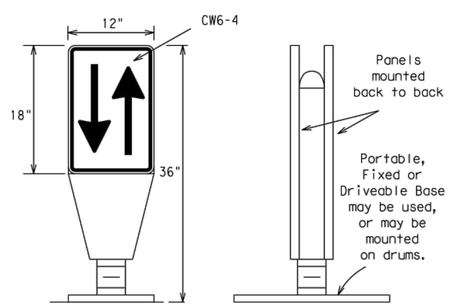


(Rigid or self-righting)

PORTABLE

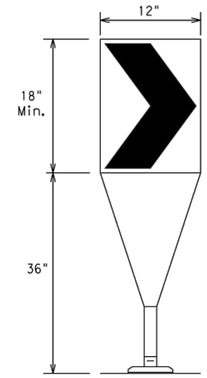
1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual Appendix B "Treatment of Pavement Drop-offs in Work Zones" for additional guidelines on the use of VP's for drop-offs.
3. VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
4. VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
5. Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
6. Sheeting for the VP's shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
7. Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.

VERTICAL PANELS (VPs)



1. Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
2. The OTLD may be used in combination with 42" cones or VPs.
3. Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
4. The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.

OPPOSING TRAFFIC LANE DIVIDERS (OTLD)



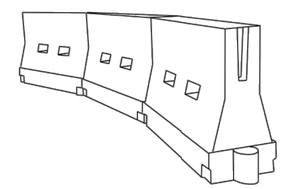
Fixed Base w/ Approved Adhesive (Driveable Base, or Flexible Support can be used)

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
3. Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
4. To be effective, the chevron should be visible for at least 500 feet.
5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
6. For Long Term Stationary use on tapers or transitions on freeways and divided highways self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS

GENERAL NOTES

1. Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
3. Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
4. The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
5. Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
6. Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
7. The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.



LONGITUDINAL CHANNELIZING DEVICES (LCD)

1. LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
2. LCDs may be used instead of a line of cones or drums.
3. LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
5. LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
6. LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10) placed near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

1. Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate NCHRP 350 crashworthiness requirements based on roadway speed and barrier application.
2. Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
3. Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
5. When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long canes and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

Posted Speed *	Formula	Minimum Desirable Taper Lengths * *			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L = WS	450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

* * Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(9)-14

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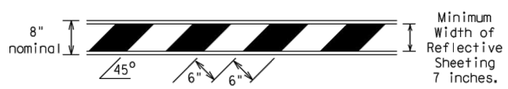
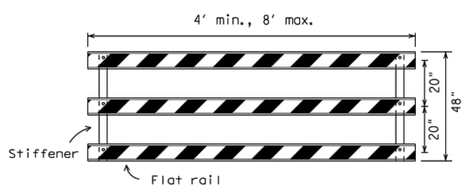
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



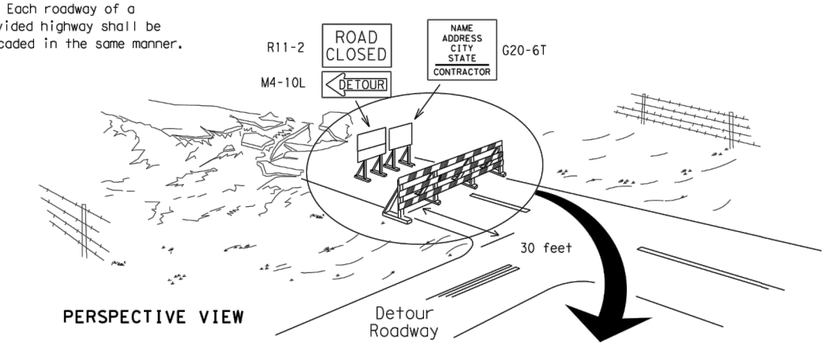
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

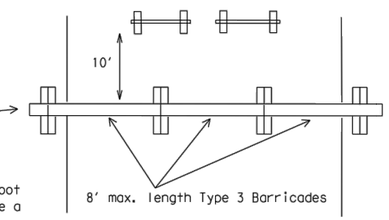
TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES

Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

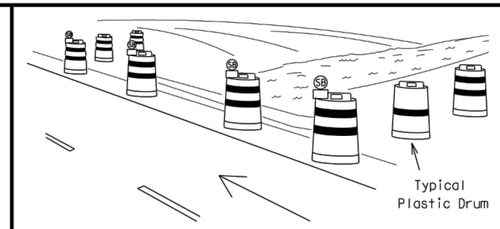
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic.
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

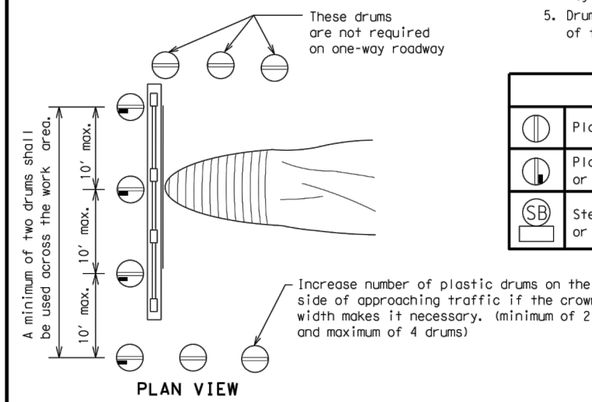
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

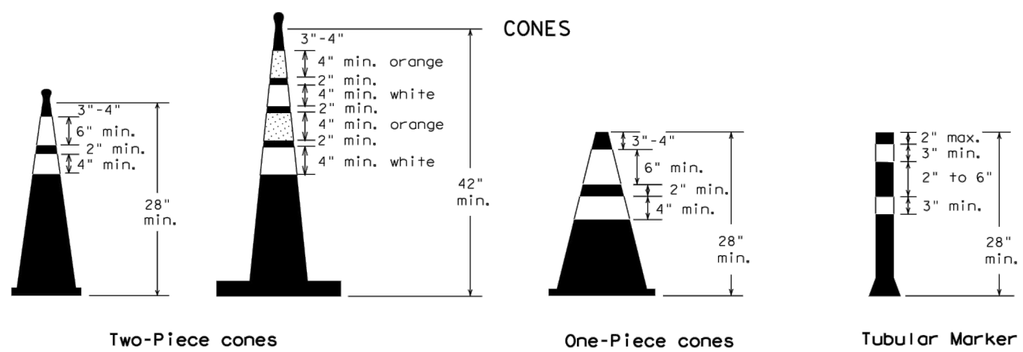
1. Where positive redirectional capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.



PLAN VIEW

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
SB	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS



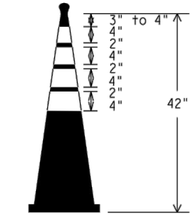
Two-Piece cones | One-Piece cones | Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.

42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

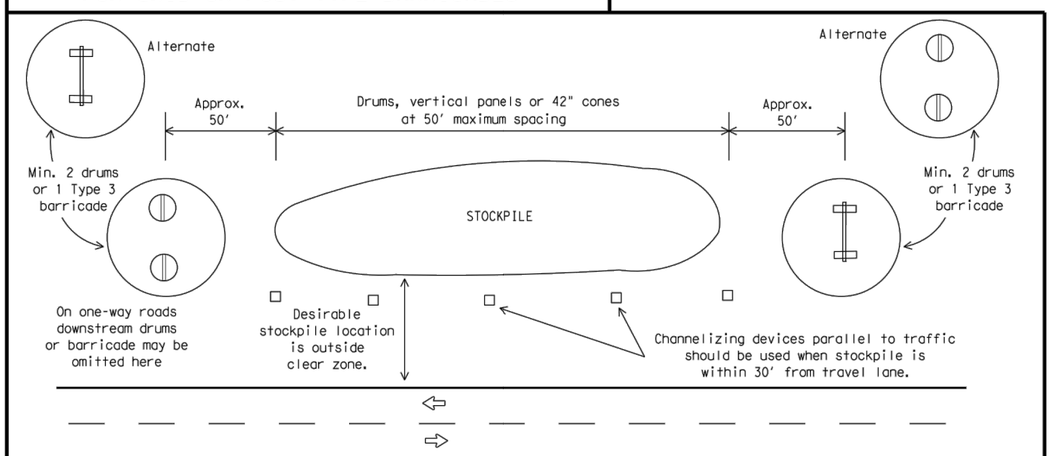
1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers used at night shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.

THIS DEVICE SHALL NOT BE USED ON PROJECTS LET AFTER MARCH 2014.



EDGELINE CHANNELIZER

1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane. It is not intended to be used in transitions or tapers.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

SHEET 10 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(12).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

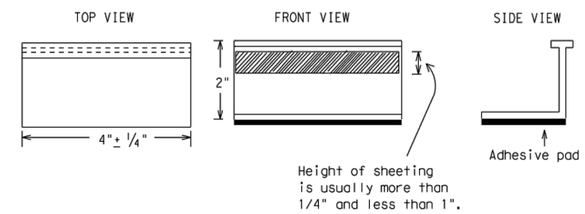
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
   A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
   B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
YELLOW - (two amber reflective surfaces with yellow body).
WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-14

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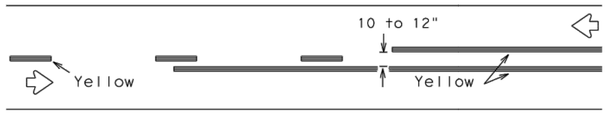
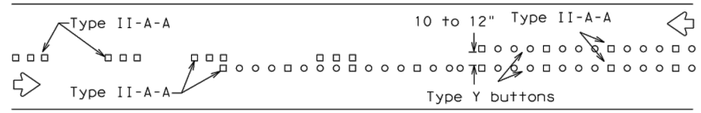
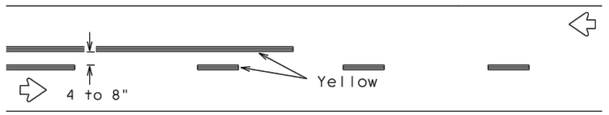
PAVEMENT MARKING PATTERNS



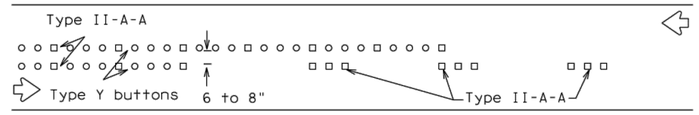
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



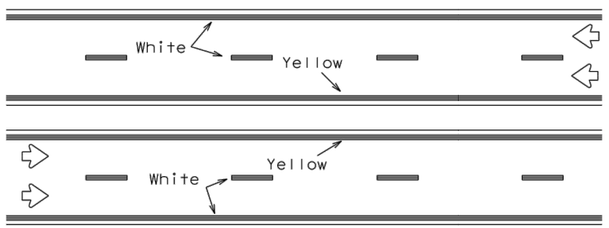
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



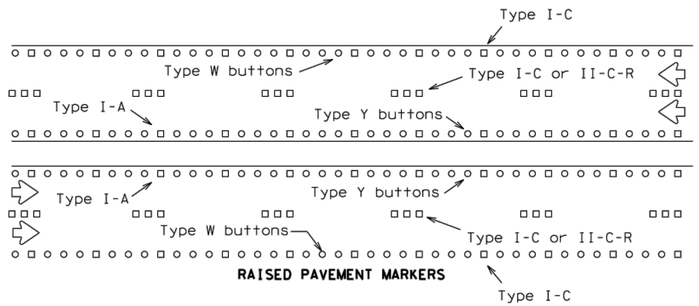
RAISED PAVEMENT MARKERS - PATTERN B

Pattern A is the TXDOT Standard, however Pattern B may be used if approved by the Engineer.
Prefabricated markings may be substituted for reflectorized pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



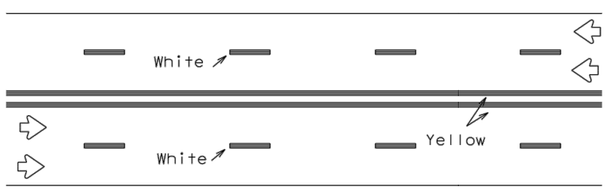
REFLECTORIZED PAVEMENT MARKINGS



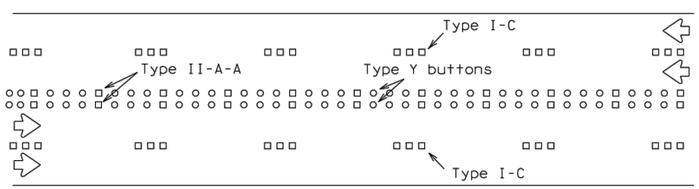
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



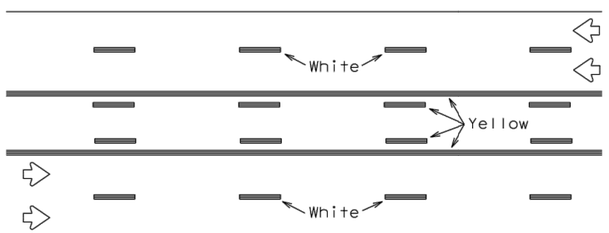
REFLECTORIZED PAVEMENT MARKINGS



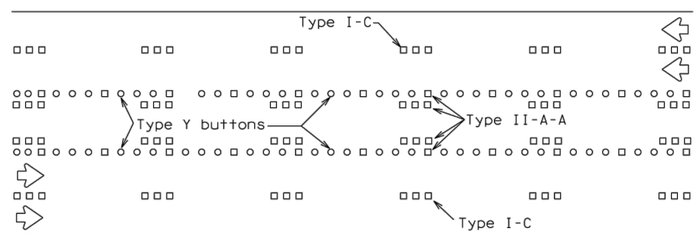
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS



RAISED PAVEMENT MARKERS

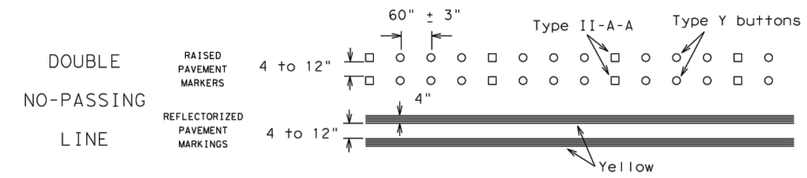
Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE

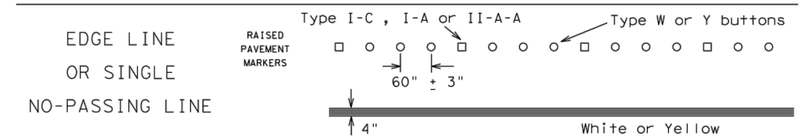
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS

SOLID LINES

DOUBLE NO-PASSING LINE

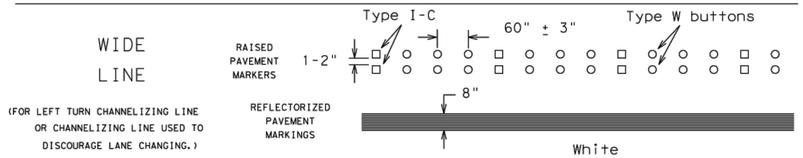


EDGE LINE OR SINGLE NO-PASSING LINE



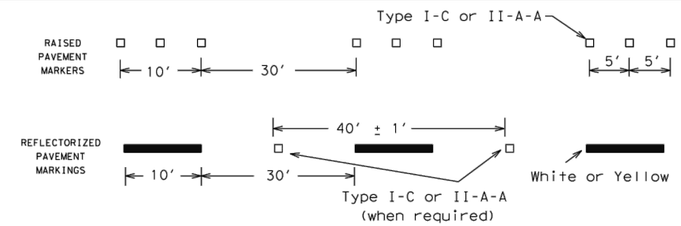
WIDE LINE

(FOR LEFT TURN CHANNELIZING LINE OR CHANNELIZING LINE USED TO DISCOURAGE LANE CHANGING.)

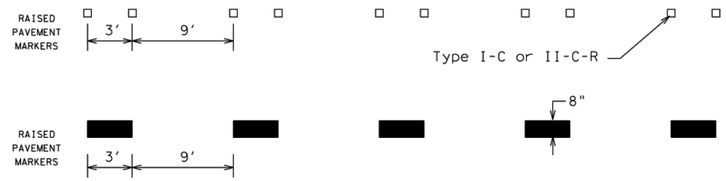


BROKEN LINES

CENTER LINE OR LANE LINE

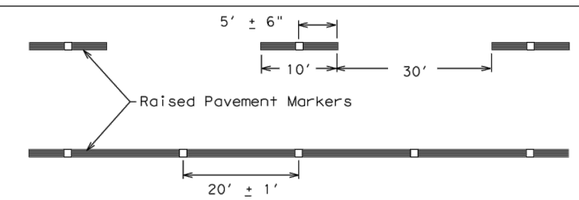


AUXILIARY OR LANEDROP LINE



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



Centerline only - not to be used on edge lines

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

SHEET 12 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC(12)-14

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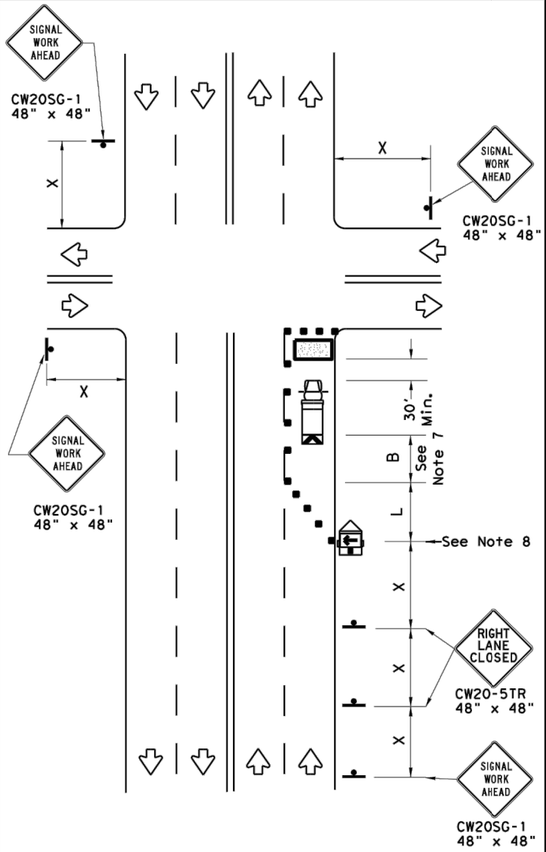
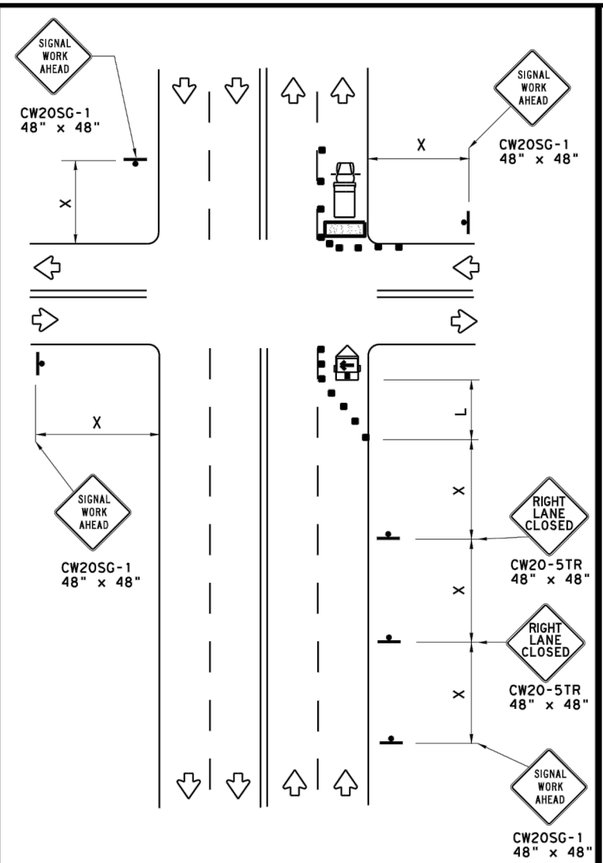


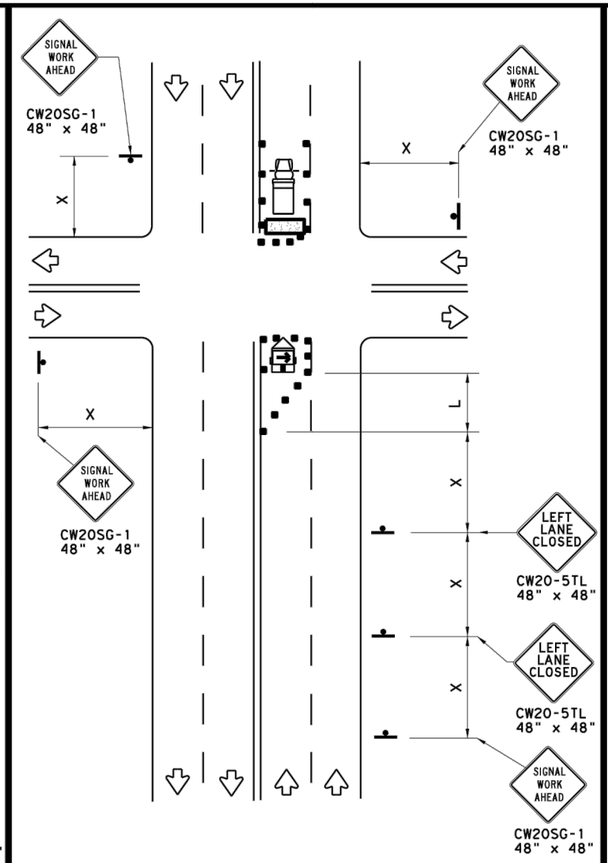
NEAR SIDE LANE CLOSURE

SHORT DURATION OR SHORT TERM STATIONARY



FAR SIDE RIGHT LANE CLOSURE

SHORT DURATION OR SHORT TERM STATIONARY



FAR SIDE LEFT LANE CLOSURE

SHORT DURATION OR SHORT TERM STATIONARY

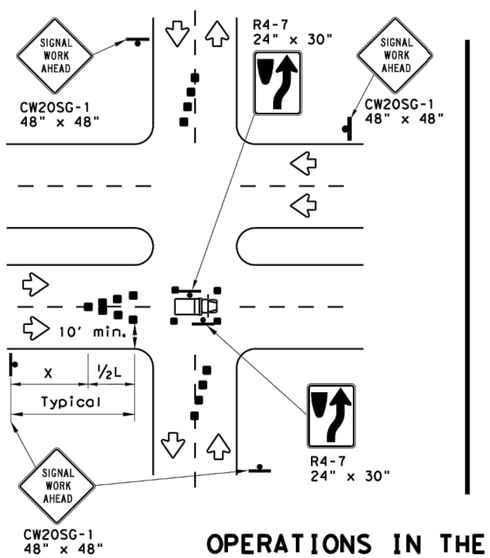
LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

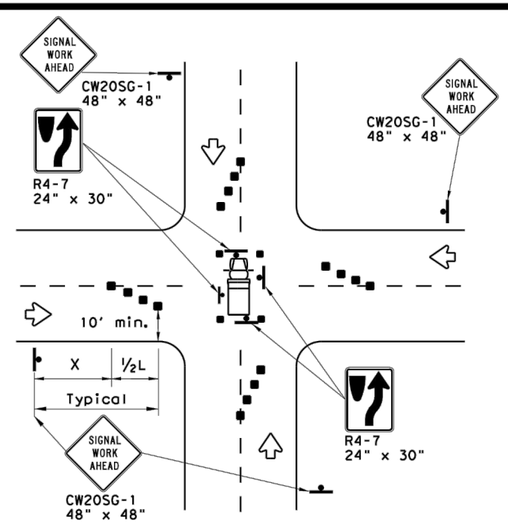
Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

WORKERS IN BUCKET TRUCKS SHALL NOT WORK ABOVE OPEN LANES OF TRAFFIC.





OPERATIONS IN THE INTERSECTION

SHORT DURATION

GENERAL NOTES

1. The minimum size channelizing device is the 28" cone. 42" Two-piece cones, drums, vertical panels or barricades will be required when the device must be left unattended at night.
2. Obstructions or hazards at the work area shall be clearly marked and delineated at all times.
3. Flaggers and Flagger Symbol (CW20-7) signs may be required according to field conditions.
4. Vehicles parked in roadway shall be equipped with at least two high intensity rotating, flashing, oscillating or strobe type lights.
5. High level warning devices (flag trees) may be used at corners of the vehicle.
6. When work operations are performed on existing signals, the signals may be placed in flashing red mode when approved by the engineer. If existing signals do not have power, All-Way Stop (R1-1 and R1-3P) signs may be implemented when approved by the engineer.
7. For Short-Term Stationary work the buffer space "B" from the above table should be used if field conditions permit. For Short Duration (less than 1 hour) any buffer space provided will enhance the safety of the setup.
8. The arrow board at this location may be omitted for Short Duration work if the work vehicle has an arrow board in operation. As an option, the arrow board may be placed at the end of the taper in the closed lane if space is not available at the beginning of the taper.
9. Signs and devices for the NEAR SIDE LANE CLOSURE may be altered for a left lane closure by using a LEFT LANE CLOSED (CW20-5TL) and adding channelizing devices on the centerline to protect the work space from opposing traffic.

SHEET 1 OF 2

Texas Department of Transportation — Traffic Operations Division Standard

TRAFFIC SIGNAL WORK TYPICAL DETAILS

WZ(BTS-1)-13

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REVISIONS	---	---	---	FM 60
2-98 10-99 7-13	DIST		COUNTY	SHEET NO.
4-98 3-03	BRYAN		BRAZOS	25

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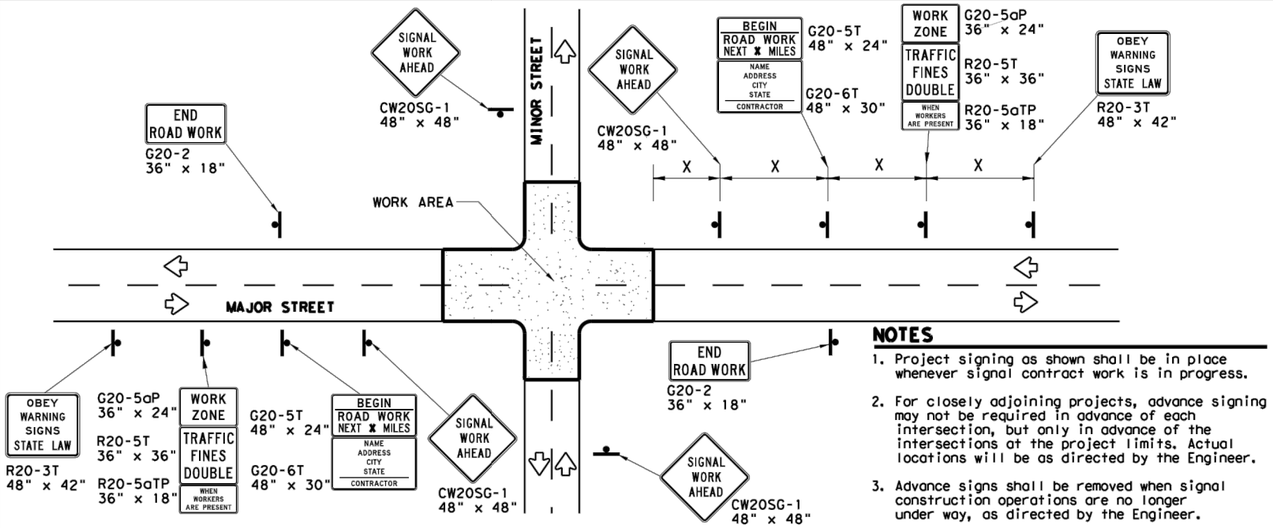


TYPICAL ADVANCE SIGNAL PROJECT SIGNING

FOR LONG TERM and INTERMEDIATE-TERM STATIONARY WORK OPERATIONS

NOTES

1. Project signing as shown shall be in place whenever signal contract work is in progress.
2. For closely adjoining projects, advance signing may not be required in advance of each intersection, but only in advance of the intersections at the project limits. Actual locations will be as directed by the Engineer.
3. Advance signs shall be removed when signal construction operations are no longer under way, as directed by the Engineer.
4. Warning sign spacing shown is typical for both directions.
5. See the Table on sheet 1 of 2 for Typical warning sign spacing.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Signs shall be installed and maintained in a straight and plumb condition.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. Nails shall NOT be used to attach signs to any support.
5. All signs shall be installed in accordance with the plans or as directed by the Engineer.
6. The Contractor shall furnish the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD).
7. The Contractor shall furnish sign supports and substrates listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD), installed as per the manufacturer's recommendations.
8. Temporary signs that have damaged or cracked substrates and/or damaged or marred reflective sheeting shall be replaced as directed by the Engineer.
9. Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1".
10. Damaged wood posts shall be replaced. Splicing wood posts will not be allowed.

DURATION OF WORK

1. Work zone durations are defined in Part 6, Section 6G.02 of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

SIGN MOUNTING HEIGHT

1. Sign height of Long-term/Intermediate-term warning signs shall be as shown on Figure 6F-1 of the TMUTCD.
2. Sign height of Short-term/Short Duration warning signs shall be as shown on Figure 6F-2 of the TMUTCD.
3. Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

REMOVING OR COVERING

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered, unless otherwise approved by the Engineer.
2. When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night without damaging the sign sheeting. Burlap, or heavy materials such as plywood or aluminum shall not be used to cover signs.
3. Duct tape or other adhesive material shall NOT be affixed to a sign face.
4. Signs and anchor stubs shall be removed and holes back filled upon completion of the work.

REFLECTIVE SHEETING

1. All signs shall be retroreflective and constructed of sheeting meeting the requirements of the DMS and color usage table shown on this sheet.

SIGN SUPPORT WEIGHTS

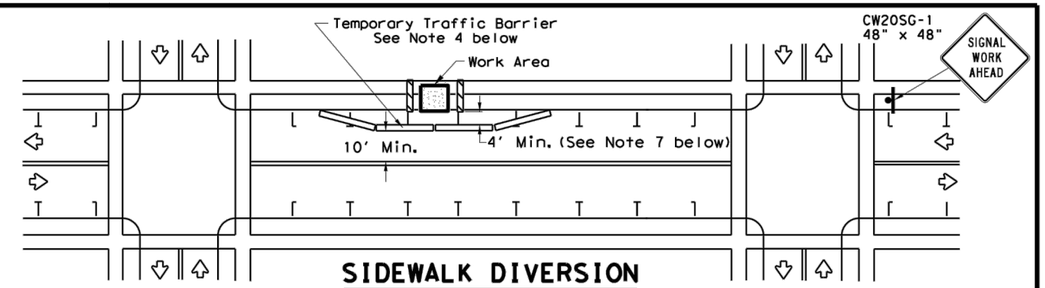
1. Weights used to keep signs from turning over should be sandbags filled with dry, cohesionless material.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects will not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber, such as tire inner tubes, shall not be used.
6. Rubber ballasts designed for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
7. Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fastners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

LEGEND	
	Sign
	Channelizing Devices
	Type 3 Barricade

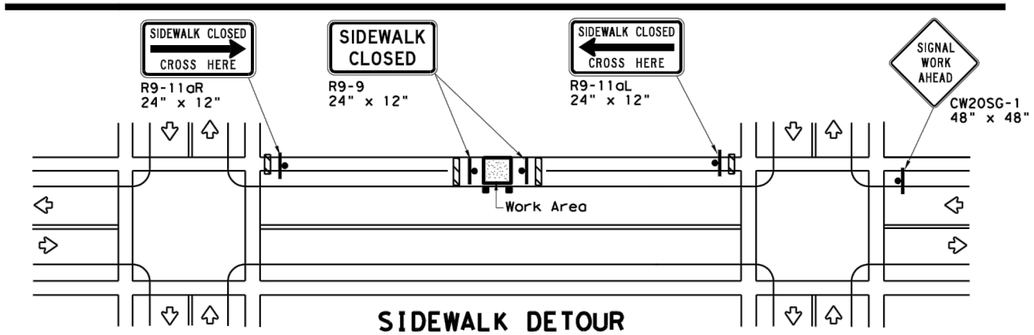
DEPARTMENTAL MATERIAL SPECIFICATIONS	
SIGN FACE MATERIALS	DMS-8300
FLEXIBLE ROLL-UP REFLECTIVE SIGNS	DMS-8310

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B_{FL} OR TYPE C_{FL} SHEETING
WHITE	BACKGROUND	TYPE A SHEETING
BLACK	LEGEND & BORDERS	ACRYLIC NON-REFLECTIVE SHEETING

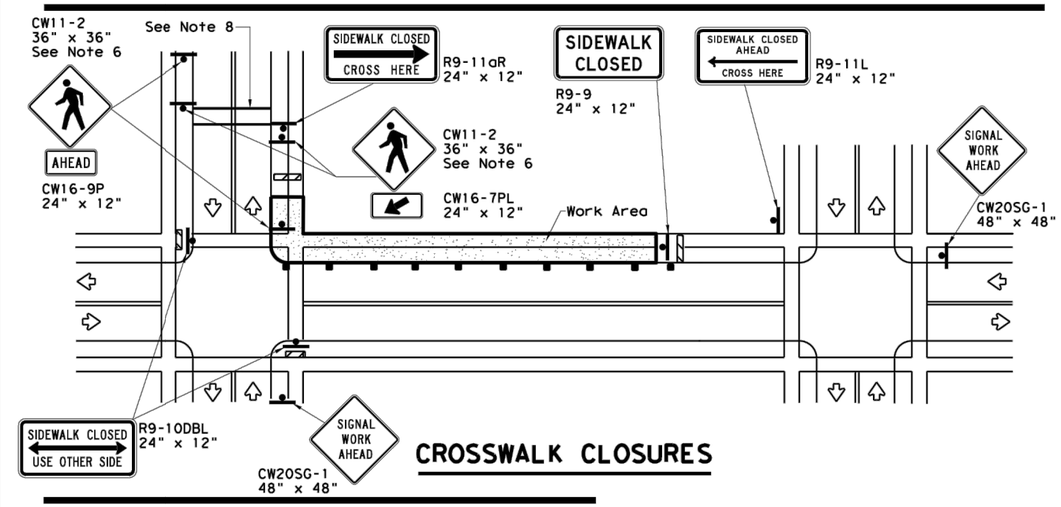
Only pre-qualified products shall be used. A copy of the "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found at the following web address:
http://www.txdot.gov/txdot_library/publications/construction.htm



SIDEWALK DIVERSION



SIDEWALK DETOUR



CROSSWALK CLOSURES

PEDESTRIAN CONTROL

1. Holes, trenches or other hazards shall be adequately protected by covering, delineating or surrounding the hazard with orange plastic pedestrian fencing or longitudinal channelizing devices, or as directed by the Engineer.
2. "CROSSWALK CLOSURES" as detailed above will require the Engineer's approval prior to installation.
3. R9 series signs shown may be placed on supports detailed on the BC standards or CWZTCD list, or when fabricated from approved lightweight plastic substrates, they may be mounted on top of a plastic drum at or near the location shown.
4. For speeds less than 45 mph longitudinal channelizing devices may be used instead of traffic barriers when approved by the Engineer. Attenuation of blunt ends and installation of water filled devices shall be as per BC(9) and manufacturer's recommendations.
5. Location of devices are for general guidance. Actual device spacing and location must be field adjusted to meet actual conditions.
6. Where pedestrians with visual disabilities normally use the closed sidewalk Detectable Pedestrian Barricades should be used instead of the Type 3 Barricades shown.
7. The width of existing sidewalk should be maintained if practical.
8. Pavement markings for mid-block crosswalks shall be paid for under the appropriate bid items.
9. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

Texas Department of Transportation — Traffic Operations Division Standard

TRAFFIC SIGNAL WORK BARRICADES AND SIGNS

WZ(BTS-2)-13

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FOUNDATION DESIGN TABLE

FDN TYPE	DRILLED SHAFT DIA	REINFORCING STEEL		EMBEDDED DRILLED SHAFT LENGTH-ft ④, ⑤, ⑥			ANCHOR BOLT DESIGN ①				FOUNDATION DESIGN LOAD ②		TYPICAL APPLICATION
		VERT BARS	SPIRAL & PITCH	TEXAS CONE PENETROMETER N blows/ft			ANCHOR BOLT DIA	Fy (ksi)	BOLT CIR DIA	ANCHOR TYPE	MOMENT K-ft	SHEAR Kips	
				10	15	40							
24-A	24"	4- #5	#2 at 12"	5.7	5.3	4.5	¾"	36	12 ¾"	1	10	1	Pedestal pole, pedestal mounted controller.
30-A	30"	8- #9	#3 at 6"	11.3	10.3	8.0	1 ½"	55	17"	2	87	3	Mast arm assembly. (see Selection Table)
36-A	36"	10- #9	#3 at 6"	13.2	12.0	9.4	1 ¾"	55	19"	2	131	5	Mast arm assembly. (see Selection Table) 30' strain pole with or without luminaire.
36-B	36"	12- #9	#3 at 6"	15.2	13.6	10.4	2"	55	21"	2	190	7	Mast arm assembly. (see Selection Table) Strain pole taller than 30' & strain pole with mast arm
42-A	42"	14- #9	#3 at 6"	17.4	15.6	11.9	2 ¼"	55	23"	2	271	9	Mast arm assembly. (see Selection Table)

NOTES:

① Anchor bolt design develops the foundation capacity given under Foundation Design Loads.

② Foundation Design Loads are the allowable moments and shears at the base of the structure.

③ Foundations may be listed separately or grouped according to similarity of location and type. Quantities are for the Contractor's information only.

④ Field Penetrometer readings at a depth of approximately 3 to 5 feet may be used to adjust shaft lengths.

⑤ If rock is encountered, the Drilled Shaft shall extend a minimum of two diameters into solid rock.

⑥ Decimal lengths in Design Table are to allow interpolation for other penetrometer values. Round to nearest foot for entry into Summary Table.

FOUNDATION SUMMARY TABLE ③

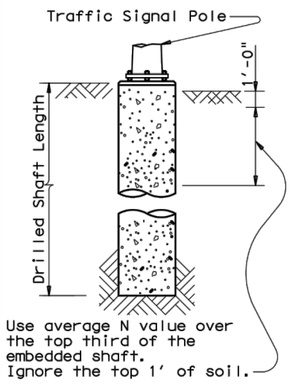
LOCATION IDENTIFICATION	AVG. N BLOW /ft.	FDN TYPE	NO. EA	DRILLED SHAFT LENGTH ⑥ (FEET)				
				24-A	30-A	36-A	36-B	42-A
RAYMOND STOTZER PKWY. & DISCOVERY DR.								
POLE 3,4	10	24-A	2	12*				
RAYMOND STOTZER PKWY. & VET BLVD. DWY.								
POLE 2,3,4,6	10	24-A	4	24*				
TOTAL DRILLED SHAFT LENGTHS				36*				

* – SUBSIDIARY TO ITEM 687-6001

FOUNDATION SELECTION TABLE FOR STANDARD MAST ARM PLUS ILSN SUPPORT ASSEMBLIES (ft)

		FDN 30-A	FDN 36-A	FDN 36-B	FDN 42-A
80 MPH DESIGN WIND SPEED	MAX SINGLE ARM LENGTH	32'	48'		
	MAXIMUM DOUBLE ARM LENGTH COMBINATIONS	24' X 24'			
		28' X 28'			
		32' X 28'	32' X 32'		
			36' X 36'		
			40' X 36'		
			44' X 28'	44' X 36'	
100 MPH DESIGN WIND SPEED	MAX SINGLE ARM LENGTH		36'	44'	
	MAXIMUM DOUBLE ARM LENGTH COMBINATIONS		24' X 24'		
			28' X 28'		
			32' X 24'	32' X 32'	
				36' X 36'	
				40' x24'	40' X 36'
					44' x 36'

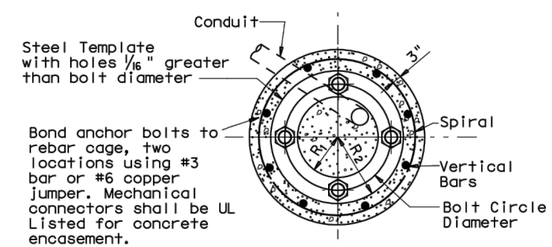
EXAMPLE:
1. For 80mph design wind speed, foundation 30-A can support up to a 32' arm with another arm up to 28'
2. For 100mph design wind speed, foundation 36-A can support a single 36' mast arm.



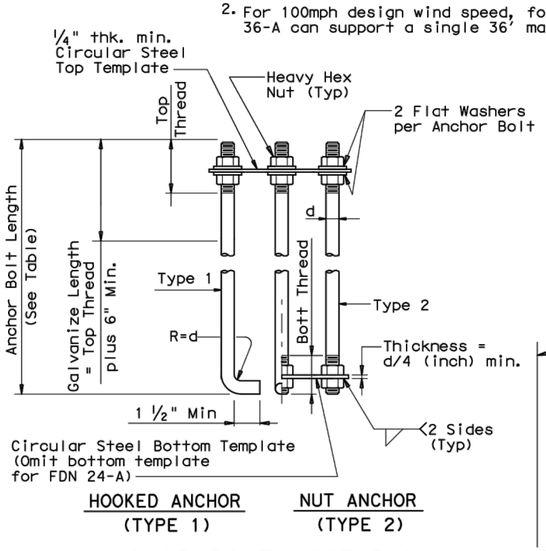
ANCHOR BOLT & TEMPLATE SIZES

BOLT DIA IN.	⑦ BOLT LENGTH	TOP THREAD	BOTTOM THREAD	BOLT CIRCLE	R2	R1
¾"	1'-6"	3"	—	12 ¾"	7 ⅛"	5 ⅝"
1 ½"	3'-4"	6"	4"	17"	10"	7"
1 ¾"	3'-10"	7"	4 ½"	19"	11 ¼"	7 ¾"
2"	4'-3"	8"	5"	21"	12 ½"	8 ½"
2 ¼"	4'-9"	9"	5 ½"	23"	13 ¾"	9 ¼"

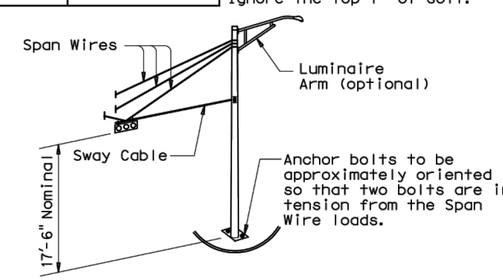
⑦ Min dimensions given, longer bolts are acceptable.



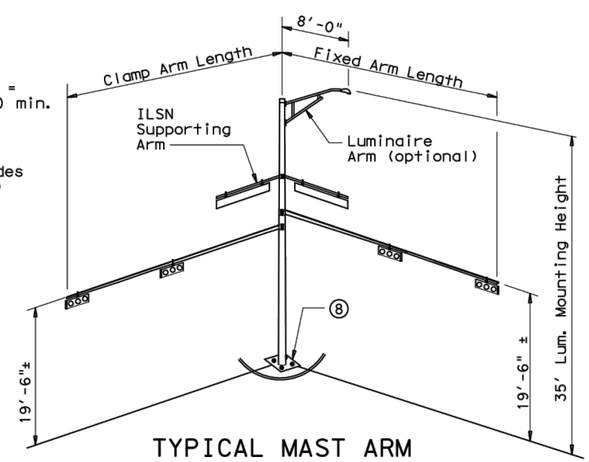
TOP VIEW



ANCHOR BOLT ASSEMBLY

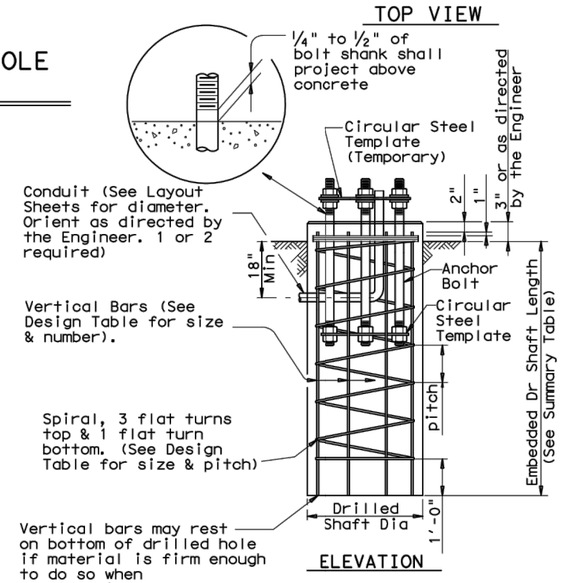


TYPICAL STRAIN POLE ASSEMBLY



⑧ Orient anchor bolts orthogonal with the fixed arm direction to ensure that two bolts are in tension under dead load.

TYPICAL MAST ARM ASSEMBLY



ELEVATION

FOUNDATION DETAILS

GENERAL NOTES:

Design conforms to 1994 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals and interim revisions thereto.

Reinforcing steel shall conform to Item 440, "Reinforcing Steel".

Concrete shall be Class "C".

Threads for anchor bolts and nuts shall be rolled or cut threads of 8UN series up to 2" in diameter or UNC series for all sizes. Bolts and nuts shall have Class 2A and 2B fit tolerances. Galvanized nuts shall be tapped after galvanizing.

Anchor bolts that are larger than 1" in diameter shall conform to "alloy steel" or "medium-strength mild steel" per Item 449, "Anchor Bolts". Anchor bolts that are 1" in diameter or less shall conform to ASTM A36. Galvanize a minimum of the top end thread length plus 6" for all anchor bolts unless otherwise noted. Exposed washers and exposed nuts shall be galvanized. All galvanizing shall be in accordance with Item 445, "Galvanizing".

Templates and embedded nuts need not be galvanized. Lubricate and tighten anchor bolts when erecting the structure in accordance with Item 449, "Anchor Bolts".

7/25/2017
STATE OF TEXAS
MATT CIARKOWSKI
114222
LICENSED PROFESSIONAL ENGINEER

Texas Department of Transportation
Traffic Operations Division

TRAFFIC SIGNAL POLE FOUNDATION

TS-FD-12

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REVISIONS: 5-96, 11-99, 1-12

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GENERAL NOTES FOR ALL ELECTRICAL WORK

1. The location of all conduits, junction boxes, ground boxes, and electrical services is diagrammatic and may be shifted to accommodate field conditions.

2. Provide new and unused materials. Ensure that all materials and installations comply with the applicable articles of the National Electrical Code (NEC), TxDOT standards and specifications, National Electrical Manufacturers Association (NEMA), and are listed by Underwriters Laboratories (UL) or a Nationally Recognized Testing Lab (NRTL). NRTLs such as Canadian Standard Association (CSA), Intertek Testing Services NA Inc., or FM Approvals LLC can be considered equivalent to UL. Where reference is made to NEMA listed devices, International Electrotechnical Commission (IEC) listed devices will not be considered an acceptable equal to a NEMA listed device. Acceptable devices may have both a NEMA and IEC listing. Faulty fabrication or poor workmanship in any material, equipment, or installation is justification for rejection. Replace or reinstall rejected material or equipment at no additional cost to the Department.

3. Miscellaneous nuts, bolts and hardware, except for high strength bolts, may be stainless steel when plans specify galvanized, provided the bolt size is ½ in. or less in diameter.

4. Provide the following test equipment as required by the Engineer to confirm compliance with the contract and the NEC: voltmeter, ammeter, megohm meter (1000 volt DC), ground resistance tester, torque wrenches, and torque screwdrivers. Ensure all equipment has been properly calibrated within the last year. Provide calibration certification to the Engineer upon request. Operate test equipment during inspection as requested by the Engineer.

5. Install grounding as shown on the plans and in accordance with the NEC. Ensure all metallic conduits; metal poles; luminaires; and metal enclosures are bonded to the equipment grounding conductor. Provide stranded bare copper or green insulated grounding conductors. Ground rods, connectors, and bonding jumpers are subsidiary to the various bid items.

6. When required by the Engineer, notify the Department in writing of materials from the Material Producers List (MPL) intended for use on each project. Prequalified materials are listed on the MPL on TxDOT's website under "Roadway Illumination and Electrical Supplies." No substitutions will be allowed for materials on this list.

CONDUIT

A. MATERIALS

1. Provide conduit, junction boxes, fittings, and hardware as per TxDOT Departmental Material Specification (DMS) 11030 "Conduit" and Item 618 "Conduit" of TxDOT's "Standard Specifications For Construction And Maintenance Of Highways, Streets, And Bridges," latest edition. Provide conduits listed under Item 618 on the MPL under "Roadway Illumination and Electrical Supplies." Provide conduit types according to the descriptive code or as shown on the plans. Do not substitute other types of conduits for those shown. Provide liquidtight flexible metal conduit (LFMC) when flexible conduit is called for on galvanized steel rigid metallic conduit (RMC) systems. Provide liquidtight flexible nonmetallic conduit (LFNC) when flexible conduit is called for on polyvinyl chloride (PVC) systems.

2. Provide galvanized steel RMC for all exposed conduits, unless otherwise shown on the plans. Properly bond all metal conduits.

3. Unless otherwise shown on the plans, provide junction boxes with a minimum size as shown in the following table, which applies to the greatest number of conductors entering the box through one conduit with no more than four conduits per box. When a mixture of conductor sizes is present, count the conductors as if all are of the larger size. For situations not applicable to the table, size junction boxes in accordance with NEC.

AWG	3 CONDUCTORS	5 CONDUCTORS	7 CONDUCTORS
#1	10" x 10" x 4"	12" x 12" x 4"	16" x 16" x 4"
#2	8" x 8" x 4"	10" x 10" x 4"	12" x 12" x 4"
#4	8" x 8" x 4"	10" x 10" x 4"	10" x 10" x 4"
#6	8" x 8" x 4"	8" x 8" x 4"	10" x 10" x 4"
#8	8" x 8" x 4"	8" x 8" x 4"	8" x 8" x 4"

4. Junction boxes with an internal volume of less than 100 cu. in. and supported by entering raceways must have threaded entries or hubs identified for the intended purpose and supported by connection of two or more rigid metal conduits. Secure conduit within 3 ft. of the enclosure or within 18 in. of the enclosure if all conduit entries are on the same side. Mechanically secure all junction boxes with an internal volume greater than 100 cu. inches.

5. Provide hot dipped galvanized cast iron or sand cast aluminum outlet boxes for junction boxes containing only 10 AWG or 12 AWG conductors. Do not use die cast aluminum boxes. Size outlet boxes according to the NEC.

6. Do not use intermediate metal conduit (IMC) or electrical metallic tubing (EMT) unless specifically required by the plan sheets. When EMT is called for, provide junction boxes made from galvanized steel sheeting, listed and approved for outdoor use, unless otherwise noted on the plans. Size all galvanized steel junction boxes in accordance with the NEC. Provide junction boxes for IMC conduit systems that meet the same requirements for junction boxes used with RMC systems.

7. Provide PVC junction boxes intended for outdoor use on PVC conduit systems, unless otherwise noted on the plans.

8. Provide PVC elbows in PVC conduit systems, unless otherwise shown on the plans. Use only a flat, high tensile strength polyester fiber pull tape for pulling conductors through the PVC conduit system. When galvanized steel RMC elbows are specifically called for in the plans and any portion of the RMC elbow is buried less than 18 in., ground the RMC elbow by means of a grounding bushing on a rigid metal extension. Grounding of the rigid metal elbow is not required if the entire RMC elbow is encased in a minimum of 2 in. of concrete. PVC extensions are allowed on these concrete encased rigid metal elbows. RMC or PVC elbows are subsidiary to various bid items.

9. When required, provide High-Density Polyethylene (HDPE) conduit with factory installed internal conductors according to Item 622 "Duct Cable." At the Contractor's request and with approval by the Engineer, substitute HDPE conduit with no conductors for bored schedule 40 or schedule 80 PVC conduit bid under Item 618. Ensure bored HDPE substituted for PVC is schedule 40 and of the same size PVC called for in the plans. Ensure the substituted HDPE meets the requirements of Item 622, except that the conduit is supplied without factory-installed conductors. Make the transition of the HDPE conduit to PVC (or RMC elbow when required) at the bore pit. Provide conduit of the size and schedule as shown on the plans. Do not extend substituted conduit into ground boxes or foundations. Provide PVC or galvanized steel RMC elbows as called for at all ground boxes and foundations.

10. Use two-hole straps when supporting 2 in. and larger conduits. On electrical service poles, properly sized stainless steel or hot dipped galvanized one-hole standoff straps are allowed on the service riser conduit.

B. CONSTRUCTION METHODS

1. Provide and install expansion joint conduit fittings on all structure-mounted conduits at the structure's expansion joints to allow for movement of the conduit. In addition, provide and install expansion joint fittings on all continuous runs of galvanized steel RMC conduit externally exposed on structures such as bridges at maximum intervals of 150 ft. When requested by the project Engineer, supply manufacturer's specification sheet for expansion joint conduit fittings. Repair or replace expansion joint fittings that do not allow for movement at no additional cost to the Department. Provide the method of determining the amount of expansion to the Engineer upon request. Do not use LFMC or LFNC as a substitute for the required expansion conduit fittings.

2. Space all conduit supports at maximum intervals of 5 ft. Install conduit spacers when attaching metal conduit to surface of concrete structures. See "Conduit Mounting Options" on ED(2). Install conduit support within 3 ft. of all enclosures and conduit terminations.

3. Do not attach conduit supports directly to pre-stressed concrete beams except as shown specifically in the plans or as approved by the Engineer.

4. Unless otherwise shown on the plans, jack or bore conduit placed beneath existing roadways, driveways, sidewalks, or after the base or surfacing operation has begun. Backfill and compact the bore pits below the conduit per Item 476 "Jacking, Boring, or Tunneling Pipe or Box" prior to installing conduit or duct cable to prevent bending of the connections.

5. When placing conduit in the sub-grade of new roadways, backfill all trenches with excavated material unless otherwise noted on the plans. When placing conduit in the sub-base of new roadways, backfill all trenches with cement-stabilized base as per requirements of Items 110 "Excavation", 400 "Excavation and Backfill for Structures", 401 "Flowable Backfill", 402 "Trench Excavation Protection", and 403 "Temporary Special Shoring."

6. Provide and place warning tape approximately 10 in. above all trenched conduit as per Item 618.

7. During construction, temporarily cap or plug open ends of all conduit and raceways immediately after installation to prevent entry of dirt, debris and animals. Temporary caps constructed of durable duct tape are allowed. Tightly fix the tape to the conduit opening. Clean out the conduit and prove it clear in accordance with Item 618 prior to installing any conductors.

8. Ensure conduit entry into the top of any enclosure is waterproof by installing conduit sealing hubs or using boxes with threaded bosses. This includes surface mounted safety switches, meter cans, service enclosures, auxiliary enclosures and junction boxes. Grounding bushings on water tight sealing hubs are not required.

9. Fit the ends of all PVC conduit terminations with bushings or bell end fittings. Provide and install a grounding type bushing on all metal conduit terminations.

10. Install a bonding jumper from each grounding bushing to the nearest ground rod, grounding lug, or equipment grounding conductor. Ensure all bonding jumpers are the same size as the equipment grounding conductor. Bonding of conduit used as a casing under roadways for duct cable is not required, if the duct extends the full length through the casing.

11. At all electrical services, install a 6 AWG solid copper grounding electrode conductor.

12. Place conduits entering ground boxes so that the conduit openings are between 3 in. and 6 in. from the bottom of the box. See the ground box detail on sheet ED(4).

13. Seal ends of all conduits with duct seal, expandable foam, or by other methods approved by the Engineer. Seal conduit immediately after completion of conductor installation and pull tests. Do not use duct tape as a permanent conduit sealant. Do not use silicone caulk as a conduit sealant.

14. File smooth the cut ends of all mounting strut and conduit. Before installing, paint the field cut ends of all mounting strut and RMC (threaded or non-threaded) with zinc rich paint (94% or more zinc content) to alleviate overspray. Use zinc rich paint to touch up galvanized material as allowed under Item 445 "Galvanizing." Do not paint non-galvanized material with a zinc rich paint as an alternative for materials required to be galvanized.

Texas Department of Transportation

Traffic Operations Division Standard

ELECTRICAL DETAILS CONDUITS & NOTES

ED(1)-14

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ELECTRICAL CONDUCTORS

A. MATERIAL INFORMATION

1. Provide Type XHHW insulated conductors in accordance with Departmental Material Specification (DMS)11040 "Conductors" and Item 620 "Electrical Conductors." Provide conductors as listed on the Material Producers List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies" Item 620. Color code insulated conductors in conformance with the NEC. Identify grounded (neutral) conductors with white insulation. Identify grounding conductors (ground wires) with green insulation or bare conductors. Identify ungrounded (hot) conductors with any color insulation except green, white, or gray. Keep color scheme consistent throughout the wiring system. Identify conductors 6 American Wire Gauge (AWG) and smaller by continuous color jacket. Identify electrical conductors 4 AWG and larger by continuous color jacket or by colored tape. When identifying conductors with colored tape, mark at least 6 in. of the conductor's insulation with half laps of tape.

2. Provide a solid copper 6 AWG grounding electrode conductor to bond the electrical service equipment to the concrete encased grounding electrode or the ground rod at the service location. Connect the grounding electrode conductor to the ground rod with a UL listed connector in accordance with DMS 11040. Connect the grounding electrode conductor to the concrete encased grounding electrode as shown in the plans.

3. Where two or more circuits are present in one conduit or enclosure, permanently identify the conductors of each branch circuit by attaching a non-metallic tag around both circuit conductors at each accessible location. Provide tags with two straps, large enough to indicate circuit number, letter, or other identification as shown in the plans. Print circuit identification on the tag with a permanent marker.

4. Use listed compression or screw type pressure connectors, terminal blocks, or split bolt connectors for splicing as specified in DMS 11040. Use hot melt adhesive tape to fill the gap and seal the ends of heat shrink tubing. Provide UL listed gel-filled insulating splice covers. Splicing materials, insulating materials, breakaway disconnects, splice covers, and fuse holders are subsidiary to various bid items.

B. CONSTRUCTION METHODS

1. Use only a flat, high tensile strength polyester fiber pull tape for pulling conductors through the conduit system. After installing conductors in conduit, perform conductor pull test. If a conductor cannot be freely pulled, make any needed alterations or repairs at no additional cost to the department. Perform insulation resistance tests in accordance with Item 620. Coordinate with the Engineer to witness the tests.

2. Leave 2 ft. minimum, 3 ft. maximum length for each conductor up to the splice in ground boxes. Leave 3 ft. minimum, 4 ft. maximum length of conductor in ground boxes when pulled through with no splice. Leave 1 ft. minimum, 1.5 ft. maximum length of conductor at enclosures, weatherheads and pole bases.

3. Make splices only in junction boxes, ground boxes, pole bases, or electrical enclosures and use only listed compression or screw type pressure connectors, terminal blocks, or split bolt connectors. Insulate splices with heavy wall heat shrink tubing or gel-filled insulating splice covers to provide a watertight splice. Overlap conductor insulation with heat shrink tubing a minimum of 2 in. past both sides of the splice. Where heat shrink tubing may not shrink sufficiently to provide a watertight seal around the individual conductors, prior to heating the tubing, increase the diameter of the conductor insulation using hot melt adhesive tape to provide a watertight seal between the individual conductors and the heat shrink tubing. Ensure the tape extends past the heat shrink tubing. Use hot melt adhesive tape to fill the gap and seal the ends of heat shrink tubing. Heat shrink tubing that appears to have been burned, or overheated, is considered defective and must be replaced.

4. Size and install gel-filled insulating splice covers according to manufacturer's specifications when used in place of heat shrink tubing.

5. Wire nuts with factory applied waterproof sealant may be used for 8 AWG or smaller conductors in above ground junction boxes, but not in pole bases or ground boxes. Install wire nuts in an upright position to prevent the accumulation of water.

6. Support conductors in illumination poles with a J-hook at the top of the pole.

7. When terminating conductors, remove the insulation and jacketing material without nicking the individual strands of the conductor. Conductors with nicked individual conductor strands or removed strands will be considered damaged.

8. Replace conductors and cables that are damaged beyond repair or that fail an insulation resistance test at no additional cost to the department.

9. Do not repair damaged conductors with duct tape, electrical tape, or wire nuts. Use only approved splicing methods.

10. Do not terminate more than one conductor under a single connector, unless the connector is rated for multiple conductors. Do not exceed the pressure connector's listing for maximum number and size of conductors allowed.

11. Install breakaway connectors on conductors bid under Item 620 whenever those conductors pass through a breakaway support device. Follow manufacturer's instructions when terminating conductors to breakaway connectors. Properly torque threaded connections. Proper terminations are critical to the safe operation of breakaway devices. Trim waterproofing boots on breakaway connectors to fit snugly around the conductor to ensure waterproof connection. Only one conductor may enter a single opening in a boot. Provide waterproof boots with the correct number of openings. Leave unused openings factory sealed. Use prequalified breakaway connectors as shown on the MPL.

12. Provide and install a separate stranded equipment grounding conductor (EGC) in all conduits that contain circuit wiring of 50 volts or more. Unless shown elsewhere, size the EGC to be the same size as the largest current carrying conductor contained in the conduit. Ensure all EGCs are bonded together at every accessible location. For traffic signal installations, provide a minimum size 8 AWG EGC. The EGC is paid for under Item 620.

C. TEMPORARY WIRING

1. Install temporary conductors and electrical equipment in accordance with the NEC article "Temporary Installations" and Department standard sheets.

2. Provide a ground fault circuit interrupter (GFCI) for power outlets for portable electrical equipment, power tools, ice machines, ice storage bins and refrigerators located outdoors at grade. GFCI may be any one of the following: molded cord and plug set, receptacle, or circuit breaker type.

3. Use listed wire nuts with factory applied sealant for temporary wiring where approved.

4. Enclose conductor splices within a listed enclosure or ground box, or ensure the splices are more than 10 ft. above grade vertically and more than 5 ft. horizontally from any metal structure. Where installing temporary conductors in areas subject to vehicle traffic or mobile construction equipment, ensure the vertical clearance to ground is at least 18 ft. when measured at the lowest point. Ground messenger wires that support power conductors in conformance with the NEC.

5. Protect and when necessary repair any existing electrical conduits uncovered during the construction process in a timely manner and in conformance with the NEC.

GROUND RODS & GROUNDING ELECTRODES

A. MATERIAL INFORMATION

1. Provide and install a grounding electrode at electrical services. Provide ground rods according to DMS 11040 and the plans. Larger diameter or longer length rods may be called for in some specific locations, see the individual plans sheets. Concrete encased grounding electrodes may be called for in specific locations including electrical service, see individual plan sheets.

B. CONSTRUCTION METHODS

1. Furnish auxiliary ground rods for lightning protection and install in soil, concrete, or both, as called for in the plans. For ground rods installed in concrete, ensure the connection of the conductor to the ground rod is readily accessible for inspection or repairs. For ground rods installed in soil, ensure that the upper end is between 2 to 4 in. below finished grade.

2. Do not place ground rods in the same drilled hole as a timber pole.

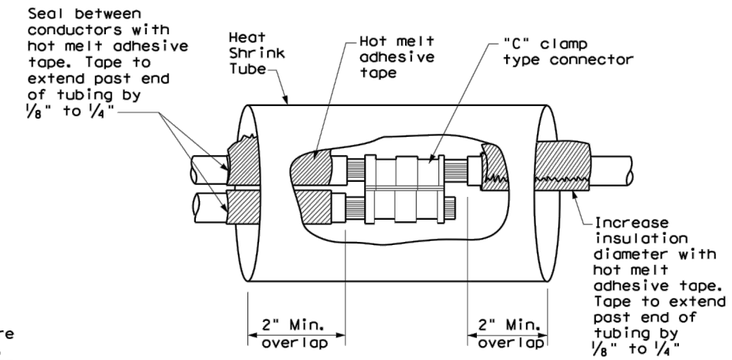
3. Install ground rods so the imprinted part number is at the upper end of the rod.

4. Remove all non-conductive coatings such as concrete splatter from the rod at the clamp location.

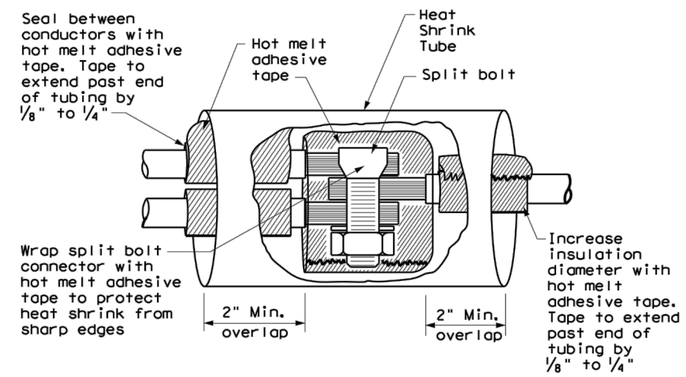
5. Route all conductors as short and straight as possible for connection to lightning protection ground rods. When a bend is required, ensure a minimum radius bend of four inches for these conductors.

6. Unless otherwise called for in the plans, protect grounding electrode conductors with non-metallic conduit. When protecting grounding electrode conductors with metal conduit, provide and install a grounding type bushing and properly sized bonding jumper on each end of the metal conduit.

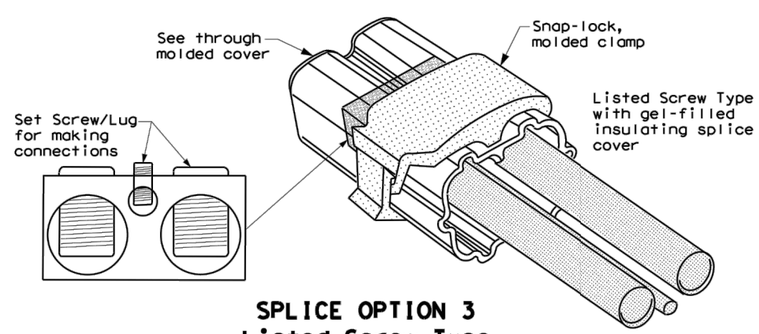
7. Written authorization is required before installing a ground rod in a horizontal trench for rocky soil or a solid rock bottom.



SPLICE OPTION 1
Compression Type



SPLICE OPTION 2
Split Bolt Type



SPLICE OPTION 3
Listed Screw Type

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ELECTRICAL DETAILS CONDUCTORS

ED(3)-14

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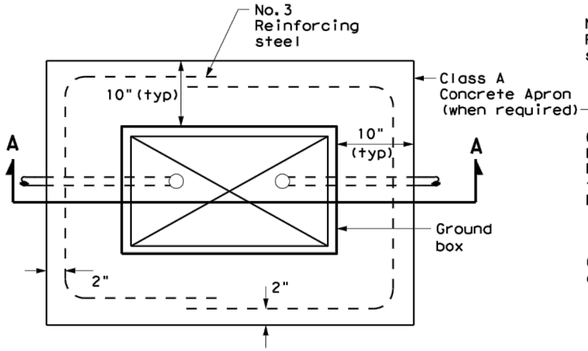
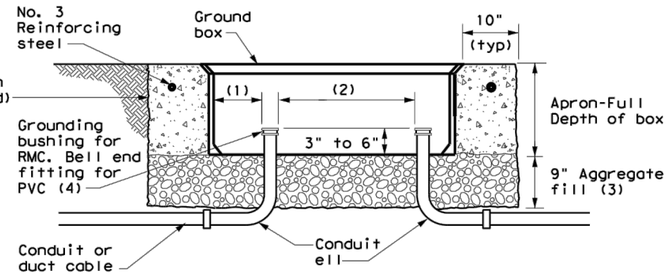


PLAN VIEW



SECTION A - A

APRON FOR GROUND BOX

(1) Uniformly space ends of conduits within the ground box. Position ends of conduits so that ground box walls do not interfere with the installation of grounding bushings or bell end fittings.

(2) Maintain sufficient space between conduits to allow for proper installation of bushing.

(3) Place aggregate under the box, not in the box. Aggregate should not encroach on the interior volume of the box.

(4) Install a grounding bushing on the upper end of all RMC terminating in a ground box. Ground RMC elbows when any part of the elbow is less than 18 in. below the bottom of the ground box. Install a PVC bushing or bell end fitting on the upper end of all PVC conduits terminating in a ground box.

GROUND BOXES

A. MATERIALS

1. Provide polymer concrete ground boxes measuring 16x30x24 in. (WxLxD) or smaller in accordance with Departmental Material Specification (DMS) 11070 "Ground Boxes" and Item 624 "Ground Boxes."

2. Provide Type A, B, C, D, and E ground boxes as shown in the plans, and as listed on the Material Producers List (MPL) on the Department web site under "Roadway Illumination and Electrical Supplies," Item 624.

3. Ensure ground box cover is correctly labeled in accordance with DMS 11070.

4. Provide larger ground boxes in accordance with Item 624 and as shown in the plans.

B. CONSTRUCTION METHODS

1. Remove all gravel and dirt from conduit. Cap all conduits prior to placing aggregate and setting ground box. Provide Grade 3 or 4 coarse aggregate as shown on Table 2 of Item 302 "Aggregates for Surface Treatments." Ensure aggregate bed is in place and at least 9 inches deep, prior to setting the ground box. Install ground box on top of aggregate.

2. Cast ground box aprons in place. Reinforcing steel may be field bent. Ensure the depth of concrete for the apron extends from finished grade to the top of the aggregate bed under the box. Ground box aprons, including concrete and reinforcing steel, are subsidiary to ground boxes when called for by descriptive code.

3. Keep bolt holes in the box clear of dirt. Bolt covers down when not working in ground boxes.

4. Install all conduits and ells in a neat and workmanlike manner. Uniformly space conduits so grounding bushings and bell end fittings can easily be installed.

5. Temporarily seal all conduits in the ground box until conductors are installed.

6. Permanently seal conduits immediately after the completion of conductor installation and pull tests. Permanently seal the ends of all conduits with duct seal, expandable foam, or other method as approved. Do not use duct tape as a permanent conduit sealant. Do not use silicone caulk as a sealant.

7. When a ground rod is present in a ground box, bond all equipment grounding conductors together and to the ground rod with listed connectors.

8. When a type B or D ground box is stacked to meet volume requirements, it is allowable to cut an appropriately sized hole for conduit entry in the side wall at least 18 inches below grade.

9. If an existing ground box in the contract has a metal cover, bond the cover to the equipment grounding conductor with a 3 ft. long stranded bonding jumper the same size as the grounding conductor. The bonding jumper is subsidiary to various bid items. Verify existing ground boxes with metal covers are shown on the plans, with notes fully describing the work required.

10. If other ground boxes with metal covers are within the project limits but are not part of the contract, the Engineer may direct the Contractor to bond the metal covers, identifying the specific boxes in writing. This work will be paid for separately.

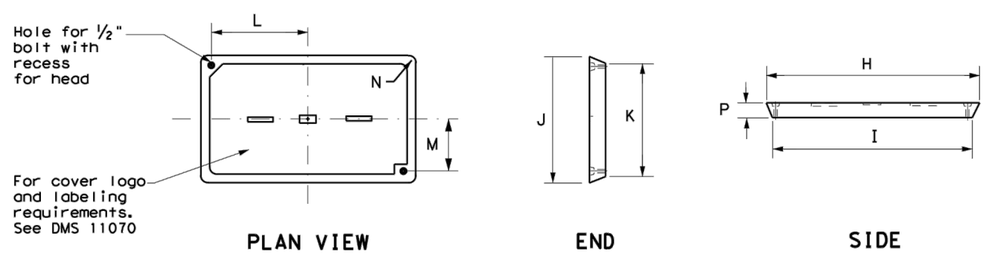
11. Bond metal ground box covers to the grounding conductor with a tank ground type lug.

GROUND BOX DIMENSIONS

TYPE	OUTSIDE DIMENSIONS (INCHES) (Width x Length X Depth)
A	12 X 23 X 11
B	12 X 23 X 22
C	16 X 29 X 11
D	16 X 29 X 22
E	12 X 23 X 17

GROUND BOX COVER DIMENSIONS

TYPE	DIMENSIONS (INCHES)							
	H	I	J	K	L	M	N	P
A, B & E	23 1/4	23	13 3/4	13 1/2	9 7/8	5 1/8	1 3/8	2
C & D	30 1/2	30 1/4	17 1/2	17 1/4	13 1/4	6 3/4	1 3/8	2



PLAN VIEW END SIDE

GROUND BOX COVER

Texas Department of Transportation

Traffic Operations Division Standard

ELECTRICAL DETAILS GROUND BOXES

ED(4)-14

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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

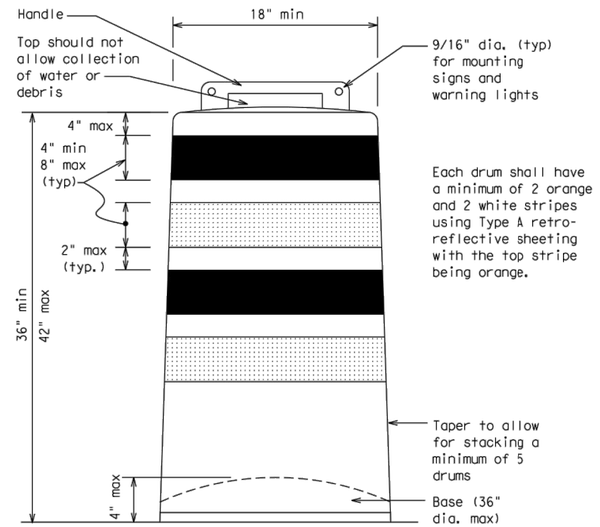
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

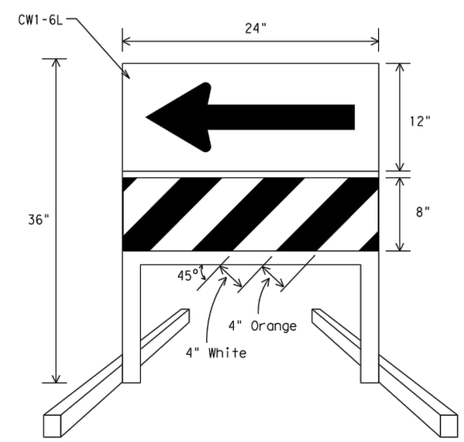
RETROREFLECTIVE SHEETING

1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.

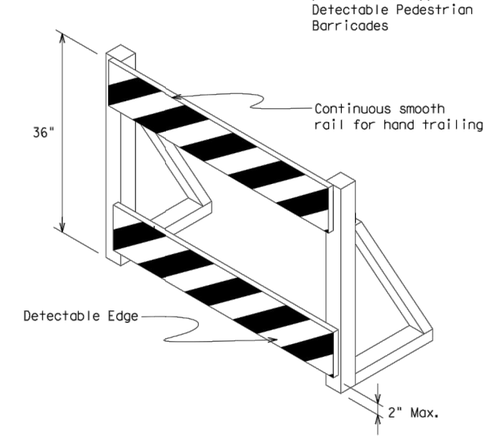




DIRECTION INDICATOR BARRICADE

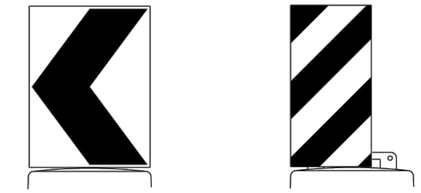
1. The Direction Indicator Barricade may be used in tapers, transitions, and other areas where specific directional guidance to drivers is necessary.
2. If used, the Direction Indicator Barricade should be used in series to direct the driver through the transition and into the intended travel lane.
3. The Direction Indicator Barricade shall consist of One-Direction Large Arrow (CW1-6) sign in the size shown with a black arrow on a background of Type B_{FL} or Type C_{FL} Orange retroreflective sheeting above a rail with Type A retroreflective sheeting in alternating 4" white and orange stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Sheeting types shall be as per DMS 8300.
4. Double arrows on the Direction Indicator Barricade will not be allowed.
5. Approved manufacturers are shown on the CWZTCD List. Ballast shall be as approved by the manufacturers instructions.

This detail is not intended for fabrication. See note 3 and the CWZTCD list for providers of approved Detectable Pedestrian Barricades



DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades may use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign (Maximum Sign Dimension) Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer

12" x 24" Vertical Panel mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL} or Type C_{FL} Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

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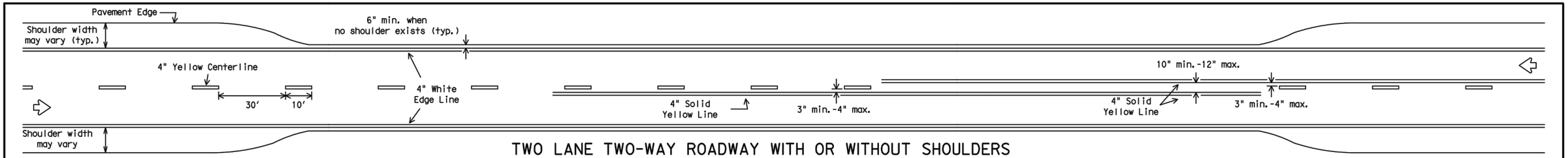
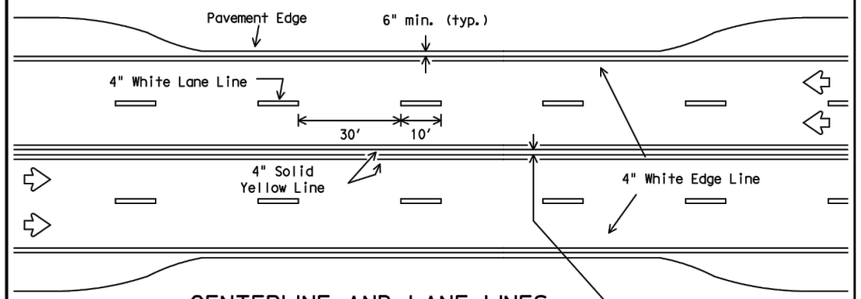
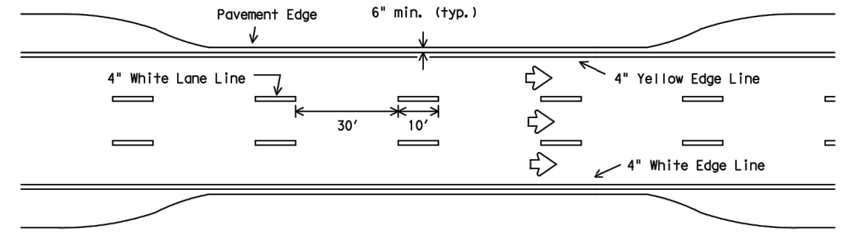


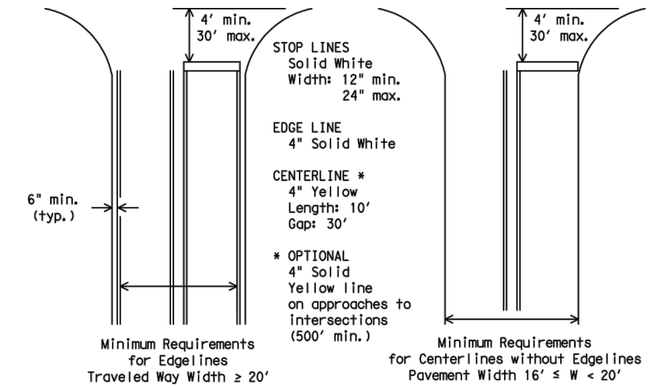
TWO LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



CENTERLINE AND LANE LINES FOUR LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS

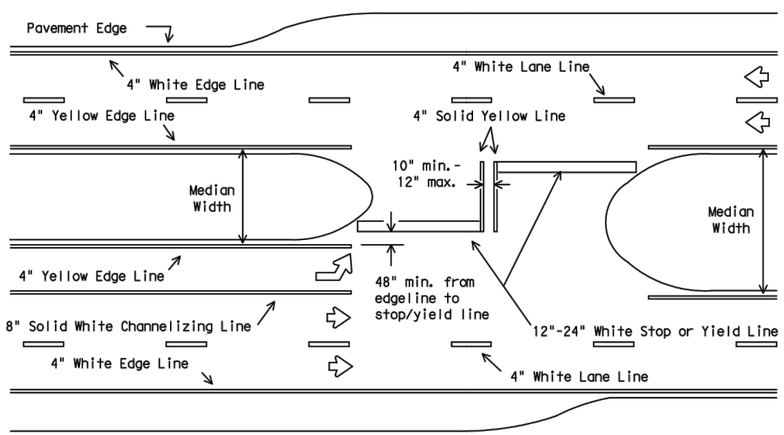


EDGE LINE AND LANE LINES ONE-WAY ROADWAY WITH OR WITHOUT SHOULDERS



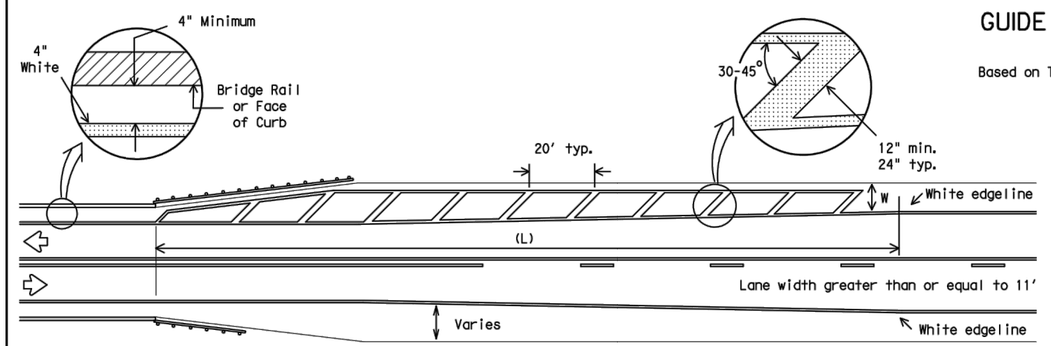
GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE

Based on Traveled Way and Pavement Widths for Undivided Highways



All medians shall be field measured to determine the location of necessary striping. Stop/Yield bars and centerlines shall be placed when the median width is greater than 30 ft. The median width is defined as the area between two roadways of a divided highway measured from edge of traveled way to edge of traveled way. The median excludes turn lanes. The median width might be different between intersections, interchanges and of opposite approaches of the same intersection. The narrow median width will be the controlling width to determine if markings are required.

FOUR LANE DIVIDED ROADWAY INTERSECTIONS



NOTES:

1. No-passing zone on bridge approach is optional but if used, it shall be a minimum 500 feet long.
2. For crosshatching length (L) see Table 1.
3. The width of the offset (W) and the required crosshatching width is the full shoulder width in advance of the bridge.
4. The crosshatching is not required if delineators or barrier reflectors are used along the structure.
5. For guard fence details, refer elsewhere in the plans.

ROADWAYS WITH REDUCED SHOULDER WIDTHS ACROSS BRIDGE OR CULVERT

TABLE 1 - TYPICAL LENGTH (L)

Posted Speed *	Formula
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	L=WS

* 85th Percentile Speed may be used on roads where traffic speeds normally exceed the posted speed limit. Crosshatching length should be rounded up to nearest 5 foot increment.

L=Length of Crosshatching (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

EXAMPLES:

An 8 foot shoulder in advance of a bridge reduces to 4 feet on a 70 MPH roadway. The length of the crosshatching should be:

$L = 8 \times 70 = 560$ ft.

A 4 foot shoulder in advance of a bridge reduces to 2 feet on a 40 MPH roadway. The length of the crosshatching should be:

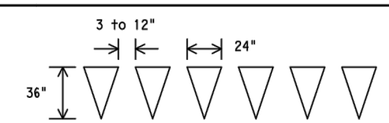
$L = 4(40)^2 / 60 = 106.67$ ft. rounded to 110 ft.

GENERAL NOTES

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should typically be placed a minimum of 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel and not the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



FOR POSTED SPEED ON ROAD BEING MARKED EQUAL TO OR GREATER THAN 45 MPH

FOR POSTED SPEED ON ROAD BEING MARKED EQUAL TO OR LESS THAN 40 MPH

YIELD LINES

Texas Department of Transportation
Traffic Operations Division

TYPICAL STANDARD PAVEMENT MARKINGS

PM(1)-12

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REVISIONS		DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
8-95	2-12	CONT	SECT	JOB	HIGHWAY
5-00		---	---	---	FM 60
8-00		DIST		COUNTY	SHEET NO.
3-03		BRYAN		BRAZOS	32

22A

DATE:
FILE:

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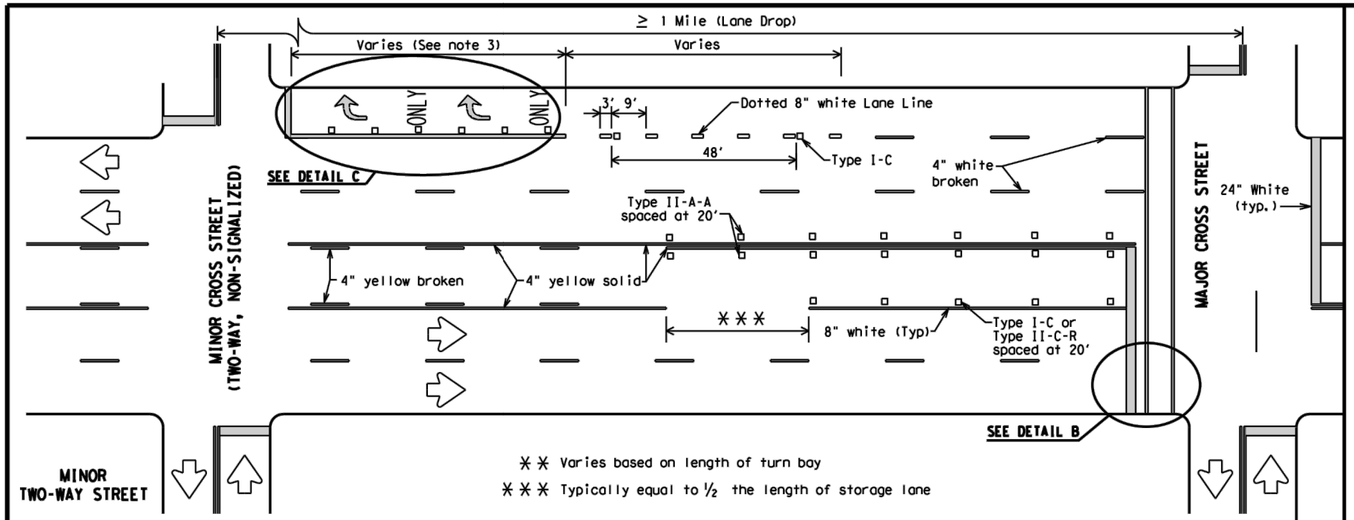
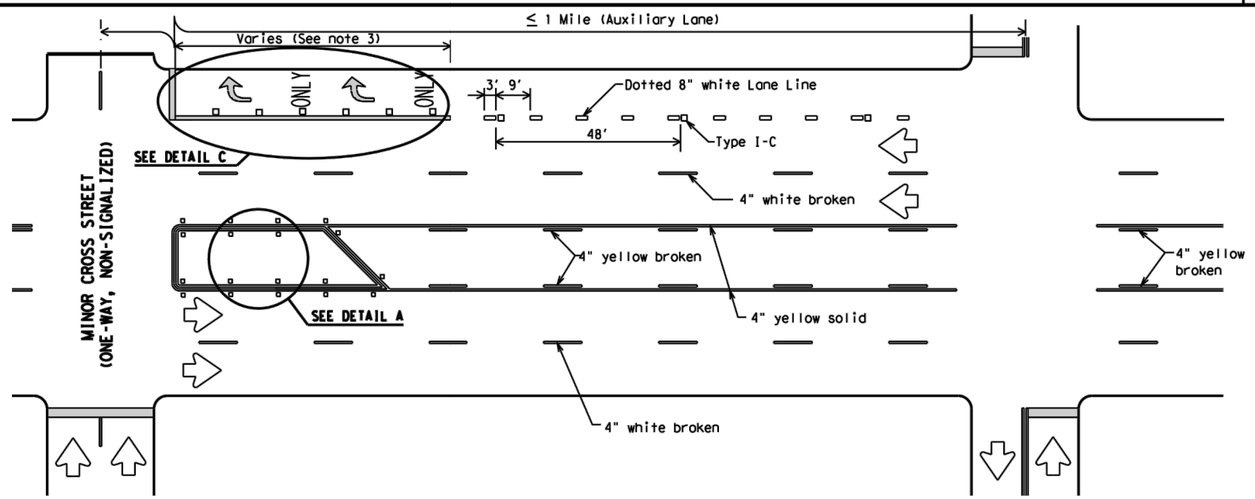
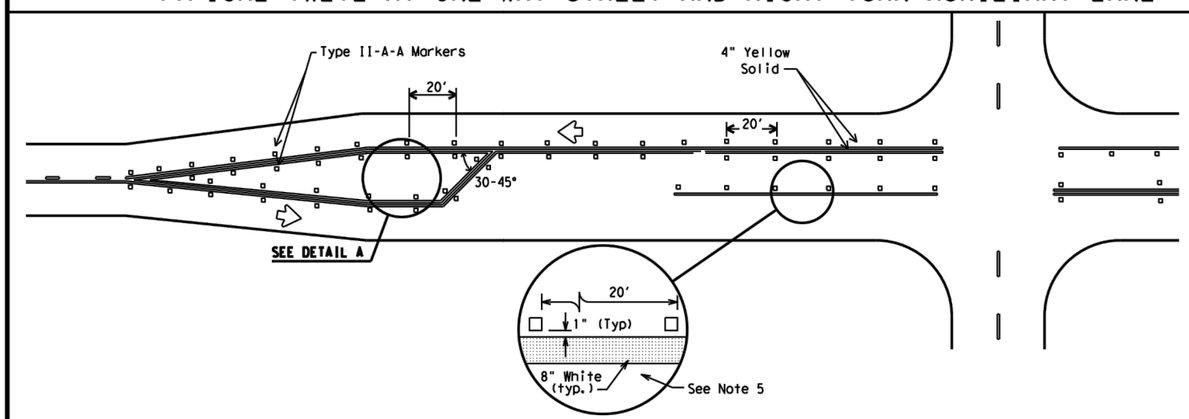


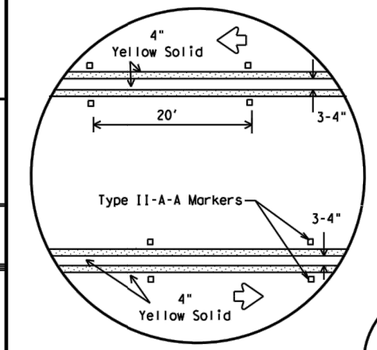
TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP



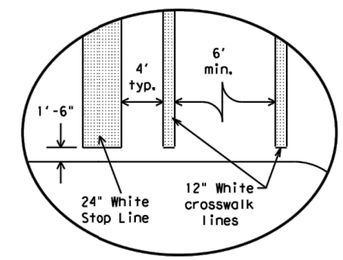
TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS

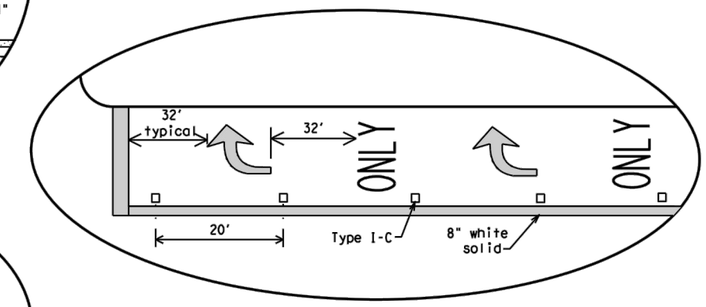


DETAIL A



Final placement of Stop Bar and Crosswalk shall be approved by the Engineer in the field.

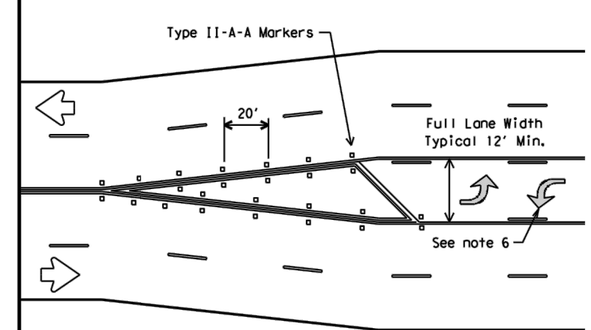
DETAIL B



DETAIL C

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



TYPICAL TRANSITION FOR TWLTL AND DIVIDED HIGHWAY

GENERAL NOTES

1. Refer elsewhere in plans for additional RPM placement and details.
2. Lane use word and arrow markings shall be used where through lanes approaching an intersection become mandatory turn lanes. Lane use word and arrow markings should be used in auxiliary lanes of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows as shown in the Standard Highway Sign Designs for Texas.
3. When lane used word and arrow markings are used, two sets of arrows should be used if the length of the bay is greater than 180 feet. When a single lane use arrow or word and arrow marking is used for a short turn lane, it should be located at or near the upstream end of the full-width turn lane.
4. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used.
5. Raised pavement marker Type I-C with undivided highways, flush medians and two way left turn lanes. Raised pavement marker Type II-C-R with divided highways and raised medians.
6. A two-way left-turn (TWLT) lane-use arrow pavement marking should be used at or just downstream from the beginning of a two-way left-turn lane within a corridor. Repeating the marking after each intersection or dedicated turn bay is not required unless stated elsewhere in the plans.

Texas Department of Transportation
Traffic Operations Division

PAVEMENT MARKINGS FOR TWO-WAY LEFT TURN LANES DIVIDED HIGHWAYS AND RURAL LEFT TURN BAYS

PM(3)-12

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REVISIONS
5-00 2-12
8-00
3-03
2-10

DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT
CONT	SECT	JOB	HIGHWAY
---	---	---	FM 60
DIST		COUNTY	SHEET NO.
BRYAN		BRAZOS	33

22C

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FILE:

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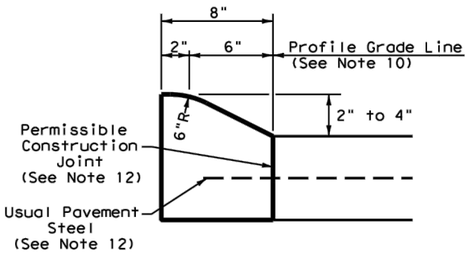
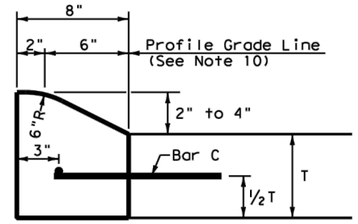


TYPE I CURB (MONOLITHIC)
2" - 4" HEIGHT



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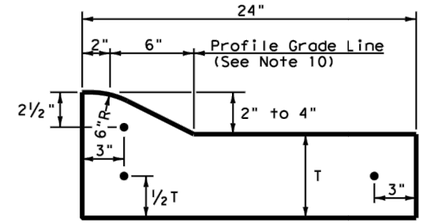
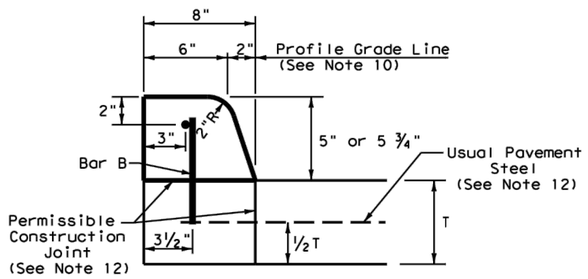
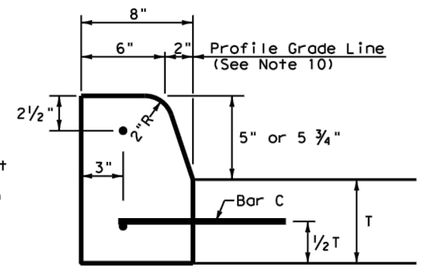


TYPE I CURB AND GUTTER
2" - 4" HEIGHT



TYPE II CURB (MONOLITHIC)
5" - 5 ¾" HEIGHT



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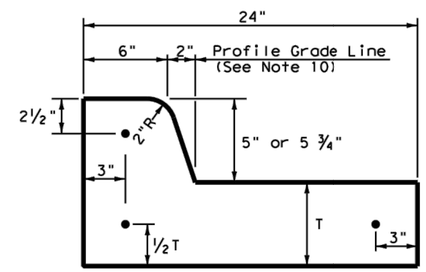
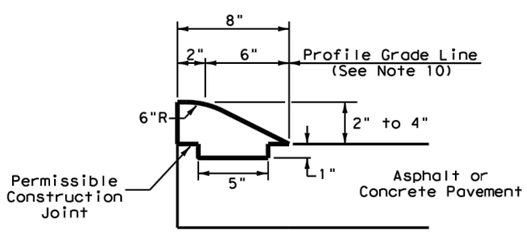
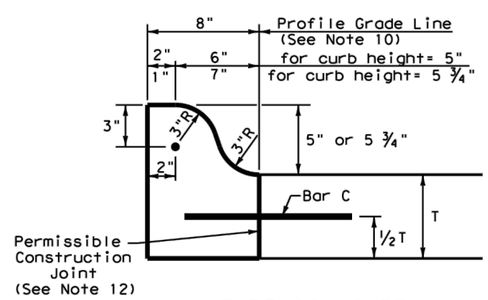


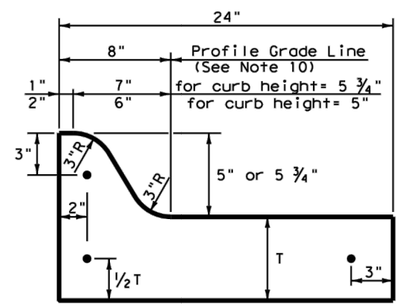
TYPE II CURB AND GUTTER
5" - 5 ¾" HEIGHT



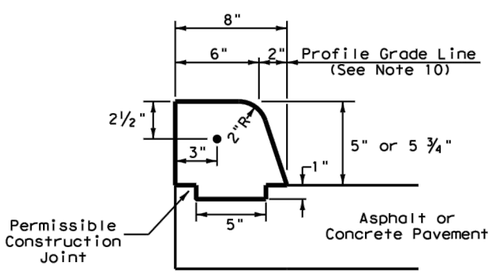
TYPE III CURB (KEYED)
2" - 4" HEIGHT



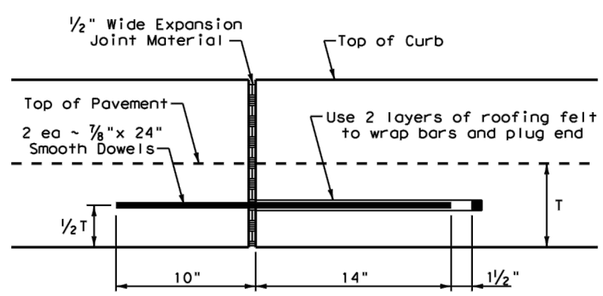
TYPE IIa CURB
5" - 5 ¾" HEIGHT



TYPE IIa CURB AND GUTTER
5" - 5 ¾" HEIGHT

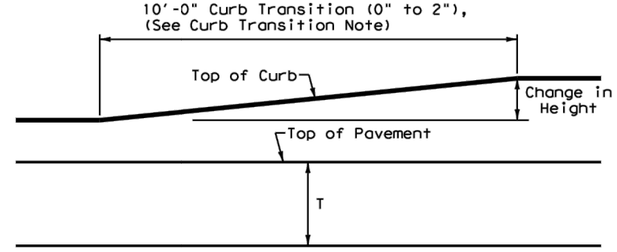


TYPE IV CURB (KEYED)
5" - 5 ¾" HEIGHT



EXPANSION JOINT DETAIL

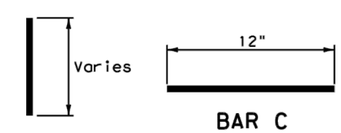
Curb Transition Note:
Field conditions may require a longer or shorter transition, and shall be shown elsewhere in the plans, or as directed by the Engineer.



CURB TRANSITION
Note: To be paid for as Highest Curb

General Notes

1. All materials and construction shall be in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."
2. Concrete shall be Class A.
3. When reinforcing bars are used, they shall be No.4 unless otherwise shown. The use of synthetic fiber in lieu of steel reinforcing is acceptable, provided the fiber producer is on the Department Producer List (MPL), maintained by TxDOT, Construction Division.
4. Round exposed sharp edges with a rounding tool, to a minimum radius of ¼ inch.
5. All existing curbs and driveways to be removed shall be sawed or removed at existing joints.
6. Where concrete curb is placed on existing concrete pavement, the pavement shall be drilled and the reinforcing bars grouted in place.
7. Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.
8. Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C~C.
9. Dimension 'T' shown is the thickness of concrete pavement. When curb is installed adjacent to flexible pavement dimension 'T' is 8" maximum.
10. Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.
11. One-half inch expansion joint material shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.
12. When vertical permissible construction joints are used, resulting in a longitudinal construction joint in the pavement, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans for longitudinal construction joints. Reinforcing steel for curb section shall then conform to that required for concrete curb.



BAR B BAR C

Texas Department of Transportation — Design Division Standard

CONCRETE CURB AND CURB AND GUTTER

CCCG-12

FILE: cccg12.dgn	DN: TxDOT	CK: AM	DW: VP	CK: VP
©TxDOT: 1995	CONT	SECT	JOB	HIGHWAY
REVISIONS UPDATED 2012 - VP	---	---	---	FM 60
	DIST	COUNTY		SHEET NO.
	BRYAN	BRAZOS		34

DATE:
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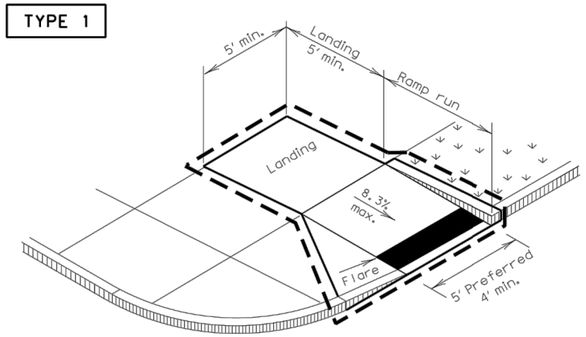
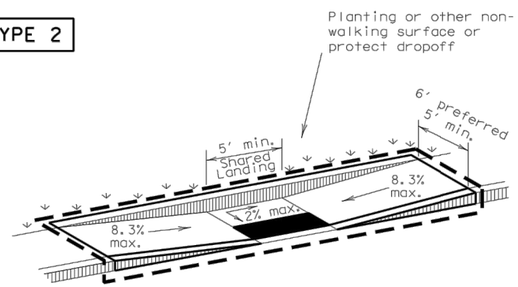
TYPE 1



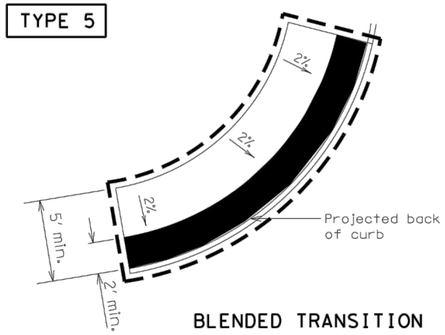
PERPENDICULAR CURB RAMP

TYPE 2



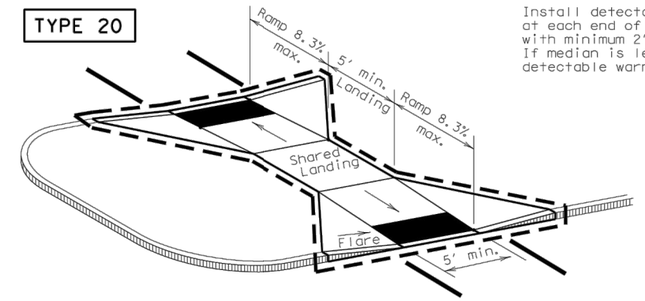
PARALLEL CURB RAMP
(Use only where water will not pond in the landing.)

TYPE 5



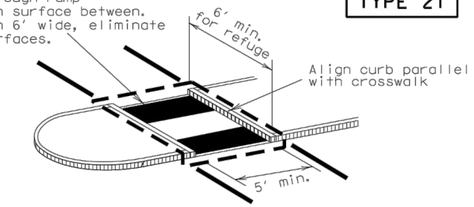
BLENDED TRANSITION

TYPE 20



Install detectable warning surface at each end of cut-through ramp with minimum 2' smooth surface between. If median is less than 6' wide, eliminate detectable warning surfaces.

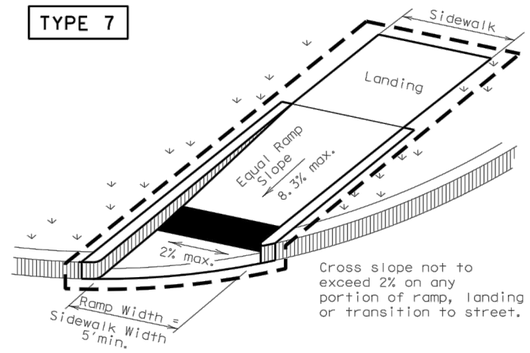
TYPE 21



Curb details are shown elsewhere in the plans.

CURB RAMPS AT MEDIAN ISLANDS

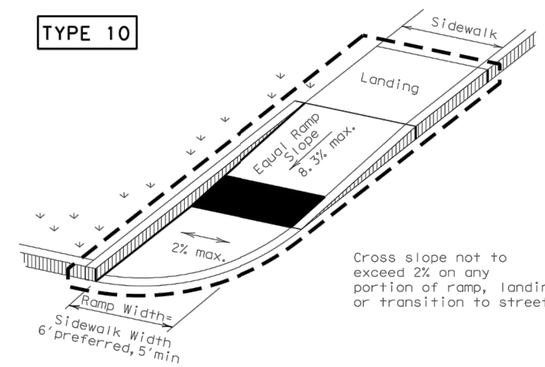
TYPE 7



Cross slope not to exceed 2% on any portion of ramp, landing or transition to street.

(Sidewalk set back from curb)

TYPE 10

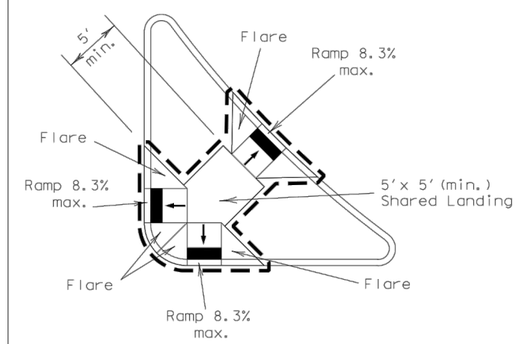


Cross slope not to exceed 2% on any portion of ramp, landing or transition to street.

(Sidewalk adjacent to curb)

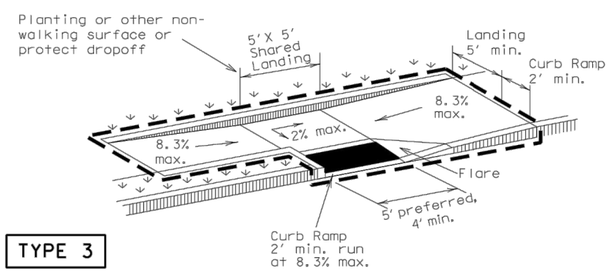
DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 22

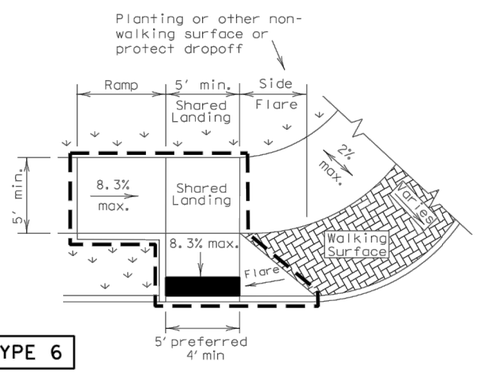


COMBINATION ISLAND RAMPS

TYPE 3

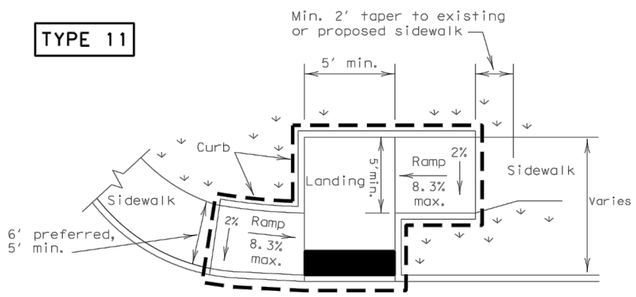


TYPE 6



COMBINATION CURB RAMPS

TYPE 11



OFFSET PARALLEL CURB RAMP

NOTES / LEGEND:

See General Notes on sheet 2 of 4 for more information.

Denotes planting or non-walking surface not part of pedestrian circulation path.

Ramp Limits of Payment

Detectable Warning Surface

SHEET 1 OF 4

Texas Department of Transportation — Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: RM	DW: TxDOT	CK: VP
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REVISIONS	---	---	---	FM 60
VP June 13, 2012	DIST		COUNTY	SHEET NO.
	BRYAN		BRAZOS	35

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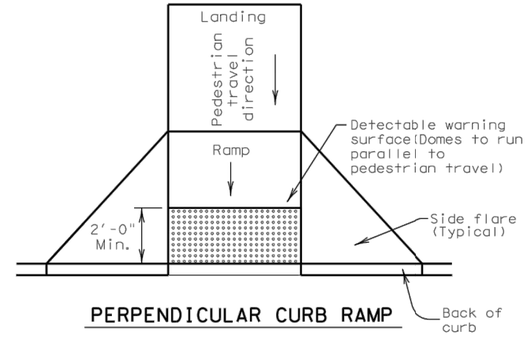
General Notes

Curb Ramps

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5′. Where the sidewalk is adjacent to the back of curb, a 6′ sidewalk width is desirable. Where a 5′ sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4′ for short distances. 5′x 5′ passing areas at intervals not to exceed 200′ are required.
4. Landings shall be 5′x 5′ minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4′x 4′ wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6′ wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5′x 5′ landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever on accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

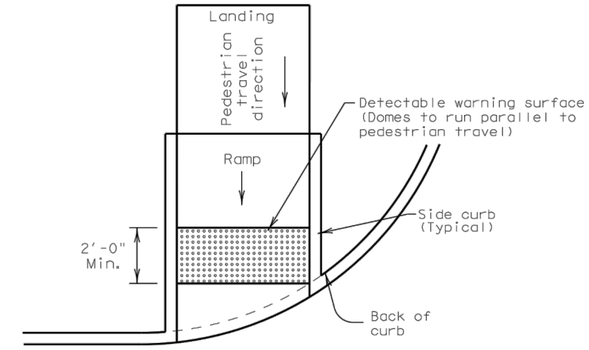
Detectable Warning Material

18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



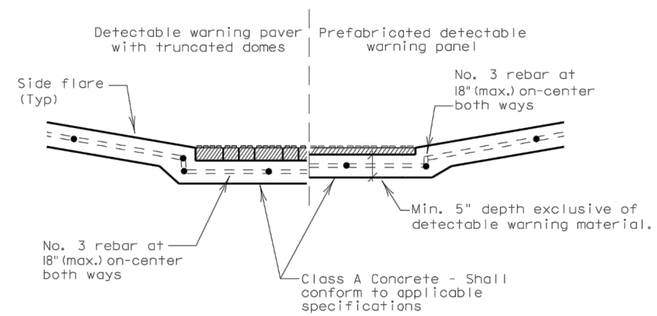
PERPENDICULAR CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.

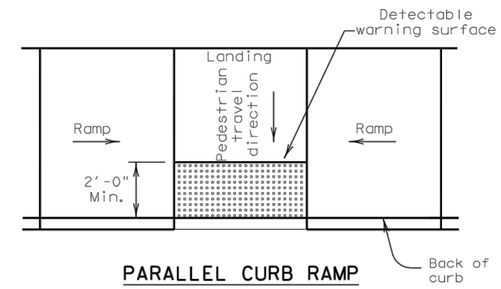


DIRECTIONAL CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING



PARALLEL CURB RAMP

Typical placement of detectable warning surface on landing at street edge.

DETECTABLE WARNINGS

Detectable Warning Pavers

24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

Sidewalks

26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grades and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
33. Sidewalk details are shown elsewhere in the plans.

Texas Department of Transportation — Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: RM	DW: TxDOT	CK: VP
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REVISIONS	---	---	---	FM 60
VP June 13, 2012	DIST		COUNTY	SHEET NO.
	BRYAN		BRAZOS	36

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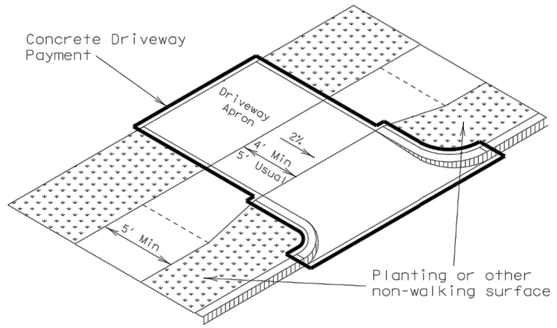
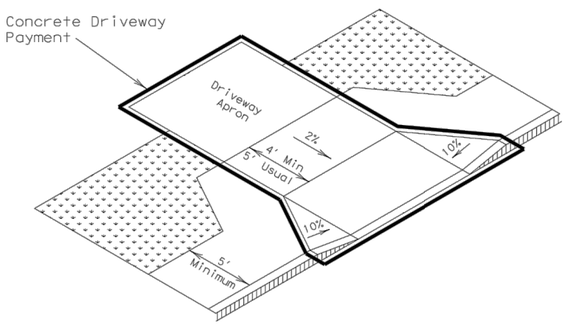
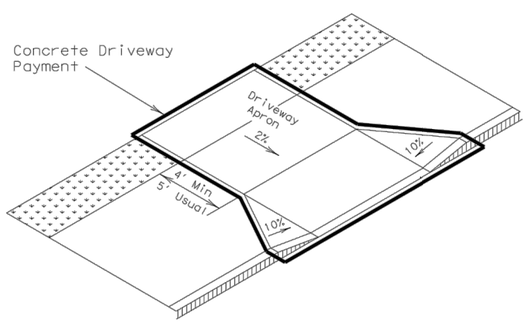


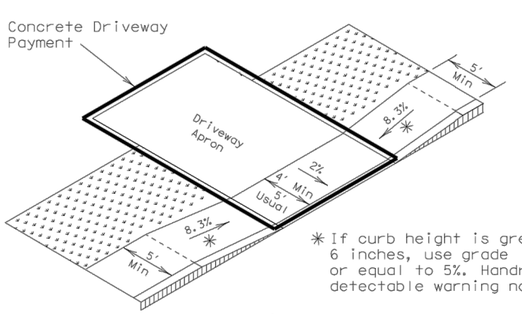
Setback sidewalk



Apron offset sidewalk



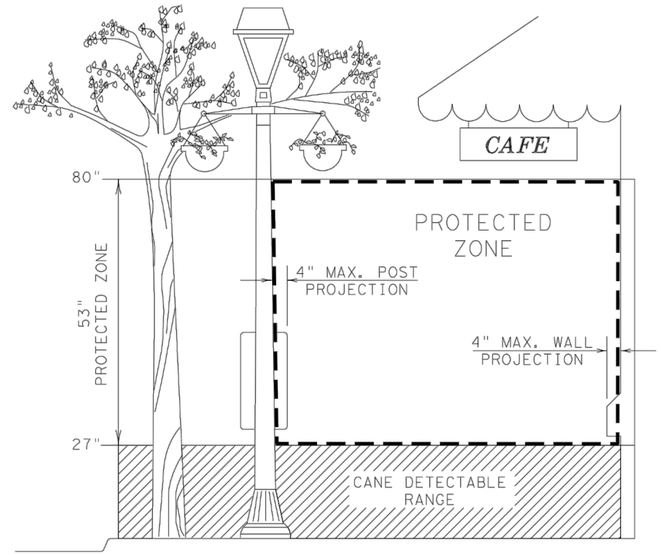
Wide sidewalk



✳ If curb height is greater than 6 inches, use grade less than or equal to 5%. Handrail and detectable warning not required.

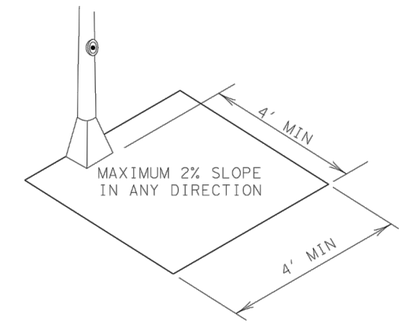
Ramp sidewalk

SIDEWALK TREATMENT AT DRIVEWAYS

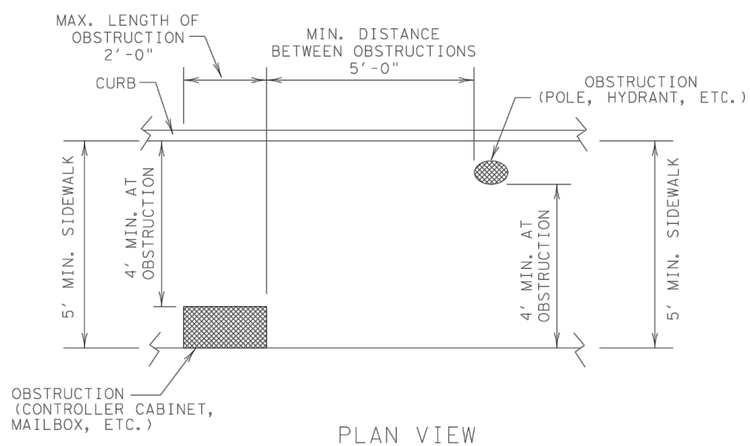


PROTECTED ZONE

In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27"and 80" above the surface.



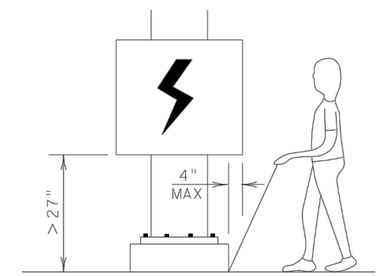
CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



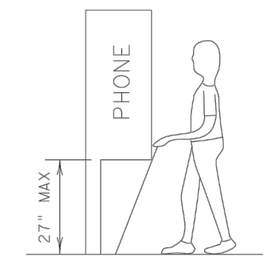
PLAN VIEW

PLACEMENT OF STREET FIXTURES

(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)



When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.



Protruding objects of a height ≤ 27" are detectable by cane and do not require additional treatment.

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

SHEET 3 OF 4

Texas Department of Transportation — Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

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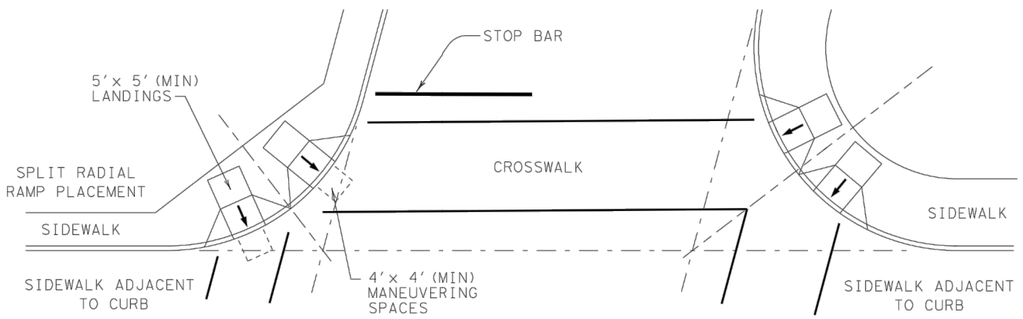
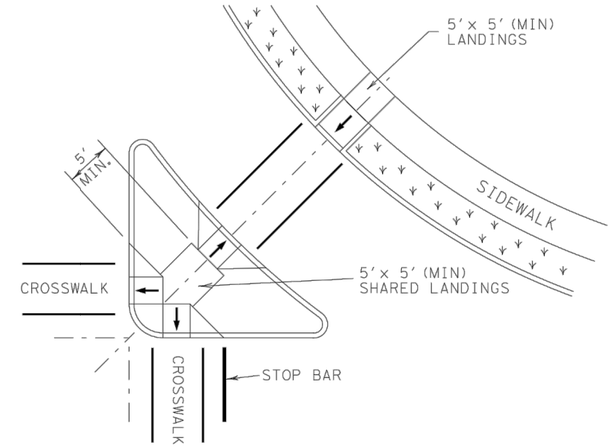
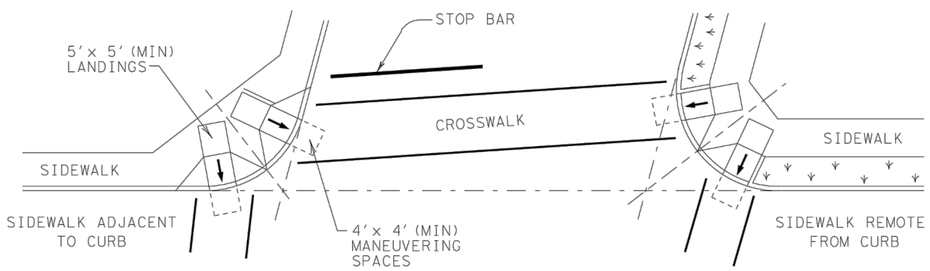


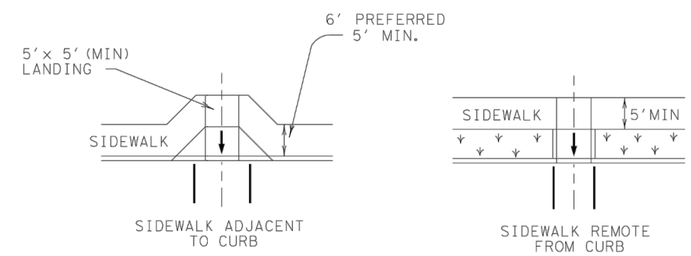
SKEWED INTERSECTION WITH "LARGE" RADIUS



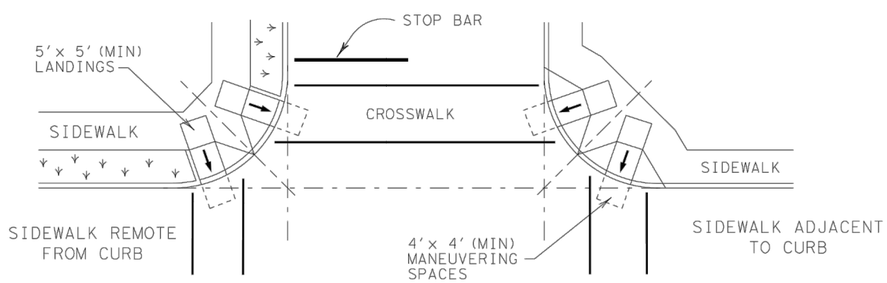
AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



SKEWED INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS



NORMAL INTERSECTION WITH "SMALL" RADIUS

TYPICAL CROSSING LAYOUTS

SHEET 4 OF 4

Texas Department of Transportation — Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

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EXHIBIT B
ENGINEER'S COST ESTIMATE

Kimley-Horn and Associates, Inc. **Opinion of Probable Construction Cost**

Client:	**TEXAS A&M UNIVERSITY**	**Date:**	**9/25/2017**
Project:	**UNIVERSITY DR. SIGNAL AND CROSSWALK MODIFICATIONS**	**Prepared By:**	**MEC**
KHA No.:	**066077916**	**Checked By:**	**CH**

Title: **UNIVERSITY DR. SIGNAL AND CROSSWALK MODIFICATIONS** **Sheet 1 of 1**

Item No.	TxDOT Spec	Item Description	University Dr. & Discovery Dr.	University Dr. & Vet Building Driveway	Total Quantity	Unit	Unit Price	Item Cost
1	0104 6015	REMOVING CONC (SIDEWALKS)	49	50.5	99.5	SY	$ 16.00	$ 1,592.00
2	0104 6022	REMOVING CONC (CURB AND GUTTER)	60	0	60	LF	$ 6.00	$ 360.00
3	0104 6032	REMOVING CONC (WHEELCHAIR RAMP)	76	14	90	SY	$ 45.00	$ 4,050.00
4	0500 6001	MOBILIZATION	---	---	1	LS	$ 10,000.00	$ 10,000.00
5	0502 6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	---	---	1	MO	$ 750.00	$ 750.00
6	0529 6002	CONC CURB (TY II)	44	0	44	LF	$ 14.00	$ 616.00
7	0531 6003	CONC SIDEWALKS (6")	584	53	637	SY	$ 55.00	$ 35,035.00
8	0531 6004	CURB RAMPS (TY 1)	2	2	4	EA	$ 1,800.00	$ 7,200.00
9	0531 6006	CURB RAMPS (TY 3)	0	1	1	EA	$ 1,800.00	$ 1,800.00
10	0531 6010	CURB RAMPS (TY 7)	4	0	4	EA	$ 1,800.00	$ 7,200.00
11	0618 6029	CONDT (PVC) (SCH 40) (3")	50	100	150	LF	$ 14.00	$ 2,100.00
12	0620 6009	ELEC CONDR (NO.6) BARE	50	100	150	LF	$ 1.50	$ 225.00
13	0624 6010	GROUND BOX TY D (162922)W/APRON	2	0	2	EA	$ 900.00	$ 1,800.00
14	0624 6028	REMOVE GROUND BOX	2	0	2	EA	$ 175.00	$ 350.00
15	0666 6111	REFL PAV MRK TY I (Y)4"(SLD)(100MIL)	0	20	20	LF	$ 0.50	$ 10.00
16	0666 6036	REFL PAV MRK TY I (W)8"(SLD)(100MIL)	0	70	70	LF	$ 1.00	$ 70.00
17	0666 6048	REFL PAV MRK TY I (W)24"(SLD)(100MIL)	339	316	655	LF	$ 6.00	$ 3,930.00
18	0666 6054	REFL PAV MRK TY I (W)(ARROW)(100MIL)	0	3	3	EA	$ 100.00	$ 300.00
19	0666 6078	REFL PAV MRK TY I (W)(WORD)(100MIL)	0	1	1	EA	$ 130.00	$ 130.00
20	0666 6207	REFL PAV MRK TY II (Y) 4" (SLD)	0	20	20	LF	$ 0.25	$ 5.00
21	0666 6178	REFL PAV MRK TY II (W) 8" (SLD)	0	70	70	LF	$ 0.50	$ 35.00
22	0666 6182	REFL PAV MRK TY II (W) 24" (SLD)	339	316	655	LF	$ 2.50	$ 1,637.50
23	0666 6184	REFL PAV MRK TY II (W) (ARROW)	0	3	3	EA	$ 55.00	$ 165.00
24	0666 6192	REFL PAV MRK TY II (W) (WORD)	0	1	1	EA	$ 65.00	$ 65.00
25	0677 6001	ELIM EXT PAV MRK & MRKS (4")	12	44	56	LF	$ 0.50	$ 28.00
26	0677 6003	ELIM EXT PAV MRK & MRKS (8")	5	22	27	LF	$ 1.00	$ 27.00
27	0677 6005	ELIM EXT PAV MRK & MRKS (12")	325	0	325	LF	$ 1.50	$ 487.50
28	0677 6007	ELIM EXT PAV MRK & MRKS (24")	63	65	128	LF	$ 3.00	$ 384.00
29	0677 6008	ELIM EXT PAV MRK & MRKS (ARROW)	0	1	1	EA	$ 45.00	$ 45.00
30	0677 6012	ELIM EXT PAV MRK & MRKS (WORD)	0	1	1	EA	$ 55.00	$ 55.00
31	0678 6008	PAV SURF PREP FOR MRK (24")	339	316	655	LF	$ 1.00	$ 655.00
32	0678 6009	PAV SURF PREP FOR MRK (ARROW)	0	3	3	EA	$ 18.00	$ 54.00
33	0678 6016	PAV SURF PREP FOR MRK (WORD)	0	1	1	EA	$ 24.00	$ 24.00
34	0680 6004	REMOVING TRAFFIC SIGNALS	1	1	2	EA	$ 2,500.00	$ 5,000.00
35	0682 6018	PED SIG SEC (LED)(COUNTDOWN)	8	6	14	EA	$ 525.00	$ 7,350.00
36	0684 6031	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	1,200	840	2,040	LF	$ 1.50	$ 3,060.00
37	0687 6001	PED POLE ASSEMBLY (POWDER COATED BRONZE)	2	4	6	EA	$ 2,000.00	$ 12,000.00
38	0688 6001	PED DETECT PUSH BUTTON (APS)(POLARA)(BLACK)	8	6	14	EA	$ 900.00	$ 12,600.00
39	9999 9999	APS (POLARA) CONTROL UNIT	1	1	2	EA	$ 3,000.00	$ 6,000.00

Subtotal:		$ 127,195.00
Conting. (%,+/-)	20.00	$ 25,505.00
Total:		**$152,700**

Basis for Cost Projection:

- No Design Completed
- Preliminary Design
- Final Design

This total does not reflect engineering or technical services.

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Legislation Details (With Text)

File #:	17-0638	**Version:**	1	**Name:**	Blastco Contracts - Clarifier 3A
Type:	Contract			**Status:**	Consent Agenda
File created:	10/17/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion regarding ratification of Change Order #1 to contract #17300305 with Blastco for a credit of $51,185.04 and ratification of a new emergency contract #18300040 with Blastco for $135,887.30 to repair the concrete foundation in Clarifier 3A at the Carters Creek Wastewater Treatment Plant.				
Sponsors:	David Coleman				
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding ratification of Change Order #1 to contract #17300305 with Blastco for a credit of $51,185.04 and ratification of a new emergency contract #18300040 with Blastco for $135,887.30 to repair the concrete foundation in Clarifier 3A at the Carters Creek Wastewater Treatment Plant.

Relationship to Strategic Goals: Core Services and Infrastructure

Recommendation: Staff recommends ratification of both contract actions.

Summary: Structural failure of the concrete pedestal supporting the center column in clarifier 3A has necessitated several emergency contract actions. Back in August, we had Blastco under contract #17300305 doing routine re-coating of the steel components in the clarifier tanks. They started on clarifier 3A, and the work in 3A was almost complete, when crews noticed the entire center column had sunk 4” and the sludge rakes were resting on the floor, obvious signs of structural failure in the concrete support base.

We immediately issued a separate emergency contract with EI Inc. to remove, repair, and eventually reinstall the column and rakes. Once they were removed, we directed Blastco to change their existing contract to demolish portions of the concrete floor and the concrete center base, to find the structural failure. With this added work, minus the deletion of repair work on other clarifiers, the credit change order of $51,185.04 resulted. Since this change order percentage exceeds City Manager authority, we request City Council ratify this action.

We also contracted with Dunham Engineering to assess the structural damage and design a fix. They completed that work expeditiously, and we solicited a bid from Blastco to do the work, since they were already mobilized and familiar with the site and the repair work. This resulted in the new

contract, #18300040, for $135,887.30 which was awarded and work is underway. We expect to have clarifier 3A back in service before Thanksgiving, and return the Plant to normal operations. But this new contract exceeds City Manager authority, and we request City Council ratify this action.

Budget & Financial Summary: Budget was included for this project in the FY18 Wastewater Capital Improvement Projects Fund.

Reviewed and Approved by Legal: Yes

Attachment: Change order and contract are available in City Secretary's office

Legislation Details (With Text)

File #:	17-0641	**Version:**	1	**Name:**	Greens Prairie Arrington Road Construction Contract
Type:	Contract			**Status:**	Consent Agenda
File created:	10/20/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion regarding the approval of a construction contract (Contract No. 18300026) with Palasota Contracting, LLC, in the amount of $651,494.05, for the construction of the Greens Prairie and Arrington Road Intersection Improvements Project.				
Sponsors:	Donald Harmon				
Indexes:					
Code sections:					
Attachments:	18-004 Tab GP-Arrington Signal Project Location Map				

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding the approval of a construction contract (Contract No. 18300026) with Palasota Contracting, LLC, in the amount of $651,494.05, for the construction of the Greens Prairie and Arrington Road Intersection Improvements Project.

Relationship to Strategic Goals:

- Core Services and Infrastructure

Recommendation(s): Staff recommends approval of this contract.

Summary: This project consists of the construction of a traffic signal and associated improvements at the intersection of Greens Prairie and Arrington Road. As part of the base bid, a left turn lane from Arrington southbound onto Greens Prairie eastbound and a dedicated right turn lane from Arrington southbound onto Greens Prairie westbound is included along with the traffic signal improvements at the intersection. Bid alternate 1 allows for the construction of an additional lane on Arrington northbound to allow for a dual right turn movement from a right turn lane and a thru-right lane at the intersection of Arrington and State Highway 40. Bid alternate 1 was added to the project as part of an agreement with the developer of the Margraves tract. The TIA for the development indicated the need to construct this lane section with their development and the presence of the City project provided an opportunity to partner with the City of College Station and perform this construction at the same time as the signal improvements. Bid alternate 2 allows for the widening of Greens Prairie Road west of the intersection to expand the current cross section to allow for dual left turn lanes onto Arrington northbound and a thru-right turn lane. The acceptance of the bid alternate was due to the associated cost in the submitted bid and the ability to synchronize the timing of the new signal and the existing signal at Arrington and State Highway 40 more effectively with the wider cross section on this portion of Greens Prairie Road.

Budget & Financial Summary: Budget in the amount of $790,000 has been included for this project in the Streets Capital Improvement Projects Fund. This includes $75,000 that has been transferred from the Lakeway Extension project and was available due to favorable bids. Bid alternate 1 will be paid for by the developer, but will be part of this construction contract. As such, the budget will be adjusted accordingly through a future budget amendment to support the expenditure.

Attachments:

1. Bid Tabulation #18-004
2. Contract No. 18300026 (on file with the City Secretary)
3. Project Location Map

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	**QTY**	**UNIT**	**DESCRIPTION**	**UNIT PRICE**	**TOTAL PRICE**	**UNIT PRICE**	**TOTAL PRICE**
BASE BID							
1	5	MO	TRAFFIC CONTROL	$1,850.00	$9,250.00	$3,000.00	$15,000.00
2	1	LS	MOBILIZATION	$55,600.00	$55,600.00	$40,000.00	$40,000.00
3	1	LS	CONSTRUCTION SURVEYING	$12,000.00	$12,000.00	$2,000.00	$2,000.00
4	1	LS	EXCAVATION, EMBANKMENT AND BORROW	$22,000.00	$22,000.00	$5,000.00	$5,000.00
5	1	LS	EROSION AND SEDIMENTATION CONTROL	$5,600.00	$5,600.00	$4,000.00	$4,000.00
6	1	LS	TRENCH SAFETY	$5,000.00	$5,000.00	$1,000.00	$1,000.00
7	1	LS	ROW PREPERATION	$28,000.00	$28,000.00	$1,000.00	$1,000.00
8	220	SY	REMOVING CONC (SIDEWALKS)	$25.00	$5,500.00	$10.00	$2,200.00
9	750	LF	REMOVING CONC (CURB AND GUTTER)	$20.00	$15,000.00	$10.00	$7,500.00
10	370	SY	REMOVING STAB BASE & ASPH PAV (8"-10")	$15.00	$5,550.00	$20.00	$7,400.00
11	480	SY	8" CRUSHED LIMESTONE BASE (TY-A OR B,GR-1 OR 2)	$33.00	$15,840.00	$25.00	$12,000.00
12	640	SY	6" LIME STABILIZED SUBGRADE	$8.00	$5,120.00	$25.00	$16,000.00
13	14	TON	LIME	$175.00	$2,450.00	$200.00	$2,800.00
14	480	SY	2" HMACP (PG70-22)	$42.75	$20,520.00	$25.00	$12,000.00
15	550	SF	INTEGRAL COLORED CONCRETE	$14.25	$7,837.50	$10.00	$5,500.00
16	750	LF	CONCRETE CURB AND GUTTER	$42.00	$31,500.00	$20.00	$15,000.00
17	510	SF	4" CONCRETE SIDEWALK	$11.00	$5,610.00	$5.00	$2,550.00
18	100	SY	FURNISH AND INSTALL 4" TOPSOIL	$10.00	$1,000.00	$10.00	$1,000.00
19	100	SY	BLOCK SODDING	$15.00	$1,500.00	$10.00	$1,000.00
20	1	EA	10' CURB INLET AND CONNECTION TO 4'x4' RCB	$9,000.00	$9,000.00	$4,000.00	$4,000.00
21	100	LF	TYPICAL PEDESTRIAN GUARDRAIL	$165.00	$16,500.00	$100.00	$10,000.00
22	25	CY	REINFORCED CONCRETE WINGWALL EXTENSION	$950.00	$23,750.00	$500.00	$12,500.00
23	1	EA	TY-2 PED CURB RAMP	$1,000.00	$1,000.00	$500.00	$500.00
24	1	EA	TY-21 PED CURB RAMP	$1,200.00	$1,200.00	$1,500.00	$1,500.00
25	2	EA	TY-7 PED CURB RAMP	$1,200.00	$2,400.00	$1,000.00	$2,000.00

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
26	450	LF	4" THERMOPLASTIC STRIPING SOLID WHITE LINE	$1.35	$607.50	$1.62	$729.00
27	1500	LF	8" THERMOPLASTIC STRIPING SOLID WHITE LINE	$2.85	$4,275.00	$3.42	$5,130.00
28	600	LF	24" THERMOPLASTIC STRIPING SOLID WHITE LINE	$11.35	$6,810.00	$13.62	$8,172.00
29	1370	LF	4" THERMOPLASTIC STRIPING SOLID YELLOW LINE	$1.35	$1,849.50	$1.62	$2,219.40
30	2	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - SHARROW	$180.00	$360.00	$216.00	$432.00
31	14	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - TURN ARROW	$165.00	$2,310.00	$198.00	$2,772.00
32	1	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - DOUBLE TURN ARROW	$195.00	$195.00	$234.00	$234.00
33	13	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - WORD - "ONLY"	$310.00	$4,030.00	$372.00	$4,836.00
34	2	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - BICYCLE LANE SYMBOL AND ARROW	$310.00	$620.00	$10.14	$20.28
35	75	EA	TY II-C-R RAISED REFLECTIVE MARKERS	$8.45	$633.75	$10.14	$760.50
36	32	EA	TY II-C RAISED REFLECTIVE MARKERS	$8.45	$270.40	$10.14	$324.48
37	1540	LF	REMOVAL OF 4" PVMT MARKINGS	$1.00	$1,540.00	$1.20	$1,848.00
38	1060	LF	REMOVAL OF 8" PVMT MARKINGS	$1.50	$1,590.00	$1.80	$1,908.00
39	250	LF	REMOVAL OF 12" PVMT MARKINGS	$2.65	$662.50	$3.18	$795.00
40	65	LF	REMOVAL OF 24" PVMT MARKINGS	$5.15	$334.75	$6.18	$401.70
41	10	EA	REMOVAL OF WORD PVMT MARKINGS	$65.00	$650.00	$78.00	$780.00
42	18	EA	REMOVAL OF ARROW PVMT MARKINGS	$55.00	$990.00	$66.00	$1,188.00
43	150	EA	REMOVAL OF RAISED PVMT MARKERS	$1.00	$150.00	$1.20	$180.00
44	1	EA	BIKE LANE ENDS SIGN(CUSTOM), 200 FT PLAQUE (W16-2AP)	$501.44	$501.44	$601.73	$601.73
45	2	EA	LANE USE SIGN (R3-8B)	$485.50	$971.00	$582.60	$1,165.20
46	1	EA	BIKE MAY USE FULL LANE SIGN (W4-11)	$444.25	$444.25	$533.10	$533.10
47	2	EA	TRAFFIC SIGNAL AHEAD SIGN (M3-3)	$485.25	$970.50	$582.30	$1,164.60
48	6	EA	REMOVE ROAD SIGN	$200.00	$1,200.00	$200.00	$1,200.00
49	1	EA	REMOVE ROADWAY ILLUM ASSEMBLY (HPS)	$1,500.00	$1,500.00	$1,000.00	$1,000.00
50	39	LF	DRILL SHAFT (TRF SIG POLE) (36 IN)	$350.00	$13,650.00	$393.77	$15,357.03
51	22	LF	DRILL SHAFT (TRF SIG POLE) (48 IN)	$450.00	$9,900.00	$471.85	$10,380.70

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
52	40	LF	CONDT (PVC) (SCH 40) (2")	$10.00	$400.00	$5.71	$228.40
53	160	LF	CONDT (PVC) (SCH 40) (3")	$12.00	$1,920.00	$6.65	$1,064.00
54	264	LF	CONDT (PVC) (SCH 40) (3") (BORE)	$20.00	$5,280.00	$12.37	$3,265.68
55	680	LF	CONDT (PVC) (SCH 40) (4")	$20.00	$13,600.00	$8.12	$5,521.60
56	415	LF	CONDT (PVC) (SCH 40) (4") (BORE)	$30.00	$12,450.00	$13.86	$5,751.90
57	1000	LF	ELEC CONDR (NO.6) BARE	$2.00	$2,000.00	$1.54	$1,540.00
58	20	LF	DCT CBL (3 NO.4) (2 INSULATED 1 BARE)	$6.00	$120.00	$6.12	$122.40
59	1	EA	GROUND BOX TY 1 (243636)W/APRON	$2,500.00	$2,500.00	$1,560.00	$1,560.00
60	5	EA	GROUND BOX TY D (162922)W/APRON	$850.00	$4,250.00	$1,586.00	$7,930.00
61	1	EA	ELC SRV TY A 120/240 100(NS)SS(E)PS(U)	$5,500.00	$5,500.00	$5,457.00	$5,457.00
62	1	EA	INSTALL HWY TRF SIG (ISOLATED)	$25,000.00	$25,000.00	$44,726.00	$44,726.00
63	8	EA	VEH SIG SEC (12")LED(GRN)	$300.00	$2,400.00	$192.00	$1,536.00
64	5	EA	VEH SIG SEC (12")LED(GRN ARW)	$300.00	$1,500.00	$192.00	$960.00
65	8	EA	VEH SIG SEC (12")LED(YEL)	$300.00	$2,400.00	$192.00	$1,536.00
66	8	EA	VEH SIG SEC (12")LED(YEL ARW)	$300.00	$2,400.00	$192.00	$1,536.00
67	8	EA	VEH SIG SEC (12")LED(RED)	$300.00	$2,400.00	$192.00	$1,536.00
68	5	EA	VEH SIG SEC (12")LED(RED ARW)	$300.00	$1,500.00	$192.00	$960.00
69	8	EA	PED SIG SEC (LED)(COUNTDOWN)	$1,500.00	$12,000.00	$455.00	$3,640.00
70	10	EA	BACK PLATE (12")(3 SEC)(VENTED)ALUM	$200.00	$2,000.00	$95.00	$950.00
71	3	EA	BACK PLATE (12")(4 SEC)(VENTED)ALUM	$225.00	$675.00	$125.00	$375.00
72	1735	LF	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	$5.00	$8,675.00	$2.00	$3,470.00
73	605	LF	TRF SIG CBL (TY A)(14 AWG)(7 CONDR)	$6.00	$3,630.00	$2.40	$1,452.00
74	505	LF	TRF SIG CBL (TY A)(16 AWG)(3 CONDR)	$3.00	$1,515.00	$1.69	$853.45
75	3	EA	INS TRF SIG PL AM(S)1 ARM(40')LUM (POWDER COATED)	$11,000.00	$33,000.00	$8,328.00	$24,984.00
76	1	EA	INS TRF SIG PL AM(S)1 ARM(55')LUM (POWDER COATED)	$24,000.00	$24,000.00	$20,178.00	$20,178.00
77	3	EA	PED POLE ASSEMBLY	$1,500.00	$4,500.00	$2,736.00	$8,208.00

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	**QTY**	**UNIT**	**DESCRIPTION**	**UNIT PRICE**	**TOTAL PRICE**	**UNIT PRICE**	**TOTAL PRICE**
78	8	EA	PED DETECT PUSH BUTTON (APS)	$800.00	$6,400.00	$1,175.00	$9,400.00
79	1	EA	BBU SYSTEM (STAND-ALONE BATT CABINET)	$6,000.00	$6,000.00	$7,388.00	$7,388.00
80	1	LS	OPTICOM DETECTOR AND CABLE	$8,500.00	$8,500.00	$10,886.00	$10,886.00
81	1	LS	CCTV CAMERA AND CAT6 CABLE	$7,500.00	$7,500.00	$7,063.00	$7,063.00
82	4	EA	RADAR PRESENCE DETECTOR	$7,500.00	$30,000.00	$6,168.00	$24,672.00
83	875	LF	RADAR PRESENCE DETECTOR COMM CABLE	$5.00	$4,375.00	$3.41	$2,983.75
84	1	EA	WAVETRONIX CLICK 650 CABINET INTERFACE DEVICE	$5,000.00	$5,000.00	$3,824.00	$3,824.00
85	1	EA	COMNET CNGE2FE16MS MANAGED ETHERNET SWITCH W/ 5FP FIBER MODULES	$4,500.00	$4,500.00	$2,387.00	$2,387.00
			TOTAL BASE BID - ALL ITEMS	$613,633.09		$465,527.90	
BID ALTERNATE 1							
1	2	MO	TRAFFIC CONTROL (ADDITIONAL)	$1,850.00	$3,700.00	$3,000.00	$6,000.00
2	1	LS	MOBILIZATION (ADDITIONAL)	$10,000.00	$10,000.00	$1,000.00	$1,000.00
3	1	LS	CONSTRUCTION SURVEYING (ADDITIONAL)	$5,000.00	$5,000.00	$1,000.00	$1,000.00
4	1	LS	EXCAVATION, EMBANKMENT AND BORROW	$13,000.00	$13,000.00	$3,000.00	$3,000.00
5	1	LS	EROSION AND SEDIMENTATION CONTROL	$4,000.00	$4,000.00	$500.00	$500.00
6	1	LS	TRENCH SAFETY (ADDITIONAL)	$2,500.00	$2,500.00	$500.00	$500.00
7	1	LS	ROW PREPERATION (ADDITIONAL)	$11,000.00	$11,000.00	$1,000.00	$1,000.00
8	30	SY	REMOVING CONC (PAV)	$40.00	$1,200.00	$10.00	$300.00
9	120	SY	REMOVING CONC (SIDEWALKS)	$25.00	$3,000.00	$10.00	$1,200.00
10	200	LF	REMOVING CONC (CURB AND GUTTER)	$20.60	$4,120.00	$10.00	$2,000.00
11	2	EA	REMOVE CONC (WINGWALL)	$3,800.00	$7,600.00	$1,000.00	$2,000.00
12	1	EA	REMOVING CONC (HEADWALL)	$3,800.00	$3,800.00	$500.00	$500.00
13	210	SY	8" CRUSHED LIMESTONE BASE (TY-A OR B,GR-1 OR 2)	$33.00	$6,930.00	$25.00	$5,250.00
14	260	SY	6" LIME STABILIZED SUBGRADE	$8.00	$2,080.00	$25.00	$6,500.00
15	6	TON	LIME	$175.00	$1,050.00	$200.00	$1,200.00
16	210	SY	2" HMACP (PG70-22)	$42.75	$8,977.50	$25.00	$5,250.00

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	**QTY**	**UNIT**	**DESCRIPTION**	**UNIT PRICE**	**TOTAL PRICE**	**UNIT PRICE**	**TOTAL PRICE**
17	170	LF	CONCRETE CURB AND GUTTER	$42.00	$7,140.00	$20.00	$3,400.00
18	980	SF	4" CONCRETE SIDEWALK	$11.00	$10,780.00	$5.00	$4,900.00
19	140	SY	FURNISH AND INSTALL 4" TOPSOIL	$10.00	$1,400.00	$10.00	$1,400.00
20	140	SY	BLOCK SODDING	$10.00	$1,400.00	$10.00	$1,400.00
21	1	EA	10' CURB INLET AND CONNECTION TO 3'x2' RCB	$9,000.00	$9,000.00	$4,000.00	$4,000.00
22	20	LF	CONC BOX CULV (3 FT X 2 FT)(EXTEND)	$1,000.00	$20,000.00	$200.00	$4,000.00
23	1	EA	REMOVE 10' INLET TOP AND CONVERT TO JB	$1,850.00	$1,850.00	$2,000.00	$2,000.00
24	1	EA	WINGWALL (FW - 0) (HW=4 FT)	$15,000.00	$15,000.00	$3,000.00	$3,000.00
25	1	EA	ECD (C=2 FT)	$8,000.00	$8,000.00	$1,000.00	$1,000.00
26	1	EA	TY-5 PED CURB RAMP	$1,200.00	$1,200.00	$1,000.00	$1,000.00
27	40	LF	4" THERMOPLASTIC STRIPING SOLID WHITE LINE	$1.35	$54.00	$2.00	$80.00
28	1	EA	SPEED LIMIT SIGN (R2-1)	$800.00	$800.00	$400.00	$400.00
29	1	EA	LANE USE SIGN (R3-8 SMR)	$800.00	$800.00	$400.00	$400.00
30	4	EA	REMOVE ROAD SIGN	$100.00	$400.00	$100.00	$400.00
31	1	EA	REMOVE ROADWAY ILLUM ASSEMBLY (HPS)	$1,500.00	$1,500.00	$1,043.00	$1,043.00
32	15	LF	CONDT (PVC) (SCH 40) (3") (BORE)	$20.00	$300.00	$12.37	$185.55
33	5	LF	ELEC CONDR (NO.6) BARE	$2.00	$10.00	$1.54	$7.70
34	15	LF	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	$5.00	$75.00	$2.00	$30.00
35	5	LF	TRF SIG CBL (TY A)(14 AWG)(7 CONDR)	$6.00	$30.00	$2.40	$12.00
36	5	LF	TRF SIG CBL (TY A)(16 AWG)(3 CONDR)	$3.00	$15.00	$1.69	$8.45
			BID ALTERNATE 1 SUBTOTAL	$167,711.50		$65,866.70	
BID ALTERNATE 2							
1	2	MO	TRAFFIC CONTROL (ADDITIONAL)	$1,000.00	$2,000.00	$3,000.00	$6,000.00
2	1	LS	MOBILIZATION (ADDITIONAL)	$15,000.00	$15,000.00	$1,000.00	$1,000.00
3	1	LS	CONSTRUCTION SURVEYING (ADDITIONAL)	$3,000.00	$3,000.00	$1,000.00	$1,000.00
4	1	LS	EXCAVATION, EMBANKMENT AND BORROW	$10,000.00	$10,000.00	$5,000.00	$5,000.00

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	QTY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
5	1	LS	EROSION AND SEDIMENTATION CONTROL	$3,000.00	$3,000.00	$1,000.00	$1,000.00
6	1	LS	TRENCH SAFETY (ADDITIONAL)	$3,000.00	$3,000.00	$500.00	$500.00
7	1	LS	ROW PREPERATION (ADDITIONAL)	$18,000.00	$18,000.00	$1,000.00	$1,000.00
8	280	SY	REMOVING CONC (SIDEWALKS)	$25.00	$7,000.00	$10.00	$2,800.00
9	430	LF	REMOVING CONC (CURB AND GUTTER)	$20.00	$8,600.00	$10.00	$4,300.00
10	2	EA	REMOVING CONC (WINGWALL)	$3,500.00	$7,000.00	$500.00	$1,000.00
11	1	EA	REMOVING CONC (HEADWALL)	$3,500.00	$3,500.00	$500.00	$500.00
12	410	SY	8" CRUSHED LIMESTONE BASE (TY-A OR B,GR-1 OR 2)	$33.00	$13,530.00	$25.00	$10,250.00
13	560	SY	6" LIME STABILIZED SUBGRADE	$8.00	$4,480.00	$25.00	$14,000.00
14	12	TON	LIME	$175.00	$2,100.00	$200.00	$2,400.00
15	410	SY	2" HMACP (PG70-22)	$42.75	$17,527.50	$25.00	$10,250.00
16	400	LF	CONCRETE CURB AND GUTTER	$42.00	$16,800.00	$20.00	$8,000.00
17	2400	SF	4" CONCRETE SIDEWALK	$8.00	$19,200.00	$5.00	$12,000.00
18	480	SY	FURNISH AND INSTALL 4" TOPSOIL	$3.00	$1,440.00	$5.00	$2,400.00
19	480	SY	BLOCK SODDING	$4.00	$1,920.00	$5.00	$2,400.00
20	1	EA	5' CURB INLET	$6,500.00	$6,500.00	$3,000.00	$3,000.00
21	20	LF	CONC BOX CULV (3 FT X 3 FT)(EXTEND)	$800.00	$16,000.00	$250.00	$5,000.00
22	20	LF	RC PIPE (CL III)(18 IN)	$80.00	$1,600.00	$40.00	$800.00
23	1	EA	REMOVE 5' INLET TOP AND CONVERT TO JB	$1,800.00	$1,800.00	$1,000.00	$1,000.00
24	1	EA	WINGWALL (PW - 2) (HW=4 FT)	$12,000.00	$12,000.00	$5,000.00	$5,000.00
25	1	EA	ECD (C=1 FT)	$10,000.00	$10,000.00	$1,000.00	$1,000.00
26	1	EA	TY-5 PED CURB RAMP	$1,200.00	$1,200.00	$1,000.00	$1,000.00
27	180	LF	TEMP WIRE FENCE (TY C)	$15.00	$2,700.00	$10.00	$1,800.00
28	180	LF	WIRE FENCE (TY C)	$15.00	$2,700.00	$10.00	$1,800.00
29	280	LF	8" THERMOPLASTIC STRIPING SOLID WHITE LINE	$6.00	$1,680.00	$3.50	$980.00
30	40	LF	24" THERMOPLASTIC STRIPING SOLID WHITE LINE	$12.00	$480.00	$13.75	$550.00

City of College Station - Purchasing Division
Bid Tabulation for #18-004
"Greens Prairie Arrington Intersection Improvement Project"
Open Date: Friday, September 29, 2017 @ 2:00 p.m.

				Larry Young Paving, Inc. College Station, Texas		Palasota Contracting, LLC Bryan, Texas	
ITEM	**QTY**	**UNIT**	**DESCRIPTION**	**UNIT PRICE**	**TOTAL PRICE**	**UNIT PRICE**	**TOTAL PRICE**
31	2	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - TURN ARROW	$500.00	$1,000.00	$216.00	$432.00
32	1	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - DOUBLE TURN ARROW	$500.00	$500.00	$372.00	$372.00
33	2	EA	THERMOPLASTIC SOLID WHITE PVMT MARKING - WORD - "ONLY"	$500.00	$1,000.00	$234.00	$468.00
34	14	EA	TY II-C RAISED REFLECTIVE MARKERS	$4.00	$56.00	$10.25	$143.50
35	1	EA	LANE USE DESIGNATION SIGN (R3-8 LLK)	$470.00	$470.00	$400.00	$400.00
36	1	EA	REMOVE ROAD SIGN	$100.00	$100.00	$100.00	$100.00
37	1	EA	INSTALL ROADWAY ILLUM ASSEMBLY (HPS)	$2,000.00	$2,000.00	$3,831.00	$3,831.00
38	1	EA	REMOVE ROADWAY ILLUM ASSEMBLY (HPS)	$1,500.00	$1,500.00	$1,043.00	$1,043.00
39	1	EA	FIRE HYDRANT RELOCATE & RECONNECT	$8,000.00	$8,000.00	$4,000.00	$4,000.00
40	2	EA	ADJUST EXISTING VALVE BOX	$300.00	$600.00	$500.00	$1,000.00
41	10	LF	CONDT (PVC) (SCH 40) (3") (BORE)	$20.00	$200.00	$12.37	$123.70
42	20	LF	CONDT (PVC) (SCH 40) (4")	$20.00	$400.00	$8.12	$162.40
43	25	LF	ELEC CONDR (NO.6) BARE	$2.00	$50.00	$1.54	$38.50
44	85	LF	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	$5.00	$425.00	$2.00	$170.00
45	25	LF	TRF SIG CBL (TY A)(14 AWG)(7 CONDR)	$6.00	$150.00	$2.40	$60.00
46	15	LF	TRF SIG CBL (TY A)(16 AWG)(3 CONDR)	$3.00	$45.00	$1.69	$25.35
			BID ALTERNATE 2 SUBTOTAL	$230,253.50		$120,099.45	
			Base Bid Total	**$613,633.09**		**$465,527.90**	
			Base Bid + Bid Alternate 1 Total	**$781,344.59**		**$531,394.60**	
			Base Bid + Bid Alt 1 + Bid Alternate 2 Total	**$1,011,598.09**		**$651,494.05**	

Bid Certification	Y	Y
Bid Bond	Y	Y
Addenda Acknowledged	Y	Y

WILLIAM D FITCH PARKWAY
GREENS PRAIRIE ROAD WEST
GREENS PRAIRIE ROAD
ARRINGTON ROAD

College Station, TX

City Hall
1101 Texas Ave
College Station, TX 77840

Legislation Details (With Text)

File #:	17-0642	**Version:**	1	**Name:**	Traffic Operations Center
Type:	Contract			**Status:**	Consent Agenda
File created:	10/20/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion regarding a $439,126 construction contract (17300565) with Marek Brothers Construction, Inc. for Traffic Operations Center renovations.				
Sponsors:	Donald Harmon				
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding a $439,126 construction contract (17300565) with Marek Brothers Construction, Inc. for Traffic Operations Center renovations.

Relationship to Strategic Goals:

- Core Services and Infrastructure

Recommendation(s): Staff recommends approval of this construction contract.

Summary: This project includes the renovation of existing office areas, relocating and renovating the traffic control room, an addition of an IT storage room, and surrounding site work.

Budget & Financial Summary: The Traffic Operations Center renovations are being completed as part of the Intelligent Transportation System (ITS) Master Plan Implementation. The portion of the ITS Mater Plan Implementation budget that has been dedicated to the Traffic Operations Center renovations is $570,000. This budget is included in the Streets Capital Improvement Projects Fund.

Attachments:

1. Contract #17300565- On file in the City Secretary's Office

powered by Legistar™

Legislation Details (With Text)

File #:	17-0644	**Version:**	1	**Name:**	Cooner Street Parking Removal
Type:	Ordinance			**Status:**	Consent Agenda
File created:	10/23/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion on an ordinance amending Chapter 38, "Traffic and Vehicles," Article VI "Traffic Schedules," Section 38-1014 "Traffic Schedule XIV, No Parking Here to Corner and No Parking Any Time," of the Code of Ordinances of the City of College Station, Texas, by removing parking on Cooner Street from Texas to around the Cul-de-sac to the intersection with MacArthur, by providing a severability clause; declaring a penalty; and providing an effective date.				
Sponsors:	Debbie Eller				
Indexes:					
Code sections:					
Attachments:	1 - Ordinance 2 - Map				

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion on an ordinance amending Chapter 38, "Traffic and Vehicles," Article VI "Traffic Schedules," Section 38-1014 "Traffic Schedule XIV, No Parking Here to Corner and No Parking Any Time," of the Code of Ordinances of the City of College Station, Texas, by removing parking on Cooner Street from Texas to around the Cul-de-sac to the intersection with MacArthur, by providing a severability clause; declaring a penalty; and providing an effective date.

Relationship to Strategic Goals:

- Core Services and Infrastructure
- Neighborhood Integrity
- Diverse Growing Economy

Recommendation(s): Staff recommends approval of the ordinance amendment.

Summary: The purpose of this ordinance is to remove parking on the South side of Cooner Street from Texas Avenue to the cul-de-sac, around the cul-de-sac, and on the North side of Cooner to West of the intersection with MacArthur. Severe traffic congestion has been witnessed on Cooner Street due to parking on both sides of the street and this significantly impacts orderly traffic flow. College Station Independent School District Transportation Services has submitted a complaint that school buses are unable to complete their bus routes without drivers knocking on doors to have cars moved.

Given these observations, to improve public safety, mobility, and emergency vehicle access along these streets, the City of College Station Traffic Management Team recommends approving this ordinance.

A Public Meeting was held on Tuesday, October 17, 2017 at Fire Station #6. Three (3) people attended and were all in favor of the parking removal. Email comments were received from three (3) additional individuals, two in favor of the parking removal and one opposed.

Budget & Financial Summary: The "NO PARKING" sings are planned operation and maintenance expenses accounted for in the Public Works Traffic Operations budget.

Attachments:
1. Ordinance
2. Map

ORDINANCE NO. _____

AN ORDINANCE AMENDING CHAPTER 38, "TRAFFIC AND VEHICLES," ARTICLE VI "TRAFFIC SCHEDULES," SECTION 38-1014 "TRAFFIC SCHEDULE XIV, NO PARKING HERE TO CORNER AND NO PARKING AT ANY TIME," OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY REMOVING PARKING ON COONER STREET FROM TEXAS AROUND THE CUL-DE-SAC TO MACARTHUR, BY PROVIDING A SEVERABILITY CLAUSE; DECLARING A PENALTY; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That Chapter 38, "Traffic and Vehicles," Article VI "Traffic Schedules," Section 38-1014 "Traffic Schedule XIV, No Parking Here to Corner and No Parking at Any Time," of the Code of Ordinances of the City of College Station, Texas, be amended as set out in **Exhibit "A"** attached hereto and made a part of this Ordinance for all purposes.

PART 2: If any provision of this Ordinance or its application to any person or circumstances is held invalid or unconstitutional, the invalidity or unconstitutionality does not affect other provisions or application of this Ordinance or the Code of Ordinances of the City of College Station, Texas that can be given effect without the invalid or unconstitutional provision or application, and to this end the provisions of this Ordinance are severable.

PART 3: That any person, corporation, organization, government, governmental subdivision or agency, business trust, estate, trust, partnership, association and any other legal entity violating any of the provisions of this Ordinance upon a finding of liability thereof shall be deemed liable for a civil offense and punished with a civil penalty of not less than one dollar ($1.00) and not more than two thousand dollars ($2,000.00) or upon conviction thereof guilty of a misdemeanor, shall be punished by a fine of not less than twenty five dollars ($25.00) and not more than five hundred dollars ($500.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense.

PART 4: This Ordinance is a penal ordinance and becomes effective ten (10) days after its date of passage by the City Council, as provided by City of College Station Charter Section 35.

PASSED, ADOPTED and APPROVED this _____ day of _____, 20__.

ATTEST:

_____
City Secretary

APPROVED:

_____
Mayor

APPROVED:

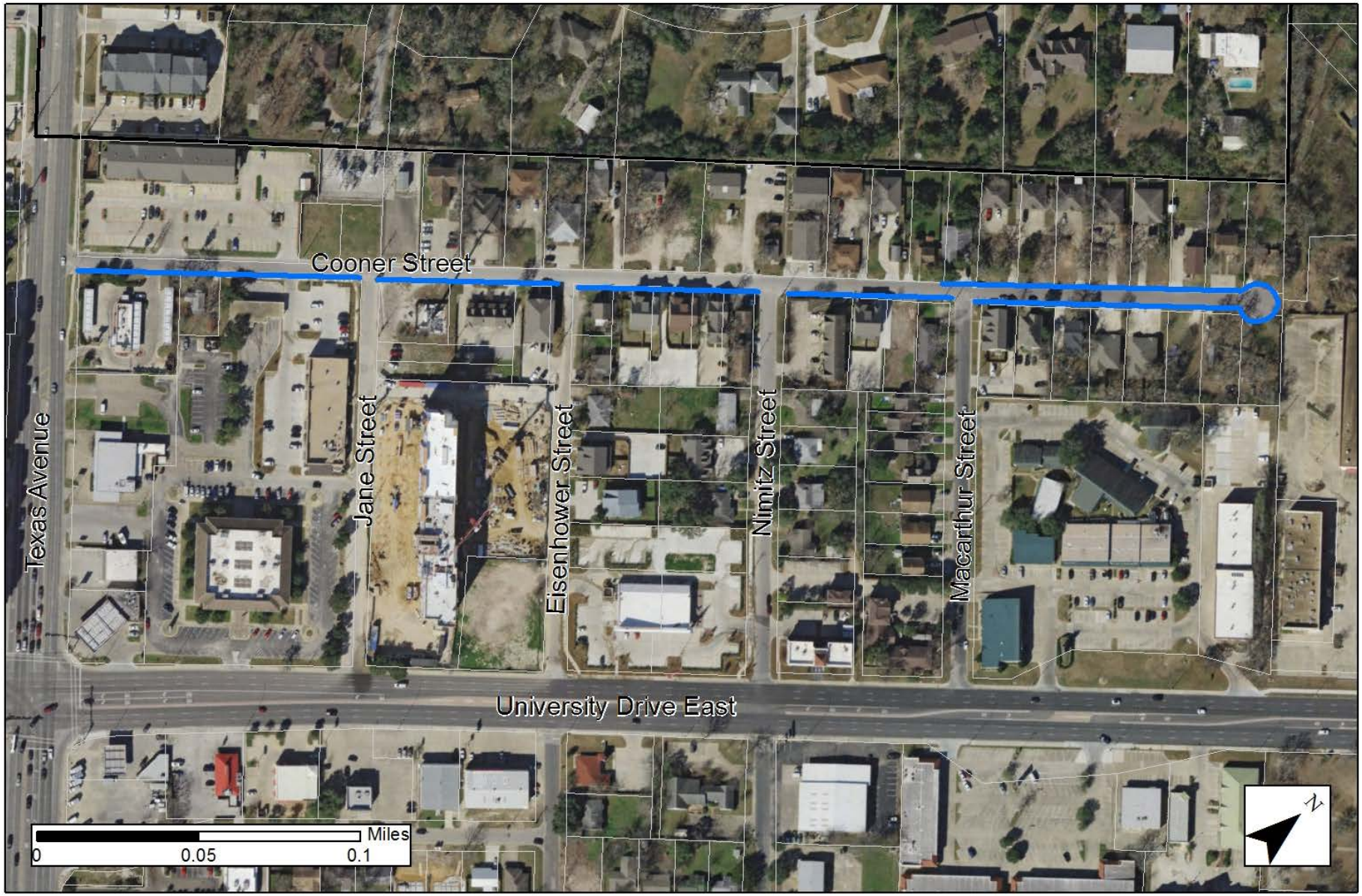
_____
City Attorney

Exhibit A

That Chapter 38, "Traffic and Vehicles," Article VI. "Traffic Schedules", Section 38-1014 "Traffic Schedule XIV, No Parking Here to Corner and No Parking at Any Time," is hereby amended by adding and is to read as follows:

Traveling On	**Between**	**Travel Direction**	**No Parking Anytime**
1. Cooner	Texas Avenue to Around the Cul-de-sac	East	No Parking Anytime
2. Cooner	Around the Cul-de-sac to West side of the intersection with MacArthur	West	No Parking Anytime

Proposed Parking Removal Along North & South Side of Cooner Street



Legislation Details (With Text)

File #:	17-0654	**Version:**	1	**Name:**	Comprehensive Plan Amendment – University Town Center
Type:	Comprehensive Plan			**Status:**	Agenda Ready
File created:	10/25/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Public Hearing, presentation, possible action, and discussion regarding an ordinance amending the Comprehensive Plan - Eastgate Neighborhood Plan, Chapter 1 - Community Character, “Site Development Area 1 - Lincoln Avenue” to allow for vehicular access to Lincoln Avenue for a tract approximately 7.5 acres being generally located at 801 Lincoln Avenue.				
Sponsors:	Alaina Helton				
Indexes:					
Code sections:					
Attachments:	Background Information Aerial & Land Use Exhibit Comp Plan Map Eastgate Neighborhood Plan Redline Exhibit Ordinance				

Date	Ver.	Action By	Action	Result

Public Hearing, presentation, possible action, and discussion regarding an ordinance amending the Comprehensive Plan - Eastgate Neighborhood Plan, Chapter 1 - Community Character, “Site Development Area 1 - Lincoln Avenue” to allow for vehicular access to Lincoln Avenue for a tract approximately 7.5 acres being generally located at 801 Lincoln Avenue.

Relationship to Strategic Goals:

- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy
- Improving Mobility

Recommendation(s): The Planning & Zoning Commission heard this request at their October 10th, 2017 meeting and voted 3-1 to recommend denial of the request.

Summary: The applicant has requested a text amendment to the Comprehensive Plan’s Eastgate Neighborhood Plan, Chapter 1 - Community Character, “Site Development Area 1 - Lincoln Avenue” to allow access from Lincoln Avenue to a proposed PDD Planned Development District generally located at 801 Lincoln Avenue. The PDD request proposes multi-family and commercial uses interior to the property and single-family land uses fronting Lincoln Avenue as called for in the Eastgate Neighborhood Plan. This proposed Comprehensive Plan amendment removes language in

the Eastgate Neighborhood Plan that restricts vehicular access between the multi-family and/or commercial uses and the proposed single-family land uses fronting Lincoln Avenue.

REVIEW CRITERIA

1. **Changed or changing conditions in the subject area or the City:** The Eastgate Neighborhood Plan was adopted in 2011. The Plan identifies this property as "Site Development Area 1 - Lincoln Avenue" and recommends continuing the single-family and rear alley access pattern existing along Lincoln Avenue across the front of this property and that the remainder of the vacant 7.5-acre tract develop with multi-family and/or non-residential uses. The Plan also recommends that vehicular access between these uses and the future single-family homes fronting Lincoln Avenue will be restricted so the potential for additional through traffic movements can be mitigated. Please see proposed Future Land Use from Map 1.3 of the Eastgate Neighborhood Plan below for reference.

In 2013, the Unified Development Ordinance was amended to require block breaks for General Suburban land uses that exceed 1,200 feet in length. The language in the Eastgate Neighborhood Plan precludes vehicular access where this block break would occur along Lincoln Avenue. The applicant requests amending the language in the Plan to allow this break to occur by allowing vehicular access from Lincoln Avenue to the proposed multi-family and commercial land uses on the tract.

2. **Scope of the request:** The request is to amend the Comprehensive Plan's Eastgate Neighborhood Plan to allow vehicular access between the proposed multi-family and commercial uses on the tract and the future single-family homes fronting Lincoln Avenue. If approved by City Council, the applicant intends to pursue a rezoning of the property from GS General Suburban to PDD Planned Development District. A request for rezoning was submitted for consideration and will be heard in conjunction with this item.

3. **Availability of adequate information:** The Eastgate Neighborhood Plan recommends Urban and General Suburban for this property and allows for the future development of single-family, multi-family and commercial activities, including retail sale and service uses, which serve the nearby residents and larger community or region. Properties in this area are served by College Station Utilities (CSU). Domestic water and sanitary sewer service is serving the site. Additional infrastructure improvements may be needed with platting or development. A Traffic Impact Analysis (TIA) was submitted for review as part of the request.

4. **Consistency with the goals and strategies set forth in the Plan:** The Eastgate Neighborhood Plan focuses on strategies that will maintain a diverse mix of housing types, preserve larger lot single-family development patterns, reduce character impact from rental housing in the neighborhood, and promote redevelopment around the perimeter of the neighborhood that meets community needs and is complimentary to the neighborhood.

The strategies proposed include Comprehensive Plan amendments, zoning changes, and the establishment of new zoning districts that are needed to ensure that development and redevelopment in this area are compatible with existing residential subdivisions in the neighborhood.

In order to ensure that future development proposals address land use and access concerns, the Neighborhood Plan recommends PDD Planned Development District zoning for this 7.5-acre tract

of land that incorporates single-family along Lincoln Avenue, multi-family and/or commercial behind these uses to University Town Center, and the extensions of Wellesley Court and Vassar Court. The Comprehensive Plan also promotes connectivity between and within developments. With the development of the adjacent tract and the residential density within the vicinity, staff recognizes the value of providing access and connectivity at this location.

5. **Consideration of the Future Land Use & Character and/or Thoroughfare Plans:** The subject property is currently designated as Urban and General Suburban on the Comprehensive Plan Future Land Use and Character Map. The requested amendment does not propose any changes to this designation. The subject property has frontage to Lincoln Avenue which is designated as a future Major Collector on the Thoroughfare Plan and currently constructed as a Minor Collector in this area.

6. **Compatibility with the surrounding area:** The requested amendment proposes access to Lincoln Avenue, which is designated as a future Major Collector on the Thoroughfare Plan and currently constructed as a Minor Collector in this area. The future land uses of the Plan are not proposed to change-only the availability of the tract to share its access to Lincoln. This is believed to be compatible with the surrounding area.

7**. Impacts on infrastructure including water, wastewater, drainage, and the transportation network:** Water, wastewater, and drainage would not be significantly impacted by the proposed request for access to Lincoln Avenue from the tract generally located at 801 Lincoln Avenue. The subject tract has frontage to Lincoln Avenue, which is designated as a future Major Collector on the Thoroughfare Plan and currently constructed as a Minor Collector in this area. The tract is proposed to have access from Lincoln Avenue, to University Drive East, a 6-lane Major Arterial, by extending the private drive at the rear of the existing University Town Center as well as to Wellesley Court and Vassar Court that connect to Tarrow Street, a Major Collector. A Traffic Impact Analysis (TIA) was included as part of the associated rezoning request. The TIA took into account minor shifts in how traffic would anticipate to circulate through the adjacent roadways with the installation of the proposed Public Way connection to Lincoln Avenue located across from Ashburn Avenue. All thoroughfares and intersections within the TIA study area are expected to continue to perform at acceptable Levels of Service so no traffic mitigation was identified.

8. **Impact on the City's ability to provide, fund, and maintain services:** The proposed amendment for the subject property does not negatively impact the City's ability to provide, fund, and maintain services.

9. **Impact on environmentally sensitive and natural areas:** The proposed amendment for the subject property does not negatively impact environmentally sensitive and natural areas or does not prevent the preservation of such areas.

10. **Contribution to the overall direction and character of the community as captured in the Plan's vision and goals:** The Comprehensive Plan promotes connectivity and walkability between and within developments, while the Eastgate Neighborhood Plan promotes redevelopment around the perimeter of the neighborhood that meets community needs and is complimentary to the neighborhood. The proposed amendment is in line with the Comprehensive Plan.

Citizen Input:
The applicant held a neighborhood meeting on October 10, 2017 to discuss the rezoning request and Comprehensive Plan Amendment. The applicant, property owner, City staff and fifteen (15) residents attended the meeting. The resident concerns included: increased traffic along Lincoln Avenue and Ashburn Avenue, decreased property taxes due to increase in neighborhood traffic, intensity of the uses requested, building height, signage and close proximity of the development to single-family homes.

STAFF RECOMMENDATION
Staff recommends approval.

SUPPORTING MATERIALS
1. Background Information
2. Aerial and Amendment Exhibit
3. Comprehensive Plan Map
4. Eastgate Neighborhood Plan Redline Exhibit
5. Ordinance

Budget & Financial Summary: N/A
Legal Review: Yes

Attachments:
1. Background Information
2. Aerial and Amendment Exhibit
3. Comprehensive Plan Map
4. Eastgate Neighborhood Plan Redline Exhibit
5. Ordinance

NOTIFICATIONS

Advertised Commission Hearing Date: October 19, 2017
Advertised Council Hearing Dates: November 9, 2017

The following neighborhood organizations that are registered with the City of College Station's Neighborhood Services have received a courtesy letter of notification of this public hearing:

College Hills Woodlands

Contacts in support:	None
Contacts in opposition:	One at the time of staff report,15 at the time of public hearing. Concerns included: increased traffic and close proximity to single-family homes
Inquiry contacts:	One at the time of staff report.

In addition to the City's required notification, the applicant held a meeting for the College Hills Woodlands Neighborhood Association on October 10, 2017. The applicant, property owner, City staff and fifteen (15) residents attended the meeting. Concerns included: increased traffic, property taxes, uses allowed, building height, signage and close proximity to single-family homes.

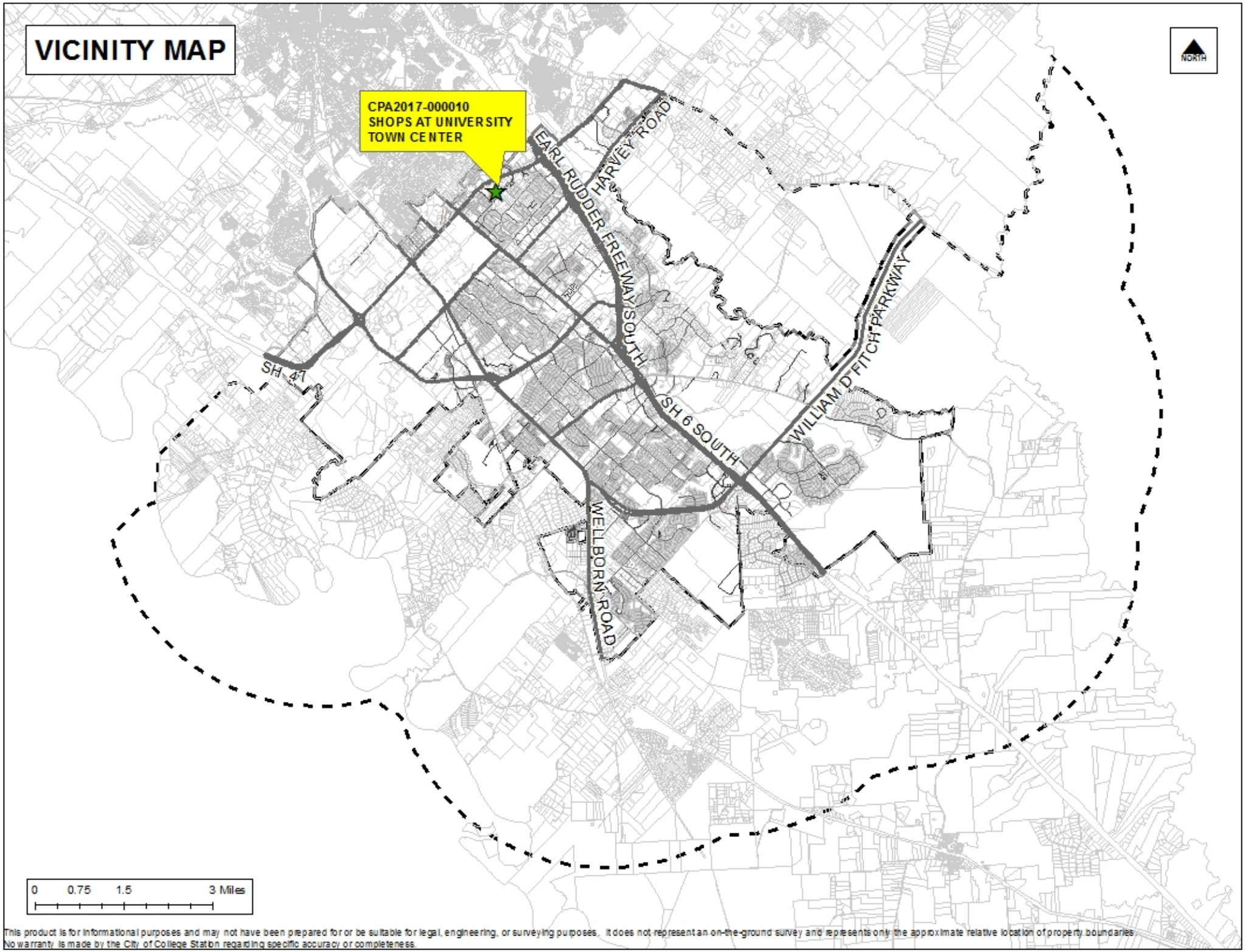
ADJACENT LAND USES

Direction	Comprehensive Plan	Zoning	Land Use
North	General Commercial	GC General Commercial	Commercial Retail
South (across Lincoln Avenue)	Neighborhood Conservation	GS General Suburban	Single-Family Residential
East	Urban & General Suburban	GC General Commercial & PDD Planned Development District	Commercial Retail, Duplex Residential & Single-Family Residential
West	Urban & General Suburban	GS General Suburban, D Duplex & R-4 Multi-Family	Multi-Family, Duplex Residential & Single-Family Residential

DEVELOPMENT HISTORY

Annexation:	March 3, 1956
Zoning:	Single-Family upon original zoning
	R-1 Single-Family Residential renamed to GS General Suburban in 2014
Final Plat:	Property is not platted
Site development:	Property is not developed

VICINITY MAP



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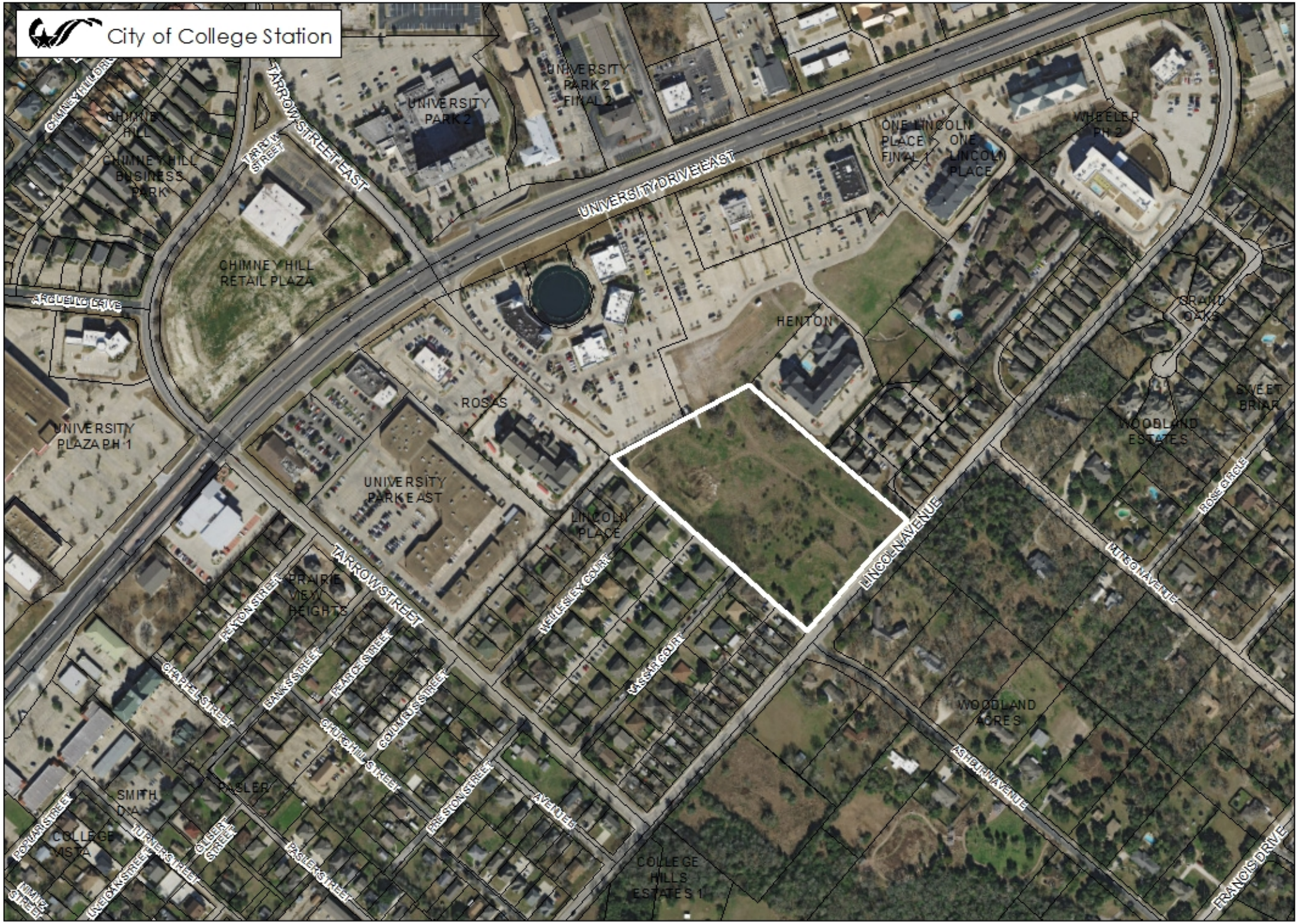
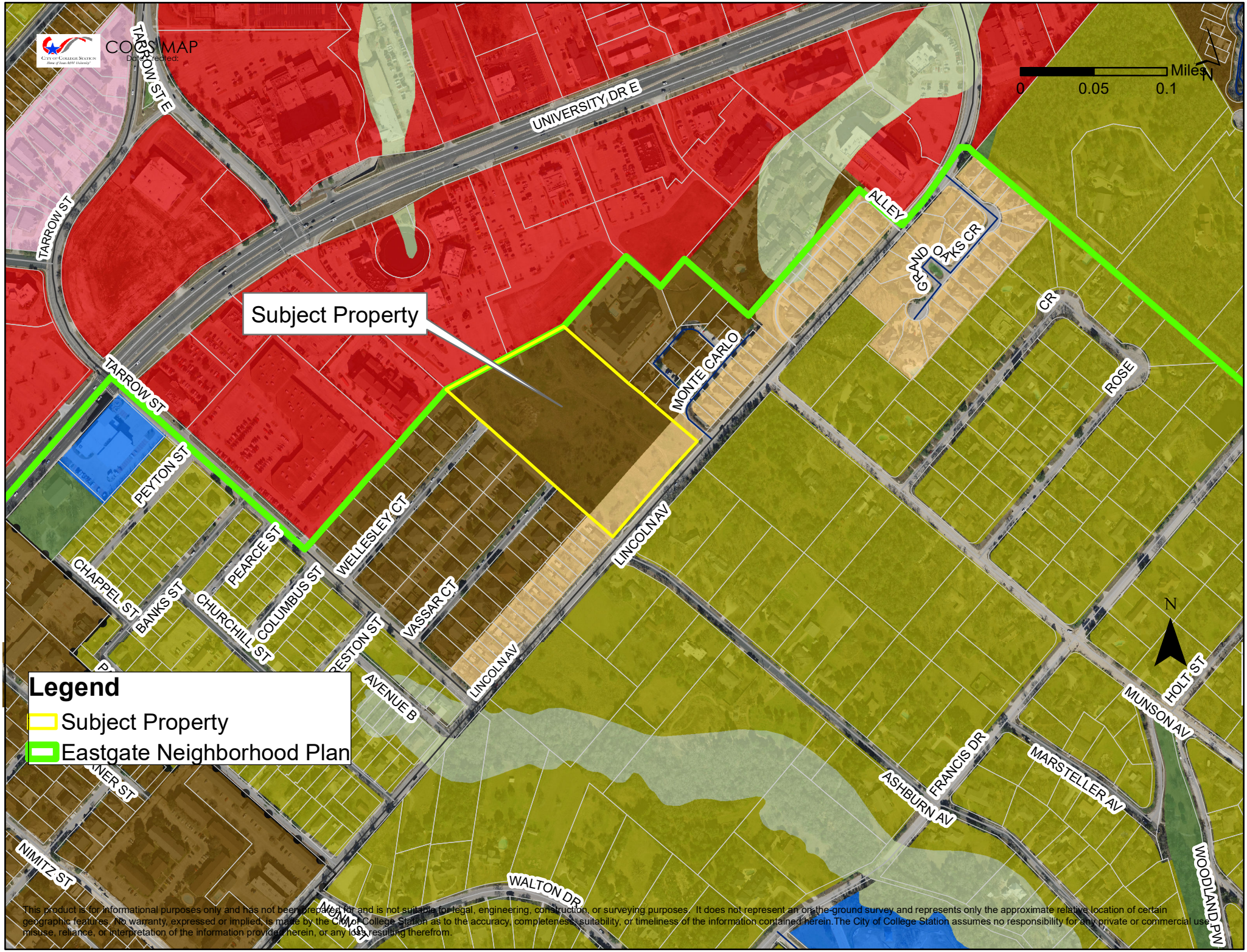
No warranty is made by the City of College Station regarding specific accuracy or completeness.



SHOPS AT UNIVERSITY TOWN CENTER

Case: COMP PLAN AMENDMENT
CPA2017-000010

EXISTING
Future Land Use



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Redevelopment Area 3 – Cornerstone Areas: Texas Avenue, University Drive, and George Bush Drive East

This redevelopment area consists of the remaining portions not included in Redevelopment Areas 1 or 2 that are at the corners of the planning area. Redevelopment Area 3 includes two parts, one area is north of Lincoln Avenue between Texas Avenue and Eisenhower Street and the other is the block south of George Bush Drive East to Dominik Drive. With proximity to major thoroughfares, the University campus, and major shopping areas, these redevelopment areas will contain the most intensive development patterns in the Eastgate. While much of the redevelopment area is currently developed in a single-story suburban commercial pattern, it is anticipated that they will convert over time to multi-story commercial and mixed use developments with an emphasis on vertical mixed use. To promote the redevelopment, upgrades and rehabilitation of utilities, including water and sanitary sewer infrastructure and the extension of Eisenhower Street will need to occur.

Redevelopment Area Strategies:

Strategy CC 2.6 - Incorporate the guidance identified in this Plan, into the redevelopment plan including a market analysis for the areas identified in Redevelopment Area II: Texas Avenue, University Drive, and Harvey Road in the Comprehensive Plan. The market analysis for the redevelopment plan should include a concept plan for the block containing City Hall to gauge the development potential of the block under multiple development scenarios including redevelopment of the entire block, expansion or relocation of City Hall within the block, and redevelopment of only portions of the block.

Strategy CC 2.7 - Identify strategies regarding the existing parking in the right-of-way for the commercial properties at the intersection of Texas Avenue and Walton Drive to help maintain and increase the viability of these neighborhood serving areas. This may include removal or reduction of off-street parking requirements for this area since the existing parking serves the uses.

Site Development

Site Development Area 1 – Lincoln Avenue

Based on input received during the planning process, specific consideration should be given to the area north of Lincoln Avenue between Tarrow Street and Munson Avenue. The existing developed properties fronting Lincoln Avenue consist of single-story homes with rear alley access. Given the recommended General Suburban designation (See Community Character Area 2 – Lincoln Avenue), this single-family and rear alley pattern should continue across the portion of the vacant 7.5-acre tract that fronts Lincoln Avenue.

The remainder of the vacant 7.5-acre tract may develop with multifamily and/or non-residential uses. ~~Vehicular access between these uses and the future single-family homes fronting Lincoln Avenue will be restricted so the potential for additional through traffic movements can be mitigated.~~ The multi-family and commercial uses will receive vehicular access from Lincoln Avenue and ~~through~~ the private drives of University Town Center as well as Vassar Court and Wellesley Court that are stubbed along the

western edge of the tract. When the tract develops, Wellesley Court and Vassar Court should be looped together to provide additional alternatives for vehicular access. In addition to these routes, bicyclists and pedestrians will be accommodated through the planned multiuse path to connect Lincoln Avenue and University Town Center. **Map 1.13,** Site Development Area 1 illustrates the general location of this area.

The 7.5-acre tract on Lincoln Avenue behind University Town Center is the largest undeveloped property in Eastgate.

Strategy CC3.1 - Ensure that future development proposals address land use and access concerns through a PDD Planned Development District zoning that incorporates single-family along Lincoln Avenue, multi-family and/or commercial behind these uses to University Town Center, the extensions of Wellesley Court and Vassar Court, and the identified access restrictions.

Site Development Area 2 – Avenue A

Avenue A is located along Lincoln Avenue between Nimitz Street and the future extension of Eisenhower Street and consists of 17 single-family lots. The street is roughly 500 feet in length and currently dead ends without a cul-de-sac bulb or stub for future extension. Fire code regulations require turnarounds on streets or fire lanes in excess of 100 feet in length. As part of Redevelopment Area 2, the properties on this street are designated for Urban character. The properties near the end of Avenue A may redevelopment for more intense uses such as duplex, townhouse or multi-family if Avenue A is extended to the future Eisenhower Street to the west or a cul-de-sac bulb provided to help facilitate compliance with the fire code. **Map 1.14,** Site Development Area 2 illustrates the general location of this area.

Strategy CC3.2 - Ensure that future development proposals near the end of Avenue A address emergency access concerns through a PDD Planned Development District zoning that could incorporate duplex, townhouse, or multi-family uses and extends Avenue A to future Eisenhower Street to the west or provides a cul-de-sac for the street.

Floodplain Management

This section identifies properties located in areas that are designated floodplain or should be reserved for environmental or recreational purposes. **Map 1.15,** Floodplain and Open Space highlights the properties in the area that are identified as Natural Areas – Reserved or Natural Areas – Protected.

The planning area is impacted by two tributaries of Wolf Pen Creek and a small finger of a tributary to Burton Creek. Proposed strategies focus on the creation of conservation easements to preserve these areas.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF COLLEGE STATION, TEXAS, AMENDING THE COLLEGE STATION COMPREHENSIVE PLAN BY AMENDING EXHIBIT "A" OF SUCH PLAN; BY AMENDING CHAPTER 1 – COMMUNITY CHARACTER, WITHIN THE "EASTGATE NEIGHBORHOOD PLAN" REVISING TEXT WITHIN "SITE DEVELOPMENT AREA 1 – LINCOLN AVENUE" PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE DATE; AND CONTAINING OTHER PROVISIONS RELATED THERETO.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That the "Comprehensive Plan of the City of College Station" is hereby amended by adding new Subsection C.7.a. as Exhibit "A" thereto set out in Exhibit "A" attached hereto and made a part hereof.

PART 2: That the "Comprehensive Plan of the City of College Station" is hereby amended by amending the text of "Chapter 1 – Community Character" of the Eastgate Neighborhood Plan, as set out in Exhibit "B" attached hereto for the identified area and made a part hereof for all purposes.

PART 3: That if any provisions of any section of this ordinance shall be held to be void or unconstitutional, such holding shall in no way affect the validity of the remaining provisions or sections of this ordinance, which shall remain in full force and effect.

PASSED, ADOPTED and APPROVED this 9th day of November, 2017.

ATTEST: APPROVED:

_____ _____

City Secretary Mayor

APPROVED:

_____

City Attorney

EXHIBIT "A"

That ordinance no. 3186 adopting the "Comprehensive Plan of the City of College Station" as amended, is hereby amended by adding new subsection C.7.a. Exhibit "A" of said plan for Exhibit "A" to read in its entirety as follows:

"EXHIBIT 'A'

A. Comprehensive Plan

The College Station Comprehensive Plan (Ordinance 3186) is hereby adopted and consists of the following:

1. Introduction;
2. Community Character;
3. Neighborhood Integrity;
4. Economic Development;
5. Parks, Greenways & the Arts;
6. Transportation;
7. Municipal Services & Community Facilities;
8. Growth Management and Capacity; and
9. Implementation and Administration.

B. Master Plans

The following Master Plans are hereby adopted and made a part of the College Station Comprehensive Plan:

1. The Northgate Redevelopment Plan dated November 1996;
2. The Revised Wolf Pen Creek Master Plan dated 1998;
3. Northgate Redevelopment Implementation Plan dated July 2003;
4. East College Station Transportation Study dated May 2005;
5. Bicycle, Pedestrian, and Greenways Master Plan dated January 2010;
6. Central College Station Neighborhood Plan dated June 2010;
7. Eastgate Neighborhood Plan dated June 2011;
8. Parks, Recreation and Open Spaces Master Plan dated July 2011;
9. Southside Area Neighborhood Plan dated August 2012;
10. Medical District Master Plan dated October 2012;
11. Wellborn Community Plan dated April 2013;
12. Economic Development Master Plan dated September 2013;
13. South Knoll Area Neighborhood Plan dated September 2013;
14. The Water System Master Plan dated April 2017; and
15. The Wastewater System Master Plan dated April 2017.

C. Miscellaneous Amendments

The following miscellaneous amendments to the College Station Comprehensive Plan are as follows:

1. Text Amendments:
    a. Chapter 2 "Community Character," "Growth Areas" by amending the text regarding Growth Area IV and Growth Area V – Ordinance 3376, dated October 2011.
    b. Chapter 6 "Transportation" by amending the text regarding Complete Streets, Context Sensitive Solutions, Minimum Length and Additional Right-of-Way for Turn Lanes at Intersections, and Right-of-Way for Utilities – Ordinance 3729, dated December 10, 2015.
    c. Chapter 2 "Community Character," Chapter 3 "Neighborhood Integrity," Chapter 4 "Economic Development," Chapter 5 "Parks, Greenways, and the Arts," and Chapter 7 "Municipal Services and Community Facilities" by amending the text based on the recommendation of the Comprehensive Plan Five-Year Evaluation & Appraisal Report – Ordinance 3730 dated December 10, 2015.
    d. Chapter 8 "Growth Management & Capacity" by amending the text based on recommendations from the Annexation Task Force – Ordinance 3766, dated April 28, 2016.
    e. Chapter 1, Section 10; Chapter 5, Section 1; Chapter 5, Section 4; Chapter 8, Section 17; and Chapter 9, Section 3; by amending the text- Ordinance 3951, dated October 12, 2017.

2. Future Land Use and Character Map Amendment:
    a. 301 Southwest Parkway – Ordinance 3255, dated July 2010.
    b. Richards Subdivision – Ordinance 3376, dated October 2011.
    c. Earl Rudder Freeway at University Oaks – Ordinance 3465, dated November 19, 2012
    d. 1600 University Drive East – Ordinance 3535, dated November 14, 2013.
    e. 2560 Earl Rudder Freeway S. – Ordinance 3541, dated December 12, 2013.
    f. 13913 FM 2154. – Ordinance 3546, dated January 9, 2014.
    g. 2021 Harvey Mitchell Parkway – Ordinance 3549, dated January 23, 2014.
    h. 1201 Norton Lane – Ordinance 3555, dated February 27, 2014.
    i. 3715 Rock Prairie Road West – Ordinance 3596, dated August 25, 2014.
    j. 4201 Rock Prairie Road – Ordinance 3670, dated July 9, 2015.
    k. The approximately 40 acres of land generally located east of FM 2154 (aka Wellborn Road), south of the Southern Trace Subdivision, west of State Highway 40 (aka William D. Fitch Parkway), and north of Westminster Subdivision – Ordinance 3731, dated December 10, 2015.
    l. The approximately 120 acres of land generally located south of Barron Cut-Off Road, west of WS Phillips Parkway, north of the Castlegate II Subdivision, and east of the Wellborn Community – Ordinance 3732, dated December 10, 2015.
    m. The approximately 900 acres of land generally located south of Greens Prairie Road West, east of the Sweetwater Subdivision, and north of Arrington Road – Ordinance 3733, dated December 10, 2015.

n. The approximately 17.788 acres of land generally located at the corner of Turkey Creek Road and Raymond Stotzer Parkway frontage road.– Ordinance 3752, dated March 10, 2016.
o. The approximately 9 acres of land generally located north of the Crossroad Woods Subdivision near the intersection of Wellborn Road (FM 2154) and Greens Prairie Trail – Ordinance 3779, dated June 9, 2016
p. The approximately 16 acres located at 8607 Rock Prairie Road, generally located at the north of Rock Prairie Road and west of William D. Fitch Parkway – Ordinance 3794, dated August 11, 2016.
q. The approximately 14.25 acres of land located at 2501 Earl Rudder Freeway South, generally located north of North Forest Parkway and south of Raintree Drive, along the east side of Earl Rudder Freeway South – Ordinance 3799, dated August 25, 2016.
r. The approximately 7 acres of land located along the south side of State Highway 30, south of Veterans Memorial Park – Ordinance 3828, dated October 27, 2016.
s. The approximately 58 acres of land generally located along the east side of State Highway 6 South, north of W.D. Fitch parkway and south of the future Pebble Creek Parkway extension –Ordinance 3830, dated October 27, 2016.
t. The approximately 2 acres of land generally located on Corsair Circle north of Pavilion Avenue – Ordinance 3846, dated December 8, 2016.
u. The approximately 18 acres of land generally located at the southeast corner of Sebesta Road and Earl Rudder Freeway frontage road – Ordinance 3848, dated December 8, 2016.
v. The approximately 6 acres of land being situated in the Pooh's Park Subdivision, Block 1, Lots 6-14 recorded in Volume 314, Page 618 of the deed records of Brazos County, Texas, located at 204, 206, 208, 210, 212, 214, 216, 218, and 220 Holleman Drive east, more generally southwest of the intersection of Holleman Drive East and Lassie Lane by – Ordinance 3850, dated January 12, 2017.
w. The approximately 6.3 acres of land generally located northeast intersection of Copperfield Parkway and Crescent Pointe Parkway - Ordinance 3859, dated February 9, 2017.
x. The approximately 11.3 acres of land generally located at the southeast intersection of Earl Rudder Freeway South and Emerald Parkway – Ordinance 3875, dated April 27, 2017.
y. The approximately 232 acres of land generally located south of Rock Prairie Road - Ordinance 3877, dated April 27, 2017.
z. The approximately 5.96 acres of land generally located in the northeast corner of Associates Avenue and Harvey Road intersection. – Ordinance 3879, dated April 27, 2017.
aa. The approximately 4.74 acres of land generally located at the corner of Harvey Mitchell Parkway South and Raymond Stotzer Parkway – Ordinance 3882, dated May 11, 2017.

bb. The approximately 3.2 acres of land generally located east of Copperfield Parkway and south of Harvey Road. – Ordinance 3884, dated May 11, 2017.
cc. The approximately 3.34 acres of land generally located north of Raintree Drive along Earl Rudder Freeway South – Ordinance 3901, dated July 27, 2017.
dd. The approximately 12.5 acres generally located west of Earl Rudder Freeway South along Harvey Mitchell Parkway – Ordinance 3903, dated July 27, 2017.
ee. Approximately 100 acres located along the east side of State Highway 6, south of The Business Park at College Station and north of the Texas World Speedway property- Ordinance 3906, dated July 27, 2017.
ff. Approximately 1.7 acres of land being generally located at 12055 FM 2154- by Ordinance 3921, dated August 24, 2017.

3. Concept Map Amendment:
   a. Growth Area IV – Ordinance 3376, dated October 2011.
   b. Growth Area V – Ordinance 3376, dated October 2011.

4. Thoroughfare Map Amendment:
   a. Raintree Drive – Ordinance 3375, dated October 2011.
   b. Birkdale Drive – Ordinance 3375, dated October 2011.
   c. Corsair Circle – Ordinance 3375, dated October 2011.
   d. Deacon Drive – Ordinance 3375, dated October 2011.
   e. Dartmouth Drive – Ordinance 3375, dated October 2011.
   f. Farm to Market 60 – Ordinance 3375, dated October 2011.
   g. Southwest Parkway – Ordinance 3375, dated October 2011.
   h. Cain Road extension –Ordinance 3639, dated February 26, 2015.
   i. Update to Chapter 6 Maps- Ordinance 3729, dated December 10, 2015.
   j. South College Station Mobility Study – Ordinance 3827, dated October 27, 2016.
   k. Pavilion Avenue extension --Ordinance 3885, dated May 11, 2017.
   l. Future Minor Collector realigned to Harpers Ferry Road along Arrington Road – Ordinance 3949, dated October 12, 2017.

5. Bicycle, Pedestrian and Greenways Master Plan Amendment:
   a. Cain Road extension – Ordinance 3639, dated February 26, 2015
   b. Update to Maps 5.4 and 5.5-- Ordinance 3729, dated December 10, 2015.
   c. South College Station Mobility Study – Ordinance 3827, dated October 27, 2016.
   d. Update to Maps 5.4 and 5.5 – Ordinance 3877, dated April 27, 2017.

6. Parks and Recreation Master Plan Amendment:
   a. Update to Map B/College Station Neighborhood Park Zone, to Map C/College Station Community Park Zone Map and to the text of Section 2 "Current Conditions and Trends," subsection "Park Land," paragraph five relating to said maps- Ordinance 3951, dated October 12, 2017.

7. Community and Neighborhood Plan Amendment:
    a. Eastgate Neighborhood Plan, Chapter 1 - Community Character, "Site Development Area 1 – Lincoln Avenue" – by this ordinance, dated November 9, 2017;

D. General
1. Conflict. All parts of the College Station Comprehensive Plan and any amendments thereto shall be harmonized where possible to give effect to all. Only in the event of an irreconcilable conflict shall the later adopted ordinance prevail and then only to the extent necessary to avoid such conflict. Ordinances adopted at the same city council meeting without reference to another such ordinance shall be harmonized, if possible, so that effect may be given to each.
2. Purpose. The Comprehensive Plan is to be used as a guide for growth and development for the entire City and its extra-territorial jurisdiction ("ETJ"). The College Station Comprehensive Plan depicts generalized locations of proposed future land-uses, including thoroughfares, bikeways, pedestrian ways, parks, greenways, and waterlines that are subject to modification by the City to fit local conditions and budget constraints.
3. General nature of Future Land Use and Character. The College Station Comprehensive Plan, in particular the Future Land Use and Character Map found in A.3 above and any adopted amendments thereto, shall not be nor considered a zoning map, shall not constitute zoning regulations or establish zoning boundaries and shall not be site or parcel specific but shall be used to illustrate generalized locations.
4. General nature of College Station Comprehensive Plan. The College Station Comprehensive Plan, including the Thoroughfare Plan, Bicycle, Pedestrian, and Greenways Master Plan, Central College Station Neighborhood Plan, Water System Master Plan and any additions, amendments, master plans and subcategories thereto depict same in generalized terms including future locations; and are subject to modifications by the City to fit local conditions, budget constraints, cost participation, and right-of-way availability that warrant further refinement as development occurs. Linear routes such as bikeways, greenways, thoroughfares, pedestrian ways, waterlines and sewer lines that are a part of the College Station Comprehensive Plan may be relocated by the City 1,000 feet from the locations shown in the Plan without being considered an amendment thereto.
5. Reference. The term College Station Comprehensive Plan includes all of the above in its entirety as if presented in full herein, and as same may from time to time be amended."

EXHIBIT "B"

That the "Comprehensive Plan of the City of College Station" is hereby amended by amending a portion of the Eastgate Neighborhood Plan, Chapter 1 - Community Character, titled "Site Development Area 1 – Lincoln Avenue" beginning on page 1-15 of said plan as follows:

"**Site Development Area 1 – Lincoln Avenue**

Based on input received during the planning process, specific consideration should be given to the area north of Lincoln Avenue between Tarrow Street and Munson Avenue. The existing developed properties fronting Lincoln Avenue consist of single-story homes with rear alley access. Given the recommended General Suburban designation (See Community Character Area 2 – Lincoln Avenue), this single-family and rear alley pattern should continue across the portion of the vacant 7.5-acre tract that fronts Lincoln Avenue.

The remainder of the vacant 7.5-acre tract may develop with multifamily and/or non-residential uses. The multi-family and commercial uses will receive vehicular access from Lincoln Avenue and the private drives of University Town Center as well as Vassar Court and Wellesley Court that are stubbed along the western edge of the tract. When the tract develops, Wellesley Court and Vassar Court should be looped together to provide additional alternatives for vehicular access. In addition to these routes, bicyclists and pedestrians will be accommodated through the planned multiuse path to connect Lincoln Avenue and University Town Center. **Map 1.13**, Site Development Area 1 illustrates the general location of this area."

Legislation Details (With Text)

File #:	17-0655	**Version:**	2	**Name:**	PDD Rezoning – University Town Center
Type:	Rezoning			**Status:**	Agenda Ready
File created:	10/25/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Public Hearing, presentation, possible action, and discussion regarding an ordinance amending Appendix "A", "Unified Development Ordinance," Section 4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from GS General Suburban to PDD Planned Development District on approximately 7.5 acres of land being situated in the Richard Carter Survey, Abstract No. 8, College Station, Brazos County, Texas, and being generally located at 801 Lincoln Avenue.				
Sponsors:	Alaina Helton				
Indexes:					
Code sections:					
Attachments:	Background Information SAM & Aerial Concept Plan Bulk Variance Letter Ordinance				

Date	Ver.	Action By	Action	Result

Public Hearing, presentation, possible action, and discussion regarding an ordinance amending Appendix "A", "Unified Development Ordinance," Section 4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from GS General Suburban to PDD Planned Development District on approximately 7.5 acres of land being situated in the Richard Carter Survey, Abstract No. 8, College Station, Brazos County, Texas, and being generally located at 801 Lincoln Avenue.

Relationship to Strategic Goals:

- Financially Sustainable City
- Diverse Growing Economy

Recommendation(s): The Planning and Zoning Commission considered this item at their October 19, 2017 meeting and voted 4-0 to recommend approval of the rezoning with modifications to the concept plan to eliminate the proposed vehicular access to Lincoln Avenue and the proposed free-standing commercial sign along Lincoln Avenue.

Summary: This request is to rezone approximately 7.5 acres from GS General Suburban to PDD Planned Development District with a base zoning of GC General Commercial, MF Multi-Family and GS General Suburban. This request is in conjunction with a request to amend the Comprehensive Plan's Eastgate Neighborhood Plan, Chapter 1 - Community Character, "Site Development Area 1 - Lincoln Avenue".

REVIEW CRITERIA

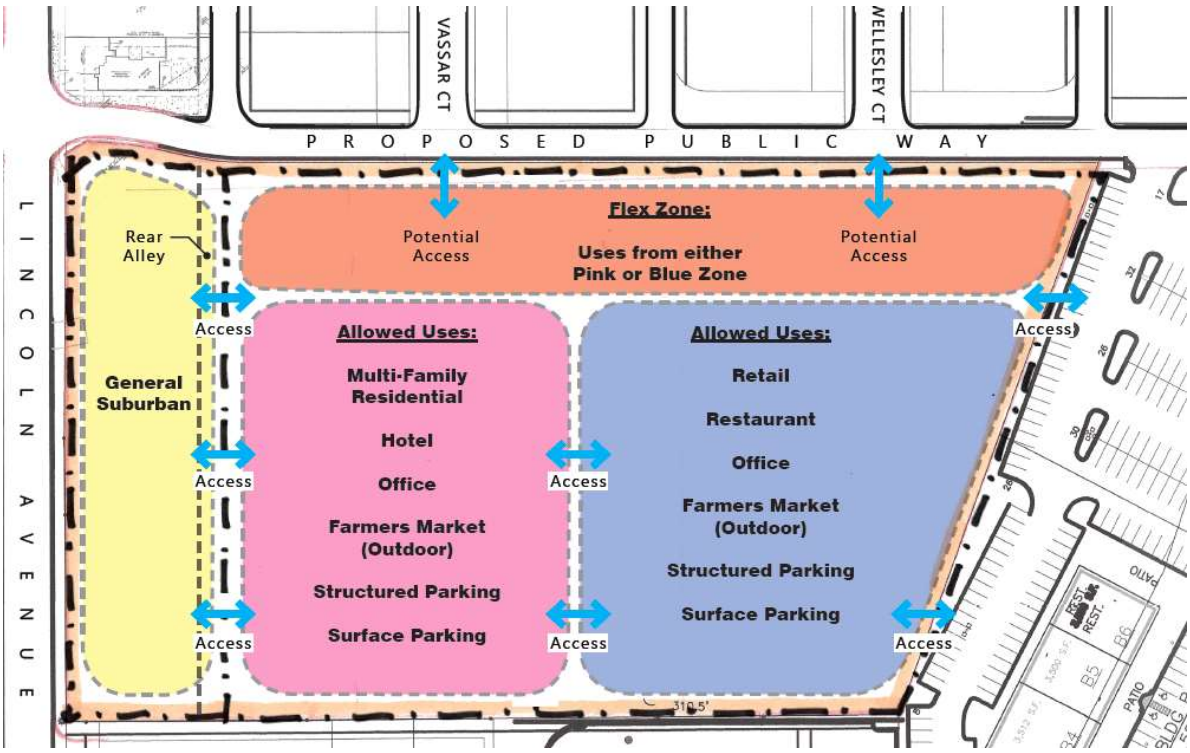
1. **Consistency with the Comprehensive Plan:** The subject property is designated as General Suburban and Urban on the Comprehensive Plan Future Land Use and Character Map and is in the area identified within the Eastgate Neighborhood Plan "Site Development Area 1 - Lincoln Avenue". The General Suburban designation is intended for high-density single-family residential lots (minimum 5,000 square feet). The Eastgate Neighborhood Plan recommends continuing the single-family and rear alley access pattern existing along Lincoln Avenue across the front of this property and that the remainder of the vacant 7.5-acre tract designated as Urban develop with multi-family and/or non-residential uses. In order to ensure that future development proposals address land use and access concerns, the Neighborhood Plan recommends PDD Planned Development District zoning that incorporates single-family along Lincoln Avenue, multi-family and/or commercial behind these uses to University Town Center, and the extensions of Wellesley Court and Vassar Court into the property. The proposed land uses and extensions of Wellesley and Vassar Court into the subject property are consistent with the Eastgate Neighborhood Plan.

As a part of the zoning request the applicant is requesting an amendment to the Comprehensive Plan amending the Eastgate Neighborhood Plan, Chapter 1 - Community Character, "Site Development Area 1 - Lincoln Avenue". In this section, the Neighborhood Plan states that vehicular access between these nonresidential uses and the future single-family homes fronting Lincoln Avenue will be restricted so the potential for additional through traffic movements can be mitigated. The requested amendment would change the language to allow this vehicular access to occur as shown on the PDD Concept Plan. Should this amendment request be denied the concept plan associated with this rezoning request would no longer be consistent with the Comprehensive Plan as is required by the UDO. It should be noted, that staff is recommending approval of the Comprehensive Plan amendment to the property.

2. **Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood**: The property to the north, adjacent to the subject tract, is zoned GC General Commercial and is developed as a retail shopping center with hotels and stand-alone restaurant uses, also commonly known as University Town Center. The property to the east is a PDD Planned Development District that consists of multi-family structures with detached single-family homes fronting Lincoln Avenue. To the south is Lincoln Avenue and the Eastgate Neighborhood. The property to the west is comprised of a mix of high-density residential uses, which includes property zoned and developed as D Duplex and R-4 Multi-Family, with property zoned GS General Suburban with detached single-family homes along Lincoln Avenue.

   The single-family land uses proposed along Lincoln Avenue will continue the pattern of single-family developed on either side of the property. The remaining mix of multi-family and commercial uses will also be compatible with the four-plexes developed on the east and west side of the property and the commercial uses developed at University Town Center. The PDD Planned Development District is compatible with the surrounding zoning districts.

3. **Suitability of the property affected by the amendment for uses permitted by the districts that would be made applicable by the proposed amendment:** As shown below, the PDD achieves a mix of uses with low-intensity single-family land uses proposed along Lincoln Avenue, a Minor Arterial, and moderate to high-intensity land uses proposed in closer proximity to University Drive, a Major Arterial. The PDD is suitable for the property as it provides a transition of single family land uses along Lincoln Avenue, with the multi-family and hotel uses primarily located on the Lincoln Avenue side of the tract, and the retail and restaurant uses primarily located on the University Drive side as you move interior to the property towards University Town Center. The Flex Zone along the Public Way frontage is intended to allow this strip to flex and potentially include uses from either zone. The property is currently undeveloped.



4. Marketability of the property affected by the amendment for uses permitted by the district applicable to the property at the time of the proposed amendment: The property can be marketed under the current zoning which allows for residential uses. If rezoned to a zoning district that is consistent with the Comprehensive Plan and Eastgate Neighborhood Plan which allows for commercial and high-density residential uses, the marketability of the property will increase. The marketability will further increase if access to the proposed commercial development is permitted from Lincoln Avenue, a proposed 2-lane Major Collector.

5. Availability of water, wastewater, stormwater, and transportation facilities generally suitable and adequate for the proposed use: Water and Sewer service is currently provided by College Station Utilities. There is an existing 18-inch waterline along Lincoln Avenue and 10-inch waterline stubbed from the existing University Town Center, along with three 6-inch waterlines from the adjacent residential to the southwest. Likewise, there are several sewer lines available to serve this tract. Downstream sewer improvements may be required by the developer at the time of site development. Additionally, the property is in the Burton Creek drainage basin. The site generally drains to the northeast. Drainage and other public infrastructure required with site development shall be designed and constructed in accordance with the B/CS Unified Design Guidelines. Detention was previously provided for this property with the existing water feature/retention pond in University Town Center.

The subject tract will have access to Lincoln Avenue, which is designated as a future Major Collector on the Thoroughfare Plan and currently constructed as a Minor Collector in this area. It will also have access to University Drive East, a 6-lane Major Arterial, by extending the private drive at the rear of the existing University Town Center as well as Wellesley Court and Vassar Court that connect to Tarrow Street, a Major Collector. Based on the size of the request, a Traffic Impact Analysis (TIA) was required. The TIA took into account minor shifts in how traffic would be

anticipated to circulate through the adjacent roadways with addition of the proposed Public Way connection to Lincoln Avenue located across from Ashburn Avenue. All intersections within the TIA study area are expected to continue to perform at acceptable Levels of Service following development of the tract so no traffic mitigation was identified. Like Ashburn Avenue, the proposed southbound connection to Lincoln Avenue would have a stop sign and the TIA recommended an additional turn lane to the southbound approach could be added though not needed to maintain an acceptable Level of Service at the intersection.

REVIEW OF CONCEPT PLAN

The Concept Plan provides an illustration of the general layout of the proposed land uses as well as access points external and internal to the property. In proposing a PDD, an applicant may also request variations to the general platting and site development standards provided that those variations are outweighed by demonstrated community benefits of the proposed development. The Unified Development Ordinance provides the following review criteria as the basis for reviewing PDD Concept Plans:

1. The proposal will constitute an environment of sustained stability and will be in harmony with the character of the surrounding area;

2. The proposal is in conformity with the policies, goals, and objectives of the Comprehensive Plan, and any subsequently adopted Plans, and will be consistent with the intent and purpose of this Section;

3. The proposal is compatible with existing or permitted uses on abutting sites and will not adversely affect adjacent development;

4. Every dwelling unit need not front on a public street but shall have access to a public street directly or via a court, walkway, public area, or area owned by a homeowners association;

5. The development includes provision of adequate public improvements, including, but not limited to, parks, schools, and other public facilities;

6. The development will not be detrimental to the public health, safety, welfare, or materially injurious to properties or improvements in the vicinity; and

7. The development will not adversely affect the safety and convenience of vehicular, bicycle, or pedestrian circulation in the vicinity, including traffic reasonably expected to be generated by the proposed use and other uses reasonably anticipated in the area considering existing zoning and land uses in the area.

General:

The stated purpose and intent of the requested PDD is “to develop a walkable, mixed-use development consisting of retail, multi-family residences and single-family residences.”

The Concept Plan proposes single-family development that fronts Lincoln Avenue, with commercial and multi-family uses behind these future homes on the remainder of the 7.5-acre tract. Buildings will be subject to non-residential architectural requirements, with a building height

maximum of 60 feet for the hotel and multi-family land uses and single-family height protection for the existing single-family homes fronting Lincoln Avenue on the east side of the property. A Public Way is proposed along the western boundary of the property, extending from Lincoln Avenue through the development and connecting into the existing Private Access drive and parking area of the previous phases of University Town Center. This Public Way will also connect into Wellesley Court and Vassar Court. A 10-foot multi-use path is proposed to run along the Public Way, adjacent to the proposed commercial uses. No buffer will be provided between the proposed single-family and multi-family/commercial uses, with direct vehicular access provided from the proposed residential alley serving the single-family homes along Lincoln Avenue and the commercial/multi-family development.

Citizen Input:
The applicant held a meeting for the College Hills Woodlands Neighborhood Association on October 10, 2017 to discuss the rezoning request and Comprehensive Plan Amendment. The applicant, property owner, City staff and fifteen (15) residents attended the meeting. The resident concerns included: increased traffic along Lincoln Avenue and Ashburn Avenue, decreased property taxes due to increase in neighborhood traffic, intensity of the uses requested, building height, signage and close proximity of the development to single-family homes.

In an effort to address some of the resident concerns listed above, the applicant has proposed the following modifications to their PDD request:

- The initial application proposed a 90 foot maximum height for the multi-family and hotel structures. Based on concerns from the residents, the applicant is now proposing a 60 foot height maximum for these structures.
- Attached signage for the non-residential portion of the property will not face Lincoln Avenue and will be located away from the Eastgate Neighborhood.
- Night Clubs, Bars and/or Taverns will be prohibited within this PDD.

Modification Requested: GS General Suburban, GC General Commercial and MF Multi-Family is proposed as the base zoning district with the following modifications:

<u>Dimensional</u> Standards - *Section 6.6. A.7 Farmer' Market*

- Addition of a permanent Farmer's Market allowed by right on the non-residential portion of the property.

<u>Height</u> - *Section 7.1.H.3 Low Density Residential Protection*

- A 1:1 slope building height setback to the existing single-family lots to the east of the property.
- No building height setback between the proposed general suburban and the proposed commercial and multi-family land uses.

<u>Signs</u> - *Section 7.5.C, 7.5.D.11 & 7.5.F*

- The general suburban portion of the property is permitted an Area Identification/Subdivision Sign.
- A freestanding sign for the commercial development is allowed at Lincoln Avenue.

The commercial portion of the property is permitted one Campus Wayfinding Sign that may be

located along the Public Way. The maximum area allowed for the Wayfinding Sign is 60 square feet.

- Each non-residential building shall be permitted a Low-Profile Sign.

Landscaping/Streetscaping - *Section 7.6.D.2 & 4 Streetscape & Parking Screening*

- Streetscaping will only be provided on the commercial side of the proposed Public Way.
- Parking screening is not required along the proposed Public Way.

Buffer - *Section 7.7.F Minimum Buffer Standards*

- No buffer will be required between the proposed non-residential uses and residential uses.

Outdoor Storage and Display - *Section 7.12.2*

- No screening or enclosure will be required for the Outdoor Sales Area as it relates to the proposed Farmers' Market.

Subdivision Regulations - *Section 8.3.G.1 & 4 Blocks*

- A single tier of single-family lots may be platted.
- This property shall not be subject to maximum block perimeter requirements.

Community Benefits: The applicant offers the following as community benefits:

- This is an infill development that will utilize existing utilities and resources and result in much needed sales tax revenue for the City.
- The development will provide a unique mixture of single-family, multi-family and commercial uses with an urban feel.
- The development will be walkable within the center and will provide access to surrounding residents to this development as well as the adjoining University Town Center, unifying the area residents.
- The multi-family and hotel structures shall not exceed 60 feet in height.
- Attached signage for the non-residential portion of the property will not face Lincoln Avenue and will be located away from the Eastgate Neighborhood.
- Night Clubs, Bars and/or Taverns are prohibited within this PDD.

STAFF RECOMMENDATION

Staff recommends approval of the rezoning request.

Budget & Financial Summary: N/A

Attachments:

1. Background information
2. Vicinity, Aerial and Small Area Map
3. Concept Plan
4. Bulk Variance Letter
5. Ordinance

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NOTIFICATIONS

Advertised Commission Hearing Date: October 19, 2017
Advertised Council Hearing Dates: November 9, 2017

The following neighborhood organizations that are registered with the City of College Station's Neighborhood Services have received a courtesy letter of notification of this public hearing:

College Hills Woodlands

Property owner notices mailed:	Twenty five (25)
Contacts in support:	None
Contacts in opposition:	One at the time of staff report. Concerns included: increased traffic and close proximity to single-family homes
Inquiry contacts:	One at the time of staff report.

In addition to the City's required notification, the applicant held a meeting for the College Hills Woodlands Neighborhood Association on October 10, 2017. The applicant, property owner, City staff and fifteen (15) residents attended the meeting. Concerns included: increased traffic, property taxes, uses allowed, building height, signage and close proximity to single-family homes.

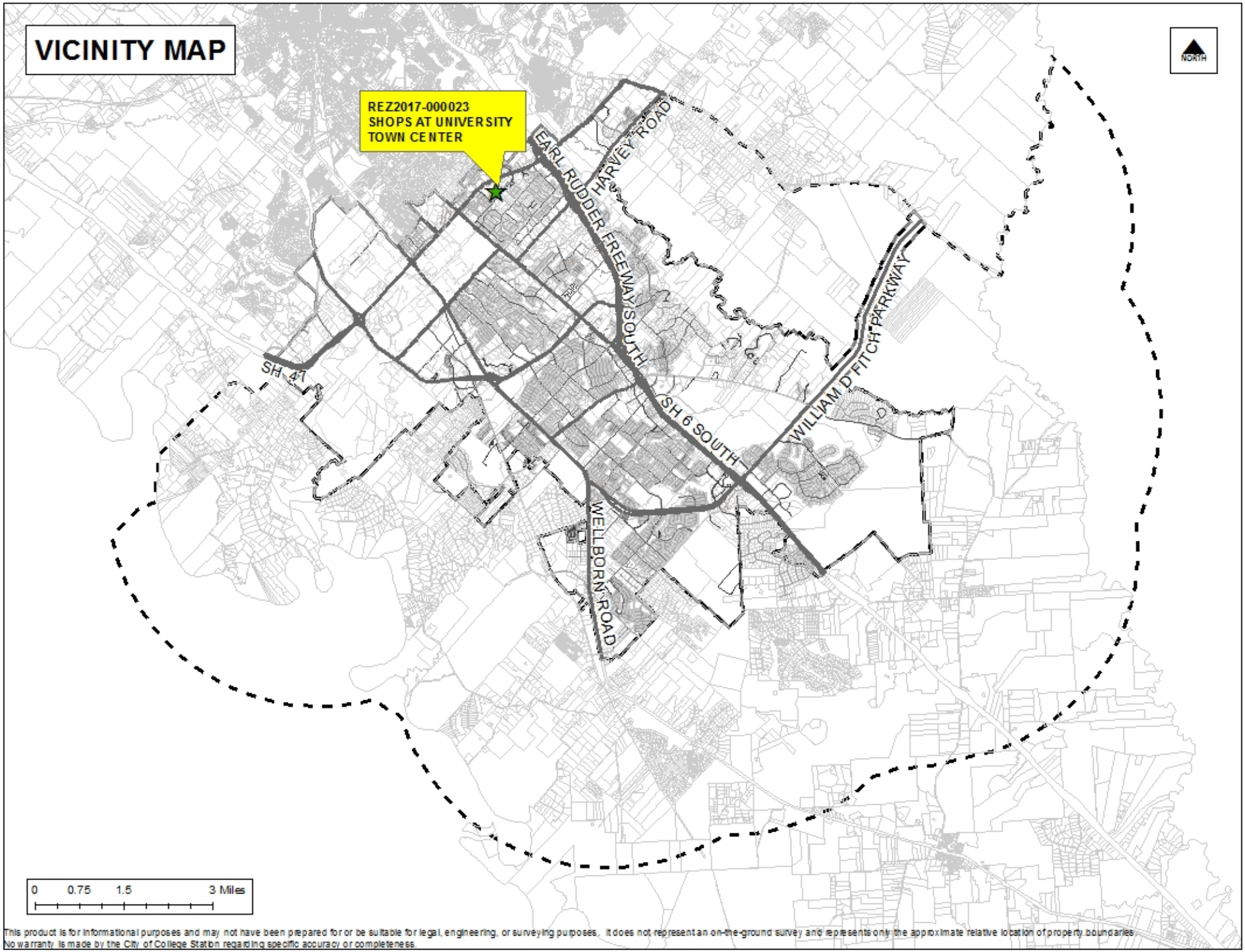
ADJACENT LAND USES

Direction	Comprehensive Plan	Zoning	Land Use
North	General Commercial	GC General Commercial	Commercial Retail
South (across Lincoln Avenue)	Neighborhood Conservation	GS General Suburban	Single-Family Residential
East	Urban & General Suburban	GC General Commercial & PDD Planned Development District	Commercial Retail, Duplex Residential & Single-Family Residential
West	Urban & General Suburban	GS General Suburban, D Duplex & R-4 Multi-Family	Multi-Family, Duplex Residential & Single-Family Residential

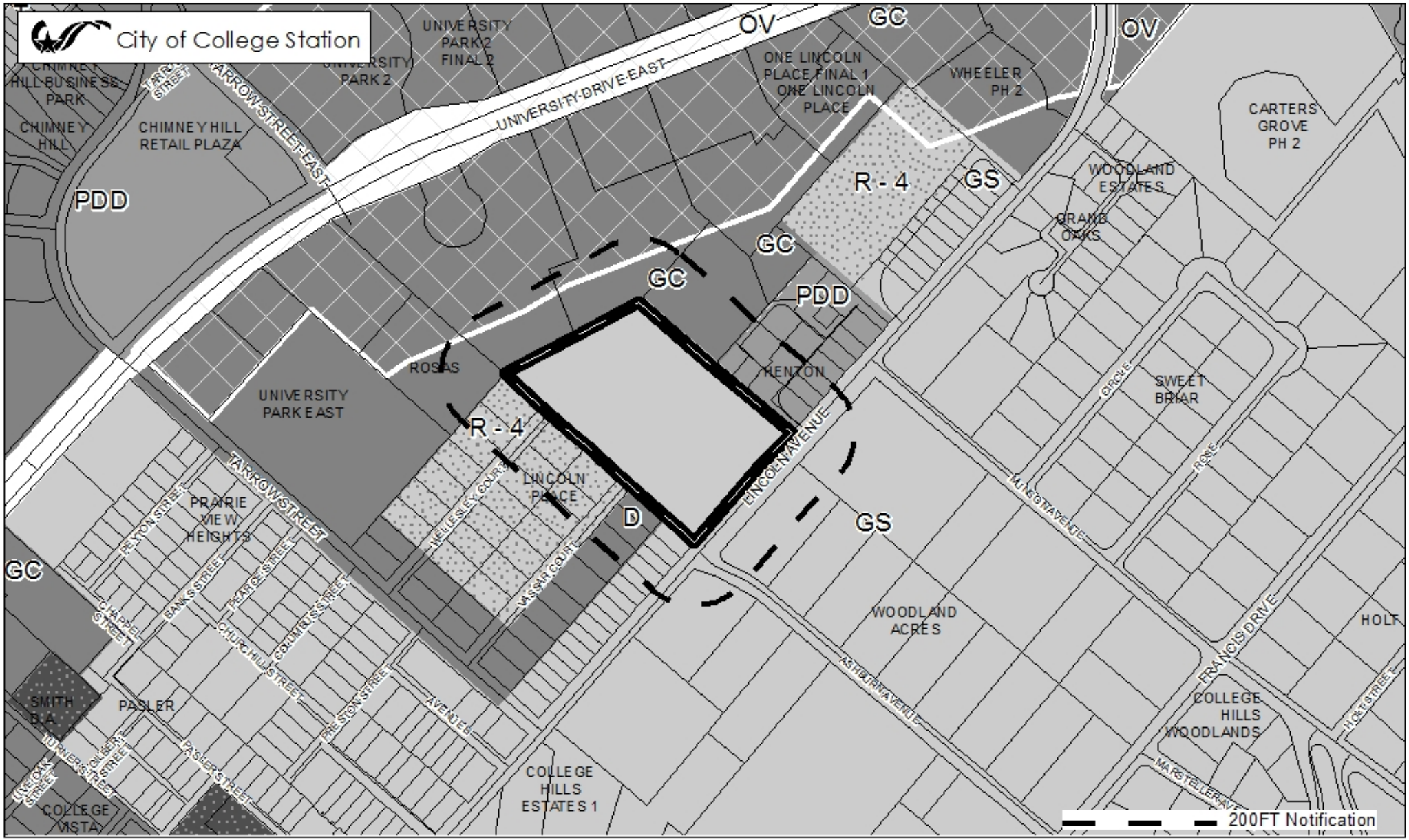
DEVELOPMENT HISTORY

Annexation:	1956
Zoning:	Single-Family upon original zoning
	R-1 Single-Family Residential renamed to GS General Suburban in 2014
Final Plat:	Property is not platted
Site development:	Property is not developed

VICINITY MAP



This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.
No warranty is made by the City of College Station regarding specific accuracy or completeness.



ZONING DISTRICTS (In Grayscale)

Residential
- R Rural
- E Estate
- RS Restricted Suburban
- GS General Suburban
- D Duplex
- T Townhome
- MF Multi-Family
- MU Mixed-Use
- MHP Manufactured Home Pk.

Non-Residential
- NAP Natural Area Protected
- O Office
- SC Suburban Commercial
- GC General Commercial
- CI Commercial Industrial
- BP Business Park
- BPI Business Park Industrial
- C–U College and University

Planned Districts
- P-MUD Planned Mixed-Use Dist.
- PDD Planned Develop. Dist.

Design Districts
- WPC WolfPen Creek Dev. Cor.
- NG–1 Core Northgate
- NG–2 Transitional Northgate
- NG–3 Residential Northgate

Overlay Districts
- OV Corridor Ovr.
- RDD Redevelopment District
- KO Krenek Tap Ovr.
- NPO Nbrhd. Prevailing Ovr.
- NCO Nbrhd. Conservation Ovr.
- HP Historic Preservation Ovr.

Retired Districts
- R-1B Single Family Residential
- R-4 Multi-Family
- R-6 High Density Multi-Family
- RD Research and Dev.
- M-1 Light Industrial
- M-2 Heavy Industrial

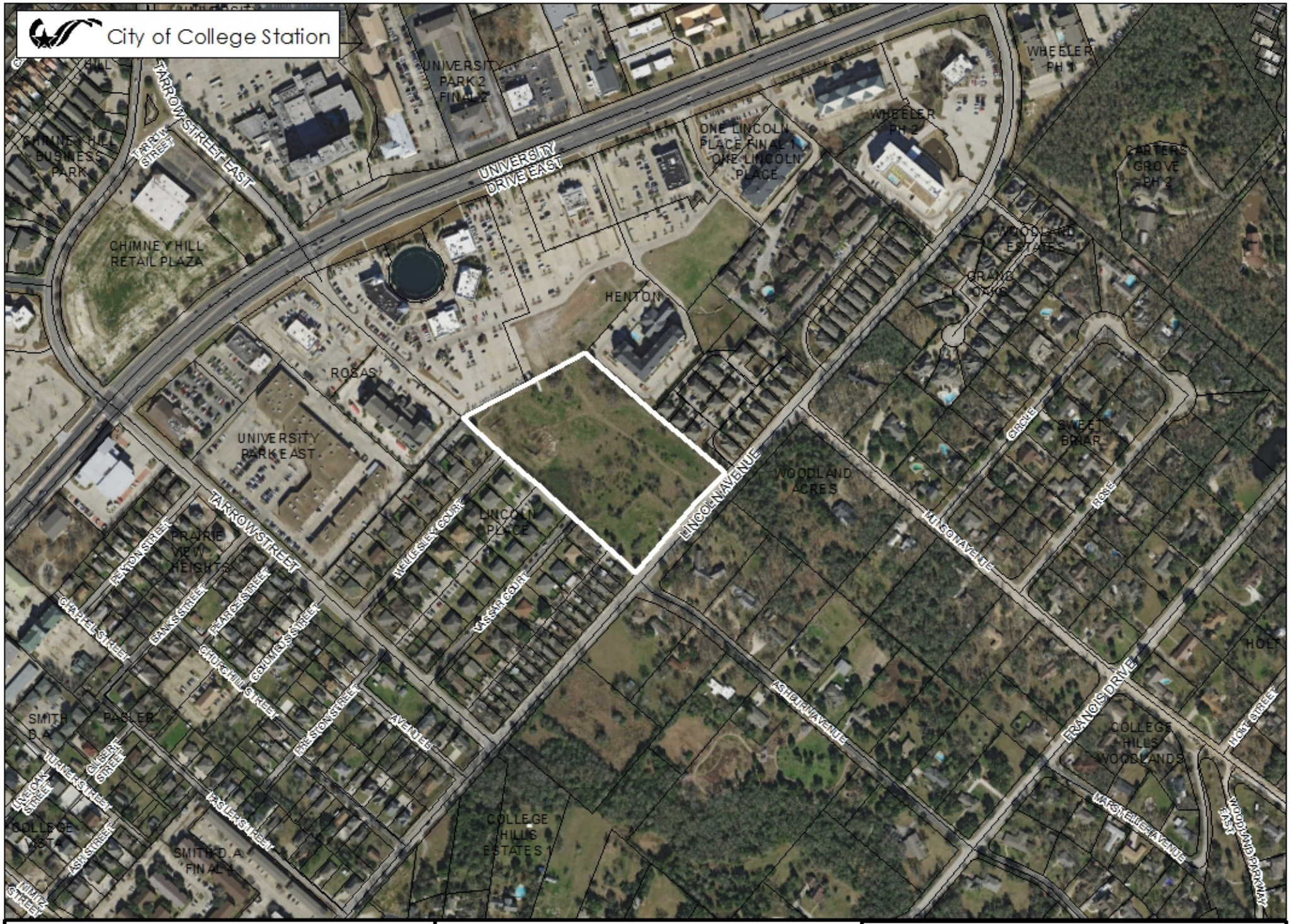
NORTH

0 425 850 Feet

SHOPS AT UNIVERSITY TOWN CENTER

Case: REZ2017-000023

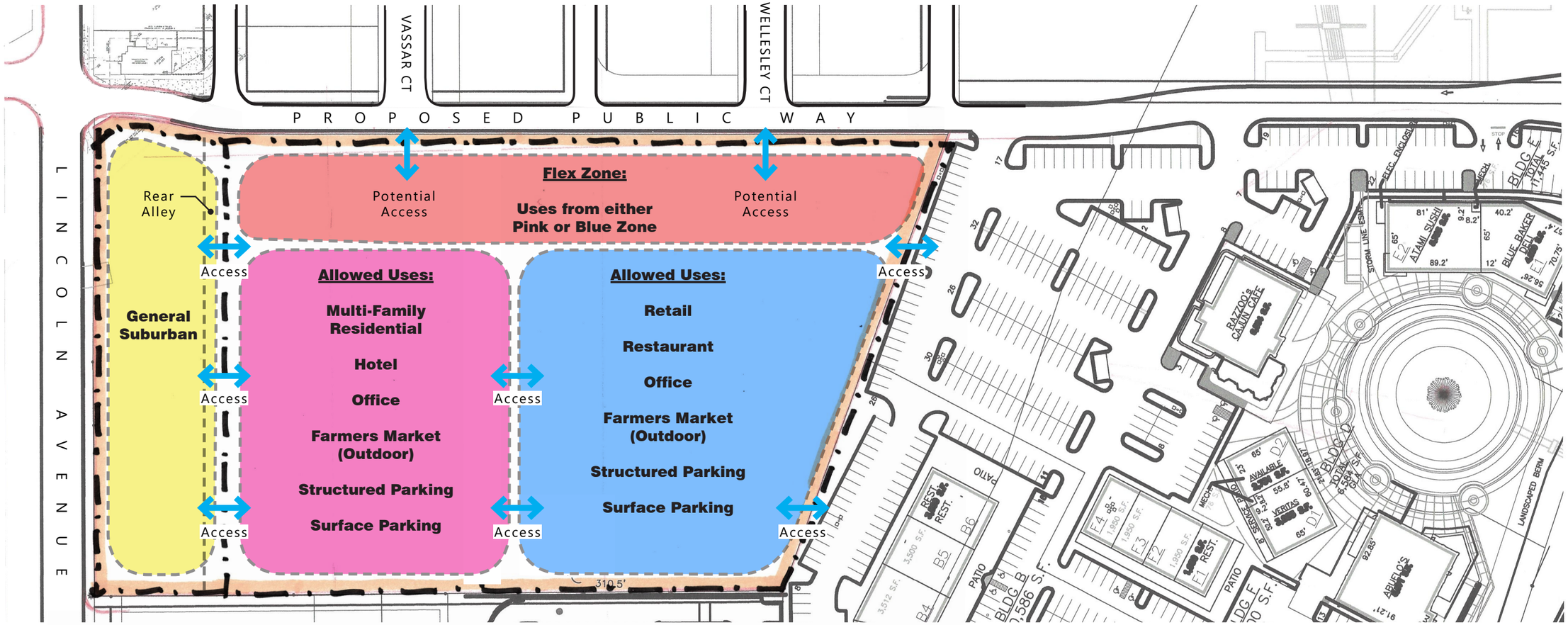
REZONING



SHOPS AT UNIVERSITY TOWN CENTER

Case: REZ2017-000023

REZONING



Vicinity Map

Notes:

1. Total Site Area = 7.47 ac.
2. There is no FEMA regulated 100-year floodplain on this site per FEMA Map Panel#48041C0305F, dated April 2, 2014.
3. The development will not include parks, greenways, conservation areas or schools.
4. The base zoning district for this PDD shall be GS - general suburban, GC - general commercial and MF - multi-family, where applicable.
5. The development will include a 10 foot multi-use path along the proposed public way.
6. All site lighting will comply with City of College Station ordinances.
7. For buffer information see bulk variances letter.
8. The hotel and multi-family buildings will not exceed 60 feet in height. These buildings will be located toward the Lincoln side of the 7 acre site and will meet the modified height protections as requested.
9. The structured parking will not exceed 3 stories.
10. The surface parking areas throughout the site will be interconnected such that cross-access will be available between all uses and to the proposed public way.
11. Access locations to the proposed public way extension will be located in proximate locations shown OR in locations to meet the City of College Station driveway ordinance.
12. Drainage detention is already designed for this site within the existing retention pond on site.
13. All required off-street parking for the General Suburban (GS) area will be provided on the GS property.
14. A 1:1 height protection setback will be provided between all proposed buildings and the single-family located along the easternmost property line.
15. No height protection setback will be provided between all proposed buildings and the proposed General Suburban area.
16. The retail and restaurant uses will primarily be located on the University Drive side, while the multi-family and hotel uses will primarily be located on the Lincoln Ave side of the tract.
17. The Flex Zone along Public Way frontage is intended to allow this strip to flex and potentially include uses from either zone.
18. Attached signage for the non-residential portion will not face Lincoln Ave and will be located away from the Eastgate Neighborhood.
19. Night clubs, bars and/or taverns are prohibited within this PDD.

Applicant
Sahara Realty Group Ltd.
P.O. Box 4508
Bryan, Texas 77805
T: 979 779 7209 x132

Architect
Graphite PLLC
1719 Vassar Street
Houston, TX 77098
T: 310 429 8862

Civil Engineer
Mitchell and Morgan, LLP
3204 Earl Rudder Fwy. S.
College Station, Texas 77845
T: 979 260 6963

MITCHELL M&M MORGAN

Planning & Development Services
City of College Station
P.O. Box 9960
College Station, TX 77842

October 13, 2017

Re: University Town Center at Lincoln Avenue (PDD Rezoning)

To whom it may concern,

With respect to the development standards for GC General Commercial, MF Multi-family and GS General Suburban, we are requesting the following bulk variances.

Listed below are the bulk variances that we are seeking for the rezoning:

Understanding that we must choose a base zoning district for the residential development upon which we base all variance requests, we have chosen GC General Commercial, MF Multi-family and GS General Suburban.

Dimensional Standards

1. Section 6.6.A.7 Farmers' Markets – We request Farmers Markets to be a permanent and permitted
   use on the site.

Height

3. Section 7.1.H.3 Low Density Residential Protection - We request a 1:1 slope building height setback to the existing single-family lots to the east of the property. We request that there is no building height setback between the general suburban being developed with this project and the general commercial/multi-family behind.

Signs

4. Section 7.5.C Summary of Permitted Signs - We request that the general suburban section be permitted an Area Identification/Subdivision Sign and a Campus Wayfinding Sign for the commercial portion and that it be permitted along the public way.
5. Section 7.5.D.11 Prohibited Signs - We request an off-premise freestanding sign for the commercial development be allowed at Lincoln Avenue.
6. Section 7.5.F Sign Standards - We request 60 sf be permitted for the Campus Wayfinding Sign. We also request Low-Profile signs for each building.

3204 EARL RUDDER FWY. S. • COLLEGE STATION, TX 77845 • T 979.260.6963 • F 979.260.3564
CIVIL ENGINEERING • HYDRAULICS • HYDROLOGY • UTILITIES • STREETS • SITE PLANS • SUBDIVISIONS
info@mitchellandmorgan.com • www.mitchellandmorgan.com

Landscaping/Streetscaping

7. Section 7.6.D.2 Streetscape - We request to provide streetscaping to only one side of the proposed public way.
8. Section 7.6.D.4 Parking Screening - We request not to be required to provide parking screening along the public way so as to be consistent with the remainder of the access drive to University Drive.

Buffer

9. Section 7.7.F Minimum Buffer Standards - We request not to be required to provide a buffer yard between the non-residential uses and residential uses, so as to integrate both the existing and proposed uses into one unified development.

Outdoor Storage and Display

10. Section 7.12.2 – We request not to screen or enclose permanent outdoor sales areas as they
    relate to a potential Farmers' Market use.

Subdivision Regulations

11. Section 8.3.G.1 Blocks - We request the ability to plat a single tier of residential lots.
12. Section 8.3.G.4 Blocks - We request a waiver from the maximum block perimeter. While we are unable to extend public thoroughfares through the development, we will be providing ample internal circulation as well as providing connectivity points for Wellesley and Vassar Courts, all of which achieves the intent of connectivity which block perimeter is intended to accomplish.

As stated in the UDO, the purpose of the Planned Development district is to promote and encourage innovative development that is sensitive to surrounding land uses and to the natural environment. A PDD may be used to permit new or innovative concepts in land utilization not permitted by other zoning districts. Finally, the PD District allows development to vary from certain development standards so long as there are community benefits which outweigh the requested modifications. We believe that this project offers a desired development opportunity and its community benefits outweigh modifications being requested. These community benefits are as follows:

This development is an infill development that will utilize existing utilities and resources and will result in much needed sales tax revenues for the city and its citizens. The project will provide a unique mixture of single-family, multi-family and commercial uses with an urban feel.

The development will be walkable within the center and will provide access to surrounding residents to this development as well as the adjoining University Town Center, unifying the area residents.

Thank you very much. If you have any questions, please do not hesitate to call.

Sincerely,

Crissy Hartl, AICP
Staff Planner
Cc: File

ORDINANCE NO. _____

AN ORDINANCE AMENDING APPENDIX A "UNIFIED DEVELOPMENT ORDINANCE," ARTICLE 4 "ZONING DISTRICTS," SECTION 4.2, "OFFICIAL ZONING MAP" OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY CHANGING THE ZONING DISTRICT BOUNDARIES OF APPROXIMATELY 7.5 ACRES OF LAND FROM GS GENERAL SUBURBAN TO PDD PLANNED DEVELOPMENT DISTRICT; BEING GENERALLY LOCATED AT 801 LINCOLN AVENUE; PROVIDING A SEVERABILITY CLAUSE; DECLARING A PENALTY; AND PROVIDING AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That Appendix A "Unified Development Ordinance," Article 4 "Zoning Districts," Section 4.2 "Official Zoning Map" of the Code of Ordinances of the City of College Station, Texas, be amended as set out in **Exhibit "A"**, **Exhibit "B" and Exhibit "C"** attached hereto and made a part of this Ordinance for all purposes.

PART 2: If any provision of this Ordinance or its application to any person or circumstances is held invalid or unconstitutional, the invalidity or unconstitutionality does not affect other provisions or application of this Ordinance or the Code of Ordinances of the City of College Station, Texas, that can be given effect without the invalid or unconstitutional provision or application, and to this end the provisions of this Ordinance are severable.

PART 3: That any person, corporation, organization, government, governmental subdivision or agency, business trust, estate, trust, partnership, association and any other legal entity violating any of the provisions of this Ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punishable by a fine of not less than twenty five dollars ($25.00) and not more than five hundred dollars ($500.00) or more than two thousand dollars ($2,000) for a violation of fire safety, zoning, or public health and sanitation ordinances, other than the dumping of refuse. Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense.

PART 4: This Ordinance is a penal ordinance and becomes effective ten (10) days after its date of passage by the City Council, as provided by City of College Station Charter Section 35.

PASSED, ADOPTED, and APPROVED this 9th day of November, 2017.

ATTEST:

_____
City Secretary

APPROVED:

_____
Mayor

APPROVED:

_____
City Attorney

Exhibit A

That Appendix A "Unified Development Ordinance," Article 4 "Zoning Districts," Section 4.2, "Official Zoning Map" of the Code of Ordinances of the City of College Station, Texas, is hereby amended to read as follows:

The following property is rezoned from GS General Suburban to PDD Planned Development District:

Putz Estate
7.474 Acre Tract 1
Richard Carter Survey, A-8
College Station, Brazos County, Texas

Field notes of a 7.474 acre tract or parcel of land, lying and being situated in the Richard Carter Survey, Abstract No. 8, College Station, Brazos County, Texas, and being part of the called 13.54 acre tract described in the deed from Ed Putz and wife, Fannie Putz to E. L. Putz, as recorded in Volume 287, Page 820, of the Deed Records of Brazos County, Texas, and being all of the called 0.62 acre tract described in the deed to Frauline Putz Sims as recorded in Volume 168, Page 104, of the Deed Records of Brazos County, Texas, part of the called 0.98 acre tract described in the deed to E. L. Putz, as recorded in Volume 129, Page 14, of the Deed Records of Brazos County, Texas, and said 7.474 acre tract being more particularly described as follows:

COMMENCING at the ⅝" iron rod found at a crosstie fence corner marking the north corner of the beforementioned 13.54 acre tract in the southeast right-of-way line of Farm to Market Road No. 60 (University Drive), same being the west corner of Lot 2 (5.00 acres) of the Henton Subdivision, according to the plat recorded in Volume 2017, Page 239, of the Official Records of Brazos County, Texas;

THENCE S 45º 28' 03" E along the northeast line of the beforementioned 13.54 acre tract, same being the southwest line of the beforementioned Lot 2 - Henton Subdivision, adjacent to a fence, for a distance of 695.83 feet to a ½" iron rod found marking the south corner of Lot 3R of the proposed Replat of Lots 1 and 2 - Henton Subdivision (unrecorded at this time), at the **PLACE OF BEGINNING** of this description;

THENCE S 45º 28' 03" E continuing along the northeast line of the beforementioned 13.54 acre tract, adjacent to a fence, same being the southwest line of the beforementioned Henton Subdivision, at a distance of 310.50 feet, pass a ½" iron rod found marking the south corner of the Henton Subdivision, same being the west corner of the Replat of Lot 3 - Henton Subdivision, according to the plat recorded in Volume 4089, Page 109, of the Official Records of Brazos County, Texas, continue on, for a total distance of 637.29 feet to a ½" iron rod found at a 6" creosote post fence corner marking the south corner of said replat, same being the apparent northwest line of Lincoln Avenue;

THENCE along the apparent northwest line of Lincoln Avenue, as follows:

S 44º 53' 33" W	for a distance of 214.58 feet to a ½" iron rod set in the easterly southwest line of the beforementioned 13.54 acre tract,
S 45º 36' 09" W	along the supposed southeast line of the beforementioned 0.98 acre tract, at a distance of 234.00 feet, pass a southerly and westerly east corner of the 13.54 acre tract, continue on along the westerly southeast line of the 13.54 acre tract for a total distance of 240.88 feet to a ½" iron rod set at the westerly south corner of the 13.54 acre tract, same being the east corner of Lincoln Place subdivision - Tract Two according to the plat recorded in Volume 371, Page 481, of the Deed Records of Brazos County, Texas, from which a ⅝" iron rod found bears S 36º 25' 20" W - 2.67 feet;

Putz Estate
7.474 Acre Tract 1
Richard Carter Survey, A-8
College Station, Brazos County, Texas
Continued - Page 2

THENCE N 45º 00' 21" W along the southwest line of the beforementioned 13.54 acre tract, same being the northeast line of the beforementioned Lincoln Place Subdivision, at a distance of 263.07 feet, pass a ½" iron rod found at the east corner of the eastern end of Vassar Court, continue on, adjacent to a fence, for a total distance of 800.10 feet to a ½" iron rod found marking the north corner of Lincoln Place Subdivision, same being the east corner of the Smith - called 4.51 acre tract, Volume 2658, Page 289, of the Official Records of Brazos County, Texas;

THENCE N 65º 07' 06" E entirely across the beforementioned 13.54 acre tract and along the southeast line of a proposed 7.263 acre tract for a distance of 479.59 feet to the **PLACE OF BEGINNING**, containing 7.474 acres of land, more or less.

STATE OF TEXAS
REGISTERED
S. M. KLING
2003
PROFESSIONAL
LAND SURVEYOR

Surveyed June 2004

By: S. M. Kling

S. M. Kling
R.P.L.S. No. 2003

Prepared 06/15/04
Revised 06/18/04
corrected typos
kes04-03a:\putz7.474ac.wpd

EXHIBIT "B"

MINIMUM REQUIREMENTS AND MODIFICATIONS OF STANDARDS

I. General.

The stated purpose and intent of the requested PDD is "to develop a walkable, mixed-use development consisting of retail, multi-family residences and single-family residences." The Concept Plan proposes single-family development that fronts Lincoln Avenue, with commercial and multi-family uses behind these future homes on the remainder of the 7.5-acre tract. Buildings will be subject to non-residential architectural requirements with a maximum building height of 60 feet for the hotel and multi-family land uses. A low-density residential height protection ratio of one to one will also apply between any multi-family or commercial uses within the PDD and the existing single-family homes fronting Lincoln Avenue to the east of the subject property. A Public Way is proposed along the western boundary of the property, extending from Lincoln Avenue through the development and connecting into the existing Private Access drive and parking area of the previous phases of University Town Center. This Public Way will also connect into Wellesley Court and Vassar Court. A 10-foot multi-use path is proposed to run along the Public Way, adjacent to the proposed commercial uses. No buffer will be provided between the proposed general suburban area within the PDD and the proposed multi-family/commercial uses. The GC General Commercial zoning district for commercial uses and MF Multi-Family zoning district for the residential uses are the base zoning districts with a modified list of PDD Planned Development District development standards and uses as described below. The Concept Plan is provided as Exhibit "C."

II. Modifications to Base Zoning:

Dimensional Standards – *Section 6.6. A.7 Farmer' Market*

- Addition of a permanent Farmer's Market allowed by right on the non-residential portion of the property.

Height – *Section 7.1.H.3 Low Density Residential Protection*

- A low-density residential height protection ratio of one to one will apply between any multi-family or commercial uses within the PDD and the existing single-family homes fronting Lincoln Avenue to the east of the subject property.
- No building height setback between the proposed general suburban and the proposed commercial and multi-family land uses.

Signs – *Section 7.5.C, 7.5.D.11 & 7.5.F*

- The general suburban portion of the property is permitted an Area Identification/Subdivision Sign.
- A freestanding sign for the commercial development is allowed along Lincoln Avenue within the PDD boundary.
- The commercial portion of the property is permitted one Campus Wayfinding Sign that may be located along the Public Way. The maximum area allowed for the Wayfinding Sign is 60 square feet.

- Each non-residential building shall be permitted a Low-Profile Sign.

<u>Landscaping/Streetscaping</u> – ***Section 7.6.D.2 & 4 Streetscape & Parking Screening***

- Streetscaping will only be provided on the commercial side of the proposed Public Way.
- Parking screening is not required along the proposed Public Way.

<u>Buffer</u> – ***Section 7.7.F Minimum Buffer Standards***

- No buffer will be required between the proposed non-residential uses and residential uses.

<u>Outdoor Storage and Display</u> – ***Section 7.12.2***

- No screening or enclosure will be required for the Outdoor Sales Area as it relates to the proposed Farmers' Market.

<u>Subdivision Regulations</u> – ***Section 8.3.G.1 & 4 Blocks***

- A single tier or row of single-family lots may be platted along Lincoln Avenue within the general suburban area show on the concept Plan.
- This property shall not be subject to maximum block perimeter requirements.

Community Benefits and Additional Enhancements

The following community benefits, additional enhancements or improvements have been

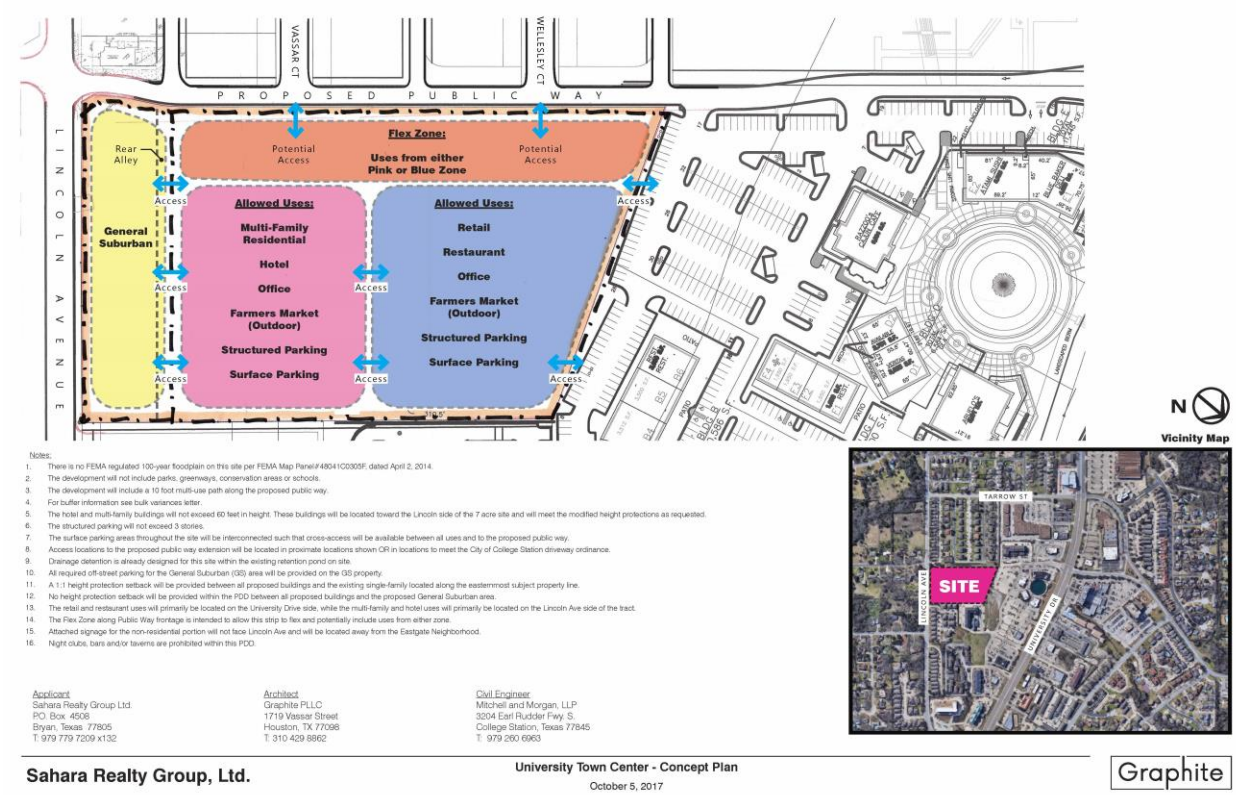
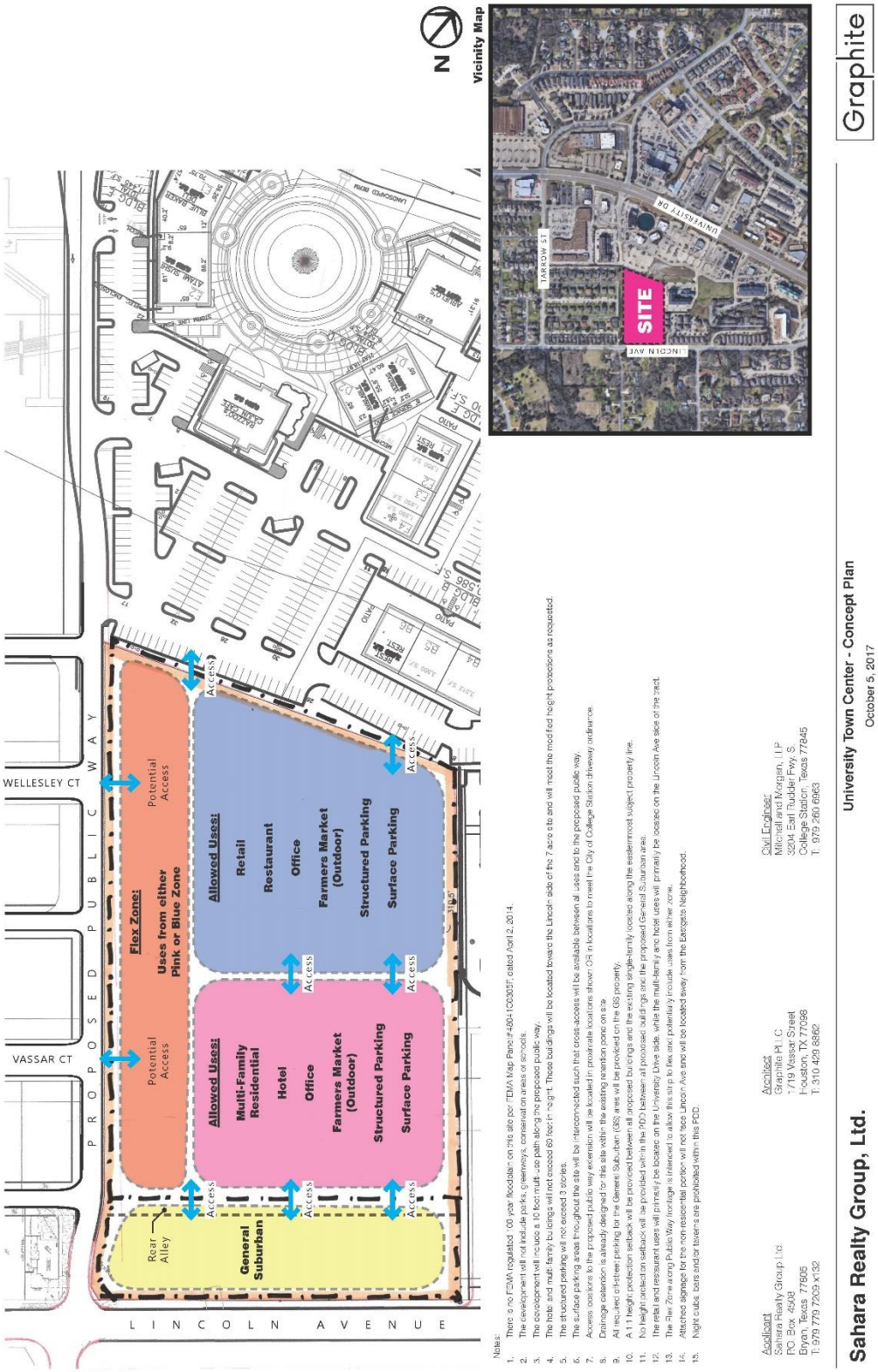


Exhibit C – Concept Plan



Notes:

1. There is no FEMA regulated '00 year floodplain on this site per FEMA Map Panel #48041C0305F, dated April 2, 2014.
2. The development will not include parks, greenways, conservation areas or schools.
3. The development will include a 10 foot multi-use path along the proposed public way.
4. The hotel and multi-family buildings will not exceed 60 feet in height. These buildings will be located toward the Lincoln side of the 7 acre site and will meet the modified height projections as requested.
5. The structured parking will not exceed 3 stories.
6. The surface parking areas throughout the site will be interconnected such that cross-access will be available between all uses and to the proposed public way.
7. Access easements to the proposed public way extension will be located in proximate locations shown on a locations to meet the City of College Station driveway ordinance.
8. Drainage detention is already designed for this site within the existing retention pond on site.
9. All required off-street parking for the General Suburban (GS) area will be provided on the GS property.
10. A 1:1 height protection setback will be provided between all proposed buildings and the existing single-family located along the eastern most subject property line.
11. No height protection setback will be provided within the PDD between all proposed buildings and the proposed General Suburban area.
12. The retail and restaurant uses will primarily be located on the University Drive side, while the multi-family and hotel uses will primarily be located on the Lincoln Ave side of the tract.
13. The Flex Zone along Public Way frontage is intended to allow this strip to flex and potentially include uses from either zone.
14. Attached signage for the non-residential portion will not face Lincoln Ave and will be located away from the Eastgate Neighborhood.
15. Night clubs, bars and/or taverns are prohibited within this PDD.

Applicant
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Civil Engineer:
Millcraft and Morgan, LLP
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College Station, Texas 77845
T: 979.260.6963

Legislation Details (With Text)

File #:	17-0651	**Version:**	1	**Name:**	Right-of-Way Abandonment - Corsair Drive
Type:	Ordinance			**Status:**	Agenda Ready
File created:	10/25/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Public Hearing, presentation, possible action, and discussion approving an ordinance vacating and abandoning a 0.132 acre portion of Right-of-Way of Corsair Drive, lying along Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas.				
Sponsors:	Carol Cotter				
Indexes:					
Code sections:					
Attachments:	VICINITY MAP LOCATION MAP Ordinance Exhibit A				

Date	Ver.	Action By	Action	Result

Public Hearing, presentation, possible action, and discussion approving an ordinance vacating and abandoning a 0.132 acre portion of Right-of-Way of Corsair Drive, lying along Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas.

Relationship to Strategic Goals:

- Good Governance
- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation(s): Staff recommends approval of the ordinance.

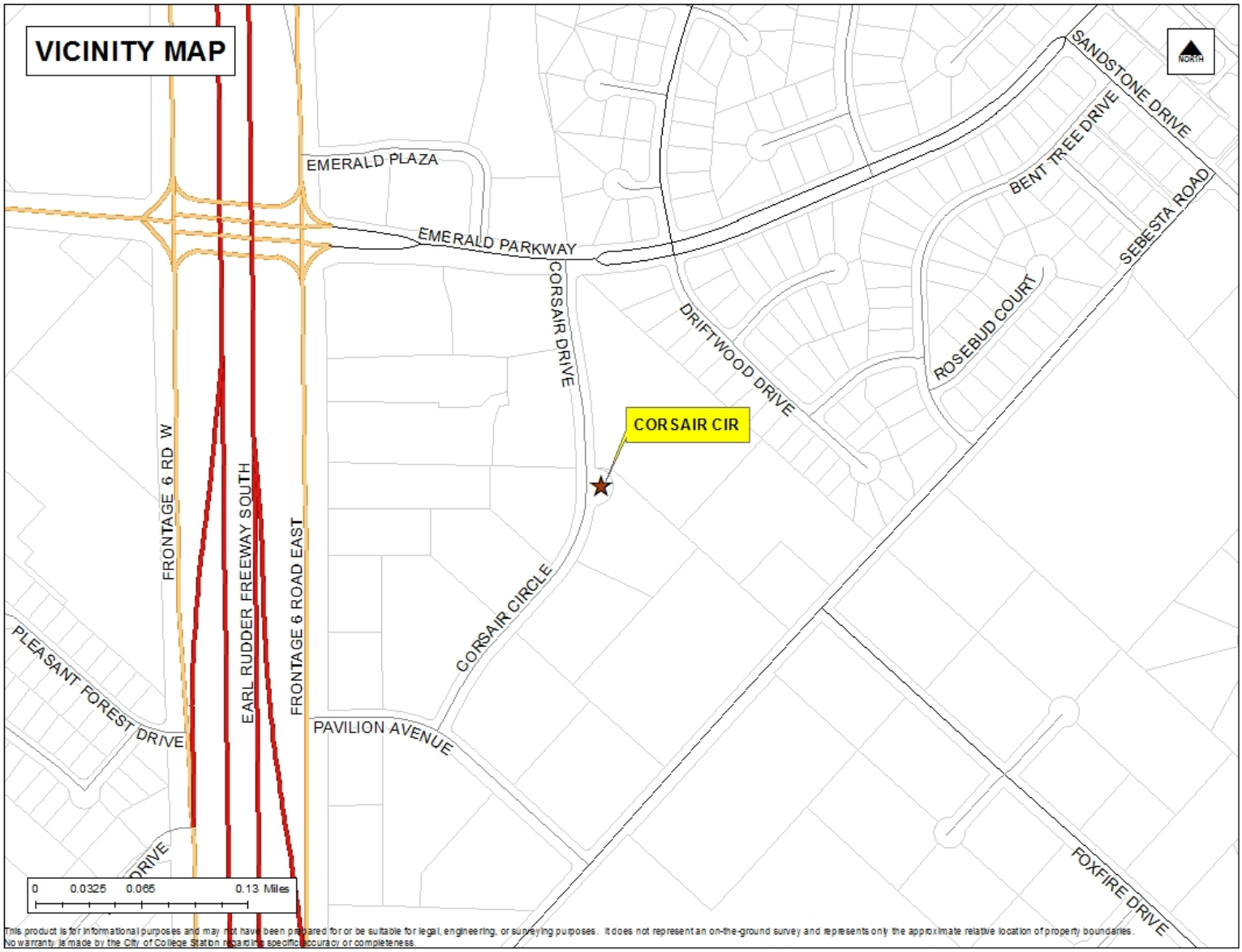
Summary: This right-of-way abandonment will accommodate future development along Corsair Drive. A sanitary sewer main exists in the right-of-way described above and a Public Utility Easement (PUE) will be retained on the property until a specific PUE is dedicated. A replat of the lot to incorporate the abandoned right-of-way is currently being processed and will dedicate the required PUE.

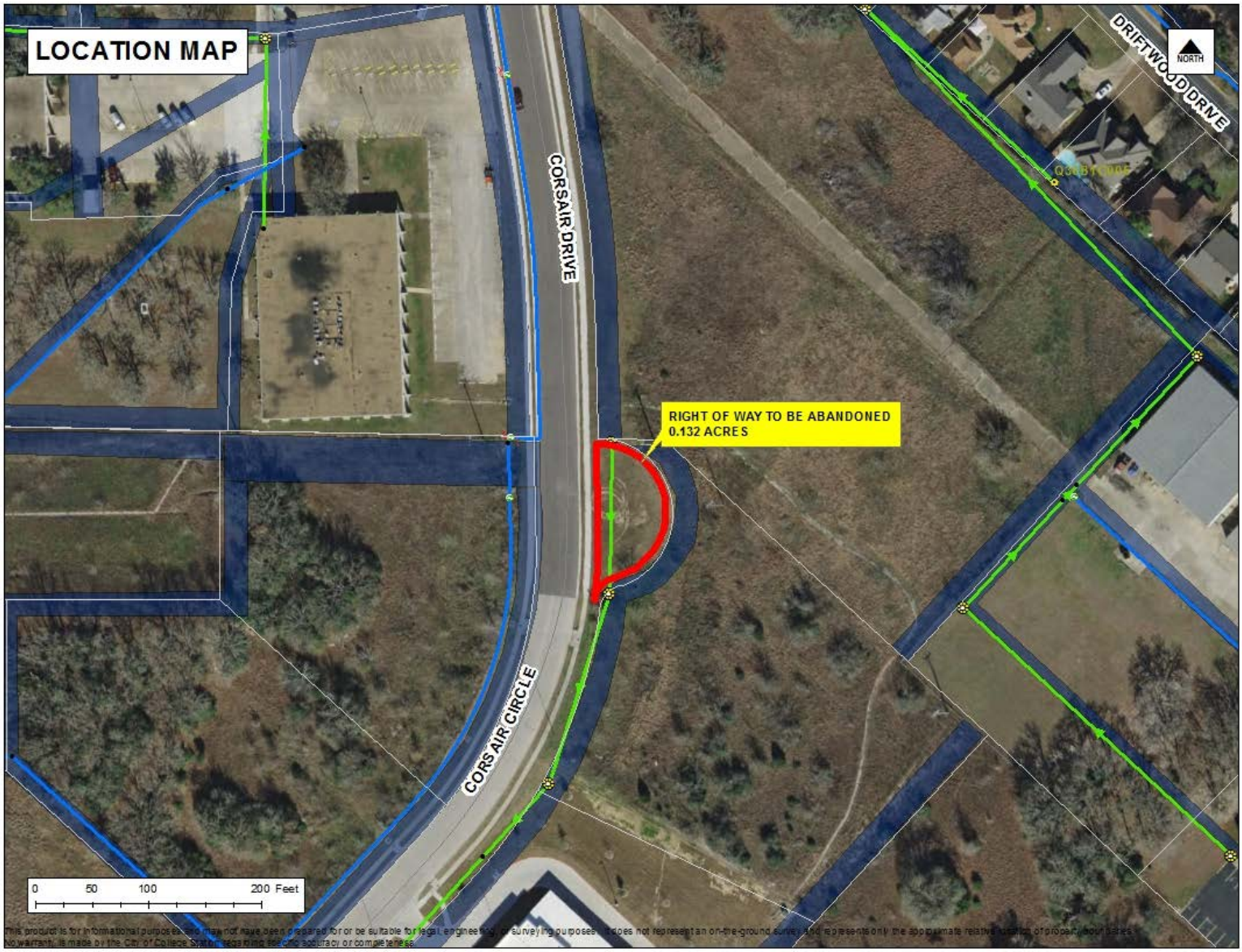
The 0.132 acre right-of-way is located adjacent to Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County.

Budget & Financial Summary: N/A

Attachments:

1. Vicinity Map
2. Location Map
3. Ordinance
4. Ordinance Exhibit “A”


VICINITY MAP
NORTH
EMERALD PLAZA
EMERALD PARKWAY
CORSAIR DRIVE
DRIFTWOOD DRIVE
ROSEBUD COURT
BENT TREE DRIVE
SANDSTONE DRIVE
SEBESTA ROAD
CORSAIR CIR
FRONTAGE 6 RD W
EARL RUDDER FREEWAY SOUTH
FRONTAGE 6 ROAD EAST
CORSAIR CIRCLE
PLEASANT FOREST DRIVE
PAVILION AVENUE
FOXFIRE DRIVE
0 0.0325 0.065 0.13 Miles
This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.
No warranty is made by the City of College Station regarding specific accuracy or completeness.


LOCATION MAP
NORTH
DRIFTWOOD DRIVE
CORSAIR DRIVE
CORSAIR CIRCLE
RIGHT OF WAY TO BE ABANDONED
0.132 ACRES
0 50 100 200 Feet

ORDINANCE NO. _____

AN ORDINANCE MAKING CERTAIN AFFIRMATIVE FINDINGS AND VACATING AND ABANDONING A 0.132 ACRE PORTION OF THE RIGHT-OF-WAY OF CORSAIR DRIVE, SAID PORTION LYING ALONG LOT 11 OF THE CENTURY HILL DEVELOPMENT SUBDIVISION, ACCORDING TO THE PLAT RECORDED IN VOLUME 7623, PAGE 231 OF THE DEED RECORDS OF BRAZOS COUNTY, TEXAS.

WHEREAS, the City of College Station, Texas, has received an application for the vacation and abandonment of a 0.132 acre portion of the 120–foot width Right-of-Way of Corsair Drive, said portion lying along Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas, as described in Exhibit "A" attached hereto (such portion hereinafter referred to as the “Right-of-Way”); and

WHEREAS, in order for Right-of-Way to be vacated and abandoned by the City Council of the City of College Station, Texas, the City Council must make certain affirmative findings; now therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That after opening and closing a public hearing, the City Council finds the following pertaining to the vacating and abandoning of the Right-of-Way described in Exhibit "A" attached hereto and made a part of this ordinance for all purposes.

1. Abandonment of the Right-of-Way will not result in property that does not have access to public roadways or utilities.

2. Other than as set forth herein, there is no public need or use for the Right-of-Way;

3. Except as may be provided for in this ordinance, there is no anticipated future public need or use for the Right-of-Way;

4. As set forth in this ordinance, abandonment of the Right-of-Way will not impact access for all public utilities to serve current and future customers;

5. Utility infrastructure exists within the Right-of-way and the City has a continuing need for currently remaining public utilities to

remain within the Right-of-way, and said uses are expressly not abandoned herein; and

PART 2: That the Right-of-Way as described in Exhibit "A" be abandoned and vacated by the City only upon completion of the following conditions:

1. The City shall retain a blanket public utility easement over the entire property, that shall survive this abandonment, until such time that the Applicant, conveys by separate instrument or plat to the City a public utility easement or right-of-way at the location of the sanitary sewer main, in a form acceptable to the City.

PASSED, ADOPTED and APPROVED this _____ day of _____, 2017

ATTEST:

_____
City Secretary

APPROVED:

_____
Mayor

APPROVED:

_____
City Attorney

Exhibit A

METES AND BOUNDS DESCRIPTION
OF A
0.132 ACRE TRACT
CENTURY HILL DEVELOPMENT
COLLEGE STATION, BRAZOS COUNTY, TEXAS

METES AND BOUNDS DESCRIPTION OF ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING SITUATED IN COLLEGE STATION, BRAZOS COUNTY, TEXAS. SAID TRACT BEING A PORTION OF CORSAIR CIRCLE (A 60' WIDE PUBLIC RIGHT-OF-WAY) AS SHOWN ON THE PLAT OF CENTURY HILL DEVELOPMENT RECORDED IN VOLUME 7623, PAGE 231 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS.

SAID TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 5/8 INCH IRON ROD WITH CAP MARKED 'JONES & CARTER CORNER' FOUND (N:10205452.21, E:3569427.20) ON THE EAST LINE OF CORSAIR CIRCLE MARKING THE NORTHWEST CORNER OF SAID LOT 11 AND THE SOUTHWEST CORNER OF LOT 6, EMERALD POINT SUBDIVISION ACCORDING TO THE PLAT RECORDED IN VOLUME 13606, PAGE 14 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS. SAID IRON ROD FOUND MARKING THE BEGINNING OF A CLOCKWISE CURVE HAVING A RADIUS OF 60.00 FEET. FOR REFERENCE, A 5/8 INCH IRON ROD FOUND BEARS: N 88° 39' 40" W FOR A DISTANCE OF 861.81 FEET AND A ½ INCH IRON ROD FOUND IN CONCRETE MARKING THE NORTHEAST CORNER OF SAID LOT 11 BEARS: S 88° 39' 40" E FOR A DISTANCE OF 58.58 FEET (PLAT CALL BEARING: S 88° 40' 04" E, 7623/231). COORDINATES AND BEARING SYSTEM SHOWN HEREIN ARE NAD83 (TEXAS STATE PLANE CENTRAL ZONE – GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-129 (N:10205822.95, E:3568553.08) AND AS ESTABLISHED BY GPS OBSERVATION;

THENCE: ALONG THE EAST LINE OF CORSAIR CIRCLE FOR THE FOLLOWING CALLS:

ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 166° 44' 50" FOR AN ARC DISTANCE OF 174.60 FEET (CHORD BEARS: S 08° 01' 09" E – 119.19 FEET) (PLAT CALL CHORD: S 08° 01' 00" E – 119.20 FEET, 7623/231) TO A POINT MARKING THE END POINT OF SAID CURVE AND THE BEGINNING OF A COUNTER-CLOCKWISE CURVE HAVING A RADIUS OF 25.00 FEET;

ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 67° 48' 02" FOR AN ARC DISTANCE OF 29.58 FEET (CHORD BEARS: S 41° 27' 15" W – 27.89 FEET) (PLAT CALL CHORD: S 41° 27' 23" W – 27.89 FEET, 7623/231) TO A POINT MARKING THE END POINT OF SAID CURVE AND THE BEGINNING OF A COUNTER-CLOCKWISE CURVE HAVING A RADIUS OF 430.00 FEET;

THENCE: THROUGH THE RIGHT-OF-WAY OF CORSAIR CIRCLE FOR THE FOLLOWING CALLS:

ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 08° 59' 37" FOR AN ARC DISTANCE OF 67.49 FEET (CHORD BEARS: N 03° 04' 23" E – 67.42 FEET) TO A POINT MARKING THE END POINT OF SAID CURVE;

N 01° 25' 26" W FOR A DISTANCE OF 71.62 FEET TO THE **POINT OF BEGINNING** CONTAINING 0.132 OF AN ACRE OF LAND (5,759 SQUARE FEET) AS SURVEYED ON THE GROUND AUGUST 2017. SEE PLAT PREPARED AUGUST 2017, FOR MORE DESCRIPTIVE INFORMATION. DISTANCES SHOWN HEREIN ARE GRID DISTANCES. TO DETERMINE SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00010242 (BASED ON THE PUBLISHED SCALE FACTOR OF CS94-129).

BRAD KERR
REGISTERED PROFESSIONAL
LAND SURVEYOR No. 4502

STATE OF TEXAS
REGISTERED
BRAD KERR
4502
PROFESSIONAL
LAND SURVEYOR

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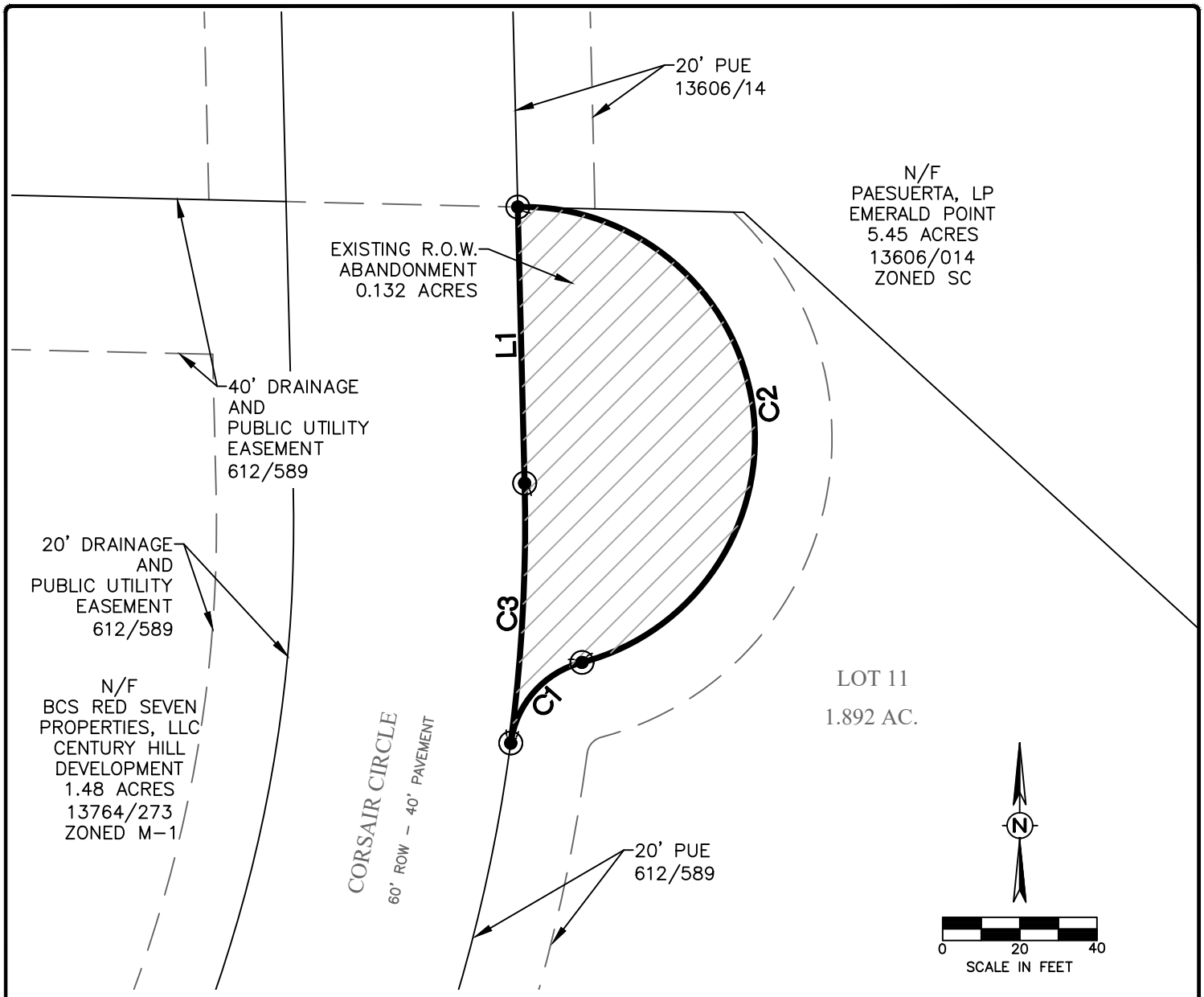
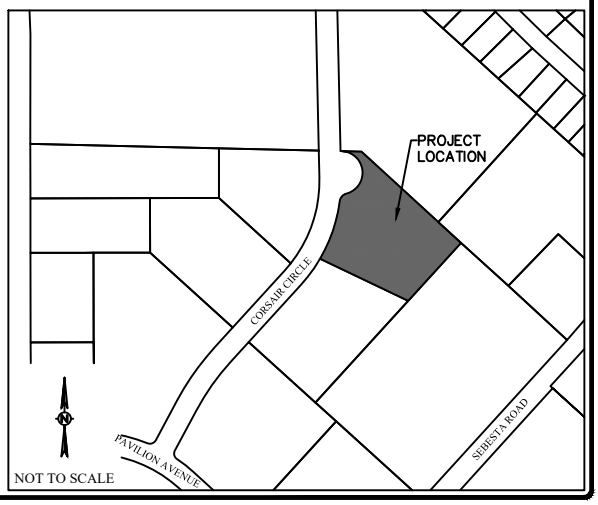


LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	71.62'	N1° 25' 26"W

Curve Table						
CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD DIRECTION
C1	29.58'	25.00'	067°48'02"	16.80'	27.89'	S41°27'15"W
C2	174.60'	59.99'	166°44'50"	516.44'	119.19'	S08°01'09"E
C3	67.49'	429.96'	008°59'37"	33.81'	67.42'	N03°04'23"E

VICINITY MAP



MARK	REVISION	BY	DATE

SCHULTZ Engineering, LLC
911 Southwest Pkwy E.
College Station, TX 77840
979.764.3900
TBPE NO. 12327

SURVEYED	DESIGNED	DRAWN	APPROVED	JOB NO.	DATE
KERR	DLD	DLD	JPS	17-554	JULY 2017

CORSAIR CONDOS
CENTURY HILL DEVELOPMENT
COLLEGE STATION, TEXAS

RIGHT OF WAY ABANDONMENT

SCALE
VERTICAL N/A
HORIZONTAL 1"=40'
PLOTTING SCALE: 1:1
FILE NAME: 17-554

EXHIBIT
2

Legislation Details (With Text)

File #:	17-0652	**Version:**	1	**Name:**	PUE Abandonment – Corsair Drive
Type:	Ordinance			**Status:**	Agenda Ready
File created:	10/25/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Public Hearing, presentation, possible action, and discussion approving an ordinance vacating and abandoning a 0.083 acre portion of a 20 foot wide Public Utility Easement lying within Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas.				
Sponsors:	Carol Cotter				
Indexes:					
Code sections:					
Attachments:	VICINITY MAP LOCATION MAP Ordinance Exhibit A				

Date	Ver.	Action By	Action	Result

Public Hearing, presentation, possible action, and discussion approving an ordinance vacating and abandoning a 0.083 acre portion of a 20 foot wide Public Utility Easement lying within Lot 11 of the Century Hill Development Subdivision, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas.

Relationship to Strategic Goals:

- Good Governance
- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation(s): Staff recommends approval of the ordinance.

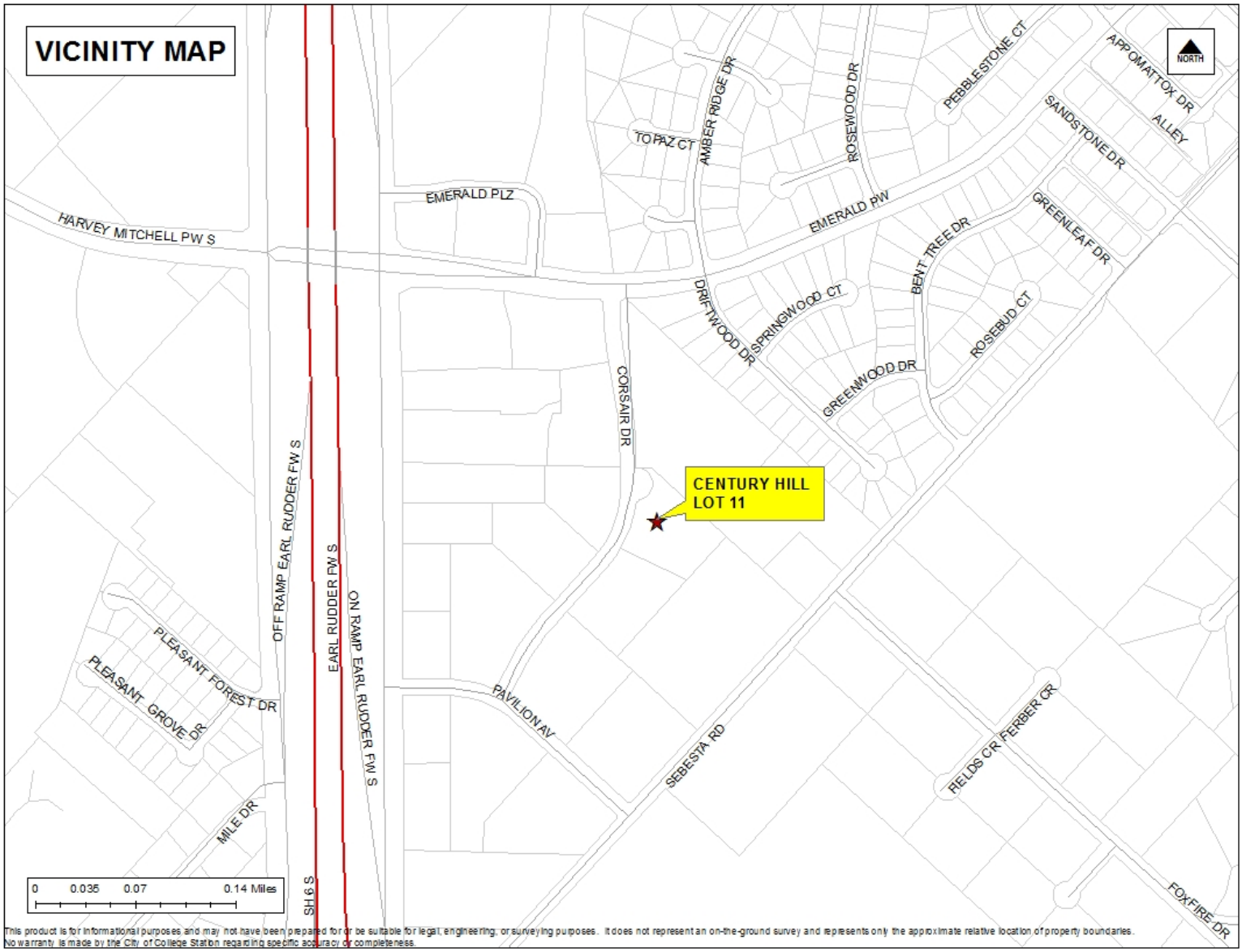
Summary: This Public Utility Easement (PUE) abandonment will accommodate future development of property along Corsair Drive. An electrical conduit and a portion of sanitary sewer line exist within the PUE and a blanket easement has been granted for the tract in order to proceed with this abandonment. With future development, a new PUE will be granted to cover the existing sewer line and the electrical conduit will be relocated with site development to the new PUE.

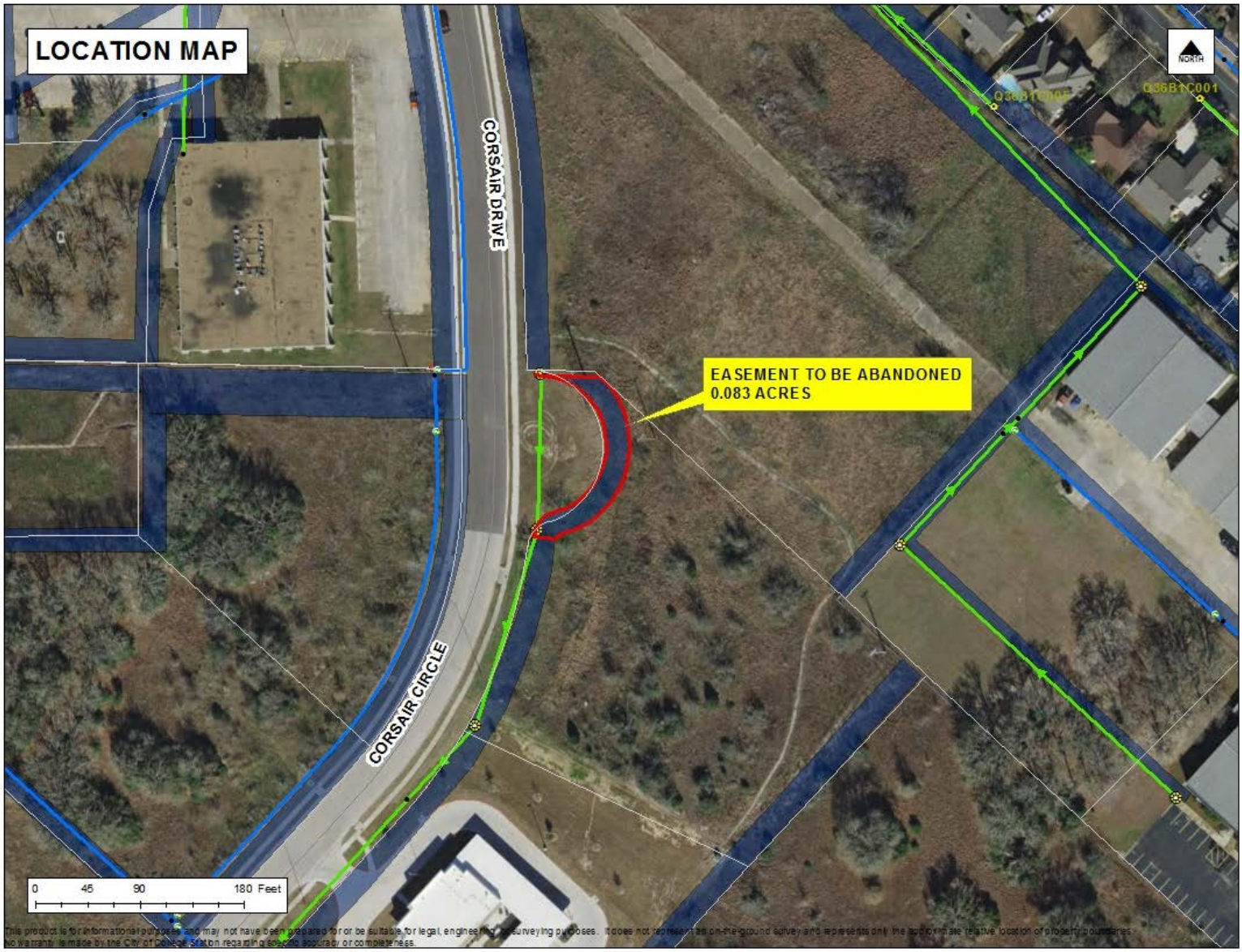
The 0.083 acre portion of the 20-foot public utility easement is located on Lot 11, of the Century Hill Development, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County.

Budget & Financial Summary: N/A

Attachments:

1. Vicinity Map
2. Location Map
3. Ordinance
4. Exhibit “A”


VICINITY MAP
NORTH
CENTURY HILL
LOT 11
HARVEY MITCHELL PW S
EMERALD PLZ
EMERALD PW
TOPAZ CT
AMBER RIDGE DR
ROSEWOOD DR
PEBBLESTONE CT
APPOMATTOX DR
ALLEY
SANDSTONE DR
GREENLEAF DR
BENT TREE DR
DRIFTWOOD DR
SPRINGWOOD CT
ROSEBUD CT
GREENWOOD DR
CORSAIR DR
OFF RAMP EARL RUDDER FW S
EARL RUDDER FW S
ON RAMP EARL RUDDER FW S
PLEASANT FOREST DR
PLEASANT GROVE DR
MILE DR
PAVILION AV
SEBESTA RD
FIELDS CR
FERBER CR
FOXFIRE DR
SH 6 S
0 0.035 0.07 0.14 Miles
This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.
No warranty is made by the City of College Station regarding specific accuracy or completeness.


LOCATION MAP
NORTH
CORSAIR DRIVE
CORSAIR CIRCLE
EASEMENT TO BE ABANDONED
0.083 ACRES
Q36B1C001
0 45 90 180 Feet
This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.
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ORDINANCE NO. _____

AN ORDINANCE MAKING CERTAIN AFFIRMATIVE FINDINGS AND VACATING AND ABANDONING A 0.083 ACRE PORTION OF THE 20-FOOT PUBLIC UTILITY EASEMENT LYING WITHIN LOT 11, OF THE CENTURY HILL DEVELOPMENT SUBDIVISION, ACCORDING TO THE PLAT RECORDED IN VOLUME 7623, PAGE 231 OF THE DEED RECORDS OF BRAZOS COUNTY, TEXAS.

WHEREAS, the City of College Station, Texas, has received an application for the vacation and abandonment of a 0.083 acre Public Utility Easement lying within Lot 11, of the Century Hill Development, according to the plat recorded in Volume 7623, Page 231, of the Deed Records of Brazos County, Texas, as described in Exhibit "A" attached hereto (such portion hereinafter referred to as the “Public Utility Easement”); and

WHEREAS, in order for the Public Utility Easement to be vacated and abandoned by the City Council of the City of College Station, Texas, the City Council must make certain affirmative findings; now therefore,

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

PART 1: That after opening and closing a public hearing, the City Council finds the following pertaining to the vacating and abandoning of the Public Utility Easement described in Exhibit "A" attached hereto and made a part of this ordinance for all purposes.

1. Abandonment of the Public Utility Easement will not result in property that does not have access to public roadways or utilities.

2. There is no public need or use for the Public Utility Easement.

3. There is no anticipated future public need or use for the Public Utility Easement.

4. Abandonment of the Public Utility Easement will not impact access for all public utilities to serve current and future customers.

PART 2: That the Public Utility Easement as described in Exhibit “A” be abandoned and vacated by the City.

PASSED, ADOPTED and APPROVED this _____ day of _____, 2017

ATTEST:

_____
City Secretary

APPROVED:

_____
Mayor

APPROVED:

_____
City Attorney

METES AND BOUNDS DESCRIPTION
OF A
0.083 ACRE TRACT
CENTURY HILL DEVELOPMENT
COLLEGE STATION, BRAZOS COUNTY, TEXAS

METES AND BOUNDS DESCRIPTION OF ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING SITUATED IN COLLEGE STATION, BRAZOS COUNTY, TEXAS. SAID TRACT BEING A PORTION OF A 20' WIDE PUBLIC UTILITY EASEMENT AS SHOWN ON THE PLAT OF CENTURY HILL DEVELOPMENT RECORDED IN VOLUME 7623, PAGE 231 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS.

SAID TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 5/8 INCH IRON ROD WITH CAP MARKED 'JONES & CARTER CORNER' FOUND (N:10205452.21, E:3569427.20) ON THE EAST LINE OF CORSAIR CIRCLE (60' R.O.W.) MARKING THE NORTHWEST CORNER OF LOT 11 OF SAID CENTURY HILL DEVELOPMENT AND THE SOUTHWEST CORNER OF LOT 6, EMERALD POINT SUBDIVISION ACCORDING TO THE PLAT RECORDED IN VOLUME 13606, PAGE 14 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS. FOR REFERENCE, A 5/8 INCH IRON ROD FOUND BEARS: N 88° 39' 40" W FOR A DISTANCE OF 861.81 FEET. COORDINATES AND BEARING SYSTEM SHOWN HEREIN ARE NAD83 (TEXAS STATE PLANE CENTRAL ZONE – GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF COLLEGE STATION CONTROL MONUMENT CS94-129 (N:10205822.95, E:3568553.08) AND AS ESTABLISHED BY GPS OBSERVATION;

THENCE: S 88° 39' 40" E ALONG THE COMMON LINE OF SAID LOTS 6 AND 11 (PLAT CALL BEARING: S 88° 40' 04" E, 7623/231) FOR A DISTANCE OF 55.85 FEET TO A POINT MARKING THE NORTHEAST CORNER OF SAID EASEMENT. SAID POINT MARKING THE BEGINNING OF A CLOCKWISE CURVE HAVING A RADIUS OF 80.00 FEET. FOR REFERENCE, A ½ INCH IRON ROD FOUND IN CONCRETE MARKING THE NORTHEAST CORNER OF SAID LOT 11 BEARS: S 88° 39' 40" E FOR A DISTANCE OF 2.73 FEET;

THENCE: THROUGH SAID LOT 11 AND ALONG THE EAST LINE OF SAID EASEMENT FOR THE FOLLOWING CALLS:

> ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 122° 31' 51" FOR AN ARC DISTANCE OF 171.07 FEET (CHORD BEARS: S 14° 05' 20" W – 140.29 FEET) TO A POINT MARKING THE END POINT OF SAID CURVE AND THE BEGINNING OF A COUNTER-CLOCKWISE CURVE HAVING A RADIUS OF 5.00 FEET;
>
> ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 67° 48' 02" FOR AN ARC DISTANCE OF 5.92 FEET (CHORD BEARS: S 41° 25' 20" W – 5.58 FEET) TO A POINT MARKING THE END POINT OF SAID CURVE;

THENCE: N 82° 25' 48" W CONTINUING THROUGH SAID LOT 11 FOR A DISTANCE OF 20.00 FEET TO A POINT ON THE EAST LINE OF CORSAIR CIRCLE MARKING THE BEGINNING OF A CLOCKWISE CURVE HAVING A RADIUS OF 25.00 FEET;

THENCE: ALONG THE EAST LINE OF CORSAIR CIRCLE FOR THE FOLLOWING CALLS:

ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 67° 48' 02" FOR AN ARC DISTANCE OF 29.58 FEET (CHORD BEARS: N 41° 27' 15" E – 27.89 FEET) (PLAT CALL CHORD: N 41° 27' 23" W – 27.89 FEET, 7623/231) TO A POINT MARKING THE END POINT OF SAID CURVE AND THE BEGINNING OF A COUNTER-CLOCKWISE CURVE HAVING A RADIUS OF 60.00 FEET;

ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 166° 44' 50" FOR AN ARC DISTANCE OF 174.60 FEET (CHORD BEARS: N 08° 01' 09" W – 119.19 FEET) (PLAT CALL CHORD: N 08° 01' 00" W – 119.20 FEET, 7623/231) TO THE **POINT OF BEGINNING** CONTAINING 0.083 OF AN ACRE OF LAND (3,634 SQUARE FEET) AS SURVEYED ON THE GROUND AUGUST 2017. DISTANCES SHOWN HEREIN ARE GRID DISTANCES. TO DETERMINE SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00010242 (BASED ON THE PUBLISHED SCALE FACTOR OF CS94-129).

BRAD KERR
REGISTERED PROFESSIONAL
LAND SURVEYOR No. 4502

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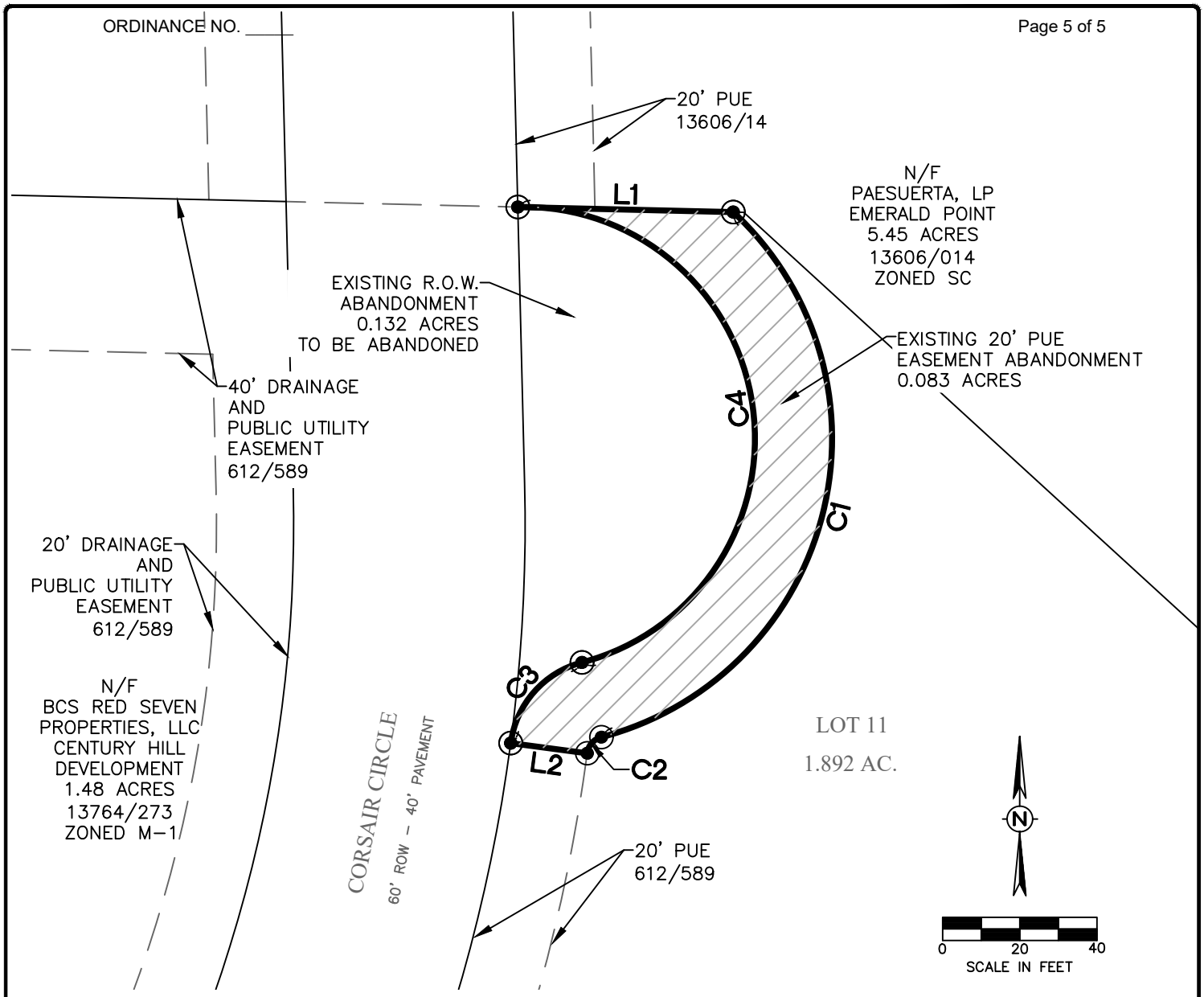
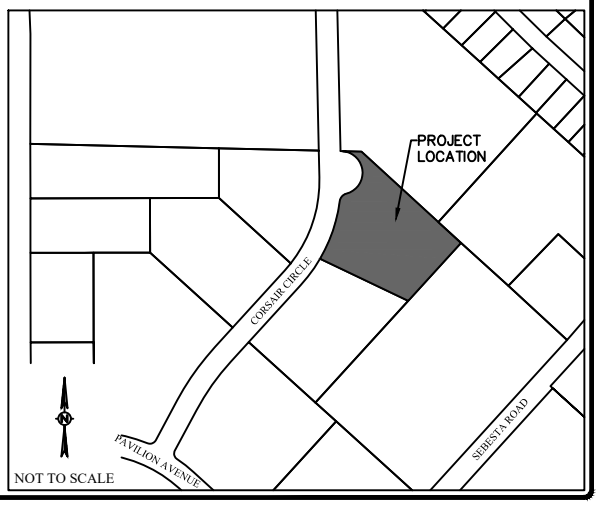
STATE OF TEXAS
REGISTERED
BRAD KERR
4502
PROFESSIONAL
LAND SURVEYOR



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	55.85'	S88° 39' 40"E
L2	20.00'	N82° 25' 48"W

Curve Table						
CURVE #	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD DIRECTION
C1	171.07'	79.99'	122°31'51"	145.90'	140.29'	S14°05'20"W
C2	5.92'	5.00'	067°48'02"	3.36'	5.58'	S41°25'20"W
C3	29.58'	25.00'	067°48'02"	16.80'	27.89'	N41°27'15"E
C4	174.60'	60.00'	166°44'50"	516.44'	119.19'	N08°01'09"W

VICINITY MAP



MARK	REVISION	BY	DATE

SCHULTZ Engineering, LLC
911 Southwest Pkwy E.
College Station, TX 77840
979.764.3900
TBPE NO. 12327

SURVEYED	DESIGNED	DRAWN	APPROVED	JOB NO.	DATE
KERR	DLD	DLD	JPS	17-554	AUGUST 2017

LOT 11
CENTURY HILL DEVELOPMENT
COLLEGE STATION, TEXAS

20' PUBLIC UTILITY EASEMENT ABANDONMENT

SCALE
VERTICAL N/A
HORIZONTAL 1"=40'
PLOTTING SCALE: 1:1
FILE NAME: 17-554

EXHIBIT
2

College Station, TX

City Hall
1101 Texas Ave
College Station, TX 77840

Legislation Details (With Text)

File #:	17-0671	**Version:**	1	**Name:**	Brazos Central Appraisal District Appointment
Type:	Appointment			**Status:**	Agenda Ready
File created:	10/31/2017			**In control:**	City Council Regular
On agenda:	11/9/2017			**Final action:**	
Title:	Presentation, possible action, and discussion regarding an appointment to the Brazos Central Appraisal District.				
Sponsors:	Tanya Smith				
Indexes:					
Code sections:					
Attachments:					

Date	Ver.	Action By	Action	Result

Presentation, possible action, and discussion regarding an appointment to the Brazos Central Appraisal District.

Relationship to Strategic Goals:

- Good Governance

Recommendation(s): None

Summary: Ron Kaiser currently serves on the Brazos Central Appraisal District Board. Mr. Kaiser's term expires on December 31, 2017, requiring the Council to appoint a new member. There are no term limits if the Council chooses to re-appoint Mr. Kaiser to the Board.

Budget & Financial Summary: None

Attachments: None

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