



# College Station, TX

City Hall  
1101 Texas Ave  
College Station, TX 77840

## Meeting Agenda - Final

### City Council Regular

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**Thursday, April 28, 2016**

**7:00 PM**

**City Hall Council Chambers**

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

#### **Presentations:**

- Presentation proclaiming May 1-7, 2016 as Bryan-College Station Travel and Tourism Week.
- Recognition of the City Internal Auditor, recipient of the 2015 Exemplary Knighton Award in the Extra-Small Shop Category for the Streets Maintenance Audit.
- Presentation proclaiming May 4, 2016 as International Fire Fighter's Day.

Hear Visitors: 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. Please limit remarks to three minutes. A timer alarm will sound after 2 1/2 minutes to signal thirty seconds remaining to conclude your remarks. The City Council will receive the information, 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. [16-0233](#) Presentation, possible action, and discussion of minutes for:
- April 14, 2016 Workshop
  - April 14, 2016 Regular Meeting

#### **Sponsors:**

Mashburn

**Attachments:** [WKSHPO41416 DRAFT Minutes](#)  
[RM041416 DRAFT Minutes](#)

- 2b. [16-0059](#) Presentation, possible action, and discussion on a Resolution allowing the Mayor to sign a Gateway Monument Agreement with the Texas Department of Transportation (TXDoT) for the City of College Station to construct and maintain a Gateway Monument within TXDoT right-of-way.

**Sponsors:** Harmon

**Attachments:** [CoCS-Interlocal Gateway Mon\\_02252016.pdf](#)  
[Resolution.pdf](#)

- 2c. [16-0206](#) Presentation, possible action, and discussion regarding approval of the Brazos Valley Wide Area Communications System (BVWACS) Operating Budget for FY 17 and authorizing the City's quarterly payments of approximately \$43,885.08 for an annual total of \$175,540.19; and approval of the BVWACS Capital Equipment Replacement Reserve Fund Budget for FY 17 and payment of the City's share in the amount of \$96,612.65.

**Sponsors:** Roper

**Attachments:** [FY2016 - 2017 Allocations](#)

- 2d. [16-0207](#) Presentation, possible action, and discussion on approving the purchase of various weapons, ammunition and body armor from GT Distributors, Inc. through the BuyBoard Purchasing Cooperative (Contract 432-13) and the Texas Procurement and Support Services (Contract 680-A1) for the not-to-exceed amount of \$89,533.98.

**Sponsors:** Norris

**Attachments:** [Bid Award to GT Distributors](#)

- 2e. [16-0209](#) Presentation, possible action, and discussion regarding a contract with Green Teams for \$797,783 (Contract No. 16300375) for landscape maintenance and presentation, possible action and discussion regarding a contract with Grassmasters for \$147,735 (Contract No. 16300376) for landscape maintenance, total price of both contracts is \$945,518.

**Sponsors:** Harmon

- 2f. [16-0210](#) Presentation, possible action, and discussion to approve a closeout payment of \$194,520.93 pursuant to the 2012 Advance Funding Agreement with State of Texas (TxDOT) for the Rock Prairie Road Bridge Improvements.

**Sponsors:** Harmon

**Attachments:** [0049-12-086Ltr for Add \\$.pdf](#)

- 2g. [16-0215](#) Presentation, possible action, and discussion regarding an annual agreement with Texas A&M University for Fitlife testing for Fire Fighters in the amount of \$61,965.

**Sponsors:** Hurt and Warren

**Attachments:** [16300392 TAMU FitLife Agreement for Fire Dept. 4.18.16](#)

## Regular Agenda

At the discretion of the Mayor, individuals may be allowed to speak on a Regular Agenda Item. Individuals who wish to address the City Council on a regular 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.

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. The Mayor will recognize individuals who wish to come forward to speak for or against the item. The speaker will state their name and address for the record and allowed three minutes. A timer alarm will sound at 2 1/2 minutes to signal thirty seconds remaining to conclude 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.

If an individual does not wish to address the City Council, but still wishes to be recorded in the official minutes as being in support or opposition to an agenda item, the individual may complete the registration form provided in the lobby by providing the name, address, and comments about a city related subject. These comments will be referred to the City Council and City Manager.

1. [16-0223](#) Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from C-3 Light Commercial to GS General Suburban for approximately 0.3902 acres being Lots 1 and 2, Block 4 of the Prairie Heights Addition, generally located at 604 Tarrow Street.

**Sponsors:** Bombek

**Attachments:** [Background](#)  
[Aerial and Small Area Map](#)  
[Ordinance](#)

2. [16-0224](#) Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from R Rural to SC Suburban Commercial for approximately 1/2 acre being a portion of Lots 1, 2, and 3, Block A of the Benjamin Graham Subdivision, generally located at 14941 FM 2154, more generally located north of the intersection of Greens Prairie Road West and Wellborn Road (FM 2154).

**Sponsors:**

Bullock

**Attachments:**

[Background Information](#)

[Aerial and Small Area Map \(SAM\)](#)

[Ordinance](#)

3. [16-0225](#) Public Hearing, presentation, possible action, and discussion regarding approving an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from R Rural to SC Suburban Commercial for approximately 3.098 acres being situated in the Samuel Davidson League, Abstract No. 13, Brazos County, Texas, said tract being a portion of the remainder of a called 33.70 acre tract described as third tract by a deed to Keren Eidson recorded in Volume 300, Page 609 of the deed records of Brazos County, Texas, generally located between Wellborn Road (FM 2154) and Royder Road, near Greens Prairie Road West.

**Sponsors:**

Bombek

**Attachments:**

[Background](#)

[Aerial and Small Area Map](#)

[Ordinance](#)

4. [16-0226](#) Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from O Office to GC General Commercial for approximately 1/2 acre being Lots 1 and 2 less 5 feet, Block A for the College Heights Subdivision of the Official Records of Brazos County, College Station, Texas, generally located at 209 University Drive, more generally located at the northwest corner of University Drive East and Eisenhower Street.

**Sponsors:** Bombek

**Attachments:** [Background](#)  
[Aerial and Small Area Map](#)  
[Ordinance](#)

5. [16-0227](#) Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "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 PDD Planned Development District for approximately 4.2566 acres being all of Lots 1, 2A, and 2B, Block A of the Petterak Subdivision and a 0.768 acre tract of land conveyed to Myrna Hughes (previous in chain), as described in deed recorded in Volume 889, Page 315 of the said Official Public Records, and further being that same tract of land conveyed to 803 Wellborn. Ltd. as described in deeds recorded in Volume 1375, Page 164, Volume 2515, Page 169, Volume 7667, Page 148, and Volume 11337, Page 184, all of the said Official Public Records of Brazos County, College Station, Texas, generally located at 801 Wellborn Road, more generally located at the southeast corner of Wellborn Road and Luther Street.

**Sponsors:** Bombek

**Attachments:** [Background](#)  
[Aerial and Small Area Map](#)  
[Ordinance](#)

6. [16-0228](#) Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.0506 acre portion of a 15-foot width alley right-of-way, said portion lying between Lots 1, 2 and 3 & Lot 7, Block 4, of the West Park Addition, according to the plat recorded in Volume 102, Page 198, of the Deed Records of Brazos County, Texas.

**Sponsors:** Cotter

**Attachments:** [Vicinity Map](#)  
[Location Map](#)  
[Ordinance](#)  
[Exhibit A](#)

7. [16-0229](#) Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.3263 acre portion of a 20-foot wide electrical easement which is located at

801 Wellborn Road further described as Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

**Sponsors:**

Cotter

**Attachments:**[Vicinity Map](#)[Location Map](#)[Ordinance](#)[Exhibit A](#)

8. [16-0230](#) Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.1962 acre portion of a 12-foot wide sanitary sewer easement which is located at 801 Wellborn Road further described as Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

**Sponsors:**

Cotter

**Attachments:**[Vicinity Map](#)[Location Map](#)[Ordinance](#)[Exhibit A.pdf](#)

9. [16-0221](#) Public Hearing, presentation, possible action, and discussion regarding approval of a Strategic Partnership Agreement with the Brazos County Municipal Utility District No. 1, outlining the terms and conditions for annexation.

**Sponsors:**

Simms

**Attachments:**[Vicinity Map](#)[Strategic Partnership Agreement](#)

10. [16-0222](#) Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending the College Station Comprehensive Plan by amending text in Chapter 8, "Growth Management & Capacity", addressing revisions as recommended by the Annexation Task Force.

**Sponsors:** Simms

**Attachments:** [Summary of Changes.pdf](#)  
[Ordinance.](#)  
[Exhibit B](#)  
[Map 8.1](#)

11. [16-0235](#) Public Hearing, presentation, possible action, and discussion regarding an ordinance to adopt corrections to the 2015 International Fire Codes.

**Sponsors:** Dotson

**Attachments:** [Ordinance 4-12-2016.docx](#)

12. [16-0208](#) Presentation, possible action, and discussion regarding appointment of a Chair to the Zoning Board of Adjustments.

**Sponsors:** Mashburn

### 13. 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 April 22, 2016 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](mailto: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 #:** 16-0233      **Version:** 1      **Name:** Minutes  
**Type:** Minutes      **Status:** Consent Agenda  
**File created:** 4/15/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**  
**Title:** Presentation, possible action, and discussion of minutes for:  
· April 14, 2016 Workshop  
· April 14, 2016 Regular Meeting  
**Sponsors:** Sherry Mashburn  
**Indexes:**  
**Code sections:**  
**Attachments:** [WKSHP041416 DRAFT Minutes](#)  
[RM041416 DRAFT Minutes](#)

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion of minutes for:

- April 14, 2016 Workshop
- April 14, 2016 Regular Meeting

Relationship to Strategic Goals:

- Good Governance

Recommendation(s): Approval

Summary: None

Budget & Financial Summary: None

Attachments:

- April 14, 2016 Workshop
- April 14, 2016 Regular Meeting

MINUTES OF THE CITY COUNCIL WORKSHOP  
CITY OF COLLEGE STATION  
APRIL 14, 2016

STATE OF TEXAS           §  
  §  
COUNTY OF BRAZOS       §

**Present:**

Nancy Berry, Mayor

**Council:**

Blanche Brick  
Steve Aldrich, arrived after roll call  
Karl Mooney  
John Nichols  
Julie Schultz, arrived after roll call  
James Benham, arrived after roll call

**TAMU Student Liaison**

Wayne Beckermann, VP/Municipal Affairs  
Absent

**City Staff:**

Kelly Templin, City Manager  
Chuck Gilman, Deputy City Manager  
Carla Robinson, City Attorney  
Sherry Mashburn, City Secretary  
Tanya McNutt, Deputy City Secretary

**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 Berry at 5:00 p.m. on Thursday, April 14, 2016 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, §551.072-Real Estate, and §551.074-Personnel, the College Station City Council convened into Executive Session at 5:02 p.m. on Thursday, April 14, 2016 in order to continue discussing matters pertaining to:

- A. Consultation with Attorney to seek advice regarding pending or contemplated litigation; to wit:
- Juliao v. City of College Station, Cause No. 14-002168-CV-272, in the 272<sup>nd</sup> District Court of Brazos County, Texas

B. Consultation with Attorney to seek legal advice; to wit:

- Legal advice related to the proposed economic development non-profit corporation.

C. Deliberation on the purchase, exchange, lease or value of real property; to wit:

- Property located generally in the west side ETJ area adjacent to the College Station, Brazos County, Texas, city limits on North Dowling Rd.

D. Deliberation on the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer; to wit:

- Council Self Evaluation

The Executive Session adjourned at 6:09 p.m.

**3. Take action, if any, on Executive Session.**

There was no action required from Executive Session.

**4. Presentation, possible action, and discussion on items listed on the consent agenda.**

No items were pulled for clarification.

**5. Presentation, possible action, and discussion regarding Emergency Response Preparedness.**

Charles Fleeger, Assistant Police Chief, City of College Station; Cory Matthews, Assistant EMS Chief, City of Bryan; Jon Ballard, Apparatus Operator, City of College Station Fire Department; and Sgt. James Woodward, College Station Bomb Squad; updated the Council on regional search and rescue assets, as well as emergency preparedness resources, operational capacity, and activation/utilization guidelines.

**6. Council Calendar**

Council reviewed the calendar.

**7. Presentation, possible action, and discussion on future agenda items: a Councilmember 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.**

There were no future agenda items.

**8. 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, Convention & Visitors Bureau, Design Review Board, Economic Development Committee, Gigabit Broadband Initiative, 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 Student Senate, Texas Municipal League, Twin City Endowment, Youth Advisory Council, Zoning Board of Adjustments,**

Mayor Berry reported on the COG.

Councilmember Benham reported on the Broadband Summit.

Councilmember Mooney reported on the YMCA Advisory Council.

## **9. Adjournment**

There being no further business, Mayor Berry adjourned the workshop of the College Station City Council at 6:54 p.m. on Thursday, April 14, 2016.

\_\_\_\_\_  
Nancy Berry, Mayor

ATTEST:

\_\_\_\_\_  
Sherry Mashburn, City Secretary

MINUTES OF THE REGULAR CITY COUNCIL MEETING  
CITY OF COLLEGE STATION  
APRIL 14, 2016

STATE OF TEXAS           §  
  §  
COUNTY OF BRAZOS       §

**Present:**

Nancy Berry, Mayor

**Council:**

Blanche Brick  
Steve Aldrich  
Karl Mooney  
John Nichols  
Julie Schultz  
James Benham

**City Staff:**

Kelly Templin, City Manager  
Carla Robinson, City Attorney  
Chuck Gilman, Deputy City Manager  
Sherry Mashburn, City Secretary  
Tanya McNutt, Deputy City Secretary

**TAMU Student Liaison**

Wayne Beckermann, VP/Municipal Affairs  
Absent

**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 Berry at 7:00 p.m. on Thursday, April 14, 2016 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.**

**Hear Visitors Comments**

Ben Roper, 5449 Prairie Dawn Ct., came before Council to honor the service and sacrifice of Specialist Larry E. Polley, Jr.

Rick Dusold, 4602 Oakmont, thanked Council for the recycle program and expressed his appreciation for the quality work being done on Pebble Creek Parkway,

**CONSENT AGENDA**

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

- **March 31, 2016 Workshop**
- **March 31, 2016 Regular Meeting**

**2b. Presentation, possible action, and discussion on purchase quote with Med-Eng, LLC for the purchase of two (2) new Explosive Ordnance Device suits for a total amount of \$64,247.98.**

**2c. Presentation, possible action, and discussion regarding approval of a professional services contract #15300410 with Dunham Engineering for \$50,000 to provide design services to recoat four clarifiers at the Carters Creek Wastewater Treatment Plant.**

**2d. Presentation, possible action, and discussion on a construction contract with Progressive Commercial Aquatics, Inc. for \$79,722 for painting and repairs to the Adamson Lagoon flume slides and slide structures.**

**2e. Presentation, possible action, and discussion on Resolution 04-14-16-2e, amending the authorized representatives on the local government pool account, TexPool.**

**2f. Presentation, possible action, and discussion on Resolution 04-14-16-2f, amending the authorized representatives on the local government pool account, Texas Short Term Asset Reserve (“TexSTAR”).**

**2g. Presentation, possible action, and discussion regarding a Real Estate Contract with Red Rock Alchemy, LLC conveying 5.621 acres of City property described as Lots 6-14, Block 1 of the Pooh's Park Subdivision Section One located at Holleman Drive at Lassie Lane in the amount of \$2,495,000.**

**2h. Presentation, possible action, and discussion to ratify an agreement between McAlister Opportunity Fund 2012, LP, and the City of College Station designating a two-acre site within the Brazos County Municipal Utility District #1 as a possible option site for a future fire station.**

**2i. Presentation, possible action, and discussion on Ordinance 2015-3757, amending Chapter 10, Traffic Code, Section 3, F., Temporary Speed Limits Established for Certain Described Streets, Traffic Schedule XIII - Temporary Speed Limits Speed Limits, of the College Station Code of Ordinances by amending the posted speed limit on FM 2154 between Mile Post 15.513 to Mile Post 15.994 to 50 mph and Greens Prairie Trail from the intersection with FM 2154 to Flagstone Court to 35 mph for the duration of the Texas Department of Transportation managed FM 2154 & Greens Prairie Trail Intersection Improvements project when reduced speed limit signs are posted.**

**2j. Presentation, possible action, and discussion regarding approval of the construction contract (Contract No. 16300229) with Brazos Paving in the amount of \$1,099,608.81 for the Luther Street Rehabilitation Project.**

**2k. Presentation, possible action, and discussion on a construction contract (Contract No. 16300230) with Larry Young Paving in the amount of \$3,935,724.15 for the construction of the Rock Prairie Road Widening Project.**

**2l. Presentation, possible action, and discussion regarding approval of a Professional Services Contract (No. 16300135) with Halff Associates Inc. in the amount of \$389,509 for the professional engineering services related to design and associated construction phase services of the Veterans Park and Athletic Complex Build-Out, Phase 1.**

**2m. Presentation, possible action, and discussion regarding approval of Resolution 04-14-16-2m, allowing the Mayor to sign an Advance Funding Agreement with the Texas Department of Transportation (TXDOT) for the City of College Station's cost participation in the TXDOT FM 2154 and Green's Prairie Trail Intersection Improvements project.**

No items were pulled from Consent for a separate vote.

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

**Adjournment.**

There being no further business, Mayor Berry adjourned the Regular Meeting of the City Council at 7:06 p.m. on Thursday, April 14, 2016.

\_\_\_\_\_  
Nancy Berry, Mayor

ATTEST:

\_\_\_\_\_  
Sherry Mashburn, City Secretary



## Legislation Details (With Text)

**File #:** 16-0059      **Version:** 1      **Name:** TXDoT Gateway Monument Agreement  
**Type:** Resolution      **Status:** Consent Agenda  
**File created:** 1/25/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**  
**Title:** Presentation, possible action, and discussion on a Resolution allowing the Mayor to sign a Gateway Monument Agreement with the Texas Department of Transportation (TXDoT) for the City of College Station to construct and maintain a Gateway Monument within TXDoT right-of-way.  
**Sponsors:** Donald Harmon  
**Indexes:**  
**Code sections:**  
**Attachments:** [CoCS-Interlocal Gateway Mon\\_02252016.pdf](#)  
[Resolution.pdf](#)

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion on a Resolution allowing the Mayor to sign a Gateway Monument Agreement with the Texas Department of Transportation (TXDoT) for the City of College Station to construct and maintain a Gateway Monument within TXDoT right-of-way.

Relationship to Strategic Goals:

- Core Services and Infrastructure

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

Summary: The project includes the construction of a gateway monument in the northwest quadrant of State Highway 6 and University Drive intersection. The gateway monument will be completely within TXDoT right-of-way and visible for southbound traffic along State Highway 6.

Budget & Financial Summary: A total project budget of \$150,000 is included for this project in the General Government CIP Fund.

Attachments:

1. Resolution
2. Agreement

## Interlocal Agreement

### Contract Services Transmittal Form

From:  Bryan District	Contact Person: Brad Partee  Phone No.: 979/778-9669
Subject: Gateway Monument Agreement for State Highway 6 (Earl Rudder Freeway) and FM 60 (University Drive) Interchange	
City of College Station	Contract Maximum Amount Payable \$0.00
Are any federal funds used in this contract? No.	
Was the standard interlocal or amendment format modified? <u>Yes</u> If modified, date of Contract Services approval: <u>February 24, 2016</u> Modifications made are as follows:  Article 8.B: Modified Language "To the extent provided by law, the Local Entity....."	

**GATEWAY MONUMENT  
AGREEMENT**

**THE STATE OF TEXAS §**

**COUNTY OF TRAVIS §**

**THIS AGREEMENT** is made by and between the State of Texas, acting by and through the Texas Department of Transportation, hereinafter called the "State", and the **City of College Station**, acting through its duly authorized officials, as evidenced by Resolution or Ordinance Number \_\_\_\_\_, dated \_\_\_\_\_, hereinafter called the "Local Entity".

**BACKGROUND**

The State owns and maintains a system of highways, including **State Highway 6** in **Brazos** County, Texas, for public use and benefit. The State agrees to allow for the construction of a Gateway Monument within the State's right of way and the Local Entity agrees to construct the Monument and to conduct the long term maintenance for this structure located at **State Highway 6 (Earl Rudder Freeway) and FM 60 (University Drive) Interchange**, referred to as the "Gateway Monument," more specifically described in **Attachment "A,"** Project Map, which is attached hereto. The Local Entity will conduct the Monument's long term maintenance activities through the use of Local Entity forces, contractors, or other means satisfactory to the Local Entity and the State.

**THEREFORE**, in consideration of the mutual promises contained in this Agreement, the parties agree to the following.

**A G R E E M E N T**

**SECTION 1. PERIOD OF THE AGREEMENT**

This Agreement becomes effective when finally executed by the State and shall continue unless or until otherwise terminated as provided by this agreement.

**SECTION 2. FINANCIAL RESPONSIBILITIES**

All costs covered by this Agreement including design, engineering, testing, construction, installation, access for maintenance, maintenance, labor, materials, supplies, traffic control, additional improvements, and if required, removal of the Gateway Monument, shall be the responsibility of the Local Entity.

Any administrative costs associated with the Gateway Monument that are incurred by the State, such as those related to proposal review, as well as developing, issuing, and monitoring the Agreement for approved the Gateway Monument project shall be the responsibility of the State.

### SECTION 3. RESPONSIBILITY OF THE PARTIES

#### A. The Local Entity agrees to:

1. Provide Gateway Monument design plans to the State before execution of this Agreement according to TxDOT policy and, upon final approval, furnish and construct the Gateway Monument according to plans approved by the State, which are set out more specifically in **Attachment "B,"** Local Entity's Final Gateway Monument Proposal, which is attached to this Agreement, and include any other related installation items that may be required; and
2. Furnish, erect, and maintain any barricades, signs and traffic handling devices, in accordance with the latest Texas Manual of Uniform Traffic Control Devices (MUTCD) and to the satisfaction of the State related to this project, as may be required to protect the safety of the public; and
3. Conduct periodic inspections of the Gateway Monument as deemed necessary; and
4. Provide for the construction and maintenance of all associated appurtenances that are considered by the State to be a part of the project. The Local Entity further agrees to remove such items from the project's location and restore the area to the satisfaction of the State upon termination of this Agreement in accordance with Section 9.

#### B. The State agrees to:

1. Review and evaluate the Gateway Monument proposal submitted by the Local Entity with due consideration to safety (location, potential for motorist distraction, accessibility for maintenance, etc.), aesthetics, community support and maintainability; and
2. Coordinate with other TxDOT Divisions, as appropriate, as well as interact with the Federal Highway Administration (FHWA) for input, review and approval; and
3. Cooperate with the Local Entity to determine the requirements for barricades, signs, and traffic handling devices to be used by the Local Entity during the construction and maintenance of the Gateway Monument; and

4. Provide maintenance access to the project location for the Local Entity or for its Contractor or group, and if possible, from outside the highway right of way; and
5. Conduct periodic inspections of the Gateway Monument as deemed necessary.

C. The Local Entity and State further agree that nothing contained in this Agreement will be construed to:

1. Give either party the power to direct and control the day-to-day activities of the other; or
2. Constitute the parties as partners, joint venturers, co-owners, or otherwise as participants in a joint or common undertaking; or
3. Allow either party to create or assume any obligation on behalf of the other party for any purpose whatsoever.

#### **SECTION 4. DESIGN AND PLACEMENT OF GATEWAY MONUMENTS**

A. Gateway Monuments shall be designed and placed so as to:

1. Be freestanding.
2. Feature only the letters of the community name and/or officially adopted seal.
3. Include, if required by TxDOT, approved protective graffiti coatings.
4. Be appropriate to its proposed setting and community context.
5. Be in proper size and scale with its surroundings.
6. Be composed of materials that are durable for the projected life span of the project.
7. Be located beyond the clear zone, for both main lane traffic and frontage road traffic.
8. Be located where maintenance can be safely performed, as specified in the Gateway Monument Agreement, and in conformance with TxDOT procedures.
9. Be subject to the review and approval of TxDOT in consideration of design, size, and scale for appropriate integration on urban or rural highway features.

B. Gateway Monuments shall not:

1. Be allowed within the center median areas of interstate highway rights-of-way.
2. Contain religious, political, special interest, private, or commercial messages of any sort, including, but not limited to, symbols, logos, business names, trade names, jingles, or slogans.
3. Contain any displays of any sort, advertising, decorative banners, flags, or flag poles.
4. Display telephone numbers, street addresses, or Internet addresses.
5. Interfere with airspace above the roadway.
6. Create a distraction to the motoring public; for example, the Gateway Monument shall be large enough to interpret at highway speed, but not be so large that it demands attention from the motorist.
7. Include reflective or glaring surface finishes.
8. Include illumination that impairs or distracts the vision of transportation system users. Other lighting may be permitted.
9. Display blinking or intermittent or moving lights, including changeable message signs, digital displays, or lighted static displays such as LED.
10. Include moving elements (kinetic art) or simulate movement.
11. Include water features of any sort.
12. Interfere with official traffic control devices, nor interfere with the operational right-of-way above the roadway.
13. Be placed within State right-of-way upon trees, or painted or drawn upon rocks or other existing natural features.
14. Make use of or simulate colors or combinations of colors usually reserved for official traffic control devices described in the Texas Manual on Uniform Traffic Control Devices.

15. Require the removal of trees or other vegetation for visibility, or harm trees during construction. Pruning of tree branches or roots, and removal of shrubs should be avoided.
16. Negatively impact existing highway features, including existing signs, irrigation systems, necessary drainage patterns, and facilities.

#### **SECTION 5. MAINTENANCE**

The Local Entity shall provide regularly scheduled maintenance, as described in **Attachment "B,"** the Local Entity's Final Gateway Monument Proposal, for its projected lifespan. Maintenance shall include, but not be limited to, restoration work to maintain the integrity of the approved Gateway Monument, maintenance of any associated landscaping or lighting, and graffiti removal. Gateway Monuments shall be kept clean, free of graffiti, and in good repair. Graffiti removal shall conform to the most current TxDOT policies and guidelines, which require prompt removal of offensive messages and timely removal of all other graffiti. Maintenance practices of the Local Entity or its agent shall protect air and water quality as required by federal and state law.

#### **SECTION 6. MONUMENT REMOVAL**

The Local Entity shall remove the Gateway Monument covered by this agreement, if in the opinion of TxDOT, it creates safety or operational concerns due to deterioration or inadequate maintenance or upon termination of the main Gateway Monument Agreement. TxDOT will notify the Local Entity when it has determined that the Gateway Monument requires special attention. In the event the Local Entity fails to maintain, repair, rehabilitate, or remove the Gateway Monument in a timely manner, TxDOT may choose to remove the Gateway Monument after thirty (30) days following notification to the Local Entity, and bill the Local Entity for all costs of removal and restoration of the area.

TxDOT reserves the right to remove the Gateway Monument due to construction, rehabilitation, violation of the terms of this Agreement, or other necessary activities affecting the transportation facilities without any obligation, compensation to, or approval of the Local Entity. TxDOT will strive to notify the Local Entity of its intent to remove the Gateway Monument to allow for timely removal and salvage by the Local Entity, if possible.

TxDOT reserves the right to remove or alter any Gateway Monument that presents an immediate safety hazard to the public without delay or advanced notification to the Local Entity.

#### **SECTION 7. USE OF CONTRACTOR OR GROUP**

The Local Entity shall have the right to engage any responsible Contractor or group to perform or provide any portion of the Local Entity's Gateway Monument

activities specified in this Agreement. However, notwithstanding this provision, the Local Entity shall continue to remain responsible to the State to ensure performance of all its duties and responsibilities specified in this Agreement. The Local Entity shall ensure that any Contractor or group complies with all provisions of this Agreement, and federal, state, and local laws, and regulations as may be applicable.

In the event the Local Entity engages a Contractor to perform Gateway Monument construction or maintenance activities under this Agreement, the Local Entity shall ensure that said Contractor shall indemnify the State for any and all damages and claims for damages by said Contractor, its employees, agents, or representatives, including any claims resulting from bodily injury or death to others, or, for loss of or damage to property of others, arising out of, incident to, or in any manner connected to Gateway Monument construction or maintenance activities, and, for any or all liability arising from the negligent acts of said Contractor, its employees, agents, or representatives.

In the event the Local Entity engages and approves a responsible group to perform Gateway Monument construction or maintenance activities under this Agreement, the Local Entity shall require and ensure that said Contractor or group follow all the terms of this Agreement as well as all Attachments.

#### **SECTION 8. INDEMNIFICATION**

- A. The Local Entity and the State each acknowledge responsibility for the acts, deeds, errors and omissions of its own employees. The parties agree that the Texas Tort Claims Act pertaining to governmental liability for tortious conduct and/or property damage shall apply to this Agreement.
  
- B. To the extent provided by law, the Local Entity shall also indemnify and save harmless the State from any and all expense, including, but not limited to, attorney fees, which may be incurred by the State in litigation or otherwise resisting a claim or liabilities that may be imposed on the State as a result of error, omission, or act of the Local Entity, its agents, or its employees.

#### **SECTION 9. TERMINATION**

This Agreement may be terminated under any of the following conditions:

- A. By mutual written agreement and consent of both parties; or
  
- B. By either party upon giving the other party thirty (30) days prior written notice; or
  
- C. By the State, in the event the State determines that the Gateway Monument is not in the best interest of the traveling public.

If either party terminates this Agreement, as provided herein, the Local Entity will be responsible for repair or removal of the Gateway Monument. In the event that the Local Entity does not provide the repair or removal services, the State may remove or repair the Gateway Monument and shall be entitled to reimbursement from the Local Entity for any reasonable costs incurred by the State to restore the State's right of way to its original condition.

**SECTION 10. AMENDMENTS**

Amendments to this Agreement shall be in writing and shall be executed by both parties.

**SECTION 11. AUDIT**

The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the contract or indirectly through a subcontract under the contract. Acceptance of funds directly under the contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

**SECTION 12. SUCCESSORS AND ASSIGNS**

Subject to the provisions of Section 7, the Local Entity shall not assign or otherwise transfer its rights and obligations under this Agreement except with prior written consent of the State, and any prohibited assignment or transfer shall be null and void.

**SECTION 13. REMEDIES**

This Agreement shall not be considered as specifying the exclusive remedy for any default. All legal remedies may be pursued by either party and shall be cumulative.

**SECTION 14. INSURANCE**

If this Agreement authorizes the Local Entity or its contractor to perform any work on State right of way, before beginning work, the entity performing the work shall provide the State with a fully executed copy of the State's Form 1560 Certificate of Insurance verifying the existence of coverage in the amounts and types specified on the Certificate of Insurance for all persons and entities working on the State right of way. This coverage shall be maintained until all work on the State right of way is complete. If coverage is not maintained, all work on State right of way shall cease immediately, and the State may recover damages and all costs of completing the work.

**SECTION 15. NOTICES**

All notices to either party by the other under this Agreement shall be delivered personally or sent by U.S. mail, postage prepaid, addressed to such party at the following addresses:

<p><b>STATE :</b>                  Texas Department of Transportation                  District Engineer                  2591 North Earl Rudder Freeway                  Bryan, Texas 77803-5190</p>	<p><b>LOCAL ENTITY:</b>                  City of College Station                  Attn: Public Works Director                  P.O. BOX 9960                  College Station, Texas 77842</p>
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**SECTION 16. GRATUITIES**

Texas Transportation Commission policy mandates that employees of the State shall not accept any benefits, gifts, or favors from any person doing business or who reasonably speaking may do business with the State under this Agreement. The only exceptions allowed are ordinary business lunches and items that have received advanced written approval of the Texas Department of Transportation Executive Director. Any person doing business with or who may reasonably speaking do business with the State under this Agreement may not make any offer of benefits, gifts or favors to State employees, except as mentioned here above. Failure on the part of the Local Entity to adhere to this policy may result in the termination of this Agreement.

**SECTION 17. SIGNATORY WARRANTY**

Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented.

**SECTION 18. INCORPORATION OF PROVISIONS**

Attachments "A" and "B" are made part of this contract. The parties shall comply with the provisions of Attachments "A" and "B" as if they were set forth in full within the body of this contract.

**THEREFORE**, the Parties have executed this Agreement in duplicate originals.

**THE CITY OF COLLEGE STATION**

**THE STATE OF TEXAS**

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

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

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

Certified as being executed for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by The Texas Transportation Commission

Attest: \_\_\_\_\_

City Clerk

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

District Engineer  
Bryan District

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

Approved as to form:

\_\_\_\_\_  
City Attorney

**List of Attachments:**

**“A” – Project Map for Gateway Monument**

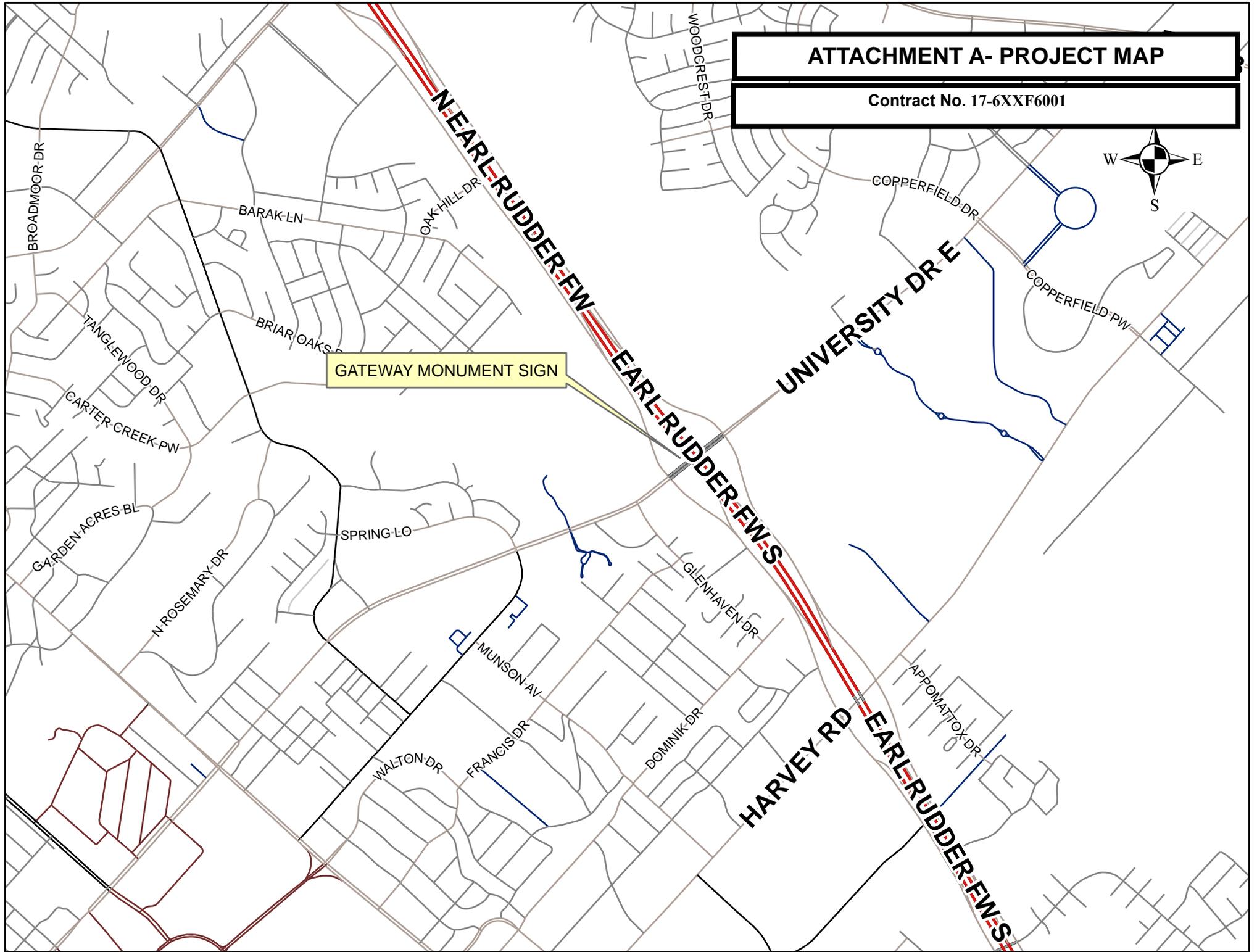
**“B” - Local Entity’s Final Gateway Monument Proposal**

# ATTACHMENT A- PROJECT MAP

Contract No. 17-6XXF6001

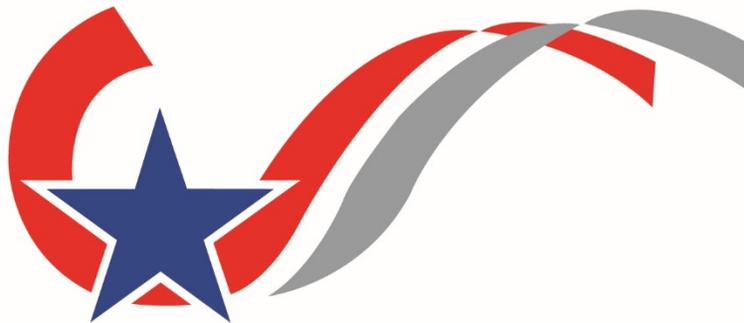


GATEWAY MONUMENT SIGN



**ATTACHMENT B**  
**Contract No. 17-6XXF6001**

**GATEWAY MOMUMENT PROPOSAL**  
**CITY OF COLLEGE STATION**



**CITY OF COLLEGE STATION**  
*Home of Texas A&M University®*

**NORTH BOUNDARY**  
**STATE HIGHWAY 6 & UNIVERSITY DRIVE**

## **TABLE OF CONTENTS**

DRAFT RESOULTION	1
MAINTENANCE PLAN	2
COST ESTIMATE	3
PLANS	4
SPECIFCATIONS	12

RESOLUTION NO. \_\_\_\_\_

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS, ALLOWING THE MAYOR TO SIGN A GATEWAY MONUMENT AGREEMENT BETWEEN THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE CITY OF COLLEGE STATION FOR CONSTRUCTION OF THE GATEWAY MONUMENT PROJECT AT STATE HIGHWAY 6 AND UNIVERSITY DRIVE.

WHEREAS, the City Council of the City of College Station, Texas, supports the City's plan to construct the Gateway Monument Project ("Project") at State Highway 6 and University Drive; and

WHEREAS, the City Council of the City of College Station, Texas, agrees to fund the Gateway Monument Project 100% of the value of the Project; now, therefore,

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

- PART 1: That the City Council hereby approves the Gateway Monument Agreement which is attached hereto and made a part hereof as Exhibit "A."
- PART 2: That the City Council hereby approves of the Mayor signing the Agreement.
- PART 3: That the City Council hereby agrees to fully fund the Gateway Monument Project construction costs.
- PART 4: That this resolution shall take effect immediately from and after its passage.

ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2015.

ATTEST:

APPROVED:

\_\_\_\_\_  
City Secretary

\_\_\_\_\_  
MAYOR

APPROVED:

\_\_\_\_\_  
City Attorney

## MAINTENANCE PLAN

### **Location:**

The monument will be located to the northwest of the intersection of State Highway 6 (HWY 6) and the University Drive Bridge in a grassy area between HWY 6 main lanes and the southbound feeder road within TXDOT Right-of-Way (ROW). The sign location is accessible by the southbound feeder road and there is ample room on the site for staging for construction and maintenance activities. Traffic Control will not be needed.

### **Description:**

The monument will be constructed with a combination of brick, cast stone and CMU blocks on a structural pier foundation. There will be no landscaping features other than surrounding grass cover.

### **Maintenance Requirements:**

**Monument:** For the first year the contractor will be responsible for maintenance and repairs of the sign. Once the construction warranty has expired the City of College Station (COCS) will take over responsibility for maintenance and repairs. The monument is located in an area of the ROW which the COCS has already entered into an AFA with TXDOT for landscaping improvements which requires routine maintenance. The monument will be inspected as part of the area landscaping maintenance program and will be repaired as necessary.

Maintenance will include restoration work to maintain the integrity of the approved Gateway Monument, maintenance of lighting/solar system, and graffiti removal. The monument will be kept clean, free of graffiti, and in good repair. Graffiti removal shall conform to the most current TxDOT policies and guidelines, which require prompt removal of offensive messages and timely removal of all other graffiti.

**Landscaping:** The grass surrounding the monument will be mowed as part of COCS existing maintenance schedule in place for the landscaping improvements within the ROW constructed under an AFA with TXDOT in 2010.

## COST ESTIMATE

### Construction Cost Estimate:

	ITEM DESCRIPTION	UNIT QUANTITY	UNIT	COST
1	Gateway Monument Sign which includes all material, labor, equipment and services, including all scheduled allowances necessary to complete construction of entire project	1	LS	\$75,000
PROJECT TOTAL				\$75,000

### Tentative Construction Schedule:

Approval from TXDOT: Bidding NTP

Advertise for Bid: 1 Month after NTP

NTP Construction: 2 months after Advertisement

Substantial Completion: 2 months after NTP Construction

Final Completion: 1 month after Substantial Completion

# PLANS

# CITY OF COLLEGE STATION, TEXAS ENTRY MONUMENT SIGN

## ISSUE FOR BID / PERMIT 10-16-15



CITY OF COLLEGE STATION  
*Home of Texas A&M University*

### OWNER

1101 Texas Ave,  
College Station, Texas 77840  
(979) 764-3500

### PGAL

#### ARCHITECT

PIERCE GOODWIN ALEXANDER AND LINVILLE INC.  
3131 Briarpark Suite 200, Houston, Texas 77042  
(713) 622-1444 Fax (713) 968-9333

### PGAL

#### STRUCTURAL ENGINEER

PIERCE GOODWIN ALEXANDER AND LINVILLE INC.  
3131 Briarpark Suite 200, Houston, Texas 77042  
(713) 622-1444 Fax (713) 968-9333

### DRAWING INDEX

0000 COVER SHEET  
A110 PLANS/ELEVATIONS/DETAILS  
A120 SITE PLAN  
C120 SITE GRADING PLAN  
C121 STORM WATER POLLUTION PREVENTION PLAN  
C122 STORM WATER POLLUTION PREVENTION PLAN DETAILS  
S110 STRUCTURAL PLAN / DETAILS



**CITY OF COLLEGE STATION**  
1101 TEXAS AVE.  
COLLEGE STATION, TX 77840  
[P] 979-64-3500



**PCMA**  
313 BRIARPARK  
SUITE 200  
HOUSTON, TX 77042  
[T] 713 622 1444  
[F] 713 988 9333

**CONSULTANT**

**PROJECT TITLE**  
CITY OF COLLEGE STATION  
ENTRY MONUMENT SIGN

**PROJECT NUMBER**  
1002883  
**PROJECT LOCATION**  
NW QUADRANT  
HWY 6 AND UNIVERSITY DR  
**DATE OF ISSUE**  
ISSUE FOR BID/PERMIT 10.16.15  
**REVISIONS**

Pierce Goodwin Alexander & Linville

Alexandria	Atlanta	Austin	Boca Raton	Boston	Dallas	Houston	Las Vegas	Los Angeles	New Orleans	Mexico City
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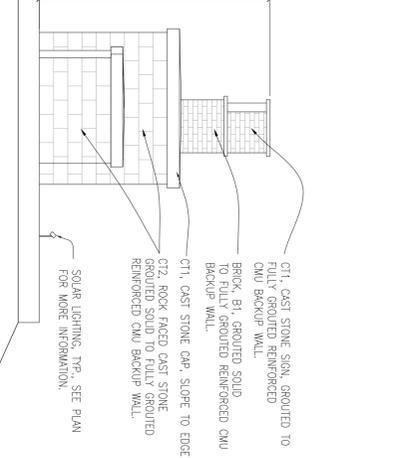
**SHEET NUMBER**  
A1.10



**SHEET TITLE**  
PLANS /  
ELEVATIONS /  
DETAILS

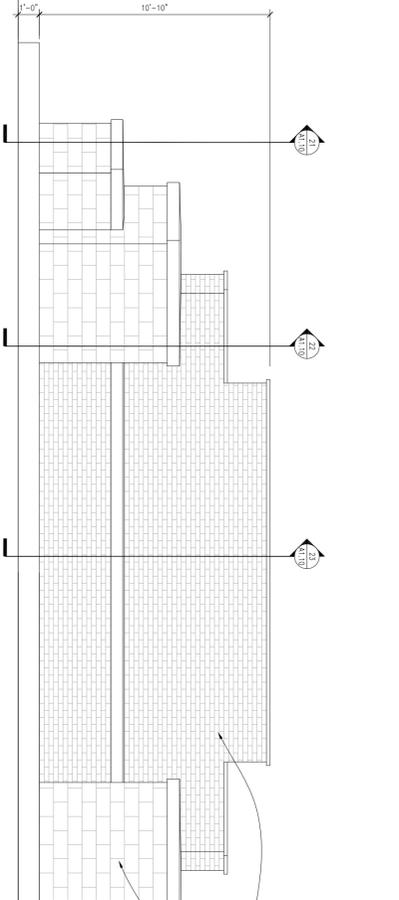
**GENERAL NOTES**

4



**FRONT ELEVATION 1/4" = 1'-0"**

8



**REAR ELEVATION 1/4" = 1'-0"**

7



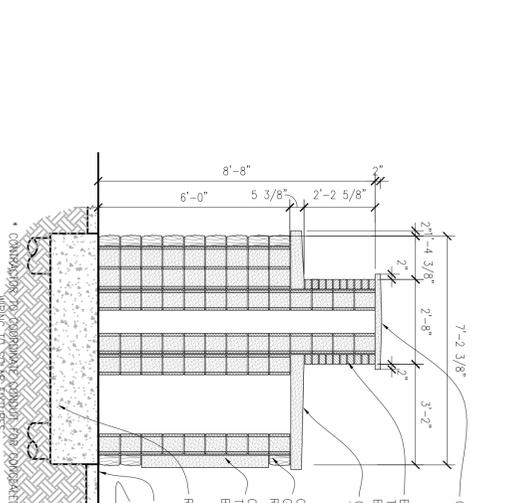
**SIDE ELEVATION 1/4" = 1'-0"**

3



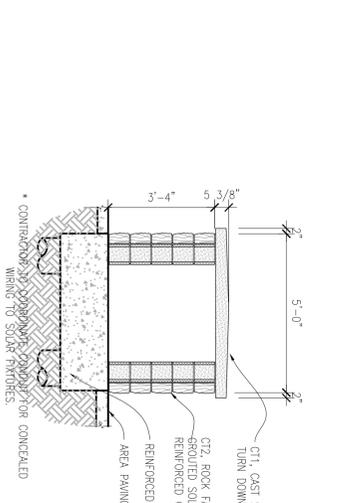
**SECTION 3/8" = 1'-0"**

23



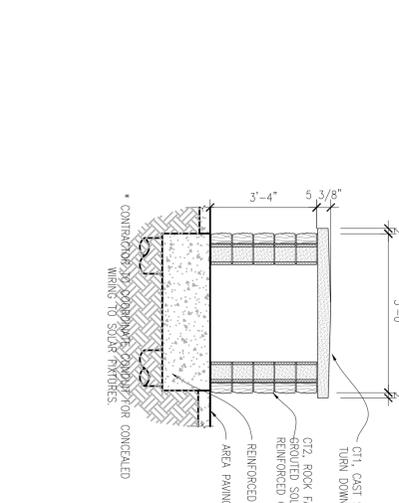
**SECTION 3/8" = 1'-0"**

22

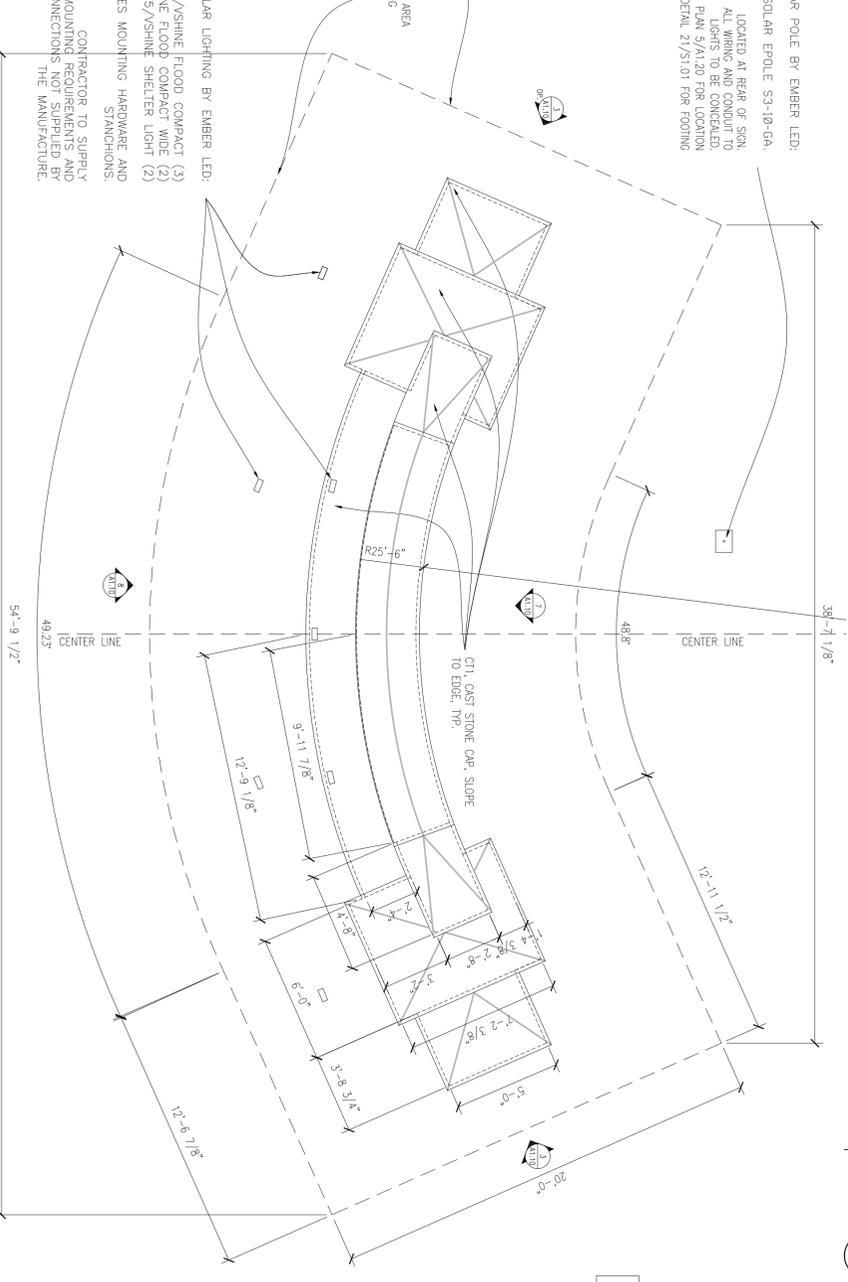


**SECTION 3/8" = 1'-0"**

21



VS/SHINE LED VFC-18-525-CC-V1/VS/SHINE FLOOD COMPACT (3)  
VS/SHINE LED VFCW-110-700-CC-V1/VS/SHINE FLOOD COMPACT WIDE (2)  
VS/SHINE LED VSH-350-T5/VS/SHINE SHELTER LIGHT (2)  
INCLUDE MANUFACTURERS MOUNTING HARDWARE AND STANCHIONS.  
CONTRACTOR TO SUPPLY MISCELLANEOUS MOUNTING REQUIREMENTS AND WIRING CONNECTIONS THE MANUFACTURE.



**PLAN 1/4" = 1'-0"**

5

**EXTERIOR FINISHES**

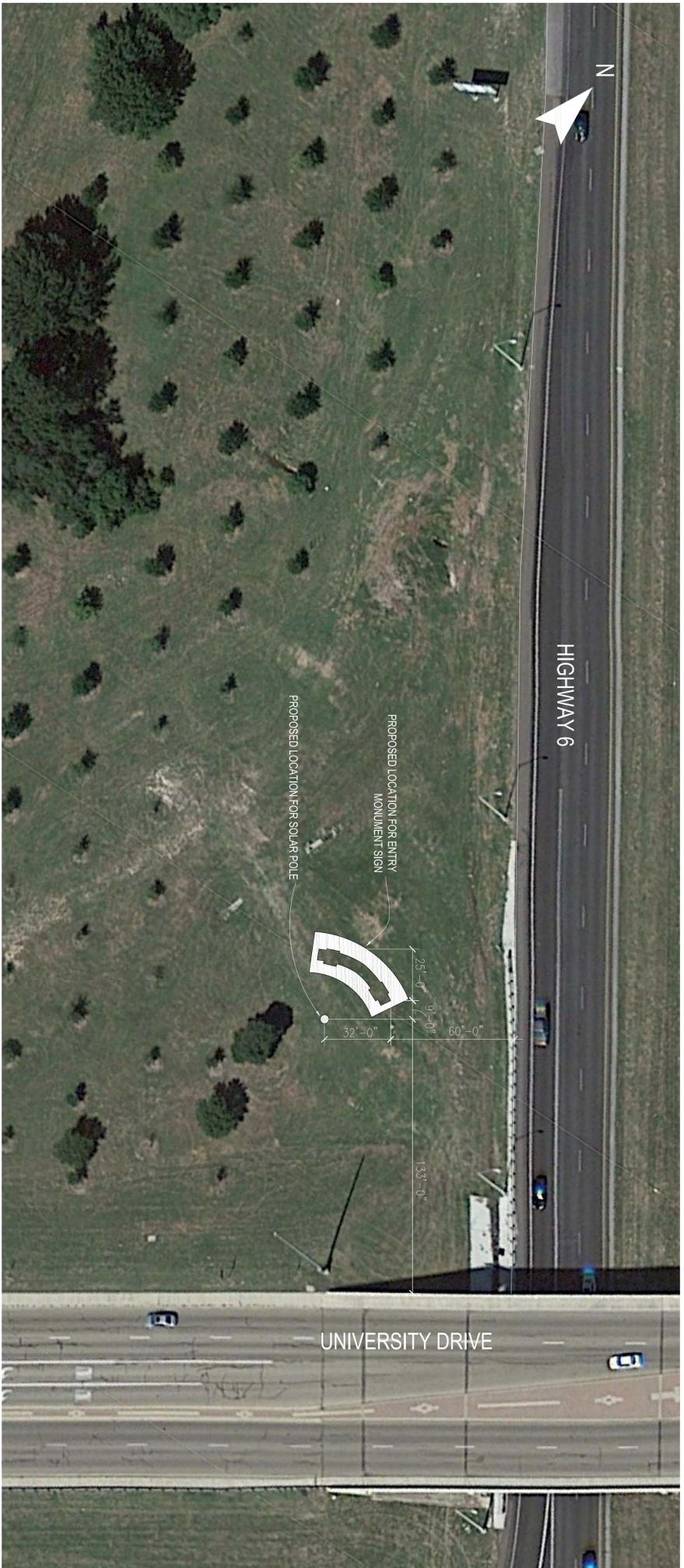
<b>B1</b>	<b>BRICK</b>	TYPICAL ACME BRICK STANDARD MODULAR BLEND 137
<b>CT1</b>	<b>CAST STONE</b>	SEE ELEVATIONS SITENWORKS INC. SMOOTH CAST STONE TRIM / SIGN VARIES CREAM
<b>CT2</b>	<b>CAST STONE</b>	SEE ELEVATIONS SITENWORKS INC. ROCK FACED CAST STONE VARIES CREAM

**FINISH LEGEND**

NO SCALE 1



SITE PLAN NTS (7)



SITE PLAN 1/32" = 1'-0" (5)

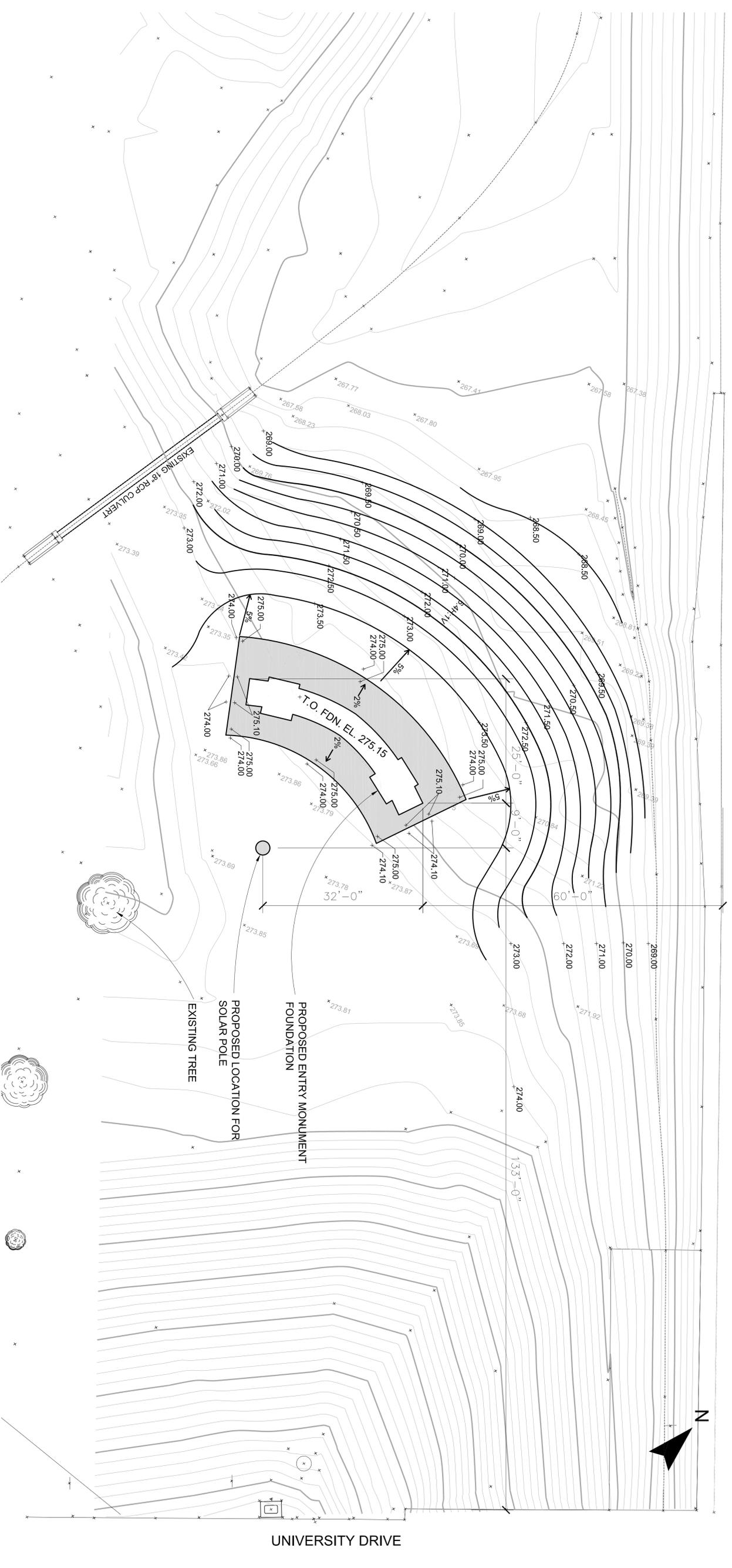
CONTRACTOR TO HYDROMULCH ALL DISTURBED AREAS

GENERAL NOTES N.T.S. 5

1. ALL COORDINATES & DISTANCES ARE ON TEXAS STATE PLANE (CENTRAL ZONE), NAD83 & NAVD88 per GPS observations based on the Leica SmartNet reference network  
 - no scale factor has been applied -
2. STANDARD TxDOT SCALE FACTOR FOR BRAZOS COUNTY IS 1.00012

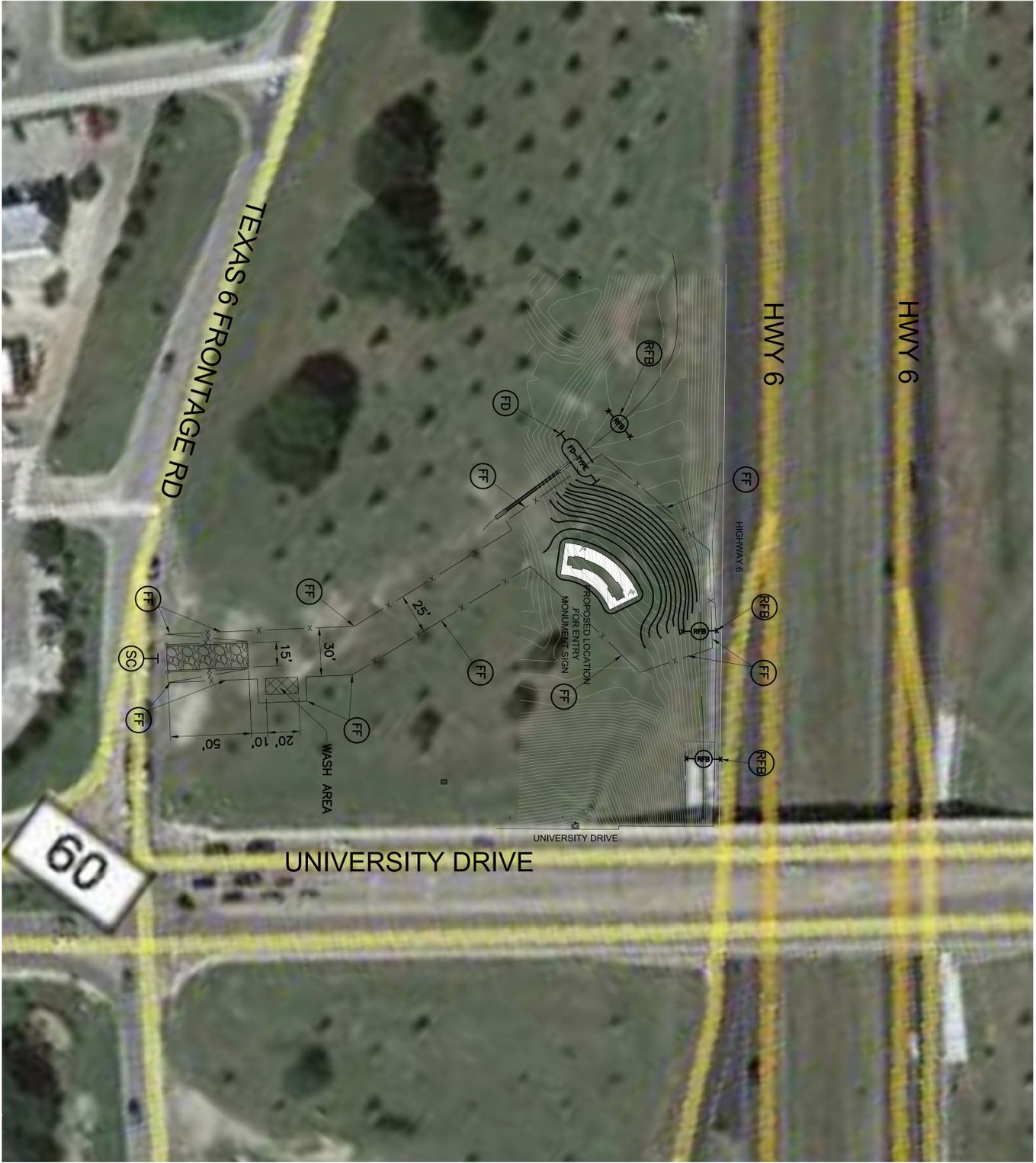
GPS MONUMENT NO.8  
 CITY OF COLLEGE STATION  
 REF: CSTX, GOV SURVEY MONUMENT REPORT  
 X=3,566,373.6320  
 Y=10,219,921.9490  
 EL 264.29  
 HZ-201  
 HUNT ZOLLARS PROJECT CONTROL POINT  
 5/8" IR WITH RED CAP, FLUSH WITH SURFACE  
 RECOVERED IN GOOD CONDITION 8/26/15  
 X=3,561,671.9240  
 Y=10,219,173.9410  
 EL=273.13

BENCHMARK INFORMATION N.T.S. 3



SITE GRADING PLAN 1" = 10'-0" 1

<p> <b>PCAL</b>            3131 BRIARPARK            SUITE 200            HOUSTON, TX 77042            T   713 622 1444            F   713 988 9333         </p>	<p> <b>OWNER</b>            CITY OF COLLEGE STATION            1101 TEXAS AVE.            COLLEGE STATION, TX 77840            T   979-64-3800            F           </p>	<p> <b>ARCHITECT</b>            HZ-201            HUNT ZOLLARS PROJECT CONTROL POINT            5/8" IR WITH RED CAP, FLUSH WITH SURFACE            RECOVERED IN GOOD CONDITION 8/26/15            X=3,561,671.9240            Y=10,219,173.9410            EL=273.13         </p>	<p> <b>CONSULTANT</b>            PIERCE GOODWIN ALEXANDER &amp; LINVILLE            1002683            PROJECT LOCATION            NW QUADRANT            HWY 6 AND UNIVERSITY DR            DATE OF ISSUE            ISSUE FOR BID/PERMIT 10.16.15            REVISIONS         </p>	<p> <b>REGISTRATION</b>            COPYRIGHT © 2015  </p>	<p> <b>PROJECT TITLE</b>            CITY OF COLLEGE STATION            ENTRY MONUMENT SIGN         </p>	<p>           Alexandria   Atlanta   Austin   Boca Raton   Boston   Dallas   Houston   Las Vegas   Los Angeles   New Orleans   Mexico City         </p>	<p> <b>SHEET NUMBER</b>  <b>C120</b> </p>
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**LEGEND**

-  REINFORCED FILTER FABRIC BARRIER RE: DETAILS SHEET C1.22
-  INLET PROTECTION BARRIER RE: DETAILS SHEET C1.22
-  FILTER FABRIC FENCE RE: DETAILS SHEET C1.22
-  STABILIZED CONSTRUCTION ACCESS RE: DETAILS SHEET C1.22
-  FILTER DAM AT DETENTION BASIN OUTFALL PIPE (TYPE 2) RE: DETAILS SHEET C1.22

**4**

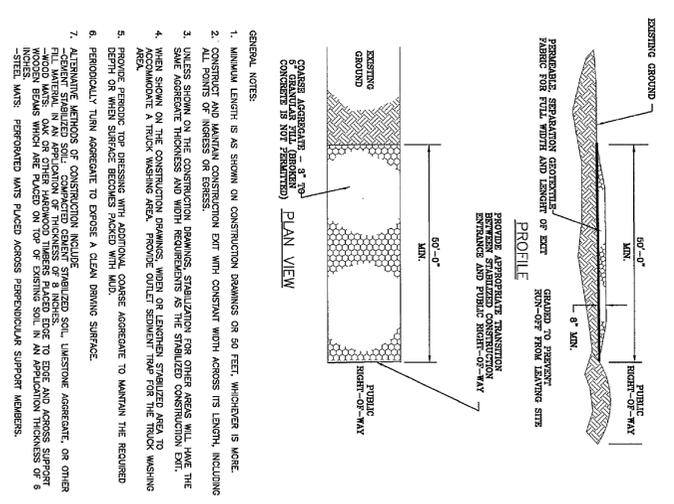
1. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AND REINFORCED FILTER FABRIC BARRIER AT LOCATIONS SHOWN ON THE TYPICAL STORM WATER POLLUTION PREVENTION (SWPPP) PLANS TO KEEP SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS AND DITCHES EVENTUALLY POLLUTING THE RECEIVING STORM.
2. DURING THE EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEEPED BACK INTO THE EXCAVATED AREA.
3. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY, AS NECESSARY, TO REMOVE ANY EXCESS MUD, SILT OR ROCK TRACKED FROM THE EXCAVATED AREA.
4. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.
5. CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
  - o DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
  - o AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
  - o STRUCTURAL CONTROL MEASURES.
  - o LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
6. CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND/OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION OR BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SEEDING OR SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.
7. CONSTRUCT AND MAINTAIN FILTER DAM DURING CONSTRUCTION OPERATIONS AND PRIOR TO FINAL STABILIZATION IN ACCORDANCE WITH BRAZOS COUNTY SPECIFICATION, SEE C2.03.

**SWPPP CONSTRUCTION NOTES**

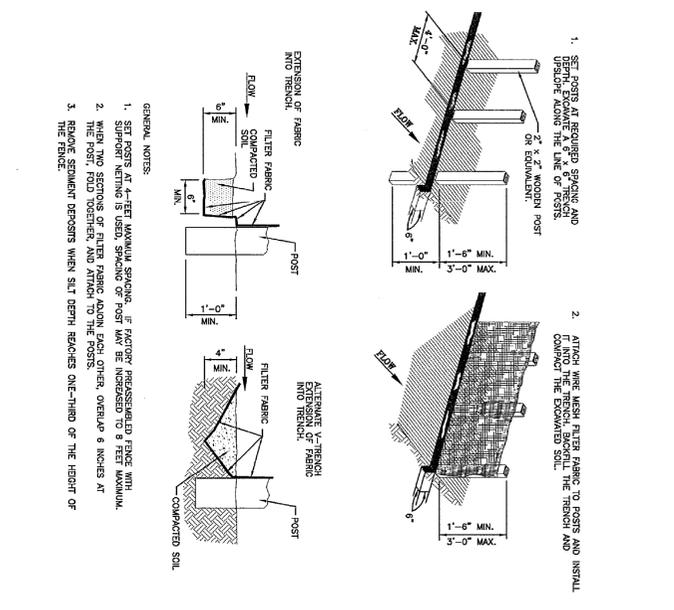
**1**

**STORM WATER POLLUTION PREVENTION PLAN DETAILS**

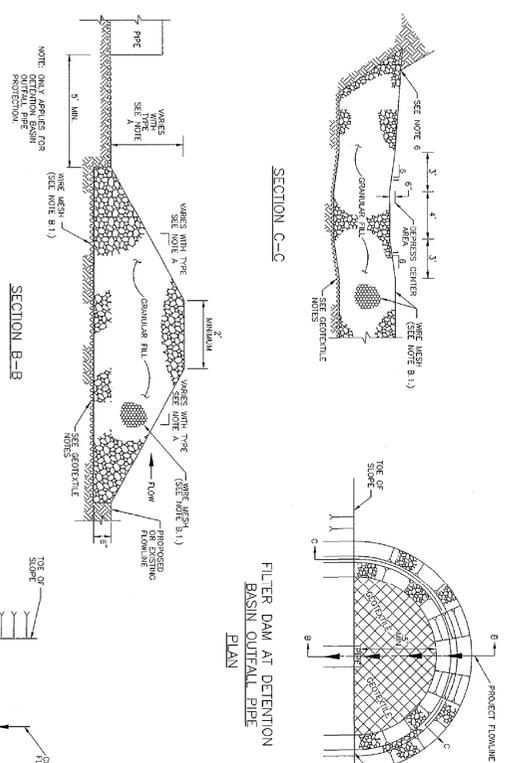
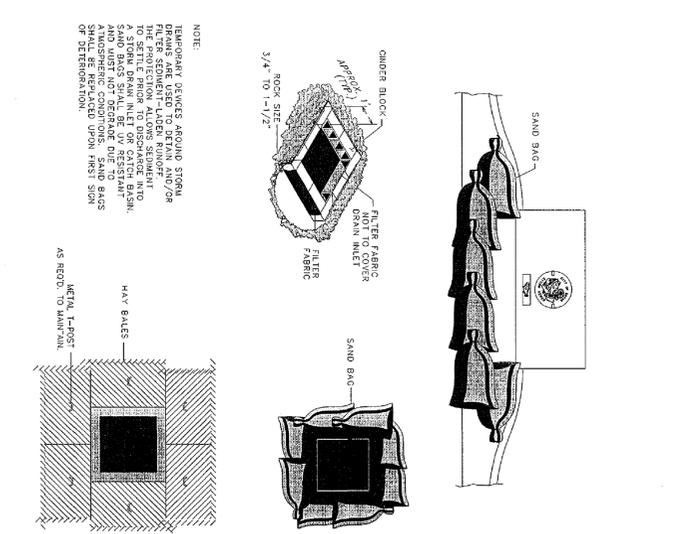
**STABILIZED CONSTRUCTION ACCESS (CE)**  
N.T.S.



**WIRE MESH (FF)**  
N.T.S.

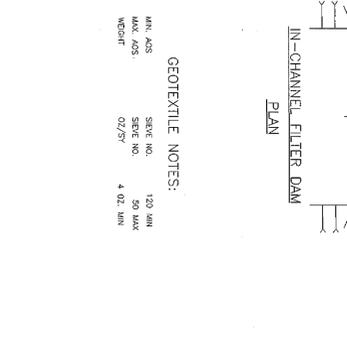


**INLET PROTECTION BARRIER (PB)**  
N.T.S.

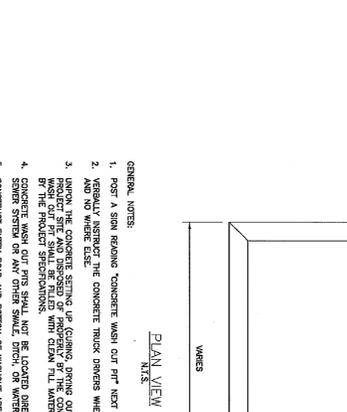


**FILTER DAM NOTES:**

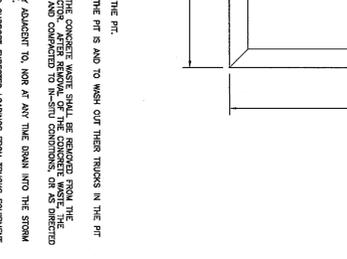
1. TYPE 1 (NON-REINFORCED) MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM
2. TYPE 2 (REINFORCED) MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM
3. TYPE 3 (REINFORCED) MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM
4. TYPE 4 (CONCRETE) MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM
5. TYPE 5, AS SHOWN ON THE PLANS



**ROCK FILTER DAM (FD)**  
N.T.S.



**CONCRETE TRUCK WASHOUT AREA (CW)**  
N.T.S.



**GEOTEXTILE NOTES:**

- | MAX. ASS. WEIGHT | SPICE NO. | 120 MIN. |
|------------------|-----------|----------|
| MAX. ASS. WEIGHT | SPICE NO. | 50 MAX.  |
| Q2/5Y            | 4.02 MIN. |          |



***City Marker At Highway 6 and University Drive  
Contract Documents and Specifications***

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**ATTACHMENTS:**

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CSI 13.6A.....Change Order Request (Proposal)  
CSI 13.6C.....Proposal Worksheet Details  
CSI 13.6D.....Proposal Worksheet Summary  
AIA G701 .....Change Order Form  
AIA G710.....Architect's Supplemental Instruction Form  
AIA G714.....Construction Change Directive Form  
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AIA G703.....Continuation Sheet Form

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- AIA G706A.....Contractor's Affidavit of Release of Liens Form
- AIA G707.....Consent of Surety of Final Payment Form
- CSI 1.5A.....Subcontractors and Major Material Suppliers List
- CSI 13.2B.....Request for Interpretation Log
- AIA G716.....Request for Information (RFI) Form
- AIA G810.....Transmittal Letter Form

## SECTION 011000 - SUMMARY

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Access to site.
4. Work restrictions.
5. Specification and drawing conventions.
6. Miscellaneous provisions.

#### 1.2 PROJECT INFORMATION

##### A. Project Identification: New City Marker for the City of College Station.

1. Project Location: Highway 6 and University Drive College Station, Texas.

##### B. Owner: City of College Station 1101 Texas Avenue College Station, Texas 77842.

1. Owner's Representative: James Smith.

##### C. Architect: PGAL 3131 Briarpark Drive Suite 200 Houston, Texas.

#### 1.3 WORK COVERED BY CONTRACT DOCUMENTS

##### A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Construction of new city marker and related site work.

##### B. Type of Contract.

1. Project will be constructed under a single prime contract.

#### 1.4 WORK UNDER SEPARATE CONTRACTS

##### A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

## 1.5 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

## 1.6 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations required by the City of College Station and TXDOT.
  - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the at the site to normal business working hours of 7:00 AM to 6 PM, Monday through Friday, unless otherwise indicated.
- C. Controlled Substances: Use of tobacco products and other controlled substances **on Project site** is not permitted.

## 1.7 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
  - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  - 2. Abbreviations: Materials and products are identified by abbreviations **published as part of the U.S. National CAD Standard and scheduled on Drawings.**
  - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

## SECTION 012500 - SUBSTITUTION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

#### 1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

#### 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use **CSI Form 13.1A**.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
    - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section.

Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. Certificates and qualification data, where applicable or requested.
  - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - i. Research reports evidencing compliance with building code in effect for Project, from **ICC-ES**.
  - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within **seven** days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within **15** days of receipt of request, or **seven** days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

## 1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

## 1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

## PART 2 - PRODUCTS

### 2.1 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than **15** days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- b. Requested substitution provides sustainable design characteristics that specified product provided.
- c. Substitution request is fully documented and properly submitted.
- d. Requested substitution will not adversely affect Contractor's construction schedule.
- e. Requested substitution has received necessary approvals of authorities having jurisdiction.
- f. Requested substitution is compatible with other portions of the Work.
- g. Requested substitution has been coordinated with other portions of the Work.
- h. Requested substitution provides specified warranty.
- i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Architect will consider requests for substitution if received within 10 days after **the Notice to Proceed**. Requests received after that time may be considered or rejected at discretion of Architect.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
- b. Requested substitution does not require extensive revisions to the Contract Documents.
- c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- d. Requested substitution provides sustainable design characteristics that specified product provided.
- e. Substitution request is fully documented and properly submitted.
- f. Requested substitution will not adversely affect Contractor's construction schedule.

- g. Requested substitution has received necessary approvals of authorities having jurisdiction.
- h. Requested substitution is compatible with other portions of the Work.
- i. Requested substitution has been coordinated with other portions of the Work.
- j. Requested substitution provides specified warranty.
- k. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

## SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
  - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

#### 1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on **AIA Document G710, "Architect's Supplemental Instructions."**

#### 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: **Architect** will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Work Change Proposal Requests issued by **Architect** are not instructions either to stop work in progress or to execute the proposed change.
  - 2. Within **time specified in Proposal Request or 20 days, when not otherwise specified**, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and

finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- e. Quotation Form: Use **CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."**

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to **Architect**.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use **CSI Form 13.6A, "Change Order Request (Proposal)," with attachments CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."**

## 1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, **Architect** will issue a Change Order for signatures of Owner and Contractor on COCS change order form.

## 1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. **Construction** Change Directive: **Architect** may issue a **Construction** Change Directive on **AIA Document G714. Construction** Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order in accordance with Section 17 "Extra Work Charges" of the Agreement.

1. **Construction** Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

- B. Documentation: Maintain detailed records on a time and material basis of work required by the **Construction** Change Directive.

1. If Method C "Actual Field Costs" in Section 17 is used, after completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

## SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. Requests for Information (RFIs).
  - 4. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility are assigned to a specific contractor.
- C. Related Requirements:
  - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
  - 2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

#### 1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. **Use CSI Form 1.5A.** Include the following information in tabular form:
  - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.

- B. Key Personnel Names: Within **15** days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
  - 1. Post copies of list in project meeting room, in temporary field office and by each temporary telephone. Keep list current at all times.

#### 1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's construction schedule.
  - 2. Preparation of the schedule of values.
  - 3. Installation and removal of temporary facilities and controls.

4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Preinstallation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.
- E. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

## 1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
    - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
    - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
    - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
    - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
    - f. Indicate required installation sequences.
    - g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations

- of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
  3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
  4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
  5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
  6. Mechanical and Plumbing Work: Show the following:
    - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
    - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
    - c. Fire-rated enclosures around ductwork.
  7. Electrical Work: Show the following:
    - a. Runs of vertical and horizontal conduit **1-1/4 inches (32 mm)** in diameter and larger.
    - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
    - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
    - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
  8. Fire-Protection System: Show the following:
    - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
  9. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will so inform Contractor, who shall make changes as directed and resubmit.
  10. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 013300 "Submittal Procedures."
  11. Architect will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
    - a. Architect makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.

- b. Contractor shall execute a data licensing agreement in the form of **Agreement form acceptable to Architect**.

#### 1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
  1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
  1. Project name.
  2. Project number.
  3. Date.
  4. Name of Contractor.
  5. Name of Architect.
  6. RFI number, numbered sequentially.
  7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.
  13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: COCS RFI document.
  1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow **seven** working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
  1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.

- d. Requests for coordination information already indicated in the Contract Documents.
  - e. Requests for adjustments in the Contract Time or the Contract Sum.
  - f. Requests for interpretation of Architect's actions on submittals.
  - g. Incomplete RFIs or inaccurately prepared RFIs.
2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
  3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within **10** days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log **weekly**. Use **CSI Log Form 13.2B**.
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect.
  4. RFI number including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within **seven** days if Contractor disagrees with response.
1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
  2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.
- 1.8 PROJECT MEETINGS
- A. General: **Schedule and conduct** meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within **three** days of the meeting.

- B. Preconstruction Conference: **Schedule and conduct** a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than **15** days after execution of the Agreement.
1. Conduct the conference to review responsibilities and personnel assignments.
  2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  3. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Lines of communications.
    - f. Procedures for processing field decisions and Change Orders.
    - g. Procedures for RFIs.
    - h. Procedures for testing and inspecting.
    - i. Procedures for processing Applications for Payment.
    - j. Distribution of the Contract Documents.
    - k. Submittal procedures.
    - l. Preparation of record documents.
    - m. Use of the premises **and existing building**.
    - n. Work restrictions.
    - o. Working hours.
    - p. Owner's occupancy requirements.
    - q. Responsibility for temporary facilities and controls.
    - r. Procedures for moisture and mold control.
    - s. Procedures for disruptions and shutdowns.
    - t. Construction waste management and recycling.
    - u. Parking availability.
    - v. Office, work, and storage areas.
    - w. Equipment deliveries and priorities.
    - x. First aid.
    - y. Security.
    - z. Progress cleaning.
  4. Minutes: Record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

- a. Contract Documents.
  - b. Options.
  - c. Related RFIs.
  - d. Related Change Orders.
  - e. Purchases.
  - f. Deliveries.
  - g. Submittals.
  - h. Review of mockups.
  - i. Possible conflicts.
  - j. Compatibility requirements.
  - k. Time schedules.
  - l. Weather limitations.
  - m. Manufacturer's written instructions.
  - n. Warranty requirements.
  - o. Compatibility of materials.
  - p. Acceptability of substrates.
  - q. Temporary facilities and controls.
  - r. Space and access limitations.
  - s. Regulations of authorities having jurisdiction.
  - t. Testing and inspecting requirements.
  - u. Installation procedures.
  - v. Coordination with other work.
  - w. Required performance results.
  - x. Protection of adjacent work.
  - y. Protection of construction and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Progress Meetings: **Conduct** progress meetings at bi-weekly intervals.

1. Coordinate dates of meetings with preparation of payment requests.
2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
  - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to

do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- 1) Review schedule for next period.
- b. Review present and future needs of each entity present, including the following:
  - 1) Interface requirements.
  - 2) Sequence of operations.
  - 3) Resolution of BIM component conflicts.
  - 4) Status of submittals.
  - 5) Deliveries.
  - 6) Off-site fabrication.
  - 7) Access.
  - 8) Site utilization.
  - 9) Temporary facilities and controls.
  - 10) Progress cleaning.
  - 11) Quality and work standards.
  - 12) Status of correction of deficient items.
  - 13) Field observations.
  - 14) Status of RFIs.
  - 15) Status of proposal requests.
  - 16) Pending changes.
  - 17) Status of Change Orders.
  - 18) Pending claims and disputes.
  - 19) Documentation of information for payment requests.
4. Minutes: Record and distribute the meeting minutes to each party present and to parties requiring information.
  - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- E. Coordination Meetings: **Conduct** project coordination meetings at **weekly** intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
  1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meetings shall be familiar with Project and authorized to conclude matters relating to the Work.
  2. Agenda: Review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to combined Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure

- commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
- b. Schedule Updating: Revise combined Contractor's construction schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.
  - c. Review present and future needs of each contractor present, including the following:
    - 1) Interface requirements.
    - 2) Sequence of operations.
    - 3) Resolution of BIM component conflicts.
    - 4) Status of submittals.
    - 5) Deliveries.
    - 6) Off-site fabrication.
    - 7) Access.
    - 8) Site utilization.
    - 9) Temporary facilities and controls.
    - 10) Work hours.
    - 11) Hazards and risks.
    - 12) Progress cleaning.
    - 13) Quality and work standards.
    - 14) Change Orders.
3. Reporting: Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

## SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Startup construction schedule.
  - 2. Contractor's construction schedule.
  - 3. Construction schedule updating reports.
  - 4. Daily construction reports.
  - 5. Material location reports.
  - 6. Site condition reports.
  - 7. Special reports.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting schedules and reports.
  - 2. Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.

#### 1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
  - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
  - 2. Predecessor Activity: An activity that precedes another activity in the network.
  - 3. Successor Activity: An activity that follows another activity in the network.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of Project.
- C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.

- E. Float: The measure of leeway in starting and completing an activity.
  - 1. Float time **belongs to Owner**.
  - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
  - 1. PDF electronic file.
  - 2. **Two** paper copies.
- B. Startup construction schedule.
- C. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
  - 1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.
- D. CPM Reports: Concurrent with CPM schedule, submit each of the following reports. Format for each activity in reports shall contain activity number, activity description, cost and resource loading, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Daily Construction Reports: Submit at **monthly** intervals.
- G. Special Reports: Submit at time of unusual event.
- H. Qualification Data: For scheduling consultant.

#### 1.5 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Architect's request.

#### 1.6 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, [**list of subcontracts,**] submittal schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from entities involved.
2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

## PART 2 - PRODUCTS

### 2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. **Time Frame:** Extend schedule from date established for **the Notice to Proceed** to date of **final completion**.
  1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. **Activities:** Treat each separate area as a separate numbered activity for each main element of the Work. Comply with the following:
  1. **Activity Duration:** Define activities so no activity is longer than **20** days, unless specifically allowed by Architect.
  2. **Procurement Activities:** Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
  3. **Submittal Review Time:** Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
  4. **Startup and Testing Time:** Include no fewer than **15** days for startup and testing.
  5. **Substantial Completion:** Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
  6. **Punch List and Final Completion:** Include not more than **30** days for completion of punch list items and final completion.
- C. **Constraints:** Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
  1. **Phasing:** Arrange list of activities on schedule by phase.
  2. **Work by Owner:** Include a separate activity for each portion of the Work performed by Owner.
  3. **Products Ordered in Advance:** Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
  4. **Owner-Furnished Products:** Include a separate activity for each product. Include delivery date indicated in Section 011000 "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
  5. **Work Restrictions:** Show the effect of the following items on the schedule:

- a. Coordination with existing construction.
  - b. Limitations of continued occupancies.
  - c. Uninterruptible services.
  - d. Partial occupancy before Substantial Completion.
  - e. Use of premises restrictions.
  - f. Provisions for future construction.
  - g. Seasonal variations.
  - h. Environmental control.
6. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
- a. Subcontract awards.
  - b. Submittals.
  - c. Purchases.
  - d. Mockups.
  - e. Fabrication.
  - f. Sample testing.
  - g. Deliveries.
  - h. Installation.
  - i. Tests and inspections.
  - j. Adjusting.
  - k. Curing.
  - l. Building flush-out.
  - m. Startup and placement into final use and operation.
7. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
- a. Structural completion.
  - b. Temporary enclosure and space conditioning.
  - c. Permanent space enclosure.
  - d. Completion of mechanical installation.
  - e. Completion of electrical installation.
  - f. Substantial Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.
- E. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
1. Unresolved issues.
  2. Unanswered Requests for Information.
  3. Rejected or unreturned submittals.
  4. Notations on returned submittals.
  5. Pending modifications affecting the Work and Contract Time.
- F. Recovery Schedule: When periodic update indicates the Work is **14** or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by

which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

- G. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

## 2.2 STARTUP CONSTRUCTION SCHEDULE

- A. Bar-Chart Schedule: Submit startup, horizontal, bar-chart-type construction schedule within **seven** days of date established for **the Notice to Proceed**.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first **90** days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

## 2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (CPM SCHEDULE)

- A. General: Prepare network diagrams using AON (activity-on-node) format.
- B. Startup Network Diagram: Submit diagram within **14** days of date established for **the Notice to Proceed**. Outline significant construction activities for the first **90** days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.
- C. CPM Schedule: Prepare Contractor's construction schedule using a time-scaled CPM network analysis diagram for the Work.
  - 1. Develop network diagram in sufficient time to submit CPM schedule so it can be accepted for use no later than **60** days after date established for **the Notice to Proceed**.
    - a. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Architect's approval of the schedule.
  - 2. Establish procedures for monitoring and updating CPM schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates.
  - 3. Use "one workday" as the unit of time for individual activities. Indicate nonworking days and holidays incorporated into the schedule in order to coordinate with the Contract Time.
- D. CPM Schedule Preparation: Prepare a list of all activities required to complete the Work. Using the startup network diagram, prepare a skeleton network to identify probable critical paths.
  - 1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:

- a. Preparation and processing of submittals.
  - b. Mobilization and demobilization.
  - c. Purchase of materials.
  - d. Delivery.
  - e. Fabrication.
  - f. Utility interruptions.
  - g. Installation.
  - h. Work by Owner that may affect or be affected by Contractor's activities.
  - i. **Testing and commissioning.**
  - j. Punch list and final completion.
  - k. Activities occurring following final completion.
2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
  3. Processing: Process data to produce output data on a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM schedule within the limitations of the Contract Time.
  4. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
    - a. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall project schedule.
- F. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
  2. Description of activity.
  3. Main events of activity.
  4. Immediate preceding and succeeding activities.
  5. Early and late start dates.
  6. Early and late finish dates.
  7. Activity duration in workdays.
  8. Total float or slack time.
  9. Average size of workforce.
- G. Schedule Updating: Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
  2. Changes in early and late start dates.
  3. Changes in early and late finish dates.
  4. Changes in activity durations in workdays.
  5. Changes in the critical path.
  6. Changes in total float or slack time.

7. Changes in the Contract Time.

## 2.4 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
  1. List of subcontractors at Project site.
  2. List of separate contractors at Project site.
  3. Approximate count of personnel at Project site.
  4. Equipment at Project site.
  5. Material deliveries.
  6. High and low temperatures and general weather conditions, including presence of rain or snow.
  7. Accidents.
  8. Meetings and significant decisions.
  9. Unusual events (see special reports).
  10. Stoppages, delays, shortages, and losses.
  11. Meter readings and similar recordings.
  12. Emergency procedures.
  13. Orders and requests of authorities having jurisdiction.
  14. Change Orders received and implemented.
  15. **Construction** Change Directives received and implemented.
  16. Services connected and disconnected.
  17. Equipment or system tests and startups.
  18. Partial completions and occupancies.
  19. Substantial Completions authorized.
- B. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

## 2.5 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within **one** day of an occurrence. Distribute copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

### PART 3 - EXECUTION

#### 3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Scheduling Consultant: Engage a consultant to provide planning, evaluation, and reporting using CPM scheduling.
  - 1. In-House Option: Owner may waive the requirement to retain a consultant if Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques. Submit qualifications.
  - 2. Meetings: Scheduling consultant shall attend all meetings related to Project progress, alleged delays, and time impact.
  
- B. Contractor's Construction Schedule Updating: At **monthly** intervals, update schedule to reflect actual construction progress and activities. Issue schedule **one week** before each regularly scheduled progress meeting.
  - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  - 3. As the Work progresses, indicate final completion percentage for each activity.
  
- C. Distribution: Distribute copies of approved schedule to Architect, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
  - 1. Post copies in Project meeting rooms and temporary field offices.
  - 2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

## SECTION 013300 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
  - 1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
  - 2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
  - 3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
  - 4. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

#### 1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.
- D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

#### 1.4 ACTION SUBMITTALS

- A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
  2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
  3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
    - a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.
  4. Format: Arrange the following information in a tabular format:
    - a. Scheduled date for first submittal.
    - b. Specification Section number and title.
    - c. Submittal category: Action; informational.
    - d. Name of subcontractor.
    - e. Description of the Work covered.
    - f. Scheduled date for Architect's final release or approval.
    - g. Scheduled date of fabrication.
    - h. Scheduled dates for purchasing.
    - i. Scheduled dates for installation.
    - j. Activity or event number.

#### 1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.
1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings **and Project record drawings**.
    - a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
    - b. Digital Drawing Software Program: The Contract Drawings are available in AutoCad 2011.
    - c. Contractor shall execute a data licensing agreement required by the Architect.
    - d. The following digital data files will be furnished for each appropriate discipline:
      - 1) Floor plans.
      - 2) Reflected ceiling plans.

- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
  4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. **Architect reserves** the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on **Architect's** receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow **15** days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. **Architect** will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow **15** days for review of each resubmittal.
  4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow **21** days for initial review of each submittal.
  5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow **15** days for review of each submittal. Submittal will be returned to **Architect** before being returned to Contractor.
- D. Paper Submittals: Place a permanent label or title block on each submittal item for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately **6 by 8 inches (150 by 200 mm)** on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  3. Include the following information for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Name of subcontractor.
    - f. Name of supplier.
    - g. Name of manufacturer.
    - h. Submittal number or other unique identifier, including revision identifier.

- 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A).
  - i. Number and title of appropriate Specification Section.
  - j. Drawing number and detail references, as appropriate.
  - k. Location(s) where product is to be installed, as appropriate.
  - l. Other necessary identification.
4. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
- a. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Architect.
5. Transmittal for Paper Submittals: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will discard submittals received from sources other than Contractor.
- a. Transmittal Form for Paper Submittals: Use **AIA Document G810**.
  - b. Transmittal Form for Paper Submittals: Provide locations on form for the following information:
    - 1) Project name.
    - 2) Date.
    - 3) Destination (To:).
    - 4) Source (From:).
    - 5) Name and address of Architect.
    - 6) Name of Contractor.
    - 7) Name of firm or entity that prepared submittal.
    - 8) Names of subcontractor, manufacturer, and supplier.
    - 9) Category and type of submittal.
    - 10) Submittal purpose and description.
    - 11) Specification Section number and title.
    - 12) Specification paragraph number or drawing designation and generic name for each of multiple items.
    - 13) Drawing number and detail references, as appropriate.
    - 14) Indication of full or partial submittal.
    - 15) Transmittal number, **numbered consecutively**.
    - 16) Submittal and transmittal distribution record.
    - 17) Remarks.
    - 18) Signature of transmitter.
- E. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.

2. Name file with submittal number or other unique identifier, including revision identifier.
  - a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).
3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
4. Transmittal Form for Electronic Submittals: Use **electronic form** acceptable to Owner, containing the following information:
  - a. Project name.
  - b. Date.
  - c. Name and address of Architect.
  - d. Name of Contractor.
  - e. Name of firm or entity that prepared submittal.
  - f. Names of subcontractor, manufacturer, and supplier.
  - g. Category and type of submittal.
  - h. Submittal purpose and description.
  - i. Specification Section number and title.
  - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
  - k. Drawing number and detail references, as appropriate.
  - l. Location(s) where product is to be installed, as appropriate.
  - m. Related physical samples submitted directly.
  - n. Indication of full or partial submittal.
  - o. Transmittal number, **numbered consecutively**.
  - p. Submittal and transmittal distribution record.
  - q. Other necessary identification.
  - r. Remarks.
- F. Options: Identify options requiring selection by Architect.
- G. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  1. Note date and content of previous submittal.
  2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

- J. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

## PART 2 - PRODUCTS

### 2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
1. Submit electronic submittals via email as PDF electronic files.
    - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
  2. Action Submittals: Submit **three** paper copies of each submittal unless otherwise indicated. Architect will return **two** copies.
  3. Informational Submittals: Submit **two** paper copies of each submittal unless otherwise indicated. Architect will not return copies.
  4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
    - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
    - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
    - g. Notation of coordination requirements.
    - h. Availability and delivery time information.
  4. For equipment, include the following in addition to the above, as applicable:

- a. Wiring diagrams showing factory-installed wiring.
  - b. Printed performance curves.
  - c. Operational range diagrams.
  - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
5. Submit Product Data before or concurrent with Samples.
  6. Submit Product Data in the following format:
    - a. PDF electronic file.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data, **unless submittal based on Architect's digital data drawing files is otherwise permitted.**
1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least **8-1/2 by 11 inches (215 by 280 mm)**, but no larger than **30 by 42 inches (750 by 1067 mm)**.
  3. Submit Shop Drawings in the following format:
    - a. PDF electronic file.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.
    - d. Number and title of applicable Specification Section.
    - e. Specification paragraph number and generic name of each item.
  3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.

4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
  - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
  - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - a. Number of Samples: Submit **one** full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  - a. Number of Samples: Submit **three** sets of Samples. Architect will retain **two** Sample sets; remainder will be returned. **Mark up and retain one returned Sample set as a project record sample.**
    - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
    - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least **three** sets of paired units that show approximate limits of variations.
- E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
  1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
  2. Manufacturer and product name, and model number if applicable.
  3. Number and name of room or space.
  4. Location within room or space.
  5. Submit product schedule in the following format:
    - a. PDF electronic file.

- F. Coordination Drawing Submittals: Comply with requirements specified in Section 013100 "Project Management and Coordination."
- G. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."
- H. Application for Payment and Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."
- I. Test and Inspection Reports and Schedule of Tests and Inspections Submittals: Comply with requirements specified in Section 014000 "Quality Requirements."
- J. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- K. Maintenance Data: Comply with requirements specified in Section 017823 "Operation and Maintenance Data."
- L. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- M. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.
- N. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- O. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- P. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- Q. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- R. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- S. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

- T. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  - 1. Name of evaluation organization.
  - 2. Date of evaluation.
  - 3. Time period when report is in effect.
  - 4. Product and manufacturers' names.
  - 5. Description of product.
  - 6. Test procedures and results.
  - 7. Limitations of use.
- U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
- V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- W. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- X. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

## 2.2 DELEGATED-DESIGN SERVICES

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit **digitally signed PDF electronic file and three** paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

### PART 3 - EXECUTION

#### 3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

#### 3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate **action**.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 013300

## SECTION 014000 - QUALITY REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
  - 4. Specific test and inspection requirements are not specified in this Section.

#### 1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Laboratory Mockups: Full-size physical assemblies constructed at testing facility to verify performance characteristics.
  2. Integrated Exterior Mockups: Mockups of the exterior envelope erected separately from the building but on Project site, consisting of multiple products, assemblies, and subassemblies.
  3. Room Mockups: Mockups of typical interior spaces complete with wall, floor, and ceiling finishes, doors, windows, millwork, casework, specialties, furnishings and equipment, and lighting.
- D. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.
- E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- F. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.
- G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).
- J. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of **five** previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

#### 1.4 CONFLICTING REQUIREMENTS

- A. Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as

appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

#### 1.5 ACTION SUBMITTALS

- A. Shop Drawings: For **integrated exterior** mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.
1. Indicate manufacturer and model number of individual components.
  2. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:
1. Seismic-force-resisting system, designated seismic system, or component listed in the designated seismic system quality-assurance plan prepared by Architect.
  2. Main wind-force-resisting system or a wind-resisting component listed in the wind-force-resisting system quality-assurance plan prepared by Architect.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
1. Specification Section number and title.
  2. Entity responsible for performing tests and inspections.
  3. Description of test and inspection.
  4. Identification of applicable standards.
  5. Identification of test and inspection methods.
  6. Number of tests and inspections required.
  7. Time schedule or time span for tests and inspections.
  8. Requirements for obtaining samples.
  9. Unique characteristics of each quality-control service.

#### 1.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within **10** days of **Notice to Proceed**, and not less than **five** days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records,

and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.

- B. Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
  - 1. Project quality-control manager **may also serve as Project superintendent.**
- C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
  - 1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.
  - 2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
  - 3. Owner-performed tests and inspections indicated in the Contract Documents.
- E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

## 1.8 REPORTS AND DOCUMENTS

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
  - 1. Date of issue.
  - 2. Project title and number.
  - 3. Name, address, and telephone number of testing agency.
  - 4. Dates and locations of samples and tests or inspections.
  - 5. Names of individuals making tests and inspections.
  - 6. Description of the Work and test and inspection method.
  - 7. Identification of product and Specification Section.
  - 8. Complete test or inspection data.
  - 9. Test and inspection results and an interpretation of test results.
  - 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.

11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  12. Name and signature of laboratory inspector.
  13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of technical representative making report.
  2. Statement on condition of substrates and their acceptability for installation of product.
  3. Statement that products at Project site comply with requirements.
  4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  6. Statement whether conditions, products, and installation will affect warranty.
  7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, and telephone number of factory-authorized service representative making report.
  2. Statement that equipment complies with requirements.
  3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  4. Statement whether conditions, products, and installation will affect warranty.
  5. Other required items indicated in individual Specification Sections.
- D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.
- 1.9 QUALITY ASSURANCE
- A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

- D. **Installer Qualifications:** A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. **Professional Engineer Qualifications:** A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.
- F. **Specialists:** Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G. **Testing Agency Qualifications:** An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to **ASTM E 329**; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
  - 1. **NRTL:** A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. **NVLAP:** A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. **Manufacturer's Technical Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. **Factory-Authorized Service Representative Qualifications:** An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. **Preconstruction Testing:** Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
  - 1. Contractor responsibilities include the following:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
    - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.

- e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
  - f. When testing is complete, remove test specimens, assemblies, **and** mockups; do not reuse products on Project.
2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- K. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
  2. Notify Architect **seven** days in advance of dates and times when mockups will be constructed.
  3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
  4. Demonstrate the proposed range of aesthetic effects and workmanship.
  5. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
    - a. Allow **seven** days for initial review and each re-review of each mockup.
  6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  7. Demolish and remove mockups when directed unless otherwise indicated.
- L. Integrated Exterior Mockups: Construct integrated exterior mockup **according to approved Shop Drawings**. Coordinate installation of exterior envelope materials and products for which mockups are required in individual Specification Sections, along with supporting materials.
- M. Room Mockups: Construct room mockups incorporating required materials and assemblies, finished according to requirements. Provide required lighting and additional lighting where required to enable Architect to evaluate quality of the Work.
- 1.10 QUALITY CONTROL
- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
  2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.
  3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.

- B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  2. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  3. Notify testing agencies at least **24** hours in advance of time when Work that requires testing or inspecting will be performed.
  4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- D. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform any duties of Contractor.

- G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.
1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

#### 1.11 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: **Owner will engage** a qualified **testing agency** to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviews the completeness and adequacy of those procedures to perform the Work.
  2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
  4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
  5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
  6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
  - 1. Date test or inspection was conducted.
  - 2. Description of the Work tested or inspected.
  - 3. Date test or inspection results were transmitted to Architect.
  - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

## SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

#### 1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to Architect, **occupants of Project**, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: **Pay** sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: **Pay** water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: **Pay** electric-power-service use charges for electricity used by all entities for construction operations.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

- D. **Moisture-Protection Plan:** Describe procedures and controls for protecting materials and construction from water absorption and damage.
  - 1. Describe delivery, handling, and storage provisions for materials subject to water absorption or water damage.
  - 2. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water-damaged Work.
  - 3. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
  
- E. **Dust- and HVAC-Control Plan:** Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
  - 1. Locations of dust-control partitions at each phase of work.
  - 2. HVAC system isolation schematic drawing.
  - 3. Location of proposed air-filtration system discharge.
  - 4. Waste handling procedures.
  - 5. Other dust-control measures.

#### 1.5 QUALITY ASSURANCE

- A. **Electric Service:** Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. **Tests and Inspections:** Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. **Accessible Temporary Egress:** Comply with applicable provisions in **the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.**

#### 1.6 PROJECT CONDITIONS

- A. **Temporary Use of Permanent Facilities:** Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Chain-Link Fencing: Minimum **2-inch (50-mm)**, **0.148-inch- (3.8-mm-)** thick, galvanized-steel, chain-link fabric fencing; minimum **6 feet (1.8 m)** high with galvanized-steel pipe posts; minimum **2-3/8-inch- (60-mm-)** OD line posts and **2-7/8-inch- (73-mm-)** OD corner and pull posts, **with 1-5/8-inch- (42-mm-) OD top rails**.
- B. Polyethylene Sheet: Reinforced, fire-resistive sheet, **10-mil (0.25-mm)** minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
- C. Dust-Control Adhesive-Surface Walk-off Mats: Provide mats minimum **36 by 60 inches (914 by 1624 mm)**.
- D. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

### 2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Not required.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
  - 1. Store combustible materials apart from building.

### 2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
  - 1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### 3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
  - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
  - 1. Connect temporary sewers to **municipal system** as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Heating **and Cooling**: Provide temporary heating **and cooling** required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
  - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
    - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
    - b. Maintain negative air pressure within work area using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
  - 2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
  - 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- G. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.
  - 1. Provide dehumidification systems when required to reduce substrate moisture levels to level required to allow installation or application of finishes.

- H. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
  - 1. Install electric power service **overhead** unless otherwise indicated.
- I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
  - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
  - 2. Install lighting for Project identification sign.
- J. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install **one** telephone line(s) for each field office.
  - 1. Provide additional telephone lines for the following:
    - a. Provide a dedicated telephone line for each facsimile machine in each field office.
  - 2. At each telephone, post a list of important telephone numbers.
    - a. Police and fire departments.
    - b. Ambulance service.
    - c. Contractor's home office.
    - d. Contractor's emergency after-hours telephone number.
    - e. Architect's office.
    - f. Engineers' offices.
    - g. Owner's office.
    - h. Principal subcontractors' field and home offices.
  - 3. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

### 3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
  - 1. Provide construction for temporary offices, shops, and sheds located within construction area or within **30 feet (9 m)** of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
  - 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Use of Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extend temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.

1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
  2. Prepare subgrade and install subbase and base for temporary roads and paved areas according to Section 312000 "Earth Moving."
  3. Recondition base after temporary use, including removing contaminated material, regrading, proofrolling, compacting, and testing.
  4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course according to Section 321216 "Asphalt Paving."
- C. Traffic Controls: Comply with requirements of authorities having jurisdiction.
1. Protect existing site improvements to remain including curbs, pavement, and utilities.
  2. Maintain access for fire-fighting equipment and access to fire hydrants.
- D. Parking: **Provide temporary** parking areas for construction personnel.
- E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
- F. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
1. Identification Signs: Provide Project identification sign.
  2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
    - a. Provide temporary, directional signs for construction personnel and visitors.
  3. Maintain and touchup signs so they are legible at all times.
- G. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."
- H. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- 3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION
- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
  - 1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Temporary Erosion and Sedimentation Control: Comply with **requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and** requirements specified in Section 311000 "Site Clearing."
- D. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to **requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.**
  - 1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant- protection zones.
  - 2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
  - 3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
  - 4. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- E. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- F. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- G. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.
- H. Site Enclosure Fence: **Before construction operations begin**, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
  - 1. Extent of Fence: **As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.**
  - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. **Furnish one set of keys to Owner.**
- I. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.

- J. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

### 3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
  - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
  - 2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
  - 3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

## SECTION 015639 - TEMPORARY TREE AND PLANT PROTECTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes general protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.
- B. Related Sections:
  - 1. Section 015000 "Temporary Facilities and Controls" for temporary site fencing.
  - 2. Section 311000 "Site Clearing" for removing existing trees and shrubs.

#### 1.3 DEFINITIONS

- A. Caliper: Diameter of a trunk measured by **a diameter tape** at **6 inches (150 mm)** above the ground for trees up to, and including, **4-inch (100-mm)** size; and **12 inches (300 mm)** above the ground for trees larger than **4-inch (100-mm)** size.
- B. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and indicated on Drawings.
- C. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and **defined by a circle concentric with each tree with a radius 1.5 times the diameter of the drip line unless otherwise indicated.**
- D. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each type of the following:
  - 1. Organic Mulch: **1-pint (0.5-L)** volume of organic mulch; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch.
  - 2. Protection-Zone Fencing: Assembled Samples of **manufacturer's standard size made from full-size components.**
  - 3. Protection-Zone Signage: Full-size Samples of each size and text, ready for installation.

- C. Tree Pruning Schedule: Written schedule detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.
  - 1. Species and size of tree.
  - 2. Location on site plan. Include unique identifier for each.
  - 3. Reason for pruning.
  - 4. Description of pruning to be performed.
  - 5. Description of maintenance following pruning.
- D. Qualification Data: For qualified arborist and tree service firm.
- E. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- F. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.
- G. Existing Conditions: Documentation of existing trees and plantings indicated to remain, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.
  - 1. Use sufficiently detailed photographs or videotape.
  - 2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.

#### 1.5 QUALITY ASSURANCE

- A. Arborist Qualifications: **Certified Arborist as certified by ISA.**
- B. Tree Service Firm Qualifications: An experienced tree service firm that has successfully completed temporary tree and plant protection work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of the Work.
- C. Preinstallation Conference: Conduct conference at **Project site.**
  - 1. Review methods and procedures related to temporary tree and plant protection including, but not limited to, the following:
    - a. Construction schedule. Verify availability of materials, personnel, and equipment needed to make progress and avoid delays.
    - b. Enforcing requirements for protection zones.
    - c. Arborist's responsibilities.
    - d. Field quality control.

#### 1.6 PROJECT CONDITIONS

- A. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
  2. Parking vehicles or equipment.
  3. Foot traffic.
  4. Erection of sheds or structures.
  5. Impoundment of water.
  6. Excavation or other digging unless otherwise indicated.
  7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- B. Do not direct vehicle or equipment exhaust toward protection zones.
- C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Topsoil: Natural or cultivated top layer of the soil profile or manufactured topsoil; containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than **1 inch (25 mm)** in diameter; and free of weeds, roots, and toxic and other nonsoil materials.
1. Obtain topsoil only from well-drained sites where topsoil is **4 inches (100 mm)** deep or more; do not obtain from bogs or marshes.
- B. Topsoil: **Imported or manufactured topsoil complying with ASTM D 5268.**
- C. Organic Mulch: Free from deleterious materials and suitable as a top dressing for trees and shrubs, consisting of one of the following:
1. Type: **Shredded hardwood.**
  2. Size Range: **3 inches (76 mm) maximum, 1/2 inch (13 mm) minimum.**
  3. Color: Natural.
- D. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements.
1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with **2-inch (50-mm)** maximum opening in pattern and weighing a minimum of **0.4 lb/ft. (0.6 kg/m)**; remaining flexible from **minus 60 to plus 200 deg F (minus 16 to plus 93 deg C)**; inert to most chemicals and acids; minimum tensile yield strength of **2000 psi (13.8 MPa)** and ultimate tensile strength of **2680 psi (18.5 MPa)**; secured with plastic bands or galvanized-steel or stainless-steel wire ties; and supported by tubular or T-shape galvanized-steel posts spaced not more than **8 feet (2.4 m)** apart.
    - a. Height: **4 feet (1.2 m).**
    - b. Color: High-visibility orange, nonfading.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- B. For the record, prepare written report, endorsed by arborist, listing conditions detrimental to tree and plant protection.

### 3.2 PREPARATION

- A. Locate and clearly identify trees, shrubs, and other vegetation to remain. **Tie a 1-inch (25-mm) blue-vinyl tape around** each tree trunk at **54 inches (1372 mm)** above the ground.
- B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
- C. Tree-Protection Zones: Mulch areas inside tree-protection zones and other areas indicated.
  1. Apply **4-inch (100-mm)** average thickness of organic mulch. Do not place mulch within **6 inches (150 mm)** of tree trunks.

### 3.3 TREE- AND PLANT-PROTECTION ZONES

- A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones **before materials or equipment are brought on the site and construction operations begin** in a manner that will prevent people from easily entering protected area except by entrance gates. Construct fencing so as not to obstruct safe passage or visibility at vehicle intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.
- B. Maintain protection zones free of weeds and trash.
- C. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.
- D. Maintain protection-zone fencing and signage in good condition as acceptable to Architect and remove when construction operations are complete and equipment has been removed from the site.
  1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.
  2. Temporary access is permitted subject to preapproval in writing by arborist if a root buffer effective against soil compaction is constructed as directed by arborist. Maintain root buffer so long as access is permitted.

### 3.4 EXCAVATION

- A. General: Excavate at edge of protection zones and for trenches indicated within protection zones according to requirements in Section 312000 "Earth Moving."
- B. Trenching near Trees: Where utility trenches are required within protection zones, hand excavate under or around tree roots or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning.
- C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately **3 inches (75 mm)** back from new construction and as required for root pruning.
- D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

### 3.5 ROOT PRUNING

- A. Prune roots that are affected by temporary and permanent construction. Prune roots **as follows**:
  - 1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
  - 2. Cut Ends: **Do not paint cut root ends.**
  - 3. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
  - 4. Cover exposed roots with burlap and water regularly.

### 3.6 REGRADING

- A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.
- B. Lowering Grade within Protection Zone: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by arborist unless otherwise indicated.
  - 1. Root Pruning: Prune tree roots exposed by lowering the grade. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots as required for root pruning.
- C. Raising Grade: Where new finish grade is indicated above existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.

- D. Minor Fill within Protection Zone: Where existing grade is **2 inches (50 mm)** or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.

### 3.7 FIELD QUALITY CONTROL

- A. Inspections: Engage a qualified arborist to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

### 3.8 REPAIR AND REPLACEMENT

- A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.
  - 1. Submit details of proposed root cutting and tree and shrub repairs.
  - 2. Have arborist perform the root cutting, branch pruning, and damage repair of trees and shrubs.
  - 3. Treat damaged trunks, limbs, and roots according to arborist's written instructions.
  - 4. Perform repairs within 24 hours.
  - 5. Replace vegetation that cannot be repaired and restored to full-growth status, as determined by Architect.
- B. Trees: Remove and replace trees indicated to remain that are more than **25** percent dead or in an unhealthy condition **before the end of the corrections period** or are damaged during construction operations that Architect determines are incapable of restoring to normal growth pattern.
  - 1. Provide new trees of same size and species as those being replaced for each tree that measures **4 inches (100 mm)** or smaller in caliper size.

### 3.9 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove excess excavated material, displaced trees, trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 015639

## SECTION 016000 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
  - 1. Section 012500 "Substitution Procedures" for requests for substitutions.
  - 2. Section 014200 "References" for applicable industry standards for products specified.

#### 1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

#### 1.4 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
  2. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable product request within **15** days of receipt of request, or **seven** days of receipt of additional information or documentation, whichever is later.
    - a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
    - b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

#### 1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
  2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

#### 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.
7. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

## 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. **Manufacturer's Warranty:** Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. **Special Warranty:** Written warranty required by the Contract Documents to provide specific rights for Owner.

- B. **Special Warranties:** Prepare a written document that contains appropriate terms and identification, ready for execution.

1. **Manufacturer's Standard Form:** Modified to include Project-specific information and properly executed.
2. **Specified Form:** When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. See other Sections for specific content requirements and particular requirements for submitting special warranties.

- C. **Submittal Time:** Comply with requirements in Section 017700 "Closeout Procedures."

## PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. **General Product Requirements:** Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:
  - a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience **will not** be considered **unless otherwise indicated**.
  - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
4. Manufacturers:
  - a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience **will not** be considered **unless otherwise indicated**.
  - b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics

that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
  - 1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
  - 1. Evidence that the proposed product does not require revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - 3. Evidence that proposed product provides specified warranty.
  - 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  - 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

## SECTION 017300 - EXECUTION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Coordination of Owner-installed products.
6. Progress cleaning.
7. Starting and adjusting.
8. Protection of installed construction.
9. Correction of the Work.

- B. Related Requirements:

1. Section 011000 "Summary" for limits on use of Project site.
2. Section 013300 "Submittal Procedures" for submitting surveys.
3. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
4. Section 078413 "Penetration Firestopping" for patching penetrations in fire-rated construction.

#### 1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For **land surveyor**.

- B. Certificates: Submit certificate signed by **land surveyor** certifying that location and elevation of improvements comply with requirements.
- C. Cutting and Patching Plan: Submit plan describing procedures at least **10** days prior to the time cutting and patching will be performed. Include the following information:
  - 1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
  - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
  - 3. Products: List products to be used for patching and firms or entities that will perform patching work.
  - 4. Dates: Indicate when cutting and patching will be performed.
  - 5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
    - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
- D. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- E. Final Property Survey: Submit **10** copies showing the Work performed and record survey data.

## 1.5 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection
  - 2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. **Operational elements include the following:**
    - a. Primary operational systems and equipment.
    - b. Fire separation assemblies.
    - c. Air or smoke barriers.
    - d. Fire-suppression systems.

- e. Mechanical systems piping and ducts.
  - f. Control systems.
  - g. Communication systems.
  - h. Fire-detection and -alarm systems.
  - i. Electrical wiring systems.
  - j. Operating systems of special construction.
3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. **Other construction elements include but are not limited to the following:**
- a. Water, moisture, or vapor barriers.
  - b. Membranes and flashings.
  - c. Sprayed fire-resistive material.
  - d. Equipment supports.
  - e. Piping, ductwork, vessels, and equipment.
  - f. Noise- and vibration-control elements and systems.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- C. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- D. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, **mechanical and electrical systems** and other construction affecting the Work.
1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
  2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
1. Description of the Work.
  2. List of detrimental conditions, including substrates.
  3. List of unacceptable installation tolerances.
  4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to **local utility** that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before

fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of Contractor, submit a request for information to Architect according to requirements in Section 013100 "Project Management and Coordination."

### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a **land surveyor** to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2. Establish limits on use of Project site.
  - 3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 4. Inform installers of lines and levels to which they must comply.
  - 5. Check the location, level and plumb, of every major element as the Work progresses.
  - 6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  - 7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### 3.4 FIELD ENGINEERING

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.

- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
  - 1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
  - 2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of **two** permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
  - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
  - 2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
  - 3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a **land surveyor** to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by **land surveyor**, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
  - 1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
  - 2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

### 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  - 4. Maintain minimum headroom clearance of **96 inches (2440 mm)** in occupied spaces and **90 inches (2300 mm)** in unoccupied spaces.

- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.
- F. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

### 3.6 CUTTING AND PATCHING

- A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
  - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

- C. Temporary Support: Provide temporary support of work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching according to requirements in Section 011000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to **minimize** interruption to occupied areas.
- G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
  - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  - 3. **Concrete and Masonry:** Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
  - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  - 6. Proceed with patching after construction operations requiring cutting are complete.
- H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.
  - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
  - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall

coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

- a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.7 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
  3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  1. Remove liquid spills promptly.
  2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in **Section 017419 "Construction Waste Management and Disposal."**
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.8 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components with requirements in Section 019113 "General Commissioning Requirements."
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 014000 "Quality Requirements."

### 3.9 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

## SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Disposing of nonhazardous **demolition** and construction waste.
  - 2. Disposing of hazardous **demolition** and construction waste.

#### 1.2 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

#### 1.3 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within **7** days of date established for **the Notice of Award**.
- B. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
  - 1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Disposal: Remove waste materials from Owner's property and legally dispose of them.

END OF SECTION 017419

## SECTION 017700 - CLOSEOUT PROCEDURES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.
  - 5. Repair of the Work.
- B. Related Requirements:
  - 1. Section 017300 "Execution" for progress cleaning of Project site.
  - 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 3. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest control inspection.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of **10** days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by **Architect**. Label with manufacturer's name and model number where applicable.
  - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain **Architect's** signature for receipt of submittals.
5. Submit test/adjust/balance records.
6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

- C. Procedures Prior to Substantial Completion: Complete the following a minimum of **10** days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
3. Complete startup and testing of systems and equipment.
4. Perform preventive maintenance on equipment used prior to Substantial Completion.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."

6. Advise Owner of changeover in heat and other utilities.
  7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Complete final cleaning requirements, including touchup painting.
  10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of **10** days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for final completion.

#### 1.7 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
1. Submit a final Application for Payment according to Contract Documents.
  2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Submit pest-control final inspection report.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### 1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order, **starting with exterior areas first**.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:
  - a. Project name.
  - b. Date.
  - c. Name of Architect.
  - d. Name of Contractor.
  - e. Page number.
4. Submit list of incomplete items in the following format:
  - a. MS Excel electronic file. Architect will return annotated file.

#### 1.9 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Partial Occupancy: Submit properly executed warranties within **15** days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
  1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive **8-1/2-by-11-inch (215-by-280-mm)** paper.
  2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
  4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.
    - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - h. Sweep concrete floors broom clean in unoccupied spaces.
    - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
    - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
    - k. Remove labels that are not permanent.

- l. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - m. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - n. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - o. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
    - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
  - p. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
  - q. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.
- D. Construction Waste Disposal: Comply with waste disposal requirements in **Section 015000 "Temporary Facilities and Controls."**

### 3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
1. Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
  2. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
    - a. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
  3. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
  4. Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

City of College Station  
City Marker at Highway 6 and University Drive

September 2015

END OF SECTION 017700

## SECTION 017823 - OPERATION AND MAINTENANCE DATA

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
  - 1. Operation and maintenance documentation directory.
  - 2. Emergency manuals.
  - 3. Operation manuals for systems, subsystems, and equipment.
  - 4. Product maintenance manuals.
  - 5. Systems and equipment maintenance manuals.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
  - 2. Section 019113 "General Commissioning Requirements" for verification and compilation of data into operation and maintenance manuals.

#### 1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Manual Content: Operations and maintenance manual content is specified in individual Specification Sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
  - 1. Architect will comment on whether content of operations and maintenance submittals are acceptable.
  - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operations and maintenance manuals in the following format:

1. PDF electronic file. Assemble each manual into a composite electronically indexed file. Submit on digital media acceptable to Architect.
  - a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically linked operation and maintenance directory.
  - b. Enable inserted reviewer comments on draft submittals.
- C. Initial Manual Submittal: Submit draft copy of each manual at least **30** days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least **15** days before commencing demonstration and training. Architect will return copy with comments.
  1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within **15** days of receipt of Architect's comments and prior to commencing demonstration and training.

## PART 2 - PRODUCTS

### 2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

- A. Directory: Prepare a single, comprehensive directory of emergency, operation, and maintenance data and materials, listing items and their location to facilitate ready access to desired information. Include a section in the directory for each of the following:
  1. List of documents.
  2. List of systems.
  3. List of equipment.
  4. Table of contents.
- B. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
- C. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.
- D. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

## 2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

- A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Include the following information:
1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name and contact information for Contractor.
  6. Name and contact information for Architect.
  7. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
  8. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
  2. File Names and Bookmarks: Enable bookmarking of individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.
- F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, **loose-leaf** binders, in thickness necessary to accommodate contents, sized to hold **8-1/2-by-11-inch (215-by-280-mm)** paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
  - a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
  - b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name **and** subject matter of contents **and indicate Specification Section number on bottom of spine.** Indicate volume number for multiple-volume sets.
2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Supplementary Text: Prepared on **8-1/2-by-11-inch (215-by-280-mm)** white bond paper.
5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
  - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
  - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

## 2.3 EMERGENCY MANUALS

- A. Content: Organize manual into a separate section for each of the following:
  1. Type of emergency.
  2. Emergency instructions.
  3. Emergency procedures.
- B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
  1. Fire.
  2. Flood.
  3. Gas leak.
  4. Water leak.
  5. Power failure.
  6. Water outage.
  7. System, subsystem, or equipment failure.
  8. Chemical release or spill.

- C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- D. Emergency Procedures: Include the following, as applicable:
  - 1. Instructions on stopping.
  - 2. Shutdown instructions for each type of emergency.
  - 3. Operating instructions for conditions outside normal operating limits.
  - 4. Required sequences for electric or electronic systems.
  - 5. Special operating instructions and procedures.

## 2.4 OPERATION MANUALS

- A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
  - 1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
  - 2. Performance and design criteria if Contractor has delegated design responsibility.
  - 3. Operating standards.
  - 4. Operating procedures.
  - 5. Operating logs.
  - 6. Wiring diagrams.
  - 7. Control diagrams.
  - 8. Piped system diagrams.
  - 9. Precautions against improper use.
  - 10. License requirements including inspection and renewal dates.
- B. Descriptions: Include the following:
  - 1. Product name and model number. Use designations for products indicated on Contract Documents.
  - 2. Manufacturer's name.
  - 3. Equipment identification with serial number of each component.
  - 4. Equipment function.
  - 5. Operating characteristics.
  - 6. Limiting conditions.
  - 7. Performance curves.
  - 8. Engineering data and tests.
  - 9. Complete nomenclature and number of replacement parts.
- C. Operating Procedures: Include the following, as applicable:
  - 1. Startup procedures.
  - 2. Equipment or system break-in procedures.
  - 3. Routine and normal operating instructions.
  - 4. Regulation and control procedures.
  - 5. Instructions on stopping.
  - 6. Normal shutdown instructions.

7. Seasonal and weekend operating instructions.
  8. Required sequences for electric or electronic systems.
  9. Special operating instructions and procedures.
- D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

## 2.5 PRODUCT MAINTENANCE MANUALS

- A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
1. Product name and model number.
  2. Manufacturer's name.
  3. Color, pattern, and texture.
  4. Material and chemical composition.
  5. Reordering information for specially manufactured products.
- D. Maintenance Procedures: Include manufacturer's written recommendations and the following:
1. Inspection procedures.
  2. Types of cleaning agents to be used and methods of cleaning.
  3. List of cleaning agents and methods of cleaning detrimental to product.
  4. Schedule for routine cleaning and maintenance.
  5. Repair instructions.
- E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
- F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
1. Include procedures to follow and required notifications for warranty claims.

## 2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
  - 1. Standard maintenance instructions and bulletins.
  - 2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
  - 3. Identification and nomenclature of parts and components.
  - 4. List of items recommended to be stocked as spare parts.
- D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
  - 1. Test and inspection instructions.
  - 2. Troubleshooting guide.
  - 3. Precautions against improper maintenance.
  - 4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - 5. Aligning, adjusting, and checking instructions.
  - 6. Demonstration and training video recording, if available.
- E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
  - 1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
  - 2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

### PART 3 - EXECUTION

#### 3.1 MANUAL PREPARATION

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
  1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
  1. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
  1. Do not use original project record documents as part of operation and maintenance manuals.
  2. Comply with requirements of newly prepared record Drawings in Section 017839 "Project Record Documents."
- G. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

## SECTION 017839 - PROJECT RECORD DOCUMENTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
1. Record Drawings.
  2. Record Specifications.
  3. Record Product Data.
  4. Miscellaneous record submittals.
- B. Related Requirements:
1. Section 017300 "Execution" for final property survey.
  2. Section 017700 "Closeout Procedures" for general closeout procedures.
  3. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

#### 1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
1. Number of Copies: Submit copies of record Drawings as follows:
    - a. Initial Submittal:
      - 1) Submit PDF electronic files of scanned record prints and **one** of file prints.
      - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
    - b. Final Submittal:
      - 1) Submit PDF electronic files of scanned record prints and **three** set(s) of prints.
      - 2) Print each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit **one paper copy** of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit **one paper copy** of each submittal.

1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
- D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit **one paper copy** of each submittal.
- E. Reports: Submit written report **weekly** indicating items incorporated into project record documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

## PART 2 - PRODUCTS

### 2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
  1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an acceptable drawing technique.
    - c. Record data as soon as possible after obtaining it.
    - d. Record and check the markup before enclosing concealed installations.
    - e. Cross-reference record prints to corresponding archive photographic documentation.
  2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.
    - b. Revisions to details shown on Drawings.
    - c. Depths of foundations below first floor.
    - d. Locations and depths of underground utilities.
    - e. Revisions to routing of piping and conduits.
    - f. Revisions to electrical circuitry.
    - g. Actual equipment locations.
    - h. Duct size and routing.
    - i. Locations of concealed internal utilities.
    - j. Changes made by Change Order or **Construction** Change Directive.
    - k. Changes made following Architect's written orders.
    - l. Details not on the original Contract Drawings.
    - m. Field records for variable and concealed conditions.
    - n. Record information on the Work that is shown only schematically.

3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
  4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing record Drawings where Architect determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
  2. Consult Architect for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared record Drawings into record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  2. Format: Annotated PDF electronic file **with comment function enabled**.
  3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
  4. Identification: As follows:
    - a. Project name.
    - b. Date.
    - c. Designation "PROJECT RECORD DRAWINGS."
    - d. Name of Architect.
    - e. Name of Contractor.

## 2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.

4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
5. Note related Change Orders, **record Product Data** and record Drawings where applicable.

B. Format: Submit record Specifications as **paper copy**.

### 2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, **record Specifications** and record Drawings where applicable.

B. Format: Submit record Product Data as **paper copy**.

1. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

### 2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

B. Format: Submit miscellaneous record submittals as **paper copy**.

1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

## PART 3 - EXECUTION

### 3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.

B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean,

dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

## SECTION 033000 - CAST-IN-PLACE CONCRETE

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.
- B. Related Requirements:
  - 1. Section 31 23 00 "Excavation and Embankment" for structural select fill and compaction.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Design Mixtures: For each concrete mixture.
- C. Steel Reinforcement Shop Drawings: Placing Drawings that detail fabrication, bending, and placement.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Material certificates.
- B. Material test reports.
- C. Formwork Shop Drawings: Prepared by or under the supervision of a qualified professional engineer, detailing fabrication, assembly, and support of formwork.
- D. Floor surface flatness and levelness measurements indicating compliance with specified tolerances.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
  - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Testing Agency Qualifications: An independent agency qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.

1.5 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on concrete mixtures.

1.6 FIELD CONDITIONS

- A. Cold-Weather Placement: Comply with ACI 306.1.
  - 1. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- B. Hot-Weather Placement: Comply with ACI 301.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

- A. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
  - 1. ACI 301
  - 2. ACI 117

2.2 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
- B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.3 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Plain-Steel Welded-Wire Reinforcement: ASTM A 1064, plain, fabricated from as-drawn steel wire into flat sheets.
- C. Deformed-Steel Welded-Wire Reinforcement: ASTM A 1064, flat sheet.
- D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

## 2.4 CONCRETE MATERIALS

### A. Cementitious Materials:

1. Portland Cement: ASTM C 150, Type II
2. Fly Ash: ASTM C 618, Class F or C
3. Slag Cement: ASTM C 989, Grade 100 or 120.

### B. Normal-Weight Aggregates: ASTM C 33/C 33M, graded.

1. Maximum Coarse-Aggregate Size: 1 in nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

### C. Air-Entraining Admixture: ASTM C 260/C 260M.

### D. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures and that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

### E. Water: ASTM C 94/C 94M and potable

## 2.5 WATERSTOPS

### A. N/A

## 2.6 VAPOR RETARDERS

### A. N/A

## 2.7 CURING MATERIALS

### A. Water-Based Dissipating Resin Type Curing Compound: Curing Compound shall be a dissipating resin type, which chemically breaks down after approximately 4 weeks. Membrane forming compound shall meet ASTM C309, Types 1 and 1D Class B. Products: Subject to compliance with requirements, provide one of the following:

"Kurez DR Vox" or "Kurez W Vox", Euclid Chemical Company  
"L&M Cure R", L&M Construction Chemicals  
"Horncrete WB 30", Tamms Industries  
"Hydro Cure 309", Unitex  
"Sealtight 1100-Clear", W. R. Meadows

“US Spec Maxcure Resin Clear”, US Mix Co.

- B. Submit manufacturer's certification that product conforms to the requirements specified and is compatible with any covering or surface treatments to be applied. Submit any instructions that must be followed prior to any subsequent surface treatments and floor coverings.
- C. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.
- D. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- E. Water: Potable.

## 2.8 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.

## 2.9 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Cementitious Materials: Use fly ash, pozzolan, slag cement, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by not less than 40 percent.
- C. Admixtures: Use admixtures according to manufacturer's written instructions.
  - 1. Use water-reducing admixture in concrete, as required, for placement and workability.
  - 2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
  - 3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a w/c ratio below 0.50.

## 2.10 CONCRETE MIXTURES FOR BUILDING ELEMENTS

- A. Normal-Weight Concrete:
  - 1. Minimum Compressive Strength: **4000 psi** at 28 days.
  - 2. Air content in "Air Content" Subparagraph below is maximum recommended by ACI 302.1R for trowel-finished floors.
  - 3. Air Content: Do not allow air content of trowel-finished floors to exceed 3 percent.

## 2.11 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

## 2.12 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94 and ASTM C 1116, and furnish batch ticket information.
  - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F reduce mixing and delivery time to 60 minutes.

## PART 3 - EXECUTION

### 3.1 FORMWORK INSTALLATION

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Chamfer exterior corners and edges of permanently exposed concrete.

### 3.2 EMBEDDED ITEM INSTALLATION

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

### 3.3 VAPOR-RETARDER INSTALLATION

- 1. N/A

### 3.4 STEEL REINFORCEMENT INSTALLATION

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

### 3.5 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:
  - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
  - 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

### 3.6 WATERSTOP INSTALLATION

- A. N/A.

### 3.7 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections are completed.
- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
  - 1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301

### 3.8 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
  - 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
  - 1. Apply to concrete surfaces exposed to public view.

- C. Rubbed Finish: Apply the following to smooth-formed-finished as-cast concrete where indicated:
1. Smooth-Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.
  2. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes. Mix 1 part portland cement to 1-1/2 parts fine sand with a 1:1 mixture of bonding admixture and water. Add white portland cement in amounts determined by trial patches, so color of dry grout matches adjacent surfaces. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.
  3. Cork-Floated Finish: Wet concrete surfaces and apply a stiff grout. Mix 1 part portland cement and 1 part fine sand with a 1:1 mixture of bonding agent and water. Add white portland cement in amounts determined by trial patches, so color of dry grout matches adjacent surfaces. Compress grout into voids by grinding surface. In a swirling motion, finish surface with a cork float.
- D. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

### 3.9 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.
1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

### 3.10 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces. If forms remain during curing period, moist cure after

loosening forms. If removing forms before end of curing period, continue curing for remainder of curing period.

D. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period, using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
  - a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound does not interfere with bonding of floor covering used on Project.
4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.11 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

3.12 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a special inspector and qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.

END OF SECTION 033000

## SECTION 042000 - UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

A. Section Includes:

1. Concrete masonry units.
2. Face brick.
3. Mortar and grout.
4. Steel reinforcing bars.
5. Masonry joint reinforcement.
6. Ties and anchors.
7. Embedded flashing.
8. Miscellaneous masonry accessories.

B. Related Sections:

1. Division 04 Section "Cast Stone Masonry" for furnishing cast stone trim.
2. Division 07 Section "Water Repellents" for water repellents applied to unit masonry.

#### 1.3 DEFINITIONS

- A. CMU(s): Concrete masonry unit(s).

- B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

#### 1.4 PERFORMANCE REQUIREMENTS

- A. Provide **structural** unit masonry that develops indicated net-area compressive strengths at 28 days.
  1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) according to Tables 1 and 2 in ACI 530.1/ASCE 6/TMS 602.
  2. Determine net-area compressive strength of masonry by testing masonry prisms according to ASTM C 1314.

## 1.5 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Owner will engage a qualified independent testing agency to perform preconstruction testing indicated below. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.
1. Clay Masonry Unit Test: For each type of unit required, according to ASTM C 67 for compressive strength.
  2. Concrete Masonry Unit Test: For each type of unit required, according to ASTM C 140 for compressive strength.
  3. Mortar Test (Property Specification): For each mix required, according to ASTM C 109/C 109M for compressive strength, **ASTM C 1506 for water retention, and ASTM C 91 for air content.**
  4. Mortar Test (Property Specification): For each mix required, according to ASTM C 780 for compressive strength.
  5. Grout Test (Compressive Strength): For each mix required, according to ASTM C 1019.
  6. Prism Test: For each type of construction required, according to ASTM C 1314.

## 1.6 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For the following:
1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
  2. Cast Stone Trim Units: Show sizes, profiles, and locations of each stone trim unit required.
  3. Reinforcing Steel: Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315, "Details and Detailing of Concrete Reinforcement." **Show elevations of reinforced walls.**
  4. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.
- C. Samples for Initial Selection:
1. **Face brick, in the form of straps of five or more bricks.**
  2. Colored mortar.
  3. Weep holes/vents.
- D. Samples for Verification: For each type and color of the following:
1. **Face brick, in the form of straps of five or more bricks.**
  2. **Pigmented and colored-aggregate** mortar. Make Samples using same sand and mortar ingredients to be used on Project.
  3. Weep holes **and vents.**
  4. Accessories embedded in masonry.
- E. List of Materials Used in Constructing Mockups: List generic product names together with manufacturers, manufacturers' product names, model numbers, lot numbers, batch numbers, source of supply, and other information as required to identify materials used. Include mix proportions for mortar and grout and source of aggregates.

1. Submittal is for information only. Neither receipt of list nor approval of mockup constitutes approval of deviations from the Contract Documents unless such deviations are specifically brought to the attention of Architect and approved in writing.
  - F. Qualification Data: For testing agency.
  - G. Material Certificates: For each type and size of the following:
    1. Masonry units.
      - a. Include **data on material properties and material test reports substantiating compliance with requirements**.
      - b. For brick, include size-variation data verifying that actual range of sizes falls within specified tolerances.
      - c. For exposed brick, include test report for efflorescence according to ASTM C 67.
      - d. For masonry units, include data and calculations establishing average net-area compressive strength of units.
    2. Cementitious materials. Include brand, type, and name of manufacturer.
    3. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
    4. Grout mixes. Include description of type and proportions of ingredients.
    5. Reinforcing bars.
    6. Joint reinforcement.
    7. Anchors, ties, and metal accessories.
  - H. Mix Designs: For each type of mortar **and grout**. Include description of type and proportions of ingredients.
    1. Include test reports for mortar mixes required to comply with property specification. Test according to ASTM C 109/C 109M for compressive strength, ASTM C 1506 for water retention, and ASTM C 91 for air content.
    2. Include test reports, according to ASTM C 1019, for grout mixes required to comply with compressive strength requirement.
  - I. Statement of Compressive Strength of Masonry: For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined according to Tables 1 and 2 in ACI 530.1/ASCE 6/TMS 602.
  - J. Cold-Weather **and Hot-Weather** Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.
- 1.7 QUALITY ASSURANCE
- A. Testing Agency Qualifications: Qualified according to ASTM C 1093 for testing indicated.
  - B. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

- C. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.
- D. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.
- E. Sample Panels: Build sample panels to verify selections made under sample submittals and to demonstrate aesthetic effects. Comply with requirements in Division 01 Section "Quality Requirements" for mockups.
1. Build sample panels for **each type of exposed unit masonry construction** in sizes approximately **48 inches (1200 mm)** long by **48 inches (1200 mm)**.
  2. Where masonry is to match existing, erect panels adjacent and parallel to existing surface.
  3. Clean **one-half of** exposed faces of panels with masonry cleaner indicated.
  4. Protect approved sample panels from the elements with weather-resistant membrane.
  5. Approval of sample panels is for color, texture, and blending of masonry units; relationship of mortar and sealant colors to masonry unit colors; tooling of joints; aesthetic qualities of workmanship; and other material and construction qualities specifically approved by Architect in writing.
    - a. Approval of sample panels does not constitute approval of deviations from the Contract Documents contained in sample panels unless such deviations are specifically approved by Architect in writing.
- F. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Build mockups for **typical exterior wall** in sizes approximately **72 inches (1800 mm)** long by **72 inches (1800 mm)** high by full thickness, including face and backup wythes and accessories.
    - a. Include a sealant-filled joint at least **16 inches (400 mm)** long in mockup.
    - b. Include lower corner of window opening **framed with cast stone trim** at upper corner of exterior wall mockup. Make opening approximately **12 inches (300 mm)** wide by **16 inches (400 mm)** high.
    - c. Include through-wall flashing installed for a **24-inch (600-mm)** length in corner of exterior wall mockup approximately **16 inches (400 mm)** down from top of mockup, with a **12-inch (300-mm)** length of flashing left exposed to view (omit masonry above half of flashing).
    - d. Include CMU, **air barrier**, veneer anchors, flashing, **cavity drainage material** and weep holes in exterior masonry-veneer wall mockup.
  2. Clean **one-half of** exposed faces of mockups with masonry cleaner as indicated.
  3. Protect accepted mockups from the elements with weather-resistant membrane.
  4. Approval of mockups is for color, texture, and blending of masonry units; relationship of mortar and sealant colors to masonry unit colors; tooling of joints; and aesthetic qualities of workmanship.
    - a. Approval of mockups is also for other material and construction qualities specifically approved by Architect in writing.

- b. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless such deviations are specifically approved by Architect in writing.
- 5. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- G. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers designed for use with dispensing silos. Store preblended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

#### 1.9 PROJECT CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
  - 1. Extend cover a minimum of **24 inches (600 mm)** down both sides of walls and hold cover securely in place.
  - 2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of **24 inches (600 mm)** down face next to unconstructed wythe and hold cover in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.

1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
  2. Protect sills, ledges, and projections from mortar droppings.
  3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
  4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is **40 deg F (4 deg C)** and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.
- E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

## PART 2 - PRODUCTS

### 2.1 MASONRY UNITS, GENERAL

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated in the standard. Do not use units where such defects will be exposed in the completed Work.
- B. Fire-Resistance Ratings: Where indicated, provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

### 2.2 CONCRETE MASONRY UNITS

- A. Regional Materials: Provide CMUs that have been manufactured within **500 miles (800 km)** of Project site from aggregates **and cement** that have been extracted, harvested, or recovered, as well as manufactured, within **500 miles (800 km)** of Project site.
- B. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.
  1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
  2. Provide **square-edged** units for outside corners unless otherwise indicated.
- C. CMUs: ASTM C 90.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of **2800 psi (19.3 MPa)**.
2. Density Classification: **Lightweight unless otherwise indicated.**
3. Size (Width): Manufactured to dimensions 3/8 inch less than nominal dimensions.
4. Exposed Faces: Provide color and texture matching the range represented by Architect's sample.

### 2.3 BRICK

- A. Regional Materials: Provide brick that has been manufactured within **500 miles (800 km)** of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within **500 miles (800 km)** of Project site.
- B. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:
  1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
  2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels.
  3. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.
  4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.
- C. Face Brick: Facing brick complying with ASTM C 216 or **hollow brick complying with ASTM C 652, Class HBA (void areas between 25 and 40 percent of gross cross-sectional area)**.
  1. Products: Subject to compliance with requirements, **provide the following:**
    - a. Face Brick: As scheduled on the drawings.

### 2.4 MORTAR AND GROUT MATERIALS

- A. Regional Materials: Provide aggregate for mortar and grout, **cement, and lime** that have been extracted, harvested, or recovered, as well as manufactured, within **500 miles (800 km)** of Project site.
- B. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
- C. Hydrated Lime: ASTM C 207, Type S.
- D. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

- E. Masonry Cement: ASTM C 91.
1. Products: Subject to compliance with requirements, **provide one of the following:**
    - a. Capital Materials Corporation.
    - b. Cemex S.A.B. de C.V.
    - c. Essroc, Italcementi Group.
    - d. Holcim (US) Inc.
    - e. Lafarge North America Inc.
    - f. Lehigh Cement Company.
    - g. National Cement Company, Inc.; Coosa Masonry Cement.
- F. Colored Cement Product: Packaged blend made from **portland cement and hydrated lime** and mortar pigments, all complying with specified requirements, and containing no other ingredients.
1. Products: Subject to compliance with requirements, **provide one of the following:**
    - a. Colored Portland Cement-Lime Mix:
      - 1) Capital Materials Corporation; Riverton Portland Cement Lime Custom Color.
      - 2) Holcim (US) Inc.; Rainbow Mortamix Custom Color Cement/Lime.
      - 3) Lafarge North America Inc.; Eaglebond Portland & Lime.
      - 4) Lehigh Cement Company; Lehigh Custom Color Portland/Lime Cement.
  2. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.
  3. Pigments shall not exceed 10 percent of portland cement by weight.
- G. Aggregate for Mortar: ASTM C 144.
1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
  2. For joints less than **1/4 inch (6 mm)** thick, use aggregate graded with 100 percent passing the **No. 16 (1.18-mm)** sieve.
  3. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.
- H. Aggregate for Grout: ASTM C 404.
- I. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.
1. Products: Subject to compliance with requirements, **provide one of the following:**
    - a. Euclid Chemical Company (The); Accelguard 80.
    - b. Grace Construction Products, W. R. Grace & Co. - Conn.; Morset.
    - c. Sonneborn Products, BASF Aktiengesellschaft; Trimix-NCA.

- J. Water: Potable.

## 2.5 REINFORCEMENT

- A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, **Grade 60** (Grade 420).
- B. Masonry Joint Reinforcement, General: ASTM A 951/A 951M.
1. Interior Walls: **Hot-dip** galvanized, carbon steel.
  2. Exterior Walls: **Hot-dip galvanized, carbon** steel.
  3. Wire Size for Side Rods: **0.187-inch (4.76-mm)** diameter.
  4. Wire Size for Cross Rods: **0.187-inch (4.76-mm)** diameter.
  5. Wire Size for Veneer Ties: **0.187-inch (4.76-mm)** diameter.
  6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than **16 inches (407 mm)** o.c.
  7. Provide in lengths of not less than **10 feet (3 m)**, **with prefabricated corner and tee units.**
- C. Masonry Joint Reinforcement for Single-Wythe Masonry: Either ladder or truss type with single pair of side rods.
- D. Masonry Joint Reinforcement for Multiwythe Masonry:
1. Adjustable (two-piece) type, either ladder or truss design, with one side rod at each face shell of backing wythe and with separate adjustable ties with pintle-and-eye connections having a maximum adjustment of **1-1/4 inches (32 mm)**. Size ties to extend at least halfway through facing wythe but with at least **5/8-inch (16-mm)** cover on outside face. **Ties have hooks or clips to engage a continuous horizontal wire in the facing wythe.**

## 2.6 TIES AND ANCHORS

- A. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated.
1. Hot-Dip Galvanized, Carbon-Steel Wire: ASTM A 82/A 82M; with ASTM A 153/A 153M, Class B-2 coating.
  2. Galvanized Steel Sheet: ASTM A 653/A 653M, Commercial Steel, **G60 (Z180)** zinc coating.
- B. Corrugated Metal Ties: Metal strips not less than **7/8 inch (22 mm)** wide with corrugations having a wavelength of 7.6 to 12.7 mm and an amplitude of **0.06 to 0.10 inch (1.5 to 2.5 mm)** made from **0.060-inch- (1.52-mm-) thick, steel sheet, galvanized after fabrication.**
- C. Wire Ties, General: Unless otherwise indicated, size wire ties to extend at least halfway through veneer but with at least **5/8-inch (16-mm)** cover on outside face. Outer ends of wires are bent 90 degrees and extend **2 inches (50 mm)** parallel to face of veneer.
- D. Individual Wire Ties: Rectangular units with closed ends and not less than **4 inches (100 mm)** wide.

1. Z-shaped ties with ends bent 90 degrees to provide hooks not less than **2 inches (50 mm)** long may be used for masonry constructed from solid units.
  2. Where wythes **do not align**, use adjustable ties with pintle-and-eye connections having a maximum adjustment of **1-1/4 inches (32 mm)**.
  3. Wire: Fabricate from **3/16-inch- (4.76-mm-)** diameter, **hot-dip galvanized steel** wire.
- E. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall.
1. Anchor Section for Welding to Steel Frame: Crimped **1/4-inch- (6.35-mm-)** diameter, **hot-dip galvanized steel** wire.
- F. Adjustable Masonry-Veneer Anchors:
1. General: Provide anchors that allow vertical adjustment but resist tension and compression forces perpendicular to plane of wall, for attachment over sheathing to wood or metal studs, and as follows:
    - a. Structural Performance Characteristics: Capable of withstanding a **100-lbf (445-N)** load in both tension and compression without deforming or developing play in excess of **0.05 inch (1.3 mm)**.
  2. Contractor's Option: Unless otherwise indicated, provide any of the following types of anchors:
  3. Screw-Attached, Masonry-Veneer Anchors: Units consisting of a wire tie and a metal anchor section.
    - a. Products: Subject to compliance with requirements, **provide one of the following:**
      - 1) Dayton Superior Corporation, Dur-O-Wal Division.
      - 2) Heckmann Building Products Inc.
      - 3) Hohmann & Barnard, Inc.
      - 4) Wire-Bond.
    - b. Anchor Section: Rib-stiffened, sheet metal plate with screw holes top and bottom, **2-3/4 inches (70 mm)** wide by **3 inches (76 mm)** high; with projecting tabs having slotted holes for inserting vertical legs of wire tie specially formed to fit anchor section.
    - c. Anchor Section: Sheet metal plate, **1-1/4 inches (32 mm)** wide by **6 inches (152 mm)** long, with screw holes top and bottom and with raised rib-stiffened strap, **5/8 inch (16 mm)** wide by **5-1/2 inches (140 mm)** long, stamped into center to provide a slot between strap and plate for inserting wire tie.
    - d. Fabricate sheet metal anchor sections and other sheet metal parts from **1.05-inch- (2.66-mm-) thick, steel sheet, galvanized after fabrication.**
    - e. Wire Ties: Triangular-, rectangular-, or T-shaped wire ties fabricated from **0.25-inch- (6.35-mm-)** diameter, **hot-dip galvanized steel** wire.

## 2.7 MISCELLANEOUS ANCHORS

- A. Dovetail Slots in Concrete: Furnish dovetail slots with filler strips, of slot size indicated, fabricated from **0.034-inch (0.86-mm)**, galvanized steel sheet.
- B. Anchor Bolts: **Headed** steel bolts complying with **ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6)**; with **ASTM A 563 (ASTM A 563M)** hex nuts and, where indicated, flat washers; hot-dip galvanized to comply with ASTM A 153/A 153M, Class C; of dimensions indicated.
- C. Postinstalled Anchors: **Torque-controlled expansion anchors or chemical anchors.**
  - 1. Load Capacity: Capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.
  - 2. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B 633 or **ASTM F 1941 (ASTM F 1941M)**, Class Fe/Zn 5 unless otherwise indicated.

## 2.8 MISCELLANEOUS MASONRY ACCESSORIES

- A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from **neoprene, urethane or PVC**.
- B. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).
- C. Weep/Vent Products: Use the following unless otherwise indicated:
  - 1. Vinyl Weep Hole/Vent: One-piece, offset, T-shaped units made from flexible PVC, designed to fit into a head joint and consisting of a louvered vertical leg, flexible wings to seal against ends of masonry units, and a top flap to keep mortar out of the head joint; in color selected by Architect.
    - a. Products: Subject to compliance with requirements, **provide one of the following:**
      - 1) Hohmann & Barnard, Inc.; #343 Louvered Weep Hole.
      - 2) Williams Products, Inc.; Williams-Goodco Brick Vent.
      - 3) Wire-Bond; Louvered Weepholes.

## 2.9 MASONRY CLEANERS

- A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

1. Manufacturers: Subject to compliance with requirements, **provide products by one of the following:**
  - a. Diedrich Technologies, Inc.
  - b. EaCo Chem, Inc.
  - c. ProSoCo, Inc.

## 2.10 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
  1. Do not use calcium chloride in mortar or grout.
  2. Use **portland cement-lime** mortar unless otherwise indicated.
  3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C 270, **Proportion** Specification. Provide the following types of mortar for applications stated unless another type is indicated **or needed to provide required compressive strength of masonry.**
  1. For masonry below grade or in contact with earth, use **Type S**.
  2. For reinforced masonry, use **Type S**.
  3. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.
  4. For interior non-load-bearing partitions, Type O may be used instead of Type N.
- D. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.
  1. Mix to match Architect's sample.
  2. Application: Use colored aggregate mortar for exposed mortar joints with the following units:
    - a. Face brick.
    - b. Rockface CMU.
    - c. Groundface CMU.
    - d. Cast stone trim units.
- E. Grout for Unit Masonry: Comply with ASTM C 476.
  1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 1.15.1 in ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.

2. Proportion grout in accordance with ASTM C 476, **Table 1 or paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2000 psi (14 MPa)**.
3. Provide grout with a slump of **8 to 11 inches (203 to 279 mm)** as measured according to ASTM C 143/C 143M.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
  1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of work.
  2. Verify that foundations are within tolerances specified.
  3. Verify that reinforcing dowels are properly placed.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION, GENERAL

- A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.
- B. Build chases and recesses to accommodate items specified in this and other Sections.
- C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match the construction immediately adjacent to opening.
- D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.
  1. Mix units from several pallets or cubes as they are placed.
- F. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds **30 g/30 sq. in. (30 g/194 sq. cm)** per minute when tested per ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

### 3.3 TOLERANCES

#### A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation do not vary by more than plus **1/2 inch (12 mm)** or minus **1/4 inch (6 mm)**.
2. For location of elements in plan do not vary from that indicated by more than plus or minus **1/2 inch (12 mm)**.
3. For location of elements in elevation do not vary from that indicated by more than plus or minus **1/4 inch (6 mm)** in a story height or **1/2 inch (12 mm)** total.

#### B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls do not vary from level by more than **1/4 inch in 10 feet (6 mm in 3 m)**, or **1/2 inch (12 mm)** maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than **1/8 inch in 10 feet (3 mm in 3 m)**, **1/4 inch in 20 feet (6 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
3. For vertical lines and surfaces do not vary from plumb by more than **1/4 inch in 10 feet (6 mm in 3 m)**, **3/8 inch in 20 feet (9 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than **1/8 inch in 10 feet (3 mm in 3 m)**, **1/4 inch in 20 feet (6 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
5. For lines and surfaces do not vary from straight by more than **1/4 inch in 10 feet (6 mm in 3 m)**, **3/8 inch in 20 feet (9 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than **1/4 inch in 10 feet (6 mm in 3 m)**, or **1/2 inch (12 mm)** maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than **1/16 inch (1.5 mm)** except due to warpage of masonry units within tolerances specified for warpage of units.

#### C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus **1/8 inch (3 mm)**, with a maximum thickness limited to **1/2 inch (12 mm)**.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than **1/8 inch (3 mm)**.
3. For head and collar joints, do not vary from thickness indicated by more than plus **3/8 inch (9 mm)** or minus **1/4 inch (6 mm)**.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus **1/8 inch (3 mm)**. **Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8 inch (3 mm).**
5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than **1/16 inch (1.5 mm)** from one masonry unit to the next.

### 3.4 LAYING MASONRY WALLS

- #### A.
- Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets.

Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in bond to match existing building; do not use units with less than nominal **4-inch (100-mm)** horizontal face dimensions at corners or jambs.
- C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than **2 inches (50 mm)**. Bond and interlock each course of each wythe at corners. Do not use units with less than nominal **4-inch (100-mm)** horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: Stop work by racking back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.
- E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below and rod mortar or grout into core.
- H. Fill cores in hollow CMUs with grout **24 inches (600 mm)** under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.
- I. Build non-load-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.
  - 1. Install compressible filler in joint between top of partition and underside of structure above.
  - 2. Fasten partition top anchors to structure above and build into top of partition. Grout cells of CMUs solidly around plastic tubes of anchors and push tubes down into grout to provide **1/2-inch (13-mm)** clearance between end of anchor rod and end of tube. Space anchors **48 inches (1200 mm)** o.c. unless otherwise indicated.
  - 3. Wedge non-load-bearing partitions against structure above with small pieces of tile, slate, or metal. Fill joint with mortar after dead-load deflection of structure above approaches final position.
  - 4. At fire-rated partitions, treat joint between top of partition and underside of structure above to comply with Division 07 Section "Fire-Resistive Joint Systems."

### 3.5 MORTAR BEDDING AND JOINTING

- A. Lay hollow **brick and CMUs** as follows:
  - 1. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
  - 2. With webs fully bedded in mortar in all courses of piers, columns, and pilasters.
  - 3. With webs fully bedded in mortar in grouted masonry, including starting course on footings.

4. With entire units, including areas under cells, fully bedded in mortar at starting course on footings where cells are not grouted.
- B. Set **cast-stone** trim units in full bed of mortar with full vertical joints. Fill dowel, anchor, and similar holes.
1. Clean soiled surfaces with fiber brush and soap powder and rinse thoroughly with clear water.
  2. Allow cleaned surfaces to dry before setting.
  3. Wet joint surfaces thoroughly before applying mortar.
- C. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.
- E. Bond wythes of cavity walls together using bonding system indicated on Drawings.
- F. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity. Do not attempt to trowel or remove mortar fins protruding into cavity.
- G. Apply air barrier to face of backup wythe to comply with Division 07 Section "**Fluid-Applied Membrane Air Barriers.**"
- H. Installing Cavity-Wall Insulation: Place small dabs of adhesive, spaced approximately **12 inches (300 mm)** o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.
1. Fill cracks and open gaps in insulation with crack sealer compatible with insulation and masonry.

### 3.6 MASONRY JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of **5/8 inch (16 mm)** on exterior side of walls, **1/2 inch (13 mm)** elsewhere. Lap reinforcement a minimum of **6 inches (150 mm)**.
1. Space reinforcement not more than **16 inches (406 mm)** o.c.
  2. Space reinforcement not more than **8 inches (203 mm)** o.c. in foundation walls and parapet walls.
  3. Provide reinforcement not more than **8 inches (203 mm)** above and below wall openings and extending **12 inches (305 mm)** beyond openings **in addition to continuous reinforcement.**
- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.

- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.
- E. Cut and bend reinforcing units as directed by manufacturer for continuity at[ **corners,**] returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

### 3.7 ANCHORING MASONRY VENEERS

- A. Anchor masonry veneers to **concrete and masonry backup** with masonry-veneer anchors to comply with the following requirements:
  - 1. Fasten anchors **to concrete and masonry backup** with metal fasteners of type indicated. Use two fasteners unless anchor design only uses one fastener.
  - 2. Insert slip-in anchors in metal studs as sheathing is installed. Provide one anchor at each stud in each horizontal joint between sheathing boards.
  - 3. Embed **tie sections** in masonry joints. Provide not less than **2 inches (50 mm)** of air space between back of masonry veneer and face of sheathing.
  - 4. Locate anchor sections to allow maximum vertical differential movement of ties up and down.
  - 5. Space anchors as indicated, but not more than **18 inches (458 mm)** o.c. vertically and **24 inches (610 mm)** o.c. horizontally, with not less than 1 anchor for each **2 sq. ft. (0.2 sq. m)** of wall area. Install additional anchors within **12 inches (305 mm)** of openings and at intervals, not exceeding **8 inches (203 mm)**, around perimeter.
  - 6. Space anchors as indicated, but not more than **16 inches (406 mm)** o.c. vertically and **24 inches (610 mm)** o.c. horizontally with not less than 1 anchor for each **2.67 sq. ft. (0.25 sq. m)** of wall area. Install additional anchors within **12 inches (305 mm)** of openings and at intervals, not exceeding **36 inches (914 mm)**, around perimeter.

### 3.8 CONTROL AND EXPANSION JOINTS

- A. General: Install control and expansion joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for in-plane wall or partition movement.
- B. Form control joints in concrete masonry **using one of the following methods:**
  - 1. Fit bond-breaker strips into hollow contour in ends of CMUs on one side of control joint. Fill resultant core with grout and rake out joints in exposed faces for application of sealant.
  - 2. Install preformed control-joint gaskets designed to fit standard sash block.
  - 3. Install interlocking units designed for control joints. Install bond-breaker strips at joint. Keep head joints free and clear of mortar or rake out joint for application of sealant.
  - 4. Install temporary foam-plastic filler in head joints and remove filler when unit masonry is complete for application of sealant.
- C. Form expansion joints in brick as follows:

1. Build flanges of metal expansion strips into masonry. Lap each joint **4 inches (100 mm)** in direction of water flow. Seal joints below grade and at junctures with horizontal expansion joints if any.
  2. Build flanges of factory-fabricated, expansion-joint units into masonry.
  3. Build in compressible joint fillers where indicated.
  4. Form open joint full depth of brick wythe and of width indicated, but not less than **3/8 inch (10 mm)** for installation of sealant and backer rod specified in Division 07 Section "Joint Sealants."
- D. Provide horizontal, pressure-relieving joints by either leaving an air space or inserting a compressible filler of width required for installing sealant and backer rod specified in Division 07 Section "Joint Sealants," but not less than **3/8 inch (10 mm)**.
1. Locate horizontal, pressure-relieving joints beneath shelf angles supporting masonry.

### 3.9 FLASHING, WEEP HOLES AND VENTS

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. **Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.**
- B. Install flashing as follows unless otherwise indicated:
1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
  2. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of **8 inches (200 mm)**, and through inner wythe to within **1/2 inch (13 mm)** of the interior face of wall in exposed masonry. Where interior face of wall is to receive furring or framing, carry flashing completely through inner wythe and turn flashing up approximately **2 inches (50 mm)** on interior face.
  3. At masonry-veneer walls, extend flashing through veneer, across air space behind veneer, and up face of sheathing at least **8 inches (200 mm)**; with upper edge tucked under building paper or building wrap, lapping at least **4 inches (100 mm)**.
  4. At lintels and shelf angles, extend flashing a minimum of **6 inches (150 mm)** into masonry at each end. At heads and sills, extend flashing **6 inches (150 mm)** at ends and turn up not less than **2 inches (50 mm)** to form end dams.
  5. Interlock end joints of ribbed sheet metal flashing by overlapping ribs not less than **1-1/2 inches (38 mm)** or as recommended by flashing manufacturer, and seal lap with elastomeric sealant complying with requirements in Division 07 Section "Joint Sealants" for application indicated.
  6. Install metal **drip edges** with ribbed sheet metal flashing by interlocking hemmed edges to form hooked seam. Seal seam with elastomeric sealant complying with requirements in Division 07 Section "Joint Sealants" for application indicated.
  7. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing **1/2 inch (13 mm)** back from outside face of wall and adhere flexible flashing to top of metal drip edge.

8. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing **1/2 inch (13 mm)** back from outside face of wall and adhere flexible flashing to top of metal flashing termination.
  9. Cut flexible flashing off flush with face of wall after masonry wall construction is completed.
- C. Install single-wythe CMU flashing system in bed joints of CMU walls where indicated to comply with manufacturer's written instructions. Install CMU cell pans with upturned edges located below face shells and webs of CMUs above and with weep spouts aligned with face of wall. Install CMU web covers so that they cover upturned edges of CMU cell pans at CMU webs and extend from face shell to face shell.
- D. Install reglets and nailers for flashing and other related construction where they are shown to be built into masonry.
- E. Install weep holes in head joints in exterior wythes of first course of masonry immediately above embedded flashing and as follows:
1. Use **specified weep/vent products** to form weep holes.
  2. Use wicking material to form weep holes above flashing under brick sills. Turn wicking down at lip of sill to be as inconspicuous as possible.
  3. Space weep holes **24 inches (600 mm)** o.c. unless otherwise indicated.
  4. Cover cavity side of weep holes with plastic insect screening at cavities insulated with loose-fill insulation.
- F. Install vents in head joints in exterior wythes at spacing indicated. Use **specified weep/vent products** to form vents.
1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

### 3.10 REINFORCED UNIT MASONRY INSTALLATION

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
  2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.
- C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.

1. Comply with requirements in ACI 530.1/ASCE 6/TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
2. Limit height of vertical grout pours to not more than **12.67 ft. (3.86 m)**.

### 3.11 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas, as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.
- B. Inspections: **Level 1** special inspections according to the "International Building Code."
  1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
  2. Place grout only after inspectors have verified compliance of grout spaces and of grades, sizes, and locations of reinforcement.
  3. Place grout only after inspectors have verified proportions of site-prepared grout.
- C. Testing Prior to Construction: One set of tests.
- D. Testing Frequency: One set of tests for each **5000 sq. ft. (464 sq. m)** of wall area or portion thereof.
- E. Clay Masonry Unit Test: For each type of unit provided, according to ASTM C 67 for compressive strength.
- F. Concrete Masonry Unit Test: For each type of unit provided, according to ASTM C 140 for compressive strength.
- G. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C 780.
- H. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for **mortar air content and compressive strength**.
- I. Grout Test (Compressive Strength): For each mix provided, according to ASTM C 1019.
- J. Prism Test: For each type of construction provided, according to ASTM C 1314 at **7 days and at 28 days**.

### 3.12 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent

construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
  - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
  - 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
  - 3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
  - 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
  - 5. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.

### 3.13 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.
- B. Excess Masonry Waste: Remove excess clean masonry waste and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 042000

## SECTION 047200 - CAST STONE MASONRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Cast stone trim **including the following:**
    - a. Monument Sign Trim units.
    - b. Engraved backpainted letters.
- B. Related Sections:
  - 1. Division 04 Section "Unit Masonry" for installing cast stone units in unit masonry.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
  - 1. For cast stone units, include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Show fabrication and installation details for cast stone units. Include dimensions, details of reinforcement and anchorages if any, and indication of finished faces.
  - 1. Include building elevations showing layout of units and locations of joints and anchors.
- C. Samples for Initial Selection: For colored mortar.
- D. Samples for Verification:
  - 1. For each color and texture of cast stone required, **10 inches (250 mm)** square in size.
  - 2. For colored mortar. Make Samples using same sand and mortar ingredients to be used on Project. **Label Samples to indicated types and amounts of pigments used.**
- E. Full-Size Samples: For each **color, texture and shape** of cast stone unit required.
  - 1. Make available for Architect's review at Project site **or at manufacturing plant, if acceptable to Architect.**
  - 2. Make Samples from materials to be used for units used on Project **immediately before beginning production of units for Project.**
  - 3. Approved Samples may be installed in the Work.

- F. Qualification Data: For **manufacturer and testing agency**.
  - 1. Include copies of material test reports for completed projects, indicating compliance of cast stone with ASTM C 1364.
- G. Material Test Reports: For each mix required to produce cast stone, based on testing according to ASTM C 1364, **including test for resistance to freezing and thawing**.
  - 1. Provide test reports based on testing within previous two years.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer of cast stone units similar to those indicated for this Project, that has sufficient production capacity to manufacture required units, and is a plant certified by **the Cast Stone Institute**.
- B. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated.
- C. Source Limitations for Cast Stone: Obtain cast stone units through single source from single manufacturer.
- D. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color, from one manufacturer for each cementitious component and from one source or producer for each aggregate.
- E. Mockups: Furnish cast stone for installation in mockups specified in Division 04 Section "Unit Masonry."
- F. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects **and set quality standards for materials and execution**.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Coordinate delivery of cast stone **with stone masonry work** to avoid delaying the Work **and to minimize the need for on-site storage**.
- B. Pack, handle, and ship cast stone units in suitable packs or pallets.
  - 1. Lift with wide-belt slings; do not use wire rope or ropes that might cause staining. Move cast stone units, if required, using dollies with wood supports.
  - 2. Store cast stone units on wood skids or pallets with nonstaining, waterproof covers, securely tied. Arrange to distribute weight evenly and to prevent damage to units. Ventilate under covers to prevent condensation.
- C. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- D. Store mortar aggregates where grading and other required characteristics can be maintained and contamination can be avoided.

## 1.6 PROJECT CONDITIONS

- A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Comply with cold-weather construction requirements in ACI 530.1/ASCE 6/TMS 602.
  - 1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is **40 deg F (4 deg C)** and above and will remain so until cast stone has dried, but no fewer than seven days after completing cleaning.
- B. Hot-Weather Requirements: Comply with hot-weather construction requirements in ACI 530.1/ASCE 6/TMS 602.

## PART 2 - PRODUCTS

### 2.1 CAST STONE MATERIALS

- A. General: Comply with ASTM C 1364 and the following:
- B. Portland Cement: ASTM C 150, Type I or Type III, containing not more than 0.60 percent total alkali when tested according to ASTM C 114. Provide natural color or white cement as required to produce cast stone color indicated.
- C. Coarse Aggregates: Granite, quartz, or limestone complying with ASTM C 33; gradation and colors as needed to produce required cast stone textures and colors.
- D. Fine Aggregates: Natural sand or crushed stone complying with ASTM C 33, gradation and colors as needed to produce required cast stone textures and colors.
- E. Color Pigment: ASTM C 979, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, **free of carbon black**, nonfading, and resistant to lime and other alkalis.
- F. Admixtures: Use only admixtures specified or approved in writing by Architect.
  - 1. Do not use admixtures that contain more than 0.1 percent water-soluble chloride ions by mass of cementitious materials. Do not use admixtures containing calcium chloride.
  - 2. Use only admixtures that are certified by manufacturer to be compatible with cement and other admixtures used.
  - 3. Air-Entraining Admixture: ASTM C 260. **Add to mixes for units exposed to the exterior at manufacturer's prescribed rate to result in an air content of 4 to 6 percent, except do not add to zero-slump concrete mixes.**
  - 4. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
  - 5. Water-Reducing, Retarding Admixture: ASTM C 494/C 494M, Type D.
  - 6. Water-Reducing, Accelerating Admixture: ASTM C 494/C 494M, Type E.
- G. Reinforcement: Deformed steel bars complying with ASTM A 615/A 615M, **Grade 60 (Grade 420)**. Use galvanized or epoxy-coated reinforcement when covered with less than **1-1/2 inches (38 mm)** of cast stone material.

1. Epoxy Coating: ASTM A 775/A 775M.
2. Galvanized Coating: ASTM A 767/A 767M.

H. Embedded Anchors and Other Inserts: Fabricated from **stainless steel complying with ASTM A 240/A 240M, ASTM A 276, or ASTM A 666, Type 304.**

## 2.2 CAST STONE UNITS

A. Provide cast stone units complying with ASTM C 1364 using either the vibrant dry tamp or wet-cast method.

1. Provide units that are resistant to freezing and thawing as determined by laboratory testing according to ASTM C 666/C 666M, Procedure A, as modified by ASTM C 1364.

B. Fabricate units with sharp arris and accurately reproduced details, with indicated texture on all exposed surfaces unless otherwise indicated.

1. Slope exposed horizontal surfaces 1:12 to drain unless otherwise indicated.
2. Provide raised fillets at backs of sills and at ends indicated to be built into jambs.
3. Provide drips on projecting elements unless otherwise indicated.

C. Fabrication Tolerances:

1. Variation in Cross Section: Do not vary from indicated dimensions by more than **1/8 inch (3 mm)**.
2. Variation in Length: Do not vary from indicated dimensions by more than 1/360 of the length of unit or **1/8 inch (3 mm)**, whichever is greater, but in no case by more than **1/4 inch (6 mm)**.
3. Warp, Bow, and Twist: Not to exceed 1/360 of the length of unit or **1/8 inch (3 mm)**, whichever is greater.
4. Location of Grooves, False Joints, Holes, Anchorages, and Similar Features: Do not vary from indicated position by more than **1/8 inch (3 mm)** on formed surfaces of units and **3/8 inch (10 mm)** on unformed surfaces.

D. Cure units as follows:

1. Cure units in enclosed moist curing room at 95 to 100 percent relative humidity and temperature of **100 deg F (38 deg C)** for 12 hours or **70 deg F (21 deg C)** for 16 hours.
2. Keep units damp and continue curing to comply with one of the following:
  - a. No fewer than five days at mean daily temperature of **70 deg F (21 deg C)** or above.
  - b. No fewer than six days at mean daily temperature of **60 deg F (16 deg C)** or above.
  - c. No fewer than seven days at mean daily temperature of **50 deg F (10 deg C)** or above.
  - d. No fewer than eight days at mean daily temperature of **45 deg F (7 deg C)** or above.

E. Acid etch units after curing to remove cement film from surfaces to be exposed to view.

- F. Colors and Textures: Siteworks "Cream" smooth and rock face.

### 2.3 MORTAR MATERIALS

- A. Provide mortar materials that comply with Division 04 Section "Unit Masonry."
- B. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.
- C. Colored Cement Product: Packaged blend made from **portland cement and hydrated lime** and mortar pigments, all complying with specified requirements and containing no other ingredients.
1. Products: Subject to compliance with requirements, **provide one of the following:**
    - a. Colored Portland Cement-Lime Mix:
      - 1) Capital Materials Corporation; Riverton Portland Cement Lime Custom Color.
      - 2) Holcim (US) Inc.; Rainbow Mortamix Custom Color Cement/Lime.
      - 3) Lafarge North America Inc.; Eaglebond Portland & Lime.
      - 4) Lehigh Cement Company; Lehigh Custom Color Portland/Lime Cement.
    2. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.
    3. Pigments shall not exceed 10 percent of portland cement by weight.
- D. Aggregate for Mortar: ASTM C 144.
1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
  2. For joints less than **1/4 inch (6 mm)** thick, use aggregate graded with 100 percent passing the **No. 16 (1.18-mm)** sieve.
  3. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.
- E. Water: Potable.

### 2.4 ACCESSORIES

- A. Anchors: Type and size indicated, fabricated from **Type 304 stainless steel complying with ASTM A 240/A 240M, ASTM A 276, or ASTM A 666.**
- B. Dowels: **1/2-inch- (12-mm-)** diameter, round bars, fabricated from **Type 304 stainless steel complying with ASTM A 240/A 240M, ASTM A 276, or ASTM A 666.**
- C. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by

cast stone manufacturer and expressly approved by cleaner manufacturer for use on cast stone and adjacent masonry materials.

1. Manufacturers: Subject to compliance with requirements, **provide products by one of the following:**
  - a. Diedrich Technologies, Inc.
  - b. EaCo Chem, Inc.
  - c. ProSoCo, Inc.

## 2.5 MORTAR MIXES

- A. Comply with requirements in Division 04 Section "Unit Masonry" for mortar mixes.
- B. Do not use admixtures including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.
  1. Do not use calcium chloride in mortar or grout.
  2. Use **portland cement-lime** mortar unless otherwise indicated.
- C. Comply with ASTM C 270, Proportion Specification.
  1. For setting mortar, use **Type S**.
  2. For pointing mortar, use **Type N**.
- D. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.
  1. Mix to match Architect's sample.
  2. Application: Use colored aggregate mortar for exposed mortar joints.

## 2.6 SOURCE QUALITY CONTROL

- A. Engage a qualified independent testing agency to sample and test cast stone units according to ASTM C 1364.
  1. Include one test for resistance to freezing and thawing.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 SETTING CAST STONE IN MORTAR

- A. Install cast stone units to comply with requirements in Division 04 Section "Unit Masonry."
- B. Set cast stone as indicated on Drawings. Set units accurately in locations indicated with edges and faces aligned according to established relationships and indicated tolerances.
  - 1. Install anchors, supports, fasteners, and other attachments indicated or necessary to secure units in place.
  - 2. Coordinate installation of cast stone with installation of flashing specified in other Sections.
- C. Wet joint surfaces thoroughly before applying mortar or setting in mortar.
- D. Set units in full bed of mortar with full head joints unless otherwise indicated.
  - 1. Set units with joints **1/4 to 3/8 inch (6 to 10 mm)** wide unless otherwise indicated.
  - 2. Build anchors and ties into mortar joints as units are set.
  - 3. Fill dowel holes and anchor slots with mortar.
  - 4. Fill collar joints solid as units are set.
  - 5. Build concealed flashing into mortar joints as units are set.
  - 6. Keep head joints in coping and other units with exposed horizontal surfaces open to receive sealant.
  - 7. Keep joints at shelf angles open to receive sealant.
- E. Rake out joints for pointing with mortar to depths of not less than **3/4 inch (19 mm)**. Rake joints to uniform depths with square bottoms and clean sides. Scrub faces of units to remove excess mortar as joints are raked.
- F. Point mortar joints by placing and compacting mortar in layers not greater than **3/8 inch (10 mm)**. Compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
- G. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- H. Provide sealant joints at copings and other horizontal surfaces, at expansion, control, and pressure-relieving joints, and at locations indicated.
  - 1. Keep joints free of mortar and other rigid materials.
  - 2. Build in compressible foam-plastic joint fillers where indicated.
  - 3. Form joint of width indicated, but not less than **3/8 inch (10 mm)**.
  - 4. Prime cast stone surfaces to receive sealant and install compressible backer rod in joints before applying sealant unless otherwise indicated.
  - 5. Prepare and apply sealant of type and at locations indicated to comply with applicable requirements in Division 07 Section "Joint Sealants."

### 3.3 INSTALLATION TOLERANCES

- A. Variation from Plumb: Do not exceed **1/8 inch in 10 feet (3 mm in 3 m)**, **1/4 inch in 20 feet (6 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
- B. Variation from Level: Do not exceed **1/8 inch in 10 feet (3 mm in 3 m)**, **1/4 inch in 20 feet (6 mm in 6 m)**, or **1/2 inch (12 mm)** maximum.
- C. Variation in Joint Width: Do not vary joint thickness more than **1/8 inch in 36 inches (3 mm in 900 mm)** or one-fourth of nominal joint width, whichever is less.
- D. Variation in Plane between Adjacent Surfaces (Lipping): Do not vary from flush alignment with adjacent units or adjacent surfaces indicated to be flush with units by more than **1/16 inch (1.5 mm)**, except where variation is due to warpage of units within tolerances specified.

### 3.4 ADJUSTING AND CLEANING

- A. Remove and replace stained and otherwise damaged units and units not matching approved Samples. Cast stone may be repaired if methods and results are approved by Architect.
- B. Replace units in a manner that results in cast stone matching approved Samples, complying with other requirements, and showing no evidence of replacement.
- C. In-Progress Cleaning: Clean cast stone as work progresses.
  - 1. Remove mortar fins and smears before tooling joints.
  - 2. Remove excess sealant immediately, including spills, smears, and spatter.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed cast stone as follows:
  - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
  - 2. Test cleaning methods on sample; leave one sample uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of cast stone.
  - 3. Protect adjacent surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
  - 4. Wet surfaces with water before applying cleaners; remove cleaners promptly by rinsing thoroughly with clear water.
  - 5. Clean cast stone by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.

END OF SECTION 047200

SECTION 31 11 00  
**CLEARING AND GRUBBING**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This section governs the furnishing of all labor, equipment, tools, and materials, and the performance of all work for clearing, grubbing, and disposal of material within the work site required for construction of a site in accordance with specification requirements.

**1.2 DEFINITIONS**

- A. Clearing consists of cutting off trees and brush vegetative growth to not more than a specified height above ground and disposing of felled trees, previously uprooted trees and stumps, and surface debris.
- B. Close-cut clearing consists of cutting off standing trees, brush, scrub, roots, stumps and embedded logs, removing at, or close to, existing grade and disposing of fallen timber and surface debris.
- C. Clearing isolated trees consists of cutting off to not more than specified height above ground of designated trees, and disposing of felled trees and debris.
- D. Underbrush clearing consists of removal from treed areas of undergrowth, deadwood, and trees smaller than 50 mm trunk diameter and disposing of all fallen timber and surface debris.
- E. Grubbing consists of excavation and disposal of stumps and roots boulders and rock fragments of specified size to not less than a specified depth below existing ground surface.

**1.3 MEASUREMENT AND PAYMENT**

- A. This item will be measured by the acre unless otherwise shown on the bid documents.
- B. For “acre” measurement, the work performed in accordance with this item and measured as provided under “measurement” will be paid for at the unit price bid for “Clearing and Grubbing.” This price is full compensation for pruning of designated trees, and shrubs; removal and disposal of structures and obstruction; backfilling of holes; furnishing and placing concrete for plugs; and equipment, labor, tools and incidentals.

**1.4 SUBMITTALS**

- A. Burn permits shall be submitted to the owner prior to burning of vegetation.
- B. Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP) or cause for exemption.
- C. Proof of legal disposal of all hazardous material shall be required when hazardous material is involved.

### **1.5 STORAGE AND PROTECTION**

- A. Prevent damage to fencing, trees, landscaping, natural features, bench marks, existing buildings, existing pavement, utility lines, site appurtenances, water courses, root systems of trees which are to remain.
- B. Repair any damaged items to approval of Engineer/Architect. Replace any trees designated to remain, if damaged, as directed by Engineer /Architect.
- C. When shown on the plans, treat cuts on trees with an approved tree wound dressing within 20 minutes of making a pruning cut or otherwise causing damage to the tree.

### **1.6 WASTE MANAGEMENT AND DISPOSAL**

- A. Follow all local and state regulations when burning, if burning of brush is approved, pile and burn at approved locations.
- B. Testing, removal and disposal of hazardous materials will be in accordance with the contract.

## **PART 2 – PRODUCTS**

N/A

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

- A. Inspect site and verify with Engineer/Architect, items designated to remain.
- B. Locate and protect utility lines. Preserve in operating condition active utilities traversing site:
  - 1. Notify Engineer/Architect immediately of damage to or when unknown existing utility lines are encountered.
  - 2. When utility lines which are to be removed are encountered within area of operations, notify Engineer/Architect in ample time to minimize interruption of service.
- C. Notify utility authorities before starting clearing and grubbing.
- D. Keep roads and walks free of dirt and debris.

### **3.2 CLEARING**

- A. Clear areas shown on the plans of all obstructions, except those landscape features that are to be preserved. Such obstructions include but are not limited to remains of houses and other structures, foundations, floor slabs, concrete, brick, lumber, plaster, septic tank drain fields, basements, abandoned utility pipes or conduits, equipment, fences, retaining walls, and other items as specified on the plans. Remove vegetation and other landscape features not designated for preservation, curb and gutter, driveways, paved parking areas, miscellaneous stone, sidewalks, drainage structures, manholes, inlets, abandoned railroad tracks, scrap iron, and debris, whether above or below ground. Removal of live utility facilities is not included in this item. Remove culverts, storm sewers, manholes and inlets in proper sequence to maintain traffic and drainage.

- B. In areas receiving embankment, remove obstructions not designated for preservations to 2 ft. below natural ground. In areas to be excavated, remove obstruction to 2 ft. below the excavation level. In all other areas, remove obstruction to 1 ft. below natural ground. When allowed by the plans or directed, cut trees and stumps off to ground level. Plug the remaining ends of abandoned underground structures over 3 inches in diameter with concrete to form a tight closure. Backfill, compact, and restore areas where obstructions have been removed, unless otherwise directed. Use approved material for backfilling. Accept ownership, unless otherwise directed, and dispose of removed materials and debris at location off the sight in accordance with local, state and federal requirements.

**END OF SECTION**

## SECTION 31 23 00

**EXCAVATION AND EMBANKMENT****PART 1 - GENERAL****1.1 DESCRIPTION**

- A. This Section includes providing all labor, materials, tools, and equipment necessary for excavation and embankment construction to the lines, grades and cross sections indicated in the Drawings or as directed by the ENGINEER.

**1.2 MEASUREMENT AND PAYMENT**

- A. This item will be measured by the cubic yard. Cubic yards will be measured by the difference between the surveyed original grades and the final grades. Measurements will include all authorized excavation below grade, which are not attributed to the Contractor's carelessness, in the opinion of the Engineer.
- B. The prices bid shall be full compensation for furnishing all materials, tools, equipment, pre- and post-grade surveys and incidentals necessary to complete the work. Payment will not be made for borrow material that is not suitable to use in embankments. Payment for unauthorized work will not be made.
- C. All work required for the disposal of waste, including haul, and for the salvage, utilization in the work and disposal of salvageable materials, will not be paid for directly but shall be considered a part of "Excavation and Embankment" and included in the unit price bid for this item. Payment will not be made for unauthorized work.

**1.3 SUBMITTALS**

- A. All material to be imported to the site shall be sampled at its original location and tested for acceptability. This testing shall be provided by the contractor at no expense to the owner.
- B. A list of all compaction equipment to be utilized shall be submitted for approval prior to equipment arriving on site.

**PART 2 – PRODUCTS****2.1 MATERIALS****A. EXCAVATION**

- 1. All excavation shall be unclassified excavation, and shall consist of excavation and disposal of all materials, of whatever character, encountered in the WORK.

**B. EMBANKMENT**

- 1. Material shall consist of soil native to the work site, with or without stone or conglomerate, of a suitable quality to secure a well bonded course. Imported material shall consist of soil hauled to the work site for use in embankment operations.
- 2. Material for embankment shall be free of vegetation, wood, organic material, trash, bricks, broken concrete, piping, rubble, or other objectionable material. Material sources shall be selected to eliminate the introduction of hazardous materials into the work site.

**C. SELECT MATERIAL**

1. Material shall have a Plasticity Index between 4 and 20 and meet all other requirements of this specification.

**2.2 TESTING REQUIREMENTS**

- A. All embankment material placed shall be tested. Unless otherwise shown on the plans, material placed for the benefit of roadway construction shall be compacted as follows:
- B. Structural areas (roadways, slabs, sidewalks, detention pond berms, and all areas within 5 feet of any of these) shall be compacted to 95% of the maximum dry density as determined by the Standard Procter Density Test (ASTM D698) at a moisture content between optimum and +4% wet of optimum moisture content.
- C. Non-structural areas (as shown on plans) shall be compacted to 90% of the maximum dry density as computed by the Standard Procter Density Test (ASTM D698) at a moisture content between optimum and +4% wet of optimum moisture content.
- D. Tests shall be taken at a minimum of one test per every 4000 square feet of embankment per every 12” of depth. Additional tests shall be conducted at the engineer’s request. All tests meeting these requirements shall be paid for by the owner. The cost of all tests failing these requirements shall be deducted from payment for this item.

**PART 3 – EXECUTION****3.1 EXCAVATION**

- A. All project excavation shall conform to the requirements of this specification. The completed roadway shall conform to the established alignment, grades and cross sections.
- B. Clearing and grubbing in excavation areas must be completed prior to beginning excavation operations.
- C. Topsoil shall be removed and stockpiled for reuse on the proposed surface. Topsoil in excess of what may be used on the finished surface shall be removed from the site by the contractor at no additional charge. Topsoil shall be assumed to be 6” deep, but shall be excavated deep enough to remove all roots and other organic material. Contractor shall first check with City to determine if the City would like to stockpile the topsoil.
- D. All suitable excavated materials shall be utilized, insofar as practicable, in constructing the required roadway sections or in uniformly widening embankments, flattening slopes, etc., as directed by the Engineer. Unsuitable roadway excavation and excavation in excess of that needed for construction shall be known as "Waste" and shall become the property of the Contractor to be disposed of at a location approved by the Engineer.
- E. If “Waste” material is to be placed on property owned by a third party, the City will need a letter from the third party stating acceptance of such fill. Fill will not be allowed in 100-year floodplain without approved permits.
- F. Waste areas shall be uniformly graded to drain, with the outer limits feathered to blend with the existing ground. Waste areas shall be seeded, capped with suitable material, or otherwise protected from long-term erosion.

- G. During construction, the roadbed and ditches shall be maintained in a condition to insure proper drainage at all times. Ditches and channels shall be constructed and maintained to avoid damage to the roadway section.
- H. Gravel or base material on all existing streets shall be salvaged and used to tie-in new construction with existing unpaved streets and gravel and flexible pavement driveways. Driveways will be adjusted to provide smooth connections to new construction and shall be restored to a condition equal to or better than that existing before work began. All salvageable asphalt, gravel or rock base material not used in the work shall remain the property of the city. Such unused materials, as designated by the Engineer, shall be hauled to the city stockpile or to other stockpile locations designated by the Engineer and closer to the project than the site above.

### 3.2 EMBANKMENT

- A. Prior to placing any embankment, all Clearing and Grubbing operations shall have been completed on the excavation sources and areas over which embankment is to be placed.
- B. Stump holes or other small excavations in the limits of the embankments shall be backfilled with suitable material and thoroughly compacted by approved methods before commencing embankment construction. The surface of the ground, including plowed loosened ground, or surface roughened by erosion or otherwise, shall be restored to approximately its original grade by blading or other methods. Where indicated on Plans or required by the Engineer, the ground surface thus prepared shall be compacted by sprinkling and rolling.
- C. Unless otherwise indicated on the Plans the surface of all unpaved areas, other than rock, which are to receive embankment shall be loosened by scarifying or plowing to a depth of not less than four (4) inches. The loosened material shall be re-compacted with the new embankment as hereinafter specified.
- D. Where indicated on Plans or directed by the Engineer, the surface of hillsides to receive embankment shall be loosened by scarifying or plowing to a depth of not less than four (4) inches, or cut into steps before embankment materials are placed. The embankment shall then be placed in layers, as hereinafter specified, beginning at the low side in part width layers and increasing the widths as the embankment is raised. The material which has been loosened shall be re-compacted simultaneously with the embankment material placed at the same elevation.
- E. Layers of embankment may be formed by utilizing equipment which will spread the material as it is dumped, or they may be formed by being spread by blading from piles or windrows dumped from excavating or hauling equipment in such amounts that material is evenly distributed.
- F. No material placed in the embankment by dumping in a pile or windrow shall be incorporated in a layer in that position. All such piles or windrows shall be moved by blading or similar methods. Clods or lumps of material shall be broken and the embankment material mixed by blading, harrowing, disking, or similar methods.
- G. Water required for sprinkling to bring the material to the moisture content necessary for maximum compaction shall be evenly applied. It shall be the responsibility of the Contractor to secure uniform moisture content throughout the layer by such methods as may be necessary. When water is required to achieve the required moisture content, the water must be from a source which does not contain any hazardous materials. Water removed from natural sources (ponds, lakes, rivers...) shall not impact any endangered species. Potable water sources shall be metered and paid by the contractor.

- H. Where embankments are to be placed adjacent to or over existing roadbeds, the roadbed slopes shall be plowed or scarified to a depth of not less than six (6) inches and the embankment built up in successive layers, as hereinafter specified, to the level of the old roadbed before its height is increased. Then, if directed, the top of the old roadbed shall be scarified and re-compacted with the next layers of the new embankment. The total depth of the scarified and added material shall not exceed the permissible depth of layer.
- I. Trees, stumps, roots, vegetation, or other unsuitable materials shall not be placed in embankment.
- J. Except as otherwise required by the Plans, all embankment shall be constructed in layers approximately parallel to the finished grade of the roadbed, unless otherwise specified, each layer shall be so constructed as to provide a uniform slope of 1/4 inch per foot from the center line of the roadbed to the outside. Super elevated curves will require that each layer shall be constructed to conform to the super elevation required by the governing standard.
- K. Embankments shall be constructed to the grade established by the Engineer and completed embankments shall correspond to the general shape of the typical sections shown on the Plans. Each section of the embankment shall correspond to the detailed section or slopes established by the Engineer. After completion of the roadway, it shall be continuously maintained to its finished section and grade until the project is accepted.

### **3.3 EARTH EMBANKMENTS**

- A. Earth embankments shall be defined as those composed principally of material other than rock, and shall be constructed of accepted material from approved sources.
- B. Except as otherwise specified, earth embankments shall be constructed in successive layers for the full width of the individual roadway cross section and in such lengths as are best suited to the sprinkling and compaction methods utilized.
- C. Layers of embankment may be formed by utilizing equipment which will spread the material as it is dumped, or they may be formed by being spread by blading from piles or windrows dumped from excavating or hauling equipment in such amounts that material is evenly distributed.
- D. No material placed in the embankment by dumping in a pile or windrow shall be incorporated in a layer in that position. All such piles or windrows shall be moved by blading or similar methods. Clods or lumps of material shall be broken and the embankment material mixed by blading, harrowing, disking, or similar methods.
- E. Water required for sprinkling to bring the material to the moisture content necessary for maximum compaction shall be evenly applied. It shall be the responsibility of the Contractor to secure a uniform moisture content throughout the layer by such methods as may be necessary.
- F. All earth cuts, full or part width cuts in side hill which are not required to be excavated below sub-grade elevation for base and backfill, shall be scarified to a uniform depth of at least six (6) inches below grade. The material shall be mixed and reshaped by blading and then sprinkled and rolled in accordance with the requirements outlined above for earth embankments and to the same density as required for the adjacent embankment.

### **3.4 COMPACTION**

- A. Each layer shall be compacted to the required density by suitable equipment.

- B. The depth of each layer, prior to compaction, shall not exceed that depth which will produce six (6) inch compacted thickness. Prior to and in connection with, the compaction operation each layer shall be brought to the moisture content necessary to obtain the required density and shall be kept leveled with suitable equipment to insure uniform compaction of the entire layer.
- C. For each layer of earth embankment and select material, it is the intent of this Specification to provide the density as required herein, unless otherwise shown on the Plans. Embankment soils shall be sprinkled as required and compacted to the extent necessary to provide not less than ninety-five (95) percent of the density as determined in accordance with Texas Highway Department Test Method Tex-113-E. Field density determinations will be made in accordance with approved methods.
- D. When the Contractor states that each layer of earth embankment or select material is complete and ready for the next layer, tests as necessary will be made by the Engineer. If the material fails to meet the density specified, the course shall be reworked as necessary to obtain the specified compaction, and the compaction method shall be altered on subsequent work to obtain specified density. Such procedure shall be determined by, and subject to, the approval of the Engineer.
- E. Should the sub-grade, due to any reason or cause, lose the required stability, density, or finish before the pavement structure is placed, it shall be re-compacted and refinished at the sole expense of the Contractor. Excessive loss of moisture in the sub-grade shall be prevented by sprinkling, sealing or covering with a subsequent layer of granular material. Excessive loss of moisture shall be construed to exist when the sub-grade soil moisture content is more than four (4) percent below the optimum for the density specified.
- F. In addition to the requirements in the Roadway Excavation item of the Specifications covering the general selection and utilization of materials to improve the roadbed, embankments shall be constructed in proper sequence to receive the select material layers shown on Plans, with such modifications as may be directed by the Engineer. The layer of embankment immediately preceding the upper layer of select material shall be constructed to the proper section and grade within a tolerance of not more than 0.10 foot from the established section and grade when properly compacted and finished to receive the select material layer.

### **3.5 PROOF ROLLING**

- A. Prior to the placement of any material on native earth, the area shall be proof rolled. The native soil shall be rolled with sufficient intensity to bring out weak spots in the sub-grade which would otherwise fail during the construction process. The proof rolling shall be completed with equipment weighing at least 20 tons with tire pressures at least 50 and no more than 150 psi. A minimum of two coverage's of the proof roller will be required each succeeding trip of the proof roller shall be offset by not greater than one tire width. Rollers shall be operated at speed between 2 and 6 miles per hour. Areas failing this test shall be excavated to a depth not to exceed two feet and horizontally ten feet beyond the failed area in all directions. Earth removed from this area may be replaced, stabilized, or "dried out" at the discretion of the engineer. No additional payment will be made for proof rolling prior to placement of embankment.

**END OF SECTION**

SECTION 31 23 23

**SELECTED BORROW**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This item shall consist of furnishing, hauling, spreading and compacting selected borrow on the roadway to bring the roadbed up to proper grade.

**1.2 MEASUREMENT AND PAYMENT**

- A. Work and accepted material as prescribed for this item will be measured by the cubic yard of material in vehicles as delivered on the road.
- B. Payment for selected borrow will be made by the cubic yard, as measured under measurement. Payment shall be for full compensation of securing, hauling, spreading, mixing and compacting

**1.3 SUBMITTALS**

- A. Atterberg Limits
- B. Sieve Analysis

**PART 2 – PRODUCTS**

**2.1 MATERIALS**

- A. The material shall consist of soil, with or without stone or conglomerate, and of a suitable quality to secure a well bonded course. It shall be free of vegetation or other objectionable material and shall have a maximum Plasticity Index of 20 as determined by Texas Highway Department Test Method Tex-106-E.

**2.2 TESTING REQUIREMENTS**

- A. When necessary or as directed by the City Engineer samples of the borrow material shall be collected and tested for Atterberg Limits. In addition a Sieve Analysis shall be performed.

**PART 3 – EXECUTION**

**3.1 GENERAL**

- A. The material shall be delivered in approved vehicles of uniform capacity, and it shall be the responsibility of the Contractor to deliver the material at the proper location. The material shall be spread by the use of blades, drags, or other suitable equipment.
- B. If the material is not well mixed or contains oversized material, it shall be thoroughly mixed. After spreading, all oversized material shall be broken by raking, blading, disking, harrowing, scarifying, or other approved methods.

- C. Borrow placed in the roadbed for the purpose of bringing the roadbed to proper grade subsequent to lime stabilization, will be mixed with the existing material to form a subgrade of uniform material at proper grade.
- D. Borrow used for constructing or widening embankment will be sprinkled if necessary and compacted according to SECTION 31 23 00 – EXCAVATION AND EMBANKMENT.

**END OF SECTION**

## SECTION 31 25 13

**EROSION AND SEDIMENTATION CONTROL****PART 1 - GENERAL****1.1 DESCRIPTION**

- A. The work covered by this section consists of the installation and maintenance of all erosion siltation control devices, wash down areas, or seeding and sodding applications necessary to effectively prevent storm water pollution of adjoining or downstream areas that may occur as a direct or indirect result of the construction of this project. The contractor is responsible for creating and maintaining the storm water pollution prevention plan by utilizing the base sheets and narrative provided in the bid documents. The contractor is also responsible for submitting the Notice of Intent (NOI) and Notice of Termination (NOT) and conducting inspections as required by the Texas Commission on Environmental Quality (TCEQ.) The required forms for these activities are included in the bid documents.

The engineer will provide:

1. Base Sheets for Erosion Control Plan (ECP)
2. The Narrative for the Storm Water Pollution Prevention Plan (SWPPP)

The contractor will generate, submit, and maintain the:

1. ECP
2. SWPPP
3. NOI (if required)
4. NOT (if required)

**1.2 MEASUREMENT AND PAYMENT**

Erosion and Sediment Control is measured as a lump sum item.

The work and materials as prescribed by this item will be paid on the following schedule:

- A. 25% of the bid value shall be paid when the erosion control plan is fully detailed and implemented, the NOI (if required) is submitted to both TCEQ and the City Inspector, and all of the initial erosion control devices have been installed and are in working order.
- B. 50% of the value will be prorated for the installation and maintenance of erosion control devices during the course of construction as a percent of the total contract value. If the sediment trapping devices on the site appear to be un-maintained, no payment of this portion of the item shall be paid.
- C. 25% will be paid at the completion of construction when the site is stabilized, the NOT is submitted to both TCEQ and the City Inspector and all erosion control devices are removed from the site.

**1.3 SUBMITTALS**

- A. The contractors shall submit the initial erosion control plan along with the NOI (if required) prior to receiving a notice to proceed.
- B. If required, the Contractor is responsible for filing a “Notice of Intent” (NOI.) The contractor shall comply with all TCEQ and EPA regulations and pay the filing fees associated with the regulations. Fees associated with these regulations are subsidiary to the bid item Storm Water Prevention. The forms are available at:

<http://www.tceq.state.tx.us/assets/public/permitting/waterquality/forms/20022.pdf>  
<http://www.tceq.state.tx.us/assets/public/permitting/waterquality/forms/20023.pdf>

- C. Said NOI must be postmarked two days before construction begins. NOI's and NOT's shall be submitted to the address shown on the forms. It is the Contractor's responsibility to file and provide the owner a copy of the Notice of Termination (NOT) at the completion of the project.

## **PART 2 – PRODUCTS**

N/A

## **PART 3 – EXECUTION**

### **3.1 GENERAL**

- A. It is the responsibility of the Contractor to utilize whatever techniques are necessary to address erosion problems as they occur during construction.
- B. Siltation control and sediment trapping devices shall be installed prior to site clearing, grading or utility construction operations. All devices should be positioned so as to effectively remove silt from storm water before it leaves the site. Of particular concern, are gravel or stone blankets placed at construction traffic exits and entrances. These controls should be closely monitored to see that they trap sediment before it reaches the existing street and drainage system.
- C. Construction activities should be phased to expose a minimum of graded area at one time. Earth exposed by the construction process shall be re-vegetated every two weeks until vegetation is established. Re-vegetation shall require seeding, hydromulching or sodding. Fresh growth of vegetation shall eliminate the need for additional re-vegetation but does not constitute stabilization.
- D. Should a construction process remove any portion of the perimeter controls, the controls should be replaced in accordance with the TCEQ guidelines. Prior to the completion of the project, all bare areas shall be re-vegetated with a cellulose fiber hydromulch seeding process or sodded.
- E. Siltation control devices placed at storm drain inlets and culverts shall be removed by the Contractor once the site has been stabilized.

### **3.2 MAINTENANCE AND INSPECTION**

- A. The contractor shall familiarize himself with the erosion control requirements of TCEQ. The site superintendent, or his representative, shall make a visual inspection of all structural and/or natural controls and newly stabilized areas as required by TCEQ, especially after a rainfall to insure that all controls are maintained and properly functioning. Any damaged controls shall be repaired prior to the end of the work day, including re-seeding and mulching or re-sodding if necessary. All inspections shall be documented with a written report. Reports shall include the effectiveness of erosion control measures, construction activities conducted since the last report and their location. Reports shall be maintained by the Contractor along with the Erosion Control Plan per the TCEQ guidelines.
- B. The contractor is responsible for the ECP. The contractor shall continuously update the plan with all changes. Areas already stabilized shall be noted on the plan. All sediment trapping devices shall be installed as soon as practical after the area has been disturbed (never more than 14 days). All sediment trapping devices shall be cleaned when the sediment level reaches 25% capacity. Sediment shall be disposed of by spreading on site or hauling away if not suitable for fill.

- C. The Contractor shall be responsible for any and all materials, improvements, and maintenance activities necessary to keep dust, silt, and mud from leaving the work zone, including being tracked by vehicles traveling throughout the zone.
- D. Should, in the opinion of the Owner, the Contractor fail to prevent the escape of dust or contain silt and mud within the project, after due notification by the City Representative, Owner forces will be used to clean up those affected areas, and the cost of same will be deducted from the contract.
- E. Prior to Substantial Completion, the Contractor shall verify that no dust, silt, or mud exists within the work zone in deposits deeper than two inches (2”) as a result of the contractor’s containment procedures. Should the Contractor claim final completion without removing such deposits, they will be removed by Owner forces and the cost of which shall be deducted from the contract.

**END OF SECTION**

## SECTION 316329 - DRILLED CONCRETE PIERS AND SHAFTS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Dry-installed or slurry displacement-installed drilled piers at Contractor's choice.

- B. Related Sections:

- 1. Section 311100 "Site Clearing" for preparation of subgrade for drilled-pier operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface.

#### 1.3 UNIT PRICES

- A. N/A

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
  - 1. Indicate amounts of mixing water to be withheld for later addition at Project site.
- C. Shop Drawings: For concrete reinforcement detailing fabricating, bending, supporting, and placing.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Material Certificates: For the following, from manufacturer:

1. Cementitious materials.
  2. Admixtures.
  3. Steel reinforcement and accessories.
- C. Material Test Reports: For the following, from a qualified testing agency, indicating compliance with requirements:
1. Aggregates
- D. Field quality-control reports.
- E. Other Informational Submittals:
1. Record drawings.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer that has specialized in drilled-pier work.
- B. Testing Agency Qualifications: Qualified according to ASTM C 1077, ASTM D 3740, and ASTM E 329 for testing indicated.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
  2. AWS D1.4, "Structural Welding Code - Reinforcing Steel."
- D. Drilled-Pier Standard: Comply with ACI 336.1 unless modified in this Section.
- E. Preinstallation Conference: Conduct conference at Project site.
1. Review methods and procedures related to drilled piers including, but not limited to, the following:
    - a. Review geotechnical report.
    - b. Discuss existing utilities and subsurface conditions.
    - c. Review coordination with temporary controls and protections.

#### 1.7 PROJECT CONDITIONS

- A. Existing Utilities: Locate existing underground utilities before excavating drilled piers. If utilities are to remain in place, provide protection from damage during drilled-pier operations.
1. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, adapt drilling procedure if necessary to prevent damage to utilities. Cooperate with Owner and utility companies in keeping services and facilities in operation without interruption. Repair damaged utilities to satisfaction of utility owner.

- B. Interruption of Existing Utilities: Do not interrupt any utility to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility according to requirements indicated:
  - 1. Notify Architect, Construction Manager and Owner no fewer than two days in advance of proposed interruption of utility.
  - 2. Do not proceed with interruption of utility without Construction Manager's written permission.
  
- C. Project-Site Information: A geotechnical report has been prepared for this Project and is available for information only. The opinions expressed in this report are those of geotechnical engineer and represent interpretations of subsoil conditions, tests, and results of analyses conducted by geotechnical engineer. Owner will not be responsible for interpretations or conclusions drawn from this data.
  - 1. Make additional test borings and conduct other exploratory operations necessary for drilled piers.
  - 2. The geotechnical report is included elsewhere in the Project Manual.
  
- D. Survey Work: Engage a qualified land surveyor or professional engineer to perform surveys, layouts, and measurements for drilled piers. Before excavating, lay out each drilled pier to lines and levels required. Record actual measurements of each drilled pier's location, shaft diameter, bottom and top elevations, deviations from specified tolerances, and other specified data.
  - 1. Record and maintain information pertinent to each drilled pier and cooperate with Owner's testing and inspecting agency to provide data for required reports.

## PART 2 - PRODUCTS

### 2.1 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.

### 2.2 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of same type, brand, and source, throughout Project:
  - 1. Portland Cement: ASTM C 150, Type II, Supplement with the following:
    - a. Fly Ash: ASTM C 618, Class C.
  
- B. Normal-Weight Aggregate: ASTM C 33, graded, 3/4-inch- (19-mm-) nominal maximum coarse-aggregate size. Provide aggregate from a single source.
  - 1. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
  
- C. Water: ASTM C 94/C 94M.

- D. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
  - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
  - 2. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
  - 3. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
  - 4. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.
- E. Sand-Cement Grout: Portland cement, ASTM C 150, Type II; clean natural sand, ASTM C 404; and water to result in grout with a minimum 28-day compressive strength of 1000 psi (6.9 MPa), of consistency required for application.

### 2.3 STEEL CASINGS

- A. Steel Pipe Casings: ASTM A 283/A 283M, Grade C, or ASTM A 36/A 36M, carbon-steel plate, with joints full-penetration welded according to AWS D1.1/D1.1M.
- B. Corrugated-Steel Pipe Casings: ASTM A 929/A 929M, steel sheet, zinc coated.
- C. Liners: Comply with ACI 336.1.

### 2.4 SLURRY

- A. Slurry: Pulverized bentonite , pulverized attapulgite or polymers mixed with water to form stable colloidal suspension; complying with ACI 336.1 for density, viscosity, sand content, and pH.

### 2.5 CONCRETE MIXTURES

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement according to ACI 301 limits as if concrete were exposed to deicing chemicals.
- C. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
- D. Proportion normal-weight concrete mixture as follows:
  - 1. Compressive Strength (28 Days): 3000 psi (27.6 MPa).
  - 2. Maximum Water-Cementitious Materials Ratio: 0.45.
  - 3. Minimum Slump: Capable of maintaining the following slump until completion of placement:
    - a. 4 inches (100 mm) for dry, uncased, or permanent-cased drilling method.

- b. 6 inches (150 mm) for temporary-casing drilling method.
  - c. 7 inches (175 mm) for slurry displacement method.
4. Air Content: Do not air entrain concrete.

## 2.6 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

## 2.7 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
  - 1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, vibration, and other hazards created by drilled-pier operations.

### 3.2 EXCAVATION

- A. Unclassified Excavation: Excavate to bearing elevations regardless of character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions.
  - 1. Obstructions: Unclassified excavation may include removal of unanticipated boulders, concrete, masonry, or other subsurface obstructions. No changes in the Contract Sum or the Contract Time will be authorized for removal of obstructions.
  - 2. Obstructions: Unclassified excavated materials may include removal of unanticipated boulders, concrete, masonry, or other subsurface obstructions. Payment for removing obstructions that cannot be removed by conventional augers fitted with soil or rock teeth, drilling buckets, or underreaming tools attached to drilling equipment of size, power, torque, and downthrust necessary for the Work will be according to Contract provisions for changes in the Work.
- B. Classified Excavation: Excavation is classified as standard excavation, special excavation, and obstruction removal and includes excavation to bearing elevations as follows:
  - 1. Standard excavation includes excavation accomplished with conventional augers fitted with soil or rock teeth, drilling buckets, or underreaming tools attached to drilling equipment of size, power, torque, and downthrust necessary for the Work.

2. Special excavation includes excavation that requires special equipment or procedures above or below indicated depth of drilled piers where drilled-pier excavation equipment used in standard excavation, operating at maximum power, torque, and downthrust, cannot advance the shaft.
    - a. Special excavation requires use of special rock augers, core barrels, air tools, blasting, or other methods of hand excavation.
    - b. Earth seams, rock fragments, and voids included in rock excavation area will be considered rock for full volume of shaft from initial contact with rock.
  3. Obstructions: Payment for removing unanticipated boulders, concrete, masonry, or other subsurface obstructions that cannot be removed by conventional augers fitted with soil or rock teeth, drilling buckets, or underreaming tools attached to drilling equipment of size, power, torque, and downthrust necessary for the Work will be according to Contract provisions for changes in the Work.
- C. Prevent surface water from entering excavated shafts. Conduct water to site drainage facilities.
- D. Excavate shafts for drilled piers to indicated elevations. Remove loose material from bottom of excavation.
  1. Excavate bottom of drilled piers to level plane within 1:12 tolerance.
  2. Remove water from excavated shafts before concreting.
- E. Notify and allow testing and inspecting agency to test and inspect bottom of excavation. If unsuitable bearing stratum is encountered, make adjustments to drilled piers as determined by Architect.
  1. Do not excavate shafts deeper than elevations indicated unless approved by Architect.
  2. Payment for additional authorized excavation will be according to Contract provisions for changes in the Work.
- F. End-Bearing Drilled Piers: Probe with auger to a depth below bearing elevation, equal to diameter of the bearing area of drilled pier. Determine whether voids, clay seams, or solution channels exist.
  1. Test first three drilled piers and one of every six drilled piers thereafter.
  2. Fill auger-probe holes with grout.
- G. Excavate shafts for closely spaced drilled piers and for drilled piers occurring in fragile or sand strata only after adjacent drilled piers are filled with concrete and allowed to set.
- H. Slurry Displacement Method: Stabilize excavation with slurry maintained a minimum of 60 inches (1500 mm) above ground-water level and above unstable soil strata to prevent caving or sloughing of shaft. Maintain slurry properties before concreting.
  1. Excavate and complete concreting of drilled pier on same day if possible, or redrill, clean, and test slurry in excavation before concreting.
  2. Clean bottom of each shaft before concreting.

- I. Temporary Casings: Install watertight steel casings of sufficient length and thickness to prevent water seepage into shaft; to withstand compressive, displacement, and withdrawal stresses; and to maintain stability of shaft walls.
  - 1. Remove temporary casings, maintained in plumb position, during concrete placement and before initial set of concrete.
- J. Bells: Excavate bells for drilled piers to shape, base thickness, and slope angle indicated. Excavate bottom of bells to level plane and remove loose material before placing concrete.
  - 1. Shore bells in unstable soil conditions to prevent cave-in during excavation, inspection, and concreting.
- K. Tolerances: Construct drilled piers to remain within ACI 336.1 tolerances.
  - 1. If location or out-of-plumb tolerances are exceeded, provide corrective construction. Submit design and construction proposals to Architect for review before proceeding.

### 3.3 PERMANENT STEEL CASINGS

- A. Install steel casings of minimum wall thickness indicated and of diameter not less than diameter of drilled pier.
  - 1. Install casings as excavation proceeds, to maintain sidewall stability.
  - 2. Fabricate bottom edge of lowest casing section with cutting shoe capable of penetrating rock and achieving water seal.
  - 3. Connect casing sections by continuous penetration welds to form watertight, continuous casing.
  - 4. Remove and replace or repair casings that have been damaged during installation and that could impair strength or efficiency of drilled pier.
  - 5. Fill annular void between casing and shaft wall with grout.
- B. Corrugated-Steel Casings: Provide corrugated-steel casings formed from zinc-coated steel sheet.
  - 1. Corrugated casings may be delivered in sections or panels of convenient length and field connected according to manufacturer's written instructions.

### 3.4 STEEL REINFORCEMENT

- A. Comply with recommendations in CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, and other materials that reduce or destroy bond with concrete.
- C. Fabricate and install reinforcing cages symmetrically about axis of shafts in a single unit.
- D. Accurately position, support, and secure reinforcement against displacement during concreting. Maintain minimum cover over reinforcement.

- E. Use templates to set anchor bolts, leveling plates, and other accessories furnished in work of other Sections. Provide blocking and holding devices to maintain required position during final concrete placement.
- F. Protect exposed ends of extended reinforcement, dowels, or anchor bolts from mechanical damage and exposure to weather.

### 3.5 CONCRETE PLACEMENT

- A. Place concrete in continuous operation and without segregation immediately after inspection and approval of shaft by Owner's independent testing and inspecting agency.
  - 1. Construct a construction joint if concrete placement is delayed more than one hour. Level top surface of concrete. Before placing remainder of concrete, clean surface laitance, roughen, and slush concrete with commercial bonding agent or with sand-cement grout mixed at ratio of 1:1.
- B. Dry Method: Place concrete to fall vertically down the center of drilled pier without striking sides of shaft or steel reinforcement.
  - 1. Where concrete cannot be directed down shaft without striking reinforcement, place concrete with chutes, tremies, or pumps.
  - 2. Vibrate top 60 inches (1500 mm) of concrete.
- C. Slurry Displacement Method: Place concrete in slurry-filled shafts by tremie methods or pumping. Control placement operations to ensure that tremie or pump pipe is embedded no fewer than 60 inches (1500 mm) into concrete and that flow of concrete is continuous from bottom to top of drilled pier.
- D. Coordinate withdrawal of temporary casings with concrete placement to maintain at least a 60-inch (1500-mm) head of concrete above bottom of casing.
  - 1. Vibrate top 60 inches (1500 mm) of concrete after withdrawal of temporary casing.
- E. Screed concrete at cutoff elevation level and apply scoured, rough finish. Where cutoff elevation is above the ground elevation, form top section above grade and extend shaft to required elevation.
- F. Protect concrete work, according to ACI 301, from frost, freezing, or low temperatures that could cause physical damage or reduced strength.
  - 1. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
  - 2. Do not use calcium chloride, salt, or other mineral-containing antifreeze agents or chemical accelerators.
- G. If hot-weather conditions exist that would seriously impair quality and strength of concrete, place concrete according to ACI 301 to maintain delivered temperature of concrete at no more than 90 deg F (32 deg C).

1. Place concrete immediately on delivery. Keep exposed concrete surfaces and formed shaft extensions moist by fog sprays, wet burlap, or other effective means for a minimum of seven days.

### 3.6 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform the following special inspections:
  1. Drilled piers.
  2. Excavation.
  3. Concrete.
  4. Steel reinforcement welding.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- C. Drilled-Pier Tests and Inspections: For each drilled pier, before concrete placement.
  1. Soil Testing: Bottom elevations, bearing capacities, and lengths of drilled piers indicated have been estimated from available soil data. Actual elevations and drilled-pier lengths and bearing capacities will be determined by testing and inspecting agency. Final evaluations and approval of data will be determined by Architect.
- D. Concrete Tests and Inspections: ASTM C 172 except modified for slump to comply with ASTM C 94/C 94M.
  1. Slump: ASTM C 143/C 143M; one test at point of placement for each compressive-strength test but no fewer than one test for each concrete load.
  2. Concrete Temperature: ASTM C 1064/C 1064M; 1 test hourly when air temperature is 40 deg F (4.4 deg C) and below and 80 deg F (27 deg C) and above, and 1 test for each set of compressive-strength specimens.
  3. Compression Test Specimens: ASTM C 31/C 31M; one set of four standard cylinders for each compressive-strength test unless otherwise indicated. Mold and store cylinders for laboratory-cured test specimens unless field-cured test specimens are required.
  4. Compressive-Strength Tests: ASTM C 39; one set for each drilled pier but not more than one set for each truck load. One specimen will be tested at 7 days, 2 specimens will be tested at 28 days, and 1 specimen will be retained in reserve for later testing if required.
  5. If frequency of testing will provide fewer than five strength tests for a given class of concrete, testing will be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
  6. If strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
  7. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa).
  8. Report test results in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. List Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in

- Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests in reports of compressive-strength tests.
9. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
  10. Additional Tests: Testing and inspecting agency will make additional tests of concrete if test results indicate that slump, compressive strengths, or other requirements have not been met, as directed by Architect.
    - a. Continuous coring of drilled piers may be required, at Contractor's expense, if temporary casings have not been withdrawn within specified time limits or if observations of placement operations indicate deficient concrete quality, presence of voids, segregation, or other possible defects.
  11. Perform additional testing and inspecting, at Contractor's expense, to determine compliance of replaced or additional work with specified requirements.
  12. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.
- E. An excavation, concrete, or a drilled pier will be considered defective if it does not pass tests and inspections.
- F. Prepare test and inspection reports for each drilled pier as follows:
1. Actual top and bottom elevations.
  2. Actual drilled-pier diameter at top, bottom, and bell.
  3. Description of soil materials.
  4. Description, location, and dimensions of obstructions.
  5. Final top centerline location and deviations from requirements.
  6. Variation of shaft from plumb.
  7. Shaft excavating method.
  8. Levelness of bottom and adequacy of cleanout.
  9. Ground-water conditions and water-infiltration rate, depth, and pumping.
  10. Description of soil or water movement, sidewall stability, loss of ground, and means of control.
  11. Bell dimensions and variations from original design.
  12. Date and time of starting and completing excavation.
  13. Inspection report.
  14. Condition of reinforcing steel and splices.
  15. Position of reinforcing steel.
  16. Concrete placing method, including elevation of consolidation and delays.
  17. Elevation of concrete during removal of casings.
  18. Locations of construction joints.
  19. Concrete volume.
  20. Concrete testing results.
  21. Remarks, unusual conditions encountered, and deviations from requirements.

3.7 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION 316329

SECTION 329213 – HYDRO-MULCH SEEDING

PART 1 – GENERAL

1.1 DESCRIPTION

- A. The work covered by this section consist of furnishing all plant, labor, materials, equipment, supplies, supervision and tools and performing all work necessary to top soiling, smoothing, seeding, fertilizing, watering, maintenance and cleanups of side slopes, all in accordance with these specifications.
- B. The hydro-mulch seeding operations, together with all necessary related work, shall conform to the requirements specified in this section. The area(s) to be hydro-mulch seeded shall be shown on the construction drawings.

1.2 PRODUCTS

- A. All seed must meet the requirements of the U.S. Department of Agriculture Rules & Regulations as set forth in the Federal Seed Act and the Texas Seed Law.
- B. Type of seed, purity and germination requirements, rate of application and planting dates are as follows:

TABLE 1  
 Application  
 Rate-Pounds

TYPE/COMBINATION	PER ACRE	PLANTING DATE
Hulled Common Bermuda Grass 98/88 <b>and,</b>	40	Jan.1 to Apr. 15
Unhulled Common Bermuda Grass 98/88 <b>and,</b>	40	
Annual Rye Grass, including Gulf	50	
Hulled Common Bermuda Grass 98/88 <b>and,</b>	40	Apr. 15 to Oct. 1
Hulled Common Bermuda Grass 98/88 <b>and,</b>	40	Oct. 1 to Jan. 1
Unhulled Common Bermuda Grass 98/88	40	

- C. Fertilizer shall be water soluble with an analysis of 10 percent nitrogen, 20 percent phosphoric acid and 10 percent potash. Rate of application shall be 500 pounds per acre, except during the period of April 15 through September 1, when the rate shall be reduced to 400 pounds per acre. The fertilizer shall be delivered to the site in bags or other convenient containers, each fully labeled, conforming to the applicable State Fertilizer Laws and bearing the name and warranty of the producer.
- D. Mulch shall be virgin wood cellulose fiber made from whole chips. Within the fiber mulch material, at least 20 percent of the fibers will be 10.7 mm in length and 0.27 mm in diameter. Rate of application shall be 2000 pounds per acre. Soil stabilizers such as Terra Type III (or pre-approved equal) shall be applied at a rate of 40 pounds per acre on side slopes and Terra Track I (or pre-approved equal) shall be applied at a rate of 40 pounds per acre on flatter portions.
- E. Wood cellulose fiber mulch, for use in the grass seed and fertilizer, shall be processed in such a manner that it will not contain germination or growth inhibiting factors. It shall be dyed an appropriate color to allow visual metering of its application. The wood cellulose fibers shall have the property of becoming evenly dispersed and suspended when agitated in water. When sprayed uniformly on the surface of the soil, the fibers shall form a blotter-like ground cover, which readily absorbs water and allows infiltration to the underlying soil. Weight specifications from suppliers for all applications shall refer only to the underlying soil. Weight specifications from suppliers, shall refer only to the air dry weight of the fiber. The mulch material shall be supplied in packages having a gross weight not in excess of 100 pounds and must be marked by the manufacture to show the dry weight content. Suppliers shall be prepared to certify that laboratory and field testing of their product has been accomplished and that it meets all of the forgoing requirements.
- F. Water shall be free from oil, acid, alkali, salt and other substances harmful to the growth of grass. The water source shall be subject to approval, prior to use.

### PART 3 – EXECUTION

#### 3.1 CONSTRUCTION METHODS

- A. EXECUTION: Immediately after the finished grade has been approved, begin hydro-mulching operations to reduce erosion and excessive weed growth.

Hydraulic equipment used for the application of fertilizer, seed and slurry of prepared wood fiber mulch shall have a built-in agitation system with an operating capacity sufficient to agitate, suspend and homogeneously mix a slurry containing up to forty (40) pounds of fiber plus a combined total of 70 pounds of fertilizer solids for each 100 gallons of water. The slurry distribution lines shall be lard enough to prevent stoppage. The discharge line shall be equipped with a set of hydraulic spray nozzles which provide even distribution of the slurry on the area to be seeded. The slurry tank shall have a minimum capacity of 800 gallons and shall be mounted on a traveling unit, which may either be self-propelled or drawn with a separate unit which will place the slurry tank and spray nozzles within sufficient proximity to the areas to be seeded, so as to provide uniform distribution without waste. The Engineer may authorized equipment with a smaller tank capacity, provided the

equipment has the necessary agitation system and sufficient pump spray the slurry in a uniform coat.

Care shall be taken that the slurry preparation takes place on the site of the work. The slurry preparation should begin by adding water to the tank when the engine is at half throttle. When the water level has reached the height of the agitator shaft, good recirculation shall be established and seed shall be added. Fertilizer shall then be added, followed by wood pulp mulch. The wood pulp mulch shall only be added to the mixture after the seed and when the tank is at least one-third filled with water. The engine throttle shall be opened to full speed when the tank is half filled with water. All the wood pulp mulch shall be added by the time the tank is two-thirds to three-fourths full. Spraying shall commence immediately when the tank is full. The operator shall spray the area with a uniform visible coat, by using the green color of the wood pulp as a guide.

- B. APPLICATION: The contractor shall obtain approval of hydro-mulch area preparation from the Engineer prior to application.

Operators of hydro-mulching equipment shall be thoroughly experienced in this type of application. Apply the specified slurry mix in a motion to form a uniform mat at the specified rate. Operators shall keep the hydro-mulch within the area designated and keep from contact with other plant materials. Immediately after application, thoroughly wash off any plant material, planting areas or paved areas not intended to receive slurry mix.

Keep all paved and planting areas clean during maintenance operations. Contractor shall keep hydro-mulching within the area designated and keep from contact with other plant materials. If in the opinion of the Engineer, unplanted skips and areas are noted after hydro-mulching, the contractor shall be required to seed the unplanted areas with the grasses that were to have been planted at no additional cost to Owner.

- C. CONTRACTOR'S MAINTENANCE & GUARANTEE PERIOD: The hydro-mulch seeding shall be adequately watered until established. Any area damaged by erosion or areas that do not have an acceptable turfing shall be redone to the satisfaction of the Engineer. Maintenance of grass areas shall be for 60 days after the completion of the project and shall consist of watering, weeding, repair of all erosion and reseeding, as necessary to establish a uniform stand of the specified grasses. Contractor shall guarantee growth and coverage of hydro-mulch planting under this contract to the effect that a minimum of 95% of the area planted will be covered with the specified planting after 60 days.

The Contractor shall be responsible for one (1) mowing every two (2) weeks between the months of April to October. The Contractor shall also be responsible for one (1) mowing every three (3) weeks between the months of November to March. In addition, the Contractor shall water the entire sodded and hydro-mulched areas to saturate depth of one (1) inch at least once a week between the months of April to September and at least once a month between the months of October to March.

The Contractor shall make a second application of specified hydromulch planting those bare areas not meeting specified coverage as determined by the Engineer. Such replanting is to be performed within 60 days of initial application and upon notification by the Engineer to replant.

The Contractor shall apply top dress fertilizer (delayed action), at the rate of 10 pounds per 1000 square feet at 25 days after hydro-mulching of all new lawn areas.

Top dress fertilizer shall be 16-6-8.

Prior to final inspection, the Contractor shall mow the entire right-of-way within the project limits, including weeding around existing structures.

END OF SECTION 329213



# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Stage)

Project: \_\_\_\_\_ Substitution Request Number: \_\_\_\_\_  
 \_\_\_\_\_ From: \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_ A/E Project Number: \_\_\_\_\_  
 Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

Specification Title: \_\_\_\_\_ Description: \_\_\_\_\_  
 Section: \_\_\_\_\_ Page: \_\_\_\_\_ Article/Paragraph: \_\_\_\_\_

Proposed Substitution: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Trade Name: \_\_\_\_\_ Model No.: \_\_\_\_\_  
 Installer: \_\_\_\_\_ Address: \_\_\_\_\_ Phone: \_\_\_\_\_

History:  New product  1-4 years old  5-10 years old  More than 10 years old

Differences between proposed substitution and specified product: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: \_\_\_\_\_  
 \_\_\_\_\_

**Similar Installation:**

Project: \_\_\_\_\_ Architect: \_\_\_\_\_  
 Address: \_\_\_\_\_ Owner: \_\_\_\_\_  
 \_\_\_\_\_ Date Installed: \_\_\_\_\_

Proposed substitution affects other parts of Work:  No  Yes; explain \_\_\_\_\_

Savings to Owner for accepting substitution: \_\_\_\_\_ (\$ \_\_\_\_\_).

Proposed substitution changes Contract Time:  No  Yes [Add] [Deduct] \_\_\_\_\_ days.

Supporting Data Attached:  Drawings  Product Data  Samples  Tests  Reports  \_\_\_\_\_

# SUBSTITUTION REQUEST

(After the Bidding/Negotiating Stage - Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: \_\_\_\_\_

Signed by: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Attachments: \_\_\_\_\_

### A/E's REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

Additional Comments:  Contractor  Subcontractor  Supplier  Manufacturer  A/E  \_\_\_\_\_

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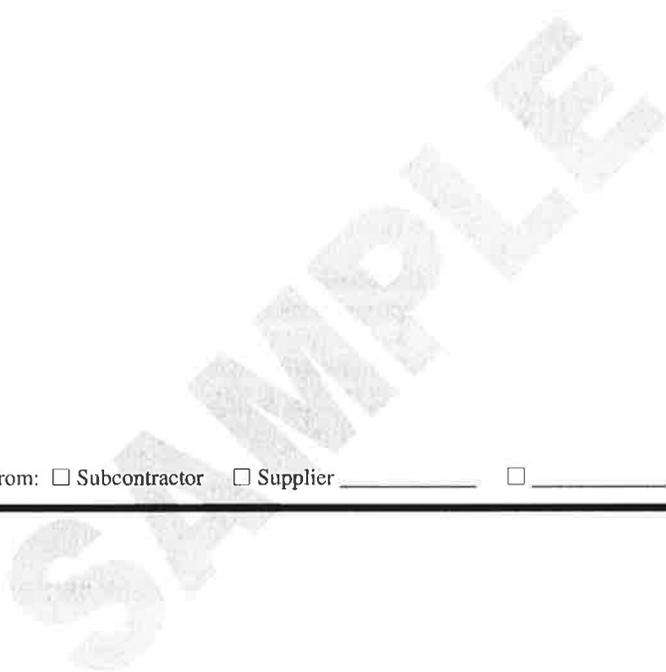


# CHANGE ORDER REQUEST (PROPOSAL)

Project: \_\_\_\_\_ Change Order Request Number: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ From (Contractor): \_\_\_\_\_  
 To: \_\_\_\_\_ Date: \_\_\_\_\_  
 \_\_\_\_\_ A/E Project Number: \_\_\_\_\_  
 Re: \_\_\_\_\_ Contract For: \_\_\_\_\_

This Change Order Request (C.O.R.) contains an itemized quotation for changes in the Contract Sum or Contract Time in response to proposed modifications to the Contract Documents based on Proposal Request No. \_\_\_\_\_.

Description of Proposed Change:



Attached supporting information from:  Subcontractor  Supplier \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Reason for Change:

Does Proposed Change involve a change in Contract Sum?  No  Yes [Increase] [Decrease] \$ \_\_\_\_\_  
 Does Proposed Change involve a change in Contract Time?  No  Yes [Increase] [Decrease] \_\_\_\_\_ days.

Attached pages:  Proposal Worksheet Summary: \_\_\_\_\_  
 Proposal Worksheet Detail(s): \_\_\_\_\_

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

Copies:  Owner  Consultants  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  File



Knowledge for Creating  
and Sustaining  
the Built Environment

# PROPOSAL WORKSHEET DETAIL

Project: \_\_\_\_\_ Change Order Request Number: \_\_\_\_\_  
 To: \_\_\_\_\_ From: \_\_\_\_\_ Contact: \_\_\_\_\_  
 Re: \_\_\_\_\_ Date: \_\_\_\_\_  
 Proposal Request Number: \_\_\_\_\_ A/E Project Number: \_\_\_\_\_

### SHADED AREAS FOR A/E USE

#### ADDITIONS

Ref. No.	Item Description	Quantity	UNIT PRICES		SUBTOTALS		TOTAL
			Materials	Labor	Materials	Labor	
1							
2							
3							
4							
Subtotal (Enter this number on Worksheet Summary.)							

#### DEDUCTIONS

Ref. No.	Item Description	Quantity	UNIT PRICES		SUBTOTALS		TOTAL
			Materials	Labor	Materials	Labor	
1							
2							
3							
4							
Subtotal (Enter this number on Worksheet Summary.)							



# PROPOSAL WORKSHEET SUMMARY

Project: \_\_\_\_\_ Change Order Request Number: \_\_\_\_\_  
 To: \_\_\_\_\_ From: \_\_\_\_\_  
 Re: \_\_\_\_\_ Date: \_\_\_\_\_  
 Proposal Request Number: \_\_\_\_\_ A/E Project Number: \_\_\_\_\_

Complete and attach Proposal Worksheet Detail for each element of Work. Enter Worksheet Information below.

**ADDITIONS**

#	Sheet	Description	Material	Labor	Subtotal
1					
2					
3					
4					
5					
6					
7					
<b>Subtotal</b>					

**DEDUCTIONS**

#	Sheet	Description	Material	Labor	Subtotal
1					
2					
3					
4					
5					
6					
7					
<b>Subtotal</b>					

Subcontractor's Net: \_\_\_\_\_  
 Subcontractor's OH&P: \_\_\_\_\_  
 Subcontractor's Bond: \_\_\_\_\_  
 Subcontractor's Total: \$ \_\_\_\_\_  
 Contractor's OH&P: \_\_\_\_\_  
 Contractor's Bond: \_\_\_\_\_  
 Insurance: \_\_\_\_\_  
 Tax: \_\_\_\_\_  
**WORKSHEET TOTAL** \$ \_\_\_\_\_

# DRAFT AIA<sup>®</sup> Document G701<sup>™</sup> - 2001

## Change Order

PROJECT <i>(Name and address)</i> :	CHANGE ORDER NUMBER: 002	OWNER: <input type="checkbox"/>
	DATE:	ARCHITECT: <input type="checkbox"/>
TO CONTRACTOR <i>(Name and address)</i> :	ARCHITECT'S PROJECT NUMBER:	CONTRACTOR: <input type="checkbox"/>
	CONTRACT DATE:	FIELD: <input type="checkbox"/>
	CONTRACT FOR: General Construction	OTHER: <input type="checkbox"/>

THE CONTRACT IS CHANGED AS FOLLOWS:  
*(Include, where applicable, any undisputed amount attributable to previously executed Construction Change Directives)*

The original Contract Sum was	\$	0.00
The net change by previously authorized Change Orders	\$	0.00
The Contract Sum prior to this Change Order was	\$	0.00
The Contract Sum will be increased by this Change Order in the amount of	\$	0.00
The new Contract Sum including this Change Order will be	\$	0.00

The Contract Time will be increased by Zero (0) days.  
 The date of Substantial Completion as of the date of this Change Order therefore is

NOTE: This Change Order does not include changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

ARCHITECT <i>(Firm name)</i>	CONTRACTOR <i>(Firm name)</i>	OWNER <i>(Firm name)</i>
ADDRESS	ADDRESS	ADDRESS
BY <i>(Signature)</i>	BY <i>(Signature)</i>	BY <i>(Signature)</i>
<i>(Typed name)</i>	<i>(Typed name)</i>	<i>(Typed name)</i>
DATE	DATE	DATE

# DRAFT AIA® Document G710™ - 1992

## Architect's Supplemental Instructions

PROJECT (Name and address):

ARCHITECT'S SUPPLEMENTAL  
INSTRUCTION NO: 002

OWNER (Name and address):

DATE OF ISSUANCE:

CONTRACT FOR: General Construction

FROM ARCHITECT (Name and  
address):

CONTRACT DATE:

TO CONTRACTOR (Name and  
address):

ARCHITECT'S PROJECT NUMBER:

OWNER:

ARCHITECT:

CONSULTANT:

CONTRACTOR:

FIELD:

OTHER:

The Work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Proceeding with the Work in accordance with these instructions indicates your acknowledgment that there will be no change in the Contract Sum or Contract Time.

DESCRIPTION:

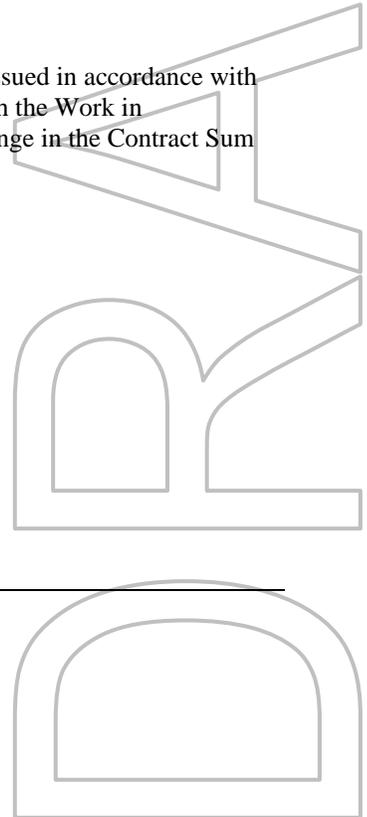
ATTACHMENTS:

(Here insert listing of documents that support description.)

ISSUED BY THE ARCHITECT:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed name and title)



# DRAFT AIA® Document G714™ - 2007

## Construction Change Directive

PROJECT: <i>(Name and address)</i>	DIRECTIVE NUMBER: 002	OWNER: <input type="checkbox"/>
	DATE:	ARCHITECT: <input type="checkbox"/>
	CONTRACT FOR: General Construction	CONSULTANT: <input type="checkbox"/>
TO CONTRACTOR: <i>(Name and address)</i>	CONTRACT DATED:	CONTRACTOR: <input type="checkbox"/>
	ARCHITECT'S PROJECT NUMBER:	FIELD: <input type="checkbox"/>
		OTHER: <input type="checkbox"/>

You are hereby directed to make the following change(s) in this Contract:  
*(Describe briefly any proposed changes or list any attached information in the alternative)*

### PROPOSED ADJUSTMENTS

- The proposed basis of adjustment to the Contract Sum or Guaranteed Maximum Price is:
  - Lump Sum decrease of \$0.00
  - Unit Price of \$ \_\_\_\_\_ per \_\_\_\_\_
  - As provided in Section 7.3.3 of AIA Document A201-2007
  - As follows:
- The Contract Time is proposed to (remain unchanged). The proposed adjustment, if any, is 0 days.

When signed by the Owner and Architect and received by the Contractor, this document becomes effective IMMEDIATELY as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above.

Contractor signature indicates agreement with the proposed adjustments in Contract Sum and Contract Time set forth in this CCD.

_____ ARCHITECT <i>(Firm name)</i>	_____ OWNER <i>(Firm name)</i>	_____ CONTRACTOR <i>(Firm name)</i>
_____ ADDRESS	_____ ADDRESS	_____ ADDRESS
_____ BY <i>(Signature)</i>	_____ BY <i>(Signature)</i>	_____ BY <i>(Signature)</i>
_____ <i>(Typed name)</i>	_____ <i>(Typed name)</i>	_____ <i>(Typed name)</i>
_____ DATE	_____ DATE	_____ DATE

# AIA® Document G702™ - 1992

## Application and Certificate for Payment

TO OWNER:	PROJECT:	AIA Docs	APPLICATION NO:	003	Distribution to:
FROM CONTRACTOR:	VIA ARCHITECT:		PERIOD TO:		OWNER: <input type="checkbox"/>
			CONTRACT FOR:	General Construction	ARCHITECT: <input type="checkbox"/>
			CONTRACT DATE:		CONTRACTOR: <input type="checkbox"/>
			PROJECT NOS:	/ /	FIELD: <input type="checkbox"/>

### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM.....	\$0.00
2. NET CHANGE BY CHANGE ORDERS.....	\$0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2) .....	\$0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703).....	\$0.00
5. RETAINAGE:	
a. 0 % of Completed Work (Column D + E on G703: \$0.00 )= \$0.00	
b. 0 % of Stored Material (Column F on G703: \$0.00 )= \$0.00	
Total Retainage (Lines 5a + 5b or Total in Column I of G703).....	\$0.00
6. TOTAL EARNED LESS RETAINAGE..... (Line 4 Less Line 5 Total)	\$0.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT..... (Line 6 from prior Certificate)	\$0.00
8. CURRENT PAYMENT DUE.....	\$0.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6)	\$0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

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

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

State of: \_\_\_\_\_

County of: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public: \_\_\_\_\_

My Commission expires: \_\_\_\_\_

### ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED..... \$0.00

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

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

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

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$0.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order		\$0.00



# DRAFT AIA<sup>®</sup> Document G706<sup>™</sup> - 1994

## Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

TO OWNER: *(Name and address)*

CONTRACT FOR: General Construction

CONTRACT DATED:

OWNER:

ARCHITECT:

CONTRACTOR:

SURETY:

OTHER:

STATE OF:

COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment  Yes  No

*The following supporting documents should be attached hereto if required by the Owner:*

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: *(Name and address)*

BY: \_\_\_\_\_

*(Signature of authorized representative)*

\_\_\_\_\_  
*(Printed name and title)*

Subscribed and sworn to before me on this date:

Notary Public:

My Commission Expires:

# DRAFT AIA<sup>®</sup> Document G706A<sup>™</sup> - 1994

## Contractor's Affidavit of Release of Liens

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT  
NUMBER:

CONTRACT FOR: General  
Construction

CONTRACT DATED:

TO OWNER: *(Name and address)*

OWNER:

ARCHITECT:

CONTRACTOR:

SURETY:

OTHER:

STATE OF:  
COUNTY OF:

The undersigned hereby certifies that to the best of the undersigned's knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens or encumbrances or the right to assert liens or encumbrances against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR: *(Name and address)*

BY:

*(Signature of authorized representative)*

*(Printed name and title)*

Subscribed and sworn to before me on this date:

Notary Public:  
My Commission Expires:

# DRAFT AIA<sup>®</sup> Document G707<sup>™</sup> - 1994

## Consent Of Surety to Final Payment

PROJECT: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

OWNER:

CONTRACT FOR: General Construction

ARCHITECT:

TO OWNER: *(Name and address)*

CONTRACT DATED:

CONTRACTOR:

SURETY:

OTHER:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the  
*(Insert name and address of Surety)*

on bond of  
*(Insert name and address of Contractor)*

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the  
Surety of any of its obligations to  
*(Insert name and address of Owner)*

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:  
*(Insert in writing the month followed by the numeric date and year.)*

\_\_\_\_\_  
*(Surety)*

\_\_\_\_\_  
*(Signature of authorized representative)*

Attest:  
*(Seal):*

\_\_\_\_\_  
*(Printed name and title)*



Knowledge for Creating  
and Sustaining  
the Built Environment

## SUBCONTRACTORS AND MAJOR MATERIAL SUPPLIERS LIST

Project: \_\_\_\_\_ From (Contractor): \_\_\_\_\_  
 Date: \_\_\_\_\_  
 To (A/E): \_\_\_\_\_ A/E Project Number: \_\_\_\_\_  
 Contract For: \_\_\_\_\_

List Subcontractors and Major Material Suppliers proposed for use on this Project as required by the Construction Documents. Attach supplemental sheets if necessary.

Section Number	Section Title	Firm	Address	Phone Number (Fax Number)	Contact
DRAFT					

Attachments

Signed by: \_\_\_\_\_ Date: \_\_\_\_\_

Copies:  Owner  Consultants  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_  File



# DRAFT AIA<sup>®</sup> Document G716<sup>™</sup> - 2004

## Request for Information ("RFI")

TO:	FROM:	
PROJECT:	ISSUE DATE:	RFI No. 003
PROJECT NUMBERS: /	REQUESTED REPLY DATE:	
	COPIES TO:	

RFI DESCRIPTION: *(Fully describe the question or type of information requested.)*

REFERENCES/ATTACHMENTS: *(List specific documents researched when seeking the information requested.)*  
SPECIFICATIONS:                      DRAWINGS:                      OTHER:

SENDER'S RECOMMENDATION: *(If RFI concerns a site or construction condition, the sender may provide a recommended solution, including cost and/or schedule considerations.)*

RECEIVER'S REPLY: *(Provide answer to RFI, including cost and/or schedule considerations.)*

BY	DATE	COPIES TO
----	------	-----------

**Note:** This reply is not an authorization to proceed with work involving additional cost, time or both. If any reply requires a change to the Contract Documents, a Change Order, Construction Change Directive or a Minor Change in the work must be executed in accordance with the Contract Documents.

# DRAFT AIA<sup>®</sup> Document G810<sup>™</sup> - 2001

## Transmittal Letter

PROJECT: *(Name and address)*

TO: *(Name and address)*

FROM: *(Name and address)*

- |                |   |   |   |
|----------------|---|---|---|
| WE TRANSMIT:   | <input type="checkbox"/> Attached           | <input type="checkbox"/> Under separate cover | <input type="checkbox"/> E-mail           |
| VIA:           | <input type="checkbox"/> Overnight delivery | <input type="checkbox"/> Mail                 | <input type="checkbox"/> Other            |
|                | <input type="checkbox"/> Courier            | <input type="checkbox"/> Fax                  | <input type="checkbox"/> Use as requested |
| FOR:           | <input type="checkbox"/> Approval / Action  | <input type="checkbox"/> Information          | <input type="checkbox"/> Other            |
|                | <input type="checkbox"/> Comment            | <input type="checkbox"/> Distribution         | <input type="checkbox"/> Digital Files    |
| THE FOLLOWING: | <input type="checkbox"/> Drawings           | <input type="checkbox"/> Specifications       |   |
|                | <input type="checkbox"/> Submittals         | <input type="checkbox"/> Other                |   |

NO. OF COPIES	DATE	FORMAT	DESCRIPTION

REMARKS:

BY:

COPIES TO:

# Geotechnical Report

September 17, 2015

Jeffrey P. Gerber, AIA, LEED AP BD+C

**PGAL**

3131 Briarpark, Suite 200

Houston, TX 77042

**Reference:      Geotechnical Report  
                     College Station Monument Sign  
                     College Station, Texas  
                     Corsair Project No. 1500528**

Dear Mr. Gerber:

Corsair Consulting LLC has completed the subsurface exploration associated with the monument sign foundation near the University Drive Bridge over Highway 6, College Station, Texas. The scope of this study was to:

- Explore the subsurface conditions at the site;
- Perform laboratory tests to identify subsurface materials;
- Develop the boring log in accordance with the TxDOT Geotechnical Manual; and
- Provide foundation recommendations for the planned monument sign.

The boring log, summary of laboratory test results, LPile parameters table and drilled shaft foundation capacity curves are attached in the Appendix.

With regards to the foundation for the monument sign, we understand the preferred foundation type will be an 18 inch, straight-sided drilled shaft foundation with a vertical demand of 10 tons per drilled shaft. We further understand that numerous shafts will be used for this monument sign.

Based on the results of the field exploration and laboratory testing program and our evaluation of subsurface materials, we have developed sign foundation vertical capacity curves. It is a typical practice to ignore the top 10 feet of the foundation vertical contribution due to the shrink and swell nature of the moderate to high plasticity clay soils present in the boring. However, we understand that this is a monument sign and it may be able to take a considerable amount of vertical movement. If this assumption is correct, it appears that an 18 inch drilled shaft embedded at a depth of about 10 feet would be sufficient to support the design load. If sign foundations are designed such that they should not move more than 1 inch, we recommend a foundation depth of about 20 feet in order to resist uplift movements from the swelling soils. The structural engineer should also verify that the proposed depth of these shafts would meet lateral loads with allowable deflection.

Based on the abundance of high plasticity clays that may have high sulfate contents, we recommend, as a measure of caution, Type II Modified concrete be specified for all concrete in contact with the soil.

We appreciate the opportunity to be of service to PGAL and look forward to working with you on future projects. Please call us if you have any questions concerning this report or any of our services.

Respectfully submitted,

**CORSAIR CONSULTING LLC**  
TBPE Registration No. F-14217

Clint J. Harris, P.E.  
Principal Engineer  
TBPE No. 95386  
[ClintHarris@CorsairUS.com](mailto:ClintHarris@CorsairUS.com)

A handwritten signature in black ink that reads "Hunsoo Ha".

Hun Soo Ha, P.E.  
Geotechnical Manager  
TBPE No. 109091  
[HunsooHa@CorsairUS.com](mailto:HunsooHa@CorsairUS.com)





# DRILLING LOG

WinCore  
Version 3.1

County Brazos  
Highway CSJ

Hole 1B  
Structure Monument Sign  
Station  
Offset

District Bryan  
Date 9/3/15  
Grnd. Elev. 280.00 ft  
GW Elev. 266.00 ft

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
278.			FILL, Sandy Lean Clay, very stiff, moist, brown (CL)			10	42	27		SSS @ 0', N=24, -#200=52%
			CLAY, Fat, stiff, moist, light brown (CH)							
5		12 (6) 15 (6)				32	72	47		SSS @ 6.5', N=18, -#200=93%
271.			SAND, Clayey, compact, moist, light brown to gray (SC)			31				SSS @ 11.3', N=40
10		24 (6) 27 (6)								
266.			SHALE, very soft, severely weathered, gray, very soft LIGNITE from 22.5' to 24'			30				SSS @ 16.3', N=38
15		34 (6) 41 (6)								
20		37 (6) 50 (5)				29				SSS @ 21.3', N=16,25,50/5.5
256.			SHALE, very hard, gray			26				SSS @ 25.2', N=66
25		50 (1) 50 (0.75)								
30		50 (1) 50 (0.75)				28				SSS @ 30.2', N=72 Boring terminated at 31.7'
248.3										
35										
40										

Remarks: Drill Rig: CME-75 with TxDOT 170-pound Automatic Hammer; SSS: Split Spoon Sample; Drilling Method: CFA; GPS Coordinates: 30.640720°N, -96.311058°W; Boring elevations and coordinates were estimated based on Google Earth.

Any ground water elevation information provided on this boring log is representative of conditions existing on the day and for the specific location where this information was collected. The actual groundwater elevation may fluctuate due to time, climatic conditions, and/or construction activity.

Driller: Strata Core

Logger: Coy Hutson

Organization: Corsair Consulting LLC

**SUMMARY OF LABORATORY TEST RESULTS**  
**College Station Monument Sign**  
**College Station, Texas**  
**Corsair Project No.: 1500528**

Boring Number	Depth Range (ft)	USCS Soil Symbol/Rock Classification	Moisture Content (%)	Atterberg Limits (%)			% Passing			D <sub>50</sub> (mm)	Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Sulfates (ppm)
				LL	PL	PI	#4	#40	#200				
1B	0-1.5	CL	10	42	15	27	99	95	52				
1B	6.5-8	CH	32	72	25	47	99	97	93				
1B	11.3-12.8	SM	31										
1B	16.3-17.8	SHALE	30										
1B	21.3-22.8	SHALE	29										
1B	25.2-26.7	SHALE	26										
1B	30.2-31.7	SHALE	28										

LOCATION	BORING NUMBER	ESTIMATED GROUND WATER ELEVATION (FT.)	LPILE PARAMETERS											COMMENTS		
			APPROX. ELEVATION (FT.)	SOIL MODEL <sup>1)</sup>	UNIT WEIGHT (PCI)	COHESION (PSI)	φ (DEG)	MODULUS OF SUBGRADE REACTION (PCI)		ε <sub>50</sub>	E <sub>50</sub> X 10 <sup>6</sup> (PSI)	UCS (PSI)	RQD (%)		K <sub>rm</sub>	
								STATIC	SEISMIC							
MONUMENT SIGN	1B	266.0 <sup>2)</sup>	280.0 <sup>2)</sup> -275.0	SAND	0.072	-	15	25	25	-	-	-	-	-		
			275.0-271.0	STIFF CLAY W/O FREE WATER	0.075	15.12	-	1000	400	0.005	-	-	-	-		-
			271.0-266.0	SAND	0.072	-	36	90	90	-	-	-	-	-		-
			266.0-257.5	WEAK ROCK	0.039	-	-	-	-	-	0.002	100	25	0.002		-
			257.5-256.0	STIFF CLAY W/O FREE WATER	0.022	6.94	-	100	-	0.01	-	-	-	-		-
			256.0-248.0	WEAK ROCK	0.039	-	-	-	-	-	-	0.02	280	75		0.0005

- 1) SOIL MODEL CONFORMS TO LPILE NOMENCLATURE
- 2) ESTIMATED ELEVATIONS BASED ON GOOGLE EARTH

**GENERAL SITE AND GEOLOGIC CONDITIONS**  
 SOIL CONDITIONS NEAR THE STRUCTURE CONSIST OF STIFF CLAYS, COMPACT SANDS AND VERY SOFT TO VERY HARD SHALE. CLAY SOILS ARE GENERALLY MODERATELY PLASTIC.

FOR EXCAVATIONS PURPOSES SHORING MAY BE REQUIRED.

VERY HARD LAYERS COULD BE ENCOUNTERED AT A SHALLOWER DEPTH THAN DESIGN ELEVATION. THESE LAYERS MAY REQUIRE HEAVY DUTY DRILL RIG EQUIPMENT AND OR PREDRILLING. CAREFUL REVIEW OF THE BORING LOGS SHOULD BE PERFORMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

**GROUNDWATER CONDITIONS**  
 GROUNDWATER CONDITION REPORTED ON THE BORING LOG WAS UTILIZED FOR THIS ANALYSIS.



CITY OF COLLEGE STATION  
 MONUMENT SIGN

GEOTECHNICAL RECOMMENDATIONS  
 DATE: 9/17/2015



# SOIL STRENGTH ANALYSIS

WinCore  
Version 3.1

County Brazos  
Highway  
Control

Hole 1B  
Structure Monument Sign  
Station  
Offset

District Bryan  
Date 9/3/15  
Grnd. Elev. 280.00 ft  
GW Elev. 266.00 ft

TCP Capacity Values Used

Soil reduction factor of 0.7 applied

Strata No.	Elev. (Feet)		Design Type	Soil Factor	TCP N Value	TCP Unit Friction (TSF)	Accumulative Friction (T/F)
	From	To					
1	280.0	278.0	CL	60	0	0.00	0.00
2	278.0	271.0	CH	50	27	0.38	2.65
3	271.0	266.0	SC	70	51	0.51	5.20
4	266.0	262.0	OTHER	80	75	0.66	7.82
4	262.0	256.0	OTHER	80	97	0.85	12.91
5	256.0	252.0	OTHER	80	686	3.25	25.91
5	252.0	248.3	OTHER	80	686	3.25	37.94



# FOUNDATION CAPACITY

WinCore  
Version 3.1

County Brazos  
Highway  
Control

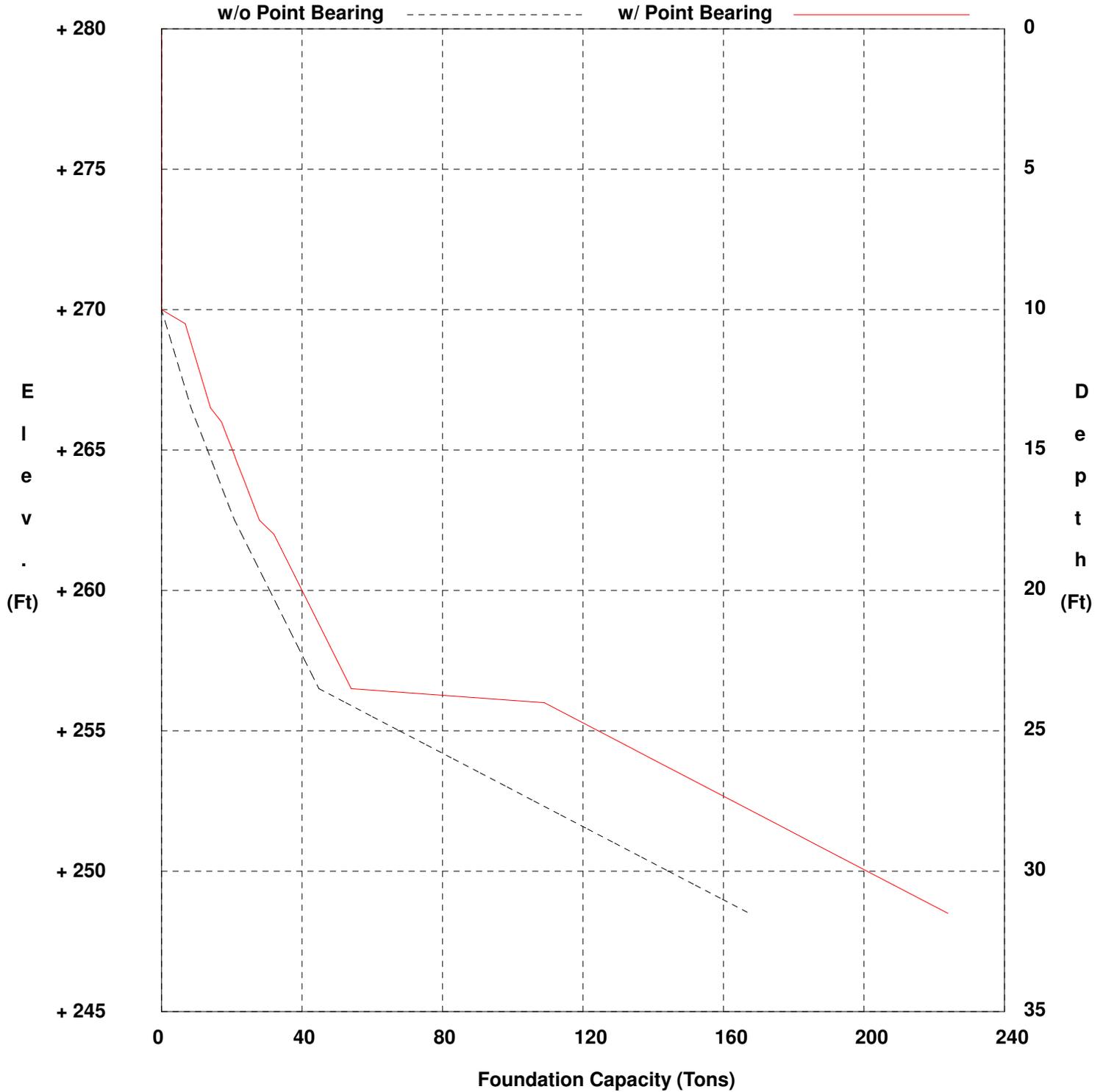
Hole 1B  
Structure Monument Sign  
Station  
Offset

District Bryan  
Date 9/3/15  
Grnd. Elev. 280.00 ft  
GW Elev. 266.00 ft

18 inch Drilled Shaft  
10 ton Design Load  
Tip Elevation = + 268

+280.0 Top Hole Elevation  
+270 Disregard Elevation

Disregard above hard strata disabled  
Pb: 2 Diameters Below Tip Checked  
TCP Capacity Values Used  
0.7 Soil Reduction Factor Used





# POINT BEARING DESIGN

WinCore  
Version 3.1

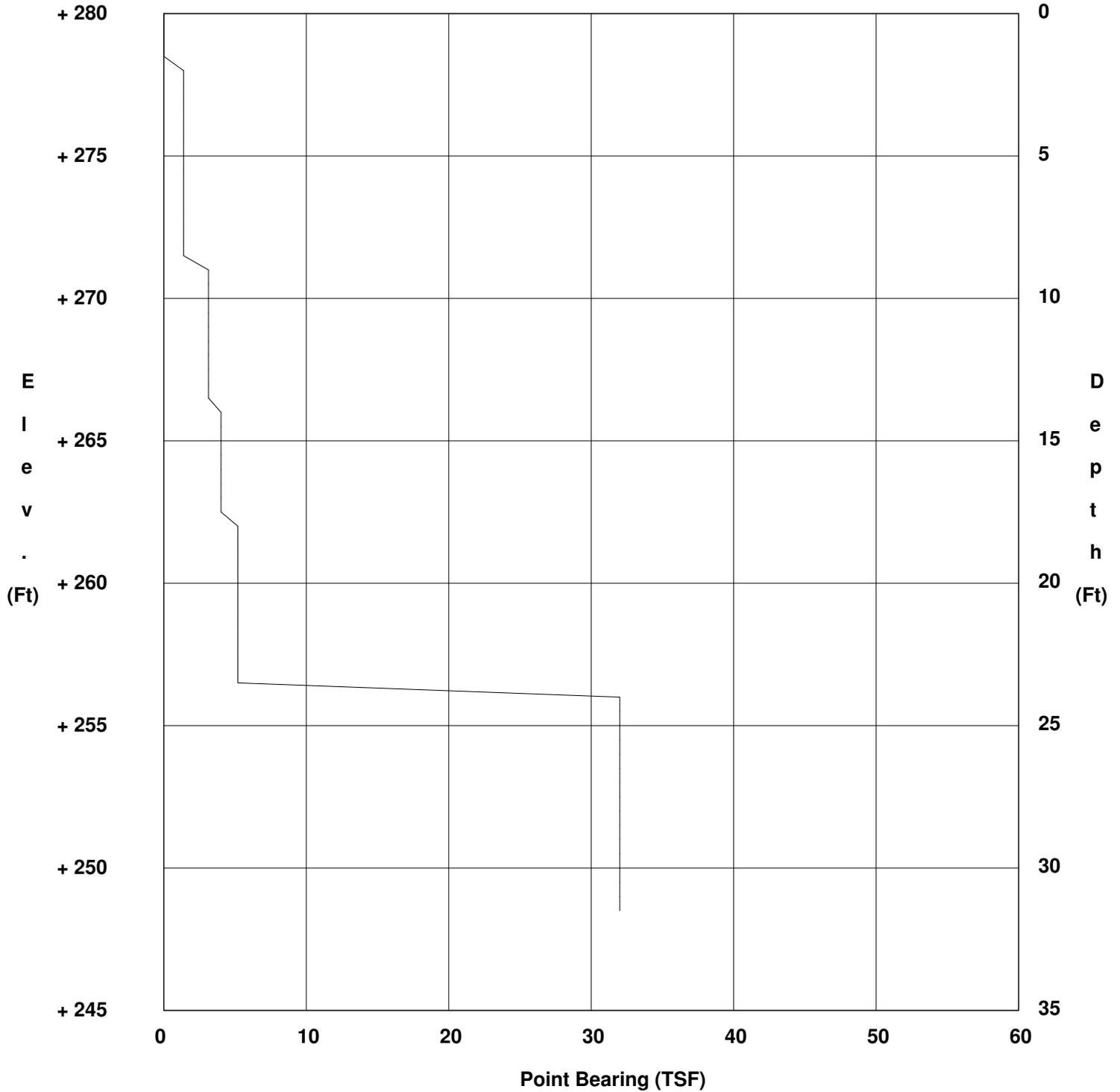
County Brazos  
Highway  
Control

Hole 1B  
Structure Monument Sign  
Station  
Offset

District Bryan  
Date 9/3/15  
Grnd. Elev. 280.00 ft  
GW Elev. 266.00 ft

Diameters Below Tip Checked = 2

TCP Bearing Values Used



# SKIN FRICTION DESIGN



WinCore  
Version 3.1

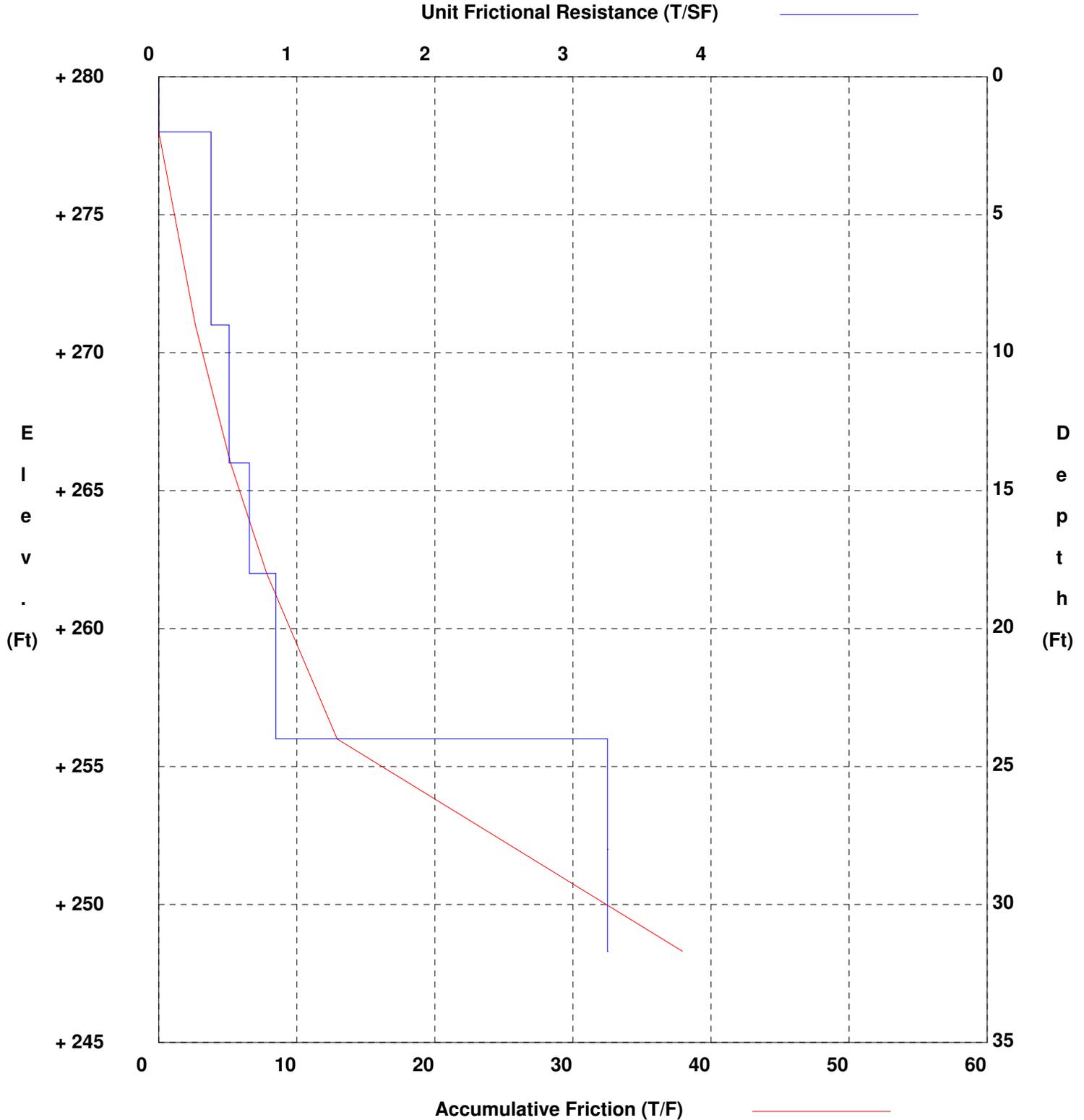
County Brazos  
Highway  
Control

Hole 1B  
Structure Monument Sign  
Station  
Offset

District Bryan  
Date 9/3/15  
Grnd. Elev. 280.00 ft  
GW Elev. 266.00 ft

Drilled Shaft Design: Soil Reduction Factor = 0.7

TCP Friction Values Used



RESOLUTION NO. \_\_\_\_\_

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS, ALLOWING THE MAYOR TO SIGN A GATEWAY MONUMENT AGREEMENT BETWEEN THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE CITY OF COLLEGE STATION FOR CONSTRUCTION OF THE GATEWAY MONUMENT PROJECT AT STATE HIGHWAY 6 AND UNIVERSITY DRIVE.

WHEREAS, the City Council of the City of College Station, Texas, supports the City's plan to construct the Gateway Monument Project ("Project") at State Highway 6 and University Drive; and

WHEREAS, the City Council of the City of College Station, Texas, agrees to fund the Gateway Monument Project 100% of the value of the Project; now, therefore,

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

- PART 1: That the City Council hereby approves the Gateway Monument Agreement which is attached hereto and made a part hereof as Exhibit "A."
- PART 2: That the City Council hereby approves of the Mayor signing the Agreement.
- PART 3: That the City Council hereby agrees to fully fund the Gateway Monument Project construction costs.
- PART 4: That this resolution shall take effect immediately from and after its passage.

ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2016.

ATTEST:

APPROVED:

\_\_\_\_\_  
City Secretary

\_\_\_\_\_  
MAYOR

APPROVED:

\_\_\_\_\_  
City Attorney



## Legislation Details (With Text)

**File #:** 16-0206      **Version:** 1      **Name:** FY 17 BVWACS Budget  
**Type:** Agreement      **Status:** Consent Agenda  
**File created:** 4/6/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**  
**Title:** Presentation, possible action, and discussion regarding approval of the Brazos Valley Wide Area Communications System (BVWACS) Operating Budget for FY 17 and authorizing the City's quarterly payments of approximately \$43,885.08 for an annual total of \$175,540.19; and approval of the BVWACS Capital Equipment Replacement Reserve Fund Budget for FY 17 and payment of the City's share in the amount of \$96,612.65.  
**Sponsors:** Ben Roper  
**Indexes:**  
**Code sections:**  
**Attachments:** [FY2016 - 2017 Allocations](#)

Date	Ver.	Action By	Action	Result
------	------	-----------	--------	--------

Presentation, possible action, and discussion regarding approval of the Brazos Valley Wide Area Communications System (BVWACS) Operating Budget for FY 17 and authorizing the City's quarterly payments of approximately \$43,885.08 for an annual total of \$175,540.19; and approval of the BVWACS Capital Equipment Replacement Reserve Fund Budget for FY 17 and payment of the City's share in the amount of \$96,612.65.

Relationship to Strategic Goals: (Select all that apply)

- Core Services and Infrastructure

Recommendation(s): Staff recommends approval

**Summary:**

On August 22, 2013, Council approved the First Restatement of the ILA establishing the BVWACS and the ILA appointing the Brazos Valley Council of Governments (BVCOG) to act as the Managing Entity for the BVWACS. In accordance with the BVWACS ILA a Proposed Operating Budget and a Proposed Capital Equipment Replacement Reserve Fund Budget for FY 17 was reviewed and approved by the Governing Board on April 20, 2016.

Each of the BVWACS Parties (Bryan, College Station, Brenham, Washington County, Brazos County, Texas A&M University) has 30 days to review the proposed budgets. If any BVWACS Party does not agree with the proposed BVWACS Budgets as presented, it must provide the Governing Board with a detailed explanation of its issues with the draft Budget within 30 days after receipt.

**Budget & Financial Summary:**

If approved by Council funding for the City's share of the BVWACS FY 17 Operating Budget and Capital Equipment Replacement Reserve Fund Budget will be included in the Information Technology FY 17 Operating Budget.

**Attachments:**

Proposed FY 17 BVWACS Budget

FY2016 Allocations					
	Count	%	O&M	Capital	Total
College Station	905	30.97%	\$ 202,269.98	\$ 96,053.62	\$ 298,323.60
Bryan	437	14.96%	\$ 97,670.70	\$ 46,381.69	\$ 144,052.39
Brazos	479	16.39%	\$ 107,057.81	\$ 50,839.43	\$ 157,897.24
TAMU	313	10.71%	\$ 69,956.36	\$ 33,220.75	\$ 103,177.11
Washington County	504	17.25%	\$ 112,645.38	\$ 53,492.84	\$ 166,138.22
Brenham	284	9.72%	\$ 63,474.78	\$ 30,142.79	\$ 93,617.57
<b>Total</b>	<b>2922</b>	<b>100.00%</b>	<b>\$ 653,075.00</b>	<b>\$ 310,131.13</b>	<b>\$ 963,206.13</b>

<b>Annual (Includes Capital) Per Radio</b>	
<b>Per Radio/Year</b>	<b>\$ 329.64</b>
<b>Per Radio/Month</b>	<b>\$ 27.47</b>

FY2017 Allocations						
	Count	%	O&M	Capital	Total	Savings Over FY16
College Station	959	31.80%	\$ 175,540.19	\$ 98,612.65	\$ 274,152.84	\$ (24,170.75)
Bryan	450	14.92%	\$ 82,370.27	\$ 46,272.88	\$ 128,643.15	\$ (15,409.24)
Brazos	500	16.58%	\$ 91,522.52	\$ 51,414.31	\$ 142,936.83	\$ (14,960.41)
TAMU	313	10.38%	\$ 57,293.10	\$ 32,185.36	\$ 89,478.46	\$ (13,698.65)
Washington County	509	16.88%	\$ 93,169.93	\$ 52,339.77	\$ 145,509.69	\$ (20,628.53)
Brenham	285	9.45%	\$ 52,167.84	\$ 29,306.16	\$ 81,473.99	\$ (12,143.58)
<b>Total</b>	<b>3016</b>	<b>100.00%</b>	<b>\$ 552,063.84</b>	<b>\$ 310,131.13</b>	<b>\$ 862,194.97</b>	

<b>Annual (Includes Capital) Per Radio</b>	
<b>Per Radio/Year</b>	<b>\$ 285.87</b>
<b>Per Radio/Month</b>	<b>\$ 23.82</b>



Legislation Details (With Text)

**File #:** 16-0207      **Version:** 1      **Name:** Bid Award to GT Distributors  
**Type:** Bid Award      **Status:** Consent Agenda  
**File created:** 4/7/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**  
**Title:** Presentation, possible action, and discussion on approving the purchase of various weapons, ammunition and body armor from GT Distributors, Inc. through the BuyBoard Purchasing Cooperative (Contract 432-13) and the Texas Procurement and Support Services (Contract 680-A1) for the not-to-exceed amount of \$89,533.98.  
**Sponsors:** Brandy Norris  
**Indexes:**  
**Code sections:**  
**Attachments:** [Bid Award to GT Distributors](#)

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion on approving the purchase of various weapons, ammunition and body armor from GT Distributors, Inc. through the BuyBoard Purchasing Cooperative (Contract 432-13) and the Texas Procurement and Support Services (Contract 680-A1) for the not-to-exceed amount of \$89,533.98.

Relationship to Strategic Goals: (Select all that apply)

- Core Services and Infrastructure

Recommendation(s): Staff Recommends Approval

Summary: During the FY16 budget process, approval was given to replace the Police Department's rifles and shotguns that were in disrepair. This large purchase combined with large purchases of ammunition and body armor require council approval to move forward with a PO for GT Distributors. BuyBoard and Texas Procurement and Support Services (TPASS) are purchasing cooperatives for public agencies. All products and services available for purchase through their contracts have been competitively bid and awarded. Purchasing products and services via BuyBoard and TPASS contracts satisfies any requirement of State law relating to competitive bids or proposals.

Budget & Financial Summary: Total cost is \$89,533.98. This includes \$29,077.75 for ammunition, \$8,127.10 for body armor for two new tactical team members, and \$52,329.13 for the replacement of the department's rifles and shotguns. The funds are available in the Police Department budget.

Attachments: Buyboard and TPASS quotes.





GT Distributors - Austin  
 P.O. Box 16080  
 Austin TX 78761  
 (512) 451-8298 Ext. 0000

Quote	QTE0028491
Date	3/14/2016
Page	1

**Bill To:**

College Station (TX)  
 Attn: Accounting Department  
 P.O. Box 9960  
 College Station TX 77842-9973

**Ship To:**

College Station (TX)  
 2611 Texas Ave. S.  
 Attn: Sgt. James Arnold  
 College Station TX 77840

Purchase Order No.	Customer ID	Salesperson ID	Shipping Method	Payment Terms	Reg Ship Date	Master No.
AMMO 3.14.2016	000094	AP	FACTORY DIRECT	NET 15	0/0/0000	1,434,282
Quantity	Item Number	Description	UOM	Unit Price	Ext. Price	
12.00	CCI-53619*	Cci Speer Gold Dot 9Mm 147 Gr	M	\$388.14	\$4,657.68	
62.00	CCI-53620*	CCI-9MM 147 GR TMJ	M	\$196.83	\$12,203.46	
1.00	FC-LE308TT2*	Federal Cartridge .308 Win 168 gr Tactical	M	\$1,174.85	\$1,174.85	
		Dept requested ammo to be from the same lot #				
32.00	FC-XM193*	Federal Cartridge 5.56MM 55gr.	M	\$314.92	\$10,077.44	
1.00	HORNADY-80965*	Hornady-TAP .308 Win-168 Gr.-A-Max Urban I	M	\$964.32	\$964.32	
		Dept requested ammo to be from the same lot #				
1	NOTES*	Notes:  TX State Contract Pricing #680-A1	EA	\$0.00	\$0.00	

All returns must be authorized by GT Distributors. Interest charges on past due invoices at the maximum rate allowed by law.

Your sales person is Doriane Pissonier. Thank you.  
 Chris Brannan

Subtotal	\$29,077.75
Misc	\$0.00
Tax	\$0.00
Freight	\$0.00
<b>Total</b>	<b>\$29,077.75</b>



GT Distributors - Austin  
 P.O. Box 16080  
 Austin TX 78761  
 (512) 451-8298 Ext. 0000

QTE0028512  
 3/14/2016  
 1

**Bill To:**

College Station (TX)  
 Attn: Accounting Department  
 P.O. Box 9960  
 College Station TX 77842-9973

**Ship To:**

College Station (TX)  
 2611 Texas Ave. S.  
 Attn: Sgt. James Arnold  
 College Station TX 77840

ARMOR	DATE	QTY	DESCRIPTION	UNIT	UNIT PRICE	TOTAL
ARMOR 3.14.2016	000094		AP			1,434,398
			FACTORY DIRECT			
			NET 15			
					0/0/0000	
2	PTA-TAV-MR01-3A*	Protech TAV MR01 Level 3A	EA	\$1,058.60	\$2,117.20	
2	PTA-TAC-PR-MOLLE*	Ofc:J Habeeb & M.Johnson Protech-Plate Holder-Molle	EA	\$261.30	\$522.60	
		1 Large 1 XLarge	EA	\$375.20	\$750.40	
2	PTA-TAV-MR01-YOKE*	Protech MR01 TAV Yoke	EA	\$174.20	\$348.40	
2	PTA-TAV-MR01-SPP*	Protech MR01 TAV Side Panel Protection	EA	\$87.10	\$174.20	
2	PTA-OSM*	Protech Optional Spacer Mesh	EA	\$154.10	\$154.10	
1	PTA-GP-MR01*	Protech Groin Protector MR01	EA	\$381.90	\$3,055.20	
8	PTA-PLT-III-2120-10X1*	Protech-III+ Multi Curve Ceramic-Polyethylenel	EA	\$6.70	\$46.90	
7	PTA-E1*	Sm. ID Panel POLICE	EA	\$6.70	\$73.70	
11	PTA-E2*	Large ID Panel - (7) POLICE (4) NEGOTIATOR	EA	\$221.10	\$884.40	
4	PTA-MPS*	Protech 6 Pouch Set	EA	\$0.00	\$0.00	
		(4) LT6, (4) LT10A, (1) LT16, (4) LT21, (2) LT22, (2) LT5A, (6) LT17A, (1) LT19A	EA	\$0.00	\$0.00	
1	NOTES:					
		Armor & Accessories: MULTI CAM ID Letters: WHITE	EA	\$0.00	\$0.00	
1	NOTES:					
		Quotation reflects Buyboard Contract 432-13 Contract period 04/01/14-03/31/17. Fax BuyBoard PO's to 1-800-211-5454 only.				

All returns must be authorized by GT Distributors. Interest charges on past due invoices at the maximum rate allowed by law.

Your sales person is Doriane Pissonier. Thank you.

	\$8,127.10
	\$0.00
	\$0.00
	\$0.00
	\$8,127.10



GT Distributors - Austin  
 P.O. Box 16080  
 Austin TX 78761  
 (512) 451-8298 Ext. 0000

QTE0028490  
 3/14/2016  
 1

**Bill To:**

**Ship To:**

College Station (TX)  
 Attn: Accounting Department  
 P.O. Box 9960  
 College Station TX 77842-9973

College Station (TX)  
 2611 Texas Ave. S.  
 Attn: Sgt. James Arnold  
 College Station TX 77840

COLTS/GLKS 3.14.20*		000094	AP	FACTORY DIRECT	NET 15	0/0/0000	1,434,263
24	GLOCK-PG17507*	Glock17 Gen4 w/ Glock NS	EA	\$409.00	\$9,816.00		
26	COLT-LE6920MPS-B*	Colt LE6920 5.56x45 16.1" Bbl Black Magpul Fi	EA	\$808.98	\$21,033.48		
15	RA-24885*	Remington 870 P Syn Stk 3" Ext. 18" Barrel, Ri	Each	\$478.72	\$7,180.80		
1	DT-1425*	DefTec LMT 40mm L.W. Single Launcher	EA	\$667.16	\$667.16		
1	DT-8933*	Def Tech Low Roll DD Reloadable	EA	\$46.09	\$46.09		
15	GGG-4353*	GG&G Ambi Single Point Sling Attachment for	Each	\$34.25	\$513.75		
41	MAGPUL-MAG437-BLK	Magpul MOE Cantilever Rail Black	Each	\$5.57	\$228.37		
15	MAGPUL-MAG496-BLK	Magpul Remington 870 MOE M-LOK Forend	EA	\$21.14	\$317.10		
52	MAGPUL-MAG557-BLK	Magpul PMag 30AR/M4 Gen M3	EA	\$12.15	\$631.80		
20	BFG-UDC-200-BG-HK-E	Blue Force Gear UDC Padded Single Point Slir	Each	\$54.16	\$1,083.20		
26	BFG-VCAS-125-OA-BK	Blue Force Gear Vickers Combat Applications :	EA	\$45.29	\$1,177.54		
27	AP-12841*	Aimpoint Patrol Rifle Sight W/ Mount & Lense	EA	\$381.91	\$10,311.57		
15	SF-ST07*	Surefire Remote Tape Switch for Weapon Ligh	Each	\$40.71	\$610.65		
42	SF-X300U-B*	Surefire X300 Ultra Weapon Light 6V 500 Lum	EA	\$206.31	\$8,665.02		
15	SF-XT07*	Surefire XT07 Remote Dual Switch Assembly	EA	\$124.20	\$1,863.00		
20	USP-P12038*	US Peacekeeper Standard 38" Rifle Case	Each	\$15.50	\$310.00		
26	GT-PDWC35	GT 35" Black Personal Defense Weapon Case	EA	\$21.38	\$555.88		



GT Distributors - Austin  
 P.O. Box 16080  
 Austin TX 78761  
 (512) 451-8298 Ext. 0000

QTE0028490
3/14/2016
2

**Bill To:**

College Station (TX)  
 Attn: Accounting Department  
 P.O. Box 9960  
 College Station TX 77842-9973

**Ship To:**

College Station (TX)  
 2611 Texas Ave. S.  
 Attn: Sgt. James Arnold  
 College Station TX 77840

COLTS/GLKS 3.14.20		000094	AP	FACTORY DIRECT	NET 15	0/0/0000	1,434,263
1	TRADE-IN:	Trade In: (3) Glock 22 Gen 4 @ \$270.00/each		EA		(\$810.00)	(\$810.00)
1	TRADE-IN:	Trade In Rifles & Accessories trade		EA		(\$8,180.00)	(\$8,180.00)
1	TRADE-IN:	Trade In Remington 700 Shotguns (2)		EA		(\$900.00)	(\$900.00)
1	TRADE-IN:	Trade In Shotguns trade (mix of 870's)		EA		(\$3,015.00)	(\$3,015.00)
1	NOTES:	Notes:		EA		\$0.00	\$0.00
		Quotation reflects Buyboard Contract 432-13 Contract period 04/01/14-03/31/17. Fax BuyBoard PO's to 1-800-211-5454 only.					
							\$52,106.41
							\$0.00
							\$0.00
							\$222.72
							\$52,329.13

All returns must be authorized by GT Distributors. Interest charges on past due invoices at the maximum rate allowed by law.

Your sales person is Dorlane Pissonier. Thank you.  
 Chris Brannan

Sub Total	\$52,106.41
Excise	\$0.00
Tax	\$0.00
Freight	\$222.72
Total	\$52,329.13



Legislation Details (With Text)

**File #:** 16-0209      **Version:** 1      **Name:** Landscape Maintenance Contracts  
**Type:** Contract      **Status:** Consent Agenda  
**File created:** 4/8/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**  
**Title:** Presentation, possible action, and discussion regarding a contract with Green Teams for \$797,783 (Contract No. 16300375) for landscape maintenance and presentation, possible action and discussion regarding a contract with Grassmasters for \$147,735 (Contract No. 16300376) for landscape maintenance, total price of both contracts is \$945,518.  
**Sponsors:** Donald Harmon  
**Indexes:**  
**Code sections:**  
**Attachments:**

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion regarding a contract with Green Teams for \$797,783 (Contract No. 16300375) for landscape maintenance and presentation, possible action and discussion regarding a contract with Grassmasters for \$147,735 (Contract No. 16300376) for landscape maintenance, total price of both contracts is \$945,518.

Relationship to Strategic Goals:

- Core Services and Infrastructure

Recommendation(s): Staff recommends approval of the landscape maintenance contracts.

Summary: The management of all landscape maintenance of City properties, except regional parks and athletic facilities, has been consolidated into the Department of Public Works. The current contract expires in May of 2016. Staff solicited proposals for all of the City's landscape maintenance needs (except regional parks and athletic fields). Request for Proposals solicited from contractors for landscape maintenance were divided into five (5) categories:

- 1) Facilities - city buildings and Northgate District
- 2) Electric - CSU electric substations and buildings
- 3) Water/Wastewater - CSU water and wastewater sites
- 4) Parks - includes neighborhood parks and cemeteries
- 5) Finish mowing - primarily street right of ways and medians

Five (5) vendors submitted bids on all, or some, of the categories in the Request for Proposal #16-054. After evaluation by city staff members from Parks, Water & Wastewater, Public Works, Finance, and Purchasing, two vendors ranked the highest for award of city mowing services. Grassmasters ranked the highest for services that they bid on, including City Facilities, Electric Sites and Water & Wastewater sites. Green Teams ranked the next highest to provide mowing services for City Parks and Finish Mowing sites.

CATEGORY	VENDOR	AMOUNT
1) Facilities	Grassmasters	58,585
2) Electric	Grassmasters	32,080
3) Water/Wastewater	Grassmasters	57,070
Subtotal	Grassmasters	\$147,735
4) Parks	Green Teams	560,965
5) Finish mowing	Green Teams	236,818
Subtotal	Green Teams	\$797,783
Total Mowing Contract		\$945,518

Budget & Financial Summary: This year's total mowing contract is \$302,795 higher than the prior year's mowing contract. Several factors contributed to the increase including the addition of new park facilities and the inclusion of optional mows in the contract. Optional mows are done on an as-needed basis and no cost is incurred for those not optional mows not performed. Cost increases due to weed and ant control also contribute to the increase in this contract. This increase was not anticipated in the General Fund financial forecast that was presented to Council as part of the FY16 budget process. The increase has been incorporated into the FY17 target budgets and the impact will be assessed as the FY17 budget process proceeds.

Attachments:

1. Contracts are on file in the City Secretary's Office



## Legislation Details (With Text)

**File #:** 16-0210      **Version:** 1      **Name:** Rock Prairie Bridge Improvements Final Accounting

**Type:** Agreement      **Status:** Consent Agenda

**File created:** 4/8/2016      **In control:** City Council Regular

**On agenda:** 4/28/2016      **Final action:**

**Title:** Presentation, possible action, and discussion to approve a closeout payment of \$194,520.93 pursuant to the 2012 Advance Funding Agreement with State of Texas (TxDOT) for the Rock Prairie Road Bridge Improvements.

**Sponsors:** Donald Harmon

**Indexes:**

**Code sections:**

**Attachments:** [0049-12-086Ltr for Add \\$.pdf](#)

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion to approve a closeout payment of \$194,520.93 pursuant to the 2012 Advance Funding Agreement with State of Texas (TxDOT) for the Rock Prairie Road Bridge Improvements.

### Relationship to Strategic Goals:

- Core Services and Infrastructure
- Improving Mobility

**Recommendation(s):** Staff recommends approving the closeout payment to TXDOT in the amount of \$194,520.93.

**Summary:** The City has an Advance Funding Agreement with the Texas Department of Transportation for the Rock Prairie Road Bridge Project. The original construction contract award was for \$4,175,998.17. The total change orders and line item adjustments to the contract total \$211,291.43. Consequently, the total construction contract was \$4,387,289.60.

TxDOT contributed \$4,122,936.50 toward the total construction contract leaving a balance of \$264,353.10. The City previously paid \$69,832.17 toward this cost leaving a balance of \$194,520.93.

**Budget & Financial Summary:** A total of \$567,000 is budgeted for the project is the Streets Capital Improvement Projects Fund. \$538,317 has been expended or committed to date, leaving a balance of \$28,683 for the remaining expenditures. As balance owed to TxDOT exceeds funds available, additional budget will be transferred from the HSC Parkway Ph 2A and Luther Street Rehabilitation project to make up the difference.

### Attachments:

1. TxDOT closeout accounting letter





# Texas Department of Transportation<sup>®</sup>

2591 NORTH EARL RUDDER FREEWAY • BRYAN TX 77803-5190 (979) 778-2165

March 29, 2016

Project: C 49-12-86  
Control: 0049-12-086  
Highway: SH 6  
County: Brazos

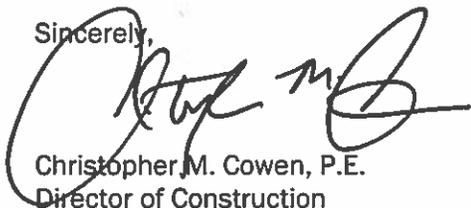
Mr. Troy Rother, P.E.  
City of College Station  
P. O. Box 9960  
College Station, Texas 77842-9960

Dear Mr. Rother:

The City of College Station and TxDOT signed an Advance Funding Agreement for a Proposition 12, Program 2 Interchange Improvement Project On-System for upgrading of the existing interchange on State Highway 6 at Rock Prairie Road. This work has been completed and accepted by the State. The City of College Station placed a total of \$69,832.17 as advance payments to cover its share of Change Orders 2 - 4 associated with the construction of this project. Final auditing by this office revealed additional funds due to TxDOT.

In accordance with the agreement, I am enclosing a copy of the Statement of Cost showing the final costs and that an additional amount of \$194,520.93 is requested from the city. Please submit your check in the amount of \$194,520.93 made payable to Texas Dept of Transportation Trust Fund within thirty days from receipt of this letter. Please mail it to Mr. Chris Cowen, Director of Construction, at the above shown address. If you have any questions or need any additional information about this project, please contact Chad Bohne at 979-778-9710 or myself at 979-778-9753.

Sincerely,



Christopher M. Cowen, P.E.  
Director of Construction

Enclosure

cc: Accounting  
Bryan Area Office  
Design  
Construction

OUR GOALS

MAINTAIN A SAFE SYSTEM • ADDRESS CONGESTION • CONNECT TEXAS COMMUNITIES • BEST IN CLASS STATE AGENCY

*An Equal Opportunity Employer*

STATEMENT OF COST  
 CITY OF COLLEGE STATION  
 Upgrade Existing Interchange  
 SH 6 at Rock Prairie Road  
 3/29/2016

<u>Project</u>	<u>Preliminary Eng.</u>	<u>Construction</u>	<u>Construction Eng.</u>	<u>Total</u>
CSJ 0049-12-086 C 49-12-86	51,608.62	4,394,445.36	240,999.07	4,687,053.05

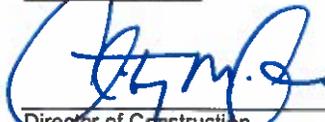
Original Contract Amount	\$ 4,175,998.17
Includes: AFA Amendment #1	
Natural Stone Veneer on Overpass	\$ 226,040.00
Cross Street Identification Letters	\$ 10,450.00

Final Contract Amount	\$ 4,387,289.60
Includes:	
Orig Contract Line Item Over/Under Run	\$ 94,524.92
Change Order #1	\$ 46,934.34
Change Order #2	\$ 12,719.05
Change Order #3	\$ 41,241.90
Change Order #4	\$ 15,871.22

Less AFA Contract Amounts:	
Construction	\$(3,859,000.00)
Right of Way/Utility (AFA excess funds available for contract overrun)	\$ (135,000.00)
Construction Eng. Underrun Amt. (AFA excess funds available for contract overrun)	\$ (128,936.50)
Contract Overrun	\$ 264,353.10

Total Amount Chargeable to Local Government	\$ 264,353.10
Less Check #00007212 dtd 9/24/15	(69,832.17)
Amount due from City of College Station	\$ 194,520.93

Certified Correct:



Director of Construction  
 Bryan District

Date: 3/29/16



Legislation Details (With Text)

<b>File #:</b>	16-0215	<b>Version:</b>	1	<b>Name:</b>	Annual Fit Life Agreement 2016
<b>Type:</b>	Agreement	<b>Status:</b>		<b>Status:</b>	Consent Agenda
<b>File created:</b>	4/11/2016	<b>In control:</b>		<b>In control:</b>	City Council Regular
<b>On agenda:</b>	4/28/2016	<b>Final action:</b>		<b>Final action:</b>	
<b>Title:</b>	Presentation, possible action, and discussion regarding an annual agreement with Texas A&M University for Fitlife testing for Fire Fighters in the amount of \$61,965.				
<b>Sponsors:</b>	Eric Hurt, Joe Warren				
<b>Indexes:</b>					
<b>Code sections:</b>					
<b>Attachments:</b>	<a href="#">16300392 TAMU FitLife Agreement for Fire Dept. 4.18.16</a>				

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion regarding an annual agreement with Texas A&M University for Fitlife testing for Fire Fighters in the amount of \$61,965.

Relationship to Strategic Goals:

- Core Services and Infrastructure

Recommendation(s): Staff recommends approval of this agreement with Texas A&M University.

Summary: Annually the Fire Department conducts a thorough medical evaluation of all uniform personnel to ensure that no serious medical conditions exist that would make it unsafe for them provide services as a fire fighter. This testing in the past has found serious health problems that could have resulted in the death or incapacitation of a fire fighter while performing strenuous duties. This proactive testing has saved lives in the past years. The testing is comprehensive involving many aspects of health and wellness. The 2016 testing includes cardiovascular stress test, complete blood count, hemoglobin (diabetes) screen, hepatitis titer, antibody, and PSA testing.

Budget & Financial Summary: Funds are currently budgeted in the Fire Department budget.

Attachments: Sponsored Services Agreement

## SPONSORED SERVICES AGREEMENT

This Sponsored Services Agreement ("Agreement") is between Texas A&M University ("TAMU"), a member of The Texas A&M University System and an agency of the State of Texas, and the City of College Station, Texas, a Texas Home Rule Municipal Corporation ("CITY") on behalf of the College Station Fire Department.

The services contemplated under this Agreement are of mutual interest and benefit to TAMU and CITY and will further the instructional and technical objectives of TAMU in a manner consistent with its status as an agency of the State of Texas.

**NOW, THEREFORE, IN CONSIDERATION** of the performance of the mutual covenants and promises contained herein, TAMU and CITY agree and contract as follows:

1. **STATEMENT OF WORK.** TAMU shall use its reasonable efforts to perform the services ("Services") described in the Statement of Work appended and incorporated as Appendix A.
2. **SERVICES SUPERVISORS.** The Services will be supervised by Dr. Stephen Crouse, Dr. Steven Martin or Dr. John Green, professors in the Department of Health and Kinesiology. If for any reason they are unable to continue to serve as Services Supervisors, TAMU will give CITY notice as soon as is reasonably practical. If TAMU and CITY cannot agree on a successor within thirty (30) days of the notice, this Agreement will terminate and TAMU will be compensated for all costs and non-cancellable commitments incurred prior to the date of termination.
3. **PERIOD OF PERFORMANCE.** The initial term of this Agreement will be from April 28, 2016 to April 27, 2017.
  - a. **Renewal.** This agreement may be renewed by the written mutual consent of the parties for two (2) additional one (1) year terms for a total of three (3) years.
4. **PRICE AND PAYMENT.** As consideration and compensation for performance under this Agreement, CITY agrees to pay TAMU for services as per the rates quoted in Appendix A. The total amount of such payment is not to exceed **SIXTY ONE THOUSAND NINE HUNDRED SIXTY FIVE DOLLARS AND NO CENTS (\$61,965.00)**. The CITY shall have the option to renew this Agreement for up to two (2) additional years at the same price and rates as per Appendix A. CITY shall make payments within thirty (30) days of receipt of invoices. TAMU will send invoices to the address listed in Article 12.
5. **TERMINATION.** This agreement may be terminated by either party upon thirty (30) days prior written notice. CITY shall reimburse TAMU for all costs and non-cancellable commitments incurred in the performance of this Agreement up to the date of termination.

6. **DISCLAIMER OF LIABILITY.** TAMU MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED IN CONNECTION WITH THE SERVICES FURNISHED UNDER THIS AGREEMENT. THERE ARE NO EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT USE OF SUCH SERVICES WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHT.
7. **FORCE MAJEURE.** Except for the obligation for the payment of money, if either party fails to fulfill its prescribed obligations hereunder when such failure is due to an act of God, or other circumstance beyond its reasonable control, then said failure will be excused for the duration of such event and for such a time thereafter as is reasonable to enable the parties to resume performance under this Agreement.
8. **NON-WAIVER.** TAMU is an agency of the State of Texas and nothing in this Agreement waives or relinquishes TAMU's right to claim such exemptions, privileges, and immunities as may be provided by law. CITY is a Texas Home Rule Municipal Corporation and nothing in this Agreement waives or relinquishes CITY's right to claim such exemptions, privileges, and immunities as may be provided by law.
9. **ENTIRE REPRESENTATION.** This Agreement contains the entire agreement between the parties and supersedes any prior oral or written agreements, commitments, understandings, or communications with respect to the subject matter of the Agreement. No amendments or modification of this Agreement will be effective unless set forth in writing executed by duly authorized representatives of each party. This Agreement will be construed in accordance with the laws of the State of Texas.
10. **WAIVER.** No waiver of any provision hereof or of any right or remedy hereunder shall be effective unless in writing and signed by the party against whom such waiver is sought to be enforced. No delay in exercising, no course of dealing with respect to, or no partial exercise of any right or remedy hereunder shall constitute a waiver of any right or remedy, or future exercise thereof.
11. **ASSIGNMENT.** This Agreement may not be assigned in whole or in part by any of the parties without prior written consent of the other party.
12. **NOTICE.** Any notice required to be given in connection with this Agreement shall be in writing and shall be deemed effective if hand delivered, or if sent by United States certified mail, return receipt requested, postage prepaid, or if sent by private receipted courier guaranteeing same-day or next-day delivery, addressed to the respective party at its address provided below. If sent by U.S. certified mail in accordance with this Section, such notices will be deemed given and received on the earlier of (a) actual receipt at the address of the named addressee, or (b) on the third business day after deposit with the United States Postal Service. Notice given by any other means will be deemed given and received only upon actual receipt at the address of the named addressee.

<p><b>Sponsored Research Services</b>  Texas A&amp;M University  400 Harvey Mitchell Parkway South, Suite 300  College Station, Texas 77843-4232  Attn: Deposits  Telephone: 979-862-6777  Email: awards@tamu.edu</p>	<p><b>CITY</b>  College Station Fire Department  300 Krenek Tap Road  College Station, Texas 77840  Attn: Asst. Chief Warren  979-764-3705  Email: jwarren@cstx.gov</p>
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- 13. **USE OF NAME.** Neither party may use the name or any adaptation of the name of the other or any of the other's employees or affiliates in any way except in factual statements that are not misleading or imply an endorsement by the other party or its employees or affiliates.
- 14. **GOVERNING LAW.** The substantive laws of the State of Texas (and not its conflicts of law principles) govern all matters arising out of or relating to this Agreement, and all of the transactions it contemplates.
- 15. **VENUE.** Venue of any legal action or proceeding will be in Brazos County, Texas.
- 16. **SEVERABILITY.** Each provision of this Agreement is severable. If any provision is rendered invalid or unenforceable by statute or regulations or declared null and void by any court of competent jurisdiction, the remaining provisions will remain in full force and effect if the essential terms of this Agreement remain valid, legal, and enforceable.
- 17. **ENTIRE AGREEMENT.** This Agreement contains the entire understanding of the parties as to the Services and supersedes all other written and oral agreements between the parties as to those matters. The parties may execute other contracts, but those will not change or alter this Agreement unless expressly stated in writing.
- 18. **USE OF PURCHASE ORDERS.** To the degree that either or both of the parties hereto find it convenient to employ their standard forms of purchase order or acknowledgement of order in administering the terms of this Agreement, it or they may do so but none of the terms and conditions printed or otherwise appearing on such form shall be applicable except to the extent that it specifies information required to be furnished by either party hereunder. The terms proposed by any such form are specifically objected to and shall not be used as a basis for any contract.

The parties have caused this Agreement to be executed by their duly authorized representative.

**TEXAS A&M UNIVERSITY**

By: David Hollingsworth  
David Hollingsworth  
Director, Contracts & Grants *DAH*

Date: 4/18/2016

**CITY OF COLLEGE STATION**

By: \_\_\_\_\_  
City Manager

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

**APPROVED:**

\_\_\_\_\_  
City Attorney  
Date: \_\_\_\_\_

\_\_\_\_\_  
Assistant City Manager/CFO  
Date: \_\_\_\_\_

## Appendix A Scope of Work

The purpose of this document is to provide the CITY with a description of the various types of testing procedures offered by the Applied Exercise Science Laboratory. A detailed breakdown of our Cardiovascular Health Profile (CHP) and Coronary Risk Profile (CRP) are provided. In addition to this description, we have provided a “menu-type” listing of additional tests along with our current pricing options for those services. The pricing options listed within this document are valid for any testing completed between during the initial term of this Agreement and any renewals.

The CITY has the option of “picking and choosing” from the variety of testing options presented throughout this document. The options chosen by the CITY will depend on their budget and/or preferences for that particular testing year.

“**Cardiovascular Health Profile**” (CHP) will consist of the following components:

- Pre-Exercise physical exam conducted by a physician for all individuals tested. Physician will be present for cardiovascular stress test for all male participants over the age of 45 and females over the age of 55. Individuals of any age with two or more significant cardiovascular disease risk markers will also be seen by a physician, and a physician will be present during the graded exercise test. A physician will be present during the exercise test and provide post-test interpretation of results.
- In-Depth Medical Health History
- Selected Laboratory Tests
  - \*Cholesterol
  - \*HDL
  - \*Triglycerides
  - \*Glucose
  - \*Selected Liver and Kidney Enzymes
  - \*Electrolytes
- Lung Function Assessment
- Physical Fitness Evaluation
  - \*Symptom-Limited Maximal Graded Exercise Test (Treadmill/Bike)
  - \*Resting and Exercise 12-Lead Electrocardiogram
  - \*Estimated Oxygen Uptake and Endurance Capacity
  - \*Body Composition Estimate (Skinfolds and/or DEXA)
  - \*Low Back Flexibility Testing
  - \*Muscular Strength and Endurance
- In-Depth Individualized Written Report
  - Presented to the individual test client. All records pertaining to the individual report are confidential and will be released only after written authorization is received from the individual client.

- Written Statistical Group Data Analysis and Summary of Results presented to City

"Coronary Risk Profile" (CRP) will consists of the following components:

- In-Depth Medical Health History
- Selected Laboratory Tests:
  - Cholesterol
  - HDL-Cholesterol
  - Triglycerides
  - Glucose
  - Selected Liver and Kidney Enzymes
  - Electrolytes
- Resting Blood Pressure
- Resting Pulse
- Resting 12-Lead Electrocardiogram
- Strength and Flexibility
- Skinfold Assessment of Body Composition plus height & weight
- Individualized Written Reports
- Group Consultation (If requested)

- Written Statistical Data Analysis and Summary of Results presented to City

The Applied Exercise Science Laboratory will adhere to the guidelines for exercise testing and prescription of the American College of Sports Medicine. Testing will be terminated in compliance with the American College of Sports Medicine indications for stopping an exercise test unless otherwise directed by the cardiologist or the testing supervisor present. The physician or testing supervisor will make all such decisions. The Applied Exercise Science Laboratory will provide all testing equipment, facilities testing personnel, supervising physician, blood analysis and resource materials required for testing. The following Tests will be conducted.

### 2016 FITLIFE

Test Performed	Cost of Test	Number of Employees	Total
CHP	\$315.00	146	\$45,990.00
CBC	\$10.00	147	\$1470.00
A1C	\$30.00	147	\$4410.00
PSA	\$30.00	141	\$4230.00
Hep B Titer	\$60.00	12	\$720.00
Hep C Antibody	\$35.00	147	\$5145.00
Total			\$61,965.00



## Legislation Details (With Text)

**File #:** 16-0223      **Version:** 1      **Name:** Rezoning – 604 Tarrow Street  
**Type:** Rezoning      **Status:** Agenda Ready  
**File created:** 4/13/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from C-3 Light Commercial to GS General Suburban for approximately 0.3902 acres being Lots 1 and 2, Block 4 of the Prairie Heights Addition, generally located at 604 Tarrow Street.

**Sponsors:** Mark Bombek

**Indexes:**

**Code sections:**

**Attachments:** [Background](#)  
[Aerial and Small Area Map](#)  
[Ordinance](#)

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from C-3 Light Commercial to GS General Suburban for approximately 0.3902 acres being Lots 1 and 2, Block 4 of the Prairie Heights Addition, generally located at 604 Tarrow Street.

### Relationship to Strategic Goals:

- Good Governance
- Neighborhood Integrity

Recommendation(s): The Planning and Zoning Commission considered this item on April 7, 2016 and voted 7-0 to recommend approval.

Summary: The applicant is requesting a GS General Suburban zoning on approximately 0.392 acres to allow for the opportunity to create a single-family home on the property. The site is currently vacant, but has been developed as light commercial uses in the past.

The Unified Development Ordinance provides the following review criteria for zoning map amendments:

### REVIEW CRITERIA

- 1. Consistency with the Comprehensive Plan:** The subject property is designated as Neighborhood Conservation on the Comprehensive Plan Future Land Use and Character Map. This designation is used in areas that are generally built out and are not intended to see extensive

infill development or redevelopment. The areas labeled as Neighborhood Conservation were typically platted prior to the city's current development regulations often resulting in non-conforming situations. Specifically, The Eastgate Neighborhood Plan discusses that while commercial development potential on this particular tract is a very limited, if a commercial use were to develop it may negatively impact the Neighborhood Conservation area. The proposed rezoning is consistent with the Comprehensive Plan.

- 2. Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:** The surrounding property is zoned GS General Suburban, a designation received after annexation. Continuation of the General Suburban pattern in the area is compatible with the present zoning and conforming single-family uses.
- 3. Suitability of the property affected by the amendment for uses permitted by the district that would be made applicable by the proposed amendment:** The subject area has frontage to Tarrow Street, a two lane major collector, and located two blocks away from the nearest commercial uses fronting University Drive East. Other commercial uses do exist directly across Tarrow Street. However, the subject property is surrounded by a general suburban zoning and development pattern and is the last property in the immediate area that has yet to be rezoned to a residential use. Due to these conditions, this area is more suitable for a residential use.
- 4. Suitability 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 current designation of C-3 Light Commercial is a retired zoning district that allows for smaller neighborhood type services. Typically this land use is a transitional, step-down zone that is located at the fringe of more intense General Commercial Uses and General Suburban uses. Historically, there were commercial uses on the property, which have since been removed. Considering current development requirements it would be very difficult to develop without consolidating and rezoning additional property adjacent to this site, which is zoned for General Suburban uses. The site could also request to eliminate such requirements as buffering to single-family uses to allow for a larger portion of land that could be developed.
- 5. 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 applicant states the property has a higher marketability as a single-family land use given its close proximity to commercial services along University Drive East and the existing character of the surrounding neighborhood.
- 6. Availability of water, wastewater, stormwater, and transportation facilities generally suitable and adequate for the proposed use:** There is an existing 2-inch water line that runs along one side of this property adjacent to Banks Street, which will be used to serve half of this property. The other half of this property will be served by an existing 4-inch line that runs along one side of this property adjacent to Peyton Street. There is an existing 6-inch sanitary sewer line along Banks Street that ties into a manhole at the corner of the subject property then continues along the rear property line which will serve this property. As this site is being re-platted concurrently with the rezoning request access to the subject property is being restricted to Banks Street as a single-family residential property is not allowed to take access off a collector or greater classification street. Drainage and other public infrastructure required with site development shall be designed and constructed in accordance with the BCS Unified Design Guidelines. Existing infrastructure appears to be adequate for the proposed use.

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

Attachments:

1. Background Information
2. Aerial & Small Area Map (SAM)
3. Ordinance

**NOTIFICATIONS**

Advertised Commission Hearing Date: April 7, 2016  
Advertised Council Hearing Date: April 28, 2016

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 HOA

Property owner notices mailed: 26  
Contacts in support: None  
Contacts in opposition: None  
Inquiry contacts: None

**ADJACENT LAND USES**

<b>Direction</b>	<b>Comprehensive Plan</b>	<b>Zoning</b>	<b>Land Use</b>
<b>North</b>	Neighborhood Conservation	GS General Suburban	Vacant
<b>South</b>	Neighborhood Conservation	GS General Suburban	Single-Family Residential
<b>East</b> (Across Tarrow Street)	General Commercial	R Rural	Commercial Shopping Center
<b>West</b>	Neighborhood Conservation	GS General Suburban	Single-Family Residential

**DEVELOPMENT HISTORY**

**Annexation:** 1951  
**Zoning:** R-1 Single-Family Residential (upon annexation), C-N Neighborhood Commercial (1983), combined C-N with C-3 as Light Commercial (2003)  
**Final Plat:** Lots 1, and 2, Block 4 Prairie Heights Subdivision  
**Site development:** Undeveloped



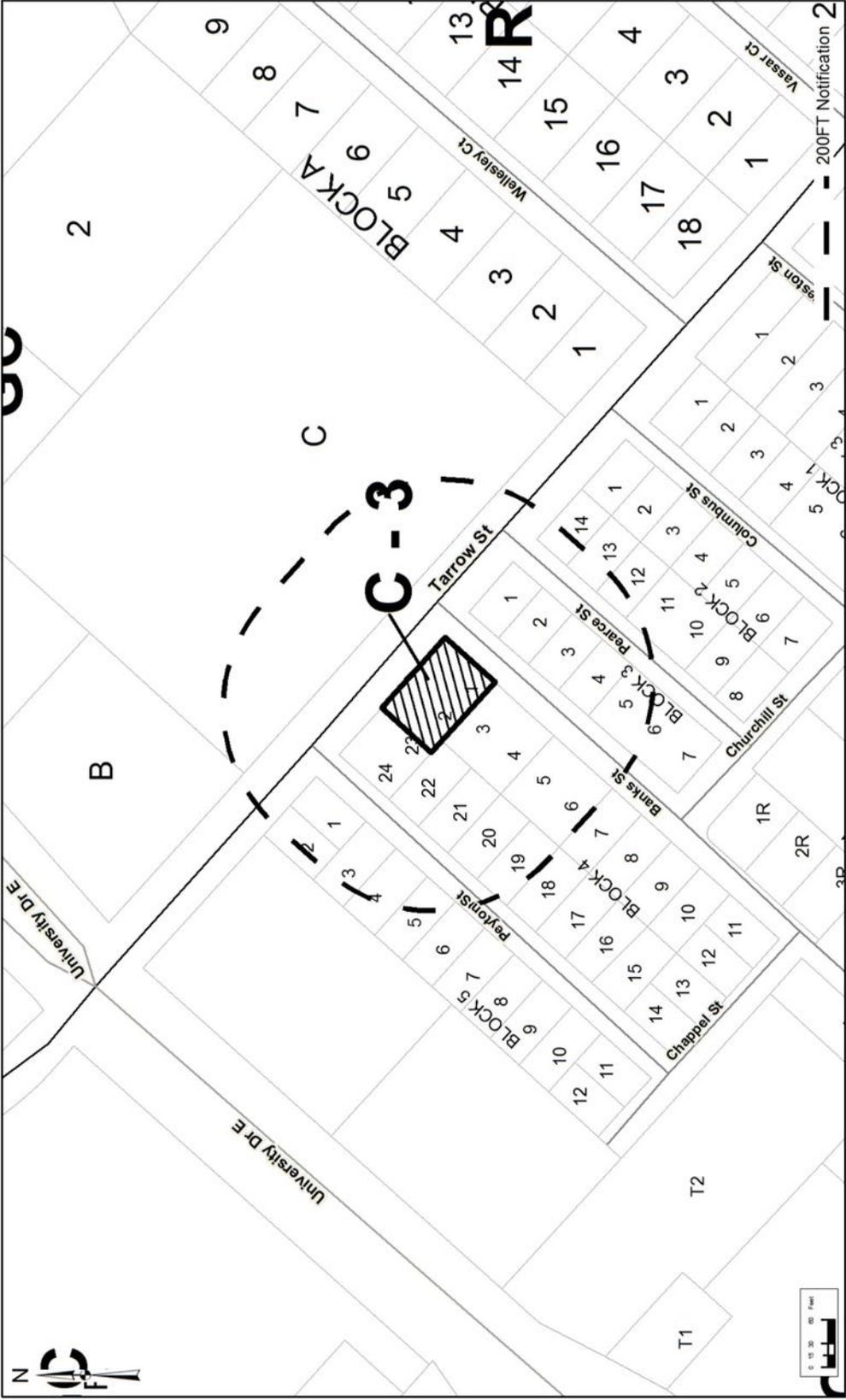
REZONING

Case: REZ2016-000008

PRAIRIE HEIGHTS ADDITION

DEVELOPMENT REVIEW





**Zoning Districts**

R	Rural	R-4	Multi-Family	BPI	Business Park Industrial	PDD	Planned Development District
E	Estate	R-6	High Density Multi-Family	NAP	Natural Areas Protected	WPC	Wolf Pen Creek Dev. Corridor
RS	Restricted Suburban	MHP	Manufactured Home Park	C-3	Light Commercial	NG-1	Core Northgate
GS	General Suburban	O	Office	M-1	Light Industrial	NG-2	Transitional Northgate
R-1B	Single Family Residential	SC	Suburban Commercial	M-2	Heavy Industrial	NG-3	Residential Northgate
D	Duplex	GC	General Commercial	C-U	College and University	OV	Corridor Overlay
T	Townhouse	CI	Commercial-Industrial	R & D	Research and Development	RDD	Redevelopment District
		BP	Business Park	P-MUD	Planned Mixed-Use Development	KO	Krenek Tap Overlay

	<b>DEVELOPMENT REVIEW</b>	<b>PRAIRIE HEIGHTS ADDITION</b>
<b>REZONING</b>		Case: REZ2016-000008

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING CHAPTER 12, "UNIFIED DEVELOPMENT ORDINANCE," SECTION 12-4.2, "OFFICIAL ZONING MAP," OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY CHANGING THE ZONING DISTRICT BOUNDARIES FROM C-3 LIGHT COMMERCIAL TO GS GENERAL SUBURBAN FOR APPROXIMATELY 0.3902 ACRES BEING LOTS 1 AND 2, BLOCK 4 OF THE PRAIRIE HEIGHTS ADDITION, GENERALLY LOCATED 604 TARROW STREET; 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 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, be amended as set out in Exhibit "A" and as shown graphically in Exhibit "B" and Exhibit "C", attached hereto and made a part of this ordinance for all purposes.

PART 2: 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.

PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PASSED, ADOPTED and APPROVED this 28<sup>th</sup> day of April, 2016

APPROVED:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

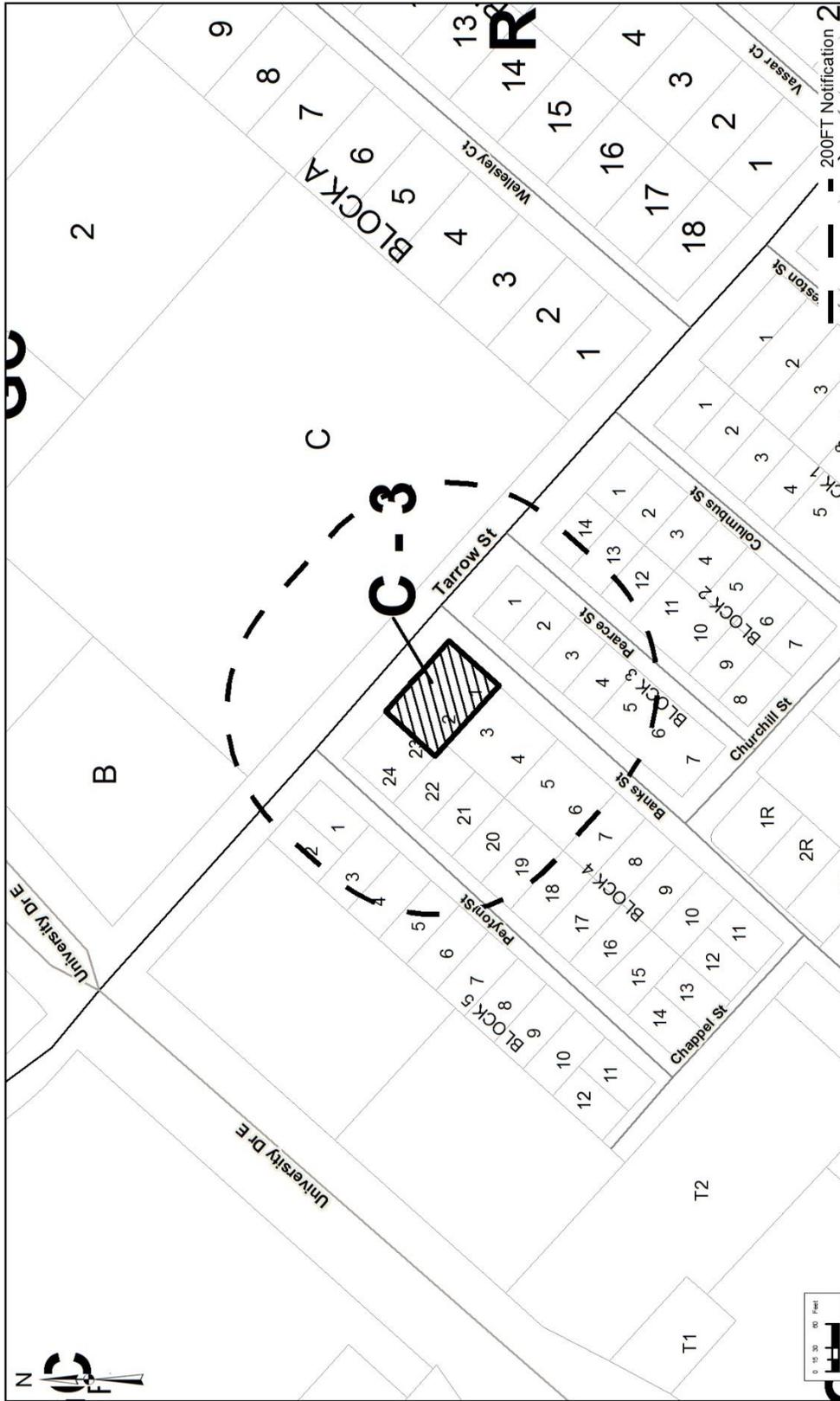
**EXHIBIT "A"**

That Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, is hereby amended as follows:

The following property is rezoned from C-3 Light Commercial to GS General Suburban, as graphically depicted in Exhibit "B" and Exhibit "C":

Approximately 0.3902 acres being Lots 1 and 2, Block 4 of the Prairie Heights Addition.

EXHIBIT "B"

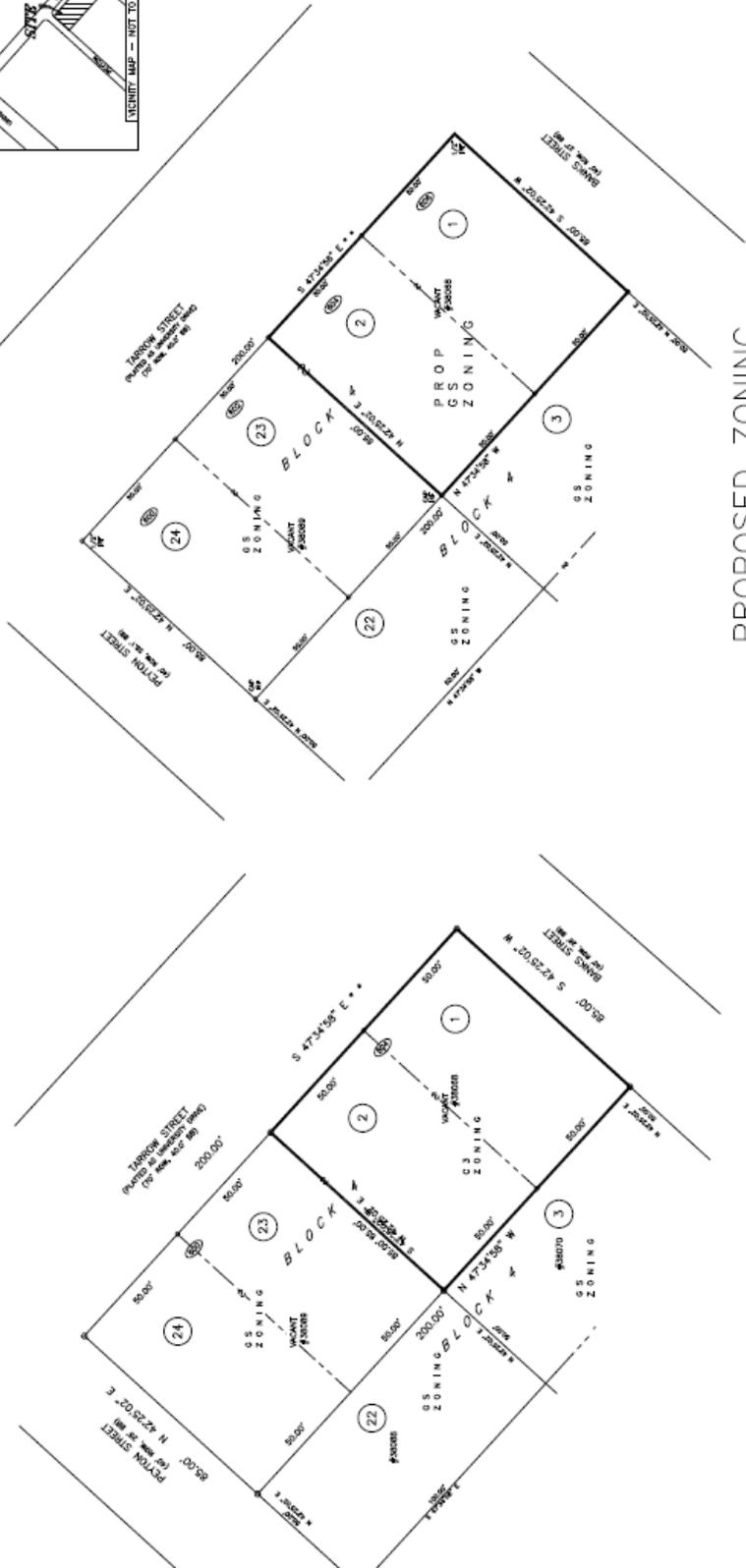
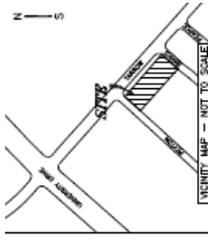


Zoning Districts	R-4	Multi-Family	BPI	Business Park Industrial	PDD	Planned Development District
R	Rural	High Density Multi-Family	NAP	Natural Areas Protected	WPC	Wolf Pen Creek Dev. Corridor
E	MHP	Manufactured Home Park	C-3	Light Commercial	NG-1	Core Northgate
RS	O	Office	M-1	Light Industrial	NG-2	Transitional Northgate
GS	SC	Suburban Commercial	M-2	Heavy Industrial	NG-3	Residential Northgate
R-1B	GC	General Commercial	C-U	College and University	OV	Corridor Overlay
D	CI	Commercial-Industrial	R & D	Research and Development	RDD	Redevelopment District
T	BP	Business Park	P-MUD	Planned Mixed-Use Development	KO	Krenek Tap Overlay

DEVELOPMENT REVIEW	PRAIRIE HEIGHTS ADDITION	REZONING
	Case:	REZ2016-000008

**EXHIBIT "C"**



ALL DIMENSIONS SHOWN ARE IN FEET UNLESS OTHERWISE NOTED.  
 1. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
 2. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
 3. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
 4. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
 5. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
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 8. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
 9. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.  
 10. THE PROPERTY SHOWN IS THE PROPERTY OF CHARLES H. SZABUNIEWICZ.

FOR REVIEW ONLY

**REZONING OF LOTS 1 & 2, BLOCK 4  
 PRAIRIE VIEW HEIGHTS**

OWNER/DEVELOPER: CHARLES H. SZABUNIEWICZ BRYAN, TX. 77801-4654 TEL: (979) 229-5311 chris@pvpnc.net	DATE: JANUARY 26, 2018 APPROVED BY: CAG REVISIONS:	PROJECT: <b>2-16</b> SHEET 1 of 1
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**ALINDO ENGINEERS AND PLANNERS, INC.**  
 3833 SOUTH TEXAS AVE., SUITE 213 BRYAN, TEXAS 77802 979-846-8868  
 FIRM LICENSE: ENGINEERING F-1789, SURVEYING 100289-00



Legislation Details (With Text)

**File #:** 16-0224      **Version:** 1      **Name:** Rezoning - 14941 FM 2154  
**Type:** Rezoning      **Status:** Agenda Ready  
**File created:** 4/13/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from R Rural to SC Suburban Commercial for approximately 1/2 acre being a portion of Lots 1, 2, and 3, Block A of the Benjamin Graham Subdivision, generally located at 14941 FM 2154, more generally located north of the intersection of Greens Prairie Road West and Wellborn Road (FM 2154).

**Sponsors:** Jessica Bullock

**Indexes:**

**Code sections:**

**Attachments:** [Background Information](#)  
[Aerial and Small Area Map \(SAM\)](#)  
[Ordinance](#)

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from R Rural to SC Suburban Commercial for approximately 1/2 acre being a portion of Lots 1, 2, and 3, Block A of the Benjamin Graham Subdivision, generally located at 14941 FM 2154, more generally located north of the intersection of Greens Prairie Road West and Wellborn Road (FM 2154).

Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation(s): The Planning and Zoning Commission considered this item on April 7, 2016 and voted 7-0 to recommend approval.

Summary:

The applicant is requesting a SC Suburban Commercial zoning on approximately 0.5 acres to allow for office space.

The Unified Development Ordinance provides the following review criteria for zoning map amendments:

## REVIEW CRITERIA

- 1. Consistency with the Comprehensive Plan:** The subject area is located within the Wellborn Community Plan area, with a Future Land Use and Character designation of Wellborn Commercial. Similar to Suburban Commercial, this land use is intended for concentrations of commercial activities that focus primarily on the nearby residents versus the larger community. Such uses should be limited in size and not accommodate for drive-thru services. Specific design elements as described in the Wellborn Community Plan should be incorporated into development to limit the visual impact on the community and enhance the defined character.

The applicant is looking to rezone three lots from R Rural to SC Suburban Commercial. The proposed zoning district is consistent with the Comprehensive Plan.

- 2. Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:** Property directly to the north and south are currently zoned R Rural and developed as single-family homes. Property to the east was recently rezoned to SC Suburban Commercial in order to develop an office use.

SC Suburban Commercial is intended to be compatible with the character of suburban single-family neighborhoods. Buildings have a residential character and scale, and sites are heavily landscaped to minimize the impacts of non-residential uses and associated parking areas on adjacent residential zoning districts. The proposed rezoning is compatible with the uses and character of the Wellborn Community.

- 3. Suitability of the property affected by the amendment for uses permitted by the district that would be made applicable by the proposed amendment:** The subject area is directly adjacent to Wellborn Road, a major arterial, and are surrounded by single-family homes as well as existing and proposed commercial uses. Due to these conditions, the properties are suitable for SC Suburban Commercial uses.
- 4. Suitability 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 subject area is currently zoned R Rural which allows for an average lot size of three acres. When the Wellborn area was annexed in 2011, it received an A-O designation as a placeholder which was later renamed to R Rural. The property may continue to be used as a single-family home, but with frontage to a major arterial, this is not the most suitable use.
- 5. 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:** R Rural allows for rural residential and agricultural uses. With continuing development in the area, frontage to Wellborn Road, and a recent rezoning to Suburban Commercial to the east, the property has limited marketability under the current zoning district.
- 6. Availability of water, wastewater, stormwater, and transportation facilities generally suitable and adequate for the proposed use:** Water service is available to these properties from the Wellborn Special Utility District. There is also an adjacent 8-inch sanitary sewer line that may serve the area. Drainage is mainly to the west within the Peach Creek Drainage Basin. Drainage and other public infrastructure required with site development shall be designed and constructed in accordance with the BCS Unified Design Guidelines. Existing infrastructure

appears to be adequate for the proposed use at this time.

The subject properties have frontage on FM 2154, a proposed 4-lane Major Arterial on the City's Thoroughfare Plan.

Budget & Financial Summary: N/A

Legal Review: Yes

Attachments:

1. Background Information
2. Aerial & Small Area Map (SAM)
3. Ordinance

**NOTIFICATIONS**

Advertised Commission Hearing Date: April 7, 2016  
Advertised Council Hearing Date: April 28, 2016

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:

- Creek Meadows
- Turnberry Place
- Wellborn Oaks
- Estates of Royder Ridge
- Sweetwater Forest

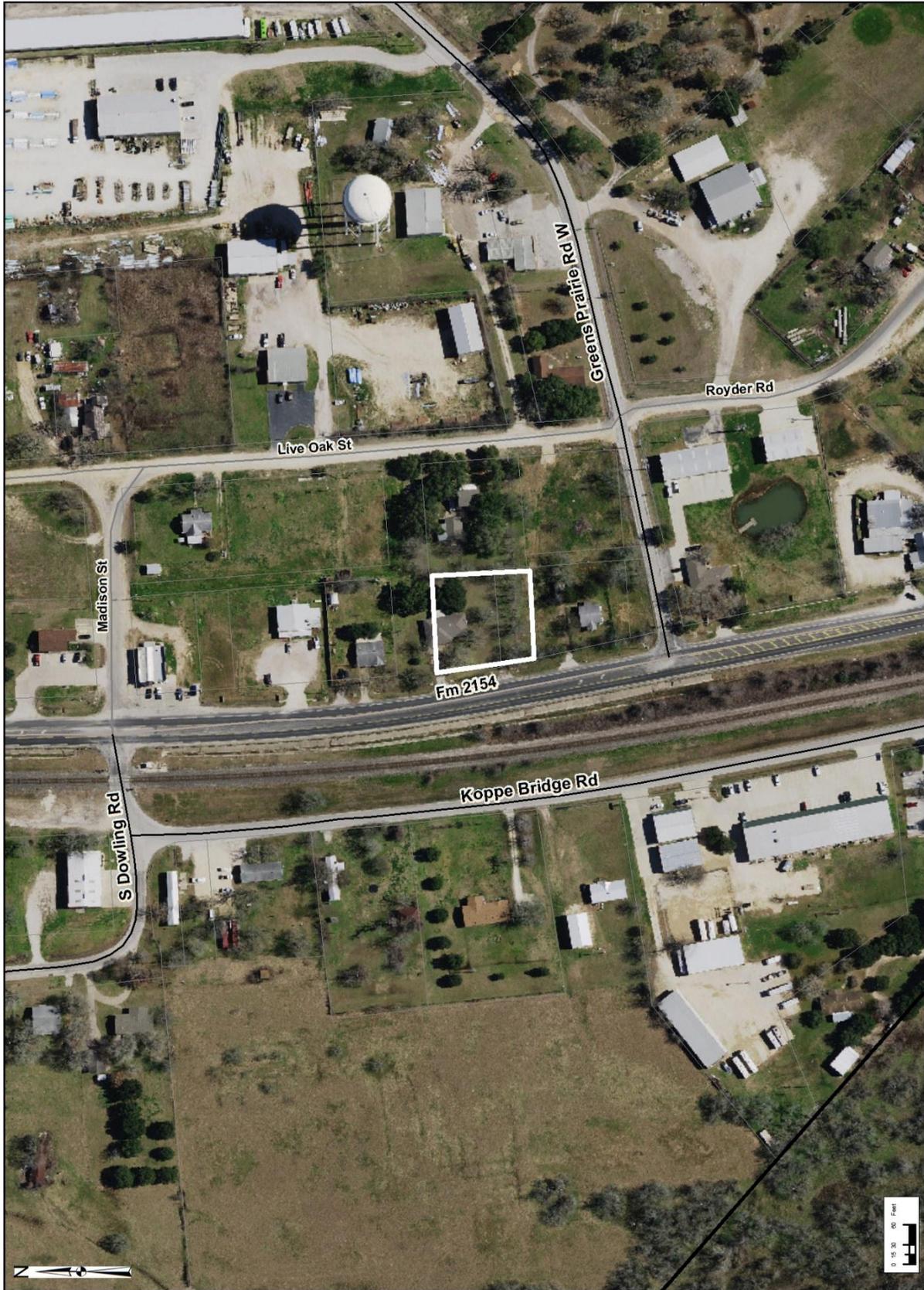
Property owner notices mailed: Six  
 Contacts in support: None  
 Contacts in opposition: None  
 Inquiry contacts: None

**ADJACENT LAND USES**

Direction	Comprehensive Plan	Zoning	Land Use
North	Wellborn Commercial	R Rural	Single-family home
South	Wellborn Commercial	R Rural	Single-family home
East	Wellborn Commercial	SC Suburban Commercial	Office
West (Across FM 2154)	Wellborn Commercial	R Rural	Single-family home

**DEVELOPMENT HISTORY**

**Annexation:** April 2011  
**Zoning:** A-O Agricultural Open upon annexation (2011)  
 Renamed R Rural (2013)  
**Final Plat:** March 1894  
**Site development:** Single-family home and vacant

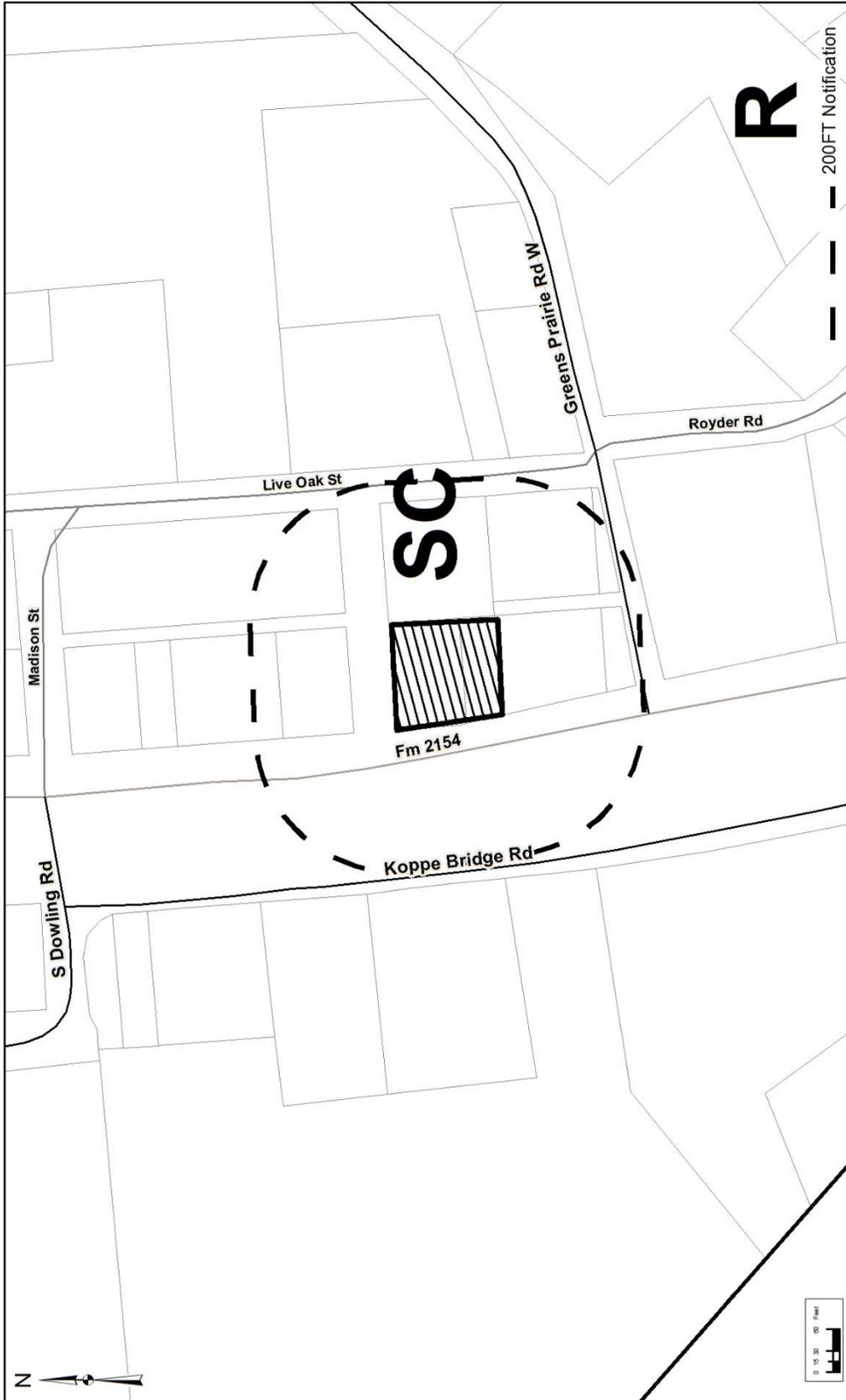


REZONING

Case:  
REZ2016-000001

14941 FM 2154

DEVELOPMENT REVIEW



**Zoning Districts**

R	Rural	BPI	Business Park Industrial	PDD	Planned Development District
E	Estate	NAP	Natural Areas Protected	WPC	Wolf Pen Creek Dev. Corridor
RS	Restricted Suburban	C-3	Light Commercial	NG-1	Core Northgate
GS	General Suburban	M-1	Light Industrial	NG-2	Transitional Northgate
R-1B	Single Family Residential	M-2	Heavy Industrial	NG-3	Residential Northgate
D	Duplex	C-U	College and University	OV	Corridor Overlay
T	Townhouse	R&D	Research and Development	RDD	Redevelopment District
		P-MUD	Planned Mixed-Use Development	KO	Krenek Tap Overlay



**DEVELOPMENT REVIEW**

14941 FM 2154

Case: REZ2016-000001

**REZONING**

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING CHAPTER 12, "UNIFIED DEVELOPMENT ORDINANCE," SECTION 12-4.2, "OFFICIAL ZONING MAP," OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY CHANGING THE ZONING DISTRICT BOUNDARIES FROM R RURAL TO SC SUBURBAN COMMERCIAL FOR APPROXIMATELY 1/2 ACRE BEING A PORTION OF LOTS 1, 2, AND 3, BLOCK A OF THE BENJAMIN GRAHAM SUBDIVISION, GENERALLY LOCATED AT 14941 FM 2154, MORE GENERALLY LOCATED NORTH OF THE INTERSECTION OF GREENS PRAIRIE ROAD WEST AND WELLBORN ROAD (FM 2154); 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 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, be amended as set out in Exhibit "A" and as shown graphically in Exhibit "B" and Exhibit "C", attached hereto and made a part of this ordinance for all purposes.
- PART 2: 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.
- PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PASSED, ADOPTED and APPROVED this 28<sup>th</sup> day of April, 2016

APPROVED:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

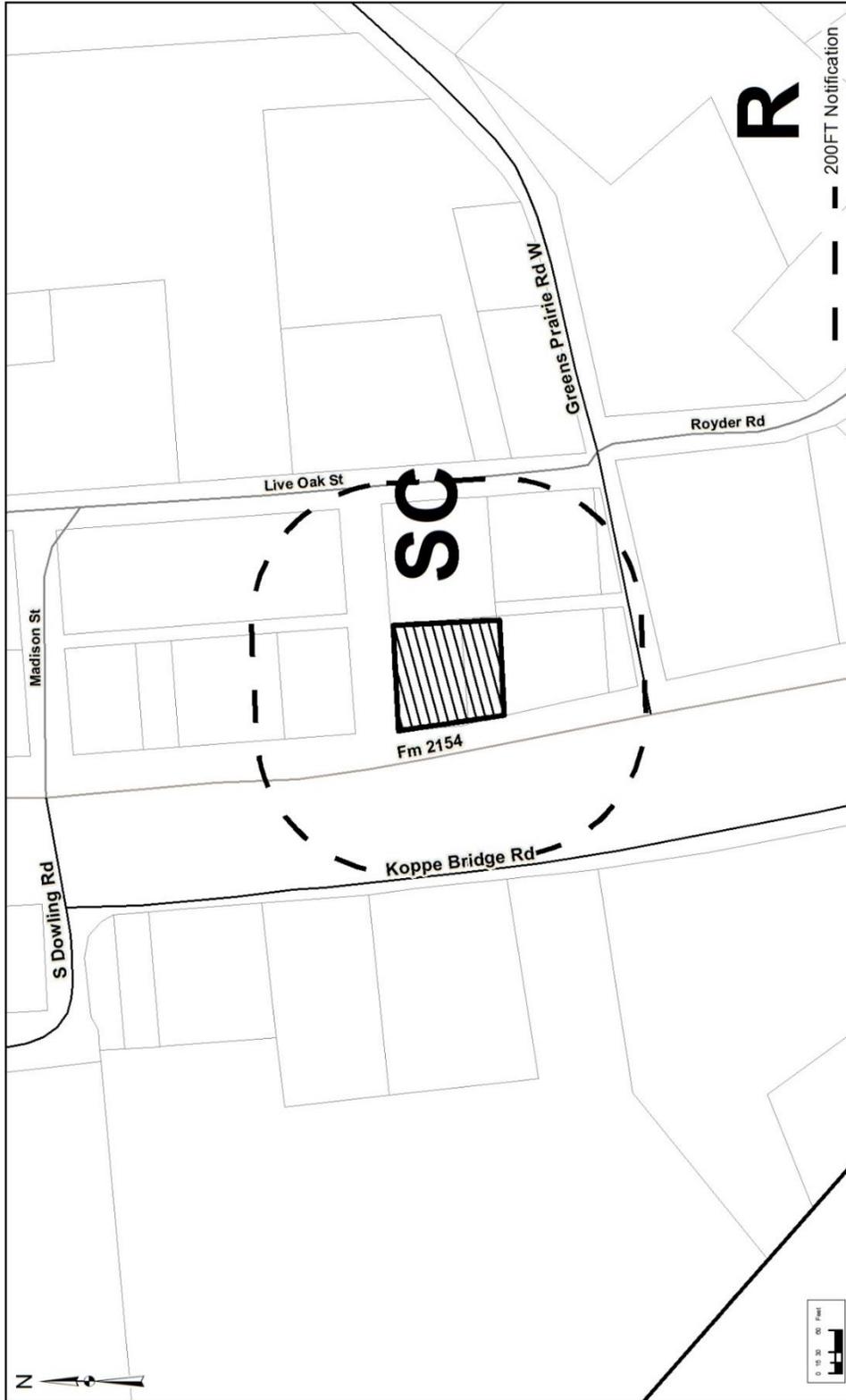
**EXHIBIT "A"**

That Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, is hereby amended as follows:

The following property is rezoned from R Rural to SC Suburban Commercial, as graphically depicted in Exhibit "B" and Exhibit "C":

Benjamin Graham Subdivision, being a portion of Lots 1-3, Block A, according to the plat recorded in Volume 12, Page 394 of the Office Public Records of Brazos County, Texas

**EXHIBIT "B"**



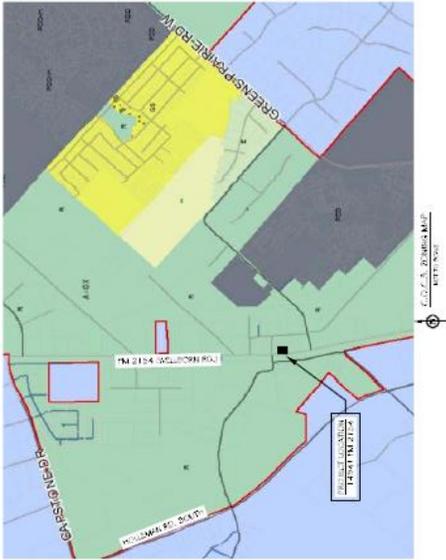
Zoning Districts	R - 4	Multi-Family	BPI	Business Park	PDD	Planned Development District
R	R - 4	High Density Multi-Family	NAP	Business Park Industrial	WPC	Wolf Pen Creek Dev. Corridor
E	R - 6	Manufactured Home Park	C - 3	Natural Areas Protected	NG - 1	Core Northgate
RS	MHP	Office	M - 1	Light Commercial	NG - 2	Transitional Northgate
GS	O	Suburban Commercial	M - 2	Heavy Industrial	NG - 3	Residential Northgate
R - 1B	SC	General Commercial	C - U	College and University	OV	Corridor Overlay
D	GC	Commercial-Industrial	R & D	Research and Development	RDD	Redevelopment District
T	CI	Business Park	P-MUD	Planned Mixed-Use Development	KO	Krenak Tap Overlay
	BP					

	<b>DEVELOPMENT REVIEW</b>	<b>REZONING</b>
14941 FM 2154		Case: REZ2016-000001

EXHIBIT "C"

	<p><b>GATTIS ENGINEERING</b> ENGINEERS &amp; CONSULTANTS</p>	<p><b>14941 FM 2154 (WELLBORN RD.)</b> <b>0.4886 ACRE TRACT</b> <b>ANDREW McMAHON SURVEY, A-167</b> <b>WELLBORN, BRAZOS COUNTY, TX</b> <b>MARCH 3, 2016</b></p>	<p><b>REZONING MAP</b></p>
<p>NOT APPROVED FOR BUILDING &amp; CONSTRUCTION</p>		<p>2015 Annual Report of the State Board of Professional Engineers, Architects, and Surveyors</p>	

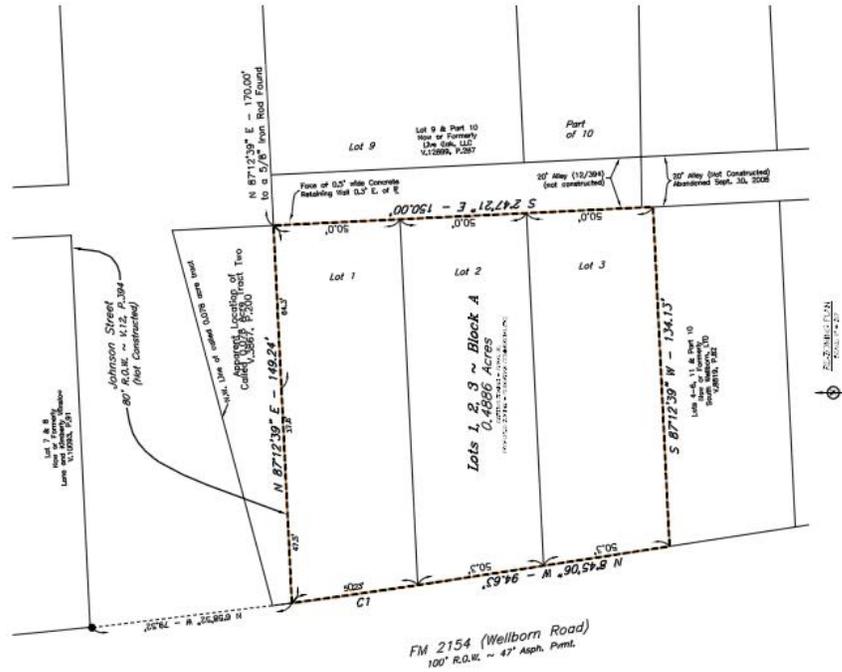


**GENERAL NOTES:**

- The survey was conducted in accordance with the Texas Surveying Act, Chapter 81, Texas Occupations Code, and the Texas Surveying Rules and Regulations, Chapter 100, Texas Administrative Code.
- The survey was conducted using a total station and a GPS receiver.
- The survey was conducted on a clear day with good visibility.
- The survey was conducted in accordance with the Texas Surveying Act, Chapter 81, Texas Occupations Code, and the Texas Surveying Rules and Regulations, Chapter 100, Texas Administrative Code.
- The survey was conducted using a total station and a GPS receiver.
- The survey was conducted on a clear day with good visibility.
- The survey was conducted in accordance with the Texas Surveying Act, Chapter 81, Texas Occupations Code, and the Texas Surveying Rules and Regulations, Chapter 100, Texas Administrative Code.
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**GENERAL NOTES:**

- The survey was conducted in accordance with the Texas Surveying Act, Chapter 81, Texas Occupations Code, and the Texas Surveying Rules and Regulations, Chapter 100, Texas Administrative Code.
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- The survey was conducted using a total station and a GPS receiver.
- The survey was conducted on a clear day with good visibility.
- The survey was conducted in accordance with the Texas Surveying Act, Chapter 81, Texas Occupations Code, and the Texas Surveying Rules and Regulations, Chapter 100, Texas Administrative Code.
- The survey was conducted using a total station and a GPS receiver.
- The survey was conducted on a clear day with good visibility.
- The survey was conducted in accordance with the Texas Surveying Act, Chapter 81, Texas Occupations Code, and the Texas Surveying Rules and Regulations, Chapter 100, Texas Administrative Code.





## Legislation Details (With Text)

<b>File #:</b>	16-0225	<b>Version:</b>	1	<b>Name:</b>	Rezoning - Wellborn Settlement
<b>Type:</b>	Rezoning	<b>Status:</b>		<b>Status:</b>	Agenda Ready
<b>File created:</b>	4/13/2016	<b>In control:</b>		<b>In control:</b>	City Council Regular
<b>On agenda:</b>	4/28/2016	<b>Final action:</b>		<b>Final action:</b>	
<b>Title:</b>	Public Hearing, presentation, possible action, and discussion regarding approving an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from R Rural to SC Suburban Commercial for approximately 3.098 acres being situated in the Samuel Davidson League, Abstract No. 13, Brazos County, Texas, said tract being a portion of the remainder of a called 33.70 acre tract described as third tract by a deed to Keren Eidson recorded in Volume 300, Page 609 of the deed records of Brazos County, Texas, generally located between Wellborn Road (FM 2154) and Royder Road, near Greens Prairie Road West.				
<b>Sponsors:</b>	Mark Bombek				
<b>Indexes:</b>					
<b>Code sections:</b>					
<b>Attachments:</b>	<a href="#">Background</a> <a href="#">Aerial and Small Area Map</a> <a href="#">Ordinance</a>				

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approving an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from R Rural to SC Suburban Commercial for approximately 3.098 acres being situated in the Samuel Davidson League, Abstract No. 13, Brazos County, Texas, said tract being a portion of the remainder of a called 33.70 acre tract described as third tract by a deed to Keren Eidson recorded in Volume 300, Page 609 of the deed records of Brazos County, Texas, generally located between Wellborn Road (FM 2154) and Royder Road, near Greens Prairie Road West.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation(s): The Planning and Zoning Commission considered this item on April 7, 2016 and voted 7-0 to recommend approval.

Summary: The applicant is requesting a SC Suburban Commercial zoning on approximately three acres to allow for the opportunity to create neighborhood commercial opportunities along FM 2154. The site is currently vacant.

The Unified Development Ordinance provides the following review criteria for zoning map amendments:

## REVIEW CRITERIA

1. **Consistency with the Comprehensive Plan:** The subject property is designated as Wellborn Restricted Suburban in the Wellborn Community Plan Future Land Use and Character Map. The intent of the Wellborn Restricted land use was provide area for additional residential land that could be smaller in size than the rural or estate designations allowing for a slight increase in density. Knowing this land use designation extends up to Wellborn Road there was flexibility added to the language allowing for office and light commercial activity not to exceed more than 15 percent of the total area designated as Wellborn Restricted Suburban. The request to rezone to a Suburban Commercial use is in compliance with the 15 percent limitation and in extension is in compliance with the Comprehensive Plan designation.
2. **Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:** The surrounding property is zoned R Rural, a designation received after annexation. Nearby properties are large lot residential and agricultural-open. Commercial can be found further north on Wellborn Road. SC Suburban Commercial is intended to be compatible with the character of suburban single-family neighborhoods. Buildings have a residential character and scale, and sites are heavily landscaped to minimize the impacts of non-residential uses and associated parking areas on adjacent residential zoning districts. Suburban Commercial will be more intense than the existing adjacent land uses, but not necessarily out of character with the larger area.
3. **Suitability of the property affected by the amendment for uses permitted by the district that would be made applicable by the proposed amendment:** The subject area has frontage to Wellborn Road (FM 2154), a major arterial, and located near other commercial uses. The Wellborn Community Plan allows for some light commercial in the area designated Wellborn Restricted Suburban. SC Suburban Commercial on approximately three acres would allow for low-density commercial uses that cater to nearby residents and is in line with the Wellborn Community Plan.
4. **Suitability 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 current designation of R Rural allows property to be subdivided into an average of three acre lots for agricultural and/or residential use. Minimal development in the immediate area makes these uses suitable, but when the area was annexed in 2015, it was zoned R Rural as a placeholder designation.
5. **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 applicant states the property is unmarketable for rural and agricultural uses as development continues to occur along FM 2154.
6. **Availability of water, wastewater, stormwater, and transportation facilities generally suitable and adequate for the proposed use:** Water service will be provided by Wellborn Special Utility District. There is an existing 12-inch sanitary sewer line along the south side of Royder Road available to serve this property. Capacity is currently available in the downstream

sanitary sewer system to support the proposed use, however capacity will need to be analyzed further with site development. Drainage is mainly to the south within the Peach Creek Drainage Basin, where detention is required. Access to the site will be along Wellborn Road, subject to TxDOT requirements and permitting. Drainage and other public infrastructure required with site development shall be designed and constructed in accordance with the BCS Unified Design Guidelines. Existing infrastructure appears to be adequate for the proposed use at this time.

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

Attachments:

1. Background Information
2. Aerial & Small Area Map (SAM)
3. Ordinance

**NOTIFICATIONS**

Advertised Commission Hearing Date: April 7, 2016  
Advertised Council Hearing Date: April 28, 2016

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:

- Creek Meadows
- Royder Ridge
- Wellborn Oaks
- Sweetwater Forest
- Turnberry Place

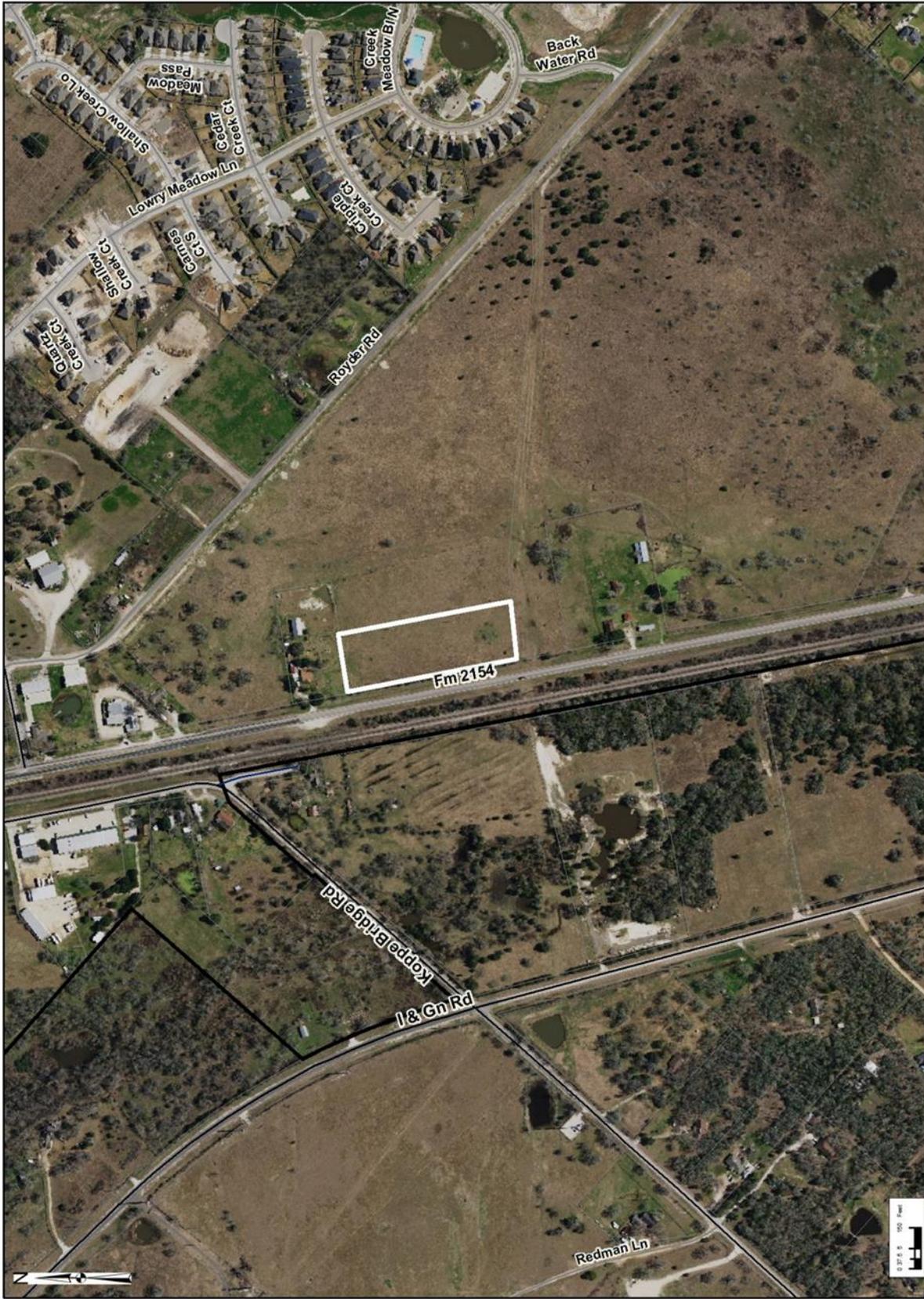
Property owner notices mailed: 4  
Contacts in support: None  
Contacts in opposition: None  
Inquiry contacts: None

**ADJACENT LAND USES**

<b>Direction</b>	<b>Comprehensive Plan</b>	<b>Zoning</b>	<b>Land Use</b>
<b>North</b>	Wellborn Commercial	R Rural	Residential
<b>South</b>	Wellborn Restricted Suburban	R Rural	Residential
<b>East</b>	Wellborn Restricted Suburban	R Rural	Undeveloped
<b>West (Across Wellborn Road)</b>	Wellborn Rural	N/A ETJ	Residential

**DEVELOPMENT HISTORY**

**Annexation:** 2015  
**Comprehensive Plan:** Wellborn Restricted Suburban (2013)  
**Zoning:** R Rural upon annexation (2015)  
**Final Plat:** Unplatted  
**Site development:** Undeveloped



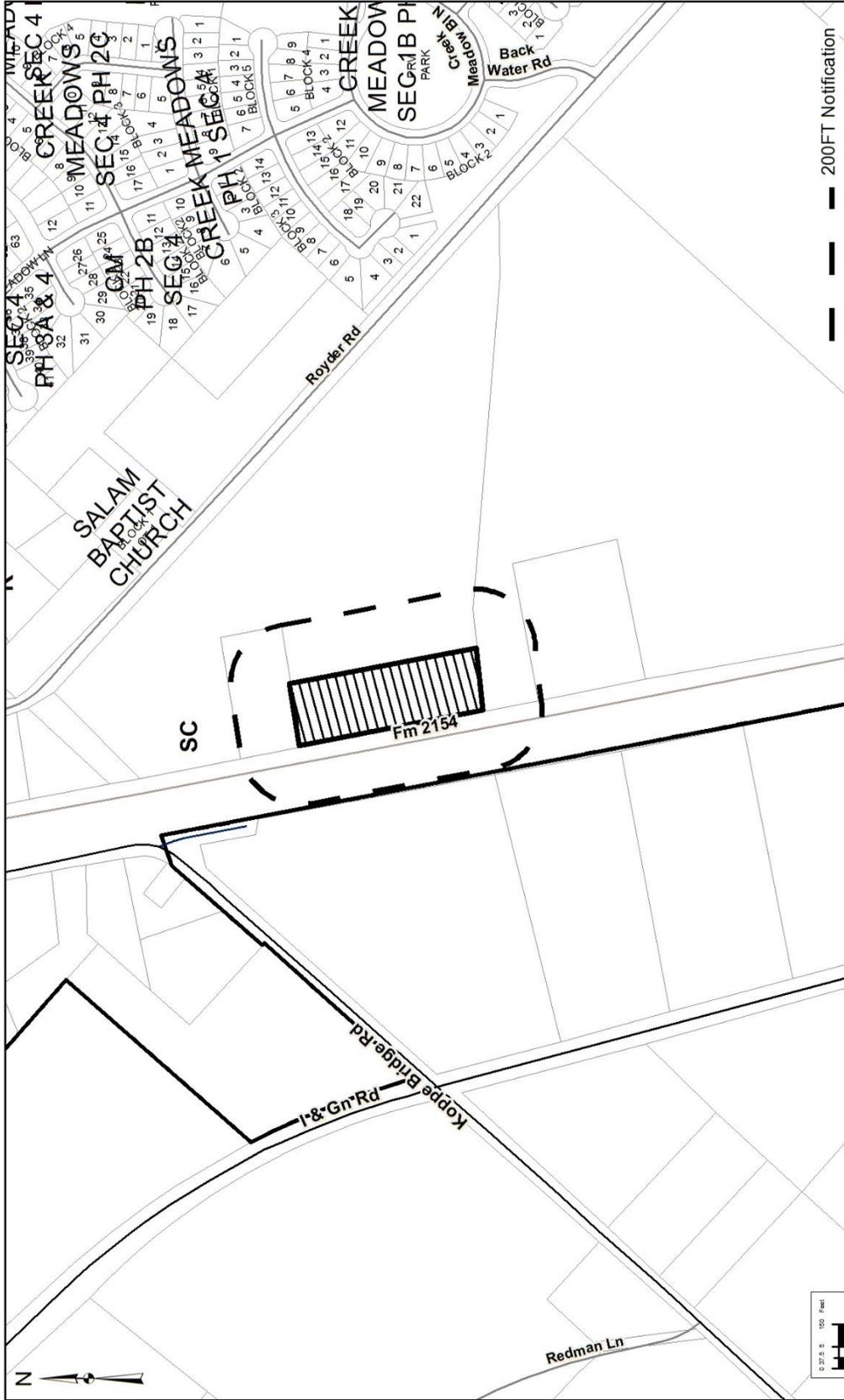
REZONING

Case:  
REZ2016-000004

WS 3 AC COMMERCIAL

DEVELOPMENT REVIEW





200FT Notification

**Zoning Districts**

R	Rural	R-4	Multi-Family	BPI	Business Park Industrial	PDD	Planned Development District
E	Estate	R-6	High Density Multi-Family	NAP	Natural Areas Protected	WPC	Wolf Pen Creek Dev. Corridor
RS	Restricted Suburban	MHP	Manufactured Home Park	C-3	Light Commercial	NG-1	Core Northgate
GS	General Suburban	O	Office	M-1	Light Industrial	NG-2	Transitional Northgate
R-1B	Single Family Residential	SC	Suburban Commercial	M-2	Heavy Industrial	NG-3	Residential Northgate
D	Duplex	GC	General Commercial	C-U	College and University	OV	Corridor Overlay
T	Townhouse	CI	Commercial-Industrial	R&D	Research and Development	RDD	Redevelopment District
		BP	Business Park	P-MUD	Planned Mixed-Use Development	KO	Krenek Tap Overlay

**REZONING**  
Case: REZ2016-000004

**WS 3 AC COMMERCIAL**

**DEVELOPMENT REVIEW**



ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING CHAPTER 12, "UNIFIED DEVELOPMENT ORDINANCE," SECTION 12-4.2, "OFFICIAL ZONING MAP," OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY CHANGING THE ZONING DISTRICT BOUNDARIES FROM R RURAL TO SC SUBURBAN COMMERCIAL FOR APPROXIMATELY 3.098 ACRES FOR THE PROPERTY BEING SITUATED IN THE SAMUEL DAVIDSON LEAGUE, ABSTRACT NO. 13, BRAZOS COUNTY, TEXAS, SAID TRACT BEING A PORTION OF THE REMAINDER OF A CALLED 33.70 ACRE TRACT DESCRIBED AS THIRD TRACT BY A DEED TO KEREN EIDSON RECORDED IN VOLUME 300, PAGE 609 OF THE DEED RECORDS OF BRAZOS COUNTY, TEXAS, GENERALLY LOCATED BETWEEN WELLBORN ROAD (FM 2154) AND ROYDER ROAD, NEAR GREENS PRAIRIE ROAD WEST; 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 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, be amended as set out in Exhibit "A" and as shown graphically in Exhibit "B" and Exhibit "C", attached hereto and made a part of this ordinance for all purposes.
- PART 2: 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.
- PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PASSED, ADOPTED and APPROVED this 28<sup>th</sup> day of April, 2016

APPROVED:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

**EXHIBIT "A"**

That Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, is hereby amended as follows:

The following property is rezoned from R Rural to SC Suburban Commercial, as graphically depicted in Exhibit "B" and Exhibit "C".

**METES AND BOUNDS DESCRIPTION  
OF A  
3.098 ACRE TRACT  
SAMUEL DAVIDSON LEAGUE, A-13  
BRAZOS COUNTY, TEXAS**

METES AND BOUNDS DESCRIPTION OF ALL THAT CERTAIN TRACT OF LAND LYING AND BEING SITUATED IN THE SAMUEL DAVIDSON LEAGUE, ABSTRACT NO. 13, BRAZOS COUNTY, TEXAS. SAID TRACT BEING A PORTION OF THE REMAINDER OF A CALLED 33.70 ACRE TRACT DESCRIBED AS THIRD TRACT BY A DEED TO KEREN EIDSON RECORDED IN VOLUME 300, PAGE 609 OF THE DEED 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 FOUND ON THE EAST LINE OF FM 2154 (WELLBORN ROAD – 100' R.O.W.) MARKING A NORTHWESTERLY CORNER OF SAID REMAINDER OF 33.70 ACRE TRACT AND THE SOUTHWEST CORNER OF A CALLED 2.00 ACRE TRACT AS DESCRIBED BY A DEED TO CARL DAVID HATTAWAY AND WIFE, GWENDOLYN S. HATTAWAY RECORDED IN VOLUME 1220, PAGE 64 OF THE OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS;

**THENCE:** N 80° 51' 19" E ALONG THE COMMON LINE OF SAID REMAINDER OF SAID 33.70 ACRE TRACT AND SAID 2.00 ACRE TRACT FOR A DISTANCE OF 212.01 FEET, FOR REFERENCE A 1/2 INCH IRON ROD FOUND MARKING THE SOUTHEAST CORNER OF SAID 2.00 ACRE TRACT BEARS: N 80° 51' 19" E FOR A DISTANCE OF 205.85 FEET;

**THENCE:** S 10° 52' 15" E THROUGH SAID REMAINDER OF 33.70 ACRE TRACT FOR A DISTANCE OF 643.33 FEET TO THE NORTHERLY LINE OF AN EXISTING 30.00 FOOT WIDE PIPELINE EASEMENT AS DESCRIBED IN VOLUME 508, PAGE 717 OF THE DEED RECORDS OF BRAZOS COUNTY, TEXAS;

**THENCE:** S 83° 51' 26" W CONTINUING THROUGH SAID REMAINDER OF 33.70 ACRE TRACT AND ALONG THE NORTHERLY LINE OF SAID PIPELINE EASEMENT FOR A DISTANCE OF 212.04 FEET TO THE EAST LINE OF FM 2154 MARKING THE SOUTHWEST CORNER OF THIS HEREIN DESCRIBED TRACT, FOR REFERENCE A 1/2 INCH IRON ROD FOUND ON THE EAST LINE OF FM 2154 MARKING A WEST CORNER OF SAID REMAINDER OF 33.70 ACRE TRACT AND THE NORTHWEST CORNER OF A CALLED 3.9934 ACRE TRACT AS DESCRIBED BY A DEED TO MICHAEL R. GEICK AND WIFE, LISA A. GEICK RECORDED IN VOLUME 2422, PAGE 92 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS, BEARS: S 10° 55' 27" E FOR A DISTANCE OF 185.78 FEET;

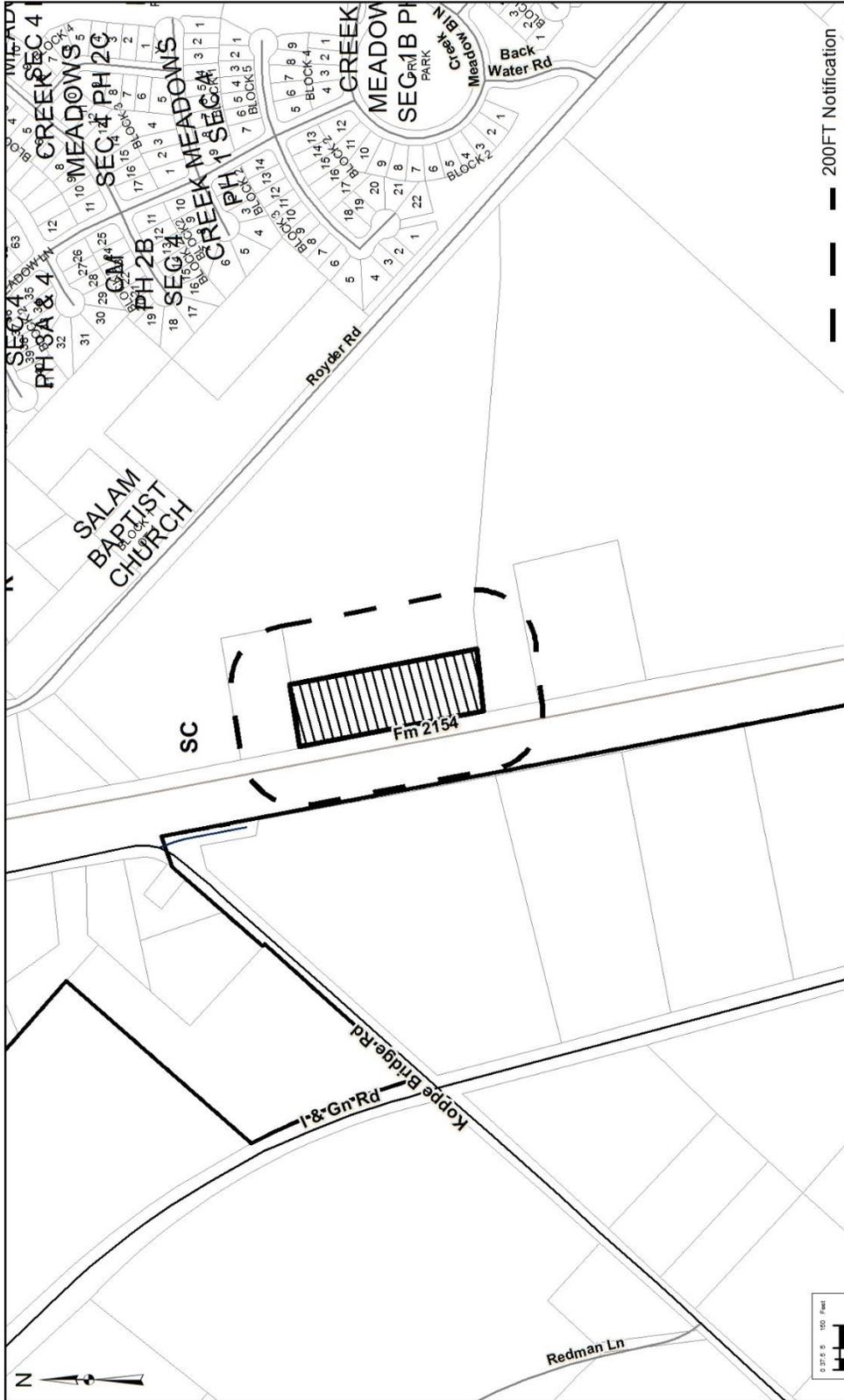
**THENCE:** N 10° 55' 27" W ALONG THE EAST LINE OF FM 2154 FOR A DISTANCE OF 632.24 FEET TO THE **POINT OF BEGINNING** CONTAINING 3.098 ACRES OF LAND, MORE OR LESS, AS SURVEYED ON THE GROUND JUNE 2014. BEARING SYSTEM SHOWN HEREIN IS BASED ON GRID NORTH AS ESTABLISHED FROM GPS OBSERVATION.

BRAD KERR  
REGISTERED PROFESSIONAL  
LAND SURVEYOR No. 4502

C:/WORK/MAB/15-805C.MAB



**EXHIBIT "B"**



Zoning Districts	200FT Notification
R - Rural	PDD - Planned Development District
E - Estate	WPC - Wolf Pen Creek Dev. Corridor
RS - Restricted Suburban	NG - 1 - Core Northgate
GS - General Suburban	NG - 2 - Transitional Northgate
R - 1B - Single Family Residential	OV - Residential Northgate
D - Duplex	OV - Corridor Overlay
T - Townhouse	RDD - Redevelopment District
	KO - Krenek Tap Overlay

<p><b>DEVELOPMENT REVIEW</b></p>	<p><b>WS 3 AC COMMERCIAL</b></p>
<p><b>Case: REZ2016-000004</b></p>	
<p><b>REZONING</b></p>	





## Legislation Details (With Text)

<b>File #:</b>	16-0226	<b>Version:</b>	1	<b>Name:</b>	Rezoning – 209 University Drive East
<b>Type:</b>	Rezoning	<b>Status:</b>		<b>Status:</b>	Agenda Ready
<b>File created:</b>	4/14/2016	<b>In control:</b>		<b>In control:</b>	City Council Regular
<b>On agenda:</b>	4/28/2016	<b>Final action:</b>		<b>Final action:</b>	
<b>Title:</b>	Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from O Office to GC General Commercial for approximately 1/2 acre being Lots 1 and 2 less 5 feet, Block A for the College Heights Subdivision of the Official Records of Brazos County, College Station, Texas, generally located at 209 University Drive, more generally located at the northwest corner of University Drive East and Eisenhower Street.				
<b>Sponsors:</b>	Mark Bombek				
<b>Indexes:</b>					
<b>Code sections:</b>					
<b>Attachments:</b>	<a href="#">Background</a> <a href="#">Aerial and Small Area Map</a> <a href="#">Ordinance</a>				

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas by changing the zoning district boundaries from O Office to GC General Commercial for approximately 1/2 acre being Lots 1 and 2 less 5 feet, Block A for the College Heights Subdivision of the Official Records of Brazos County, College Station, Texas, generally located at 209 University Drive, more generally located at the northwest corner of University Drive East and Eisenhower Street.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation(s): The Planning and Zoning Commission considered this item on April 7, 2016 and voted 7-0 to recommend approval.

Summary: The applicant is requesting a GC General Commercial zoning on approximately one half acre to create opportunity for a commercial restaurant to develop. The site is currently developed as an office building.

The Unified Development Ordinance provides the following review criteria for zoning map

amendments:

## REVIEW CRITERIA

1. **Consistency with the Comprehensive Plan:** The subject area is designated as Urban on the Comprehensive Plan Future Land Use and Character Map and is also located within Redevelopment Area II. The redevelopment area designation was identified due to the property's proximity to one of the busiest of the city's corridors. Additionally, the underperforming land uses and small lot configuration have made it difficult to assemble land for redevelopment. Intense development consisting of high-density residential activities is allowed. General commercial and office uses, business parks, and vertical mixed-use activities may also be permitted when property is also within a growth or redevelopment area. Given the Urban designation and being within a redevelopment area, the proposed request is consistent with the Comprehensive Plan.
2. **Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:** The current zoning of O Office is compatible with the immediately adjacent properties and is consistent with the Comprehensive Plan designation of Urban. However, the proposed rezoning of GC General Commercial will allow more flexibility in the type of intense uses allowed that would support the proposed and existing development fronting University Drive East such as the hotel development that recently rezoned most of the property on this block. Under the current development guidelines, the property owner will be required to meet such standards related to landscaping, nonresidential architectural relief and others that will aid in allowing a more compatible development with the surrounding uses.
3. **Suitability of the property affected by the amendment for uses permitted by the district that would be made applicable by the proposed amendment:** A rezoning to GC General Commercial would be compatible with area redevelopment and meets the property owner's intention to redevelop the site for a commercial restaurant use. The surrounding area is currently experiencing an increase in redevelopment and interest to consolidate property to allow for the creation of sites that would retain a larger commercial use. The allowance of the proposed rezoning helps meet the demand for more intense commercial activity along the University Drive corridor.
4. **Suitability 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 only uses permitted by the existing district are for office-related uses. The property owner intends to utilize the property for commercial restaurant type uses, which is currently not a permitted use under the office zoning district. The existing office land use is suitable and is allowed within the General Commercial designation, but does not allow for more intense uses that would be appropriate along the University Drive Corridor.
5. **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 could remain O Office but allowing GC General Commercial would improve its marketability and consistency with the adjacent property fronting University Drive East.
6. **Availability of water, wastewater, stormwater, and transportation facilities generally suitable and adequate for the proposed use:** There is an existing 6-inch waterline along the west side of University Drive East and an existing 1-inch waterline along the south side of Eisenhower Street. The 1-inch waterline is proposed to be upsized per the Water Master Plan with the adjacent

development. Additionally, there is an existing 6-inch sanitary sewer line along the west side of University Drive East and an existing 8-inch sanitary sewer line along the north side of Eisenhower Street that are available to serve this tract. The subject property is located in the Burton Creek Drainage Basin but is not within a FEMA Special Flood Hazard Area. The tract is bordered on the south by University Drive East, a 6-lane major arterial, and Eisenhower Street, a local street, on the east. Access will be provided via a single drive to Eisenhower Street. Any proposed public infrastructure improvements must be designed and constructed in accordance with the BCS Unified Design Guidelines with site development. Public facilities appear to be adequate for the proposed use.

Budget & Financial Summary: N/A

Legal Review: Yes

Attachments:

1. Background Information
2. Aerial & Small Area Map (SAM)
3. Ordinance

**NOTIFICATIONS**

Advertised Commission Hearing Date: April 7, 2016  
 Advertised Council Hearing Date: April 28, 2016

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:

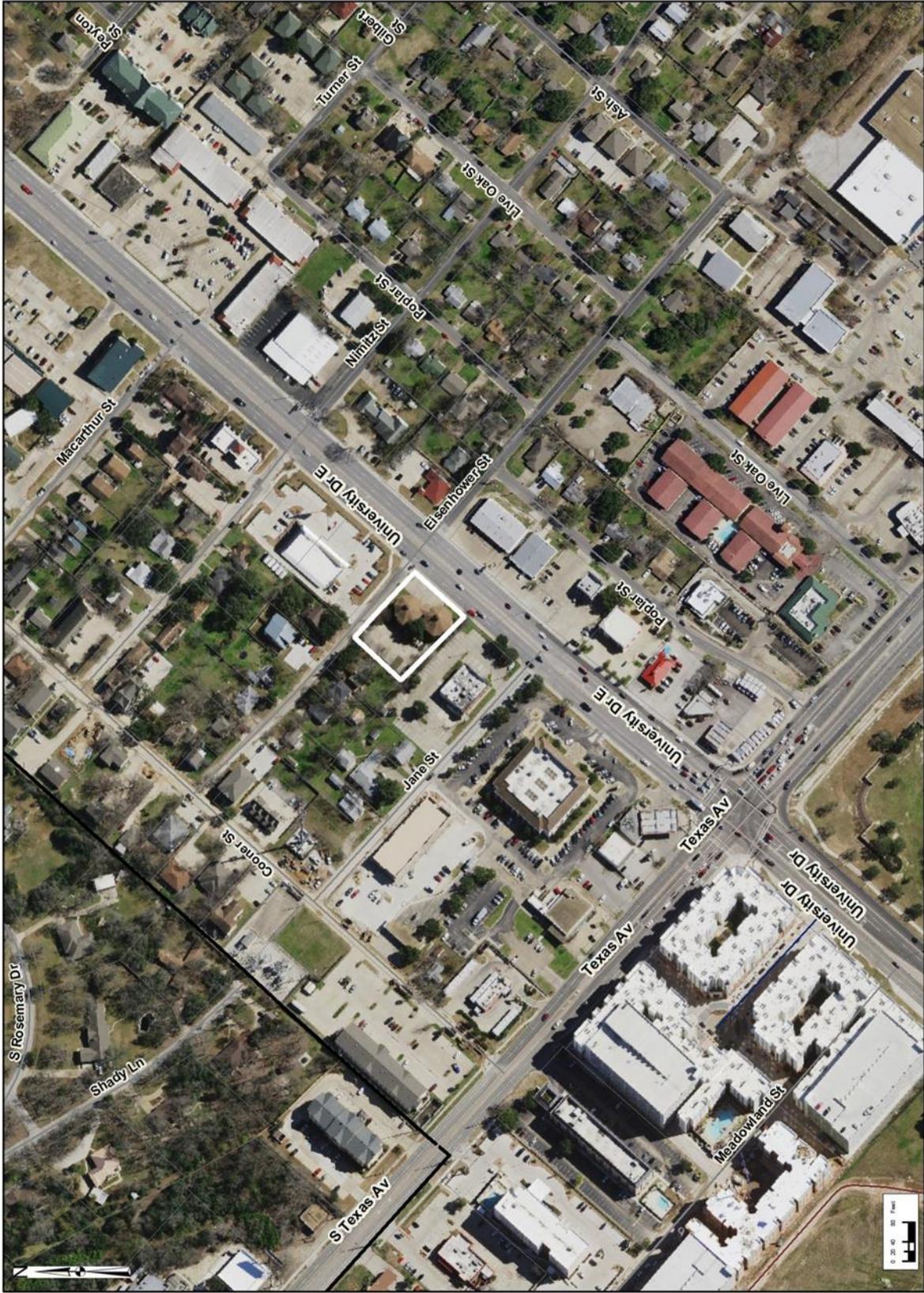
None  
 Property owner notices mailed: 19  
 Contacts in support: None  
 Contacts in opposition: None  
 Inquiry contacts: None

**ADJACENT LAND USES**

Direction	Comprehensive Plan	Zoning	Land Use
North	Urban & Redevelopment	PDD Planned Development District	Future Embassy Suites Site
South (Across University Dr.)	Urban & Redevelopment	GC General Commercial	Commercial
East (Across Eisenhower St.)	Urban & Redevelopment	GC General Commercial	Commercial-Retail
West	Urban & Redevelopment	PDD Planned Development District	Future Embassy Suites Site

**DEVELOPMENT HISTORY**

**Annexation:** 1939  
**Comprehensive Plan:** Urban and Redevelopment  
**Zoning:** C-1 General Commercial and R-3 Apartment Building District to A-P Administrative Professional (1976), A-P Administrative Professional renamed O Office (2013)  
**Final Plat:** College Heights Subdivision, Block A, Lots 1 and 2 less 5 feet.  
**Site development:** Office Building



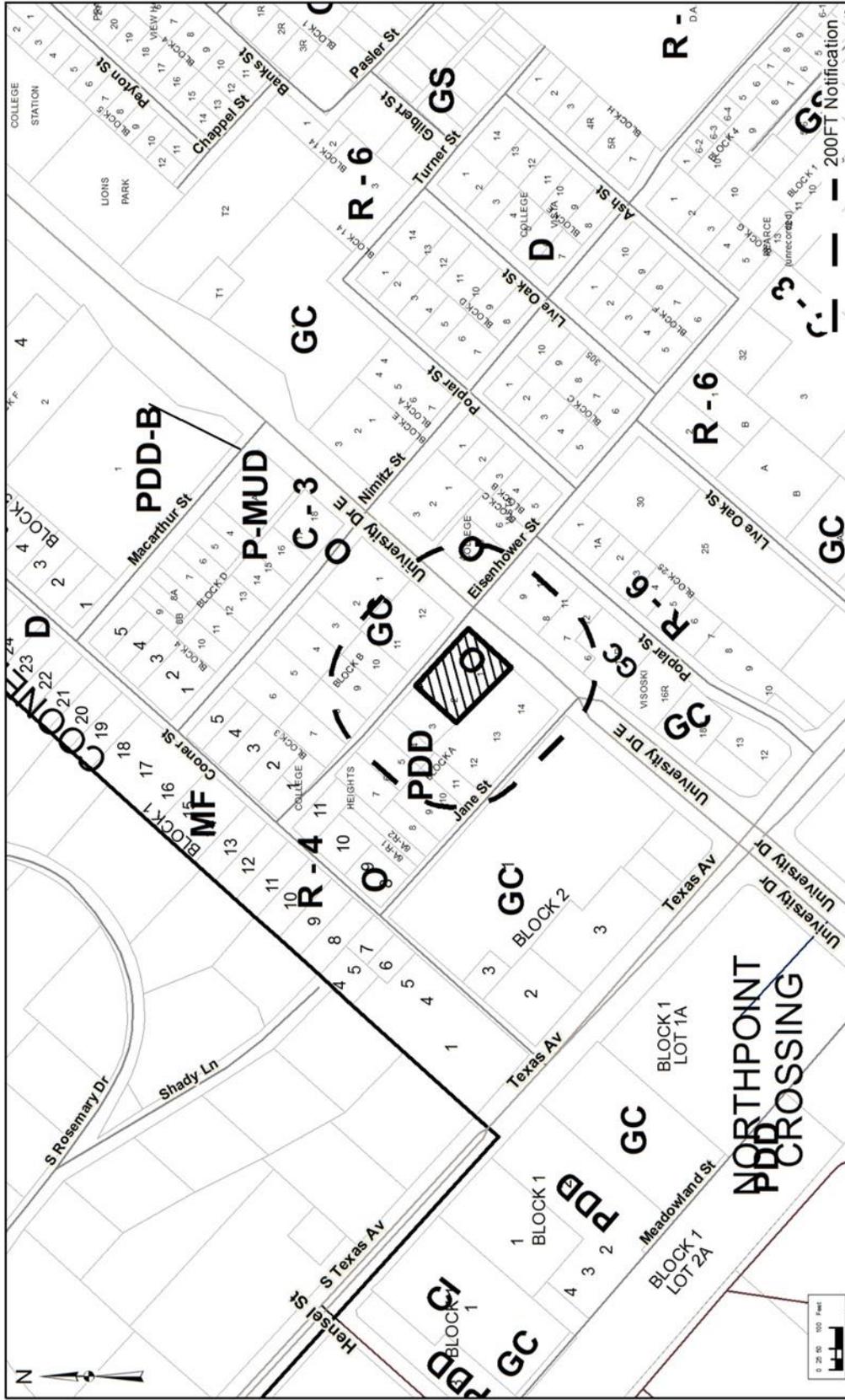
REZONING

Case:  
REZ2016-000010

COLLEGE HEIGHTS

DEVELOPMENT REVIEW





**Zoning Districts**

R	Rural	R-4	Multi-Family	BPI	Business Park Industrial	PDD	Planned Development District
E	Estate	R-6	High Density Multi-Family	NAP	Natural Areas Protected	WPC	Wolf Pen Creek Dev. Corridor
RS	Restricted Suburban	MHP	Manufactured Home Park	C-3	Light Commercial	NG-1	Core Northgate
GS	General Suburban	O	Office	M-1	Light Industrial	NG-2	Transitional Northgate
R-1B	Single Family Residential	SC	Suburban Commercial	M-2	Heavy Industrial	NG-3	Residential Northgate
D	Duplex	GC	General Commercial	C-U	College and University	OV	Corridor Overlay
T	Townhouse	CI	Commercial-Industrial	R & D	Research and Development	RDD	Redevelopment District
		BP	Business Park	P-MUD	Planned Mixed-Use Development	KO	Krenek Tap Overlay



**DEVELOPMENT REVIEW**

**COLLEGE HEIGHTS**

**REZONING**

Case: **REZ2016-000010**

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING CHAPTER 12, "UNIFIED DEVELOPMENT ORDINANCE," SECTION 12-4.2, "OFFICIAL ZONING MAP," OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY CHANGING THE ZONING DISTRICT BOUNDARIES FROM O OFFICE TO GC GENERAL COMMERCIAL FOR APPROXIMATELY 1/2 ACRE BEING LOTS 1 AND 2 LESS 5 FEET, BLOCK A FOR THE COLLEGE HEIGHTS SUBDIVISION OF THE OFFICIAL RECORDS OF BRAZOS COUNTY, COLLEGE STATION, TEXAS, GENERALLY LOCATED AT 209 UNIVERSITY DRIVE, MORE GENERALLY LOCATED AT THE NORTHWEST CORNER OF UNIVERSITY DRIVE EAST AND EISENHOWER STREET; 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 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, be amended as set out in Exhibit "A" and as shown graphically in Exhibit "B" and Exhibit "C", attached hereto and made a part of this ordinance for all purposes.
- PART 2: 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.
- PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PASSED, ADOPTED and APPROVED this 28<sup>th</sup> day of April, 2016

APPROVED:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

**EXHIBIT "A"**

That Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, is hereby amended as follows:

The following property is rezoned from O Office to GC General Commercial, as graphically depicted in Exhibit "B" and Exhibit "C".

**METES AND BOUNDS DESCRIPTION  
OF A  
0.565 ACRE TRACT  
COLLEGE HEIGHTS  
COLLEGE STATION, BRAZOS COUNTY, TEXAS**

METES AND BOUNDS DESCRIPTION OF ALL THAT CERTAIN TRACT OF LAND LYING AND BEING SITUATED IN COLLEGE STATION, BRAZOS COUNTY, TEXAS. SAID TRACT BEING LOT 1 AND A PORTION OF LOT 2, BLOCK A, COLLEGE HEIGHTS, ACCORDING TO THE PLAT RECORDED IN VOLUME 124, PAGE 259 OF THE DEED RECORDS OF BRAZOS COUNTY, TEXAS, AND BEING THE SAME TRACT OF LAND AS DESCRIBED BY A DEED TO MONOGRAMS/CS LLC RECORDED IN VOLUME 13070, PAGE 15 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS.

SAID TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

**BEGINNING** AT AN "X" FOUND IN CONCRETE ON THE NORTHWEST LINE OF UNIVERSITY DRIVE (FM 60 - VARIABLE WIDTH R.O.W.) AT THE INTERSECTION WITH THE SOUTHWEST LINE OF EISENHOWER STREET (50' R.O.W.) MARKING THE EAST CORNER OF SAID LOT 1;

**THENCE:** S 41° 26' 08" W ALONG THE NORTHWEST LINE OF UNIVERSITY DRIVE FOR A DISTANCE OF 137.36 FEET TO A 1/2 INCH IRON ROD FOUND MARKING THE EAST CORNER OF LOT 1, BLACK EYED PEA ADDITION, ACCORDING TO THE PLAT RECORDED IN VOLUME 1233, PAGE 531 OF THE OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS;

**THENCE:** N 45° 44' 38" W ALONG THE NORTHEAST LINE OF BLACK EYED PEA ADDITION FOR A DISTANCE OF 184.70 FEET TO A 1/2 INCH IRON ROD FOUND MARKING THE WEST CORNER OF SAID MONOGRAM/CS TRACT AND THE SOUTH CORNER OF A CALLED TRACT OF LAND DESCRIBED AS BEING A PORTION OF LOT 2 AND ALL OF LOT 3, BLOCK A, COLLEGE HEIGHTS, BY A DEED TO CS I HOTEL INVESTMENTS, LTD RECORDED IN VOLUME 12978, PAGE 222 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS;

**THENCE:** N 42° 06' 41" E THROUGH SAID LOT 2 AND ALONG THE NORTHWEST LINE OF SAID MONOGRAM/CS TRACT FOR A DISTANCE OF 130.58 FEET TO A 1/2 INCH IRON ROD SET ON THE SOUTHWEST LINE OF EISENHOWER STREET MARKING THE NORTH CORNER OF THIS HEREIN DESCRIBED TRACT, FOR REFERENCE A 5/8 INCH IRON ROD FOUND ON THE SOUTHWEST LINE OF EISENHOWER STREET MARKING THE NORTH CORNER OF SAID LOT 3 BEARS: N 47° 50' 47" W FOR A DISTANCE OF 84.89 FEET;

**THENCE:** S 47° 50' 47" E ALONG THE SOUTHWEST LINE OF EISENHOWER STREET FOR A DISTANCE OF 182.95 FEET TO THE **POINT OF BEGINNING** CONTAINING 0.565 OF AN ACRE OF LAND, MORE OR LESS, AS SURVEYED ON THE GROUND. BEARING SYSTEM SHOWN HEREIN IS BASED ON GRID NORTH AS ESTABLISHED FROM GPS OBSERVATION.

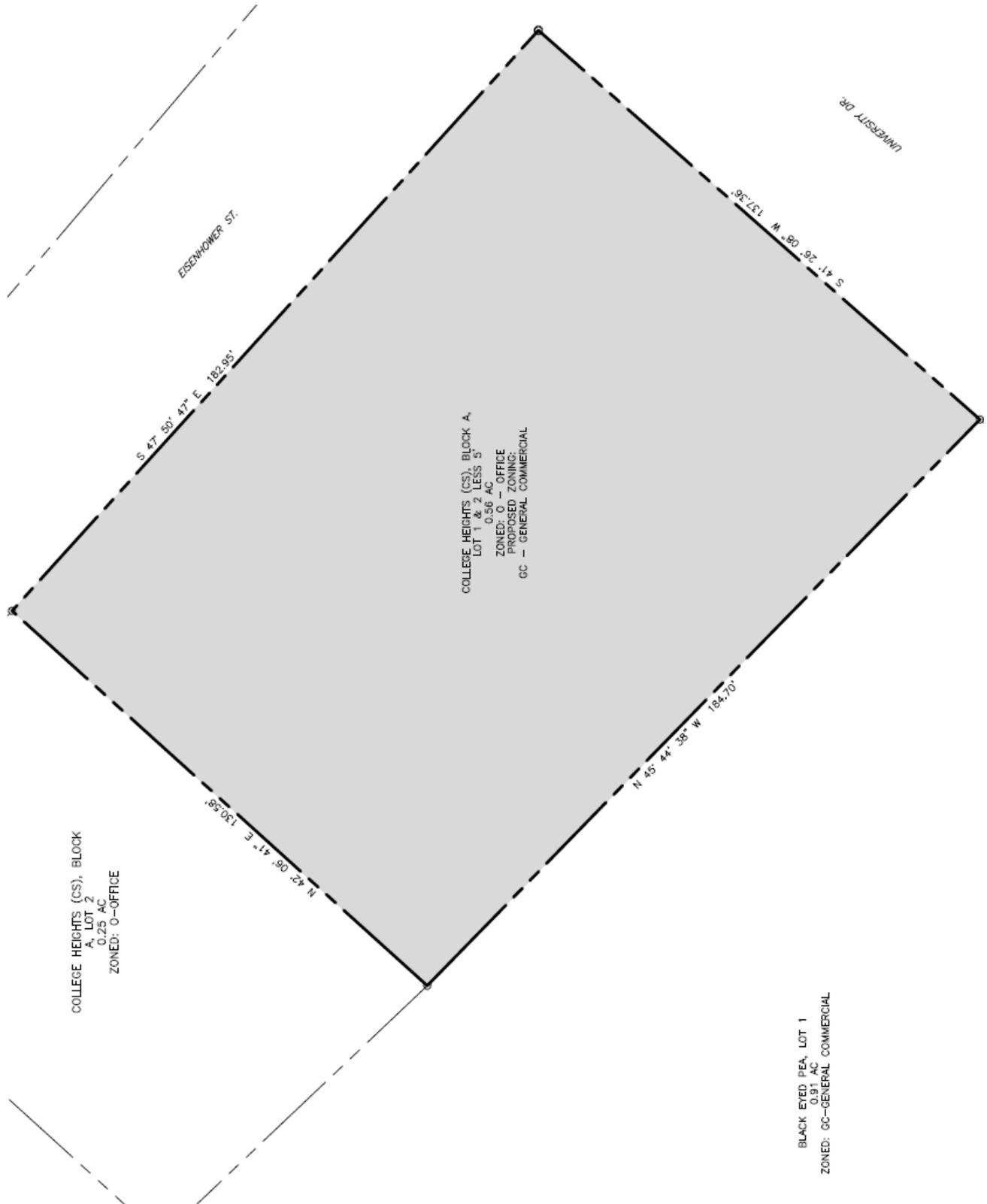
BRAD KERR  
REGISTERED PROFESSIONAL  
LAND SURVEYOR No. 4502

D:/WORK/MAB/16-032.MAB





### EXHIBIT "C"





## Legislation Details (With Text)

**File #:** 16-0227      **Version:** 1      **Name:** PDD Rezoning - 801 Wellborn Road

**Type:** Rezoning      **Status:** Agenda Ready

**File created:** 4/14/2016      **In control:** City Council Regular

**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "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 PDD Planned Development District for approximately 4.2566 acres being all of Lots 1, 2A, and 2B, Block A of the Petterak Subdivision and a 0.768 acre tract of land conveyed to Myrna Hughes (previous in chain), as described in deed recorded in Volume 889, Page 315 of the said Official Public Records, and further being that same tract of land conveyed to 803 Wellborn. Ltd. as described in deeds recorded in Volume 1375, Page 164, Volume 2515, Page 169, Volume 7667, Page 148, and Volume 11337, Page 184, all of the said Official Public Records of Brazos County, College Station, Texas, generally located at 801 Wellborn Road, more generally located at the southeast corner of Wellborn Road and Luther Street.

**Sponsors:** Mark Bombek

**Indexes:**

**Code sections:**

**Attachments:** [Background](#)  
[Aerial and Small Area Map](#)  
[Ordinance](#)

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending Chapter 12, "Unified Development Ordinance," Section 12-4.2, "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 PDD Planned Development District for approximately 4.2566 acres being all of Lots 1, 2A, and 2B, Block A of the Petterak Subdivision and a 0.768 acre tract of land conveyed to Myrna Hughes (previous in chain), as described in deed recorded in Volume 889, Page 315 of the said Official Public Records, and further being that same tract of land conveyed to 803 Wellborn. Ltd. as described in deeds recorded in Volume 1375, Page 164, Volume 2515, Page 169, Volume 7667, Page 148, and Volume 11337, Page 184, all of the said Official Public Records of Brazos County, College Station, Texas, generally located at 801 Wellborn Road, more generally located at the southeast corner of Wellborn Road and Luther Street.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

Recommendation(s): The Planning and Zoning Commission considered this item on April 7, 2016 and voted 7-0 to recommend approval.

Summary: : The applicant is requesting a PDD Planned Development District zoning on approximately four acres to create a development that has a mix of uses being Multi-Family and a commercial restaurant. The site is currently developed with a building housing some commercial retail space. The PDD uses a base zoning district of MU Mixed Use and GC General Commercial and aims to make some development characteristics conforming such as setbacks, and buffer requirements.

The Unified Development Ordinance provides the following review criteria for zoning map amendments:

## REVIEW CRITERIA

- 1. Consistency with the Comprehensive Plan:** The Comprehensive Plan Future Land Use and Character Map designates the subject property as General Commercial and Urban. These properties were included in the Southside Area Neighborhood Plan and it was agreed that General Commercial and Urban uses were appropriate. The subject area is across Luther from Urban Redevelopment and is at the edge of Growth Area VI, which calls for a very intense level of development activity tending to consist of townhouses, duplexes, and apartments. Within this growth area, the entire area designation is to also include commercial, office, business park, and vertical mixed uses. A mix of apartments and commercial uses on the property, and possibly a mixed use structure would be consistent with the spirit of the plan.
- 2. Compatibility with the present zoning and conforming uses of nearby property and with the character of the neighborhood:** Much of the property in the immediate vicinity is zoned as GS General Suburban for single-family residential developments and R-6 High Density Multi-Family. The proposed PDD includes more intense land uses, which the Comprehensive Plan anticipates with the Urban designation including High-Density Multi-Family with potential for commercial services incorporated as a vertical mixed-use, and a freestanding commercial restaurant.
- 3. Suitability of the property affected by the amendment for uses permitted by the districts that would be made applicable by the proposed amendment:** Considering the current Comprehensive Plan designation, the property is illustrated with Urban and General Commercial land uses. The requested PDD includes uses that the Comprehensive Plan anticipates as being suitable for this area over the 20-year Plan horizon.
- 4. Suitability 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 subject property is currently zoned as GC General Commercial and GS General Suburban. The current zoning districts are suitable for the property given the current development pattern of nearby property. However, it is not suitable for the anticipated future growth. Additionally, the applicant is looking to move forward with a Multi-Family development that is currently not allowed in either of the two zoning districts.
- 5. 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

currently be marketed under the current zoning with permitted General Commercial and Single-Family residential uses. However, the applicant has noted that the new request to change the current zoning of the property to allow a more intense level of Multi-Family residential and General Commercial activities will help increase the marketability and development of the property.

- 6. Availability of water, wastewater, stormwater, and transportation facilities generally suitable and adequate for the proposed use:** A two inch water line connected to an eight inch line along Luther Street currently serves the property. There is a 6-inch inch water line near the southeast side of the property. Wastewater is currently served by a 6-inch line on the property. Downstream wastewater improvements are needed for the proposed use and are currently under design by the applicant. Drainage is generally to the east within the Bee Creek drainage basin. All utilities shall be designed in accordance with the BCS Unified Design Guidelines at the time of platting and site development. The site fronts Wellborn Road (FM 2154) being a proposed 6-Lane Major Arterial and Luther Street a 2-Lane Minor Collector. As shown in the Concept Plan the site will be taking direct access to Luther Street and Lonnie Lane, a private driveway serving the multi-family development behind the subject property.

## SUMMARY OF PDD AND CONCEPT PLAN

The Concept Plan provides an illustration of the general layout of the proposed building and parking areas as well as other site related features. 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:

The applicant has provided the following information related to the purpose and intent of the proposed zoning district:

“The purpose and intent of the zoning is to consolidate and redevelop properties for a multi-family and residential use with structured and surface parking. The multi-family use is consistent with the surrounding properties, and a family-friendly restaurant will be provided.”

The applicant proposes to utilize GC General Commercial, and MU Mixed Use as the base, underlying zoning districts, as applicable. The range of future building heights is proposed to be in compliance with the Easterwood Airport height restrictions.

At the time of plat and site plan, the project will need to meet all applicable standards required by the Unified Development Ordinance. Through the PDD, the applicant's request for the following meritorious modifications are an effort to provide flexibility with the development and allow for the creation of a unified and cohesive project:

- **UDO Section 12-7.7 F "Minimum Buffer Standards,"** As shown on the Concept Plan, the applicant is requesting that no 10- foot buffer be required between the Commercial and Multi-Family developments in order to promote a single development feel with open access between the uses. Generally a 10-foot buffer and a fence is required when there is Multi-Family adjacent to General Commercial uses. In order to provide adequate fire access and allow for the appearance

of a uniform development, the applicant is asking this requirement be removed.

- **UDO Section 12-5.4 "Non-Residential Dimensional Standards"** For the restaurant use, the front setback will be consistent with the mixed-use setback to more closely maintain a consistent building line throughout the development. In the General Commercial zoning district there is a minimum 25-foot front building setback. The applicant is asking to have the Mixed-Use dimensional standards apply in that the building would not have a minimum front setback, but would have a maximum building setback of 15- feet. Again this is to aid in allowing for a more unified development and to provide a more consistent building line along Wellborn Road. In addition to the maximum 15-foot building setback the development was also designed with future improvements to Wellborn Road in mind. The Concept Plan indicates a 20 foot buffer for future right-of-way dedication, which would have been difficult to obtain for future improvements to the roadway had the applicant not accounted for it.
- **UDO Section 12-7.13 "Traffic Impact Analysis"** The proposed zoning would generate approximately 194 peak hour trips. The current zoning would generate approximately 198 peak hour trips. The applicant has requested that the traffic impact analysis be deferred to the site planning stage since the potential traffic generation is not being increased with the proposed zoning change. A traffic impact analysis would be required for the entire development with the site plan application for the first phase of the development.

The Unified Development Ordinance provides the following review criteria for 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:** The Concept Plan proposes a mix of multi-family and commercial uses. As designated in the Comprehensive Plan, the subject property is proposed as Urban and General Commercial and lying at the perimeter of Growth Area VI. An environment with a mix of uses potentially allows better opportunities for residents to shop, dine, and potentially work where they live, thus reducing traffic on nearby streets and encouraging a more walkable environment. The proximity to Texas A&M University and the bike lanes and sidewalks along Wellborn Road provide increased opportunities to encourage pedestrian and bicycle accessibility throughout the development and to the larger 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:** The proposed Concept Plan is in general conformity with the policies, goals, and objectives of the Comprehensive Plan. The Future Land Use and Character Map designates this area for Urban uses, including multi-family, and commercial, which is what is proposed.
3. **The proposal is compatible with existing or permitted uses on abutting sites and will not adversely affect adjacent development:** The proposed development is bordered by Multi-Family directly behind the property and also across Wellborn Road, and a City Park to the southeast. The addition of Multi-Family in this area meets the expectations of the Comprehensive Plan and works to provide additional services to nearby residents and park visitors.
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:** The proposed development includes access to Luther Street and Lonnie Lane. The multi-family units and commercial uses will access these roadways through a network of private

drive aisles as depicted on the Concept Plan.

5. **The development includes provision of adequate public improvements, including, but not limited to, parks, schools, and other public facilities:** There is currently a Capital Improvements Project that is constructing the portion of the sidewalk along Wellborn Road in front of this development. This along with internal sidewalk connections, will help facilitate bike and pedestrian transportation in the area.
6. **The development will not be detrimental to the public health, safety, welfare, or materially injurious to properties or improvements in the vicinity:** The development will not be detrimental to the public health, safety, welfare, or materially injurious to properties or improvements in the vicinity.
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:** As mentioned earlier, the proposed zoning would generate approximately 194 peak hour trips. The current zoning would generate approximately 198 peak hour trips. The applicant has requested that the traffic impact analysis be deferred to the site planning stage since the potential traffic generation is not being increased with the proposed zoning change. A traffic impact analysis would be required for the entire development with the site plan application for the first phase of the development.

Budget & Financial Summary: N/A

Legal Review: Yes

Attachments:

1. Background Information
2. Aerial & Small Area Map (SAM)
3. Ordinance

**NOTIFICATIONS**

Advertised Commission Hearing Date: April 7, 2016  
 Advertised Council Hearing Dates: April 28, 2016

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:

Lincoln Center HOA

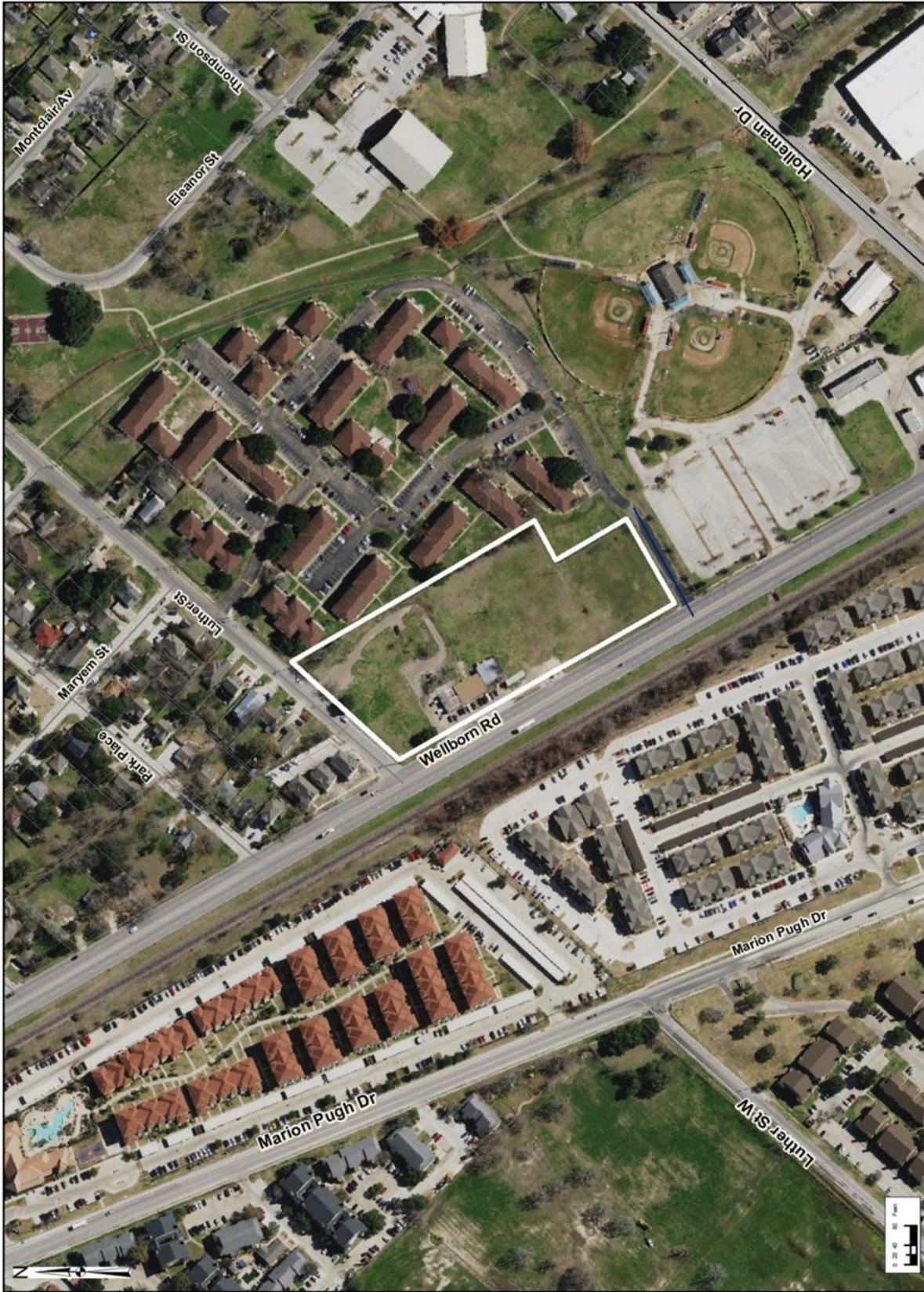
Property owner notices mailed: 17  
 Contacts in support: None  
 Contacts in opposition: None  
 Inquiry contacts: One

**ADJACENT LAND USES**

<b>Direction</b>	<b>Comprehensive Plan</b>	<b>Zoning</b>	<b>Land Use</b>
<b>North</b> (across Luther Street)	Urban & Redevelopment	GS General Suburban	Single-Family Residential
<b>South</b> (Across Lonnie Lane)	Natural Areas Protected	GS General Suburban and R-6 High Density Multi-Family	City Park/ Baseball Fields
<b>East</b>	Urban	R-6 High Density Multi-Family	Apartments
<b>West</b> (Across Wellborn Road)	Urban	R-6 High Density Multi-Family	Apartments

**DEVELOPMENT HISTORY**

**Annexation:** 1950  
**Zoning:** A portion C-1 General Commercial (1973), renamed GC General Commercial (2013).  
**Final Plat:** A portion is platted being all of Lots 1, 2A, and 2B, Block A of the Petterak Subdivision and a 0.768 acre un-platted tract of land  
**Site development:** Retail on a portion. The remaining property is undeveloped.



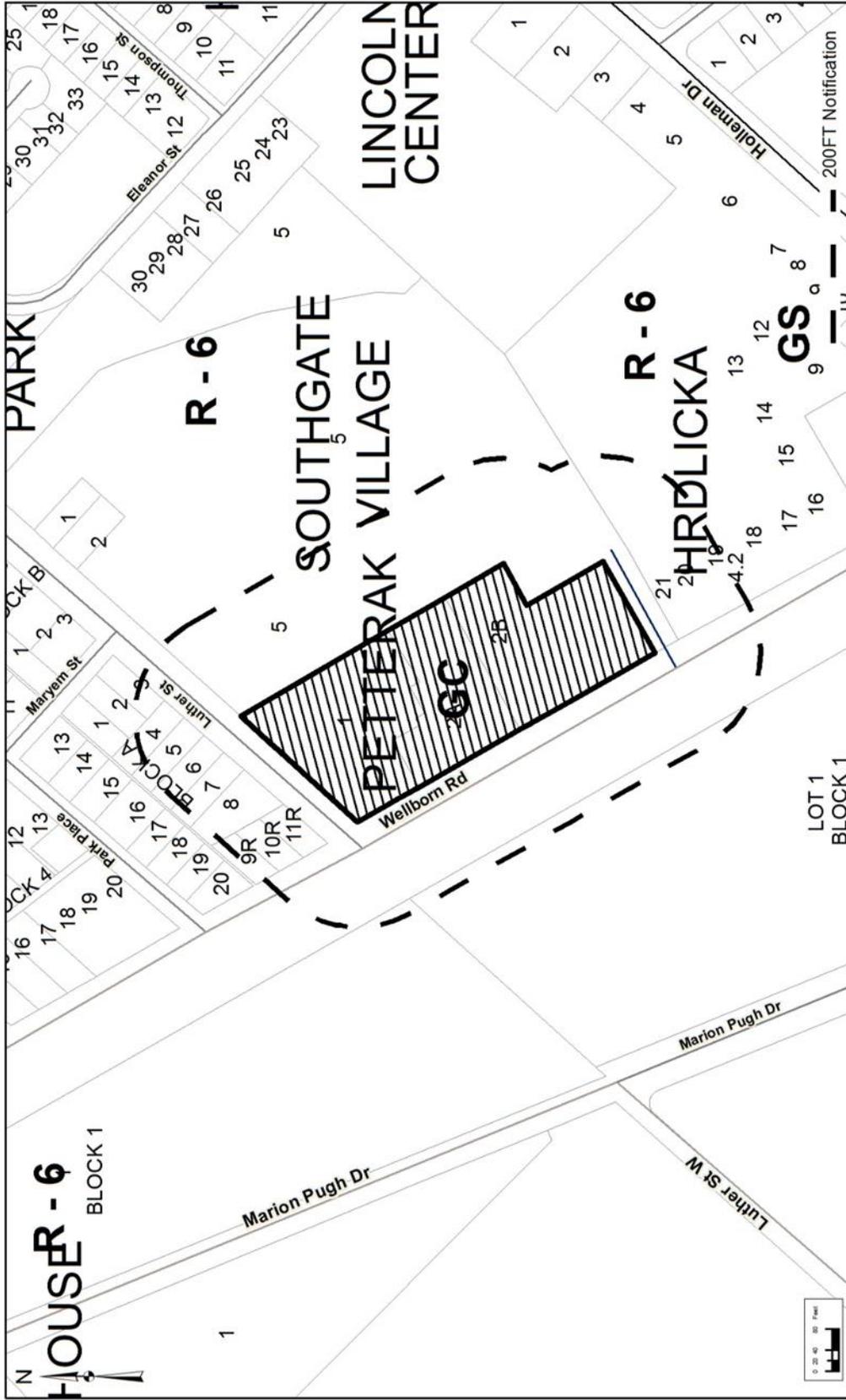
REZONING

Case:  
REZ2016-000002

801 WELLBORN RD

DEVELOPMENT REVIEW





**Zoning Districts**

R	Rural	R - 4	Multi-Family	BPI	Business Park Industrial	PDD	Planned Development District
E	Estate	R - 6	High Density Multi-Family	NAP	Natural Areas Protected	WPC	Wolf Pen Creek Dev. Corridor
RS	Restricted Suburban	MHP	Manufactured Home Park	C - 3	Light Commercial	NG - 1	Core Northgate
GS	General Suburban	O	Office	M - 1	Light Industrial	NG - 2	Transitional Northgate
R - 1B	Single Family Residential	SC	Suburban Commercial	M - 2	Heavy Industrial	NG - 3	Residential Northgate
D	Duplex	GC	General Commercial	C - U	College and University	OV	Corridor Overlay
T	Townhouse	CI	Commercial-Industrial	R & D	Research and Development	RDD	Redevelopment District
		BP	Business Park	P-MUD	Planned Mixed-Use Development	KO	Krenek Tap Overlay

	<b>REZONING</b>
<b>DEVELOPMENT REVIEW</b>	<b>Case:</b> REZ2016-000002
<b>801 WELLBORN RD</b>	

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING CHAPTER 12, "UNIFIED DEVELOPMENT ORDINANCE," SECTION 12-4.2, "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 PDD PLANNED DEVELOPMENT DISTRICT FOR APPROXIMATELY 4.2566 ACRES BEING ALL OF LOTS 1, 2A, AND 2B, BLOCK A OF THE PETTERAK SUBDIVISION AND A 0.768 ACRE TRACT OF LAND CONVEYED TO MYRNA HUGHES (PREVIOUS IN CHAIN), AS DESCRIBED IN DEED RECORDED IN VOLUME 889, PAGE 315 OF THE SAID OFFICIAL PUBLIC RECORDS, AND FURTHER BEING THAT SAME TRACT OF LAND CONVEYED TO 803 WELLBORN. LTD. AS DESCRIBED IN DEEDS RECORDED IN VOLUME 1375, PAGE 164, VOLUME 2515, PAGE 169, VOLUME 7667, PAGE 148, AND VOLUME 11337, PAGE 184, ALL OF THE SAID OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, COLLEGE STATION, TEXAS, GENERALLY LOCATED AT 801 WELLBORN ROAD, MORE GENERALLY LOCATED AT THE SOUTHEAST CORNER OF WELLBORN ROAD AND LUTHER STREET; 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 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, be amended as set out in Exhibit "A", as described in Exhibit "B", as shown graphically in Exhibit "C", and as shown on the Concept Plan in Exhibit "D", attached hereto and made a part of this ordinance for all purposes.

PART 2: That if any provisions of any section of this ordinance shall be held to be void or unconstitutional, such holding shall in no way effect the validity of the remaining provisions or sections of this ordinance, which shall remain in full force and effect.

PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PASSED, ADOPTED and APPROVED this 28<sup>st</sup> day of April, 2016

APPROVED:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

**EXHIBIT "A"**

That Chapter 12, "Unified Development Ordinance," Section 12-4.2, "Official Zoning Map," of the Code of Ordinances of the City of College Station, Texas, is hereby amended as follows:

The following property is rezoned from GC General Commercial and GS General Suburban to PDD Planned Development District, as described in EXHIBIT "B," as graphically depicted in EXHIBIT "C", and as shown on the Concept Plan in EXHIBIT "D":

*Thomas Land Surveying*  
Surveying • Planning • Project Management

August 21, 2015

4.2566 Acres

Fieldnotes for 4.2566 acres of land out of the Crawford Burnett League, Abstract No. 7 in Brazos County, Texas, being all of Lot 1, Lot 2A and Lot 2B, Block A of Petterak Subdivision, the map or plat thereof recorded in Volume 800, Page 171 of the Official Public Records of Brazos County, and all of that certain 0.768 acre tract of land conveyed to Myrna Hughes (previous in chain), as described in deed recorded in Volume 889, Page 315 of the said Official Public Records, and further being that same tract of land conveyed to 803 Wellborn, Ltd., as described in deeds recorded in Volume 1375, Page 164, Volume 2515, Page 169, Volume 7667, Page 148, and Volume 11337, Page 184, all of the said Official Public Records, said 4.2566 acre tract of land being more particularly described by metes and bounds as follows:

BEGINNING at a 5/8 inch steel rod with cap set in the Northeast line of F.M. Hwy. No. 2154 (aka Wellborn Road), at its intersection with the Southeast line of Luther Road, said point being the most Westerly corner of said Lot 1, Block A and the herein described tract;

Thence, North 44°22'00" East, 299.22 feet with the Southeast line of said Luther Street and the Northwest line of said Block A to a 1/2 inch steel rod (control monument) found marking the most Northerly or Northeast corner of said Block A and the herein described tract, said point also being the most Westerly corner of Southgate Village, the map or plat thereof recorded in Volume 286, Page 698 of the said Official Public Records;

Thence, South 27°52'00" East, 577.65 feet with the Southwest line of said Southgate Village and the Northeast line of said Block A to a 5/8 inch steel rod with cap set for an exterior ell corner of the herein described tract, said point being the most Easterly corner of said Lot 2B, Block A, said point also being an interior ell corner of said Southgate Village;

Thence, South 63°44'09" West, 91.41 feet with the common line of said Southgate Village and said Block A to a 5/8 inch steel rod with cap set at an interior ell corner of the herein described tract, said point being an exterior ell corner of said Southgate Village, said point also being the most Northerly corner of the said 0.768 acre tract, from which point, a 1/2 inch steel rod bears South 59°40' East, 1.9 feet;

Thence, South 27°43'04" East, 168.10 feet with the Southwest line of said Southgate Village and the Northeast line of the said 0.768 acre tract to a 1/2 inch steel rod (control monument) found marking the most Easterly or Southeast corner of the herein described tract, said point being an interior ell corner of said Southgate Village;

Thence, South 62°42'30" West, 199.67 feet with the Southeast line of the said 0.768 acre tract and the common line of said Southgate Village to a 5/8 inch steel rod with cap set in the Northeast line of said Wellborn Road for the most Southerly or Southwest corner of the said 0.768 acre tract and the herein described tract, said point being an exterior ell corner of said Southgate Village;

**EXHIBIT “B”**

**General:** The proposed Concept Plan allows the existing use to expand. The applicant provides the following background information for the proposed zoning request.

“The purpose of the Planned Development District is to promote and encourage innovative commercial development that is sensitive to surrounding land uses near the Southside neighborhood while catering to the development needs close to Texas A&M University’s Main Campus. This District intends to provide a more dense residential development that is anticipated for the area while also providing potential commercial opportunities that would serve residents and visitors of the City of College Station”.

**Modifications Requested:** MU Mixed-Use and GC General Commercial is proposed as the base zoning districts with the following modifications. All other standards not expressly requested and approved will meet the standards of the respective zoning districts:

Section 12-7.7 Buffer Requirements - The changes to this section are as follows:

- **Applicability:**  
A buffer shall only be required along the back perimeter of the commercial building site where the property abuts an area zoned for single-family residential use. A buffer will not be required along the internal boundary between the Multi-Family and commercial building internal to the site in order to maintain a unified and cohesive development.

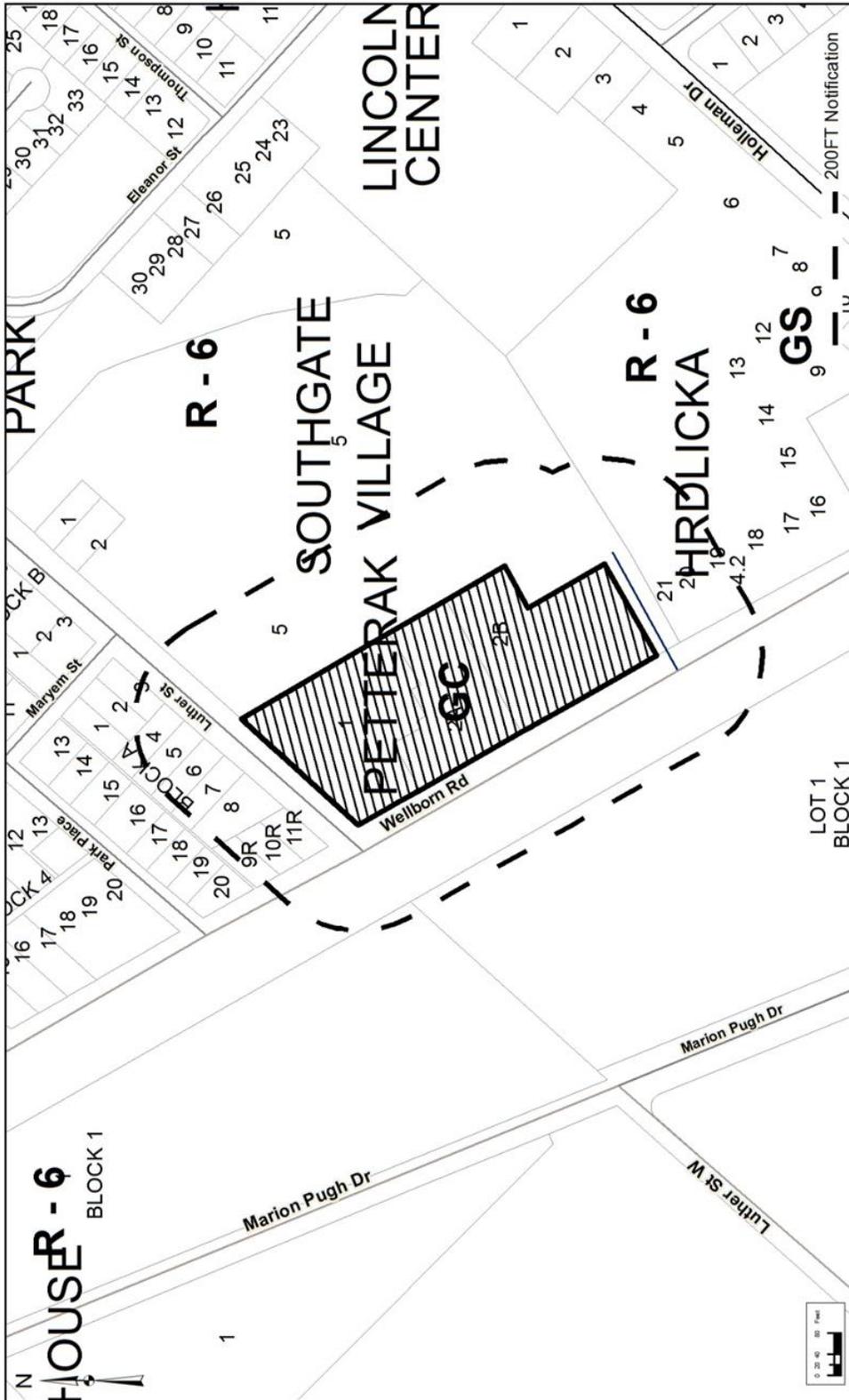
Section 12-5.4 "Non-Residential Dimensional Standards –

- **Applicability:**  
For the restaurant use, the front setback will be consistent with the MU Mixed-Use zoning district setback to more closely maintain a consistent building line along Wellborn Road. The commercial zoning district base will use a minimum 0-foot front setback and a maximum 15-foot front setback.

Section 12-7.13 “Traffic Impact Analysis –

- If the project triggers the threshold requiring a Traffic Impact Analysis, the applicant is required to address this with the site plan of the first phase of the development which will review the entire project and not each individual phase.

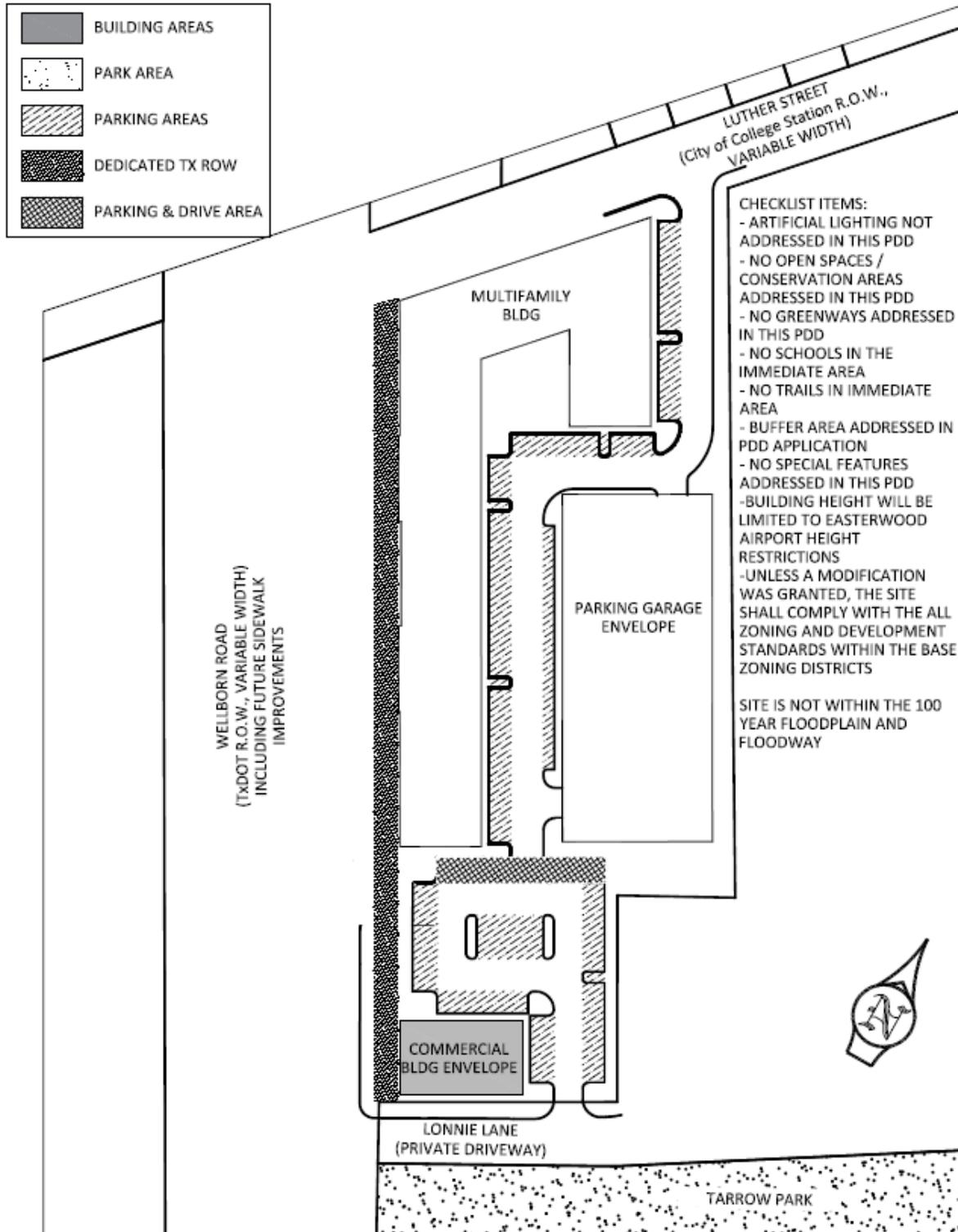
EXHIBIT "C"



<b>Zoning Districts</b>	R - 4 R - 6 MHP O SC GC CI BP	Multi-Family High Density Multi-Family Manufactured Home Park Office Suburban Commercial General Commercial Commercial-Industrial Business Park	BPI NAP C-3 M-1 M-2 C-U R&D P-MUD	Business Park Industrial Natural Areas Protected Light Commercial Light Industrial Heavy Industrial College and University Research and Development Planned Mixed-Use Development	PDD WPC NG-1 NG-2 NG-3 OV RDD KO	Planned Development District Wolf Pen Creek Dev. Corridor Core Northgate Transitional Northgate Residential Northgate Corridor Overlay Redevelopment District Krenek Tap Overlay
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	<b>DEVELOPMENT REVIEW</b>	<b>801 WELLBORN RD</b>	Case: <b>REZ2016-000002</b>	<b>REZONING</b>
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### EXHIBIT "D" CONCEPT PLAN



STILLWATER WELLBORN: 801, 803, 811 & 813 WELLBORN ROAD PETERRAK, BLOCK A, LOT 1, 2A, 2B AND 3	STILLWATER WELLBORN, LLC 214-723-6063 4145 TRAVIS STREET, SUITE 300 DALLAS, TX 75204	JOHNSON & PACE INCORPORATED 979-485-2844 111 UNIVERSITY DR. EAST, SUITE 215 COLLEGE STATION, TX 77840	SITE INFORMATION: TOTAL ACRES = 4.2566
<b>03/23/2016</b>			



## Legislation Details (With Text)

**File #:** 16-0228      **Version:** 1      **Name:** Right-of-Way Abandonment – 600 Maryem Street

**Type:** Ordinance      **Status:** Agenda Ready

**File created:** 4/14/2016      **In control:** City Council Regular

**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.0506 acre portion of a 15-foot width alley right-of-way, said portion lying between Lots 1, 2 and 3 & Lot 7, Block 4, of the West Park Addition, according to the plat recorded in Volume 102, Page 198, 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
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Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.0506 acre portion of a 15-foot width alley right-of-way, said portion lying between Lots 1, 2 and 3 & Lot 7, Block 4, of the West Park Addition, according to the plat recorded in Volume 102, Page 198, of the Deed Records of Brazos County, Texas.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

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

Summary: The Right-of-Way abandonment will accommodate future development of the property. As written, this Right-of-Way Abandonment proposes to vacate and abandon the subject portion of a 15-foot alley, while retaining a Public Utility Easement to cover existing and future public utilities. An additional Public Utility Easement width of 7.5 feet is being required on Lot 7 along the common boundary. The City is retaining the easement, as noted, in combination with the additional 7.5-foot PUE will continue sufficient public and private utilities coverage. If any of these conditions and future dedications are not met, the abandonment will be null and void.

The 0.0506 acre portion of the 15-foot wide alley right-of-way is located between Lots 1, 2 and 3 & Lot 7, Block 4, of the West Park Addition, according to the plat recorded in Volume 102, Page 198, of

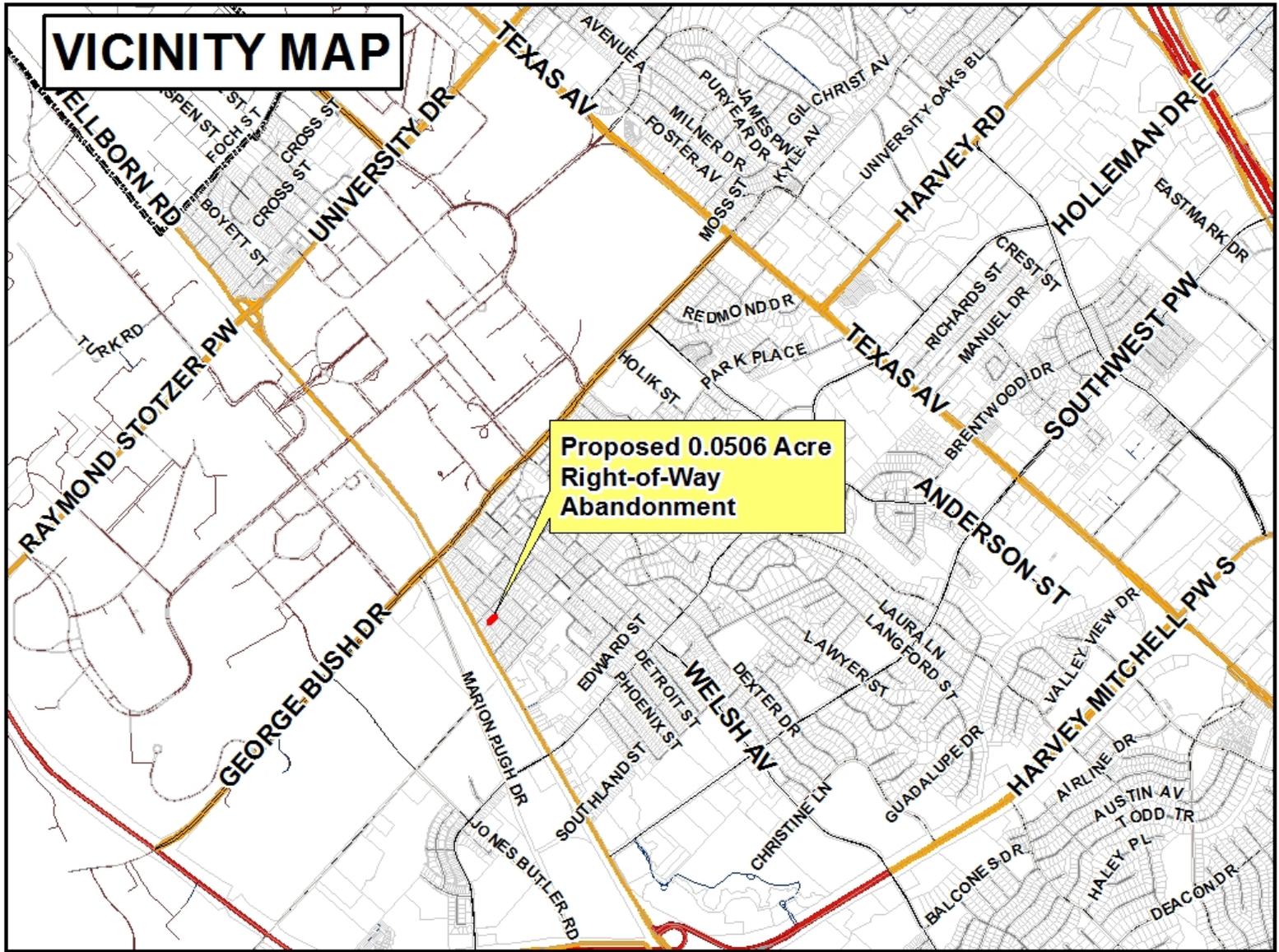
the Deed Records of Brazos County, Texas.

Reviewed and Approved by Legal: Yes

Budget & Financial Summary: N/A

Attachments:

1. Vicinity Map
2. Location Map
3. Ordinance
4. Exhibit "A"





ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE MAKING CERTAIN AFFIRMATIVE FINDINGS AND VACATING AND ABANDONING A 0.0506 ACRE PORTION OF A 15-FOOT WIDTH ALLEY RIGHT-OF-WAY, SAID PORTION LYING BETWEEN LOTS 1, 2 AND 3 AND LOT 7, BLOCK 4, OF THE WEST PARK ADDITION, ACCORDING TO THE PLAT RECORDED IN VOLUME 102, PAGE 198 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 0.0506 acre portion of a 15-foot width Alley Right-of-Way, said portion lying between Lots 1, 2 and 3 & Lot 7, Block 4, of the West Park Addition, according to the plat recorded in Volume 102, Page 198, 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 the 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 Alley 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 is 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;

PART 2: That the Right-of-Way as described in Exhibit "A" be abandoned and vacated by the City.

1. The City shall retain a public utility easement on the area to be abandoned;
2. An additional 7.5-foot wide Public Utility Easement will be dedicated on Lot 7, Block 4, West Park Addition along the length of the aforementioned alley as part of this abandonment;

PASSED, ADOPTED and APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

APPROVED:

\_\_\_\_\_  
Nancy Berry, Mayor

ATTEST:

\_\_\_\_\_  
SHERRY MASHBURN, City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

METES AND BOUNDS DESCRIPTION  
0.0506 ACRES

Being a tract of land containing 0.0506 acres, and being part of a 15' Alley, Block 4, in the West Park Addition, as recorded in Vol. 102, Page 198 of the Brazos County Deed Records (B.C.D.R.), in the City of College Station, Brazos County. All bearings of this survey are referenced to the Texas State Plane Coordinate System, Central Zone, NAD83(2011) Epoch 2010, and boundary referenced to iron rods found and referred to the previous recorded plat, and as surveyed on the ground on January 8th of 2016. This description is also referred to the plat prepared by ATM Surveying, Project No. 2015-0399, and being more particularly described as follows:

**BEGINNING** at a 5/8" iron rod with yellow plastic cap marked "KERR – RPLS 4502" found for the north corner of this tract, also being the east corner of Joaquin & Dorothy Hernandez, called Lot 1 and 30' of Lot 2, Block 4, as recorded in Vol. 2629, Page 162 of the Brazos County Official Records (B.C.O.R.), and also being a point on the southwest right-of-way line of Maryem Street (50' R.O.W.);

**THENCE** South 47°52'16" East, a distance of 15.03 feet along the common line between this tract and said Maryem Street to a calculated corner in concrete for the east corner of this tract, also being the north corner of Harvest Investments, called Lots 7, 8 and adjoining 40' of Lot 9, Block 4, as recorded in Vol. 9998, Page 161 of the B.C.O.R., from which a 3/8" iron rod in concrete found for reference bears S 40°59'55" W, a distance of 0.36 feet;

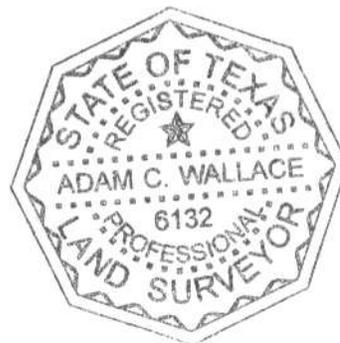
**THENCE** South 40°59'55" West, a distance of 149.69 feet along the common line between this tract and said Harvest Investments to a 1/2" iron rod with maroon plastic cap marked "RPLS 6132 – ATM SURV" set for the south corner of this tract, also being the remainder of 15' Alley, from which a 1" iron pipe found for reference bears S 40°59'55" W, a distance of 10.42 feet;

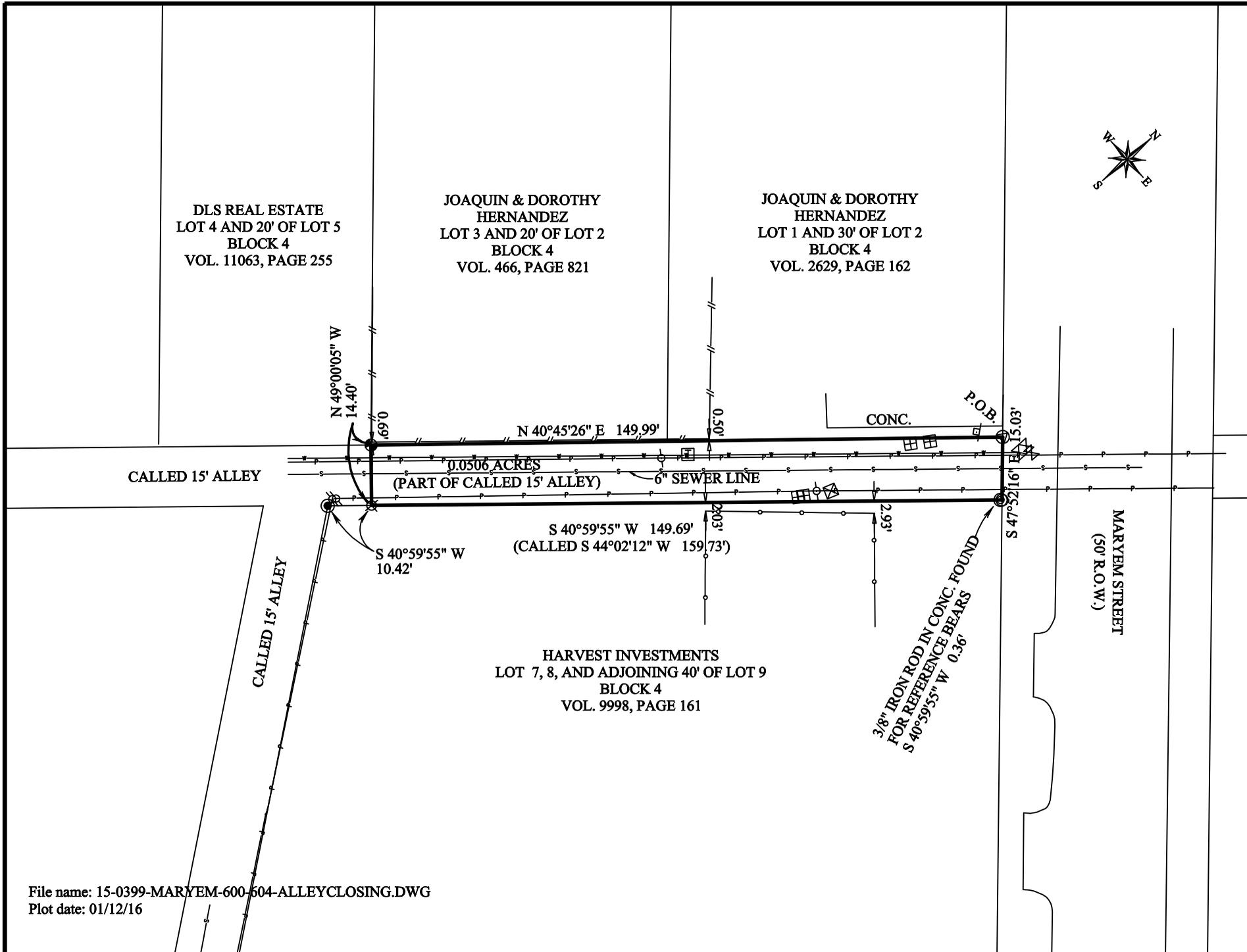
**THENCE** North 49°00'05" West, a distance of 14.40 feet along the common line between this tract and said remainder of 15' Alley to a 1/2" iron rod with maroon plastic cap marked "RPLS 6132 – ATM SURV" found for the west corner of this tract, also being the east corner of DLS Real Estate, called Lot 4, and 20' of Lot 5, Block 4, as recorded in Vol. 11063, Page 255 of the B.C.O.R., also being the south corner of Joaquin & Dorothy Hernandez, called Lot 3, and 20' of Lot 2, Block 4, as recorded in Vol. 466, Page 821 of the B.C.D.R.;

**THENCE** North 40°45'26" East, a distance of 149.99 feet along the common line between this tract and said Vol. 466, Page 821, and then along Vol. 2629, Page 162 to the **PLACE OF BEGINNING** containing 0.0506 acres.

  
Adam Wallace

Texas Registered Professional Land Surveyor No. 6132  
15-0399-Maryem-600-604-AlleyClosing.dwg  
1/08/16





### SURVEY LEGEND

SUBJECT PROPERTY LINE	SEWER MANHOLE
ADJOINING PROPERTY LINE	WATER METER
WATER LINE	WATER VALVE
SEWER LINE	ELECTRICAL METER
ELECTRICAL LINE	POWER POLE
CHAIN-LINK FENCE	ATMOS GAS SIGN
WOOD FENCE	GAS METER

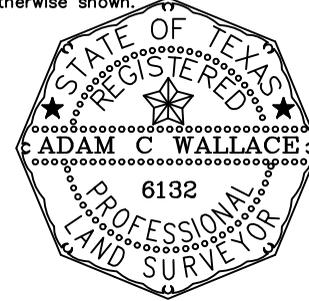
5/8" IRON ROD WITH YELLOW PLASTIC CAP MARKED "KERR - RPLS 4502" FOUND  
 1/2" IRON ROD W/ MAROON PLASTIC CAP MARKED "RPLS 6132 - ATM SURV" FND.  
 1/2" IRON ROD FOUND    3/8" IRON ROD FOUND    1" IRON PIPE FOUND  
 1/2" IRON ROD W/ MAROON PLASTIC CAP MARKED "RPLS 6132 - ATM SURV" SET  
 CALCULATED CORNER

**Survey Notes:**

- The bearings of this survey are based on the Texas State Plane Coordinate System, Central Zone, NAD83(2011) EPOCH 2010, and boundary based on found iron rods referred to the previous recorded plat of the West Park Addition, as recorded in Vol. 102, Page 193.
- Drawing Scale is 1"=20'
- 3). Drawn by: Adam Wallace
- 4). Said lot does not appear to be under the 100 year flood plain, as identified by the Federal Emergency Management Agency on Community Panel No. 48041C0305F effective date, 04-02-2014

I, Adam Wallace, Registered Professional Land Surveyor No. 6132, do hereby certify that the above survey is a true and accurate representation of an actual on the ground survey performed on January 6th, 2016, made under my supervision and that there are no encroachments or overlaps unless otherwise shown.

*Adam Wallace*



Adam Wallace  
Texas Registered Professional  
Land Surveyor, Number 6132

## SURVEY PLAT

AREA: 0.0506 ACRES    BLOCK: FOUR(4)  
SUBDIVISION: WEST PARK ADDITION - VOL. 102, PAGE 198

STREET ADDRESS: MARYEM STREET  
CITY: COLLEGE STATION, TEXAS  
COUNTY: BRAZOS  
SURVEYED FOR: HARVEST INVESTMENTS

**ATM Surveying**  
P.O. Box 10313, College Station, TX 77840  
PHONE: (979)209-9291 email: Adam@ATMsurveying.com  
www.ATMsurveying.com

File name: 15-0399-MARYEM-600-604-ALLEYCLOSING.DWG  
Plot date: 01/12/16



## Legislation Details (With Text)

**File #:** 16-0229      **Version:** 1      **Name:** Electrical Easement Abandonment

**Type:** Ordinance      **Status:** Agenda Ready

**File created:** 4/14/2016      **In control:** City Council Regular

**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.3263 acre portion of a 20-foot wide electrical easement which is located at 801 Wellborn Road further described as Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

**Sponsors:** Carol Cotter

**Indexes:**

**Code sections:**

**Attachments:** [Vicinity Map](#)  
[Location Map](#)  
[Ordinance](#)  
[Exhibit A](#)

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.3263 acre portion of a 20-foot wide electrical easement which is located at 801 Wellborn Road further described as Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

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

Summary: This electrical easement abandonment accommodates future development of the tract. There is currently a City of College Station electrical line running through this easement. A temporary blanket easement was previously dedicated for the entire site which will continue to provide access to public utilities until infrastructure is removed and relocated at the owners' expense, and new public utility easements are dedicated. The abandonment is conditioned on the relocation of this existing infrastructure and dedication of new Public Utility Easements. If either of these conditions are not

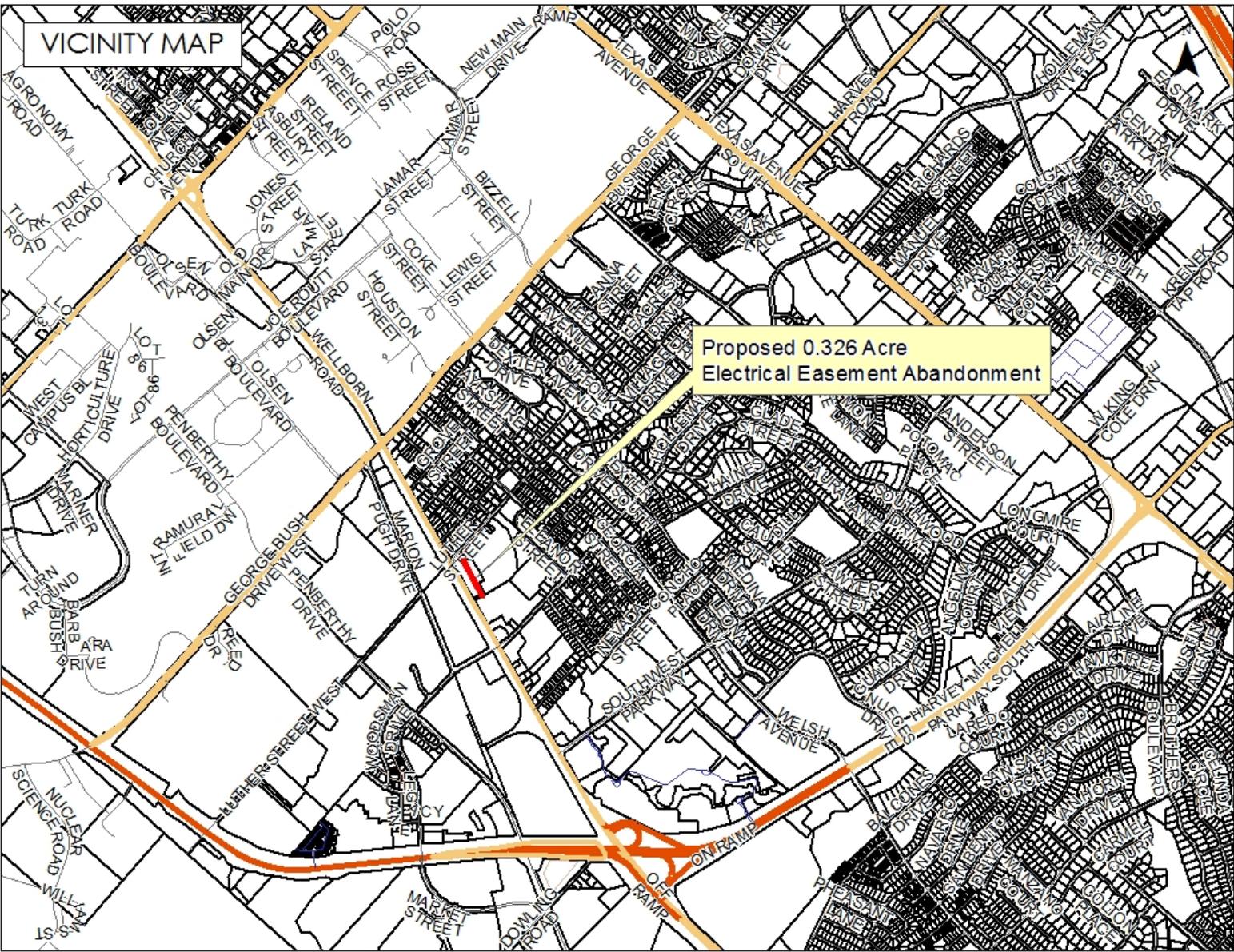
met, the abandonment will be null and void.

The 0.3263 acre portion of a 20-foot wide electrical easement to be abandoned is located on Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

Budget & Financial Summary: N/A

Attachments:

1. Vicinity Map
2. Location Map
3. Ordinance
4. Exhibit "A"





ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE MAKING CERTAIN AFFIRMATIVE FINDINGS AND VACATING AND ABANDONING A 0.3263 ACRE PORTION OF A 20-FOOT WIDE ELECTRICAL EASEMENT, SAID PORTION LYING ALONG LOTS 1, 2A & 2B, BLOCK A, OF THE PETTERAK SUBDIVISION, ACCORDING TO THE PLAT RECORDED IN VOLUME 800, PAGE 171 OF THE OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS AND A 0.768 ACRE TRACT OF LAND IN THE CRAWFORD BURNETT LEAGUE, ABSTRACT NO. 7, AS DESCRIBED BY DEED RECORDED IN VOLUME 889, PAGE 315 OF THE SAID OFFICIAL PUBLIC RECORDS, BRAZOS COUNTY, TEXAS.

WHEREAS, the City of College Station, Texas, has received an application for the vacation and abandonment of a 0.3263 acre portion of the 20-foot wide Electrical Easement, said portion lying along Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas, and as described in Exhibit "A" attached hereto (such portion hereinafter referred to as the "Easement"); and

WHEREAS, in order for the Electrical 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 Easement described in Exhibit "A" attached hereto and made a part of this ordinance for all purposes.

1. Abandonment of the Easement will not result in property that does not have access to public roadways or utilities.
2. Other than set forth herein, there is no public need or use for the Easement.
3. Except as may be provided for in this ordinance, there is no anticipated future public need or use for the Easement.

4. As set forth in this ordinance, abandonment of the Easement will not impact access for all public utilities to serve current and future customers.
5. Utility infrastructure exists within the Easement and the City has a continuing need for these utilities to remain within the Easement until relocated with development, and said uses are expressly not abandoned herein.

PART 2: That the Easement as described in Exhibit "A" be abandoned and vacated by the City only upon completion of the following conditions:

1. That the Applicant shall remove and relocate the existing utility infrastructure in accordance with approved construction documents at the Applicant's expense,
2. That the Applicant shall, upon completion of the removal and relocation of the utility infrastructure, convey by separate instrument or plat to the City public utility easements at the location of said utility infrastructure, in a form acceptable to the City.

PASSED, ADOPTED and APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

APPROVED:

\_\_\_\_\_  
NANCY BERRY, Mayor

ATTEST:

\_\_\_\_\_  
SHERRY MASHBURN, City Secretary

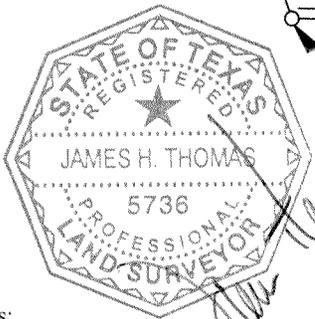
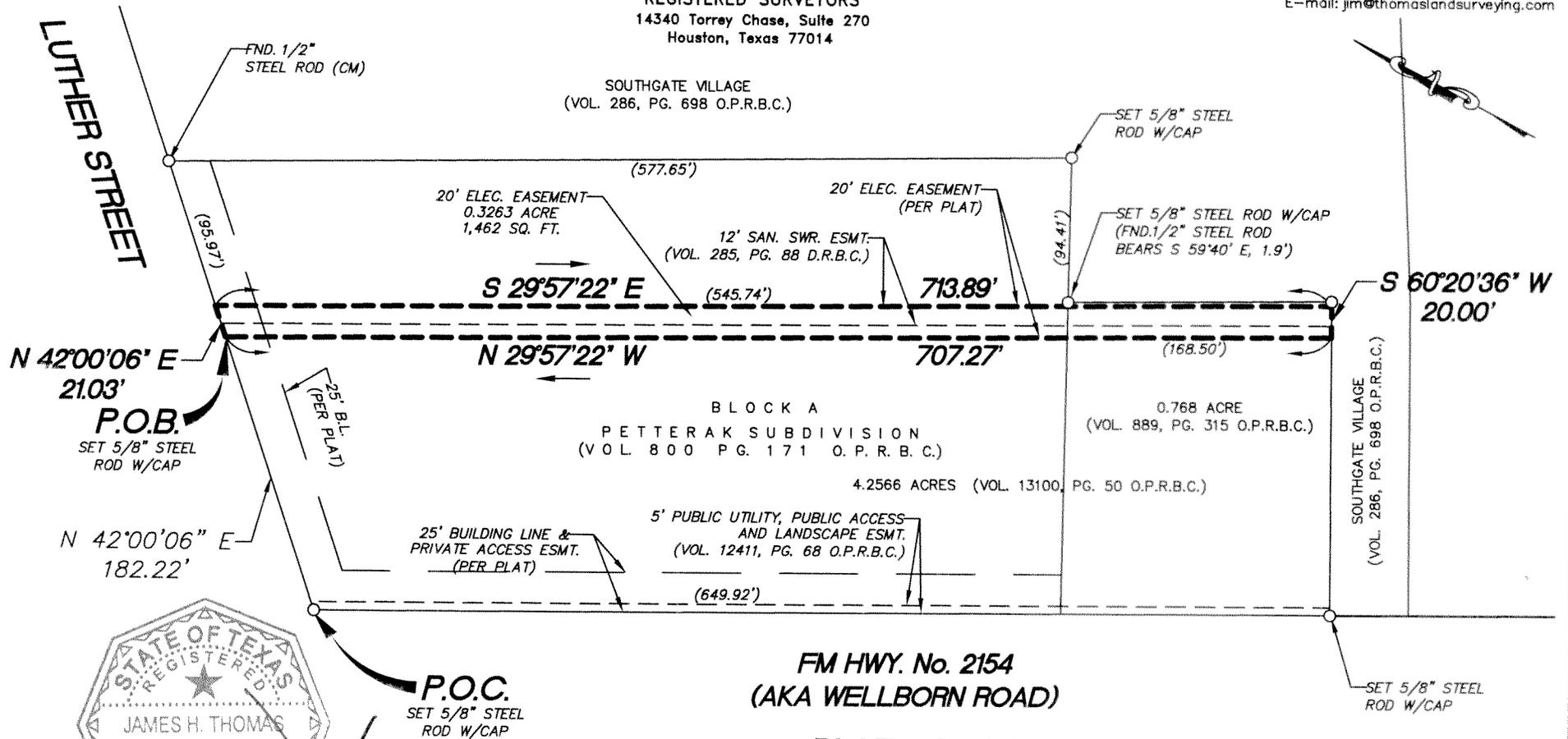
APPROVED:

\_\_\_\_\_  
City Attorney

### Thomas Land Surveying

REGISTERED SURVEYORS  
14340 Torrey Chase, Suite 270  
Houston, Texas 77014

Phone: (281) 440-7730  
Fax: (281) 440-7737  
E-mail: jim@thomaslandsurveying.com



Notes:

- The Basis of Bearings for this Survey is the Texas State Plane Coordinate System, Central Zone, NAD 83 datum and were determined by using a Trimble R6 VRS Network GPS

**FM HWY. No. 2154  
(AKA WELLBORN ROAD)**

**PLAT SHOWING AN EXHIBIT OF A 20' ELECTRIC EASEMENT OUT OF BLOCK A, PETTERAK SUBDIVISION AND A 0.768 ACRE TRACT OF LAND IN THE CRAWFORD BURNETT LEAGUE, ABSTRACT No. 7, COLLEGE STATION, BRAZOS COUNTY, TEXAS.**

DATE: 01/14/2016 SCALE: 1" = 100'

FIELD CREW	CAD OPERATOR	CHECKED BY
RS/GM	DS	JHT

PROJECT ADDRESS: LUTHER ST.	JOB NO.: 16293A
FIELDBOOK:	REF. NO.: 16293

*Thomas Land Surveying*  
Surveying • Planning • Project Management

January 14, 2016

0.3263 Acre  
20' Electric Easement

Fieldnotes for 0.3263 acre of land out of the Crawford Burnett League, Abstract No. 7 in Brazos County, Texas, being out of and a part of Block A of Petterak Subdivision, the map or plat thereof recorded in Volume 800, Page 171 of the Official Public Records of Brazos County, and out of and a part of that certain 0.768 acre tract of land conveyed to Myrna Hughes (previous in chain), as described in deed recorded in Volume 889, Page 315 of the said Official Public Records, and being further out of and a part of that certain 4.2566 acre tract of land conveyed to Stillwater Wellborn, LLC, as described in deed recorded in Volume 13100, Page 50 of the said Official Public Records, said 0.3263 acre tract of land being more particularly described by metes and bounds, based on the Texas State Plane Coordinate System (Central Zone) as follows:

COMMENCING at a 5/8 inch steel rod with cap set in the Northeast line of F.M. Hwy. No. 2154 (aka Wellborn Road), at its intersection with the Southeast line of Luther Street, said point being the most Westerly corner of said Block A and the said 4.2566 acre tract;

Thence, North 42°00'06" East, 182.22 feet with the Southeast line of said Luther Street, and with the Northwest line of said Block A and the said 4.2566 acre tract to a point for the most Westerly or Northwest corner and PLACE OF BEGINNING of the herein described tract;

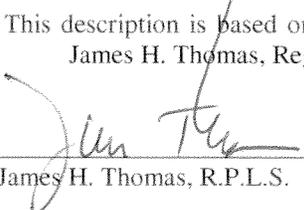
Thence, continuing with the Southeast line of said Luther Street, and the Northwest line of said Block A and the said 4.2566 acre tract, North 42°00'06" East, 21.03 feet to a point for the most Northerly or Northeast corner of the herein described tract;

Thence, South 29°57'22" East, at 545.74 feet passing the Southerly line of said Block A and the Northerly line of the said 0.768 acre tract, and continuing in all, a total distance of 713.89 feet to a point in the Southerly line of the said 0.768 acre tract and the said 4.2566 acre tract for the most Easterly or Southeast corner of the herein described tract, said point also being in a Northerly line of Southgate Village, the map or plat thereof recorded in Volume 286, Page 698 of the said Official Public Records;

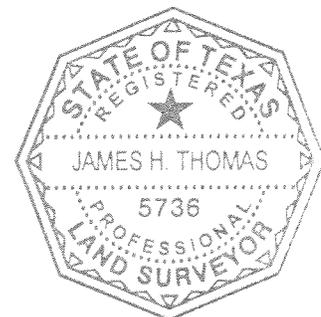
Thence, South 60°20'36" West, 20.00 feet with a Northerly line of said Southgate Village, and with the Southerly line of the said 0.768 acre tract and the said 4.2566 acre tract to a point for the most Southerly or Southwest corner of the herein described tract;

Thence, North 29°57'22" West, at 168.50 feet passing the Northerly line of the said 0.768 acre tract and the Southerly line of said Block A, and continuing in all, a total distance of 707.27 feet to the PLACE OF BEGINNING and containing 0.3263 acre or 1,462 square feet of land, more or less.

This description is based on the land title survey and plat (Job No. 16293) made under the direction of James H. Thomas, Registered Professional Land Surveyor on January 7, 2016.

  
James H. Thomas, R.P.L.S. No. 5736

14340 Torrey Chase Blvd., Suite 270 • Houston, Texas 77014  
(281) 440-7730 • Fax (281) 440-7737  
www.thomaslandsurveying.com





## Legislation Details (With Text)

**File #:** 16-0230      **Version:** 1      **Name:** Sanitary Sewer Easement Abandonment

**Type:** Ordinance      **Status:** Agenda Ready

**File created:** 4/14/2016      **In control:** City Council Regular

**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.1962 acre portion of a 12-foot wide sanitary sewer easement which is located at 801 Wellborn Road further described as Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

**Sponsors:** Carol Cotter

**Indexes:**

**Code sections:**

**Attachments:** [Vicinity Map](#)  
[Location Map](#)  
[Ordinance](#)  
[Exhibit A.pdf](#)

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding an ordinance vacating and abandoning a 0.1962 acre portion of a 12-foot wide sanitary sewer easement which is located at 801 Wellborn Road further described as Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

### Relationship to Strategic Goals:

- Good Governance
- Core Services and Infrastructure
- Diverse Growing Economy

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

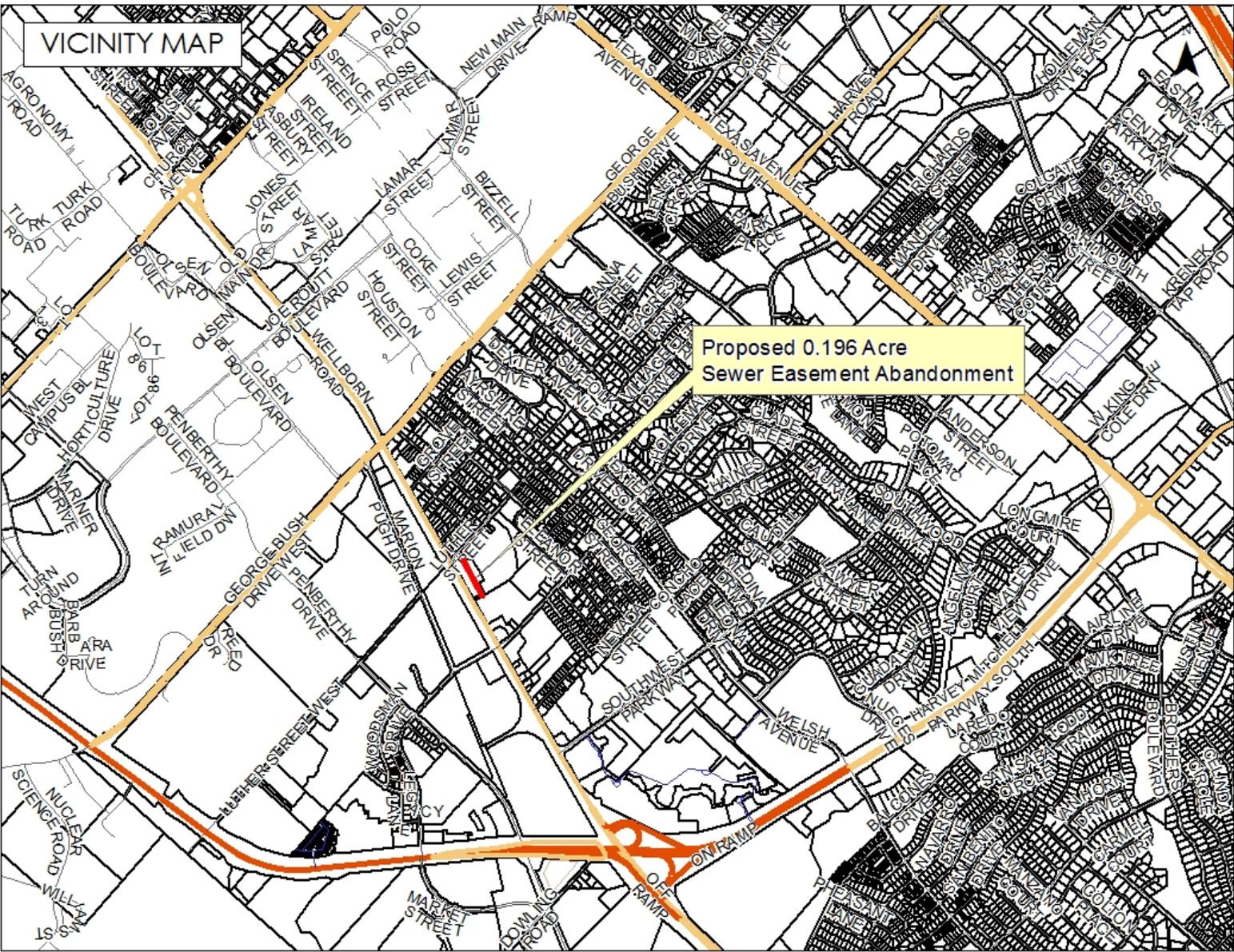
**Summary:** This sanitary sewer easement abandonment accommodates future development of the subject tract. There is currently a City of College Station sanitary sewer line running through this easement. A temporary blanket easement was previously dedicated for the entire site which will continue to provide access to public utilities until infrastructure is removed and relocated at the owners' expense, and new public utility easements are dedicated. The abandonment is conditioned on the relocation of this existing infrastructure and dedication of new Public Utility Easements. If either of these conditions are not met, the abandonment will be null and void.

The 0.1962 acre portion of a 12-foot wide sanitary sewer easement to be abandoned is located on Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas.

Budget & Financial Summary: N/A

Attachments:

1. Vicinity Map
2. Location Map
3. Ordinance
4. Exhibit "A"





ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE MAKING CERTAIN AFFIRMATIVE FINDINGS AND VACATING AND ABANDONING A 0.1962 ACRE PORTION OF A 12-FOOT WIDE SANITARY SEWER EASEMENT, SAID PORTION LYING ALONG LOTS 1, 2A & 2B, BLOCK A, OF THE PETTERAK SUBDIVISION, ACCORDING TO THE PLAT RECORDED IN VOLUME 800, PAGE 171 OF THE OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS AND A 0.768 ACRE TRACT OF LAND IN THE CRAWFORD BURNETT LEAGUE, ABSTRACT NO. 7, AS DESCRIBED BY DEED RECORDED IN VOLUME 889, PAGE 315 OF THE SAID OFFICIAL PUBLIC RECORDS, BRAZOS COUNTY, TEXAS.

WHEREAS, the City of College Station, Texas, has received an application for the vacation and abandonment of a 0.1962 acre portion of the 12-foot wide Sanitary Sewer Easement, said portion lying along Lots 1, 2A & 2B, Block A, of the Petterak Subdivision, according to the plat recorded in Volume 800, Page 171, of the Official Records of Brazos County, Texas and a 0.768 acre tract of land in the Crawford Burnett League, Abstract No. 7, as described by deed recorded in Volume 889, Page 315 of the said Official Public Record, Brazos County, Texas, and as described in Exhibit "A" attached hereto (such portion hereinafter referred to as the "Easement"); and

WHEREAS, in order for the Sanitary Sewer 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 Easement described in Exhibit "A" attached hereto and made a part of this ordinance for all purposes.

1. Abandonment of the Easement will not result in property that does not have access to public roadways or utilities.
2. Other than set forth herein, there is no public need or use for the Easement.
3. Except as may be provided for in this ordinance, there is no anticipated future public need or use for the Easement.

- 4. As set forth in this ordinance, abandonment of the Easement will not impact access for all public utilities to serve current and future customers.
- 5. Utility infrastructure exists within the Easement and the City has a continuing need for these utilities to remain within the Easement until relocated with development, and said uses are expressly not abandoned herein.

PART 2: That the Easement as described in Exhibit "A" be abandoned and vacated by the City only upon completion of the following conditions:

- 1. That the Applicant shall remove and relocate the existing utility infrastructure in accordance with approved construction documents at the Applicant's expense,
- 2. That the Applicant shall, upon completion of the removal and relocation of the utility infrastructure, convey by separate instrument or plat to the City public utility easements at the location of said utility infrastructure, in a form acceptable to the City.

PASSED, ADOPTED and APPROVED this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

APPROVED:

\_\_\_\_\_  
NANCY BERRY, Mayor

ATTEST:

\_\_\_\_\_  
SHERRY MASHBURN, City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

*Thomas Land Surveying*  
Surveying • Planning • Project Management

April 18, 2016

0.1962 Acre  
12' Sanitary Sewer Easement

Fieldnotes for 0.1962 acre of land out of the Crawford Burnett League, Abstract No. 7 in Brazos County, Texas, being out of and a part of Block A of Petterak Subdivision, the map or plat thereof recorded in Volume 800, Page 171 of the Official Public Records of Brazos County, and out of and a part of that certain 0.768 acre tract of land conveyed to Myrna Hughes (previous in chain), as described in deed recorded in Volume 889, Page 315 of the said Official Public Records, and being further out of and a part of that certain 4.2566 acre tract of land conveyed to Stillwater Wellborn, LLC, as described in deed recorded in Volume 13100, Page 50 of the said Official Public Records, said 0.1962 acre tract of land being more particularly described by metes and bounds, based on the Texas State Plane Coordinate System (Central Zone) as follows:

COMMENCING at a 5/8 inch steel rod with cap set in the Northeast line of F.M. Hwy. No. 2154 (aka Wellborn Road), at its intersection with the Southeast line of Luther Street, said point being the most Westerly corner of said Block A and the said 4.2566 acre tract;

Thence, North 42°00'06" East, 191.30 feet with the Southeast line of said Luther Street, and with the Northwest line of said Block A and the said 4.2566 acre tract to a point for the most Westerly or Northwest corner and PLACE OF BEGINNING of the herein described tract;

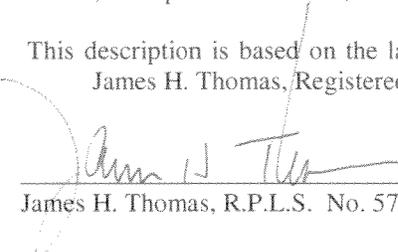
Thence, continuing with the Southeast line of said Luther Street, and the Northwest line of said Block A and the said 4.2566 acre tract, North 42°00'06" East, 12.63 feet to a point for the most Northerly or Northeast corner of the herein described tract;

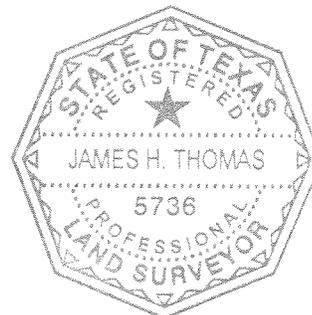
Thence, South 29°52'01" East, 714.10 feet to a point for the most Easterly of Southeast corner of the herein described tract;

Thence, South 60°20'36 West, 12.00 feet to a point for the most Southerly or Southwest corner of the herein described tract;

Thence, North 29°52'01" West 710.12 feet to the PLACE OF BEGINNING and containing 0.1962 acre or 8,545 square feet of land, more or less.

This description is based on the land title survey and plat (Job No. 16293) made under the direction of James H. Thomas, Registered Professional Land Surveyor on January 7, 2016.

  
James H. Thomas, R.P.L.S. No. 5736







## Legislation Details (With Text)

<b>File #:</b>	16-0221	<b>Version:</b>	1	<b>Name:</b>	Strategic Partnership Agreement with MUD No. 1
<b>Type:</b>	Agreement	<b>Status:</b>		<b>Status:</b>	Agenda Ready
<b>File created:</b>	4/13/2016	<b>In control:</b>		<b>In control:</b>	City Council Regular
<b>On agenda:</b>	4/28/2016	<b>Final action:</b>		<b>Final action:</b>	
<b>Title:</b>	Public Hearing, presentation, possible action, and discussion regarding approval of a Strategic Partnership Agreement with the Brazos County Municipal Utility District No. 1, outlining the terms and conditions for annexation.				
<b>Sponsors:</b>	Lance Simms				
<b>Indexes:</b>					
<b>Code sections:</b>					
<b>Attachments:</b>	<a href="#">Vicinity Map</a> <a href="#">Strategic Partnership Agreement</a>				

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approval of a Strategic Partnership Agreement with the Brazos County Municipal Utility District No. 1, outlining the terms and conditions for annexation.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Diverse Growing Economy

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

Summary: This is the first of two public hearings required before approving the Strategic Partnership Agreement (SPA) with Brazos County MUD No. 1. The second Public hearing is scheduled for the 16 May 2016 City Council Meeting. No action is required by the City Council at this point. Formal approval of the SPA can occur after the second public hearing on 16 May.

In March of 2014, the City Council granted the landowner’s petition to create Brazos County Municipal Utility District (MUD) No. 1 within the City’s Extraterritorial Jurisdiction. As provided for in the City’s adopted MUD policy, staff negotiated a Development Agreement with the developer to extend the City’s planning authority over the MUD. In March of 2015, the City Council approved the Development Agreement which included a “form” of the Strategic Partnership Agreement (SPA) as an attachment. The SPA has since been approved by the MUD Board and needs to be approved by the City Council.

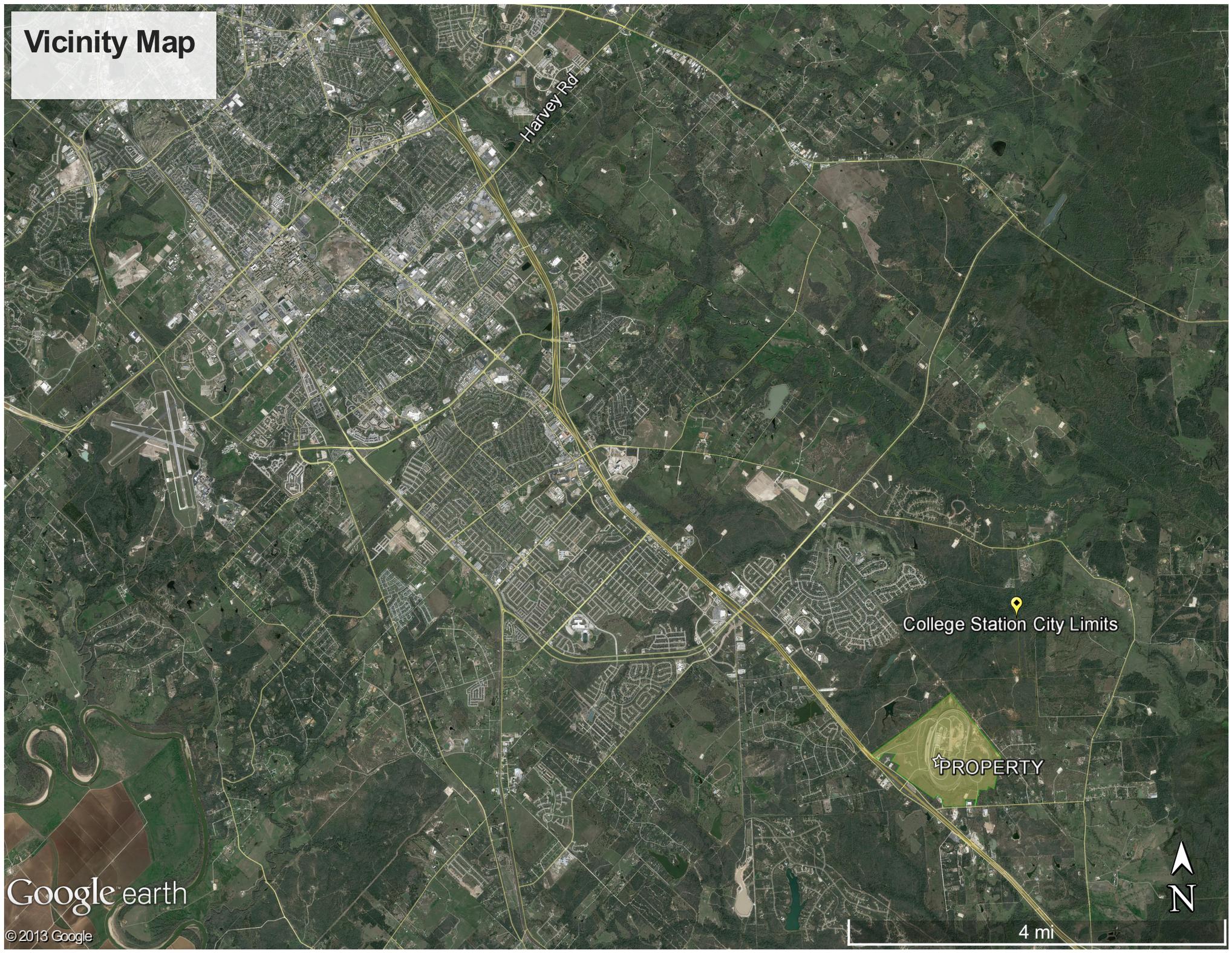
The SPA outlines the terms and conditions for annexation of the MUD into the City.

Budget & Financial Summary: N/A

Attachments:

1. MUD No. 1 Vicinity Map
2. Strategic Partnership Agreement

# Vicinity Map



Harvey Rd

College Station City Limits

PROPERTY

Google earth

© 2013 Google

4 mi



STRATEGIC PARTNERSHIP AGREEMENT

BETWEEN

THE CITY OF COLLEGE STATION, TEXAS,

AND

BRAZOS COUNTY MUNICIPAL UTILITY DISTRICT NO. 1

THE STATE OF TEXAS           §  
  §  
COUNTY OF BRAZOS           §

This Strategic Partnership Agreement (the "Agreement") is made and entered into as of the Effective Date by and between the CITY OF COLLEGE STATION, TEXAS (the "City"), a municipal corporation in Brazos County, Texas, acting by and through its governing body, the City Council of College Station, Texas, and BRAZOS COUNTY MUNICIPAL UTILITY DISTRICT NO. 1, a conservation and reclamation district created pursuant to Article XIV, Section 59, Texas Constitution and operating pursuant to Chapters 49 and 54, Texas Water Code (the "District"), acting by and through its Board of Directors, under the authority of Section 43.0751 of the Texas Local Government Code, the boundaries of which are attached hereto as **Exhibit "A."**

RECITALS

Chapter 43, Texas Local Government Code, authorizes the City and the District to enter into a strategic partnership agreement, which may provide for such lawful terms that the parties consider appropriate to provide for the provision of services to the District and the annexation of the land within the District into the City. Accordingly, the City and the District are proceeding in reliance on the enforceability of this Agreement.

NOW, THEREFORE, for and in consideration of the mutual agreements, covenants, and conditions contained herein, and other good and valuable consideration, the City and the District agree as follows:

**ARTICLE I  
DEFINITION AND FINDINGS**

**Section 1.01 Terms Defined In This Agreement.**

Unless the context requires otherwise, and in addition to the terms defined above, the following terms and phrases used in this Agreement have the meanings set out below:

“City” means the City of College Station, Texas, a municipal corporation situated in Brazos County, Texas, acting by and through its governing body, the City Council of the City of College Station, Texas.

“City Code” means the Code of Ordinances of the City.

“City Council” means the City Council of the City of College Station or any successor governing body.

“City Manager” means the City Manager of the City.

“Developer” means McAlister Opportunity Fund 2012, L.P., L.P or its successors and assigns.

“District” means Brazos County Municipal Utility District No. 1.

“Effective Date” and similar references means the date of final action by the City Council to adopt and approve this Agreement.

“Engineering Reports” shall mean and refer to that certain Preliminary Engineering Report prepared by the Engineers relating to the creation of the District and describing the initial scope and extent of the Facilities and any additional engineering reports prepared by the Engineers from time to time relating to the issuance of Bonds by the District, copies of which shall be on file in the offices of the District.

“ETJ” means the extraterritorial jurisdiction of the city.

“Facilities” means and includes the water distribution, sanitary sewer collection, transportation and treatment, and stormwater collection, detention and drainage systems, constructed or acquired or to be constructed or acquired by the District to serve lands within and adjacent to its boundaries, and all improvements, appurtenances, additions, extensions, enlargements or betterments thereto, together with all contract rights, permits, licenses, properties, rights-of-way, easements, sites and other interests related thereto, all as more fully described in the Engineering Reports.

“Ordinance” means an ordinance of the City.

“Party” or “Parties” means a party or the parties to this Agreement, being the City and the District.

“Person” means any individual, partnership, association, firm, trust, estate, public or private corporation, or any other entity whatsoever.

“TCEQ” means the Texas Commission on Environmental Quality and its successors.

## **Section 1.02 Findings and Conclusions.**

The City and the District hereby find and declare:

1. Section 43.0751, Texas Local Government Code authorizes the City and the District to enter into this Agreement to define the terms and conditions under which services to the District will be provided and funded by the Parties and to define the terms and conditions under which the District will be annexed by the City at a future date by mutual consent as an alternative to annexation without the consent of the District.

2. In accordance with § 43.0751(p), this Agreement (i) does not require the District to provide revenue to the City solely for the purpose of an agreement with the City to forgo annexation of the District and (ii) provides benefits to each party, including revenue, services, and regulatory benefits which are reasonable and equitable with regard to the benefits provided to the other Party.

3. All the terms and conditions contained in this Agreement are lawful and appropriate to provide for the provision of municipal services and annexation.

4. In accordance with Section 43.0751(d), this Agreement has been duly adopted by the governing body of the City and the District after each conducted two public hearings at which members of the public who wanted to present testimony or evidence regarding the Agreement were given the opportunity to do so. Notice of each hearing conducted by the governing body of the City was published in the format required by Section 43.123(b), Texas Local Government Code and was published by the City at least once on or after the 20th day before each public hearing. Notice of each hearing conducted by the governing body of the District was given in accordance with the District’s notification procedures for other matters of public importance. All notices of public hearings contained a statement of the purpose of the hearing, the date, time and place of the hearing, and the location where copies of the proposed agreement could be obtained prior to the hearing.

**ARTICLE II  
ANNEXATION OF THE DISTRICT**

**Section 2.01 Annexation.**

A. The City agrees that irrespective of its right and power under existing or subsequently enacted law, except as provided in paragraph B and Section 2.02 hereof, it will not annex or attempt to annex, for all purposes, in whole or in part, the District until the following conditions have been met:

1. At least 90% of the Facilities and roads to serve all the developable acreage at full development has been constructed including the water, wastewater treatment, and drainage Facilities and roads . Developable acreage means the total acreage in the District less acreage associated with land uses for roads, utility easements, drainage easements, levee easements, lakes, creeks, rivers, recreational areas, schools, and open space; and

2. The Developer has been reimbursed by the District to the maximum extent permitted by the rules of the TCEQ or the City assumes any obligation for such reimbursement of the District under such rules.

B. In the event that a commercial area which is designed and developed as General Commercial as defined in the City of College Station's Unified Development Ordinance as amended, is constructed in the District, the City is hereby permitted to annex for limited purposes such commercial area to the extent permitted by law, whether or not contiguous to the City's corporate limits. The Board of Directors agree, upon request of the City, to execute and deliver such further documents as may be necessary in order to effectuate the terms of this paragraph.

The Parties agree that the commercial area shall continue to be a part of the District following such limited purpose annexation and shall continue to receive the same services from the District as it received prior to the annexation for limited purposes. The District may continue to levy an ad valorem tax in the commercial area until the annexation for full purposes of the District by the City pursuant to the terms of this Agreement. The City may impose a sales and use tax within the boundaries of the commercial tract of land annexed for limited purposes. The sales and use tax shall be imposed on the receipts from the sale and use at retail of taxable items at a rate of one and one-half percent (1 1/2%) or the rate specified under future amendments to Chapter 321 of the Texas Tax Code. The intent of this paragraph is to apply the same amount of sales and use tax within the limited purpose annexation tract during the limited purpose annexation that applies within the City. Therefore, the enactment of any new law or amendment of an existing law that changes the applicable sales and use tax within the City applies to the limited purpose annexation tract, unless the new law or amendment prohibits its application to the limited purpose annexation tract.

C. The District, on behalf of itself and on behalf of all present and future owners of land within its boundaries, hereby grants consent to the City to annex the territory within the boundaries of the District in accordance with this Agreement; it being the intent of the Parties that the consent and petition granted hereby shall bind the District and each owner and future owner of land within the District. Upon the annexation of territory within the District by the City pursuant to the provisions of this Agreement, such territory shall no longer be subject to the terms and provisions of this Agreement but shall instead be governed by the rules, regulations, codes, and ordinances then and thereafter effective within the City.

D. Subject to the terms and conditions of this Agreement, annexation shall be in accordance with existing law. It is the intention of the Parties that this Agreement qualifies as a Strategic Partnership Agreement as that term is defined under Section 43.0751, Texas Local Government Code, and as such any annexation by City of all or a part of the District is exempt from the requirements set forth in Subchapter C of Chapter 43 of the Texas Local Government Code pertaining to annexation procedures for areas annexed under a municipal annexation plan. Furthermore, the District and the City agree to take all actions reasonably necessary to ensure that this Agreement continues as a Strategic Partnership Agreement throughout its term.

#### **Section 2.02 Powers and Functions.**

Prior to full purpose annexation, the District is authorized to exercise all powers and functions of a municipal utility district provided by law. Without limiting the foregoing powers and functions, the District shall obtain the City's prior approval to: (a) the issuance of any bonds, certificates of obligation, refunding bonds or other debts to be paid in whole or in part from a pledge of the ad valorem tax revenues of the District to the extent that the District is in compliance with the City's policy related to the creation, operation and dissolution of municipal utility districts approved by the City in Resolution No. 01-09-14-01 dated January 9, 2014, (b) construct additional utility Facilities, or (c) otherwise transfer property other than in the normal course of business. All debt, liabilities or obligations shall be issued (1) in accordance with the conditions contained in the City's consent to the creation of the District; and (2) only for Facilities, as well as road and park facilities, with approved City plans that have been bid and constructed in accordance with all governmental and regulatory requirements. The District will provide the City with copies of all submittals to the TCEQ related to the approval of bonds issued by the District at the same time such information is submitted to the TCEQ. The District shall also provide the City with copies of the Preliminary Official Statement and Official Statement related to any bonds issued by the District at such time as such statements are approved by the District.

### **Section 2.03      Dissolution or Continuation of District upon Annexation.**

After annexation, the District will continue to exist until dissolved by action of the City or expiration of the time limits provided herein. After annexation, the District shall not incur additional debt, liabilities, or obligations which are not fully payable from currently budgeted funds and shall not sell or otherwise transfer property without prior approval of the City. The City, at its sole discretion, may decide when to dissolve the District, provided that the District must continue in existence for a period of time not less than 120 days and not more than ten (10) years after the date of the annexation. The District will dissolve without further action of the City on the tenth anniversary of the date of annexation, unless continued in existence by the City as provided below. If the City elects to continue the District for a period in excess of 120 days, the following will apply:

A. The District continues as "limited district" as that term is defined in Section 43.0751(a)(2), Texas Local Government Code, for the purpose of

1. Maintaining any of the Facilities of the District not accepted by the City for operation and maintenance. The City agrees that upon annexation for full purposes, the City shall accept all Facilities with the exception of stormwater collection, detention and drainage systems, on the same basis as the City accepts public facilities in other projects within the City.

2. Any other purpose at the discretion of the City.

B. Prior to dissolution of the District, the District will continue to own and operate those Facilities not accepted by the City for operation and maintenance. Prior to and subsequent to dissolution of the District, the District or a property owners association will operate and maintain stormwater collection, detention and drainage systems. The City will provide all other City services to the District's residents, including retail water and sewer, police protection, garbage collection, and other City services. To the extent the City is charging the District for such services, upon dissolution the City shall cease to charge the District for such services to the annexed property and all fees and charges imposed on residents of the District for services provided by the City shall be equal to those fees and charges imposed on all other residents of the City.

C. If, on or before the tenth anniversary of annexation of the District, the City decides that it is advisable for the District to continue to exist, the City may extend this Agreement and the term of the limited district for additional ten year terms, automatically renewable by giving written notice to the District of the City's decision to continue the existence of the District.

D. Prior to the expiration of any ten year term, the District may be dissolved by the City upon 12 (twelve) months written notice to the District.

E. After dissolution of the District, the City will assume all rights, assets, liabilities and obligations of the District, and the District will not be continued or converted except as may be set forth in this Agreement.

**Section 2.04 Attempted Incorporation in the District.**

Notwithstanding any provision herein to the contrary, in the event of a bona fide effort to incorporate a municipality that includes any portion of the District, the City shall be entitled to annex that portion of the District attempting to incorporate.

**ARTICLE III  
MATERIAL BREACH, NOTICE AND REMEDIES**

**Section 3.01 Material Breach of Agreement.**

A. It is the intention of the Parties to this Agreement that the District be regulated and annexed in accordance with the terms of this Agreement. The Parties acknowledge and agree that any major deviation by the District from the Utility Agreement between the City and the District (entered into as of the same date as this Agreement) and any substantial deviation by the District from the material terms of this Agreement would frustrate the intent of this Agreement, and therefore, would be a material breach of this Agreement.

B. The Parties acknowledge and agree that any substantial deviation by the City from the material terms of this Agreement would frustrate the intent of this Agreement and, therefore, would be a material breach of this Agreement.

C. In the event that a party to this Agreement believes that another party has, by act or omission, committed a material breach of this Agreement, the provisions of this Article III shall provide the remedies for such default.

**Section 3.02 Notice of District's Default.**

A. The City Manager shall notify the District in writing of an alleged failure by the District to comply with a provision of this Agreement, which notice shall specify the alleged failure with reasonable particularity. The District shall, within thirty (30) days after receipt of such notice or such longer period of time as the City Manager may specify in such notice, either cure such alleged failure or, in a written response to the City Manager, either present facts and arguments in refutation or excuse of such alleged failure or state that such alleged failure will be cured and set forth the method and time schedule for accomplishing such cure.

B. The City Manager shall determine (i) whether a failure to comply with a provision has occurred; (ii) whether such failure is excusable; and (iii) whether such failure has been cured or will be cured by the District. The District shall make available to the City Manager, if requested, any records, documents or other information necessary to make the determination.

C. In the event that the City Manager determines that such failure has not occurred, or that such failure either has been or will be cured in a manner and in accordance with a schedule reasonably satisfactory to the City Manager, or that such failure is excusable, such determination shall conclude the investigation.

D. If the City Manager determines that a failure to comply with a provision has occurred and that such failure is not excusable and has not been or will not be cured by the District in a manner and in accordance with a schedule reasonably satisfactory to the City Manager, then the City Manager shall so notify the City Council in a written report which may recommend action to be taken by the City Council. The City Manager shall provide notice and a copy of such report to the District. After receipt of such report from the City Manager, or at any time upon its own motion, the City Council may proceed to alternate dispute resolution under Section 3.04, mediation under Section 3.05, or exercise the applicable remedy under Section 3.06 hereof.

### **Section 3.03 Notice of City's Default.**

A. The District shall notify the City Manager in writing of an alleged failure by the City to comply with a provision of this Agreement, which notice shall specify the alleged failure with reasonable particularity. The City Manager shall, within thirty (30) days after receipt of such notice or such longer period of time as the District may specify in such notice, either cure such alleged failure or, in a written response to the District present facts and arguments in refutation or excuse of such alleged failure or state that such alleged failure will be cured and set forth the method and time schedule for accomplishing such cure.

B. The District shall determine (i) whether a failure to comply with a provision has occurred; (ii) whether such failure is excusable; and (iii) whether such failure has been cured or will be cured by the City. The City Manager shall make available to the District, if requested, any records, documents or other information necessary to make the determination.

C. In the event that the District determines that such failure has not occurred, or that such failure either has been or will be cured in a manner and in accordance with a schedule reasonably satisfactory to the District, or that such failure is excusable, such determination shall conclude the investigation.

D. If the District determines that a failure to comply with a provision has occurred and that such failure is not excusable and has not been or will not be cured by the City in a manner and in accordance with a schedule reasonably satisfactory to the District, then the District shall so notify the City Council in a written report which may request action to be taken by the City Council. The District shall provide notice and a copy of such report to the City Manager. If requested in the District's report, the City Manager agrees to add the matter to the agenda of the next meeting of the City Council for which such item can be legally noticed for consideration and action by City Council.

#### **Section 3.04 Alternate Dispute Resolution.**

In the event of a determination by the District or City that a material breach has occurred in accordance with Section 3.01, and notwithstanding any other remedies set forth in this Article III, the District and City may agree to follow this alternative dispute resolution procedure described herein.

- a. Following written notice of the alleged material breach, the parties will appoint a six person dispute resolution committee (the "Dispute Resolution Committee") to resolve disputes and claims of default of the Agreement under this Article III.
- b. The Dispute Resolution Committee is comprised of the Mayor of the City, one council member designated by City Council, the City Manager, and three representatives appointed by District. The parties will make a good faith effort to make such appointments within 30 days of notice of the alleged material breach. Once designated, the Dispute Resolution Committee will hear the dispute and make a written recommendation to resolve the particular dispute. However, the Dispute Resolution Committee is an ad hoc committee and different representatives may be appointed for different disputes at any time.
- c. The parties shall have an opportunity to present facts, arguments, and refutations of the alleged breach to the Dispute Resolution Committee. The parties shall, within 30-days following appointment of the Dispute Resolution Committee, make available to the Dispute Resolution Committee any records, documents or other information necessary to make a determination. The Dispute Resolution Committee must make a good faith effort to reach a resolution between the parties within a reasonable time frame, not to exceed 30 days following receipt of all records and documents provided by the parties. The Dispute Resolution Committee will prepare a written report of its final decision, as approved by the majority of the Dispute Resolution Committee, which will be available to both parties. The report may recommend methods to cure any alleged breach and a time schedule for accomplishing such cure. Either party may appeal a decision of the majority of the Dispute Resolution Committee to either mediation or arbitration in accordance with the terms of Article III of the Agreement.

- d. This alternative dispute resolution procedure does not limit the remedies of either party, particularly the right to file suit in a court of competent jurisdiction and seek any relief available at law or in equity.

**Section 3.05 Mediation.**

In the event the parties to this Agreement cannot, within a reasonable time, resolve their dispute pursuant to the procedures described in Sections 3.02, 3.03 or 3.04, the Parties may agree to submit the disputed issue to nonbinding mediation. The Parties shall participate in good faith, but in no event shall they be obligated to pursue mediation that does not resolve the issue within seven (7) days after the mediation is initiated. The Parties participating in the mediation shall select a mutually agreed upon mediator and shall share the costs of the mediation equally.

**Section 3.06 Remedies.**

A. In the event of a determination by the City that the District has committed a material breach of this Agreement, the City may:

1. Proceed to alternate dispute resolution as provided in Section 3.04;
2. Proceed to mediation as provided in Section 3.05; or
3. File suit in a court of competent jurisdiction in Brazos County, Texas, and seek any relief available at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act, but such remedy shall not include termination of this Agreement as to the District.

B. In the event of a determination by the District that the City has committed a material breach of this Agreement, the District may:

1. Proceed to alternate dispute resolution as provided in Section 3.04;
2. Proceed to mediation as provided in Section 3.05; or
3. File suit in a court of competent jurisdiction in Brazos County, Texas, and seek any relief available, at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act.

**ARTICLE IV  
BINDING AGREEMENT, TERM, AMENDMENT, AND ASSIGNMENT**

**Section 4.01 Beneficiaries.**

This Agreement shall bind and inure to the benefit of the parties, their respective successors and assigns. This Agreement shall be recorded with the County Clerk in

Official Records of Brazos County, Texas and shall bind each owner and each future owner of land included within the District's boundaries in accordance with Section 43.0751(c), Texas Local Government Code. The terms of this Agreement shall constitute covenants running with the land comprising the District and shall be binding on all future owners and developers of property within the District.

**Section 4.02 Term.**

This Agreement shall commence and bind the parties on the Effective Date and continue until a date which is exactly thirty (30) years from its Effective Date, unless terminated on an earlier date pursuant to other provisions or by express written agreement executed by the City and the District. Upon the expiration of thirty (30) years from its Effective Date, this Agreement may be extended, at the District's request, with City Council approval, for successive one (1) year periods until all land within the District has been annexed by the City.

**Section 4.03 Termination.**

In the event this Agreement is terminated by mutual agreement of the Parties, the Parties shall promptly execute and file of record, in the County Clerk Official Records of Brazos County, a document confirming the termination of this Agreement, and such other documents as may be appropriate to reflect the basis upon which such termination occurred.

**ARTICLE V  
MISCELLANEOUS PROVISIONS**

**Section 5.01 Notice.**

The parties contemplate that they will engage in informal communications with respect to the subject matter of this agreement. However, any formal notices or other communications ("Notice") required to be given by one party to another by this Agreement shall be given in writing addressed to the party to be notified at the address set forth below for such party, (i) by delivering the same in person, or (ii) by depositing the same in the United States Mail, certified or registered, return receipt requested, postage prepaid, addressed to the party to be notified, or (iii) by depositing the same with Federal Express or another nationally recognized courier service guaranteeing "next day delivery," addressed to the party to be notified. Notice deposited in the United States mail in the manner hereinabove described shall be deemed effective from and after the date of such deposit. Notice given in any other manner shall be effective only if and when received by the party to be notified. For the purposes of notice, the addresses of the parties, until changed as provided below, shall be as follows:

City: City of College Station  
P.O. Box 9960  
College Station, Texas 77842  
Attn: City Manager

District: Brazos County Municipal Utility District No. 1  
c/o Allen Boone Humphries Robinson, LLP  
3200 Southwest Freeway, Suite 2600  
Houston, Texas 77027  
Attn: Steve Robinson

With a copy to: City of College Station  
P.O. Box 9960  
College Station, Texas 77842  
Attn: City Attorney

The Parties shall have the right from time to time to change their respective addresses, and each shall have the right to specify as its address any other address within the United States of America by giving at least five (5) days written notice to the other Parties. If any date or any period provided in this Agreement ends on a Saturday, Sunday, or legal holiday, the applicable period for calculating the notice shall be extended to the first business day following such Saturday, Sunday or legal holiday.

**Section 5.02 Annexation/Exclusion by District.**

No territory may be annexed into the District after the Effective Date of this Agreement without the prior written consent of the City. If the City has annexed the District into its corporate limits, the owner of any property seeking annexation to the District must also consent to the annexation of the territory by the City and such consent to municipal annexation shall be a condition of the City's consent to annexation by the District. This Agreement applies to all land located within the District including such annexed land. In the event any land is annexed or excluded by the District, the terms and conditions set forth in this Agreement shall continue to apply to the District as it may be newly configured. If for any reason annexation of such additional territory by the City is contested or held invalid or ineffective, neither this Agreement nor its application to other territory will be affected.

**Section 5.03 Time.**

Time is of the essence in all things pertaining to the performance of this Agreement.

**Section 5.04 Severability.**

If any provision of this Agreement is held to be illegal, invalid, or unenforceable, then and in such an event, it is the intention of the Parties hereto that the remainder of this Agreement shall not be affected.

**Section 5.05 Waiver.**

Any failure by a Party hereto to insist upon strict performance by another Party of any material provision of this Agreement shall not be deemed a waiver thereof or of any other provision hereof, and such Party shall have the right at any time thereafter to insist upon strict performance of any and all of the provisions of this Agreement.

**Section 5.06 Applicable Law and Venue.**

The construction and validity of this Agreement shall be governed by the laws of the State of Texas without regard to conflicts of law principles. Venue shall be in Brazos County, Texas.

**Section 5.07 Reservation of Rights.**

To the extent not inconsistent with this Agreement, each Party reserves all rights, privileges, and immunities under applicable laws.

**Section 5.08 Further Documents.**

The Parties agree that at any time after execution of this Agreement, they will, upon request of another Party, execute and deliver such further documents and do such further acts and things as the other Party may reasonably request in order to effectuate the terms of this Agreement.

**Section 5.09 Incorporation of Exhibits and Other Documents by Reference.**

All Exhibits and other documents attached to or referred to in this Agreement are incorporated herein by reference for the purposes set forth in this Agreement.

**Section 5.10 Effect of State and Federal Laws.**

Notwithstanding any other provision of this Agreement, the District shall comply with all applicable statutes or regulations of the United States and the State of Texas, as well as any City Ordinances or rules implementing such statutes or regulations, and such compliance with City Ordinances or rules shall not be deemed a breach or default under this Agreement.

**Section 5.11 Non Waiver of Immunity.**

Neither party waives or relinquishes any immunity from liability, limitation of liability, or defense on behalf of itself, its officers, employees, and agents provided by the Constitution and laws of the State of Texas as a result of its execution of this Agreement and the performance of the covenants contained herein. Each party to this Agreement agrees that it shall have no liability whatsoever for the actions or omissions of an individual employed by the other party, regardless of where the individual's actions occurred. Each party is solely responsible for the actions or omissions of its employees, officers, and agents.

**Section 5.12 Merger.**

This Agreement constitutes the entire agreement between the parties relative to the subject matter hereof. There have been and are no agreements, covenants, representations or warranties between the parties other than those expressly stated herein or expressly provided for herein.

**Section 5.13 Authority for Execution.**

The City hereby certifies, represents, and warrants that the execution of this Agreement is duly authorized and adopted in conformity with the City Charter and City Ordinances. The District hereby certifies, represents, and warrants that the execution of this Agreement is duly authorized and adopted by the Board of Directors of the District.

IN WITNESS WHEREOF, the undersigned have executed this Agreement this \_\_\_\_ day of \_\_\_\_\_, 2015, to be effective on the Effective Date defined herein.

CITY OF COLLEGE STATION, TEXAS

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

ATTEST:

By: \_\_\_\_\_  
City Secretary

(SEAL)

THE STATE OF TEXAS       §  
  §  
COUNTY OF BRAZOS       §

The foregoing instrument was acknowledged before me on the \_\_\_\_ day of \_\_\_\_\_, 2015 by \_\_\_\_\_, respectively, of the City of College Station, Texas, on behalf of said municipality.

\_\_\_\_\_  
Notary Public, State of Texas

(NOTARY SEAL)

21st IN WITNESS WHEREOF, the undersigned have executed this Agreement this day of August 2015, to be effective on the Effective Date defined herein.

BRAZOS COUNTY MUNICIPAL UTILITY DISTRICT NO. 1

By: [Signature]  
President, Board of Directors

ATTEST:

By: [Signature]  
Secretary, Board of Directors

(SEAL)



THE STATE OF TEXAS       §  
  §  
COUNTY OF BRAZOS       §

The foregoing instrument was acknowledged before me on the 21st day of August, 2015 by R. Hunter Godwin and L.B. Hodges Jr., President and Secretary, respectively, of BRAZOS COUNTY MUNICIPAL UTILITY DISTRICT NO. 1, on behalf of said political subdivision.



[Signature]  
Notary Public, State of Texas

(NOTARY SEAL)



3. South 86°03'48" West, 349.65 feet to a point for corner;
4. South 09°25'22" West, 165.58 feet to a point for corner marking the northwest corner of a called 20.00 acre tract to Sharyn Conole recorded in Volume 11561, Page 232 of the BCOPR;

THENCE, along the west line of said 20.00 acre tract, the following four (4) courses and distances:

1. South 04°14'54" East, 117.42 feet to a point for corner;
2. South 26°26'44" West, 114.20 feet to a point for corner;
3. South 07°20'44" West, 314.98 feet to a point for corner;
4. South 10°05'29" West, 282.26 feet to a point for corner marking the southwest corner of said 20.00 acre tract, being in the north right-of-way of Peach Creek Cutoff Road;

THENCE, South 86°59'09" West, along the north line of said Peach Creek Cutoff Road, 71.87 feet to a point for corner, being the southeast corner of Lot 1, Block 1 of the LGL Subdivision recorded in Volume 5996, Page 197 of the BCOPR;

THENCE, along the south line of said 552.905 acre tract, being along the east, north, and west line of said Lot 1 Block 1, the following four (4) courses and distances:

1. North 10°05'29" East, 296.88 feet to a point for corner;
2. North 07°20'44" East, 113.30 feet to a point for corner;
3. South 86°59'29" West, 586.03 feet to a point for corner;
4. South 02°57'21" East, 400.65 feet to a point for corner being the southwest corner of said Lot 1 Block 1, also being in the north line of said Peach Creek Cutoff Road;

THENCE, along the north line of said Peach Creek Cutoff Road, being the south line of said 552.905 acre tract, the following three (3) courses and distances:

1. South 86°59'09" West, 182.01 feet to a point for corner;
2. South 89°04'20" West, 850.85 feet to a point for corner;
3. North 73°35'16" West, 273.19 feet to a point for corner in the east line of a called 3.333 acre tract conveyed to GSI Oil & Gas Inc. recorded in Volume 2144, Page 173 of the BCOPR;

THENCE, along the east, southeast, northeast and northwest lines of said 3.333 acre tract, being the west line of said 552.905 acre tract, the following four (4) courses and distances:

1. North 16°28'27" West, 121.52 feet to a point for corner;
2. North 37°34'13" East, 169.28 feet to a point for corner;
3. North 52°25'47" West, 501.14 feet to a point for corner;
4. South 37°37'29" West, 278.22 feet to a point for corner in the northeast line of aforementioned Highway 6;

THENCE, along the northeast line of said Highway 6, being the southwest line of said 552.905 acre tract, the following three (3) courses and distances:

1. North 52°20'20" West, 199.00 feet to a point for corner;
2. North 54°51'16" West, 2308.70 feet to a point for corner;
3. North 60°19'08" West, 243.16 feet to a point for corner marking the south corner of the Viking Subdivision recorded in Volume 5973, Page 11 of the BCOPR;

THENCE, along the southeast and northeast line of the Viking Subdivision, the following two (2) courses and distances:

1. North 39°21'01" East, 442.04 feet to a point for corner;
2. North 60°25'37" West, 399.87 feet to a point for corner marking the north corner of said Viking Subdivision, being in the southeast line of a called 9.306 acre tract conveyed to Texas World Speedway recorded in Volume 3363, Page 197 of the BCOPR;

THENCE, along the southeast line, north line, and northwest line of said 9.306 acre tract, the following five (5) courses and distances:

1. North 39°22'29" East, 410.88 feet to a point for corner;
2. North 82°59'07" West, 522.73 feet to a point for corner;
3. North 89°15'40" West, 157.48 feet to a point for corner;
4. South 79°48'33" West, 49.99 feet to a point for corner;
5. South 36°51'11" West, 484.45 feet to a point for corner being the west corner of said 9.306 acre tract, being in the northeast line of aforementioned Highway 6;

THENCE, along the northeast line of Highway 6, being the southwest line of aforementioned 552.905 acre tract, the following two (2) courses and distances:

Brazos County Municipal Utility District No. 1  
District Boundary  
552.9 Acres

S.D. Smith Survey  
Abstract No. 210

1. North 54°37'53" West, 215.86 feet to a point for corner;
2. North 47°36'20" West, 267.76 feet to the **POINT OF BEGINNING, CONTAINING 552.9 Acres** of land in Brazos County, Texas

This document was prepared under 22 TAC 663.21, and does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or configuration of the political subdivision for which it was prepared.

C0108/0002/Survey/Docs/District Political BDY



## Legislation Details (With Text)

**File #:** 16-0222      **Version:** 1      **Name:** Comprehensive Plan – Chapter 8 Text Amendments

**Type:** Comprehensive Plan      **Status:** Agenda Ready

**File created:** 4/13/2016      **In control:** City Council Regular

**On agenda:** 4/28/2016      **Final action:**

**Title:** Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending the College Station Comprehensive Plan by amending text in Chapter 8, “Growth Management & Capacity”, addressing revisions as recommended by the Annexation Task Force.

**Sponsors:** Lance Simms

**Indexes:**

**Code sections:**

**Attachments:** [Summary of Changes.pdf](#)  
[Ordinance.](#)  
[Exhibit B](#)  
[Map 8.1](#)

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding approval of an ordinance amending the College Station Comprehensive Plan by amending text in Chapter 8, “Growth Management & Capacity”, addressing revisions as recommended by the Annexation Task Force.

### Relationship to Strategic Goals:

- Good Governance
- Financially Sustainable City
- Core Services and Infrastructure
- Neighborhood Integrity
- Diverse Growing Economy
- Improving Mobility
- Sustainable City

**Recommendation(s):** The Annexation Task force recommends approval. Staff recommends approval. The Planning & Zoning Commission will consider this item at their meeting on 21 April. Their recommendation will be provided at the City Council meeting.

**Summary:** This ordinance amends Chapter 8, Growth Management & Capacity, of the City’s Comprehensive Plan to include recommendations from the Annexation Task Force. In May of 2015, the City Council appointed an Annexation Task Force - comprised of three Planning & Zoning Commissioners and three City Council members - to update the timing, priorities, and phasing of future annexations. The Annexation Task Force met for several months and their work resulted in proposed revisions to Chapter Eight of the City’s Comprehensive Plan. The proposed revisions to

Chapter eight are intended to establish and maintain the necessary policy guidance and associated strategies to maintain the City's ongoing physical growth in a sensible, predictable, and fiscally responsible manner.

Budget & Financial Summary: N/A

Legal Review: Yes

Attachments:

- 1) Summary of Changes
- 2) Ordinance
- 3) Exhibit B

**Summary of Changes**  
**College Station Comprehensive Plan**  
**Chapter 8, Growth Management & Capacity**

- Updated chapter introduction with current statistics
- Added language on Municipal Utility Districts and their role / value in accommodating future growth
- Updated “Extraterritorial Jurisdiction Strategies” section
- Provided a major update to “Infrastructure” and “City Services” section (water, sewer, electricity, solid waste, PD, Fire, etc.)
- Updated “future land use / residential growth capacity” section
- Provided a discussion of recent state action under “Annexation”
- Updated “Annexation Priorities” section
- Updated Map 8.1, Potential Annexation Areas
- Updated text associated with Map 8.1, Potential Annexation Areas
- Incorporated Annexation Task Force (ATF) recommendations into “Future Annexation Policy” section
- Updated “Goals, Strategies, and Actions” section to incorporate ATF recommendations
- Included misc. housekeeping items (changed A-O zoning district to R zoning, etc.)

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE OF THE CITY OF COLLEGE STATION, TEXAS, AMENDING THE COLLEGE STATION COMPREHENSIVE PLAN BY AMENDING CHAPTER 8 “GROWTH MANAGEMENT & CAPACITY”, ADDRESSING CERTAIN UPDATES; 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 a new Subsection C.1.d of Exhibit “A” thereto as set out in Exhibit “A” attached hereto and made a part hereof; and by deleting Chapter 8 “Growth Management & Capacity” thereof and substituting a new Chapter 8 “Growth Management & Capacity” as set out in Exhibit “B” attached hereto and made a part hereof for all purposes.

PART 2: That if any provisions of any section of this ordinance shall be held to be void or unconstitutional, such holding shall in no way effect the validity of the remaining provisions or sections of this ordinance, which shall remain in full force and effect.

PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PASSED, ADOPTED and APPROVED this 28<sup>th</sup> day of April, 2016.

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, in hereby amended by adding a new Subsection C.1.d to 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. Existing Conditions;
2. Introduction;
3. Community Character;
4. Neighborhood Integrity;
5. Economic Development;
6. Parks, Greenways & the Arts;
7. Transportation;
8. Municipal Services & Community Facilities;
9. Growth Management and Capacity; and
10. 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. Parks, Recreation and Open Space Master Plan dated May 2005;
6. Park Land Dedication Neighborhood Park Zones Map dated January 2009;
7. Park Land Dedication Community Park Zones map dated April 2009;
8. Bicycle, Pedestrian, and Greenways Master Plan dated January 2010;
9. Central College Station Neighborhood Plan dated June 2010;
10. Water System Master Plan dated August 2010;
11. Wastewater Master Plan dated June 2011;
12. Eastgate Neighborhood Plan dated June 2011;
13. Recreation, Park and Open Space Master Plan dated July 2011;
14. Southside Area Neighborhood Plan dated August 2012;
15. Medical District Master Plan dated October 2012;
16. Wellborn Community Plan dated April 2013;
17. Economic Development Master Plan dated September 2013; and
18. South Knoll Area Neighborhood Plan dated September 2013.

### 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 – by this ordinance, dated April 28, 2016.

#### 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. 1600 University Drive East – Ordinance 3535, dated November 14, 2013.
- d. 2560 Earl Rudder Freeway S. – Ordinance 3541, dated December 12, 2013.
- e. 13913 FM 2154. – Ordinance 3546, dated January 9, 2014.
- f. 2021 Harvey Mitchell Parkway – Ordinance 3549, dated January 23, 2014.
- g. 1201 Norton Lane – Ordinance 3555, dated February 27, 2014.
- h. 3715 Rock Prairie Road West – Ordinance 3596, dated August 25, 2014.
- i. 4201 Rock Prairie Road – Ordinance 3670, dated July 9, 2015.
- j. 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.
- k. 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.
- l. 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.
- m. 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.

#### 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.
- 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.

#### 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 deleting Chapter 8 "Growth Management & Capacity" thereof and substituting a new Chapter 8 "Growth Management & Capacity" to read as follows:

# GROWTH MANAGEMENT & CAPACITY

As College Station continues to expand, both in population and geographic extent, it will face opportunities and challenges associated with managing growth over a much larger area. Since the adoption of the 2009 Comprehensive Plan, the City’s population surpassed 100,000 people in January 2014 – just as originally projected. This milestone allows the City the option to extend its Extraterritorial Jurisdiction (ETJ) from the current three and one-half miles beyond City limits to five miles. This will result in further expansion into Brazos County, Burleson County, and Grimes County.



College Station faces major investments in water and wastewater infrastructure in coming years to keep pace with increased population. Along with traffic and drainage challenges, this is but one example of the capacity considerations that must be anticipated to plan effectively for projected growth.

## PURPOSE

The purpose of this chapter is to establish the necessary policy guidance and associated strategies and actions to enable the City of College Station to manage its ongoing physical growth and development in a sensible, predictable, and fiscally responsible manner. It highlights the need to encourage additional infill development, absorb more population in appropriate areas within the current City limits, pursue strategic annexations, and manage growth in the ETJ.

The preparation of this chapter involved examining College Station’s growth history, projected growth trends, and existing methods used to manage growth. The discussion then turns to options the community should consider to ensure that the benefits of growth are not offset by increased traffic congestion, loss of valued open space, or other impacts that adversely affect residents’ quality of life and the local business environment. The vision as to how College Station will grow – and manage its growth – in the future was formed by the concerns and ideas expressed by residents during community outreach events and through a series of working meetings with the Comprehensive Plan Advisory Committee.

## BACKGROUND

Orderly growth of the City, within the current City limits and ultimately into strategic portions of the ETJ, is critical to its long-term viability. A municipality has a responsibility to its residents and taxpayers to ensure a growth pattern that makes good fiscal sense, particularly in terms of the infrastructure investments needed to keep pace with growth. Effective growth management can prevent roads, utility infrastructure, and public facilities from becoming overloaded by a scale and intensity of



In recent years, the City and Texas Department of Transportation have made substantial investments in roadway improvements to improve traffic flow within College Station. At the same time, dispersed development activity in the Extraterritorial Jurisdiction increases traffic demand and raises safety issues on minimally improved rural roads (narrow pavement width, no shoulders, basic surface, limited drainage provisions). Numerous new access driveways along rural road corridors are the most visible sign of this growth impact.

development that cannot yet be served safely and effectively. It can also serve to promote strategies identified in the Green College Station Action Plan by guiding growth and development to targeted infill areas, thereby maximizing the efficiency and effectiveness of the City's existing infrastructure network.

### Past Growth Pattern

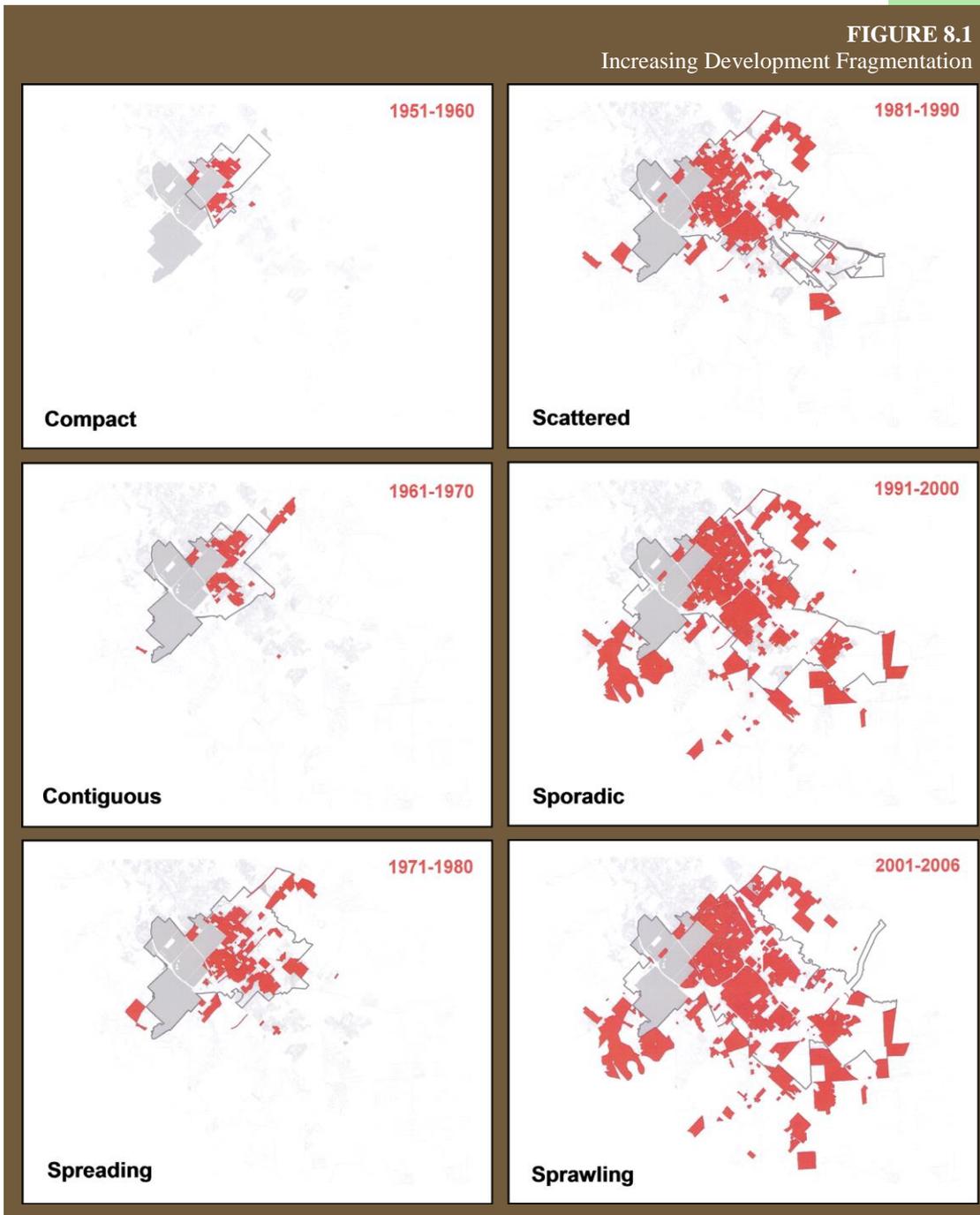
Over the last six decades, College Station has experienced rapid population growth, averaging 90% per decade. When the outliers (the 1940s at 263% growth and the 1970s at 111% growth) are excluded, the average rate of growth per decade is 42%. As the scale of the community increased, its rate of growth naturally began to moderate (41% in the 1980s and 29% in the 1990s), although the additional population and development each decade certainly remained significant.

College Station's increase in population and corresponding employment growth is a positive indicator of the City's economic competitiveness and stability. While attracting and sustaining economic development is a primary goal, the community must also consider ways to maximize the fiscal benefits associated with additional development. The physical growth pattern of the City and the efficient provision of City services are key factors in this consideration.

As displayed in **Figure 8.1, Increasing Development Fragmentation**, since the 1970s the form of development in and around College Station has become progressively scattered. This is partly due to the location of floodplains and other physical constraints. However, between 2000 and 2008, the number of platted lots in the Extraterritorial Jurisdiction averaged 16.8% of the total annual platted lots. The trend of peripheral growth is long-standing. Development began to scatter in the 1980s and has increasingly sprawled outward since. Continuation of this growth pattern will become increasingly problematic due to the challenges associated with providing cost efficient City services and infrastructure to expanding areas.

### Purpose of the Extraterritorial Jurisdiction (ETJ)

As a Home Rule municipality (greater than 5,000 population and with its own City Charter), College Station has some authority over a larger unincorporated planning area, beyond its current City limits, that is known in Texas as the "Extraterritorial Jurisdiction," or ETJ. In Chapter 42 of the TEXAS LOCAL GOVERNMENT CODE, the Texas Legislature declares it to be State policy that ETJs be created around cities so that municipal governments can "promote and protect the general health, safety, and welfare of persons residing in and adjacent to" the City limits.



## PLANNING CONSIDERATIONS

### Growth Management

Growth management represents a key opportunity for College Station to influence the timing, pattern, and quality of development through a variety of tools at the disposal of Texas municipalities. However, there are also State-imposed limitations that restrict the City's ability to guide growth in the ETJ and urban type development at the City's edge has been an ongoing challenge.

**What are Municipal Utility Districts (MUDs)?**

A Municipal Utility District (MUD) is a political subdivision authorized by the Texas Commission of Environmental Quality (TCEQ) to provide water, sewer, drainage, and/or other municipal services within its clearly defined boundaries. These political subdivisions are recognized as taxing entities by the State of Texas in order to raise funds within its boundaries to pay for the costs of providing the municipal services.

**How does a MUD work?**

The publicly elected Board of Directors manages and controls all of the affairs of the MUD subject to the continuing supervision of the Texas Commission of Environmental Quality. The Board establishes policies in the interest of its residents and utility customers. A MUD may adopt and enforce all necessary charges, fees and taxes in order to provide district facilities and service.

**How is a MUD created?**

A majority of property owners in the proposed district petitions the Texas Commission of Environmental Quality to create a MUD. The TCEQ evaluates the petition, holds a public hearing, and grants or denies the petition. After approval, the TCEQ appoints five temporary members to the MUD Board of Directors, until an election is called to elect permanent Board members, to confirm the MUD’s creation, and to authorize bonds and taxing authority for bond repayment.

Along with the typical cost advantages of developing in the ETJ, there is also the allure of country living in locations that are detached from other development – a real market factor that must be recognized and accommodated when identifying future growth areas. It is also important to note that recent ETJ platting activity has prepared the way for substantial numbers of residential lots regardless of future actions to manage growth.

**Municipal Utility Districts (MUDs)**

The City adopted a Municipal Utility District (MUD) policy in January 2014 to establish City Council authority over the creation, operation, and dissolution of MUDs within the City limits or it’s ETJ. MUDs can be an excellent tool used in financing, constructing, and operating quality water, wastewater, and drainage facilities because they allow the developer and future property owners to absorb the costs and pay for them over time. In March 2015, the City Council granted consent

for the first MUD in Brazos County (Brazos County MUD No.1).

MUDs can be an excellent tool for managing growth in the ETJ because they allow development to occur in a planned manner while provide a means to finance needed infrastructure. MUDs typically include a Development Agreement with the City that outlines development standards and guidelines that aren’t normally enforced in the ETJ absent an agreement.

**Sprawl**

Sprawl, by definition, is a spread-out or leap-frog development pattern which blurs the urban edge and intrudes, often in a haphazard way, upon the low intensity nature of the rural landscape. To the extent that some Extraterritorial Jurisdiction developments around College Station involve suburban and even urban intensities, the growth management challenge becomes even greater for the City. For those Extraterritorial Jurisdiction residents who chose a more remote living location, versus in city living, the erosion of rural character from dense piecemeal development impacts their investment and day-to-day quality of life.

There are several reasons why the recent pattern of growth has occurred in and around College Station, including, but not limited to, the following:

- There is a lure to greenfield development due to the ease of development approval, particularly since the City has no authority within its Extraterritorial

Jurisdiction to regulate:

- o The use of any building or property for business, industrial, residential, or other purposes;
  - o The bulk, height, or number of buildings constructed on a particular tract;
  - o The size of a building that can be constructed on a particular tract of land, including, without limitation, any restriction on the ratio of building floor space to the land square footage (floor area ratio);
  - o The number of residential units that can be built per acre of land (density);
  - o The size, type, or method of construction of a water or wastewater facility that can be constructed to serve a developed tract of land, subject to specified criteria; or,
  - o Building standards by requiring building permits and inspections.
- The City's current oversize participation ordinance allows the City to pay up to 100% of the total cost for any over-sizing of improvements that it requires in anticipation of future development. There are no stated exceptions or criteria regarding its cost effectiveness; financial feasibility; or conformance with utility master plans, the Comprehensive Plan, or other development policies.
  - There are both allowances and limitations within the Unified Development Ordinance, including:
    - o The R Rural zoning district allows a minimum lot size of two-acres and average lot size of three-acres, meaning that residences utilizing on-site sewer treatment systems are permitted. Although this district is not actively used, its availability as a zoning option could contribute to development fragmentation if this zoning were to be granted in the outlying areas of the corporate limits where adequate municipal facilities are not yet available.
    - o The Unified Development Ordinance contains a relatively large number of use-based zoning districts. Essentially, this means that a zone change is necessary to respond to a shift in the market, which adds process and delays development. This is a disincentive for development to occur within the City rather than the Extraterritorial Jurisdiction, where zoning does not apply.
    - o There are limited incentives integrated into the current ordinance to encourage certain development types. Increased density in



Under the Texas statutory framework, a City may not extend its zoning regulations to the Extraterritorial Jurisdiction. Therefore, College Station has no direct means to manage the location and intensity of new development in largely rural areas unless it annexes. To do so, it must have the capacity to extend City services to such areas while meeting existing and future needs within the current City limits.

exchange for development clustering and more open space could allow a rural development environment within the City limits rather than necessitating Extraterritorial Jurisdiction development to achieve this character.

- Availability of water from other providers (Wellborn Special Utility District, Brushy Creek Water Supply Corporation, and Wickson Creek Special Utility District). This means that development has access to public water that meets the standards of the Texas Commission on Environmental Quality without requiring connection to the City's utility system.
- The Brazos County Health Department's prerequisite for permitting septic systems is a minimum one-acre lot, whether there is public water available or a private well.
- Property in the Extraterritorial Jurisdiction is not subject to City ad valorem taxes. Therefore, residents and businesses outside the City limits benefit from access to municipal facilities and services, such as streets, parks, trails, libraries, and other community facilities, but do not share equitably in the tax burden associated with constructing and maintaining those facilities and services.
- Land is generally less expensive outside the City limits due primarily to the absence of public infrastructure and improvements, which equates to cheaper development and, hence, lowers development costs.
- There is an attraction to the open, rural landscape often found at the City's fringe.
- The City has granted several exceptions to its utility extension policy, providing sewer service to areas outside the City. This enabled development at suburban densities in areas that, under normal conditions, would be limited to a minimum lot size of one acre.

As displayed in **Figure 8.2, Extraterritorial Jurisdiction Platting Activity**, a significant portion of the developable land in College Station's current Extraterritorial Jurisdiction is already platted for development (in yellow) or otherwise planned for development by way of preliminary plats or master plans (in red).

This condition makes it difficult for the City to be proactive in balancing utility and public service needs of the developed core community, undeveloped acreage within the City limits, and an extensive Extraterritorial Jurisdiction that should largely be its longer-term growth area.

### Implications of Sprawl

While College Station's growth pattern has created

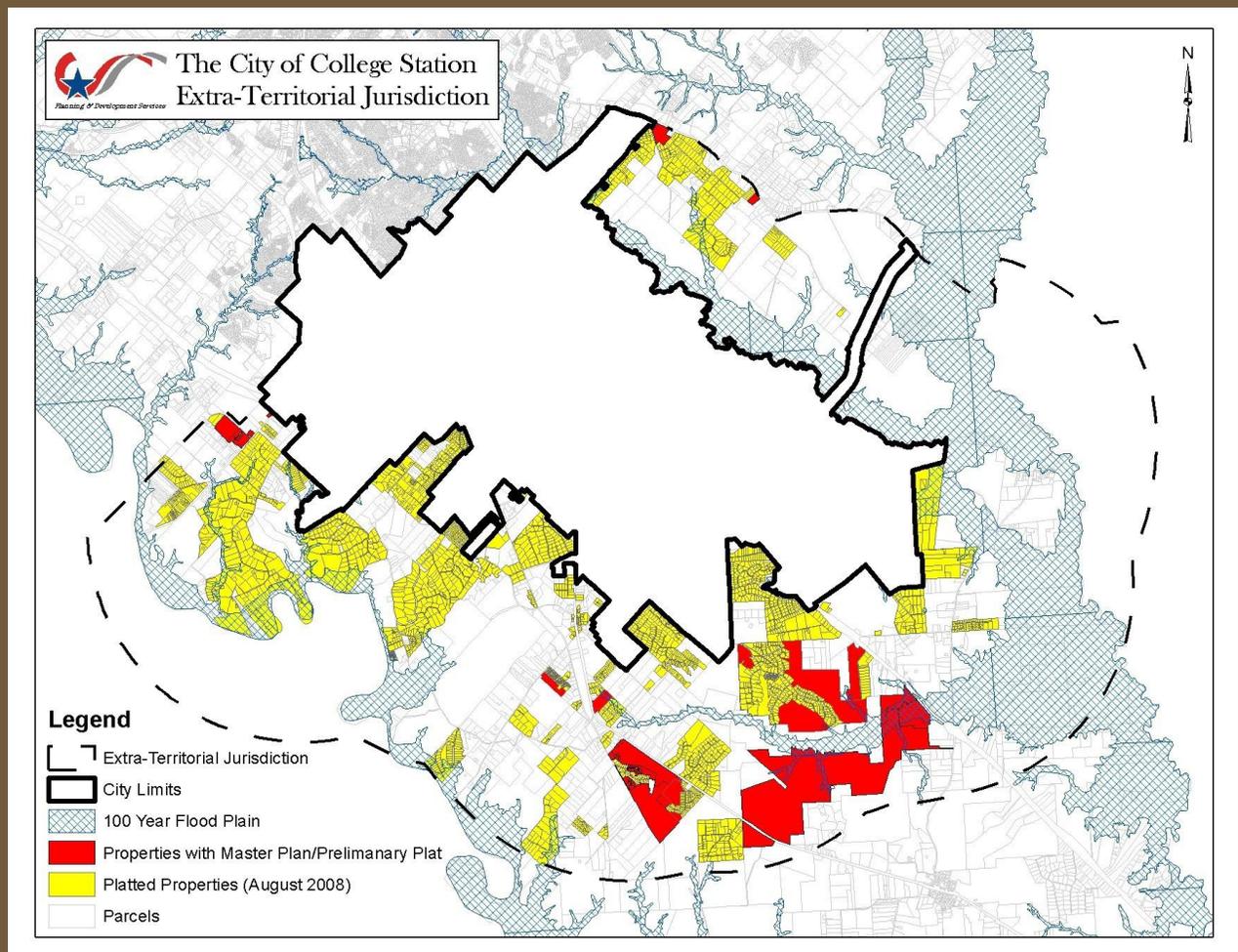


New and expanded fire stations are a very visible sign of the City's desire to invest in public safety facilities, in appropriate locations, to ensure adequate service area coverage and responsiveness as the community grows in both population and geographic size.

opportunities, without adequate foresight and preparation it may yield undesirable consequences, including:

- Erosion of a defined community edge, thereby blurring its boundaries and contributing to a loss of community identity. This can be most readily seen along each of the entrances into the community where there is a proliferation of uses extending well beyond the City limits.
- Degradation of environmental resources such as floodplains, wetlands, habitat, and vegetated areas.
- Increased demands on public infrastructure (e.g., roads, water, and wastewater systems) and services (e.g., police and fire protection, parks, libraries, and schools), in some cases, creating unsafe conditions.
- Premature shifts in traffic patterns, causing congestion and environmental impacts, as development occurs in an uncoordinated fashion before adequate transportation infrastructure is in place.

**FIGURE 8.2**  
Extraterritorial Jurisdiction Platting Activity



SOURCE: City of College Station



The desire to maintain rural character is made more challenging as urban and suburban development pressures spill into the Extraterritorial Jurisdiction. This typically increases property values and associated tax burdens, may result in incompatible development in close proximity, and can lead to demands for upgraded roads, utilities, and public safety services.

- Cumulative impacts on the natural environment due to urban stormwater runoff (increased drainage volumes and velocities) and non-point source pollution of area streams and watercourses from contaminants and sediments carried by overland drainage.

- Inefficient provision of services, meaning a larger investment in infrastructure systems with fewer than the optimal number of connections/users to pay for them.

- Increased commuting times as residents have to travel relatively longer distances to reach work, places of worship, shopping,

services, schools, recreation, and entertainment destinations.

- The potential for disinvestment in older areas of the community as new development continues to occur on the periphery.

### Extraterritorial Jurisdiction Strategies

There are an array of strategies for managing the pattern and timing of development in the ETJ, ranging from simply minimizing the impacts of growth without affecting the pattern to strictly controlling growth. Texas law does not provide cities with the means to entirely prevent sprawl, therefore, it is wise for College Station to consider the ways in which it can exert more influence over the direction and timing of development that it ultimately must serve. Given College Station's past development pattern and projected growth trends, the City's growth management approach, relative to the Extraterritorial Jurisdiction, should focus on the following areas:

- Use annexation in a strategic fashion.
- Expand the City's certificate of convenience and necessity as appropriate in concert with annexation activity.
- Adhere to the City's utility extension policy while working to enhance it.
- Effectively utilize the City's Municipal Utility District policy.
- Expand the thoroughfare plan.
- Expand the ETJ boundary from 3.5-miles to 5-miles.
- Strengthen the health and safety components of the subdivision regulations.

## GROWTH CAPACITY

This section provides an evaluation of the City's municipal services, and future land use assumptions in terms of their ability to accommodate the population growth expected within the next 15 years.

### Infrastructure

#### Water

Water is a key factor in an area's growth capacity and this is certainly the case for College Station. Basic water supply is a finite resource that requires sound stewardship to ensure its continued availability in support of a community's growth and public health and welfare. College Station faces some potential challenges in the future regarding its capacity to provide water supply for projected growth. Based on population projections of roughly 150,000 persons at build-out of the city's water service area, this amounts to an average daily demand of 21.4 million gallons. For comparison, the City's average day water demand in 2014 was 13.3 million gallons. This increase in water demand will require major improvements in our water infrastructure, as well as continued emphasis on water conservation.

A recent water master plan study conducted by Freese and Nichols, Inc. concluded that the City needs to build a third water tower and add three water wells to meet these future water demands. Once the three new wells are fully operational, they are projected to supply over 9,000 gallons per minute and will help the City meet future peak water demands. Depending on the density of future development and the effectiveness of our water conservation programs, the City should also look at possible alternative water supplies, which includes:

(1) additional groundwater development, (2) Brazos River diversions, (3) direct potable re-use, (4) aquifer storage and recovery, (4) desalination, and (5) additional non-potable re-use projects. For continued success in water conservation, the City will reviews its inclined block water rate structure and commercial irrigation rates, to further encourage prudent landscape irrigation. Additionally, the City is in the planning phase for the second wastewater effluent reuse project, to complement the existing system that takes treated wastewater effluent from the Carters Creek treatment plant for irrigation at the Veteran's Park and Athletic Complex.

#### Wastewater

The City's two wastewater treatment plants have a combined capacity to treat 11.5 million gallons per day (MGD). The Carters Creek Plant accounts for 9.5 MGD, and the Lick Creek Plant provides the other 2.0 MGD, which primarily serves southern College Station. The community's current average daily wastewater generation is in the 7 MGD range, and steadily increasing. As required by the Texas Commission on Environmental Quality, the City has commenced engineering design and financial planning to expand

this treatment capacity, since it has reached 75% of permitted average daily flow for three consecutive months. The regulations further require a permittee to gain regulatory approval and begin construction to expand treatment facilities when a plant reaches 90% of permitted average daily flow for three consecutive months, which is expected to occur within the next ten years. Capital Plans are in place to stay ahead of these demands and regulations, and an updated wastewater master plan will be completed in 2016, by Freese and Nichols, Inc.

The wastewater collection system is undergoing capacity expansion as well, with one major trunk line under construction and several others planned for construction within the next five years. As College Station continues growing to the south and west, major wastewater collection infrastructure, including lift stations, will be required. These are in the engineering planning phase, and will be discussed in the annual budget process for possible inclusion in the City's Capital Improvement Plan.

### Electricity

College Station Utilities is the City's primary electric provider. Bryan Texas Utilities also serves areas inside the city limits of College Station, being certified to provide electric service to all areas annexed since 2002. College Station Utilities currently serves more than 38,900 customers via seven electrical substations located in the City with a combined capacity of 474 million volt-amperes (MVA). These seven substations currently serve a peak demand of 208 MVA. Two additional substations are currently in planning and the next substation is scheduled to be operational in 2018, increasing College Station Utilities' electrical capacity by 66 MVA. In general, the City appears to be in a good position to handle the additional electrical demands that forecasted growth would generate over the life of this Plan.

### Transportation

The other major growth capacity challenge confronting College Station involves the congestion and safety issues resulting from increased traffic on area roadways. Stresses on portions of the transportation system are already occurring at peak times and will grow worse over time unless investments are made in additional road capacity and intersection upgrades. This stress is due, in part, to the limitation of major corridors and the traffic generated by the Texas A&M University campus.

It is difficult for any community to build its way out of traffic congestion problems, certainly in the short term. With the financial burden for transportation improvements in Texas increasingly falling on local governments, College Station's available resources will only stretch so far. Alternative transportation options, such as transit, biking, and walking will need to provide an increasing amount of relief.

The City's physical development pattern can have a significant impact on future transportation needs. Outward growth and development pressure tends to spread traffic issues to rural roadways that may not be constructed to handle the increased loads. The City can maximize the use of existing infrastructure by encouraging infill development in lieu of allowing future development to occur on the periphery. Also, a more compact development pattern, with increased density and mixing of uses in appropriate locations, would tend to slow the growth in total vehicle miles traveled by generating greater transit ridership and reducing the length of many routine trips.

While transportation issues will continue to be a challenge, carefully planned growth, a thoroughfare system incorporating multi-modal transportation, and smart use of limited financial resources should place the City in a position to accommodate the transportation needs of the additional population anticipated during the life of this Plan. As discussed in Chapter 6: Transportation, if the City develops in compliance with a modified version of the Programmed-Project Option, traffic congestion should be limited to a modest increase during the life of this plan. After 2030, it is likely that congestion will grow considerably worse unless there is an even greater focus on mixed use, density, transit, and greater investments in bike and pedestrian facilities.

Following the Comprehensive Plan Five-Year Evaluation & Appraisal Report in 2014, the City retained Kimley-Horn and Associates, Inc. to update Chapter 6: Transportation and the associated maps, as recommended, based on new information, traffic counts, and capacity data.

## Municipal Services

### Solid Waste

The Brazos Valley Solid Waste Management Agency (BVSWMA), Inc. is a non-profit local governmental corporation formed in 2010 under a joint agreement between the City of Bryan and the City of College Station. BVSWMA, Inc. owns and operates the Twin Oaks Landfill in Anderson, Texas and the Twin Oaks Compost Facility in Bryan, Texas. BVSWMA, Inc. also owns and maintains the closed Rock Prairie Road Landfill in College Station, Texas. Twin Oaks Landfill currently accepts about 1,100 tons of solid waste per day (or about 300,000 tons per year). Twin Oaks opened in 2011 with a design capacity of 27,750,000 tons. At the start of the 2016 fiscal year, the remaining capacity was 26,500,000 tons.

Due to the City's recycling efforts, residential waste stream diversion has averaged 20% over that last five years (Fiscal Year 2011-2015) and commercial waste stream diversion has averaged 19% during the same time frame. The total waste stream diversion over the last five years averaged 19.5%. In terms of tonnage, the waste diverted from the landfill due to recycling is 25,904 tons for residential waste and 44,576 tons for

commercial waste for a total of 70,480 tons over the last five fiscal years. These waste reduction efforts were achieved through recycling, large brush collection/composting, and the City's commercial/multifamily franchise recycling program and should serve to extend the life of Twin Oaks Landfill. In terms of solid waste management, the Twin Oaks Landfill appears to be in a good position to handle the anticipated needs during the life of this Plan.

### Police

College Station's continued growth to the south is straining the Police Department's ability to consistently meet the desired response time. One-way frontage roads and a general lack of connectivity in southern College Station make timely emergency responses difficult. Implementing and maintaining the interconnections designated on the Thoroughfare Plan should help alleviate this problem.

As College Station continues to grow, the Police Department will need to continue to monitor growth trends and plan accordingly – especially in terms of satellite stations. As discussed in Chapter 7: Municipal Services and Community Facilities, it is anticipated that the Police Department will continue to add the necessary staff and facilities to serve the future population as projected by this Plan.

### Fire and Emergency Medical Services

The College Station Fire Department currently operates six stations with plans underway for a seventh. The Fire Department's call volume has increased an average annual rate of 6.24% since 2005. Assuming an annual increase of 3.14%, it is anticipated that the call volume over the next five years will increase to over 9,956 calls by 2020. College Station maintains a Fire Protection Master Plan that includes a schedule for additional personnel and facilities. The Master Plan calls for a total of 12 stations at the end of the 20-year planning horizon.

For more information concerning the Fire Department's services, facilities and future needs, please refer to Chapter 7: Municipal Services and Community Facilities. Overall, it is anticipated that the Fire Department will continue to add the necessary staff and facilities to serve the future population projected by this Plan.

State law requires municipalities to compensate the Emergency Services District (ESD) for territories annexed within their district immediately upon annexation. The amount of compensation is equal to the annexed territory's pro rata share of the ESD's bonded and other indebtedness. This requirement should be considered when considering future annexations.

### **Future Land Use**

Lastly, the growth management and capacity discussion would not be complete without an evaluation of the Future Land Use & Character map for the City. Displayed in Table 8.1, Residential Growth Capacity, are the

growth indicators based upon build-out of the land uses as designated on the Future Land Use & Character map.

It is projected that College Station will have a population of over 134,000 residents in 2030. The population as of December 2015 was estimated to be 106,465. An evaluation of residential projects currently under development and the land use scenario depicted

on Map 2.2, Future Land Use and Character, as amended in December 2015, shows that the City can accommodate an ultimate population of approximately 150,000. This estimate also includes the projected build-out population of Brazos County MUD No. 1. This represents a total population of about 16,000 more than the 2030 projection. While the uses depicted on the Future Land Use & Character map seem adequate to accommodate the growth forecasted over the next 15 years, it will be important to closely monitor growth trends moving forward. It will also be important to evaluate and react to market conditions and take any action required, including but not limited to annexation, to accommodate expected growth.

**TABLE 8.1  
Residential Growth Capacity**

Indicator	Amount of Residents	Notes
Current Population	106,465	As of December 2015
Housing Currently Under Development	9,740	Based on 2.38 PPH* and 94% occupancy rate.
In-City Development Potential from Future Land Use & Character Map	30,226	Based on 2.38 PPH* and 94% occupancy rate.
Brazos County MUD #1	3,165	Based on General Development Plan included in the Development Agreement with the City.

**ANNEXATION**

**Background**

Through annexation, the City is able to extend its land development regulations – particularly zoning – which provides an essential growth management tool to implement the Comprehensive Plan. Annexation also extends the City's ETJ, enabling it to regulate the subdivision of land over a larger area. However, Texas annexation statutes mandate stringent requirements for extending services to newly-annexed areas in a timely and adequate manner, which must be comparable to pre-existing services and service levels in similar incorporated areas.

By statute, in any given year the City may annex a quantity of acreage that is equivalent to up to 10% of its current incorporated land area. If it does not annex all of the land that is allowed, the difference rolls over to the next year. The City can make two such rollovers, meaning it can annex up to 30% of its land area in a single year. Given the amount of territory already included within College Station's corporate limits, the City has the ability to add significant acreage through annexation where desired and feasible.

### Recent State Action

Annexation powers have routinely come under attack by the State Legislature. The most recent example was House Bill 2221, introduced in the 84th Legislature. The Bill, as proposed, would have required strict voter approval of an annexation area with more than 200 residents. The ability to unilaterally annex has been a key factor in the growth and continued vitality of the City and any attempt to limit annexation authority should be resisted. The flexibility to annex has enabled cities in Texas to expand as needed to accommodate growth and share in the benefits of the resulting growth. This annexation power is the primary difference between the flourishing cities of Texas and the declining urban areas in other parts of the country. Cities that are unable to annex and capture a share of the expanding tax base can eventually lead to the deterioration of the city core, which in turn accelerates flight to the outlying areas.

### Annexation Priorities

Important considerations in prioritizing potential annexation areas include:

- Whether the area is contiguous to existing developed areas within the current City limits, which contributes to orderly growth progression – and may also involve compatibility concerns if unzoned ETJ development is out of character with nearby in City areas.
- Whether City utilities have already been extended into the area or are within close proximity and could readily and feasibly be extended as demands warrant – and whether the City prefers to be the service provider in particular areas experiencing development pressures.
- Whether the area is still largely vacant or has already developed at a rural or suburban intensity – or is destined for such development through prior platting and land planning activity (depending on market timing and ultimate owner/developer intentions).
- Whether any significant commercial development has already occurred – possibly in a haphazard, strip development fashion – which detracts from development quality and community appearance at gateway locations.
- Whether the area is constrained for significant development by floodplain or other factors, and whether there is much development potential, in general, beyond a current rural residential pattern.
- Whether current or future key transportation corridors traverse the area, making land use management along such corridors imperative to long-term traffic flow and safety.
- Whether other strategic considerations come into play in areas that might not otherwise be attractive for near term annexation, such as areas

along major corridors that serve as current or future gateways into the City, protection areas for key assets (e.g., water supply, airport), or areas that may also be attractive to other jurisdictions for potential annexation.

- Whether the area is appraised for property tax purposes as land for Agricultural use, Wildlife Management use, or Timber Land. In such cases, the City must first offer the property owner a non-annexation agreement before moving forward with the annexation process.
- Whether the State will continue to limit the City's ability to annex. Should this trend continue, it may be in the City's best interest to initiate annexation sooner rather than later.

Displayed in **Map 8.1, Potential Annexation Priorities & Phasing**, are candidate annexation areas within the College Station ETJ. The map is color-coded to indicate areas currently under non-annexation Development Agreements, areas that can be annexed by amending the City's Annexation Plan, and areas that could be annexed via the exempt process.

### Future Annexation Policy

Following the adoption of the 5-year Evaluation and Appraisal Report, an Annexation Task Force was assembled to review the City's annexation priorities and recommend amendments to this chapter. The Task Force was comprised of three City Council members and three Planning & Zoning Commissioners. The Task Force met for several months to evaluate the City's annexation strategies and priorities and provided the following recommendations:

- Move forward with an exempt annexation package.
- Utilize Non-Annexation Development Agreements in a strategic manner to reserve undeveloped or underdeveloped areas for future growth.
- Evaluate the costs and benefits of annexing areas currently under non-annexation development agreements on a case-by-case basis as they expire.
- Renew the ETJ boundary agreement with City of Bryan.
- Extend the City's ETJ from 3.5 miles to 5 miles.
- Consider amending the City's Annexation Plan to include one or more three-year annexation areas.
- Continue to monitor actions by the State Legislature to limit the City's authority to unilaterally annex property.
- Should the State continue to limit the City's authority to unilaterally annex property, pursue strategies to minimize the impacts of such action.
- Closely coordinate the City's ETJ extension with Brazos /county, Burleson County, and Grimes County. Pursue interlocal agreements to address plat review for overlapping ETJ areas as appropriate.

Insert Map 8.1

**TABLE 8.1  
Annexation Considerations**

Priorities Subarea		Reasons for Annexation											
		1	2	3	4	5	6	7	8	9	10	11	12
Current Development Agreements	F				★	★			★		★		
	H	★		★	★						★		
	J			★	★						★		
	R	★			★						★		
	T	★			★			★					
	U	★			★	★		★				★	
Areas That Require a 3-Year Plan	D		★	★	★	★			★	★	★		
	E					★			★		★		
	K		★		★	★			★		★		
	M	★			★						★		
	O	★	★		★	★			★	★	★		
	P	★	★		★	★			★	★	★		
	V	★			★	★		★				★	
Exempt Annexation Status	A	★			★			★				★	
	B	★		★	★							★	★
	C	★			★	★							
	G		★		★	★			★		★		★
	I	★			★						★		
	L		★		★	★			★		★		
	N	★	★		★	★			★	★	★		
	Q	★	★		★	★			★	★	★		
	S	★			★	★		★			★		
	W	★			★	★							★

1. Provides control of gateway frontage.
  2. Provides moderate to significant revenue (property and/or sales tax).
  3. Provides undeveloped or underdeveloped area for future growth.
  4. Part or all of area qualifies for non-annexation development agreement.
  5. Area adjacent to the City on two or more sides.
  6. Preserves existing character.
  7. Protects part (or all) of area from future development.
  8. Health and life safety concerns (building and fire code enforcement, emergency response, etc.).
  9. Part of area currently served by City sanitary sewer and has the capacity to handle new development.
  10. Located within CSISD.
  11. Provides potential location for business parks.
  12. Transportation infrastructure already provided.
- SOURCE: City of College Station

## GOAL, STRATEGIES, AND ACTIONS

The overall goal for College Station's growth in the years ahead is to ensure fiscally responsible and carefully managed development aligned with growth expectations and in concert with the ability to deliver infrastructure and services in a safe, timely, and effective manner. The five strategies in this section elaborate on these themes and community priorities.

### *Strategy 1: Identify land use needs based on projected population growth.*

- **Strategic Land Use Planning.** Delineate planned growth areas and protection areas by assigning appropriate character classifications (e.g., urban and suburban versus rural) for the planning horizon, through the Future Land Use & Character map in the Comprehensive Plan.
- **Holding Area Zoning.** Ensure that the growth timing aspect of municipal zoning is employed effectively by establishing a direct link between character areas indicated on the Future Land Use & Character map and the development intensity permitted in these areas through the zoning map and Unified Development Ordinance provisions.
- **Zoning Integrity.** Guard against zoning map amendments that, cumulatively, can lead to extensive residential development in growth areas without adequate land reserves for a balance of commercial, public, and recreational uses.
- **University Coordination.** Coordinate with Texas A&M University and Blinn College concerning their projected enrollment growth and associated faculty/staff increases to plan effectively for the implications of further off campus housing demand.
- **Monitor Trends.** In conjunction with periodic review of the Comprehensive Plan, identify market shifts that could have implications for desired housing types, retail or other commercial offerings, and particular public service and recreational needs.

### *Strategy 2: Align public investments with the planned growth and development pattern.*

- **Coordinated Planning.** Ensure that the strategies and actions of this Comprehensive Plan carry through to the City's master plans. The City master plan updates should include provisions that relate directly to the City's Future Land Use & Character Plan (e.g., future utility master plans; Recreation, Park, and Open Space Master Plan; Bicycle, Pedestrian and Greenways MasterPlan).
- **Certificate of Convenience and Necessity Boundary Extensions.** Extend the City's service area for sanitary sewer (the Certificate of Convenience and Necessity boundary) into the Extraterritorial Jurisdiction in an incremental and carefully timed manner, in concert with annexation activity and defined growth management objectives.

- **Strengthen the Water/Sanitary Sewer Extension Policy.** Amend the water/sewer extension policy to require extensions to be consistent with the Future Land Use & Character Plan; the City's ongoing growth area planning; and the City's utility master plans and multi-year Capital Improvement Plan.
- **Oversize Participation.** Establish criteria to evaluate the fiscal impact and cost effectiveness of proposed over-sizing commitments by the City.
- **Capital Improvements Programming.** Expand municipal facilities consistent with growth expectations and to support the desired growth and development pattern.
- **Impact Fees.** Extend water and wastewater impact fees into new, targeted growth areas in the Extraterritorial Jurisdiction. Also, consider establishing road impact fees within the City as authorized by Texas statute.
- **Traffic Impact Analysis for Single-Family Development.** Protect road capacity and safety by strengthening requirements for Traffic Impact Analyses when proposed developments exceed a designated size or projected trip generation. Provisions for analysis and potential mitigation should be extended to significant single-family residential developments as requirements in the Unified Development Ordinance currently apply only to non-residential and multi-family projects.
- **Parkland Dedication.** In follow-up to the City's extension of parkland dedication requirements into the Extraterritorial Jurisdiction, monitor the program parameters to ensure desired outcomes.
- **Interlocal Cooperation.** Pursue interlocal cooperation agreements with Brazos, Grimes, and Burleson counties; City of Bryan; Texas A&M University; Blinn College; and other service providers, as appropriate. Such agreements can address coordination of subdivision review, thoroughfare planning, floodplain management, and utility and other service provision, among other matters of mutual interest.

**Strategy 3:** *Balance the availability of and desire for new development areas with redevelopment and infill opportunities.*

- **Infrastructure Investments.** Invest in the necessary infrastructure to increase redevelopment potential for areas identified in Chapter 2: Community Character. Concentrating property development within the City makes efficient use of infrastructure and supports the City's Green College Station effort.
- **Holding Area Annexations.** Use annexation to incorporate and appropriately zone areas to protect them from premature development. This strategy can also be employed in areas where the City wishes to maintain a rural character.
- **Growth Area Targeting.** Coordinate zoning, capital improvement programming, and municipal services planning to prepare targeted

growth areas as identified on the Concept Map in Chapter 2: Community Character.

- **Zoning in Support of Redevelopment.** Together with other incentive measures, apply targeted zoning strategies to designated Redevelopment Areas identified on the Future Land Use & Character map. Options may include items such as reduced setbacks, waiver to height limitations, increased signage, increased density, reduced parking standards, and reduced impact fees. The City can also conduct City-initiated rezonings to incentivize the development of vacant or incorrectly zoned property.

**Strategy 4:** *Identify and implement growth management techniques for areas within the Extraterritorial Jurisdiction.*

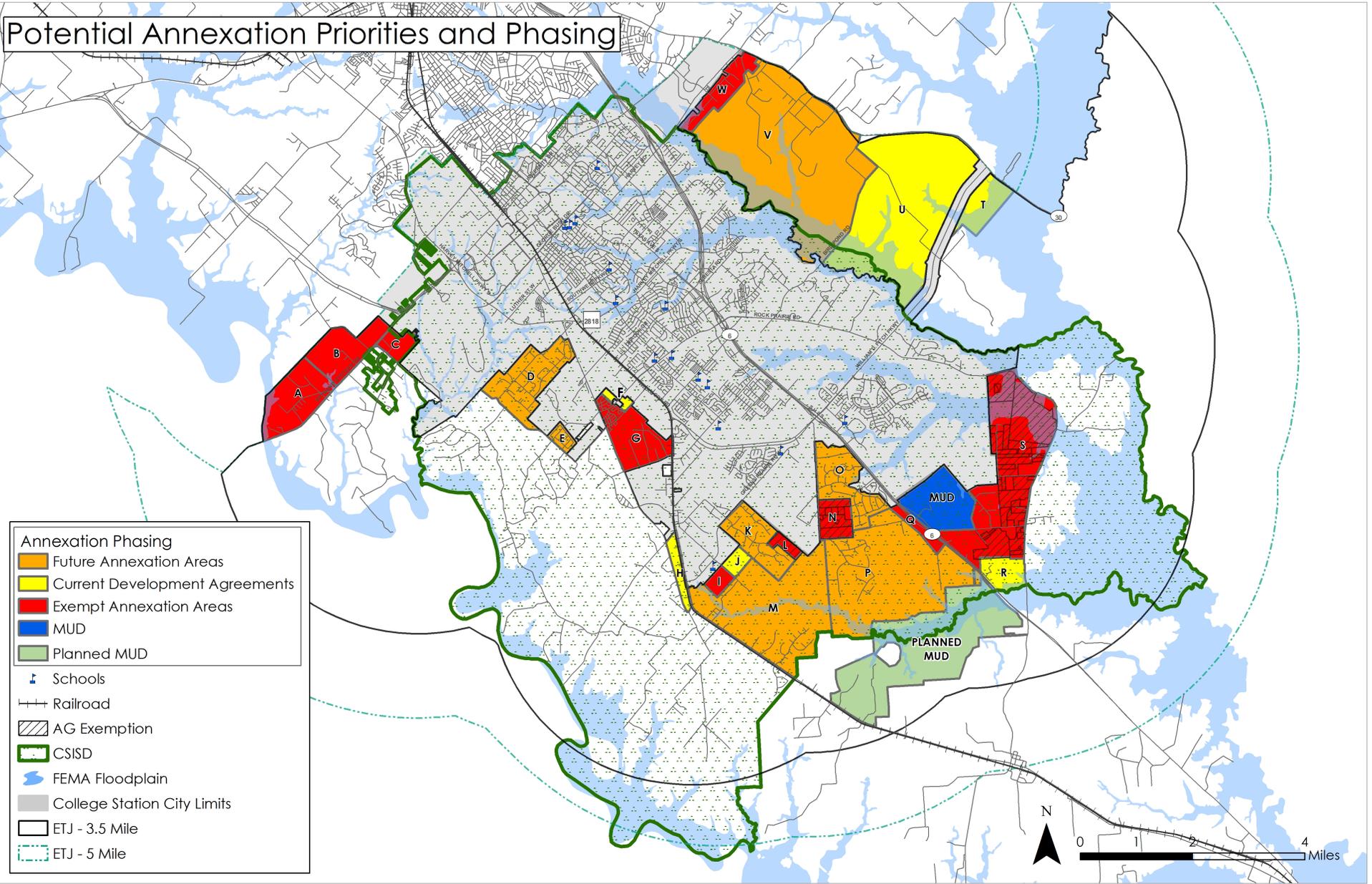
- **Intergovernmental Cooperation.** Coordinate the City's regulatory strategy for rural lot sizes with efforts by the Brazos County Health Department to increase the minimum required lot size for allowing on-site sewer treatment systems from one acre to a larger size, as needed, to address public health and safety concerns.
- **Pursue Development Balance.** Consider the development of regulations and fees that help level the playing field between in-City and Extraterritorial Jurisdiction development. Ensure that Extraterritorial Jurisdiction development contributes its fair share to the long-term costs of extending public infrastructure and services to fringe areas.
- **Growth Area Annexations.** Pursue strategic annexations, if feasible from a fiscal and service provision standpoint, to extend the City's land use regulations to Extraterritorial Jurisdiction areas facing immediate and near-term development pressures. This should also include areas where City utilities have already been extended.
- **Conservation Area Annexations.** Pursue strategic annexations in areas not targeted for significant urban or suburban development in the near term. This enables the City to apply growth management measures to discourage premature and inappropriate development.
- **Voluntary Annexations.** Utilize the utility extension policy as a means to encourage landowners to agree to annexation by way of voluntary petition to protect the City's long-term interests in significant areas of the Extraterritorial Jurisdiction, such as along key transportation corridors.
- **Non-Annexation Agreements.** Target certain annexation efforts to areas where land owners maintain a TEXAS TAX CODE exemption on their property for agricultural use. In such cases, the City must offer the property owner an opportunity to enter into a non-annexation development agreement with the City in lieu of annexation. This strategy can be an effective way of assuring limited development on the property for up to 15 years.

- **Fiscal Impact Analysis.** Continue to complete thorough cost benefit analyses to evaluate all proposed annexations. Explore available fiscal impact models that provide a more robust analysis.
- **Land Conservation.** In support of the Green College Station Action Plan, protect natural resources by recruiting land trusts and conservation organizations to consider acquisition and preservation of targeted open areas.
- **Expand ETJ Boundaries.** State law provides for ETJ boundaries ranging from ½ mile to 5 miles based on the number of City's inhabitants. In January 2014, the City of College Station exceeded 100,000 inhabitants and became eligible to increase the current 3.5 mile ETJ boundary to 5 miles. The ETJ may be extended by City Council Resolution.
- **Renew ETJ Common Boundary Agreement.** The current Common Boundary Agreement with the City of Bryan did not anticipated a five-mile ETJ for either City. Before the City expands its ETJ boundary, the ETJ common boundary agreement with the City of Bryan should be renewed.

*Strategy 5: Encourage and promote the redevelopment of land that is currently occupied by obsolete or non-functioning structures.*

- **Redevelopment of Retail.** Continue to emphasize redevelopment and revitalization opportunities for large retail sites such as Post Oak Mall and the vacant former grocery-anchored retail center along South College Avenue near University Drive.
- **Parking Management.** Encourage residential, commercial and mixed development models in the City's targeted Redevelopment Areas, as identified on the Future Land Use & Character map, that focus on integration of structured parking to enable more productive use of the overall site in place of extensive surface parking.
- **Zoning in Support of Redevelopment.** Review the effectiveness of the Redevelopment District (RDD) overlay zoning. Specifically, determine whether the minimum 20-year age requirement for pre-existing development is appropriate or if the minimum age should be removed to support revitalizing all areas with high vacancy. Consider applying the RDD zoning to designated Redevelopment Areas identified on the Future Land Use & Character map to encourage market-responsive development to occur at intersections of arterials within the City limits where there are significant amounts of underutilized lands.
- **Density/Intensity Bonuses.** Use the prospect of increased development yield (retail/office square footage and/or additional residential units in mixed-use developments) to entice redevelopment projects aiming for increased development intensity.

# Potential Annexation Priorities and Phasing





## Legislation Details (With Text)

<b>File #:</b>	16-0235	<b>Version:</b>	1	<b>Name:</b>	Corrections of the Amendments to the International Fire Codes
<b>Type:</b>	Ordinance	<b>Status:</b>			Agenda Ready
<b>File created:</b>	4/15/2016	<b>In control:</b>			City Council Regular
<b>On agenda:</b>	4/28/2016	<b>Final action:</b>			
<b>Title:</b>	Public Hearing, presentation, possible action, and discussion regarding an ordinance to adopt corrections to the 2015 International Fire Codes.				
<b>Sponsors:</b>	Eric Dotson				
<b>Indexes:</b>					
<b>Code sections:</b>					
<b>Attachments:</b>	<a href="#">Ordinance 4-12-2016.pdf</a>				

Date	Ver.	Action By	Action	Result
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Public Hearing, presentation, possible action, and discussion regarding an ordinance to adopt corrections to the 2015 International Fire Codes.

### Relationship to Strategic Goals:

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

Recommendation(s): None

### Summary:

Changes within the document include adding to:

- Section B item #3 - allowing the police department to help with overcrowding issues under the direction of the fire code official.
- Section B item #11 - adding an omitted exception for one and two family dwelling units.
- Section B item #36 - amending the title for this item.

Budget & Financial Summary: N/A

### Attachments:

1. Ordinance



ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE AMENDING CHAPTER 6, "FIRE PROTECTION", OF THE CODE OF ORDINANCES OF THE CITY OF COLLEGE STATION, TEXAS, BY AMENDING CERTAIN SECTIONS AS SET OUT BELOW; 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 6, "Fire Protection", 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: That if any provisions of any section of this ordinance shall be held to be void or unconstitutional, such holding shall in no way effect the validity of the remaining provisions or sections of this ordinance, which shall remain in full force and effect.

PART 3: That any person, firm, or corporation violating any of the provisions of this chapter 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) nor more than Two Thousand Dollars (\$2,000.00). Each day such violation shall continue or be permitted to continue, shall be deemed a separate offense. Said Ordinance, being a penal ordinance, becomes effective ten (10) days after its date of passage by the City Council, as provided by Section 35 of the Charter of the City of College Station.

PART 4: That this ordinance shall become effective on 1 January 2016.

PASSED, ADOPTED and APPROVED this 28th day of April, 2016.

APPROVED:

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Secretary

APPROVED:

\_\_\_\_\_  
City Attorney

**EXHIBIT "A"**

That Chapter 6, "Fire Protection", of the Code of Ordinances of the City of College Station, Texas, is hereby amended as set out hereafter to read as follows:

**Chapter 6 – FIRE PROTECTION****Sec. 6-1. - Fire Prevention Code.****A. INTERNATIONAL FIRE CODE ADOPTED**

- (1) The 2015 edition of the International Fire Code, including Appendix Chapters B, C, D, E, F, G, H, I and as published by the International Code Council. Said Code is hereby adopted to the same extent as though such Code were copied at length herein, subject however to the omissions, additions, supplements, and amendments contained in this section.
- (2) The Life Safety Code Handbook, specifically the 2015 Edition published by the National Fire Protection Association, a copy of which is on file in the office of the City Secretary of the City of College Station, Texas, is hereby adopted and designated as the life safety code of the City of College Station. Said code is adopted to the same extent as though such code was copied at length herein, subject however to the omissions, additions, supplements, and amendments contained in this section.

**B. AMENDMENTS TO THE INTERNATIONAL FIRE CODE**

The International Fire Code, as referred to above is hereby amended as follows:

- (1) Section 101 (General) is amended by adding Section 101.6 to read as follows:  

Section 101.6 (Emergency Vehicle Egress):  
No part of any commercial structure will be located outside the limits of a one hundred fifty foot (150') arc from a point where fire apparatus can operate. Fire apparatus will operate on surfaces designed for such and may utilize public right-of-way, approved fire lanes and/or drive access ways to meet this one hundred and fifty foot limit but in no case shall the truck travel route be measured across grass, wooded or landscaped areas, over curbs, through fences, through ditches or across paved areas which are not designed and maintained as fire lanes".
- (2) Section 105 (Permits) is amended by adding Section 105.1.1.1 to read as follows:  

Section 105.1.1.1 (Registration of Contractors):  
It shall be the duty of every individual who makes contracts to construct, enlarge, alter, repair, move, or demolish any life safety systems to include but not limited to fire sprinkler systems, fire alarm systems, commercial cooking extinguishing systems, underground tanks, underground piping and underground fire supply lines of which are regulated by this code, or cause such work to be done, and every individual making such contracts and subletting the same or any part thereof, to first register with the Building Official, giving full name, residence, name and place of business, and in case of removal from one place to another to have made corresponding change to the Building Official.
- (3) *Section 107.6 is amended by adding after the fire code official "or any member of the fire department designated by the fire code official, the Chief of Police, or any member of the police department designated by the Chief of Police."*
- (4) Section 108 is amended by deleting the section in its entirety.

- (5) Section 109.4 (Violation Penalties) is amended by deleting the section in its entirety and replacing with the following:
- Section 109.4 (Violation Penalties)  
Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the Fire Official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine as described in Chapter 1 section 5 of the College Station Code of Ordinances.
- (6) Section 113.5 (Refunds) is amended by deleting the existing text in its entirety and replacing it with the following:
- “The City Manager or his designee is authorized to establish a refund policy”
- (7) Section 202 (Definitions) is amended by adding “Tutorial Services” under the definition of “Occupancy Classification Assembly Group A-3”.
- (8) Section 202 (Definitions) is amended by deleting the Townhouse definition and replacing it with the following:
- “Townhouse.** A single family dwelling unit constructed in a group of attached units separated by property lines in which each extend from foundation to roof and with open space on at least two (2) sides”
- (9) Section 307.4.2 (recreational fires) is amended by adding the following:
- “This code is to include manufactured and non-manufacture fire pits/boxes.”
- (10) Section 307.4 (Location) is amended by adding section 307.4.2.1:
- Section 307.4.2.1 Solid fuels are strictly prohibited for recreational fires.
- Exception: One- and two- family dwellings.
- (11) 308.1.4 (Open-flamed cooking devices) is amended by deleting the section including exceptions in its entirety and replacing with the following:
- 308.1.4 (Open-flame cooking devices)
- Charcoal burners, Liquefied-petroleum-gas fueled cooking devices, and other open-flamed cooking devices shall not be stored or operated on combustible balconies or within 10 feet (3048 mm) of combustible construction.
- Exception: One- and two- family dwellings**
- (12) Section 501.4 (Timing of Installation) is amended by adding the following text at the end of the section: "There shall be no combustible, flammable or ignitable materials placed on site, lot or subdivision where waterlines, fire hydrants and/or all weather access roads capable of supporting emergency vehicles with an imposed load of at least 75,000 pounds as required by this code or other adopted code or ordinances are completed, accepted and in service."
- (13) Section 503.2.1 (Dimensions) is amended by replacing “13 feet 6 inches” with "14 feet".
- (14) Section 503.2.5 (Dead Ends) is amended by replacing “150 feet” with "100 feet".
- (15) Section 503.3 (Marking) is amended by deleting the section in its entirety and replacing with the following:
- Section 503.3 (Marking)  
The owner, manager, or person in charge of any building or property to which fire lanes have been approved or required by engineering shall mark and maintain said fire lanes in the following manner:

All curbs and curb ends shall be painted red with four inch (4") white lettering stating "FIRE LANE - NO PARKING - TOW AWAY ZONE". Wording may not be spaced more than fifteen feet (15') apart.

In areas where fire lanes are required but no continuous curb is available, one of the following methods shall be used, in conjunction with the curb markings, to indicate that the fire lane is continuous:

Option #1: A sign twelve inches (12") wide and eighteen inches (18") in height shall be mounted in a conspicuous location at each entrance to the property. (See Diagram No. 1 for specifications on colors and lettering.)

Option #2: From the point the fire lane begins to the point the fire lane ends, including behind all parking spaces which adjoin a fire lane, shall be marked with one continuous eight inch (8") red stripe painted on the drive surface behind the parking spaces. All curbing adjoining a fire lane must be painted red. Red stripes and curbs will contain the wording "FIRE LANE - NO PARKING- TOW AWAY ZONE", painted in four inch (4") white letters. ("Figure A" in Ordinance No 1630 illustrates striping on drive surface behind parking spaces.)

In those cases where curb markings are not possible or where signs would in the Fire Official's opinion work more effectively, the Fire Marshal may require signs in lieu of curb markings.

The use of the color red to mark or stripe any curb or parking area (other than fire lanes) is prohibited within the City of College Station."

- (16). Section 503 is amended by adding Sections 503.3.1 (Fire Lane Signs; Tow-Away Zone Signs), 503.3.2 (Destruction of Fire Lane and Tow-Away Signs), 503.3.3 (Abandonment or Closing) and 503.3.4 (Authority Under Emergency Conditions) to read as follows:

503.3.1 (Fire Lane Signs; Tow-Away Zone Signs)

The owner, manager, or person in charge of any building to which fire lanes have been approved by the Engineering Division shall post and maintain appropriate signs in conspicuous places along such fire lanes stating "No Parking - Fire Lane". Such signs shall be twelve inches (12") wide and eighteen inches (18") high, with a companion sign twelve inches (12") wide and six inches (6") high stating "Tow-Away Zone".

Any "No Parking - Fire Lane" or "Tow-Away Zone" sign shall be painted on a white background with symbols, letters and border in red. Drawings and samples of such signs may be obtained from the Fire Department of the City of College Station. Standards for mounting, including but not limited to, the height above the grade at which such signs are to be mounted, shall be as adopted by the Fire Official of College Station.

Section 503.3.2 (Destruction of Fire Lane or Tow-Away Signs)

It is hereby unlawful for any person without lawful authority to attempt or in fact alter, destroy, deface, injure, knock down, or remove any sign designating a fire lane or tow-away zone erected under the terms of this code, or to deface a curb marking in any way.

Section 503.3.3 (Abandonment or Closing)

No owner, manager, or person in charge of any premises served by a required fire lane shall abandon or close such fire lane without written permission of the Fire Official of the City of College Station.

Section 503.3.4 (Authority Under Emergency Conditions)

The Fire Marshal is hereby authorized to establish fire lanes during any fire, and to exclude all persons other than those authorized to assist in extinguishing the fire or the owner or occupants of the burning property from within such lanes.

- (17). Section 503.4 (Obstruction of Fire Apparatus Access Roads) is amended by deleting the section in its entirety and replacing with the following:

Section 503.4 (Obstruction of Fire Apparatus Access Roads)

No person shall park, place, allow, permit, or cause to be parked, placed, any motor vehicle, trailer, boat, or similar obstruction within or upon an area designated as a fire lane and marked by an appropriate sign or curb marking.

- (18). Section 503 (Fire Apparatus Access Roads) is amended by adding Sections 503.4.2 (Obstructing Fire Lanes) and 503.4.2 (Enforcement; Issuance of Citations; Impoundment of Obstructions) to read as follows:

Section 503.4.2 (Obstructing Fire Lanes)

Any motor vehicle, trailer, boat, or similar obstruction found parked within an area designated as a fire lane as required by this section is hereby declared a nuisance per se and any such motor vehicle, trailer, boat, or similar obstruction parked or unoccupied in such a manner as to obstruct in whole or in part any such fire lane shall be prima facie evidence that the registered owner unlawfully parked, placed, or permitted to be parked or placed such obstruction within a fire lane.

The records of the State Highway Department or the County Highway License Department showing the name of the person to whom the Texas highway license or boat or trailer license is issued shall constitute prima facie evidence of ownership by the named persons.

Section 503.4.3 (Enforcement; Issuance of Citations; Impoundment of Obstructions)

The Fire Official or any member of the Fire Department designated by the Fire Official, the Chief of Police, or any member of the Police Department designated by the Chief of Police are hereby authorized to issue parking citations for any motor vehicle, trailer, boat, or similar obstruction found parked or unattended in or upon a designated fire lane and may have such obstruction removed by towing it away. Such vehicle or obstruction may be redeemed by payment of the towage and storage charges at the owner's expense.

No parking citations shall be voided nor shall the violator be relieved of any penalty assessed by a judge of the Municipal Court for any provision by the redemption of the obstruction from the storage facility."

- (19). Section 505.1 (Address Identification) is amended by deleting the section in its entirety and replacing with the following:

Section 505.1 (Address Identification)

An official building number placed pursuant to this ordinance must be at least four inches (4") high, and have at least a one-half inch (1/2") stroke in the main body of the number, and be composed of a durable material and of a color which provides a contrast to the background. The number shall be mounted a minimum of thirty-six inches (36") and a maximum of thirty feet (30') in height measured from ground level. Buildings located more than fifty feet (50') from the curb of a street shall have numbers at least five inches (5") in height. For the purpose of this ordinance, durable materials for use in numbering shall include, but not be limited to wood, plastic, metal, weather-resistant paint, weather-resistant vinyl, or weather-resistant numbers designed for outside use on a glass surface. For single family residences, the requirement of this section may be met by providing two inch (2") high numbers on both sides of a U.S. mailbox located near the curb in front of the house, or a freestanding structure with numbers at least four inches (4") in height.

- (20). Section 505 (Premise Identification) is amended by adding Sections 505.1.1 (Building Complex Identification), 505.1.2 (Rear Access Identification), 505.1.3 (Alley Premise Identification) and 505.1.4 (Building Complex Diagrams) to read as follows:

505.1.1 (Building Complex Identification)

A building complex composed of multiple structures shall have an official suite/unit number assigned to each building as well as a street address number. If there is sufficient street frontage, each unit or building may be assigned a separate official street address number. The official street address number of each structure as designated by the Building Official must be prominently posted on the building so that it is visible from the nearest public street. Each number designated by the Building Official for each individual suite/unit must be conspicuously posted on the suite/unit.

505.1.2 (Rear Access Identification)

Commercial buildings with rear access shall also display the business name and designated street address and suite/unit number on the rear access door.

505.1.3 (Alley Premise Identification)

Residential structures that provide for rear vehicular access from a dedicated public alley shall conspicuously post the designated numbers that comply with the size requirements above so that it is visible to the alley.

505.1.4 (Building Complex Diagrams)

The owner of a building complex which contains an enclosed shopping mall shall submit to the Fire Official four (4) copies of diagrams acceptable to the Fire Official of the entire complex, indicating the location and number of each business. When a change in a business name or location is made, the owner or manager of structure shall so advise the Fire Official in writing of the change.

- (21) Section 505.2 (Street or road signs) is amended by adding the following:

505.2.1 Street and road signs shall only be installed on streets or roadways that are approved through the platting process.

- (22) Section 507.5.1 (Where required) is amended by deleting the section in its entirety and replacing with the following:

Section 507.5.1 (Where Required)

Public fire hydrants of the City of College Station standard design shall be installed as part of the water distribution system for subdivisions and/or site developments. The Engineering Division shall approve the appropriate hydrant locations accessible to firefighting apparatus and within the maximum distances described in the following sections:

- (23) Section 507.5.2 (Inspection, Testing and Maintenance) is amended by deleting the section in its entirety and replacing with the following:

Section 507.5.2 (Inspection, Testing and Maintenance)

"Public fire hydrants shall be installed in single-family and duplex districts zoned R-1, R-1A and R-2 at such locations that no part of any structure shall be more than five hundred feet (500') from a fire hydrant as measured along the right-of-way of a public street as the fire hose is laid off the fire truck."

- (24) Section 507.5.3 (Private Fire Service Mains and Water Tanks) is amended by deleting the section in its entirety and replacing with the following:

Section 507.5.3 (Private Fire Service Mains and Water Tanks)

"Private fire hydrants shall be installed in districts other than single-family and duplex districts zoned R-1, R-1A or R-2 at such locations that no part of any structure, aboveground tanks or fueling stations, shall be more than three hundred feet (300') from a fire hydrant as measured along the right-of-way of a public street or along an approved fire lane as the fire hose is laid off the fire truck."

- (25) Section 509.2 (Equipment Access) is amended by adding the following:

“Access to the fire sprinkler riser must be on the exterior of the structure unless authorized by the fire code official or his designee”

- (26) Table 803.9 (Interior Wall and Ceiling Finish Requirements by Occupancy) is amended by deleting the existing text in footnote "d" and replacing it with the following:
- "Class A interior finish material shall be required in all areas of all assembly occupancies, whether fire sprinkler system is present or not, except as provided for in notes e and f below."
- (27) Section 903.1 (General) is amended by adding the following text at the end of said section:
- “For the purpose of this section, the term “fire area” shall be replaced with “building area”
- (28) Section 903.2 (Where required) is amended by adding the following text at the end of the section:
- In addition to the requirements of this section, an automatic sprinkler system shall be provided throughout all new buildings and structures as follows:
1. Where the total building area exceeds 12,000 square feet in area.
  2. Where the height exceeds two stories, regardless of area.
- (29) Section 903.2.1.6 (Assembly occupancies on roofs) is amended by deleting the exception in its entirety
- (30) Section 903.2.3 (Group E) is amended by deleting the exception in its entirety.
- (31) Section 903.2.4 (Group F-1) is amended by deleting item “2” and “3”.
- (32) Section 903.2.7 (Group M) #2 is amended by replacing "three stories above grade" with "two stories in height" and by deleting #3 in its entirety.
- (33) Section 903.2.8(Group R) is amended by deleting the section in its entirety.
- (34) Section 903.2.9 (Group S-1) is amended by replacing "three (3) stories above grade" with "two (2) stories above grade" in item "2" and by replacing "twenty-four thousand (24,000) square feet" with "twelve thousand (12,000) square feet" in item "3".
- (35) Section 903.2.10 (Group S-2 enclosed parking garage) is amended by deleting the exception in its entirety.
- (36) Section 907.5.2.3.1 (**Public use areas and common use areas**) is amended by deleting the exception and adding Section 907.5.2.3.1.1 to read as follows:
- Section 907.5.2.3.1.1 (Employee work areas)  
Where a fire alarm and detection system is required, employee work areas shall be provided with devices that provide audible and visible alarm notification.
- (37) Section 912.2 (Location) is amended by adding the following:  
Section 912.2.3 (Distance) Fire department connection shall not be located further than 100 feet from the fire hydrant measured by lay of hose from the engine.
- (38) Section 1004.2 (Increased occupant load) is amended by deleting the section in its entirety.
- (39) Section 1004.3 (Posting of occupant load) is amended by adding the following text to the end of said section:
- "For the purposes of this section, the occupant load shall be the number of occupants

computed at the rate of one (1) occupant per unit of area as prescribed in Table 1004.1.2."

- (40) Section 1103 (Fire Safety Requirements for Existing Buildings) is amended by deleting this section in its entirety.
- (41) Section 2304.1 (Supervision of Dispensing) is amended by deleting the section in its entirety and replacing with the following:
- Section 2304.1 (Supervision of Dispensing)  
The dispensing of flammable or combustible liquids into the fuel tank of a vehicle or into an approved container shall be under the supervision of a qualified attendant except service stations not open to the public. Such stations may be used by commercial, industrial governmental or manufacturing establishments for fueling vehicles in connection with their business."
- (42) Section 2304.3 (Unattended Self-Service Motor Fuel Dispensing Facilities) is amended by deleting the section in its entirety.
- (43) Section 2304.3.1 (General) is amended by deleting the section in its entirety.
- (44) Section 2304.3.2 (Dispensers) is amended by deleting the section in its entirety.
- (45) Section 2304.3.3 (Emergency Controls) is amended by deleting the section in its entirety.
- (46) Section 2304.3.4 (Operating Instructions) is amended by deleting the section in its entirety.
- (47) Section 2304.3.5 (Emergency Procedures) is amended by deleting the section in its entirety.
- (48) Section 2304.3.6 (Communications) is amended by deleting the section in its entirety.
- (49) Section 2304.3.7 (Quantity Limits) is amended by deleting the section in its entirety.
- (50) Section 5706.6.1.2 (Leaving Vehicle Unattended) is amended by deleting the section in its entirety and replacing with the following:
- Section 5706.6.1.2 (Leaving Vehicle Unattended)  
At no time while discharging flammable, combustible or ignitable liquids shall the driver or operator be out of sight and reach of the discharge valves. If at any time while discharging flammable, combustible or ignitable liquids, the driver or operator must leave the vehicle for any reason, he or she shall shut down all valves until his or her return and shall be totally responsible for any and all spillage. When the delivery hose is attached to the vehicle it is presumed to be discharging flammable, combustible or ignitable liquids.
- (51) Appendix D Section D103.4 (Dead Ends) and Table D103.4 are amended by replacing "150 feet" with "100 feet".

C. AMENDMENTS TO NFPA LIFE SAFETY CODE:

- (1) Section 24.3.5.1 is amended by deleting the section in its entirety.
- (2) Section 43.6.4.1 is amended by deleting this section in its entirety and replacing with the following:
- Section 43.6.4.1  
In a building with rehabilitation work areas involving over 50% of the aggregate building area an automatic fire sprinkler system shall be installed to the code applicable to new construction for this type of occupancy.
- (3) Section 43.6.4.2 is amended by deleting the section in its entirety.

- (4) Section 43.6.4.4 is amended by replacing “up to and including the highest rehabilitation work area floor” with “highest floor”.

### **Sec.6-2 - Fire Limits.**

#### **A. Area Limits Described.**

The fire district referenced in any code or ordinance adopted by the City of College Station shall be construed to be the following described area.

- (1) (a) Beginning at the south corner of Farm Highway No. 60 and Old Highway No. 6, Block 8 Boyett Addition;
- Thence northeast along center of Farm Highway No. 60 through Blocks 8,1, and 2 to east corner of Tauber Street and Farm Highway No. 60;
- Thence northwest approximately one hundred eighty-nine feet (189');
- Thence southwest to east corner of Block 1, Lot 21, to corner of Main and Patricia Streets;
- Thence northwest approximately fifty feet (50');
- Thence southwest approximately one hundred ninety feet (190') which includes Lots 21 to 26 inclusive, also Block 1, Boyett Addition;
- Thence northwest approximately one hundred fifty feet (150') to the Church Avenue;
- Thence southwest approximately fifty-two feet (52') to Patricia Street which includes Lots 18 to 27 and 28, Block 1, Boyett Addition;
- Thence southwest on Patricia Street to Old Highway No. 6;
- Thence southeast approximately two hundred feet (200') along center of Old Highway No. 6 to the place of beginning.
- (b) Save and except the area described as follows:
- Beginning at the intersection of the northwest right-of-way line of the University Drive and the northeast right-of-way line of Boyett Street;
- Thence northwest along the northeast right-of-way line of Boyett Street to the southeast right-of-way line of Patricia Street.
- Thence northeast along the southeast right-of-way line of Patricia Street approximately two hundred thirty-five feet (235');
- Thence southeast through Lot. No. 11, Block No. 1, Boyett addition, twenty-five feet (25') from and parallel to the line between Lot No. 11 and Lot No. 12 to the northwest right-of-way line of University Drive;
- Thence southwest along the northwest right-of-way line of University Drive to the place of beginning and being all of Lot No. 13, all of Lot No. 12, and the southwest twenty-five feet (25') of Lot No. 11, Block No. 1, Boyett Addition.
- (2) Beginning at the corner of George Bush Drive and Montclair Street, Block 8, West Park Addition;

Thence southwest along centerline to Highlands Street, which includes Lots 1 to 13 inclusive;

Thence southeast along centerline of Highlands Street, one hundred feet (100') to alley;

Thence northeast to east corner of Lot No. 1, Block No. 8, Montclair Avenue;

Thence northwest one hundred feet (100') to place of beginning.

**B. FIRE MARSHAL TO INVESTIGATE ALL FIRE**

The Fire Marshal shall investigate the cause, origin, and circumstances of every fire occurring within this city by which property has been destroyed or damaged, and shall especially make investigation as to whether such fire was the result of carelessness or design. Such investigation shall begin within twenty-four (24 ) hours, not including Sunday, of the occurrence of such fire. The Fire Marshal shall keep in his office a record of all fires together with all facts, statistics, and circumstances, including the origin of the fires and the amount of the loss, which may be determined by the investigation required by this section.

**C. FIRE MARSHAL TO TAKE TESTIMONY AND FURNISH EVIDENCE**

The Fire Marshal, when in his opinion further investigation is necessary, shall take or cause to be taken the testimony, on oath, of all persons supposed to be cognizant of any facts or to have means of knowledge in relation to the matter under investigation, and shall cause the same to be reduced to writing; and if he shall be of the opinion that there is evidence sufficient to charge any person with the crime of arson, or with the attempt to commit the crime of arson, or of conspiracy to defraud, or criminal conduct in connection with such fire, he shall cause such person to be lawfully arrested and charged with such offense or either of them, and shall furnish to the proper prosecuting attorney all such evidence, together with the names of witnesses and all of the information obtained by him, including a copy of all pertinent and material testimony taken in the case.

**D. MARSHAL TO SUMMON WITNESSES**

The Fire Marshal shall have the power to summons witnesses before him to testify in relation to any matter which is by the provisions of this section a subject of inquiry and investigation, and may require the production of any book, paper, or document deemed pertinent thereto. The said Fire Marshal is hereby authorized and empowered to administer oaths and affirm to any persons appearing as witnesses before him.

**E. UNLAWFUL TO DISOBEY ANY LAWFUL ORDER OF FIRE MARSHAL**

Any witness who refuses to be sworn, or who refuses to appear to testify, or who disobeys any lawful order of said Fire Marshal, or who fails or refuses to produce any book, paper, or document touching any matter under examination, or who is guilty of any contemptuous conduct during any of the proceedings of the Fire Marshal in the matter of said investigation or inquiry, after being summonsed to give testimony in relation to any matter under investigation as aforesaid, shall be deemed guilty of a misdemeanor; and it shall be the duty of the Fire Marshal to cause all such offenders to be prosecuted. Provided, however, that any person so convicted shall have the right of appeal. Upon conviction, such person shall be punished in accordance with Chapter 1, Section 5 of this Code of Ordinances.

**F. INVESTIGATIONS BY FIRE MARSHAL MAY BE PRIVATE**

All investigations held by or under the direction of the Fire Marshal may, in his discretion, be private, and persons other than those required to be present may be excluded from the place where such investigation is held, and witnesses may be kept separate and apart from each other and not allowed to communicate with each other until they have been examined.

**G. FIRE MARSHAL MAY ENTER BUILDINGS WHERE FIRE HAS OCCURRED**

The Fire Marshal shall have the authority at all times of day or night, when necessary, in the performance to the duties imposed upon him by the provisions of this section, to enter upon and examine any building and premises adjoining or near the same, which authority shall be exercised only with reason and good discretion.

H. FIRE MARSHAL TO MAKE PERIODIC INSPECTIONS AND REPORTS, AGGRIEVED PERSONS MAY APPEAL

The Fire Marshal, upon complaint of any person having an interest in any building or property adjacent and without any complaint, shall have a right at all reasonable hours, for the purpose of examination, to enter into and upon all buildings and premises within the city, and it shall be his duty, to enter upon and make or cause to be entered and made, a thorough examination of all mercantile, manufacturing, and public buildings, together with the premises belonging thereto. Whenever he shall find any building or other structure which, for want of repair, or by reason of age, or dilapidated condition, or for any cause, is especially liable to fire, he shall order the same to be removed or remedied, and such order shall be forthwith complied with by the owner or occupant of said building or premises. Provided, however, that if said owner or occupant deems himself aggrieved by such order, he may, within five (5) days, appeal to the Construction Board of Adjustments and Appeals, who shall investigate the cause of the complaint and unless by his authority the order is revoked, such order shall remain in force and be forth with complied with by said owner or occupant.

I. UNLAWFUL TO MAINTAIN FIRE HAZARDS

Any owner or occupant of a building or other structure or premises, who shall keep or maintain the same when, for want of repair, or by reason of age or dilapidated condition, or for any cause, it is especially liable to fire and which is so situated as to endanger buildings or property of others, or is especially liable to fire and which is so occupied that fire would endanger other persons or their property therein, shall, upon conviction, be punished in accordance with Chapter 1, Section 5 of this Code of Ordinances.

J. OWNERS WHO MAINTAIN HAZARDS GUILTY OF MISDEMEANOR

Any owner or occupant of any building, structure, or other premises, who shall keep or maintain the same with an improper arrangement of a stove, range, furnace, or other heating appliance of any kind whatever, including chimneys, flues, and pipes with which the same may be connected so as to be dangerous in the matter of fire, or health, or safety of persons or property of others; or who shall keep or maintain any building, other structure, or premises with any improper arrangement of a lighting device or system, or with a storage of explosives, petroleum, gasoline, kerosene, chemicals, vegetable products, ashes, combustibles, inflammable materials, refuse, or with any other condition which shall be dangerous in character to the persons, health, or property of others; or which shall be dangerous in the matter of promoting, augmenting, or causing fires; or which shall create conditions dangerous to firemen or occupants of such building, structure, or premises other than the maintainer thereof, shall be punished in accordance with Chapter 1, Section 5 of this Code of Ordinances.

K. VIOLATORS TO BE NOTIFIED BEFORE PROSECUTION

No prosecution shall be brought under Subsections I and J of this section until the order provided for in Subsection H be given and the party notified shall fail or refuse to comply with the same.

L. RECOVERY OF PENALTIES

The penalties provided for herein shall be recovered by the City in the same manner as provided by law for the enforcement of fines, forfeitures, and punishments for offenses against the city.

**Sec. 6-3. - Arson Reward.**A. AMOUNT AUTHORIZED

The Mayor of the City of College Station is hereby authorized and empowered to offer a reward of not less than Two Hundred Fifty Dollars (\$250.00) payable to the person or persons who shall be responsible for the arrest and conviction of any person committing in said city the crime of arson as same is defined by the Penal Code of the State of Texas.

B. PROCEDURE FOR PAYMENT

Whenever the Mayor shall be informed that any fire occurring in said city was of an incendiary origin, he shall call for a report of same by the City Fire Marshal, and if said Fire Marshal shall report that such fire was caused by the commission of the crime of arson, it shall become the duty of said Mayor to offer the reward above described, which reward shall be in the form of a proclamation duly issued by said Mayor under his official signature and attested by the seal of the city, and shall be posted up in a conspicuous place, one (1) of which shall be at the city office in said city in accordance with the regulations of the Texas Fire Insurance Department. Upon the information being given by any person who shall cause the arrest and conviction of such persons so guilty of a specific crime of arson for which said reward shall be offered, and after the indictment of said person or persons, the person so giving such information shall be entitled to receive from said city such reward.

**Section 6-4. – Emergency and rescue services.**

- A. The City Council of the City of College Station recognizes and supports the practice of College Station Fire Department to bill persons and entities, including insurance companies providing coverage to said persons and entities, for the reasonable costs that are related and incidental to any loss, damage, and wear to College Station Fire Department apparatus, tools, equipment, and materials utilized to provide the emergency services to said persons and entities.
- B. Fees shall be collected for services provided within the College Station Fire Department designated response area that includes both inside and outside the City limits. Fees will not exceed the amount expended by the College Station Fire Department. Fire Administration shall collect applicable incident report information that will be forwarded to the College Station Fire Department's authorized agent responsible for collection of any incurred fees.
- C. The College Station Fire Department, or its authorized agent, shall submit an invoice to the appropriate insurance company, person, or entity covering or responsible for the particular expenses as related to the emergency services provided.
- D. If it can be reliably determined that there is no applicable insurance coverage for the emergency and rescue services provided by the College Station Fire Department, or if the emergency and rescue services were provided as a result of negligent and/or malicious act(s) or risky behavior on part of the recipient, then the City may hold responsible the person or entity that received said emergency services for the costs.

**Sec.6-5. – Burn ban.**A. BRAZOS COUNTY ISSUANCE OF A BURN BAN

Upon the issuance of a burn ban by Brazos County the City of College Station will assume the burn ban for the same timeframe.



## Legislation Details (With Text)

**File #:** 16-0208      **Version:** 1      **Name:** ZBA Chair  
**Type:** Appointment      **Status:** Agenda Ready  
**File created:** 4/7/2016      **In control:** City Council Regular  
**On agenda:** 4/28/2016      **Final action:**  
**Title:** Presentation, possible action, and discussion regarding appointment of a Chair to the Zoning Board of Adjustments.  
**Sponsors:** Sherry Mashburn  
**Indexes:**  
**Code sections:**  
**Attachments:**

Date	Ver.	Action By	Action	Result
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Presentation, possible action, and discussion regarding appointment of a Chair to the Zoning Board of Adjustments.

Relationship to Strategic Goals:

- Good Governance

Recommendation(s): Appointment of Scott Simpson as Chair of the ZBA.

Summary: Council made appointments to the ZBA at their February 25 Regular meeting, but no one was appointed Chair to the ZBA.. Per Chapter 12, Section 12-2.3(C)(1): A Chairperson shall be appointed annually by the City Council.

Staff recommends the appointment of Scott Simpson.

Budget & Financial Summary: None

Attachments: None