



Public Works & Engineering

**SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR THE CONSTRUCTION OF**

**SERVICE CENTER DRAINAGE IMPROVEMENTS
PROJECT #: DR2301**

**FOR THE
CITY OF BURLESON, TEXAS
PUBLIC WORKS & ENGINEERING DEPARTMENT**

MARCH 2024

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Invitation to Bid

CITY OF BURLESON ITB 2024-010 Service Center Drainage Improvements

Notice is hereby given that the City of Burleson is seeking proposals for **Service Center Drainage Improvements (DR2301)**. The deadline for submission is April 9th, 2024 at 2:00PM CST. The bid opening will be virtual at 3:00PM. A link for the bid opening will be provided via Bonfire. A mandatory pre-bid meeting be held at the Service Center Burleson University on March 25th, 2024 at 2:00 PM CDT.

The project includes: furnishing all labor, materials, equipment, and performing all work required for concrete paving, storm drainage culverts, and construction of a detention pond with concrete flume. The Project has an expected duration of 120 calendar days.

Specifications and Contract Documents for this project shall be available for viewing and download in electronic (PDF) format at the City's e-procurement system, Bonfire <https://burlesontx.bonfirehub.com/login> (registration is required) at no cost beginning March 12, 2024.

Any interpretations, corrections, clarifications, or changes to this Invitation to Bid will be issued via addendum. Addenda will be posted in Bonfire. It is the responsibility of the respondent to monitor the Bonfire website for addenda. Proposers shall acknowledge receipt of each addendum by submitting a signed copy with their submission. Oral explanations will not be binding.

POSTED THIS the 12th day of March 2024, in the Burleson City Hall, 141 West Renfro, Burleson, Texas.

March 17, 2024
March 24, 2024
Fort Worth Star-Telegram

SECTION 2
INSTRUCTIONS TO BIDDERS

1. PROPOSAL:

- 1.1 The Proposal is included in these Bidding Documents; additional copies may be obtained from the City of Burleson, hereinafter called "OWNER".
- 1.2 All blanks on the proposal shall be completed electronically.
 - a. Bidder may use the original proposal forms included in these bid documents or the Bidder may substitute a computer-generated proposal for the original proposal included in these bid documents. The substitute submittal shall be word-for-word as written in the original proposal contained herein. The Bidder shall also sign the Substitute Proposal.
 - b. If the Substitute Proposal changes the intent of a bid item or contains an error in the quantities, unit prices, or extension of prices, the OWNER may reject the bid submitted.
 - c. The Bid price of each item on the form shall be stated in words and numerals. Words take precedence in case of a conflict. In the case of a conflict between the unit price indicated and the extended amount shown, the unit indicated multiplied by the state quantity shall govern.
- 1.3 The President or a Vice President (or other corporate officer accompanied by evidence of authority to sign) shall execute bids by corporations in the corporate name and the corporate seal shall be affixed and attested by the Secretary or an Assistant Secretary. The corporate address and state of incorporation shall be shown below the signature.
- 1.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title shall appear under the signature and at the official address of the partnership shall be shown below the signature.
- 1.5 All names shall be typed or printed below the signature.
- 1.6 The bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which must be filled in on the Proposal).
- 1.7 The address and telephone number for communications regarding the bid shall be shown.
- 1.8 The bid shall be complete with prices stated for all alternates. The Bidder should be aware that the OWNER, to stay within the OWNER's

available funds could adjust the scope of the project. Alternates selected and revisions to limits of construction and resulting quantity adjustments will be identified in the Notice of Award and will be adjusted in the proposal contained in the executed contract.

2. **SUBMISSION OF BIDS:**

It shall be the Bidder's responsibility for the electronic delivery of his proposal at the proper place by the time stated in the Notice to Bidders. The mere fact that a proposal was dispatched will not be considered. Proposals must be submitted at <http://burlesontx.bonfirehub.com>. The BIDDER shall acknowledge receipt of any addenda.

3. **BID SECURITY:**

An approved bidder's bond made payable to the OWNER in an amount of five (5%) percent of the largest possible total of the bid may be required as a guarantee that, if awarded the contract, the Bidder will enter into a Contract and execute all necessary bonds. Bid securities will be returned to Bidders when the Contract award is made or bids are rejected.

4. **PERFORMANCE, PAYMENT AND MAINTENANCE BONDS:**

Performance, Payment and Maintenance Bonds in the amount of not less than one hundred percent (100%) of the contract price conditioned upon the faithful performance of the contract, and upon payment of all persons supplying labor or furnishing materials, will be required upon the forms which are a part of the contract Documents. Bonds shall be executed by a surety company acceptable to and approved by the OWNER, authorized to do business in the State of Texas and acceptable for underwriting of risks as indicated by the latest revision, Treasury Department Circular 570, listing acceptable sureties on Federal Bonds. The period of the Maintenance Bond shall be two years from the date of acceptance of all work done under the Contract, to cover the guarantee as set forth in the Special Conditions.

5. **QUALIFICATION OF BIDDERS:**

All Bidders on this project must be qualified to perform work as outlined within the contract documents. The City of Burleson Department of Public Works and Engineering will verify the work history and qualifications. The following subcontractors must also be qualified if applicable to the project: water and sewer, paving, storm drain, excavation and parkway and median landscape work (includes seeding, sod, irrigation and tree and shrubbery planting). Bidders must be familiar with the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction, latest edition, and the construction methods, Standards and related Ordinances of the City of Burleson.

6. **BIDDERS KNOWLEDGE OF CONDITIONS:**

- 6.1 Prior to submission of a proposal, bidders shall make a thorough inspection of the site of work and a thorough examination of the plans and specifications, and shall become informed as to the nature of the work, labor conditions, federal, state and local Laws and Regulations, and all other matters that may affect the cost, progress, performance and time of completion of the Work.
- 6.2 Bidder shall notify OWNER of all conflicts, errors or discrepancies in the Contract Documents.
- 6.3 Bidder shall pay particular attention to providing methods of ingress and egress to adjacent private and public properties, procedures for protection existing improvements and disposition of all materials to be removed.
- 6.4 Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site is based upon information and data furnished to OWNER by owners of such underground facilities or other, and OWNER does not assume responsibility for the accuracy or completeness thereof.
- 6.5 The lands upon which the work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment not provided by OWNER, are to be obtained and, if necessary, paid by Contractor.
- 6.6 The submission of a bid will constitute an incontestable representation by Bidder that Bidder has complied with every requirement of the Article 6, that without exception the bid is premised upon performing and furnishing the work required by the Contract Documents and such means, method, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the work.

7. **AVAILABILITY OF UTILITY SERVICES**

OWNER shall not make available or guarantee any utility services to the Contractor such as (but not all inclusive) water, sewer, electricity, gas, or telephone for performance of his work in this contract. Contractor shall be solely responsible for completing all requirements, make all arrangements,

and make all payments as necessary to procure any utility services necessary to complete the work as prescribed in this contract.

8. **INTERPRETATION OF DOCUMENT:**

If any person contemplating submitting a bid is in doubt as to the meaning of any part of the plans, specifications, or other proposed contract documents, they may submit to the OWNER a written request for an interpretation thereof at least five (5) days prior to opening of bids. The person submitting the request will be responsible for its prompt delivery. Any interpretation of these documents will be made only by addendum duly issued. Only questions answered by formal written Addenda are to be binding. Oral interpretations or clarification will be without legal effect. The OWNER will not be responsible for any other explanations or interpretations.

9. **STANDARD SPECIFICATIONS:**

9.1 All work for this project including but not limited to all grading, utility and paving improvements described in this Proposal and Construction Drawings shall be done in accordance with the *STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION* as issued by the North Central Texas Council of Government (NCTCOG); the latest edition with any revisions as may be modified by the special conditions of this Contract.

9.2 Asphaltic concrete and standard concrete pavement improvements done within TxDOT right of way, shall be done in accordance with the *STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS, AND BRIDGES* as issued by The Texas Department of Transportation; the latest edition with any revisions as may be modified by the special conditions of this Contract.

10. **AWARD OF CONTRACT:**

10.1 OWNER reserves the right to reject any bid, to waive any and all informalities and to negotiate contract amendments with the successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional bids. Also, OWNER reserves the right to reject the bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard of criteria established by OWNER. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the correct multiplication. Discrepancies between the unit price in words and the unit price in figures will be resolved in favor of

the price in words. Discrepancies between the indicated sum of a column of figures and the correct sum therefore will be resolved in favor of the correct sum.

10.2 In evaluating bids, OWNER will consider the qualifications of the Bidder, whether or not the bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the bid form or prior to the Notice of Award.

11. **ALTERNATE BIDS:**

No bids for alternate work items shall be submitted except as shown on the Proposal. The OWNER reserves the right to choose either the base bid or alternate bid whichever is most advantageous to the OWNER. There will be no adjustments to unit prices bid due to the OWNER'S choice of alternate bids.

12. **EXECUTION OF CONTRACT**

12.1 The successful Bidder shall execute the formal Contract Agreement and required Bonds to the OWNER within fifteen (15) days after the Notice of Award.

12.2 A Notice to Proceed authorizing the Contractor to commence work will be issued after the Contract Documents have been executed by the OWNER.

13. **PROTECTION OF THE PUBLIC:**

For protection and convenience of the public and emergencies, the successful Bidder shall furnish the OWNER with a telephone number at which the contractor can be contacted 24 hours a day during the entire construction period of this project. This telephone number shall be furnished to the OWNER in writing prior to the beginning of construction.

14. **AFFIDAVIT AGAINST PROHIBITED ACTS:**

It shall be the successful Bidder's responsibility to complete this affidavit (Section 5 of the Contract Documents) prior to execution of the Contract by the OWNER (City of Burleson). Failure to complete this form may prohibit the contractor's ability to secure the Contract.

15. **WAGE RATES**

Contractor shall pay no less than the general prevailing rates for the Project location as determined in accordance with statutory requirements. The minimum rates for various labor classifications as established by the OWNER are included in the contract documents.

16. **SALES TAXES**

The OWNER qualifies as an exempt entity as defined by the statutes (Chapter 151.309) of the Tax Code of the State of Texas. The OWNER's purchasing department will issue exemption certificates. Comply with all statutes and rulings of the State Comptroller.

17. **GOVERNING DOCUMENTS:**

The Work shall conform to the requirements of these specifications and the details as shown therein. These contract documents are intended to be Primary. Requirements of any of the contract documents are as binding as if called for by all. In case of conflict between the referenced Specifications and the Special Project Specifications, the Special Project Specifications shall govern.

18. **SOIL INVESTIGATION:**

Investigation of soil and foundation conditions of the size and areas near the site is considered subsidiary to the paving portion of the work. A certified lab competent to do such investigations for subgrade stabilization shall be used to determine the amounts of cement or lime necessary for the structural ability of the roadway. It has been assumed to use the rate of 30# per square yard of lime **or** Portland cement as a minimum treatment, but the actual amount is to be verified by the lab prior to pavement work. A copy of the lab report shall be submitted to the OWNER for approval.

19. **REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK:**

All work that has been rejected or condemned shall be repaired, or if it cannot be repaired satisfactorily, it shall be removed and replaced at the contractor's expense. Defective materials shall be immediately removed from the site of the work. Work done without line and grade having been given, work done beyond the lines or not in conformity with the grades shown on the drawings or as given, save as herein provided, work done without proper inspection, or any extra or unclassified work done without written authority and prior agreement in writing as to prices, shall be done at the contractor's risk, and will be considered unauthorized, and at the option of the OWNER, may not be measured and paid for, and may be ordered removed at the contractor's expense. If the contractor fails to satisfactorily repair, replace or remove the rejected, condemned or unauthorized work or materials immediately upon receipt of written notice, the OWNER will have the authority to cause such remediation to be performed and to deduct the cost thereof from any monies due or to become due to the contractor.

20. **TRENCH SAFETY:**

- 20.1 A trench safety system must be provided for all trench excavations according to current OSHA requirements.
- 20.2 On all public projects bid by the OWNER (City of Burleson) or private projects to be constructed within right-of-way or easements to be conveyed to the City of Burleson, compliance with the current minimum Occupational Safety and Health Administration (OSHA) or other governmental agencies standards for trench safety will be required as part of the plans and specifications. Prior to start of construction a detailed trench safety system must be provided to the City by the contractor. This detailed trench safety system must meet all requirements by OSHA or other governmental agencies, and be designed and certified by a professional engineer licensed in the State of Texas.
- 20.3 A pay item shall be included in the plans and specifications for the trench safety system. Payment will be on a linear-foot basis and will be full compensation for labor, tools, materials, equipment and incidentals necessary to complete the work, including the removal of the trench safety system and back-filling the trench. Pursuant to Texas law, the City of Burleson has adopted a trench safety policy, which is addressed in Section 11 of the Specifications. Each bidder should be familiar with Section 11 prior to submitting a bid.

21. **BID TABULATION:**

A tabulation of all bids will be available within five (5) working days of the bid opening.

22. **ADDENDUM:**

- 22.1 The OWNER reserves the right to issue addendum(s) to the Plans, Proposal, Specifications, and Special Provisions. Addendums will be issued at <https://burlesontx.bonfire.com>
- 22.2 The Bidders will acknowledge the receipt of the addendum(s) by submitting a signed copy of the addendum(s) with the submission of their bid.
- 22.3 It shall be the Bidder's responsibility to ensure that they are aware of all addendum(s) issued by the OWNER.
- 22.4 Upon receipt of the addendum(s), the Bidder shall acknowledge the receipt of the addendum(s) in the appropriate spaces provided in the proposal.
- 22.5 **Bids that have not properly acknowledged addendum(s) will not be opened.**

SECTION 3

PREVAILING WAGE RATES FOR MUNICIPAL CONSTRUCTION IN BURLESON, TEXAS

The following minimum rates have been determined by the City of Burleson, Texas, in accordance with the statutory requirements and prevailing local wages:

THE STATE OF TEXAS §

COUNTY OF JOHNSON §

AFFIDAVIT

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, who is known to me or who was proved to me on the oath of _____ (name of person identifying the acknowledging person) or who was proved to me through _____ (description of identity card or other document issued by the federal or state government containing the picture and signature of the acknowledging person) to be the person whose name is subscribed to this affidavit; and being by me first duly sworn, upon oath stated as follows:

"My name is _____. I am of sound mind and capable of making this affidavit. "I am a _____ for the _____ which company entered into a contract on the _____ day of _____, 20____, to construct the **Service Center Drainage Improvements**, and I am duly authorized on behalf of said company to hereby swear and affirm that all wages for labor on the above-referenced project are in strict compliance with the established prevailing wage rates as described in the contract documents for the referenced project, and all wages have been and will be paid and satisfied as the prevailing rates may change from time to time. Upon request by the City of Burleson, I shall allow a complete examination of the financial records relative to this project, including, but not limited to, cancelled checks, invoices and statements at any time, and allow the City of Burleson to interview any and/or all employees of the above said company or any and/or all employees of said Company's subcontractor or subcontractors. Also, I hereby agree on behalf of the above company, to be accountable for any and all penalties and/or fine provisions in accordance with the contract documents and relevant law.

AFFIANT

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____ 20_____.

Notary Public In and For the State of Texas

Notary's Printed Name

My Commission Expires: _____

"General Decision Number: TX20240025 01/05/2024

Superseded General Decision Number: TX20230025

State: Texas

Construction Type: Highway

Counties: Archer, Callahan, Clay, Collin, Dallas, Delta, Denton, Ellis, Grayson, Hunt, Johnson, Jones, Kaufman, Parker, Rockwall, Tarrant and Wise Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at

http://www.dol.gov/whd/govcontracts.

Modification Number Publication Date
0 01/05/2024

SUTX2011-007 08/03/2011

	Rates	Fringes
CONCRETE FINISHER (Paving and Structures).....	\$ 14.12	**
ELECTRICIAN.....	\$ 19.80	
FORM BUILDER/FORM SETTER		
Paving & Curb.....	\$ 13.16	**
Structures.....	\$ 13.84	**
LABORER		
Asphalt Raker.....	\$ 12.69	**
Flagger.....	\$ 10.06	**
Laborer, Common.....	\$ 10.72	**
Laborer, Utility.....	\$ 12.32	**
Pipelayer.....	\$ 13.24	**
Work Zone Barricade Servicer.....	\$ 11.68	**
POWER EQUIPMENT OPERATOR:		
Asphalt Distributor.....	\$ 15.32	**
Asphalt Paving Machine.....	\$ 13.99	**
Broom or Sweeper.....	\$ 11.74	**
Concrete Pavement Finishing Machine.....	\$ 16.05	**
Concrete Saw.....	\$ 14.48	**
Crane Operator, Lattice Boom 80 Tons or Less.....	\$ 17.27	
Crane Operator, Lattice Boom over 80 Tons.....	\$ 20.52	
Crane, Hydraulic 80 Tons or Less.....	\$ 18.12	
Crawler Tractor.....	\$ 14.07	**
Excavator, 50,000 pounds or less.....	\$ 17.19	**
Excavator, over 50,000 pounds.....	\$ 16.99	**
Foundation Drill , Truck Mounted.....	\$ 21.07	
Foundation Drill, Crawler Mounted.....	\$ 17.99	
Front End Loader 3 CY or Less.....	\$ 13.69	**
Front End Loader, over 3 CY.....	\$ 14.72	**
Loader/Backhoe.....	\$ 15.18	**
Mechanic.....	\$ 17.68	
Milling Machine.....	\$ 14.32	**
Motor Grader, Fine Grade....	\$ 17.19	**
Motor Grader, Rough.....	\$ 16.02	**
Pavement Marking Machine....	\$ 13.63	**
Reclaimer/Pulverizer.....	\$ 11.01	**
Roller, Asphalt.....	\$ 13.08	**
Roller, Other.....	\$ 11.51	**
Scraper.....	\$ 12.96	**
Small Slipform Machine.....	\$ 15.96	**
Spreader Box.....	\$ 14.73	**

Servicer.....\$ 14.58 **

Steel Worker (Reinforcing).....\$ 16.18 **

TRUCK DRIVER

Lowboy-Float.....\$ 16.24 **

Off Road Hauler.....\$ 12.25 **

Single Axle.....\$ 12.31 **

Single or Tandem Axle Dump

Truck.....\$ 12.62 **

Tandem Axle Tractor with

Semi Trailer.....\$ 12.86 **

Transit-Mix.....\$ 14.14 **

WELDER.....\$ 14.84 **

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====
** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular

rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TX20240026 01/05/2024

Superseded General Decision Number: TX20230026

State: Texas

Construction Type: Heavy

Counties: Johnson, Parker and Tarrant Counties in Texas.

Heavy Construction Projects (Including Water and Sewer Lines)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

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	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 38.28	11.06

 SUTX1990-041 06/01/1990

	Rates	Fringes
CARPENTER.....	\$ 10.40 **	\$3.64
Concrete Finisher.....	\$ 9.81 **	
ELECTRICIAN.....	\$ 13.26 **	
Form Setter.....	\$ 7.86 **	
Laborers:		
Common.....	\$ 7.25 **	
Utility.....	\$ 8.09 **	
PAINTER.....	\$ 10.89 **	
Pipelayer.....	\$ 8.43 **	
Power equipment operators:		
Backhoe.....	\$ 11.89 **	3.30
Bulldozer.....	\$ 10.76 **	
Crane.....	\$ 13.16 **	3.30
Front End Loader.....	\$ 10.54 **	
Mechanic.....	\$ 10.93 **	
Scraper.....	\$ 10.00 **	
Reinforcing Steel Setter.....	\$ 10.64 **	
TRUCK DRIVER.....	\$ 7.34 **	

 WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons

resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an

interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: TX20240257 01/05/2024

Superseded General Decision Number: TX20230257

State: Texas

Construction Type: Building

County: Johnson County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

ASBE0021-011 06/01/2023

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Duct, Pipe and Mechanical System Insulation)....	\$ 31.32	7.52

BOIL0074-003 07/01/2023

	Rates	Fringes
BOILERMAKER.....	\$ 37.00	24.64

CARP1421-002 02/01/2023

	Rates	Fringes
MILLWRIGHT.....	\$ 30.12	41.45

ELEV0021-006 01/01/2023

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 47.60	37.335+a+b

FOOTNOTES:

A. 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked.

B. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Veterans Day.

ENGI0178-005 06/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR (1) Tower Crane.....	\$ 32.85	13.10
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above.....	\$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under.....	\$ 32.35	13.10

IRON0263-005 06/01/2023

	Rates	Fringes
IRONWORKER (ORNAMENTAL AND STRUCTURAL).....	\$ 27.89	7.93

PAIN0053-004 04/01/2014

	Rates	Fringes
PAINTER (Brush, Roller, and Spray (Excludes Drywall Finishing/Taping)).....	\$ 16.40 **	5.45

PLUM0146-003 05/01/2023

	Rates	Fringes
PIPEFITTER (Excludes HVAC Pipe Installation).....	\$ 38.28	11.06

SUTX2014-033 07/21/2014

	Rates	Fringes
BRICKLAYER.....	\$ 20.18	0.00
CARPENTER, Excludes Drywall Hanging, Form Work, and Metal Stud Installation.....	\$ 15.12 **	2.94
CEMENT MASON/CONCRETE FINISHER...	\$ 13.45 **	0.00
DRYWALL FINISHER/TAPER.....	\$ 16.24 **	3.94
DRYWALL HANGER AND METAL STUD INSTALLER.....	\$ 16.20 **	3.40
ELECTRICAL INSTALLER (Sound and Communication Systems Only)Excludes Wiring.....	\$ 17.79	2.41
ELECTRICIAN (Alarm Installation Only).....	\$ 18.00	0.38
ELECTRICIAN (Low Voltage Wiring Only).....	\$ 14.88 **	2.15
ELECTRICIAN, Excludes Low Voltage Wiring and Installation of Alarms/Sound and Communication Systems.....	\$ 20.68	4.39
FORM WORKER.....	\$ 12.38 **	0.00
GLAZIER.....	\$ 15.93 **	2.37
HVAC MECHANIC (Installation of HVAC Unit Only).....	\$ 22.18	6.48
INSTALLER - SIDING (METAL/ALUMINUM/VINYL).....	\$ 15.77 **	0.00
IRONWORKER, REINFORCING.....	\$ 12.19 **	0.00
LABORER: Common or General.....	\$ 11.91 **	2.64
LABORER: Mason Tender - Brick...	\$ 10.50 **	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 10.80 **	0.00
LABORER: Pipelayer.....	\$ 13.00 **	0.35
LABORER: Roof Tearoff.....	\$ 11.28 **	0.00
LABORER: Landscape and Irrigation.....	\$ 10.00 **	0.00
OPERATOR:		

Backhoe/Excavator/Trackhoe.....	\$ 13.06 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 13.93 **	0.00
OPERATOR: Bulldozer.....	\$ 18.29	1.31
OPERATOR: Drill.....	\$ 17.60	0.50
OPERATOR: Forklift.....	\$ 14.20 **	0.00
OPERATOR: Grader/Blade.....	\$ 12.95 **	0.00
OPERATOR: Loader.....	\$ 12.89 **	1.19
OPERATOR: Mechanic.....	\$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 18.44	0.00
OPERATOR: Roller.....	\$ 15.04 **	0.00
PLASTERER.....	\$ 15.30 **	0.00
PLUMBER (HVAC Pipe Installation Only).....	\$ 19.33	3.57
PLUMBER, Excludes HVAC Pipe Installation.....	\$ 24.00	2.71
ROOFER.....	\$ 15.70 **	0.58
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 18.25	3.02
SHEET METAL WORKER, Excludes HVAC Duct Installation.....	\$ 18.63	0.65
SPRINKLER FITTER (Fire Sprinklers).....	\$ 18.89	0.00
TILE FINISHER.....	\$ 11.22 **	0.00
TILE SETTER.....	\$ 12.00 **	0.00
TRUCK DRIVER: Dump Truck.....	\$ 12.39 **	1.18
TRUCK DRIVER: Flatbed Truck.....	\$ 19.65	8.57
TRUCK DRIVER: Semi-Trailer Truck.....	\$ 12.50 **	0.00
TRUCK DRIVER: Water Truck.....	\$ 12.00 **	4.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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 ** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not

currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

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Wage and Hour Division
U.S. Department of Labor
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Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

SECTION NO. 4

OUT OF STATE CONTRACTOR COMPLIANCE TO STATE LAW

The State Legislature of the State of Texas at its 1985 Legislative Session passed House Bill 620 relative to the award of contracts to non-resident bidders. This law provides that, in order to be awarded a contract as low bidder, a non-resident bidder (out-of-state contractor whose corporate office or principal place of business is outside the State of Texas) bid projects in Texas at an amount lower than the lowest Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder in order to obtain a comparable contract in the state in which the non-resident's principal place of business is located. The appropriate blanks in the following statement must be filled out by all out-of-state or non-resident bidders in order for those bids to meet specifications. The failure of out-of-state or non-resident contractors to do so will automatically disqualify that bidder.

Non-resident contractor in _____ (give state), our principal place of business, is required to be _____ percent lower than resident bidders by State Law. A copy of the statute is attached.

Non-resident contractor in _____ (give state), our principal place of business, is not required to underbid resident bidders.

BIDDER

Company

By _____
(Please Print)

Address

Signature

City State Zip

Title (Please Print)

SECTION 5
AFFIDAVIT AGAINST PROHIBITED ACTS

I hereby affirm that I am aware of the provisions of the Texas Penal Code Sec. 36.02, 36.08, 36.09, and 36.10 (a copy of which follows), dealing with Bribery and Gifts to Public Servants. I further affirm that I will adhere to such rules and instruct and require all agents, employees, and sub-contractors to do the same. I am further aware that any violation of these rules subjects this agreement to revocation, my removal from bid lists, prohibiting future contract/subcontract work, revocation of permits, and prosecution.

Signature

Date

ATTEST (if corporation)

Date

TEXAS PENAL CODE

TITLE 8: OFFENSES AGAINST PUBLIC ADMINISTRATION

CHAPTER 36. BRIBERY AND CORRUPT INFLUENCE

36.02 BRIBERY

- (a) A person commits an offense if he intentionally or knowingly offers, confers or agrees to confer on another, or solicits, accepts or agrees to accept from another:
- (1) any benefit as consideration for the recipient's decision, opinion, recommendation, vote or other exercise of discretion as a public servant, party official or voter;
 - (2) any benefit as consideration for the recipient's decision, vote, recommendation or other exercise of official discretion in a judicial or administrative proceeding;
 - (3) any benefit as consideration for a violation of a duty imposed by law on a public servant or party official; or
 - (4) any benefit that is a political contribution, as defined by Title 15, Election Code, if the benefit was offered, conferred, solicited, accepted or agreed to, pursuant to an express agreement, to take or withhold a specific exercise of official discretion if such exercise of official discretion would not have been taken or withheld but for the benefit; notwithstanding any rule of evidence or jury instruction allowing factual inferences in the absence of certain evidence, direct evidence of the express agreement shall be required in any prosecution under this subdivision.
- (b) It is no defense to prosecution under this section that a person whom the actor sought to influence was not qualified to act in the desired way whether because he had not yet assumed office, or he lacked jurisdiction or for any other reason.
- (c) It is no defense to prosecution under this section that the benefit is not offered or conferred or that the benefit is not solicited or accepted until after:
- (1) the decision, opinion, recommendation, vote or other exercise of discretion has occurred; or
 - (2) the public servant ceases to be a public servant.
- (d) It is an exception to the application of Subdivisions (1), (2) and (3) of Subsection (a) of this section that the benefit is a political contribution accepted as defined by Title 15, Election Code.
- (e) An offense under this section is a felony of the second degree.

36.08 GIFT TO PUBLIC SERVANT BY PERSON SUBJECT TO HIS JURISDICTION

- (a) A public servant in an agency performing regulatory functions or conducting inspections or investigations commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows to be subject to regulation, inspection or investigation by the public servant or his agency.
- (b) A public servant in an agency having custody of prisoners commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows to be in his custody or the custody of his agency.
- (c) A public servant in an agency carrying on civil or criminal litigation on behalf of government commits an offense if he solicits, accepts or agrees to accept any benefit from a person against whom the public servant knows litigation is pending or contemplated by the public servant or his agency.
- (d) A public servant who exercises discretion in connection with contracts, purchases, payments, claims or other pecuniary transactions of government commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows is interested in or likely to become interested in any contract, purchase, payment, claim or transaction involving the exercise of his discretion.
- (e) A public servant who has judicial or administrative authority, who is employed by or in a tribunal having judicial or administrative authority, or who participates in the enforcement of the tribunal's decisions, commits an offense if he solicits, accepts or agrees to accept any benefit from a person the public servant knows is interested in or likely to become interested in any matter before the public servant or tribunal.
- (f) A member of the legislature, the governor, the lieutenant governor or a person employed by a member of the legislature, the governor, the lieutenant governor or an agency of the legislature commits an offense if he solicits, accepts or agrees to accept any benefit from any person.
- (g) A public servant who is a hearing examiner employed by an agency performing regulatory functions and who conducts hearings in contested cases commits an offense if the public servant solicits, accepts or agrees to accept any benefit from any person who is appearing before the agency in a contested case, who is doing business with the agency, or who the public servant knows is interested in any matter before the public servant. The exception provided by Section 36.10(b) of this code does not apply to a benefit under this subsection.
- (h) An offense under this section is a Class A misdemeanor.

36.09 OFFERING GIFT TO PUBLIC SERVANT

- (a) A person commits an offense if he offers, confers or agrees to confer any benefit on a public servant that he knows the public servant is prohibited by law from accepting.
- (b) An offense under this section is a Class A misdemeanor.

36.10 NON-APPLICABLE

- (a) Sections 36.08 (Gift to Public Servant) and 36.09 (Offering Gift to Public Servant) of this code do not apply to:
- (1) a fee prescribed by law to be received by a public servant or any other benefit to which the public servant is lawfully entitled or for which he gives legitimate consideration in a capacity other than as a public servant;
 - (2) a gift or other benefit conferred on account of kinship or a personal, professional or business relationship independent of the official status of the recipient; or
 - (3) a benefit to a public servant required to file a statement under Chapter 421, Acts of the 63rd Legislature, Regular Session, 1973 (Article 6252-9b, Vernon's Texas Civil Statutes), or a report under Title 15, Election Code, that is derived from a function in honor or appreciation of the recipient if:
 - (A) the benefit and the source of any benefit in excess of \$50 is reported in the statement; and
 - (B) the benefit is used solely to defray the expenses that accrue in the performance of duties or activities in connection with the office which are nonreimbursable by the state or political subdivision;
 - (4) a political contribution as defined by Title 15, Election Code; or
 - (5) a gift, award or memento to a member of the legislative or executive branch that is required to be reported under Chapter 305, Government Code.
- (b) Section 36.08 (Gift to Public Servant) of this code does not apply to food, lodging, transportation or entertainment accepted as a guest and, if the donee is required by law to report those items, reported by the donee in accordance with that law.
- (c) Section 36.09 (Offering Gift to Public Servant) of this code does not apply to food, lodging, transportation or entertainment accepted as a guest and, if the donor is required by law to report those items, reported by the donor in accordance with that law.

SECTION 5A CONFLICT OF INTEREST

The Contractor covenants and agrees that Contractor and its officers, employees, and agents will have no interest, including personal financial interest, and will acquire no interest, either directly or indirectly, which will conflict in any manner with the performance of the services called for under this Contract. No officer or employee of the City shall have a financial interest, direct or indirect, in any contract with the City, or be financially interested, directly or indirectly, in the sale to the City of any land, materials, supplies or services, except on behalf of the City or in compliance with the provisions of the City of Burleson Personnel Policies and Procedures Manual. Any violation of this provision shall render this contract voidable at the discretion of the City.

A person or business, and their agents, contract or enter into an agreement with the City, are required by Texas Local Government Code, Chapter 176, to file a conflict of interest questionnaire FORM CIQ. Form CIQ is available online at www.ethics.state.tx.us or electronically at www.tml.org.legal - Ethics Form ECIQ.

Sec. 176.002. APPLICABILITY TO CERTAIN VENDORS AND OTHER PERSONS.

- (a) This chapter applies to a person who:
 - (1) enters or seeks to enter into a contract with a local governmental entity; or
 - (2) is an agent of a person described by Subdivision (1) in the person's business with a local governmental entity.
- (b) A person is not subject to the disclosure requirements of this chapter if the person is
 - (1) a state, a political subdivision of a state, the federal government, or a foreign government; or
 - (2) an employee of an entity described by Subdivision(1), acting in the employee's official capacity.

Sec. 176.006. Disclosure requirements for vendors and other persons; questionnaire.

- (a) A person described by Section 176.002(a) shall file a completed conflict of interest questionnaire if the person has a business relationship with a local governmental entity and:
 - (1) has an employment or other business relationship with an officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A); or
 - (2) has given an officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1).

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the person:
 - (A) begins discussion or negotiations to enter into a contract with the local governmental entity; or
 - (B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or
- (2) the date the person becomes aware:

The form must be filed with the City Secretary no later than seven days after the date the person or business contracts with the City. Such persons and businesses, and their agents, must also file an updated questionnaire not later than September 1 of each year in which the person or business contract begins, and within seven days after the date of an event that would make a filed questionnaire incomplete or inaccurate. An updated complete questionnaire is not required if the person or business filed a questionnaire or updated questionnaire after June 1 but before September 1.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

OFFICE USE ONLY

Complete Nos. 1 - 4 and 6 if there are interested parties.
 Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party.

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

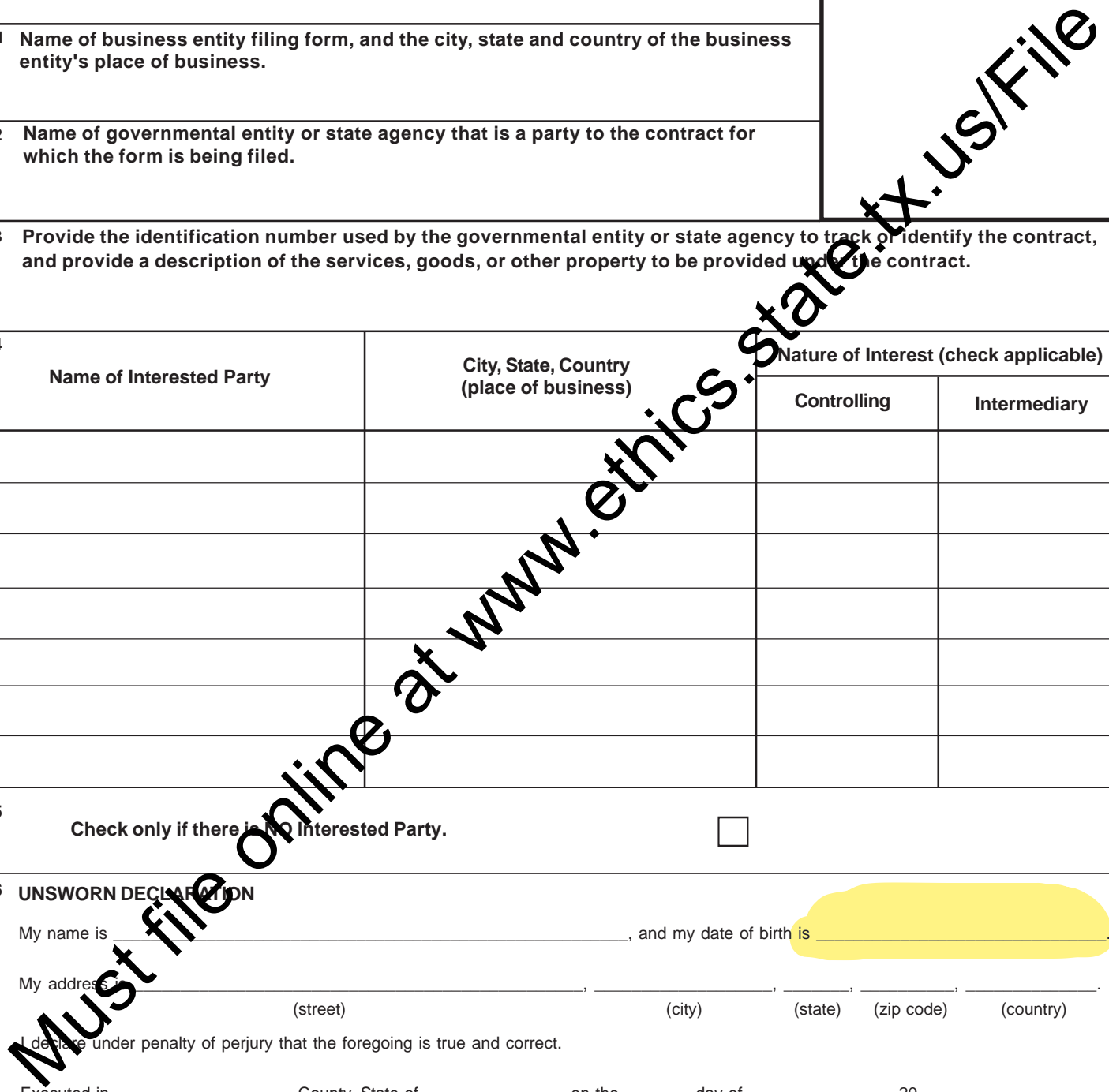
My address is _____, _____, _____, _____, _____.
 (street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
 (month) (year)

 Signature of authorized agent of contracting business entity
 (Declarant)

ADD ADDITIONAL PAGES AS NECESSARY



SECTION 5B
HOUSE BILL 89 VERIFICATION FORM

PROHIBITION ON CONTRACTS WITH COMPANIES BOYCOTTING ISRAEL

The 85th Texas Legislature approved new legislation, effective Sept. 1, 2017, which amends Texas Local Government Code Section 1. Subtitle F, Title 10, Government Code by adding Chapter 2270 which states that a governmental entity may not enter into a contract with a company for goods or services unless the contract contains a written verification from the company that it:

1. does not boycott Israel; and
2. will not boycott Israel during the term of the Contract Pursuant to Section 2270.001,

TEXAS GOVERNMENT CODE:

1. "Boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes; and
2. "Company" means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or any limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business associations that exist to make a profit.

I, (authorized official), do hereby depose and verify the truthfulness and accuracy of the contents of the statements submitted on this certification under the provisions of Subtitle F, Title 10, Government Code Chapter 2270 and that the company named below:

1. does not boycott Israel currently; and
2. will not boycott Israel during the term of the contract; and
3. is not currently listed on the State of Texas Comptroller's Companies that Boycott Israel List located at <https://comptroller.texas.gov/purchasing/publications/divestment.php>

Company Name

Signature of Authorized Official

Title of Authorized Official

Date

Section 5C
Offeror Acknowledgement

Compliance with HB 89: Proposer agrees per HB 89 vendor shall not boycott Israel at any time while providing products or services to the City of Burleson.

Yes, we agree

No, we do not agree

Compliance with SB 252: Proposer agrees per SB 252 vendor shall not do business with Iran, Sudan or a foreign terrorist organization while providing products or services to the City of Burleson.

Yes, we agree

No, we do not agree

Compliance with SB 13: Proposer agrees per SB 13 vendor does not boycott energy companies as those terms are defined in the Texas Government Code § 809.001, and will not boycott energy companies during the term of any contract with the City of Burleson.

Yes, we agree

No, we do not agree

Compliance with SB 19: Proposer agrees per SB 19 vendor does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association as those terms are defined in the Texas Government Code § 2274.001, and that vendor will not so discriminate during the term of any contract with the City of Burleson.

Yes, we agree

No, we do not agree

SECTION 6

PROPOSAL

To: The City of Burleson
141 W. Renfro
Burleson, TX 76028

For: Service Center Drainage Improvements
Project No. DR2301

TO THE CITY OF BURLESON, TEXAS:

The undersigned hereby proposes to furnish the equipment, fuel, labor, materials, power, tools, superintendence, transportation, and to perform the work required for the construction of the **Service Center Drainage Improvements Project, OWNER Project No. DR2301**, in the City of Burleson, Texas, for the following prices, which prices it is clearly and definitely understood shall include all construction materials and equipment as set out in the basis of payment in the contractual documents and maintaining same as required by the detailed specifications.

Contractor understands that these quantities are approximate and that the actual price paid by the City of Burleson, hereinafter called "OWNER" to the Contractor will be made based on the actual quantity installed in the field.

Successful BIDDER:

1. The undersigned bidder agrees to begin work within fifteen (15) calendar days after date of written notice to do so and to complete the work within 120 calendar days after the date on which he is required to begin; provided, however, that the OWNER'S construction funds are available.

Enclosed with this Proposal is a Bidder's Bond for _____ (\$_____5%) dollars, which it is agreed shall be collected and retained by the OWNER as liquidated damages if the OWNER accepts this bid within sixty (60) days after the opening of bids, and the undersigned bidder then fails to execute the contract and bonds with the said OWNER within ten (10) days after official notice of such acceptance; otherwise, said Bidder's Bond or Check shall be returned to the undersigned on demand. This sum of money is not to be considered as a penalty, but shall be deemed, taken and treated as reasonable liquidated damages. The sum of money is fixed and agreed on between the bidder and OWNER because of the impracticability and extreme difficulty of fixing and ascertaining the actual damage to the owner.

2. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

BIDDER has examined copies of all the Bidding Documents and of the following Addenda (receipt of which is hereby acknowledged):

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

3. BIDDER is familiar with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
4. BIDDER has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all necessary examinations, investigations, explorations, tests and studies which pertain to the subsurface or physical conditions at the site or otherwise may affect the cost, progress, performance or furnishing the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, and no additional examinations,

investigations, explorations, tests, reports or similar information or data are or will be required by BIDDER for such proposes.

5. BIDDER has reviewed and checked all information and data shown, indicated in the Contract Documents with respect to existing underground facilities at, or contiguous to the site and assumes responsibility for the accurate location of said underground facilities. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said underground facilities are or will be required by BIDDER in order to perform or furnish the Work at the Contract Price, within the contract time and in accordance with the other terms and conditions of the Contract Documents.
6. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham BID; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER.
7. Total calendar days to complete all units (Note: Contractor has the option to construct all or some units simultaneously. Total calendar days to be determined based upon how Contractor intends to schedule the work. Schedules for various units may over lap at Contractors discretion). TOTAL DAYS: 120

BIDDER agrees that the work shall be substantially complete and ready for final payment within the number of calendar days listed herein from the date when the contract time commences to run. See Section 7 in regarding contract time.

8. BIDDER has included the cost of everything which will be needed to construct all the work called for in the specifications or the contract documents, in the unit cost for the bid items listed above. All such work for which there is not a specific bid item is considered subsidiary to the related major bid item and its cost is included in the appropriate bid item listed above.
9. BIDDER acknowledges that the quantities indicated in the previous schedule are not guaranteed and may be changed to conform with the Work. BIDDER has not detected any inaccuracies in the lengths, sized and quantities shown in the plans. The quantities as shown in the proposal are presumed to be the actual quantities required to construct the Work.
10. BIDDER acknowledges that the OWNER reserves the right to delete any portion of this project, as it may deem necessary to stay within the

OWNER's available funds. Should the OWNER elect to delete any portion, the contract quantities will be adjusted accordingly.

- 11. BIDDER has reviewed and understands the various additive alternate work scoped associated this project and has provided corresponding prices and time frames for each as requested in the proposal. Bidder acknowledges that the OWNER reserves the right to add or delete these alternates in any combination, as it may deem necessary to stay within the OWNER's available funds.
- 12. BIDDER accepts the provisions as to liquidated damages (\$240.00 per calendar day) in the event of failure to complete the work on time.
- 13. The terms used in the Bid which are defined in the *Standard Specifications for Public Works Construction*, published by the North Central Texas Council of Governments (NCTCOG), have the meanings assigned to them therein.

Respectfully Submitted,

BIDDER

Company

By _____
(Please Print)

Title

Address

City State Zip

(Seal if corporation)

Submitted by _____

An Individual
A Corporation
A Partnership

Doing Business as _____

(Complete A or B below, as applicable)

[]A. The principal place of business of our company is in the State of _____.

Non-resident bidders in the State of _____, our principal place of business, are required to be _____% lower than resident bidders by State Law.

A copy of statute is attached.

[]B. The principal place of business of our company or our parent company or majority owner is in the state of Texas.

STATEMENT OF MATERIAL AND OTHER CHARGES

MATERIALS INCORPORATED INTO THE PROJECT: \$ _____

ALL OTHER CHARGES: \$ _____

*TOTAL: \$ _____

This total must agree with the total figure shown in the Item and Quantity Sheets in the bound contract.

For purpose of complying with the Texas Tax Code, the Contractor agrees that the charges for any material incorporated into the project in excess of the estimated quantity provided for herein will be no less than the invoice price for such material to the Contractor.

NOTE: THIS PAGE MAY REMAIN BLANK FOR THE INITIAL SUBMITTAL OF THE BID. THE COPY OF THIS FORM IN THE EXECUTED CONTRACTS IS REQUIRED TO BE FILLED OUT.

PROPOSAL FORM EXHIBIT 'A'

City of Burleson Service Center Drainage Improvements

Item No.	Estimated Quantity	Unit	Item Description Total Unit Price Typed or Written in Words	Unit Price	Extension
101	1	LS	Site Preparation, Mobilization, Bonds, & Insurance _____ Dollars and _____ Cents Per Lump Sum	\$ _____	\$ _____
102	1	LS	Erosion Control & SWPPP _____ Dollars and _____ Cents Per Lump Sum	\$ _____	\$ _____
103	1	LS	Traffic Control (Steel plate over service road and barricades as needed) _____ Dollars and _____ Cents Per Lump Sum	\$ _____	\$ _____
201	2,758	SY	Demolition, removal, and disposal of concrete pavement _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____
202	3	EA	Demolition, removal, and disposal reinforced concrete pipe, end treatments, and outfall structure _____ Dollars and _____ Cents Per Each	\$ _____	\$ _____
301	2,800	SY	6" 3600 PSI Concrete w/ #4 bars on 24" centers each way over 6" stabilized compacted subgrade complete with striping _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____
302	145	SY	5" 3600 PSI Concrete w/ #4 bars on 24" centers each way over 6" stabilized compacted subgrade _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____

PROPOSAL FORM EXHIBIT 'A'

City of Burleson Service Center Drainage Improvements

Item No.	Estimated Quantity	Unit	Item Description Total Unit Price Typed or Written in Words	Unit Price	Extension
303.A	290	SY	5" 3600 PSI Concrete w/ #4 bars on 24" centers each way over 6" stabilized compacted subgrade _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____
303.B	290	SY	6" crushed asphalt over 6" stabilized compacted subgrade from existing stockpile located on site _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____
304	33	EA	Wheel Stops _____ Dollars and _____ Cents Per Each	\$ _____	\$ _____
305	630	SY	Class A Concrete Flume per Detail D-09 _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____
306	755	CY	Unclassified excavation and rework of dirt (Detention Pond Site is intended to be balanced) _____ Dollars and _____ Cents Per Cubic Yard	\$ _____	\$ _____
307	10,000	CY	Imported Fill (If Necessary) _____ Dollars and _____ Cents Per Cubic Yard	\$ _____	\$ _____
308	367	LF	36" Class IV Reinforced Concrete Pipe _____ Dollars and _____ Cents Per Linear Foot	\$ _____	\$ _____
309	54	LF	24" Class IV Reinforced Concrete Pipe _____ Dollars and _____ Cents Per Linear Foot	\$ _____	\$ _____

PROPOSAL FORM EXHIBIT 'A'

City of Burleson
Service Center Drainage Improvements

Item No.	Estimated Quantity	Unit	Item Description Total Unit Price Typed or Written in Words	Unit Price	Extension
311	4	EA	36" SETP-CD-4:1 Safety End Treatment _____ Dollars and _____ Cents Per Each	\$ _____	\$ _____
312	2	EA	24" Sloped Headwall _____ Dollars and _____ Cents Per Each	\$ _____	\$ _____
313	2,265	SY	Hydromulch _____ Dollars and _____ Cents Per Square Yard	\$ _____	\$ _____
Total Base Proposal - Alternate 1					
			_____ Dollars and _____ Cents	\$ _____	
Total Base Proposal - Alternate 2					
			_____ Dollars and _____ Cents	\$ _____	

Section 6A

Anticipated Subcontractor List

Please list subcontractors anticipated to complete work on the project below and their scope of work.
This list is not a final vendor list. Substitutions, additions, and modifications will be allowed with written coordination and agreement by Owner.

Vendor Name	Scope of Work
ex. Water Line Contractors, LLC ex. Irrigation Specialities, LLC	ex. Water and sewer utilities ex. Irrigation

SECTION 7

STATE OF TEXAS§

Contract

COUNTY OF JOHNSON §

PROJECT NO. DR2301

This Contract, made and entered into this _____ day of _____, 20____, by and between the City of Burleson of Johnson County, Texas, a municipal corporation, hereinafter called "OWNER," and

hereinafter called "Contractor."

W I T N E S S E T H:

For and in consideration of the payment, agreements and conditions hereinafter mentioned, and under the conditions expressed in the bonds herein, Contractor hereby agrees to complete the construction of improvements described as follows:

Service Center Drainage Improvements

City of Burleson Project No. DR2301

in the City of Burleson, Texas, and all extra work in connection therewith, under the terms as stated in the Standard Specifications for Public Works Construction as it may be amended from time to time (hereinafter called "Standard Specifications"), and under the terms of the Special Provisions of this Contract; and at his, her or their own proper cost and expense to furnish all superintendence, labor, insurance, equipment, tools and other accessories and services necessary to complete the said construction in accordance with all the Contract documents, incorporated herein as if written word for word, and in accordance with the plans, which include all maps, plats, blueprints, and other drawings and printed or written explanatory manner therefore, and the specifications as prepared by OWNER, who has been identified by the endorsement of the Contractor's written proposal, these General Provisions of the Standard Specifications, the Special Provisions of this Contract, the payment, performance, and maintenance bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire Contract.

The Contractor hereby agrees to commence work within fifteen (15) days after the date written notice to do so shall have been given to him or her and to

complete same within 120 calendar days after the date of written notice to commence work.

The OWNER agrees to pay the Contractor in current funds for the performance of the Contract in accordance with the proposal submitted therefore, subject to additions and deductions, as provided therein.

This Contract is entered into subject to the Charter and ordinances of OWNER, as they may be amended from time to time, and is subject to and is to be construed, governed, and enforced under all applicable State of Texas and federal laws. Situs of this Contract is agreed to be Johnson County, Texas, for all purposes including performance and execution.

If any of the terms, sections, subsections, sentences, clauses, phrases, provisions, covenants, or conditions of this Contract is held for any reason to be invalid, void or unenforceable, the remainder of the terms, sections, subsections, sentences, clauses, phrases, provisions, covenants, or conditions of this Contract shall remain in full force and effect and shall in no way be affected, impaired, or invalidated.

OWNER reserves the right to terminate this agreement immediately upon breach of any term or provision of this Contract by Contractor; or, if any time during the term of this Contract, Contractor shall fail to commence the work in accordance with the provisions of this Contract or fail to diligently provide Services in an efficient, timely, and careful manner and in strict accordance with the provisions of this Contract or fail to use an adequate number or quality of personnel and equipment to complete the work or fail to perform any of its obligations under this Contract, then OWNER shall have the right, if Contractor shall not cure any such default after thirty (30) days written notice thereof, to terminate this Contract and complete the work in any manner it deems desirable, including engaging the Services of other parties therefore. Any such act by OWNER shall not be deemed a waiver of any other right or remedy of OWNER. If after exercising any such remedy the cost to OWNER of the performance of the balance of the work is in excess of that part of the Contract sum which has not theretofore been paid to Contractor hereunder, Contractor shall be liable for and shall reimburse OWNER for such excess.

No right or remedy granted herein or reserved to the parties is exclusive of any other right or remedy herein by law or equity provided or permitted; but, each shall be cumulative of every other right or remedy given hereunder. No covenant or condition of this Contract may be waived without consent of the parties. Forbearance or indulgence by either party shall not constitute a waiver of any covenant or condition to be performed pursuant to this Contract.

Contractor's status shall be that of an independent Contractor and not an agent, servant, employee or representative of OWNER in the performance of this

Contract. No term or provision of, or act of Contractor or OWNER under this Contract shall be construed as changing that status.

This Contract embodies the complete agreement of the parties hereto, superseding all oral or written previous and contemporary agreements between the parties relating to matters herein; and except as otherwise provided herein, cannot be modified without the written agreement of the parties.

OWNER and Contractor each bind themselves, their successors, executors, administrators and assigns to the other party to this Contract. Neither OWNER nor Contractor will assign, sublet, subcontract or transfer any interest in this Contract without the written consent of the other party. No assignment, delegation of duties or subcontract under this Contract will be effective without the written consent of OWNER.

It is further agreed that one or more instances of forbearance by the OWNER in the exercise of its rights herein shall in no way constitute a waiver thereof.

In performing this Contract, Contractor agrees to use diligent efforts to purchase all goods and services from Burleson Businesses whenever such goods and services are comparable in availability, quality and price.

IN WITNESS WHEREOF, the parties of these presents have executed this agreement in the year and date first written above.

WITNESS:

CONTRACTOR

By _____
Signature

Company Name

Typed/Printed Name

Tax Identification Number:

Title

By _____
Signature

Address

Printed or Typed Name

City State Zip

Printed or Typed Title

ATTEST:

CITY OF BURLESON, TEXAS

Amanda Campos
City Secretary

Tommy Ludwig
City Manager

THE STATE OF TEXAS §
COUNTY OF JOHNSON §

Corporate Acknowledgment

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, who is known to me or who was proved to me on the oath of _____ (name of person identifying the acknowledging person) or who was proved to me through _____ (description of identity card or other document issued by the federal or state government containing the picture and signature of the acknowledging person) to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed same for and as the act and deed of _____, a corporation of _____ County, Texas, and as _____ thereof, and for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 20_____.

Notary Public In and For The State of Texas

Notary's Printed Name

My Commission Expires: _____

THE STATE OF TEXAS §
COUNTY OF JOHNSON §

City Acknowledgement

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared _____, known to me to be a person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed same for and as the act of the City of Burleson, Texas, a Texas municipal corporation, and as _____ thereof, and for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 20_____.

Notary Public In and For The State of Texas

Notary's Printed Name

My Commission Expires: _____

SECTION 8

THE STATE OF TEXAS §

Performance Bond

COUNTY OF JOHNSON §

KNOW ALL BY THESE PRESENTS:

THAT

of the City of _____, County of _____

State of _____ hereinafter referred to as "PRINCIPAL," and

_____, a corporate surety/sureties organized under the laws of the State of _____ and authorized to do business in the State of Texas, hereinafter referred to as "SURETY," (whether one or more), are held and firmly bound unto the **CITY OF BURLESON, TEXAS**, a municipal corporation located in Johnson County, Texas, hereinafter referred to as "CITY," in the amount of _____ DOLLARS (\$_____), lawful money of the United States, to be paid in Burleson, Johnson County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, assigns, administrators and successors, jointly and severally; and firmly by these presents, the condition of this obligation is such that,

WHEREAS, PRINCIPAL entered into a certain written Contract with the City of Burleson dated the _____ day of _____, 20_____, a copy of which is attached hereto and made a part hereof, to furnish all materials, equipment, labor, supervision, and other accessories necessary for the construction of:

Service Center Drainage Improvements

City of Burleson Project No. DR2301

in the City of Burleson, Texas, as more particularly described and designated in the above referenced contract such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word:

NOW THEREFORE,

If PRINCIPAL shall well, truly and faithfully perform and fulfill all of the undertakings, covenants, terms, conditions and agreements of the above referenced Contract in accordance with the plans, specifications and Contract documents during the original term thereof, and any extension thereof which may be granted with or without notice to SURETY, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all the

covenants, terms, conditions and agreements of any and all authorized modifications of such Contract that may hereafter be made, notice of which modifications to SURETY being hereby waived, then this obligation shall be void, otherwise to remain in full force and effect; and in case PRINCIPAL shall fail to do so, it is agreed that CITY may do such work and supply such materials and charge the same against PRINCIPAL and SURETY on this obligation, and PRINCIPAL and SURETY hereon shall be subject to the liquidated damages mentioned in the Contract for each day's failure on its part to comply with the terms and provisions of such Contract.

Provided, further, that if any legal action be filed on this Bond, venue shall lie in Johnson County, Texas.

And, that SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work performed thereunder, or the plans, specifications, drawings, etc., accompanying same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder.

The undersigned and designated agent is hereby designated by SURETY as the agent resident in either Tarrant or Johnson County to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, this instrument is executed on this the _____ day of _____, 20____.

WITNESS

By _____
Signature

Typed/Printed Name

Title

Address

City State Zip

PRINCIPAL

Company

By _____
Signature

Typed/Printed Name

Title

Address

City State Zip

WITNESS

By _____
Signature

Typed/Printed Name

Title

Address

City State Zip

SURETY

Company

By _____
Signature

Typed/Printed Name

Title

Address

City State Zip

SECTION 9

THE STATE OF TEXAS §

Payment Bond

COUNTY OF JOHNSON §

KNOW ALL BY THESE

PRESENTS:

THAT _____

of the City of _____, County of _____

State of _____ hereinafter referred to as "PRINCIPAL," and

_____, a corporate surety/sureties organized under the laws of the State of _____ and authorized to do business in the State of Texas, hereinafter referred to as "SURETY," (whether one or more), are held and firmly bound unto the **CITY OF BURLESON, TEXAS**, a municipal corporation located in Johnson County, Texas, hereinafter referred to as "CITY," and unto all persons, firms and corporations who may furnish materials for or perform labor upon the buildings, structures or improvements referred to in the attached Contract, in the penal sum of _____ DOLLARS (\$_____), lawful money of the United States, to be paid in Burleson, Johnson County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally; and firmly by these presents, the condition of this obligation is such that,

WHEREAS, PRINCIPAL entered into a certain Contract with City of Burleson, dated the _____ day of _____, 20____, a copy of which is attached hereto and made a part hereof, to furnish all materials, equipment, labor, supervision, and other accessories necessary for the construction of:

**Service Center Drainage Improvements
City of Burleson Project No. DR2301**

NOW THEREFORE,

If PRINCIPAL shall well, truly and faithfully perform its duties and make prompt payment to all persons, firms, subcontractors, corporations and claimants supplying labor and materials in the prosecution of the work provided for in the

above referenced Contract and any and all duly authorized modifications of such Contract that may hereafter be made, notice to SURETY of such modifications being hereby waived, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, further, that if any legal action be filed on this Bond, venue shall lie in Johnson County, Texas.

And, that such SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work performed thereunder, or the plans, specifications, drawings, etc. accompanying same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder.

This Bond is given pursuant to the provisions of Chapter 2253 of the Government Code, as amended. The terms "payment bond beneficiary," "public work labor," and "public work material," as used herein, are in accordance with and as defined in the relevant provisions of Chapter 2253 of the Government Code.

The undersigned and designated agent is hereby designated by SURETY herein as the resident agent in either Tarrant or Johnson Counties to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, this instrument is executed on this the _____ day of _____, 20__.

WITNESS

PRINCIPAL

Company

By _____
Signature

By _____
Signature

Typed/Printed Name

Typed/Printed Name

Title

Title

Address

Address

City State Zip

City State Zip

WITNESS

SURETY

Company

By _____
Signature

By _____
Signature

Typed/Printed Name

Typed/Printed Name

Title

Title

Address

Address

City State Zip

City State Zip

The Resident Agent of the SURETY in either Tarrant or Johnson County, Texas, for delivery of notice and service of process is:

NAME _____

ADDRESS _____

NOTE: Date of Payment Bond must NOT be prior to date of Contract.

SECTION 10

THE STATE OF TEXAS §

Maintenance Bond

COUNTY OF JOHNSON §

KNOW ALL BY THESE

PRESENTS:

THAT _____

of the City of _____, County of _____

State of _____ hereinafter referred to as "PRINCIPAL," and

_____, a corporate surety/sureties organized under the laws of the State of _____ and authorized to do business in the State of Texas, hereinafter referred to as "SURETY," (whether one or more), are held and firmly bound unto the **CITY OF BURLESON, TEXAS**, a municipal corporation located in Johnson County, Texas, hereinafter referred to as "CITY," in the amount of _____ DOLLARS (\$_____), lawful money of the United States, to be paid in Burleson, Johnson County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, assigns, administrators and successors, jointly and severally; and firmly by these presents, the condition of this obligation is such that:

WHEREAS, PRINCIPAL entered into a certain written Contract with City of Burleson, dated the _____ day of _____, 20____, a copy of which is attached hereto and made a part hereof, to furnish all materials, equipment, labor, supervision, and other accessories necessary for the construction of:

Service Center Drainage Improvements

City of Burleson Project No. DR2301

in the City of Burleson, Texas, as more particularly described and designated in the above referenced contract such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word:

NOW THEREFORE,

If PRINCIPAL will maintain and keep in good repair the work herein contracted to be done and performed for a period of two (2) years from the date of acceptance and perform all necessary work and repair any defective condition growing out of or arising in any part of the construction of said improvement, it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, work or labor performed by PRINCIPAL; then this obligation shall be void, otherwise it shall remain in full force and effect; and in case PRINCIPAL shall fail to do so, it is agreed that CITY may do such work and supply such materials and charge the same against PRINCIPAL and SURETY on this obligation, and in addition, PRINCIPAL and SURETY herein shall be subject to the liquidated damages as provided in the Contract referred to herein for each day's failure on its part to comply with the terms and provisions of such Contract.

Provided, further, that if any legal action be filed on this Bond, venue shall lie in Johnson County, Texas.

And, that SURETY, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work performed thereunder, or the plans, specifications, drawings, etc., accompanying same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder.

The undersigned and designated agent is hereby designated by SURETY as the resident agent in either Tarrant or Johnson County to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, this instrument is executed on this the _____ day of _____, 20____.

WITNESS

By _____

Signature

Typed/Printed Name

Title

Address

City State Zip

PRINCIPAL

Company

By _____

Signature

Typed/Printed Name

Title

Address

City State Zip

WITNESS

By _____

Signature

Typed/Printed Name

Title

Address

City State Zip

SURETY

Company

By _____

Signature

Typed/Printed Name

Title

Address

City State Zip

SECTION 10A.1
CONSENT OF SURETY COMPANY TO FINAL PAYMENT

Project Name: Service Center Drainage Improvements
Project Number: DR2301
Owner: City of Burleson, Texas
Contractor: _____
Engineer: City of Burleson Public Works – Engineering Capital

The Surety Company, on bond of the Contractor listed above for the referenced project, in accordance with the Contract Documents, hereby approves final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the Owner under the terms of the Contract and as set forth in said Surety Company's bond.

In witness whereof, the Surety Company has hereunto set its hand this _____ day
of _____ 20____

Surety Company

By _____
Authorized Representative

Title

Address

City State Zip

Attach Power of Attorney

SECTION 10A.2
CONTRACTOR'S AFFIDAVIT OF FINAL PAYMENT

THE STATE OF TEXAS
COUNTY OF JOHNSON

§ CONTRACTOR'S AFFIDAVIT OF
§ FINAL PAYMENT AND RELEASE

BEFORE ME, the undersigned authority, on this day personally appeared _____

("Affiant"), who, after being by me duly sworn, deposes and says that he is _____

, a _____ (corporation, partnership, trade name)
of _____ (County, State of Texas) the ("Contractor"), which said Contractor
was awarded the contract dated the _____ day of _____, for the construction of **Service Center
Drainage Improvements** (the "Work"), for a total consideration
of _____ Dollars to be paid to the said Contractor (the
"Contract"), and the Affiant has full power of authority to make this affidavit.

That CITY OF BURLESON (the "OWNER") has received the request for final payment on said Work, and that the said contractor has fully satisfied and paid any and all claims that may be covered by Chapter 53 of the Texas Property code, and Article 510 of the Revised civil Statues of the State of Texas, or any other applicable statues or charter provisions, and that all just bills for labor and materials have been paid and charged by said Contractor insofar as they pertain to the Work in question.

That in addition to any funds which may have been previously paid by the OWNER, the Contractor hereby accepts the amount of _____ Dollars as FULL AND FINAL PAYMENT under the aforementioned contract, and hereby waives and releases any right against the OWNER arising out of or in any manner connected with the performance of the work and/or his Contract, including but not limited to claims of third parties that supplied material and/or labor for the Work for or through the Contractor ("Subcontractors"), as well as claims for delay, additional compensation or for recovery of liquidated damages which may have been withheld by the OWNER. The Contractor shall defend, hold harmless and indemnify the OWNER from any such claims of such Subcontractors. The contractor further releases the OWNER from any claim or liability arising from any act or neglect of the OWNER related to or connected with the contract and shall not be deemed or alter or modify the terms and provisions of said Contract.

By _____
(Affiant)

(Printed Name)

SUBSCRIBED AND SWORN TO BEFORE ME, THIS THE _____ day of _____, 20____.

(Notary Public, in and for the State of Texas)

(Printed Name of Notary)

My Commission expires: _____

SPECIAL PROVISIONS – PAVING & DRAINAGE

1 PURPOSE OF SPECIAL PROVISIONS:

- A. The project shall be constructed in accordance with the Standard Specifications for Public Works Construction as issued by the North Central Texas Council of Governments (NCTCOG), as it may be amended from time to time, hereinafter referred to as the Standard Specifications.
- B. These Special Provisions are included for the purpose of adapting the Standard Specifications to the particular project, which is subject to this agreement and of adding thereto such further provisions as may be necessary to state the contract in its entirety.
- C. Where any discrepancies occur between the Special Provisions and the Standard Specifications, the Special Provisions shall govern.
- D. References made to “TxDOT” items in this contract shall mean items in the Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges as published by the Texas Department of Transportation in 2004, or most recent edition, Standard version only. There will be no Metric projects. Further technical requirements contained in other publications are referenced in sections where they apply and are hereby incorporated.

2 SCOPE OF WORK:

The work governed by these specifications is located in the city of Burleson, Texas and consists of Service Center Drainage Improvements Project No. DR2301. The project includes demolition, removal, and disposal of concrete pavement, concrete paving, storm drain, grading of a detention pond with concrete flume. Note: This project takes place at a very active service center vital to City operations. Contractor should anticipate using steel plates to keep operations going. All work shall be bid and installed complete and in place as outlined within the Contract Documents and Specifications.

- A. The intent of the Contract Documents, including the Standard Specifications, Special Provisions & Projects, and other instruments, documents, drawings and maps comprising the Plans and Specifications, is to describe the completed work to be performed by the Contractor under the contract as an independent Contractor.
- B. Horizontal and vertical control, if available, will be provided by the Owner prior to construction. Construction staking will be the responsibility of the contractor. No separate pay item is included for construction staking. The work will be performed subject to the right of inspection by the City Engineer or their authorized representative. Any provision of the agreement vesting in the City of Burleson, Department of Public Works & Engineering, the right of supervision or inspection is understood by all the parties to be for the purpose of ensuring that the plans and

specifications are complied with and that the completed work is obtained as described, and no such provision shall be interpreted as vesting in the City of Burleson, Department of Public Works & Engineering the right to control the details of the work.

- C. The Contractor shall maintain at all times on the job site, a superintendent authorized to receive and execute instructions from the engineer.

The Contractor shall employ only competent, efficient workmen and shall not use on the work any unfit person or one not skilled in the work assigned to him; and shall at all times maintain good order among his employees.

- D. Whenever the City of Burleson shall inform the Contractor in writing that, in his opinion, any employee is unfit, unskilled, disobedient or is disrupting the orderly progress of the work; such employee shall be removed from the work and shall not again be employed on it.
- E. Under urgent circumstances, the City of Burleson may orally require immediate removal of an employee for cause, to be followed by written confirmation.

3 BONDS, INSURANCE AND AFFIDAVITS:

- A. The following bonds and proof of insurance shall be filed with the City of Burleson as a condition of the contract, together with appropriate powers of attorney.

- 1. **Performance, Payment, And Maintenance Bonds:** Performance, Payment and Maintenance bonds in the amount of not less than one hundred percent (100%) of the contract price conditioned upon the faithful performance of the contract, and upon payment of all persons supplying labor or furnishing materials, will be required upon the forms, which are a part of the Contract Documents. Bonds shall be executed by a surety company authorized to do business in the State of Texas and acceptable to and approved by the City of Burleson. The period of the Maintenance Bond shall be two years from the date of acceptance of all work done under the contract, to cover the guarantee as set forth in the Special Conditions.

- 2. **Performance Bonds And Payment Bonds In Excess Of \$100,000:** In addition to all other requirements set forth with regard to performance bonds and payment bonds, any performance bond or payment bond in an amount exceeding One Hundred Thousand Dollars (\$100,000) must be issued by a surety that is qualified as a surety on obligations permitted or required under federal law as indicated by publication of the surety's name in the current U.S. Treasury Department Circular 570. In the alternative, an otherwise acceptable surety company that is authorized and admitted to write surety bonds in Texas must obtain reinsurance on any amounts in excess of One Hundred Thousand Dollars (\$100,000) from a reinsurer authorized and admitted as a reinsurer in Texas who qualifies as

a surety or reinsurer on obligations permitted or required under federal law as indicated by publication of the surety's or reinsurer's name in the current U.S. Treasury Department Circular 570.

3. **Insurance:** Contractor shall, at his own expense, purchase, maintain and keep in force during the term of this contract such insurance as set forth below. Contractor shall not commence work under this contract until he has obtained all the insurance required under the contract and such insurance has been approved by the City, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance of the subcontractor has been obtained and approved. All insurance policies provided under this contract shall be written on an "occurrence" basis.

Compensation Insurance

Workers' Compensation	Statutory Limit
Employer's Liability	\$100,000 Each Occurrence \$100,000 Disease – Each Employee

Liability Insurance

Commercial General Liability (No standard coverages are to be excluded by endorsement.)	\$1,000,000 Per Occurrence
--	----------------------------

Automobile Liability Insurance

Commercial Auto Liability Policy (including coverage for owned, hired, and non-owned autos)	\$ 500,000 Combined Single Limit
--	-------------------------------------

Umbrella Liability

(Following Form and Drop Down Provisions Included)	\$2,000,000 Each Occurrence
--	-----------------------------

- B. It is agreed by all parties to this contract that the insurance required under this contract shall:
 1. Be written with the City of Burleson as an additional insured.
 2. Provide thirty days notice of cancellation to the City, for nonpayment of premium, material change, or any other cause.
 3. Be written through companies duly authorized to transact that class of insurance in the State of Texas.
 4. Waive subrogation rights for loss or damage so that insurers have no right to recovery or subrogation against the City of Burleson, it being the intention that the required insurance policies shall protect all parties to the contract and be primary coverage for all losses covered by the policies.

5. Provide a Certificate of Insurance evidencing the required coverages to:

City of Burleson
Public Works & Engineering, Capital Improvements Division
141 W. Renfro
Burleson, TX 76028

- C. Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the engineer (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the City of Burleson or the City of Burleson's property might be responsible or encumbered (less amounts withheld by City of Burleson) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the contract documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days prior written notice has been given to the City of Burleson, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the contract documents, (4) consent of Surety, if any, to final payment and (5) if required by the City of Burleson, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the contract, to the extent and in such form as may be designated by the City of Burleson. If a subcontractor refuses to furnish a release or waiver required by the City of Burleson, the Contractor may furnish a bond satisfactory to the City of Burleson to indemnify the City of Burleson against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the City of Burleson all money that the City of Burleson may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.
- D. In addition to the requirements contained above, the Contractor shall comply with the following in its provision of workers' compensation insurance.

1. Definitions:

Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project - includes the time from the beginning of the work on the project until the Contractor's / person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in §406.096) - includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent Contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity, which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries and delivery of portable toilets.

2. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.
3. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.
4. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.
5. The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:
 - a. a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and
 - b. no later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
6. The Contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
7. The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

8. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
9. The Contractor shall contractually require each person with whom it contracts to provide services on a project, to:
 - a. provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;
 - b. provide to the Contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 - c. provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 - d. obtain from each other person with whom it contracts, and provide to the Contractor:
 - (1) a certificate of coverage, prior to the other person beginning work on the project; and
 - (2) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 - e. retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
 - f. notify the governmental entity in writing by certified mail or personal delivery, within ten days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
 - g. contractually require each person with whom it contracts, to perform as required by paragraphs 1 – 7 above, with the certificates of coverage to be provided to the person for whom they are providing services.
10. By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the Contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

11. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor, which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

4 INDEMNIFICATION:

Contractor does hereby agree to waive all claims, release, indemnify, defend and hold harmless City of Burleson and all its officials, officers, agents, and employees, from and against any and all claims, losses, damages, suits, demands or causes of action, and liability of every kind including all expenses of litigation and/or settlement, court costs and attorney's fees for injury or death of any person or for loss of, damage to, or loss of use of any property, arising out of or in connection with the performance of this contract. Such indemnity shall apply whether the claims, losses, damages, suits, demands or causes of action arise in whole or in part from the negligence of the City of Burleson, his officers, officials, agents or employees. It is the express intention of all the parties that the indemnity provided for in this paragraph is indemnity by Contractor to indemnify and protect City of Burleson from the consequences of City of Burleson's own negligence, whether that negligence is a sole or concurring cause of the injury, death or damage and whether said negligence is characterized as sole, contractual comparative, concurrent, joint, gross, active, passive, or any other form of negligence.

In any and all claims against any party indemnified hereunder by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, this indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any sub-contractor under workmen's compensation acts or other employee benefit acts.

5 ADDENDUM:

A. This section has been moved to "Instructions to Bidders."

6 TIME FOR COMPLETION AND LIQUIDATED DAMAGES:

Since time is of the essence, the City has seen fit to establish the time required to complete this project. The time, as set out in SECTION 6 of this contract, will be the maximum number of **Calendar** days allowed to substantially complete this project. **Substantially complete is defined as having completed all bid items included in the contract to allow the facilities to function as designed.** Failure of the Contractor to complete the work within this time will result in damages being sustained by the City of Burleson. Such damages are, and will continue to be, impracticable and extremely difficult to determine. The Contractor will pay the City of Burleson **TWO HUNDRED**

FORTY DOLLARS (\$240.00) for each **Calendar** day of delay (including Sundays and holidays) in finishing the work in excess of time specified for completion, plus any authorized time extensions. Execution of the contract under these specifications shall constitute agreement by the City of Burleson and Contractor that **TWO HUNDRED FORTY (\$240.00)** is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

The days as outlined in the Bid Summary for each section is given as a guide to the amount of time assumed to complete that particular portion of work. Liquidated damages will incur as a relation to completion of the entire Project within the allotted total number of Calendar days, which is 180 days.

7 COMPUTATION OF CONTRACT TIME FOR COMPLETION:

- A. The Contract Documents furnished to the Contractor shows the number of calendar days allowed in the contract. If the satisfactory completion of the contract shall require unforeseen work or work and materials in greater amounts than those set forth in the contract, then additional calendar days will be considered, equal to the time which, in the opinion of the engineer, the work as a whole is delayed. However, the completion time can only be changed by the execution of a supplemental agreement (change order).
- B. Time will be charged for all calendar days regardless of weather conditions, material supplies, or other conditions not under the control of the Contractor, which could impede the prosecution of the work. Time will also be charged for Sundays and holidays.
- C. Prior to beginning construction operations, the Contractor shall submit to the engineer a *Critical Path Method (CPM)* chart progress schedule showing the manner of prosecution of the work that he intends to follow in order to complete the contract within the allotted time. The purpose for this schedule is to assure adequate planning and execution of the work. The progress schedule must present a reasonable approach to completing the work within the allotted time.
- D. Payment of partial monthly estimates shall not be commenced until the CPM chart progress schedule has been approved by the engineer.
- E. The Contractor shall be entirely responsible for maintaining the progress of the work in accordance with the approved schedule. Should it become evident, in the opinion of the engineer, any time during the construction that the progress of the work has not been maintained in accordance with the approved schedule, the Contractor shall, upon written

request of the engineer, promptly submit a revised schedule. This revised schedule shall set out operations, methods, equipment, added labor, and additional work shifts by which time lost shall be made up. At the end of each estimate period, the engineer will determine whether the Contractor is in compliance with the approved schedule, or the approved revised schedule. In the event the Contractor is determined not to be in compliance, he will be notified immediately in writing. If the Contractor does not correct the work progress to comply with the approved revised schedule by the end of the month of notification, payment for work performed during the period of non-compliance will be reduced according to the following:

1. 1st Month - Reduction = 30% X work performed (Month Only)
 2. 2nd Month - Reduction = 40% X work performed (Month Only)
 3. 3rd Month - Reduction = 50% X work performed (Month Only)
 4. Subsequent Month - Reduction = 50% work performed (Month Only)
- F. The first month (the month of notification) is that month in which notification is made. Each month's reduction will be assessed only for that work performed during that specific month. The reduction will be cumulative for the entire period of non-compliance; i.e., 30% payment reduction for the work performed during the first month, plus 40% payment reduction for work performed during the second month, plus 50% payment reduction for work performed during the third month, and plus 50% payment reduction for work performed in each succeeding month of non-compliance thereafter. When the work progress becomes in compliance with the approved schedule, or the approved revised schedule, all withheld monies will be paid to the Contractor with the next regular estimate.
- G. The Contractor shall anticipate possible delays and shall be prepared to supplement and revise his construction methods accordingly.
- H. Prior to any construction activities, the Contractor shall install erosion control measures. The Contractor shall then begin the work to be performed under the contract within 10 days after the date of the authorization to begin work and shall continuously prosecute same with such diligence as will enable him to complete the work within the time limit specified. He shall not open up work to the detriment of work already begun. The Contractor shall conduct his operations so as to impose a minimum interference to traffic.

8 DELAYS:

- A. The Contractor assumes the risk of all suspensions of or delays in performance of the contract, regardless of length thereof, arising from all causes whatsoever, whether or not relating to this contract, including wrongful acts or omissions of City of Burleson or its Contractors or

subcontractors except only to the extent, if any, that compensation or an extension of time may be due as expressly provided for elsewhere in this contract for such suspension or delays, and, subject only to such exception, the Contractor shall bear the burden of all costs, expenses and liabilities which he may incur in connection with such suspensions or delays, and all such suspensions, delays, costs, expenses and liabilities of any nature whatsoever, whether or not provided for in this contract, shall conclusively be deemed to have been within the contemplation of the parties.

- B. Notwithstanding any provisions of this contract, whether relating to time of performance or otherwise, City of Burleson makes no representation or guarantee as to when the construction site or any part thereof will be available for the performance of the contract, or as to whether conditions at the construction site will be such as to permit the contract to be formed thereon without interruption or by any particular sequence or method or as to whether the performance of the contract can be completed by the time required under this contract or by any other time.
- C. Wherever in connection with this contract it is required, expressly or otherwise, that City of Burleson shall perform any act relating to the contract, including making available or furnishing any real property, materials or other things, no guarantee is made by the City of Burleson as to the time of such performance and the delay of City of Burleson in fulfilling such requirement shall not result in liability of any kind on the part of City of Burleson except only to the extent, if any, that an extension of time or compensation may be due as expressly provided for in this contract.

9 MONTHLY ESTIMATE:

- A. Although Contractor estimates may be submitted on a monthly basis, The City of Burleson does not use a monthly pay estimate schedule. The City will process the estimate within a reasonable time. It is the Contractor's best interest to get the estimate to the inspector as early in the week as possible to verify quantities and make the request. After verification, payment can be made

10 RIGHT TO AUDIT:

- A. CONTRACTOR agrees that CITY shall, until the expiration of three (3) years after final payment under this contract, have access to and the right to examine any directly pertinent books, documents, papers and records of CONTRACTOR involving transactions relating to this contract. CONTRACTOR agrees that CITY shall have access during normal working hours to all necessary CONTRACTOR facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. CITY shall give CONTRACTOR reasonable advance notice of intended audits.

11 PREVAILING WAGE RATES:

- A. The Contractor shall comply with V.T.C.A., Government Code, Chapter 2258, in performing this project. In accordance with V.T.C.A., Government Code, Chapter 2258, the prevailing wage rates as set forth in Section 2 of the contract documents shall be paid on this project. For overtime work and legal holidays, the hourly rate shall be one and one-half times the basic hourly rate set forth in Section 2. The City will require an affidavit stating that the Contractor has complied with the prevailing wage rate provision of the contract documents, prior to acceptance of the project. The City reserves the right to conduct interviews with the Contractor's employees to insure compliance with Section 2 of the contract documents in accordance with applicable State and Federal Laws.
- B. Upon written request by the City, the general contractor shall be responsible for submitting payroll information to the City of Burleson for all employees performing work on the project, whether employed by the general contractor or a subcontractor to the general contractor. Each submittal shall be certified by the general contractor as to completeness and accuracy.
- C. A Contractor or subcontractor in violation of V.T.C.A., Government Code, Chapter 2258 is liable for a penalty. That Contractor or subcontractor shall pay to the City sixty dollars (\$60.00) for each laborer, workman, or mechanic employed for each calendar day, or portion thereof, such laborer, workman, or mechanic is paid less than the said stipulated rates for work done under the contract.
- D. The Contractor or subcontractor violating a requirement of this Special Provision may be determined ineligible to bid on or receive any additional work during the calendar year following the year in which the violation of this Special Provision occurred.

12 CONSTRUCTION WATER:

- A. Construction water necessary for the normal construction of this project will not be provided free to the Contractor. All construction water will be metered by City owned meters and only these meters. The Contractor is responsible for paying the current security deposit for the meter at the Utility Billing Department Office, 141 W. Renfro, City Hall, prior to picking up the meter. These meters will be furnished by the City of Burleson and will be picked up at City Hall. The assigned company is liable for any theft and/or damage done to the meter once in the Contractor's possession. The loss of the meter or failure to turn it in when the job is completed will result in the forfeiture of the security deposit. Damages to the meter will be billed. It will be up to the assigned company to supply the monthly meter reading, meter number and signature of the company employee in writing to the Utility Billing department no later than the 10th of each month. That written reading may be dropped off to the Utility Billing department at City Hall or faxed to 817-447-3928. This procedure will be followed wherever construction water

is needed. No exceptions to the rule will be sanctioned. Where water is necessary only to settle dust on the street at the request of the property owners, the engineer or inspector will notify the Contractor. The necessary application of water for dust shall be considered subsidiary to the other bid items listed in SECTION 7 (PROPSAL) of this contract.

13 DETOURS AND BARRICADES:

- A. The Contractor shall submit to the inspector two (2) copies of a Traffic Control Plan two (2) weeks prior to closing any street or causing any obstruction to traffic on any street. The Contractor shall not proceed with the implementation of the Traffic Control Plan until notified by the inspector that the plan has been accepted. The Traffic Control Plan shall be drawn at a scale not less than 1"=200' unless approved by the inspector and such that it is legible and shall include proposed street closings, detours, barricade placements, and sign placement, including advance warning signs, and pavement markings if necessary. The Contractor shall furnish and erect suitable barricades, signs, and appropriate pavement markings to protect motorists and pedestrians, as set forth in the latest edition of the *TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TxMUTCD)*. The barricades, signs, and pavement markings shall be constructed, placed, and adequately maintained as set forth in the Traffic Control Plan or as directed by the engineer or authorized representative. Unless included as a bid item, no direct compensation will be made to the contractor for the preparation of the Traffic Control Plan.
- B. Unless otherwise approved by the engineer or authorized representative, two-way traffic shall be maintained on all roadways under construction at all times. If it becomes necessary to detour traffic off the existing paved roadway for more than seven (7) days, a hard surface driving lane, such as asphalt, shall be properly constructed and maintained by the Contractor throughout the duration of the detour. All temporary tie-ins shall be constructed of 4-inch Type B asphalt over a compacted subgrade (standard compaction). Subsequent maintenance of all detours and tie-ins shall be considered subsidiary to the unit prices bid for temporary asphalt. Cutting, removing, and replacing the asphalt for utility installations, excavation, and/or liming operations shall be considered subsidiary to the initial placement of asphalt and will not be paid for each re-installation. Asphalt shall be replaced within seven (7) days of removal for these activities. A bid item shall be included for furnishing, installing, maintaining and final removal of the asphalt.
- C. Where pavement drop-offs occur, traffic control plans shall be in accordance as illustrated on the following "*Traffic Control Device Detail*," which is enclosed as part of these specifications. These guidelines are applicable to construction work where continuous pavement edges or drop-offs exist parallel and adjacent to a lane used for traffic.
- D. No direct compensation (unless bid item included) will be made to the Contractor for furnishing, installing, and maintaining barricades, signs, pavement markings, and detours and their

subsequent removal. This is to be considered subsidiary to the several items for which unit prices are requested in the PROPOSAL. Should it be necessary for the City to provide and/or maintain signs, barricades, and markings the cost of such shall be deducted from the monthly estimate.

14 SALES TAX EXEMPTION:

- A. The Contractor is cautioned that Texas law regarding tax exemption for City projects has been revised. The Contractor is responsible for obtaining the latest information from the State Comptroller's Office and/or other appropriate entities and bidding accordingly.

15 ACCESS TO PRIVATE PROPERTIES:

- A. The Contractor shall maintain all private drives in an accessible condition to allow residents ingress and egress before leaving the job site, except during the placing and curing of drive approaches. All commercial drives and other locations with high traffic volumes, as directed by the engineer, shall be maintained with 4-inch Type B asphalt over a compacted subgrade (standard compaction). Subsequent maintenance of drives shall be considered subsidiary to the unit prices bid. Cutting, removing, and replacing the asphalt for utility installations, excavation, and/or liming operations shall be considered subsidiary to the initial placement of asphalt and will not be paid for each re-installation. Asphalt shall be replaced within seven (7) days of removal for these activities.
- B. The Contractor will leave with the engineer the phone numbers of responsible persons available twenty-four (24) hours a day to handle emergencies concerning egress and ingress. If a vehicle becomes stranded due to an inaccessible condition, any legitimate claims arising from such conditions shall be the sole responsibility of the Contractor. If such claims are not settled prior to the monthly pay estimate, they shall be deducted from that estimate.

16 CRUSHED ROCK BAD WEATHER PROTECTION:

- A. During periods of bad weather, the Contractor shall put in place, on excavated streets, an amount of Type A, Grade 1, flex base sufficient to provide temporary access to private non-commercial property. Crushed concrete flexible base meeting TxDOT Item 247, Grade 1 is also acceptable to provide temporary access to private property. All flex base will be removed and stockpiled for future use at other locations as necessary. Any base removed and hauled off the project site without approval from the engineer will be replaced by an equal quantity at the Contractor's expense. Special care will be taken by the Contractor during placement and removal of the flex base, not to unnecessarily combine the flex base with native material on the project. If special care is not taken by the Contractor, an equal quantity of flex base will be replaced at the Contractor's expense. This specification is not considered a separate bid item. It

is considered subsidiary to other items in the proposal. Ingress and egress onto private and public property shall be maintained at all times when contractor is not working in the area.

17 USE OF PRIVATE PROPERTY:

- A. The Contractor shall not at any time use private property to park or turn around construction vehicles or store equipment and/or materials without the written permission of the property owner involved. ***The Contractor shall not at any time use private water meters set for the property owner's use without written permission of the property owner.*** Contractor is responsible for any and all damages to private property used for construction purposes.

18 PROTECTION OF THE PUBLIC:

- A. (COG 107.18) The Contractor shall at all times conduct the work in such manner as to ensure the least possible obstruction to public traffic and protect the safety of the public. Public safety and convenience and provisions therefore made necessary by the work, shall be the direct responsibility of the Contractor and shall be performed at his entire expense.
- B. Materials placed on the site, or materials excavated and the construction materials or equipment used shall be located so as to cause as little obstruction to the public as possible.
- C. The City of Burleson reserves the right to remedy any neglect on the part of the Contractor in regard to public convenience and safety which may come to its attention. The cost of such work done or material furnished by the City of Burleson shall be deducted from monies due or to become due to the Contractor.

19 PROTECTION OF ADJACENT PROPERTY:

- A. The Contractor shall be responsible for the protection of all fences, trees, curb and gutter, and other improvements on the property adjoining the construction sites from damage by the Contractor's equipment and personnel. The Contractor shall be responsible for notifying the property owners in advance of any trimming to be done on trees. The Contractor will notify the City of any trees, shrubs, or bushes that must be removed by the construction. No trees will be removed by the Contractor until permission is granted by the engineer or his designated representative. The Contractor will not be allowed to place excess material, forms, equipment, or any other material outside the street right-of-way without written permission of the property owner and approval of the Engineer. No dumping will be allowed in floodplains or below the 100-year flood elevation of drainage ways.

20 TESTING:

- A. The City inspector, deemed necessary, shall have the authority to test materials, equipment and in-place construction to verify compliance with project specifications. The expense of tests shall be paid for as follows:
1. Sanitary Sewer Lines
 - a. Trench backfill density - City pays initial testing, Contractor pays for retesting
 - b. Pressure Testing of the Line - Contractor pays
 - c. Manhole Vacuum Test – Contractor pays
 2. Water Lines
 - a. Trench Backfill Density – City pays initial testing, Contractor pays for retesting
 - b. Pressure Testing of the Line- Contractor pays
 - c. Line Sterilization – Contractor pays for sterilization. City collects water sample and pays for the initial testing, Contractor pays for retesting
 3. Storm Drain

Trench Backfill density – City pays initial testing, Contractor pays for retesting
 4. Paving
 - a. Lime or cement stabilized subgrade gradation and density – City pays initial testing, contractor pays for retesting
 - b. Mix design/plant control – Contractor pays
 - c. Strength test/ cylinders – City pays initial testing, Contractor pays for retesting
 - d. Thickness test/coring - City pays initial testing, Contractor pays for retesting and additional tests to isolate deficient areas
 5. Structures
 - a. Mix design/plant control – Contractor pays
 - b. Strength test/cylinders – City pays initial testing, Contractor pays for retesting
- B. The failure of the City to perform any tests shall in no way relieve the Contractor of his responsibility to provide materials, equipment, and in-place construction which comply with project specifications. The Contractor shall provide such facilities as the engineer may require for collecting and forwarding samples and shall not, without specific written permission of the engineer, use the materials represented by the samples until tests have been made and materials approved for use. The Contractor will furnish adequate samples without charge to the City of Burleson.
- C. In case of concrete, the aggregates, design minimum and the mixing and transporting equipment shall be approved by the engineer before any concrete is placed, and the Contractor

shall be responsible for replacing any concrete which does not meet the requirements of the contract documents.

21 DEFECTIVE MATERIALS, EQUIPMENT OR, IN-PLACE CONSTRUCTION:

- A. Materials and equipment not conforming to the requirements of these specifications will be rejected and shall be removed immediately from the site of the work, unless permitted to remain by the engineer. Rejected materials, the defects of which have been subsequently corrected, shall have the status of new material.
- B. In-Place construction not conforming to the requirements of these specifications will be removed and replaced at the Contractor's expense or reworked at the Contractor's expense as deemed appropriate by the engineer. Tests made on in-place construction which has been replaced or reworked due to failure to meet project specifications will be authorized by the engineer and the cost of such tests will be the expense of the Contractor.

22 MATERIALS AND WORKMANSHIP: WARRANTIES AND GUARANTEES:

- A. Under the terms of the warranties which arise from these contract documents and/or by the terms of any applicable special warranties required by the contract documents, if any of the work in accordance with this contract is found to not be in accordance with the requirements of the contract documents, the Contractor shall correct such work promptly after receipt of written notice from the City of Burleson. This obligation shall survive acceptance of the work under the contract and termination of the contract. In order to facilitate a prompt response, Contractor agrees to provide for warranty service to the extent practical, from local businesses, including goods and services, when such goods and services are comparable in availability, quality and price. If Contractor fails within a reasonable time after written notice to correct defective work or to remove and replace rejected work, or if Contractor fails to perform the work in accordance with the contract documents, or if Contractor fails to comply with any provision in the contract document, either the City of Burleson or its designee may, after seven (7) days written notice to Contractor, correct and remedy any such deficiency at the expense of the Contractor.

23 EXISTING UTILITIES:

- A. The Contractor will make every effort to protect existing utilities and other lines or structures. The Contractor shall not adjust, remove, or operate existing utilities unless specifically requested to do so in these specifications or authorized to do so by the engineer or his representative. Any utility damaged by the Contractor during the construction shall be suitably replaced at the Contractor's expense.

B. The Contractor shall contact the proper utility representative as follows for questions or coordination of construction related to existing utilities:

1. Atmos Energy
 - a. Matthew McCartney
 - b. Engineer 1
 - c. P: 682.328.5125
 - d. Matthew.McCartney@atmosenergy.com
2. Oncor Electric Delivery
 - a. Chris Cooley
 - b. Designer
 - c. P: 682.375.4693
 - d. Christopher.Cooley2@oncor.com
3. United Co-Op Electric
 - a. Wes Burton
 - b. P: 817-782-8316
 - c. wes@ucs.net
4. AT&T Communications
 - a. Daniel Dunn
 - b. Manager OSP Planning & Engineering Design
 - c. P: 817.994.3700
 - d. DD5406@att.com
5. Charter Communications
 - a. Greg Piatt
 - b. Line Locator
 - c. P: 817.509.6272 x3363
 - d. 8912 S I-35W, Suite D
 - e. Fort Worth, Texas 76134
6. City of Burleson Public Works & Engineering

- a. Errick Thompson
- b. Director of Public Works & Engineering
- c. P: 817.426.9837
- d. 1675 John Jones Drive
- e. Burleson, Texas 76028

24 PROTECTION & CLEANING OF EXISTING SEWERS

- A. If the contractor, through any carelessness or negligence, obstructs the flow through any existing sewer within the limits of the project, the Public Works & Engineering Department of the City of Burleson will provide the necessary equipment and labor to clean the obstructions(s) at a rate of Two Hundred Dollars (\$200.00) per hour with a two (2) hour minimum per location.

25 LOCATION & PROTECTION OF EXISTING STRUCTURES & UTILITIES:

- A. In the preparation of plans and specifications, the engineer has endeavored to indicate the location of existing underground utility lines which are known to the engineer. No attempt has been made to show minor lines or service lines however, and it is not guaranteed that all major lines or structures have been shown on the plans. Prior to the start of construction, the Contractor shall communicate with the local representative of all utility companies and advise said representatives of the route of the proposed construction in order to obtain the assistance of the utility companies in the location of and in the avoidance of the conflicts with utility lines. It is the Contractor's responsibility to uncover and determine the elevation and location of all potential conflicts well ahead of the excavation.

26 RIGHT-OF-WAY PREPARATION:

- A. Right-of-way preparation shall be in accordance with NCTCOG Specification Item 203.3, General Site Preparation. "Preparing Right-of-Way" shall be measured on a lump-sum basis unless indicated otherwise. The lump sum bid for this item shall not exceed 10 percent of the total amount bid for the entire project. A prorated portion of the lump sum bid shall be paid monthly until such work is completed. No dumping or disposal of excess material will be allowed in floodplains or below the 100-year flood elevation of drainage ways. The Contractor should take special precautions to avoid damaging any trees outside the construction limits and any other trees which the engineer may designate to remain.

27 ROADWAY EXCAVATION:

- A. All roadway excavation on this project shall be unclassified and shall be performed in full accordance with the NCTCOG Specifications, Division 200, 203.4, "Unclassified Street Excavation."

- B. Payment for excavation is based on plan quantity. Contractor shall verify excavation/fill quantities and shall notify City of Burleson in writing of concurrence or disagreement with plan quantities prior to start of construction. Any discrepancies in quantities shall be resolved prior to beginning excavation. No adjustments to plan quantities shall be allowed once excavation/fill activities have begun.
- C. It shall be the responsibility of the Contractor to locate a suitable disposal site outside the right-of-way limits to dispose of both excess and unsuitable material from roadway excavation not needed in roadway fill and embankment. No separate payment shall be made for disposal of excess or unsuitable material. No dumping or disposal of excess material will be allowed in floodplains or below the 100-year flood elevation of drainage ways. Disposal shall be performed in accordance with appropriate laws and ordinances.

28 UNCLASSIFIED STRUCTURAL EXCAVATION:

- A. The excavation for the construction of the inlets, box culverts, and junction boxes is not classified. Payment for the excavation shall be subsidiary to the unit price bid for each structure in the bid proposal.

29 SITE GRADING:

- A. All vegetation shall be removed from areas where fill is to be placed. Topsoil shall be grubbed, removed, and stockpiled. After the fill has been placed and compacted, the topsoil shall be spread to a thickness of six inches (6") in all proposed areas that require it. The topsoil shall be free from grass, roots, sticks, stones, or other foreign materials. After placement is complete, the surface of the topsoil shall be finished to a reasonably smooth surface so grass may be planted and maintained.
- B. Site grading will be based on the elevations and grades shown on the Grading and Paving Drawings. Filling, construction of embankments, removal, stockpiling, and spreading topsoil and offsite disposal of excess material will be considered incidental and subsidiary to excavation and shall not be a separate pay item.
- C. No extra payment shall be made for rock excavation or crushing rock material for placement in fill areas. This work shall be considered incidental to site grading and shall not be a separate pay item.

30 COMPACTED ROADWAY FILL & EMBANKMENT:

- A. All compacted roadway fill and embankments constructed on this project shall be in accordance with the NCTCOG Specifications, Division 200, 203.7, "Embankment", except as amended herein or as shown on the plans.
- B. All fill material shall be compacted in lifts of loose depth not exceeding eight (8") inches and compacted to at least 95% of Standard Proctor Density at optimum moisture content, \pm two percentage points, as determined by ASTM D 698. Each lift shall be tested before a subsequent lift is allowed to be placed. It shall be the responsibility of the Contractor to locate a suitable disposal site outside the right-of-way limits and to dispose of any excess material not needed for constructing embankments to the established grade, shape of the typical sections shown on the plans, and detailed sections or slopes. No dumping or disposal of excess material will be allowed in floodplains or below the 100-year flood elevation of drainage ways. Disposal shall be performed in accordance with appropriate laws and ordinances.
- C. No recycled soil will be allowed for use on this project without prior consent from the engineer.
- D. The placement and compaction of fill material in roadway and embankment areas on this project shall be measured and paid for separately from the "Roadway Excavation". However, no separate payment will be made for the disposal of excess materials as mentioned above. Measurement for compacted roadway fill and embankment shall be for in-place embankment after compaction to the density specified on the plans. Measurement shall be in cubic yards as determined on the basis of the natural ground cross-section and the finished lines and grades as shown in the plans and computed by the method of average end areas from the project cross-section.
- E. The price bid per cubic yard for "Compacted Roadway Fill and Embankment" shall be full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the embankment, including cost of water, sprinkling, wetting, and rolling in accordance with the plans and specifications

31 BORROW:

- A. There is insufficient material from the street excavation to complete all fills as shown on the construction plans, therefore it is the Contractor's responsibility to locate a suitable source of select borrow material for completing the fills on the project. Prior to using any offsite borrow material, the material must be approved by the City of Burlison. The following will be required prior to approval:
 - 1. The Contractor must obtain a written, notarized certification from the landowner of each proposed borrow source stating that to the best of the landowner's knowledge and belief

there has never been contamination of the borrow source site with hazardous or toxic materials.

2. The Contractor shall provide adequate testing to determine that the borrow source material is not contaminated with hazardous or toxic materials. The geotechnical engineer performing the testing for the Contractor shall notify the City in writing of his/her approval of the material. No recycled soil will be allowed for use on this project without prior consent from the engineer.
3. Based on geotechnical testing performed on existing soil from the project site, a lime/cement application rate has been determined for subgrade stabilization as set forth in these Special Provisions. The quantities included in the PROPOSAL are based on the determined application rate. Before using any offsite borrow material for subgrade purposes, the Contractor shall provide necessary testing to determine the lime/cement application rate for the proposed borrow material. The results of these tests shall be submitted to the City in writing by the geotechnical engineer performing the testing for the Contractor. If the lime/cement application rate required for the offsite borrow material is greater than the rate specified in these Special Provisions, the Contractor shall be responsible for the cost of the additional lime/cement required or locate an alternative borrow source. If the application rate required for the borrow material is less than the rate specified in these Special Provisions, the Contractor will be paid for the actual quantity of lime/cement used on the project.
4. The Contractor shall provide testing (ASTM D 698) to determine the optimum density and moisture content for the borrow material if used as treated subgrade.
5. The borrow material shall be tested for the presence of soluble sulfates. Any soil with a content of soluble sulfate in excess of 2000 ppm will not be approved.
6. No organic material, trash, debris, trees, clippings or other deleterious material will be allowed in offsite borrow material.

32 FILLING:

- A. Fills shall be constructed at the locations and to the lines and grades indicated on the drawings. When rock excavation is used, it shall be broken or crushed so that the maximum dimension is four (4") inches. No rock will be allowed in the upper twelve (12") inches of the fill.
- B. Equipment for compacting fills shall be sheepsfoot rollers, rubber-tired rollers, and other approved equipment capable of obtaining required density.

- C. The combined excavation and fill placing operation shall be blended sufficiently to secure the best practicable degree of compaction. Fill shall be compacted to at least ninety-five percent (95%) Standard Proctor Density at optimum moisture content, \pm two percentage points, as determined by ASTM D 698. The suitability of the materials shall be subject to approval of the City of Burleson's laboratory. Dump, then spread and mix successive loads of material to give a horizontal layer of not more than eight (8") inches in depth, loose measurement. After each layer of fill has been spread to the proper depth, it shall be thoroughly manipulated with a disc plow or other suitable and approved equipment until the material is uniformly mixed, pulverized, and brought to a uniform approved moisture content.
- D. No fill material shall be rolled until the layer of material has a uniform moisture content which will permit the proper compaction under that degree of moisture content which is the optimum for obtaining the required compaction.
- E. Dry any material having a moisture content too high for proper compaction by aeration until the moisture content is lowered to a point where satisfactory compaction may be obtained. If the moisture of the fill material is too low, add water to the material and thoroughly mix by blading and discing to produce a uniform and satisfactory moisture content.
- F. If, in the opinion of the City of Burleson's laboratory or inspector, the rolled surface of any layer or section of the fill is too smooth to bond properly with the succeeding layer or adjacent section, roughen by discing or scarifying to the satisfaction of the City of Burleson's laboratory before placing succeeding layer or adjacent sections.
- G. No recycled soil will be allowed for use on this project without prior consent from the engineer.

33 DRAINAGE:

- A. Contractor shall maintain adequate drainage at all times during construction. Changing of natural runoff flow locations or concentrating flows to a point of potential harm to the adjacent property shall not be allowed.

34 REMOVAL ITEMS:

- A. On this project, the removal of existing concrete curb and gutters, concrete valley gutters, and concrete drive approaches shall be at the locations indicated by the engineer and shall be paid for under the right-of-way preparation pay item (See Special Provision 11-23) unless a separate bid item is included in the PROPOSAL. All concrete curb and gutter and drive approaches removed will be broken out at existing construction expansion joints if possible. Where existing concrete is removed at a location other than a joint, the slab will be sawed in a neat straight line the full depth of the slab. The cost for sawing and breaking shall be considered subsidiary to the unit price bid for concrete removal. The Contractor shall make every effort to protect all

concrete surfaces that will remain. Any remaining surfaces damaged during removal operations by the Contractor will be replaced at the Contractor's own expense.

- B. The responsibility of locating suitable disposal sites for removal items on this project will be solely a function of the Contractor. The City of Burleson will in no way be responsible for the actions of the Contractor if he disposes of excess material in locations that are not approved. No dumping or disposal of excess material will be allowed in floodplains or below the 100-year flood elevation of drainage ways.

35 HYDRATED LIME AND PORTLAND CEMENT FOR SUBGRADE STABILIZATION:

- A. Hydrated lime to be used on this job shall conform to NCTCOG Specification Item 301.2 with the exception of 301.2.1.2 Quicklime. No Quicklime will be allowed on this project. Portland cement to be used for stabilization shall conform to NCTCOG Specification Item 301.3.

36 LIME STABILIZATION OF SUBGRADE:

- A. Prior to beginning any lime modification, the subgrade shall be brought to the required line, grade, cross-section, and proof rolled in accordance with specification requirements. Proof rolling shall be in accordance with *Texas Department of Transportation Standard Specification for Construction of Highways, Streets and Bridges, 2004, Item ____*. The cost of proof rolling shall be considered subsidiary to this item.
- B. After the subgrade has been shaped, the roadway will be scarified to full depth and width of modification. Full depth will be six (6") inches below finished grade and full width will be that distance from the fronts of gutter pans on either side of the roadway. (On roadways where full length curb and gutter are removed to be replaced during reconstruction, one (1') foot behind the back of proposed curb on each side of the roadway.)
- C. Lime will be applied to that area defined in Part B of this section so that the initial mixing operation can be completed during the same working day. Lime will be applied by the "slurry method" when application is in the corporate limits of the City of Burleson, Texas.
 - 1. Lime and water shall be combined to form a mixture for the lime application. Past experience has proven that approximately 3200 pounds of lime to 500-600 gallons of water will produce the satisfactory mixture. The slurry mix must be made within the city limits of the City of Burleson.
 - 2. The slurry will be applied with an approved distributor or water truck by making multiple passes, if necessary, to apply the correct amount of lime. The distributor or water truck will be equipped with an agitator to keep the slurry in a consistent mixture.

3. For applications greater than or equal to 40 pounds per square yard, the initial application shall be applied in halves (two equal parts) on day one (1) and day two (2). This is subsidiary to the lime stabilization item.
 4. Mixing with a pulvimixer will immediately follow the lime application(s) until 100% of all material will pass a two (2") inch sieve. The lime treated subgrade shall then be sealed with a pneumatic roller and left for an initial curing (mellowing) period of no less than 72 hours (3 days) and no more than 168 hours (7 days) measured from day one (1) of the initial application. During the initial curing (mellowing) period, the lime treated subgrade shall be maintained at the optimum moisture content to plus (+) four percentage points. The final remix and compaction shall be completed within 168 hours (7 days) measured from day one (1) of the initial application. If the final remix and compaction are not complete within 168 hours (7 days) measured from day one (1) of the initial application than an additional lime application will be required. The additional lime application amount shall be 50 % of the original total application rate and shall be added to the lime treated subgrade in accordance with Section 11A-32. No additional payment shall be made when this additional lime application is required.
 5. For the final remix the subgrade shall be re-scarified to a depth of six (6") inches and pulverized until all material conforms to the following:
 - a. Passing 1" Sieve 100%
 - b. Passing #4 Sieve 60%
 6. Final compaction shall be accomplished in two (2) three (3") inch lifts and compacted to at least 95% of Standard Proctor Density as defined by TEX 113-E. The allowable field moisture content at 95% Standard Proctor Density shall be maintained at optimum to plus (+) four percentage points. A curing seal of emulsified asphalt, MS-1, shall be applied to the compacted subgrade at a rate of 0.15 gallons per square yard within 24 hours of passing density tests. This is subsidiary to the lime stabilization item.
- D. No stabilizer, either concentrated or diluted, shall be allowed to enter a storm drain system or a natural waterway. The stabilizer shall be applied in a manner that prevents puddling and/or runoff. Runoff will be considered a spill. All spills shall be immediately reported to the City of Burleson's Communications & Environmental Services at (817) 447-5410, ext. 269 during Service Center working hours and to the Burleson Fire Department Dispatcher (817) 295-5498, ext. 230 during evenings and weekends. The spill shall be contained, neutralized, cleaned up, and removed from the site. Washing down the spill is not allowed. This is subsidiary to the lime stabilization item.

37 PORTLAND CEMENT STABILIZATION OF SUBGRADE:

- A. Prior to beginning any Cement modification, the subgrade shall be brought to the required line, grade, cross-section, and proof rolled in accordance with specification requirements. Proof rolling shall be in accordance with Texas Department of Transportation *Standard Specification for Construction of Highways, Streets and Bridges, 2004*, Item _____, or the most recent edition. The cost of proof rolling shall be considered subsidiary to this item.
- B. After the subgrade has been shaped, the roadway will be scarified to full depth and width of modification. Full depth will be six (6") inches below finished grade and full width will be that distance from the fronts of gutter pans on either side of the roadway. (On roadways where full length curb and gutter are removed to be replaced during reconstruction, one (1') foot behind the back of proposed curb on each side of the roadway.)
- C. Portland cement will be applied to that area defined in Part B of this section so that the initial mixing operation can be completed during the same working day. Portland cement stabilization shall be applied by either the slurry or dry method. If the method used is "DRY", it shall be the Contractor's responsibility to maintain dust control during the application of Portland cement. If during application of Portland cement stabilization the Contractor has failed to maintain the dust to within limits specified by the inspector, the contractor will apply future Portland cement stabilization by "slurry method".
 - 1. It shall be the responsibility of the CONTRACTOR to regulate the sequence of work, to process a sufficient quantity of material so as to provide full depth as shown on plans, to use the proper amount of Portland cement, maintain the work and to rework the courses as necessary to meet the foregoing requirements. Cement stabilized base shall not be mixed or placed when the air temperature is below 40°F (5°C) and falling, but may be mixed or placed when the air temperature is above 35°F (2°C) and rising, the temperature being taken in the shade and away from artificial heat, and with the further provisions that cement stabilized base shall be mixed or placed only when weather conditions, in the opinion of the OWNER, are suitable.
 - 2. The cement-modified soil layer may be constructed with any machine or combination of machines and auxiliary equipment that shall produce the results meeting the requirements for soil pulverization, cement application, water application, mixing, and incorporation of materials, compaction, finishing and curing as specified herein. The CONTRACTOR shall at all times provide sufficient equipment to enable continuous performance of the work and its completion in the required number of working days.

3. Soft or yielding subgrade shall be corrected and made stable before construction proceeds. The soil and/or recycled asphalt pavement shall be so pulverized that at the completion of moist-mixing, it meets the gradation below.

a. Cement Treated Materials-In-Place

- (1) Sieve Size 1-in. (25mm)
 - (i) Minimum Passing by Dry Weight = 100%
- (2) Sieve Size No. 4 (4.75mm)
 - (i) Minimum Passing by Dry Weight = 80%
- (3) Minimum Passing by Dry Weight is exclusive of gravel or stone retained on these sieves.
- (4) Recycled asphalt pavement shall be pulverized so that 100 percent shall pass a 2-in. (50mm) sieve.

D. Application of Cement to Materials-In-Place: Portland cement shall be spread by an approved dry or slurry method uniformly on the soil at the rate specified on the plans or as determined by preliminary laboratory tests. If a bulk cement spreader is used, it shall be positioned by string lines or other approved method during spreading to insure a uniform distribution of cement. Cement shall be applied only to such an area that all the operations can be continuous and completed in daylight within 6-hours of such application. The percentage of moisture in the soil at the time of cement application shall not exceed the quantity that shall permit uniform and intimate mixture of soil and cement during dry-mixing operations, and it shall not exceed the specified optimum moisture content for the soil and cement mixture. In the event of high soil-moisture contents, cement may be applied at one-half the specified rate when approved by the Engineer. The remainder of the application rate of cement shall be applied the following day(s), not to exceed 48-hours. The usual construction sequence shall then be resumed. No equipment, except that used in the spreading and mixing, shall be allowed to pass over the freshly spread cement until it is mixed with the soil.

1. Mixing shall continue until a homogeneous, friable mixture of the material and cement is obtained, free from all clods or lumps. The mixture shall be kept within moisture tolerances throughout the operation.
2. Compaction shall begin after mixing and after gradation and moisture requirements have been met. The material shall be compacted to at least 95-percent of the maximum density as determined by ASTM 698 Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)). At the start of compaction, the percentage of moisture in the mixture and in un-pulverized soil lumps, based on oven-dry weights, shall be within 2-percentagepoints of the specified optimum moisture content and shall be less than the quantity which shall cause the soil cement mixture to become unstable during compaction and finishing. When the un-compacted soil-cement mixture is wetted by rain so that the average moisture content exceeds the tolerance given at the time of final

compaction, the entire section shall be reconstructed in accordance with this specification at the sole expense of the CONTRACTOR. The specified optimum moisture content and density shall be determined in the field on the representative samples of soil-cement mixture obtained from the area being processed. Final moisture content shall be within minus 2 (-2) to plus 4 (+4) of optimum. Prior to the beginning of compaction, the mixture shall be in a loose condition for its full depth. Compaction shall begin at the bottom and shall continue until the entire depth of the mixture is uniformly compacted. The loose mixture shall then be uniformly compacted to the specified density within 2-hours. After the soil and cement mixture, except the top mulch, is compacted, water shall be uniformly applied as needed and thoroughly mixed in. The surface shall then be reshaped to the required lines, grades and cross section and then lightly scarified to loosen any imprint left by the compacting or shaping equipment. The resulting surface shall be thoroughly rolled with a pneumatic tire roller and "clipped," "skinned," and "tight-bladed" by a power grader to a depth of approximately ¼-in. (6mm), moving all loosened soil and cement from the section. The surface shall then be thoroughly compacted with the pneumatic roller, adding small increments of moisture as needed during rolling. When directed by the OWNER, surface finishing methods may be varied from this procedure, provided a dense, uniform surface, free of surface material, is maintained at its specified optimum during all finishing operations. Surface compaction and finishing shall proceed in such a manner as to produce, in not more than 2-hours, a smooth, closely knit surface, free of cracks, ridges or loose material, conforming to the drawn grade and line shown on the plans. OWNER shall conduct In-place density tests shall as outlined in ASTM D2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth). In-place density tests shall be performed at the rate of one-per-300-linear-ft. (one/91-m) of paving for two (2) lanes. The suitability of the modification shall be confirmed by Atterberg Limit testing at the rate of one test per 2,500 cubic-yards (one/1,910-m³) of processed material. In addition to the requirements specified for density, the full depth of the material shown on the plans shall be compacted to the extent necessary to remain firm and stable under construction equipment. After each section is completed, tests as necessary will be made by the OWNER. If the material fails to meet the density requirements, it shall be reworked as necessary to meet these requirements. Throughout this entire operation the shape of the course shall be maintained by blading, and the surface upon completion shall be smooth and in conformity with the typical section shown on the plans and to the established lines and grades. Should the material, due to any reason or cause, lose the stability, density and finish before the next course is placed or the work is accepted, it shall be re-compacted and refinished at the sole expense of the CONTRACTOR.

- E. *Application of Cement to Plant Mixed Cement:* Mixing and Processing of Portland cement for stabilization by plant mixing shall follow the guidelines as provided in section 11A-34B, subsections A-D.
1. Free access to the plant shall be provided to the OWNER for construction quality control. The mixture shall be hauled to the paving area in trucks having beds cleaned of deleterious material.
 2. The mixture shall be placed on a moistened subgrade in a uniform layer by any approved method of spreading that will deposit the required quantity per lineal foot, without segregation, to produce a uniformly compacted base conforming to the grade and cross-section. Not more than 30-minutes shall elapse between placement of cement treated base in adjacent lanes at any location except at longitudinal and transverse construction joints. Compaction shall start as soon as possible after spreading. Elapsed time between the addition of water to the cement treated base mixture and the start of compaction shall not exceed 60-minutes under normal conditions. The Engineer may alter this time if environmental conditions, such as temperature, humidity or wind conditions would justify such a change. Laboratory tests may be required to verify changes in compaction time limits.
- F. *Opening to Traffic.* The CONTRACTOR shall not be permitted to drive heavy equipment over completed portions. Pneumatic-tired equipment required for hauling cement and water may be permitted to drive over after the surface has hardened sufficiently to prevent the equipment from marring the surface, provided that protection and cover are not impaired. The soil-cement course may be opened to local traffic as soon as the curing seal has been applied and dusted or sanded as necessary to prevent it from being picked up by traffic. Completed portions may be opened to all traffic after 7-days.
- G. *Maintenance.* The CONTRACTOR shall be required within the limits of its contract to maintain the soil-cement treatment in good condition from the time it first starts work until all work shall have been completed. Maintenance shall include immediate repairs of any defect that may occur after the cement is applied. Such maintenance work shall be done by the CONTRACTOR at the CONTRACTOR'S expense, and repeated as often as necessary to keep the area continuously intact. Repairs are to be made in such a manner as to insure restoration of a uniform surface for the full depth of treatment. Any low area of treated subgrade shall be remedied by scarifying the surface to a depth of at least 2-in. (5cm), filling the area with treated material and compacting. Any low area of sub-base or base shall be remedied by replacing the material for the full depth of sub-base or base treatment rather than adding a thin layer of stabilized material to the completed work.

- H. No stabilizer, either concentrated or diluted, shall be allowed to enter a storm drain system or a natural waterway. The stabilizer shall be applied in a manner that prevents puddling and/or runoff. Runoff will be considered a spill. All spills shall be immediately reported to the City of Burleson's Communications & Environmental Services at (817) 426-9848 during City Hall working hours and to the Burleson Fire Department Dispatcher (817) 426-9170 during evenings and weekends. The spill shall be contained, neutralized, cleaned up, and removed from the site. Washing down the spill is not allowed. This is subsidiary to the Portland cement stabilization item.

38 FLEXIBLE BASE:

- A. All flexible base shall be in accordance with Item ____ of the 2004 edition of the Texas Department of Transportation *Standard Specifications for the Construction of Highways, Streets, and Bridges*.
- B. Type "A" Grade 1 Flex Base shall be used as subgrade material under the proposed HMA pavement. An acceptable alternative to Type "A" Grade 1 Flex Base is crushed concrete. Crushed concrete shall be categorized as Type "D" Grade 1 Flex Base. Flex Base shall be thoroughly compacted and placed to a depth specified on the plans.

C. Type "A"	Crushed or Broken Aggregate	
	Retained on Sq Sieve	%
	1-3/4 in.	0
	7/8 in.	10 - 35
	3/8 in.	30 - 50
	No. 4	45 - 65
	No. 40	70 - 85
	Max LL	35
	Max PI	10
	Wet Ball Mill, Max Amt.	40
	Max Increase in passing No. 40	20

- D. Payment for Flexible Base shall include all materials, labor, equipment, hauling and placement. Measurement shall be compacted in-place plan quantities by the square yard to the thickness specified on the plans.
- E. Daily tickets will be submitted by the Contractor and signed by the inspector or his representative no later than one week after delivery of the flexible base.

39 CONCRETE CURB AND GUTTER:

- A. Concrete curb and gutter shall be placed at locations along the project where portions of the existing curb and gutter is removed. In cases where 100% of the existing curb and gutter is to be

removed, it shall be replaced with the Standard 30 inch curb and gutter section. All concrete used for curb and gutter in the City of Burleson will have a cement content of not less than five (5) sacks of cement per cubic yard of concrete, 5% entrained air ($\pm 1.5\%$), and a minimum compressive strength at 28 days of 3,000 pounds per square inch. The unit price bid for curb and gutter shall include 3-#3 bars of reinforcing steel. Expansion joints shall be placed at all intersections, P.Cs, P.Ts, driveways, inlets, other curb and gutter or every 200 feet. All expansion joints shall not be less than one-half inch (1/2") in thickness with longitudinal dowels. Dowel shall be three No. 4 smooth bars, 24 inches in length. One-half of the dowel shall be coated with asphalt and terminated with an expansion cap. All work shall be in compliance with NCTCOG Section 305.1. All loose material between the forms will be removed and the grade wetted prior to the placing of the concrete. An approved curing compound shall be applied to the surface in accordance with the Curing Specification.

40 EPOXY BONDING AGENT:

- A. Epoxy used for tie bars drilled into existing concrete shall be submitted to the project inspector for approval.

41 HOT MIX ASPHALTIC CONCRETE:

A. PAVING MIXTURES:

1. **Mixture Design:** The Job Mix Formula shall be designed by the Contractor in accordance with the requirements of this Special Provision, TxDOT Bulletin C-14 and TxDOT Test Method Tex-204-F and tested in accordance with TxDOT Test Methods Tex-201-F and Tex-202-F, with the exception that the laboratory density will be determined as a percentage of the mixture maximum theoretical density. The maximum theoretical specific gravity shall be determined in accordance with TxDOT Test Method Tex-227-F on trial samples of the mixture near optimum asphalt content and conform to the requirements herein. The Contractor shall submit the Job or Plant Mix Formula for review on forms acceptable to the City for each source of supply and type of mixtures specified. Total sand content shall not exceed 18% for Type "D" mix. The bulk specific gravity will be determined for each aggregate to be used in the design mixture. The mixture shall be designed to produce a mixture within the density and stability requirements shown below. In addition, washed gradations of the aggregate in the job mix formula shall be plotted on the 0.45 power chart for comparison with the maximum density line.
2. **Stability and Density:** The mixture shall be designed to produce an acceptable mixture within tolerance, at or near optimum density. The mixture molded in the laboratory in accordance with TxDOT Test Method Tex-206-F and the bulk specific gravity of the laboratory compacted mixture determined in accordance with TxDOT Test Method Tex-207-

F should have the following percent of maximum theoretical density as measured by TxDOT Test Method Tex-227-F and stability conforming to TxDOT Test Method Tex-208-F:

a. Optimum Density Range

(1) 95 to 97 Percent

b. Stability, Percent

(1) Not Less than 42

3. **Types:** The paving mixtures shall consist of a uniform mixture of coarse aggregate, fine aggregate and asphaltic material. Mineral filler may also be required.

When properly proportioned, the mineral aggregate shall produce a gradation which will conform to the limitations for master grading given for the type specified unless otherwise shown on plans. The gradation will be determined in accordance with TxDOT Test Method Tex-200-F (Dry Sieve Analysis) and shall be based on aggregate only. The amount of asphaltic material shall conform to the limitations shown for the paving type specified.

Type "B" (Fine Grade Binder of Leveling-up Course)	Percent Aggregate by Weight or Volume
Passing 1" sieve	100
Passing 7/8" sieve	95 to 100
Passing 7/8" sieve, retained on 3/8" sieve	21 to 53
Passing 3/8" sieve, retained on No. 4 sieve	11 to 42
Passing No. 4 sieve, retained on No. 10 sieve	5 to 26
Total retained on No. 10 sieve	50 to 74
Passing No. 10 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 21
Passing No. 80 sieve, retained on No. 200 sieve	3 to 21
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight, unless specified otherwise on the plans.

Type "D" (Fine Grade Surface Course):	Percent Aggregate by Weight or Volume
Passing 1/2" sieve	100
Passing 3/8" sieve	85 to 100
Passing 3/8" sieve, retained on No. 4 sieve	21 to 53
Passing No. 4 sieve, retained on No.10	11 to 32
Total retained on No. 10 sieve	54 to 74
Passing No. 10 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 27
Passing No. 80 sieve, retained on No. 200 sieve	3 to 27
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 4 to 8 percent of the mixture by weight, unless specified otherwise on the plans.

4. **Sampling and Testing for Field Control:** Extraction tests for bitumen content and aggregate gradation shall be made for each 500 tons produced or fraction thereof. Extraction tests shall conform to TxDOT Test Method Tex-210-F. Tests for stability of the asphalt mixture shall conform to TxDOT Test Method Tex-208-F. The mixture shall not vary from the grading proportions of the aggregate and the asphalt content by more than the respective tolerances and shall be within the limits specified for master grading.

5. **Tolerances in Relation to Approved Design:** The aggregate portion of the paving mixture produced shall not vary from the design gradation by more than the tolerances which follow. The material passing the No. 200 sieve is further restricted to conform to the limitations for the master grading for the type specified. The asphaltic material portion of the paving mixture shall not vary from the design amount by more than the allowed tolerance and is also restricted to conform to the master limits. The method of test for determining the aggregate gradation and asphalt content of the mixture shall be TXDOT Test Method Tex-210-F or other methods of proven accuracy.

Type "B" (Fine Grade Binder of Leveling-up):	Percent Aggregate by Weight or Volume
Passing 2" sieve	±5%
Passing 1¾" sieve	±5%
Passing 1¾" sieve, retained on 7/8" sieve	±5%
Passing 7/8" sieve, retained on 3/8" sieve	±5%
Passing 3/8" sieve, retained on No. 4 sieve	±5%
Passing No. 4 sieve, retained on No. 10 sieve	±5%
Total retained on No. 10 sieve	±5%
Passing No. 10 sieve, retained on No. 40 sieve	±3%
Passing No. 40 sieve, retained on No. 80 sieve	±3%
Passing No. 80 sieve, retained on No. 200 sieve	±3%
Passing No. 200 sieve	±3%
Asphaltic material	±0.5%/or 1.2% by vol.

Type "D" (Fine Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing ½" sieve	±5%
Passing 3/8" sieve	±5%
Passing 3/8" sieve, retained on No. 4 sieve	±5%
Passing No. 4 sieve, retained on No. 10	±5%
Total retained on No. 10 sieve	±5%
Passing No. 10 sieve, retained on No. 40 sieve	±3%
Passing No. 40 sieve, retained on No. 80 sieve	±3%

Passing No. 80 sieve, retained on No. 200 sieve	±3%
Passing No. 200 sieve	±3%
Asphaltic Material	±0.5%/or 1.2% by vol.

- B. IN-PLACE COMPACTION CONTROL: In-place compaction control is required for all mixtures.
1. Asphaltic concrete should be placed and compacted to contain no more than 8 percent nor less than 3 percent air voids unless otherwise indicated. The percent air voids will be calculated using the maximum theoretical specific gravity of the mixture determined according to TXDOT Test Method Tex-227-F. Roadway specimen, which shall either be cores or sections of asphalt pavement, will be tested according to TXDOT Test Method Tex-207-F. The same specimen shall be used for determining both the maximum theoretical density and field density. Specimens used for field density determinations shall be carefully crumbled, using heat, if necessary, and the maximum theoretical density determined as specified. If heating is necessary, the specimen shall be heated to the lowest temperature required for proper preparation of the sample. The use of nuclear field density determinations shall not be accepted as the basis for acceptance with respect to density. However, an approved nuclear gauge may be used to establish a rolling pattern.
 2. The Contractor shall be responsible for assuring that the compaction of the asphaltic concrete in place will attain between 3 and 8 percent air voids. The Contractor's responsibility for the required compaction includes the selection of rolling equipment and the selection of rolling patterns to achieve the required compaction within the guidelines provided herein. The above selections of equipment and procedures must provide the required qualities of profile, smooth riding surface, and consistent workmanship in appearance.
 3. Initial testing will be the responsibility of the City of Burleson. Any retest will be the responsibility of the Contractor. Additional information is provided in Section 11-18 of these Special Provisions.

42 TACK COAT:

- A. The unit bid prices for coarse graded base course and fine graded surface course shall include the application of a tack coat to each layer of asphaltic concrete before the next layer is applied and a tack coat shall also be applied to any exposed concrete edges that shall about any hot mix asphaltic concrete. The tack coat shall be liquid asphalt complying with the specifications of the Asphalt Institute for SS-1, MS-2 Emulsified Asphalt. The tack coat shall be applied to each layer at a rate not to exceed 0.05 gallons per square yard of surface.

43 ASPHALTIC PRIME COAT:

- A. A prime coat shall be used on the stabilized base material immediately after the base material has been compacted to specified density and cut to grade. The prime coat shall be liquid asphalt complying with the specification of the Asphalt Institute for type MS-2 Emulsified Asphalt. The prime coat shall be applied to the surface of the base at a rate of 0.20 to 0.40 gallons per square yard of surface and allowed to penetrate as far as possible. The cost of furnishing and installing the asphalt prime coat shall be considered subsidiary to the unit prices bid for hot mix asphaltic concrete.

44 REINFORCING STEEL:

- A. All reinforcing steel used on this project shall comply in all respects to "Reinforcing Steel" of the Standard Specifications for Construction of Highways, Streets and, as adopted by the Texas Department of Transportation, 2004 ed. Payment for reinforcing steel shall be considered subsidiary to the various bid items.

45 TEMPORARY BATCH PLANT:

- A. If the Contractor chooses to construct a temporary batch plant, the following conditions (at a minimum) must be satisfied prior to approval from the City.
 - 1. Batch plant must be permitted by Texas Air Control Board. Evidence must be presented.
 - 2. Batch plant must be permitted by Environmental Protection Agency (EPA). A copy of Notice of Intent (NOI) and Storm Water Pollution Prevention Plan must be on the premises.
 - 3. Location map must be provided indicating routes for raw material delivery.
 - 4. Location map must be provided indicating that the nearest recreational area, school, or residence is located at least 300 feet away.
 - 5. Letter of Permission must be provided by the City of Burleson of the property (on which the batch plant is to be constructed) requiring that the contractor leaves the site in as good or better condition.
 - 6. The start and stop dates for operation of the plant must be provided.
 - 7. It must be stated that the batch plant will be used to provide concrete for no other project(s) without written approval from the City of Burleson.
 - 8. No additional pay will be made for the temporary batch plant.

46 TESTING REQUIREMENTS (CONCRETE):

- A. The strength of the concrete shall be determined during the construction by taking a minimum of three (3) test cylinders and/or two test beams during each fifty (50) cubic yards of continuous pouring. These tests shall be conducted by an approved testing laboratory and the initial tests shall be paid for by the City of Burleson. The cost of additional testing to isolate areas not complying with the specifications shall be paid for by the Contractor.
- B. Beam strength tests permitted by the specifications for early form removal shall be conducted by an approved testing laboratory and the cost shall be borne by the Contractor.

47 CONCRETE VALLEY GUTTERS:

- A. All concrete valley gutters shall have a thickness of six inches (6"). Concrete valley gutters shall be reinforced with #4 bars on twelve inch (12") spacing in both directions. All concrete shall have a minimum cement content of 5 sacks per cubic yard of concrete, 5% entrained air ($\pm 1.5\%$) and a minimum compressive strength at 28 days of 3,000 pounds per square inch. An approved curing compound shall be applied to the surface.

48 CONCRETE DRIVEWAYS:

- A. Driveways shall be composed of concrete having a minimum cement content of 5 sacks per cubic yard of concrete, 5% entrained air ($\pm 1.5\%$) and a minimum compressive strength at 28 days of 3,000 pounds per square inch. The unit bid price shall also include #3 bars on twelve inch (12") centers, or #4 bars on eighteen (18") centers both ways. An approved curing compound shall be applied to the surface.
- B. The City will replace only those existing driveways specified. Any new drives installed by the Contractor under criteria other than the above will be at his own expense.
- C. All drive connections to State Right-of Way shall use TxDOT details.

49 RECONSTRUCT DRIVES:

- A. Existing drives which will be destroyed by proposed construction and which will be reconstructed are specifically called out on the plans and construction shall conform to this special provision. After construction operations are completed in the street area, these drives shall be reconstructed to original or better condition than existed before construction and to satisfaction of the engineer. Existing surface and base materials and storm drain pipe may be reused if approved by the engineer. Where new materials will be required in order to reconstruct drives to the required condition, the Contractor shall be aware of their need and they shall be incidental to the price requested. All work shall conform to the applicable standard and special project specifications. Payment for reconstructing drives shall be a price

per square yard of typical concrete driveway or a price per square yard of exposed aggregate concrete driveway. Such price shall include all materials, labor, and supervision for the completed construction.

50 CONCRETE SIDEWALKS:

- A. **MATERIALS:** Sidewalks shall be constructed of concrete with a minimum cement content of 5 sacks of cement per cubic yard of concrete, 5% entrained air ($\pm 1.5\%$), and a compressive strength of not less than 3,000 pounds per square inch at 28 days. Reinforcing steel shall be #3 bars on 18" centers located two inches (2") below the top surface of the sidewalk. As soon as the concrete has obtained its initial set, a white pigmented approved curing compound shall be applied.
- B. **CONSTRUCTION PROCEDURE:** In general, the grade of the sidewalks shall be established with respect to the curb. Forms shall be set for all sidewalks and shall be true to line and grade. Forms shall be set to provide a cross slope of 1/4 inch per foot (2%) across the sidewalk toward the street. All forms shall remain in place at least twenty-four (24) hours.
- C. The plane of all joints shall make a right angle with the surface of the pavement. No joints shall have an error in alignment of more than one-half (1/2") inch at any point. The edges of the slab at all joints, except where the joints are sawed, shall be rounded with an edger having a radius of one-fourth (1/4") inch, except as otherwise shown on the plans. The edging shall also be done symmetrically on each section with the plane of the joint.
- D. Longitudinal expansion joints, joints used to separate new from old concrete, and all joints around all fire hydrants shall be made of conventional one-half (1/2") inch asphalt expansion joint material extending completely through the concrete unless otherwise specified on the plans.
- E. Transverse expansion joints shall be three-fourths (3/4") inch in width and be made of high grade redwood placed through the concrete at a spacing not to exceed forty (40') feet. No. 4 X 18" steel dowels shall be placed on eighteen inch (18") centers through each redwood expansion joint, one end of each dowel being wrapped or otherwise prevented from bonding to the concrete.
- F. Contraction joints shall be made in the sidewalk at regular intervals, such intervals generally being equal to the width of the sidewalk.
- G. The Contractor shall grade or fill, as necessary, along the sidewalk to match the existing ground. Care will be used to ensure that adjacent property outside the right-of-way line is protected.

51 CONCRETE SIDEWALKS WITH RETAINING WALL:

- A. When sidewalks are constructed adjacent to retaining walls, the plans shall specify if the sidewalk and retaining wall are to be constructed as separate items or as a sidewalk with wall unit. The sidewalk with wall unit shall be constructed in accordance with the City of Burleson typical details and shall be paid on a linear foot basis for various wall heights up to four (4') foot. When specified to be constructed as separate items, the limits of pay for the sidewalk shall be of the sidewalk up to the face of the retaining wall on a square yard basis. The retaining wall shall be paid under retaining wall on a cubic yard basis.
- B. Generally, location of sidewalk with retaining wall will be the same as a standard sidewalk. If necessary, the sidewalk shall be adjusted in the field, as approved by the Project Engineer, to match existing sidewalks and to avoid trees, fire hydrants, light poles, traffic signs, etc., that otherwise would be in the sidewalk.
- C. It is assumed that areas showing sidewalk with retaining wall will require a retaining wall of only about two foot. Nonetheless, as the details shows, there is a four foot maximum height allowance and the bid price shall reflect the possibility of a four foot (4') wall dependent on field conditions.

52 BARRIER FREE RAMPS:

- A. Sidewalks shall be constructed barrier free and fully accessible. Curb ramps are required at all intersections between sidewalks and streets. At driveways, the curb shall be layed down and the sidewalk section shall be maintained through the driveway. Ramps shall be constructed in accordance with the detail shown on the plans. Ramp slopes shall not exceed one inch (1") rise in twelve inches (12"). The landings shown on the details shall be constructed of concrete and paid for under the unit price bid for sidewalks. At tee intersections, a mid ramp shall be constructed as shown in the details. The ramps shall be paid for based on the unit price bid for the ramp and shall include curb and street cuts, matting, and other material used to construct the ramps, complete and in place.

53 CONCRETE MEDIANS:

- A. All concrete for concrete medians and median noses shall have a minimum thickness of four inches (4"). Reinforcement shall be #3 bars on 18" centers both ways or as shown on the plans. All Class "C" concrete shall have a minimum cement content of six (6) sacks per cubic yard and a minimum compressive strength at 28 days of 3,600 pounds per square inch. Redwood expansion joints shall be placed at the end of the nose radius and at every 40 feet. Curing shall be in accordance with Special Project Specification Section 12-3 "Membrane Curing." Curing and reinforcement shall be considered subsidiary to the various bid items.

54 ADJUSTMENT OR RELOCATION OF WATER SERVICES & METER BOXES:

- A. The Contractor shall be responsible for adjusting (vertical), or relocating (horizontal and vertical), and bringing to grade, water meter boxes, within the limits of this project. This shall include the adjustment or relocation of the service line on the City's side of meter (from main to the meter), the quarter bend, the curb stop or angle valve, depending on service size, and the meter. Adjustment of the customer's service line shall be performed by a licensed plumber and shall be considered subsidiary. All of the work shall be in accordance with the Standard Specifications for Waterworks and Sewerage Improvements (1997). The Contractor shall also endeavor to keep meters accessible during the project construction for reading purposes. In the event the meters are covered during construction, the Contractor shall mark their locations with stakes and shall uncover the meters within 24 hours when notified to do so by the inspector. The Contractor shall also replace cast iron meter boxes, with boxes of the following specifications:
 - B. For Meter Boxes for 5/8", 3/4", and 1" services
 - 1. Single Mtr. Box (non-traffic) - Alliance 1200.SBTR
 - 2. Double Mtr. Box (non-traffic) - Alliance 16AMR2.DU.SB
 - C. For Meter Boxes of 1.5" and 2" services
 - 1. Single Mtr Box (traffic) - Rotec D1730-18-BD5M
 - 2. Double Mtr. Box (traffic) - Rotec DFW38C-14-KSBSM
- D. Water meter boxes broken by the Contractor shall be replaced at the Contractor's own expense. If any portion of the meter box is in a concrete sidewalk, the meter box shall be relocated outside the sidewalk. The box shall be set to the finished grade of the surrounding lot. Water service and meter box *adjustments* (vertical) shall be subsidiary to the various items in the PROPOSAL. Water service and meter box *relocations* (horizontal and vertical) shall be paid for as outlined in the PROPOSAL.

55 VERTICAL ADJUSTMENT OF SANITARY SEWER MANHOLES, SANITARY SEWER CLEANOUTS, AND WATER VALVES:

- A. Prior to the application of the lime slurry, all manholes, cleanouts, and water valves shall be adjusted to approximately one foot (1') below the bottom of the proposed subgrade. Prior to the placement of any pavement, the Contractor shall verify the locations of all valves, manholes, and cleanouts. For existing manholes that are being adjusted to proposed grade, the Contractor shall replace old manhole ring and lid with new manhole ring and lid, as directed by the engineer or his representative. All manholes, water valves, and cleanouts may be blocked out or

brought to proper grade before placement of concrete pavement. Where HMAC is used, adjustment to proper grade shall be made after placement of the top layer of coarse grade binder. It shall then be encased in concrete for a minimum of six inches (6") in depth and the concrete shall be a minimum of twelve inches (12") wide at all points around the water valves, cleanouts, or manholes. Valve stacks shall be ductile iron only. In the event the top of the operating nut for any valve is more than six feet (6') deep from the finished ground elevation, valve stem extensions shall be furnished and installed by the Contractor to bring the operating nut to within three feet (3') of the finished ground level. Payment for the valve stem extension shall be subsidiary to other unit prices bid in the PROPOSAL.

- B. It shall be the sole function of the Contractor to re-establish the location of all valves, manholes, cleanouts, etc. If the Contractor, through carelessness or negligence, damages any valve, manhole, or cleanout, it will be the Contractor's responsibility to replace the same. Should the Contractor fail to re-establish the location and adjust any valve, manhole, or cleanout, he will be required to perform the necessary work to raise the same at no additional charge to the City of Burleson.
- C. Where manholes, cleanouts, or gate valves are to be raised within the proposed fill slopes or in areas other than a concrete or asphalt surface, the manhole, cleanout or gate valve shall be raised at least six inches (6") higher than the proposed finished grade. An exception to this specification is in areas where the appurtenance is on private property. The engineer or its representative will give the proper height above the proposed finished grade.
- D. Where manholes, cleanouts, or gate valves are located within the alignment of a sidewalk, the following adjustments shall be made: (1) Manholes shall be flush within the sidewalk and located within construction joints creating an isolated panel for easy removal and repairs if necessary. If the manhole ring and lid are located only partially within the sidewalk and an eccentric cone will not remove it completely from the sidewalk, the manhole ring and lid shall be formed circumferentially within the sidewalk to create vertical edges. The grass side shall be planted with sod to the edge of the ring and lid. (2) Water valve boxes and cleanouts shall be raised flush within the sidewalk. A block-out of 12" beyond all sides of the valve or cleanout shall be formed. The alignment of the block-out shall that of a 48" square rotated 45 degrees when looking perpendicular to the sidewalk. Contraction joints shall extend from the top and bottom vertices to the outer edged of the sidewalk. The contraction joints for the side vertices shall extend to meet the traverse construction joints on either side, forming a panel of four feet (4') square that will allow for removal and repairs if necessary.
- E. Except as called for on the plans, the Contractor shall not be responsible for the relocation of power poles, gas meters, telephone cable boxes and signs, gas pipeline markers, fire hydrants, light poles, traffic signs and signals, or for adjustment of the top elevation of gas and telephone

manholes which are in direct conflict with improvements. If these items have not been relocated and/or adjusted at the time of construction and the plans do not require the Contractor to adjust them, the Contractor shall inform the engineer and/or his representative of the problem.

- F. Sanitary sewer manholes may be adjusted up to 12 inches in additional height above the cone section with concrete grade rings. Adjustments over 12 inches shall be accomplished using a concrete flat top section or by using pre-cast or cast-in-place manhole sections.

56 REINFORCED CONCRETE PIPE:

- A. Pipe for storm sewers and culverts shall conform to the latest specifications for "Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe," A.S.T.M. Designations. All pipe shall be machined made by a process which will provide for uniform placement of zero slump concrete in the form of compaction by mechanical devices which will assure a dense concrete in the finished product. All excavation, bedding, jointing, and backfilling shall be done in accordance with the specifications outlined in Sections 501.6, 504.3, and 504.4 of the NCTCOG Specifications except as modified by these Special Provisions.
- B. The contractor will be required to furnish and use a laying schedule supplied by the manufacturer showing location of all bends, fittings, and beveled end joints required to accurately construct the system, including curves, as shown on the plans. The pipe will not be laid until the laying schedule has been reviewed and accepted by the City for construction purposes.
- C. The laying schedule shall be based on all pipe joints constructed to the "home" or normal position and the distance between the ends of adjacent pipe sections will be essentially uniform around the periphery of the pipe. OMNI-FLEX® (or approved equal) joint sealer shall be used on all joints and the joint gap range shall not exceed the OMNI-FLEX® recommendations for curved or straight sections.
- D. Payment for all reinforced concrete pipe shall be based on the contract unit price bid per linear foot of pipe measured along the centerline of the pipe in the trench and shall be full compensation for all labor and materials necessary to make the complete installation, including excavation, bedding, jointing, backfilling and OMNI-FLEX® (or approved equal) joint sealer. The cost of constructing concrete collars shall be considered subsidiary to the unit prices bid for reinforced concrete pipe.
- E. After the trench has been cut to depth below the barrel of the pipe, the bedding shall be brought up to a point slightly above the grade. Bell holes shall be formed, a trough scooped out to grade and the pipe laid and jointed as specified.

- F. The pipe shall be bedded in a minimum of four inches (4") of crushed stone for pipe up to 60 inches and six inches (6") for pipe 66" and larger except in rock or in wet or unstable trenches where an additional 3 inches of crushed stone will be added to the standard bedding requirements. Crushed stone shall meet NCTCOG 504.2.2 Standard Crushed Rock - Aggregate Grade 4. River rock/gravel will be allowed as long as it meets this gradation requirement.
- G. After the pipe has been laid and the joints made, granular material of a quality satisfactory to the engineer shall be placed from the bottom of the pipe to 6" above the top of pipe. Granular material shall be defined as a free flowing, pit run sand free of stones, clay, organic material, and debris. This material shall not have a P.I. greater than 10. The material shall be placed uniformly on both sides of the pipe in order to prevent disturbance of the pipe and, if necessary, blocking shall be placed against the sides of the trench to prevent displacement of the pipe. The backfill material shall be worked under the haunches of the pipe during the time it is being placed. The material shall be mechanically compacted to 95% standard density in lifts not to exceed eight inches (8") (loose).
- H. For the specifications for the remaining backfill operations, see the Trench Backfill Special Provision.

57 CORRUGATED METAL PIPE (CMP):

- A. Corrugated metal pipe used on this project shall be bituminous coated and smooth lined helically corrugated steel pipe and pipe-arch with a continuously welded butt seam or lock seam.
- B. The pipe shall be fabricated from flat coils. The base metal, spelter coating, and fabrication shall meet the applicable requirements of AASHTO M-36. Each pipe shall have two annular corrugations rolled in each end. Each pipe shall have two lifting lugs welded to the outside of the pipe.

Pipe Diameter	Corrugation	Gage
72"	5" x 1" or 3" x 1"	16
66"	5" x 1" or 3" x 1"	16
60"	5" x 1" or 3" x 1"	16
54"	2-2/3" x 1/2"	14
48"	2-2/3" x 1/2"	14
42" & smaller	2-2/3" x 1/2"	16
Arch Pipe	2-2/3" x 1/2"	16

- C. After the ends have been rolled, the pipe shall be coated with bituminous material, inside and outside, to a minimum thickness of 0.05 inches as required by AASHTO M-190 for Type "A" coating. The pipe shall be centrifugally lined on the inside with bituminous material to form a smooth surface which fills the corrugations to a minimum thickness of one-eighth inch (1/8") above the crests of the corrugations. The bituminous lining material shall meet the requirements of AASHTO M-190. All saddle branch fittings for the storm sewer laterals shall also have coating and lining as specified for pipe.
- D. Coupling bands shall be the same base material and spelter coating as the pipe. Bands shall be 0.064 inches thick and minimum ten and one-half inches (10-1/2") wide. Bands shall be bituminous coated and shall have two (2) corrugations for indexing in annular pipe ends. Bands 12 inch diameter through 30 inch diameter shall be one (1) piece, and 36 inch diameter through 96 inch diameter shall be two (2) piece, and 102 inch diameter through 144 inch diameter shall be three (3) piece. Band laps 12 inch diameter through 48 inch diameter shall be joined by one (1) galvanized bar, bolt, and strap connector. Band laps 54 inch diameter through 144 inch diameter shall be joined by two (2) galvanized bar, bolt, and strap connectors.
- E. The pipe shall be placed on a bedding layer of a minimum of three inches (3") of loosely placed granular material in order to provide a stable but relatively yielding cushion for the pipe. When rock excavation is encountered this bedding layer should be increased to twelve inches (12").
- F. Where the soil encountered at the established grade is a quicksand, muck, or unstable material, such unstable soil shall be removed and replaced with suitable stable material in uniform layers of suitable depth for compaction as directed by the engineer.
- G. Backfilling for the metal pipe structure is a critical phase of the construction, and strict adherence to construction methods is required. After metal pipe structure has been completely assembled on the proper line and grade and headwalls constructed when required by the plan details, granular material shall be placed along both sides of the completed structures equally, in uniform layers not exceeding six inches (6") in depth (loose measurement), wetted if required and thoroughly compacted between adjacent structures and between the structures and the sides of the pipe. Granular material, as used in this section, shall be defined as a free flowing pit run sand, free of stones, clay, organic material, and debris. This material shall have a P.I. less than ten (10). Above the three-fourths point of the structure, the fill shall be placed uniformly on each side of the pipe layers not to exceed twelve inches (12").
- H. For backfilling, until a minimum cover of twelve inches (12") is obtained, only hand operated tamping equipment will be allowed within vertical planes two feet (2') beyond the horizontal projection of the outside surfaces of the structure. Backfill shall be compacted to 90% of Standard AASHTO Density (ASTM D698).

- I. Unless otherwise shown on the plans or permitted in writing by the engineer, no heavy earth moving equipment will be permitted to haul over the structure until a minimum of four feet (4') of permanent or temporary, compacted fill is in place. Pipe damaged by the Contractor's equipment shall be removed and replaced by the Contractor at no additional cost.
- J. During the backfilling operations, special emphasis is placed on the need for obtaining uniform backfill material and uniform compacted density throughout the length of the structure so that unequal pressure will be avoided. Extreme care will be taken to ensure proper backfill under the structure.
- K. Prior to adding each new layer of loose backfill material, until a minimum of twelve inches (12") of cover is obtained, an inspection will be made of the inside periphery of the structure to determine any local or unequal deformation caused by improper construction methods. If, in the opinion of the engineer, any pipe becomes deformed during backfilling operation or as result of subsequent circumstances during the project, the Contractor shall correct such deformation at his own expense and at the direction of the engineer.
- L. Any and all scratches, scrapes or other damage to the bituminous coating and lining of the pipe shall be repaired by recoating or otherwise as directed by the engineer.
- M. Payment for all Smooth Lined Corrugated Steel Pipe shall be based on the contract unit price bid per linear foot of pipe measured along the centerline of the pipe in the trench and shall be full compensation for all labor and materials necessary to make the complete installation.

58 HIGH DENSITY POLYETHYLENE PIPE (HDPE):

- A. This item shall govern the furnishing and installation of all High Density Corrugated Polyethylene Smooth Wall Pipe and associated fittings necessary for constructing all storm drain facilities, all of which shall conform to AASHTO M-294 specification for High Density Corrugated Polyethylene Pipe and Fittings. The pipes shall be of the sizes, types, and dimensions shown on the plans and shall include all connections and joints to new or existing pipes, storm sewer manholes, inlets, headwalls, and other appurtenances as may be required to complete the work. High Density Polyethylene Corrugated Smooth Wall Pipe may be used when HDPE is shown on the plans or awarded as an alternative item to Reinforced Concrete Pipe (RCP).
- B. The pipe and fittings shall be manufactured by extrusion or molding methods as called for in AASHTO M294. High density polyethylene material shall meet the requirements of ASTM D 3350 Cell Classification 335420C.
- C. Trench width shall be the minimum for proper placement and compaction of embedment and backfill.

- D. Embedment material shall be crushed rock with the following gradation:
 - 1. 0% retained on 1¼ inch
 - 2. 95-100% retained on #10
- E. Depth of bedding material below the pipe shall be four inches minimum (6 inches in rock cuts) for all pipe sizes, unless otherwise directed by the engineer or shown on the plans. For specifications for the remaining backfill operations, see the Trench Backfill Special Provision.
- F. Manufactures recommendations for connection methods and materials necessary to accomplish tight and secure joints shall be strictly followed. This includes HDPE connections or HDPE to reinforced concrete pipe. When a connection occurs between HDPE and RCP, a concrete collar shall be used as shown in Standard Construction Details.
- G. Minimum pipe stiffness at 5% deflection shall be as stated within AASHTO M294 when tested according to ASTM D 2412. The contractor shall provide written certification from the manufacturer that the pipe and related fittings meet the minimum requirements within AASHTO M294. The pipe and fittings may be rejected for failure to meet any of this specification, and may be retested to establish conformity in accordance with the specification.
- H. Payment for HDPE shall be based on the contract unit price bid per linear foot of pipe measured along the centerline of the pipe in the trench and shall be full compensation for all labor and materials necessary to make the complete installation, including excavation, bedding, jointing, and backfilling. The cost of constructing concrete collars shall be considered subsidiary to the unit prices bid for HDPE.

59 MECHANICALLY COMPACTED TRENCH BACKFILL SPECIFICATIONS:

- A. After free moisture is gone from the embedment material, the ditch shall be backfilled with native material and compacted by mechanical methods. If hand pneumatic tampers are used, the backfill shall be placed in layers not exceeding six inches (6") in loose thickness and thoroughly compacted at least ninety-five percent (95%) Standard Proctor density at optimum moisture content, ± two percentage points as determined by ASTM D 698. Backfill shall be placed in uniform layers completely across the trench, and compaction shall proceed in an orderly, uniform manner. If compaction is performed by the use of heavy tamping (sheep's foot) rollers, backfill shall be placed in layers not exceeding nine inches (9") in loose thickness and compacted to at least ninety-five percent (95%) Standard Proctor density at optimum moisture content, ± two percentage points as determined by ASTM D 698.
- B. For lines under the proposed roadway and laid prior to new street construction, the backfill shall continue to within two feet (2) of the top of subgrade. At this point the trench shall be widened

a minimum of one foot (1') on each side. The remaining two feet (2') shall be native material, compacted in six inch (6") loose lifts at optimum moisture content, \pm two percentage points, to a density of at least ninety-five percent (95%) of maximum dry density, as determined by ASTM D 698.

- C. The City of Burleson shall be responsible for testing during backfill operations. If a test does not meet the requirements as outlined above, the Contractor shall be responsible for additional tests until the above requirements are met.
- D. Payment shall be subsidiary to unit prices bid for pipe.

60 FLOWABLE FILL TRENCH BACKFILL SPECIFICATIONS:

- A. FLOWABLE BACKFILL: Flowable backfill shall consist of a mixture of native sand or a blend of native sand/manufactured sand, cement, fly ash and water which produces a material with unconfined compressive strength of between 250 and 450 psi after 28 days.
 - 1. The flowable mixture shall be mixed at a concrete batch plant or a mobile transit mixer and shall have a minimum slump of five inches (5") and a minimum air content of 6 percent. The flowable mixture must be allowed to set prior to the placement of any overlying material.
- B. MODIFIED FLOWABLE BACKFILL: Modified flowable backfill in areas of possible future excavation such as utility installations shall consist of a mixture of native sand or a blend of native sand/manufactured sand, cement, fly ash and water which produces a material with unconfined compressive strength of between 50 and 150 psi after 28 days.
 - 1. Modified flowable backfill in permanent areas such as abandoned pipe closures, abutments and embankments shall contain the same materials with an unconfined compressive strength of greater than 150 psi after 28 days.
- C. The flowable mixture shall be mixed at a concrete batch plant or a mobile transit mixer and shall have a minimum slump of five inches (5") and a minimum air content of 6 percent.
- D. The flowable mixture must be allowed to set prior to the placement of any overlying material.
- E. The Contractor shall submit to the engineer a mix design for the type of flowable backfill to be used 10 days prior to the start of the backfill operation. When the mix design has been approved by the engineer there shall be no changes or deviation from the proportions or sources of supply except as approved by the engineer.
- F. Flowable backfill will be allowed for the following:
 - 1. Backfill

- a. Bridge abutments
 - b. Box culverts
 - c. Sewer trenches
 - d. Utility trenches
 - e. Conduit trenches
2. Structural Fill
- a. Road base
 - b. Pipe bedding
 - c. Mud jacking
3. Miscellaneous Uses
- a. Abandoned sewer mains
 - b. Soil erosion
 - c. Slope stabilization
 - d. Abandoned tank fill

61 CONCRETE:

- A. Concrete for all concrete drainage structures, manholes, and inlets shall be Class "A" with a minimum compressive strength of 3,000 psi at 28 days. A minimum of five (5) sacks of cement (Type I) shall be used per cubic yard and the maximum water-cement ratio shall not exceed 6.5 gallons per sack.
- 1. Concrete for channel lining and rip-rap shall also be Class "A" concrete having a minimum compressive strength of 3,000 psi at 28 days.
 - 2. The desired slump for Class "A" concrete shall be three inches (3") and the maximum allowable slump shall be four inches (4").
 - 3. Air entrainment (5 %, \pm 1.5%) is required for all exposed concrete.
 - 4. Calcium Chloride will not be permitted. Air-entraining, retarding, and water reducing admixtures must be approved and shall conform in all respects to NCTCOG Specification Item 303.2.3.
 - 5. Aggregates for Class "A" concrete shall be either Grade 2 or Grade 3 for coarse aggregate, and Grade 1 for fine aggregate. Grades specified above refer to those outlined in Item 421 of the Texas Department of Transportation Specifications referenced above.
 - 6. Forms used in the construction, concrete placement, and concrete finishing, shall comply in all respects to the requirements of Item 420 of the above referred Texas Department of Transportation Specifications.

7. All concrete shall be cured for a minimum of four (4) curing days. The acceptable methods for curing the concrete are as follows:
 - a. FORM CURING: Forms left in place in contact with the concrete.
 - b. WATER CURING: Water curing using wet mats, water spray or ponding.
 - c. MEMBRANE CURING: Compound may be used.
- B. All weight supporting forms shall remain in place a minimum of four (4) curing days after which they may be removed if the concrete has attained a flexural strength of 500 psi as evidenced by strength tests of beam specimens cast at the time of the pour. If beams have not reached the required strength after 4 days, the forms shall be left in place 14 days.

62 REINFORCED CONCRETE BOX CULVERT:

- A. Although the PROPOSAL has indicated an item for reinforced box culverts to be paid for by the cubic yard, the Contractor may install an approved precast reinforced box culvert. Cast in place box culvert shall be constructed in accordance with TxDOT Item 462. The precast section shall be designed in accordance with NCTCOG 501.6.2. If multiple precast box sections are used, the void space between culvert walls shall be backfilled using flowable fill of at least 600 psi concrete. Flowable fill will not be paid for directly, but will be considered subsidiary to other items of construction.
- B. Measurement for payment shall be by the cubic yard of box culvert, complete in place including reinforcing steel. If precast box sections are used, the actual volume of concrete in the precast section will not be used for measurement. The cubic yards shall be calculated using the length measured between the ends of the culvert barrel along the central axis as installed or constructed. The cubic yards will then be converted from linear feet to cubic yards using the conversion charts shown on the Standard Details or on the plans.
- C. See Section 56 REINFORCED CONCRETE PIPE for joint make-up and joint sealer specifications.
- D. Payment shall be for box culvert complete in place. Payment shall be full compensation for furnishing all materials, labor and incidentals and performing all work necessary to complete the work including excavation and backfill.
- E. The box culvert shall be bedded on a minimum of six inches (6") of crushed stone except in rock or in wet conditions where an additional three inches (3") of crushed stone will be added to the standard bedding requirements

63 UNCLASSIFIED CHANNEL EXCAVATION:

- A. Channel excavation shall be in accordance with NCTCOG Specifications. Any fill required bringing the channel to the required lines, grades and cross-sections will be subsidiary to this pay item.
- B. If the channel is to be lined with concrete, the sides and bottom of the channel shall be kept at the existing moisture level after excavation and prior to placement of concrete. Moisture level shall be maintained by manual watering or other approved method. Cost of maintaining moisture level shall be considered subsidiary.

64 MANHOLES, INLETS, AND OTHER CONCRETE DRAINAGE STRUCTURES:

- A. Manholes and inlets shall be constructed to the size and location shown on the plans. Construction shall be in accordance with Item 465, "Manhole and Inlets" of the 2004 Texas Department of Transportation Specifications except as noted on the plans or in these Special Provisions. Payment shall be made for the manholes, inlets, and other drainage structures complete in place at the unit price bid in the PROPOSAL. The payment shall include all work and materials necessary to complete the structure, including excavation and backfill. No additional pay will be made for manhole ring and lid, or grade rings. No precast manholes or inlets will be allowed unless approved by the engineer prior to construction.

65 CURB INLET:

- A. The unit price bid for curb inlets shall include all structural excavation, Class "A" Concrete, reinforcing steel, manhole rings and covers, transition curb and gutter as shown, and backfilling. Provided neat lines can be cut in the soil, outside forms will not be required from the bottom to the construction joint. All inlets will be backfilled by mechanically tamping native material in layers not exceeding six inches (6") in compacted thickness to at least ninety-five percent (95%) of Standard Proctor density (ASTM D 698).
- B. Inlet tops shall not be cast until pavement is complete. Manhole lids shall be tack welded in place with three to four equally spaced one-inch welds.

66 BACKFILL & BACKFILL MATERIAL:

- A. Backfill operations shall begin immediately following removal of the forms on the permanent improvements. All loose concrete, rocks, roots, trash, and other debris shall be removed from the excavation prior to any backfill being placed.
- B. Backfill material shall consist of the native material obtained from the street excavation unless in the opinion of the engineer, this material is unsuitable for use. The material shall not contain trash, rock, concrete, asphalt, lime shavings, gravel or other debris. Sand shall not be used for

backfill material unless the native soil in the construction area is sandy in nature. All backfill material will be considered subsidiary to the unit price bid for the permanent improvements.

- C. Backfill shall be placed in such a manner as to eliminate voids in the backfill material. The use of power equipment to place the backfill, or to bring it to grade, shall be limited to small farm-type tractors. Bring the backfill material to within four inches (4") of proper finished grade. The top four inches (4") shall be placed in accordance with Spec 11A-63 "Topsoil."

67 TOPSOIL:

- A. A minimum of four inches (4") of topsoil shall be placed on all disturbed areas adjacent to permanent improvements within the project limits. The topsoil shall be free from stone, rock, lumps, clods of hard earth, plants or their roots, sticks and other foreign material and shall be brought to the lines and grades as established by the engineer. Under no circumstances will topsoil be accepted unless it is free from the aforementioned contaminants. Contractor may use approved means of treating the topsoil to ensure its acceptability. This item shall be considered subsidiary to the other items in this project and shall not be a separate pay item.
- B. The existing topsoil from the project limits may be used if Contractor stockpiles and protects it properly. No trash, lime shavings or other foreign material, shall be added to this stockpile. Topsoil material shall be stockpiled at locations approved by the engineer, and after completion of permanent improvements, topsoil shall be placed on all disturbed areas so as to provide a minimum four-inch (4") depth of topsoil. The topsoil shall be tilled to a 1/2"-1" diameter size.
- C. The City of Burleson retains the authority to require the Contractor to provide topsoil meeting the following specification should the Contractor fail to maintain the integrity of the stockpiled existing topsoil.
- D. The soil texture shall be classified as loam or sandy loam according to the following criteria:

	(% Passing)	(% Passing)
	<u>Loam</u>	<u>Sandy Loam</u>
Sand (0.074 to 4.76 mm diameter)	25-50%	45-85%
Silt (0.002 to 0.074 mm diameter)	30-50%	Less than 50%
Clay (Smaller than 0.002 mm) (Hydrometer analysis)	5-25%	Less than 20%

Soil texture shall be determined by utilizing processes as prescribed in ASTM D 422.

68 5" REINFORCED CONCRETE RIPRAP:

- A. Concrete riprap shall be used, at the direction of the engineer, for slope protection as needed, typically greater than 3:1. This work shall be paid for at the price bid per square yard, which

price shall include all excavation, slope grading and shaping, concrete, and reinforcing steel, necessary for completion of this item. Reinforcing steel shall be #3 bars on eighteen inch (18") centers both ways.

69 HYDRO-MULCH SEEDING:

- A. **DESCRIPTION:** This item shall consist of preparing ground, providing, and planting seed, or a mixture of seeds, of the kind specified along and across such areas as are designated by the engineer.
- B. **MATERIALS:** The type seed used shall be in accordance with NCTCOG Specification, Section 202.6, and approved by the engineer. All seed must carry a Texas Seed Label showing purity and germination, name and type of seed and that the seed meets all requirements of the Texas Seed Law. Seed furnished shall be of the previous season's crop and the date of analysis shown on each tag shall be within 9 months of the time of delivery to the project. Each variety of seed shall be furnished and delivered in separate bags or containers. A sample of each variety of seed shall be furnished for analysis and testing when directed by the engineer. Grass seed shall equal or exceed 95% purity and 90% germination.
- C. **PLANTING SEASON:** Planting of hulled bermuda grass seed shall be done between the months of April through September. The density of seeds planted shall be 80 pounds per acre. A blend of 30 pounds Rye grass and 40 pounds unhulled bermuda may be used between the months of September through April.
- D. **CONSTRUCTION METHODS:** The designated areas shall be raked, leveled and fine graded as necessary to provide a smooth uniform grade, free of ruts, depressions, humps and objectionable soil clods, prior to seeding. The area shall also be free of weeds, rubbish, and building materials. Any low areas shall also be filled to prevent ponding. All particles in the seed bed shall be reduced to less than one inch (1") in diameter or they shall be removed. The area to be seeded shall be loosened or disked prior to placement of seed in areas that appear to be overly compacted or to destroy existing vegetation, at the direction of the engineer or authorized representative. The cost of any chemical treatment to the soil in order to establish a uniform stand of grass will be subsidiary to "Hydro-mulch Seeding." Seeding of the type specified shall be performed in accordance with the requirements in NCTCOG Specification 202.6 except as hereinafter described:
 - 1. **Watering:** The seeded areas shall be watered as necessary to establish grass as described in Establishment and Acceptance of Seeding.
 - 2. **Hydro-Mulch Seeding:** In accordance with COG Specification 202.6.4.4 alternate methods for placement of seed may be used if approved by the engineer.

- E. **MEASUREMENT:** Work and acceptable material for "Hydro-mulch Seeding" will be measured by the unit bid, complete in place.
- F. **PAYMENT:** The work performed and materials furnished and measured as provided under "Measurement" will be paid for at the unit price bid for "Seeding" which price shall be full compensation for furnishing all materials and for performing all operations necessary to complete the work, including fertilizer. Once a "uniform stand of grass" is provided, the City will provide payment for the seeding. See definition of "uniform stand of grass" below.
- G. **ESTABLISHMENT AND ACCEPTANCE OF SEEDING:** Regardless of unseasonable climatic conditions or other adverse conditions affecting planting operations and the growth of the grass, it shall be the sole responsibility of the Contractor to establish a uniform stand of grass as herein specified. When adverse conditions such as drought, cold weather, high winds, excessive precipitation, or other factors prevail to such an extent that satisfactory results are unlikely, the City of Burleson may, at his own discretion, stop any phase of the work until conditions change to favor the establishment of grass.
1. **Uniform Stand of Grass:** A uniform stand with complete coverage of the specified grass shall be defined as not less than one hundred-fifty (150) growing plants per square foot seeded (approximately 75% of disturbed area covered). Growing plants shall be defined as healthy grass plants of two blades or more at least two inches (2") tall.
- H. **POST-PLANTING MAINTENANCE:** Maintenance shall begin immediately after each portion of grass area is planted. It will be the Contractor's responsibility to maintain the existing grades and leave them in a true and even condition after planting. All planted areas will be protected and maintained by watering, weed control, mowing, and replanting as necessary for at least thirty (30) days after initial planting and for as much longer as necessary to establish a uniform stand with complete coverage of the specified grass.
- I. **FERTILIZER:** (Subsidiary to Seeding Item)
1. **Description:** This item shall consist of providing and distributing fertilizer over the seeded areas.
 2. **Materials:** Shall be in accordance with NCTCOG Specification 202.4.1 and Special Provisions, Landscaping Specifications, Section 14.5.C.
 3. **Construction Methods:** The fertilizer shall be pelleted or granular fertilizer and shall be applied uniformly over the entire area specified to be fertilized and in the manner directed for the particular item of work. The fertilizer shall be dry and in good physical condition. Fertilizer that is powdered or caked will be rejected. Distribution of fertilizer for the particular item of work shall meet the approval of the engineer.

- J. Unless otherwise indicated on the plans, fertilizer shall be applied uniformly at the average rate of 400 pounds per acre for all types of seeding.

70 SODDING:

- A. Grass sod shall be provided along disturbed areas of the parkways at the completion of construction and clean-up operations. Sodding is specified to be provided for but not limited to street reconstruction which includes new curb and gutter, adjacent to sidewalk construction, and along graded drainage swales. Sod limits shall be to a maximum of five feet behind the new curbs. The City of Burleson shall approve sod types with the intent of matching existing grass cover in the individual yards. Sod pallets shall be inspected before unloading to ensure quality and physical appearance of sod. If the individual sod patches display less than 75% dark green in color, it shall not be used. Sod should not be laid during the dormant time of year or during the peak of summer. THE General contractor will be responsible for the initial growth and establishment. Payment for sodding shall include the cost of leveling disturbed areas, topsoil, fertilizer and water. No separate payment will be made for topsoil, fertilizer and watering. Buffalo grass sod shall be used on all medians unless otherwise specified in the plans.

71 SLOPE EROSION CONTROL:

- A. Erosion control material shall be "Curlex Blanket" heavy jute netting such as "AMXCO Curlex Blanket," or approved equal (no plastic meshes are allowed), and shall be applied after seeding is complete. Heavy jute mesh shall be open plain weave of unbleached single jute yarn, averaging one hundred and thirty (130) pounds per spindle of 14,400 yards. Jute mesh shall be furnished in approximately ninety (90) pound rolled strips. Other criteria for jute mesh shall be as follows:
 - 1. Length- approximately seventy-five (75) yards.
 - 2. Width - forty-eight (48") inches (\pm one inch).
 - 3. 0.78 warp ends per width of cloth.
 - 4. Forty-one (41) weft ends per yard.
 - 5. Weight of cloth - 1.22 pounds per linear yard (\pm 5%).
- B. Staples shall be of No. 11 gauge steel wire formed into a "U" shape six inches (6") long.
- C. To install erosion control material on channel slopes, bury the up-channel end in a trench six inches (6") deep. After the jute is buried, the trench shall be tamped firmly closed. Using a steel tube or three-quarter inch (3/4") pipe through the paper core of the roll with a rope on each

end will enable the operator to lower the roll down the slope. The material should be applied without stretching. The material should lie smoothly, but loosely on the soil surface. In order to keep the area as smooth as possible, workers should avoid, as much as possible, walking directly on the seed bed, either before or after the jute is applied. In cases where one roll ends and another is needed, the up-channel piece should overlap the second roll by at least eighteen inches (18"). Where two or more widths are applied side by side, an overlap of at least four inches (4") shall be maintained. The material shall be brought to level area before terminating. The end shall be across the fold on twelve-inch (12") centers. Outside edges, centers, and overlaps on banks shall be stapled on two-foot (2') intervals. Each width of cloth will have a row of staples down the center as well as along each edge. On soft or sandy soil or windy areas, apply staples in alternate slanting position and space at closer intervals (12" to 18"). For extra hard soil or shale areas, use sharp pointed, hardened steel three-inch (3") fence-type staple. Outside edges shall have loose topsoil spread over them to allow for smooth entry of water. The entire jute covered area should be rolled with a smooth roller weighing fifty (50) to seventy-five (75) pounds per foot of length.

- D. Any clods, debris, etc., which hold the jute off the ground, shall be stamped into the soil. The netting shall completely cover all areas to be protected from erosion. Overlaps must be ample and well stapled so that no gapping can occur. The material shall be in intimate contact with the surface at all points. If some areas experience severe erosion, two layers shall be in intimate contact with the surface at all points.
- E. The quantity shown in the PROPOSAL is a rough estimate as the actual amount and location of the jute mesh will be determined in the field as directed by the engineer in areas where excessive slopes exist. Overlapping of material will not be paid for double.
- F. Heavy jute netting will be paid for at the unit price bid per square yard, which price will be full compensation for furnishing and placing all materials, including all labor, tools, equipment, and incidentals necessary to complete the work.

72 STEEL GUARD RAIL:

- A. For this project, the steel guard rail shall be "Galvanized Steel Beam Guard Fence" conforming to the details shown on the plans and to the requirements of Item 560, "Metal Beam Guard Fence," of the Standard Specifications for Construction of Highways, Street, and Bridges, as adopted by the Texas Department of Transportation in 2004.

73 CLEANUP:

- A. It is the intent of the Special Provisions to ensure that an adequate cleanup job be performed by the Contractor as soon during the construction procedure as possible. In particular, all curb and

gutter and sidewalk shall be backfilled as soon as possible. Before the project is accepted by the City, all rocks, stones, and other construction debris shall be removed. All necessary cleanup work shall be considered subsidiary to the various bid items on this contract.

74 FINAL INSPECTION:

- A. The engineer will make final inspection of all work included in the contract as soon as practicable after the work is completed and ready for acceptance. If the work is not acceptable to the engineer at the time of such inspection, he will inform the Contractor as to the particular defects to be remedied before final acceptance will be made.

75 TOWING OF VEHICLES:

- A. The Contractor shall follow applicable City of Burleson Ordinances should it be determined that vehicles parked upon a City street must be moved in order to perform street maintenance or construction.

76 TRAFFIC SIGNAL CONDUIT:

- A. MATERIAL: All plastic conduit shall be schedule 40, rigid, high impact polyvinylchloride, conforming to Federal Specification W-C-1094 and Underwriters' Laboratories, Inc., Standard UL=651.
- B. CONSTRUCTION METHODS: Prior to the installation of conduit, the City of Burleson shall be notified so that a representative may be present to inspect the installation of the conduit. Failure to contact the City of Burleson shall constitute grounds for rejecting conduit which has been installed without the presence of a representative of the City of Burleson.
 - 1. All conduit shall be placed in accordance with line and grade, details and dimensions as shown on the plans, or as directed by the engineer. All ends of pipe shall be reamed to remove burrs. All splicing of conduit shall be done by using standard couplings manufactured for this purpose. All bare ends of conduit for future connections by others shall be capped with standard conduit caps. The location of ends of all conduit for future electric circuits in structures shall be marked by a "Y" at least three inches (3") high, cut into the face of curb, gutter or wall directly above the conduit.
 - 2. All conduit shall be placed a minimum of six inches (6") below the bottom of the pavement base, ten inches (10") for non-metallic conduit and in no case shall be of a greater depth than thirty inches (30") measured from the top of curb. Installation under existing pavements may be accomplished by jacking, tunneling, or drilling. Conduit shall extend six inches (6") behind back of curb unless otherwise called for on the plans.

3. Conduit in medians shall be placed in the median at a depth of eighteen inches (18") to thirty inches (30") as shown on the plans. Where pull boxes or junction boxes are required in medians which are to be surfaced, they shall be installed by the Contractor at the location and grade as shown on the plans or as directed by the engineer.
 4. All necessary fittings for proper installation of conduit in the pull-box shall be furnished and installed by the Contractor. Where it is required that pull-boxes be installed, the conduit shall be fitted with standard ninety degree (90°) ell fittings to enter the pull-box from the bottom. A nipple shall be attached to the ell of sufficient length so that the distance from the top of the pull-box to the end of the nipple shall be eight inches (8").
 5. A No. 9 galvanized pull wire shall be placed in all conduit; and prior to the placement of paving, the wire shall be moved back and forth to ensure that the conduit is free from obstructions. Before final acceptance of the conduit work, this method of checking shall again be incorporated to ensure that the paving operations have not rendered the conduit useless. It shall be the Contractor's responsibility to remove and replace all damaged conduit at his own expense.
 6. All plastic conduit shall have factory bends.
 7. Conduit locations shown on the plans are for bidding purposes only and may be changed with permission of the City of Burleson to avoid underground obstacles. The Contractor shall furnish and install conduit to an electrical service point to be determined by the City of Burleson prior to the beginning of construction.
- C. MEASUREMENT AND PAYMENT: Conduit of the size specified on the plans shall be measured by the linear foot along the main line of conduit. Fittings shall not be measured directly but shall be considered subsidiary to this item.
1. Conduit, as measured in this item, shall be paid for at the unit price bid for "conduit" of the size specified, which prices shall be full compensation for furnishing and installing all conduit, for all excavation, for all gravel backfill, for furnishing and installing all fittings, for furnishing and installing pull-boxes, and for all labor, materials, tools, equipment, and incidentals necessary to complete the work.

77 SPRINKLER RELOCATIONS:

- A. Sprinkler relocations may be required on this project. Prior to construction, the Contractor and inspector shall identify and document the sprinkler systems that will be affected by the construction of the project. The Contractor shall contact the owner of each sprinkler system and arrange to test each system. In the presence of the inspector, the Contractor shall:
 - (1) determine if the system functions properly, (2) identify the layout of the system and, (3)

document in writing the layout and function of the system. The work described above is required by the Contractor for all projects and should be considered subsidiary to the unit prices bid for other items.

- B. If the Contractor is responsible for actual irrigation relocations, a dollar amount will be included in the PROPOSAL to reimburse the Contractor for any required sprinkler relocations. The amount is only an estimate. Prior to beginning construction, the Contractor shall contact the City of Burleson of each sprinkler system and arrange to test each system. When construction activities approach a sprinkler system, the Contractor shall cut all feed lines to the system and salvage existing sprinkler heads for re-use (if possible). The feed lines shall be cut at the right-of-way line. All of these activities shall be coordinated with the inspector. The Contractor shall obtain a licensed irrigator to repair or replace sprinkler systems with equal or better materials as the existing system. The Contractor shall submit copies of monthly invoices from the licensed irrigator for all sprinkler work performed during the month. Payment will only be made based on the invoices submitted; therefore, the full dollar amount included in the PROPOSAL for sprinkler relocations may or may not be paid. No payment will be made for adjustments except those determined necessary by the inspector. All sprinkler systems affected must be fully functional prior to final acceptance of the project.

78 PROJECT SIGNS:

- A. The Contractor on this project shall provide and erect up to two (2) project signs as required.
- B. Generally, project signs shall be located at the beginning and end of the project and on major intersecting streets. Locations of signs and specific information on signs shall be approved by the inspector prior to fabrication of signs.
- C. Signs shall be substantially in accordance with the sample drawing enclosed as part of these Special Provisions. Construction shall be on 3/4 inch weatherproof (marine) 4'x8' plywood and the painting shall be accomplished with good quality paint which will not weather or fade during the life of the contract. Sign colors shall be as indicated on the sample drawing.
- D. A City of Burleson logo shall be incorporated into each project sign at the left end of the plywood signboard as indicated on the enclosed sample drawing.
- E. Signs shall be placed in prominent locations and maintained in good condition until the completion of the project. Damaged or defaced signs will be repaired or replaced within two (2) calendar days at the Contractor's expense. The cost of the plywood sign(s) shall be considered subsidiary to the unit prices bid on this project.

79 SIGNS FOR BUSINESSES:

- A. Weatherproof signs directing motorists to adjacent business entrances shall be provided by the Contractor and used during construction at locations directed by the project engineer. The signs shall be white with red letters and include the business name, shall be approximately 18 inches by 24 inches and have lettering at least six inches tall. The sign shall be placed such that it is visible from the street to help direct patrons to adjacent businesses, but shall not obstruct traffic visibility for vehicles exiting the driveway. It will be the Contractor's responsibility to maintain the signs until such time as the project engineer agrees they can be removed. A bid item has been included which shall cover all costs related to fabricating, installing, and maintaining the signs.

80 USE OF CITY PARKS:

- A. The Contractor shall obtain written permission from the Parks and Recreation Department prior to the use of City park property for access or for the storage of machinery, equipment, materials, and/or supplies. Any damage incurred to City park property, by unauthorized use by the Contractor, will be the responsibility of the Contractor to repair in an equal or better condition. Payment to the Contractor may be withheld until the damage is repaired and/or payment for the damages has been made.

81 STORM WATER MANAGEMENT (CONTRACTOR PROVIDE)

- A. This project is subject to the Texas Commission on Environmental Quality's (TCEQ) General Permit requirements for construction projects, through the Texas Pollutant Discharges Elimination System (TPDES) Program. The Contractor shall be required to submit a "Notice of Intent" (NOI) to TCEQ prior to the start of any construction activity on projects 5 acres and larger. The contractor shall provide the city a copy of the approved NOI. The City of Burleson will submit its own "Notice of Intent (NOI)" to TCEQ. On projects 1 acre and larger but less than 5 acres the contractor shall be required to submit a "TCEQ Site Notice" to TCEQ prior to the start of any construction activity. The information contained in the NOI's and TCEQ Site Notices shall be in accordance with the TPDES General Permit Regulations.

The Contractor shall provide a site specific "Storm Water Pollution Prevention Plan" (SWPPP), in accordance with the TPDES General Permit Regulations, prior to submitting either a NOI or TCEQ site notice. The SWPPP shall be prepared and certified by a licensed professional civil engineer who is familiar with the TCEQ TPDES General Permit requirements. The SWPPP shall be subject to approval by the City and/or TCEQ. The SWPPP shall contain information as required by the TPDES General Permit Regulations, including, but not limited to:

1. Site Description - including a site map, description of construction activity, estimate of disturbed area, runoff coefficient, and name of receiving waters.

2. Description of Controls - including plans for controlling erosion and sedimentation caused by construction activity by utilizing hay bales, silt fences, detention/retention structures, check dams, sand bag barriers, or other approved best management practices.
 3. Construction Implementation - including phasing of construction activities and corresponding sequencing of erosion/pollution control measures. The Contractor shall perform his construction operations in accordance with best management practices to control erosion/pollutants in storm water discharges during construction.
 4. Information on endangered species and critical habitat.
 5. Current description of construction and waste materials stored on-site with updates as appropriate. Description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to storm water, spill prevention and response.
- B. Payment for the preparation and submittal of the NOI and the SWPPP, including any revisions necessary throughout the duration of the construction contract, shall be considered subsidiary to other items bid.
- C. The following shall be maintained on the project site by the Contractor at all times:
1. Post near main entrance to project site or at project site office:
 - a. NOI or TCEQ site notice depending on project size.
 - b. Local contact person with phone number.
 - c. Brief description of project.
 - d. Location of SWPPP if site is inactive or does not have an on-site location to store the plan.
 2. SWPPP including any revisions.
 3. Copy of the TPDES General Permit TXR150000.
 4. Inspection reports for inspections performed every 14 days and within 24 hours after every ½ inch rain.
 5. Record of construction activities:
 - a. Dates when grading activities will occur.
 - b. Dates when construction activities will temporarily and/or permanently cease on a portion of the project.
 - c. Dates when ground cover will be initiated on disturbed areas.
 6. Current description of construction and waste materials stored on-site with updates as appropriate. Description of controls to reduce pollutants from these materials including

storage practices to minimize exposure of the materials to storm water, spill prevention and response.

- D. A Notice of Termination (NOT) must be submitted to TCEQ 30 days of project completion on all 5 acre or larger projects.
- E. Payment shall be a lump sum bid item and dollar amount in the PROPOSAL. This amount shall include complete payment for the physical erosion/pollution control measures throughout the duration of the construction contract, as delineated in the approved SWPPP. This amount also includes removal of all items and structures constructed for storm water pollution protection at completion of the project when called to do so by the engineer or representative.
- F. The erosion control measures must be in place on the project prior to being authorized for any other construction activity. Any stockpiles of unusable items and/or excavated materials shall be removed from the project site within seven days. In case of failure on the part of the Contractor to control soil erosion, pollution and/or siltation, the engineer reserves the right to employ outside assistance or to use City forces to provide the necessary corrective measures. Such incurred direct costs will be deducted from any money due or to become due to the Contractor.

82 FINAL QUANTITIES:

- A. The Contractor is required to be present when final quantities are measured by the inspector. The inspector will coordinate with the Contractor to schedule a mutually agreeable date and time (including Saturdays) to perform the final measuring. If the Contractor chooses not to be present when final quantities are measured by the inspector, the Contractor agrees to accept the inspector's measurements or reimburse the City for time the inspector spends re-measuring any portion of the project.

83 PUBLIC MEETING:

- A. Prior to start of construction, a public meeting may be held for this project. The purpose of the meeting will be to explain the project to affected citizens and answer questions. A representative of the Contractor, knowledgeable of the project, shall attend the public meeting. The representative will be introduced and will be called on as necessary to assist in answering questions.

84 PRE-CONSTRUCTION MEETING:

- A. A Pre-Construction Meeting shall take place prior to construction. This meeting will cover all of the aspects usually covered in the pre-construction meeting, but is also designed to build relationships between the City of Burleson representatives and the Contractor's representatives

who will work together on a daily basis. Issues will be discussed related to the chain-of-command, areas of special concern, and coordination expectations. It is the City of Burleson's hope that this meeting promotes a partnership between the Contractor and the City that lasts throughout this project, making the project more pleasant for the Contractor, the City of Burleson, and the affected property owners/occupants.

85 CONSTRUCTION MEETING:

- A. Once construction begins, project construction meetings may be held for this project. A representative of the Contractor, knowledgeable of the project, shall attend the construction meetings. The engineer will schedule the time and location, and determine the frequency of these meetings.

86 TEMPORARY STREET REPAIR FOR STORM DRAIN:

- A. A temporary driving surface shall be required on all street cut openings. It shall be composed of permanent type paving material, specifically excluding gravel or flexbase as the surface material, unless approved by the engineer. Four (4) inches of flexible base shall be placed to a level 2-inches below the existing surface. A 2-inch hot mix asphaltic concrete (Type D) surface shall then be placed by the Contractor as soon as possible after completing the backfill, but always within 5 working days after completion of the work involving the cut. Any temporary surface that fails to provide an acceptable driving surface shall be removed and replaced at the Contractor's expense, as directed by the engineer. Payment for this item is considered subsidiary to other bid items and shall not be a separate bid item.

87 PROTECTION OF ADJACENT LANDSCAPING IMPROVEMENTS:

- A. The Contractor shall be responsible for the protection of any existing landscaping improvements in the medians and parkways adjacent to the project including but not limited to trees, shrubs and irrigation from damage by Contractor's equipment or personnel. If the Contractor damages any of the landscaping improvements, the Contractor shall be responsible for replacing and/or repairing the improvements prior to processing the final pay estimate for the project. If the Contractor feels any of the landscaping improvements are in conflict with the project and must be removed or have prior damage, the Contractor shall coordinate this with the project inspector prior to removal of any landscaping improvements.

88 RESTORATION OF EXISTING PAVED SURFACES:

- A. The Contractor shall be responsible for maintenance of existing paved roadway surfaces within the project limits throughout the duration of the project. The Contractor shall perform daily inspections and restoration work required to provide an acceptable driving surface, as determined by the engineer. Restoration of paved surfaces shall be of asphalt, unless otherwise

approved by the engineer. Should the Contractor be notified by the City of unacceptable roadway conditions, the Contractor shall restore the surface within 24 hours. Should it become necessary for the City to provide for the restoration of the surface, the cost of such shall be deducted from the monthly estimate. All asphalt for restoration of existing paved surfaces shall be considered subsidiary to the various bid items on this contract.

89 REPLACEMENT/ RELOCATION OF FENCES:

- A. The Contractor shall be responsible for damages involved with existing fences that may be within the limits of construction as outlined in the plans and the Contract Documents and payment shall be considered subsidiary to items within the PROPOSAL. If it is necessary to replace or relocate a fence as part of the Contract, compensation for this work item shall be paid by the City to the Contractor as a lump sum price. The price shall be considered full compensation for all labor, materials, tools, and any other incidentals necessary to complete this work to the limits shown including the removal of existing fence, erection and installation of all new and existing fencing material, and cost for such new materials as required to complete the item to its original condition or better. No additional payment will be due to the Contractor for this item of work and Contractor shall verify for himself the amount of fence to be removed and replaced as shown on the plans and in accordance with this specification prior to preparing a bid price. Non partial payment for this work will be made. Contractor will be paid in full upon successful completion of this item and approval by the City.

90 RELOCATION / REPLACING OF MAIL BOXES: (POST OR BRICK):

- A. This provision shall cover all the labor and materials necessary to temporary relocate mailboxes indicated on the plans and within the Contract Documents. Contractor shall be responsible for repair or replacement in the event of damage during the movements and return of the mailboxes to their original condition or better. The Contractor will restore the ground and surface area disturbed during relocation of the mailboxes back to original condition or better after returning the mailboxes to their original locations. Concrete bases for posts or foundations of minimum 2000 psi strength shall be provided to support the mailboxes. Mailboxes shall be positioned per the attached specifications provided by the United States Postal Service. Compensation for this work shall be considered full compensation for all labor, materials, tools, and any other incidentals necessary to fulfill the requirements of the plans and specifications. No partial payments shall be made. Contractor will be paid in full upon successful completion of this item and approval by the City.

PAVING AND STORM DRAIN CONSTRUCTION PLANS

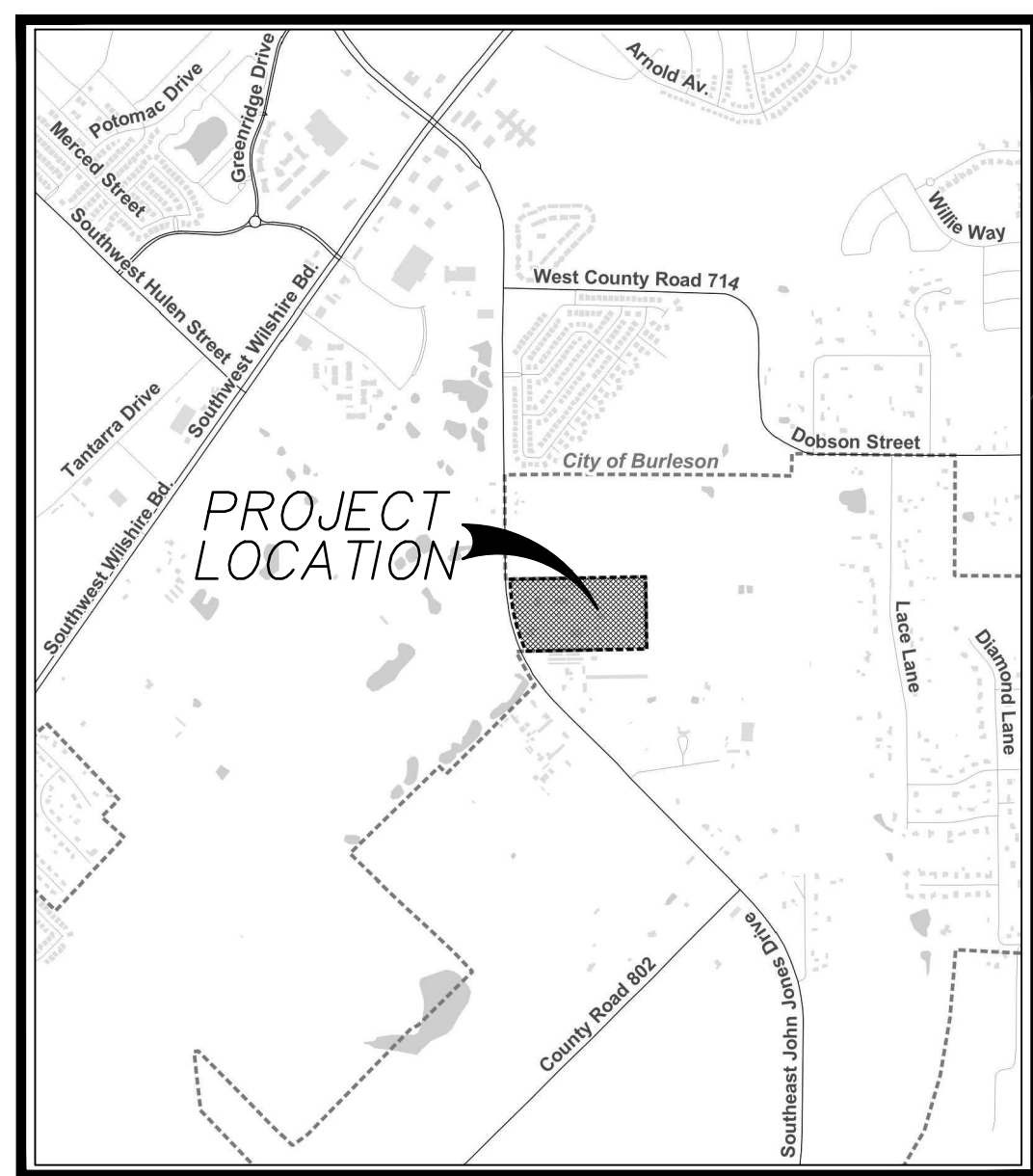
for

BURLESON SERVICE CENTER

BURLESON, TEXAS

OWNER/DEVELOPER:

CITY OF BURLESON
PUBLIC WORKS DEPARTMENT
725 SE JOHN JONES DRIVE
BURLESON, TEXAS 76028
EMAIL: ethompson@burlesontx.com
CONTACT: ERRICK THOMPSON, DIRECTOR



VICINITY MAP
NO SCALE

<u>Sheet List Table</u>	
<u>Sheet Number</u>	<u>Sheet Title</u>
C0.0	COVER SHEET
C1.0	GENERAL NOTES
C2.0	DEMOLITION PLAN
C3.0	SITE AND PAVING PLAN
C3.1	ADA ACCESS PLAN
C4.0	DIMENSION CONTROL PLAN
C5.0	GRADING PLAN
C6.0	PRE DEVELOPMENT DRAINAGE AREA MAP
C6.1	POST DEVELOPMENT DRAINAGE AREA MAP
C6.2	DRAINAGE CALCULATIONS
C7.0	STORM PLAN
C8.0	PAVING DETAILS
C8.1	DRAINAGE DETAILS
C8.2	DRAINAGE DETAILS

PREPARED BY:



civil engineering surveying landscape architecture planning
tbpels registration number: 1 - 2759
tbpels registration/license number: 10088000
519 east border
arlington, texas 76010
817-469-1671
fax: 817-274-8757
www.mmotexas.com

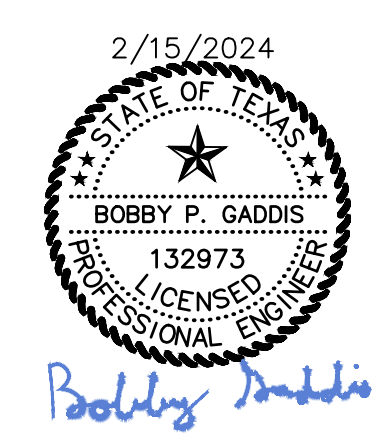
CONTACT: BOBBY GADDIS, P.E.

ONSITE BENCHMARKS:

CITY OF BURLESON MONUMENT No.30:
ALUMINUM CAP SET IN CONCRETE, STAMPED "BURLESON MON 30, 2005". THE MONUMENT IS LOCATED ON THE EAST SIDE OF FM 731 APPROXIMATELY 1 MILE SOUTH OF STATE HIGHWAY NO. 174, NEAR THE ENTRANCE TO THE BURLESON SERVICE CENTER.
ELEV: 766.11' DOES NOT MATCH PUBLISHED ELEVATION
NAD83 TXNC (GRID-MEASURED)
N: 6869200.433'
E: 2324369.877'

SITE BM#1:
BOX CUT WITH "X" IN CENTER LOCATED ON THE TOP OF HEADWALL NEAR THE SOUTHWEST CORNER OF THE ENTRANCE TO THE CITY OF BURLESON SERVICE CENTER ON THE SOUTHWESTERN SIDE OF THE SITE. BENCHMARK IS LOCATED ON THE HEADWALL TO A CONCRETE CULVERT FOR THE SOUTH ADJACENT ENTRANCE TO THE PROPERTY TO THE SOUTH OF THE CITY OF BURLESON SERVICE CENTER. APPROXIMATELY 18' SOUTHEAST OF A CITY LIMIT SIGN AND APPROXIMATELY 11.5' EAST OF THE EDGE OF ASPHALT ROAD.
ELEV: 759.79'
NAD83 TXNC (GRID-MEASURED)
N: 6868663.125'
E: 2324485.944'

BEARINGS AND COORDINATE VALUES SHOWN HEREON ARE IN REFERENCE TO THE NAD83 TEXAS COORDINATE SYSTEM - NORTH CENTRAL ZONE, 4202, BASED ON GPS OBSERVATIONS UTILIZING THE LEICA SMARTNET NORTH AMERICA GPS REFERENCE NETWORK. THE PROJECT SCALE FACTOR IS 1.000114621264, BASE POINT OF 0,0,0.




GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF BURLESON STANDARD SPECIFICATIONS.
2. THE LOCATIONS OF ALL EXISTING UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS OR PROVIDED BY VARIOUS OWNERS OF THE FACILITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF VERTICAL AND HORIZONTAL LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. SUCH VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS. NOTIFY THE PROJECT INSPECTOR PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING UTILITIES.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WITH FACILITIES IN THE PROJECT AREA 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE PROPER UTILITY COMPANIES TO RELOCATE, BRACE, AND SUPPORT ANY UTILITY IN CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL ASSOCIATED WORK SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS. ANY REPAIR TO THE DAMAGED EXISTING UTILITIES SHALL BE AT THE COST OF CONTRACTOR.
4. PUBLIC OR PRIVATE UTILITY LINES MAY EXIST THAT ARE NOT SHOWN ON THE CONSTRUCTION PLANS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE INTEGRITY OF THESE LINES. SUCH WORK SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS.
5. A TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) PERMIT WILL BE REQUIRED WHEN ENTERING/CROSSING RIGHT-OF-WAY OF TXDOT. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING TXDOT 48 HOURS PRIOR TO CONSTRUCTION.
6. TRENCH SAFETY PLAN SHALL BE STAMPED, SIGNED, AND DATED BY A LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO THE APPROPRIATE JURISDICTIONAL AUTHORITIES PRIOR TO CONSTRUCTION.
7. THE "STORM WATER POLLUTION PREVENTION PLAN (SWPPP)" SEALED BY A LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE APPROPRIATE JURISDICTIONAL AUTHORITIES PRIOR TO CONSTRUCTION. A "NOTICE OF INTENT" (NOI) SHALL BE INCLUDED IN THE SUBMITTAL IF THE PROJECT IS 5 ACRES IN SIZE OR LARGER. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A NOTICE OF TERMINATION (NOT) WITHIN 30 DAYS OF THE PROJECT COMPLETION.
8. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE APPROPRIATE JURISDICTIONAL AUTHORITIES FOR APPROVAL FOR ANY UTILITY AND STREET WORK THAT WILL CAUSE LANE CLOSURES. AT LEAST ONE LANE TRAFFIC SHALL BE MAINTAINED AT ALL TIMES.
9. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION, ADMINISTRATION, AND INSPECTION ACTIVITIES WITH THE PROJECT INSPECTOR IN ACCORDANCE WITH CITY REGULATIONS.
10. ALL PRIVATE WATER AND SANITARY SEWER WORK REQUIRED WITHIN THE PRIVATE PROPERTY SHALL BE PERFORMED BY A LICENSED PLUMBER. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED PROPERTY OWNERS. SURFACE RESTORATION TO AN EQUAL OR BETTER CONDITION SHALL BE PERFORMED IMMEDIATELY AFTER THE WATER AND SEWER WORK IS COMPLETE.
11. THE CONTRACTOR SHALL AVOID DAMAGING EXISTING SPRINKLER SYSTEMS THAT MAY BE IN THE CONSTRUCTION AREA. REMOVED OR DAMAGED SPRINKLER SYSTEMS SHALL BE REPAIRED BY A LICENSED IRRIGATOR. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS.
12. THE CONTRACTOR SHALL TAKE MEASURES TO AVOID DAMAGING ANY LANDSCAPING THAT MAY BE IN THE CONSTRUCTION AREA. REPLACING DAMAGED LANDSCAPING SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION PLAN OR BID PROPOSAL.
13. REMOVAL OF TREES AND EXISTING STRUCTURES SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION PLANS OR BID PROPOSAL.
14. ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORKING DAY. THE CONTRACTOR SHALL PROVIDE ALL FENCING AND/OR BARRICADES TO MAINTAIN PUBLIC SAFETY AROUND THE CONSTRUCTION AREA.
15. THE CONTRACTOR SHALL CLEAN UP DIRT AND DEBRIS IN THE PAVED AREAS TO ENSURE THE STREET IS IN DRIVABLE CONDITION AT THE END OF EACH WORKING DAY.
16. EXISTING MAIL BOXES SHALL BE PROTECTED AND MAIL SERVICE SHALL NOT BE INTERRUPTED.
17. REMOVAL AND HAUL-OFF EXCESS CONSTRUCTION MATERIALS FROM THE CONSTRUCTION SITE SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION PLANS OR BID PROPOSAL.
18. THE CONTRACTOR SHALL AVOID REMOVING OR DAMAGING EXISTING FENCES. REMOVED OR DAMAGED FENCES SHALL BE REPLACED OR RESTORED WITH SAME TYPE, STYLE, AND MATERIAL TO AN EQUAL OR BETTER CONDITION. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION PLANS OR BID PROPOSAL.
19. TEMPORARY FENCES SHALL BE INSTALLED TO PROTECT PRIVATE PROPERTIES WHEN THE CONSTRUCTION WORK IS PERFORMED WITHIN THE EASEMENTS. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION PLANS OR BID PROPOSAL.

CITY OF BURLESON STANDARD CONSTRUCTION NOTES:

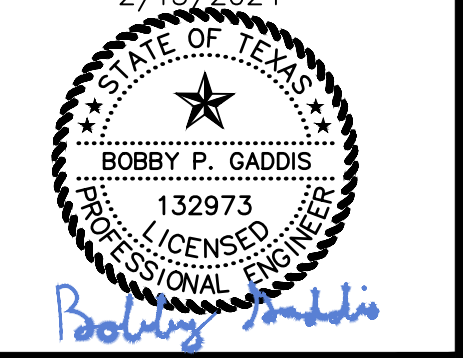
1. THE CONTRACTOR SHALL CONTACT THE CITY'S CHIEF INSPECTOR AT 817-917-8966 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT CITY OF BURLESON STANDARD DETAILS AND SPECIFICATIONS AND IN ACCORDANCE WITH THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS' PUBLIC WORKS CONSTRUCTION STANDARDS.
3. NO VERTICAL FACILITIES OR METER BOXES WILL BE ALLOWED TO BE LOCATED WITHIN THE SIDEWALKS.
4. ALL TREES IN THE RIGHT-OF-WAY MUST BE REMOVED PRIOR TO ACCEPTANCE OF THE CONSTRUCTION. IF THERE ARE SPECIFIC TREES THAT ARE PROPOSED TO BE SAVED, THEN THE DESIGN NEEDS TO BE MODIFIED TO ACCOMMODATE THE TREES, EITHER BY REVISING THE LAYOUT OR ADDING EASEMENTS TO CONTAIN THE SIDEWALK.
5. MINIMUM DEPTH OF COVER OVER ALL WATER MAINS SHALL BE THREE AND ONE-HALF FEET.
6. THE MINIMUM HORIZONTAL SEPARATION BETWEEN ANY WATER MAIN AND A STORM DRAIN FACILITY SHALL BE EQUAL TO TWO AND ONE-HALF FEET OR HALF THE DEPTH OF THE WATER LINE, WHICHEVER IS GREATER.
7. THE MINIMUM HORIZONTAL SEPARATION BETWEEN ANY WATER MAIN AND A SANITARY SEWER MAIN SHALL BE NINE FEET MEASURED FROM OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE.
8. WHEN A WATER MAIN CROSSES OVER A SANITARY SEWER MAIN AND THE VERTICAL SEPARATION IS LESS THAN NINE FEET, THEN THE SANITARY SEWER SHALL HAVE ONE JOINT (20 FEET) OF PVC PIPE CONFORMING TO ASTM D-3035, SDR-26 INSTALLED CENTERED ON THE WATER LINE. IN ADDITION, THE JOINT SHALL HAVE A MINIMUM OF 12 INCHES OF CEMENT STABILIZED (TWO-SACK MINIMUM) BACKFILL DIRECTLY ABOVE THE SANITARY SEWER PIPE.
9. WHEN A WATER MAIN MUST CROSS UNDER A SANITARY SEWER MAIN, THE MINIMUM SEPARATION SHALL BE 24 INCHES. IN ADDITION, THE SANITARY SEWER SHALL HAVE INSTALLED ONE JOINT (20 FEET) OF DUCTILE IRON PIPE CENTERED ON THE WATER MAIN.
10. THE MINIMUM HORIZONTAL SEPARATION BETWEEN ANY SANITARY SEWER MAIN AND A STORM DRAIN FACILITY SHALL BE EQUAL TO TWO AND ONE-HALF FEET OR ONE-HALF TIMES THE DEPTH OF THE SANITARY SEWER OR STORM DRAIN, WHICHEVER IS GREATER.
11. ALL WATERLINE FITTINGS SHALL INCORPORATE MEGALUG MECHANICAL JOINT RESTRAINTS OR APPROVED EQUAL.
12. PRIOR TO GRADING, THE CONTRACTOR OR DEVELOPER MUST OBTAIN A GRADING PERMIT FROM THE CITY. THE GRADING PERMIT WILL REQUIRE 48 HOURS NOTICE TO THE CITY AND THAT ALL EROSION CONTROL MEASURES BE INSTALLED PRIOR TO ANY GRADING.

**BURLESON SERVICE CENTER
BURLESON, TEXAS
GENERAL NOTES**



mma
civil engineering surveying landscape architecture planning
tpeles registration number: 1 - 2759
tpeles registration/license number: 10088000
519 east border
arlington, texas 76010
817-469-1671
fax: 817-274-8757
www.mmatexas.com

2/15/2024



Bobby P. Gaddis

PROJECT NUMBER:	3726-00-01
PROJECT MANAGER:	B. GADDIS
DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

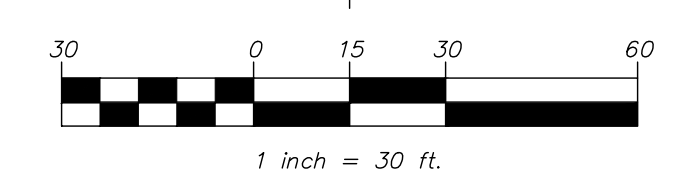
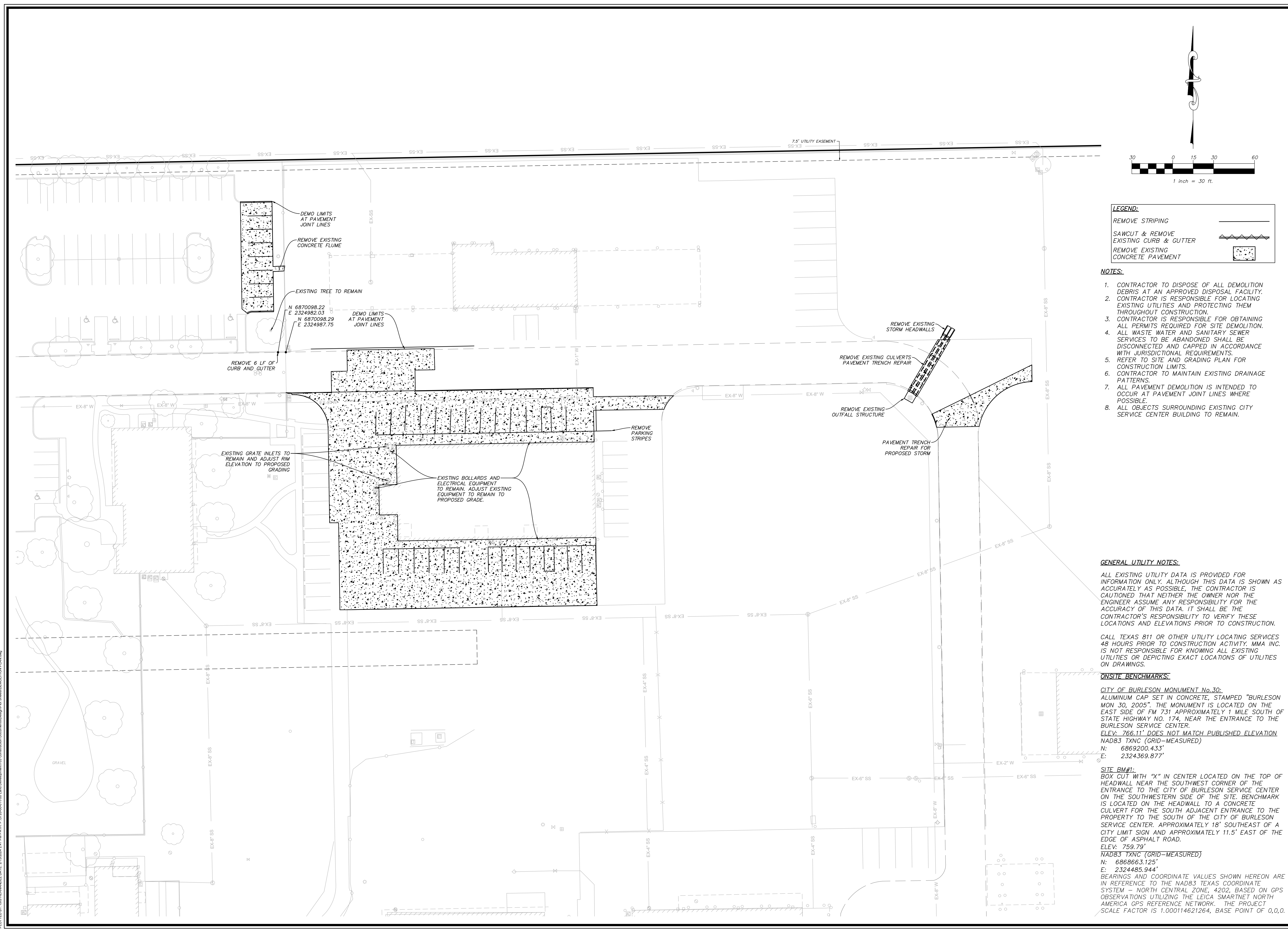
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2/15/24 ISSUE FOR CONSTRUCTION

SHEET CONTENT:

GENERAL NOTES

SHEET NO: **C1.0**



LEGEND:

REMOVE STRIPING	
SAWCUT & REMOVE EXISTING CURB & GUTTER	
REMOVE EXISTING CONCRETE PAVEMENT	

- NOTES:**
1. CONTRACTOR TO DISPOSE OF ALL DEMOLITION DEBRIS AT AN APPROVED DISPOSAL FACILITY.
 2. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND PROTECTING THEM THROUGHOUT CONSTRUCTION.
 3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR SITE DEMOLITION.
 4. ALL WASTE WATER AND SANITARY SEWER SERVICES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED IN ACCORDANCE WITH JURISDICTIONAL REQUIREMENTS.
 5. REFER TO SITE AND GRADING PLAN FOR CONSTRUCTION LIMITS.
 6. CONTRACTOR TO MAINTAIN EXISTING DRAINAGE PATTERNS.
 7. ALL PAVEMENT DEMOLITION IS INTENDED TO OCCUR AT PAVEMENT JOINT LINES WHERE POSSIBLE.
 8. ALL OBJECTS SURROUNDING EXISTING CITY SERVICE CENTER BUILDING TO REMAIN.

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ONSITE BENCHMARKS:

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 ELEV: 766.11' DOES NOT MATCH PUBLISHED ELEVATION NAD83 TXNC (GRID-MEASURED)
 N: 6869200.433'
 E: 2324369.877'

SITE BM#1:
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BURLESON SERVICE CENTER BURLESON, TEXAS DEMOLITION PLAN

mma
 civil engineering surveying landscape architecture planning
 tlpels registration number: 1 - 2759
 tlpels registration/license number: 10088000
 519 east border
 arlington, texas 76010
 817-469-1671
 fax: 817-274-8757
 www.mmatus.com

2/15/2024
 STATE OF TEXAS
 BOBBY P. GADDIS
 132973
 LICENSED SURVEYOR
 Bobby P. Gaddis

PROJECT NUMBER:	3726-00-01
PROJECT MANAGER:	B. GADDIS
DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

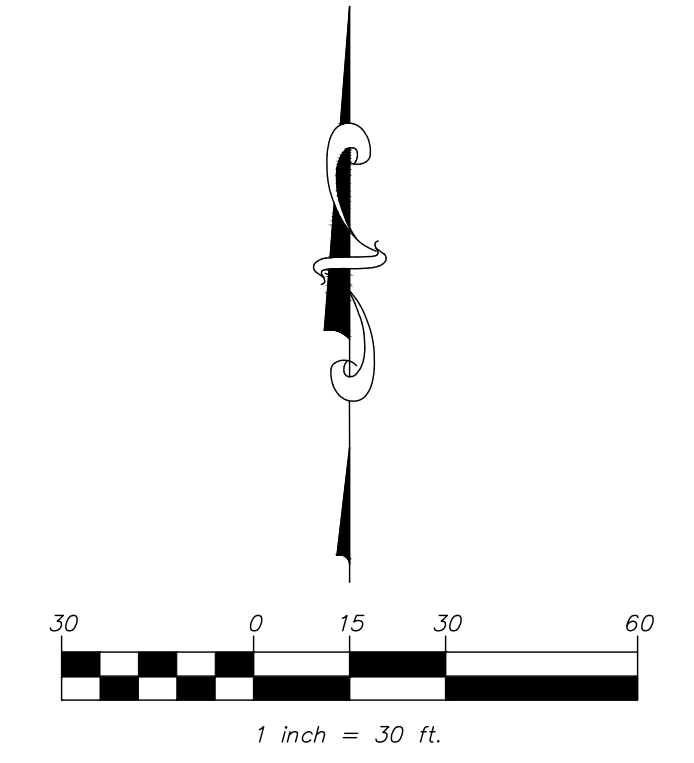
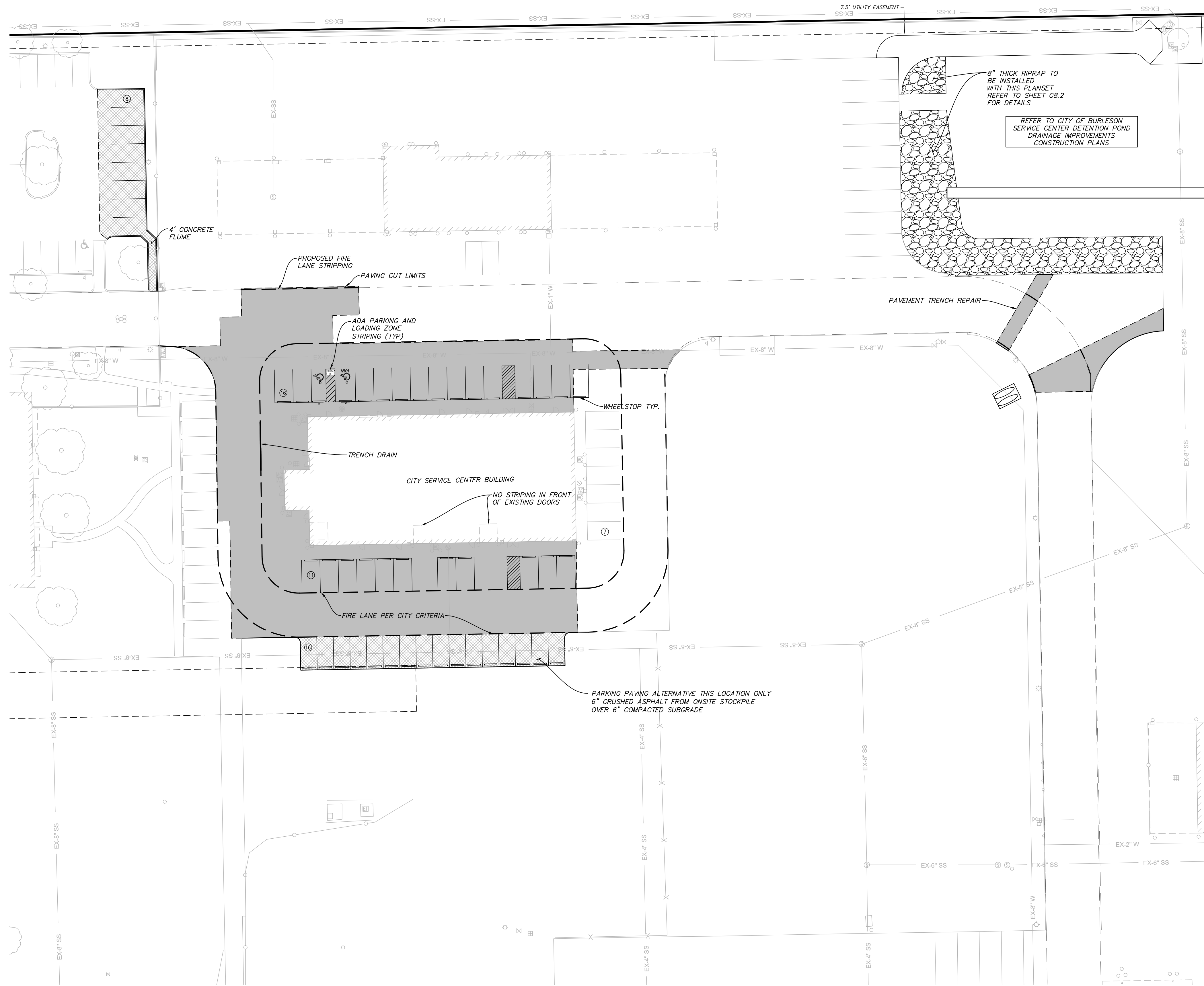
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2/15/24 ISSUE FOR CONSTRUCTION
 SHEET CONTENT:
DEMOLITION PLAN

SHEET NO:
C2.0
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PLOTTED BY: IHS HERNANDEZ DATE: 2/15/2024 1:41 PM PATH: P:\274260-00\270 Land Development\3 Construction Documents\Drawings\Site and Paving\Site and Paving.dwg



LEGEND:

ACCESSIBLE PARKING SPACE	
SIGN	
WHEEL STOP	
EXISTING SANITARY SEWER	EX-SS
EXISTING SEWER MANHOLE	
EXISTING WATER LINE	EX-W
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
PARKING COUNT	
4" - 3000 PSI CONCRETE SIDEWALK WITH #4 BARS @ 24" O.C.E.W. OVER 6" COMPACTED SUBGRADE TO 95% STANDARD PROCTOR DENSITY AT A MOISTURE CONTENT OF OPTIMUM MOISTURE UP TO 0% TO +4%	
5" - 3600 PSI CONCRETE PAVEMENT WITH #4 BARS @ 24" O.C.E.W. OVER 6" STABILIZED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY AT A MOISTURE CONTENT OF OPTIMUM MOISTURE UP TO 0% TO +4%	
6" - 3600 PSI CONCRETE PAVEMENT WITH #4 BARS @ 24" O.C.E.W. OVER 6" STABILIZED SUBGRADE COMPACTED TO 95% STANDARD PROCTOR DENSITY AT A MOISTURE CONTENT OF OPTIMUM MOISTURE UP TO 0% TO +4%	
FIRE LANE (PER CITY OF BURLESON)	
PAVING CUT LIMITS	

CONSTRUCTION JOINT NOTES:

DUMMY JOINTS SHALL BE ONE OF THE FOLLOWING METHODS: SAWED, HAND-FORMED OR FORMED BY PREMOULDED FILLER. JOINT DEPTH SHOULD BE EQUAL TO ONE-FOURTH (1/4) OF THE SLAB THICKNESS. HAND FORMED JOINTS SHOULD HAVE A MAXIMUM EDGE RADIUS OF ONE-FOURTH (1/4) INCH. SAWING OF JOINTS SHOULD BEGIN AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT SAWING AND AVOID RAVELING. ALL JOINTS SHOULD BE COMPLETED BEFORE UNCONTROLLED SHRINKAGE CRACKING OCCURS. JOINTS SHALL BE CONTINUOUS ACROSS THE SLAB UNLESS INTERRUPTED BY FULL-DEPTH PREMOULDED JOINT FILLER AND EXTENDED COMPLETELY THROUGH THE CURB. ALL JOINT OPENINGS SHALL BE CLEANED AND SEALED BEFORE OPENING PAVED AREA TO TRAFFIC.

PAVING NOTES:

1. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADJUSTMENT OF WATER AND SANITARY SEWER APPURTENANCES IN ACCORDANCE WITH THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF BURLESON.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCING ANY CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED.
4. CONCRETE SURFACE FINISHING SHALL BE SKID RESISTANT, A WHITE PIGMENTED LIQUID CURING COMPOUND SHALL BE UNIFORMLY SPRAYED ON THE CONCRETE IMMEDIATELY AFTER THE FINISHED OPERATION.
5. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A TRAFFIC CONTROL PLAN FOR ALL WORK IN THE PUBLIC RIGHT-OF-WAY.
6. CONTRACTOR SHALL PROVIDE ALL SAFETY DEVICES FOR THE PROTECTION OF THE PUBLIC.
7. CONCRETE PAVEMENT AND STRUCTURES SHALL BE BACKFILLED AS SOON AS POSSIBLE AFTER FORMS ARE REMOVED.
8. CONTRACTOR RESPONSIBLE FOR IRRIGATION AND FRANCHISE UTILITY SLEEVING. REFERENCE IRRIGATION PLAN FOR IRRIGATION SLEEVING DETAILS.
9. CONTRACTOR TO PROVIDE JOINTING PLAN FOR REVIEW & APPROVAL BY ENGINEER.
10. CONTRACTOR IS RESPONSIBLE FOR ENSURING GRADES ON ALL WALKS DO NOT EXCEED 2% CROSS SLOPE AND 5% LONGITUDINAL SLOPE. ADJUST GRADES AS NECESSARY.

NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CITY OF BURLESON STANDARDS AND SPECIFICATIONS, AND TO THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (NCTCOG).
2. TYPICAL PARKING STALL IS 18' LONG X 9' WIDE.
3. PARKING STALL LINE SHALL BE A 4" SOLID WHITE STRIPE.
4. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
5. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.
6. ALL CURBS TO BE 6" HIGH UNLESS OTHERWISE NOTED.
7. REFER TO SHEET C1.0 FOR GENERAL NOTES.
8. REFER TO SHEET C8.0 FOR PAVING DETAILS.
9. REFER TO SHEET C4.0 FOR ALL SITE DIMENSIONS.
10. REFER TO ARCHITECTURAL PLANS FOR ACTUAL BUILDING DIMENSIONS.
11. REFER TO ARCHITECTURE PLANS FOR ALL FENCING AND GATE SPECIFICATIONS.
12. FIRE LANES SHALL BE PROPERLY MARKED WITH A SIX INCH RED STRIPE WITH FOUR INCH WHITE LETTERS STATING "FIRE LANE NO PARKING" EVERY TWENTY-FIVE FEET ALONG THE ENTIRE LENGTH OF THE FIRE LANE. FIRE LANE MARKINGS SHALL BE ON THE VERTICAL SURFACE OF THE CURB WHEN A CURB IS PRESENT.
13. FIRE LANE ACCESS MUST BE COMPLETE AND FIRE HYDRANTS MUST BE APPROVED BY THE FIRE DEPARTMENT AND MUST BE IN-SERVICE PRIOR TO CONSTRUCTION PROGRESSING ABOVE FOUNDATION. REFER TO PHOTOMETRIC PLAN FOR LIGHTING TYPE AND INTENSITY INFORMATION.
14. ALL UTILITIES, INCLUDING BUT NOT LIMITED TO ELECTRICAL, GAS, AND TELEPHONE SHALL BE PLACED UNDERGROUND.

TOTAL PARKING=50
ADA SPACES=2 WITH 1 VAN

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BURLESON SERVICE CENTER BURLESON, TEXAS SITE AND PAVING PLAN

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civil engineering surveying landscape architecture planning
tpeles registration number: 1 - 2759
tpeles registration/license number: 10088000
519 east border
arlington, texas 76010
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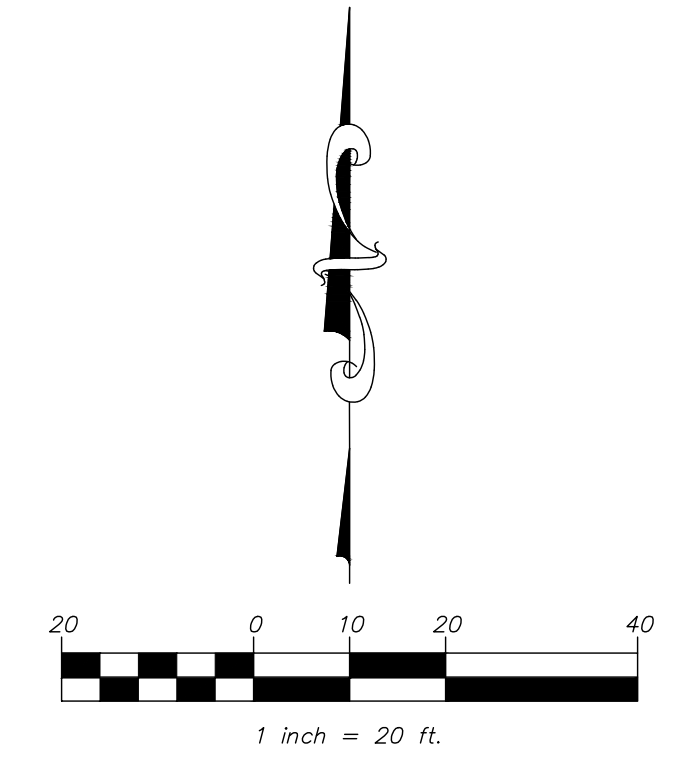
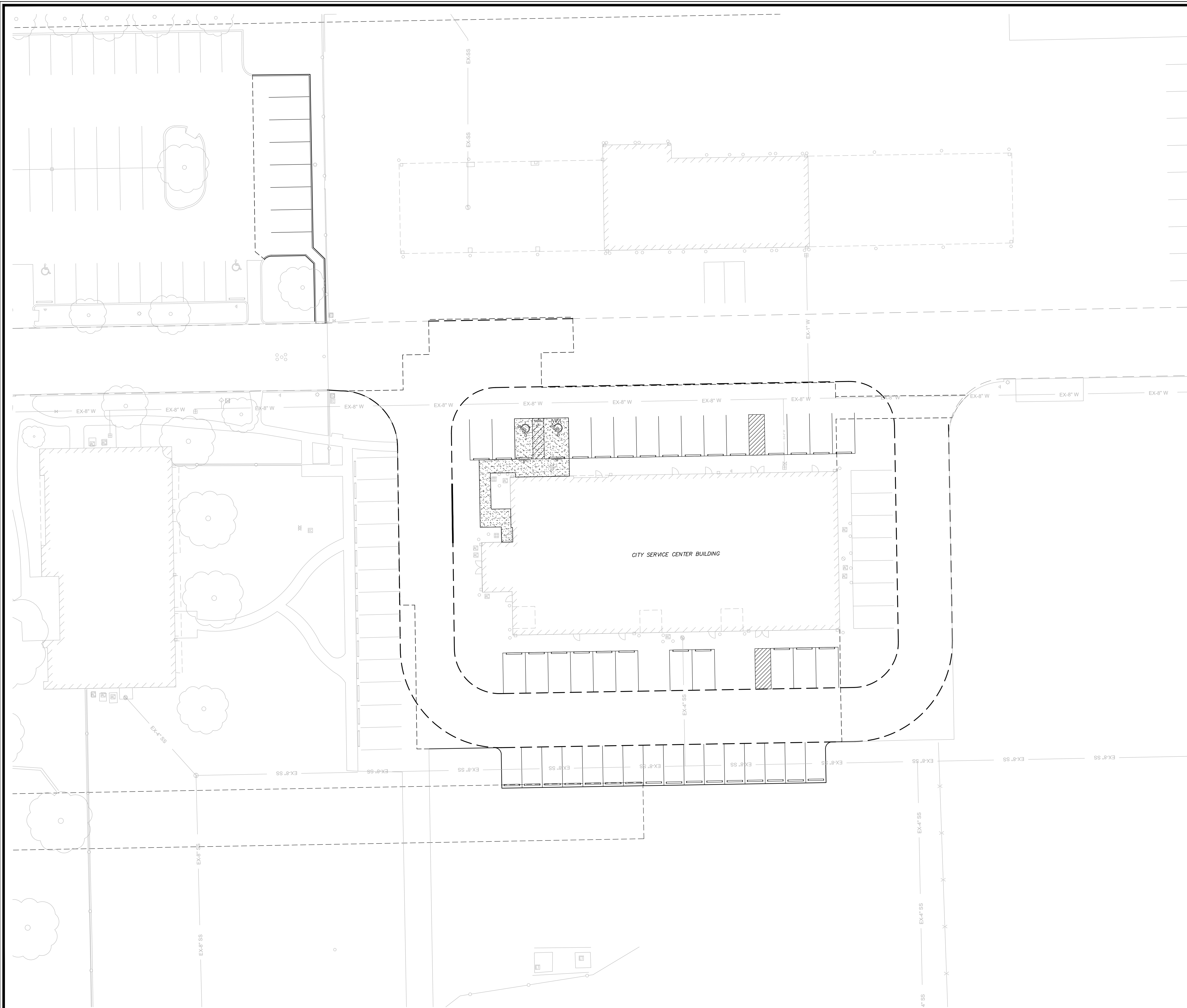
2/15/2024
STATE OF TEXAS
BOBBY P. GADDIS
132973
LICENSED PROFESSIONAL ENGINEER
Bobby P. Gaddis

PROJECT NUMBER: 3726-00-01
PROJECT MANAGER: B. GADDIS
DRAWN BY: I. HERNANDEZ
CHECKED BY: B. GADDIS
ISSUE DATE: 02/15/2024

REV.	DATE	DESCRIP.	BY

SITE AND PAVING PLAN

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LEGEND:

FIRE LANE	---
ACCESSIBLE PARKING SPACE	♿
SIGN	○
WHEEL STOP	▬
ACCESSIBLE PATH	▨

- NOTES**
- CONTRACTOR IS RESPONSIBLE FOR ENSURING GRADES ON ALL WALKS DO NOT EXCEED 2% CROSS SLOPE AND 5% LONGITUDINAL SLOPE. ADJUST GRADES AS NECESSARY.
 - CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED.
 - RUNNING SLOPE OF A RAMP SHALL BE EQUAL TO OR LESS THAN 1:12. SLOPES GREATER THAN 1:12 SHALL BE RECONSTRUCTED TO COMPLY WITH ADA STANDARDS.
 - THE INFORMATION SHOWN MEETS THE REQUIREMENTS SHOWN IN THE 2012 TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE 201 ADA STANDARDS FOR ACCESSIBLE DESIGN BY THE DEPARTMENT OF JUSTICE.
 - CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL PEDESTRIAN WORK MEETS OR EXCEEDS THE CURRENT AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND THE TEXAS ACCESSIBILITY STANDARDS (TAS).

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BURLESON SERVICE CENTER BURLESON, TEXAS ADA ACCESS PLAN

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 tlpels registration/license number: 10088000
 519 east border
 orrlington, texas 76010
 817-469-1671
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2/15/2024
 STATE OF TEXAS
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Bobby P. Gaddis

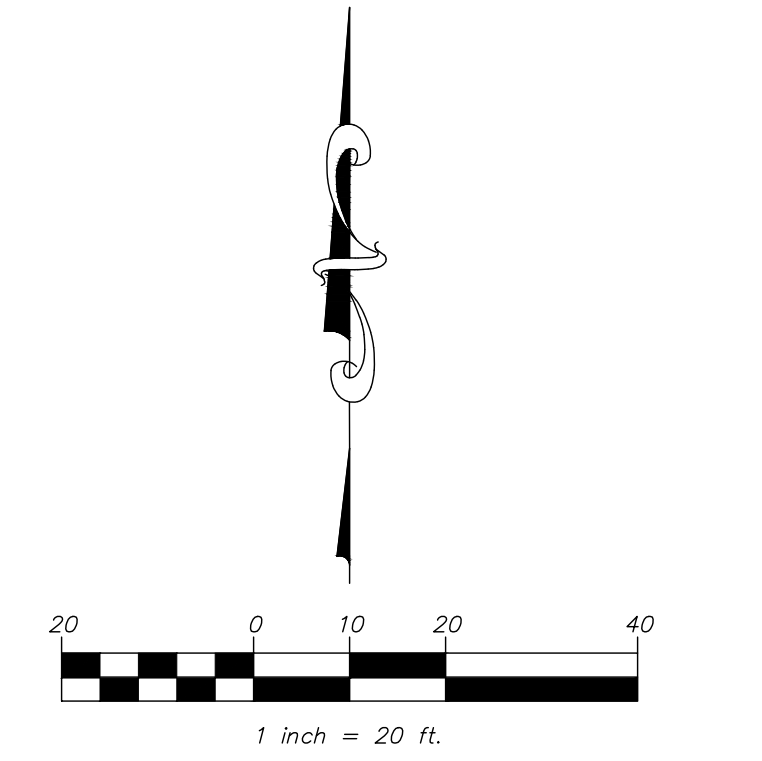
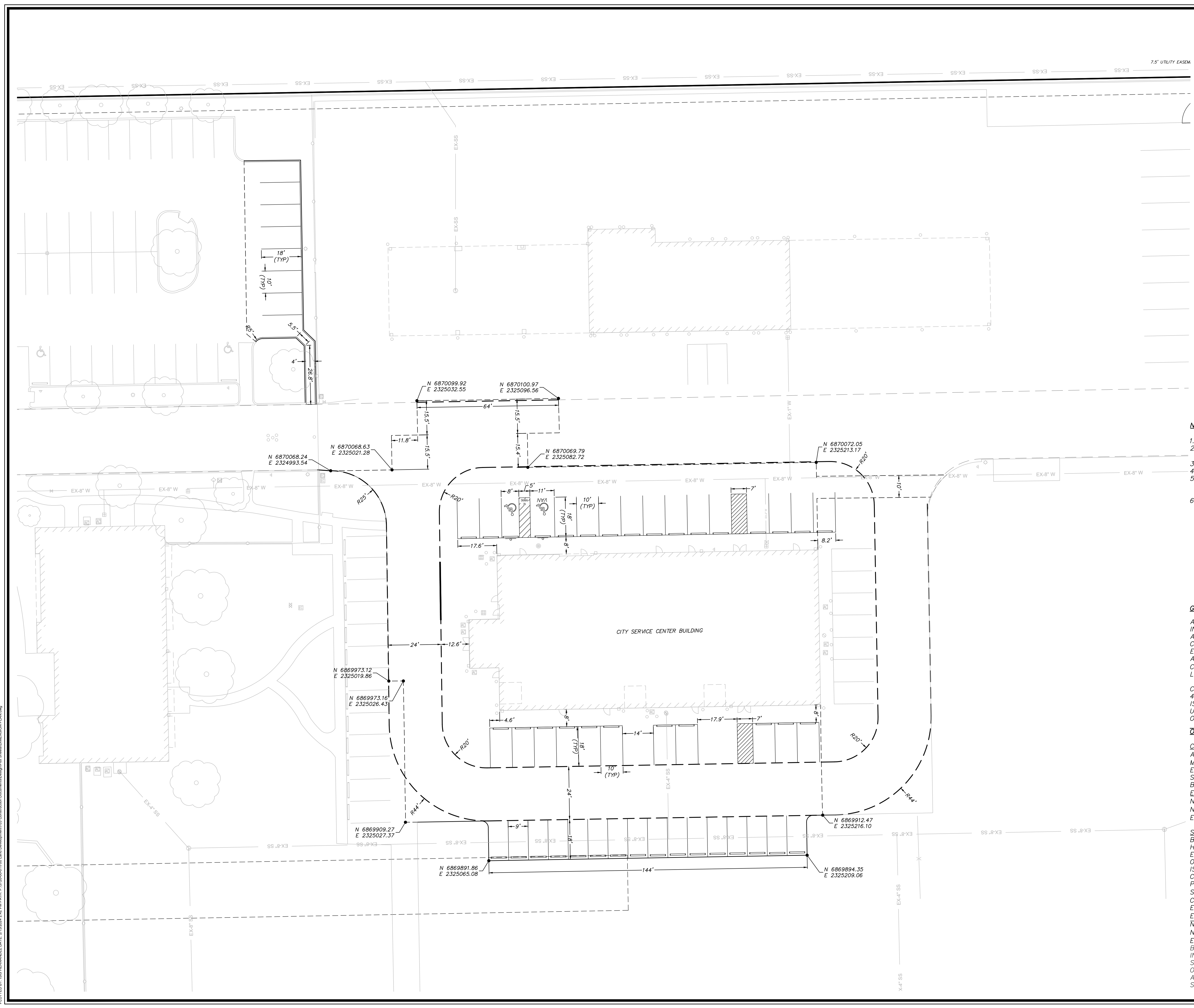
PROJECT NUMBER:	3726-00-01
PROJECT MANAGER:	B. GADDIS
DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

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ADA ACCESS PLAN

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LEGEND:

FIRELANE	---
ACCESSIBLE PARKING SPACE	♿
SIGN	○
WHEEL STOP	▬
EXISTING SANITARY SEWER	EX-SS
EXISTING SEWER MANHOLE	⊙
EXISTING WATER LINE	EX-W
EXISTING WATER VALVE	⊕
EXISTING FIRE HYDRANT	⊕
PARKING COUNT	Ⓢ

- NOTES:**
1. TYPICAL PARKING STALL IS 18' LONG X 10' WIDE.
 2. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 3. ALL CURB RADII ARE 3' UNLESS OTHERWISE NOTED.
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BURLESON SERVICE CENTER BURLESON, TEXAS DIMENSION CONTROL PLAN

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2/15/2024

 BOBBY P. GADDIS
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 LICENSED PROFESSIONAL ENGINEER
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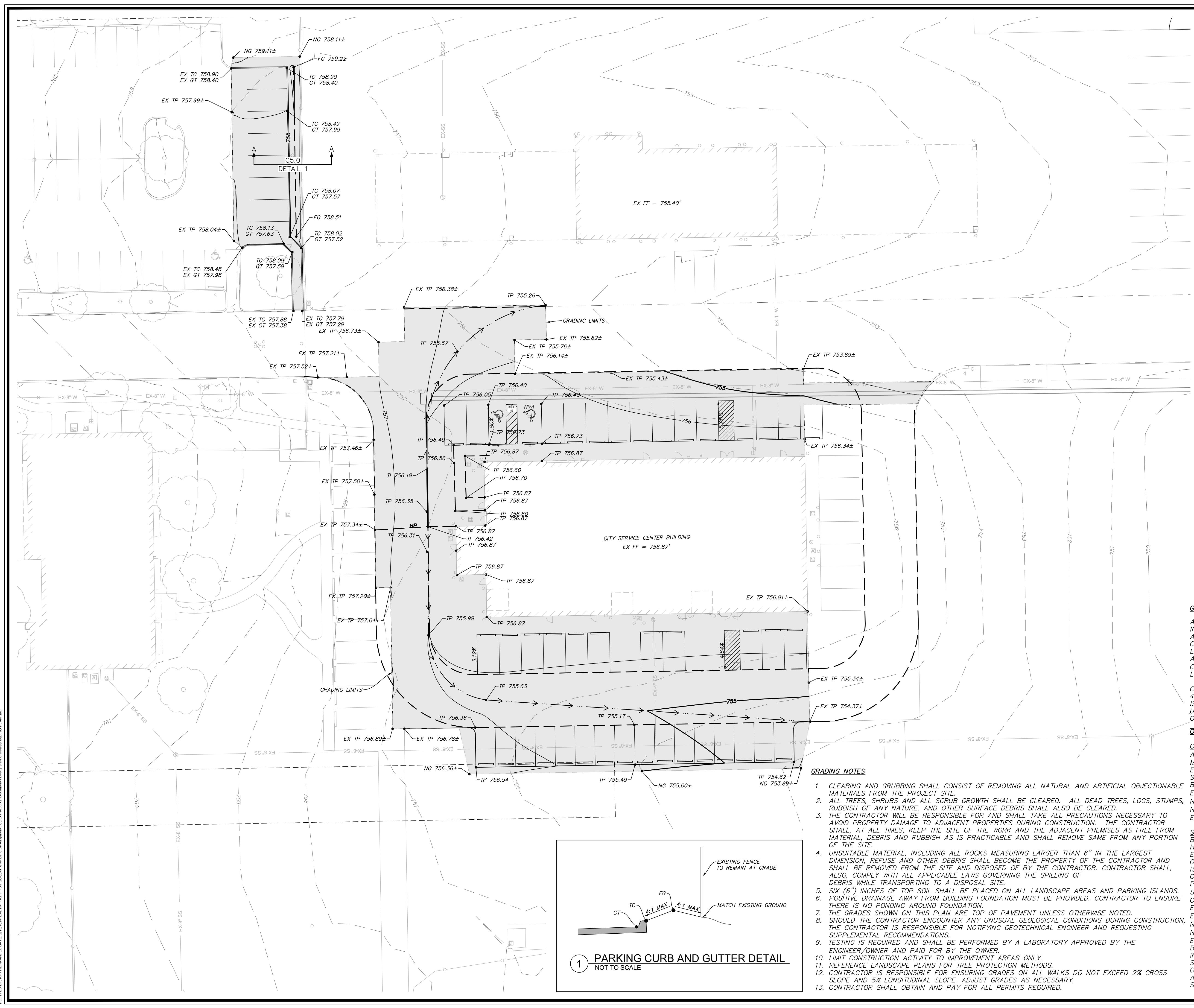
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PROJECT MANAGER:	B. GADDIS
DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

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DIMENSION CONTROL PLAN

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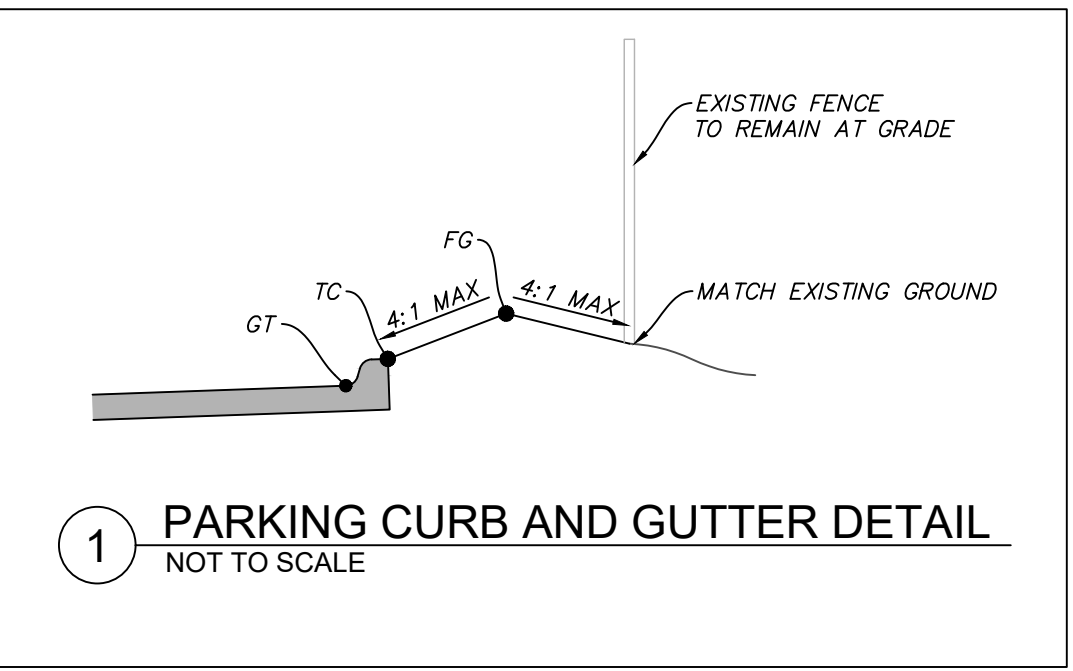
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EXISTING MINOR CONTOUR	---641---
PROPOSED MINOR CONTOUR	—640—
PROPOSED MAJOR CONTOUR	—641—
FINISHED GRADE	• FG 630.00
FINISHED FLOOR ELEVATION	FF 630.0
MINIMUM FINISHED FLOOR	MFF 630.0
PROPOSED TOP OF PAVEMENT	• TP 630.00
PROPOSED TOP OF CURB	• TC 630.00
PROPOSED GUTTER	• GT 630.00
PROPOSED TOP OF WALL	• TW 630.00
PROPOSED BOTTOM OF WALL	• BW 630.00
MATCH EXISTING	• EX 630.00±
PROPOSED RETAINING WALL	— — — — —
DISTURBANCE LIMITS	▭

GENERAL UTILITY NOTES:
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ONSITE BENCHMARKS:
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 ELEV: 766.11' DOES NOT MATCH PUBLISHED ELEVATION NAD83 TXNC (GRID-MEASURED)
 N: 6869200.433'
 E: 2324369.877'
SITE BM#1:
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 ELEV: 759.79'
 NAD83 TXNC (GRID-MEASURED)
 N: 6868663.125'
 E: 2324485.944'
 BEARINGS AND COORDINATE VALUES SHOWN HEREON ARE IN REFERENCE TO THE NAD83 TEXAS COORDINATE SYSTEM - NORTH CENTRAL ZONE, 4202, BASED ON GPS OBSERVATIONS UTILIZING THE LEICA SMARTNET NORTH AMERICA GPS REFERENCE NETWORK. THE PROJECT SCALE FACTOR IS 1.000114621264, BASE POINT OF 0,0,0.

- GRADING NOTES**
- CLEARING AND CRUBBING SHALL CONSIST OF REMOVING ALL NATURAL AND ARTIFICIAL OBJECTIONABLE MATERIALS FROM THE PROJECT SITE.
 - ALL TREES, SHRUBS AND ALL SCRUB GROWTH SHALL BE CLEARED. ALL DEAD TREES, LOGS, STUMPS, RUBBISH OF ANY NATURE, AND OTHER SURFACE DEBRIS SHALL ALSO BE CLEARED.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING CONSTRUCTION. THE CONTRACTOR SHALL, AT ALL TIMES, KEEP THE SITE OF THE WORK AND THE ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE AND SHALL REMOVE SAME FROM ANY PORTION OF THE SITE.
 - UNSUITABLE MATERIAL, INCLUDING ALL ROCKS MEASURING LARGER THAN 6" IN THE LARGEST DIMENSION, REFUSE AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR. CONTRACTOR SHALL, ALSO, COMPLY WITH ALL APPLICABLE LAWS GOVERNING THE SPILLING OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE.
 - SIX (6") INCHES OF TOP SOIL SHALL BE PLACED ON ALL LANDSCAPE AREAS AND PARKING ISLANDS. POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATION MUST BE PROVIDED. CONTRACTOR TO ENSURE THERE IS NO PONDING AROUND FOUNDATION.
 - THE GRADES SHOWN ON THIS PLAN ARE TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
 - SHOULD THE CONTRACTOR ENCOUNTER ANY UNUSUAL GEOLOGICAL CONDITIONS DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING GEOTECHNICAL ENGINEER AND REQUESTING SUPPLEMENTAL RECOMMENDATIONS.
 - TESTING IS REQUIRED AND SHALL BE PERFORMED BY A LABORATORY APPROVED BY THE ENGINEER/OWNER AND PAID FOR BY THE OWNER.
 - LIMIT CONSTRUCTION ACTIVITY TO IMPROVEMENT AREAS ONLY.
 - REFERENCE LANDSCAPE PLANS FOR TREE PROTECTION METHODS.
 - CONTRACTOR IS RESPONSIBLE FOR ENSURING GRADES ON ALL WALKS DO NOT EXCEED 2% CROSS SLOPE AND 5% LONGITUDINAL SLOPE. ADJUST GRADES AS NECESSARY.
 - CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED.



**BURLESON SERVICE CENTER
 BURLESON, TEXAS
 GRADING PLAN**

mma
 civil engineering surveying landscape architecture planning
 tlpels registration number: 1 - 2759
 tlpels registration/license number: 10088000
 519 east border
 orrlington, texas 76010
 817-469-1671
 fax: 817-274-8757
 www.mmatax.com

2/15/2024
 STATE OF TEXAS
 BOBBY P. GADDIS
 132973
 LICENSED PROFESSIONAL ENGINEER
 CIVIL
 Burleson, Texas

PROJECT NUMBER:	3726-00-01		
PROJECT MANAGER:	B. GADDIS		
DRAWN BY:	I. HERNANDEZ		
CHECKED BY:	B. GADDIS		
ISSUE DATE:	02/15/2024		
2/15/24 ISSUE FOR CONSTRUCTION			
REV.	DATE	DESCRIP.	BY

GRADING PLAN

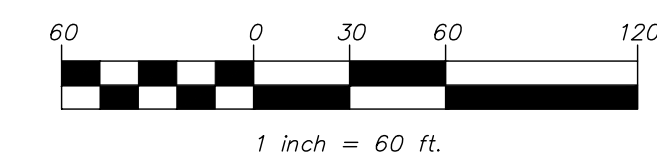
SHEET NO: **C5.0**

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PLOTTED BY: IHS HERNANDEZ DATE: 2/15/2024 2:42 PM PATH: P:\2024\02\07\00 Land Development\03 Construction Documents\Burleson\Plan\Grading\PLAN.dwg

731 PROP LLC
DOC. # 2018-16045
PRJCT

GORDON O. BRALEY AND
JANET A. BRALEY
DOC. # 1997-216
PRJCT



LEGEND:

EXISTING MAJOR CONTOUR	---640---
EXISTING MINOR CONTOUR	---641---
PROPOSED MINOR CONTOUR	---640---
PROPOSED MAJOR CONTOUR	---641---
PROPOSED STORM DRAIN	—/—/—
DRAINAGE AREA BOUNDARY	--- ---
DRAINAGE AREA LABEL	(A1)
NAME	NAME
AREA (ACRES)	2.6
INLET DESIGNATION	XX' C.I. XX
FLOW AREA	→
DESIGN POINT	△

NOTES:

1. PROPERTY IS ZONED COMMERCIAL.
2. DESIGN CRITERIA IS BASED ON CITY OF BURLESON DESIGN STANDARD MANUAL DATED NOVEMBER 6, 2008.
3. EXISTING CONTOURS ARE BASED ON TOPOGRAPHIC SURVEY PREPARED BY MMA, DATED SEPTEMBER 2023 AND LIDAR COMPLETED IN 2019 DOWNLOADED FROM TNRS.
4. DRAINAGE AREAS ARE BASED ON PROPOSED GRADING DESIGN, EXISTING TOPOGRAPHY, AND ASBUILT PLAN INFORMATION.
5. REFER TO SHEET C7.0 FOR STORM PLAN AND PROFILES.

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Burleson Service Center													
EXISTING CONDITIONS DRAINAGE AREA COMPUTATIONS													
Area Name	Runoff Coef. "C"	AREA "A" (ac.)	Total "CA"	Time of Concentration (min)	Ca 5	C*Ca 5	I5 (in/hr)	Q5 (cfs)	Ca 100	C*Ca 100	I100 (in/hr)	Q100 (cfs)	COMMENTS
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A1	0.98	11.32	11.09	10.00	1.00	0.98	6.66	73.90	1.00	0.98	11.60	128.68	TO EXISTING CULVERT
A2	0.98	2.78	2.72	10.00	1.00	0.98	6.66	18.15	1.00	0.98	11.60	31.60	SHEET FLOW TO DESIGN POINT A
A3	0.98	4.49	4.40	10.00	1.00	0.98	6.66	29.31	1.00	0.98	11.60	51.04	SHEET FLOW TO DESIGN POINT A
A4	0.39	3.84	1.50	15.00	1.00	0.39	5.52	8.27	1.00	0.39	9.60	14.37	SHEET FLOW TO DESIGN POINT A
B	0.39	2.48	0.97	15.00	1.00	0.39	5.52	5.34	1.00	0.39	9.60	9.28	SHEET FLOW TO DESIGN POINT B

BURLESON SERVICE CENTER
BURLESON, TEXAS
PRE DEVELOPMENT DRAINAGE AREA MAP

mma
civil engineering surveying landscape architecture planning
tpeles registration number: 1 - 2759
tpeles registration/license number: 1008000
519 east border
arlington, texas 76010
817-469-1671
fax: 817-274-8757
www.mmatus.com

2/15/2024
STATE OF TEXAS
BOBBY P. GADDIS
132973
LICENSED PROFESSIONAL ENGINEER
Bobby P. Gaddis

PROJECT NUMBER:	3726-00-01
PROJECT MANAGER:	B. GADDIS
DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

REV.	DATE	DESCRIP.	BY

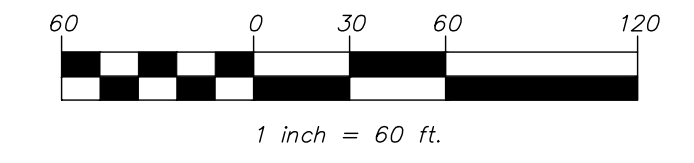
PRE DEVELOPMENT DRAINAGE AREA MAP

SHEET NO: **C6.0**
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731 PROP LLC
DOC. # 2018-16045
PRJCT

GORDON O. BRALEY AND
JANET A. BRALEY
DOC. # 1997-216
PRJCT



LEGEND:

EXISTING MAJOR CONTOUR	---640---
EXISTING MINOR CONTOUR	---641---
PROPOSED MINOR CONTOUR	—640—
PROPOSED MAJOR CONTOUR	—641—
PROPOSED STORM DRAIN	—//—
DRAINAGE AREA BOUNDARY	--- ---
DRAINAGE AREA LABEL	(A1)
NAME	A1
AREA (ACRES)	2.6
INLET DESIGNATION	XX' C.I. XX
FLOW AREA	→
DESIGN POINT	△

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Burleson Service Center													
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Area Name	Runoff Coef. "C"	AREA "A" (ac.)	Total "CA"	Time of Concentration (min)	Ca 5	C*Ca 5	I5 (in/hr)	Q5 (cfs)	Ca 100	C*Ca 100	I100 (in/hr)	Q100 (cfs)	COMMENTS
1	2	3	4	5	6	7	8	9	10	11	12	13	14
A1	0.98	11.36	11.13	17.74	1.00	0.98	5.06	56.32	1.00	0.98	8.80	97.93	TO PROPOSED CULVERT
A2	0.98	1.07	1.05	10.00	1.00	0.98	6.66	6.98	1.00	0.98	11.60	12.16	SHEET FLOW TO FLUME
A3	0.98	2.46	2.41	10.00	1.00	0.98	6.66	16.06	1.00	0.98	11.60	27.96	SHEET FLOW TO POND
A4	0.98	3.19	3.13	10.00	1.00	0.98	6.66	20.82	1.00	0.98	11.60	36.26	SHEET FLOW TO POND
A5	0.39	2.74	1.07	10.00	1.00	0.39	6.66	7.12	1.00	0.39	11.60	12.40	SHEET FLOW TO POND
A6	0.39	1.61	0.63	15.00	1.00	0.39	5.52	3.47	1.00	0.39	9.60	6.03	SHEET FLOW TO DESIGN POINT A
B	0.39	2.48	0.97	15.00	1.00	0.39	5.52	5.34	1.00	0.39	9.60	9.28	SHEET FLOW TO DESIGN POINT B

BURLESON SERVICE CENTER
BURLESON, TEXAS
POST DEVELOPMENT DRAINAGE AREA MAP

mma
civil engineering surveying landscape architecture planning
texas registration number: 1 - 2759
texas registration/license number: 10088000
519 east border
arlington, texas 76010
817-469-1671
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www.mmatexas.com

2/15/2024
STATE OF TEXAS
BOBBY P. GADDIS
132973
LICENSED PROFESSIONAL ENGINEER
Bobby P. Gaddis

PROJECT NUMBER:	3726-00-01
PROJECT MANAGER:	B. GADDIS
DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

REV.	DATE	DESCRIP.	BY

POST DEVELOPMENT DRAINAGE AREA MAP

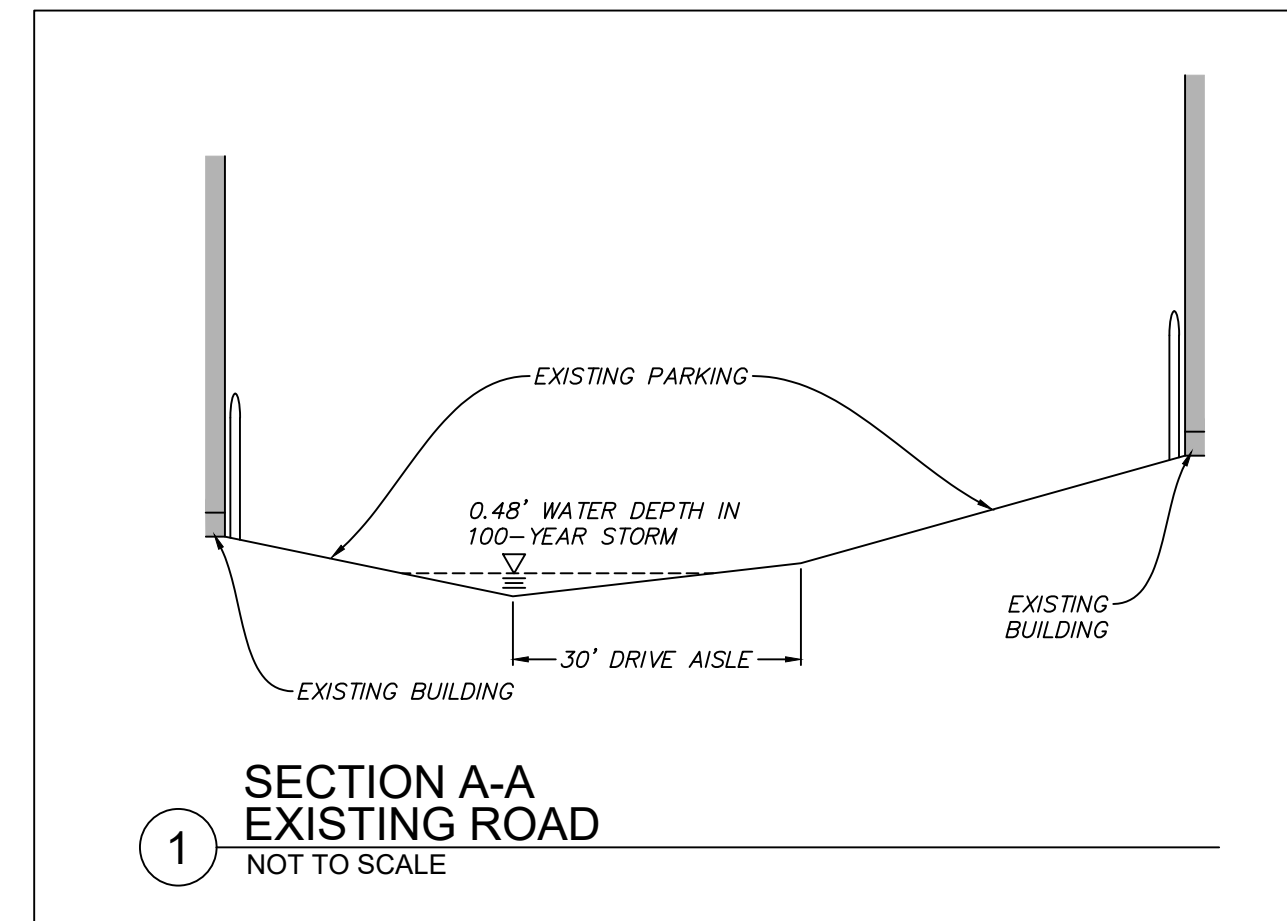
SHEET NO: **C6.1**
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BURLESON SERVICE CENTER BURLESON, TEXAS DRAINAGE CALCULATIONS

Segment Information				Sheet Flow			Shallow Flow		Channel Flow					Segment			
DA	Segment	Flow Type	Length	Slope (ft/ft)	Rainfall Depth 2yr24hr	Manning's Coefficient	Velocity (ft/s)	Surface Type	Velocity (ft/s)	Section Area	Wetted Perimeter	Manning's Coefficient	Velocity (ft/s)	Description	Segment TOC (min)	Segment	DA
A1	1	Sheet Flow	50	0.0186	3.599	0.15	0.15								5.46	1	A1
A1	2	Shallow Concentrated Flow	670	0.0088				Unpaved	1.51						7.38	2	A1
A1	3	Shallow Concentrated Flow	379	0.0077				Paved	1.78						3.54	3	A1
A1	4	Shallow Concentrated Flow	162	0.0151				Unpaved	1.98						1.36	4	A1

Line No.	Station		Pipe Length	Drainage Area No.	Area	Total Area	C	C _d /C _r	Increment C*CA	Total CA	Time of Concentration				I ₅	I (Design Below)	Q ₅	Q (Design Below)	Crown Overtop	Inlet Bypass	Q _{pipe}	Pipe Size			Manning's n	Pipe Capacity	S _p	HGL						Head Loss Calculations						Entrance Control		Design HGL	Invert		Pipe Slope	T/C	Comments
	From	To									Inlet	Travel	Increment	Design								No.	Span	Dia/Height				D/S	U/S	V ₁	V ₂	V ₁ ² /2g	V ₂ ² /2g	K _i	K _v V ₁ ² /2g	H _k	H _{wic}	Control	From	To							
SD-A1	1	2	3	4	5	6	7a	7b	8	9	10	11	12	13	14	15	16	17	18a	18b	19	20a	20b	20c	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
1	5+53.83	5+22.16	31.67	TRENCH DRAIN	0.15	0.15	0.98	1.00	0.15	0.15	10.00	0.11	10.00	10.00	6.66	11.60	0.98	1.71			1.71	1		8	0.013	1.26	2.00%	754.14	754.77	0.00	4.90	0.00	0.37	1.25	0.00	0.46	1.39	FALSE	755.23	753.15	752.80	1.08%	756.19	Inlet or Manhole at Beginning of Line, ASSUMED 0.15 ACRES TO TRENCH DRAIN FROM DRAINAGE AREA A3			
2	5+22.16	1+27.07	395.09	MANHOLE	0.70	0.85	0.98	1.00	0.69	0.83	10.00	1.21	10.11	10.11	6.63	11.55	5.52	9.62			9.62	1		18	0.013	12.25	0.84%	750.29	753.60	4.90	5.44	0.37	0.46	1.00	0.37	0.10	2.17	TRUE	754.14	751.97	746.60	1.36%	756.01	Manhole on Main Line with no Branch, ASSUMED 0.7 ACRES TO MANHOLE FROM DRAINAGE AREA A3, Entrance Control			
3	1+27.07	1+00.00	27.07			0.85	0.98	1.00		0.83	10.00	0.08	11.32	10.11	6.63	11.55	5.52	9.62			9.62	1		18	0.013	12.25	0.84%	749.94	750.17	5.44	5.44	0.46	0.46	0.25	0.12	0.12	0.00	FALSE	750.29	746.60	746.23	1.36%	749.98	Bend 30°			



Channel Report

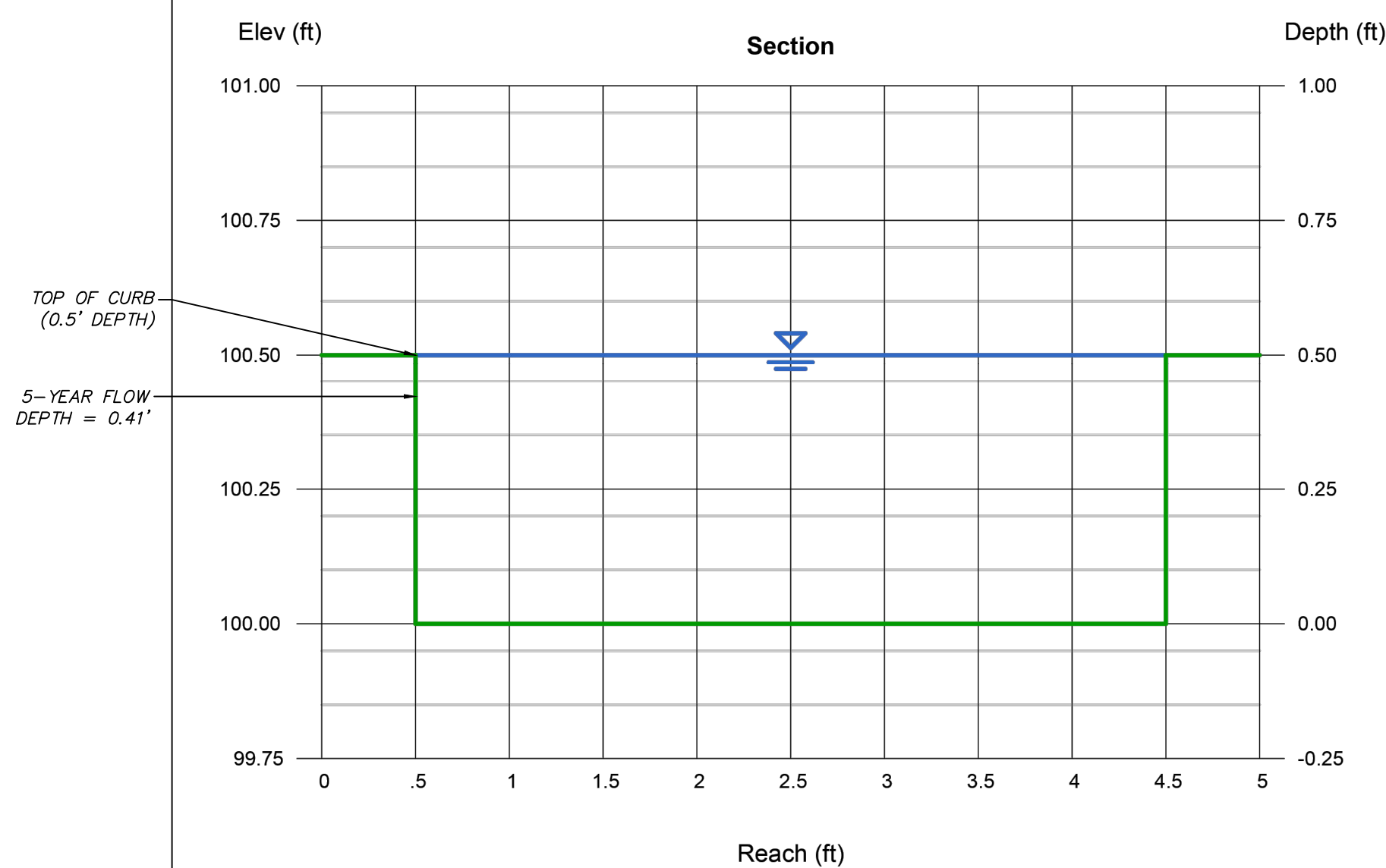
Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Monday, Dec 18 2023

Proposed Flume

Rectangular	= 4.00	Highlighted	= 0.50
Bottom Width (ft)	= 4.00	Depth (ft)	= 0.50
Total Depth (ft)	= 0.50	Q (cfs)	= 9.610
		Area (sqft)	= 2.00
Invert Elev (ft)	= 100.00	Velocity (ft/s)	= 4.81
Slope (%)	= 0.80	Wetted Perim (ft)	= 5.00
N-Value	= 0.015	Crit Depth, Yc (ft)	= 0.50
		Top Width (ft)	= 4.00
		EGL (ft)	= 0.86

Calculations
Compute by: Known Q
Known Q (cfs) = 9.61

*100-YEAR FLOW = 12.16 CFS
*FLUME WILL BYPASS 2.54 CFS IN THE 100-YEAR STORM.



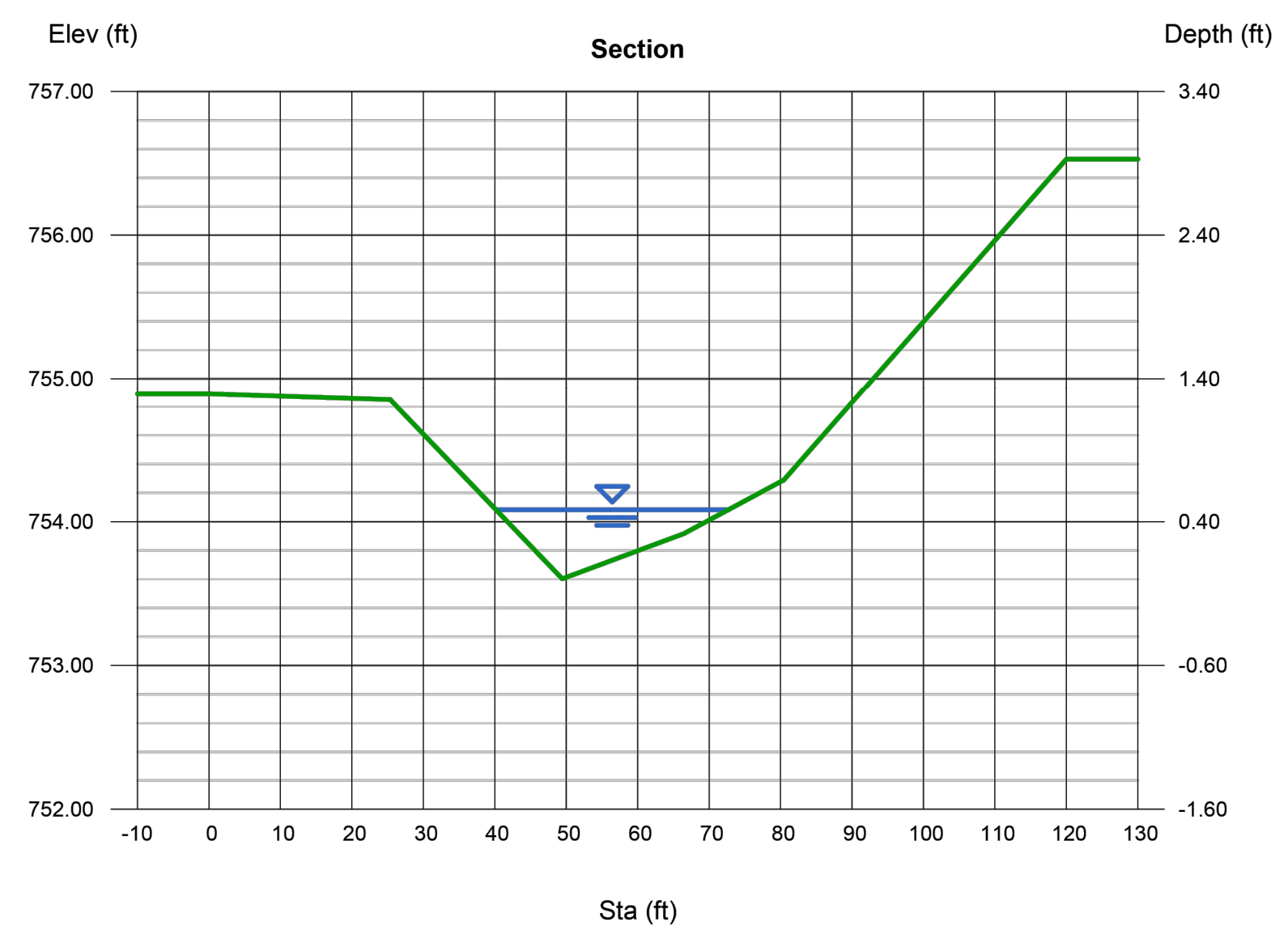
Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Feb 8 2024

Existing Road Cross Section

User-defined	= 753.60	Highlighted	= 0.48
Invert Elev (ft)	= 753.60	Depth (ft)	= 0.48
Slope (%)	= 1.50	Q (cfs)	= 40.13
N-Value	= 0.015	Area (sqft)	= 8.25
		Velocity (ft/s)	= 4.86
Calculations		Wetted Perim (ft)	= 32.55
Compute by:	Known Q	Crit Depth, Yc (ft)	= 0.60
Known Q (cfs)	= 40.13	Top Width (ft)	= 32.53
		EGL (ft)	= 0.85

(Sta, El, n)-(Sta, El, n)...
(0.00, 754.89)-(25.38, 754.85, 0.015)-(49.45, 753.60, 0.015)-(66.47, 753.92, 0.015)-(80.46, 754.29, 0.015)-(120.00, 756.53, 0.015)



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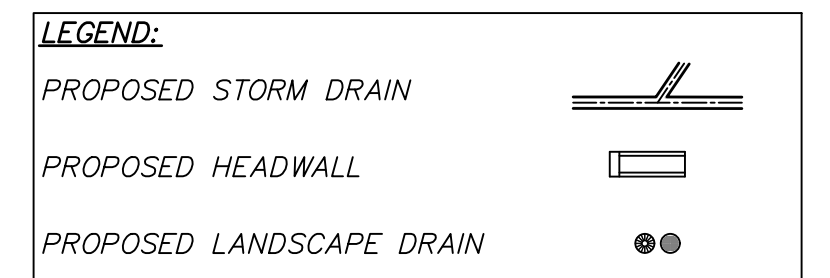
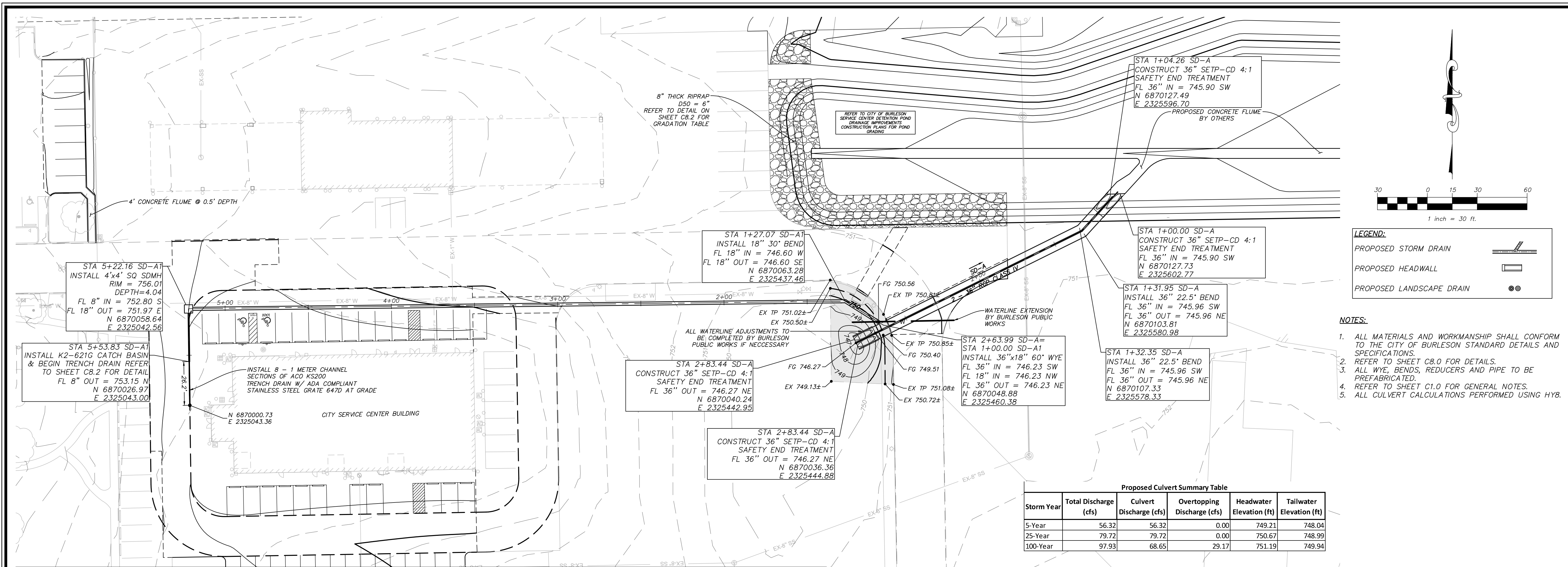
2/15/2024
STATE OF TEXAS
BOBBY P. GADDIS
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LICENSED PROFESSIONAL ENGINEER
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DRAWN BY:	I. HERNANDEZ
CHECKED BY:	B. GADDIS
ISSUE DATE:	02/15/2024

1	2/15/24	ENGINEER	DRAWING	IH
REV.	DATE	DESCRIP.	BY	

DRAINAGE CALCULATIONS

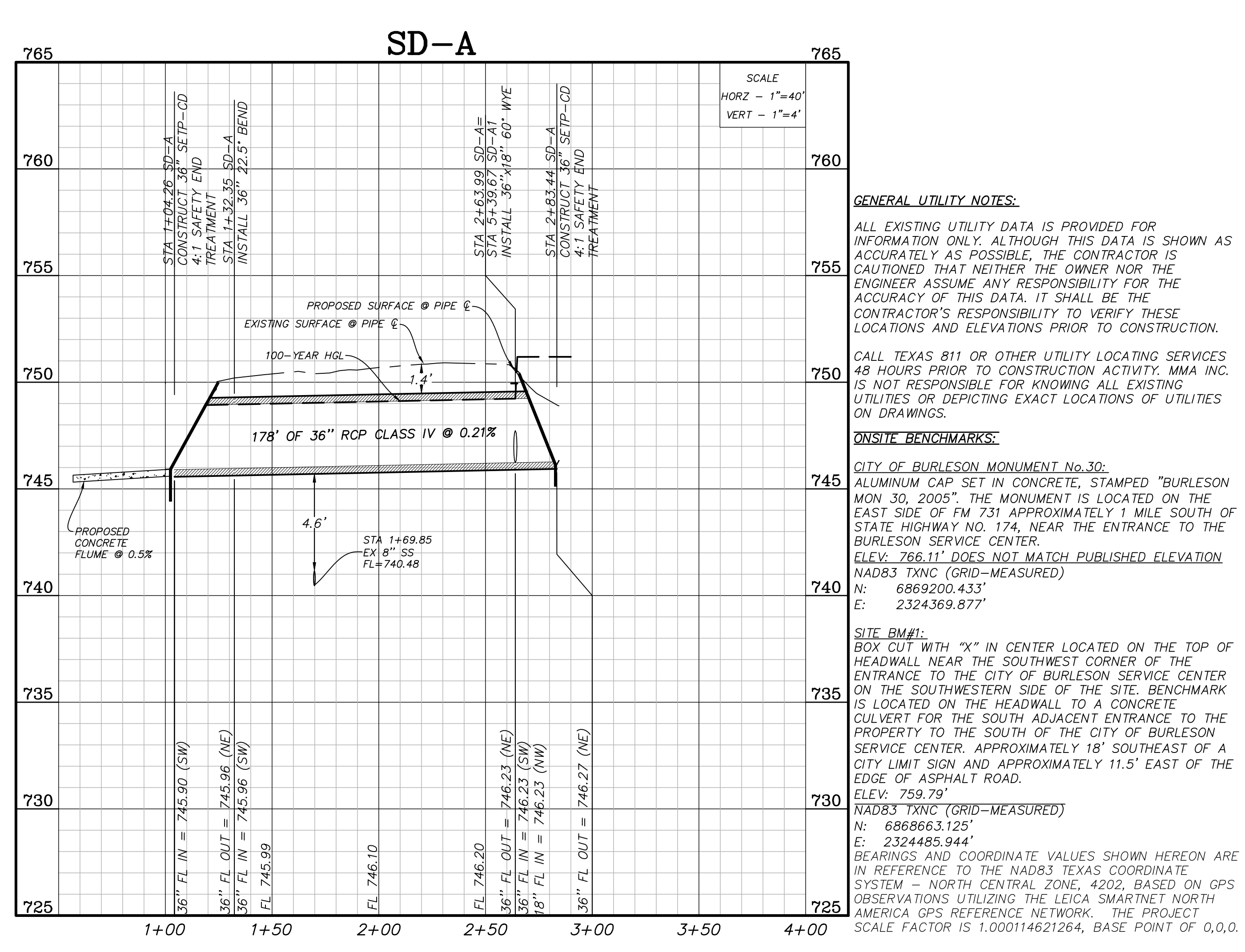
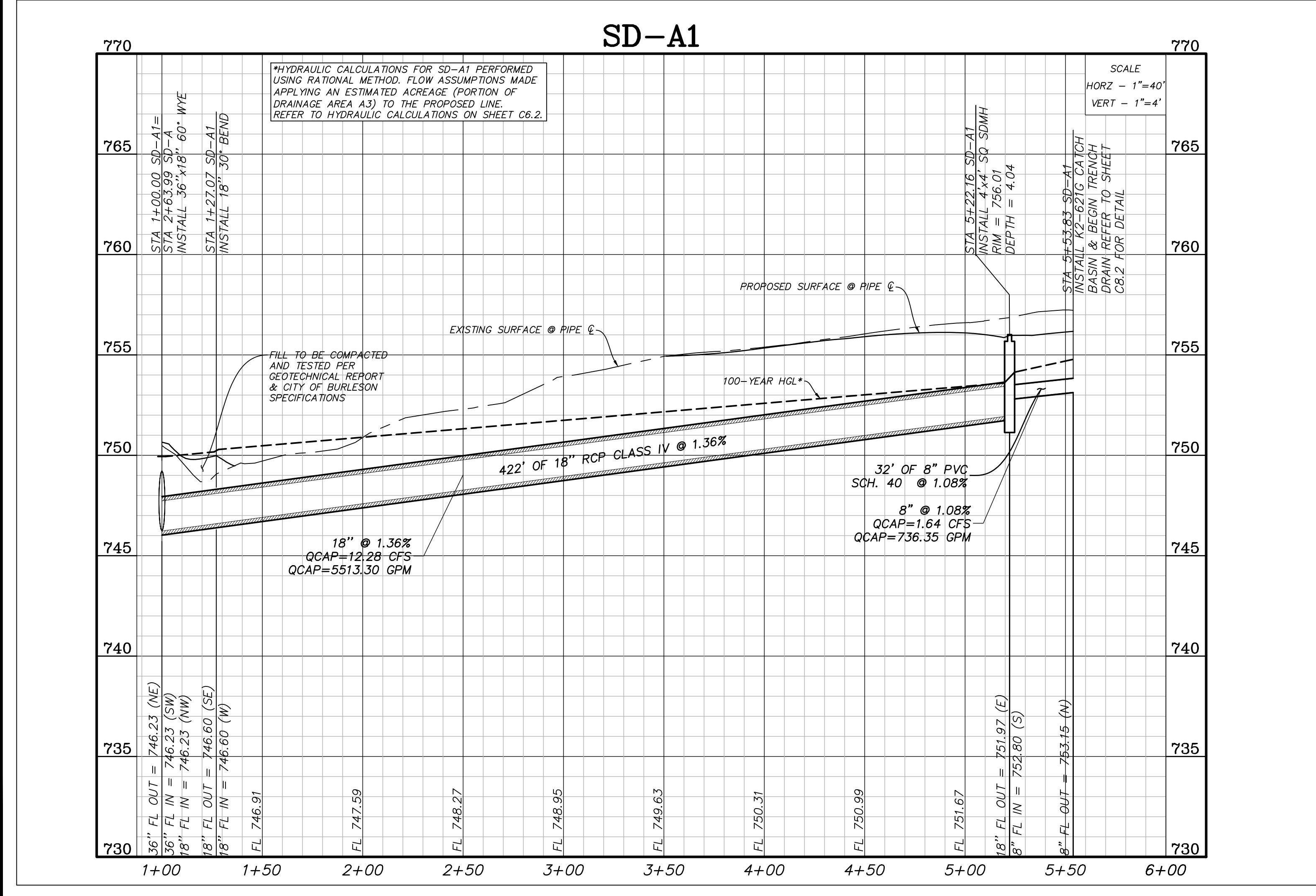
SHEET NO: **C6.2**



- NOTES:**
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CITY OF BURLESON STANDARD DETAILS AND SPECIFICATIONS.
 - REFER TO SHEET C8.0 FOR DETAILS.
 - ALL WYE, BENDS, REDUCERS AND PIPE TO BE PREFABRICATED.
 - REFER TO SHEET C1.0 FOR GENERAL NOTES.
 - ALL CULVERT CALCULATIONS PERFORMED USING HY8.

Proposed Culvert Summary Table

Storm Year	Total Discharge (cfs)	Culvert Discharge (cfs)	Overtopping Discharge (cfs)	Headwater Elevation (ft)	Tailwater Elevation (ft)
5-Year	56.32	56.32	0.00	749.21	748.04
25-Year	79.72	79.72	0.00	750.67	748.99
100-Year	97.93	68.65	29.17	751.19	749.94



GENERAL UTILITY NOTES:
ALL EXISTING UTILITY DATA IS PROVIDED FOR INFORMATION ONLY. ALTHOUGH THIS DATA IS SHOWN AS ACCURATELY AS POSSIBLE, THE CONTRACTOR IS CAUTIONED THAT NEITHER THE OWNER NOR THE ENGINEER ASSUME ANY RESPONSIBILITY FOR THE ACCURACY OF THIS DATA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION.

CALL TEXAS 811 OR OTHER UTILITY LOCATING SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. MMA INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

ONSITE BENCHMARKS:
CITY OF BURLESON MONUMENT No. 30: ALUMINUM CAP SET IN CONCRETE, STAMPED "BURLESON MON 30, 2005". THE MONUMENT IS LOCATED ON THE EAST SIDE OF FM 731 APPROXIMATELY 1 MILE SOUTH OF STATE HIGHWAY NO. 174, NEAR THE ENTRANCE TO THE BURLESON SERVICE CENTER. ELEV: 766.11'. DOES NOT MATCH PUBLISHED ELEVATION NAD83 TXNC (GRID-MEASURED) N: 6869200.433' E: 2324369.877'

SITE BM#1:
BOX CUT WITH "X" IN CENTER LOCATED ON THE TOP OF HEADWALL NEAR THE SOUTHWEST CORNER OF THE ENTRANCE TO THE CITY OF BURLESON SERVICE CENTER ON THE SOUTHWESTERN SIDE OF THE SITE. BENCHMARK IS LOCATED ON THE HEADWALL TO A CONCRETE CULVERT FOR THE SOUTH ADJACENT ENTRANCE TO THE PROPERTY TO THE SOUTH OF THE CITY OF BURLESON SERVICE CENTER. APPROXIMATELY 18' SOUTHEAST OF A CITY LIMIT SIGN AND APPROXIMATELY 11.5' EAST OF THE EDGE OF ASPHALT ROAD. ELEV: 759.79' NAD83 TXNC (GRID-MEASURED) N: 6868663.125' E: 2324485.944'

BEARINGS AND COORDINATE VALUES SHOWN HEREON ARE IN REFERENCE TO THE NAD83 TEXAS COORDINATE SYSTEM - NORTH CENTRAL ZONE, 4202, BASED ON GPS OBSERVATIONS UTILIZING THE LEICA SMARTNET NORTH AMERICA GPS REFERENCE NETWORK. THE PROJECT SCALE FACTOR IS 1.000114621264, BASE POINT OF 0,0,0.

**BURLESON SERVICE CENTER
BURLESON, TEXAS
STORM PLAN**

mma
civil engineering surveying landscape architecture planning
texas registration number: 1-2759
texas registration/license number: 10088000
519 east border
arlington, texas 76010
817-469-1671
fax: 817-274-8757
www.mmatexas.com

2/15/2024
STATE OF TEXAS
BOBBY P. GADDIS
132973
LICENSED PROFESSIONAL ENGINEER
Bobby P. Gaddis

PROJECT NUMBER: 3726-00-01
PROJECT MANAGER: B. GADDIS
DRAWN BY: I. HERNANDEZ
CHECKED BY: B. GADDIS
ISSUE DATE: 02/15/2024

REV.	DATE	DESCRIP.	BY

2/15/24 ISSUE FOR CONSTRUCTION

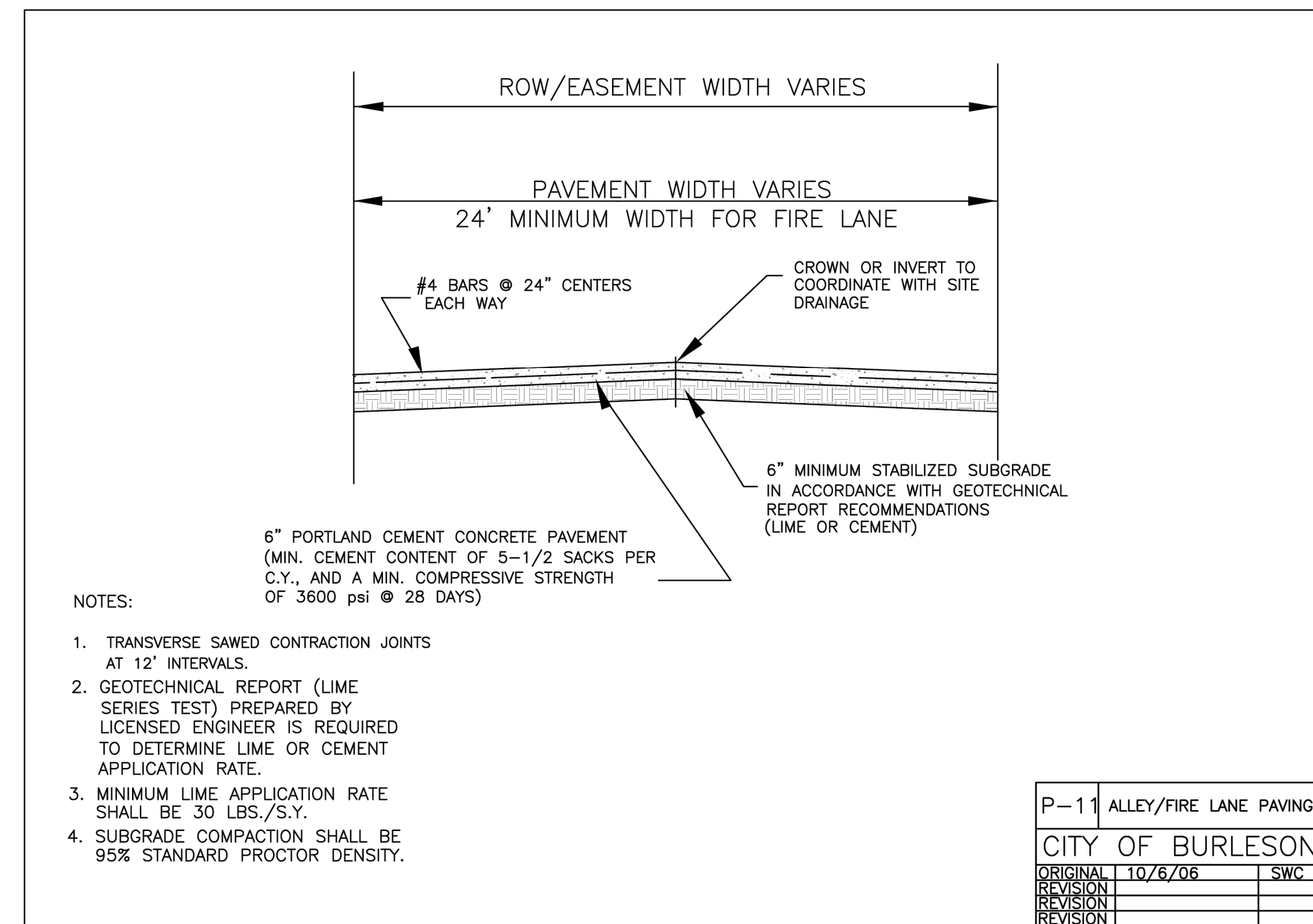
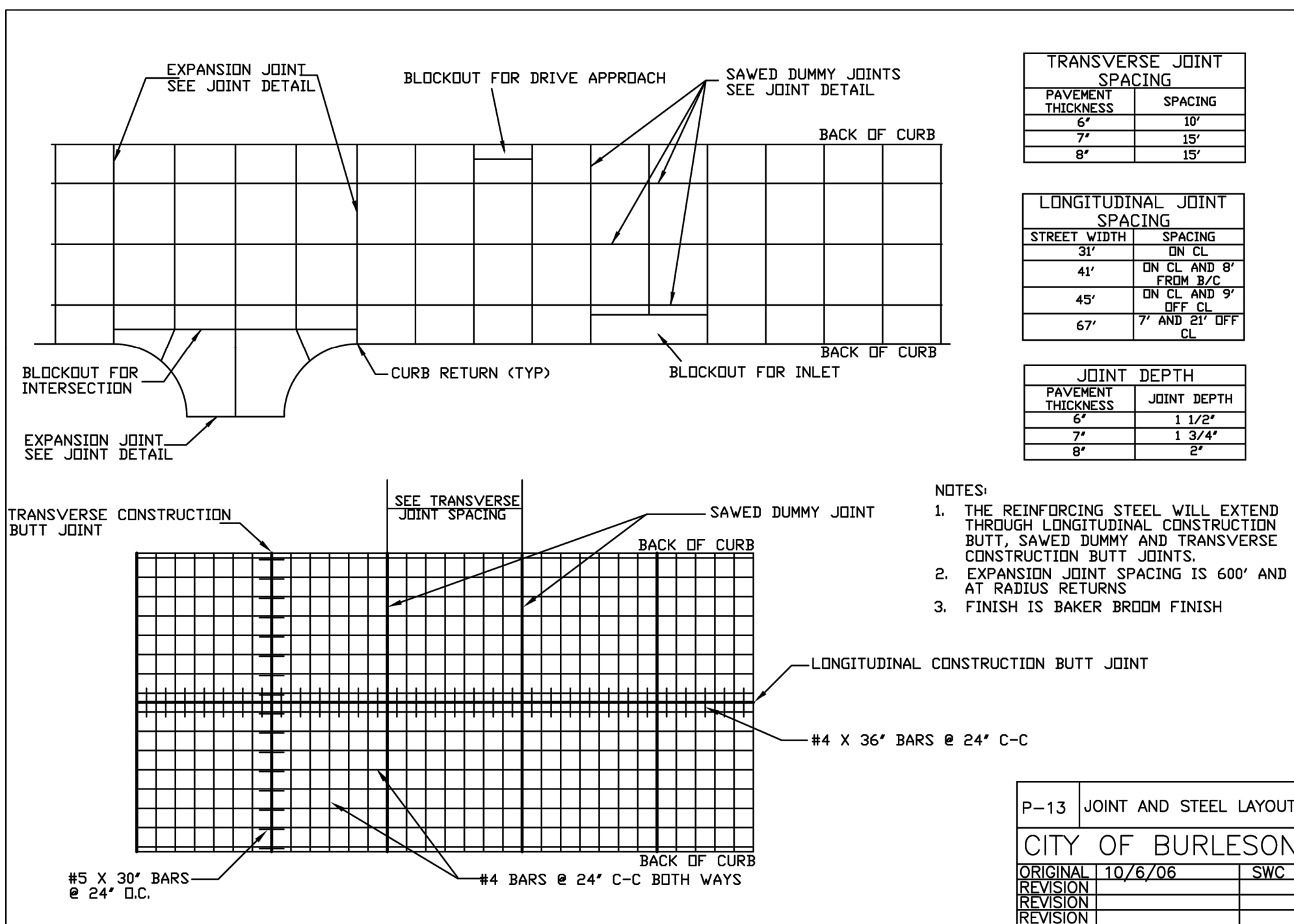
STORM PLAN

SHEET NO: **C7.0**

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BURLESON SERVICE CENTER BURLESON, TEXAS PAVING DETAILS



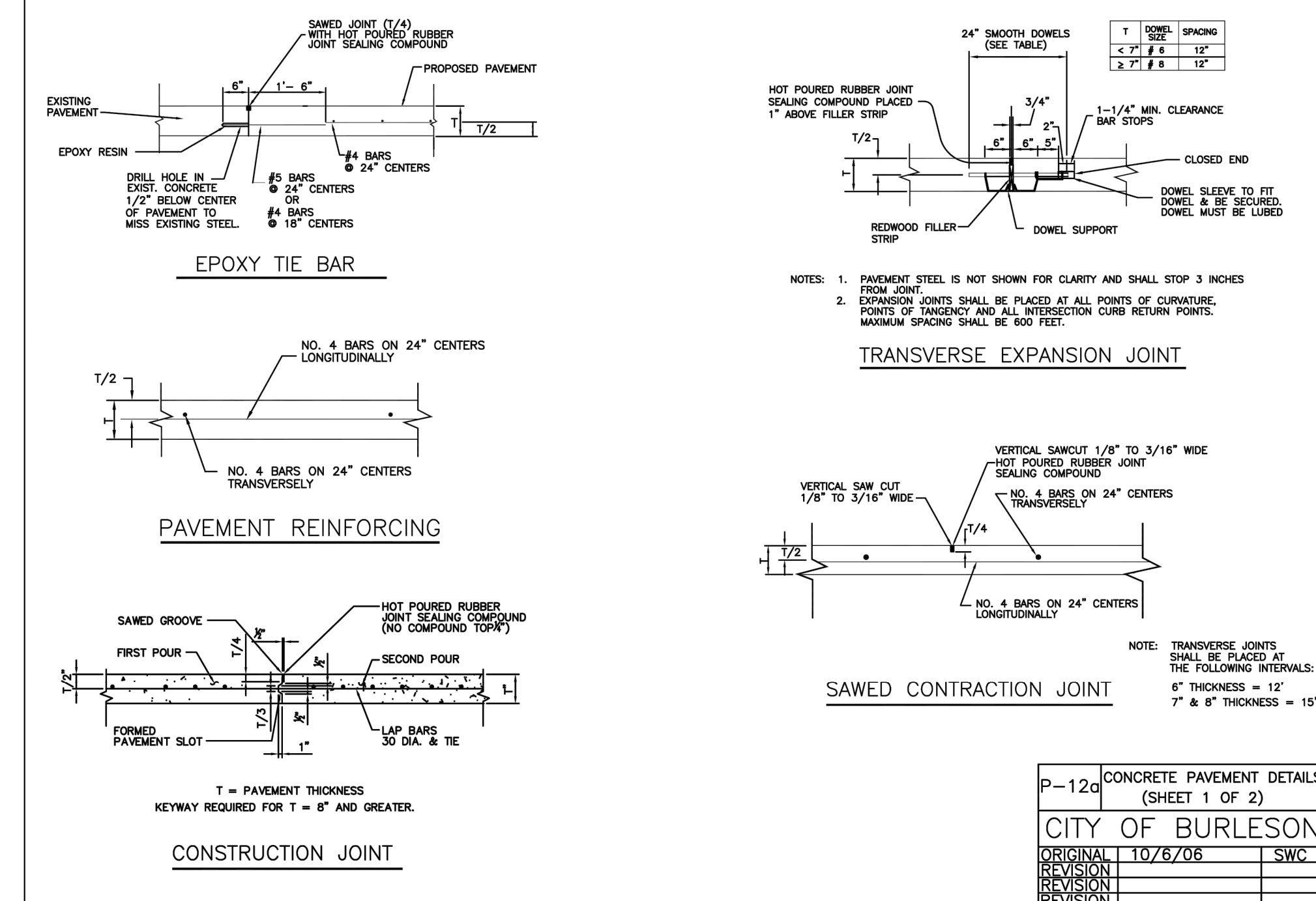
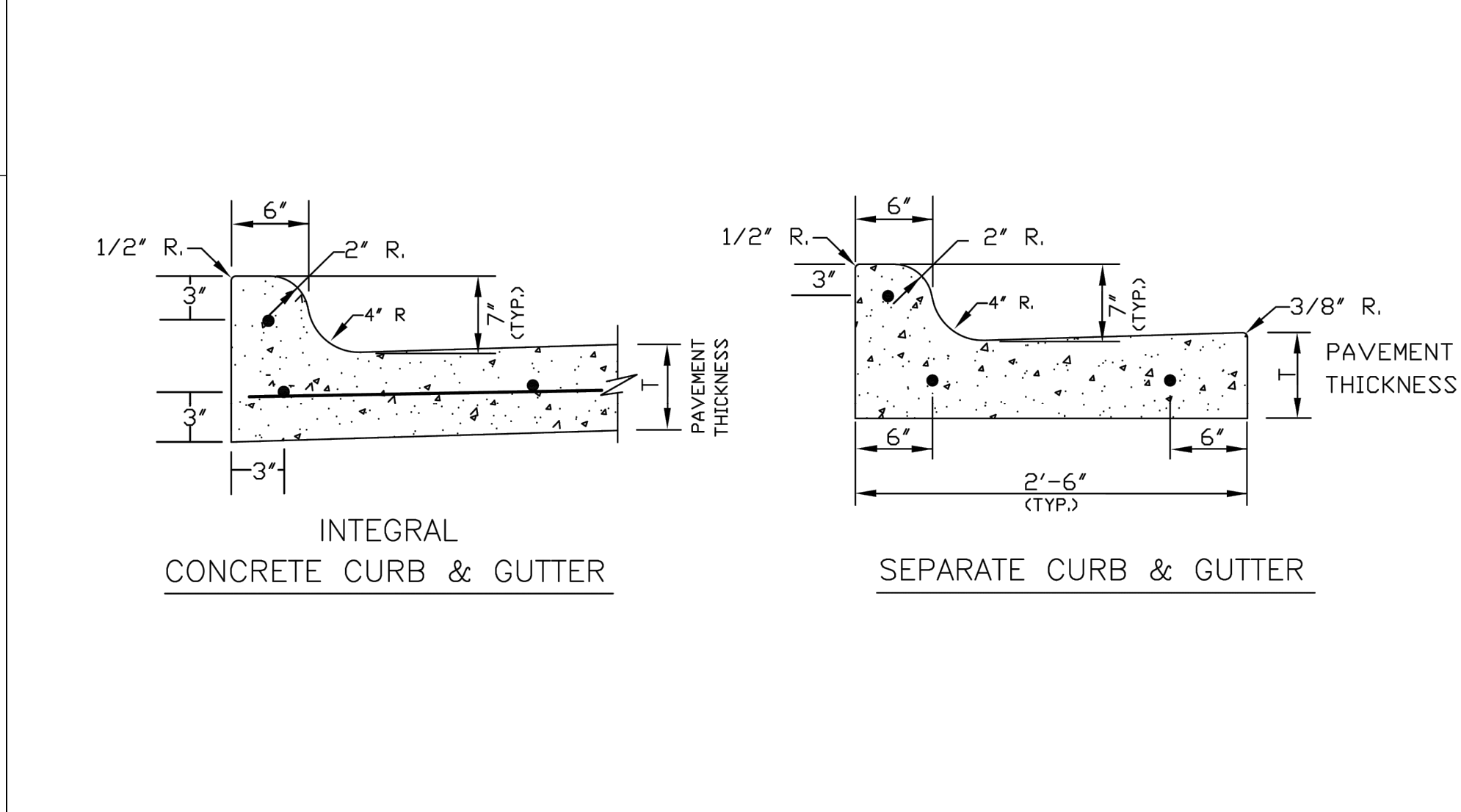
CONSTRUCTION NOTES

- FOR DEFORMED BAR SPLICES, LAP BARS 40 DIAMETERS AND TIE.
- FOR PAVEMENT THICKNESS "T" REFER TO PAVING PLAN.

DIM T = PAVEMENT THICKNESS	DIM T/4 = JOINT DEPTH
5"	1 1/4"
6"	1 1/2"
7"	1 3/4"
8"	2"
9"	2 1/4"

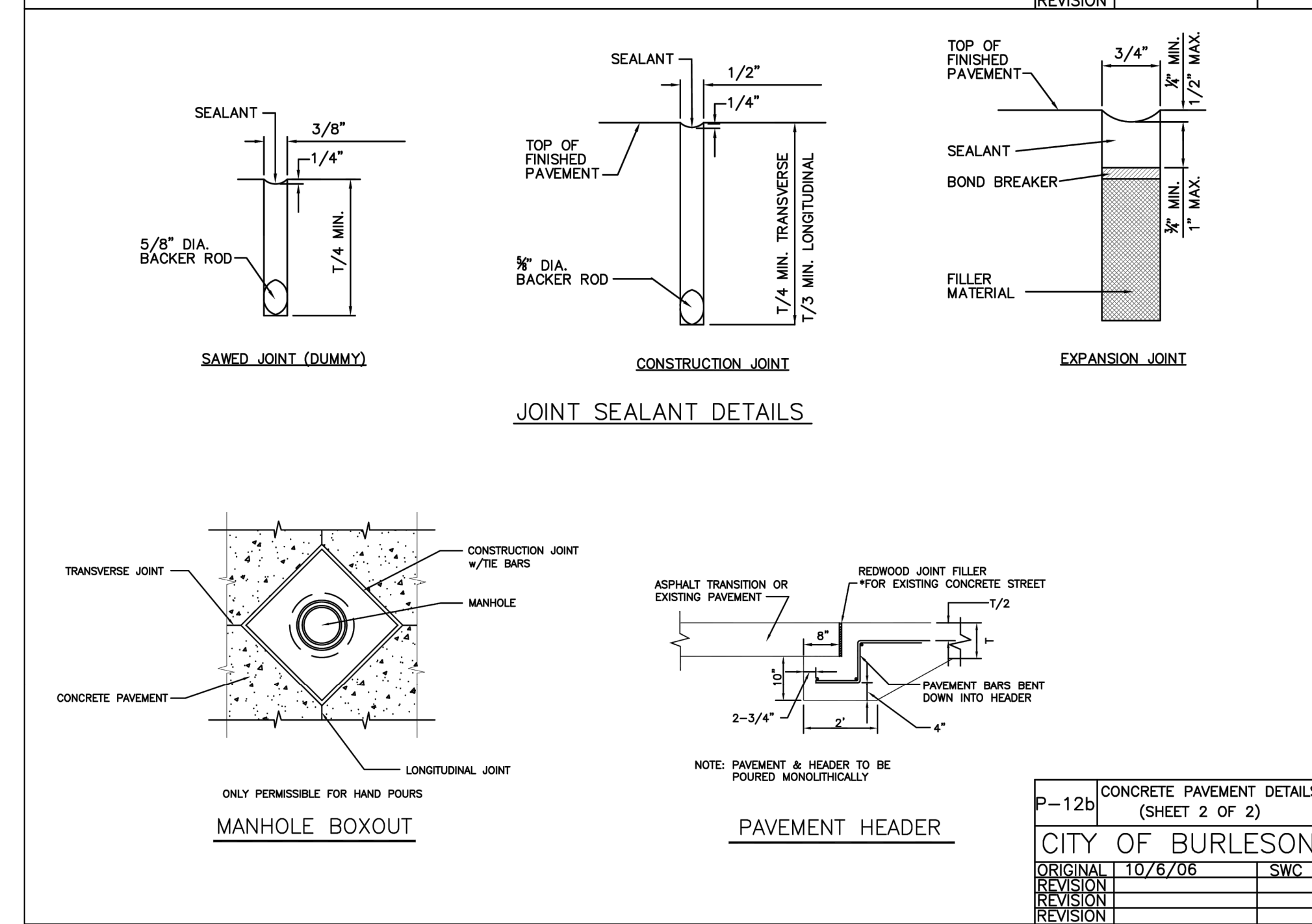
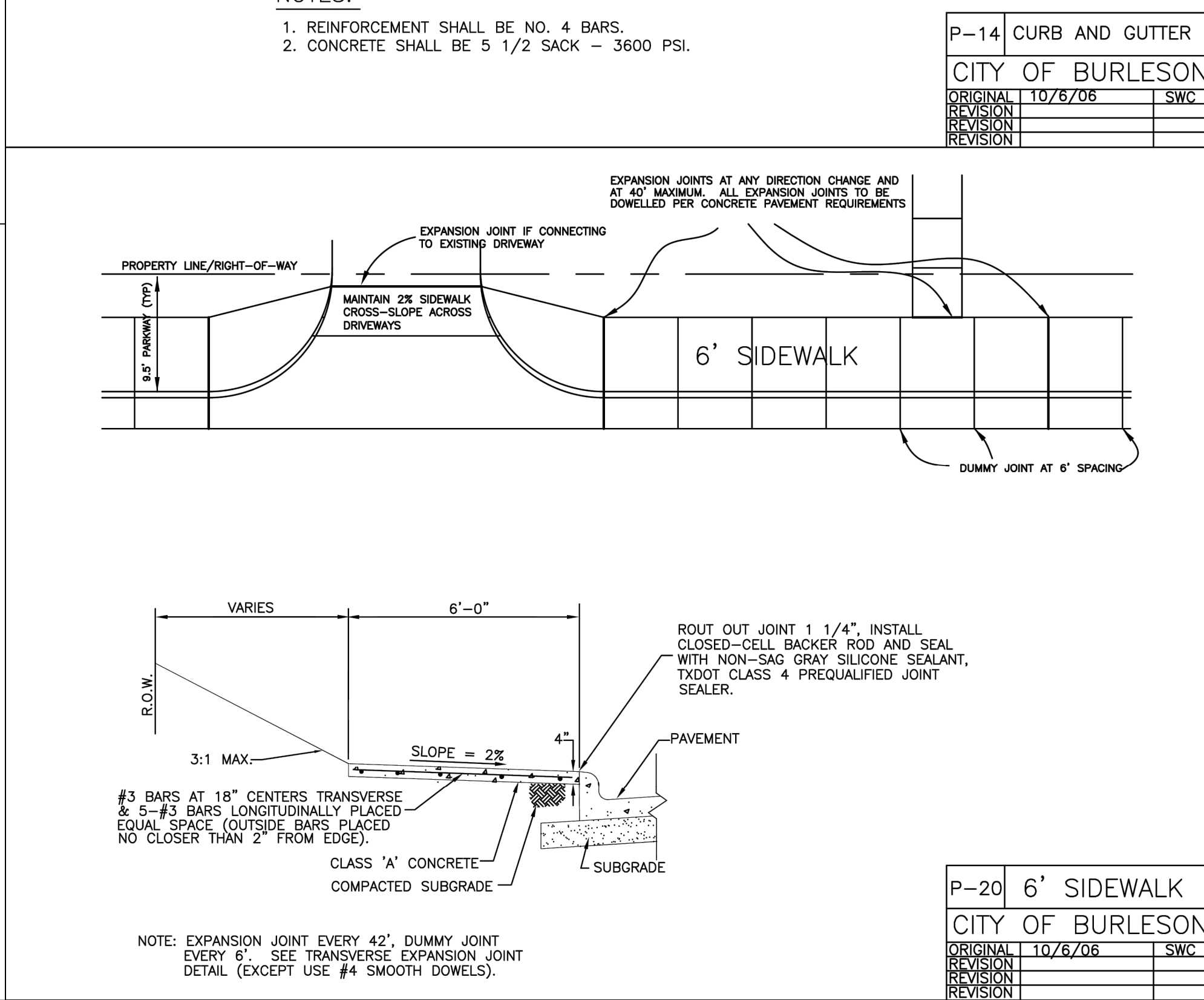
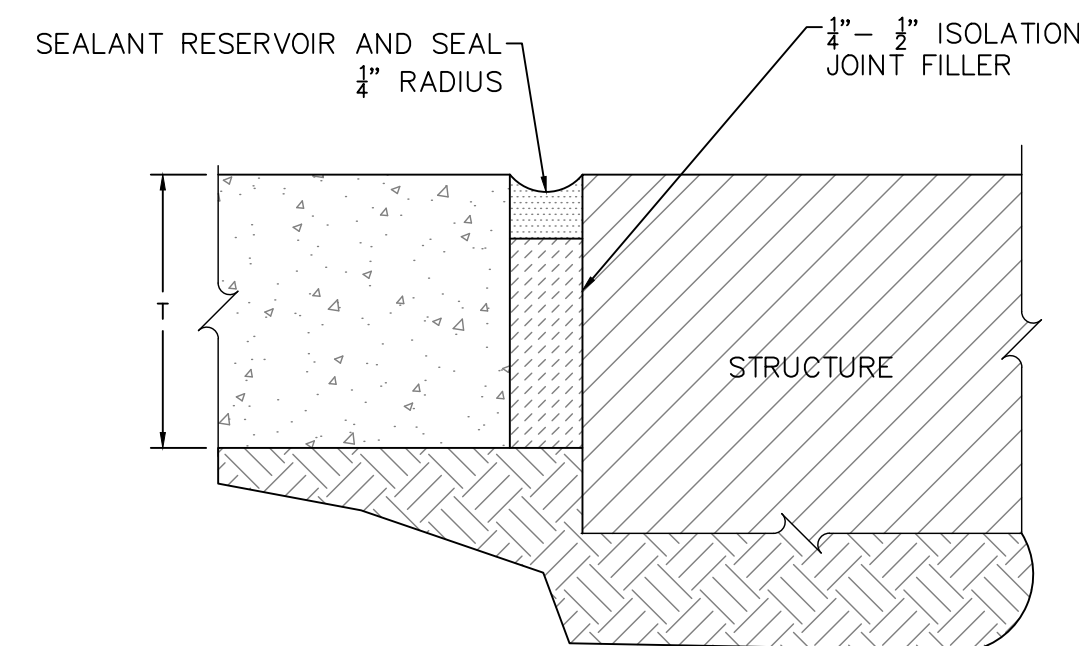
DIM T = PAVEMENT THICKNESS	* (CLEARANCE FROM FACE OF CONCRETE)
5"	2"
6"	2"
7"	2 1/2"
8"	2 1/2"
9"	3"

NOTE: ALL DOWELS TO BE PLACED AT T/2.



PAVING NOTES & TABLES

NOT TO SCALE



mma
 civil engineering surveying landscape architecture planning
 tlpels registration number: 1 - 2759
 tlpels registration/license number: 10088000
 519 east border
 orlington, texas 76010
 817-469-1671
 fax: 817-274-8757
 www.mmatus.com

2/15/2024

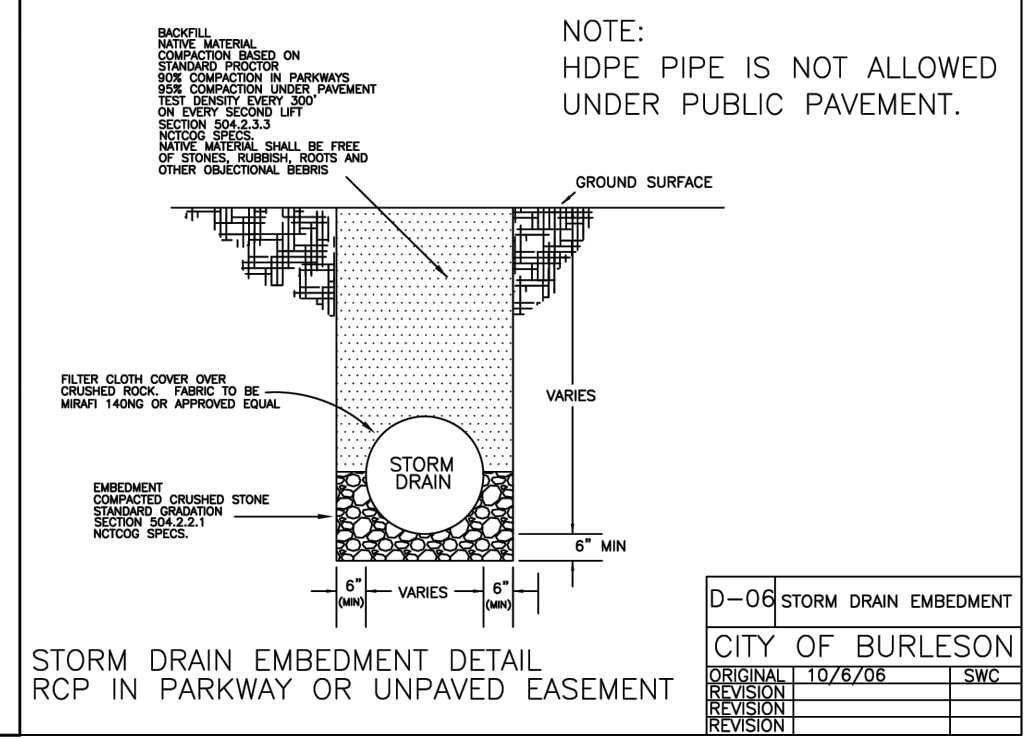
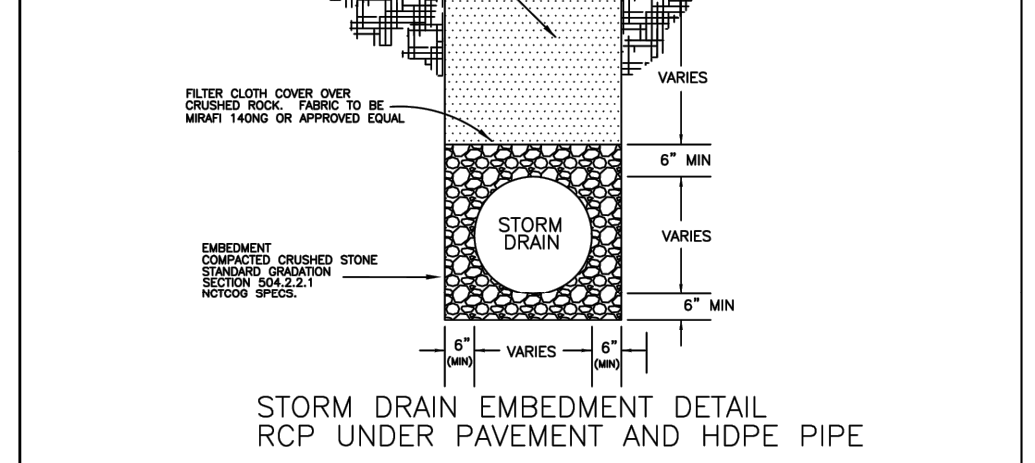
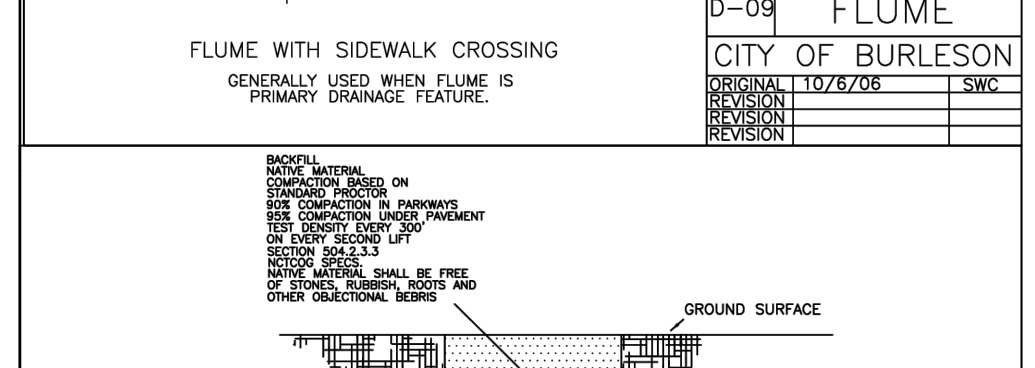
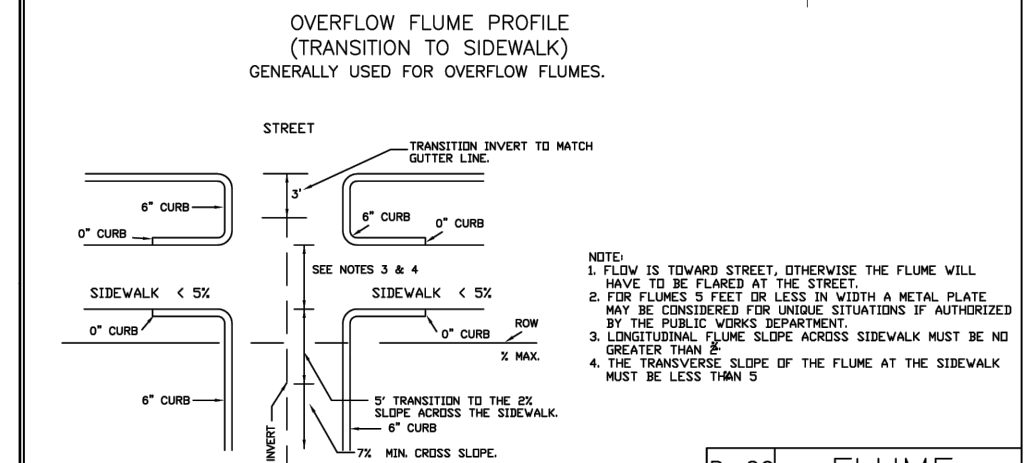
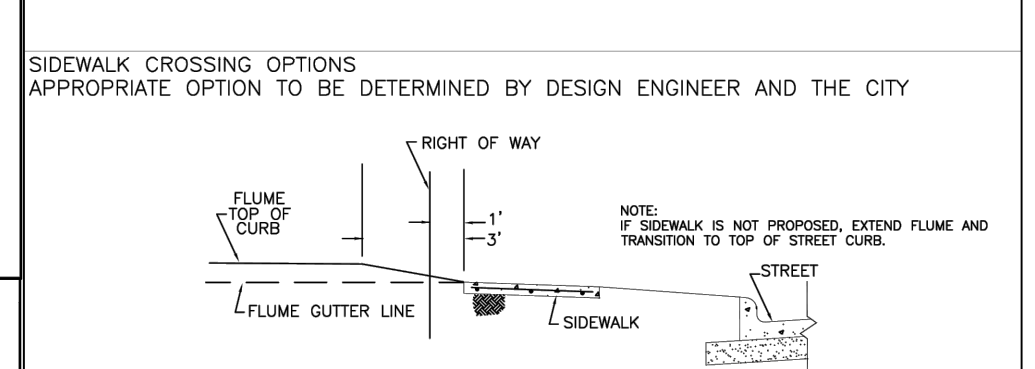
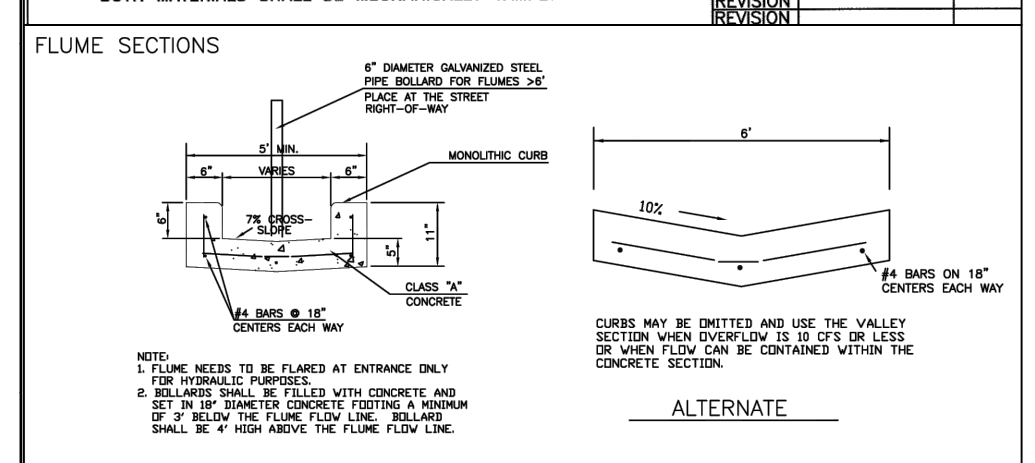
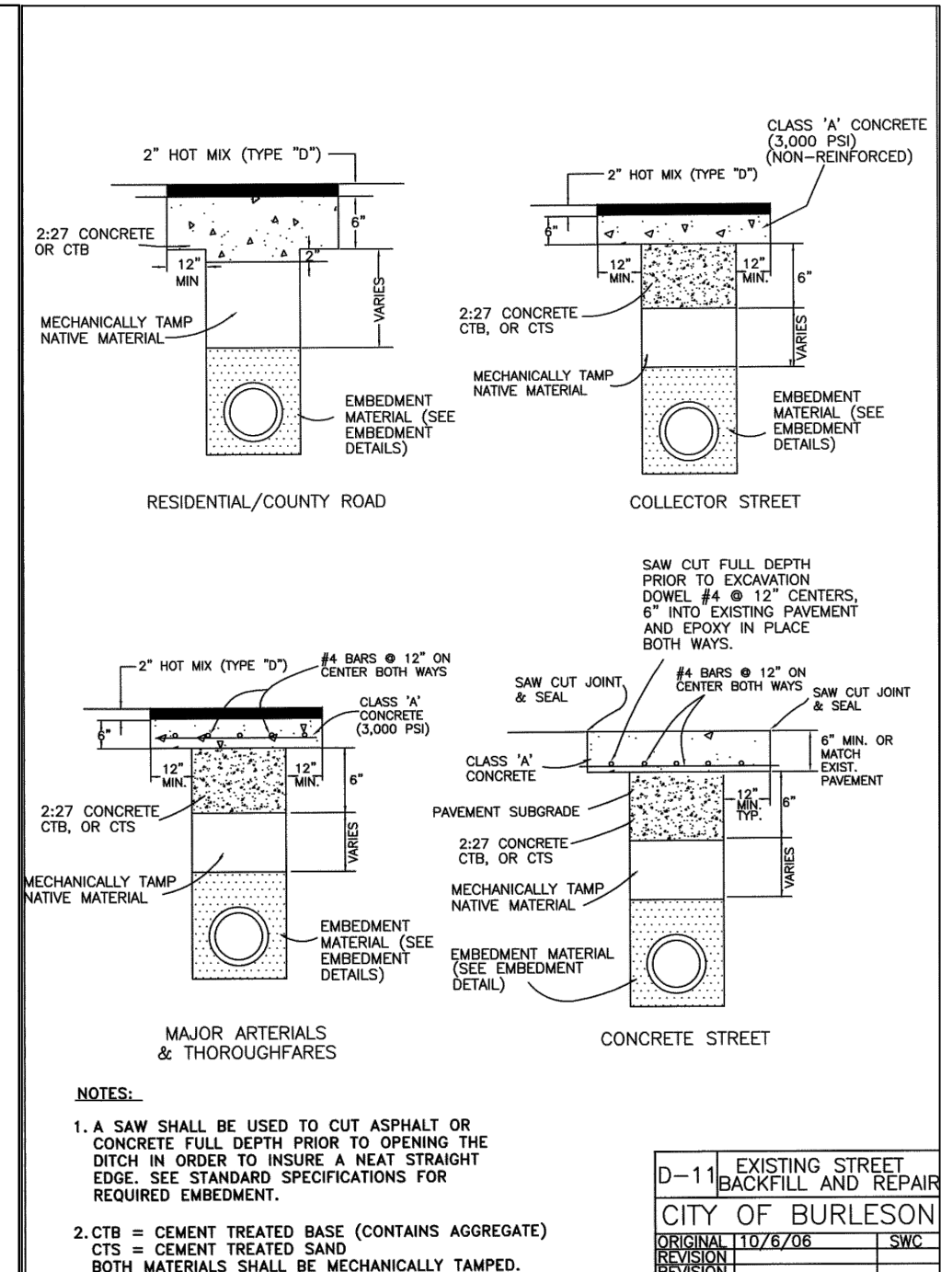
BOBBY P. GADDIS
 LICENSED PROFESSIONAL ENGINEER
 PROJECT NUMBER: 3726-00-01
 PROJECT MANAGER: B. GADDIS
 DRAWN BY: I. HERNANDEZ
 CHECKED BY: B. GADDIS
 ISSUE DATE: 02/15/2024

REV.	DATE	DESCRIP.	BY

2/15/24 ISSUE FOR CONSTRUCTION

PAVING DETAILS
 SHEET NO: **C8.0**
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BURLESON SERVICE CENTER BURLESON, TEXAS DRAINAGE DETAILS



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ltpels registration number: 1 - 2759
ltpels registration/license number: 10088000
519 east border
orlington, texas 76010
817-469-1671
fax: 817-274-8757
www.mmatus.com

2/15/2024

STATE OF TEXAS
BOBBY P. GADDIS
132973
LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER: 3726-00-01
PROJECT MANAGER: B. GADDIS
DRAWN BY: I. HERNANDEZ
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ISSUE DATE: 02/15/2024

REV.	DATE	DESCRIP.	BY

DRAINAGE DETAILS

SHEET NO: **C8.1**

CITY OF BURLESON
DESIGN: 1107/2706
REVISION:

CITY OF BURLESON
DESIGN: 1107/2706
REVISION:

CITY OF BURLESON
DESIGN: 1107/2706
REVISION:

CITY OF BURLESON
DESIGN: 1107/2706
REVISION:

CROSS PIPE AND CONNECTIONS DETAILS

OPTION A1
OPTION A2

PIPE RUNNER DETAILS

OPTION B1
OPTION B2

BOTTOM ANCHOR PIPE DETAILS

OPTION B1
OPTION B2

BOTTOM ANCHOR TOEWALL DETAILS

SECTION A-A

SAFETY END TREATMENT FOR 12" DIA TO 60" DIA PIPE CULVERTS TYPE II - CROSS DRAINAGE SETP-CD

Texas Department of Transportation
Bridge Division Standard

DATE:

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CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS

Nominal Culvert I.D.	Pipe Culvert Length	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1'-7"	3'-5"	N/A	N/A	N/A	5'-10"	N/A	N/A	N/A	8'-1"	N/A	N/A	N/A	12'-9"
27"	1'-8"	3'-8"	N/A	N/A	5'-5"	6'-11"	N/A	6'-11"	9'-7"	N/A	N/A	N/A	11'-11"	14'-11"
30"	1'-10"	3'-11"	N/A	N/A	6'-4"	8'-0"	N/A	8'-0"	11'-0"	N/A	N/A	N/A	13'-8"	17'-0"
33"	1'-11"	4'-2"	6'-2"	6'-5"	7'-3"	8'-7"	8'-10"	10'-0"	12'-5"	13'-3"	12'-5"	15'-2"	19'-2"	21'-3"
36"	2'-1"	4'-5"	6'-11"	7'-3"	8'-2"	10'-2"	9'-6"	9'-11"	11'-2"	13'-10"	14'-9"	15'-3"	17'-2"	21'-3"
42"	2'-4"	4'-11"	8'-6"	8'-10"	9'-11"	12'-4"	11'-7"	12'-0"	13'-6"	16'-8"	17'-9"	18'-5"	20'-8"	25'-7"
48"	2'-7"	5'-5"	10'-1"	10'-5"	11'-9"	13'-7"	14'-2"	15'-10"	N/A	20'-9"	21'-6"	24'-2"	N/A	N/A
54"	3'-0"	5'-11"	11'-8"	12'-1"	N/A	N/A	15'-8"	16'-3"	N/A	23'-10"	24'-8"	N/A	N/A	N/A
60"	3'-3"	6'-5"	12'-3"	N/A	N/A	N/A	17'-9"	N/A	N/A	26'-10"	N/A	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS

Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3:106:1	3:464:1	4:243:1
4:1	4:1	4:141:1	4:619:1	5:657:1
6:1	6:1	6:212:1	6:928:1	8:485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED

Nominal Culvert I.D.	Single Pipe Culverts	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 30°	Skews thru 30°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (no skew)	Always required
42" thru 60"	Always required	Always required

STANDARD PIPE SIZES AND MAX PIPE RUNNER LENGTHS

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10'-0"
4" STD	4.500"	4.026"	13'-0"
6" STD	6.562"	6.047"	34'-2"

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY)

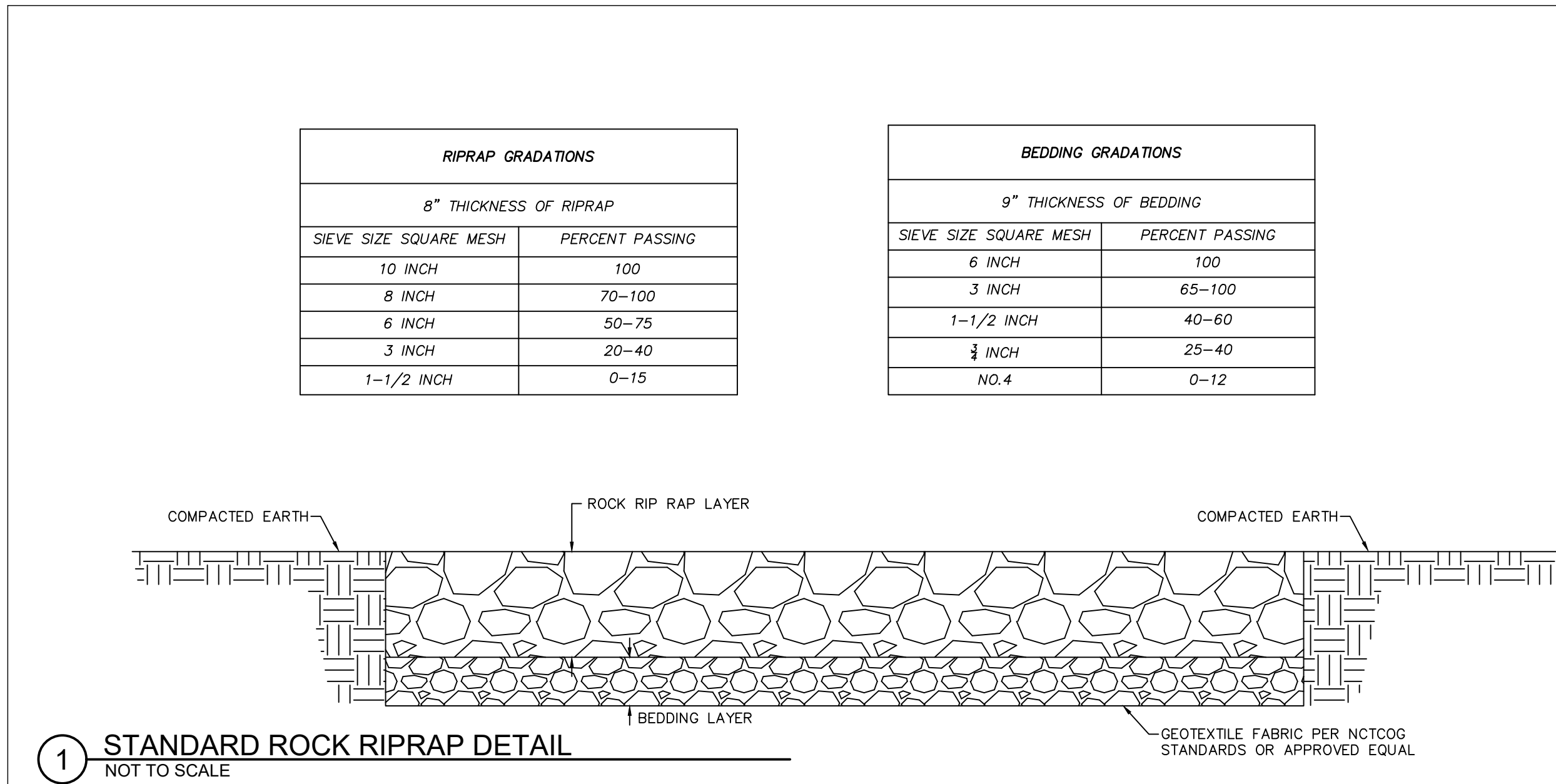
Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.3	1.4	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.4	1.5	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.6	1.7	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

SAFETY END TREATMENT FOR 12" DIA TO 60" DIA PIPE CULVERTS TYPE II - CROSS DRAINAGE SETP-CD

Texas Department of Transportation
Bridge Division Standard

DATE:

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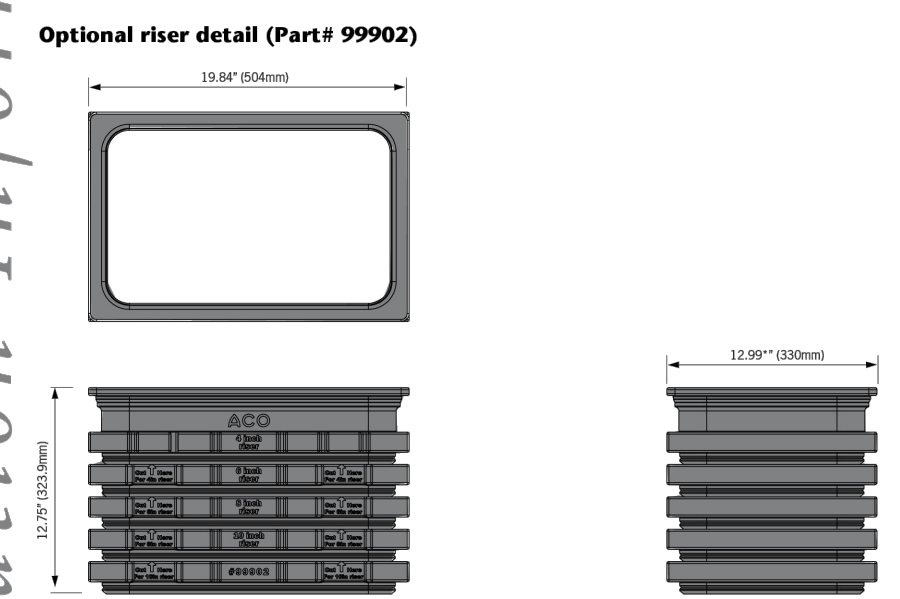


1 STANDARD ROCK RIPRAP DETAIL
NOT TO SCALE

ACO DRAIN
K2-621G Catch Basin

Description	Part No.	Invert Depth Inches	Weight lbs.
Type K2-621 G Catch basin assembly - top, removable "QuickLok" bar, trash bucket & base	94620	37.40	950

Catch Basin Components			
Type 600 optional riser	99902	12.00	304.8
Foam air trap - fits both Type 900 & Type 600 basins	90854	-	1.2
QuickLok grate removal tool	01318	-	0.5



Notes:
1. Riser can be cut down in 1" (25mm) increments.
2. Addition of riser will alter the outflow rates of base as shown on table below.

Specifications	General	Materials	Compressive strength:	Flexural strength:	Water absorption:	Frost proof:
Salt proof	YES	Compressive strength: 14,000 psi	4,000 psi	0.07%	YES	YES
Dilute acid and alkali resistant	YES	Flexural strength: 4,000 psi	4,000 psi	0.07%	YES	YES
Optional Riser	Optional riser can be used between polymer concrete top unit and LLDPE base unit. Use of riser is determined by access and local building codes.	Material: Polyester resin polymer concrete with minimum properties as follows:	4,000 psi	4,000 psi	0.07%	YES
Grates	Grates shall be specified. See separate ACO Specification sheets for details. After removal of grates and "QuickLok" bar there shall be uninterrupted access to the catch basin to aid maintenance.	Channel: Manufactured with dibutyl for channel connection and have a wall thickness of at least 0.59" (15mm). Top units shall have horizontal cast in anchoring key features on the outside to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The base unit shall be LLDPE plastic molding and incorporate molded plastic pipe stubs to facilitate pipe connection.	4,000 psi	4,000 psi	0.07%	YES

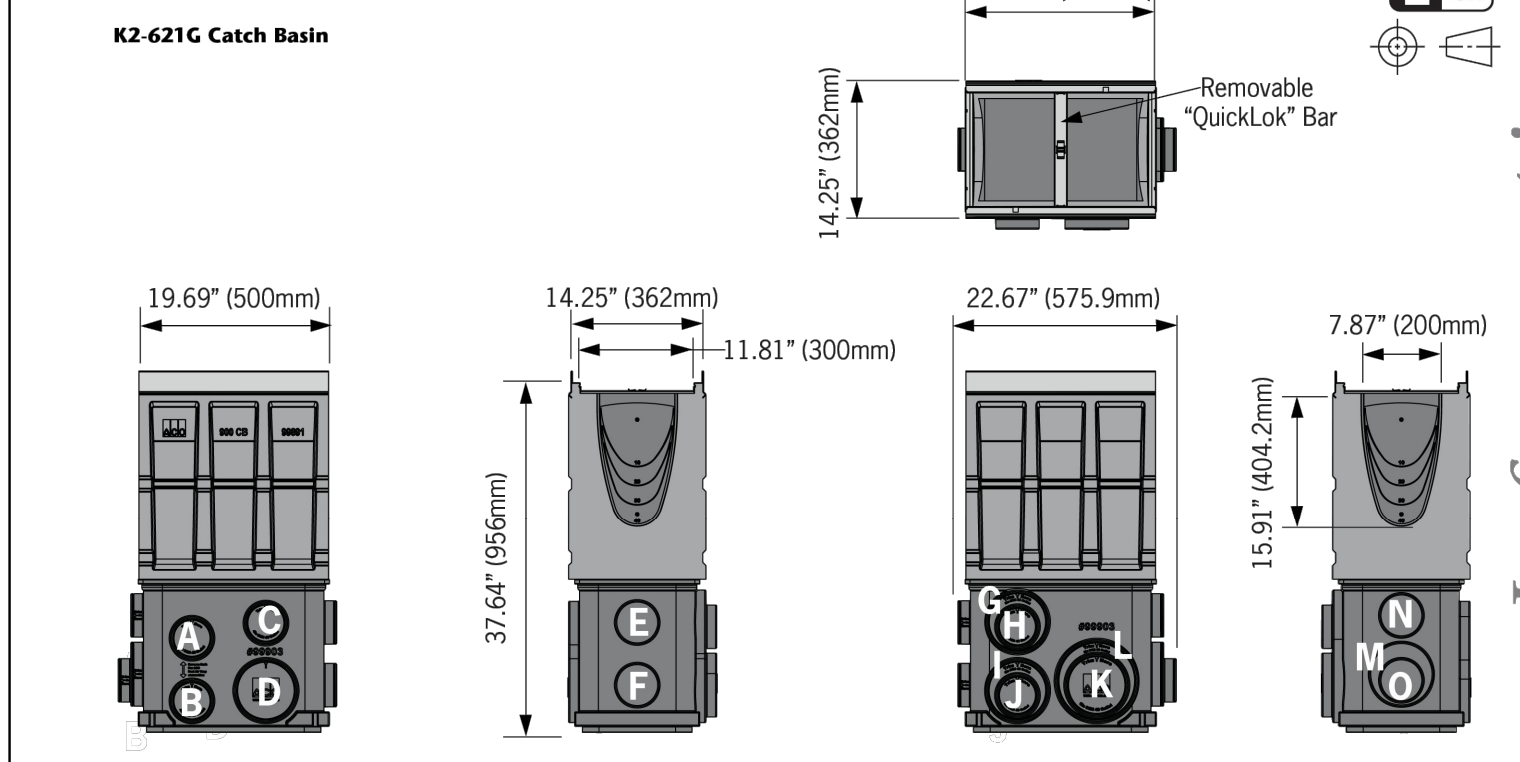
ACO, Inc.
Northwest Sales Office
 9470 Pinecone Drive
 Mentor, OH 44060
 Tel: (440) 639-7230
 Toll free: (800) 543-4764
 Fax: (440) 639-7235

West Sales Office
 825 W. Beechcraft St.
 Casa Grande, AZ 85122
 Tel: (520) 421-9988
 Toll free: (888) 490-9552
 Fax: (520) 421-9899

Southeast Sales Office
 4211 Pleasant Road
 Fort Mill, SC 29708
 Tel: (803) 543-4764
 Toll free: (888) 490-9552
 Fax: (803) 802-1063

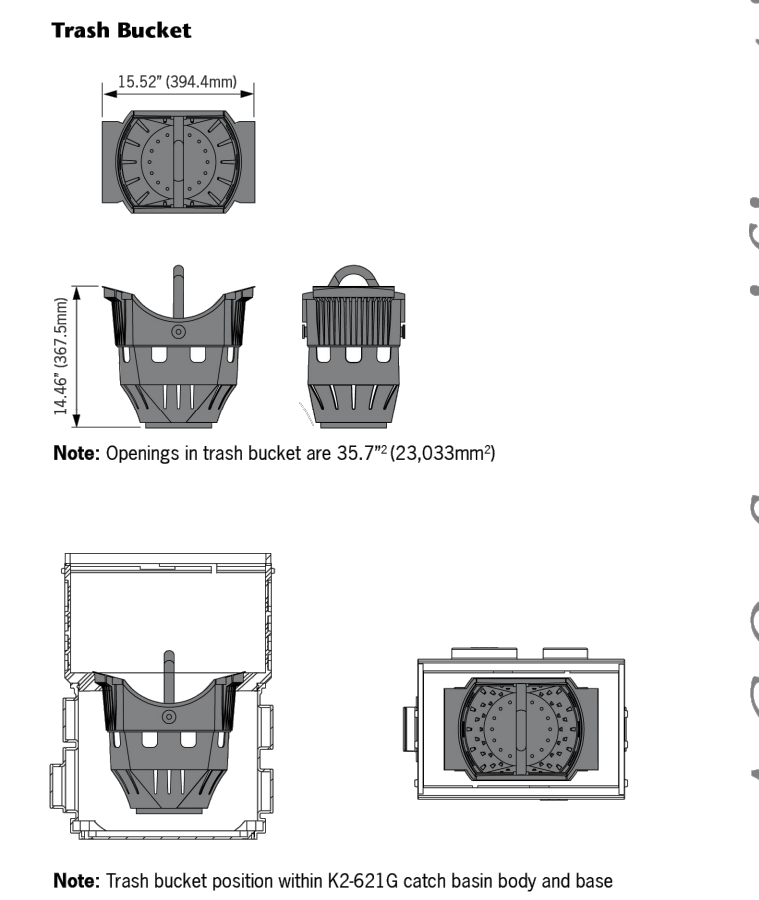
February 2019 www.acousa.com

ACO DRAIN
K2-621G Catch Basin



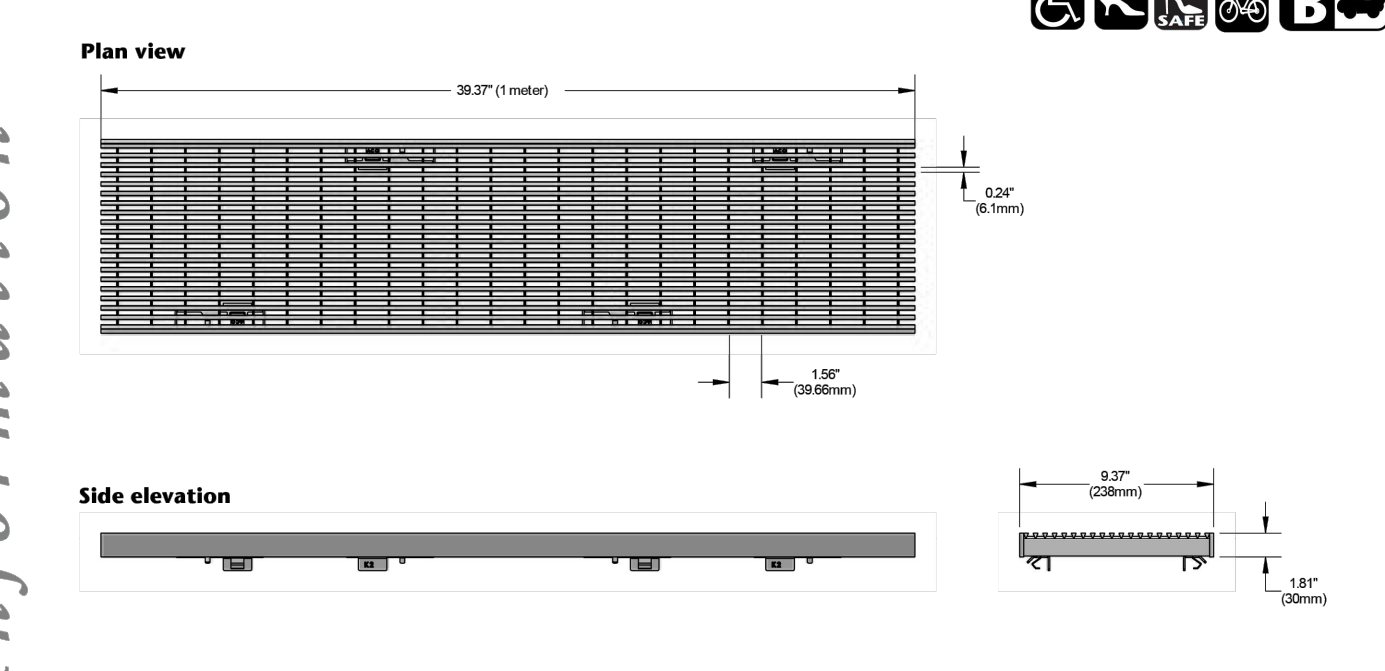
Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
A	Type K2-621G	4" round	29.80"	287	0.64
B	Type K2-621G	4" round	36.29"	319	0.71
C	Type K2-621G	4" round	28.22"	279	0.62
D	Type K2-621G	6" round	36.29"	707	1.57
E	Type K2-621G	4" round	28.37"	280	0.62
F	Type K2-621G	4" round	34.87"	312	0.70
G	Type K2-621G	6" round	29.15"	626	1.40
H	Type K2-621G	4" round	28.59"	281	0.63
I	Type K2-621G	6" round	36.28"	707	1.57
J	Type K2-621G	4" round	35.72"	316	0.70
K	Type K2-621G	6" round	35.72"	701	1.56
L	Type K2-621G	8" round	36.28"	1237	2.76
M	Type K2-621G	6" round	34.78"	690	1.54
N	Type K2-621G	4" round	27.65"	276	0.61
O	Type K2-621G	4" round	34.36"	310	0.69

Notes:
1. These are the pipe flow rates at the specified outlet. NOT channel flow rates.
2. 4" diameter foam air trap, part# 90854, can be fitted to catch basin base at outlet positions A/B and E.
3. Fits KlassikDrain K200 systems.

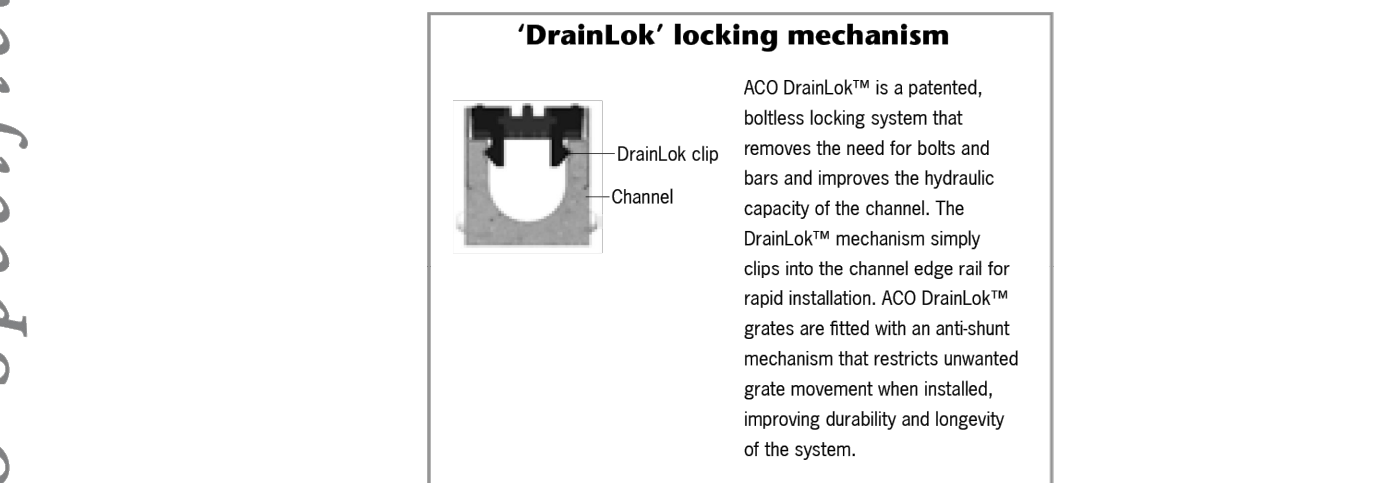


February 2019 www.acousa.com

ACO DRAIN
Type 647D/648D Longitudinal stainless steel grate (ADA)



Description	Part No.	Length (mm)	Width (mm)	Weight (lbs.)
DrainLok grate	142219	39.37 (1000)	9.37 (238)	17.7
Type 647D Longitudinal stainless steel grate	142220	19.69 (500)	9.37 (238)	9.0



ACO Polymer Products, Inc.
Northwest Sales Office
 9470 Pinecone Drive
 Mentor, OH 44060
 Tel: (440) 639-7230
 Toll free: (800) 543-4764
 Fax: (440) 639-7235

West Sales Office
 825 W. Beechcraft St.
 Casa Grande, AZ 85122
 Tel: (520) 421-9988
 Toll free: (888) 490-9552
 Fax: (520) 421-9899

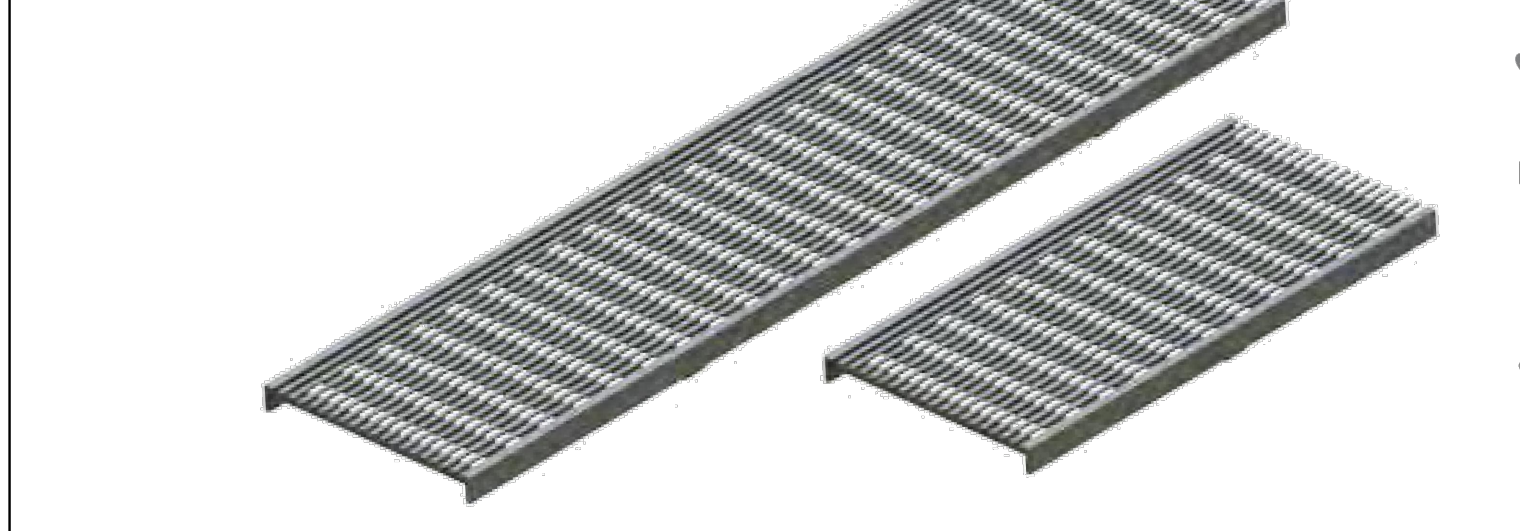
Southeast Sales Office
 4211 Pleasant Road
 Fort Mill, SC 29708
 Tel: (803) 543-4764
 Toll free: (888) 490-9552
 Fax: (803) 802-1063

August 2017 www.ACODrain.us

ACO DRAIN
Type 647D/648D Longitudinal stainless steel grate (ADA)

Product Features

- Certified to EN 1433 Load Class B - 28,000 lbs - 483 psi
- Uses 'DrainLok' boltless locking system
- Suitable for use with K200, K5200, and H200K13 channels
- Manufactured from 16 gauge, grade 304
- Complies with ADA - American Disabilities Act of 1990 Section 4.5.4
- Bicycle Tire Penetration Resistant to AS 3996 - 2006



Specifications

General
 The surface drainage system shall be ACO Drain K200, K5200, and H200K13 channels - complete with ACO Type 647D/648D longitudinal stainless steel grate (ADA) with 'DrainLok' locking as manufactured by ACO Polymer Products, Inc. or similar approved.

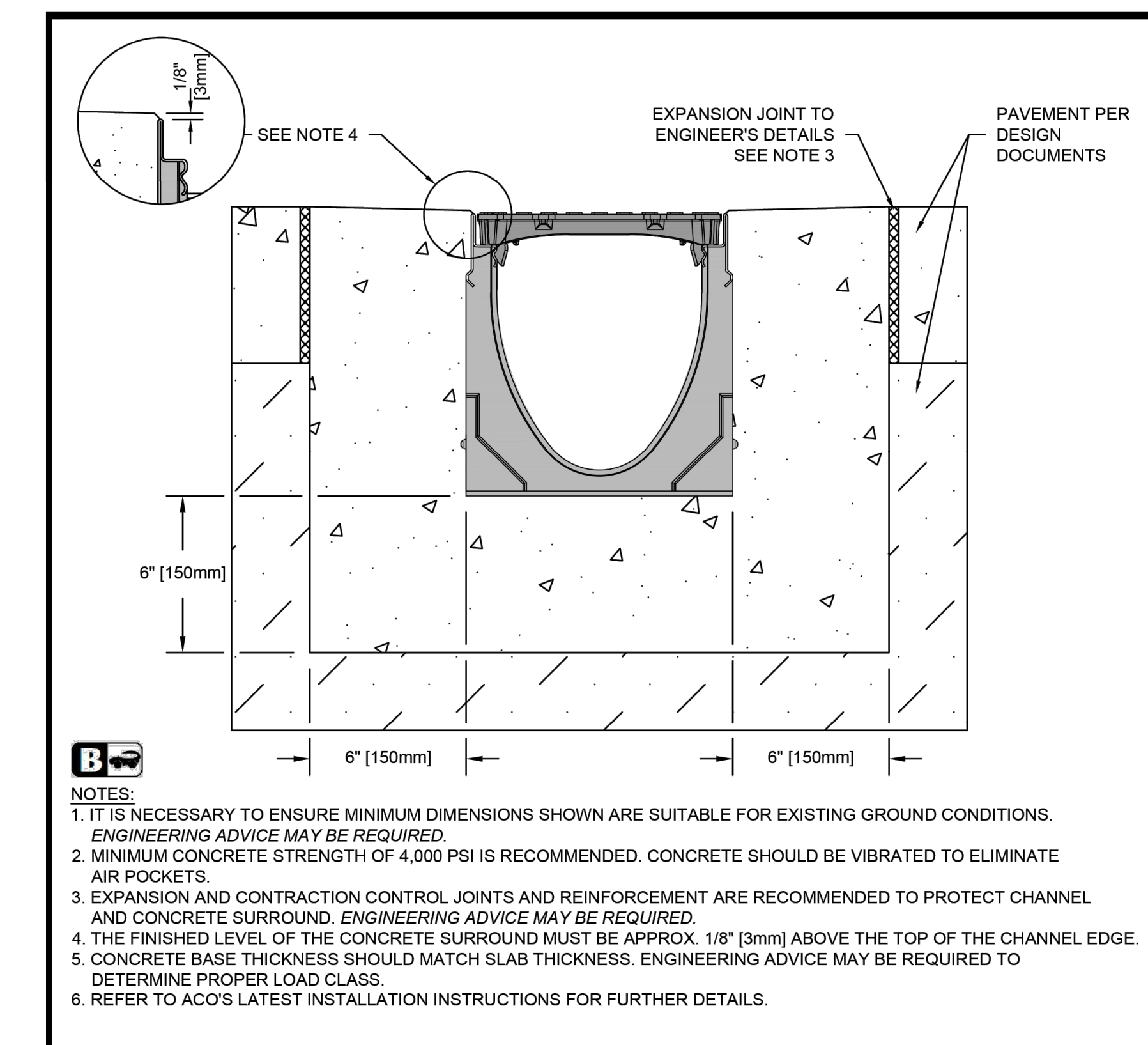
Materials
 The covers shall be manufactured from stainless steel and have minimum properties as follows:

- Independently certified to meet Load Class B to EN 1433 - 28,000 lbs - 483 psi
- 16 gauge, Grade 304 stainless steel
- Intake area of 89.1 sq. in. (574.84 cm²) per half meter

The overall width of 9.37" (238mm) and overall length of 39.37" (1000mm) (Type 647D) and overall length of 19.69" (500mm) (Type 648D). Slots measure at a 1.61" (40.89mm) by 0.24" (6.09mm).

Installation
 The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

August 2017 www.ACODrain.us



SPECIFICATION CLAUSE
KS200 KLASSIKDRAIN 'DRAINLOK' LOAD CLASS B

GENERAL
 THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE CHANNEL SYSTEM WITH STAINLESS STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
 CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN STAINLESS STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF:	YES
DILUTE ACID AND ALKALI RESISTANT:	YES
B117 SALT SPRAY TEST COMPLIANT:	YES

THE SYSTEM SHALL BE 8" (200mm) NOMINAL INTERNAL WIDTH WITH A 10.2" (260mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE APPROPRIATE TO MEET THE SYSTEM LOAD CLASS SPECIFIED AND INTENDED APPLICATION. GRATES SHALL BE SECURED USING 'DRAINLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

KS2D-B-ECP
ACO
 DATE: 08/17/16

KS200 - KLASSIKDRAIN - LOAD CLASS: B
 Exposed Concrete Pavement
INSTALLATION DRAWING - ACO DRAIN

ACO Polymer Products, Inc.
 825 W. Beechcraft St
 Casa Grande, AZ 85122
 Tel: 520-421-9988
 Fax: 520-421-9899

9470 Pinecone Dr.
 Mentor, OH 44060
 Tel: 440-639-7230
 Fax: 440-639-7235

4211 Pleasant Rd.
 Fort Mill, SC 29708
 Tel: 440-639-7230
 Fax: 803-802-1063

Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 800-543-4764 www.acousa.com South Carolina Tel: 800-543-4764

ACO Specification Information

ACO Specification Information

BURLESON SERVICE CENTER
BURLESON, TEXAS
DRAINAGE DETAILS

mma
 civil engineering surveying landscape architecture planning
 tpeels registration number: f - 2759
 tpeels registration/license number: 10088000
 519 east border
 orlington, texas 76010
 817-469-1671
 817-274-8757
 www.mmatexas.com

2/15/2024
 STATE OF TEXAS
 BOBBY P. GADDIS
 132973
 LICENSED PROFESSIONAL ENGINEER
 CIVIL
 PROJECT NUMBER: 3726-00-01
 PROJECT MANAGER: B. GADDIS
 DRAWN BY: I. HERNANDEZ
 CHECKED BY: B. GADDIS
 ISSUE DATE: 02/15/2024

REV.	DATE	DESCRIP.	BY
2/15/24	2/15/24	ISSUE FOR CONSTRUCTION	

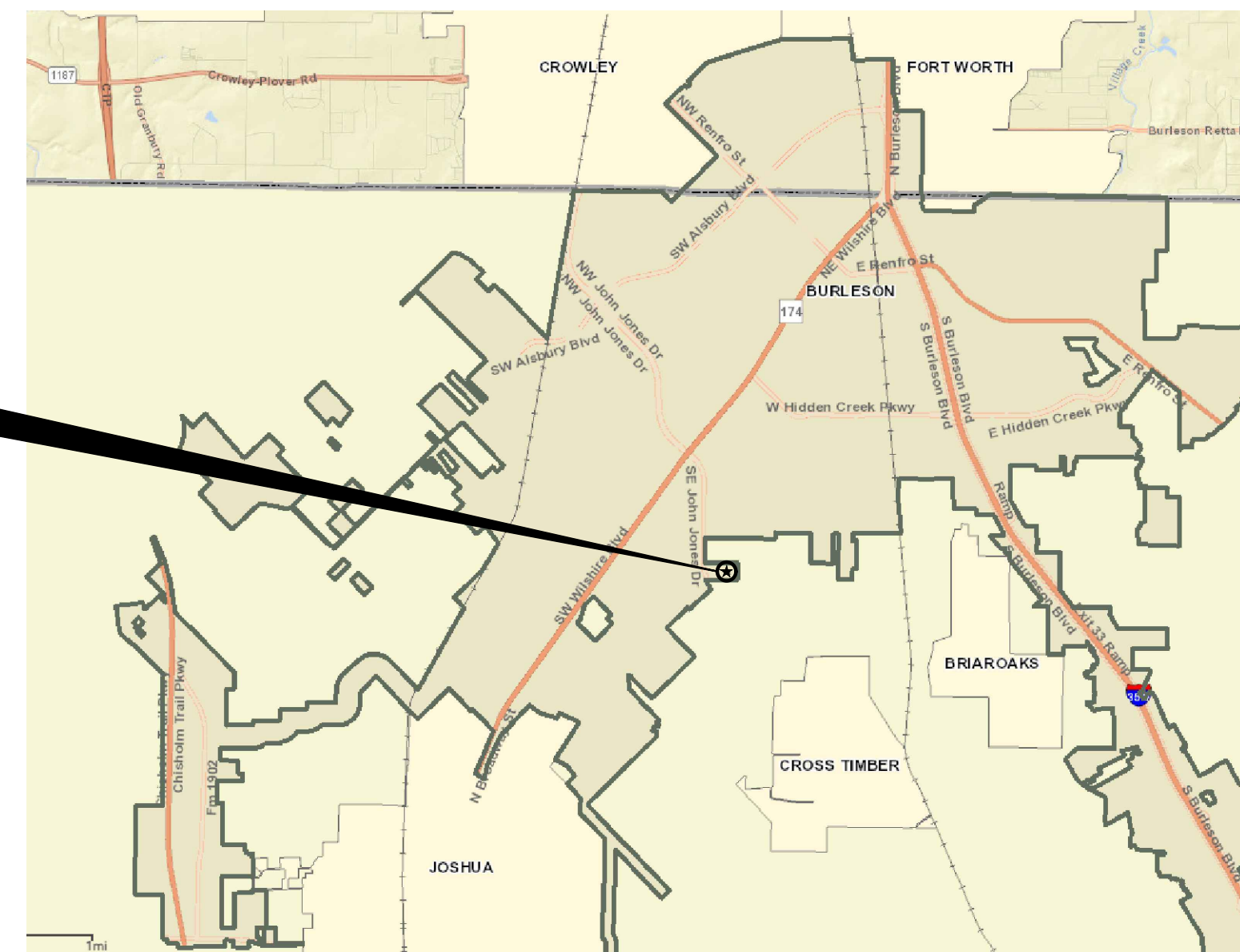
SHEET CONTENT:
DRAINAGE DETAILS
 SHEET NO: **C8.2**
 COPYRIGHT © 2024 MMA, INC.

PLOTTED BY: IHS HERNANDEZ DATE: 2/15/2024 2:44 PM (A) DATE: P: 12/26/2023 10:20 AM Land Development/303 Construction Documents/Drawings/PM/Drawings/DETAILS.dwg

CONSTRUCTION PLANS FOR
 CITY OF BURLESON
 SERVICE CENTER
 DETENTION POND DRAINAGE IMPROVEMENTS
 AN IMPROVEMENT TO BURLESON
 JOHNSON COUNTY, TEXAS

CITY PROJECT NO. DR2301

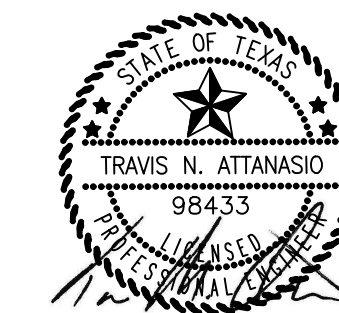
PROJECT'S
 LOCATION



LOCATION MAP

SHEET INDEX

SHEET NO.	DESCRIPTION
-	
C1	COVER SHEET
C2	TOPOGRAPHIC SURVEY
C3	DRAINAGE AREA MAP
C4	DETENTION CALCULATIONS
C5	GRADING PLAN
C6	FLUME PLAN



THE SEAL APPEARING ON THIS
 DOCUMENT WAS AUTHORIZED BY
 TRAVIS N. ATTANASIO, P.E., CFM
 ON MARCH 6, 2024

Public Works Engineering- CIP Division

141 W. Renfro Street, Burleson, TX 76028 PM: Travis Attanasio (817) 426-9614 tattanasio@burlesontx.com

MARCH 2024

THE CITY OF

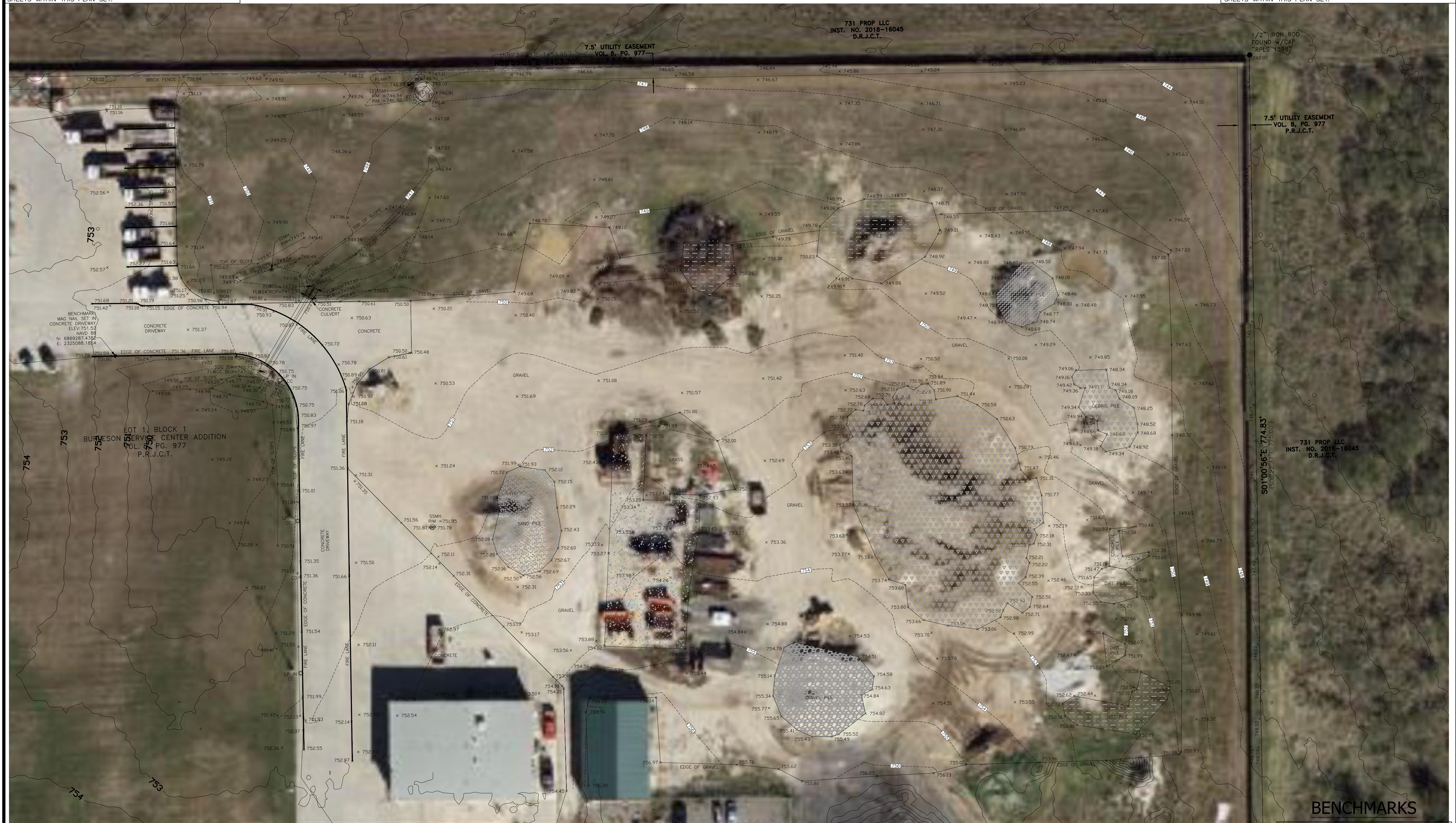
BURLESON
 TEXAS

Public Works

CITY OF BURLESON SERVICE CENTER DETENTION POND DRAINAGE IMPROVEMENTS

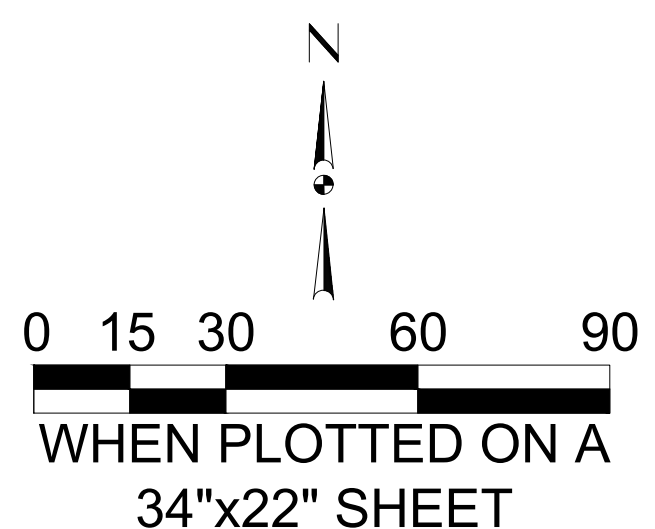
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BENCHMARKS

SITE BENCHMARK:
 BENCHMARK:
 MAG NAIL SET IN
 CONCRETE DRIVEWAY
 ELEV: 751.52
 VERTICAL DATUM: NAVD 88
 N: 2325088.1854
 E: 6869287.4382



Know what's below.
 Call before you dig.
 (@ least 48 hours prior to digging)

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Public Works

THE CITY OF
BURLESON
 TEXAS

SERVICE CENTER DETENTION POND
 725 SE JOHN JONES DRIVE
 BURLESON, TEXAS

Public Works Engineering- CIP Division

141 W. Renfro Street, Burleson, TX 76028 PH: Travis Attanasio (817) 426-9614 tattanasio@burlesontx.com

No.	Date	Revision Description

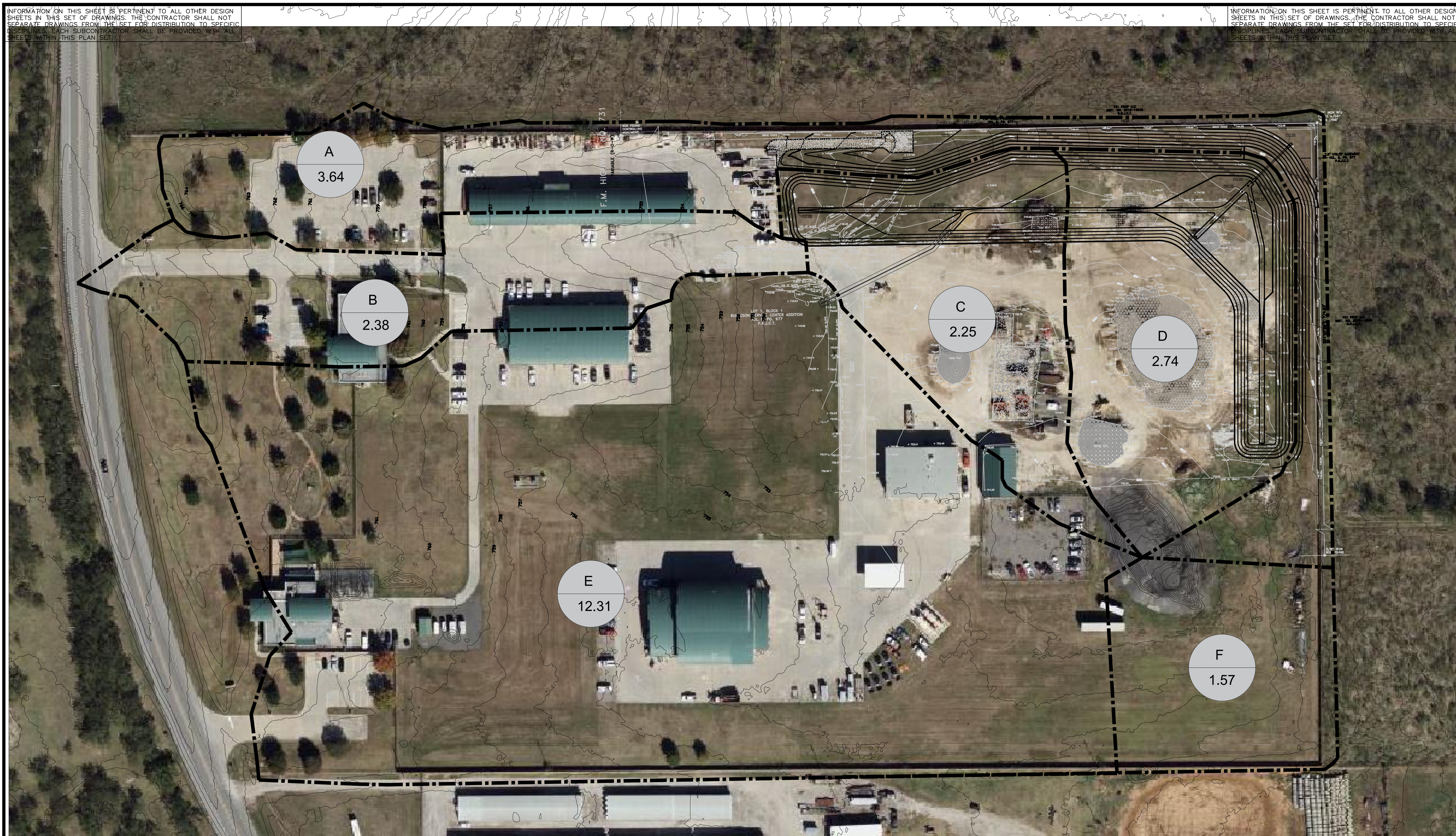
PROJECT NO.: PK2206

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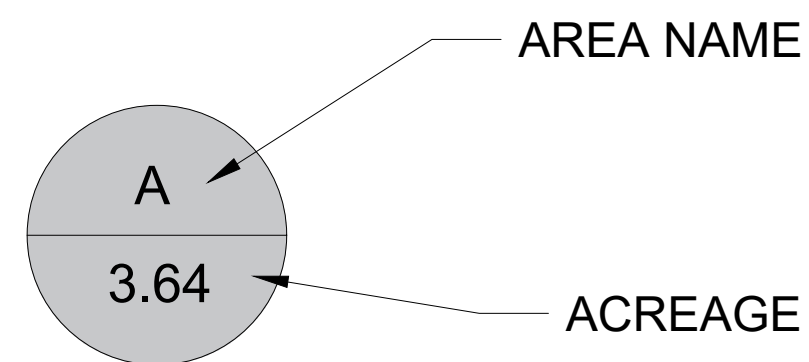
SHEET NO.
C2 TOPOGRAPHIC SURVEY

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DEBO REESE DETENTION METHOD- Full Development					
Allowable Release - 100 year			Critical Duration - 100 year		
Acres	23.32	Qa	34.63	Tc	5
C	0.35	C	0.98	Vpreliminary	217321
Tc	20	A	20.82	P180	5.79
I	8.26	a	323.38	Ptd	4.44
Qa (Calculated)	67.44	b	23.875	Vmax	283374
Qa (Actual)	34.63	Td	71.5		6.51 ac-ft
Allowable Release - 25 year			Critical Duration - 25 year		
Acres	23.32	Qa	31.26	Tc	5
C	0.35	C	0.98	Vpreliminary	154844
Tc	20	A	20.82	P180	4.73
I	6.76	a	240.45	Ptd	3.46
Qa (Calculated)	55.18	b	21.847	Vmax	211690
Qa (Actual)	31.26	Td	61.0		4.86 ac-ft
Allowable Release - 5 year			Critical Duration - 5 year		
Acres	23.32	Qa	27.52	Tc	5
C	0.35	C	0.98	Vpreliminary	103387
Tc	20	A	20.82	P180	3.19
I	4.72	a	168.39	Ptd	2.23
Qa (Calculated)	38.52	b	19.272	Vmax	147553
Qa (Actual)	27.52	Td	50.1		3.39 ac-ft

Note: A second (smaller) pond will be necessary to capture remaining Area F of Service Center if developed

POND STORAGE CALCULATIONS				Current		
Elevation	Surface Area, Increm Vol, cf		Cumul Vol, cf	5-yr elev	25-yr elev	100-yr elev
	sf	cf				
744	0		0	0.00		
745	13983	6991.5	6,992	0.16	N/A	N/A
746	32936	23459.5	30,451	0.70	N/A	N/A
747	49946	41441	71,892	1.65	N/A	N/A
748	61176	55561	127,453	2.93	N/A	N/A
749	68348	64762	192,215	4.41	748.31	N/A
750	75609	71978.5	264,194	6.07	N/A	749.27
751	83764	79686.5	343,880	7.89	N/A	N/A

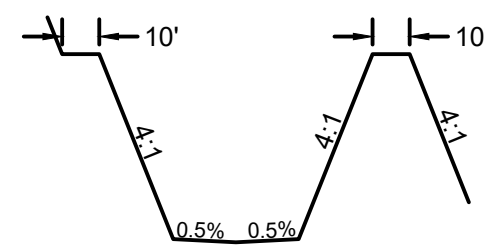
ORIFICE CALCULATIONS				
	5-yr allow	25-yr allow	100-yr allow	
Orifice 1	27.52	31.26	34.63	
Cd	0.6	0.6	0.6	
Dia (In.)	24.00	24.00	24.00	
Area (sq. ft.)	3.14	3.14	3.14	
H (ft.)	3.31	4.27	5.24	
Q (cfs)	27.52	31.26	34.63	

Max Spillway Capacity Calculation	
Q=CIA	
C	0.98
I	14.81 in/hr
A	20.22 acres
Q	293.47 cfs

Cipoletti Weir Calculation	
Q=3.367*L*h^(3/2)	
L	87.2 ft
h	1 ft
Q	293.47 cfs



SECTION A-A



SECTION B-B

BENCHMARKS

SITE BENCHMARK:
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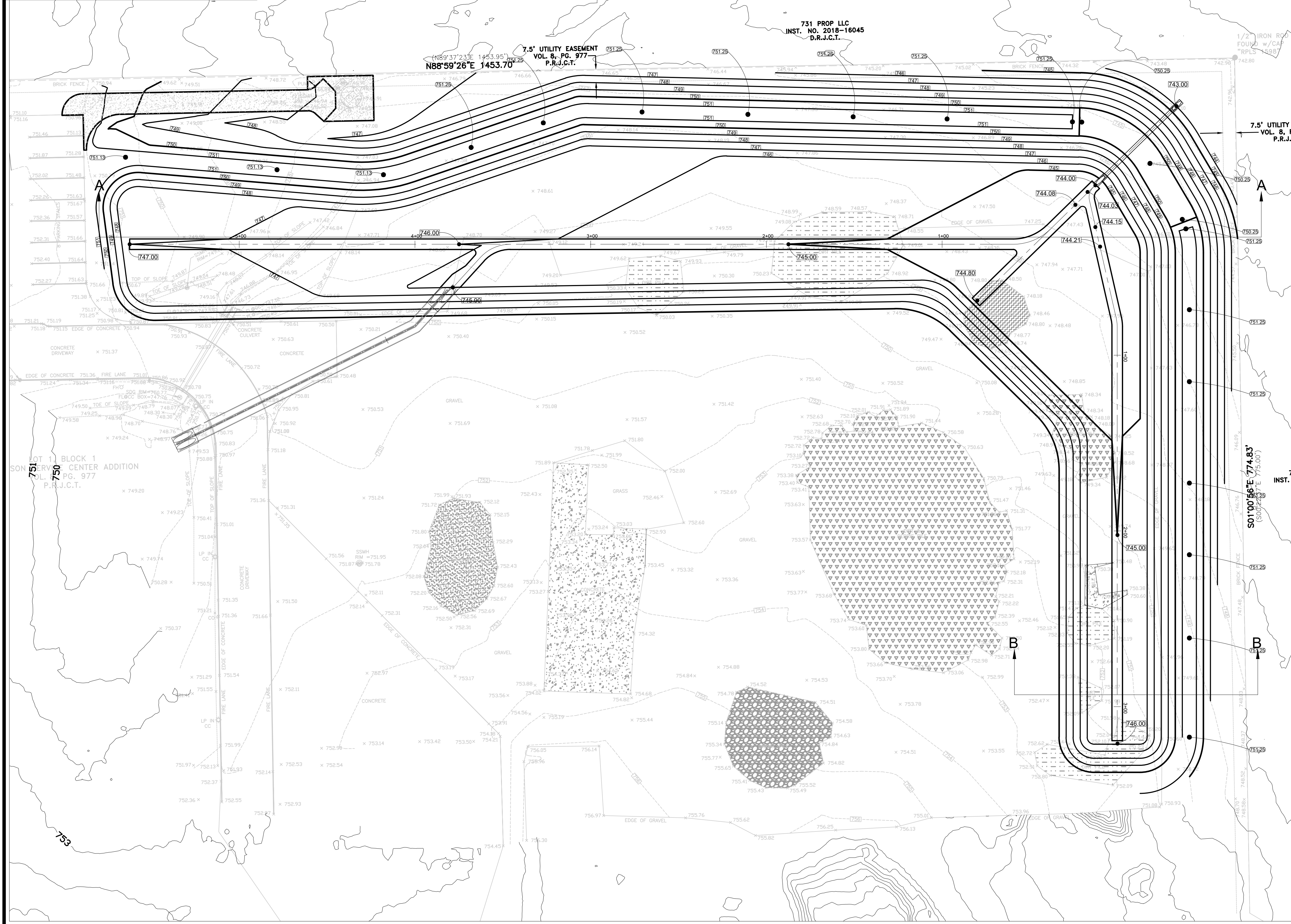
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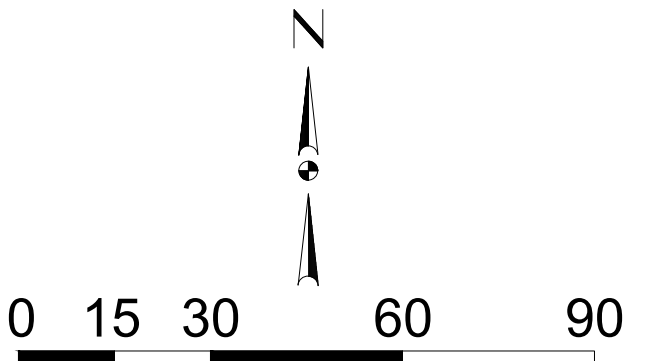
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VOLUME CALCULATIONS
 CUT - 136,418 cu. yds.
 FILL - 136,398 cu.yds.



WHEN PLOTTED ON A
 34"x22" SHEET
BENCHMARKS

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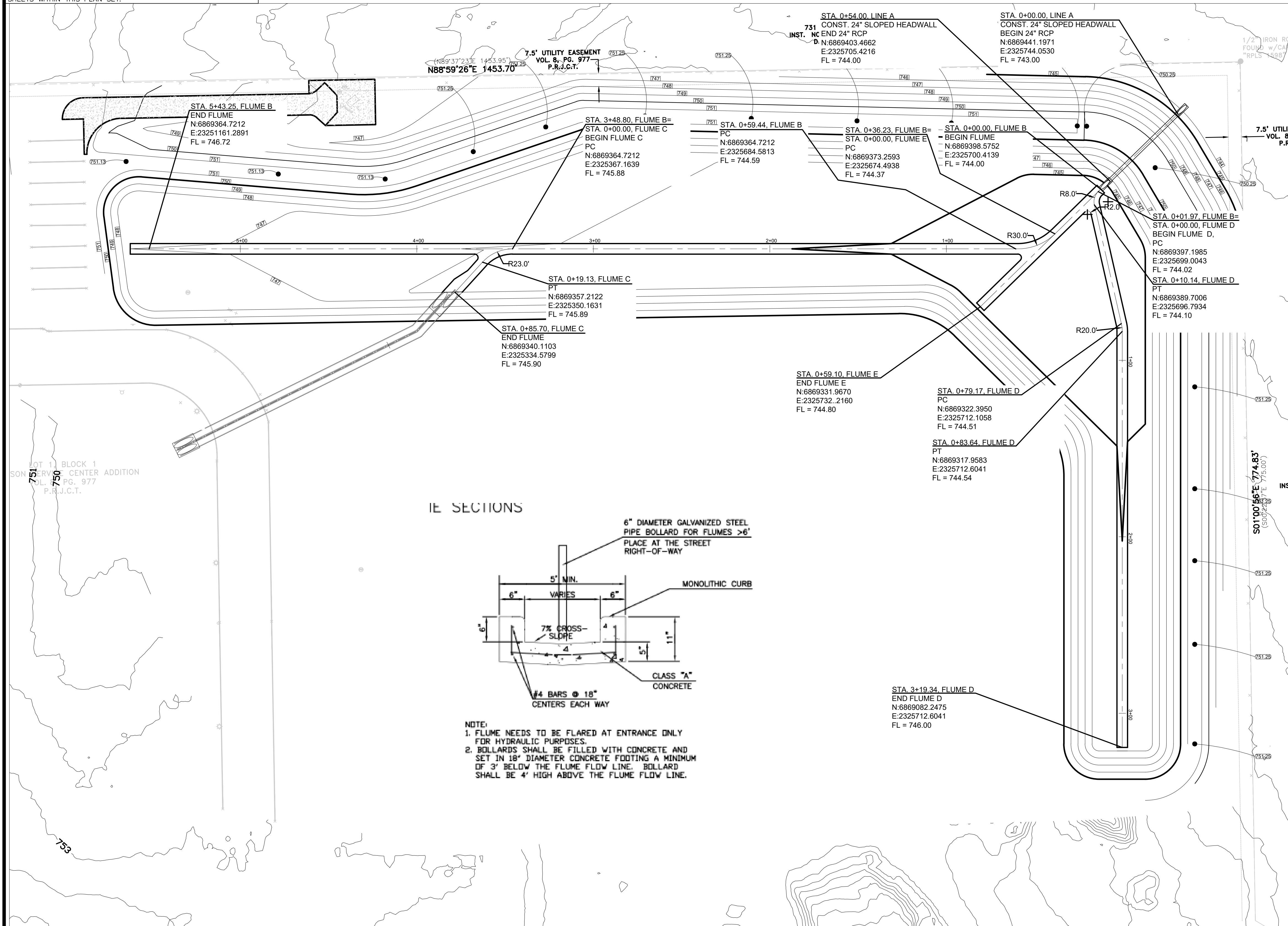


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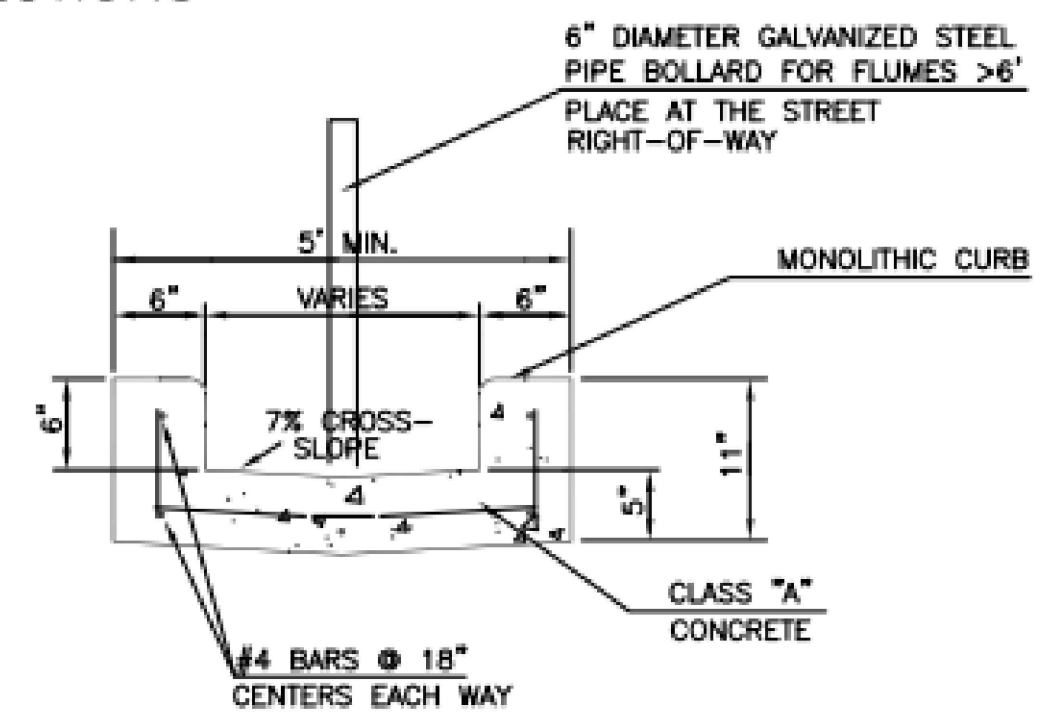
PROJECT NO.: PK22206

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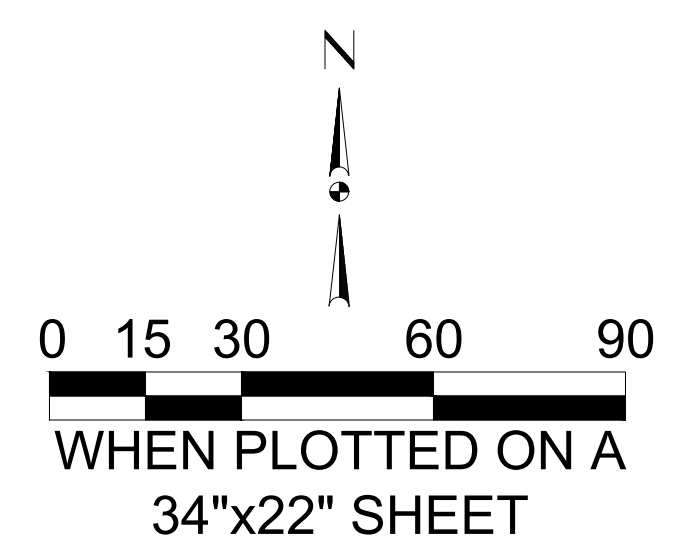
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CROSS SECTIONS



NOTE:
 1. FLUME NEEDS TO BE FLARED AT ENTRANCE ONLY FOR HYDRAULIC PURPOSES.
 2. BOLLARDS SHALL BE FILLED WITH CONCRETE AND SET IN 18" DIAMETER CONCRETE FOOTING A MINIMUM OF 3' BELOW THE FLUME FLOW LINE. BOLLARD SHALL BE 4' HIGH ABOVE THE FLUME FLOW LINE.



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Public Works

THE CITY OF
BURLESON
 TEXAS

SERVICE CENTER DETENTION POND
 725 SE JOHN JONES DRIVE
 BURLESON, TEXAS

Public Works Engineering-CIP Division

No.	Date	Revision Description



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SHEET NO.
C6 FLUME PLAN

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PROJECT NO.: PK2206