



CITY OF ANGLETON
CITY COUNCIL AGENDA
120 S. CHENANGO STREET, ANGLETON, TEXAS 77515
TUESDAY, FEBRUARY 22, 2022 AT 6:00 PM

Mayor | Jason Perez
Mayor Pro-Tem | John Wright
Council Members | Cecil Booth, Mark Gongora, Mikey Svoboda, Travis Townsend
City Manager | Chris Whittaker
City Secretary | Frances Aguilar

NOTICE IS HEREBY GIVEN PURSUANT TO V.T.C.A., GOVERNMENT CODE, CHAPTER 551, THAT THE CITY COUNCIL FOR THE CITY OF ANGLETON WILL CONDUCT A MEETING, OPEN TO THE PUBLIC, ON TUESDAY, FEBRUARY 22, 2022, AT 6:00 P.M., AT THE CITY OF ANGLETON COUNCIL CHAMBERS LOCATED AT 120 S. CHENANGO STREET ANGLETON, TEXAS 77515.

DECLARATION OF A QUORUM AND CALL TO ORDER

PLEDGE OF ALLEGIANCE

INVOCATION

CITIZENS WISHING TO ADDRESS CITY COUNCIL

The Presiding Officer may establish time limits based upon the number of speaker requests, the length of the agenda, and to ensure meeting efficiency, and may include a cumulative time limit. Citizens may speak at the beginning or at the time the item comes before council in accordance with Texas Government Code Section 551.007. No Action May be Taken by the City Council During Public Comments.

CONSENT AGENDA

All of the following items on the Consent Agenda are considered to be self-explanatory by the Council and will be enacted with one motion. There will be no separate discussion of these items unless requested by the Mayor or a Council Member; in which event, the item will be removed from the consent agenda and considered separately.

1. Discussion and possible action on a contract with Brazoria County to conduct and the election services for the May 7, 2022 election.
2. Discussion and possible action on the 2022 athletic sports association agreements and authorize the City Manager to execute the agreements.
3. Discussion and possible action on a resolution authorizing the submission of a pre-application for United States Department of Agriculture Rural Development/Community Facilities Grant and Loan Package, to fund the construction of Angleton Operations Center.

- [4.](#) Discussion and possible action on a resolution authorizing the Houston-Galveston Area Council to apply for a local Hazard Mitigation Plan Program Grant to write the City's Mitigation Plan and submit it to FEMA for approval.
- [5.](#) Update on the substandard building initiative and briefing on process to declare substandard building.
- [6.](#) Discussion and possible action on an agreement with Mike Pietsch, P.E. Consulting Services, Inc. to perform a detailed study on the City of Angleton and the Fire Department to help improve our ISO rating.

REGULAR AGENDA

- [7.](#) Presentation by SkyH2O.
- [8.](#) Discussion and possible action on support and incentives for SkyH2O.
- [9.](#) Presentation of the Collection Report by Perdue Brandon Fielder Collins & Mott, LLP.
- [10.](#) Discussion and possible action on authorizing the City to pursue the issuance of City of Angleton, Texas, Combination Tax and Revenue Certificates of Obligation, Series 2022.
- [11.](#) Discussion and possible action to allow Angleton Fire Department to order a new Engine in 2022 to be financed in 2023 Fiscal Year.
- [12.](#) Presentation on Angleton Crossing, a proposed multi-family development spanning approximately 18 acres, located at the northwest corner of the FM 523 and Highway 288 Business intersection.
- [13.](#) Discussion and possible action on a waiver of the preliminary acceptance of public improvement with a one-year maintenance bond and acceptance of public improvements for the Bayou Bend subdivision.
- [14.](#) Discussion on current City development and projects.
- [15.](#) Discussion and possible action on an ordinance amending Ordinance No. 20220208-019 ordering a Special Election to be held on May 7, 2022, for the purpose of considering amendments to the city charter of the City of Angleton, Texas; making provisions for the conduct of the election and providing for other related matters relating to the election; providing a severance clause and providing effective date.

PUBLIC HEARINGS AND ACTION ITEMS

- [16.](#) Conduct a public hearing, discussion, and possible action on an ordinance amending Ordinance No. 20210810-008 Exhibit "B" Property Phases/Sections and Exhibit "C" Development Standards and District Regulations for the Austin Colony Planned Development Overlay District pursuant to Chapter 28 Zoning, Article III Districts, Sec. 28-62 PD Planned Development Overlay District Three (3) of the Code Of Ordinances of

the City Of Angleton; providing a severability clause; providing for a penalty; and providing for repeal and effective date.

17. Conduct a public hearing, discussion, and possible action on a variance to the maximum height requirement for ground signage of Section 21.5-7.(3).a.3.(ii) and a variance to the maximum sign square footage requirement for ground signs of Section 21.5.-7.(3).a.3.(i) for property located on the northwest corner of the SH 288/SH 35 intersection.

18. Conduct a public hearing, discussion, and possible action on an ordinance fully repealing and replacing Chapter 23 – Land Development Code, Article II. – Subdivision and Development Design, Section 23-20. – Park Dedication and Recreation Improvements; providing a penalty; providing for severability; providing for repeal; and providing an effective date.

EXECUTIVE SESSION

The City Council will now convene into executive session pursuant to the provisions of Chapter 551 Texas Government Code, in accordance with the authority contained therein:

19. Discussion and possible action on the purchase and sale of property within the City limits. Section 551.072 of the Texas Government Code.

OPEN SESSION

The City Council will now adjourn Executive Session, reconvene into Open Session pursuant to the provisions of Chapter 551 Texas Government Code and take action, if any, on item(s) discussed during Closed Executive Session.

ADJOURNMENT

If, during the course of the meeting and discussion of any items covered by this notice, City Council determines that a Closed or Executive Session of the Council is required, then such closed meeting will be held as authorized by Texas Government Code, Chapter 551, Section 551.071 - consultation with attorney; Section 551.072 - deliberation regarding real property; Section 551.073 - deliberation regarding prospective gift; Section 551.074 - personnel matters regarding the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee; Section 551.076 - deliberation regarding security devices or security audit; Section 551.087 - deliberation regarding economic development negotiations; Section 551.089 - deliberation regarding security devices or security audits, and/or other matters as authorized under the Texas Government Code. If a Closed or Executive Session is held in accordance with the Texas Government Code as set out above, the City Council will reconvene in Open Session in order to take action, if necessary, on the items addressed during Executive Session.

CERTIFICATION

I, Frances Aguilar, City Secretary, do hereby certify that this Notice of a Meeting was posted on the City Hall bulletin board, a place convenient and readily accessible to the general public at all times and to the City's website, www.angleton.tx.us, in compliance with Chapter 551, Texas Government Code. The said Notice was posted on the following date and time: Friday, February

18, 2022 by 6:00 p.m. and remained so posted continuously for at least 72 hours proceeding the scheduled time of said meeting.

/S/ Frances Aguilar

Frances Aguilar, TRMC, MMC

City Secretary

In compliance with the Americans with Disabilities Act, the City of Angleton will provide reasonable accommodations for persons attending City Council meetings. The facility is wheelchair accessible and accessible parking spaces are available. Please contact the City Secretary at 979-849-4364, extension 2115 or email citysecretary@angleton.tx.us.



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Frances Aguilar

AGENDA CONTENT: Discussion and possible action on a contract with Brazoria County to conduct and the election services for the May 7, 2022 election.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: \$7500 **FUNDS REQUESTED:** EnterTextHere

FUND: EnterTextHere

EXECUTIVE SUMMARY:

The City contract with the Brazoria County to conduct election services. This year they will be conducting the general election and the special charter amendment election. The total amount of the election is not known at this time.

RECOMMENDATION:

Staff recommends Council approve.

JOINT CONTRACT FOR ELECTION SERVICES

THIS CONTRACT (this "Agreement") is made effective as of the Effective Date (as defined below), by and between the CITY OF ANGLETON, TEXAS, acting by and through its governing body, hereinafter referred to as "Political Subdivision," and County Clerk of Brazoria County, Texas, hereinafter referred to as "County," and by authority of Section 31.092(a), Texas Election Code, and Chapter 791, Texas Local Government Code, for the conduct and supervision of the Political Subdivision's election to be held on MAY 7, 2022. Political Subdivision and County may be referred to individually as a "Party" and collectively as "the Parties."

This contract is made by and between the CITY OF ANGLETON, TEXAS, acting by and through its governing body, hereinafter referred to as "Political Subdivision," and the County Election Officer of Brazoria County, defined by statute as the County Clerk through the authority set forth in Texas Election Code §§31.091 and 31.092. The purpose of this contract is for the performance of election services as authorized by statute. This contract shall serve as the general contract for each election for which the Political Subdivision requests the assistance of the County Clerk. Provisions specific to each particular election will be included as an attachment to the original contract. Political Subdivision and County Clerk may be referred to individually as "Party" or collectively as "Parties."

RECITALS

The County Clerk has care, custody, and control over the electronic voting system, the Hart InterCivic Verity Voting System (Version 2.4), which has been duly approved by the Secretary of State pursuant to Texas Election Code Chapter 122, as amended, and is compliant with the accessibility requirements set forth by Texas Election Code Section 61.012. Political Subdivision desires to use the electronic voting system and to compensate the County Clerk for such use and to share in certain other expenses connected with joint elections in accordance with the applicable provisions of Chapters 31 and 271 of the Texas Election Code.

NOW, THEREFORE, in consideration of the mutual covenants, agreements, and benefits to the parties, IT IS AGREED as follows:

I. ADMINISTRATION

The Parties agree to hold a "Joint Election" in accordance with Chapter 271 of the Texas Election Code and this Agreement. The County Clerk shall coordinate, supervise, and handle all aspects of administering the Joint Election as provided in this Agreement. Political Subdivision agrees to pay County Clerk for equipment, supplies, services, and administrative costs as provided in this Agreement. The County Clerk shall serve as the administrator for the Joint Election; however, the Political Subdivision shall remain responsible for the decisions and actions of its officers necessary for the lawful conduct of its election. The County Clerk shall provide advisory services in connection with decisions to be made and actions to be taken by the officers of the Political Subdivision.

It is understood that other political subdivisions may wish to participate in the use of the electronic voting system and polling places, and it is agreed that the County Clerk may enter into

other joint election agreements and contracts for election services for those purposes on terms and conditions set forth in the Election Code. Political Subdivision agrees that County Clerk may enter into joint election agreements with other political subdivisions that may have territory located partially or wholly within the boundaries of Political Subdivision, and, in such case, all parties sharing common territory shall share a joint ballot on the electronic voting system at the applicable polling places. In such cases, total costs shall be divided among the participants.

At each polling location, joint participants shall share voting equipment and supplies to the extent possible. The participating parties shall share a mutual ballot in those precincts where jurisdictions overlap. However, in no instance shall a voter be permitted to receive a ballot containing an office or proposition stating a measure on which the voter is ineligible to vote. Multiple ballot styles shall be available in those shared polling places where jurisdictions do not overlap.

II. LEGAL DOCUMENTS

Political Subdivision shall be responsible for the preparation, adoption, and publication of all required election orders, resolutions, notices, and any other pertinent documents required by the Texas Election Code or Political Subdivision's governing body, charter, or ordinances. With reference to publications, the County Clerk will publish the "Notice of Test of Automatic Tabulating Equipment" and the "Notice of Election." If a Political Subdivision is holding any type of Special Election, the Political Subdivision may have to publish their own "Notice of Election" in order to meet additional requirements. Please advise the County Clerk's Elections Office if the Political Subdivision must publish a separate notice so the Political Subdivision's notice is not included in the Notice published by the County Clerk.

Preparation of the necessary materials for notices and the official ballot shall be the responsibility of each participating authority, including translation to languages other than English. Each participating authority shall provide a copy of their respective election orders and notices to the County Clerk's Election Department.

III. STATUTORY COMPLIANCE

Political subdivisions shall follow all applicable State and Federal laws related to elections, including, but not limited to, Section 52.072 of the Election Code, which states in part, "A proposition shall be printed on the ballot in the form of a single statement."

Failure to do so may prohibit the political subdivision's participation in a Joint Election.

IV. VOTING LOCATIONS

The County Clerk's Election Office shall select and arrange for the use of and payment for all election day voting locations. Voting locations will be, whenever possible, the usual voting location for each election precinct in elections conducted by the county. The proposed voting locations will be provided once the final candidate filing deadline has been met and will be listed as Attachment "A". In the event a voting location is not available, the Elections Department will arrange for use of an alternate location with the approval of the Political Subdivision. The Elections Department shall notify the Political Subdivision of any changes from the locations listed as Attachment "A".

If polling places for the joint election in Attachment “A” are different from the polling place(s) used by Political Subdivision in its most recent election, Political Subdivision agrees to post a notice no later than the date of the election described in Attachment “A”, at the entrance to any previous polling places in the jurisdiction, stating that the polling location has changed, and stating the political subdivision’s polling place name(s) and address(s) in effect for the election described in Attachment “A”. Any changes in voting location from those that were used in the most recent COUNTYWIDE JOINT election will be posted by the County Clerk’s Election Office.

V. ELECTION JUDGES, CLERKS, AND OTHER ELECTION PERSONNEL

The Brazoria County Commissioners Court shall be responsible for the appointment of the presiding judge and alternate judge for each polling location in accordance with Chapter 32 of the Texas Election Code. In the event an emergency appointment is necessary, appointment shall be made in accordance with Election Code §32.007, which authorizes the presiding officer of the Brazoria County Commissioners Court to make an emergency appointment. Should that officer not be available, the County Clerk’s office shall make emergency appointments of election officials. Upon request by the County Clerk, Political Subdivision agrees to assist in recruiting polling place officials who are bilingual (fluent in both English and Spanish).

The County’s Elections Department shall notify all election judges of the eligibility requirements of Subchapter C of Chapter 32 of the Texas Election Code, and will take the necessary steps to ensure that all election judges appointed for the Joint Election are eligible to serve.

The County Clerk shall arrange for the training and compensation of all election judges and clerks. The Elections Department shall arrange for the date, time, and place for the presiding election judge to pick up their election supplies. Each presiding election judge will be sent a letter from the Elections Department notifying him of his appointment, the time and location of training and distribution of election supplies, and the number of election clerks that the presiding judge may appoint.

Each election judge will receive compensation at an hourly rate of \$14.00. Each election clerk will receive compensation at an hourly rate of \$12.00. The election judge will receive an additional sum of \$25.00 for picking up the election supplies prior to Election Day and for returning the supplies and equipment to the central counting station after the polls close. All judges and clerks who attend training will be compensated at an hourly rate of \$8.00 as compensation for same.

It is agreed by all Parties that at all times and for all purposes hereunder, all election judges, clerks, and all other personnel involved in this election are temporary part-time employees subject only to those benefits available to such employees.

VI. PREPARATION OF SUPPLIES AND VOTING EQUIPMENT

The County Clerk Elections Department shall arrange for all election supplies and voting equipment including, but not limited to, official ballots, sample ballots, voter registration lists, and all forms, signs and other materials used by the election judges at the voting locations. At each polling location, joint participants shall share voting equipment and supplies to the extent possible. The participating parties shall share a mutual ballot in those precincts where jurisdictions overlap. However, in no instance shall a voter be permitted to receive a ballot containing an office or proposition stating a measure on which the voter is ineligible to vote. Multiple ballot styles shall be available in those shared polling places where jurisdictions do not overlap. The County Clerk Elections Department shall provide the necessary voter registration information, instructions, and other information needed to enable the election judges in the voting locations that have more than one ballot style to conduct a proper election. If special maps are needed for a particular Political Subdivision, the County Clerk Election Department will order the maps and pass that charge on to that particular Political Subdivision.

Political Subdivision shall furnish the County Clerk a list of candidates and/or propositions showing the order and the exact manner in which the candidate names and/or proposition(s) are to appear on the official ballot (including titles and text in each language in which the authority's ballot is to be printed). THE POLITICAL SUBDIVISION SHALL ALSO PROVIDE A COPY OF EACH CANDIDATE'S APPLICATION TO THE COUNTY CLERK ELECTIONS OFFICE. This list shall be delivered to the County Clerk Elections Department as soon as possible after ballot positions have been determined by each of the participating authorities. Each participating authority shall be responsible for proofreading and approving the ballot insofar as it pertains to that authority's candidates and/or propositions. If any error or changes are discovered after the Logic and Accuracy test has been conducted and ballots prepared then the Political Subdivision will be responsible for all cost.

VII. EARLY VOTING

The Parties agree to conduct joint early voting and to appoint the County Clerk as the Early Voting Clerk in accordance with Sections 31.097 and 271.006 of the Texas Election Code. Political Subdivision agrees to appoint the County Clerk's permanent county employees as deputy early voting clerks. The Parties further agree that each Early Voting Location will have an "Officer in Charge" who will receive compensation at an hourly rate of \$14.00. The clerks at each location will receive compensation at an hourly rate of \$12.00. Early Voting by personal appearance will be held at the locations, dates, and times listed in Attachment "B" of this document. Any qualified voter of the Joint Election may vote early by personal appearance at any one of the joint early voting locations.

As Early Voting Clerk, the County Clerk shall receive applications for early voting ballots to be voted by mail in accordance with Chapter 86 of the Texas Election Code. Any requests for early voting ballots to be voted by mail received by the Political Subdivision shall be forwarded immediately by fax or courier to the Elections Department for processing.

The County Clerk Elections Department shall, upon request, provide the Political Subdivision a copy of the early voting report on a daily basis and a cumulative final early voting report following the election.

VIII. EARLY VOTING BALLOT BOARD

The County Clerk shall appoint an Early Voting Ballot Board (EVBB) to process early voting results from the Joint Election. The Presiding Judge, with the assistance of the County Clerk Elections Department, shall appoint two or more additional members to constitute the EVBB. The County Clerk Elections Department shall determine the number of EVBB members required to efficiently process the early voting ballots.

IX. CENTRAL COUNTING STATION AND ELECTION RETURNS

The County shall be responsible for establishing and operating the central counting station to receive and tabulate the voted ballots in accordance with the provisions of the Texas Election Code and of this agreement.

The participating authorities hereby, in accordance with Section 127.002, 127.003, and 127.005 of the Texas Election Code, appoint the following central counting station officials:

Counting Station Manager:	Lisa Mujica
Alternate Counting Station Manager:	Brandy Pena
Tabulation Supervisor:	Susan Cunningham
Alternate Tabulation Supervisor:	Johnathan Escamilla
Presiding Judge:	Tamara Reynolds
Alternate Presiding Judge:	Dottie Cornett

The County Clerk Elections Department will prepare the unofficial canvass reports after all precincts have been counted, and will deliver a copy of the unofficial canvass to the Political Subdivision as soon as possible after all returns have been tabulated. All participating authorities shall be responsible for the official canvass of their respective elections.

The County Clerk Elections Department shall be responsible for conducting the post-election manual recount required by Section 127.201 of the Texas Election Code unless a waiver is granted by the Secretary of State. Notification and copies of the recount, if waiver is denied, will be provided to each participating authority and the Secretary of State's Office.

The County Clerk Elections Department shall submit all Cities' precinct by precinct returns to the Texas Secretary of State's Office electronically.

The County Clerk Elections Department shall post all election night results to County website on election night. <http://www.Brazoriacountyvotes.com>.

X. ELECTION EXPENSES AND ALLOCATION OF COSTS

The Parties agree to share the costs of administering the Joint Election. Allocation of costs, unless specifically stated otherwise, is mutually agreed to be shared. The County participates in "Vote Centers," therefor all political subdivisions can vote at any location.

It is agreed that the normal rental rate charged for the County's voting equipment used on election day shall be calculated per polling locations and among the participants utilizing each polling location. (See "Exhibit 1" for rental rates.) Total cost will be calculated, and then multiplied by the Political Subdivisions percentage number of registered voters or with the minimum of \$1500.00, for those with lesser amount, additional cost associated will be itemized and billed.

Costs for Early Voting by Personal Appearance will also be charge with the same formula as Election Day. Those political subdivisions with the percentage of registered voters less than amount equal to \$1500.00 charged will be a minimum amount of \$1500.00.

Political Subdivision contracting for a runoff shall be responsible for all associated costs.

XI. WITHDRAWAL FROM CONTRACT DUE TO CANCELLATION OF ELECTION

Political Subdivision may withdraw from this agreement and the Joint Election should it cancel its election in accordance with Sections 2.051 - 2.053 of the Texas Election Code, or should it be later ruled that the election is not needed. Political Subdivision is fully liable for any expenses incurred by County Clerk on behalf of the Political Subdivision. Any monies deposited with the county by the withdrawing authority shall be refunded, minus the aforementioned expenses.

XII. RECORDS OF THE ELECTION

The County Clerk is hereby appointed general custodian of the voted ballots and all records of the Joint Election as authorized by Section 271.010 of the Texas Election Code.

Access to the election records shall be available to each participating authority, as well as to the public, in accordance with applicable provisions of the Texas Election Code and the Texas Public Information Act. The election records shall be stored at the offices of the County Clerk or at an alternate facility used for storage of county records. The County Clerk Elections Department shall ensure that the records are maintained in an orderly manner so that the records are clearly identifiable and retrievable.

Records of the election shall be retained and disposed of in accordance with the provisions of Section 66.058 of the Texas Election Code. If records of the election are involved in any pending election contest, investigation, litigation, or open records request, the County Clerk shall maintain the records until final resolution or until final judgment, whichever is applicable. It is the responsibility of each participating authority to bring to the attention of the County Clerk any notice of pending election contest, investigation, litigation or open records request which may be filed with the participating authority.

XIII. RECOUNTS

A recount may be obtained as provided by Title 13 of the Texas Election Code. Political Subdivision agrees that any recount shall take place at the offices of the County Clerk and that the County Clerk shall serve as Recount Supervisor and the Political Subdivision's official or employee who performs the duties of a secretary under the Texas Election Code shall serve as Recount Coordinator.

The County Clerk Elections Department agrees to provide advisory services to the Political Subdivision as necessary to conduct a proper recount and cost of the recount depends on the size of the election and number of precincts to be recounted.

XIV. MISCELLANEOUS PROVISIONS

1. It is understood that to the extent space is available, that other districts and political subdivisions may wish to participate in the use of the election equipment and voting places; it is agreed that the County Clerk may contract with such other districts or political subdivisions for such purposes, and that in such event, there may be an adjustment of the pro-rata share to be paid to the County by the participating authorities.
2. The County Clerk shall file copies of this document with the County Treasurer and the County Auditor in accordance with Section 31.099 of the Texas Election Code.
3. In the event that legal action is filed contesting the Political Subdivision's election under Title 14 of the Texas Election Code, Political Subdivision shall choose and provide, at its own expense, legal counsel for the County, the County Clerk, and additional election personnel as necessary.
4. Nothing in this contract prevents any party from taking appropriate legal action against any other party and/or other election personnel for a breach of this contract or a violation of the Texas Election Code; however, any action taken is subject to any immunity provided by statute or common law to governmental entities. For purposes of this contract, the County Clerk's office is acting as a governmental entity covered by any immunity available to Brazoria County.
5. The parties agree that under the Constitution and laws of the State of Texas, neither Brazoria County nor Political Subdivision can enter into an agreement whereby either party agrees to indemnify or hold harmless another party; therefore, all references of any kind, if any, to indemnifying or holding or saving harmless for any reason are hereby deleted.
6. This agreement shall be construed under and in accord with the laws of the State of Texas, and all obligations of the parties created hereunder are performable in Brazoria County, Texas.
7. In the event of one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision hereof and this agreement

shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

8. All parties shall comply with all applicable laws, ordinances, and codes of the State of Texas, all local governments, and any other entities with local jurisdiction.
9. The waiver by any party of a breach of any provision of this agreement shall not operate as or be construed as a waiver of any subsequent breach.
10. Any amendments of this agreement shall be of no effect unless in writing and signed by all parties hereto.
11. **Authorization of Agreement.** This Agreement has been approved and authorized by the governing body of the Political Subdivision.
12. **Purpose, Terms, Rights, and Duties of the Parties.** The purpose, terms, rights, and duties of the Parties shall be as set forth in this Agreement.
13. **Payments from Current Revenues.** Each Party paying for the performance of governmental functions or services must make those payments from current revenues available to that paying Party.
14. **Fair Compensation.** The Parties acknowledge and agree that each of the payments contemplated by this Agreement fairly compensate the performing Party.
15. **Termination.** At any time and for any reason, either Party may terminate this Agreement by providing thirty (30) days' written notice of termination to the other Party.
16. **Funding.** The Parties understand and acknowledge that the funding of this Agreement is contained in each Party's annual budget and is subject to the approval of each Party in each fiscal year. The Parties further agree that should the governing body of any Party fail to approve a budget that includes sufficient funds for the continuation of this Agreement, or should the governing body of any Party fail to certify funds for any reason, then and upon the occurrence of such event, this Agreement shall automatically terminate as to that Party and that Party shall then have no further obligation to the other Party. When the funds budgeted or certified during any fiscal year by a Party to discharge its obligations under this Agreement are expended, the other Party's ***sole and exclusive remedy*** shall be to terminate this Agreement.
17. **No Joint Enterprise.** The Agreement is not intended to, and shall not be construed to, create any joint enterprise between or among the Parties.
18. **Public Information.** This Agreement is public information. To the extent, if any, that any provision of this Agreement is in conflict with Texas Government Code Chapter 552, et seq., as amended (the "Texas Public Information Act"), such provision shall be void and have no force or effect.

19. **No Third-Party Beneficiaries**. This Agreement is entered solely by and between, and may be enforced only by and among the Parties. Except as set forth herein, this Agreement shall not be deemed to create any rights in, or obligations to, any third parties.
20. **No Personal Liability**. Nothing in this Agreement shall be construed as creating any personal liability on the part of any employee, officer, or agent of any Party to this Agreement.
21. Nothing in this Agreement requires that either the Political Subdivision or County incur debt, assess or collect funds, or create a sinking fund.
22. **Sovereign Immunity Acknowledged and Retained**. **THE PARTIES EXPRESSLY ACKNOWLEDGE AND AGREE THAT NO PROVISION OF THIS AGREEMENT IS IN ANY WAY INTENDED TO CONSTITUTE A WAIVER BY ANY PARTY OF ANY IMMUNITY FROM SUIT OR LIABILITY THAT A PARTY MAY HAVE BY OPERATION OF LAW. THE CITY AND THE COUNTY RETAIN ALL GOVERNMENTAL IMMUNITIES.**

XV. COST ESTIMATES AND DEPOSIT OF FUNDS

It is estimated that the Political Subdivision's obligation under the terms of this agreement shall be DETERMINED AFTER THE ELECTION. Political Subdivision agrees to pay to County a deposit of \$1,500.00. This deposit shall be paid to County within 10 business days after the final candidate filing deadline. The final candidate filing deadline is February 18, 2022. Therefore, deposit is due by **MARCH 4, 2022**. The exact amount of the Political Subdivision's obligation under the terms of this Agreement shall be calculated after the MAY 7, 2022, election; and if the amount of the Political Subdivision's obligation exceeds the amount deposited, the Political Subdivision shall pay to County the balance **due within thirty (30) days after receipt of the final invoice from the County's Election Department**. However, if the amount of the Political Subdivision's obligation is less than the amount deposited, County shall refund to the Political Subdivision the excess amount paid within thirty (30) days after final costs are calculated.

IN TESTIMONY HEREOF, this agreement, its multiple originals all of equal force, has been executed on behalf of the parties.

(1) On the _____ day of _____, 2022 been executed on behalf of the County Clerk by the County Clerk pursuant to the Texas Election Code;

(2) On the _____ day of _____, 2022 been executed on behalf of the Political Subdivision by its Mayor or authorized representative, pursuant to an action of the Political Subdivision.

BRAZORIA COUNTY, COUNTY CLERK by

Joyce Hudman, County Clerk

ATTEST:

CITY OF ANGLETON, TEXAS

_____ By _____
Presiding Officer or Authorized Representative
CITY OF ANGLETON

RATE SHEETS FOR BRAZORIA COUNTY ELECTIONS:

MAY (COUNTYWIDE JOINT)

EQUIPMENT RENTAL

CONTROLLER	\$365.00 each
ACCESS WITH TOUCH UNIT (DAU).....	\$350.00 each
TOUCH UNITS	\$325.00 each
POLLPADS	\$50.00 each
MI-FI/ HOTSPOT	\$50.00 each

This is not a daily charge. This price is for the entire election even if it is for 12days of voting.

OTHER CHARGES

Programming	\$300.00
Tabulating.....	\$150.00
Equipment Delivery and Pickup	
Truck Rental (per delivery location)	\$25.00
Labor (Per delivery location)	\$75.00
Supply tubs EV-ED (see attached list for contents)	\$75.00
Mail Ballots will be billed per entity kits including postageDomestic...\$1.74...Overseas...\$2.36	
Publications charged based on % of registered voters.....	

Workers-Judges	\$14.00 per hour -Overtime rate \$21.00 per hour
Clerks	\$12.00 per hour- Overtime rate \$18.00 per hour

ELECTION DAY

For Election Day, we will calculate the cost for each location (see Exhibit ‘A2”) the total cost for Election Day will then calculated per percentage of registered voters of each political subdivision. All political subdivisions in Brazoria County less than 1000 registered voters, charges will be the minimum of \$1500.00 for Election Day.

EARLY VOTING

For Early Voting we also calculate worksheets for each of the 10-11 early voting locations. Once we have the total cost for all locations, we do a spreadsheet that divides the cost between all political subdivisions based on the percentage of registered voters in each. Since we have large and small cities in our county, the minimum charge for early voting will be \$1500.00.

OVERTIME

We keep a record of our overtime for the May Elections and the staff gets paid overtime. Since we charge for programming and tabulations that money goes towards the employee’s overtime. If we have more overtime than covered by a calculated programming and tabulation fees, we will add in the additional overtime when sending the final bills.

RATE SHEETS FOR BRAZORIA COUNTY ELECTIONS:

NOVEMBER (COUNTYWIDE JOINT)

For November Elections, the Election Day and Early voting charges are just like the countywide joint in May. If the only political subdivisions at a location are Brazoria County and one entity, total cost calculated will be per percentage of registered voters for the entity.

Runoffs Elections will be the responsibility of whichever entity will be conducting a runoff election.

Any errors or changes related to a Political Subdivision oversight and if it results in reprogramming the entirety election, will be responsible for all associated cost.



AGENDA ITEM SUMMARY FORM

MEETING DATE: 2/22/2022

PREPARED BY: Megan Mainer, Director of Parks & Recreation

AGENDA CONTENT: Discussion and possible action on approval of the 2022 Athletic Sports Association agreement and authorize the City Manager to execute the agreements.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: NA

FUNDS REQUESTED: NA

FUND: NA

EXECUTIVE SUMMARY:

On September 24, 2021, Stewart Crouch sent the 2022 Athletic Sports Association agreement to Angleton Little League, Angleton Girls Softball Association, and Angleton Soccer Club for review and revisions in preparation for the 2022 agreement renewal. On November 9, 2021, Stewart Crouch sent an email to all ASA's requesting 2022 agreements be signed and returned by December 3, 2021. On December 1, 2021, Stewart sent a reminder email to ASA's regarding the approaching deadline.

On December 2, 2021, Angleton Little League requested changes to rental fees within their agreement and sent an email on December 7, 2021 with proposed changes. Please see the proposed changes tracked in red enclosed.

Staff has invited Angleton Girls Softball Association, Angleton Little League, and Angleton Soccer Club to discuss the 2022 Athletic Association Agreement revisions and capital improvement needs with the Parks & Recreation Board.

On February 14, 2022, the Parks & Recreation Board discussed capital needs requests with Angleton Soccer Club and Angleton Little League; Angleton Girls Softball Association was not able to attend the meeting. Angleton Little League proposed changes to the agreement related to field rental revenue going straight to the association rather than the City to assist with field damage and control of teams using the fields. The outcome of the discussion was to maintain agreements as proposed without revisions, increase annual funds to assist athletic sports associations on an annual basis, and utilize software to control light usage based on rentals and league schedules. The Parks & Recreation board made a motion to approve the 2022 Athletic Sports Agreement without revision and it was unanimously passed, Jaime Moreno was absent.

The 2022 Athletic Sports Agreement has been reviewed by Randle Law Office.

RECOMMENDATION:

Staff recommends City Council approve the 2022 Athletic Sports Association agreements as proposed and authorize the City Manager to execute the agreements.

SUGGESTED MOTION:

I move we approve the 2022 Athletic Sports Association agreements as presented and authorize the City Manager to execute the agreements.



PARKS AND RECREATION DEPARTMENT 2022 ATHLETIC SPORTS AGREEMENT

CITY OF ANGLETON

POLICY FOR USE OF PARK AND RECREATIONAL FACILITIES

This policy for use of City of Angleton Park and Recreational facilities is comprised of procedures, regulations, and guidelines designed to ensure that all facilities are utilized in a safe and efficient manner.

Priority use of the athletic facilities is reserved for associations requiring the on-going, scheduled use of a facility to provide a recreational service or to meet a community recreational need. "Sports Association," as defined for the purpose of this document, is a non-profit organization under the terms of a 501(C)(3) status of the Internal Revenue Service that conducts its own affairs within the framework of policies established by the City of Angleton for use of city facilities and recommended by the Parks Board.

CITY OF ANGLETON

ATHLETIC FACILITIES PROCEDURES AND GUIDELINES

PARTIES:

The City of Angleton, hereinafter referred to as the "City." And the City of Angleton Parks and Recreation Department, hereinafter referred to as "Parks." And the Angleton Sports Associations, hereinafter referred to as the "ASA," which consists of Angleton Little League, Angleton Girls Softball Association and Angleton Soccer Club are parties to this Agreement. Each organization shall designate one (1) person to act as the contact person for the sports association, and shall submit the person's name, title, address, home and work phone numbers to the Parks and Recreation Department. The ASA entities are responsible for updating their contact information as changes occur. The ASA is also responsible for notifying the City of removal or replacement of the designated contact person and shall provide the City with the contact information of their replacement within three (3) business days. The Director or Parks and Recreation, or designee, shall act as the City's liaison to the ASA.

TERM:

The term of this Agreement is from **January 1, 2022** to **December 31, 2022.**

CONDITIONS FOR USE:

The ASA shall be required to attend an annual scheduling meeting. At this meeting, the ASA shall submit their requests in writing. Written requests shall be accompanied by a proof of liability insurance naming the City as an additional insured, a list of the ASA Board of Directors with appropriate addresses, both physical and email, and phone numbers, proof of their non-profit status, practice, game and tournament schedules, security deposit, annual budget, most recent financial statement and a copy of the ASA's bylaws.

The ASA shall provide a financial report to City within 45 days following the last regularly

scheduled game of the 2022 season.

The ASA shall provide the City with a certificate of general liability insurance naming the City of Angleton as an additional insured, that includes verification of insurance coverage; including but not limited to Comprehensive, General Liability coverage including contractual liability, premises/operations and personal injury liability in the amount of a minimum of \$1,000,000 per person and \$2,000,000 aggregate; and property damage in the minimum amount of \$100,000.00 per occurrence. The certificate of general liability insurance shall be sent certified mail receipt return requested to the Director of Parks and Recreation at 901 S Velasco, Angleton, Texas 77515, after the execution of this agreement but no later than five (5) business days prior to any scheduled event(s). Failure to provide said certificate within the time frame previously stated and the failure to maintain the required coverage and valid certificate while the agreement is in place shall be cause for termination of this agreement by the City. Notice shall be given to the City by certified mail thirty (30) days prior to the cancellation or upon any material change in coverage. All such insurance shall not be cancelable without thirty (30) days prior written notice being given to the City.

The City will process a security deposit in the amount of one thousand dollars and zero cents (\$1,000.00), and the City will deduct any charges for damages or fees for cleaning and field and facility maintenance, without notice and as outlined in this contract. The remaining funds will roll over to the following year's security deposit and the difference will be due upon annual agreement renewal.

The ASA has no authority to assign or sub-lease the use of Fields/Facility. Non-ASA groups, teams or individuals seeking reserved use of city athletic facilities for tournament play may do so by delivering to the parks and recreation director or designee at least two (2) weeks prior to such tournament beginning, the following fees (fees not received two (2) weeks in advance will be denied or not considered): Two hundred dollars and zero cents (\$200.00) per tournament day without lights; two hundred fifty dollars and zero cents (\$250.00) per tournament day with lights; and a deposit of one hundred dollars and zero cents (\$100.00) per tournament for cleaning. The deposit will be applied to the cost of clean-up, if any, and the balance, if any will be refunded. The person paying the deposit will be responsible to the City of any additional cleaning costs. The City will be responsible for facility cleanliness and field prep.

The City of Angleton and ASAs are subject to temporary closures of the fields/facility due to maintenance or inclement weather. The fields/facilities shall be available for public use when such use does not interfere with the League's scheduled activities and when use is reserved at the Angleton Recreation Center.

Non-ASA groups, teams or individuals seeking use of city athletic facilities hourly or for day use may do so by completing a Pavilion and Athletic Rental application and delivering it to the Angleton Recreation Center at least one week prior to such rental, the following fees (fees not received one week in advance will be denied or not considered): Twenty dollars and zero cents (\$20.00) per hour with lights or fifteen dollars and zero cents (\$15.00) per hour without lights; one hundred and fifty dollars and zero cents (\$150.00) per day with lights or one hundred dollars and zero cents (\$100.00) per day without lights. A deposit is not applied for hourly rentals but a deposit

of one hundred dollars and zero cents (\$100.00) is enforced for daily rentals. The deposit for daily rentals will be applied to the cost of clean-up, if any, and the balance, if any will be refunded. The person paying the deposit will be responsible to the city of any additional cleaning costs. A scheduled of reserved use must be provided to the ASA.

When dealing with contract laborers, the ASA will file the appropriate 1099 and any other required IRS filings. Payments should reconcile to game schedules.

All Organizations shall conduct background checks on all volunteers and/or paid employees who will interact with youth, and shall maintain documentation of completed background checks for review upon request by the City. If the background checks reveal that an employee or volunteer is unsuitable for working with youth, the ASA shall not allow the volunteer or employee to interact with youth. A person should be disqualified and prohibited from serving as a volunteer if the person has been found guilty of the following crimes:

For purposes of this policy guilty shall mean that a person was found guilty following a trial, entered a guilty plea, entered a no contest plea accompanied by a court finding of guilt (regardless of adjudication), or received court directed programs in lieu of conviction.

SEXUAL OFFENSES

- **All Sex Offenses** Regardless of the amount of time since offense.

Examples include: sexual assault, prostitution, solicitation, indecent exposure, etc.

FELONIES

- **All Violent Felony Offenses** - Regardless of the amount of time since offense.

Examples include: murder, manslaughter, aggravated assault, kidnapping, robbery, etc.

- **All Non-Violent and Non-Sexual Felony Offenses** within the past ten (10) years.

Examples include: drug offenses, theft, embezzlement, fraud, child endangerment, etc.

MISDEMEANORS

- **All Violent Misdemeanor Offenses** within the past seven (7) years

Examples include: assault, family violence assault, failure to stop and give information, theft, etc.

- **Two or more Misdemeanor Drug and Alcohol Offenses** within the past seven (7) years.

Examples include: driving while intoxicated, drug possession, disorderly conduct, public intoxication, possession of drug paraphernalia, etc.

PENDING CASES

Individuals found to have pending court cases for any of the disqualifying offenses will be disqualified. If the disposition of the pending case does not meet the criteria for the disqualification as listed above, the individual would then be cleared and reinstated.

SPECIAL USE OF FACILITIES:

At any time, the City reserves and retains the right to use the fields/facility and all public park facilities for City-approved events including, but not limited to, hosting athletic leagues, tournaments, special events, programs that enhance economic development for the City as well as during an emergency. The City will make every effort to schedule City-approved events during dates and times that do not conflict with the ASA's previously submitted calendar, and scheduled activities. If the City's use conflicts with the ASA's calendar, and scheduled activities, the City will notify the ASA as soon as the City is aware of the date and time of the City-approved event on the fields/facility.

FACILITY KEYS:

Prior to the execution of this Agreement, the Parks & Recreation Department shall provide the ASA with two sets of keys to all locks at the beginning of the season(s). If the City determines it is necessary to change the locks, ASA will be notified and new keys will be distributed. If the ASA is requesting locks be changed, they must contact the Parks & Recreation Department.

PARKING:

Unless specifically marked, parking spaces at sports complexes are not reserved and are available on first-come, first-served basis.

SIGNAGE:

The ASA is granted the right to solicit advertising boards at each complex. Signs placed on fencing are limited to no larger than one fence panel in length (10 feet). Signs will be limited on outfield fencing to the area between the foul poles. Two (2) sponsorship signs are allotted backstops above the top cross bar, facing viewers. The signs shall not be longer than 4 x 6 feet and they shall not obstruct the view. Signs along the interior gates along walkways shall not be longer than 4 x 6 feet. The City reserves the right to review and approve potential advertisers and sign content prior to installation and can mandate sign removal if, under the City's sole discretion, the sign is not in compliance with this agreement, city ordinance, state law, or for any other reason the city deems fit for removal.

CONCESSION AND STORAGE BUILDINGS:

The City has provided a facility containing storage and concession facilities. The City agrees to maintain utility service to the concession and storage structure's various components including, electrical, plumbing, roofing and other systems that contribute to their safe and efficient operation. The City shall inspect the concession stand two (2) weeks prior to the first game of the

season and no later than two (2) weeks after the last game of the season. The ASA agrees it will solely operate appliances in the concession stand or storage rooms during league games, tournaments and outside tournaments. All revenues produced by concession operations shall belong to the ASA. The ASA is responsible for meeting all applicable federal and state laws, ordinances and codes regarding the following: sales tax, safety and any other issue relative to concession operations.

RESTROOM FACILITIES:

The City has provided a facility containing restroom facilities. The City agrees to maintain utility service to the restroom's various components including, electrical, plumbing, roofing and other systems that contribute to their safe and efficient operation. The restroom facility will remain open to the public for use. The City will provide weekday custodial services for the restroom facility. The ASA is responsible for ensuring that restrooms are stocked with hand soap, toilet paper and paper towels, at the ASA's expense during the ASA's use of the facilities, including during tournaments, to assure restrooms are clean and operable. The ASA must ensure restrooms are clean, free of litter, vacant, water is turned off, and lights are turned off before leaving fields. City employees forced to clean restrooms, outside of weekday custodial services, will result in a fee of twenty dollars and zero cents (\$20.00) per man hour being deducted from the ASA security deposit.

DAMAGES AND VANDALISM:

The ASA assumes responsibility and will bear the cost for repairs to the fields/facilities due to any damage caused by the ASA's activities. If the ASA does not pay for the repairs, the City shall pay for the repairs out of the ASA's deposit, and the ASA forfeits the right to any additional use of the fields/facilities until the deposit is replenished. The City will bill the ASA for any cost which exceeds the current balance of the security deposit. The ASA is responsible for immediately notifying the City in the event of any malfunction or damage to City infrastructure or City property.

ASA's with access to facilities shall make every effort to mitigate vandalism by securing all doors, windows, or any other point from which persons could enter. The City will share in the responsibility of deterrence by providing sufficient lighting, frequent security patrols, overall security assessment, and other measures upon the review and permission of the Parks and Recreation Director.

Repairs to City facilities caused by vandalism will be the responsibility of the City, unless the vandalized facility was vacated before being properly secured by the ASA, in which case, the ASA will be solely responsible for all costs and repairs. The City will repair or replace as necessary, the following equipment: air conditioners and/or heaters, electrical and lighting systems, plumbing systems, or others upon review and permission of the Parks and Recreation Director. The ASA will be responsible for replacing or repairing vandalized items which are built by the ASA. The City shall not be responsible for loss and/or damages to any property, equipment, supplies, etc. not owned by the City.

PARK AND ATHLETIC FACILITY ORDINANCES:

ASA agrees to comply with all city ordinances, including Code of Ordinances, Chapter 17, Article III, Use of Public Parks, and all state laws. ASA agrees to promptly notify the Angleton Police Department of any violations of federal laws, state laws or city ordinances on the fields/facilities as soon as they come to the attention of the ASA Officials.

FIREARMS:

It is unlawful for any person to carry a trapping device or carry or discharge any firearm, pneumatic weapon, including but not limited to, a BB gun or pellet gun, spring-gun, cross-bow, bow and arrow or slingshot on or over any park; except as otherwise provided by law, it is an exception to this section if a person: carries in a park a concealed handgun, or a handgun in a shoulder or belt holster, or any other firearm, and is not prohibited from doing so under applicable Federal and State law, including Texas Penal Code Chapter 46 and Texas Government Code Ch. 411 Sub Chapter H (Handgun Licensing Law).

MAINTENANCE OF PARK AND RECREATIONAL FACILITIES:

The ASA will provide general maintenance of fields/facilities so that it may be used safely and efficiently. General maintenance includes mowing, watering and trimming along fence lines, light poles, sidewalks, bleachers, buildings, restrooms and concessions areas etc. throughout the contract term.

Proper maintenance shall include: expertise, labor and equipment to provide sport specific, industry accepted, field maintenance practices and techniques in order to keep the infields in playable condition. ASA shall mow the turf infields at their respective complexes throughout their playing seasons. All ASA may be required at the request of the Parks and Recreation Director to mow playing field turf during scheduled seasonal play. This does not preclude the use of these fields by other organizations if approved by the Parks and Recreation Director. City employees forced to maintain fields/facilities will result in a fee of Twenty Dollars and Zero Cents (\$20.00) per man hour, in addition to cost of supplies, being deducted from the ASA security deposit.

The ASA shall also be responsible for any chemical applications, including insecticide and herbicide applications. Regulated chemicals must be applied by a licensed applicator and the ASA must notify the City at least one week prior to the application of any chemical.

The ASA is responsible for correcting hazardous conditions related to the ASA's activities.

The ASA is also responsible for, and shall pay for specific sports requirements including, but not limited to, watering, placement of bases, chalking foul/boundary lines, dragging infields, and screening.

The ASA shall furnish and maintain their own equipment, materials, and/or supplies for operating their games and events (i.e., starting blocks, bases, soccer goals, public address

systems, nets, etc.). ASA shall provide proper maintenance of the dirt infield areas year-round at their respective athletic complexes.

The ASA shall remove trash debris and litter from dugouts, around concession stands, playing fields, facilities/buildings, parking areas, and common areas. All trash, debris and litter shall be deposited in dumpsters on the park grounds.

Storage of equipment or materials needed to operate must be contained locked storage room(s) or receptacle(s) placed in a City-approved location. The City is not responsible for the damage, loss or theft of any equipment, supplies or materials stored by the ASA.

The City shall provide field lights for ASA's scheduled activities. If ASA activities end early and prior to the time previously submitted in the schedule provided to the City, ASA will contact the Parks and Recreation Director, or designee, to advise them that the lights may be turned off.

Work requests shall be called or emailed to the Parks and Recreation Director, or designee. Please give ample notice so Parks can schedule repairs.

THE CITY OF ANGLETON WILL NOT BE HELD LIABLE AND WILL BE HELD HARMLESS FOR ANY CONTENTS OWNED AND STORED BY ANY ASA IN ANY BUILDING PERTAINING, BUT NOT LIMITED TO, THEFT, VANDALISM, STORM DAMAGE OR ANY ACT CAUSING DAMAGE OR DESTRUCTION OF ASA OWNED CONTENTS.

STORAGE OF CONTENTS BY ANY ASA IS AT THE RISK AND FINANCIAL OBLIGATION FOR REPAIR OR REPLACEMENT OF CONTENTS BY THE ASA.

IF, AND WHEN, THE CITY OF ANGLETON DETERMINES THE STORAGE BUILDING NEEDS TO BE REMOVED AND/OR TORN DOWN FOR ANY REASON, THE CITY WILL GIVE ASA FORTY- FIVE (45) DAYS TO RELOCATE THEIR STORAGE CONTENTS AT THE EXPENSE OF ASA.

Signature of Acknowledgement

ASA Organization

POLICING REQUIREMENTS:

The City expects each ASA to not leave trash/recycling containers full or overflowing during and after their activities. In addition, all ASAs, organizations and individuals should make every effort to police the facilities, buildings, parking areas and common areas for trash, debris and litter associated with their activities. All trash, debris and litter shall be deposited in the trash receptacles or dumpsters on the park grounds.

ENHANCEMENTS:

Requests for improvements and enhancements to fields or facilities must be submitted in writing to the Parks and Recreation Director at least thirty (30) days prior to the desired date of installation or improvement. The ASA shall not install, build or perform any type of facility or property improvements without the prior written consent of the Director of Parks and Recreation or designee. All improvements may require Council action and must meet the City's inspection codes and/or ordinance requirements. These improvements and enhancements include, but are not limited to, enlarging ball fields, establishing new fields, cutting trees, extra landscaping, modifying irrigation systems, constructing buildings, and installing scoreboards, bleachers, netting and batting cages.

The ASA shall be responsible for the maintenance and upkeep of any improvements and enhancements to property or facilities that are made by the ASA after City approval.

All improvements to fields and facilities shall become the property of the City. Nothing in this Agreement shall be construed as a grant of ownership rights to the ASA. All ownership and property rights remain with the City.

The City retains the right to remove such property improvements or enhancements.

EMERGENCIES AND ACCIDENTS:

ASA, organizations and individuals shall report any and all accidents that require medical attention by health care professionals. Accidents involving the condition or maintenance of facilities should be reported to the Parks and Recreation office at the beginning of the first business day following the accident. After hour emergencies involving immediate maintenance of the facility shall be reported immediately by contacting the Angleton Police Department at (979) 849-2383. The Police Department will contact the proper on-call staff representative.

CAPITAL IMPROVEMENT PROJECTS:

If ASA desires the City to consider funding specific capital improvement projects. ASA shall submit in writing a detailed description of the type of project for consideration (i.e., scoreboards, bleachers, etc.). Written requests should be submitted to the Parks and Recreation Director by February 1 of each year in order to be reviewed and approved by the Parks Board for consideration in the following fiscal years' program budget. The City's fiscal year runs October 1 - September 30. Approval of projects is based on priority need and available funding.

TERMINATION CLAUSE:

ASA using City of Angleton Athletic Facilities may terminate their relationship with the City of Angleton voluntary or involuntary with at least ten (10) days advance written notice sent to the Parks and Recreation Director. Voluntary termination shall constitute a written letter of intent sent to the Parks and Recreation Director from the ASA. Upon such notification, the Parks and Recreation Director or designee shall conduct a walk-through inspection of the park premises and structures for damage and collect all keys to park facilities prior to issuing any refundable deposit. Involuntary termination shall constitute any association who fails to perform to the expectations outlined in the aforementioned sections of the Athletic Facilities Policy. As such, the ASA shall be subject to loss of park use privileges up to and including termination as a recognized ASA and forfeiture of any refundable deposit paid by the ASA. In the event of an involuntary termination, the Parks and Recreation Director shall provide written notice to the ASA listing any/all violations and allow the ASA reasonable time to bring all violations into acceptable and sustained compliance within five (5) business days of said notice.

INDEMNIFICATION:

THE ASA SHALL INDEMNIFY AND HOLD HARMLESS THE CITY, ITS OFFICERS, EMPLOYEES, DIRECTORS, REPRESENTATIVES, AND AGENTS FROM LIABILITY FOR ANY AND ALL CLAIMS, LOSS, DAMAGES, DEMANDS, INJURY, COST, EXPENSE, CLAIM, OR JUDGEMENT, FOR CAUSES OF ACTION OF EVERY KIND AND CHARACTER, INCLUDING BUT NOT LIMITED TO WRONGFUL DEATH, BODILY INJURY, AND/OR PROPERTY DAMAGE ARISING FROM THE WILLFUL, INTENTIONAL, RECKLESS OR NEGLIGENT (WHETHER ACTIVE, PASSIVE OR GROSS) ACTS OR OMISSIONS OF THE ASA, ITS AGENTS OR EMPLOYEES OR CAUSED BY OR ALLEGED TO BE CAUSED BY OR ARISING OUT OF OR ALLEGED TO ARISE OUT OF THE WILLFUL, INTENTIONAL, RECKLESS OR NEGLIGENT (WHETHER ACTIVE, PASSIVE OR GROSS) ACTS OR OMISSIONS OF THE ASA IN CONNECTION WITH THIS AGREEMENT OR THE ACTIVITIES TO TAKE PLACE AT THE FIELDS/FACILITIES.

NOTICES:

All notices must be in writing and shall be deemed validly provided if given by personal delivery or if sent by certified mail, postage prepaid, return receipt requested, addressed as shown below (or to any other address that the party to be notified may have designated to the sender by like notice)

CITY: **City of Angleton**
 Director of Parks and Recreation
 901 S Velasco
 Angleton, Texas 77515
 Telephone: (979) 849-4364 ext. 4101
 Email: scrouch@angleton.tx.gov

Angleton Sports Association:

 Telephone _____
 Email _____
 Fax _____

CITY OF ANGLETON, TEXAS

ANGLETON SPORTS ASSOCIATIONS:

Chris Whittaker, City Manager

Print Name:_____

Print Title:_____

Date Signed:_____

Date Signed:_____

Attest:

**Frances Aguilar,
City Secretary**



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Patty Swords

AGENDA CONTENT: Resolution to submit a pre-application for United States Department of Agriculture-Rural Development Grant/Loan Program to fund the construction of Angleton Operations Center

AGENDA ITEM SECTION: Consent Agenda

BUDGETED AMOUNT: \$0

FUNDS REQUESTED: \$0

FUND: USDA-Rural Development

EXECUTIVE SUMMARY:

The USDA has been awarded American Rescue Plan Act funds to benefit the development of rural communities. This program, designed as a grant and loan package provides affordable funding to develop essential community facilities. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area and does not include private, commercial, or business undertakings. The funds may be used to purchase, construct, and/or improve essential facilities, purchase equipment, and pay related project expenses.

The City of Angleton and the Angleton Operations Center project meets the qualifications to submit a pre-application. The pre-app will be reviewed by the Department and Angleton staff will be notified regarding approval to submit a full application for funding.

RECOMMENDATION:

Staff recommends approval of the Resolution to submit a USDA-Rural Development/Community Facilities Loan and Grant Program application for the purpose of funding the construction of Angleton Operations Center.

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS AUTHORIZING THE SUBMISSION OF A PRE-APPLICATION TO THE USDA RURAL DEVELOPMENT/COMMUNITY FACILITIES GRANT AND LOAN PACKAGE; AND AUTHORIZING THE CITY MANAGER TO ACT AS THE CITY'S EXECUTIVE OFFICER AND AUTHORIZED REPRESENTATIVE IN ALL MATTERS PERTAINING TO THE CITY'S PARTICIPATION IN THE GRANT PROGRAM.

WHEREAS, the City Council of Angleton plans to build the Angleton Operations Center that will serve as the primary location for Public Works, Information Technology (IT), and Parks and Recreation offices at 903 S. Velasco St., Angleton, TX; and

WHEREAS, these City departments are currently housed in a temporary modular office due to sub-standard conditions in previous facility; and

WHEREAS, it is necessary and in the best interest of the City of Angleton to submit a pre-application for the grant and loan program under USDA – Rural Development program;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

SECTION 1. That the USDA – Rural Development Grant and Loan Program pre-application is hereby authorized to be filed with the USDA – Rural Development Office in Georgetown, TX for grant and loan consideration to help fund the construction of a new Angleton Operations Center; and

SECTION 2. That the pre-application be reviewed by the USDA-Rural Development Program for suitability for full application; and

SECTION 3. That the grant, or the combined grant/loan package amount, will be for \$8,000,000, or a negotiated portion; and

SECTION 4. That the City Council directs and designates the City Manager as the Chief Executive Officer and Authorized Representative to act in all matters in connection with this pre-application and participation in the USDA-Rural Development/Community Facilities Loan and Grant Program.

PASSED AND APPROVED THIS THE 22nd DAY OF FEBRUARY 2022.

CITY OF ANGLETON, TEXAS

Jason Perez

Mayor

ATTEST:

Frances Aguilar, TRMC, CMC
City Secretary



AGENDA ITEM SUMMARY FORM

MEETING DATE: 02/22/2022

PREPARED BY: Glenn LaMont

AGENDA CONTENT: Discussion and possible resolution to allow H-GAC apply and administrate a grant to draft and submit for approval a Hazard Mitigation Plan for the City of Angleton.

AGENDA ITEM SECTION: Regular Agenda

BUDGETTED AMOUNT: \$0.00

FUNDS REQUESTED: \$0.00

FUND: N/A

EXECUTIVE SUMMARY:

The City adopted the Brazoria County Mitigation Action Plan in September 2018. As it will no longer be effective after September 2023, H-GAC will apply and administrate a grant via the GLO for \$50,750.51 to draft and submit for FEMA approval, a Hazard Mitigation Plan unique for the City. Planning will include input from Key Stakeholders, including Angleton ISD, Angleton Drainage District, and all City staff. This plan will be considered a “living” document that can be updated regularly via resolution. .

RECCOMENDATION:

Staff recommends approving this resolution and proceed with the creation of the Hazard Mitigation Plan.

RESOLUTION NO. 20220222-000

**A RESOLUTION OF THE CITY OF ANGLETON CITY COUNCIL TO
AUTHORIZE THE HOUSTON-GALVESTON AREA COUNCIL TO APPLY
FOR A LOCAL HAZARD MITIGATION PLAN PROGRAM GRANT TO WRITE
THE CITY OF ANGLETON MITIGATION PLAN AND SUBMIT IT TO FEMA
FOR APPROVAL**

WHEREAS, Section 322 of the Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5165) requires local governments to develop a hazard mitigation plan as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects; and,

WHEREAS, the Code of Federal Regulations (CFR) at Title 44, Chapter 1, part 201, requires the jurisdictions to prepare and adopt a local mitigation plan every five years; and,

WHEREAS, the plan incorporates the comments, ideas and concerns of the community and of the public in general, which the plan is designed to protect, ascertained through a series of public meetings, publication of the draft plan, press releases, and other outreach activities; and,

WHEREAS, the City of Angleton City Council approved and adopted the Brazoria County Hazard Mitigation Plan and resolved to execute the actions in the plan at their September 25, 2018 city council meeting; and,

WHEREAS, this current FEMA approved Hazard Mitigation Plan will expire in September of 2023;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

Section 1. That the City of Angleton authorizes the Houston-Galveston Area Council to apply and administrate, on behalf of the City of Angleton, for a Local Hazard Mitigation Plan Program Grant for \$50,750.51 to City of Angleton authorizes the Houston-Galveston Area Council to draft and submit a Hazard Mitigation Plan for approval by FEMA. There is no match for this grant.

Section 2. That this Resolution shall take effect immediately upon its passage.

PASSED AND APPROVED THIS THE 22ND OF FEBRUARY 2022.

CITY OF ANGLETON, TEXAS

Jason Perez
Mayor

ATTEST:

Francis Aguilar, TRMC, CMC
City Secretary



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Lindsay Koskiniemi, CPM, CGFO, Assistant Director of Development Services

AGENDA CONTENT: Update on the substandard building initiative and briefing on process to declare substandard building

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: \$45,740 **FUNDS REQUESTED:** None currently

FUND: 01-535-465 – General Fund – Development Services – Demolition

EXECUTIVE SUMMARY:

UPDATE ON SUBSTANDARD BUILDING INITIATIVE

In January 2021, City of Angleton Department of Development Services launched a city-wide substandard building initiative to identify residential structures deemed to be substandard. Criteria used to gauge a designation of “substandard” included the estimated cost to bring the property to Code compliance meeting or exceeding fifty percent (50%) of the value of the property, advanced degradation and decay of the structure, availability of water, and overall fitness for human habitation.

Staff determined over 60 houses throughout the city were substandard and began the enforcement process by making initial contact with property owners. Correspondence with property owners of substandard structures has been in progress for one year with some efforts rendering success. Since the initiative was launched, city staff have corresponded with property owners and been successful in having property owners voluntarily demolish over 25 substandard structures. In some cases, staff has been unable to reach property owners, therefore additional effort is needed to demolish unsafe structures that pose a threat to public safety.

Communication efforts with property owners have been carefully documented. Staff have worked to compare substandard structures and create a demolition priority list to begin the demolition process following all statutory and local requirements. Criteria staff used to determine demolition priority was based on the structures believed to pose the greatest threat to community health and safety, visibility, whether property is occupied, and degree of advanced damage. While dozens of substandard structures remain after 2021 enforcement initiation, City Council approved \$45,740 for demolition in the FY 2021 – 2022 budget.

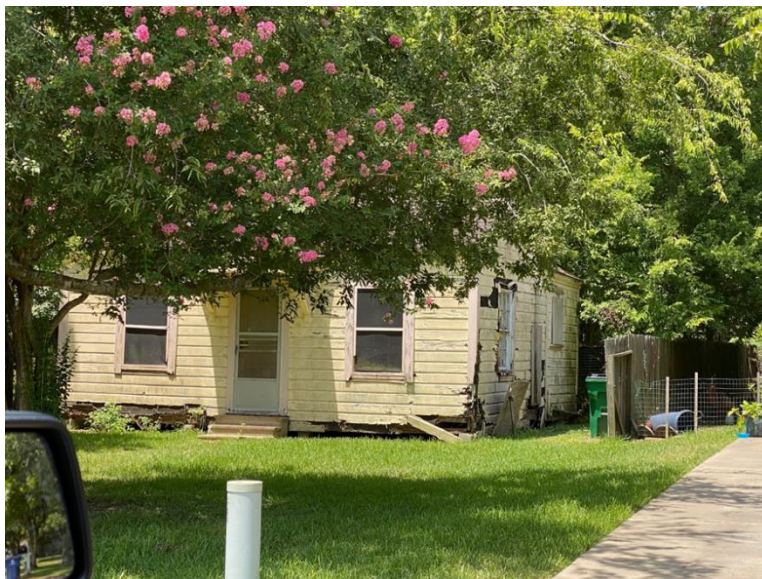
Demolition costs are largely dependent on materials, square footage, hauling and disposal of materials, and whether a concrete slab is removed. City staff believes, based on quotes received for demolition of comparable properties from local construction companies, the cost to demolish a substandard home less than 1500 square feet will typically cost \$7,000. Using that estimate, staff believes 6 demolitions can be achieved in this fiscal year.

Using the criteria to prioritize properties most eligible for demolition, staff has identified the following substandard properties to request City Council's authorization to hold future public hearings to declare condemned to begin the process of demolition in Fiscal Year 2021 - 2022:

- 612 S. Hancock – single family house
- 316 Rogers Street – single family house
- 320 W. Peach Street – single family house
- 504 Farrer Street – single family house
- 520 Dwyer – detached two-car garage

STATUS OF IDENTIFIED PROPERTIES

612 S. Hancock – Siding is rotted with inside exposed, and house is leaning and appears to be structurally unsound. This property is in the Viola K. Scott Estate. Letters were sent on February 11, 2021 via regular and certified mail. Code Enforcement sent written warning on May 28, 2021. A total of 4 citations have been sent as of December 13, 2021. House is unoccupied.



316 Rogers Street – Windows are broken. Siding and piers appear to be rotted, and inside of house is visible through holes in siding. Roof and eaves appear to be rotted. Code Enforcement has sent property owner letters via certified and regular mail. Warning letter mailed via certified and regular mail, and citations issued for junk vehicles and substandard dwelling. House is believed to be unoccupied currently. **Staff wishes to move forward with condemnation hearing.**



320 W. Peach Street – The roof is caved in, house leaning, broken windows, and extensive damage to interior due to water intrusion through failed roof. Notice of substandard condition and Code violations sent to property owner via regular and certified mail on February 8, 2021. While Code Enforcement officers have made contact with property owner, no progress has been made to improve the condition of the home over the past year. House is unoccupied. **Staff wishes to move forward with condemnation hearing.**



504 Farrer Street – This property poses the greatest threat to public safety, as the house is completely separated in the back with the interior of the home completely exposed and the collapsed portion decayed on the ground. No property maintenance has been done, and the trees have large dead limbs that fall. Upon a routine field inspection in January 2022, staff found evidence of vagrants occupying the house. The following actions have been taken by staff to notify the nonresponsive property owner. The City has received several complaints of rodents and insects at this property and has issued at least 14 liens since 2018 for mowing the property. Staff has collaborated with the City's Legal Counsel and wishes to initiate court proceedings to establish substandard conditions and violations of the City's Code of Ordinances. Home is unoccupied by resident but may be periodically occupied by vagrants without property owner's permission.

- July 2017: Certified letter sent to property owner notifying of dilapidated structure.
- May 5, 2020: Certified letter sent to property owner – complaint of dilapidated structure.
- May 18, 2020: Certified letter sent to property owner – complaint of dilapidated structure.

- January 13, 2021: Certified letter sent to property owner – complaint of dilapidated structure.
- April 2021: Citations mailed to property owner.





Missing front doorknob. Upon a closer look, staff noticed there were food bags, cups, and a plastic wrapped piece of insulation likely used as a floor pallet for resting. These observations are indicative of vagrant habitation.





520 Dwyer Street – The subject property is an approximate 1,000 square foot, two car detached garage structure that is completely collapsed. Upon investigating a complaint of rodents, overgrown foliage, and dilapidates structure, staff made contact with property owner, who expressed circumstances that staff believe are appropriate to merit City action. Staff has worked with Legal to prepare an agreement with the property owner to demolish and clear the collapsed garage with a lien for the cost of fees incurred by the City applied to the property with the property owner's request and consent. The cost for the demolition will be \$3,400.



NEXT STEPS

City staff has worked in tandem with Legal to understand property owner rights, the City's authority to declare a house substandard and the process by which to demolish a substandard structure.

City staff have worked diligently with property owners to assist bringing properties into compliance with the City's Code as well as empathetically aid responsive property owners who have communicated their intended timeline to remediate deficiencies based on personal circumstances, such as availability of resources, time, financial situation, etc.

Next, staff members will present ordinances for each property and request public hearings to declare substandard properties condemned. Consistent with the requirements of Local Government Code Chapter 214, the City will allow property owners thirty (30) days to respond. If no response is received by the City, the City may continue with enforcement action up to and including demolition.

RECOMMENDATION

This update is provided to the City Council for information purposes only, and no recommendation is needed at this time.



AGENDA ITEM SUMMARY FORM

MEETING DATE: 2/22/22

PREPARED BY: Scott Myers

AGENDA CONTENT: Discussion and possible action to allow the Angleton Fire Department to enter into an agreement with Mike Pietsch, P.E. Consulting Services, Inc. to perform a detailed study on the City of Angleton and the Fire Department to help improve our ISO rating.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: \$40k

FUNDS REQUESTED: \$38k

FUND: 01-530-455 Contract Labor

EXECUTIVE SUMMARY:

This request is to allow the Fire Department to enter into an agreement with Mike Pietsch, P.E. Consulting Services, Inc. to perform a detailed study on the City of Angleton and the Fire Department to help improve our ISO rating. This study will be done in 3 phases.

Phase 1: not to exceed \$20k

Phase 2: not to exceed \$14k

Phase 3: not to exceed \$4k

Each phase will be determined rather or not to enter the phase at the conclusion of the previous study. Each phase will be paid for upon completion of the study. Each phase description is attached in the agenda packet.

RECOMMENDATION:

Allow Angleton Fire Department to enter into the agreement with Mike Pietsch, P.E. Consulting Services, Inc. for the ISO study.

Attempts were made to find other companies for comparison pricing. However, we were unable to find anyone. Mr Pietsch comes highly recommended by all of our large surrounding cities.



Assisting Communities
With Their I.S.O. Rating

Mike Pietsch, P.E. Consulting Services, Inc.

3101 S. Country Club Rd.
Garland, TX 75043-1311
972.271.3292 Phone
214.728.6507 Cell
972.840.6665 Fax
michaelpietsch@tx.rr.com

June 21, 2021

City of Angleton
C/O Mr. Adolph Sembera
Asst. Fire Chief
221 N. Chenango St.
Angleton, TX 77515

Dear Mr. Chief Sembera:

This introductory letter explains the 3 proposals presented within this packet. The key to my service is that when I perform a Grading Summary and provide the community a List of Suggested Improvements (Phase I), a great deal of the information required to fill out the Pre-Survey Packet will be assimilated at that time. Therefore, when I fill out the Pre-Survey Packet (Phase II) it is obviously less time consuming than if I had not performed the Grading Summary and corresponding List of Suggested Improvements. The same holds true for assisting the community when the I.S.O. Field Representative visits and performs his field survey (Phase III). If I have filled out his Pre-Survey Packet then I am familiar with the infrastructure of the community as it pertains to the I.S.O. rating. This makes it less time consuming when transferring the information to the field representative. It is for this reason that each phase is contingent upon the one which preceded it.

The total cost to the City of Angleton to complete **only** the Grading Summary with the corresponding List of Suggested Improvements for areas afforded fire hydrant protection will not exceed **\$20,000**, and will require 1 site visit. The total cost to the City of Angleton to complete all 3 projects, for the areas afforded fire hydrant protection, will not exceed **\$38,000 (this total being contingent upon completing all 3 phases)**. *The total for all 3 projects does not include additional site visits such as City Council presentations or workshops.* 3 site visits will be required and only 3 site visits are within the scope of this proposal. The price for completing the Pre-Survey Packet (Phase II) and assisting with the transfer of information to the I.S.O. Field Representative (Phase III) is contingent upon the initial phase (Grading Summary and List of Suggested Improvements) being performed.

The normal process is as follows: I visit the City of Angleton and obtain the information to accurately grade your community. However, I do not assimilate the extensive amount of support data required by I.S.O. to document your

answers. When I obtain the required information, I will return to my home office and grade the City of Angleton as though I was the ISO Field Representative. This grading will show, to 2 decimal places, what Angleton would grade with its existing fire defense infrastructure. When the grading is complete, I will compile a list of suggested improvements. Each improvement will show, again to 2 decimal places, how much that improvement will add to the overall grading point total which develops the ISO PPC for the City of Angleton.

After your staff analyzes these improvements and implements the ones which are economically feasible within the budget constraints of the City of Angleton, we will request an I.S.O. survey. At that time, I.S.O. should assign a Field Representative which should be Ms. Emily Janz; an excellent ISO Field Representative. If anyone else is assigned please contact me and we will get the State Fire Marshal's Office (which oversees ISO) involved. ISO New Jersey has brought in an "Out-of-State" Field Representative into Texas that should not be allowed into Angleton for reasons I will not place in a proposal, report, or any form of email. The State Fire Marshall has stated: "That any community has the right to a "Texas Specific" Field Representative that has been previously assigned to their area"

Once the Field Representative is assigned, she will send you ISO's Pre-Survey Packets. At that time I will return to the City of Angleton and together we will assimilate the information in order that I can complete these 24 packets of information. We also will assimilate the support data required to document the answers to these packets.

After the packet is complete we will set a date and time for the field representative to visit the City of Angleton. I will be with the City of Angleton during the entire survey process to guarantee the seamless transfer of information.

Please note that payment occurs only at the conclusion of each phase.

Sincerely yours,

Mike Pietsch, P.E.
Civil Engineer

MP/spp

**Proposals - City of Angleton
Cover Letter**



Assisting Communities
With Their I.S.O. Rating

Mike Pietsch, P.E. Consulting Services, Item 6.

3101 S. Country Club Rd.
Garland, TX 75043-1311
972.271.3292 Phone
214.728.6507 Cell
972.840.6665 Fax
michaelpietsch@tx.rr.com

June 21, 2021

City of Angleton
C/O Mr. Adolph Sembera
Asst. Fire Chief
221 N. Chenango St.
Angleton, TX 77515

Dear Mr. Chief Sembera:

Attached is a proposal for Mike Pietsch, P.E. Consulting Services, Inc. to perform their consulting services in conjunction with the City of Angleton's I.S.O. rating. The services outlined below would be required to: ***Assist the I.S.O. Field Representative (Phase III)*** during his survey of the City of Angleton.

This phase of my service is designed to assist the City of Angleton with the information transfer. I will be with the Field Representative during their entire survey. Since I trained many I.S.O. Field Representatives during my 28+ years with ISO, I know exactly what they require. This will eliminate any confusion between the City of Angleton and the I.S.O. Field Representative. The information transfer will proceed effortlessly if I am involved. My involvement will save the City Officials serving the City of Angleton countless staff-hours and allow them to concentrate on their normal daily activities.

This proposal includes 1 site visit; to complete phase III. If additional site visits are required by the City of Angleton please let my company know and the proposal will be adjusted.

The total of time and costs reflect actual consultant fee expenses. If you have questions or need additional information, please let me know.

Sincerely yours,

Mike Pietsch, P.E.
Civil Engineer

MP/spp

PROPOSAL

TO
PROVIDE
CONSULTING SERVICES

TO

THE CITY OF ANGLETON

**Assist the I.S.O. Field Representative
During the I.S.O. Survey
(Phase III)**

BY

MIKE PIETSCH, P.E. CONSULTING SERVICES, INC.

OF

GARLAND, TEXAS

June 21, 2021

**Proposal for the City of Angleton
Assist I.S.O. Field Representative (Phase III)**

The following is a proposed estimate of the time and costs that would be associated with a consulting project with **Mike Pietsch, P.E. Consulting Services, Inc.** for the **City of Angleton**. The consulting team will consist of Mike Pietsch, P.E.

SCOPE OF CONSULTING SERVICES

Represent the City of Angleton during the I.S.O. field survey. Areas covered by the I.S.O. Field Representative are shown below:

- **Present ISO's Corrected Needed Fire Flow Report:**
- **Texas Exception**
 - Attendance at Fireman's Training School
 - Compressed Air Foam
 - Volunteer Certification
- **Fire Department:**
 - Apparatus Inventories
 - Pump Tests
 - Staffing
 - Training
 - Operational Considerations
 - Fire Station Locations
 - Locating apparatus to maximize the grading
 - Distribution of companies
- **Fire Service Communications**
 - Methods of alarm receipt
 - Number and training of dispatchers
 - Monitoring for Integrity
 - Emergency Power
 - Methods of dispatch
- **Water Department:**
 - Supply Facilities
 - Hydrant Distribution
 - Hydrant Inspection
 - Flow Testing – perform and/or analyze flow tests

- **Community Risk Reduction:**
 - Fire Marshal – Inspections and Investigations
 - Codes
 - Staffing
 - Certifications
 - Training
 - Public Fire Education
 - Staffing
 - Certifications
 - Training

COST REQUIREMENTS

If I prepare a Grading Summary, create a List of Suggested Improvements, and assist with completion of the Pre-Survey Packets for the City of Angleton:

- Assist the I.S.O. Field Representative \$ 3,500
- Expenses (hotel, meals & transportation) \$ 500

Total \$ 4,000

The total cost to the City of Angleton to Assist the I.S.O. Field Representative will not exceed \$4,000, if my services are obtained to assist with the completion of the Grading Summary, Suggested Improvements, and Pre-Survey Packet.

The Proposal for Phase III includes just 1 site visit.

PAYMENT AGREEMENT:

The City of Angleton agrees to pay Mike Pietsch, P.E. Consulting Services, Inc. upon the conclusion of this phase of the consulting project (Phase III).

Submitted by:

*Mike Pietsch, P.E.
Civil Engineer*

***Mike Pietsch, P.E. Consulting Services, Inc.
3101 S. Country Club Rd.
Garland, TX 75043-1311
Phone: 972-271-3292 Cell: 214-728-6507
Fax: 972-840-6665
E-mail: michaelpietsch@tx.rr.com***

**Proposal for the City of Angleton
Assist I.S.O. Field Representative (Phase III)**



Assisting Communities
With Their I.S.O. Rating

Mike Pietsch, P.E. Consulting Services, Item 6.

3101 S. Country Club Rd.
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972.271.3292 Phone
214.728.6507 Cell
972.840.6665 Fax
michaelpietsch@tx.rr.com

June 21, 2021

City of Angleton
C/O Mr. Adolph Sembera
Asst. Fire Chief
221 N. Chenango St.
Angleton, TX 77515

Dear Mr. Chief Sembera:

Attached is a proposal for Mike Pietsch, P.E. Consulting Services, Inc. to perform their consulting services in conjunction with the City of Angleton's I.S.O. rating. The services outlined below would be required to: ***Prepare a Grading Summary and Create a List of Suggested Improvements (Phase I)*** for the City of Angleton. This grading will demonstrate the minimum point total that should result if an I.S.O. Field Representative performs a rating for the City of Angleton. Based on this Grading Summary, a List of Suggested Improvements will be developed which, if implemented, would improve the I.S.O. rating for the City of Angleton.

This phase I proposal includes 1 site visit. If the City of Angleton wishes additional site visits to present or discuss the report please let my company know and the proposal will be adjusted.

The total of time and costs reflect actual consultant fee expenses. If you have any questions or need other information, please let me know.

Sincerely yours,

Mike Pietsch, P.E.
Civil Engineer

MP/spp

PROPOSAL

TO
PROVIDE
CONSULTING SERVICES

TO
THE CITY OF ANGLETON

**Prepare a Grading Summary and
Create a List of Suggested Improvements
(Phase I)**

BY

MIKE PIETSCH, P.E. CONSULTING SERVICES, INC.

OF

GARLAND, TEXAS

June 21, 2021

**Proposals - City of Angleton
Cover Letter**

The following is a proposed estimate of the time and costs that would be associated with a consulting project with **Mike Pietsch, P.E. Consulting Services, Inc.** for the **City of Angleton**. The consulting team will consist of Mike Pietsch, P.E.

SCOPE OF CONSULTING SERVICES

The proposed scope of work will consist of meeting with various City Officials from the City of Angleton as follows:

I. Confirm the following information for the City of Angleton:

- **Evaluate ISO's Needed Fire Flow Report:**
- **Texas Exception:**
 - Attendance at Fireman's Training School
 - Compressed Air Foam
 - Volunteer Certification
- **Fire Department:**
 - Apparatus Inventories
 - Pump Tests
 - Staffing
 - Training
 - Operational Considerations
 - Fire Station Locations
 - Locating apparatus to maximize the grading
 - Distribution of companies
- **Fire Service Communications:**
 - Methods of alarm receipt
 - Number and training of dispatchers
 - Monitoring for Integrity
 - Emergency Power
 - Methods of dispatch
- **Water Department:**
 - Supply Facilities
 - Hydrant Distribution
 - Hydrant Inspection
 - Flow Testing – perform and/or analyze flow tests

Proposals - City of Angleton
Cover Letter

- **Community Risk Reduction:**
 - Fire Marshal – Inspections and Investigations
 - Codes
 - Staffing
 - Certifications
 - Training
 - Public Fire Education
 - Staffing
 - Certifications
 - Training

II. Grade the City of Angleton (at my home office)

III. Create a List of Suggested Improvements, which, if implemented, would allow the City of Angleton to improve its I.S.O. rating. The suggestions will be prioritized with their impact on the I.S.O. Public Protection Classification of the City of Angleton (at my home office). An accurate fire station location analysis will be part of the Suggested Improvements section of the report. I have complete just a Master Fire Station Location Study for over 100 communities during my 19-years as a consultant. I recently completed a 20-year master plan for the City of Waco and in 2019 completed the same study for the Cities of Houston and San Antonio.

**Proposals - City of Angleton
Cover Letter**

COST REQUIREMENTS

To Complete the Grading Summary and List of Suggested Improvements:

- | | |
|---|----------|
| • Assimilating the information | \$ 7,000 |
| • Grade/Prepare a Grading Summary | \$ 9,000 |
| • Prepare the Suggested Improvements | \$ 3,000 |
| • Expenses (hotel, meals, transportation, etc.) | \$ 1,000 |

Total \$ 20,000

**The total cost to the City of Angleton will not exceed \$20,000 to
Prepare a Grading Summary and
Create a List of Suggested Improvements.**

Phase I proposal includes 1 site visit

PAYMENT AGREEMENT:

The City of Angleton agrees to pay Mike Pietsch, P.E. Consulting Services, Inc. upon the conclusion of the consulting project (Phase I).

Submitted by:

*Mike Pietsch, P.E.
Civil Engineer*

**Mike Pietsch, P.E. Consulting Services, Inc.
3101 S. Country Club Rd.
Garland, TX 75043-1311
Phone: 972-271-3292 Cell: 214-728-6507
Fax: 972-840-6665
Email: michaelpietsch@tx.rr.com**

**Proposals - City of Angleton
Cover Letter**



Assisting Communities
With Their I.S.O. Rating

Mike Pietsch, P.E. Consulting Services, Item 6.

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972.271.3292 Phone
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michaelpietsch@tx.rr.com

June 21, 2021

City of Angleton
C/O Mr. Adolph Sembera
Asst. Fire Chief
221 N. Chenango St.
Angleton, TX 77515

Dear Mr. Chief Sembera:

Attached is a proposal for Mike Pietsch, P.E. Consulting Services, Inc. to perform their consulting services in conjunction with the City of Angleton's I.S.O. rating. The services outlined below would be required to: **Prepare the I.S.O. Pre-Survey Packets (Phase II)** for the City of Angleton. These packets require an extensive amount of support data to document the answers the City of Angleton will provide via these packets. It will save the City Officials representing Angleton a considerable amount of time if my services are obtained to assist in filling out these packets.

This proposal for phase II includes only 1 site visit. If additional site visits are required by the City of Angleton please let my company know and the proposal will be adjusted.

The total of time and costs reflect actual consultant fee expenses. If you have any questions or need other information, please let me know.

Sincerely yours,

Mike Pietsch, P.E.
Civil Engineer

MP/spp

PROPOSAL

TO
PROVIDE
CONSULTING SERVICES

TO

THE CITY OF ANGLETON

**To Prepare the I.S.O. Pre-Survey Packet
(Phase II)**

BY

MIKE PIETSCH, P.E. CONSULTING SERVICES, INC.

OF

GARLAND, TEXAS

June 21, 2021

**Proposal for The City of Angleton
Prepare I.S.O. Pre-Survey Packets (Phase II)**

The following is a proposed estimate of the time and costs that would be associated with a consulting project with **Mike Pietsch, P.E. Consulting Services, Inc.** for the **City of Angleton**. The consulting team will consist of Mike Pietsch, P.E.

SCOPE OF CONSULTING SERVICES

The proposed scope of work will consist of meeting with various officials from Angleton as follows in order to document the answers to the questions presented within I.S.O.'s pre-survey packet. The questions will cover the areas described below:

- **Correct ISO's Needed Fire Flow Report:**
- **Texas Exception**
 - Attendance at Fireman's Training School
 - Compressed Air Foam
 - Volunteer Certification
- **Fire Department:**
 - Apparatus Inventories
 - Pump Tests
 - Staffing
 - Training
 - Operational Considerations
 - Fire Station Locations
 - Locating apparatus to maximize the grading
 - Distribution of companies
- **Fire Service Communications**
 - Methods of alarm receipt
 - Number and training of dispatchers
 - Monitoring for Integrity
 - Emergency Power
 - Methods of dispatch
- **Water Department:**
 - Supply Facilities
 - Hydrant Distribution
 - Hydrant Inspection
 - Flow Testing – perform and/or analyze flow tests

- **Community Risk Reduction:**
 - Fire Marshal – Inspections and Investigations
 - Codes
 - Staffing
 - Certifications
 - Training
 - Public Fire Education
 - Staffing
 - Certifications
 - Training

COST REQUIREMENTS

If I prepare a Grading Summary and the corresponding List of Suggested Improvements for the City of Angleton:

- **Assimilating information in City of Angleton** **\$ 5,000**
- **Complete ISO Pre-Survey Packets – At home office** **\$ 8,000**
- **Expenses (hotel, meals, transportation, etc.)** **\$ 1,000**

Total **\$ 14,000**

The total cost to the City of Angleton will not exceed \$14,000 if my services are obtained to prepare a Grading Summary and corresponding List of Suggested Improvements.

This Proposal for Phase II includes just 1 site visit

PAYMENT AGREEMENT:

The City of Angleton agrees to pay Mike Pietsch, P.E. Consulting Services, Inc. upon the conclusion of the consulting project (Phase II).

Submitted by:

*Mike Pietsch, P.E.
Civil Engineer*

Mike Pietsch, P.E. Consulting Services, Inc.
3101 S. Country Club Rd.
Garland, TX 75043-1311
Phone: 972-271-3292 Cell: 214-728-6507
Fax: 972-840-6665
Email: michaelpietsch@tx.rr.com

Proposal for The City of Angleton Prepare I.S.O. Pre-Survey Packets (Phase II)



AGENDA ITEM SUMMARY FORM

MEETING DATE: 02/22/2022
PREPARED BY: Martha Eighme
AGENDA CONTENT: Presentation by SkyH2O
AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: NA **FUNDS REQUESTED:** NA

FUND: NA

EXECUTIVE SUMMARY:

We are pleased to welcome representatives from SkyH2O to present their business model and plans for growth in Angleton.

RECOMMENDATION:



SkyH2O Station™

*“Improving Communities Sustainability, Resiliency, Environment and Economy
by Providing Fresh and Healthy Potable Premium Water at an Affordable Price”*

Global Water Challenges



Water scarcity from droughts, overuse of aquifers is accentuated by failing infrastructure and growing populations



Municipalities struggling to provide adequate fresh-healthy drinking water to its residents. Anemia cases on the rise because of heavy metals in the drinking water.



The world needs to tackle water problem before it hinders the growth and livelihood of its inhabitants.



Polluted and toxic waters have created health and wellness concerns in its municipalities, specifically in places with heavy metals where the users of this water are suffering Anemia.



Water shortages are more common everyday and are creating tensions between countries, industries and the population.



Use of one-time-use plastics are severely impacting our environment and hurting the different ecosystems.

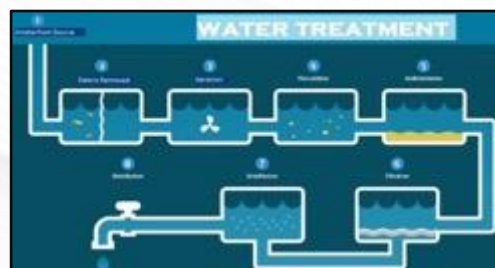
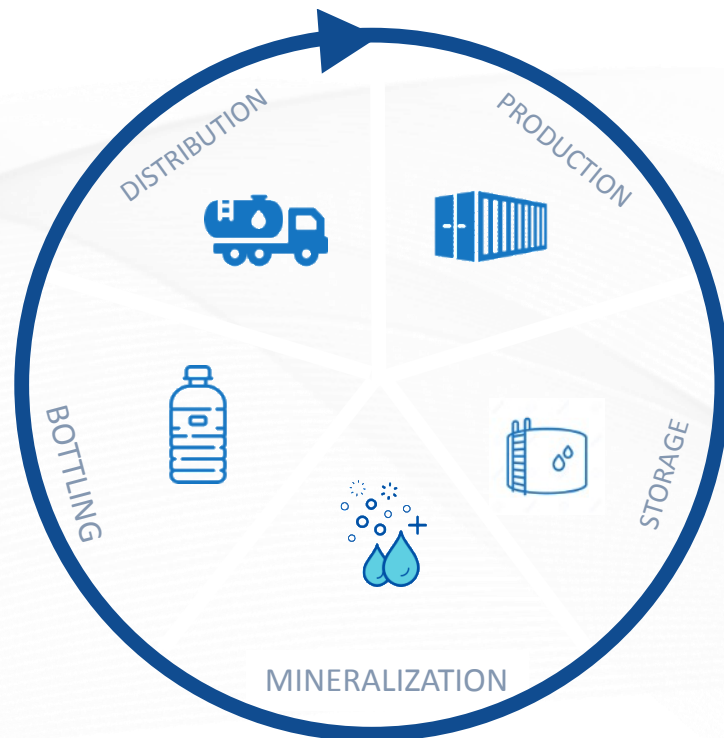
“Municipalities across the globe face significant challenges to provide fresh drinking water to their residents. Current implemented “solutions” are further stressing a shrinking underground water source, while creating a huge one-time-plastic problem that threatens our planet and our own existence”.

“SkyH2O is introducing an environmentally responsible SOLUTION that provides businesses and residents with a high-quality and reliable water source: The SkyH2O Station™”.

SkyH2O Station™

- SkyH2O is implementing a **Project Based** global strategy that **uses the air to create water**.
- The solution is: **Scalable** and **Replicable** anywhere in the world with good atmospheric conditions.
- The SkyH2O Station™ is built upon our own technology: The **AWG Maximus 4.10 system**.
- Each site produces between 100,000 and 200,000Lts of water per day.
- We are at the initial stage of rolling-out of Phase I, 10 projects.
- These projects will provide premium drinking water at a most competitive price in each of their markets.
- They also provide local authorities and residents with water security during natural catastrophes.

SkyH2O Station™ A Circular Business Model



GENERATION

- ✓ By World-leading atmospheric AWG technology: **The AWS MAXIMUS™ 4.10**
- ✓ Each machine generates **2,770GL or 10,500Lt /day** in locations with conditions of **80% RH and 27°C**.
- ✓ Each Station integrates over **12 units** to generate **+30,000GL or +115,000Lt /day**

PREPARATION

- ✓ Advanced, proven and efficient water preparation methods.
- ✓ Exceeds standards of the **World Health Organization** ("WHO") and Local Water Authorities
- ✓ We provide the healthiest, potable water, improving the health and well being of consumers.

BOTTLING & DISTRIBUTION

- ✓ Our facilities include advanced water bottling and cleaning.
- ✓ In-house produced environmentally responsible reusable and recyclable bottles that minimize the use of one-time plastics.
- ✓ Minimal carbo footprint by strategically locating SkyH2O Stations™ within a region.



SKYH2O STATION™

A Sustainable Water Security Solution

SUMMARY (Per station)

- Production: **30,000Gal/115,000Lts** x day of drinkable water
- Investment: **US \$15.0M**
- Stabilized Annual Revenue: **\$11.0M**
- Annual Profit: **US \$3.0M (27%)**
- Jobs: **15 to 20** full-time “green jobs”
- Sales Price: **US \$1.00/Gl** or **MXP \$5.00/Lt.**
- Reach: **30,000 people** daily needs
- Useful Life: **+30 years**
- Value Proposition:
 - ✓ **Most competitively priced high-quality drinking water** available in the market.
 - ✓ Most resilient water solution providing **water security** in times of disaster.
 - ✓ Renewable **NetZero** Water resource from AWG.

SkyH2O Station™ Sample Facility Layout



Min. Land Size:
2.5 Acres/ 10,000sqm



Project Partners



Water Production at SkyH2O Stations™ Rely on our **AWG Maximus™ 4.10 Unit**



Rated Water Production:	10.500-lts or 2,779-gal x day
Atmospheric Nominal Conditions:	27°C y 80% RH
Electric Supply, full load:	132kW 400 V 50Hz, 3 phase 480 V 60Hz
Energy Consumption:	0.29/KWh/liter
Noise:	70 Decibels x unit
Size:	2.19m x 2.54m x 11.30m
Weight:	11,200 Kg
Operative Range:	From 5° to 50°C & from 25% RH

Item 7.



SKYH2O STATION™

A Sustainable Water Security Solution

ENVIRONMENTAL BENEFITS

- Generates fresh water “from air” not exploiting aquifers or coastal desalinization.
- Does not further stress ground water supply (already at historic low levels)
- Avoids toxicity of forever chemicals, salt water and metals.
- Water is generated, processed, mineralized and bottled at the point of distribution.
- Avoids long-distance transportation costs and it’s carbon footprint.
- Eliminates use of decrepit and vulnerable water infrastructure.
- Bottling is made from advanced reusable, 100% degradable and recyclable next generation containers.
- Eliminates “tons” annually of one-time-use plastics for every project
- Reduces carbon footprint:
 - ✓ Use of electric water trucks.
 - ✓ Strategically located within urban areas.
 - ✓ Minimizes costly and polluting transportation.

SkyH2O Stations Growth Path:

	Phase I: Regional	Phase II: America	Phase III: International
Year:	2021-22	2023-24	2024-27
Number of Stations:	10	30	100
Locations of Projects:	Texas and Baja California Sur	Texas, California, Florida, Louisiana, Baja California Sur	USA, Europe (Spain, Italy), MENA (UAE, KSA, Morocco), and Caribbean
Investment Value:	\$150.0M	\$450.0M	\$1.50B
Annual Revenue (cumulative):	\$110.0M	\$440.0M	\$1.54B
Annual Profits (cumulative):	\$30.0M	\$120.0M	\$420.0M

In 2022 we start the “roll-out” of successful SkyH2O STATION™ in strategic locations in Texas and Baja California Sur to then expanding to across U.S.A. and from there to the World.

SkyH2O Station™



SkyH2O Headquarters



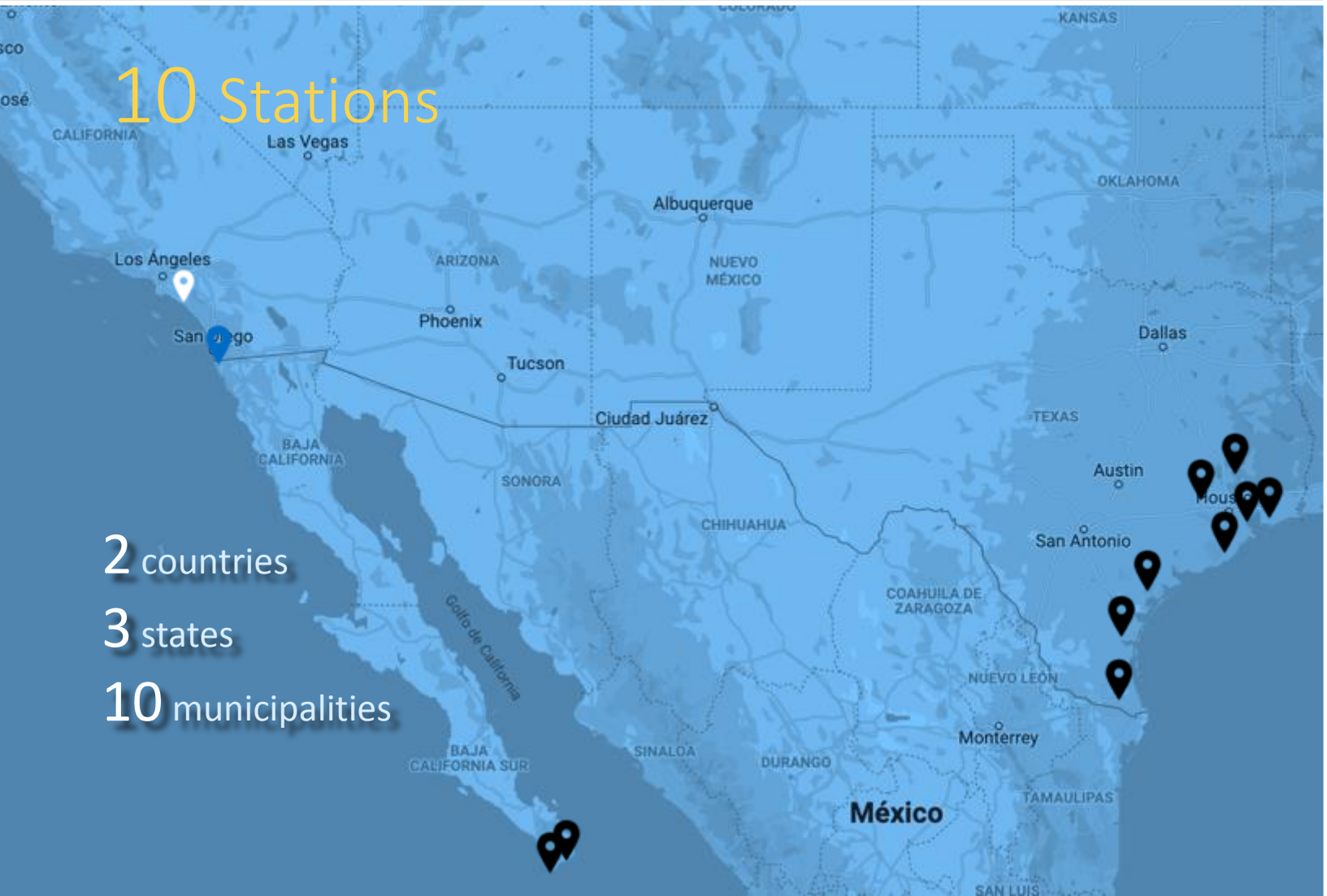
AWG Maximus™ Manufacturing



SkyH2O Water Station™

10 Stations

2 countries
3 states
10 municipalities



Item 7.

Projected Phase I Rollout: North America - Regional

2021-2022



TEXAS

1. Angleton
2. Dickinson
3. Corpus Christi
4. Woodlands
5. Brownsville
6. Victoria
7. Katy
8. Kingsville



BAJA
CALIFORNIA
SUR

9. Cabo San Lucas
10. San Jose del Cabo

SkyH2O Station™



SkyH2O Headquarters



AWG Maximus™ Manufacturing



SkyH2O Water Station™

30 Stations

2 countries
5 states
30 municipalities

Projected Phase II Rollout: North America - National

2023-2024

Successful **SkyH2O Station™** locations require:



Good atmospheric conditions.



A reasonably low cost of energy.



Water stressed areas which drives up the value of drinking water.



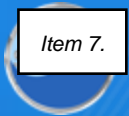
Access to high-profile highway sites at reasonable prices.






Municipalities of more than 10,000 population.



Crossroads to service +100,000 consumers within about 10 miles or 16 kms.



SkyH2O Station™

-  SkyH2O Headquarters
-  AWG Maximus™ Manufacturing
-  SkyH2O Water Station™

Projected Phase III Rollout: International

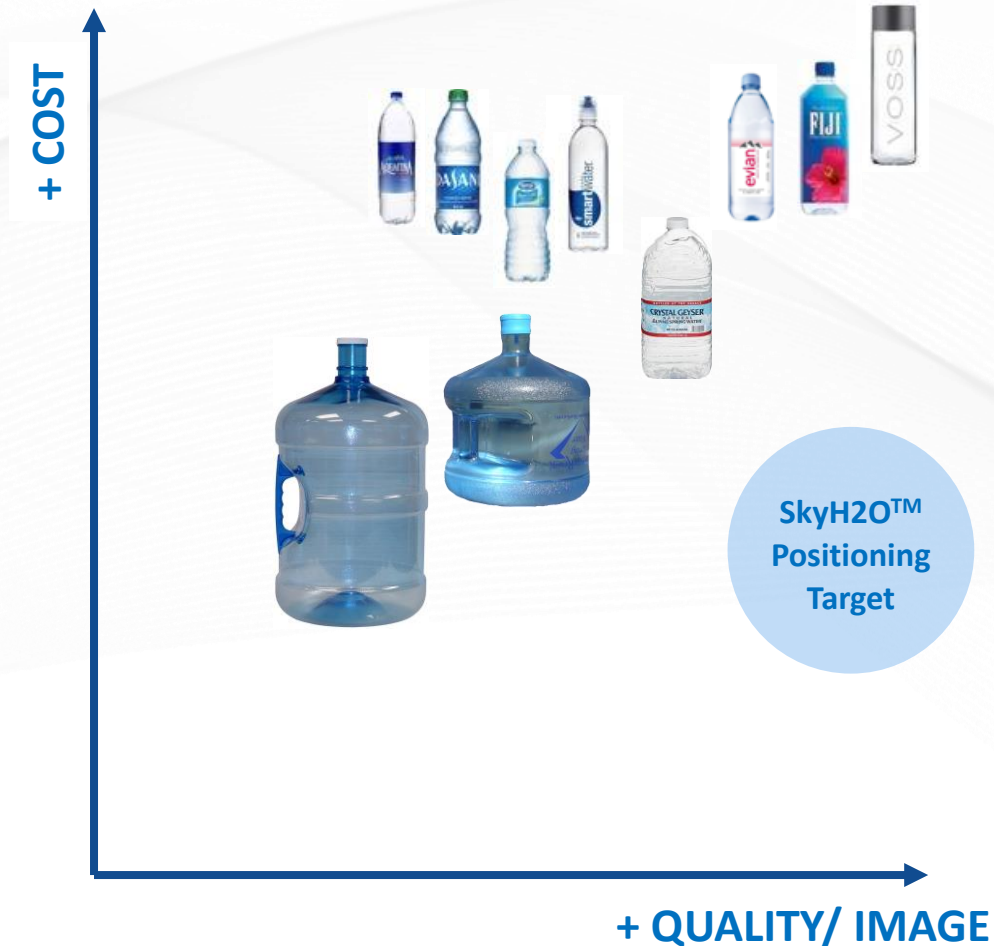
2025-2027

Item 7.



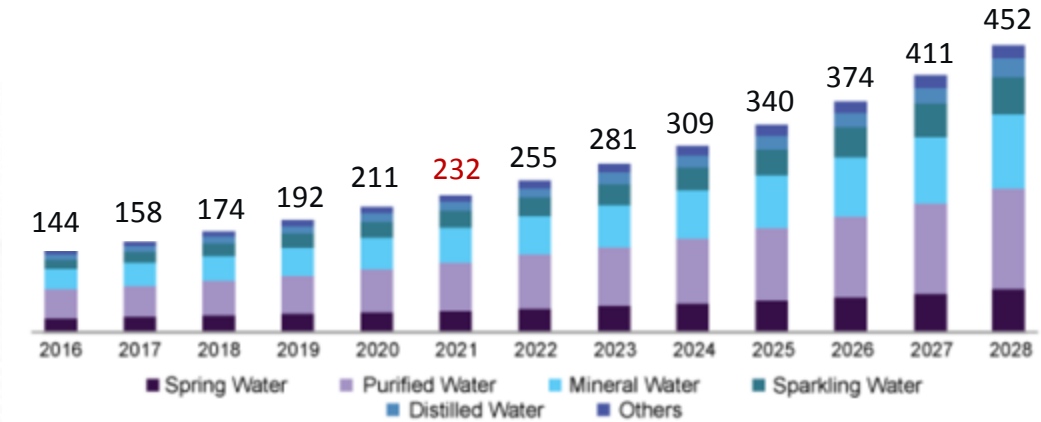
Market

SkyH2O Positioning



Global Water Market Size by Product

(USD Billion)



Source: www.grandviewresearch.com

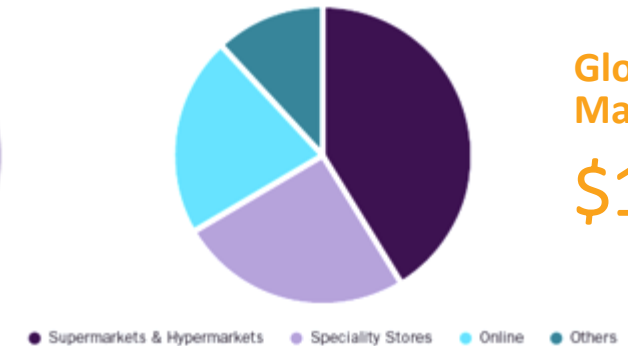
CAGR
11.1%

Global Bottled Water Market (2020)

Share by Product



Premium Market Share by Distribution Channel



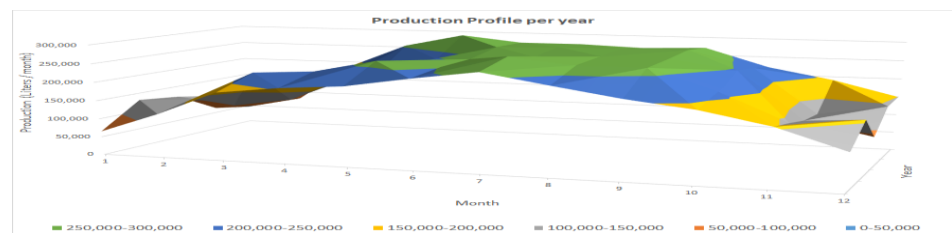
Global Premium Market Size (2020)

\$17.3B

Southeast, TEXAS | #001

PROJECT FINANCING (USD)

TOTAL COST	\$15,000,000
	Including est. USD \$4.0M including USD 1.3M0 for +4 acres of land, and about 15,000 SF Class B industrial/retail facility
	Electrical requirements, industrial power, 3 phase , peek 3,000 kW
USE OF PROCEEDS	I. Pre Construction, 6-months
	i. \$400,000 for soft costs, design and permitting
	II. EPC Construction, 12-months
	i. \$4,800,000 for 12 AWS MAXIMUS systems
	ii. \$1,200,000 for storage, collection and piping
	iii. \$ 400,000 for water Preparation and Mineralization equipment
	iv. \$1,000,000 for bottling system including filling, capping and cleaning, and blow mold bottle maker
	v. \$300,000 for water transportation trucks
	vi. \$500,000 for EV charging
	vii. \$500,000 for Inventory, miscellaneous , and contingency
	viii. \$1,500,000 for EPC Construction services



OPERATIONS BUDGET (USD)

SIZE ANNUAL WATER GENERATION (GALLONS)	\$11,000,000
REVENUE PER YEAR	EBITDA PER YEAR
@ \$0.80/GAL	i. \$8,800,000 \$2,065,000
@ \$1.00/GAL	ii. \$11,000,000 \$4,265,000
@ \$1.20/GAL	iii. \$13,200,000 \$6,465,000
Assumption Water Sales	50% Bottled Water, 50% Bulk Water both raw/purified & potable
COST OF GOODS SOLD PER YEAR	i. \$1,735,000
*50% sales with-out bottles	i. LCOW Generation US Cents 8.0/GAL
	ii. Water preparation/mineralization US Cents 1.5/GAL
	iii. Bottling, filling, capping (1, 3 and 5 GAL bottles) US Cents 12.5/GAL
OPERATING COSTS PER YEAR	ii. \$5,000,000
	i. \$1,200,000 for Salaries and wages for 12 to 18 employees
	ii. \$500,000 for leasing of land and building “lease back”
	iii. \$2,400.000 Sales and Marketing
	iv. \$900,000 Miscellaneous
NOTE: LCOW = CapEx + OpEx + EnergyEx. Energy cost is est at Cents 7/kWh	

An Impactful OPPORTUNITY:

	Americas	Global
Total Addressable Market:	+250 stations	+1,000 stations
Primary Locations:	Texas, California, Florida, further Southeast USA and Mexico	EU Mediterranean (Spain, Italy, others) MENA (Saudi Arabia, Morocco, others) and Islands including Caribbean
Investment Value:	\$3.8B	\$15.2B
Annual Revenue <i>(cumulative)</i> :	\$2.8B	\$11.2B
Annual Profits <i>(cumulative)</i> :	\$750.0M	\$3.0B

In Sum: *“At SkyH2O we are creating an additional distribution channel for premium water while driving our own growth”.*



“We want to thank state and municipal authorities in Texas and Baja California Sur for their support and assistance in making SkyH2O a pioneer in renewable water solutions”.

Alexander von Welczeck
Founder & CEO
SkyH2O

SkyH2O STATION™ Core Team

SkyH2O's international team is formed by a seasoned group of professionals experienced in the fields of energy, development, real estate, financing and project management.



Alexander
von WELCZECK
President & CEO



Charlie
KUFFNER, P.E.
Chief Operations



Richard
GUERRA
Director, Project
Management



James
POOLE, P.E.
VP, Engineering



David
NOYES, CPA MBA
Chief Financial



Kristina
PETERSON, MBA
Advisor,
Project Financing



Lawrence
SIMPELO
Director, Marketing &
Communications



Joseph
STEIN, Dipl.-ING
Advisor,
Architect & Design



Dirk
MICHELS, JD.
Legal Counsel



Terrell
JONES
Director, Business
Development & Alliances



Guillermo
SEPULVEDA
Director, Mexico &
Latam



Wolfgang
STRASSER, Ph.D.
Director, Europe ("EU")

STRATEGIC PARTNERSHIP AND INVESTMENT OPPORTUNITIES

SkyH2O invites Professionals, Strategic Partners and Impact Investors to accelerate business and project development in water stressed markets, across America , and Worldwide.

Employees and Executives: SkyH2O currently has businesses in Irvine CA USA, Abu Dhabi UAE and Hong Kong CHINA, and developing in Baja California Sur MEXICO.

Agents: SkyH2O offers an Agent Program “Ambassadorship” to well qualified Professionals who like to promote SkyH2O products and services, Worldwide.

Strategic Partnerships(“JV”): SkyH2O offers strategic partnerships to develop, build, own/operate SkyH2O STATION™ in the USA, MEXICO, and Europe (“EU”).

CURRENT INVESTMENT OPPORTUNITIES:

- SkyH2O Inc. (USA): Stock Equity, up to \$50.0 Million (minimum \$250,000 investments)
- Financing (manufacturing, finished goods inventory): up to \$25.0 Million
- Project Financing to fund SkyH2O STATION™ Phase I “roll-out” in 2022-23 of \$150.0M, 10 Projects each SPV about \$15.0M.
- SkyH2O MENA LTD (Abu Dhabi, UAE): Strategic Investment, up to \$10.0 Million
- SkyH2O ASIA LTD (Hong Kong): Strategic Investment, up to \$10.0 Million
- Joint Ventures in Strategic Markets including: Mexico, Italy, Spain, Morocco, Saudi Arabia, and others

Contacts

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European Union

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Disclaimer

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AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Patty Swords

AGENDA CONTENT: Support and Incentives for SkyH2O

AGENDA ITEM SECTION: REGULAR AGENDA

BUDGETED AMOUNT: N/A **FUNDS REQUESTED:** N/A

FUND: Economic Development Administration (EDA), U.S. Department of Commerce (DOC)

EXECUTIVE SUMMARY:

The American Rescue Plan Act Economic Adjustment Assistance Notice of Funding Opportunity is a grant that could fund approximately \$600,000 for a major water and sewer expansion project in the location where SkyH2O will be located. According to a preliminary assessment, there are approximately 3,390 linear feet of a water line that needs to be looped into the existing water line and placed along W. Henderson Road between the feeder adjacent to Texas State Highway 288 and the area north of Galaznick/Carr Road. Also, there are approximately 500 linear feet of sewer line that will be added south of Henderson Road along the feeder adjacent to Texas State Highway 288. These infrastructure improvements will not only aid SkyH2O, but they will be beneficial to future development in the same area.

There are other opportunities under consideration, such as a grant request to the Texas Water Development Board and a Chapter 380 agreement, which provides for offering loans and grants of city funds or services to promote local economic development and stimulate business and commercial activity.

RECOMMENDATION:

Staff recommends moving forward with the EDA grant application, which will be eligible for funding after October 2022.

Open in Map Viewer Classic >

Water & Sewer Utilities





AGENDA ITEM SUMMARY FORM

MEETING DATE: 02/22/2022

PREPARED BY: Chris Hill, Finance Director

AGENDA CONTENT: Discuss Perdue Brandon Collection Report for February 2022.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: N/A **FUNDS REQUESTED:** N/A

FUND: N/A

EXECUTIVE SUMMARY:

Mike Harlow from Perdue Brandon will discuss the delinquent Property Tax and Court Fine Collection Report for February 2022.

RECOMMENDATION:

N/A

WHEN EXPERIENCE, REPUTATION AND PERFORMANCE MATTER



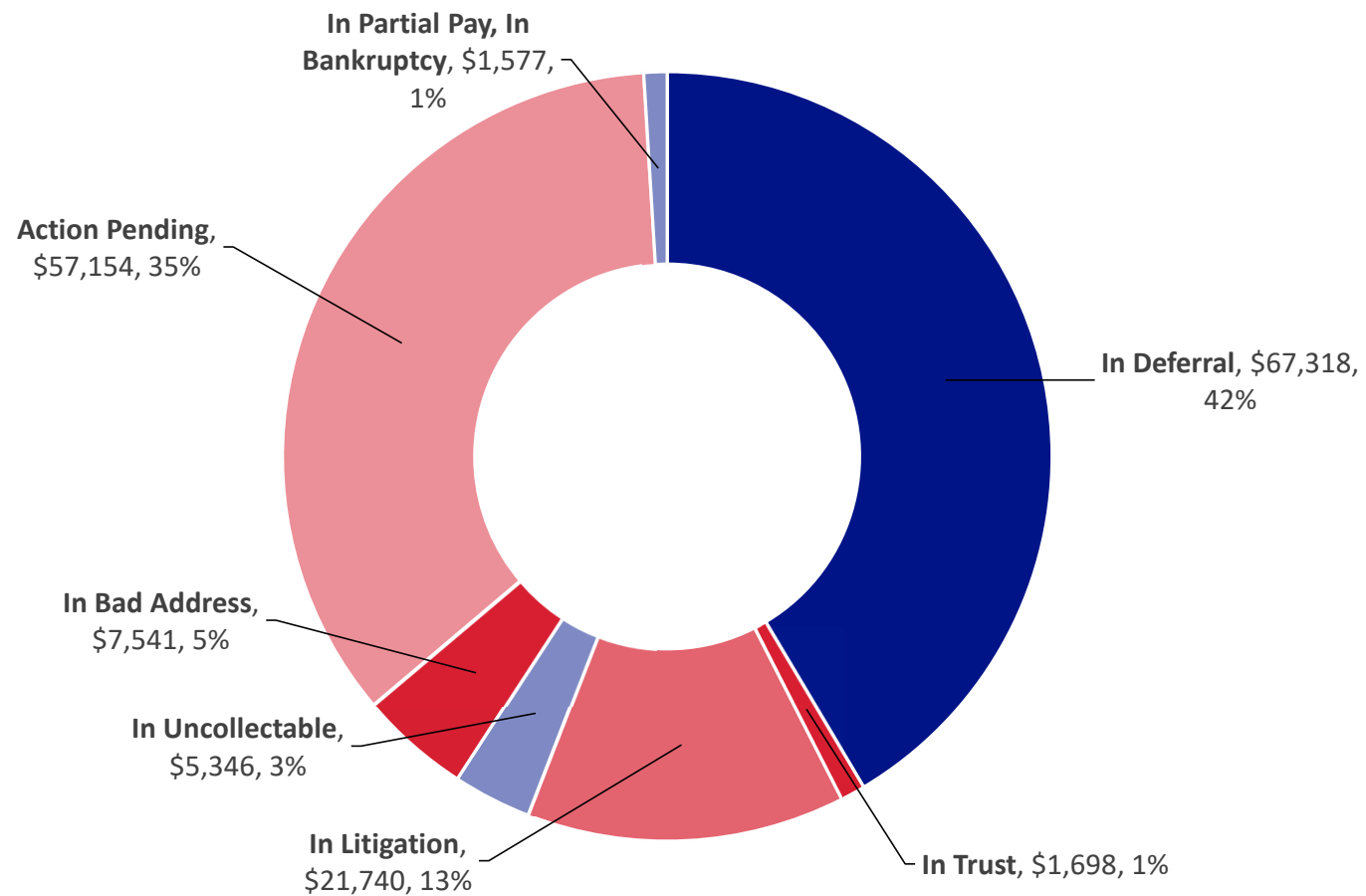
COLLECTION REPORT TO THE CITY OF ANGLETON

Submitted by: *Michael J. Darlow*
February 2022
www.pbfcmlaw.com



ACCOUNT BREAKDOWN CHART FOR CITY OF ANGLETON

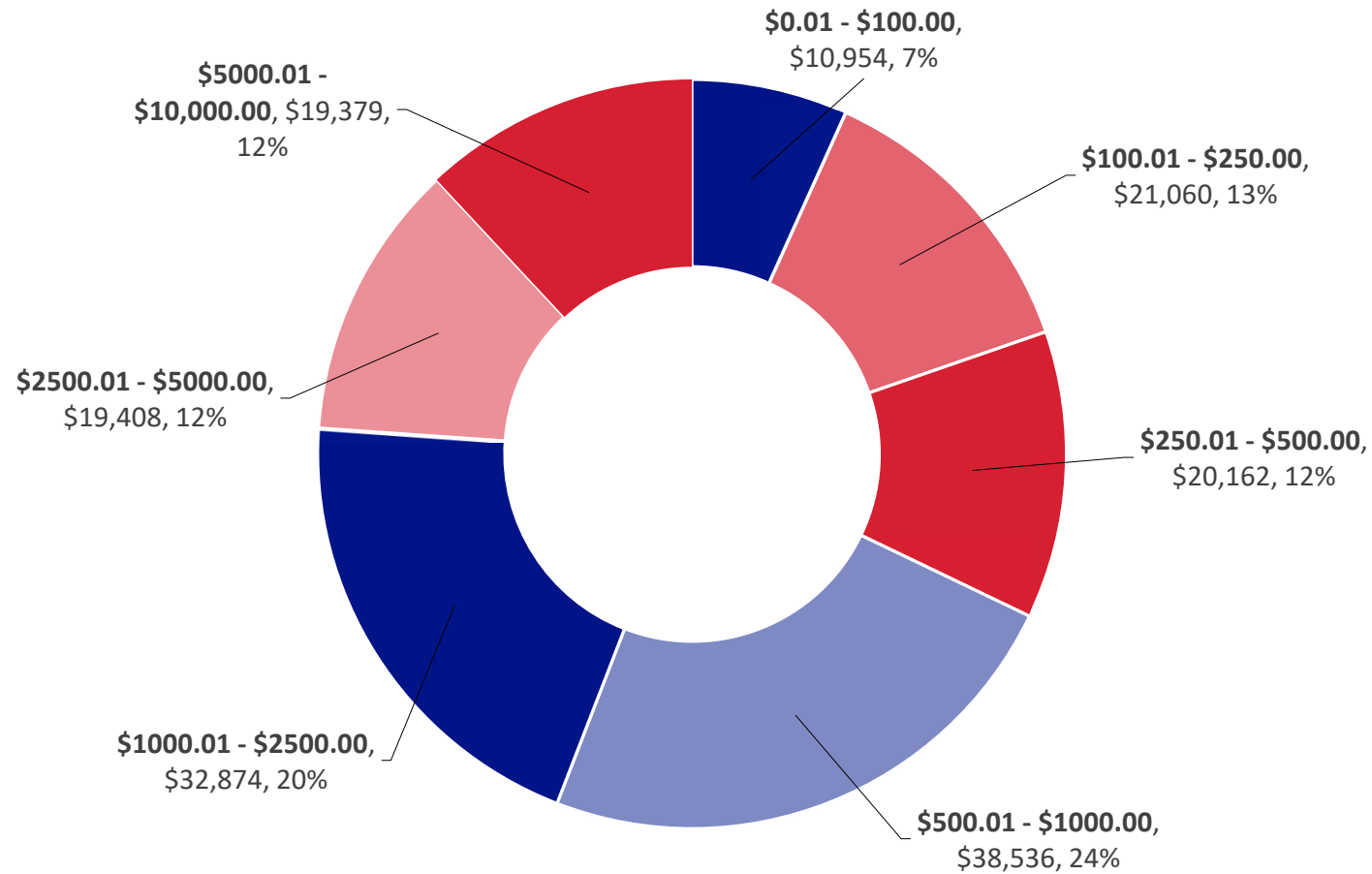
As of 2/7/2022 - Total Base Tax: \$162,372





DOLLAR RANGE CHART FOR CITY OF ANGLETON

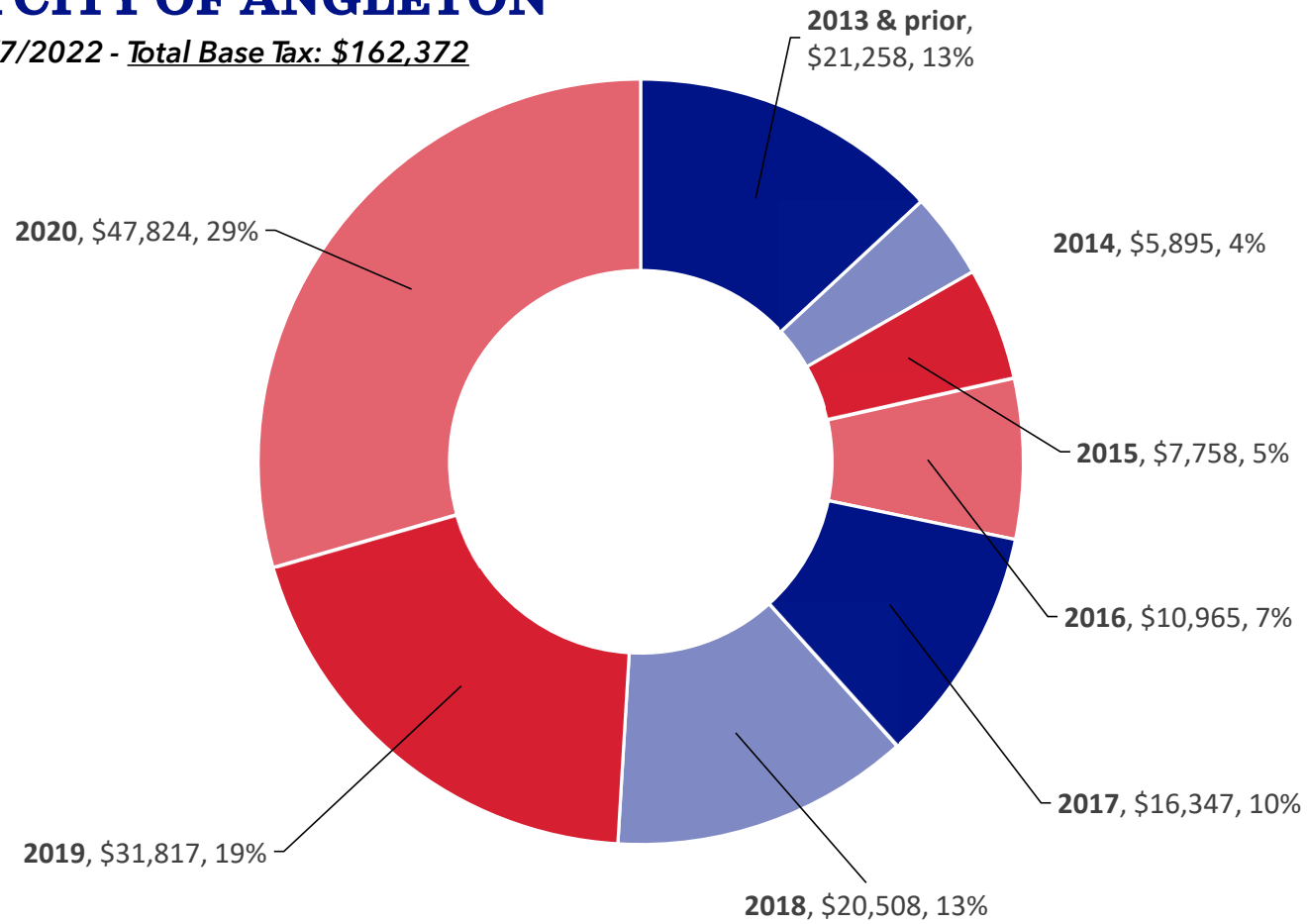
As of 2/7/2022 - Total Base Tax: \$162,372





TAX YEAR CHART FOR CITY OF ANGLETON

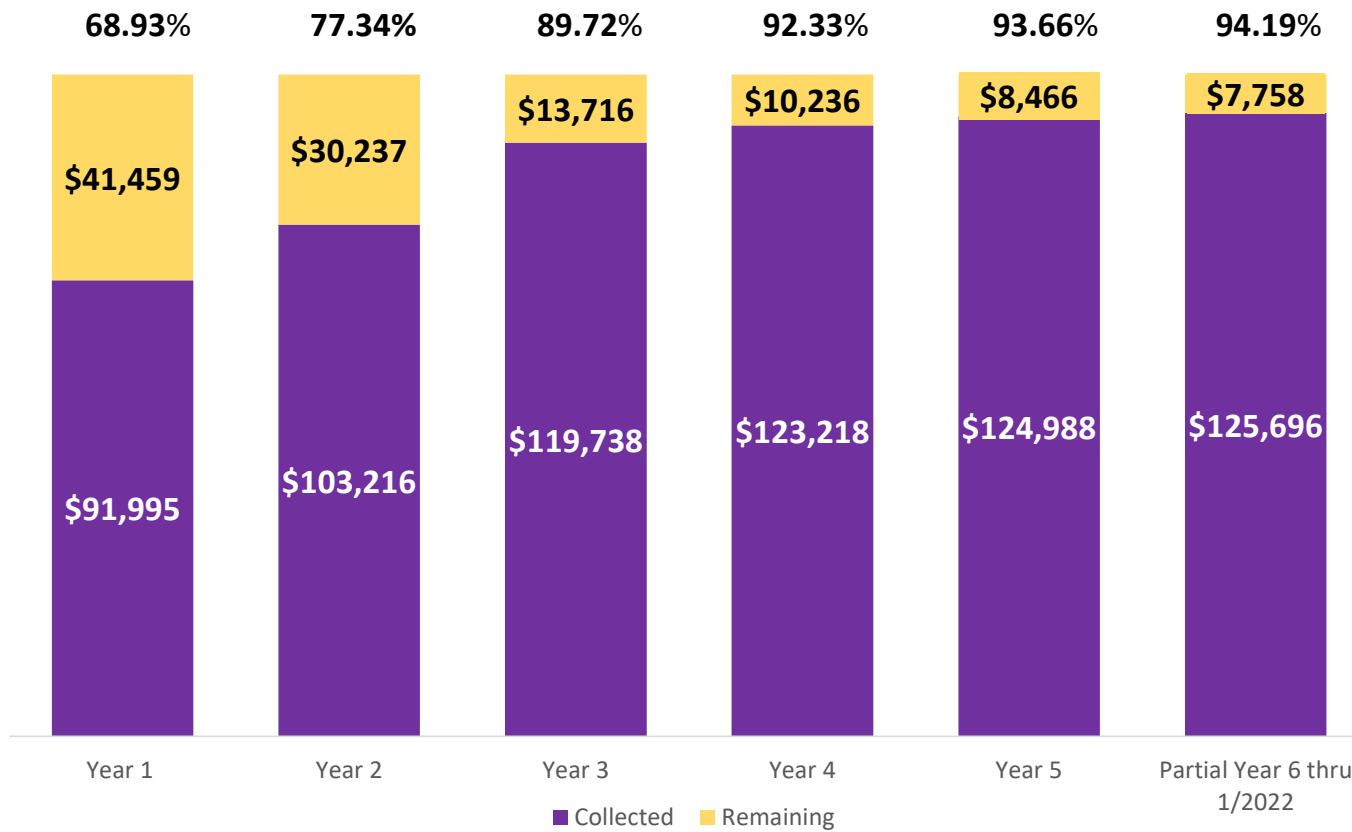
As of 2/7/2022 - Total Base Tax: \$162,372





2015 PERCENTAGE OF COLLECTION FOR CITY OF ANGLETON

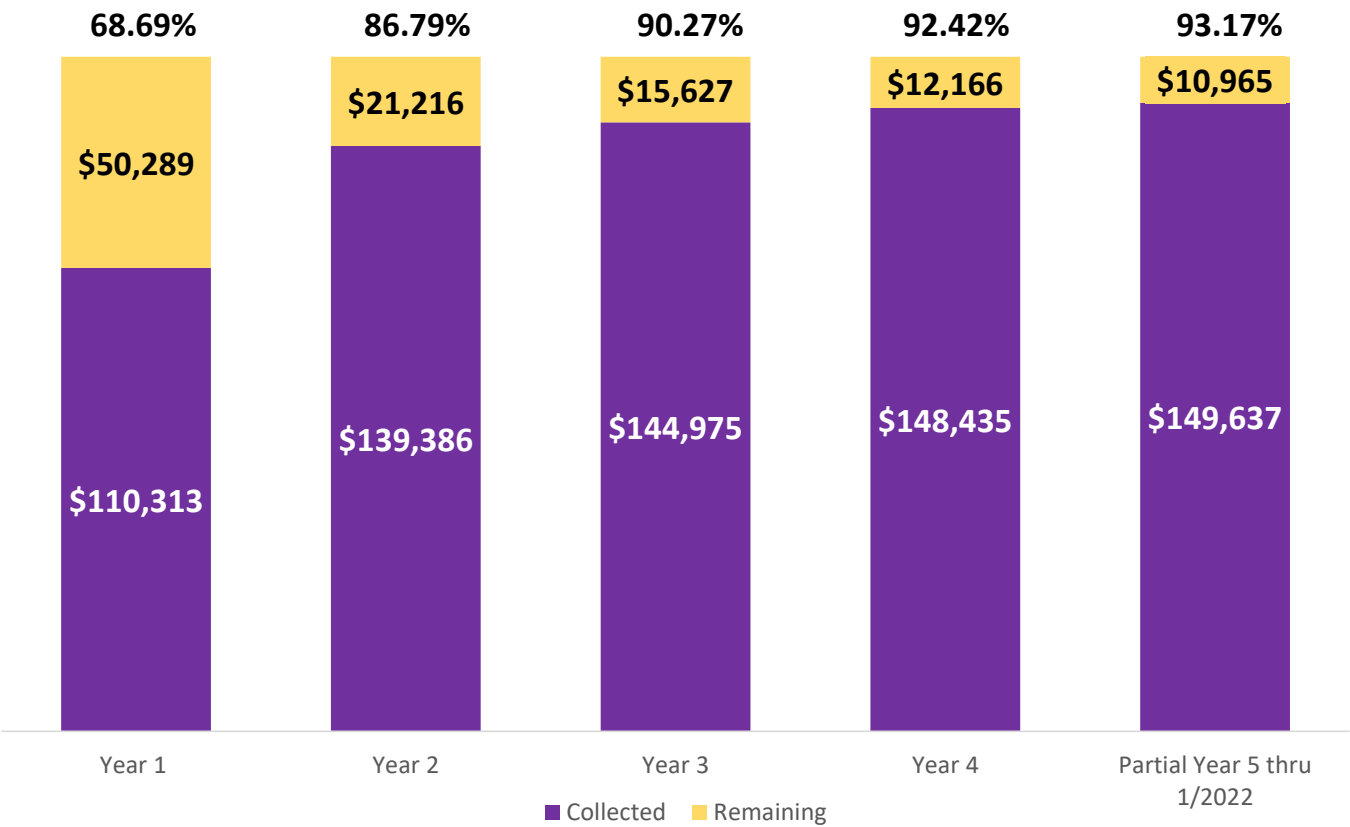
As of 07/01 - 6/30 for each year - Initial Outstanding Base Tax \$133,454





2016 PERCENTAGE OF COLLECTION FOR CITY OF ANGLETON

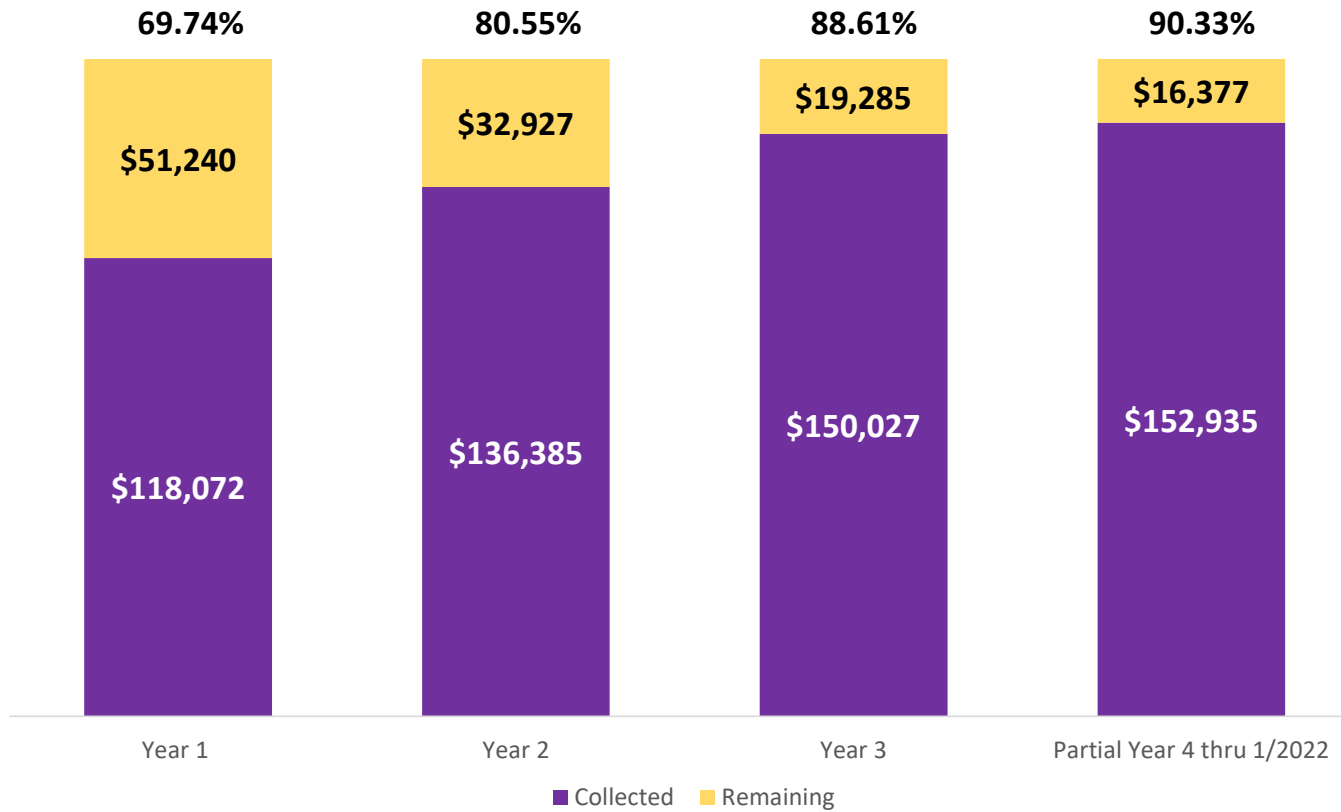
As of 07/01 - 6/30 for each year - Initial Outstanding Base Tax \$160,602





2017 PERCENTAGE OF COLLECTION FOR CITY OF ANGLETON

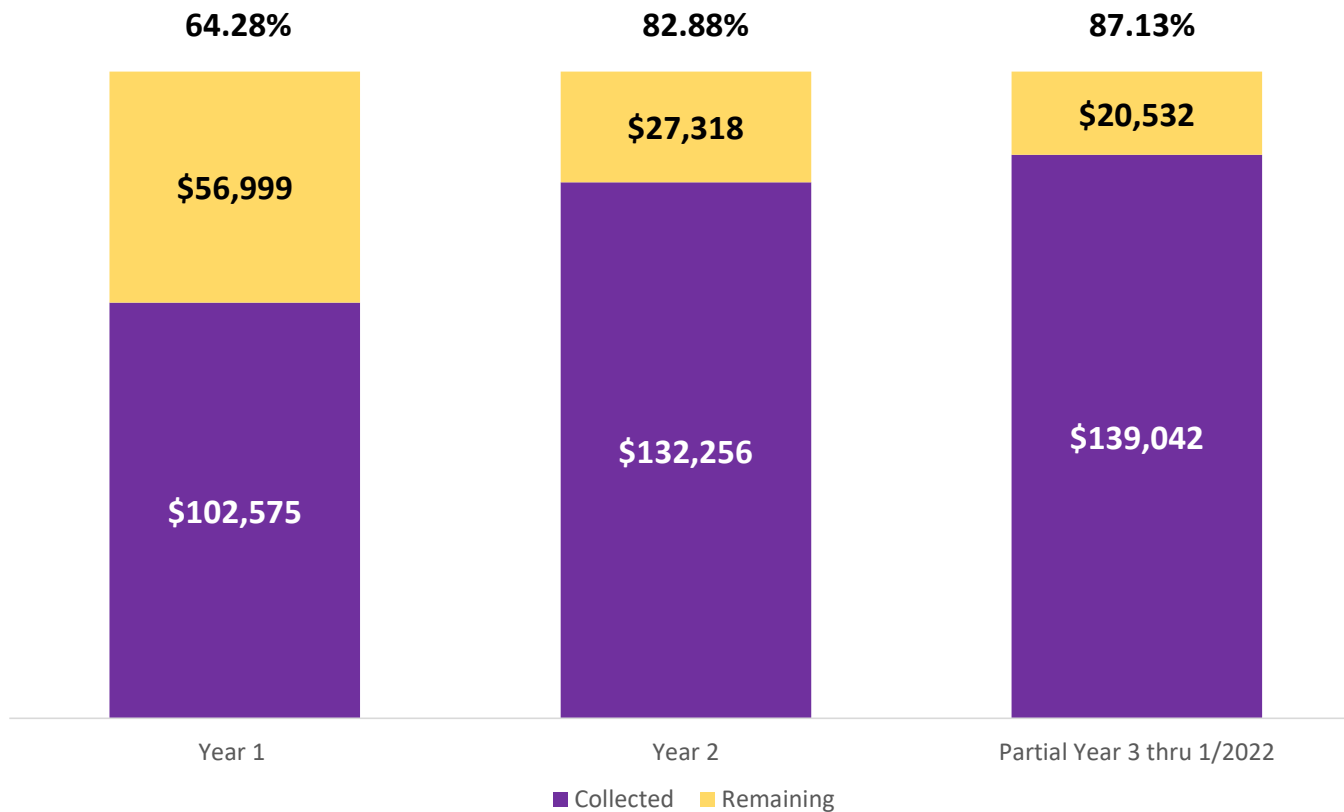
As of 07/01 - 6/30 for each year - Initial Outstanding Base Tax \$169,312





2018 PERCENTAGE OF COLLECTION FOR CITY OF ANGLETON

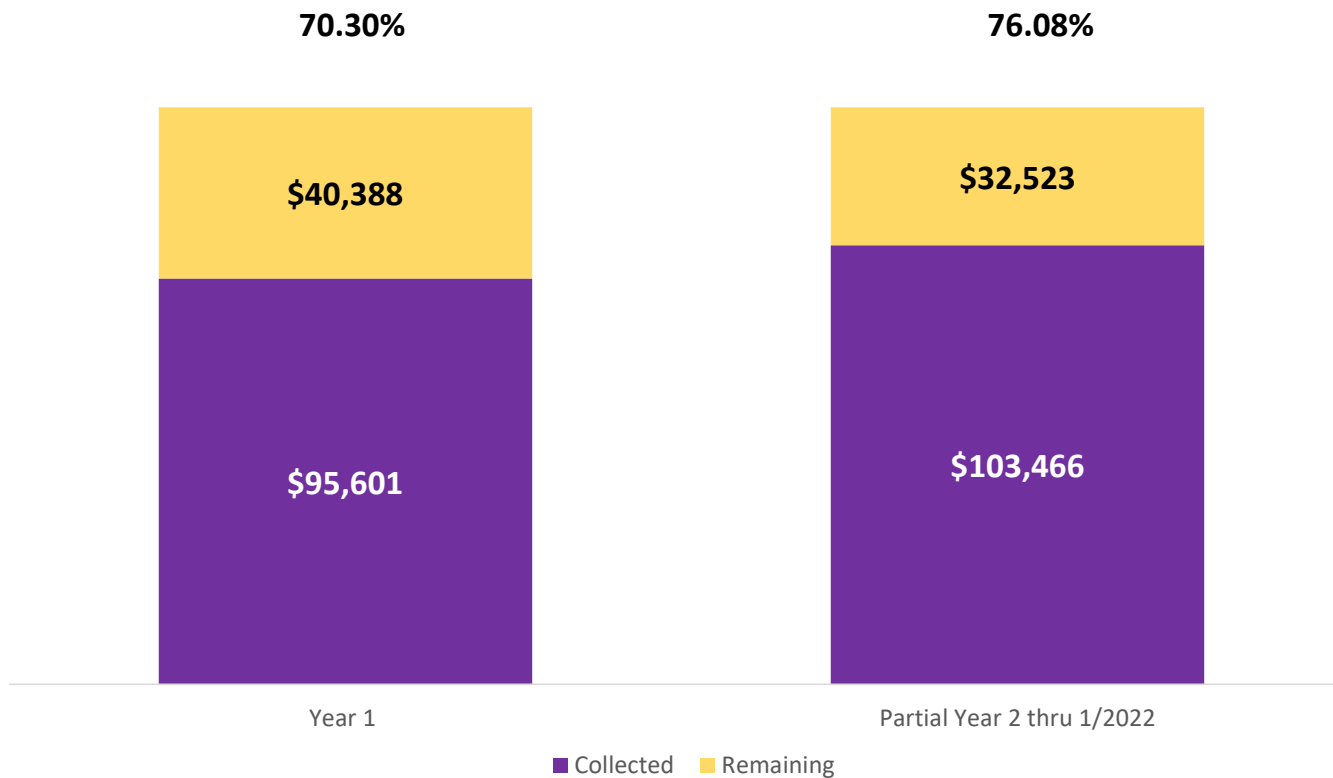
As of 07/01 - 6/30 for each year - Initial Outstanding Base Tax \$159,574





2019 PERCENTAGE OF COLLECTION FOR CITY OF ANGLETON

As of 07/01 - 6/30 for each year - Initial Outstanding Base Tax \$135,988

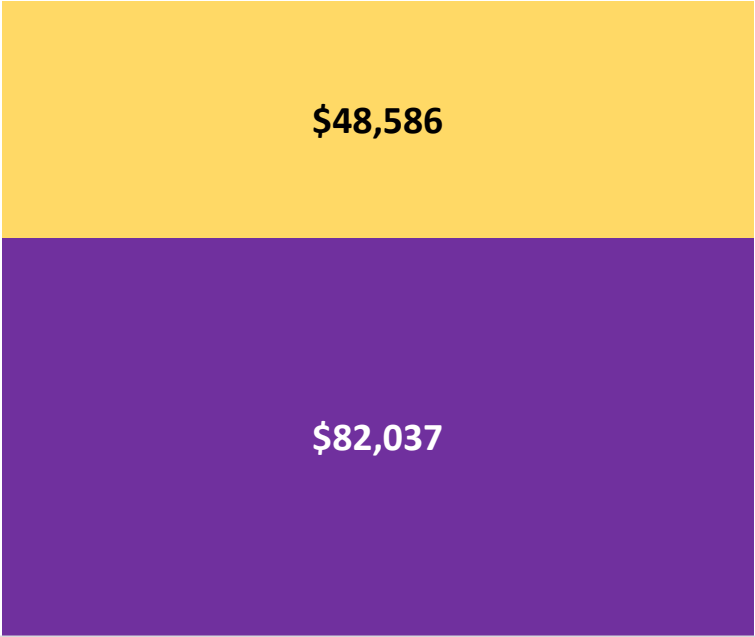




2020 PERCENTAGE OF COLLECTION FOR CITY OF ANGLETON

As of 07/01 - 6/30 for each year - Initial Outstanding Base Tax \$130,623

62.80%



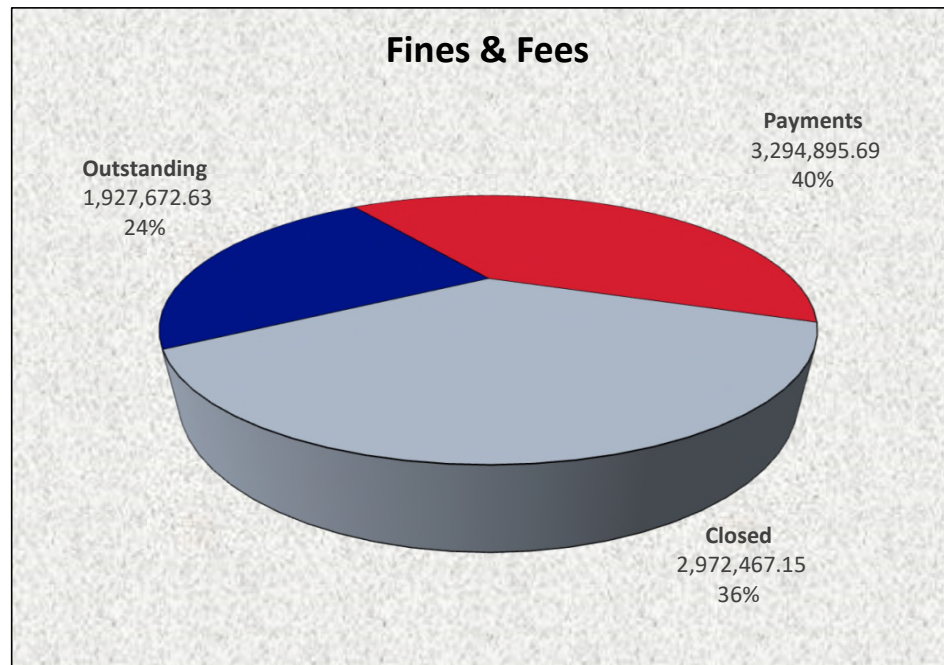
Partial Year 1 thru 1/2022

■ Collected ■ Remaining



FINE & FEE COLLECTION REPORT **AS OF FEBRUARY 13, 2022** **FOR THE CITY OF ANGLETON**

Total Turnover		Payments and/or Partial Payments			Dismissed/Cleared			Total \$ % cleared	Address Correction	Letters Mailed	Phone # Changes	Phone Contacts
\$	#	\$	#	% of \$	\$	#	% of \$					
8,195,035.47	18,496	3,294,895.69	12,530	40.21%	2,972,467.15	12,906	36.27%	76.48%	10,010	64,662	8,067	26,627

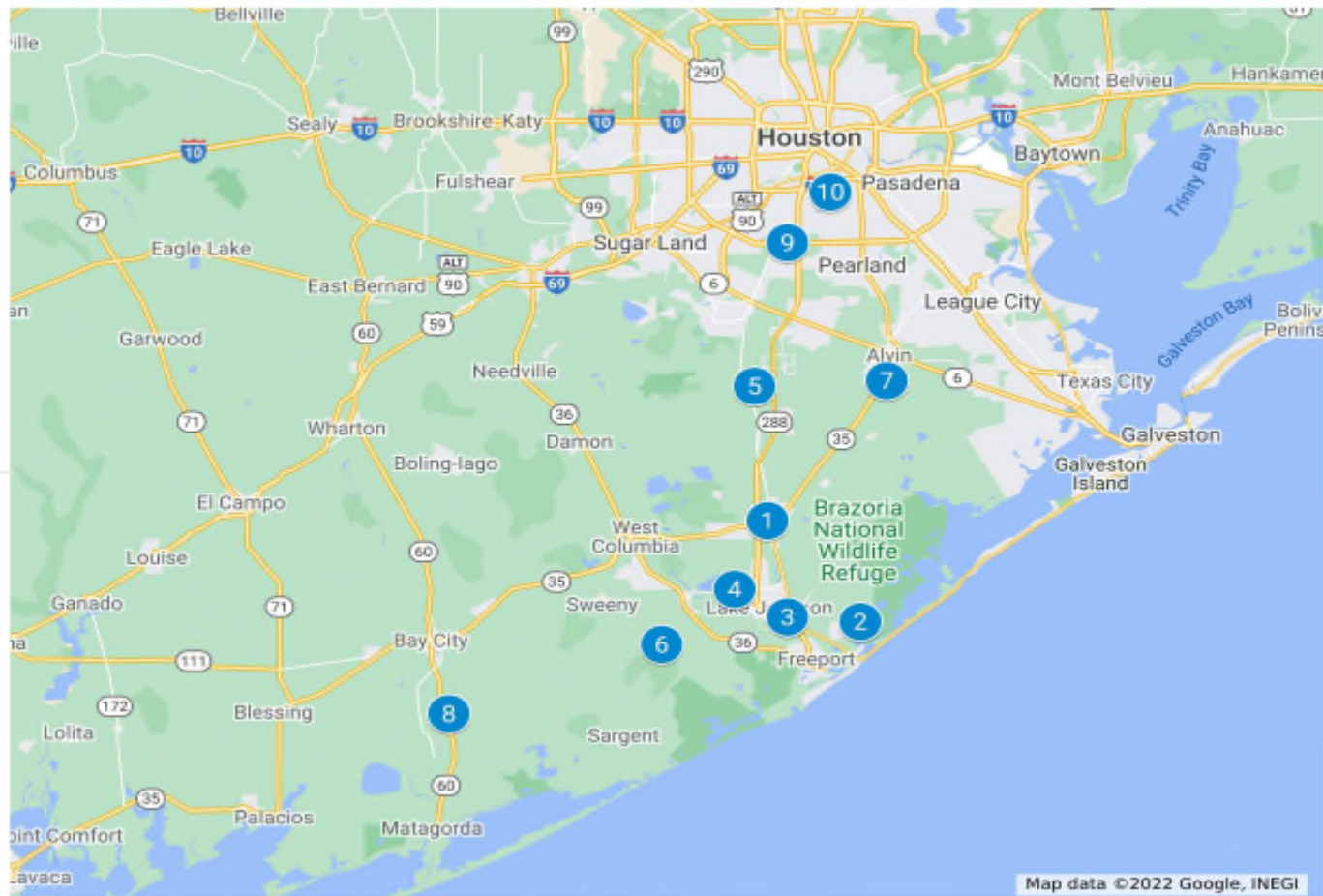




TOP 10 ACCOUNTS BY ZIP CODE FOR THE CITY OF ANGLETON

AngletonCity_Valid.xlsx

- 1 77515 - \$327080.78(339)
- 2 77541 - \$70716.91(81)
- 3 77531 - \$83568.06(76)
- 4 77566 - \$59037.90(71)
- 5 77583 - \$41609.57(43)
- 6 77422 - \$29586.23(35)
- 7 77511 - \$21415.43(24)
- 8 77414 - \$17712.82(22)
- 9 77047 - \$17675.62(18)
- 10 77033 - \$14324.26(17)

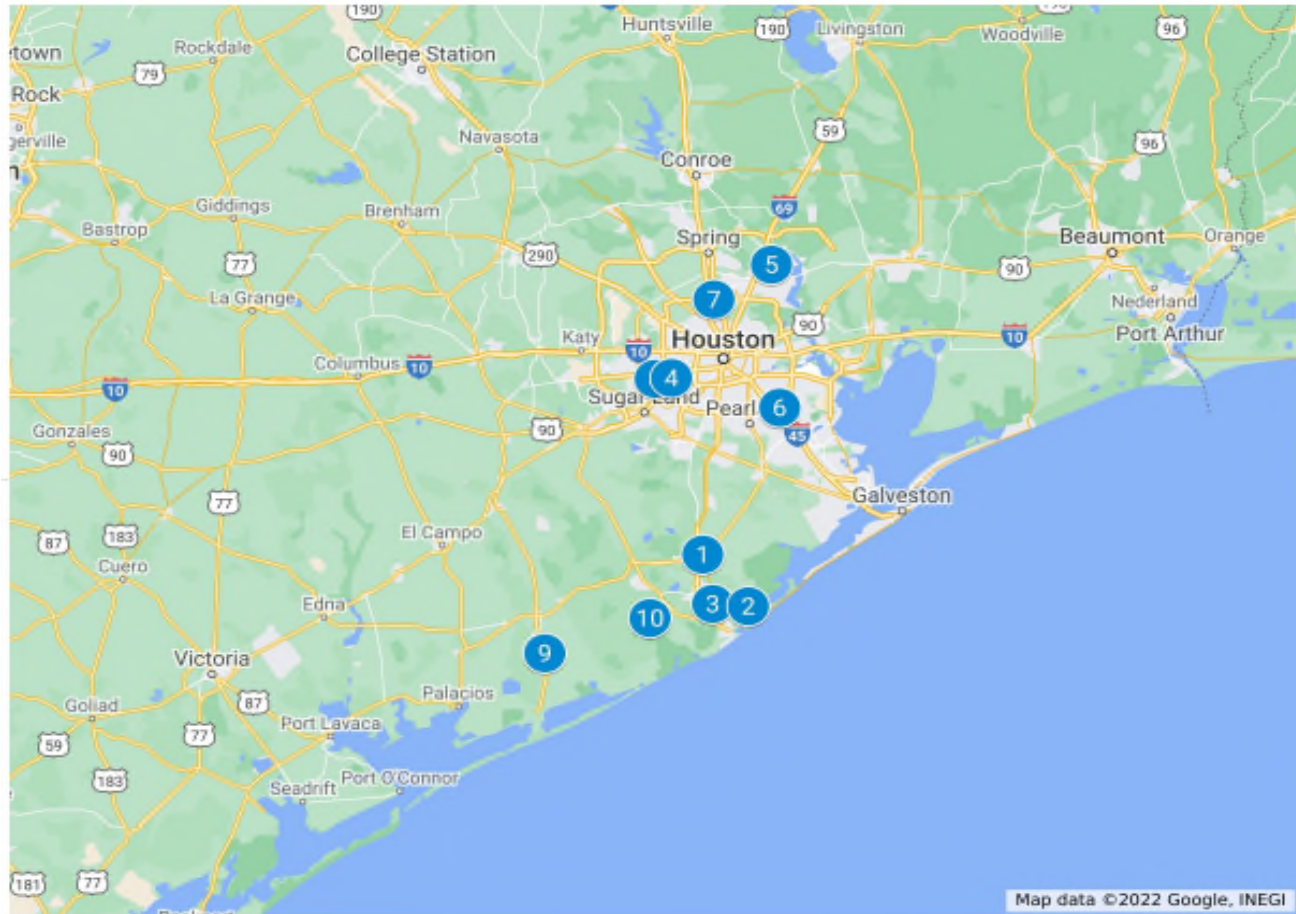




TOP 10 BAD ADDRESS ACCOUNTS BY ZIP CODE FOR THE CITY OF ANGLETON

AngletonCity_Bad.xlsx

- 1 77515 - \$44289.60(44)
- 2 77541 - \$6304.19(8)
- 3 77531 - \$5579.12(6)
- 4 77036 - \$2818.53(4)
- 5 77339 - \$5881.20(4)
- 6 77034 - \$2232.23(3)
- 7 77060 - \$3683.29(3)
- 8 77072 - \$5038.93(3)
- 9 77414 - \$1813.37(3)
- 10 77422 - \$1673.10(3)

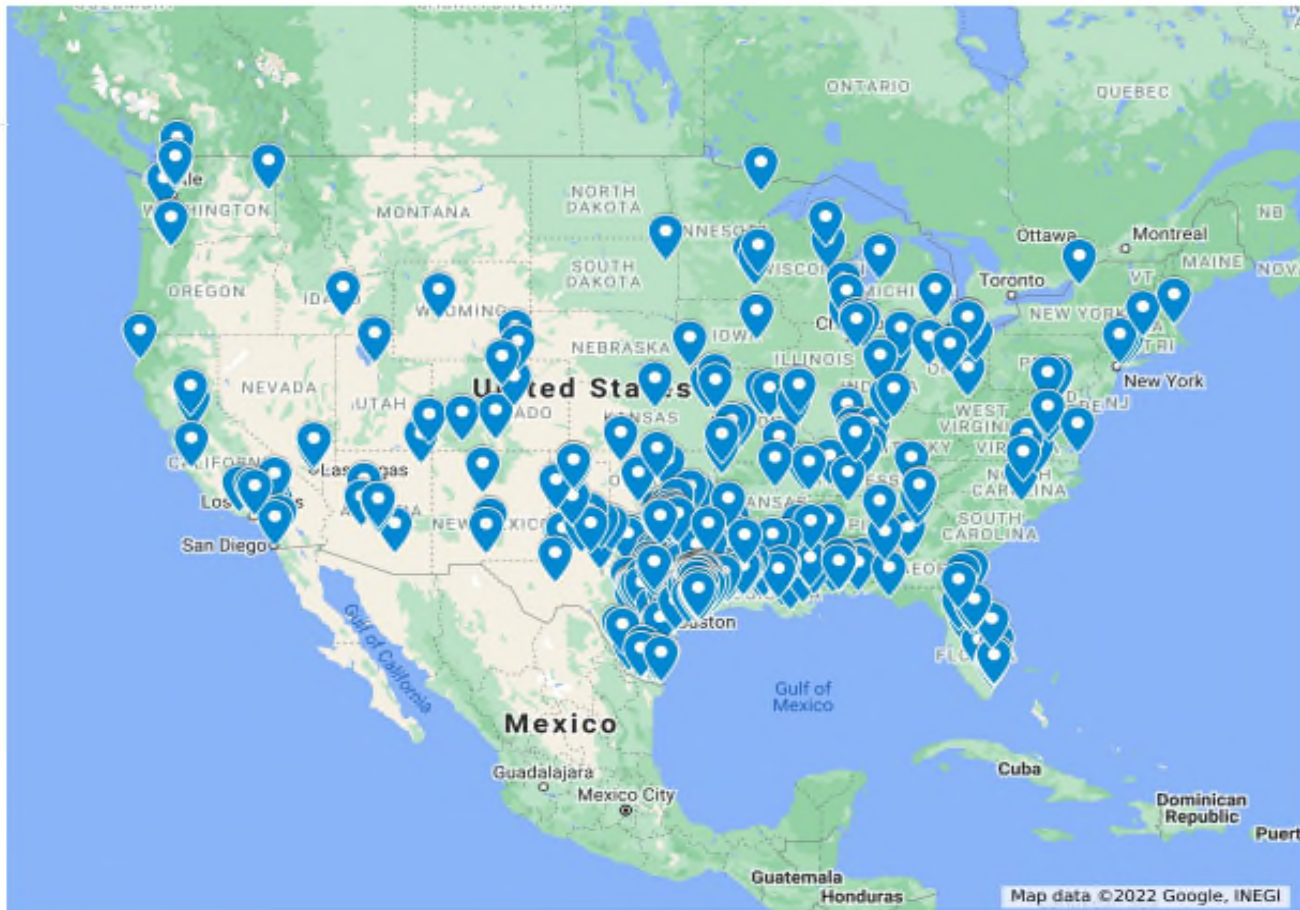




ALL ACCOUNTS FOR THE CITY OF ANGLETON

AngletonCity_All.xlsx

📍 All items





AGENDA ITEM SUMMARY FORM

MEETING DATE: 02/22/2022

PREPARED BY: Chris Hill, Finance Director

AGENDA CONTENT: Consider authorizing the city to pursue the issuance of City of Angleton, Texas, Combination Tax and Revenue Certificates of Obligation, Series 2022.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: N/A

FUNDS REQUESTED: N/A

FUND: N/A

EXECUTIVE SUMMARY:

The City staff and Financial Advisor are seeking guidance on the issuance of approximately \$10 Million of Debt for the Angleton Operations Center, Veteran's Park, Fire Department Support Building and other potential needs such as a generator.

The Public Works department, Parks Department and IT Departments have been in temporary facilities since February 2021.

Joe Morrow of Hilltop Securities, Inc, the City Financial Advisor, will discuss the debt issuance options with the City Council.

RECOMMENDATION:

Staff recommends council approve the city to pursue the issuance of City of Angleton, Texas, Combination Tax and Revenue Certificates of Obligation, Series 2022 for approximately \$10 Million.



Contacts

Joe Morrow

Managing Director

700 Milam Street, Suite 500

Houston, Texas 77002

713.654.8690 Tel

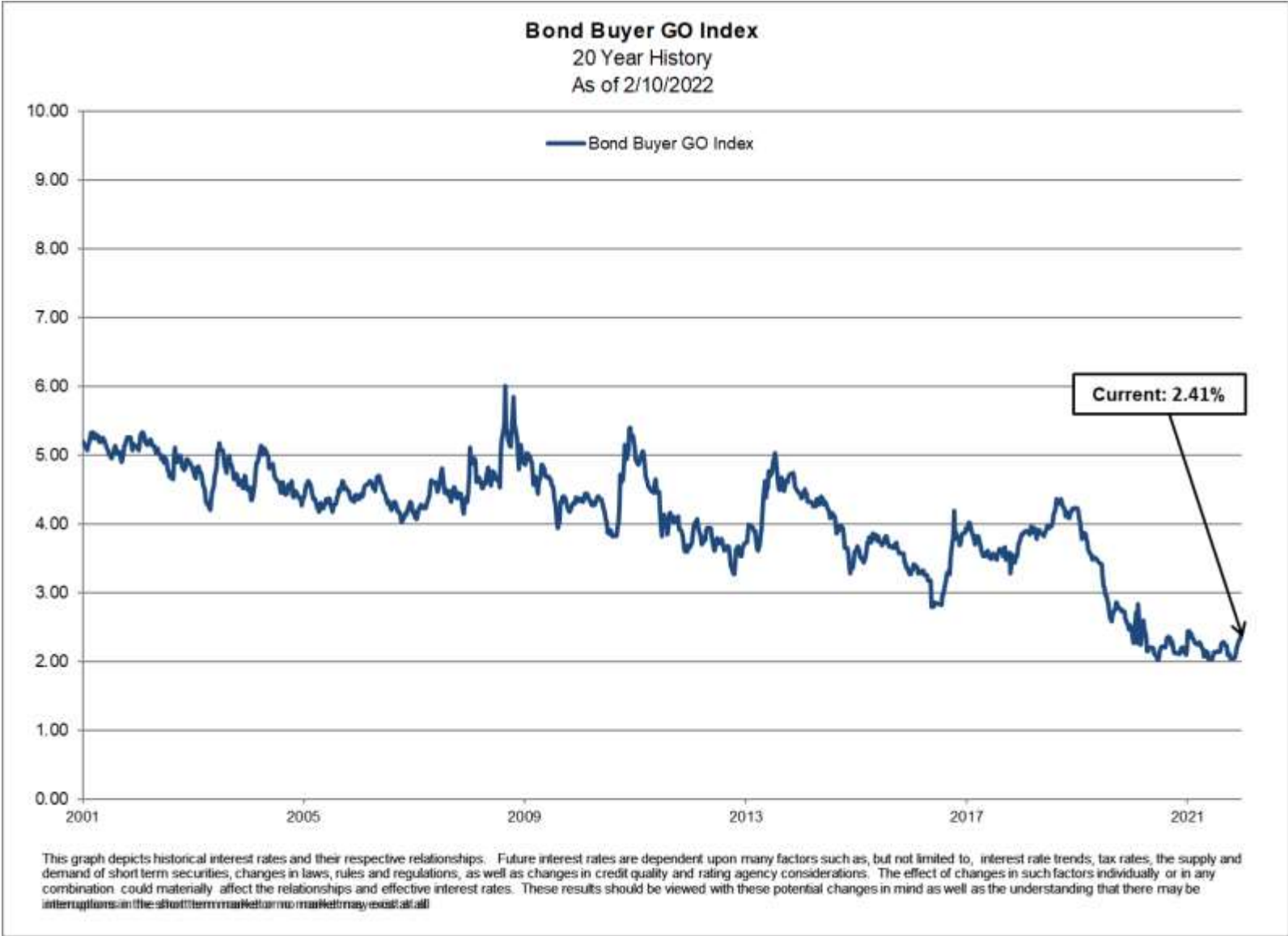
Joe.Morrow@hilltopsecurities.com

February 22, 2022

City of Angleton

2022 Project Funding

Historical Interest Rates



Angleton Estimate of Net Taxable Value for Tax Year 2022

Current Net Taxable Value	\$ 1,205,760,837
10% Increase	120,576,084
Energy Company	20,000,000
2023 Estimated Net Taxable Value	\$ 1,346,336,921

Current Net Taxable Value	\$ 1,205,760,837
5% Increase	60,288,042
Energy Company	20,000,000
2023 Estimated Net Taxable Value	\$ 1,286,048,879

Sizing of Issue

Deposit to Construction Account	\$10,000,000
Costs of Issuance	125,000
Underwriters Discount	<u>105,000</u>
Total Required Proceeds	\$10,230,000

Costs of Issuance include Financial Advisor, Bond Counsel, Rating Fees, Attorney General Fee, Paying Agent Registrar, Printing Cost, Electronic document distribution and bidding platform and other miscellaneous costs.

Underwriters Discount is the cost for the purchaser to regulatory fees, commissions to sales staff and underwriting fee for use of capital.

City of Angleton, Texas

FY 2022 - Debt Issuance / 30 Year Term

Assumes TAV Growth at 10.0% Current Interest Rate Plus 50 Basis Points

As of February 2, 2022

DRAFT for discussion purposes only

Item 10.

Fiscal Year Ending 9/30	Taxable Assessed Valuation ⁽¹⁾	Existing Net Tax-Supported Debt Service	Capital Lease Debt Service	2022 Bond Program Cash Flows ⁽²⁾⁽³⁾					2021-2025 TOTAL NET NEW DEBT	Estimated NEW Net Tax-Supported Debt Service	Projected I&S Tax Rate ⁽⁴⁾
				\$ - Series 2022 GO Issue 3.24%	Series 2023 GO Issue	Series 2024 GO Issue	Series 2025 GO Issue	2026 GO Issue			
2022	\$ 1,205,760,837	\$ 913,387							-	\$ 913,387	\$ 0.07390
2023	1,346,336,921	914,712		\$ 538,248					\$ 538,248	1,452,960	0.11012
2024	1,480,970,613	909,663		538,248	-				538,248	1,447,911	0.09976
2025	1,629,067,674	812,313		538,248	-	-			538,248	1,350,561	0.08460
2026	1,791,974,442	797,963		538,248	-	-	-		538,248	1,336,211	0.07609
2027	1,971,171,886	739,313		538,248	-	-	-	-	538,248	1,277,561	0.06613
2028	2,168,289,075	726,362		538,248	-	-	-	-	538,248	1,264,610	0.05951
2029	2,168,289,075	659,313		538,248	-	-	-	-	538,248	1,197,561	0.05636
2030	2,168,289,075	643,638		538,248	-	-	-	-	538,248	1,181,886	0.05562
2031	2,168,289,075	628,338		538,248	-	-	-	-	538,248	1,166,586	0.05490
2032	2,168,289,075	608,113		538,248	-	-	-	-	538,248	1,146,361	0.05395
2033	2,168,289,075	592,425		538,248	-	-	-	-	538,248	1,130,673	0.05321
2034	2,168,289,075	576,200		538,248	-	-	-	-	538,248	1,114,448	0.05245
2035	2,168,289,075	488,394		538,248	-	-	-	-	538,248	1,026,642	0.04831
2036	2,168,289,075	473,930		538,248	-	-	-	-	538,248	1,012,178	0.04763
2037	2,168,289,075	459,140		538,248	-	-	-	-	538,248	997,388	0.04694
2038	2,168,289,075	439,435		538,248	-	-	-	-	538,248	977,683	0.04601
2039	2,168,289,075	-		538,248	-	-	-	-	538,248	538,248	0.02533
2040	2,168,289,075			538,248	-	-	-	-	538,248	538,248	0.02533
2041	2,168,289,075			538,248	-	-	-	-	538,248	538,248	0.02533
2042	2,168,289,075			538,248	-	-	-	-	538,248	538,248	0.02533
2043	2,168,289,075			538,248		-	-	-	538,248	538,248	0.02533
2044	2,168,289,075			538,248			-	-	538,248	538,248	0.02533
2045	2,168,289,075			538,248				-	538,248	538,248	0.02533
2046	2,168,289,075			538,248					538,248	538,248	0.02533
2047	2,168,289,075			538,248					538,248	538,248	0.02533
2048	2,168,289,075			538,248					538,248	538,248	0.02533
2049	2,168,289,075			538,248					538,248	538,248	0.02533
2050	2,168,289,075			538,248					538,248	538,248	0.02533
2051	2,168,289,075			538,248					538,248	538,248	0.02533
2052	2,168,289,075			538,248					538,248	538,248	0.02533
		\$ 11,382,638	\$ -	\$ 16,147,440	\$ -	\$ -	\$ -	\$ -	\$ 16,147,440	\$ 27,530,078	

Existing Debt Does Not Include Self-Supporting Debt.

(1) Fiscal Year 2022 is based on certified values from the Brazoria County Appraisal District. Fiscal Year 2023 is based on 10% growth plus \$20,000,000 in taxable value from new power plant.

There has not been any adjustment for value in Tax Increment Reinvestment Zones.

(2) Assumes Level Debt. For illustration purposes only, subject to change at anytime.

(3) Interest rate assumptions based on market conditions for February 1, 2022 plus 50 basis points.

(4) Projected tax rates assume 98% tax collections for illustration purposes only.

City of Angleton, Texas

FY 2022 - Debt Issuance / 30 Year Term

DRAFT for discussion purposes

Item 10.

Assumes TAV Growth at 5.0% Current Interest Rate Plus 50 Basis Points

As of February 2, 2022

Fiscal Year Ending 9/30	Taxable Assessed Valuation ⁽¹⁾	Existing Net Tax-Supported Debt Service	Capital Lease Debt Service	2022 Bond Program Cash Flows ⁽²⁾⁽³⁾					2021-2025 TOTAL NET NEW DEBT	Estimated NEW Net Tax-Supported Debt Service	Projected I&S Tax Rate ⁽⁴⁾
				\$ - Series 2022 GO Issue 3.24%	Series 2023 GO Issue	Series 2024 GO Issue	Series 2025 GO Issue	2026 GO Issue			
2022	\$ 1,205,760,837	\$ 913,387							-	\$ 913,387	\$ 0.07390
2023	1,286,048,879	914,712		\$ 538,248					\$ 538,248	1,452,960	0.11528
2024	1,414,653,767	909,663		538,248	-				538,248	1,447,911	0.10444
2025	1,556,119,144	812,313		538,248	-	-			538,248	1,350,561	0.08856
2026	1,711,731,058	797,963		538,248	-	-	-		538,248	1,336,211	0.07966
2027	1,882,904,164	739,313		538,248	-	-	-	-	538,248	1,277,561	0.06924
2028	2,071,194,580	726,362		538,248	-	-	-	-	538,248	1,264,610	0.06230
2029	2,071,194,580	659,313		538,248	-	-	-	-	538,248	1,197,561	0.05900
2030	2,071,194,580	643,638		538,248	-	-	-	-	538,248	1,181,886	0.05823
2031	2,071,194,580	628,338		538,248	-	-	-	-	538,248	1,166,586	0.05747
2032	2,071,194,580	608,113		538,248	-	-	-	-	538,248	1,146,361	0.05648
2033	2,071,194,580	592,425		538,248	-	-	-	-	538,248	1,130,673	0.05570
2034	2,071,194,580	576,200		538,248	-	-	-	-	538,248	1,114,448	0.05491
2035	2,071,194,580	488,394		538,248	-	-	-	-	538,248	1,026,642	0.05058
2036	2,071,194,580	473,930		538,248	-	-	-	-	538,248	1,012,178	0.04987
2037	2,071,194,580	459,140		538,248	-	-	-	-	538,248	997,388	0.04914
2038	2,071,194,580	439,435		538,248	-	-	-	-	538,248	977,683	0.04817
2039	2,071,194,580	-		538,248	-	-	-	-	538,248	538,248	0.02652
2040	2,071,194,580			538,248	-	-	-	-	538,248	538,248	0.02652
2041	2,071,194,580			538,248	-	-	-	-	538,248	538,248	0.02652
2042	2,071,194,580			538,248	-	-	-	-	538,248	538,248	0.02652
2043	2,071,194,580			538,248		-	-	-	538,248	538,248	0.02652
2044	2,071,194,580			538,248			-	-	538,248	538,248	0.02652
2045	2,071,194,580			538,248				-	538,248	538,248	0.02652
2046	2,071,194,580			538,248					538,248	538,248	0.02652
2047	2,071,194,580			538,248					538,248	538,248	0.02652
2048	2,071,194,580			538,248					538,248	538,248	0.02652
2049	2,071,194,580			538,248					538,248	538,248	0.02652
2050	2,071,194,580			538,248					538,248	538,248	0.02652
2051	2,071,194,580			538,248					538,248	538,248	0.02652
2052	2,071,194,580			538,248					538,248	538,248	0.02652
		\$ 11,382,638	\$ -	\$ 16,147,440	\$ -	\$ -	\$ -	\$ -	\$ 16,147,440	\$ 27,530,078	

Existing Debt Does Not Include Self-Supporting Debt.

(1) Fiscal Year 2022 is based on certified values from the Brazoria County Appraisal District. Fiscal Year 2023 is based on 10% growth plus \$20,000,000 in taxable value from new power plant.

There has not been any adjustment for value in Tax Increment Reinvestment Zones.

(2) Assumes Level Debt. For illustration purposes only, subject to change at anytime.

(3) Interest rate assumptions based on market conditions for February 1, 2022 plus 50 basis points.

(4) Projected tax rates assume 98% tax collections for illustration purposes only.

Fiscal Year Ending 9/30	Taxable Assessed Valuation ⁽¹⁾	Existing Net Tax-Supported Debt Service	Capital Lease Debt Service	2022 Bond Program Cash Flows ⁽²⁾⁽³⁾					2021-2025 TOTAL NET NEW DEBT	Estimated NEW Net Tax-Supported Debt Service	Projected I&S Tax Rate ⁽⁴⁾
				\$ - Series 2022 GO Issue 3.08%	Series 2023 GO Issue	Series 2024 GO Issue	Series 2025 GO Issue	2026 GO Issue			
2022	\$ 1,205,760,837	\$ 913,387		\$ 592,736					\$ -	\$ 913,387	\$ 0.07390
2023	1,346,336,921	914,712		592,736					592,736	1,507,448	0.11425
2024	1,480,970,613	909,663		592,736	-				592,736	1,502,399	0.10352
2025	1,629,067,674	812,313		592,736	-	-			592,736	1,405,049	0.08801
2026	1,791,974,442	797,963		592,736	-	-	-		592,736	1,390,699	0.07919
2027	1,971,171,886	739,313		592,736	-	-	-	-	592,736	1,332,049	0.06896
2028	2,168,289,075	726,362		592,736	-	-	-	-	592,736	1,319,098	0.06208
2029	2,168,289,075	659,313		592,736	-	-	-	-	592,736	1,252,049	0.05892
2030	2,168,289,075	643,638		592,736	-	-	-	-	592,736	1,236,374	0.05818
2031	2,168,289,075	628,338		592,736	-	-	-	-	592,736	1,221,074	0.05746
2032	2,168,289,075	608,113		592,736	-	-	-	-	592,736	1,200,849	0.05651
2033	2,168,289,075	592,425		592,736	-	-	-	-	592,736	1,185,161	0.05577
2034	2,168,289,075	576,200		592,736	-	-	-	-	592,736	1,168,936	0.05501
2035	2,168,289,075	488,394		592,736	-	-	-	-	592,736	1,081,130	0.05088
2036	2,168,289,075	473,930		592,736	-	-	-	-	592,736	1,066,666	0.05020
2037	2,168,289,075	459,140		592,736	-	-	-	-	592,736	1,051,876	0.04950
2038	2,168,289,075	439,435		592,736	-	-	-	-	592,736	1,032,171	0.04857
2039	2,168,289,075	-		592,736	-	-	-	-	592,736	592,736	0.02789
2040	2,168,289,075			592,736	-	-	-	-	592,736	592,736	0.02789
2041	2,168,289,075			592,736	-	-	-	-	592,736	592,736	0.02789
2042	2,168,289,075			592,736	-	-	-	-	592,736	592,736	0.02789
2043	2,168,289,075			592,736		-	-	-	592,736	592,736	0.02789
2044	2,168,289,075			592,736			-	-	592,736	592,736	0.02789
2045	2,168,289,075			592,736				-	592,736	592,736	0.02789
2046	2,168,289,075			592,736					592,736	592,736	0.02789
2047	2,168,289,075			592,736					592,736	592,736	0.02789
2048	2,168,289,075								-	-	-
2049	2,168,289,075								-	-	-
2050	2,168,289,075								-	-	-
2051	2,168,289,075								-	-	-
2052	2,168,289,075								-	-	-
		\$ 11,382,638	\$ -	\$ 14,818,400	\$ -	\$ -	\$ -	\$ -	\$ 14,818,400	\$ 26,201,038	

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City of Angleton, Texas

FY 2022 - Debt Issuance / 25 Year Term

Assumes TAV Growth at 5.0% Current Interest Rate Plus 50 Basis Points

As of February 2, 2022

DRAFT for discussion purposes only

Item 10.

Fiscal Year Ending 9/30	Taxable Assessed Valuation ⁽¹⁾	Existing Net Tax-Supported Debt Service	Capital Lease Debt Service	2022 Bond Program Cash Flows ⁽²⁾⁽³⁾					2021-2025 TOTAL NET NEW DEBT	Estimated NEW Net Tax-Supported Debt Service	Projected I&S Tax Rate ⁽⁴⁾
				\$ Series 2022 GO Issue 3.08%	Series 2023 GO Issue	Series 2024 GO Issue	Series 2025 GO Issue	2026 GO Issue			
2022	\$ 1,205,760,837	\$ 913,387							-	\$ 913,387	\$ 0.07390
2023	1,286,048,879	914,712		\$ 592,736					\$ 592,736	1,507,448	0.11961
2024	1,414,653,767	909,663		592,736	-				592,736	1,502,399	0.10837
2025	1,556,119,144	812,313		592,736	-	-			592,736	1,405,049	0.09213
2026	1,711,731,058	797,963		592,736	-	-	-		592,736	1,390,699	0.08290
2027	1,882,904,164	739,313		592,736	-	-	-	-	592,736	1,332,049	0.07219
2028	2,071,194,580	726,362		592,736	-	-	-	-	592,736	1,319,098	0.06499
2029	2,071,194,580	659,313		592,736	-	-	-	-	592,736	1,252,049	0.06168
2030	2,071,194,580	643,638		592,736	-	-	-	-	592,736	1,236,374	0.06091
2031	2,071,194,580	628,338		592,736	-	-	-	-	592,736	1,221,074	0.06016
2032	2,071,194,580	608,113		592,736	-	-	-	-	592,736	1,200,849	0.05916
2033	2,071,194,580	592,425		592,736	-	-	-	-	592,736	1,185,161	0.05839
2034	2,071,194,580	576,200		592,736	-	-	-	-	592,736	1,168,936	0.05759
2035	2,071,194,580	488,394		592,736	-	-	-	-	592,736	1,081,130	0.05326
2036	2,071,194,580	473,930		592,736	-	-	-	-	592,736	1,066,666	0.05255
2037	2,071,194,580	459,140		592,736	-	-	-	-	592,736	1,051,876	0.05182
2038	2,071,194,580	439,435		592,736	-	-	-	-	592,736	1,032,171	0.05085
2039	2,071,194,580	-		592,736	-	-	-	-	592,736	592,736	0.02920
2040	2,071,194,580			592,736	-	-	-	-	592,736	592,736	0.02920
2041	2,071,194,580			592,736	-	-	-	-	592,736	592,736	0.02920
2042	2,071,194,580			592,736	-	-	-	-	592,736	592,736	0.02920
2043	2,071,194,580			592,736		-	-	-	592,736	592,736	0.02920
2044	2,071,194,580			592,736			-	-	592,736	592,736	0.02920
2045	2,071,194,580			592,736				-	592,736	592,736	0.02920
2046	2,071,194,580			592,736					592,736	592,736	0.02920
2047	2,071,194,580			592,736					592,736	592,736	0.02920
2048	2,071,194,580								-	-	-
2049	2,071,194,580								-	-	-
2050	2,071,194,580								-	-	-
2051	2,071,194,580								-	-	-
2052	2,071,194,580								-	-	-
		\$ 11,382,638	\$ -	\$ 14,818,400	\$ -	\$ -	\$ -	\$ -	\$ 14,818,400	\$ 26,201,038	

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City of Angleton, Texas

FY 2022 - Debt Issuance / 20 Year Term

Assumes TAV Growth at 10.0% Current Interest Rate Plus 50 Basis Points

As of February 2, 2022

DRAFT for discussion purposes

Item 10.

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				\$ - Series 2022 GO Issue 2.91%	Series 2023 GO Issue	Series 2024 GO Issue	Series 2025 GO Issue	2026 GO Issue			
2022	\$ 1,205,760,837	\$ 913,387							-	\$ 913,387	\$ 0.07390
2023	1,346,336,921	914,712		\$ 681,908					\$ 681,908	1,596,620	0.12101
2024	1,480,970,613	909,663		681,908	-				681,908	1,591,571	0.10966
2025	1,629,067,674	812,313		681,908	-	-			681,908	1,494,221	0.09359
2026	1,791,974,442	797,963		681,908	-	-	-		681,908	1,479,871	0.08427
2027	1,971,171,886	739,313		681,908	-	-	-	-	681,908	1,421,221	0.07357
2028	2,168,289,075	726,362		681,908	-	-	-	-	681,908	1,408,270	0.06627
2029	2,168,289,075	659,313		681,908	-	-	-	-	681,908	1,341,221	0.06312
2030	2,168,289,075	643,638		681,908	-	-	-	-	681,908	1,325,546	0.06238
2031	2,168,289,075	628,338		681,908	-	-	-	-	681,908	1,310,246	0.06166
2032	2,168,289,075	608,113		681,908	-	-	-	-	681,908	1,290,021	0.06071
2033	2,168,289,075	592,425		681,908	-	-	-	-	681,908	1,274,333	0.05997
2034	2,168,289,075	576,200		681,908	-	-	-	-	681,908	1,258,108	0.05921
2035	2,168,289,075	488,394		681,908	-	-	-	-	681,908	1,170,302	0.05508
2036	2,168,289,075	473,930		681,908	-	-	-	-	681,908	1,155,838	0.05439
2037	2,168,289,075	459,140		681,908	-	-	-	-	681,908	1,141,048	0.05370
2038	2,168,289,075	439,435		681,908	-	-	-	-	681,908	1,121,343	0.05277
2039	2,168,289,075	-		681,908	-	-	-	-	681,908	681,908	0.03209
2040	2,168,289,075			681,908	-	-	-	-	681,908	681,908	0.03209
2041	2,168,289,075			681,908	-	-	-	-	681,908	681,908	0.03209
2042	2,168,289,075			681,908	-	-	-	-	681,908	681,908	0.03209
2043	2,168,289,075					-	-	-	-	-	-
2044	2,168,289,075						-	-	-	-	-
2045	2,168,289,075							-	-	-	-
2046	2,168,289,075								-	-	-
2047	2,168,289,075								-	-	-
2048	2,168,289,075								-	-	-
2049	2,168,289,075								-	-	-
2050	2,168,289,075								-	-	-
2051	2,168,289,075								-	-	-
2052	2,168,289,075								-	-	-
		\$ 11,382,638	\$ -	\$ 13,638,160	\$ -	\$ -	\$ -	\$ -	\$ 13,638,160	\$ 25,020,798	

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				\$ - Series 2022 GO Issue 2.91%	Series 2023 GO Issue	Series 2024 GO Issue	Series 2025 GO Issue	2026 GO Issue			
2022	\$ 1,205,760,837	\$ 913,387							-	\$ 913,387	\$ 0.07390
2023	1,286,048,879	914,712		\$ 681,908					\$ 681,908	1,596,620	0.12668
2024	1,414,653,767	909,663		681,908	-				681,908	1,591,571	0.11480
2025	1,556,119,144	812,313		681,908	-	-			681,908	1,494,221	0.09798
2026	1,711,731,058	797,963		681,908	-	-	-		681,908	1,479,871	0.08822
2027	1,882,904,164	739,313		681,908	-	-	-	-	681,908	1,421,221	0.07702
2028	2,071,194,580	726,362		681,908	-	-	-	-	681,908	1,408,270	0.06938
2029	2,071,194,580	659,313		681,908	-	-	-	-	681,908	1,341,221	0.06608
2030	2,071,194,580	643,638		681,908	-	-	-	-	681,908	1,325,546	0.06531
2031	2,071,194,580	628,338		681,908	-	-	-	-	681,908	1,310,246	0.06455
2032	2,071,194,580	608,113		681,908	-	-	-	-	681,908	1,290,021	0.06355
2033	2,071,194,580	592,425		681,908	-	-	-	-	681,908	1,274,333	0.06278
2034	2,071,194,580	576,200		681,908	-	-	-	-	681,908	1,258,108	0.06198
2035	2,071,194,580	488,394		681,908	-	-	-	-	681,908	1,170,302	0.05766
2036	2,071,194,580	473,930		681,908	-	-	-	-	681,908	1,155,838	0.05694
2037	2,071,194,580	459,140		681,908	-	-	-	-	681,908	1,141,048	0.05622
2038	2,071,194,580	439,435		681,908	-	-	-	-	681,908	1,121,343	0.05524
2039	2,071,194,580	-		681,908	-	-	-	-	681,908	681,908	0.03360
2040	2,071,194,580			681,908	-	-	-	-	681,908	681,908	0.03360
2041	2,071,194,580			681,908	-	-	-	-	681,908	681,908	0.03360
2042	2,071,194,580			681,908	-	-	-	-	681,908	681,908	0.03360
2043	2,071,194,580					-	-	-	-	-	-
2044	2,071,194,580						-	-	-	-	-
2045	2,071,194,580							-	-	-	-
2046	2,071,194,580								-	-	-
2047	2,071,194,580								-	-	-
2048	2,071,194,580								-	-	-
2049	2,071,194,580								-	-	-
2050	2,071,194,580								-	-	-
2051	2,071,194,580								-	-	-
2052	2,071,194,580								-	-	-
		\$ 11,382,638	\$ -	\$ 13,638,160	\$ -	\$ -	\$ -	\$ -	\$ 13,638,160	\$ 25,020,798	

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Disclosure

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AGENDA ITEM SUMMARY FORM

MEETING DATE: 2/22/22

PREPARED BY: Scott Myers

AGENDA CONTENT: Discussion and possible action to allow Angleton Fire Department to order a new Engine in 2022 to be financed in 2023 Fiscal Year

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: **FUNDS REQUESTED:** \$650k

FUND: Loan payment will be paid via ESD funds

EXECUTIVE SUMMARY:

We are in immediate need to replace our Engine 2, ahead of the projected timeline. We have been seeing increasing maintenance costs over the last year with our Engine 2. This truck already has had some major maintenance performed to it since we have owned it. \$63k in the last five years, including an engine rebuild. We are seeing signs of motor trouble again and need to get ahead of the issues.

In 2014 the City took a loan out for our Engine 1, a 2013 Spartan. This loan was set to be paid off in 2024 with payments coming solely from ESD funds. After working with City Manager and Finance Director, this loan will be paid off early, in 2022. This is being done in hopes to order a new engine this year to replace Engine 2.

RECOMMENDATION:

We would like council to consider allowing the Fire Department to order a new engine this year, to take delivery in the 2023 Fiscal budget year. The city would need to reopen a loan for the payment of the truck in 2023. The loan line item for a truck payment through ESD funds is already budgeted through the ESD until the end of 2024. We will negotiate with ESD to continue this amount to help pay off the engine. We do not see any issues with this giving our growing coverage area as well as the increasing possibility of keeping the Holiday Lakes / Long Pond area.

Angleton Firefighter's Association is also looking into replacing our brush units with association funds this year, and the selling of the two older units. This will also help with negotiations with ESD.

ENGINE 2 MAINTENANCE REPORT

2009 PIERCE

MILEAGE: 32,952 - HRS 3,267

Performance 2017

AC Repair	\$1,273.65
Transmission	\$ 1,500.95
Battery	\$ 988.16
Engine Repair	\$ 15,926.38
Exhaust	\$ 718.50
Total	\$20,407.64

Performance 2018

Oil/Filter	\$ 402.18
Total	\$ 402.18

Performance

Brakes	
Oil/Filter	
Total	

Siddons 2018

Lift/Controller	\$ 1,088.63
Total	\$ 1,088.63

Siddons 2019

Repair/Maintenance	
Total	

2017	\$20,407.64
2018	\$1,490.81
2019	\$8,284.97
2020	\$13,246.30
2021	\$13,547.68
YTD 2022	\$6,500.00
5yr Totals	\$63,477.40

2019

\$ 6,977.56
\$ 444.18
\$ 7,421.74

Performance 2020

Oil/Filter	\$ 467.18
Engine	\$ 1,368.50
Total	\$ 1,835.68

Performance 2021

Air Compressor
Fuel Filters
Repair/Maintenance
Injector
Total

Siddons 2020

\$ 863.23
\$ 863.23

A/C	\$ 1,495.52
Repair/Maintenance	\$ 5,468.04
Generator	\$ 1,119.60
Engine	\$ 726.00
Radiator	\$ 1,481.67
Battery	\$ 391.04
Mechanical Seal	\$ 728.75
Total	\$ 11,410.62

Siddons 2021

Repair/Maintenance
Total



\$ 645.95
\$ 145.96
\$ 6,215.41
\$5,729.36
\$ 12,736.68

\$ 811.00
\$ 811.00



Engine 2 Replacement Proposal

History

In the 2019 budget proposal we presented our proposed truck replacement timeline...

2020/2021 Engine 4 & Ladder 1

2023/2024 Rescue 1

2025 Brush 2

2026 Brush 3 & Tanker 1

At this time, Engine 2 was not on the radar for replacement due to it's age.

History Ladder 1

2019

- Bond election was approved to purchase a new truck for the department.
- This new truck was to be a Quint, ladder/pumper engine.
- This truck effectively replace our two oldest trucks Engine 4 and Ladder 1
- Took possession of new Ladder 1 in 2021

Old Engine 4 & Ladder 1



New Ladder 1



History Engine 4

Late 2020

- Received notice of a grant to purchase a large wildland vehicle from Texas Forestry Service
- We have no need for a vehicle of this nature. An engine fit the description and was allowed.
- The association opted to use the grant and finance the remainder of the vehicle
- This engine was to replace our next oldest Engine, E3.
- Took possession in late 2021

Old Engine 3



New Engine 4



Engine 2

- 2009 Pierce Contender
- 33,000 miles & 3300 hours
- Ordered 2008, took possession in 2009
- Purchased with Texas Forestry Service Grant
- Foam & CAFS Capable
- 1000 gallons
- 1250 GPM
- Motor rebuilt in 2017
- Injector pump replaced 2019
- All injectors replaced 2022
- Increasing maintenance cost & downtime
- Not reliable, lack of confidence by firefighters
- Motor knocking, unsure of lifespan



Engine 2 5yr Maintenance Costs

Performance 2017		Performance 2018		Performance 2019		Performance 2020		Performance 2021	
AC Repair	\$1,273.65	Oil/Filter	\$ 402.18	Brakes	\$ 6,977.56	Oil/Filter	\$ 467.18	Air Compressor	\$ 645.95
Transmission	\$ 1,500.95	Total	\$ 402.18	Oil/Filter	\$ 444.18	Engine	\$ 1,368.50	Fuel Filters	\$ 145.96
Battery	\$ 988.16			Total	\$ 7,421.74	Total	\$ 1,835.68	Repair/Maintenance	\$ 6,215.41
Engine Repair	\$ 15,926.38							Injector	\$5,729.36
Exhaust	\$ 718.50							Total	\$ 12,736.68
Total	\$20,407.64								

Proposal & Benefit

Proposal

- Engine 1, 2013 Spartan, was due to pay off in 2024
 - City financed through Moody bank, paid with ESD funds
- Truck will be paid off 2 years early in 2022
- Propose to order a new Engine in 2022, to take delivery in 2023 Fiscal year
- Propose for the city to acquire a loan for the payment of this truck, estimate \$650k
- Payments to be made via ESD funds, same as what we already have budgeted
- Sell existing Engine 2, use proceeds to purchase any needed equipment

Benefits

- Replaces Engine 2 with no new costs to the city
- Reduces growing maintenance costs
- Reduces downtime and coverage from less capable apparatus
- Brings larger pump & water capacity in ALL city fire apparatuses
- Brings newer technology in ALL city fire apparatuses
- Eliminates the need to replace any engines for many years to come
- Increases engine confidence and puts a new apparatus in our central station 1 giving ALL 3 stations a new dependable apparatus
- Take advantage of continued rising material costs
- Take advantage of minimal equipment purchases
- Take advantage of trucks closely matching for firefighter response and operations



Future Apparatus Needs

- Add our 3 command units to the Enterprise lease program
 - Potential 2023
- Replace Brush 2 & Brush 3
 - The association is currently looking into plans to trade in our old utility truck and purchase two new $\frac{3}{4}$ ton trucks using association funds and existing skid units. One truck will replace the utility, one truck will replace Brush 3 (truck with the most maintenance)
 - Brush 2 will be replaced at a later date with the utility unit
 - This should be no cost to the city
- Replace Rescue 1
 - This truck is an aging truck but is not giving us any maintenance issues, at this time.
 - Replacement will strictly be due to age and mileage
 - Replacement will be needed within 3-5 years, estimated
 - Possible grant funded or insurance billing funded



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Lindsay Koskiniemi, Assistant Director of Development Services

AGENDA CONTENT: Discussion and presentation on a proposed multi-family development spanning approximately 18 acres generally located at the northwest corner of the FM 523 and Highway 288 Business intersection in Angleton, Texas.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: N/A

FUNDS REQUESTED: N/A

FUND: N/A

EXECUTIVE SUMMARY:

Section 28-26 provides a process whereby developers can present projects to the Planning and Zoning Commission and City Council and receive actionable comments from both bodies. The proposed project is a multi-family spanning approximately 18 acres generally located at the northwest corner of FM 523 and Highway 288B. As currently envisioned, this project will only include a multi-family project and will eventually expand to include commercial/retail uses nearest FM 523.

The Planning and Zoning Commission reviewed the proposed multi-family project on February 3, 2022 and had no comments.

RECOMMENDATION:

Staff recommends the City Council provide comment and feedback to the developer.

Angleton Crossing

PLANNING AND
ZONING COMMISSION
FEBRUARY 3, 2022

Angleton Crossing

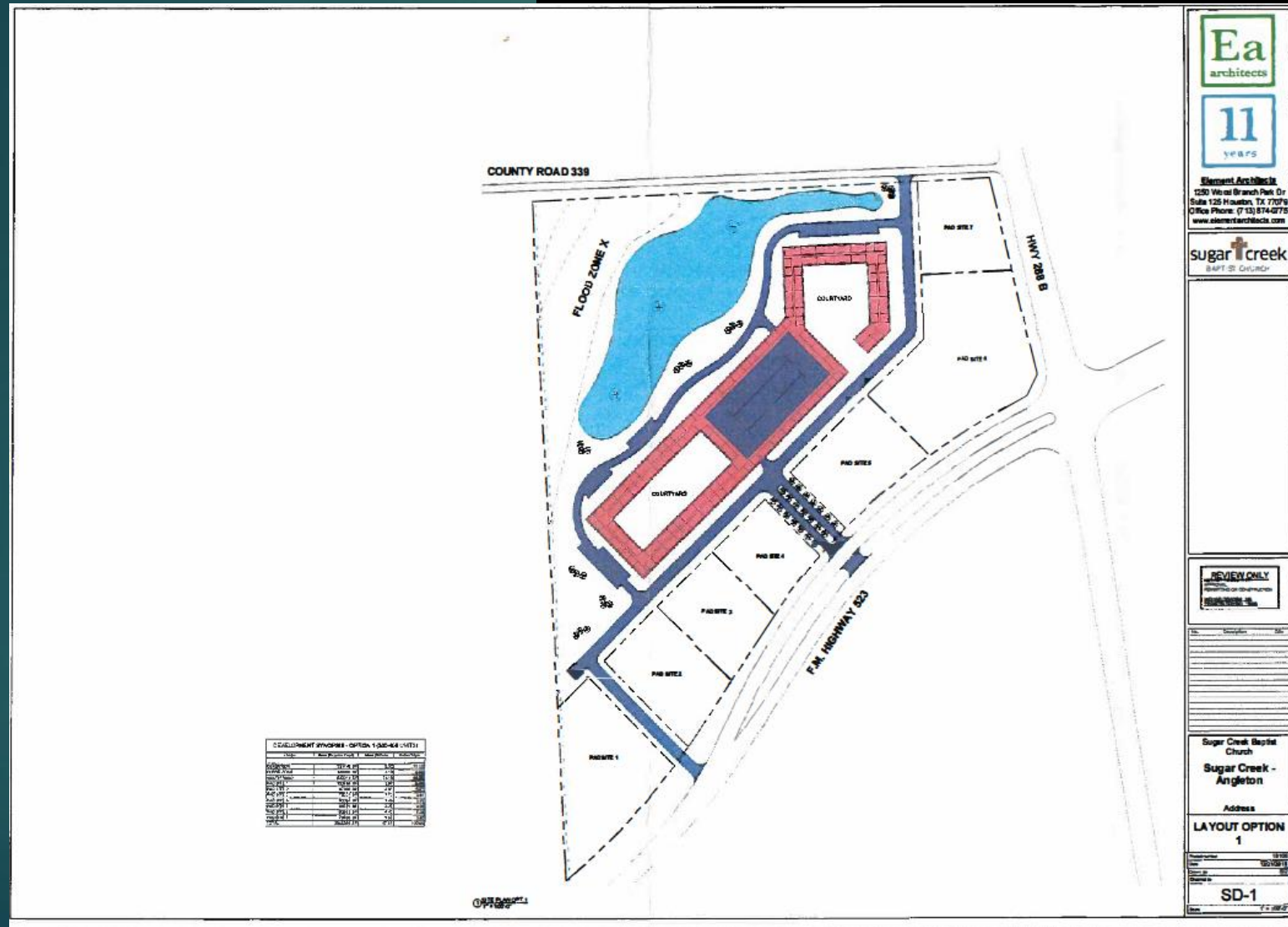
- ▶ Owner – Sugar Creek Baptist Church
- ▶ Third party developer representing church
- ▶ Ongoing discussions with the City of Angleton on predevelopment issues
 - ▶ Annexation
 - ▶ Zoning
 - ▶ Utilities
 - ▶ Industrial District Agreement
 - ▶ Angleton Drainage District for regional detention
 - ▶ TXDOT for access
 - ▶ Recommended that we present conceptual plan to Planning and Zoning and City Council

Angleton Crossing

- ▶ Prominent locations on the northerly most corners of the 288 Business and TX 523 intersection
- ▶ “Gateway” to Angleton
- ▶ Proposed 60-acre mixed use development
- ▶ Market driven uses being considered include:
 - ▶ Residential, including multifamily, senior living, single family, condominiums and townhomes
 - ▶ Retail shopping center
 - ▶ General retail pads
 - ▶ Restaurants and gas stations
 - ▶ Office and professional office
 - ▶ Medical uses
 - ▶ Banks and financial services

- Approximately 47 acres
- Located at the NWC of Highway 288 & FM 523, Angleton ETJ

130





About Us

Kittle Property Group, Inc. (KPG) is the successor to companies that have been around since 1948 and has developed and managed multifamily homes for over 70 years. We develop, build, manage and own multifamily rental housing and self-storage facilities throughout the United States. Our most valuable asset, our team, has extensive experience in property development, real estate finance, multifamily housing construction, property management and compliance. Our vertically integrated structure means we have the experience and the expertise on hand to successfully offer partners the services and products that will complete a project from beginning to end.

Fifteen communities in Texas since 2011 (and growing...)

- ▶ Taylor – *Main Street Commons*
- ▶ McGregor – *Rachel Commons*
- ▶ New Braunfels – *Residences of Solms Village*
- ▶ Justin – *Bishop Gardens*
- ▶ Odessa – *The Grove*
- ▶ Beaumont – *Cypress Place*
- ▶ Beaumont – *Old Dowlen Cottages*
- ▶ Beaumont – *Promenade**
- ▶ Beaumont – *Laurel Vista*
- ▶ Winnie – *Magnolia Station*
- ▶ Allen – *Chaparral Townhomes*
- ▶ Houston – *The Vireo*
- ▶ Houston – *Estates at Ellington*
- ▶ San Antonio – *The Montage**
- ▶ Austin – *Agave East**

**Under Construction*



© SunCatcherStudio.com

- A. Casey Acres – Westfield, IN
- B. The Vireo – Houston, TX
- C. Ashford Park – Columbus, IN
- D. The Promenade – Beaumont, TX
- E. Main Street Commons – Taylor, TX

A



B



C



D



E



Angleton Apartments

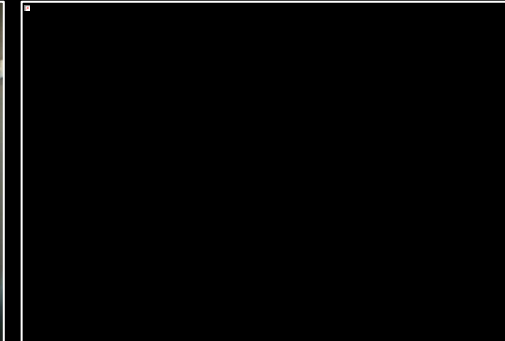
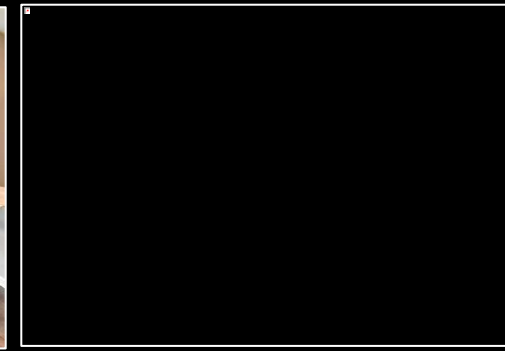
- ▶ **Proposed:** Approximately 200 to 240-unit apartment community for families
- ▶ **Developed By:** Kittle Property Group, Inc. (KPG)
- ▶ **Location:** NWC of Highway 288 & FM 523, Angleton ETJ
- ▶ **Current Property Condition:** Vacant land
- ▶ The proposed community would feature one-, two-, three- and four-bedroom units in garden style buildings.

Typical Community Amenities:

- Onsite management/leasing office
- Community room
- Fitness center
- Business center with computers
- Activity room
- Game room
- Swimming pool
- BBQ grill/picnic area
- Playground
- Dog park

Typical Resident Services:

- Onsite Food Pantry
- Annual Health Fair
- Partnership with local law enforcement and/or first responders
- Annual Income Tax Preparation
- Twice monthly arts, crafts, and recreational activities
- Twice monthly onsite social events



Proposed Development Site

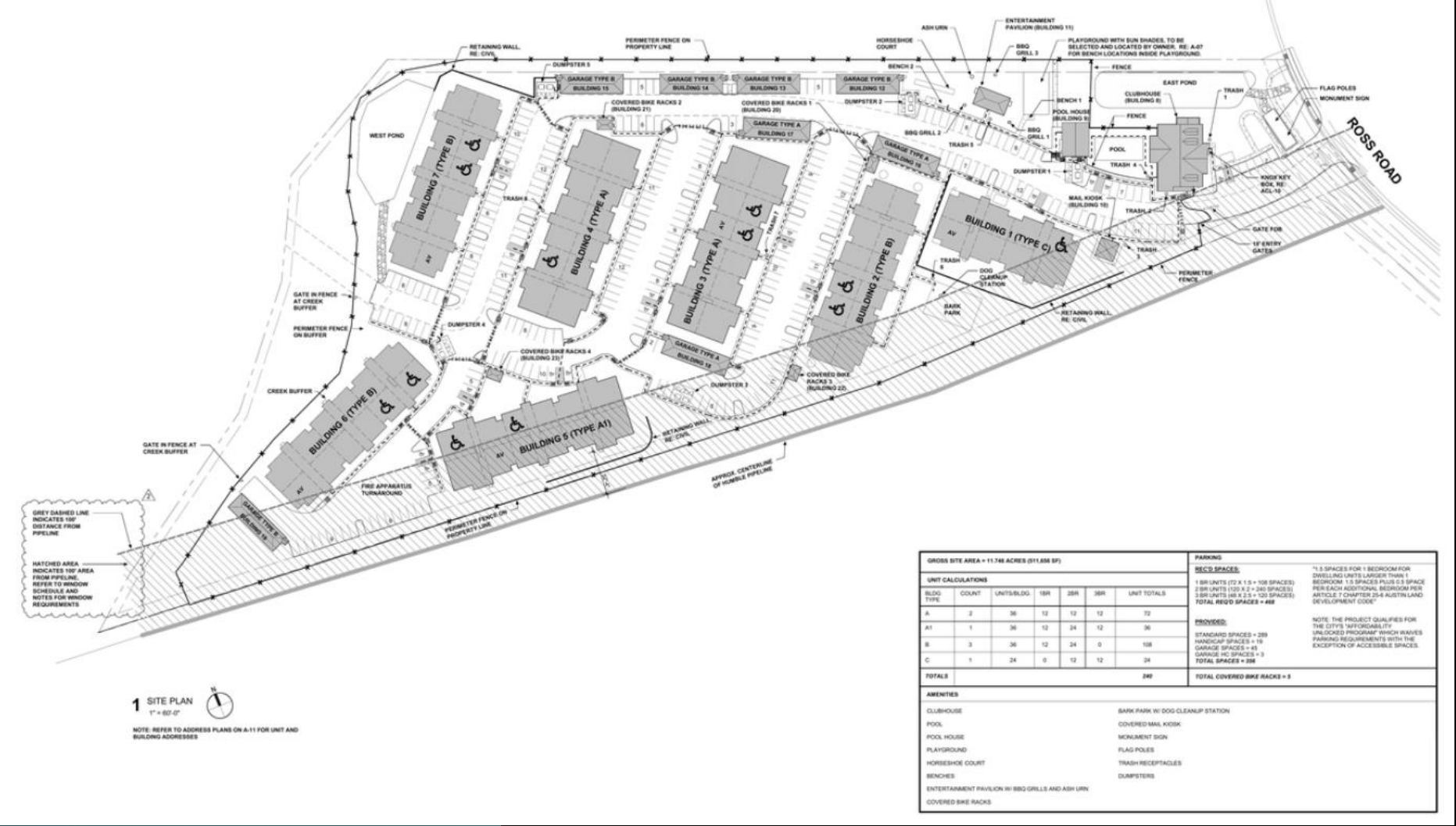
- ▶ Approximately 15 acres (as shaded in red below)
- ▶ Located at the NWC of Highway 288 & FM 523, Angleton ETJ



Example Site Plan

Item 12.

- ▶ The below site plan is for a community KPG recently started construction on in Austin, TX. This community will consist of 240 units and would be similar to what we are proposing in Angleton.



Angleton Crossing

- ▶ Thank you for your time and consideration
- ▶ Questions and Answers
- ▶ Next steps



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Lindsay Koskiniemi, CPM, CGFO, Assistant Director of Development Services

AGENDA CONTENT: Discussion and possible action on a request from Baker and Lawson, Inc. for a waiver of the preliminary acceptance of public improvement with a one-year maintenance bond and acceptance of public improvements by the City of Angleton for improvements at the Bayou Bend subdivision.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: N/A

FUNDS REQUESTED: N/A

FUND: N/A

EXECUTIVE SUMMARY:

This item is a request from Baker and Lawson, Inc. for the acceptance of public improvements for Bayou Bend subdivision, a subdivision consisting of 36 lots in addition to consideration of a waiver of the preliminary acceptance of public improvements with a one-year maintenance bond required by the Angleton Land Development Code, Sec. 23-98(I). Prior to the adoption of the LDC, the public improvement acceptance process consisted of final acceptance with a one-year maintenance bond. A one-year maintenance bond is included with a waiver request letter.

Public Improvement Acceptance and Preliminary Acceptance Waiver Request: The public improvements acceptance process, as described in Section 23-98(I) is a two-step process consisting of:

1. Preliminary acceptance with a minimum one-year maintenance bond as an administrative act by the City Manager after recommendation by the City Engineer; and
2. Final acceptance (with a one-year maintenance bond) by City Council after recommendation from the City Manager and City Engineer at least one year after preliminary acceptance.

City staff members from Public Works and Development Services Departments completed preliminary and final inspections for Bayou Bend. A punch list was developed with noted deficiencies which were corrected before final inspection of the work done by the contractor, Matula and Matula. The City received record drawings for the Bayou Bend subdivision

development that have been reviewed by HDR with no objections to final acceptance of public improvements.

RECOMMENDATION:

Staff recommends approval of a waiver of preliminary acceptance of public improvements with a one-year maintenance bond and acceptance of public improvements of the Bayou Bend subdivision development.



January 21, 2022

Mr. Walter Reeves
Director of Development and Planning
City of Angleton
121 S. Velasco
Angleton, Texas 77515

Re: Public Acceptance Process - Bayou Bend Subdivision

Dear Mr. Reeves,

Clint Peltier with Clint Peltier Custom Homes is requesting a waiver for the following Section of the City of Angleton Land Development Code (LDC):

Section 23-98. K. 1. Preliminary Acceptance to make this a final acceptance with a 1 year maintenance bond.

After completion of the construction of the public improvements in a subdivision a field inspection is conducted and a "punch list" of repairs or corrections of deficiencies is prepared for the construction contractor. In the past, after resolution of the "punch list" items, the City accepted the improvements with a one-year maintenance bond.

With the adoption of the Land Development Code in 2018 the public improvement acceptance process changed from a one-step process to a two-step process. The acceptance process described in the LDC is:

1. Preliminary acceptance with a minimum one-year maintenance bond as an administrative act by the City Manager after recommendation by the City Engineer; and
2. Final acceptance (with a one-year maintenance bond) by City Council after recommendation from the City Manager and City Engineer at least one year after preliminary acceptance.

The developer of Bayou Bend Subdivision is requesting a waiver of Section 23-98.K.1 Preliminary Acceptance and that City Council accept the public improvements with a one-year maintenance bond.

Prior to the adoption of the 2018 Land Development Code, the Contractor's one year maintenance bond was all that was required before final acceptance of the public improvements by the City.

If you have any questions or require further information please contact Baker & Lawson, Inc.

Sincerely,

Miguel Saucedo, P.E.

Project Engineer

(File: 13454/Maintenance Waiver)

DOUGLAS B. ROESLER, P.E. - Principal Engineer
4005 TECHNOLOGY DRIVE, SUITE 1530, ANGLETON, TEXAS 77515
(979) 849-6681 • Fax (979) 849-4689

February 16, 2022

Mr. Walter Reeves
Director of Development Services
City of Angleton
121 S. Velasco
Angleton, TX 77515

Re: On-Going Services
Public Improvements Acceptance of Bayou Bend Subdivision
Angleton, Texas
HDR Job No. 10283980

Dear Mr. Reeves:

HDR Engineering, Inc. (HDR) is in receipt of the request for Public Acceptance of the Bayou Bend Subdivision public improvements in accordance with the Angleton Land Development Code (LDC) Sec. 23-98 – Public Improvements Acceptance. The following are exceptions noted in review of the Public Acceptance Process Criteria:

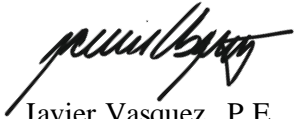
1. A Final Inspection walkthrough was performed on January 4, 2022 to review and verify the public improvements were constructed per the approved plat and plans. A Final Inspection report was generated for items to be completed and or corrected. Completion and correction of the items noted were provided.
2. A pdf set of As-Built (Record Drawing) plans dated January 11, 2022 by the Engineer of Record have been received by the City. As a condition of the Final Acceptance, an electronic set of the As-Built plans shall be submitted in a GIS compatible format.
3. A letter dated January 6, 2022 from the Angleton Drainage District was provided to the City regarding the outfall structure into Brushy Bayou. The outfall was found to be in compliance and expectations as noted in the letter. The structure shall be reviewed at the end of the one-year maintenance period to review for any deficiencies or erosion at the outfall and any corrections required shall be made at that time.
4. Testing reports as noted by LDC Sec. 23-98 have been received. No additional action is required for these items.
5. As a condition of Final Acceptance, a maintenance bond shall be filed with the City in accordance to the LDC Sec. 23-98.
6. As a condition of Final Acceptance, the Developer shall provide proof that there are no outstanding judgements or liens against the improvements within the public rights-of-way or against property on which easements contain public improvements.
7. As a condition of Final Acceptance, for the portion of public sidewalks constructed, the Developer shall provide the TDLR certification of compliance with Texas Accessibility Standards per LDC Sec. 23-14. A.5 Sidewalks and Accessibility.

HDR takes no objection for the request of Final Acceptance for Public Improvements for the Bayou Bend Subdivision with the exceptions noted. Please note that HDR has only reviewed the improvements for consistency with the Final Plat and Construction Plans and the general conformance of public improvements to the City requirements. It is noted that this does not release the Developer of any liability resulting from non-conformance of these items.

If you have any questions, please feel free to contact us at our office (713)-622-9264.

Sincerely,

HDR Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Javier Vasquez', written over a horizontal line.

Javier Vasquez, P.E., CFM
City Engineer Representative

cc: Files (10283980)

ANGLETON DRAINAGE DISTRICT

A Political Subdivision of the State of Texas
P.O. Box 2469, Angleton, Texas 77516-2469
Phone: (979) 849-2414 Fax: (979) 848-8160



January 6, 2022

Mr. Walter Reeves
Director of Development Services
City of Angleton
121 S. Velasco
Angleton, TX 77515

Re: Bayou Bend Estates, Angleton, Texas
Detention Outfall Structure into Brushy Bayou

Dear Mr. Reeves:

Our engineer, Douglas B. Roesler, P.E., inspected the constructed outfall structure into Brushy bayou and found it to be in compliance with our expectations. We are aware that the work will remain under a one-year warrant from the time of City's final acceptance. We will review the structure again at the end of one year. Any deficiencies or erosion associated with the outfall will be corrected at that time.

Please contact me if you have any questions concerning this acceptance letter.

Sincerely,

A handwritten signature in blue ink that reads "David B. Spoor".

David B. Spoor, Chairman
Angleton Drainage District Board of Supervisors

Copy: John Peterson, P.E.
John.Peterson@hdrinc.com

PLANS FOR CONSTRUCTION OF
PAVING, DRAINAGE AND UTILITIES ON
BAYOU BEND ESTATES
FOR THE
CITY OF ANGLETON
BRAZORIA COUNTY
B&L JOB No. 13454

INDEX OF DRAWINGS

SHEET NO.	SHEET NAME
1	TITLE SHEET
--	PRELIMINARY REPLAT
2	CONSTRUCTION NOTES
3	EXISTING CONDITIONS
4	PLAN & PROFILE - BAYOU BEND BLVD. STA 0+00 TO 5+60
5	PLAN & PROFILE - BAYOU BEND BLVD. STA 5+60 TO 10+80
6	PLAN & PROFILE - BAYOU BEND BLVD. STA 10+80 TO 13+00
7	PLAN & PROFILE - BAYOU BEND COURT STA 0+00 TO 2+81
7A	PLAN & PROFILE - OUTFALL 1
8	UTILITY LAYOUT
9	DETENTION POND LAYOUT AND CROSS SECTIONS
10	DRAINAGE AREA MAP
11	GRADING PLAN
12	CUT AND FILL PLAN
13	SWPPP LAYOUT
14	SWPPP NARRATIVE
15	HYDROLOGICAL CALCULATIONS
16	WINDSTORM DATA 1-1 TO 1-5, 1-6 TO 1-9
17	TRAFFIC CONTROL PLAN - TCP (2-5) - 18
18	PAVEMENT MARKING, STREET SIGN, MAILBOX, AND ROADWAY LIGHTING LAYOUT
18A	HERITAGE TREE SURVEY AND TREE PRESERVATION PLAN

DETAIL SHEETS

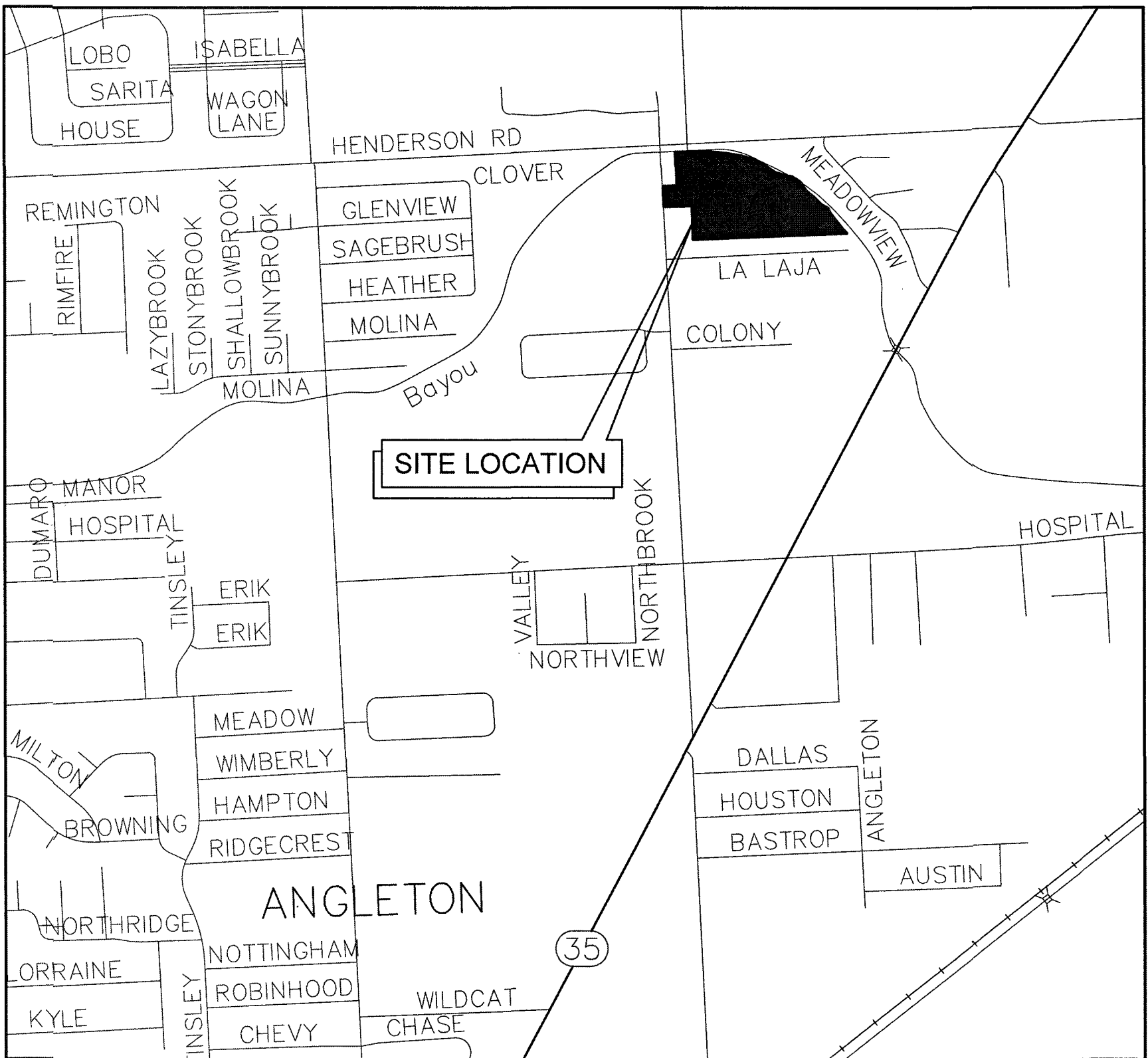
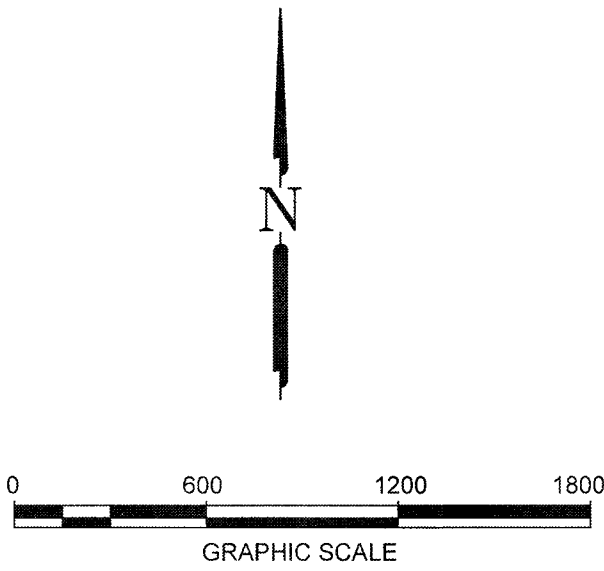
19	MISCELLANEOUS DETAILS
20 (SL-03)	STORM SEWER MANHOLE CONSTR. DETAILS
21 (SL-07)	STORM SEWER MANHOLE CONSTR. DETAILS
22 (SL-08)	STORM SEWER INLET CONSTR. DETAILS II
23 (SL-09)	STORM SEWER INLET CONSTR. DETAILS III
24 (SL-10)	STORM SEWER CONSTR. DETAILS
25 (SL-11)	JUNCTION BOX MANHOLES
26 (SL-14)	SANITARY SEWER CONSTR. DETAILS
27 (SL-15)	WATER LINE CONSTR. DETAILS
28 (SL-16)	WATER LINE CROSSING DETAILS
29 (SL-19)	WATER LINE, SAN. SEW. F.M. BEDDING DETAILS
30 (SL-20)	STORM SEW. BEDDING AND BACKFILL DETAILS
31 (SL-21)	CONCRETE PAVEMENT CONSTR. DETAILS
32 (SL-22)	CONCRETE PAVEMENT CONSTR. DETAILS
33 (SL-23)	RESIDENTIAL CURB CONSTR. DETAILS
34 (SL-25)	WHEEL CHAIR RAMP & SIDEWALK DETAILS I
35 (SL-26)	WHEEL CHAIR RAMP & SIDEWALK DETAILS II
36 (SL-27)	DRIVEWAY CONSTR. DETAILS
37 (SL-33)	GENERAL EROSION CONTROL NOTES
38 (SL-34)	EROSION CONTROL DETAILS - 1
39 (SL-35)	EROSION CONTROL DETAILS - 2

CITY OF ANGLETON

MAYOR	CITY COUNCIL
JASON PEREZ	MIKEY SVOBODA
	CECIL BOOTH
CITY MANAGER	JOHN WRIGHT
CHRIS WHITTAKER	TRAVIS TOWNSEND
	MARK GONGORA

"Release of this application does not constitute a verification of all data, information and calculations supplied by the applicant. The engineer of record is solely responsible for the completeness, accuracy and adequacy of their submittal, whether or not the application is reviewed for Code compliance by the City Engineer."

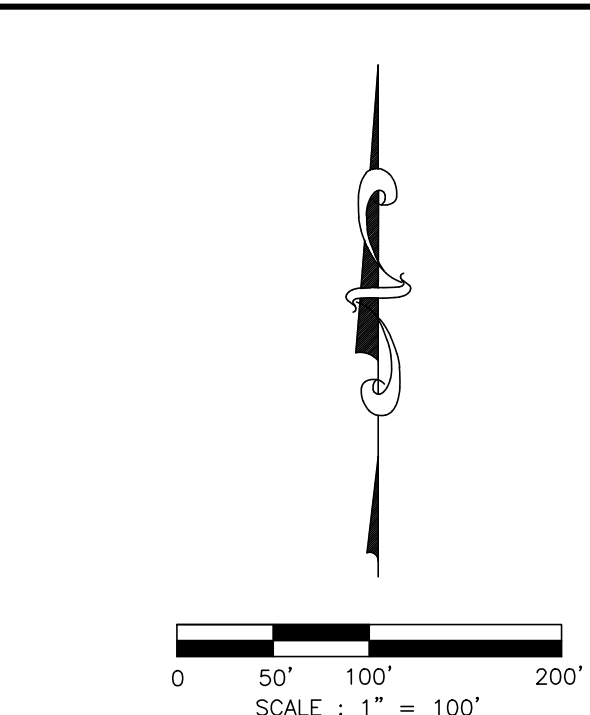
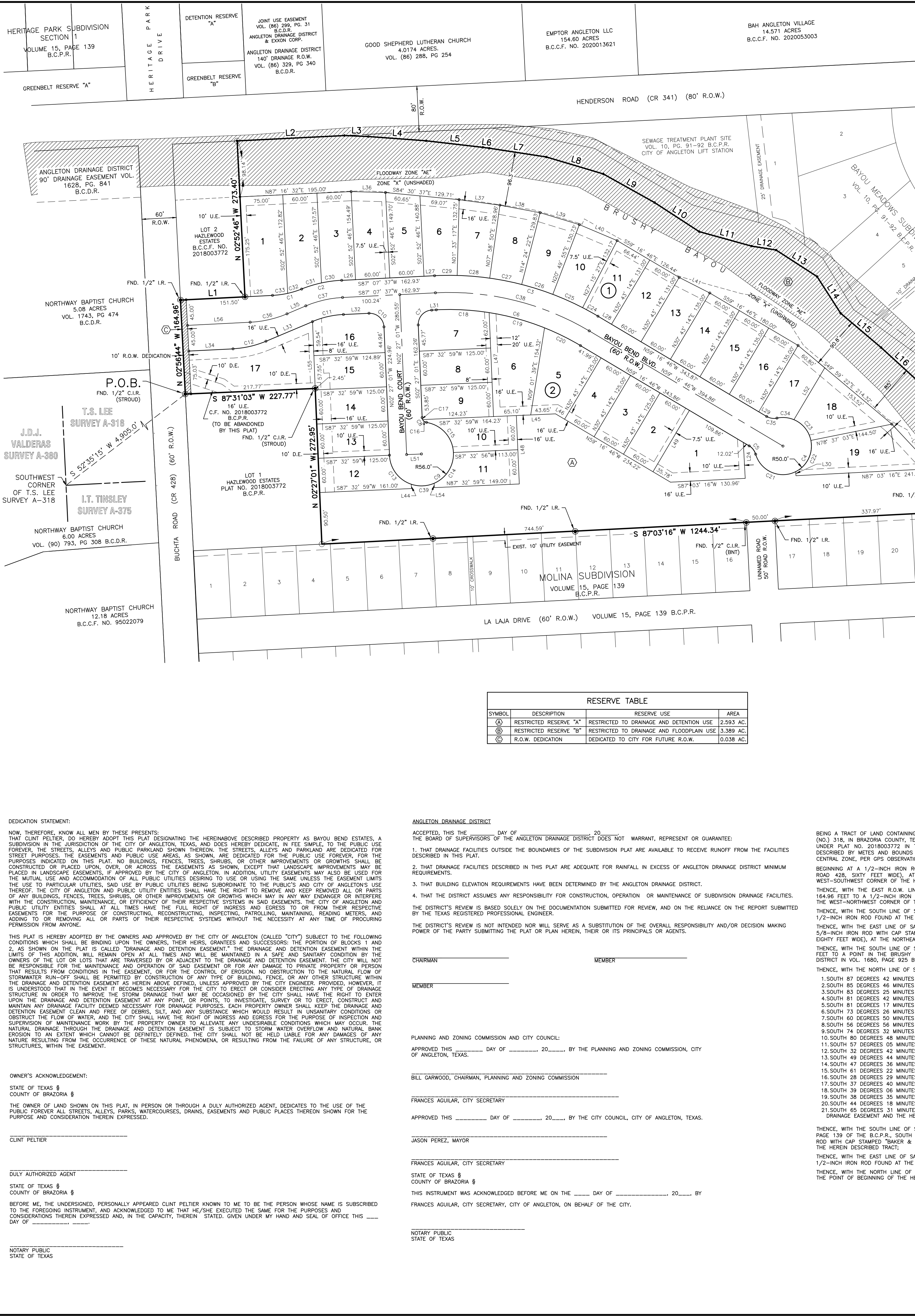
"All responsibility for the adequacy of these plans remains with the Engineer who prepared them. In approving these plans, the City of Angleton must rely on the adequacy of the work of the Design Engineer."



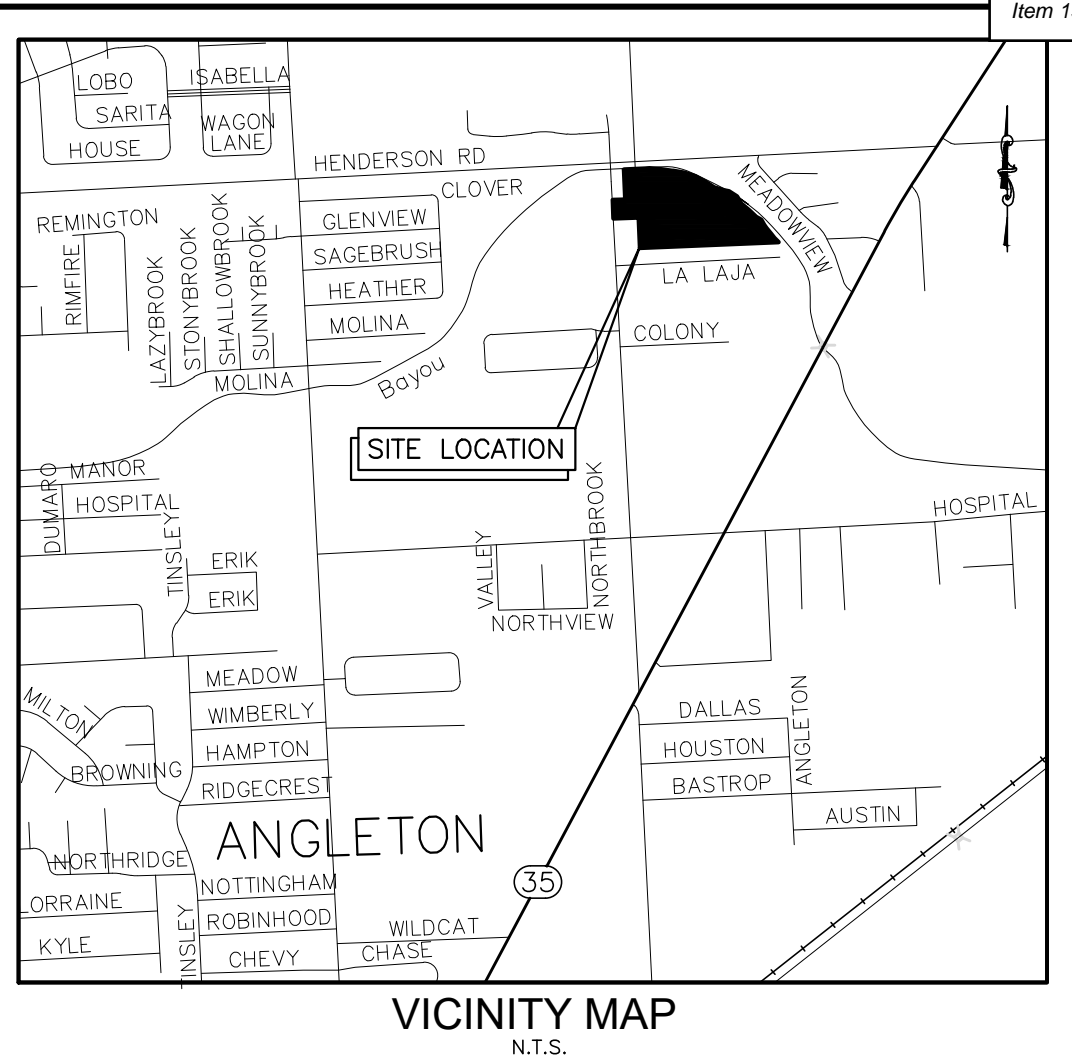
VICINITY MAP

RECORD DRAWING

<table><tr><td>DESIGNED</td><td>MS</td></tr><tr><td>DRAWN</td><td></td></tr><tr><td>CHECKED</td><td></td></tr><tr><td>DATE</td><td></td></tr></table>				DESIGNED	MS	DRAWN		CHECKED		DATE				OWNER: Clint Peltier Clint Peltier Custom Homes 979-481-4840	PLAN: _____ PROFILE: _____ HORIZONTAL: _____ VERTICAL: _____	BAYOU BEND ESTATES ANGLETON, TEXAS PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION	TITLE SHEET PROJECT NO. 13454
DESIGNED	MS																
DRAWN																	
CHECKED																	
DATE																	

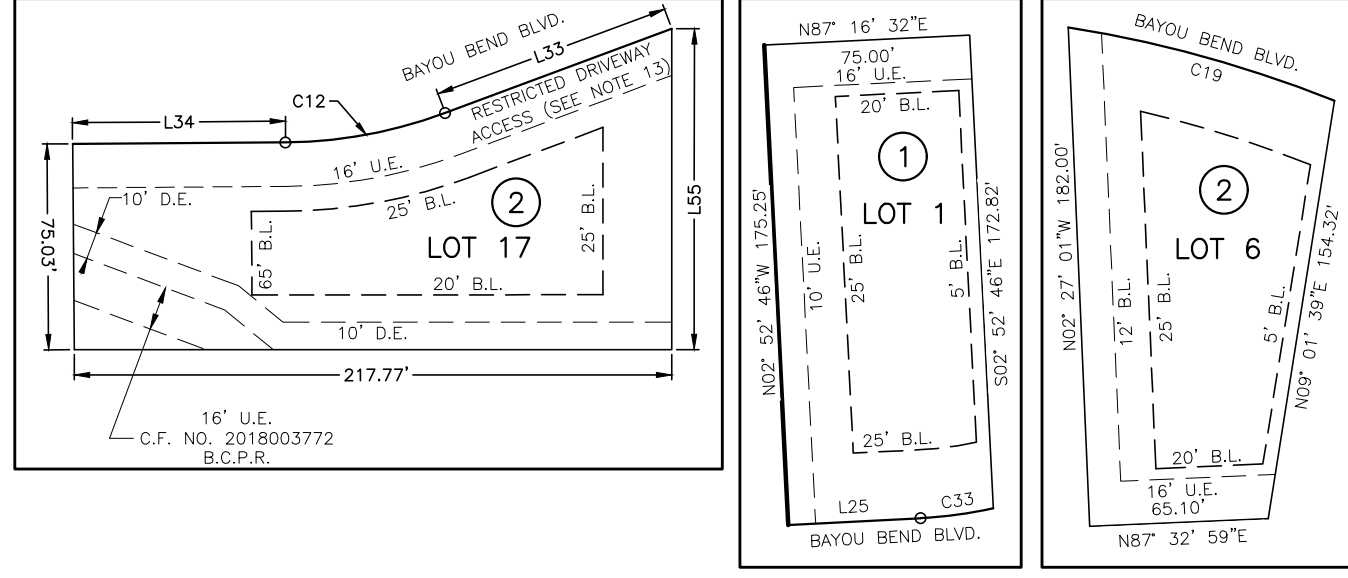
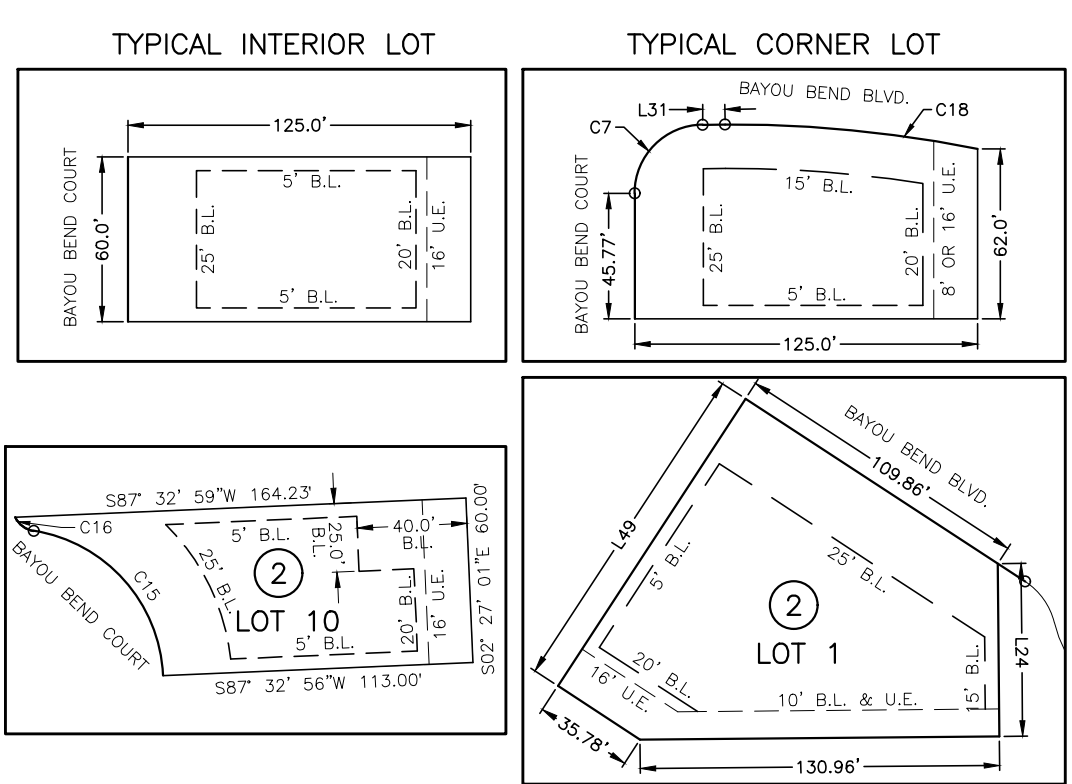


- NOTES:
- ALL BEARINGS AND DISTANCES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD-83, U.S. SURVEY FEET.
 - FLOOD ZONE STATEMENT: ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR BRAZORIA COUNTY, MAP NUMBER 48039C0425K, EFFECTIVE DECEMBER 30, 2020, THE PROPERTY SURVEYED LIES PARTIALLY IN FLOOD ZONE "AE" (SPECIAL FLOOD HAZARDS WITH BASE FLOOD ELEVATION DETERMINED) AND ZONE "X" (AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN).
 - REFERENCE BENCHMARK: NGS MONUMENT R1182 (PD AND AB1171) A BRASS DISK STAMPED R1182 SET ON CONCRETE CURB OF BRIDGE ON THE NORTH SIDE OF COUNTY ROAD 171, APPROXIMATELY 275 FEET SOUTHWEST OF INTERSECTION WITH CR 428. ELEVATION = 26.3 FEET NAVD83
 - THE POSSIBLE EXISTENCE OF UNDERGROUND FACILITIES OR SUBSURFACE CONDITIONS OTHER THAN THOSE SHOWN MAY AFFECT THE USE AND DEVELOPMENT OF THE SUBJECT PROPERTY SHOWN HEREON.
 - NOTICE: SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF THE UNIFIED DEVELOPMENT CODE OF THE CITY OF ANGLETON AND STATE PLATTING STATUTES AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
 - NOTICE: PLAT APPROVAL SHALL NOT BE DEEMED TO OR PRESUMED TO GIVE AUTHORITY TO VIOLATE, NULLIFY, VOID, OR CANCEL ANY PROVISIONS OF LOCAL, STATE, OR FEDERAL LAWS, ORDINANCES, OR CODES.
 - NOTICE: THE APPLICANT IS RESPONSIBLE FOR SECURING ANY FEDERAL PERMITS THAT MAY BE NECESSARY AS THE RESULT OF PROPOSED DEVELOPMENT ACTIVITY. THE CITY OF ANGLETON IS NOT RESPONSIBLE FOR DETERMINING THE NEED FOR, OR ENSURING COMPLIANCE WITH ANY FEDERAL PERMIT.
 - NOTICE: APPROVAL OF THIS PLAT DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD OR REGISTERED PUBLIC LAND SURVEYOR IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY THE CITY ENGINEER.
 - NOTICE: ALL RESPONSIBILITY FOR THE ADEQUACY OF THIS PLAT REMAINS WITH THE ENGINEER OR SURVEYOR WHO PREPARED THEM. IN APPROVING THESE PLANS, THE CITY OF ANGLETON MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER AND/OR SURVEYOR OF RECORD.
 - THE PROPERTY OWNER'S ASSOCIATION WILL BE RESPONSIBLE FOR MAINTENANCE OF THE DETENTION RESERVE AND DRAINAGE EASEMENTS, PER LDC SEC. 23-19 RESERVATION. THE 3.89% ACRE DRAINAGE RESERVE WILL BE MAINTAINED BY THE ANGLETON DRAINAGE DISTRICT.
 - BLOCK 2, LOTS 12-15, AND 17 SHALL NOT BUILD FENCES ACROSS THE DRAINAGE EASEMENT.
 - SIDEWALKS SHALL BE REQUIRED IN ALL LOCATIONS THAT ADJOIN PUBLIC STREETS ON BOTH SIDES OF THE STREET, PER LDC SEC. 23.14 SIDEWALKS AND ACCESSIBILITY.
 - BLOCK 2, LOT 17 SHALL HAVE ACCESS LIMITED TO THE 88.38' WIDE BOUNDARY ON THE NORTH EAST CORNER OF THE PROPERTY.
 - ALL REAR BUILDING LINES SHALL BE 20 FEET FROM PROPERTY LINE, SIDE BUILDING LINES SHALL BE 5 FEET FOR INTERIOR SIDE LOTS, 15 FEET FOR CORNER LOTS ADJACENT TO THE RIGHT-OF-WAY, AND 25 FEET FOR KEY CORNER LOTS. THE FRONT OF THE BUILDING LINE SHALL BE 25 FEET.



CURVE TABLE					
Curve No.	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	52.48'	160.00'	18°47'33"	N77°43'49"E	52.25'
C2	72.16'	220.00'	18°47'33"	S77°43'49"W	71.84'
C3	299.03'	509.32'	33°38'24"	N76°04'35"W	294.76'
C4	231.84'	50.00'	265°40'01"	N30°43'14"E	73.33'
C5	18.69'	25.00'	42°50'03"	N37°51'47"W	18.26'
C6	263.84'	450.00'	33°35'37"	N76°04'35"W	260.08'
C7	39.09'	25.00'	89°34'38"	S42°20'18"W	35.22'
C8	12.32'	9.00'	78°27'47"	S41°40'55"E	11.38'
C9	252.62'	56.00'	258°27'47"	S48°19'05"W	66.75'
C10	39.45'	25.00'	90°25'22"	N47°39'42"W	35.49'
C11	55.96'	160.00'	20°02'19"	S77°06'28"W	55.67'
C12	59.46'	170.00'	20°02'19"	N77°06'28"E	59.15'
C13	67.69'	56.00'	69°15'22"	S36°53'51"E	63.64'
C14	67.69'	56.00'	69°15'29"	N31°59'40"E	63.65'
C15	76.51'	56.00'	78°16'46"	N41°46'25"W	70.70'
C16	8.70'	8.64'	57°44'21"	N52°54'30"W	8.34'
C17	3.62'	7.87'	26°23'48"	N14°49'05"W	3.99'
C18	92.68'	450.00'	11°48'04"	S86°58'21"E	92.52'
C19	100.84'	450.00'	12°50'20"	S74°39'09"E	100.63'
C20	70.32'	450.00'	8°57'13"	S83°45'23"E	70.25'

CURVE TABLE					
Curve No.	Length	Radius	Delta	Chord Bearing	Chord Distance
C21	87.33'	50.00'	100°04'40"	S66°29'08"E	76.65'
C22	65.33'	50.00'	74°51'31"	N26°02'49"E	60.78'
C23	49.03'	50.00'	56°10'44"	N39°28'19"W	47.08'
C24	30.82'	510.00'	3°27'46"	N61°00'40"W	30.82'
C25	57.20'	510.00'	6°25'33"	N65°57'19"W	57.17'
C26	57.20'	510.00'	6°25'33"	N72°25'21"W	57.17'
C27	57.20'	510.00'	6°25'33"	N78°48'24"W	57.17'
C28	57.20'	510.00'	6°25'33"	N85°15'58"W	57.17'
C29	39.41'	510.00'	4°25'40"	S82°19'54"W	39.40'
C30	35.93'	220.00'	9°21'26"	S82°25'54"W	35.89'
C31	36.23'	220.00'	9°26'11"	S73°03'05"W	36.19'
C32	25.70'	160.00'	9°12'12"	S72°56'06"W	25.67'
C33	26.78'	160.00'	9°35'25"	S82°19'54"W	26.75'
C34	30.15'	50.00'	34°33'10"	S84°50'14"E	29.70'
C35	18.69'	25.00'	42°50'00"	S80°41'47"E	18.26'
C36	66.45'	190.00'	20°02'18"	S77°06'27"W	66.11'
C37	66.45'	190.00'	20°02'19"	S77°06'28"W	66.11'
C38	281.43'	480.00'	33°35'37"	N76°04'35"W	277.42'
C39	40.90'	56.00'	41°50'59"	S87°32'59"W	40.00'



RESERVE TABLE			
SYMBOL	DESCRIPTION	RESERVE USE	AREA
Ⓐ	RESTRICTED RESERVE "A"	RESTRICTED TO DRAINAGE AND DETENTION USE	2.593 AC.
Ⓑ	RESTRICTED RESERVE "B"	RESTRICTED TO DRAINAGE AND FLOODPLAIN USE	3.389 AC.
Ⓒ	R.O.W. DEDICATION	DEDICATED TO CITY FOR FUTURE R.O.W.	0.038 AC.



DEDICATION STATEMENT:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT CLINT PELTIER, DO HEREBY ADOPT THIS PLAT DESIGNATING THE HEREINAFTER DESCRIBED PROPERTY AS BAYOU BEND ESTATES, A SUBDIVISION IN THE JURISDICTION OF THE CITY OF ANGLETON, TEXAS, AND DOES HEREBY DEDICATE, IN FEE SIMPLE, TO THE PUBLIC USE FOREVER, THE STREETS, ALLEYS AND PUBLIC PARKLAND SHOWN THEREON. THE STREETS, ALLEYS AND PARKLAND ARE DEDICATED FOR THE PURPOSES INDICATED ON THIS PLAT. NO BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS SHALL BE CONSTRUCTED OR PLACED UPON, OVER, OR ACROSS THE EASEMENTS AS SHOWN, EXCEPT THAT LANDSCAPE IMPROVEMENTS MAY BE PLACED IN LANDSCAPE EASEMENTS, IF APPROVED BY THE CITY OF ANGLETON. IN ADDITION, UTILITY EASEMENTS MAY ALSO BE USED FOR THE MUTUAL USE AND ACCOMMODATION OF ALL PUBLIC UTILITIES DESIRING TO USE OR USING THE SAME UNLESS THE EASEMENT LIMITS THE USE TO PARTICULAR UTILITIES, SAID USE BY PUBLIC UTILITIES BEING SUBORDINATE TO THE PUBLIC'S AND CITY OF ANGLETON'S USE THEREOF. THE CITY OF ANGLETON AND PUBLIC UTILITY ENTITIES SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PARTS OF ANY BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH MAY IN ANY WAY ENHANCE OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE, OR EFFICIENCY OF THEIR RESPECTIVE SYSTEMS IN SAID EASEMENTS. THE CITY OF ANGLETON AND PUBLIC UTILITY ENTITIES SHALL AT ALL TIMES HAVE THE FULL RIGHT OF INGRESS AND EGRESS TO OR FROM THEIR RESPECTIVE EASEMENTS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING, READING METERS, AND ADDING TO OR REMOVING ALL OR PARTS OF THEIR RESPECTIVE SYSTEMS WITHOUT THE NECESSITY AT ANY TIME OF PROCURING PERMISSION FROM ANYONE.

THIS PLAT IS HEREBY ADOPTED BY THE OWNERS AND APPROVED BY THE CITY OF ANGLETON (CALLED "CITY") SUBJECT TO THE FOLLOWING CONDITIONS WHICH SHALL BE BINDING UPON THE OWNERS, THEIR HEIRS, GRANTEES AND SUCCESSORS: THE PORTION OF BLOCKS 1 AND 2, AS SHOWN ON THIS PLAT IS CALLED "DRAINAGE AND DETENTION EASEMENT." THE DRAINAGE AND DETENTION EASEMENT WITHIN THE LIMITS OF THIS ADDITION, WILL REMAIN OPEN AT ALL TIMES AND WILL BE MAINTAINED IN A SAFE AND SANITARY CONDITION BY THE OWNERS OF THE LOT OR LOTS THAT ARE TRAVELED BY OR ADJACENT TO THE DRAINAGE AND DETENTION EASEMENT. THE CITY WILL NOT BE RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF SAID EASEMENT OR FOR ANY DAMAGE TO PRIVATE PROPERTY OR PERSON THAT RESULTS FROM CONDITIONS IN THE EASEMENT, OR FOR THE CONTROL OF EROSION, NO OBSTRUCTION TO THE NATURAL FLOW OF STORMWATER RUN-OFF SHALL BE PERMITTED BY CONSTRUCTION OF ANY TYPE OF BUILDING, FENCE, OR ANY OTHER STRUCTURE WITHIN THE DRAINAGE AND DETENTION EASEMENT AS HEREIN AFORE DEFINED, UNLESS APPROVED BY THE CITY ENGINEER. PROVIDED, HOWEVER, IT IS UNDERSTOOD THAT IN THE EVENT IT BECOMES NECESSARY FOR THE CITY TO ERECT OR CONSIDER ERECTING ANY TYPE OF DRAINAGE STRUCTURE IN ORDER TO IMPROVE THE STORM DRAINAGE THAT MAY BE OCCASIONED BY THE CITY SHALL HAVE THE RIGHT TO ENTER UPON THE DRAINAGE AND DETENTION EASEMENT AT ANY POINT, OR POINTS, TO INVESTIGATE, SURVEY OR TO ERECT, CONSTRUCT AND MAINTAIN ANY DRAINAGE FACILITY DEEMED NECESSARY FOR DRAINAGE PURPOSES. EACH PROPERTY OWNER SHALL KEEP THE DRAINAGE AND DETENTION EASEMENT CLEAN AND FREE OF DEBRIS, SLEET, AND ANY SUBSTANCE WHICH WOULD RESULT IN UNSANITARY CONDITIONS OR OBSTRUCT THE FLOW OF WATER, AND THE CITY SHALL HAVE THE RIGHT OF INGRESS AND EGRESS FOR THE PURPOSE OF INSPECTION AND OBSTRUCTION OF THE DRAINAGE AND DETENTION EASEMENT IS SUBJECT TO STORM WATER OVERFLOW AND NATURAL BARK EROSION TO AN EXTENT WHICH CANNOT BE DEFINITELY DEFINED. THE CITY SHALL NOT BE HELD LIABLE FOR ANY DAMAGES OF ANY NATURE RESULTING FROM THE OCCURRENCE OF THESE NATURAL PHENOMENA, OR RESULTING FROM THE FAILURE OF ANY STRUCTURE, OR STRUCTURES, WITHIN THE EASEMENT.

OWNER'S ACKNOWLEDGMENT:

STATE OF TEXAS §
COUNTY OF BRAZORIA §

THE OWNER OF LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

CLINT PELTIER

DULY AUTHORIZED AGENT

STATE OF TEXAS §
COUNTY OF BRAZORIA §

BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED CLINT PELTIER KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND, IN THE CAPACITY, THEREIN STATED, GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS ____ DAY OF _____, 20____.

NOTARY PUBLIC
STATE OF TEXAS

ANGLETON DRAINAGE DISTRICT

ACCEPTED, THIS THE ____ DAY OF _____, 20____

THE BOARD OF SUPERVISORS OF THE ANGLETON DRAINAGE DISTRICT DOES NOT WARRANT, REPRESENT OR GUARANTEE:

- THAT DRAINAGE FACILITIES OUTSIDE THE BOUNDARIES OF THE SUBDIVISION PLAT ARE AVAILABLE TO RECEIVE RUNOFF FROM THE FACILITIES DESCRIBED IN THIS PLAT.
- THAT DRAINAGE FACILITIES DESCRIBED IN THIS PLAT ARE ADEQUATE FOR RAINFALL IN EXCESS OF ANGLETON DRAINAGE DISTRICT MINIMUM REQUIREMENTS.
- THAT BUILDING ELEVATION REQUIREMENTS HAVE BEEN DETERMINED BY THE ANGLETON DRAINAGE DISTRICT.
- THAT THE DISTRICT ASSUMES ANY RESPONSIBILITY FOR CONSTRUCTION, OPERATION OR MAINTENANCE OF SUBDIVISION DRAINAGE FACILITIES. THE DISTRICT'S REVIEW IS BASED SOLELY ON THE DOCUMENTATION SUBMITTED FOR REVIEW, AND ON THE RELIANCE ON THE REPORT SUBMITTED BY THE TEXAS REGISTERED PROFESSIONAL ENGINEER.

THE DISTRICT'S REVIEW IS NOT INTENDED NOR WILL SERVE AS A SUBSTITUTION OF THE OVERALL RESPONSIBILITY AND/OR DECISION MAKING POWER OF THE PARTY SUBMITTING THE PLAT OR PLAN HEREIN, THEIR OR ITS PRINCIPALS OR AGENTS.

CHAIRMAN

MEMBER

PLANNING AND ZONING COMMISSION AND CITY COUNCIL:

APPROVED THIS ____ DAY OF _____, 20____, BY THE PLANNING AND ZONING COMMISSION, CITY OF ANGLETON, TEXAS.

BILL GARWOOD, CHAIRMAN, PLANNING AND ZONING COMMISSION

FRANCES AGUILAR, CITY SECRETARY

APPROVED THIS ____ DAY OF _____, 20____, BY THE CITY COUNCIL, CITY OF ANGLETON, TEXAS.

JASON PEREZ, MAYOR

FRANCES AGUILAR, CITY SECRETARY

STATE OF TEXAS §
COUNTY OF BRAZORIA §

THIS INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THE ____ DAY OF _____, 20____, BY

FRANCES AGUILAR, CITY SECRETARY, CITY OF ANGLETON, ON BEHALF OF THE CITY.

NOTARY PUBLIC
STATE OF TEXAS

FIELD NOTES FOR 15.872 ACRE TRACT

BEING A TRACT OF LAND CONTAINING 15.872 ACRES (691,368 SQUARE FEET), LOCATED WITHIN THE T.S. LEE SURVEY, ABSTRACT NUMBER (NO.) 218, IN BRAZORIA COUNTY, TEXAS, SAID 15.872 ACRES BEING ALL OF LOT 3 OF THE HAZLEWOOD ESTATES SUBDIVISION RECORDED UNDER PLAT NO. 2018003772 IN THE BRAZORIA COUNTY PLAT RECORDS (B.C.P.R.), SAID 15.872 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS (BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS OBSERVATIONS).

BEGINNING AT A 1/2-INCH IRON ROD WITH CAP FOUND ON THE EAST RIGHT-OF-WAY (R.O.W.) LINE OF BUCHA ROAD (AKA COUNTY ROAD 428, SIXTY FEET WIDE), AT THE NORTHWEST CORNER OF LOT 1 OF SAID HAZLEWOOD ESTATES SUBDIVISION, BEING THE WEST-SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE EAST R.O.W. LINE OF SAID BUCHA ROAD, NORTH 02 DEGREES 56 MINUTES 44 SECONDS WEST, A DISTANCE OF 164.96 FEET TO A 1/2-INCH IRON ROD FOUND AT THE SOUTHWEST CORNER OF LOT 2 OF SAID HAZLEWOOD ESTATES SUBDIVISION, FOR THE WEST-NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE SOUTH LINE OF SAID LOT 2, NORTH 87 DEGREES 07 MINUTES 37 SECONDS EAST, A DISTANCE OF 113.13 FEET TO A 1/2-INCH IRON ROD FOUND AT THE SOUTHEAST CORNER OF SAID LOT 2, FOR AN INTERIOR CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE EAST LINE OF SAID LOT 2, NORTH 02 DEGREES 52 MINUTES 46 SECONDS WEST, A DISTANCE OF 273.40 FEET TO A 5/8-INCH IRON ROD WITH CAP STAMPED "BAKER & LAWSON" SET ON THE SOUTH LINE OF HENDERSON ROAD (AKA COUNTY ROAD 341, EIGHTY FEET WIDE), AT THE NORTHEAST CORNER OF SAID LOT 2, FOR THE NORTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE SOUTH LINE OF SAID HENDERSON ROAD, NORTH 67 DEGREES 08 MINUTES 00 SECONDS EAST, A DISTANCE OF 188.25 FEET TO A POINT IN THE BRUSH BAYOU, AT THE NORTHEAST CORNER OF A DRAINAGE EASEMENT DEDICATED TO ANGLETON DRAINAGE DISTRICT IN VOL. 1680, PAGE 925 B.C.P.R., FOR THE NORTHEAST CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE NORTH LINE OF SAID DRAINAGE EASEMENT THE FOLLOWING TWENTY-ONE (21) COURSES:

1. SOUTH 87 DEGREES 42 MINUTES 13 SECONDS EAST, A DISTANCE OF 41.82 FEET TO AN ANGLE POINT;
2. SOUTH 85 DEGREES 46 MINUTES 07 SECONDS EAST, A DISTANCE OF 100.02 FEET TO AN ANGLE POINT;
3. SOUTH 83 DEGREES 25 MINUTES 16 SECONDS EAST, A DISTANCE OF 100.02 FEET TO AN ANGLE POINT;
4. SOUTH 81 DEGREES 42 MINUTES 51 SECONDS EAST, A DISTANCE OF 11.25 FEET TO AN ANGLE POINT;
5. SOUTH 81 DEGREES 17 MINUTES 17 SECONDS EAST, A DISTANCE OF 101.21 FEET TO AN ANGLE POINT;
6. SOUTH 73 DEGREES 28 MINUTES 18 SECONDS EAST, A DISTANCE OF 104.10 FEET TO AN ANGLE POINT;
7. SOUTH 60 DEGREES 50 MINUTES 15 SECONDS EAST, A DISTANCE OF 102.88 FEET TO AN ANGLE POINT;
8. SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, A DISTANCE OF 93.33 FEET TO AN ANGLE POINT;
9. SOUTH 74 DEGREES 35 MINUTES 28 SECONDS EAST, A DISTANCE OF 95.12 FEET TO AN ANGLE POINT;
10. SOUTH 80 DEGREES 48 MINUTES 34 SECONDS EAST, A DISTANCE OF 43.52 FEET TO AN ANGLE POINT;
11. SOUTH 57 DEGREES 26 MINUTES 19 SECONDS EAST, A DISTANCE OF 85.53 FEET TO AN ANGLE POINT;
12. SOUTH 32 DEGREES 42 MINUTES 19 SECONDS EAST, A DISTANCE OF 76.49 FEET TO AN ANGLE POINT;
13. SOUTH 49 DEGREES 44 MINUTES 41 SECONDS EAST, A DISTANCE OF 92.79 FEET TO AN ANGLE POINT;
14. SOUTH 47 DEGREES 36 MINUTES 41 SECONDS EAST, A DISTANCE OF 82.11 FEET TO AN ANGLE POINT;
15. SOUTH 61 DEGREES 22 MINUTES 31 SECONDS EAST, A DISTANCE OF 54.59 FEET TO AN ANGLE POINT;
16. SOUTH 28 DEGREES 28 MINUTES 14 SECONDS EAST, A DISTANCE OF 51.19 FEET TO AN ANGLE POINT;
17. SOUTH 37 DEGREES 40 MINUTES 52 SECONDS EAST, A DISTANCE OF 53.87 FEET TO AN ANGLE POINT;
18. SOUTH 39 DEGREES 06 MINUTES 31 SECONDS EAST, A DISTANCE OF 64.21 FEET TO AN ANGLE POINT;
19. SOUTH 38 DEGREES 35 MINUTES 33 SECONDS EAST, A DISTANCE OF 50.09 FEET TO AN ANGLE POINT;
20. SOUTH 44 DEGREES 18 MINUTES 40 SECONDS EAST, A DISTANCE OF 50.09 FEET TO AN ANGLE POINT;
21. SOUTH 65 DEGREES 31 MINUTES 25 SECONDS EAST, A DISTANCE OF 1.71 FEET TO A POINT FOR THE SOUTHEAST CORNER OF SAID DRAINAGE EASEMENT AND THE HEREIN DESCRIBED TRACT.

THENCE, WITH THE SOUTH LINE OF SAID DRAINAGE EASEMENT AND THE NORTH LINE OF MOLINA SUBDIVISION, RECORDED UNDER VOL. 15, PAGE 139 OF THE B.C.P.R., SOUTH 87 DEGREES 03 MINUTES 16 SECONDS WEST, A DISTANCE OF 1,244.34 FEET TO A 5/8-INCH IRON ROD WITH CAP STAMPED "BAKER & LAWSON" SET AT THE SOUTHEAST CORNER OF SAID LOT 1, FOR THE SOUTH-SOUTHWEST CORNER OF THE HEREIN DESCRIBED TRACT;

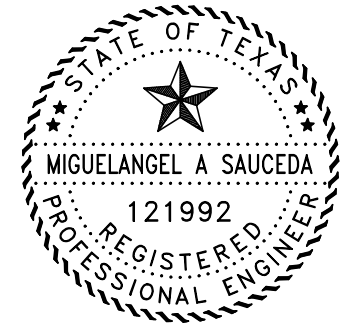
THENCE, WITH THE EAST LINE OF SAID LOT 1, NORTH 02 DEGREES 27 MINUTES 01 SECONDS WEST, A DISTANCE OF 272.95 FEET TO A 1/2-INCH IRON ROD FOUND AT THE NORTHEAST CORNER OF SAID LOT 1, FOR AN INTERIOR CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE NORTH LINE OF SAID LOT 1, SOUTH 87 DEGREES 31 MINUTES 03 SECONDS WEST, A DISTANCE OF 227.77 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED TRACT.

KNOW ALL MEN BY THESE PRESENTS:

THAT I, MIGUEL ANGEL SAUCEDA, DO HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN PROVIDED IN THIS PLAT, TO THE BEST OF MY KNOWLEDGE, THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE ANGLETON LDC, EXCEPT FOR ANY VARIANCES THAT WERE EXPRESSLY GRANTED BY THE CITY COUNCIL.

SIGNED: MIGUEL ANGEL A. SAUCEDA
PROFESSIONAL ENGINEER
TEXAS REGISTRATION NO. 121992



SIGNED: LUTHER J. DALY
REGISTERED PROFESSIONAL LAND SURVEYOR
TEXAS REGISTRATION NO. 6150



REVISED: 01/14/22

FINAL REPLAT

BAYOU BEND ESTATES

A 15.872 ACRE, 36-LOT, 2 BLOCKS,
2 RESERVE SUBDIVISION,
ALL OF LOT 3 OF HAZLEWOOD ESTATES SUBDIVISION
PLAT No. 2018003772 B.C.P.R.
IN THE T.S. LEE SURVEY, ABSTRACT No. 318
IN BRAZORIA COUNTY, TEXAS

BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS

4005 Technology Drive, Suite 1530
Angleton, TX 77515
OFFICE: (979) 849-6681
TBPLS No. 10052500
REG. NO. F-825

PROJECT NO.: 13454	SCALE: 1" = 100'	DRAWN BY: MAS/BT
DRAWING NO.: 13454 PLAT	DATE: 01/14/2022	CHECKED BY: LD

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL NOTIFY THE "UNDERGROUND UTILITY COORDINATING COMMITTEE" TELEPHONE NO. (979) 849-4364 AND THE CITY OF ANGLETON TELEPHONE NO. (979) 849-4364 48 HOURS BEFORE STARTING WORK IN STREET RIGHT-OF-WAYS OR EASEMENTS.
2. ALL EXISTING UNDERGROUND UTILITIES ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM INFORMATION AVAILABLE. CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL EXISTING FACILITIES SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE ALL CONFLICTS WITH THE APPROPRIATE GOVERNING AGENCY, NO SEPARATE PAY.
3. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET, AS A MINIMUM, THE REQUIREMENTS OF OSHA SAFETY AND HEALTH REGULATION, PART 1926, SUBPART P AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 54, NO. 209, DATED OCTOBER 31, 1989.
4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD MOST RECENT EDITION AS REVISED) DURING CONSTRUCTION.
5. CONTRACTOR SHALL COVER OPEN EXCAVATIONS IN PUBLIC STREETS WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS.
6. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, AND IF DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
7. EXISTING PAVEMENTS, CURBS, SIDEWALKS, CULVERTS AND DRIVEWAYS (ADJACENT TO THE WORK) DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO EQUAL OR BETTER THAN THEIR ORIGINAL CONDITION AT CONTRACTOR EXPENSE.
8. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK. CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO PROTECT THE EXISTING SURFACES OUTSIDE THE WORK AREA FROM THE EQUIPMENT USED. ALL TRACKED MACHINERY (STREET PADS INCLUDED) SHALL NOT BE OPERATED DIRECTLY ATOP THE PAVEMENT WITHOUT APPROPRIATE PADDING AND PROTECTION OF THE SURFACES. ANY MARKED OR DISTRESSED AREAS SHALL BE REMOVED AND RESTORED WITH NEW MATERIALS TO THE SATISFACTION OF THE ENGINEER. ANY EXISTING DISTRESSED AREAS SHALL BE MADE KNOWN TO THE ENGINEER PRIOR TO OPERATIONS IN THE WORK AREA.
9. ALIGNMENT, CENTERLINE CURVE DATA AND STATIONING TO BE VERIFIED BY ON-THE-GROUND SURVEY FROM APPROVED SUBDIVISION PLAT (OR APPROVED PLOT FOR OFF SITE EASEMENTS), AND ELEVATIONS OF ALL CONNECTIONS TO EXISTING FACILITIES TO BE CONFIRMED PRIOR TO WORK START. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
10. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
11. CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK.
12. ALL UTILITY TRENCHES TO BE BACK FILLED TO 90 PERCENT (90%) STANDARD PROCTOR DENSITY UNLESS OTHERWISE NOTED.
13. ALL SURVEY, LAYOUT, MEASUREMENT, AND GRADE STAKE WORK SHALL BE PERFORMED BY BAKER & LAWSON, INC. AS PART OF THE WORK UNDER THIS CONTACT.
14. BAKER & LAWSON, INC. WILL PROVIDE EXPERIENCED INSTRUMENT PERSONNEL, COMPETENT ASSISTANTS, AND SUCH INSTRUMENTS, TOOLS, STAKES, AND OTHER MATERIALS REQUIRED TO COMPLETE THE SURVEY, LAYOUT AND MEASUREMENT WORK.
15. CONSTRUCTION DEBRIS AND OTHER UNCLASSIFIED UNSUITABLE EXCESS MATERIAL SHALL BE HAULED TO A STATE APPROVED DISPOSAL SITE OR AS DIRECTED BY THE ENGINEER. AN EXISTING LANDFILL APPROXIMATELY 10 MILES FROM THE PROJECT SITE IS THE NEAREST STATE APPROVED FEE FACILITY. ALL REFUSE MATERIALS (BROKEN CONCRETE, TREES, ASPHALT, ETC.) SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.
16. PLAN QUANTITIES WILL BE USED FOR FINAL PAYMENT UNLESS DESIGN CHANGES ARE MADE DURING CONSTRUCTION.

CONSTRUCTION NOTES FOR PAVING & DRAINAGE

1. GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM CONTROL DEVICES SHALL BE OBSERVED.
2. FILL SHALL BE PLACED IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% OF OPTIMUM DENSITY AS DETERMINED USING TESTING METHOD ASTM D698.
3. CONTRACTOR RESPONSIBLE FOR MAINTAINING BARRICADES TO PREVENT TRAFFIC FROM USING NEW PAVEMENT UNTIL PROJECT IS COMPLETED AND ACCEPTED BY PROPER AUTHORITY OR AS AUTHORIZED BY ENGINEER.
4. B-B INDICATES ROAD WIDTH TO BACK OF CURB. CURB RADI ARE TO BACK OF CURB. T.C. INDICATES TOP OF CURB ELEVATIONS (BASED ON 4" CURB UNLESS OTHERWISE NOTED) T.P. INDICATES TOP OF PAVEMENT ELEVATION.
5. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT MAXIMUM SPACING OF 40-FOOT INTERVALS (SAWCUTS @ 20'(2 1/2"DEEP), LONGITUDINAL JOINTS SHALL BE AT MAXIMUM OF 14-FOOT SPACING. WOOD JOINT SHALL BE SOUND HEART REDWOOD.
6. 6-INCH CONCRETE PAVEMENT TO BE 5.5 SACK MIX MIN. (3,500 PSI) REINFORCING STEEL TO CONFORM TO ASTM A-615, GRADE 60. PROVIDE MINIMUM 18-INCH LAPS. (36 BAR DIA)
7. SAW CUT TO EXPOSE EXISTING LONGITUDINAL STEEL REQUIRED TO CREATE A MINIMUM TWELVE-INCH (12") OVERLAP OF PROPOSED AND EXISTING LONGITUDINAL REINFORCING STEEL WHEN MAKING A CONNECTION TO EXISTING CONCRETE PAVEMENT. WHERE SPACING OF EXISTING LONGITUDINAL STEEL DIFFERS FROM PROPOSED STEEL SPACING, NOTIFY THE ENGINEER.
8. USE PLASTIC CHAIRS TO SUPPORT REINFORCEMENT AT 24-INCH SPACING EACH WAY.
9. SUBGRADE TO BE STABILIZED 2-FOOT BACK OF PROPOSED CURB OR EDGE OF PAVEMENT. EXCESS LIME STABILIZED SOIL SHALL BE UTILIZED IN THE PREPARATION OF SUBGRADE FOR DRIVEWAYS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED CONCRETE PAVEMENTS. SUBGRADE PREPARATION FOR DRIVEWAYS AND PAVING SHALL INCLUDE PROOF ROLLING. SOFT AREAS TO BE EXCAVATED AND RECOMPACTED TO ADJACENT SOIL DENSITY.
10. USE CONTINUOUS LONGITUDINAL REINFORCING BAR IN CURB.
11. BACK FILL AND BEDDING FOR HEADWALL STRUCTURES, TYPE "C" INLETS, R.C.P. LEADS, SANITARY SEWER LEADS, AND STORM SEWERS SHALL BE WITH 1.5 SACK CEMENT STABILIZED SAND SHALL BE COMPACTED TO A DENSITY OF AT LEAST 90% OF DENSITY DETERMINED BY STANDARD MOISTURE-DENSITY RELATION (ASTM D-698) AT OPTIMUM MOISTURE AND SHALL BE PLACED AND FINISHED WITHIN 3 HRS. OF MIXING. TEMPORARY TRAVEL WAY SURFACE SHALL BE WITH CEMENT STABILIZED LESTONE. PAYMENT FOR THESE ITEMS SHALL BE SUBSIDIARY TO THE VARIOUS STRUCTURAL BID ITEMS. VERIFICATION OF CEMENT STABILIZED SAND MIXTURE SHALL BE FURNISHED UPON REQUEST OF ENGINEER.
12. THE SUBGRADE SHALL BE BROUGHT TO THE REQUIRED GRADE BY THE USE OF GRADE STAKES (BLUE TOPS AND AT 50 FT MAX SPACING O.C.) AND APPROVED BY THE ENGINEER BEFORE LIME IS APPLIED.

13. RATE OF APPLICATION FOR LIME SHALL BE SEVEN PERCENT (7%) OF THE DRY WEIGHT OF SOIL (QUALITY BASE ON 100 #/ C.F.) OR THIRTY ONE AND ONE HALF (31.5) POUNDS PER SQUARE YARD FOR SIX (6) INCH STABILIZED SUBGRADE. LIME STABILIZED SUBGRADE SHALL NOT BE MIXED MORE THAN ONE INCH IN EXCESS OF THE REQUIRED DEPTH. WATER SHALL BE ADDED TO THE LIME STABILIZED SUBGRADE AND SHALL BE BROUGHT TO THE OPTIMUM MOISTURE CONTENT DURING THE FIRST MIXING OPERATIONS. LIME STABILIZED SHALL BE KEPT MOIST AND LEFT TO CURE FOR TWO CURING DAYS BEFORE FINAL MIXING CAN BEGIN. AFTER FINAL MIXING IS COMPLETE AND BEFORE SOIL DENSITY TESTS ARE TAKEN, LIME STABILIZED SUBGRADE SHALL BE BROUGHT TO THE REQUIRED GRADE BY THE USE OF GRADE STAKES (BLUE TOPS) AND APPROVED BY THE ENGINEER. DENSITY SHALL BE NINETY-FIVE PERCENT (95%) OF THE STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE. TESTED AND COMPLETED SECTIONS SHALL BE KEPT MOIST CURED ON A DAILY BASIS WITH WATER TRUCKS OR SUBSTANTIAL SUPPLY HOSES FOR THE ENTIRE PERIOD THE SURFACE REMAINS UNCOVERED WITH ADDITIONAL COURSES. AFTER FINAL TESTING AND APPROVAL IS COMPLETE, TRACK EQUIPMENT, SCRAPERS AND OTHER HEAVY EQUIPMENT WILL NOT BE PERMITTED ON THE COMPLETED LIME STABILIZED AREA. LIGHT MOTOR GRADERS, RUBBER TIERED TRACTORS, WATER TRUCKS AND ROLLERS USED IN THE FINISHING OPERATIONS WILL BE PERMITTED WITH THE APPROVAL OF THE ENGINEER. CONCRETE AND LOADED HAUL TRUCKS ARE STRICTLY PROHIBITED ON COMPLETED AREAS UNLESS THE TRAVELED AREA REGARDLESS OF CONDITION IS REMIXED COMPACTED AND TESTED FOR APPROVAL A SECOND TIME.
14. FORMS SHALL BE EITHER WOOD OR STEEL, OF GOOD QUALITY, FREE OF WARP AND SUFFICIENTLY STAKED TO AVOID SHIFTING WHEN LOAD IS APPLIED. ALL REDWOOD EXPANSION BOARDS SHALL BE STAKED WITH 1X2 REDWOOD STAKES AND ALLOWED TO REMAIN WITHIN THE FOUR. METAL STAKES ARE APPROVED FOR USE TO STAKE METAL KEYS.
15. REINFORCING SHALL BE SECURELY TIED AT ALL INTERSECTIONS AND SPLICES. ALL DOWELS SHALL BE SECURELY TIED. REINFORCEMENT SHALL BE CLEAN AND FREE OF RUST AT TIME OF USE. PLASTIC CHAIR OF THE CORRECT HEIGHT SHALL BE USED. SPACING SHALL BE SUFFICIENT TO SUPPORT REINFORCEMENT.
16. PRIOR TO CONCRETE PLACEMENT, CONTRACTOR SHALL PRESENT A CERTIFIED COPY OF TOP OF FORM GRADES TO THE ENGINEER FOR REVIEW AND APPROVAL. ELEVATIONS OF FORMS SHALL BE RECORDED AT 10' INTERVALS. ADJUSTMENTS TO FORMS SHALL BE COMPLETE 4 HRS. PRIOR TO CONCRETE PLACEMENT.
17. CONCRETE FOR STREET PAVEMENTS SHALL BE "CLASS A" CONCRETE, SHALL NOT HAVE LESS THAN FIVE AND ONE HALF (5 1/2) SACKS OF CEMENT PER CUBIC YARD, AND SHALL NOT HAVE MORE THAN SIX AND ONE HALF (6 1/2) GALLONS OF WATER PER SACK OF CEMENT. SLUMP SHALL NOT EXCEED FIVE (5) INCHES AND SHALL DEVELOP A MODULUS OF RUPTURE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3500) P.S.I. AT TWENTY EIGHT (28) DAYS. CONCRETE SHALL BE PLACED IN SUCH A MANNER AS TO REQUIRE AS LITTLE HANDLING POSSIBLE. USE OF AN APPROVED VIBRATING SCREED WILL BE REQUIRED. AT INTERSECTIONS AND SMALL AREAS WHERE A VIBRATORY SCREED CAN NOT BE USED, A HAND VIBRATOR OR "JITTERBUG" SHALL BE USED. USE OF A TEN FOOT (10') CONCRETE PAVEMENT STRAIGHT EDGE WILL ALSO BE REQUIRED. ALL EXPOSED JOINTS SHALL BE EDGED AS NOTED ON DETAILS. SURFACE SHALL BE TYPICALLY A BELT FINISH OR BROOM FINISH (COARSE, MEDIUM OR LIGHT) AS REQUIRED BY THE APPLICATION AND DIRECTED BY THE ENGINEER.
18. FLY ASH SHALL MAKE UP FROM 20-25% BY VOLUME OF THE SPECIFIED CEMENT VOLUME AND SHALL CONFORM TO ASTM C 618, CLASS C.
19. CURING COMPOUND SHALL BE TYPE II WITH WHITE PIGMENT. APPLIED AT THE UNDLUTED RATE OF ONE GALLON PER TWO HUNDRED (200) SQUARE FEET.
20. EXPANSION JOINTS SHALL BE BLAST CLEANED, WIRE BRUSHED, BLOWN OR FLAME DRIED SEALED WITH AN APPROVED LIST RUBBERIZED HOT LAID ASPHALT JOINT AND CRACK SEALANT OR A TWO (2) COMPONENT POLYMERIC SILET LEVELING COLD APPLIED SEALANT.
21. CONTRACTOR WILL NOT PERMIT TRAFFIC ON NEW CONCRETE PAVEMENT UNTIL BOTH A MINIMUM OF SEVEN (7) CURING DAYS AND MODULUS OF RUPTURE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3500) P.S.I. TAKES PLACE OR AS APPROVED BY THE ENGINEER/PUBLIC WORKS DEPARTMENT.
22. CONCRETE FOR CURB SHALL BE A 3000 P.S.I. PERFORMANCE STRENGTH CONCRETE WITH A MINIMUM FIVE (5) SACK CEMENT PER CUBIC YARD CONTENT. CURB CONCRETE MIX MAY BE A SMALL AGGREGATE BATCH DESIGN.
23. A CONCRETE MIX DESIGN OF CONCRETE PLUS FLY ASH MAY BE SUBSTITUTED IN LIEU OF THE STANDARD CONCRETE BATCH DESIGN. THE FLY ASH SHALL CONFORM TO THE REQUIREMENTS OF TxDOT MATERIAL SPECIFICATION D-9-8900, AND SHALL NOT EXCEED 25% BY ABSOLUTE VOLUME OF THE SPECIFIED CEMENT CONTENT. THE MODULUS OF RUPTURE STRENGTHS MINIMUMS AND DEVELOPMENT PERIOD OF THE STANDARD CONCRETE MIX DESIGN SHALL REMAIN IN EFFECT AND SHALL BE VERIFIED BY THE CONCRETE BATCH MIX DESIGN PREPARED AND TESTED BY A GEOTECHNICAL LAB AND SUBMITTED FOR REVIEW AND APPROVAL BY THE CITY ENGINEERING/PUBLIC WORKS DEPARTMENT PRIOR TO PAVING OPERATIONS.
24. ALL PAVEMENT SAW CUT REQUIRED IN THE PLANS SHALL BE CONSIDERED SUBSIDIARY TO THE PAVING REMOVAL PAY ITEM REQUIRING IT.
25. BLOCK SOD SHALL BE PLACED 16" (ONE BLOCK WIDTH) WIDE ALONG THE EDGE OF ALL NEWLY CONSTRUCTED CURBS AND TO DRIVEWAY REPLACEMENT LIMITS. SILT FENCING MAY BE PLACED DIRECTLY BEHIND CURBS IN LIEU OF SOD.
26. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANALYZING WEATHER CONDITIONS AND TO SUSPEND OPERATIONS DURING PERIODS WHEN ADVERSE WEATHER CONDITIONS APPEAR LIKELY. NO CONCRETE SHALL BE PLACED WHEN THE TEMPERATURE IS 35°F AND RISING, HOWEVER, NO CONCRETE SHALL BE PLACED WHEN THE CONCRETE TEMPERATURE IS ABOVE 100°F. THE CONTRACTOR SHALL KEEP SUFFICIENT LENGTH OF COVERING MATERIAL ON THE JOB SITE TO PLACE OVER AND PROTECT THE SURFACE OF "FRESH" CONCRETE DURING PERIODS OF UNPREDICTED RAINS.

WASTEWATER CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE RECORD OF LOCATION OF ALL STACKS, STUBS, LEADS, ETC. TO CITY OF ANGLETON.
2. SEPARATION DISTANCES FOR ALL SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CRITERIA FOR SEWAGE SYSTEMS" SECTION 317.20," LATEST PRINTING.
3. MAINTAIN 12-INCH MINIMUM VERTICAL CLEARANCE AT CROSSINGS BETWEEN SANITARY SEWERS AND CULVERTS, UNLESS OTHERWISE NOTED.
4. WHERE SANITARY SEWER LINE CROSSES A WATER LINE WITH LESS THAN 9- FEET BUT MORE THAN 6-INCHES VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT JOINT OF PRESSURE RATED P.V.C. SANITARY SEWER (ASTM D2241, CLASS 150, SDR 26) CENTERED ON WATER LINE. INCLUDE COST OF WATER LINE CROSSING IN UNIT PRICE BID PER LINEAR FOOT FOR SANITARY SEWER IN APPROPRIATE SIZES.
5. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY UNSUITABLE TRENCH CONDITIONS.
6. SANITARY SEWER LEADS UNDER OR WITHIN 1' OF EXISTING OR FUTURE PAVEMENT SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND UP TO WITHIN 1' OF TOP OF PAVING SUBGRADE. CEMENT STABILIZED SAND BACK FILL FOR LEADS SHALL BE INCLUDED IN THE BID UNIT PRICE FOR LEADS. SANITARY SEWER LEADS LESS THAN 2 FT BELOW PAVING TO BE INSTALLED AFTER LIME STABILIZATION IS COMPLETE. SANITARY SEWER LEADS TO BE BEDDED AND BACKFILLED TO TOP OF SUBGRADE WITH COMPACTED CEMENT STABILIZED SAND.
- 7.

LOW PRESSURE AIR TEST SHALL BE CONDUCTED PER TNRCC TAC 317.2. HOLDING TIMES SHALL BE AS ESTABLISHED BY TNRCC. CONTRACTOR TO PROVIDE TEST PLUGS AND RISERS. NO SEPARATE PAY.

8. CONTRACTOR TO OPEN CUT ALL SANITARY SEWER CONSTRUCTION UNLESS NOTE OTHER WISE, SEWER SERVICES TO BE INSTALLED FULL WIDTH OF ROADWAY.-NO HALF STREET INSTALLATIONS.
 9. CONTRACTOR SHALL AT ALL TIMES PROVIDE MAXIMUM UNINTERRUPTED SERVICE AND SHALL AVAIL OF ANY ROUTING METHOD AND EQUIPMENT TO ACCOMPLISH THIS.
 10. ALL SINGLE AND DOUBLE SERVICE LEAD SHALL BE A MINIMUM SIX INCH (6") UNLESS OTHERWISE DIRECTED BY THE ENGINEER/PUBLIC WORKS AND/OR FIELD ADJUSTED BY THE UTILITY DEPARTMENT IN THE FUTURE.
- WATER CONSTRUCTION NOTES**
1. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS SPECIFIED IN CONTRACT DOCUMENTS. THRUST BLOCKING SHALL BE CLASS "B" CONCRETE 2500 P.S.I. AND SHALL BE SUBSIDIARY TO THE BID ITEM PERTINENT TO ITS USE. ALL CEMENT STABILIZED SAND BACKFILL SHALL BE 1.5 SK/CY CEMENT CONTENT. ALL M.J. D.I. FITTINGS WILL HAVE M.J. RESTRAINTS (STARGRIP OR EQUAL) WRAP FITTINGS & RESTRAINTS WITH 10 MIL POLY.
 2. SEPARATION DISTANCES OF ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CRITERIA FOR SEWAGE SYSTEMS," SECTION 317.20, LATEST PRINTING.
 3. ALL 4" THROUGH 12" WATER MAINS TO BE P.V.C. PIPE, AWWA C-900, CLASS 150, SDR 18, MEETING THE REQUIREMENTS OF ANS/NSF 61 UNLESS OTHERWISE NOTED.
 4. WATER LINES UNDER OR WITHIN 1 FEET OF NEW OR EXISTING PAVEMENTS (STREETS AND DRIVEWAYS) SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND AS SPECIFIED IN THE CONSTRUCTION DETAIL. TYPICAL BEDDING AND BACKFILL TO BE 6" MECHANICALLY COMPACTED BANK SAND. PROVIDE UNIFORM GRADE FOR BEDDING TO PROVIDE FULL BEDDING OF WATER LINE.
 5. PROVIDE A MINIMUM SIX-INCHES (6") OF CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
 6. 4-INCH THROUGH 12-INCH LINES TO HAVE A MINIMUM OF 4'-0" COVER BELOW TOP OF CURB. UNLESS OTHERWISE NOTED, VARY FLOW LINE UNIFORMLY FROM DEPTH SHOWN ON PLANS.
 7. CENTERLINE OF FIRE HYDRANT TO BE LOCATED AT 3' FROM BACK OF CURB WITH CENTERLINE OF STEAMER NOZZLE 22 INCHES ABOVE FINISHED GRADE. TURN STEAMER OUTLET TO FACE STREET. PROVIDE 4" X 16" X 16" PRECAST CONC PAD BLOCK UNDER FIRE HYDRANT. INSTALL 2 C.F. PEA GRAVEL AROUND WEEP HOLES OF FIRE HYDRANT
 8. WHERE WATER LINE CROSSES SANITARY SEWER LINE OR LEAD WITH LESS THAN NINE FEET (9') VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT STEEL CASING OVER THE WATER LINE CENTERED ON SANITARY MAIN. BID STEEL CASINGS AS A SEPARATE LINE LINE PER CROSSING.
 9. THE CONTRACTOR AT ALL TIMES PROVIDE MAXIMUM UNINTERRUPTED FLOW TO ALL SERVICES AND MAINS AND SHALL AVAIL OF ANY ROUTING METHOD AND EQUIPMENT TO ACCOMPLISH THIS.

CENTERPOINT ENERGY / ENTEX NOTES**CAUTION: UNDERGROUND GAS FACILITIES**

LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, L.L.C. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE NOT USUALLY SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (979) 849-4364 OR 811, A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

* WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (800) 752-8036 OR (713) 659-2111 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.

* WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.

* WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.

* FOR EMERGENCIES REGARDING GAS LINES CALL (800) 659-2111 OR (713) 659-2111.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN, IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-5769.

WARNING: OVERHEAD ELECTRICAL FACILITIES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT 713-207-2222.

SBC NOTES

THE LOCATIONS OF SOUTHWESTERN BELL TELEPHONE CO. UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

TEXAS NEW MEXICO POWER NOTES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL TEXAS NEW MEXICO POWER AT (979) 345-5667.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE ANGLETON CONSTRUCTION MANUAL (ACM) AND LAND DEVELOPMENT CODE, HEREAFTER REFERRED TO THE ACM AND THE LDC.
2. APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, ADEQUACY, AND COMPLIANCE OF THE SUBMITTED PLANS.
3. ALL RESPONSIBILITY FOR DESIGN RESTS ON ENGINEER WHO PREPARED THEM, IN APPROVING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY AND ACCURACY OF THE DESIGN ENGINEER.
4. DESIGNS SHALL BE IN COMPLETE COMPLIANCE WITH THE LDC AND THE ACM. ANY WAIVER, DEVIATION, VARIANCE, OR EXCEPTION FROM ANY SPECIFIC REQUIREMENT(S) OF THE LDC OR ACM THAT WERE NOT EXPRESSLY REQUESTED WHEN PLANS ARE SUBMITTED, SHALL NOT BE CONSTRUED TO HAVE BEEN GRANTED IF PLANS ARE APPROVED. IT IS THE RESPONSIBILITY OF THE ENGINEER TO MAKE SUCH A WAIVER PROACTIVELY WHEN PLANS ARE SUBMITTED.
5. A MINIMUM OF TWO EXISTING BENCHMARKS SHOULD BE SHOWN ON THE PLANS. IN ADDITION, TWO PERMANENT BENCHMARKS PER SUBDIVISION SHALL BE INSTALLED IN EACH NEW SUBDIVISION TO INCLUDE DESCRIPTION, LOCATION, AND ELEVATION AND TIE TO CITY STANDARDS.
6. CAST BRONZE SURVEY MARKERS SHALL BE PLACED IN CONCRETE IN PERMANENT, ACCESSIBLE LOCATIONS AT THE TIME OF CONSTRUCTION. THE LOCATIONS OF THE MARKERS SHALL BE INDICATED ON THE CONSTRUCTION PLANS. A MINIMUM OF ONE MARKER SHALL BE PLACED FOR EACH 20 ACRES OF THE PROJECT.
7. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVEY A PRE-CONSTRUCTION CONFERENCE WITH THE CITY, THE DEVELOPER'S CONSULTING ENGINEER, CONTRACTOR, AND ANY OTHER AFFECTED PARTIES. THE CITY SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE THE CITY A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
9. BARRICADES, BUILT TO CITY SPECIFICATIONS, SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
10. IF BLASTING IS PLANNED, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF ANY BLASTING.
11. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.
12. THE LOCATION OF ANY WATER OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE PUBLIC WORKS DEPARTMENT.
13. USE ONE CALL UTILITY SYSTEM: DIAL 1-800-344-8377, 48 HOURS BEFORE YOU DIG.
14. ALL STORM SEWER PIPES TO BE CLASS III RCP UNLESS NOTED OTHERWISE. SPECIAL NOTES FOR PLANS, WHEN APPLICABLE.
15. CONSTRUCTED STREET SECTIONS SHALL SHOW THE FOLLOWING:
 - a. PROVIDE STREET NAMES, WIDTH OF R.O.W., OR OTHER METHODS TO IDENTIFY PROPOSED DESIGN OF DIFFERENT PAVEMENT THICKNESS. IN WRITING OR GRAPHICALLY, DESCRIBE THE STREET SECTION(S) TO BE CONSTRUCTED.
 - b. MANHOLE FRAMES, COVERS, AND WATER VALVE COVERS WILL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY A QUALIFIED CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
 - c. CROWNS OF INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED. INLETS ON THE INTERSECTING STREET SHALL NOT BE CONSTRUCTED WITHIN 40 FEET OF THE VALLEY GUTTER, UNLESS OTHERWISE NOTED.
 - d. PRIOR TO FINAL ACCEPTANCE OF A STREET OUTSIDE THE CITY LIMITS, STREET NAME SIGNS CONFORMING TO COUNTY STANDARDS SHALL BE INSTALLED BY DEVELOPER.
 - e. SIDEWALK REQUIREMENTS (GIVE STREET NAME AND LOCATION OF REQUIRED SIDEWALK, I.E., NORTH, SOUTH, EAST, OR WEST SIDE).
 - f. A CURB LAY DOWN WHERE REQUIRED WHEN ALL POINTS OF SIDEWALKS INTERSECTS CURBS.
 - g. INSIDE THE CITY LIMITS, SIDEWALKS SHALL BE COMPLETED PRIOR TO ACCEPTANCE OF ANY DRIVEWAY APPROACHES AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY. WHEN OUTSIDE THE CITY LIMITS, A LETTER OF CREDIT MAY BE POSTED OR OTHER SUITABLE FINANCIAL ARRANGEMENTS MAY BE MADE TO ENSURE CONSTRUCTION OF THE SIDEWALKS. IN EITHER CASE, SIDEWALKS ADJACENT TO "COMMON AREAS", PARKWAYS, OR OTHER LOCATIONS ON WHICH NO BUILDING CONSTRUCTION WILL TAKE PLACE, MUST BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE OF THE SUBDIVISION.
 - h. A LICENSE AGREEMENT FOR LANDSCAPING MAINTENANCE AND IRRIGATION IN STREET R.O.W, SHALL BE EXECUTED BY THE DEVELOPER IN PARTY WITH THE CITY PRIOR TO FINAL ACCEPTANCE.
17. CALL THE CITY 48 HOURS PRIOR TO BEGINNING ANY WORK AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY AND ALL AFFECTED UTILITY PROVIDERS, THE GENERAL CONTRACTOR, THE DEVELOPER AND THE DEVELOPER'S ENGINEER.

CONSTRUCTION SEQUENCING

CALL THE CITY 48 HOURS PRIOR TO BEGINNING ANY WORK AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY AND ALL AFFECTED UTILITY PROVIDERS, THE GENERAL CONTRACTOR, THE DEVELOPER AND THE DEVELOPER'S ENGINEER.

OBTAIN A DEVELOPMENT PERMIT FROM THE CITY.

PROVIDE THE CITY WITH EVIDENCE ALL TCEQ LICENSES AND REQUIREMENTS ARE UP TO DATE.

INSTALL TEMPORARY EROSION CONTROLS AND TREE PROTECTION FENCING PRIOR TO ANY CLEARING AND GRUBBING. NOTIFY THE CITY WHEN INSTALLED.

ROUGH-CUT ALL REQUIRED OR NECESSARY PONDS. EITHER THE PERMANENT OUTLET STRUCTURE OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A LOW-LEVEL OUTLET AND AN EMERGENCY OVERFLOW MEETING THE REQUIREMENTS OF THE LDC. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL FINAL RESTORATION IS ACHIEVED.

DELIVER APPROVED ROUGH-CUT SHEETS TO THE CITY ENGINEER PRIOR TO CLEARING AND GRUBBING.

ROUGH GRADE STREETS. NO DEVELOPMENT OF EMBANKMENT WILL BE PERMITTED AT THIS TIME.

INSTALL ALL UTILITIES TO BE LOCATED UNDER THE PROPOSED PAVEMENT OR WITHIN THE ROAD RIGHT-OF-WAY.

DELIVER STORM SEWER CUT SHEETS TO THE CITY ENGINEER.

BEGIN INSTALLATION OF STORM SEWER LINES. UPON COMPLETION, RESTORE AS MUCH DISTURBED AREAS AS POSSIBLE, PARTICULARLY CHANNELS AND LARGE OPEN AREAS.

DELIVER FINAL GRADE CUT SHEETS TO THE CITY ENGINEER.

RE-GRADE STREETS TO SUB-GRADE.

ENSURE THAT UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY 1ST/ COURSE BASE MATERIAL ON STREETS.

INSTALL CURB AND GUTTER

LAY FINAL BASE COURSE ON ALL STREETS.

PLACE CONCRETE.

COMPLETE FINAL GRADING AND RESTORATION OF DETENTION, SEDIMENTATION/FILTRATION PONDS.

COMPLETE PERMANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION.

REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.

COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED.

RECORD DRAWING

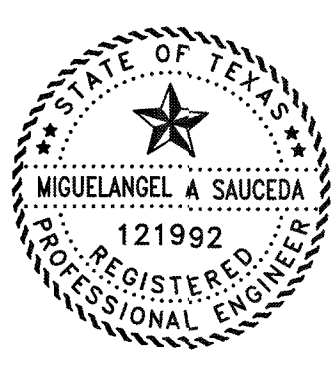
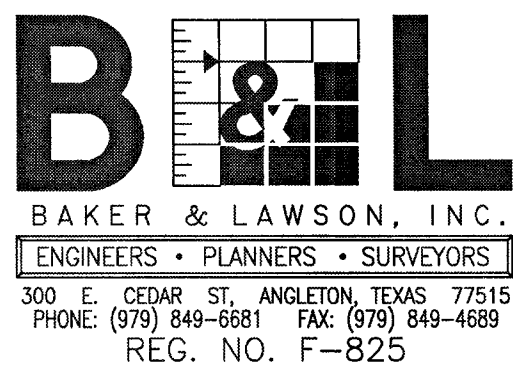
NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS

DRAWN _____

CHECKED _____

DATE _____



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Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____

PROFILE: _____

HORIZONTAL: _____

VERTICAL: _____

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

CONSTRUCTION NOTES

PROJECT NO. 13454

FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP NO. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "AE" BASE FLOOD ELEVATION OF 22.0 FT, AREAS WITHIN THE 1% ANNUAL CHANCE FLOOD. THE ZONE "AE" AREA LIES FULLY WITHIN THE TOP BANK (EL. =26.5±') OF BRUSHY BAYOU.

THE SHOWN BFE BOUNDARY WAS PROVIDED BY THE FEMA GIS FLOOD
MAP CENTER AND MAY NOT ACCURATELY REFLECT SITE TOPOGRAPHY.























PROJECT BENCHMARK:
NGS MONUMENT R1182 (PID AW1171)
A BRASS DISK STAMPED R1182, ON THE NORTH LINE OF CR 171, ON
THE CURB OF A BRIDGE, APPROXIMATELY 275 SOUTHWEST OF
INTERSECTION WITH CR 428.
ELEVATION = 26.31 FEET NGVD29

SITE BENCHMARK:
HERITAGE PARK TBM--A CHISELED SQUARE ON CURB INLET ON THE
SOUTH SIDE OF BAYOU BEND BLVD, WEST OF CULVERT, AND 215 FEET
EAST OF BUCHTA ROAD. ELEVATION = 26.08 NGVD1929

TBM-B CHISELED SQUARE ON CURB INLET ON SOUTH SIDE OF BAYOU
BEND BOULEVARD, AND 135 FEET EAST OF BUCHTA ROAD. ELEVATION =
26.61 NGVD1929

✓ TBM-C CHISELED SQUARE ON CURB INLET ON SOUTH SIDE OF BAYOU
BEND BOULEVARD, AT THROAT OF CUL-DE-SAC. ELEVATION = 26.82
NGVD1929

ALL COORDINATES SHOWN HEREON ARE IN GRID, BASED ON THE TEXAS
COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS
OBSERVATIONS.

- ### SYMBOLS
- | | |
|---|--------------------------|
|  | = FND IMPLEMENT AS NOTED |
|  | = SET 5/8" IRON ROD |
|  | = BENCHMARK |
|  | = GAS VALVE |
|  | = GAS METER |
|  | = IRRIGATION CONTROL |
|  | = WATER VALVE |
|  | = WATER METER |
|  | = FIRE WYDRANT |
|  | = GUY WIRE |
|  | = POWER POLE |
|  | = SIGNAL POLE |
|  | = LIGHT POLE |
|  | = LIGHT BOLLARD |
|  | = BOLLARD |
|  | = MONITOR WELL |
|  | = CLEANOUT |
|  | = SIGN |
|  | = TELE PEDESTAL |
|  | = TREE |
|  | = MANHOLE |
|  | = INLET |

LEGEND:

→ EXISTING OVERFLOW PATH

x 22 EXISTING NATURAL GROUND ELEV.

RECORD DRAWING

EXISTING CONDITIONS

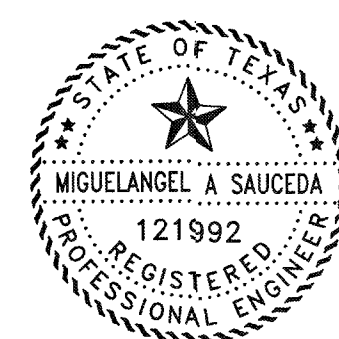
PROJECT NO. 13454



NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DATE _____

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BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 7751
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825



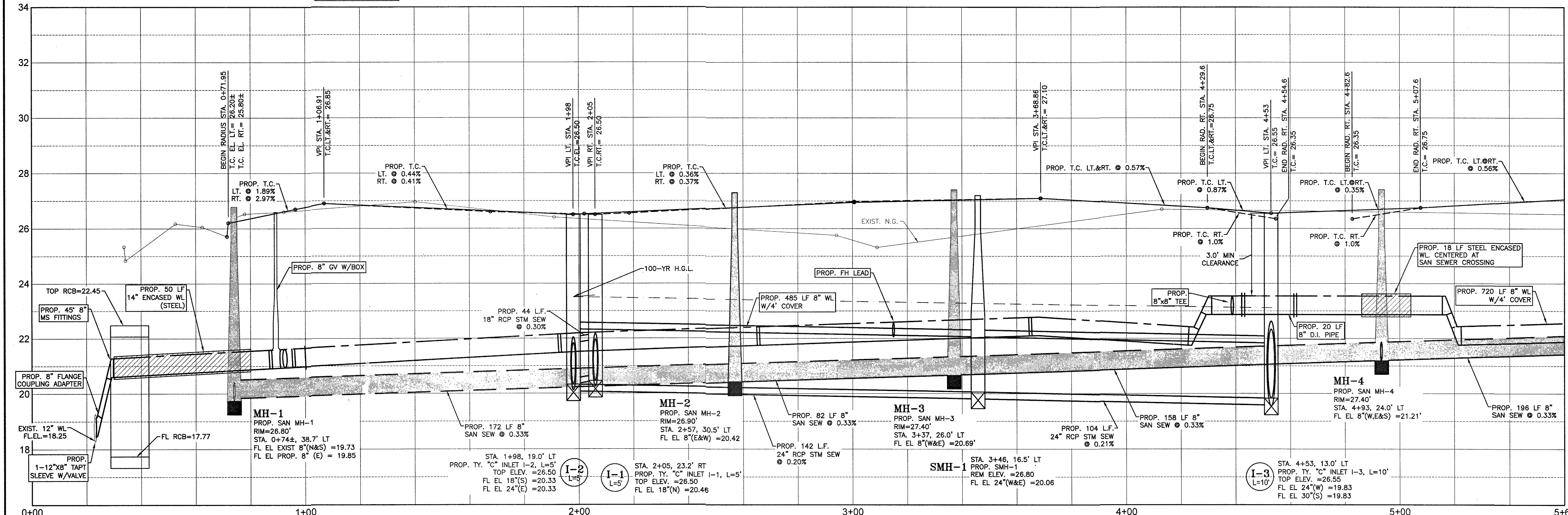
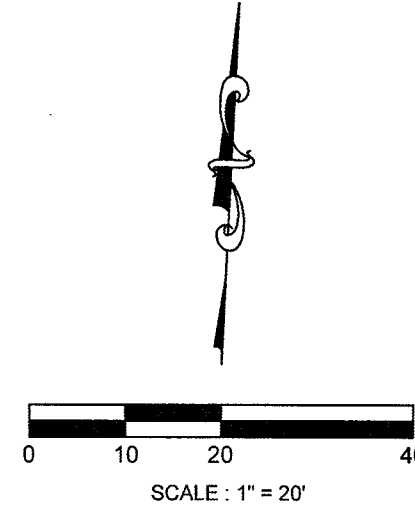
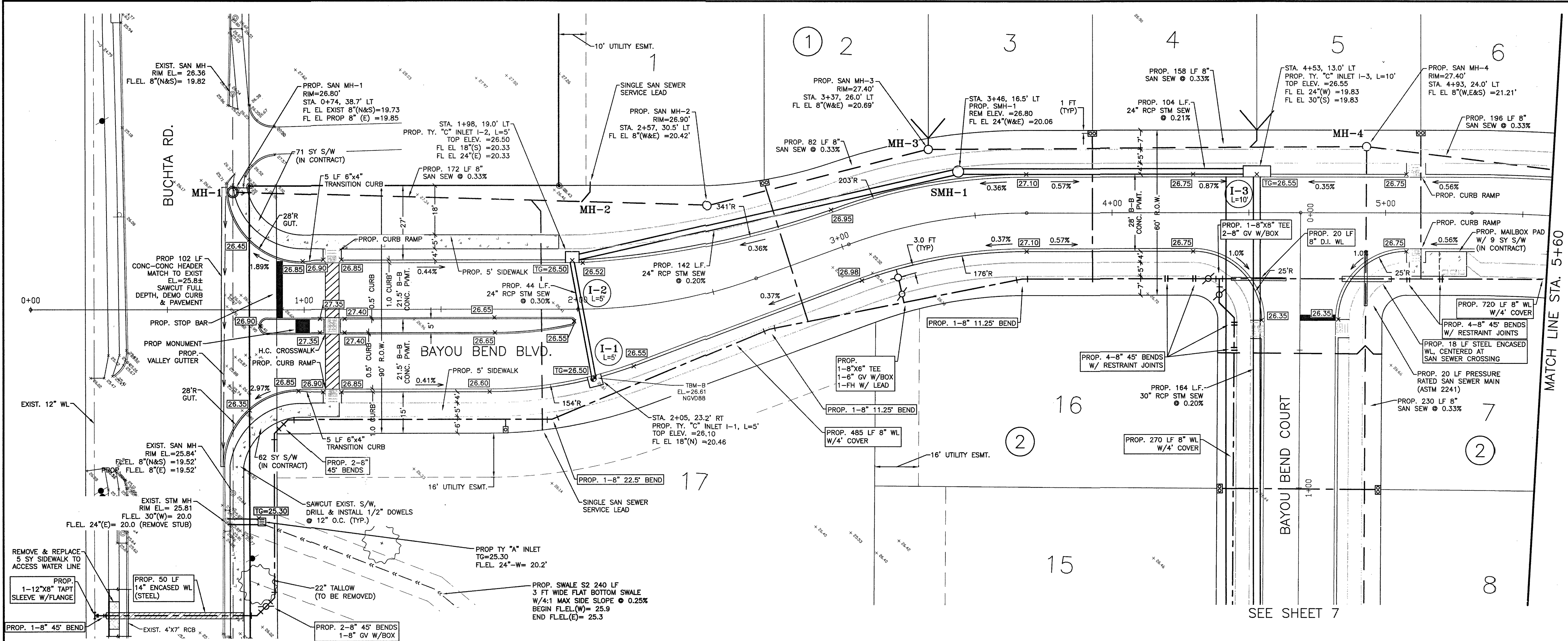
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Miguel Saucedo
P.F. 121992

Date: 1/11/27-

Clint Peltier
Clint Peltier Custom Homes
979-481-4840

VERTICAL:

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**



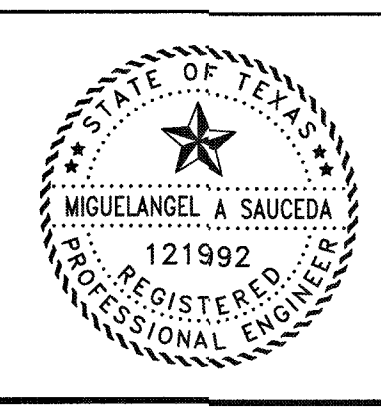
- SYMBOLS LEGEND**
- SINGLE WATER METER
 - DOUBLE WATER METER
 - FIRE HYDRANT
 - WATER VALVE
 - TAPPING SLEEVE AND VALVE
 - REDUCER
 - STORM SEWER MANHOLE (SMH-1)
 - SANITARY SEWER MANHOLE (MH-1)
 - TOP BANK
 - STORM SEWER LINE (REINFORCED CONCRETE PIPE, ASTM C76)
 - SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
 - WATERLINE (AWWA C900, CLASS 150, DR18)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

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 DRAWN
 CHECKED
 DATE

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 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR ST. ANGLETON, TEXAS 77515
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 REG. NO. F-825



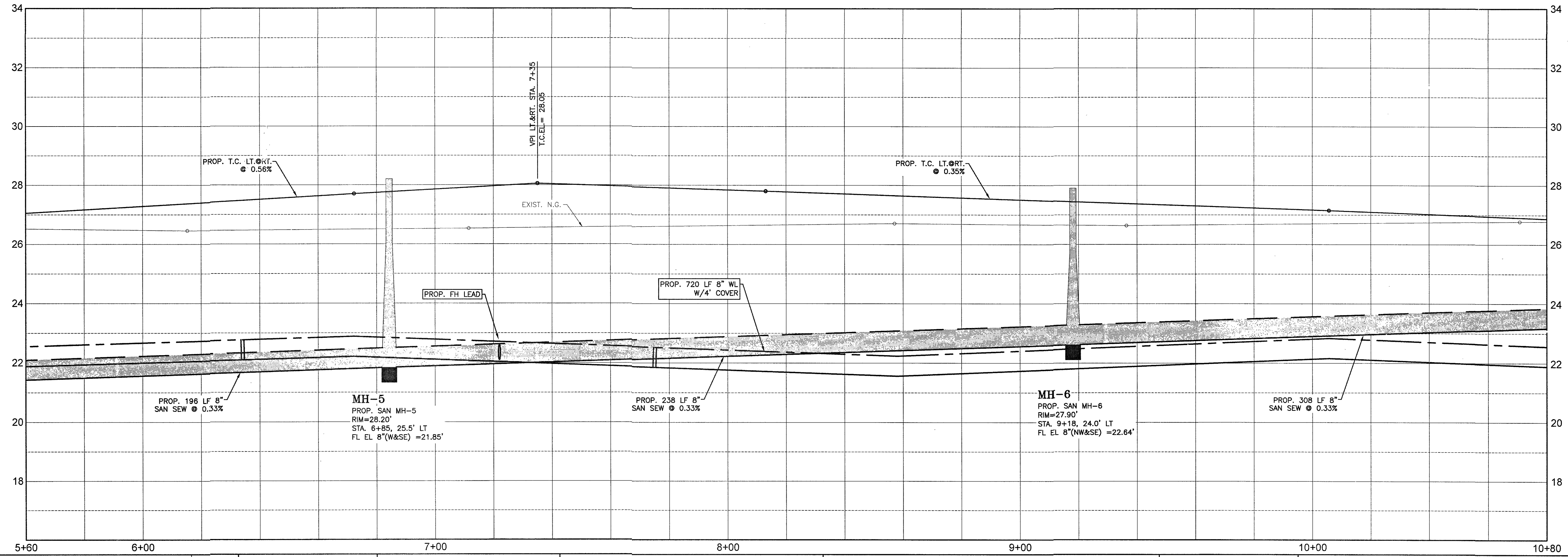
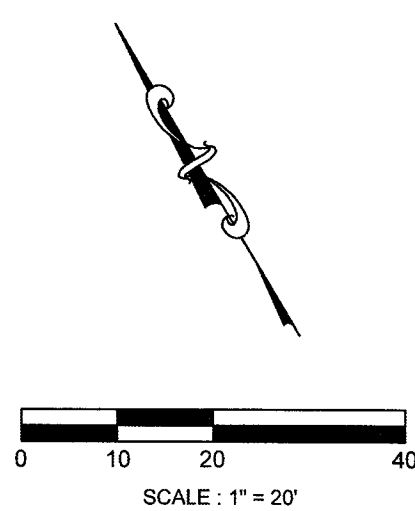
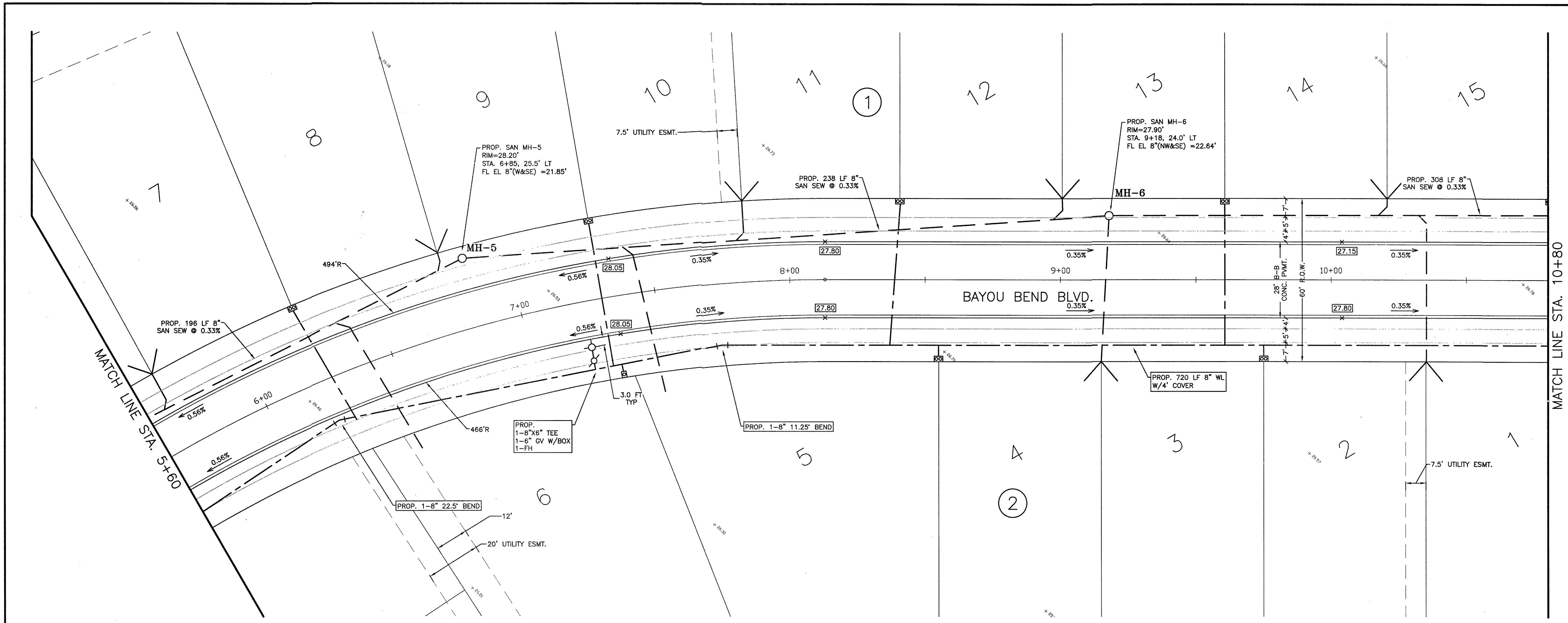
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
 Date: 1/11/22

OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 BAYOU BEND BOULEVARD
 STA. 0+00 TO 5+60
 PROJECT NO. 13454

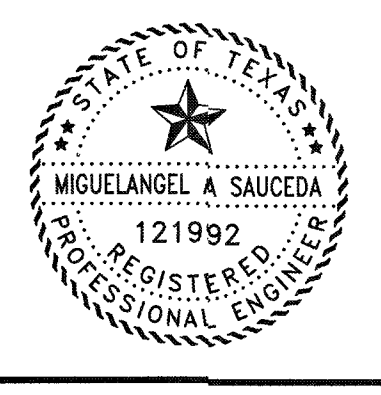
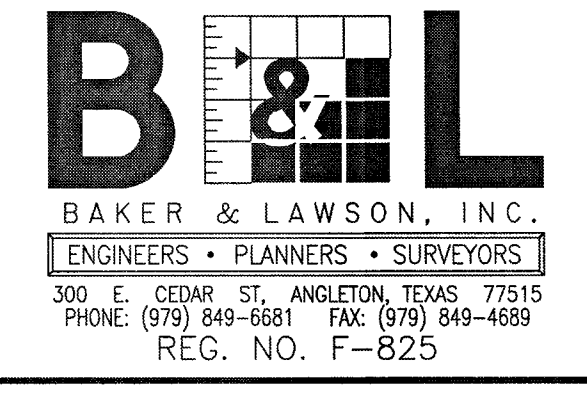


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 - WATER VALVE
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RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN
 CHECKED
 DATE



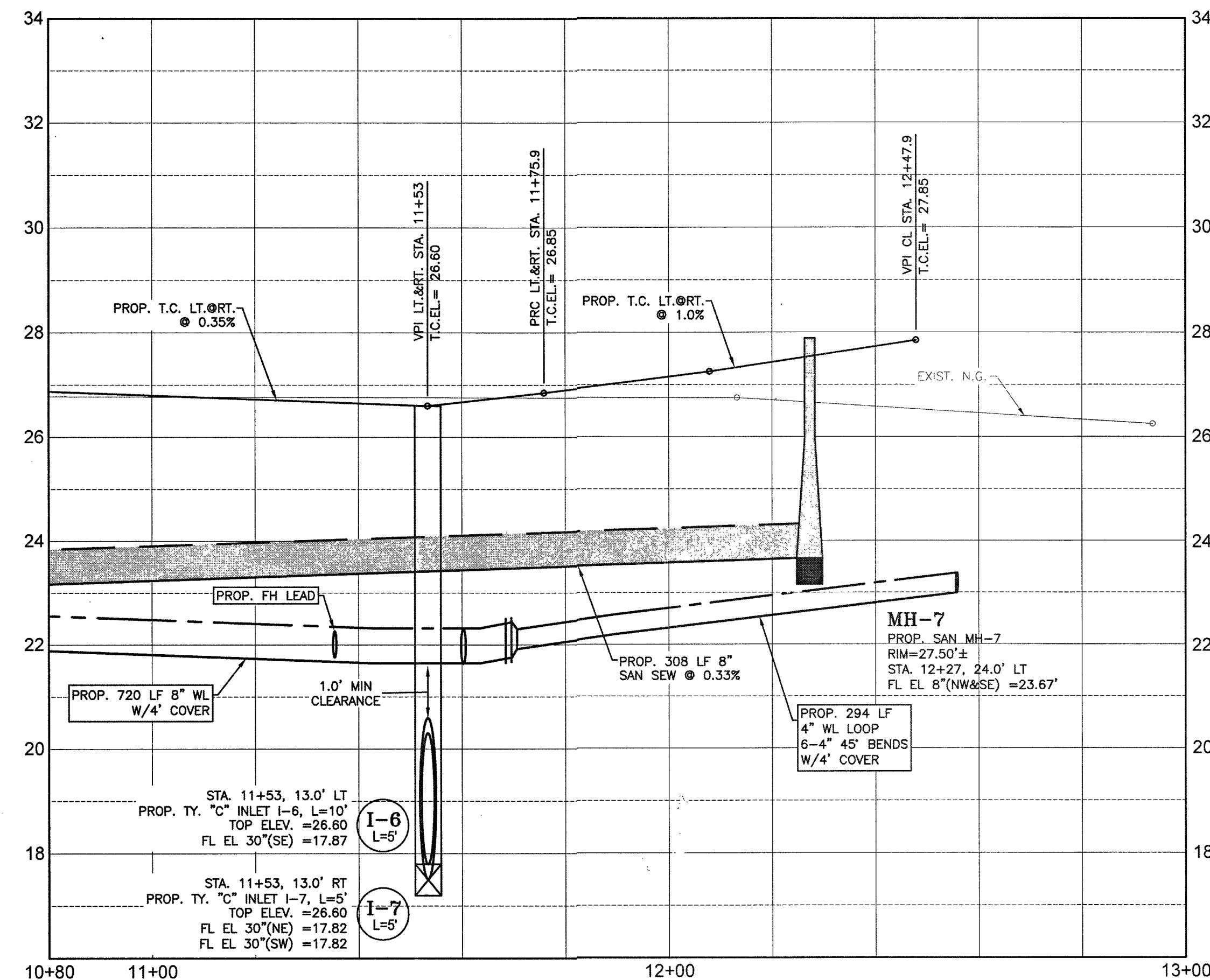
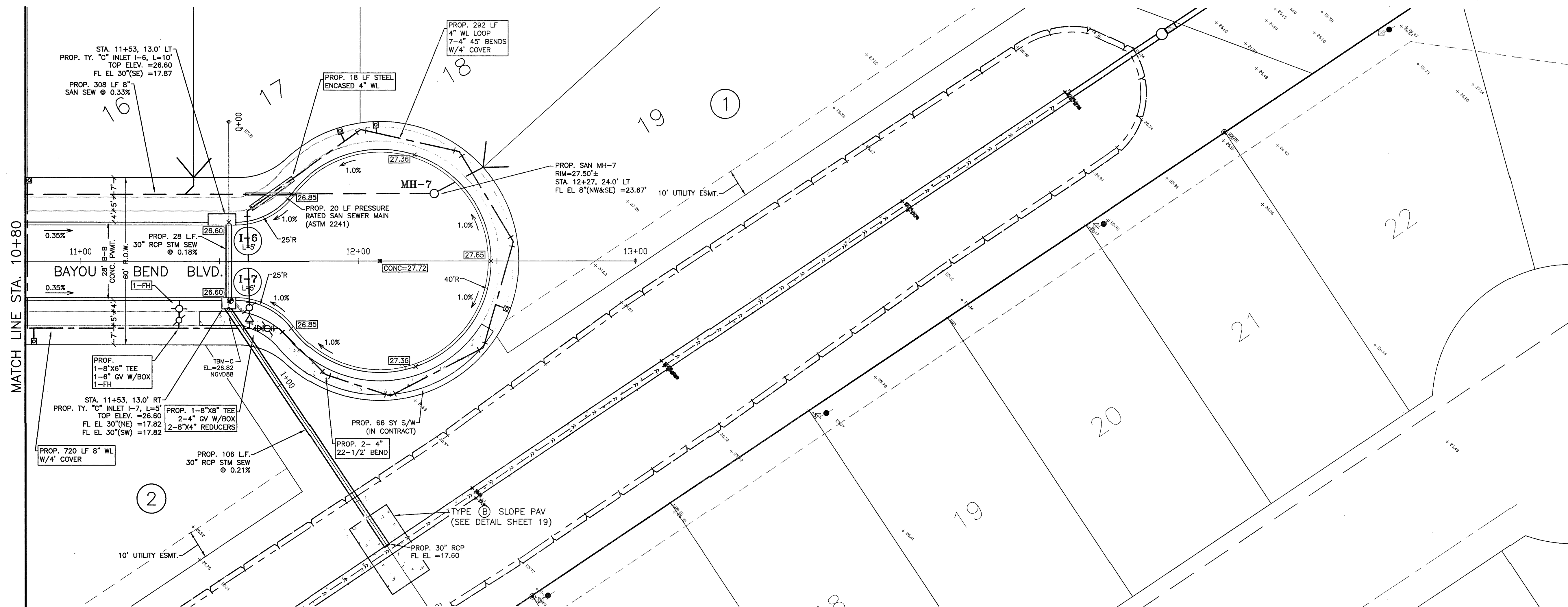
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
 Date: 1/11/22

OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 BAYOU BEND BOULEVARD
 STA. 5+60 TO 10+80
 PROJECT NO. 13454



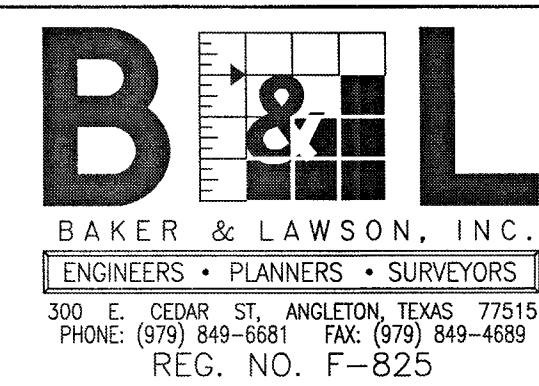
SYMBOLS LEGEND

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RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
1	10.4.21	MOVE REDUCER, DIM WL LOOP.	
REVISIONS			

DESIGNED	MS
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CHECKED	
DATE	



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Date: 11/11/22

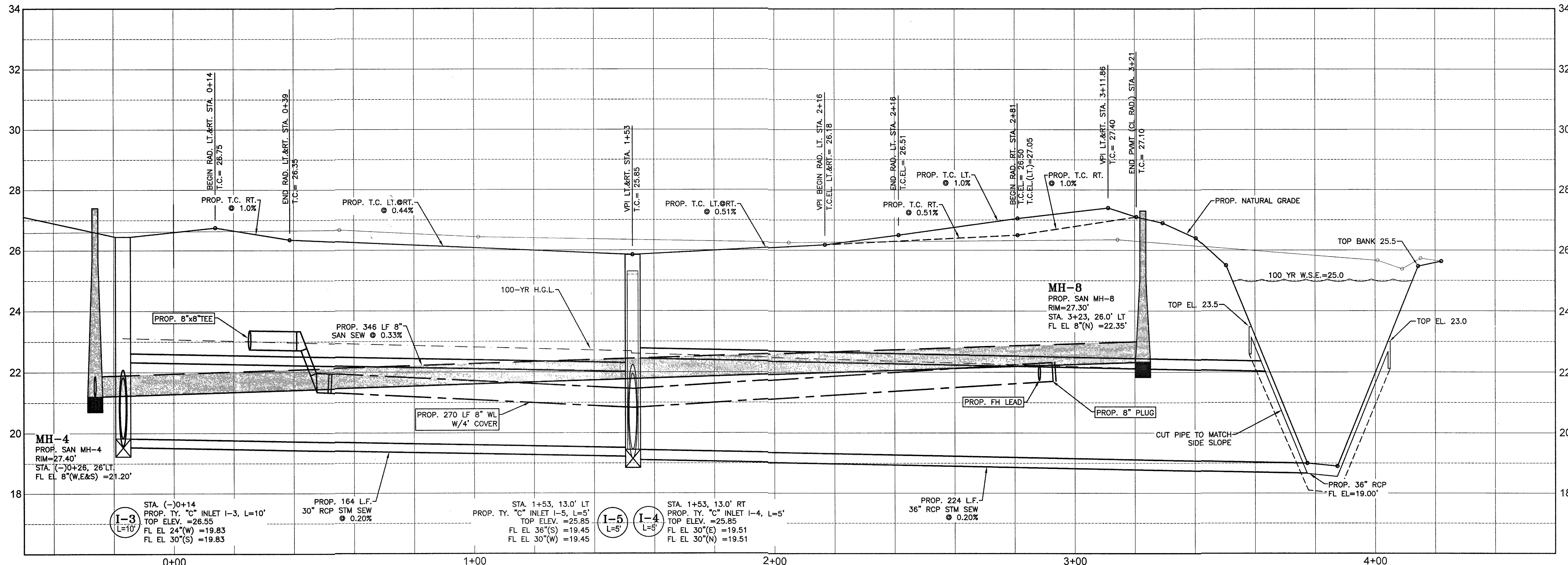
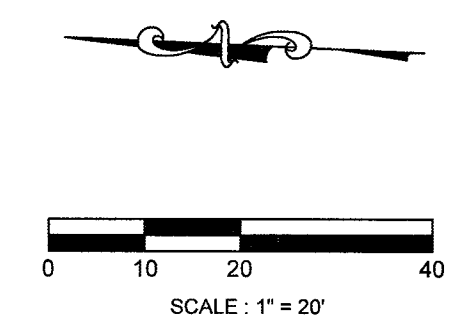
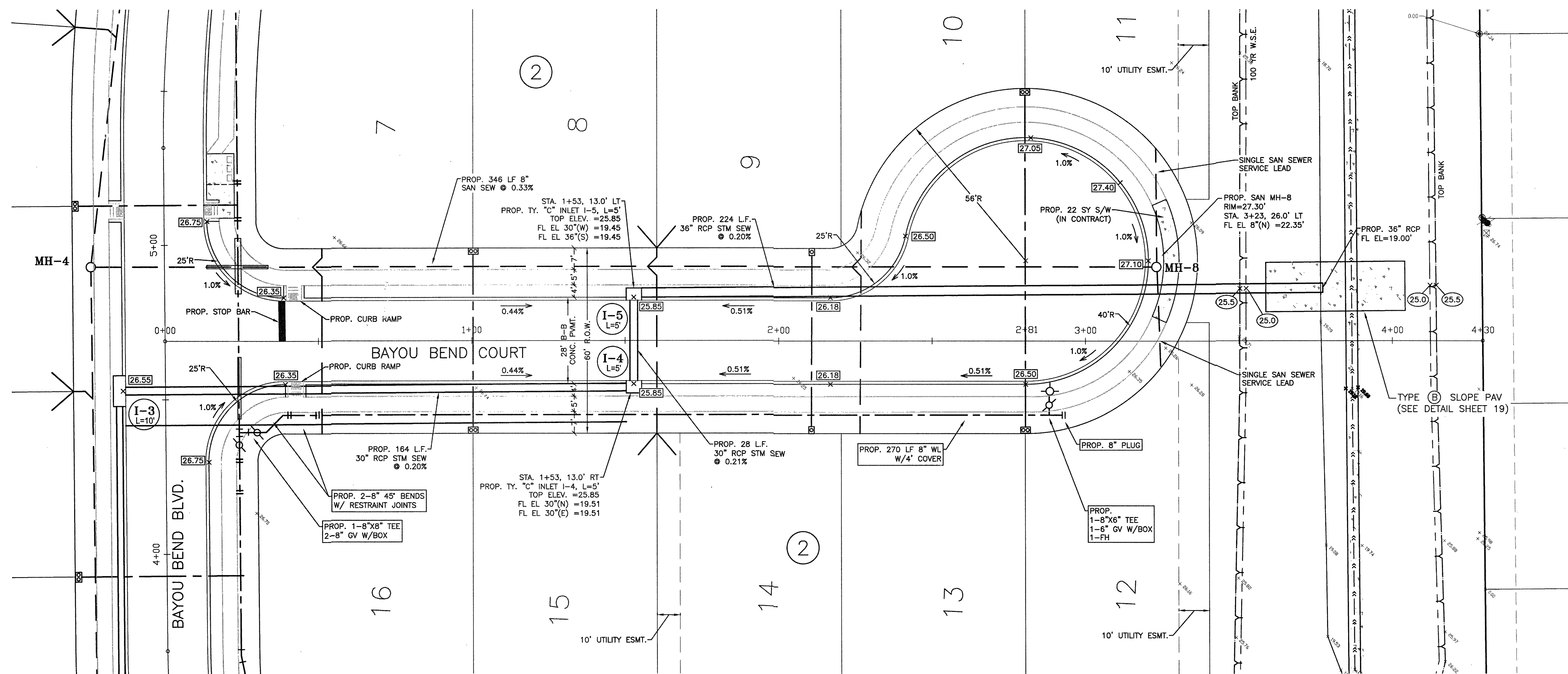
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 20'
PROFILE:
HORIZONTAL: 1" = 2'
VERTICAL: 1" = 20'

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
BAYOU BEND BOULEVARD
STA. 10+80 TO 13+00

PROJECT NO. 13454



SYMBOLS LEGEND

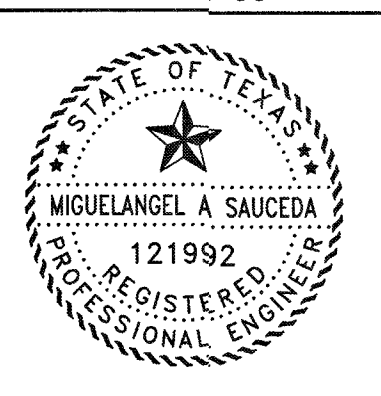
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RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
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 CHECKED
 DATE

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 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR, ST. ANGELO, TEXAS 77815
 PHONE: (817) 849-6681 FAX: (817) 849-6689
 REG. NO. F-825



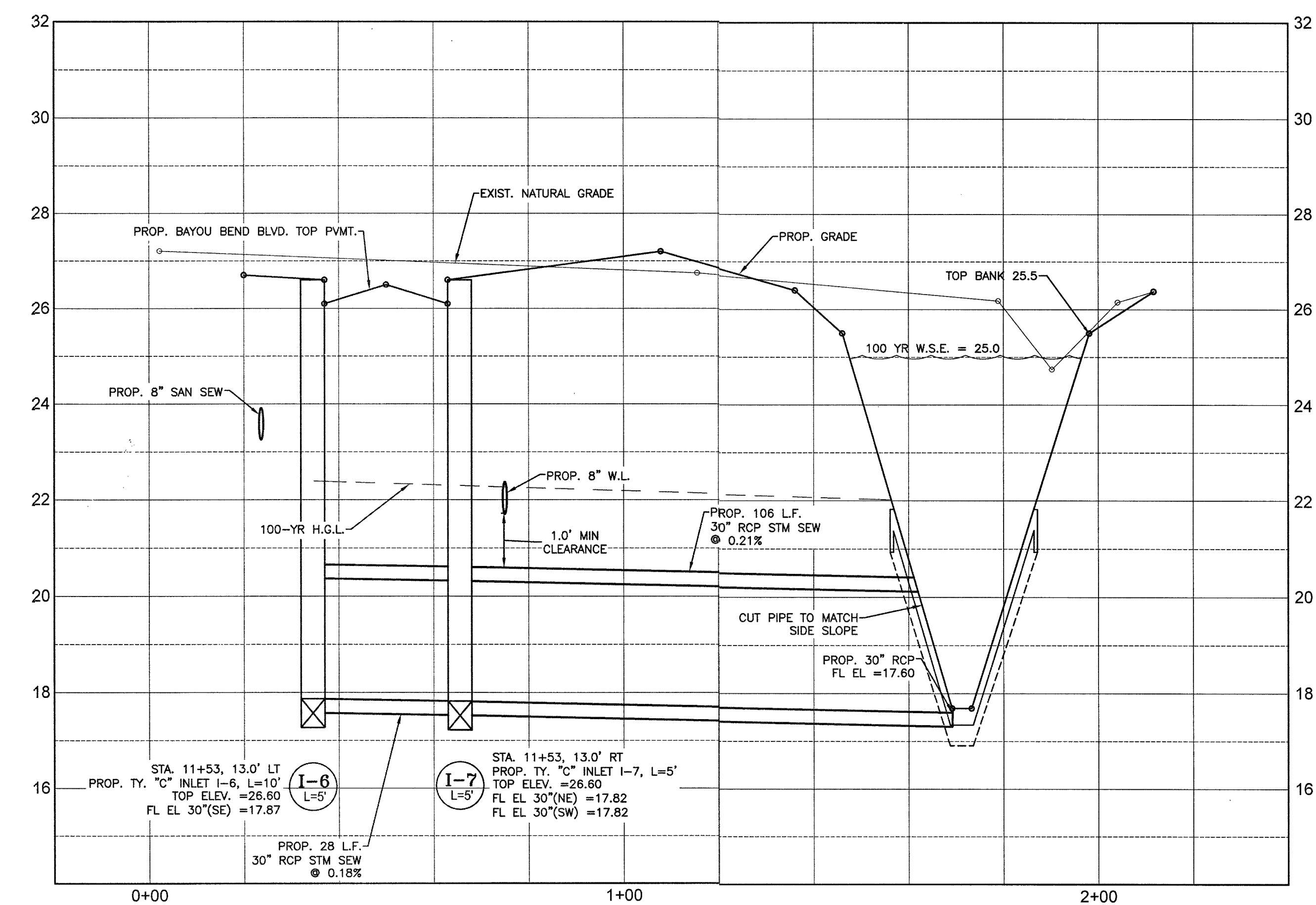
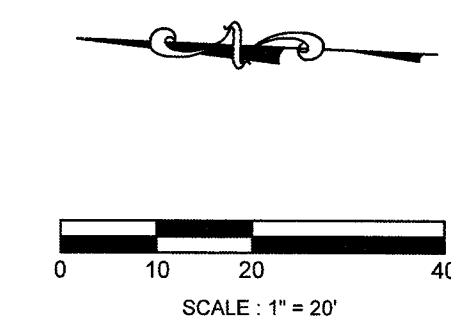
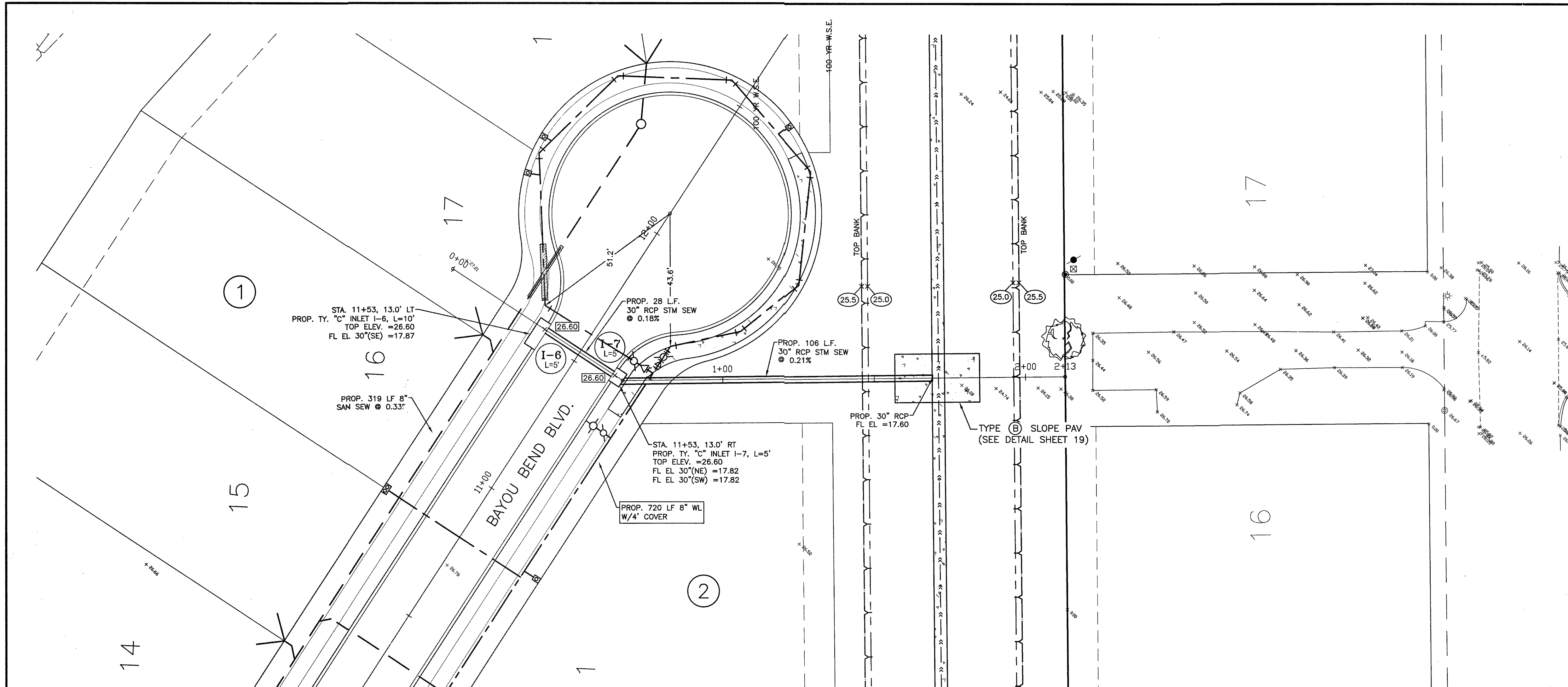
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OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 BAYOU BEND COURT
 STA. 0+00 TO 2+81
 PROJECT NO. 13454



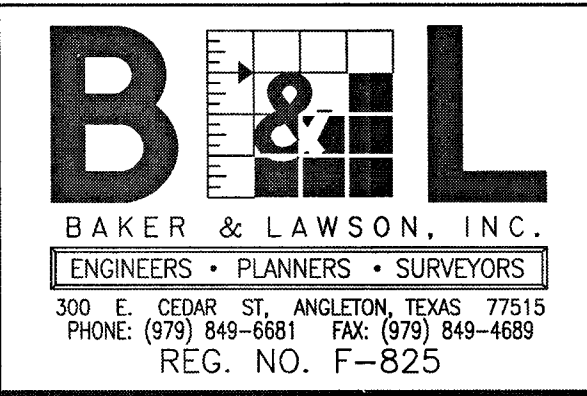
SYMBOLS LEGEND

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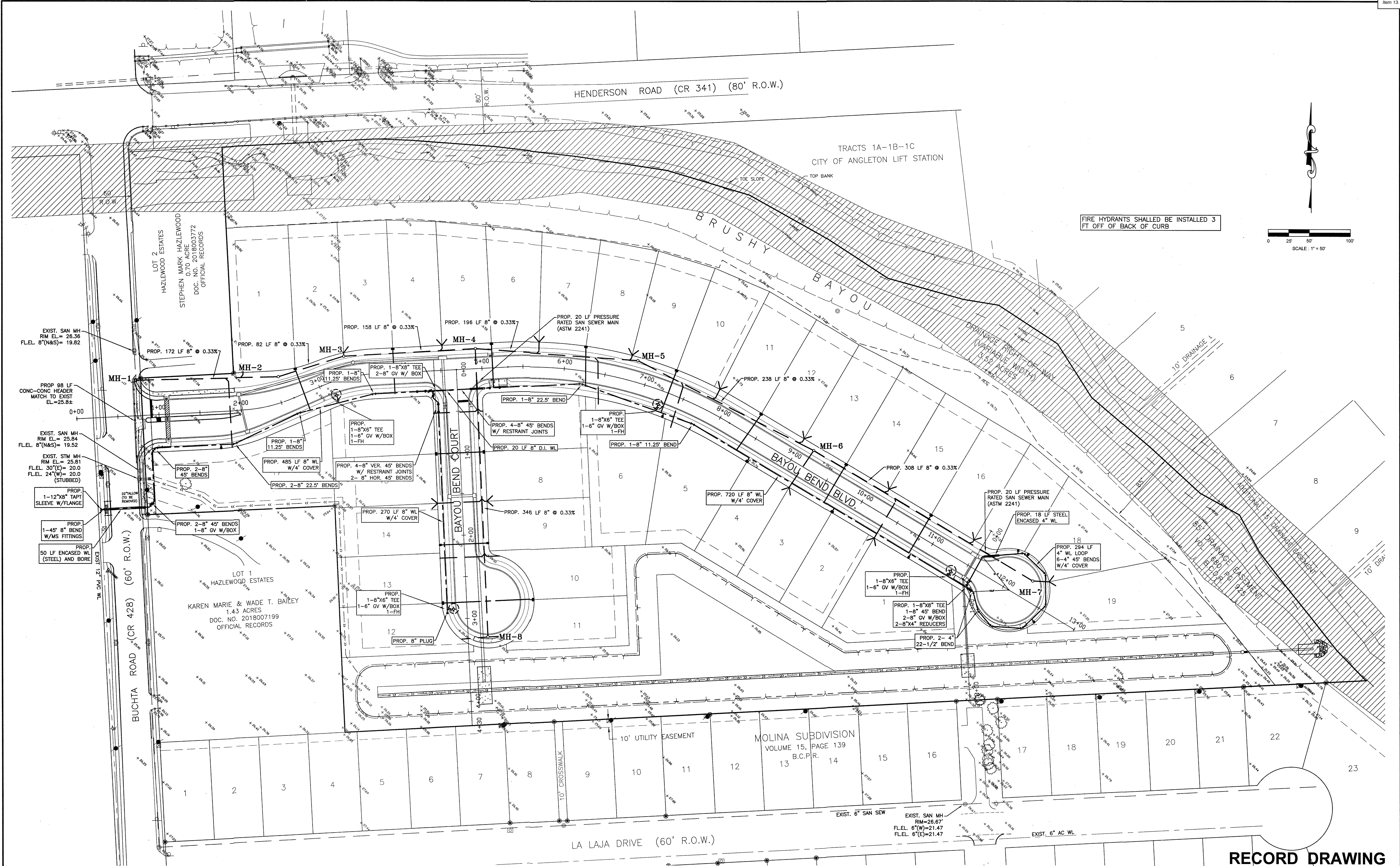
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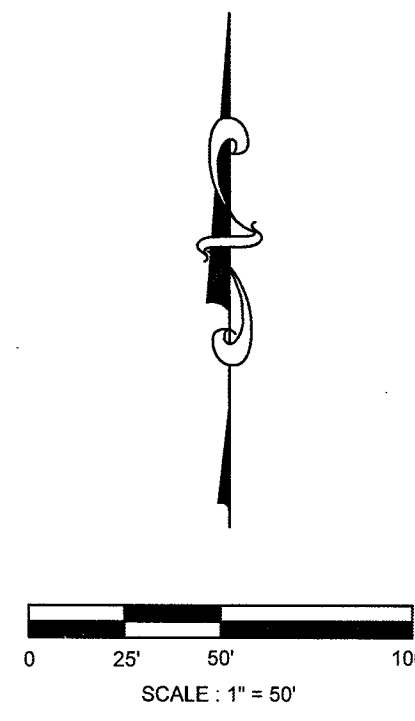
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 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 OUTFALL 1
 PROJECT NO. 13454



FIRE HYDRANTS SHALL BE INSTALLED 3 FT OFF OF BACK OF CURB



RECORD DRAWING

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300 E CEDAR ST. ANGLETON, TEXAS 77515
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REG. NO. F-825



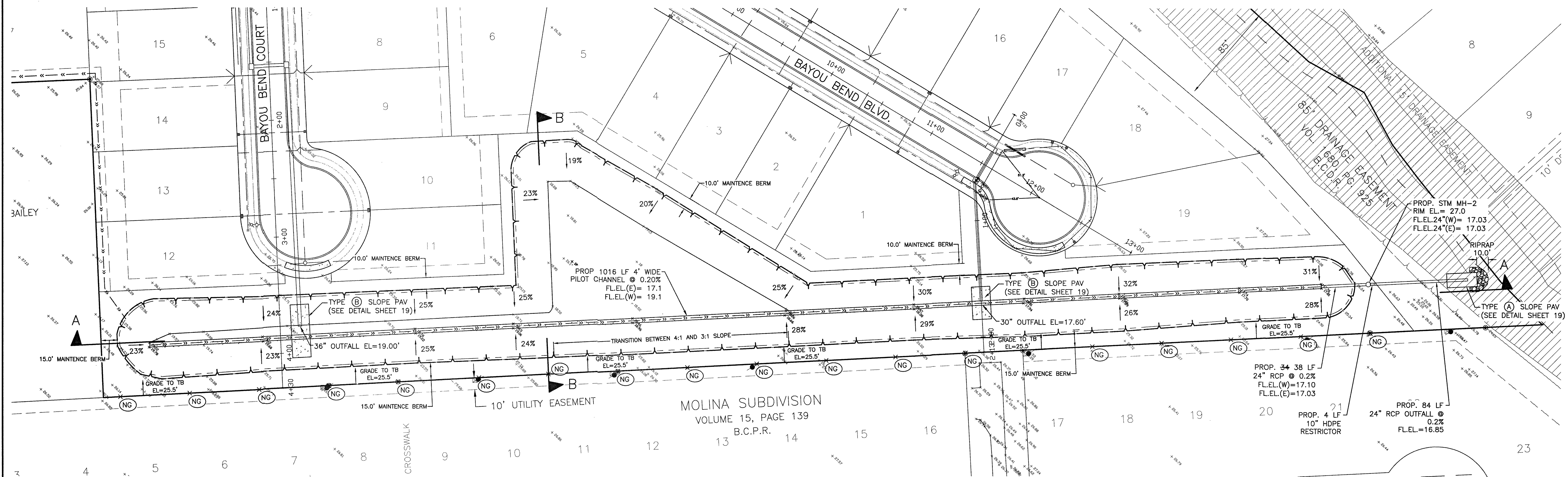
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OWNER:
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Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 50'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

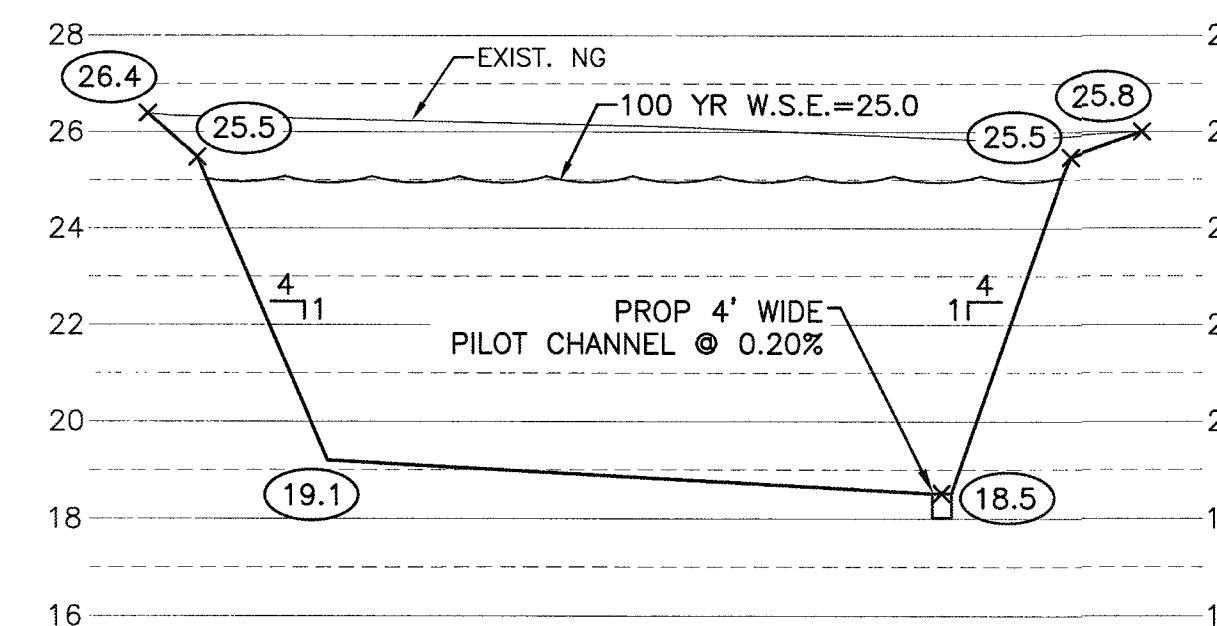
UTILITY PLAN
PROJECT NO. 13454



MOLINA SUBDIVISION
VOLUME 15, PAGE 139
B.C.P.R.

SECTION A-A

1"=40' HORIZ.
1" = 4' VERT.



SECTION B-B

1"=40' HORIZ.
1" = 4' VERT.

DETENTION CALCULATIONS

PRE-DEVELOPMENT FLOW RATE CALCULATION (100-YEAR STORM)

TC = 15.0 MIN. + 350 LF GRASS @ 0.5 FPS
+ 840 LF DITCH @ 1.5 FPS
1,400 = 6.583 IN/HR
Q₁₀₀ = 0.80 CFS/AC x 15.0 ACRES = 12.0 CFS
MAXIMUM ALLOWABLE OUTFALL RATE IN 0.80 CFS PER ACRE
ACCORDING TO BRAZORIA COUNTY MASTER DRAINAGE STUDY.

PROPOSED CONDITION (100-YEAR STORM)

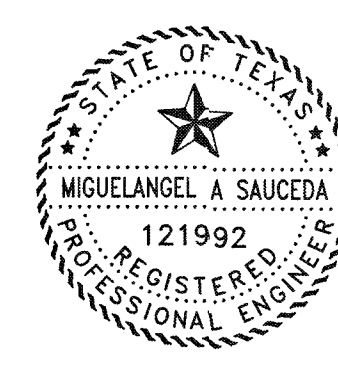
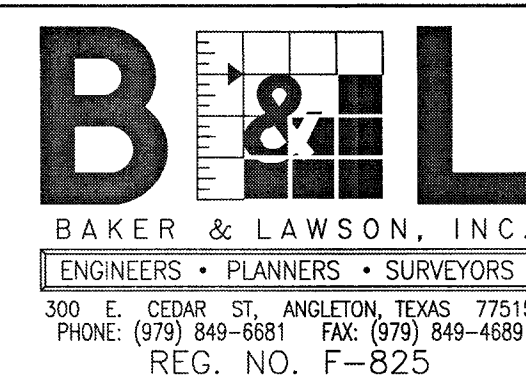
Q = CIA x 1.25 PK
A = 15.0 ACRES
C = 0.55
TC = 15 MIN. + 100 LF GRASS @ 0.5 FPS
+ 750 LF STM SEW @ 3.0 FPS
+ 890 LF POND @ 1.5 FPS = 32.3 MIN.
I = 6.289 IN/HR
Q = 0.55 x 6.289 x 15.0 > 1.25 = 64.857 CFS
DETENTION = 6.774 AC-FT = 295,075 CF

POND INFORMATION

TOP BANK ELEV. = 25.5
AREA @ 100-YEAR WSEL = 25.0 = 76,200 SF
AVERAGE BOTTOM ELEV. = 18.6
AVERAGE BOTTOM AREA = 18,400
WATER DEPTH = 6.4 FT
AVERAGE AREA = 47,300 SF
VOLUME = 47,300 SF X 6.4 FT = 302,720 CF
= 6.95 AC-FT

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
DRAWN
CHECKED
DATE



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Date: 1/11/22

OWNER:
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Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 40'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DETENTION POND
LAYOUT AND CROSS
SECTIONS

PROJECT NO. 13454

RECORD DRAWING

DRAINAGE ANALYSIS FOR SWALE

DRAINAGE HYDRAULIC CALCULATIONS FOR THE 5-YEAR STORM EVENT

D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	15-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Q 5-YR (CFS)
DA-S1	S1 TO POND	0.61	0.55	10	6.456	0.61	0.55	2.17
DA-S2	S2 TO I-4	0.52	0.55	10	6.456	0.52	0.55	1.85

DRAINAGE HYDRAULIC CALCULATIONS FOR THE 100-YEAR STORM EVENT

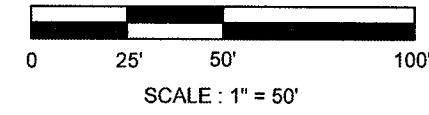
D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	100-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Q 100-YR (CFS)
DA-S1	S1 TO POND	0.61	0.55	10	9.369	0.61	0.55	3.14
DA-S2	S2 TO I-4	0.52	0.55	10	9.369	0.52	0.55	2.68

DITCH CAPACITY

ID	NGELEV FT	PROP FL FT	DITCH DEPTH (D) FT	DITCH BOTTOM (W) FT	SIDE SLOPE	CROSS SEC AREA (A) SF	WET PERIMETER (P) FT	HYDRAULIC RADIUS (R)'	ROUGHNESS COEFFICIE	SLOPE (S) FT/FT	CAPACITY (Q) CFS	REQUIRED CAPACITY (Q) CFS
S1	26.2	25.4	0.8	0	4	2.56	6.4	0.40	0.025	0.0025	4.1	3.14
S2	26.2	25.3	0.9	0	4	3.24	7.2	0.45	0.025	0.001	3.6	2.68

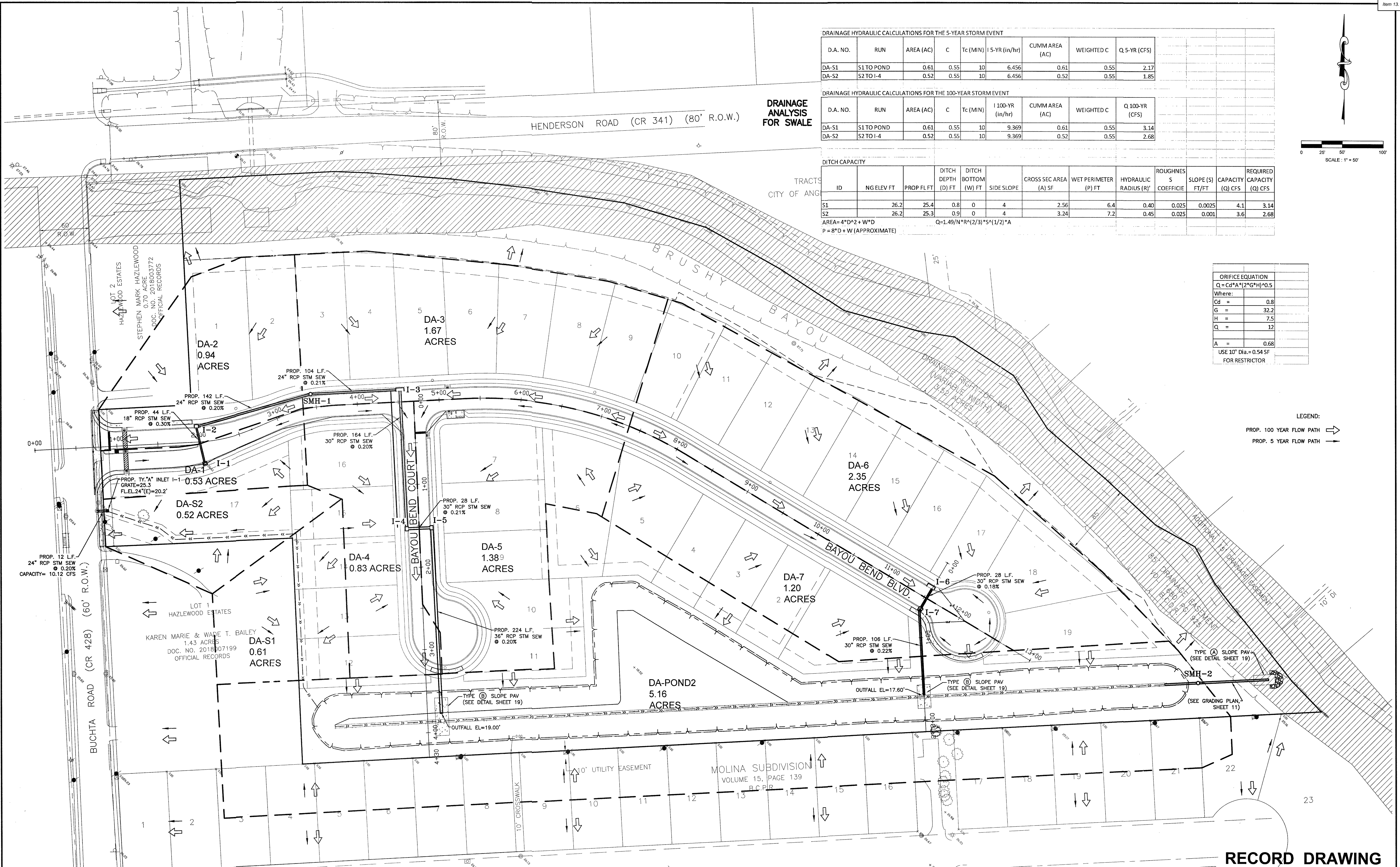
AREA=4'D*2+W*D
P=8*D+W (APPROXIMATE)
Q=1.49/N*R^(2/3)*S^(1/2)*A

ORIFICE EQUATION	
$Q = C_d A \sqrt{2gH}$	
Where:	
Cd =	0.8
G =	32.2
H =	7.5
Q =	12
A =	0.68
USE 10" Dia. = 0.54 SF FOR RESTRICTOR	

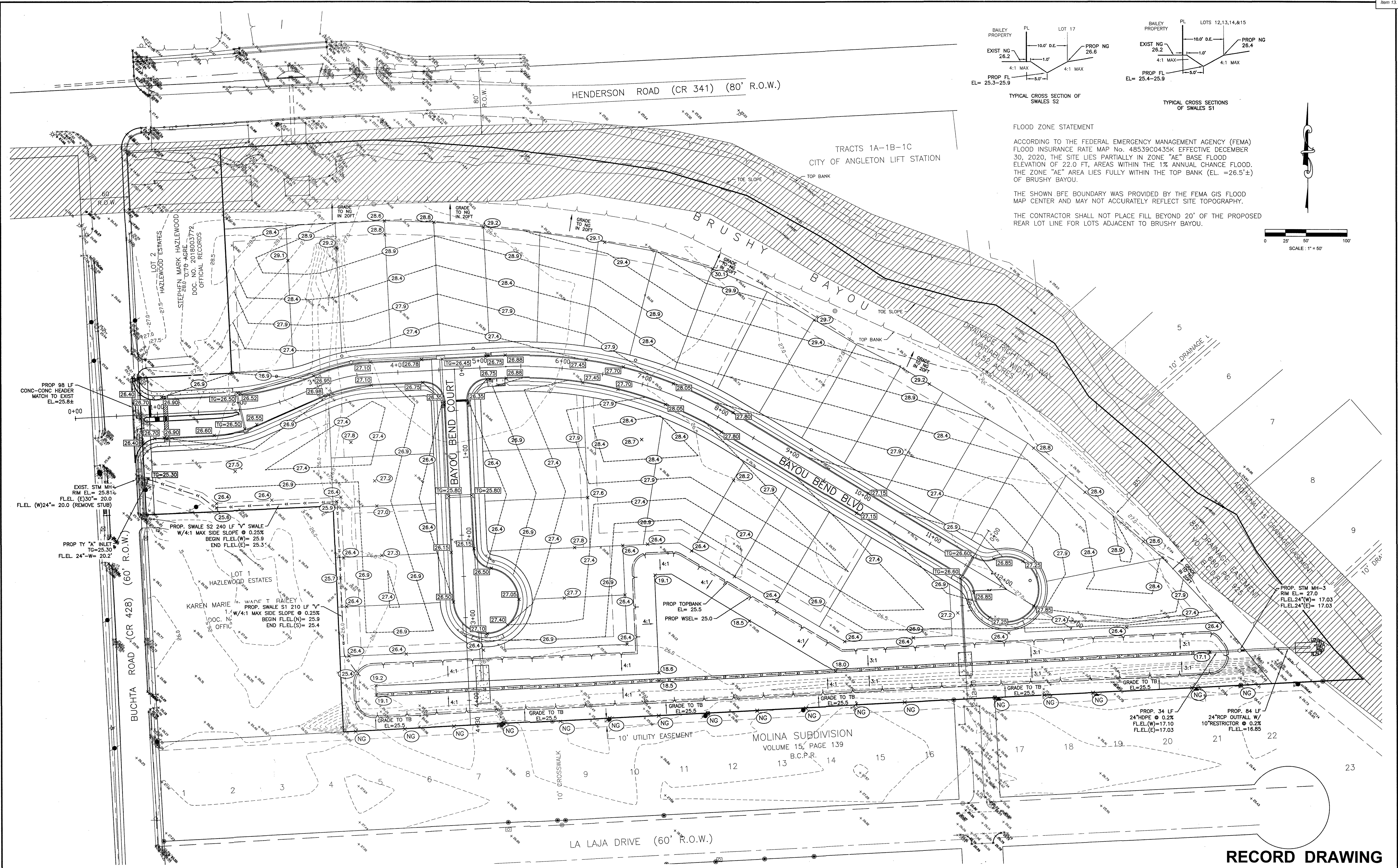


LEGEND:
PROP. 100 YEAR FLOW PATH
PROP. 5 YEAR FLOW PATH

RECORD DRAWING



<table><tr><td>DESIGNED</td><td>MS</td></tr><tr><td>DRAWN</td><td></td></tr><tr><td>CHECKED</td><td></td></tr><tr><td>DATE</td><td></td></tr></table>				DESIGNED	MS	DRAWN		CHECKED		DATE		<p>BAKER & LAWSON, INC. ENGINEERS • PLANNERS • SURVEYORS 300 E. CEDAR ST. ANGLETON, TEXAS 77515 PHONE: (979) 849-6681 FAX: (979) 849-6689 REG. NO. F-825</p>		<p>The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992 Date: 1/11/22</p>		OWNER: Clint Peltier Clint Peltier Custom Homes 979-481-4840		PLAN: 1" = 50' PROFILE: HORIZONTAL: VERTICAL:		BAYOU BEND ESTATES ANGLETON, TEXAS PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION		DRAINAGE AREA MAP AND STORM SEWER LAYOUT PROJECT NO. 13454	
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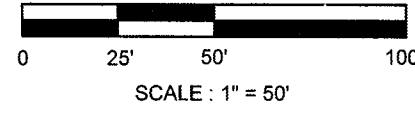


FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "AE" BASE FLOOD ELEVATION OF 22.0 FT. AREAS WITHIN THE 1% ANNUAL CHANCE FLOOD. THE ZONE "AE" AREA LIES FULLY WITHIN THE TOP BANK (EL. =26.5'±) OF BRUSHY BAYOU.

THE SHOWN BFE BOUNDARY WAS PROVIDED BY THE FEMA GIS FLOOD MAP CENTER AND MAY NOT ACCURATELY REFLECT SITE TOPOGRAPHY.

THE CONTRACTOR SHALL NOT PLACE FILL BEYOND 20' OF THE PROPOSED REAR LOT LINE FOR LOTS ADJACENT TO BRUSHY BAYOU.



RECORD DRAWING

DESIGNED MS				OWNER: Clint Peltier Clint Peltier Custom Homes 979-481-4840	PLAN: 1" = 50' PROFILE: HORIZONTAL: VERTICAL:	BAYOU BEND ESTATES ANGLETON, TEXAS PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION	GRADING PLAN	PROJECT NO. 13454
DRAWN								
CHECKED								
DATE								
NO. DATE DESCRIPTION APPROVED								
REVISIONS								

PROJECT NO.	13454
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DESIGNED MS

DRAWN

CHECKED

DATE

PLAN: 1" = 50'

PROFILE:

HORIZONTAL: _____

VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

1. SITE DESCRIPTION

A. NATURE OF THE CONSTRUCTION ACTIVITY:

BAYOU BEND ESTATES SUBDIVISION ANGLETON, BRAZORIA COUNTY, TEXAS, BEING 13.5 ACRE DEVELOPED AREA WHICH WILL BE A RESIDENTIAL SUBDIVISION OF 36 LOTS (60 FT WIDE MINIMUM). CONSTRUCTION WILL INCLUDE UNDERGROUND UTILITIES, STORM SEWER, CONCRETE ROADWAYS WITH 4" CURB, AND DETENTION POND.

B. INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

STREET RIGHT OF WAY AND LOT AREAS WILL BE STRIPPED OF ALL VEGETATIVE MATTER. THIS MATERIAL WILL BE STOCKPILED AT THE SITE TO BE SPREAD OVER THE LOTS AFTER FINAL GRADING. THE DETENTION POND WILL BE EXCAVATED AND MATERIAL WILL BE SPREAD ON THE SITE. UTILITY AND STORMSEWER WILL REQUIRE TRENCHING WITH SPOILS TO BE SPREAD ON THE LOTS. RAINFALL RUNOFF WILL BE DIRECTED TO THE STREET GUTTERS AND THE CONSTRUCTED STORM SEWER. TRUCKS WILL BE USED TO DELIVER MATERIALS TO THE SITE AND INCLUDE LIME, CONCRETE, AND PIPE. TRUCKS WILL ALSO BE USED TO HAUL MATERIAL AWAY FROM THE SITE. THE TRUCKS WILL BE ROUTED ALONG BUCHTA ROAD FOR INGRESS AND EGRESS. RUTTING ON SITE DURING WET WEATHER WILL PROVIDE POTENTIAL FOR TRACKING MUD ALONG BUCHTA ROAD. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD TRACTED ONTO BUCHTA ROAD DAILY.

C. TOTAL PROJECT AREA: 15.87 ACRES

D. TOTAL AREA TO BE DISTURBED: 13.5 ACRES

WEIGHTED RUNOFF COEFFICIENT
(BEFORE CONSTRUCTION): 0.30 (AFTER CONSTRUCTION): 0.55

E. REFER TO GENERAL LOCATION MAP AND SITE MAP FOR DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES; AREAS OF SOIL DISTURBANCE; AREAS WHICH WILL NOT BE DISTURBED; LOCATIONS OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS; LOCATIONS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR; LOCATION OF OFF-SITE MATERIAL, WASTE, BORROW OR EQUIPMENT STORAGE AREAS; SURFACE WATERS (INCLUDING WETLANDS); AND LOCATIONS WHERE STORM WATER DISCHARGES TO A SURFACE WATER.

F. LOCATION AND DESCRIPTION OF ANY DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION:

G. NAME OF RECEIVING WATERS:

DRAINAGE WILL BE COLLECTED IN THE PROPOSED DETENTION POND WHICH WILL DRAIN THRU A RESTRICTIVE OUTLET INTO BRUSHY BAYOU.

AREAL EXTENT AND DESCRIPTION OF WETLAND OR SPECIAL AQUATIC SITE AT OR NEAR THE SITE WHICH WILL BE DISTURBED OR WHICH WILL RECEIVE DISCHARGES FROM DISTURBED AREAS OF THE PROJECT.

NONE

H. REFER TO FEDERAL REGISTER, VOLUME 63, NO.128, MONDAY JULY 6, 1998, PAGES 36497 TO 36515 FOR REQUIREMENTS OF NPDES GENERAL PERMITS FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES IN REGION 6.

I. LISTED ENDANGERED OR THREATENED SPECIES OR CRITICAL HABITAT FOUND IN PROXIMITY TO THE CONSTRUCTION ACTIVITY:

NONE

J. PROPERTY LISTED OR ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES:

NONE

2. CONTROLS

NARRATIVE - SEQUENCE OF CONSTRUCTION ACTIVITIES AND APPROPRIATE CONTROL MEASURES DURING CONSTRUCTION

1. INSTALL SILT FENCE ALONG THE PERIMETER OF THE WORK AREA. CONSTRUCT THE STABILIZED CONSTRUCTION ENTRANCE.

2. STRIPPING OF ALL VEGETATION MAY BEGIN. REMOVED VEGETATION WILL BE STOCKPILED AT THE SITE.

2. CUT ALL PERIMETER SWALES SHOWN ON THE LOT GRADING PLAN. THE DETENTION POND WILL BE EXCAVATED AND SPOILS WILL BE SPREAD ON SITE. INSTALL THE RESTRICTIVE OUTLET TO THE POND. COVER THE OUTLET WITH A ROCK BERM. HYDROMULCH THE POND SIDE SLOPES.

3. INSTALL WATERLINE, SANITARY SEWER, SERVICE LEAD, STORM SEWER, INLETS, AND MANHOLES. PROVIDE INLET PROTECTION ON ALL INLETS. ALL SPOILS FROM TRENCHING WILL BE SPREAD ON THE ADJACENT LOTS.

4. BEGIN ROADWAY EXCAVATION, LIME STABILIZATION, AND CONCRETE PAVING.

5. INSTALL CONCRETE CURB. PLACE AN 16" WIDE STRIP OF SOD BEHIND THE CURB. FILTER FABRIC FENCE INSTALLED FLUSH WITH BACK OF CURB MAY BE USED IN LIEU OF SOD.

6. PERFORM FINAL GRADE ON LOTS. SPREAD STOCKPILED VEGETATIVE MATERIAL OVER LOTS. SEED AND FERTILIZED ALL AREAS TO ENSURE GROWTH.

A. EROSION AND SEDIMENT CONTROLS: EROSION AND SEDIMENT CONTROLS SHALL RETAIN SEDIMENT ON SITE TO THE EXTENT PRACTICABLE. CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS (WHERE APPLICABLE) AND GOOD ENGINEERING PRACTICES. OFFSITE SEDIMENT ACCUMULATIONS MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS WHEN CAPACITY HAS BEEN REDUCED BY 50%. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WALL SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES.

SOIL STABILIZATION PRACTICES:	OWNER/ DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
TEMPORARY SEEDING				
PERMANENT PLANTING, SODDING, OR SEEDING		X		
MULCHING- WHERE INDICATED		X		
SOIL RETENTION BLANKET				
VEGETATIVE BUFFER STRIPS				
PRESERVATION OF NATURAL RESOURCES				
OTHER: (RIP RAP)		X		

THE FOLLOWING RECORDS SHALL BE MAINTAINED AND ATTACHED TO THIS SWPPP:

DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED.

STRUCTURAL PRACTICES:	OWNER/ DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
SILT FENCES		X		
HAY BALES				
ROCK BERMS		X		
DIVERSION, INTERCEPTOR, OR PERIMETER DIKES				
DIVERSION, INTERCEPTOR, OR PERIMETER SWALES		X		
DIVERSION DIKE AND SWALE COMBINATIONS				
PIPE SLOPE DRAINS				
ROCK BEDDING AT CONSTRUCTION EXIT		X		
TIMBER MATTING AT CONSTRUCTION EXIT				
SEDIMENT TRAPS (AT INLETS)		X		
SEDIMENT BASINS				
STORM INLET PROTECTION		X		
STONE OUTLET STRUCTURES				
OTHER:				

B. STORM WATER MANAGEMENT MEASURES INSTALLED DURING CONSTRUCTION TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION:

CURBS & GUTTERS STORM SEWERS

C. OTHER CONTROLS

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE UNITED STATES, EXCEPT AS AUTHORIZED BY A PERMIT ISSUED UNDER SECTION 404 OF THE CLEAN WATER ACT.

WASTE MATERIALS: ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL CONTAINER. THE CONTAINER SHALL MEET ALL STATE AND CITY SOLID WASTE MANAGEMENT REGULATIONS. THE CONTAINER SHALL BE EMPTIED AS NECESSARY AND THE TRASH HAULED TO AN APPROPRIATE DUMP SITE. NO CONSTRUCTION MATERIALS WILL BE BURIED ON SITE.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINT, CLEANING SOLVENTS, ASPHALT PRODUCTS, PETROLEUM PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, AND CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHOULD BE CONTACTED IMMEDIATELY.

SANITARY WASTE: PORTABLE SANITARY FACILITIES WILL BE PROVIDED BY THE CONTRACTOR. ALL SANITARY WASTES WILL BE COLLECTED FROM PORTABLE UNITS AND SERVICED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

OFFSITE VEHICLE TRACKING SHALL BE MINIMIZED BY:

HAUL ROADS DAMPENED FOR DUST CONTROL LOADED
X HAUL TRUCKS TO BE COVERED WITH TARPALIN
X EXCESS DIRT ON ROAD REMOVED DAILY STABILIZED
CONSTRUCTION ENTRANCE

OTHER: TRUCKS HAULING VEGETATION AND DEBRIS WILL BE MONITORED AND SHALL BE COVERED WITH TARPALINS IF REQUIRED TO PREVENT DUST OR OTHER PARTICLES FROM BLOWING OR FALLING FROM TRUCK.

REMARKS: ALL OPERATIONS WILL BE CONDUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNTS OF SEDIMENT THAT MAY ENTER THE RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATERBODY, OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS.

3. MAINTENANCE

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF A REPAIR IS NECESSARY IT SHALL BE DONE AT THE EARLIEST TIME POSSIBLE, BUT NO LATER THAN SEVEN CALENDAR DAYS AFTER THE GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT TO DRAINAGE WAYS SHALL HAVE PRIORITY, FOLLOWED BY DEVICES PROTECTING STORM SEWER INLETS. MAINTENANCE SHALL BE PERFORMED BEFORE THE NEXT ANTICIPATED STORM EVENT OR AS SOON AS PRACTICABLE.

4. INSPECTION

AN INSPECTION WILL BE PERFORMED BY THE PERMITEE EVERY FOURTEEN DAYS AS WELL AS AFTER EVERY ONE-HALF INCH OR GREATER RAINFALL EVENT. AN INSPECTION AND RAINFALL REPORT WILL BE MADE AFTER EACH INSPECTION. ANY DEFICIENCIES WILL BE NOTED AND APPROPRIATE CHANGES SHALL BE MADE TO THE SYSTEM TO COMPLY WITH REQUIREMENTS.

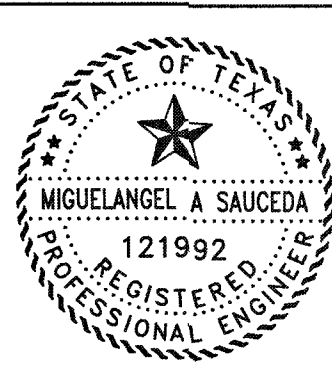
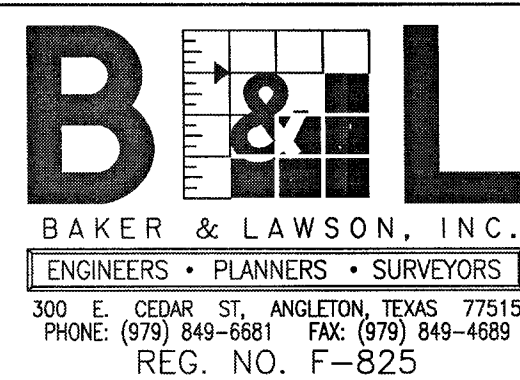
5. NON-STORMWATER DISCHARGES

FIRE HYDRANT FLUSHING
X BUILDING WASHDOWN WITHOUT DETERGENTS
X PAVEMENT WASHDOWN WITHOUT DETERGENTS
X CONDENSATE
UNCONTAMINATED GROUNDWATER
UNCONTAMINATED FOUNDATION DRAINS

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
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DATE	



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Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

SWPPP NARRATIVE

PROJECT NO. 13454

Drainage Analysis

Job # 13454 - Hazelwood, Buchta Rd, Angleton TX

Rainfall Intensity calculations for Brazoria County

I	=	intensity (in/hr)
b	=	coefficient
t	=	time of concentration
d	=	coefficient
e	=	coefficient

subscript	i=1 = 2year storm
	i=2 = 5 year storm
	i=3 = 10 year storm
	i=4 = 25 year storm
	i=5 = 50 year storm
	i=6 = 100 year storm

i := 1..6

b_i :=	d_i :=	d_i :=
75.5	0.807	14.7
82.8	0.775	16.9
88.1	0.756	18.4
100.8	0.753	19.1
107.3	0.742	19.8
120.2	0.741	21.3

 $T_{0.0}$:= 32.1ENTER PREDEVELOPMENT
TIME OF CONCENTRATION

$$I_i := \frac{b_i}{(d_i + T_{0.0})^{c_i}}$$

I₆ = 6.307 Predevelopment
Intensity of interest C_p := .1269

ENTER PREDEVELOPMENT C VALUE

 A := 15.1

ENTER AREA

 C_F := 1.00

$$Q := C \cdot C_F \cdot I_6 \cdot A$$

$$Q = 12.085$$

Must Insert correct subscript for I to obtain the relevant Q

$$V_{dev} := (C) \cdot A \cdot 43560 \cdot 1.08$$

$$V = 9.015 \times 10^4$$

For these calculations, total volume storage is assumed to
equal (C)*A with A converted to square feet multiplied
by 13" (1.08')DEVELOPMENT OF RUNOFF HYDROGRAPH
MALCOM'S METHOD AS DESCRIBED IN THE
BRAZORIA COUNTY DRAINAGE CRITERIA
MANUAL

$$T := \frac{V}{1.39 \cdot Q}$$

$$T = 5.367 \times 10^3$$

T = Time to peak, presented as a function
of volume and peak flow and therefore
indirectly related to time of concentration

t := 0, 1000 .. 84000

$$f(t) := \left(\frac{Q}{2}\right) \cdot \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$$

f(t) describes rising limb of hydrograph

$$g(t) := 4.34 \cdot Q \cdot \exp\left[-1.30 \cdot \left(\frac{t}{T}\right)\right]$$

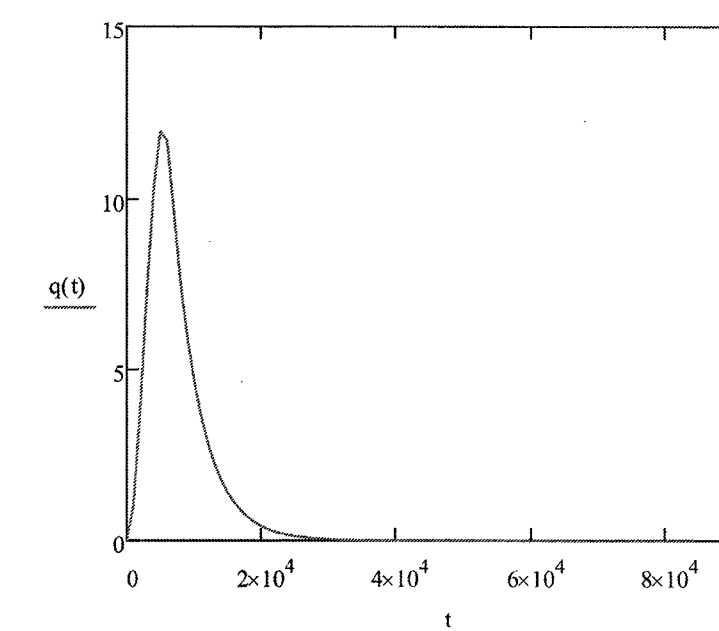
g(t) describes descending limb of hydrograph

$$q(t) := \text{if}(t \leq 1.25 \cdot T, f(t), g(t))$$

$$\text{Volume}_{pre} := \int_0^{86400} q(t) dt$$

$$\text{Volume}_{pre} = 9.047 \times 10^4$$

Predevelopment hydrograph

 $T_{0.0}$:= 29.1ENTER POST DEVELOPMENT TIME OF
CONCENTRATION

$$I_i := \frac{b_i}{(d_i + T_{0.0})^{c_i}}$$

I₆ = 6.583 Post development I of interest C_p := 0.55ENTER POST DEVELOPMENT C FACTOR
REVISE C1 AND AREA IF NECESSARY C_F := 1.25

$$Q_p := C \cdot I_6 \cdot A \cdot C_F$$

$$Q = 68.337$$

$$V_{dev} := (C) \cdot A \cdot 43560 \cdot 1.08$$

$$V = 3.907 \times 10^5$$

$$T := \frac{V}{1.39 \cdot Q}$$

$$T = 4.113 \times 10^3$$

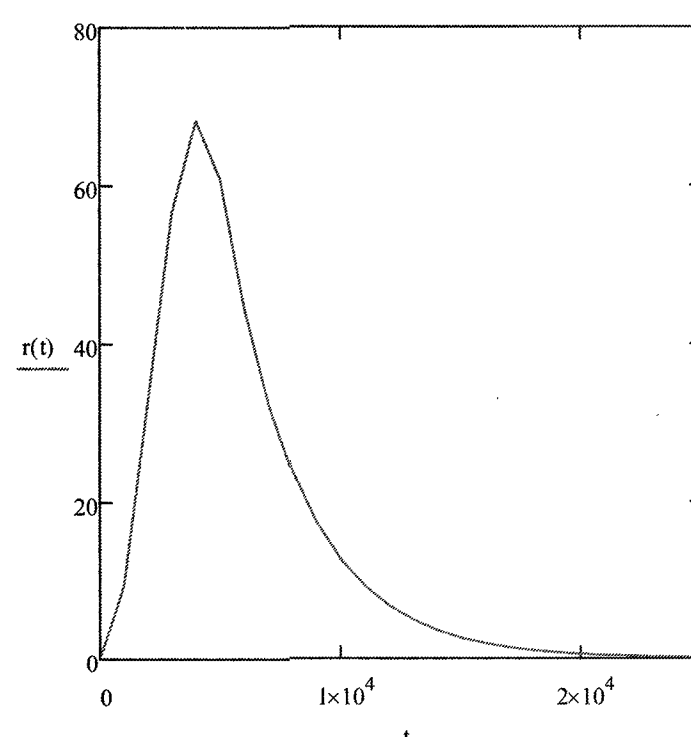
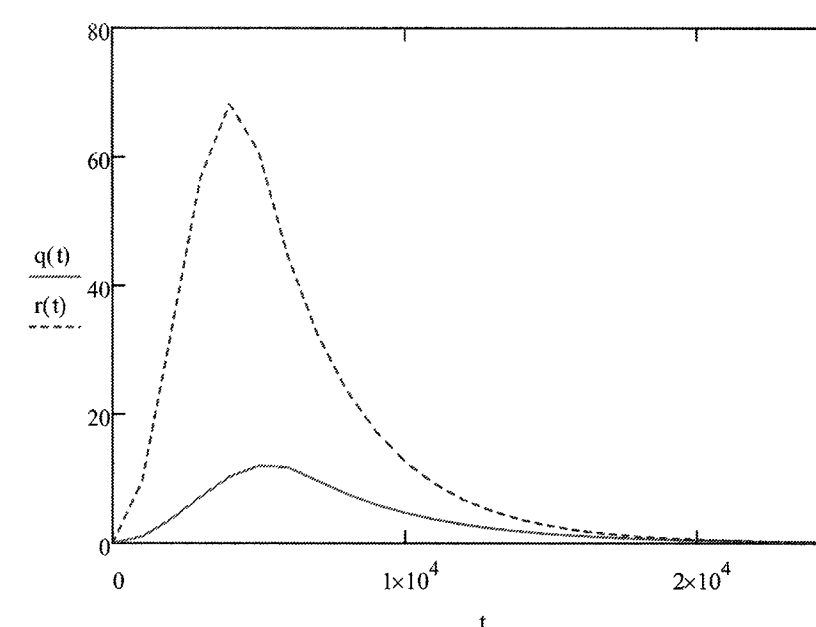
t := 0, 1000 .. 25000

$$f(t) := \left(\frac{Q}{2}\right) \cdot \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$$

$$g(t) := 4.34 \cdot Q \cdot \exp\left[-1.30 \cdot \left(\frac{t}{T}\right)\right]$$

$$r(t) := \text{if}(t \leq 1.25 \cdot T, f(t), g(t))$$

$$\text{Volume}_{post} := \int_0^{86400} r(t) dt$$

Volume_{post} = 3.921 × 10⁵
Post development
hydrographCombined pre and post development
hydrographs

$$v(t) := ((r(t) - q(t))) \cdot 1$$

$$v(t) := \text{if}(r(t) > 0, r(t), 0)$$

THE REQUIRED STORAGE COMPUTED
AS THAT PART OF THE POST DEVELOPMENT
HYDROGRAPH THAT FALLS ABOVE THE
PREDEVELOPMENT HYDROGRAPH

ACRE - FEET

$$\int_0^{86400} v(t) dt$$

$$43560 = 6.928$$

Hydrological and Hydraulic Impacts
Hazelwood - Buchta Road, Angleton TX
Job # 13454

Brazoria County, Texas

A = 15.1 Acre Development :

Pre Development:

C = 0.1269
TC = 32.1 Minutes, I = 6.307 in/hr
Q = 100 Year Storm = 12.085 cfs

Post Development

C = 0.55
T/C = 29.1 Minutes, I = 6.583 in/hr
Q = 100 Year Storm = 68.337 cfs

Required Detention:

6.928 acre - feet (301,784 c.f.)

Maximum allowable outfall rate is 0.80 cfs/acre
as according to Bra Co Master Study for
Drainage Areas BB35 & BB36 of Bastrop Bayou

Pre Q100 = 0.80 x 15.1 = 12.08 CFS

Miguel Saucedo, P.E. December 18, 2020

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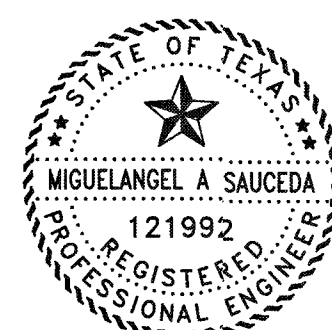
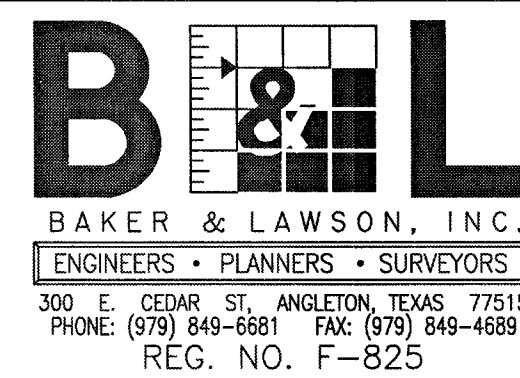
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Miguel Saucedo
P.E. 121992

Date: 11/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840PLAN: _____
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ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTIONHYDROLOGICAL
CALCULATIONS

PROJECT NO. 13454

Winstorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 6/17/2021 9:36:27 AMPROJECT NAME : BAYOU BEND
JOB NUMBER : 13454
PROJECT DESCRIPTION :
DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY OF: 5 Years

Runoff Computation for Design Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q (cfs)
A-3	0.55	1.67	10.00	10.00	7.99	0.000	7.336
A-4	0.55	0.83	10.00	10.00	7.99	0.000	3.646
A-5	0.55	1.38	10.00	10.00	7.99	0.000	6.062
A-1	0.55	0.38	10.00	10.00	7.99	0.000	1.669
A-2	0.55	0.94	10.00	10.00	7.99	0.000	4.129

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (sf)	Left-Slope Long Trans (ft)	Right-Slope Long Trans (ft)	Gutter n	Depth Allowed (ft)	Critic Elev.
A-3	Curb	10.00	n/a	0.50	2.00	0.014	1.50	26.70
A-4	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.00
A-5	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.00
A-1	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.60
A-2	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.60

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (sf)	Total Q (cfs)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left (ft)	Ponded Width Right (ft)
A-3	Curb	10.00	n/a	7.336	10.327	0.398	12.70	12.70
A-4	Curb	5.00	n/a	3.646	6.261	0.349	9.80	9.80
A-5	Curb	5.00	n/a	6.062	6.261	0.489	11.85	11.85
A-1	Curb	5.00	n/a	1.669	6.261	0.207	7.30	7.30
A-2	Curb	5.00	n/a	4.129	6.261	0.379	10.25	10.25

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr. Area (in/hr)	Cumulat. Tc (cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node	Total Disch.
A-3	Curb	0.550	2.99	11.36	11.40	0.000	0.00	12.375
A-4	Curb	0.550	3.82	12.02	11.13	0.000	0.00	15.401
A-5	Curb	0.550	5.20	12.12	11.09	0.000	0.00	20.880
A-1	Curb	0.550	0.38	10.00	12.00	0.000	0.00	1.669
A-2	Curb	0.550	1.32	10.26	7.90	0.000	0.00	5.737
MH-1	CircMh	0.550	1.32	10.26	7.90	0.000	0.00	5.737
OUT	outlt	0.550	5.20	12.29	7.30	0.000	0.00	20.880

Conveyance Configuration Data

Run#	Node I.D.	Flowline Elev. US DS	Flowline Elev. DS	Shape #	Span	Rise	Length	Slope	n_value
1	A-1	20.46	20.33	Circ 1	0.00	1.50	44.00	0.30	0.013
2	A-2	20.33	20.06	Circ 1	0.00	2.00	142.00	0.19	0.013
3	MH-1	20.06	19.83	Circ 1	0.00	2.00	104.00	0.22	0.013
4	A-3	19.83	19.51	Circ 1	0.00	2.50	164.00	0.20	0.013
5	A-4	19.51	19.45	Circ 1	0.00	2.50	28.00	0.21	0.013
6	A-5	19.45	19.00	Circ 1	0.00	3.00	224.00	0.20	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run#	US Elev (ft)	DS Elev (ft)	Fr. Slope (%)	Unif. Depth (ft)	Actual Unif. Depth (ft)	Velocity (f/s)	Q (cfs)	Cap (cfs)	Junc Loss
1	22.54	22.53	0.025	0.55	1.50	2.84	0.94	1.67	0.000
2	22.53	22.44	0.064	1.09	2.00	3.26	1.83	5.74	0.000
3	22.44	22.37	0.064	1.05	2.00	3.45	1.83	5.74	0.000
4	22.37	22.22	0.091	1.52	2.50	3.95	2.52	12.37	0.000
5	22.22	22.18	0.141	1.72	2.50	4.28	3.14	15.40	0.000
6	22.18	22.00	0.098	1.88	3.00	4.49	2.95	20.88	0.000

OUTPUT FOR ANALYSIS FREQUENCY OF: 100 Years

Runoff Computation for Analysis Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q (cfs)
-----------	---------------	------------	------------	-----------------	-----------------	----------------	---------------

Winstorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 4/28/2021 3:58:12 PMPROJECT NAME : BAYOU BEND
JOB NUMBER : 13454
PROJECT DESCRIPTION :
DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY OF: 5 Years

Runoff Computation for Design Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q (cfs)
A-6	0.55	2.35	10.00	10.00	7.99	0.000	10.323
A-7	0.55	1.20	10.00	10.00	7.99	0.000	5.271

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (sf)	Left-Slope Long Trans (ft)	Right-Slope Long Trans (ft)	Gutter n	Depth Allowed (ft)	Critic Elev.
A-6	Curb	10.00	n/a	0.50	2.00	0.014	1.50	26.70
A-7	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.70

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (sf)	Total Q (cfs)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left (ft)	Ponded Width Right (ft)
A-6	Curb	10.00	n/a	10.323	10.327	0.500	14.45	14.45
A-7	Curb	5.00	n/a	5.271	6.261	0.446	11.25	11.25

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr. Area (in/hr)	Cumulat. Tc (cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node	Total Disch.
A-6	Curb	0.550	2.35	10.00	12.00	0.000	0.00	10.323
A-7	Curb	0.550	3.55	10.12	11.94	0.000	0.00	15.512
OUT	outlt	0.550	3.55	10.12	11.94	0.000	0.00	15.512

Conveyance Configuration Data

Run#	Node I.D.	Flowline Elev. US DS	Flowline Elev. DS	Shape #	Span	Rise	Length	Slope	n_value
3	A-6	17.87	17.82	Circ 1	0.00	2.50	28.00	0.18	0.013
4	A-7	17.82	17.60	Circ 1	0.00	2.50	104.00	0.21	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run#	US Elev (ft)	DS Elev (ft)	Fr. Slope (%)	Unif. Depth (ft)	Actual Unif. Depth (ft)	Velocity (f/s)	Q (cfs)	Cap (cfs)	Junc Loss
3	22.17	22.15	0.063	1.41	2.50	3.63	2.10	10.32	0.000
4	22.15	22.00	0.143	1.72	2.50	4.31	3.16	15.51	0.000

OUTPUT FOR ANALYSIS FREQUENCY OF: 100 Years

Runoff Computation for Analysis Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (in/hr)	Intensity (cfs)	Supply Q (cfs)	Total Q (cfs)
A-6	0.55	2.35	10.00	10.00	12.00	0.000	15.507
A-7	0.55	1.20	10.00	10.00	12.00	0.000	7.918

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (sf)	Left-Slope Long Trans (ft)	Right-Slope Long Trans (ft)	Gutter n	Depth Allowed (ft)	Critic Elev.
A-6	Curb	10.00	n/a	0.50	2.00	0.014	1.50	26.70
A-7	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.70

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (sf)	Total Q (cfs)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left (ft)	Ponded Width Right (ft)
A-6	Curb	10.00	n/a	15.507	13.436	0.583	16.85	16.85
A-7	Curb	5.00	n/a	7.918	6.718	0.597	13.10	13.10

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr. Area (in/hr)	Cumulat. Tc (cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node	Total Disch.
A-6	Curb	0.550	2.35	10.00	12.00	0.000	0.00	15.507
A-7	Curb	0.550	3.55	10.12	11.94	0.000	0.00	23.317
OUT	outlt	0.550	3.55	10.12	11.94	0.000	0.00	23.317

Conveyance Configuration Data

Run#	Node I.D.	Flowline Elev. US DS	Flowline Elev. DS	Shape #	Span	Rise	Length	Slope	n_value
3	A-6	17.87	17.82	Circ 1	0.00	2.50	28.00	0.18	0.013
4	A-7	17.82	17.60	Circ 1	0.00	2.50	104.00	0.21	0.013

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run#	US Elev (ft)	DS Elev (ft)	Fr. Slope (%)	Unif. Depth (ft)	Actual Unif. Depth (ft)	Velocity (f/s)	Q (cfs)	Cap (cfs)	Junc Loss
3	22.38	22.34	0.143	1.88	2.50	3.93	3.16	15.51	0.000
4	22.34	22.00	0.323	2.50	2.50	4.75	4.75	23.32	0.000

NORMAL TERMINATION OF WINSTORM.

RECORD DRAWING

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTIONWINDSTORM DATA
I-1 TO I-5
I-6 TO I-9

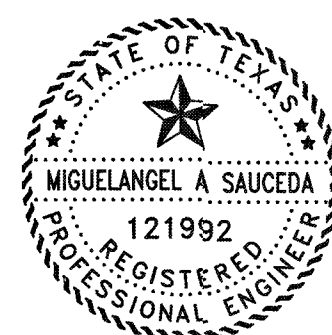
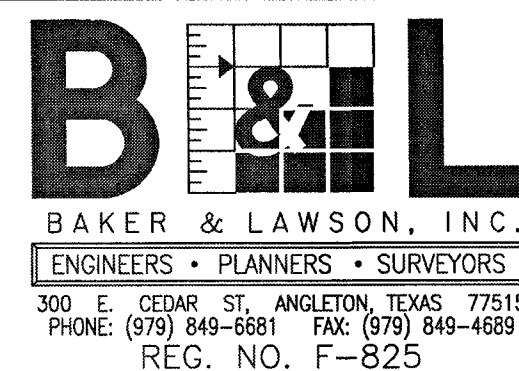
PROJECT NO. 13454

DESIGNED MS

DRAWN

CHECKED

DATE

The seal appearing on
this document was
authorized by
Miguel Saucedo
P.E. 121992

Date: 1/11/22

OWNER:

Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:

PROFILE:

HORIZONTAL:

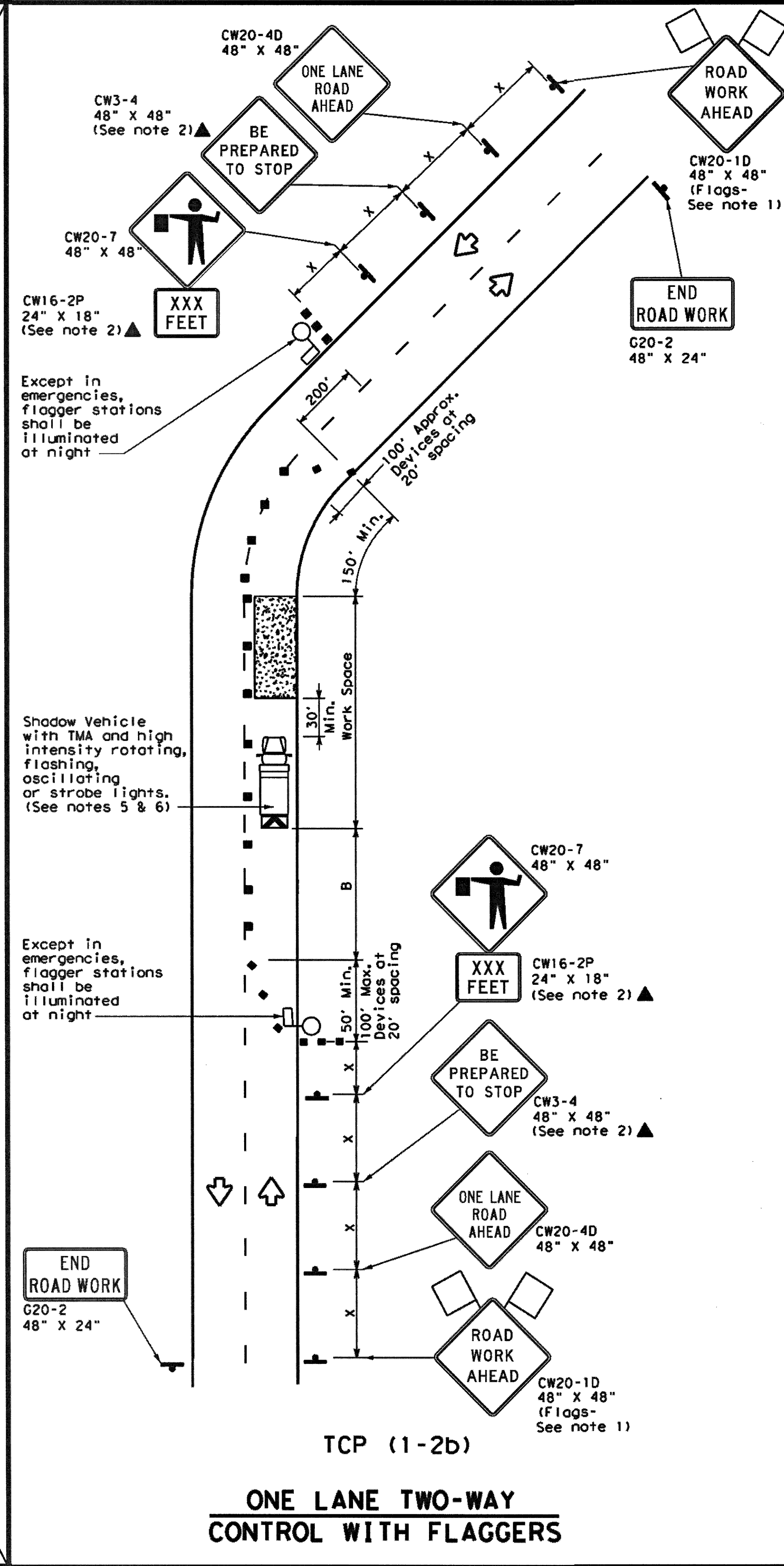
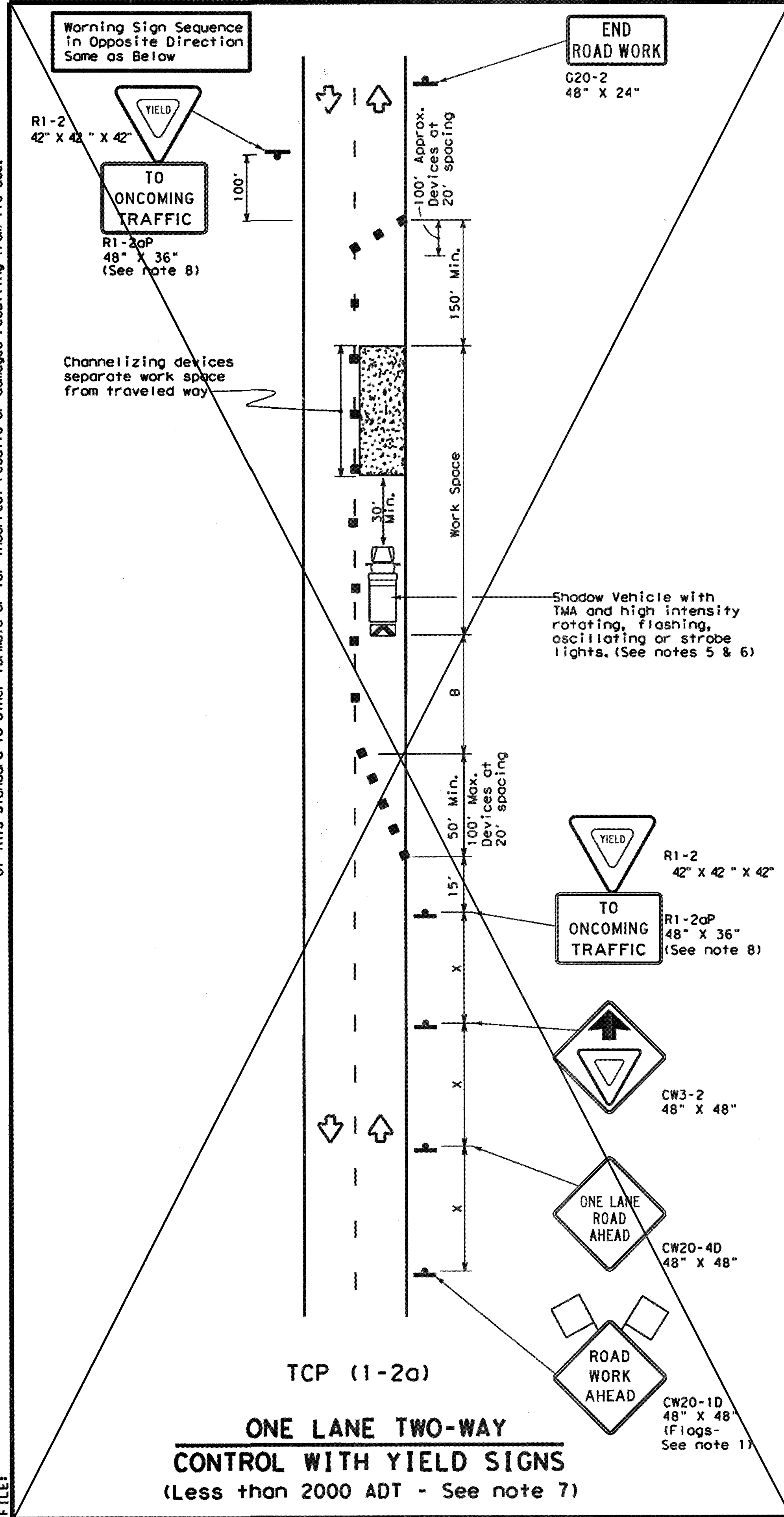
VERTICAL:

REVISIONS

NO.	DATE	DESCRIPTION	APPROVED

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DATE: FILE:



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

Posted Speed *	Formula	Minimum Desirable Taper Lengths * %			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "x" "B"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45		350'	395'	440'	45'	90'	320'	195'	360'
50		450'	505'	560'	50'	100'	400'	240'	425'
55	$L = WS$	550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

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

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
- Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.

TCP (1-2a)

- R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no longer than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
- R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.

TCP (1-2b)

- Flaggers should use two-way radios or other methods of communication to control traffic.
- Length of work space should be based on the ability of flaggers to communicate.
- If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
- Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
- Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN

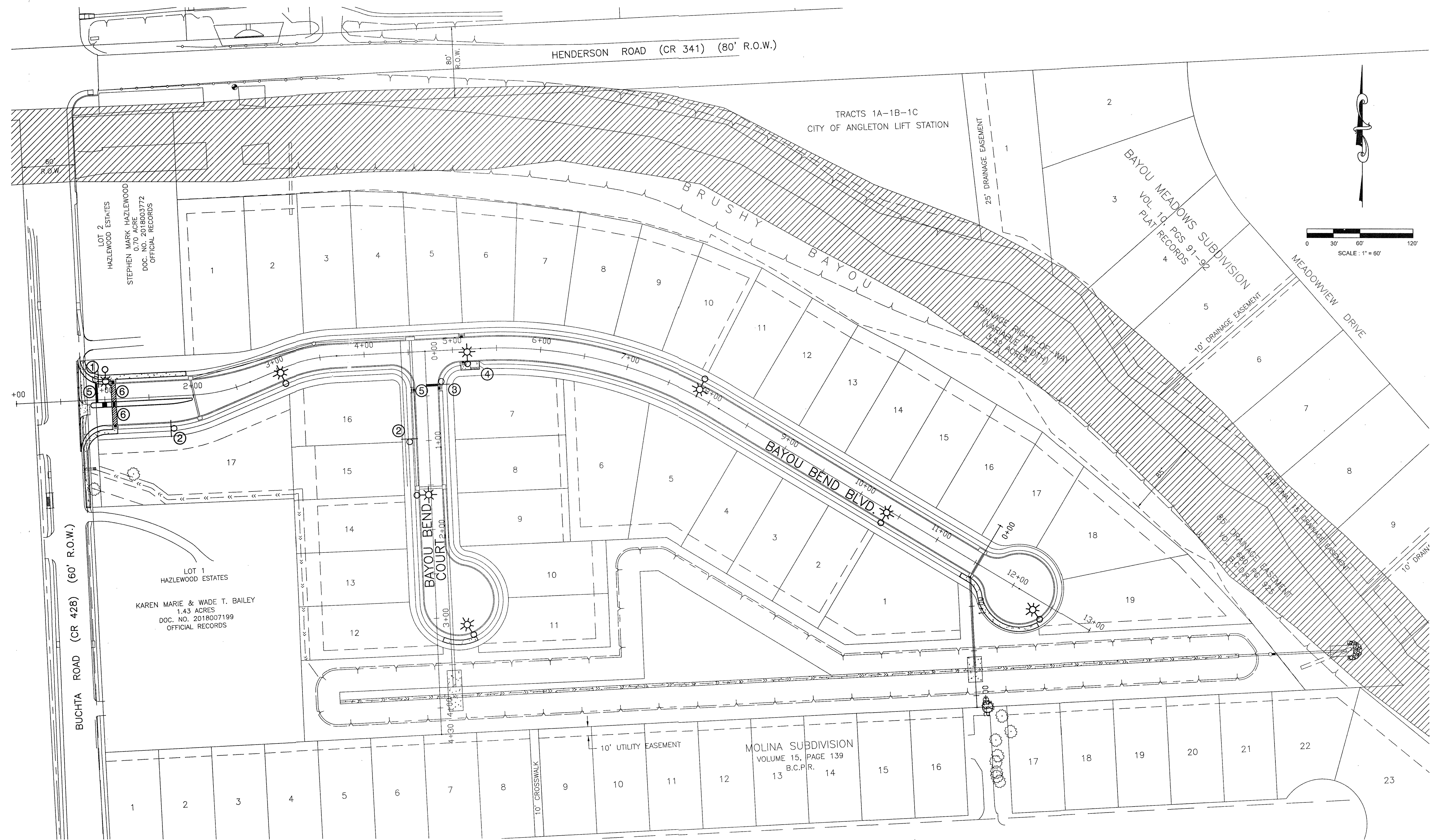
ONE-LANE TWO-WAY TRAFFIC CONTROL

TCP (1-2)-18

FILE: tcp1-2-18.dgn	DN: CK1	DN: CK1
© TxDOT December 1985	CONT SECT	JOB HIGHWAY
REVISIONS		
4-90 4-98	DIST	COUNTY SHEET NO.
2-94 2-12		
1-97 2-18		

RECORD DRAWING

DESIGNED: MS DRA: N CHECKED: _____ DATE: _____	 BAKER & LAWSON, INC. ENGINEERS • PLANNERS • SURVEYORS 300 E. CEDAR ST. ANGLETON, TEXAS 77515 PHONE: (979) 849-6881 FAX: (979) 849-6889 REG. NO. F-825	 The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992 Date: 1/11/24	OWNER: Clint Peltier Clint Peltier Custom Homes 979-481-4840	PLAN: _____ PROFILE: _____ HORIZONTAL: _____ VERTICAL: _____	BAYOU BEND ESTATES ANGLETON, TEXAS PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION	TRAFFIC CONTROL PLAN PROJECT NO. 13454
---	--	---	--	---	--	--



GENERAL CONSTRUCTION NOTES:

1. SECURELY ATTACH STREET NAME SIGN TO TRAFFIC SIGNAL SUPPORT WIRES WITH MULTI-LEVELING, WIND DAMPING BRACKETS.
2. SUPPORT WIRES SHOULD NOT BE PROHIBITED FROM INDEPENDENT MOVEMENT.
3. INSTALL ONE STREET NAME SIGN APPROXIMATE 2' FROM POLE ABOVE ON-COMING TRAFFIC ON EACH TRAFFIC SIGNAL SIGN.
4. THE FIRST LETTER OF EACH WORD SHALL BE UPPER CASE. SUBSEQUENT LETTERS SHALL BE LOWER CASE, ALL INDIVIDUAL LETTERS FOR DAMPER 7/16" SHALL BE UPPER CASE. STREET SUFFIXES & "NO OUTLET" SHALL BE UPPER CASE.
5. ALL SHEETING SHALL BE "DIAMOND GRADE" OR APPROVED EQUAL.
6. USE ANODIZED ALUMINUM ONLY.
7. STREET SIGN FONTS SHALL BE HELVETICA BOLD, MEDIUM STYLE.
8. MINIMUM SIGN THICKNESS: 9" SIGNS = .080", 14" SIGNS = .1875"

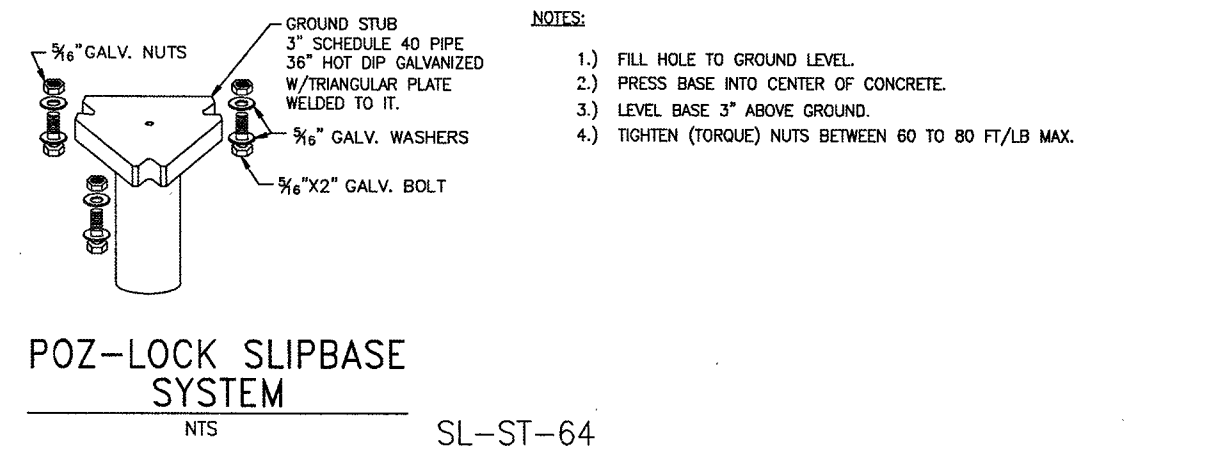
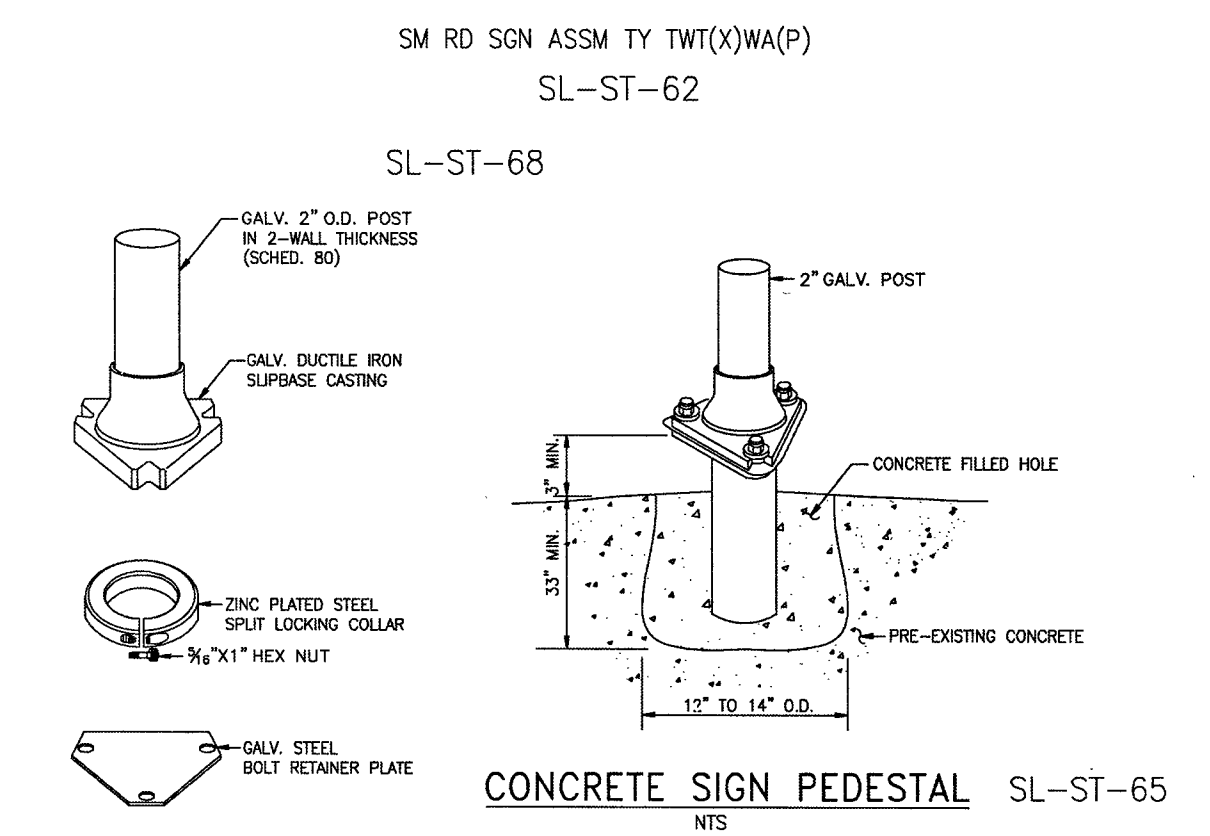
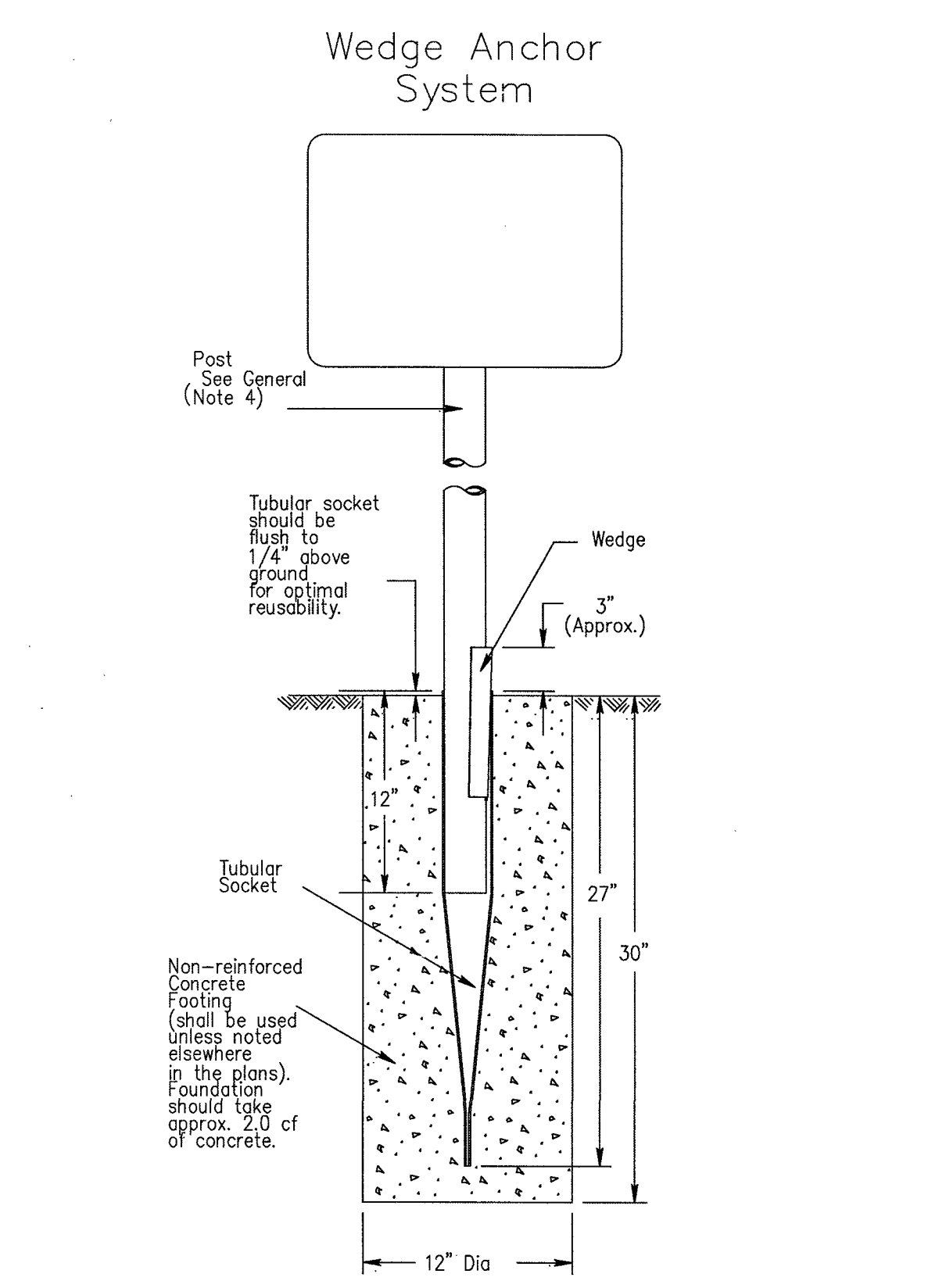
SL-ST-68

DETAIL OF SIGN FOR MAST ARM TRAFFIC SIGNAL POLES

SL-ST-67

NOTES:

1. HELVETICA BOLD, MEDIUM STYLE, WITH 8" UPPER CASE LETTERS AND 6" LOWER CASE LETTERS.
2. REFER TO C.O.S.L. DESIGN STANDARDS FOR MORE INFO.



☼ STREET AREA LIGHTING (8 LOCATIONS)

♣ STREET SIGNS

- ① STOP - FACING BAYOU BEND BLVD. BUCHTA RD. / BAYOU BEND BLVD. "NO OUTLET" SIGN FACING BUCHTA RD.
- ② 30 MPH SPEED LIMIT
- ③ STOP - FACING BAYOU BEND COURT BAYOU BEND BLVD. / BAYOU BEND COURT "DEAD END" SIGN FACING BAYOU BEND BLVD.
- ④ 3 CBU POST OFFICE MAIL BOXES
- ⑤ 24" WIDE THERMOPLASTIC STOP BAR
- ⑥ CROSSWALK STRIPPING (THERMOPLASTIC)

LIGHTING PLAN PROVIDED IS SHOWN AS RECOMMENDED. FINAL LOCATIONS AND QUANTITIES ARE DETERMINED BY TEXAS NEW MEXICO POWER (TNMP).

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS

DRAWN

CHECKED

DATE

B & L

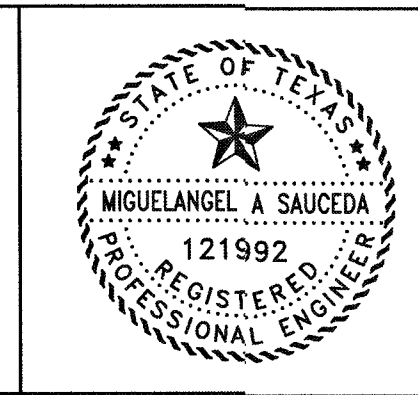
BAKER & LAWSON, INC.

ENGINEERS • PLANNERS • SURVEYORS

300 E CEDAR ST. ANGLETON, TEXAS 77515

PHONE: (979) 849-6681 FAX: (979) 849-4683

REG. NO. F-825



The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992

Date: 1/11/22

OWNER:

Clint Peltier

Clint Peltier Custom Homes

979-481-4840

PLAN: 1" = 60'

PROFILE:

HORIZONTAL:

VERTICAL:

BAYOU BEND ESTATES

ANGLETON, TEXAS

PLANS FOR

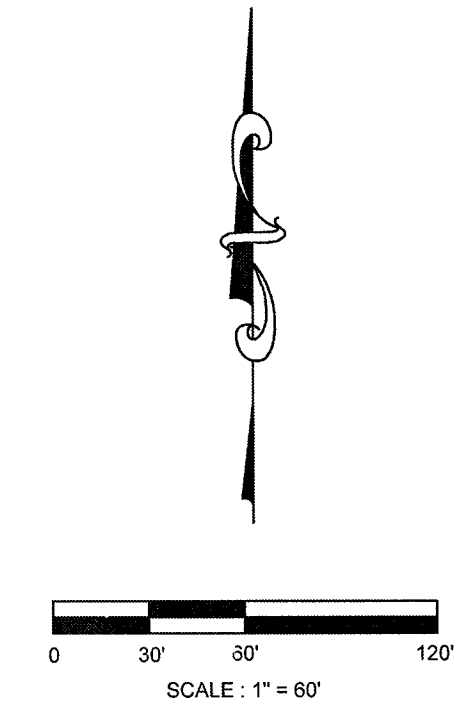
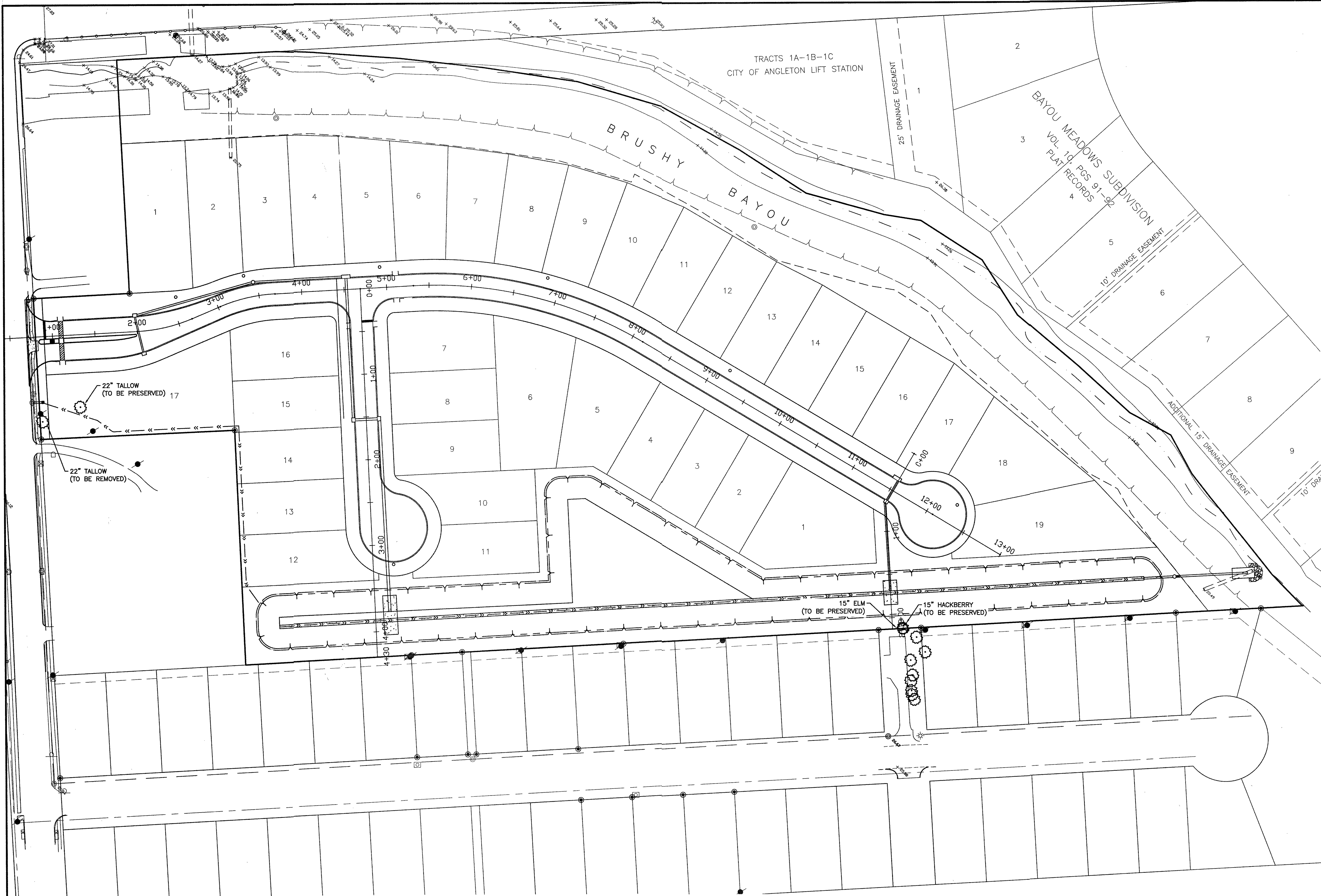
GRADING, PAVING, UTILITIES

AND DETENTION

PAVEMENT MARKING, STREET SIGN, MAILBOX, AND ROADWAY LIGHTING LAYOUT

PROJECT NO. 13454

RECORD DRAWING



SYMBOLS

- = SET 5/8" I.R. W/CAP "BAKER & LAWSON"
- = FOUND MONUMENT (AS NOTED)
- ⊕ = (TBM) TEMPORARY BENCHMARK
- ⬤ = POWER POLE
- = MAIL BOX
- ⊞ = WATER METER
- (with cross) = LIVE OAK (HERITAGE TREE)
- (with cross) = PECAN (HERITAGE TREE)
- (with dot) = ELM (SIGNIFICANT TREE)
- (empty) = INSIGNIFICANT TREE

THERE WERE NO HERITAGE TREES (LIVE OAK OR PECAN) IDENTIFIED ON THE PROPERTY BASED ON FIELD SURVEY PERFORMED 11/16/2020 AND 11/17/2020.

NO REPLACEMENT TREES ARE REQUIRED.

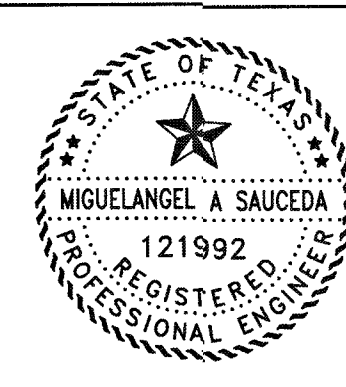
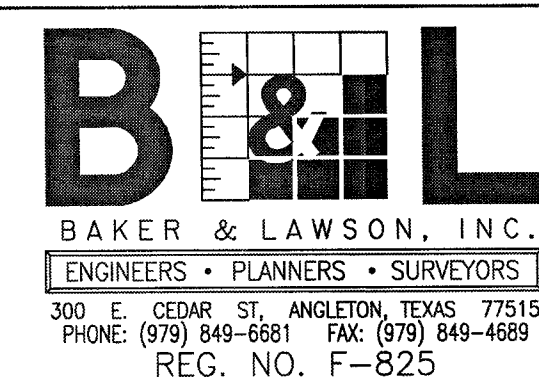
THERE IS NO CREDIT FOR PRESERVATION OF HERITAGE TREES ON THIS SITE.

ONE ELM TREES IS ON THE SITE. THE ELM TREE IS CONSIDERED A SIGNIFICANT TREE UNDER THE ANGLETON LDC. THE ELM TREE WILL BE PRESERVED.

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED	MS
DRAWN	
CHECKED	
DATE	



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Date: 1/11/22

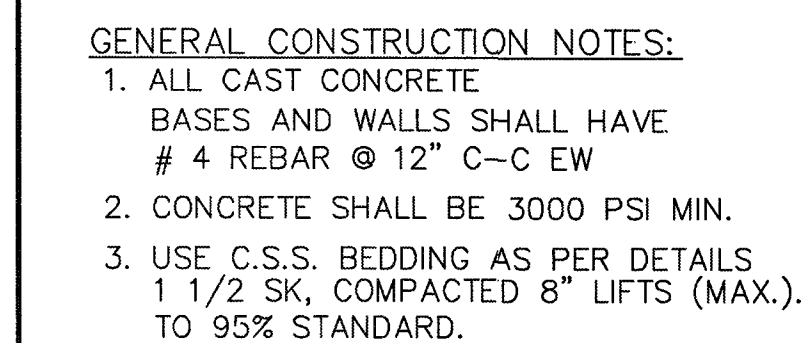
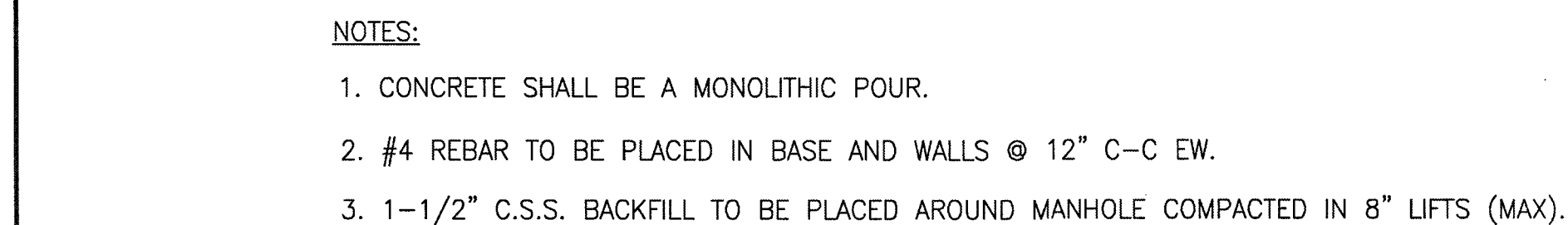
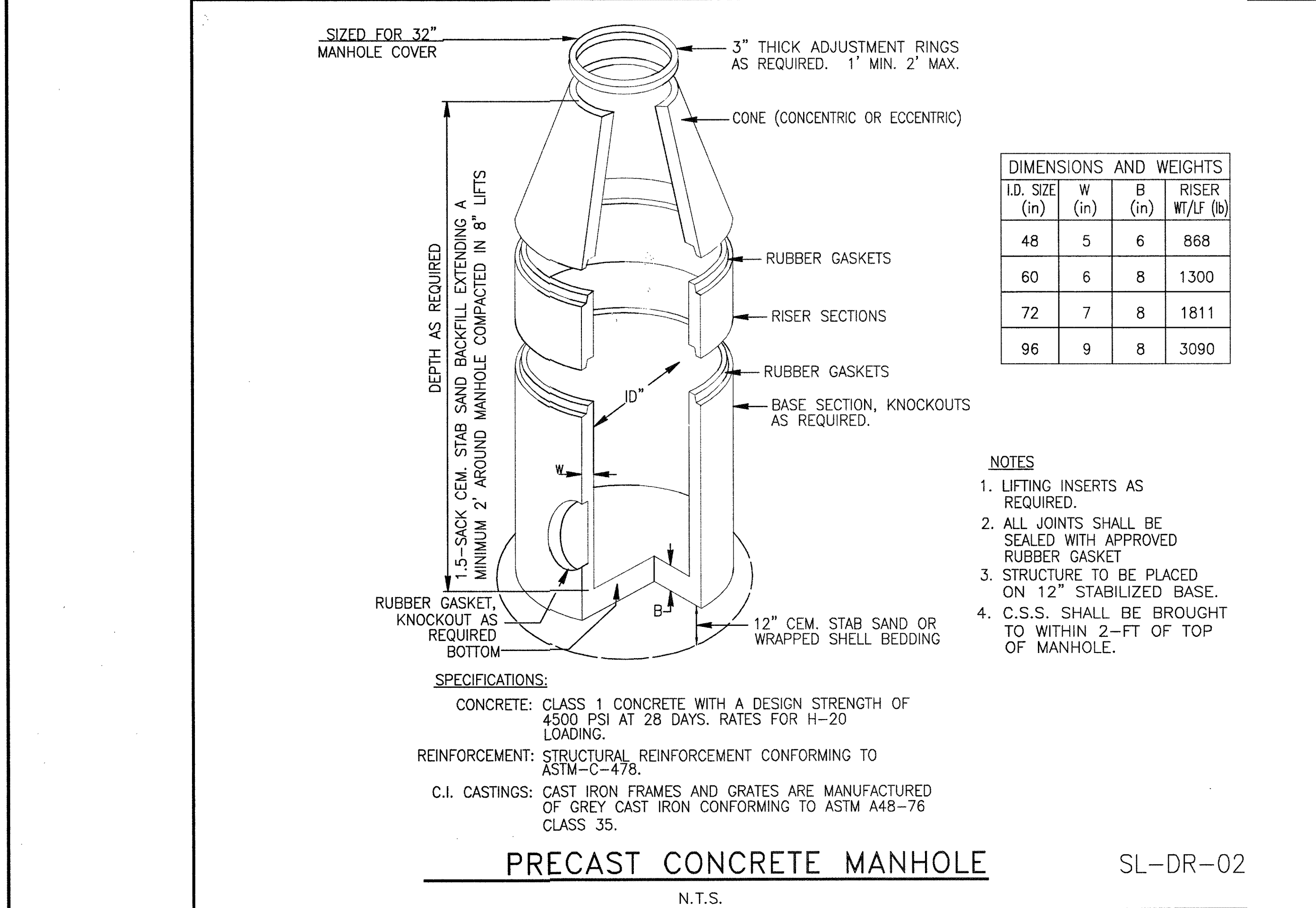
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

HERITAGE TREE SURVEY
AND TREE PRESERVATION
PLAN

PROJECT NO. 13454



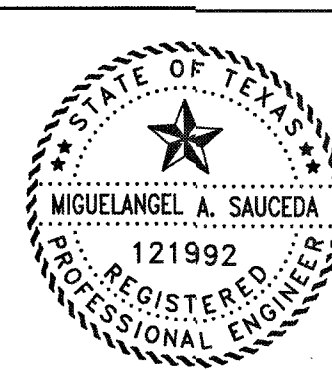
NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS


DRAWN BT

CHECKED _____

DATE _____



The seal appearing on
this document was
authorized by
Miguelangel A. Saucedo
P.E. 121992

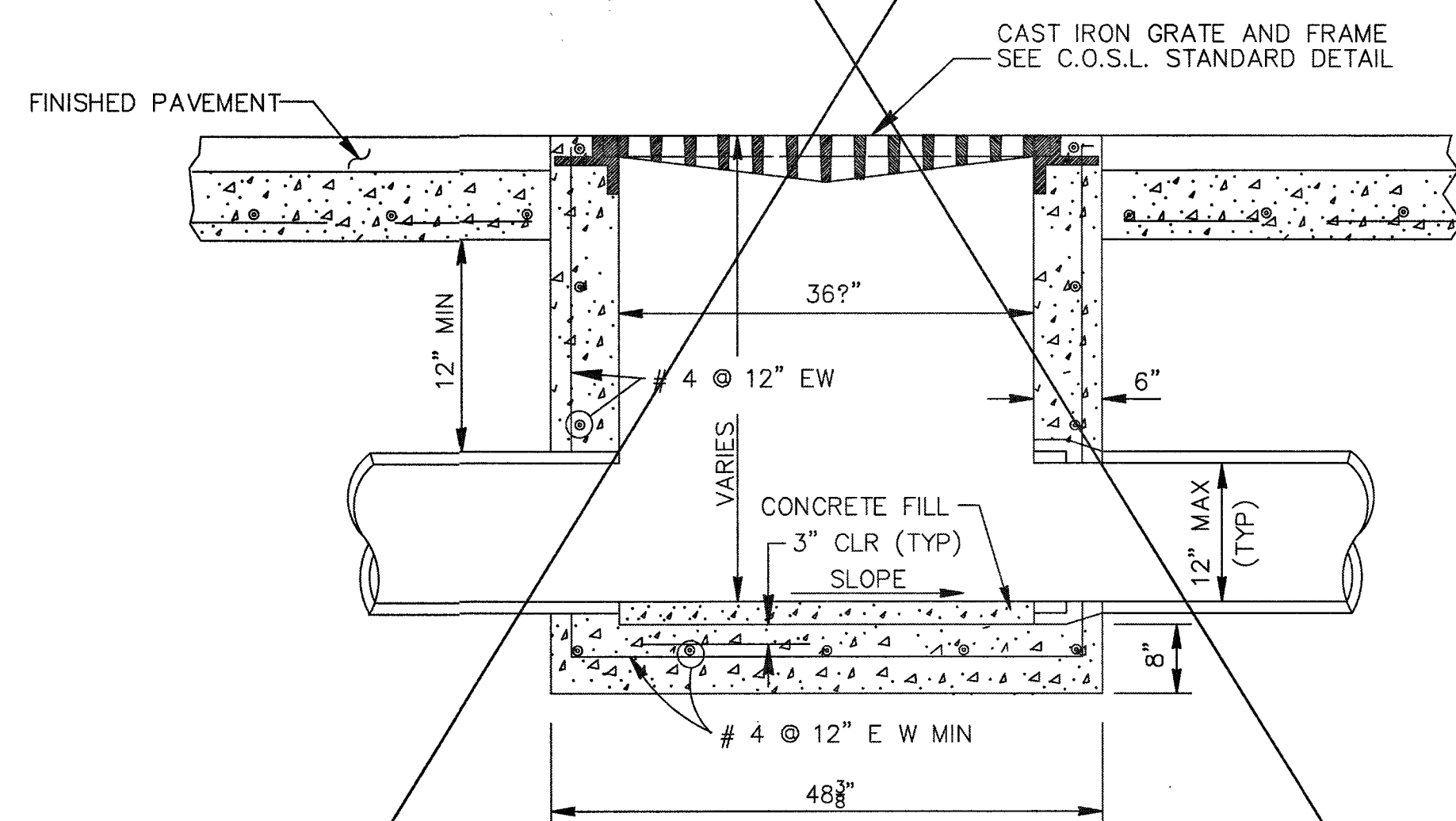

Date: 1/11/77

PLAN: _____
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 VERTICAL: _____

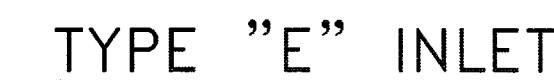
**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

STORM SEWER MANHOLE
CONSTRUCTION DETAILS
SL-03

PROJECT NO. 13454

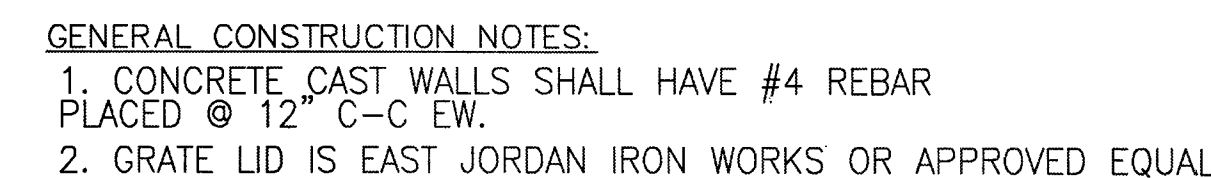


~~SL-DR-24~~



N.T.S

SL-DR-22



REFER TO:

1. GENERAL NOTES, C.S.S & CONCRETE NOTES.
2. STORM SEWER NOTES

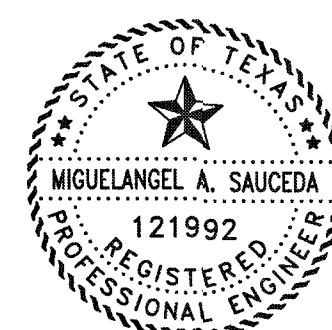
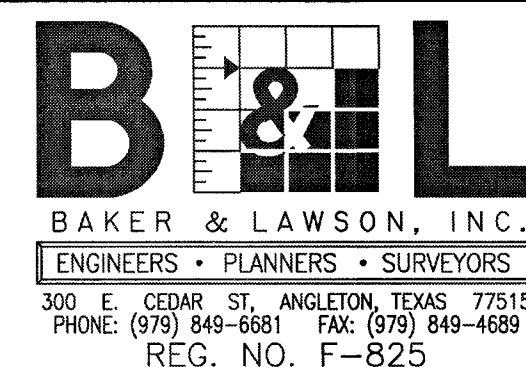
SL-DR-23

RECORD DRAWING


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NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN BT
CHECKED
DATE



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this document was
authorized by
Miguelangel A. Saucedo
P.E. 121992



Date: 11/1/78

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

STORM SEWER MANHOLE
CONSTRUCTION DETAILS
SL-07

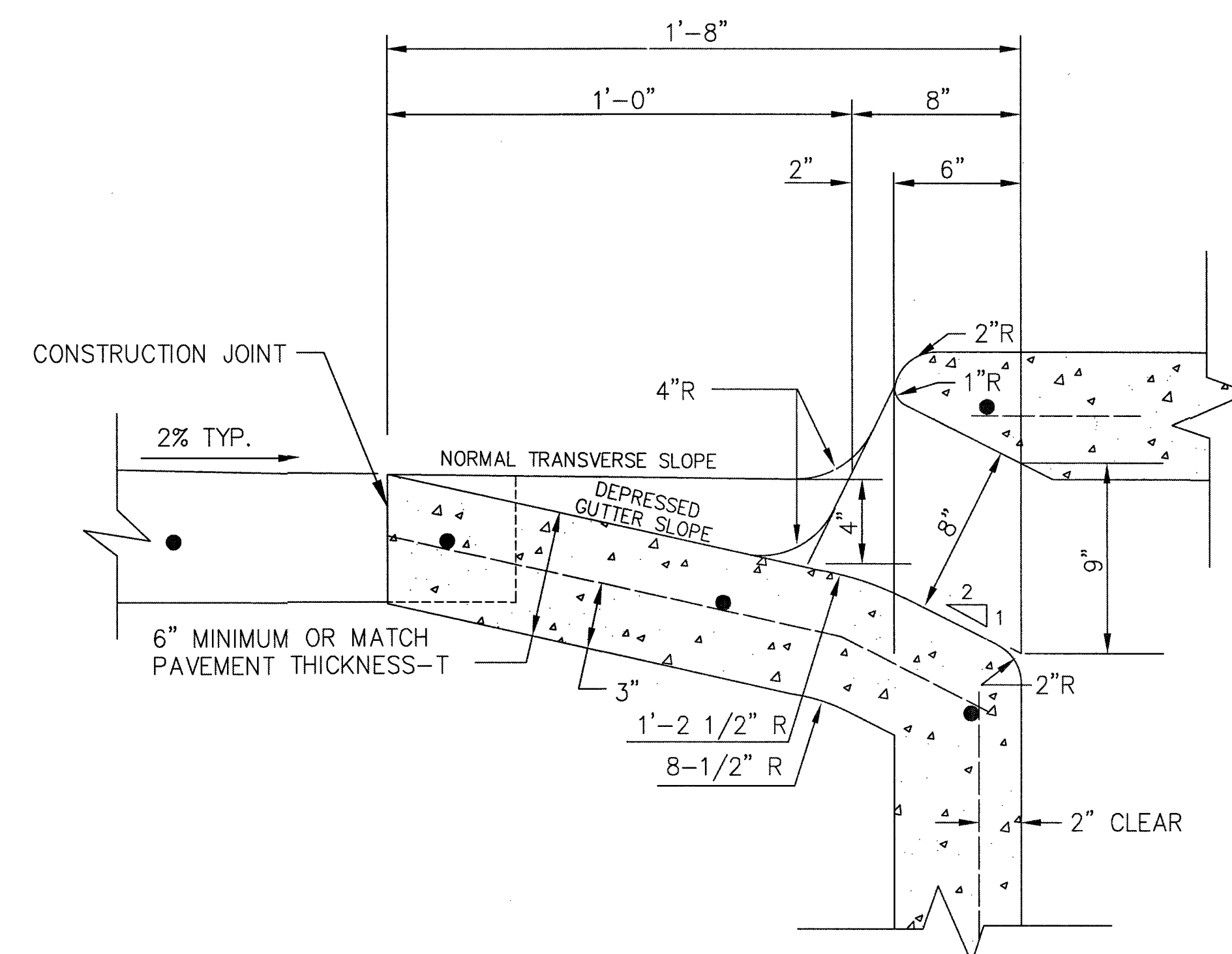
PROJECT NO. 13454



TYPE "H-2" INLET

SL-DR-25

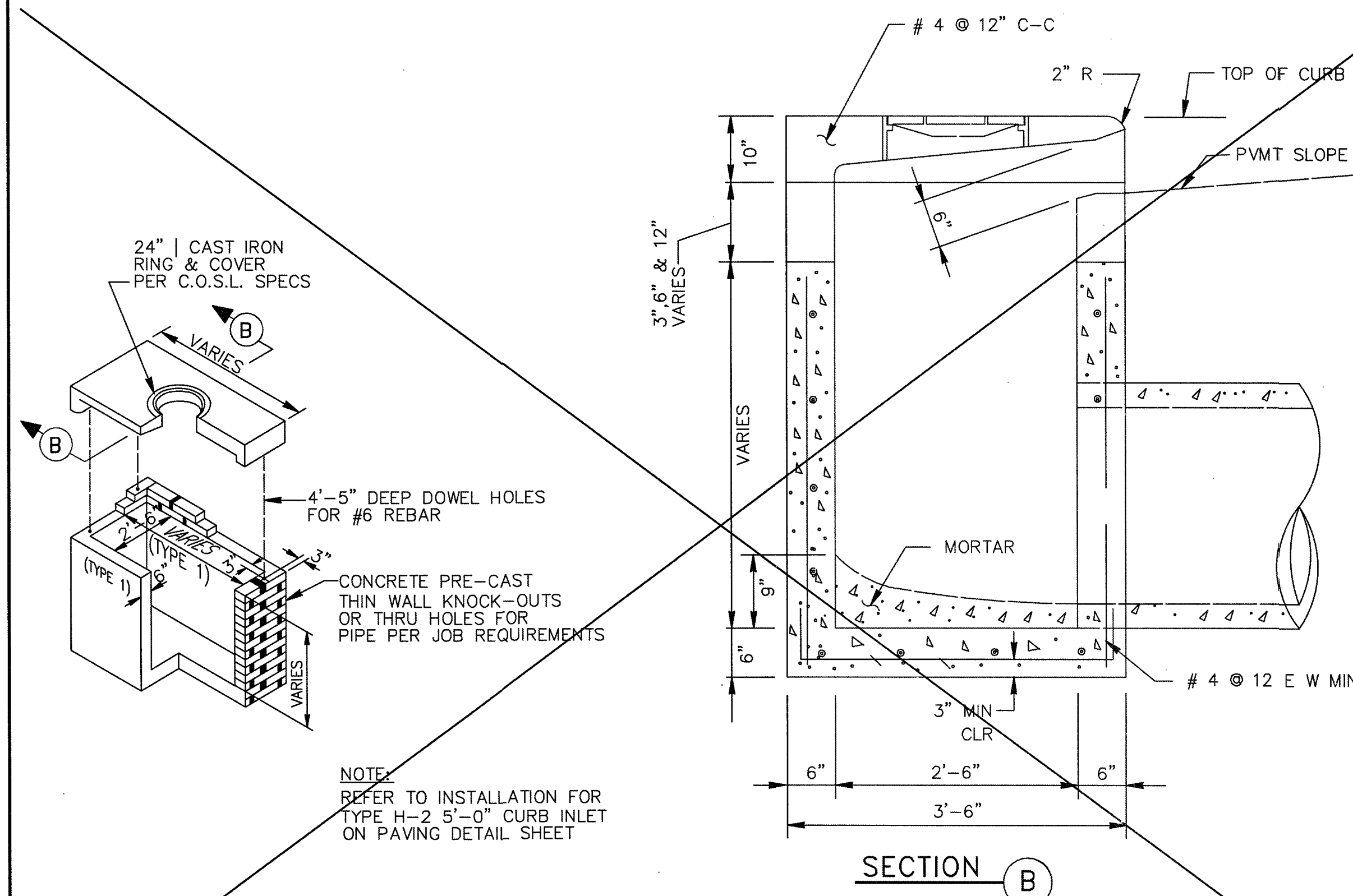
- NOTES:
1. INLET WALLS MAY BE EXTENDED USING PRECAST RISER SECTION.
 2. INLET TOPS MUST BE SECURED TO THE INLET WALL USING #6 DOWELS DRILLED AND GROUTED A MINIMUM DEPTH OF 5" INTO THE INLET WALL. A PLAN PREPARED BY THE MANUFACTURER MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. THE PLAN SHOULD DETAIL CONNECTIONS AND SEALING OF JOINTS.
 3. PRECAST INLET TOPS SHALL NOT UTILIZE MULTIPLE ONE-FOOT SECTIONS TO ACHIEVE GRADE.
 4. INLET BACKFILL SHALL BE CEMENT STABILIZED SAND TO THE TOP OF THE INLET FIRST STAGE.
 5. GRADE 60 REINFORCEMENT. #4 STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
 6. PRECAST INLET MUST BE CONSTRUCTED TO SPECIFICATIONS REQUIRED BY APPROVED DRAWINGS. (SEE GENERAL NOTES).
 7. TOPS POURED-IN-PLACE REQUIRE #4 REBAR @ 12" C-C EACH WAY, 4,500 PSI CONCRETE MINIMUM AND 3" THICK MINIMUM.
 8. PAVEMENT DEPTH AT INLET SHALL BE EQUAL TO OR GREATER THAN REQUIRED PAVEMENT DEPTH.
 9. DEPRESS GUTTER TO INLET.
 10. ALL SIDES OF ALL INLETS MUST BE COMPACTED.
 11. REFER TO GEOTECHNICAL REPORTS FOR RECOMMENDED TRENCH SIDE SLOPES.



THROAT DETAIL FOR STANDARD INLETS ON CONCRETE STREETS

SCALE: N.T.S.

SL-DR-40



TYPE "H-2" PRECAST INLET

N.T.S.

SL-DR-26

REFER TO:

1. GENERAL NOTES
2. SEE C.S.S., PAVEMENT NOTES

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

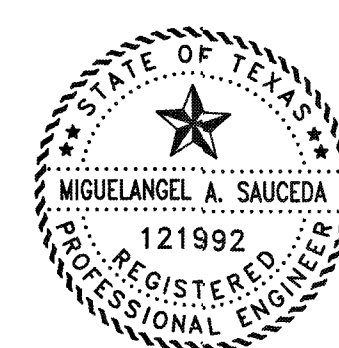
DESIGNED MS

DRAWN BT

CHECKED

DATE _____

B L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77511
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825



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Miguelangel A. Saucedo
P.E. 121992

Date: 1/11/22

OWNER:

Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:

PROFILE:

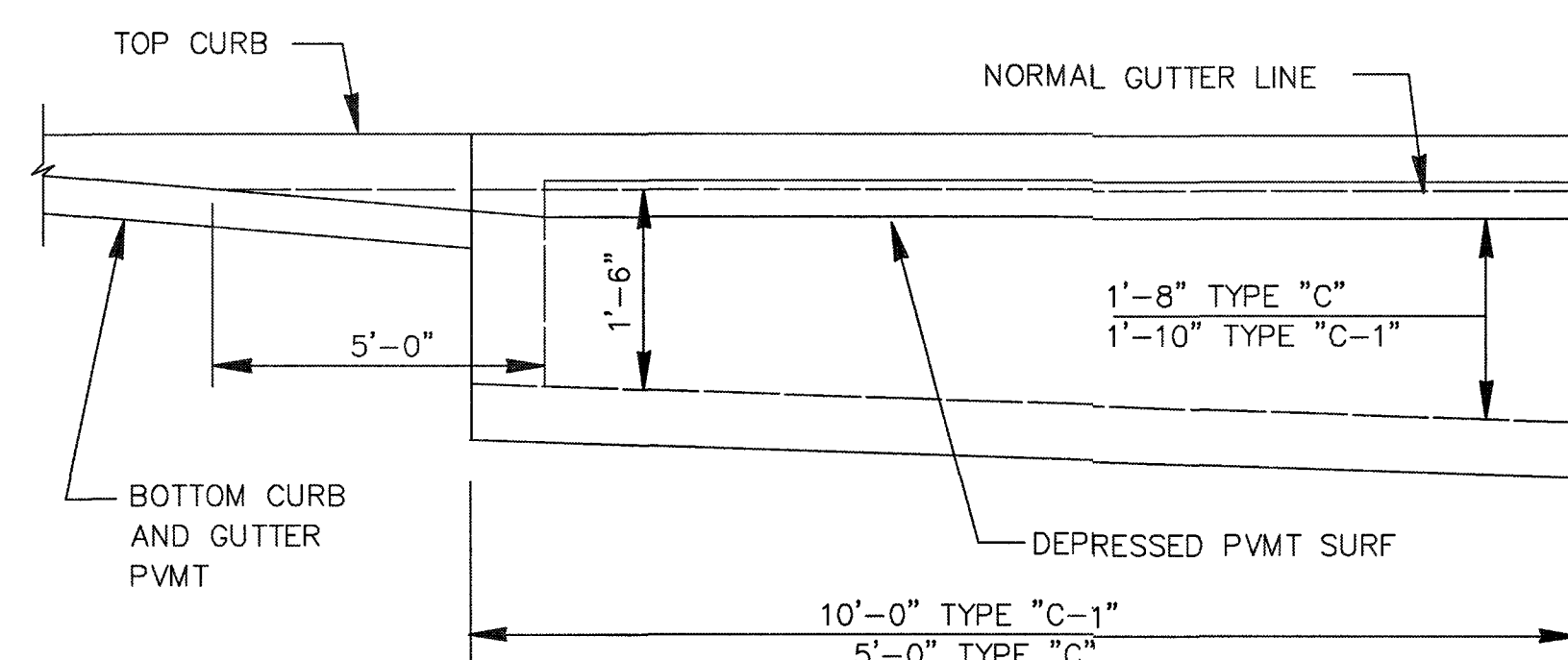
HORIZONTAL:

VERTICAL:

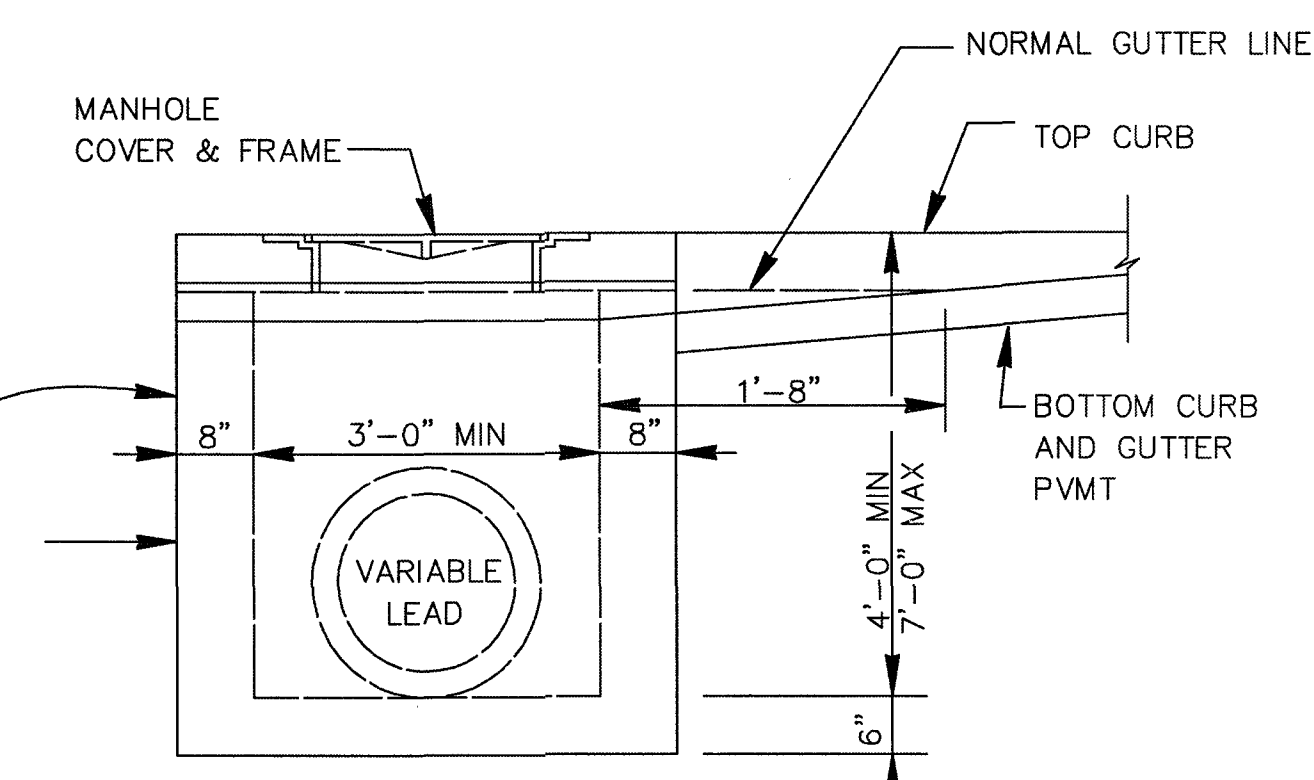
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER INLET
CONSTRUCTION DETAILS II
SL-08

PROJECT NO. 13454



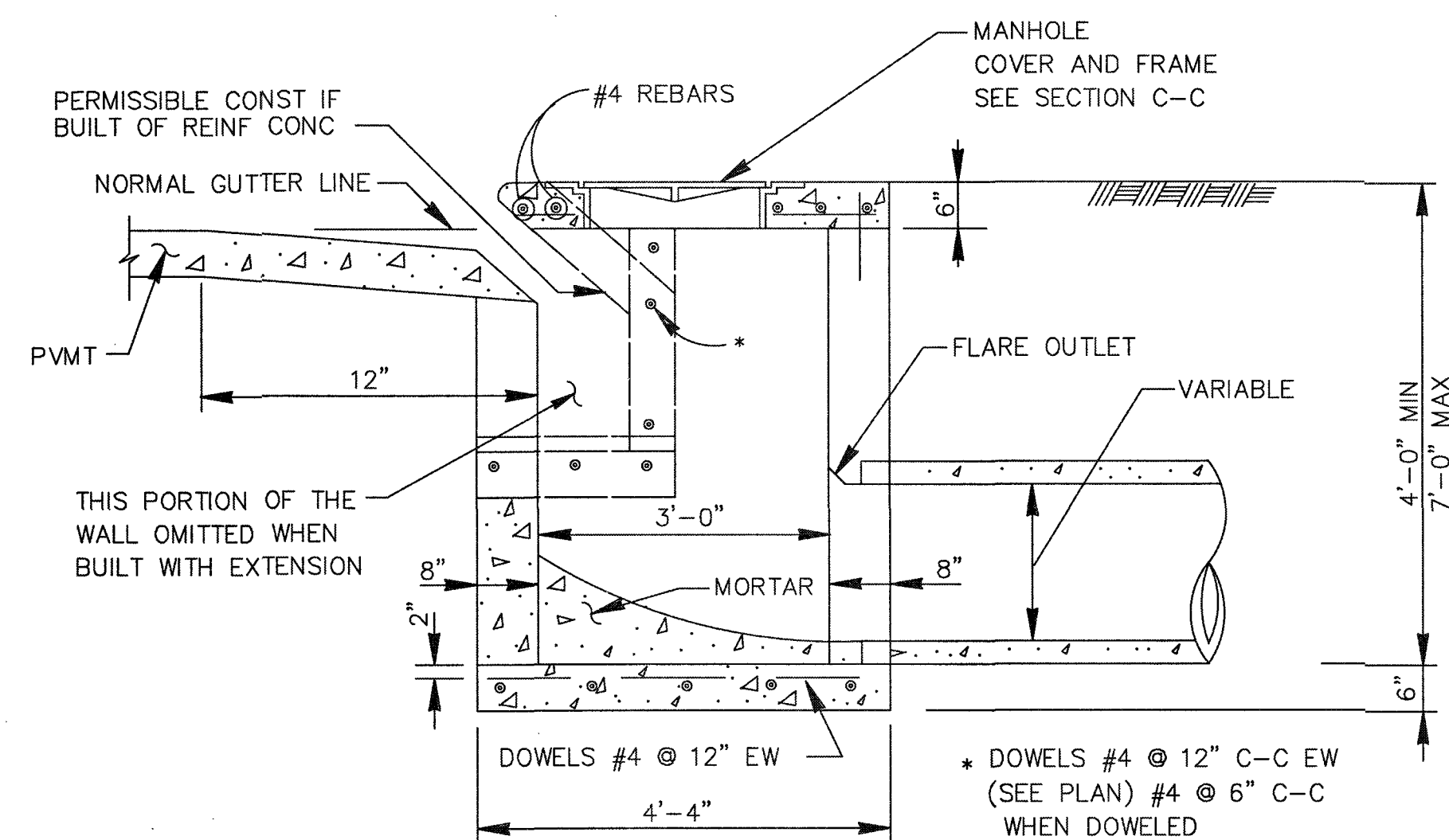
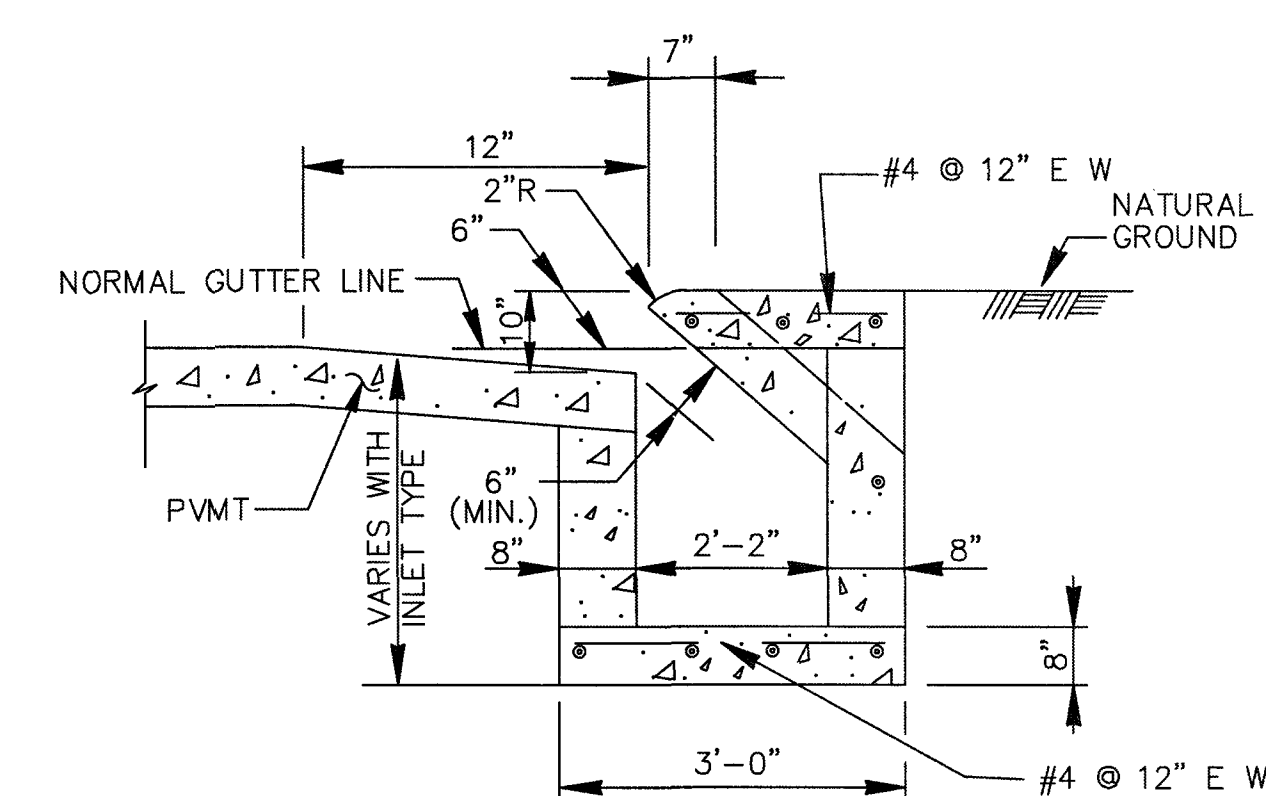
PLAN



SL-DR-27

TYPE "C" INLET WITH ONE EXTENSION
TYPE "C-1" INLET WITH DOUBLE EXTENSION
TYPE "C-2" INLET WITH EXTEN. ON EACH SIDE
TYPE "C-2A" INLET WITH NO EXTENSION


1. FOR TYPE "C-1" INLETS PROVIDE A CENTER 6"x6" COLUMNS IN THE CURB LINE BETWEEN ALL EXTENSIONS.
2. WALLS TO BE 8" IF BUILT WITH REINFORCED CONCRETE. BRICK WALLS ARE NOT ALLOWED.

SECTION A 

SL-DR-28

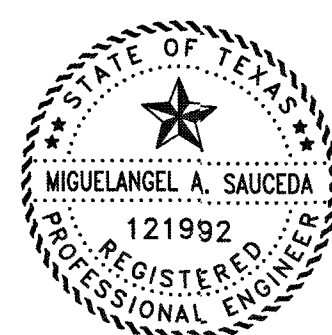
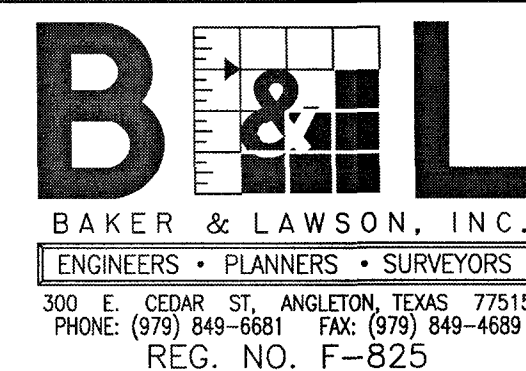
REFER TO:


1. GENERAL NOTES
2. STORM SEWER NOTES

No.	DATE	REVISION			
SEAL:					
_____ DATE _____					
DESIGN ENGINEER:					
					
CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT					
<u>CONSTRUCTION PLANS FOR:</u>					
STORM SEWER INLET CONSTRUCTION DETAILS III					
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-09 SHEET OF				

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED _____ MS
DRAWN _____ BT
CHECKED _____
DATE _____



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P.E. 121992

Date: 1/11/22

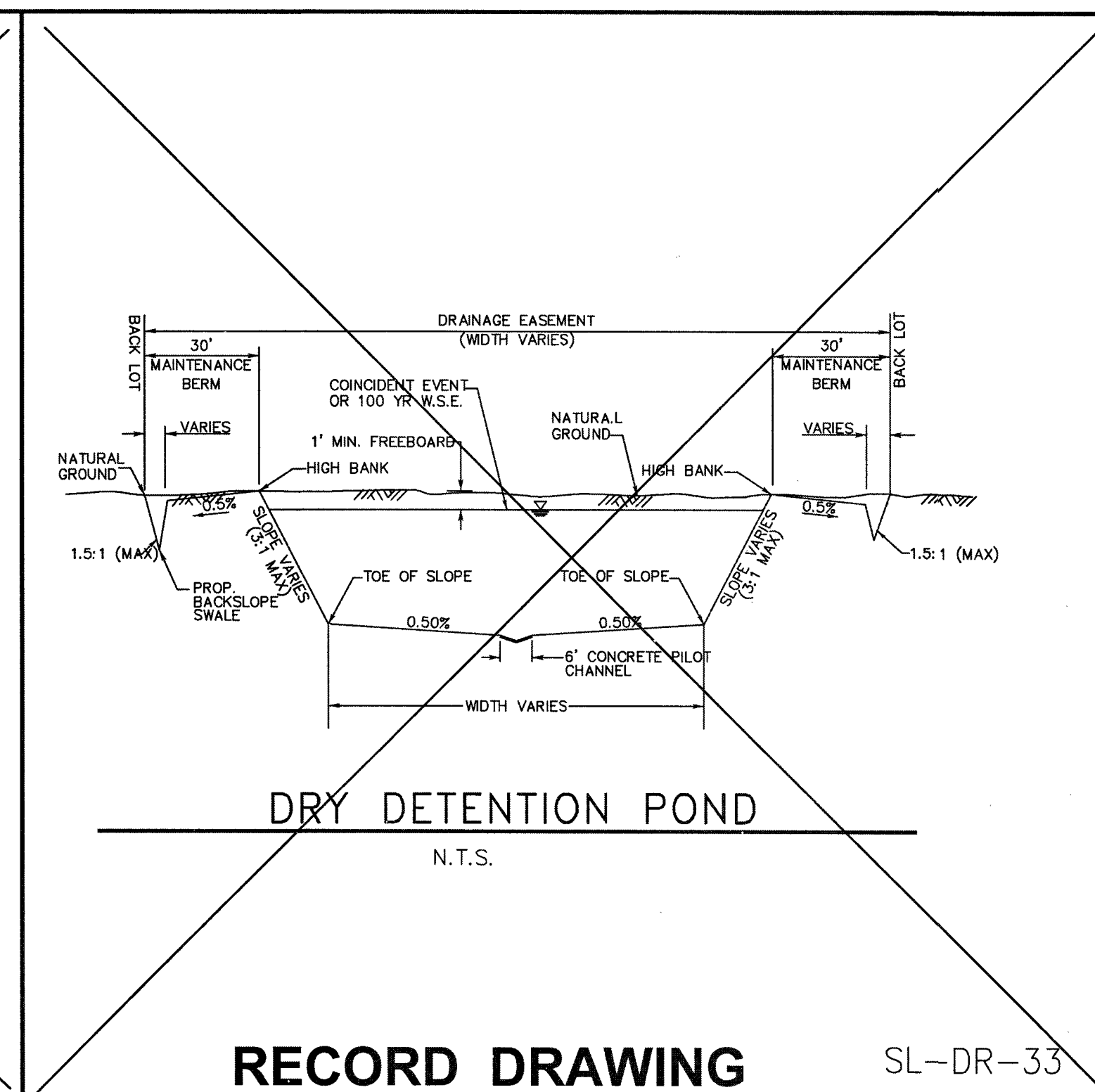
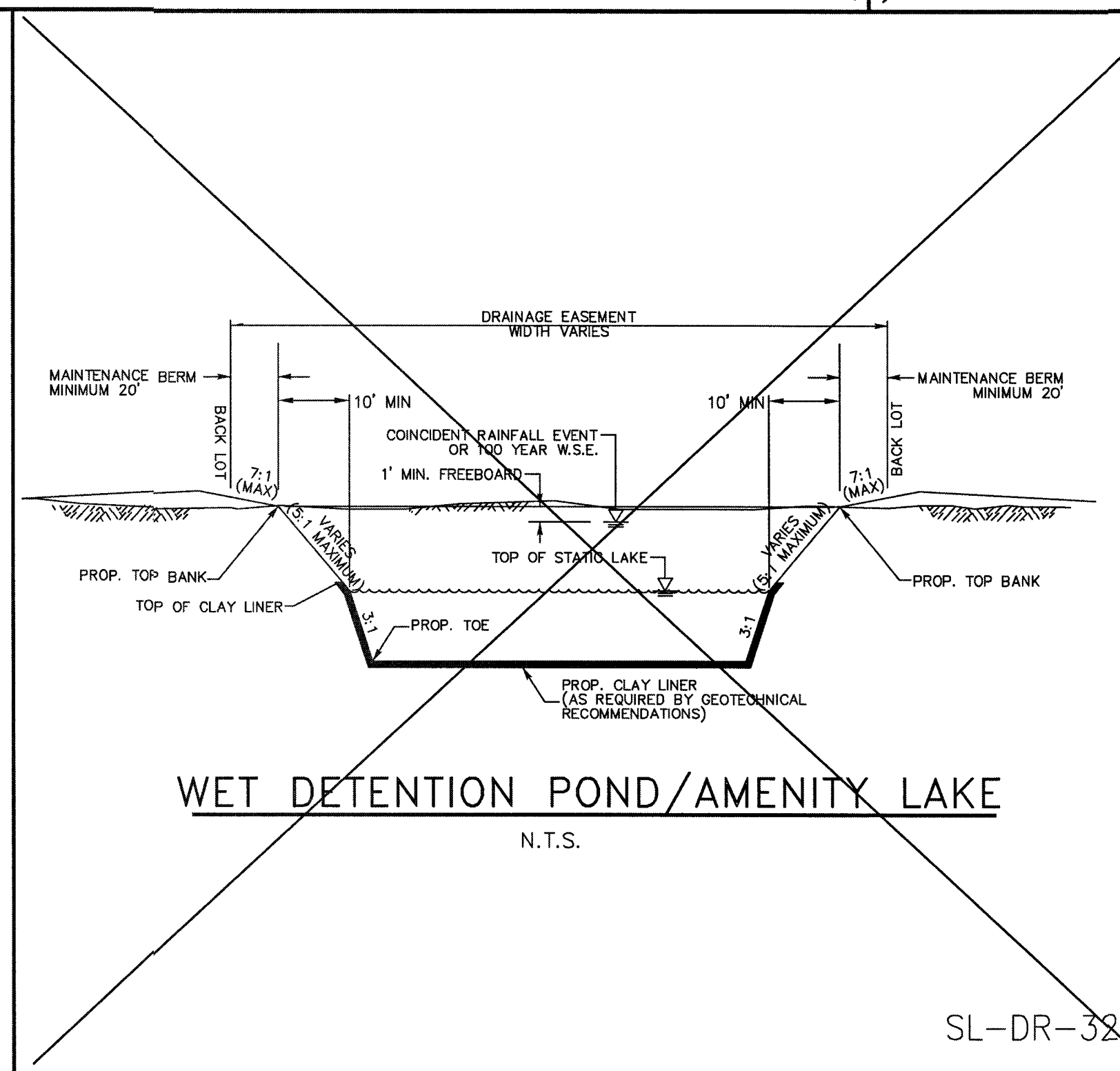
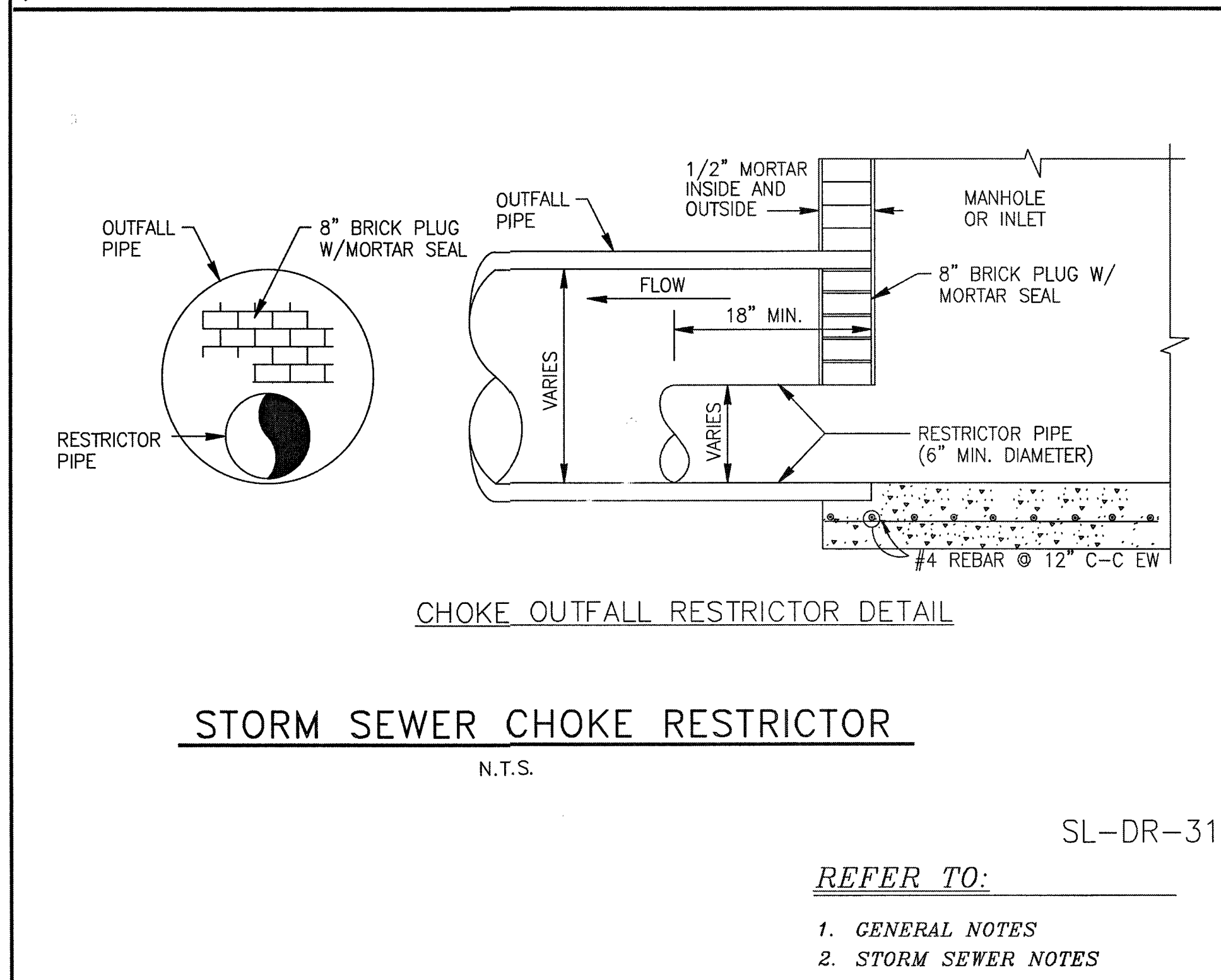
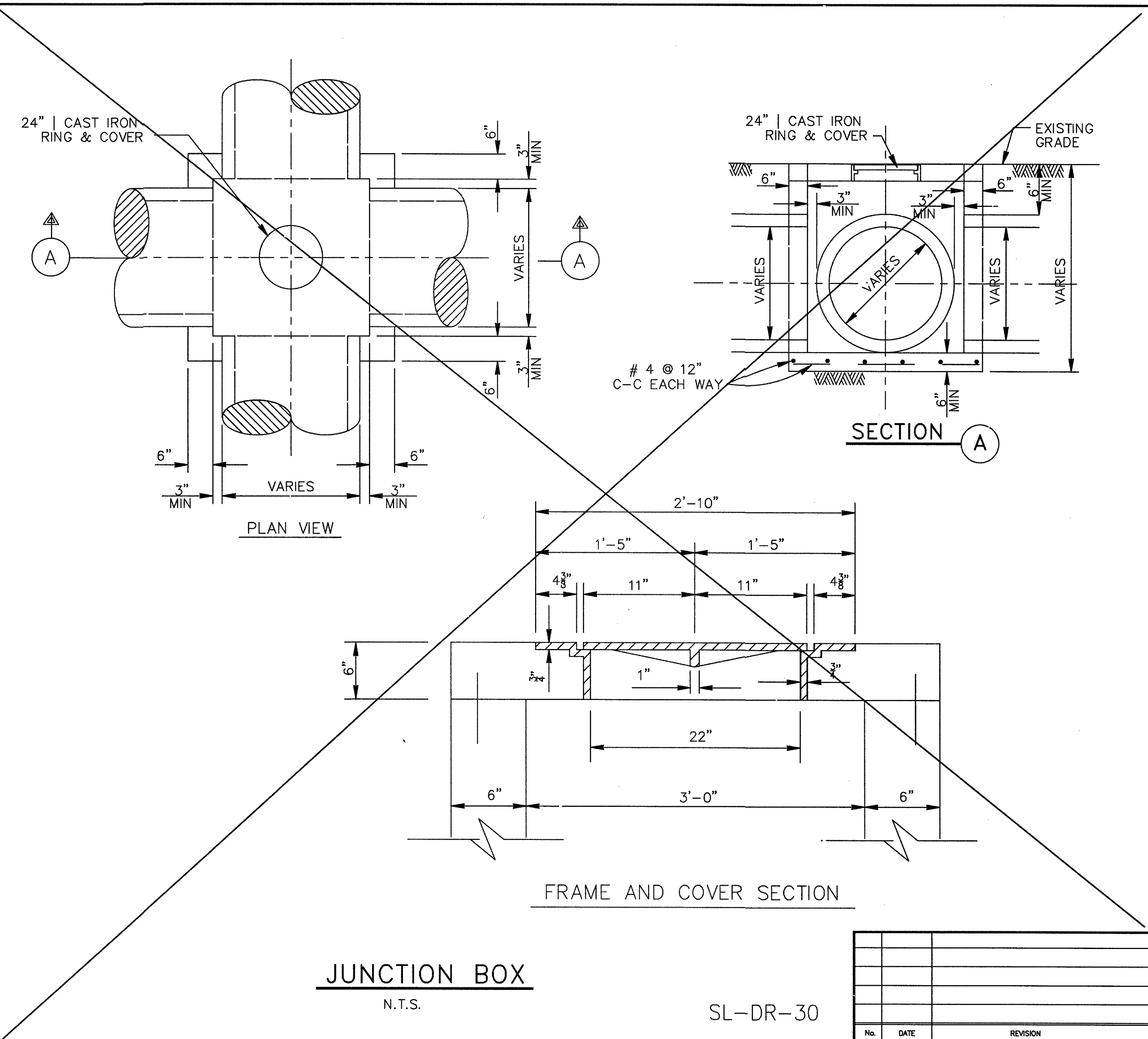
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

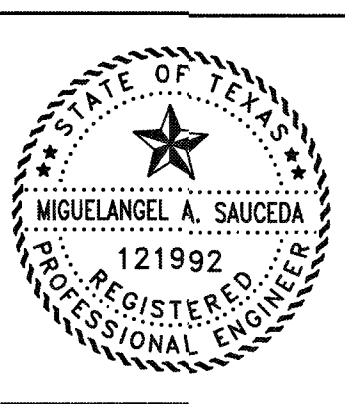
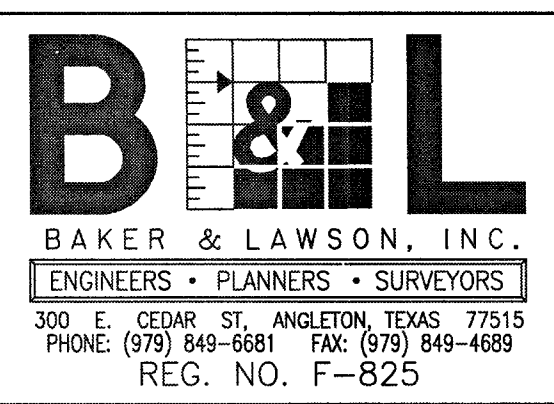
STORM SEWER INLET
CONSTRUCTION DETAILS III
SL-09

PROJECT NO.	13454
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P.E. 121992


Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____

PROFILE: _____

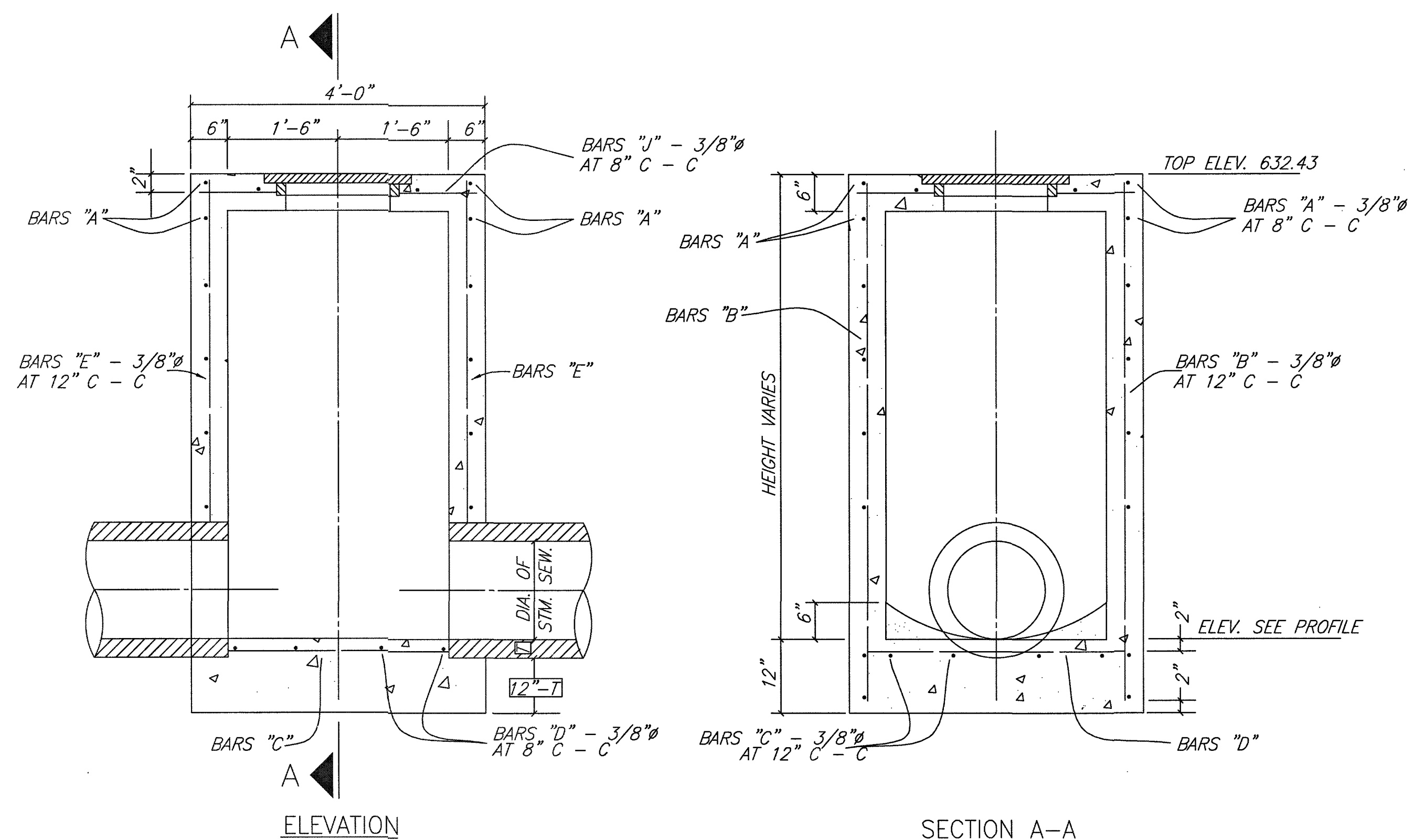
HORIZONTAL: _____

VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

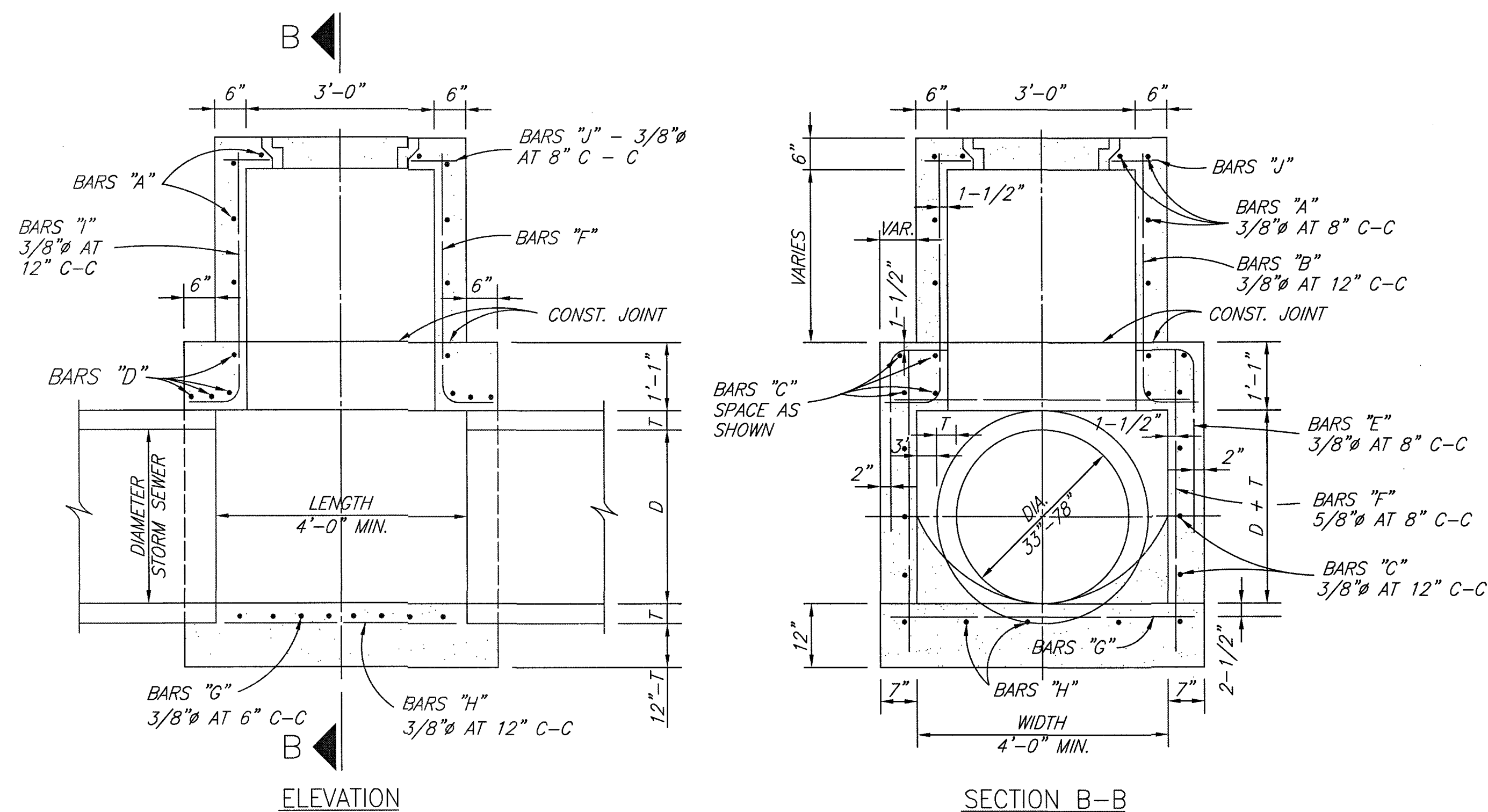
STORM SEWER
CONSTRUCTION DETAILS
SL-10

PROJECT NO. 13454



STORM SEWER TYPE A MANHOLE

MAX. PIPE SIZE 30" - N.T.S.



TYPE B STORM SEWER MANHOLE

MAX. PIPE SIZE 78" – N.T.S.

RECORD DRAWING

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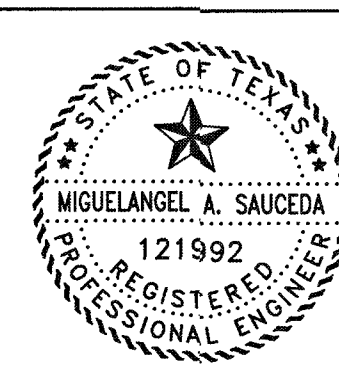
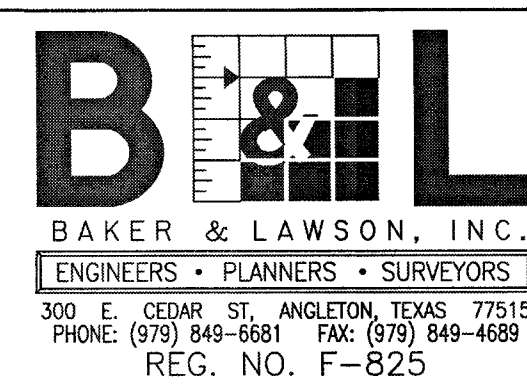
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REVISIONS			

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DATE _____



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Miguelangel A. Saucedo
P.E. 121992


Date: 1/11/22

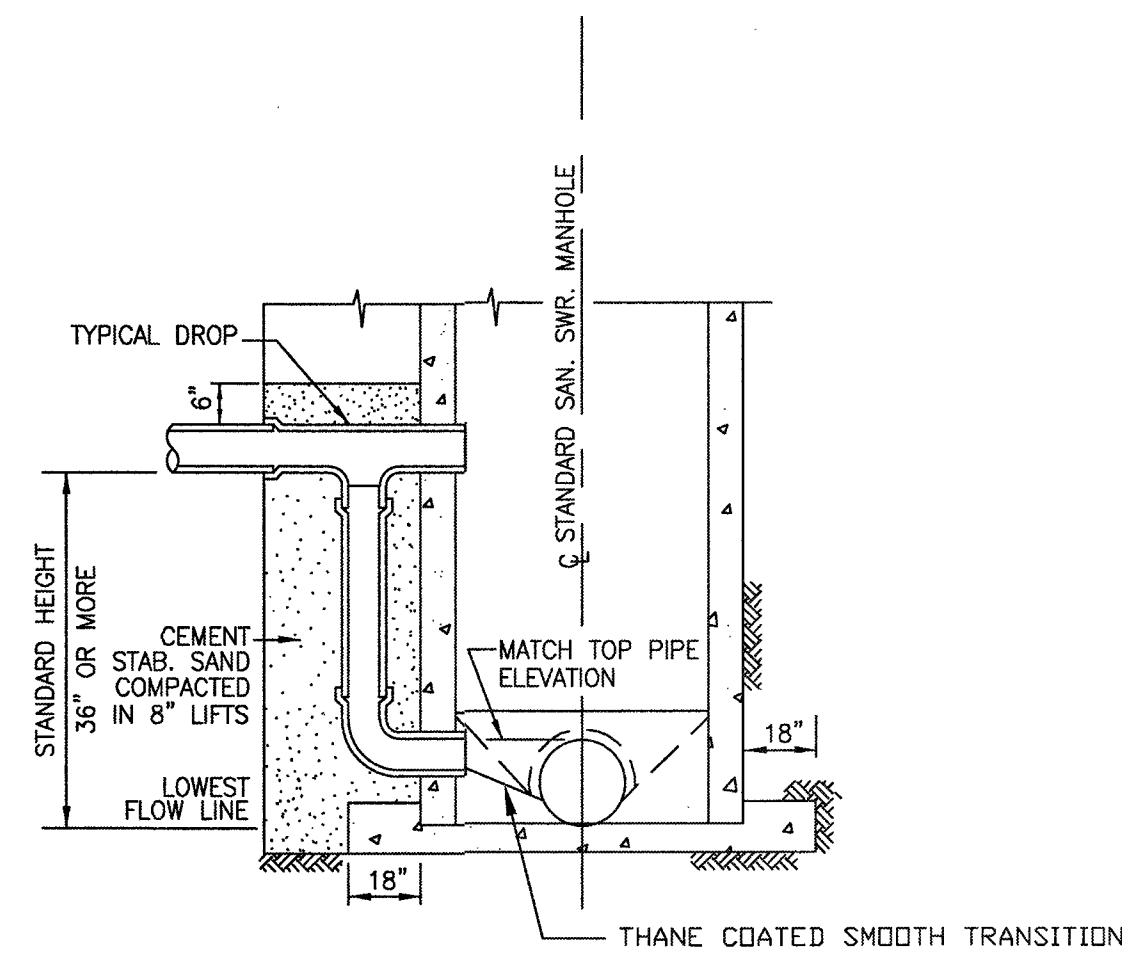
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
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BAYOU BEND ESTATES ANGLETON, TEXAS PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION

JUNCTION BOX
MANHOLES
SL-11

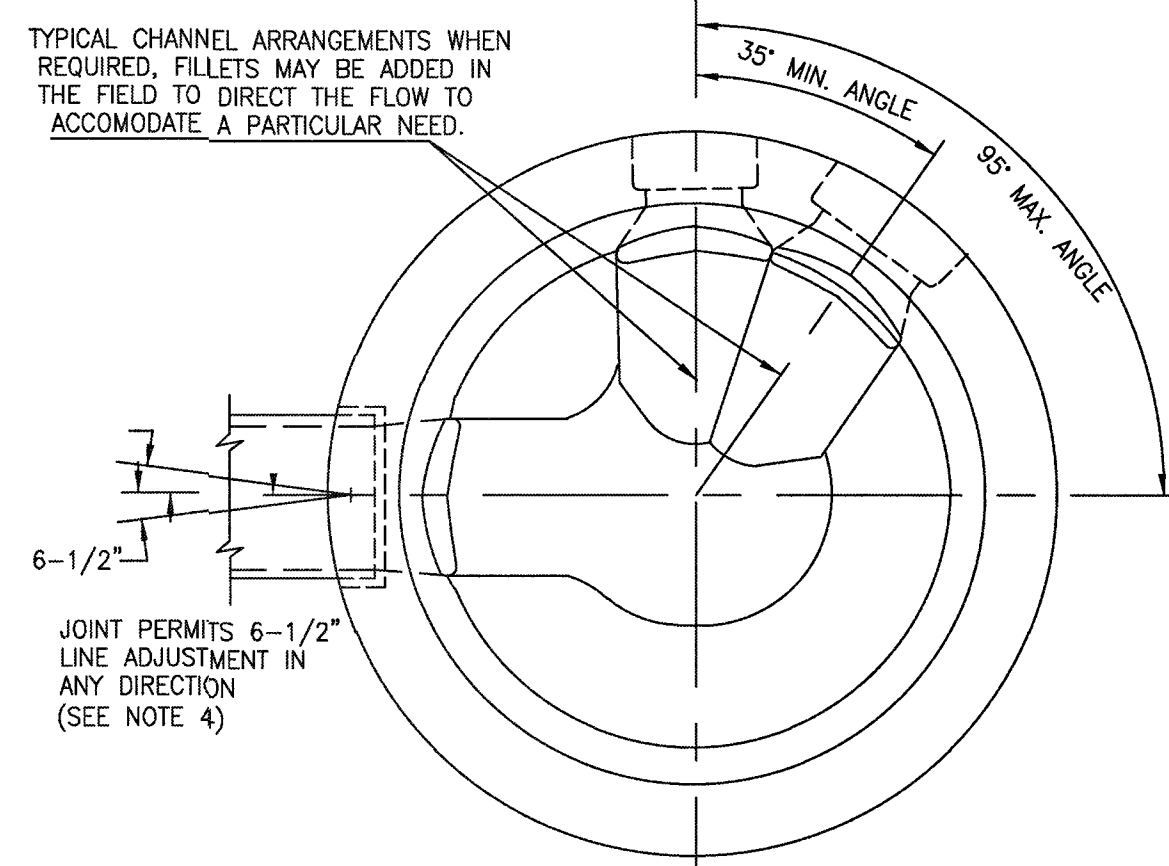
PROJECT NO. 13454



STANDARD DROP DETAIL

(SEE C.S.S. NOTES)

SL-SS-05

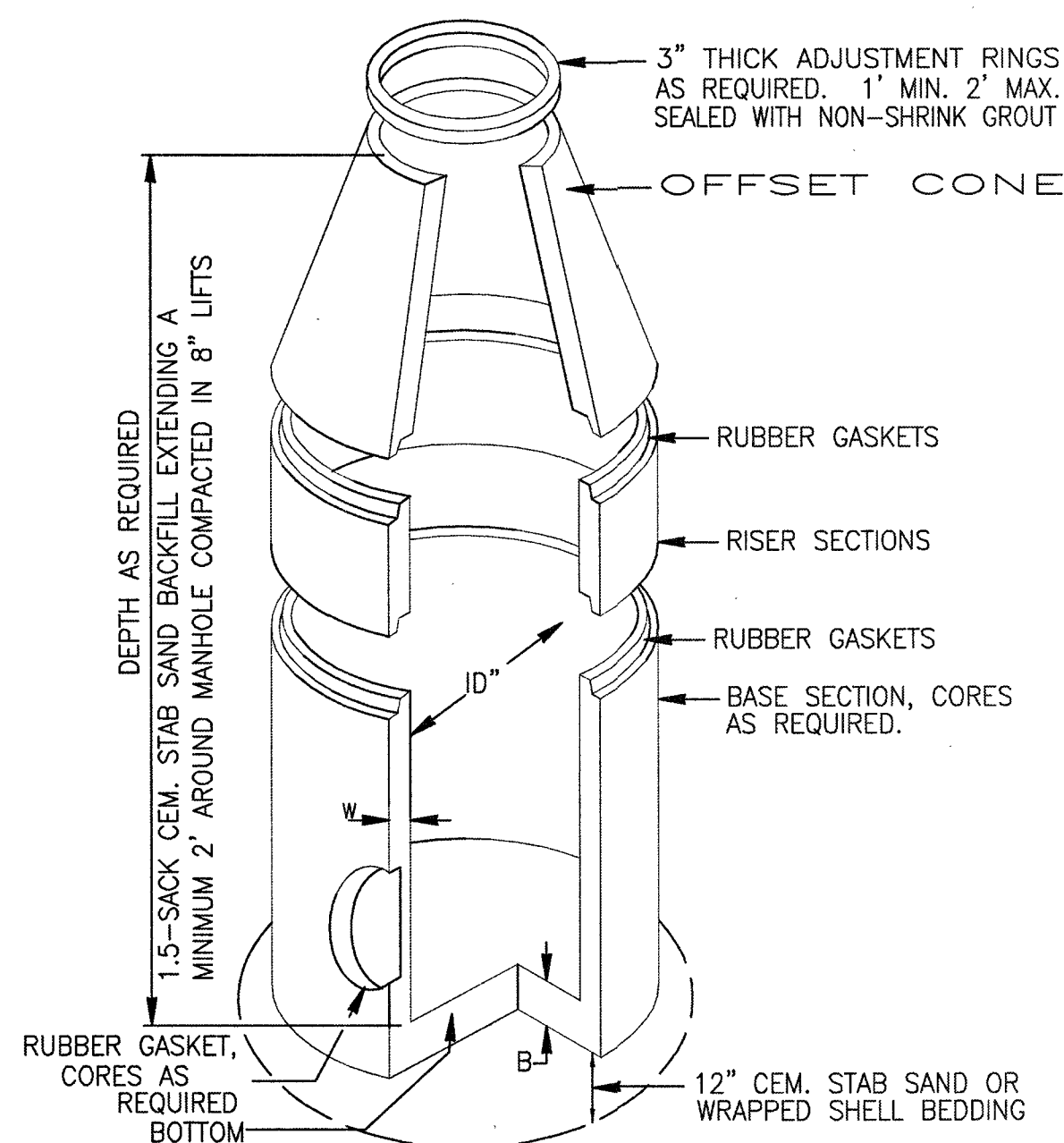


PIPING CONNECTIONS DETAIL

SL-SS-05

NOTE:

1. INFLUENT AND EXFLUENT PIPING CONNECTIONS TO MANHOLE SHALL BE ALIGNED TO PREVENT REVERSE FLOW.
2. INFLUENT AND EXFLUENT CONNECTIONS ARE LIMITED TO A MAXIMUM 90° INCLUDED ANGLE OF CONVERGENCE.
3. MINIMUM 35° AND MAXIMUM 90° INCLUDED ANGLES MUST BE PROVIDED BETWEEN MULTIPLE INFLUENT CONNECTIONS.
4. ANGLE OF DEFLECTION AT PIPING JOINTS AS PER MANUFACTURE'S RECOMMENDATIONS.



SPECIFICATIONS:

- CONCRETE: CLASS 1 CONCRETE WITH A DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATES FOR H-20 LOADING.
- REINFORCEMENT: STRUCTURAL REINFORCEMENT CONFORMING TO ASTM-C-478.
- C.I. CASTINGS: CAST IRON FRAMES AND LIDS ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 35.

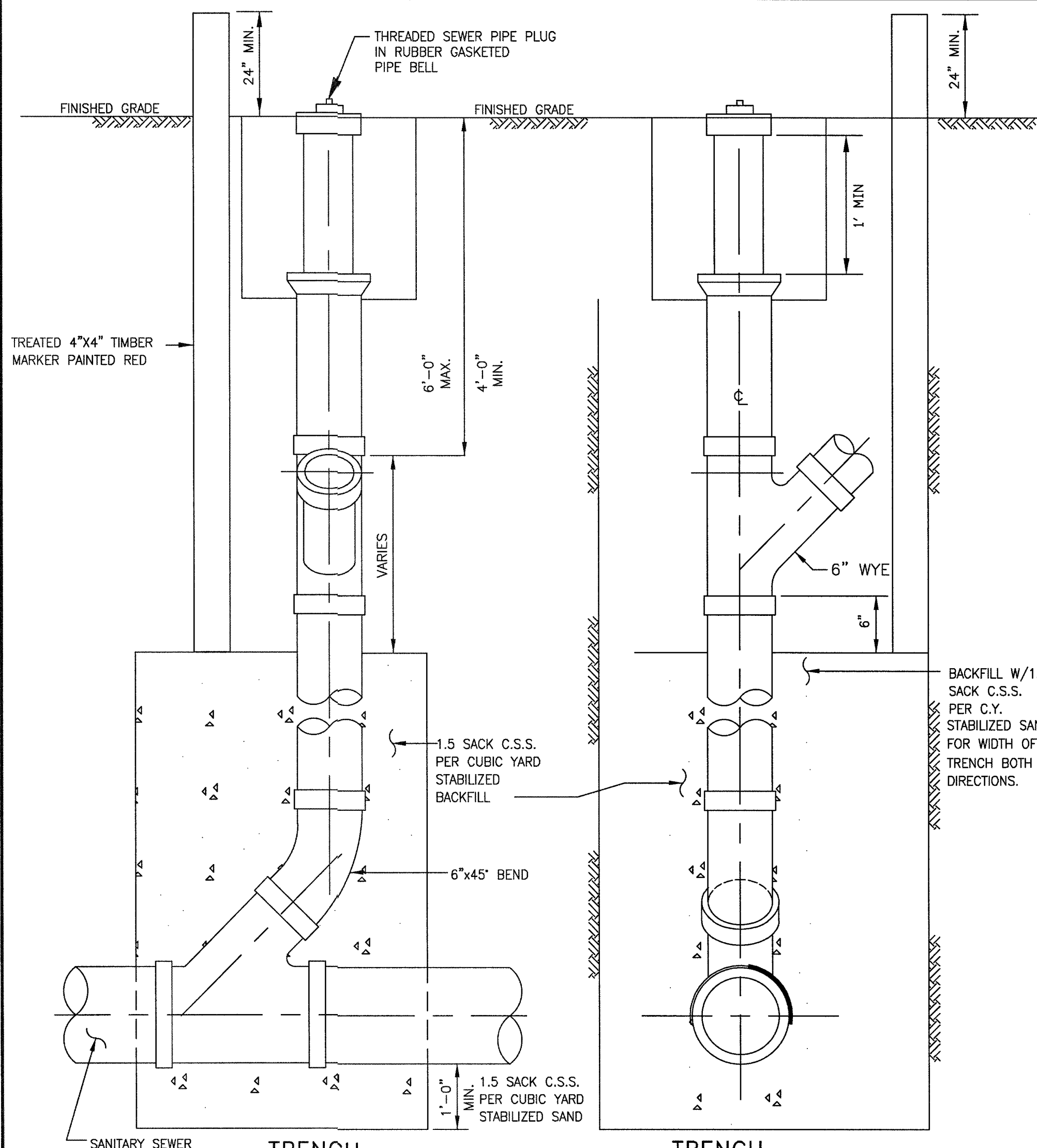
NOTES

1. LIFTING INSERTS AS REQUIRED.
2. ALL JOINTS SHALL BE SEALED WITH APPROVED RUBBER GASKET
3. STRUCTURE TO BE PLACED ON 12" STABILIZED BASE.
4. C.S.S. SHALL BE BROUGHT TO WITHIN 2'-FT OF TOP OF MANHOLE.
5. PRE-CAST MANHOLE SHALL BE IN COMPLIANCE APPROVED PRODUCT LIST.
6. THANE COAT SHALL BE IN COMPLIANCE WITH C.O.S.L., DESIGN MANUAL SPECIFICATIONS.
7. INVERTS SHALL COMPLY WITH C.O.S.L., DESIGN MANUAL SPECIFICATIONS.
8. INFLOW PROTECTORS REQUIRED ON ALL SANITARY MANHOLES.
9. REFER TO SANITARY MANHOLE LIDS, C.S.S. NOTES, MODIFIED BEDDING DETAILS AND NOTES.

PRECAST SANITARY MANHOLE

N.T.S.

SL-SS-03



TRENCH SIDE VIEW

STACK DETAIL

N.T.S.

SL-SS-04

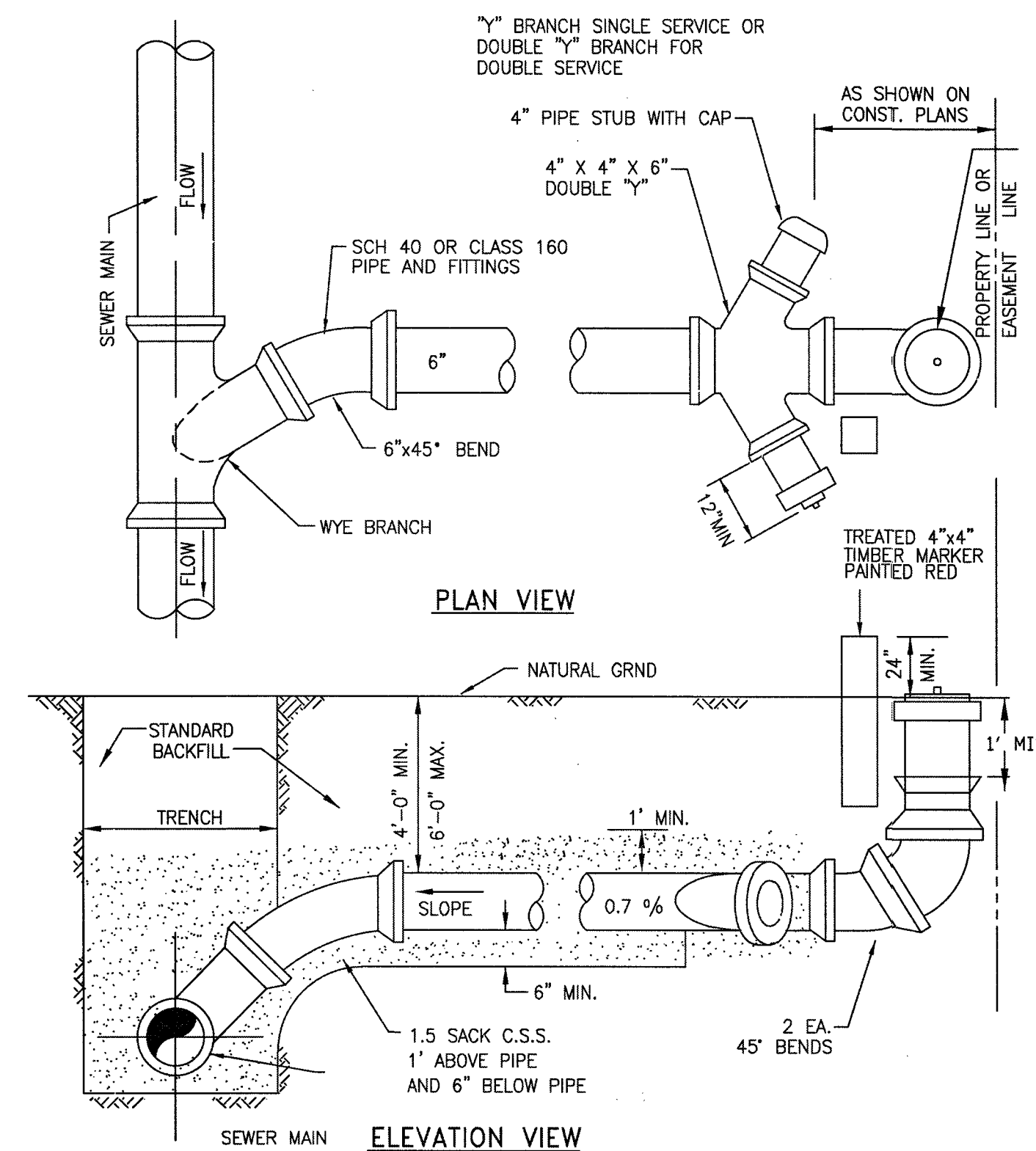
NOTES:

- A) NO STACKS ON MAINS OVER 16' DEEP OR IN WET SAND CONDITIONS.
- B) ALL STACK CONNECTIONS SHALL BE IN-LINE FITTINGS.

NOTES:

1. CONTRACTOR SHALL CONTACT CITY OF SUGAR LAND ENGINEERING DEPARTMENT AT (281) 275-2780 IF WET SAND OR OTHER UNSTABLE SOIL CONDITIONS. HIGH WATER TABLE AND/OR UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED.
2. SHOULD A CONFLICT ARISE BETWEEN INFORMATION DEPICTED ON APPROVED CONSTRUCTION DRAWINGS AND INFORMATION INCLUDED IN PROJECT SPECIFICATIONS, CITY OF SUGAR LAND DESIGN STANDARDS SHALL GOVERN.
3. SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED A MINIMUM OF FOUR FOOT FROM BACK OF CURB ON CURB AND GUTTER ROADWAYS AND THREE FEET FROM EDGE OF TRAVELLED ROADWAY ON THOSE THOROUGHFARES HAVING NO CURBING. MEASURED FROM OUTSIDE DIAMETER OF MANHOLE. SANITARY SEWER MANHOLES SHALL NOT BE INSTALLED BENEATH STREET PAVING EXCEPT WHERE SPECIFICALLY AUTHORIZED BY CITY ENGINEER AND SO DESIGNATED ON APPROVED CONSTRUCTION DRAWINGS.
4. ALL SUCH MANHOLE COVERS SHALL HAVE THE CITY OF SUGAR LAND EMBLEM AND THE WORDS "SUGAR LAND" AND "SANITARY SEWER" CAST IN RAISED RELIEF AS DEPICTED IN CITY OF SUGAR LAND STANDARD CONSTRUCTION DETAILS SHEETS. ALL SANITARY SEWER MANHOLES SHALL INCORPORATE INFLOW PROTECTORS.
5. MANHOLE RIM ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY. CONTRACTORS SHALL ADJUST RIM ELEVATIONS TO 0.4 FEET ABOVE FINISHED GRADE WITHIN RIGHTS-OF-WAY AND EASEMENTS AT EACH MANHOLE LOCATION AFTER FINAL GRADING. ADJUSTMENTS TO MANHOLE RIM ELEVATIONS SHALL BE ACCOMPLISHED BY THE USE OF THROAT RINGS ONLY (MAX. OF 24 INCHES PERMITTED). THE AREA ADJACENT TO SANITARY SEWER MANHOLE LOCATIONS SHALL BE GRADED AWAY FROM SUCH MANHOLES SO AS TO PREVENT ENTRY OF STORM WATER RUNOFF TO THE SANITARY SEWER SYSTEM.
6. DROP CONNECTIONS ARE REQUIRED WHEN INVERT ELEVATION OF SEWER LINE TO BE CONNECTED EXCEEDS 36 INCHES DISTANCE ABOVE INVERT ELEVATION OF MANHOLE BASE. ALL DROP CONNECTIONS SHALL BE CONSTRUCTED OF SAME MATERIALS AS SEWER AND SHALL BE CONSTRUCTED EXTERIOR TO MANHOLE. PIPE CONNECTIONS TO MANHOLES SHALL BE SO CONSTRUCTED AS TO BE WATERTIGHT AND TO ALIGN UPPER INSIDE PIPE WALL ELEVATIONS OF ALL PIPING CONNECTED TO BASE OF MANHOLE UNIFORMLY, REGARDLESS OF PIPE DIAMETERS. DROP ASSEMBLIES SHALL BE BEDDED IN CEMENT STABILIZED SAND. CEMENT STABILIZED SAND SHALL EXTEND A MINIMUM OF SIX INCHES PAST PIPING LATERALLY FROM BASE OF MANHOLE UPWARD TO A POINT SIX INCHES (MINIMUM) ABOVE THE HORIZONTAL SEWER PIPING WHERE CONNECTED TO THE MANHOLE ABOVE THE VERTICAL DROP.
7. CONNECTIONS TO EXISTING AND/OR NEW SANITARY SEWER MANHOLES CONSTRUCTED OF PRECAST CONCRETE NOT HAVING PRECURED HOLES OF CORRECT DIAMETER, LOCATION AND FIELD CORING ONLY SHALL ACCOMPLISH INVERT ELEVATION. IN NO INSTANCE WILL EITHER MANUAL OR PNEUMATIC CHISELS AND/OR HAMMER DRILLS BE UTILIZED TO BREAK HOLES IN PRECAST CONCRETE MANHOLES, PIPE SEGMENTS OR OTHER PRECAST STRUCTURES SUCH AS LIFT STATIONS.
8. BEDDING AND BACKFILL OF SANITARY SEWER PIPING AND MANHOLES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH CITY OF SUGAR LAND DESIGN STANDARDS. A 1.5-SACK MIX IS REQUIRED FOR ALL CEMENT STABILIZED SAND BEDDING AND SUCH BEDDING SHALL BE INSTALLED IN LIFTS OF EIGHT INCHES MAXIMUM.
9. SOLVENT WELDED JOINTS ARE NOT AN ACCEPTABLE JOINING METHOD FOR SANITARY SEWERS CONSTRUCTED OF PVC PIPING MATERIALS AND LOCATED WITHIN RIGHTS-OF-WAY OR EASEMENTS. RUBBER GASKETED BELL AND SPIGOT SANITARY SEWER JOINTS ARE MANDATORY. BELL (FEMALE) ENDS OF PIPE SHALL BE INSTALLED ON UPSTREAM SIDE WITH SPIGOT (MALE) ENDS ORIENTED DOWNSTREAM.
10. SANITARY SEWER SERVICE LEADS SHALL BE EXTENDED TO RIGHTS-OF-WAY AND/OR EASEMENT LINES AS APPLICABLE AND CAPPED/PLUGGED FOR FUTURE CONNECTIONS. SERVICE LEADS ARE TO BE INSTALLED SO AS TO PASS UNDER POTABLE WATER PIPING AT CROSSINGS WHERE POSSIBLE.
11. EACH SANITARY SEWER SERVICE LEAD STUB, PLUGGED WYE BRANCH OUTLET AND STACK SHALL BE MARKED WITH A PRESSURE TREATED 4 X 4 TIMBER AT THE TIME OF CONSTRUCTION, BEGINNING AT THE INVERT ELEVATION OF THE STUB OR WYE AND AT AN ELEVATION TWO FEET BELOW THE CAPPED TERMINATION POINT OF THE STACK AND EXTENDING TWO FEET ABOVE FINISHED GRADE. EACH TIMBER MARKER SHALL BE PAINTED RED AND LABELED "SANITARY SEWER STUB", "SANITARY SEWER WYE" OR "SANITARY SEWER STACK" AS APPROPRIATE WITH STUB, WYE BRANCH OUTLET OR STACK SIZE NOTED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION. DURING THE COURSE OF ANY AND ALL CLEARING, GRUBBING, FILL, GRADING, EXCAVATION OR OTHER CONSTRUCTION, CONTRACTOR SHALL ENSURE THAT STORM DRAINAGE PATHWAYS ARE MAINTAINED AND REMAIN OPEN TO ENSURE POSITIVE DRAINAGE AND THAT SUCH CONVEYANCES ARE NOT IMPEDED OR BLOCKED IN ANY WAY. STORM SEWER INLETS SHALL BE PROTECTED FROM ENTRY OF SILT, TRASH, DEBRIS AND ANY SUBSTANCES DELETERIOUS TO THE STORM SEWER SYSTEM AND/OR WATERWAYS RECEIVING STORM WATER RUNOFF. CONTRACTOR SHALL AT COMPLETION OF WORK, FILL LOW SPOTS AND GRADE ALL RIGHTS-OF-WAY AND UTILITY EASEMENTS AND REGRADE/RESTORE DITCHES AS NECESSARY TO MAINTAIN AND/OR ESTABLISH POSITIVE DRAINAGE.
13. ALL SANITARY SEWER PIPING AND BEDDING SHALL BE INSPECTED BY CITY CONSTRUCTION INSPECTOR FOR CONFORMANCE WITH CITY INFRASTRUCTURE STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY NOTIFY THE CITY OF ALL CONSTRUCTION ACTIVITIES AND TO CONFORM TO CITY OF SUGAR LAND PUBLIC WORKS DEPARTMENT INSPECTION POLICY.
14. C.S.S. 1' ABOVE PIPE AND 6" BELOW PIPE MINIMUM.
15. SEE GENERAL NOTES AND C.S.S. NOTES.

SL-SS-07



SANITARY SEWER SERVICE CONNECTION

N.T.S.

RECORD DRAWING SL-SS-06

No.	DATE	REVISION

SEAL:

DESIGN ENGINEER: _____ DATE: _____

CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

SANITARY SEWER
CONSTRUCTION DETAILS

JOB No.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

SL-14

SHEET OF

NO.	DATE	DESCRIPTION	APPROVED

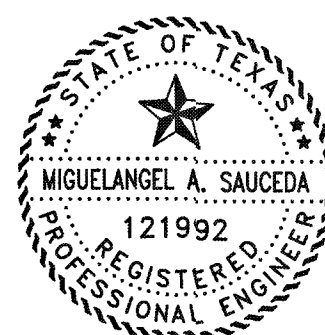
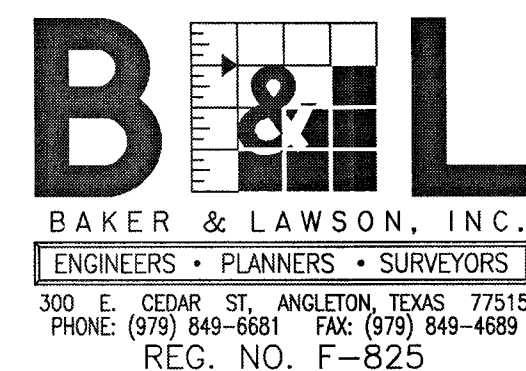
REVISIONS

DESIGNED MS

DRAWN BT

CHECKED

DATE



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Date: 1/11/22

OWNER:

Clint Peltier

Clint Peltier Custom Homes

979-481-4840

PLAN: _____

PROFILE: _____

HORIZONTAL: _____

VERTICAL: _____

BAYOU BEND ESTATES

ANGLETON, TEXAS

PLANS FOR

GRADING, PAVING, UTILITIES

AND DETENTION

SANITARY SEWER

CONSTRUCTION DETAILS

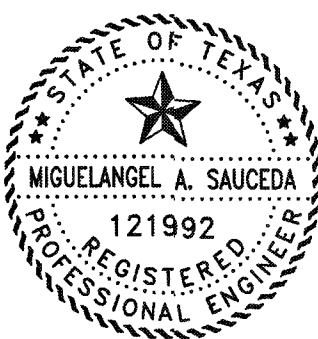
SL-14

PROJECT NO. 13454


SL-WA-18DESIGNED MS

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Date: 1/11/22

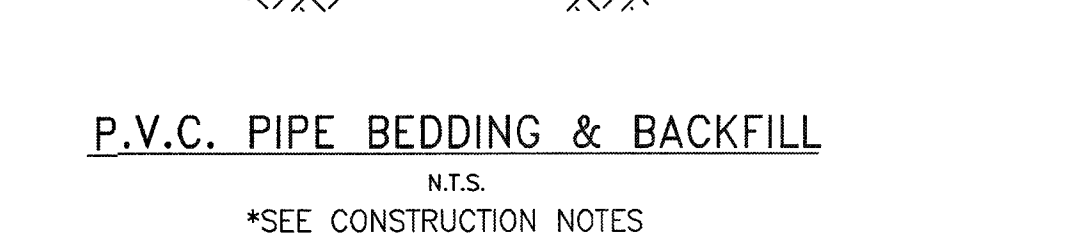
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
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**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

WATER LINE
CROSSING DETAILS
SL-16

PROJECT NO. 13454



SL-BB-01



SL-BB-04

- SL-BB-05



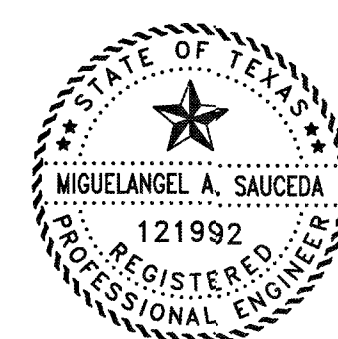
SANITARY SEWER
BEDDING AND BACKFILL
RECORD DRAWING

SL-BB-03

1. GENERAL NOTES
2. C.S.S. NOTES

<p>ATES S</p> <p>LITIES</p>	<p>WATER LINE SEWER BEDDING S</p> <p>PROJECT NO. 134</p>
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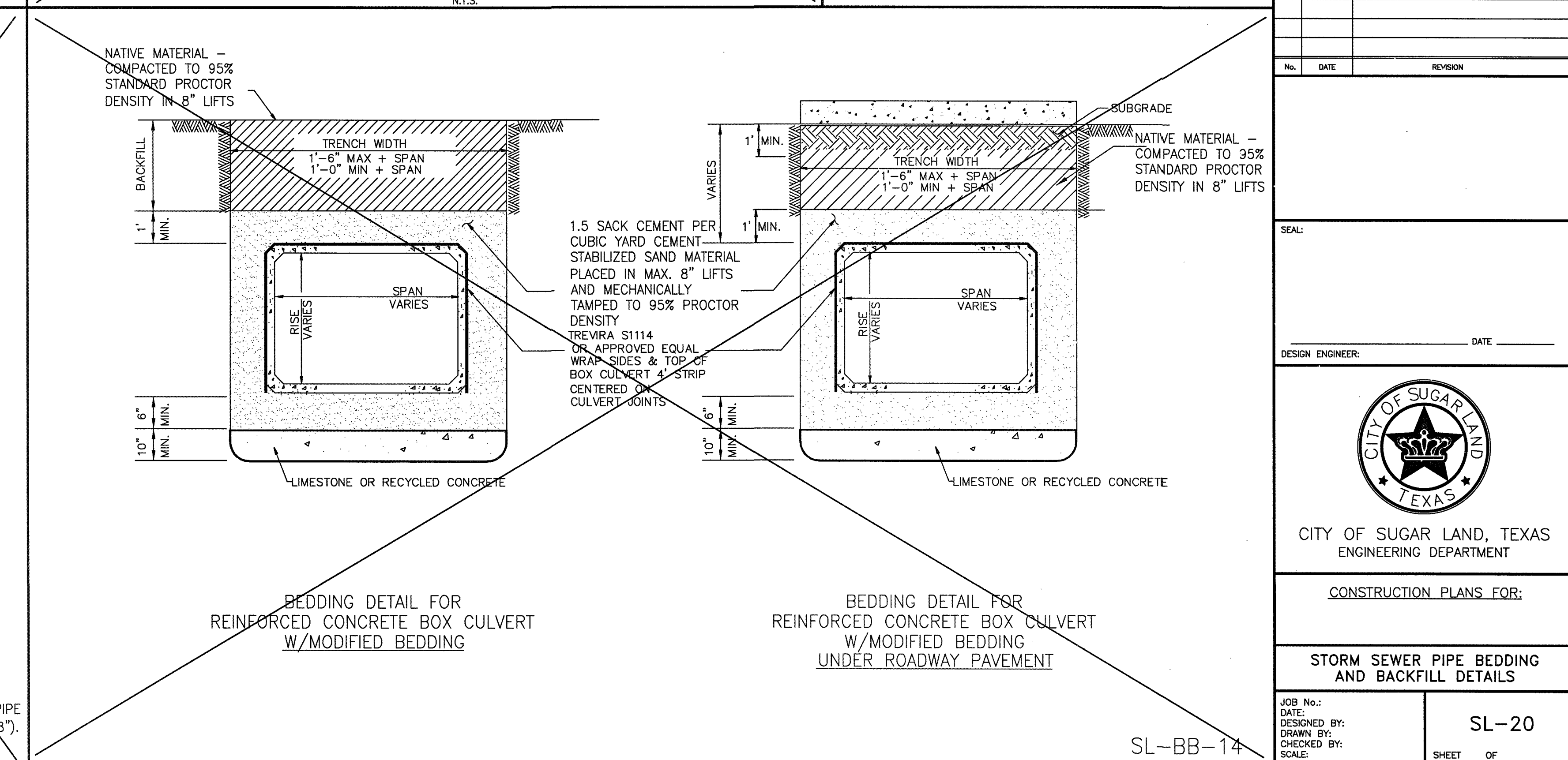
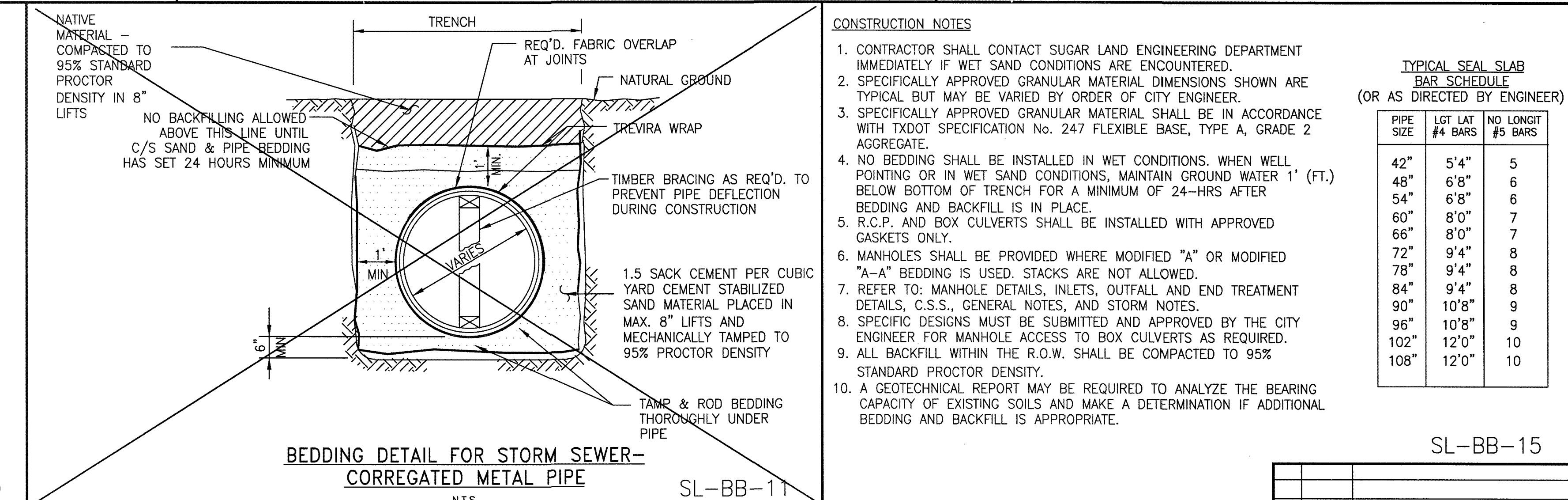


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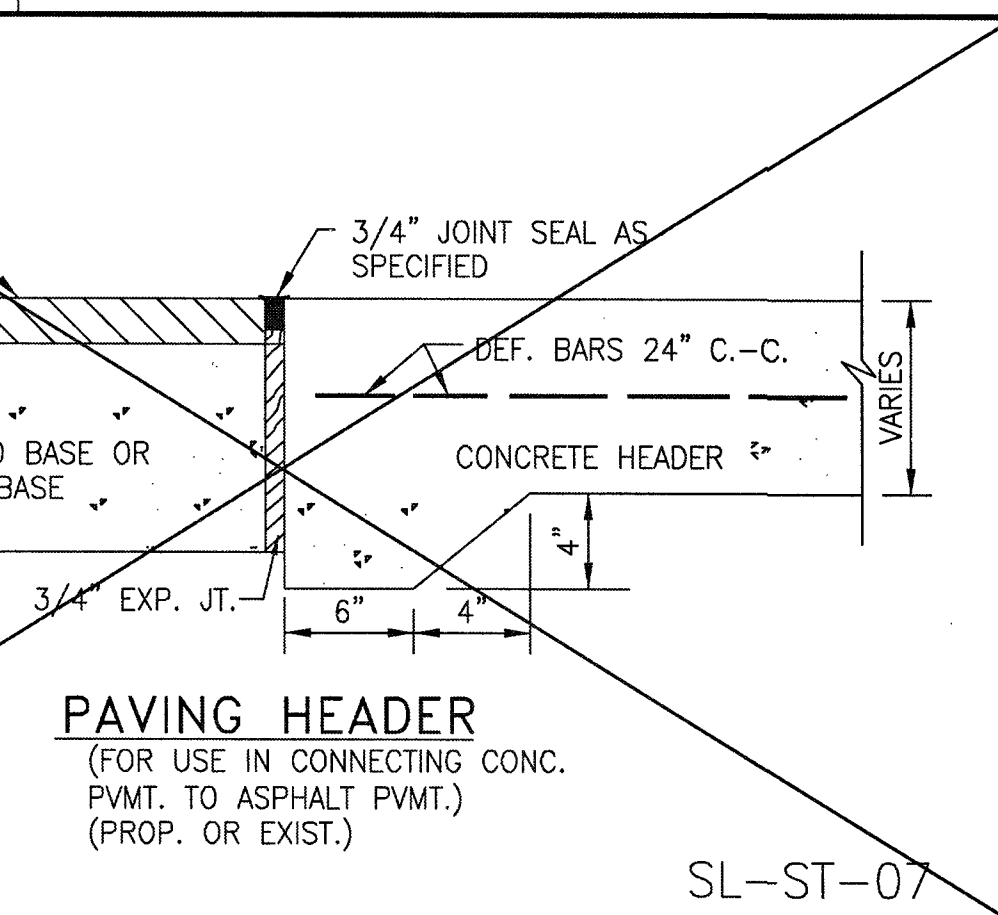
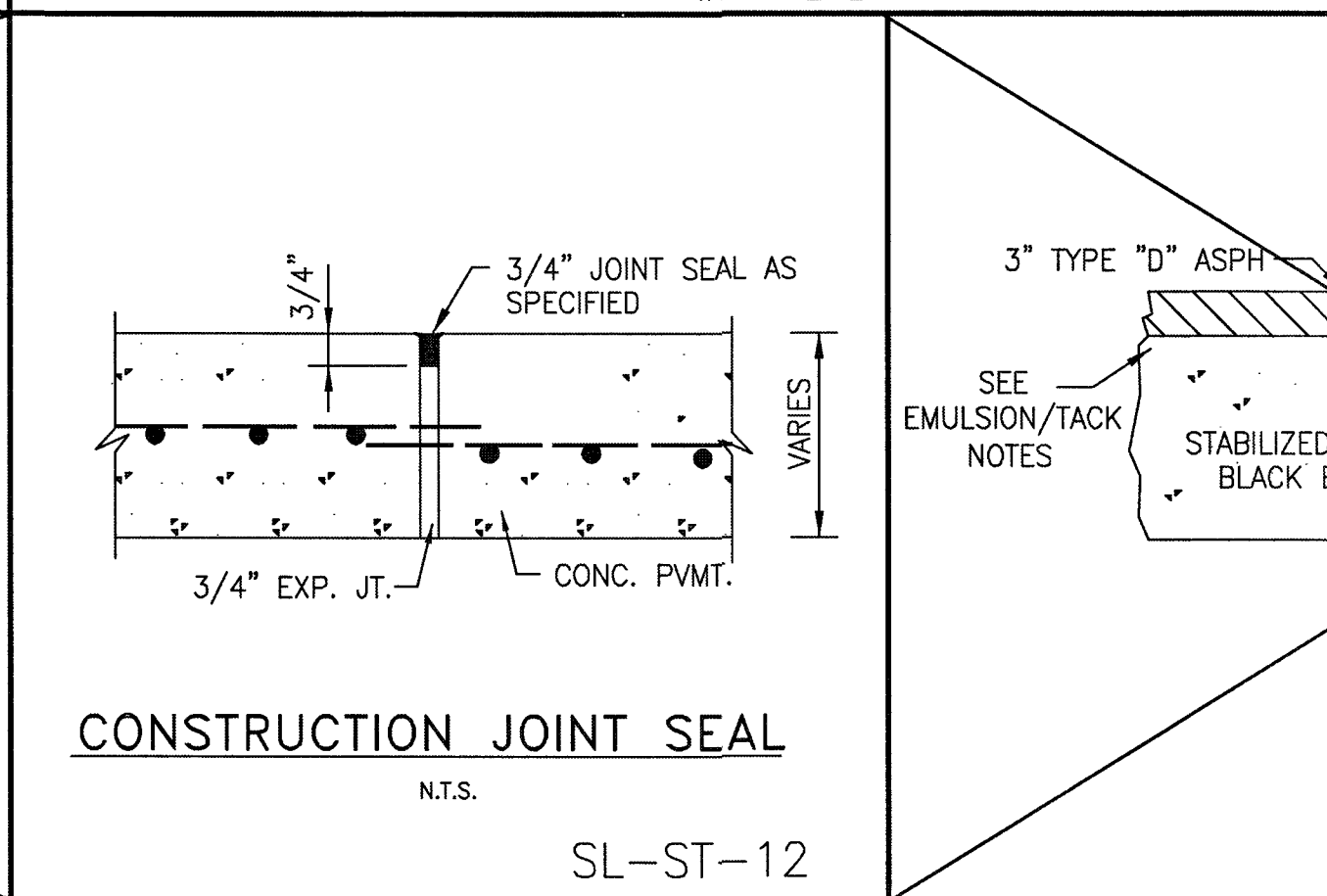
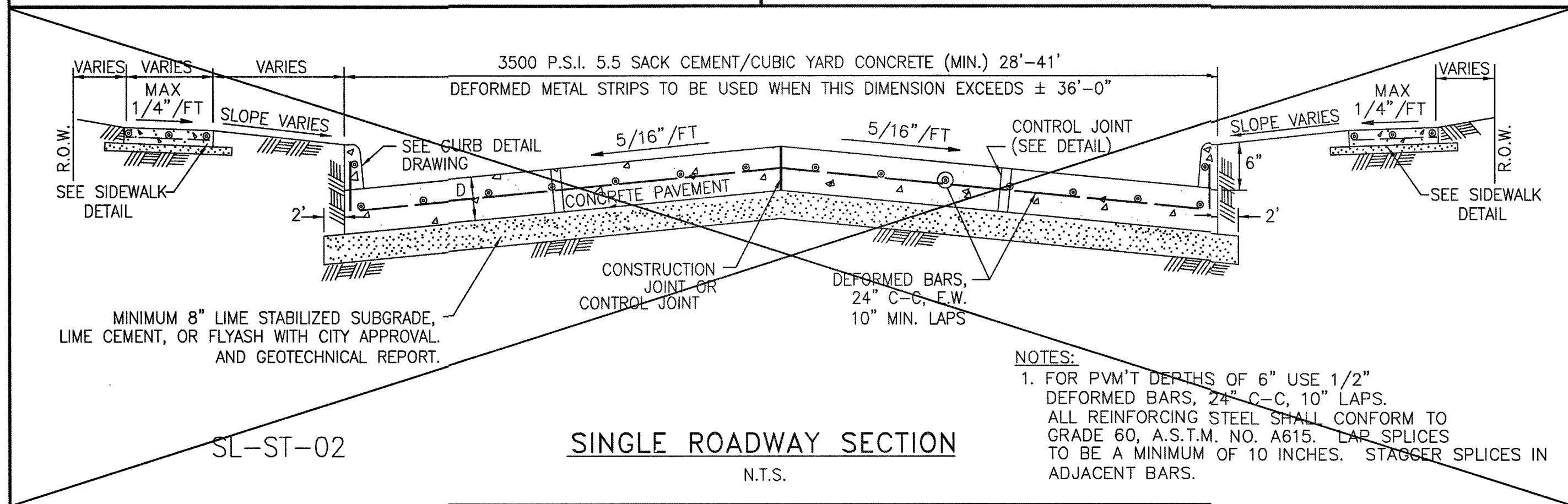
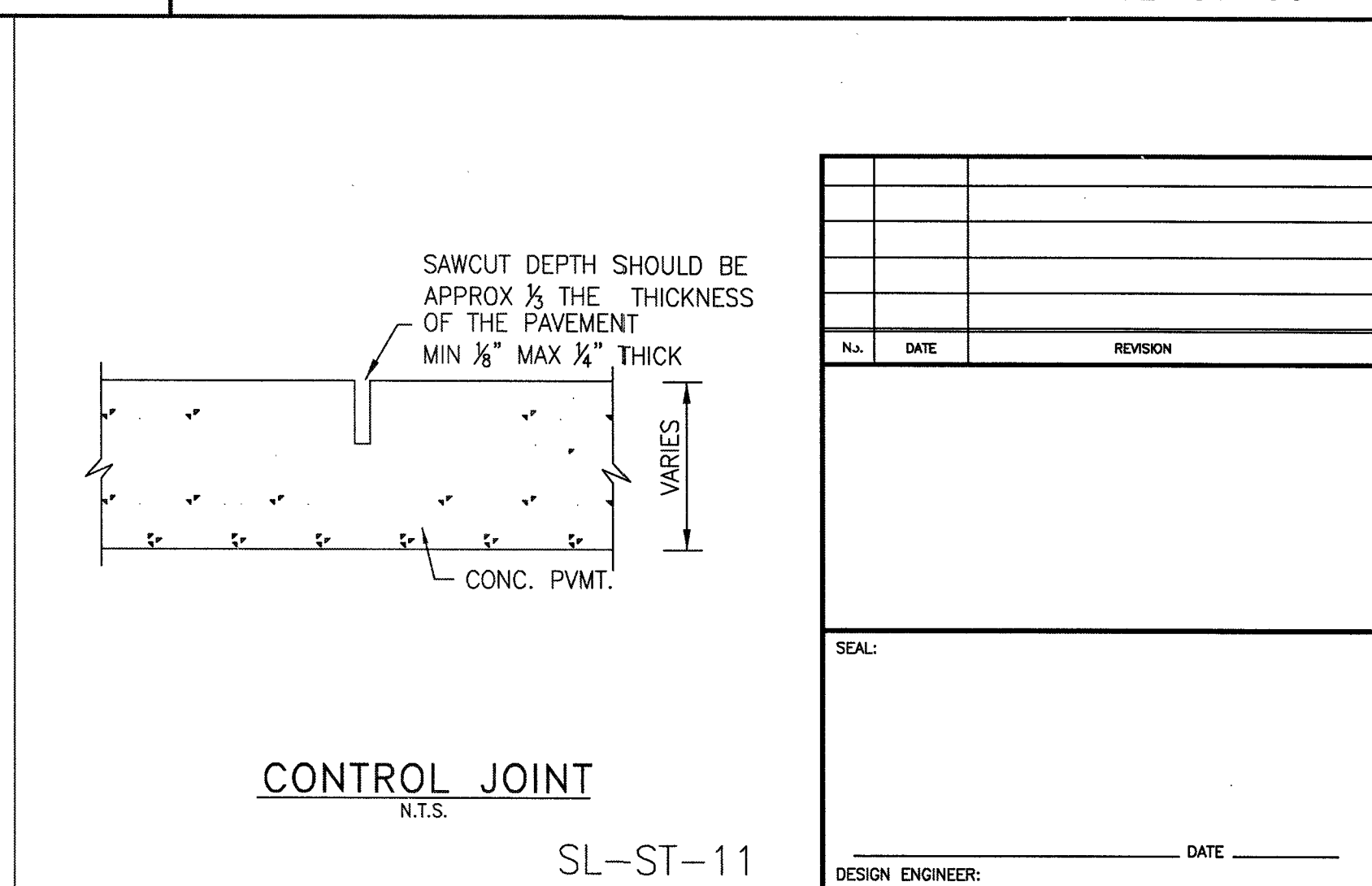
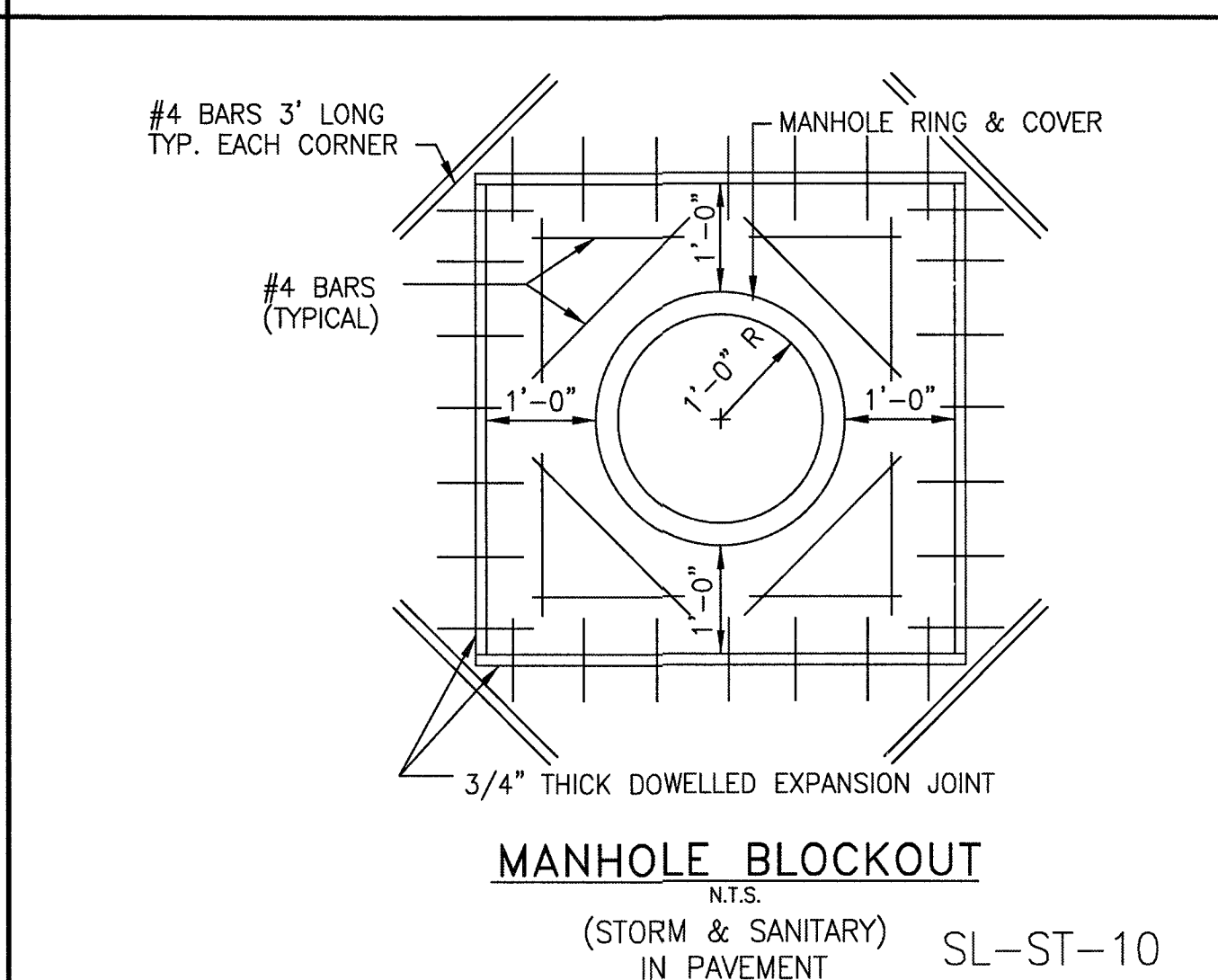
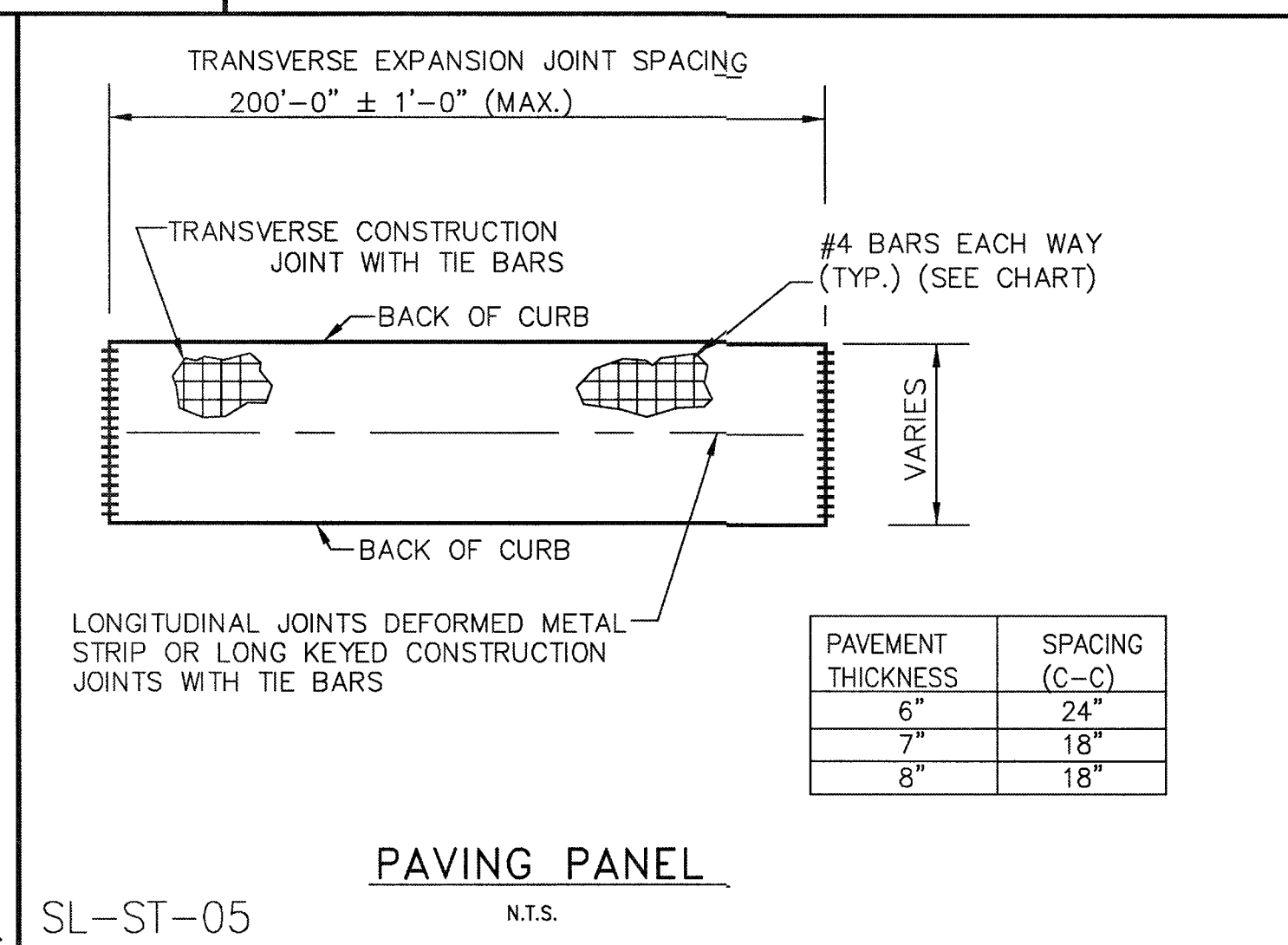
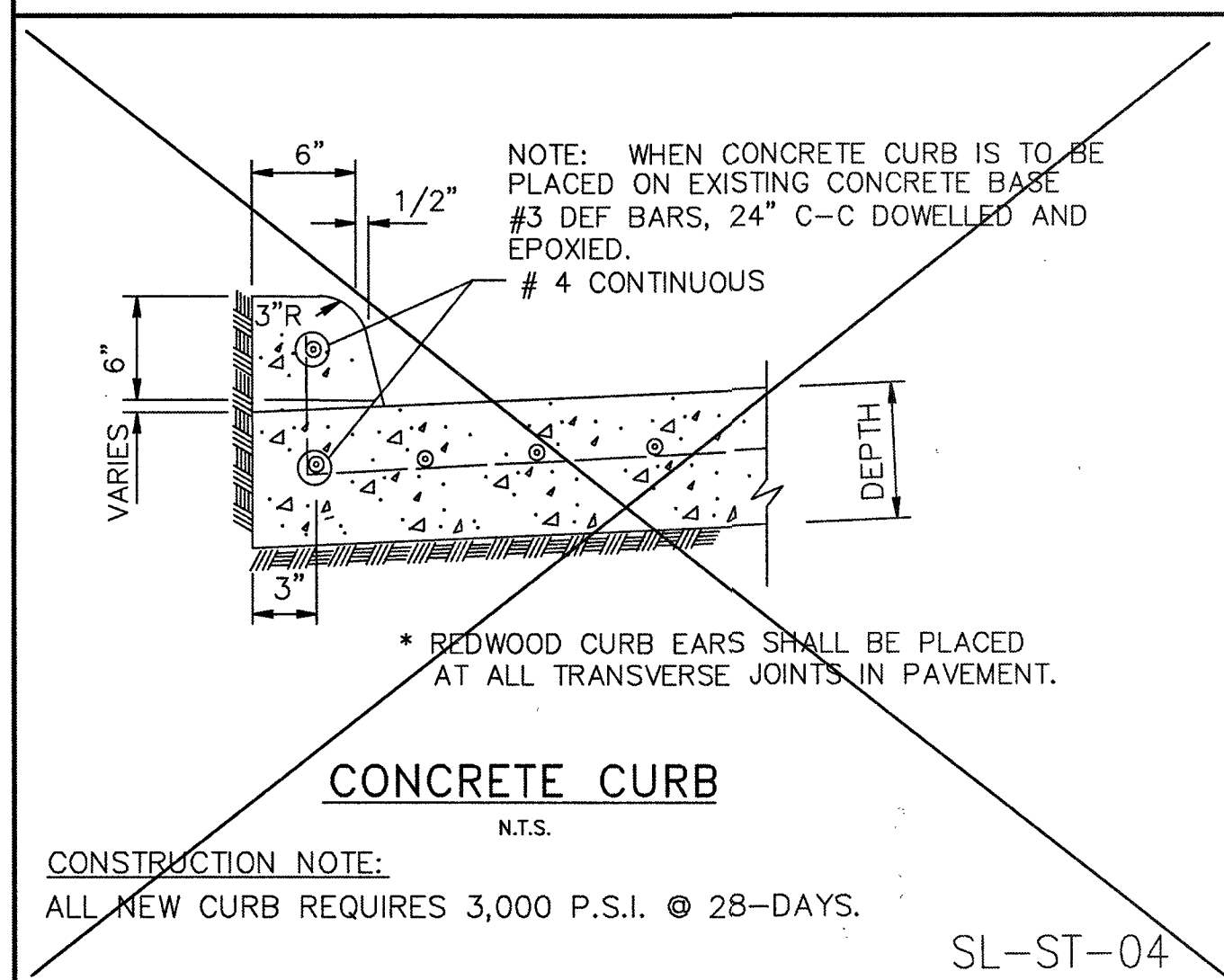
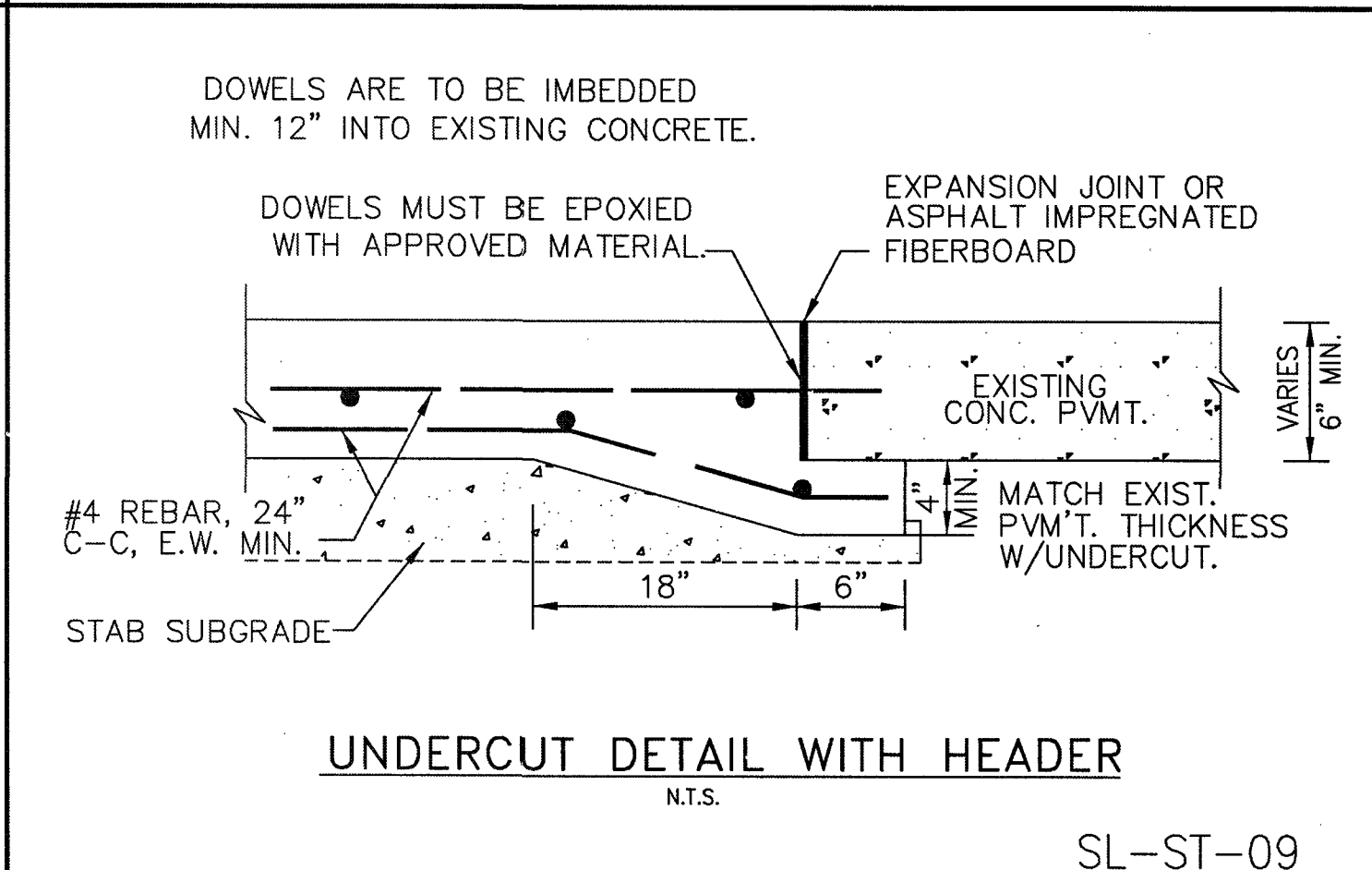
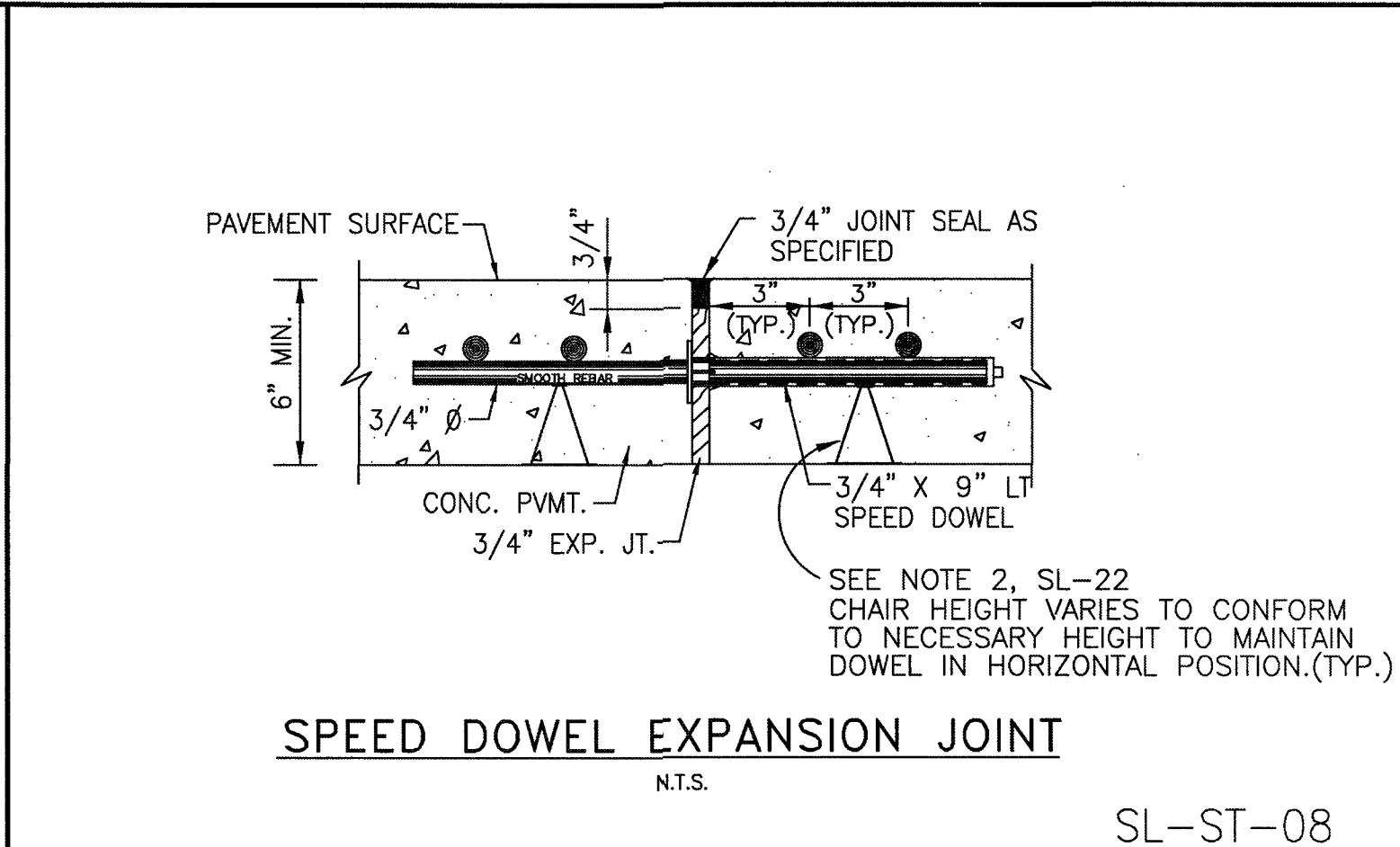
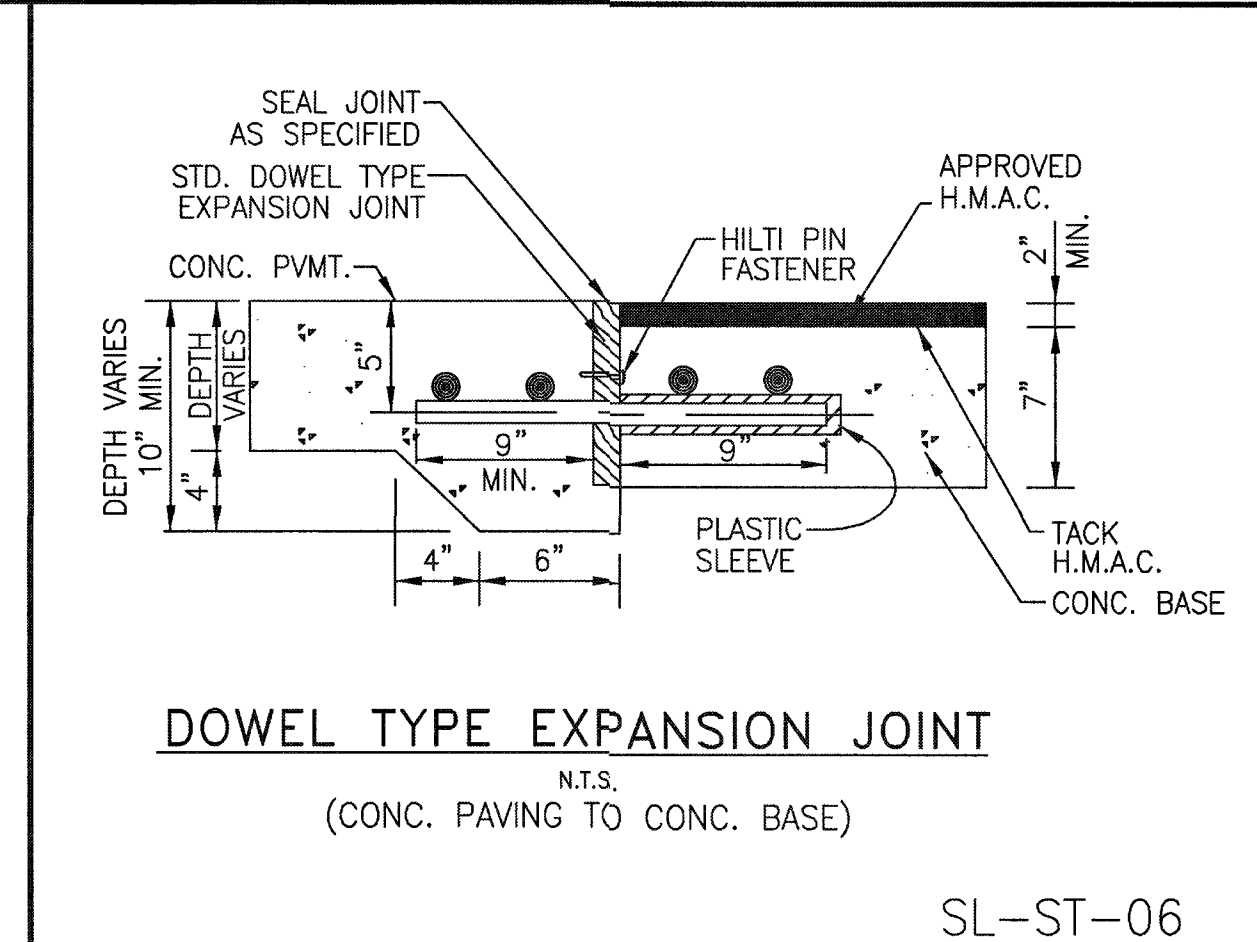
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 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

WATER LINE, SANITARY
SEWER FORCE MAIN
BEDDING DETAILS
SL-19


2017-173

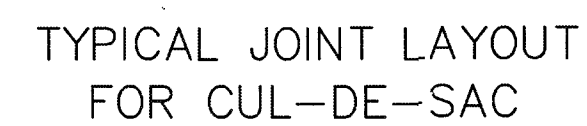
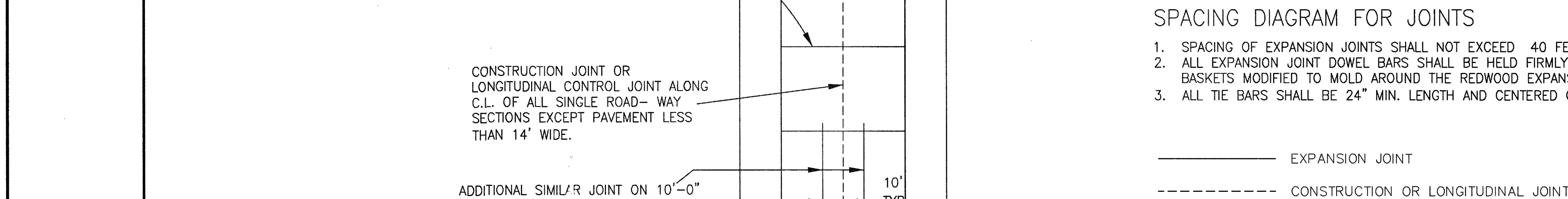


<u>TYPICAL SEAL SLAB</u> <u>BAR SCHEDULE</u> (AS DIRECTED BY ENGINEER)		
PIPE SIZE	LGT LAT #4 BARS	NO LONGIT #5 BARS
42"	5'4"	5
48"	6'8"	6
54"	6'8"	6
60"	8'0"	7
66"	8'0"	7
72"	9'4"	8
78"	9'4"	8
84"	9'4"	8
90"	10'8"	9
96"	10'8"	9
102"	12'0"	10
108"	12'0"	10



N.o.	DATE	REVISION	
SEAL:			
DESIGN ENGINEER:		DATE _____	


	
CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT	
<u>CONSTRUCTION PLANS FOR:</u>	
CONCRETE PAVEMENT CONSTRUCTION DETAILS	
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-21 SHEET OF



OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

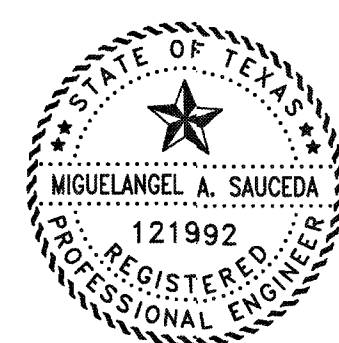
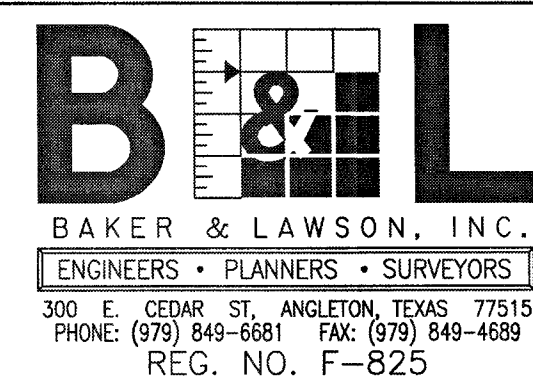
**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

PROJECT NO. 13454


No.	DATE	REVISION			
SEAL:					
_____ DATE _____ DESIGN ENGINEER:					
					
CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT					
<u>CONSTRUCTION PLANS FOR:</u>					
CONCRETE PAVEMENT CONSTRUCTION DETAILS					
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:			SL-22 SHEET OF		

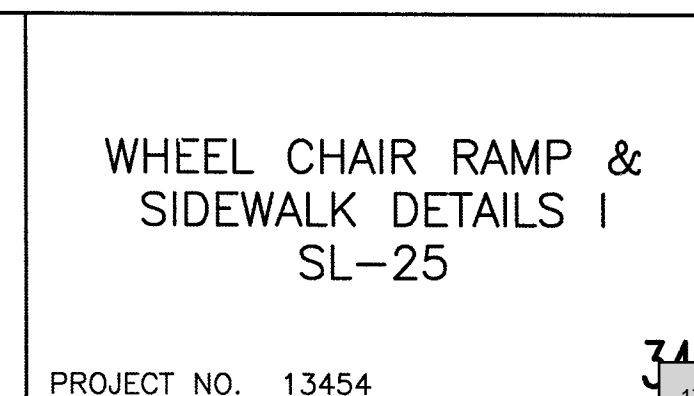
NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN BT
CHECKED _____
DATE _____



The seal appearing on
this document was
authorized by
Miguelangel A. Saucedo
P.E. 121992


Date: 1/11/22





SL-ST-35



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

SL-ST-36

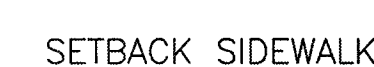
NOTES:

1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED
2. THE MINIMUM SIDEWALK WIDTH IS 5' (FEET). THE LANDING SHALL BE 5' x 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%. USUAL SIDEWALK CROSS SLOPE EQUALS 1.5%. CHANGES IN LEVEL GREATER THAN 1/4" (IN.) ARE NOT PERMITTED.
3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 5' x 5' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
4. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6" (IN.) OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES, WITH THE FOLLOWING EXCEPTIONS:
 - A.) HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
 - B.) THE LEAST POSSIBLE GRADE SHOULD BE USED TO MAXIMIZE ACCESSIBILITY. WHERE STRUCTURALLY IMPRACTICAL TO ACHIEVE TEXAS ACCESSIBILITY STANDARDS (TAS) COMPLIANCE, THE RUNNING SLOPE OF SIDEWALKS AND CROSSWALKS, WITHIN THE PUBLIC R.O.W., MAY FOLLOW THE GRADE OF THE PARALLEL ROADWAY WITHOUT INVOKING TEXAS ACCESSIBILITY STANDARDS (TAS) VARIANCES FOR LANDINGS OR HANDRAILS. WHERE A CONTINUOUS GRADE GREATER THAN 5% MUST BE PROVIDED, HANDRAILS MAY BE DESIRABLE ON ONE OR BOTH SIDES OF THE SIDEWALK TO IMPROVE ACCESSIBILITY. HANDRAILS MAY ALSO BE NEEDED TO PROTECT PEDESTRIANS FROM POTENTIALLY HAZARDOUS CONDITIONS
5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
6. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOME SURFACES, IN ACCORDANCE WITH ADA AND TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR). TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. TEXTURES ALSO SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. TO SERVE AS A REFUGE AREA, THE MEDIAN SHALL BE A MINIMUM OF 5' (FT) WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
9. SMALL CHANNELIZATION ISLANDS, WHICH CAN NOT PROVIDE A MINIMUM 5' x 5' LANDING AT THE TOP OF RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
10. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
11. EXISTING FEATURES THAT COMPLY WITH T.A.S. MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
12. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE.

SL-ST-40



SL-ST-37



SIDEWALK TREATMENT AT DRIVEWAYS

SL-ST-38



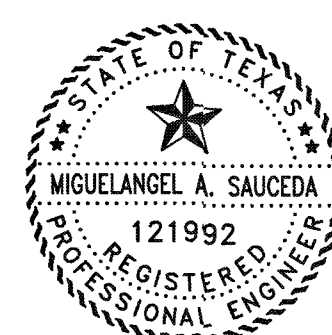
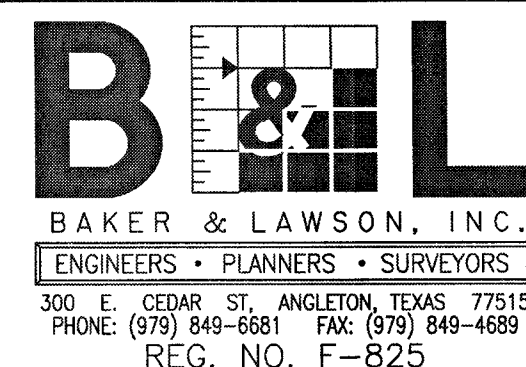
SL-ST-39

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RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN BT
CHECKED _____
DATE _____



The seal appearing on
this document was
authorized by
Miguelangel A. Saucedo
P.E. 121992



Date: 1/11/78

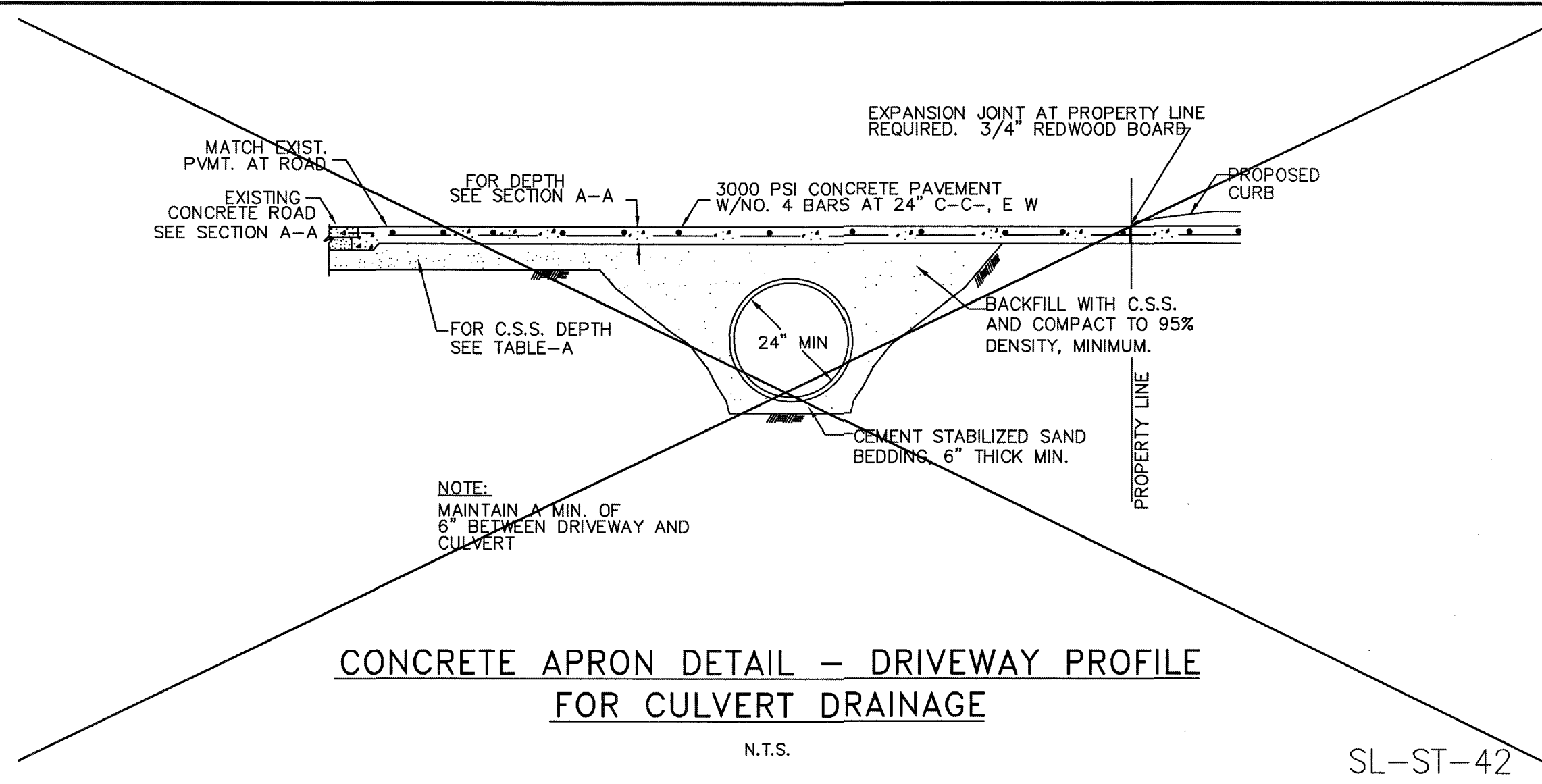
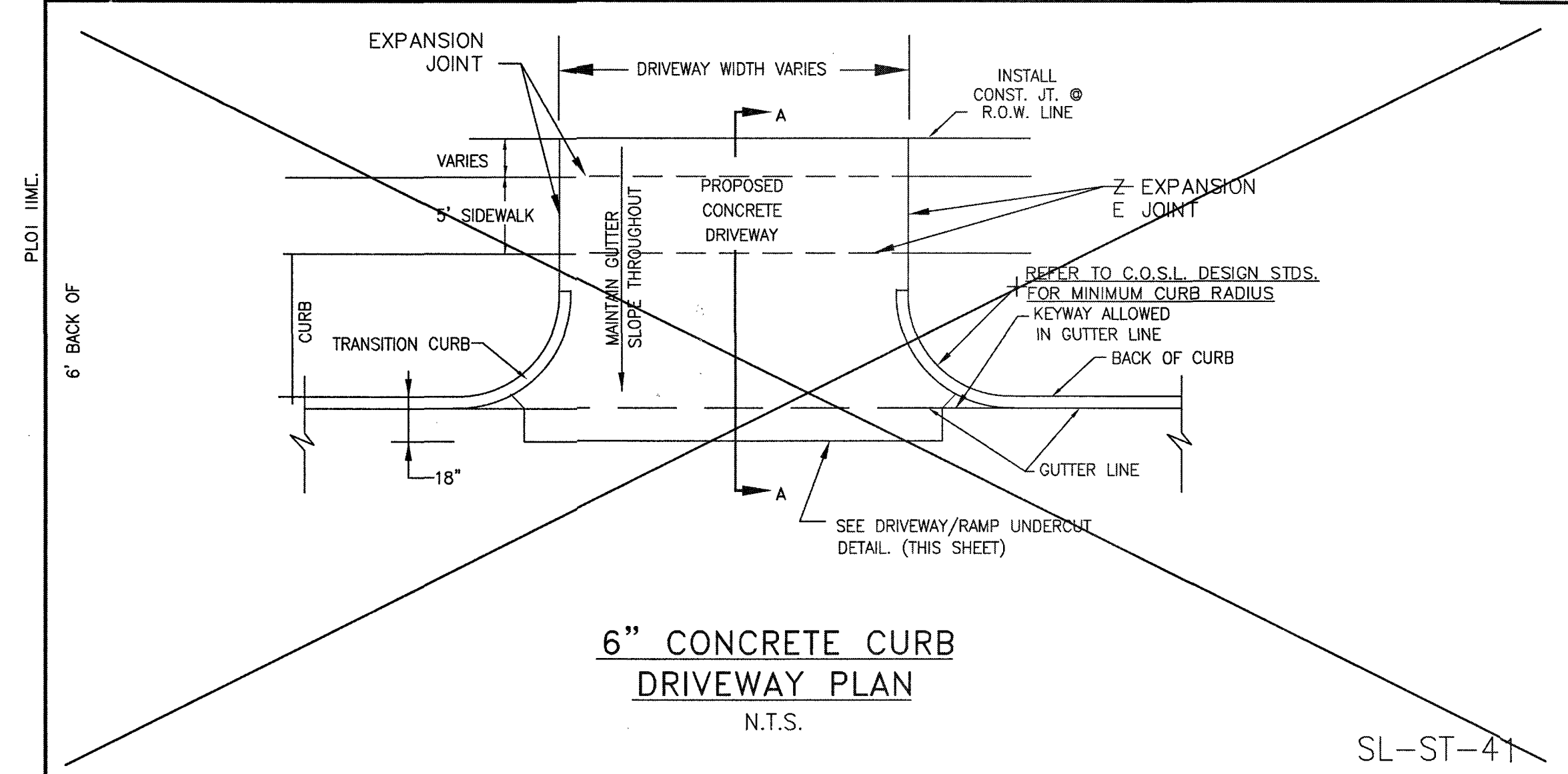
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

WHEEL CHAIR RAMP &
SIDEWALK DETAILS II
SL-26

PROJECT NO. 13454



- NOTES:
- 1.) SAW CUT & BREAKOUT NO MORE THAN 72 HOURS PRIOR TO PROPOSED CONCRETE PLACEMENT. NOTIFY SUGAR LAND PRIOR TO CUT.
 - 2.) UNSTABLE SUBGRADE SHALL BE OVER EXCAVATED & REPLACED WITH CONCRETE.
 - 3.) IT IS CONTRACTOR'S RESPONSIBILITY TO NOTIFY SUGAR LAND OF ANY BIRD BATH PROBLEMS PRIOR TO CONSTRUCTION OF DRIVEWAY.
 - 4.) USE 1"x2" TREATED REDWOOD FOR HEADER.
 - 5.) EDGE ALL SIDES WITH EDGING TOOL AND BROOM FINISH
 - 6.) FOR INDUSTRIAL DRIVES, PAVEMENT SHALL HAVE A DEPTH OF 8" (IN).
 - 7.) EXPANSION JOINT AT PROPERTY LINE REQUIRED. 3/4" REDWOOD BOARD WITH NO. 4 DOWELS MINIMUM.
 - 8.) MAXIMUM ALLOWABLE DRIVEWAY GRADE IN PULIC R.O.W. IS 5%.
 - 9.) DRIVEWAY GRADE MUST MEET A.D.A. AND T.A.S. SIDEWALK SLOPE. SIDEWALKS MUST BE SCORED TO MATCH ADJACENT SIDEWALK. IF SLOPE IS CONTINUED THROUGH THE R.O.W. LINE, PROVIDE A 3/4" REDWOOD EXPANSION JOINT WITH DOWELS AT R.O.W. LINE.
 - 10.) REFER TO GENERAL, C.S.S., ASPHALT, AND CONCRETE PAVEMENT NOTES.

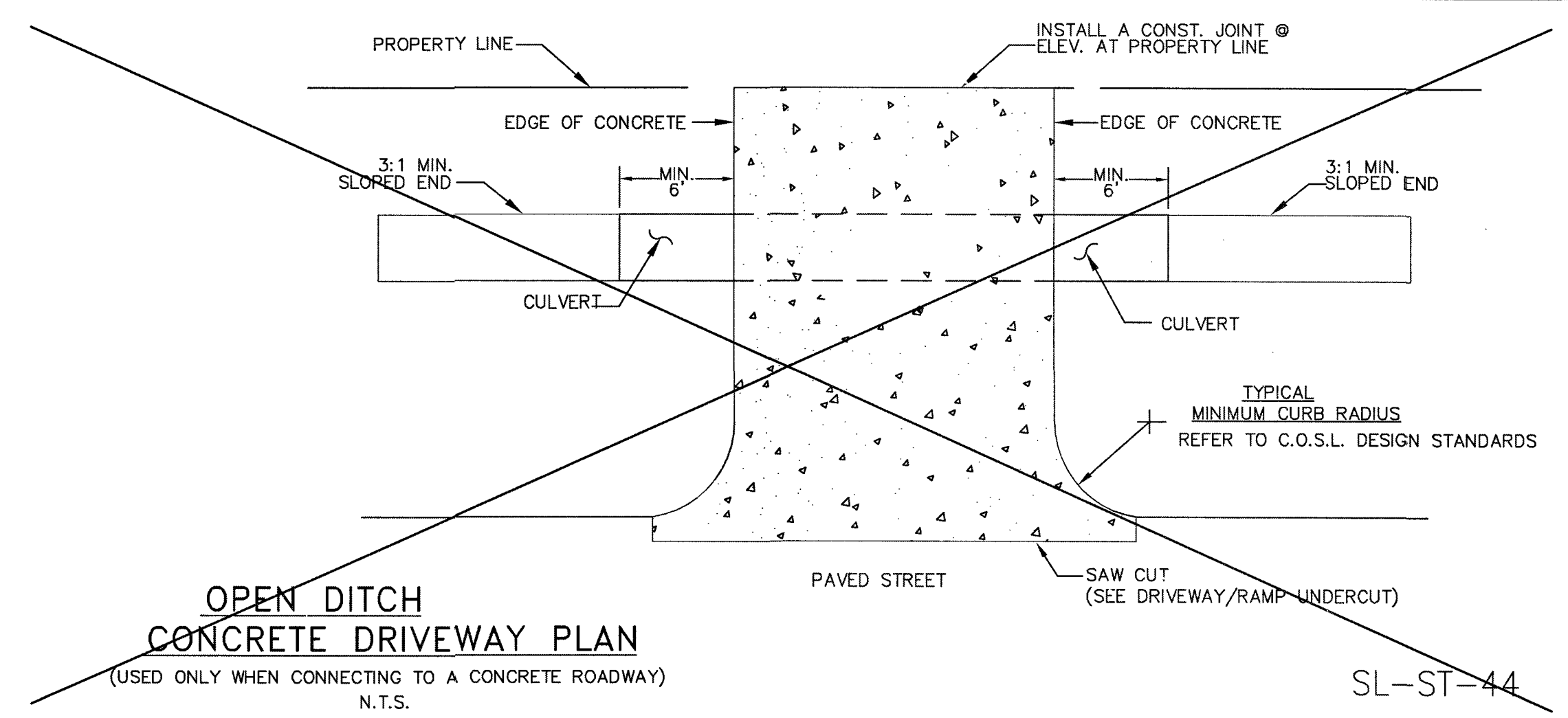
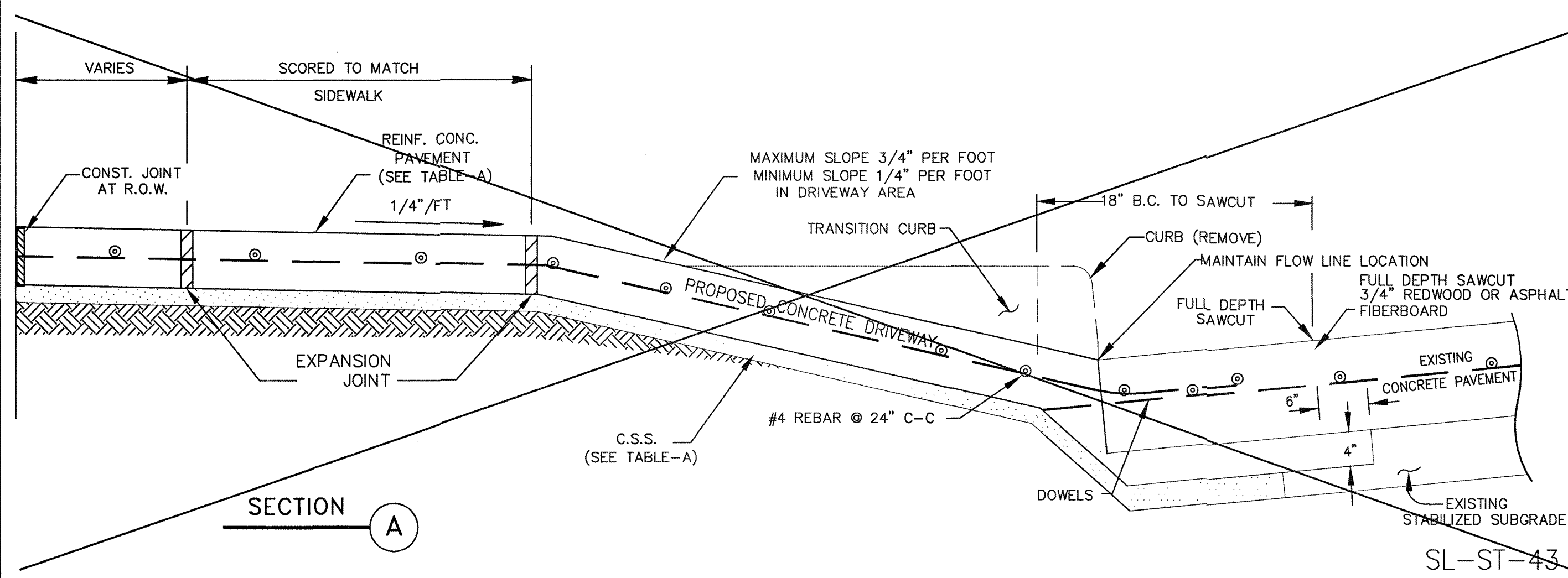


TABLE-A

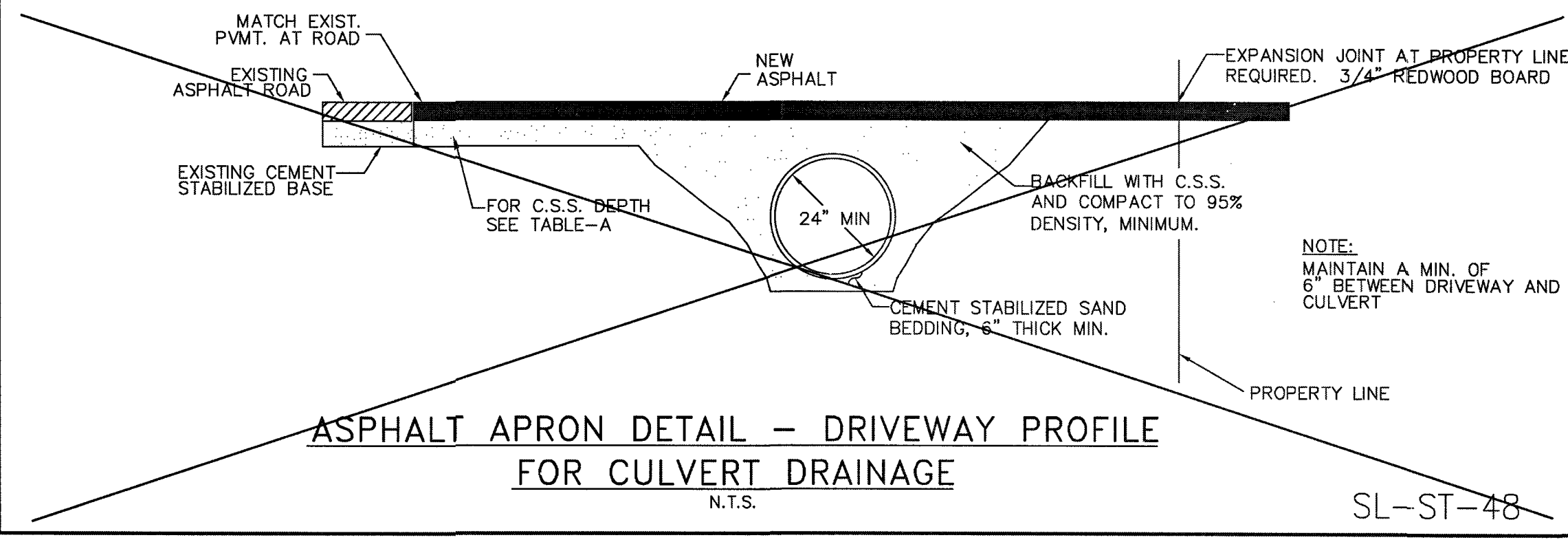
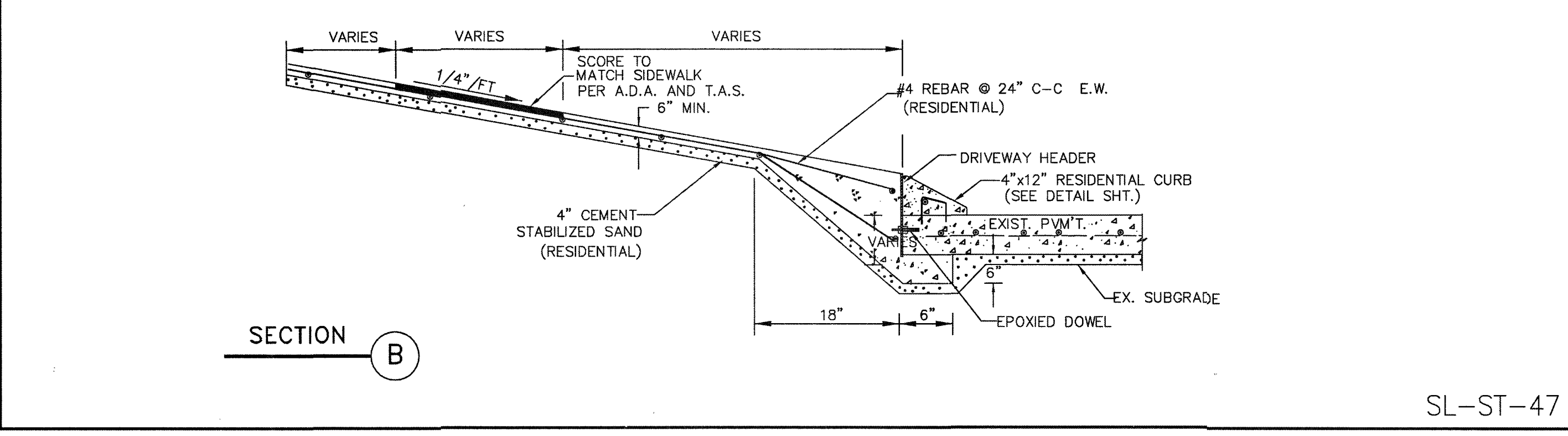
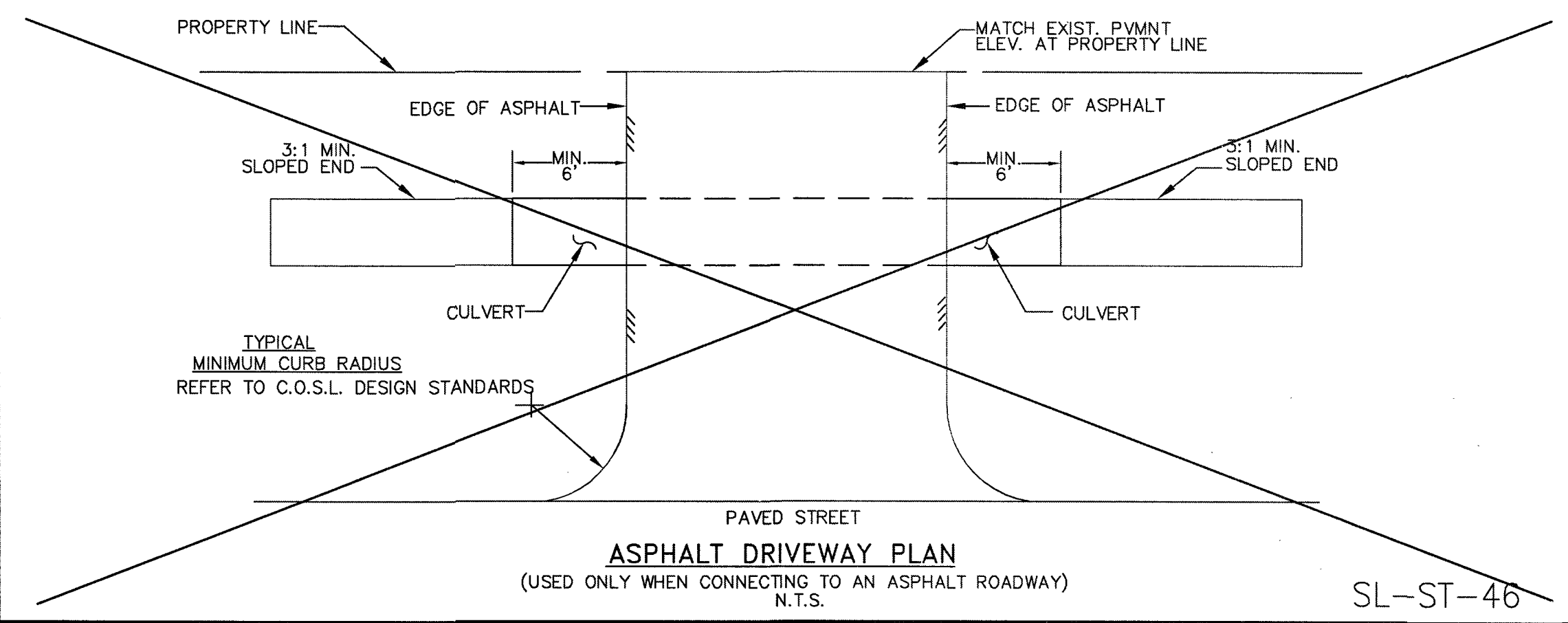
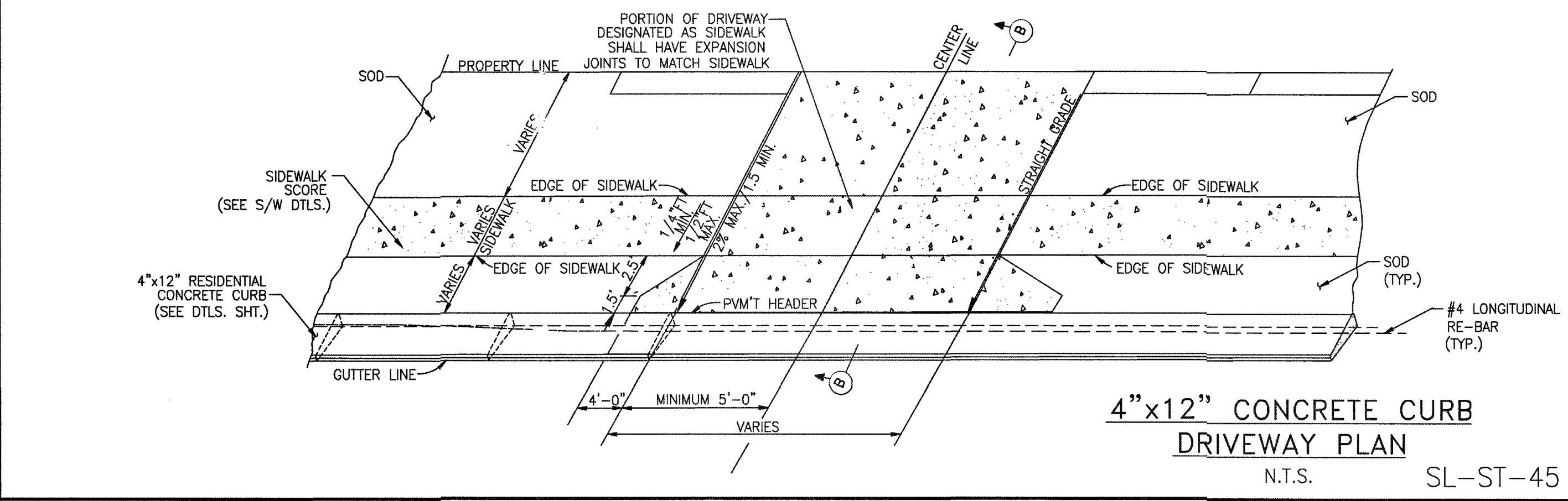
CEMENT STABILIZED SAND 2-SK/C.Y.	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM
REINFORCED CONCRETE PAVEMENT 3,000 PSI MIN.	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM

DRIVEWAY PAVEMENT CONSTRUCTION TABLE

NO.	DATE	REVISION

SEAL: _____

DESIGN ENGINEER: _____ DATE: _____



CITY OF SUGAR LAND, TEXAS

ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

DRIVEWAY CONSTRUCTION DETAILS

JOB No.: _____
DATE: _____
DESIGNED BY: _____
DRAWN BY: _____
CHECKED BY: _____
SCALE: _____

SL-27

SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED _____
DATE _____

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 846-6681 FAX: (979) 846-4689
REG. NO. F-825

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIGUEL ANGEL A. SAUCEDA P.E. 121992

MIGUEL ANGEL A. SAUCEDA
REGISTERED PROFESSIONAL ENGINEER
Date: 11/11/22

OWNER:

Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

BAYOU BEND ESTATES
ANGLETON, TEXAS

PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DRIVEWAY CONSTRUCTION DETAILS
SL-27

PROJECT NO. 13454

HYPER-CHLORINATED WATER NOTES

1. HYPER-CHLORINATED WATER SHALL NOT BE DISCHARGED TO THE STORM SEWER OR DRAINAGE SYSTEM UNLESS THE CHLORINE CONCENTRATION IS REDUCED TO 4 PPM OR LESS BY CHEMICALLY TREATING THE DECHLORINATE OR BY ONSITE RETENTION UNTIL NATURAL ATTENUATION OCCURS.
2. DISCHARGE OF HIGH FLOW RATE AND VELOCITIES SHALL BE DIRECTED TO VELOCITY DISSIPATION DEVICES.
3. CHLORINE CAN BURN VEGETATION, SO IT SHOULD NOT BE USED TO WATER VEGETATION THAT IS BEING USED FOR STABILIZATION, VEGETATED FILTERS OR BUFFERS, OR OTHER VEGETATION TO BE PRESERVED.
4. HYPER-CHLORINATED WATER MAY BE DISCHARGED TO AN ONSITE RETENTION AREA UNTIL NATURAL ATTENUATION OCCURS. THE AREA MAY BE A DRY STORMWATER RETENTION BASIN, OR A PORTION OF THE SITE MAY BE GRADED TO FORM A TEMPORARY PIT OR BERMED AREA.
5. NATURAL ATTENUATION OF THE CHLORINE MAY BE AIDED BY AERATION. AIR CAN BE ADDED TO THE WATER BY DIRECTING THE DISCHARGE OVER A ROUGH SURFACE BEFORE IT ENTERS THE TEMPORARY RETENTION AREA OR AN AERATION DEVICE CAN BE PLACED IN THE RETENTION AREA.
6. ONSITE DISCHARGE MAY REQUIRE SEVERAL HOURS TO A FEW DAYS BEFORE THE WATER IS SAFE TO DISCHARGE. THE RATE AT WHICH CHLORINE WILL ATTENUATE IS AFFECTED BY SOIL CONDITIONS AND WEATHER CONDITIONS. ATTENUATION WILL OCCUR QUICKEST DURING WARM, SUNNY, AND DRY PERIODS.

SANITARY WASTE NOTES

1. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE NUMBER OF PORTABLE TOILETS BASED ON THE NUMBER OF EMPLOYEES USING THE TOILETS AND THE HOURS THEY WILL WORK.
2. SANITARY FACILITIES SHALL BE PLACED ON A MINIMUM OF 50 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE, CHANNELS OR SURFACE WATERS. IF UNABLE TO MEET THE 50 FOOT REQUIREMENT DUE TO SITE CONFIGURATION, PORTABLE TOILETS SHALL BE A MINIMUM OF 20 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE CHANNELS OR SURFACE WATER AND SECONDARY CONTAINMENT SHALL BE PROVIDE IN CASE OF SPILLS.
3. THE LOCATION OF THE PORTABLE TOILETS SHALL BE ACCESSIBLE TO MAINTENANCE TRUCKS WITHOUT DAMAGING EROSION AND SEDIMENT CONTROLS OR CAUSING EROSION OR TRACKING PROBLEMS.
4. SANITARY FACILITIES SHALL BE FULLY ENCLOSED AND DESIGNED IN A MANNER THAT MINIMIZES THE EXPOSURE OF SANITARY WASTE TO PRECIPITATION AND STORMWATER RUNOFF.
5. WHEN HIGH WINDS ARE EXPECTED, PORTABLE TOILETS SHALL BE ANCHORED OR OTHERWISE SECURED TO PREVENT THEM FROM BEING BLOWN OVER.
6. THE COMPANY THAT SUPPLIES AND MAINTAINS THE PORTABLE TOILETS SHALL BE NOTIFIED IMMEDIATELY IF A TOILET IS TIPPED OVER OR DAMAGED IN A WAY THAT THE RESULTS IN A DISCHARGE. DISCHARGED SOLID MATTER SHALL BE VACUUMED INTO A SEPTIC TRUCK BY THE COMPANY THAT MAINTAINS THE TOILETS.
7. THE OPERATOR OF THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) SHALL BE NOTIFIED IF A DISCHARGE FROM THE PORTABLE TOILETS ENTERS THE MS4 OR A NATURAL CHANNEL.
8. SANITARY FACILITIES SHALL NOT BE PERMITTED ON PUBLIC SIDEWALKS, STREETS OR INLETS.

DEBRIS AND TRASH NOTES

1. ALL WASTE SOURCES AND STORAGE AREAS SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL MATERIAL AND WASTE SOURCES BE CLOSER THAN 20 FEET FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS.
2. CONSTRUCTION WASTE AND TRASH SHALL BE STORED IN A MANNER THAT MINIMIZES ITS EXPOSURE TO PRECIPITATION AND STORMWATER RUNOFF.
3. WHENEVER POSSIBLE, MINIMIZE PRODUCTION OF DEBRIS AND TRASH.
4. INSTRUCT CONSTRUCTION WORKERS IN PROPER DEBRIS AND TRASH STORAGE AND HANDLING PROCEDURES.
5. SEGREGATE POTENTIAL HAZARDOUS WASTE FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS.
6. PROHIBIT LITTERING BY WORKERS AND VISITORS.
7. POLICE SITE DAILY FOR LITTER AND DEBRIS.
8. ENFORCE SOLID WASTE HANDLING AND STORAGE PROCEDURES.
9. IF FEASIBLE, RECYCLE CONSTRUCTION AND DEMOLITION DEBRIS SUCH AS WOOD, METAL, AND CONCRETE.
10. TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AT REGULAR INTERVALS THAT ARE SCHEDULED TO EMPTY CONTAINERS WHEN THEY ARE 90 PERCENT FULL OR MORE FREQUENTLY.
11. GENERAL CONSTRUCTION DEBRIS MAY BE HAULED TO A LICENSED CONSTRUCTION DEBRIS LANDFILL.
12. USE WASTE AND RECYCLING HAULERS/FACILITIES APPROVED BY THE LOCAL MUNICIPALITY.
13. CHIPPING OF TREES AND BRUSH FOR USE SUCH AS MULCH IS PREFERRED ALTERNATIVE TO OFFSITE DISPOSAL.
14. NO WASTE, TRASH, OR DEBRIS SHALL BE BURIED, BURNED OR OTHER WISE DISPOSED OF ONSITE.
15. CLEARLY MARK ON ALL DEBRIS AND TRASH CONTAINERS WHICH MATERIALS ARE ACCEPTABLE. FOREMAN AND/OR CONSTRUCTION SUPERVISOR SHALL MONITOR ONSITE SOLID WASTE STORAGE AND DISPOSAL PROCEDURES DAILY.

CONCRETE SAWCUTTING WASTE NOTES

1. DURING SAWCUTTING OPERATIONS, THE SLURRY AND CUTTINGS SHALL BE CONTINUOUSLY VACUUMED OR OTHERWISE RECOVERED AND NOT BE ALLOWED TO DISCHARGE FROM THE SITE.
2. IF THE PAVEMENT TO BE CUT IS NEAR A STORM DRAIN INLET, THE INLET SHALL BE BLOCKED BY SANDBAGS OR EQUIVALENT TEMPORARY MEASURES TO PREVENT THE SLURRY FROM ENTERING THE INLET. REMOVE THE SANDBAGS IMMEDIATELY AFTER COMPLETING SAWCUTTING OPERATIONS, SO THEY DO NOT CAUSE DRAINAGE PROBLEMS DURING STORM EVENTS.
3. SLURRY AND CUTTINGS SHALL NOT BE ALLOWED TO REMAIN ON THE PAVEMENT TO DRY OUT
4. DEVELOP PRE-DETERMINED, SAFE SLURRY DISPOSAL AREAS.
5. COLLECTED SLURRY AND CUTTINGS SHOULD BE IMMEDIATELY HAULED FROM THE SITE FOR DISPOSAL AT A WASTE FACILITY. IF THIS IS NOT POSSIBLE, THE SLURRY AND CUTTINGS SHALL BE DISCHARGED INTO ONSITE CONTAINMENT.
6. THE ONSITE CONTAINMENT MAY BE EXCAVATED OR BERMED PIT LINED WITH PLASTIC MINIMUM OF 10 MILIMETERS THICK. IF THE PROJECT INCLUDES PLACEMENT OF NEW CONCRETE, SLURRY FROM SAWCUTTING MAY BE DISPOSED OF IN FACILITIES DESIGNATED FOR THE WASHOUT OF CONCRETE TRUCKS INSTEAD CONSTRUCTING A SEPARATE CONTAINMENT.
7. THE CONTAINMENT SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL THE COLLECTION AREA BE CLOSER THAN 20 FEET FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS.
8. SEVERAL, PORTABLE, PRE-FABRICATED, CONCRETE WASHOUT, COLLECTION BASINS ARE COMMERCIALY AVAILABLE AND ARE AN ACCEPTABLE ALTERNATIVE TO AN ONSITE CONTAINMENT PIT.
9. REMOVE WASTER CONCRETE WHEN THE CONTAINMENT IS HALF FULL. ALWAYS MAINTAIN A MINIMUM OF ONE FOOT FREEBOARD.
10. ONSITE EVAPORATION OF SLURRY WATER AND RECYCLING OF THE CONCRETE WASTE IS THE PREFERRED DISPOSAL METHOD. WHEN THIS IS NOT FEASIBLE, DISCHARGE FROM THE COLLECTION AREA SHALL ONLY BE ALLOWED IF A PASSIVE TREATMENT SYSTEM IS USED TO REMOVE THE FINES. MECHANICAL MIXING IS REQUIRED IN THE COLLECTION AREA. THE pH MUST BE TESTED, AND DISCHARGED IS ALLOWED IN IF THE pH DOES NOT EXCEED 8.0. THE pH MAY BE LOWERED BY ADDING SULFURIC ACID TO THE SLURRY WATER.
11. CARE SHALL BE EXERCISED WHEN TREATING THE SLURRY WATER FOR DISCHARGE. MONITORING MUST BE IMPLEMENTED TO VERIFY THAT DISCHARGES FROM THE COLLECTION AREA DO NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
12. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO CONTROL SAWCUTTING WASTE, SINCE THE GRAIN SIZE IS SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.

SPILL AND LEAK RESPONSE NOTES


1. RECORDS OF RELEASES THAT EXCEED THE REPORTABLE QUANTITY (RQ) FOR OIL AND HAZARDOUS SUBSTANCES SHOULD BE MAINTAINED IN ACCORDANCE WITH THE FEDERAL AND STATE REGULATIONS.
2. EMERGENCY CONTACT INFORMATION AND SPILL RESPONSE PROCEDURES SHALL BE POSTED IN A READILY AVAILABLE REA FOR ACCESS BY ALL EMPLOYEES AND SUBCONTRACTORS.
3. SPILL CONTAINMENT KITS SHOULD BE MAINTAINED FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS THAT ARE REGULARLY ONSITE. MATERIALS IN KITS SHOULD BE BASED ON CONTAINMENT GUIDELINES IN THE MATERIALS SAFETY AND DATA SHEETS (MSDS) FOR THE SUBSTANCE MOST FREQUENTLY ONSITE.
4. SPILL KITS ARE INTENDED FOR RESPONSE TO SMALL SPILLS, TYPICALLY LESS THAN 5 GALLONS, OF SUBSTANCES THAT ARE NOT EXTREMELY HAZARDOUS.
5. SIGNIFICANT SPILLS OR OTHER RELEASES WARRANT IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS.
6. SUSPECTED JOB-SITE CONTAMINATION SHOULD BE IMMEDIATELY REPORTED TO REGULATORY AUTHORITIES AND PROTECTIVE ACTIONS TAKEN.
7. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE A SITE SUPERINTENDENT, FOREMAN, SAFETY OFFICER, OR OTHER SENIOR PERSON WHO IS ONSITE DAILY TO BE THE SPILL AND LEAK RESPONSE COORDINATOR (SLRC) AND MUST HAVE KNOWLEDGE OF AND BE TRAINED IN CORRECT SPILL AND LEAK RESPONSE PROCEDURES.

SUBGRADE STABILIZATION NOTES

1. MINIMIZE THE DISCHARGE OF THE CHEMICAL STABILIZERS BY THE CONTRACTOR LIMITING THE AMOUNT OF STABILIZING AGENT ONSITE TO THAT WHICH CAN BE THOROUGHLY MIXED AND COMPACTED BY THE END OF EACH WORKDAY.
2. STABILIZERS SHALL BE APPLIED AT RATES THAT RESULT IN NO RUN OFF.
3. STABILIZATION SHALL NOT OCCUR IMMEDIATELY BEFORE AND DURING RAINFALL EVENTS.
4. NO TRAFFIC OTHER THAN WATER TRUCKS AND MIXING EQUIPMENT SHALL BE ALLOWED TO PASS OVER THE AREA BEING STABILIZED UNTIL AFTER COMPLETION OF MIXING THE CHEMICAL.
5. AREA ADJACENT AND DOWNSTREAM OF STABILIZED AREAS SHALL BE ROUGHENED TO INTERCEPT CHEMICAL RUNOFF AND REDUCE RUNOFF VELOCITY.
6. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO TREAT CHEMICAL RUNOFF, BECAUSE THE CHEMICALS ARE DISSOLVED IN THE WATER AND WON'T BE AFFECTED BY A BARRIER AND THE SUSPENDED SOLIDS ARE SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.
7. IF SOIL STABILIZERS ARE STORED ONSITE, THEY SHALL BE CONSIDERED HAZARDOUS MATERIAL AND SHALL BE MANAGED ACCORDING TO THE CRITERIA OF CHEMICAL MANAGEMENT TO CAPTURE ANY ACCIDENTAL LIME OR CHEMICAL OVERFLOW.
8. THE CONTRACTOR SHALL INSTALL BMP'S TO ALL INLETS AND OPENINGS CONNECTED TO THE STORM SEWER SYSTEMS TO PREVENT LIME FROM ENTERING THE MS4 SYSTEM.

SANDBLASTING WASTE NOTES

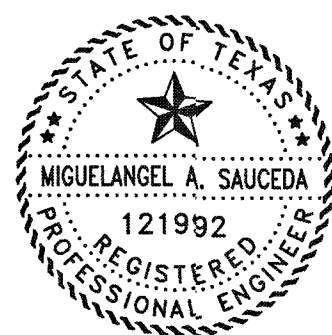
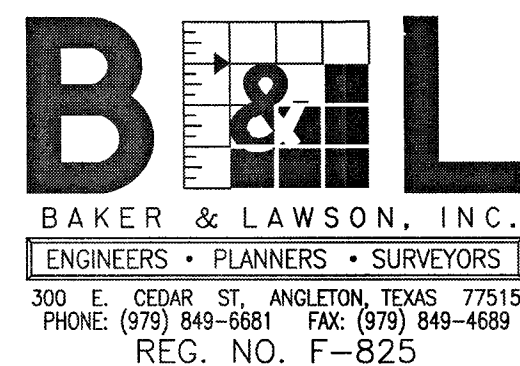
1. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE THE SITE SUPERINTENDENT, FOREMAN, OR OTHER PERSON WHO IS RESPONSIBLE FOR SANDBLASTING TO ALSO BE RESPONSIBLE FOR SANDBLASTING WASTE MANAGEMENT.
2. PROHIBIT THE DISCHARGE OF SANDBLASTING WASTE.
3. USE ONLY INERT, NON-DEGRADABLE SANDBLAST MEDIA.
4. USE APPROPRIATE EQUIPMENT FOR THE JOB; DO NOT OVER-BLAST.
5. WHENEVER POSSIBLE, BLAST IN A DOWNWARD DIRECTION.
6. CEASE BLASTING ACTIVITIES IN HIGH WINDS OR IF WIND DIRECTION COULD TRANSPORT GRIT TO DRAINAGE FACILITIES.
7. INSTALL DUST SHIELDING AROUND SANDBLASTING AREAS.
8. COLLECT AND DISPOSE OF ALL SPENT SANDBLAST GRIT, USE DUST CONTAINMENT FABRICS AND DUST COLLECTION HOPPERS AND BARRELS.
9. NON-HAZARDOUS SANDBLAST GRIT MAY BE DISPOSED IN PERMITTED CONSTRUCTION DEBRIS LANDFILLS OR PERMITTED SANITARY LANDFILLS.
10. IF SANDBLAST MEDIA CANNOT BE FULLY CONTAINED, CONSTRUCT SEDIMENT TRAPS DOWNSTREAM FROM BLASTING AREA WHERE APPROPRIATE.
11. USE SAND FENCING WHERE APPROPRIATE IN AREAS WHERE BLAST MEDIA CANNOT BE FULLY CONTAINED.
12. IF NECESSARY, INSTALL MISTING EQUIPMENT TO REMOVE SANDBLAST GRIT FROM THE AIR PREVENT RUNOFF FROM MISTING OPERATIONS FROM ENTERING DRAINAGE SYSTEMS.
13. USE VACUUM GRIT COLLECTION SYSTEMS WHERE POSSIBLE.
14. KEEP RECORDS OF SANDBLASTING MATERIALS, PROCEDURES, AND WEATHER CONDITIONS ON A DAILY BASIS.
15. TAKE ALL REASONABLE PRECAUTIONS TO ENSURE THAT SANDBLASTING GRIT IS CONTAINED AND KEPT AWAY FROM DRAINAGE STRUCTURES.
16. SAND BLASTING MEDIA SHOULD ALWAYS BE STORED UNDER COVER AWAY FROM DRAINAGE STRUCTURES.
17. ENSURE THAT STORED MEDIA OR GRIT IS NOT SUBJECTED TO TRANSPORT BY WIND.
18. ENSURE THAT ALL SANDBLASTING EQUIPMENT AND STORAGE CONTAINERS COMPLY WITH CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS.
19. CAPTURE AND TREAT RUNOFF, WHICH COMES INTO CONTACT WITH SANDBLASTING MATERIALS OR WASTE.

No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE: _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
GENERAL EROSION CONTROL NOTES		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-33 SHEET OF	

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
DRAWN BT
CHECKED
DATE



The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992

Date: 1/11/24

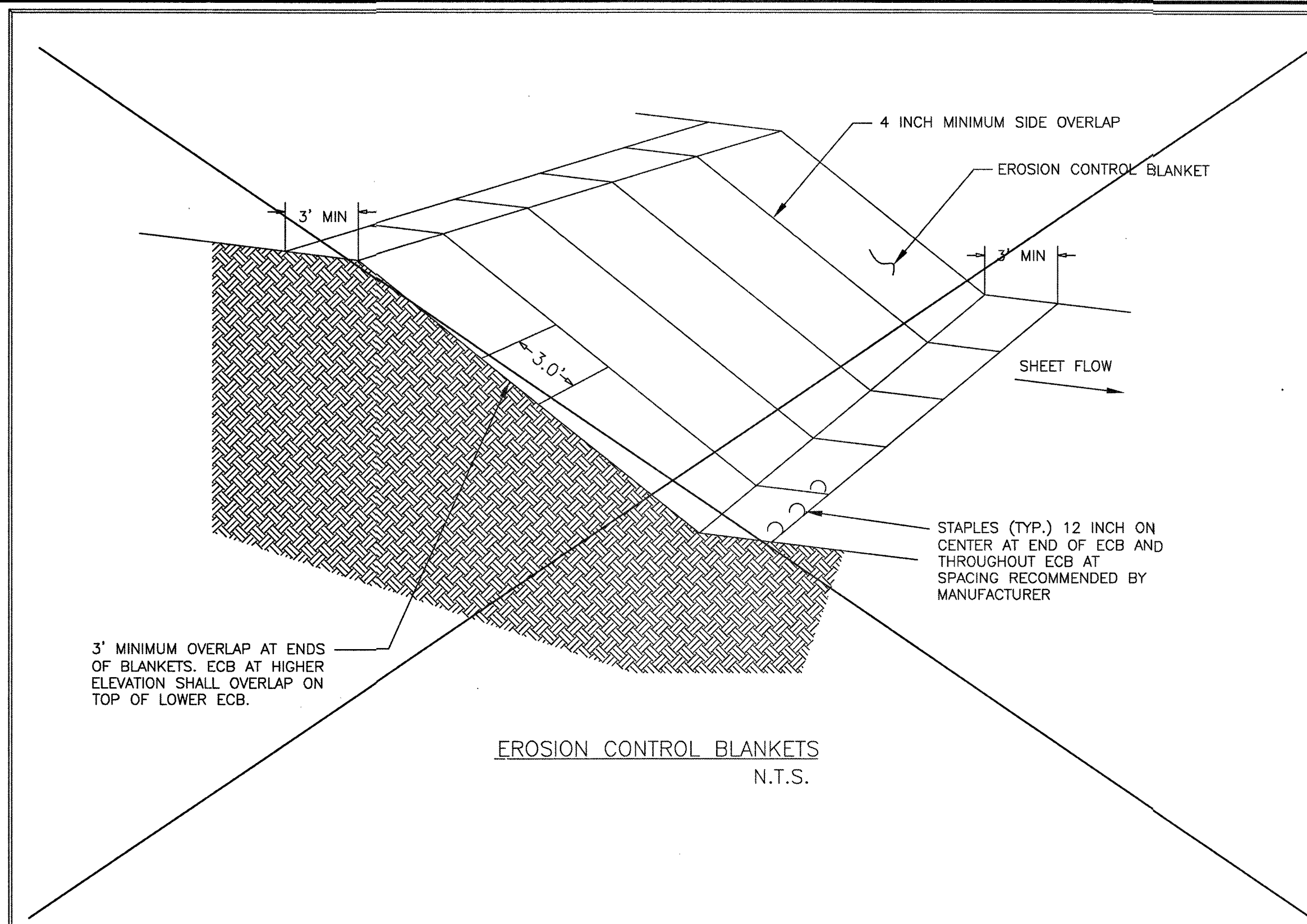
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

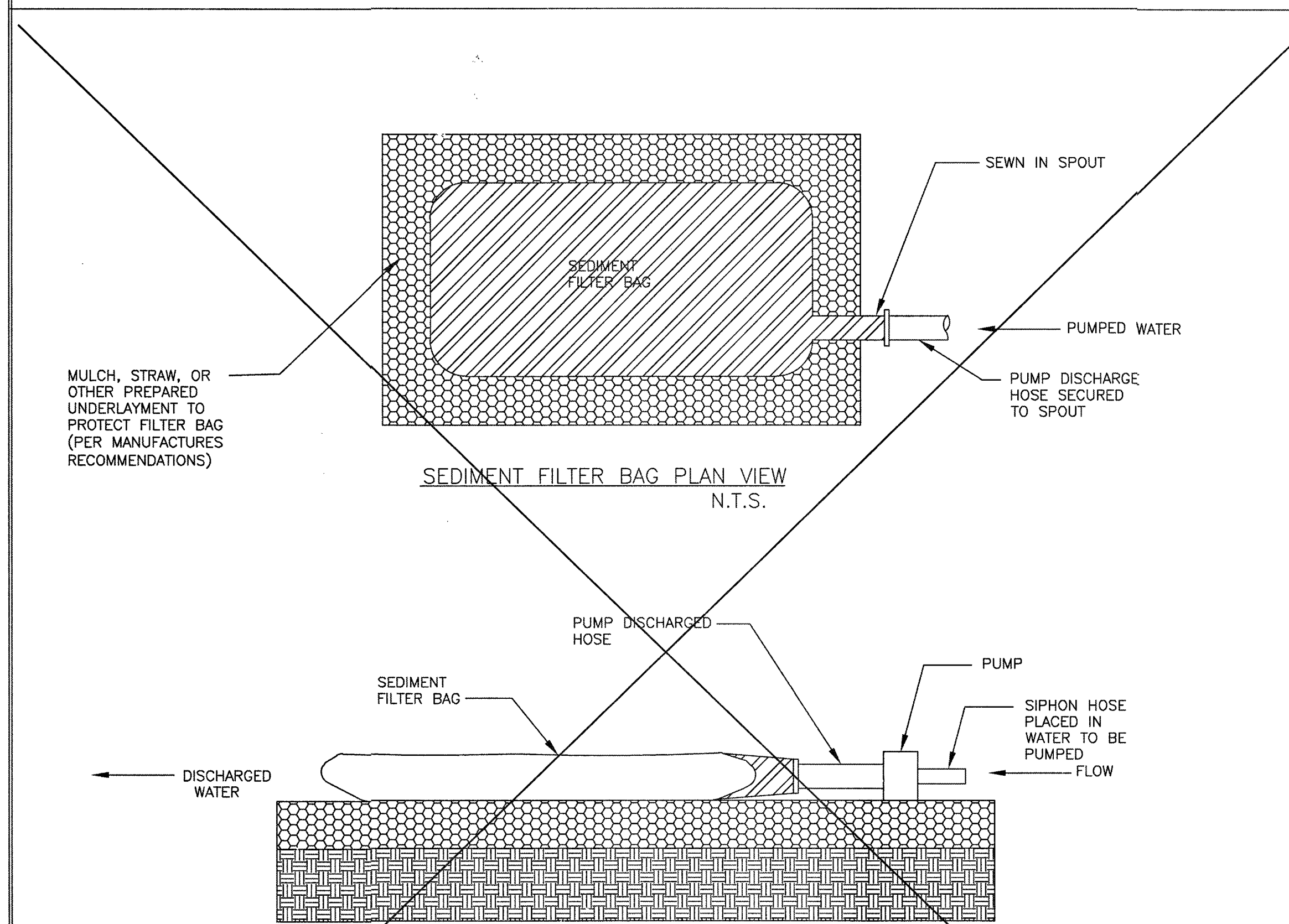
BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

GENERAL EROSION
CONTROL NOTES
SL-33

PROJECT NO. 13454



EROSION CONTROL BLANKETS
N.T.S.

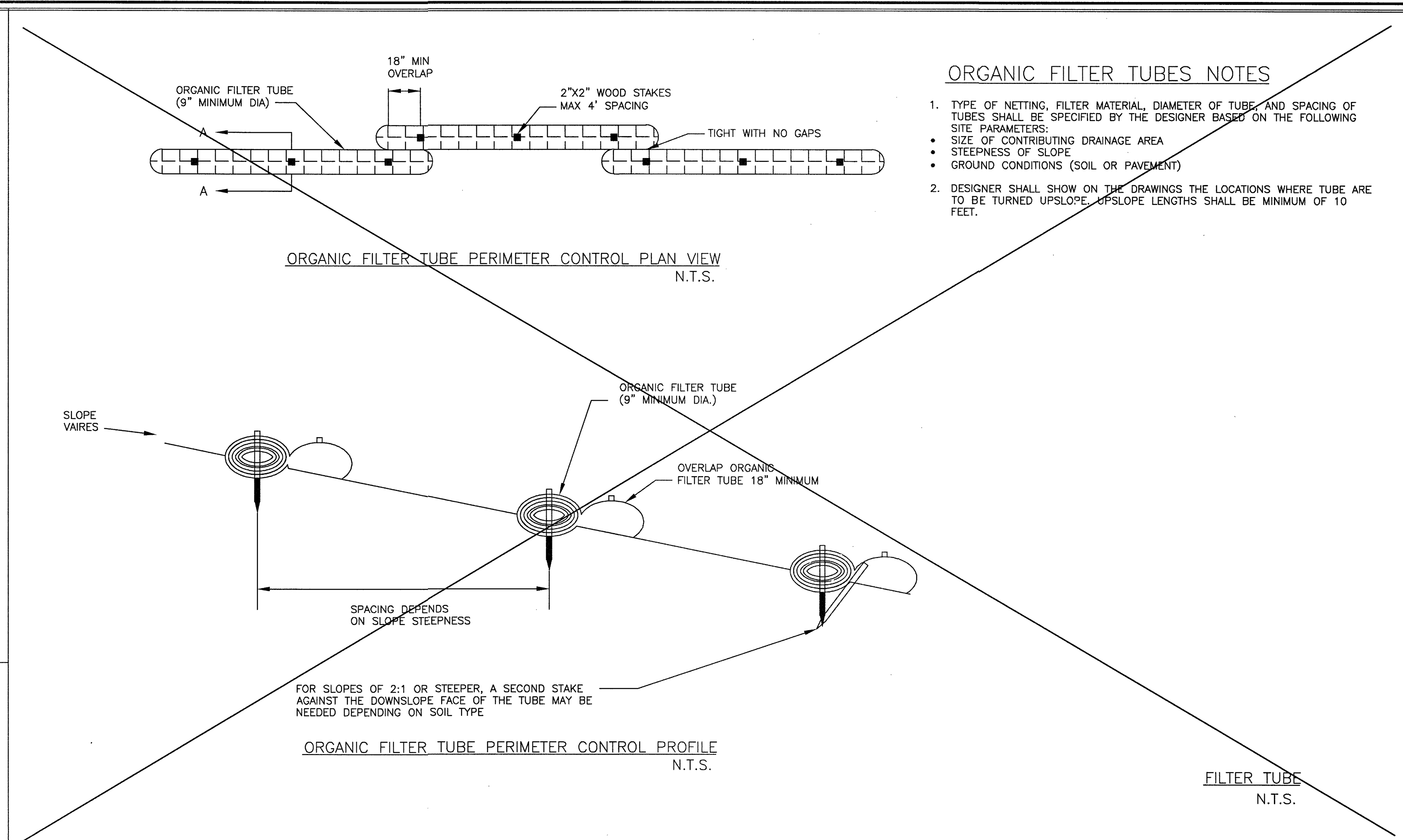


SEDIMENT FILTER BAG PLAN VIEW
N.T.S.

SEDIMENT FILTER BAG PROFILE
N.T.S.

DEWATERING CONTROLS
N.T.S.

NOTE: A FILTRATION BAG IS NOT REQUIRED IF IF THE DRAINAGE SYSTEM CAN BE ADEQUATELY PROTECTED



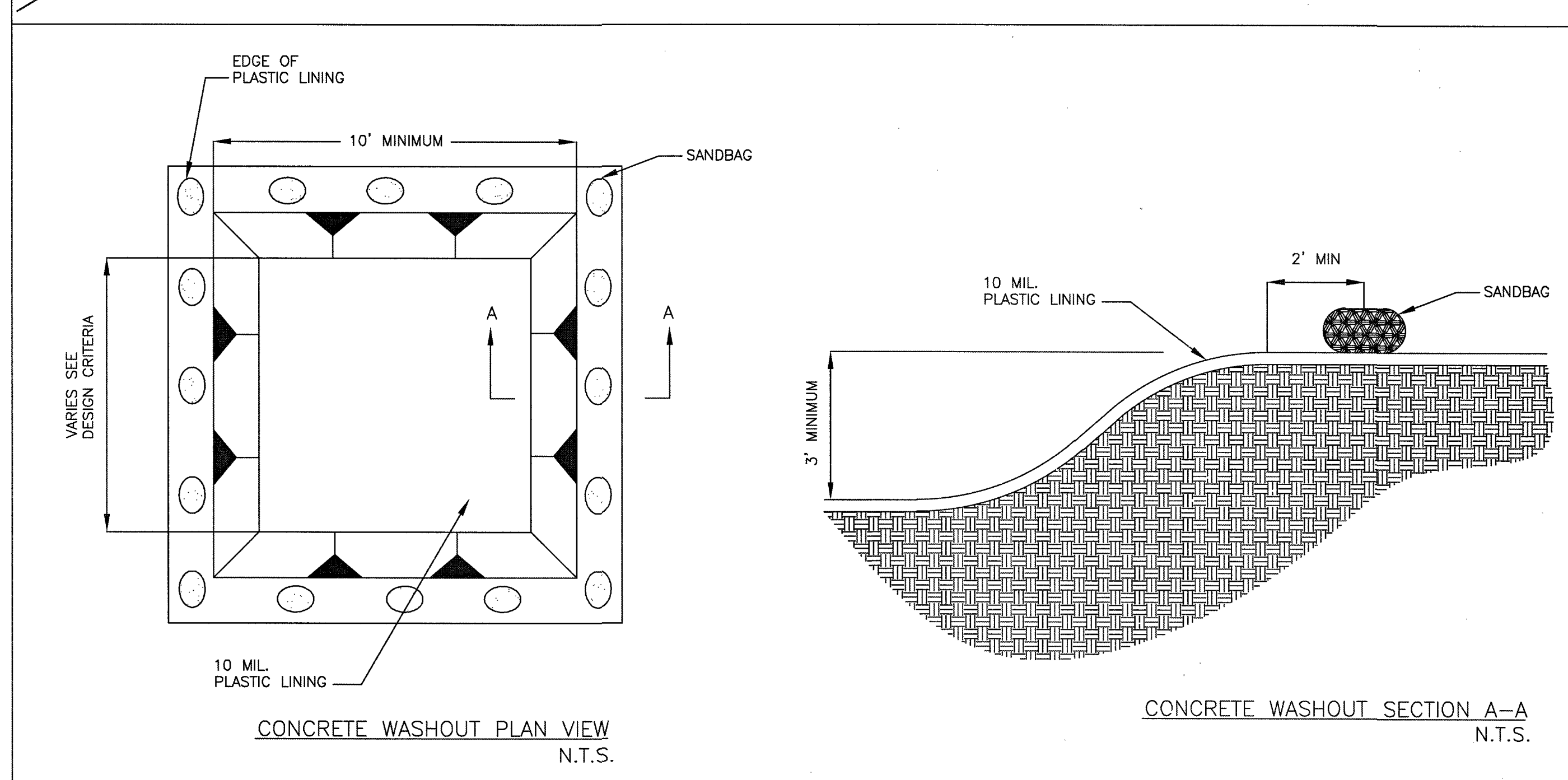
ORGANIC FILTER TUBE PERIMETER CONTROL PLAN VIEW
N.T.S.

ORGANIC FILTER TUBE PERIMETER CONTROL PROFILE
N.T.S.

FILTER TUBE
N.T.S.

ORGANIC FILTER TUBES NOTES

1. TYPE OF NETTING, FILTER MATERIAL, DIAMETER OF TUBE, AND SPACING OF TUBES SHALL BE SPECIFIED BY THE DESIGNER BASED ON THE FOLLOWING SITE PARAMETERS:
 - SIZE OF CONTRIBUTING DRAINAGE AREA
 - STEEPNESS OF SLOPE
 - GROUND CONDITIONS (SOIL OR PAVEMENT)
2. DESIGNER SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE TUBE ARE TO BE TURNED UPSLOPE. UPSLOPE LENGTHS SHALL BE MINIMUM OF 10 FEET.



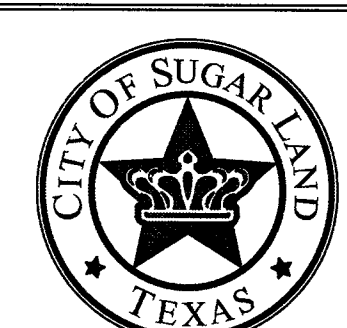
CONCRETE WASHOUT PLAN VIEW
N.T.S.

CONCRETE WASHOUT SECTION A-A
N.T.S.

CONCRETE WASHOUT NOTES

1. SANDBAGS MAYBE REPLACED BY A SOIL BERM TO ANCHOR THE PLASTIC BAG

CONCRETE WASHOUT AREA
N.T.S.

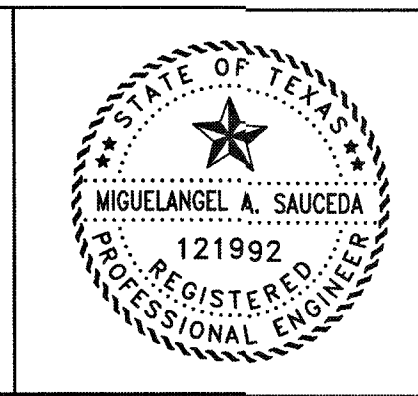
NO.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE: _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
EROSION CONTROL DETAILS - 2		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-35 SHEET OF	

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED	MS
DRAWN	BT
CHECKED	
DATE	

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR ST. ANGLETON, TEXAS 77515
 PHONE: (979) 849-6881 FAX: (979) 849-6885
 REG. NO. F-825



The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
 Date: 11/1/22

OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

EROSION CONTROL
 DETAILS - 2
 SL-35
 PROJECT NO. 13454

ENGINEER'S CERTIFICATE OF COMPLETION

Project: BAYOU BEND ESTATES SUBDIVISION
0 BUCHTA ROAD NEAR HENDERSON STREET
ANGELTON TEXAS

Owner: CLINT PELTIER
CLINT PELTIER CUSTOM HOMES
733 TX-28 SPUR
DANBURY, TX 77534
CLINTPELTIERCUSTOMHOMES@GMAIL.COM
979-481-4840

Type of Facilities Constructed:
PAVING, GRADING, UTILITIES, DRAINAGE
AND DETENTION FOR BAYOU BEND SUBDIVISION

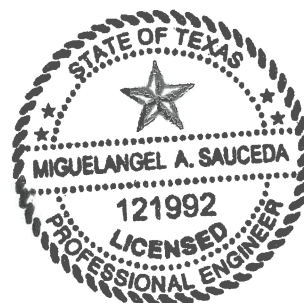
Contractor: JAMES MICHAEL MURPHY
MATULA CONSTRUCTION
122 WEST WAY SUITE 325
LAKE JACKSON TEXAS 77566
JMMURPHY@MATULAINC.COM
979-480-0030

Consulting Engineer: MIGUEL ANGEL A. SAUCEDA, P.E.
BAKER & LAWSON ENGINEER
300 E. CEDAR STREET
ANGLETON TX 77515
MSAUCEDA@BAKERLAWSON.COM
979-849-6681

I, MIGUEL ANGEL A. SAUCEDA, P.E., hereby certify that I am a Registered Professional Engineer in the State of Texas. I certify this project was completed on the 5TH day of January, 2022 at the listed address above. The project was completed in conformance to the plans and specifications and in my professional opinion, is in compliance with the City of Angleton's Approved Plans. The project is ready for Final Inspection by the City Engineer. The "As-Built" drawings will be furnished to the office of the City Engineer of the City of Angleton within 15 calendar days of the date this certification is signed.

Signature: 

Date: 1/20/22



MAINTENANCE BOND

KNOW ALL BY THESE PRESENTS, That we Matula & Matula Construction, Inc.

as Principal, and Great American Insurance Company

as Surety, are held and firmly bound unto Clint Peltier Custom Homes

as Obligee, in the penal sum of Eight Hundred Eighty Nine Thousand Six Hundred Eighty Four & 14/100----

(\$ 889,684.14---)

to which payment well and truly to be made we do bind ourselves, our and each of our heirs, executors, administrators, successor and assigns jointly and severally, firmly by these presents.

WHEREAS, the said Principal entered into a contract with the Clint Peltier Custom Homes

dated _____ for Bayou Bend Estates

WHEREAS, said contract provides that the Principal will furnish a bond conditioned to guarantee for the period of One (1) year(s) after approval of the final estimate on said job, by the owner, against all defects in workmanship and material which may become apparent during said period, and

WHEREAS, the said contract has been complete, and was approved on _____ day of _____,

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that, if the Principal shall indemnify the Obligee for all loss that the Obligee may sustain by reason of any defective materials or workmanship which become apparent during the period of One (1) year(s) from and after _____ then this obligation shall be void, otherwise to remain in full force and effect.

SIGNED, SEALED AND DATED 19th day of January, 2022.

Matula & Matula Construction, Inc. (L.S.)

James Michael Murphy (L.S.)

(L.S.)
PRINCIPAL(S)

Great American Insurance Company

By

Kevin McQuinn

Attorney-in-Fact

GREAT AMERICAN INSURANCE COMPANY®**Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740**

The number of persons authorized by
this power of attorney is not more than **FIVE**

No. 0 21670

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
SCOTT D. CHAPMAN	ALL OF	ALL
CHERYL R. COLSON	THE WOODLANDS,	\$100,000,000
KEVIN McQUAIN	TEXAS	
ROSALYN D. HASSELL		
MISTY WITT		

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 20TH day of JULY, 2021.

Attest

GREAT AMERICAN INSURANCE COMPANY



My L C. B.

Assistant Secretary

Mark V. Vicario

Divisional Senior Vice President

STATE OF OHIO, COUNTY OF HAMILTON - ss:

MARK VICARIO (877-377-2405)

On this 20TH day of JULY, 2021, before me personally appeared MARK VICARIO, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

Susan A. Kohorst

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 19th day of January, 2022



My L C. B.

Assistant Secretary



**Great American Insurance Company of New York
Great American Alliance Insurance Company
Great American Insurance Company**

IMPORTANT NOTICE:

To obtain information or make a complaint:

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance at:

P.O. Box 149104
Austin, TX 78714-9091
FAX: 1-512-490-1007

Your notice of claim against the attached bond may be given to the surety company that issued the bond by sending it by certified or registered mail to the following address:

Mailing Address: Great American Insurance Company
P.O. Box 2119
Cincinnati, Ohio 45202

Physical Address: Great American Insurance Company
301 E. Fourth Street
Cincinnati, Ohio 45202

You may also contact the Great American Insurance Company Claim office by:

Fax: 1-888-290-3706
Telephone: 1-513-369-5091
Email: bondclaims@gaic.com

PREMIUM OR CLAIM DISPUTES:

If you have a dispute concerning a premium, you should contact the agent first. If you have a dispute concerning a claim, you should contact the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR BOND:

This notice is for information only and does not become a part or condition of the attached document.

CONSENT OF SURETY TO FINAL PAYMENT

Conforms with the American Institute of
Architects, AIA Document G707A

OWNER ☐
ARCHITECT ☐
CONTRACTOR ☐
SURETY ☐
OTHER ☐

BOND NO. 3964562

TO OWNER:

(Name and address)

Clint Peltier Custom Homes

ARCHITECT'S PROJECT NO:

CONTRACT FOR:

General Construction

PROJECT:

(Name and address)

Bayou Bend Estates

CONTRACT DATED:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the

(Insert name and address of Surety)

Great American Insurance Company
P.O. Box 2119
Cincinnati, Ohio 45202

, SURETY,

on bond of

(Insert name and address of Contractor)

Matula & Matula Construction, Inc.
122 West Way, Ste. 325
Lake Jackson, TX 77566

, CONTRACTOR,

hereby approves of the final payment to the Contractor and agrees that Final payment to the Contractor shall not relieve the Surety of any of its obligations to

(Insert name and address of Owner)

Clint Peltier Custom Homes

, OWNER,

as set forth in said Surety's bond.

IN WITNESS WHEREOF, the Surety has hereunto set its hand on this date:

(Insert in writing the month followed by the numeric date and year.)

January 19, 2022

Great American Insurance Company

(Surety)

Attest:

Misty Witt (Surety Witness)

(Signature of authorized representative)

Kevin McQuain, Attorney-in-Fact

(Printed name and title)

(Seal)

GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by
this power of attorney is not more than FIVE

No. 0 21670

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
SCOTT D. CHAPMAN	ALL OF	ALL
CHERYL R. COLSON	THE WOODLANDS,	\$100,000,000
KEVIN McQUAIN	TEXAS	
ROSALYN D. HASSELL		
MISTY WITT		

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 20TH day of JULY, 2021

Attest

GREAT AMERICAN INSURANCE COMPANY



Steph C. B.

Assistant Secretary

Mark V. Vicario

Divisional Senior Vice President

STATE OF OHIO, COUNTY OF HAMILTON - ss:

MARK VICARIO (877-377-2405)

On this 20TH day of JULY, 2021, before me personally appeared MARK VICARIO, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

Susan A Kohorst

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 19th day of January, 2022



Steph C. B.

Assistant Secretary

APPLICATION FOR PAYMENT NO. 5 - FINAL

TO OWNER:

CLINT PELTIER CUSTOM HOMES

FROM CONTRACTOR:

Matula & Matula Construction, Inc., 122 West Way Suite 325, Lake Jackson, TX 77566

PROJECT:

Bayou Bend Estates

PERIOD FROM

01/04/22

TO:

01/04/22

ITEM NO. & DESCRIPTION		CONTRACT QUANTITY		COMPLETED QUANTITY			UNIT PRICE	TOTAL VALUE COMPLETED WORK
				FROM PREVIOUS APPLICATIONS	THIS PERIOD	TOTAL COMPLETED		
1	Strip 2-3" & place at back of lots, remove outfalls	1	LS	1.00	-	1.00	\$ 10,200.00	\$ 10,200.00
2	Retention Pond Excavation and Spread on Site (Includes Lot Grading)	15248	CY	15,248.00	-	15,248.00	\$ 4.70	\$ 71,665.60
3	Fill dirt (Haul to site after spreading utility spoils)	1506	CY	-	-	-	\$ 10.38	\$ -
4	Roadway Excavation	2490	CY	2,490.00	-	2,490.00	\$ 3.40	\$ 8,466.00
5	Swale Excavation (S1-S2) and Spread on Site	450	LF	450.00	-	450.00	\$ 11.50	\$ 5,175.00
6	8" Lime Stabilized Subgrade	6080	SY	6,080.00	-	6,080.00	\$ 1.80	\$ 10,944.00
7	Lime (6% by Weight)	115	Ton	121.43	-	121.43	\$ 190.00	\$ 23,071.70
8	Sawcut and install Concrete-Concrete Pavement Header	102	LF	102.00	-	102.00	\$ 25.70	\$ 2,621.40
9	Sidewalks Adjacent to Detention Reserve, Entrance, and Mailbox (Omit)	230	SY	-	-	-	\$ 82.40	\$ -
10	Mailbox Pad (15.2 SY, 8" thick) (Omit)	1	EA	-	-	-	\$ -	\$ -
9	Concrete Curb (4" to 6")	3320	LF	3,320.00	-	3,320.00	\$ 5.00	\$ 16,600.00
10	Concrete Pavement 6" Thick	5725	SY	5,725.00	-	5,725.00	\$ 45.90	\$ 262,777.50
11	Wheelchair Ramps	6	EA	6.00	-	6.00	\$ 1,708.80	\$ 10,252.80
12	Slope Paving w/ Riprap (outfall) TYPE A	1	EA	1.00	-	1.00	\$ 3,338.50	\$ 3,338.50
13	Slope Paving (outfall) TYPE B	2	EA	2.00	-	2.00	\$ 3,338.50	\$ 6,677.00
14	Inlets (Type C - L=5')	5	EA	5.00	-	5.00	\$ 4,452.70	\$ 22,263.50
15	Inlets (Type C - L=10')	2	EA	2.00	-	2.00	\$ 4,279.70	\$ 8,559.40
16	Storm Sewer Manholes	2	EA	2.00	-	2.00	\$ 3,592.70	\$ 7,185.40
17	Inlets (Type A)	1	EA	1.00	-	1.00	\$ 2,201.10	\$ 2,201.10
18	24" Storm connection to exist curb Inlet on Buchta Road	1	EA	1.00	-	1.00	\$ 2,555.40	\$ 2,555.40
19	Sanitary Sewer Manhole (0'-5')	2	EA	2.00	-	2.00	\$ 2,882.90	\$ 5,765.80
20	Sanitary Sewer Manhole (5'-7')	5	EA	5.00	-	5.00	\$ 3,289.00	\$ 16,445.00
21	Doghouse Manhole Connection to Existing Main on Buchta Road	1	EA	1.00	-	1.00	\$ 3,289.00	\$ 3,289.00
22	18" Storm Sewer (Under Pavement)	44	LF	44.00	-	44.00	\$ 59.40	\$ 2,613.60
23	24" Storm Sewer (RCP Outfall)	118	LF	118.00	-	118.00	\$ 74.60	\$ 8,802.80
24	4 LF 10" RESTRICTOR	1	EA	1.00	-	1.00	\$ 881.00	\$ 881.00
25	24" STORM SEWER (UNDER PAVEMENT)	258	LF	258.00	-	258.00	\$ 74.60	\$ 19,246.80
26	30" STORM SEWER (UNDER PAVEMENT)	326	LF	326.00	-	326.00	\$ 95.50	\$ 31,133.00
27	36" STORM SEWER (UNDER PAVEMENT)	224	LF	224.00	-	224.00	\$ 137.00	\$ 30,688.00
28	8" Sanitary Sewer (0-5' Depth)	667	LF	667.00	-	667.00	\$ 31.60	\$ 21,077.20

Item 13.									60
29	8" Sanitary Sewer (5-7' Depth)	849	LF	849.00	-	849.00	\$	33.40	\$
30	8" Pressure Rated San Sewer Main (ASTM 2241)	40	LF	40.00	-	40.00	\$	46.50	\$ 1,860.00
31	Sanitary Sewer Service (Short-Single)	5	EA	5.00	-	5.00	\$	1,254.20	\$ 6,271.00
32	Sanitary Sewer Service (Short-Double)	10	EA	10.00	-	10.00	\$	1,369.40	\$ 13,694.00
33	Sanitary Sewer Service (Long-Single)	5	EA	5.00	-	5.00	\$	1,710.80	\$ 8,554.00
34	Sanitary Sewer Service (Long-Double)	3	EA	3.00	-	3.00	\$	1,619.00	\$ 4,857.00
35	4" Waterline	294	LF	294.00	-	294.00	\$	14.60	\$ 4,292.40
36	6" FH Leads	4	EA	4.00	-	4.00	\$	140.40	\$ 561.60
37	8" Waterline	1480	EA	1,480.00	-	1,480.00	\$	29.50	\$ 43,660.00
38	50 LF Steel Casing and Road Bore under Buchta Road	1	EA	1.00	-	1.00	\$	8,505.60	\$ 8,505.60
39	18 LF Steel Casing for 8" Waterline	1	EA	1.00	-	1.00	\$	2,304.30	\$ 2,304.30
40	18 LF Steel Casing for 4" Waterline	2	EA	2.00	-	2.00	\$	2,501.50	\$ 5,003.00
41	8" Ductile Iron Waterline	20	LF	20.00	-	20.00	\$	60.20	\$ 1,204.00
42	Fittings	2.1	Ton	2.10	-	2.10	\$	7,024.40	\$ 14,751.24
43	Water Line Service (Short-Single)	7	EA	7.00	-	7.00	\$	572.10	\$ 4,004.70
44	Water Line Service (Short-Double)	4	EA	4.00	-	4.00	\$	685.50	\$ 2,742.00
45	Water Line Service (Long-Single)	1	EA	1.00	-	1.00	\$	734.00	\$ 734.00
46	Water Line Service (Long-Double)	10	EA	10.00	-	10.00	\$	879.10	\$ 8,791.00
47	10" x 8" TS&V w/ Valve Box	1	EA	1.00	-	1.00	\$	3,867.00	\$ 3,867.00
48	Removal and Replacement of 5 SY of sidewalk to access WL on Buchta Road	1	EA	1.00	-	1.00	\$	988.20	\$ 988.20
49	8" Gate Valve w/ Valve Box	4	EA	2.00	-	2.00	\$	1,445.90	\$ 2,891.80
50	6" Gate Valve w/ Valve Box	4	EA	4.00	-	4.00	\$	978.10	\$ 3,912.40
51	Fire Hydrant	4	EA	4.00	-	4.00	\$	3,322.60	\$ 13,290.40
52	Deep Trench Construction (Sanitary Sewer 5' to 7')	849	LF	849.00	-	849.00	\$	1.00	\$ 849.00
53	Deep Trench Construction (Storm Sewer 5' to 7')	186	LF	186.00	-	186.00	\$	1.00	\$ 186.00
54	Deep Trench Construction (Storm Sewer 7' to 9')	692	LF	692.00	-	692.00	\$	1.00	\$ 692.00
55	24" Wide Thermoplastic Stop Bar (White)	34	LF	34.00	-	34.00	\$	5.75	\$ 195.50
56	Cross walk Thermoplastic Striping (White)	2	EA	2.00	-	2.00	\$	575.00	\$ 1,150.00
57	Stop Signs w/ Street Blades and Wedge Socket and Concrete Foundation	2	EA	2.00	-	2.00	\$	425.00	\$ 850.00
58	Speed Signs w/ Concrete Foundation	2	EA	2.00	-	2.00	\$	280.00	\$ 560.00
59	Construction Staking	1	LS	1.00	-	1.00	\$	15,000.00	\$ 15,000.00
60	General Conditions	1	LS	1.00	-	1.00	\$	28,185.00	\$ 28,185.00
61	Temporary Type III Barricades	2	EA	-	-	-	\$	815.90	\$ -
62	Storm Water Pollution Prevention Plan	1	LS	1.00	-	1.00	\$	13,995.10	\$ 13,995.10
63	4' Pilot Channel	1016	LF	1,016.00	-	1,016.00	\$	26.80	\$ 27,228.80
	SUBTOTAL								\$ 888,484.14
FIELD DIRECTIVE									
1	4" GV and Box	2	EA	2.00	-	2.00	\$	600.00	\$ 1,200.00
	SUBTOTAL								\$ 1,200.00

Bayou Bend Estates

Item 13.

Original Contract	\$ 919,170.32	Value of Work Performed to Date	\$ 889,684.14
Plus Addition		Plus Materials Stored Close of Period	\$ -
Less Deduction	\$ -	Net Amount Earned to Date	\$ 889,684.14
Adjusted Contract	\$ 919,170.32	Less 10% Retainage	
		Subtotal	\$ 889,684.14
Rain Days		Less Previous Estimates	\$ 800,715.73
		Amount Due on Contract this Est.	\$ 88,968.41

The Contractor's signature here certifies that, to the best of their knowledge, this document accurately reflects the work completed and billed this Application

AUTHORIZING SIGNATURE:


MATULA & MATULA CONSTRUCTION INC.

DATE:

01/04/22

RECOMMENDED BY:

BAKER & LAWSON, INC.

DATE:

APPROVED BY:

CLINT PELTIER CUSTOM HOMES

DATE:

BAYOU BEND ESTATES, ANGLETON TEXA

Item 13.

HYDROSTATIC TEST FOR WATER LINE-FORCE MAIN P-PASS F-FAIL

LOCATION	DATE	START TIME	STOP TIME	INITIAL PRESS.	FINAL PRESS.	INITIAL METER READING	FINAL METER READING	LEAKAGE MEASURED	LEAKAGE ALLOWED	RESULTS
DOWNING TO BAYOU BEND BLVD & BAYOU BEND COURT	10/26/21	10:40 AM	3:06 PM	160	160	255296.8	255296.8	0 Gallons	4.29 G	PASSED
								No Pressure Loss		

TABLE 1 - DUCTILE IRON
Allowable Leakage per 1000 ft. of Pipeline - gph*

Average Test	Nominal Pipe Diameter				
Pressure psi	4	6	8	10	12
200	0.43	0.64	0.85	1.06	1.28
175	0.40	0.59	0.80	0.99	1.19
150	0.37	0.55	0.84	0.92	1.10
125	0.34	0.50	0.67	0.84	1.01
100	0.30	0.45	0.60	0.75	0.90

TABLE 2 - P.V.C.
Allowable Leakage per 1000 ft. of Pipeline - gph*

Average Test	Nominal Pipe Diameter				
Pressure psi	4	6	8	10	12
100	0.27	0.41	0.54	0.68	0.81
150	0.33	0.50	0.66	0.83	0.99
200	0.38	0.57	0.76	0.96	1.15

294 LF 1480 LF

Bake & Lawson, Inc.

INSPECTOR

Sm

JOB NO.

13454

Bayou Bend Estates
Angleton, TX.

MANHOLE VACUUM TEST

P = Pass

Item 13.

M H No.	LOCATION	DATE	RESULTS	START TIME	START VACUUM	STOP TIME	STOP VACUUM
MH1		12/23/21	P	8:38	10" Hg	8:38+20	10" Hg
MH2		12/21/21	P	8:37	10" Hg	8:39	9.7" Hg
MH3		12/21/21	P	10:20	10" Hg	10:21	9.6" Hg
MH4		12/21/21	P	9:33	10" Hg	9:33+20	10" Hg
MH5		12/21/21	P	9:20	10" Hg	9:20+20sec	10" Hg
MH6		12/21/21	P	9:10	10" Hg	9:10+20sec	10" Hg
MH7		12/21/21	P	8:52	10" Hg	8:52+20sec	10" Hg
MH8		12/21/21	P	9:56	10" Hg	9:56+20sec	10" Hg

BAKER & LAWSON, INC.

INSPECTOR

David Carden

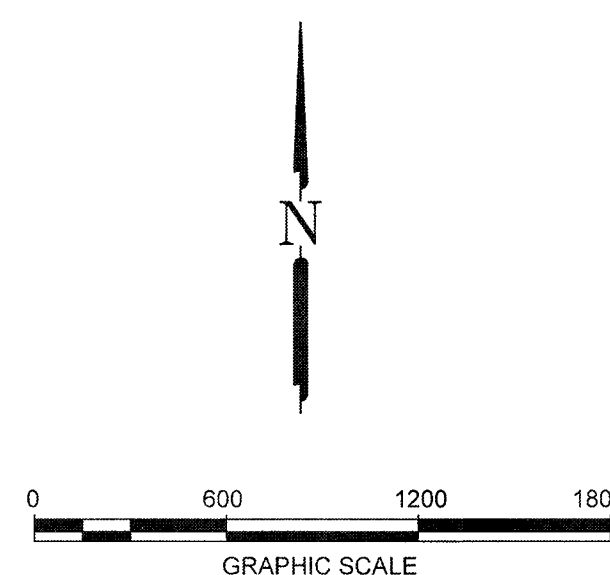
JOB No.

13454

Angleter, TX

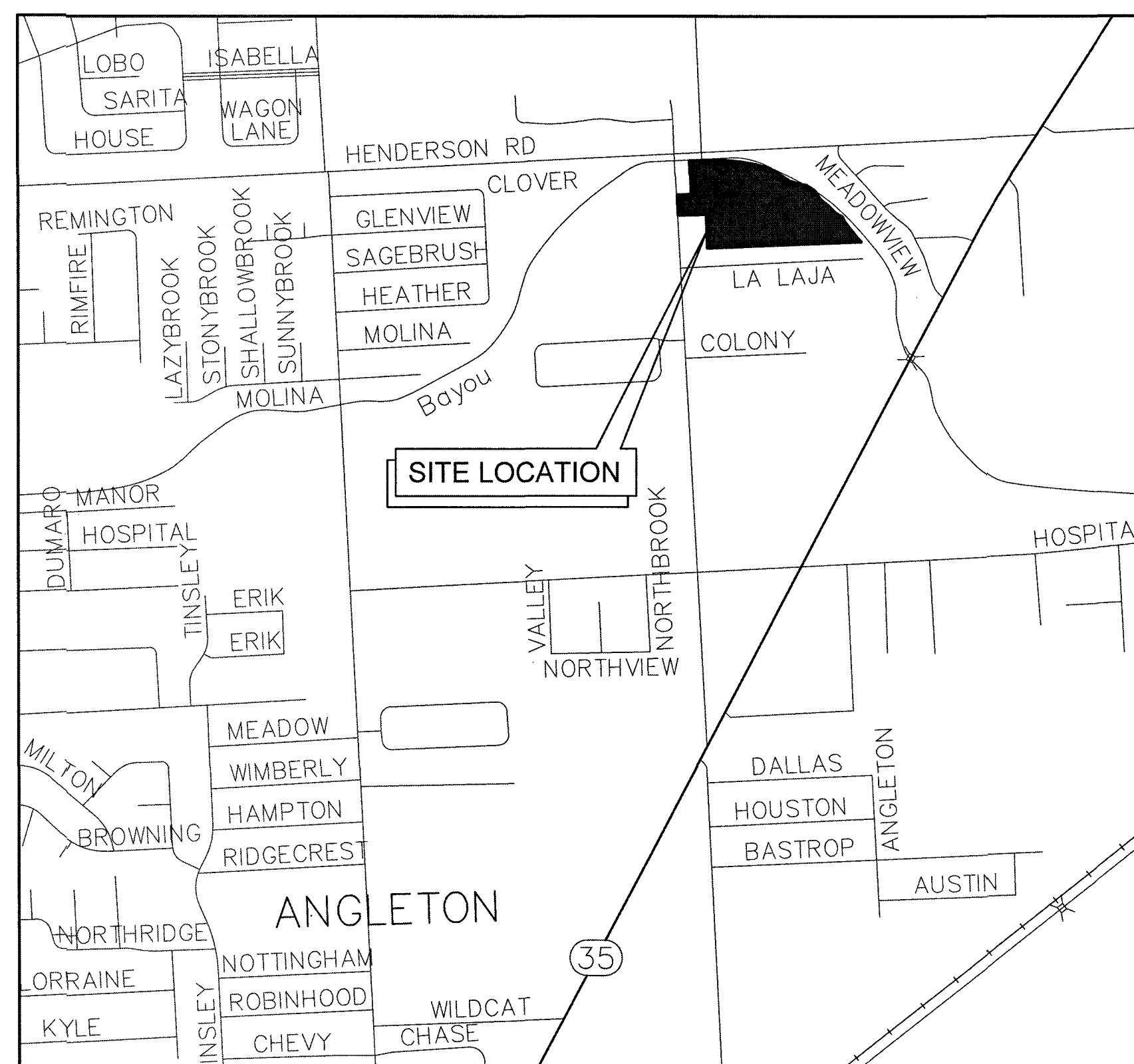
Date: 12/21/21
Job #: 13454

LOCATION	TIME MEASURED	START TIME	INITIAL PRESSURE	STOP TIME	FINAL PRESSURE	P/F	COMMENTS
MH1 - MH2	3 mins	14:15	3 psi psi	14:18	3,8	P	LF=172 φ 8"
MH2 - MH3	3 mins	14:28	4 psi	14:31	3,7	P	LF=82 φ 8"
MH3 - MH4	3 min	13:51	4 psi	13:54	3,7	P	LF=158 φ 8'
MH4 - MH5	3 mins	13:42	4 psi	13:45	3,9 psi	P	LF=196 φ 8"
MH5 - MH6	3 mins	11:23	4 psi	11:26	3,8 psi	P	LF=238 φ 8"
MH6 - MH7			3 psi psi				LF=308 φ 8"
MH4 - MH8	3 mins	13:57	4 psi	14:00	4 psi	P	LF=346 φ 8"
12/22/21							
MH6 - MH7	3 mins	8:14	4 psi	8:17	3,9	P	LF=308 φ 8"



MAYOR	CITY COUNCIL
JASON PEREZ	MIKEY SVOBODA
	CECIL BOOTH
CITY MANAGER	JOHN WRIGHT
CHRIS WHITTAKER	TRAVIS TOWNSEND
	MARK GONGORA

"All responsibility for the adequacy of these plans remains with the Engineer who prepared them. In approving these plans, the City of Angleton must rely on the adequacy of the work of the Design Engineer."



VICINITY MAP

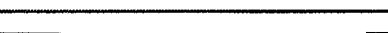
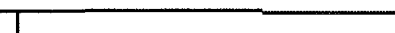
INDEX OF DRAWINGS

SHEET NO.	SHEET NAME
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--	PRELIMINARY REPLAT
2	CONSTRUCTION NOTES
3	EXISTING CONDITIONS
4	PLAN & PROFILE - BAYOU BEND BLVD. STA 0+00 TO 5+60
5	PLAN & PROFILE - BAYOU BEND BLVD. STA 5+60 TO 10+80
6	PLAN & PROFILE - BAYOU BEND BLVD. STA 10+80 TO 13+00
7	PLAN & PROFILE - BAYOU BEND COURT STA 0+00 TO 2+81
7A	PLAN & PROFILE - OUTFALL 1
8	UTILITY LAYOUT
9	DETENTION POND LAYOUT AND CROSS SECTIONS
10	DRAINAGE AREA MAP
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12	CUT AND FILL PLAN
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17	TRAFFIC CONTROL PLAN - TCP (2-5) - 18
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32 (SL-22)	CONCRETE PAVEMENT CONSTR. DETAILS
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38 (SL-34)	EROSION CONTROL DETAILS - 1
39 (SL-35)	EROSION CONTROL DETAILS - 2

RECORD DRAWING

				DESIGNED <u>MS</u>	 <p>BAKER & LAWSON, INC. ENGINEERS • PLANNERS • SURVEYORS 300 E. CEDAR ST. ANGLETON, TEXAS 77515 PHONE: (979) 649-6681 FAX: (979) 649-4689 REG. NO. F-825</p>	 <p>The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992</p> <p><i>Miguel Saucedo</i> Date: <u>1/11/22</u></p>	OWNER: Clint Peltier Clint Peltier Custom Homes 979-481-4840	PLAN: _____ PROFILE: _____ HORIZONTAL: _____ VERTICAL: _____	BAYOU BEND ESTATES ANGLETON, TEXAS PLANS FOR GRADING, PAVING, UTILITIES AND DETENTION	TITLE SHEET
				CHECKED _____						
				DRAWN _____						
				DATE _____						
NO.	DATE	DESCRIPTION	APPROVED							
REVISIONS										

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR SHALL NOTIFY THE "UNDERGROUND UTILITY COORDINATING COMMITTEE" TELEPHONE NO. (979) 849-4364 AND THE CITY OF ANGLETON TELEPHONE NO. (979) 849-4364 48 HOURS BEFORE STARTING WORK IN STREET RIGHT-OF-WAYS OR EASEMENTS.
2. ALL EXISTING UNDERGROUND UTILITIES ARE NOT GUARANTEED TO BE COMPLETE OR DEFINITE, BUT WERE OBTAINED FROM INFORMATION AVAILABLE. CONTRACTOR HAS SOLE RESPONSIBILITY FOR FIELD VERIFICATION OF ALL EXISTING FACILITIES SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE ALL CONFLICTS WITH THE APPROPRIATE GOVERNING AGENCY, NO SEPARATE PAY.
3. CONTRACTOR SHALL PROVIDE A TRENCH SAFETY SYSTEM TO MEET, AS A MINIMUM, THE REQUIREMENTS OF OSHA SAFETY AND HEALTH REGULATION, PART 1926, SUBPART P AS PUBLISHED IN THE FEDERAL REGISTER, VOLUME 54, NO. 209, DATED OCTOBER 31, 1989.
4. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD MOST RECENT EDITION AS REVISED) DURING CONSTRUCTION.
5. CONTRACTOR SHALL COVER OPEN EXCAVATIONS IN PUBLIC STREETS WITH ANCHORED STEEL PLATES DURING NON-WORKING HOURS.
6. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, AND IF DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THE SATISFACTION OF THE OWNING AUTHORITY. ALL CONSTRUCTION STORM RUNOFF SHALL COMPLY WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS.
7. EXISTING PAVEMENTS, CURBS, SIDEWALKS, CULVERTS AND DRIVEWAYS (ADJACENT TO THE WORK) DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED TO EQUAL OR BETTER THAN THEIR ORIGINAL CONDITION AT CONTRACTOR EXPENSE.
8. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, UPON COMPLETION OF JOB, SHALL BE AS GOOD AS OR BETTER THAN THE CONDITION PRIOR TO STARTING WORK. CONTRACTOR SHALL TAKE NECESSARY ACTIONS TO PROTECT THE EXISTING SURFACES OUTSIDE THE WORK AREA FROM THE EQUIPMENT USED. ALL TRACKED MACHINERY (STREET PADS INCLUDED) SHALL NOT BE OPERATED DIRECTLY ATOP THE PAVEMENT WITHOUT APPROPRIATE PADDING AND PROTECTION OF THE SURFACES. ANY MARKED OR DISTRESSED AREAS SHALL BE REMOVED AND RESTORED WITH NEW MATERIALS TO THE SATISFACTION OF THE ENGINEER. ANY EXISTING DISTRESSED AREAS SHALL BE MADE KNOWN TO THE ENGINEER PRIOR TO OPERATIONS IN THE WORK AREA.
9. ALIGNMENT, CENTERLINE CURVE DATA AND STATIONING TO BE VERIFIED BY ON-THE-GROUND SURVEY FROM APPROVED SUBDIVISION PLAT (OR APPROVED PLOT FOR OFF SITE EASEMENTS), AND ELEVATIONS OF ALL CONNECTIONS TO EXISTING FACILITIES TO BE CONFIRMED PRIOR TO WORK START. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
10. CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PRIVATE AND PUBLIC UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
11. CONTRACTOR SHALL ASSURE HIMSELF THAT ALL CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF WORK.
12. ALL UTILITY TRENCHES TO BE BACK FILLED TO 90 PERCENT (90%) STANDARD PROCTOR DENSITY UNLESS OTHERWISE NOTED.
13. ALL SURVEY, LAYOUT, MEASUREMENT, AND GRADE STAKE WORK SHALL BE PERFORMED BY BAKER & LAWSON, INC. AS PART OF THE WORK UNDER THIS CONTACT.
14. BAKER & LAWSON, INC. WILL PROVIDE EXPERIENCED INSTRUMENT PERSONNEL, COMPETENT ASSISTANTS, AND SUCH INSTRUMENTS, TOOLS, STAKES, AND OTHER MATERIALS REQUIRED TO COMPLETE THE SURVEY, LAYOUT AND MEASUREMENT WORK.
15. CONSTRUCTION DEBRIS AND OTHER UNCLASSIFIED UNSUITABLE EXCESS MATERIAL SHALL BE HAULED TO A STATE APPROVED DISPOSAL SITE OR AS DIRECTED BY THE ENGINEER. AN EXISTING LANDFILL APPROXIMATELY 10 MILES FROM THE PROJECT SITE IS THE NEAREST STATE APPROVED FEE FACILITY. ALL REFUSE MATERIALS (BROKEN CONCRETE, TREES, ASPHALT, ETC.) SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.
16. PLAN QUANTITIES WILL BE USED FOR FINAL PAYMENT UNLESS DESIGN CHANGES ARE MADE DURING CONSTRUCTION.

CONSTRUCTION NOTES FOR PAVING & DRAINAGE

1. GUIDELINES SET FORTH IN THE MANUAL ON UNIFORM CONTROL DEVICES SHALL BE OBSERVED.
2. FILL SHALL BE PLACED IN MAXIMUM 8" LOOSE LIFTS AND COMPACTED TO 95% OF OPTIMUM DENSITY AS DETERMINED USING TESTING METHOD ASTM D698.
3. CONTRACTOR RESPONSIBLE FOR MAINTAINING BARRICADES TO PREVENT TRAFFIC FROM USING NEW PAVEMENT UNTIL PROJECT IS COMPLETED AND ACCEPTED BY PROPER AUTHORITY OR AS AUTHORIZED BY ENGINEER.
4. B-B INDICATES ROAD WIDTH TO BACK OF CURB. CURB RADI ARE TO BACK OF CURB. T.C. INDICATES TOP OF CURB ELEVATIONS (BASED ON 4" CURB UNLESS OTHERWISE NOTED) T.P. INDICATES TOP OF PAVEMENT ELEVATION.
5. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT MAXIMUM SPACING OF 40-FOOT INTERVALS (SAWCUTS @ 20'(2 1/2"DEEP), LONGITUDINAL JOINTS SHALL BE AT MAXIMUM OF 14-FOOT SPACING. WOOD JOINT SHALL BE SOUND HEART REDWOOD.
6. 6-INCH CONCRETE PAVEMENT TO BE 5.5 SACK MIX MIN. (3,500 PS) REINFORCING STEEL TO CONFORM TO ASTM A-615, GRADE 60. PROVIDE MINIMUM 18-INCH LAPS. (36 BAR DIA)
7. SAW CUT TO EXPOSE EXISTING LONGITUDINAL STEEL REQUIRED TO CREATE A MINIMUM TWELVE-INCH (12") OVERLAP OF PROPOSED AND EXISTING LONGITUDINAL REINFORCING STEEL WHEN MAKING A CONNECTION TO EXISTING CONCRETE PAVEMENT. WHERE SPACING OF EXISTING LONGITUDINAL STEEL DIFFERS FROM PROPOSED STEEL SPACING, NOTIFY THE ENGINEER.
8. USE PLASTIC CHAIRS TO SUPPORT REINFORCEMENT AT 24-INCH SPACING EACH WAY.
9. SUBGRADE TO BE STABILIZED 2-FOOT BACK OF PROPOSED CURB OR EDGE OF PAVEMENT. EXCESS LIME STABILIZED SOIL SHALL BE UTILIZED IN THE PREPARATION OF SUBGRADE FOR DRIVEWAYS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED CONCRETE PAY ITEMS. SUBGRADE PREPARATION FOR DRIVEWAYS AND PAVING SHALL INCLUDE PROOF ROLLING. SOFT AREAS TO BE EXCAVATED AND RECOMPACTED TO ADJACENT SOIL DENSITY.
10. USE CONTINUOUS LONGITUDINAL REINFORCING BAR IN CURB.
11. BACK FILL AND BEDDING FOR HEADWALL STRUCTURES, TYPE "C" INLETS, R.C.P. LEADS, SANITARY SEWER LEADS, AND STORM SEWERS SHALL BE WITH 1.5 SACK CEMENT STABILIZED SAND SHALL BE COMPACTED TO A DENSITY OF AT LEAST 90% OF DENSITY DETERMINED BY STANDARD MOISTURE-DENSITY RELATION (ASTM D-698) AT OPTIMUM MOISTURE AND SHALL BE PLACED AND FINISHED WITHIN 3 HRS. OF MIXING. TEMPORARY TRAVEL WAY SURFACE SHALL BE WITH CEMENT STABILIZED LIMESTONE. PAYMENT FOR THESE ITEMS SHALL BE SUBSIDIARY TO THE VARIOUS STRUCTURAL BID ITEMS. VERIFICATION OF CEMENT STABILIZED SAND MIXTURE SHALL BE FURNISHED UPON REQUEST OF ENGINEER.
12. THE SUBGRADE SHALL BE BROUGHT TO THE REQUIRED GRADE BY THE USE OF GRADE STAKES (BLUE TOPS AND AT 50 FT MAX SPACING O.C.) AND APPROVED BY THE ENGINEER BEFORE LIME IS APPLIED.

13. RATE OF APPLICATION FOR LIME SHALL BE SEVEN PERCENT (7%) OF THE DRY WEIGHT OF SOIL (QUALITY BASE ON 100 #/ C.F.) OR THIRTY ONE AND ONE HALF (31.5) POUNDS PER SQUARE YARD FOR SIX (6) INCH STABILIZED SUBGRADE. LIME STABILIZED SUBGRADE SHALL NOT BE MIXED MORE THAN ONE INCH IN EXCESS OF THE REQUIRED DEPTH. WATER SHALL BE ADDED TO THE LIME STABILIZED SUBGRADE AND SHALL BE BROUGHT TO THE OPTIMUM MOISTURE CONTENT DURING THE FIRST MIXING OPERATIONS. LIME STABILIZED SHALL BE KEPT MOIST AND LEFT TO CURE FOR TWO CURING DAYS BEFORE FINAL MIXING CAN BEGIN. AFTER FINAL MIXING IS COMPLETE AND BEFORE SOIL DENSITY TESTS ARE TAKEN, LIME STABILIZED SUBGRADE SHALL BE BROUGHT TO THE REQUIRED GRADE BY THE USE OF GRADE STAKES (BLUE TOPS) AND APPROVED BY THE ENGINEER. DENSITY SHALL BE NINETY-FIVE PERCENT (95%) OF THE STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE. TESTED AND COMPLETED SECTIONS SHALL BE KEPT MOIST CURED ON A DAILY BASIS WITH WATER TRUCKS OR SUBSTANTIAL SUPPLY HOSES FOR THE ENTIRE PERIOD THE SURFACE REMAINS UNCOVERED WITH ADDITIONAL COURSES. AFTER FINAL TESTING AND APPROVAL IS COMPLETE, TRACK EQUIPMENT, SCRAPERS AND OTHER HEAVY EQUIPMENT WILL NOT BE PERMITTED ON THE COMPLETED LIME STABILIZED AREA. LIGHT MOTOR GRADERS, RUBBER Tired TRACTORS, WATER TRUCKS AND ROLLERS USED IN THE FINISHING OPERATIONS SHALL BE PERMITTED WITH THE APPROVAL OF THE ENGINEER. CONCRETE AND LOADED HAUL TRUCKS ARE STRICTLY PROHIBITED ON COMPLETED AREAS UNLESS THE TRAVELED AREA REGARDLESS OF CONDITION IS REMIXED COMPACTED AND TESTED FOR APPROVAL A SECOND TIME.
14. FORMS SHALL BE EITHER WOOD OR STEEL, OF GOOD QUALITY, FREE OF WARP AND SUFFICIENTLY STAKED TO AVOID SHIFTING WHEN LOAD IS APPLIED. ALL REDWOOD EXPANSION BOARDS SHALL BE STAKED WITH 1X2 REDWOOD STAKES AND ALLOWED TO REMAIN WITHIN THE POUR. METAL STAKES ARE APPROVED FOR USE TO STAKE METAL KEYS.
15. REINFORCING SHALL BE SECURELY TIED AT ALL INTERSECTIONS AND SPLICES. ALL DOWELS SHALL BE SECURELY TIED. REINFORCEMENT SHALL BE CLEAN AND FREE OF RUST AT TIME OF USE. PLASTIC CHAIR OF THE CORRECT HEIGHT SHALL BE USED. SPACING SHALL BE SUFFICIENT TO SUPPORT REINFORCEMENT.
16. PRIOR TO CONCRETE PLACEMENT, CONTRACTOR SHALL PRESENT A CERTIFIED COPY OF TOP OF FORM GRADES TO THE ENGINEER FOR REVIEW AND APPROVAL. ELEVATIONS OF FORMS SHALL BE RECORDED AT 10' INTERVALS. ADJUSTMENTS TO FORMS SHALL BE COMPLETE 4 HRS. PRIOR TO CONCRETE PLACEMENT.
17. CONCRETE FOR STREET PAVEMENTS SHALL BE "CLASS A" CONCRETE, SHALL NOT HAVE LESS THAN FIVE AND ONE HALF (5 1/2) SACKS OF CEMENT PER CUBIC YARD, AND SHALL NOT HAVE MORE THAN SIX AND ONE HALF (6 1/2) GALLONS OF WATER PER SACK OF CEMENT. SLUMP SHALL NOT EXCEED FIVE (5) INCHES AND SHALL DEVELOP A MODULUS OF RUPTURE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3500) P.S.I. AT TWENTY EIGHT (28) DAYS. CONCRETE SHALL BE PLACED IN SUCH A MANNER AS TO REQUIRE AS LITTLE HANDLING POSSIBLE. USE OF AN APPROVED VIBRATING SCREED WILL BE REQUIRED. AT INTERSECTIONS AND SMALL AREAS WHERE A VIBRATORY SCREED CAN NOT BE USED, A HAND VIBRATOR OR "JITTERBUG" SHALL BE USED. USE OF A TEN FOOT (10') CONCRETE PAVEMENT STRAIGHT EDGE WILL ALSO BE REQUIRED. ALL EXPOSED JOINTS SHALL BE EDGED AS NOTED ON DETAILS. SURFACE SHALL BE TYPICALLY A BELT FINISH OR BROOM FINISH (COARSE, MEDIUM OR LIGHT) AS REQUIRED BY THE APPLICATION AND DIRECTED BY THE ENGINEER.
18. FLY ASH SHALL MAKE UP FROM 20-25% BY VOLUME OF THE SPECIFIED CEMENT VOLUME AND SHALL CONFORM TO ASTM C 618, CLASS C.
19. CURING COMPOUND SHALL BE TYPE II WITH WHITE PIGMENT. APPLIED AT THE UNDLUTED RATE OF ONE GALLON PER TWO HUNDRED (200) SQUARE FEET.
20. EXPANSION JOINTS SHALL BE BLAST CLEANED, WIRE BRUSHED, BLOWN OR FLAME DRIED SEALED WITH AN APPROVED LIST RUBBERIZED HOT LAID ASPHALT JOINT AND CRACK SEALANT OR A TWO (2) COMPONENT POLYMERIC SELF LEVELING COLD APPLIED SEALANT.

21. CONTRACTOR WILL NOT PERMIT TRAFFIC ON NEW CONCRETE PAVEMENT UNTIL BOTH A MINIMUM OF SEVEN (7) CURING DAYS AND MODULUS OF RUPTURE STRENGTH OF THREE THOUSAND FIVE HUNDRED (3500) P.S.I. TAKES PLACE OR AS APPROVED BY THE ENGINEER/PUBLIC WORKS DEPARTMENT.
22. CONCRETE FOR CURB SHALL BE A 3000 P.S.I. PERFORMANCE STRENGTH CONCRETE WITH A MINIMUM FIVE (5) SACK CEMENT PER CUBIC YARD CONTENT. CURB CONCRETE MIX MAY BE A SMALL AGGREGATE BATCH DESIGN.
23. A CONCRETE MIX DESIGN OF CONCRETE PLUS FLY ASH MAY BE SUBSTITUTED IN LIEU OF THE STANDARD CONCRETE BATCH DESIGN. THE FLY ASH SHALL CONFORM TO THE REQUIREMENTS OF TxDOT MATERIAL SPECIFICATION D-9-8900, AND SHALL NOT EXCEED 25% BY ABSOLUTE VOLUME OF THE SPECIFIED CEMENT CONTENT. THE MODULUS OF RUPTURE STRENGTHS MINIMUMS AND DEVELOPMENT PERIOD OF THE STANDARD CONCRETE MIX DESIGN SHALL REMAIN IN EFFECT AND SHALL BE VERIFIED. CONCRETE BATCH MIX DESIGN PREPARED AND TESTED BY A GEOTECHNICAL LAB AND SUBMITTED FOR REVIEW AND APPROVAL BY THE CITY ENGINEERING/PUBLIC WORKS DEPARTMENT PRIOR TO PAVING OPERATIONS.
24. ALL PAVEMENT SAW CUT REQUIRED IN THE PLANS SHALL BE CONSIDERED SUBSIDIARY TO THE PAVING REMOVAL PAY ITEM REQUIRING IT.
25. BLOCK SOD SHALL BE PLACED 16" (ONE BLOCK WIDTH) WIDE ALONG THE EDGE OF ALL NEWLY CONSTRUCTED CURBS AND TO DRIVEWAY REPLACEMENT LIMITS. SILT FENCING MAY BE PLACED DIRECTLY BEHIND CURBS IN LIEU OF SOD.
26. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANALYZING WEATHER CONDITIONS AND TO SUSPEND OPERATIONS DURING PERIODS WHEN ADVERSE WEATHER CONDITIONS APPEAR LIKELY. NO CONCRETE SHALL BE PLACED WHEN THE TEMPERATURE IS 35°F AND RISING, HOWEVER, NO CONCRETE SHALL BE PLACED WHEN THE CONCRETE TEMPERATURE IS ABOVE 100°F. THE CONTRACTOR SHALL KEEP SUFFICIENT LENGTH OF COVERING MATERIAL ON THE JOB SITE TO PLACE OVER AND PROTECT THE SURFACE OF "FRESH" CONCRETE DURING PERIODS OF UNPREDICTED RAINS.

WASTEWATER CONSTRUCTION NOTES

1. CONTRACTOR SHALL PROVIDE RECORD OF LOCATION OF ALL STACKS, STUBS, LEADS, ETC. TO CITY OF ANGLETON.
2. SEPARATION DISTANCES FOR ALL SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CRITERIA FOR SEWAGE SYSTEMS," SECTION 317.20," LATEST PRINTING.
3. MAINTAIN 12-INCH MINIMUM VERTICAL CLEARANCE AT CROSSINGS BETWEEN SANITARY SEWERS AND CULVERTS, UNLESS OTHERWISE NOTED.
4. WHERE SANITARY SEWER LINE CROSSES A WATER LINE WITH LESS THAN 9-FEET BUT MORE THAN 6-INCHES VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT JOINT OF PRESSURE RATED P.V.C. SANITARY SEWER (ASTM D2241, CLASS 150, SDR 26) CENTERED ON WATER LINE. INCLUDE COST OF WATER LINE CROSSING IN UNIT PRICE BID PER LINEAR FOOT FOR SANITARY SEWER IN APPROPRIATE SIZES.
5. CONTRACTOR TO NOTIFY OWNER'S REPRESENTATIVE UPON ENCOUNTERING ANY UNSUITABLE TRENCH CONDITIONS.
6. SANITARY SEWER LEADS UNDER OR WITHIN 1' OF EXISTING OR FUTURE PAVEMENT SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND UP TO WITHIN 1' OF TOP OF PAVING SUBGRADE. CEMENT STABILIZED SAND BACK FILL FOR LEADS SHALL BE INCLUDED IN THE BID UNIT PRICE FOR LEADS. SANITARY SEWER LEADS LESS THAN 2 FT BELOW PAVING TO BE INSTALLED AFTER LIME STABILIZATION IS COMPLETE. SANITARY SEWER LEADS TO BE BEDDED AND BACKFILLED TO TOP OF SUBGRADE WITH COMPACTED CEMENT STABILIZED SAND.
- 7.

LOW PRESSURE AIR TEST SHALL BE CONDUCTED PER TNRCC TAC 317.2. HOLDING TIMES SHALL BE AS ESTABLISHED BY TNRCC. CONTRACTOR TO PROVIDE TEST PLUGS AND RISERS. NO SEPARATE PAY.

8. CONTRACTOR TO OPEN CUT ALL SANITARY SEWER CONSTRUCTION UNLESS NOTE OTHER WISE, SEWER SERVICES TO BE INSTALLED FULL WIDTH OF ROADWAY.-NO HALF STREET INSTALLATIONS.
 9. CONTRACTOR SHALL AT ALL TIMES PROVIDE MAXIMUM UNINTERRUPTED SERVICE AND SHALL AVAIL OF ANY ROUTING METHOD AND EQUIPMENT TO ACCOMPLISH THIS.
 10. ALL SINGLE AND DOUBLE SERVICE LEAD SHALL BE A MINIMUM SIX INCH (6") UNLESS OTHERWISE DIRECTED BY THE ENGINEER/PUBLIC WORKS AND/OR FIELD ADJUSTED BY THE UTILITY DEPARTMENT IN THE FUTURE.
- WATER CONSTRUCTION NOTES**
1. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE AS SPECIFIED IN CONTRACT DOCUMENTS. THRUST BLOCKING SHALL BE CLASS "B" CONCRETE 2500 P.S.I. AND SHALL BE SUBSIDIARY TO THE BID ITEM PERTINENT TO ITS USE. ALL CEMENT STABILIZED SAND BACKFILL SHALL BE 1.5 SK/CY CEMENT CONTENT. ALL M.J. D.I. FITTINGS WILL HAVE M.J. RESTRAINTS (STARGRIP OR EQUAL) WRAP FITTINGS & RESTRAINTS WITH 10 MIL POLY.
 2. SEPARATION DISTANCES OF ALL WATER MAIN AND SANITARY SEWER MAIN CONSTRUCTION SHALL BE GOVERNED BY THE "TEXAS NATURAL RESOURCE CONSERVATION COMMISSION RULES AND REGULATIONS FOR DESIGN CRITERIA FOR SEWAGE SYSTEMS," SECTION 317.20, LATEST PRINTING.
 3. ALL 4" THROUGH 12" WATER MAINS TO BE P.V.C. PIPE, AWWA C-900, CLASS 150, SDR 18, MEETING THE REQUIREMENTS OF ANS/NSF 61 UNLESS OTHERWISE NOTED.
 4. WATER LINES UNDER OR WITHIN 1 FEET OF NEW OR EXISTING PAVEMENTS (STREETS AND DRIVEWAYS) SHALL BE BACK FILLED WITH CEMENT STABILIZED SAND AS SPECIFIED IN THE CONSTRUCTION DETAIL. TYPICAL BEDDING AND BACKFILL TO BE 6" MECHANICALLY COMPACTED BANK SAND. PROVIDE UNIFORM GRADE FOR BEDDING TO PROVIDE FULL BEDDING OF WATER LINE.
 5. PROVIDE A MINIMUM SIX-INCHES (6") OF CLEARANCE AT STORM SEWER AND WATER LINE CROSSINGS.
 6. 4-INCH THROUGH 12-INCH LINES TO HAVE A MINIMUM OF 4'-0" COVER BELOW TOP OF CURB. UNLESS OTHERWISE NOTED, VARY FLOW LINE UNIFORMLY FROM DEPTH SHOWN ON PLANS.
 7. CENTERLINE OF FIRE HYDRANT TO BE LOCATED AT 3' FROM BACK OF CURB WITH CENTERLINE OF STEAMER NOZZLE 22 INCHES ABOVE FINISHED GRADE. TURN STEAMER OUTLET TO FACE STREET. PROVIDE 4" X 16" X 16" PRECAST CONC PAD BLOCK UNDER FIRE HYDRANT. INSTALL 2 C.F. PEA GRAVEL AROUND WEEP HOLES OF FIRE HYDRANT
 8. WHERE WATER LINE CROSSES SANITARY SEWER LINE OR LEAD WITH LESS THAN NINE FEET (9') VERTICAL SEPARATION, PROVIDE ONE MINIMUM 18-FOOT STEEL CASING OVER THE WATER LINE CENTERED ON SANITARY MAIN. BID STEEL CASINGS AS A SEPARATE LINE LINE PER CROSSING.
 9. THE CONTRACTOR AT ALL TIMES PROVIDE MAXIMUM UNINTERRUPTED FLOW TO ALL SERVICES AND MAINS AND SHALL AVAIL OF ANY ROUTING METHOD AND EQUIPMENT TO ACCOMPLISH THIS.

CENTERPOINT ENERGY / ENTEX NOTES**CAUTION: UNDERGROUND GAS FACILITIES**

LOCATIONS OF CENTERPOINT ENERGY MAIN LINES (TO INCLUDE CENTERPOINT ENERGY, INTRASTATE PIPELINE, L.C. WHERE APPLICABLE) ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. SERVICE LINES ARE NOT USUALLY SHOWN. OUR SIGNATURE ON THESE PLANS ONLY INDICATES THAT OUR FACILITIES ARE SHOWN IN APPROXIMATE LOCATION. IT DOES NOT IMPLY THAT A CONFLICT ANALYSIS HAS BEEN MADE. THE CONTRACTOR SHALL CONTACT THE UTILITY COORDINATING COMMITTEE AT (979) 849-4364 OR 811, A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION TO HAVE MAIN AND SERVICE LINES FIELD LOCATED.

* WHEN CENTERPOINT ENERGY PIPE LINE MARKINGS ARE NOT VISIBLE, CALL (800) 752-8036 OR (713) 659-2111 (7:00 A.M. TO 4:30 P.M.) FOR STATUS OF LINE LOCATION REQUEST BEFORE EXCAVATION BEGINS.

* WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF CENTERPOINT ENERGY FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.

* WHEN CENTERPOINT ENERGY FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRESS ON THE PIPING.

* FOR EMERGENCIES REGARDING GAS LINES CALL (800) 659-2111 OR (713) 659-2111.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

ACTIVITIES ON OR ACROSS CENTERPOINT ENERGY FEE OR EASEMENT PROPERTY NO APPROVAL TO USE, CROSS OR OCCUPY CENTERPOINT FEE OR EASEMENT PROPERTY IS GIVEN, IF YOU NEED TO USE CENTERPOINT PROPERTY, PLEASE CONTACT OUR SURVEYING & RIGHT OF WAY DIVISION AT (713) 207-5769.

WARNING: OVERHEAD ELECTRICAL FACILITIES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT 713-207-2222.

SBC NOTES

THE LOCATIONS OF SOUTHWESTERN BELL TELEPHONE CO. UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND UTILITIES.

TEXAS NEW MEXICO POWER NOTES

OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH & SAFETY CODE FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX (6) FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. PARTIES RESPONSIBLE FOR THE WORK, INCLUDING CONTRACTORS, ARE LEGALLY RESPONSIBLE FOR THE SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CRIMINAL AND CIVIL LIABILITY. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL TEXAS NEW MEXICO POWER AT (979) 345-5667.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE ANGLETON CONSTRUCTION MANUAL (ACM) AND LAND DEVELOPMENT CODE, HEREAFTER REFERRED TO THE ACM AND THE LDC.
2. APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, ADEQUACY, AND COMPLIANCE OF THE SUBMITTED PLANS.
3. ALL RESPONSIBILITY FOR DESIGN RESTS ON ENGINEER WHO PREPARED THEM, IN APPROVING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY AND ACCURACY OF THE DESIGN ENGINEER.
4. DESIGNS SHALL BE IN COMPLETE COMPLIANCE WITH THE LDC AND THE ACM. ANY WAIVER, DEVIATION, VARIANCE, OR EXCEPTION FROM ANY SPECIFIC REQUIREMENT(S) OF THE LDC OR ACM THAT WERE NOT EXPRESSLY REQUESTED WHEN PLANS ARE SUBMITTED, SHALL NOT BE CONSTRUED TO HAVE BEEN GRANTED IF PLANS ARE APPROVED. IT IS THE RESPONSIBILITY OF THE ENGINEER TO MAKE SUCH A WAIVER PROACTIVELY WHEN PLANS ARE SUBMITTED.
5. A MINIMUM OF TWO EXISTING BENCHMARKS SHOULD BE SHOWN ON THE PLANS. IN ADDITION, TWO PERMANENT BENCHMARKS PER SUBDIVISION SHALL BE INSTALLED IN EACH NEW SUBDIVISION TO INCLUDE DESCRIPTION, LOCATION, AND ELEVATION AND TIE TO CITY STANDARDS.
6. CAST BRONZE SURVEY MARKERS SHALL BE PLACED IN CONCRETE IN PERMANENT, ACCESSIBLE LOCATIONS AT THE TIME OF CONSTRUCTION. THE LOCATIONS OF THE MARKERS SHALL BE INDICATED ON THE CONSTRUCTION PLANS. A MINIMUM OF ONE MARKER SHALL BE PLACED FOR EACH 20 ACRES OF THE PROJECT.
7. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVEY A PRE-CONSTRUCTION CONFERENCE WITH THE CITY, THE DEVELOPER'S CONSULTING ENGINEER, CONTRACTOR, AND ANY OTHER AFFECTED PARTIES. THE CITY SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
8. THE CONTRACTOR SHALL PROVIDE THE CITY A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
9. BARRICADES, BUILT TO CITY SPECIFICATIONS, SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
10. IF BLASTING IS PLANNED, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF ANY BLASTING.
11. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.
12. THE LOCATION OF ANY WATER OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE PUBLIC WORKS DEPARTMENT.
13. USE ONE CALL UTILITY SYSTEM: DIAL 1-800-344-8377, 48 HOURS BEFORE YOU DIG.
14. ALL STORM SEWER PIPES TO BE CLASS III RCP UNLESS NOTED OTHERWISE. SPECIAL NOTES FOR PLANS, WHEN APPLICABLE.
15. CONSTRUCTED STREET SECTIONS SHALL SHOW THE FOLLOWING:
 - a. PROVIDE STREET NAMES, WIDTH OF R.O.W., OR OTHER METHODS TO IDENTIFY PROPOSED DESIGN OF DIFFERENT PAVEMENT THICKNESS. IN WRITING OR GRAPHICALLY, DESCRIBE THE STREET SECTION(S) TO BE CONSTRUCTED.
 - b. MANHOLE FRAMES, COVERS, AND WATER VALVE COVERS WILL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY A QUALIFIED CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
 - c. CROWNS OF INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED. INLETS ON THE INTERSECTING STREET SHALL NOT BE CONSTRUCTED WITHIN 40 FEET OF THE VALLEY GUTTER, UNLESS OTHERWISE NOTED.
 - d. PRIOR TO FINAL ACCEPTANCE OF A STREET OUTSIDE THE CITY LIMITS, STREET NAME SIGNS CONFORMING TO COUNTY STANDARDS SHALL BE INSTALLED BY DEVELOPER.
 - e. SIDEWALK REQUIREMENTS (GIVE STREET NAME AND LOCATION OF REQUIRED SIDEWALK, I.E., NORTH, SOUTH, EAST, OR WEST SIDE).
 - f. A CURB LAY DOWN WHERE REQUIRED WHEN ALL POINTS OF SIDEWALKS INTERSECTS CURBS.
 - g. INSIDE THE CITY LIMITS, SIDEWALKS SHALL BE COMPLETED PRIOR TO ACCEPTANCE OF ANY DRIVEWAY APPROACHES AND/OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY. WHEN OUTSIDE THE CITY LIMITS, A LETTER OF CREDIT MAY BE POSTED OR OTHER SUITABLE FINANCIAL ARRANGEMENTS MAY BE MADE TO ENSURE CONSTRUCTION OF THE SIDEWALKS. IN EITHER CASE, SIDEWALKS ADJACENT TO "COMMON AREAS", PARKWAYS, OR OTHER LOCATIONS ON WHICH NO BUILDING CONSTRUCTION WILL TAKE PLACE, MUST BE CONSTRUCTED PRIOR TO FINAL ACCEPTANCE OF THE SUBDIVISION.
 - h. A LICENSE AGREEMENT FOR LANDSCAPING MAINTENANCE AND IRRIGATION IN STREET R.O.W. SHALL BE EXECUTED BY THE DEVELOPER IN PARTY WITH THE CITY PRIOR TO FINAL ACCEPTANCE.
17. CALL THE CITY 48 HOURS PRIOR TO BEGINNING ANY WORK AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY AND ALL AFFECTED UTILITY PROVIDERS, THE GENERAL CONTRACTOR, THE DEVELOPER AND THE DEVELOPER'S ENGINEER.

CONSTRUCTION SEQUENCING

CALL THE CITY 48 HOURS PRIOR TO BEGINNING ANY WORK AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY AND ALL AFFECTED UTILITY PROVIDERS, THE GENERAL CONTRACTOR, THE DEVELOPER AND THE DEVELOPER'S ENGINEER.

OBTAIN A DEVELOPMENT PERMIT FROM THE CITY.

PROVIDE THE CITY WITH EVIDENCE ALL TCEQ LICENSES AND REQUIREMENTS ARE UP TO DATE.

INSTALL TEMPORARY EROSION CONTROLS AND TREE PROTECTION FENCING PRIOR TO ANY CLEARING AND GRUBBING. NOTIFY THE CITY WHEN INSTALLED.

ROUGH-CUT ALL REQUIRED OR NECESSARY PONDS. EITHER THE PERMANENT OUTLET STRUCTURE OR EXCAVATION OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF ANY EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A LOW-LEVEL OUTLET AND AN EMERGENCY OVERFLOW MEETING THE REQUIREMENTS OF THE LDC. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL FINAL RESTORATION IS ACHIEVED.

DELIVER APPROVED ROUGH-CUT SHEETS TO THE CITY ENGINEER PRIOR TO CLEARING AND GRUBBING.

ROUGH GRADE STREETS. NO DEVELOPMENT OF EMBANKMENT WILL BE PERMITTED AT THIS TIME.

INSTALL ALL UTILITIES TO BE LOCATED UNDER THE PROPOSED PAVEMENT OR WITHIN THE ROAD RIGHT-OF-WAY.

DELIVER STORM SEWER CUT SHEETS TO THE CITY ENGINEER.

BEGIN INSTALLATION OF STORM SEWER LINES. UPON COMPLETION, RESTORE AS MUCH DISTURBED AREAS AS POSSIBLE, PARTICULARLY CHANNELS AND LARGE OPEN AREAS.

DELIVER FINAL GRADE CUT SHEETS TO THE CITY ENGINEER.

RE-GRADE STREETS TO SUB-GRADE.

ENSURE THAT UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY 1ST/ COURSE BASE MATERIAL ON STREETS.

INSTALL CURB AND GUTTER

LAY FINAL BASE COURSE ON ALL STREETS.

PLACE CONCRETE.

COMPLETE FINAL GRADING AND RESTORATION OF DETENTION, SEDIMENTATION/FILTRATION PONDS.

COMPLETE PERMANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION.

REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.

COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED.

RECORD DRAWING

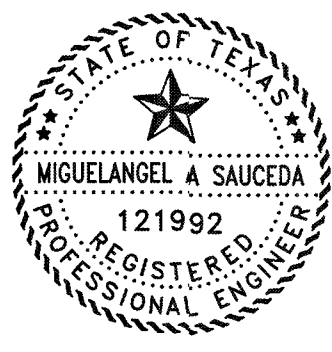
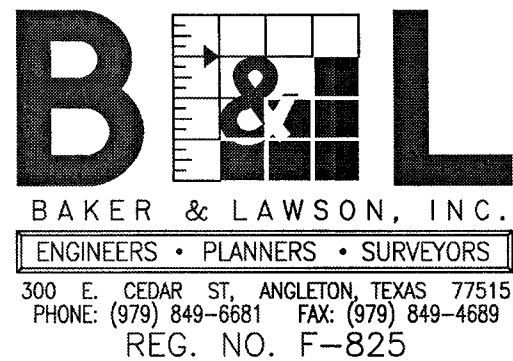
NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS

DRAWN _____

CHECKED _____

DATE _____



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Date: 1/11/21

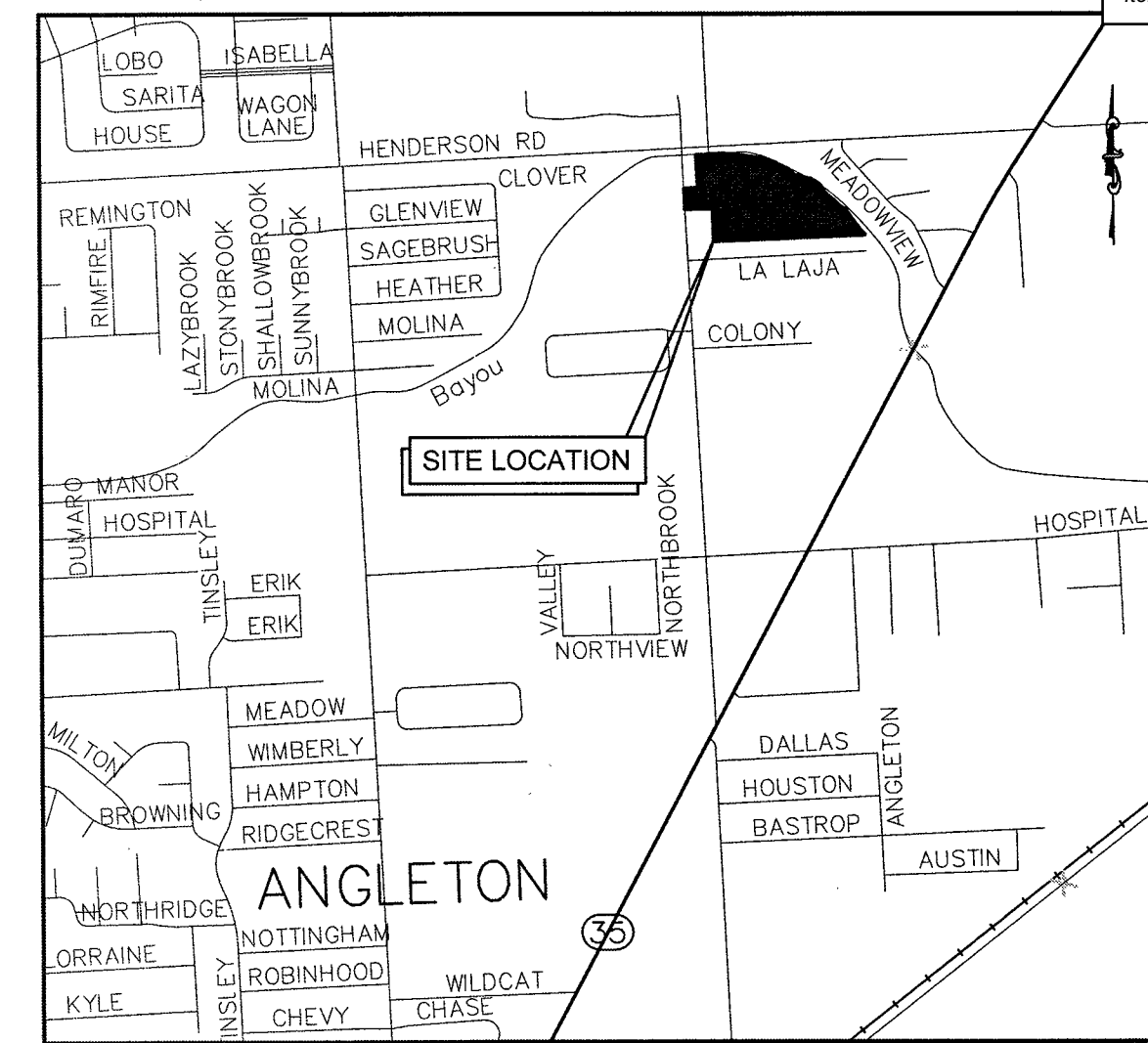
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

CONSTRUCTION NOTES

PROJECT NO. 13454



FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP NO. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "AE" BASE FLOOD ELEVATION OF 22.0 FT, AREAS WITHIN THE 1% ANNUAL CHANCE FLOOD. THE ZONE "AE" AREA LIES FULLY WITHIN THE TOP BANK (EL. = 26.5 ±) OF BRUSHY BAYOU.

THE SHOWN BFE BOUNDARY WAS PROVIDED BY THE FEMA GIS FLOOD
MAP CENTER AND MAY NOT ACCURATELY REFLECT SITE TOPOGRAPHY.

PROJECT BENCHMARK:
NGS MONUMENT R1182 (PID AW1171)
A BRASS DISK STAMPED R1182, ON THE NORTH LINE OF CR 171, ON
THE CURB OF A BRIDGE, APPROXIMATELY 275 SOUTHWEST OF
INTERSECTION WITH CR 428.
ELEVATION = 26.31 FEET NGVD29

SITE BENCHMARK:
HERITAGE PARK TBM-A CHISELED SQUARE ON CURB INLET ON THE
SOUTH SIDE OF BAYOU BEND BLVD, WEST OF CULVERT, AND 215 FEET
EAST OF BUCHTA ROAD. ELEVATION = 26.08 NGVD1929

TBM-B CHISELED SQUARE ON CURB INLET ON SOUTH SIDE OF BAYOU
BEND BOULEVARD, AND 135 FEET EAST OF BUCHTA ROAD. ELEVATION =
26.61 NGVD1929.

TBM-C CHISELED SQUARE ON CURB INLET ON SOUTH SIDE OF BAYOU
BEND BOULEVARD, AT THROAT OF CUL-DE-SAC. ELEVATION = 26.82
NGVD1929

ALL COORDINATES SHOWN HEREON ARE IN GRID, BASED ON THE TEXAS
COORDINATE SYSTEM OF 1983, (NAD83) SOUTH CENTRAL ZONE, PER GPS
OBSERVATIONS.

- SYMBOLS**
- | | |
|---|--------------------------|
| ⊙ | = FND IMPLEMENT AS NOTED |
| ⊙ | = SET 5/8" IRON ROD |
| ● | = BENCHMARK |
| ⊙ | = GAS VALVE |
| ⊠ | = GAS METER |
| ⊠ | = IRRIGATION CONTROL |
| ⊠ | = WATER VALVE |
| ⊠ | = WATER METER |
| ⊠ | = FIRE HYDRANT |
| ⊠ | = GUY WIRE |
| ⊙ | = POWER POLE |
| ⊙ | = SIGNAL POLE |
| ⊙ | = LIGHT POLE |
| ⊙ | = LIGHT BOLLARD |
| ⊙ | = BOLLARD |
| ⊙ | = MONITOR WELL |
| ⊙ | = CLEANOUT |
| ⊙ | = SIGN |
| ⊙ | = TELE PEDESTAL |
| ⊙ | = TREE |
| ⊙ | = MANHOLE |
| ⊙ | = INLET |

LEGEND:

→ EXISTING OVERFLOW PATH
*22 EXISTING NATURAL GROUND ELEVATION

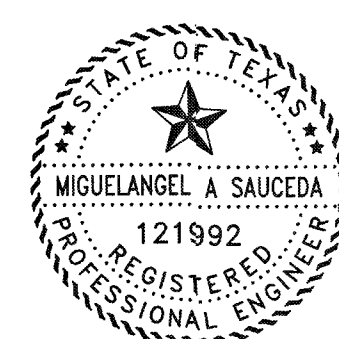
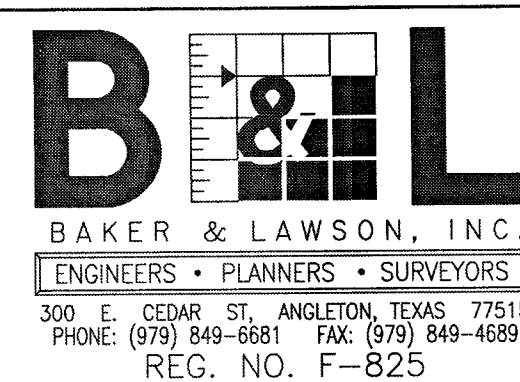
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EXISTING CONDITIONS


PROJECT NO. 13454

NO.	DATE	DESCRIPTION	APPROVE
REVISIONS			

DESIGNED _____ MS
DRAWN _____
CHECKED _____
DATE _____



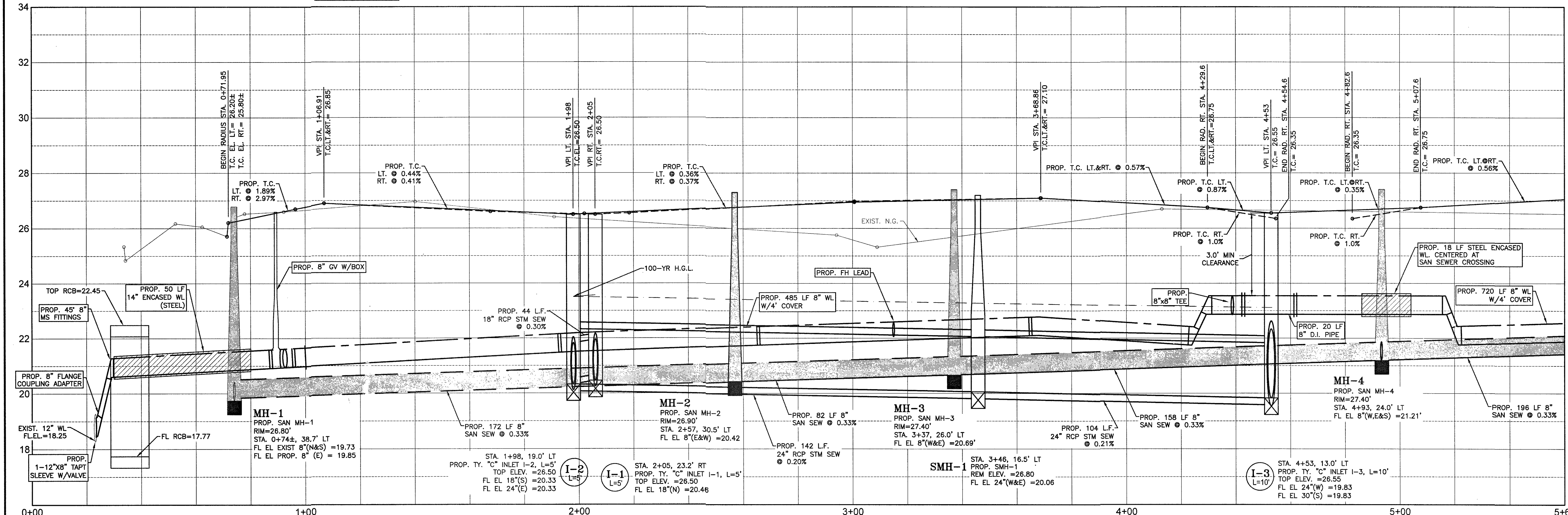
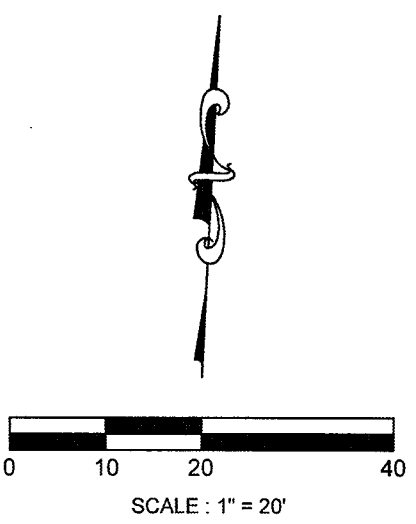
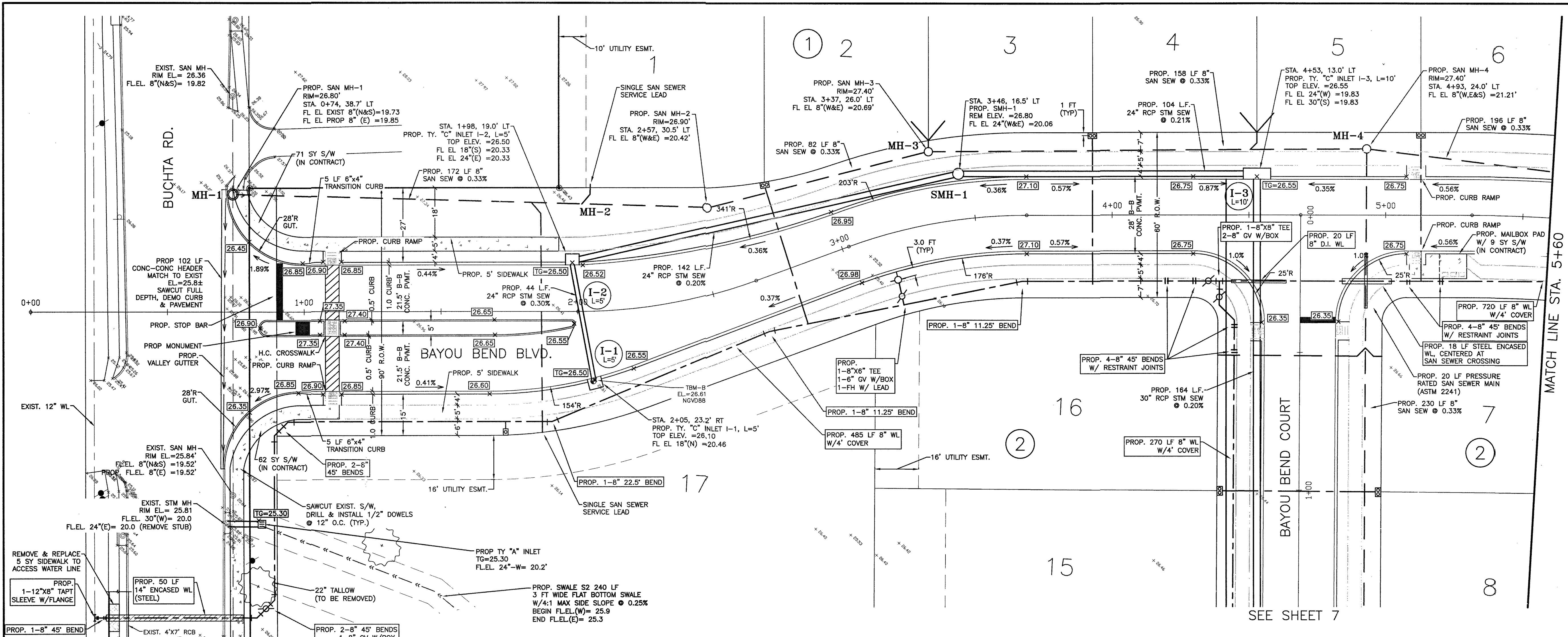
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this document was
authorized by
Miguel Saucedo
P.E. 121992


Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 60'
 PROFILE:
 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**



SYMBOLS LEGEND

- SINGLE WATER METER
- DOUBLE WATER METER
- FIRE HYDRANT
- WATER VALVE
- TAPPING SLEEVE AND VALVE
- REDUCER
- STORM SEWER MANHOLE (SMH-1)
- SANITARY SEWER MANHOLE (MH-1)
- TOP BANK
- STORM SEWER LINE (REINFORCED CONCRETE PIPE, ASTM C76)
- SANITARY SEWER LINE
- WATERLINE (AWWA C900, CLASS 150, DR18)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED	MS
DRAWN	
CHECKED	
DATE	

B & L
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 849-6861 FAX: (979) 849-4889
REG. NO. F-825



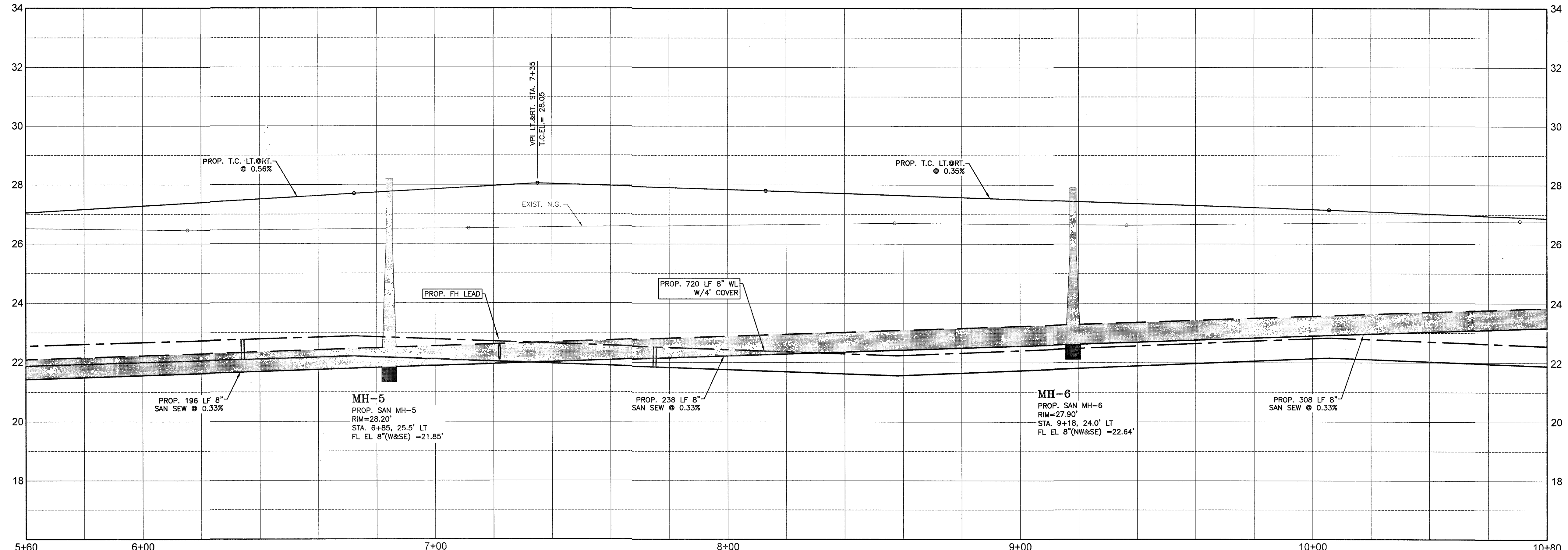
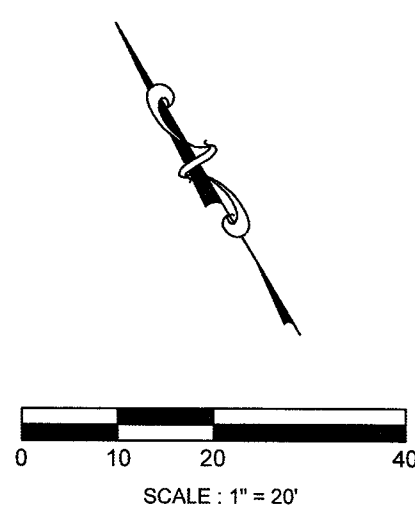
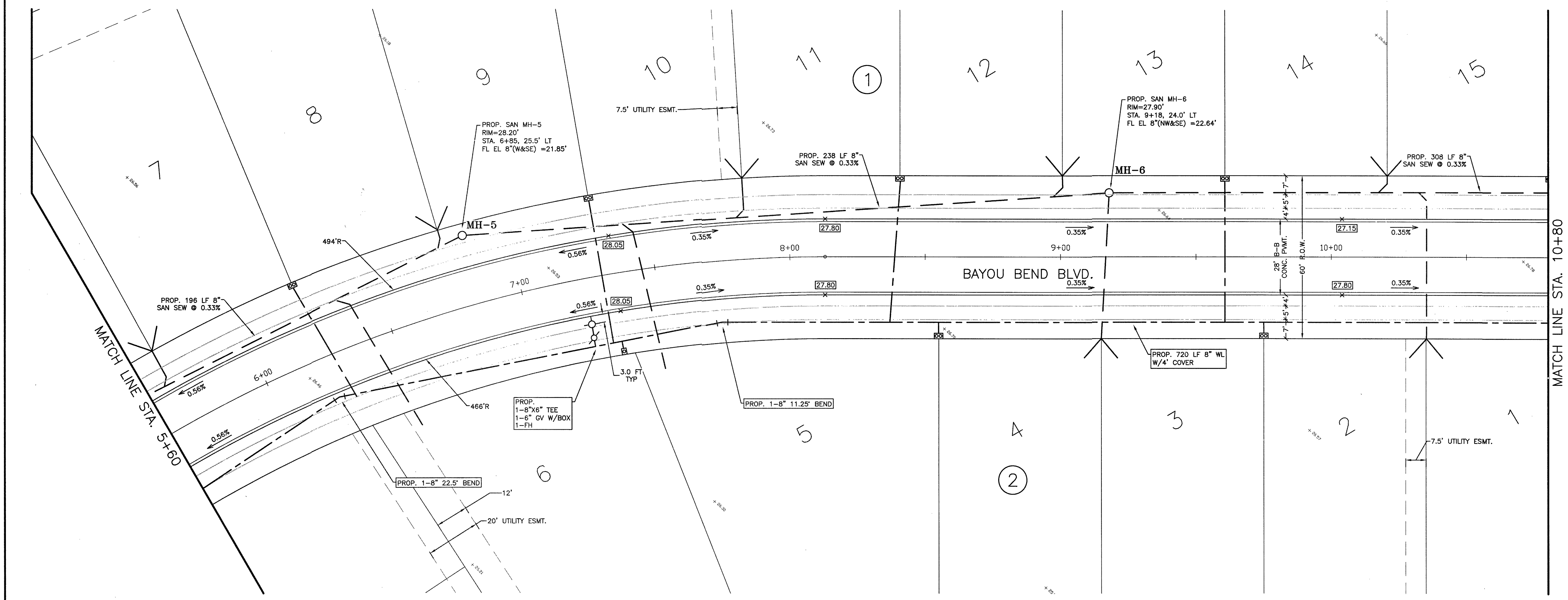
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 20'
PROFILE:
HORIZONTAL: 1" = 2'
VERTICAL: 1" = 20'

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
BAYOU BEND BOULEVARD
STA. 0+00 TO 5+60



- SYMBOLS LEGEND**
- SINGLE WATER METER
 - DOUBLE WATER METER
 - FIRE HYDRANT
 - WATER VALVE
 - TAPPING SLEEVE AND VALVE
 - REDUCER
 - STORM SEWER MANHOLE (SMH-1)
 - SANITARY SEWER MANHOLE (MH-1)
 - TOP BANK
 - STORM SEWER LINE (REINFORCED CONCRETE PIPE, ASTM C76)
 - SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
 - WATERLINE (AWWA C900, CLASS 150, DR18)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED MS
 DRAWN
 CHECKED
 DATE

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 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR ST. ANGLETON, TEXAS 77515
 PHONE: (979) 849-6681 FAX: (979) 849-6689
 REG. NO. F-825



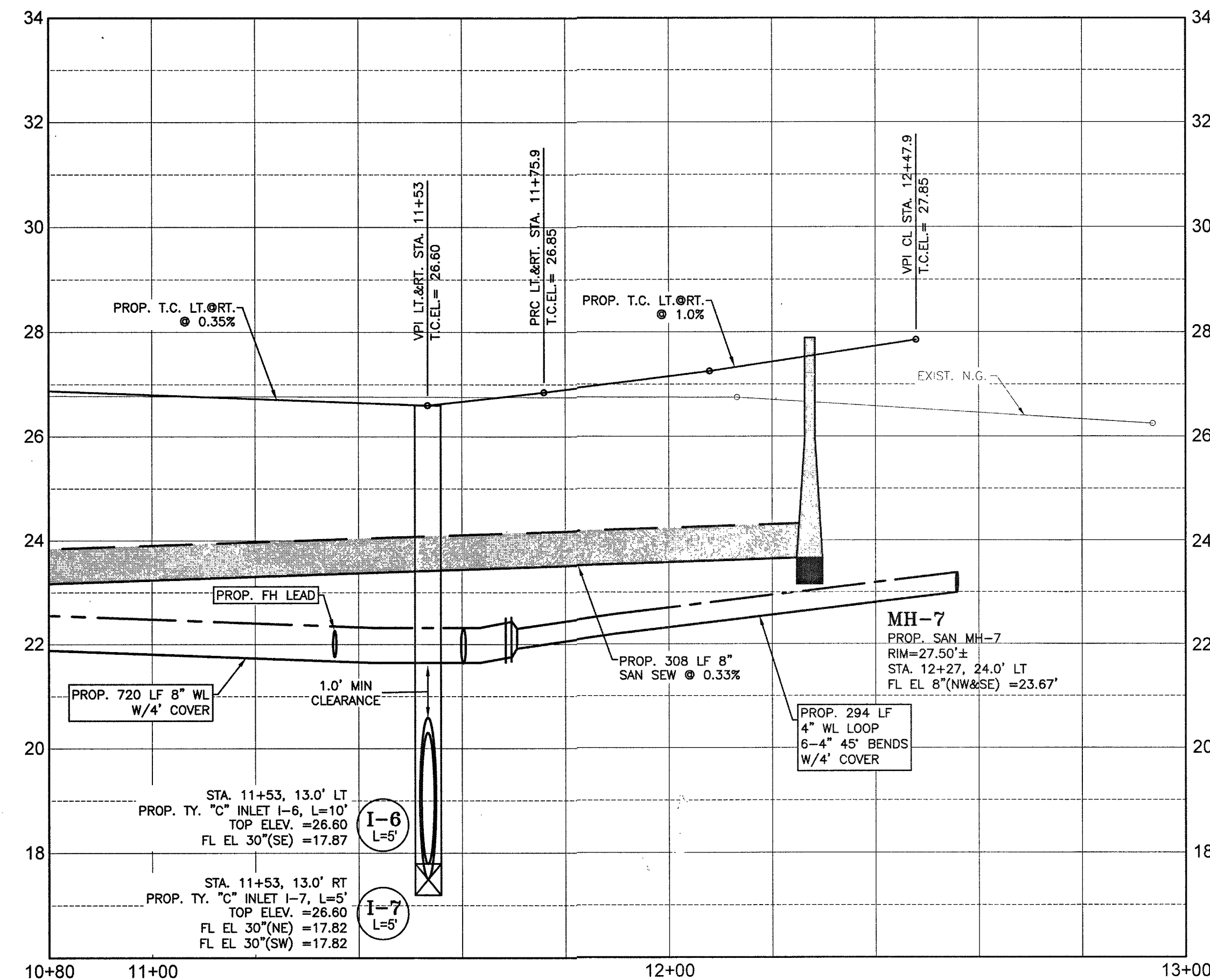
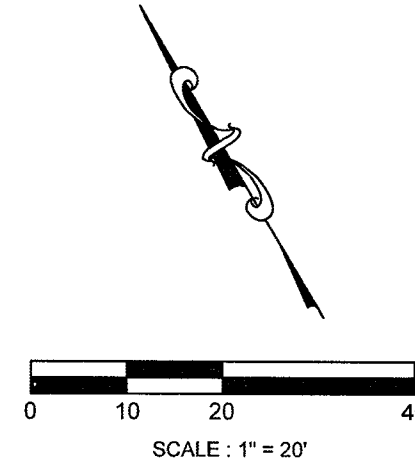
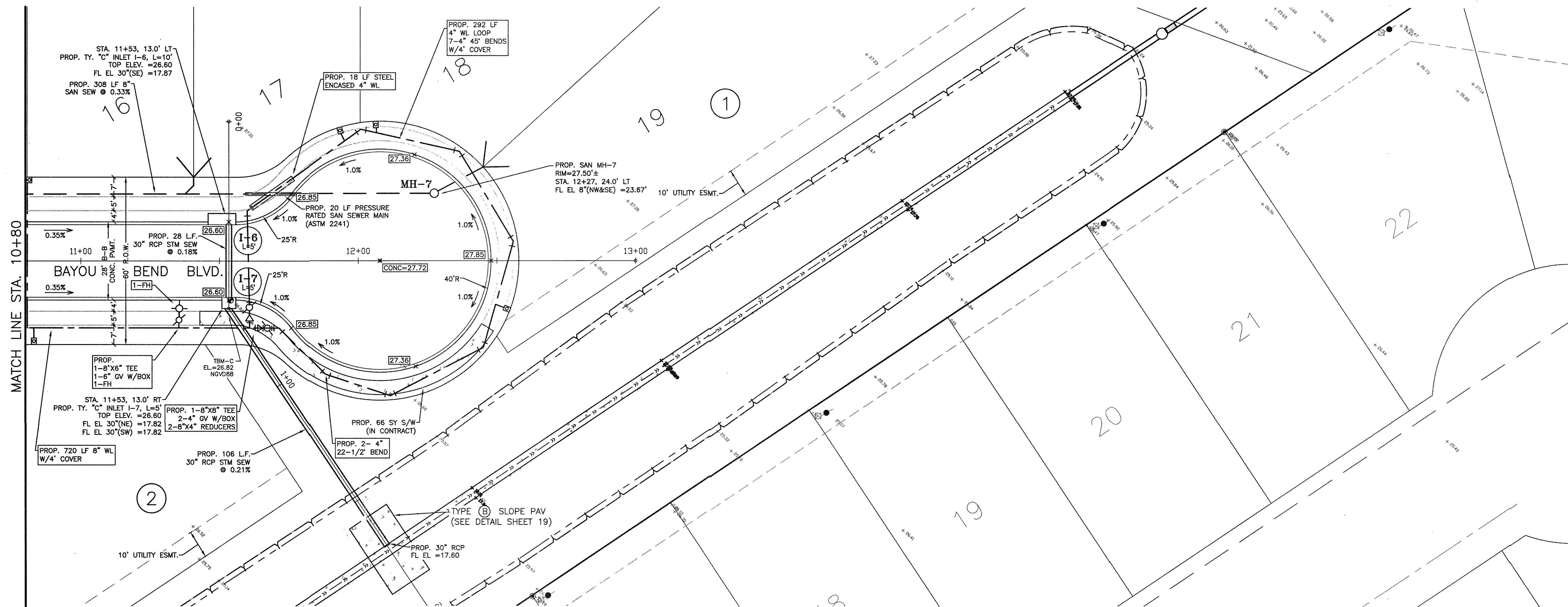
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
 Date: 1/11/22

OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 BAYOU BEND BOULEVARD
 STA. 5+60 TO 10+80
 PROJECT NO. 13454



SYMBOLS LEGEND

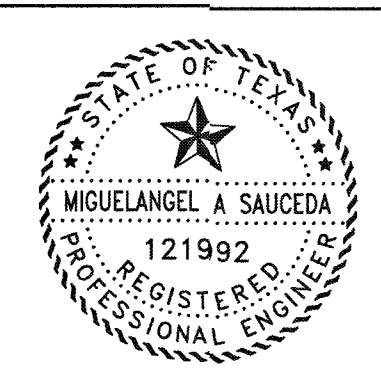
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- DOUBLE WATER METER
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- WATERLINE (AWWA C900, CLASS 150, DR18)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
1	10.4.21	MOVE REDUCER, DIM WL LOOP.	
REVISIONS			

DESIGNED	MS
DRAWN	BT/BB
CHECKED	
DATE	

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 REG. NO. F-825



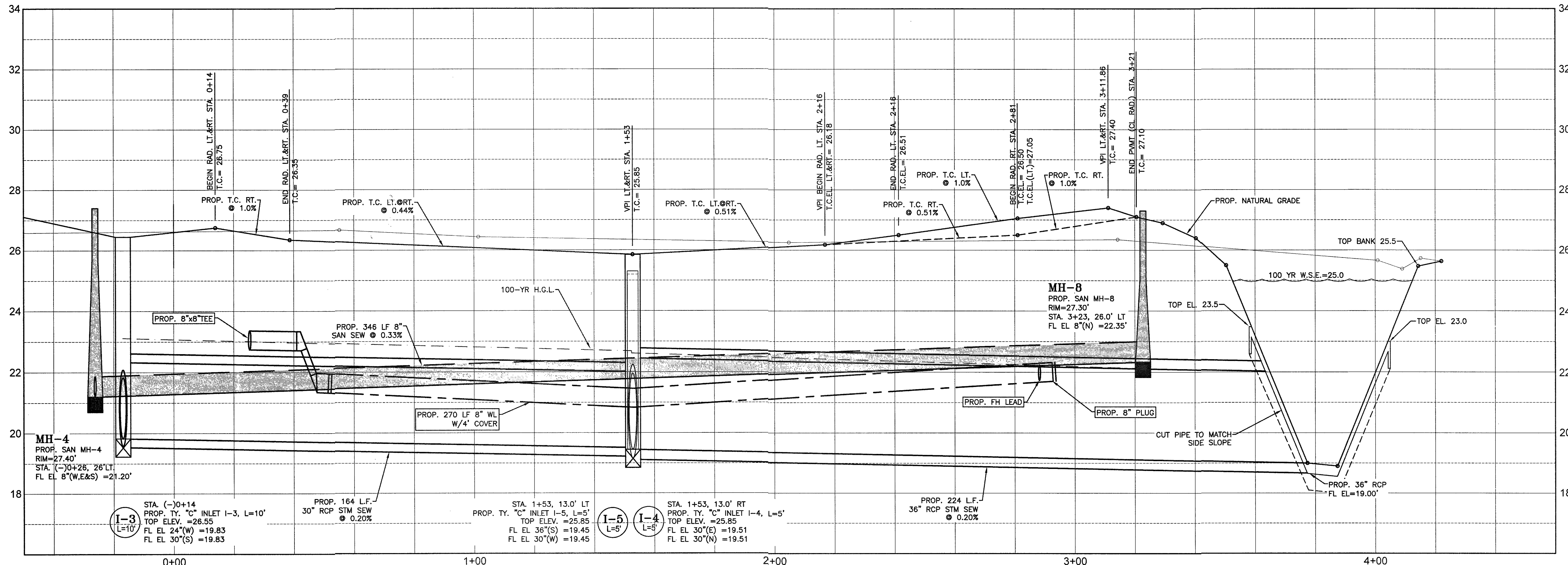
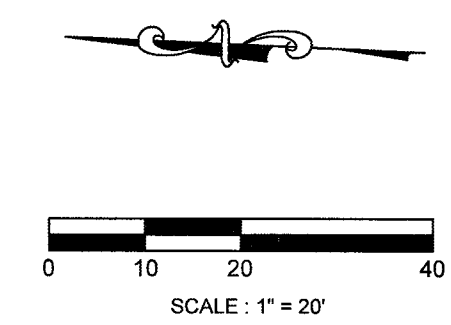
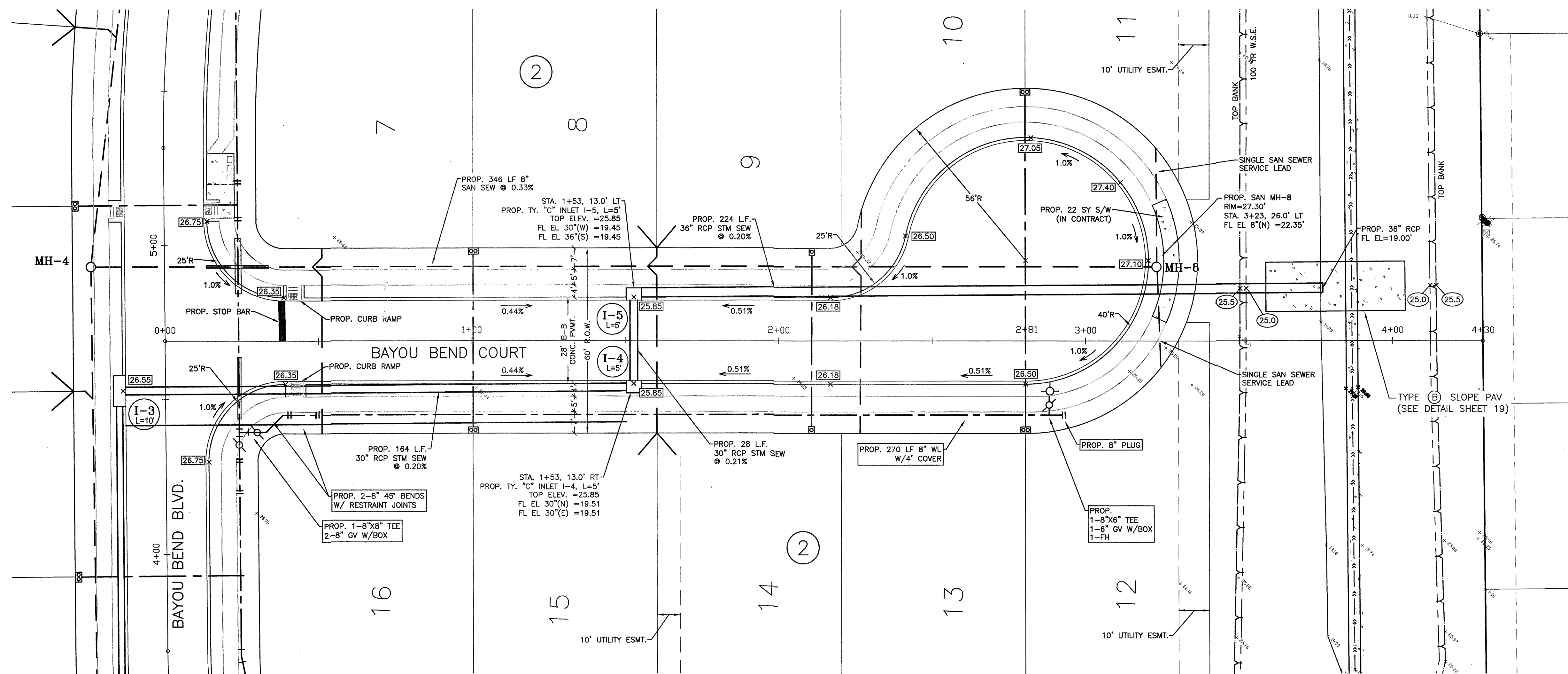
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
 Date: 11/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PLAN & PROFILE
 BAYOU BEND BOULEVARD
 STA. 10+80 TO 13+00
 PROJECT NO. 13454



SYMBOLS LEGEND

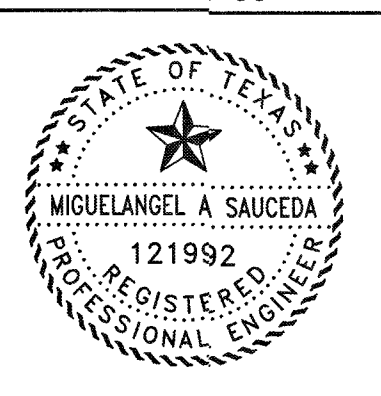
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- SANITARY SEWER LINE (D3034, SDR 26, 160 PR)
- WATERLINE (AWWA C900, CLASS 150, DR18)

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN
 CHECKED
 DATE

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR ST. ANGLETON, TEXAS 77515
 PHONE: (979) 849-6681 FAX: (979) 849-6689
 REG. NO. F-825



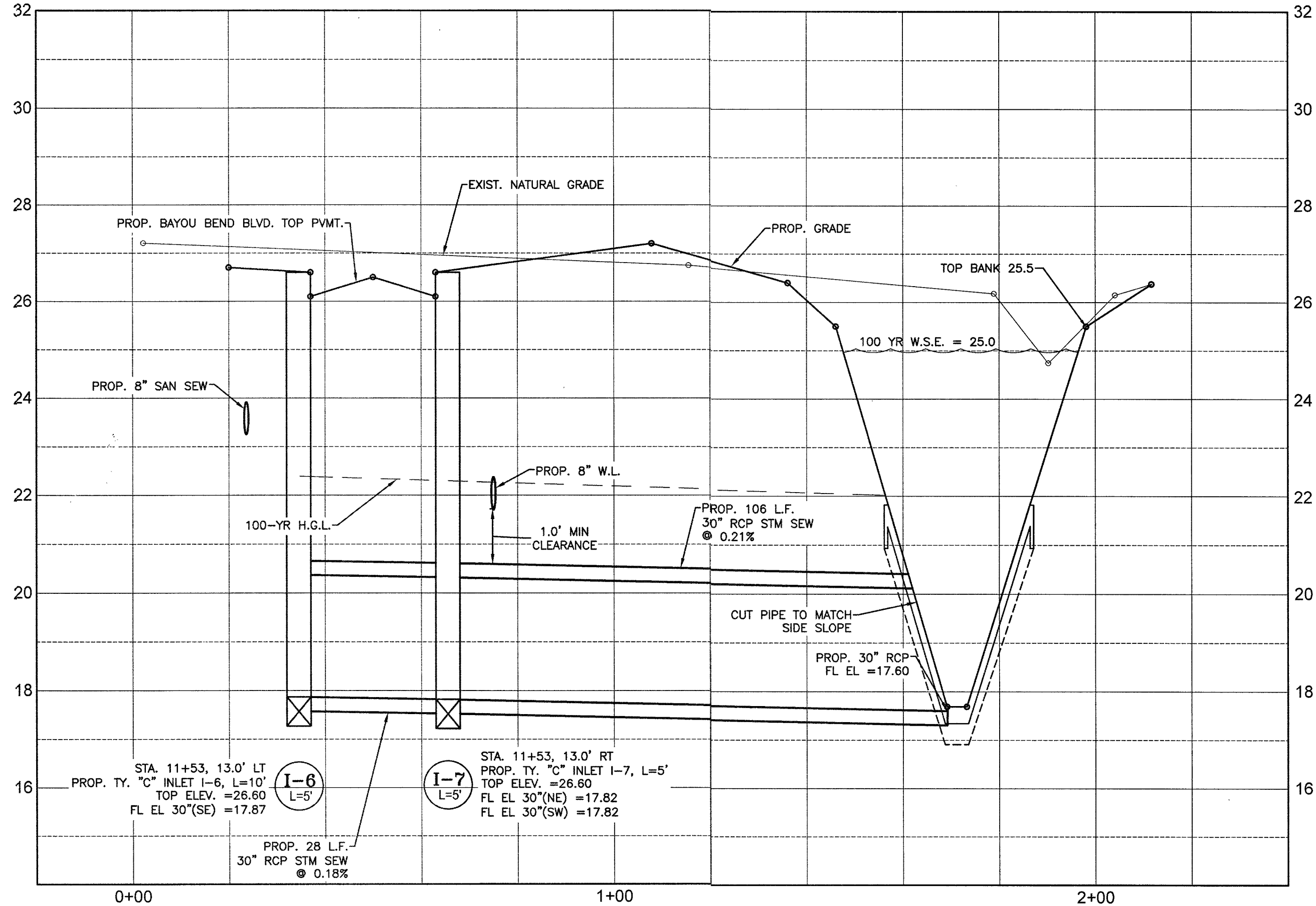
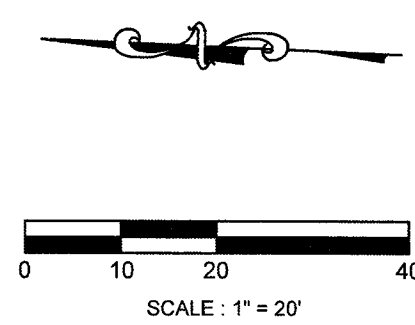
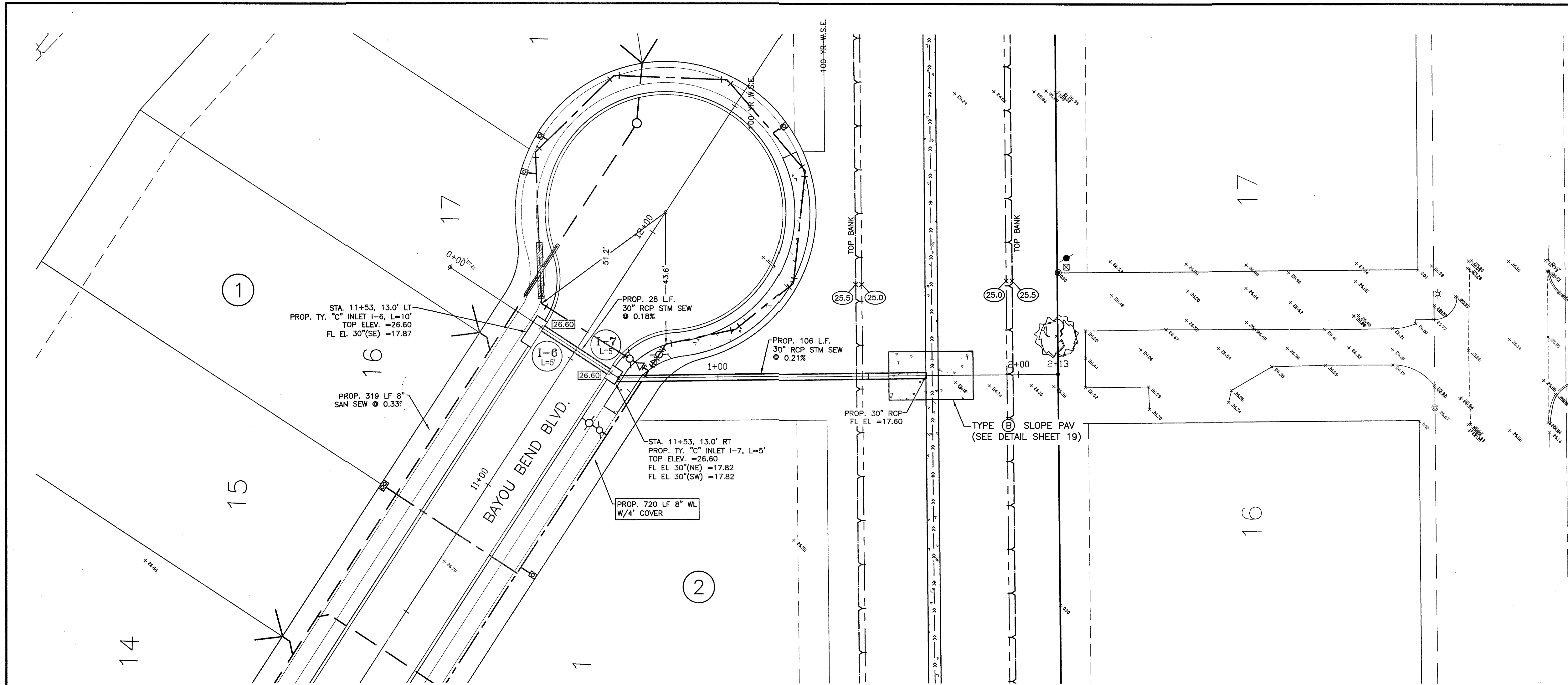
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
 Date: 11/1/22

OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 BAYOU BEND COURT
 STA. 0+00 TO 2+81
 PROJECT NO. 13454



SYMBOLS LEGEND

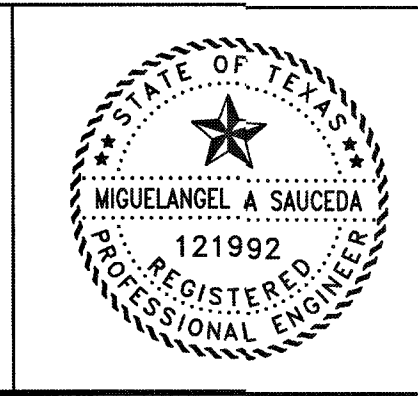
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NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN
 CHECKED
 DATE

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR ST. ANGLETON, TEXAS 77515
 PHONE: (979) 849-6681 FAX: (979) 849-4689
 REG. NO. F-825



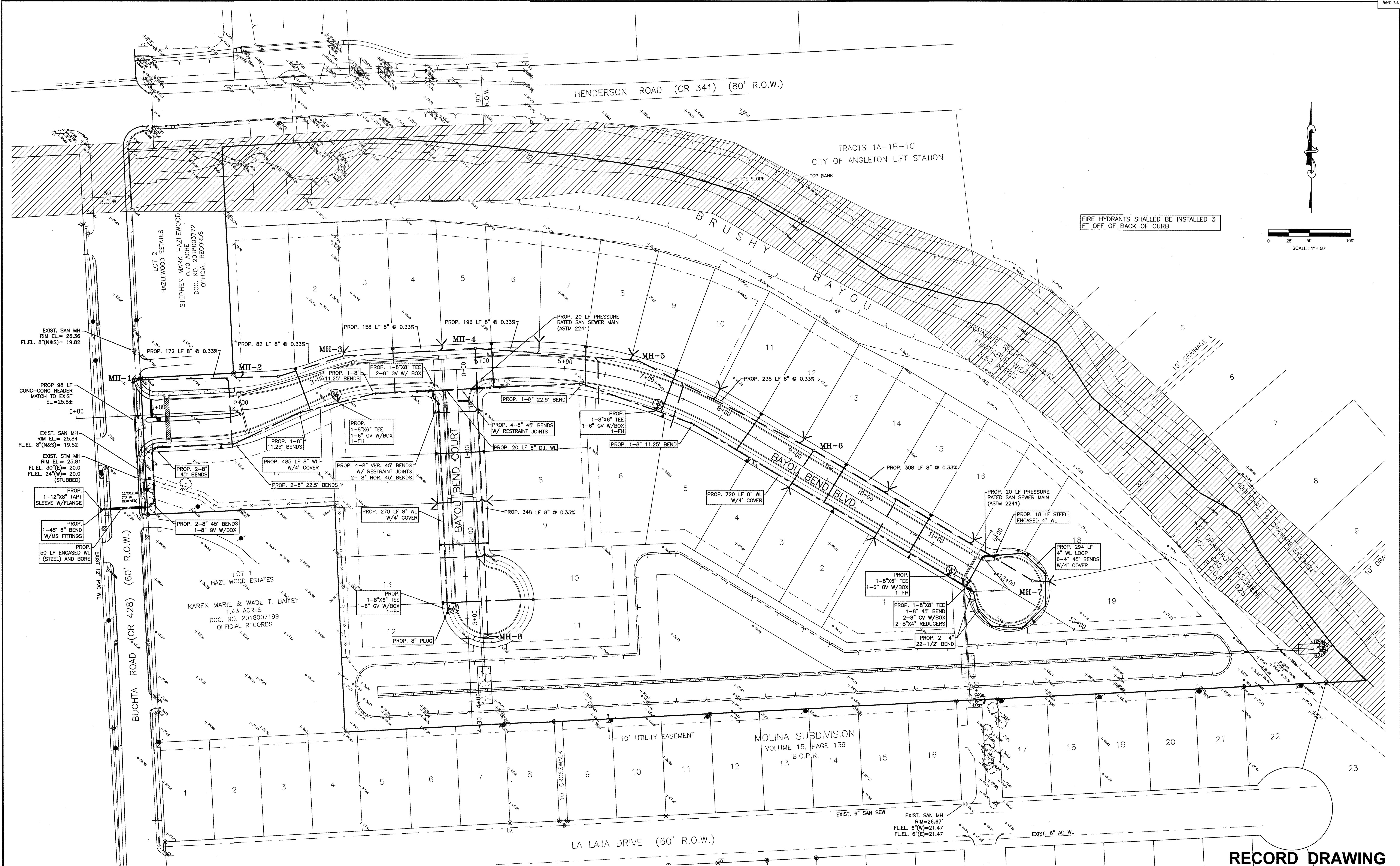
The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
 Date: 1/11/22

OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 20'
 PROFILE:
 HORIZONTAL: 1" = 2'
 VERTICAL: 1" = 20'

BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION

PLAN & PROFILE
 OUTFALL 1
 PROJECT NO. 13454



RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED MS
 DRAWN
 CHECKED
 DATE

B & L
 BAKER & LAWSON, INC.
 ENGINEERS • PLANNERS • SURVEYORS
 300 E. CEDAR ST. ANGLETON, TEXAS 77515
 PHONE: (979) 849-6681 FAX: (979) 849-6689
 REG. NO. F-825



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 Date: 11/11/22

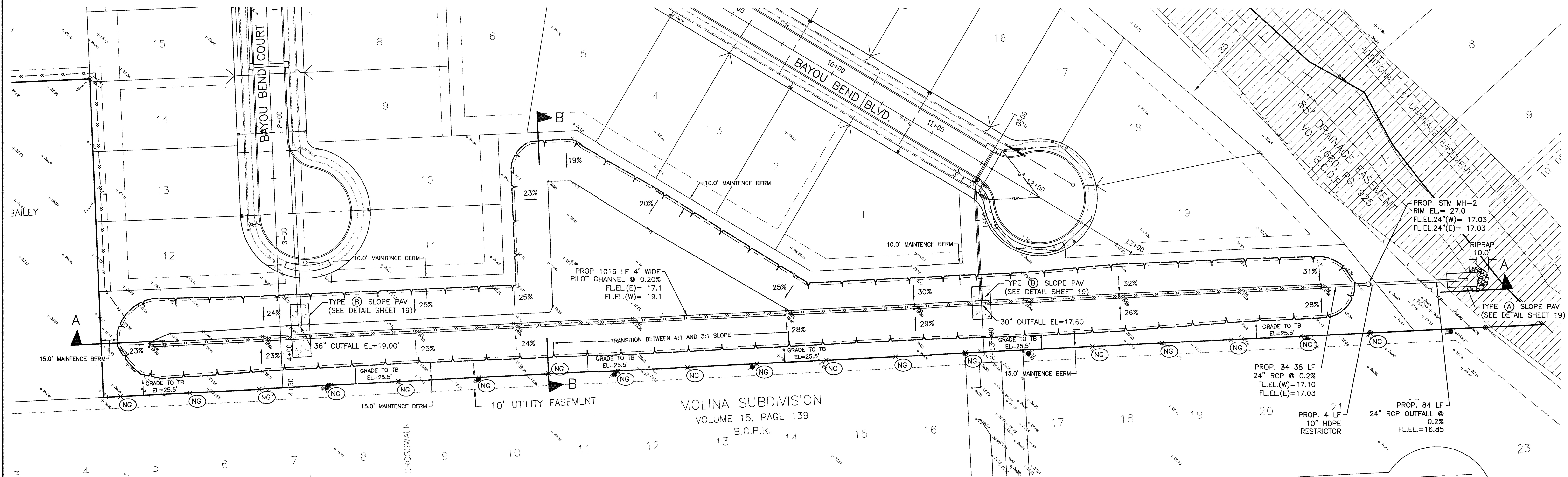
OWNER:
 Clint Peltier
 Clint Peltier Custom Homes
 979-481-4840

PLAN: 1" = 50'
 PROFILE:
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 VERTICAL:

**BAYOU BEND ESTATES
 ANGLETON, TEXAS
 PLANS FOR
 GRADING, PAVING, UTILITIES
 AND DETENTION**

UTILITY PLAN

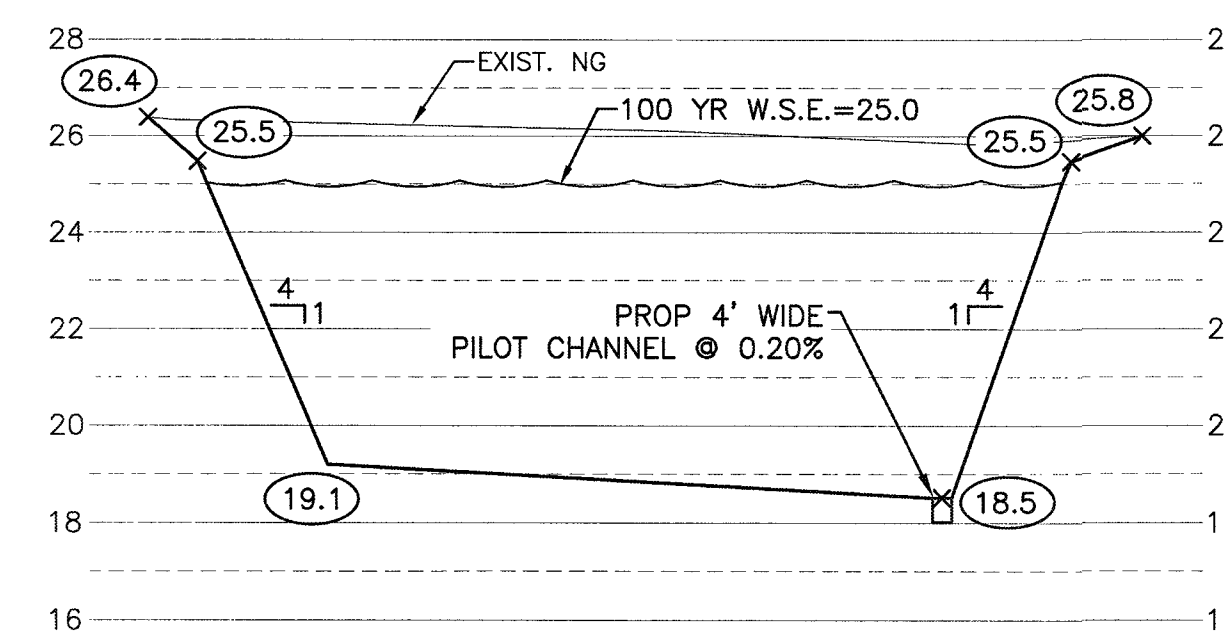
PROJECT NO. 13454



MOLINA SUBDIVISION
VOLUME 15, PAGE 139
B.C.P.R.

SECTION A-A

1"=40' HORIZ.
1" = 4' VERT.



SECTION B-B

1"=40' HORIZ.
1" = 4' VERT.

DETENTION CALCULATIONS

PRE-DEVELOPMENT FLOW RATE CALCULATION (100-YEAR STORM)

TC = 15.0 MIN. + 350 LF GRASS @ 0.5 FPS
+ 840 LF DITCH @ 1.5 FPS
1,400 = 6.583 IN/HR
Q₁₀₀ = 0.80 CFS/AC x 15.0 ACRES = 12.0 CFS
MAXIMUM ALLOWABLE OUTFALL RATE IN 0.80 CFS PER ACRE
ACCORDING TO BRAZORIA COUNTY MASTER DRAINAGE STUDY.

PROPOSED CONDITION (100-YEAR STORM)

Q = CIA x 1.25 PK
A = 15.0 ACRES
C = 0.55
TC = 15 MIN. + 100 LF GRASS @ 0.5 FPS
+ 750 LF STM SEW @ 3.0 FPS
+ 890 LF POND @ 1.5 FPS = 32.3 MIN.
I = 6.289 IN/HR
Q = 0.55 x 6.289 x 15.0 > 1.25 = 64.857 CFS
DETENTION = 6.774 AC-FT = 295,075 CF

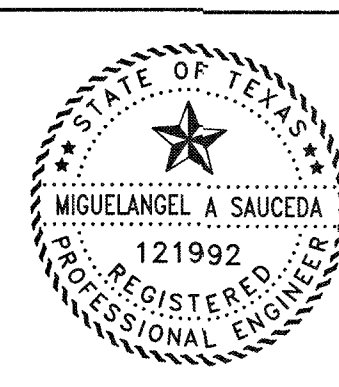
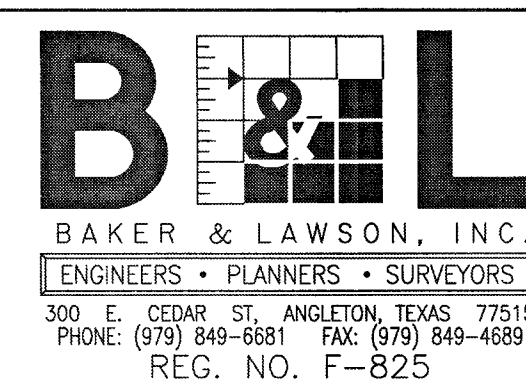
POND INFORMATION

TOP BANK ELEV. = 25.5
AREA @ 100-YEAR WSEL = 25.0 = 76,200 SF
AVERAGE BOTTOM ELEV. = 18.6
AVERAGE BOTTOM AREA = 18,400
WATER DEPTH = 6.4 FT
AVERAGE AREA = 47,300 SF
VOLUME = 47,300 SF X 6.4 FT = 302,720 CF
= 6.95 AC-FT

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED	MS
DRAWN	
CHECKED	
DATE	



The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992
Date: 1/11/22

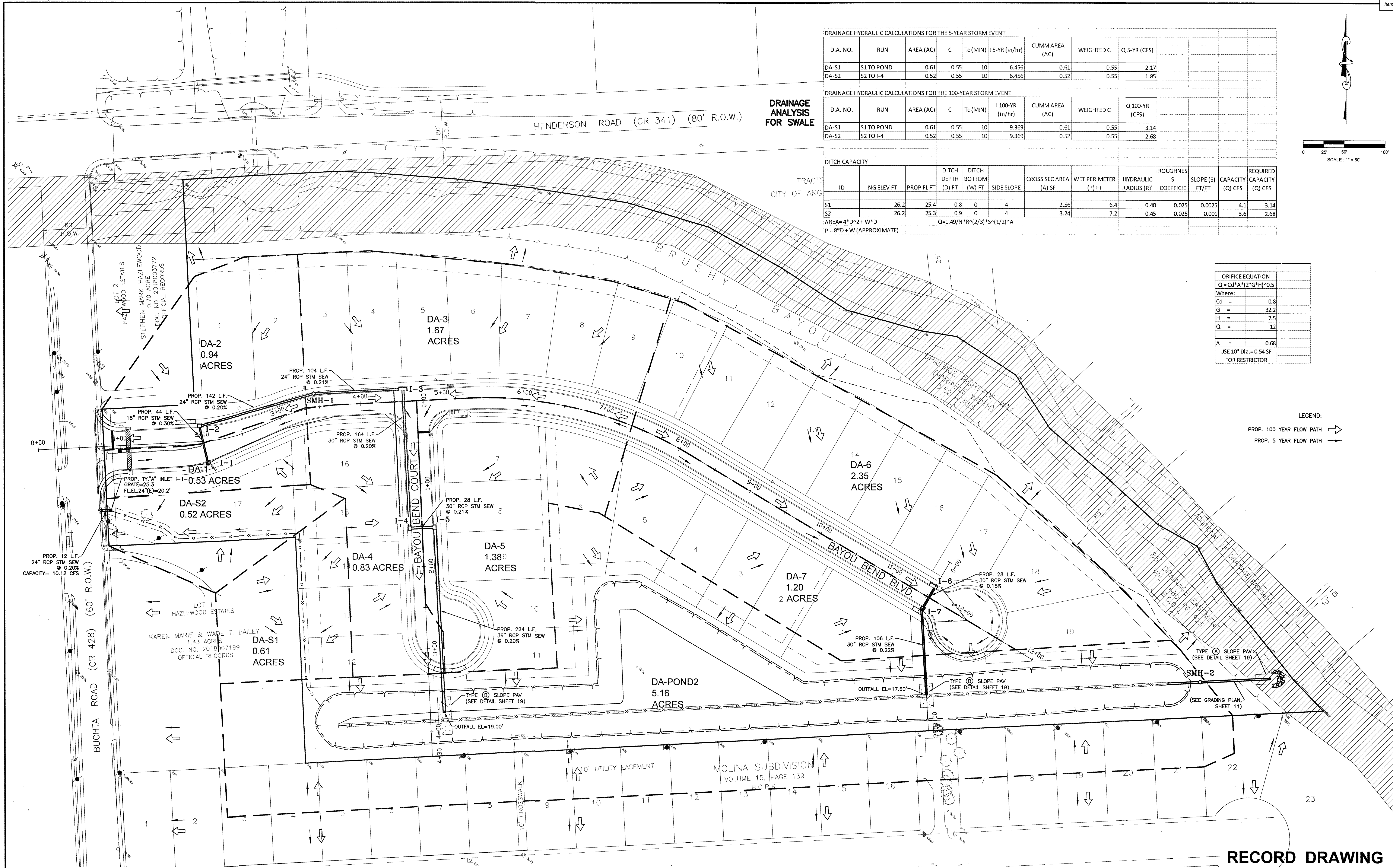
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 40'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DETENTION POND
LAYOUT AND CROSS
SECTIONS

PROJECT NO. 13454



DRAINAGE ANALYSIS FOR SWALE

DRAINAGE HYDRAULIC CALCULATIONS FOR THE 5-YEAR STORM EVENT

D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	15-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Q 5-YR (CFS)
DA-S1	S1 TO POND	0.61	0.55	10	6.456	0.61	0.55	2.17
DA-S2	S2 TO I-4	0.52	0.55	10	6.456	0.52	0.55	1.85

DRAINAGE HYDRAULIC CALCULATIONS FOR THE 100-YEAR STORM EVENT

D.A. NO.	RUN	AREA (AC)	C	Tc (MIN)	100-YR (in/hr)	CUMM AREA (AC)	WEIGHTED C	Q 100-YR (CFS)
DA-S1	S1 TO POND	0.61	0.55	10	9.369	0.61	0.55	3.14
DA-S2	S2 TO I-4	0.52	0.55	10	9.369	0.52	0.55	2.68

DITCH CAPACITY

ID	NGELEV FT	PROP FL FT	DITCH DEPTH (D) FT	DITCH BOTTOM (W) FT	SIDE SLOPE	CROSS SEC AREA (A) SF	WET PERIMETER (P) FT	HYDRAULIC RADIUS (R)'	ROUGHNESS COEFFICIENT	SLOPE (S) FT/FT	CAPACITY (Q) CFS	REQUIRED CAPACITY (Q) CFS
S1	26.2	25.4	0.8	0	4	2.56	6.4	0.40	0.025	0.0025	4.1	3.14
S2	26.2	25.3	0.9	0	4	3.24	7.2	0.45	0.025	0.001	3.6	2.68

AREA=4*D*D/2 + W*D
P=8*D+W (APPROXIMATE)
Q=1.49/N*R^(2/3)*S^(1/2)*A

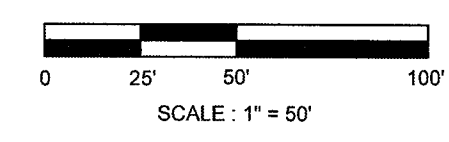
ORIFICE EQUATION

$Q = C_d A \sqrt{2gH}$

Where:

Cd	=	0.8
G	=	32.2
H	=	7.5
Q	=	12
A	=	0.68

USE 10" Dia. = 0.54 SF FOR RESTRICTOR



LEGEND:

PROP. 100 YEAR FLOW PATH →

PROP. 5 YEAR FLOW PATH →

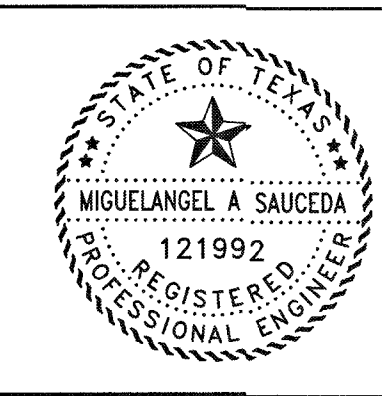
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B & L
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ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4659
REG. NO. F-825



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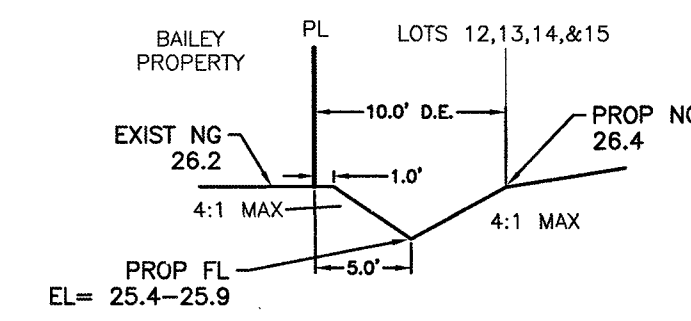
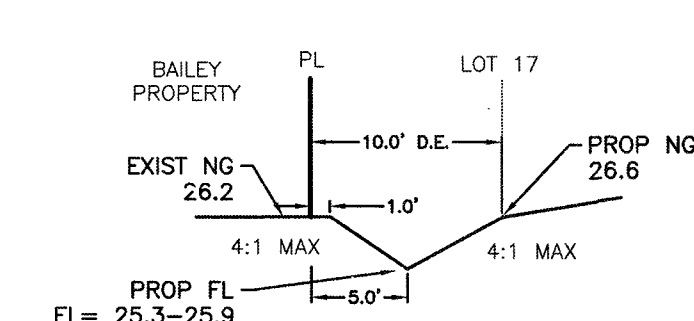
PLAN: 1" = 50'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

DRAINAGE AREA MAP
AND STORM SEWER
LAYOUT

PROJECT NO. 13454

10
207



TYPICAL CROSS SECTION OF

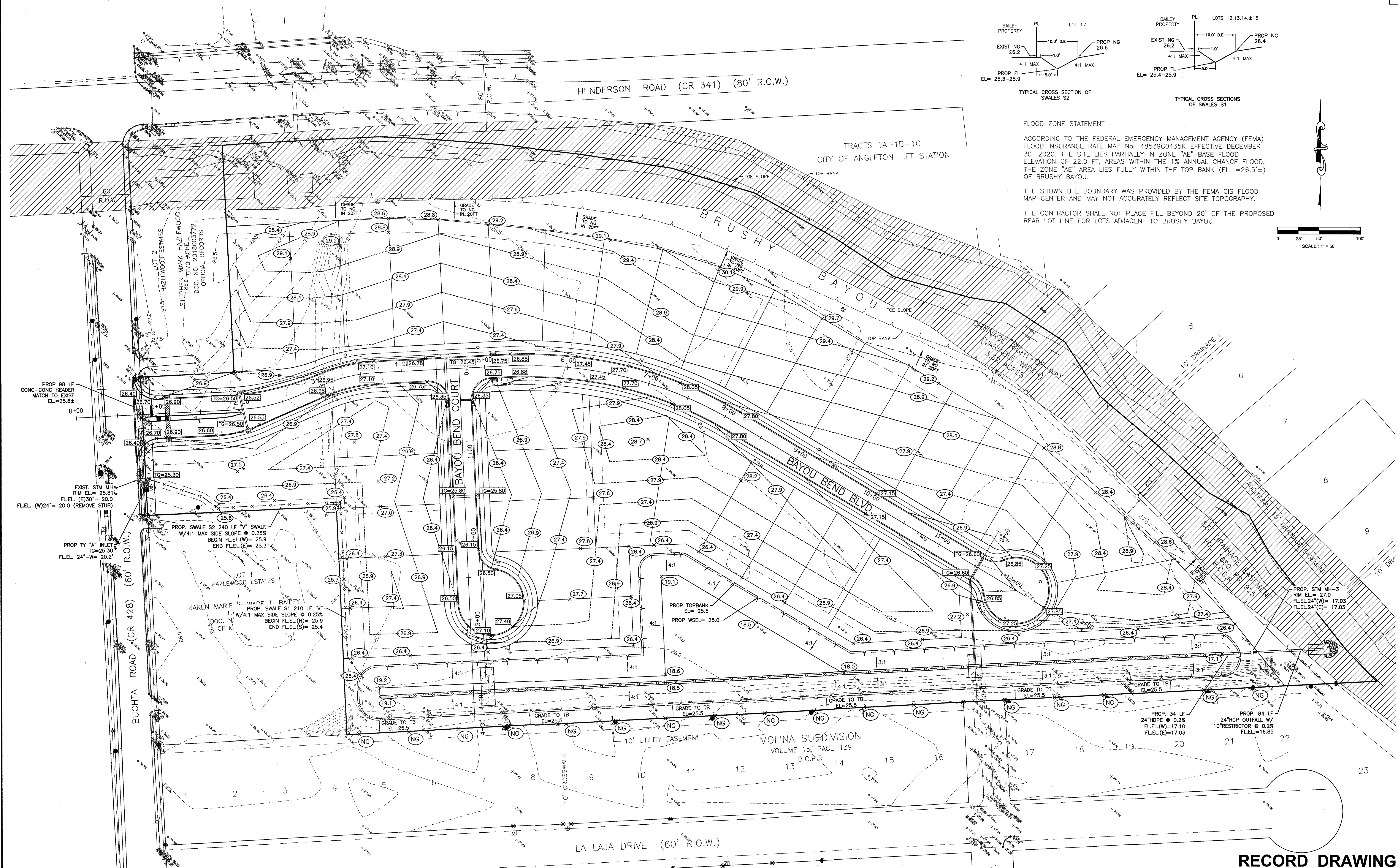
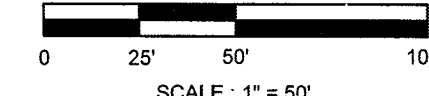
TYPICAL CROSS SECTIONS
OF SWALES S1

FLOOD ZONE STATEMENT

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48539C0435K EFFECTIVE DECEMBER 30, 2020, THE SITE LIES PARTIALLY IN ZONE "AE" BASE FLOOD ELEVATION OF 22.0 FT, AREAS WITHIN THE 1% ANNUAL CHANCE FLOOD. THE ZONE "AE" AREA LIES FULLY WITHIN THE TOP BANK (EL. = 26.5'±) OF BRUSHY BAYOU.

THE SHOWN BFE BOUNDARY WAS PROVIDED BY THE FEMA GIS FLOOD
MAP CENTER AND MAY NOT ACCURATELY REFLECT SITE TOPOGRAPHY.

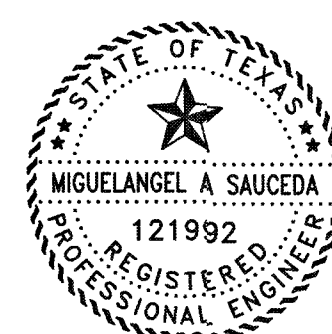
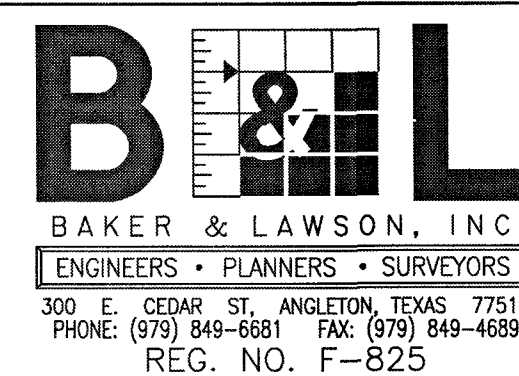
THE CONTRACTOR SHALL NOT PLACE FILL BEYOND 20' OF THE PROPOSED REAR LOT LINE FOR LOTS ADJACENT TO BRUSHY BAYOU.




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**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

GRADING PLAN

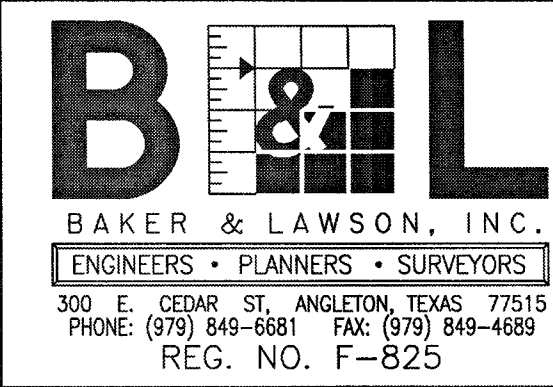
PROJECT NO. 13454

CUT AND FILL

PROJECT NO. 13454

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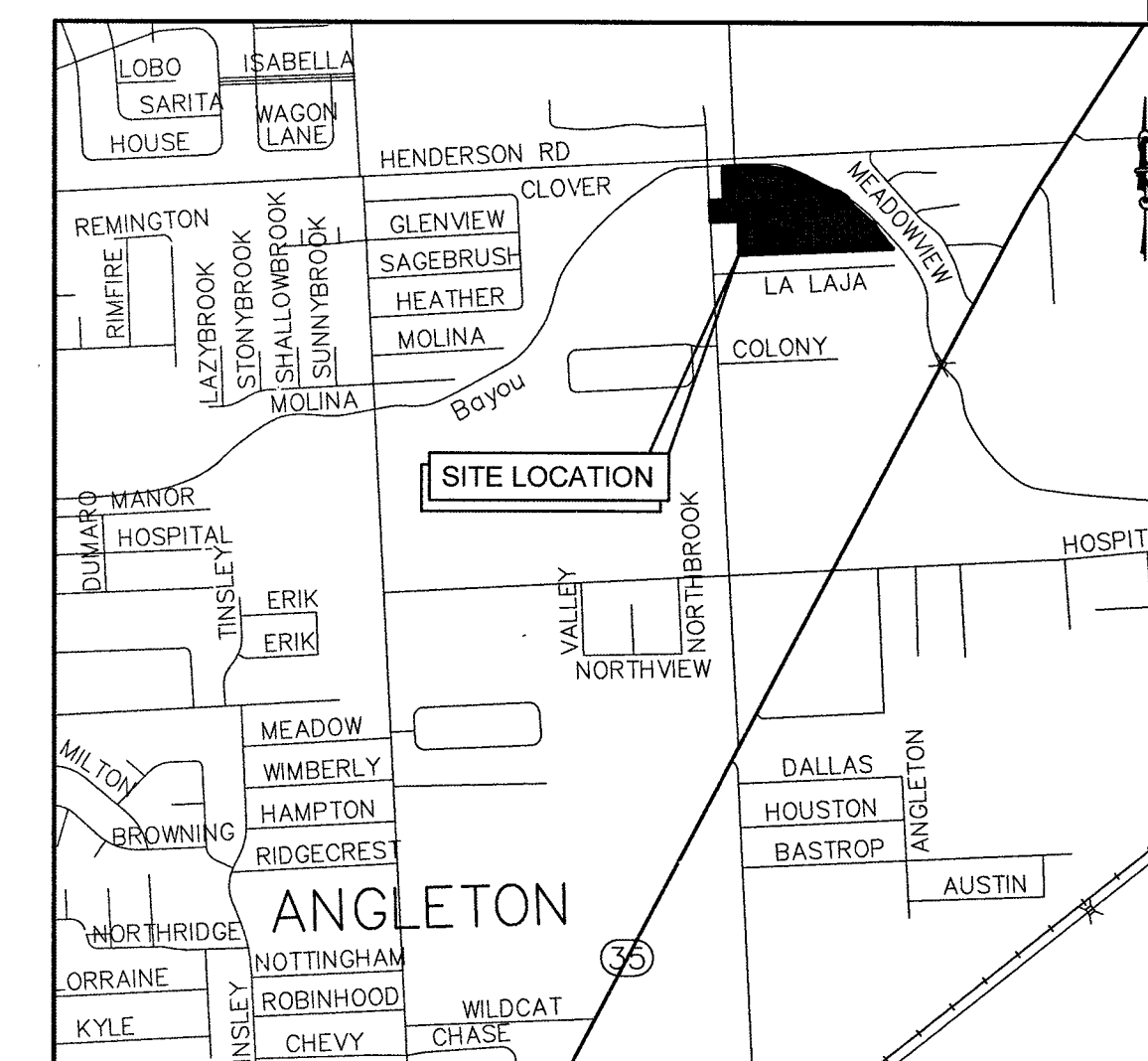
PLAN: 1" = 50'

PROFILE: _____

HORIZONTAL: _____

VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**



PROJECT/SITE INFORMATION

08/01/2021
MONTH/DAY/YEAR

ESTIMATED CONSTRUCTION START DATE

02/01/2022
MONTH/DAY/YEAR

ESTIMATED COMPLETION DATE

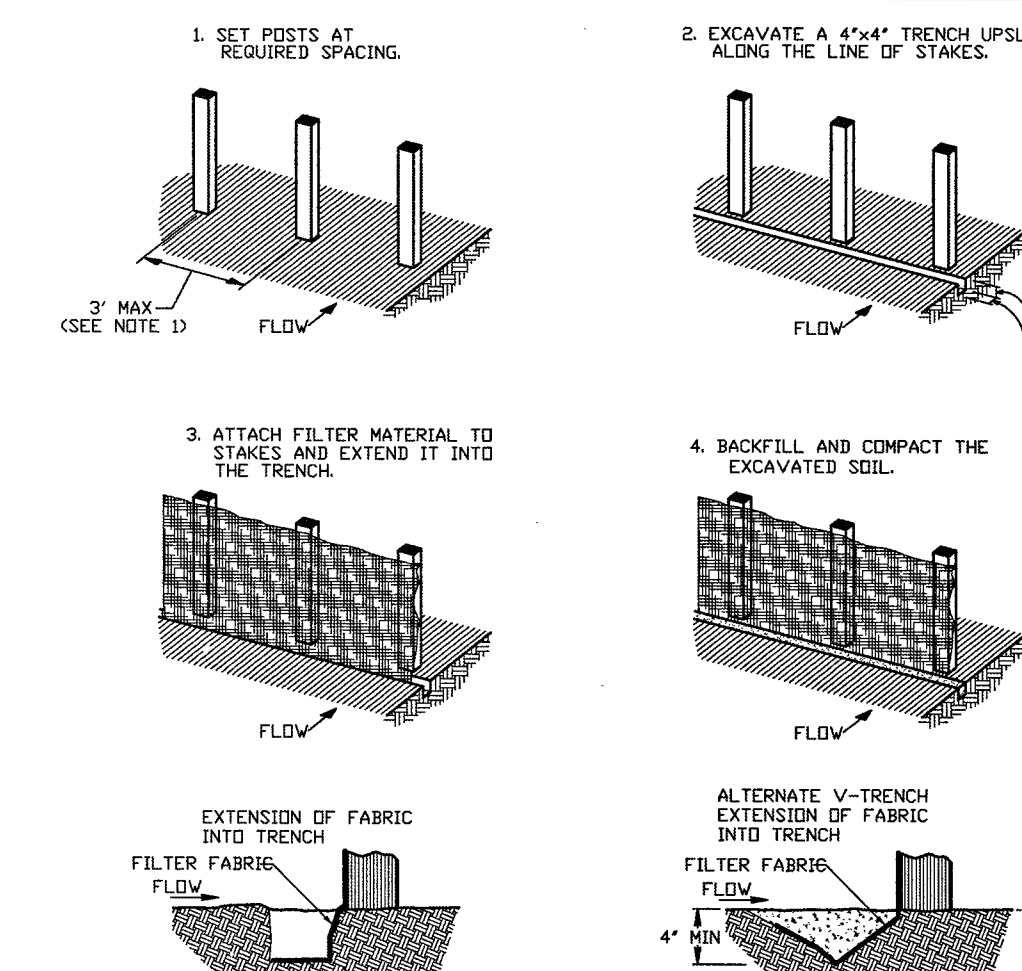
ESTIMATE OF AREA TO BE DISTURBED: 13.5 ACRES

ESTIMATE OF LIKELIHOOD OF DISCHARGE:

☐ UNLIKELY ☐ ONCE PER WEEK ☐ CONTINUAL
☒ ONCE PER MONTH ☐ ONCE PER DAY

☐ YES ☒ NO

(a) ☒ (b) ☐ (c) ☐ (d) ☐



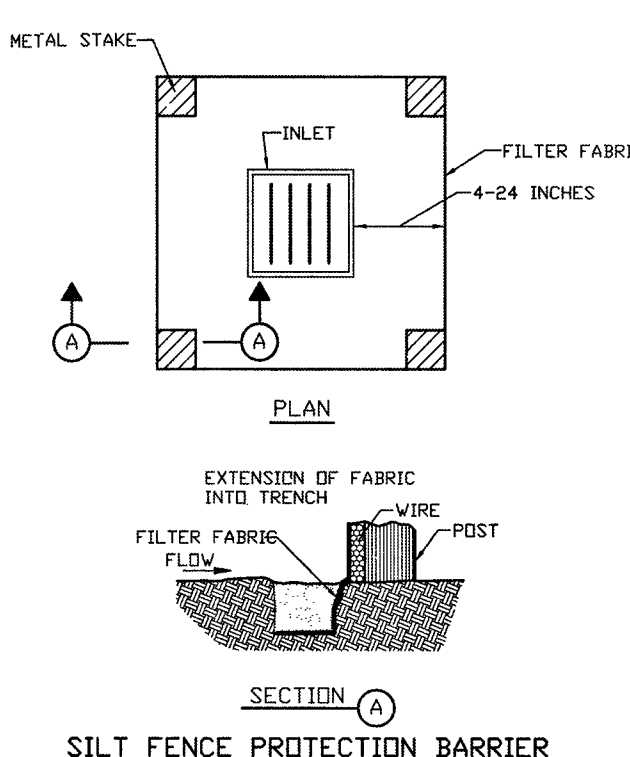
CONSTRUCTION NOTES:

1. 1 INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES IF PREASSEMBLED FENCE WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
2. ATTACH FILTER FABRIC TO WOODEN STAKES. FILTER FABRIC HEIGHT SHALL HAVE A MIN HEIGHT OF 18 INCHES AND MAX HEIGHT OF 36 INCHES ABOVE NATURAL GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS,




FILTER FABRIC FENCE

RECORD DRAWING

CONTRACTOR SHALL INSTALL 16" WIDE SOD BEHIND
NEWLY CONSTRUCTED BACK OF CURB AND SIDEWALKS. SILT FENCING (3400 LF)
MAY BE USED IN LIEU OF SOD

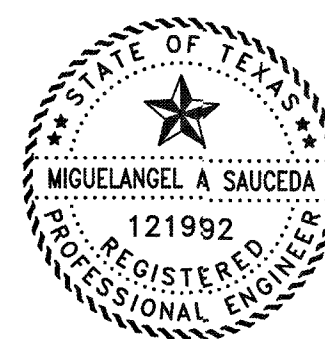
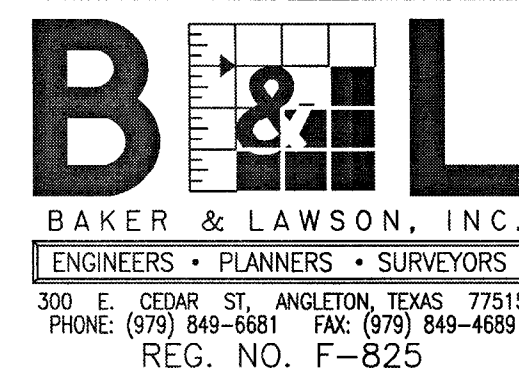


LEGEND


- | | |
|---|--|
|  | SILT FENCE AROUND STRUCTURE UNDER CONSTRUCTION |
|  | SILT FENCE ACROSS EXISTING DITCH REINFORCED FILTER BARRIER |
|  | HYDROMULCH SEED |

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 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

SWPPP LAYOUT AND DETAILS

PROJECT NO. 13454

1. SITE DESCRIPTION

A. NATURE OF THE CONSTRUCTION ACTIVITY: BAYOU BEND ESTATES SUBDIVISION ANGLETON, BRAZORIA COUNTY, TEXAS, BEING 13.5 ACRE DEVELOPED AREA WHICH WILL BE A RESIDENTIAL SUBDIVISION OF 36 LOTS (60 FT WIDE MINIMUM). CONSTRUCTION WILL INCLUDE UNDERGROUND UTILITIES, STORM SEWER, CONCRETE ROADWAYS WITH 4" CURB, AND DETENTION POND.

B. INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES: STREET RIGHT OF WAY AND LOT AREAS WILL BE STRIPPED OF ALL VEGETATIVE MATTER. THIS MATERIAL WILL BE STOCKPILED AT THE SITE TO BE SPREAD OVER THE LOTS AFTER FINAL GRADING. THE DETENTION POND WILL BE EXCAVATED AND MATERIAL WILL BE SPREAD ON THE SITE. UTILITY AND STORMSEWER WILL REQUIRE TRENCHING WITH SPOILS TO BE SPREAD ON THE LOTS. RAINFALL RUNOFF WILL BE DIRECTED TO THE STREET GUTTERS AND THE CONSTRUCTED STORM SEWER. TRUCKS WILL BE USED TO DELIVER MATERIALS TO THE SITE AND INCLUDE LIME, CONCRETE, AND PIPE. TRUCKS WILL ALSO BE USED TO HAUL MATERIAL AWAY FROM THE SITE. THE TRUCKS WILL BE ROUTED ALONG BUCHTA ROAD FOR INGRESS AND EGRESS. RUTTING ON SITE DURING WET WEATHER WILL PROVIDE POTENTIAL FOR TRACKING MUD ALONG BUCHTA ROAD. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD TRACTED ONTO BUCHTA ROAD DAILY.

C. TOTAL PROJECT AREA: 15.87 ACRES

D. TOTAL AREA TO BE DISTURBED: 13.5 ACRES

WEIGHTED RUNOFF COEFFICIENT
(BEFORE CONSTRUCTION): 0.30 (AFTER CONSTRUCTION): 0.55

E. REFER TO GENERAL LOCATION MAP AND SITE MAP FOR DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES; AREAS OF SOIL DISTURBANCE; AREAS WHICH WILL NOT BE DISTURBED; LOCTIONS OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS; LOCATIONS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR; LOCATION OF OFF-SITE MATERIAL, WASTE, BORROW OR EQUIPMENT STORAGE AREAS; SURFACE WATERS (INCLUDING WETLANDS); AND LOCATIONS WHERE STORM WATER DISCHARGES TO A SURFACE WATER.

F. LOCATION AND DESCRIPTION OF ANY DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION:

G. NAME OF RECEIVING WATERS: DRAINAGE WILL BE COLLECTED IN THE PROPOSED DETENTION POND WHICH WILL DRAIN THRU A RESTRICTIVE OUTLET INTO BRUSHY BAYOU.

AREAL EXTENT AND DESCRIPTION OF WETLAND OR SPECIAL AQUATIC SITE AT OR NEAR THE SITE WHICH WILL BE DISTURBED OR WHICH WILL RECEIVE DISCHARGES FROM DISTURBED AREAS OF THE PROJECT. _____

NONE

H. REFER TO FEDERAL REGISTER, VOLUME 63, NO.128, MONDAY JULY 6, 1998, PAGES 36497 TO 36515 FOR REQUIREMENTS OF NPDES GENERAL PERMITS FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES IN REGION 6.

I. LISTED ENDANGERED OR THREATENED SPECIES OR CRITICAL HABITAT FOUND IN PROXIMITY TO THE CONSTRUCTION ACTIVITY: _____

NONE

J. PROPERTY LISTED OR ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES:

NONE

2. CONTROLS

NARRATIVE - SEQUENCE OF CONSTRUCTION ACTIVITIES AND APPROPRIATE CONTROL MEASURES DURING CONSTRUCTION

1. INSTALL SILT FENCE ALONG THE PERIMETER OF THE WORK AREA. CONSTUCT THE STABILIZED CONSTRUCTION ENTRANCE.

2. STRIPPING OF ALL VEGETATION MAY BEGIN. REMOVED VEGETATION WILL BE STOCKPILED AT THE SITE.

2. CUT ALL PERIMETER SWALES SHOWN ON THE LOT GRADING PLAN. THE DETENTION POND WILL BE EXCAVATED AND SPOILS WILL BE SPREAD ON SITE. INSTALL THE RESTRICTIVE OUTLET TO THE POND. COVER THE OUTLET WITH A ROCK BERM. HYDROMULCH THE POND SIDE SLOPES.

3. INSTALL WATERLINE, SANITARY SEWER, SERVICE LEAD, STORM SEWER, INLETS, AND MANHOLES. PROVIDE INLET PROTECTION ON ALL INLETS. ALL SPOILS FROM TRENCHING WILL BE SPREAD ON THE ADJACENT LOTS.

4. BEGIN ROADWAY EXCAVATION, LIME STABILIZATION, AND CONCRETE PAVING.

5. INSTALL CONCRETE CURB. PLACE AN 16" WIDE STRIP OF SOD BEHIND THE CURB. FILTER FABRIC FENCE INSTALLED FLUSH WITH BACK OF CURB MAY BE USED IN LIEU OF SOD.

6. PERFORM FINAL GRADE ON LOTS. SPREAD STOCKPILED VEGETATIVE MATERIAL OVER LOTS. SEED AND FERTILIZED ALL AREAS TO ENSURE GROWTH.

A. EROSION AND SEDIMENT CONTROLS: EROSION AND SEDIMENT CONTROLS SHALL RETAIN SEDIMENT ON SITE TO THE EXTENT PRACTICABLE. CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS (WHERE APPLICABLE) AND GOOD ENGINEERING PRACTICES. OFFSITE SEDIMENT ACCUMULATIONS MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS WHEN CAPACITY HAS BEEN REDUCED BY 50%. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORM WALL SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORM WATER DISCHARGES.

SOIL STABILIZATION PRACTICES:	OWNER/ DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
TEMPORARY SEEDING				
PERMANENT PLANTING, SODDING, OR SEEDING		X		
MULCHING- WHERE INDICATED		X		
SOIL RETENTION BLANKET				
VEGETATIVE BUFFER STRIPS				
PRESERVATION OF NATURAL RESOURCES				
OTHER: (RIP RAP)		X		

THE FOLLOWING RECORDS SHALL BE MAINTAINED AND ATTACHED TO THIS SWPPP:
DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED.

STRUCTURAL PRACTICES:	OWNER/ DEVELOPER	GENERAL CNTRTR.	BUILDER	OTHER
SILT FENCES		X		
HAY BALES				
ROCK BERMS		X		
DIVERSION, INTERCEPTOR, OR PERIMETER DIKES				
DIVERSION, INTERCEPTOR, OR PERIMETER SWALES		X		
DIVERSION DIKE AND SWALE COMBINATIONS				
PIPE SLOPE DRAINS				
ROCK BEDDING AT CONSTRUCTION EXIT		X		
TIMBER MATTING AT CONSTRUCTION EXIT				
SEDIMENT TRAPS (AT INLETS)		X		
SEDIMENT BASINS				
STORM INLET PROTECTION		X		
STONE OUTLET STRUCTURES				
OTHER:				

B. STORM WATER MANAGEMENT MEASURES INSTALLED DURING CONSTRUCTION TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION:

CURBS & GUTTERS STORM SEWERS

C. OTHER CONTROLS

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE UNITED STATES, EXCEPT AS AUTHORIZED BY A PERMIT ISSUED UNDER SECTION 404 OF THE CLEAN WATER ACT.

WASTE MATERIALS: ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL CONTAINER. THE CONTAINER SHALL MEET ALL STATE AND CITY SOLID WASTE MANAGEMENT REGULATIONS. THE CONTAINER SHALL BE EMPTIED AS NECESSARY AND THE TRASH HAULED TO AN APPROPRIATE DUMP SITE. NO CONSTRUCTION MATERIALS WILL BE BURIED ON SITE.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS: PAINT, CLEANING SOLVENTS, ASPHALT PRODUCTS, PETROLEUM PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, AND CONCRETE CURING COMPOUNDS AND ADDITIVES. IN THE EVENT OF A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR SHOULD BE CONTACTED IMMEDIATELY.

SANITARY WASTE: PORTABLE SANITARY FACILITIES WILL BE PROVIDED BY THE CONTRACTOR. ALL SANITARY WASTES WILL BE COLLECTED FROM PORTABLE UNITS AND SERVICED BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

OFFSITE VEHICLE TRACKING SHALL BE MINIMIZED BY:

HAUL ROADS DAMPENED FOR DUST CONTROL LOADED
X HAUL TRUCKS TO BE COVERED WITH TARPULIN
X EXCESS DIRT ON ROAD REMOVED DAILY STABILIZED
CONSTRUCTION ENTRANCE

OTHER: TRUCKS HAULING VEGETATION AND DEBRIS WILL BE MONITORED AND SHALL BE COVERED WITH TARPULINS IF REQUIRED TO PREVENT DUST OR OTHER PARTICLES FROM BLOWING OR FALLING FROM TRUCK.

REMARKS: ALL OPERATIONS WILL BE CONDUCTED IN A MANNER THAT WILL MINIMIZE AND CONTROL THE AMOUNTS OF SEDIMENT THAT MAY ENTER THE RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WETLAND, WATERBODY, OR STREAMBED. CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED BY THE CONTRACTOR IN A MANNER TO MINIMIZE THE RUNOFF OF POLLUTANTS.

3. MAINTENANCE

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF A REPAIR IS NECESSARY IT SHALL BE DONE AT THE EARLIEST TIME POSSIBLE, BUT NO LATER THAN SEVEN CALENDAR DAYS AFTER THE GROUND HAS DRIED SUFFICIENTLY TO PREVENT FURTHER DAMAGE FROM HEAVY EQUIPMENT. THE AREAS ADJACENT TO DRAINAGE WAYS SHALL HAVE PRIORITY, FOLLOWED BY DEVICES PROTECTING STORM SEWER INLETS. MAINTENANCE SHALL BE PERFORMED BEFORE THE NEXT ANTICIPATED STORM EVENT OR AS SOON AS PRACTICABLE.

4. INSPECTION

AN INSPECTION WILL BE PERFORMED BY THE PERMITEE EVERY FOURTEEN DAYS AS WELL AS AFTER EVERY ONE-HALF INCH OR GREATER RAINFALL EVENT. AN INSPECTION AND RAINFALL REPORT WILL BE MADE AFTER EACH INSPECTION. ANY DEFICIENCIES WILL BE NOTED AND APPROPRIATE CHANGES SHALL BE MADE TO THE SYSTEM TO COMPLY WITH REQUIREMENTS.

5. NON-STORMWATER DISCHARGES

FIRE HYDRANT FLUSHING
X BUILDING WASHDOWN WITHOUT DETERGENTS
X PAVEMENT WASHDOWN WITHOUT DETERGENTS
X CONDENSATE
UNCONTAMINATED GROUNDWATER
UNCONTAMINATED FOUNDATION DRAINS

RECORD DRAWING

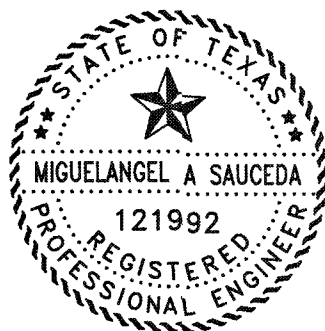
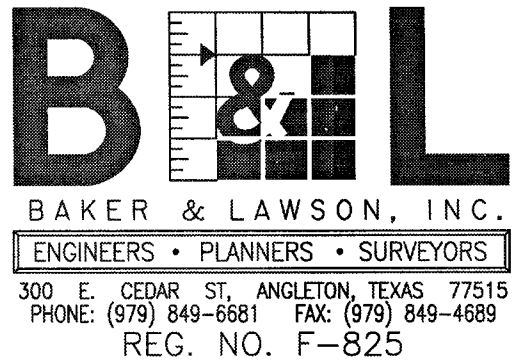
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BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

SWPPP NARRATIVE

PROJECT NO. 13454

Drainage Analysis

Job # 13454 - Hazelwood, Buchta Rd, Angleton TX

Rainfall Intensity calculations for Brazoria County

i	=	intensity (in/hr)
b	=	coefficient
t	=	time of concentration
d	=	coefficient
e	=	coefficient

subscript	i=1 = 2year storm
	i=2 = 5 year storm
	i=3 = 10 year storm
	i=4 = 25 year storm
	i=5 = 50 year storm
	i=6 = 100 year storm

$$i := 1..6$$

$b_i :=$	$k_b :=$	$d_i :=$
75.5	0.807	14.7
82.8	0.775	16.9
88.1	0.756	18.4
100.8	0.753	19.1
107.3	0.742	19.8
120.2	0.741	21.3

$$T_{c0} := 32.1$$

ENTER PREDEVELOPMENT
TIME OF CONCENTRATION

$$I_i := \frac{b_i}{(d_i + T_{c0})^{e_i}}$$

 $I_6 = 6.307$ Predevelopment
Intensity of interest

$$C_{p0} := .1269$$

ENTER PREDEVELOPMENT C VALUE

$$A_{p0} := 15.1$$

ENTER AREA

$$C_F := 1.00$$

$$Q := C \cdot C_F \cdot I_6 \cdot A$$

$$Q = 12.085$$

Must Insert correct subscript for I to obtain the relevant Q

$$V_{stor} := (C) \cdot A \cdot 43560 \cdot 1.08$$

$$V = 9.015 \times 10^4$$

For these calculations, total volume storage is assumed to
equal (C)*A with A converted to square feet multiplied
by 13" (1.08')DEVELOPMENT OF RUNOFF HYDROGRAPH
MALCOM'S METHOD AS DESCRIBED IN THE
BRAZORIA COUNTY DRAINAGE CRITERIA
MANUAL

$$T := \frac{V}{1.39 \cdot Q} \quad T = 5.367 \times 10^3$$

T = Time to peak, presented as a function
of volume and peak flow and therefore
indirectly related to time of concentration

$$t := 0, 1000..84000$$

$$f(t) := \left(\frac{Q}{2}\right) \cdot \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$$

f(t) describes rising limb of hydrograph

$$g(t) := 4.34 \cdot Q \cdot \exp\left[-1.30 \cdot \left(\frac{t}{T}\right)\right]$$

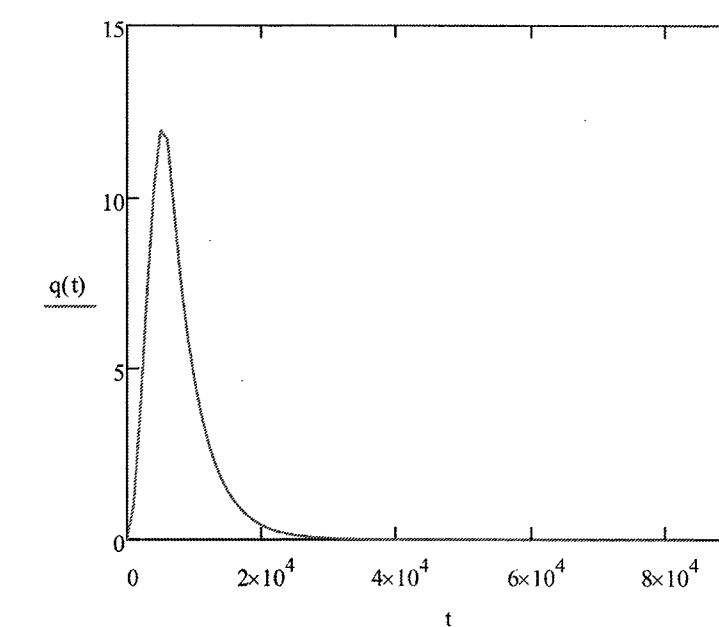
g(t) describes descending limb of hydrograph

$$q(t) := \text{if}(t \leq 1.25 \cdot T, f(t), g(t))$$

$$\text{Volume}_{pre} := \int_0^{86400} q(t) dt$$

$$\text{Volume}_{pre} = 9.047 \times 10^4$$

Predevelopment hydrograph



$$T_{c0} := 29.1$$

ENTER POST DEVELOPMENT TIME OF
CONCENTRATION

$$I_i := \frac{b_i}{(d_i + T_{c0})^{e_i}}$$

 $I_6 = 6.583$ Post development I of interest

$$C_{p0} := 0.55$$

ENTER POST DEVELOPMENT C FACTOR
REVISE C1 AND AREA IF NECESSARY

$$C_{p0} := 1.25$$

$$Q_{p0} := C \cdot I_6 \cdot A \cdot C_F$$

$$Q = 68.337$$

$$V_{stor} := (C) \cdot A \cdot 43560 \cdot 1.08$$

$$V = 3.907 \times 10^5$$

$$T := \frac{V}{1.39 \cdot Q} \quad T = 4.113 \times 10^3$$

$$t := 0, 1000..25000$$

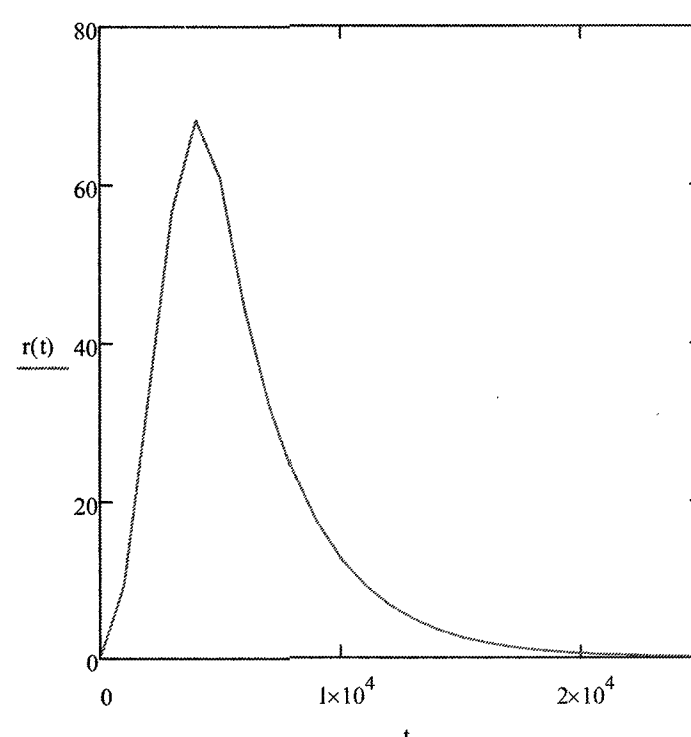
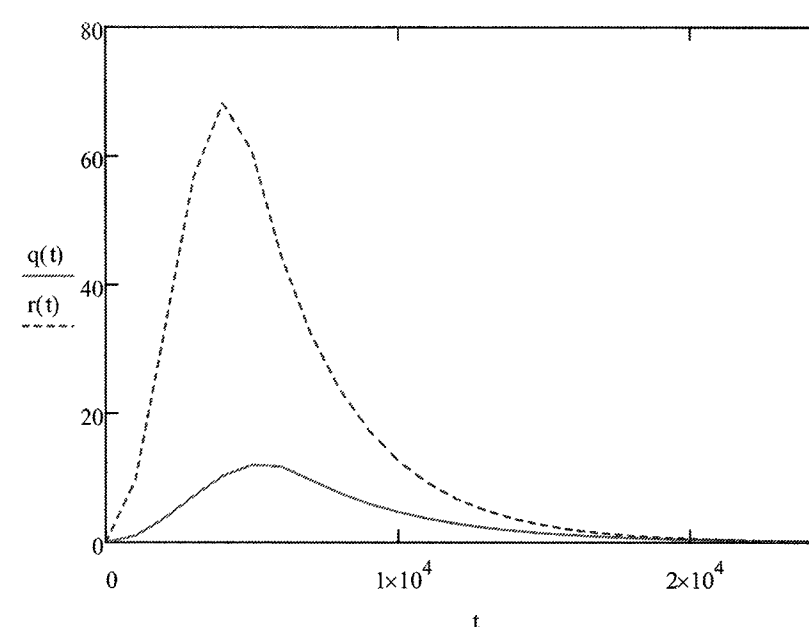
$$f(t) := \left(\frac{Q}{2}\right) \cdot \left(1 - \cos\left(\frac{t \cdot \pi}{T}\right)\right)$$

$$g(t) := 4.34 \cdot Q \cdot \exp\left[-1.30 \cdot \left(\frac{t}{T}\right)\right]$$

$$r(t) := \text{if}(t \leq 1.25 \cdot T, f(t), g(t))$$

$$\text{Volume}_{post} := \int_0^{86400} r(t) dt$$

$$\text{Volume}_{post} = 3.921 \times 10^5$$

Post development
hydrographCombined pre and post development
hydrographs

$$ff(t) := ((r(t) - q(t))) \cdot 1$$

$$v(t) := \text{if}(ff(t) > 0, ff(t), 0)$$

THE REQUIRED STORAGE COMPUTED
AS THAT PART OF THE POST DEVELOPMENT
HYDROGRAPH THAT FALLS ABOVE THE
PREDEVELOPMENT HYDROGRAPH

ACRE-Feet

$$\int_0^{86400} v(t) dt$$

$$\frac{121992}{43560} = 6.928$$

Hydrological and Hydraulic Impacts
Hazelwood - Buchta Road, Angleton TX
Job # 13454

Brazoria County, Texas

A = 15.1 Acre Development :

Pre Development:

C = 0.1269
TC = 32.1 Minutes, I = 6.307 in/hr
Q = 100 Year Storm = 12.085 cfs

Post Development

C = 0.55
T/C = 29.1 Minutes, I = 6.583 in/hr
Q = 100 Year Storm = 68.337 cfs

Required Detention:

6.928 acre - feet (301,784 c.f.)

Maximum allowable outfall rate is 0.80 cfs/acre
as according to Bra Co Master Study for
Drainage Areas BB35 & BB36 of Bastrop Bayou

Pre Q100= 0.80 x 15.1 = 12.08 CFS

Miguel Saucedo, P.E. December 18, 2020

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

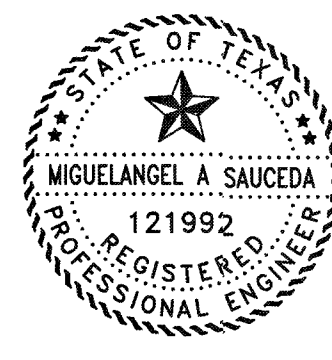
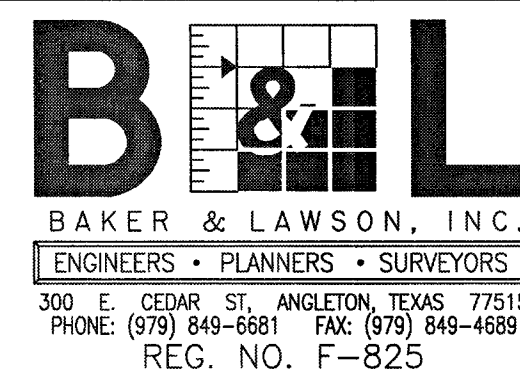
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Miguel Saucedo
P.E. 121992

Date: 11/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTIONHYDROLOGICAL
CALCULATIONS

PROJECT NO. 13454

Winstorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 6/17/2021 9:36:27 AMPROJECT NAME : BAYOU BEND
JOB NUMBER : 13454
PROJECT DESCRIPTION :
DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY OF: 5 Years

Runoff Computation for Design Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (cfs)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-3	0.55	1.67	10.00	10.00	7.99	0.000	7.336
A-4	0.55	0.83	10.00	10.00	7.99	0.000	3.646
A-5	0.55	1.38	10.00	10.00	7.99	0.000	6.062
A-1	0.55	0.38	10.00	10.00	7.99	0.000	1.669
A-2	0.55	0.94	10.00	10.00	7.99	0.000	4.129

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/Perim. (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth Allowed (ft)	Critic Elev.
A-3	Curb	10.00	n/a	0.50	2.00	0.014	1.50	26.70
A-4	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.00
A-5	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.00
A-1	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.60
A-2	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.60

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left Right
A-3	Curb	10.00	n/a	7.336	10.327	0.398	12.70 12.70
A-4	Curb	5.00	n/a	3.646	6.261	0.349	9.80 9.80
A-5	Curb	5.00	n/a	6.062	6.261	0.489	11.85 11.85
A-1	Curb	5.00	n/a	1.669	6.261	0.207	7.30 7.30
A-2	Curb	5.00	n/a	4.129	6.261	0.379	10.25 10.25

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr. Area (in/hr)	Cumulat. Tc (cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node	Total Disch.
A-3	Curb	0.550	2.99	11.36	11.40	0.000	0.00	12.375
A-4	Curb	0.550	3.82	12.02	11.13	0.000	0.00	15.401
A-5	Curb	0.550	5.20	12.12	11.09	0.000	0.00	20.880
A-1	Curb	0.550	0.38	10.00	12.00	0.000	0.00	2.508
A-2	Curb	0.550	1.32	10.23	11.89	0.000	0.00	8.632
MH-1	Circ	0.550	1.32	10.26	7.90	0.000	0.00	5.737
OUT	Outlet	0.550	5.20	12.29	7.30	0.000	0.00	20.880

Conveyance Configuration Data

Run#	Node US	I.D. DS	Flowline US	Elev. DS	Shape #	Span	Rise	Length	Slope	n_valu	
(ft)	(ft)		(ft)	(ft)	(ft)	(%)					
1	A-1	A-2	20.46	20.33	Circ	1	0.00	1.50	44.00	0.30	0.01
2	A-2	MH-1	20.33	20.06	Circ	1	0.00	2.00	142.00	0.19	0.01
3	MH-1	A-3	20.06	19.83	Circ	1	0.00	2.00	104.00	0.22	0.01
4	A-3	A-4	19.83	19.51	Circ	1	0.00	2.50	164.00	0.20	0.01
5	A-4	A-5	19.51	19.45	Circ	1	0.00	2.50	28.00	0.21	0.01
6	A-5	OUT	19.45	19.00	Circ	1	0.00	3.00	224.00	0.20	0.01

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run#	US Elev	Gradeline	Fr.Slope	Depth	Actual	Velocity	Unif. Actual	Cap	Junc
(ft)	(ft)	(%)	(ft)	(ft)	(ft/s)	(cfs)	(cfs)	(ft)	Loss
1	22.54	22.53	0.025	0.55	1.50	2.84	0.94	1.67	5.71
2	22.53	22.44	0.064	1.09	2.00	3.26	1.83	5.74	9.87
3	22.44	22.37	0.064	1.05	2.00	3.45	1.83	5.74	10.64
4	22.37	22.22	0.091	1.52	2.50	3.95	2.52	12.37	18.12
5	22.22	22.18	0.141	1.72	2.50	4.28	3.14	15.40	18.99
6	22.18	22.00	0.098	1.88	3.00	4.49	2.95	20.88	29.90

OUTPUT FOR ANALYSIS FREQUENCY OF: 100 Years

Runoff Computation for Analysis Frequency.

Winstorm (STORM DRAIN DESIGN)

Version 3.05, Jan. 25, 2002
Run @ 4/28/2021 3:58:12 PMPROJECT NAME : BAYOU BEND
JOB NUMBER : 13454
PROJECT DESCRIPTION :
DESIGN FREQUENCY : 5 Years
ANALYSIS FREQUENCY : 100 Years
MEASUREMENT UNITS: ENGLISH

OUTPUT FOR DESIGN FREQUENCY OF: 5 Years

Runoff Computation for Design Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (cfs)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-6	0.55	2.35	10.00	10.00	7.99	0.000	10.323
A-7	0.55	1.20	10.00	10.00	7.99	0.000	5.271

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/Perim. Area (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth Allowed (ft)	Critic Elev.
A-6	Curb	10.00	n/a	0.50	2.00	0.014	1.50	26.70
A-7	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.70

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left Right
A-6	Curb	10.00	n/a	10.323	10.327	0.500	14.45 14.45
A-7	Curb	5.00	n/a	5.271	6.261	0.446	11.25 11.25

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr. Area (in/hr)	Cumulat. Tc (cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node	Total Disch.
A-6	Curb	0.550	2.35	10.00	12.00	0.000	0.00	15.507
A-7	Curb	0.550	3.55	10.12	11.94	0.000	0.00	23.317
OUT	Outlet	0.550	3.55	10.12	11.94	0.000	0.00	23.317

Conveyance Configuration Data

Run#	Node I.D.		Flowline Elev.		Shape #	Span	Rise	Length	Slope	n_valu	
	US	DS	US	DS							
(ft)	(ft)		(ft)	(ft)	(ft)	(%)					
3	A-6	A-7	17.87	17.82	Circ	1	0.00	2.50	28.00	0.18	0.01
4	A-7	OUT	17.82	17.60	Circ	1	0.00	2.50	104.00	0.21	0.01

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Run#	Hydraulic Gradeline		Depth		Velocity		Q	Cap	Junc	
	US Elev (ft)	DS Elev (%)	Fr.Slope (ft)	Unif. Actual (ft)	Unif. Actual (f/s)	Actual (cfs)				
3	22.17	22.15	0.063	1.41	2.50	3.63	2.10	10.32	17.34	0.00
4	22.15	22.00	0.143	1.72	2.50	4.31	3.16	15.51	18.87	0.00

OUTPUT FOR ANALYSIS FREQUENCY OF: 100 Years

Runoff Computation for Analysis Frequency.

ID (acre)	C Value (min)	Area (min)	Tc (in/hr)	Tc Used (cfs)	Intensity (cfs)	Supply Q (cfs)	Total Q
A-6	0.55	2.35	10.00	10.00	12.00	0.000	15.507
A-7	0.55	1.20	10.00	10.00	12.00	0.000	7.918

Sag Inlets Configuration Data.

Inlet ID (ft)	Inlet Type	Length/Perim. Area (sf)	Grate Area (%)	Left-Slope Long Trans (%)	Right-Slope Long Trans (%)	Gutter n	Depth Allowed (ft)	Critic Elev.
A-6	Curb	10.00	n/a	0.50	2.00	0.014	1.50	26.70
A-7	Curb	5.00	n/a	0.50	2.00	0.014	1.50	26.70

Sag Inlets Computation Data.

Inlet ID (ft)	Inlet Type	Length (ft)	Grate Perim. Area (cfs)	Total Q (ft)	Inlet Capacity (ft)	Total Head (ft)	Ponded Width Left Right
A-6	Curb	10.00	n/a	15.507	13.436	0.583	16.85 16.85
A-7	Curb	5.00	n/a	7.918	6.718	0.597	13.10 13.10

Cumulative Junction Discharge Computations

Node I.D. (acres)	Node Type	Weighted C-Value (min)	Cumulat. Dr. Area (in/hr)	Cumulat. Tc (cfs)	Intens. (cfs)	User Supply Q (cfs)	Additional Q in Node	Total Disch.
A-6	Curb	0.550	2.35	10.00	12.00	0.000	0.00	15.507
A-7	Curb	0.550	3.55	10.12	11.94	0.000	0.00	23.317
OUT	Outlet	0.550	3.55	10.12	11.94	0.000	0.00	23.317

Conveyance Configuration Data

Run#	Node I.D.	Flowline Elev.	US	DS	Shape #	Span	Rise	Length	Slope	n_valu	
(ft)	US DS		US	DS	(ft)	(%)					
3	A-6	A-7	17.87	17.82	Circ	1	0.00	2.50	28.00	0.18	0.01
4	A-7	OUT	17.82	17.60	Circ	1	0.00	2.50	104.00	0.21	0.01

Conveyance Hydraulic Computations. Tailwater = 22.000 (ft)

Hydraulic		Gradeline		Depth		Velocity		Jun		
Run#	US Elev	DS Elev	Fr. Slope	Unif.	Actual	unif.	Actual	Q	Cap	Los
(ft)	(ft)	(%)	(ft)	(ft)	(f/s)	(f/s)	(cfs)	(cfs)	(ft)	
3	22.38	22.34	0.143	1.88	2.50	3.93	3.16	15.51	17.34	0.000
4	22.34	22.00	0.323	2.50	2.50	4.75	4.75	23.32	18.87	0.000

NORMAL TERMINATION OF WINSTORM.

RECORD DRAWING

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTIONWINDSTORM DATA
I-1 TO I-5
I-6 TO I-9

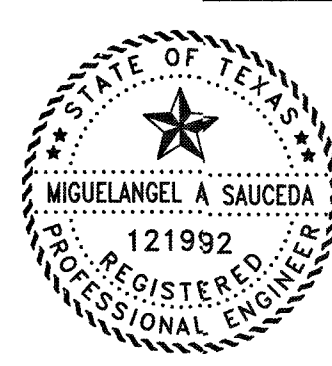
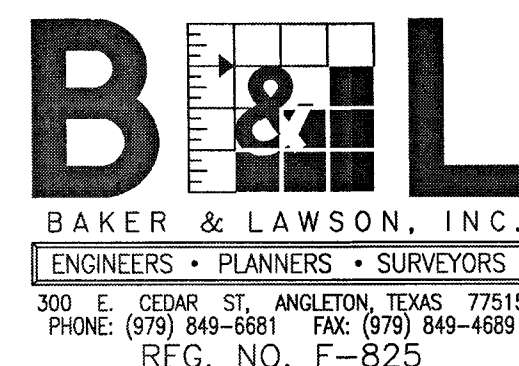
PROJECT NO. 13454

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Miguel Saucedo
P.E. 121992

Date: 1/11/22

OWNER:

Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:

PROFILE:

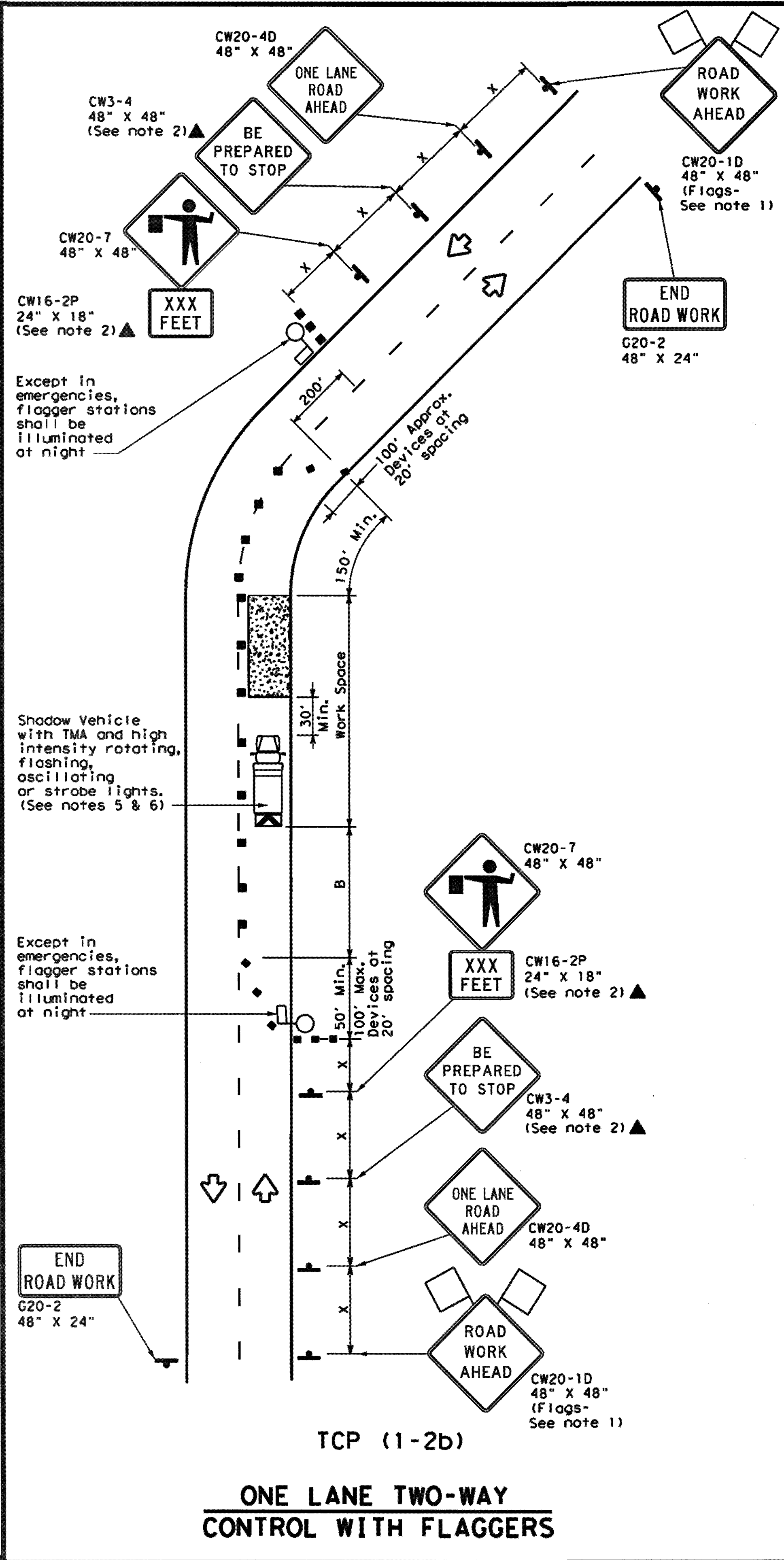
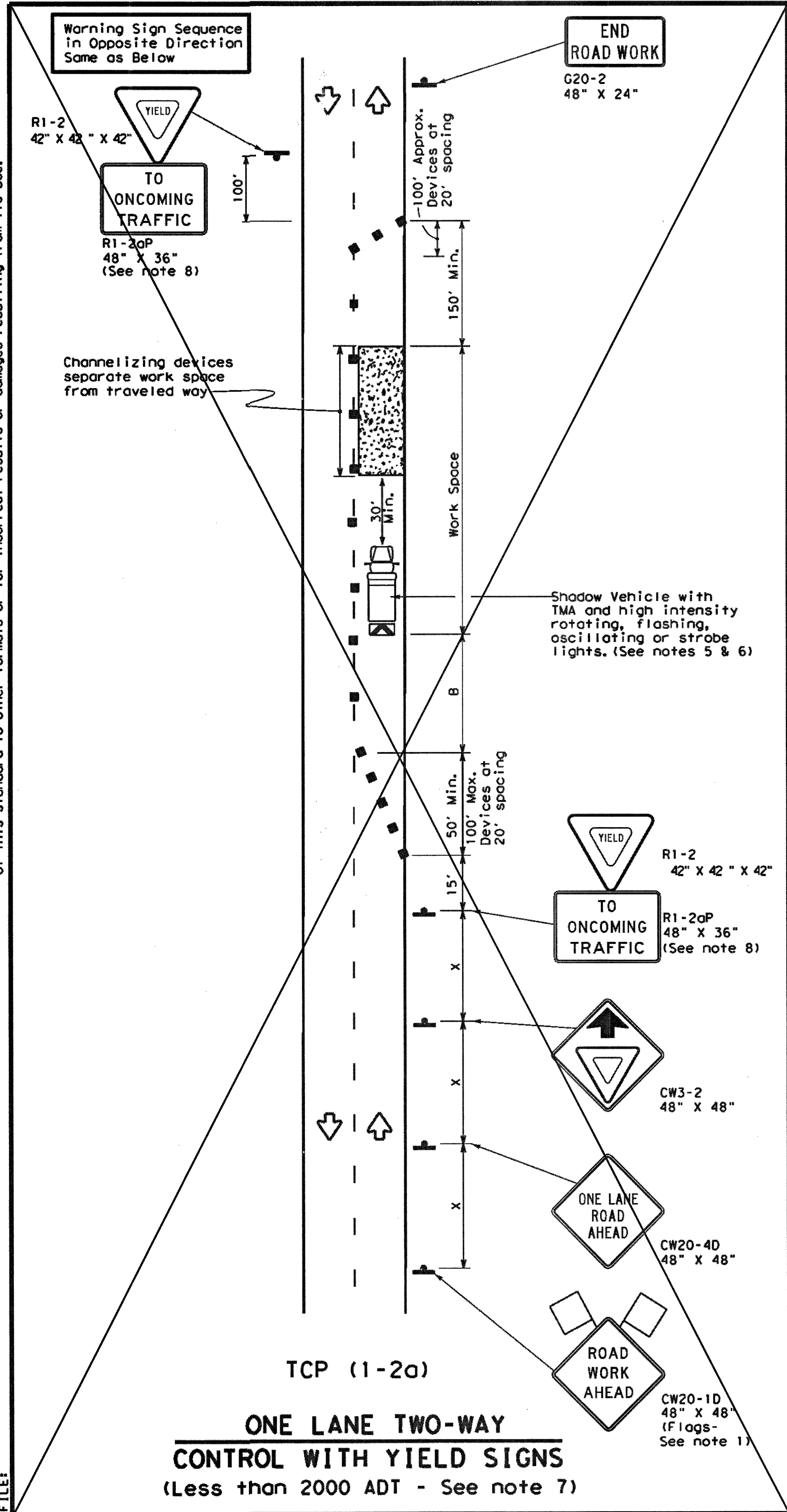
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DATE: FILE:



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

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "b"	Stopping Sight Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent			
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45		450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55	$L = WS$	550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

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

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
 - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4D "ONE LANE ROAD AHEAD" sign, but proper sign spacing shall be maintained.
 - Sign spacing may be increased or an additional CW20-1D "ROAD WORK AHEAD" sign may be used if advance warning ahead of the flagger or R1-2 "YIELD" sign is less than 1500 feet.
 - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
 - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- TCP (1-2a)**
- R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work spaces should be no larger than one half city block. In rural areas on roadways with less than 2000 ADT, work spaces should be no longer than 400 feet.
 - R1-2 "YIELD" sign with R1-2aP "TO ONCOMING TRAFFIC" plaque shall be placed on a support at a 7 foot minimum mounting height.
- TCP (1-2b)**
- Flaggers should use two-way radios or other methods of communication to control traffic.
 - Length of work space should be based on the ability of flaggers to communicate.
 - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distance to the flagger and a queue of stopped vehicles (see table above).
 - Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
 - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN

ONE-LANE TWO-WAY

TRAFFIC CONTROL

TCP (1-2)-18

FILE: tcp1-2-18.dgn	DW: CK1	DW: CK1
© TxDOT December 1985	CONT	SECT
4-90 4-98	JOB	HIGHWAY
2-94 2-12	DIST	COUNTY
1-97 2-18		SHEET NO.

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED

DESIGNED	MS
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DATE	

BAKER & LAWSON, INC.

ENGINEERS • PLANNERS • SURVEYORS

300 E. CEDAR ST. ANGLETON, TEXAS 77515

PHONE: (979) 849-6881 FAX: (979) 849-4689

REG. NO. F-825

STATE OF TEXAS

MIGUEL SAUCEDO

121992

REGISTERED PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Miguel Saucedo P.E. 121992

Date: 1/11/24

OWNER:

Clint Peltier

Clint Peltier Custom Homes

979-481-4840

PLAN: _____

PROFILE: _____

HORIZONTAL: _____

VERTICAL: _____

BAYOU BEND ESTATES

ANGLETON, TEXAS

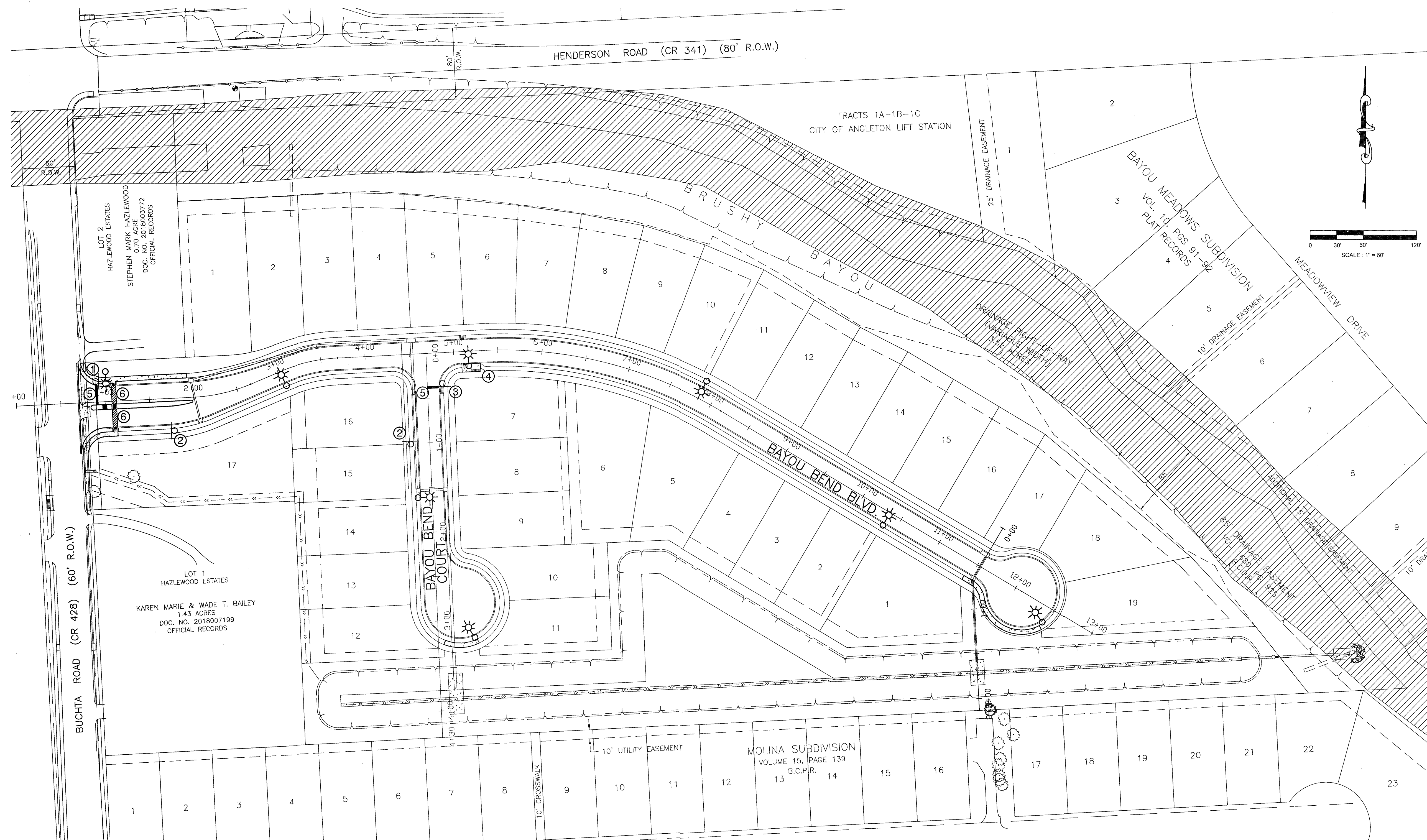
PLANS FOR

GRADING, PAVING, UTILITIES

AND DETENTION

TRAFFIC CONTROL PLAN

PROJECT NO. 13454



○ STREET AREA LIGHTING (8 LOCATIONS)

○ STREET SIGNS

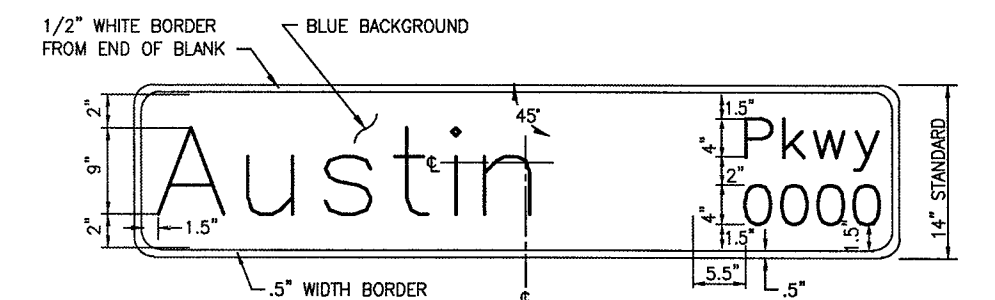
- ① STOP - FACING BAYOU BEND BLVD.
BUCHTA RD. / BAYOU BEND BLVD.
"NO OUTLET" SIGN FACING BUCHTA RD.
- ② 30 MPH SPEED LIMIT
- ③ STOP - FACING BAYOU BEND COURT
BAYOU BEND BLVD. / BAYOU BEND COURT
"DEAD END" SIGN FACING BAYOU BEND BLVD.
- ④ 3 CBU POST OFFICE MAIL BOXES
- ⑤ 24" WIDE THERMOPLASTIC STOP BAR
- ⑥ CROSSWALK STRIPPING (THERMOPLASTIC)

LIGHTING PLAN PROVIDED IS SHOWN AS RECOMMENDED. FINAL LOCATIONS AND QUANTITIES ARE DETERMINED BY TEXAS NEW MEXICO POWER (TNMP).

GENERAL CONSTRUCTION NOTES:

1. SECURELY ATTACH STREET NAME SIGN TO TRAFFIC SIGNAL SUPPORT WIRES WITH MULTI-LEVELING, WIND DAMPING BRACKETS.
2. SUPPORT WIRES SHOULD NOT BE PROHIBITED FROM INDEPENDENT MOVEMENT.
3. INSTALL ONE STREET NAME SIGN APPROXIMATE 2' FROM POLE ABOVE ON-COMING TRAFFIC ON EACH TRAFFIC SIGNAL SIGN.
4. THE FIRST LETTER OF EACH WORD SHALL BE UPPER CASE. SUBSEQUENT LETTERS SHALL BE LOWER CASE. ALL INDIVIDUAL LETTERS FOR EXAMPLE "A" SHALL BE UPPER CASE. STREET SUFFIXES & "NO OUTLET" SHALL BE UPPER CASE.
5. ALL SHEETING SHALL BE "DIAMOND GRADE" OR APPROVED EQUAL.
6. USE ANTI-GLARE COATING.
7. STREET SIGN FONTS SHALL BE HELVETICA BOLD, MEDIUM STYLE.
8. MINIMUM SIGN THICKNESS: 9" SIGNS = .080", 14" SIGNS = .1875"

SL-ST-68



CORNER RADIUS = 2"
PLATE WIDTH = .5"

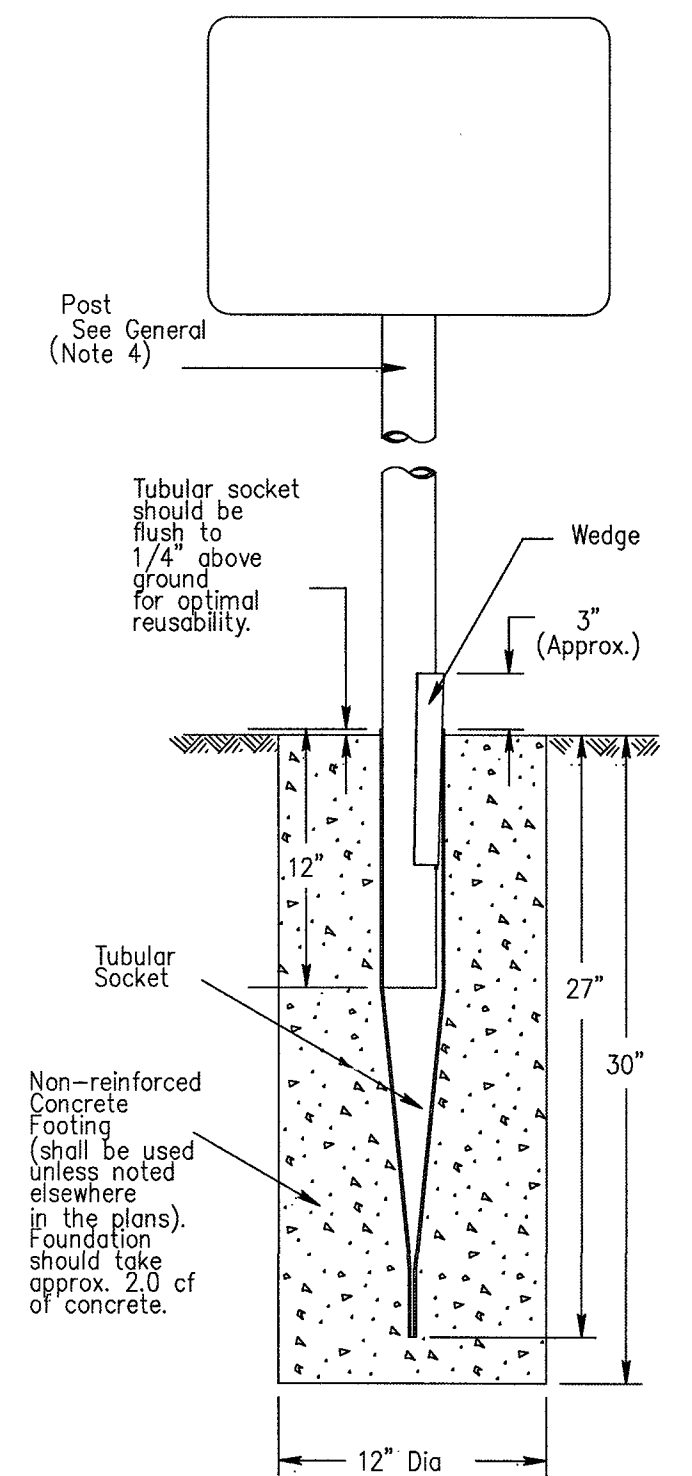
DETAIL OF SIGN
FOR MAST ARM TRAFFIC
SIGNAL POLES

NOTES:

1. HELVETICA BOLD, MEDIUM STYLE, WITH 9" UPPER CASE LETTERS AND 6" LOWER CASE LETTERS.
2. REFER TO C.O.S.L. DESIGN STANDARDS FOR MORE INFO.

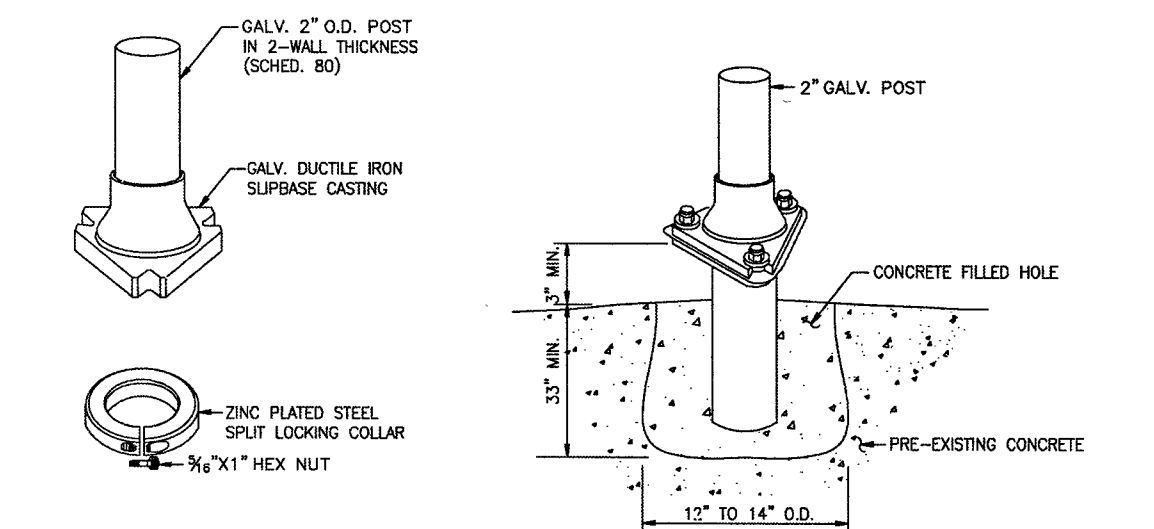
SL-ST-67

Wedge Anchor
System

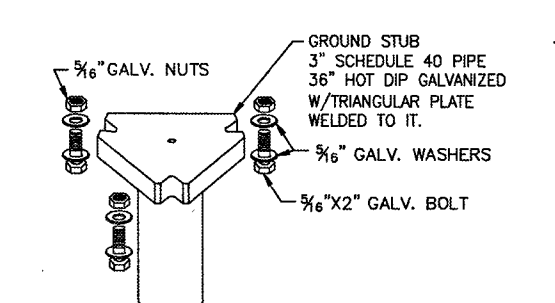


SM RD SGN ASSM TY TWT(X)WA(P)
SL-ST-62

SL-ST-68



CONCRETE SIGN PEDESTAL SL-ST-65
NTS



POZ-LOCK SLIPBASE
SYSTEM
NTS

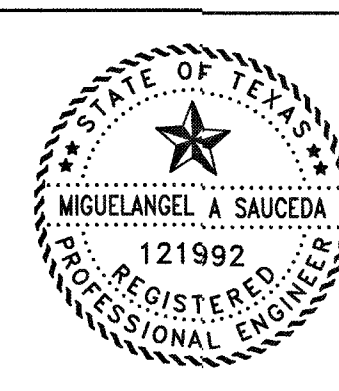
SL-ST-64

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300 E CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4683
REG. NO. F-825



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Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: 1" = 60'
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

PAVEMENT MARKING,
STREET SIGN, MAILBOX, AND
ROADWAY LIGHTING LAYOUT

PROJECT NO. 13454

18A

The drawing consists of two views: a plan view (top) and an elevation view (bottom).

Plan View:

- Overall dimensions: 34.00 MIN. (width) and 34.00 MAX. (length).
- Inner dimensions: 28.00 MIN. (width) and 28.00 MAX. (length).
- Callouts:
 - BRUSH FINISH (pointing to the outer edge)
 - MIN. 3/4" X 2" RIGID EXPANSION JOINT (pointing to the inner edge)
 - CHARACTER EDGES IN LANDSCAPE AREAS - TOOL EDGES FLUSH WITH ADJACENT SURFACES IN PAVED AREAS
 - SLOPE SURFACE 25 INCH PER FOOT ON ALL SIDES FOR DRAINAGE
 - GRU OUTLINE (pointing to the inner boundary)

Elevation View:

- Overall height: 4.00 MIN.
- Base height: 3.00 MIN.
- Callouts:
 - GRU PEDestal (pointing to the base)
 - ELITE BLUNDER END (WITH METAL PEDestal ONLY) MATCH EXISTING GRASS IN PAVED AREAS
 - SLOPE SURFACE 25 INCH PER FOOT ON ALL SIDES FOR DRAINAGE
 - 4 ROSS OR 14.00 COUNTER MAXIMUM (pointing to the top edge)
 - OPTIONAL COMPACT GRAVEL OR CRUSHED STONE FILL (pointing to the base)
 - MAX. PROOT DEPTH (pointing to the base)
 - 1200 UNREINFORCED SOIL OR INCL. PROTECTORS (pointing to the base)

NOTES:

- a) CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONTAIN AS MUCH MAX. AIR INDUCTION AND BE PLACED WITH A 3.50 - 4.50 SLUMP IN PLACE.
- b) REINFORCING BARS SHALL BE CONFORM TO ASTM A615, GRADE 60.
- c) EXPANSION JOINTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVISIONS:
 - i) FULLY GROUTED Joints (w/normal concrete) = 1'-7"
 - ii) HALF-SPLIT Joints (w/normal concrete) = 1'-2"
 - iii) 12"-x-12", STAINLESS STEEL = 600-443-896
 - iv) 12"-x-12", STAINLESS STEEL = 600-443-744
- d) MINIMUM WELD EMBEDMENT SHALL BE 4 TIMES THE BAR DIAMETER 3'-1/2".
- e) TIE WARED HARVEST TRUBOLT (www.harvest-trubolt.com)
TWINWELD 1/2" DIA X 7' OVER LENGTH OR LONGER
NUMBERS 405-2200
EMBEDMENT MUST BE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4'-ENURE.
- f) MIN. SLOPE (w/normal concrete)
CONCRETE, 1/2" DIA X 7' OVER LENGTH OR LONGER
NUMBER 7729
EMBEDMENT MUST BE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4'-ENURE.
- g) ALL CONFIGURATION IS SPECIFIED. A 3'-ON-A-CORNER CONNECTION MAY BE USED AS LONG AS THEY ARE ARRANGED IN GROUPS SUCH THAT THE CORNER DIMENSION OF THE CONNECTION IS NOT LESS THAN 1'-0".

Detail	CLUSTER BOX UNIT (CBU) INSTALLATION - MULTIPLE UNIT				Fac.	Gr.	Sect.	Para.	Detail
CAD File:	./usps/library/details/GF-2-0e1				Score:	1/2	-	1-0	0
					USPS SOL issued:	10/17/2016			
					Last Revised:	10/27/2016			



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1. IF THE ACCESSIBLE ROUTE FROM THE CBU(S) CONNECTS WITH A STREET OR OTHER PAVED SURFACE AT A VERTICAL CURB, A CURB RAMP SHOULD BE INSTALLED IN ACCORDANCE WITH RE-4 REQUIREMENTS.

NOTE: TURNING SPACE MAY BE ON PUBLIC WALKWAY IF THE WALKWAY CONFORMS TO THE SLOPE REQUIREMENTS (MAXIMUM 2% SLOPE)

Paved Pedestrian Surface (if available) or Public Street

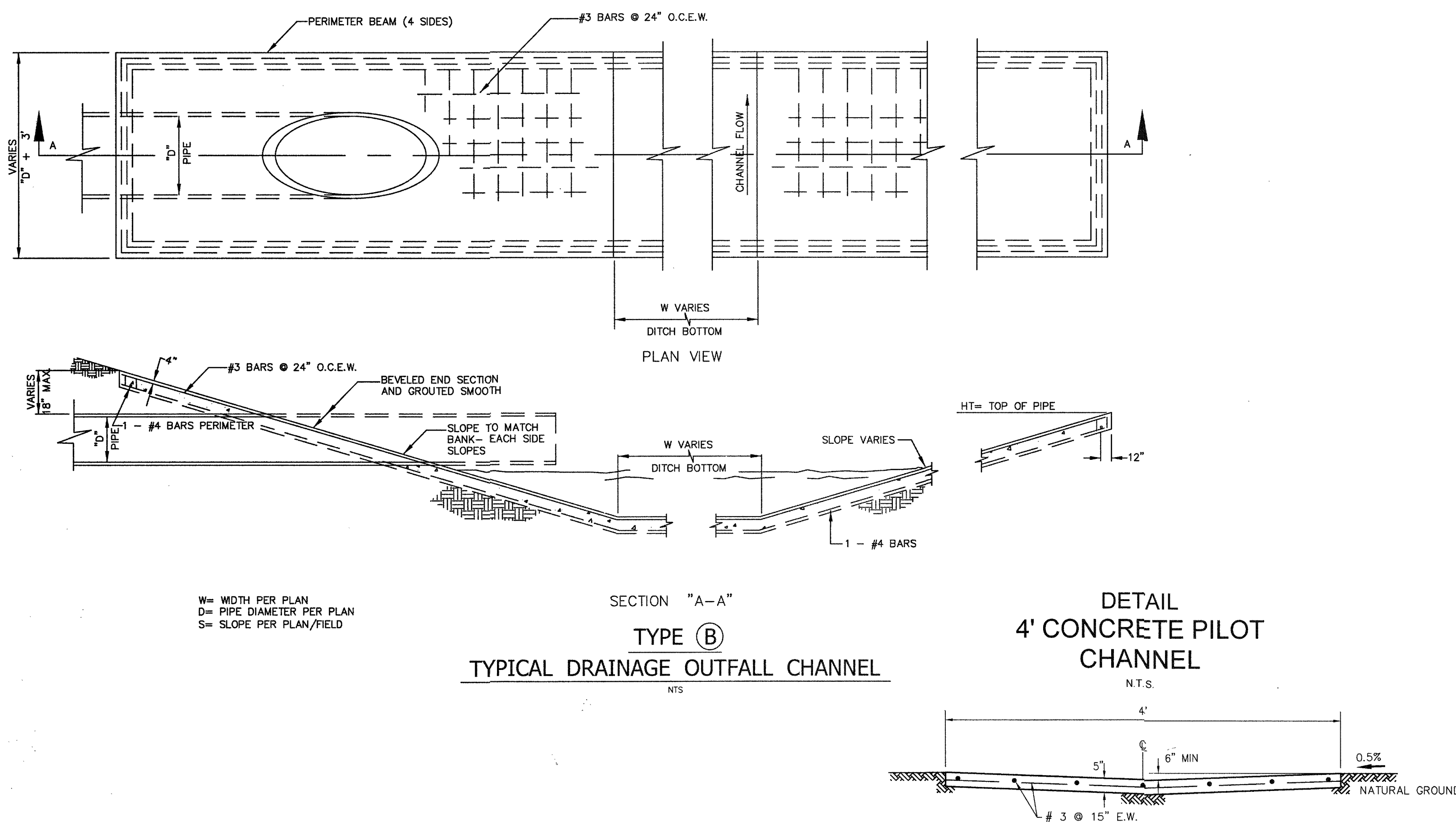
CLUSTER BOX UNIT (CBU) ACCESS
MANUVERING SPACE - MULTIPLE UNIT

Fac	Ch	Sect	Para	Detail
G1 - 2 - 0 e3				

USPS SDL Issued:	10/1/2016
Last Revised:	7/14/2016

UNITED STATES
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NOTES:

1. 1" DEPRESSION FOR EACH 1' OF WIDTH.
2. WIDTH TO BE AT LEAST 1' WIDER THAN PIPE ENTERING POND.

Technical drawings of the City of Angleton Sanitary Lock, showing the top and bottom views.

Top View (Left):

- Four (4) 1" DIA VENT HOLES
- Two (2) OPEN PICKHOLES
- 2 1/2" diameter
- 9/16" thickness
- Text: "CITY OF ANGLETON", "SANITARY", "MADE IN USA"
- 2" SHARP FACE

Bottom View (Right):

- Text: "ASTM A48 CL309", "MODIFY: R. X."

1 32" Manhole Cover and Frame

Scale: NTS

31 7/8" DIA

1 1/2"

2 1/4"

23" DIA

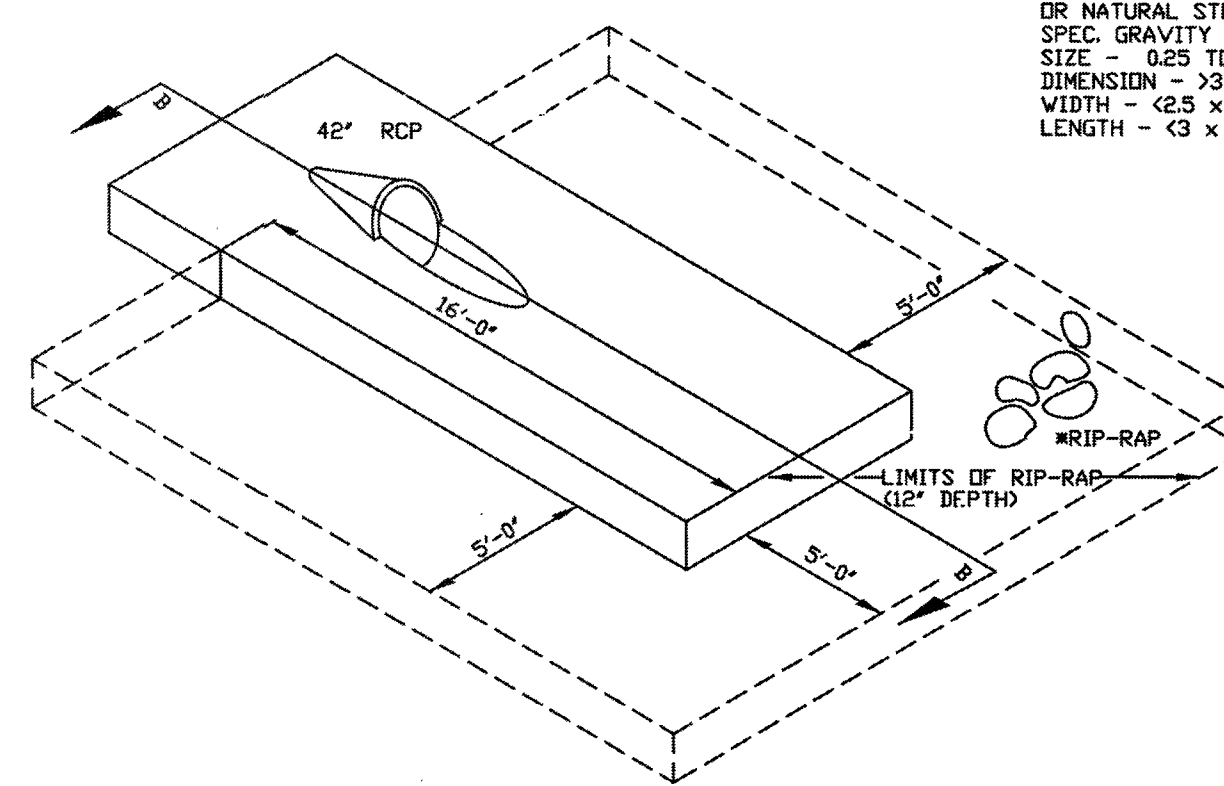
FIG. 1

FIG. 2

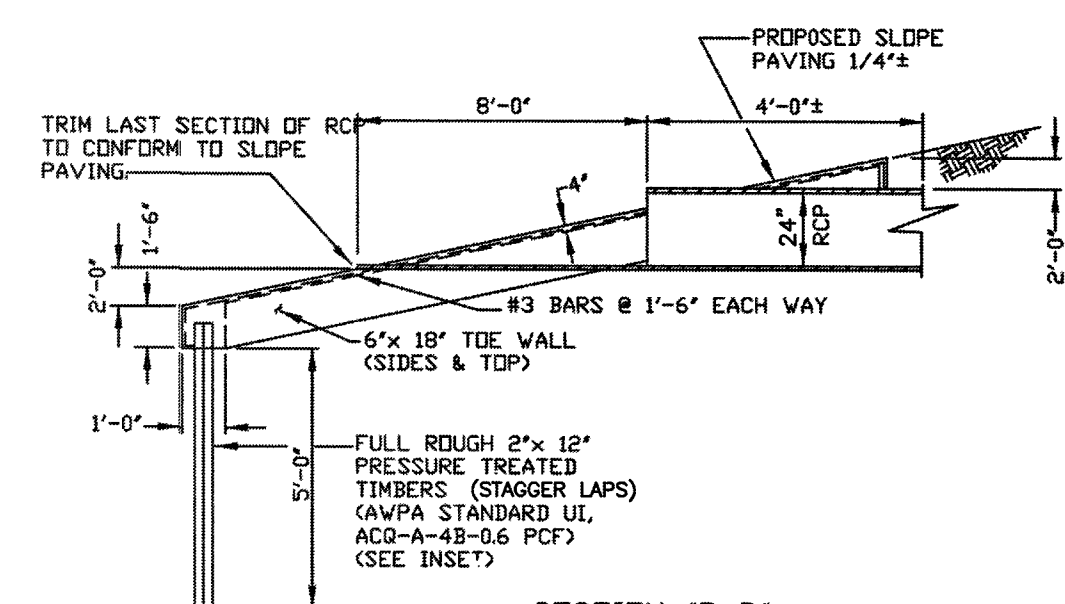
COVER SECTION

1. MATERIAL SPECIFICATION SHALL BE ASTM A-48 CLASS 35B.
2. COVER TO BE SOLID, WITHOUT HOLES AND WITH NON-PENETRATION RIM ACCESS RECESSES ONLY.
3. HORIZONTAL BEARING SURFACES TO BE MACHINED AND SEALED AT INSTALLATION WITH WATERPROOF GREASE COATING.
4. LOAD RATING TO BE HEAVY-DUTY.
5. MANHOLE FRAMES AND COVERS SET IN FIRM TO MARKET ROADS OR HIGHWAYS SHALL FOLLOW TxDOT SPECIFICATIONS. (UNLESS OTHERWISE NOTED BY ANGLETON)

NOTES:
1. *RIP-RAP SHALL BE BROKEN CONCRETE OR NATURAL STONE.
SPEC. GRAVITY - 2.4
SIZE - 0.25 TO 1.25 CF (40-190#)
DIMENSION - >3 IN.
WIDTH - <2.5 x THICKNESS
LENGTH - <3 x THICKNESS

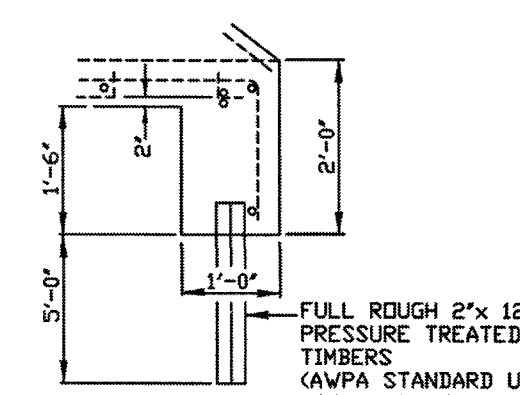


ISOMETRIC VIEW

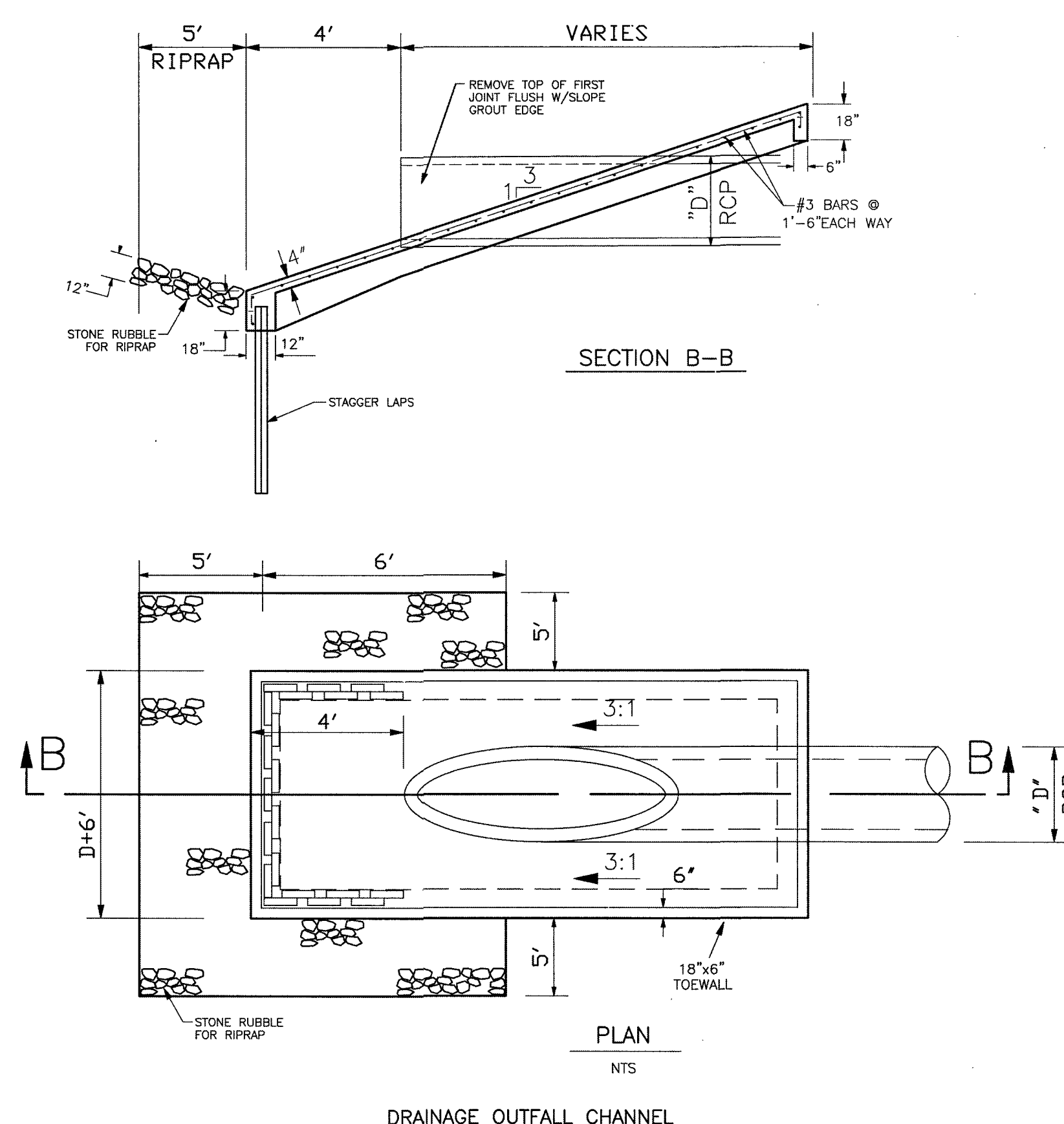


SECTION "B-B"

DRAINAGE OUTFALL CHANNEL



INSET



STANDARD CONCRETE SLOPE PAVING PIPE OUTFALL

1

DRAINAGE OUTFALL CHANNEL

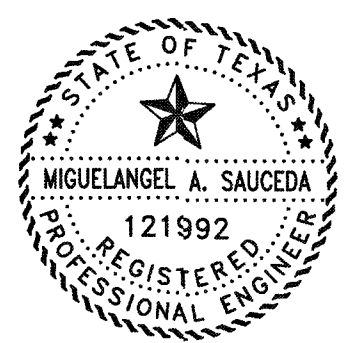
TYPE (A)

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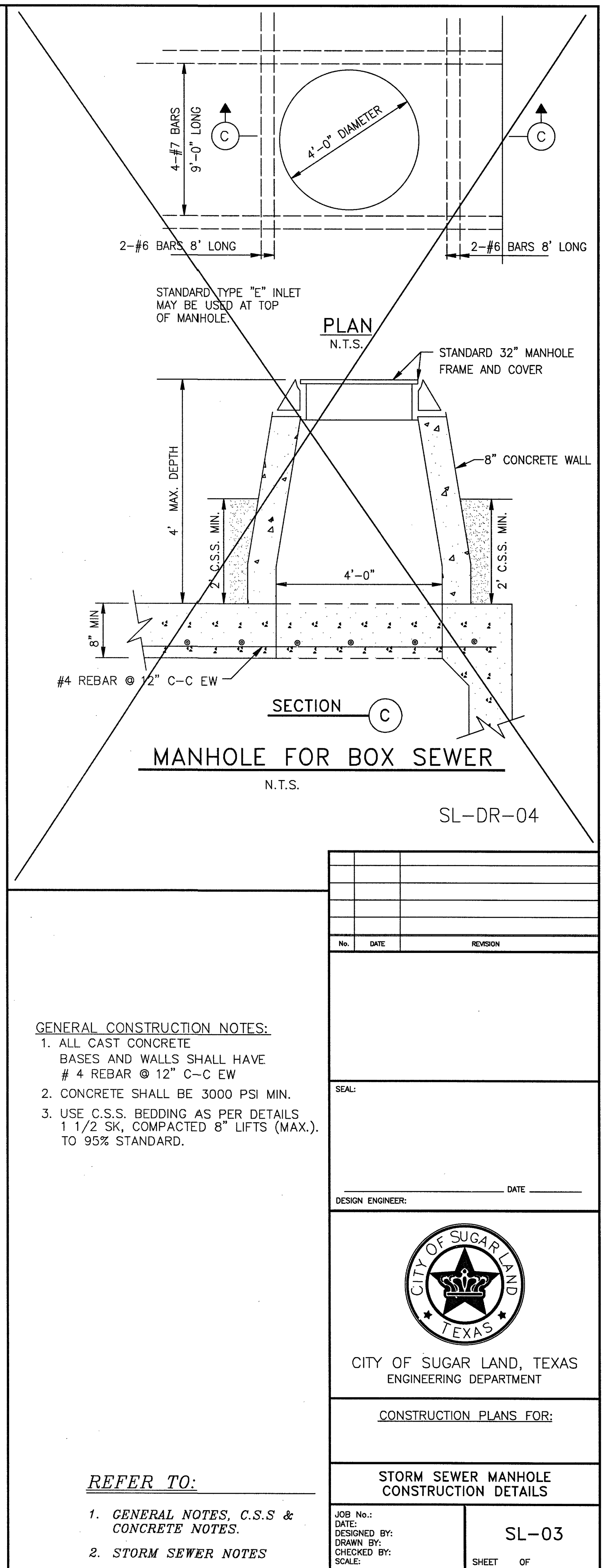
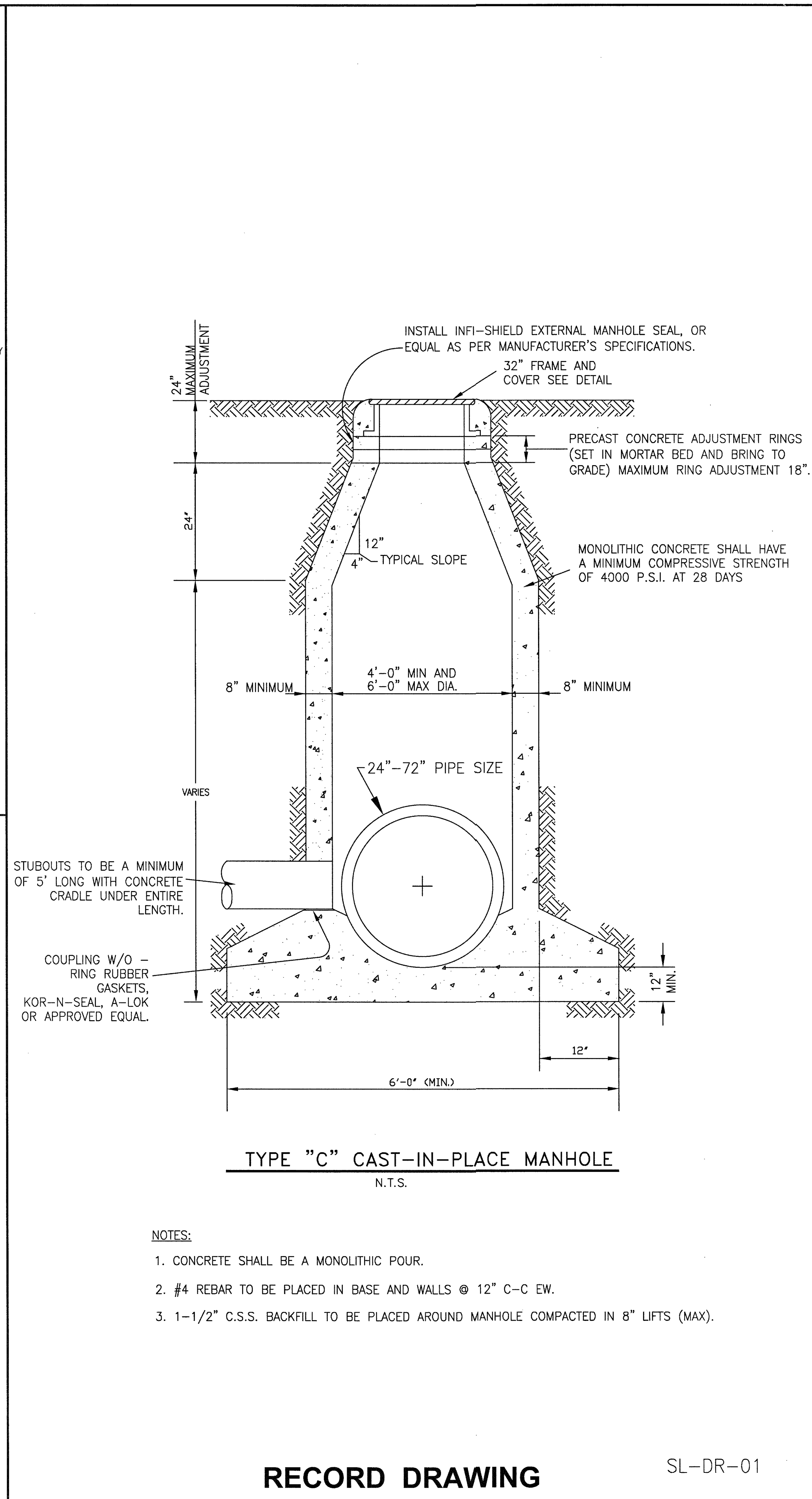
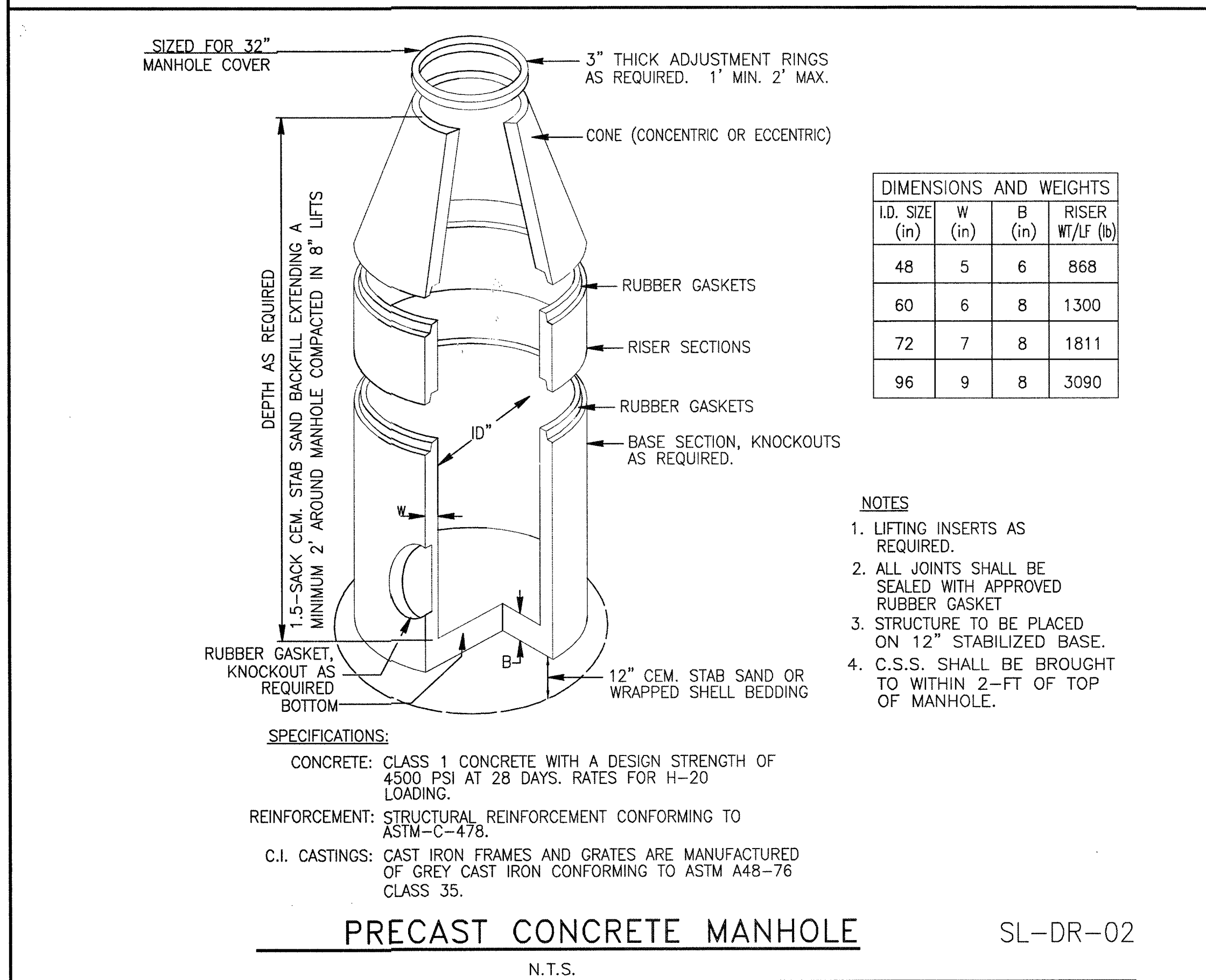
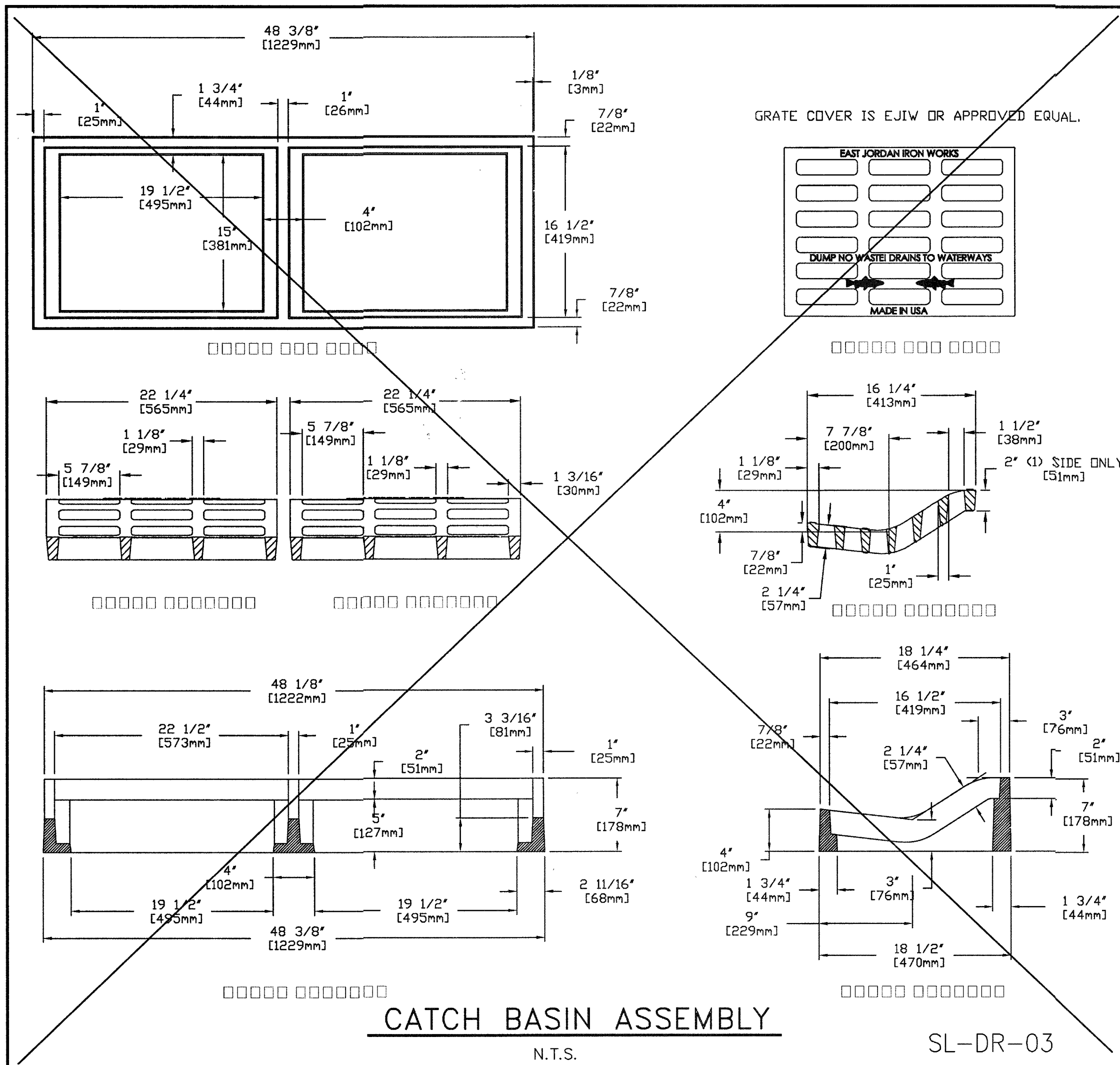
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979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

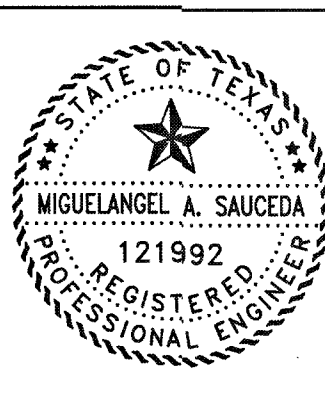
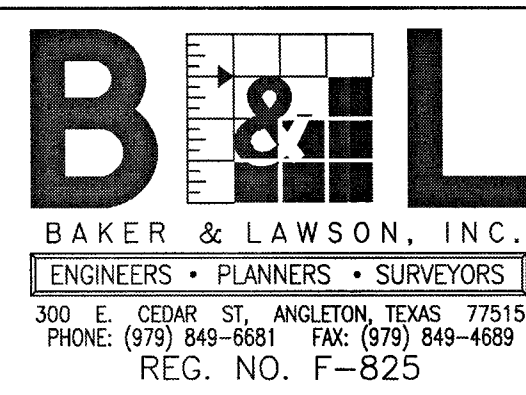
**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

MISCELLANEOUS DETAILS

PROJECT NO. 13454



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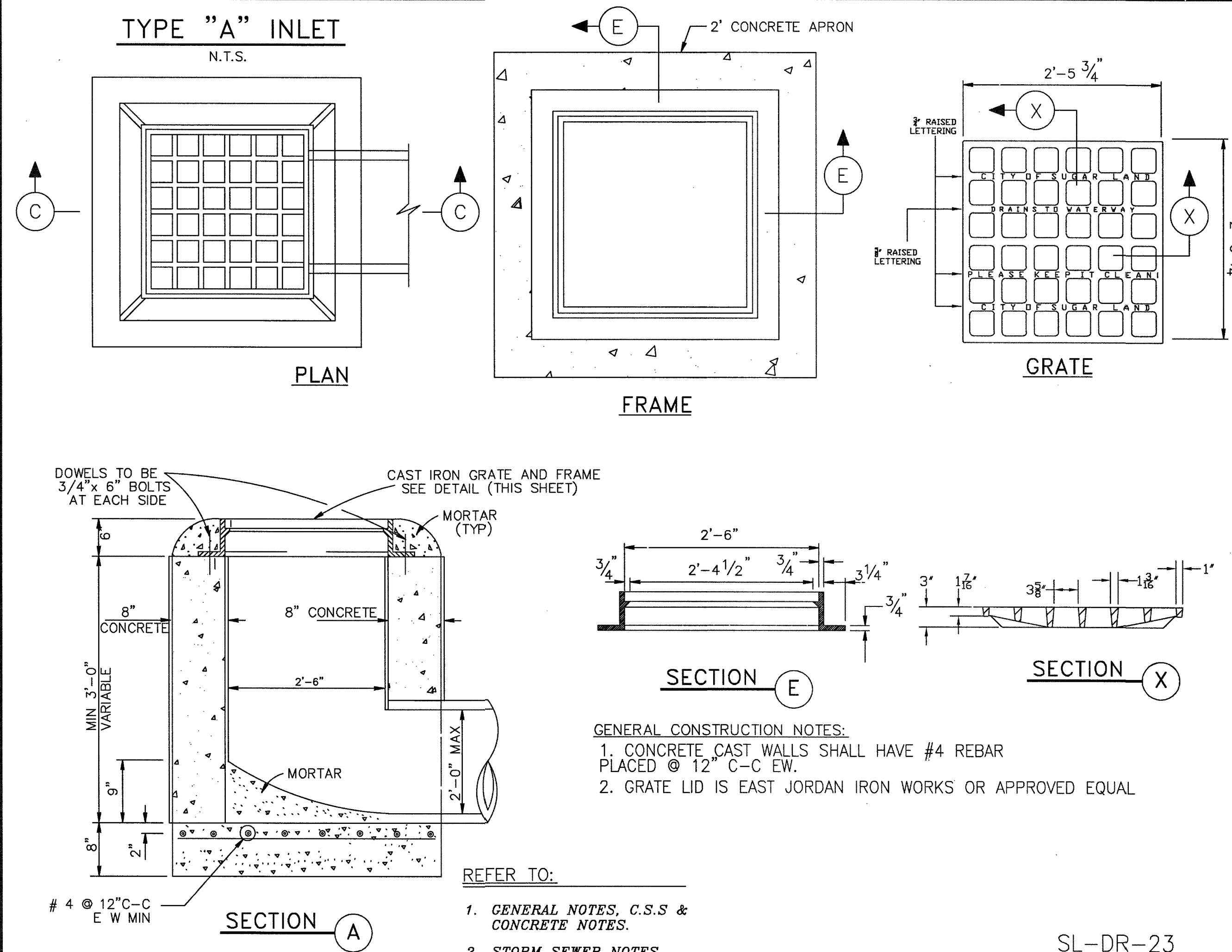
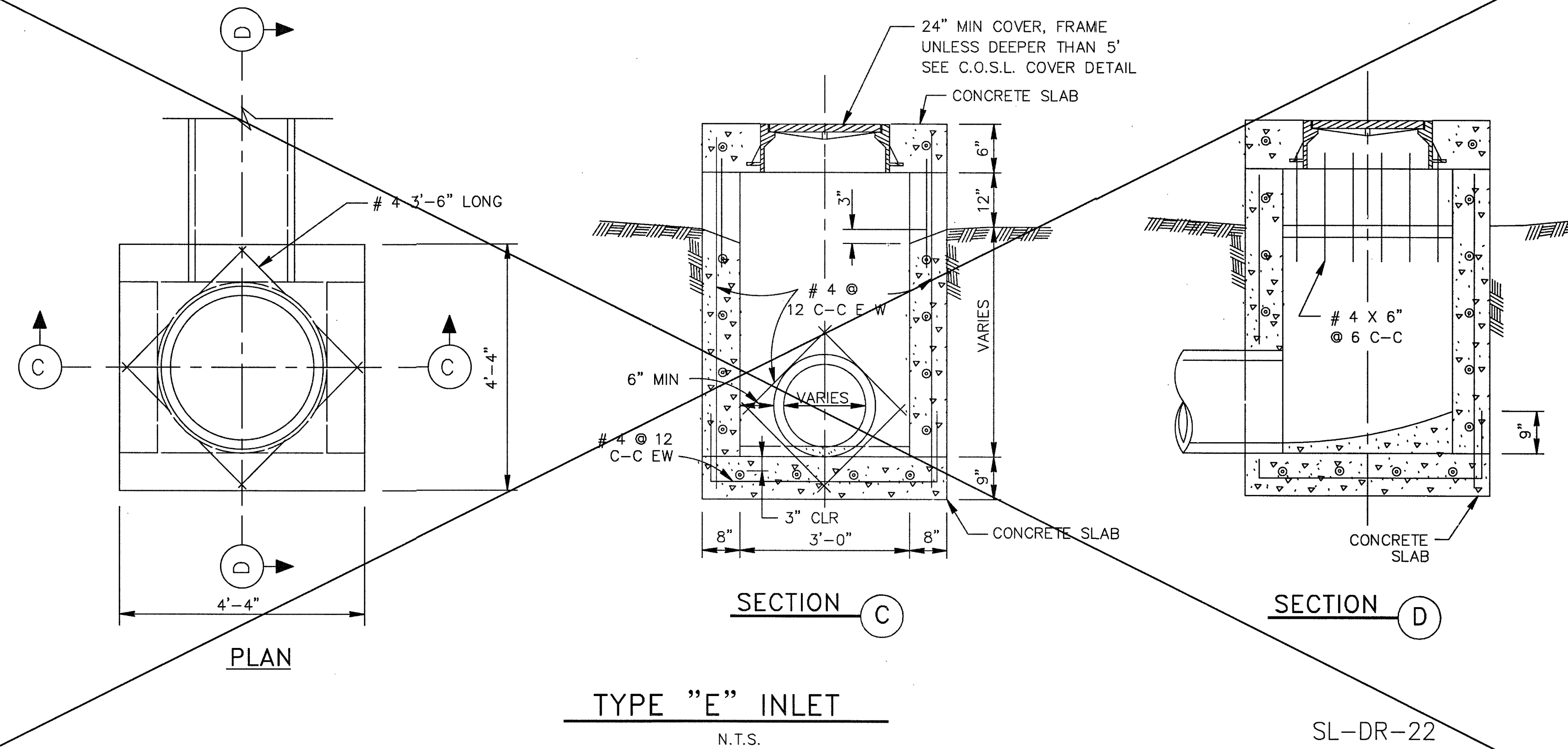
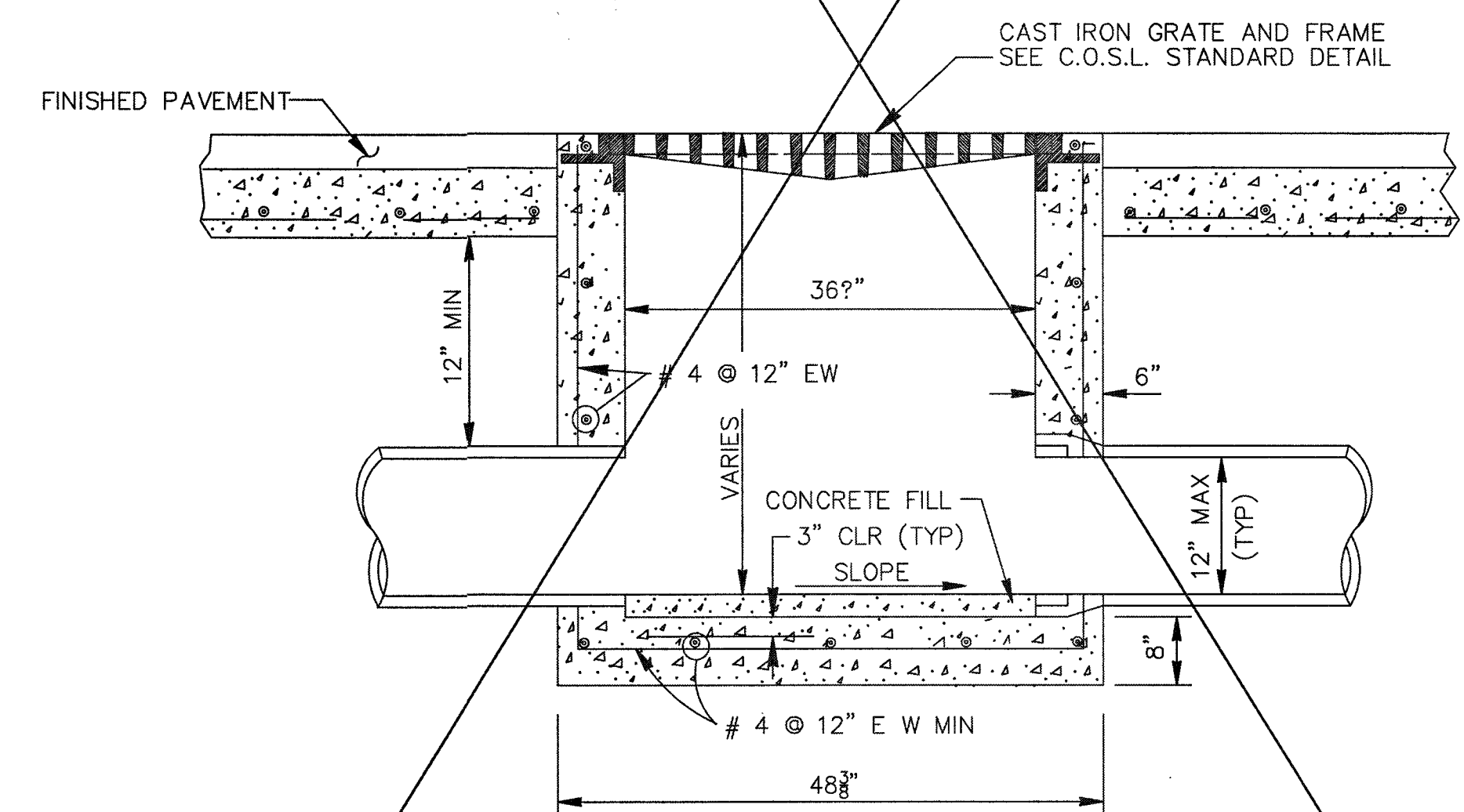
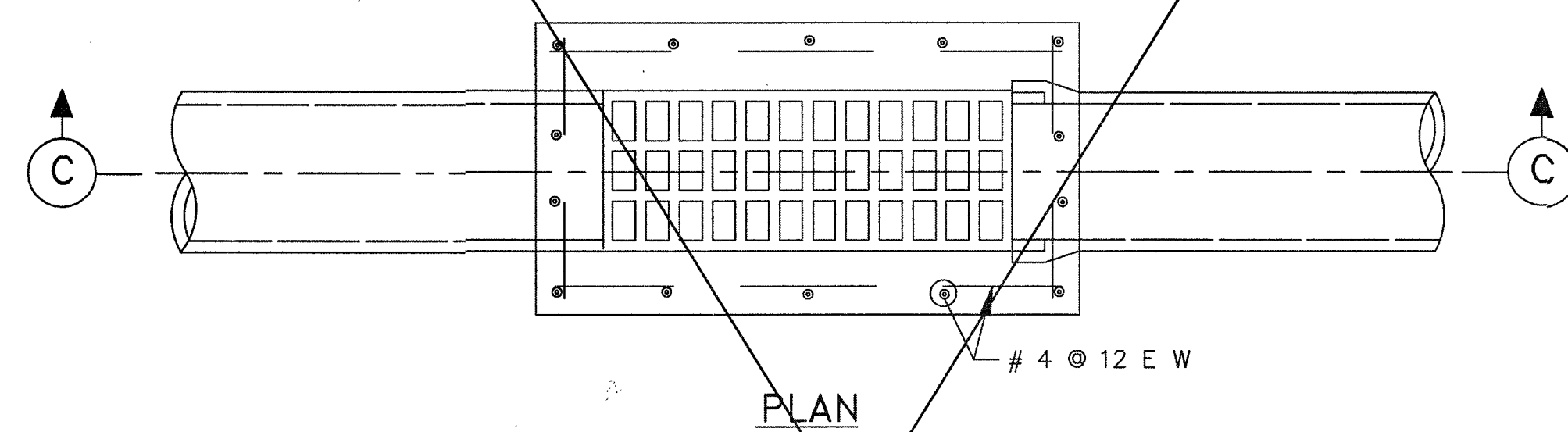
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PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

STORM SEWER MANHOLE
CONSTRUCTION DETAILS
SL-03


PROJECT NO. 13454

13454 DETAIL SETLWG



SL-DR-23

RECORD DRAWING

No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE: _____		
 <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p>		
CONSTRUCTION PLANS FOR:		
STORM SEWER INLET CONSTRUCTION DETAILS I		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-07 SHEET OF	

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

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DATE _____

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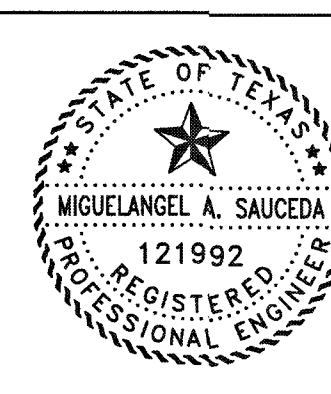
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BAYOU BEND ESTATES

ANGLETON, TEXAS

PLANS FOR

GRADING, PAVING, UTILITIES

AND DETENTION

STORM SEWER MANHOLE

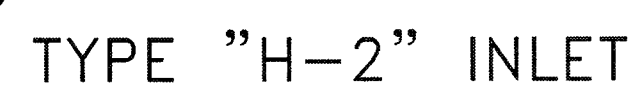
CONSTRUCTION DETAILS

SL-07

PROJECT NO. 13454



C OF PAVEMENT ✓

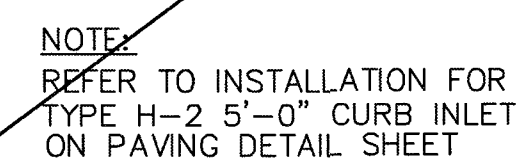


NOTES:

1. INLET WALLS MAY BE EXTENDED USING PRECAST RISER SECTION.
2. INLET TOPS MUST BE SECURED TO THE INLET WALL USING #6 DOWELS DRILLED AND GROUTED A MINIMUM DEPTH OF 5" INTO THE INLET WALL. A PLAN PREPARED BY THE MANUFACTURER MUST BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION. THE PLAN SHOULD DETAIL CONNECTIONS AND SEALING OF JOINTS.
3. PRECAST INLET TOPS SHALL NOT UTILIZE MULTIPLE ONE-FOOT SECTIONS TO ACHIEVE GRADE.
4. INLET BACKFILL SHALL BE CEMENT STABILIZED SAND TO THE TOP OF THE INLET FIRST STAGE.
5. GRADE 60 REINFORCEMENT. #4 STEEL REBAR TO CONFORM TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
6. PRECAST INLET MUST BE CONSTRUCTED TO SPECIFICATIONS REQUIRED BY APPROVED DRAWINGS. (SEE GENERAL NOTES).
7. TOPS POURED-IN-PLACE REQUIRE #4 REBAR @ 12" C-C EACH WAY, 4,500 PSI CONCRETE MINIMUM AND 3" THICK MINIMUM.
8. PAVEMENT DEPTH AT INLET SHALL BE EQUAL TO OR GREATER THAN REQUIRED PAVEMENT DEPTH.
9. DEPRESS GUTTER TO INLET.
10. ALL SIDES OF ALL INLETS MUST BE COMPACTED.
11. REFER TO GEOTECHNICAL REPORTS FOR RECOMMENDED TRENCH SIDE SLOPES.



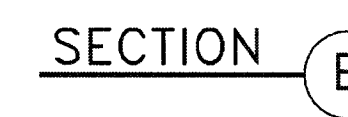
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N.T.S.


REFER TO:

1. GENERAL NOTES
2. SEE C.S.S., PAVEMENT NOTES



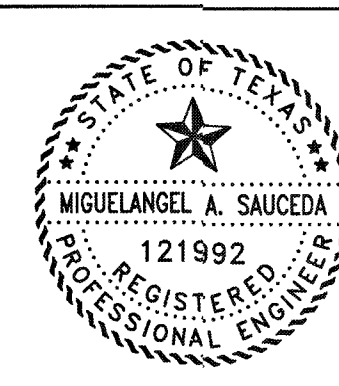
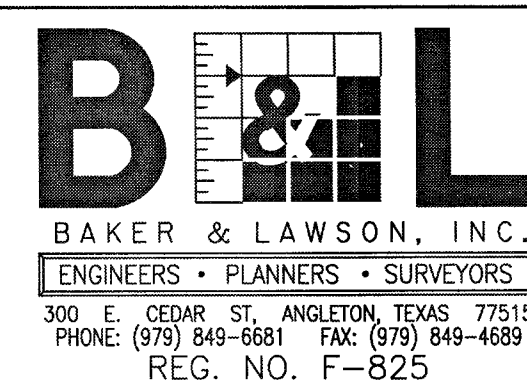
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SL-DR-26

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<u>CONSTRUCTION PLANS FOR:</u>		
STORM SEWER INLET CONSTRUCTION DETAILS II		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	<div style="font-size: 2em; font-weight: bold; margin: 0;">SL-08</div> <div style="font-weight: bold; margin-top: 10px;">SHEET OF</div>	

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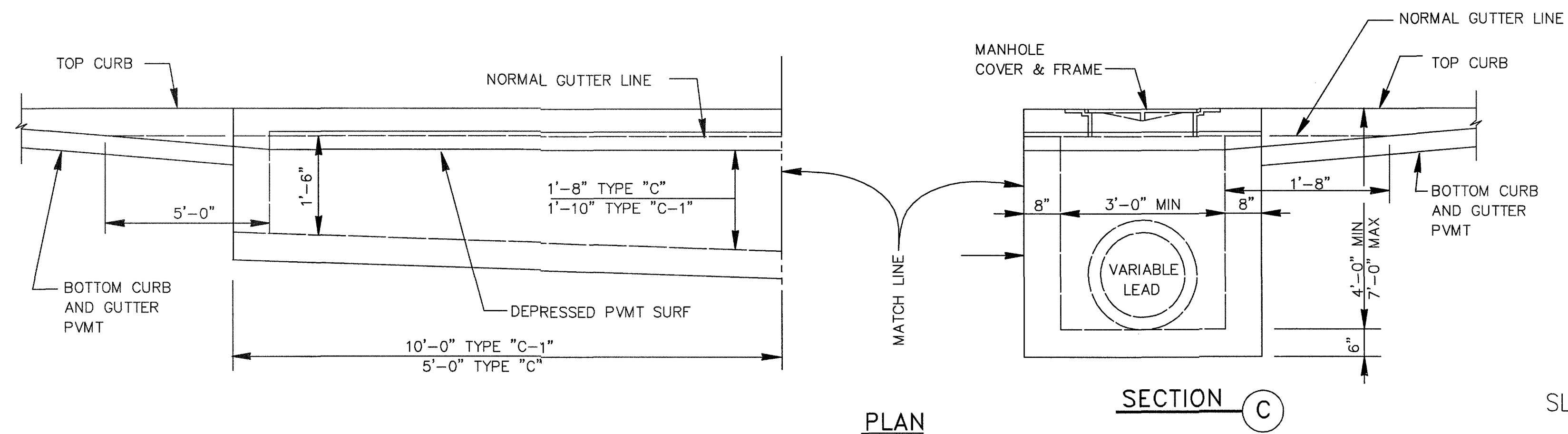
OWNER:
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Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
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**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

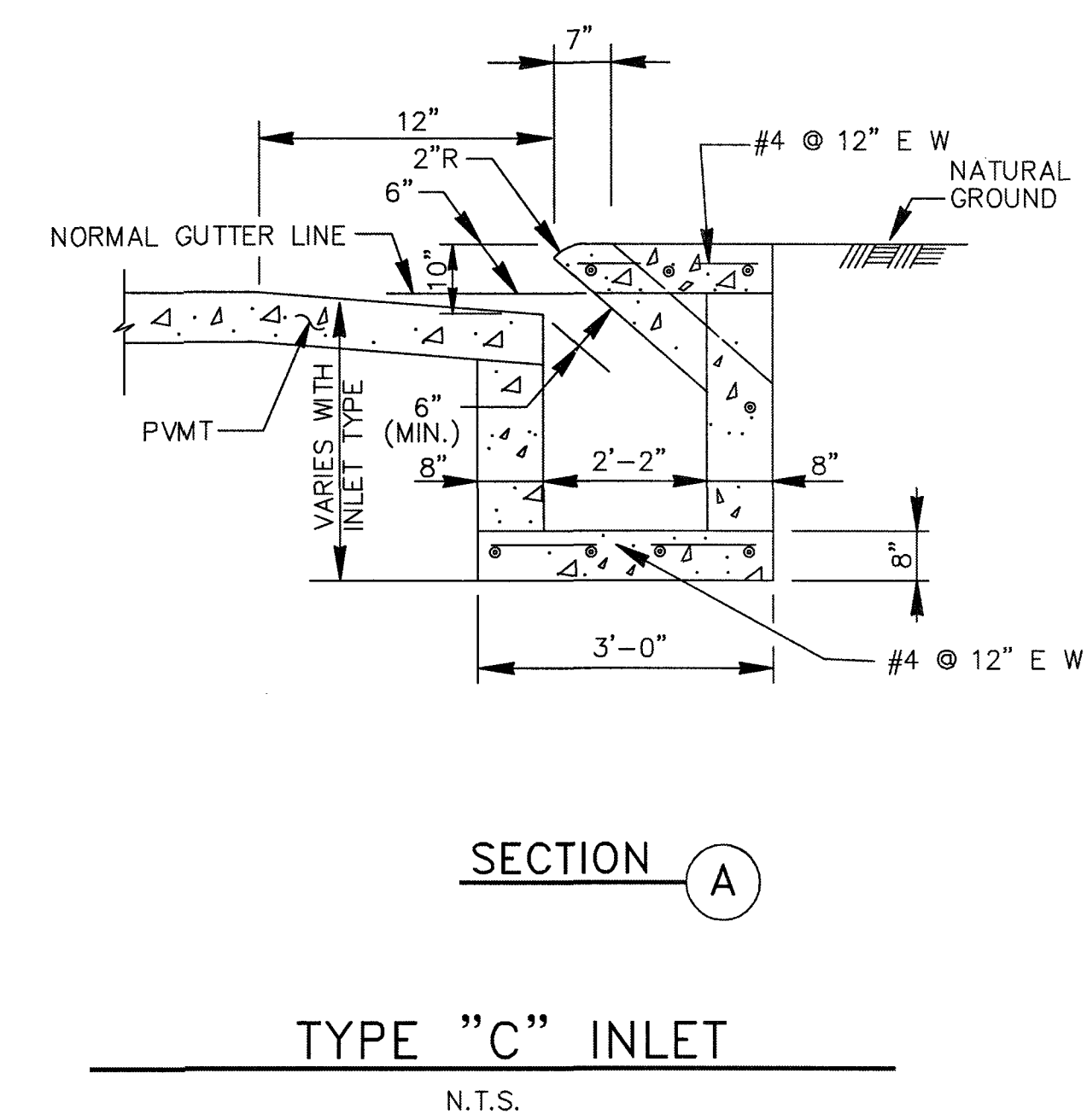
STORM SEWER INLET
CONSTRUCTION DETAILS II
SL-08

PROJECT NO. 13454



NOTES:

1. FOR TYPE "C-1" INLETS PROVIDE A CENTER 6"x6" COLUMNS IN THE CURB LINE BETWEEN ALL EXTENSIONS.
2. WALLS TO BE 8" IF BUILT WITH REINFORCED CONCRETE. BRICK WALLS ARE NOT ALLOWED.



SL-DR-28

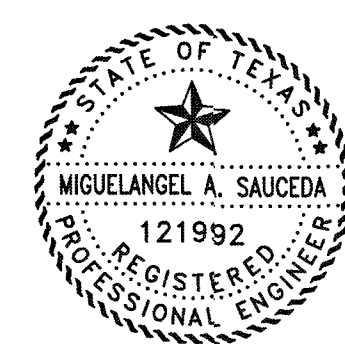
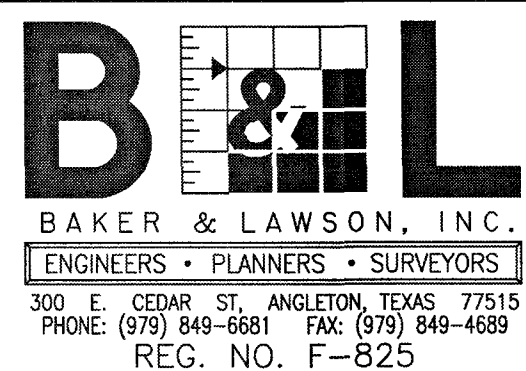
REFER TO:


1. GENERAL NOTES
2. STORM SEWER NOTES

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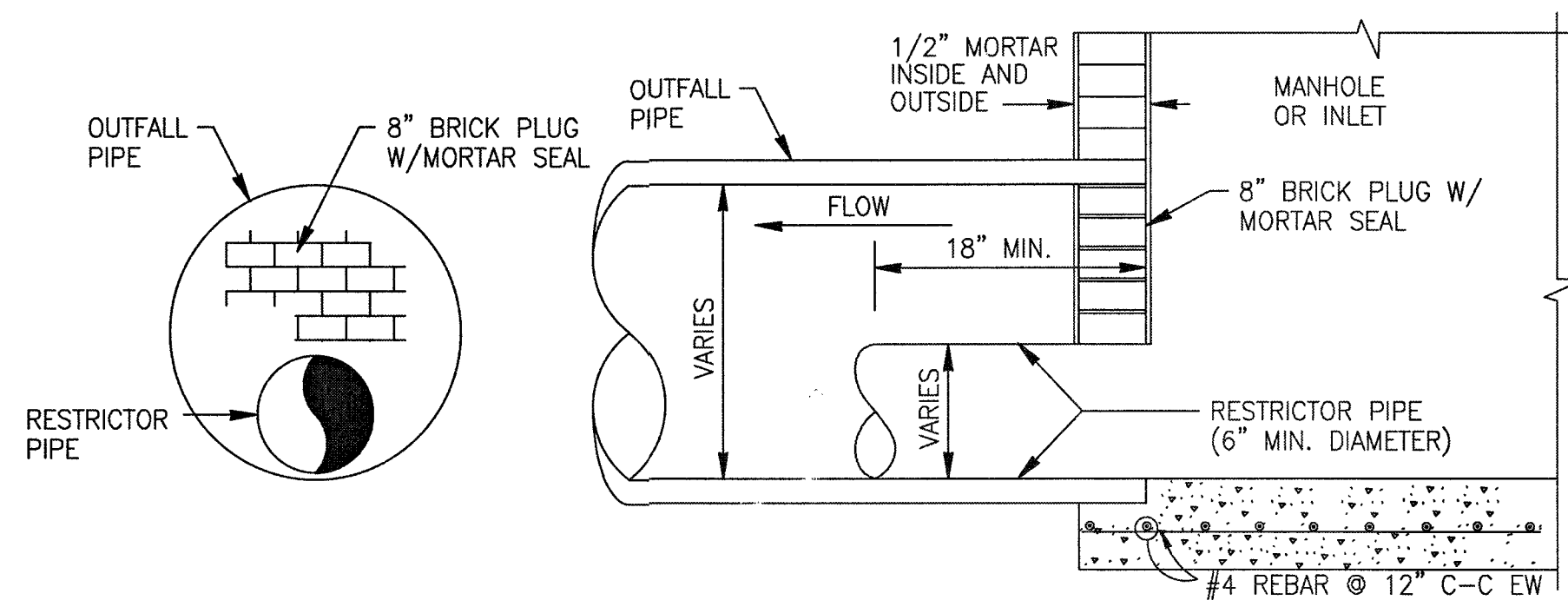
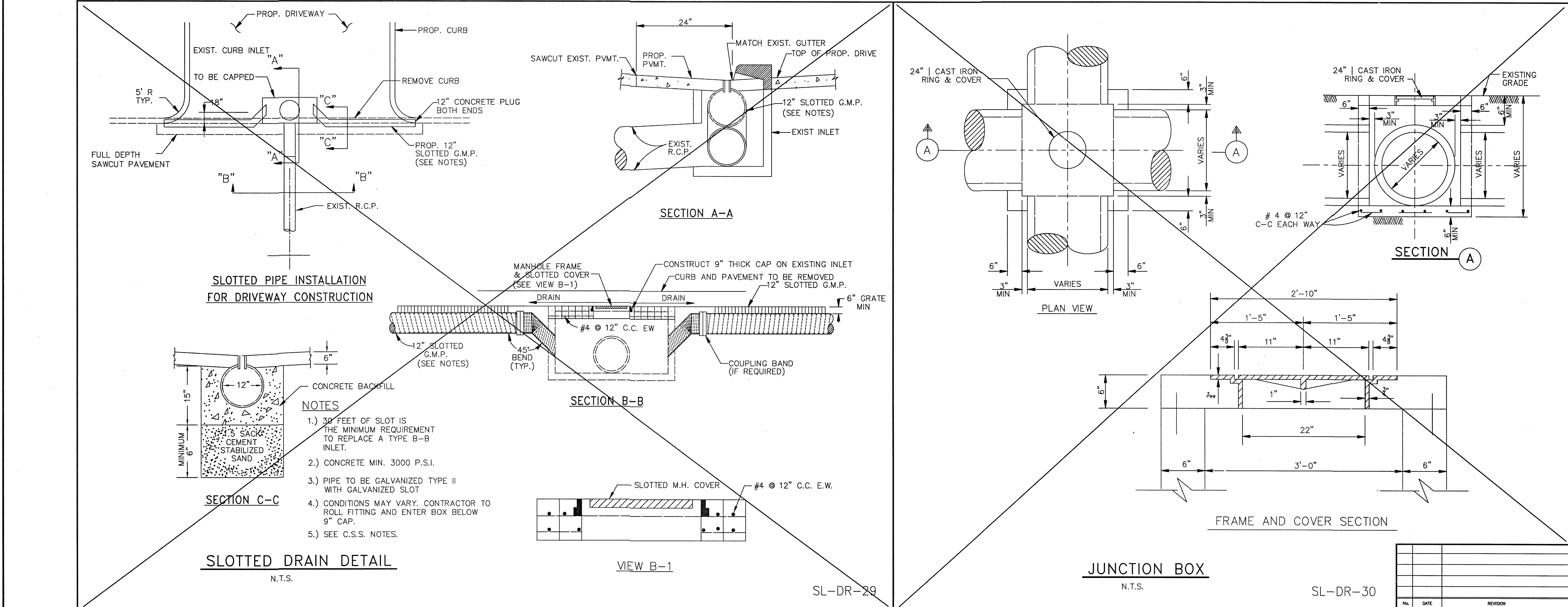
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Clint Peltier Custom Homes
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 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

STORM SEWER INLET
CONSTRUCTION DETAILS III
SL-09

PROJECT NO. 13454

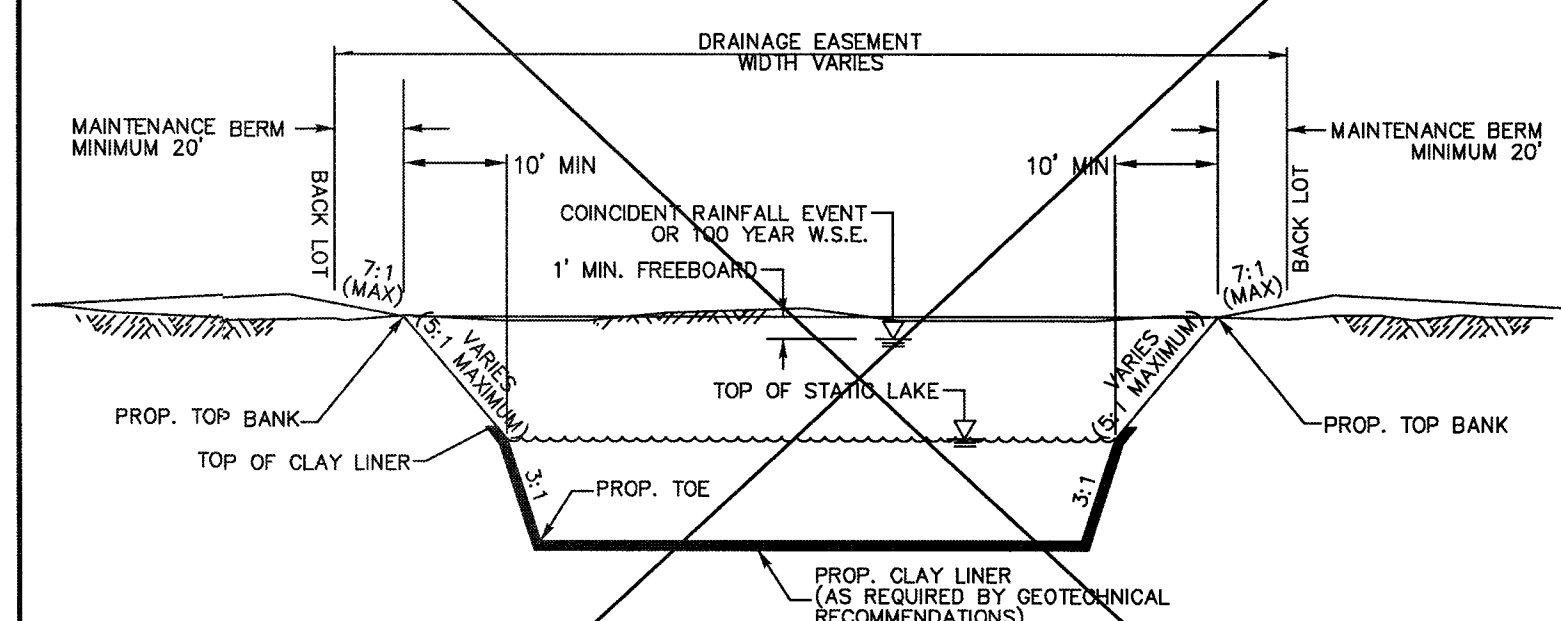


STORM SEWER CHOKE RESTRICTOR
N.T.S.

SL-DR-31

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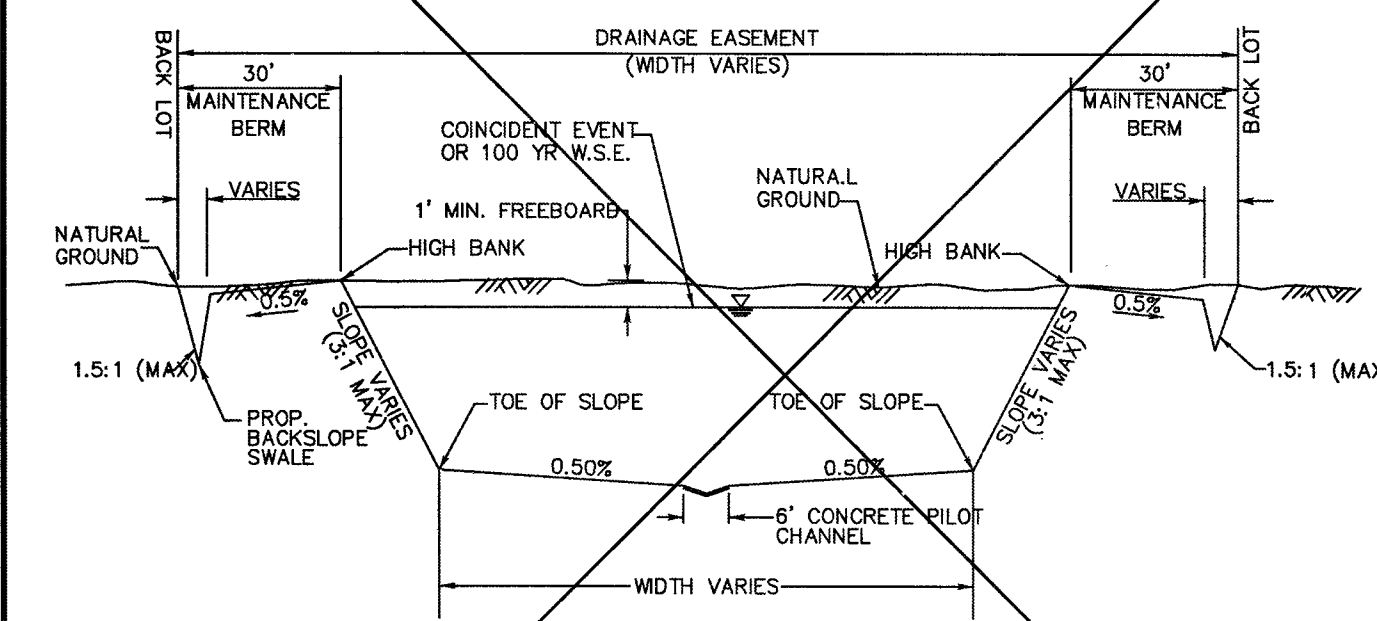
1. GENERAL NOTES
2. STORM SEWER NOTES



~~WET DETENTION POND/AMENITY LAKE~~
N.T.S.

SL-DR-32

Clint Peltier
Clint Peltier Custom Homes
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~~DRY DETENTION POND~~
N.T.S.

SL-DR-33

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 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

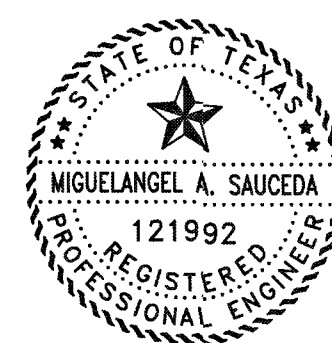
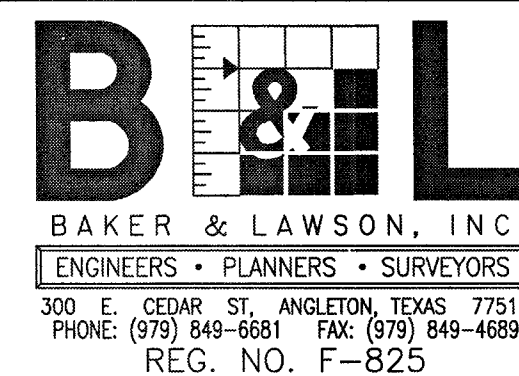
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ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

STORM SEWER
CONSTRUCTION DETAILS
SL-10


PROJECT NO. 13454

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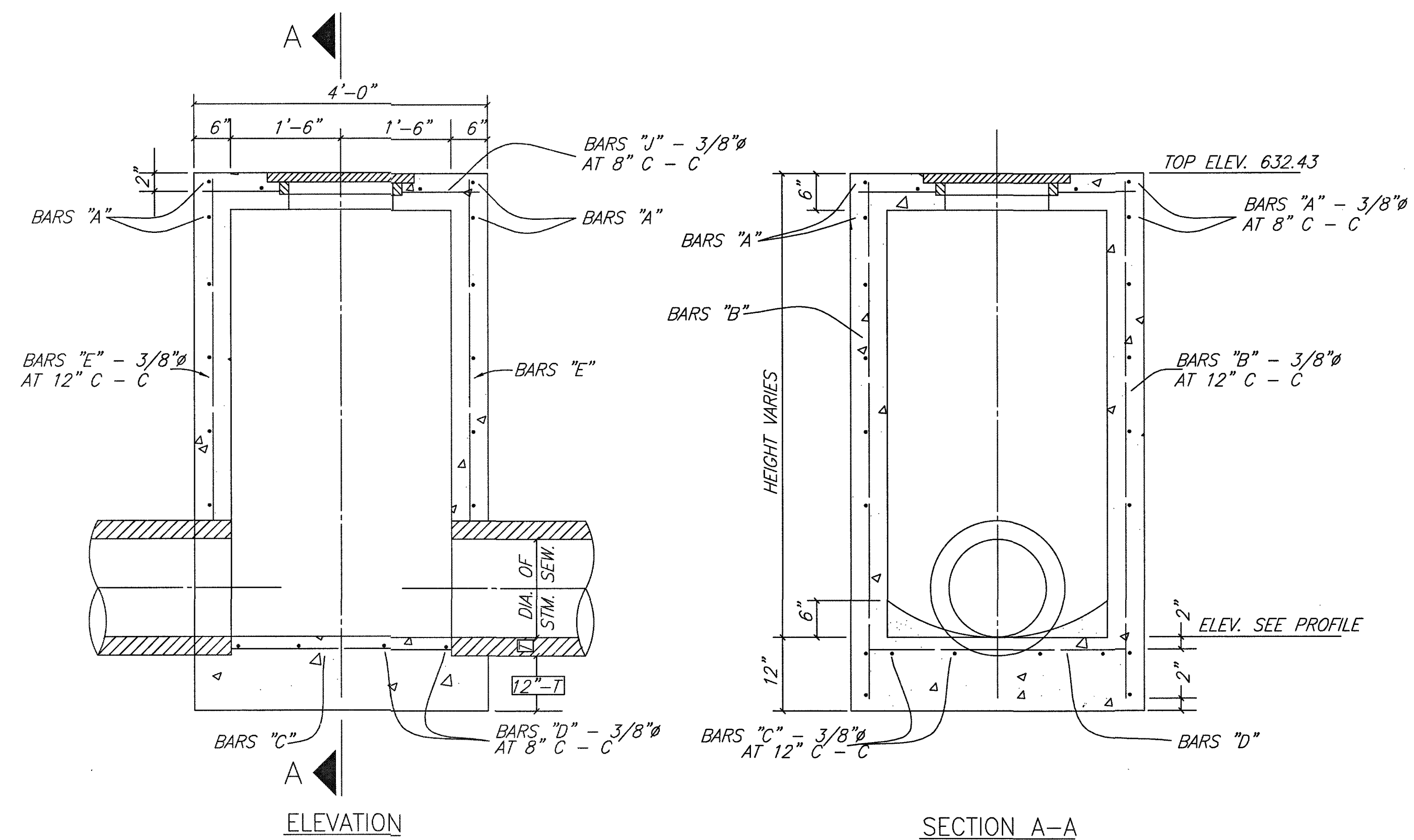
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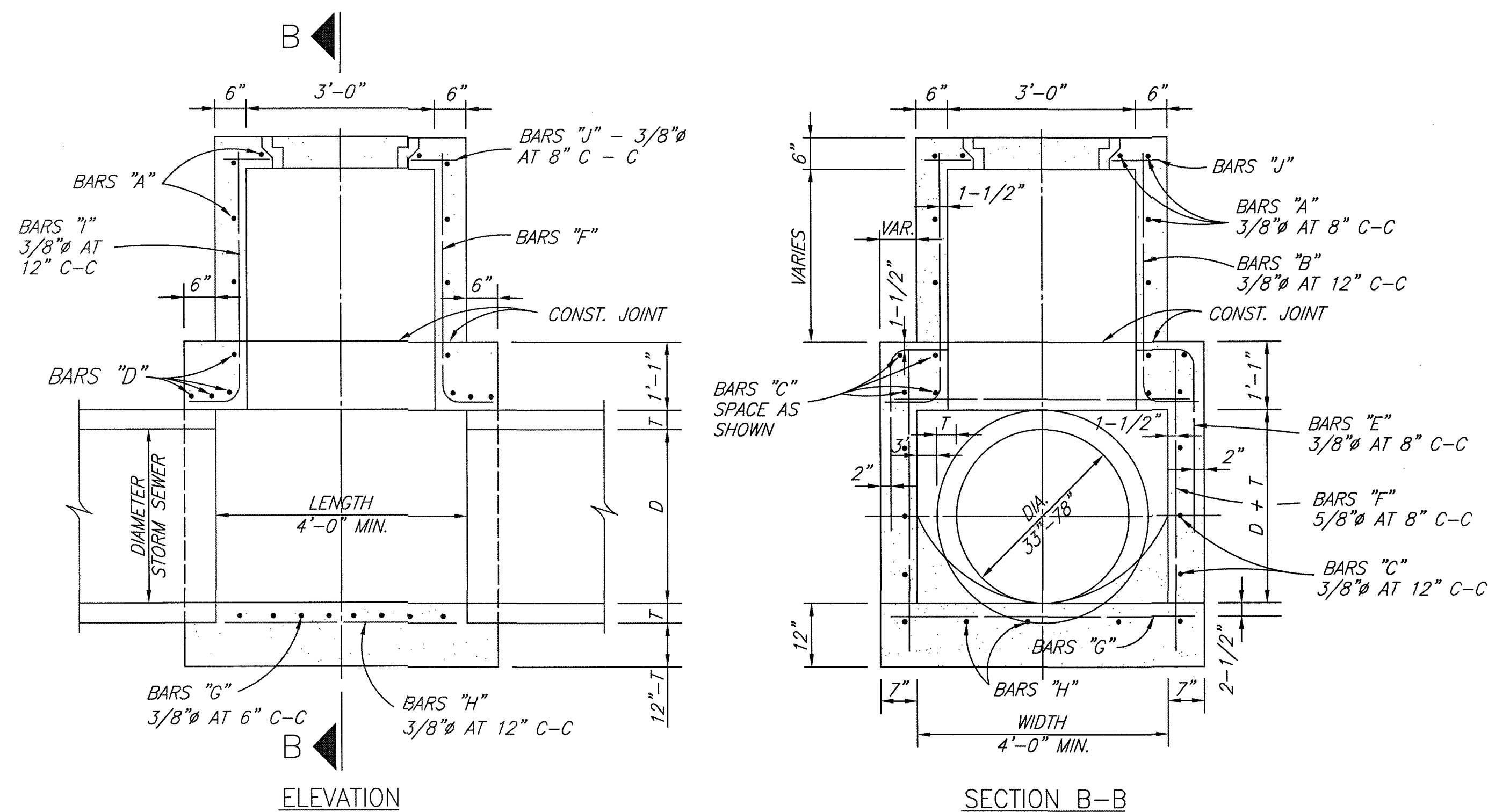


Date: 11/1/22



STORM SEWER TYPE A MANHOLE


MAX. PIPE SIZE 30" - N.T.S.



TYPE B STORM SEWER MANHOLE

MAX. PIPE SIZE 78" - N.T.S.

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No.	DATE	REVISION			
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_____ DATE _____ DESIGN ENGINEER:					
 <p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p>					
<u>CONSTRUCTION PLANS FOR:</u>					
JUNCTION BOX MANHOLES					
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:			SL-11 SHEET OF		

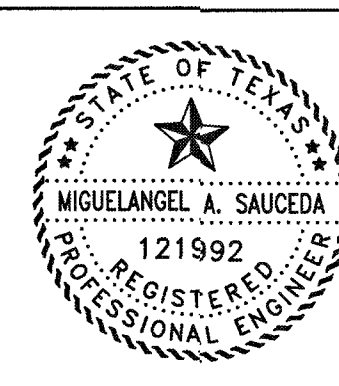
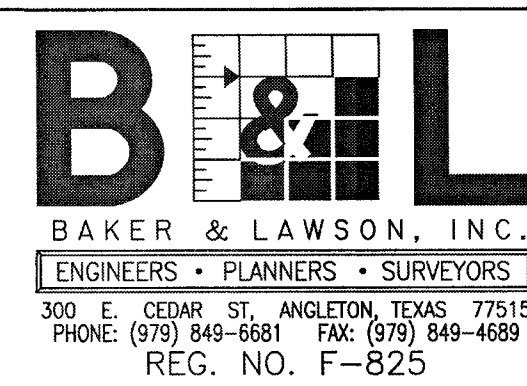
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 HORIZONTAL: _____
 VERTICAL: _____

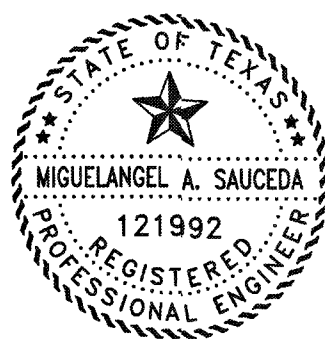
**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

JUNCTION BOX
MANHOLES
SL-11


PROJECT NO. 13454



DESIGNED _____ MS
DRAWN _____ BT
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DATE _____



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Date: 1/11/32

PLAN: _____

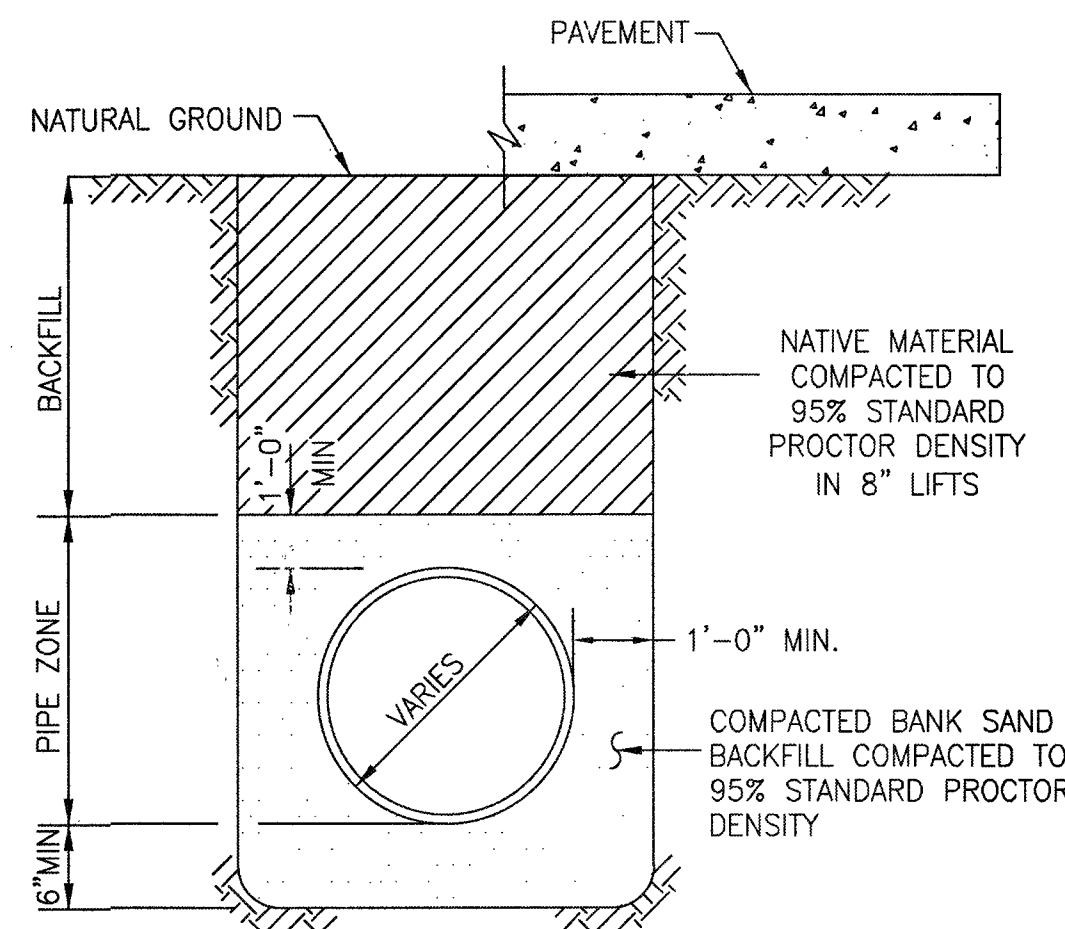
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HORIZONTAL: _____

VERTICAL: _____

WATER LINE
CROSSING DETAILS
SL-16

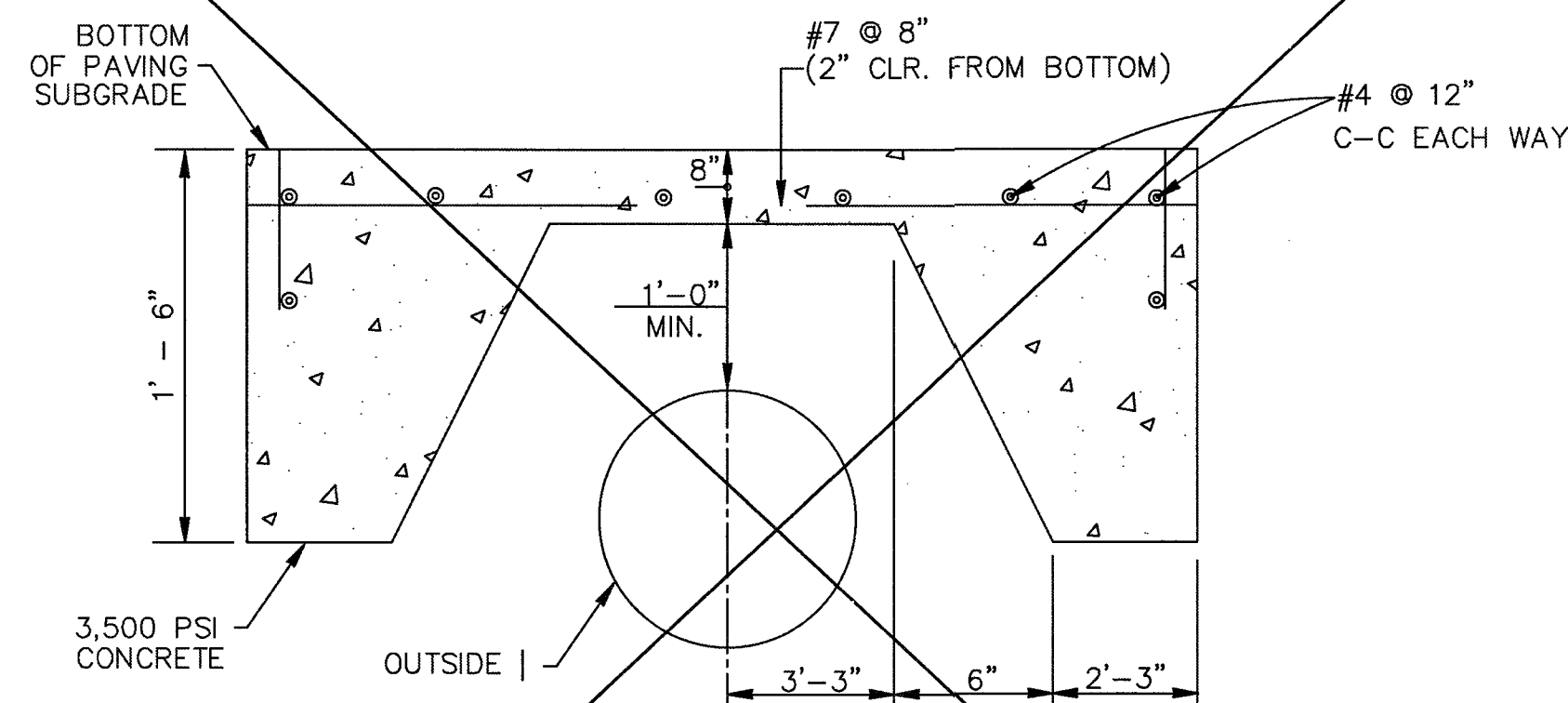
PROJECT NO. 13454



P.V.C. PIPE BEDDING & BACKFILL
N.T.S.
*SEE CONSTRUCTION NOTES

SANITARY FORCE MAIN & WATER LINE
BEDDING AND BACKFILL

SL-BB-01



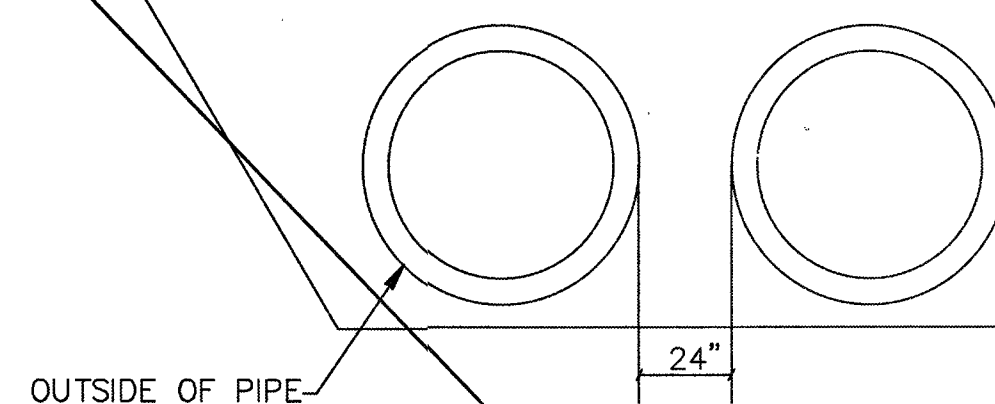
PROTECTIVE SLAB DETAIL
ZERO LOAD TRANSFER CONCRETE SLAB

SL-BB-04

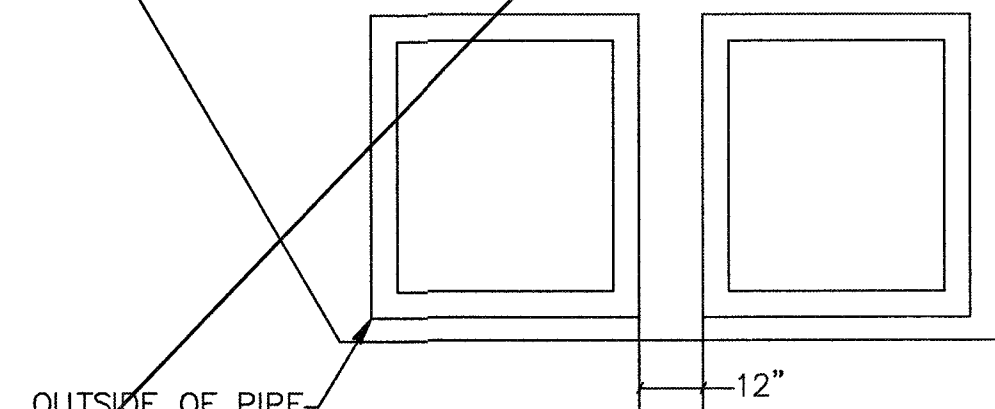
CONSTRUCTION NOTES

1. CONTRACTOR SHALL CONTACT SUGAR LAND ENGINEERING DEPARTMENT IMMEDIATELY IF WET SAND CONDITIONS ARE ENCOUNTERED.
2. LIMESTONE AND RECYCLED CONCRETE DIMENSIONS SHOWN ARE TYPICAL BUT MAY BE VARIED BY ORDER OF CITY ENGINEER.
3. LIMESTONE OR RECYCLED CONCRETE SHALL BE IN ACCORDANCE WITH TXDOT SPECIFICATION No. 248 FLEXIBLE BASE, TYPE A, GRADE 2 AGGREGATE.
4. NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS. WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1 (FT) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24-HRS AFTER BEDDING AND BACKFILL IS IN PLACE.
5. ALL MATERIALS SHALL BE FROM THE APPROVED PRODUCTS LIST UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER.
6. SANITARY SEWER BEDDING FOR WET SAND CONDITIONS SHALL BE AS PER MODIFIED "A".
7. ALL SAND BEDDING FOR WATER LINES SHALL BE CLEAN, MECHANICALLY COMPACTED BANK SAND.
8. REFER TO: MANHOLE DETAILS, SANITARY, C.S.S., GENERAL, WATER CROSSING, WATER DISTRIBUTION DETAILS AND NOTES.
9. ALL BEDDING WILL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
10. A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

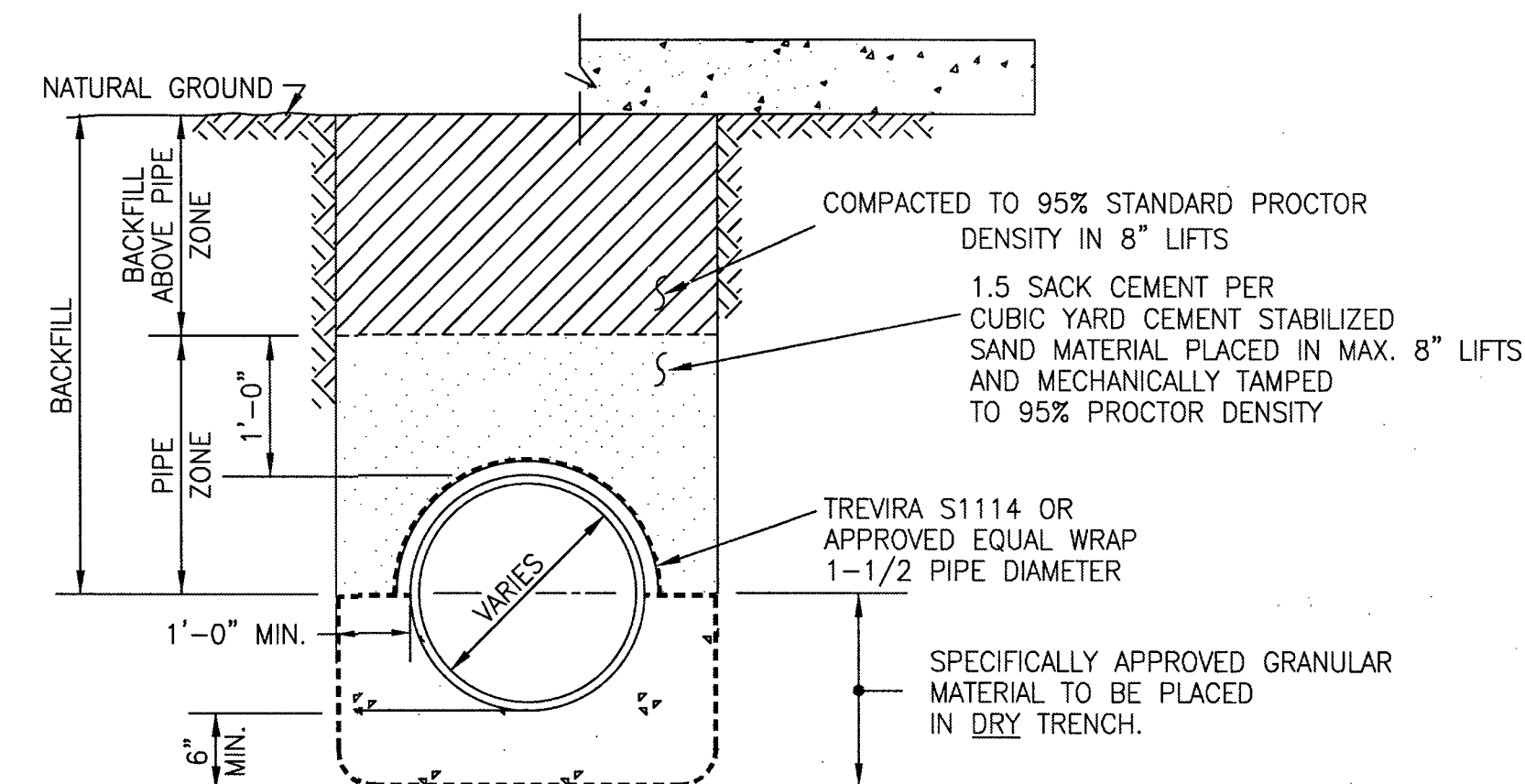
SL-BB-05



PIPE SEPARATION



RCB SEPARATION



MODIFIED "A"
N.T.S.


NOTE: C.S.S. SHALL BE INSTALLED A MIN. 1' ABOVE TOP OF PIPE.

SANITARY SEWER
BEDDING AND BACKFILL
RECORD DRAWING

SL-BB-03

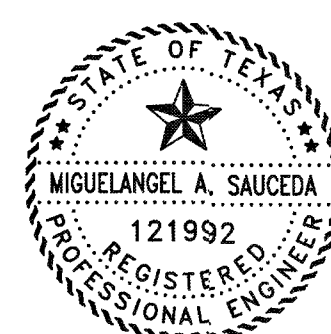
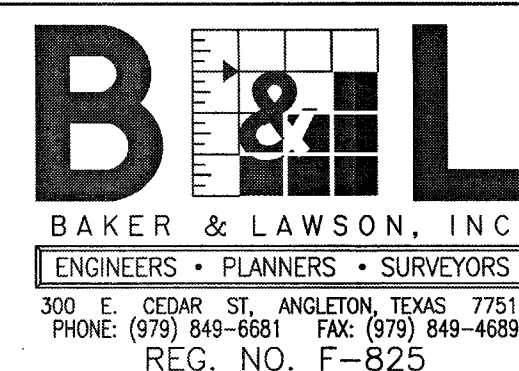
REFER TO:

1. GENERAL NOTES
2. C.S.S. NOTES

No.		DATE	REVISION
SEAL:			
DESIGN ENGINEER: _____ DATE _____			
			
CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT			
CONSTRUCTION PLANS FOR:			
WATER LINE, SANITARY SEWER FORCE MAIN BEDDING DETAILS			
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:		SL-19 SHEET OF	

NO.	DATE	DESCRIPTION	APPROVED

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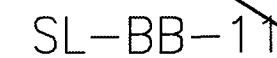
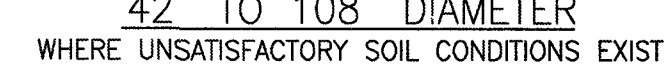
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
PROFILE: _____
HORIZONTAL: _____
VERTICAL: _____

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WATER LINE, SANITARY
SEWER FORCE MAIN
BEDDING DETAILS
SL-19

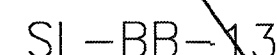
PROJECT NO. 13454




1. CONTRACTOR SHALL CONTACT SUGAR LAND ENGINEERING DEPARTMENT IMMEDIATELY IF WET CONDITIONS ARE ENCOUNTERED.
2. SPECIFICALLY APPROVED GRANULAR MATERIAL DIMENSIONS SHOWN ARE TYPICAL BUT MAY BE VARIED BY ORDER OF CITY ENGINEER.
3. SPECIFICALLY APPROVED GRANULAR MATERIAL SHALL BE IN ACCORDANCE WITH TxDOT SPECIFICATION No. 247 FLEXIBLE BASE, TYPE A, GRADE 2 AGGREGATE.
4. NO BEDDING SHALL BE INSTALLED IN WET CONDITIONS. WHEN WELL POINTING OR IN WET SAND CONDITIONS, MAINTAIN GROUND WATER 1' (FT.) BELOW BOTTOM OF TRENCH FOR A MINIMUM OF 24-HRS AFTER BEDDING AND BACKFILL IS IN PLACE.
5. R.C.P. AND BOX CULVERTS SHALL BE INSTALLED WITH APPROVED GASKETS ONLY.
6. MANHOLES SHALL BE PROVIDED WHERE MODIFIED "A" OR MODIFIED "A-A" BEDDING IS USED. STACKS ARE NOT ALLOWED.
7. REFER TO: MANHOLE DETAILS, INLETS, OUTFALL AND END TREATMENT DETAILS, C.S.S., GENERAL NOTES, AND STORM NOTES.
8. SPECIFIC DESIGNS MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER FOR MANHOLE ACCESS TO BOX CULVERTS AS REQUIRED.
9. ALL BACKFILL WITHIN THE R.O.W. SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
10. A GEOTECHNICAL REPORT MAY BE REQUIRED TO ANALYZE THE BEARING CAPACITY OF EXISTING SOILS AND MAKE A DETERMINATION IF ADDITIONAL BEDDING AND BACKFILL IS APPROPRIATE.

TYPICAL SEAL SLAB BAR SCHEDULE (OR AS DIRECTED BY ENGINEER)		
PIPE SIZE	LGT LAT #4 BARS	NO LONGIT #5 BARS
42"	5'4"	5
48"	6'8"	6
54"	6'8"	6
60"	8'0"	7
66"	8'0"	7
72"	9'4"	8
78"	9'4"	8
84"	9'4"	8
90"	10'8"	9
96"	10'8"	9
102"	12'0"	10
108"	12'0"	10

SL-BB-15

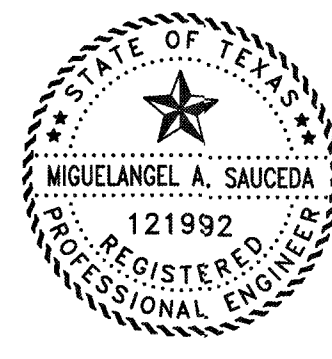
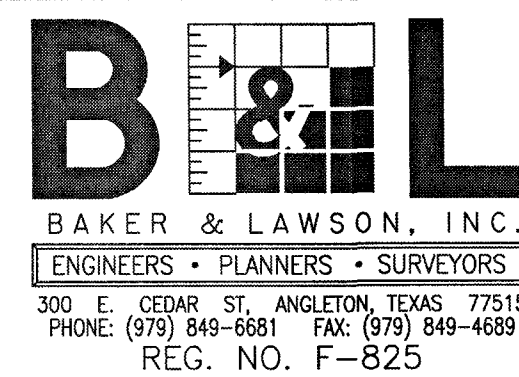


No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE: _____		
<div style="text-align: center;"><p>CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT</p></div>		
<u>CONSTRUCTION PLANS FOR:</u>		
STORM SEWER PIPE BEDDING AND BACKFILL DETAILS		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:		SL-20 SHEET OF


RECORD DRAWING

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Date: 1/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

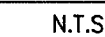
**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

STORM SEWER PIPE
BEDDING AND BACKFILL
DETAILS
SL-20

PROJECT NO.	13454
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1. 6 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 24 INCHES C-C, E.W. IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR LOCAL STREETS
2. 7 INCH, 5.5 SACK CEMENT PER CUBIC YARD CONCRETE, 3500 PSI REINFORCED CONCRETE WITH #4 BARS 18 INCHES C-C, IS THE MINIMUM ACCEPTABLE PAVEMENT CONSTRUCTION FOR COLLECTOR STREETS
3. EIGHT (8) INCH, 5.5 SK, 3500 PSI @ 28 DAYS, REINFORCED WITH #4 18" C.C. EACH WAY IS THE MINIMUM ACCEPTABLE FOR ARTERIAL STREETS.
4. HARD AGGREGATE IS NOT ALLOWED IN STREET PAVEMENT MIX. ADMIXTURES REQUIRE CITY OF SUGAR LAND PUBLIC WORKS DEPARTMENT APPROVAL.
5. TRANSVERSE EXPANSION JOINTS SHALL BE PLACED AT ALL POINTS OF CURVATURE, POINTS OF TANGENCY AND ALL INTERSECTION CURB RETURN POINTS. MAXIMUM SPACING SHALL BE 200' AND BE SEALED WITH SEALANT CONFORMING TO TxDOT ITEM 360 (& ITEM 436) AND TxDOT DMS-6310, CLASS-2.
6. TRANSVERSE CONTROL JOINTS ARE REQUIRED AT MAXIMUM SPACING OF 20'-0" C-C, AND VERTICAL CURB JOINTS TO BE SEALED WITH SPECIAL JOINT SEALANT ASTM-D-1190-74 OR AASHTO-M173-60 FOR PAVEMENT 8" THICK AND GREATER. (ELASTONETRIC TYPE HOT POURED)
7. PAVEMENT FINISH SHALL BE BAKER BROOM FINISH. CURING COMPOUND REQUIRED ON ALL CONCRETE.
8. STORM WATER POLLUTION PROTECTION SHALL BE DESIGNED, CONSTRUCTED, MAINTAINED AND SHALL BE IN TOTAL COMPLIANCE WITH THE STORM QUALITY MANUAL OF THE CITY OF SUGAR LAND, CITY ENGINEER'S APPROVAL.
9. REFER TO GENERAL, C.S.S., AND PAVEMENT NOTES.



SI-ST-04

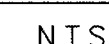


N.T.S.
(STORM & SANITARY)
IN PAVEMENT

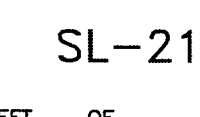
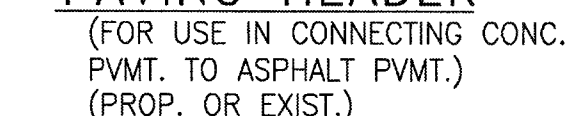


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DESIGN ENGINEER: _____ DATE: _____



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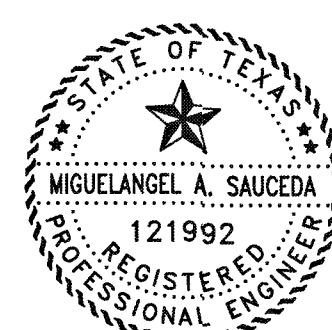
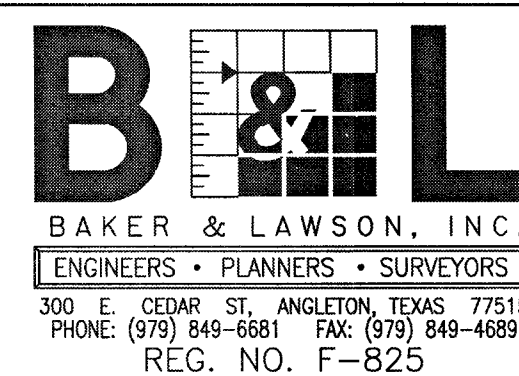


CONCRETE PAVEMENT
CONSTRUCTION DETAILS
SL-21


PROJECT NO. 13454

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

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DATE _____



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Clint Peltier Custom Homes
979-481-4840

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 PROFILE: _____
 HORIZONTAL: _____
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BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION



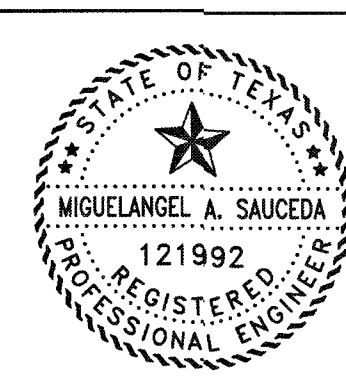
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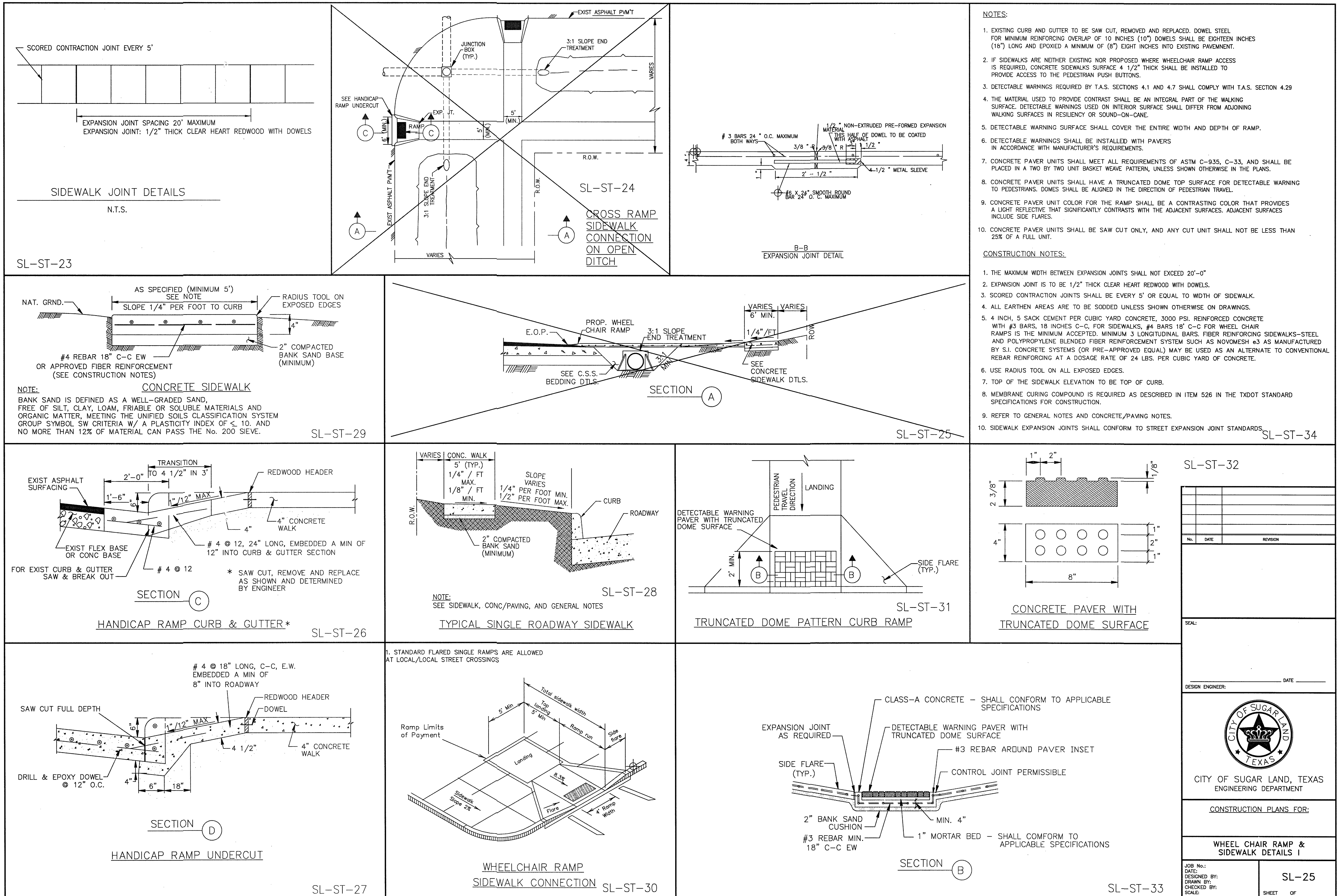
OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN: _____
 PROFILE: _____
 HORIZONTAL: _____
 VERTICAL: _____

**BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION**

CONCRETE PAVEMENT
CONSTRUCTION DETAILS
SL-22

PROJECT NO.	13454
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NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	BT
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DATE	

B & L

BAKER & LAWSON, INC.

ENGINEERS • PLANNERS • SURVEYORS

300 E. CEDAR ST. ANGLETON, TEXAS 77515

PHONE: (979) 849-6681 FAX: (979) 849-4689

REG. NO. F-825

STATE OF TEXAS

MIGUEL ANGEL A. SAUCEDA

121992

REGISTERED PROFESSIONAL ENGINEER

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OWNER:

Clint Peltier

Clint Peltier Custom Homes

979-481-4840

PLAN: _____

PROFILE: _____

HORIZONTAL: _____

VERTICAL: _____

BAYOU BEND ESTATES

ANGLETON, TEXAS

PLANS FOR

GRADING, PAVING, UTILITIES

AND DETENTION

WHEEL CHAIR RAMP & SIDEWALK DETAILS I

SL-25

PROJECT NO. 13454

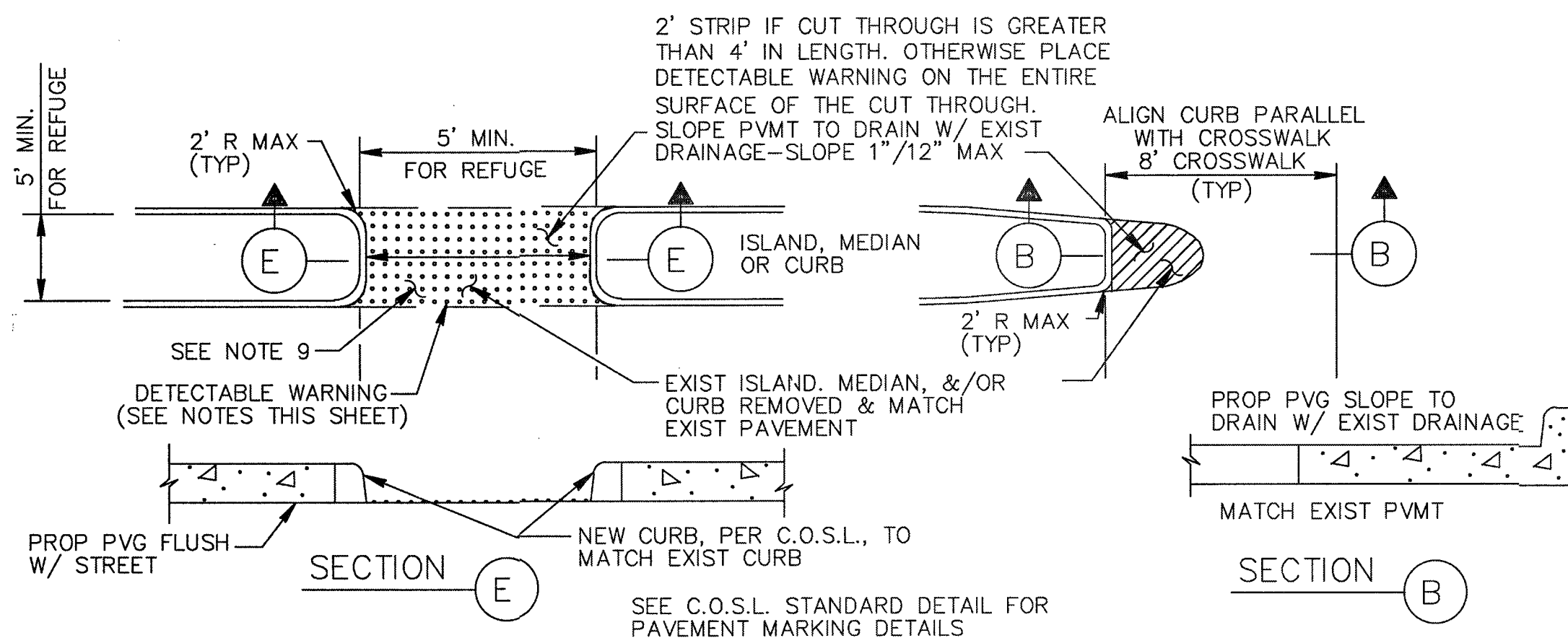
13454

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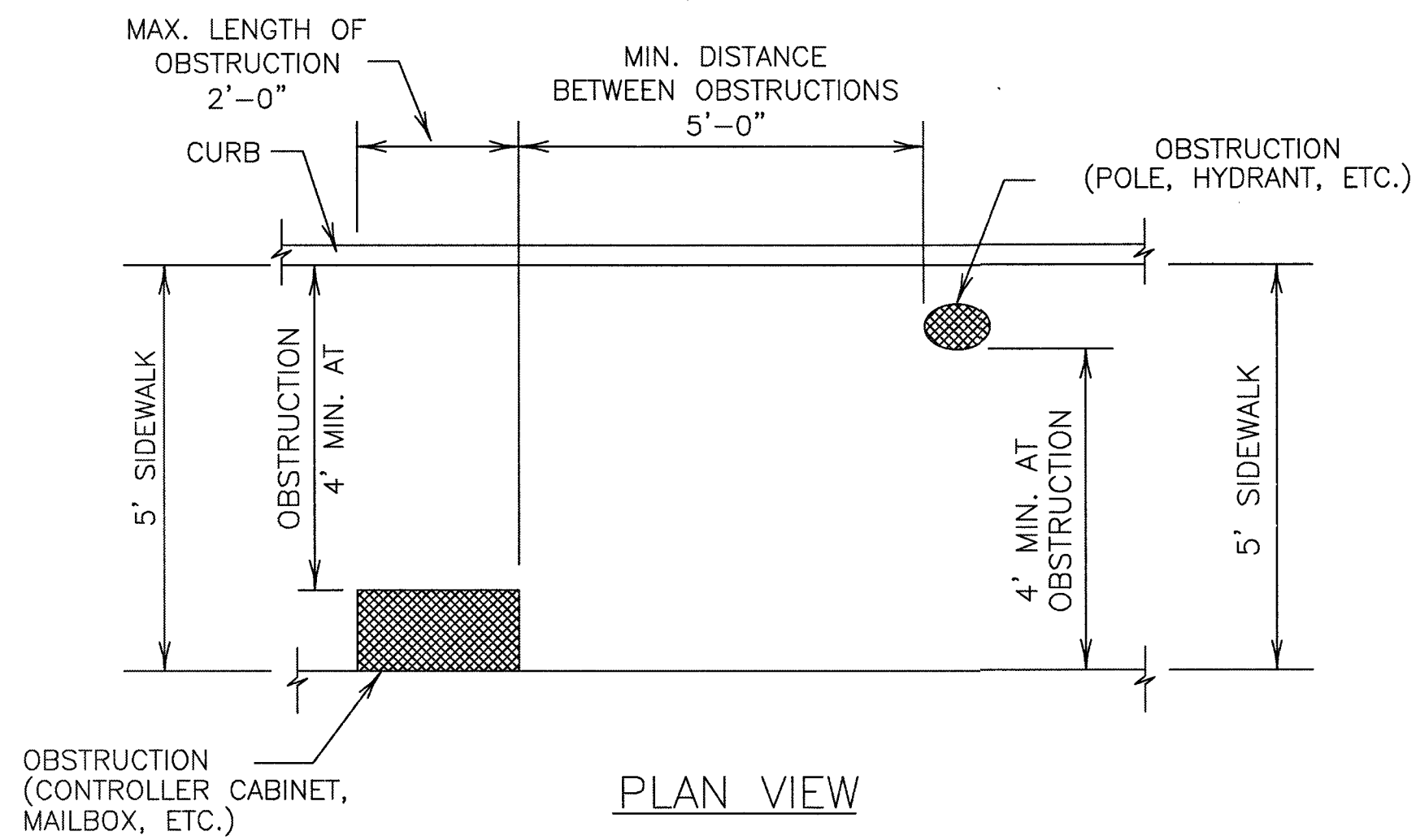
1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS MAY BE ADJUSTED AS DIRECTED
2. THE MINIMUM SIDEWALK WIDTH IS 5' (FEET). THE LANDING SHALL BE 5' x 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND RAMP SURFACES IS 2%. USUAL SIDEWALK CROSS SLOPE EQUALS 1.5%. CHANGES IN LEVEL GREATER THAN 1/4" (IN.) ARE NOT PERMITTED.
3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMP SHALL BE A MINIMUM OF 5' x 5' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.
4. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6" (IN.) OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES, WITH THE FOLLOWING EXCEPTIONS:
 - A.) HANDRAILS ARE NOT REQUIRED ON CURB RAMP. CURB RAMP SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
 - B.) THE LEAST POSSIBLE GRADE SHOULD BE USED TO MAXIMIZE ACCESSIBILITY. WHERE STRUCTURALLY IMPRACTICAL TO ACHIEVE TEXAS ACCESSIBILITY STANDARDS (TAS) COMPLIANCE, THE RUNNING SLOPE OF SIDEWALKS AND CROSSWALKS, WITHIN THE PUBLIC R.O.W., MAY FOLLOW THE GRADE OF THE PARALLEL ROADWAY WITHOUT INVOKING TEXAS ACCESSIBILITY STANDARDS (TAS) VARIANCES FOR LANDINGS OR HANDRAILS. WHERE A CONTINUOUS GRADE GREATER THAN 5% MUST BE PROVIDED, HANDRAILS MAY BE DESIRABLE ON ONE OR BOTH SIDES OF THE SIDEWALK TO IMPROVE ACCESSIBILITY. HANDRAILS MAY ALSO BE NEEDED TO PROTECT PEDESTRIANS FROM POTENTIALLY HAZARDOUS CONDITIONS.
5. CURB RAMP WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. OTHERWISE, FLARED SIDES SHALL BE PROVIDED. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
6. RAMP TEXTURES MUST CONSIST OF TRUNCATED DOME SURFACES, IN ACCORDANCE WITH ADA AND TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR). TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. TEXTURES ALSO SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. TO SERVE AS A REFUGE AREA, THE MEDIAN SHALL BE A MINIMUM OF 5' (FT.) WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
9. SMALL CHANNELIZATION ISLANDS, WHICH CAN NOT PROVIDE A MINIMUM 5' x 5' LANDING AT THE TOP OF RAMPS, SHALL BE CUT THROUGH LEVEL WITH THE SURFACE OF THE STREET.
10. CROSSWALK DIMENSIONS, CROSSWALK MARKINGS AND STOP BAR LOCATIONS SHALL BE AS SHOWN IN THE PLANS. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
11. EXISTING FEATURES THAT COMPLY WITH T.A.S. MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
12. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE.

PLOI 11M.C.



FOR ISLAND, MEDIAN, OR CURB MODIFICATIONS FOR CROSSWALKS

SL-ST-35




PLAN VIEW
PLACEMENT OF STREET FIXTURES

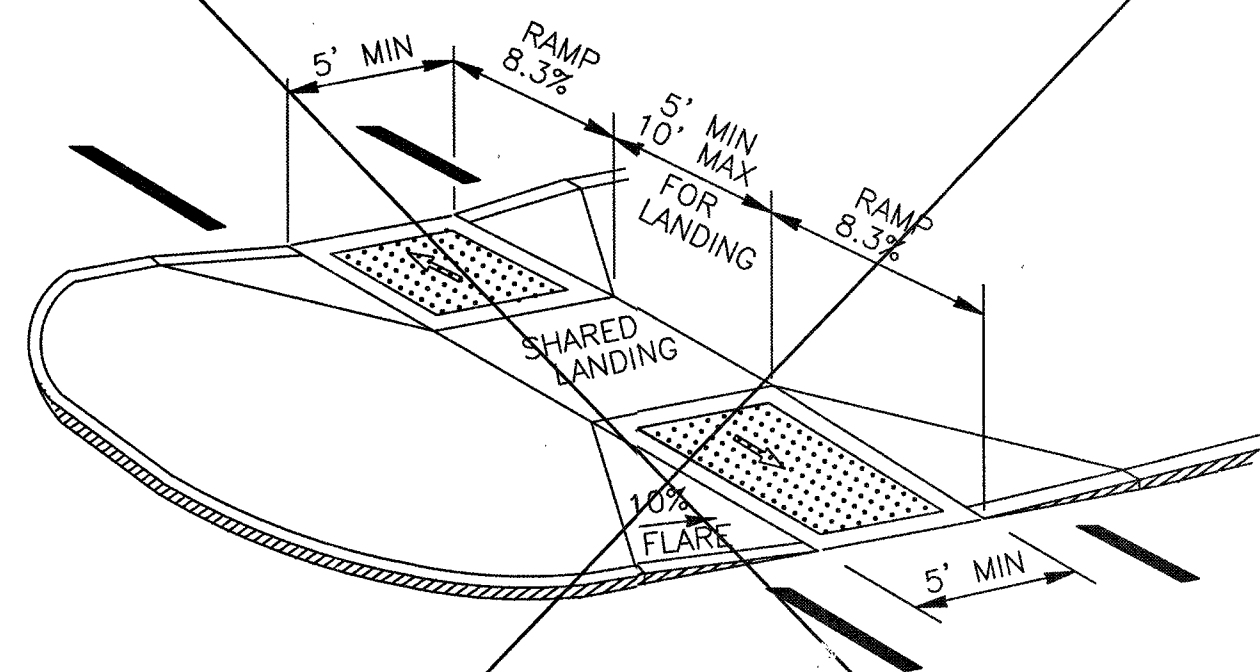
(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)

SL-ST-36

SL-ST-40

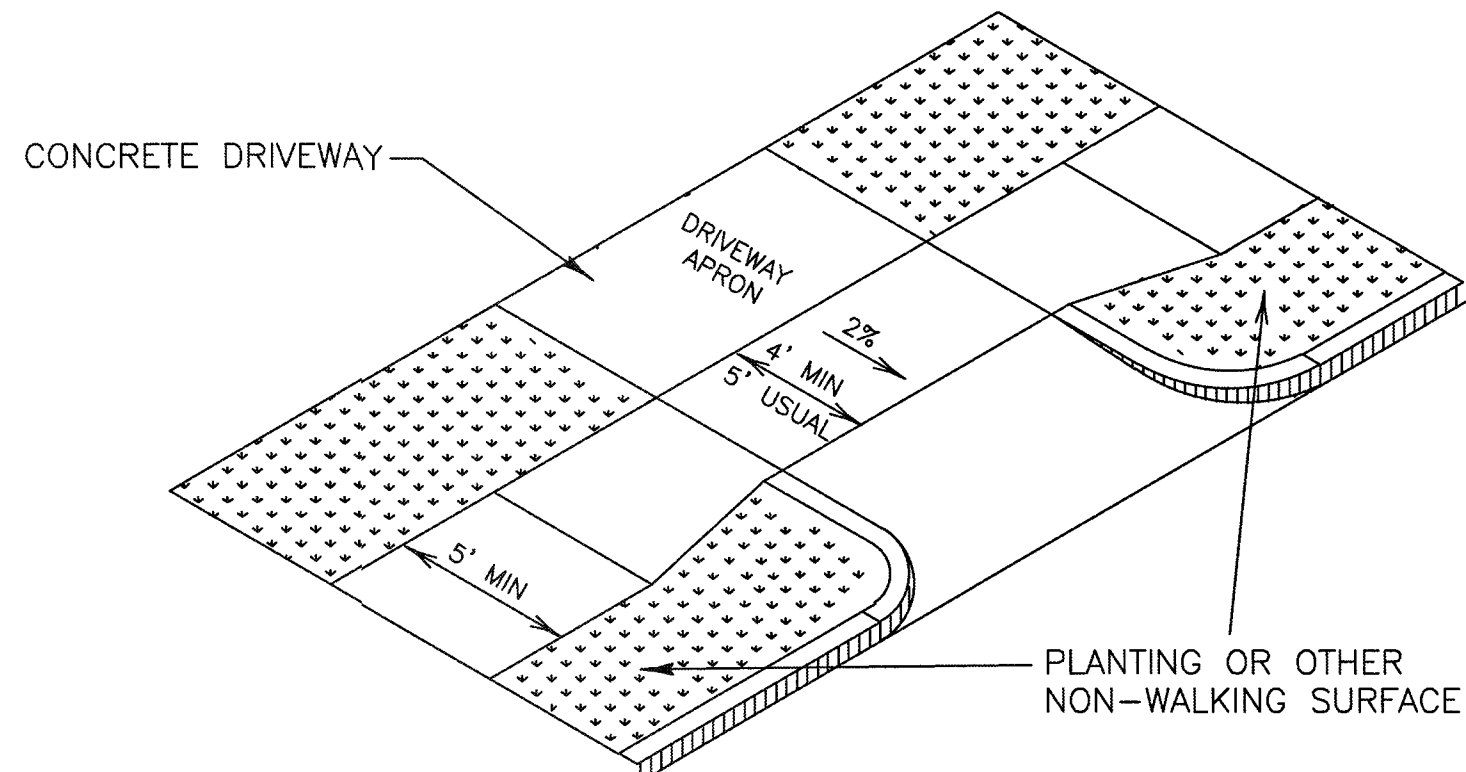
No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
WHEEL CHAIR RAMP & SIDEWALK DETAILS II		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-26 SHEET OF	

PLOI 11M.C.



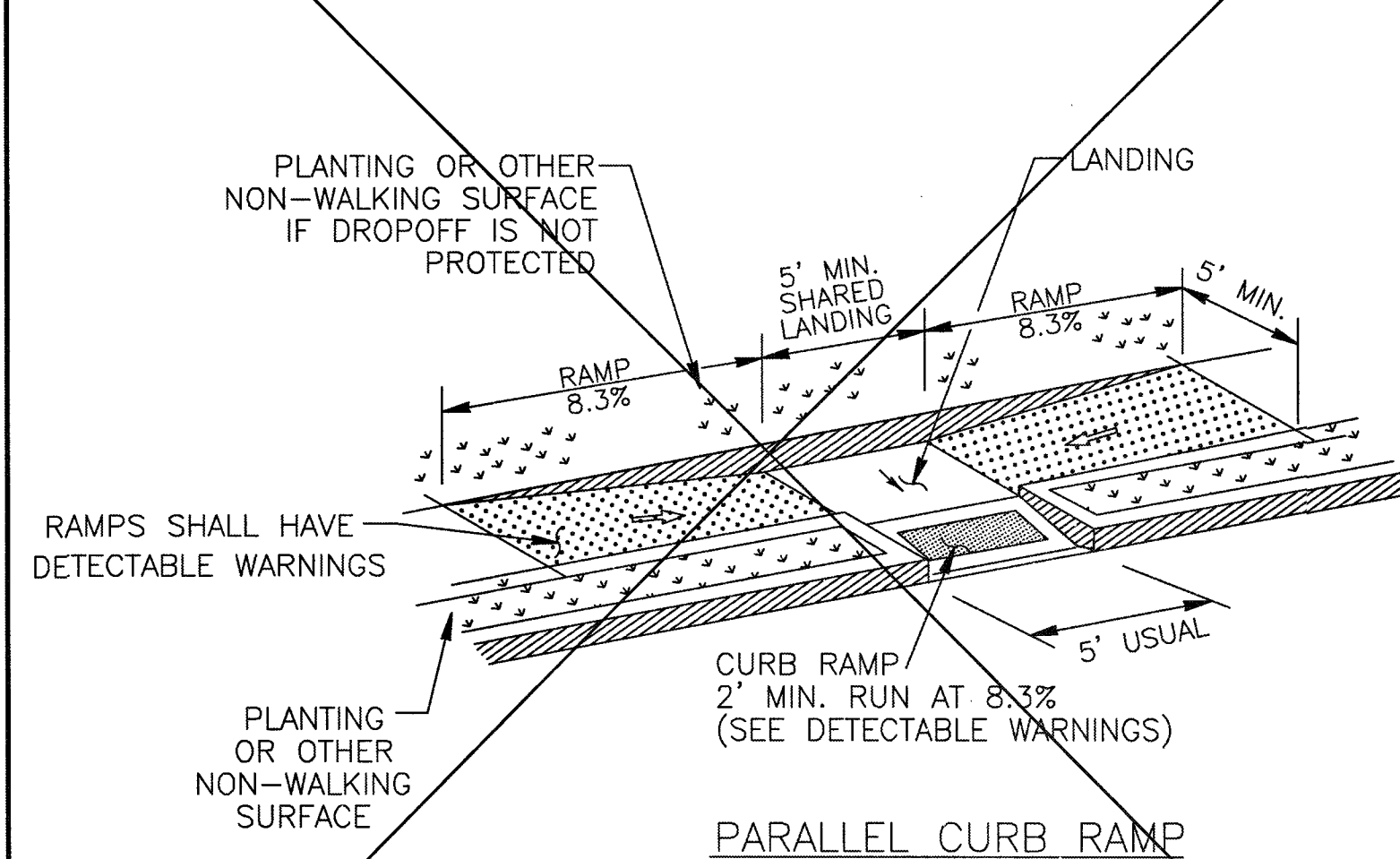
CURB RAMPS AT MEDIAN ISLANDS

SL-ST-37



SIDEWALK TREATMENT AT DRIVEWAYS

SL-ST-38



PARALLEL CURB RAMP

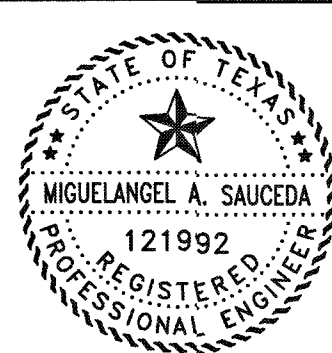
SL-ST-39

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ENGINEERS • PLANNERS • SURVEYORS
300 E. CEDAR ST., ANGLETON, TEXAS 77515
PHONE: (979) 849-6681 FAX: (979) 849-4689
REG. NO. F-825



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Date: 11/11/27

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

WHEEL CHAIR RAMP & SIDEWALK DETAILS II
SL-26

PROJECT NO. 13454

SL-ST-49

NOTES:

- 1.) SAW CUT & BREAKOUT NO MORE THAN 72 HOURS PRIOR TO PROPOSED CONCRETE PLACEMENT. NOTIFY SUGAR LAND PRIOR TO CUT.
- 2.) UNSTABLE SUBGRADE SHALL BE OVER EXCAVATED & REPLACED WITH CONCRETE.
- 3.) IT IS CONTRACTOR'S RESPONSIBILITY TO NOTIFY SUGAR LAND OF ANY BIRD BATH PROBLEMS PRIOR TO CONSTRUCTION OF DRIVEWAY.
- 4.) USE 1"x2" TREATED REDWOOD FOR HEADER.
- 5.) EDGE ALL SIDES WITH EDGING TOOL AND BROOM FINISH
- 6.) FOR INDUSTRIAL DRIVES, PAVEMENT SHALL HAVE A DEPTH OF 8" (IN).
- 7.) EXPANSION JOINT AT PROPERTY LINE REQUIRED. 3/4" REDWOOD BOARD WITH No. 4 DOWELS MINIMUM.
- 8.) MAXIMUM ALLOWABLE DRIVEWAY GRADE IN PUBLIC R.O.W. IS 5%.
- 9.) DRIVEWAY GRADE MUST MEET A.D.A. AND T.A.S. SIDEWALK SLOPE. SIDEWALKS MUST BE SCORED TO MATCH ADJACENT SIDEWALK. IF SLOPE IS CONTINUED THROUGH THE R.O.W. LINE, PROVIDE A 3/4" REDWOOD EXPANSION JOINT WITH DOWELS AT R.O.W. LINE.
- 10.) REFER TO GENERAL, C.S.S., ASPHALT, AND CONCRETE PAVEMENT NOTES.

CONCRETE APRON DETAIL - DRIVEWAY PROFILE FOR CULVERT DRAINAGE

N.T.S.

SL-ST-42

6" CONCRETE CURB DRIVEWAY PLAN

N.T.S.

SL-ST-41

TABLE-A

CEMENT STABILIZED SAND 2-SK/C.Y.	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM

REINFORCED CONCRETE PAVEMENT 3,000 PSI MIN.	
RESIDENTIAL	4" MINIMUM
COMMERCIAL	6" MINIMUM
INDUSTRIAL	8" MINIMUM

DRIVEWAY PAVEMENT CONSTRUCTION TABLE

NO.	DATE	REVISION

SEAL:

DESIGN ENGINEER:

DATE



CITY OF SUGAR LAND, TEXAS
ENGINEERING DEPARTMENT

CONSTRUCTION PLANS FOR:

DRIVEWAY CONSTRUCTION DETAILS

JOB NO.:
DATE:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:

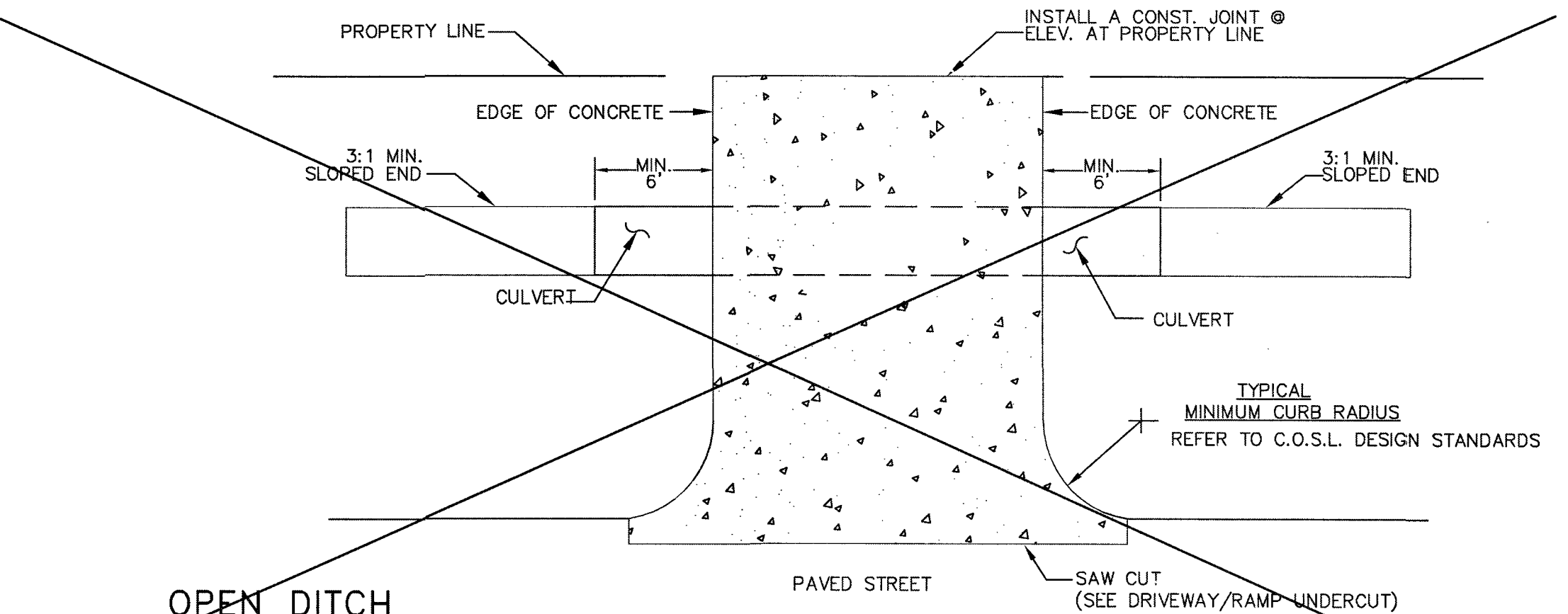
SL-27

SHEET OF

RECORD DRAWING

DRIVEWAY CONSTRUCTION
DETAILS
SL-27

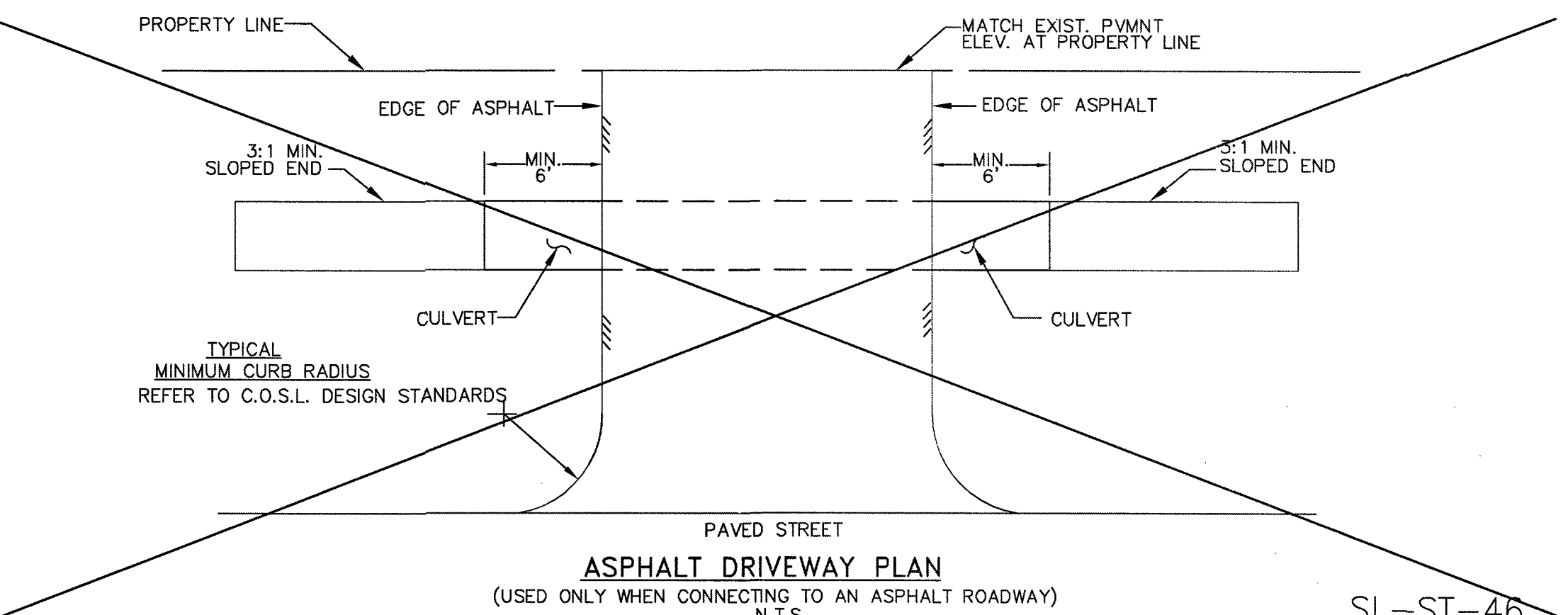
PROJECT NO. 13454



OPEN DITCH CONCRETE DRIVEWAY PLAN

(USED ONLY WHEN CONNECTING TO A CONCRETE ROADWAY)
N.T.S.

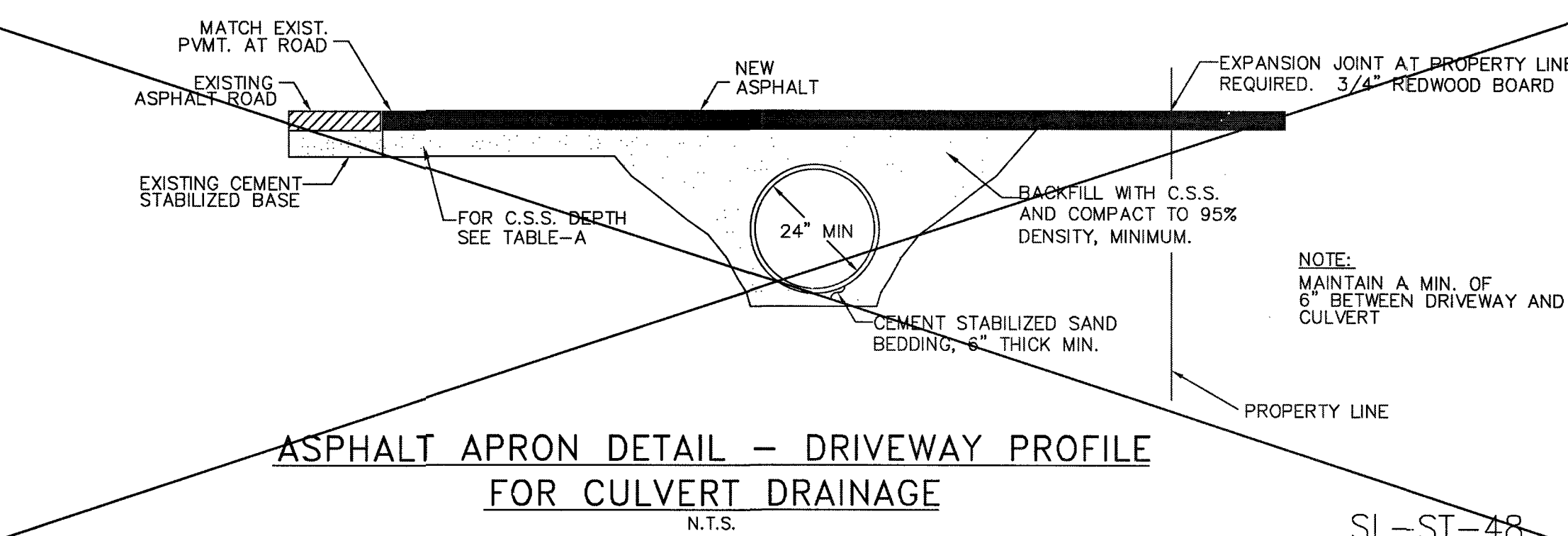
SL-ST-44



ASPHALT DRIVEWAY PLAN

(USED ONLY WHEN CONNECTING TO AN ASPHALT ROADWAY)
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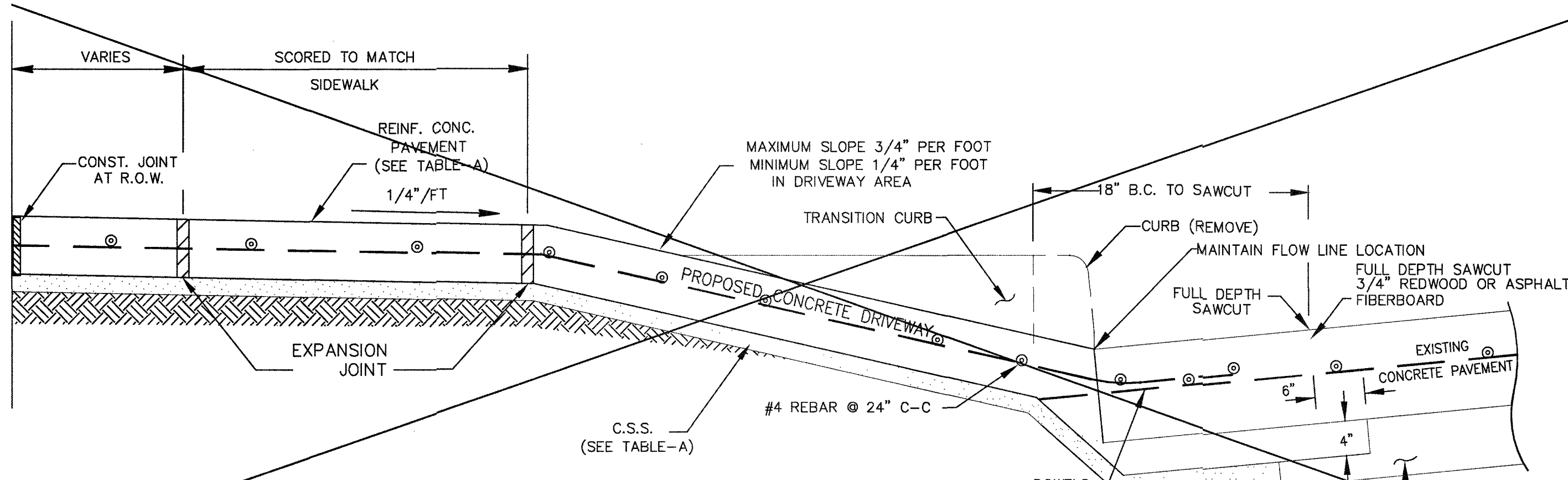
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ASPHALT APRON DETAIL - DRIVEWAY PROFILE FOR CULVERT DRAINAGE

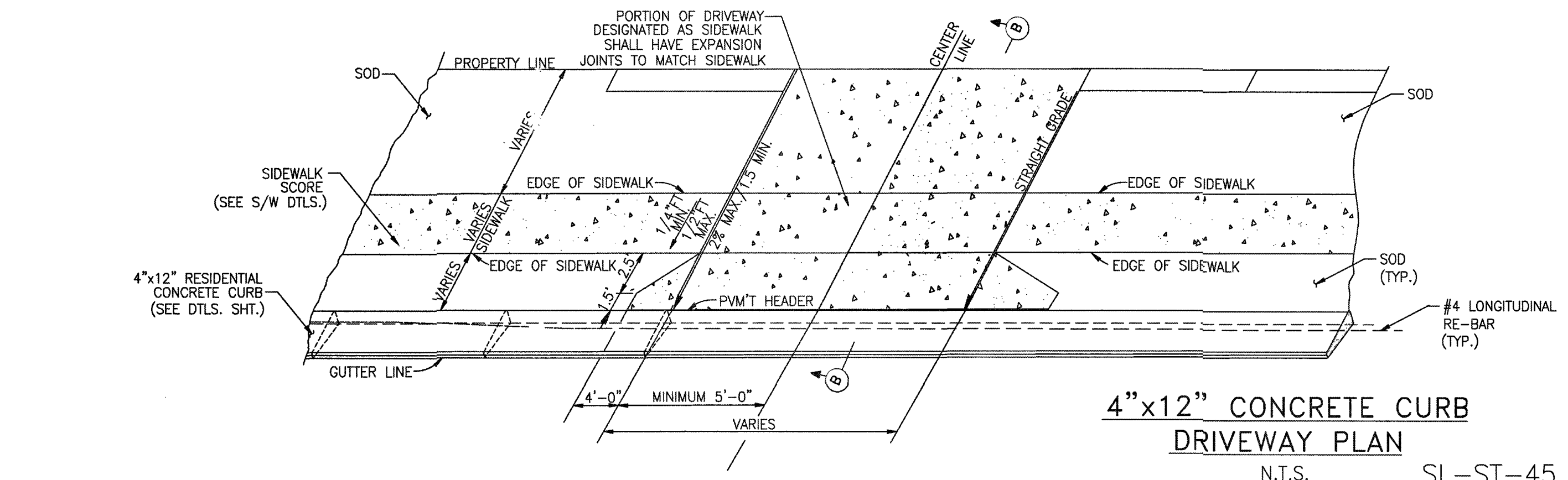
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SECTION A

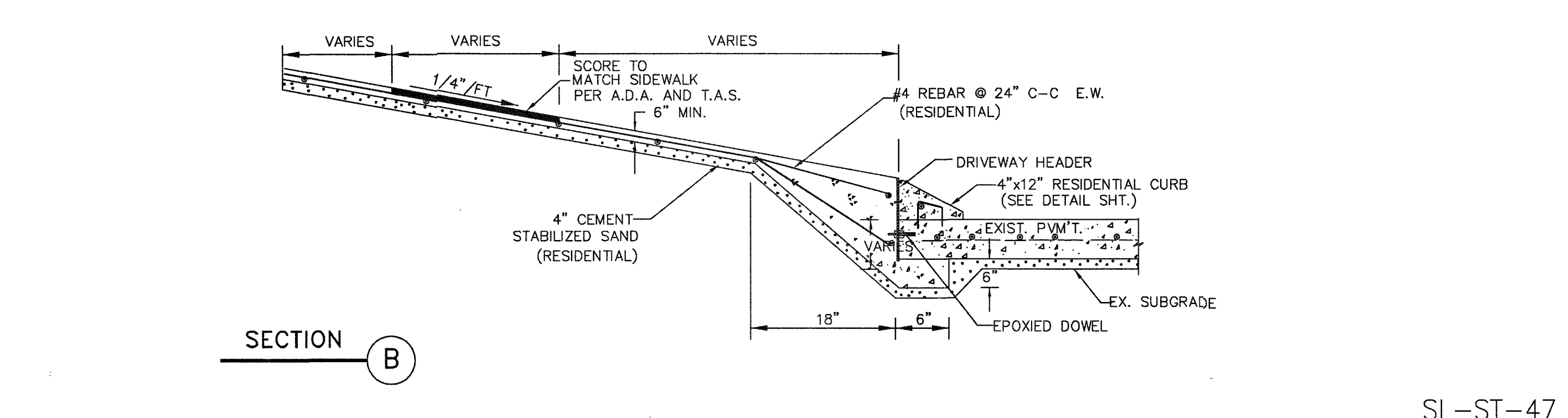
SL-ST-43



4"x12" CONCRETE CURB DRIVEWAY PLAN

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SL-ST-45



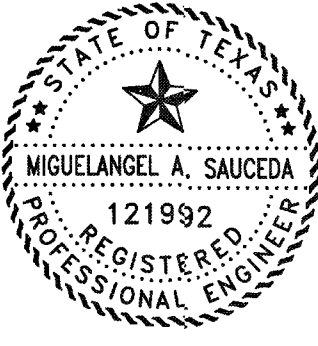
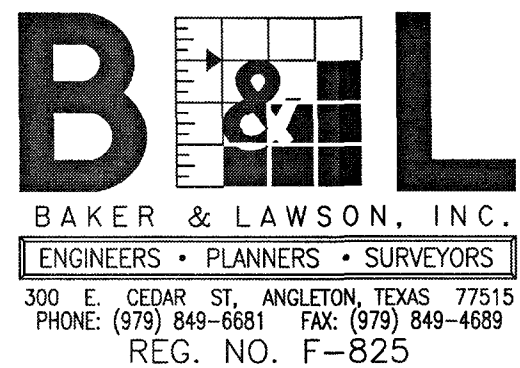
SECTION B

SL-ST-47

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED MS
DRAWN BT
CHECKED
DATE



The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
Date: 11/11/22

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:
PROFILE:
HORIZONTAL:
VERTICAL:

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

HYPER-CHLORINATED WATER NOTES

- 1. HYPER-CHLORINATED WATER SHALL NOT BE DISCHARGED TO THE STORM SEWER OR DRAINAGE SYSTEM UNLESS THE CHLORINE CONCENTRATION IS REDUCED TO 4 PPM OR LESS BY CHEMICALLY TREATING THE DECHLORINATE OR BY ONSITE RETENTION UNTIL NATURAL ATTENUATION OCCURS.
- 2. DISCHARGE OF HIGH FLOW RATE AND VELOCITIES SHALL BE DIRECTED TO VELOCITY DISSIPATION DEVICES.
- 3. CHLORINE CAN BURN VEGETATION, SO IT SHOULD NOT BE USED TO WATER VEGETATION THAT IS BEING USED FOR STABILIZATION, VEGETATED FILTERS OR BUFFERS, OR OTHER VEGETATION TO BE PRESERVED.
- 4. HYPER-CHLORINATED WATER MAY BE DISCHARGED TO AN ONSITE RETENTION AREA UNTIL NATURAL ATTENUATION OCCURS. THE AREA MAY BE A DRY STORMWATER RETENTION BASIN, OR A PORTION OF THE SITE MAY BE GRADED TO FORM A TEMPORARY PIT OR BERMED AREA.
- 5. NATURAL ATTENUATION OF THE CHLORINE MAY BE AIDED BY AERATION. AIR CAN BE ADDED TO THE WATER BY DIRECTING THE DISCHARGE OVER A ROUGH SURFACE BEFORE IT ENTERS THE TEMPORARY RETENTION AREA OR AN AERATION DEVICE CAN BE PLACED IN THE RETENTION AREA.
- 6. ONSITE DISCHARGE MAY REQUIRE SEVERAL HOURS TO A FEW DAYS BEFORE THE WATER IS SAFE TO DISCHARGE. THE RATE AT WHICH CHLORINE WILL ATTENUATE IS AFFECTED BY SOIL CONDITIONS AND WEATHER CONDITIONS. ATTENUATION WILL OCCUR QUICKEST DURING WARM, SUNNY, AND DRY PERIODS.

SANITARY WASTE NOTES

- 1. THE CONTRACTOR SHALL PROVIDE AN APPROPRIATE NUMBER OF PORTABLE TOILETS BASED ON THE NUMBER OF EMPLOYEES USING THE TOILETS AND THE HOURS THEY WILL WORK.
- 2. SANITARY FACILITIES SHALL BE PLACED ON A MINIMUM OF 50 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE, CHANNELS OR SURFACE WATERS. IF UNABLE TO MEET THE 50 FOOT REQUIREMENT DUE TO SITE CONFIGURATION, PORTABLE TOILETS SHALL BE A MINIMUM OF 20 FEET AWAY FROM STORM DRAIN INLETS, CONVEYANCE CHANNELS OR SURFACE WATER AND SECONDARY CONTAINMENT SHALL BE PROVIDE IN CASE OF SPILLS. THE LOCATION OF THE PORTABLE TOILETS SHALL BE ACCESSIBLE TO MAINTENANCE TRUCKS WITHOUT DAMAGING EROSION AND SEDIMENT CONTROLS OR CAUSING EROSION OR TRACKING PROBLEMS.
- 3. SANITARY FACILITIES SHALL BE FULLY ENCLOSED AND DESIGNED IN A MANNER THAT MINIMIZES THE EXPOSURE OF SANITARY WASTE TO PRECIPITATION AND STORMWATER RUNOFF.
- 5. WHEN HIGH WINDS ARE EXPECTED, PORTABLE TOILETS SHALL BE ANCHORED OR OTHERWISE SECURED TO PREVENT THEM FROM BEING BLOWN OVER.
- 6. THE COMPANY THAT SUPPLIES AND MAINTAINS THE PORTABLE TOILETS SHALL BE NOTIFIED IMMEDIATELY IF A TOILET IS TIPPED OVER OR DAMAGED IN A WAY THAT THE RESULTS IN A DISCHARGE. DISCHARGED SOLID MATTER SHALL BE VACUUMED INTO A SEPTIC TRUCK BY THE COMPANY THAT MAINTAINS THE TOILETS.
- 7. THE OPERATOR OF THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) SHALL BE NOTIFIED IF A DISCHARGE FROM THE PORTABLE TOILETS ENTERS THE MS4 OR A NATURAL CHANNEL.
- 8. SANITARY FACILITIES SHALL NOT BE PERMITTED ON PUBLIC SIDEWALKS, STREETS OR INLETS.

DEBRIS AND TRASH NOTES

- 1. ALL WASTE SOURCES AND STORAGE AREAS SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL MATERIAL AND WASTE SOURCES BE CLOSER THAN 20 FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS.
- 2. CONSTRUCTION WASTE AND TRASH SHALL BE STORED IN A MANNER THAT MINIMIZES ITS EXPOSURE TO PRECIPITATION AND STORMWATER RUNOFF.
- 3. WHENEVER POSSIBLE, MINIMIZE PRODUCTION OF DEBRIS AND TRASH.
- 4. INSTRUCT CONSTRUCTION WORKERS IN PROPER DEBRIS AND TRASH STORAGE AND HANDLING PROCEDURES.
- 5. SEGREGATE POTENTIAL HAZARDOUS WASTE FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS.
- 6. PROHIBIT LITTERING BY WORKERS AND VISITORS.
- 7. POLICE SITE DAILY FOR LITTER AND DEBRIS.
- 8. ENFORCE SOLID WASTE HANDLING AND STORAGE PROCEDURES.
- 9. IF FEASIBLE, RECYCLE CONSTRUCTION AND DEMOLITION DEBRIS SUCH AS WOOD, METAL, AND CONCRETE.
- 10. TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AT REGULAR INTERVALS THAT ARE SCHEDULED TO EMPTY CONTAINERS WHEN THEY ARE 90 PERCENT FULL OR MORE FREQUENTLY.
- 11. GENERAL CONSTRUCTION DEBRIS MAY BE HAULED TO A LICENSED CONSTRUCTION DEBRIS LANDFILL.
- 12. USE WASTE AND RECYCLING HAULERS/FACILITIES APPROVED BY THE LOCAL MUNICIPALITY.
- 13. CHIPPING OF TREES AND BRUSH FOR USE SUCH AS MULCH IS PREFERRED ALTERNATIVE TO OFFSITE DISPOSAL.
- 14. NO WASTE, TRASH, OR DEBRIS SHALL BE BURIED, BURNED OR OTHER WISE DISPOSED OF ONSITE.
- 15. CLEARLY MARK ON ALL DEBRIS AND TRASH CONTAINERS WHICH MATERIALS ARE ACCEPTABLE. FOREMAN AND/OR CONSTRUCTION SUPERVISOR SHALL MONITOR ONSITE SOLID WASTE STORAGE AND DISPOSAL PROCEDURES DAILY.

CONCRETE SAWCUTTING WASTE NOTES

- 1. DURING SAWCUTTING OPERATIONS, THE SLURRY AND CUTTINGS SHALL BE CONTINUOUSLY VACUUMED OR OTHERWISE RECOVERED AND NOT BE ALLOWED TO DISCHARGE FROM THE SITE.
- 2. IF THE PAVEMENT TO BE CUT IS NEAR A STORM DRAIN INLET, THE INLET SHALL BE BLOCKED BY SANDBAGS OR EQUIVALENT TEMPORARY MEASURES TO PREVENT THE SLURRY FROM ENTERING THE INLET. REMOVE THE SANDBAGS IMMEDIATELY AFTER COMPLETING SAWCUTTING OPERATIONS, SO THEY DO NOT CAUSE DRAINAGE PROBLEMS DURING STORM EVENTS.
- 3. SLURRY AND CUTTINGS SHALL NOT BE ALLOWED TO REMAIN ON THE PAVEMENT TO DRY OUT
- 4. DEVELOP PRE-DETERMINED, SAFE SLURRY DISPOSAL AREAS.
- 5. COLLECTED SLURRY AND CUTTINGS SHOULD BE IMMEDIATELY HAULED FROM THE SITE FOR DISPOSAL AT A WASTE FACILITY. IF THIS IS NOT POSSIBLE, THE SLURRY AND CUTTINGS SHALL BE DISCHARGED INTO ONSITE CONTAINMENT.
- 6. THE ONSITE CONTAINMENT MAY BE EXCAVATED OR BERMED PIT LINED WITH PLASTIC MINIMUM OF 10 MILIMETERS THICK. IF THE PROJECT INCLUDES PLACEMENT OF NEW CONCRETE, SLURRY FROM SAWCUTTING MAY BE DISPOSED OF IN FACILITIES DESIGNATED FOR THE WASHOUT OF CONCRETE TRUCKS INSTEAD CONSTRUCTING A SEPARATE CONTAINMENT.
- 7. THE CONTAINMENT SHALL BE LOCATED A MINIMUM OF 50 FEET AWAY FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS, AND OTHER WATERS, IF THE SITE CONFIGURATION PROVIDES SUFFICIENT SPACE TO DO SO. IN NO CASE SHALL THE COLLECTION AREA BE CLOSER THAN 20 FEET FROM INLETS, SWALES, DRAINAGE WAYS, CHANNELS AND OTHER WATERS.
- 8. SEVERAL, PORTABLE, PRE-FABRICATED, CONCRETE WASHOUT, COLLECTION BASINS ARE COMMERCIALLY AVAILABLE AND ARE AN ACCEPTABLE ALTERNATIVE TO AN ONSITE CONTAINMENT PIT.
- 9. REMOVE WASTER CONCRETE WHEN THE CONTAINMENT IS HALF FULL. ALWAYS MAINTAIN A MINIMUM OF ONE FOOT FREEBOARD.
- 10. ONSITE EVAPORATION OF SLURRY WATER AND RECYCLING OF THE CONCRETE WASTE IS THE PREFERRED DISPOSAL METHOD. WHEN THIS IS NOT FEASIBLE, DISCHARGE FROM THE COLLECTION AREA SHALL ONLY BE ALLOWED IF A PASSIVE TREATMENT SYSTEM IS USED TO REMOVE THE FINES. MECHANICAL MIXING IS REQUIRED IN THE COLLECTION AREA. THE pH MUST BE TESTED, AND DISCHARGED IS ALLOWED IN IF THE pH DOES NOT EXCEED 8.0. THE pH MAY BE LOWERED BY ADDING SULFURIC ACID TO THE SLURRY WATER.
- 11. CARE SHALL BE EXERCISED WHEN TREATING THE SLURRY WATER FOR DISCHARGE. MONITORING MUST BE IMPLEMENTED TO VERIFY THAT DISCHARGES FROM THE COLLECTION AREA DO NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
- 12. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO CONTROL SAWCUTTING WASTE, SINCE THE GRAIN SIZE IS SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.

SPILL AND LEAK RESPONSE NOTES


- 1. RECORDS OF RELEASES THAT EXCEED THE REPORTABLE QUANTITY (RQ) FOR OIL AND HAZARDOUS SUBSTANCES SHOULD BE MAINTAINED IN ACCORDANCE WITH THE FEDERAL AND STATE REGULATIONS.
- 2. EMERGENCY CONTACT INFORMATION AND SPILL RESPONSE PROCEDURES SHALL BE POSTED IN A READILY AVAILABLE REA FOR ACCESS BY ALL EMPLOYEES AND SUBCONTRACTORS.
- 3. SPILL CONTAINMENT KITS SHOULD BE MAINTAINED FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS THAT ARE REGULARLY ONSITE. MATERIALS IN KITS SHOULD BE BASED ON CONTAINMENT GUIDELINES IN THE MATERIALS SAFETY AND DATA SHEETS (MSDSS) FOR THE SUBSTANCE MOST FREQUENTLY ONSITE.
- 4. SPILL KITS ARE INTENDED FOR RESPONSE TO SMALL SPILLS, TYPICALLY LESS THAN 5 GALLONS, OF SUBSTANCES THAT ARE NOT EXTREMELY HAZARDOUS.
- 5. SIGNIFICANT SPILLS OR OTHER RELEASES WARRANT IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS.
- 6. SUSPECTED JOB-SITE CONTAMINATION SHOULD BE IMMEDIATELY REPORTED TO REGULATORY AUTHORITIES AND PROTECTIVE ACTIONS TAKEN.
- 7. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE A SITE SUPERINTENDENT, FOREMAN, SAFETY OFFICER, OR OTHER SENIOR PERSON WHO IS ONSITE DAILY TO BE THE SPILL AND LEAK RESPONSE COORDINATOR (SLRC) AND MUST HAVE KNOWLEDGE OF AND BE TRAINED IN CORRECT SPILL AND LEAK RESPONSE PROCEDURES.

SUBGRADE STABILIZATION NOTES

- 1. MINIMIZE THE DISCHARGE OF THE CHEMICAL STABILIZERS BY THE CONTRACTOR LIMITING THE AMOUNT OF STABILIZING AGENT ONSITE TO THAT WHICH CAN BE THOROUGHLY MIXED AND COMPACTED BY THE END OF EACH WORKDAY.
- 2. STABILIZERS SHALL BE APPLIED AT RATES THAT RESULT IN NO RUN OFF.
- 3. STABILIZATION SHALL NOT OCCUR IMMEDIATELY BEFORE AND DURING RAINFALL EVENTS.
- 4. NO TRAFFIC OTHER THAN WATER TRUCKS AND MIXING EQUIPMENT SHALL BE ALLOWED TO PASS OVER THE AREA BEING STABILIZED UNTIL AFTER COMPLETION OF MIXING THE CHEMICAL.
- 5. AREA ADJACENT AND DOWNSTREAM OF STABILIZED AREAS SHALL BE ROUGHENED TO INTERCEPT CHEMICAL RUNOFF AND REDUCE RUNOFF VELOCITY.
- 6. GEOTEXTILE FABRICS SUCH AS THOSE USED FOR SILT FENCE SHOULD NOT BE USED TO TREAT CHEMICAL RUNOFF, BECAUSE THE CHEMICALS ARE DISSOLVED IN THE WATER AND WON'T BE AFFECTED BY A BARRIER AND THE SUSPENDED SOLIDS ARE SIGNIFICANTLY SMALLER THAN THE APPARENT OPENING SIZE OF THE FABRIC.
- 7. IF SOIL STABILIZERS ARE STORED ONSITE, THEY SHALL BE CONSIDERED HAZARDOUS MATERIAL AND SHALL BE MANAGED ACCORDING TO THE CRITERIA OF CHEMICAL MANAGEMENT TO CAPTURE ANY ACCIDENTAL LIME OR CHEMICAL OVERFLOW.
- 8. THE CONTRACRTOR SHALL INSTALL BMP'S TO ALL INLETS AND OPENINGS CONNECTED TO THE STORM SEWER SYSTEMS TO PREVENT LIME FROM ENTERING THE MS4 SYSTEM.

SANDBLASTING WASTE NOTES

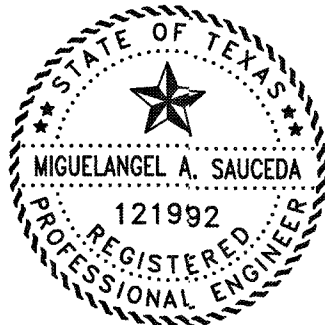
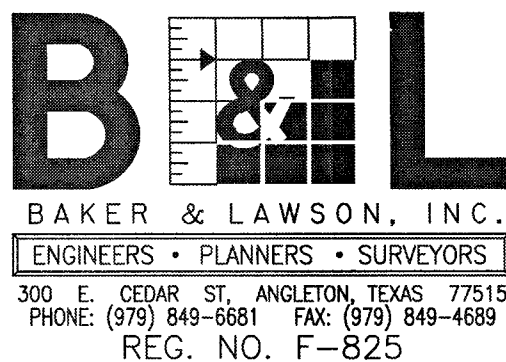
- 1. THE CONTRACTOR SHOULD BE REQUIRED TO DESIGNATE THE SITE SUPERINTENDENT, FOREMAN, OR OTHER PERSON WHO IS RESPONSIBLE FOR SANDBLASTING TO ALSO BE RESPONSIBLE FOR SANDBLASTING WASTE MANAGEMENT.
- 2. PROHIBIT THE DISCHARGE OF SANDBLASTING WASTE.
- 3. USE ONLY INERT, NON-DEGRADABLE SANDBLAST MEDIA.
- 4. USE APPROPRIATE EQUIPMENT FOR THE JOB; DO NOT OVER-BLAST.
- 5. WHENEVER POSSIBLE, BLAST IN A DOWNWARD DIRECTION.
- 6. CEASE BLASTING ACTIVITIES IN HIGH WINDS OR IF WIND DIRECTION COULD TRANSPORT GRIT TO DRAINAGE FACILITIES.
- 7. INSTALL DUST SHIELDING AROUND SANDBLASTING AREAS.
- 8. COLLECT AND DISPOSE OF ALL SPENT SANDBLAST GRIT, USE DUST CONTAINMENT FABRICS AND DUST COLLECTION HOPPERS AND BARRELS.
- 9. NON-HAZARDOUS SANDBLAST GRIT MAY BE DISPOSED IN PERMITTED CONSTRUCTION DEBRIS LANDFILLS OR PERMITTED SANITARY LANDFILLS.
- 10. IF SANDBLAST MEDIA CANNOT BE FULLY CONTAINED, CONSTRUCT SEDIMENT TRAPS DOWNSTREAM FROM BLASTING AREA WHERE APPROPRIATE.
- 11. USE SAND FENCING WHERE APPROPRIATE IN AREAS WHERE BLAST MEDIA CANNOT BE FULLY CONTAINED.
- 12. IF NECESSARY, INSTALL MISTING EQUIPMENT TO REMOVE SANDBLAST GRIT FROM THE AIR PREVENT RUNOFF FROM MISTING OPERATIONS FROM ENTERING DRAINAGE SYSTEMS.
- 13. USE VACUUM GRIT COLLECTION SYSTEMS WHERE POSSIBLE.
- 14. KEEP RECORDS OF SANDBLASTING MATERIALS, PROCEDURES, AND WEATHER CONDITIONS ON A DAILY BASIS.
- 15. TAKE ALL REASONABLE PRECAUTIONS TO ENSURE THAT SANDBLASTING GRIT IS CONTAINED AND KEPT AWAY FROM DRAINAGE STRUCTURES.
- 16. SAND BLASTING MEDIA SHOULD ALWAYS BE STORED UNDER COVER AWAY FROM DRAINAGE STRUCTURES.
- 17. ENSURE THAT STORED MEDIA OR GRIT IS NOT SUBJECTED TO TRANSPORT BY WIND.
- 18. ENSURE THAT ALL SANDBLASTING EQUIPMENT AND STORAGE CONTAINERS COMPLY WITH CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS.
- 19. CAPTURE AND TREAT RUNOFF, WHICH COMES INTO CONTACT WITH SANDBLASTING MATERIALS OR WASTE.

No.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE _____		
		
CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
GENERAL EROSION CONTROL NOTES		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:		SL-33 SHEET OF

RECORD DRAWING

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED	MS
DRAWN	BT
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DATE	



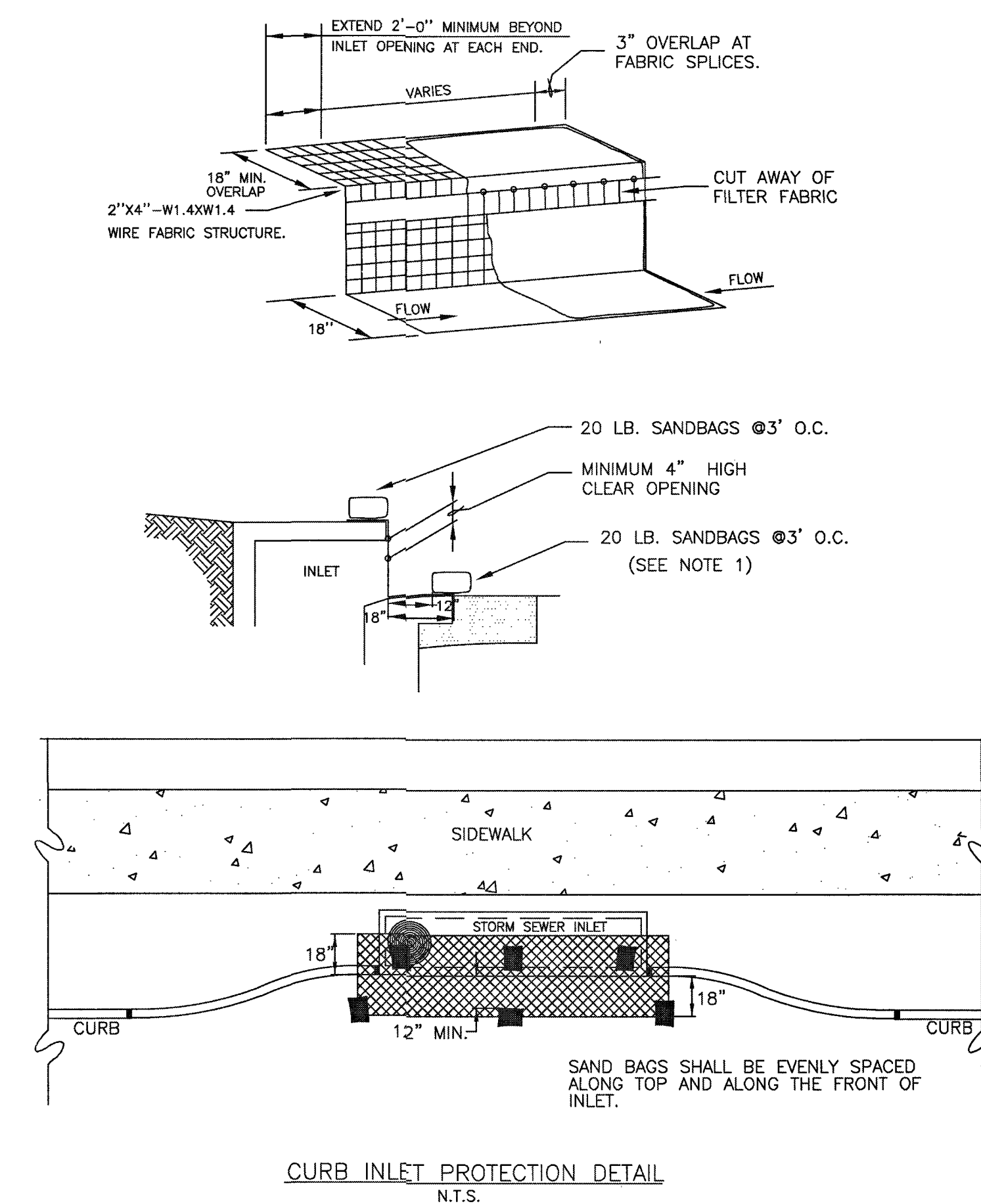
The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
Date: 1/11/24

OWNER:
Clint Peltier
Clint Peltier Custom Homes
979-481-4840

PLAN:	_____
PROFILE:	_____
HORIZONTAL:	_____
VERTICAL:	_____

BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

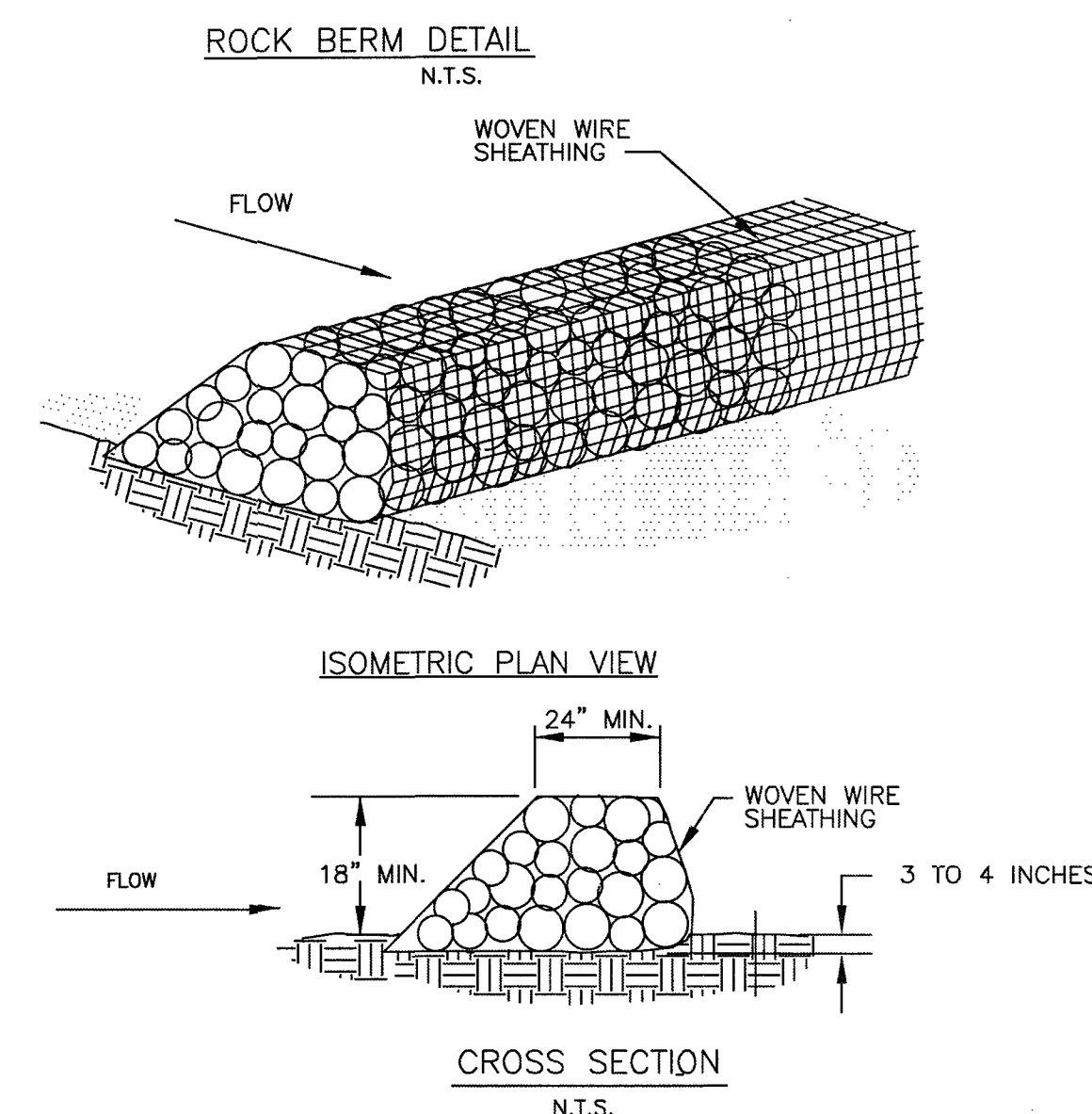
GENERAL EROSION
CONTROL NOTES
SL-33



NOTES:

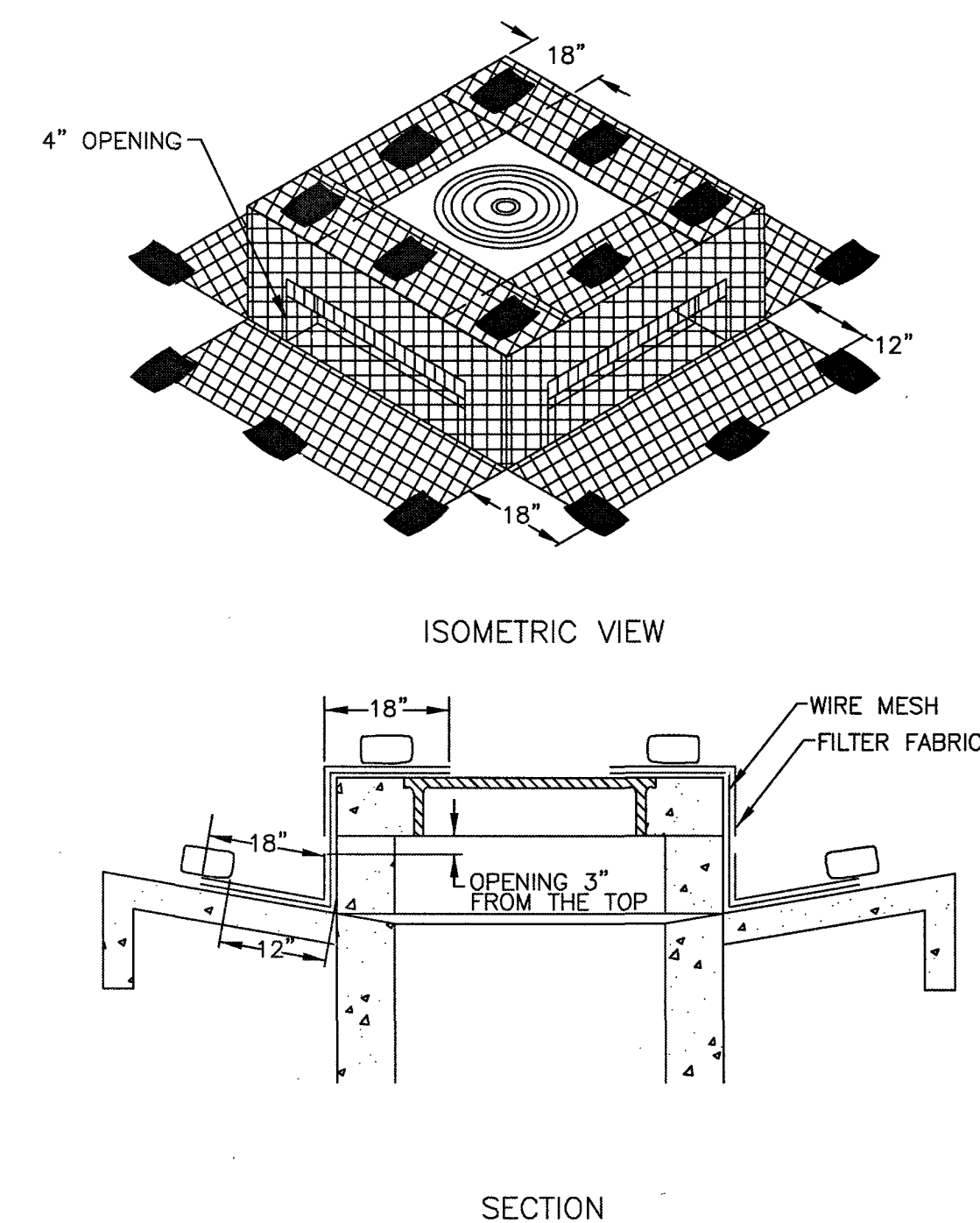
1. A SECTION OF FINER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL TO PROVIDE A 4" MINIMUM CLEAR OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION
2. INSPECTION SHALL BE MADE BY CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2'
3. CONTRACTOR SHALL MONITOR PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTION IF THE STORMWATER BEGINS TO OVERTOP THE CURB.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF THE SEDIMENT IS STABILIZED.

INLET OPENING	MINIMUM NUMBER OF SAND BAGS	
	TOP	FRONT
5'	2	3
10'	3	3
15'	3	4
20'	4	4

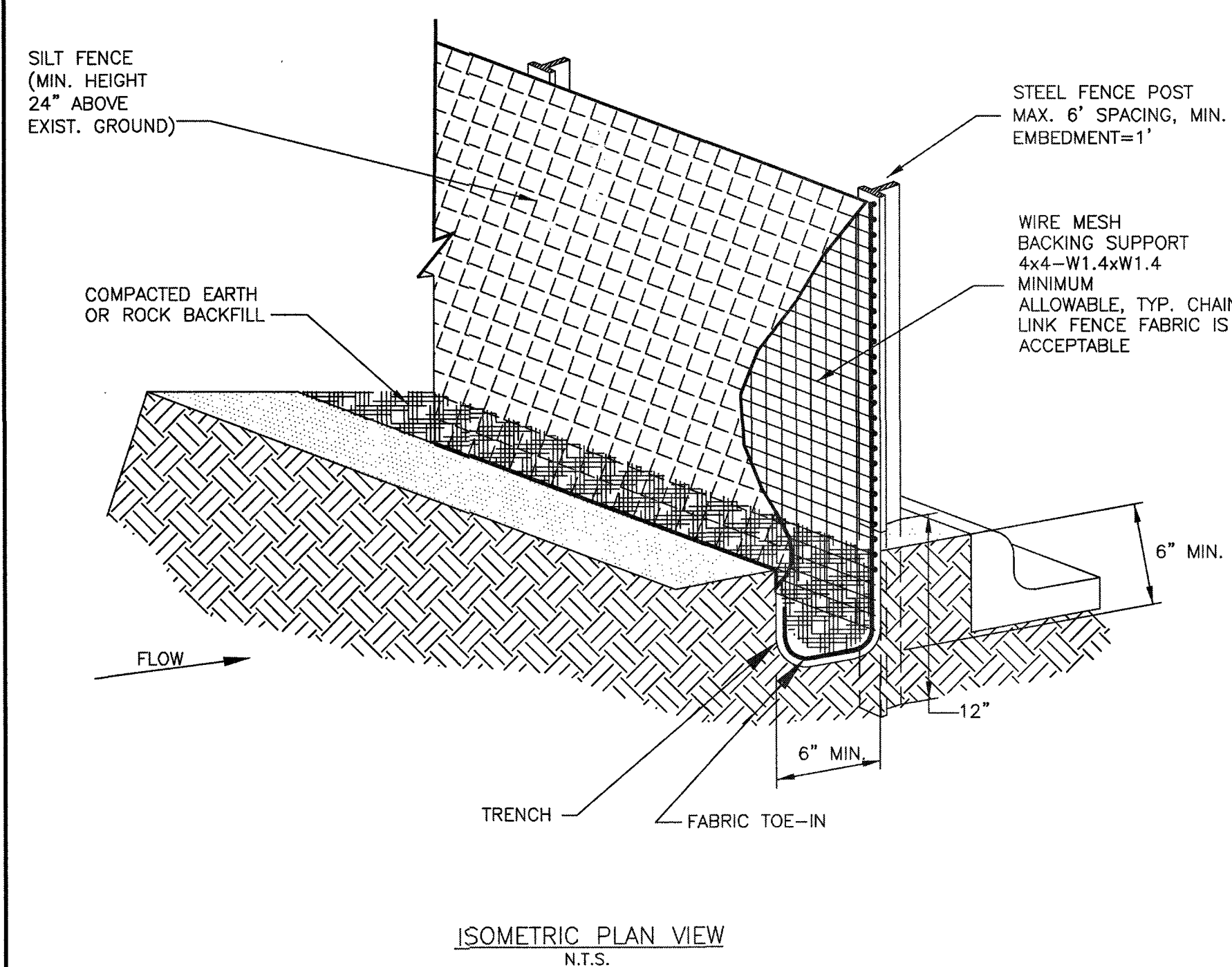


ROCK BERM GENERAL NOTES

1. USE ONLY OPEN GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

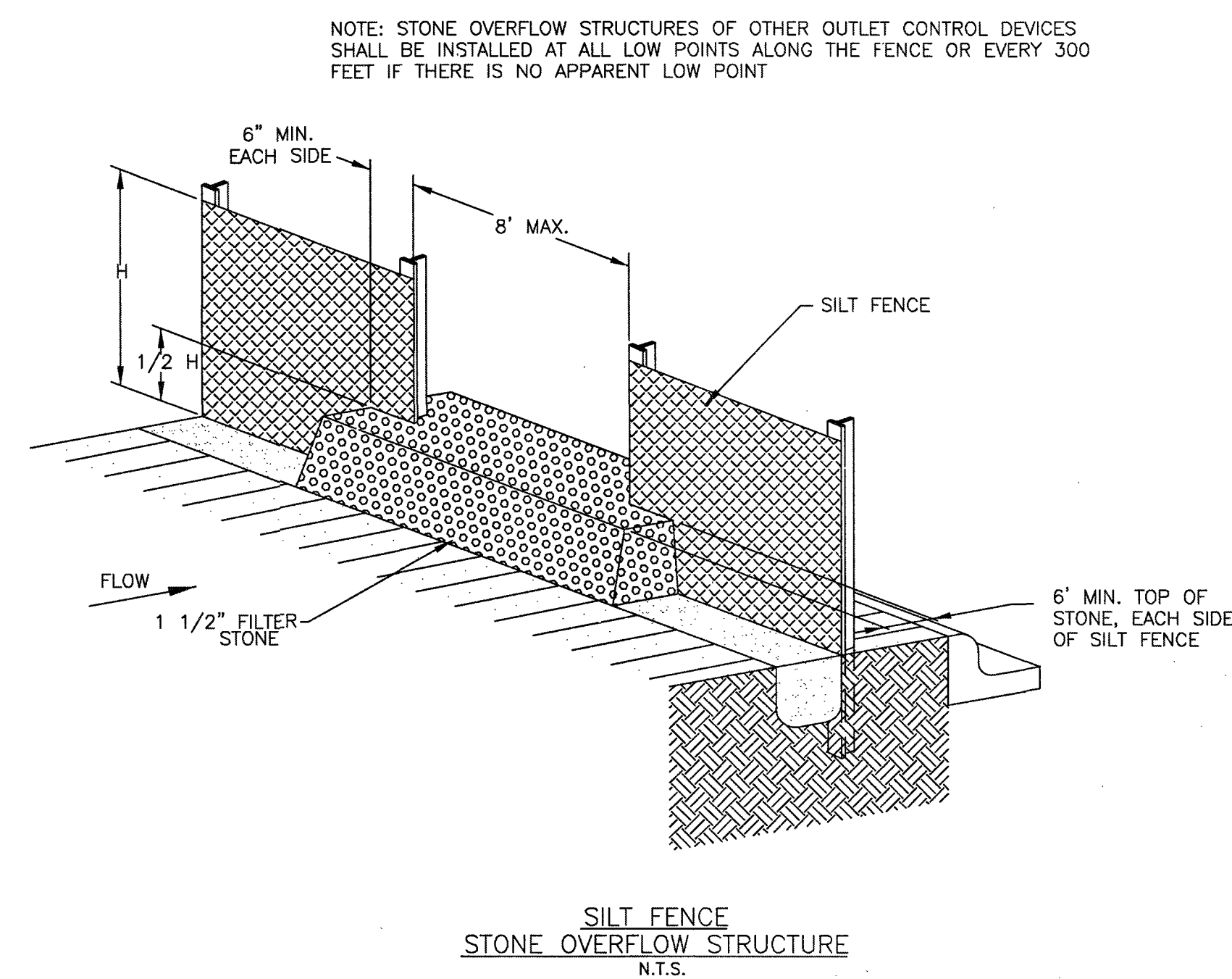


FILTER FABRIC WYE INLET PROTECTION
N.T.S.



SILT FENCE GENERAL NOTES

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER SO THAT THE DOWNFLOW FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROPRIATE SITE IN SUCH A MANNER AS NOT TO CONTRIBUTE TO ADDITIONAL SILTATION.



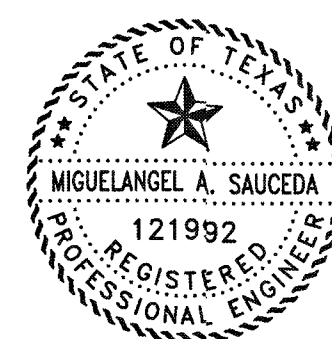
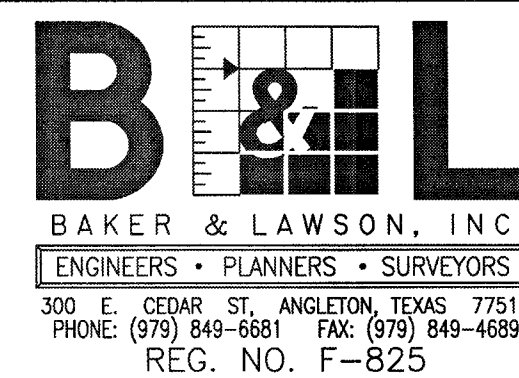
SILT FENCE
STONE OVERFLOW STRUCTURE
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PROFILE: _____

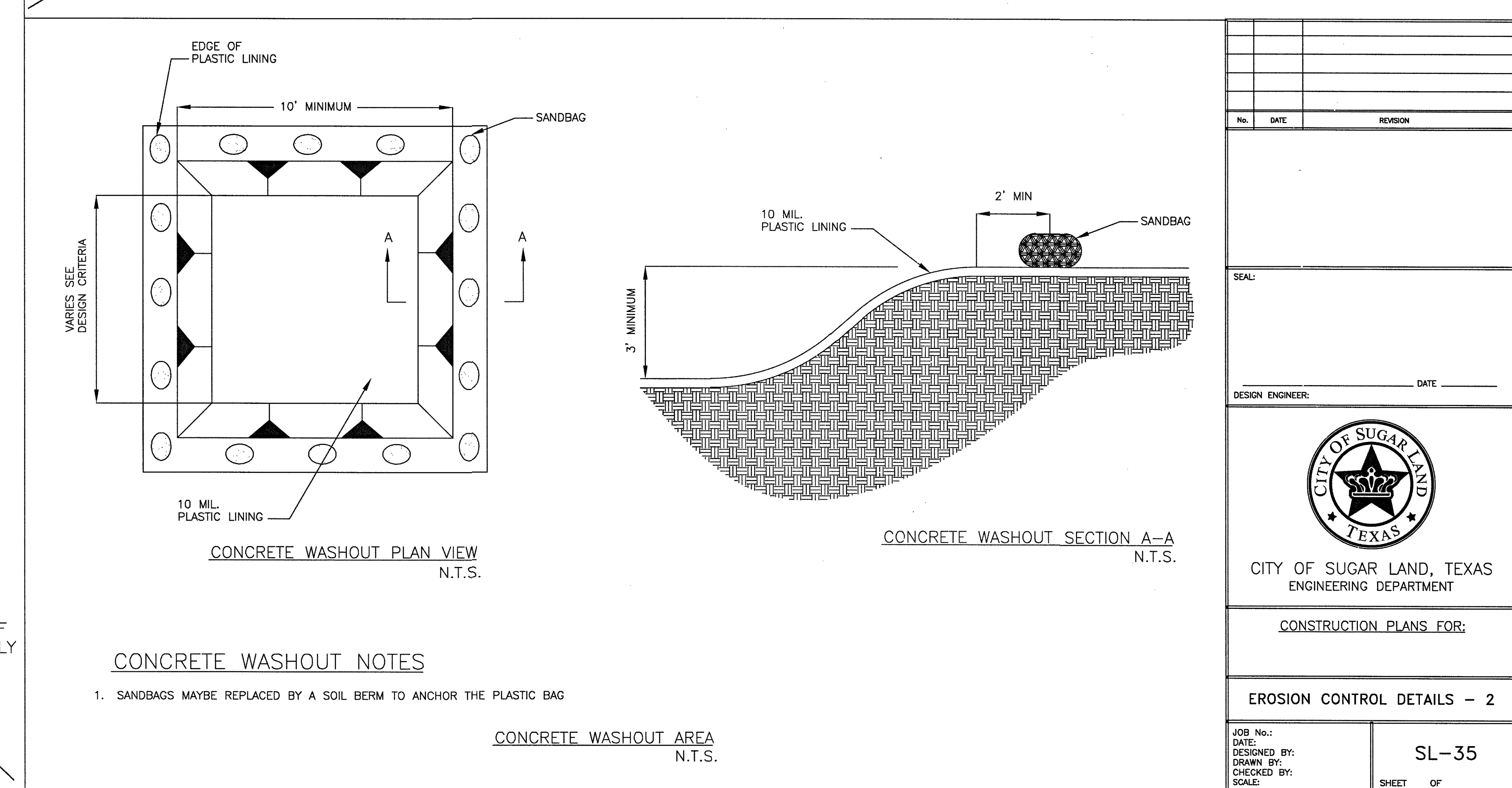
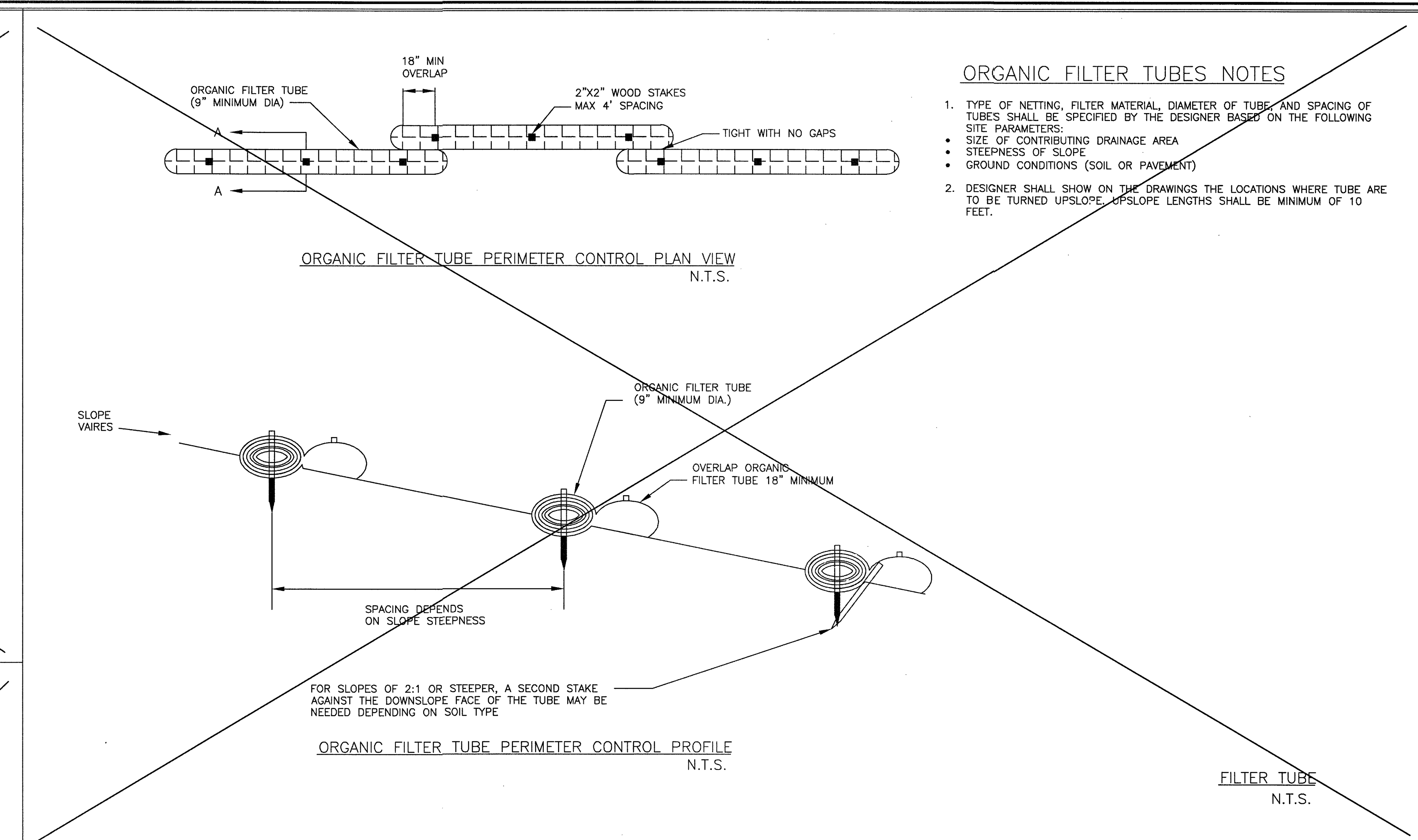
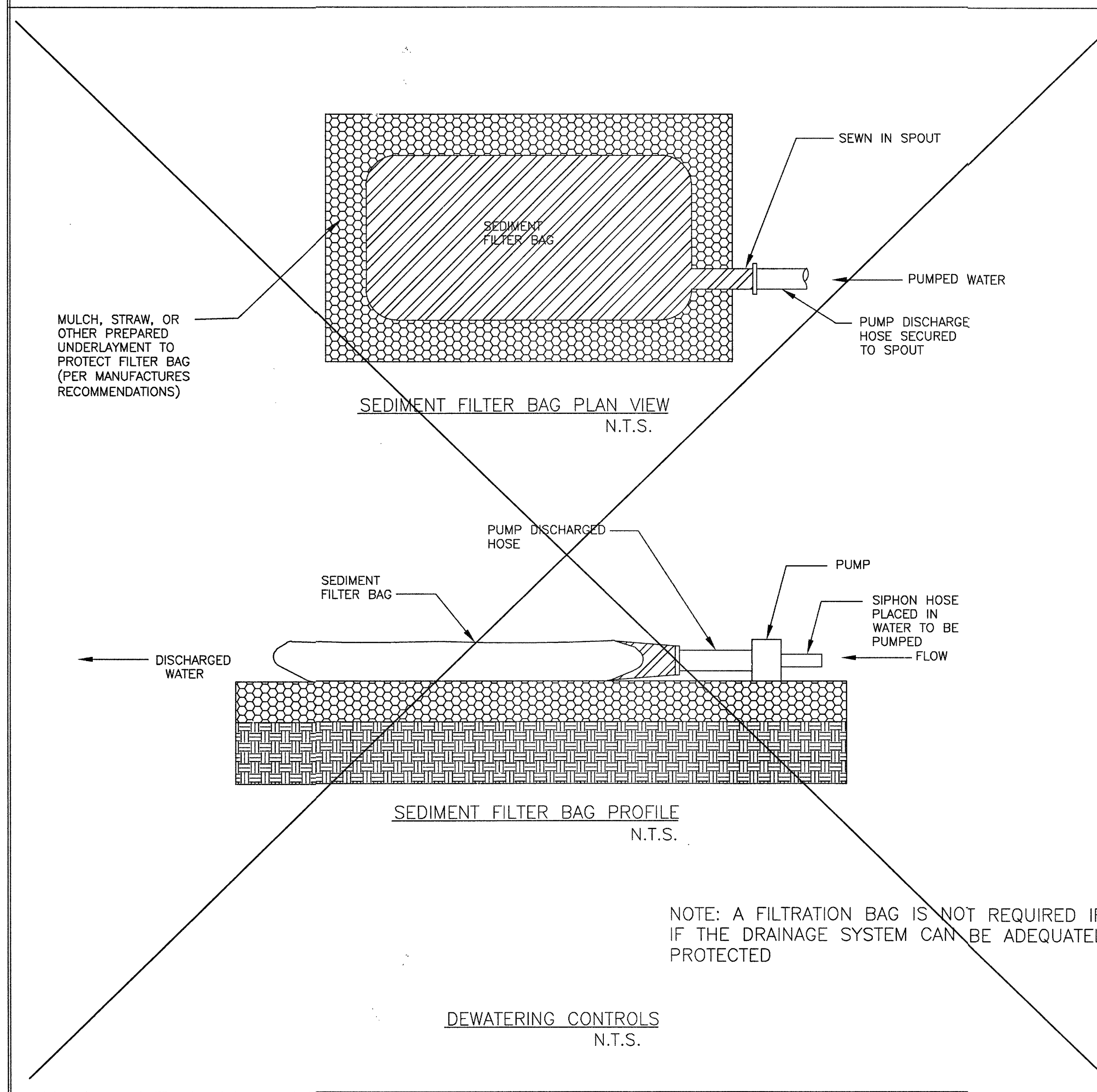
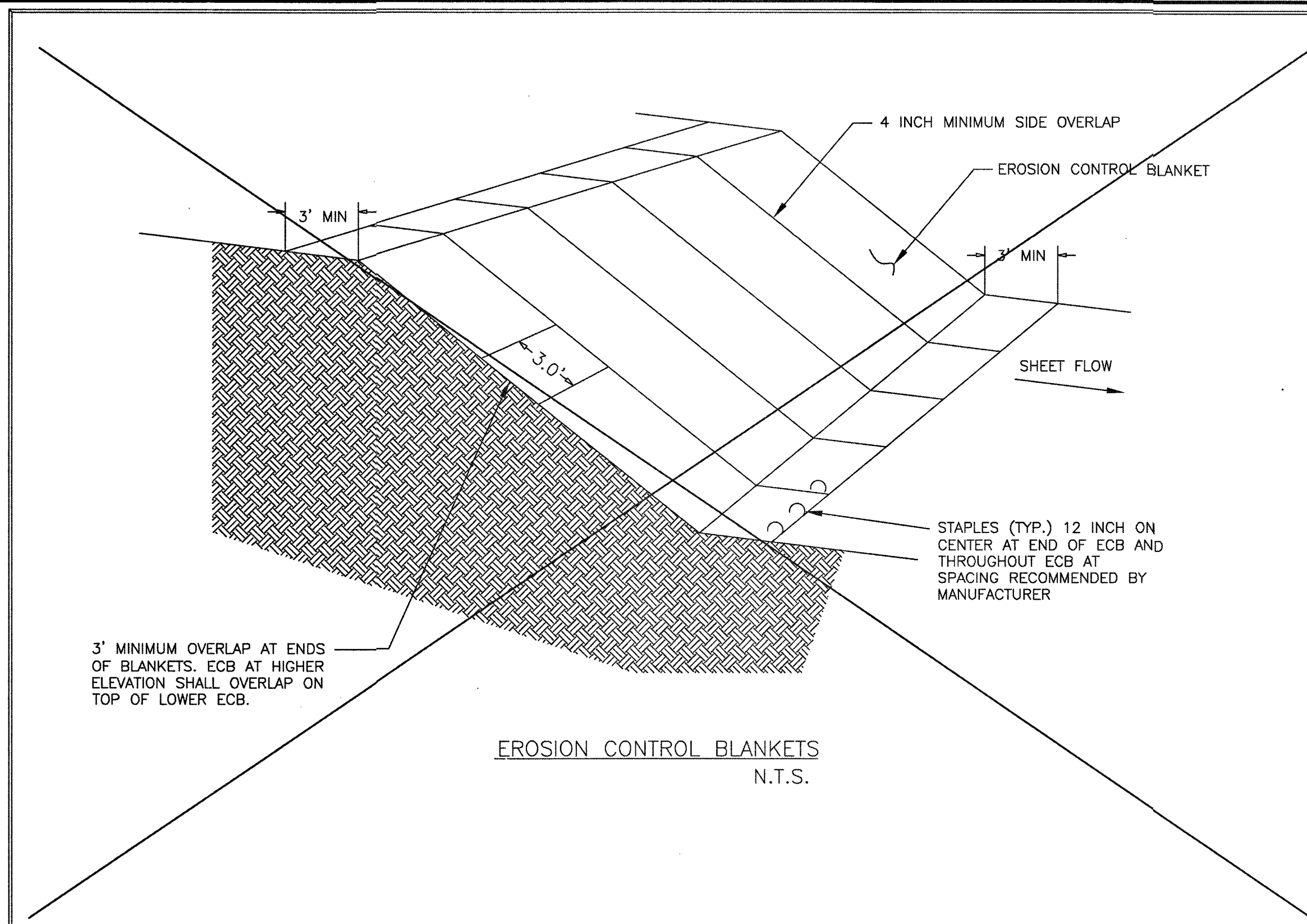
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PLANS FOR
GRADING, PAVING, UTILITIES
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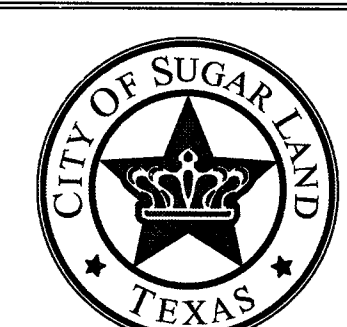
EROSION CONTROL
DETAILS - 1
SL-34

PROJECT NO. 13454



ORGANIC FILTER TUBES NOTES

1. TYPE OF NETTING, FILTER MATERIAL, DIAMETER OF TUBE, AND SPACING OF TUBES SHALL BE SPECIFIED BY THE DESIGNER BASED ON THE FOLLOWING SITE PARAMETERS:
 - SIZE OF CONTRIBUTING DRAINAGE AREA
 - STEEPNESS OF SLOPE
 - GROUND CONDITIONS (SOIL OR PAVEMENT)
2. DESIGNER SHALL SHOW ON THE DRAWINGS THE LOCATIONS WHERE TUBE ARE TO BE TURNED UPSLOPE. UPSLOPE LENGTHS SHALL BE MINIMUM OF 10 FEET.

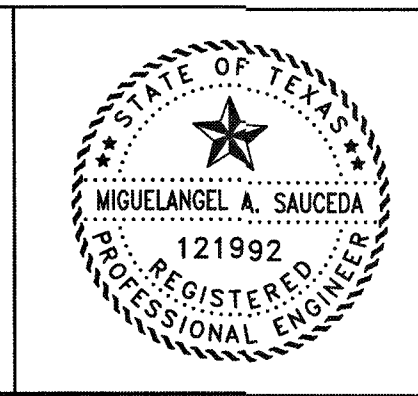
NO.	DATE	REVISION
SEAL:		
DESIGN ENGINEER: _____ DATE: _____		
 CITY OF SUGAR LAND, TEXAS ENGINEERING DEPARTMENT		
CONSTRUCTION PLANS FOR:		
EROSION CONTROL DETAILS - 2		
JOB No.: DATE: DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:	SL-35 SHEET OF	

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BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
300 E CEDAR ST. ANGLETON, TEXAS 77515
PHONE: (979) 849-6881 FAX: (979) 849-6889
REG. NO. F-825



The seal appearing on this document was authorized by Miguelangel A. Saucedo P.E. 121992
Date: 11/1/22

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Clint Peltier Custom Homes
979-481-4840

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BAYOU BEND ESTATES
ANGLETON, TEXAS
PLANS FOR
GRADING, PAVING, UTILITIES
AND DETENTION

EROSION CONTROL
DETAILS - 2
SL-35
PROJECT NO. 13454



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Lindsay Koskiniemi, CPM, CGFO, Assistant Director of Development Services

AGENDA CONTENT: Discussion and update on Riverwood Ranch, Windrose Green, and Austin Colony subdivision developments.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: N/A **FUNDS REQUESTED:** N/A

FUND: N/A

EXECUTIVE SUMMARY:

City staff have been directed to provide routine updates to Council the second regular City Council meeting of the month concerning the status of subdivision developments as developments materialize. This presentation includes the statuses of the Riverwood Ranch, Windrose Green, and Austin Colony subdivision developments. In addition to project updates for the selected subdivisions, a reference sheet of the set back requirements for each zoning district has been prepared for City Council's review.

Riverwood Ranch:

Riverwood Ranch (RWR) is a residential subdivision proposed to have 318 lots to be constructed in three phases. Phase One is approximately 22.69 acres and is platted to have 96 lots. The second phase of the RWR subdivision spans 19.79 acres and is proposed to have 109 lots. The remainder of the subdivision's development lot sizes will be dependent on density and is yet to be determined. This subdivision has been approved for a public improvement district and a tax increment reinvestment zone.

As of February 17, 2022, contractors for RWR have pulled a total of 59 new single family home construction permits. RWR will have a homeowners' association and offers walking paths around a wet and dry bottom detention pond.





**Windrose Green:**

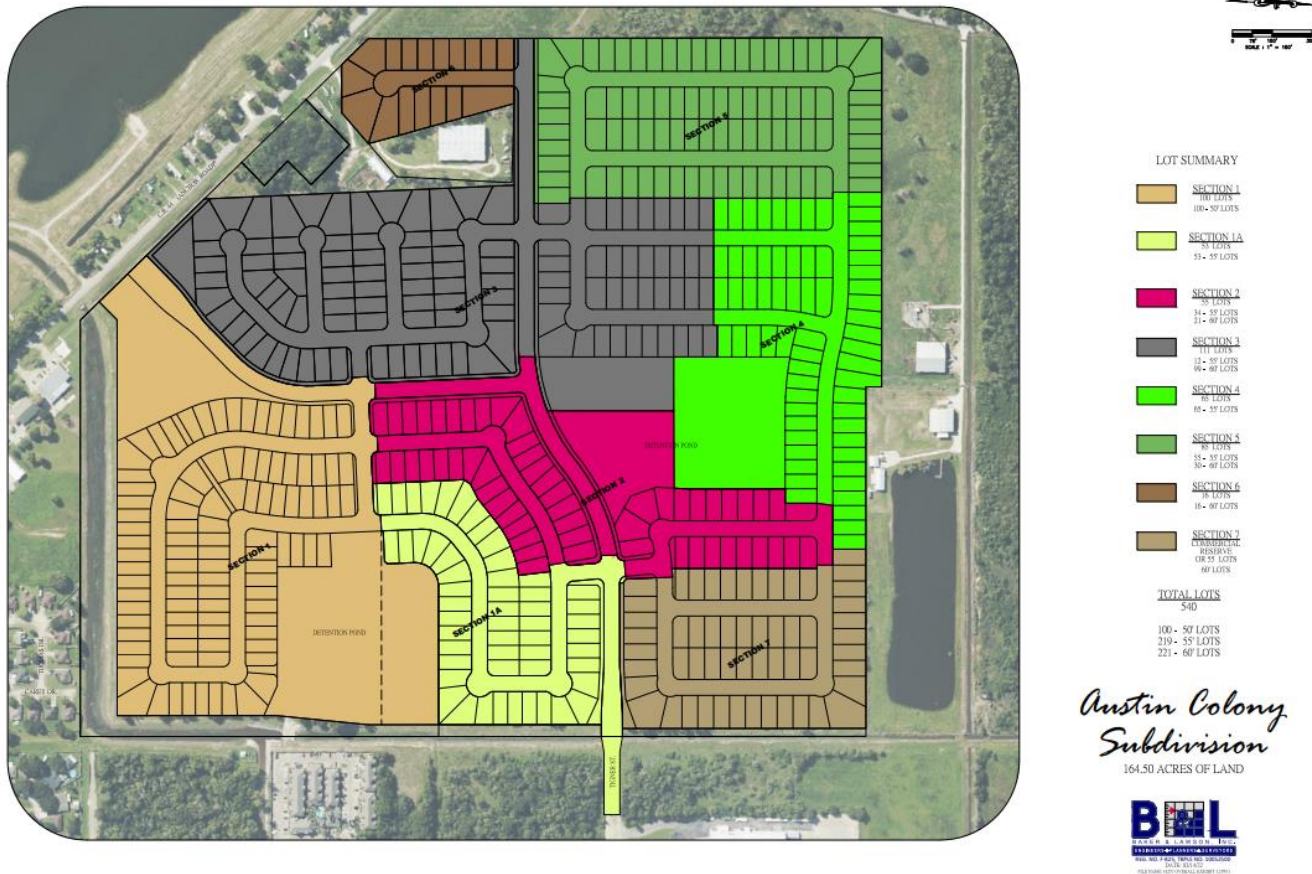
The Windrose Green subdivision development, located south of FM 523 and west of SH 35 and totals approximately 154 acres. The first phase spans 56.55 acres and will have 148 lots. Phase One is currently in construction with 29 new single family home permits pulled. The final plat for Phase Two spans 13.23 acres with 70 lots and was approved by City Council in September 2021. Construction has not yet begun. The City received a preliminary plat for Phase Three, which will have 122 lots of 23.7 acres. Subsequent phasing to build out the remainder of WRG is yet to be determined.





Austin Colony:

The Austin Colony subdivision development is approximately 164.5 acres and is proposed to be built in 8 phases with 540 lots. The extension of Tigner Street from the west of Walmart to the western property line is part of the project. Currently, the developer is working on amending the planned development, land plan, and phasing plan to provide for phasing the construction of the connecting roadway. Execution of a development agreement between the City and developer and finalization of a public improvement district is pending resolution of the proposed PD amendment.



RECOMMENDATION:

The staff recommendation to City Council is to provide feedback and guidance on the set-back chart.

Zoning District	Lot Area	Lot Width	Lot Depth	Front Yard	Rear Yard	Interior Side Yard	Corner Lot Side Yard	Accessory Building Rear Yard	Key Corner Lot
Agricultural (AG)	5 acres	100 feet	150 feet	80 feet	80 feet	40 feet	80 feet	80 feet	None
Single Family Estate Residential – 20 (SF-20)	20,000 sf	100 feet	125 feet	30 feet	25 feet	10 feet	20 feet	25 feet	30 feet
Single Family Residential – 10 (SF-10)	10,000 sf	80 feet	110 feet	30 feet	25 feet	7.5 feet	15 feet	25 feet	30 feet
Single Family Residential – 7.2 (SF-7.2)	7,200 sf	60 feet	100 feet	25 feet	20 feet	5 feet	13 feet	25 feet; 25 feet for rear entry garage	25 feet
Single Family Residential – 6.3 (SF-6.3)	6,300 sf	60 feet	100 feet	20 feet	20 feet	5 feet	25 feet	25 feet; 25 feet for rear entry garage	25 feet
Single Family Residential – 5 (SF-5)	5,000 sf	50 feet	100 feet	20 feet	20 feet	5 feet	15 feet	20 feet; 25 feet for rear entry garage	25 feet
Single Family Residential – Patio Home (SF-PH)	5,000 sf	50 feet	100 feet	20 feet; 25 feet to garage door face	10 feet	One side 0 feet One side 10 feet	15 feet on residential or collector streets; 20 feet on arterial streets	10 feet; 25 feet for rear entry garage	20 feet
Two Family Residential – (2F)	10,000 sf	80 feet	100 feet	25 feet; 25 feet to garage door face	25 feet	5 feet	15 feet on residential or collector streets; 20 feet on arterial streets	25 feet; 25 feet for rear entry garage	25 feet
Single Family Attached Residential (SFA)	2,500 sf	20 feet	100 feet	15 feet with staggering; 20 feet to garage door or carport	15 feet	None except 15 feet between the ends of any two adjacent building complexes or rows of buildings	10 feet on residential street or alley only serving lots in SFA subdivision; 15 foot on residential or collector street serving lots outside SFA sub; 20 feet on arterial street	15 feet; 20 feet for rear entry garage	None
Multifamily Residential - 14 (MFR-14)	3,000 sf/du	60 feet	100 feet	25 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to SF, 2F, SF-PA or SFA 1 story building is 25 feet; 2 story building is 50 feet	15 feet; If adjacent to SF, 2F, SF-PA or SFA 1 story building is 25 feet; 2 story building is 50 feet;	BUILDING SEPARATION: One story: 15 feet for buildings without openings, 20 feet for buildings with openings Two story: 20 feet w/o openings, 25 feet with openings 10 feet between main and accessory building	None	None
Multifamily Residential – 29 (MFR-29)	1,500 sf/du	60 feet	100 feet	25 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to SF, 2F, SF-PA or SFA 1 story building is 25 feet; 2 story building is 50 feet	15 feet; If adjacent to SF, 2F, SF-PA or SFA 1 story building is 25 feet; 2 story building is 50 feet	BUILDING SEPARATION: One story: 15 feet for buildings without openings, 20 feet for buildings with openings Two story: 20 feet w/o openings, 25 feet with openings 10 feet between main and accessory building	None	None

Zoning District	Lot Area	Lot Width	Lot Depth	Front Yard	Rear Yard	Interior Side Yard	Corner Lot Side Yard	Accessory Building Rear Yard	Key Corner Lot
Multifamily Residential - 36 (MFR-36)	1,200 sf/du	60 feet	100 feet	25 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to SF, 2F, SF-PA or SFA 1 story building is 25 feet; 2 story building is 50 feet; Over 2 story 75 feet	15 feet; If adjacent to SF, 2F, SF-PA or SFA 1 story building is 25 feet; 2 story building is 50 feet; Over 2 story 75 feet	BUILDING SEPARATION: One story: 15 feet for buildings without openings, 20 feet for buildings with openings Two story: 20 feet w/o openings, 25 feet with openings; Over 2 story 25 feet with or w/o openings; 10 feet between main and accessory building	None	None
Manufactured Home – (MH)(park or subdivision)	4,000 sf/du	40 feet	100 feet	25 feet from dedicated street; 15 feet from private street or drive	10 feet; 25 feet from any zoning district boundary line	10 feet; 20 feet between du; 20 feet from zoning district line	15 feet on a residential or collector street; 20 feet for an arterial street.	25 feet from any property or street ROW line for a garage	None
Commercial Neighborhood – (C-N)	5,000 sf	25 feet	100 feet	20 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to residential zoning 20 feet for 1 story + 10 feet for every story or fraction thereof above 1 story	0 if adjacent to commercial use; If adjacent to residential zoning 20 feet for 1 story + 10 feet for every story or fraction thereof above 1 story	20 feet (see front yard)	None	None
Commercial Mixed-Use – (C-MU)	10,000 sf	75 feet	100 feet	20 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to residential zoning 20 feet for 1 story + 10 feet for every story or fraction thereof above 1 story	15 feet; If adjacent to residential zoning 20 feet for 1 story + 10 feet for every story or fraction thereof above 1 story	20 feet (use front yard)	None	None

Zoning District	Lot Area	Lot Width	Lot Depth	Front Yard	Rear Yard	Interior Side Yard	Corner Lot Side Yard	Accessory Building Rear Yard	Key Corner Lot
Commercial General (C-G)	10,000 sf	75 feet	100 feet	20 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to residential zoning 20 feet for 1 story + 10 feet for every story or fraction thereof above 1 story	0 if adjacent to commercial use; If adjacent to residential zoning 20 feet for 1 story + 20 feet for every story or fraction thereof above 1 story	20 feet (use front yard)	None	None
Commercial Office/Retail (C-O/R)	10,000 sf	75 feet	100 feet	20 feet, all areas adjacent to a street are front yards	15 feet; If adjacent to residential zoning 20 feet for 1 story + 10 feet for every story or fraction thereof above 1 story	0 if adjacent to commercial use; If adjacent to residential zoning 20 feet for 1 story + 20 feet for every story or fraction thereof above 1 story	20 feet (use front yard)	None	None
Central Business District (CBD)	None	None	None	None	None	None	None	None	None
Light Industrial (LI)	10,000 sf	100 feet	100 feet	25 feet, all areas adjacent to a street are front yards	10 feet; If adjacent to residential zoning 30 feet for 1 story + 15 feet for every story or fraction thereof above 1 story	10 feet; If adjacent to residential zoning 30 feet for 1 story + 15 feet for every story or fraction thereof above 1 story	25 feet (use front yard)	None	None



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Chris Whittaker

AGENDA CONTENT: Henderson Drainage Study

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT:
N/A

FUNDS REQUESTED:
N/A

FUND: N/A

EXECUTIVE SUMMARY:

The City of Angleton is evaluating improvements to safety and mobility (pedestrians and vehicles) based on expected growth along the Henderson Road corridor from State Highway 288B to State Highway 35. On June 22, 2021, HDR Engineering, Inc. (HDR) completed the Henderson Road Traffic Study for this area that identified future traffic loading and required improvements to mobility and safety in the area. In order to accomplish these identified improvements, the existing open roadside ditch on Henderson Ditch adjacent to the must be enclosed along the full project length to provide sufficient room for a boulevard section with sidewalks.

Approximately 271 acres drains to Henderson Road drainage system and outfalls at Brushy Bayou. HDR has identified the improvements required to enclose the existing open ditch with storm sewer along Henderson and to mitigate impacts upstream and downstream of the proposed system. The Angleton Drainage District (ADD) has been performing improvements along Brushy Bayou which have improved its capacity and conveyance which could potentially accommodate increases in peak discharge from Henderson Road. HDR identified the amount of mitigation that would be required to offset the additional amount of flow to accommodate project. This analysis indicated a total of 45.3 acre-feet of detention would need to be provided either within the channel of Brushy Bayou, a new regional detention pond, or the detention pond near Rabb Road. A planning level opinion of probable construction cost was developed for the proposed storm sewer system and a detention pond. The total project cost, including the detention pond, is \$15.6 million.

Attached please find the Henderson Road Improvement Project Drainage Study. HDR will go over the report with council and answer any questions.

RECOMMENDATION: Accept the Henderson Road Improvements Project Drainage Study.



Henderson Road Improvement Project

Business 288 to SH 35

Drainage Study

Angleton, TX

February 9, 2022



**HDR ENGINEERING, INC.
TEXAS REGISTERED FIRM F-754**

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Exhibits

- Exhibit 1. Vicinity Map
- Exhibit 2. Drainage Area Map
- Exhibit 3. Existing Drainage System Features
- Exhibit 4. Proposed Storm Sewer System

Appendices

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1 Executive Summary

The City of Angleton is currently evaluating improvements to safety and mobility (pedestrians and vehicles) based on expected growth along the Henderson Road corridor from State Highway 288B to State Highway 35. On June 22, 2021, HDR Engineering, Inc. (HDR) completed the Henderson Road Traffic Study for this area that identified future traffic loading and required improvements to mobility and safety in the area. In order to accomplish these identified improvements, the existing open, roadside ditch (Henderson Ditch) adjacent to the existing Henderson Road, which accepts runoff from a large portion of the roadway and external drainage areas, must be enclosed along the full project length to provide sufficient room for a boulevard section with sidewalks. The project extent is shown in Figure 1, and the existing system is shown in Figure 2.



Figure 1. Project Extent

Approximately 271 acres drains to Henderson Road and outfalls at Brushy Bayou. Existing and proposed conditions models were created to identify any potential impact to upstream or downstream areas. For existing conditions, peak runoff rates were determined using the Rational Method. Using HEC-HMS, hydrographs were generated at key locations. Through the Angleton ISD property, Henderson Ditch enters dual 60" RCPs. To account for storage within Henderson Ditch and the dual RCPs, the HEC-HMS hydrographs were input into an XP-SWMM model, which produced a hydrograph at the drainage system outfall that more accurately represents routing of the flow through the existing system.



Figure 2. Existing Drainage System

For the proposed conditions, the HEC-HMS model was updated with the proposed roadway improvements and modified times of concentration, and the entire system was modeled within XP-SWMM. Storm sewer segments were designed to fully contain the 100-year storm event while maintaining a velocity between 3 fps and 10 fps while flowing full. The proposed storm sewer sizing is shown in Figure 3.



Figure 3. Proposed Storm Sewer System

The Angleton Drainage District (ADD) has been performing improvements along Brushy Bayou which have improved its capacity and conveyance which could potentially accommodate increases in peak discharge from Henderson Road. However, HDR was unable to verify the amount of storage or flow capacity available in Brushy Bayou using the available HEC-2 models of that stream. As a result, the hydrographs from each outfall were compared between existing and proposed conditions to determine the volume of storage required to accommodate project impacts. This analysis indicated a total of 45.3 acre-feet of detention would need to be provided either within the channel of Brushy Bayou, a new regional detention pond, or the detention pond near Rabb Road.

A planning level opinion of probable construction cost was developed for the proposed storm sewer system and a detention pond. The total project cost, including the detention pond, is \$15.6 million.

2 Background Information

2.1 Project Site Information

The existing Henderson Road is a two-lane roadway with intermittent center turning lane. Council has provided direction to HDR that the proposed section will be a four-lane boulevard section with turn lanes as outlined in the Henderson Traffic Study. The proposed location of this section will be between Business 288 (North Velasco Street) and State Highway 35 (East Mulberry Street) (see Exhibit 1). Most of the runoff draining to Henderson Road is conveyed via a large drainage channel (Henderson Ditch) immediately north of and parallel to the roadway. Figure 4 shows a view of Henderson Ditch looking west. Currently, storm sewer exists along the Angleton ISD property. Survey indicates dual 60-inch RCP through the school property. Drainage into the Henderson Ditch ultimately is conveyed eastward, emptying into Brushy Bayou via existing dual 8'x5' box culverts (Figure 5, left) west of Buchta Road. The existing system is shown in Exhibit 3.



Figure 4. Henderson Ditch

Rancho Ditch is a tributary of Brushy Bayou. Rancho Ditch outfalls into Brushy Bayou via dual 12'x8' RCBs at Henderson Road (Figure 5, center). This culvert crossing is located east of Buchta Road. East of Rancho Ditch, smaller (as compared to Henderson Ditch) roadside ditches convey runoff from Henderson Road to a 48-inch RCP which also outfalls to Brushy Bayou (Figure 5, right).



Figure 5. Henderson Road Outfalls into Brushy Bayou (west to east)

2.2 Available Data

The following information was readily available for use in this analysis:

- Survey data (Baker & Lawson, Inc., 2021)
- Windrose Green Drainage Impact Analysis HEC-HMS and HEC-RAS models for Rancho Ditch (Costello, 2020)
- Aerial imagery (H-GAC, 2020)
- LiDAR elevation data (TNRIS, 2018)
- Angleton Sub-Regional Detention H&H Analysis Report (HDR, 2013)

- Final Brazoria County Drainage Criteria Manual (Klotz, 2003)
- Final Brazoria County Master Drainage Plan Report (Klotz, 2002)
- HEC-1 and HEC-2 Models for Brushy Bayou (Klotz, 2002)

2.3 Drainage Design Criteria

In general, the roadway improvement impacts were analyzed in accordance with the Brazoria County Drainage Criteria Manual (BCDCM), dated November 2003, with several exceptions indicated in this report. Most notably, the rainfall depths used in this analysis were obtained from NOAA Atlas 14. In instances where the procedures within the BCDCM did not apply, Harris County Flood Control District criteria was followed. In general, application of the Harris County Flood Control District criteria results in a more conservative design.

3 Existing Conditions

3.1 Hydrologic Parameters

The BCDCM indicates the Rational Method is applicable for drainage areas less than 100 acres. The Rational Method utilizes the following equation to generate peak runoff rates:

$$Q = C * i * A * C_f$$

Where:

- Q = the peak runoff rate in cubic feet per second (cfs);
- C = the runoff coefficient
- i = the rainfall intensity in inches per hour (in/hr);
- A = the drainage area in acres (ac)
- C_f = the frequency factor adjustment (1.25 for 100-yr event)

Drainage areas were delineated using LiDAR elevation data. A total of 12 sub-watersheds were delineated along Henderson Road. A drainage area map is shown below in Figure 6 and Exhibit 2.

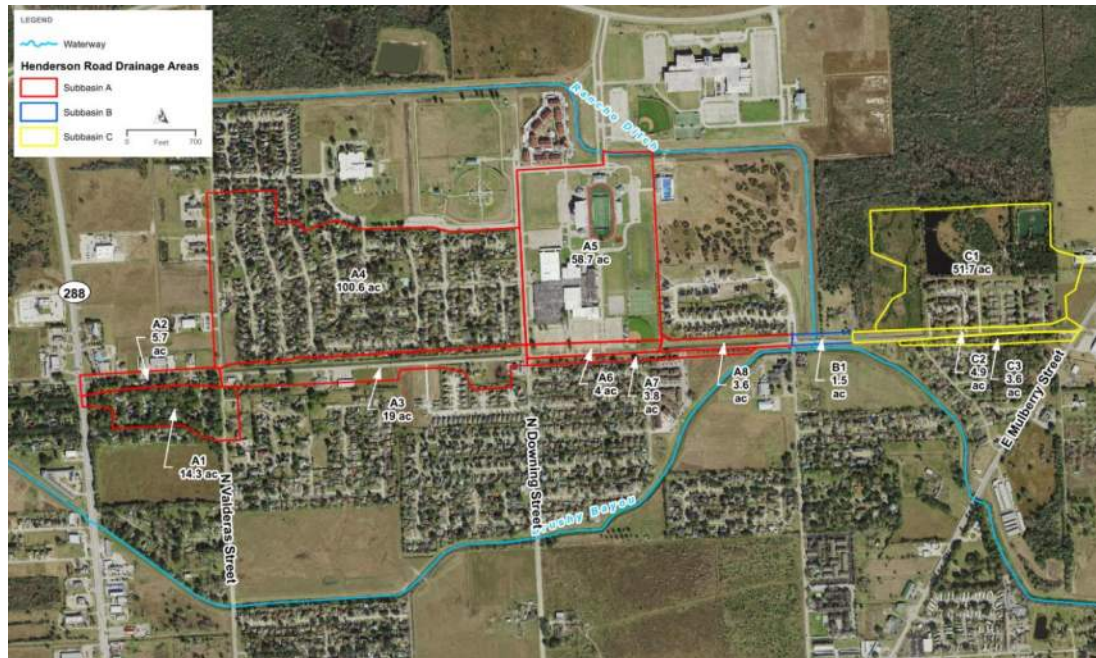


Figure 6. Project Drainage Areas

The BCDCM indicates Clark's unit hydrograph should be used in calculating peak discharge. The Clark's unit hydrograph is described by the T_c and R parameters. Due to the small size of the drainage areas, which was required to accurately determine roadway improvement impacts and analyze peak discharge values at key locations, calculation of T_c and R using watershed parameters described in the BCDCM was not appropriate. The BCDCM recommends using parameters such as longest flow path, channel slope and percent land urbanization. Because nearly all the project drainage areas are less than 100 acres and currently developed, and because the parameters do not include a velocity component, they are not well-suited in demonstrating impacts due to roadway improvements. Therefore, T_c was calculated using NRCS Upland Methodology which divides the longest flow path into segments of overland flow, shallow concentrated flow, roadside ditch flow, and storm sewer flow. The storage coefficient (R) was initially set at three times T_c . A tabulation of key parameters is shown in Appendix A.

Using the computed T_c values, rainfall intensities were determined based on NOAA Atlas 14 data, as specified in the scope of work for this project. The final parameter required to calculate peak discharge, C , was determined using aerial imagery, Table 2-3: Rational Method Runoff Coefficients from the BCDCM, and additional runoff coefficients for other land use descriptions consistent with the Windrose Green Drainage Impact Analysis. A frequency factor adjustment, C_f , of 1.25 was applied to the 100-year peak discharge, per BCDCM guidance.

3.2 HEC-HMS Model

A hydrologic model of the watershed drainage to Henderson Road was developed using HEC-HMS version 4.0 (consistent with the Windrose Green Drainage Impact Analysis). As with the Windrose Green and the Brushy Bayou LOMR hydrologic models, the Initial & Constant Loss Method was used to account for rainfall infiltration losses. The percent impervious value for each sub-watershed was determined using aerial imagery and Table 2-2: Typical Average Values for Impervious Cover from the BCDCM.

After an initial simulation, the storage coefficient (R) for each drainage sub-watershed was iterated such that the peak flow rate computed with the HEC-HMS model matched the peak flow rate computed using the Rational Method. The results are shown in Table 1.

Table 1. Existing Conditions HEC-HMS Model Results

Sub-Basin	Drainage Area (acres)	Peak Discharge (cfs)		
		2-Year	10-Year	100-Year
A1	14.3	21.6	30.3	57.2
A2	5.7	12.1	17.0	32.0
A3	19.0	27.7	38.7	72.4
A4	100.6	201.7	281.9	527.8
A5	58.7	92.1	129.9	247.4
A6	4.0	14.2	20.2	38.6
A7	3.8	3.7	5.2	9.9
A8	3.6	7.7	10.9	20.7
Combined Discharge at West Outfall to Brushy Bayou		300.1	443.0	829.3
B1 (Outfall to Rancho Ditch)	1.5	4.3	6.2	11.9
C1	51.7	40.8	57.6	109.3
C2	4.9	6.5	9.1	17.1
C3	3.6	5.3	7.4	14.0
Combined Discharge at East Outfall to Brushy Bayou		51.3	72.7	137.3
Combined Discharge at Brushy Bayou		351.4	515.8	962.3

3.3 XP-SWMM Model

In order to assess the adequacy of the existing Henderson Ditch and storm sewer system through the Angleton ISD property, a 1D hydraulic model was developed using 2019 XP-SWMM. This model was also created to appropriately compare impacts for the proposed enclosed system. The hydrographs generated from the HEC-HMS model were input into the XP-SWMM model which was used to evaluate the storage within the existing Henderson Ditch and within the storm sewer along the Angleton ISD property.

For the existing conditions, the XP-SWMM model only contained the segment of Henderson Ditch that discharges to the west outfall (sub-basins with A designations in the table above). The segments east of Buchta Road were not modeled in XP-SWMM for the existing conditions as they did not contain storm sewer. Additionally, the roadside ditches for those segments are shallower and narrower, and therefore significantly less storage is provided.

Survey data collected by Baker & Lawson, Inc. was utilized to determine the ditch invert elevations along Henderson Ditch between N Valderas Street and Buchta Road. Survey data was also used to determine the top of bank elevation and culvert geometry. HEC-HMS hydrographs were inserted into the XP-SWMM model at strategic locations. The downstream boundary condition conservatively set the water surface elevation at the top of the box culvert inverts which assumes water elevations in Brushy Bayou would submerge the outfall. The results are shown in Table 2.

Table 2. Existing Conditions XP-SWMM Model for Henderson Ditch

Storm Event	Peak Discharge (cfs) at West Outfall to Brushy Bayou
2-Year	282.0
10-Year	386.3
100-Year	567.5*
* Storage capacity within Henderson Ditch is exceeded. Some level of street flooding is anticipated.	

As compared to Table 1, the peak discharges in Table 2 account for the available storage within the Henderson Ditch and storm sewer system. As a result, peak discharges in Table 2 are lower than the corresponding values in Table 1. However, during the 100-year event, the XP-SWMM model indicates that the Angleton ISD storm sewer causes runoff to backup into Henderson Ditch between N Valderas Street and N Downing Street. This causes water to exceed the top of bank through this segment.

4 Proposed Conditions

4.1 HEC-HMS Model

The proposed condition assumes the existing Henderson roadway will be replaced with a four-lane divided boulevard. In order to accommodate the widened roadway, Henderson Ditch will become an enclosed storm sewer system along the full length of the project. The existing watershed parameters were modified to add additional impervious area for the expanded roadway. Times of concentration for impacted sub-watersheds were updated to account for the proposed storm sewer system.

A comparison of existing and proposed peak flow rates, determined using the Rational Method, is shown in Table 3.

Table 3. HEC-HMS Existing and Proposed Peak Discharges

Sub-Basin	Peak Discharge (cfs)					
	Existing Conditions			Proposed Conditions		
	2-Year	10-Year	100-Year	2-Year	10-Year	100-Year
A1*	21.6	30.3	57.2	21.6	30.3	57.2
A2	12.1	17.0	32.0	18.2	25.5	48.5
A3	27.7	38.7	72.4	37.3	52.1	97.9
A4*	201.7	281.9	527.8	201.7	281.9	527.8
A5*	92.1	129.9	247.4	92.1	129.9	247.4
A6	14.2	20.2	38.6	17.9	25.3	44.9
A7*	3.7	5.2	9.9	3.7	5.2	9.9
A8	7.7	10.9	20.7	11.7	16.5	31.5
B1	4.3	6.2	11.9	6.2	9.8	15.1
C1*	40.8	57.6	109.3	40.8	57.5	109.4
C2	6.5	9.1	17.1	10.5	14.8	27.8
C3*	5.3	7.4	14.0	5.3	7.4	14.0

* Off-site drainage areas are not impacted by the proposed roadway improvement. Therefore, proposed peak discharges match existing conditions.

In order to account for the routing through the proposed storm sewer, the hydrographs from HEC-HMS were used as inputs into an XP-SWMM model. The subsequent sections of this report describe the design assumptions and methodology used in developing the proposed condition XP-SWMM model.

4.2 Design Parameters and Assumptions

A preliminary design of Henderson Road is not available. Therefore, several assumptions were made regarding the future roadway expansion.

- HDR assumed the expansion would add additional lanes and a median to convert the roadway into a boulevard. As a result, the roadway coverage along the project length would approximately be doubled.
- HDR assumed two segments of storm sewer would be constructed.
 - The first segment would be constructed between N Valderas Street and Buchta Road. This would fully replace the roadside ditches and involve upsizing the storm sewer within the Angleton ISD property, as necessary. This segment would outfall at the existing box culverts west of Buchta Road.
 - The second segment would be constructed between E Mulberry Street and Rancho Ditch. The segment would outfall into Brushy Bayou adjacent to the Rancho Ditch outfall.
- The storm sewer should be sized to contain the 100-year storm event for proposed conditions.
- HDR assumed the outfall elevation would be elevation 14.0 feet at the Rancho Ditch outfall into Brushy Bayou, consistent with the downstream invert elevation of the 12'x8' box culverts.
- HDR assumed the outfall elevation would be elevation 14.5 feet at the outfall west of Buchta Road. This is lower than the existing 8'x5' RCBs. The elevation was set 0.5' higher than the outfall at Rancho Ditch to conservatively account for this outfall being further upstream along Brushy Bayou.
- Velocity is maintained between 3 fps and 10 fps in the storm sewer while flowing full, according to the City of Sugar Land drainage criteria.
- Cover above the pipes is a minimum of 2.5 feet, assuming the existing roadway elevations are maintained.

4.3 XP-SWMM Model

The XP-SWMM model was updated with a storm sewer system in lieu of Henderson Ditch. The storm sewer was designed using the parameters and assumptions described above. The proposed sewer system that meets the requirement of fully containing the 100-year storm event is shown in Exhibit 4. The proposed storm sewer ranges in size between 42" RCP and triple 10' x 5' reinforced concrete boxes that replace the west outfall at Brushy Bayou.

Table 4 summarizes the existing and proposed peak discharges from the proposed two outfalls.

Table 4. Summary of Peak Discharges

Outfall	Peak Discharge (cfs)								
	2-Year			10-Year			100-Year		
	Exist.	Prop.	Diff.	Exist.	Prop.	Diff.	Exist.	Prop.	Diff.
West Outfall	282.0	364.2	+82.2	386.3	515.8	+129.5	567.5	957.5	+390
East Outfall	52.3	53.5	+1.2	74.5	76.7	+2.2	140.0	142.9	+2.9

5 Mitigation Alternatives

HDR has compared the 100-year peak hydrographs between existing and proposed conditions to evaluate the required detention to accommodate increases in runoff. The existing and proposed hydrographs are provided in Appendix B. Table 5 summarizes the required detention determined by comparing the hydrographs.

Table 5. Required Detention Storage

Outfall	Required Storage (Acre-feet)
West Outfall (Near Buchta Road)	44.5
East Outfall (Rancho Bayou)	0.8
Total	45.3

As shown in Table 5, approximately 45.3 acre-feet of detention is required to accommodate project impacts. The ADD has been performing improvements along Brushy Bayou which have improved its capacity and conveyance which could potentially accommodate increases in peak discharge from Henderson Road. Additionally, the ADD has purchased land for a regional detention pond along Brushy Bayou near Rabb Road. If Brushy Bayou and/or the proposed detention pond near Rabb Road do not have sufficient available storage to accommodate this volume, this storage could be provided within on-site detention ponds for future development. Alternatively, a larger regional detention pond could be constructed to accommodate the balance between the available storage within Brushy Bayou and the full 45.3 acre-feet.

There is limited available space for a detention pond. However, as sub-watershed C1 is not fully developed, this area would present the best site for a regional detention pond. Sub-watershed C1 can be found in Figure 6 and in Exhibit 2.

6 Opinion of Probable Construction Cost

An opinion of probable construction cost (OPCC) for the proposed storm sewer system was developed. Although the Angleton Drainage District indicated detention storage was available within Brushy Bayou or potential at the detention pond near Rabb Road, HDR provided a high-level cost estimate for a regional detention facility. Unit prices were determined using TxDOT Statewide average prices. The cost estimate is summarized below in Table 6. This estimate does not include the cost of the roadway improvement. A detailed cost estimate is provided in Appendix C.

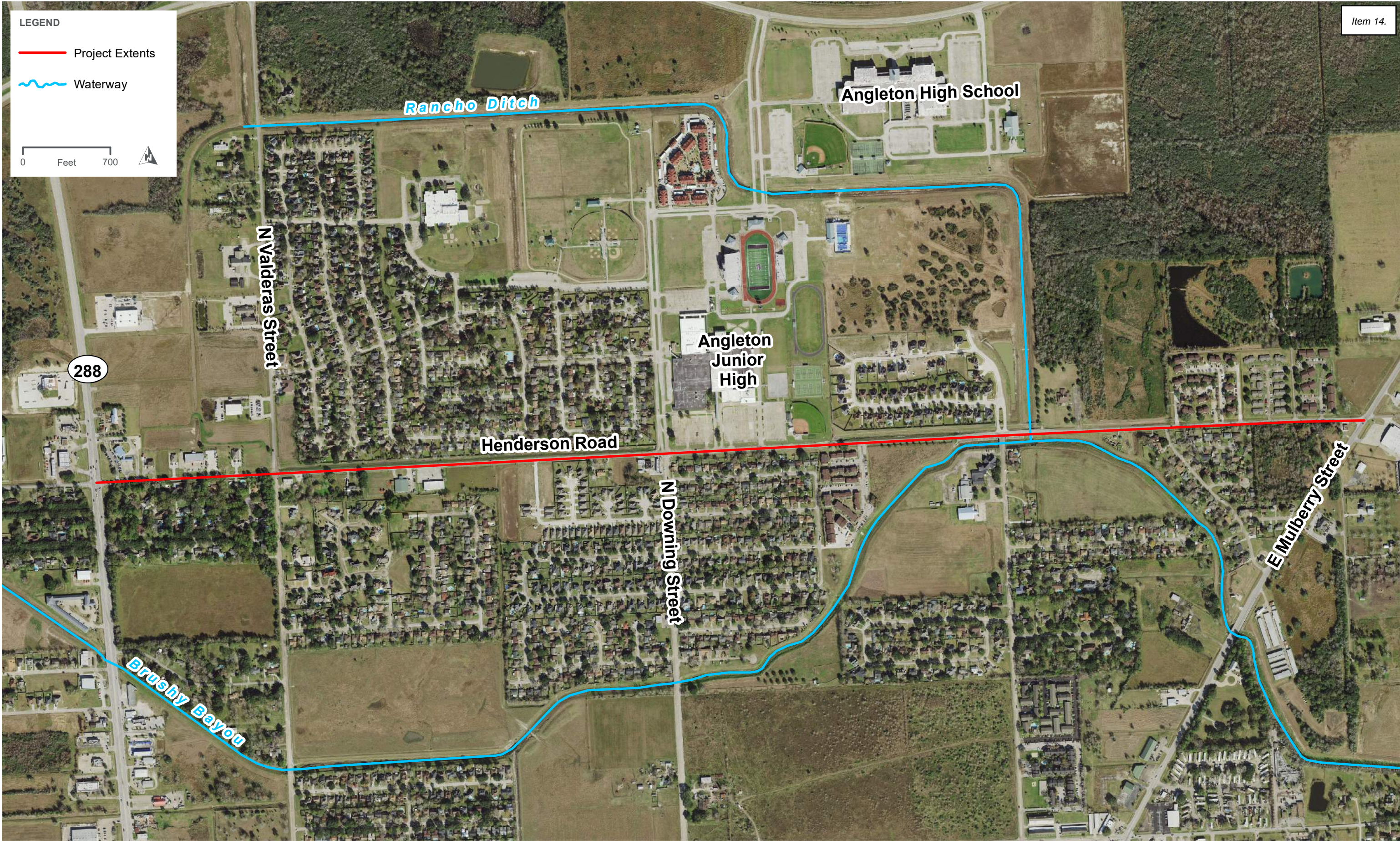
Table 6. Opinion of Probable Construction Cost

	Cost
Storm Sewer System	\$13,298,904
Detention Pond (Optional)	\$2,256,450
Total	\$15,555,354


7 Conclusion

As part of the future roadway improvement project along Henderson Road, the large, existing roadside ditch (Henderson Ditch) will be converted from an open ditch to an enclosed storm sewer system, capable of fully containing the 100-year storm event for fully developed watershed conditions. The storm sewer system required to fully contain this storm event ranges between 42" RCP and 10' x 5' RCBs. The cost of the storm sewer system, not including the roadway cost, is approximately \$13.3 million.


Detention is required to accommodate the roadway improvements (added impervious area and changes to the time of concentration), as well as potential future development within the watershed. Considering both items, 45.3 acre-feet of detention is required. The Angleton Drainage District has indicated storage within Brushy Bayou will be considered as the primary detention mitigation option. Additionally, there may be available storage within the detention pond near Rabb Road. However, HDR evaluated the cost of a regional detention pond within sub-watershed C1. The cost of the detention pond is approximately \$2.3 million. This would result in a total project cost of approximately \$15.6 million. This cost could be reduced if the City and Drainage District use storage or flow capacity within Brushy Bayou, or utilized storage within the Rabb Road detention pond.





LEGEND


 Waterway

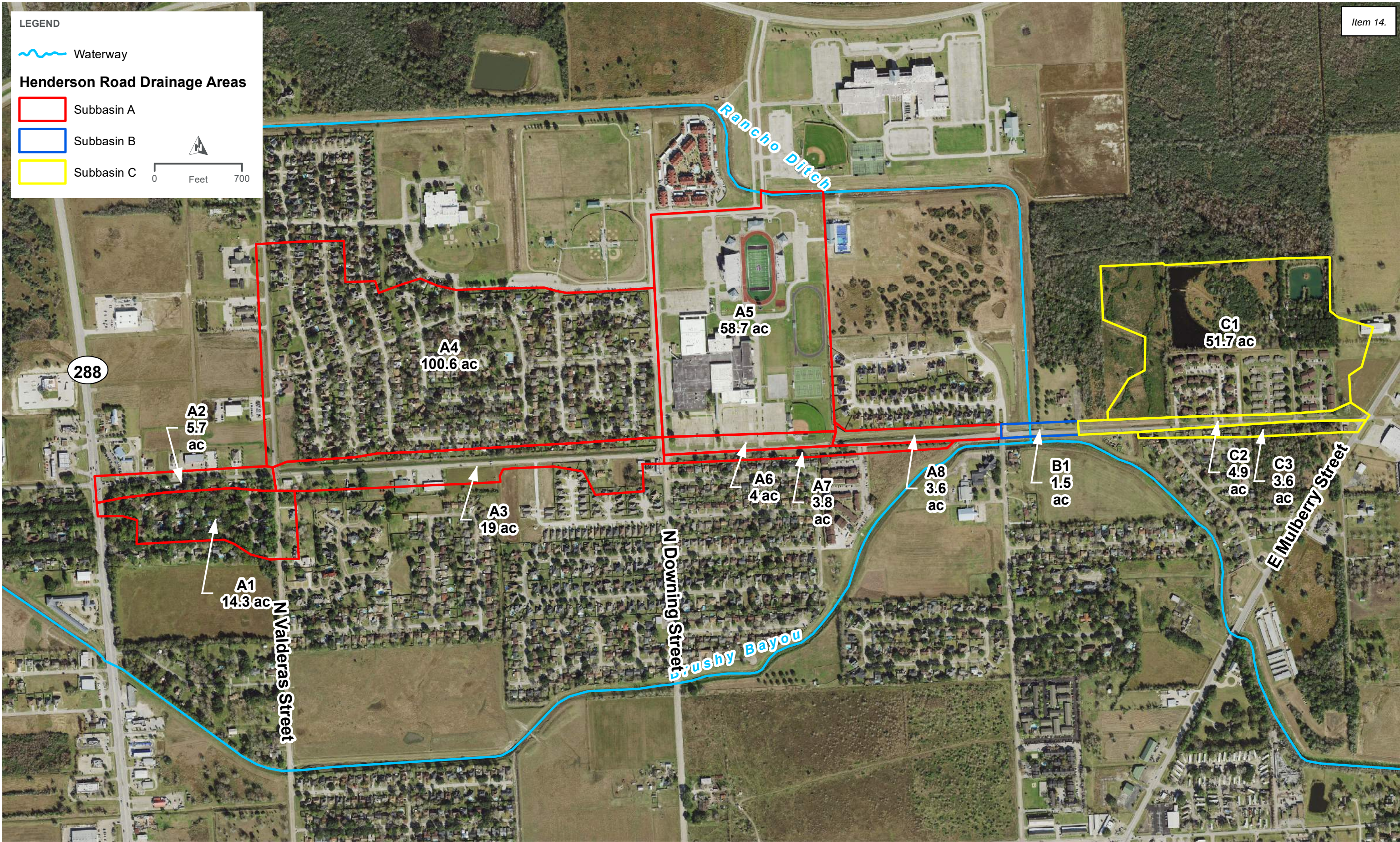
Henderson Road Drainage Areas

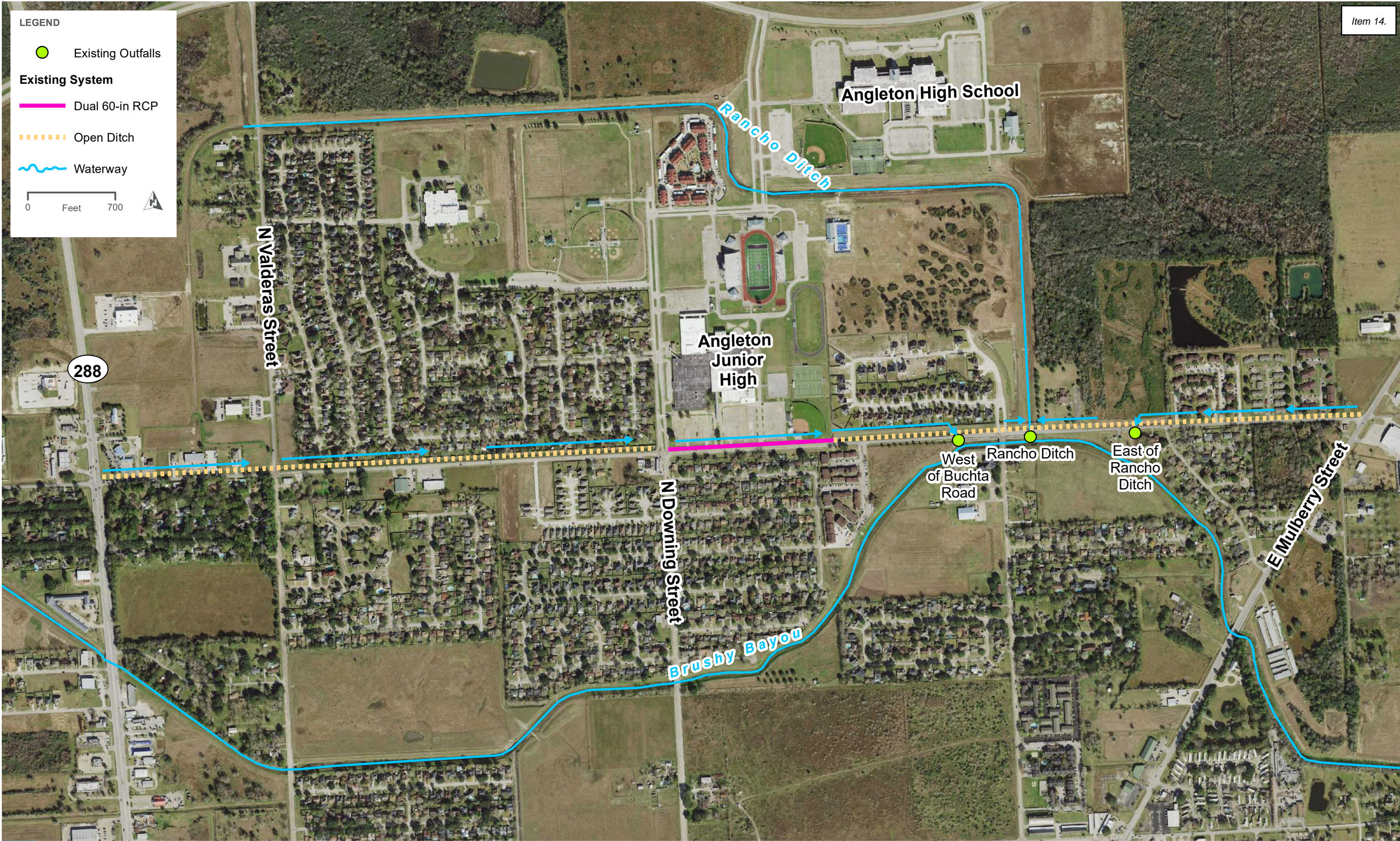
 Subbasin A

 Subbasin B

 Subbasin C

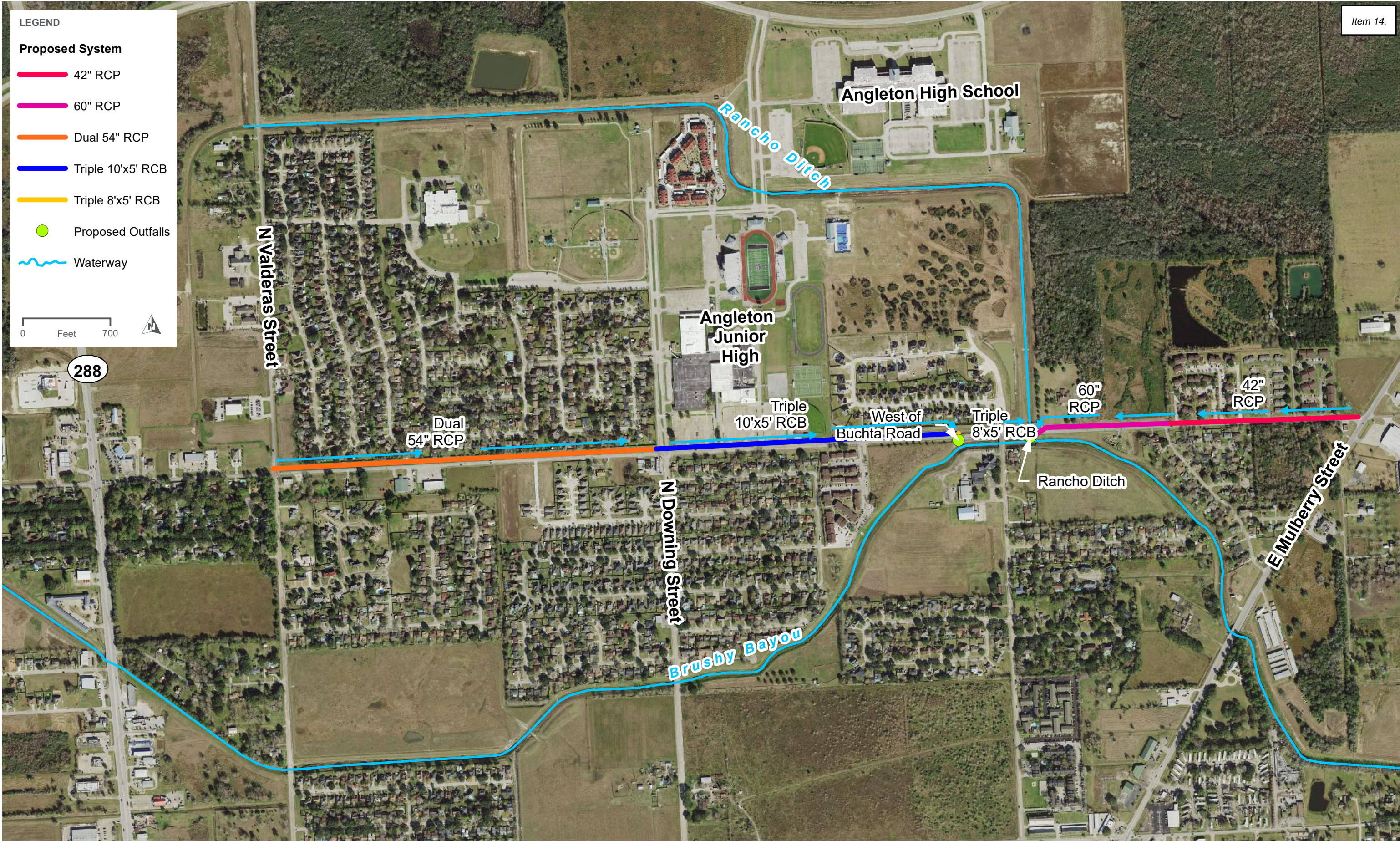

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HENDERSON ROAD IMPROVEMENT PROJECT DRAINAGE STUDY
EXISTING DRAINAGE SYSTEM FEATURES





HENDERSON ROAD IMPROVEMENT PROJECT DRAINAGE STUDY
PROPOSED DRAINAGE SYSTEM FEATURES



Appendix A. Hydrologic Parameters

Drainage Study for Henderson Road Improvement Project
City of Angleton, TX



NRCS Upland Method Calculations
Existing Conditions

TIME OF CONCENTRATION CALCULATIONS USING THE NRCS UPLAND METHOD													
Sub-Area	Units	A1	A2	A3	A4	A5	A6	A7	A8	B1	C1	C2	C3
Basin Drainage Area													
Drainage Area	acres	14.3	5.8	19.0	100.6	58.7	4.0	3.8	3.6	1.5	51.7	4.9	3.6
Drainage Area	sq. mi.	0.022	0.009	0.030	0.157	0.092	0.006	0.006	0.006	0.002	0.081	0.008	0.006
Impervious Cover													
Description	Imperv.												
Undeveloped	0%	0.00	1.75	4.90	1.52	19.46	1.34	2.73	2.38	0.84	35.77	3.56	1.87
Commercial	85%					39.2	1.7						0.4
Multi-Family	85%												
Industrial	72%												
Single-Family (1/4 Ac)	38%		2.6	3.8	94.7			0.7			15.9		1.3
Single-Family (1/2 Ac)	25%	14.3		7.6									
Roadway	80%		1.4	2.7	4.4		1.0	0.4	1.2	0.7		1.3	
Impervious Area	acres	3.6	2.1	5.5	39.5	33.3	2.2	0.6	1.0	0.6	6.0	1.0	0.8
Impervious Cover	%	25.0%	36.7%	29.0%	39.3%	56.8%	55.6%	15.3%	26.8%	36.4%	11.7%	21.4%	23.4%
Runoff Coefficient C													
Description	C												
Undeveloped	0.20	0.00	1.75	4.90	1.52	19.46	1.34	2.73	2.38	0.84	35.77	3.56	1.87
Commercial	0.85					39.2	1.7						0.4
Multi-Family	0.65												
Industrial	0.65												
Single-Family (1/4 Ac)	0.55		2.6	3.8	94.7			0.7			15.9		1.3
Single-Family (1/2 Ac)	0.35	14.3		7.6									
Roadway	0.85		1.4	2.7	4.4		1.0	0.4	1.2	0.7		1.3	
Sum-Product		5.0	3.0	8.0	56.1	37.2	2.6	1.3	1.5	0.8	15.9	1.8	1.4
Weighted Average		0.35	0.52	0.42	0.56	0.63	0.63	0.33	0.42	0.50	0.31	0.37	0.40
Time of Concentration													
SCS Uplands Method Curve B - Overland Flow in Woodland Areas													
Distance	feet												
Slope	percent												
Velocity	ft/sec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Travel Time	minutes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCS Uplands Method Curve C - Overland Flow in Grassy Areas													
Distance	feet	100	100	100	50	100		50	100		100	100	100
Slope	percent	0.10	0.10	0.10	0.10	0.10		0.10	0.10		0.10	0.10	0.10
Velocity	ft/sec	0.22	0.22	0.22	0.22	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.22
Travel Time	minutes	7.55	7.55	7.55	3.78	7.55	0.00	3.78	7.55	0.00	7.55	7.55	7.55
SCS Uplands Method Curve F - Shallow Concentrated Flow in Grassed Waterway													
Distance	feet					1140					834		
Slope	percent					0.15					0.10		
Velocity	ft/sec	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.47	0.00	0.00
Travel Time	minutes	0.00	0.00	0.00	0.00	33.03	0.00	0.00	0.00	0.00	29.65	0.00	0.00
SCS Uplands Method Curve G - Paved Areas (Sheet Flow) and Upland Gullies													
Distance	feet				550	639	100			50	500		
Slope	percent				0.07	0.16	0.10			0.10	0.10		
Velocity	ft/sec	0.00	0.00	0.00	0.52	0.78	0.62	0.00	0.00	0.62	0.62	0.00	0.00
Travel Time	minutes	0.00	0.00	0.00	17.56	13.61	2.67	0.00	0.00	1.33	13.33	0.00	0.00
Roadside Ditch													
Distance	feet	1020	1033	1116				3272		355		1871	1674
Velocity	ft/sec	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Travel Time	minutes	11.33	11.48	12.40	0.00	0.00	0.00	36.36	0.00	3.94	0.00	20.79	18.60
Storm Sewer													
Distance	feet				1284		1433						

Notes:

TIME OF CONCENTRATION CALCULATIONS USING THE NRCS UPLAND METHOD													
Sub-Area	Units	A1	A2	A3	A4	A5	A6	A7	A8	B1	C1	C2	C3
Velocity	ft/sec	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Travel Time	minutes	0.00	0.00	0.00	7.13	0.00	7.96	0.00	0.00	0.00	0.00	0.00	0.00
Open Channel													
Distance	feet		400	1976					957				
Velocity	ft/sec	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Travel Time	minutes	0.00	2.22	10.98	0.00	0.00	0.00	0.00	5.32	0.00	0.00	0.00	0.00
TC	minutes	18.88	21.25	30.93	28.47	54.19	10.63	40.13	12.87	10.00	50.54	28.34	26.15
TC	hours	0.31	0.35	0.52	0.47	0.90	0.18	0.67	0.21	0.17	0.84	0.47	0.44

If Tc<10, 10

Notes:

Drainage Study for Henderson Road Improvement Project
City of Angleton, TX



NRCS Upland Method Calculations
Proposed Conditions with Existing Land Use

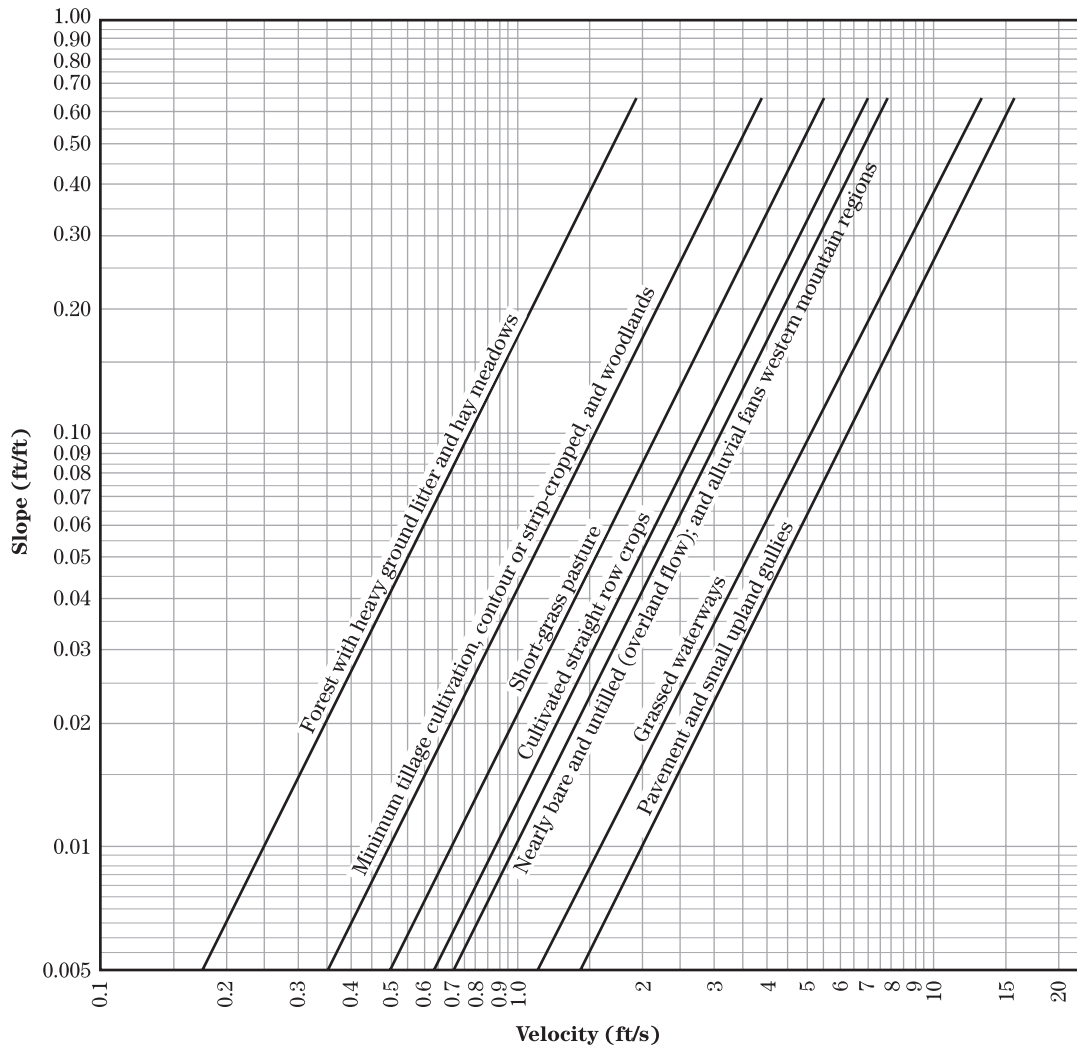
TIME OF CONCENTRATION CALCULATIONS USING THE NRCS UPLAND METHOD													
Sub-Area	Units	A1	A2	A3	A4	A5	A6	A7	A8	B1	C1	C2	C3
Basin Drainage Area													
Drainage Area	acres	14.3	5.8	19.0	100.6	58.7	4.0	3.8	3.6	1.5	51.7	4.9	3.6
Drainage Area	sq. mi.	0.022	0.009	0.030	0.157	0.092	0.006	0.006	0.006	0.002	0.081	0.008	0.006
Impervious Cover													
Description	Imperv.												
Undeveloped	0%	0.00	0.35	2.20	1.52	19.46	0.34	2.73	1.18	0.14	35.77	2.26	1.87
Commercial	85%					39.2	1.7						0.4
Multi-Family	85%												
Industrial	72%												
Single-Family (1/4 Ac)	38%		2.6	3.8	94.7			0.7			15.9		1.3
Single-Family (1/2 Ac)	25%	14.3		7.6									
Roadway	80%		2.8	5.4	4.4		2.0	0.4	2.4	1.4		2.6	
Impervious Area	acres	3.6	3.2	7.7	39.5	33.3	3.0	0.6	1.9	1.1	6.0	2.1	0.8
Impervious Cover	%	25.0%	56.1%	40.3%	39.3%	56.8%	75.4%	15.3%	53.6%	72.7%	11.7%	42.8%	23.4%
Runoff Coefficient C													
Description	C												
Undeveloped	0.20	0.00	0.35	2.20	1.52	19.46	0.34	2.73	1.18	0.14	35.77	2.26	1.87
Commercial	0.85					39.2	1.7						0.4
Multi-Family	0.65												
Industrial	0.65												
Single-Family (1/4 Ac)	0.55		2.6	3.8	94.7			0.7			15.9		1.3
Single-Family (1/2 Ac)	0.35	14.3		7.6									
Roadway	0.85		2.8	5.4	4.4		2.0	0.4	2.4	1.4		2.6	
Sum-Product		5.0	3.9	9.8	56.1	37.2	3.2	1.3	2.3	1.2	15.9	2.7	1.4
Weighted Average		0.35	0.67	0.51	0.56	0.63	0.80	0.33	0.64	0.79	0.31	0.55	0.40
Time of Concentration													
SCS Uplands Method Curve B - Overland Flow in Woodland Areas													
Distance	feet												
Slope	percent												
Velocity	ft/sec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Travel Time	minutes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCS Uplands Method Curve C - Overland Flow in Grassy Areas													
Distance	feet	100	100	100	50	100		50	100		100	100	100
Slope	percent	0.10	0.10	0.10	0.10	0.10		0.10	0.10		0.10	0.10	0.10
Velocity	ft/sec	0.22	0.22	0.22	0.22	0.22	0.00	0.22	0.22	0.00	0.22	0.22	0.22
Travel Time	minutes	7.55	7.55	7.55	3.78	7.55	0.00	3.78	7.55	0.00	7.55	7.55	7.55
SCS Uplands Method Curve F - Shallow Concentrated Flow in Grassed Waterway													
Distance	feet					1140					834	35	
Slope	percent					0.15					0.10	0.01	
Velocity	ft/sec	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.47	0.12	0.00
Travel Time	minutes	0.00	0.00	0.00	0.00	33.03	0.00	0.00	0.00	0.00	29.65	4.91	0.00
SCS Uplands Method Curve G - Paved Areas (Sheet Flow) and Upland Gullies													
Distance	feet				550	639	100			50	500		
Slope	percent				0.07	0.16	0.10			0.10	0.10		
Velocity	ft/sec	0.00	0.00	0.00	0.52	0.78	0.62	0.00	0.00	0.62	0.62	0.00	0.00
Travel Time	minutes	0.00	0.00	0.00	17.56	13.61	2.67	0.00	0.00	1.33	13.33	0.00	0.00
Roadside Ditch													
Distance	feet	1020	100					3272					1674
Velocity	ft/sec	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Travel Time	minutes	11.33	1.11	0.00	0.00	0.00	0.00	36.36	0.00	0.00	0.00	0.00	18.60
Storm Sewer													
Distance	feet		1333	3092	1284		1433		957	355		1836	

Notes:

TIME OF CONCENTRATION CALCULATIONS USING THE NRCS UPLAND METHOD													
Sub-Area	Units	A1	A2	A3	A4	A5	A6	A7	A8	B1	C1	C2	C3
Velocity	ft/sec	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Travel Time	minutes	0.00	7.41	17.18	7.13	0.00	7.96	0.00	5.32	1.97	0.00	10.20	0.00
Open Channel													
Distance	feet												
Velocity	ft/sec	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Travel Time	minutes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TC	minutes	18.88	16.07	24.73	28.47	54.19	10.63	40.13	12.87	10.00	50.54	22.66	26.15
TC	hours	0.31	0.27	0.41	0.47	0.90	0.18	0.67	0.21	0.17	0.84	0.38	0.44

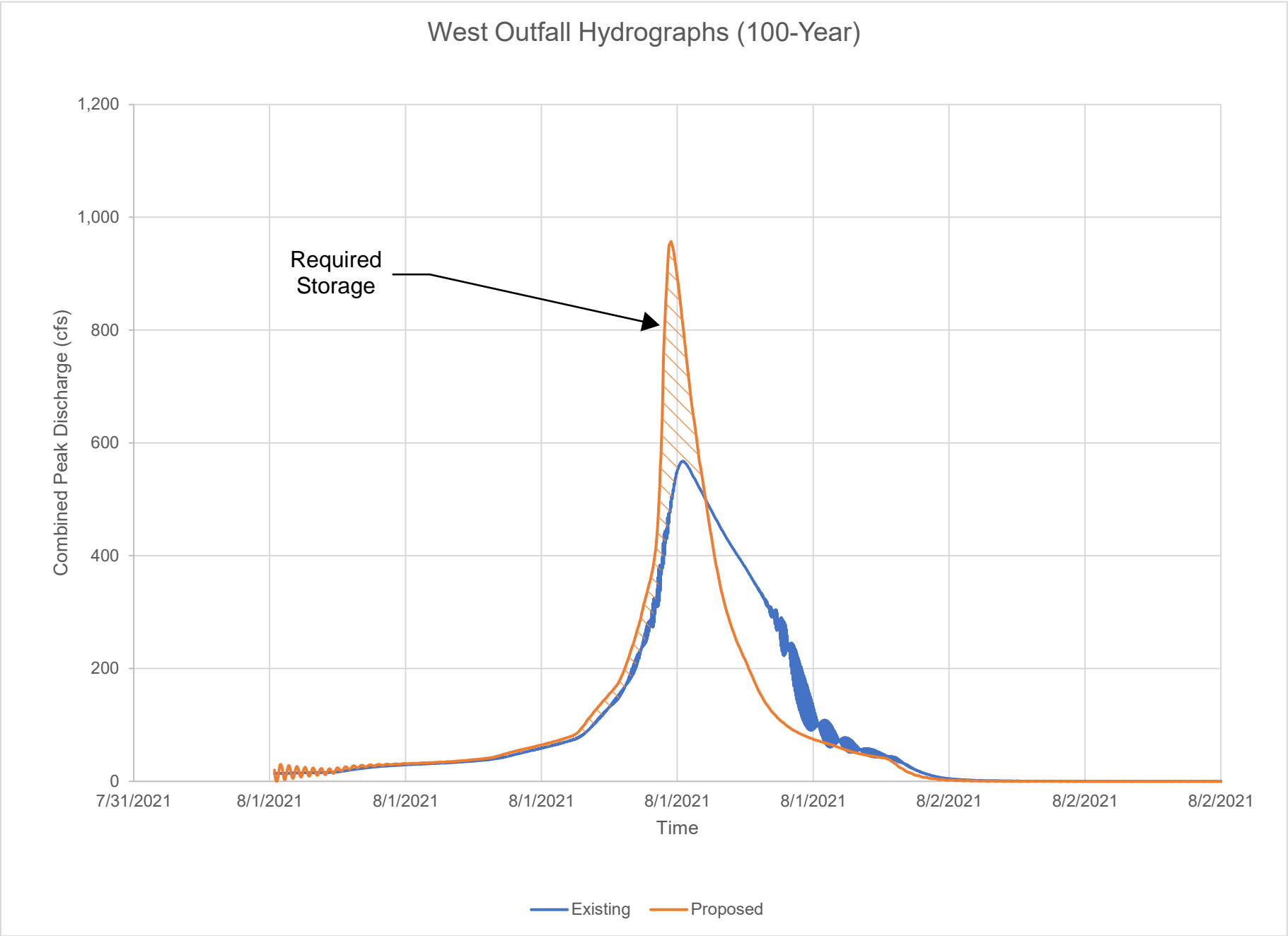
If Tc<10, 10

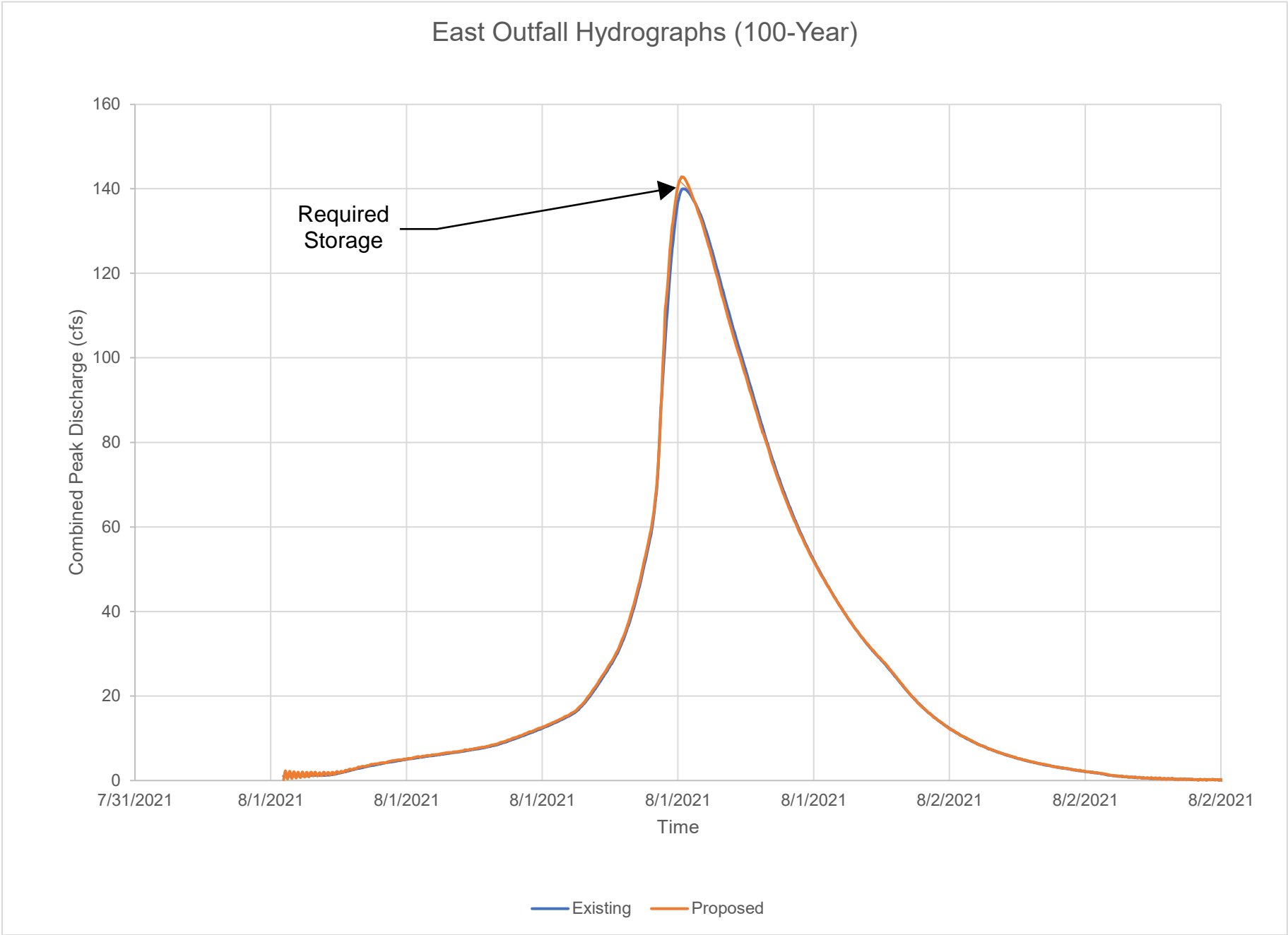
Notes:

Figure 15–4 Velocity versus slope for shallow concentrated flow**Table 15–3** Equations and assumptions developed from figure 15–4

Flow type	Depth (ft)	Manning's <i>n</i>	Velocity equation (ft/s)
Pavement and small upland gullies	0.2	0.025	$V = 20.328(s)^{0.5}$
Grassed waterways	0.4	0.050	$V = 16.135(s)^{0.5}$
Nearly bare and untilled (overland flow); and alluvial fans in western mountain regions	0.2	0.051	$V = 9.965(s)^{0.5}$
Cultivated straight row crops	0.2	0.058	$V = 8.762(s)^{0.5}$
Short-grass pasture	0.2	0.073	$V = 6.962(s)^{0.5}$
Minimum tillage cultivation, contour or strip-cropped, and woodlands	0.2	0.101	$V = 5.032(s)^{0.5}$
Forest with heavy ground litter and hay meadows	0.2	0.202	$V = 2.516(s)^{0.5}$

Appendix B. Hydrographs





Appendix C. Opinion of Probable Construction Cost

Storm Sewer System

Item	Item Description	Unit of Measure	Unit Price	Quantity	Item Cost
1	Remove 60" RCP	LF	\$ 20.00	2,860	\$ 57,200.00
2	Remove Inlets (All Types)	EA	\$ 370.00	29	\$ 10,800.00
3	Remove Manholes (All Types, All Depths)	EA	\$ 1,150.00	2	\$ 2,300.00
4	Manholes (for 42" to 60" Diam Pipe)	EA	\$ 6,000.00	2	\$ 12,000.00
5	Junction Box	EA	\$ 10,000.00	8	\$ 80,000.00
6	42" RCP	LF	\$ 145.00	1,500	\$ 217,500.00
7	54" RCP	LF	\$ 255.00	6,030	\$ 1,537,700.00
8	60" RCP	LF	\$ 315.00	1,000	\$ 315,000.00
9	8'x5' RCB	LF	\$ 620.00	309	\$ 191,600.00
10	10'x5' RCB	LF	\$ 795.00	7,200	\$ 5,724,000.00
11	Trench Safety System	LF	\$ 2.00	8,018	\$ 16,100.00
12	Curb Inlets (All Types)	EA	\$ 5,000.00	9	\$ 45,000.00
<i>Subtotal</i>					\$ 8,209,200.00
13	Ancillary Items			10%	\$ 820,920.00
14	General Items			10%	\$ 820,920.00
<i>Subtotal</i>					\$ 9,851,040.00
15	Contingency			20%	\$ 1,970,208.00
16	Engineering Design			15%	\$ 1,477,656.00
Total					\$ 13,298,904.00

Detention Pond

Item	Item Description	Unit of Measure	Unit Price	Quantity	Item Cost
17	Detention Pond (Dry)	AC-FT	\$ 30,000.00	45.3	\$ 1,359,000.00
18	Ancillary Items			10%	\$ 135,900.00
19	General Items			10%	\$ 135,900.00
20	Contingency			20%	\$ 271,800.00
21	Engineering Design			15%	\$ 203,850.00
22	Real Estate Acquisition	Acre	\$ 15,000.00	10.0	\$ 150,000.00
Total					\$ 2,256,450.00

Combined Cost \$ 15,555,354.00



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Frances Aguilar

AGENDA CONTENT: Discussion and possible action on an ordinance amending Ordinance No. 20220208-019 ordering a Special Election to be held on May 7, 2022, for the purpose of considering amendments to the city charter of the City of Angleton, Texas; making provisions for the conduct of the election and providing for other related matters relating to the election; providing a severance clause and providing effective date.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: EnterTextHere

FUNDS REQUESTED: EnterTextHere

FUND: EnterTextHere

EXECUTIVE SUMMARY:

Ordinance No. 20220208-019 orders the Special Election of the City shall be held on Saturday, May 7, 2022, for the purpose of considering amendments to the City charter. The final ordinance is being presented to council for final approval and to allow for any amendments.

RECOMMENDATION:

Staff recommends Council approve the ordinance with amendments.

ORDINANCE NO. 20220208-019

AN ORDINANCE BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS, ORDERING A SPECIAL ELECTION TO BE HELD ON MAY 7, 2022, FOR THE PURPOSE OF CONSIDERING AMENDMENTS TO THE CITY CHARTER OF THE CITY OF ANGLETON; MAKING PROVISIONS FOR THE CONDUCT OF THE ELECTION; PROVIDING FOR OTHER MATTERS RELATING TO THE ELECTION; PROVIDING A SEVERANCE CLAUSE AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Angleton, Texas, wishes to order a special election for the purpose of considering possible amendments to the City Charter, by the qualified voters of the City of Angleton pursuant to the Texas Election Code, the Angleton City Charter and City ordinances; and

WHEREAS, the City Council of the City of Angleton, Texas appointed a five (5) member Charter Review Commission to determine whether any Charter provisions require revision; and

WHEREAS, the Charter Review Commission met from July 2021 to December 2021 to review the City Charter and in December 2021 the Commission finalized its report of its findings in writing, and presented its proposed amendments to the City Council; and

WHEREAS, the City Council of the City of Angleton, Texas has reviewed the proposed changes by the Charter Review Commission and wishes to submit charter amendments to the Charter for submission to the qualified voters of the City on the next uniform election date, May 7, 2022; and

WHEREAS, pursuant to the Texas Local Government Code Sec. 9.004 a ballot for proposed charter amendments shall be prepared so that a voter may approve or disapprove any one or more amendments without having to approve or disapprove all of the amendments; and

WHEREAS, the Texas Election Code is applicable to said election, and in order to comply with said Code, an Ordinance should be passed calling the election and establishing the procedures to be followed in said election, and designating the voting place for said election; and

WHEREAS, the City Council wishes to designate certain officials to conduct various aspects of election services for the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

SECTION 1. A Special Election is hereby called and ordered shall be conducted on Saturday, May 7, 2022; for the purpose of considering possible amendments to the City Charter, by the qualified voters of the City of Angleton.

SECTION 2. The City of Angleton is hereby authorized to contract with Brazoria County for joint election services. In the event of a conflict between this Ordinance and the Agreement, the Agreement shall control.

SECTION 3. The ballots for the election shall comply with the Texas Election Code, as amended, so as to permit electors to vote “FOR” or “AGAINST” the proposition. Voters should place an “X” in the square beside the statement indicating the way they wish to vote.

SECTION 4. The measures to be submitted to the qualified voters of the City at the election are set forth in this Ordinance and in accordance with the Texas Local Government Code and City Charter.

SECTION 5. The City Secretary is authorized to take all actions necessary to comply with the provisions of the Texas Election Code, the City Charter, and City Code of Ordinances in carrying out and conducting the election and run-off election if necessary, whether or not expressly authorized by this Order. Pursuant to the Election Agreement between Brazoria County and the City, the Brazoria County Election Officer shall have the duty and be responsible for organizing and conducting the election in compliance with the Texas Election Code; and for providing all services specified to be provided in the Election Agreement. The Brazoria County Election Officer shall give the notices required by the Texas Election Code to be given for the election not required to be given by the City under the Election Agreement.

Proposed Amendments

Proposed Amendment Number One

Should Article 1 Form of Government and Boundaries, Section 1.01 Form of Government of the Home Rule Charter of the City of Angleton be amended to read as follows:

Sec. 1.01. Form of government.

The municipal government provided by this Charter shall be known as the "council- manager" government. Pursuant to its provisions and subject only to the limitations imposed by the state constitution, the statutes of this state and by this Charter, all powers of the city shall be vested in an elective council, hereinafter referred to as the "city council," which shall enact local legislation, adopt budgets, determine policies and appoint the city manager, who in turn shall be held responsible to the city council for the execution of the laws and the administration of the government of the city. All powers of the city shall be exercised in the manner prescribed by this Charter, or if the manner be not prescribed, then in such manner as may be prescribed by ordinance, the state constitution or the statutes of this state.

[Portions deleted]

Proposed Amendment Number Two

Should Article 1 Form of Government and Boundaries, Section 1.02 Boundaries of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 1.02. Boundaries.

Field notes of the incorporation lines of the City of Angleton in Brazoria County, Texas, as of said field notes being compiled from the field notes of the original incorporation lines (January 27, 1913) and field notes of areas subsequently annexed, reference being made to city limits as they exist. An official map shall be maintained and posted in City Hall so that it is accessible to the citizens. In the event of a change to the city boundaries and official map the city map will be posted within a reasonable time.

Proposed Amendment Number Three

Should Article 1 Form of Government and Boundaries, Section 1.03 Annexation for all purposes of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 1.03. Annexation for all purposes.

The city council shall have the power by ordinance to fix the boundary limits of the City of Angleton, and to provide for the alteration and the extension of said boundary limits, and the annexation of additional territory subject to such procedural rules as may be prescribed by law.

[Portions deleted]

Proposed Amendment Number Four

Should Article 1 Form of Government and Boundaries, Section 1.04 Contradiction of Boundaries of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 1.04. Contradiction of boundaries.

Any area of the City may be disannexed pursuant to any procedure allowed under state law and whenever, in the opinion of the City Council, there exists within the corporate limits of the City a territory not suitable or necessary for City purposes, the City Council may discontinue said territory as part of the City by ordinance after conducting a public hearing on the matter.

[Deleted and replaced in its entirety]

Proposed Amendment Number Five

Should Article 2 Powers of the City, Section 2.01 General Powers of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

ARTICLE 2. POWERS OF THE CITY

Sec. 2.01. General Powers

The City shall have the power of local self-government to the fullest extent permitted by law, and shall have all powers possible for a city to have under the constitution and laws of the State of Texas as fully and completely as though they were specifically enumerated in this Charter, with all of the implied powers necessary to carry into execution those powers and those express and

implied powers necessary for the government, interests, health, welfare, and good order of the City and its inhabitants.

[Deleted and replaced in its entirety]

Proposed Amendment Number Six

Should Article 2 Powers of the City, Section 2.02 General Powers of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 2.02. General powers adopted.

~~The enumeration of the particular powers in this Charter shall not be held or deemed to be exclusive but in addition to the powers enumerated herein or implied hereby or appropriate to the exercise of such powers, the city shall have and may exercise all power of local self government and all other powers which, under the constitution and laws of the State of Texas, it would be competent for this Charter specifically to enumerate. The City of Angleton shall have and may exercise all the powers enumerated in V.T.C.A., Local Government Code Ch. 51, as now or hereafter amended.~~

[Deleted in its entirety]

Proposed Amendment Number Seven

Should Article 2 Powers of the City, Section 2.03 Eminent Domain of the Home Rule Charter of the City of Angleton be deleted in part in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 2.03. Eminent domain.

The city shall have the full power conferred upon it by the Constitution, and laws of the State of Texas for eminent domain.

[Portions deleted]

Proposed Amendment Number Eight

Should Article 3 The City Council, Section 3.02 Qualifications of the Home Rule Charter of the City of Angleton shall be amended to read as follows:

ARTICLE 3. THE CITY COUNCIL

Sec. 3.02. Qualifications.

Each member of city council shall be a resident of the City of Angleton, shall be a qualified voter of the State of Texas, shall have been such resident citizen of the City of Angleton for a period of not less than six months immediately preceding filing deadline for the election, provided, however, that any person with the above qualifications except as to residence, who shall have been a resident for a period of not less than six months preceding the election, of any of the territory not formerly within the corporate limits of the city, but which is annexed under the provisions of

section 1.03 of this Charter, shall be eligible for said office. If the mayor or any councilman fails to maintain the foregoing qualifications or shall be absent from three consecutive regularly scheduled meetings without valid excuse, the city council must, at its next regular meeting, declare a vacancy as set forth in section 3.06 of this Charter.

Proposed Amendment Number Nine

Should Article 3 City Council, Section 3.05A Vacancy in office of Mayor of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 3.05A. Vacancy in office of mayor.

~~In the event of a vacancy in the office of the mayor arising from any cause, the mayor pro tem shall become mayor for the completion of the unexpired term if one year or less of such unexpired term remains. In the event of such vacancy with one year or less remaining and there is no mayor pro tem, then the vacancy in the office of mayor shall be filled in the same manner as provided for vacancies generally in section 3.06 herein. However, if more than one year of such unexpired term remains, the mayor pro tem shall serve as mayor until the council shall call an election for the filling of the vacancy at the next regular municipal election to be held on the date allowed by the Texas Election Code for regular municipal elections, to fill the remainder of the unexpired term of the mayor. In such event, the mayor pro tem shall act as mayor until a successor to the office of mayor has been elected and duly qualified.~~

[Deleted in its entirety]

Proposed Amendment Number Ten

Should Article 3 City Council, Section 3.06 Vacancies Generally of the Home Rule Charter of the City of Angleton be deleted in its entirety and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 3.06. Vacancies; generally.

- (a) ~~All vacancies shall be filled pursuant to state law. When a vacancy occurs in the city council, except for the office of mayor, the remaining members thereof must, within 31 days appoint a qualified person to fill the unexpired term of such vacancy. However, if more than one year of such unexpired term remains, the council shall call an election for the filling of the vacancy at the next regular municipal election to be held on the date allowed by the Texas Election Code for regular municipal elections, to fill the remainder of the unexpired term of said council member. In such event, the appointed council member shall serve until a successor to the office has been elected and duly qualified.~~
- (b) ~~However, if such appointment would result in more than two appointed members serving simultaneously on the city council, then a special election shall be held to fill the vacancy for the unexpired term. The special election shall be held on the earliest uniform election date in compliance with the Texas Election Code.~~

- ~~(c) However, if there are three or more vacancies existing simultaneously on the city council, then despite subsection (b) and despite the quorum and minimum vote requirements of section 3.09, the remaining city council members shall within 31 days appoint qualified persons to fill all but two of such vacancies temporarily, until a special election to fill such vacancies for the unexpired terms. A special election shall then be held on the earliest uniform election date in compliance with the Texas Election Code to fill all of such vacancies for the unexpired terms.~~
- (b) In case of disaster when a legal quorum of the City Council cannot otherwise be assembled due to multiple deaths or injuries, the surviving persons of the City Council, or highest surviving City official, if no elected official remains, shall, within twenty-four (24) hours of such disaster, request the highest surviving officers of the Brazoria County Commissioners Court to appoint a number of residents of the City equal to the number necessary to make a quorum to act during the emergency as the City Council. The newly appointed City Council shall call a City election to be held at the next uniform election date within fifteen (15) days of their appointment, or as provided in the Texas Election Code, for election of the vacant offices, if for good reasons it is known a quorum of the present City Council will never again meet. If it is determined that a quorum of the present City Council will meet again, the appointed Council Members shall serve in their position until such time as the present Council Members may begin serving. In the event for any reason there is no mayor or mayor pro tem, the remaining members of city council, or any of them, shall have the right and power to issue legal notice of such election to be so held, and to elect and appoint election officials. Should all positions on the city council become vacant at one time, then in such event, the County Judge of Brazoria County, Texas, is hereby empowered and directed to issue notice of such special election, for and on behalf of said city, and to appoint qualified persons as election officials.

[Deleted and replaced in its entirety]

Proposed Amendment Number Eleven

Should Article 3 City Council, Section 3.07 Powers of the City Council of the Home Rule Charter of the City of Angleton be deleted in part and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 3.07. Powers of the city council.

The determination of all matters of policy and the exercise of all powers of local self-government shall be vested in the city council.

[Deleted in portion]

Proposed Amendment Number Twelve

Should Article 3 City Council, Section 3.08 Meetings of the City Council of the Home Rule Charter of the City of Angleton be deleted in part and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 3.08. Meetings of the city council.

The city council shall hold at least one regular meeting in each month at a time to be fixed by said city council by ordinance fixing the dates of such regular meetings. As many additional special meetings may be held during the month as may be necessary for the transaction of all business of the city and its citizens. All meetings shall be public and the city council may designate a location for such meetings after publishing. The city secretary, upon written request of the mayor or any two council members, shall call special meetings of the city council. If the offices of mayor, mayor pro-tem, and all but one council position are vacant, the one council member remaining shall have the authority to call a special meeting. Notice of such special meetings shall be given to each member of the city council, which said notice shall state the date for such meeting and the subject to be considered at such meeting, and no other subject shall be there considered. Said notice to the city council shall be sufficient if delivered to the council member in person, or in the event of the inability to locate said council member within the City of Angleton, Texas, delivery of such notice to his or her home shall be sufficient. The City Manager, Mayor or two (2) city council members may place items on the agenda for city council meetings.

[Deleted in portion]

Proposed Amendment Number Thirteen

Should Article 3 City Council, Section 3.09 Rules of Procedure of the Home Rule Charter of the City of Angleton be deleted in part and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 3.09. Rules of procedure.

The city council shall determine its own rules of procedure and may compel the attendance of its members. A quorum shall require four (4) members of the city council. The Mayor is defined as a member of city council. ~~both of the following (1) either the mayor or the mayor pro tem, (unless the offices of both mayor and mayor pro tem are vacant); and (2) three other members of the city council, who must be qualified to participate in the matter under consideration.~~ Approval of a measure shall require the affirmative vote of a majority of the members who are present and qualified to vote on the measure, but not less than three votes unless otherwise authorized by this Charter. ~~Minutes of the proceedings of all meetings of the city council shall be kept, to which any citizen may have access at all reasonable times and which shall constitute one of the archives of the city. The vote upon the passage of all ordinances and resolutions shall be taken by the "ayes" and "nays" and entered upon the minutes, and every ordinance or resolution, upon its final passage, shall be recorded in a book kept for that purpose under full caption, and shall be authenticated by the signature of the presiding officer and the person performing the duties of the city secretary.~~

Proposed Amendment Number Fourteen

Should Article 3 City Council, Section 3.10 Procedure for Passing of Ordinances of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 3.10. Procedure for passing of ordinances.

~~Every ordinance shall be introduced in written or printed form and, upon passage, shall take effect at the time indicated therein, provided that any ordinance imposing a penalty, fine or forfeiture for a violation of its provisions shall become effective not less than ten days from the date of its passage, subject to the provisions of article 7 of this Charter. The city secretary shall give notice of the passage of every ordinance imposing a penalty, fine or forfeiture for a violation of the provisions thereof, by causing the caption or title, including the penalty, of any such ordinance to be published in the official newspaper of the City of Angleton at least once within ten days after the passage of said ordinance. He shall note on every ordinance the caption of which is hereby required to be published and on the record thereof, the fact that same has been published as required by the Charter and the date of such publication, which shall be prima facie evidence of the legal publication and promulgation of such ordinance, provided that the provisions of this section shall not apply to the correction, amendment, revision and codification of the ordinances of the city for publication in book or pamphlet form. Except as otherwise provided by article 7 of this Charter, it shall not be necessary to the validity of any ordinance that it shall be read more than one time or considered at more than one session of the city council. Every ordinance shall be authenticated by the signature of the mayor and city secretary and shall be systematically recorded and indexed in an ordinance book in a manner approved by the council. It shall only [be] necessary to record the caption or title of ordinances in the minutes or journal of council meetings. The city council shall have power to cause the ordinances of the city to be corrected, amended, revised, codified and printed in code form as often as the council deems advisable, and such printed code, when adopted by the council, shall be in full force and effect without the necessity of publishing the same or any part thereof in a newspaper. Such printed code shall be admitted in evidence in all courts and places without further proof.~~

Proposed Amendment Number Fifteen

Should Article 3 City Council, Section 3.12 Investigation by the City Council of the Home Rule Charter of the City of Angleton be revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage read as follows:

Sec. 3.12. Investigation by the city council.

The city council shall have power to inquire into the conduct of any office, department, agency, officer or employee of the city and to make investigations as to municipal affairs, and for that purpose may subpoena witnesses, administer oaths and compel the production of books, papers, and other evidence. Failure to obey such subpoena or to produce books, papers or other evidence as ordered under the provisions of this section shall constitute a misdemeanor and shall be punishable by fine not to exceed \$500.00.

[Deleted in portion]

Proposed Amendment Number Sixteen

Should Article 3 City Council, Section 3.13 Audit and examination of city books and accounts of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 3.13. Audit and examination of city books and accounts.

~~The city council shall cause an annual audit to be made of the books and accounts of each and every department of the city. At the close of each fiscal year, a complete audit shall be made by a certified public accountant, who shall be selected by the city council, and such audit shall include a recapitulation of all audits made during the course of the fiscal year, and all audit reports shall be filed with the city council, shall be available for public inspection and shall be made a part of the archives of the city. Such accountant, so selected, shall not maintain or keep any of the city's accounts or records.~~

[Deleted in its entirety]

Proposed Amendment Number Seventeen

Should Article 4 Administrative Services, Section 4.02 Department of Police of the Home Rule Charter of the City of Angleton be amended to read as follows:

ARTICLE 4. ADMINISTRATIVE SERVICES**Sec. 4.02. Department of police.**

There shall be established and maintained a department of police to preserve order within the city and to secure the residents of said city from violence and the property therein from injury or loss.

- (1) Chief of police. The chief of police shall be the chief administrative officer of the department of police. and shall, with the approval of the city manager, appoint and remove the employees of said department and shall perform such duties as may be required by the city council. The chief of police shall be appointed by the city manager with the approval of the city council for an indefinite term. The chief of police shall be responsible to the city manager for the administration of the police. The chief of police may be removed from office by the city manager.

[Deleted in portion]

Proposed Amendment Number Eighteen

Should Article 4 Administrative Services, Section 4.03 City Secretary of the Home Rule Charter of the City of Angleton be amended to read as follows:

Sec. 4.03. City secretary.

The city manager shall appoint a competent person as city secretary and such assistants as the city manager deems necessary. The city secretary, or designee shall give notice of the council meetings, shall keep the agenda and the minutes of the proceedings of such meetings, and shall authenticate all ordinances and resolutions, and shall perform such other duties as the city manager shall assign and those elsewhere provided in this Charter and the laws of the State of Texas.

[Deleted in portion]

Proposed Amendment Number Nineteen

Should Article 4 Administrative Services, Section 4.04 City treasurer of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have

become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 4.04. City treasurer.

~~The city manager, with the approval of the city council, shall appoint a competent person as city treasurer and such assistants as the city council shall deem advisable. The city treasurer shall perform the duties delegated to him by the city manager and those which may [be] imposed upon him by the laws of the State of Texas. The duties of city secretary, city treasurer and city tax assessor and collector may be performed by the same individual.~~

[Deleted in its entirety]

Proposed Amendment Number Twenty

Should Article 4 Administrative Services, Section 4.05 Corporation Court of the Home Rule Charter of the City of Angleton be amended to read as follows:

Sec. 4.05. Corporation court.

There shall be established and maintained a court designated as a "municipal court" for the trial of misdemeanor offenses, with all such powers and duties as are now or hereafter may be prescribed by the laws of the State of Texas relative to municipal court.

- (a) The judge of said court shall be appointed by the city council and shall be a licensed attorney and shall receive such salary as may be fixed by the city council.
- (b) The city council shall appoint other licensed attorneys to act as associate judges and temporary judges of said court in case of disability or absence of the judge of the municipal court. The salaries of these associate and temporary judges are to be fixed by the city council.
- (c) The judge, associate and temporary judges, and clerk shall serve at the will of the city council. The deputy clerk(s) shall serve at the will of the city manager.

[Deleted in portion]

Proposed Amendment Number Twenty-One

Should Article 4 Administrative Services, Section 4.06 City Attorney of the Home Rule Charter of the City of Angleton be amended to read as follows:

Sec. 4.06. City attorney.

The city council shall appoint and remove by a super majority competent and duly licensed attorney practicing law in the State of Texas, who shall be the city attorney. The city attorney, or such other attorneys selected by the city attorney shall represent the city in all litigation. He shall be the legal advisor of, attorney and counsel for, the city and all officers and departments thereof.

[Deleted in portion]

Proposed Amendment Number Twenty-Two

Should Article 4 Administrative Services, Section 4.08 Volunteer Fire Department of the Home Rule Charter of the City of Angleton be deleted in its entirety and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 4.08. Fire Department.

- (a) The governing body of the municipality may organize a fire department consisting of fire and rescue companies and the chief and any assistant engineers. The governing body shall prescribe the powers and duties of the fire departments and its officers.
- (b) Each company may elect its own members and officers. A company may adopt a constitution and bylaws that are not inconsistent with the statutes and the municipal ordinances.
- (c) The fire department engineers shall be chosen as determined by the department, subject to the approval of the governing body, which shall pass ordinances that it considers necessary for the welfare of the department. The mayor shall commission each elected officer approved by the governing body.
- (d) The governing body may obtain fire engines, other fire-protection equipment, rescue operation equipment, and control the use of the equipment, and provide fire stations to preserve the equipment. The fire department shall maintain the fire engines and other fire-protection equipment.

[Deleted in its entirety]

Proposed Amendment Number Twenty-Three

Should Article 4 Administrative Services, Section 4.09 Other Departments of the Home Rule Charter of the City of Angleton be deleted in part and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 4.09. Other departments.

(a) The city council may abolish or consolidate such offices and departments as it may deem to be in the best interests of the city and may divide the administration of any such departments as it may deem advisable, may create new offices or departments, and may discontinue any offices or departments at its discretion, except those specifically established by this Charter.

(b) Direction by City Manager. All departments, offices and agencies are under the direction and supervision of the City Manager but may be administered by an employee appointed by and subject to the direction and supervision of the city manager.

[Deleted in portion]

Proposed Amendment Number Twenty-Four

Should Article 5 Elections, Section 5.02 Qualified Voters of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Article 5. Elections

Sec. 5.02. Qualified voters.

~~All citizens qualified by the constitution and laws of the State of Texas to vote in the city and who satisfy the requirements for registration prescribed by law shall be qualified voters of the city within the meaning of this Charter.~~

[Deleted in its entirety]

Proposed Amendment Number Twenty-Five

Should Article 5 Elections, Section 5.03 Conduct of Elections of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

~~The provisions of the general election laws of the State of Texas shall apply to elections held under this Charter. All elections provided for the Charter shall be conducted by the election authorities established by law. For the conduct of city elections, for the prevention of fraud in such elections and the recount of ballots in cases of doubt or fraud, the council shall adopt by ordinance all regulations which it considers desirable, consistent with law and this Charter, and the election authorities may adopt, and if they adopt shall publicize, further regulations consistent with law and this Charter and the regulations of the council.~~

[Deleted in its entirety]

Proposed Amendment Number Twenty-Six

Should Article 5 Elections, Section 5.04 Filing for Office of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 5.04. Filing for office.

~~Any qualified citizen, as defined by the Texas Election Code and this Charter, who desires to become a candidate for city office shall file with the city secretary a signed application for his name to appear on the ballot. The application must meet the requirements of Section 141.031 of the Texas Election Code or any amendments thereto and must be filed with the filing period as that term is defined and set out in Section 143.007 of the Texas Election Code or any amendments thereto.~~

[Deleted in its entirety]

Proposed Amendment Number Twenty-Seven

Should Article 5 Elections, Section 5.05 Ballots of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 5.05. Ballots.

~~All official ballots shall be printed by the date required by the Texas Election Code for the deadline in ballot printing for any general or special election and absentee and early voting shall be governed by the Texas Election Code or any amendments thereto.~~

[Deleted in its entirety]

Proposed Amendment Number Twenty-Eight

Should Article 5 Elections, Section 5.06 Election by Majority of the Home Rule Charter of the City of Angleton be deleted in part and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 5.06 Election by majority.

At any regular or special municipal election, the candidate for each office who has received a majority of votes cast in such election shall be declared elected. If no candidate receives a majority of the vote there shall be held a run-off election.

[Deleted in portion]

Proposed Amendment Number Twenty-Nine

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.01 General Powers of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

ARTICLE 6. LEGISLATION BY THE PEOPLE, RECALL, INITIATIVE AND REFERENDUM

Sec. 6.01. General powers.

The qualified voters of the City of Angleton, in addition to the method of legislation hereinbefore provided, shall have the power of direct legislation by the recall, initiative and referendum except for adoption or amendment of the City budget or any capital expenditure; the appropriation of money; the levying of taxes; the adoption amendment, or repeal of zoning districts or regulations; the setting of rates, fees, charges, or assessments; approval of the issuance of bonds; or any other ordinance not subject to initiative as provided by state statute or common law.

Proposed Amendment Number Thirty

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.03 Petitions for recall of the Home Rule Charter of the City of Angleton be amended in order to

eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 6.03. Petitions for recall.

Notice of petition

- (a) The notice of intent to circulate a petition required by this subsection must be filed prior to the date of signing of each signature contained in the petition. In this Section, "Initial Petition Date" means the date the first signature was obtained on any of the copies of a recall petition.
- (b) Any registered voter of the City may commence recall proceedings by filing with the City Secretary a petition as required by this Section, provided that the registered voter must file with the City Secretary a notice of intent to circulate a petition before circulating the petition. Additionally, a petition for recall may be filed any time after the election of the person sought to be removed.
- (c) At least one signer of the petition must swear or affirm before a notary public or other person authorized to administer oaths that each signature on the petition was made by the person whose signature it purports to be, and that oath must be memorialized on the petition.

Before the recall of any officers shall be submitted to the qualified voters of the city, a petition demanding such question to be so submitted shall first be filed with the person performing the duties of city secretary, and said petition shall be signed by qualified voters of the city equal in number to at least 40 percent of the number of votes cast at the last regular municipal election of the city, but in no event less than 400 such petitioners. The petition and all the signatures must satisfy the requirements for petitions and signatures of qualified voters as set forth below, and in the Texas Election Code or any amendments thereto and it shall be the duty of the city secretary to verify said petition and signatures meet said requirements before said petition is submitted to the city council.

[Deleted in portion]

Proposed Amendment Number Thirty-One

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.04 Form of recall petition of the Home Rule Charter of the City of Angleton be amended to read as follows:

Sec. 6.04. Form of recall petition.

The recall petition must be addressed to the city council of the City of Angleton, must distinctly and specifically point out the ground or grounds upon which such petition for removal is predicated, and, if there be more than one ground, such as for incompetency, misconduct or malfeasance in office, shall specifically state each ground with such certainty as to give the officer sought to be removed, notice of the matters and things with which they are charged. One of the signers of each separate petition shall make an affidavit that the signer only personally circulated such petition and that each signature appended thereto was made in their presence and is the genuine signature of the person whose name it purports to be.

[Deleted in portion]

Proposed Amendment Number Thirty-Two

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.05 Various papers constituting petition of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 6.05. Various papers constituting petition.

All papers of a petition shall be uniform in size and style and shall be assembled as one instrument for filing. Each signature shall comply with Chapter 277 of the Texas Election Code as may be amended from time to time. The one instrument comprising a recall petition and filed with the person performing the duties of city secretary are to be filed on the same day, and the said secretary shall immediately notify, in writing, the officer so sought to be removed, by mailing such notice to their Angleton address.

[Deleted in portion]

Proposed Amendment Number Thirty-Three

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.11 Recall, restrictions thereon of the Home Rule Charter of the City of Angleton be amended to read as follows:

Sec. 6.11. Recall, restrictions thereon.

No recall petition shall be filed against any officer of the City of Angleton within three months after his election, nor within six months after an election for such officer's recall nor within six months of expiration of a term of such officer. In no event shall any city funds be expended to provide for the defense of or representation of any officer of the City of Angleton in connection with the recall of said officer.

Proposed Amendment Number Thirty-Four

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.13 Initiative of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 6.13. Initiative.

Notice of Petition

Qualified voters of the City of Angleton may initiate legislation by submitting a petition addressed to the city council which requests the submission of a proposed ordinance or resolution to a vote of the qualified voters of the city.

- (a) The notice of intent to circulate a petition required by this subsection to initiate legislation must be filed prior to the date of signing of each signature contained in the petition. In this Section, "Initial Petition Date" means the date the first signature was obtained on any of the copies of an initiation petition.
- (b) Any registered voter of the City may commence initiative proceedings by filing with the City Secretary a petition as required by this Section, provided that the registered voter must file with the City Secretary a notice of intent to circulate a petition before circulating the petition.
- (c) At least one signer of the petition must swear or affirm before a notary public or other person authorized to administer oaths that each signature on the petition was made by the person whose signature it purports to be, and that oath must be memorialized on the petition

Said petition must be signed by qualified voters of the city equal in number to 30 percent of the number cast at the last regular municipal election of the city, or 150 qualified voters, whichever is greater, and each copy of the petition shall have attached to it a copy of the proposed legislation. The petition shall be signed as provided for in the requirements for signatures on petitions as set forth in the Texas Election Code or any amendments thereto. Such petition shall be filed with the person performing the duties of city secretary and within ten days after the filing of such petition, the person performing the duties of city secretary shall present a copy of said petition and proposed ordinance or resolution to each member of the city council. Upon presentation to city council it shall become the duty of the city council, at the next regular meeting, or within thirty days, whichever is earlier to either pass and adopt such ordinance or resolution or to call a special election, to be held on the earliest date allowed by the election laws of the State of Texas. However, if any other municipal election is to be held within 78 days after the filing of the petition, the question may be voted on at such uniform election date.

[Deleted in portion]

Proposed Amendment Number Thirty-Five

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.14 Referendum of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 6.14. Referendum.

Notice of Petition

Qualified voters of the City of Angleton may initiate repeal of legislation by submitting a petition for referendum addressed to the city council which requests the repeal of legislation to a vote of the qualified voters of the city.

- (a) The notice of intent to circulate a petition required by this subsection to repeal legislation must be filed prior to the date of signing of each signature contained in the petition. In this Section, "Initial Petition Date" means the date the first signature was obtained on any of the copies of a referendum petition.

- (b) Any registered voter of the City may commence referendum proceedings by filing with the City Secretary a petition as required by this Section, provided that the registered voter must file with the City Secretary a notice of intent to circulate a petition before circulating the petition. Additionally, a petition for referendum may be filed any time after the passage of the legislation sought to be repealed.
- (c) At least one signer of the petition must swear or affirm before a notary public or other person authorized to administer oaths that each signature on the petition was made by the person whose signature it purports to be, and that oath must be memorialized on the petition.

Qualified voters of the City of Angleton may require that any ordinance or resolution, with the exception of ordinances or resolutions levying taxes or issuing tax or revenue bonds, passed by the city council be submitted to the voters of the city for approval or disapproval, by submitting a petition for this purpose within 30 days after final passage of said ordinance or resolution. Said petition shall be addressed, prepared, signed and verified as required for petitions initiating legislation, as provided in section 6.13 of this Charter and shall be submitted to the person performing the duties of city secretary. Immediately upon filing of such petition, the city secretary shall present said petition to the city council. Thereupon the city council shall immediately reconsider such ordinance or resolution and, if it does not entirely repeal the same, shall submit it to popular vote as provided in section 6.13 of this Charter. Pending the holding of such election, such ordinance or resolution shall be suspended from taking effect and shall not later take effect unless a majority of the qualified voters voting thereon at such election shall vote in favor thereof.

A petition for referendum that failed may not be submitted again for two years.

Proposed Amendment Number Thirty-Six

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.16 Form of Ballots of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 6.16. Form of ballots.

The ballots used when voting upon such proposed and referred ordinances, resolutions or measures, shall set forth their nature sufficiently to identify them as required by the Texas Election Code, as amended. ~~and shall also set forth upon separate lines the words:~~

"FOR the ORDINANCE," and
"AGAINST the ORDINANCE," or
"FOR the RESOLUTION," and
"AGAINST the RESOLUTION"

[Deleted in portion]

Proposed Amendment Number Thirty-Seven

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.17 Publication of proposed and referred ordinances of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

Sec. 6.17. Publication of proposed and referred ordinances.

The person performing the duties of city secretary shall publish at least once in accordance with the Texas Election Code, as amended.

[Deleted in portion]

Proposed Amendment Number Thirty-Eight

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.19 Inconsistent ordinances of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 6.19. Inconsistent ordinances.~~

~~If the provisions of two or more proposed ordinances or resolutions approved at the same election are inconsistent, the ordinance or resolution receiving the highest number of votes shall prevail.~~

[Deleted in its entirety]

Proposed Amendment Number Thirty-Nine

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.20 Ordinances passed by popular vote, repeal or amendment of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 6.20. Ordinances passed by popular vote, repeal or amendment.~~

~~No ordinances or resolutions which may have been passed by the city council upon a petition or adopted by popular vote under the provisions of this article shall be repealed or amended except by the city council in response to a referendum petition or by submission as provided in section 6.15 of this Charter.~~

[Deleted in its entirety]

Proposed Amendment Number Forty

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.21 Further regulations by city council of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been

superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 6.21. Further regulations by city council.~~

~~The city council may pass ordinances or resolutions providing other and further regulations for carrying out the provisions of this article consistent herewith.~~

[Deleted in its entirety]

Proposed Amendment Number Forty-One

Should Article 6 Legislation by the People, Recall, Initiative and Referendum, Section 6.22 Franchise Ordinances of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 6.22. Franchise ordinances.~~

~~Nothing contained in this article shall be construed to be in conflict with any of the provisions of article 9 of this Charter, pertaining to ordinances granting franchises when valuable rights shall have accrued thereunder.~~

[Deleted in its entirety]

Proposed Amendment Number Forty-Two

Should Article 7 Municipal Planning and Zoning, Section 7.01 Platting of Property of the Home Rule Charter of the City of Angleton be amended in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

ARTICLE 7. MUNICIPAL PLANNING AND ZONING

Sec. 7.01. Platting of property.

- (a) The City Council shall create a Planning Commission and a Zoning Commission, and may combine or, after being combined, separate the same at its discretion.

Every owner of any tract of land situated within the corporate limits of the City of Angleton who may divide the same in two or more parts for the purpose of laying out any subdivision or any addition to the city shall comply with the provisions of city code of ordinances as amended.

- (b) The provisions of section 7.01(a) shall apply similarly to the owner of any tract of land situated within the area of extraterritorial jurisdiction of the City of Angleton.

[Deleted in portion]

Proposed Amendment Number Forty-Three

Should Article 7 Municipal Planning and Zoning, Section 7.02 Development of Property of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate

provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 7.02. Development of property.

~~The City Council is authorized to cooperate with persons interested in development of property situated within or beyond the corporate limits of the city, but the city may not expend public funds for property development unless the use of public funds accomplishes a public purpose and complies with the laws and the constitutions of the State of Texas and the United States.~~

[Deleted in its entirety]

Proposed Amendment Number Forty-Four

Should Article 7 Municipal Planning and Zoning, Section 7.03 Planning Commission of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 7.03. Planning commission.

~~The city council shall appoint a city planning commission consisting of seven members who shall be residents of the City of Angleton, real property owners and shall not be employees of the city.~~

- ~~(1) Term of office. Three members shall be appointed in each odd number year, and four members shall be appointed in each even numbered year, within 30 days after each regular city election to serve a term of two years.~~
- ~~(2) Rules of procedure. The commission shall elect, annually, one of its number chairman, and shall establish its own rules of procedure which shall include the following. A quorum shall consist of a majority of the members of the commission and an affirmative vote of a majority of those present shall be necessary to pass upon pending questions. All meetings shall be open to the public and a record of all proceedings shall be kept by the person performing the duties of the city secretary and shall be a public record.~~
- ~~(3) Vacancies. Membership on the planning commission shall be accompanied by active participation in the activities of the commission, and any member who is absent from three consecutive meetings of the commission without valid excuse, as determined by the commission, shall automatically be dismissed from membership. The commission shall at once notify the city council that a vacancy in the planning commission exists. Vacancies occurring in the commission, for whatever reason, shall be filled within 30 days by appointment by the city council for the remainder of the unexpired term.~~
- ~~(4) Powers and duties. The commission shall have the power and shall be required to:
 - a. Amend, extend and add to the master plan for the physical development of the city;
 - b. Recommend to the city council approval or disapproval of plats of proposed subdivisions submitted in accordance with city ordinance number 333 as adopted or hereafter amended. (As amended 4-1-69);~~

- ~~e. Recommend to the city council approval or disapproval of proposed changes in the zoning plan;~~
 - ~~d. Make, and recommend to the city council for adoption, plans for the clearance and rebuilding of slum districts and blighted areas which may develop within the city;~~
 - ~~e. Recommend to the city council the amendment, extension and revision of the building code, which code shall include the minimum standard of construction for building, the minimum standards for plumbing, and the minimum standards for wiring;~~
 - ~~f. Submit annually to the city manager, not less than 90 days prior to the beginning of the budget year, a list of recommendations for capital improvements which, in the opinion of the commission, are necessary or desirable to be constructed during the forthcoming five years. Such list shall be arranged in order of preference, with recommendations as to which projects shall be constructed in which year;~~
 - ~~g. Meet no less than once each month when there is business pending that is legally ripe for consideration as required by state law, meetings to be held at the city hall unless prior notice of change of meeting place be given by publication in a newspaper in general circulation in the City of Angleton;~~
 - ~~h. Perform such other duties and be vested with such other powers as the city council shall from time to time prescribe.~~
- ~~(5) Liaison with city council. The city manager or his representatives shall attend the meetings of the planning commission and shall serve as liaison between the planning commission and the city council.~~

[Deleted in its entirety]

Proposed Amendment Number Forty-Five

Should Article 7 Municipal Planning and Zoning, Section 7.04 Zoning board of adjustment of the Home Rule Charter of the City of Angleton be deleted in part in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 7.04. Zoning board of adjustment.

~~The city council shall appoint a zoning board of adjustment in accordance with State law, of five members who shall be citizens of the City of Angleton, shall be appointed to serve for a term of two years, shall adopt the rules in accordance with the zoning ordinances of the city, shall select one of their number chairman, and shall meet at the call of said chairman and at such other times as the board may determine. All meetings of such board shall be open to the public and minutes shall be kept of all proceedings by the person performing the duties of the city secretary, showing the vote of each member present upon every question. The board shall have all powers granted in V.T.C.A., Local Government Code §§ 211.001—211.013, as now or hereafter amended, which shall include the power to hear and determine appeals from refusal of building permits, and to permit exception to or variations from the zoning regulations in classes of cases or situations in accordance with the principles, conditions and procedures specified in the zoning ordinance.~~

[Deleted in portion]

Proposed Amendment Number Forty-Six

Should Article 7 Municipal Planning and Zoning, Section 7.05 Alternate Zoning Commission of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 7.05. Alternate zoning commission.

~~The city planning commission may, at the discretion of the city council, act as the city zoning board.~~

[Deleted in its entirety]

Proposed Amendment Number Forty-Seven

Should Article 8 Municipal Finance, Section 8.02 Preparation and submission of budget of the Home Rule Charter of the City of Angleton be deleted in part and revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage to read as follows:

ARTICLE 8. MUNICIPAL FINANCE

Sec. 8.02. Preparation and submission of budget.

The City Manager shall submit the annual budget to the City Council no later than sixty (60) days before the beginning of the Fiscal Year.

The budget shall be accompanied by a report from the City Manager, with supporting schedules and exhibits, setting forth a complete financial plan for operation of the City during the coming fiscal year, with suitable explanation of any major changes in the cost of operation or the financial policy with supporting documentation as necessary.

~~The city manager, between 60 and 90 days prior to the beginning of each fiscal year, or as soon as practicable after all necessary information is obtained from the county appraisal and taxing authorities, shall submit to the council a proposed budget, which budget shall provide a complete financial plan for the fiscal year and shall contain the following:~~

- ~~(1) A budget message, explanatory of the budget, which message shall contain an outline of the proposed financial policies of the city for the fiscal year, shall set forth the reasons for salient changes from the previous fiscal year in expenditure and revenue items, and shall explain any major changes in financial policy;~~
- ~~(2) A consolidated statement of anticipated receipts and proposed expenditures for all funds;~~
- ~~(3) An analysis of property valuations;~~
- ~~(4) An analysis of tax rates;~~
- ~~(5) Tax levies and tax collections by years for at least the immediate past five years;~~
- ~~(6) General fund resources in detail;~~

- ~~(7) Special fund resources in detail;~~
- ~~(8) Summary of proposed expenditures by function, department and activity;~~
- ~~(9) Detailed estimates of expenditures shown separately for each activity to support the summary (8) above;~~
- ~~(10) A revenue and expense statement for all types of bonds;~~
- ~~(11) A description of all bond issues outstanding, showing rate of interest, date of issue, maturity date, amount authorized, amount issued and amount outstanding;~~
- ~~(12) A schedule of requirements for the principal and interest of each issue of bonds;~~
- ~~(13) The appropriation ordinance;~~
- ~~(14) The tax levying ordinance.~~

[Deleted and replaced in its entirety]

Proposed Amendment Number Forty-Eight

Should Article 8 Municipal Finance, Section 8.03 Anticipated revenues compared with other years in budget of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.03. Anticipated revenues compared with other years in budget.

~~In preparing the budget, the city manager shall place in parallel columns opposite the several items of revenue the actual amount of each item for the last complete fiscal year, the estimated amount for the current fiscal year, and the proposed amount for the ensuing fiscal year.~~

[Deleted in its entirety]

Proposed Amendment Number Forty-Nine

Should Article 8 Municipal Finance, Section 8.04 Proposed expenditures compared with other years in budget of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.04. Proposed expenditures compared with other years.

~~The city manager, in the preparation of the budget shall place in parallel columns opposite the various items of expenditures the actual amount of such items of expenditures for the last completed fiscal year, the estimated amount for the current fiscal year, and the proposed amount for the ensuing fiscal year.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty

Should Article 8 Municipal Finance, Section 8.05 Budget a public record of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.05. Budget a public record.

~~The budget and all supporting schedules shall be filed with the person performing the duties of city secretary, submitted to the council and shall be a public record. The city manager shall provide copies for distribution to all interested persons.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-One

Should Article 8 Municipal Finance, Section 8.06 Notice of public hearing on budget of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.06. Notice of public hearing on budget.

~~The city shall cause to be published in a newspaper of general circulation in the City of Angleton, a notice of the hearing setting forth the time and place thereof. Requirements governing the publication date (not content) for said notice shall be in accordance with the requirements established by the State of Texas for publication of the hearing for increasing the effective tax rate, regardless whether a tax rate increase is actually proposed.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Two

Should Article 8 Municipal Finance, Section 8.07 Public Hearing of Budget of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.07. Public hearing of budget.

~~At the time and place set forth in the notice required by section 8.06, or at any time and place to which such public hearing shall from time to time be adjourned, the city council shall hold a public hearing on the budget submitted, and all interested persons shall be given an opportunity to be heard for or against any item or the amount of any item therein contained.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Three

Should Article 8 Municipal Finance, Section 8.08 Proceedings on Budget after public hearings of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate

provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 8.08. Proceedings on budget after public hearings.~~

~~After the conclusion of such public hearing, the city council may insert new items or may increase or decrease the items of the budget, except items in proposed expenditures fixed by law, but where it shall increase the total proposed expenditures, it shall also provide for an increase in the total anticipated revenue to at least equal such proposed expenditures.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Four

Should Article 8 Municipal Finance, Section 8.09 Vote required for adoption of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 8.09. Vote required for adoption.~~

~~The budget shall be adopted by the favorable vote of a majority of the members of the whole city council.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Five

Should Article 8 Municipal Finance, Section 8.10 Date of Final Adoption of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 8.10. Date of final adoption.~~

~~The budget shall be finally adopted within the time frame provided by law for adopting a tax rate and should the city council fail to so adopt a budget, the then existing budget, together with its tax levying ordinance and its appropriation ordinance, shall be deemed adopted for the ensuing fiscal year.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Six

Should Article 8 Municipal Finance, Section 8.11 Effective date of Budget; certification; copies made available of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 8.11. Effective date of budget; certification; copies made available.~~

~~Upon final adoption, the budget shall be in effect for the fiscal year. A copy of the budget, as finally adopted, shall be filed with the person performing the duties of city secretary and the county clerk of Brazoria County. The final budget shall be printed, mimeographed or otherwise reproduced and copies shall be made available for the use of all offices, departments and agencies and for the use of interested persons, and civic organizations.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Seven

Should Article 8 Municipal Finance, Section 8.12 Budget established appropriations of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 8.12. Budget established appropriations.~~

~~From the effective date of the budget, the several amounts stated therein as proposed expenditures shall be and become appropriated to the several objects and purposes therein named.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Eight

Should Article 8 Municipal Finance, Section 8.13 Budget established amount to be raised by property tax of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 8.13. Budget established amount to be raised by property tax.~~

~~From the effective date of the budget, the amount stated therein as the amount to be raised by property tax shall constitute a determination of the amount of the levy for the purposes of the city in the corresponding tax year, provided, however, that in no event shall such levy exceed the legal limit provided by the laws and constitution of the State of Texas.~~

[Deleted in its entirety]

Proposed Amendment Number Fifty-Nine

Should Article 8 Municipal Finance, Section 8.14 Contingent appropriation of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.14. Contingent appropriation.

~~Provision shall be made in the annual budget and in the appropriation ordinance for a contingent appropriation in an amount not more than three per centum of the total budget to be used in case of unforeseen items of expenditures. Such contingent appropriation shall be under the control of the city manager and distributed by him, after approval by the city council. Expenditures from this appropriation shall be made only in case of established emergencies and a detailed account of such expenditures shall be recorded and reported.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty

Should Article 8 Municipal Finance, Section 8.15 Estimated expenditures shall not exceed estimated resources of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.15. Estimated expenditures shall not exceed estimated resources.

~~The total estimated expenditures of the general fund and debt service fund shall not exceed the total estimated resources of each fund (prospective income plus cash on hand). The classification of revenue and expenditure accounts shall conform as nearly as local conditions will permit to the uniform classification as promulgated by the national committee on governmental accounting or some other nationally accepted classification.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-One

Should Article 8 Municipal Finance, Section 8.16 Budget amendments of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.16. Budget amendments.

~~The city budget may be amended and appropriations altered for municipal purposes in accordance with state law.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Two

Should Article 8 Municipal Finance, Section 8.17 Purchase procedure of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.17. Purchase procedure.

~~All purchases made and contracts executed by the city shall be pursuant to a requisition from the head of the office, department or agency whose appropriation will be charged, and no contract or order shall be binding upon the city unless and until the city manager certifies that there is to the credit of such office, department or agency a sufficient unencumbered appropriation and allotment balance to pay for the supplies, materials, equipment, or contractual services for which the contract or order is to be issued. All purchases made and contracts executed by the city shall be made in accordance with the requirements of this Charter and all applicable requirements of the Constitution and Statutes of the State of Texas. All contracts for purchases or expenditures must be expressly approved in advance by the council, except that the council may by ordinance confer upon the city manager, general authority to contract for and pay expenditures without further approval of the council for all budgeted items the cost of which does not exceed 50 percent of the amount for which state law requires competitive bidding or competitive proposals.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Three

Should Article 8 Municipal Finance, Section 8.18 Disbursement of funds of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.18. Disbursement of funds.

~~All checks, vouchers or warrants for the withdrawal of money from the city depository shall be signed by the city manager or his deputy, and countersigned by a member of the city council.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Four

Should Article 8 Municipal Finance, Section 8.21 Property subject to tax; method of assessment of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.21. Property subject to tax; method of assessment.

~~All real and personal property within the City of Angleton not expressly exempted by law, shall be subject to annual taxation in the manner provided for in V.T.C.A., Tax Code.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Five

Should Article 8 Municipal Finance, Section 8.25 Taxes; when due and payable of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.25. Taxes; when due and payable.

~~All taxes due the City of Angleton shall be payable at the office of the city assessor-collector and may be paid at any time after the tax rolls for the year have been completed and approved which shall be not later than October 1. Taxes shall be paid before February 1, and all such taxes not paid prior to such date shall be deemed delinquent and shall be subject to such penalty and interest as the city council may provide by ordinance. The city council may provide further by ordinance that all taxes, either current or delinquent, due the City of Angleton may be paid in installments. Failure to levy and assess taxes through omission in preparation of the approved tax roll shall not relieve the person, firm or corporation so omitted from obligation to pay such current or past due taxes shown to be payable by recheck of the rolls and receipts for the year in question, unless otherwise provided by law. These services and the office of the city assessor-collector are being performed by Brazoria County through an interlocal agreement.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Six

Should Article 8 Municipal Finance, Section 8.26 Tax liens of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.26. Tax liens.

- (a) ~~The tax levied by the city is hereby declared to be a lien, charge or encumbrance upon the property upon which the tax is due, which lien, charge or encumbrance the city is entitled to enforce and foreclose in any court having jurisdiction over the same, and the lien charge or encumbrance on the property in favor of the city, for the amount of taxes due on such property is such as to give the state courts jurisdiction to enforce and foreclose said lien on the property on which the tax is due, not only as against any resident of this state or person whose residence is unknown, but also as against non residents. All taxes upon real estate shall especially be a lien and a charge upon the property upon which the taxes are due, which lien may be foreclosed in any court having jurisdiction. The city's tax lien shall exist from January 1 in each year until the taxes are paid, and the statute of limitations shall not apply. Such lien shall be prior to all other claims, and no gift, sale, assignment or transfer of any kind, or judicial writ of any kind, can ever defeat such lien.~~
- (b) ~~All persons or corporations owning or holding personal property or real estate in the City of Angleton on the first day of January of each year shall be liable for all municipal taxes levied thereon for such year. The personal property of all persons owing any taxes to the City of Angleton is hereby made liable for all of said taxes, whether the same be due upon personal or real property or upon both.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Seven

Should Article 8 Municipal Finance, Section 8.27 Tax remissions, discount and correction of error of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.27. Tax remissions, discount and correction of error.

~~The city council or any other official of the city shall never extend the time for the payment of taxes except as herein provided, or remit, or discount any tax legally due the city, nor waive the penalty and interest that may be due thereon to any persons, firms or corporations owing taxes to the city for such year or years, provided, however, that this provision shall not prevent the discounting of any tax suit or the correction of any errors in assessment, or preparation of tax rolls, or preparation of a tax statement. Such discount or correction of errors shall first have the approval of the city council.~~

[Deleted in its entirety]

Proposed Amendment Number Sixty-Eight

Should Article 8 Municipal Finance, Section 8.28 Issuance of Bonds of the Home Rule Charter of the City of Angleton be deleted in part in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 8.28. Issuance of bonds.

The City of Angleton shall have the power to issue bonds and levy a tax to support the issue for permanent improvements and all other lawful purposes.

- ~~(1) General obligation bonds. The city shall have the power to borrow money on the credit of the city and to issue general obligation bonds for permanent public improvements or for any other public purpose not prohibited by the constitution and laws of the State of Texas and to issue refunding bonds to refund outstanding bonds of the city previously issued. All such bonds shall be issued in conformity with the laws of the State of Texas.~~
- ~~(2) Revenue bonds. The city shall have the power to borrow money for the purpose of constructing, purchasing, improving, extending or repairing of public utilities, recreational facilities or any other self-liquidating municipal function not prohibited by the constitution and laws of the State of Texas and to issue revenue bonds to evidence the obligation created thereby, and to issue refunding bonds to refund outstanding revenue bonds of the city previously issued. All such bonds shall be issued in conformity with the laws of the State of Texas.~~
- ~~(3) Sale of bonds. No bonds (other than refunding bonds issued to refund and in exchange of previously issued outstanding bonds) issued by the city shall be sold for less than par value and accrued interest. All bonds of the city having been issued and sold in accordance with the terms of this section, and having been delivered to the purchasers thereof shall thereafter be incontestable and all bonds issued to refund and in exchange of outstanding bonds previously issued shall, after said exchange be incontestable.~~

[Deleted in portion]

Proposed Amendment Number Sixty-Nine

Should Article 9 Franchises and Public Utilities, Section 9.02 Power to grant franchise of the Home Rule Charter of the City of Angleton be revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

ARTICLE 9. FRANCHISES AND PUBLIC UTILITIES

Sec. 9.02. Power to grant franchise.

The council shall have the power, by ordinance, to grant, renew, extend and amend, all franchises of all public utilities of every character operating within the city. No franchise shall be for an indeterminate period, and no franchise shall be granted for a term of more than 30 years from the date of grant, renewal or extension.

No grant or franchise to construct, maintain, or operate a public utility and no renewal or extension of any such grant shall be exclusive.

Proposed Amendment Number Seventy

Should Article 9 Franchises and Public Utilities, Section 9.03 Grant not to be exclusive of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 9.03. Grant not to be exclusive.~~

~~No grant or franchise to construct, maintain, or operate a public utility and no renewal or extension of any such grant shall be exclusive.~~

[Incorporated into Section 9.02]

Proposed Amendment Number Seventy-One

Should Article 9 Franchises and Public Utilities, Section 9.04 Ordinance Granting franchise of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

~~Sec. 9.04. Ordinances granting franchise.~~

~~All ordinances granting, renewing, extending or amending a public utility franchise shall be read at two separate regular meetings of the council, and shall not be finally passed until 30 days after the first reading, and no such ordinance shall take effect until 30 days after its final passage, and the full text of such ordinance shall be published once, within 15 days following the first~~

~~reading, in the official newspaper of the city, and the expense of such publication shall be borne by the prospective franchise holder.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Two

Should Article 9 Franchises and Public Utilities, Section 9.05 Transfer of franchise of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 9.05. Transfer of franchise.

~~No public utility franchise shall be transferable except with the approval of the council expressed by ordinance. The term "transferable," as used herein, shall not be construed in such a manner as to prevent the franchise holder from pledging said franchise as security for a valid debt or mortgage.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Three

Should Article 9 Franchises and Public Utilities, Section 9.06 Franchise value not to be allowed of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 9.06. Franchise value not to be allowed.

~~No value shall be assigned to any franchise granted by the city in fixing reasonable rates and charges for utility service within the city and in determining the just compensation to be paid by the city for public utility property which it may acquire by condemnation or otherwise.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Four

Should Article 9 Franchises and Public Utilities, Section 9.10 Sales of municipal services of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 9.10. Sales of municipal services.

~~The Council shall have the power and authority to:~~

- ~~(1) In or outside the limits of the city, sell and distribute water, sell and provide sewer service, provide for garbage and trash collection and disposition, and to provide similar services;~~

- ~~(2) Prescribe the kind of materials used within or beyond the limits of the city for such municipal services, inspect the same and require such materials to be kept in good order and condition at all times, make such rules and regulations as shall be necessary and proper, and prescribe penalties for noncompliance with same.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Five

Should Article 10 General Provisions, Section 10.02 Public Records of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

ARTICLE 10. GENERAL PROVISIONS

Sec. 10.02. Public records.

~~All public records of every office, department or agency of the city shall be open to inspection by any citizen at all reasonable times, provided that police records and vital statistics records, and any other records closed to the public by law, shall not be considered public records for the purpose of this section.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Six

Should Article 10 General Provisions, Section 10.03 Official Newspaper of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.03. Official newspaper.

~~The council shall have the power to contract annually with, and by resolution designate, a public newspaper of general circulation in the city as official organ thereof and to continue as such until another is designated, and shall cause to be published therein all ordinances, notices and other matter required by this Charter, by the ordinances of the city, or by the constitution and laws of the State of Texas, to be published.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Seven

Should Article 10 General Provisions, Section 10.09 Continuation of budget of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.09. Continuation of budget.

~~The budget adopted for the city for the fiscal year September 1, 1966 to August 31, 1967 shall be and become the budget for the same fiscal year under this Charter.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Eight

Should Article 10 General Provisions, Section 10.10 Effect of Charter on existing law of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.10. Effect of Charter on existing law.

~~All codes, ordinances, resolutions, rules and regulations in force in the city on the effective date of this Charter, and not in conflict with this Charter shall remain in force until altered, amended or repealed by the council. All taxes, assessments, liens, encumbrances and demands, of or against the city, fixed or established before such date, or for the fixing or establishing of which proceedings have begun at such date, shall be valid when property [properly] fixed or established either under the law in force at the time of the beginning of such proceedings or under the law after the adoption of this Charter.~~

[Deleted in its entirety]

Proposed Amendment Number Seventy-Nine

Should Article 10 General Provisions, Section 10.11 Interim municipal government of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.11. Interim municipal government.

~~Upon adoption of this Charter, the persons then filling elective offices will continue to fill those offices for the terms to which they were elected. Thereafter, the city council shall be elected as provided in section 1, article III of this Charter. Persons, who on the date this Charter is adopted, are filling appointive positions with the City of Angleton which are retained under this Charter, may continue to fill these positions for the term for which they were appointed, unless removed by the city council or by other means provided for in this Charter. Persons who, on the effective date of this Charter, are filling elective offices, that by this Charter are made appointive offices shall continue to serve in those offices for the terms to which they were elected.~~

[Deleted in its entirety]

Proposed Amendment Number Eighty

Should Article 10 General Provisions, Section 10.13 Amending the Charter of the Home Rule Charter of the City of Angleton be revised to read as follows:

Sec. 10.13. Amending the Charter.

1. Amendments to this Charter may be framed and submitted to the voters of the city in the manner provided by the applicable statute of the State of Texas.

2. NON-SUBSTANTIVE REVISIONS.

(a) The City Council may, without approval of the voters, adopt an ordinance that makes the following types of revisions to this Charter:

- (1) Renumbering, revising titles, and rearranging parts thereof;
- (2) Correcting errors in spelling, grammar, cross-references, and punctuation; and
- (3) Revising language to reflect modern usage and style.

(b) A revision adopted under this section is not intended to and is not to be interpreted as making any substantive change in any Charter provision.

Proposed Amendment Number Eighty-One

Should Article 10 General Provisions, Section 10.14 Separability of the Home Rule Charter of the City of Angleton be revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.14. ~~Separability~~ Severability clause.

If any section or part of a section of this Charter shall be held invalid by a court of competent jurisdiction, such holding shall not affect the remainder of this Charter nor the context in which such section or part of section so held invalid may appear, except to the extent that an entire section or part of section may be inseparably connected in meaning and effect with the section or part of a section to which such holding shall directly apply.

[Deleted in portion]

Proposed Amendment Number Eighty-Two

Should Article 10 General Provisions, Section 10.15 Charter Review Commission of the Home Rule Charter of the City of Angleton be revised in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.15. Charter review commission.

Every five years the city council shall appoint at its first regular meeting in October a charter review commission of five citizens of the City of Angleton.

- (1) Duties of the commission. It shall be the duty of such charter review commission to:
 - a. Inquire into the operations of the city government under the Charter provisions and determine whether any such provisions require revision. To this end public hearings may be held, and the commission shall have the power to compel the attendance of

- any officer or employee of the city and to require the submission of any of the city records which it may deem necessary to the conduct of such hearing;
- b. Propose any recommendations it may deem desirable to insure compliance with the provisions of the Charter by the several departments of the city government;
 - c. Propose, if it deems desirable, amendments to this Charter to improve the effective application of said Charter to current conditions;
 - d. Report its finding and present its proposed amendments, if any, to the city council.
- (2) Action by the city council. The city council shall receive ~~and have published in a newspaper of general circulation in the City of Angleton~~ any report presented by the charter review commission, shall consider any recommendations made, and if any amendments or amendment be presented as a part of such report may order such amendment or amendments to be submitted to the voters of the city in the manner provided by the applicable statute of the State of Texas.
- (3) Term of office. The term of office of such charter review commission shall be ~~six~~ twelve months and, if during such term no report is presented to the city council, then all records of the proceedings of such commission shall be filed with the person performing the duties of city secretary and shall become a public record.

[Deleted in portion]

Proposed Amendment Number Eighty-Three

Should Article 10 General Provisions, Section 10.16 Submission of Charter to Voters of the Home Rule Charter of the City of Angleton be deleted in its entirety in order to eliminate provisions which have become inoperative because they have been superseded by state law; replace obsolete references and update terminology to current legal usage as follows:

Sec. 10.16. Submission of Charter to voters.

~~The charter commission, in preparing this Charter, finds and decides that it is impracticable to segregate each subject so as to permit a vote of "yes" or "no" on the same, for the reason that the Charter is so constructed that in order to enable it to work and function, it is necessary that it should be adopted in its entirety. For these reasons, the charter commission directs that the said Charter be voted upon as a whole and that it shall be submitted to the qualified voters of the City of Angleton at an election to be held for that purpose on the 17th day of February, 1967. Not less than 30 days prior to such election the city council shall cause the city secretary to mail a copy of this Charter to each qualified voter of the City of Angleton as appears from the latest city tax collector's roll. Within five days after such election, the city council shall canvass the votes and, if the Charter is adopted by a majority of the qualified voters in said election, the city council shall enter upon the records of the city an official order declaring the Charter adopted and this Charter shall take effect immediately, and the city secretary shall file an official copy of the Charter with the records of the city. The city secretary shall furnish the mayor a copy of said Charter, which copy of the Charter so adopted, authenticated and certified by his signature and the seal of the city, shall be forwarded by the mayor to the secretary of state of the State of Texas and shall show the approval of such Charter by majority vote of the qualified voters voting at such election.~~

[Deleted in its entirety]

SECTION 6. That early voting, in said election, shall be designated by Brazoria County Elections Division. Requests for applications for early voting ballots, by mail, should be mailed to Joyce Hudman, County Clerk, 111 E Locust, Suite 200, Angleton, Tx 77515-4654.

SECTION 7. If any part or portion of this Ordinance shall be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect or impair any remaining portions or provisions of this Ordinance.

SECTION 8. This Ordinance shall serve as the Order of Election (as required by Section 3.001 of the Code) for the Special Election. A copy of the Ordinance shall be posted on the bulletin board used for posting notices of the meeting of the City Council at least twenty-one (21) days before the election. Notice of Special Election (as required by Section 4.001 of the Code) shall be published on the bulletin board used for posting notices of the meetings of the City Council at least twenty-one (21) before the election.

SECTION 9. The election shall be held in accordance with Constitution of the State of Texas and the Texas Election Code and all resident, qualified voters of the City shall be eligible to vote at the election.

SECTION 10. The Mayor and City Secretary are authorized and directed to take all actions necessary to comply with the provisions of the Texas Election Code, the City Code in carrying out and conducting the election, whether or not expressly authorized by this Order.

SECTION 11. The Brazoria County Elections Administrator shall conduct an unofficial tabulation or results after the closing of the polls on May 7, 2022. The official canvass, tabulations and declaration of the results of the election shall be conducted by the City Council at a regular meeting held in accordance with provisions of the Texas Elections Code.

SECTION 12. This Ordinance shall be effective immediately upon adoption.

PASSED AND APPROVED THIS THE 8TH DAY OF FEBRUARY 2022.

CITY OF ANGLETON, TEXAS

Jason Perez
Mayor

ATTEST:

Frances Aguilar, TRMC, MMC
City Secretary



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Walter E. Reeves Jr., AICP, Development Services Director

AGENDA CONTENT: Conduct a public hearing and possible action on an ordinance amending Ordinance No. 20210810-008 Exhibit "B" Property Phases/Sections and Exhibit "C" Development Standards and District Regulations for the Austin Colony Planned Development Overlay District.

AGENDA ITEM SECTION: Public Hearing

BUDGETED AMOUNT: None

FUNDS REQUESTED: None

FUND: None

EXECUTIVE SUMMARY:

This is a request to amend Ordinance No. 20210810-0086, Exhibit "B" Property Phases/Section and Exhibit "C" Development Standards and District Regulations for the Austin Colony Planned Development Overlay District. The subject property consists of 164.50 acres (Attachment 1) and will be the location of a proposed residential development that currently consists of 533 residential lots.

The approved land plan (Attachment 2) showed the construction of Austin Colony Boulevard north from CR 44 to the extension of Tigner Street and the extension of Tigner Street from its current stub out behind Walmart as part of the first phase of the project. The amendments to the phasing of Exhibit "B" are because the developer believes construction of the two roads is too costly at this time and originally proposed an amended land plan with different phasing (Attachment 3). As part of the proposed amended land plan, if approved, the project would consist of 540 residential lots. The increase would result in seven additional lots being 60 feet wide.

Staff has reviewed the proposed amended land plan and identified the following issues:

1. As proposed Sections 1, 1A, and 2 would be constructed without a connection being made between Austin Colony Boulevard and Tigner Street. Those three sections would have 208 residential lots that would have to meander through those sections to achieve access to south, and to a more limited extent, to the west. Emergency vehicles would have the same issue.

2. The final section of Tigner Street is proposed to be constructed with the second to last section of the project. As Tigner Street is identified on the City's Mobility Plan (Attachment 4) staff feels it should be completed as part of Section 3 (Attachment 5).

The amendment to Exhibit "C" would be to add the additional phases and adjust the lot table. Attached is proposed ordinance.

The Planning and Zoning Commission held a public hearing on February 3, 2022, and by a vote of 6 in-favor/0 opposed/1 absent recommended approval of the proposed amendment to Ordinance 20210810-008 Exhibits "B" and "C" subject to the following conditions:

1. That the land plan is revised to reflect the phasing as proposed in Attachment 5.
2. That "cedar" is removed from Exhibit "C" #5 Fencing.

The developer agreed with the Planning and Zoning Commission recommendation and Attachment 5 is the proposed land plan and the word "cedar" has been removed from Exhibit "C" #5 Fencing.

RECOMMENDATION:

Staff concurs with the recommendation of the Planning & Zoning Commission.

SUGGESTED MOTION:

I move we approve the proposed amendment to Ordinance 20210810-008 Exhibits "B" and "C" as presented.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS AMENDING ORDINANCE NO. 20210810-008 EXHIBITS “B” AND “C” REZONING 164.50 ACRES TO CHAPTER 28 ZONING, ARTICLE III DISTRICTS, SEC. 28-62 PD PLANNED DEVELOPMENT OVERLAY DISTRICT THREE (3) OF THE CODE OF ORDINANCES OF THE CITY OF ANGLETON; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY; AND PROVIDING FOR REPEAL AND EFFECTIVE DATE.

* * * * *

WHEREAS, the City is authorized by Chapter 211 of the Texas Local Government Code to promulgate rules and regulations governing the regulation of land use, structures, businesses, and related activities; and

WHEREAS, the City Council further finds that the rules and regulations governing land use, structures, and related activities within the territorial limits of the City promote the safe, orderly, and healthful development of the City; and

WHEREAS, Tejas-Angleton, L.L.C. is the owner of, or is under contract to purchase, an approximately 164.5-acre tract (the “Property”) located in the corporate limits of the City of Angleton, Texas more particularly depicted in Exhibit “A”; and

WHEREAS, Tejas-Angleton, L.L.C. previously intended to develop the Property in five (5) Phases or Sections as shown in Exhibit “B” Property Phases/Sections to Ordinance No. 20210810-008; and

WHEREAS, Tejas-Angleton, L.L.C. now intends to develop the Property in eight (8) Phases or Sections as shown in Exhibit “B-1” Property Phases/Sections; and

WHEREAS, On February 3, 2022, the Angleton Planning & Zoning Commission conducted a public hearing regarding a request by property owners and Tejas-Angleton Development, L.L.C. to amend Ordinance No. 20210810-008 Exhibit “B” Property Phases/Sections and Exhibit “C” Development Standards and District Standards following lawful publication of the notice of said public hearing; and

WHEREAS, on February 3, 2022 after considering the public testimony received at such hearing, if any, the Planning and Zoning Commission has recommended that the request by property owners and Tejas-Angleton Development, L.L.C. to amend Ordinance No 20210810-008 Exhibit “B” Property Phases/Sections and Exhibit “C” Development Standards and District Standards be approved; and:

WHEREAS, on February 22, 2022, the City Council of the City of Angleton, Texas conducted a public hearing regarding a request by property owners and Tejas-Angleton

Development, L.L.C. to amend Ordinance No 20210810-008 Exhibits “B” and “C” pursuant to Chapter 28, Zoning, Article III Zoning Districts, Sec. 28-62 PD Planned Development Overlay District Three (3) of the Angleton Code of Ordinances be approved; and

WHEREAS, on February 22, 2022, the City Council of the City of Angleton, Texas conducted a public hearing and considered the Planning & Zoning Commission recommendation and decided to approve the amendment of Ordinance No 20210810-008 Exhibit “B” Property Phases/Sections and Exhibit “C” Development Standards and District Regulations pursuant to Chapter 28 Zoning, Article III Zoning Districts, Sec. 28-62 Planned Development Overlay District Three (3) of the Angleton Code of Ordinances be approved; and

WHEREAS, each and every applicable requirement set forth in Chapter 211, Subchapter A, Texas Local Government Code, and the Code of Ordinances, City of Angleton, Texas, concerning public notices, hearings, and other procedural matters has been fully complied with; and

WHEREAS, the City Council desires the amendment of Ordinance No 20210810-008 Exhibits “B” and “C” pursuant to Chapter 28 Zoning, Article III Zoning Districts, Sec. 28-62 PD Planned Development Overlay District Three (3) of the Angleton Code of Ordinances be approved; and

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

Section 1. That all of the facts recited in the preamble to this Ordinance are hereby found by the City Council to be true and correct and are incorporated herein by this reference and expressly made a part hereof, as if copied herein verbatim.

Section 2. That the request by property owners and Tejas-Angleton Development, L.L.C. to amend Ordinance No 20210810-008 Exhibit “B” Property Phases/Sections and Exhibit “C” Development Standards and District Regulations for the Austin Colony Planned Development Overlay District pursuant to Chapter 28 Zoning, Article III Zoning Districts, Sec. 28-62 PD Planned Development Overlay District Three (3) of the Angleton Code of Ordinances be approved; and are subject to the amended district regulations and development standards and graphic and pictorial representations as shown and as attached to this Ordinance and made a part hereof.

Section 3. Penalty. Any person who violates or causes, allows, or permits another to violate any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than Two Thousand and No/100 Dollars (\$2,000.00). Each occurrence of any such violation of this Ordinance shall constitute a separate offense. Each day on which any such violation of this Ordinance occurs shall constitute a separate offense.

Section 4. Repeal. All ordinances or parts of ordinances inconsistent with the terms of this ordinance are hereby repealed; provided, however, that such repeal shall be only to the extent of such inconsistency and in all other respects this ordinance shall be cumulative of other ordinances regulating and governing the subject matter covered by this ordinance.

Section 5. Severability. In the event any clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair or invalidate this Ordinance as a whole or any part or provision hereof other than the part declared to be invalid or unconstitutional; and the City Council of the City of Angleton, Texas declares that it would have passed each and every part of the same notwithstanding the omission of any part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

Section 6. Effective date. That this Ordinance shall be effective and in full force immediately upon its adoption.

Section 7: Proper Notice & Meeting It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public, and that public notice of the time, place, and purpose of said meeting was given as required by the Open Meetings Act, Texas Government Code, Chapter 551. Notice was also provided as required by Chapter 52 of the Texas Local Government Code.

PASSED, APPROVED, and ADOPTED this, the 22nd day of February 2022.

Jason Perez, Mayor

ATTEST:

Frances Aguilar, City Secretary

Exhibit A The Property

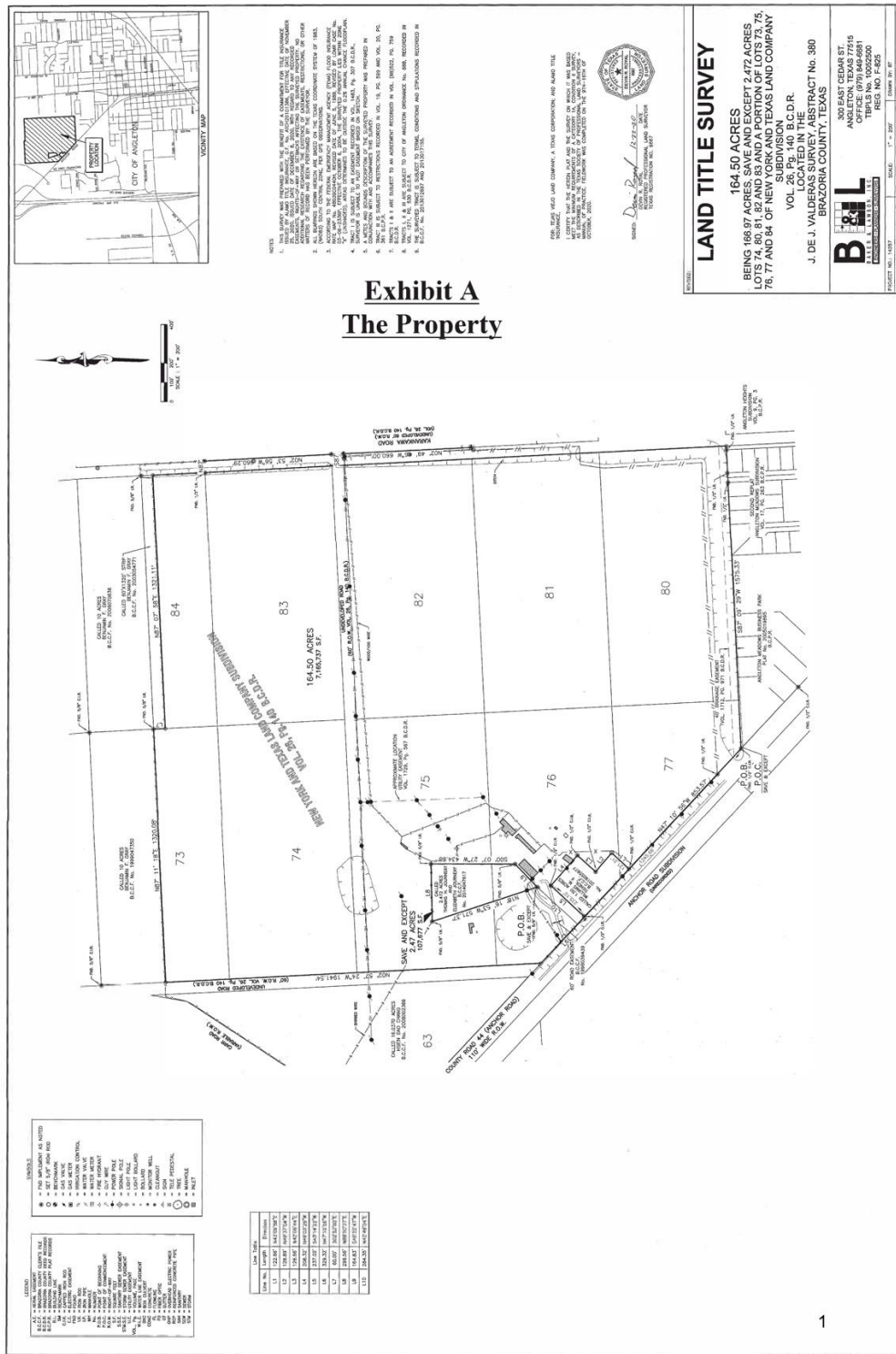


Exhibit A
The Property

pg.2



County: Brazoria
 Project: 150 Acres Anchor Rd
 Job No.: 14257

FIELD NOTES FOR 164.50 ACRE

Being a tract of land containing 164.50 acres (7,165,737 square feet), located within J. De J Valderas Survey, Abstract Number (No.) 380, in Brazoria County, Texas; Said 164.50 acre tract being all of Lots 74, 80, 81, 82 and 83 and a portion of Lots 73, 75, 76, 77 and 84 of the New York and Texas Land Company Subdivision recorded under Volume (Vol.) 26, Page 140 of the Brazoria County Deed Records (B.C.D.R.), being a 166.97 acre tract save and except a 2.472 acre tract recorded in the name of Thomas H. Journeay and Elizabeth Journeay under Brazoria County Clerk's File (B.C.C.F.) No. 2014047617; Said 164.50 acres being more particularly described by metes and bounds as follows (bearings are based on the Texas Coordinate System of 1983, (NAD83) South Central Zone, per GPS observations):

Overall 166.97 acre tract:

BEGINNING at a 1/2-inch iron rod with cap found on the northeast right-of-way (R.O.W.) line of Anchor Road (AKA County Road 44, one hundred ten feet wide), on the south line of said Lot 77, at the northwest corner of Lot 1 of the Angleton Meadows Business Park recorded under Plat No. 2005019895 of the Brazoria County Plat Records (B.C.P.R.), for the southwest corner of the herein described tract;

THENCE, with the northeast R.O.W. line of said Anchor Road, North 47 degrees 10 minutes 56 seconds West, a distance of 853.57 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set at the south corner of a called 1.50 acre tract recorded in the name of Williams M. Tigner, II under B.C.C.F. No. 2019055977, for an angle point of the herein described tract;

THENCE, with the easterly lines of said 1.50 acre tract the following four (4) courses:

1. North 43 degrees 09 minutes 58 seconds East, at a distance of 1.35 feet pass a 1/2-inch iron rod with cap found for reference, continue in all a distance of 122.66 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set for an interior corner of the herein described tract;
2. North 49 degrees 37 minutes 04 seconds West, a distance of 128.89 feet to a 1/2-inch iron rod with cap found for an angle point;
3. North 42 degrees 06 minutes 44 seconds East, a distance of 126.66 feet to a 1/2-inch iron rod with cap found for an interior corner of the herein described tract;
4. North 49 degrees 03 minutes 29 seconds West, a distance of 208.32 feet to a 1/2-inch iron rod with cap found at the north corner of said 1.50 acre tract, for an interior corner of the herein described tract;

300 E Cedar St, Angleton, Texas 77515 • Phone: (979) 849-6681
 Texas Firm Registration No. 10052500

Exhibit A
The Property
pg.3



THENCE, with the northwest line of said 1.50 acre tract, South 43 degrees 14 minutes 22 seconds West, at a distance of 235.10 feet pass a 1/2-inch iron rod with cap found for reference, continue in all a distance of 237.02 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set on the northeast R.O.W. line of said Anchor Road, at the west corner of said 1.50 acre tract, for an angle point;

THENCE, with the northeast R.O.W. line of said Anchor Road, North 47 degrees 10 minutes 56 seconds West, a distance of 329.32 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set on the east line of an undeveloped road (sixty feet wide per Vol. 26, Page 140 B.C.D.R.) on the west line of said Lot 76, for the southwest corner of the herein described tract;

THENCE, with the east line of said undeveloped road and the west lines of said Lots 76, 75, 74 and 73, North 02 degrees 57 minutes 24 seconds West, a distance of 1,941.54 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set at the southwest corner of a called 10 acre tract recorded in the name of Benjamin F. Gray under B.C.C.F. No. 1999047350, for the northwest corner of the herein described tract;

THENCE, with the south line of said 10 acre tract, North 87 degrees 11 minutes 18 seconds East, a distance of 1,320.08 feet to a 5/8-inch iron rod found at southwest corner of a called 10 acre tract recorded in the name of Benjamin F. Gray under B.C.C.F. No. 2006070636, at the southeast corner of said 10 acre tract recorded in B.C.C.F. No. 1999047350, for the northwest corner of a 60' X 1,320' strip recorded in the name of Benjamin F. Gray under B.C.C.F. No. 2003054771, for an angle point;

THENCE, with the west line of said a 60' X 1,320' strip, South 02 degrees 52 minutes 02 seconds East, a distance of 60.00 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set at the southwest corner of said a 60' X 1,320' strip, for an interior corner of the herein described tract;

THENCE, with the south line of said a 60' X 1,320' strip, North 87 degrees 07 minutes 58 seconds East, a distance of 1,321.11 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set on the west line of Karankawa Road (undeveloped sixty feet wide per Vol. 26, page 140 B.C.D.R.), at the southeast corner of said a 60' X 1,320' strip, for the northeast corner of the herein described tract;

THENCE, with the west R.O.W. line of said Karankawa Road, being the east line of Lots 84, 83, 82, 81 and 80, South 02 degrees 52 minutes 54 seconds East, a distance of 2,970.25 feet to a 5/8-inch iron rod with cap stamped "Baker & Lawson" set at the northeast corner of a twenty-foot drainage easement dedicated by the Second Replat of Angleton Meadows Subdivision recorded under Vol. 17, Page 263 of the B.C.P.R., for the southeast corner of said Lot 80 and the herein described tract;

THENCE, with the north line of said Angleton Meadows Subdivision and Angleton Meadows Business Park, and the south lines of said Lots 80 and 77, South 87 degrees 09 minutes 29 seconds West, a distance of 1,575.33 feet to the **POINT OF BEGINNING** and containing 166.97 acres of land.

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 Texas Firm Registration No. 10052500

Exhibit A
The Property
pg.4



SAVE AND EXCEPT 2.47 ACRES:

COMMENCING at a 1/2-inch iron rod with cap found on the northeast right-of-way (R.O.W.) line of Anchor Road (AKA County Road 44, one hundred ten feet wide), on the south line of said Lot 77, at the northwest corner of Lot 1 of the Angleton Meadows Business Park recorded under Plat No. 2005019895 of the Brazoria County Plat Records (B.C.P.R.);

THENCE, with the northeast R.O.W. line of said Anchor Road, North 47 degrees 10 minutes 56 seconds West, a distance of 1,245.66 feet to an angle point;

THENCE, through and across said Lot 76 the following five (5) courses:

1. North 42 degrees 49 minutes 04 seconds East, a distance of 284.35 feet to a 5/8-inch iron rod found for the south corner and **POINT OF BEGINNING** of the herein described tract;
2. North 18 degrees 16 minutes 53 seconds West, a distance of 571.37 feet to a 5/8-inch iron rod found at the northwest corner of the herein described tract;
3. North 88 degrees 50 minutes 27 seconds East, a distance of 299.56 feet to a 5/8-inch iron rod found at the northeast corner of the herein described tract;
4. South 00 degrees 07 minutes 27 seconds West, a distance of 434.88 feet to a 5/8-inch iron rod found at the southeast corner of the herein described tract;
5. South 46 degrees 22 minutes 47 seconds West, a distance of 164.83 feet to the **POINT OF BEGINNING** and containing 2.47 acres of land.

OVERALL: 166.97 ACRES

SAVE AND EXCEPT: 2.47 ACRES

TOTAL: 164.50 ACRES

A land title survey of the herein described tract has been prepared by Baker & Lawson Inc. and accompanies this metes and bounds description.

Devin Royal 12-22-20
Devin R. Royal
Registered Professional Land Surveyor
Texas Registration No. 6667



300 E Cedar St, Angleton, Texas 77515 • Phone: (979) 849-6681
Texas Firm Registration No. 10052500

Exhibit B
Property Phases/Sections

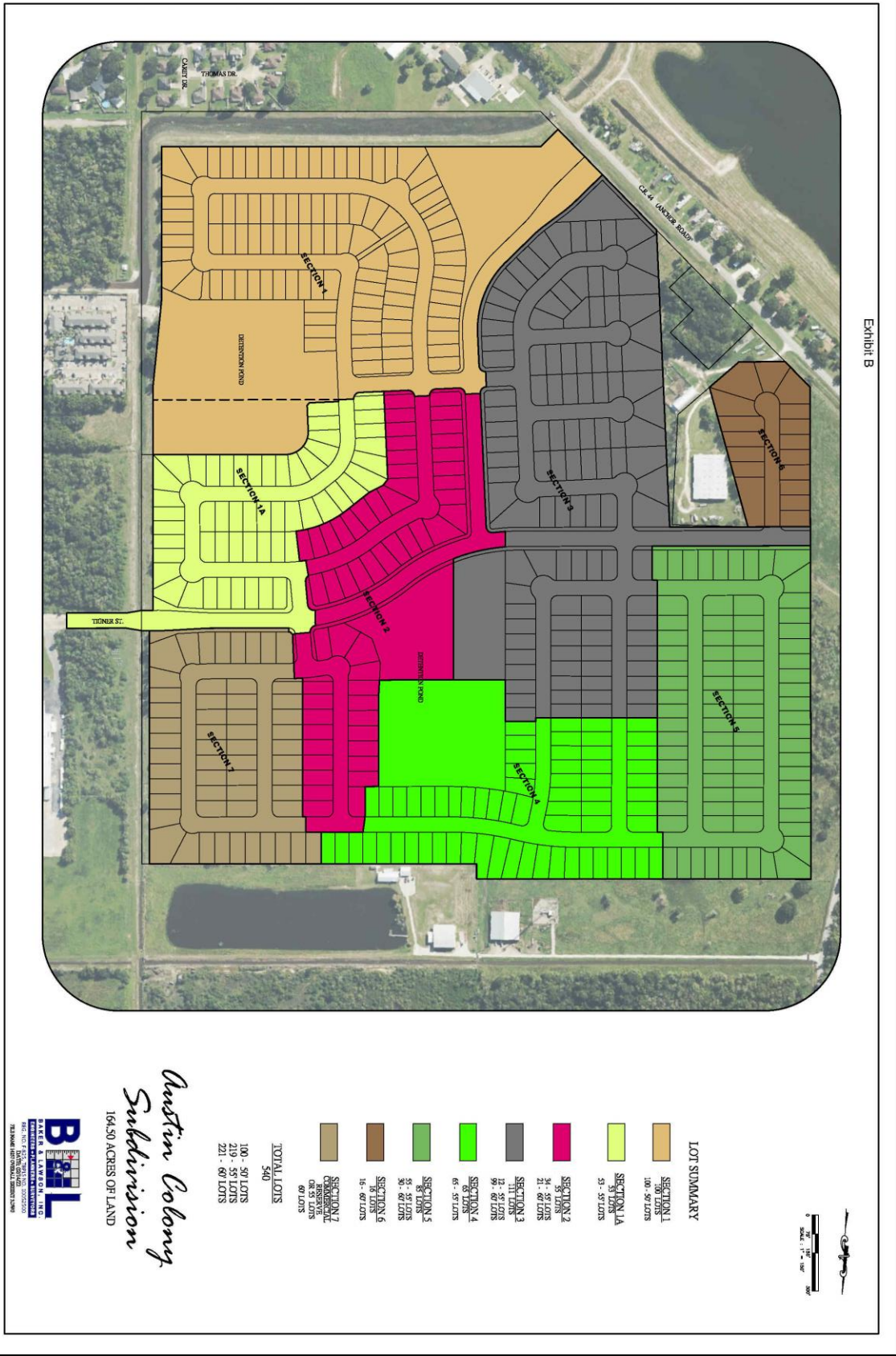


Exhibit C **Development Standards and District Regulations**

All regulations of the Code of Ordinances of the City of Angleton shall apply in this Planned Development PD Three (3) unless otherwise modified in this Exhibit or the PD Planned Development Overlay District Three (3) Ordinance.

REGULATIONS for Phases 1, 1A, 2, 3, 4, 5 and 6 as identified in Exhibit "B":.

1. **Base District.** The provisions of Section 28-47 SF-5 Single Family Residential 5 District of the City of Angleton Code of Ordinances, as adopted upon the effective date of this ordinance shall apply to Phases 1, 1A, 2, 3, 4, 5 and 6 except as otherwise modified herein.
2. **Uses.** Those uses described for the SF-5 district in Section 28-81 Use Regulations (Charts) shall be permitted for Phases 1, 1A, 2, 3, 4, 5 and 6.
3. **Lot Dimensions and Development.** The lots shall be the size depicted in

SECTIONS AND LOT SUMMARY CHART				
Section	Lot Width 50 Feet	Lot Width 55 Feet	Lot Width 60 Feet	Section Lot Total
1	100 Lots			100 Lots
1A		53 Lots		53 Lots
2		34 Lots	21 Lots	55 Lots
3		12 Lots	99 Lots	111 Lots
4		65 Lots	Lots	65 Lots
5		55 Lots	30 Lots	85 Lots
6			16 Lots	16 Lots
7			55 Lots	
Lot Size Total	100 Lots	219 Lots	221 Lots	540 Lots
Size %	18.5%	40.5%	41%	100%

Exhibit "B" and shall be approximately 120 feet in length, with the front width of each lot as set forth in this Sections and Lot Summary Chart.

4. **Entry Monument.** An Entry Monument shall be placed at the corner of Austin Colony Boulevard and County Road 44, which is the entry to the Project off County Road 44. The Entry Monument shall be either brick or stone with landscaping, planted grass, shrubs, irrigation system and lighting.
5. **Fencing.** Developer agrees to install perimeter fencing as depicted in **Exhibit "D"** attached hereto. Developer agrees to install premium, stained, crowned fencing along the property lines of all lots along Austin Colony Boulevard and

Tigner Street. All perimeter fencing shall be maintained by the Homeowners' Association. Perimeter fencing shall not be installed within any street intersection sight triangles. All fencing for each proposed development phase shall be installed prior to the occupancy of any residence in that phase. All wood fencing will have a top cap.

REGULATIONS for Phase 5 as identified by Exhibit "B":

1. **Base District.** The provisions of Section 28-58 C-O/R Commercial-Office/Retail District. of the City of Angleton Code of Ordinances, as adopted upon the effective date of this ordinance shall apply to Phase 7 of the Property subject to the provisions of this Exhibit and the PD Planned Development Overlay District Three (3) Ordinance.
2. In the event the then current owner of the property depicted as Phase 7 of Exhibit "B" hereof has not applied for a building permit for an office or retail use permitted by Section 28-81 of the City of Angleton Code of Ordinances (C-O/R – Commercial office-Retail District) within five (5) years of the effective date, the then current owner shall be automatically, and with no additional legislative action, be permitted to take all necessary steps to construct single family residential product consistent with the requirements of Section 28-47 SF-5 Single Family Residential District and Exhibit "B."

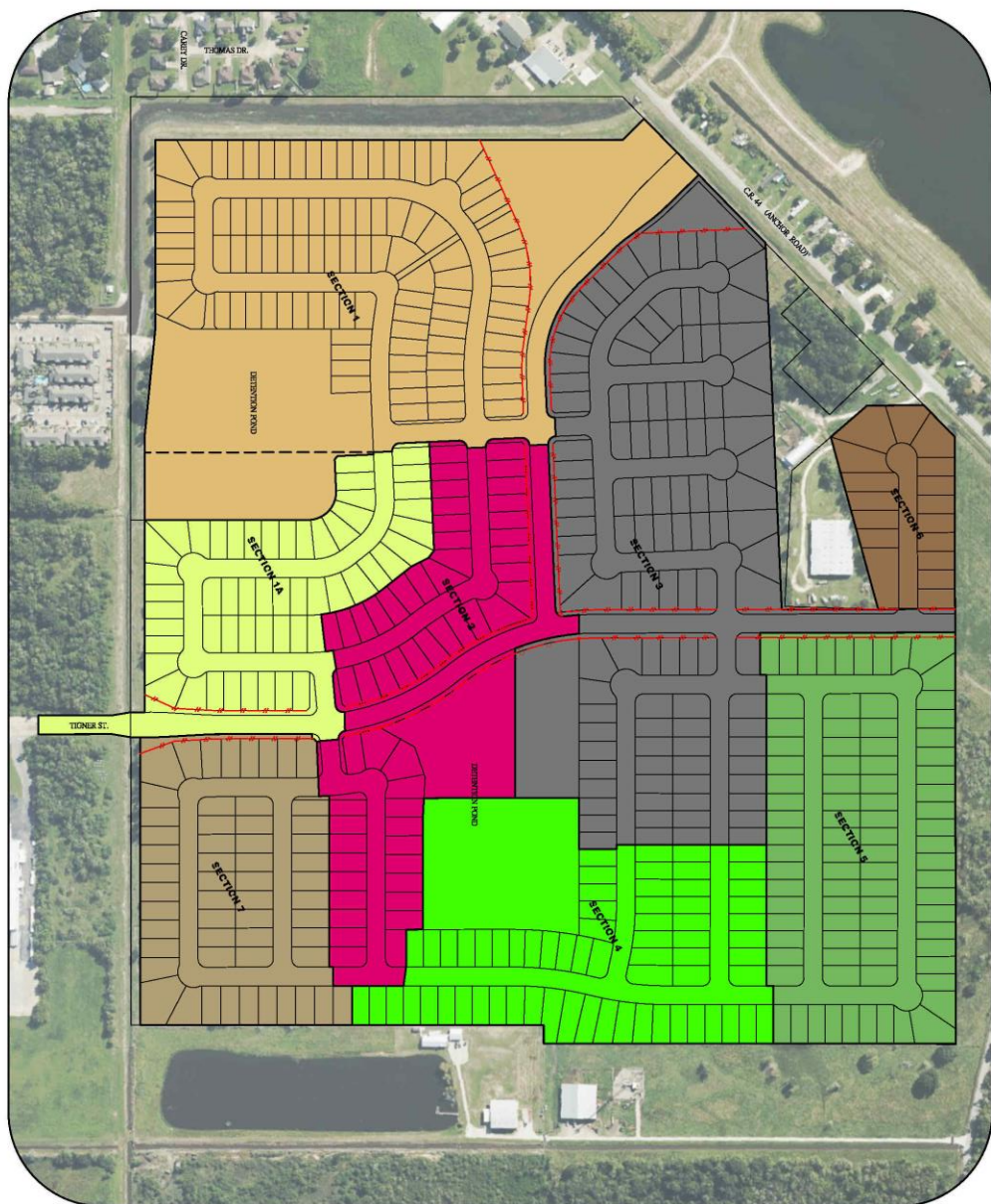


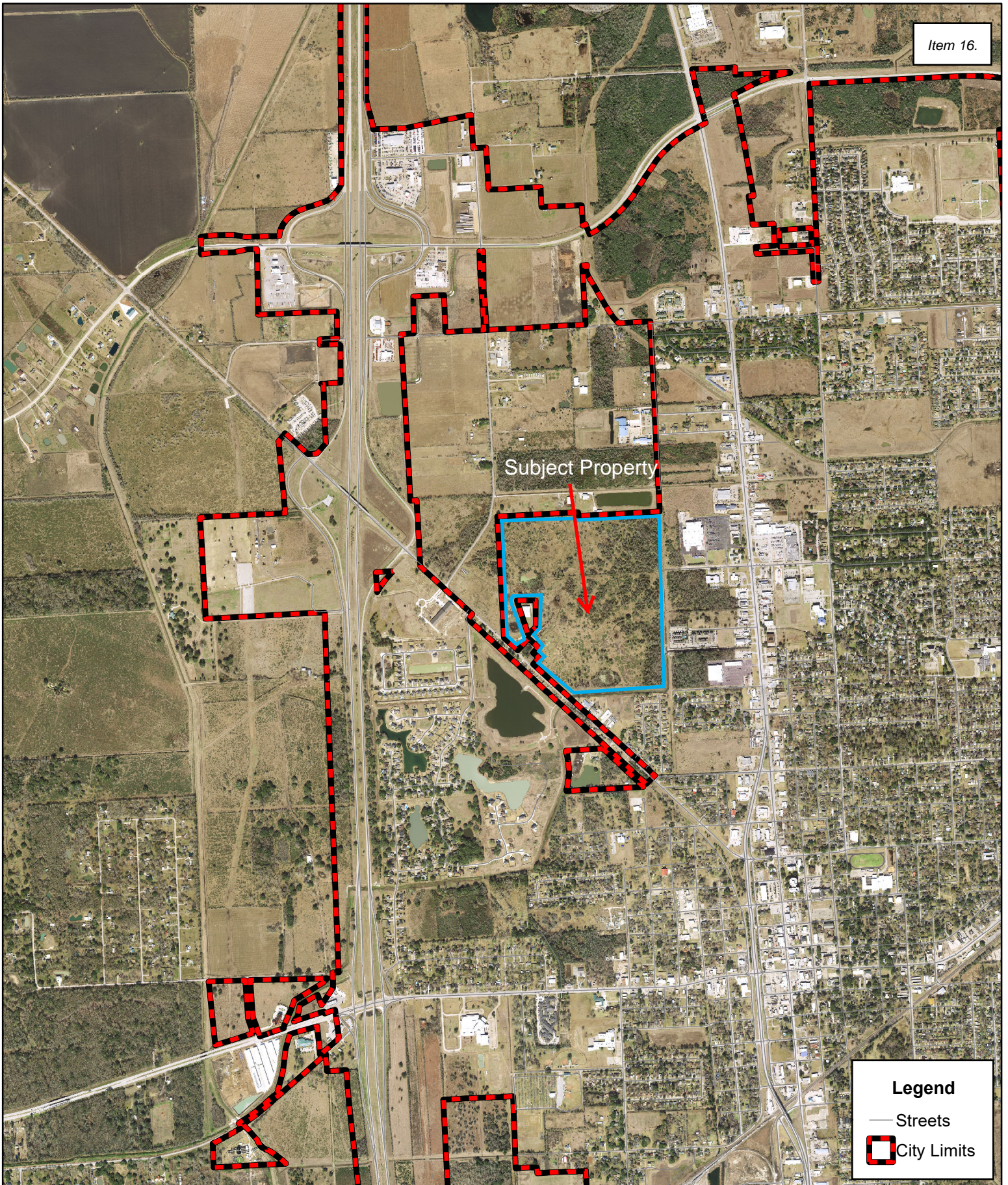
Exhibit D



—H—H—H—H—H—
—□—□—□—□—□—
PREMIUM CEDAR FENCE W/CROWN
WOOLIGHT IRON FENCE W/BLACK COLUMNS
FOR VISUAL TO DETENTION POND

Austin Colony
Subdivision
164.50 ACRES OF LAND

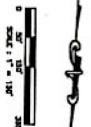
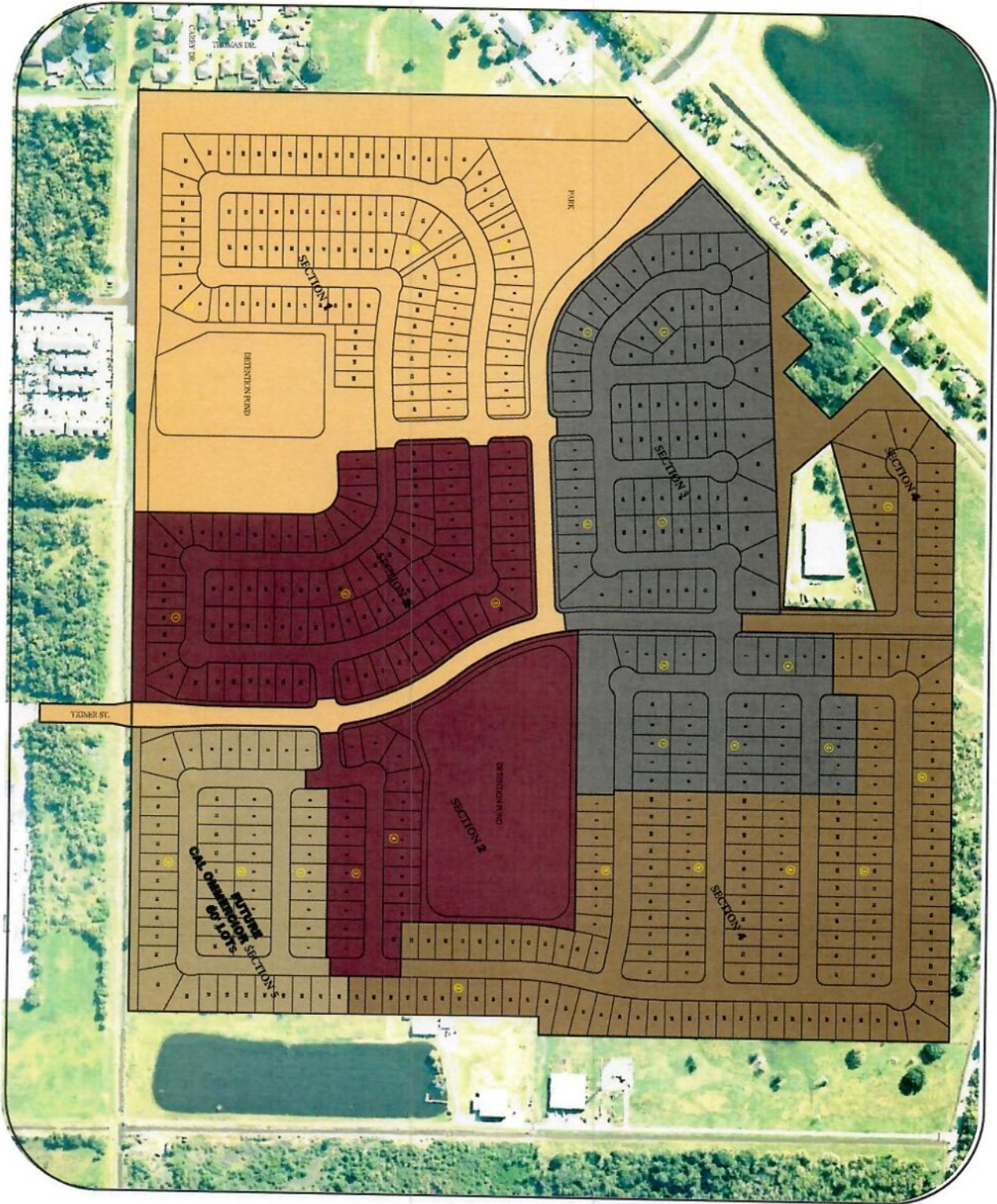
B
BAKER & LAWSON, INC.
ENGINEERS • PLANNERS • SURVEYORS
REG. NO. F-825 TRFAS NO. 100525-500
DATE: 02/14/21
TJL NAME: HEST OVERALL SURVEY PLANO



Legend

- Streets
- City Limits

Disclaimer: This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. Gov. C. §2501.102. The user is encouraged to independently verify all information contained in this product. The City of Angleton makes no representation or warranty as to the accuracy of this product or to its fitness for a particular purpose. The user: (1) accepts the product AS IS, WITH ALL FAULTS; (2) assumes all responsibility for the use thereof; and (3) releases the City of Angleton from any damage, loss, or liability arising from such use.

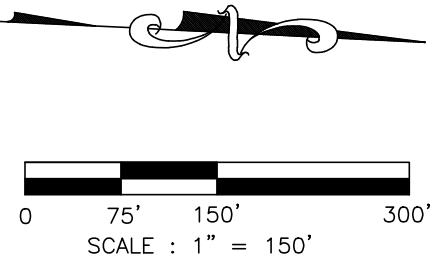


LOT SUMMARY


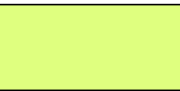






	PHASE - 1
100 - 50 LOTS	
	PHASE - 2
57 - 55 LOTS	
21 - 67 LOTS	
	PHASE - 3
100 LOTS	
	PHASE - 4
106 - 67 LOTS	
112 - 55 LOTS	
31 - 67 LOTS	
	PHASE - 5
55 - 67 LOTS	
TOTAL LOTS	533 LOTS
100 - 50 LOTS	
219 - 55 LOTS	
211 - 67 LOTS	

Austin Colony
Subdivision
 164.50 ACRES OF LAND
 5 PHASES
 533 LOTS





LOT SUMMARY

	SECTION 1 100 LOTS 100 - 50' LOTS
	SECTION 1A 53 LOTS 53 - 55' LOTS
	SECTION 2 55 LOTS 34 - 55' LOTS 21 - 60' LOTS
	SECTION 3 111 LOTS 12 - 55' LOTS 99 - 60' LOTS
	SECTION 4 65 LOTS 65 - 55' LOTS
	SECTION 5 85 LOTS 55 - 55' LOTS 30 - 60' LOTS
	SECTION 6 16 LOTS 16 - 60' LOTS
	SECTION 7 COMMERCIAL RESERVE OR 55 LOTS 55 - 60' LOTS

TOTAL LOTS
540

100 - 50' LOTS
219 - 55' LOTS
221 - 60' LOTS

*Austin Colony
Subdivision*

164.50 ACRES OF LAND

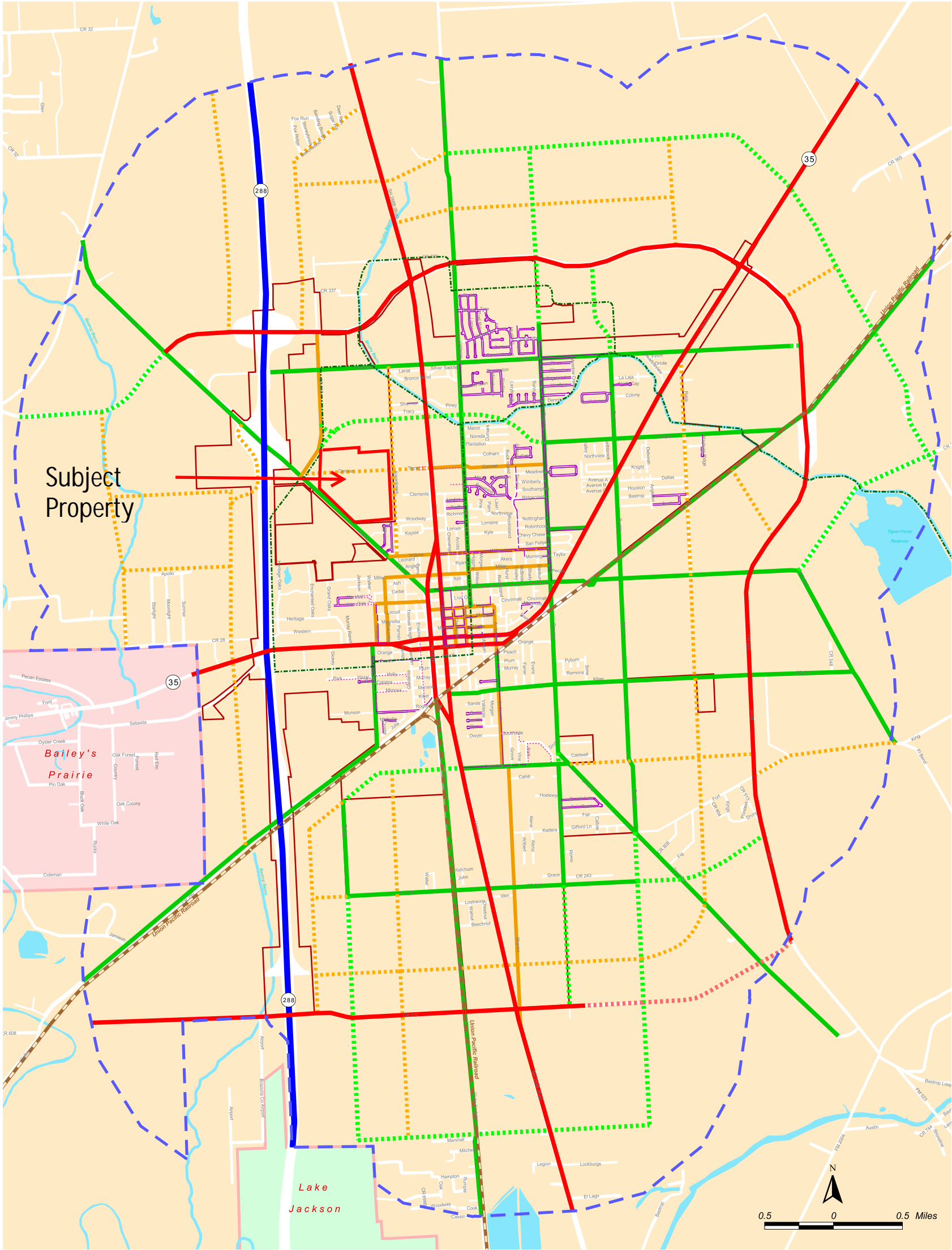













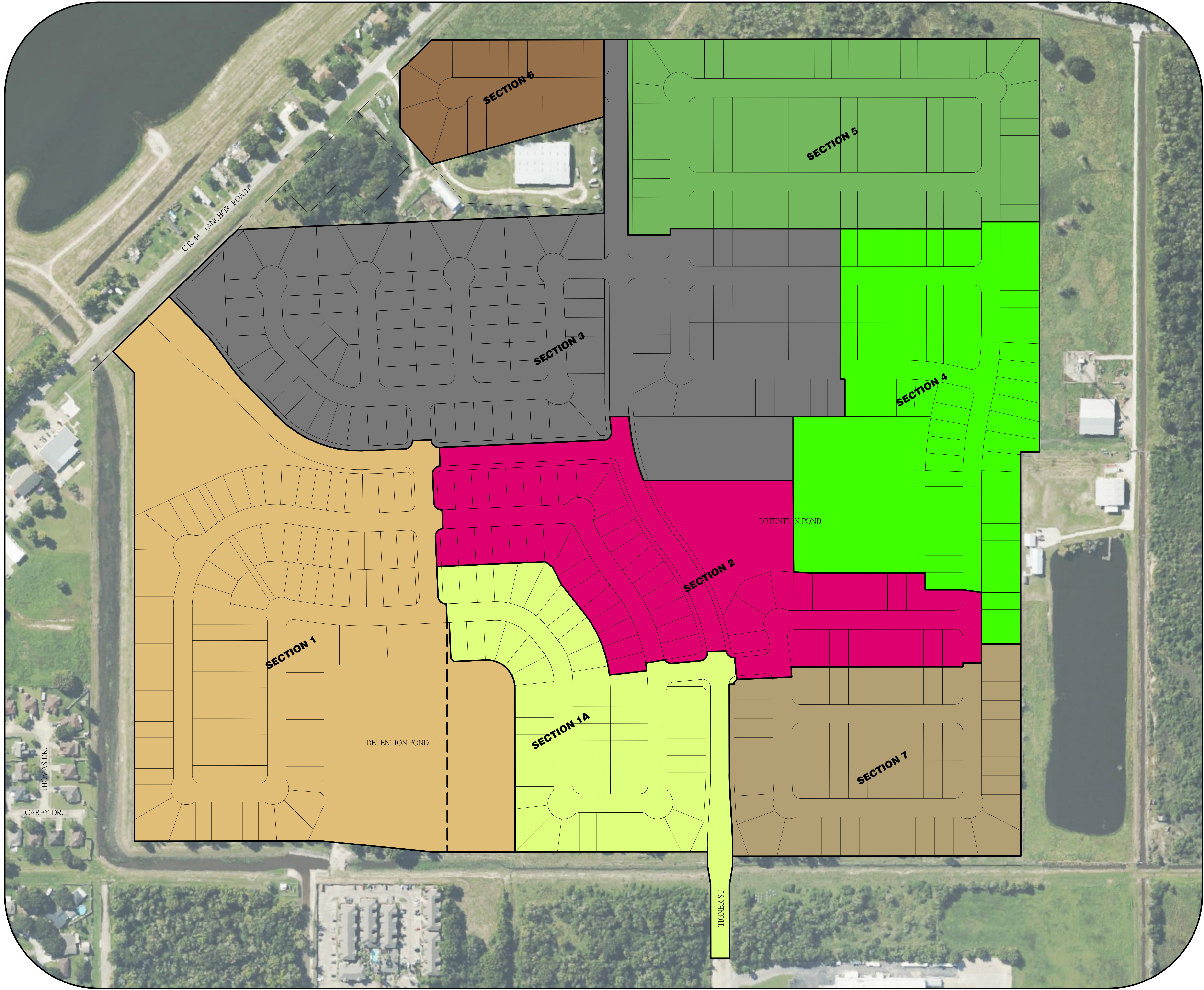
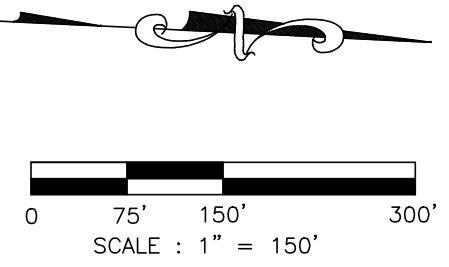


Figure 4.1
Mobility Plan

- | | |
|--|--|
|  Existing Freeway |  Rail |
|  Existing Arterial |  Existing Sidewalk |
|  Existing Major Collector |  Proposed Sidewalk |
|  Existing Minor Collector |  Proposed Trail |
|  Proposed Arterial |  Angleton Study Area |
|  Proposed Major Collector |  Angleton City Limits |
|  Proposed Minor Collector | |



LOT SUMMARY

<div></div>	<div>SECTION 1</div> <div>100 LOTS</div> <div>100 - 50' LOTS</div>
<div></div>	<div>SECTION 1A</div> <div>53 LOTS</div> <div>53 - 55' LOTS</div>
<div></div>	<div>SECTION 2</div> <div>55 LOTS</div> <div>34 - 55' LOTS</div> <div>21 - 60' LOTS</div>
<div></div>	<div>SECTION 3</div> <div>111 LOTS</div> <div>12 - 55' LOTS</div> <div>99 - 60' LOTS</div>
<div></div>	<div>SECTION 4</div> <div>65 LOTS</div> <div>65 - 55' LOTS</div>
<div></div>	<div>SECTION 5</div> <div>85 LOTS</div> <div>55 - 55' LOTS</div> <div>30 - 60' LOTS</div>
<div></div>	<div>SECTION 6</div> <div>16 LOTS</div> <div>16 - 60' LOTS</div>
<div></div>	<div>SECTION 7</div> <div>COMMERCIAL RESERVE OR 55 LOTS</div> <div>60' LOTS</div>

TOTAL LOTS
540

100 - 50' LOTS
219 - 55' LOTS
221 - 60' LOTS

Austin Colony
Subdivision

164.50 ACRES OF LAND



AGENDA ITEM SUMMARY FORM

MEETING DATE: February 22, 2022

PREPARED BY: Walter E. Reeves Jr., AICP

AGENDA CONTENT: Conduct a public hearing, discussion, and possible action on a request for approval of a variance to the maximum height requirement for ground signage of Section 21.5-7.(3).a.3.(ii) and a variance to the maximum sign square footage requirement for ground signs of Section 21.5-7.(3).a.3.(i) for property located on the northwest corner of the SH 288/SH 35 intersection. The subject property is in the Commercial General (C-G) zoning district and is more commonly known as Buc-ees.

AGENDA ITEM SECTION: Public Hearing

BUDGETED AMOUNT: None

FUNDS REQUESTED: None

FUND: None

EXECUTIVE SUMMARY:

Buc-ees is requesting a variance of the maximum height requirement for ground signage of 65 feet of maximum height and a variance of the maximum sign area requirement of 315 sq. ft. for the Buc-ees located on the northwest corner of the SH 288/SH 35 intersection (Attachment 1). The proposed sign will be 100 ft. in height, which exceeds the maximum permitted height by 35 ft. and will have 587.66 sq. ft. of sign area, which exceeds the maximum permitted sign area by 272.66 feet (Attachment 2). The proposed sign will be within 100 feet of the SH 288 right-of-way (Attachment 3).

Section 21.5-13 authorizes variances for height, sign area, freestanding or ground sign and length of time for nonconforming signage. Section 21.5-13 provides the following criterion for review of a sign variance request:

1. Where such variance will not be contrary to the public interest; and
2. Where, because of conditions peculiar to the property and as the result of the actions of the applicant, a literal enforcement of this section would result in unnecessary and undue hardship.

There appears to be a typo in Item 2 as most variance criteria identify that the conditions peculiar to the property are not the result of actions by the applicant, rather than as a result of actions of the applicant. The conditions must exist prior to actions of the applicant.

Section 21.5-2 the City has identified the purpose of the sign regulations as being:

The purpose of this section is to provide uniform sign standards which promote the safety of persons and property, provide for the efficient transfer of information in sign messages, and protect the public welfare by enhancing the appearance and economic value of the landscape.

The applicant has provided reasoning for the variance request (Attachment 4), that a taller, larger sign would “provide exposure to help direct travelers to the site and viewing time from each ramp to access site.” Further, the prolonged viewing distance visibility will “inform traveling public that the location is at the coming intersection and to exit.” While that reasoning would certainly meet the purpose of providing for the efficient transfer of information in sign messages, which would be in the public interest, it is hard to see how exceeding the City’s sign standards promotes the safety of persons and property, nor how the requested variances “protect the public welfare by enhancing the appearance and economic value of the landscape.”

While there is other ground signage within the jurisdiction of the City of Angleton along SH 288 that exceeds the City’s current regulations (Love’s Truck Stop (Attachment 5) and the Ford dealership pole sign (approximately 80 ft. tall)) that is not sufficient reason to grant the requested variance. There is no identified condition peculiar to the property that supports the increase in both height and sign area.

RECOMMENDATION:

Staff recommends denial of the requested variances.

SUGGESTED MOTION:

I move we deny the requested variances.

Subject Property



La Quinta Inn & Suites-Angleton

W Mulberry St

W Mulberry St

Sebesta Rd

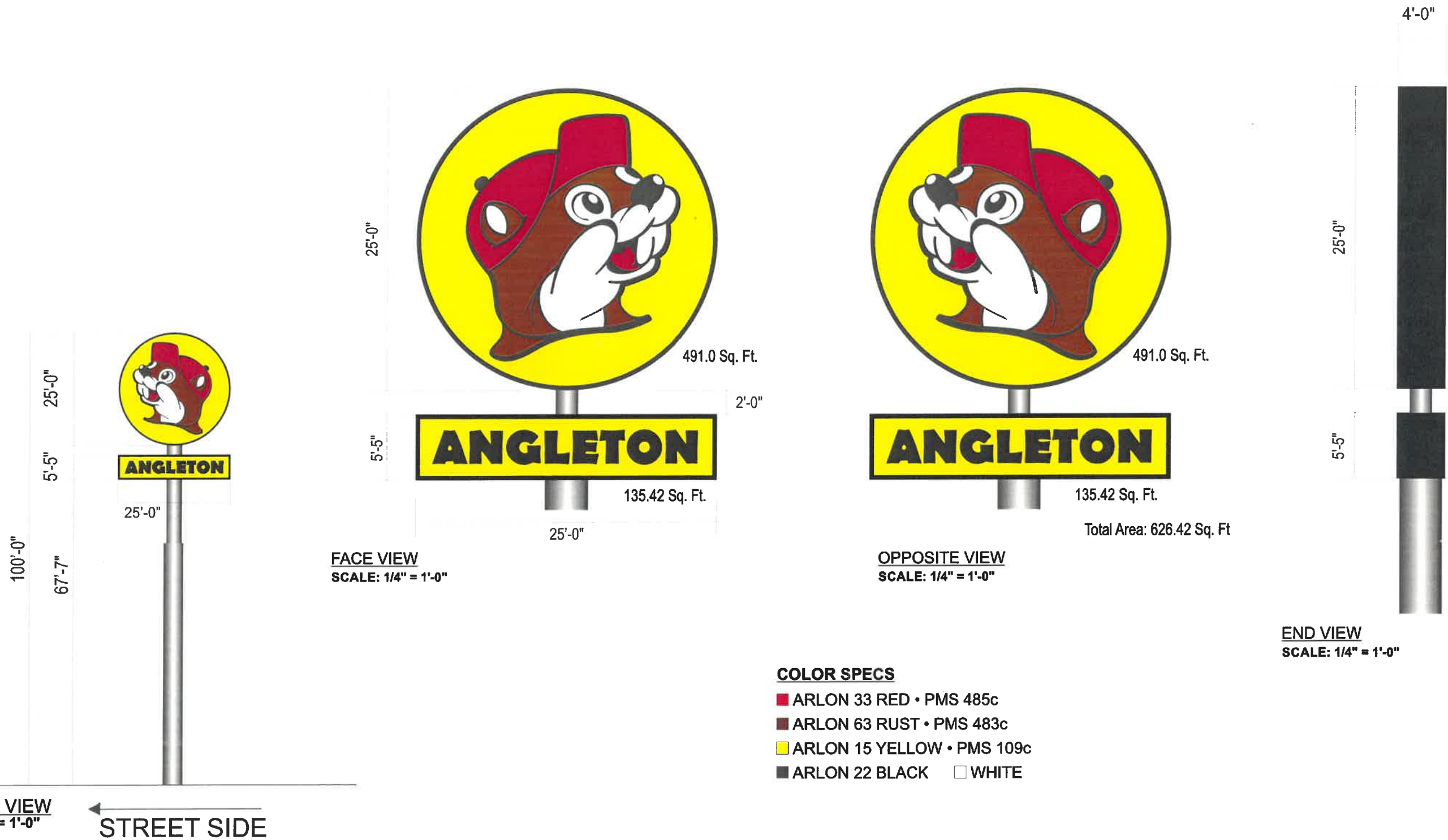
288

288

288

High Rise

Attachment 2



GENERAL DEMOLITION NOTES:

- ALL WORK ON THIS PLAN SHOULD BE PERFORMED IN ACCORDANCE WITH THE SCHEDULE INCLUDED WITHIN THE SPECIFICATION MANUAL (AS APPLICABLE).
- PROTECTION OF EXISTING UTILITIES
 - PROTECT EXISTING UTILITIES AND IMPROVEMENTS NOT DESIGNATED FOR REMOVAL AND RESTORE DAMAGED OR TEMPORARILY RELOCATED UTILITIES AND IMPROVEMENTS.
 - VERIFY EXISTING LOCATIONS AND DEPTHS OF UTILITIES SHOWN AND MAKE EXPLORATORY EXCAVATIONS OF UTILITIES THAT MAY INTERFERE WITH THE WORK.
 - PERFORM EXPLORATORY EXCAVATIONS AS SOON AS PRACTICABLE AFTER AWARD OF CONTRACT AND A SUFFICIENT TIME IN ADVANCE OF CONSTRUCTION TO AVOID DELAYS TO THE WORK.
 - WHEN EXPLORATORY EXCAVATIONS SHOW UTILITY LOCATION AS SHOWN TO BE IN ERROR, NOTIFY ENGINEER.
- PERFORM EXPLORATORY EXCAVATIONS REQUIRED TO SUFFICIENTLY DETERMINE ALIGNMENT AND GRADE OF EXISTING UTILITIES.
- DO NOT ENTER NOR OCCUPY WITH MEN, EQUIPMENT, OR MATERIALS, ANY LANDS OUTSIDE THE REFERENCED SITE.
- TAKE ALL NECESSARY PRECAUTIONS TO PRESERVE PRIVATE AND PUBLIC PROPERTY IN THE IMMEDIATE AREA OF WORK SITES.
- ASSUME TOTAL LIABILITY FOR DAMAGE TO PRIVATE AND/OR PUBLIC PROPERTY DURING THE PROSECUTION OF THE WORK.
- PROTECTION OF SURVEY MARKERS
 - DO NOT DESTROY, REMOVE, OR OTHERWISE DISTURB EXISTING SURVEY MARKERS OR OTHER EXISTING STREET OR ROADWAY MARKERS WITHOUT PROPER AUTHORIZATION.
 - CONTACT THE SURVEYOR OF RECORD TO DETERMINE LOCATION OF ALL SURVEY MARKERS.
 - NO WORK SHALL BE STARTED UNTIL ALL SURVEY OR OTHER PERMANENT MARKER POINTS THAT WILL BE DISTURBED BY THE CONSTRUCTION OPERATIONS HAVE BEEN PROPERLY REFERENCED FOR EASY AND ACCURATE RESTORATION.
 - ACCURATELY RESTORE SURVEY MARKERS OR POINTS DISTURBED BY CONTRACTOR AT CONTRACTOR'S EXPENSE AFTER WORK HAS BEEN COMPLETED.
- PAYMENT
 - PAYMENTS SUBJECT TO PARTIAL REMOVAL SHALL BE NEATLY SAW CUT IN STRAIGHT LINES UNLESS OTHERWISE NOTED.
- DEMOLITION
 - DEMOLITION SHALL INCLUDE COMPLETE REMOVAL AND DISPOSAL OF DESIGNATED STRUCTURES WITHIN THE LIMITS OF DEMOLITION SHOWN ON THE DRAWINGS, AND SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING WORK:
 - REMOVAL OF ALL STRUCTURES AND FOUNDATIONS TO A MINIMUM OF TWO (2) FEET BELOW FUTURE FINISHED GRADE, AND COMPLETE REMOVAL OF ALL ASSOCIATED PIPING, WIRING, DUCTWORK, AND EQUIPMENT.
 - BREAK-UP AND REMOVAL OF SLABS-ON-GRADE. SLABS SHALL BE COMPLETELY REMOVED.
 - FILLING OF ALL SUBGRADE CAVITIES WITH ON-SITE SOIL COMPACTED TO 95 PERCENT DENSITY (ASTM D698), OR AS INSTRUCTED BY THE GEOTECH ENGINEER, WHICHEVER IS MORE STRINGENT.

- PROVISIONS FOR TEMPORARY BRACING AND SHORING AS REQUIRED UNTIL DEMOLITION AND BACKFILLING WORK IS COMPLETE.
- UNIFORM GRADING OF DEMOLITION AREA TO MATCH EXISTING GRADE OF PERIMETER.
- RESTORATION OF SIDEWALKS, BITUMINOUS AND CONCRETE PAVEMENTS, AND ANY OTHER IMPROVEMENTS OR PROPERTY DAMAGED BY DEMOLITION OPERATIONS.
- CLEANING OF ADJACENT STRUCTURES, IMPROVEMENTS, STREETS, SIDEWALKS, AND PROPERTY OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS.
- DEMOLITION SHALL BE BY CONVENTIONAL DEMOLITION METHODS USING HEAVY TO LIGHT MECHANICAL MEANS AS WELL AS HAND DEMOLITION METHODS. USE OF EXPLOSIVES SHALL NOT BE PERMITTED. BURNING AND BURNING OF MATERIAL ON SITE SHALL NOT BE PERMITTED.
- THE CONTRACTOR SHALL LIMIT DUST AND DIRT CAUSED BY DEMOLITION OPERATIONS SO AS TO COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
- DEMOLITION OPERATIONS SHALL NOT INTERRUPT EXISTING UTILITIES SERVING NEIGHBORING PROPERTIES AND/OR BUILDING TO REMAIN OPERATIONAL DURING PHASES OF DEMOLITION, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES, AS DIRECTED BY GOVERNING AUTHORITIES.
- REGULATORY REQUIREMENTS
 - CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND DISPOSAL.
 - OBTAIN REQUIRED PERMITS FROM AUTHORITIES.
 - NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS.
 - DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, OR HYDRANTS WITHOUT PERMITS.
- PREPARATION
 - PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES PRIOR TO WORK.
 - PROTECT EXISTING APPURTENANCES AND STRUCTURES WHICH ARE NOT TO BE DEMOLISHED. SEE CIVIL DRAWINGS FOR FURTHER NOTES & CONSIDERATIONS.
 - PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
 - MARK LOCATION OF UTILITIES.
- PROTECTION OF EXISTING UTILITIES AND IMPROVEMENTS
 - PROTECT UNDERGROUND UTILITIES AND OTHER IMPROVEMENTS WHICH MAY BE IMPAIRED DURING CONSTRUCTION OPERATIONS.
 - DETERMINE ACTUAL LOCATION OF EXISTING UTILITIES AND OTHER IMPROVEMENTS THAT WILL BE ENCOUNTERED DURING CONSTRUCTION OPERATIONS.
 - ADEQUATELY PROTECT UTILITIES AND OTHER IMPROVEMENTS FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS.
 - TAKE ALL POSSIBLE PRECAUTIONS FOR PROTECTING UNEXPOSED UTILITY LINES TO PROVIDE FOR UNINTERRUPTED SERVICE AND TO PROVIDE NECESSARY SPECIAL PROTECTION.

- OWNER'S RIGHT OF ACCESS: OWNER AND OWNERS OF PUBLIC UTILITIES RESERVE THE RIGHT TO ENTER AT ANY TIME UPON ANY PUBLIC STREET, ALLEY, RIGHT-OF-WAY, OR EASEMENT FOR THE PURPOSE OF MAKING CHANGES IN THEIR PROPERTY.
- UNDERGROUND UTILITIES INDICATED:
 - EXISTING UTILITY LINES TO BE RETAINED, THAT ARE INDICATED OR LOCATIONS OF WHICH ARE MADE KNOWN TO CONTRACTOR PRIOR TO EXCAVATION, AND UTILITY LINES CONSTRUCTED DURING EXCAVATION OPERATIONS SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND BACKFILLING.
 - IF DAMAGED, CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE.
- UNDERGROUND UTILITIES NOT INDICATED: IF CONTRACTOR DAMAGES EXISTING UTILITY LINES THAT ARE NOT INDICATED OR THE LOCATIONS OF WHICH ARE NOT MADE KNOWN TO CONTRACTOR PRIOR TO EXCAVATION, IMMEDIATELY MAKE A WRITTEN REPORT TO ENGINEER.
- APPROVAL OF REPAIRS: REPAIRS TO A DAMAGED UTILITY OR IMPROVEMENT SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY AN AUTHORIZED REPRESENTATIVE OF THE UTILITY OR IMPROVEMENT OWNER BEFORE BEING CONCEALED BY BACKFILL OR OTHER WORK.
- MAINTAINING IN SERVICE:
 - DURING CONSTRUCTION, CONTINUOUSLY MAINTAIN OIL AND GASOLINE PIPELINES, POWER, TELEPHONE, AND COMMUNICATION CABLE DUCTS; GAS AND WATER MAINS; IRRIGATION LINES; SEWER LINES; STORM DRAIN LINES; POLES, OVERHEAD POWER, AND COMMUNICATION WIRES AND CABLE ENCOUNTERED ALONG THE LINE OF THE WORK IN SERVICE UNLESS OTHER ARRANGEMENTS APPROVED BY ENGINEER ARE MADE WITH THE OWNERS OF THE FACILITIES.
 - BE RESPONSIBLE FOR AND REPAIR DAMAGE DUE TO CONSTRUCTION OPERATIONS, EVEN IF DAMAGE OCCURS AFTER BACKFILLING OR IS NOT DISCOVERED UNTIL AFTER COMPLETION OF BACKFILLING.
- NOTIFICATION BY CONTRACTOR
 - PRIOR TO EXCAVATION IN VICINITY OF EXISTING UNDERGROUND FACILITIES (INCLUDING WATER, SEWER, STORM DRAIN, GAS, PETROLEUM PRODUCTS, OR OTHER PIPELINES, BURIED ELECTRIC POWER, COMMUNICATIONS, OR TELEVISION CABLES; TRAFFIC SIGNAL AND STREET LIGHTING FACILITIES; AND ROADWAY AND STATE HIGHWAY RIGHT-OF-WAY) NOTIFY THE RESPECTIVE AUTHORITIES REPRESENTING THE OWNERS OR AGENCIES RESPONSIBLE FOR THE FACILITIES NOT LESS THAN 3 DAYS NOR MORE THAN 7 DAYS PRIOR TO EXCAVATION SO THAT A REPRESENTATIVE OF OWNERS OR AGENCIES CAN BE PRESENT DURING SUCH WORK IF THEY SO DESIRE.
 - NOTIFY THE UNDERGROUND SERVICE ALERT OR UTILITY COORDINATION COMMITTEE AT 713-223-4567, 1-800-668-3344 OR 1-800-245-4545 AT LEAST 2 DAYS, BUT NO MORE THAN 14 DAYS, PRIOR TO EXCAVATION.

- DEMOLITION
 - CONDUCT DEMOLITION TO MINIMIZE INTERFERENCE WITH ADJACENT STRUCTURES.
 - CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY OWNER. DO NOT RESUME OPERATIONS UNTIL DIRECTED BY OWNER.
 - CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESS AND COMMERCIAL USES. MAINTAIN PROTECTED EGRESS AND ACCESS AT ALL TIMES.
 - DEMOLITION ACTIVITIES SHALL BE WHOLLY CONTAINED WITHIN THE PROPERTY BOUNDARY LINES.
- DEMOLITION REQUIREMENTS
 - DISCONNECT, CAP, AND IDENTIFY DESIGNATED UTILITIES WITHIN DEMOLITION AREAS.
 - REMOVE FOUNDATION WALLS AND FOOTINGS TO A MINIMUM OF TWO FEET BELOW FINISHED GRADE BEYOND AREA OF NEW CONSTRUCTION.
 - REMOVE CONCRETE SLABS ON GRADE.
 - BACKFILL OPEN PITS AND HOLES CAUSED AS A RESULT OF DEMOLITION PER GEOTECH REPORT.
 - ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
 - REMOVE DEMOLISHED MATERIALS FROM SITE. LEAVE SITE IN CLEAN CONDITION.
 - DO NOT BURN OR BURY MATERIALS ON SITE.
 - CONTRACTOR TO MAINTAIN POSITIVE DRAINAGE AWAY FROM FACILITIES TO REMAIN IN OPERATION DURING DEMOLITION PHASING.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL REGULATORY AGENCIES AND ANY OTHER ENTITY CONCERNING THE RELEASE OF GASES OR LIQUIDS FROM ANY EXISTING EQUIPMENT TO BE DEMOLISHED OR REMOVED.

FLOODPLAIN INFORMATION:

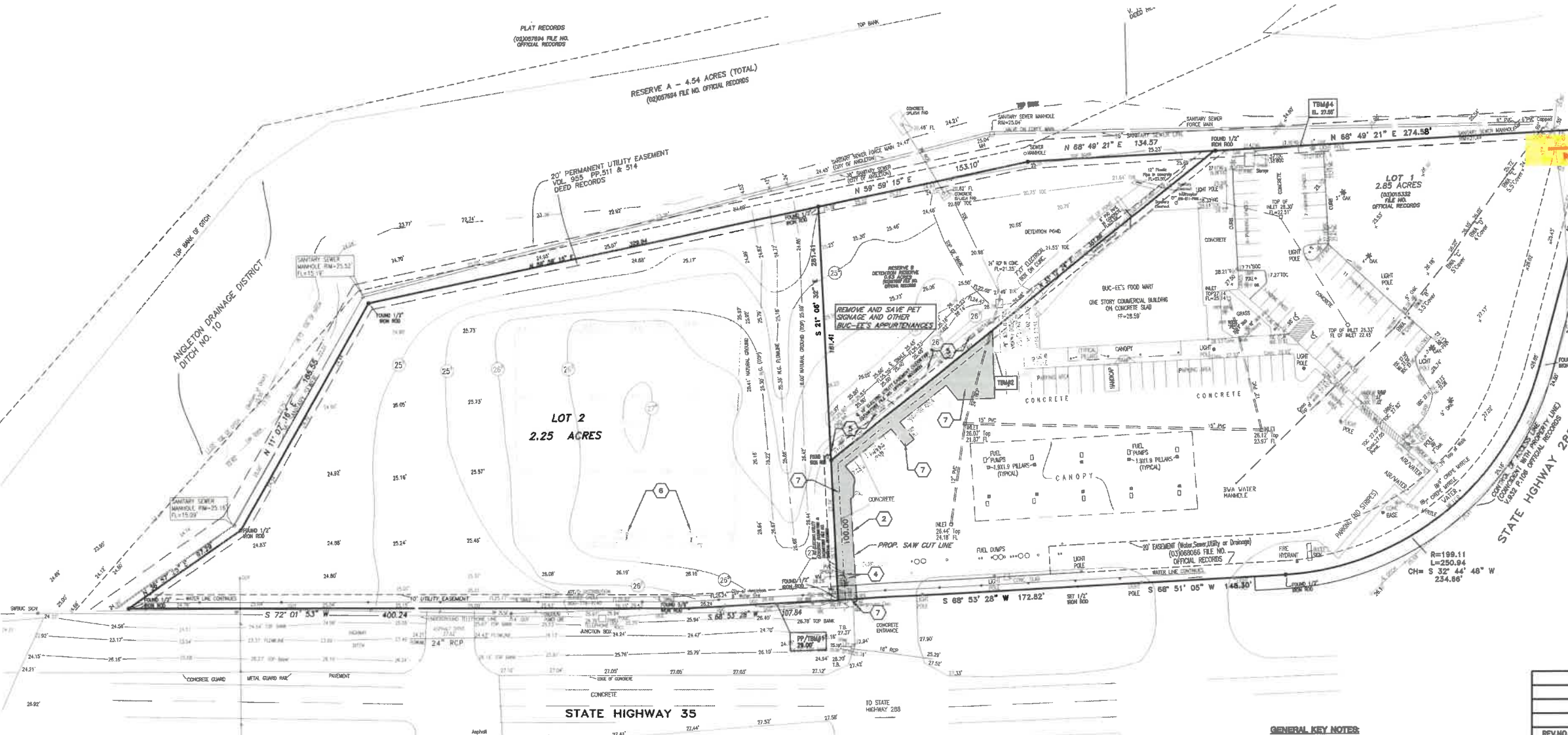
THIS TRACT LIES IN ZONE "X" (UNSHADE), DESIGNATED AS "AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN", AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FOR BRAZORIA COUNTY, TEXAS. FIRM PANEL NUMBER 480000404N. LATEST AVAILABLE PUBLISHED REVISION DATED JUNE 5, 1989.

BENCHMARK NOTE:

- TBM #1 600 NAIL IN SECOND POWER POLE WEST OF WEST ENTRANCE ELEVATION= 29.00'
- TBM #2 CHISELED SQUARE ON CURB 5' WEST OF SOUTHWEST CORNER OF DUMPSTER. ELEVATION= 27.75'
- TBM #3 DISC IN CONCRETE HEADWALL NEAR NORTHEAST CORNER. ELEVATION= 26.63'
- TBM #4 CHISELED SQUARE ON CONCRETE CURB AT DRIVE AT NORTHEAST CORNER OF PARKING LOT. ELEVATION= 27.55'



Approximate sign location on property

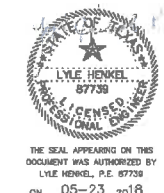


DEMOLITION LEGEND

- SHADED AREA REPRESENTS ALL EXISTING PAVEMENT, CURBS, AND SIDEWALKS TO BE REMOVED.
- PROPOSED SAWCUT

GENERAL KEY NOTES:

- CONTRACTOR TO COORDINATE WITH POWER AND NATURAL GAS COMPANY FOR THE RELOCATION/REMOVAL OF EXISTING LINES, POWER POLE AND/OR ELECTRIC LINES. (TYPICAL)
- CONTRACTOR TO FULL DEPTH SAWCUT AND REMOVE EXISTING PAVEMENT, CURBS, AND SIDEWALKS WITHIN SHADED LIMITS. ALL PAVEMENT SHALL BE NEATLY SAWCUT AND REMOVED OFF-SITE PROPERLY. COORDINATE DEMOLITION OF PAVEMENT AROUND STORE AREA WITH STORE MANAGER.
- ALL EXISTING T&D CULVERTS AND STORM SEWER TO REMAIN.
- CONTRACTOR TO COORDINATE RELOCATION OF DOMESTIC AND IRRIGATION METERS WITH THE CITY OF ANGLETON.
- CONTRACTOR TO COORDINATE RELOCATION IF POSSIBLE OR REMOVAL OF EXISTING LANDSCAPE WITH PROPOSED PAVING AREA WITH LANDSCAPE ARCHITECT.
- CONTRACTOR TO COORDINATE REMOVAL OF EXISTING SIGNAGE.
- REMOVE AND SAVE PARKING LOT LIGHTS



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LYLE HOWELL, P.E. 87739 ON 05-23, 2018

REV.	DESCRIPTION	DATE	APP.
1	ISSUE FOR CONSTRUCTION	5/23/18	LEH
BUC-EE'S BRAZORIA #25			
EXISTING CONDITIONS/DEMOLITION PLAN			
TERRA ASSOCIATES, INC. 1445 N. LOOP WEST - SUITE 450 HOUSTON, TEXAS 77008 713-993-0333 TPE Registration No.: F-003832			
DRAWN BY: RJB	SCALE: 1"=40'	PROJECT No. 0093-1801	
CHECKED BY: JV	DATE: 05.23.18	SHEET C2 of 18	

Attachment 4

Item 17.



BOARD OF ADJUSTMENT APPLICATION FOR VARIANCE

City of Angleton
121 S. Velasco
Angleton, TX 77515
979-849-4364

Applicant: Apex Sign Group Phone: 210-757-9104 Cell: 210-260-8448

Address: 7208 S.W.W. White Rd.

City: San Antonio State: Texas Zip: 78222

Applicant's Status: (check one) ☐ Owner ☒ Representative ☐ Tenant

Property owner: Buc-ee's, Ltd. Phone: 979-230-2939 Cell: 979-388-4748

Address: 327 FM 2004

City: Lake Jackson State: Texas Zip: 77566

<u>greg burkett</u>	<u>2/2/2022</u>	<u>1 Scott Ray</u>	<u>Feb 7, 2022</u>
Applicant Signature	Date	Owner Signature	Date

Property Information:

This application must be accompanied by a site plan and any other documents requested, such as plot plans, photographs, topographic contour maps that are necessary to properly review the application.

Street address or location: Buc-ee's #25 2304 W. Mulberry Street Angleton, Texas

Legal Description: _____
(please provide copy of metes and bounds)

Present zoning: _____ Present land use: Convenience Store

Is a site plan, preliminary or final plat pending on the agenda of the Planning & Zoning Commission or the City Council? x Yes _____ No

Have you applied for a building permit? x Yes _____ No Date denied: _____

Has the Board of Adjustments issued an unfavorable ruling on this property within the last six months? _____ Yes x No

If yes, when: _____

Please provide proof of taxes paid on this property.

OPER: MAB TERM: 105
REF#: 07657G
TRAN: 300.1180 CONSULTANT/PLAN/REV
CONSULTANT REVENUE 150.00CR
TENDERED: 150.00 CREDIT CARD

Request Information:

Please answer the following questions as completely as possible. Failure to outline fully the situation by answering these questions could cause unnecessary delay in evaluating your appeal. Additional pages may be attached if necessary.

1. Describe the variance you are requesting: Installation of new 100'-0" over all height high rise sign with 25' diameter logo and 5'-5" x 25' City panel with Angleton

2. Describe the special or unique condition(s) of your property that exist, such as restricted area, shape, topography or physical features that are peculiar to your property: The site issue relates to the distance from the property and the exit ramps for both directions along 288 the new pole sign will provide exposure to help direct travelers to the site and viewing time from each exit ramp to access site

3. Do similar property conditions exist in your area? Explain: N/A

4. Explain how your need for a variance is unique to those special property-related conditions described above: Current location of site provides prolonged viewing distance visibility that will help to inform traveling public that the location is at the coming intersection and to exit.

5. Are there special conditions affecting your property such that the strict application of the provisions of the Zoning Ordinance would deprive you of the reasonable use of your land? Explain: Current code allowances are less in height and square footage allowances than the stated variance request for the new hi-rise sign. Current code for signage along 288 is 65' OAH & 350 square feet. Our request is for variance of 35' feet in height and 277 square feet

6. Explain why the granting of the variance will not be detrimental to the public health, safety or welfare, or injurious to other property within the area: There would be no reason to think granting this variance would have any effect to the following

7. Describe how strict enforcement of the zoning ordinance creates a hardship that is unique to your property, imposing a hardship above that suffered by the general public: Post survey of the site the granting of the variance will provide the necessary height and square footage needed to adequate visibility for the site.

A completed variance application is due 30 days prior to the next Board of Adjustment meeting. Board of Adjustment meetings are held at noon on the third Wednesday of each month. At this meeting, a public hearing will be held. A public hearing notice must be published in the local newspaper (at least 14 days before the meeting) and a notice must be sent to all property owners within 200' of the property where the variance is being requested (the notice must be sent at least 10 days prior to the meeting).

Acknowledgements

I certify that the above information is correct and complete to the best of my knowledge and ability and that I am now or will be fully prepared to present the above proposal at the Board of Adjustments hearing.

I understand that in the event that I am not present or represented at the public hearing, the Board shall have the power to dismiss the proposal either at the call of the case or after the hearing, and that such dismissal shall constitute denial.

I reserve the right to withdraw this proposal at any time upon written request filed with the City Secretary's office, and such withdraw shall immediately stop all proceedings. I understand the filing fee is not refundable upon withdraw of the proposal after public notice.

I understand that if the request is approved, I must obtain a building permit from the City before any work is started on the property and that the Board of Adjustment action does not constitute the approval of the building permit.

Applicant's Initials: Date: Feb 7, 2022

Office use only

Date received: 2/8/2022 Received by: M. BAYRON

Fee of \$150.00 received: 2/8/2022

Proof of taxes paid: _____ date verified: _____

Appointment of agent form attached if required: _____

BOA Public Hearing date: _____

Date to send letters to residents: _____

Letters Mailed: _____

Date to publish: _____ Date published: _____

#25 Lollipop Sign Variance


Final Audit Report

2022-02-07

Created:	2022-02-07
By:	Michael Schmaling (michael.schmaling@buc-ees.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAALcPMt1wNP-qLSJNrc_5H13dv_5oO0gWM

"#25 Lollipop Sign Variance" History

 Document created by Michael Schmaling (michael.schmaling@buc-ees.com)
2022-02-07 - 3:20:10 PM GMT- IP address: 50.204.135.241

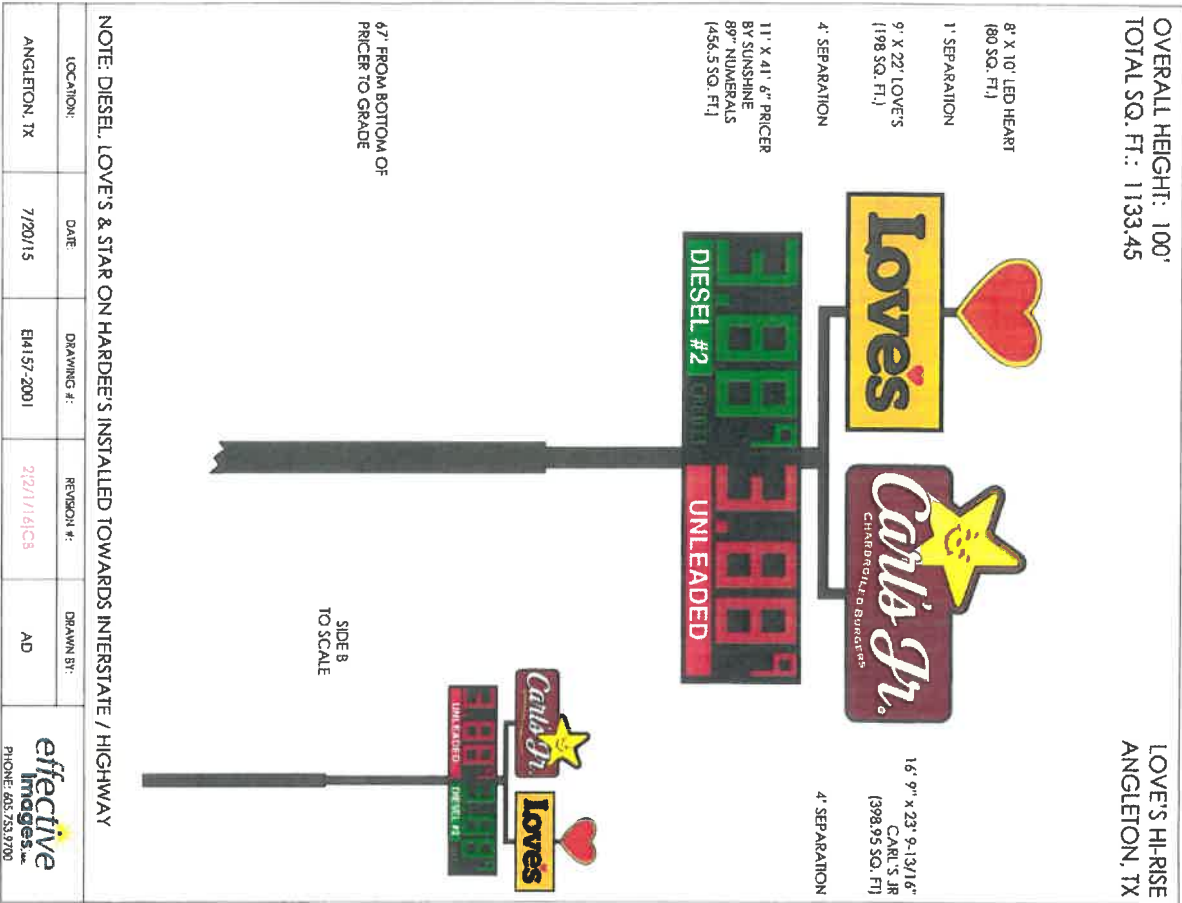
 Document emailed to Scott Ray (scott.ray@buc-ees.com) for signature
2022-02-07 - 3:20:49 PM GMT

 Email viewed by Scott Ray (scott.ray@buc-ees.com)
2022-02-07 - 3:22:39 PM GMT- IP address: 104.28.50.52

 Document e-signed by Scott Ray (scott.ray@buc-ees.com)
Signature Date: 2022-02-07 - 3:24:16 PM GMT - Time Source: server- IP address: 104.28.103.153

 Agreement completed.
2022-02-07 - 3:24:16 PM GMT







AGENDA ITEM SUMMARY FORM

MEETING DATE: 2/22/2022

PREPARED BY: Megan Mainer, Director of Parks & Recreation

AGENDA CONTENT: Discussion and possible action fully repealing and replacing Chapter 23 – Land Development Code, Article II. – Subdivision and Development Design, Section 23-20. – Park Dedication and Recreation Improvements; providing a penalty; providing for severability; providing for repeal; and providing an effective date.

AGENDA ITEM SECTION: Regular Agenda

BUDGETED AMOUNT: NA **FUNDS REQUESTED:** NA

FUND: NA

EXECUTIVE SUMMARY:

The City's Strategic Plan notes park development fees will be assessed. Overall, our current Parkland Dedication ordinance outlined in the LDC has errors, omissions, unworkable and impractical provisions that staff recognized needed to be updated. In March 2020, staff was authorized to hire Dr. John Crompton from Texas A&M to assist with revisions of the City of Angleton's Parkland Dedication ordinance. Dr. John Crompton's expertise is set out below:

- Former member of the 7-person College Station City Council displaying political insight.
- Testifying expert witness in city ordinance disputes in numerous court cases.
- Analysis and expertise gained from working with and studying approximately 65 Texas cities with dedication ordinances analyses of 41 ordinances collected from the 100 largest U.S. cities that have such ordinances.
- University Distinguished Professor Texas A & M University, Recreation, Park & Tourism Sciences.
- Recipient of the National Park Foundation's Cornelius Amory Pugsley Award; National Recreation and Park Association's Distinguished Professional Award, National Literary Award, and Roosevelt Award; the Society of Park and Recreation Educators' Distinguished Colleague and Distinguished Teaching awards; and the Travel and Tourism Research Association's Travel Research Award.

The purpose of parkland dedication and associated development is to maintain the current level of service and quality of life we're offering residents without raising taxes. This ordinance is a financial mechanism that requires the developer to either build a park to the City's standards or pay fees in lieu of parkland dedication and development fees for park components. This ordinance puts the burden on the developer, or new residents/homes, to maintain the current level of service and quality of life standard Angleton has created.

Staff and the Parks & Recreation Board reviewed several iterations of the ordinance from April 2020 through April 2021. On April 12, 2021, the Parks & Recreation Board approved the revisions of the Parkland Dedication ordinance subject to the City Attorney's review for enforceability. The ordinance has been reviewed and revised for enforceability by Randle Law Office, Walter Reeves, and HDR, the City's contracted engineers, and Dr. John Crompton.

Over the past year, staff have informed developers during development meetings that the parkland dedication requirements are being revised and adopted revisions will impact parkland dedication requirements, fees in lieu of parkland, and park development fees.

Staff has included a chart of municipalities in Texas with parkland dedication ordinances and provided additional information for communities with a population of 30,000 or less. Staff, also, included an Analysis of Parkland Dedication Ordinances in Texas, as background information on parkland dedication ordinances.

The LDC requires any modification, monitoring or implementation of the development code to be considered by the Planning and Zoning Commission per Section 23-68. Also, per Section. 28-22. (f). (2). of the Planning and Zoning Commission, the Planning and Zoning Commission shall make recommendations regarding amendments to zoning and subdivision ordinance amendments. In compliance with the Angleton Code of Ordinances, on February 3, 2022, staff presented the proposed ordinance change to the Planning & Zoning Commission. Some Planning and Zoning members had questions regarding developer credits, minimum park amenities, and fees in lieu of parkland and development fee calculations. The proposed ordinance was unanimously approved by the Planning & Zoning Commission, Ellen Eby was absent.

RECOMMENDATION:

Staff recommends approval fully repealing and replacing Chapter 23 – Land Development Code, Article II. – Subdivision and Development Design, Section 23-20. – Park Dedication and Recreation Improvements; providing a penalty; providing for severability; providing for repeal; and providing an effective date.

SUGGESTED MOTION:

I move we recommend approve Ordinance number **2022XXX** fully repealing and replacing Chapter 23 – Land Development Code, Article II. – Subdivision and Development Design, Section 23-20. – Park Dedication and Recreation Improvements; providing a penalty; providing for severability; providing for repeal; and providing an effective date.

ORDINANCE NO. 2022-_____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS, FULLY REPEALING AND REPLACING CHAPTER 23 – LAND DEVELOPMENT CODE, ARTICLE II. – SUBDIVISION AND DEVELOPMENT DESIGN, SECTION 23-20. – PARK DEDICATION AND RECREATION IMPROVEMENTS; PROVIDING A PENALTY; PROVIDING FOR SEVERABILITY; PROVIDING FOR REPEAL; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, pursuant to Texas Local Government Code Chapter 51, the City Council of the City of Angleton, Texas (the “City Council”), has the general authority to adopt and publish an ordinance or police regulation that is for the good government, peace or order of the municipality and is necessary or proper for the carrying out a power granted by law to the municipality; and

WHEREAS, the City Council finds that it is necessary to fully repeal and replace Chapter 23– Land Development Code, Article II. – Subdivision And Development Design, Section 23-20. – Park Dedication and Recreation Improvements of the Code of Ordinances; and

WHEREAS, the City Council desires to replace Chapter 23– Land Development Code, Article II. – Subdivision And Development Design, Section 23-20. – Park Dedication and Recreation Improvements with Exhibit A – Chapter 23 – Land Development Code, Article II. – Subdivision and Development Design, Section 23-20. – Park Land Dedication and Park Development.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ANGLETON, TEXAS:

SECTION 1: All of the facts recited in the preamble to this Ordinance are hereby found by the City Council of the City of Angleton, Texas, to be true and correct and are incorporated by reference herein and expressly made a part thereof, as if copied herein verbatim.

SECTION 2: Chapter 23– Land Development Code, Article II. – Subdivision And Development Design, Section 23-20. – Park Dedication and Recreation Improvements of the Code of Ordinances is hereby repealed.

SECTION 3. Ordinance No. 2022-_____, including the attached and incorporated Exhibit A – Chapter 23 – Land Development Code, Article II. – Subdivision and Development Design, Section 23-20. – Park Land Dedication and Park Development, is hereby adopted in place and to replace the repealed Chapter 23– Land Development Code, Article II. – Subdivision And Development Design, Section 23-20. – Park Dedication and Recreation Improvements of the Code of Ordinances.

SECTION 4. Severability. In the event any clause, phrase, provision, sentence or part of this Ordinance or the application of the same to any person or circumstances shall for any reason be adjudged invalid or held unconstitutional by a court of competent jurisdiction, it shall not affect, impair, or invalidate this Ordinance as a whole or any part or provision hereof other than the part

declared to be invalid or unconstitutional; and the City Council of the City of Angleton, Texas, declares that it would have passed each and every part of the same notwithstanding the omission of any part thus declared to be invalid or unconstitutional, or whether there be one or more parts.

SECTION 5. *Repeal.* All ordinances or parts of ordinances inconsistent with the terms of this ordinance are hereby repealed; provided, however, that such repeal shall be only to the extent of such inconsistency and in all other respects this ordinance shall be cumulative of other ordinances regulating and governing the subject matter covered by this ordinance.

SECTION 6. *Notice.* It is hereby officially found and determined that the meeting at which this Ordinance was passed was open to the public and that public notice of the time, place, and purpose of said meeting was given as required by the Open Meetings Act, Texas Government Code, Chapter 551.

SECTION 7. *Penalty.* Any person who violates or causes, allows, or permits another to violate any provision of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than Five Hundred and No/100 Dollars (\$500.00). Each occurrence of any such violation of this Ordinance shall constitute a separate offense. Each day on which any such violation of this Ordinance occurs shall constitute a separate offense.

SECTION 8. *Effective Date.* This Ordinance shall be effective immediately and enforced when published as required by law and in full force when published as required by law.

PASSED AND APPROVED THIS THE 25TH DAY OF JANUARY 2022.

CITY OF ANGLETON, TEXAS

Jason Perez,
Mayor

ATTEST:

Frances Aguilar, TRMC, MMC
City Secretary

EXHIBIT A

AMENDMENTS TO THE CITY OF ANGLETON'S PARK DEDICATION REQUIREMENTS; SEC. 23-20

A. Purpose.

This Article is adopted by the Angleton City Council in accordance with the home rule powers of the City of Angleton granted under the Texas Constitution, the laws of the State of Texas including but not limited to Texas Local Government Code Chapter 212, as may be amended. The City of Angleton recognizes that public park and recreation areas are valuable assets that advance the public's health, safety and welfare. New residential development in the city creates the need for additional parks and recreation resources because of the new population. Parkland dedication and development fees are recognized as a fair, reasonable and uniform method of financing these assets that does not impose an unfair burden on new or existing residential developments. The intent is to require new development to pay its proportionate costs that are associated with providing new or expanded parks and conservation areas, so they are borne by the new homeowners who are responsible for creating the additional demand.

B. Applicability.

- (a) This Section applies to a landowner or developer who develops land for residential use located within the City and its ETJ.
- (b) Non-residential use is exempt.
- (c) This Section does not apply to activities involving the remodeling, rehabilitation or other improvements to an existing residential structure, or to the rebuilding of a damaged structure where no additional residential units are created.
- (d) If a dedication requirement was paid or encumbered prior to the amendment of this Section, then subsequent development for the subject tract the dedication requirement applies to may be subject to vesting as set forth in Chapter 245 Texas Local Government Code. However, if there is an increase in the number of dwelling units on the site to be developed from what was originally proposed, then there shall be an additional proportional increase in the dedication requirement.

C. General Requirements.

- (a) The City Manager, or designee, shall administer this Chapter, with certain review, recommendation and approval authorities being assigned to the City Council or Planning and Zoning Commission, and various City departments as specified in the Code of Ordinances.
- (b) As a condition of subdivision development, a developer of residential property shall be required to dedicate land for parks, or pay a fee in lieu of dedication, or a City-Council

approved alternative; or a combination of both, only upon recommendation by the Director of Parks and Recreation. In addition to the land dedication, a developer of residential property shall pay a park development fee to be used to provide improvements as typically found in other Angleton city parks that is needed to make dedicated land into a functional park.

- (c) The required land dedications and schedules of fees are attached hereto as Appendix "A". They are incorporated and made a part of this Section for all purposes.

D. Park Land Dedication Procedures

- (a) When considering dedicating land for a park, the developer shall schedule a pre-development meeting to evaluate the suitability of the land for park land dedication or the necessary fees in lieu of land dedication. The City's parkland dedication requirements and minimum park standards are shown in Appendix "B". Parks and Recreation Department ("PARD") may request a site visit as a part of its consideration process and determination. The developer shall declare if fees in lieu of park land and park improvement fees, or park land dedication and park improvements will be pursued in conjunction with the preliminary plat submittal. In the event that park land dedication and park improvements are pursued, then the developer will enter into an agreement with the City, and will provide the following information:
1. Lot dimensions or metes and bounds acreage of park land to be dedicated;
 2. Total acreage of floodplain, as well as land located outside floodplain;
 3. Tree survey results;
 4. Slope analysis results;
 5. Environmental survey results identifying critical environmental features, such as but not limited to species, habitat, and water features;
 6. Overall site plan with proposed park improvement specifications.
 7. Signed and stamped park improvement plans prepared and designed by a Texas Licensed Landscape Architect.
- (b) Prior to issuance of a development permit and final plat recordation, civil plans prepared by a Texas Licensed Landscape Architect, or a properly licensed design specialist approved by the City including park land dedication and park improvement specifications, must be reviewed and approved by the City Engineer, Parks and Recreation Director, Planning and Zoning Commission, and City Council.
- (c) The total amount of land dedicated for the development of a public park shall be dedicated:
1. In fee simple by filed written instrument of conveyance or deed and the developer is responsible for the expense of the deed preparation and filing fees;

2. Prior to recordation of the final plat;
3. For a phased development the entire park shall be platted concurrently with the plat of the first phase of the development. If it is intended to phase the park dedication or park improvements to coincide with the development phasing, the developer may provide the City with financial security against the future dedication by providing a bond, irrevocable letter of credit, or other alternative financial guarantee such as a cash deposit in the amount equal to the number of acres of park land required, and in a form acceptable to the City. The amount of the financial guarantee shall be the amount of the fee in lieu of land dedication as set forth in Appendix "A" plus an additional amount equivalent to ten percent (10%) contingency. The financial guarantee will be released to the developer, without interest, when the required park land has been properly dedicated. The developer or depositor must request such refund within one year of entitlement, in writing, or such right shall be barred and the financial guarantee will not be refunded. If the full land dedication does not occur within five years of completion of the initial phase of the overall development, the financial guarantee (escrowed funds) plus interest shall be forfeited by the depositor or developer, and the funds shall become the property of the City.

E. Park Land Acceptance Criteria.

(1). General Guidelines.

Any park land dedicated to the City pursuant to the terms, conditions and requirements under this Section must be suitable for park and recreation uses. The following guidelines should be met:

- (a) **Encumbrances.** Free and clear of any and all liens and encumbrances that interfere with the use or ownership of the land for park purposes. The City's representatives shall make onsite inspections of the property for the purposes of determining site suitability and identification of any visual hazards or impediments to park development and use.
- (b) **Environmental Assessment.** An environmental site assessment, without any recommendations for remediation or clean-up, certified to the City not earlier than one hundred twenty (120) days prior to the closing date or date of final purchase of land.
- (c) **Utilities.** The developer is responsible for certain minimum utilities as listed below and utilities should be constructed at the right-of-way. The appropriate city department which may include the City Engineer, Public Works Director, or Director of Parks and Recreation, or designee, as necessary, will be required to approve such location prior to final approval and release of fiscal requirements of said subdivision. Upon review, a backflow preventer for water utilities will be required for all pertinent utility applications requiring one where contaminants could potentially enter the public water supply through pressure loss and back siphonage or through cross-connections; such as may occur with irrigation lines.

1. A metered water supply located 12 feet behind the curb in accordance with the size of the park; and
 2. A six-inch sewer stub, or in accordance with the size of the park, ten feet behind the curb final determination of size and location to be determined by the City Engineer and Public Works Department.
- (d) If soils have been disturbed or displaced, they shall be restored, and the soil shall be stabilized by vegetative cover by the developer prior to dedication to the city.
- (e) Parks shall provide easy public access and be open to public view to benefit area development, enhance the visual character of the City, protect public safety, and minimize conflict with adjacent land use.
- (f) Park and conservation land may provide a connection to existing or future City park land. The land available for dedication may be an opportunity to expand an existing or future city park or trail.
- (g) A current title report must be provided with the land dedication.
- (h) The property owner shall pay all taxes or assessments owed on the property up to the date of acceptance of the dedication by the City. A tax certificate from the County Tax Assessor shall be submitted with the dedication or plat.
- (2). Land Requirements.
- (a) Land parcels that are unsuitable for development are typically unsuitable for parks. Park sites shall be selected prior to a subdivision being platted and acquired as a part of the development process.
- (b) The City recognizes that maintaining many small parks is difficult and costly; therefore, the City generally will not accept an area of less than five (5) acres for park dedication.
- (c) Sites shall be located in a manner that serve the greatest number of users and shall minimize users having to cross arterial roadways to access parks.
- (d) Where feasible, sites shall be located adjacent to schools to encourage shared facilities and joint development of new sites.
- (e) Parks shall have well-drained and suitable soils and level topography. Sites shall not have slope or unusual topography which would render the land unusable for recreational activities.
- (f) Parks must be adjacent to a street for ease of pedestrian use, bike use, or parking

accommodations.

- (g) No more than two (2) sides of the park may be adjacent to the rear of or behind residences.
 - (h) Parks must include visible, attractive and suitable means of ingress and egress proportionate to the size and amenities in the park.
 - (i) The site shall not be encumbered by overhead utility lines or easements which might limit the opportunity for park and conservation development.
 - (j) Sites with existing trees or other scenic elements are preferred and may be reviewed by the City, or a contracted Urban Forester, to make recommendations, as it relates to Heritage Tree Protection provisions found in the Code of Ordinances.
 - (k) Rare, unique, endangered, historic or other significant natural areas shall be given a high priority for dedication pursuant to this Section.
 - (l) The City shall not generally accept land within floodplain and floodway dedicated areas as part of the dedication, but at its discretion may accept such land as a donation.
 - (m) Detention or retention areas which are required as part of the stormwater management standards generally shall not qualify as parkland dedication but may be accepted as donations in addition to the required dedication.
- (3). Minimum Park Standards. Facilities and improvements provided by a developer shall be constructed on lands dedicated as public park land. All plans and specifications shall meet or exceed the City's Minimum Park Standards as set forth in Appendix "B" at the time of the submission and shall be approved by the PARD.

F. Fee in Lieu of Park Land.

The City shall require that a fee be paid in lieu of land dedication in amounts as set forth in Appendix "A" for, either, all, or some of a required park land dedication. Such fees shall be due prior to the final plat recordation for a single-phase development, or prior to the issuance of any building permits for multi-phased development.

The amount of the fee in lieu will be based on the average fair market value per acre of the land which is being subdivided at the time of the preliminary plat approval. The fair market value shall be established by the most recent appraisal of all or part of the property made by the Brazoria County Appraisal District. At the City's discretion, the City may commission, at the developer's expense, an independent appraisal of the land by a third party and adjust the amount of assessed value based on any difference between it and the appraisal district's valuation.

G. Park Development Fee.

In addition to the park land dedication requirements, park development fees shall be paid by the owner or developer and must be sufficient to develop public parks that satisfy the City of Angleton's standards. Any Park Development Fees are supplementary to, and not in substitution of, the land dedication requirement, or payment of the fee in lieu of land dedication requirement. The amount of development fees assessed to a development and the basis for the calculation is set forth in Appendix "A". The park development fees shall be processed simultaneously with the park land dedication requirements, and for all phases of the development.

H. Credit for Private Park Amenities

- (a) Up to fifty percent (50%) of the total fee in lieu, and the park development fees required by this Section to be paid by a developer may be eligible for reimbursement if the developer provides private park amenities on the site. The remaining 50% is retained for deposit in the City's park land dedication fund for the purpose of defraying the financial burden that new residential units impose on the existing public park system in Angleton, beyond the immediate development in which the residential units are located.
- (b) Water features exceeding two thousand five hundred (2,500) square feet will not be considered as park facilities that qualify for credit. However, ten percent of lakes and nature reserves or land, which is generally undeveloped and unsuitable for organized recreational activities without substantial development effort, but otherwise provides desirable aesthetic qualities, such as wetlands and other wooded areas, will be considered by the City and may qualify for private parkland (0.10:1 ratio) up to 50 percent credit. This credit must be approved by the City. Dry bottom detention ponds do not satisfy the definition of a lake or nature reserve.
- (c) Private facilities eligible for credit are those outdoor amenities typically found in Angleton's public parks, which will substitute for the improvements otherwise funded by a dedication or development fee to meet the outdoor recreation needs of residents. The outdoor amenities might include, but are not limited to, park land, playground equipment and shade structures, barbecue equipment, a "pick-up" basketball or volleyball court, lighting, and walking and jogging trails. Indoor recreation facilities provided by a developer do not qualify for credit.
- (d) The amount of credit shall be based on actual out-of-pocket dollar costs that the developer incurred in providing the outdoor recreation amenities:
 - 1. The developer is required to submit all invoices and checks paid toward the construction of the private amenities upon request by the City.
 - 2. The developer shall allow access and PARD staff shall conduct a site visit to verify the private park improvements.
- (e) Yards, court areas, setbacks and other open areas required to be maintained as set forth

in the Code of Ordinances of the City of Angleton shall not be included in the credit computation.

- (f) Private ownership and maintenance of the private amenities shall be provided for in perpetuity by recorded agreement, covenants or restrictions that run with the land which cannot be eliminated without the consent of the City.
- (g) Use of the private park is restricted for park and recreation purposes by recorded covenant, which runs with the land in favor of future owners of the property and which cannot be defeated or eliminated without the written consent of the City.
- (h) Facilities must be similar or comparable to what would be required to meet minimum public park standards and recreational needs as set forth in Section E of this Section, and other federal, state and local laws.
- (i) The design of private park amenities must be reviewed and approved by the Director of Parks and Recreation prior to the platting of the first unit.
- (j) All private amenities should be constructed no later than prior to the application for the final unit building permit. For a phased property, it should be completed by the final unit of the first phase.
- (k) The restrictive covenants shall provide that, in the event that any private owner of parkland fails to maintain same according to the standards of the city, the Parks and Recreation Director and the City may enter the parks and open space to maintain same. The cost of such maintenance shall be charged to those persons having the primary responsibility for maintenance of the parks and open space, and the City will have the right to seek reimbursement.

I. Reimbursement for City Acquired Park Land.

The City may acquire land for parks in advance of actual or potential development. If the City acquires park land in this manner, then the City may require subsequent dedications to be fee in lieu of land only. They will serve to reimburse the City for the cost(s) of acquisition.

J. Appeal Process.

The property owner, developer, or applicant may appeal decisions relating to this Section to the City Council. The burden of proof is on the appellant to demonstrate that the decision was incorrect. The appellant must file a notice of appeal with the Director within thirty (30) days following the determination by the Director. Filing an appeal shall not stay collection of the fee due. If the notice of appeal is accompanied by a payment in an amount equal to the fee due as calculated by the City, the building permit application shall be processed. No building permit application will be processed without payment. Any decision made by PARD may only be

appealed in writing through the City Manager, then to the City Council and must be appealed within ten (10) working days.

K. Use of Park Fees.

- (a) Funds shall not be used for employee wages and equipment associated with operation and maintenance of parks.
- (b) The park land dedication fund shall not be used for city staff overhead expenses. Indirect costs reasonably incurred in connection with park land acquisition and development are limited to a maximum of ten (10) percent of total acquisition or development costs.
- (c) All park land dedication and park development fees will be deposited in a separate fund. Funds shall be used solely for the acquisition or leasing of park land and the development, improvement, or enhancement of new and existing parks. All expenditures shall be administered in accordance with the purchasing requirements of the City, as amended.

L. Review and Indexing of Fees

- (a) The City shall review the fees established and the amount of park land dedication required in this Section at least once every five (5) years. Failure to review by the City Council shall not invalidate this ordinance.
- (b) The fee-in-lieu and park improvement fees shall be automatically updated annually as part of the annual budgeting process unless otherwise authorized by the City Council. The update shall reflect the indexing shown in the U.S. Department of Labor Statistics Consumer Price Index for the Houston-The Woodlands-Sugar Land Statistical Area which includes Brazoria County.

M. Right to Refund.

The City shall account for all fees in lieu of land and all development fees paid under this Section with reference to the individual plat(s) involved. Any fees paid for such purposes must be expended by the City within ten (10) years from the date received by the City for acquisition and development of park areas as required herein. Such funds shall be considered to be spent on a first-in, first-out basis. If not so expended, the landowners of the property on the expiration of such period shall be entitled to a prorated share of such sum without interest, computed on a square footage of area basis. The owners of such property must request such refund within one (1) year of entitlement, in writing. Failure to timely submit the required application for refund shall constitute an absolute waiver of any right to the refund.

N. Severability.

If any provision of this Section is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, that invalidity shall not affect the remaining provisions of this Section,

which can be implemented without the invalid provisions and, to this end, the provisions of this Section are declared to be severable. The City Council hereby declares that it would have adopted each and every provision and portion thereof not declared invalid or unconstitutional, without regard to whether any portion of the ordinance would subsequently be declared invalid or unconstitutional.

APPENDIX A

Angleton Notation Parkland Dedication Calculation Land Component.	
Total city park acreage:	229.7 acres
City Population:	19,875
Average occupancy per dwelling unit (Census data):	2.57
Number of Dwelling units: $(19,875/2.57)$	7,734
Dwelling units per acre of parks: $(7,734/229.7 \text{ acres})$	33.7
Assume market value of an acre of land for the new development is \$20,000.	
Fee in lieu of dedication of land for each dwelling unit in the new development would be:	
\$20,000/33.7: <u>\$593</u>	
Park Development Component. Cost per Residential Unit for Developed Parks.	
Estimated cost of developing Lakeside Park:	\$3,000,000
Lakeside Park acres:	44.6 acres
Park development cost per acre $(\$3,000,000/44.6)$:	\$67,265
Dwelling units per acre of parks:	33.7
Fee per dwelling unit $(\$67,265/33.7)$:	<u>\$1,996</u>
Park Development Component. Cost per Residential Unit for Passive/Undeveloped /Conservation Parks.	
Based on three components of Lakeside Park cost:	
Grading, Drainage and Utilities:	\$232,540
Lighting and Electrical:	\$107,000
Softscape:	\$351,877
	\$691,417
Development Cost per acre $(\$691,417/44.6)$:	\$15,502
Fee per dwelling unit $(\$15,502/33.7)$	<u>\$460</u>
Park Development Fee per Dwelling Unit Based on the Ratio of Developed/Undeveloped Parks in Angleton:	
Developed Parks $(\$1,996 \times 177.3 \text{ acres})$ + Undeveloped Parks $(\$460 \times 52.4 \text{ acres})/229.7$	
$(\$353,890 + \$24,104)/229.7$	<u>\$1,646</u>
Total Parkland Dedication Fee per residential unit: $(\\$593 + \\$1,646) =$	<u>\$2,239</u>

APPENDIX B

Minimum Park Standards

- A. Parks shall be designed and installed to meet standards approved by the Director of Parks and Recreation, in accordance with related federal, national, state or local codes including, but not limited to, the following:
 - a. International Play Equipment Manufacturer's Association (IPEMA);
 - b. Consumer Product Safety Commission (CPSC) Handbook for Public Safety;
 - c. American Society for Testing and Materials (ASTM and ASTM F08);
 - d. Accessibility Standards for Play Areas through the ADA Accessibility Guidelines (ADAAG);
 - e. Illuminating Engineering Society of North American (IESNA RP-6-01); and
 - f. Sports Turf Management Association (STMA).
- B. Paved frontage with curbs and gutters for all required street frontages abutting the outside perimeter of the parkland;
- C. Installing signage designating the area as parkland shall be supplied by the owner or developer and shall be designed and installed according to the specifications outlined in the City's Gateway Master Plan or otherwise specified by the PARD;
- D. Minimally a four-foot-wide concrete sidewalk installed around play spaces and along all street frontage of the park. Trails designed and installed within the park shall consist of ten-foot-wide concrete trails for primary pathways and six-foot-wide concrete trails for secondary pathways, and all improvements will be reviewed by a Texas Registered Accessibility Specialist and approved for compliance with the American Disabilities Act;
- E. Water wastewater, electrical services, and all other utilities provided to the remainder of the subdivision shall be provided to the park as part of standard subdivision improvements;
- F. LED lighting along those portions of the required street frontage(s) as well as ample overhead or bollard LED lighting within and throughout the park to provide for a safe and secure environment;
- G. Wireless network infrastructure;
- H. Removing all trash, dead trees and other unusable material; clearing and grading of site and installation of grass;
- I. Street trees shall be provided in the parkway abutting the park at intervals specified by the Parks and Recreation Director, City arborist, or contracted arborist. If the park does

not abut street ROW on all sides, in addition to the street trees, shade trees shall be provided at a minimum of ten trees per one-fourth acre and tree species will be determined by the Parks and Recreation Director, City arborist, or contracted arborist;

- J. Permanently constructed restroom facilities built to city standards and the requirements of the American's with Disabilities Act (ADA). Restroom facilities are required for parks that are five acres or larger in size;
- K. One playscape structure, concrete edging, and appropriate safety surfacing that meets industry requirements with a minimum capacity of 30 children, per industry standards. If a play structure already exists within a dedicated park within one-fourth mile, other comparable amenities may be provided such as basketball courts, outdoor exercise stations or splash pads;
- L. Accessible covered picnic table, grill, and trash container at a rate of one per five acres on concrete pads, but no less than one per park; and,
- M. Drinking fountain at a rate of one per five acres, but no less than one per park; and,
- N. Park benches at a rate of one per two acres of greenspace, but no less than two per park.

Disposing of construction materials within the park by the owner or developer's contractors, subcontractors, employees or agents at any time while the subdivision is being built. If materials are deposited or disposed of within the park, the owner or developer will be required to remove these materials within 72 hours of written notice by the City.

Marking each corner of the park land to be dedicated with a permanent monument consisting of three-fourths-inch iron pins set in concrete. These shall be located and identified on a recordable land survey completed by a land surveyor registered in the state and provided to the City by the owner or developer.

Acres per 1000 Population of 73 Texas Cities that Reported Having a Parkland Dedication Ordinance.

City	2020 Population	Fees in Lieu of Parkland	Development Fees	Parkland and Development Requirements
Allen	103,383			
Alvin	26,827	X \$300/Dwelling unit	None	one-one hundredth (1/100) of an acre or four hundred thirty-five and six-tenths (435.6) square feet of land for each proposed Dwelling unit; no less than 2 acres; minimum acceptance requirements
Arlington	389,547			
Austin	969,733			
Belton	22,222	X \$10K or purchase price of the land to be donated; whichever is greater	None	20 acres/1000 ppl; minimum land area for dedicated parkland tract shall be five acres; suitability criteria outlined/minimum requirements for private parks;
Benbrook	23,566	X \$600/Dwelling unit	None	1 acre/100 ppl; no less than two acres can be dedicated; credit for private parks; suitability criteria outlined
Brownsville	183,392			
Bryan	85,445			
Burleson	47,282			
Cedar Hill	48,463			
Cedar Park	76,999			
Cibolo	30,563			
College Station	116,218			
Colleyville	26,945	X \$1802/Dwelling unit \$800/acres nonresidential development	None	Last revised 2007; land dedication requirements listed; 1 acre /25 Dwelling units; 1 acre / 56 gross acres of development of nonresidential development; no less than 7 acres; developers may improve existing parks instead;
Converse	28,171	X \$250/Dwelling unit	X \$100/Dwelling unit	1 acre/100 homes
Coppell	41,818			
Corpus Christi	337,094			

Dallas	1,356,896			
Deer Park	33,931			
Denison	25,529	X \$500/Dwelling unit	X Voluntary improvements for quality of subdivision; developer receives a credit	Only applies to developments over 50 units; 1 acre/50 Dwelling units; no less than five acres; land dedications reduce fees by \$8K for the first five acres plus \$1K for every additional acre;
Denton	138,541			
Eagle Pass	29,684			
Edinburg	98,665			
El Paso	698,533			
Flower Mound	77,329			
Forney	23,727	X Values differ based on appraised value of land	X \$604/Dwelling unit	Based on appraised land value or sale price; parkland guidelines and requirements; credits up to 50% for private parks; 1 acre/77.3 ppl;
Fort Worth	882,972			
Frisco	188,170			
Georgetown	74,180			
Grapevine	53,976			
Houston	2,358,708			
Hutto	26,434	X \$300/Dwelling unit \$175/MFU	X \$500/Dwelling unit \$800/nonresidential	
Keller	47,350			
Kerrville	23,729	X	None	1 acre/42 SFU; no less than one acre; no computation found
Kyle	46,874			
Lake Jackson	27,533	X \$295/SFU and \$252/MFU	None	Last updated in 2007; ½ acre/100 ppl; calculations based on market value \$18K/1 acre
La Porte	34,976			
Laredo	268,976			
League City	106,244			
Leander	56,111			
Lewisville	106,586			
Little Elm	50,314			
Mansfield	72,419			

McKinney	191,645			
Missouri City	74,705			
Murphy	20,611	X \$1200/Dwelling unit	None	1 acre/100 ppl; no smaller than 5 acres
New Braunfels	84,612			
North Richland Hills	70,836			
Pearland	122,149			
Pflugerville	64,431			
Pharr	79,707			
Plano	295,013			
Prosper	22,358	X \$1500/SFU and \$2000/MFU	X	1 acre/35 ppl or 5% of tract
Rockwall	45,112			
Rosenberg	40,269			
Round Rock	128,739			
Rowlett	66,285			
Sachse	26,122	X \$1100 SFU and \$600 MFU	X \$2450.42 SFU \$1501.53 MFU \$1261.70 Townhome \$1428.54 MF \$656.92 Senior Detached \$385.81 Senior Attached \$531.79 Assisted Living	1 acre/100 ppl
San Antonio	1,457,400			
San Marcos	63,509			
Schertz	41,057			
Seguin	29,700	X \$400/Dwelling unit	X \$800/Dwelling unit	1 acre/ 75 DW; Director determines location and park amenities; 75% of required dedication may be satisfied through a private park; Development standards
Southlake	32,269			
Stephenville	21,247	X	Voluntary	1 acre/ 35 ppl but no less than 5 acres

		\$800 SFU and \$400 MFU		
Temple	76,256			
The Colony	43,402			
Universal City	20,773	X Values differ based on appraised value of land	None	Minimum of 2 acres based on appraised lot value
Waxahachie	36,807			
Weslaco	41629			
Wylie	51,585			

An Analysis of Parkland Dedication Ordinances in Texas

John L. Crompton

EXECUTIVE SUMMARY: Parkland dedication ordinances from 48 Texas cities were analyzed. All ordinances incorporated a land requirement and a fee in lieu alternative to it, but only 10 of them contained a provision for a park development fee. Most of the cities that imposed a fee in lieu and/or park development fee appeared to derive them arbitrarily rather than empirically, which is unlikely to be accepted by the courts. A recommended approach for calculating the level of service that meets the U.S. Supreme Court's criterion of "rough proportionality" is provided. Other widespread limitations among the ordinances were a failure to: incorporate a time period for expending fees; give credit for private amenities within a development; extend ordinances beyond the level of neighborhood parks and to subdivisions in the extra territorial jurisdiction; and mandate periodic reviews of ordinances to update them. Reasons for the underutilization of parkland dedication ordinances identified in the analyses and strategies for rectifying this issue are addressed by posing three questions. First, what are the sources of the unrealized potential of parkland dedication ordinances? Three reasons relating to their myopic scope are identified: failure to extend ordinances beyond neighborhood parks to embrace community and regional parks; failure to extend ordinance requirements into cities' extraterritorial jurisdictions; and inability to take advantage of reimbursement provision ordinances. A second source of their unrealized potential is the failure to set dedications at a level that covers all the costs associated with the acquisition and development of the additional park capacity required to meet the demands of new residents. The second question was, why is their potential not being realized? Two reasons are suggested: inertia, and vigorous opposition from the development community. The inertia stems from the ordinances not appearing on the agendas of many elected officials because no requirement is included that they be reviewed at regular intervals. Developers routinely oppose any expansions of these ordinances and they are a powerful political constituency in many communities. Rebuttals to the developers' arguments are provided. The third question asks, why should elected officials warmly embrace parkland dedication? There are three reasons: it is fiscally conservative in that those who are benefitting from the service are paying for it; the alternatives are to raise taxes on existing residents or lower the community's quality of life, neither of which are politically attractive;

and a recognition that parkland dedication requirements are not likely to lead to any resident being unable to afford a new home.

KEYWORDS: Parkland dedication, impact fees, exactions, Texas

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Parkland dedication is a local government requirement imposed on subdivision developers or builders, mandating that they dedicate land for a park and/or pay a fee to be used by the government entity to acquire and develop park facilities. These dedications are a means of providing park facilities in newly developed areas of a jurisdiction without burdening existing city residents. They may be conceptualized as a type of user fee because the intent is that the landowner, developer, or new homeowners, who are responsible for creating the demand for the new park facilities, should pay for the cost of new parks.

The philosophy is that because new development generates a need for additional park amenities, the people responsible for creating that need should bear the cost of providing the new amenities. Neighborhood and community parks are intended to serve those people in the areas proximate to them. Thus, they make no positive contribution to the quality of life of existing residents, suggesting there is no reason why existing residents should be asked to raise their taxes to pay for them. In essence, what a community is saying to new residents is: "This is the quality of life we have here. If you move here, we expect you to maintain it. If you are not willing to pay this parkland dedication fee, then go elsewhere where the fee is lower, because that city has an inferior park system."

An appealing feature of parkland dedication is that it is responsive to market conditions. If fewer new people come to the city than predicted, then less money is forthcoming, so fewer parks are built. Similarly, as costs for acquisition and development of parks increase (or decrease), then parkland dedication requirements can be increased (or decreased) accordingly.

Perspectives toward parkland dedication are likely to vary among different stakeholders: elected officials, developers, new residents and existing residents (Crompton 1997). However, from the perspective of elected officials, who are the key decision makers on this issue, parkland dedication enables them to protect the interests of current residents and to manage growth. A basic and long-held principle of growth management is that development must be supported by adequate public facilities and services and that private and public investment must be coordinated to achieve that objective. Parkland dedication ordinances are intended to ensure that park facilities are available when homeowners purchase their new homes, and to avoid authorizing development without ensuring that the park infrastructure necessary to support the new demands is available.

The purpose of this paper is to report on the present status of parkland dedication ordinances in Texas. A survey was sent to all municipalities in Texas that were known to have public park amenities. Out of the 117 cities that were contacted, 83 responded and 48 reported they had parkland dedication ordinances. Copies of all those ordinances were obtained and can be viewed at www.rpts.tamu.edu/landdedication.¹ This paper analyzes the content of those 48 ordinances.

Literature Review

Parkland dedication in the U.S. has a 90-year history. The first ordinance was passed by the State of Montana in 1919. It stated, "For the purpose of promoting the public comfort, welfare and safety, such plat and survey must show that at least one-ninth of the platted area, exclusive of streets, etc., is forever dedicated to the public for parks and playgrounds." In 1923, the City of Bluefield, West Virginia, required "Not less than five per cent of the area of all plats shall be dedicated by the owner for parks and playground purposes except in the case of a very small area." (Weir, 1928).

The earliest parkland dedication ordinances in Texas were enacted by Corpus Christi in 1955; Deer Park in 1959; and Carrollton in 1962. Wichita Falls enacted an ordinance in the 1950s, but rescinded it in the 1970s. Two earlier studies have reported on the status of parkland dedication ordinances in Texas. In 1977, Ehman (1979) surveyed 107 Texas cities. He received responses from 59 of them, and 12 reported having a parkland dedication ordinance. However, two of the 12 municipalities reported that they did not enforce their ordinance because of the questionable legality of such ordinances at that time. Ten years later in 1987, 183 Texas communities were contacted. Of these, 113 responded (62%) and 19 of them reported having parkland dedication ordinances (Fletcher, Kaiser, & Groger, 1992).

In those early days of parkland dedication ordinances, there was some doubt about their legality in Texas. Some claimed that they were unconstitutional because such ordinances violated the Fifth Amendment to the U.S. Constitution, the last twelve words of which state, "nor shall private property be taken for public use, without just compensation." However, in 1984, the Texas Supreme Court concluded in *City of College Station vs Turtle Rock Corporation* that requiring parkland dedication or fees in lieu "was a valid exercise of the city's police power because it was substantially related to the health, safety and general welfare of the people."

Before the *Turtle Rock* case, there were fewer than 10 cities in Texas with active ordinances. Once doubts relating to the constitutionality of such ordinances were removed in 1984, there was a marked increase in the number of cities adopting them, with an additional 15 cities passing ordinances between 1985 and 1989. Since 1989, a further 16 cities have enacted parkland dedication ordinances.

There is sometimes confusion between parkland dedication fees and impact fees. Parkland dedications emanate from the "police powers" of Texas home rule municipalities, which enable cities to take actions that promote the health, safety, and welfare of their residents. In contrast, impact fees require state legislative statutory enabling authority before they can be imposed. Among the 27 states that have passed impact fee enabling legislation, 22 of them authorize impact fees for park and recreation amenities. Only in Texas, Illinois, New Jersey, Pennsylvania, and Virginia does the impact fee authorization not embrace parks (Duncan and Associates, 2007). In the other 22 states, it is possible for cities to impose both parkland dedication fees and impact fees. The latter can be used to fund a much wider array of recreational opportunities than basic park amenities.

However, this enabling authority for impact fees does not exist in Texas. Indeed, in 1986, when the Texas legislature authorized impact fees they were confined only to "water supply, treatment and distribution facilities; wastewater collection and treatment facilities; storm water, drainage, and flood control facilities, and roadway facilities." With the *Turtle Rock* case fresh in their minds, the conservative Texas legislature specifically stated in the 1986 legislation: "The term [impact fee] does not include dedication of land for public parks or payment in lieu of the dedication to serve park needs."

The earliest parkland dedication ordinances in Texas were confined to *land*. They required the developer to deed a specified acreage which was based on the number of

residents expected to reside in an area. There were three inherent weaknesses in these ordinances:

1. Because most developments are small, only small fragmented spaces would be provided.
2. The land dedicated by the developer was likely to be the least suitable for building upon (often drainage ditches, floodplain or detention ponds) and it may also be unsuitable for park use.
3. Location of the parkland was determined by the location of the development.

These limitations quickly encouraged cities to broaden their ordinances so they authorized communities to require developers to contribute cash instead of dedicating land. These cash payments were termed, *fees in lieu*. They gave the city the option of declining a dedication of land and instead requiring the developer to pay a sum based on the fair market value of the land that otherwise would have been dedicated.

The *Turtle Rock* case established the constitutionality of parkland dedication in Texas, but it required that “regulation must be reasonable.” It defined reasonable as “a reasonable connection between the increased population arising from the subdivision development and increased park and recreation needs in the neighborhood.” This definition was rather nebulous, so after *Turtle Rock*, the focus of most legal challenges shifted away from whether parkland dedication was constitutionally legal to debating what constitutes a reasonable dedication requirement.

A definitive guideline for answering this question was provided a decade later in *Dolan vs City of Tigard* (512 U.S. 374. 1994) in which the U.S. Supreme Court ruled there must be a “rough proportionality” between the conditions imposed on a developer and demand from the projected development. The Court stated, “no precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication is related both in nature and extent to the impact of the proposed development.” The Court went on to note that in making the “individualized determination,” “the city must make some effort to quantify its findings in support of the dedication.” Thus, to survive a constitutional challenge, *Dolan* requires a city to demonstrate a “roughly proportional” quantitative relationship between dedication requirements imposed on a developer and the increased demands of the proposed development on its parks system.

In the *Turtle Rock* case, the Texas Supreme Court stated that the “burden rests on the real estate developer to demonstrate that there is no such reasonable connection” in any challenge to an ordinance. Thus, previous to the *Dolan* case, Texas developers challenging a city’s dedication ordinance had to prove it was unfair. The *Dolan* decision shifted the burden of proof to cities so they must now justify that an ordinance is fair. It requires cities to make individualized determinations that every parkland dedication affects a roughly proportional response to the demand generated by a development. This is a radical change that most Texas cities have not embraced in their ordinances. Failure to consider it leaves them vulnerable to their ordinances being successfully challenged and ruled illegal.

The requirements of the Supreme Court’s ruling are manifested in the introductory rubric of the City of Mansfield’s ordinance which states:

The City of Mansfield has adopted by Council action the Mansfield Parks, Open Spaces and Trails Master Plan, which provides planning policy and guidance for the development of a municipal park and recreation system for the City of Mansfield. The plan has assessed the need for park land and park improvements

to serve the citizens of Mansfield. The plan has carefully assessed the impact on the park and recreation system created by each new development and has established a dedication and/or cost requirement based upon individual dwelling units. The plan constitutes an individualized fact based determination of the impact of new living units on the park and recreation system and establishes an exaction system designed to ensure that new living units bear their proportional share of the cost of providing park and recreation related services. Park land dedication requirements and park development fee assessments are based upon the mathematical formulas and allocations set forth within the plan.

Texas's interpretation of the *Dolan* cases has been codified in the Texas statutes (212-904) which mandate that,

“the developer’s portion of the costs may not exceed the amount required for infrastructure improvements that are roughly proportionate to the proposed development.”

The guidance provided by the *Turtle Rock*, *Dolan*, and some subsequent cases where courts have provided some minor clarifications of issues articulated in those two major cases, suggest there are four broad criteria for assessing the constitutionality of parkland dedication ordinances in Texas. These four criteria provide the framework for this paper: a) method of calculating a parkland dedication requirement demonstrating it is proportionate to the need created by a new development, b) adherence to the nexus principle, c) time limitation for expending fees in lieu, and d) scope and range of the ordinance.

Calculating the Amount of a Park Dedication Requirement

The dedication requirement in a parkland dedication ordinance should be comprised of three elements: a) a land requirement, b) a fee in lieu alternative to the land requirement, and c) a parks development fee. The first two elements were incorporated in all 48 Texas's ordinances reviewed in this study, but the park development fee is a more recent addition to ordinances and has been incorporated in only 10 of them.

A problem with ordinances that contain only the land and fee in lieu elements is that they provide only for the acquisition of land. The additional capital needed to transform that bare land into a park is borne by existing taxpayers. In some instances, the result is that the dedicated land is never developed into a park and remains sterile open space which detracts from a community's appeal rather than adding to it. This led 10 Texas communities to expand their ordinances to incorporate a park development fee element to pay for the cost of transforming the land into a park. Thus, the scope of parkland dedication ordinances in Texas has broadened as they have gained legal and public acceptance.

The most widely accepted approach to meeting *Dolan's* “rough proportionality” criterion is to assume that new residents' demands will require the same level of service as those of existing residents in the community. It is important to note that the courts have consistently ruled that standards for new residents cannot be set at a higher level than those prevailing for existing residents. Thus, deficiencies in supply of park amenities arising from demand generated by earlier development cannot be funded by imposing higher dedications on new developments. A recommended approach for calculating a parkland dedication requirement based on existing level of service is illustrated in Table 1, which describes how the City of College Station ascertained its parkland dedication requirement for both neighborhood parks and community parks. There are four parts to the calculation.

Table 1. Park Land Dedication and Development Fees Methodology for Neighborhood and Community Parks.

**Dedication Requirements for Neighborhood Parks
in the City of College Station**

- 1. Land Requirements:** The current level of service is one (1) acre per 285 people.
2008 Total Population: 87,758

2.80 Persons per Household (PPH) for Single Family and 2.28 PPH for Multi-Family based on Census information for owner and renter-occupied units.

Single Family

285 people/2.80 PPH = 102 DUs

1 Acre per 102 DUs

Multi-Family

285 people/2.28 PPH = 125 DUs

1 Acre per 125 DUs

- 2. Fee in Lieu of Land:** (*Assume 1 acre costs \$32,000 to purchase*).

Single Family

\$32,000/102 DUs = \$314 per DU

Multi-Family

\$32,000/125 DUs = \$256 per DU

- 3. Park Development Fee**

- The cost of improvements in an average neighborhood park in College Station is \$630,520.
- One neighborhood park serves 2,309 people, based on a total city population of 87,758 being served by 38 parks (count includes neighborhood parks and six mini parks).
- It costs \$273 per person (\$630,520/2309) to develop an average neighborhood park.

Single Family

\$273 x 2.80 PPH = \$764 per DU

Multi-Family

\$273 x 2.28 PPH = \$622 per DU

- 4. Total Neighborhood Park Fee**

Single Family

\$314 + \$764 = \$1,078

Multi-Family

\$256 + \$622 = \$878

The neighborhood parks calculation is used for the purpose of illustration. Part 1 derives the current level of service of one acre per 285 people for neighborhood parks by dividing the city's population by its existing neighborhood public park acreage. The level of service standard is transformed to dwelling units (DUs) by dividing the 285 people by the average number of people in single and multi-family dwellings. These averages are available from the U.S. Census Bureau. This establishes the land dedication requirement at one acre per 102 DUs for single family and per 125 DUs for multi-family units.

Part 2 calculates the fee in lieu based on an average land cost in the city of \$32,000 per acre. In larger cities, there may be merit in calculating different average land values

in different areas of the city because land values vary widely. For example, fees in lieu in the city of Austin average \$650 across the city, but Austin divides the city into three zones: Western, Central, and Eastern, and imposes different fees in each zone. Thus, the fees in lieu per unit for developments in densities with fewer than six units per acre are \$840, \$630, and \$420 for the three zones, respectively. Similarly, the city of Rockwall has 25 park district areas, each with a different per lot fee ranging from \$151 to \$620. The different fees in lieu will not penalize lower land value areas where most affordable housing is constructed, and they will capture higher land values from areas where the most expensive housing is located.

Part 3 in Table 1 calculates the park development fee. This was done by listing the elements incorporated in a typical College Station neighborhood park and costing them. These development costs are divided by the average number of people served by a neighborhood park. The resultant fee of \$273 per person is then multiplied by the number of people per household to derive dwelling unit fees of \$764 and \$622 for single and multi-family units, respectively. Part 4 aggregates Parts 2 and 3 to derive total neighborhood park fees of \$1,078 and \$878 for single and multi-family units, respectively. If the city accepted land (Part 1) rather than a fee in lieu (Part 2) the developer would be required to pay only the park development fee.

Overview Of Parkland Dedication Requirements In Texas Cities

Table 2 reports the current level of parkland provision for the Texas cities with dedication ordinances in column 5. These data are expressed in terms of dwelling units per acre of parkland. This is derived by dividing column 3 by column 4. The number of dwelling units in column 3 was extracted from U.S. Census Bureau data. In columns 6 through 9, Table 2 uses the same DUs measure to report the current dedication requirements for parkland in terms of DUs per acre and for the alternative fee in lieu option.

The disparity is striking between the ratios in column 5, which calculate the current level of park provision, and those in column 6, which report the parkland dedication requirement. If the criterion of “rough proportionality” was being applied, then these ratios should be identical. These comparative data clearly indicate that, based on the Supreme Court ruling, in almost all Texas cities, the current parkland dedication requirement is much too low.

Calculation of the Parkland Dedication Requirement

Most cities responding to the survey express their current parkland dedication requirements in terms of DUs per acre. In some instances, the requirement for single-family and multifamily dwelling units are different. For example, in College Station, the single-family unit requirement for neighborhood parks is 102 DUs per acre, while for multi-family developments, it is 125 DUs per acre. This recognizes that both size of household and building density are likely to be different within these two categories. Hence, the amount of parkland needed to meet the needs of their residents and maintain the existing level of service will be different.

There were four Texas cities whose dedication requirements are expressed as a percentage of the tract to be developed. Corpus Christi and Deer Park both require 5% of the total land area of the subdivision, while in Elgin the amount is 8%. Leander uses both the acres per 1000 population and tract percentage in its ordinance: “two and a half (2.5) acres for each 100 new dwelling units or 5% of the total project area, whichever is greater.”

The percentage of tract approach has the advantage of simplicity and ease of computation, but it takes no account of development density. Although the park demands generated obviously will differ according to the number of people residing in a development

Table 2. Current Parkland Dedication Requirements in Texas Cities.

	Dwelling Units		Current Level of Parkland Provision		Land Dedication Req.		Fee-in-Lieu**	
	Population	# DU	Total Park Acreage	DU/Acre	DU/Acre	DU/Acre Multi family	SDU	MDU
Avin	21,500	8,442	740.00	11.41	100.00		\$ 300.00	\$ -
Angleton	18,130	7,220	100.00	72.20	200.00		\$ 1,083.00	\$ 250.00
Austin	656,562	276,842	16,862.00	16.42	83.33		\$ 650.00	\$ -
Bryan	72,015	25,703	580.00	44.32	74.00		\$ 162.00	\$ 133.00
Cedar Hill	43,500	11,075	653.75	16.94	133.00		\$ 250.00	\$ -
Cedar Park	45,000	8,914	847.00	10.52	41.67		\$ 720.00	\$ 480.00
College Station	88,183	34,619	1,274.00	27.17	102.00	125.00	\$ 619.00	\$504
Colleyville	21,720	6,549	202.00	32.42	25.00		\$ 1,802.00	\$ -
Corinth	18,000	4,100	179.00	22.91	50.00		\$ -	\$ -
Corpus Christi	293,122	107,831	1,586.46	67.97	NA		\$ 5% of total value	\$ -
Deer Park	30,000	9,921	527.00	18.83	NA		\$ 5% of total value	\$ -
Denton	105,000	32,716	1,158.00	28.25	170.21		\$ 250.00	\$ -
Edinburg	68,802	16,031	253.00	63.36	125.00		\$ 300.00	\$ -
Flower Mound	60,450	16,833	575.00	29.27	29.76		\$ 1,416.00	\$ -
Frisco	89,000	13,683	1,300.00	10.53	100.00		\$ -	\$ -
Grapevine	46,684	16,486	1,492.00	11.05	145.20		\$ -	\$ -
Haltom	39,000	15,716	184.00	85.41	150.00		\$ -	\$ -
Highland Village	14,500	4,009	354.00	11.32	N/A		\$ 2,160.00	\$ -
Houston	1,953,631	783,009	19,699.00	39.75	55.50		\$ 700.00	\$ -
Hutto	14,000	424	150.00	2.83	50.00		\$ 1,000.00	\$ -
Keller	34,800	9,216	415.00	22.21	30.00	60.00	\$ 490.00	\$ -
La Porte	33,500	11,720	188.00	62.34	93.00		\$ 1,000.00	\$ -
League City	62,500	17,280	1,041.00	16.60	90.00		\$ 550.00	\$ -
Leander	23,000	2,612	90.00	29.02	NA	10.54	\$ 750.00	\$ -
Lewisville	89,000	31,764	1,100.00	28.88	33.00		\$ 500.00	\$ -
McKinney	110,000	19,462	1,604.00	12.13	50.00		\$ 900.00	\$ -
Mansfield	55,000	9,172	664.00	13.81	100.00		\$ 100.00	\$ -
Missouri City	63,910	17,481	848.99	20.59	150.00		\$ 100.00	\$ -
New Braunfels	45,000	14,896	408.00	36.51	150.00		\$ 100.00	\$ -
Pearland	70,000	13,922	376.92	36.94	100.00		\$ 467.47	\$ 323.96
Pflugerville	30,000	5,239	450.00	11.64	50.00		\$ 151.00-620.00	\$ -
Plano	240,000	86,078	3,800.00	22.65	N/A		\$ 325.00	\$ -
Rockwall	30,000	7,089	480.00	14.77	67.00	250.00	\$ 350.00	\$ -
Rowlett	53,000	14,580	994.00	14.67	71.92		\$ 200.00	\$ -
San Antonio	1,282,800	433,122	16,310.00	26.56	70.00	114.00	\$ 150.00	\$ -
Southlake	24,900	6,614	644.10	10.27	40.00		\$ 150.00	\$ -
Sugarland	74,472	21,090	896.30	23.53	114.38		\$ 225.00	\$ -
Temple	58,447	23,511	727.00	32.34	133.00		\$ 200.00	\$ -
The Colony	36,000	8,812	1,925.00	4.58	64.00		\$ 150.00	\$ -
Waxahatche	25,000	7,909	230.00	34.39	100.00		\$ 150.00	\$ 350.00
Weslaco	32,000	10,230	250.00	40.92	N/A		\$ 150.00	\$ 800.00
Wylie	32,000	5,326	592.00	9.00	20.00		\$ 150.00	\$ 800.00

^a This does not include park development fees.

adopting the percentage approach means the dedication requirement remains the same regardless of the number of people per acre living in the homes that are constructed. This approach fails to meet the “rough proportionality” standard and is likely to be rejected by the courts.

Calculation of the Fee in Lieu

All the ordinances reviewed for the study authorized communities to require developers to contribute cash instead of dedicating land. The conceptual criterion for determining the amount of cash for a fee in lieu is that it should be equal to the fair market value of the land that would have been dedicated if the community had selected that option. This criterion was explicitly cited in the ordinances of 15 Texas cities. However, there was wide divergence among these cities on the operationalizations they used to establish the equivalence of fair market values.

Some of the methods of determining the fee in lieu may be challengeable in the courts. For example, the Leander ordinance requires “fair market value...or a minimum of \$550 per residential unit, whichever is greater.” It seems unlikely that the city could defend a fee that is higher than fair market value! The Allen ordinance states, “Payment of money in lieu of land will be sufficient to acquire and develop neighborhood parks at a rate set by the Council by resolution.” It does not speak to the methodology that is used to arrive at that rate, which likely will be defensible only if it is no higher than fair market value. The Allen situation exemplifies a common potential problem among the ordinances in that fair market value frequently is presented as a fixed amount per DU. How that amount is derived is unknown. At least in some cases, it is likely that it is arbitrarily determined, which is an approach courts have rejected. However, given that cities have a tendency to fix the amount far below fair market value, this practice is unlikely to be challenged by developers.

Some cities, for example, Rockwall and Haltom, commit to annually revise the fee in lieu amount to reflect changes in land values. Thus, the Haltom ordinance states:

Annually during the budget adoption process the city council shall establish a raw acreage acquisition cost figure to be used in calculating park fees. The council shall, after reasonable study and investigation, and based upon the best available information as to land and property values within the community, determine what the cost would be of acquiring one acre of vacant land in a developing area of the community. This figure shall be the raw acreage cost under which all park fees are calculated for the budget year. The amount of the fee per dwelling unit shall thereafter be established by resolution of the city council on an annual basis.

In some instances, equivalency is determined at the site level. This means that a unique market value has to be determined for each development. For example, Denton’s ordinance states:

The value of the land shall be calculated as the average estimated fair market value per acre of the land being subdivided at the time of preliminary plat approval... If the Developer/Owner objects to the fair market value determination, the Developer/Owner at his own expense, may obtain an appraisal by a State of Texas certified real estate appraiser, mutually agreed upon by the City and the Developer/Owner.

This approach gives the city the prerogative of establishing the fair market value, but provides the developer with the right to contest it at his/her expense. An alternative

approach is for the city to offer developers a per-unit option based on an average city valuation of the land so they have two methods to pick from. This was used in Austin.

The Colony dedication ordinance provided for the city council to use one of three approaches for ascertaining fair market value. Presumably the city could calculate the requirement yielded by all three methods and pick whichever the council preferred:

In determining the average per acre value of the total land included within the proposed residential development, the Council may base its determination on one or more of the following: a) the most recent appraisal of all or part of the property made by the Central Appraisal District; b) confirmed sale prices of all or part of the property to be developed, or comparable property in close proximity thereof, which have occurred within two 2) years immediately preceding the date of determination; or c) Where, in the judgment of the Council, a) or b) above would not, because of changed conditions, be a reliable indication of the then current value of the land being developed, an independent appraisal of the whole property shall be obtained by the City and paid for by the developer.

Many cities operationalize fair market value by equating it to the appraised value established by the county tax assessor. Despite the legal requirement in Texas that assessed value should be set at fair market value, there is widespread recognition that many tax assessors set their appraisals below fair market value in order to avoid the costs associated with large numbers of property owners contesting their valuations. To counter this tendency to “low ball” appraisals, the McKinney ordinance authorizes the city council to upgrade the county assessor’s appraised value if the council elects to do so:

Any payment of money required to be paid by this article shall be in an amount equal to the value of the property established by the most recent appraisal of all or part of the property made by the central appraisal district. Periodically the city may have an independent appraisal conducted for a sampling of properties to determine if the appraised value established by the central appraisal district is appropriate. The city council may adjust the amount assessed based on any difference between the value of property established by the central appraisal district and the value of property per the independent appraisal. The adjustment shall be a percentage change to all properties of the values established by the central appraisal district.

The San Antonio ordinance arbitrarily caps the maximum fee in lieu that can be charged at \$30,000 per acre, presumably as a result of pressure from the development community, although it does allow for an annual inflation adjustment. To alleviate political pressure on the city council, the San Antonio ordinance requires that fee in lieu valuations be undertaken by an independent “third party.” Presumably, this is an attempt to arrive at a valuation, which is transparently free of vested interest and influence that may be exerted, by developers or the city. The ordinance states:

Beginning in 2010, and once every fifth (5th) year thereafter, the fair market value cap may be adjusted based on the evaluation and recommendation of a consultant selected and engaged by the City.

Some cities which require only that land be dedicated and do not impose a park development fee, authorize developers to make improvements to existing parks in lieu of paying a park dedication fee. The city of Elgin’s ordinance for example, authorizes this:

The director of public works may recommend to the planning and zoning commission that a developer dedicate park improvements in lieu of park land, equivalent to the cash contribution herein.

League City was alone in specifically prohibiting the possibility of developers receiving credit for park improvements:

The developer may, at his option, improve the park area. Improvements to the recreational sites cannot be used as credit towards the Land Dedication or the Regional [Parks] Fee.

Calculation of Park Development Fees

The survey revealed that among the 48 municipalities with parkland dedication ordinances in Texas, only 10 had expanded their ordinances to include a park development component. The park development fees charged in these cities are listed in Table 3. In three of the 10 cities, a different park development fee was charged for single-dwelling units (SDU) than for multiple-dwelling units (MDU).

Table 3. Park Development Fee Amounts.

City	All	SDU	MDU
Bryan	--	\$385	\$292
Cedar Hill	\$250	--	--
College Station	--	\$1402	\$1,142
Denton	--	\$291	\$187
Flower Mound	\$790	--	--
Highland Village	\$1,025-\$1,447 (based on level of service)	--	
La Porte	\$318	--	--
Mansfield	\$750	--	--
New Braunfels	\$500	--	--
Rockwall	\$202- \$831 (depending on district level of service)	--	

Four of the 10 communities use language similar to that incorporated in the La Porte ordinance:

Such park development fee shall be set from time to time by ordinance of the City Council of the City of La Porte sufficient to provide for the development of amenities and improvements on the dedicated land to meet the standards for a neighborhood park to serve the area in which the subdivision is located. Unless and until changed by ordinance of the City Council of the City of La Porte, the park development fee shall be calculated on the basis of \$318 per dwelling unit.

In these four cases, the fee is specified, but the basis used to calculate it is not attached to the ordinance. The rounded nature of some of the park development fees of these cites (e.g. \$250, \$500, and \$750) and their wide disparity, suggests there was a degree of arbitrariness in fixing these fees, which is unlikely to be accepted by the courts.

The other seven cities provide an empirical basis for deriving their park improvement fees. In four cases, the cost of a typical neighborhood park is cited as the basis for the fee. For example, the Denton ordinance states: “Based on an assumed cost of typical improvements for a five-acre park of \$208,000.” The neighborhood development costs used by Flower Mound, Highland Village, and Rockwall are \$117,600, \$293,500, and \$375,000, respectively. The Rockwall ordinance is unique in requiring annual reviews of the park development fee:

A uniform cost shall be prepared annually for the park features set forth for a neighborhood park in the Activity Menu for the Park Plan, and adopted by the City Council. The dedication factor shall be applied to the cost to determine the pro-rata share per new dwelling unit for recreational improvements-facilities.

The cities of College Station and Bryan are the only cities whose ordinances provide empirical details as to how their park improvement costs were derived. The derivation for College Station’s neighborhood parks was shown earlier in Table 1. The cities of Cedar Hill, College Station, Flower Mound, and Mansfield authorize developers to construct improvements at a park in lieu of paying the park development fee. Thus, the Mansfield ordinance states:

In lieu of payment of the regional park development fee, the developer, with approval of the Director, may have the option to construct the neighborhood park improvements.

None of the 48 ordinances made provision in their calculations of the fee in lieu or park development fee for giving a credit to new homeowners for tax payments made to retire the debt of similar existing parks in other areas of the city. Conceptually, this is a nuance which should be incorporated.

If residents of new subdivisions are required to finance new parks for which they generate a need, then it may be argued that they should not have to help retrieve outstanding debt for development of similar existing parks elsewhere in the community, which frequently they are required to do because it is incorporated into their ad valorem tax. If the rest of the community does not share the cost of their parks, residents of new developments should not have to pay for the rest of the community’s parks of that type. In the past, this concern has not been prominent because the intent of parkland dedication was limited to financing only the land acquisition cost; the whole community paid for development costs. However, with the trend towards incorporating a development fee element in the dedication, this equity concern is likely to become more prominent.

The Leverage Potential of Dedication Ordinances

One of the implications of existing level of service being the benchmark used to determine “rough proportionality” is that investments in parkland by a city leverage the dedication amount that can be required from developers. This is illustrated in Table 4, where City A’s initial investment of \$16 million (200 acres) in general obligation bonds leveraged private investment of an additional \$40 million (500 acres) over the 10-year growth period used in the table’s scenario. In contrast, City B’s much lower initial investment of \$1.6 million (20 acres) in general obligation bonds established a much lower level of service which meant that it could leverage only \$4 million (50 acres) from private developers during the same 10-year period.

Clearly, it is advantageous for small cities that anticipate future growth to invest substantially in park areas in their early stages of development, because that investment could be used to leverage relatively large dedications from developments as the city grows. If they fail to do this, then such cities subsequently will have to adopt the much more challenging political strategy of requesting residents to approve bond issues for park land to achieve a given desired level of service.

Table 4. Illustration of How a City's Investment in Parkland Provides the Potential for Leveraging Private Development Investment in Parks.

Scenario:

- (i) Cities A and B both have a population of 10,000 (i.e. 4000 dwelling units).
- (ii) Both cities will increase to 25,000 population (i.e. 10,000 dwelling units) in the next 10 years.
- (iii) City A has invested in 200 acres of public parkland, while City B has invested in 20 acres of public park land. Thus, the existing levels of service are:
City A: 1 acre per 20 Dwelling Units (4000/200)
City B: 1 acre per 200 DUs (4000/20)
- (iv) Land costs in both cities are \$30,000 per acre
- (v) Park development costs in both cities are \$50,000 per acre.

Initial Investment in Parks with G.O. Bonds

	City A	City B
Cost of Land	200 acres @ \$30,000 = \$6 million	20 acres @ \$30,000 = \$600,000
Park Development Costs	200 acres @ \$50,000 = \$10 million	20 acres @ \$50,000 = \$1 million
Total Initial Investment	\$16 million	\$1.6 million

Private Investment Required by a Parkland Dedication Ordinance

	City A	City B
Potential dedication requirement over the 10-year period	10,000 pop/20DUs = 500 acres	10,000 pop/200 DUs = 50 acres
Value of land dedicated	500 acres @ \$30,000 = \$15 million	50 acres @ \$30,000 = \$1.5 million
Park development costs dedicated	500 acres @ \$50,000 = \$25 million	50 acres @ \$50,000 = \$2.5 million
Total Private Dedication	\$40 million	\$4 million

Conclusion

- At the end of 10 years' growth, City B would have to issue an additional \$36 million in GO Bonds (\$40 million - \$4 million) to catch up with the amount of parkland it had failed to accrue in that 10-year period.
- Thus, the total investment of taxes for providing equal provision of parkland would be \$16 million in City A and \$37.6 million (\$36 million + \$1.6 million) in City B.

Credit for Private Park and Recreation Amenities

The provision of private park and recreation amenities within a subdivision for the exclusive use of residents within that subdivision compounds the problem of calculating the “rough proportionality” between a dedication requirement imposed on a developer and the increased demands of the proposed development on the parks system. Presumably, the private amenities will absorb some of the demand generated by the new homes that would otherwise have had to be accommodated by public parks. This reduced demand for public parks suggests that credit has to be given for private amenities when calculating the dedication requirements. Out of the 48 ordinances reviewed, 27 made no provision for giving credit for private amenities. A credit of “up to fifty percent” was the most frequently authorized credit, appearing in the ordinances of 12 cities. The wording of the Corpus Christi ordinance was typical:

Up to fifty (50) percent of the park dedication requirement may at the discretion of the City, be fulfilled by privately owned and maintained park and recreation facilities. Credit for private parkland must meet the standards of the Parkland Dedication Guidelines concerning adequate size, character and location.

In 11 of these 12 ordinances, no guidance was given on how to determine how much credit should be allowed up to a maximum of 50 percent. Leaving this decision to “the discretion of the city” introduces an element of arbitrariness that could result in similar developments being treated differently. The city of Haltom attempted to remove some of this arbitrariness by specifying credits for individual park elements so a development’s aggregate credit for private amenities depended on how many of these elements the amenities incorporated. In determining the eligibility for credit, the following criteria were developed with each element allowing for a 10% credit: a) exceeding the open space requirement by more than 25%, b) providing swimming pool(s), c) providing playgrounds, d) providing volleyball, basketball, and/or tennis courts, e) providing walking/jogging trails.

Whenever credit is given for private amenities, the ordinances invariably include requirements that ensure a stable source of funding is available to maintain and renovate the facilities. For example, the Grapevine ordinance states:

The city council may ... allow the open space and park and recreational areas ... to be restricted to the use and enjoyment of residents of the particular development or subdivision ... such areas shall be maintained by and deeded to a homeowners’ association, or a trustee ... the homeowners are liable for the payment of maintenance fees and capital assessments ... unpaid homeowners’ fees and assessments will be a lien on the property of the delinquent homeowners.

Ordinances in four cities authorize credit up to 100 percent. Thus, El Paso allows: “Up to a one-hundred percent reduction from the initial parkland dedication requirement for the installation of private amenities.” The Rockwall ordinance offers the 100 percent credit, but “the park property within the private development must be easily accessible to the general public either through the use of the city trail system or public roadways.” Thus, to qualify for the credit the private park amenities cannot be for the exclusive use of the subdivision’s residents.

San Antonio authorizes up to 100 percent credit but, like the city of Haltom, the amount of credit is linked to specific elements included in a private park. For example, one element is “open play areas” for which the credit is a maximum of one acre for every five

acres of parkland dedication, while a swimming pool “may count towards no more than 50% of the parkland dedication requirement.”

The cities of Elgin, Leander, Mansfield, and Pflugerville did not specify an upper amount for the credit. The Elgin ordinance characterized the position of three of those cities:

Subdividers and developers may be allowed a credit against the park land dedication requirement for private parks or recreational facilities. ... The director of public works shall recommend to the planning and zoning commission the amount of the credit to be allowed, if any.

The city of Mansfield is most sensitive to meeting the requirements of “rough proportionality” and states:

The developers shall reserve a proportional credit, as determined by the Director, based on actual out-of-pocket dollar costs that the developer incurred for the improvement of the private park or recreational facility.

There is a challenge in operationalizing “proportionate credit.” If a developer constructs such amenities as tennis courts, a swimming pool, or a golf course for the private use of a subdivision’s residents, how much demand for public parks do the amenities absorb? Given the difficulty of considering such a question, the Mansfield ordinance suggests perhaps the only equitable way to give credit is to do it on a cost basis. Thus, the cost of the private amenities would be deducted from the cost of the public parkland dedication that the developer would otherwise have to pay.

The “rough proportionality” requirement mandates that proportionate credit be given for private amenities. Private park space cannot be considered part of a community’s existing level of service. Thus, such credit does reduce the amount of public open space. This has a marked adverse effect on the formula for calculating dedication requirements. An understanding of the impact can be assessed by using the data in Table 1 and substituting a lower level of service than the prevailing one acre per 285 people (e.g., one acre per 350 people) for neighborhood parks in the calculations.

The analysis in this section shows that most Texas communities ignore the issue of credit for private amenities; insert an arbitrary upper limit of 50 percent or 100 percent; or leave it to the city’s discretion. All of these options fail to provide “proportionate” credit for private amenities. This is not likely to be a major issue in most Texas cities because relatively few developments include private amenities. Nevertheless, the issue should be addressed to avoid the possibility of a legal challenge in the future.

Reimbursement Clause

Many communities require that neighborhood parks usually be at least five acres in size, because the cost of sending crews to maintain smaller parks across the city is not justified by their relatively low level of use. A challenge confronting many cities is that most developments are so small that their parkland dedication acreage requirement is most too low to meet this five-acre minimum standard. Consequently, it is usual for the alternative dedication of fee in lieu of land to be accepted.

However, accepting the fee in lieu option creates a conundrum. When sufficient cash accrues from these payments, the city attempts to purchase adequate land for a park. Unfortunately, by the time enough money has been paid by developments to accomplish this, most of the land suitable for a park of appropriate size is likely to have been acquired

for development. Invariably, the only land available for a park is floodplain or detention basin land that developers could not use, but which is also often inferior for use as a park. Alternatively, if potentially good park land is still available, the cost of its acquisition is likely to be relatively high since land prices are likely to rise as intensity of development in an area increases.

This scenario has led most communities to insert a reimbursement clause into their dedication ordinances. For example, the College Station ordinance states: “If the City does acquire park land in a park zone, the City may require subsequent parkland dedications for that zone to be in fee-in-lieu-of-land only. This will be to reimburse the City of the costs of acquisition.” Indeed, to facilitate the operationalization of this reimbursement clause, in a 2008 bond referendum the voters of College Station approved a \$1 million “parkland revolving fund.” This will enable parkland to be acquired and be replenished from subsequent fees in lieu. This enables a city to purchase parkland ahead of development by using general obligation bonds or certificates of obligation, and to subsequently reimburse itself, at least in part, from the fees in lieu. Thus, a reimbursement dedication fee apportions the cost of providing park facilities for new development prior to construction in proportion to its use of the parks.

Negotiation with landowners at times when activity in the real-estate market is slow, when a bargain sale opportunity becomes available, or when the land is beyond the community’s existing developed areas, can result in good park and recreational land being purchased at a relatively low price. It is also likely to be easier to acquire substantial tracts of 50 to 300 acres, for example, at this time than after development extends to these outlying areas. In effect, these acquisitions represent excess capacity to the community’s current needs. Adopting this approach is likely to be supported by developers, because the existence of parks makes new developments more attractive to homeowners (Crompton 2004).

Timing of the Dedication Requirement

In almost all the ordinances that were reviewed, the land dedication, fee in lieu, and/or park development fee has to be paid “prior to filing the final plat for record.” However, there were seven municipalities that included variations to this clause. College Station uses this clause for single-family residences, but for multifamily developments, the dedication is to be made “prior to the issue of any building permits.” This is done because the platting does not specify how many apartments there will be, so the fee is unknown. Since only one builder is involved for multiple apartments, it is administratively easy to collect the fee at the time a building permit is requested.

The cities of Keller, Mansfield, and New Braunfels require the dedication to be “prior to final plat or the issuance of a building permit when a plat is not required.” Plano and Corinth both require it at the time of application for a building permit. In the case of a land dedication, Edinburg uses the final plat clause, but for fee in lieu payments the city divides the timing: “50% payable at the time of final plat approval on a lot basis and the remaining 50% of such payment shall be made at the time a building permit is applied for on a dwelling basis whether it is a single, two, or multi-family dwelling.”

Adherence To The Nexus Principle

In the *Turtle Rock* case, the Texas Supreme Court referred to *Berg Development Co vs City of Missouri City*, a 1980 Texas case in which the courts ruled the Missouri City parkland dedication ordinance to be unconstitutional because a subdivision’s fee in lieu could be expended on parks anywhere in the city rather than only at a park close to that subdivision:

The Missouri City ordinance did not preclude the city from exacting funds from a developer and then failing to use the money to provide parks for the assessed development. Therefore, that park dedication ordinance placed a special economic burden upon the developer and ultimately on the home buyer with no guarantee that they would benefit from the exaction. This defect made the Missouri City ordinance arbitrary, and therefore unreasonable and unconstitutional.

Thus, the court made it clear that the land or fees dedicated must be used to benefit the subdivision from which they are taken.

This requirement was reaffirmed by the *U.S. Supreme Court in Nollan vs California Coastal Commission* (483 U.S. 825.1987). The *Nollan* decision confirmed the “required nexus” rule recognizing the need for a jurisdiction to establish a rational nexus or essential connection between the demand enacted by a development and the park facilities being developed with the resources provided by the developer. It requires that the dedicated resources must be used to provide facilities that benefit those who will reside in the development. This means that an agency should have a parks master plan that divides the jurisdiction into geographical districts. Each district should have a separate fund in which to credit all dedication fees in lieu and park development fees originating from that district. These revenues should be spent on parks within the district in which they originated.

The size of these districts is determined by the distance that residents are likely to travel to visit a park. As the distance between the development and the amenities becomes greater, it is more likely that an ordinance will not be legally defensible based on rational nexus. On the other hand, if the geographical districts are made very small so that they are more defensible to a legal challenge, then it will take much longer for sufficient funds to accrue to enable park amenities to be developed. Ideally, the size of the districts should be based on information from empirical studies measuring how far people in the community travel to parks, but in most cities a standard of $\frac{1}{4}$, $\frac{1}{2}$ or 1 mile within a neighborhood park is considered “reasonable.”

Language in the College Station ordinance is typical of that used to meet the nexus requirement:

Park Land fees will be deposited in a fund referenced to the park zone or community park district involved. Funds deposited into a particular park zone fund or community park district may only be expended for land or improvements in that zone or district.

There is general adherence to the nexus principle in the 48 ordinances. Most of the communities that did not specify the need for expenditures to be made only in the zone in which they were deposited are relatively small. In these cases, all residents in the city could be deemed as being proximate to a park wherever it is located. There are a few larger cities where the nexus requirement is not specified in the ordinance. This is surprising, but it does not necessarily mean the nexus principle is not followed. It may mean only that while in practice it is met, it is not formally specified in the ordinance

Time Limitation for Expending Fees in Lieu

The courts have made it clear that when fees in lieu are paid, there is an expectation that the homes generating them will benefit from new park amenities within a reasonable timeframe. Nevertheless, 16 of the 48 cities fail to specify a timeframe of any kind which is a limitation of their ordinances. Among the remaining cities, the term “reasonable timeframe” is most commonly operationalized either as 10 years (13 cities) or five years

(nine cities). Others range from a low of two years to eight years (four cities). Variations in the timeframe may reflect differences in rate of growth. The five-year timeframe adopted by, for example, College Station, Cedar Park, and Austin, probably reflects the rapid population growth occurring in these communities. It is surely unrealistic, even in rapid growth communities, that shorter timeframes of two or three years are sufficient to collect funds, identify and acquire available park land, and to let contracts to develop a park. For many communities, it seems likely that an eight- or 10-year timeframe is required to accomplish these tasks.

There were no communities that included time periods that differed according to type of park. This was surprising. It may be feasible to accrue sufficient resources to fund a neighborhood park within five years in a fast-growing city. However, it is likely to require more time to fund a community park within the same timeframe because: a) the costs are likely to be significantly greater; and b) the rate of growth in a particular neighborhood may be much faster than in other neighborhoods which in aggregate constitute a community park zone.

If the reasonable timeframe criterion is not met, then ordinances have to provide for those who pay the fees in lieu to receive a refund. Language in the College Station ordinance is typical:

The City shall account for all fees in lieu of land and all development fees paid under this Section with reference to the individual plat(s) involved. Any fees paid for such purposes must be expended by the City within five (5) years from the date received by the City for acquisition and/or development of a neighborhood park or a community park as required herein. Such funds shall be considered to be spent on a first-in, first-out basis. If not so expended, the landowners of the property on the expiration of such period shall be entitled to a prorated refund of such sum, computed on a square footage of area basis. The owners of such property must request such refund within one (1) year of entitlement, in writing, or such right shall be barred.

The likelihood of refunds being requested is minimal even if the timeframe is not met because: i) The developer responsible for paying the fee in lieu is unlikely to be sufficiently concerned to monitor how the money was spent five years later; and ii) there is only a one year window of opportunity in which to claim the refund.

The Scope And Range Of Texas Cities' Parkland Dedication Ordinances

The survey revealed that the scope of Texas cities' parkland dedication ordinances varied across three dimensions: a) the type of parks for which they provided, b), the inclusion or exclusion of non-residential development, and c) the inclusion or exclusion of subdivisions in the ETJ. Each of these issues is addressed in this section.

Types of Parks Specified in the Ordinances

The ordinances of 17 of the 48 municipalities confine their parkland dedication authority to neighborhood parks. This relatively restricted scope of approximately one-third of the ordinances is surprising, since the trend to a broader scope was noted over 15 years ago in a 1992 study that investigated parkland dedication practices in six states, including Texas:

Historically, park exactions have been used to provide neighborhood parks, but data from this study suggest a changing practice. Many communities are now

beginning to use the exacted fee to acquire, develop, or renovate community and citywide parks...This experimentation can meet the constitutional standard of "rational nexus" if the municipality can demonstrate that the development of these large parks serves residents of the subdivisions subject to the exaction (Kaiser, Fletcher & Groger, 1992, p. 23).

However, these authors went on to note that while municipalities in other states were broadening the mandate of exactions, "The exception to this trend is in the state of Texas, where municipalities predominantly restrict their use of the funds to neighborhood parks" (p. 23).

This view of the legitimacy of a broader spectrum of parks being eligible for dedication fees was reinforced over a decade ago by the National Recreation and Park Association in its guidelines for planners which stated: "The rational nexus test for parks and recreation can be expanded beyond the neighborhood park to community and regional parks where additional user pressures will occur and additional park and recreation capacity will be needed" (Mertes & Hall, 1995, p. 84).

Ordinances of the other two-thirds of Texas communities provide enabling authority for dedication for a broader range of parks beyond the neighborhood level. The enabling authority in these ordinances was of three types: general and non-specific; broad based and specific; and limited scope beyond the neighborhood level. Examples of the language used in each of these types of ordinances are presented in Table 5. Although most cities' enabling legislation gave them a mandate to require dedication for more than neighborhood parks, it should be noted that tradition, inertia, and presumably opposition from the development community, in many cases confined their implementation of dedication only to neighborhood parks.

Non-residential Park Land Dedications

The cities of Colleyville, Hutto, and Southlake extend their ordinances to include non-residential as well as residential property. Thus, the Hutto ordinance states:

In order to provide for the open-space needs of the community, the Developer of a Non-residential subdivision of three acres or more will be assessed a parkland fee at recordation of the final plat of \$800 per acre.

It is difficult to see how such a requirement meets the U.S. Supreme Court's test of "rough proportionality." In the *Dolan* case, the court made clear that a city cannot just say that it would be nice to have open space and then require property owners to dedicate the land for it. A park dedication ordinance must demonstrate the impact an individual development has on creating a need for parks.

The Colleyville and Southlake ordinances recognize that it is necessary to make the need case and use identical language in an effort to do this:

Although non-residential development does not generate residential occupancies per se, it does create environmental impacts, which may negatively affect the living environment of the community. These impacts may be ameliorated or eliminated by providing park or open space areas which buffer adjoining land uses, prevent undue concentration of paved areas, allow for the reasonable dissipation of automotive exhaust fumes, provide natural buffers to the spread of fire or explosion, and provide separation of lighting, waste disposal, and noise by-products of non-residential operations and activities from adjacent residential

Table 5. Illustrations of Ordinances Providing Enabling Authority Beyond the Neighborhood Level.

Examples of Non-Specific Language:

Corpus Christi: “provide for the parkland needs of future residents.”

Leander: “dedicate to the public sufficient and suitable lands for the purpose of public parkland.”

Flower Mound: “land dedicated for parks, containing passive or active recreational areas and amenities that are reasonably attributable to such development.”

Examples of Broad-based and Specific Enabling Language:

Frisco: “The city of Frisco is in need of neighborhood, community, regional, greenbelt and central parks due to population increases in the City from residential development which creates a specific demand for parks of various sizes.”

League City: “To provide park and recreational areas in the form of neighborhood parks, recreational parks, regional parks and connecting trails as a function of residential development in the City of League City.”

The ordinances in some of these communities confirm that the fee in lieu also is distributed across all types of parks. For example, the Rosenberg ordinance states:

“The allocation of cash paid to the City in lieu of land dedication shall be divided equally between neighborhood, community and regional parks.”

Cities whose ordinances provided for limited expansion beyond the neighborhood park level:

Typically, these cities extended their ordinances to incorporate community parks and/or linear greenways: Examples included:

Bryan: “to provide recreational areas in the form of community parks. ... Community parks typically serve an area with a radius of one mile, and most of these also serve as neighborhood parks.”

Highland Village: “providing for developer funded recreational areas in the form of a community park, neighborhood parks and an inland trails system – linear park.”

Arlington: “linear parks and neighborhood parks” [In Arlington, all of the city’s community parks qualify as “linear parks].”

areas. The City has therefore determined that non-residential developments must provide dedicated parks and/or reserved open space at a ratio of one (1) acre of parkland for every fifty-six (56) non-residential gross acres of development or prorated portion thereof.

This still appears to lack the specificity needed to demonstrate “rough proportionality” showing that employees will generate new demands for parks. However, in all three of these cases, the dedication requirement is so small in the context of the overall investment in a non-residential development that it is unlikely developers will incur the cost and ill-will with the city by challenging it. The buffering requirement specified in the Colleyville language could probably be achieved equally well by strengthening the requirements of regular planning ordinances rather than through a dedication ordinance.

Extending Ordinances to Extra Territorial Jurisdictions

Cities in Texas have legislative authority to regulate subdivisions constructed in their Extra Territorial Jurisdictions (ETJs). This means that park dedication ordinances can be extended to include subdivisions outside a city’s boundaries, but within the ETJ. The ETJ extends for three and a half miles beyond the existing boundaries of a city with fewer than 100,000 population. It extends to five miles when the 100,000 population threshold is reached. Only seven of the 48 cities make explicit reference in their ordinances to dedication extending to ETJ subdivisions. For example, the Corpus Christi ordinance states:

All residential subdivisions located within the city or within the area of extraterritorial jurisdiction of the city, shall be required to provide for the parkland needs of future residents through the fee simple dedication of suitable land for park and recreation purposes.

A challenge in extending dedication to the ETJ is the cost of maintaining dedicated parks located far outside the city’s existing boundaries. In an attempt to encourage developments to carry these costs until they are annexed by the city, the city of Austin ordinance increases its limit of 50 percent credit for private amenities to 100 percent in the ETJ:

For subdivisions located outside the city limits, up to (100) percent credit may, at the discretion of the City, be given if the subdivider enters into a written agreement with the City stating that all private parkland shall be dedicated to the City at the time of full purpose annexation of said subdivision by the City.

Timeframe for Revising Ordinances

In only 11 of the 48 ordinances is a timeframe for reviewing the ordinance incorporated. Thus, the College Station ordinance states: “The City shall review the Fees established and amount of land dedication required at least once every three (3) years.” The three-year review clause also appeared in the Bryan, League City, and Plano ordinances; in Wylie it is every two years; while in San Antonio and Arlington the review period is every five years.

There were five communities in which revisions to fees in lieu are integrated into the annual budget process: Angleton, Haltom, Pflugerville, Rockwell, and Southlake. An annual reappraisal is likely to be viewed as being unreasonable or onerous by most city councils for two reasons. First, there may be too few land transactions recorded in a one year period to provide sufficient data to establish a clear trend. The smaller the number of transactions used to determine an average cost for acquiring land, the less reliable and more contentious that valuation is likely to be. Second, the prospect of going through a controversial public hearing process on this issue each year is likely to be unappealing to most elected officials.

A compromise solution which avoids annual reviews, but attempts to reflect increases in land values in interim years between major five-year reviews is incorporated in the San Antonio and Arlington ordinances. Thus, the Arlington ordinance states:

Development fees shall be updated annually on September 1st by the Director in accordance with the U.S. Department of Labor, Bureau of Labor Statistics' Dallas-Fort Worth Consumer Price Index for All Urban Consumers.

Criteria for Acceptance of Parkland

Most ordinances include guidelines to assist in determining whether or not to accept parkland or to require a fee in lieu. Typically, they include multiple items relating to such factors as location, accessibility, and character of the land. Two of these elements that are common to most ordinances and often contentious are analyzed in this section: minimum size and acceptability of floodplain and detention pond land.

Minimum Size

Most ordinances (37 of the 48) specify a preferred minimum size for dedicated parkland, recognizing that very small parks provide limited scope for providing amenities and are relatively expensive to maintain in terms of cost per user served. Preferences range from $\frac{1}{4}$ acre in League City to 10 acres in McKinney, Rockwall and Sugarland, with the most frequent preferred minimum size being 5 acres ($n = 15$). It is emphasized that these are desired minimums and none of the ordinances categorically reject the possibility of accepting land dedications that are lower than their preference. The New Braunfels ordinance is typical:

The City Council and the New Braunfels Parks and Recreation Department generally consider that development of an area less than five acres for neighborhood park purposes may be inefficient for public maintenance.

Acceptance of Floodplain and Detention Pond Land

There are a few ordinances in which the issue of accepting floodplain land as part of a dedication requirement is not mentioned, but the large majority of them consider it to be generally undesirable. For example, the city of Mansfield ordinance states:

The City shall not accept land ... within floodplain and floodway designated areas ... unless individually and expressly approved by the Director.

Some cities recognize the limitations of floodplain land, but emphasize the positive potential of such sites rather than their limitations. For example, the Bryan ordinance states: Consideration will be given to land that is in the floodplain ... as long as ... it is suitable for park improvements.

Some cities state a maximum proportion of floodplain, which they accept in a dedication. In most cases, 50% is specified. Thus, San Antonio requires "Areas within a 100-year floodplain shall not exceed 50% of the area counted as parkland." Variations in the 50% requirement range from The Colony, "Not more than 20% of the proposed park is to be located within the 100 year floodplain," to Denton, "Floodplain areas shall generally not exceed 75% of the total park site."

There were 11 cities that specify that if floodplain land is accepted, then its contribution towards a dedication requirement is discounted. Thus, the College Station ordinance states, "Land in floodplains or designated greenways will be considered on a three-for-one basis. Three acres of floodplain or greenway will be equal to one acre of park land." Four additional communities adopted this three-to-one ratio and six specify a 2:1 ratio.

Surprisingly, only a small number of ordinances address the issue of detention ponds being accepted to meet dedication requirements. Among them, the most commonly used language is similar to the generic statement used in the La Porte ordinance:

Drainage areas may be accepted as part of a park if the channel is constructed in accordance with City engineering standards and if no significant area of the park is cut off from access by such channel.

The League City ordinance is unequivocal in rejecting as “unsuitable” any area located in the 100-year floodplain but “an exception may be a ballfield that is located in a day detention basin with the approval of the Parks Board and City Council.” San Antonio offers the most specific and comprehensive regulations for acceptance of detention areas:

Detention basins which are required as part of the stormwater management standards shall not qualify as parkland unless seventy-five percent (75%) or more of the active and usable area is designed for recreational use and the area(s) conforms to the requirements below.

- Detention areas shall not be inundated so as to be unusable for their designated recreational purposes. Detention areas must be designed to drain within 24 hours.
- Detention areas shall be constructed of natural materials. Terracing, berming and contouring is required in order to naturalize and enhance the aesthetics of the basin. Basin slopes shall not exceed a three to one (3:1) slope.
- Detention areas may count a maximum of fifty percent (50%) of the park dedication requirement.

College Station appears to be alone in unequivocally rejecting the acceptance of these areas:

Detention/Retention areas will not be accepted as part of the required dedication, but may be accepted in addition to the required dedication.

Discussion

To the best of the author’s knowledge, this is the first detailed critique of parkland dedication ordinances to appear in the literature. While the ordinances analyzed were confined to Texas, it is likely that many of the findings emanating from this analysis would be representative across the U.S. The analysis revealed an array of limitations and failings among the ordinances resulting in the mechanism being underutilized. In this concluding section strategies to counter the limitations and underutilization are suggested.

The analysis showed that over the past 25 years, there has been an increasing use of parkland dedication ordinances by Texas municipalities. However, the dedication requirements enshrined in their ordinances are much too low given the prevailing fiscal and legal environments. The unrealized potential of these ordinances is a function of their restricted scope and of below-cost dedication requirements.

Restricted Scope

The scope of parkland dedication ordinances and their implementation was restricted in three ways. First, the failure to extend the scope of ordinances beyond neighborhood parks to include community and regional parks was evident in 17 of the 48 ordinances. Additional user demand from new development extends to all types of parks not only neighborhood parks. Hence, dedication fees should cover the cost of creating the additional capacity needed at all types of parks to accommodate the additional user demands. There has been increasing recognition of this over the past 15 years, and there is no longer any legal reason for them to be limited only to neighborhood parks.

A second source of restricted scope was manifested by the finding that only seven of the 48 ordinances required parkland dedications from developments in their Extra Territorial Jurisdictions (ETJ). Although it is a complex and lengthy process, Texas law gives cities the right to annex land within their ETJ. Thus, it is likely that subdivisions outside a city's boundary but within its ETJ will at some future time be annexed and integrated into the city. If a city's parkland dedication ordinance is not extended to embrace the ETJ, then when these subdivisions are annexed into the city they will have no public park amenities and there will be pressure from those homeowners for the city to provide them. Hence, failure to extend the ordinance into the ETJ is likely to result in a city incurring substantial costs in the future.

Most ordinances did include a reimbursement clause enabling a city to fund the initial acquisition and/or development of a park, and subsequently to reimburse itself from the fees in lieu and/or park development fees. This enables parks to be provided ahead of development when land for them is both available and less expensive. Although this is a preferred *modus operandi*, its scope is restricted and it is rarely used, because the dedication fees are so low that the revenue stream they provide is insufficient to reimburse the initial capital investment. The reimbursement authority likely will be used only if dedication fees are set at a level that enables the initial capital investment to be recovered.

Below-cost Dedications

The second factor contributing to unrealized potential is the failure to set dedications at a level that covers all the costs associated with the acquisition and development of the required additional park capacity. The two sources of this failure are captured in the U.S. Supreme Court's *Dolan* decision of 1994 that requires cities: to be proactive in making an "individualized determination" that a parkland dedication has a "roughly proportional" relationship between the dedication requirement imposed on a developer and the increased demands of the development on a park system.

Almost all Texas cities use an arbitrary number for parkland dedication instead of a number empirically derived as illustrated in Table 1, which is necessary to meet the "individualized determination" criterion. The *Dolan* ruling put cities on notice that they have to provide quantitative evidence that their dedication requirement is appropriate.

Most cities specified their standard in terms of number of dwelling units per acre of parkland, but few incorporated a methodology or calculations showing how this standard was derived. This lack of explanation extended to derivation of the fee in lieu (and in some instances to the park development fee in cases where it was imposed). Only in 15 of the 48 ordinances was it specified that the fee should equate to the fair market value of the land that would otherwise have been dedicated. In many of those instances, the operationalizations used to establish the equivalence of fair market value were obscure and appeared to be arbitrary. The typical response to follow-ups by the author with city officials seeking information on how the standards and fees in lieu were determined was, "That is the figure the council decided upon."

Many of the requirements were expressed in "rounded numbers," suggesting they were arbitrarily derived. Thus, when dwelling units per acre were specified, numbers such as 25, 50, 100, and 150 were prevalent. Similarly, common numbers for fees in lieu included \$250, \$300, \$500, \$600, or \$750. It is unlikely that a legitimate empirical procedure would consistently yield such rounded numbers.

The most glaring examples of arbitrariness were the four ordinances that specified their standard in terms of the percentage of tract developed. This means the dedication requirement remains the same irrespective of whether there are five or 100 people per acre in the homes that are constructed! This approach clearly is legally unacceptable.

Failure to meet the “individualized determination” criterion makes these ordinances vulnerable to invalidation by the courts. However, of perhaps greater concern is that there is no awareness of what the real standards or fees should be if empirical procedures to determine accurate numbers are not undertaken. This means that when elected officials set arbitrary numbers, which invariably are far below the real costs of acquiring and developing additional parks, they are unaware of the magnitude of the opportunity cost in potential park funding they are foregoing.

When initiating dedication ordinances, city councils often seek to appease vigorous opposition from the development community by setting unrealistically low dedication requirements. They may rationalize that it is an accomplishment to get such an ordinance passed and “some revenue is better than no revenue.” The lack of empirical procedures in subsequent reviews of the dedication requirement makes it vulnerable to incrementalism. That is, if the dedications are periodically reviewed, there is a tendency for councils to raise them by an arbitrary, incremental amount of say, 5%, 10%, \$50, or \$100. Since the initial dedication was so low, these increments effectively keep them low. Thus, if an initial fee is set at \$300, a 10% increase three or five years later raises it only to \$330. During this same period, it is likely that the cost of acquiring and developing parks has increased far more than a \$30 per dwelling unit fee increase will cover. This process means the opportunity cost of park funding foregone increases quantumly as the years go by.

In addition to the failure to be proactive in making an “individualized determination,” almost without exception the dedications of Texas cities do not meet the second *Dolan* requirement of “rough proportionality.” Invariably, they fail to cover the costs associated with acquisition of additional park capacity created by additional demand from new homeowners.

The rough proportionality criterion directs that a dedication requirement should be based on the current level of park provision. However, the data in Table 2 show this is rarely the case. The magnitude of the difference between the ratios in column 5 (current level of parkland provision) and those in column 6 (dedication requirement) should be the same if there is adherence to rough proportionality. In some cities they are relatively similar, for example, Colleyville, Flower Mound, Keller and La Porte. However, in other communities there are wide disparities, for example, Hutto, The Colony, and Grapevine.

Indeed, to meet the roughly proportionate criterion, 46 of the 48 cities should increase their land dedication requirement and those with wide disparities between current level of provision and dedication requirement should raise it substantially.

If these increases in land dedication were enacted, there would be a corresponding increase in fees in lieu. For example, if Mansfield increased its land dedication of 100 dwelling units per acre of parkland to its current level of park provision which is 13.81 dwelling units per acre of parkland (i.e., by 720%), then its fee in lieu would correspondingly rise from \$500 per dwelling to \$3,600 per dwelling. Such increases may appear shocking when compared to existing dedications, but they are indicative of the magnitude of the opportunity cost associated with current ordinances.

While all the ordinances provide for land dedication and a fee in lieu alternative to the land requirement, only 10 of the 48 provide for a park development fee. When the fee in lieu amounts in Table 2 of these cities are compared with their park development fees, which were cited in Table 3, it is clear that the park development fees typically far exceed the fees in lieu for land acquisition. These data suggest that inclusion of a park development fee is likely to at least double the revenue generated by a parkland dedication ordinance and in some cases the increases would be much greater.

In summary, the data in Table 2 suggest that increases between 150% and 1800% in the existing parkland dedication requirements could occur in 44 of the 48 cities. These

percentages are derived by dividing the current level of parkland provision (column 5) with the current land dedication requirement (column 6). This would occur if empirical procedures were used to make individualized determinations of the costs of parkland and these costs were fully incorporated into dedication ordinances so new developments paid a roughly proportionate share of the costs. These increases themselves would likely be at least doubled (and in many cases the multiplier would be much higher) if the 38 cities that do not include park development fees in their ordinances were to similarly identify the full costs of developing new parks and fully incorporate them into their dedication ordinances so new developments paid a roughly proportionate share of these costs also.

Why is the Potential not being Realized?

The analysis clearly showed that Texas communities have parkland dedications that are far lower than the cost of providing parks for new homeowners at a community's prevailing level of service. There appear to be two main reasons for the failure to realize the potential of parkland dedication ordinances: inertia and vigorous opposition from the development community.

The inertia stems from parkland dedication ordinances not appearing on the agendas of many elected officials. Indeed, in the Texas Municipal League's 2007 publication, *Revenue Manual for Texas Cities*, which claims, "This manual addresses nearly every known source of revenue available to Texas Cities" (p. i), parkland dedication ordinances are not discussed or listed. Some cities' ordinances have been in force for several decades and have never been revised. This means that elected officials remain unaware of the potential both for expanding their scope to parks far beyond the neighborhood level to which they were confined in the 1960s through the early '80s, and for adding a park development fee element. Only in 11 of the 48 cities was there any requirement that the ordinance be reviewed at specified regular intervals. This is a major structural failing in the remaining 37 ordinances because without the stimulus of a built in periodic review, the ordinances never appear on a council agenda and remain invisible to elected officials.

The lack of regular review may explain the legal weaknesses manifested in many of the ordinances. There simply has been no reason to re-examine and update them to be consistent with contemporary best practice and court guidelines. Given these legal weaknesses, it is significant that there has been no substantive litigation initiated by the development community in Texas challenging parkland dedication ordinances in the 25 years that have passed since the *Turtle Rock* case in 1984. This suggests the nominal magnitude of most of the ordinances is so small in the context of the total cost of a development that it is not worthwhile for developers to legally challenge them.

A second reason elected officials have not capitalized on the potential of parkland dedication ordinances is because any suggested enhancements are invariably opposed by the development community which is a powerful constituency in most Texas cities. Thus, instead of the criterion for setting fees to meet the costs of new parks and make growth pay for itself, the criterion is to set them at a level that will not generate an unacceptable political backlash from the development community.

Developers are very conscious of the Fifth Amendment "takings" issue. Although the courts have ruled that parkland dedication does not constitute a taking of private land without adequate compensation, many Texas developers resent the courts' interpretations. They view it as an intrusion of their right to use all of their land as they see fit and find the principle of park land dedication to be repulsive and an anathema. It is this perspective that results in discussions of dedication issues with developers often being highly emotional.

In some contexts, animosity from developers may be perceived by some elected officials to endanger their personal political aspirations, because developers and real estate

interests are influential in many Texas communities and are major contributors to local election campaigns. Indeed, some elected officials are involved in real estate or associated professions, and oppose substantive dedications because they are antithetical to their professional value systems.

In many Texas communities, residential development has not been expected to pay its own way in the past. The contention that growth should pay for itself is a relatively recent interjection into Texas's political discourse. The tradition has been for one generation of residents to provide the park opportunities for the next generation by paying for them with ad valorem taxes. Hence, developers legitimately ask: Why do we have a primary responsibility to provide these new parks when most of the parks used by existing residents were inherited by them from previous generations? Do they not have an obligation to provide for future generations as others previously provided for them? There are two responses to this line of argument.

First, when cities are small, then all residents are relatively proximate to a park wherever it is located. However, when a city reaches a threshold size (say 40,000), parks in new developments on its edge may be five miles away from city center residents. These residents likely will never use them and, thus, will not be supportive of using ad valorem taxes to pay for them. Second, the rapid growth of Texas cities, combined with Texas's renowned fiscal conservatism and reluctance to support any tax increases, means that parks have to compete for limited funding with a plethora of other infrastructure and structure projects: roads; bike and hike trails; police and fire stations; city offices; structures for recreation, arts and seniors; et al. In this competitive environment, it is unlikely that there will be sufficient ad valorem funds to secure the desired level of parks provision. This point is recognized in the generic context of impact fees by the National Association of Home Builders, which is the national trade association representing developers and builders: "Developers and builders are acknowledging that impact [parkland dedication] fee payments may mean the difference between undertaking a residential development project or not. For in the absence of needed infrastructure, residential development cannot occur" (p. 146).

Those in the development community who are supportive of substantive parkland dedications generally cite some combination of the following four factors as their justification. First, parkland dedications make parks available at the time, or soon after, new homeowners move into a development. This enhances the property's salability. Many real estate projects prominently feature recreation amenities in their promotional campaigns because they have determined these are assets that new home buyers seek. Hence, the requirement to provide park amenities often are consistent with the developer's own inclinations and might be provided by the developer even if they were not required. However, developers probably would prefer to decide for themselves what facilities should be provided, rather than be mandated to give resources to a city and to have officials make the decisions.

Second, they may recognize that ensuring a given level of park provision throughout a community contributes to its general quality of life. This encourages both new residents and businesses to locate in the city, which enhances developers' long-term business prospects. Third, there is growing recognition among Texas residents that in the absence of dedication and impact fees for an array of new facilities, new development is likely to result in local tax increases or in cutbacks in the prevailing level of service. In these contexts, the challenge of growth advocates is to demonstrate that their projects will not have an adverse fiscal impact on the community. Their support of dedication ordinances is an action that can be used to make this case.

Finally, some factions in a community invariably view developers with distrust and suspicion. Endorsement of a substantive parkland dedication ordinance may contribute to alleviating this negative image by demonstrating that developers have a social conscience, are concerned for the general welfare as well as the bottom line, and are prepared to invest in community facilities. Thus, developers' support for parkland dedication may be viewed as an investment in good public relations and as a means of winning public support for future projects.

In contrast to the vociferous opposition typically expressed by developers, few among the general public are likely to engage in the debate. They have little awareness or understanding of parkland dedication ordinances and do not recognize that they will be adversely impacted if they are merely nominal, so there generally is a lack of a pro-ordinance constituency to counter opposition from the development community.

It is always difficult to win an argument based on the intangible notion of opportunity costs, when the opposition from the development community cites tangible costs that they purport are adversely impacting their business. What is out of sight is out of mind. People are less sensitive to information that is not tangibly presented. A strategy for reducing this imbalance among constituencies is to make the opportunity costs tangible, pointing out to the general public the cost of not increasing the ordinance requirements. This strategy focuses attention on the negative consequences of the loss that will occur if this action is not taken. It has been widely demonstrated in the field of social psychology that this negative framing of consequences has a powerful persuasive impact on audiences (Tversky & Kahneman 1981; Levin, Schneider, & Gaeth 1998). An example of how this was done in College Station is shown in Table 6. The first half of the table shows that based on the city's best estimate of the population growth for the next 20 years, an investment for neighborhood and community parks of \$30.5 million would be needed merely to maintain the city's existing level of service.

The second part of Table 6 shows that if the existing fees in lieu of \$940 and \$731 for single and multiple dwelling units, respectively, are maintained, then approximately \$13 million of this cost will be raised from those creating the demand for the new facilities. However, if fees in lieu are raised to \$2,021 and \$1,686, respectively, then the new parks will, for the most part, be paid for by the new growth. Failure to impose the new fees would result in existing residents being taxed an additional \$17.3 million in the 20-year period to maintain existing levels of neighborhood and community park provision.

The Emerging O&M Argument

As their traditional arguments against parkland dedication requirements have encountered more resistance, some in the development community have embraced a new line of attack: How can you justify building new parks when you are struggling to find the money to properly maintain and operate those that the city already owns? There are four responses to this question.

First, allocation of operation and maintenance funds is part of the annual budget process. As such, it reflects a short-term view of economic conditions that prevail in the city at that time. In contrast, parkland dedication is a one-time, major investment in capital infrastructure that reflects a long-term view of amenities the city should have in the future. If a current council decides not to construct new parks, then it has pre-empted the right of future residents to have them, because there will be no land available to retrospectively construct them. A current council has an obligation not to pre-empt the options of future councils. It is the prerogative of future councils to decide each year whether to fully fund the maintenance and operation of parks or not to do so and, presumably, this will be governed by the economic conditions prevailing at that time. Not to proceed with a

Table 6. Illustration of the cost to residents of not maximizing the potential of a parkland dedication ordinance.

Estimate of 20-year capital cost requirements for neighborhood and community parks based on a projected increase of 40,000 population in the next 20 years while maintaining current levels of service.

New Neighborhood Parks

• Current level of Service = 1 acre per 285 people	
• Additional land needed to retain current level of service: $40,000/276 = 140$ acres	
• Cost of additional land: 140 acres @ \$32,000 per acre	\$4,480,000
• Average park size of 8 acres means 18 new parks, with park development costs @ 576,000	<u>\$11,360,000</u>
	\$15,840,000

New Community Parks:

• Current level of service = 1 community park per 10,970 people	
• Additional land needed to retain current level of service: $40,000/10,970 = 4$ parks @ 37 acres/park	
• Cost of additional land: 148 acres @ \$32,000 per acre	\$ 4,740,000
• 4 new parks @ \$2.5 million per park for “basic infrastructure”	<u>\$10,000,000</u>
	\$14,700,000

Total Estimated Capital Cost for 10-year period	\$30,540,000
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Revenue projections from land dedication ordinance based upon 40,000 additional population with equal amount of single-family and multifamily units.

Existing Ordinance Requirements:

Single Family: $20,000/2.80 = 7,142$ Dwelling Units	
7, 142 DU x \$940 =	\$6,713,480
Multifamily: $20,000/2.25 = 8,890$ Dwelling Units	
8,890 DU x \$731 =	<u>\$6,498,590</u>
Total Revenue	\$13,212,070

Proposed New Ordinance Requirements

Single Family: 7142 DUs x \$2,021 (1,078 + 943)	\$14,433,982
Multi Family: 8,890 DUs x \$1,686 (878 + 768)	<u>\$14,988,540</u>
Total Revenue	\$29,422,522

Conclusion

If the proposed new ordinance requirements are not implemented and the existing ordinance requirements are retained, then residents may be taxed an additional \$17.3 million in the next 20 years in order to maintain the current levels of park service.

parkland dedication ordinance because of concerns about future operation and maintenance costs would be myopic and arrogant since the future ability to meet such costs is unknown. Previous councils had sufficient vision to create the opportunities a community currently enjoys. If a current council does not continue to make the same opportunities available to future generations, they would be lacking vision.

A second rebuttal to the operations and maintenance argument is that amenities that are not on the tax rolls in a community create much of the value of properties that are on the tax rolls. Such amenities would include parks, schools, roads, churches, street spaces, non-profit arts facilities, police and fire facilities and services, et al. Specifically in the case of parks, the real estate market consistently demonstrates that many people are willing to pay a larger amount for property located close to parks and open-space areas. The higher value of these residences means that their owners pay higher property taxes. In many instances, if the incremental amount of taxes paid by each property which is attributable to the presence of a nearby park is aggregated, it will be sufficient to pay the annual costs of operating and maintaining the park (Crompton, 2004).

A third response to the operations and maintenance contention is that the costs can be minimized by focusing only on natural parks. Cost of operations is higher for those parks containing elements such as athletic fields. If a park is designed at the outset with minimal maintenance costs in mind, then that can be accomplished. Finally, the empirical evidence in the past two decades overwhelmingly reports that while residential development may generate significant tax revenue, the cost of providing public services and infrastructure to that development is likely to exceed the tax revenue emanating from it. Thus, preserving open space and creating parks can be less expensive alternatives to development. Indeed, some communities have elected to acquire park and open-space land, rather than allow it to be used for residential development, because this reduces the net deficit for their residents which would occur if new homes were built on that land (Crompton 2004).

The Political Case for Parkland Dedication

Parkland dedication provides local government elected officials with a partial solution to their capital funding problems. There are four main reasons why they represent the safest political option for funding new parks. First, this is a fiscally conservative action. A bedrock principle of fiscal conservation is the Benefit Principle, which states that those who benefit from government services should pay for them.

Second, elected officials can respond to infrastructure and amenity needs created by new growth in one of three ways:

- 1) Request existing residents to pay the bills by approving the issuance of general obligation bonds that will raise their taxes. Many residents are likely to ask, "Why should we agree to raise our property taxes to build parks many miles away from where we live that we will never use?"
- 2) Decline to provide the new infrastructure and amenities or provide them at a lower level of service than prevails elsewhere in the community. In effect, this means accepting a reduction in the community's quality of life.
- 3) Requiring new development to pay the cost of providing the infrastructure and amenities the need for which has been created by them.

Few elected officials are likely to run for office on a platform of raising the taxes of existing residents (option 1) or lowering a community's quality of life (option 2). Indeed, if a public referendum were held inviting the public to vote on which option they would prefer, the likely result would be overwhelming support for option 3.

Third, ostensibly, it would appear that the dedication requirement will lead to some potential home buyers being priced out of the market. The development community is likely to vigorously promote this position. Thus, if an additional (say) \$1,000 parkland dedication fee is added to a starter home costing (say) \$140,000, representing a price increase of approximately 7/10ths of 1%, they are likely to argue it will price out some potential home buyers. If an ordinance is revised every three years, it means that over the three-year period, the increase will average a little over 2/10ths of 1% per year. It is unlikely that any other cost of development will increase by such a small amount over a three-year period. Thus, the probability of such a price increase pricing potential “low-end” homeowners out of the market is improbable.

Further, the reality of parkland dedication requirements is that they are not likely to lead to any increase in the price of a new home. The new parkland dedication fee could be absorbed in one of three ways.

- 1) The option of passing it through to the home buyer as suggested in the previous paragraph may be considered. However, if the market would bear a price of \$141,000 rather than a price of \$140,000, then developers would charge that amount since their goal is to maximize their profits. Hence, market forces dictate that a price of \$141,000 is unlikely to an option.
- 2) The additional \$1000 fee could be absorbed by the developer. This is not a viable option, because a developer’s willingness to accept the level of financial risk associated with a project is predicated on a given projected profit margin. Without that profit margin, the project will not proceed, so it is sacrosanct and cannot be reduced.
- 3) The non-feasibility of options (1) and (2) mean that the only viable option for absorbing the additional \$1,000 dedication fee is to reduce the developer’s costs. This can be done in one of three ways:
 - Reduce the house size by 10 square feet (assuming a cost of \$100 a square foot). Thus, instead of homes being 1400 square feet, they would be 1390 square feet.
 - Engage in “value engineering” to reduce the costs of finishes, fittings, furnishings or landscaping in the house by \$1,000.
 - Pay less for the land. The imposition of a \$1,000 parkland dedication fee effectively changes market forces and reduces the value of the land to be sold. This is explained in the following scenario:
 Suppose a developer is about to purchase a piece of land when the city announces a \$1,000 increase in the park dedication requirement. Before the increase, the developer could build 100 units on the land and sell them for \$150,000 each. Based upon the cost of construction and required profit, she was willing to pay \$2 million for the land. As a result of the new ordinance, the developer concludes she now has to charge \$151,000 per unit due to the increased cost. However, if the developer can now sell the houses for \$151,000 each, why did she not charge that price before the imposition of the fee? In fact, the market for comparable housing limits her to selling the houses for \$150,000 each; thus, she will not be able to sell them for \$151,000. As a result, the builder is only willing to pay \$1.9 million for the land, so she is able to reduce costs and maintain her profit margin (i.e., \$2 million [100 lots x \$1,000]).

A fourth reason that strong parkland dedication ordinances should be able to garner political support is that if taxes are raised to meet the costs of new parks, then the assessed property values of existing homes will be effectively reduced since potential buyers are

likely to pay less for a property with a higher tax burden (Bruecker, 1997). A reported corollary of this is that such exactions, because they potentially lower taxes, may increase the demand for housing, especially for “small homes within inner suburban areas. ... These are also the areas that offer the greatest job opportunities for lower-skilled workers” (Burge & Ihlanfeldt, 2006 p. 305). These authors explain their empirical findings by suggesting that exactions such as parkland dedications, “decrease the fiscal deficit imposed on existing residents by new development, allowing more affordable homes to be built within suburban areas” (p. 305).

The limited use of parkland dedication in Texas is surprising given its legal validation, the expansion of its scope that has been accepted by the courts, and its ability to shift the tax burden of maintaining existing service levels away from existing residents to those new residents who create the need for additional amenities. This analysis of Texas ordinances suggests recognition of these appealing political realities remains limited in Texas. Clearly, there is considerable scope for both extending parkland dedication to municipalities that do not have such an ordinance, and increasing the requirements in those cities which currently have an ordinance.

In most communities, parkland dedication ordinances are under the purview of planning departments since they constitute a component of a city's subdivision regulations. The limitations and failings of ordinances described in this paper suggest that many park and recreation directors have not taken a proactive role in the development of these ordinances. This is unfortunate given that many agencies are struggling to find resources to expand and/or renovate their park systems. Parkland dedication ordinances offer a mechanism for doing this, but the field's leaders in a community must be centrally involved in advocating for the improvement and enhancement of these ordinances if their great potential is to be realized.

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Footnote

¹ To enhance the readability, specific citations to city statutes cited in the paper are not given, but all of the cited statutes can be viewed on this Web site.