

**PERMIT APPLICATION REVIEW FORM FOR
CABLE, CONDUIT, AND POLE LINE ACTIVITY
IN FORT BEND COUNTY**

**Fort Bend County
Engineering Department**
301 Jackson Suite 401
Richmond, Texas 77469
281.633.7500
Permits@fortbendcountytexas.gov

- ☐ Right of Way Permit
☒ Commercial Driveway Permit

Permit No: 2018-20668

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

(1) COMPLETE APPLICATION FORM:

- ☒ a. Name of road, street, and/or drainage ditch affected.
☒ b. Vicinity map showing course of directions
☒ c. Plans and specifications

(2) BOND:

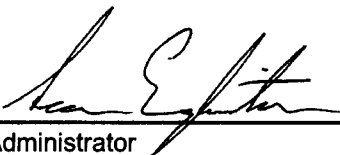
- ☐ County Attorney, approval when applicable.
- ☐ Perpetual bond currently posted. Bond No: _____ Amount: _____
- ☒ Performance bond submitted. Bond No: [REDACTED] Amount: \$10,000.00
- ☐ Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

We have reviewed this project and agree it meets minimum requirements.



Permit Administrator

7/13/2018

Date

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROAD**

AUTHORIZED

BOND NO.

THE STATE OF TEXAS §

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND §

THAT WE, Swanson Partners, LLC dba HPI Construction whose address is PO Box 70, Richmond, TX 77406 Texas, hereinafter called the Principal, And Insurors Indemnity Company, a Corporation existing under and by virtue of the laws of the state of Texas and authorized to do an indemnifying business in the state of Texas, and whose principal office is located at 225 South 5th Street, Waco, TX 76701, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought whining said state is Insurors Indemnity Co and Whose address is 225 South 5th Street, Waco, TX 76701, hereinafter called the Surety, and held and firmly bound unto, Robert e. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of Ten Thousand Dollars and Zero Cents Dollars (\$ 10,000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity, commercial driveway and median openings or modifications;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways, commercial driveway and median openings or modifications in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 14th day of May, 20 2018.

Swanson Partners, LLC dba HPI Construction

PRINCIPAL

BY

Insurors Indemnity Company

SURETY

BY

4 pgs
2018084513

POWER OF ATTORNEY of INSURORS INDEMNITY COMPANY Waco, Texas

KNOW ALL PERSONS BY THESE PRESENTS:

Number: [REDACTED]

That INSURORS INDEMNITY COMPANY, Waco, Texas, organized and existing under the laws of the State of Texas, and authorized and licensed to do business in the State of Texas and the United States of America, does hereby make, constitute and appoint

Ali McDonald of the City of Richmond, State of TX

as Attorney in Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of document, to-wit:

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; Indemnity in all cases where indemnity may be lawfully given and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company.

INSURORS INDEMNITY COMPANY

Attest:


Tammy Tieperman, Secretary

By:


Dave E. Talbert, President

State of Texas
County of McLennan

On the 11th day of November, 2014, before me a Notary Public in the State of Texas, personally appeared Dave E. Talbert and Tammy Tieperman, who being by me duly sworn, acknowledged that they executed the above Power of Attorney in their capacities as President, and Corporate Secretary, respectively, of Insurors Indemnity Company, and acknowledged said Power of Attorney to be the voluntary act and deed of the Company.


Notary Public, State of Texas



Insurors Indemnity Company certifies that this Power of Attorney is granted under and by authority of the following resolutions of the Company adopted by the Board of Directors on November 11, 2014:

RESOLVED, that all bonds, undertakings, contracts or other obligations may be executed in the name of the Company by persons appointed as Attorney in Fact pursuant to a Power of Attorney issued in accordance with these Resolutions. Said Power of Attorney shall be executed in the name and on behalf of the Company either by the Chairman and CEO or the President, under their respective designation. The signature of such officer and the seal of the Company may be affixed by facsimile to any Power of Attorney, and, unless subsequently revoked and subject to any limitation set forth therein, any such Power of Attorney or certificate bearing such facsimile signature and seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signature and seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

RESOLVED, that Attorneys in Fact shall have the power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and any such instrument executed by such Attorneys in Fact shall be binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary or Assistant Secretary of the Company.

I, Tammy Tieperman, Secretary of Insurors Indemnity Company, do hereby certify that the foregoing is a true excerpt from the Resolutions of the said Company as adopted by its Board of Directors on November 11, 2014, and that this Resolution is in full force and effect. I certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Witness Whereof, I have set my hand and the seal of INSURORS INDEMNITY COMPANY on this 14th day of May, 2018.


Tammy Tieperman, Secretary

NOTE: IF YOU HAVE ANY QUESTION REGARDING THE VALIDITY OR WORDING OF THIS POWER OF ATTORNEY,
PLEASE CALL 800 933 7444 OR WRITE TO US AT P. O. BOX 2683, WACO, TEXAS 76702-2683 OR EMAIL US AT
CONFIRMATION@INSURORS.COM.



P&C 877 282 1625
Bonds 800 933 7444

225 South Fifth Street
PO Box 2683
Waco, Texas 76702-2683

IMPORTANT NOTICE - AVISO IMPORTANTE

To obtain information or make a complaint:

You may call Insurors Indemnity Company's toll-free telephone number for information or to make a complaint at:

1-800-933-7444

You may also write to Insurors Indemnity Company at:

P.O. Box 2683
Waco, TX 76702-2683
Or
225 South Fifth Street
Waco, TX 76701

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:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de Insurors Indemnity Company's para informacion o para someter una queja al

1-800-933-7444

Usted tambien puede escribir a Insurors Indemnity Company:

P.O. Box 2683
Waco, TX 76702-2683
O
225 South Fifth Street
Waco, TX 76701

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concemiente a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.

FILED AND RECORDED
OFFICIAL PUBLIC RECORDS

Laura Richard

Laura Richard, County Clerk

Fort Bend County Texas

July 27, 2018 03:00:49 PM



FEE: \$0.00 SG

2018084513

GENERAL NOTES

1. THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS WAS TAKEN FROM AVAILABLE SURVEY INFORMATION AND/OR EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES MUST BE DETERMINED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UTILITIES. IF A DISCREPANCY AND/OR CONFLICT IS DISCOVERED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES DURING CONSTRUCTION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PUBLIC UTILITIES, PAVEMENT TO REMAIN, CURBS, SIDEWALKS, SIGNS, TREES, ETC., IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES. DURING CONSTRUCTION ALL DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE OWNING/OPERATING AUTHORITY, WITH NO COST TO THE CITY, COUNTY, PRIVATE UTILITY OWNERS, ENGINEER, OR THE OWNER.
3. CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITY LINES AND SHALL NOTIFY THE FOLLOWING AGENCIES 72 HOURS PRIOR TO EXCAVATING OR AUGERING NEAR EXISTING FACILITIES.
A. TEXAS ONE CALL SYSTEM AT 1-800-245-4545
B. LONE STAR NOTIFICATION CENTER AT 1-800-669-8344
C. TEXAS EXCAVATION SAFETY SYSTEM AT 1-800-344-8377
4. PRIOR TO ANY CONSTRUCTION ACTIVITY, CONTRACTOR IS TO ACQUIRE ALL REQUIRED CONSTRUCTION PERMITS FROM APPROPRIATE AUTHORITIES. CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS, OR PERSONS IN CHARGE OF PUBLIC AND PRIVATE UTILITY LINES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCEMENT OF WORK.
5. THE ENGINEER AND THE CITY/COUNTY OR MUD SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE CONTRACTOR CONNECTING TO ANY EXISTING UTILITY LINES.
6. NO CONNECTIONS SHALL BE MADE TO EXISTING PUBLIC WATER LINES OR PUBLIC SANITARY SEWERS UNTIL ALL PROPOSED WATER OR SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED (AS REQUIRED) AND APPROVED BY THE APPROPRIATE AUTHORITIES.
7. HORIZONTAL AND VERTICAL INFORMATION REGARDING UTILITY CONNECTIONS TO PROPOSED BUILDINGS ON THIS SET OF PLANS TERMINATE AT FIVE (5) FEET FROM THE NEAREST BUILDING WALL.
8. ALL MANHOLES, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
9. ALL APPURTENANCES WILL BE ASSUMED TO BE IN GOOD CONDITION UNLESS OTHERWISE CONFIRMED IN WRITING PRIOR TO COMMENCEMENT OF WORK.
10. OVERHEAD LINES 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 CONSTRUCTION. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSON OR EQUIPMENT MAY COME WITHIN 6 FEET OF LIVE OVERHEAD HIGH VOLTAGE LINES. CONTRACTORS ARE LEGALLY RESPONSIBLE FOR SAFETY OF CONSTRUCTION WORKERS UNDER THIS LAW. THIS LAW CARRIES BOTH CIVIL AND CRIMINAL LIABILITY.
11. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND ALL REGULATIONS OF UTILITY COMPANIES CONCERNING SAFETY AND HEALTH PRACTICES. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SITE TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY/COUNTY STANDARDS, TEXAS STATE LAW, AND O.S.H.A. STANDARDS FOR ALL EXCAVATION.
12. PRIOR TO THE START OF CONSTRUCTION, OWNER AND CONTRACTOR ARE RESPONSIBLE FOR SUBMITTING THE "NOTICE OF INTENT" (N.O.I.) AND ANY ADDITIONAL INFORMATION REQUIRED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ). UPON COMPLETION OF THE PROJECT, OWNER AND CONTRACTOR ARE RESPONSIBLE FOR SUBMITTING THE "NOTICE OF TERMINATION" (N.O.T.).
13. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION.
14. CONTRACTOR SHALL REMOVE ALL MUD, DIRT, AND DEBRIS DEPOSITED OR DROPPED ON THE EXISTING ROADWAY AT THE END OF EACH WORK DAY. MATERIAL THAT IS HAZARDOUS TO TRAFFIC OR OTHERWISE PRESENTS A SAFETY CONCERN, SHALL BE REMOVED IMMEDIATELY.
15. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL REGULATIONS RELATED TO STORM WATER POLLUTION AND QUALITY. REFER TO EROSION CONTROL PLAN.
16. CONTRACTOR SHALL REESTABLISH ALL TURF DISTURBED DURING CONSTRUCTION TO ACCEPTABLE OPERATING CONDITION, AS DETERMINED BY OWNER AND/OR REGULATORY AGENCIES.
17. CONTRACTOR SHALL MAINTAIN A WORKSITE FREE OF TRASH AND DEBRIS.
18. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES. NO TREE SHALL BE REMOVED OR ALTERED WITHOUT WRITTEN PERMISSION FROM OWNER OR ENGINEER. EQUIPMENT OR MATERIALS SHALL NOT BE STAGED UNDER THE DRIP LINE OF EXISTING TREES.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SET OF "AS BUILT" PLANS FOR ALL WORK PERFORMED ON AND OFF SITE. UPON COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE AS-BUILT PLANS IDENTIFYING ALL DEVIATIONS OR VARIATIONS FROM ORIGINAL PLANS TO THE OWNER AND THE ENGINEER.
20. ALL TRAFFIC CONTROL AND WARNING SIGNS SHALL BE IN ACCORDANCE WITH TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
21. ALL SIDEWALKS, RAMPS, AND HANDRAILS TO MEET OR EXCEED CITY/COUNTY, TAS, AND ADA REQUIREMENTS.
22. ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO APPLICABLE CITY/COUNTY RULES AND REGULATIONS, CONSTRUCTION SPECIFICATIONS AND CONSTRUCTION DETAILS.
23. ALL EXCESS SPOIL MATERIAL GENERATED FROM CONSTRUCTION ACTIVITY TO BE HAULED OFFSITE AND DISPOSED IN ACCORDANCE WITH LOCAL LAWS, RULES, AND REGULATIONS.
24. AT THE END OF ALL CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL RESTORE THE EXISTING FACILITIES, TO EQUAL TO BETTER THAN EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. ALL FINISHED GRADES SHALL VARY UNIFORMLY BETWEEN THE FINISHED ELEVATIONS SHOWN.
25. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING LANDSCAPING AND IRRIGATION, NO SEPARATE PAY.
26. PRIOR TO SUBMITTAL OF BID OR PROPOSAL, CONTRACTOR SHALL VISIT PROJECT SITE AND BECOME FAMILIAR WITH THE PROJECT AND THE EXISTING CONDITIONS ON THE SITE. NO ADDITIONAL CONSIDERATION WILL BE GIVEN FOR ADDITIONAL WORK CAUSED BY FIELD CONDITIONS VISIBLE ON SITE DURING BIDDING BUT NOT SHOWN ON THESE PLANS.
27. THERE WILL BE NO SEPARATE PAYMENT FOR WORK SHOWN ON THESE PLANS, UNLESS SPECIFICALLY ESTABLISHED IN THE BID SECTION OF THE CONTRACT DOCUMENTS. INCLUDE COST OF SAME TO WHICH THIS WORK IS A COMPONENT PART.
28. IN THE EVENT OF A DISCREPANCY WITHIN THESE PLANS, OR BETWEEN THESE PLANS AND THE GEOTECHNICAL REPORT, THE MOST CONSERVATIVE CRITERIA SHALL APPLY.
29. ALL UTILITY TRENCHES BELOW PROPOSED OR FUTURE PAVING SHALL BE BACKFILLED WITH CEMENT SAND.
30. UTILITY TRENCHES ARE A COMMON SOURCE OF WATER INFILTRATION AND MIGRATION. ALL UTILITY TRENCHES THAT PENETRATE BENEATH THE BUILDING SHOULD BE EFFECTIVELY SEALED TO RESTRICT WATER INTRUSION AND FLOW THRU THAT COULD MIGRATE BELOW THE BUILDING. WE RECOMMEND CONSTRUCTING AN EFFECTIVE CLAY "TRENCH PLUG" THAT EXTENDS AT LEAST 5 FEET OUT FROM THE FACE OF THE BUILDING EXTERIOR. THE PLUG MATERIAL SHOULD CONSIST OF CLAY COMPACTED AT A WATER CONTENT AT OR ABOVE THE SOILS OPTIMUM WATER CONTENT. THE CLAY FILL SHOULD BE PLACED TO COMPLETELY SURROUND THE UTILITY LINE AND BE COMPACTED IN ACCORDANCE WITH RECOMMENDATIONS IN THIS REPORT.
31. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITY TIE IN LOCATIONS FOR MATERIAL, SIZE, ELEVATION AND FIELD CONDITIONS. IN THE EVENT THE PLANS DO NOT REPRESENT FIELD CONDITIONS THE CONTRACTOR IS TO CONTACT THE ENGINEER AND OWNER IMMEDIATELY AND PRIOR TO PERFORMING ANY WORK.
32. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR TO CONFIRM POSSESSION OF LATEST DRAWINGS, INCLUDING ANY REVISIONS. IF THE DRAWINGS ARE NOT LABELED AS "CONSTRUCTION SET" ON THE COVER PAGE, CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY.
33. CONTRACTOR TO OBTAIN ALL PERMITS. OWNER WILL PROVIDE PAYMENT AS NECESSARY AND REQUESTED BY CONTRACTOR.

GRADING NOTES

1. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL VERIFY THE SUITABILITY OF ALL EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. BEFORE STARTING CONSTRUCTION, CONTRACTOR SHALL VERIFY BENCHMARK ELEVATION AND NOTIFY ENGINEER IF ANY DISCREPANCY AND/OR CONFLICT IS FOUND.
3. CONTRACTOR SHALL ENSURE THERE IS POSITIVE DRAINAGE FROM THE PROPOSED BUILDINGS AND NO PONDING IN EITHER PAVED OR LANDSCAPE AREAS, AND SHALL NOTIFY ENGINEER IF ANY GRADING DISCREPANCIES ARE FOUND IN THE EXISTING AND PROPOSED GRADES PRIOR TO PLACEMENT OF PAVEMENT OR UTILITIES.
4. CONTRACTOR SHALL PROTECT ALL MANHOLE COVERS, VALVE COVERS, POWER POLES, GUY WIRES, AND TELEPHONE BOXES THAT ARE TO REMAIN IN PLACE AND UNDISTURBED DURING CONSTRUCTION.
5. ALL EXISTING CONCRETE PAVING, SIDEWALK, AND CURB DEMOLITION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. DISPOSAL SHALL BE AT AN APPROVED OFF-SITE, LANDFILL LOCATION, UNLESS DIRECTED OTHERWISE BY THE OWNER.
6. FOR BUILDING PAD SUBGRADE PREPARATION AND GENERAL EARTHWORK OBSERVATIONS, REFER TO THE GEOTECHNICAL REPORT PREPARED BY ALPHA TESTING, INC., DATED NOVEMBER 22, 2017 (PROJECT NUMBER H172934). ALL MATERIAL SPECIFICATION AND TESTING SHALL BE ADHERED TO AS OUTLINED IN THIS REPORT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS REPORT PRIOR TO PRICING ITEMS IMPACTED BY THE REPORT.
7. FINAL PAVEMENT GRADES SHALL BE WITHIN 0.05' OF DESIGN ELEVATIONS, EXCEPT FOR ADA AREAS, WHICH SHALL BE WITHIN 0.01' OF DESIGN ELEVATIONS. FINAL NON-PAVEMENT ELEVATIONS SHALL BE WITHIN 0.1' OF PROPOSED GRADE.
8. ALL DETENTION PONDS SHALL BE GRADED TO WITHIN 0.1' OF PROPOSED ELEVATIONS AND WITHIN 6" OF HORIZONTAL LOCATION. AFTER COMPLETION AN AS-BUILT SURVEY WILL BE ORDERED BY OWNER, AND ANY POND NOT BUILT PER PLAN, WILL BE CORRECTED AT CONTRACTOR'S SOLE COST.

FRANCHISE UTILITY NOTES

1. CONTRACTOR SHALL CALL THE TEXAS ONE CALL AND DIG-TESS AT LEAST 72 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE TO THESE FACILITIES.
2. CONTRACTOR SHALL INSTALL LONG SWEEPS FOR DRY UTILITY CONDUTS WHERE A BEND IS GRAPHICALLY SHOWN.

PAVING AND STRIPING NOTES

1. PAVEMENT DESIGN AND SOIL PREPARATION RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT PREPARED BY ALPHA TESTING, INC., DATED NOVEMBER 22, 2017 (PROJECT NUMBER H172934) SHALL BE ADHERED TO FOR BOTH MATERIALS AND PRACTICE OF INSTALLATION. CONTRACTOR SHALL ENSURE ALL SPECIFICATIONS AND TESTING ARE MET AS OUTLINED IN THIS REPORT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS REPORT PRIOR TO PRICING ITEMS IMPACTED BY THE REPORT.
2. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND CITY/COUNTY STANDARDS.
3. CONTRACTOR SHALL FURNISH ALL PAVEMENT MARKINGS FOR FIRE LANES, ROADWAY LANES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, ACCESS AISLES, STOP BARS AND SIGNS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AS SHOWN ON THE PLANS.
4. ALL JOINTS SHALL BE SEALED PER CITY/COUNTY SPECIFICATIONS. ALL JOINTS SHALL EXTEND THROUGH THE CURB.
5. THE MATERIALS AND PROPERTIES OF CONCRETE SHALL MEET THE APPLICABLE REQUIREMENTS IN THE A.C.I. (AMERICAN CONCRETE INSTITUTE) MANUAL OF CONCRETE PRACTICE AS WELL AS CITY/COUNTY STANDARDS. IN THE EVENT OF A CONTRADICTION BETWEEN THESE TWO STANDARDS, THE MOST RESTRICTIVE (AS DETERMINED BY THE ENGINEER) SHALL APPLY.
6. PAVEMENT THICKNESS'S SHOWN IN THIS PLAN SET ARE "MINIMUM" NOT AVERAGE. PAVEMENT THICKNESS AT ALL LOCATIONS SHALL EXCEED THE THICKNESS SPECIFIED.
7. ANY DAMAGED PAVEMENT, CURB AND/OR SIDEWALK WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE TO THE SATISFACTION OF THE ENGINEER AND OWNER.
8. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. & T.A.S.) EXIST TO AND FROM EVERY DOOR. IN NO CASE SHALL:
A. HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL.
B. SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT.
C. LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT.
D. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVEMENT CONSTRUCTION IF ANY SLOPES EXCEED THE ABOVE LIMITS.
9. REINFORCING BAR SPICES SHALL BE STAGGERED WITH NO MORE THAN 2 SPICES ADJACENT TO EACH OTHER.
10. STABILIZED SUBGRADE SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND EDGE OF ALL PAVEMENT, OR AS DIRECTED IN GEOTECHNICAL REPORT.
11. ALL CONCRETE PAVEMENT SHALL BE FLOAT FINISHED MECHANICALLY WITH APPROVED SELF-PROPELLED MACHINES. HANDING FLOATING SHALL BE PERMITTED ONLY IN AREAS INACCESSIBLE TO A FINISHING MACHINE. AFTER FLOATING, CONTRACTOR SHALL PROVIDE A FINE OR MEDIUM-COARSE "BROOM FINISH," UNLESS OTHERWISE INDICATED BY THE OWNER, FOR ALL EXTERIOR SIDEWALKS, EXTERIOR RAMPS, EQUIPMENT AND TRANSFORMER PADS, AND SITE PAVING. BROOMING SHALL BE DONE TRANSVERSELY TO THE DIRECTION OF MAIN TRAFFIC. ALL FINISHING SHALL CONFORM TO A.C.I.301. CONTRACTOR SHALL DETERMINE THE APPROPRIATE MEANS & METHODS TO PROTECT THE FINISHED CONCRETE FROM PRECIPITATION FOR A MINIMUM OF 24 HOURS.
12. CONTRACTOR SHALL PROTECT THE FINISHED CONCRETE PAVEMENT AGAINST LOSS OF MOISTURE FOR NO LESS THAN 72 HOURS IN CONFORMANCE WITH THE A.C.I. MANUAL OF CONCRETE PRACTICE.
13. ALL PROPOSED PAVEMENT WITHIN ANY PUBLIC ROW SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE DETAIL FROM THE APPLICABLE GOVERNING ENTITY.

STORM SEWERS

1. STORM SEWER PIPE USED FOR CONNECTION TO STORM SEWER IN PUBLIC RIGHT-OF-WAY OR CONSTRUCTED WITHIN PUBLIC EASEMENTS SHALL BE REINFORCED CONCRETE PIPE ASTM C-76, CLASS III, WITH RUBBER GASKET PER ASTM C-443 AND SHALL EXTEND TO FIRST PRIVATE INLET OR MANHOLE. ALL OTHER PRIVATE STORM SEWER MAY BE SELECTED PER THE FOLLOWING CRITERIA:
A. CORRUGATED HIGH-DENSITY POLYETHYLENE (HDPE) (4 INCHES TO 48 INCHES IN DIAMETER): AASHTO M 294, DUAL WALL WITH WATER TIGHT (ASTM D3212) BELL-TO-BELL COUPLER, TRADE NAME N-12 BY ADS OR EQUAL
B. POLYVINYL CHLORIDE (PVC) CORRUGATED PIPE WITH SMOOTH INTERIOR PER ASTM F 949 (4 INCHES TO 36 INCHES (102-MM TO 914-MM)) WITH ELASTOMETRIC GASKET JOINTS, TRADE NAME 2000 BY CONTECH OR EQUAL
C. STEEL REINFORCED HIGH-DENSITY POLYETHYLENE (HDPE) (24 INCHES TO 48 INCHES IN DIAMETER): AASHTO M 294, HIGH PERFORMANCE JOINTS (ASTM D3212), TRADE NAME DUROMAXX OR EQUAL
D. REINFORCED CONCRETE PIPE (RCP): ASTM C76, CLASS III WITH RUBBER GASKET JOINTS PER ASTM C-443
2. STORM SEWERS IN PUBLIC R.O.W. OR PUBLIC EASEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST FORT BEND COUNTY STANDARD CONSTRUCTION SPECIFICATIONS FOR STORM SEWERS INCLUDING ALL CURRENT AMENDMENTS THERETO. ALL STORM SEWER ON PRIVATE PROPERTY SHALL BE CONSTRUCTED PER SPECIFICATIONS AND DETAILS IN THESE DRAWINGS AND IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS.
3. ALL SEWERS UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 1 1/2 SACK CEMENT/C.Y. STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE. CEMENT STABILIZED SAND TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C33, LATEST EDITION
4. TRENCH BACKFILL SHALL BE SUITABLE EARTH MATERIAL PLACED IN 8 INCH LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS ON EACH LIFT. BACKFILL TO BE MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM DESIGNATION D-698/AASHTO T99). MOISTURE CONTENT OF BACKFILL SHALL BE WITHIN PARAMETERS ESTABLISHED BY THE PROCTOR TEST.
5. PROPOSED PIPE STUB-OUTS ARE TO BE PLUGGED WITH 8" BRICK WALLS, UNLESS OTHERWISE NOTED.

WATER LINES

1. WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST FORT BEND COUNTY, MUD DISTRICT AND TCEQ REGULATIONS, STANDARD SPECIFICATIONS, AND CONSTRUCTION DETAILS.
2. 4" THRU 12" WATER LINES SHALL BE P.V.C. CLASS 150, DR-18, AWWA C-900 AND 1" THRU 3" WATER LINES SHALL BE PVC SCHEDULE 40. 4" THRU 54" D.I.P. WATER LINES SHALL BE AWWA C151 (ANSI A21.51) AND DOUBLE WRAPPED IN 8-MIL POLYETHYLENE PIPE SHALL BE LINED IN ACCORDANCE WITH AWWA C104 (ANSI A21.4).
3. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT. WHERE PREVENTING MOVEMENT OF 16" OR GREATER PIPE IS NECESSARY DUE TO THRUST, USE RESTRAINED JOINTS.
4. ALL WATER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.
5. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER TCEQ REGULATIONS.
6. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
7. ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH. AT LEAST ONE BACTERIOLOGICAL SAMPLE SHALL BE COLLECTED FOR EACH 1,000 LINEAR FEET OF WATER LINE AND SHALL BE REPEATED IF CONTAMINATION PERSISTS.
8. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
9. 4" THRU 12" FITTINGS SHALL BE CEMENT MORTAR LINED COMPACT DUCTILE IRON PRESSURE FITTINGS PER ANSI A21.53, OR PUSH ON FITTINGS PER ANSI A21.10 PRESSURE RATED AT 250 PSIG.
10. HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST FORT BEND COUNTY, MUD DISTRICT AND TCEQ REQUIREMENTS. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF WATER PIPE LINE INCLUDED IN THE PROJECT.
11. ALL WATER LINES TO HAVE 4" MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEAR TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS. ALL WATER LINE INSTALLED OVER 8" DEEP SHALL UTILIZE RESTRAINED JOINT FITTINGS.
12. CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAP (OR OTHERWISE EFFECTIVELY COVER) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.

13. ALL FIRE LINES TO BE DESIGNED, INSTALLED AND TESTED PER NFPA REGULATIONS.

SANITARY SEWERS

1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST FORT BEND COUNTY, MUD DISTRICT AND TCEQ CRITERIA AND BE SUBJECT TO A REQUIRED FIELD TESTING. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 217, "DESIGN CRITERIA FOR SEWERAGE SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE OF HIGHER STANDARDS.
2. SANITARY SEWER PIPE USED FOR CONNECTION TO SEWER IN PUBLIC RIGHT-OF-WAY SHALL BE C900 P.V.C. PIPE MEETING ASTM SPECIFICATION D3034 WITH RUBBER GASKET JOINTS. ALL OTHER PRIVATE SANITARY SEWER PIPE MATERIAL SHALL CONFORM TO THE FOLLOWING CRITERIA:
A) POLYVINYL CHLORIDE (PVC) SCHEDULE 40 TO BE USED FOR PIPE SIZES 8 INCHES AND SMALLER.
B) STANDARD DENSITY RATIO (SDR) 35 PVC OR 26 PVC CAN BE USED FOR PIPE SIZES 8 INCHES AND LARGER. SEE NOTE 5 BELOW REGARDING SDR 26 FITTINGS.
3. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.
4. ALL SANITARY SEWERS AND WATER LINES CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY, MUD DISTRICT, AND TCEQ REGULATIONS.
5. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3"- 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING AND GRADING OPERATIONS.
6. SDR 26 P.V.C. PIPE USES "FULL BODY" SDR 26 P.V.C. FITTINGS OR D.I.P. FITTINGS WITH APPROPRIATE ADAPTERS. AWWA C-900 DR-18 P.V.C. PIPE USES EITHER AWWA C900 DR-18 P.V.C. FITTINGS OR D.I.P. FITTINGS.
7. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE BETWEEN MANHOLES. SERVICE LEADS SHALL NOT BE TESTED. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. THE DEFLECTION TEST SHALL USE A RIGID 7-SIDED MANDREL, WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. NO MECHANICAL PULLING IS ALLOWED.
8. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 217.2 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.
9. NO CONNECTIONS SHALL BE MADE TO THE EXISTING SANITARY SEWER LINES UNTIL ALL PROPOSED SEWER LINES HAVE BEEN THOROUGHLY CLEANED, TESTED AND APPROVED BY THE ENGINEER. THE ENGINEER AND MUD DISTRICT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE CONTRACTOR CONNECTING TO ANY EXISTING SEWER LINES.
10. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY/COUNTY AT LEAST 48 HOURS PRIOR TO PRESSURE AND DEFLECTION TEST ON ALL SANITARY LINES.
11. ALL SEWER LINES ENTERING A MANHOLE AT A FLOWLINE HIGHER THAN 3.0' OR 36" ABOVE THE MANHOLE INVERT MUST BE PROVIDED WITH A DROP PIPE OUTSIDE OF THE MANHOLE.

SWPPP NOTES

1. POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH CONSTRUCTION SITE:
-ADHESIVES, PESTICIDES, DETERGENTS, PAINTS, FUELS, SOLVENTS, SEALANTS, FERTILIZERS, OILS, HERBICIDES, CLEANING SOLUTIONS, CONCRETE/CEMENT/PLASTER
2. STORM WATER QUALITY MEASURE IMPLEMENTATION RELATIVE TO LAND DISTURBING ACTIVITIES:
A. PRIOR TO CONSTRUCTION: SILT FENCING SHALL BE INSTALLED IN ALL LOCATIONS SHOWN ON SITE MAP THAT WILL NOT BE DISTURBED DURING THE INITIAL GRADING PROCESS. THE STABILIZED CONSTRUCTION EXIT SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
B. DURING CONSTRUCTION:
B.1. IMMEDIATELY AFTER PAVING CONSTRUCTION IS COMPLETE, INLET PROTECTION TRAPS WILL BE INSTALLED ON ALL NEWLY CONSTRUCTED INLETS.
B.2. WHEN EXISTING SILT FENCING NEEDS TO BE REMOVED FOR CONSTRUCTION OR ACCESS PURPOSES, IT WILL BE REPLACED AS SOON AS POSSIBLE AFTER CONSTRUCTION IN THE VICINITY OF THE REMOVED FENCE IS COMPLETE.
B.3. AS SOON AS PRACTICABLE AFTER SITE GRADING IS COMPLETE, FINAL STABILIZATION PROCEDURES SUCH AS TURF ESTABLISHMENT AND INSTALLATION OF PLANT MATERIAL WILL BE COMMENCED.
C. AFTER CONSTRUCTION: AFTER CONSTRUCTION ACTIVITY AND SITE STABILIZATION PROCEDURES ARE COMPLETE, STRUCTURAL EROSION AND SEDIMENT CONTROLS WILL BE REMOVED. SOIL DISTURBED BY THE REMOVAL OF CONTROLS WILL BE STABILIZED.
3. PERMANENT STORM WATER CONTROLS: AFTER CONSTRUCTION ACTIVITY IS COMPLETE, AREAS NOT COVERED BY CONCRETE PAVEMENT OR BY STRUCTURES WILL BE LANDSCAPED AND IRRIGATED. ONCE ESTABLISHED, THIS VEGETATION WILL HELP PREVENT SEDIMENT RUNOFF IN THE FUTURE STORM EVENTS. NEWLY GRADED AREA WILL BE TEXTURED TO REDUCE FLOW VELOCITY.
4. MATERIAL HANDLING AND SPILL PREVENTION PLAN:
A. HAZARDOUS MATERIALS WILL BE STORED AND USED IN CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. DISPOSAL WILL BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION, AND IN ACCORDANCE WITH STATE AND LOCAL LAWS AND REGULATIONS.
B. THE FOLLOWING PROCEDURES WILL BE FOLLOWED FOR CONTAINMENT AND CLEAN-UP OF SPILLS:
B.1. ALL SPILLS WILL BE CLEANED UP AND PROPERLY REMOVED IN ACCORDANCE WITH STATE REGULATIONS AND LOCAL ORDINANCES.
B.2. SOIL AND SPILLED MATERIALS WILL BE COLLECTED UNTIL NO VISIBLE EVIDENCE OF SPILLED MATERIAL REMAINS.
B.3. THE TYPE OF MATERIAL AND QUANTITY OF RELEASE SHALL BE IDENTIFIED, AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN AS RECOMMENDED BY THE PRODUCT-SPECIFIC MSDS.
B.4. SPILL CONTAINMENT MAY BE INCLUDE CONSTRUCTION OF EARTH DIKES AROUND THE SPILL AREA, DEPLOYMENT OF ABSORBENT MATERIALS, OR USE OF COMMERCIALY AVAILABLE KITS.
B.5. CONTAMINATED SOIL AND SPILLED MATERIAL WILL BE STORED IN APPROPRIATE AND PROPERLY LABELED CONTAINERS, AND DISPOSED OF IN ACCORDANCE WITH STATE, LOCAL, AND FEDERAL RULES AND REGULATIONS.
5. GENERAL PERMIT MAINTENANCE REQUIREMENTS (FROM GENERAL PERMIT):
A. ALL PROTECTIVE MEASURES IDENTIFIED IN THIS SWPPP MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. IF, THROUGH INSPECTION OR OTHER MEANS, THE PERMITEE DETERMINES THAT BMP'S ARE NOT OPERATING EFFECTIVELY, THEN THE PERMITEE SHALL PERFORM MAINTENANCE AS NECESSARY TO MAINTAIN THE CONTINUED EFFECTIVENESS OF STORM WATER CONTROLS, AND PRIOR TO THE NEXT RAIN EVENT, IF FEASIBLE. IF MAINTENANCE PRIOR TO THE NEXT ANTICIPATED STORM EVENT IS IMPRACTICABLE, THE REASON SHALL BE DOCUMENTED IN THE SWPPP AND MAINTENANCE MUST BE SCHEDULED AND ACCOMPLISHED AS SOON AS PRACTICABLE. EROSION AND SEDIMENT CONTROLS THAT HAVE BEEN INTENTIONALLY DISABLED, RUN-OVER, REMOVED, OR OTHERWISE RENDERED INEFFECTIVE MUST BE REPLACED OR CORRECTED IMMEDIATELY UPON DISCOVERY.
B. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL HAS BEEN USED INCORRECTLY, IS PERFORMING INADEQUATELY, OR IS DAMAGED, THEN THE OPERATOR MUST REPLACE OR MODIFY THE CONTROL AS SOON AS PRACTICABLE AFTER MAKING THE DISCOVERY.
C. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS AND SEDIMENTATION PONDS NO LATER THAN THE TIME THAT DESIGN CAPACITY HAS BEEN REDUCED BY 50% FOR PERIMETER CONTROLS SUCH AS SILT FENCES, BERMS, ETC., THE TRAPPED SEDIMENT MUST BE REMOVED BEFORE IT REACHES SOX OF THE ABOVE GROUND HEIGHT.
D. IF SEDIMENT ESCAPES THE SITE, ACCUMULATIONS MUST BE REMOVED AT A FREQUENCY THAT MINIMIZES OFF-SITE IMPACTS, AND PRIOR TO THE NEXT RAIN EVENT, IF FEASIBLE. IF THE PERMITEE DOES NOT EXIT THE OFFSITE CONVEYANCE, THEN THE PERMITEE MUST WORK WITH THE OWNER OR OPERATOR OF THE PROPERTY TO REMOVE THE SEDIMENT.
6. EROSION AND SEDIMENT CONTROLS:
A. THE FOLLOWING NON-STRUCTURAL EROSION AND SEDIMENT CONTROLS WILL BE UTILIZED ON THE PROJECT SITE:
A.1. WHERE PRACTICAL, CARE WILL BE TAKEN TO PROTECT NATURAL VEGETATION THAT DOES NOT NEED TO BE REMOVED FOR CONSTRUCTION PURPOSES.
A.2. PLACEMENT OF CONCRETE OR DRIVEWAY AREAS WILL BE PERFORMED AS SOON AS POSSIBLE AFTER SUB-GRADE STABILIZATION, TO MINIMIZE THE AMOUNT OF TIME DISPOSED SOIL IS EXPOSED TO THE ELEMENTS. THIS PRACTICE WILL REDUCE THE FREQUENCY THAT MAINTENANCE IS REQUIRED ON THE STRUCTURAL BMP'S.
A.3. THE GENERAL PERMIT REQUIRES THAT EROSION AND STABILIZATION MEASURES MUST BE INITIATED WITHIN 14 DAYS IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED. IF CONSTRUCTION ACTIVITY IS SCHEDULED TO RESUME WITHIN 21 DAYS FROM THE CESSATION OF CONSTRUCTION ACTIVITY, EROSION AND STABILIZATION MEASURES ARE NOT REQUIRED FOR THAT PORTION OF THE SITE.
A.4. STABILIZATION PROCEDURES SUCH AS TURF ESTABLISHMENT AND INSTALLATION OF PLANT MATERIAL SHOULD BE COMMENCED AS SOON AS PRACTICABLE AFTER SITE GRADING IS COMPLETE AND FINAL.
B. THE FOLLOWING STRUCTURAL EROSION AND SEDIMENT CONTROLS WILL BE UTILIZED ON THE PROJECT SITE:
B.1. A STABILIZED CONSTRUCTION EXIT WILL BE INSTALLED AT THE LOCATION WHERE CONSTRUCTION TRAFFIC EXISTS THE PROJECT SITE.
B.2. INLET PROTECTION TRAPS WILL BE INSTALLED AT ALL INLETS IMMEDIATELY AFTER CONCRETE PAVEMENT IS PLACED.
B.3. SILT FENCING (FILTER FABRIC FENCE OR REMOVED FILTER FABRIC FENCE) WILL BE INSTALLED ALONG THE PROPERTY BOUNDARY AND ADJACENT TO EXISTING DITCHES, BAYOUS, STREAMS, RIVERS, AND/OR CHANNELS.
B.4. ANY SEDIMENT THAT ENTERS THE STORM SEWER SYSTEM WILL BE REMOVED IMMEDIATELY (NOT FLUSHED).
B.5. SINCE ALL PROPOSED INLETS ARE LESS THAN 10-ACRES, SEDIMENT BASINS ARE NOT REQUIRED FOR THIS SITE.
B.6. WHERE PRACTICAL, CARE WILL BE TAKEN TO PROTECT NATURAL VEGETATION THAT DOES NOT NEED TO BE REMOVED FOR CONSTRUCTION PURPOSES.

TRAFFIC NOTES

- 1) CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD - LATEST EDITION WITH REVISIONS) DURING CONSTRUCTION.
- 2) NO LANES SHALL BE BLOCKED FROM 7 A.M. TO 9 A.M. AND 4 P.M. TO 6:30 P.M. MONDAY THRU FRIDAY.
- 3) OFF DUTY POLICE OFFICERS/FLAGGERS ARE REQUIRED TO DIRECT TRAFFIC WHEN LANES ARE BLOCKED.
- 4) CONTRACTOR SHALL COVER THE EXCAVATION WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND ALLOW NORMAL TRAFFIC FLOW. IF COVERING IS NOT FEASIBLE, USE TRAXTRON FR 336 EPX 36" DELINEATOR OR APPROVED EQUAL WITH SHEETING AND BASE EXPOSED TO PAVEMENT NEXT TO EXCAVATION DURING NON-WORKING HOURS.
- 5) APPROVED COPIES OF "TRAFFIC CONTROL PLANS" SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES.
*THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCEABLE MYLARS AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME A PART OF THE CONTRACT DRAWINGS.
- **THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND OPERATION FOR ANY AND ALL TRAFFIC CONTROL MEASURES AS REQUIRED BY REGULATING AGENCIES OR FOR THE SAFE EXECUTION OF THE WORK SHOWN WITHIN THESE CONSTRUCTION DOCUMENTS. NO SEPARATE PAY.

FORT BEND COUNTY NOTES:

1. FORT BEND COUNTY MUST BE INVITED TO THE PRE-CONSTRUCTION MEETING.
2. CONTRACTOR SHALL NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT 48 HOURS PRIOR TO COMMENCING CONSTRUCTION AND 48 HOUR NOTICE TO ANY CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF THE PAVING AT CONSTRUCTION.FORTBENDCOUNTY.TX.GOV.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FROM FORT BEND COUNTY PRIOR TO COMMENCING CONSTRUCTION OF ANY IMPROVEMENTS WITHIN COUNTY ROAD RIGHT OF WAYS.
4. ALL PAVING IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FORT BEND COUNTY "RULES, REGULATIONS AND REQUIREMENTS RELATING TO THE APPROVAL AND ACCEPTANCE OF IMPROVEMENTS IN SUBDIVISIONS AS CURRENTLY AMENDED.
5. ALL ROAD WIDTHS, CURB RADI AND CURB ALIGNMENT SHOWN INDICATES BACK OF CURB.
6. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.
7. ALL CONCRETE PAVEMENT SHALL BE 5 ½ SACK CEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI AT 28 DAYS. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.
8. ALL WEATHER ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
9. 4" X 12" REINFORCED CONCRETE CURB SHALL BE PLACED IN FRONT OF SINGLE FAMILY LOTS ONLY. ALL OTHER AREAS SHALL BE 6" REINFORCED CONCRETE CURB.
10. AT ALL INTERSECTION LOCATIONS, TYPE 7 RAMPS SHALL BE PLACE IN ACCORDANCE WITH TxDOT PED-122 STANDARD DETAIL SHEET. A.D.A. - HANDICAP RAMPS SHALL BE INSTALLED WITH STREET PAVING AT ALL INTERSECTIONS AND COMPLY WITH CURRENT A.D.A. REGULATIONS.
11. CURB HEADERS ARE REQUIRED AT CURB CONNECTIONS TO HANDICAP RAMPS, WITH NO CONSTRUCTION JOINT WITHIN 5' OF RAMPS.
12. ALL INTERSECTIONS UTILIZING TRAFFIC CONTROL MEASURES SHALL HAVE A.D.A. WHEEL CHAIR RAMPS INSTALLED.
13. GUIDELINES ARE SET FORTH IN THE TEXAS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AS CURRENTLY AMENDED. SHALL BE OBSERVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE FLAGMEN, SIGNING, STRIPING AND WARNING DEVICES, ETC., DURING CONSTRUCTION - BOTH DAY AND NIGHT.
14. ALL R1-1 STOP SIGNS SHALL BE 30" X 30" WITH DIAMOND GRADE SHEETING PER TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15. STREET NAME SIGNAGE SHALL BE ON A 9" HIGH SIGN FLAT BLADE W/ REFLECTIVE GREEN BACKGROUND. STREET NAMES SHALL BE UPPER AND LOWERCASE LETTERING WITH UPPERCASE LETTERS OF 6" MINIMUM AND LOWERCASE LETTERS OF 4.5" MINIMUM. THE LETTERS SHALL BE REFLECTIVE WHITE. STREET NAME SIGNS SHALL BE MOUNTED ON STOP SIGN POST.
16. A BLUE DOUBLE REFLECTORIZED BUTTON SHALL BE PLACED AT ALL FIRE HYDRANT LOCATIONS. THE BUTTON SHALL BE PLACED 12 INCHES OFF OF THE CENTERLINE OF THE STREET ON THE SAME SIDE AS THE HYDRANT.

NOTE: FORT BEND COUNTY NOTES SUPERSEDE ANY CONFLICTING NOTES.

INSPECTION. THE PROJECT AND ALL PARTS THEREOF SHALL BE SUBJECT TO INSPECTION FROM TIME TO TIME BY INSPECTORS DESIGNATED BY FORT BEND COUNTY. NO SUCH INSPECTIONS SHALL RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER. NEITHER FAILURE TO INSPECT NOR FAILURE TO DISCOVER OR RECTIFY ANY OF THE WORK AS NOT IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, REQUIREMENTS AND SPECIFICATIONS OF FORT BEND COUNTY OR ANY PROVISION OF THIS PROJECT SHALL BE CONSTRUED TO IMPLY AND ACCEPTANCE OF SUCH WORK OR TO RELIEVE THE CONTRACTOR OF ANY OF ITS OBLIGATIONS HEREUNDER.

ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
FNN F-11626



22 MARCH 2018

GENERAL NOTES

CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

SHEET
C0.1

DATE

REVISIONS

No.

VERSION 1.1 FEBRUARY 23, 2017

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED:  DEVELOPMENT COORDINATOR

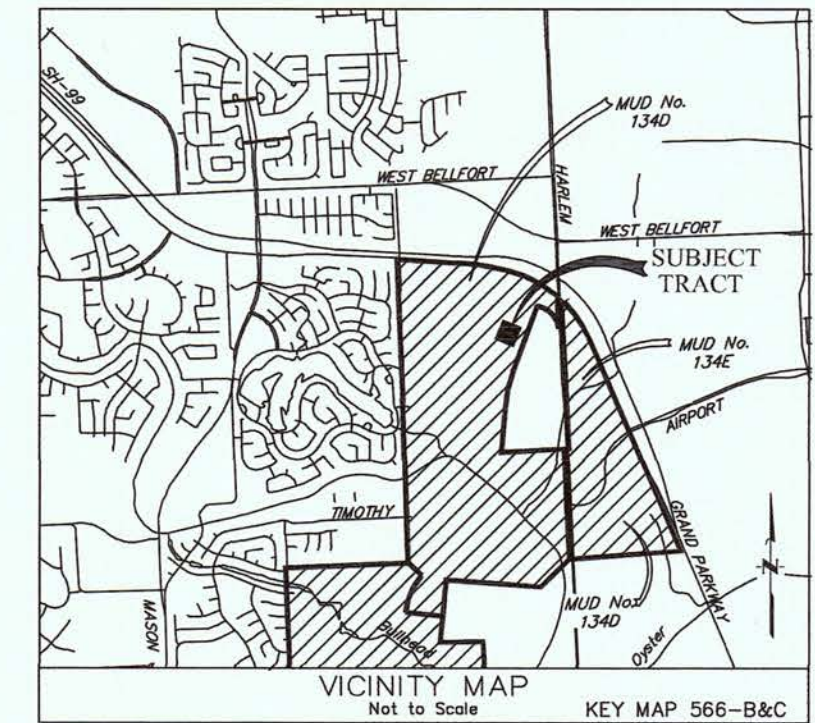
DATE: 3/28/18

T.B.M.
"X" CUT ON INLET
ELEV=90.04

REMAINDER OF
CALL 883.159 ACRES
(TRACT II)
GRAND PARKWAY 1358, LP
F.B.C.C.F. NO. 2014037769

GRAPHIC SCALE

(IN US SURVEY FEET)
1 inch = 30 ft.



LEGEND

- B.L. = BUILDING LINE
- C.I.R. = CAPPED IRON ROD
- F.B.C.C.F. = FORT BEND COUNTY CLERKS FILE
- F.B.C.D.R. = FORT BEND COUNTY DEED RECORDS
- F.B.C.P.R. = FORT BEND COUNTY PLAT RECORDS
- FL = FLOWLINE
- I.S. = INSIDE BOUNDARY LINE
- P.O.B. = POINT OF BEGINNING
- SAN MH = SANITARY MANHOLE
- STM MH = STORM MANHOLE
- S.S.E. = SANITARY SEWER EASEMENT
- STM.S.E. = STORM SEWER EASEMENT
- TYP. = TYPICAL

SYMBOLS

- = CLEAN-OUT
- = SATELLITE DISH
- = SANITARY MANHOLE
- = WATER VALVE
- = WATER METER
- = STORM MANHOLE
- = FLUSH VALVE

BENCHMARK

2005 FORT BEND COUNTY LIDAR BENCHMARK NO. 25
"PK" NAIL IN ASPHALT LOCATED 2.5' WEST OF THE FIRST MEDIAN
NOSE WEST OF F.M. 359 ON HIGHWAY 90-A.
ELEVATION=84.09

T.B.M.

"X" CUT ON CURB INLET LOCATED NORTH OF THE INTERSECTION OF
HARVEST CORNER DRIVE AND OREGON ASH DRIVE.
ELEVATION=90.04

Notes:

- This survey was prepared with the benefit of a Commitment for Title Insurance, File No. 17157037312, issued by Stewart Title Guaranty Company on October 24, 2017 (effective October 12, 2017).
- According to FEMA Flood Insurance Rate Map (FIRM) No. 49157C0140L, map revised April 2, 2014, the surveyed tract lies in Zone "X" unshaded, defined by FEMA as areas determined to be outside the 0.2% chance annual floodplain.
- Bearings are referenced to the Texas Coordinate System of 1983 (NAD83), South Central Zone, based on GPS observations.
- All set 5/8" capped iron rods are marked "GBI Partners"
- Surveyor observed no trees inside the boundary of the surveyed tract at the time of survey.

Easements and Restrictions:

- Restrictive Covenants recorded in/under Slide No. 1819/A of the Plat Records of Fort Bend County, Texas and Clerk's File No's. 2014134321 and 2015003916 of the Official Records of Fort Bend County, Texas.
- An easement Fifteen (15) feet wide, granted to Fort Bend County Municipal Utility District No. 1340, the location of which is reflected by instrument recorded under Clerk's File No. 2017007190 of the Official Public Records of Fort Bend County, Texas. (Shown)
- Sanitary sewer easement Five (5) feet wide, granted to Fort Bend County Municipal Utility District No. 1340, the location of which is reflected by instrument recorded under Clerk's File No. 2017007191 of the Official Public Records of Fort Bend County, Texas. (Shown)
- Utility easement Seven (7) feet wide, the location of which is reflected by instrument recorded under Clerk's File No. 2017080259 of the Official Public Records of Fort Bend County, Texas. (Shown)
- Easements and set back lines as set forth by the Declarations of Covenants, Conditions, and Restrictions recorded under Clerk's File No. 2014134321 of the Official Records of Fort Bend County, Texas. (Commercial Property) (Blanket; Not shown)
- All terms, conditions, and provisions of that certain Memorandum of Agreement between Texas Prison Board and Brazos Valley Irrigation Co., recorded in/under Volume 138, Page 400 of the Deed Records of Fort Bend County, Texas. (Blanket; Not shown)
- Surface Use Waiver and Drill Site Agreement recorded under Clerk's File No. 2014038105 of the Official Records of Fort Bend County, Texas. (Approximate locations shown in instrument do not appear to be located within the boundaries of this survey)
- Reservation of all rights to groundwater and groundwater leasing, provided, that Grantee shall share in any future royalties resulting from the commercial production of groundwater underlying the property, as reflected by instrument recorded under Clerk's File No. 2014037769 of the Official Public Records of Fort Bend County, Texas. (Blanket; Not Shown)
- General Assessments, Special Assessments, Tract Assessments, Capitalization Fees and Foundation Fees, reserved by instrument recorded under Clerk's File No. 2014134321 of the Official Public Records of Fort Bend County, Texas. Subordinate to purchase money liens and/or any renewal, extension, rearrangement or refinancing of said lien. (Commercial Property) (Blanket; Not shown)

EXHIBIT OF TOPOGRAPHY

1.47 ACRES

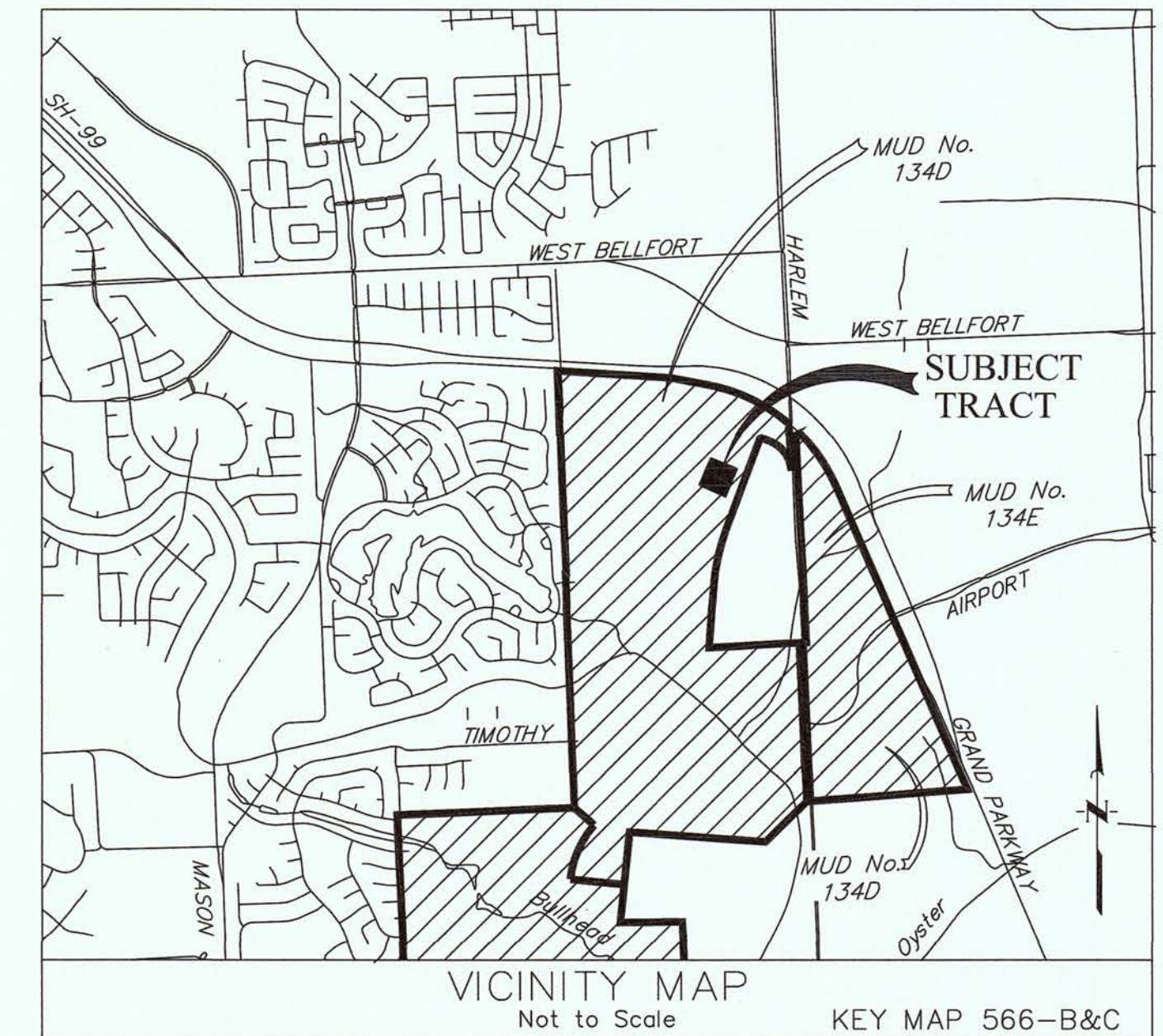
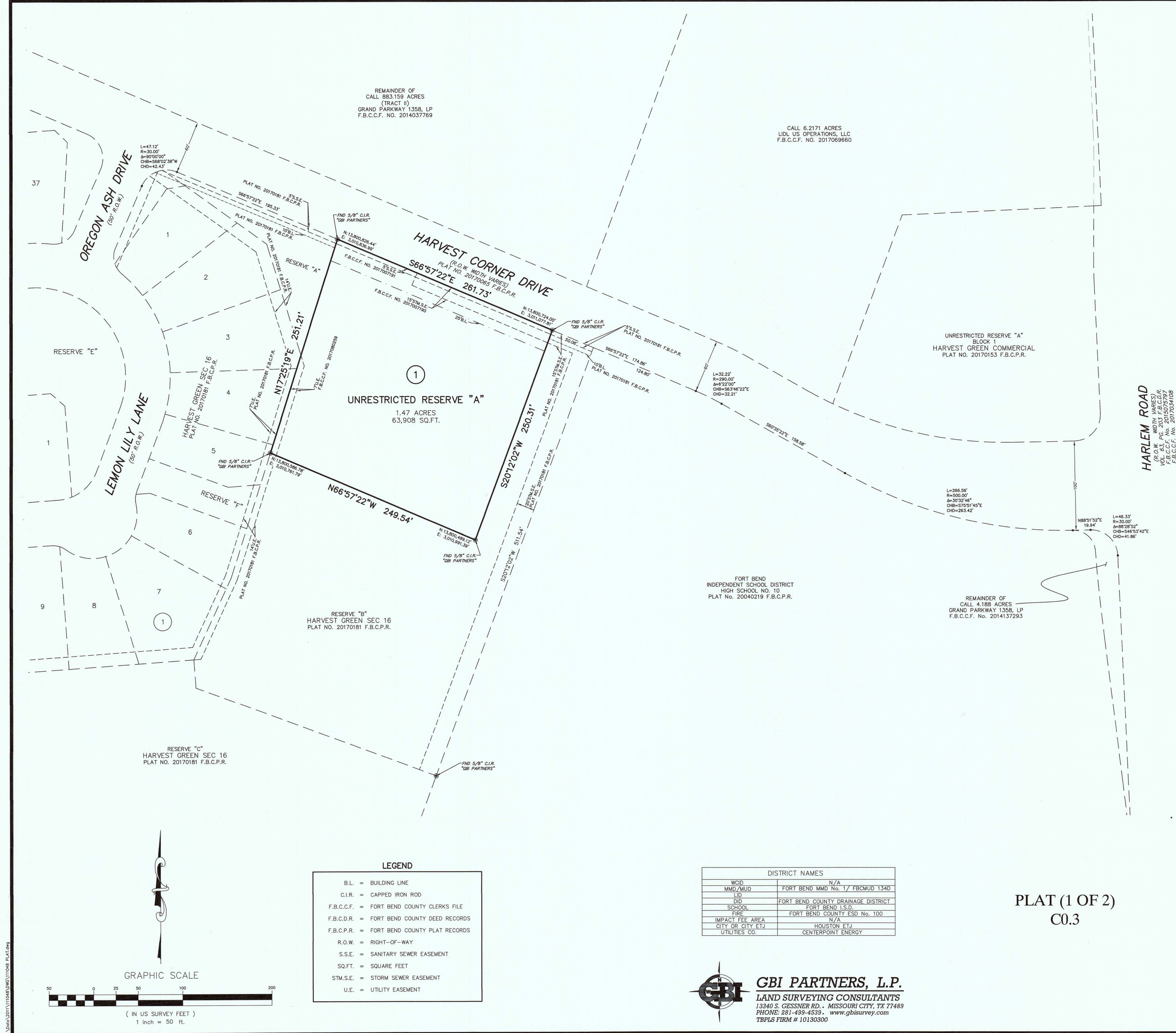
BEING A PORTION OF A CALL 883.159 ACRE
TRACT OF LAND RECORDED IN THE NAME OF
GRAND PARKWAY 1358, LP UNDER
FORT BEND COUNTY CLERK'S FILE NO. 2014037769
LOCATED IN THE
WILLIAM MORTON ONE AND
ONE-HALF LEAGUE GRANT, A-62
FORT BEND COUNTY, TEXAS



SCALE: 1"= 30'	JOB NO. 111048	DATE: 11/3/2017
CREW CHIEF: N.M.	FIELD BOOK: 17124	DWG.: 111048-TOPO

TOPOGRAPHIC SURVEY
C0.2

3/28/18



- GENERAL NOTES:
- 1.) All building lines along street rights-of-way as shown on the plat.
 - 2.) Unless otherwise indicated, the building lines (BL), whether one or more, shown on this subdivision plat are established to evidence compliance with the applicable provisions of Chapter 42, Code of Ordinances, City of Houston, Texas, in effect at the time this plat was approved, which may be amended from time to time.
 - 3.) All pipeline easements within the platted area are shown hereon.
 - 4.) Sidewalks shall be built or caused to be built not less than five feet in width on both sides of all dedicated rights-of-way within said plat and on the contiguous right-of-way of all perimeter roads surrounding said plat, in accordance with the A.D.A.
 - 5.) The top of all floor slabs shall be a minimum of 88.75 feet (NAVD 88). Regardless of the minimum slab elevation shown, the top of slab elevation at any point on the perimeter of the slab shall not be less than eighteen (18) inches above natural ground.
 - 6.) The coordinates shown hereon are Texas South Central Zone No. 4204 State Plane Grid Coordinates (NAD83) and may be brought to surface by applying the following combined scale factor: 0.99987799134.
 - 7.) The drainage system for this subdivision is designed in accordance with the Fort Bend County Drainage Criteria Manual which allows street ponding with intense rainfall events.
 - 8.) All drainage easements to be kept clear of fences, buildings, vegetations, and other obstructions to the operation and maintenance of drainage facility.
 - 9.) Childrens Lighthouse At Harvest Green lies within lighting zone LZ3 according to the "Order for Regulation of Outdoor Lighting".
 - 10.) According to the Flood Insurance Rate Map (FIRM) No. 48157C0140L for Fort Bend County, Texas, effective April 2, 2014 this plat is located in Unshaded Zone "X". Unshaded Zone "X" is defined by FEMA as areas determined to be outside the 0.2% annual chance floodplain.
 - 11.) Absent written authorization by the affected utilities, all utility and aerial easements must be kept unobstructed from any non-utility improvements or obstructions by the property owner. Any unauthorized improvements or obstructions may be removed by any public utility at the property owner's expense. While wooden posts and paneled wooden fences along the perimeter and back to back easements and alongside rear lots lines are permitted, they too may be removed by public utilities at the property owner's expense should they be an obstruction. Public utilities may put said wooden posts and paneled wooden fences back up, but generally will not replace with new fencing.
 - 12.) All elevations are based on 2005 Fort Bend County LIDAR Benchmark No. 25, being a PK Nail in asphalt located 2.5' West of the first median nose West of F.M. 359 on Highway 90-A, and having a published elevation of 84.09' NAVD88. Elevations were derived from GPS/RTK observations and utilized GEOID03.
 - 13.) All bearings shown hereon are referenced to the Texas Coordinate System of 1983, South Central Zone, based on GPS observations. All distances are surface values and may be converted to grid by applying the combined adjustment factor 0.99987799134.
 - 14.) All property to drain into the drainage easement only through an approved drainage structure.

CHILDRENS LIGHTHOUSE AT HARVEST GREEN

BEING A SUBDIVISION OF 1.47 ACRES OF LAND
LOCATED IN THE
WILLIAM MORTON ONE AND ONE-HALF LEAGUE GRANT, A-62
FORT BEND COUNTY, TEXAS

0 LOTS 1 UNRESTRICTED RESERVE 1 BLOCK

JANUARY 2018

OWNER:
WALCHER SIMPSON INVESTMENTS, LLC
24707 CRYSTAL LEAF LANE
KATY, TEXAS 77494

SURVEYOR:
GBI PARTNERS, L.P.
13340 S. GESSNER RD.
MISSOURI CITY, TEXAS 77489

ENGINEER:
ALJ-LINDSEY, LLC
5629 FM 1960 WEST, SUITE 314
HOUSTON, TEXAS 77069

KYLE B. DUCKETT, R.P.L.S.
281-499-4539

CJS 3/28/18

STATE OF TEXAS §
COUNTY OF FORT BEND §

We, Walcher Simpson Investments, LLC, acting by and through Patrick Simpson, its CFO, owner hereinafter referred to as Owners of the 1.47 acre tract described in the above and foregoing map of CHILDRENS LIGHTHOUSE AT HARVEST GREEN, do hereby make and establish said subdivision and development plan of said property according to all lines, dedications, restrictions, and notations on said maps or plat and hereby dedicate to the use of the public forever, all streets (except those streets designated as private streets, or permanent access easements), alleys, parks, water courses, drains, easements and public places shown thereon for the purposes and considerations therein expressed; and do hereby bind ourselves, our heirs, successors, and assigns to warrant and forever defend the title on the land so dedicated.

FURTHER, Owners have dedicated and by these presents do dedicate to the use of the public for public utility purpose forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional eleven feet, six inches (11' 6") for ten feet (10' 0") perimeter ground easements or seven feet, six inches (7' 6") for fourteen feet (14' 0") perimeter ground easements or five feet, six inches (5' 6") for sixteen feet (16' 0") perimeter ground easements, from a plane sixteen feet (16' 0") above the ground level upward, located adjacent to and adjoining said public utility easements that are designated with aerial easements (U.E. and A.E.) as indicated and depicted hereon, whereby the aerial easement totals twenty one feet, six inches (21' 6") in width.

FURTHER, Owners have dedicated and by these presents do dedicate to the use of the public for public utility purpose forever unobstructed aerial easements. The aerial easements shall extend horizontally an additional ten feet (10' 0") for ten feet (10' 0") back-to-back ground easements or eight feet (8' 0") for fourteen feet (14' 0") back-to-back ground easements or seven feet (7' 0") for sixteen feet (16' 0") back-to-back ground easements, from a plane sixteen feet (16' 0") above ground level upward, located adjacent to both sides and adjoining said public utility easements that are designated with aerial easements (U.E. and A.E.) as indicated and depicted hereon, whereby the aerial easement totals thirty feet (30' 0") in width.

FURTHER, Owners do hereby covenant and agree that all of the property within the boundaries of this plat is hereby restricted to prevent the drainage of any septic tanks into any public or private street, permanent access easement, road or alley, or any drainage ditch, either directly or indirectly.

FURTHER, We do hereby covenant and agree that all of the property within the boundaries of this subdivision and adjacent to any drainage easement, ditch, gully, creek or natural drainage way shall hereby be restricted to keep such drainage ways and easements clear of fences, buildings, excessive vegetation and other obstructions to the operations and maintenance of the drainage facility and that such abutting property shall not be permitted to drain directly into this easement except by means of an approved drainage structure.

FURTHER, We do hereby dedicate to the public a strip of land twenty (20) feet wide on each side of the center line of any and all bayous, creeks, gullies, ravines, draws and drainage ditches located in said subdivision, as easements for drainage purposes. Fort Bend County or any other governmental agency shall have the right to enter upon said easement at any time and all times for the purposes of construction and maintenance of drainage facilities and structures.

FURTHER, We do hereby acknowledge the receipt of the "Orders for Regulation of Outdoor Lighting in the Unincorporated Areas of Fort Bend County, Texas", and do hereby covenant and agree and shall comply with this order as adopted by Fort Bend County Commissioners Court on March 23, 2004, and any subsequent amendments.

IN TESTIMONY WHEREOF, the Walcher Simpson Investments, LLC has caused these presents to be signed by Patrick Simpson, its CFO, thereunto authorized, this _____ day of _____, 2018.

Walcher Simpson Investments, LLC

By: _____
Patrick Simpson
CFO

STATE OF TEXAS §
COUNTY OF FORT BEND §

BEFORE ME, the undersigned authority, on this day personally appeared Patrick Simpson, CFO of Walcher Simpson Investments, LLC, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and considerations therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this _____ day of _____, 2018.

Notary Public in and for the State of Texas

Print Name

My commission expires: _____

I, A. Lester Jones, a Professional Engineer registered in the State of Texas, do hereby certify that this plat meets all requirements of Fort Bend County, to the best of my knowledge.

A. Lester Jones, P.E.
Professional Engineer No. 102152

CERTIFICATE FOR SURVEYOR

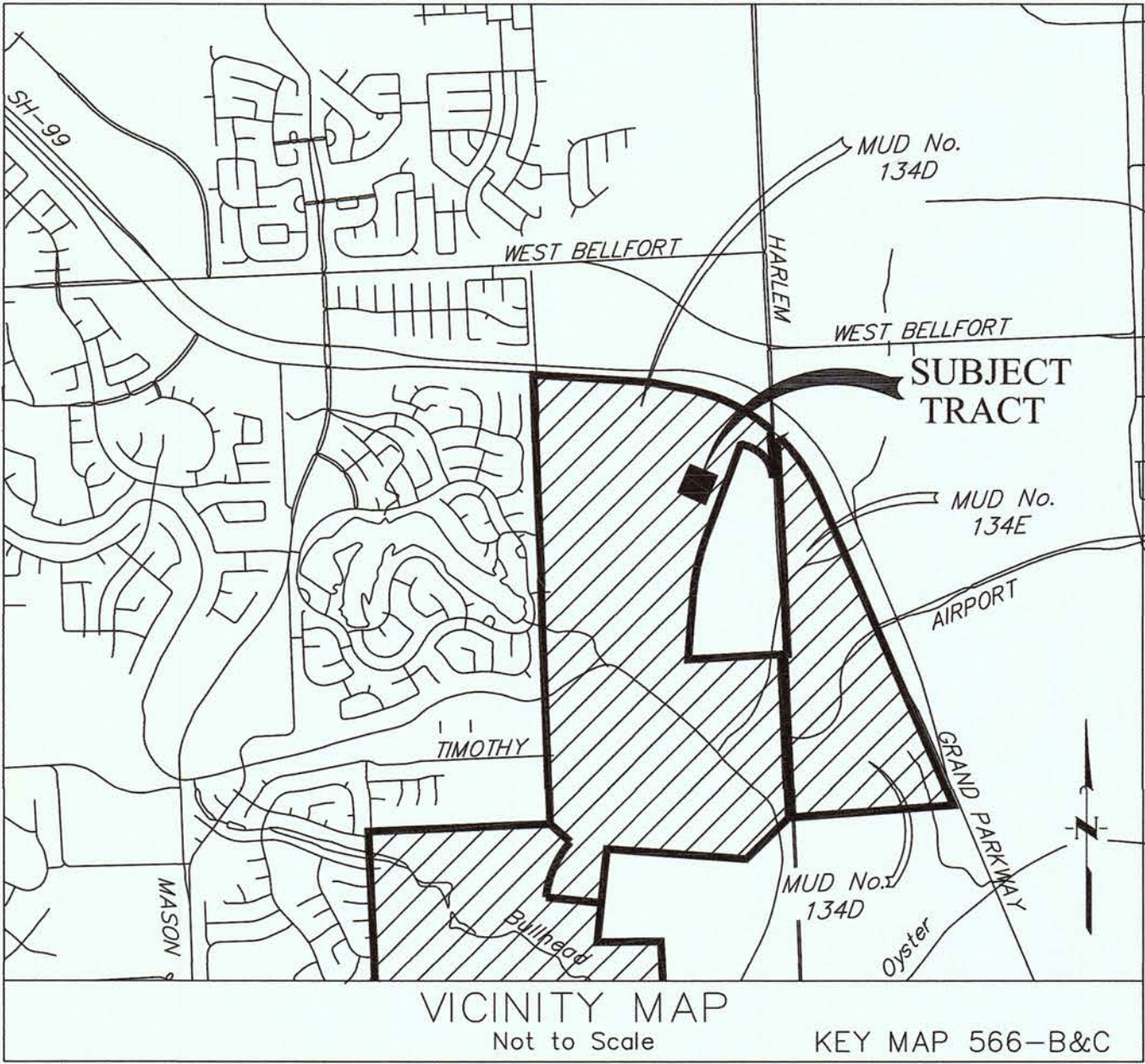
I, Kyle B. Duckett, am registered under the laws of the State of Texas to practice the profession of surveying and hereby certify that the above subdivision is true and accurate; was prepared from an actual survey of the property made under my supervision on the ground; that, except as shown all boundary corners, angles points, points of curvature and other points of reference have been marked with iron (or other objects of permanent nature) pipes or rods having an outside diameter of not less than five eighths (5/8) inch and a length of not less than three (3) feet; and that the plat boundary corners have been tied to the Texas Coordinate System of 1983, south central zone.

Kyle B. Duckett
Registered Professional Land Surveyor
Texas Registration No. 6340

This is to certify that the Planning Commission of the City of Houston, Texas, has approved this plat and subdivision of CHILDRENS LIGHTHOUSE AT HARVEST GREEN in conformance with the laws of the State of Texas and the ordinances of the City of Houston, as shown hereon, and authorized the recording of this plat this _____ day of _____, 2018.

By: _____ or _____
Martha L. Stein Title Chair M. Sonny Garza Vice Chairman

By: _____
Patrick Walsh, P.E.
Secretary



I, Richard W. Stolleis, P.E., Fort Bend County Engineer, do hereby certify that the plat of this subdivision complies with all of the existing rules and regulations of this office as adopted by the Fort Bend County Commissioners' Court. However, no certification is hereby given as to the effect of drainage from this subdivision on the intercepting drainage artery or parent stream or any other area or subdivision within the watershed.

Richard W. Stolleis, P.E.
Fort Bend County Engineer

APPROVED by the Commissioners' Court of Fort Bend County, Texas, this _____ day of _____, 2018.

Richard Morrison
Commissioner, Precinct 1

Grady Prestage
Commissioner, Precinct 2

Robert E. Hebert
County Judge

Andy Meyers
Commissioner, Precinct 3

James Patterson
Commissioner, Precinct 4

THE STATE OF TEXAS §
COUNTY OF FORT BEND §

I, Laura Richard, County Clerk in and for Fort Bend County, hereby certify that the foregoing instrument with its certificate of authentication was filed for registration in my office on _____, 2018 at _____ o'clock _____ in Plat Number(s) _____ of the Plat Records of said County.

Witness my hand and seal of office, at Richmond, Texas, the day and date last above written.

Laura Richard
Fort Bend County, Texas

By: _____
Deputy

PLAT (2 OF 2)
C0.4

CHILDRENS LIGHTHOUSE AT HARVEST GREEN

BEING A SUBDIVISION OF 1.47 ACRES OF LAND
LOCATED IN THE
WILLIAM MORTON ONE AND ONE-HALF LEAGUE GRANT, A-62
FORT BEND COUNTY, TEXAS

0 LOTS 1 UNRESTRICTED RESERVE 1 BLOCK

JANUARY 2018

OWNER:
WALCHER SIMPSON INVESTMENTS, LLC
24707 CRYSTAL LEAF LANE
KATY, TEXAS 77494

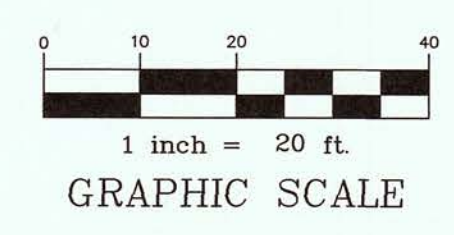
SURVEYOR:
GBI PARTNERS, L.P.
13340 S. GESSNER RD.
MISSOURI CITY, TEXAS 77489

KYLE B. DUCKETT, R.P.L.S.
281-499-4539

ENGINEER:
ALJ-LINDSEY, LLC
5629 FM 1960 WEST, SUITE 314
HOUSTON, TEXAS 77069

BENCHMARK:
2005 FORT BEND COUNTY LIDAR BENCHMARK NO. 25
"PK" NAIL IN ASPHALT LOCATED 2.5' WEST OF THE FIRST MEDIAN
NOSE WEST OF F.M. 359 ON HIGHWAY 90-A
ELEVATION = 84.09'

TEMPORARY BENCHMARK "A":
"X" CUT ON CURB INLET LOCATED NORTH OF THE INTERSECTION
OF HARVEST CORNER DRIVE AND OREGON ASH DRIVE.
ELEVATION = 90.04'



LEGEND

FL	PROPOSED FIRE LANE (RED STRIPING)
FL	PROPOSED BUILDING PERIMETER SIDEWALK
FL	PROPOSED CURB RAMP - TYPE 7 ADA RAMPS
●	EX. MANHOLE
—	EX. STORM SEWER
—	EX. WATER LINE
—	EX. SANITARY SEWER LINE
—	EX. OVERHEAD POWER LINE
—	EX. UNDERGROUND GAS LINE
100	EX. CONTOUR

- GENERAL NOTES**
- PAVEMENT DIMENSIONS AND RADII ARE FACE TO FACE OF CURB, UNLESS OTHERWISE NOTED.
 - RADII ARE 3' UNLESS OTHERWISE NOTED.
 - REFER TO SITE ELECTRICAL PLAN FOR PROPOSED SITE LIGHTING LAYOUT.
 - REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING/FOUNDATION DIMENSIONS.

FIRE LANE MARKING NOTES

CURBS LOCATED ON EITHER SIDE OF A FIRE LANE SHALL BE PAINTED RED OR A RED STRIPE SHALL BE PLACED ALONG THE PAVEMENT WHERE THERE IS NO CURB. WHERE A FIRE LANE PASSES BETWEEN HEAD-IN PARKING SPACES, THE RED STRIPE SHOULD BE PLACED ALONG THE REAR OF THESE SPACES CLEARLY DEFINING THE FIRE LANE. PAINTED CURBS AND FIRE LANE STRIPES SHALL ALSO BE CONSPICUOUSLY AND LEGIBLY MARKED WITH THE WARNING "FIRE LANE-TOW AWAY ZONE" IN WHITE LETTERS AT LEAST THREE (3) INCHES IN HEIGHT, AT INTERVALS NOT EXCEEDING (50) FEET.

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED:
DATE: 3/28/18
DEVELOPMENT COORDINATOR

DATE	
REVISIONS	
No.	

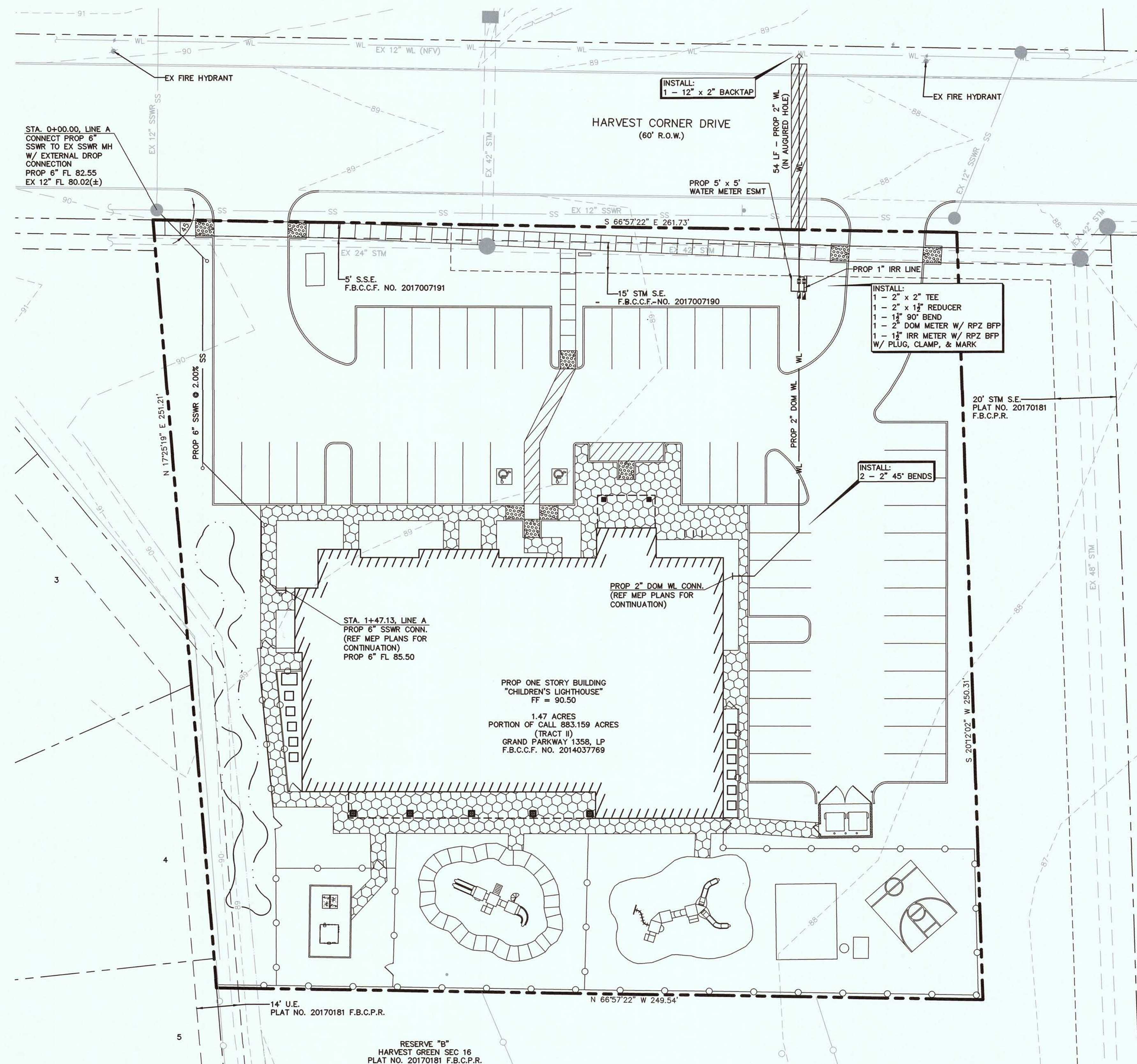
ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
FRN F-11526

22 MARCH 2018

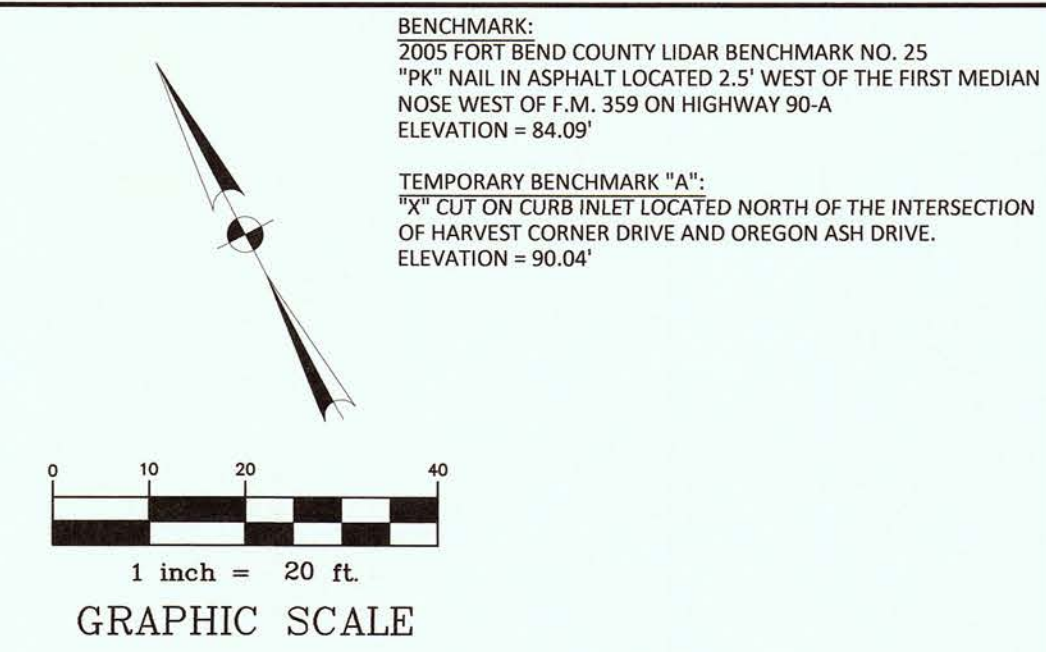
DIMENSION CONTROL PLAN

CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

SHEET
C1.0

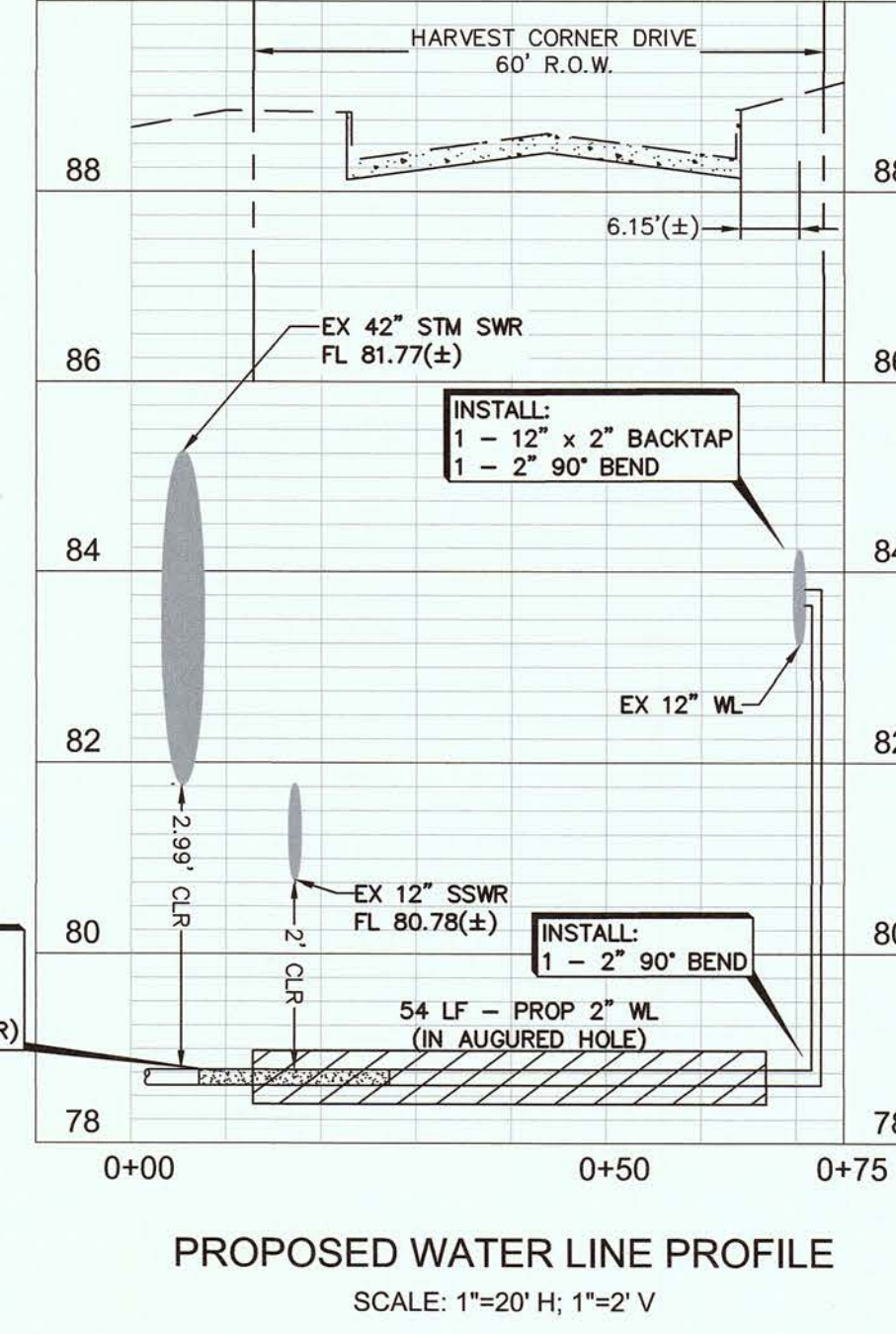
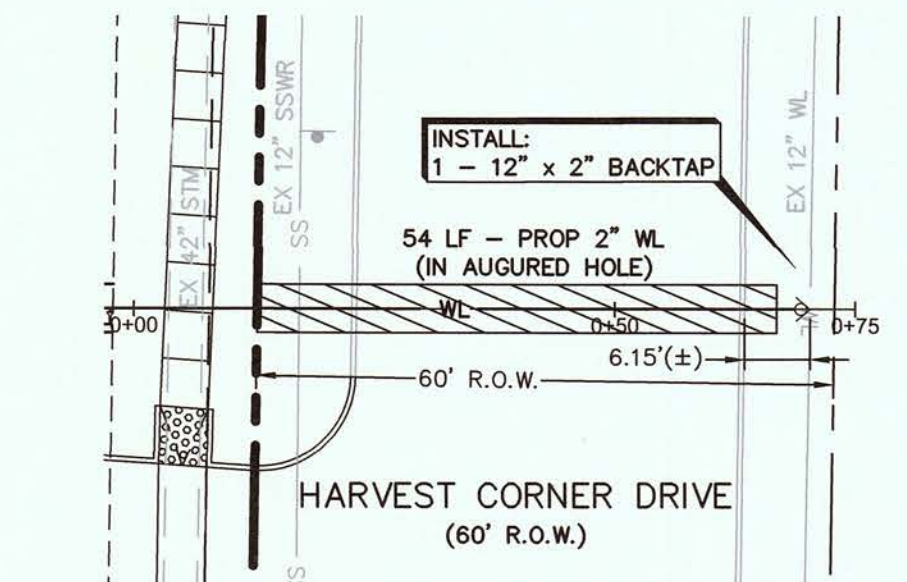


- GENERAL NOTES**
- REFERENCE SANITARY SEWER AND WATER LINE NOTES SHEET CO.1 FOR PIPE MATERIAL REQUIREMENTS.
 - REFER TO SITE ELECTRICAL PLAN FOR PROPOSED SITE LIGHTING LAYOUT.
 - REFERENCE MEP PLANS FOR CONTINUATION OF SANITARY AND WATER FACILITIES INSIDE BUILDING.
 - ALL CLEANOUTS LOCATED WITHIN CONCRETE PAVEMENT TO BE TRAFFIC RATED.
 - METER AND TAP TO BE INSTALLED BY FBCMUD 1340 OPERATOR.
 - FOR STANDARD MANHOLE CONNECTION, CONTRACTOR TO CORE CONCRETE WALL AND INSTALL FLEXIBLE BOOT. OPENING SHALL NOT BE MORE THAN 2 INCHES NOR LESS THAN 1-INCH LARGER DIAMETER THAN THE PROPOSED PIPE. PIPE SHALL NOT PROTRUDE MORE THAN 3 INCHES PAST THE INSIDE FACE OF THE MANHOLE. FILL VOID AROUND PIPE WITH NON-SHRINK WATERPROOF GROUT. BACKFILL MANHOLE WITH CEMENT STABILIZED SAND PER SPECIFICATIONS.



LEGEND

SS	W/ CLEAN OUT	PROPOSED SANITARY SEWER
WL		PROPOSED WATER LINE
FIRE		PROPOSED FIRE LINE
---		EX. STORM SEWER
---		EX. WATER LINE
---		EX. SANITARY SEWER LINE
---		EX. CONTOUR



MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: *CAS*
DATE: *3/28/18*
DEVELOPMENT COORDINATOR

DATE	
REVISIONS	
No.	

ALJLindsey
2005 FORT BEND COUNTY LIDAR BENCHMARK NO. 25
"PK" NAIL IN ASPHALT LOCATED 2.5' WEST OF THE FIRST MEDIAN
NOSE WEST OF F.M. 359 ON HIGHWAY 90-A
ELEVATION = 84.09'

A. LESTER JONES
102152
REGISTERED PROFESSIONAL ENGINEER
22 MARCH 2018

UTILITY PLAN

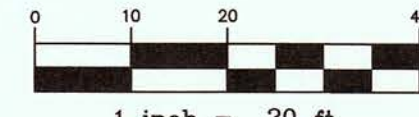
CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

SHEET
C2.0

CROSSING TABLE			
	SAN	STM	CLR
A	6" 84.85'	12" 82.73'	1.12'

BENCHMARK:
2005 FORT BEND COUNTY LIDAR BENCHMARK NO. 25
"PK" NAIL IN ASPHALT LOCATED 2.5' WEST OF THE FIRST MEDIAN
NOSE WEST OF F.M. 359 ON HIGHWAY 90-A
ELEVATION = 84.09'

TEMPORARY BENCHMARK "A":
"X" CUT ON CURB INLET LOCATED NORTH OF THE INTERSECTION
OF HARVEST CORNER DRIVE AND OREGON ASH DRIVE.
ELEVATION = 90.04'



GRAPHIC SCALE

LEGEND

	DRAINAGE AREA NUMBER
	ACREAGE (AC)
	DRAINAGE AREA FLOW (CFS)
	PROP. DRAINAGE AREA BOUNDARY
	EXISTING OFFSITE DRAINAGE FLOW DIRECTION
	EXTREME EVENT OVERLAND FLOW
	PROPOSED STORM SEWER
	PROPOSED GRATE INLET/JUNCTION BOX
	EX. STORM SEWER
	EX. WATER LINE
	EX. SANITARY SEWER LINE
	EX. CONTOUR
	PROPOSED SANITARY SEWER LINE

GENERAL NOTES

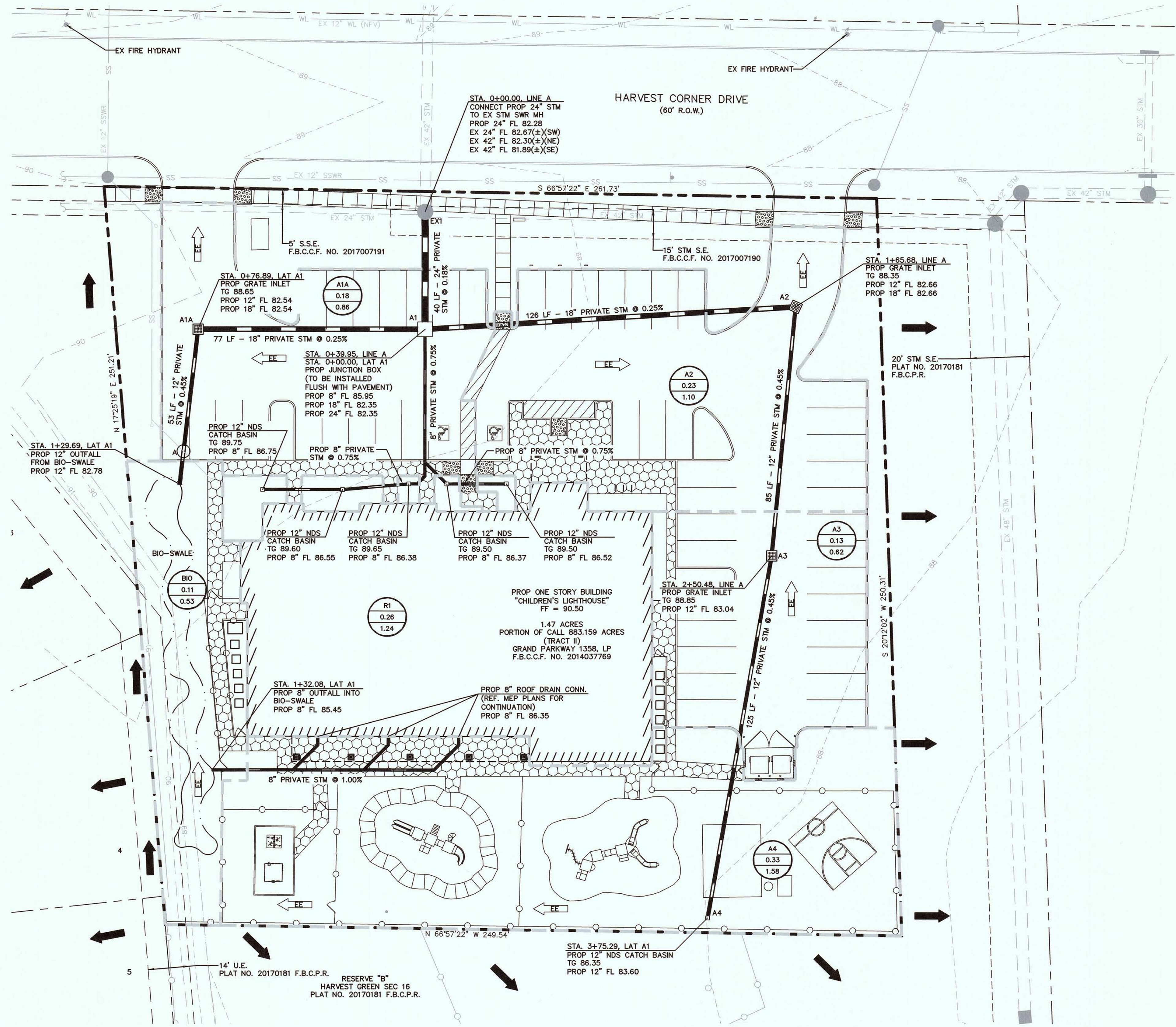
- REFERENCE STORM SEWER NOTES SHEET C0.1 FOR PIPE MATERIAL REQUIREMENTS.
- REFERENCE MEP PLANS FOR EXACT CONTINUATION OF PROPOSED STORM SEWER INSIDE OF BUILDING.
- FOR GRATE INLET, JUNCTION BOX, NDS CATCH BASIN, AND BACKFILL DETAILS, SEE SHEET C7.1 & C7.2.

MAX PONDING DEPTH

DRAINAGE AREA	MAXIMUM PONDING DEPTH	MAXIMUM PONDING ELEVATION
A3	0.45'	89.30'
A2	0.30'	88.65'
A1A	0.65'	89.30'

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567



DATE	
REVISIONS	
No.	

ALJLindsey
Civil Engineer
5629 FM 1960 W., Suite 314
Houston, TX 77060
FRN F-11526

REGISTERED PROFESSIONAL ENGINEER
A. LESTER JONES
102152
22 MARCH 2018

STORM SEWER PLAN

CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

SHEET
C3.0

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED:
DATE: 3/28/18
DEVELOPMENT COORDINATOR

Design Frequency: 3 years
100-Year Multiplier: 1.00
3-year WS ELEV @ Existing Storm Stub 84.28 feet

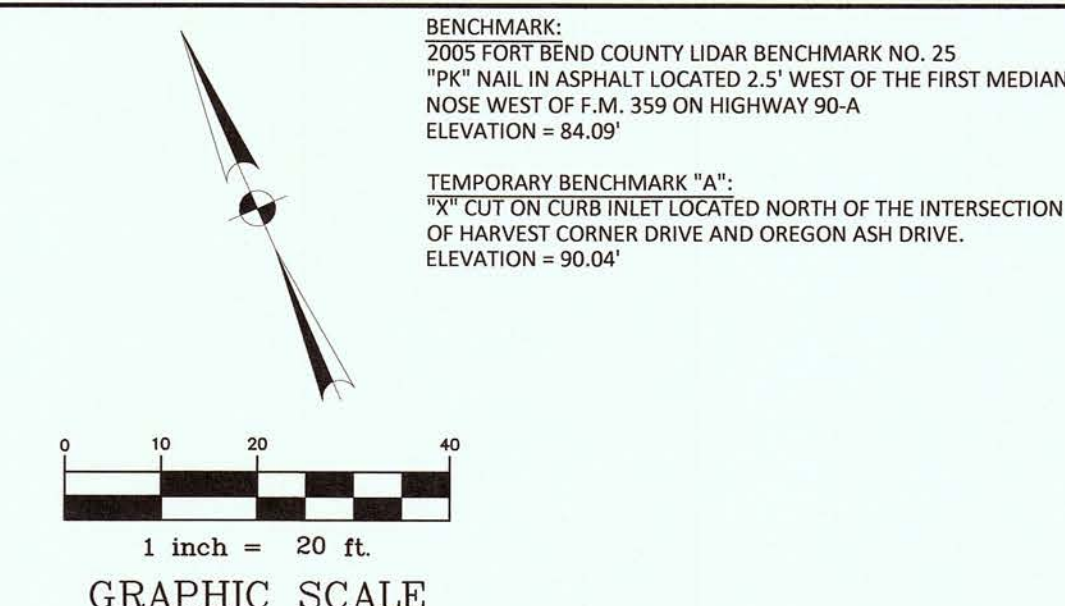
Design Frequency:	100	years
100-Year Multiplier:	1.25	
100-year WS ELEV @ Existing Storm Stub	88.43	feet

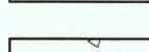
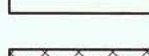





Design Frequency:	2	years
100-Year Multiplier:	1.00	
2-year WS ELEV @ Existing Storm Stub	85.95	feet

Design Frequency:	100	years
100-Year Multiplier:	1.00	
100-year WS ELEV @ Existing Storm Stub	88.43	feet

C3.1

DATE: 3/28/18



- | | |
|---|---|
|  | PROPOSED LIGHT DUTY CONCRETE PAVEMENT WITH STABILIZED SUBGRADE (SEE NOTE 2 BELOW) |
|  | PROPOSED MEDIUM DUTY CONCRETE PAVEMENT WITH STABILIZED SUBGRADE (SEE NOTE 2 BELOW) |
|  | PROPOSED HEAVY DUTY CONCRETE PAVEMENT WITH STABILIZED SUBGRADE (SEE NOTE 2 BELOW) |
|  | PROPOSED BUILDING PERIMETER SIDEWALK
(REF. ARCHITECTURAL PLANS FOR SURFACE FINISH, SEE GRADING ON SHEET C4.0) |
|  | PROPOSED DRIVEWAY IN FORT BEND COUNTY R.O.W.
(REF. DETAILS FBC-025A & FBC-025B ON SHEET C7.1) |
|  | PROPOSED IRRIGATION SLEEVE (SEE NOTE 3) |
|  | CONCRETE TO CONCRETE PAVEMENT CONNECTION
(INCLUDING 2' SAWCUT, EXISTING PAVEMENT REMOVAL, EXISTING CURB REMOVAL, DOWEL INTO EXISTING PAVEMENT, CONCRETE PAVEMENT HEADER AND SEALED JOINTS) |

- ## GENERAL NOTES
1. REFER TO SITE ELECTRICAL PLAN FOR PROPOSED SITE LIGHTING LAYOUT.
 2. PAVEMENT AND SUBGRADE THICKNESS INCLUDED ON THIS SHEET FOR REFERENCE ONLY. REFER TO GEOTECHNICAL REPORT PREPARED BY ALPHA TESTING, INC., DATED NOVEMBER 22, 2017 (PROJECT NO. H172934).
 3. REFER TO IRRIGATION PLAN FOR EXACT LOCATION OF IRRIGATION SLEEVES.
 4. MAXIMUM CONTROL JOINT SPACING TO BE 15-FT AND EXPANSION JOINT SPACING TO BE 60-FT.
 5. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS AND ALL STEEL TO BE GRADE 60, UNLESS OTHERWISE SPECIFIED IN GEOTECHNICAL REPORT.
 6. PAYING CONTRACTOR TO CONFIRM AND/OR ADJUST ALL EXISTING AND PROPOSED UTILITIES AND APPURTENANCES TO FINISHED GRADE PRIOR TO PLACEMENT OF ANY PAVING.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: [Signature]
DEVELOPMENT COORDINATOR

DATE: 3/28/18

[illegible]

ALJLindsey
Civil Engineers
5629 FM 1960 W., Suite 314
Houston, TX 77069
281.301.5955
FAX 281.301.5956



22 MARCH 2018

PAVING PLAN

CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

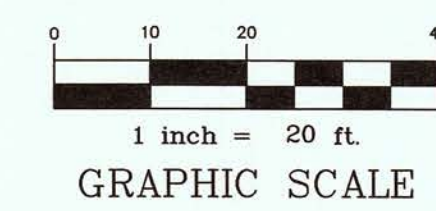
SHEET
C5.0

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: [Signature]
DEVELOPMENT COORDINATOR

DATE: 3/28/18

BENCHMARK:
2005 FORT BEND COUNTY LIDAR BENCHMARK NO. 25
"PK" NAIL IN ASPHALT LOCATED 2.5' WEST OF THE FIRST MEDIAN
NOSE WEST OF F.M. 359 ON HIGHWAY 90-A
ELEVATION = 84.09'
TEMPORARY BENCHMARK "A":
"X" CUT ON CURB INLET LOCATED NORTH OF THE INTERSECTION
OF HARVEST CORNER DRIVE AND OREGON ASH DRIVE.
ELEVATION = 90.04'



LEGEND

- STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL, SHEET C7.3)
- CONCRETE TRUCK WASHOUT (SEE DETAIL, SHEET C7.3)
- SILT FENCE (SEE DETAIL, SHEET C7.3)
- INLET PROTECTION BARRIER (SEE DETAIL, SHEET C7.3)
- LIMITS OF DISTURBED AREA
- EX. CONTOUR

GENERAL NOTES

1. CONTRACTOR TO MAINTAIN A CLEAN PROJECT SITE AND ENSURE THAT ALL DEBRIS IS PLACED IN DESIGNATED AREA PER PLANS. ALL SPOIL MATERIAL GENERATED FROM CONSTRUCTION ACTIVITY TO BE HAULED OFFSITE AND DISPOSED IN ACCORDANCE WITH LOCAL LAWS, RULES, AND REGULATIONS.

MULTIPLE EXISTING PUBLIC AND PRIVATE UTILITY LINES EXIST ON THIS SITE. THE UTILITY LINES SHOWN ON THESE DRAWINGS REFLECT INFORMATION OBTAINED FROM RECORD DRAWINGS AND MAY NOT INCLUDE ALL EXISTING UTILITIES. CONTRACTOR IS TO USE EXTREME CAUTION DURING ALL CONSTRUCTION ACTIVITIES AND IS SOLELY RESPONSIBLE FOR DAMAGE TO EXISTING FACILITIES.

CALL BEFORE YOU DIG
TEXAS ONE CALL PARTICIPANTS REQUEST
72 HOURS NOTICE BEFORE YOU DIG, DRILL
OR BLAST - STOP CALL
TEXAS ONE CALL SYSTEM
1-800-545-6005
IN HOUSTON
(713)-223-4567

APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: DEVELOPMENT COORDINATOR
DATE: 3/28/18

NO.	REVISIONS	DATE

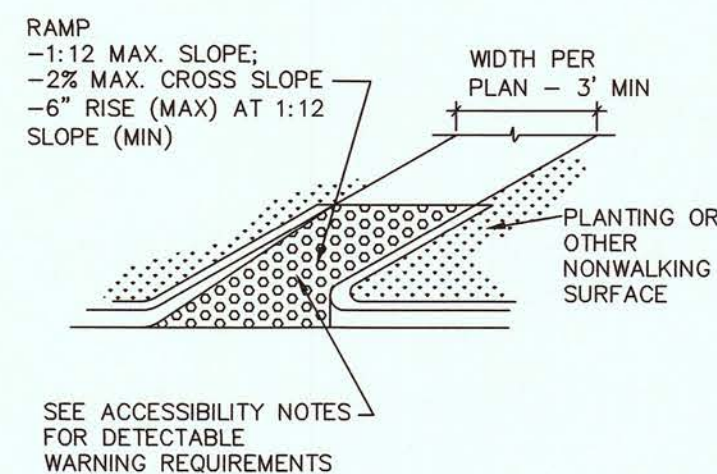
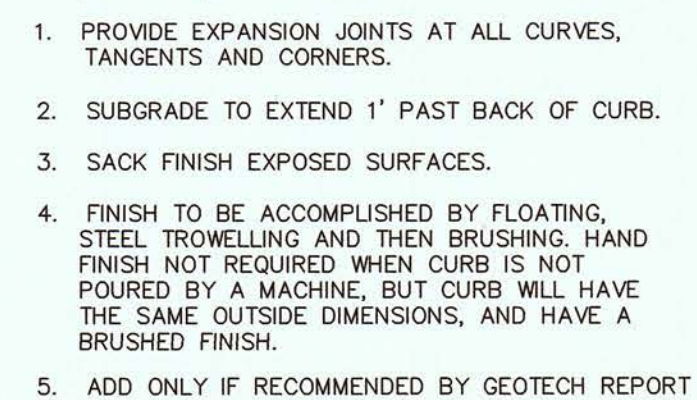
ALJLindsey
Civil Engineer
5828 FM 1980 W., Suite 314
Houston, TX 77069
P.E. No. 102152
F.R.N. F-11526

A. LESTER JONES
102152
REGISTERED PROFESSIONAL ENGINEER
22 MARCH 2018

EROSION CONTROL PLAN

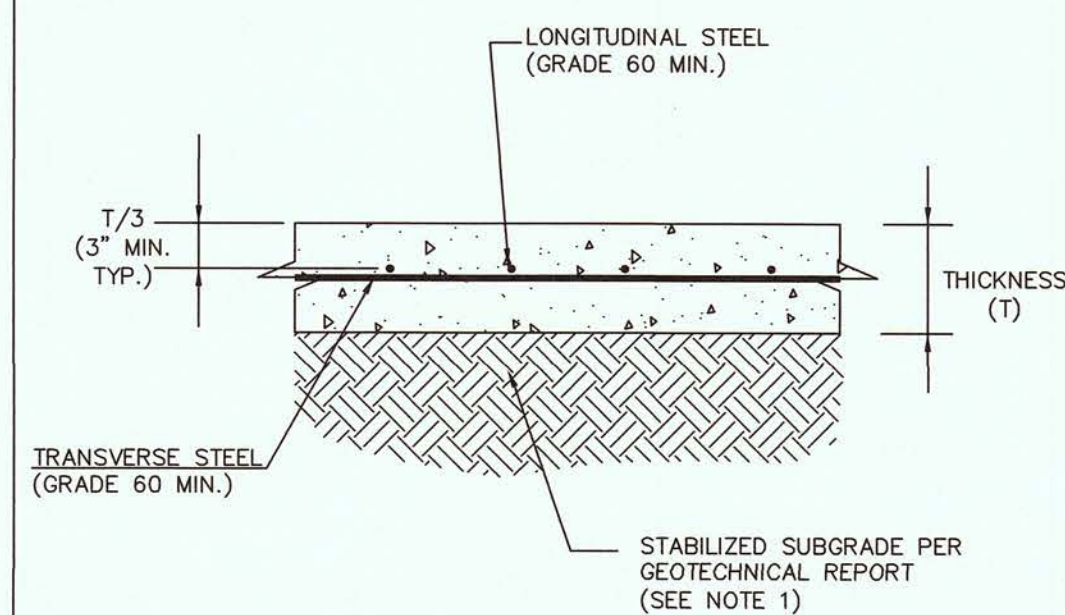
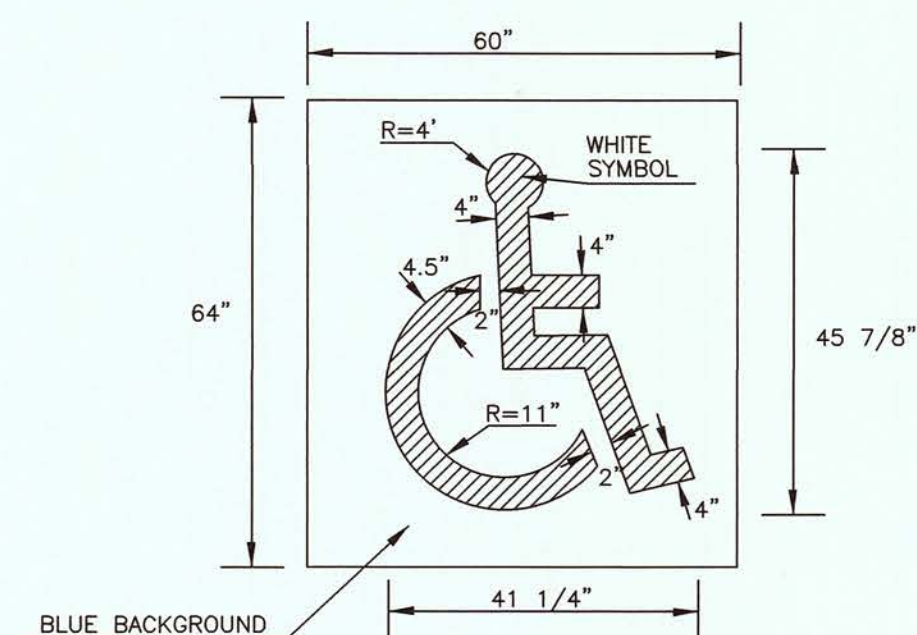
CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

SHEET
C6.0



ACCESSIBILITY NOTES:

1. ALL ACCESSIBLE SPACES AND ACCESSIBLE ROUTES SHALL COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND CITY/COUNTY REQUIREMENTS.
2. ACCESSIBLE PARKING SPACES AND DRIVE AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:48 (2.08%) IN ALL DIRECTIONS. CURB RAMPS SHALL BE PROVIDED AT ALL PASSENGER LOADING ZONES.
3. EACH ACCESSIBLE PARKING SPACE SHALL BE DESIGNATED AS RESERVED BY AN APPROPRIATE SIGN SHOWING THE SYMBOL OF ACCESSIBILITY PER TAS SECTION 216.5. SPACES COMPLYING WITH TAS SECTION 502.6 SHALL HAVE AN ADDITIONAL SIGN "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY.
 - A. SIGNS SHALL BE LOCATED 60" MIN. ABOVE THE GROUND, FLOOR, OR PAVING SURFACE MEASURED TO THE BOTTOM OF THE SIGN SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
 - B. SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL COMPLY WITH TAS SECTION 307.4.
 - C. CHARACTERS AND SYMBOLS ON OVERHEAD SIGNS SHALL COMPLY WITH TAS SECTION 303.5.
4. SLOPES OF CURB RAMPS SHALL COMPLY WITH TAS SECTION 405.2. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
5. SURFACES OF CURB RAMPS SHALL COMPLY WITH TAS SECTIONS 405.4 AND 302.1.



GENERAL NOTES:

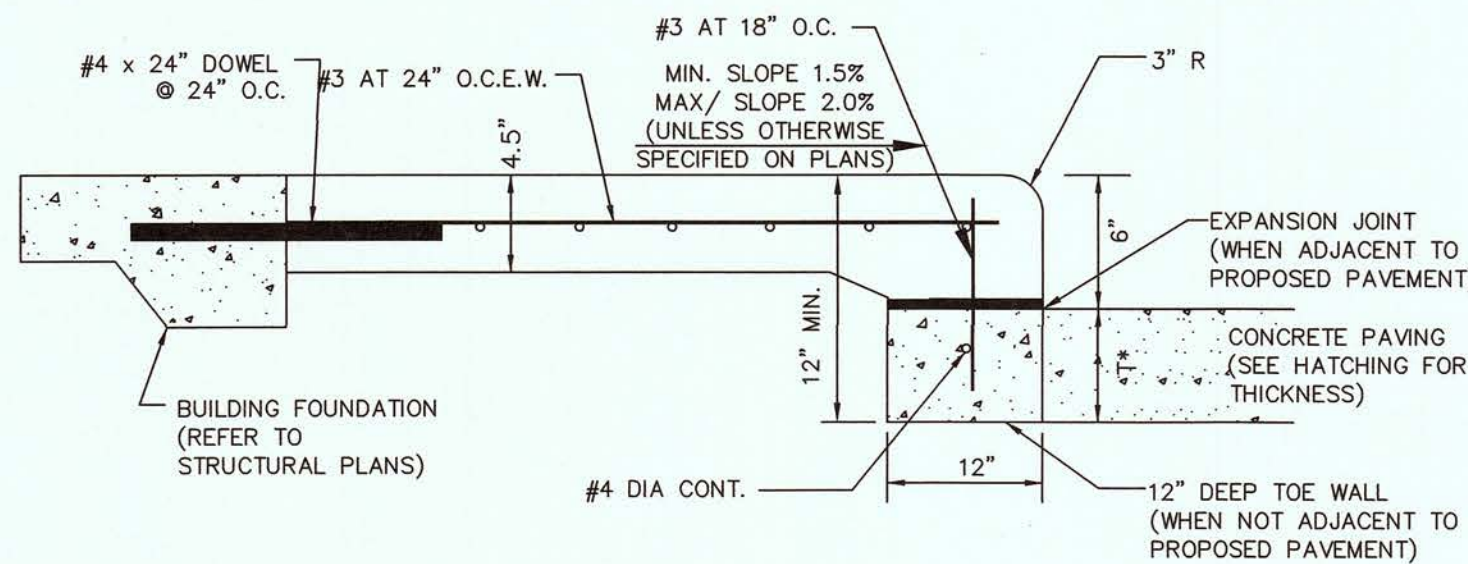
1. SEE GEOTECH REPORT H172934, FOR ALL RECOMMENDATIONS. THIS IS PROVIDED FOR PICTORIAL REPRESENTATION ONLY.
2. IN THE EVENT THE GEOTECHNICAL REPORT DOES NOT SPECIFY, THE FOLLOWING CRITERIA SHALL BE APPLIED:

A. LONGITUDINAL & TRANSVERSE STEEL:

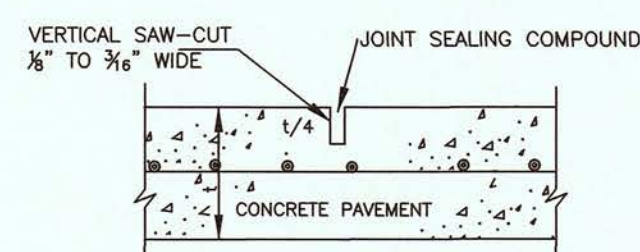
LIGHT DUTY: #4 @ 24" O.C.E.W. OR #3 @ 18" O.C.E.W.
MEDIUM DUTY: #4 @ 18" O.C.E.W. OR #3 @ 12" O.C.E.W.
HEAVY DUTY: #4 @ 18" O.C.E.W.

B. SUBGRADE SHALL BE LIME/FLY ASH STABILIZED TO A MIN. DEPTH OF 6" IN CONFORMANCE WITH TXDOT 2004 STANDARD SPECIFICATIONS
ITEM 260

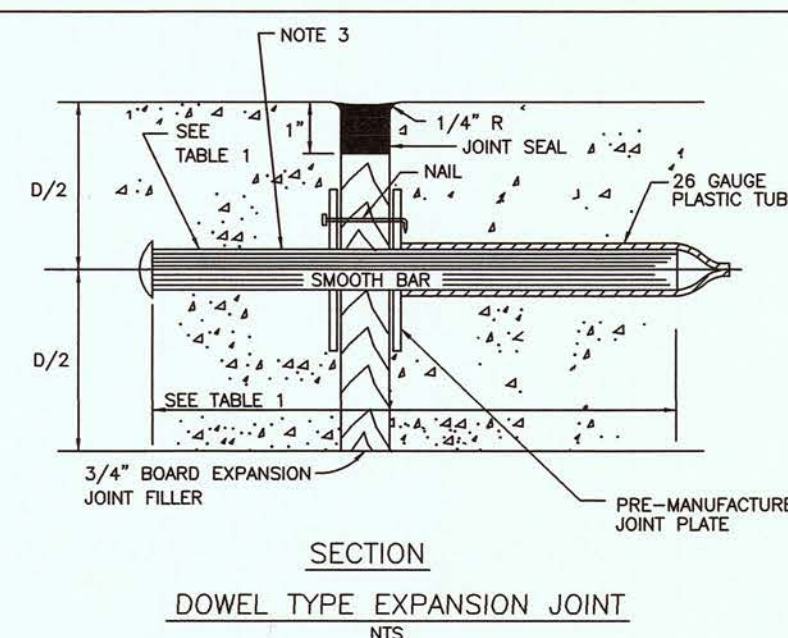
CONCRETE PAVING SECTION



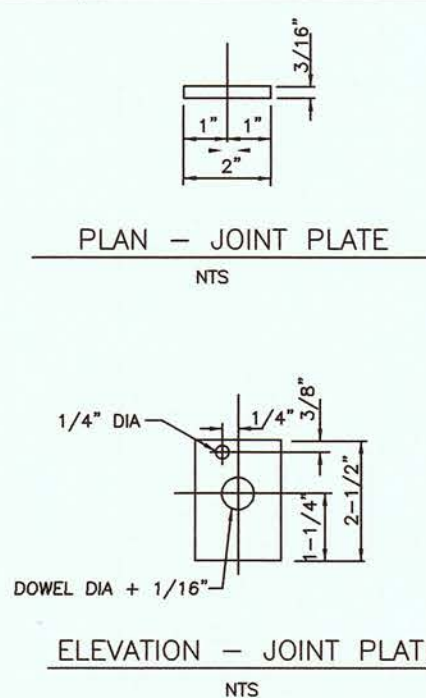
* = FOR REQUIRED PAVEMENT/SUBGRADE THICKNESS, SEE HATCHING ON PLAN. REFERENCE GEOTECHNICAL REPORT FOR SPECIFICATIONS.



ALL JOINT TO BE PROPERLY SEALED
WITH JOINT SEALING COMPOUND
CONSISTING OF TWO-PART POURABLE
URETHANE JOINT SEALANT, TYPE M,
GRADE P, CLASS 25, USE T

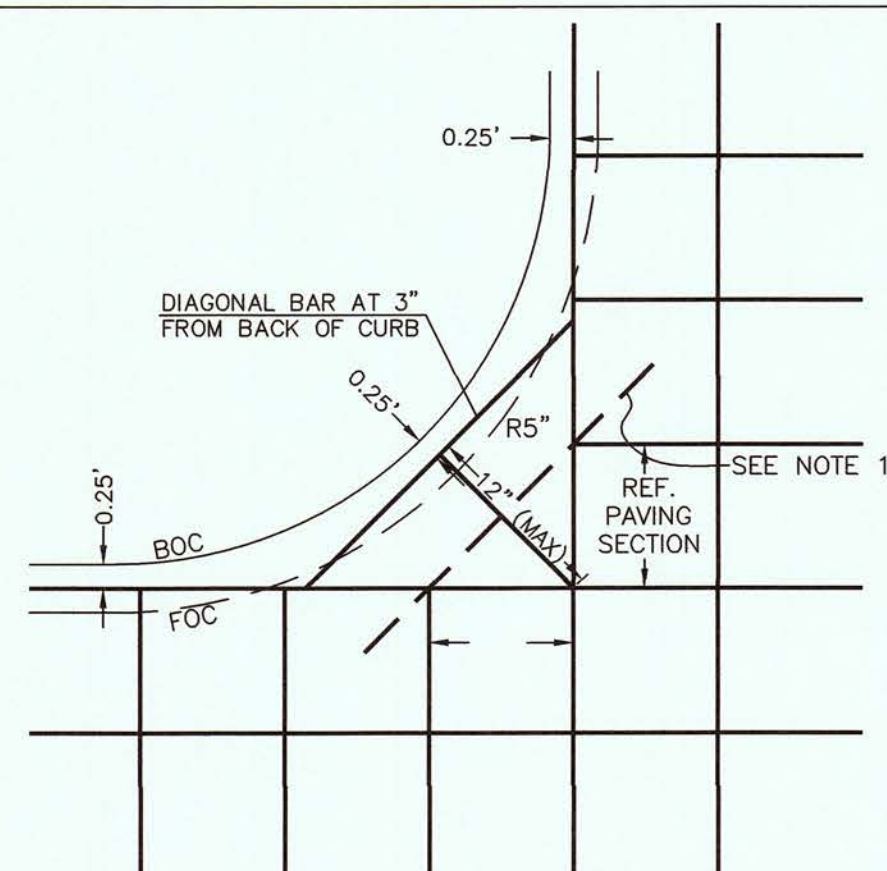
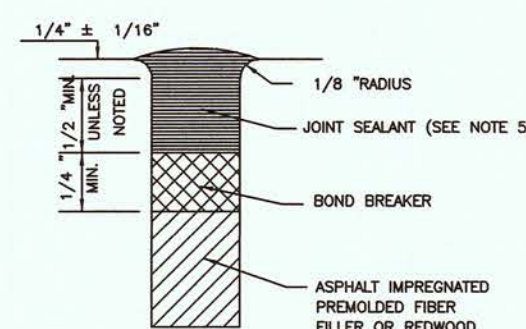
TABLE 1

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
6	3/4	18	12
7	1	18	12
8	1	18	12
9	1 1/4	18	12
10	1 1/4	18	12
11	1 1/4	18	12
12	1 1/4	18	12



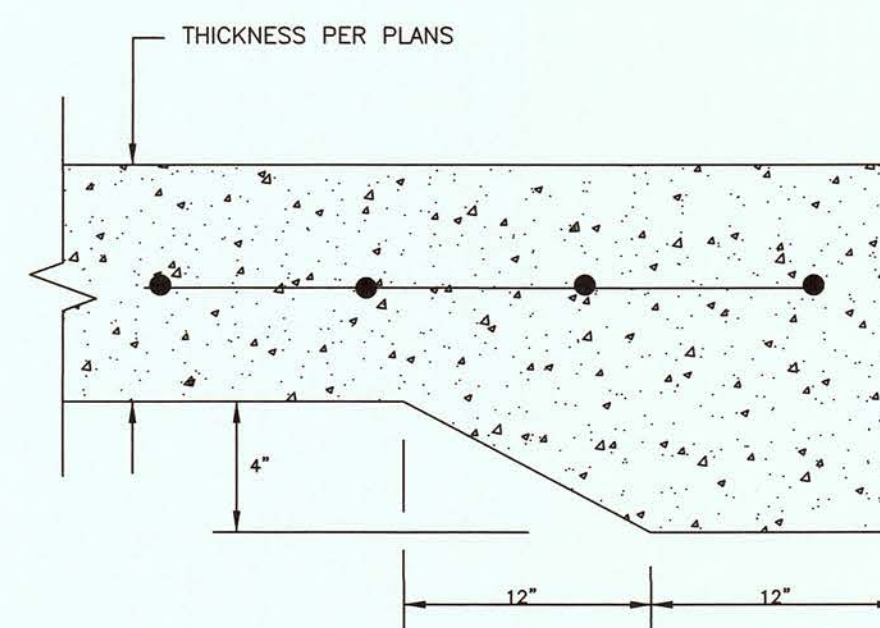
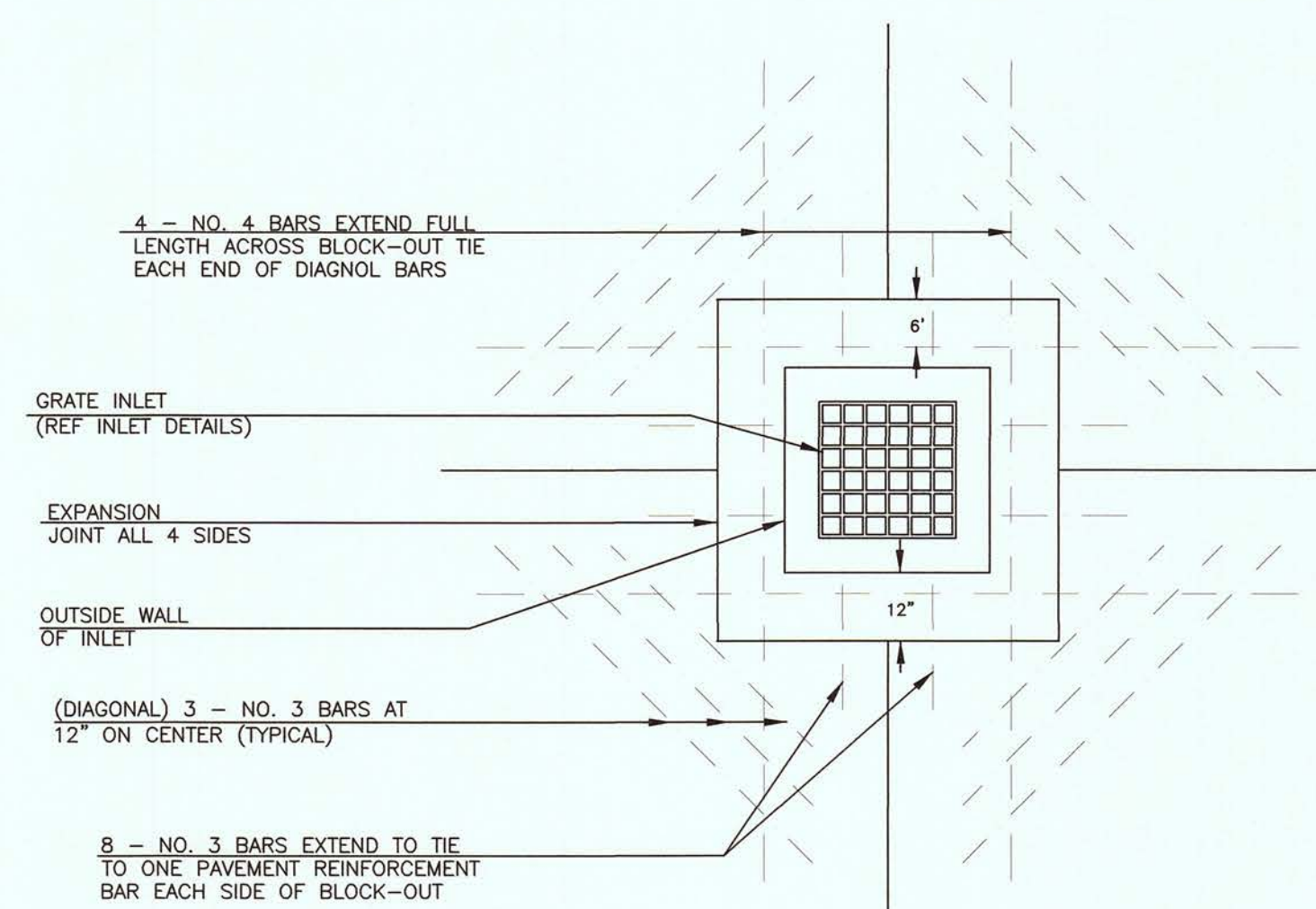
NOTES:

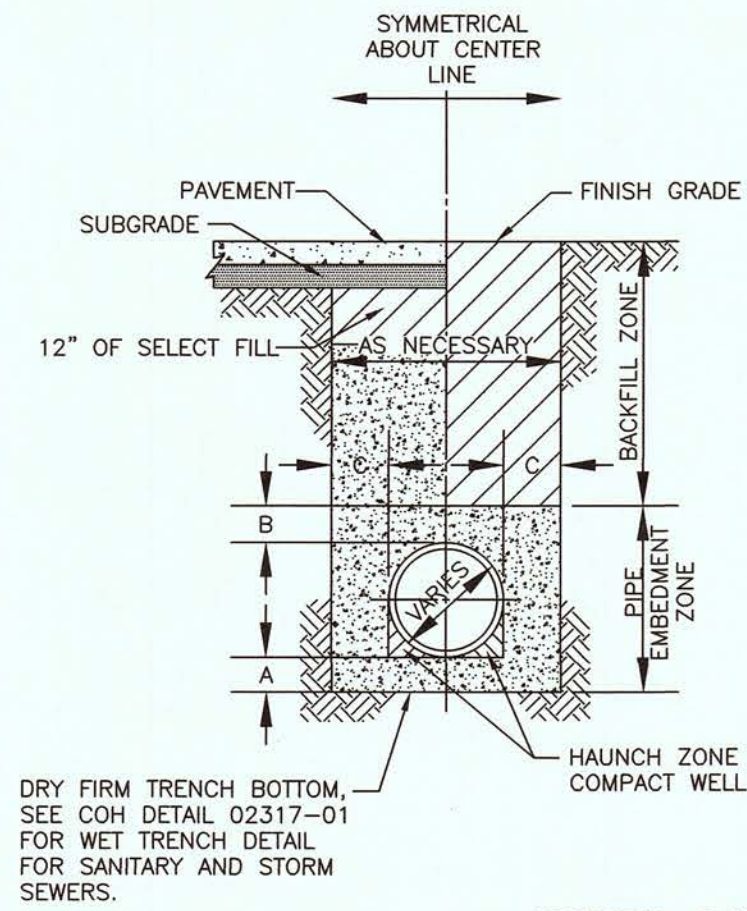
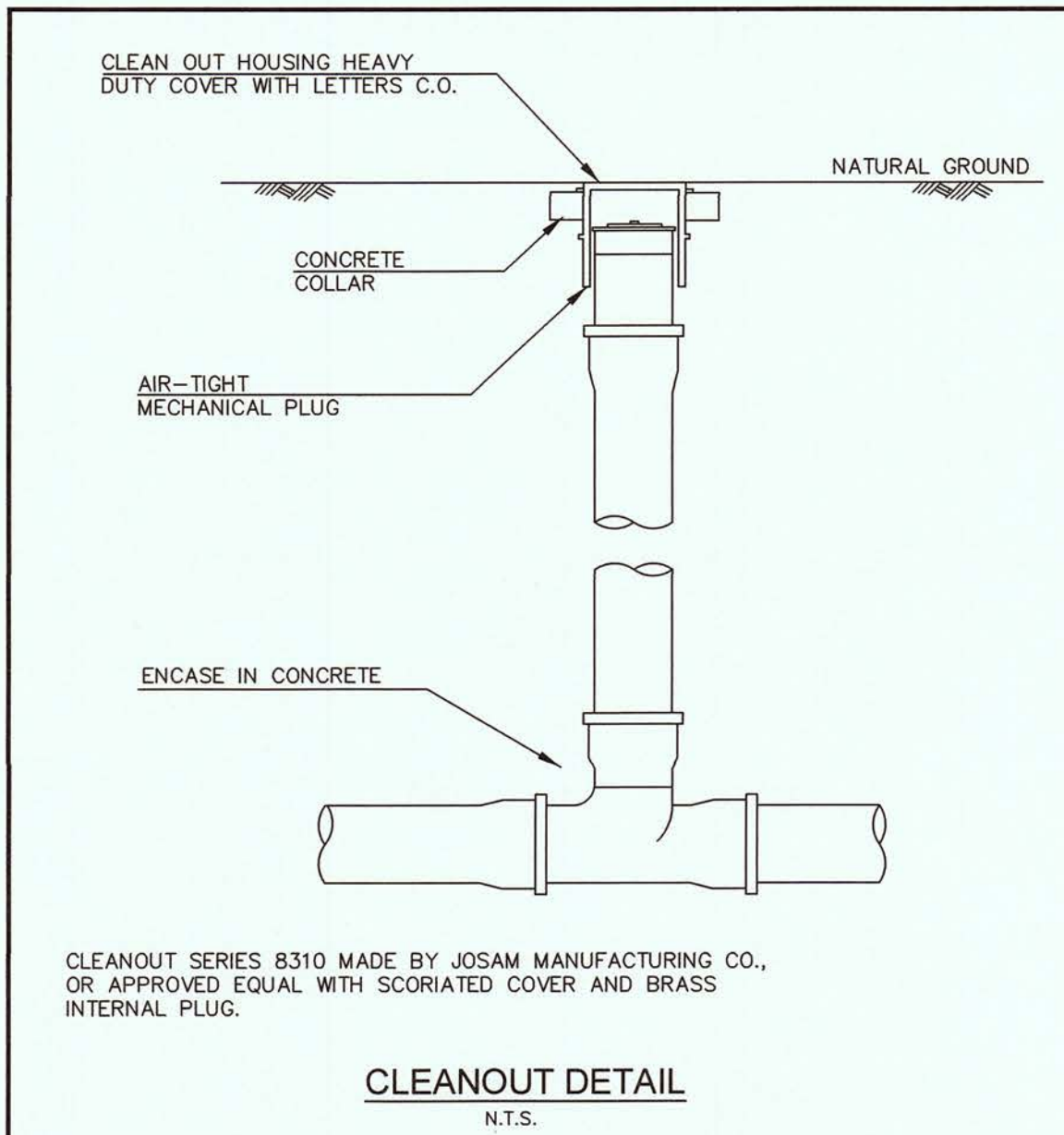
1. STEEL TO MEET ASTM STANDARD SPECIFICATIONS FOR CONCRETE REINFORCING BARS. SPACING AND BAR SIZE MAY BE REDUCED IF GEOTECHNICAL REPORT PROVIDES RECOMMENDATIONS.
2. CENTER DOWEL HORIZONTALLY ON JOINT.
3. CENTER DOWEL VERTICALLY IN CONCRETE BASE. EXTEND THICKENED CONCRETE AS NEEDED TO MAINTAIN 3" MIN COVER.
4. THE LOCATION OF CONSTRUCTION JOINTS MAY BE VARIED WITH THE APPROVAL OF THE COUNTY ENGINEER.
5. JOINT SEALANT TO BE TWO-PART POURABLE URETHANE JOINT SEALANT, TYPE M, GRADE P, CLASS 25, USE 1.



NOTES

1. CONTRACTOR TO ADD EXTRA DIAGONAL BAR IF DISTANCE TO NEAREST CORNER EXCEEDS 12".
2. FOR RADIUS OVER 10', CONTRACTOR TO PLACE LONG BAR AT 3" FROM BACK OF CURB ALONG ENTIRE RADIUS.





DIMENSIONAL REQUIREMENTS			
PIPE SIZE	A	B	C
20" AND SMALLER	6"	12"	9"
21" THRU 48"	6"	12"	12"
54" THRU 66"	9"	12"	15"
72" AND LARGER	12"	18"	15"

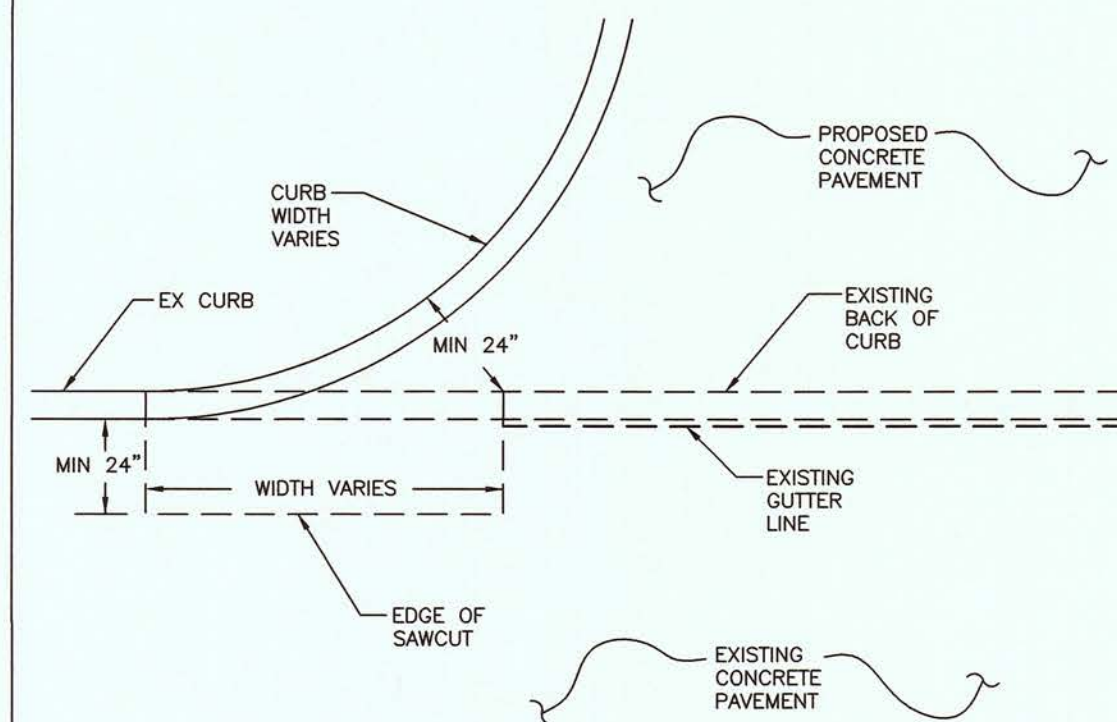
MATERIAL REQUIREMENTS

BACKFILL ZONE

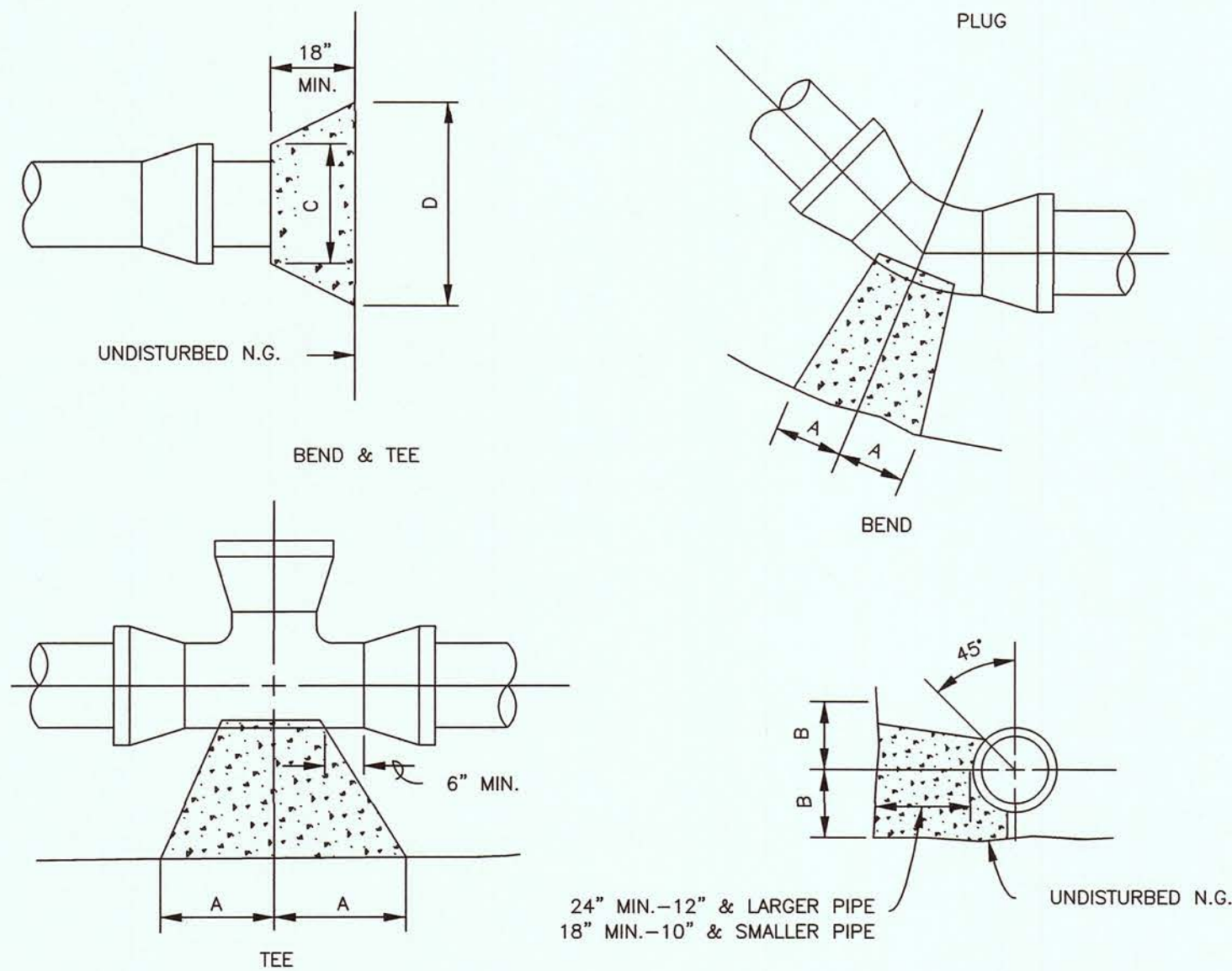
1. IN PAVED AREAS, USE CEMENT STABILIZED SAND, PLACE IN 8" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY, TO WITHIN 12" OF SUBGRADE.
2. IN UNPAVED AREAS, USE SOIL EXCAVATED FROM TRENCH, PLACE IN 8" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

PIPE EMBEDMENT ZONE

1. FOR STORM AND SANITARY SEWERS, USE CEMENT STABILIZED SAND, PLACE IN 8" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.
2. FOR WATER LINES, USE SAND, PLACE IN 8" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.



SIZE	90° BEND		45° BEND		22 1/2° BEND		TEES		PLUGS	
	A	B	A	B	A	B	A	B	C	D
2 1/2"	12"	7"	6"	7"	6"	6"	7"	8"	8"	14"
4"	14"	8"	7"	9"	6"	6"	8"	11"	8"	18"
6"	16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

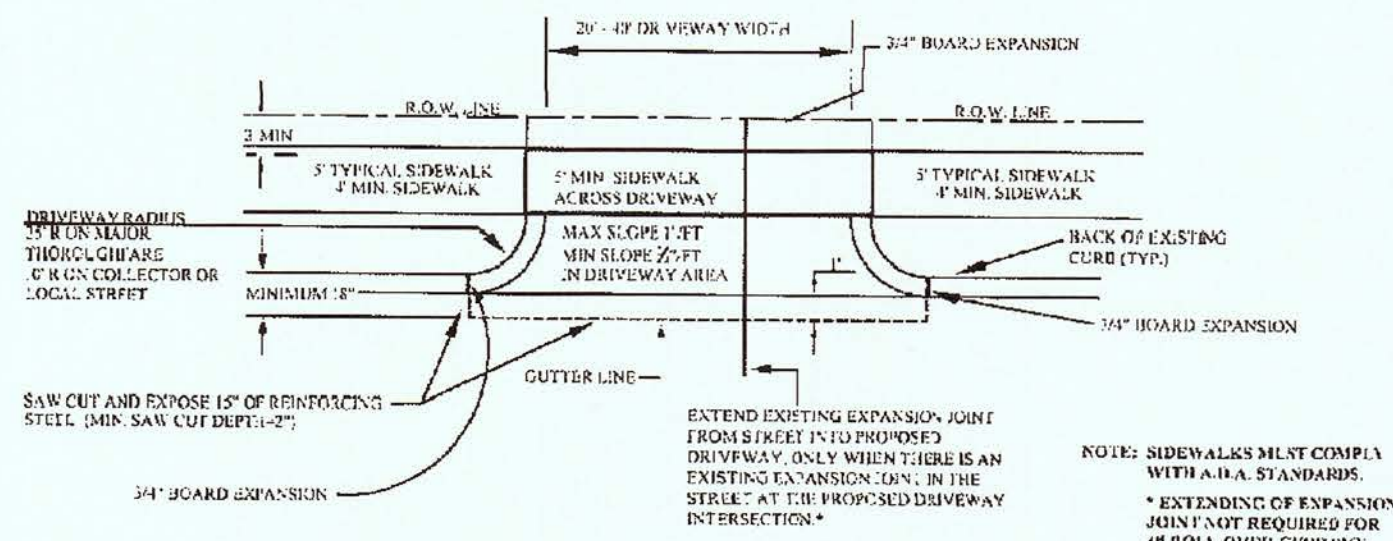


NOTE:
THRUST BLOCKS AT TRENCH FACE MUST HAVE A MINIMUM BEARING SURFACE OF 1.0 SQ. FOOT AND THE LEAST DIMENSION SHALL BE NO SMALLER THAN 1.5 TIMES PIPE DIAMETER, BUT NOT LESS THAN 1.0 FT.

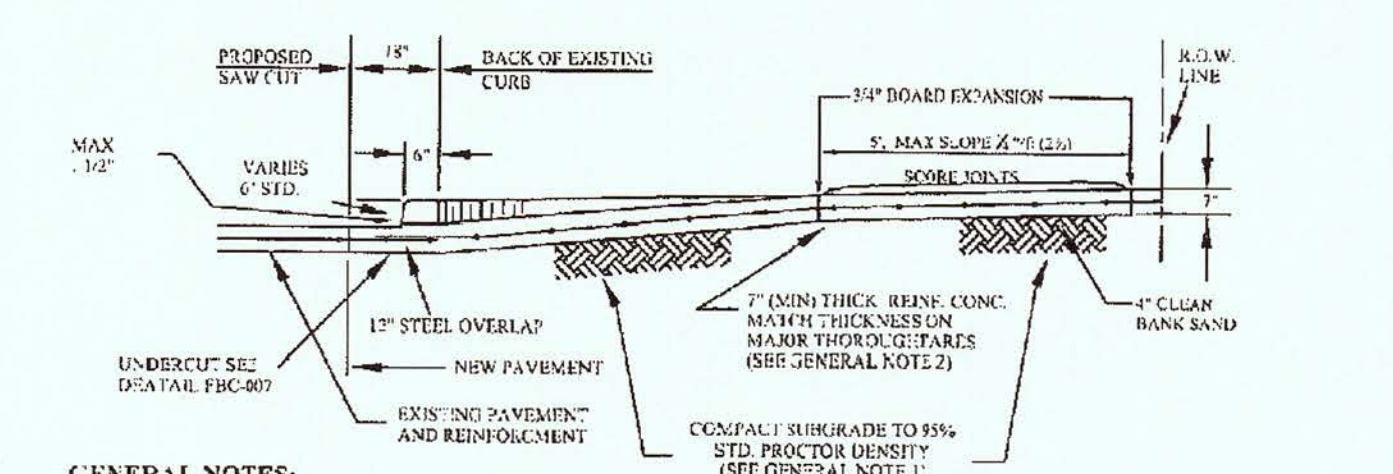
THRUST-BLOCKING N.T.S.

WHEN A COMMERCIAL SIDEWALK, DRIVEWAY, CURB OR GUTTER IS CONSTRUCTED, RECONSTRUCTED, REPAIRED OR REGRADED ON COUNTY RIGHT-OF-WAY, FOR USE WITH CONCRETE OR ASPHALT CURB TYPE STREETS, USE SECTIONS APPLICABLE.

- A. USE FOR ALL PROPOSED EXISTING CURB REMOVAL FOR DRIVEWAYS (PLAN VIEW NOT TO SCALE)



- B. USE FOR ALL PROPOSED DRIVES ON CURBED TYPE STREETS



GENERAL NOTES:

1. COMPACT SUBGRADE FOR PROPOSED DRIVEWAY CONNECTION FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO ROW LINE, COMPACT TO 95% STANDARD PROCTOR DENSITY (+/- 2% OPT. MOISTURE). THE COUNTY ENGINEER RESERVES THE RIGHT TO REQUIRE LABORATORY TESTS TO BE CONDUCTED.
2. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE #4 DEFORMED REINFORCING BARS (ASTM A615, GRADE 60, UNLESS NOTED) SPACED AT 24" C.C., EACH WAY, WITH 12" MINIMUM LAP FROM PROPOSED SAW CUT TO ROW LINE.
3. PROPOSED DRIVEWAY SHALL BE CONSTRUCTED WITH PORTLAND CEMENT (5 BAGS PER CUBIC YARD OF CONCRETE), CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 7" THICK, FROM PROPOSED SAW CUT TO ROW LINE.
4. PROPOSED SIDEWALK SHALL BE CONSTRUCTED WITH PORTLAND CEMENT (5 BAGS PER CUBIC YARD OF CONCRETE), CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 4" THICK.
5. FOR TYPICAL SIDEWALKS SEE DETAIL 02317-01.

SIDEWALKS & DRIVEWAYS ON
CURB TYPE STREETS
COMMERCIAL AREA

DRAWN BY: L. BRDECKA
DATE DRAWN: 2-1-94
APPROVED BY: L. HOOD
DATE: 2-1-94

REVISED BY: J. NETARDUS
DATE REVISED: 4-7-09
DRAWING NO.
FBC-025A

FORT BEND COUNTY ENGINEERING DEPARTMENT

GENERAL NOTES FOR SIDEWALKS AND DRIVEWAYS

1. SAW CUT EXISTING CURB AT EACH END AND KNOCK OUT CURB FROM BEGINNING TO END OF PROPOSED DRIVEWAY.
2. SAW CUT EXISTING PAVEMENT A MINIMUM OF 18" INCHES AWAY FROM BACK OF CURB (GUTTER LINE) AND BREAK OUT TO EXPOSE EXISTING REINFORCEMENT STEEL.
3. COMPACT SUBGRADE FOR PROPOSED DRIVEWAY CONNECTION FROM PROPOSED SAW CUT AT EXISTING PAVEMENT TO RIGHT-OF-WAY LINE, COMPACT TO 95% STANDARD PROCTOR DENSITY (+/- 2% OPT. MOISTURE). THE COUNTY ENGINEER RESERVES THE RIGHT TO REQUIRE LABORATORY TESTS TO BE CONDUCTED.
4. PLACE AND COMPACT 4" CLEAN BANK SAND.
5. MAINTAIN GUTTER LINE WITH FACE OF EXISTING CURB.
6. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE TIED TO EXISTING ROADWAY REINFORCING STEEL WITH A MINIMUM LAP OF 12 INCHES.
7. PROPOSED DRIVEWAY REINFORCING STEEL IS TO BE #4 DEFORMED REINFORCING BARS (ASTM A615, GRADE 60, UNLESS NOTED) SPACED AT 24 INCHES C.C., EACH WAY, WITH 12 INCHES MINIMUM LAP (6" x 6" W6 x W6 AS ALTERNATE) FROM PROPOSED SAW CUT TO RIGHT-OF-WAY LINE.
8. PROPOSED DRIVEWAY, CURB, GUTTER LINE, AND GRADE SHALL MATCH EXISTING STREET.
9. PROPOSED DRIVEWAY SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 7 INCHES THICK, FROM PROPOSED SAW CUT TO RIGHT-OF-WAY LINE (PROPERTY LINE).
10. PROPOSED SIDEWALK SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE, CLASS "A" STRUCTURAL (REFER TO SPECIFICATION 03301), 4 INCHES THICK AND 4 FEET MINIMUM WIDTH. SEE DRAWING NO. FBC 24A FOR ADDITIONAL INFORMATION AND DETAILS.

CONSTRUCTION NOTES FOR
SIDEWALKS & DRIVEWAYS WITH
CURB TYPE STREETS
COMMERCIAL AREA

DRAWN BY: L. BRDECKA
DATE DRAWN: 2-1-94
APPROVED BY: L. HOOD
DATE: 2-1-94

REVISED BY: L. BRDECKA
DATE REVISED: 3-10-05
DRAWING NO.
FBC-025B

FORT BEND COUNTY ENGINEERING DEPARTMENT

ALJLindsey
Civil Engineer
5629 FM 1960 W., Suite 314
Houston, TX 77068
PRN F-11528



22 MARCH 2018

CONSTRUCTION DETAILS
(2 OF 4)

CHILDREN'S LIGHTHOUSE
4734 HARVEST CORNER DR
FORT BEND COUNTY, TEXAS

SHEET
C7.1

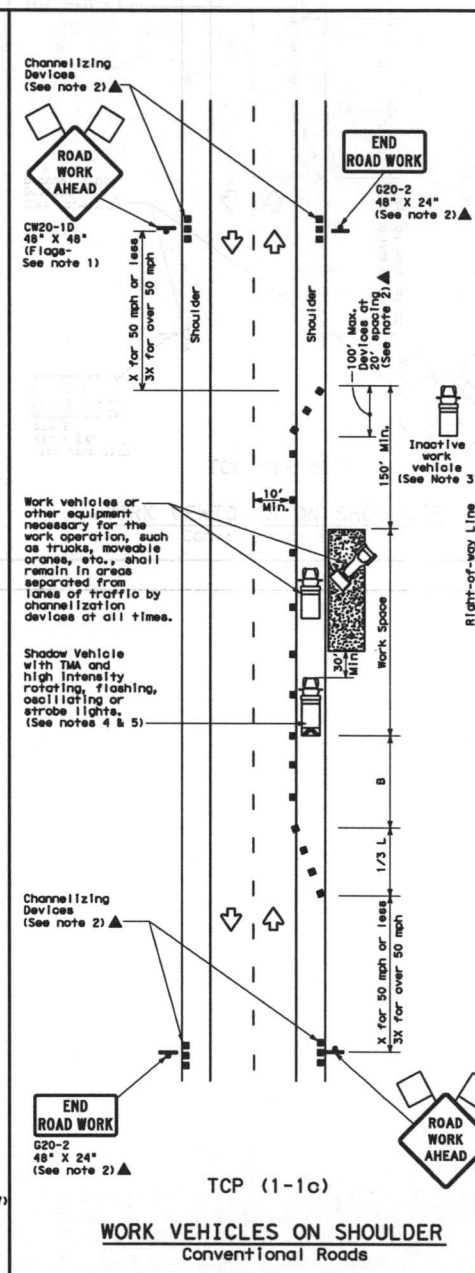
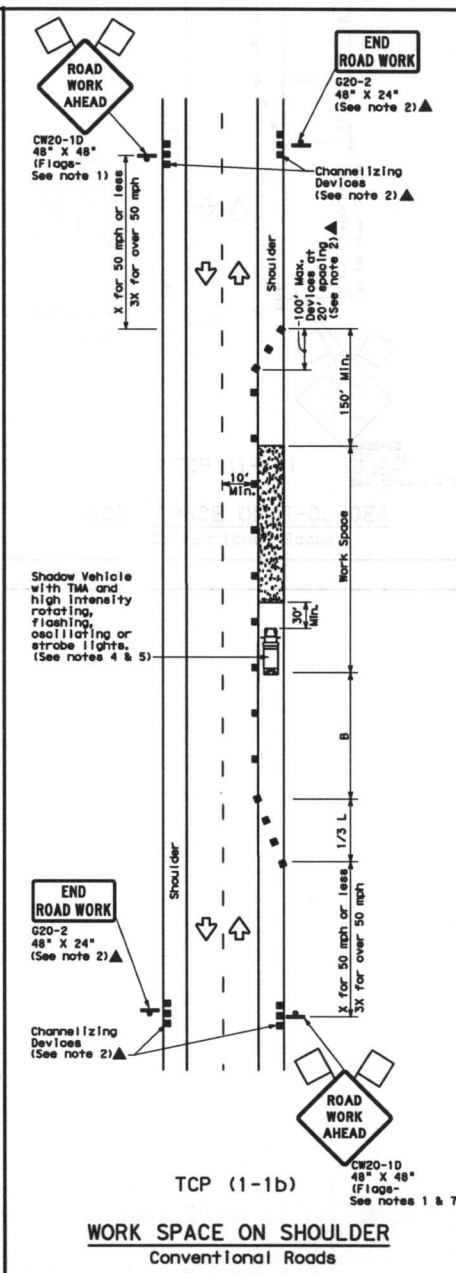
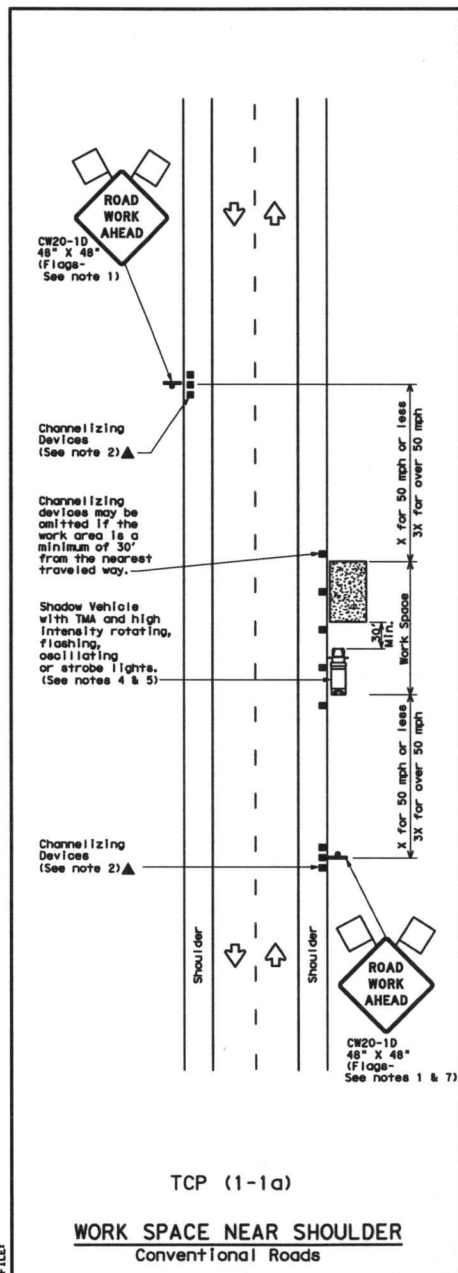
APPROVAL IS IMPLIED FOR IMPROVEMENTS WITHIN FORT BEND COUNTY RIGHTS-OF-WAY ONLY. UTILITY LINES APPROVED AS TO LOCATION ONLY. AUTHORIZATION IS VALID FOR 1 YEAR.

APPROVED: *CLB*
DEVELOPMENT COORDINATOR

DATE: 3/28/18

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by the Texas Department of Transportation for the use of this standard for any purpose other than its use.

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 MPH	Formula	Minimum Desirable Taper Lengths ft		Suggested Maximum Spacing of Channelizing Devices ft		Minimum Sign Spacing ft	Suggested Longitudinal Buffer Space ft
		10' Offset	11' Offset	On a Taper	On a Tangent		
30	L = WS/60	150'	165'	180'	30'	60'	120'
35		205'	225'	245'	35'	70'	160'
40		265'	295'	320'	40'	80'	240'
45	L = WS	450'	495'	540'	45'	90'	320'
50		500'	550'	600'	50'	100'	400'
55		550'	605'	660'	55'	110'	500'
60		600'	660'	720'	60'	120'	600'
65		650'	715'	780'	65'	130'	700'
70		700'	770'	840'	70'	140'	800'
75		750'	825'	900'	75'	150'	900'

* 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.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- 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.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-10 "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

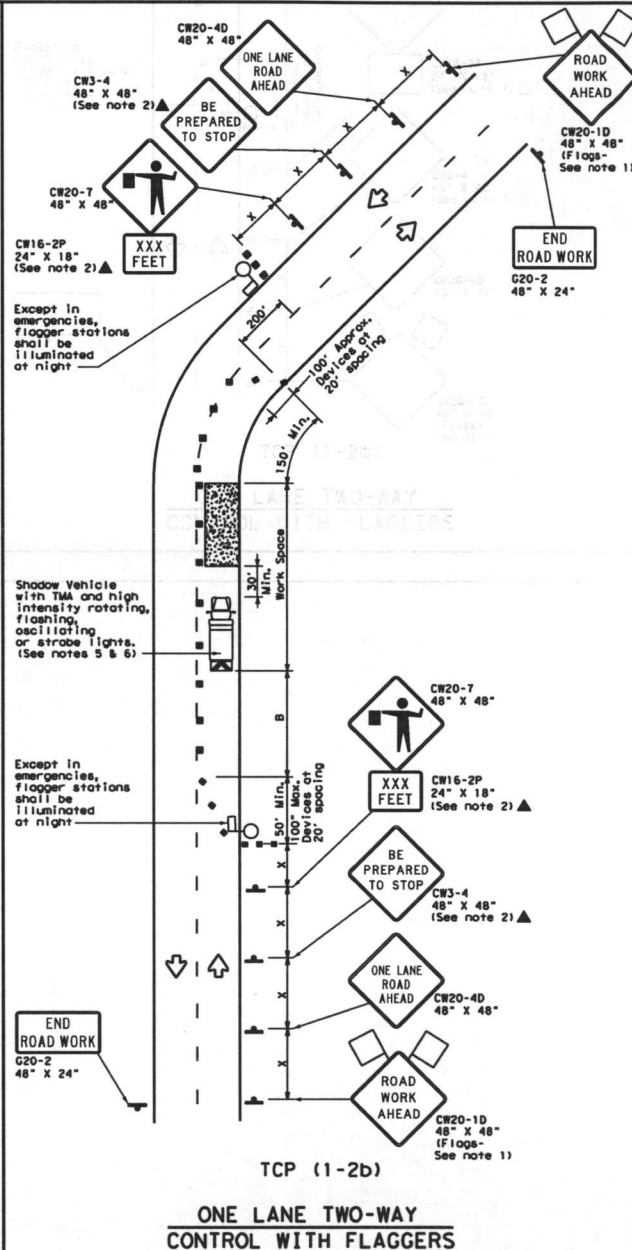
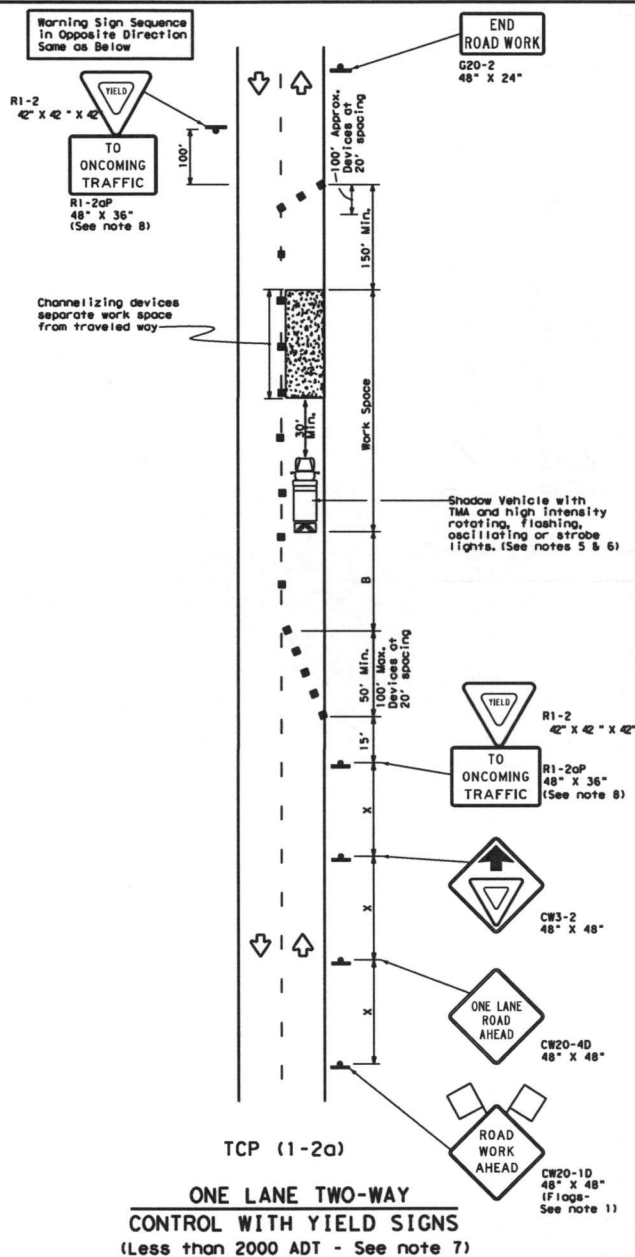
TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(1-1)-12

REVISIONS		DATE	BY	CHKD	DATE	BY	CHKD	DATE	BY	CHKD
2-94	2-12									
1-97										
4-96										
DIST		COUNTY		SHEET NO.						

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the consequences of the use of this standard to other formats or for incorrect results or changes resulting from its use.

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 (MPH)	Formula	Minimum Desirable Taper Lengths (ft)	Suggested Maximum Spacing of Channelizing Devices (ft)	Minimum Sign Spacing (ft)	Suggested Longitudinal Buffer Space (ft)	Stopping Sight Distance (ft)
30	L = WS	10' 11' 12'	On a Taper 30' On a Tangent 60'	120'	90'	200'
35	L = WS	150' 165' 180'	35' 70'	160'	120'	250'
40	L = WS	205' 225' 245'	40' 80'	240'	155'	305'
45	L = WS	265' 295' 320'	45' 90'	320'	195'	360'
50	L = WS	450' 495' 540'	50' 100'	400'	240'	425'
55	L = WS	550' 605' 660'	55' 110'	500'	295'	495'
60	L = WS	600' 660' 720'	60' 120'	600'	350'	570'
65	L = WS	650' 715' 780'	65' 130'	700'	410'	645'
70	L = WS	700' 770' 840'	70' 140'	800'	475'	730'
75	L = WS	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	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.
- TC (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.
- TC (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.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

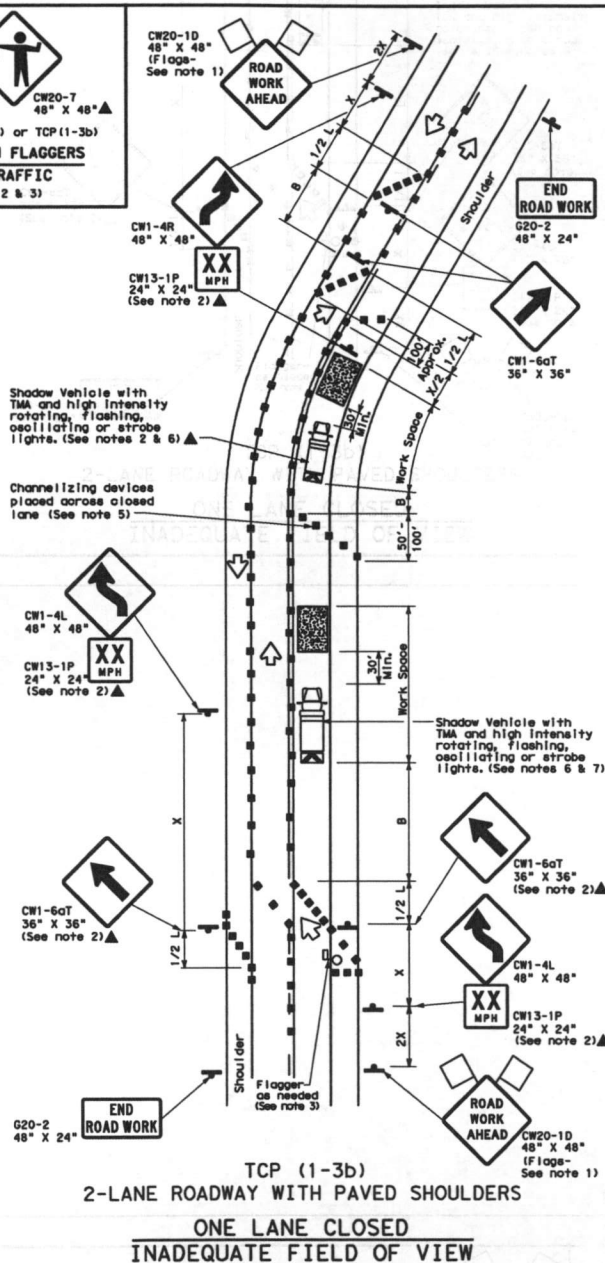
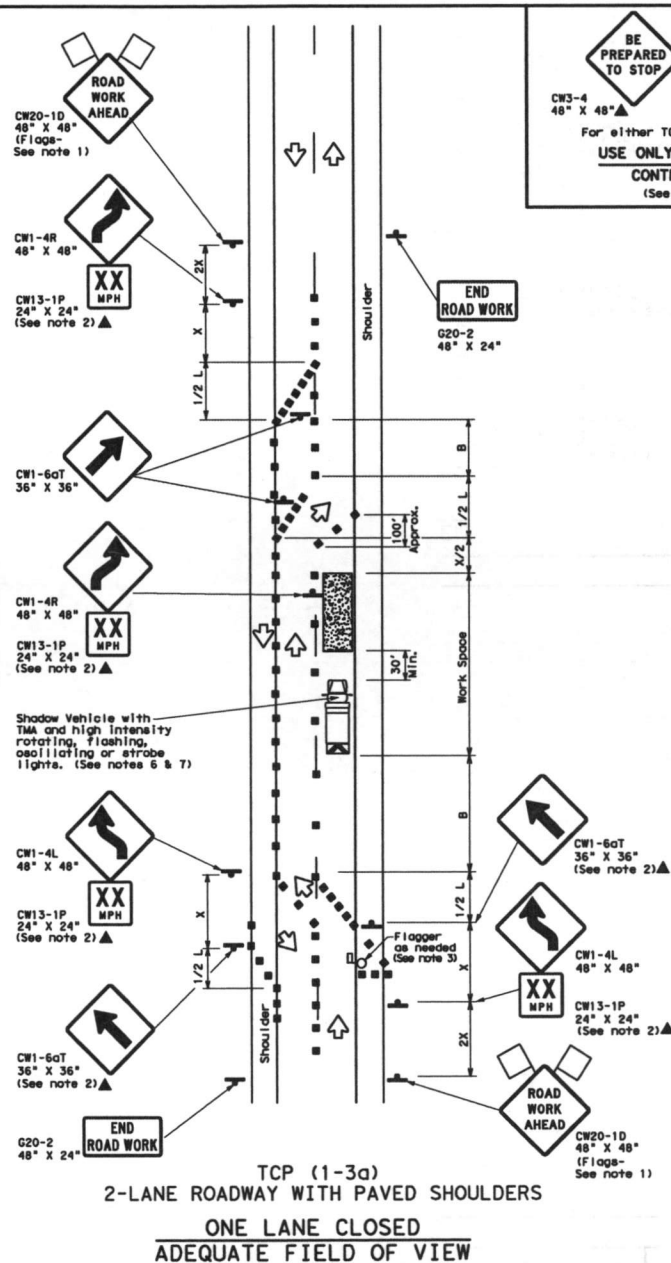
TRAFFIC CONTROL PLAN ONE-LANE TWO-WAY TRAFFIC CONTROL

TC (1-2)-12

REVISIONS	DATE	BY	CHKD	DATE	BY	CHKD
4-90	2-12					
2-94						
1-97						
4-98						

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the consequences of the use of this standard to other forms or for incorrect results or damage resulting from its use.

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
	Flagger		

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

* Conventional Roads Only

** Taper lengths have been rounded off.

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

TYPICAL USAGE			
MOBILE	SHORT DURATION	SHORT 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.
- Flagger control should NOT be used unless roadway conditions or heavy traffic volume require additional emphasis to safely control traffic. Additional flaggers may be positioned in advance of traffic queues to alert traffic to reduce speed.
- DO NOT PASS, PASS WITH CARE and construction regulatory speed zone signs may be installed downstream of the ROAD WORK AHEAD signs.
- When the work zone is made up of several work spaces, channelizing devices should be placed laterally across the closed lane to re-emphasize closure. Laterally placed channelizing devices should be repeated every 500 to 1000 feet in urban areas and every 1/4 to 1/2 mile in rural areas.
- 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 TMA may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20', or 15' if posted speed are 35 mph or slower, and for tangent sections, at 1/25 where S is the speed in mph. This tighter device spacing is intended for the area of conflicting markings not the entire work zone.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

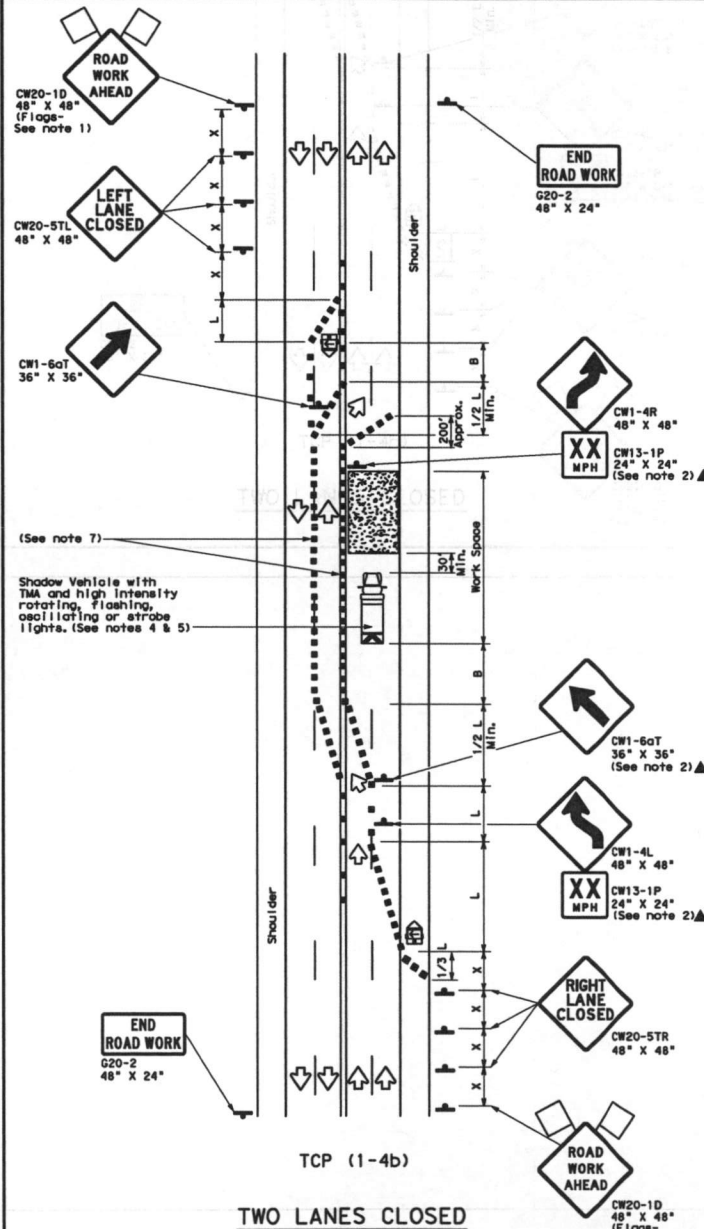
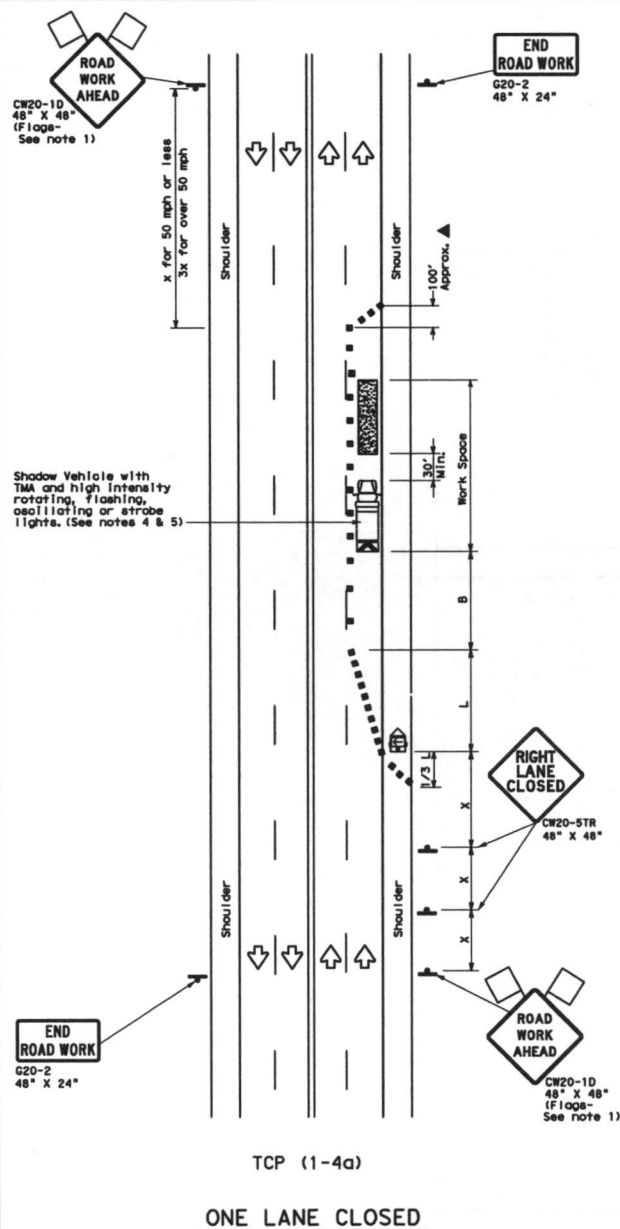
TRAFFIC CONTROL PLAN TRAFFIC SHIFTS ON TWO LANE ROADS

TCP (1-3)-12

REVISIONS		DATE	BY	CHK	DATE	BY	CHK
2-94	2-12						
8-95							
1-97							
4-98							
SHEET NO.		COUNTY		HIGHWAY		SHEET NO.	

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

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

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

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 CW20-10 "ROAD WORK AHEAD" sign may be repeated if the visibility of the work zone 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 (1-4a)**
- If this TCP is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline where needed to protect the work space from opposing traffic with the arrow panel placed in the closed lane near the end of the merging taper.
- TCP (1-4b)**
- Where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2 S where S is the speed in mph. This tighter device spacing is intended for the areas of conflicting markings, not the entire work zone.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

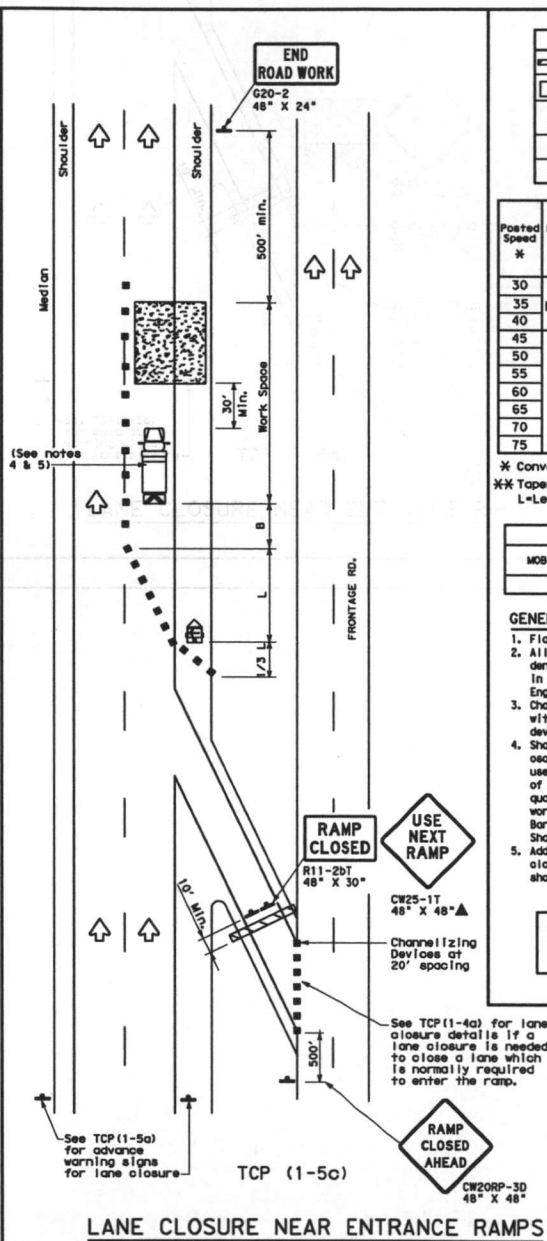
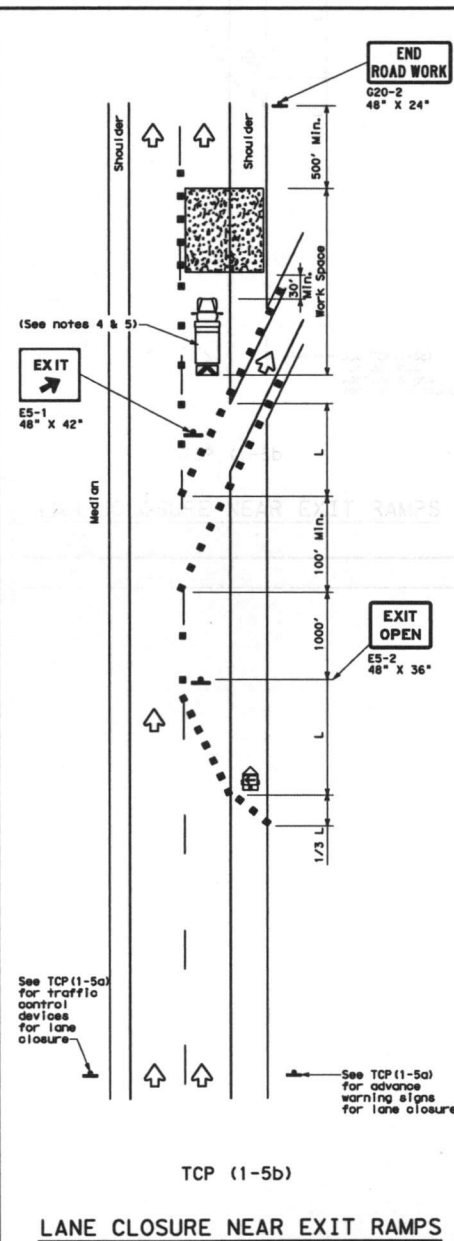
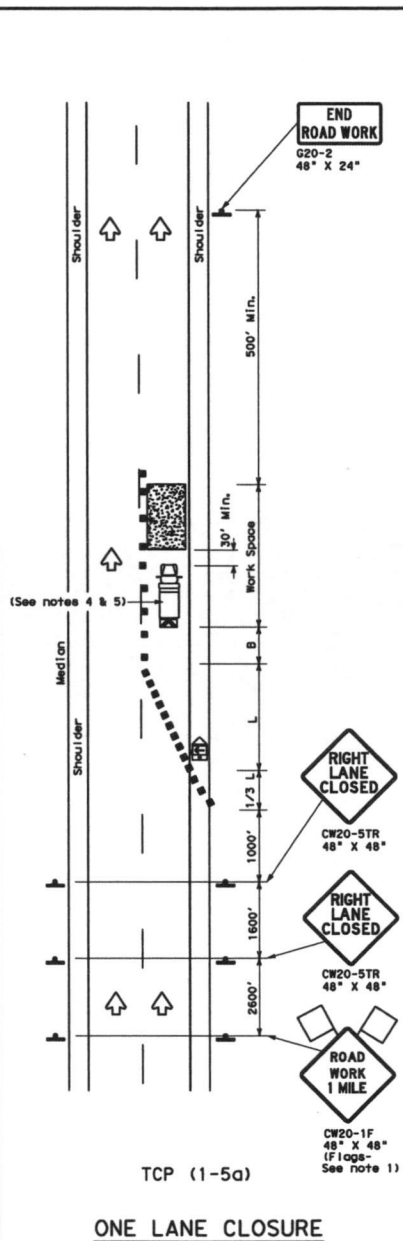
Texas Department of Transportation
 Traffic Operations Division

TRAFFIC CONTROL PLAN
LANE CLOSURES ON MULTILANE
CONVENTIONAL ROADS

TCP (1-4)-12

© TxDOT December 1985		DN TxDOT	CA TxDOT	DN TxDOT	CA TxDOT
REVISIONS		CONTRACT	SECTION	JOB	ROADWAY
2-84	2-12				
8-95					
1-97					
4-98					
DIST		COUNTY		SHEET NO.	
154					

DATE:
FILE:



LEGEND			
	Type 3 Barricade		Channelizing Device
	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 ft			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing ft Distance	Suggested Longitudinal Buffer Spacing ft
		11'		12'	On a Taper	On a Tangent		
		Offset	Offset	Offset				
30	L = WS 60	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50	L = WS	500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

✖✖ Taper lengths have been rounded off.

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

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

GENERAL NOTES

1. Flags attached to signs where shown, are REQUIRED.
2. 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.
3. Channelizing devices used to close lanes may be supplemented with the Chevron Alignment Sign placed on every other channelizing device. Chevrons may be attached to plastic drums as per BC Standards.
4. Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of work exposure with the intent of providing advance warning or quality of the work. If workers are no longer present behind 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.
5. Additional Shadow Vehicles with TMA's may be positioned in each closed lane, at the shoulder or off the paved surface, next to those shown in order to protect a wider work space.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

 **Texas Department of Transportation**
Traffic Operations Division

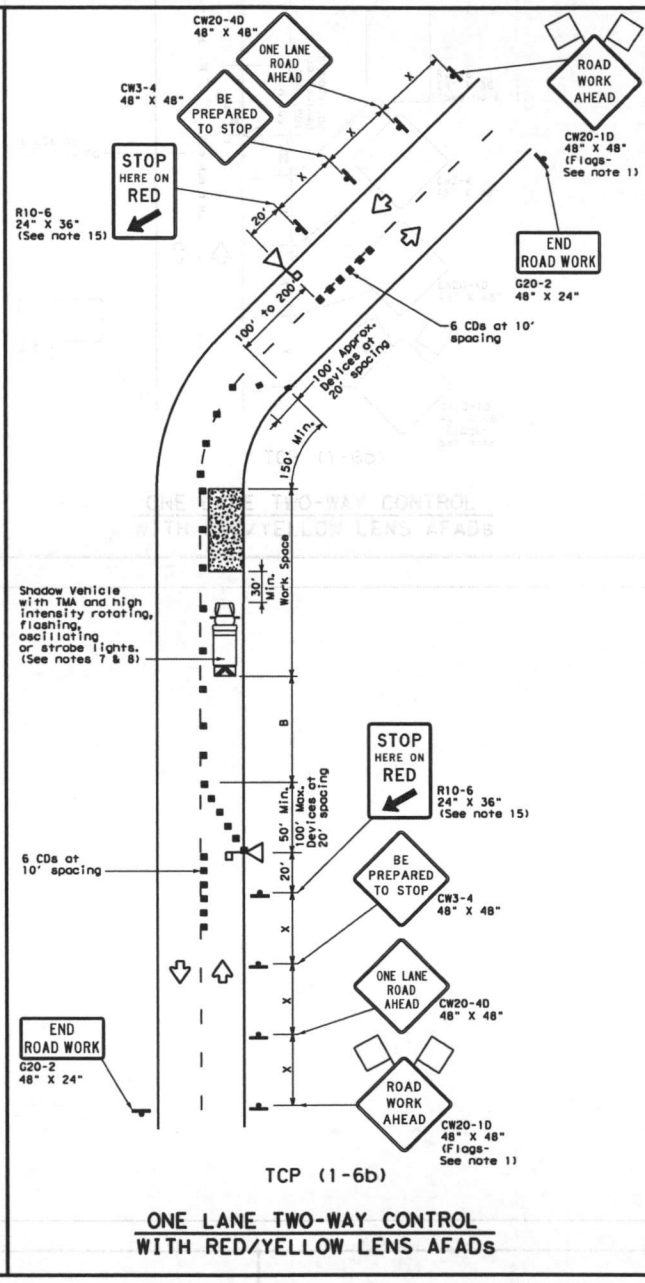
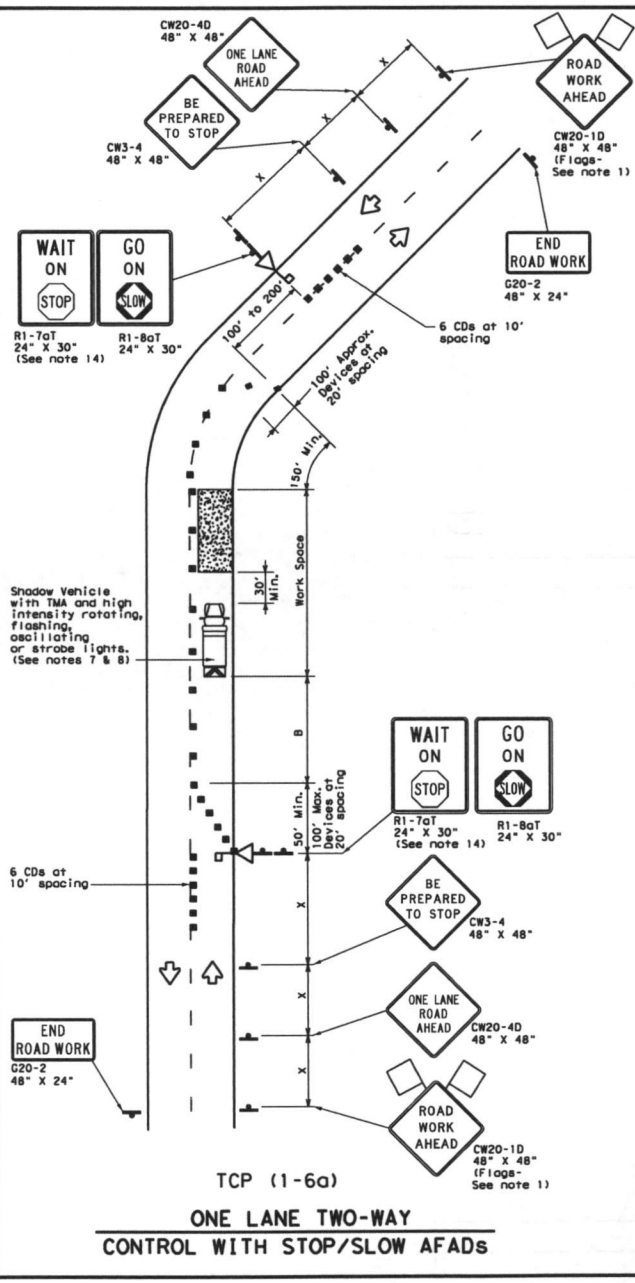
TRAFFIC CONTROL PLAN LANE CLOSURES FOR DIVIDED HIGHWAYS

TCP (1-5) -12

© TxDOT February 2012		DWI TXDOT		CXI TXDOT		DWI TXDOT		CXI TXDOT	
REVISIONS		COMT	SECT	JOB			HIGHWAY		
		DIST	COUNTY					SHEET NO.	

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the consequences of the use of this standard to other forms or for incorrect results or damages resulting from its use.

DATE: FILE:



LEGEND	
	Type 3 Barricade
	Heavy Work Vehicle
	Automated Flagger Assistance Device (AFAD)
	Sign
	Flag
	Channelizing Devices (CDs)
	Truck Mounted Attenuator (TMA)
	Portable Changeable Message Sign (PCMS)
	Traffic Flow
	Flagger

Posted Speed MPH	Formula	Minimum Desirable Taper Lengths ft			Suggested Maximum Spacing of Channelizing Devices ft		Minimum Sign Spacing ft	Suggested Longitudinal Buffer Space ft	Stopping Sight Distance ft
		10'	11'	12'	On a Taper	On a Tangent			
30	L = 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.
- AFADs shall only be used in situations where there is one lane of approaching traffic in the direction to be controlled.
- Adequate stopping sight distance must be provided to each AFAD location for approaching traffic. (See table above).
- Each AFAD shall be operated by a qualified/certified flagger. Flaggers operating AFADs shall not leave them unattended while they are in use.
- One flagger may operate two AFADs only when the flagger has an unobstructed view of both AFADs and of the approaching traffic in both directions.
- When pilot cars are used, a flagger controlling traffic shall be located on each approach. AFADs shall not be operated by the pilot car operator.
- All AFADs shall be equipped with gate arms with an orange or fluorescent red-orange flag attached to the end of the gate arm. The flag shall be a minimum of 16" square.
- 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.
- 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 stopping sight distance to the AFAD.
- Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
- The R1-7aT "WAIT ON STOP" sign and the R1-8aT "GO ON SLOW" sign shall be installed at the AFAD location on separate supports or they may be fabricated as one 48" x 30" sign. They shall not obscure the face of the STOP/SLOW AFAD.
- The R10-6 "STOP HERE ON RED" arrow sign shall be offset so as not to obscure the lenses of the AFAD.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

TRAFFIC CONTROL PLAN
AUTOMATED FLAGGER ASSISTANCE DEVICES (AFADs)
TCP (1-6) - 12

© TxDOT February 2012		ON TxDOT	EN TxDOT	ON TxDOT	EN TxDOT
REVISED	DATE	BY	DATE	BY	DATE
DIST	COUNTY	JOB	HIGHWAY	SHEET NO.	