



**REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT**

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

- Right of Way Permit
- Commercial Driveway Permit

Permit No: 2017-17416

Applicant: Gonzalez Construction Enterprise, Inc.

Job Location Site: Spring Green Boulevard and Katy Flewellen Road, Katy , TX 77494

Bond No. **Date of Bond:** 7/30/2015 **Amount:** \$50,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

Notes:

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
 - a. 48 hours in advance of construction start up, and
 - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 2nd day of January, 2018, Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

Signature

Presented to Commissioners Court and approved.

By: Charles O. Ay

Date Recorded 1-4-2018 Comm. Court No. 12M

for County Engineer

Clerk of Commissioners Court

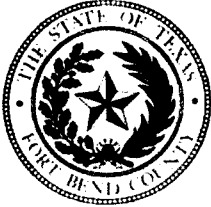
N/A

By: _____

By: Annika Willis

Drainage District Engineer/Manager

Deputy



**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@fortbendcountytx.gov

- Right of Way Permit
 Commercial Driveway Permit

Permit No: 2017-17416

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: \$50,000.00
- Performance bond submitted. Bond No: Amount:
- 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.

Charley O. Ayl

Permit Administrator

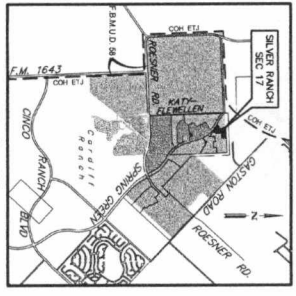
12/20/2017

Date

FORT BEND COUNTY M.U.D. 58 SILVER RANCH SEC 17

CONSTRUCTION PLANS OF PROPOSED WATER DISTRIBUTION SYSTEM SANITARY COLLECTION SYSTEM STORM DRAINAGE SYSTEM STREET PAVING

JULY 2017



NOTE: TO THE CONTRACTOR, THESE DRAWINGS, WITH OR WITHOUT MODIFICATION, SHALL BE THE PROPERTY OF THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF HOUSTON AND THE STATE OF TEXAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF HOUSTON AND THE STATE OF TEXAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF HOUSTON AND THE STATE OF TEXAS.

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- | NO. | DESCRIPTION |
|-----|---|
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| 2 | GENERAL CONSTRUCTION SHEET |
| 3 | SANITARY SEWER AND WATER OVERALL Δ |
| 4 | STORM SEWER AND PAVING OVERALL Δ |
| 5 | STORM SEWER AND PAVING OVERALL Δ |
| 6 | STORM SEWER AND PAVING OVERALL Δ |
| 7 | STORM SEWER AND PAVING OVERALL Δ |
| 8 | STORM SEWER POLYURETHANE PREVENTION PLAN Δ |
| 9 | PLAN AND PROFILE--SKYLARK BLUFF TRAIL (STV, 1+00 TO 7+61.50) |
| 10 | PLAN AND PROFILE--MABLE LAKES DRIVE AND BRADTON WILLOW WAY (STV, 1+00 TO 8+08.54) |
| 11 | PLAN AND PROFILE--LAUREL MARKET LINE (STV, 1+60 TO 3+83.00) Δ |
| 12 | PLAN AND PROFILE--ENGINE SPRING BOULEVARD Δ |
| 13 | WATER AND MISCELLANEOUS PAVING DETAILS |
| 14 | SANITARY SEWER DETAILS |
| 15 | STORM SEWER DETAILS |
| 16 | PAVING DETAILS (SHEET 1 OF 2) |
| 17 | PAVING DETAILS (SHEET 2 OF 2) |
| 18 | PAVING MARKING DETAILS (SHEET 1 OF 3) |
| 19 | PAVING MARKING DETAILS (SHEET 2 OF 3) |
| 20 | PAVING MARKING DETAILS (SHEET 3 OF 3) |
| 21 | STORM WATER POLLUTION PREVENTION PLAN DETAILS |
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| 23 | TOOTH FEDERSTRAHL FACILITIES CURB RAMP FED-12A (SHEET 2 OF 4) |
| 24 | TOOTH FEDERSTRAHL FACILITIES CURB RAMP FED-12A (SHEET 3 OF 4) |
| 25 | TOOTH FEDERSTRAHL FACILITIES CURB RAMP FED-12A (SHEET 4 OF 4) |
| 25A | TRAFFIC CONTROL PLAN |

1. STORM WATER DETENTION BASIN: AS PROVIDED IN SILVER RANCH DETENTION PHASE 3A (TITLE) ENGINEERING PLAN SHEET (CONTRACT NO. 12025146) DATE: 10/15/17
2. STORM WATER DRAINAGE DESIGN REPORT: AS PROVIDED IN SILVER RANCH DETENTION PHASE 3A (TITLE) ENGINEERING PLAN SHEET (CONTRACT NO. 12025146) DATE: 10/15/17

FOR FORT BEND COUNTY M.U.D. 58 EXISTING DETENTION BASIN

ONE-CALL NOTIFICATION SYSTEM CALL BEFORE YOU DIG! (800) 444-4000

FORT BEND COUNTY ENGINEER

ENGINEER: *Paul J. Skyles, P.E.*
 DATE: 10/15/17
 THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION UNLESS THEY HAVE BEEN APPROVED BY THE ENGINEER AND THE CITY OF HOUSTON.
 APPROVED: *[Signature]*
 DATE: 9/20/17

FILED: Flood Insurance Rate Map
 L. SHAW, L. FACHS, P.E., CERTIFY THAT THIS PROJECT IS IN ACCORDANCE WITH THE FLOOD INSURANCE RATE MAP.
 DATE: 10/15/17

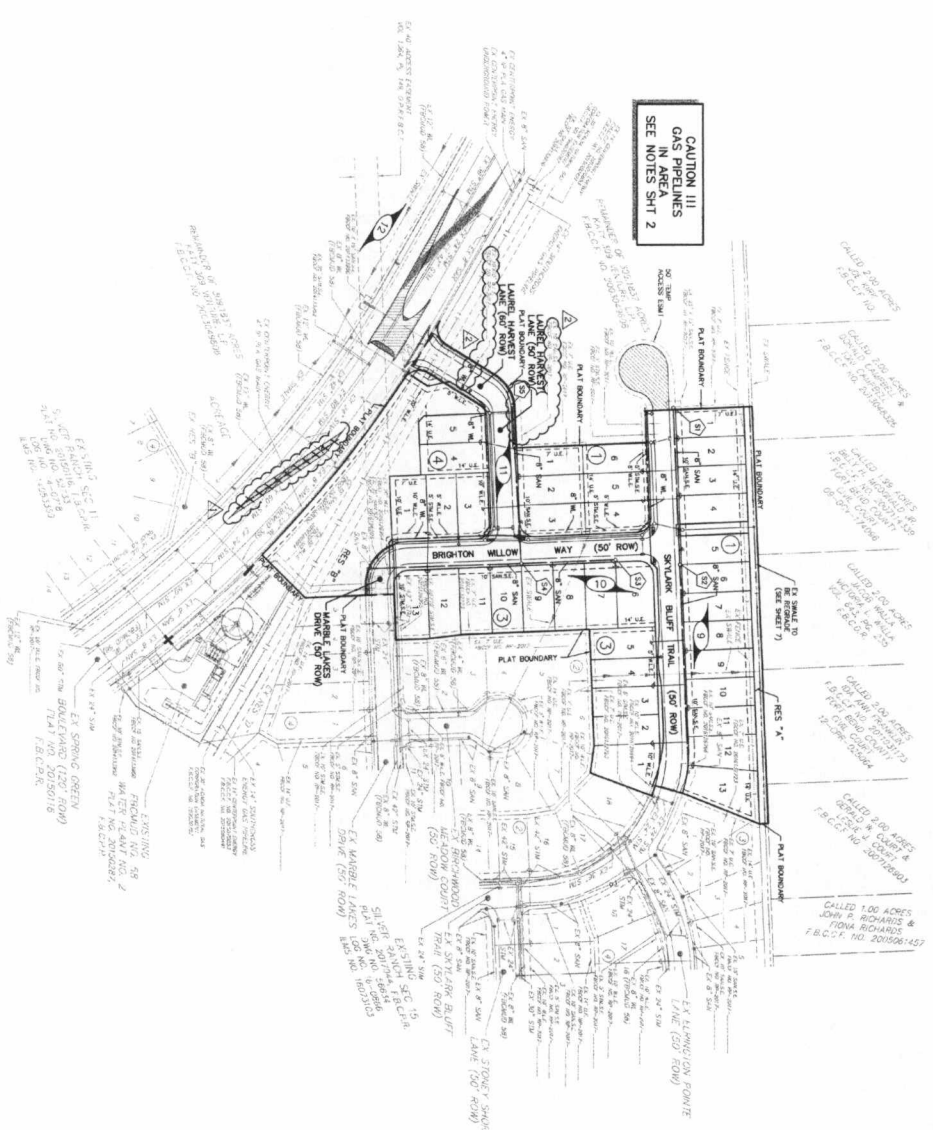
LUS # 17025146
 EXP. DATE: 11-2022
 PROJECT UNIT NO.

REV.	DATE	DESCRIPTION	BY
1	10/15/17	ISSUED FOR REVIEW	Paul J. Skyles
2	10/15/17	REVISED	Paul J. Skyles

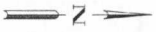
EGE
 ENGINEERING GROUP, INC.
 10000 Katy Road, Suite 100
 Houston, Texas 77025
 (281) 465-1177
 www.egengr.com

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
 PROJECT NO. 12025146
 SHEET NO. 1 OF 25

FOR THE CITY ENGINEER OR ONLY
 L. SHAW, L. FACHS, P.E.
 DATE: 10/15/17
 PROJECT UNIT NO.



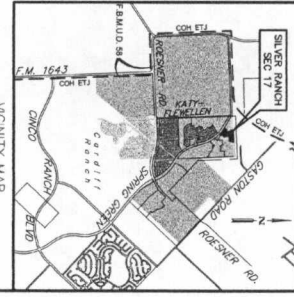
CAUTION !!!
GAS PIPELINES
IN AREA
SEE NOTES SHIT 2



REMARKS
PROJECT REPRESENTATIVE: BENTLEY ENGINEERING & ARCHITECTURE, 10000 WEST 14TH STREET, SUITE 100, HOUSTON, TEXAS 77040
PROJECT NO. 4818-03-001
SHEET NO. 17-01
DATE: 11/6/17

PERMIT NOTES:
1. CONTRACTOR TO OBTAIN ALL NECESSARY RECORDS FROM THE CITY OF HOUSTON AND THE UTILITY COMPANIES.
2. CONTRACTOR TO OBTAIN ALL NECESSARY RECORDS FROM THE UTILITY COMPANIES AND THE CITY OF HOUSTON.
3. CONTRACTOR TO OBTAIN ALL NECESSARY RECORDS FROM THE UTILITY COMPANIES AND THE CITY OF HOUSTON.
4. CONTRACTOR TO OBTAIN ALL NECESSARY RECORDS FROM THE UTILITY COMPANIES AND THE CITY OF HOUSTON.
5. CONTRACTOR TO OBTAIN ALL NECESSARY RECORDS FROM THE UTILITY COMPANIES AND THE CITY OF HOUSTON.

- LEGEND**
- PROPOSED WATER LINE, CV & BOX WITH FIRE HYDRANT
 - EXISTING WATER LINE, CV & BOX WITH FIRE HYDRANT
 - PROPOSED SANITARY SEWER LINE, MANHOLE AND STACK
 - EXISTING SANITARY SEWER LINE, MANHOLE AND STACK
 - PROPOSED SANITARY SEWER LINE, MANHOLE AND B-B INLETS
 - EXISTING SANITARY SEWER LINE, MANHOLE AND B-B INLETS
 - PROPOSED FORCE MAIN
 - EXISTING FORCE MAIN
 - EXISTING CENTERPOINT ENERGY HUB&P CONDUIT
 - EXISTING CENTERPOINT ENERGY HUB&P OVERHEAD LINE
 - EXISTING CENTERPOINT ENERGY GAS LINE
 - EXISTING AIR-TT TEAS/SPC CABLES
 - SANITARY SEWER MANHOLE
 - SHEET REFERENCE NUMBER



APPROVED: [Signature]
DATE: 11/6/17

EXHIBIT
SHEET NO. 17-01
DATE: 11/6/17

ENGINEER
BENTLEY ENGINEERING & ARCHITECTURE
10000 WEST 14TH STREET, SUITE 100
HOUSTON, TEXAS 77040
PHONE: 281-410-1000
WWW.BENTLEYENGINEERING.COM

PROJECT NO. 4818-03-001
SHEET NO. 17-01
DATE: 11/6/17

CLIENT
SILVER RANCH SEC 17
FORT BEND COUNTY M.U.D. 58

DESIGNER
BENTLEY ENGINEERING & ARCHITECTURE
10000 WEST 14TH STREET, SUITE 100
HOUSTON, TEXAS 77040
PHONE: 281-410-1000
WWW.BENTLEYENGINEERING.COM

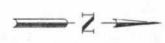
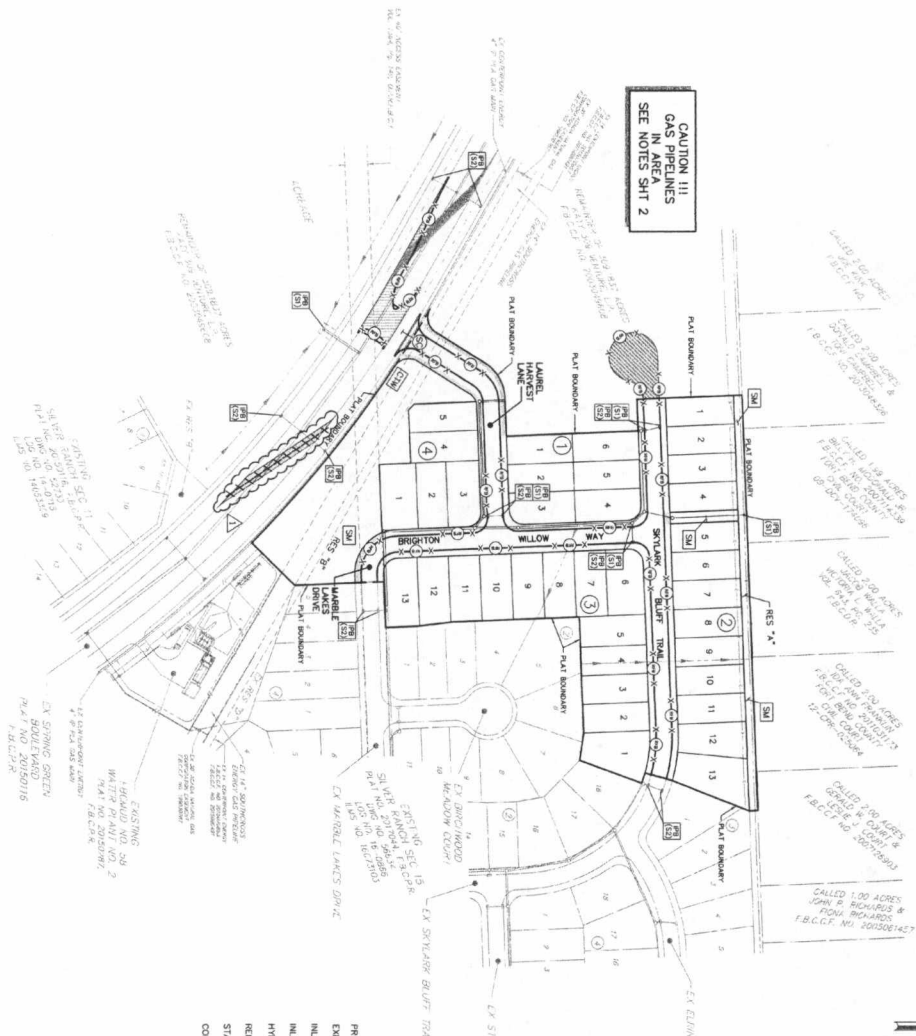
SCALE
DRAWING SCALE: 1" = 100'
VERTICAL SCALE: 1" = 10'

PROJECT NO. 4818-03-001
SHEET NO. 17-01
DATE: 11/6/17

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PROJECT NO. 4818-03-001
SHEET NO. 17-01
DATE: 11/6/17

CAUTION !!!
GAS PIPELINES
IN AREA
SEE NOTES SHIT 2



BENCHMARKS:
PROJECT BENCHMARK: BENCHMARK IS A STAINLESS STEEL AND STAMPED IRONSB 86
RANGE, 12.11 FEET SOUTH OF CORNER POINT, SOUTH SIDE OF FARM ROAD, 3.75 FEET EAST
OF FARM ROAD, APPROXIMATELY 19.1251 SOUTH OF A CORNER POINT, 121.844
ELEVATION: 138.321 FT.
MAG-88, 2001 ADJUSTMENT
IRM 82-11-1
SOUTH SIDE OF FARM ROAD, 100 FEET WEST OF THE CORNER POINT, 100 FEET
EAST OF FARM ROAD, APPROXIMATELY 19.1251 SOUTH OF A CORNER POINT, 121.844
ELEVATION: 138.321 FT.
MAG-88, 2001 ADJUSTMENT
IRM 82-11-2
SOUTH SIDE OF FARM ROAD, 100 FEET WEST OF THE CORNER POINT, 100 FEET
EAST OF FARM ROAD, APPROXIMATELY 19.1251 SOUTH OF A CORNER POINT, 121.844
ELEVATION: 138.321 FT.
MAG-88, 2001 ADJUSTMENT

- LEGEND**
- PROPOSED STORM SEWER LINE, MANHOLE AND 8-8 INLETS
 - EXISTING STORM SEWER LINE, MANHOLE AND 8-8 INLETS
 - INLET PROTECTION BARRIER FOR STAGE II INLETS (SEE SPEC. ITEM 01280)
 - INLET PROTECTION BARRIER FOR STAGE II INLETS (SEE SPEC. ITEM 01280)
 - HYDRO-MULCH SEEDING (SEE SPEC. ITEM 02871)
 - REINFORCED FLEXIBLE PAVEMENT (SEE SPEC. ITEM 01274)
 - STABILIZED CONSTRUCTION ACCESS (SEE SPEC. ITEM 01275)
 - CONCRETE TRUCK WASHOUT AREA

- EVALUATION PRESENTATION NOTES:**
1. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES, DURING
CONSTRUCTION AND AFTER COMPLETION OF THE PROJECT. THE DESIGNER
SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE EXISTING
UTILITIES AND THE LOCAL POLLUTION CONTROL SYSTEM (LPCS).
 2. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING AND
REPAIRING THE LOCAL POLLUTION CONTROL SYSTEM (LPCS).
 3. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING AND
REPAIRING THE LOCAL POLLUTION CONTROL SYSTEM (LPCS).
 4. THE LOCATION OF THE STABILIZED CONSTRUCTION ACCESS IS TO BE
DETERMINED BY THE DESIGNER.
 5. STORM WATER QUALITY PRE-CONSTRUCTION INSPECTION REQUIREMENTS
SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING
THE LOCAL POLLUTION CONTROL SYSTEM (LPCS).
 6. ALL RESURFACES AND AREAS BETWEEN BACK-CUTS AND RIGHT-OF-WAY
SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING
THE LOCAL POLLUTION CONTROL SYSTEM (LPCS).
 7. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN A.C.C.E. 8.0.0.8 SHALL BE SECURED FOR
A.C.C.E. 8.0.0.8.



VICINITY MAP
SILVER RANCH SEC 17
FARM ROAD
CANTON ROAD
REASNER RD
CASTLE ROCK ROAD

FORT BEND COUNTY ENGINEERING DEPARTMENT
APPROVAL IS GRANTED FOR IMPROVEMENTS WITHIN
SILVER RANCH SEC 17, FORT BEND COUNTY, TEXAS.
AUTHORIZATION IS VALID FOR ONE YEAR ONLY.
DATE: 11/17/09

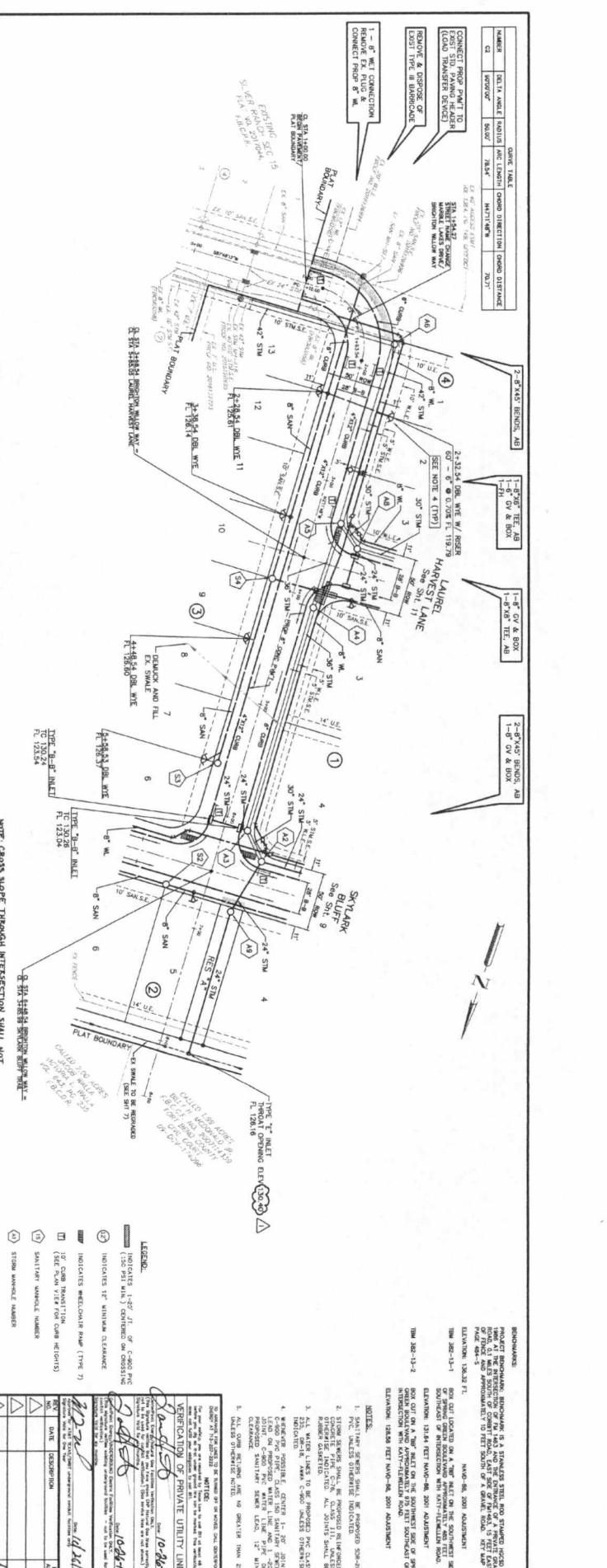
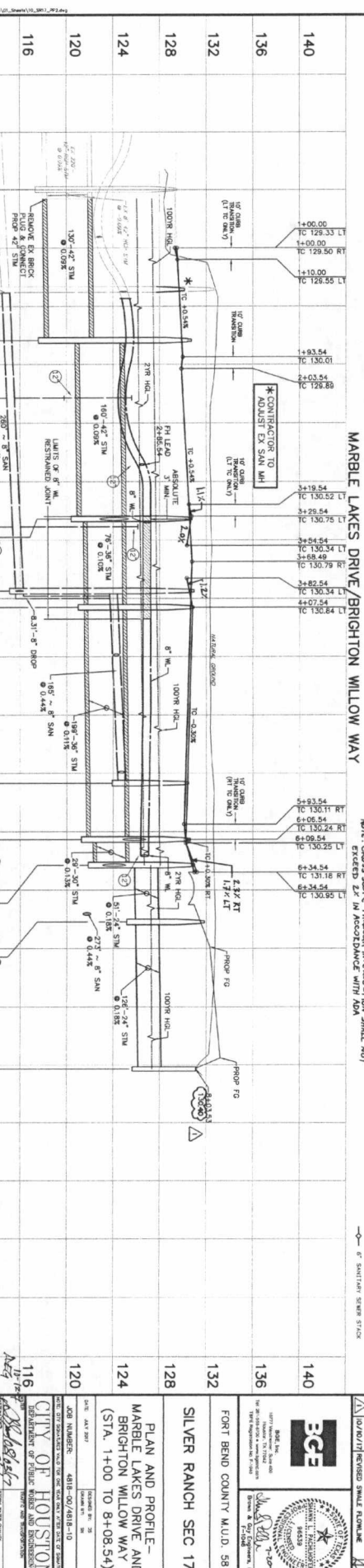
DESIGNED SCALE: 1"=40'
SHEET NO: 8-25
5 877 9

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
PROJECT NO: 4818-00/4818-10
JOB NUMBER: 4818-00/4818-10
DATE: 11/17/09
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]

EGE
ENGINEERING GROUP, INC.
10000 WESTHELL DRIVE, SUITE 100
HOUSTON, TEXAS 77036
TEL: 281-415-1100
FAX: 281-415-1101
WWW.EGE-INC.COM

FORT BEND COUNTY M.U.D. 58
SILVER RANCH SEC 17
STORM SEWER POLLUTION PREVENTION PLAN

STATION	DESCRIPTION	DATE
100	0+00.00 TO 0+00.00	
104	0+00.00 TO 0+00.00	
108	0+00.00 TO 0+00.00	
112	0+00.00 TO 0+00.00	
116	0+00.00 TO 0+00.00	
120	0+00.00 TO 0+00.00	
124	0+00.00 TO 0+00.00	
128	0+00.00 TO 0+00.00	
132	0+00.00 TO 0+00.00	
136	0+00.00 TO 0+00.00	
140	0+00.00 TO 0+00.00	



- LEGEND:**
- INDICATES 12\"/>

NOTES:

- ALL WATER LINES TO BE PROPOSED PER CLASSIFICATION, AWWA C-300 UNLESS OTHERWISE INDICATED.
- ALL WATER LINES TO BE PROPOSED PER CLASSIFICATION, AWWA C-300 UNLESS OTHERWISE INDICATED.
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- ALL WATER LINES TO BE PROPOSED PER CLASSIFICATION, AWWA C-300 UNLESS OTHERWISE INDICATED.
- ALL WATER LINES TO BE PROPOSED PER CLASSIFICATION, AWWA C-300 UNLESS OTHERWISE INDICATED.

VERIFICATION OF PRIVATE UTILITY LINES:

DATE: 10-28-17

BY: [Signature]

CITY OF HOUSTON
 DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

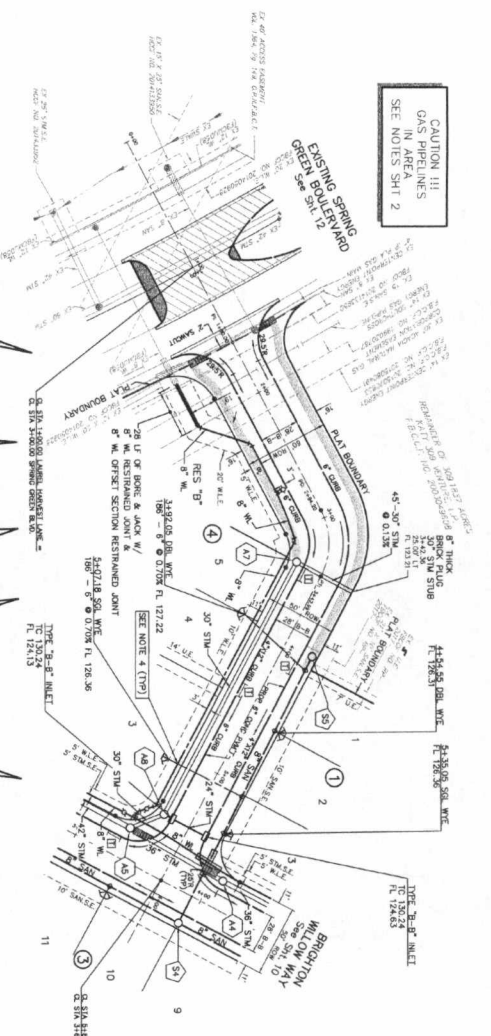
SILVER RANCH SEC 17
 PLAN AND PROFILE - MARBLE LAKES DRIVE AND BRIGHTON WILLOW WAY (STA. 1+00 TO 8+48.54)

EGE
 ENGINEERING GROUP, INC.

APPROVED: [Signature] DATE: 10-25-17

DATE: 10-25-17

SHEET NO. 10-25



CAUTION !!!
 GAS PIPELINES
 IN AREA
 SEE NOTES SHIT 2

CONTRACTOR TO CONSULT
 TO PROPRIETARY
 TO PROPERTY

CONTRACTOR TO CONSULT
 TO PROPRIETARY
 TO PROPERTY

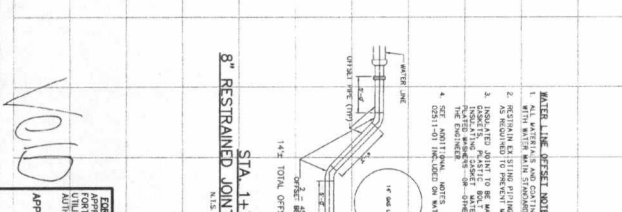
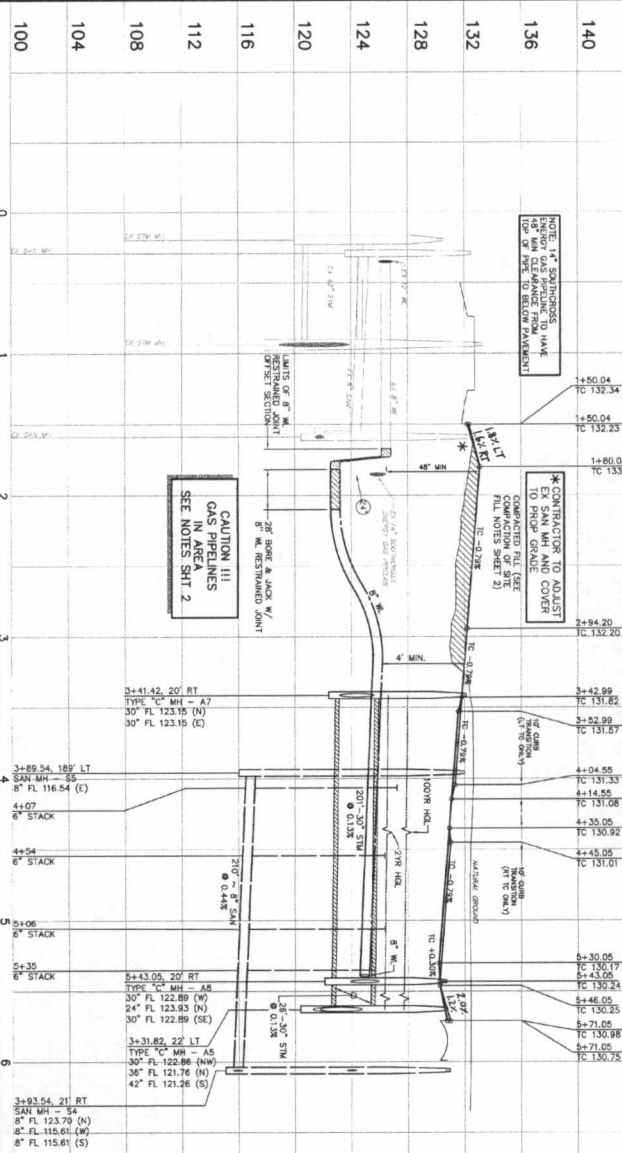
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CONTRACTOR TO CONSULT
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CONTRACTOR TO CONSULT
 TO PROPRIETARY
 TO PROPERTY



8" RESTRAINED JOINT OFFSET SECTION
 STA. 117+28
 NLS

DATE: 9/26/17
 APPROVED: [Signature]
 PROJECT ENGINEER

DATE: 11/25
 SHEET 11 OF 25

NOTE:
 CONTRACTOR SHALL CONTACT
 THE UTILITY COMPANIES TO
 VERIFY THE LOCATION AND
 DEPTH OF ALL EXISTING
 UTILITIES PRIOR TO
 CONSTRUCTION.

LEGEND:
 1. INDICATES 1" DIA. OF 2" DIA. PIPING
 2. INDICATES 2" DIA. OF 4" DIA. PIPING
 3. INDICATES 4" DIA. OF 6" DIA. PIPING
 4. INDICATES 6" DIA. OF 8" DIA. PIPING
 5. INDICATES 8" DIA. OF 10" DIA. PIPING
 6. INDICATES 10" DIA. OF 12" DIA. PIPING
 7. INDICATES 12" DIA. OF 14" DIA. PIPING
 8. INDICATES 14" DIA. OF 16" DIA. PIPING
 9. INDICATES 16" DIA. OF 18" DIA. PIPING
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 23. INDICATES 44" DIA. OF 46" DIA. PIPING
 24. INDICATES 46" DIA. OF 48" DIA. PIPING
 25. INDICATES 48" DIA. OF 50" DIA. PIPING
 26. INDICATES 50" DIA. OF 52" DIA. PIPING
 27. INDICATES 52" DIA. OF 54" DIA. PIPING
 28. INDICATES 54" DIA. OF 56" DIA. PIPING
 29. INDICATES 56" DIA. OF 58" DIA. PIPING
 30. INDICATES 58" DIA. OF 60" DIA. PIPING
 31. INDICATES 60" DIA. OF 62" DIA. PIPING
 32. INDICATES 62" DIA. OF 64" DIA. PIPING
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 36. INDICATES 70" DIA. OF 72" DIA. PIPING
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 43. INDICATES 84" DIA. OF 86" DIA. PIPING
 44. INDICATES 86" DIA. OF 88" DIA. PIPING
 45. INDICATES 88" DIA. OF 90" DIA. PIPING
 46. INDICATES 90" DIA. OF 92" DIA. PIPING
 47. INDICATES 92" DIA. OF 94" DIA. PIPING
 48. INDICATES 94" DIA. OF 96" DIA. PIPING
 49. INDICATES 96" DIA. OF 98" DIA. PIPING
 50. INDICATES 98" DIA. OF 100" DIA. PIPING

NOTES:
 1. SHALLOW SERVICE SHALL BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 2. STORM SEWER SHALL BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED. ALL JOINTS SHALL BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 3. ALL WATER LINES TO BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 4. WOODEN PIPE SHALL BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 5. ALL OTHER SERVICE LINES TO BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 6. ALL OTHER SERVICE LINES TO BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
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 26. ALL OTHER SERVICE LINES TO BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 27. ALL OTHER SERVICE LINES TO BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
 28. ALL OTHER SERVICE LINES TO BE PROTECTED PER 804 P.C. UNLESS OTHERWISE INDICATED.
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PLAN AND PROFILE -
 LAUREL HARVEST LANE
 (STA. 1+60 TO 5+85.05)

SILVER RANCH SEC 17
 FORT BEND COUNTY M.U.D. 58

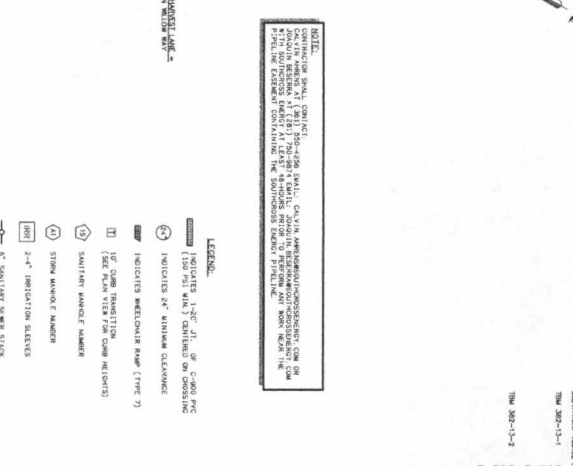
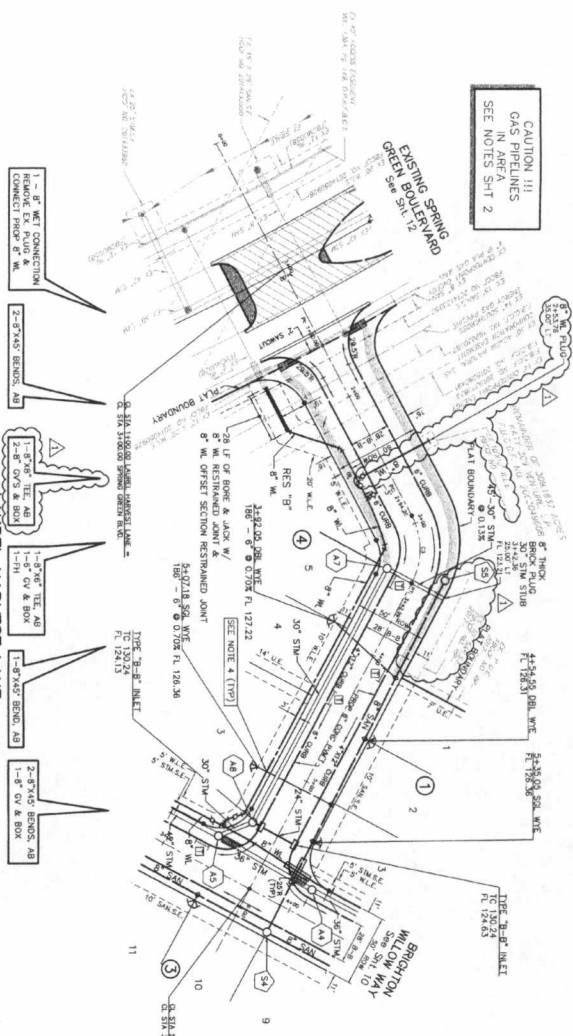
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 APPROVED: [Signature]
 PROJECT ENGINEER

DATE: 11/25
 SHEET 11 OF 25

DATE: 10/26/17
 APPROVED: [Signature]
 PROJECT ENGINEER

DATE: 11/25
 SHEET 11 OF 25

NUMBER	DATE	BY	REVISION	DESCRIPTION
1	05/25/17	WJW	4880	ISSUE FOR PERMITS
2	06/29/17	WJW	4880	ISSUE FOR PERMITS



STATION	ELEVATION	DESCRIPTION
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136	+50.04	12\"/>
132	+50.04	12\"/>
128	+50.04	12\"/>
124	+50.04	12\"/>
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PLAN AND PROFILE - LAUREL HARVEST LANE (STA. 1+60 TO 5+85.05)

SILVER RANCH SEC 17

FORT BEND COUNTY M.U.D. 58

WATER LINE OFFSET NOTES:

- ALL WATER LINES AND CONNECTIONS TO BE IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.
- REPAIRS TO EXISTING WATER MAINS SHALL BE IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.
- INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.
- ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.

LEGEND:

- INDICATES 12" OF 6-800 RIGID POLYETHYLENE (RPE) WATER MAIN.
- INDICATES 8" WATER MAIN.
- INDICATES 12" OF 6-800 RIGID POLYETHYLENE (RPE) WATER MAIN.
- INDICATES 8" WATER MAIN.
- INDICATES 12" OF 6-800 RIGID POLYETHYLENE (RPE) WATER MAIN.
- INDICATES 8" WATER MAIN.
- INDICATES 12" OF 6-800 RIGID POLYETHYLENE (RPE) WATER MAIN.
- INDICATES 8" WATER MAIN.

NOTES:

- INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.
- REPAIRS TO EXISTING WATER MAINS SHALL BE IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.
- INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.
- ALL WATER LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF HOUSTON WATER MAIN SPECIFICATIONS.

APPROVED: [Signature]

DATE: 10/26/17

PROJECT NUMBER: 4818-00-00/418-10

CITY OF HOUSTON

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: 10/26/17

PROJECT NUMBER: 4818-00-00/418-10

PROJECT NAME: PLAN AND PROFILE - LAUREL HARVEST LANE (STA. 1+60 TO 5+85.05)

PROJECT LOCATION: SILVER RANCH SEC 17, FORT BEND COUNTY M.U.D. 58

PROJECT NUMBER: 4818-00-00/418-10

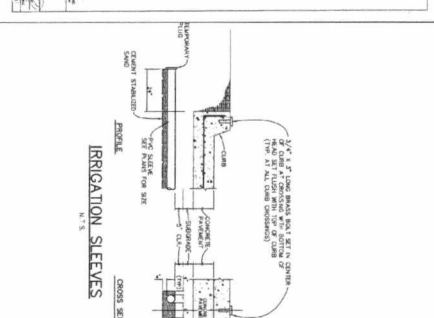
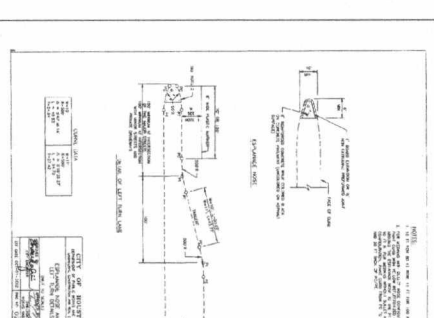
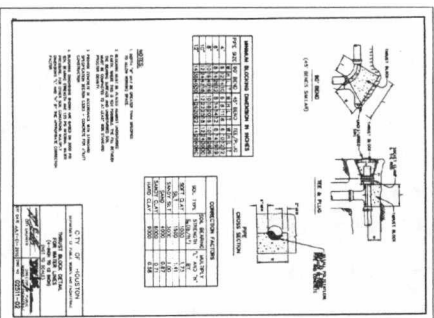
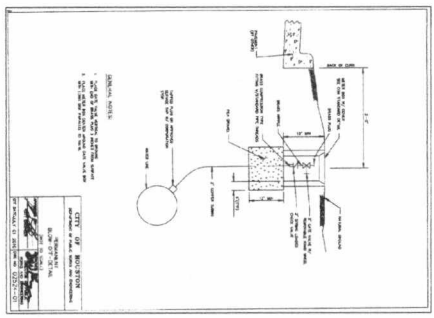
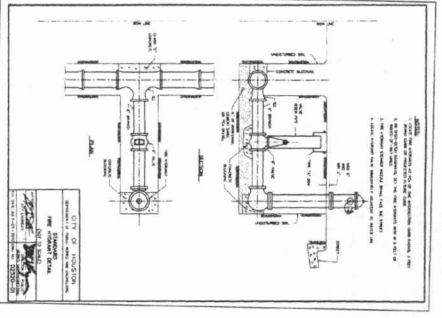
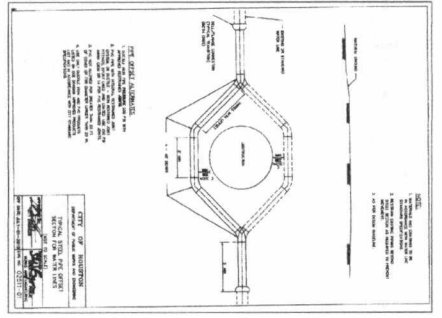
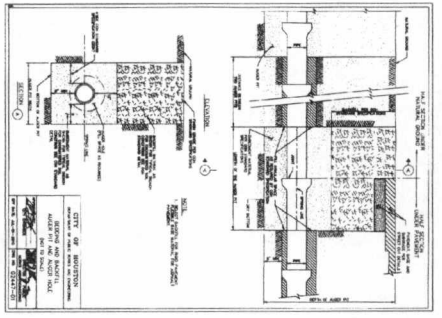
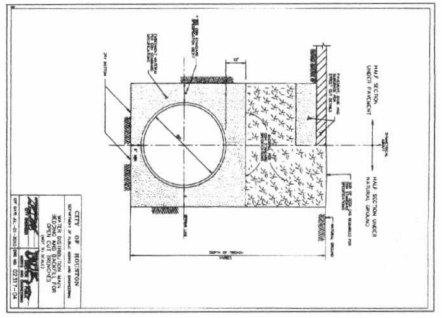
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PROJECT LOCATION: SILVER RANCH SEC 17, FORT BEND COUNTY M.U.D. 58

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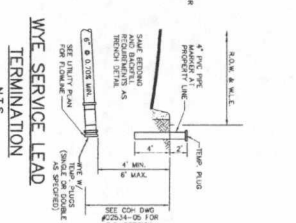
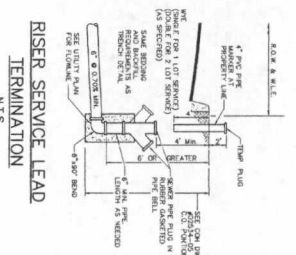
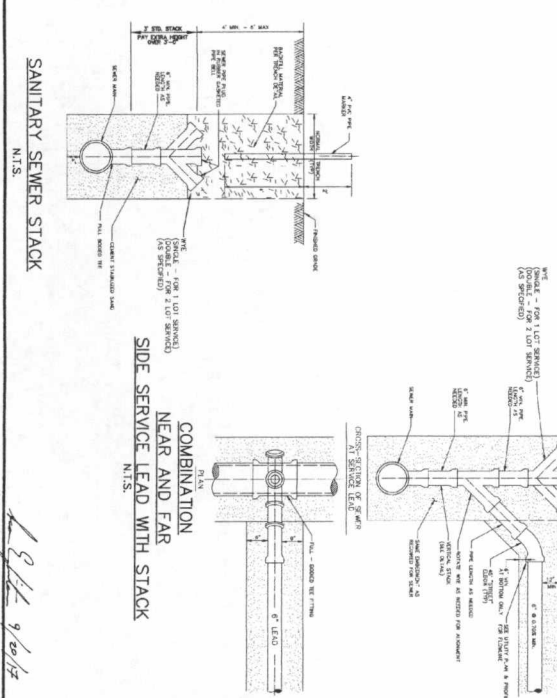
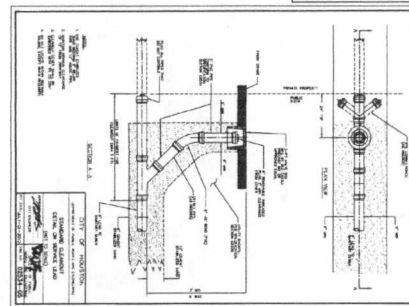
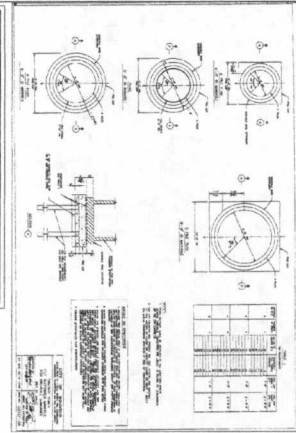
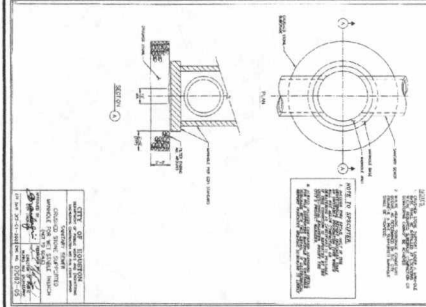
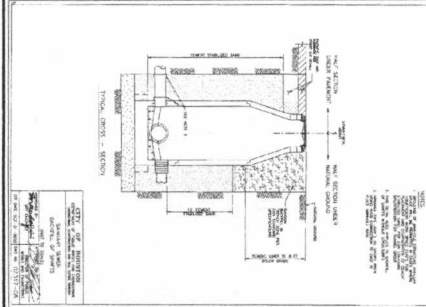
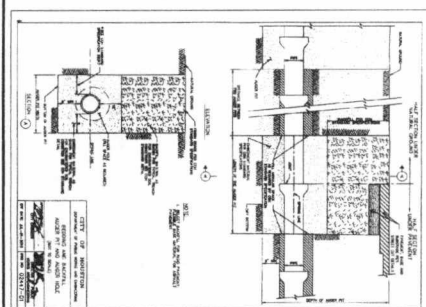
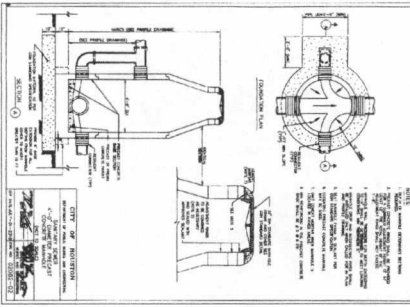
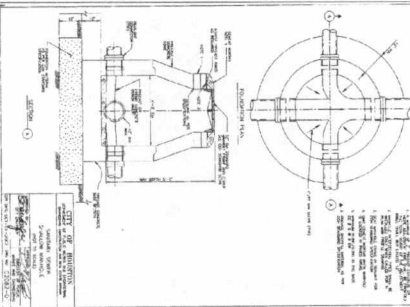
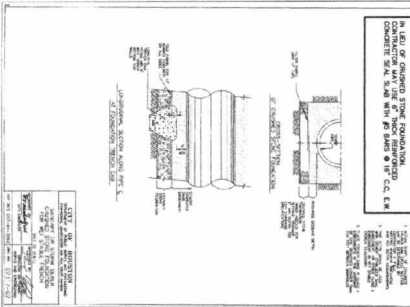
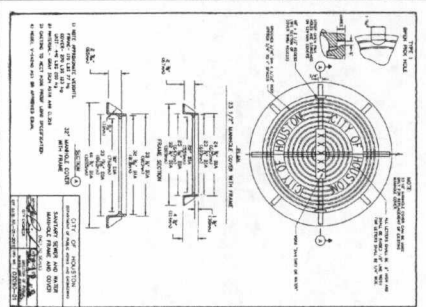
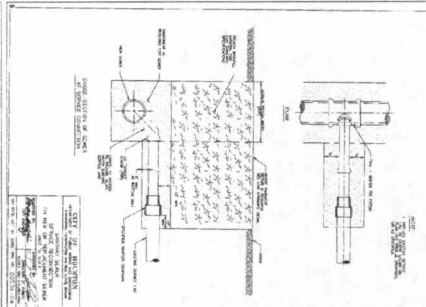
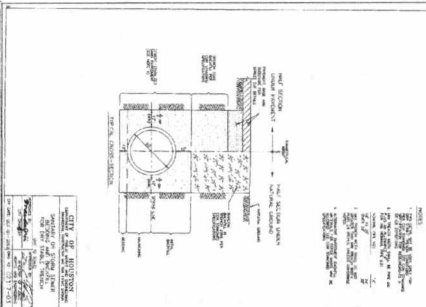
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PROJECT LOCATION: SILVER RANCH SEC 17, FORT BEND COUNTY M.U.D. 58



13/11/9/20/17

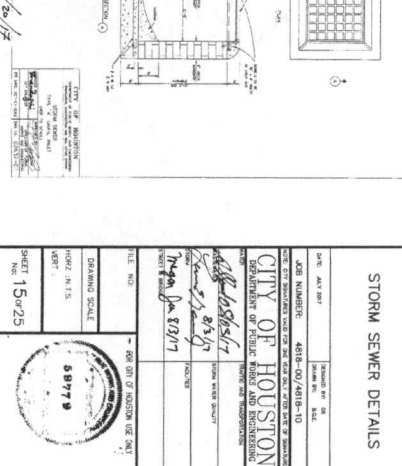
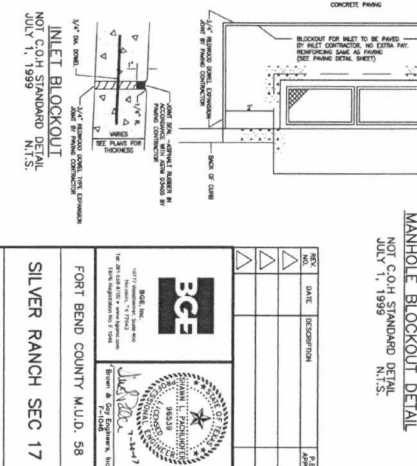
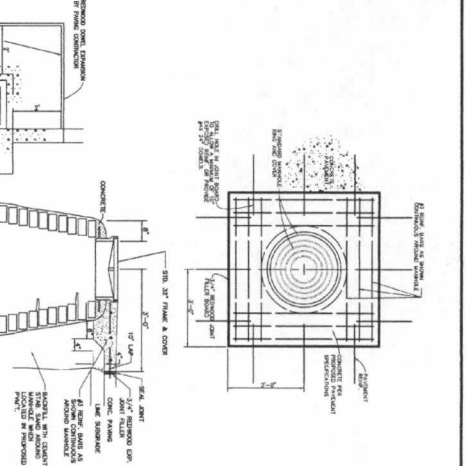
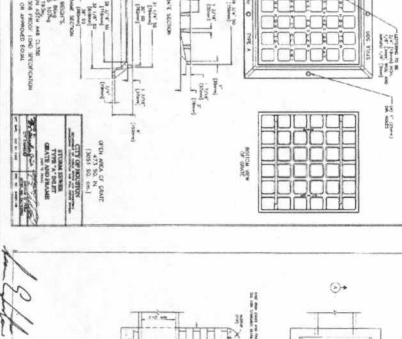
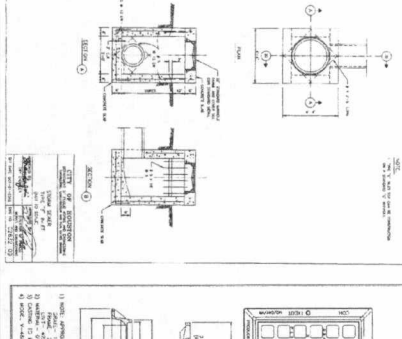
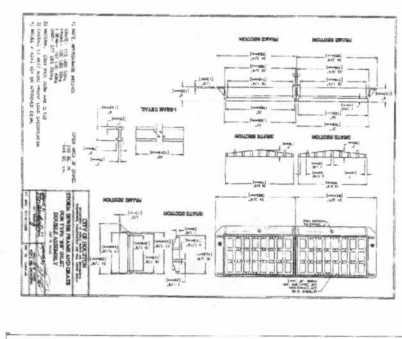
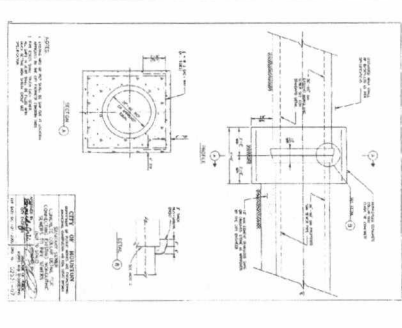
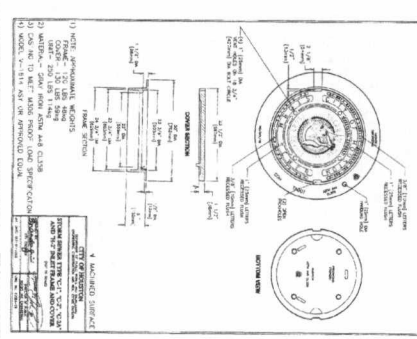
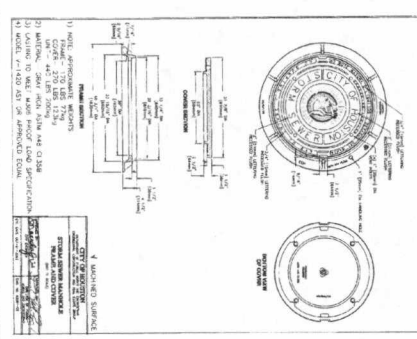
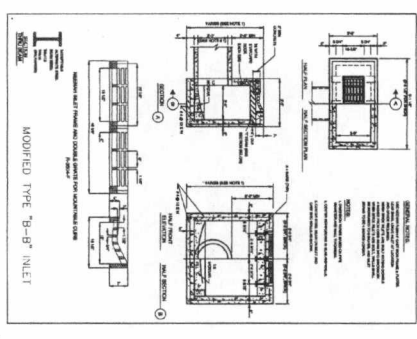
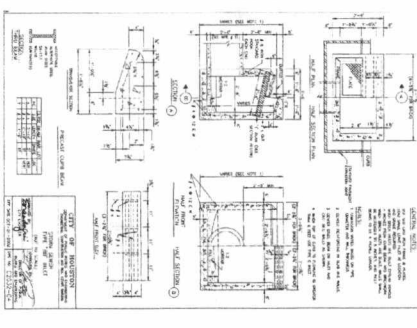
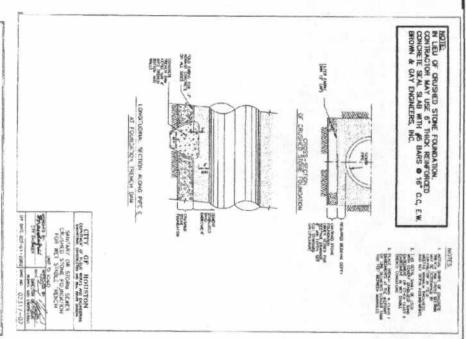
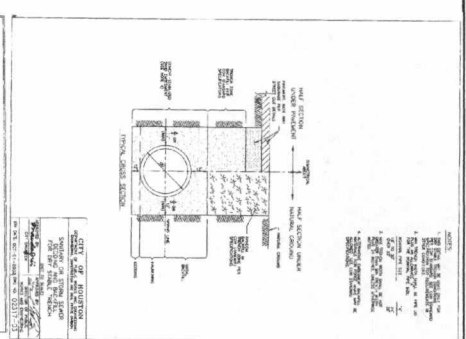
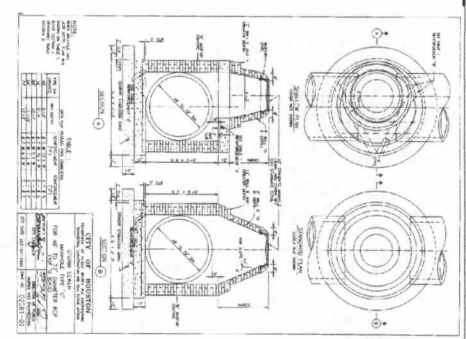
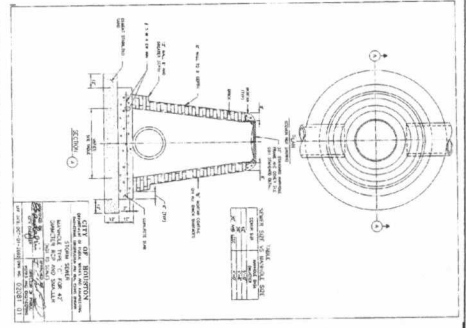
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PROJECT: [Signature]	DATE: 8/21/17	SHEET 13 OF 25	



TYPICAL SANITARY SERVICE LEADS
 N.T.S.

THE PATTERNS FOR SANITARY SERVICE LEADS ARE AVAILABLE TO CONSULT TO ALL FROM ALL SERVICES. ALL SERVICE, INCLUDING THE SERVICE.

<p>EGE</p> <p>ENGINEERING GROUP, INC.</p> <p>10000 WESTHEIMER BOULEVARD, SUITE 100</p> <p>HOUSTON, TEXAS 77042</p> <p>PH: 713/865-1100</p> <p>FAX: 713/865-1101</p> <p>WWW.EGE-INC.COM</p>	<p>CITY OF HOUSTON</p> <p>DEPARTMENT OF PUBLIC WORKS AND ENGINEERING</p> <p>1000 WESTHEIMER BOULEVARD, SUITE 100</p> <p>HOUSTON, TEXAS 77042</p> <p>PH: 713/865-1100</p> <p>FAX: 713/865-1101</p> <p>WWW.CITYOFHOUSTON.COM</p>	<p>PROJECT: SANITARY SEWER DETAILS</p> <p>DATE: 14025</p> <p>SCALE: AS SHOWN</p> <p>SHEET: 14025</p>
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STORM SEWER DETAILS

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

DATE: MAY 2007
JOB NUMBER: 4818-02/4818-10
DRAWING SCALE: AS SHOWN
SHEET: 15 of 25

FILE NO: 17-488 (2) - 2002 (2) - 17-488 (2) - 17-488 (2)

DESIGNED BY: [Signature]
CHECKED BY: [Signature]
DATE: 5/23/07

MANHOLE BLOCKOUT DETAIL
NOT COH STANDARD DETAIL
JULY 1, 1999

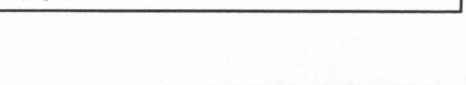
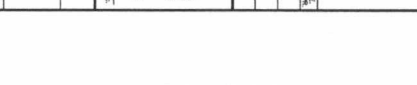
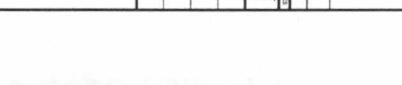
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1/2" REBAR (MIN. 4) @ 18" ON CENTER
1/2" REBAR (MIN. 4) @ 18" ON CENTER
1/2" REBAR (MIN. 4) @ 18" ON CENTER

1/2" REBAR (MIN. 4) @ 18" ON CENTER
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1/2" REBAR (MIN. 4) @ 18" ON CENTER

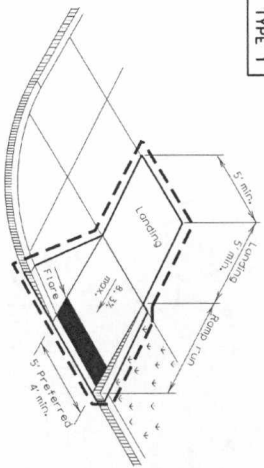
INLET BLOCKOUT DETAIL
NOT COH STANDARD DETAIL
JULY 1, 1999

CONCRETE PAVING
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1/2" REBAR (MIN. 4) @ 18" ON CENTER
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1/2" REBAR (MIN. 4) @ 18" ON CENTER
1/2" REBAR (MIN. 4) @ 18" ON CENTER
1/2" REBAR (MIN. 4) @ 18" ON CENTER

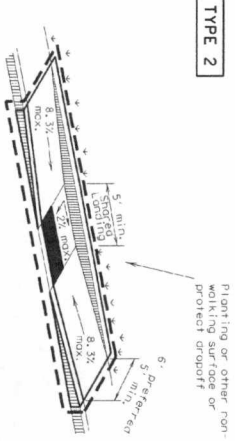


DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.



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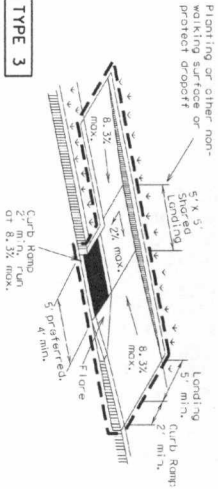
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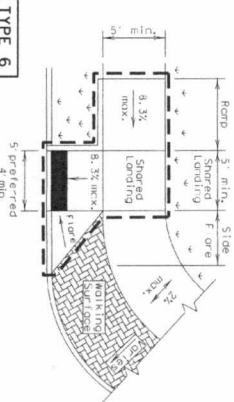
PARALLEL CURB RAMP

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



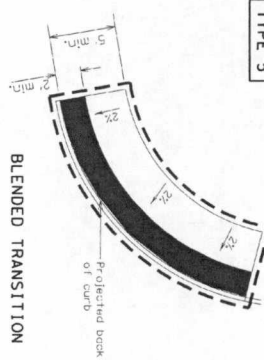
TYPE 3

Planting or other non-walking surface or protect dropout



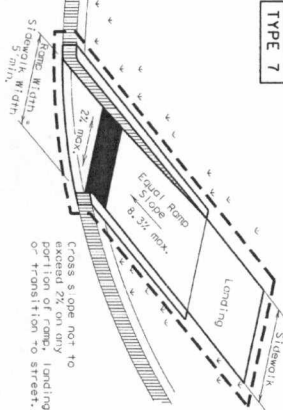
TYPE 6

COMBINATION CURB RAMPS



TYPE 5

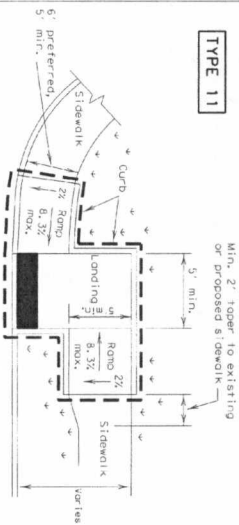
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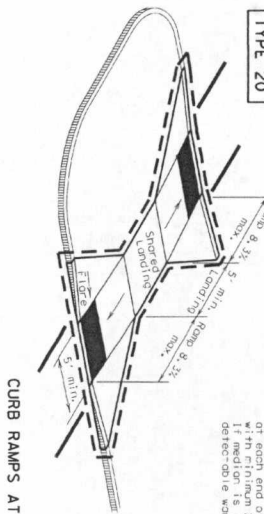
TYPE 7

DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 11

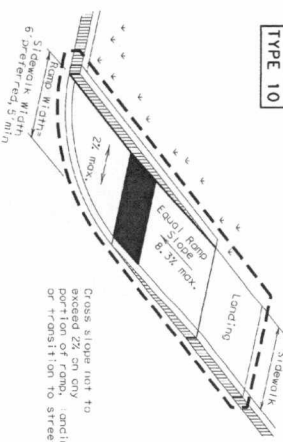


OFFSET PARALLEL CURB RAMP



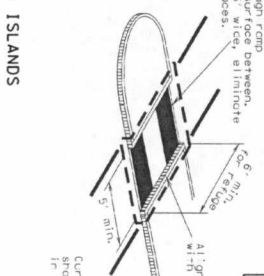
TYPE 20

CURB RAMPS AT MEDIAN ISLANDS



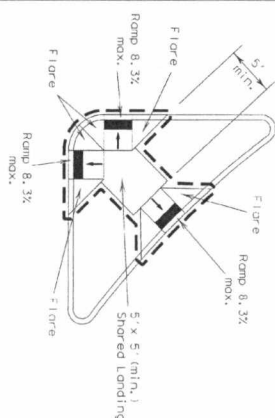
TYPE 10

CURB RAMPS AT MEDIAN ISLANDS



TYPE 21

CURB RAMPS AT MEDIAN ISLANDS



TYPE 22

COMBINATION ISLAND RAMPS

Install detectable warning surface at each end of cut-through ramp with minimum 2' smooth surface between. If ramp is not detectable, it indicates detectable warning surfaces.

Curb details are shown elsewhere in the plans.

NOTES / LEGEND:

- See General Notes on sheet 2 of 4 for more information.
- W denotes planting or non-walking surface (ign. calculation path).
- Ramp Limits of Pavement
- Detectable Warning Surface

PEDESTRIAN FACILITIES CURB RAMPS

51774

PED-12A

Texas Department of Transportation

Design Division Standard

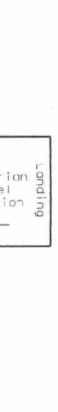
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DATE	BY	CHKD	APP'D
06/13/12	17	17	17
SHEET NO.		22 OF 25	

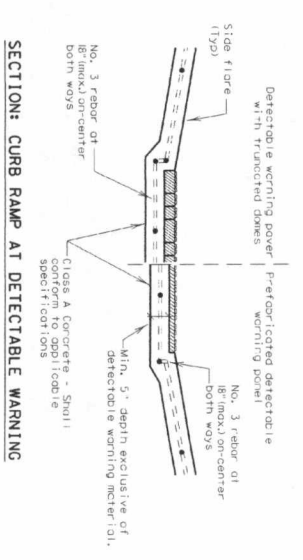
134 9/20/12

General Notes

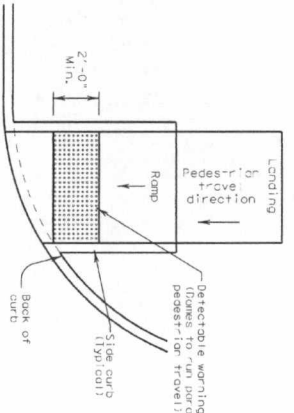
1. Install a curb ramp or blended transition at each pedestrian street crossing.
 2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
 3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6" sidewalk width is desirable, where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances.
 4. 5' x 5' passing areas or handrails not to exceed 200' are required.
 5. Landings shall be 5' x 5' minimum with a maximum 2% slope in any direction.
 6. Maneuvering space at the bottom of curb ramps shall be a minimum of 4' x 4' wholly contained within the crosswalk and wholly outside the parallel travel travel path.
 7. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
 8. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
 9. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
 10. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
 11. Small channelization islands, which do not provide a minimum 5' x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
 12. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
 13. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (perpendicular) to curb.
 14. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
 15. Place concrete to a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
 16. Provide a smooth transition where the curb ramps connect to the street.
 17. Curbs shown on sheet within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
 18. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.
- Detectable Warning Material**
19. Detectable warning material must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
 20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
 21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
 22. Detectable warning surfaces shall be located so that the edge nearest the curb line is of the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
 23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



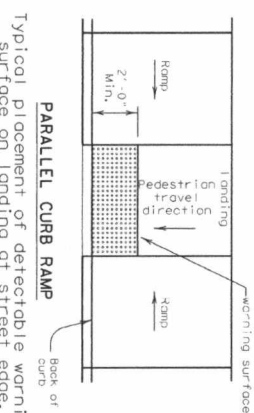
PERPENDICULAR CURB RAMP
Typical placement of detectable warning surface on stopping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING
DETECTABLE WARNINGS



DIRECTIONAL CURB RAMP
Typical placement of detectable warning surface on stopping ramp run.



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

- Detectable Warning Powers**
24. Furnish detectable warning power units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
 25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning power units using a power saw.
- Sidewalks**
26. Provide clear ground space of operable parts, including pedestrian push buttons, operable parts shall be placed within one or more feet from edges specified in TAS 308.
 27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
 28. Street grades and cross slopes shall be as shown elsewhere in the plans.
 29. Changes in level greater than 1/4 inch are not permitted.
 30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway, where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
 31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
 32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
 33. Sidewalk details are shown elsewhere in the plans.

LSB 9/10/14

PEDESTRIAN FACILITIES

CURB RAMPS

PED-12A

FILED 06/12/2012	DATE 06/12/2012	BY TxDOT	FOR TxDOT	SCALE	DATE
17	4818-00	COM	SEC	17	4818-00
1515	COM	17	4818-00	1515	COM
058	058	058	058	058	058

DESIGN STANDARD

REVISIONS

NO. DATE BY

17 4818-00 MICHAEL

1515 1515 MICHAEL

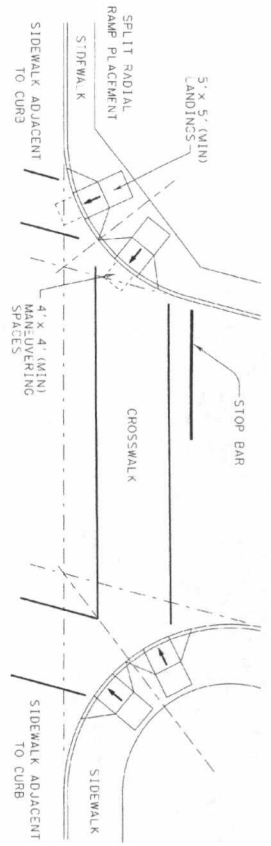
058 058 MICHAEL

SHEET NO. 23 OF 25

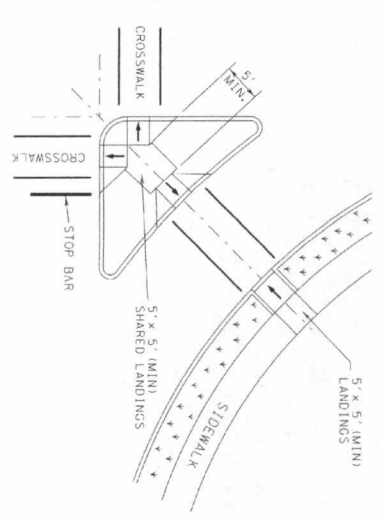


SHEET 2 OF 4

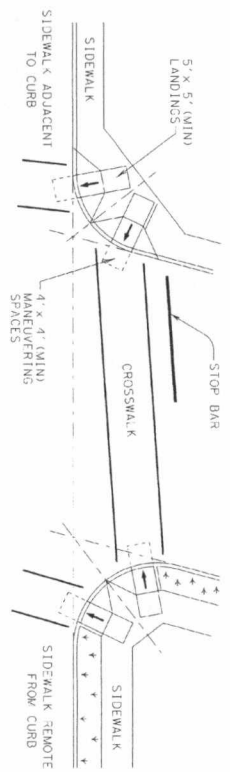
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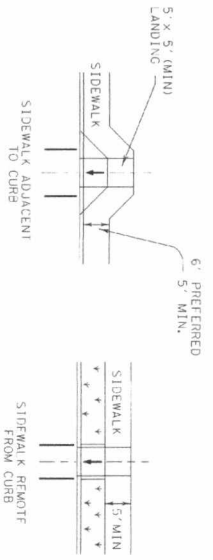
SKewed INTERSECTION WITH "LARGE" RADIUS



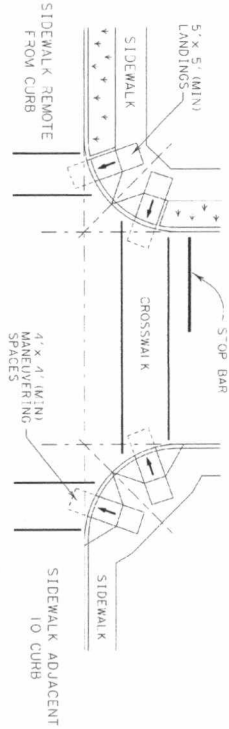
AT INTERSECTION W/FREE RIGHT TURN & ISLAND



SKewed INTERSECTION WITH "SMALL" RADIUS



MID-BLOCK PLACEMENT PERPENDICULAR RAMP



NORMAL INTERSECTION WITH "SMALL" RADIUS

TYPICAL CROSSING LAYOUTS



10/12/12

SHEET 4 OF 4

Texas Department of Transportation
PEDESTRIAN FACILITIES CURB RAMPS
 6 0 7 7 9
PED-12A

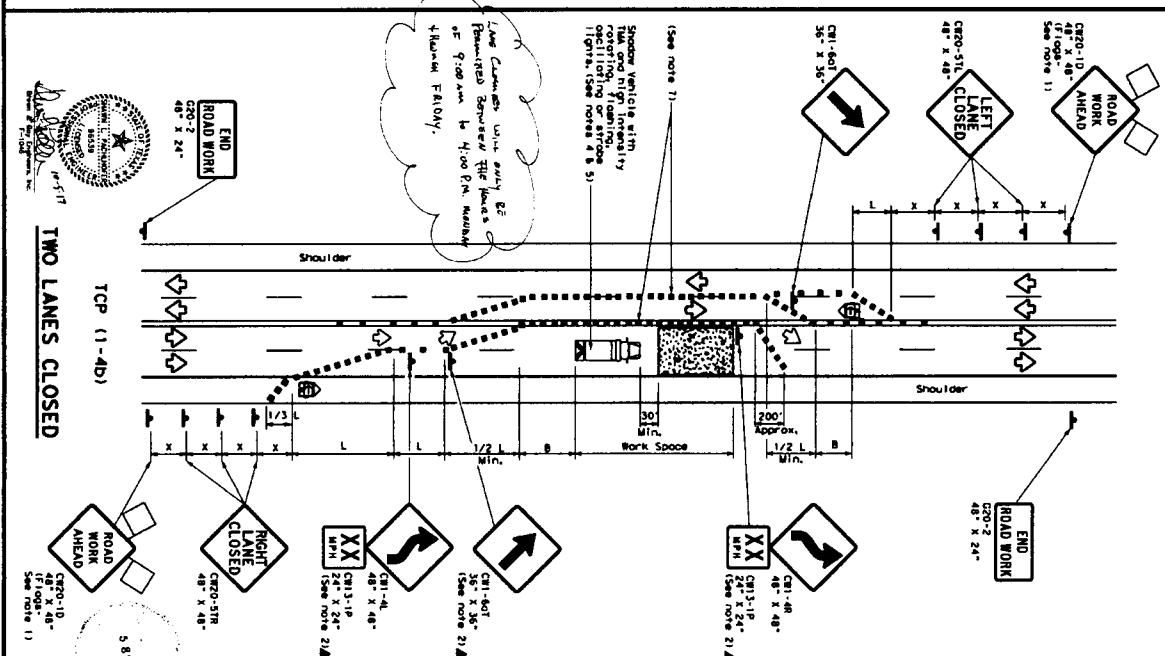
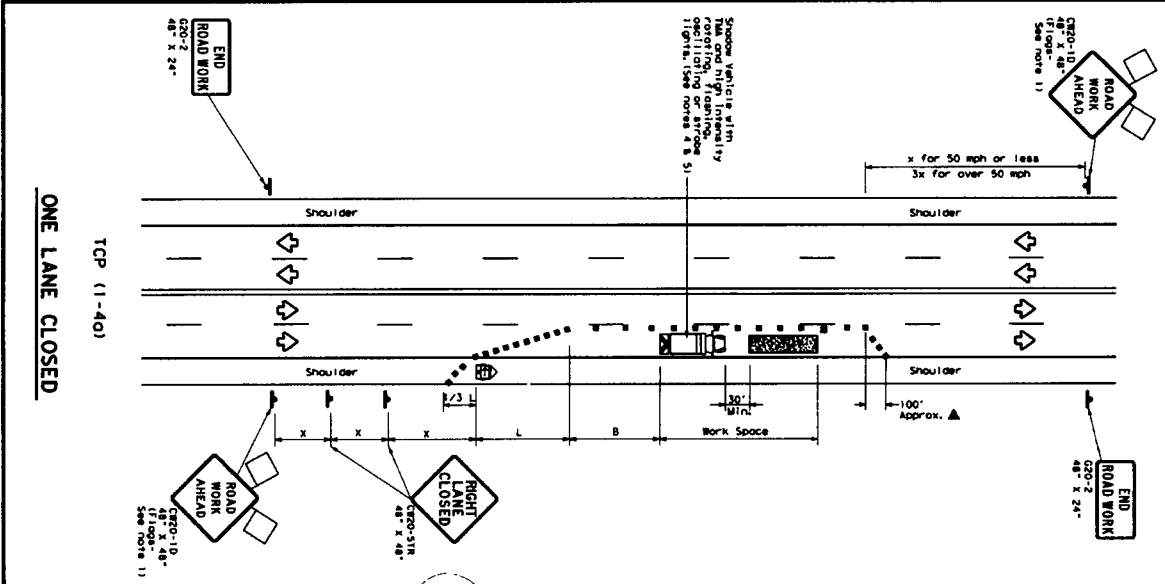
FILED	DATE	BY	CHKD	DATE	BY
10/12/12	10/12/12	17	17	10/12/12	17

VP	DATE	BY	CHKD	DATE	BY
VP	10/12/12	17	17	10/12/12	17

DESIGN DIVISION

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DATE: FILE:



LEGEND

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

GENERAL NOTES

- Flagger stationed at slow down signs are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the "r" triangle symbol may be omitted when stated otherwise in the plans, or for "other" non-standard signs, when approved by the Engineer.
- Flagger shall be stationed at the "slow down" sign, when approved by the Engineer.
- A "slow down" sign with a TMA should be used anytime it can be positioned 50 to 100 feet in advance of the end of the work zone without adversely affecting the flow of traffic. The sign should be placed on the shoulder of the road, Type 3 Barricade or other channelizing devices may be substituted in place of the "slow down" sign.
- Additional "slow down" signs may be placed at the end of the work zone, and may be used to direct traffic to the other side of the road.
- If this TCP is used for a LEFT LANE CLOSURE, R2-2-21, LEFT LANE CLOSURE, shall be used in place of the "slow down" sign. The sign should be placed in the work zone near the end of the averaging tower, and the arrow panel placed in the closed lane near the end of the averaging tower.

TYPICAL USAGE

VEHICLE	SPEED LIMIT	SHORT TERM (15 MIN)	INTERMEDIATE (30 MIN)	LONG TERM (1 HOUR)
150'	15'	150'	150'	150'
150'	20'	150'	150'	150'
150'	25'	150'	150'	150'
150'	30'	150'	150'	150'
150'	35'	150'	150'	150'
150'	40'	150'	150'	150'
150'	45'	150'	150'	150'
150'	50'	150'	150'	150'
150'	55'	150'	150'	150'
150'	60'	150'	150'	150'
150'	65'	150'	150'	150'
150'	70'	150'	150'	150'
150'	75'	150'	150'	150'

TCP (1-4b)

When traffic is directed over a yellow centerline, channelizing devices which support two-way traffic should be spaced on curves of 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, of 1/25 where S is the speed in mph. This flagger device spacing is intended for the area of controlling traffic, not the entire work zone.

TCP (1-4a)

If this TCP is used for a LEFT LANE CLOSURE, R2-2-21, LEFT LANE CLOSURE, shall be used in place of the "slow down" sign. The sign should be placed in the work zone near the end of the averaging tower, and the arrow panel placed in the closed lane near the end of the averaging tower.

TRAFFIC CONTROL PLAN
LANE CLOSURES ON MULTILANE CONVENTIONAL ROADS
TCP (1-4)-12

Texas Department of Transportation
Traffic Operations Division

For construction or maintenance contract work, the requirements for traffic control devices for the project shall be as shown on the project and traffic signs Manual (1981).

DATE: 10/15/13