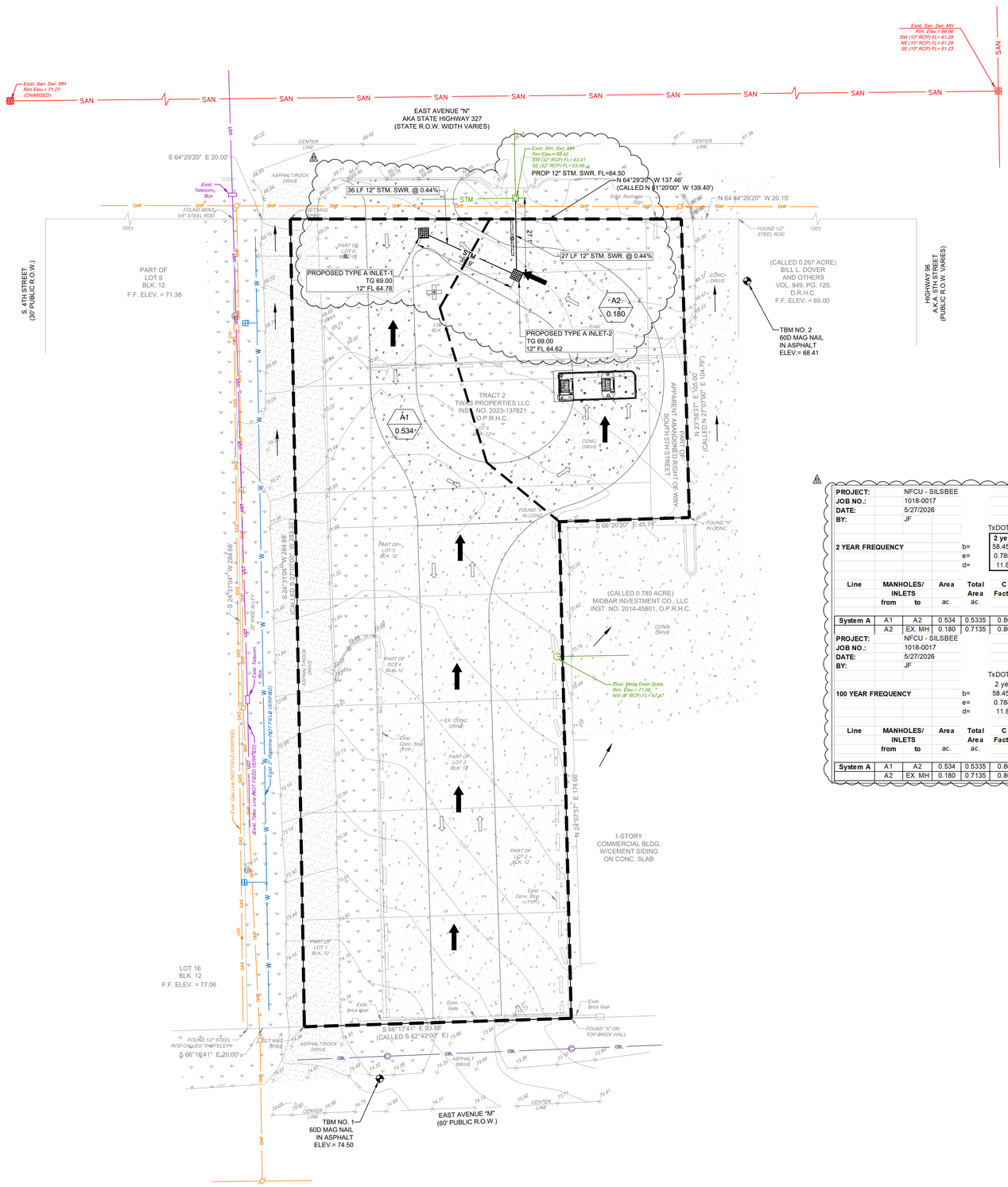


KNOW WHAT'S BELOW.
CALL BEFORE YOU DIG. CALL 811!!

CAUTION!!
EXISTING GAS FACILITIES IN AREA

EXISTING UTILITIES, FACILITIES & TREES NOTES:

1. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION OF PROPOSED FACILITIES. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

2. CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY 48 HOURS PRIOR TO EXCAVATING NEAR THEIR UTILITY.

3. CONTRACTOR SHALL TAKE ALL DUE PRECAUTIONS TO PROTECT EXISTING FACILITIES FROM DAMAGE. ANY DAMAGE TO EXISTING FACILITIES INCURRED AS A RESULT OF CONSTRUCTION OPERATIONS WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

4. CONTRACTOR SHALL TAKE EXTRA CARE TO PROTECT TREES IN AREAS ADJACENT TO CONSTRUCTION.

LEGEND

- OFFSITE SHEET FLOW
- PROPOSED 100-YR EXTREME EVENT FLOW PATH
- 31,080 SF 0.7135 ACRES TOTAL SITE AREA
- PROPOSED DRAINAGE AREA
- PROPOSED TYPE A INLET
- PROPOSED HDPE STRM PIPE
- PROPOSED PAVEMENT STRIPING

Total Site Area =	0.7135 AC	= 31,080 SF
Existing		
Impervious Cover Analysis		
Existing Grass =	8,560 SF	C1 (grass) = 0.2
Existing Pavement=	22,520 SF	C2 (pvmt) = 0.9
Ce =	0.71	
Proposed		
Impervious Cover Analysis		
Proposed Total Grass =	10,359 SF	C1 (grass) = 0.2
Proposed Total Pavement =	20,721 SF	C2 (pvmt) = 0.9
Cp =	0.67	
Rainfall Intensity, I		
I2 =	5.76 in/hr	
I10 =	8.39 in/hr	
I100 =	12.40 in/hr	
Allowable Site Discharge (C=0.71; A=0.7135 AC)		
Q2 =	2.91 CFS	
Q10 =	4.23 CFS	
Q100 =	6.26 CFS	
****Proposed Site Discharge** (C=0.67; A=0.7135 AC)		
Q2 =	2.74 CFS	
Q10 =	3.99 CFS	
Q100 =	5.90 CFS	

**Proposed conditions has a net decrease of approximately 1,800 sq. ft. of reduced pvmt area.

LEGEND

	EX. CONCRETE TO REMAIN
	PROP. CONCRETE

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

BENCHMARK NOTE:

ELEVATIONS SHOWN ARE NAVD88 ORTHOMETRIC HEIGHTS DERIVED USING GEOID18 AND ARE REFERENCED TO SMARTNET, NA.

BENCHMARK:TBM 1 ELEVATION: 74.50'

TBM No. 1 IS A 60D NAIL IN ASPHALT ±32 FEET NORTHWEST FROM THE NORTHEAST PROPERTY CORNER AND ±11 FEET SOUTH FROM CENTERLINE OF EAST AVENUE M.

BENCHMARK:TBM 2 ELEVATION: 68.41'

TBM No. 2 IS A 60D NAIL IN ASPHALT ±32 FEET NORTHWEST FROM THE SOUTHWEST PROPERTY CORNER AND ±48 FEET NORTH FROM CENTERLINE OF EAST AVENUE N.

FLOOD STATEMENT:

IN ACCORDANCE WITH THE FLOOD INSURANCE RATE MAP OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP REFERENCE SHOWN, THE SUBJECT TRACT LIES IN FLOOD ZONE "X". LOCATION ON MAP WAS DETERMINED BY SCALE.

PROJECT: NFCU - SILSBEE
JOB NO.: 1018-0017
DATE: 5/27/2026
BY: JF

TxDOT IDF Coefficient Values:

	2 year	100 year	
b=	58.4538	91.6197	Tc = (10A^0.1761)+15
e=	0.7889	0.6903	I=b/(d+Tc)^e
d=	11.81	9.95	

2 YEAR FREQUENCY

Line	MANHOLES/ INLETS from	to	Area ac.	Total Area ac.	C Factor	tc min.	I (2 yr)	Q (2 yr) c.f.s.	Total Q c.f.s.	Reach ft.	Pipe size in.	Slope %	n	Design Q c.f.s.	Design V f.p.s.	Slope Fall ft.	Friction Loss ft.	Flowline upstrm. elev.	Flowline dnstrm. elev.	Actual V f.p.s.	Y ft.	H.G.L. Slope %	Hydr.Grad. upstrm. elev.	Hydr.Grad. dnstrm. elev.	TG/NG elev.	TG - H.G. ft.
System A	A1	A2	0.534	0.5335	0.80	23.95	3.48	1.48	1.48	36	12	0.44%	0.011	2.79	3.6	0.16	0.04	64.78	64.62	1.9	1.0	0.44%	65.78	65.62	69.00	3.22
	A2	EX. MH	0.180	0.7135	0.80	24.27	3.45	0.50	1.98	27	12	0.44%	0.011	2.79	3.6	0.12	0.06	64.62	64.50	2.5	1.0	0.44%	65.62	65.50	69.00	3.38

PROJECT: NFCU - SILSBEE
JOB NO.: 1018-0017
DATE: 5/27/2026
BY: JF

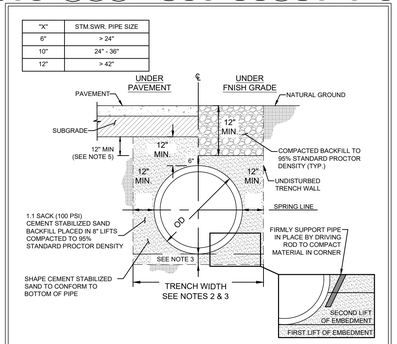
TxDOT IDF Coefficient Values:

	2 year	100 year	
b=	58.4538	91.6197	Tc = (10A^0.1761)+15
e=	0.7889	0.6903	I=b/(d+Tc)^e
d=	11.81	9.95	

100 YEAR FREQUENCY

Line	MANHOLES/ INLETS from	to	Area ac.	Total Area ac.	C Factor	tc min.	I (100 yr)	Q (100 yr) c.f.s.	Total Q c.f.s.	Reach ft.	Pipe size in.	Slope %	n	Design Q c.f.s.	Design V f.p.s.	Slope Fall ft.	Friction Loss ft.	Flowline upstrm. elev.	Flowline dnstrm. elev.	Actual V f.p.s.	Y ft.	H.G.L. Slope %	Hydr.Grad. upstrm. elev.	Hydr.Grad. dnstrm. elev.	TG/NG elev.	TG - H.G. ft.
System A	A1	A2	0.534	0.5335	0.80	23.95	8.05	3.43	3.43	36	12	0.44%	0.011	2.79	3.6	0.16	0.24	64.78	64.62	4.4	1.0	0.66%	66.06	65.82	69.00	2.94
	A2	EX. MH	0.180	0.7135	0.80	24.09	8.03	1.16	4.59	27	12	0.44%	0.011	2.79	3.6	0.12	0.32	64.62	64.50	5.9	1.0	1.19%	65.82	65.50	69.00	3.18

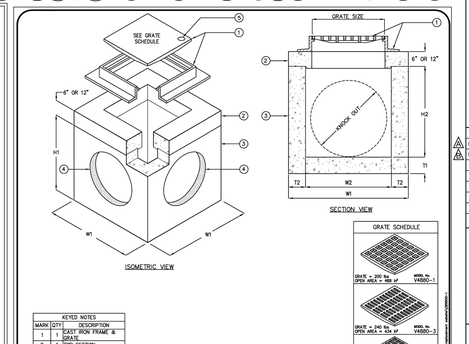
"X"	STM.SWR. PIPE SIZE
6"	> 24"
10"	24" - 36"
12"	> 42"



GENERAL NOTES:

1. WHERE SOIL CONDITIONS REQUIRE, THE ENGINEER MAY ORDER USE OF GRANULAR MATERIAL IN LIEU OF CEMENT STABILIZED SAND BEDDING.
2. MIN TRENCH WIDTH SHALL BE PIPE OD PLUS 18" MIN.
3. MAX TRENCH WIDTH SHALL NOT BE GREATER THAN MIN TRENCH WIDTH PLUS 24 INCHES, UNLESS OTHERWISE NOTED.
4. SELECT BACKFILL FOR RIGID PAVEMENT; FLEXIBLE BASE MATERIAL FOR ASPHALT PAVEMENT.
5. THE METHOD OF INSTALLING CONCRETE PIPE STORM SEWERS SHOWN HEREON TO BE USED ONLY WHERE SOIL CONDITIONS ARE SATISFACTORY. FOR ALL OTHER SOIL CONDITIONS CONTACT GEOTECHNICAL ENGINEER.
6. BACKFILL MATERIAL OUTSIDE OF PAVEMENT AREA SHALL BE SUITABLE ON-SITE MATERIAL. IF ON-SITE MATERIAL IS UNACCEPTABLE, MIXING 1-FOOT OF EXCAVATION MATERIALS FROM THE SITE TO OBTAIN ACCEPTABLE SOIL CLASSIFICATION FROM TRENCH BACKFILL IS ALLOWED WITH APPROVAL FROM THE GEOTECHNICAL ENGINEER THAT CERTIFIED GEOTECHNICAL REPORT.

STORM SEWER BEDDING AND BACKFILL
N.T.S.



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JUSTIN A. SCHRADER, P.E.
TEXAS P.E. #103758

ISSUED ON:
MAY 27 2026

DATE	REVISION
05/12/2026	ADDENDUM A - TXDOT COMMENTS
05/27/2026	ADDENDUM B - TXDOT COMMENTS

CONSTRUCTION PLANS FOR
NECHES FEDERAL CREDIT UNION - SILSBEE ITM
(PRIVATE ON-SITE)
PAVING, & DRAINAGE FACILITIES

135 HWY 327 E.,
SILSBEE, TEXAS 77656

DRAINAGE ANALYSIS

PRO-E PROJECT NO.: 1018-0017

SUBMITTED:
SCALE: 1" = 20'
DATE: MAY, 2026
SURVEYED BY: SOUTEX SURVEYORS & ENGINEERS

DESIGNED BY: KL
DRAWN BY: SG
SHEET NO. C7 OF C9
CITY DWG NO:

PRIVATE PLANS - NECHES FEDERAL CREDIT UNION - SILSBEE ITM; 135 HWY 327 E., SILSBEE, TEXAS 77656 : 1018-0017

Date\Time : Wed, 27 May 2026 -- 5:16pm User Name : kendr
Path Name : C:\Users\kendr\OneDrive - proe.consulting (1)\Projects\1018 - SLI Group\0017 - Neches FCU_Silsbee\2 CAD\Private\C7 DRAINAGE ANALYSIS.dwg