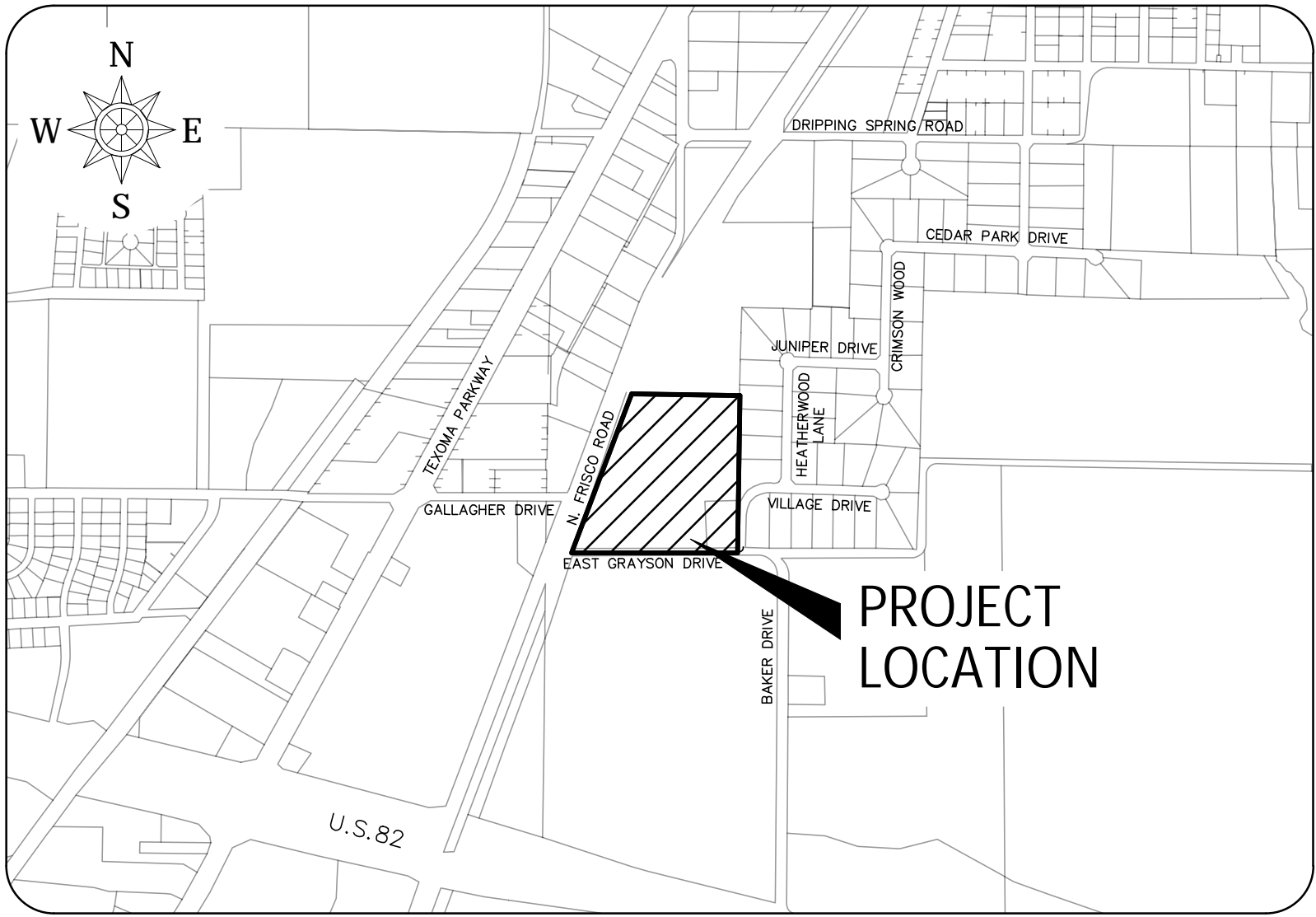


CONSTRUCTION PLANS
FOR
EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

CITY PROJECT NO. 2600-A

CITY OFFICIALS:
DAVID PLYLER, MAYOR
SHAWN TEAMANN, DEPUTY
MAYOR
ROBBY HEFTON, CITY
MANAGER
WAYNE LEE, PE, CFM,
DIRECTOR OF ENGINEERING

COUNCIL MEMBERS:
JUSTIN DOBBS
DARON HOLLAND
PAMELA L. HOWETH
HENRY MARROQUIN
JOSH STEVENSON



Vicinity Map
1" = 1000'

INDEX OF DRAWINGS

1-2	Preliminary Plat
3	General Construction Notes
4	Erosion Control Plan
5	Erosion Control Details
6-7	Lot Grading Plan
8	Existing Drainage Area Map
9	Drainage Area Map
10	Storm Sewer Inlet Calculations
11-14	Storm Sewer Plans and Profiles
15	Storm Sewer Lateral Profiles
16	Detention Pond Plan
17	Water Plan
18	Sanitary Sewer Plan
19-20	Sanitary Sewer Profiles
21-26	Paving Plans and Profiles
27-28	Intersection Details
29	Sidewalk Plan
30	Street Light and Signage Plan
TxDOT 1-4	TxDOT PED 12A Details
CD1-CD7	City Details

PREPARED BY:
SPIARS
ENGINEERING & SURVEYING
765 Custer Road, Suite 100 • Plano, TX 75075 • 972.422.0077
TBPE No F-2121 • TBLPS No. F-10043100 • www.spiarseng.com
Ryan Hartman • ryan.hartman@spiarsengineering.com

These plans are released for
the purpose of interim review
under the authority of
BRENDAN M. OCHOA,
PE 145058
Date: 08/16/2024
It is not to be used for
construction.

PREPARED FOR:
JUST LAND DEVELOPMENT
4440 BENTWOOD DRIVE
COLLEGE STATION, TEXAS 77845
TELEPHONE: (310) 962-3931
CONTACT: MICHAEL TODD

Printed by: smc22 Prod Date: 0/11/2024 4:04 PM

Drawn by: G:\2023\J055\23-101 Grayson Park\City\Prod Plot.dwg Scale By: smc22 Date: 0/11/2024 1:28:30 PM

OWNER'S CERTIFICATE

STATE OF TEXAS §
COUNTY OF GRAYSON §

BEING a tract of land situated in the Samuel M. McGlothlin Survey, Abstract No. 811, City of Sherman, Grayson County, Texas, being part of a tract conveyed to Evergreen Parks, LLC, by deed recorded in Volume 4897, Page 546 of the Grayson County Public Records, with the subject tract being more particularly described as follows:

BEGINNING at a point from which a 1/2 inch iron found at the southeast corner of the Hilliard Jennings Survey Abstract No. 639, the northeast corner of the Reuben Hendrix Survey Abstract No. 504 and the west boundary of the Samuel M. McGlothlin Survey Abstract. No. 811 bearing S 24°58'41" E, a distance of 380.64 feet to the POINT OF BEGINNING;

THENCE N 20°39'19" E, a distance of 1074.22 feet;

THENCE bearing S 89°08'35" E, a distance of 686.09 feet along the south boundary of a 2.93 acre tract owned by Remington Sherman Automotive LLC as recorded in Doc. No. 2020-23332 O.P.R.G.C.T.;

THENCE S 00°51'27" W, a distance of 994.88 feet along the west boundary of a 15 foot wide utility easement as recorded in Vol. 14, Page 10 of the Grayson County Public Records;

AND bearing S 89°59'33" W, a distance of 1050.05 feet to the POINT OF BEGINNING with the subject tract containing 869,002 square feet or 19.950 acres of land.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That We, **EVERGREEN PARK LLC**, do hereby adopt this plat designating the herein above described property as **EVERGREEN PARK**, an Addition to the City of **SHERMAN**, and do hereby dedicate to the public use forever the streets and alleys shown thereon and do hereby reserve the easement strips shown on this plat for the mutual use and accommodation of garbage collection agencies and all public utilities desiring to use or using same. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance or efficiency of its respective systems on any of these easement strips and any public utility shall at all times have the right of ingress and egress to and from and upon the said easement strip for the purpose of constructing, reconstructing, inspecting, and patrolling, without the necessity at any time of procuring the permission of anyone. This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of **SHERMAN**, Texas.

Witness our hands at _____ County, Texas, this _____ day of _____, 2024.

EVERGREEN PARK LLC

By: _____
SIGNER'S NAME, TITLE

STATE OF TEXAS §
COUNTY OF GRAYSON §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared _____ known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2024.

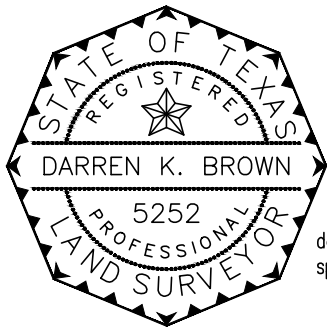
Notary Public, State of Texas

SURVEYOR'S CERTIFICATE

That I, Darren K. Brown, of Spiars Engineering, Inc., do hereby certify that I prepared this plat and the field notes made a part thereof from an actual and accurate survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision, in accordance with the Subdivision Regulations of the City of **Sherman**, Texas.

Dated this the _____ day of _____, 2024.

DARREN K. BROWN, R.P.L.S. NO. 5252



darren.brown@spiarsengineering.com

STATE OF TEXAS §
COUNTY OF COLLIN §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared Darren K. Brown, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 2024.

Notary Public, State of Texas

CITY ACCEPTANCE

Approved this _____ day of _____, 2024, by the City Planning Commission to the City of Sherman, Texas.

Chairman

Secretary

Accepted by the City Council of the City of Sherman

Mayor, City of Sherman, Texas

Date

The Undersigned, the City Clerk of the City of Sherman, hereby certifies that the foregoing, EVERGREEN PARKS SUBDIVISION, an addition to the City of Sherman, Texas, was submitted to the City Council on the _____ day of _____, 2024, and the City Council by formal action then and there accepted the dedication of streets, alleys, easements and public places, as shown and set forth in and upon said map or plat, and said City Council further authorized the Mayor to note the acceptance thereof by signing his name as herein above subscribed.

Witness my hand this _____ day of _____, 2024.

Clerk, City of Sherman, Texas

Lot Area Table			
Lot #	Block #	Square Feet	Acreage
1	A	5,996	0.138
2	A	4,800	0.110
3	A	4,800	0.110
4	A	4,800	0.110
5	A	4,800	0.110
6	A	4,800	0.110
7	A	4,800	0.110
8	A	4,800	0.110
9	A	4,800	0.110
10	A	4,800	0.110
11	A	4,800	0.110
12	A	4,800	0.110
13	A	4,800	0.110
14	A	4,814	0.111
15	A	4,980	0.114
16	A	5,178	0.119
17	A	5,200	0.119
18	A	5,200	0.119
19	A	5,159	0.118
20	A	6,558	0.151
21	A	11,890	0.273
22	A	6,186	0.142
23	A	5,312	0.122
24	A	5,480	0.126
25	A	5,480	0.126
26	A	5,480	0.126
27	A	5,480	0.126
28	A	5,480	0.126
29	A	5,480	0.126
30	A	5,476	0.126
31	A	5,091	0.117
32	A	5,268	0.121

Lot Area Table			
Lot #	Block #	Square Feet	Acreage
1	B	6,416	0.147
2	B	5,340	0.123
3	B	5,364	0.123
4	B	5,388	0.124
5	B	5,412	0.124
6	B	5,437	0.125
7	B	5,461	0.125
8	B	5,485	0.126
9	B	5,509	0.126
10	B	5,533	0.127
11	B	5,557	0.128
12	B	6,756	0.155

Lot Area Table			
Lot #	Block #	Square Feet	Acreage
1	C	6,738	0.155
2	C	5,480	0.126
3	C	5,480	0.126
4	C	5,480	0.126
5	C	5,480	0.126
6	C	5,480	0.126
7	C	5,480	0.126
8	C	5,480	0.126
9	C	5,480	0.126
10	C	5,480	0.126
11	C	5,480	0.126
12	C	6,737	0.155
13	C	9,192	0.211
14	C	5,721	0.131
15	C	5,643	0.130
16	C	5,642	0.130
17	C	5,642	0.130
18	C	5,642	0.130
19	C	5,642	0.130
20	C	5,642	0.130
21	C	5,642	0.130
22	C	5,642	0.130
23	C	6,738	0.155

Lot Area Table			
Lot #	Block #	Square Feet	Acreage
1	D	7,269	0.167
2	D	5,870	0.135
3	D	5,870	0.135
4	D	5,870	0.135
5	D	5,870	0.135
6	D	5,870	0.135
7	D	5,870	0.135
8	D	5,898	0.135
9	D	8,260	0.190
10	D	9,328	0.214
11	D	5,480	0.126
12	D	5,480	0.126
13	D	5,480	0.126
14	D	5,480	0.126
15	D	5,480	0.126
16	D	5,480	0.126
17	D	6,738	0.155

Lot Area Table			
Lot #	Block #	Square Feet	Acreage
1	E	5,186	0.119
2	E	4,904	0.113
3	E	4,833	0.111
4	E	4,826	0.111
5	E	4,819	0.111
6	E	4,811	0.110
7	E	4,804	0.110
8	E	4,801	0.110
9	E	4,806	0.110
10	E	4,846	0.111
11	E	4,917	0.113
12	E	4,929	0.113

Lot Line Table		
Line #	Bearing	Distance
L1	S44°34'30"E	21.05'
L2	N45°25'30"E	21.37'
L3	S44°08'34"E	21.21'
L4	N45°51'26"E	21.21'
L5	S44°08'34"E	21.21'
L6	N45°51'26"E	21.21'
L7	N44°08'34"W	21.21'
L8	S55°45'22"W	24.54'
L9	N44°40'45"W	20.00'
L10	S74°20'41"E	2.31'
L11	S26°50'45"E	20.27'
L12	N63°09'19"E	22.12'
L13	N44°08'34"W	21.21'
L14	S45°51'26"W	21.21'
L15	S44°34'30"E	21.05'
L16	S45°25'30"W	21.37'

Centerline Line Table		
Line #	Bearing	Distance
L17	S45°51'26"W	22.45'
L18	S34°14'38"E	15.64'

Open Space Area Table		
Lot #	Block #	Acres
1	X	3.214
2	A	0.139


Lot Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	5.84'	10.50'	31°52'23"	S16°47'38"W	5.77'
C2	33.50'	50.00'	38°23'32"	N01°32'06"E	32.88'
C3	5.84'	10.50'	31°52'23"	N74°55'14"E	5.77'
C4	6.79'	10.50'	37°01'58"	S70°37'36"E	6.67'
C5	29.71'	50.00'	34°02'52"	S62°20'41"W	29.28'
C6	6.79'	10.50'	37°01'58"	N02°08'20"E	6.67'
C7	22.73'	88.00'	14°47'54"	S81°44'38"E	22.67'


Centerline Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Distance
C8	50.08'	250.00'	11°28'42"	N04°52'54"W	50.00'
C9	50.08'	250.00'	11°28'42"	S04°52'54"E	50.00'
C10	49.00'	800.00'	3°30'33"	N22°24'35"E	48.99'
C11	49.00'	800.00'	3°30'33"	S22°24'35"W	48.99'
C12	64.57'	250.00'	14°47'54"	S81°44'38"E	64.39'
C13	86.38'	250.00'	19°47'52"	S10°45'23"W	85.95'


RECORD PLAT
EVERGREEN PARK
96 LOTS & 1 COMMON AREAS
19.950 GROSS ACRES OUT OF THE
SAMUEL M. MCGLOTHLIN SURVEY, ABSTRACT NO. 811
IN THE CITY OF SHERMAN
GRAYSON COUNTY, TEXAS


OWNER / APPLICANT
Just Land Development
4440 Bentwood Drive
College Station, Tx 77845
Telephone: (310) 962-3931
Contact: Michael Todd


ENGINEER / SURVEYOR
Spiars Engineering, Inc.
765 Custer Road, Ste. 100
Plano, TX 75075
Telephone: 469-395-0550
TBPELS No. F-2121 and No. F-10043100
Contact: Brendan Ochoa, P.E.

EROSION CONTROL PLAN NOTES		
<div>1. ALL OPERATORS AND/OR CONTRACTORS SHALL CONFORM TO THE TERMS AND CONDITIONS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), TPD'S GENERAL PERMIT NO. TXR 040000 ISSUED AND DATED FEBRUARY 9, 2009.</div> <div>2. THE NOTICE OF INTENT (NOI), AS REQUIRED BY THE GENERAL PERMIT, MUST BE PROPERLY DISPLAYED ON SITE AT ALL TIMES BY EACH OPERATOR OR CONSTRUCTION SITE NOTICE (CSN).</div> <div>3. ALL RELEASES OF THE REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES SHALL BE REPORTED IMMEDIATELY TO THE FACILITY OPERATOR, EPA AND TCEQ.</div> <div>4. QUALIFIED OPERATOR PERSONNEL MUST INSPECT THE SITE AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER. AS AN ALTERNATIVE, AN INSPECTION CAN BE CONDUCTED ONCE EVERY SEVEN (7) CALENDAR DAYS ON A DEFINED DAY. A DECISION ON WHICH METHOD TO USE MUST BE DECIDED BEFORE WORK BEGINS AND MUST BE FOLLOWED THROUGHOUT THE PROJECT.</div> <div>5. MODIFICATIONS TO THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE IMPLEMENTED AND BE IN-PLACE WITHIN A SEVEN CALENDAR DAY PERIOD.</div> <div>6. IF ANY CONTRACTOR SEES A VIOLATION BY AN OPERATOR OR ANOTHER CONTRACTOR, THAT OPERATOR OR CONTRACTOR IN VIOLATION SHALL BE NOTIFIED AS WELL AS THE FACILITY OPERATOR.</div> <div>7. EROSION CONTROL SHALL BE INSTALLED PRIOR TO GRADING.</div> <div>8. ACCUMULATED SILT DEPOSITS SHALL BE REMOVED FROM SILT FENCES AND HAY BALE DIKES WHEN SILT DEPTH REACHES THREE INCHES OR 25%.</div> <div>9. THE CONTRACTOR SHALL ADD OR DELETE EROSION PROTECTION AT THE REQUEST AND DIRECTION OF THE OPERATOR OR CITY, WITHIN 24 HOURS OF NOTICE.</div> <div>10. AFTER INSTALLATION OF PAVEMENT, FINAL LOT BENCHING AND GENERAL CLEANUP, THE CONTRACTOR SHALL ESTABLISH GRASS GROUND COVER IN ALL STREET PARKWAYS, LOT AND ALL OTHER DISTURBED AREAS. SODDING SHALL BE DONE AS SPECIFIED BY SECTION 202.5 AND SEEDING AS SPECIFIED BY SECTION 202.6 OF THE OCTOBER 2004 OR LATEST EDITION OF NCTCOG STANDARD SPECIFICATION.</div> <div>11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS AND STORM DRAINAGE SYSTEMS FROM EROSION/SEDIMENT DEPOSITS.</div> <div>12. A DRAINAGE AREA MAP WILL BE INCLUDED WITH THE EROSION CONTROL PLAN.</div> <div>13. CONSTRUCTION WASTE DISPOSAL CONTAINERS SHALL BE PROVIDED ON THE SITE FOR DISPOSAL OF ALL NON-HAZARDOUS CONSTRUCTION WASTE MATERIALS.</div> <div>14. ALL HAZARDOUS MATERIALS SHALL BE HANDLED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.</div>		
SILT FENCE NOTES		
<div>1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. THE POST MUST BE EMBEDDED A MINIMUM OF 18 INCHES.</div> <div>2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT): WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON THE UPHILL SIDE TO PREVENT FLOW UNDER FENCE.</div> <div>3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.</div> <div>4. SILT FENCE SHALL BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE SUPPORT POST. THERE SHALL BE A 6 INCH DOUBLE OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.</div> <div>5. INSPECTION SHALL BE MADE EVERY TWO WEEKS OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.</div> <div>6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.</div> <div>7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 3 INCHES. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SITUATION.</div>		
	EROSION CONTROL AND SILT FENCE NOTES	STANDARD CONSTRUCTION DETAILS EROSION CONTROL
		DATE: OCTOBER 2013 REVISED DATE: ----- SHEET: SD-EC01

DRAINAGE – GENERAL NOTES																														
CAST-IN-PLACE:																														
<div>1. IN GENERAL, INLET REINFORCING STEEL SHALL BE #4 BARS ON 12" CENTERS BOTH WAYS FOR GUTTER, BOTTOM SLAB ENDS, FRONT AND BACK WALLS, AND #4 ON 6" CENTERS BOTH WAYS FOR TOP SLAB. AN ADDITIONAL #6 BAR SHALL BE PLACED IN THE FRONT EDGE OF THE TOP SLAB IN THE INLETS AND ADDITIONAL REINFORCING STEEL SHALL BE PLACED AROUND MANHOLES AS SHOWN.</div> <div>2. ALL REINFORCING STEEL SHALL BE GRADE 60.</div> <div>3. ALL CONCRETE SHALL BE 3,600 PSI CONCRETE, AIR ENTRAINED 4.0% (+/-1%), WITH A WATER/CEMENT RATION OF NO GREATER THAN 0.53 FOR TYPE I/II CEMENTS AND A MAXIMUM AGGREGATE SIZE OF 1 1/2".</div> <div>4. MIX DESIGNS WITH BLENDED CEMENTS, TYPE II, TO BE DESIGNED TO MEET DESIGN STRENGTH OF 3,600 PSI AT 28-DAYS.</div> <div>5. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".</div> <div>6. ALL REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 2" TO THE BOTTOM OF THE BARS.</div> <div>7. 10'-0" OF EXISTING CURB AND GUTTER UPSTREAM AND 10'-0" OF EXISTING CURB AND GUTTER DOWNSTREAM SHALL BE REMOVED AND REPOURED INTEGRALLY WITH EACH INLET.</div> <div>8. BACKFILL SHALL BE IN FLOWABLE FILL FOR INLETS AND JUNCTION BOXES.</div> <div>9. BACKFILL FOR RCP SHALL BE IN LIFTS NOT TO EXCEED 8" LOOSE AND SHALL BE COMPACTED TO 95% STANDARD DENSITY, PER ASTM D698.</div> <div>10. CENTER BEAM IS REQUIRED FOR ALL INLET OPENINGS GREATER THAN 10'-0".</div> <div>11. TWO MANHOLE FRAMES AND COVERS ARE REQUIRED WHEN THE INLET OPENING IS GREATER THAN 10'-0".</div> <div>12. ALL INLET FLOORS ARE TO HAVE A 2% SLOPE TOWARDS THE OUTLET PIPE.</div> <div>13. MINIMUM INLET OPENING SIZE IS 5'-0".</div> <div>14. MAXIMUM INLET OPENING SIZE IS 20'-0".</div> <div>15. OUTLET PIPE TO BE PLACED IN THE MIDDLE OF THE INLET WALL. 24" MANHOLE COVER TO BE PLACED OVER OUTLET END OF INLET.</div> <div>16. 24" MANHOLE FRAME AND COVER SHALL BE AS NOTED IN THE CURRENT APPROVED MATERIAL LIST.</div> <div>17. INLET TRANSITIONS AND MANHOLE TOPS SHALL BE BLOCKED OUT AND CAST AFTER THE PAVING HAS CURED.</div>																														
STORM SEWER BEDDING:																														
<div>1. GRANULAR STONE EMBEDMENT SHALL BE GRADE 57</div> <div>GRADE 57</div> <table><tr><th>AGGREGATE SIZE</th><th>SIEVE PASSING</th></tr><tr><td>1 1/2"</td><td>100%</td></tr><tr><td>1"</td><td>95% – 100%</td></tr><tr><td>3/4"</td><td>25% – 50%</td></tr><tr><td>No. 4</td><td>1% – 10%</td></tr><tr><td>No. 8</td><td>0% – 5%</td></tr></table> <div>2. ALL STORM SEWER PIPE IS TO BE FLUSHED AND CAMERA INSPECTED AFTER INSTALLATION OF ALL PAVING AND UTILITIES AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.</div> <div>3. SEE THE CITY OF SHERMAN PRE-APPROVED MATERIAL LIST FOR JOINT SEALS.</div> <div>4. FLOWABLE FILL SHALL MEET THE FOLLOWING REQUIREMENTS:</div> <table><tr><td>250 PSI – 450 PSI COMPRESSIVE STRENGTH @ 28 DAYS</td></tr><tr><td>MATERIAL PI < 12</td></tr><tr><td>100% PASSING THE 3/4" SIEVE</td></tr><tr><td>MINIMUM SLUMP – 5"</td></tr></table> <div>5. CRUSHED CONCRETE SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:</div> <table><tr><th>SIEVE</th><th>% RETAINED</th><th></th></tr><tr><td>2"</td><td>0</td><td>30–65</td></tr><tr><td>1 1/2"</td><td>0–10</td><td>#4 45–75</td></tr><tr><td>3/4"</td><td>10–35</td><td>#40 65–90</td></tr></table> <div>LIQUID LIMIT, MAX – 40</div> <div>PLASTICITY INDEX MAX – 10</div>			AGGREGATE SIZE	SIEVE PASSING	1 1/2"	100%	1"	95% – 100%	3/4"	25% – 50%	No. 4	1% – 10%	No. 8	0% – 5%	250 PSI – 450 PSI COMPRESSIVE STRENGTH @ 28 DAYS	MATERIAL PI < 12	100% PASSING THE 3/4" SIEVE	MINIMUM SLUMP – 5"	SIEVE	% RETAINED		2"	0	30–65	1 1/2"	0–10	#4 45–75	3/4"	10–35	#40 65–90
AGGREGATE SIZE	SIEVE PASSING																													
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	STORM SEWER GENERAL NOTES AND RCP STORM SEWER PIPE BEDDING	STANDARD CONSTRUCTION DETAILS STORM DRAINAGE																												
		DATE: OCTOBER 2013 REVISED DATE: MAY 2022 SHEET: SD-D-NOTES																												

PAVING – GENERAL NOTES		
<div>1. GENERAL: PAVEMENT THICKNESS IS AS SHOWN IN ITEM 7. SUBGRADE DESIGN SHALL CONFORM TO THE REQUIREMENTS IN ITEM 3, AND SHALL EXTEND 12" MIN. BEHIND THE BACK OF CURB.</div> <div>2. REINFORCED CONCRETE PAVEMENT:</div> <div>2.A. CONCRETE STRENGTH SHALL BE AS SHOWN IN ITEM 7 (NCTCOG LATEST EDITION).</div> <div>2.B. ALL CURBS SHALL BE INTEGRAL WITH PAVEMENT AND SHALL BE OF THE SAME STRENGTH AS CONCRETE PAVEMENT.</div> <div>2.C. DETAIL AND ARRANGEMENT OF PAVEMENT JOINTS, ALL TYPES, SHALL BE AS SHOWN ON THE CITY STANDARD CONSTRUCTION DETAILS.</div> <div>2.D. BAR LAPS SHALL BE THIRTY DIAMETERS.</div> <div>2.E. REINFORCING STEEL SHALL BE #3 REBAR (3/8") ON 18" CENTERS FOR 7" OR LESS. #4 ON 24" CENTERS FOR 8" OR ABOVE. ALL REINFORCING BARS TO BE GRADE 60.</div> <div>3. SUBGRADE: SUBGRADE UNDER ALL PAVEMENT SHALL BE 6" THICK AND SHALL BE STABILIZED WITH AT LEAST 30 LBS. PER SQ. YD. HYDRATED LIME, COMPACTED TO A DENSITY NOT LESS THAN 95 PERCENT. LABORATORY TESTS MUST BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT FOR APPROVAL TO DETERMINE AMOUNT OF LIME REQUIRED. LABORATORY TEST MAY BE WAIVED PROVIDED AT LEAST 36 LBS. OF LIME PER SQ. YD. IS USED. SEE NCTCOG ITEM 301.2 "LIME TREATMENT" FLEXIBLE BASE (CRUSHED STONE/CONCRETE) PER NCTCOG ITEM 301.5 MAY BE SUBSTITUTED FOR LIME TREATMENT WITH THE APPROVAL OF THE CITY ENGINEER.</div> <div>4. REBAR SHALL BE SUPPORTED BY BAR CHAIRS OR OTHER DEVICES APPROVED BY CITY ENGINEER.</div> <div>5. NO TRAFFIC ON FINISHED SUBGRADE SHALL BE PERMITTED AFTER REINFORCING STEEL IS INSTALLED ABOVE SUBGRADE. NO TRAFFIC SHALL BE PERMITTED BEFORE OR DURING THE PLACING OF CONCRETE.</div> <div>6. CROSS SLOPE OF STRAIGHT CROWN STREETS SHALL BE 1/4" PER FOOT UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.</div> <div>7. PAVEMENT THICKNESS AND STRENGTHS SHALL BE AS FOLLOWS:</div> <div>MAJOR ARTERIAL – 8" CLASS "P1" OR "P2."</div> <div>MINOR ARTERIAL – 8" CLASS "P1" OR "P2."</div> <div>COMMERCIAL/INDUSTRIAL COLLECTOR – 7" CLASS "P1" OR "P2."</div> <div>RESIDENTIAL COLLECTOR – 7" CLASS "P1" OR "P2."</div> <div>LOCAL STREET – 6" CLASS "P1" OR "P2."</div> <div>SIDEWALK AND BFR's-4"-CLASS "A"</div> <div>DRIVE APPROACH-6"-CLASS "P2"</div> <div>ALLEY-6" CLASS "P1" OR "P2."</div> <div>8. CONCRETE MIX DESIGN SHALL BE AS DEFINED BY NCTCOG 303.3.</div> <div>9. ALL MEDIANS AND PARKWAYS SHALL BE PROVIDED WITH BERMUDA GROUND COVER.</div> <div>10. ONCE A CURB ABUTTING A THOROUGHFARE HAS BEEN SAWCUT AND REMOVED, THE CONTRACTOR MUST REPLACE THE CONCRETE WITH A NEW POUR (I.e. DRIVEWAY) WITHIN 14 CALENDAR DAYS. LIQUIDATED DAMAGES WILL BE ASSESSED AT \$500 PER DAY FOR EACH CALENDAR DAY IN EXCESS OF 14 CALENDAR DAYS. PAYMENT SHALL BE MADE PRIOR TO ACCEPTANCE OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.</div> <div>11. ALL SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5% AND A MAXIMUM CROSS SLOPE OF 2%.</div> <div>12. ALLEYS AND DRIVEWAYS</div> <div>12.A. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLAN.</div> <div>12.B. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO PARABOLIC STREET PAVEMENT.</div>		
	PAVING GENERAL NOTES	STANDARD CONSTRUCTION DETAILS PAVING
		DATE: OCTOBER 2013 REVISED DATE: JULY 2022 SHEET: SD-P01

GENERAL NOTES		
<div>A. Permission to cut, bore or excavate Sherman city streets for utility service installation or repair must be granted by the Department of Engineering prior to any work, by obtaining an approved ROW permit.</div> <div>B. All expenses of the installation and repair of the street, alley, or public way shall be borne by the entity granted permission to perform the work by the City of Sherman.</div> <div>C. All damage to the street resulting from cutting the pavement and/or excavation of or boring under the street will be the responsibility of the entity granted permission to perform the work.</div> <div>D. Any traffic control devices which are affected by any work done in the roadway shall be repaired or replaced in conformance with criteria set forth in the TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) and City of Sherman Street Department, Sign and Signal requirements.</div> <div>E. The traveling public shall be protected by the use of proper warning signs, lighted signals, barrels, or other TMUTCD approved equipment both day and night until the street is fully repaired. Warning signs and signals shall be installed by and at the expense of the responsible entity in accordance with specifications set forth in the TMUTCD and all other requirements specified by the City of Sherman Engineering Department.</div> <div>F. Any materials and/or equipment used as the result of utility installation or repair shall be removed from the through lanes between the hours of 7:00 a.m. and 8:00 p.m. on Monday through Friday, 8:00 a.m. and 5:00 p.m. on Saturday, and 1:00 p.m. and 5:00 p.m. on Sunday, excluding the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas Eve and Christmas Day, unless an exception has been granted by the Engineering Department.</div> <div>G. All surfaces not included in the utility cut/excavation shall be protected and kept clean by the responsible entity or its contractor, and if damaged replaced to the satisfaction of the Department of Engineering.</div> <div>H. All disturbed portions of the right-of-way which are not paved with concrete or asphalt shall be restored to their original condition, including grass, trees, shrubs, irrigation systems, handicap ramps, sidewalks, trails, and bikeways.</div> <div>I. Where 100 lineal feet or more of curb and/or gutter are to be replaced, plans and specifications shall be submitted and approved by the Department of Engineering.</div> <div>J. The cut or excavation project shall be limited to the location, size, and scope of work as originally permitted by the Engineering Department.</div> <div>K. Excavation spoils shall be removed from the ROW, by the Contractor, prior to the City forces backfilling.</div> <div>L. For service Tap(s) refer to "Process for Tapping into City Water and/or Sewer Mains" available in the Engineering Department.</div> <div>M. Curb and Gutter cuts of any length are the responsibility of the Contractor to replace, prior to City forces backfilling utility cuts within the street.</div>		
UTILITY SERVICE CUT REQUIREMENT		
<div>A. All pavement removals shall be in straight lines. Saw cuts shall be neat rectangular or trapezoidal in shape, and edges shall be parallel and perpendicular or skewed up to 45' from perpendicular to the traffic flow. Irregular shaped cuts with more than four sides or cuts within existing patches will not be allowed.</div> <div>B. Cuts shall be made with a wheel cutting saw, cutting abrasive water jet, rototilling or an approved method which assures a straight edge.</div> <div>C. Trench excavation, shoring, and stockpiling shall be in strict compliance with OSHA, State of Texas, and City of Sherman rules and regulations. All trench excavation shall be made by open cut to the depth required to construct or repair the facility and adequately braced.</div> <div>D. The length of trench permitted to be open may be limited when, in the opinion of the Engineering Department, such limitation is necessary for safety and convenience of the public.</div>		
BACKFILL REQUIREMENTS		
<div>A. The top 4" of the cut shall be backfilled with a suitable fibrbase material if the asphalt surface is not immediately replaced.</div> <div>B. Cuts filled with flowable backfill shall be bridged with steel street plates that overlap the trench width two feet on both sides and secured so they are not above the existing street surface elevation. Plates are to be secured and provide a ramp along both transverse ends of the plates with cold-patch material.</div> <div>C. Plates are to be leveled with wood shims prior to securing the plates in place.</div> <div>D. Valves and manholes covering shall be set 1/4 inch to 1/2 inch below the compacted finished street surface.</div>		
PATCHING REQUIREMENTS		
<div>A. All patches will be of the same material as the existing street and shall be per the appropriate detail.</div> <div>B. The exposed edge of the excavated asphalt pavement shall be painted with an Emulsified Asphalt Tack Coat to assure a good bond between the existing and new pavement.</div> <div>C. Asphalt patches shall be placed in three inch lifts and compacted by means of a mechanical roller to achieve an optimum density.</div> <div>D. Large asphalt patch areas may require the use of a self-propelled paver as determined by Engineering.</div> <div>E. Concrete patch material shall be placed using a mixture that is approved by Engineering.</div> <div>F. The concrete shall be placed and vibrated in accordance with good practices.</div> <div>G. The concrete surface shall be broomed or matched to the existing finish already in place.</div>		
	GENERAL NOTES AND REQUIREMENTS	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION
		DATE: OCT. 2013 REV DATE: OCT. 2022 SHEET : SD-U01

GENERAL NOTES FOR PEDESTRIAN FACILITIES:		
<div>1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.</div> <div>2. LANDINGS SHALL BE 5'X5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.</div> <div>3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICULAR TRAVEL PATH.</div> <div>4. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.</div> <div>5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.</div> <div>6. 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.</div> <div>7. CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE CITY ENGINEER.</div> <div>8. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. PROVIDE CURB RAMPS WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.</div> <div>9. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.</div> <div>10. BARRIER FREE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS).</div> <div>11. ALL BARRIER FREE RAMPS MUST PASS AN INDEPENDENT INSPECTION. A LETTER OF COMPLIANCE ACCEPTANCE IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE CITY OF SHERMAN.</div> <div>12. STREETS ON STEEP GRADE WILL REQUIRE LONGER TRANSITION ON UPGRADE SIDE.</div> <div>13. MAXIMUM SLOPE ON RAMP PORTION SHALL NOT EXCEED 1" PER FOOT AT ANY LOCATION. VERTICAL DISTANCE BETWEEN STREET AND RAMP SHALL NOT EXCEED 1'.</div>		
GENERAL NOTES FOR DETECTABLE WARNINGS:		
<div>1. DETECTABLE WARNING MATERIAL SHALL CONSIST OF CONCRETE PAVERS, FIRED CLAY PAVERS, CAST IRON PLATES OR STAINLESS STEEL PLATES.</div> <div>2. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSIST OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 4.29 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH THE ADJOINING SURFACES, INCLUDING SIDE FLARES.</div> <div>3. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.</div> <div>4. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.</div> <div>5. 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.</div> <div>6. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 6" AND A MAXIMUM OF 8" FROM THE EXTENSION OF THE FACE OF CURB AND SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.</div>		
GENERAL NOTES FOR CONCRETE AND FIRED CLAY PAVER UNITS:		
<div>1. CONCRETE PAVER UNITS SHALL MEET OR EXCEED ALL REQUIREMENTS OF ASTM C-936. FIRED CLAY PAVER UNITS SHALL MEET OR EXCEED ALL REQUIREMENTS OF ASTM C-1272.</div> <div>2. PAVER UNITS SHALL BE LAID IN A TWO BY TWO UNIT BASKET WEAVE PATTERN OR AS DIRECTED.</div> <div>3. LAY FULL-SIZE UNITS FIRST FOLLOWED BY CLOSURE UNITS CONSISTING OF AT LEAST 25 PERCENT OF A FULL UNIT. CUT PAVER UNITS USING A POWER SAW.</div>		
	PEDESTRIAN FACILITIES GENERAL NOTES	STANDARD CONSTRUCTION DETAILS PAVING
		DATE: OCTOBER 2013 REVISED DATE: ----- SHEET: SD-P04

EVERGREEN PARKS

CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

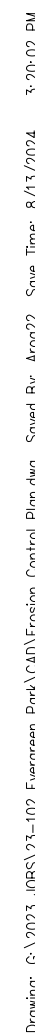
GENERAL NOTES

Revisions	Date				
Scale:					
Drawn By: TEC					
Checked By: BMO					
Sheet 3					
SEI No. 23-102					



SPIARS
ENGINEERING & SURVEYING

765 Cluster Road, Suite 100 • Plano, TX 75075 • 972.422.0077
TBPE No F-2121 • TEL PS No. F-10043100 • www.spiarseng.com



	= Proposed Contours
	= Existing Contours
	= Proposed Storm Sewer
	= Phase 1 Silt Fence
	= Phase 1 Construction Entrance
	= Phase 2 Inlet Protection
	= Phase 3 Curlex
	= Phase 3 Silt Fence
	= Rock Check Dam (Phase 2)
	= Stone Overflow Structure (Phase 2)
	= Concrete Washout Pit
	= Curlex Slope Protection

BLOCK 1, LOT 4
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 3
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 2
EDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 1
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

DOCK 2, LOT 1
 PARK VILLAGE
 L. 14 PG. 10
 P.R.G.C.T.
 ZONE R-1

1. All operators and/or contractors shall conform to the terms and conditions of the National Pollution Discharge Elimination Systems (NPDES) General Permit as published in the Federal Register, Vol. 57, No. 175, September 9, 1992, by the Environmental Protection Agency (EPA).
2. The Contractor is responsible for filing the Notice of Intent (NOI) to TCEQ, as required by the General Permit, must be properly displayed on site at all times by each operator.
3. All releases of reportable quantities of hazardous substances shall be reported immediately to the facility operator and EPA.
4. Qualified operator personnel must inspect the site at least once every seven days and within 24 hours of a 1/2 - inch or greater rainfall event. The inspector shall document the results.
5. Modifications to the Storm Water Pollution Prevention Plan shall be implemented and be in-place within a seven calendar day period.
6. If any contractor sees a violation by an operator or another contractor, he shall notify the operator and contractor in violation, as well as the facility operator.
7. Erosion control shall be installed prior to any grading.
8. Accumulated silt deposits shall be removed from silt fences and hay bale dikes when silt depth reaches six inches. Removal of silt deposits by the contractor shall be incidental to the performance of the contract and a separate bid item shall not be included.
9. The contractor shall add or delete erosion protection at the request and direction of the Operator or the City.
10. It shall be the contractor's responsibility to control and limit silt and sediment leaving the site. Specifically, the contractor shall protect all public streets, alleys, streams and storm drainage systems from erosion deposits.
11. It shall be the contractor's responsibility to provide a dumpster (or equal) to collect solid waste materials during construction.
12. The attached Drainage Area Map, as prepared by Spiers Engineering, Inc., specifically for this project, shall be made part of the Storm Water Pollution Prevention Plan.
13. It is anticipated that the following non-storm water discharges will be associated with this project. These discharges are authorized through the construction general permit:
 - A. Fire hydrant flushings
 - B. Water used to wash vehicles and to control dust
 - C. Potable water wastes including waterline flushings
 - D. Irrigation drainage
 - E. Pavement washdown
 - F. Uncontaminated ground water
 - G. Construction water
14. Construction waste disposal containers shall be provided on the site for disposal of all non-hazardous construction waste materials. The containers shall be hauled to landfill by the Contractor.
15. All hazardous materials shall be handled and disposed of by the Contractor in accordance with Federal, State and Local regulations.

1. Silt fences and stone overflow structures shall be installed as shown per detail. Silt fence shall be filter fabric or similar. Plastic silt fence is not allowed.
2. Contractor shall install additional erosion control where erosion protection is needed as per the engineer of record or the City.
3. The existing vegetation along existing parkways and medians shall be replaced to its original condition or better.
4. All drainage swales shall be grassed as per City Standards, prior to the City acceptance of project.
5. All construction erosion control shall meet City Ordinances.
6. Erosion construction shall be completed in the following PHASES:
 - PHASE 1 (Prior to Start of Rough Grading)
 1. Silt fence shall be placed as shown per detail.
 2. Install construction fence.
 - PHASE 2 (After utility construction & prior to paving construction)
 1. Inlet protection shall be placed at all inlets per detail to prevent erosion material from entering storm sewer system.
 2. Install rock check dams.
 - PHASE 3 (After paving construction)
 1. Perimeter silt fence and stone overflow structures shall be placed as shown per detail.
 2. Install 8' Curbs after rough grading after completion of the paving.
 3. All parkways and disturbed area in street R.O.W. to be seeded with grass as per City standards. Vegetation to be established in all afforested disturbed areas.

NOTE:
"CONTRACTOR TO SUBMIT UTILITY MATERIALS TO CITY
PRIOR TO CONSTRUCTION. SPECIFICATIONS TO INCLUDE
BLIND FLANGES, RESTRAINTS, MECHANICAL JOINTS, ETC.
FOR ALL WATER NODES."

Note: The Contractor Shall Perform All Earthwork And Compaction Operations, Including But Not Limited To, Placement Of Fill During Earthwork Operations, Backfilling, Trench Backfilling, Utility Backfilling, Liming, And Subgrade Placement According To The Geotechnical Recommendations And City Standards. The Contractor Shall Use The Most Stringent Requirement If There Is A Conflict On Any Fill Or Backfill Operations. The Contractor Shall Inquire In Written Format With The Engineer Of Record Should There Be Any Questions Regarding Fill And Backfill Requirements.

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

CALL TEXAS ONE--CALL 811 OR OTHER UTILITY LOCATION SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SPIARS ENGINEERING, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

These plans are released for
the purpose of interim review
under the authority of
BRENDAN M. OCHOA,
PE 145058

Date: 08/16/2024
It is not to be used for
construction.

EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

EROSION CONTROL PLAN

[illegible]

Scale: 1" = 50'

Drawn By: TEC

Checked By: BMC

Sheet 4

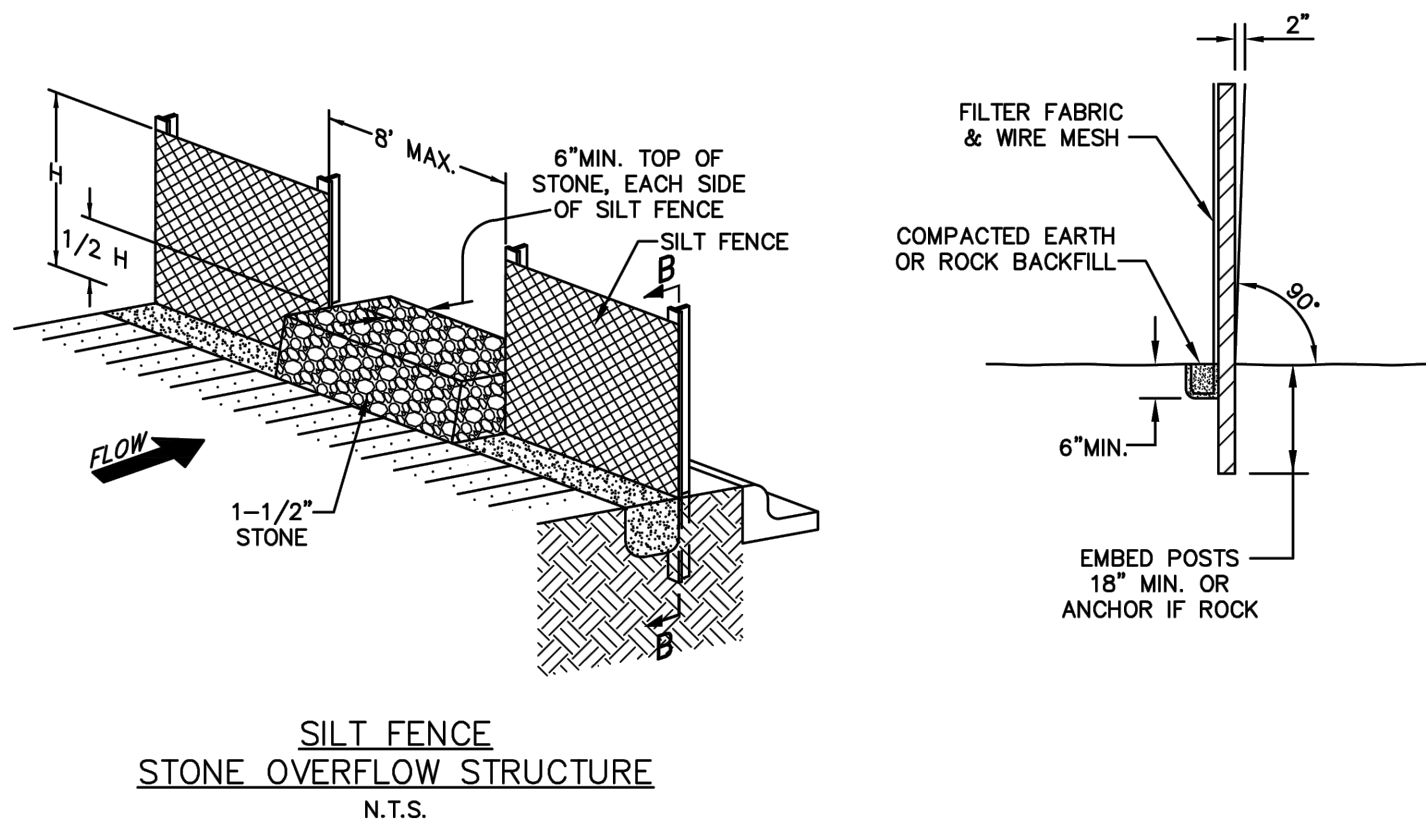
SEI No. 23-102

1. ALL OPERATORS AND/OR CONTRACTORS SHALL CONFORM TO THE TERMS AND CONDITIONS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), TPDES GENERAL PERMIT NO. TXR 0040000 ISSUED AND DATED FEBRUARY 9, 2009.
2. THE NOTICE OF INTENT (NOI), AS REQUIRED BY THE GENERAL PERMIT, MUST BE PROPERLY DISPLAYED ON SITE AT ALL TIMES BY EACH OPERATOR OR CONSTRUCTION SITE NOTICE (CSN).
3. ALL RELEASES OF THE REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES SHALL BE REPORTED IMMEDIATELY TO THE FACILITY OPERATOR, EPA AND TCEQ.
4. QUALIFIED OPERATOR PERSONNEL MUST INSPECT THE SITE AT LEAST ONCE EVERY 14 DAYS AND WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER. AS AN ALTERNATIVE, AN INSPECTION CAN BE CONDUCTED ONCE EVERY SEVEN (7) CALENDAR DAYS ON A DEFINED DAY. A DECISION ON WHICH METHOD TO USE MUST BE DECIDED BEFORE WORK BEGINS AND MUST BE FOLLOWED THROUGHOUT THE PROJECT.
5. MODIFICATIONS TO THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE IMPLEMENTED AND BE IN-PLACE WITHIN A SEVEN CALENDAR DAY PERIOD.
6. IF ANY CONTRACTOR SEES A VIOLATION BY AN OPERATOR OR ANOTHER CONTRACTOR, THAT OPERATOR OR CONTRACTOR IN VIOLATION SHALL BE NOTIFIED AS WELL AS THE FACILITY OPERATOR.
7. EROSION CONTROL SHALL BE INSTALLED PRIOR TO GRADING.
8. ACCUMULATED SILT DEPOSITS SHALL BE REMOVED FROM SILT FENCES AND HAY BALE DIKES WHEN SILT DEPTH REACHES THREE INCHES OR 25%.
9. THE CONTRACTOR SHALL ADD OR DELETE EROSION PROTECTION AT THE REQUEST AND DIRECTION OF THE OPERATOR OR CITY, WITHIN 24 HOURS OF NOTICE.
10. AFTER INSTALLATION OF PAVEMENT, FINAL LOT BENCHING AND GENERAL CLEANUP, THE CONTRACTOR SHALL ESTABLISH GRASS GROUNDCOVER IN ALL STREET PARKWAYS, LOT AND ALL OTHER DISTURBED AREAS. SODDING SHALL BE DONE AS SPECIFIED BY SECTION 202.5 AND SEEDING AS SPECIFIED IN SECTION 202.6 OF THE OCTOBER 2004 OR LATEST EDITION OF NCTCOG STANDARD SPECIFICATION.
11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS AND STORM DRAINAGE SYSTEMS FROM EROSION/SEDIMENT DEPOSITS.
12. A DRAINAGE AREA MAP WILL BE INCLUDED WITH THE EROSION CONTROL PLAN.
13. CONSTRUCTION WASTE DISPOSAL CONTAINERS SHALL BE PROVIDED ON THE SITE FOR DISPOSAL OF ALL NON-HAZARDOUS CONSTRUCTION WASTE MATERIALS.
14. ALL HAZARDOUS MATERIALS SHALL BE HANDLED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

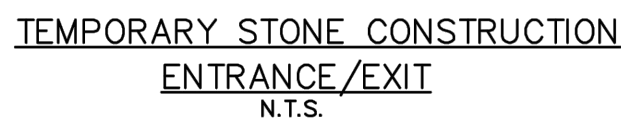
1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTIICIPATED RUNOFF SOURCE. THE POST MUST BE EMBEDDED A MINIMUM OF 18 INCHES.
2. THE TOP OF WOVEN SILT FENCE SHALL BE TRENCHED IN WITH A SPADOR OR MECHANICAL TRENCHER, SO THAT THE GRADE OF THE SILT FENCE IS FLAT AND EVENING OUT. THE TRENCHING SHALL BE 6 INCHES DEEP, WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT) USE WEIGHT FABRIC FLAP WITH WASHED GRAVEL OR STONE ON THE INSIDE OF THE FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. THE SILT FENCE SHALL BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE SUPPORT POST. THERE SHALL BE A 6 INCH DOUBLE OVERLAP; SECURELY FASTENED TO EACH OTHER.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS OR AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 3 INCHES. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL EROSION.



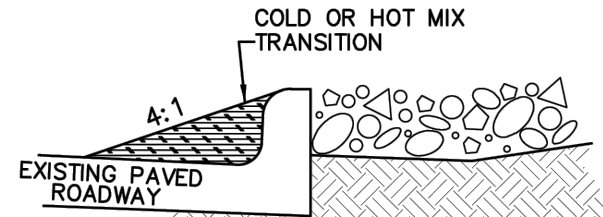
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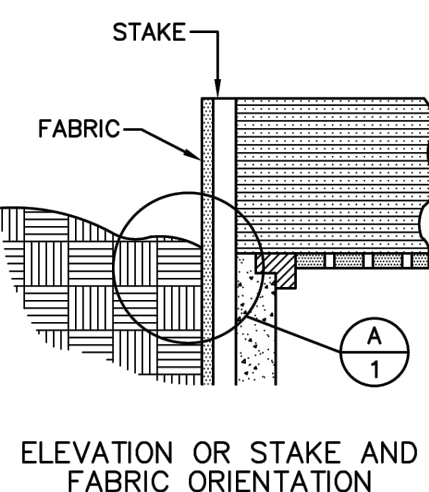
1. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.



Sherman
CLASSIC TOWN. BROAD HORIZON.
ENGINEERING DEPARTMENT

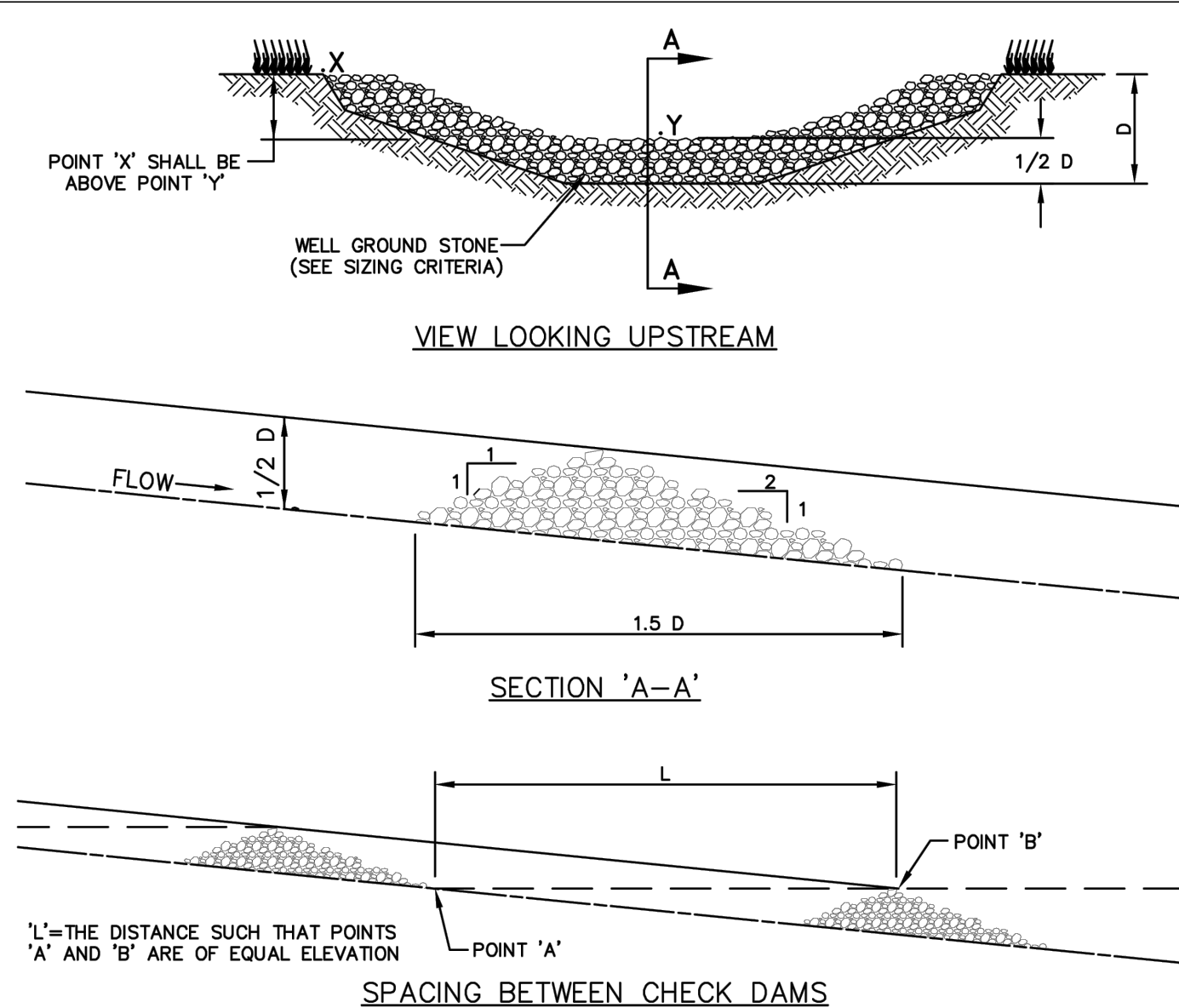
TEMPORARY STONE
CONSTRUCTION
ENTRANCE/EXIT

DATE: OCT. 2013	REV DATE: —	SHEET SD-EC
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GRATE AND WYE INLET PROTECTION

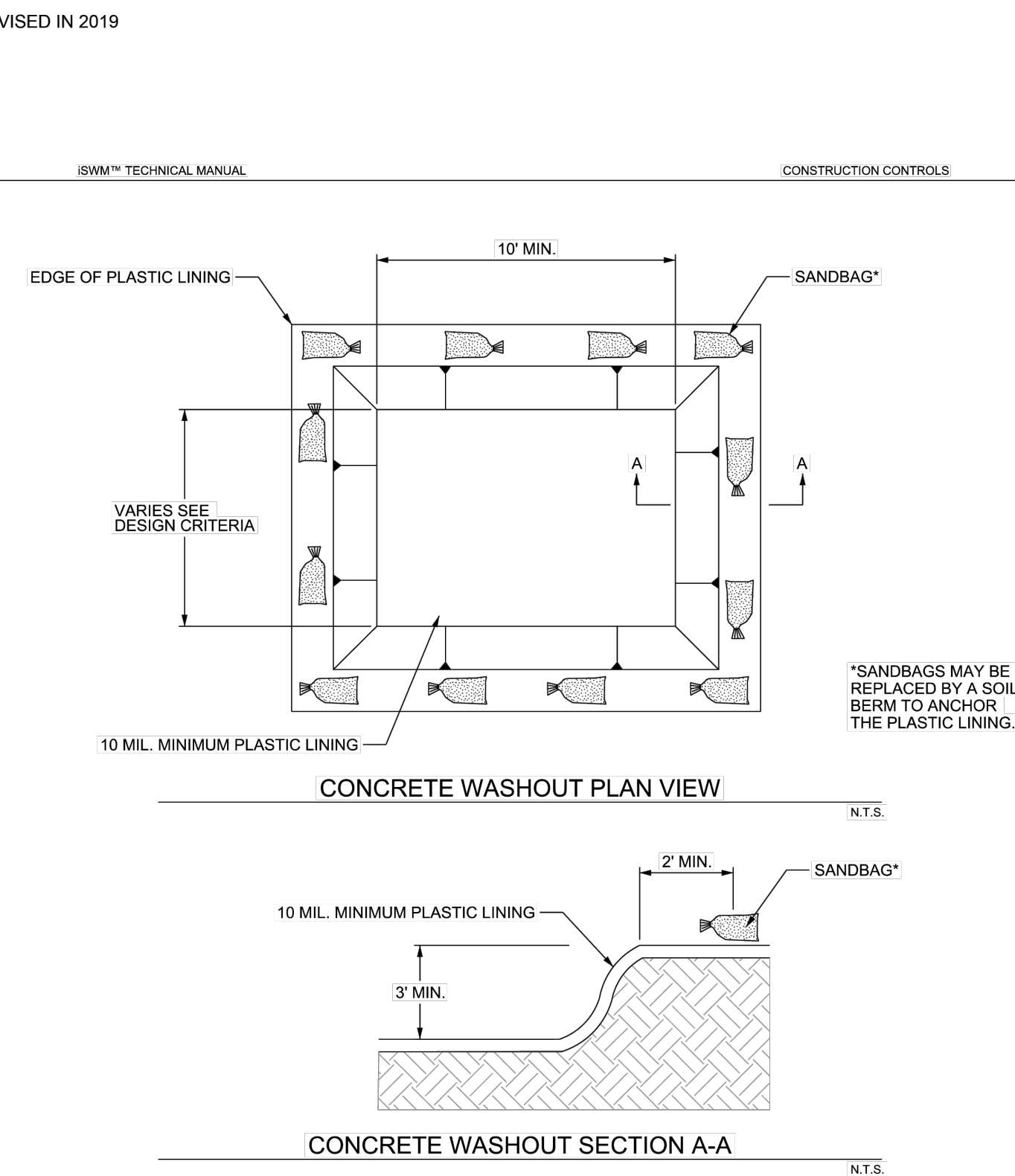
DATE: OCT. 2013	REV DATE: -	SHEET SD-ECC
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1. STONE SLAB SHALL BE WELL GRADED STONE WITH SIZE RANGE FROM 1 1/2 TO 3-1/2 INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
3. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.



DATE: OCT, 2013	REV DATE: —	SHEET: SD-ECO5
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1. WASHOUT AREA MUST BE CLEARLY MARKED WITH SIGNAGE NOTING THE WASHOUT AREA.
2. WASHOUT STRUCTURES SHALL BE CLEANED OUT WHEN THE STRUCTURE IS 75% FULL. TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY.

FIGURE 4.1 SCHEMATICS OF CONCRETE WASHOUT CONTAINMENT



EVERGREEN PARKS

CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

EROSION CONTROL DETAILS

These plans are released for
the purpose of interim review
under the authority of
BRENDAN M. OCHOA,
PE 145058

Date: 08/16/2024
It is not to be used for
construction.

Date _____

Revisions

Scale: N/A

Drawn By: TEC

Checked By: BMC

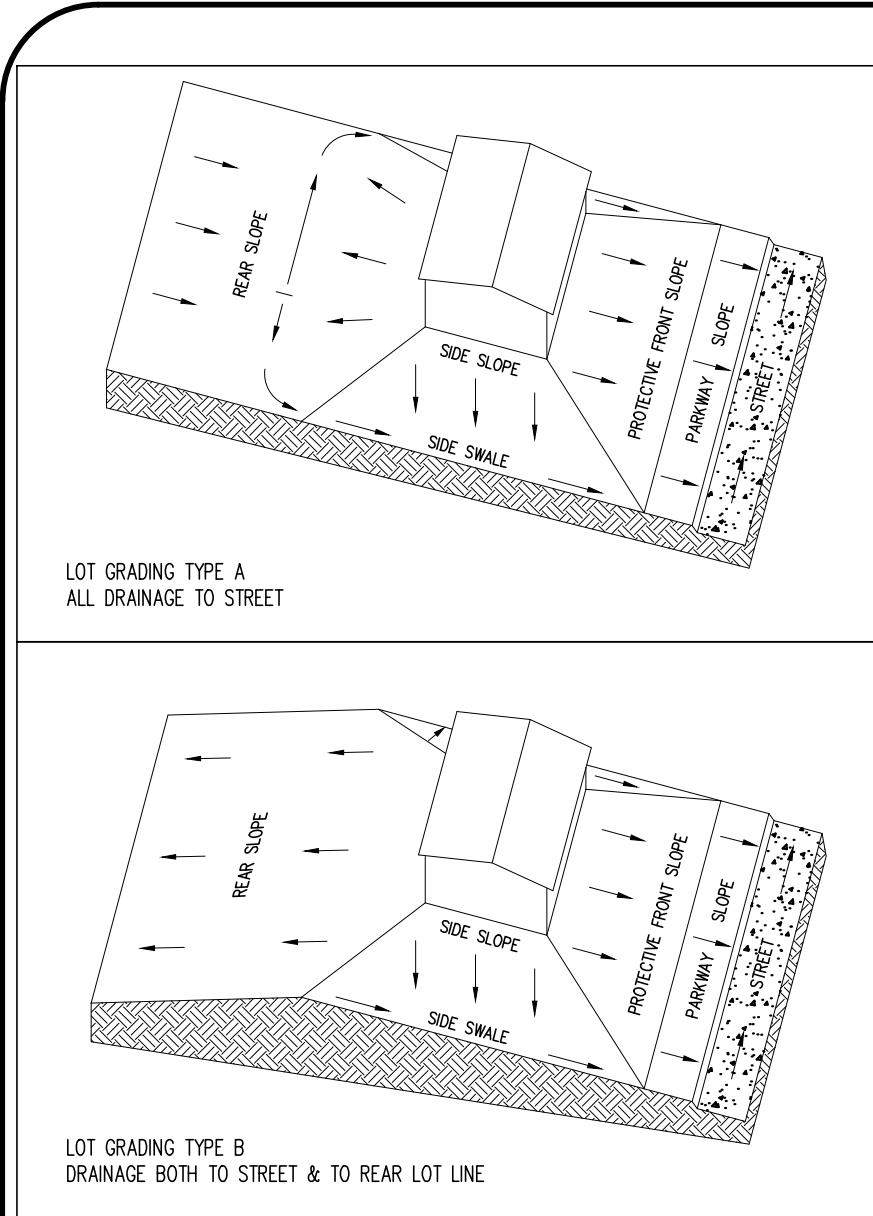
Sheet 5

SEI No. 23-102

Plotted by: arc22 Plot Date: 8/14/2024 4:05 PM

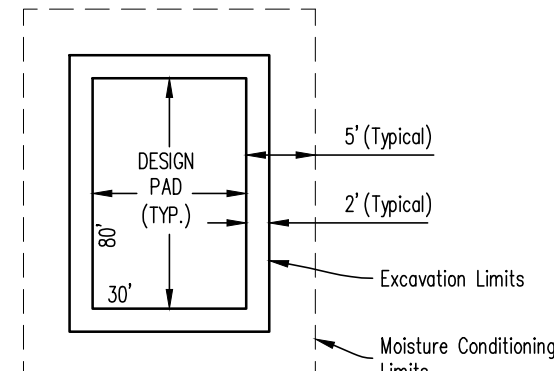
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Drawing: 23-0023 08/13/2024 Evergreen Parks (24) Lot Grading.dwg Saved By: mcs2 Date: 8/14/2024 4:03 PM
Printed By: mcs2 Plot Date: 8/14/2024 4:03 PM
Scale: 1" = 40'



- Notes:
1. R.O.W. To Be Graded With 1/4" Per Foot Fall To The Street.
 2. Front Yard To Be Graded At A 3:1 Slope 1' Off The Front Setback Line And Then Sloped At 1.0% To Street R.O.W.
 3. Excavation Contractor Shall Grade Behind Back Of Curb To R.O.W. Unless Otherwise Necessary For Moisture Conditioning. Cuts Shall Be Backfilled With Utility Spoils.

TYPICAL FRONT YARD
GRADING DETAIL
NOT TO SCALE



- Design Pad Notes:
1. Contractor To Build Pad 3" Beyond Design Pad.
 2. Contractor To Moisture Condition 10' Beyond Pad Per Geotech Recommendations.
 3. Design Pad Is 30'x80' Unless Otherwise Noted On Plan.

REAR YARD TOP
OF WALL DETAIL
NOT TO SCALE

- Notes:
1. All disturbed areas shall have 100% vegetation, 70% density prior to final acceptance.
 2. Structural walls greater than 4' shall be designed by a structural engineer.
 3. Retaining walls require separate permit through building inspections.
 4. No slopes greater than 4:1 are allowed.

RETAINING WALL DETAIL
NOT TO SCALE

- LEGEND
- FP=600.00 = Proposed Finished Pad Elevation
 - 00.01C = Proposed Top Of Curb Elevation
 - 00.07W = Proposed Top Of Wall Elevation
 - 00.08W = Proposed Bottom Of Wall Elevation
 - 0.00F = Proposed Finished Grade Elevation
 - 0.00F = Proposed Spot Elevation
 - 0.00Ex = Existing Elevation
 - 600 = Proposed Contours
 - 600 = Existing Contours
 - Proposed Private Wall Locations (To Be Maintained By Lot Owner Unless Otherwise Noted)
 - Proposed Landscape Wall (Reference Landscape Architect Plans For Landscape Wall Details)
 - GB = Proposed Grade Beam
 - DG = Proposed Drop Garage

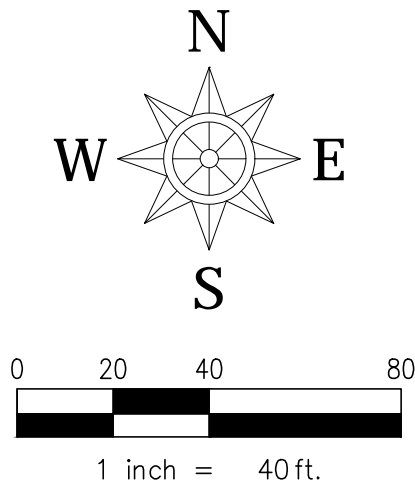
Note:
The Contractor Shall Perform All Earthwork And Compaction Operations, Including But Not Limited To, Placement Of Fill During Earthwork Operations, Backfilling, Trench Backfilling, Utility Backfilling, Lining, And Subgrade Placement According To The Geotechnical Recommendations And City Standards. The Contractor Shall Use The Most Stringent Requirement If There Is A Conflict On Any Fill Or Backfill Operations. The Contractor Shall Inquire In Written Format With The Engineer Of Record Should There Be Any Questions Regarding Fill And Backfill Requirements.

CAUTION !!!
EXISTING UTILITIES

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

CALL TEXAS ONE-CALL 811 OR OTHER UTILITY LOCATION SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SPIARS ENGINEERING, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

NOTE:
All Work Shall Be Done In Accordance With The Geotechnical Report For Evergreen Parks Subdivision Prepared By D&S Engineering Labs, LLC (Project Number 622-2111), Dated May 31, 2022.



STONE RETAINING WALLS

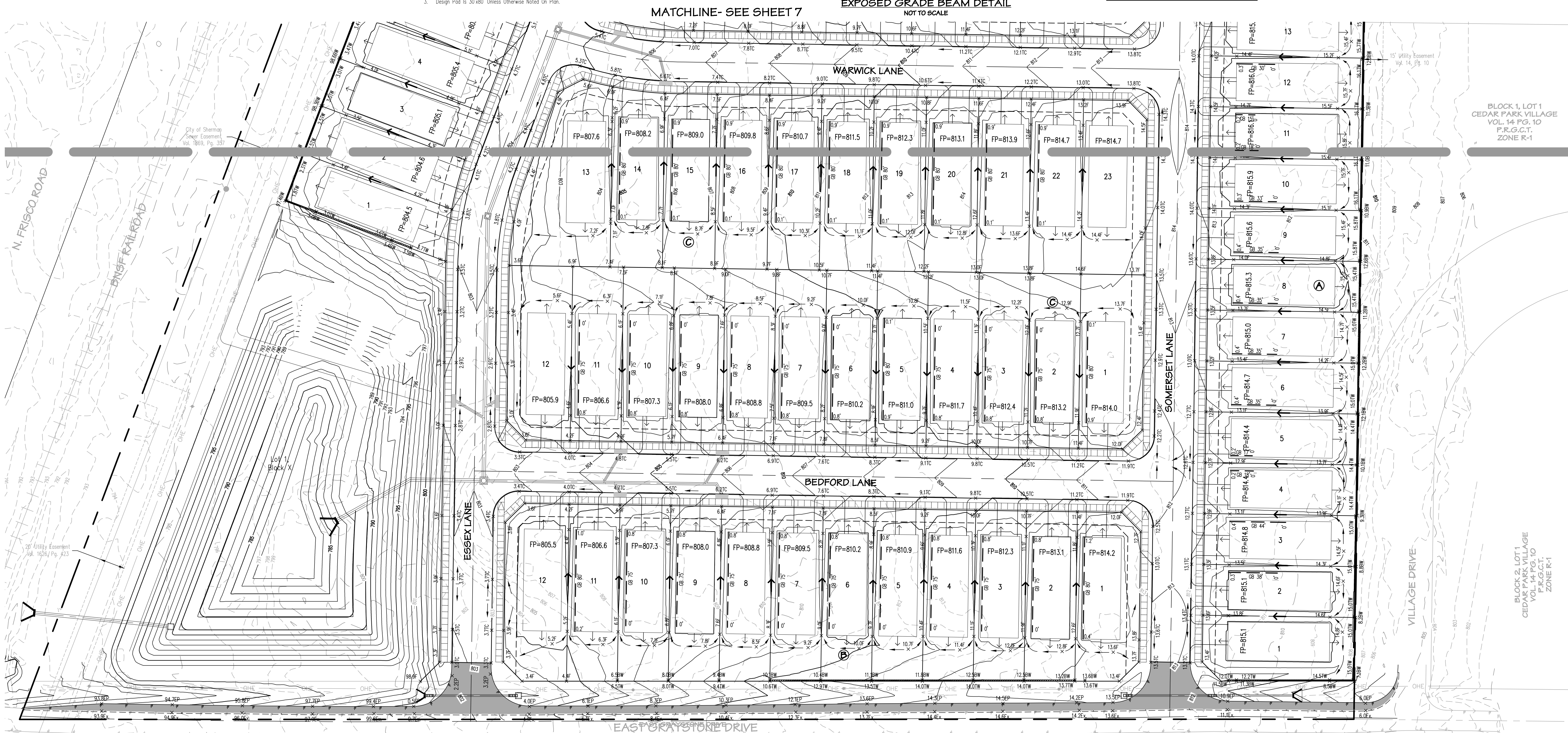
Note:
1. The Stone Retaining Walls Shown On The Lot Grading Plan Are For Establishing Top And Bottom Of Wall Elevations And For Estimating Purposes Only. Refer To Wall Plans By Wall Contractor For Design And Detail Of All Onsite Walls.

2. Structural details, plans, and calculations shall be provided to the Engineering Department and Building Inspections prior to construction of the retaining walls.

3. The Pads Shown On The Lot Grading Plans DO NOT, In Any Way, Define The Limits Of Moisture Conditioning or Water Pressure Injection Should The Geotechnical Report Recommend Soil Remediation On The Lots.

4. The Contractor Shall Moisture Condition or Water Pressure Inject A Min. 5 Feet Beyond The Building Setback Limits of Each Lot, As Defined By The Zoning and Final Plot, At A Depth, Moisture Content and Density Specified By The Geotechnical Engineer. The Contractor Shall Confirm The Limits Of Moisture Conditioning With Engineer Of Record Prior To Earthwork Activities.

5. All Retaining Wall Shall Taper to a Max. 6" At The End.



FRONTIER HWY2 LLC
INST. NO. 2022-5245
O.P.R.G.C.T.

EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
LOT GRADING PLAN

Revisions	Date

Scale: 1" = 40'
Drawn By: TEC
Checked By: BMO

Sheet 6

SEI No. 23-102

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Date: 08/16/2024
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Printed By: mcs22 Rev Date: 6/11/2024 4:35 PM

Drawing: 23-1023-102 Evergreen Parks (23-102) at: 6/11/2024 Save Time: 6/11/2024 14:35 PM



Note:
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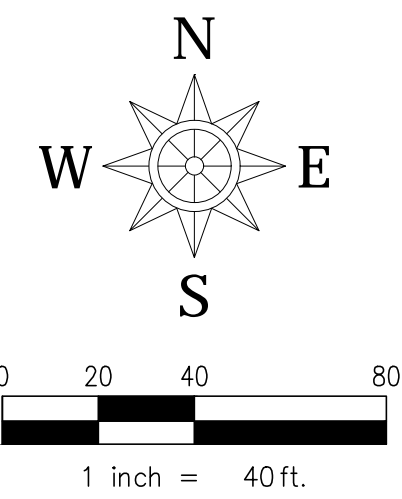
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LEGEND

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- 00.01C = Proposed Top Of Curb Elevation
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- 00.08W = Proposed Bottom Of Wall Elevation
- 0.00F = Proposed Finished Grade Elevation
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EVERGREEN PARKS

CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

LOT GRADING PLAN

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Date: 08/16/2024
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Date

Revisions

Scale: 1" = 40'

Drawn By: TEC

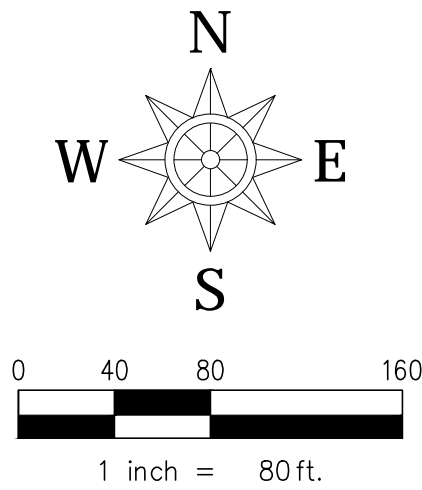
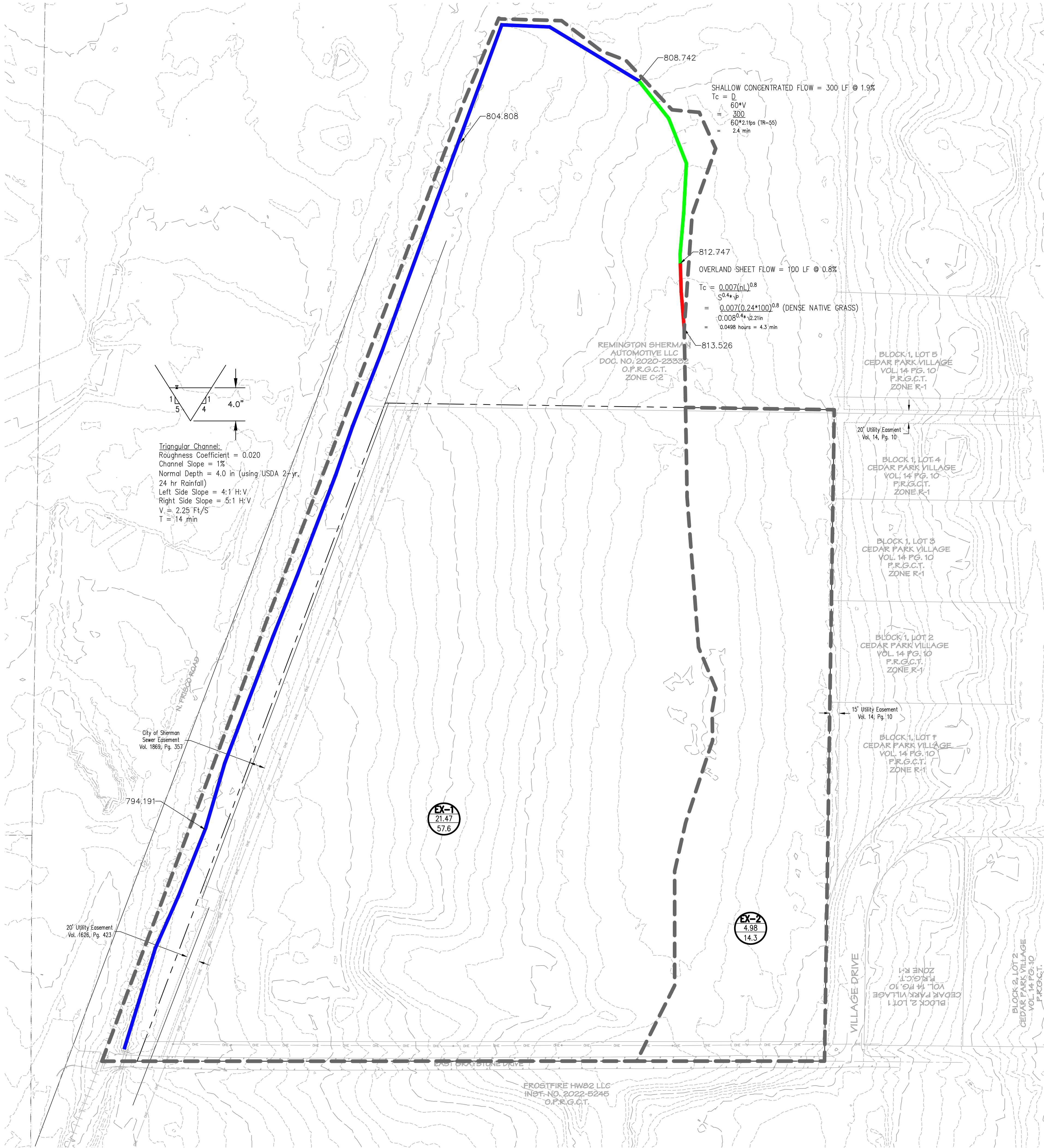
Checked By: BMO

Sheet 7

SEI No. 23-102

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Drawing: 6/20/23 0853-102 Evergreen Park VAD Existing Drainage Area Map.dwg Saved By: AutoCAD Save Time: 7/15/2024 9:21:51 AM Plotted By: autoCAD Plot Date: 8/14/2024 4:05 PM



Drainage Area Table					
Drainage Basin	Area (Acres) "A"	Runoff Coefficient "C"	Intensity (in./hr.) "I"	Storm Design Frequency (Yr)	Time of Concentration (Min.) "Tc"
EX-1	21.47	0.30	8.95	100	20
EX-2	4.98	0.30	9.60	100	15

TIME OF CONCENTRATION = 4.3 MIN + 2.4 MIN + 14 MIN = 20.7 MIN. SAY 20 MIN.

Travel Time Calculation For Triangular Channel (TR-55)
T = Length/(V X 60)
T = 1900 LF/ [(2.25 Ft/sec) X 60]
T = 14 Minutes

- LEGEND**
- = Drainage Area
 - = Acreage
 - = Q₁₀₀ Cfs
 - = Drainage Area Divide
 - = Existing Contours
 - = Direction Of Flow
 - = Overland Sheet Flow
 - = Shallow Concentrated Flow
 - = Channel Flow

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Date: 08/16/2024
It is not to be used for construction.

EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
EXISTING DRAINAGE AREA MAP

Revisions	Date

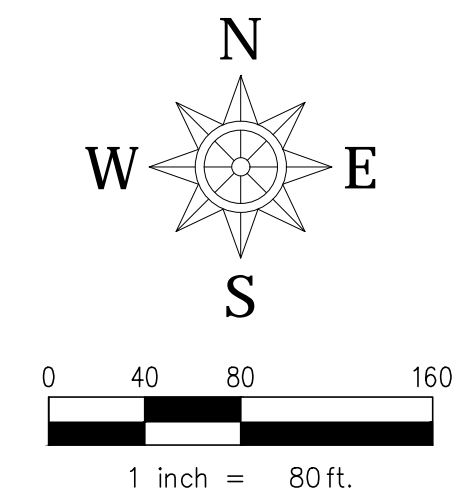
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Drawn By: RJF

Checked By: RWH

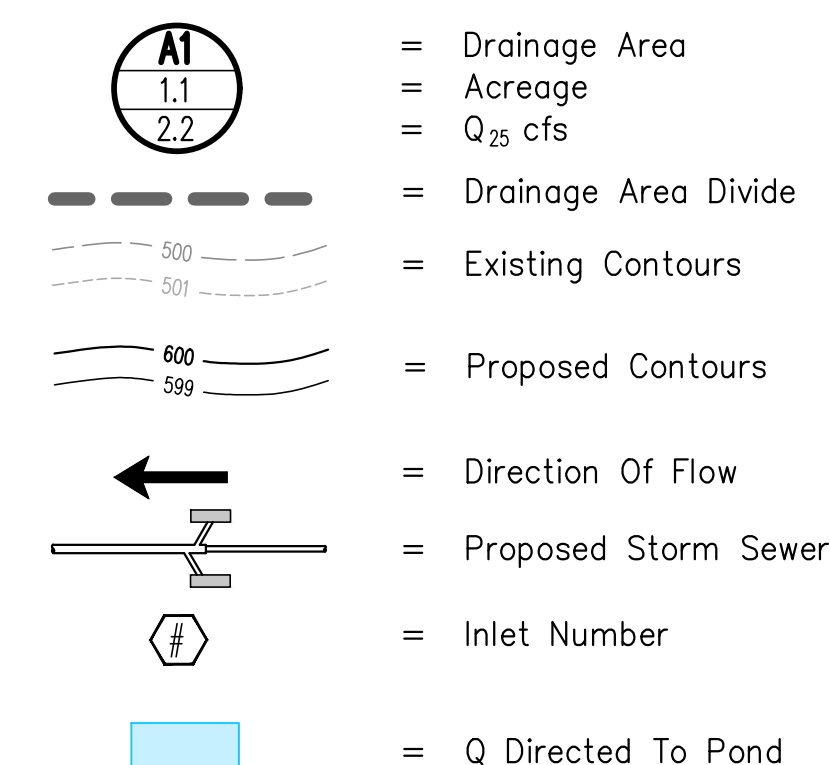
Sheet **8**

SEI No. 23-102



Drainage Area Table								
Drainage Basin	Area (Acres) "A"	Runoff Coefficient "C"	25-yr Intensity (in./hr.) "I25"	100-yr Intensity (in./hr.) "I100"	Storm Design Frequency (yr)	Time of Concentration (Min.) "Tc"	25-yr Discharge (C.F.S.) "Q25"	100-yr Discharge (C.F.S.) "Q100"
A	1.19	0.70	7.13	10.00	25	15	5.95	8.34
A1	2.72	0.70	7.13	10.00	25	15	13.56	19.01
A2	0.30	0.70	7.13	10.00	25	15	1.47	2.07
A3	0.30	0.70	7.13	10.00	25	15	1.49	2.09
B	1.14	0.70	7.13	10.00	25	15	5.71	8.01
B1	2.91	0.70	7.13	10.00	25	15	14.51	20.35
B2	0.67	0.70	7.13	10.00	25	15	3.36	4.71
B3	0.78	0.70	7.13	10.00	25	15	3.87	5.43
B4	1.48	0.70	7.13	10.00	25	15	7.37	10.33
C	1.31	0.70	7.13	10.00	25	15	6.52	9.15
C1	1.35	0.70	7.13	10.00	25	15	6.75	9.47
D	1.12	0.70	7.13	10.00	25	15	5.58	7.82
OS1	8.61	0.30	6.39	8.95	25	20	16.51	23.12
OS2	1.11	0.55	7.13	10.00	25	15	4.37	6.13
OS3	0.38	0.70	7.13	10.00	25	15	1.88	2.63
PND	1.10	0.40	7.13	10.00	25	15	3.13	4.39

LEGEND

SUBDIVISION

$C = 0.70$ $I_{25} = 7.13$ $T_c = 15$ min.

Developed Park Land

$C = 0.40$ $I_{25} = 7.13$ $T_c = 15$ min.

Undeveloped Land/Open Space

$$C = 0.30 \quad I_{25} = 6.39 \quad T_c = 20 \text{ min}$$

Weighted Coefficient: OS2

$$\frac{0.27 \text{ ac} \times 0.90 + 0.11 \text{ ac} \times 0.70 + 0.73 \text{ ac} \times 0.40}{1.11 \text{ ac}} = 0.55$$

Weighted Coefficient: OS3

$$\frac{0.16 \text{ ac} \times 0.90 + 0.11 \text{ ac} \times 0.70 + 0.11 \text{ ac} \times 0.40}{0.38 \text{ ac}} = 0.70$$

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te: 08/16/2024
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struction.

EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
DRAINAGE AREA MAP

Scale: $1'' = 80'$

own By: RJF

Checked By: RWH

Sheet 9

No. 23-102

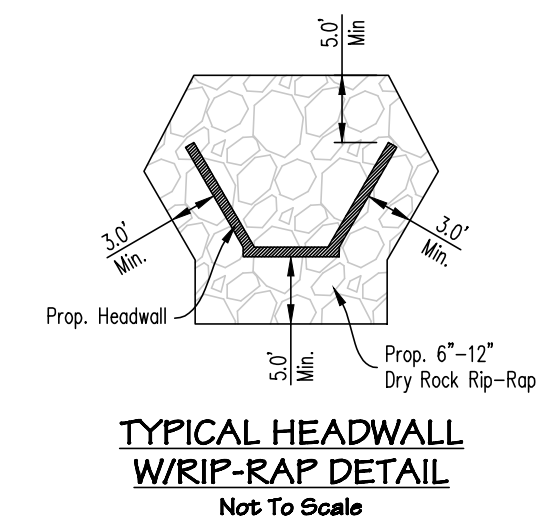
Drawn: G:\2023\J085\23-108 Evergreen Parks\CAD\Subarea Area Map.dwg Saved By: Anso23 Sun Time: 8/14/2024 3:52:39 PM
Plotted by: anso23 Plot Date: 8/14/2024 4:05 PM

INLET		Sub-Basin I.D.	Design Storm Freq. (yrs.)	AREA RUNOFF Q=CIA										25-Yr Carry Over from upstream (c.f.s.)	25-Yr Gutter Flow (c.f.s.)	100-Yr Carry Over from upstream (c.f.s.)	100-Yr Gutter Flow (c.f.s.)	Gutter Slope (%)	Crown Type	Street Width	25-Yr Street Flow (c.f.s.)	25-Yr Street Capacity (to TC) (c.f.s.)	100-Yr Street Flow (c.f.s.)	100-Yr Street Capacity (to ROW) (c.f.s.)	INLET CAPACITY CALCULATION										25-Year Captured Q (c.f.s.)	100-Year Captured Q (c.f.s.)	25-Year Carry Over Downstream (c.f.s.)	100-Year Carry Over Downstream (c.f.s.)	Downstream Inlet Number (No.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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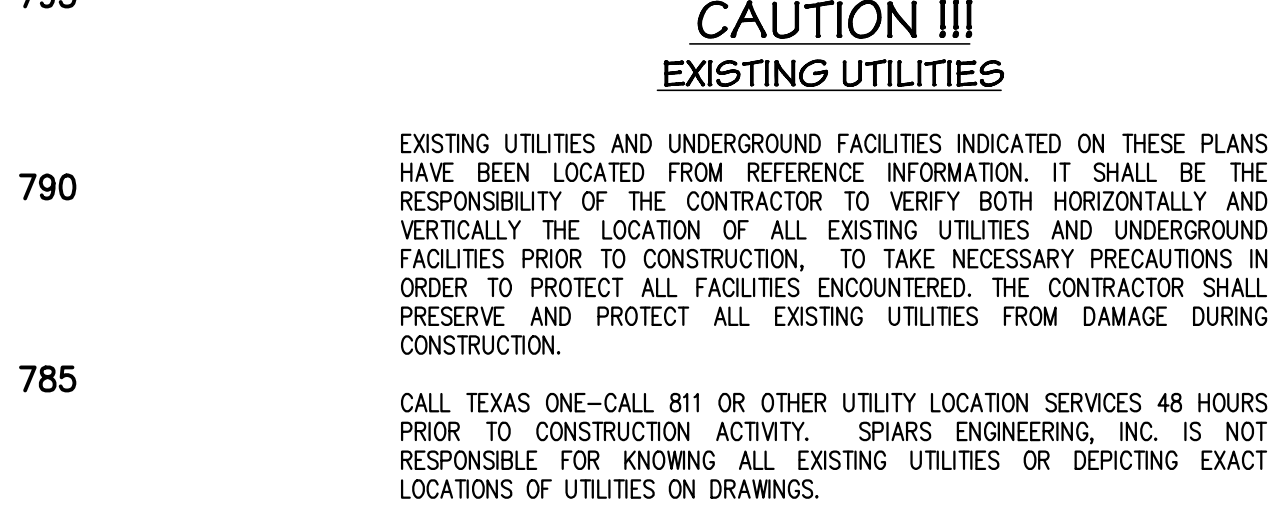
INLET		Sub-Basin I.D.	Design Storm Freq. (yrs.)	AREA RUNOFF Q=CIA										25-Yr Carry Over from upstream (c.f.s.)	25-Yr Gutter Flow (c.f.s.)	100-Yr Carry Over from upstream (c.f.s.)	100-Yr Gutter Flow (c.f.s.)	Gutter Slope (%)	Crown Type	Street Width	25-Yr Street Flow (c.f.s.)	25-Yr Street Capacity (to TC) (c.f.s.)	100-Yr Street Flow (c.f.s.)	100-Yr Street Capacity (to ROW) (c.f.s.)	INLET CAPACITY CALCULATION								25-Yr Captured Q (c.f.s.)	100-Year Captured Q (c.f.s.)	25-Year Carry Over Downstream (c.f.s.)	100-Year Carry Over Downstream (c.f.s.)	Downstream Inlet (No.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
				Time of Conc. (min.)	Intensity I ₂₅ (in./hr.)	Intensity I ₁₀₀ (in./hr.)	Runoff Coeff. C	Area (Ac.)	Q ₂₅ (c.f.s.)	25-YR Depth (feet)	Q ₁₀₀ (c.f.s.)	100-YR Depth (feet)	25-YR Length Redq. "L" (Feet)												100-YR Length Redq. "L" (Feet)	Length Actual "L" (Feet)	Type	Spread		25-YR Efficiency E	100-YR Efficiency E	25-Yr Inlet Capacity (c.f.s.)						100-Yr Inlet Capacity (c.f.s.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Inlet ID			Drainage Areas				Design Storm Flow				Approaching Roadway Geometry					Approaching Flow Characteristics				Inlet Geometry & Summary							Describe the 100-Year Positive Overflow Route if One is Needed (i.e. flow elevation exceeds limits defined in Criteria Manual)
Design Point	Inlet No.	Station ID	Area No.	Area (acres)	Runoff "C" (min.)	Conc. Time	100-Year Intensity (in./hr)	100-Year Carryover Q (cfs)	100-Year Q (cfs)	100-Year Q Split (cfs)	Roadway Long. Slope ("Upstream") (%)	Roadway Long. Slope ("Downstream") (%)	Roadway Cross Slope (%)	Lane(s) Width to Median (ft)	Manning's Pavement "n"	"Upstream" Side		"Downstream" Side		Width of Gutter Depression (ft)	Required Length of Inlet (ft)	Inlet Length Provided (ft)	Capture Efficiency (%)	Depth of Inlet Opening (ft)	Type of Flow (orifice/weir)	100-Year Carryover Q (cfs)	
																100-Year Depth of Flow (ft)	100-Year Spread of Flow (ft)	100-Year Depth of Flow (ft)	100-Year Spread of Flow (ft)								
1	2	3	4	5	6	7	8	9	10		11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Essex Lane	B4	2+50.26	B4	1.48	0.70	15.0	10	9.79	20.15	12.61	0.5%	0.5%	2.0%	15	0.013	0.39	9.12	0.39	9.12	1.50	14.43	15.00	100.0%	0.50	Weir	0.00	POND
Essex Lane	B5	2+50.26	B5	0.40	0.70	15.0	10	2.27	5.07	12.61	0.5%	0.5%	2.0%	15	0.013	0.39	9.12	0.39	9.12	1.50	14.43	15.00	100.0%	0.50	Weir	0.00	POND

RUNOFF COLLECTION POINT		US ELEMENT DESCRIPTION	STORM SEWER LENGTH (FT)	STORM SEWER COUNT n	STORM SEWER WIDTH (BOX) (FT)	STORM SEWER HEIGHT (BOX) DIA. (CIRC) (FT)	US FLOWLINE ELEV (FT)	DS FLOWLINE ELEV (FT)	STORM SEWER SLOPE (FT/FT)	DRAINAGE AREA ID	AREA "A" (ACRES)	RUNOFF COEF. "C"	ANTICIDENT RUNOFF COEF. "Ca"	INCREM. "CA"	ACCUM. "CA"	TIME AT US STATION (MIN)	FLOW TIME D/(V^60) (MIN)	TIME AT DS STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFS)	STORM SEWER CAPACITY "Q _{cap} " (CFS)	Q/Q _{cap}	q/qfull	d/dfull	PARTIAL FLOW DEPTH "d" (FT)	PARTIAL FLOW VELOCITY "v" (FPS)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	FULL FLOW VELOCITY "V" (FPS)	VELOCITY HEAD "V^2/2G" (FT)	MINOR HEAD LOSS COEF. "K"	MINOR HEAD LOSS (FT)	US HYDRAULIC GRADE ELEV (FT)	DS HYDRAULIC GRADE ELEV (FT)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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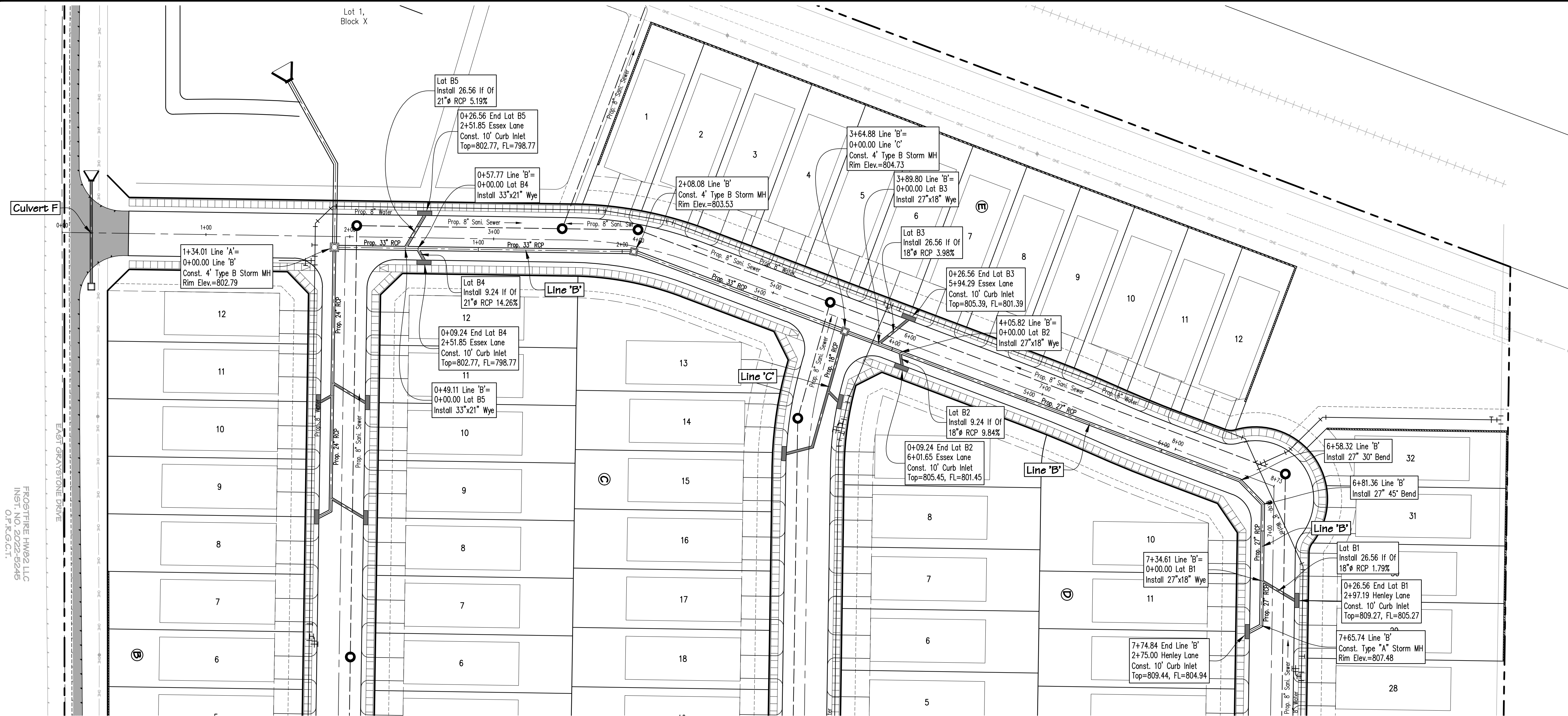


SEI No. 23-102



Drawing: 03/2023 205313-101 Evergreen Park (20) Storm Sewer - Line B and C, Served By: Arac22, Date: 8/14/2024, 12:55:53 PM
Printed by: arac22, Plot Date: 8/14/2024, 4:08 PM

PROJECT: HIN92, LLC
INST. NO. 2022-59245
O.F.R.G.C.T.

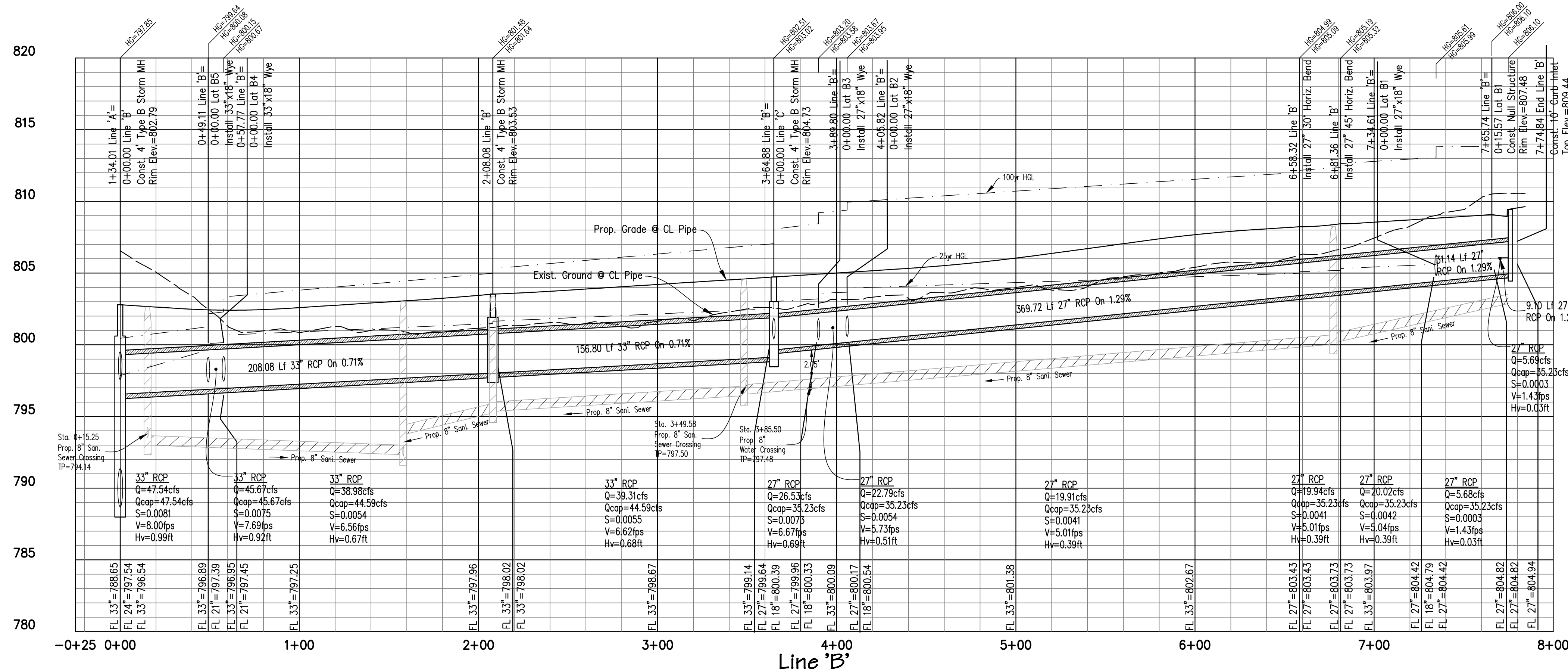


- Note:
- All Lateral Connections Shall Be 60° Wye Connection.
 - All RCP Storm Sewer Pipe Is Class III, Unless Otherwise Noted.
 - See Sheet CD-6-CD.7 For All Storm Sewer Manhole Details.
 - See Sheet 11-15 For Storm Sewer Profiles.

These plans are released for the purpose of interim review under the authority of BRENDAN M. OCHOA, PE 145058

Date: 08/16/2024
It is not to be used for construction.

EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
STORM SEWER PLAN AND PROFILE



NOTE:
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Revisions	Date

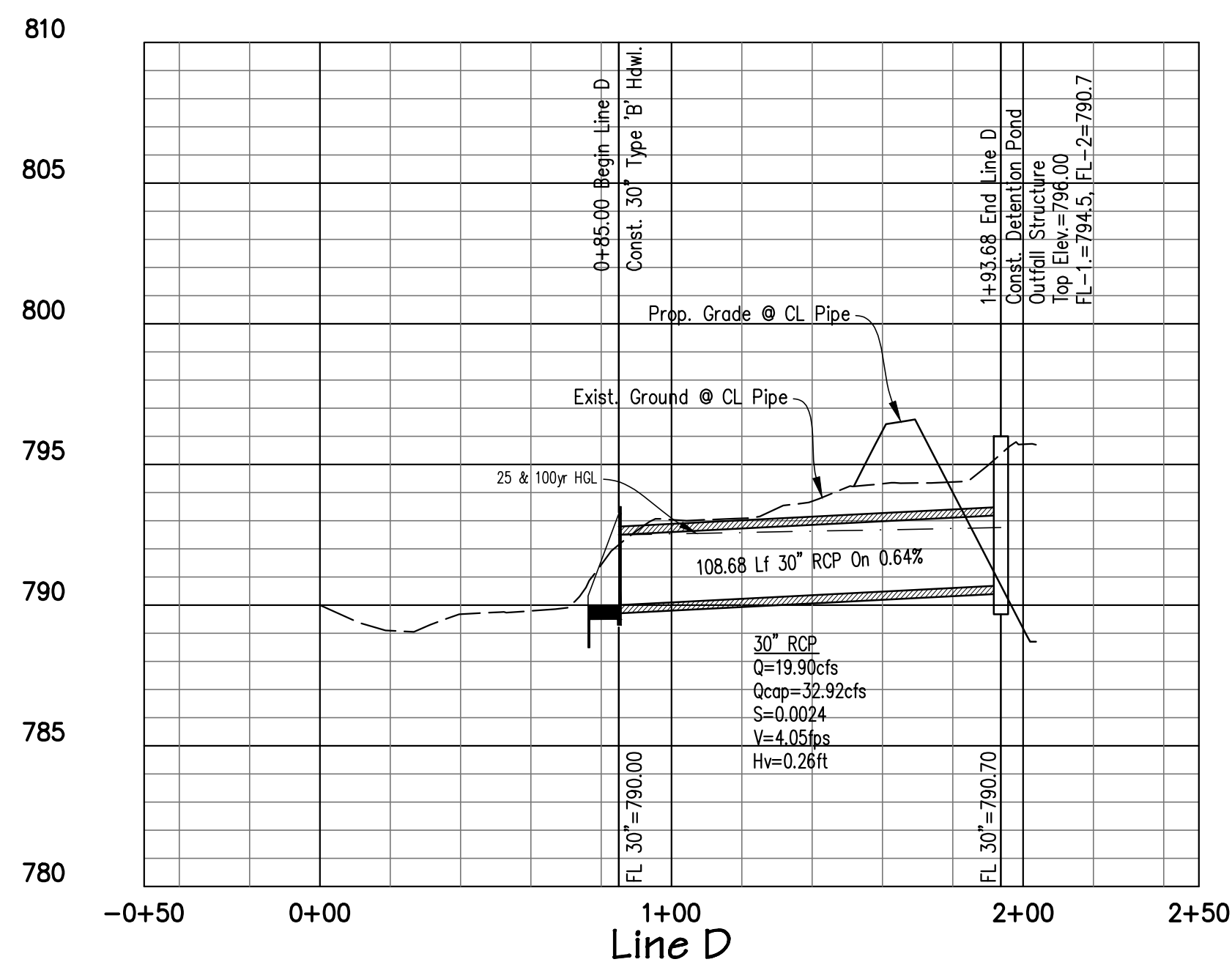
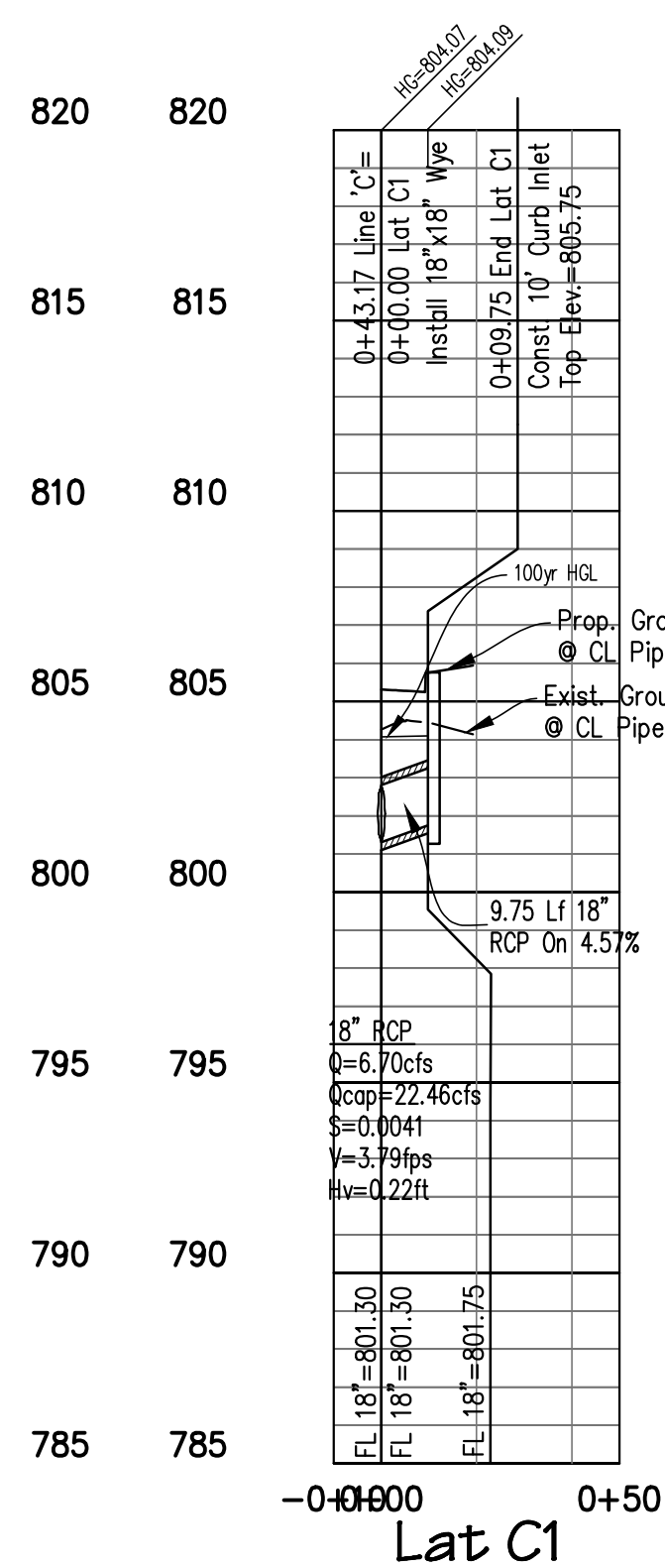
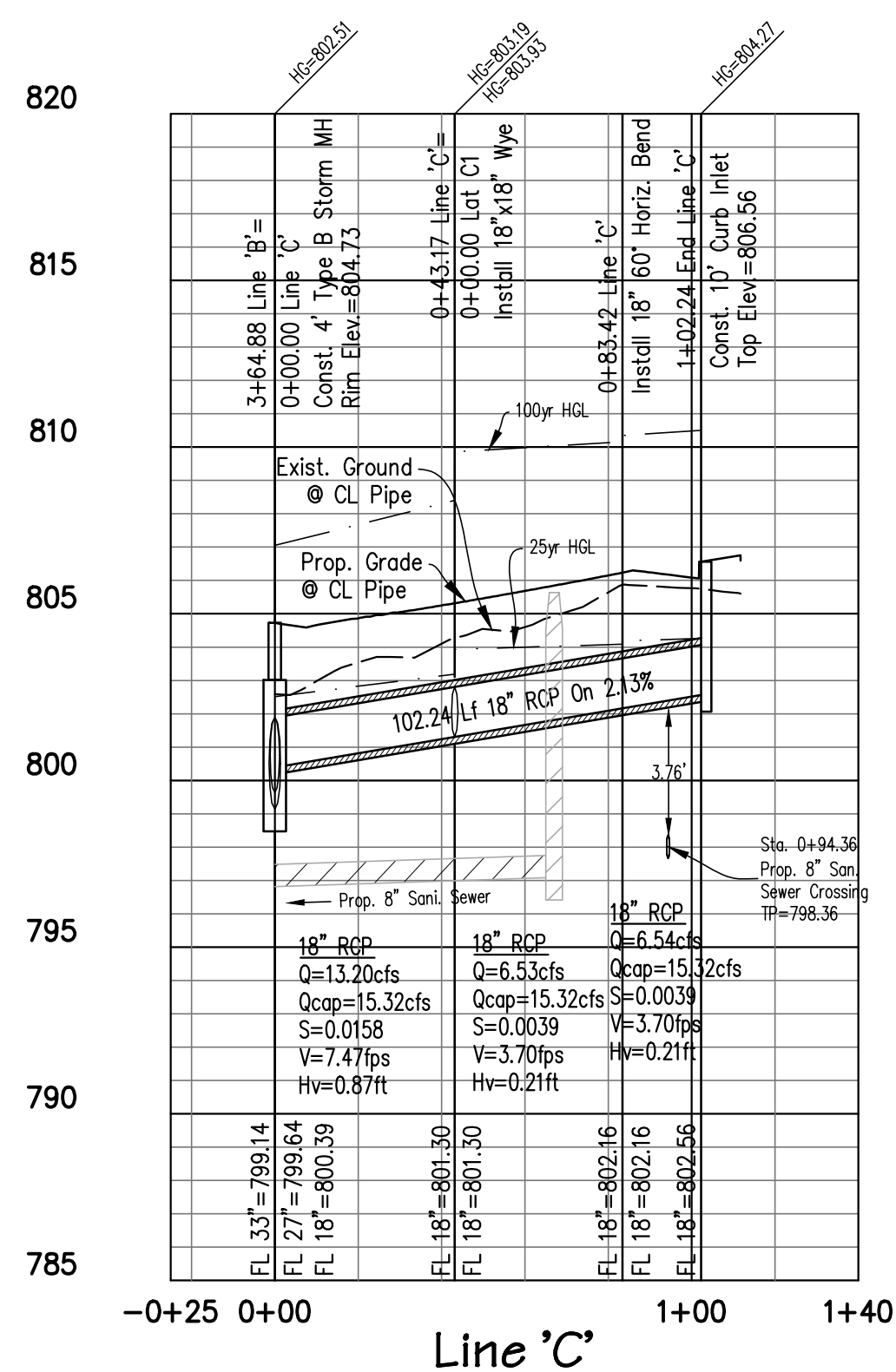
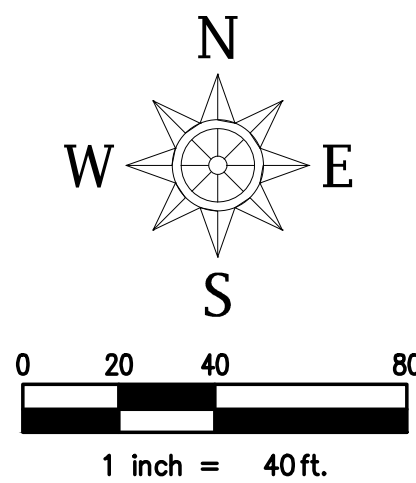
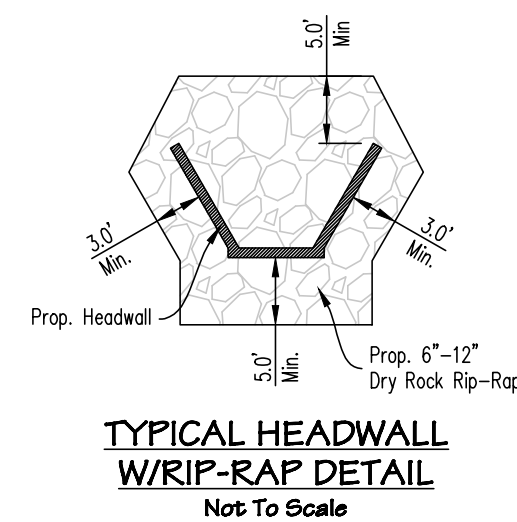
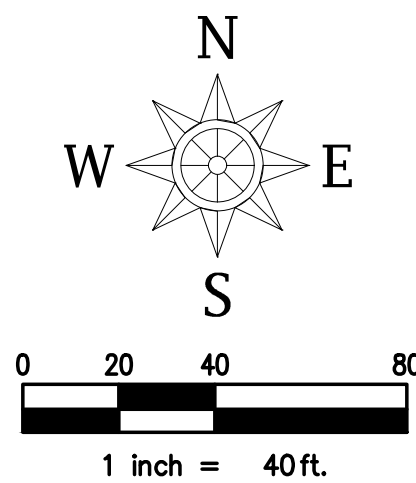
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Drawn By: TEC

Checked By: BMO

Sheet **12**

SEI No. 23-102



Note:

1. All Lateral Connections Shall Be 60" Wye Connection.
2. All RCP Storm Sewer Pipe Is Class III, Unless Otherwise Noted.
3. See Sheet CD.6-CD.7 For All Storm Sewer Manhole Details.
4. See Sheet 11-15 For Storm Sewer Profiles.

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BRENDAN M. OCHOA,
PE 145058

Date: 08/16/2024
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EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

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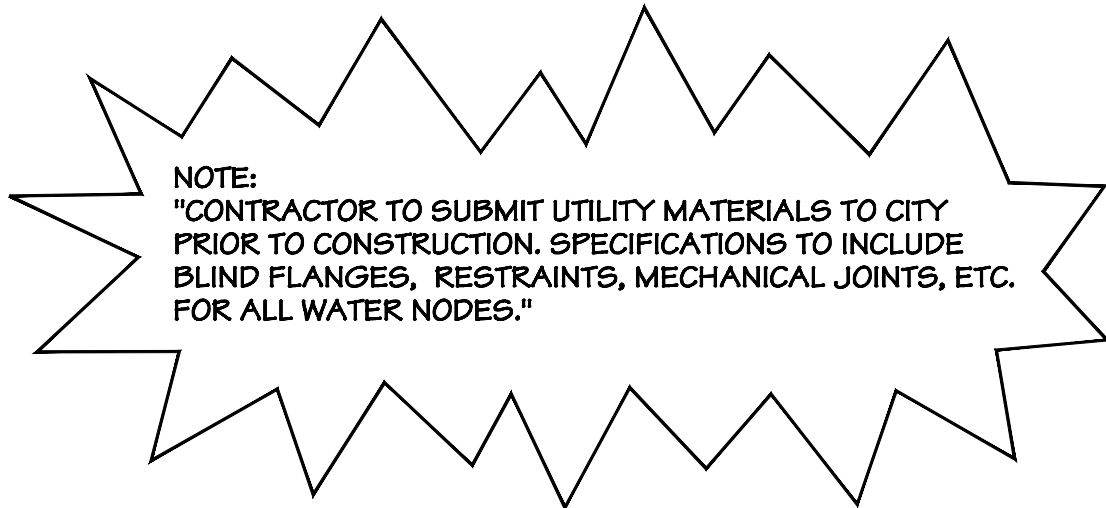
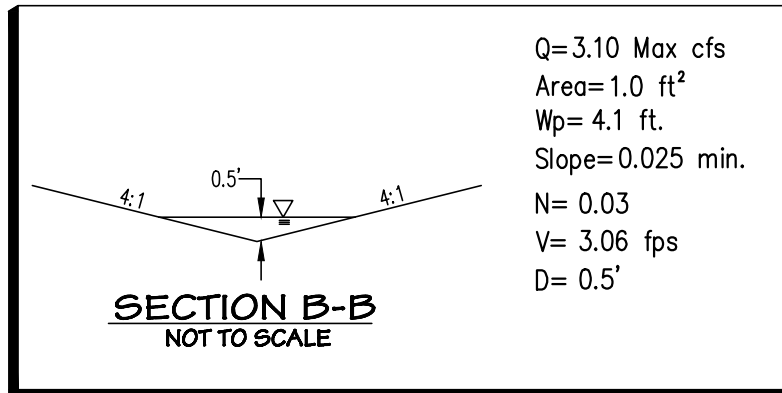
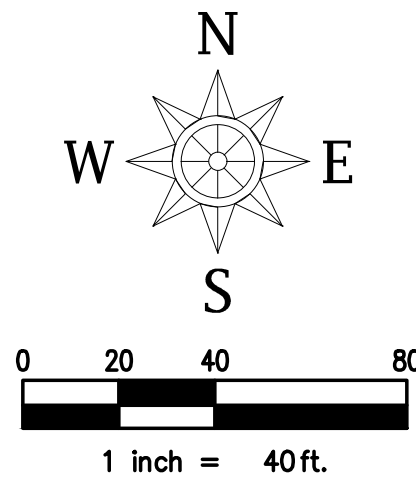
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Drawn By: TEC

Checked By: BMO

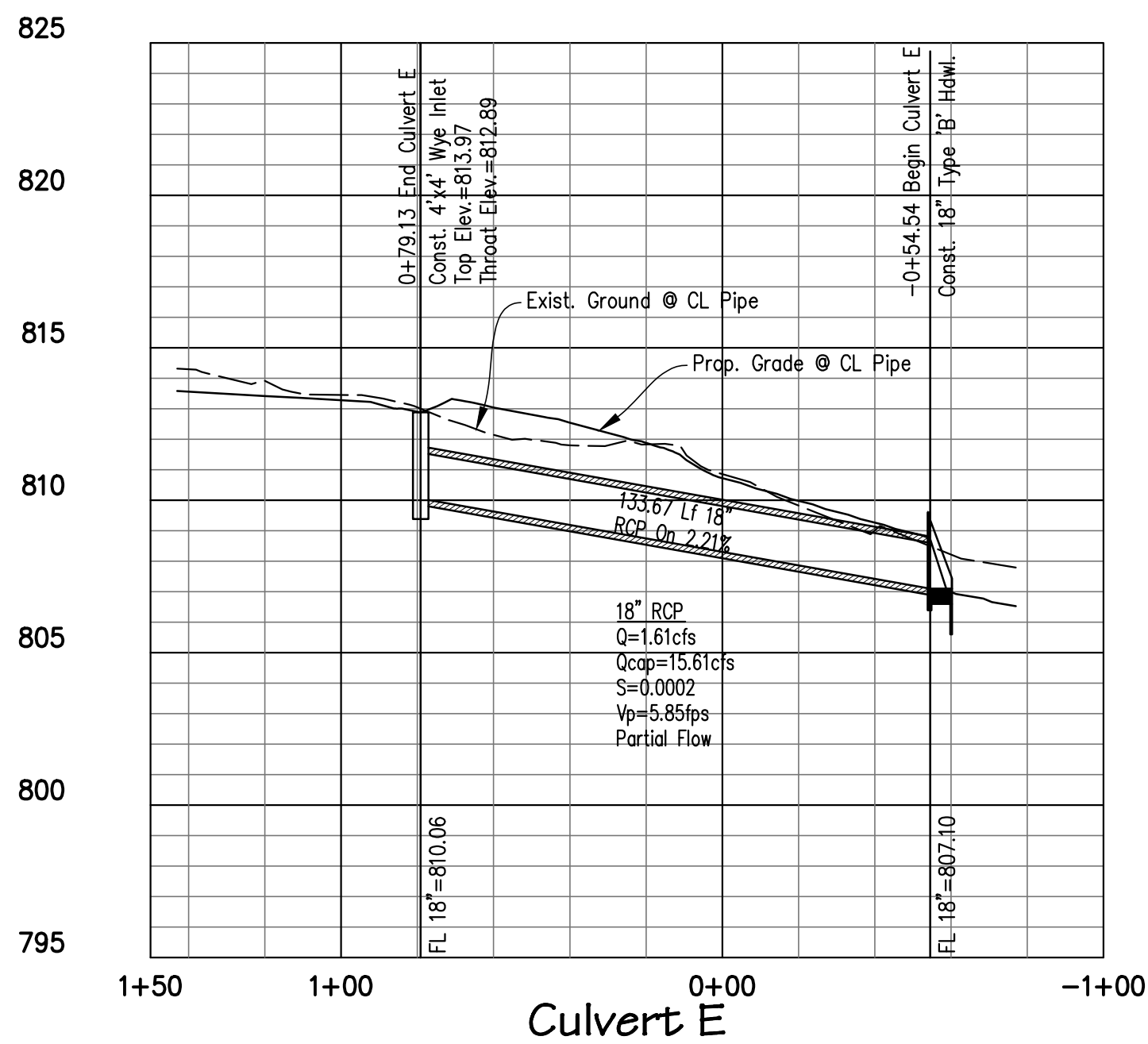
Sheet 13

SEI No. 23-102



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ENGINEERING & SURVEYING
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www.spiarseng.com
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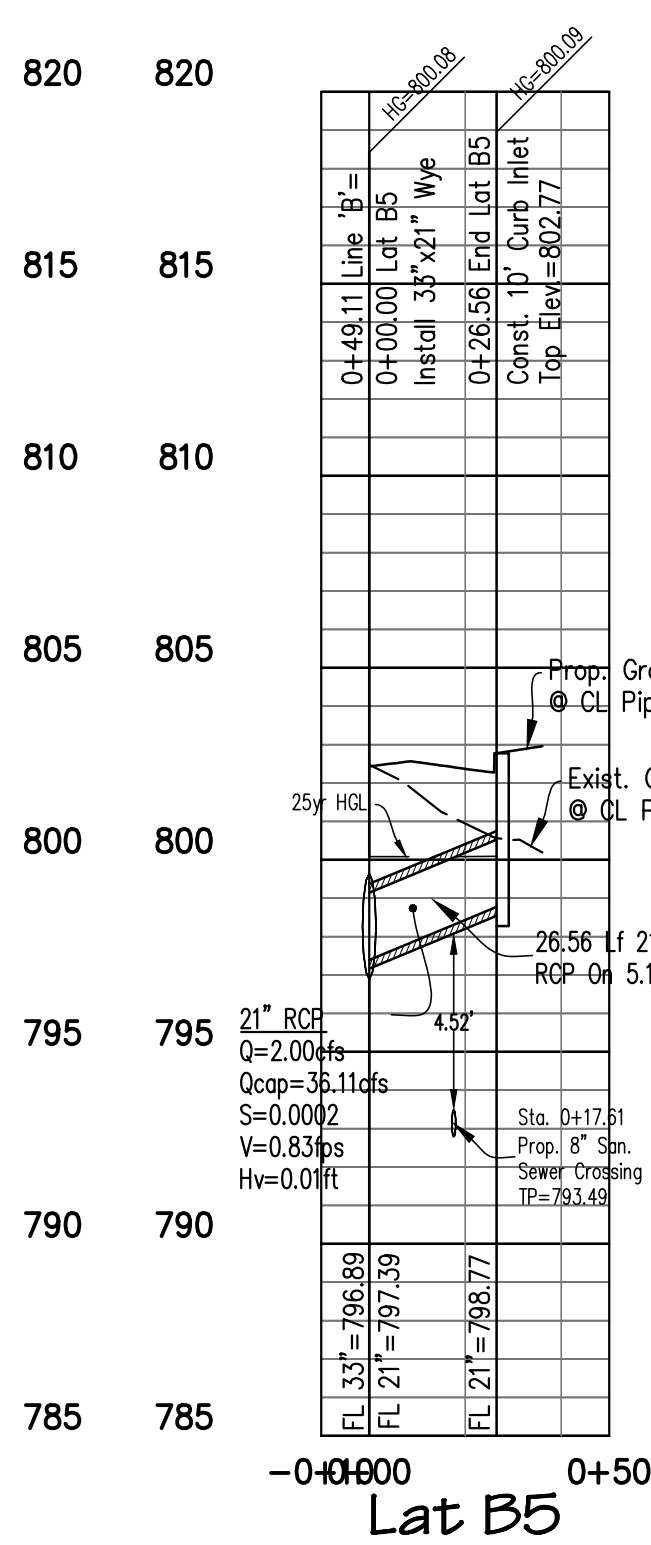
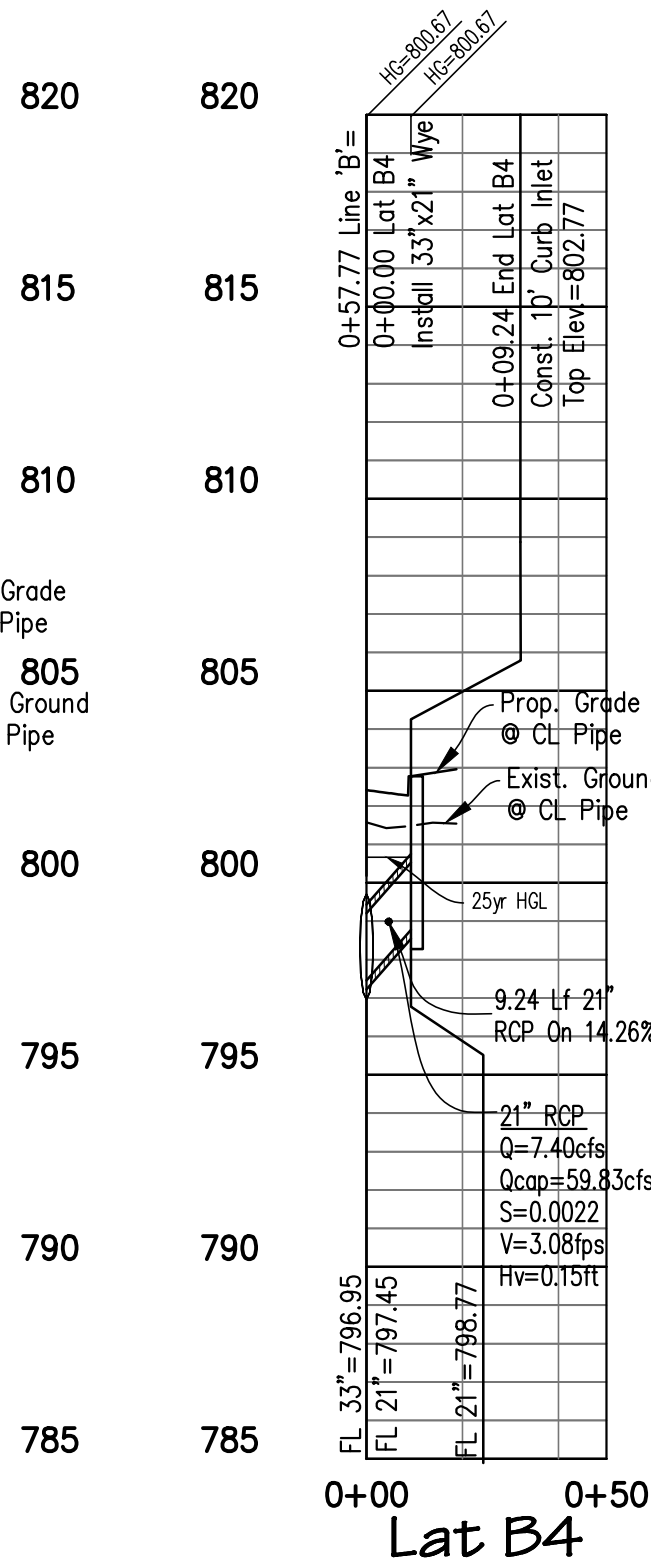
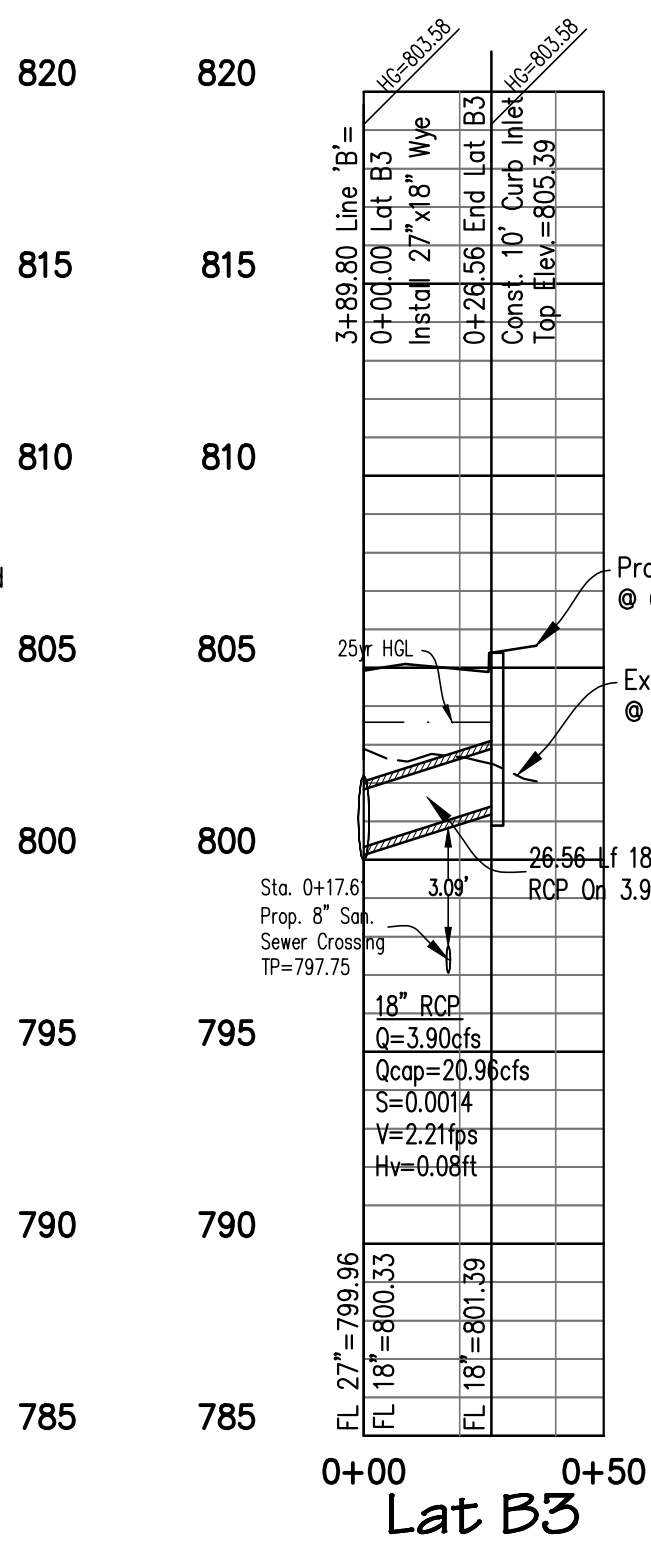
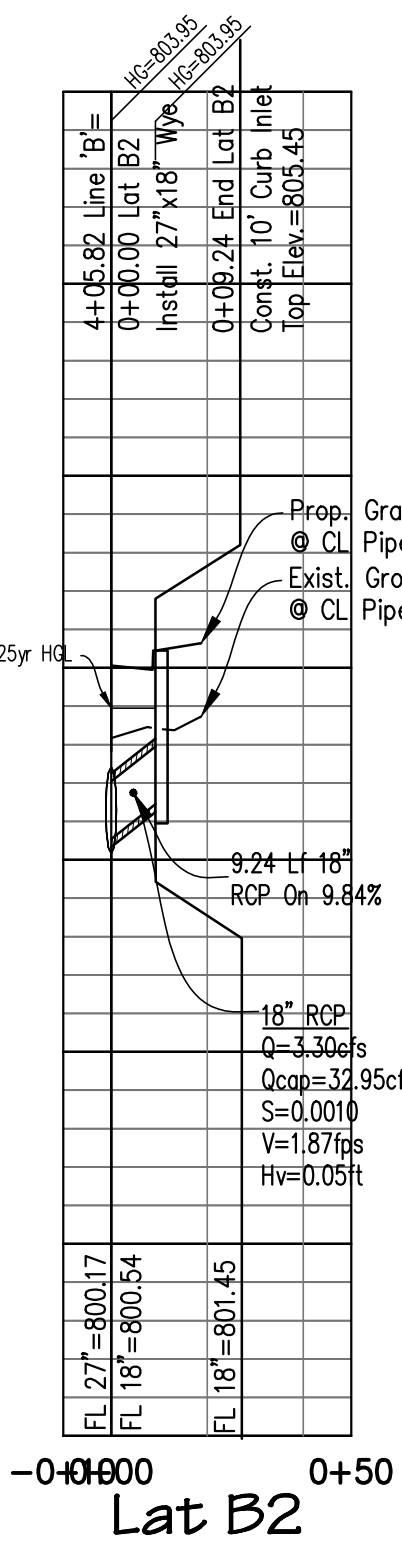
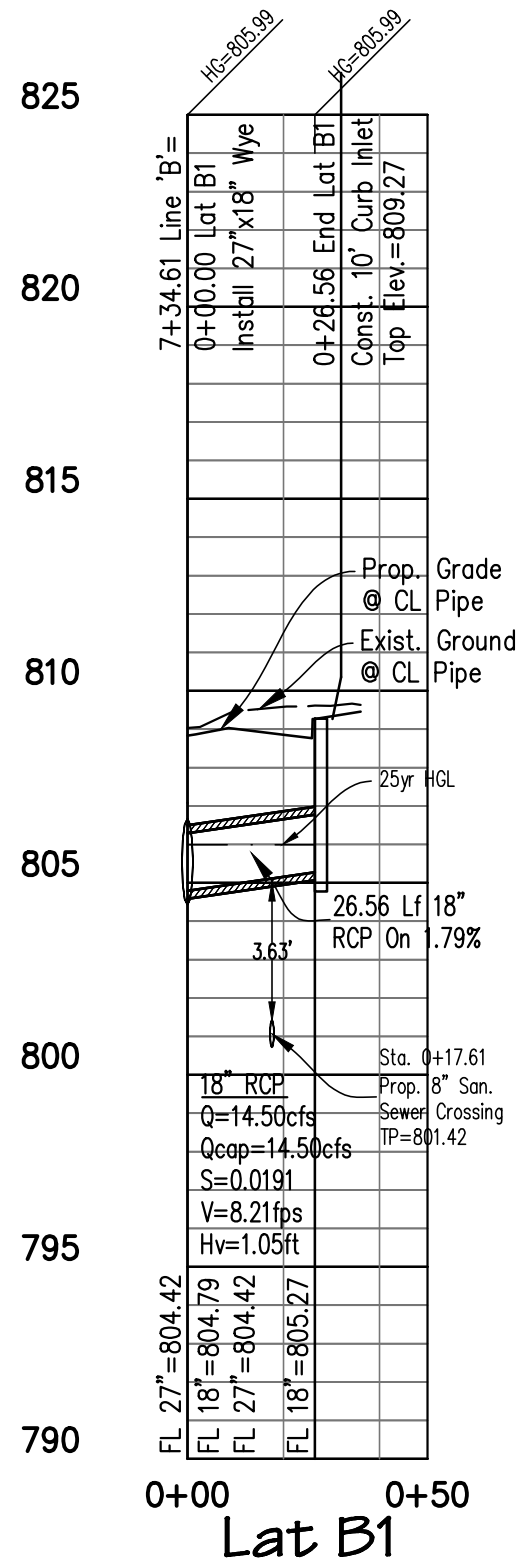
EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

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SEI No. 23-102

Printed by: srs22 Plot Date: 8/14/2024 4:05 PM

Drawing: 0:2023-0853-101 Evergreen Park VAD Storm Sewer - Lateral B1, B2, B3, B4, B5
Saved By: srs22
Plot Date: 8/14/2024 4:05:53 PM



- Note:
1. All Lateral Connections Shall Be 60" Wye Connection.
 2. All RCP Storm Sewer Pipe Is Class III, Unless Otherwise Noted.
 3. See Sheet X For All Storm Sewer Manhole Details.
 4. See This Sheet For Storm Sewer Profiles.

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EVERGREEN PARKS CITY OF SHERMAN GRAYSON COUNTY, TEXAS STORM SEWER LATERAL PROFILES

Revisions	Date

Scale: 1"=40'H, 1"=5'V

Drawn By: TEC

Checked By: BMO

Sheet **15**

SEI No. 23-102

WATER & SANITARY SEWER NOTES

- All Materials and Construction Shall Be In Accordance With The City of Sherman Standard Specifications and Construction Standards, and To The Regulations of The Texas Commission On Environmental Quality.
- Existing Utilities Are Shown Schematically and Are For The Contractors Guidance Only. The Location and/or Elevation of Existing Utilities as Shown On These Plans are Based On Records of The Various Utility Companies, and, Where Possible, Measurements Taken In The Field. The Contractor Must Call The Appropriate Utility Company At Least 72 Hours Prior To Any Excavation To Request Exact Field Location Of Utilities.
- The Contractor Shall Be Responsible For Protecting All Existing Improvements In The Construction Of This Project. The Contractor Is Responsible For Repairs Of Damage To Any Existing Improvements During Construction. Repairs Shall Be Equal To Or Better Than Condition Prior To Construction.
- All Sewer Lines Shall Be PVC SDR-35 Unless Otherwise Noted on Sewer Plans.
- All Water Line Fittings Shall Have Concrete Thrust Blocking In Addition To Mechanical/Joint Restraints.
- Manhole Rim To Be Set Flush With Pavement Or 1" to 4" Above Grade For Parkways, 18" To 24" Above Grade For Undeveloped Areas Such As Fields.
- All Water Pipe 8" And Larger Shall Be Class 150 DR 18 PVC Water Pipe, Conforming To AWWA C900 Standards.
- Contractor Shall Be Responsible For Maintaining Trench Safety Requirements In Accordance With The Latest Standards Of O.S.H.A. Or Any Other Agency Having Jurisdiction For Excavation And Trenching Procedures. Contractor Shall Provide And Implement A Trench Safety Plan Complying With O.S.H.A.
- All Sewer Services To Be Per City Of Sherman SD-WW02 & SD-WW19.
- Contractor Shall NOT Locate Water Valves Within BFRs (Barrier Free Ramps), Adjust as Necessary.
- Contractor Will Be Required To Tie Start/Stop Locations for the Water Main Lowering and Bends Installed. Information Shall be Shown on As Built Drawings.
- Service Taps are to be No Closer Than 2-Feet From Another Tap, Bell, Transition, or Fittings.
- Water Main to Have a Minimum Coverage of 4'.

Service Schedule		
Type	Size	No.
Water	1"	96
Sewer	4"	96
Irrigation	-	-

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Drawing: 03/2023 2053-102 Evergreen Park Water Plan, Sheet By: AutoCAD, Date: 8/13/2024, 2:06:31 PM

FROSTFIRE HWB2 LLC
INST. NO. 2022-5245
O.P.R.G.C.T.

REMINGTON SHERMAN
AUTOMOTIVE LLC
DOC. NO. 2020-23352
O.P.R.G.C.T.
ZONE C-2

BLOCK 1, LOT 5
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

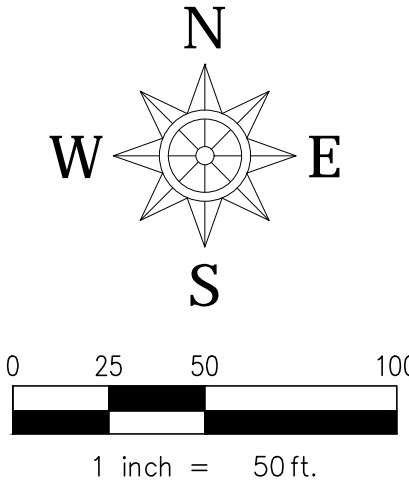
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CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 3
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 2
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

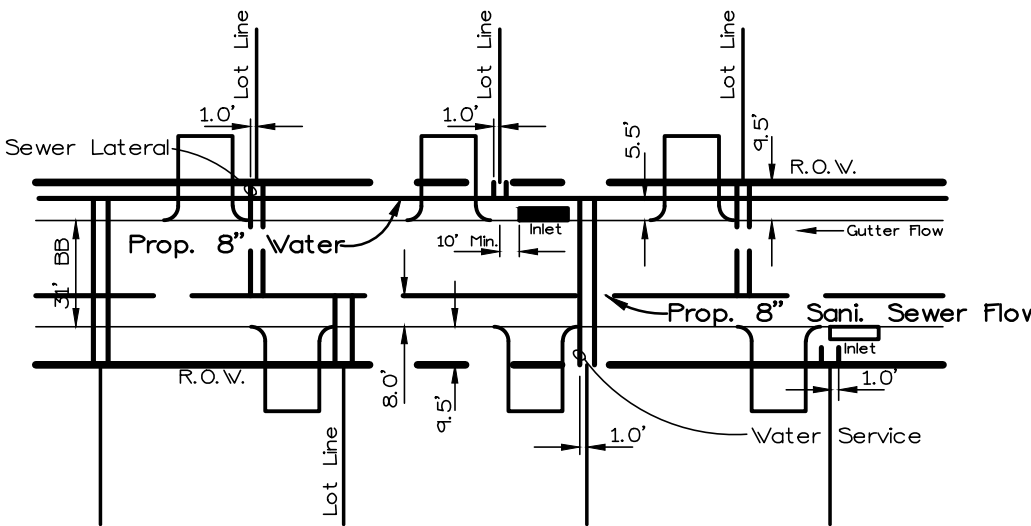
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CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 2, LOT 1
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1



LEGEND

- Proposed Water Line And Fittings
- Proposed Fire Hydrants
- Proposed Water Service
- Existing Water Line And Fittings
- Proposed Sanitary Sewer And Manholes
- Proposed Sanitary Sewer Service
- Proposed Storm Sewer And Inlets

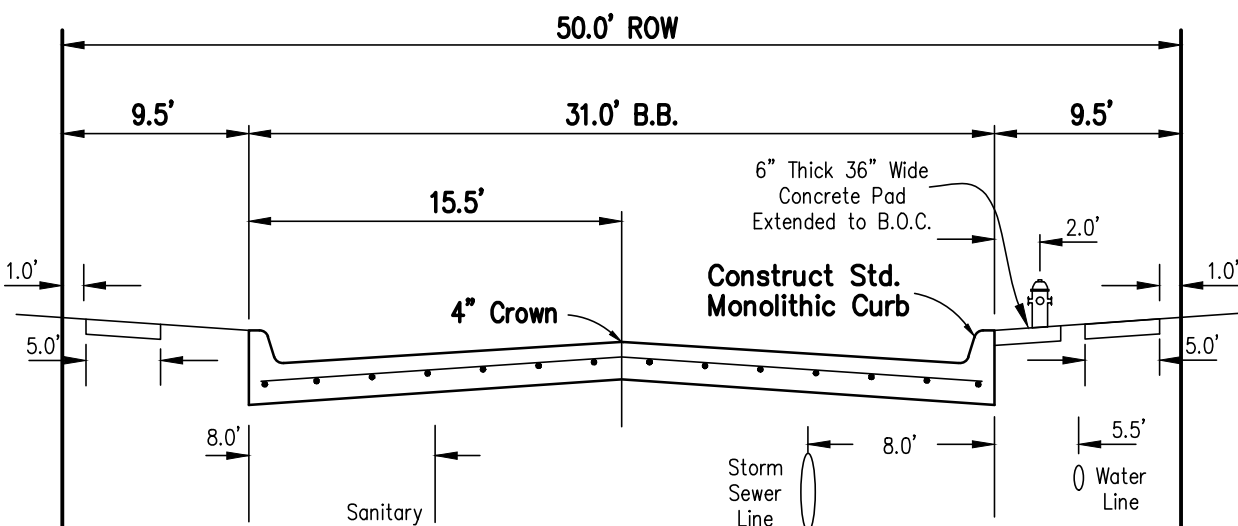


1.0" Water Services in the plan view are shown schematically but shall be installed 1.0' from the side of lot corner unless otherwise shown w/ a dimension.

Sanitary Sewer Laterals To Be Installed 1.0' from the side of lot corner unless otherwise shown w/ a dimension. Service connections are not permitted into manholes.

All Driveways Are Shown To Be 20' Wide Unless Shown Otherwise On The Lot Grading Plan.

Typical Lot Service Detail



Typical 50' R.O.V. Section

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Date	
Revisions	
Scale: 1"=50'	
Drawn By: RJF	
Checked By: RWH	
Sheet 17	
SEI No. 23-102	

WATER & SANITARY SEWER NOTES

- All Materials and Construction Shall Be In Accordance With The City of Sherman Standard Specifications and Construction Standards, and To The Regulations of The Texas Commission On Environmental Quality.
- Existing Utilities Are Shown Schematically and Are For The Contractors Guidance Only. The Location and/or Elevation of Existing Utilities as Shown On These Plans are Based On Records of The Various Utility Companies, and, Where Possible, Measurements Taken In The Field. The Contractor Must Call The Appropriate Utility Company At Least 72 Hours Prior To Any Excavation To Request Exact Field Location Of Utilities.
- The Contractor Shall Be Responsible For Protecting All Existing Improvements In The Construction Of This Project. The Contractor Is Responsible For Repairs Of Damage To Any Existing Improvements During Construction. Repairs Shall Be Equal To Or Better Than Condition Prior To Construction.
- All Sewer Lines Shall Be PVC SDR-35 Unless Otherwise Noted on Sewer Plans.
- All Water Line Fittings Shall Have Concrete Thrust Blocking In Addition To Mechanical Joint Restraints.
- Manhole Rim To Be Set Flush With Pavement Or 1" to 4" Above Grade For Parkways. 18" To 24" Above Grade For Undeveloped Areas Such As Fields.
- All Water Pipe 8" And Larger Shall Be Class 150 DR 18 PVC Water Pipe, Conforming To AWWA C900 Standards.
- Contractor Shall Be Responsible For Maintaining Trench Safety Requirements In Accordance With The Latest Standards Of O.S.H.A. Or Any Other Agency Having Jurisdiction For Excavation And Trenching Procedures. Contractor Shall Provide And Implement A Trench Safety Plan Complying With O.S.H.A.
- All Sewer Services To Be Per City Of Sherman SD-WW02 & SD-WW19.
- Contractor Shall NOT Locate Water Valves Within BFRs (Barrier Free Ramps), Adjust as Necessary.
- Contractor Will Be Required To Tie Start/Stop Locations for the Water Main Lowering and Bends Installed. Information Shall be Shown on As Built Drawings.
- Service Taps are to be No Closer Than 2-Feet From Another Tap, Bell, Transition, or Fittings.
- Water Main to Have a Minimum Coverage of 4'.

Service Schedule		
Type	Size	No.
Water	1"	96
Sewer	4"	96
Irrigation	-	-

REMINGTON SHERMAN
AUTOMOTIVE LLC
DOC. NO. 2020-23332
O.P.R.G.C.T.
ZONE C-2

BLOCK 1, LOT 5
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

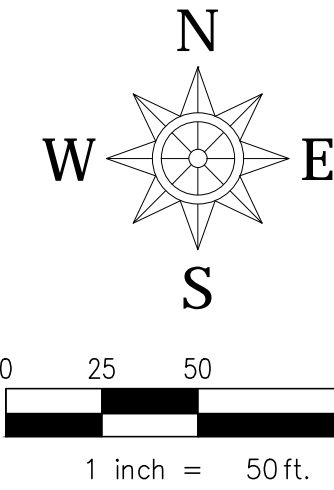
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CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 3
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 2
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

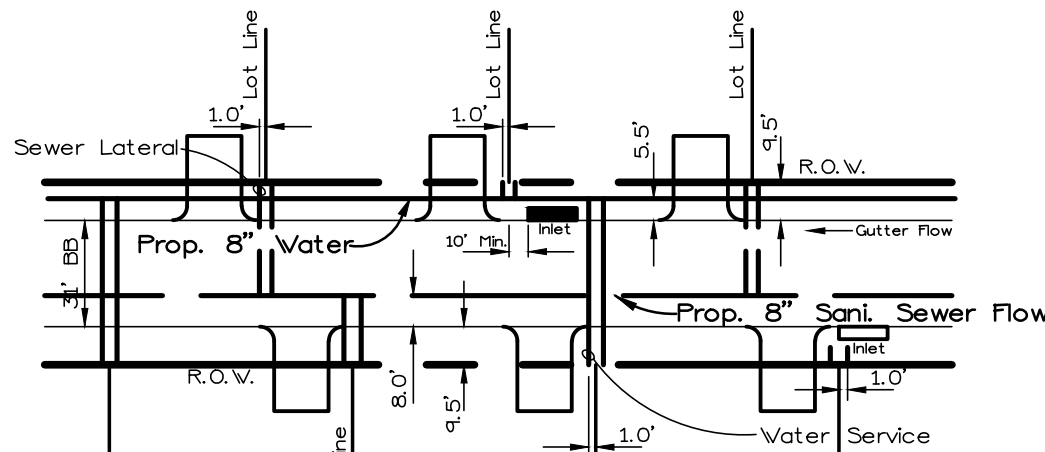
BLOCK 1, LOT 1
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 2, LOT 1
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1



LEGEND

- Proposed Sanitary Sewer And Manholes
- Proposed Sanitary Sewer Service
- Existing Sanitary Sewer And Manholes
- Proposed Water Line And Fittings
- Proposed Fire Hydrants
- Proposed Water Service
- Existing Water Line And Fittings
- Existing Fire Hydrants
- Proposed Storm Sewer And Inlets
- Existing Storm Sewer And Inlets



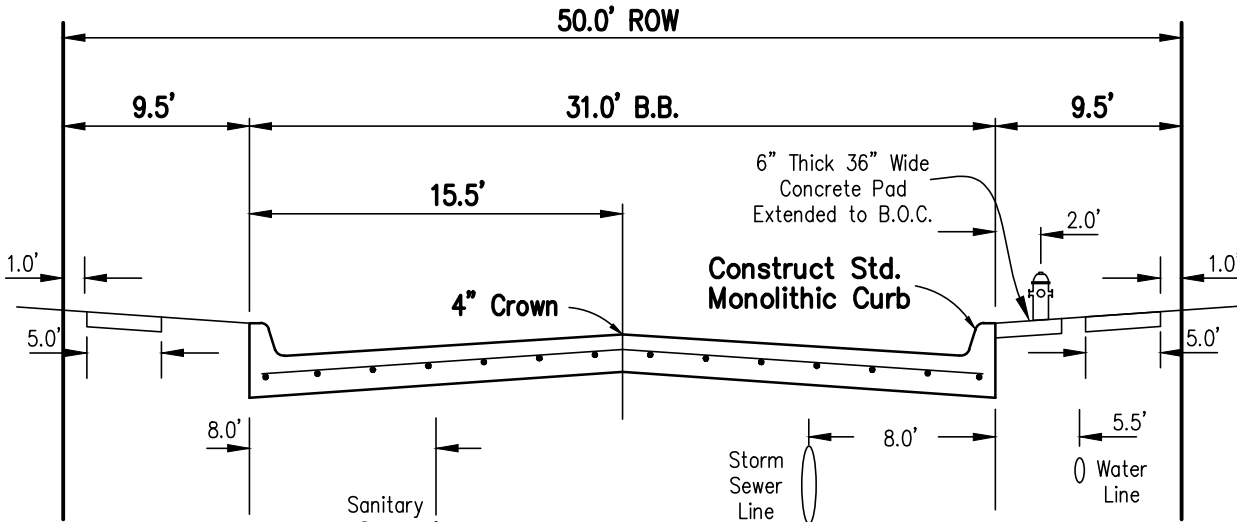
1.0" Water Services in the plan view are shown schematically but shall be installed 1.0' from the side of lot corner unless otherwise shown w/ a dimension.

Sanitary Sewer Laterals To Be Installed 1.0' from the side of lot corner unless otherwise shown w/ a dimension. Service connections are not permitted into manholes.

All Driveways Are Shown To Be 20' Wide Unless Shown Otherwise On The Lot Grading Plan.

Typical Lot Service Detail

Not To Scale



Typical 50' R.O.V. Section

Not To Scale

NOTE:
"CONTRACTOR TO SUBMIT UTILITY MATERIALS TO CITY PRIOR TO CONSTRUCTION. SPECIFICATIONS TO INCLUDE BLIND FLANGES, RESTRAINTS, MECHANICAL JOINTS, ETC. FOR ALL WATER NODES."

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CAUTION !!!

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These plans are released for the purpose of interim review under the authority of
BRENDAN M. OCHOA,
PE 145058

Date: 08/16/2024
It is not to be used for construction.

Revisions	Date

Scale: 1"=50'

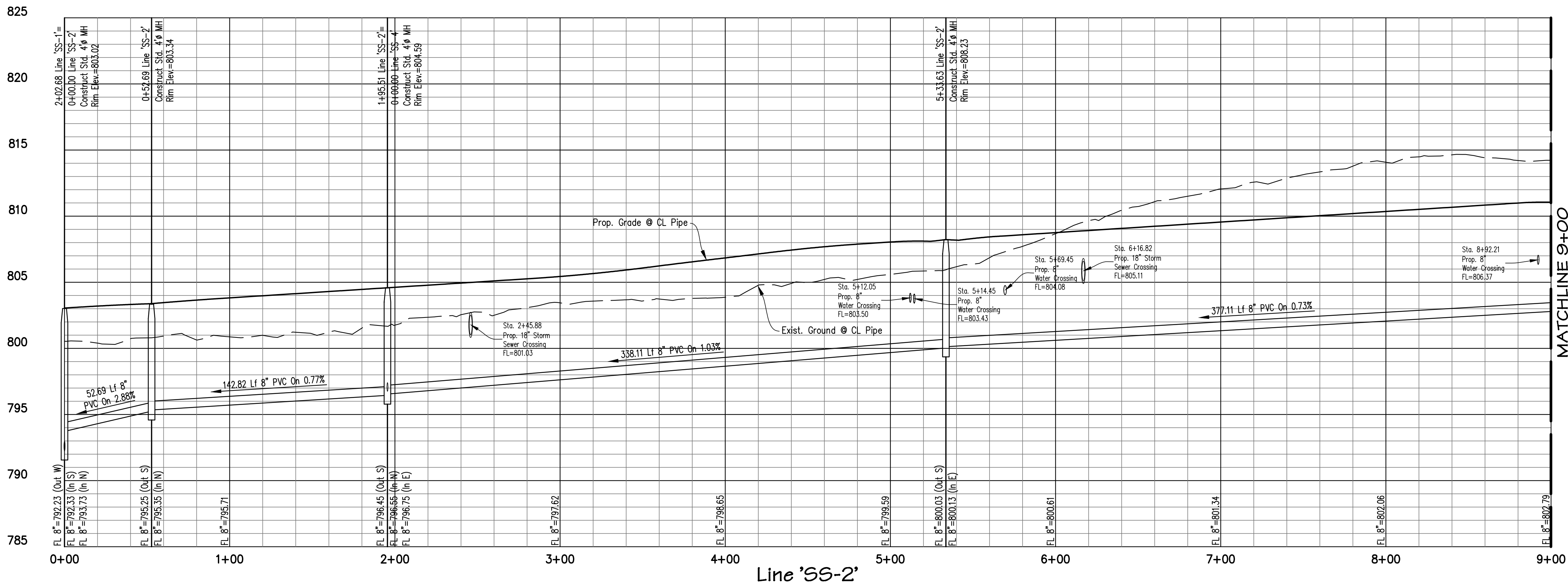
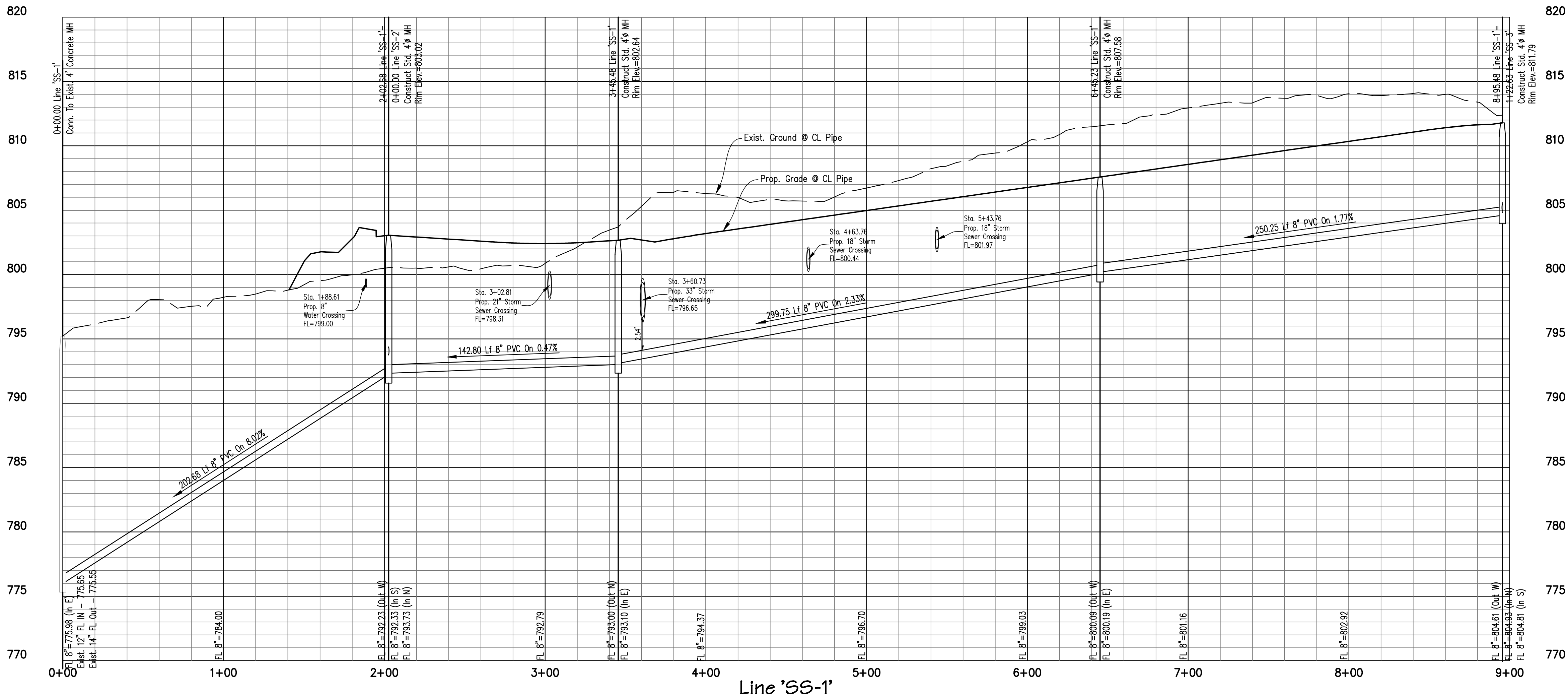
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Checked By: RWH

Sheet 18

SEI No. 23-102

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Printed by: arc022 Plot Date: 8/14/2024 4:07 PM



CAUTION !!!
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EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
SANITARY SEWER PROFILES

Revisions	Date

Scale: 1"=40'H, 1"=5'V

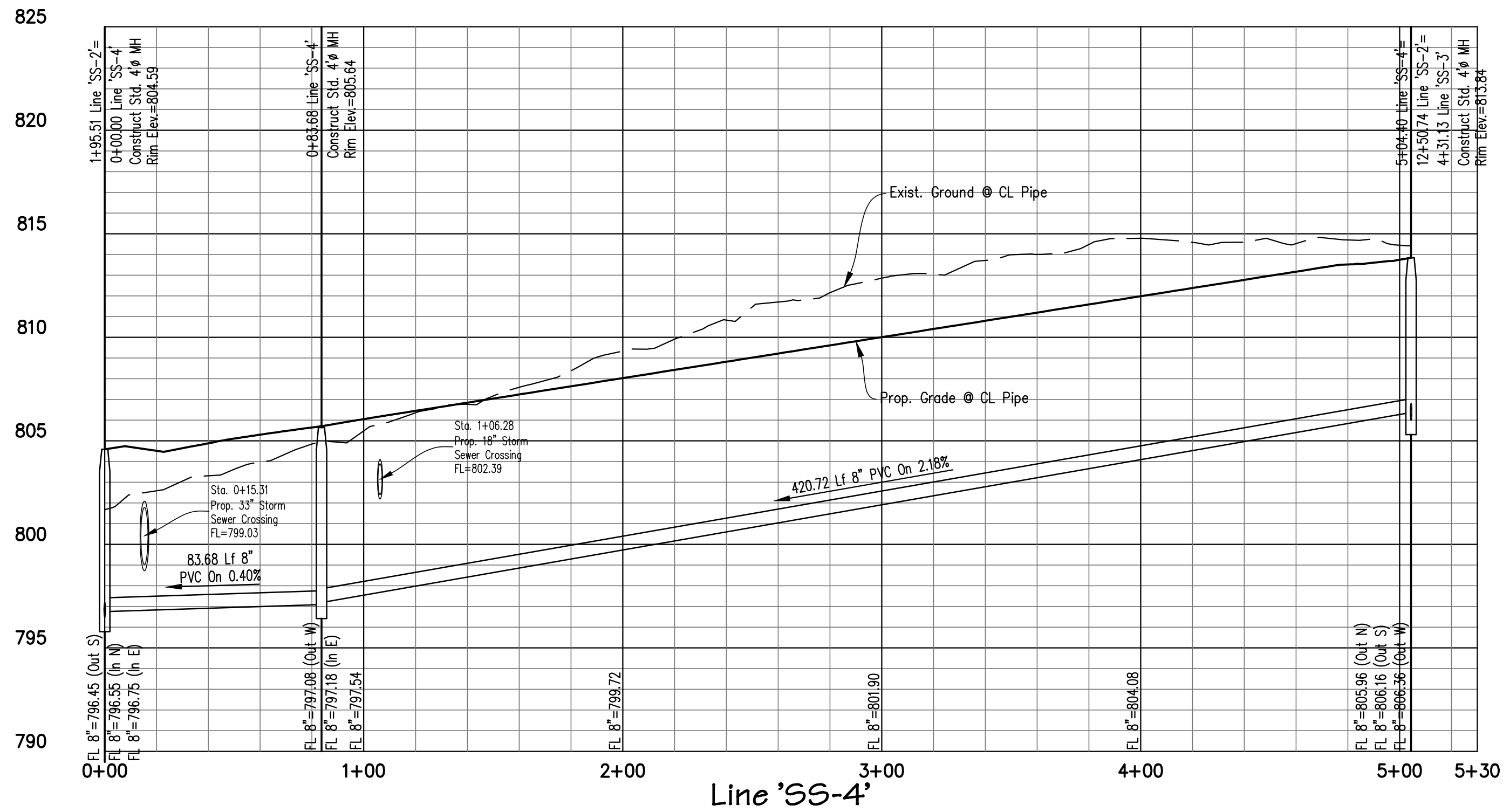
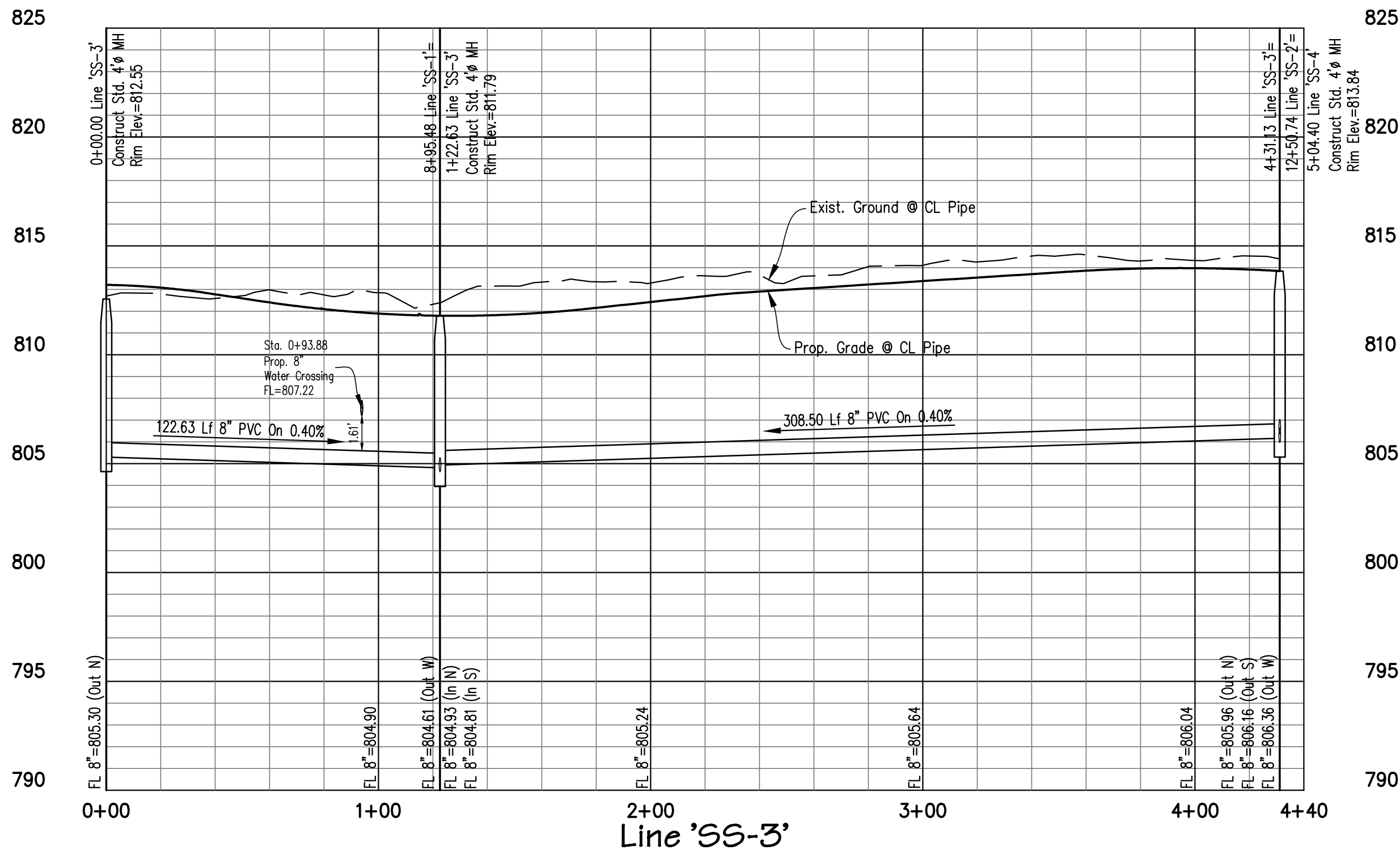
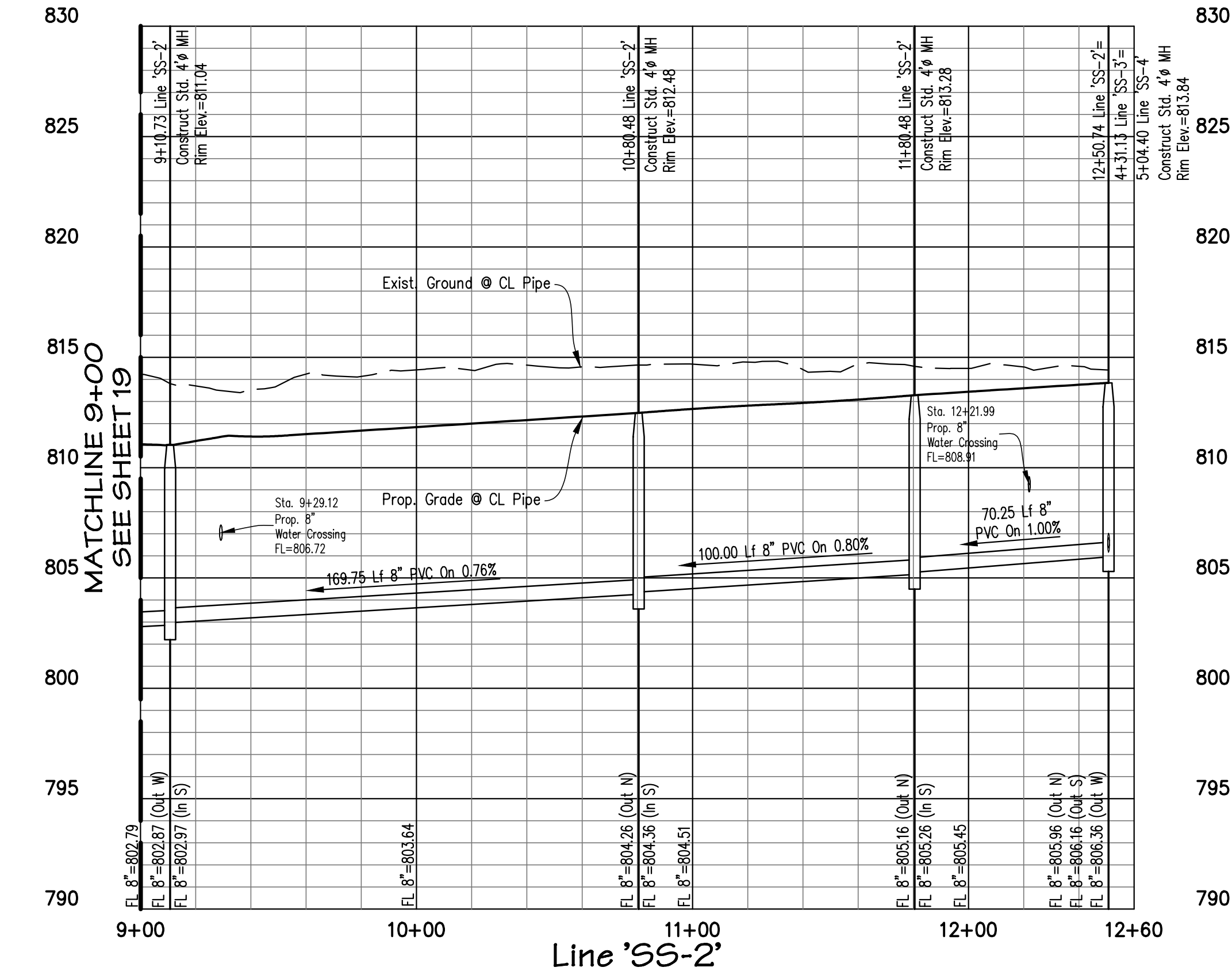
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Checked By: RWH

Sheet **19**

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LINE SS-2, SS-3, SS-4

Revisions	Date

Scale: 1"=40'H, 1"=5'V

Drawn By: RJF

Checked By: RWH

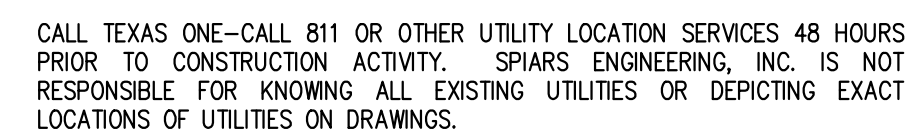
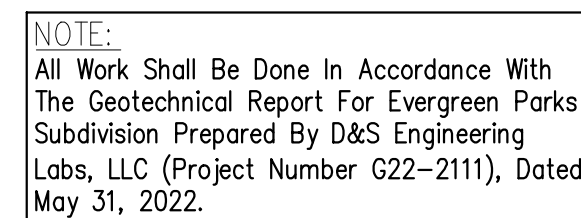
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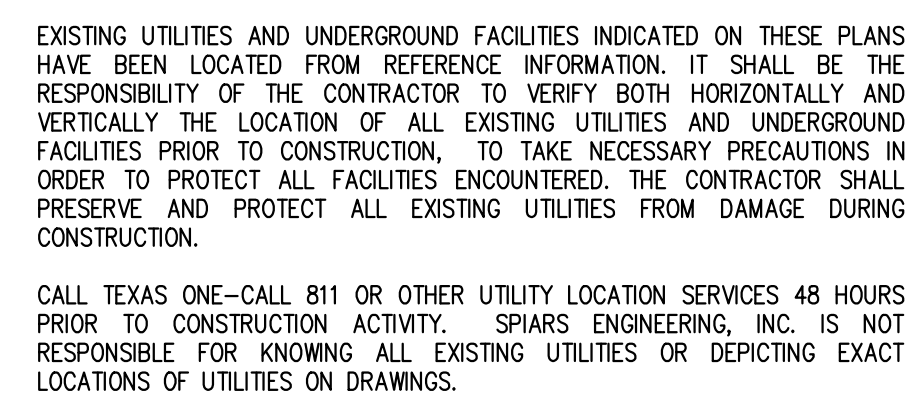
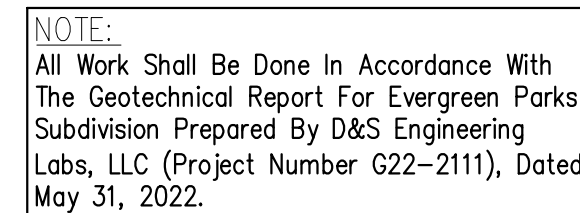
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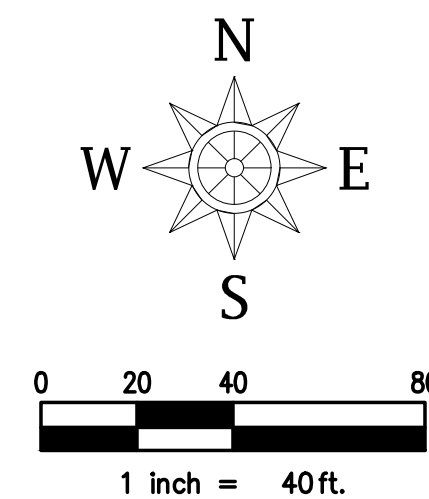
EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
SANITARY SEWER PROFILES

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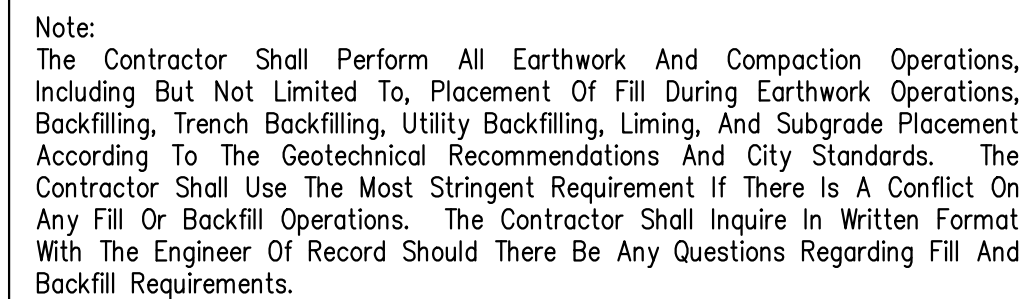




Note:

1. See Sheet 21 For Typical Paving Section.
2. All Elevations Shown Are Top Of Curb (TC) Unless Otherwise Noted.
3. Barrier Free Ramps Are To Be Built With The Development After All Utilities Have Been Installed. Construct Directional And Mid-Block Barrier Free Ramps Per Detail On Sheet PED 12A TxDOT-1.

NOTE:
All Work Shall Be Done In Accordance With
The Geotechnical Report For Evergreen Parks
Subdivision Prepared By D&S Engineering
Labs, LLC (Project Number G22-2111), Dated
May 31, 2022.



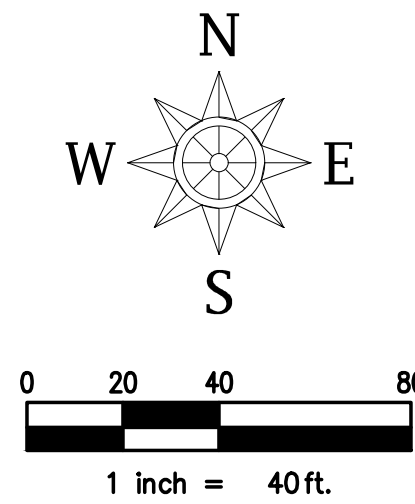
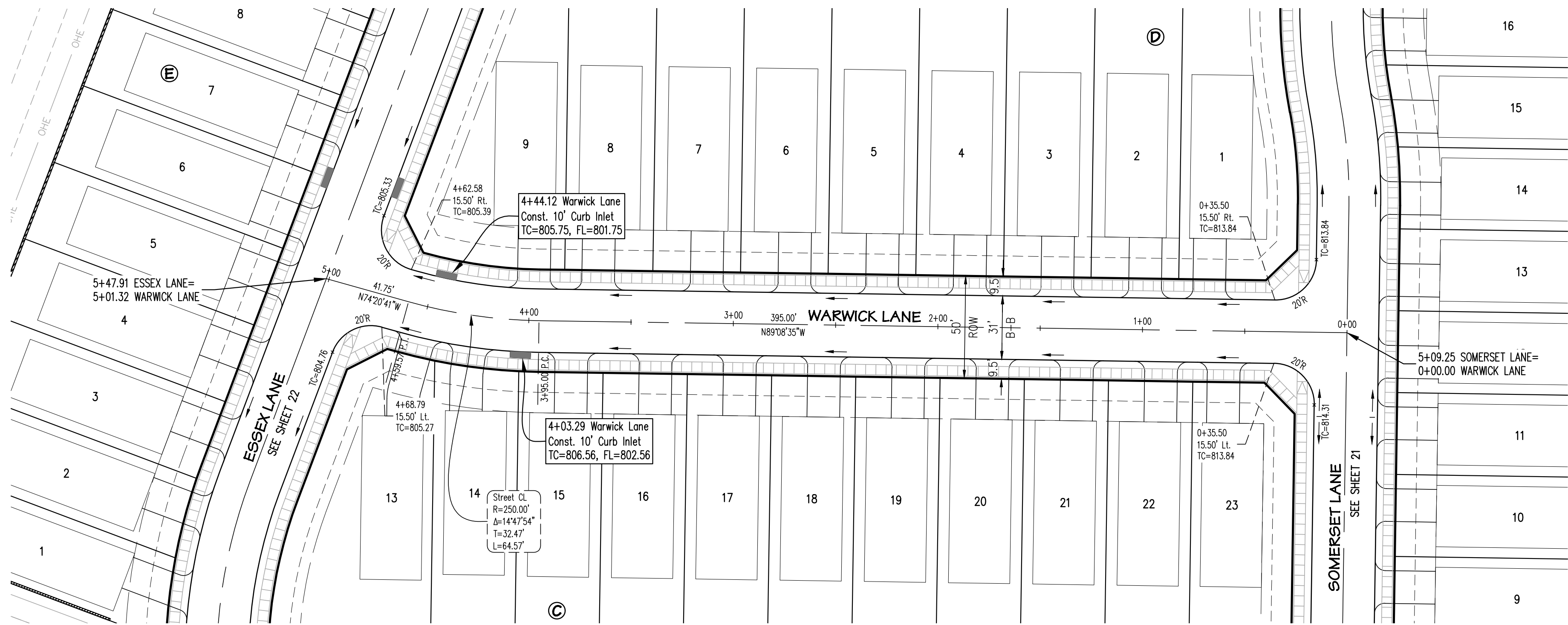
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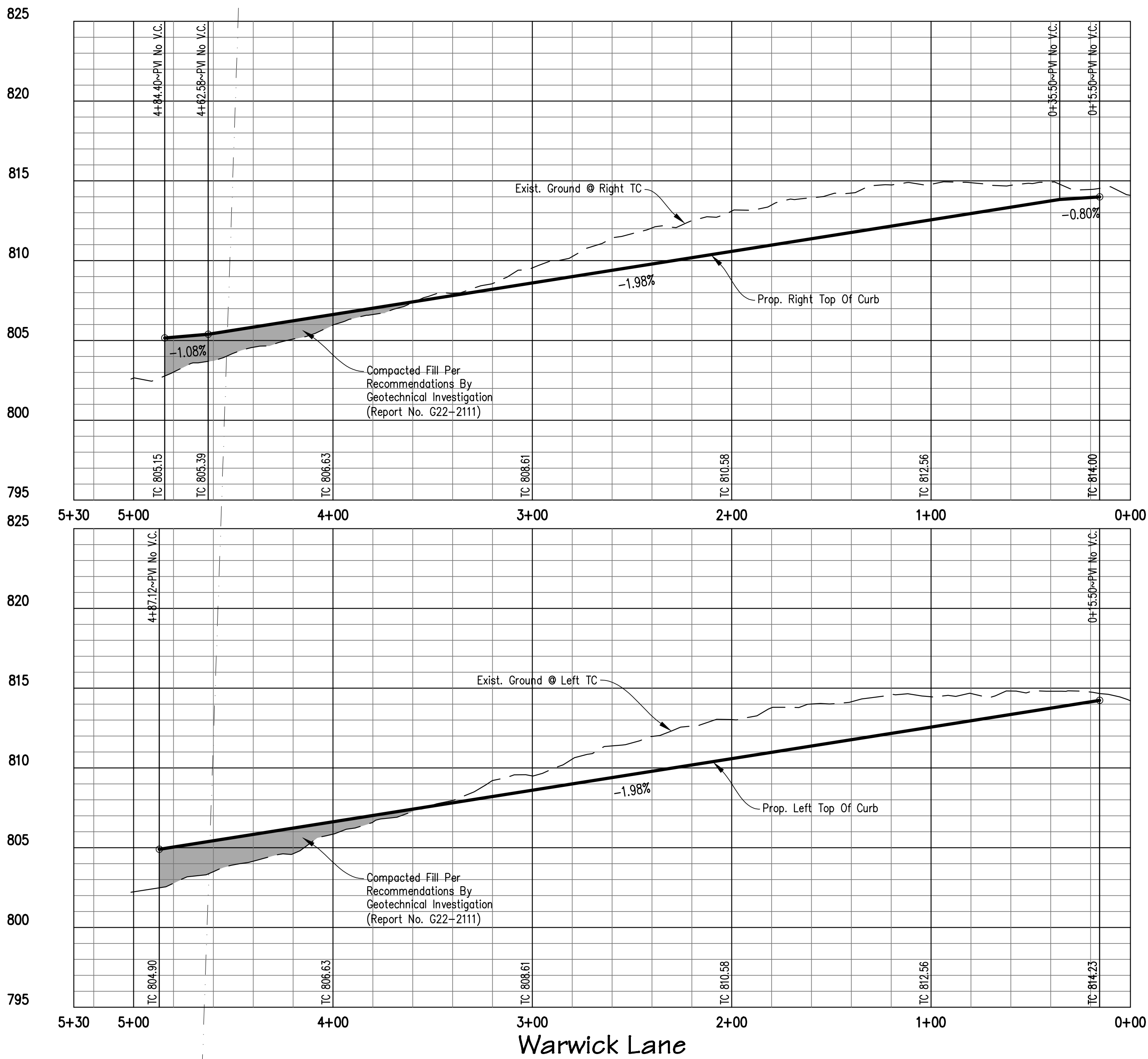
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NOTE:
All Work Shall Be Done In Accordance With The Geotechnical Report For Evergreen Parks Subdivision Prepared By D&S Engineering Labs, LLC (Project Number G22-2111), Dated May 31, 2022.



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EVERGREEN PARKS CITY OF SHERMAN GRAYSON COUNTY, TEXAS

PAVING PLAN AND PROFILE

Date	Revisions

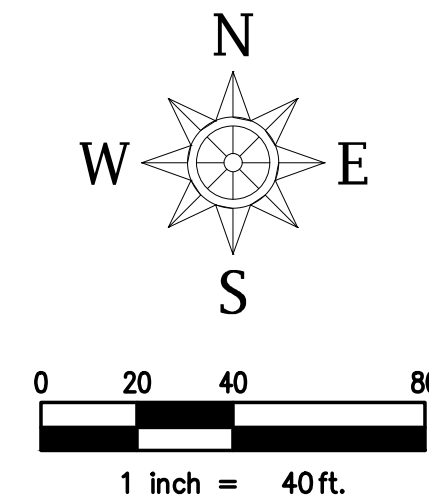
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Checked By: BMO

Sheet **24**

SEI No. 23-102



- Note:
1. See Sheet 21 For Typical Paving Section.
 2. All Elevations Shown Are Top Of Curb (TC) Unless Otherwise Noted.
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The Geotechnical Report For Evergreen Parks
Subdivision Prepared By D&S Engineering
Labs, LLC (Project Number G22-2111), Dated
May 31, 2022.



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Date: 08/16/2024
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EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

PAVING PLAN AND PROFILE

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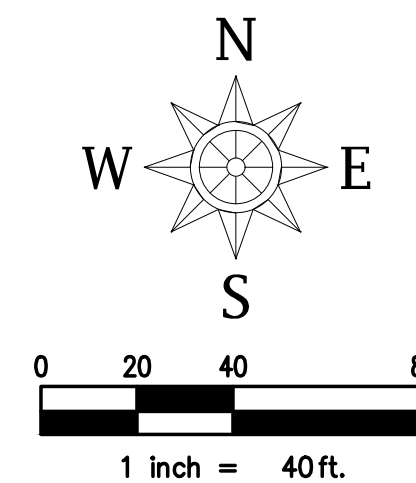
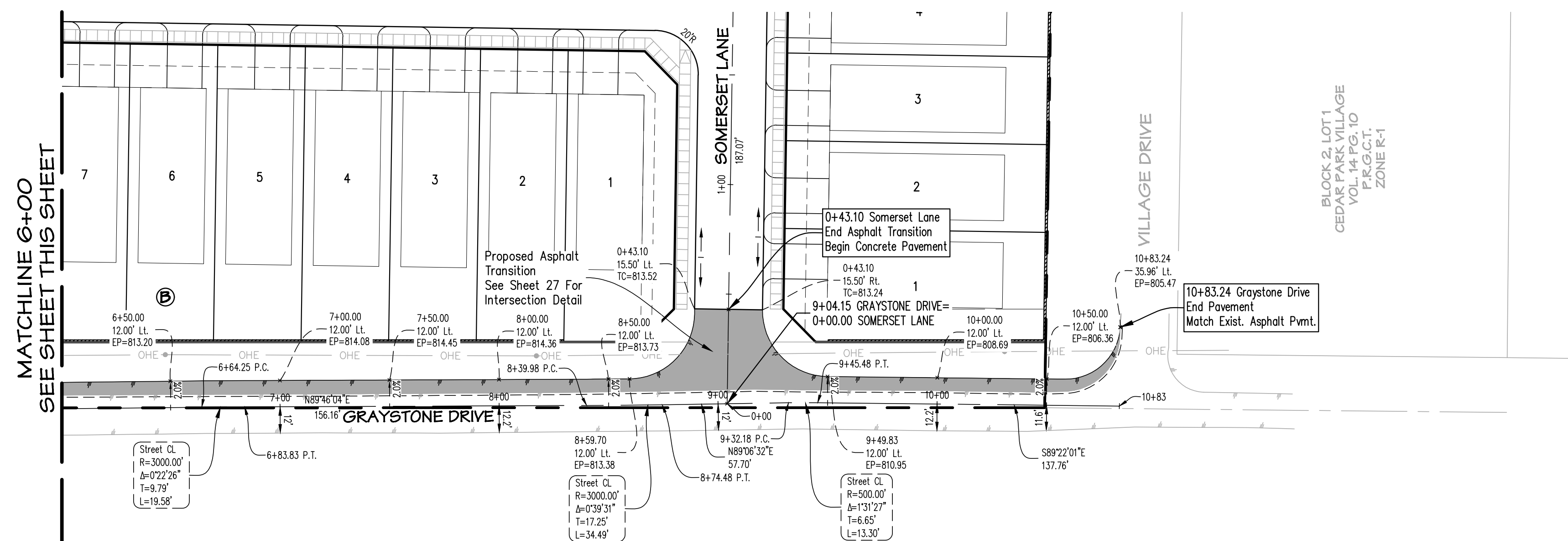
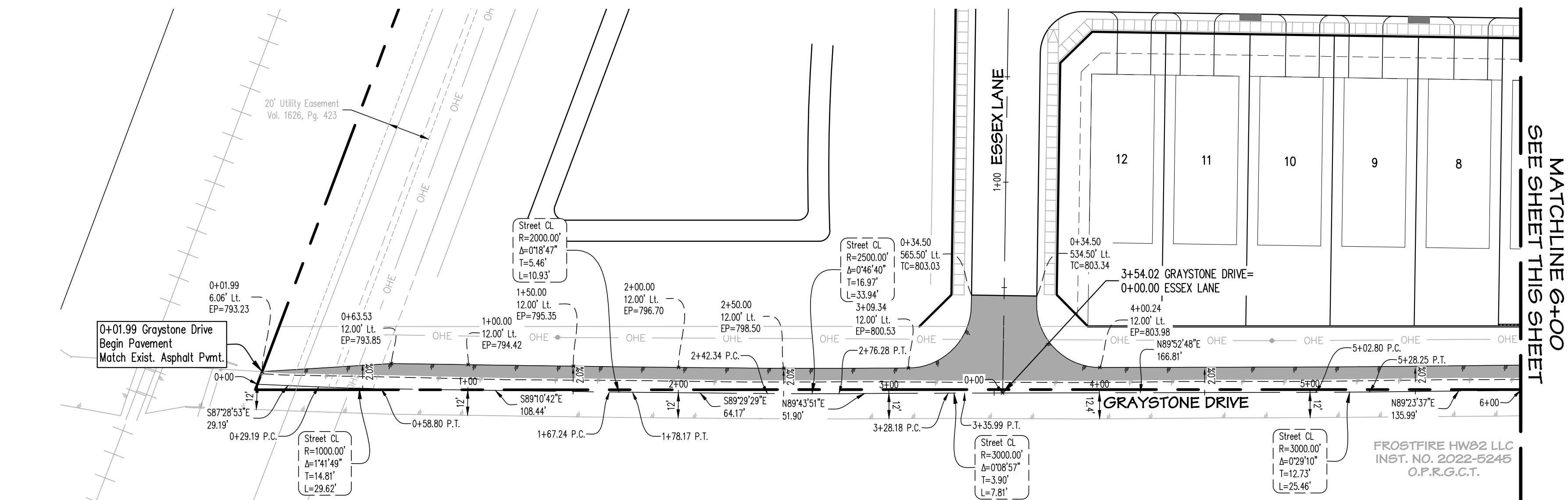
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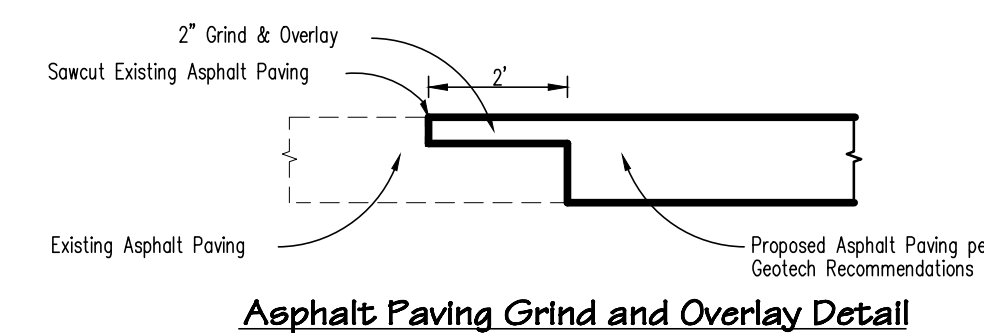
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Sheet 25

SEI No. 23-102



- Note:
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EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS

PAVING PLAN AND PROFILE

[illegible]

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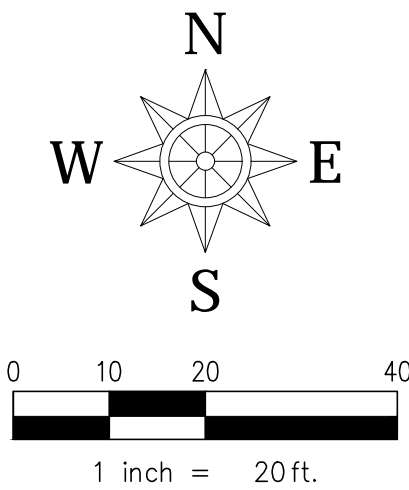
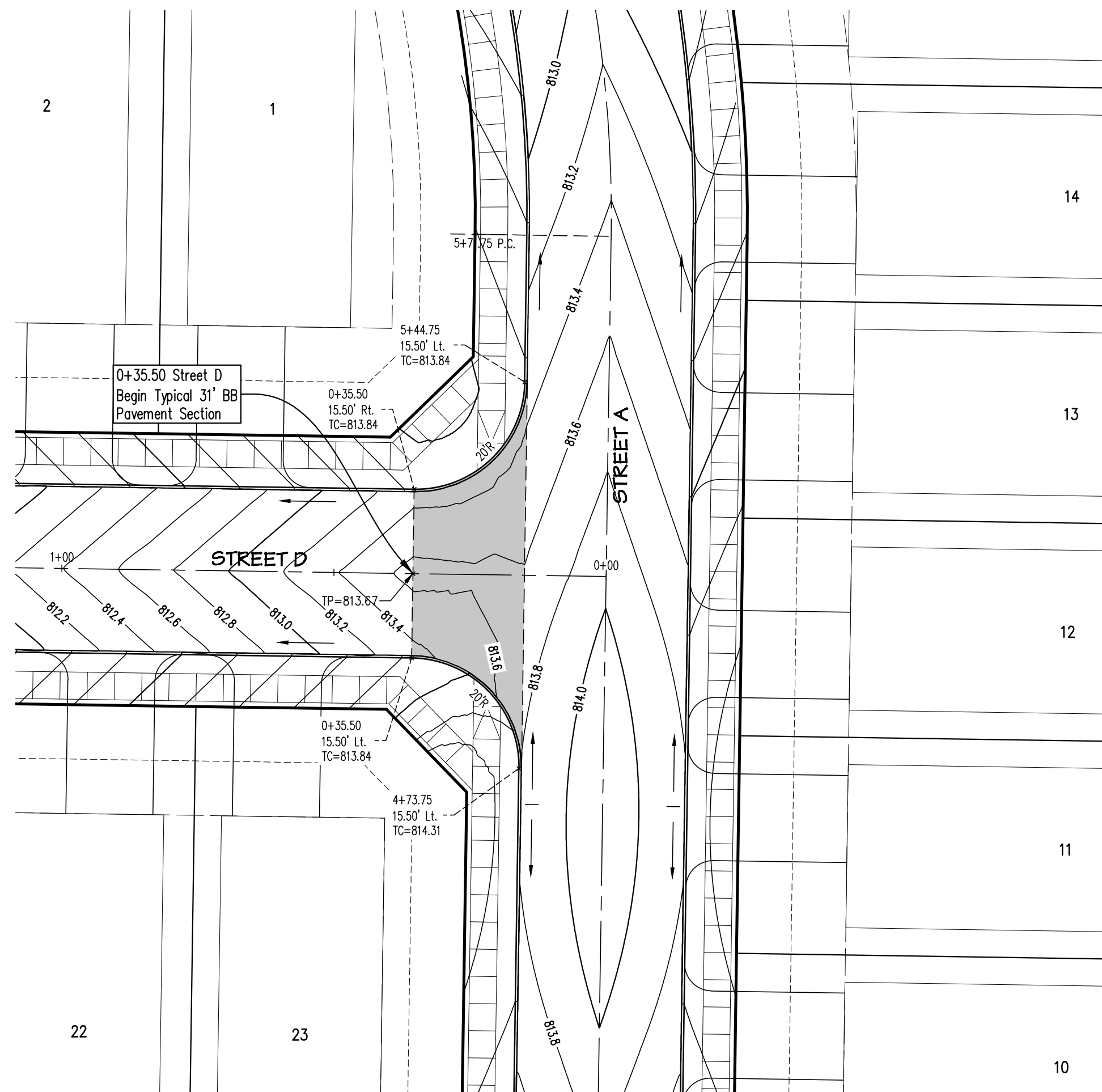
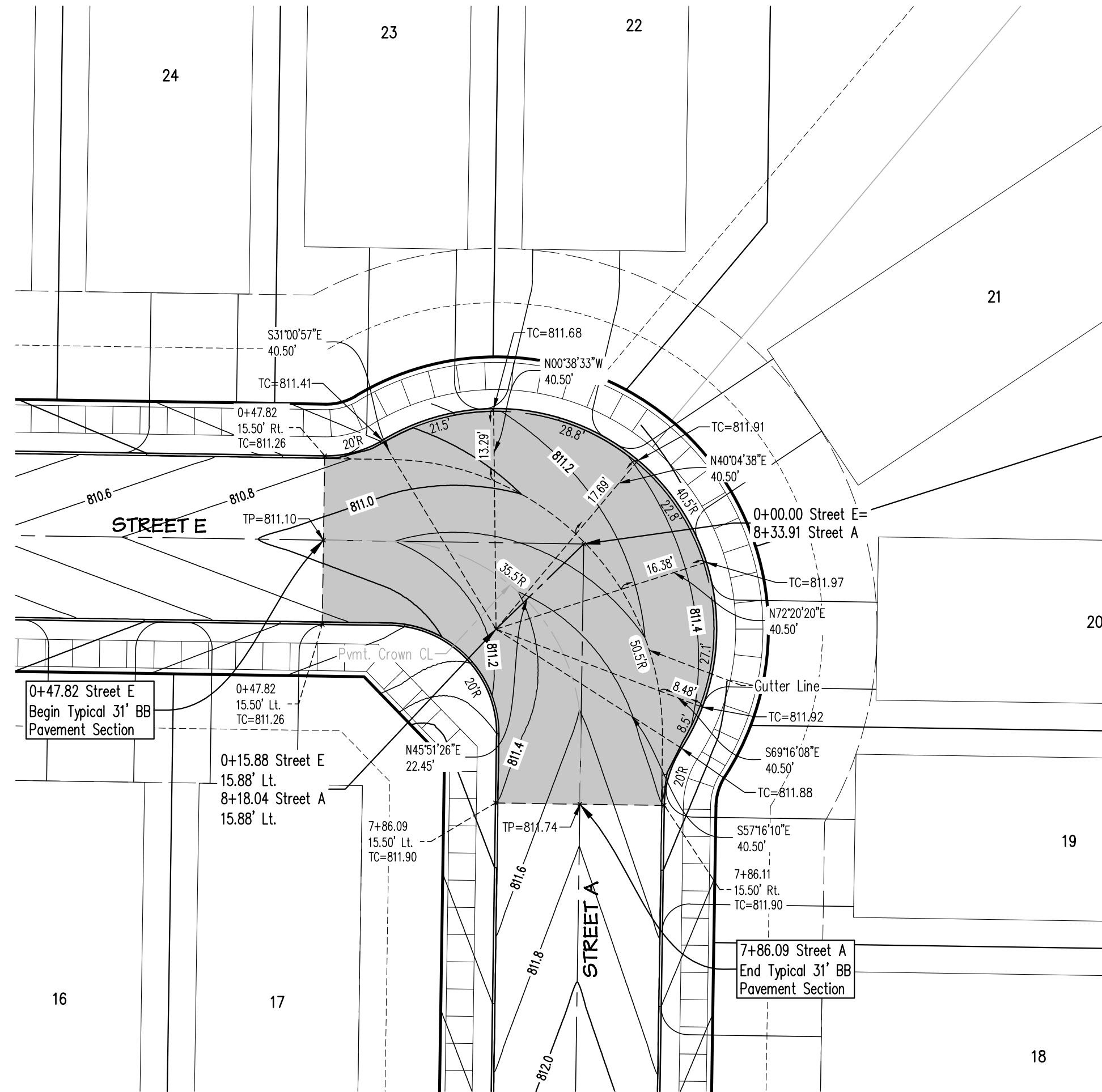
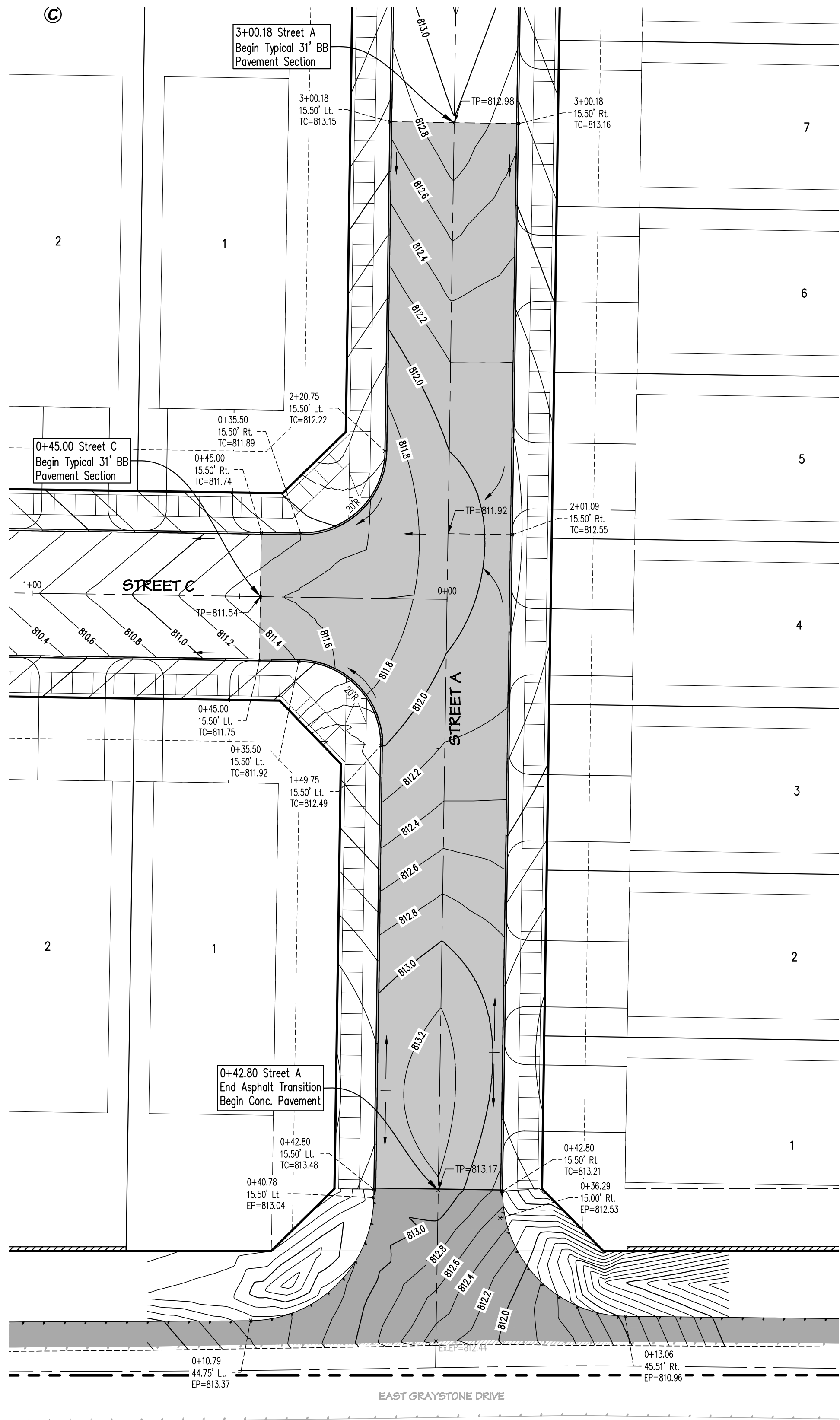
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Checked By: BMC

Sheet 26

SEI No. 23-102

Drawing: 03/2023 080513-102 Evergreen Park VAD128 Intersection & Eyebrow Details.dwg, Saved By: B.Bohara, Save Time: 8/7/2024 11:37:57 AM
Plotted by: srs227 Plot Date: 8/7/2024 4:09 PM



LEGEND

Hand Pour Areas

Asphalt Transition

Flow Direction

1. All Typical Streets To Be 31' BB With 4" Parabolic Crown, Refer To Typical Detail.
2. All Barrier Free Ramps To Be Built With Development.
3. See Sidewalk Plan For Indication Of Sidewalks To Be Built By Developer Or Built By The Homebuilders.
4. For All Walks And Hike & Bike Trails Located In Open Space/Common Areas, Refer To Landscape/Hardscape Plans For Alignment, Dimensional Control And Construction Details.
5. Contractor shall ensure that all Handicap Ramps and ADA routes (5' wide path between Handicap Ramps) do not exceed a 2% cross slope. If necessary, contractor shall contact the Engineer of record prior to installing the concrete for the ramps and routes.

NOTE:
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EVERGREEN PARKS CITY OF SHERMAN GRAYSON COUNTY, TEXAS INTERSECTION & EYEBROW DETAILS

Revisions	Date

Scale: 1"=20'

Drawn By: TEC

Checked By: BMO

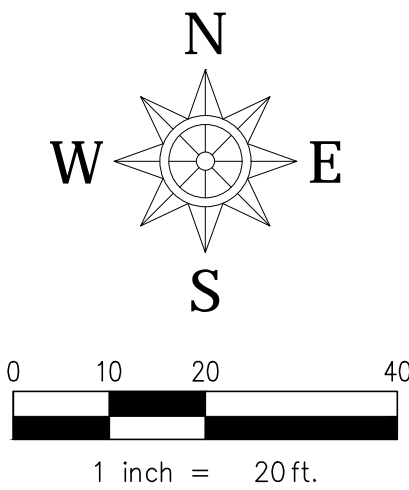
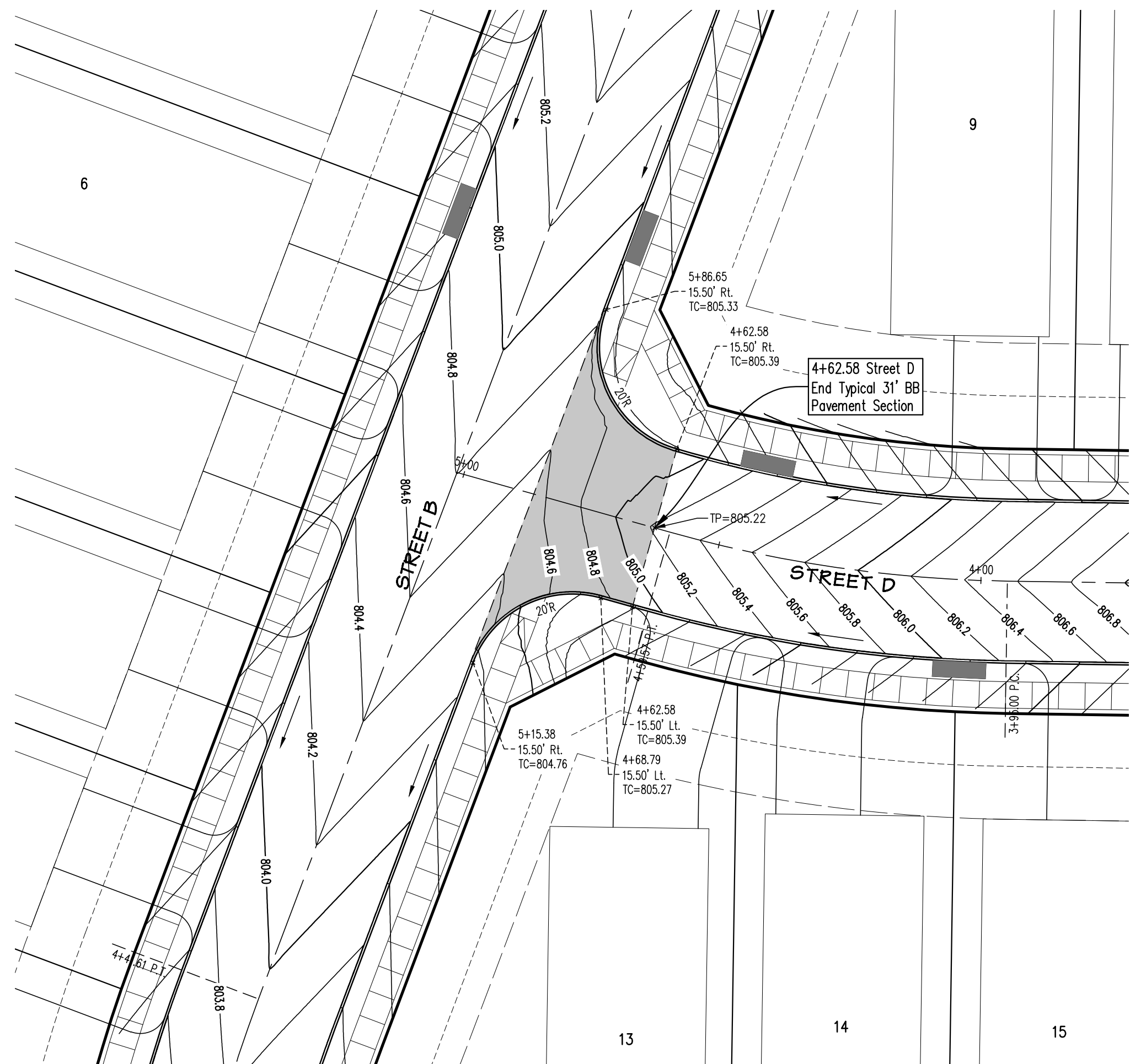
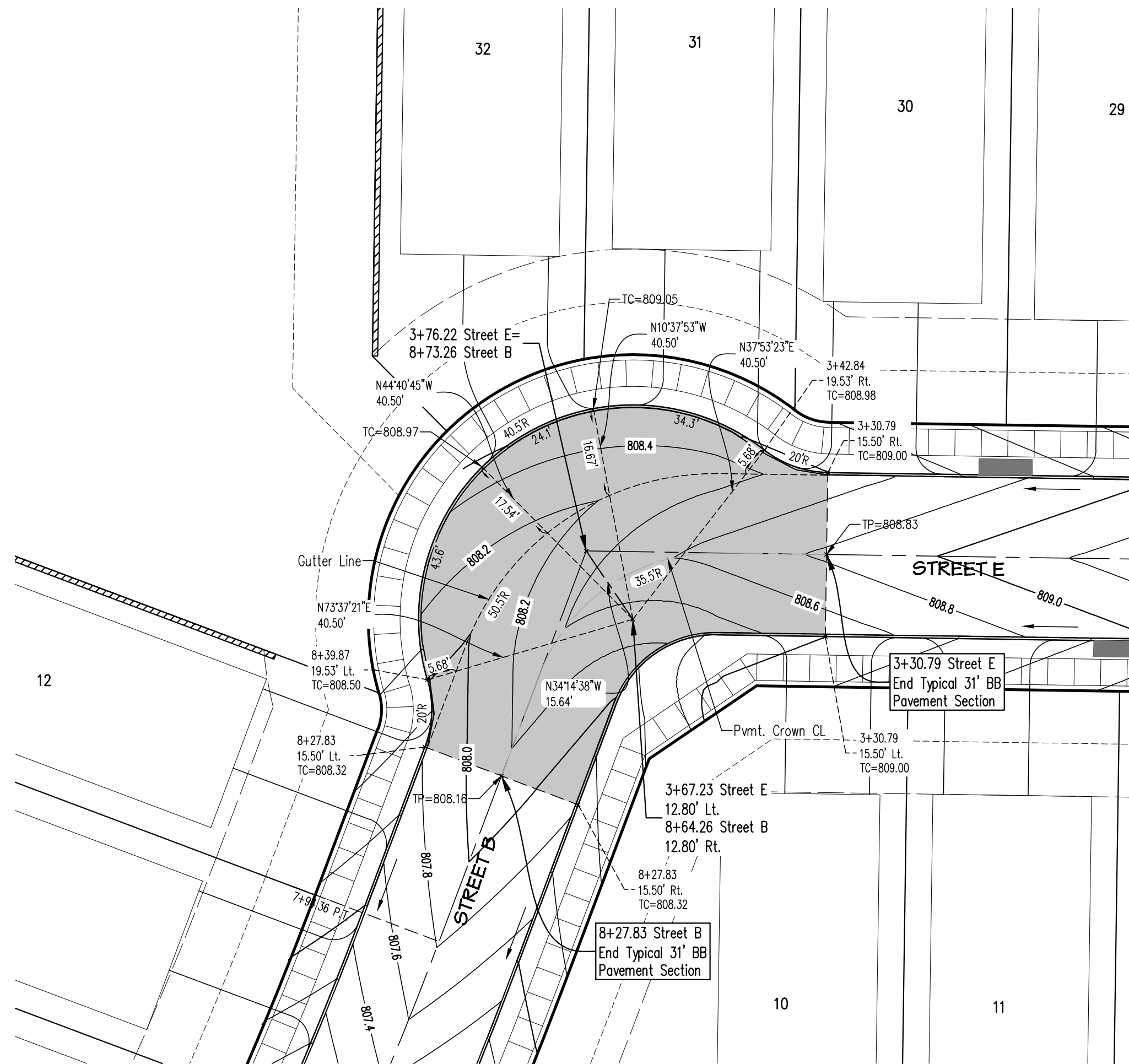
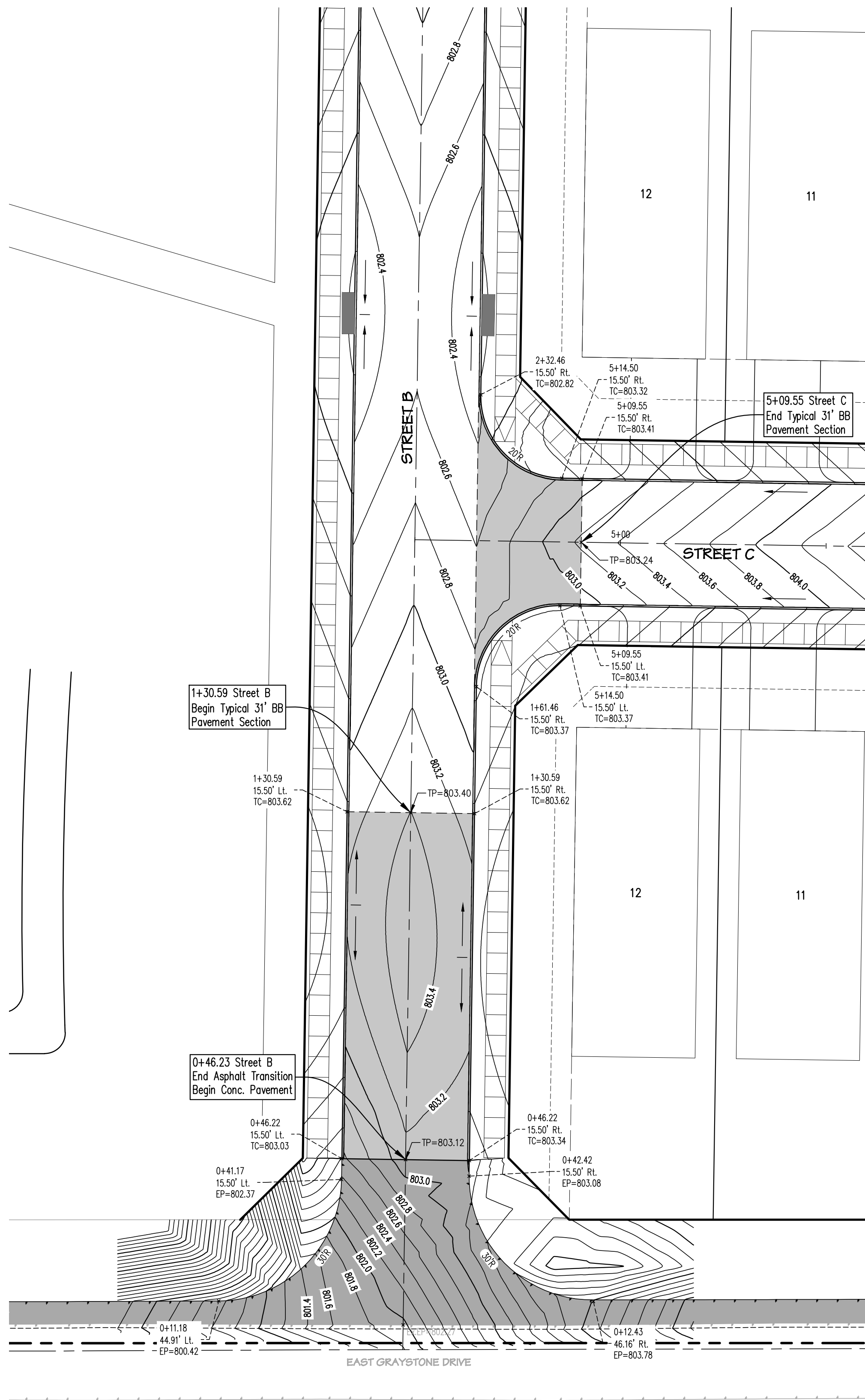
Sheet **27**

SEI No. 23-102

These plans are released for the purpose of interim review under the authority of
BRENDAN M. OCHOA,
PE 145058

Date: 08/16/2024
It is not to be used for construction.

Drawing: 03/2023 080513-102 Evergreen Park\240128 Intersection & Eyebrow Details.dwg, Saved By: B.Bohara, Save Time: 8/7/2024 11:37:57 AM
Printed By: srs027 Plot Date: 8/7/2024 4:09 PM



LEGEND

- Hand Pour Areas
- Asphalt Transition
- Flow Direction

1. All Typical Streets To Be 31' BB With 4" Parabolic Crown, Refer To Typical Detail.
2. All Barrier Free Ramps To Be Built With Development.
3. See Sidewalk Plan For Indication Of Sidewalks To Be Built By Developer Or Built By The Homebuilders.
4. For All Walks And Hike & Bike Trails Located In Open Space/Common Areas, Refer To Landscape/Hardscape Plans For Alignment, Dimensional Control And Construction Details.
5. Contractor shall ensure that all Handicap Ramps and ADA routes (5' wide path between Handicap Ramps) do not exceed a 2% cross slope. If necessary, contractor shall contact the Engineer of record prior to installing the concrete for the ramps and routes.

NOTE:
"CONTRACTOR TO SUBMIT UTILITY MATERIALS TO CITY PRIOR TO CONSTRUCTION. SPECIFICATIONS TO INCLUDE BLIND FLANGES, RESTRAINTS, MECHANICAL JOINTS, ETC. FOR ALL WATER NODES."

Note:
The Contractor Shall Perform All Earthwork And Compaction Operations, Including But Not Limited To, Placement Of Fill During Earthwork Operations, Backfilling, Trench Backfilling, Utility Backfilling, Lining, And Subgrade Placement According To The Geotechnical Recommendations And City Standards. The Contractor Shall Use The Most Stringent Requirement If There Is A Conflict On Any Fill Or Backfill Operations. The Contractor Shall Inquire In Written Format With The Engineer Of Record Should There Be Any Questions Regarding Fill And Backfill Requirements.

CAUTION !!!
EXISTING UTILITIES

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

CALL TEXAS ONE-CALL 811 OR OTHER UTILITY LOCATION SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SPIARS ENGINEERING, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

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PE 145058

Date: 08/16/2024
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EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
INTERSECTION & EYEBROW DETAILS

Revisions	Date

Scale: 1"=20'

Drawn By: TEC

Checked By: BMO

Sheet **28**

SEI No. 23-102

Printed By: ams027 Plt Date: 6/11/2024 4:39 PM

Drawing: 23-1023 2023-12-12 Evergreen Parks (A) 100 Schematic Plan.dwg Saved By: ams027 Plt Date: 6/11/2024 4:39:32 AM



REMINGTON SHERMAN
AUTOMOTIVE LLC
DOC. NO. 2020-28332
O.P.R.G.C.T.
ZONE C-2

BLOCK 1, LOT 5
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

20' Utility Easement
Vol. 14, Pg. 10

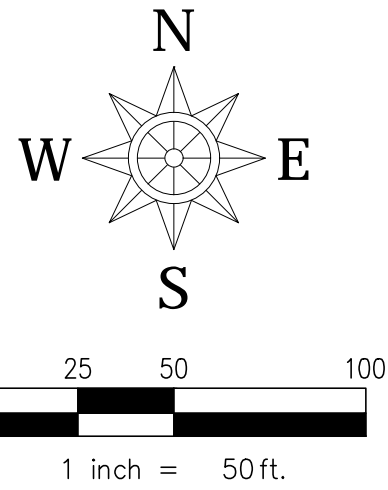
BLOCK 1, LOT 4
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 3
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 2
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 1, LOT 1
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1

BLOCK 2, LOT 1
CEDAR PARK VILLAGE
VOL. 14 PG. 10
P.R.G.C.T.
ZONE R-1



Legend

- ~ Denotes 5' Sidewalks and Barrier Free Ramps To Be Built By Developer, Refer To Paving Plans.
- ~ Denotes 5' Sidewalks and Barrier Free Ramps To Be Built By Homebuilder.
- ~ Trail To Be Installed By Master Developer

Notes:

- Barrier Free Ramps To Be Constructed Per TxDOT PED-12A, Type 7 Curb Ramp.
- Sidewalk Layout and Grades Meet ADA and TDLR Standards.

NOTE:
"CONTRACTOR TO SUBMIT UTILITY MATERIALS TO CITY PRIOR TO CONSTRUCTION. SPECIFICATIONS TO INCLUDE BLIND FLANGES, RESTRAINTS, MECHANICAL JOINTS, ETC. FOR ALL WATER NODES."

Note:
The Contractor Shall Perform All Earthwork And Compaction Operations, Including But Not Limited To, Placement Of Fill During Earthwork Operations, Backfilling, Trench Backfilling, Utility Backfilling, Liming, And Subgrade Placement According To The Geotechnical Recommendations And City Standards. The Contractor Shall Use The Most Stringent Requirement If There Is A Conflict On Any Fill Or Backfill Operations. The Contractor Shall Inquire In Written Format With The Engineer Of Record Should There Be Any Questions Regarding Fill And Backfill Requirements.

CAUTION !!!
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CALL TEXAS ONE-CALL 811 OR OTHER UTILITY LOCATION SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SPIARS ENGINEERING, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

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Date: 08/16/2024
It is not to be used for construction.

EVERGREEN PARKS
CITY OF SHERMAN
GRAYSON COUNTY, TEXAS
SIDEWALK PLAN

Revisions	Date

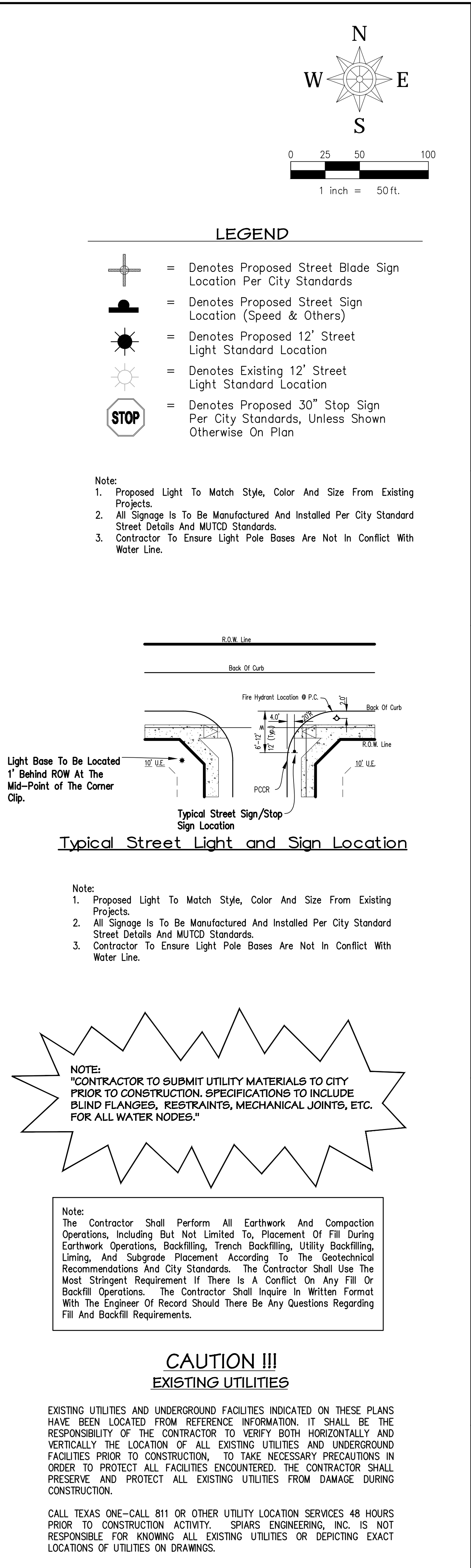
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Checked By: BMO

Sheet 29

SEI No. 23-102

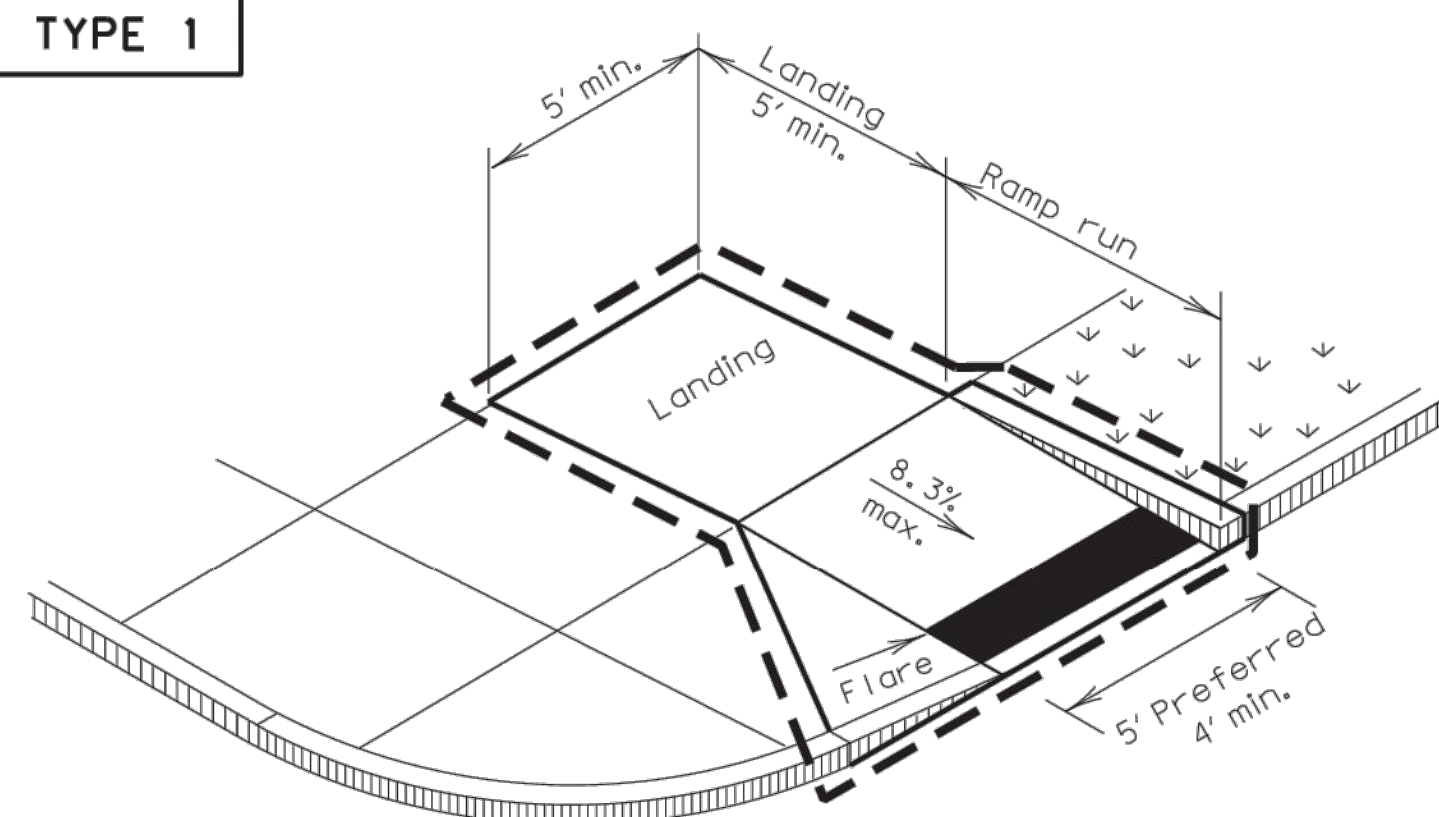


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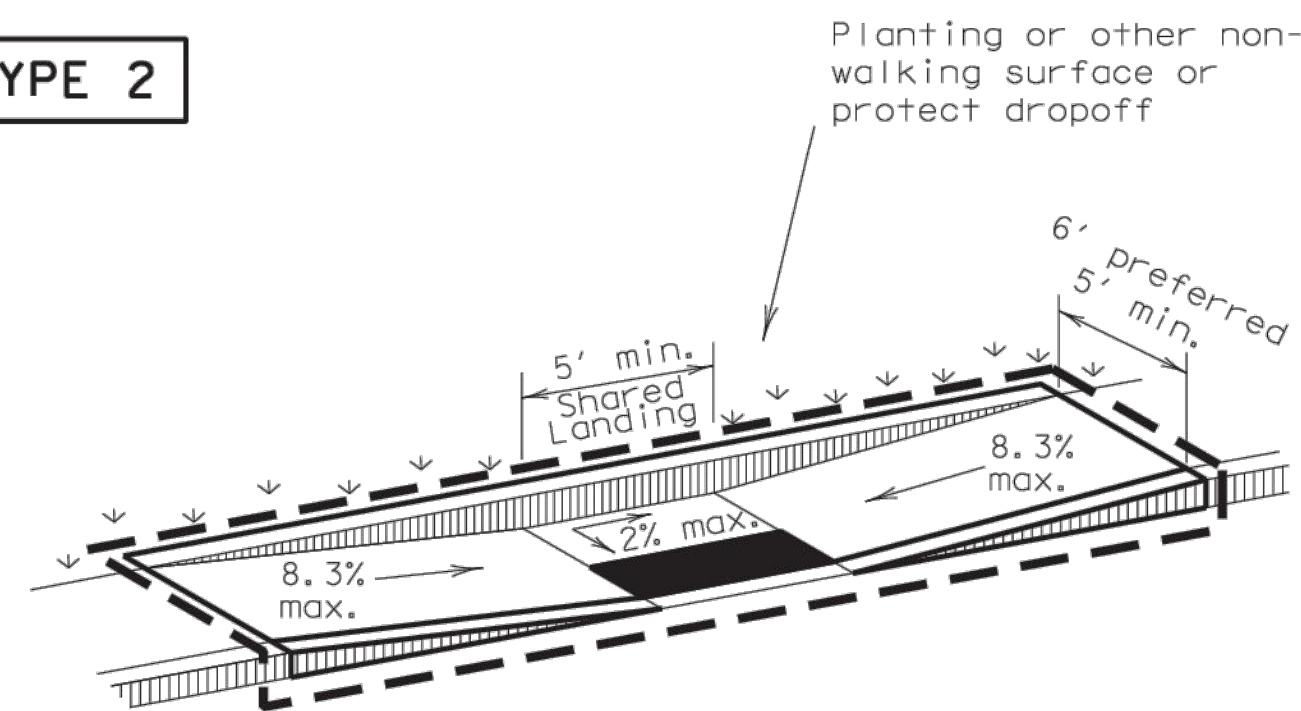
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FILE:

TYPE 1



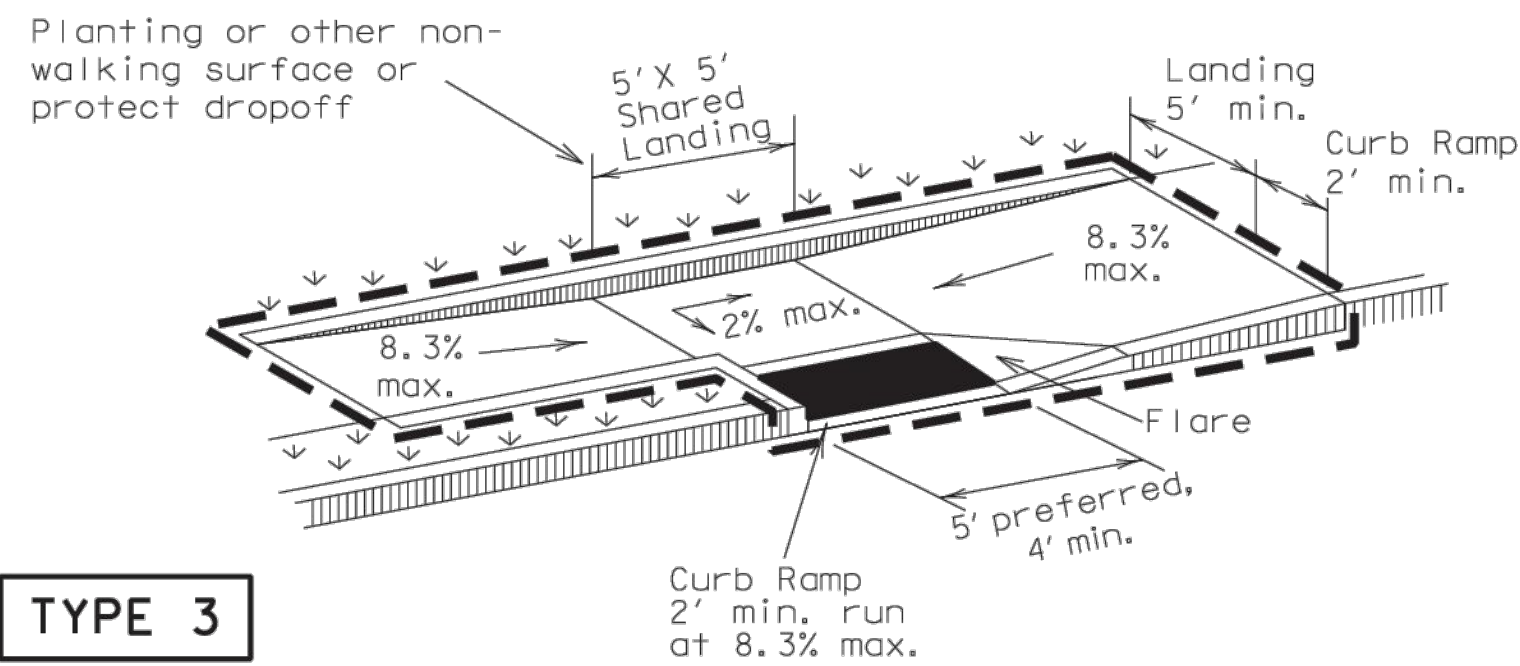
PERPENDICULAR CURB RAMP

TYPE 2

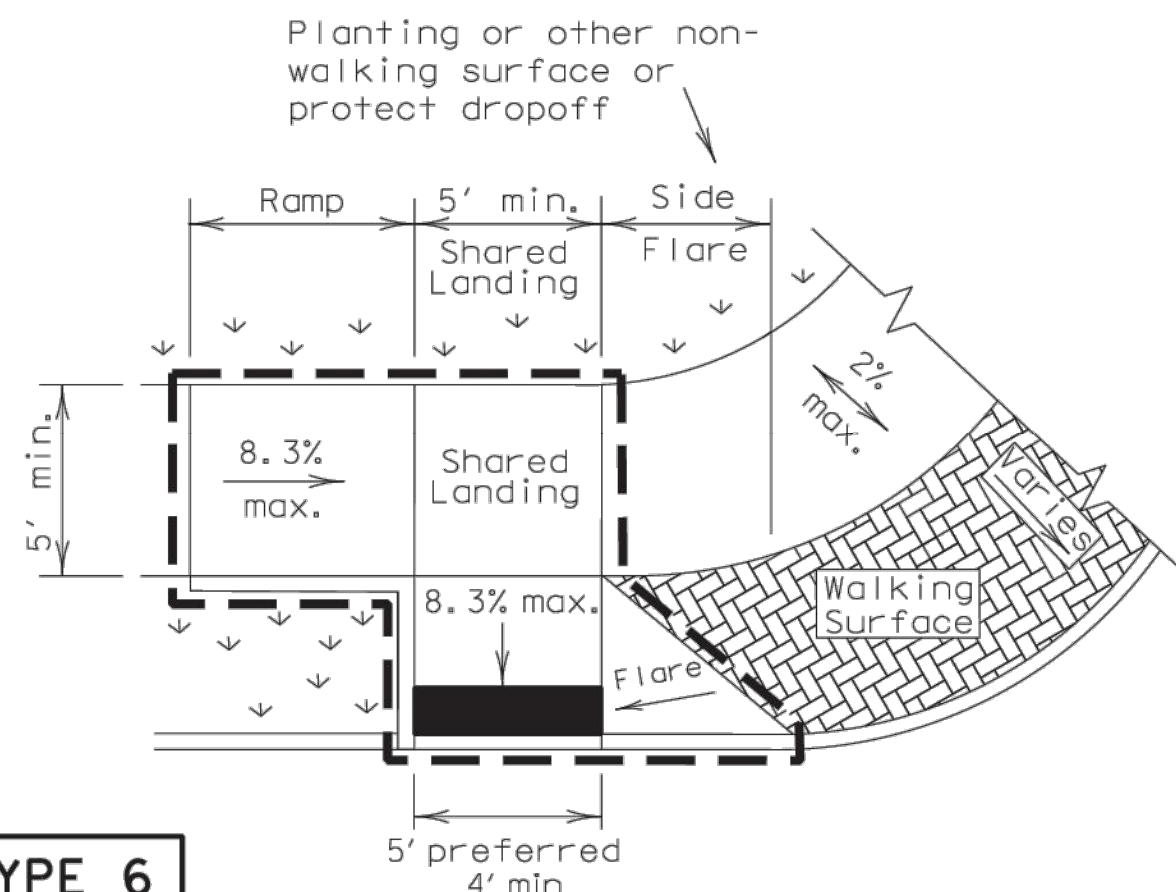


PARALLEL CURB RAMP

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



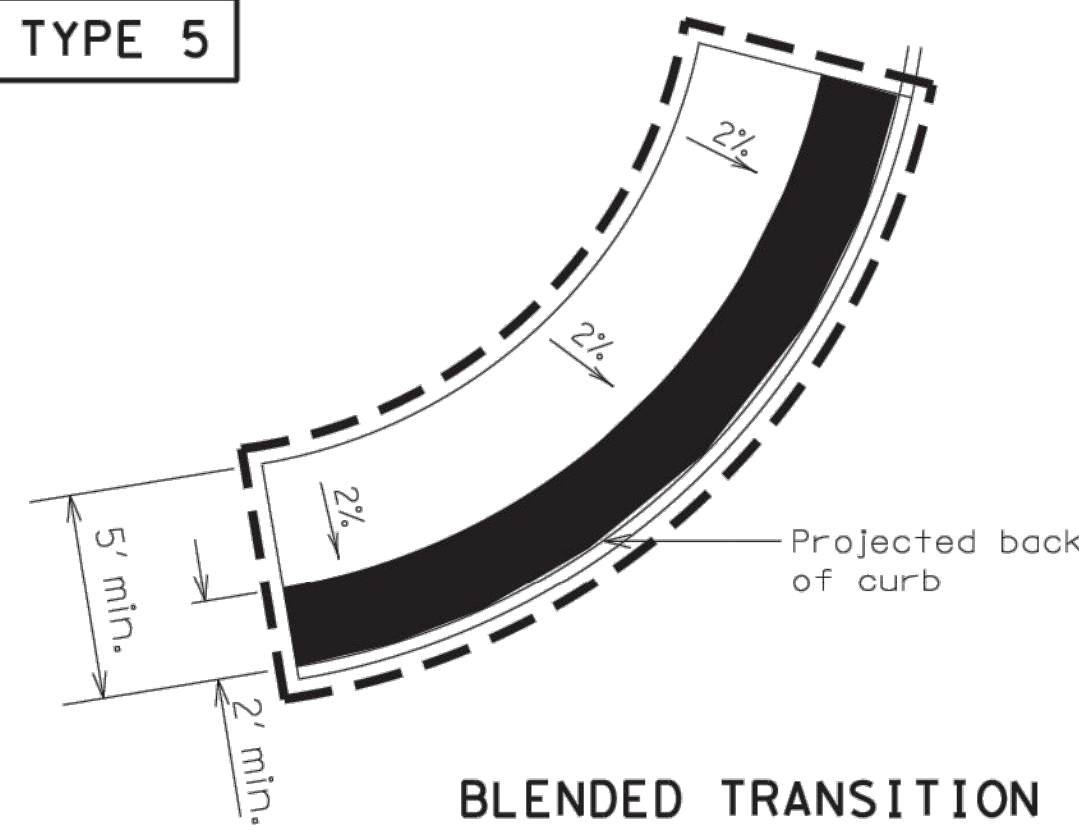
TYPE 3



TYPE 6

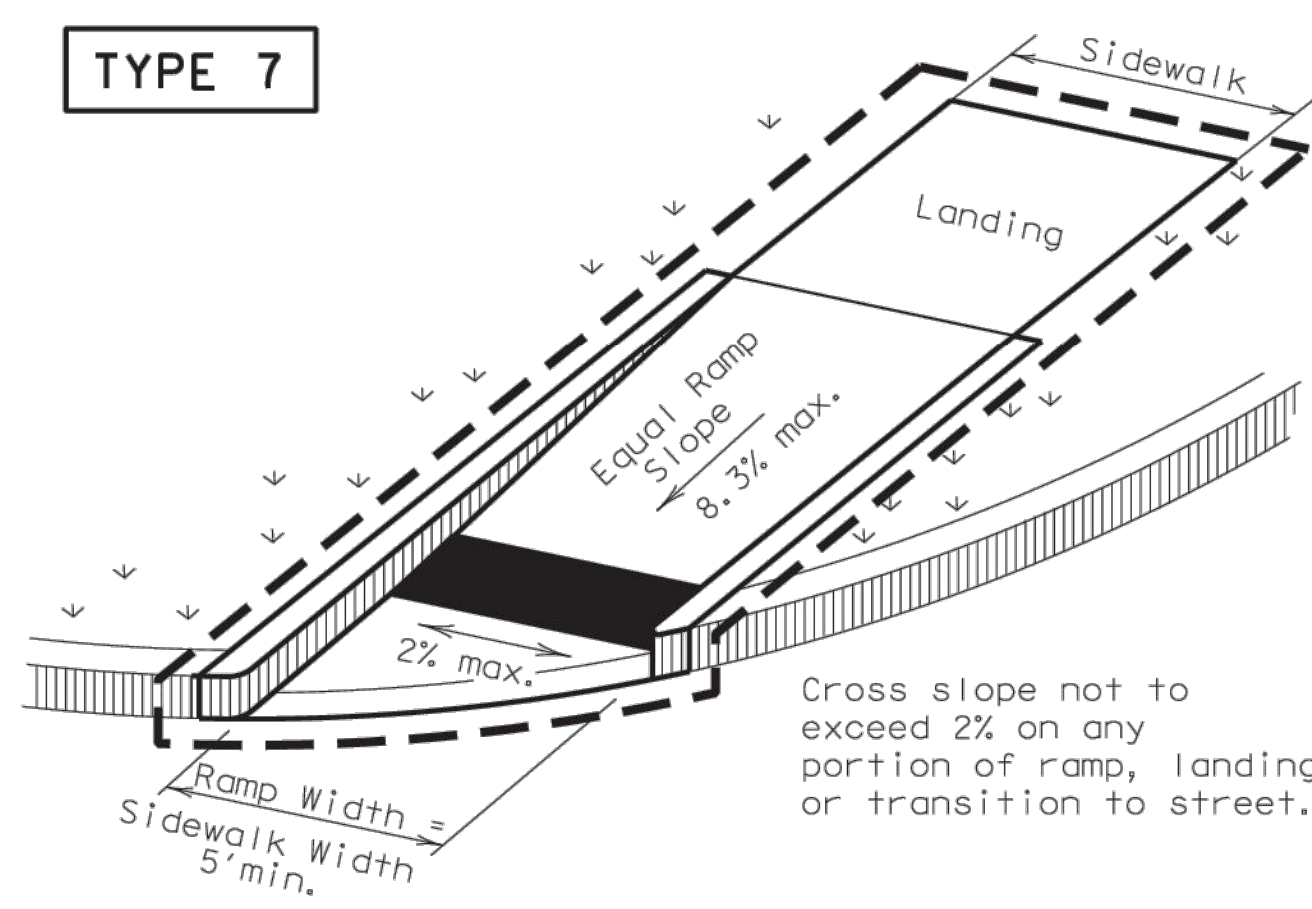
COMBINATION CURB RAMPS

TYPE 5



BLENDED TRANSITION

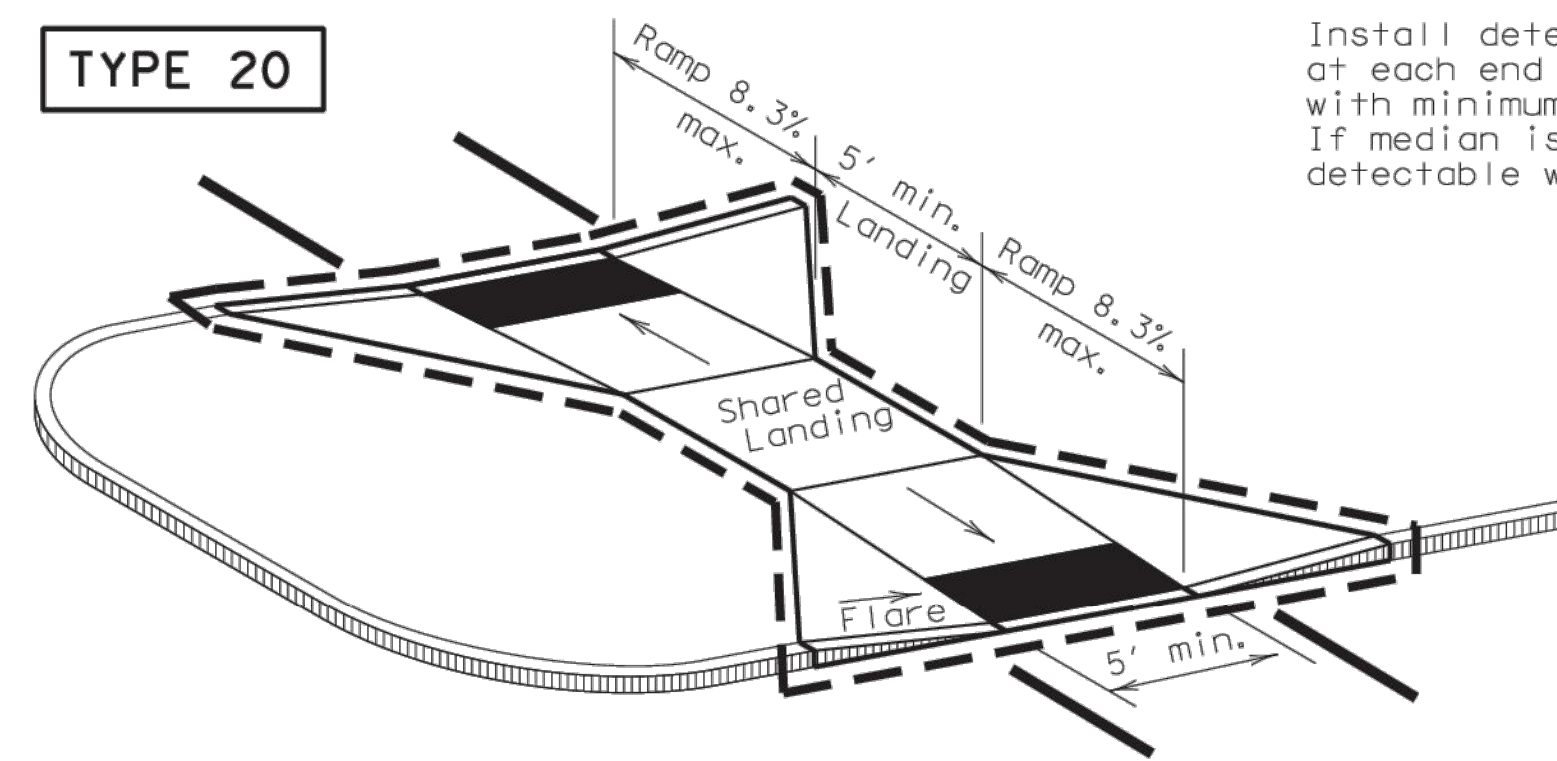
TYPE 7



(Sidewalk set back from curb)

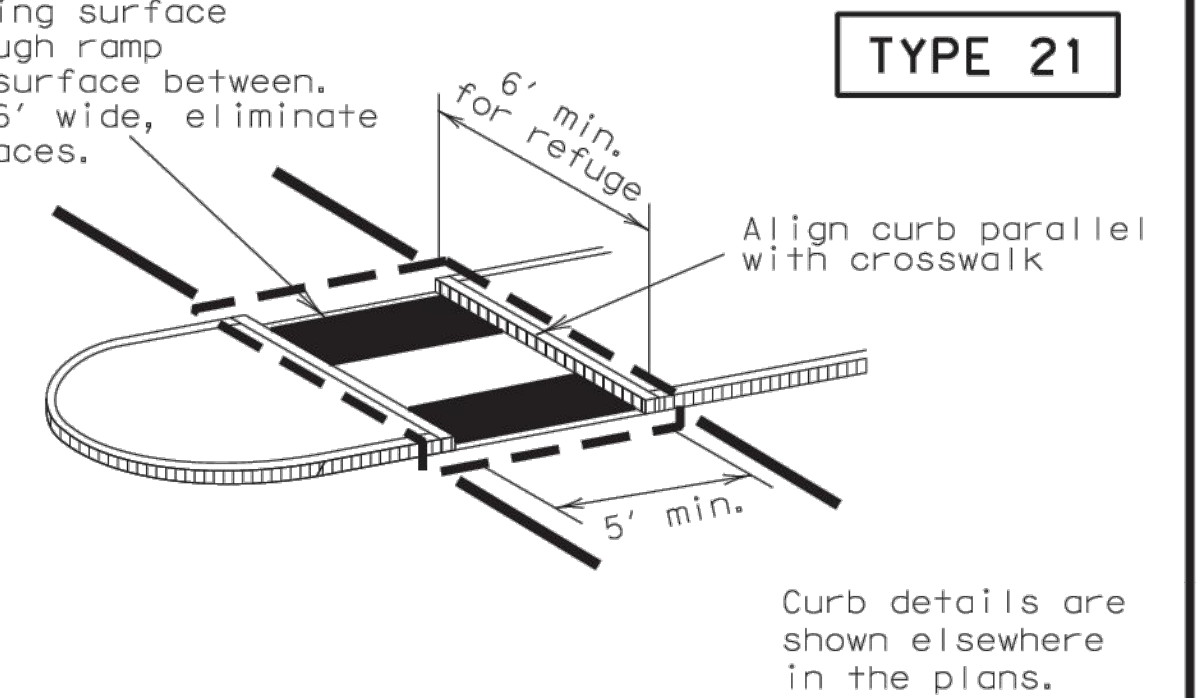
DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 20



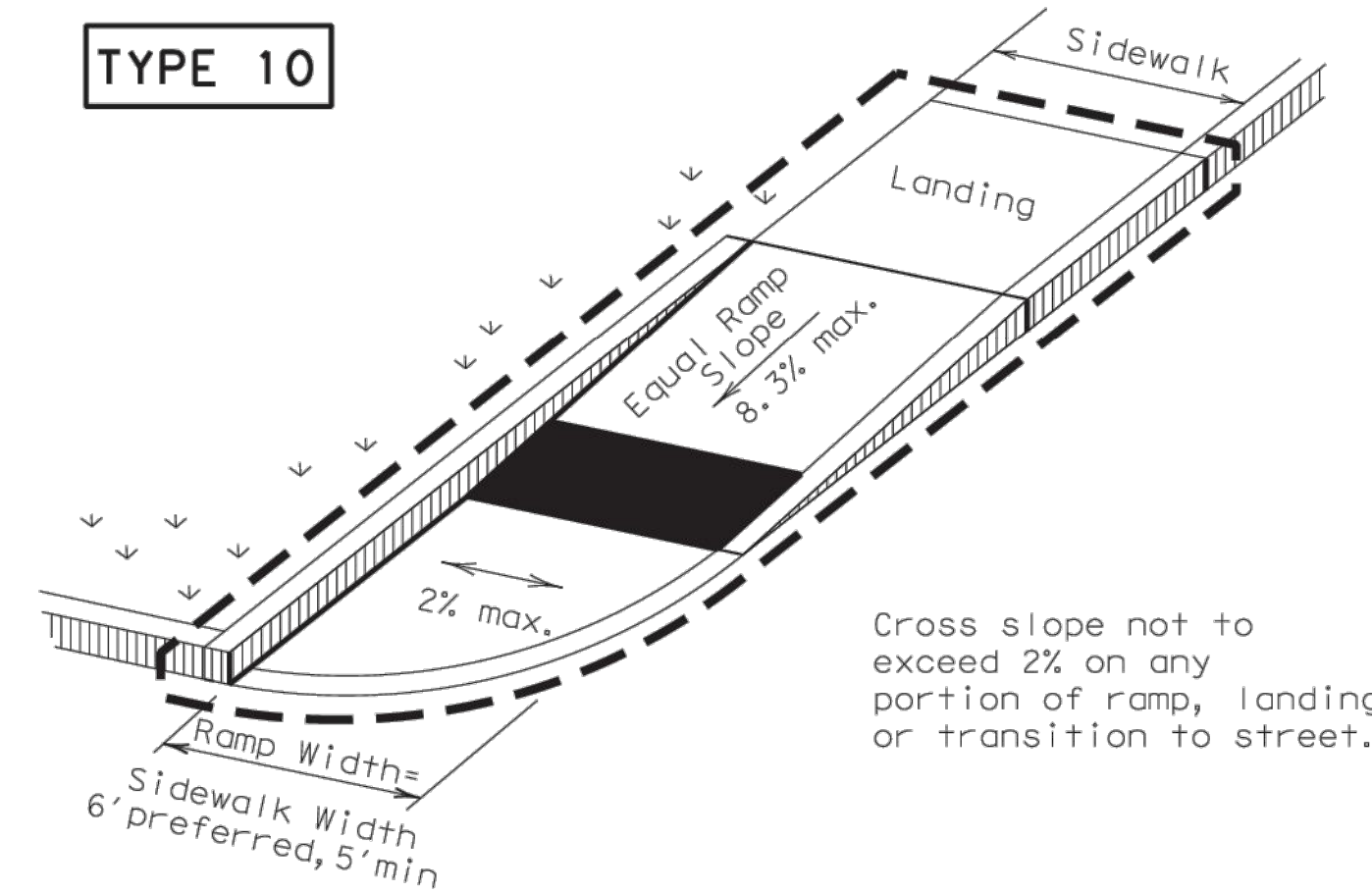
CURB RAMPS AT MEDIAN ISLANDS

TYPE 21



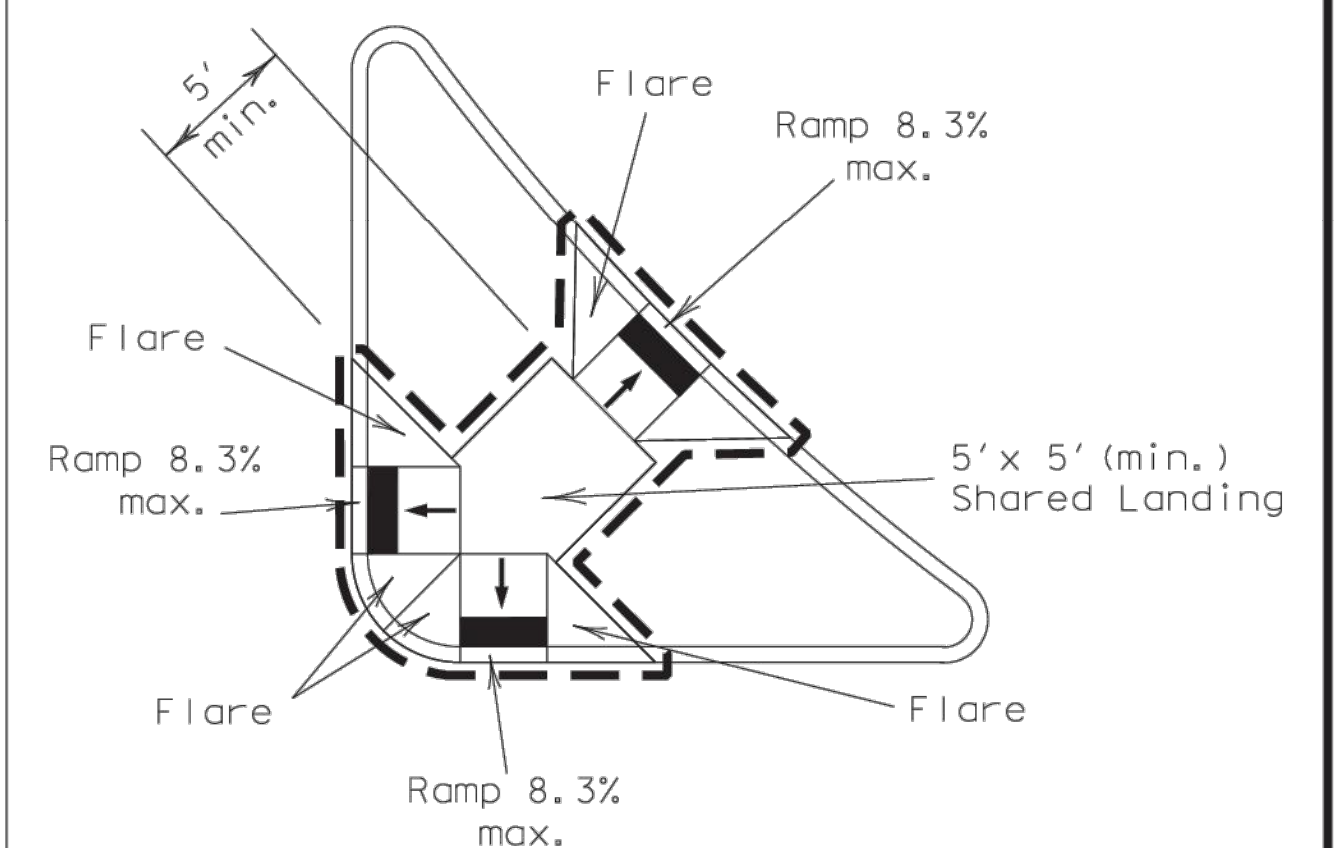
Curb details are shown elsewhere in the plans.

TYPE 10



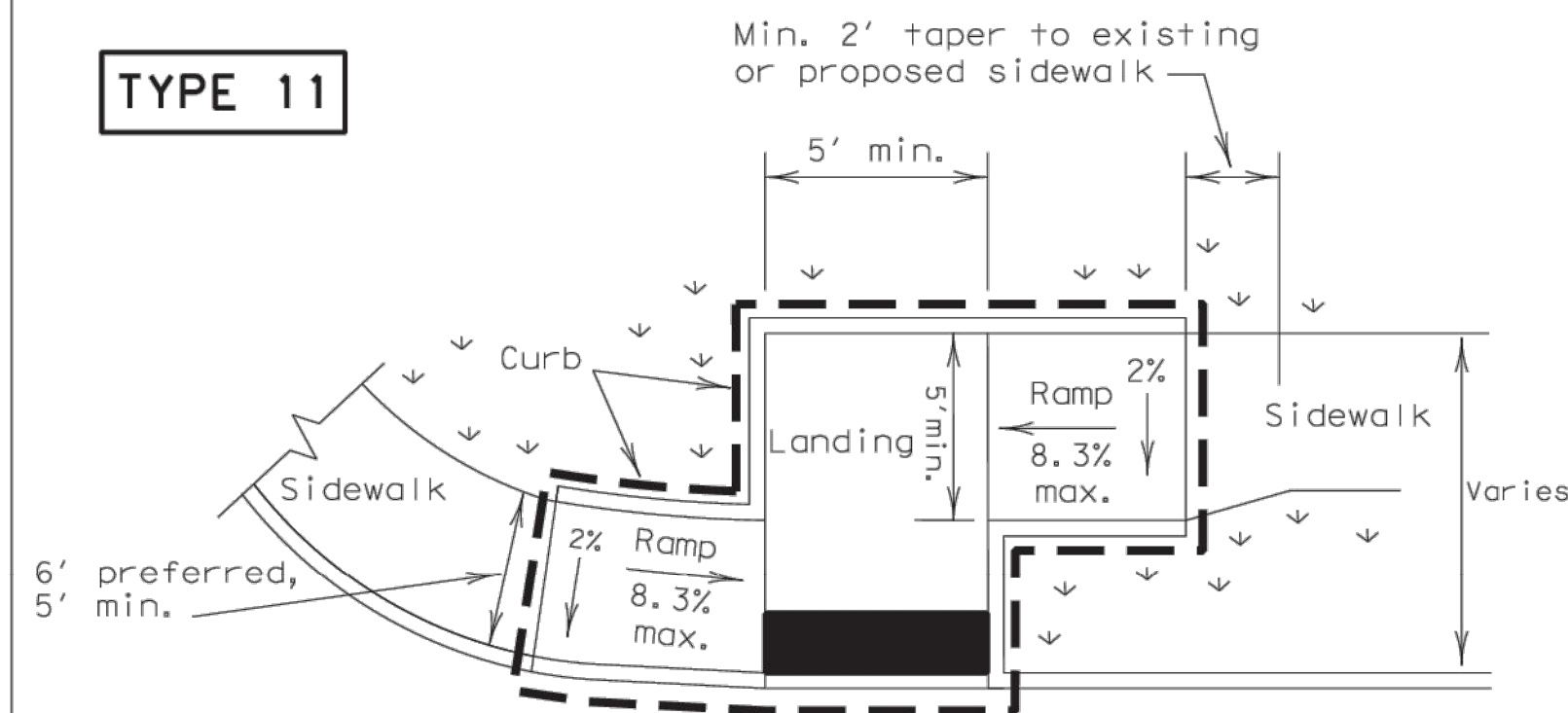
(Sidewalk adjacent to curb)

TYPE 22



COMBINATION ISLAND RAMPS

TYPE 11



OFFSET PARALLEL CURB RAMP

* Note: Type 7 Directional Ramps within radius to be used

NOTES / LEGEND:

See General Notes on sheet 2 of 4 for more information.

Denotes planting or non-walking surface not part of pedestrian circulation path.

Ramp Limits of Payment

Detectable Warning Surface

SHEET 1 OF 4



Design
Division
Standard

PEDESTRIAN FACILITIES
CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: PK	DW: TxDOT	CK: HD
© TxDOT March 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
VP June 13, 2012	DIST	COUNTY		SHEET NO.

Drawing: 03/2023 208503-102 Engineering Permitted Under TxDOT Details and Standards By: AutoCAD 2022 Save Time: 7/11/2024 1:25:13 PM
Printed by: auto22 Plot Date: 8/14/2024 4:09 PM

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DATE:
FILE:

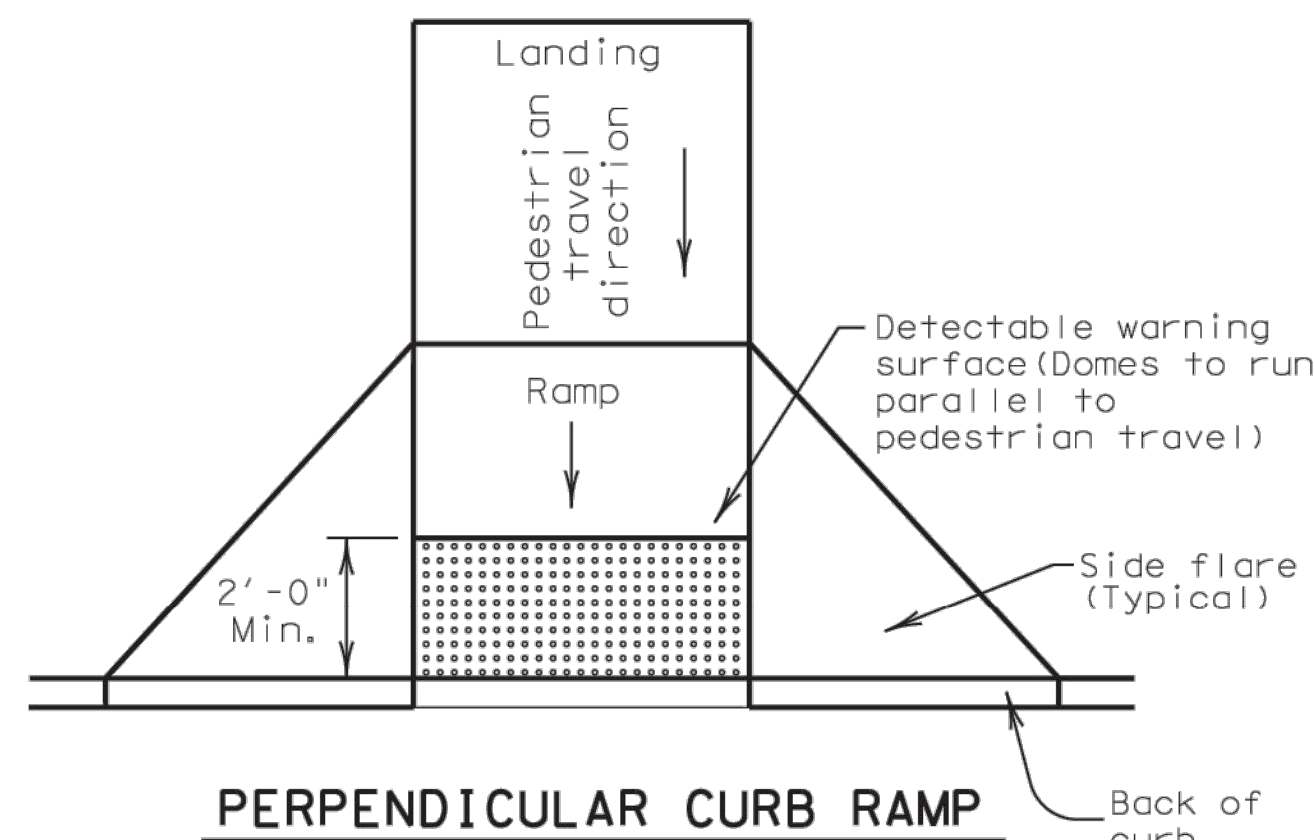
General Notes

Curb Ramps

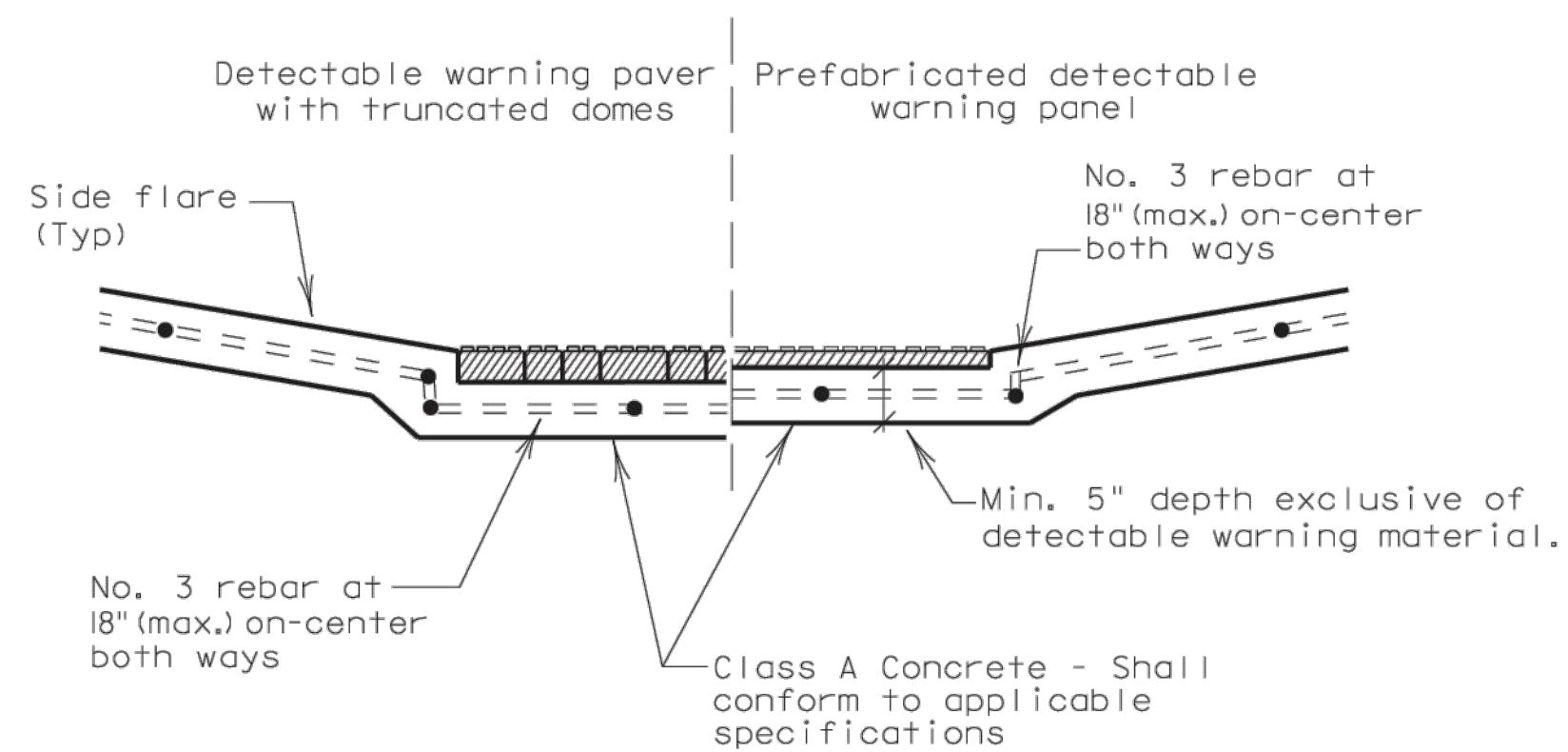
1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk 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. 5'x 5' passing areas at intervals not to exceed 200' are required.
4. Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
5. 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 vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. Handrails are not required on curb ramps. Provide curb ramps wherever on accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 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.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

Detectable Warning Material

18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials 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 at 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 sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING

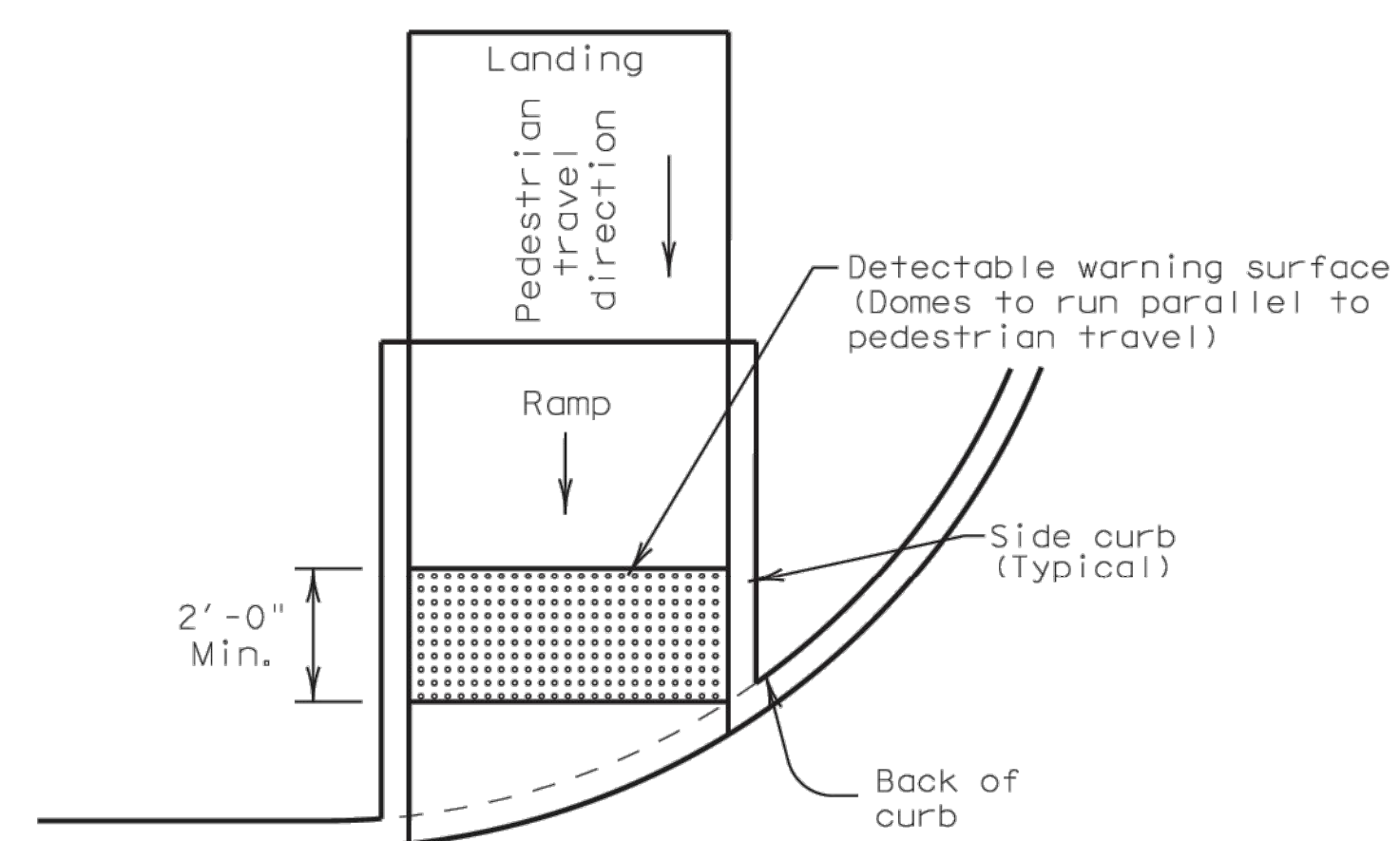
DETECTABLE WARNINGS

Detectable Warning Pavers

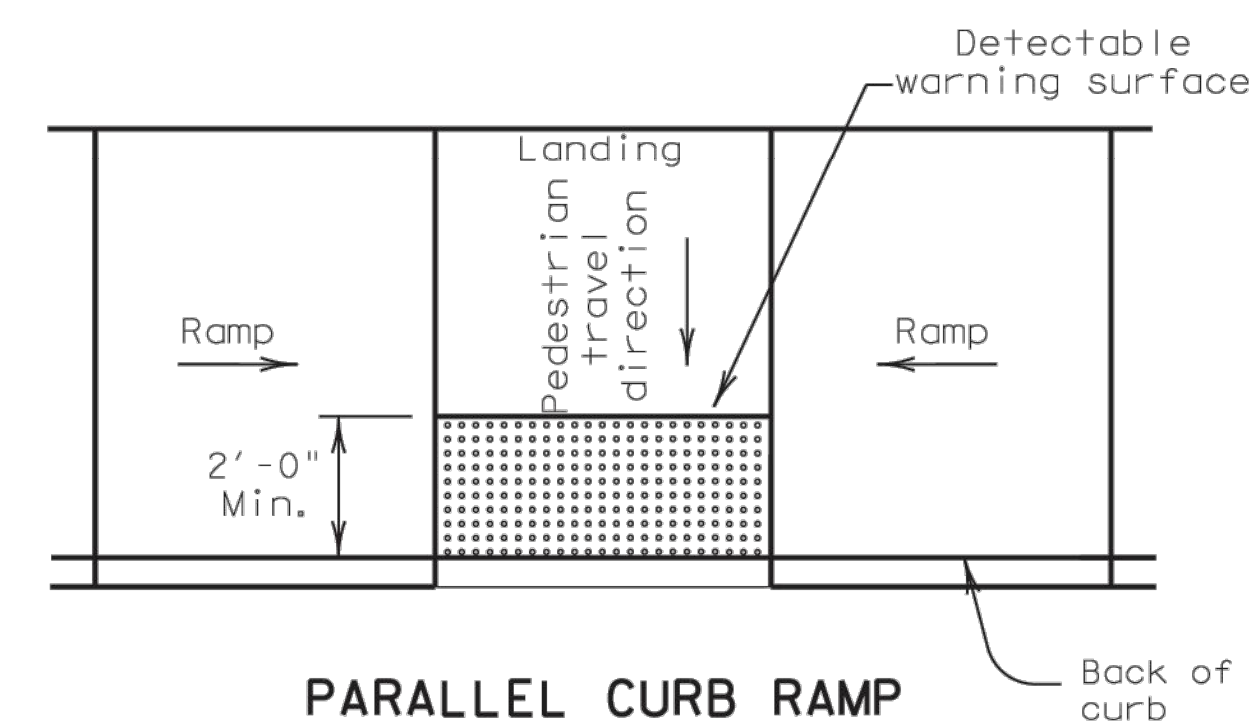
24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

Sidewalks

26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges 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.



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



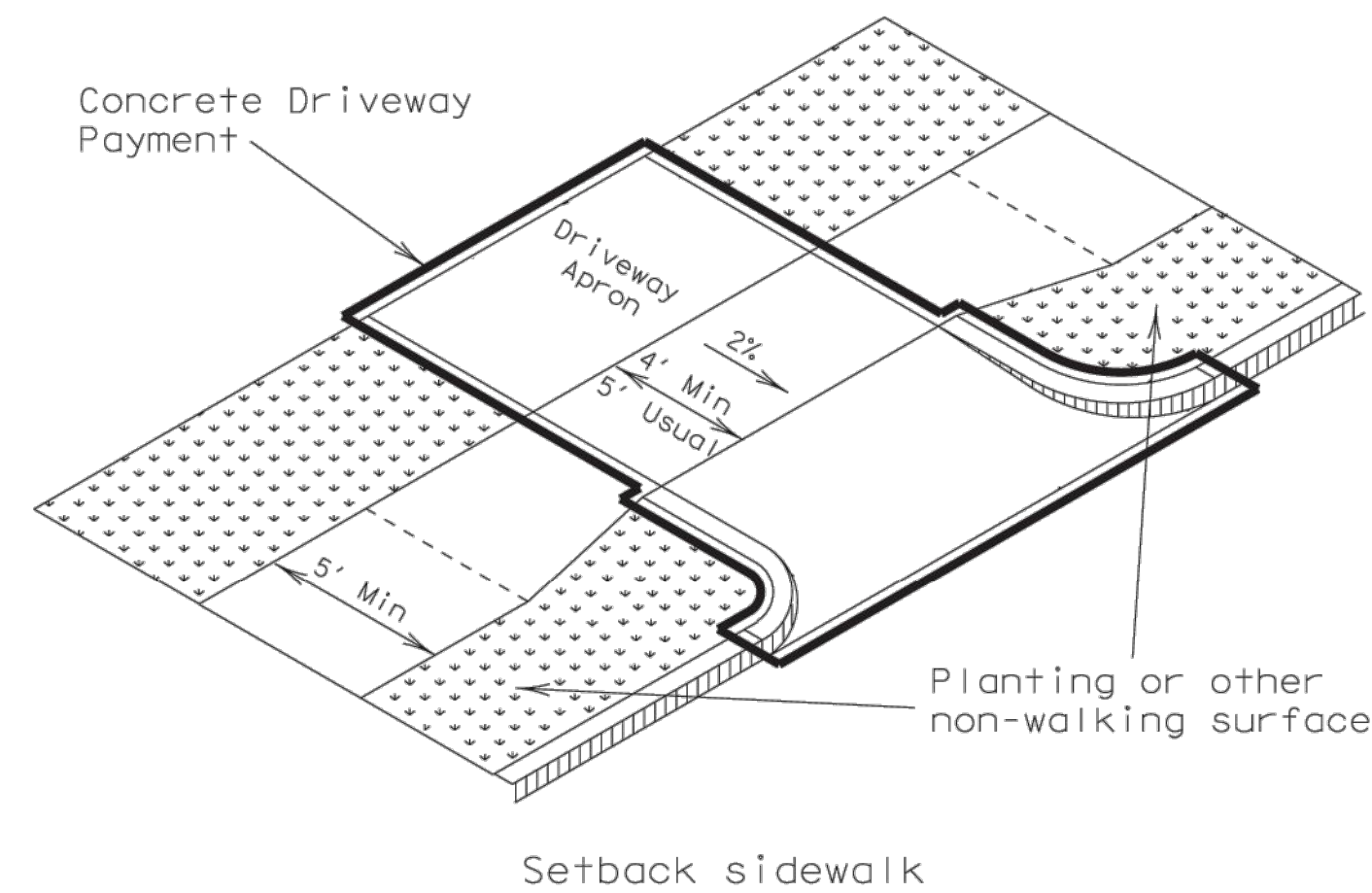
PARALLEL CURB RAMP
Typical placement of detectable warning surface on landing at street edge.

SHEET 2 OF 4

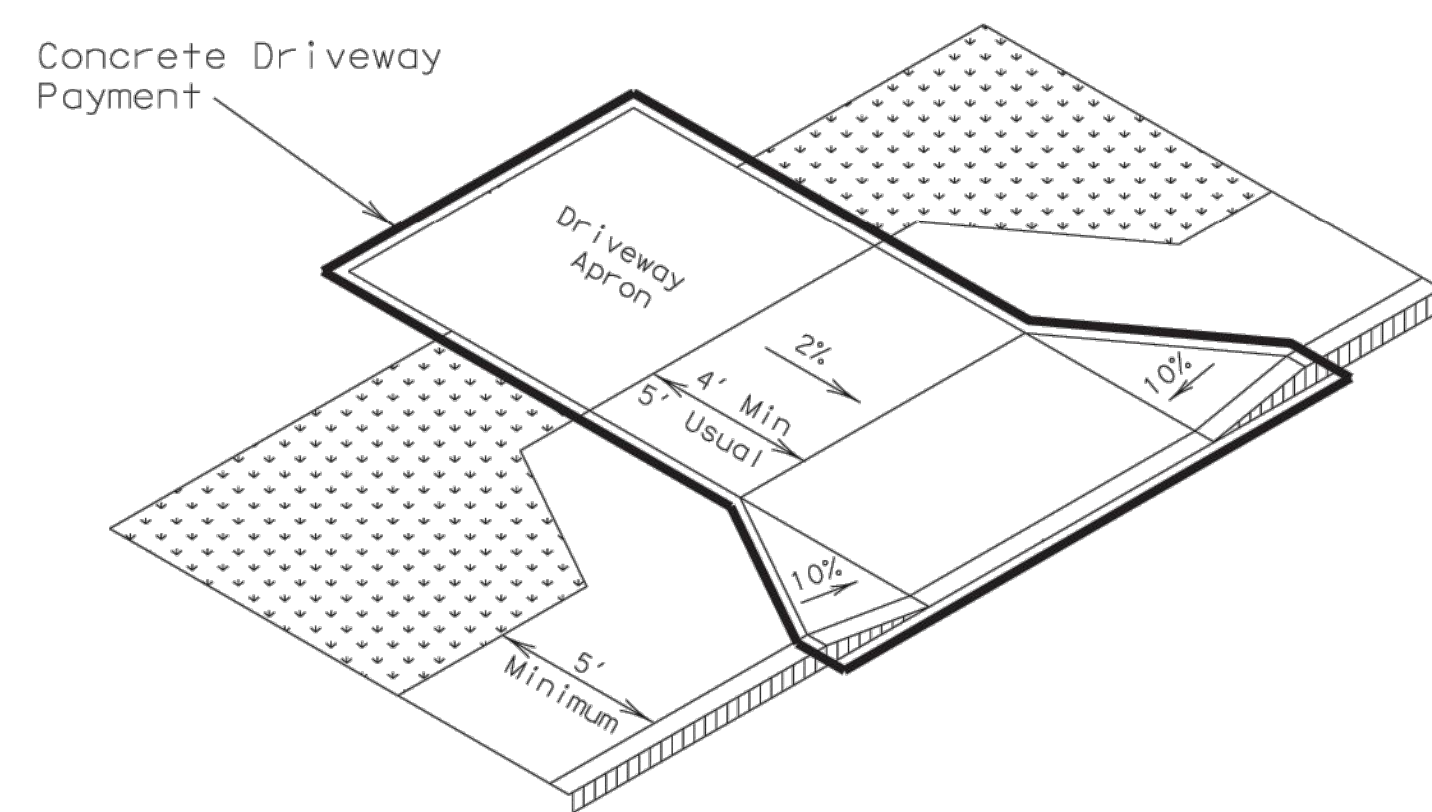
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PEDESTRIAN FACILITIES CURB RAMPS			
PED-12A			
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© TxDOT March 2002	CONT	SECT	JOB
REVISIONS			HIGHWAY
VP June 13, 2012	DIST	COUNTY	SHEET NO.

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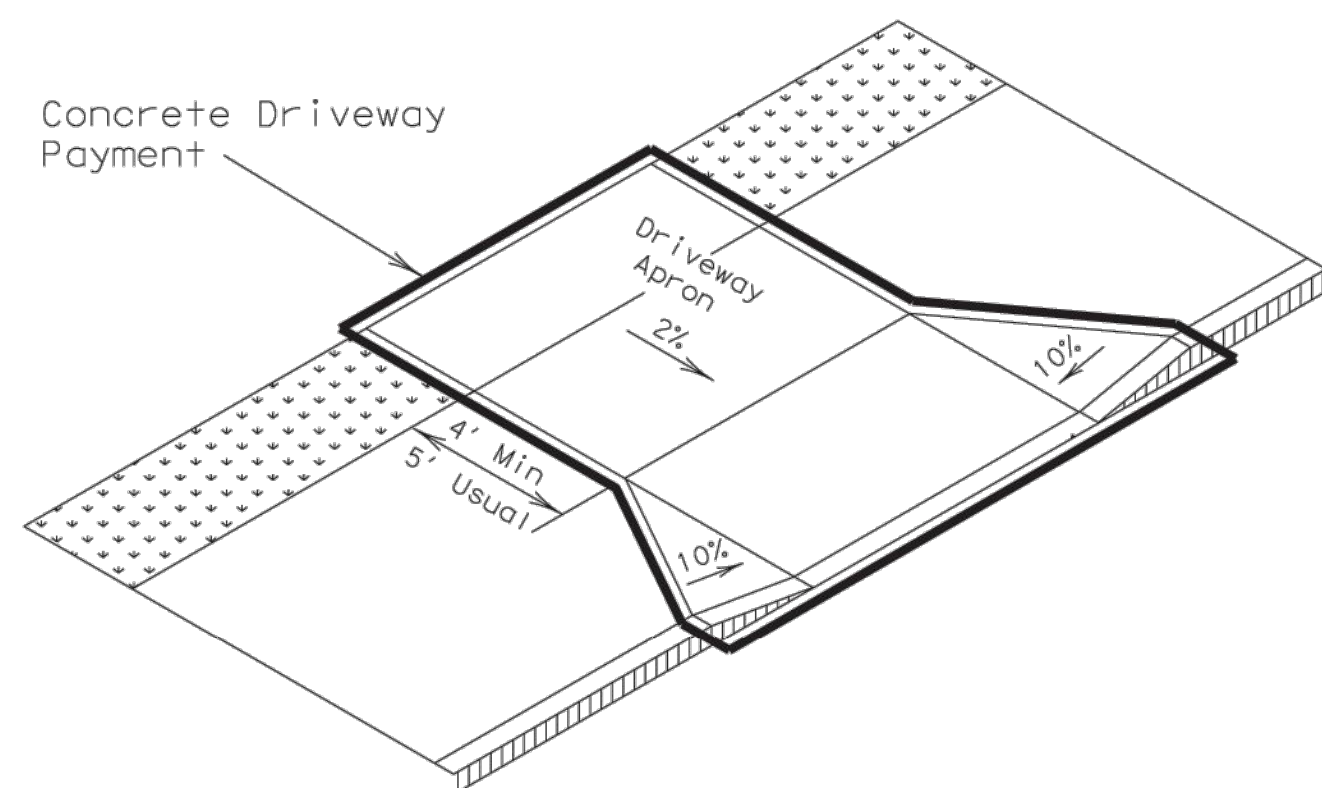
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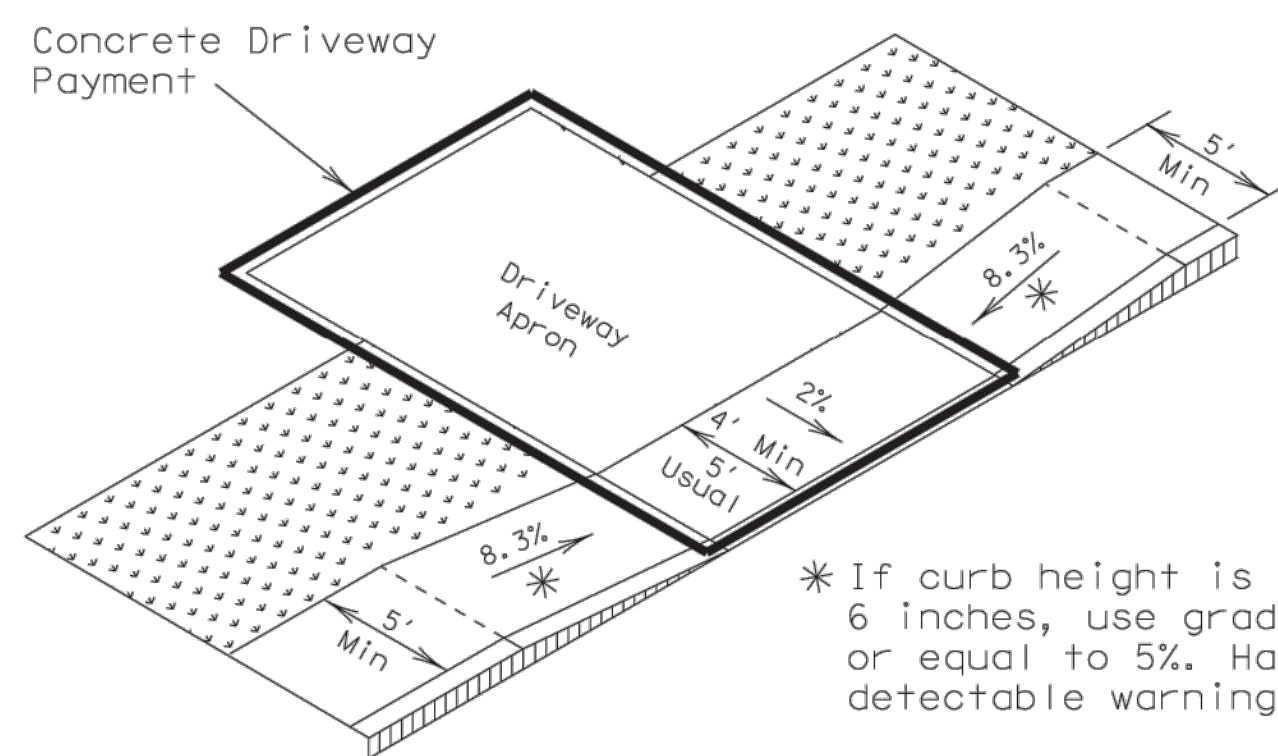
Setback sidewalk



Apron offset sidewalk



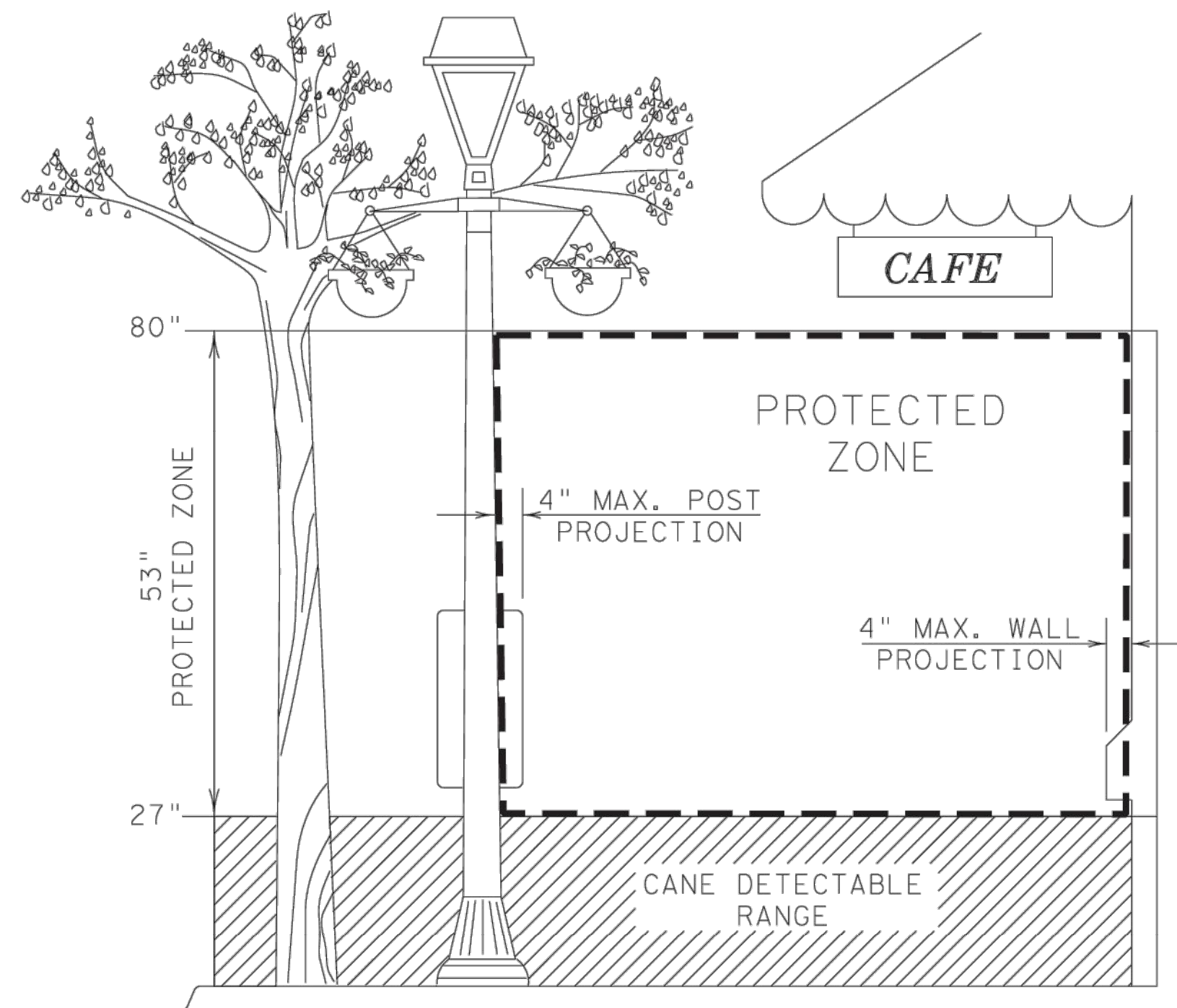
Wide sidewalk



* If curb height is greater than 6 inches, use grade less than or equal to 5%. Handrail and detectable warning not required.

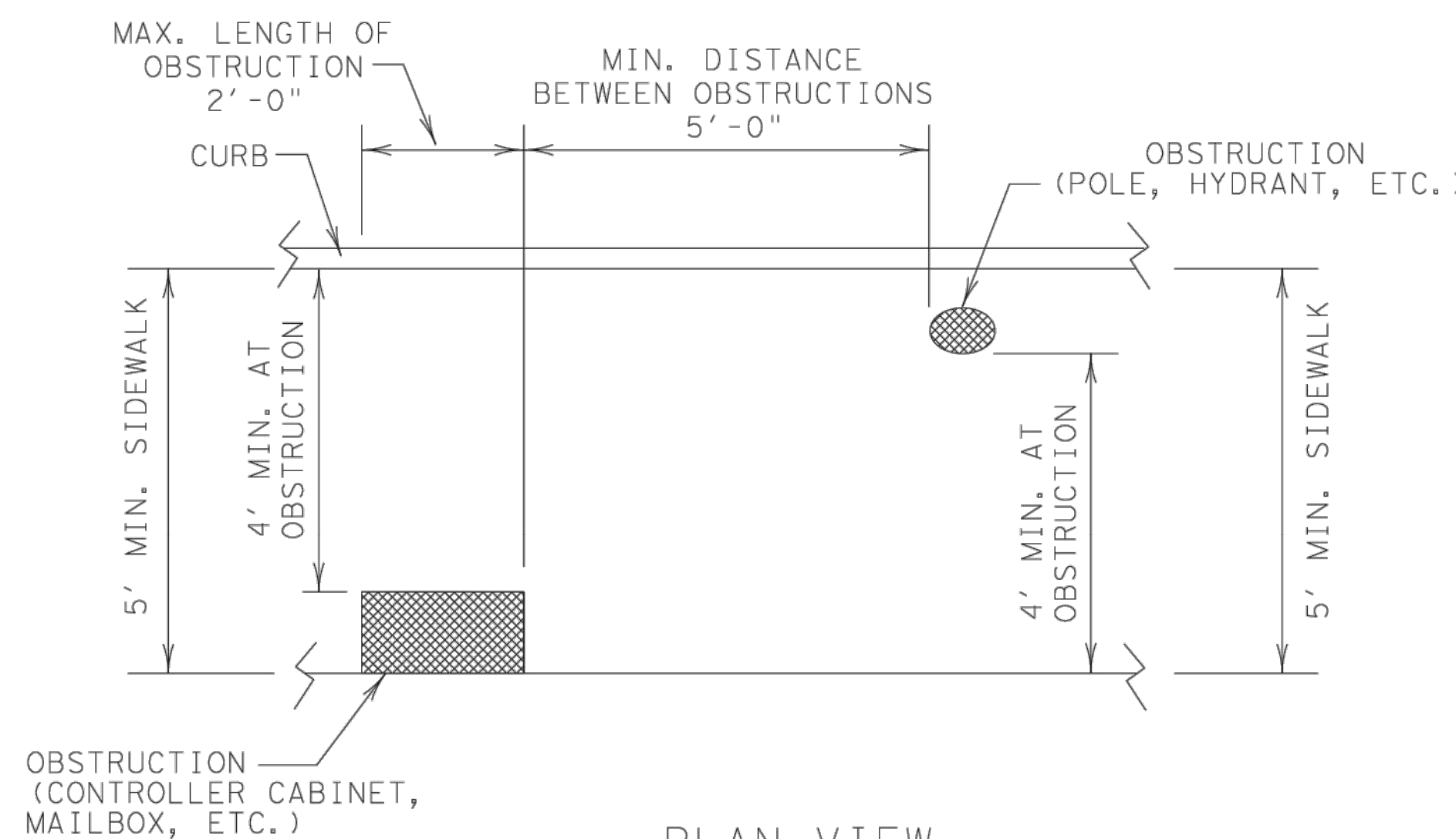
Ramp sidewalk

SIDEWALK TREATMENT AT DRIVEWAYS



PROTECTED ZONE

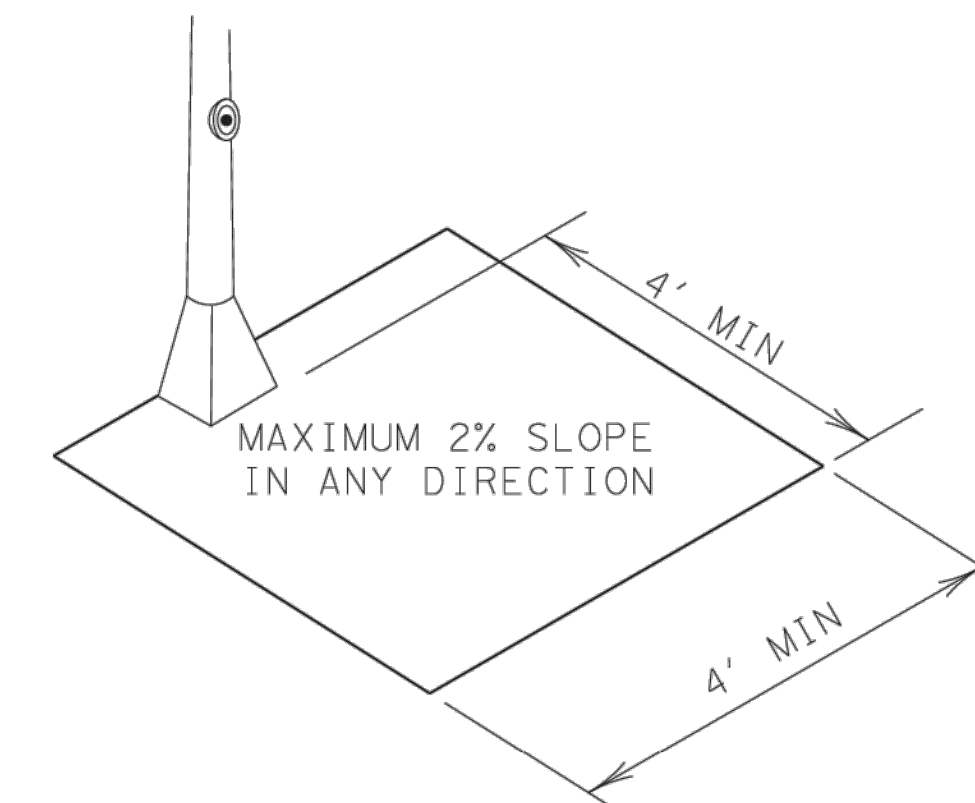
In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27" and 80" above the surface.



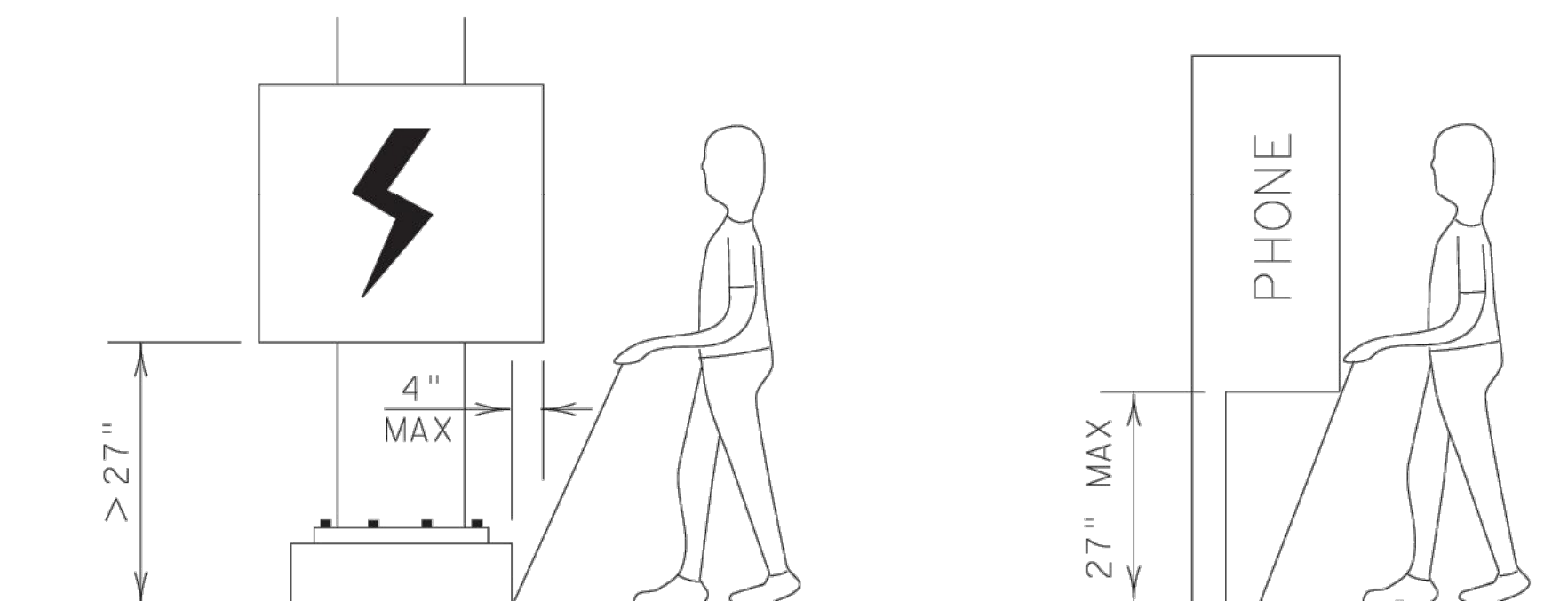
PLAN VIEW

PLACEMENT OF STREET FIXTURES

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



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON




When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.

Protruding objects of a height ≤ 27 " are detectable by cane and do not require additional treatment.

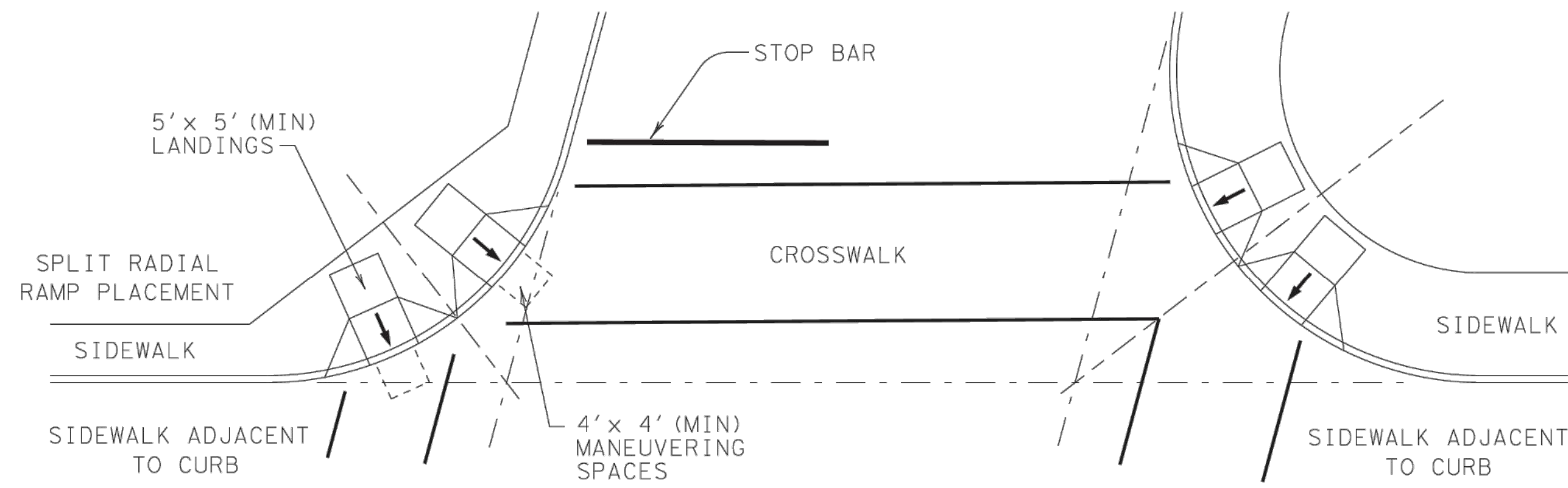
DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

SHEET 3 OF 4

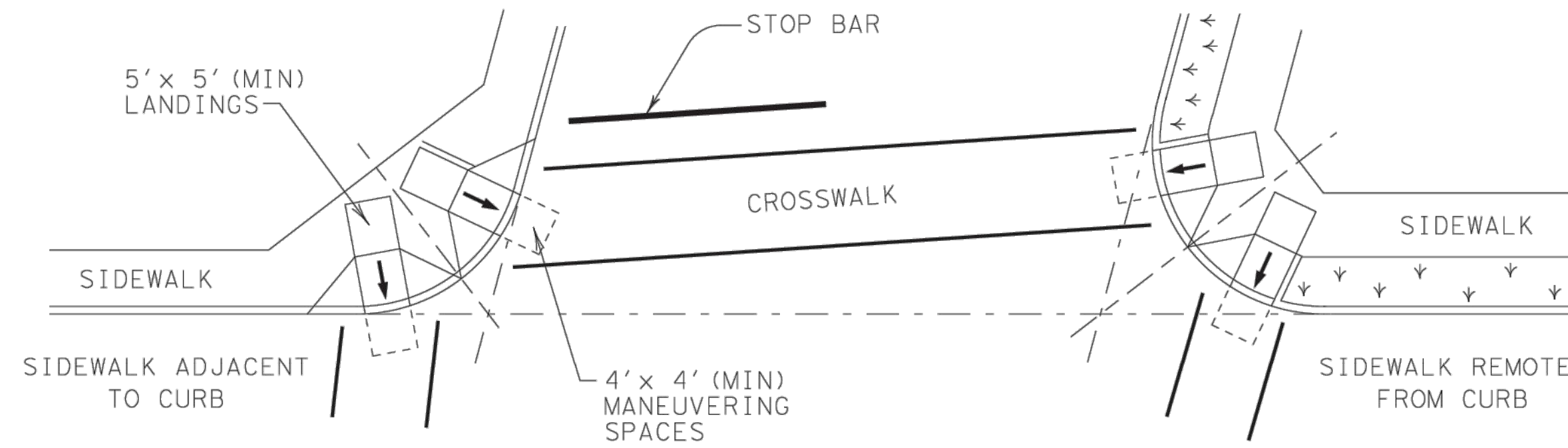


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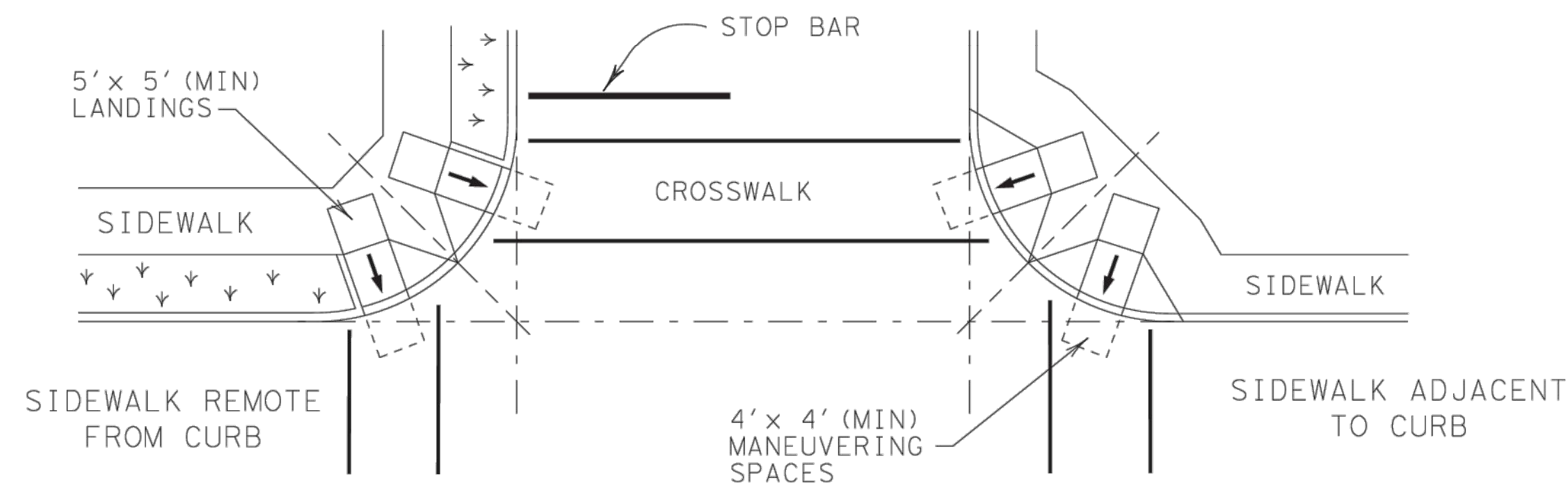
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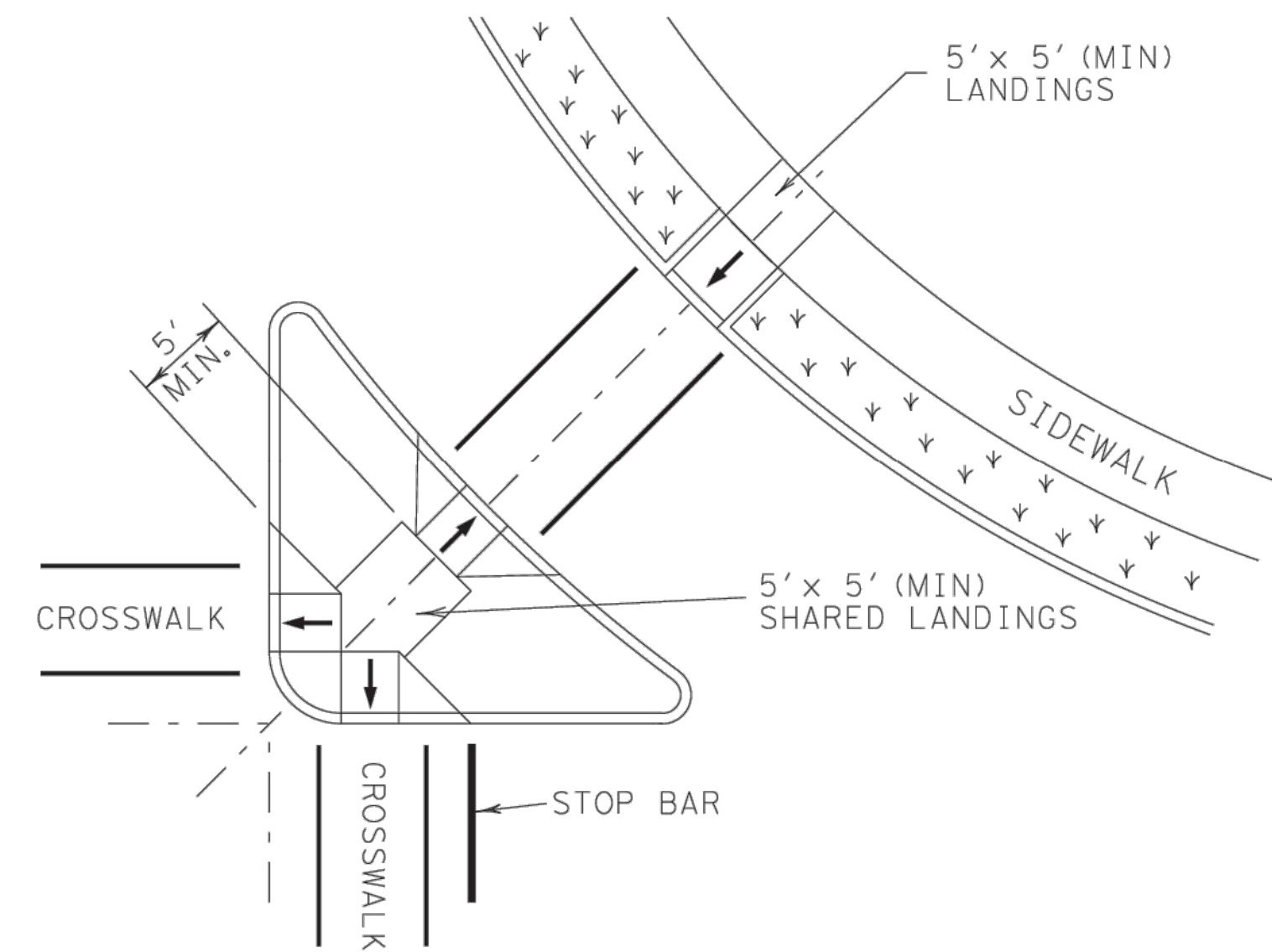
SKewed INTERSECTION WITH "LARGE" RADIUS



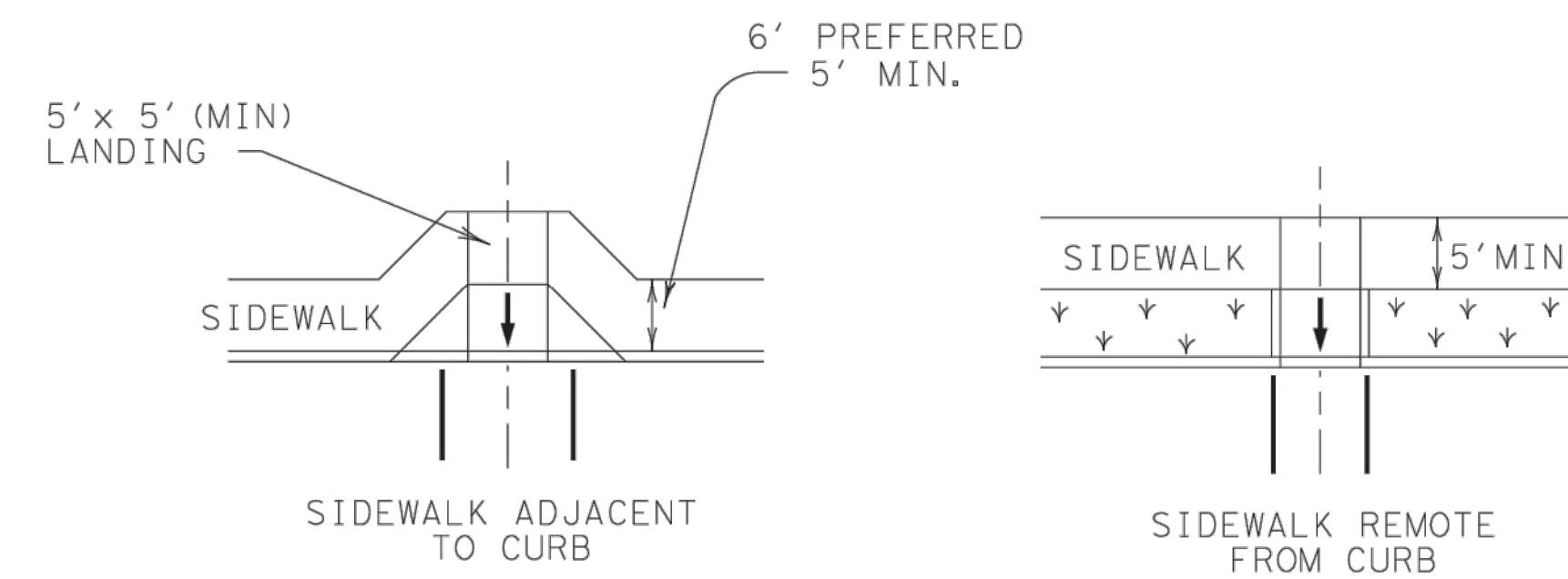
SKewed INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS




AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS

TYPICAL CROSSING LAYOUTS

SHEET 4 OF 4



Texas Department of Transportation

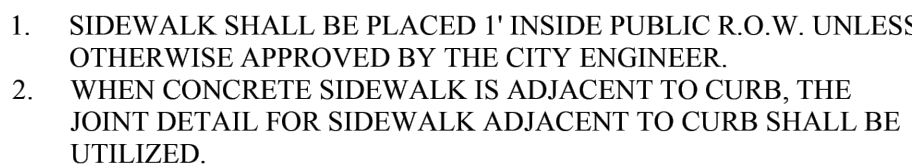
Design
Division
Standard

PEDESTRIAN FACILITIES

CURB RAMPS

PED-12A

FILE:	ped12a.dgn	DN: TxDOT	CK: PK	DW: TxDOT	CK: HD
© TxDOT	March 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS					
VP	June 13, 2012	DIST	COUNTY		SHEET NO.



1. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED. ADJUST CURB RAMP LENGTH OR GRADE OF APPROACH SIDEWALKS AS DIRECTED.
2. LANDINGS SHALL BE 5'X5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
3. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK OR WHOLLY OUTSIDE THE PARALLEL VEHICLE OR TRAVEL PATH.
4. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.
5. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDEWALKS.
6. 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.
7. CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE CITY ENGINEER.
8. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. PROVIDE CURB RAMPS WHEREVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
9. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
10. BARRIER FREE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS).
11. ALL BARRIER FREE RAMPS MUST PASS AN INDEPENDENT INSPECTION, A LETTER OF COMPLIANCE ACCEPTANCE IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE CITY OF SHERMAN.
12. STREETS ON STEEP GRADE WILL REQUIRE LONGER TRANSITION ON UPGRADE SIDE.
13. MAXIMUM SLOPE ON RAMP PORTION SHALL NOT EXCEED 1" PER FOOT AT ANY LOCATION. VERTICAL DISTANCE BETWEEN STREET AND RAMP SHALL NOT EXCEED 1/4".

1. DETECTABLE WARNING MATERIAL SHALL CONSIST OF CONCRETE PAVERS, FIRED CLAY PAVERS, CAST IRON PLATES OR STAINLESS STEEL PLATES.
2. CURB RAMP MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSIST OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 4.29 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST BE CONTIGUOUS WITH THE ADJACENT SURFACES, INCLUDING SIDE FLARES.
3. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
4. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
5. 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.
6. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 6" AND A MAXIMUM OF 8" FROM THE EXTENSION OF THE FACE OF CURB AND SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.

1. CONCRETE PAVER UNITS SHALL MEET OR EXCEED ALL REQUIREMENTS OF ASTM C-936. FIRED CLAY PAVER UNITS SHALL MEET OR EXCEED ALL REQUIREMENTS OF ASTM C-1272.
2. PAVER UNITS SHALL BE LAID IN A TWO BY TWO UNIT BASKET WEAVE PATTERN OR AS DIRECTED.
3. LAY FULL-SIZE UNITS FIRST FOLLOWED BY CLOSURE UNITS CONSISTING OF AT LEAST 25 PERCENT OF A FULL UNIT. CUT PAVER UNITS USING A POWER SAW.

- A. Permission to cut, bore or excavate Sherman City streets for utility service installation or repair must be approved by the Department of Engineering prior to any work, by obtaining an approved ROW permit.
- B. All expenses of the installation and repair of the street, alley, or public way shall be borne by the City of Sherman.
- C. All damage to the street resulting from cutting the pavement and/or excavation or for boring under the street will be the responsibility of the entity granted permission to perform the work.
- D. Traffic control shall be the responsibility of the contractor. Traffic shall be repaired or replaced in conformance with criteria set forth in the TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUCD) and City of Sherman Street Department, Sign and Signal requirements.
- E. Traffic control shall be provided by the contractor in the form of flashing lights, flashing signs, barrels, or other TMUCD approved equipment both day and night until the street is fully restored to its original condition. The contractor shall be responsible for the installation of traffic control in accordance with specifications set forth in the TMUCD and all other requirements specified by the City of Sherman Engineering Department.
- F. The street and/or alley to be repaired or replaced by the utility installation or repair shall be removed from the through lanes between the hours of 7:00 a.m. and 8:00 p.m. on Monday through Friday, 8:00 a.m. and 5:00 p.m. on Saturday, and 1:00 p.m. and 5:00 p.m. on Sunday, excluding the Christmas holidays. The street shall be closed on the following dates: December 24th, Christmas Day, Thanksgiving, Christmas Eve and Christmas Day, unless an exception has been granted by the Engineering Department.
- G. All surfaces not included in the utility cut/excavation shall be protected and kept clean by the responsible entity or its contractor, and if damaged replaced to the satisfaction of the Department of Engineering.
- H. All surfaces within the right-of-way which are not paved with concrete or asphalt shall be restored to their original condition, including grass, trees, shrubs, irrigation systems, sidewalks, curbs, sidewalks, trails and bike lanes.
- I. Where 100 or more feet of curb and/or gutter are to be replaced, plans and specifications shall be submitted and approved by the Department of Engineering.
- J. The location and/or excavation shall be marked with flags, signs, and the scope of work as originally permitted by the Engineering Department.
- K. Excavation spoils shall be removed from the ROW, by the Contractor, prior to the City forces backfilling the utility cut.
- L. For service Taps (refer to "Process for Tapping into City Water and/or Sewer Mains" available in the Engineering Department).
- M. The Contractor shall be responsible for the responsibility of the Contractor to replace, prior to City forces backfilling utility cuts within the street.

- A. All pavement removals shall be in straight lines. Saw cuts shall be neat rectangular or trapezoidal in shape, and edges shall be parallel and perpendicular or close to 45° from perpendicular to the existing surface. All rectangular shaped cuts with more than four sides or other existing patches will not be allowed.
- B. Cuts shall be made with a wheel cutting saw, cutting abrasive water jet, rototilling or an excavator with a cutting edge.
- C. Trench excavation, shoring, and stockpiling shall be in strict compliance with OSHA, State of Texas, and City of Sherman rules and regulations. All trench excavation shall be made by open cut to the depth required to construct or repair the facility and adequate shoring shall be installed to the depth required to be open cut. In accordance with the City of Sherman Engineering Department, such limitation is necessary for safety and convenience of the public.

- A. The top 4" of the cut shall be backfilled with a suitable flexbase material if the asphalt surface is not immediately replaced.
- B. Cuts filled with flowable backfill shall be bridged with steel street plates that overlap the trench width two feet on both sides and secured so they are not above the existing street surface.
- C. Plates are to be secured and provide a ramp along both transverse ends of the plates with cold-patch material.
- D. Plates are to be leveled with wood shims prior to securing the plates in place.
- E. Valves and manholes covering shall be set ¼ inch to ½ inch below the compacted finished street surface.


- A. All patches will be of the same material as the existing street and shall be per the appropriate detail.
- B. The exposed edge of the excavated asphalt pavement shall be painted with an Emulsified Asphalt Tack Coat to assure a good bond between the existing and new pavement.
- C. Asphalt patches shall be placed in three inch lifts and compacted by means of a mechanical roller.
- D. To achieve a smooth surface, the patch shall be finished with a hand float.
- E. Large asphalt patch areas may require the use of a self-propelled paver as determined by Engineering.
- F. Concrete patch material shall be placed using a mixture that is approved by Engineering.
- G. The concrete shall be placed and broomed in accordance with good practice.
- H. The concrete surface shall be broomed or matched to the existing finish already in place.


FLOWABLE FILL SHALL MEET THE FOLLOWING REQUIREMENTS:
250 PSI - 450 PSI COMPRESSIVE STRENGTH @ 28 DAYS
MATERIAL PI < 12
100% PASSING THE 3/4" SIEVE
MINIMUM SLUMP - 5"


Shall be free flowing, such as sand or hydraulically graded crushed stone fines, or mixed sand and gravel, or sandy loam. The material shall be free from lumps, stones over 2-inches in diameter, clay and organic matter.

FLEXIBLE BASE				CRUSHED CONCRETE/STONE	
	GRADE 1-2	GRADE 3	GRADE 5		GRADE 4
1 1/4"	0% - 10%	0% - 10%	0% - 5%	1 1/4"	0% - 10%
3/4"	10% - 35%	-	10% - 35%	3/4"	10% - 35%
1/2"	30% - 65%	-	35% - 65%	1/2"	30% - 65%
#4	45% - 75%	45% - 75%	45% - 75%	#4	45% - 75%
#40	65% - 90%	50% - 85%	70% - 90%	#40	65% - 90%
LL% max	40	40	35	LL% max	40
PI max	10	12	10	PI max	10

GRADE #57	
CRUSHED CONCRETE/STONE AT STANDARD GRADATION	
1 1/2"	0%
1"	95% - 100%
3/4"	25% - 50%
#4	1% - 10%
#40	0% - 5%

 <p>Sherman CLASSIC TOWN, BROAD HORIZON. ENGINEERING DEPARTMENT</p>	<p>PEDESTRIAN FACILITIES GENERAL NOTES</p>	STANDARD CONSTRUCTION DETAILS PAVING		
		<p>DATE: OCTOBER 2013</p>	<p>REVISED DATE: ----</p>	<p>SHEET: SD-P34</p>

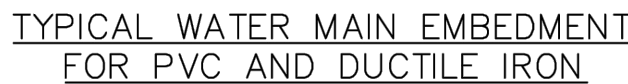
 <p>CLASSIC TOWN, BROAD HORIZON, ENGINEERING DEPARTMENT</p>	<p>GENERAL NOTES AND REQUIREMENTS</p>	<p>STANDARD UTILITIES</p>	<p>CONSTRUCTION TRENCHLINE & STREET</p>	<p>DETAILS RESTORATION</p>
		<p>DATE: OCT, 2013</p>	<p>REV DATE: OCT, 2022</p>	<p>SHEET : SD-U01</p>

 <p>CLASSIC TOWN. BROAD HORIZON. ENGINEERING DEPARTMENT</p>	<p>GENERAL NOTES AND REQUIREMENTS</p>	<p>STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION</p>		
		<p>DATE: OCT. 2013</p>	<p>REV DATE: OCT. 2022</p>	<p>SHEET : SD-U02</p>



STABILIZED SAND SHALL HAVE A MINIMUM OF 10% AND A MAXIMUM OF 20% PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THERE SHALL BE NO BROWN COLORING IN CEMENT STABILIZED SAND IS REQUIRED FOR THE RATED WASTEWATER MAIN AND LATERAL BEDDING.

P.V.C. WASTEWATER MAIN CEMENT STABILIZED SAND EMBEDMENT
FOR WATER MAIN CROSSINGS




NOTE:
THE FOLLOWING COMPACTION REQUIREMENTS SHALL
BE FOLLOWED BASED ON THE BACKFILL MATERIAL
BEING USED.

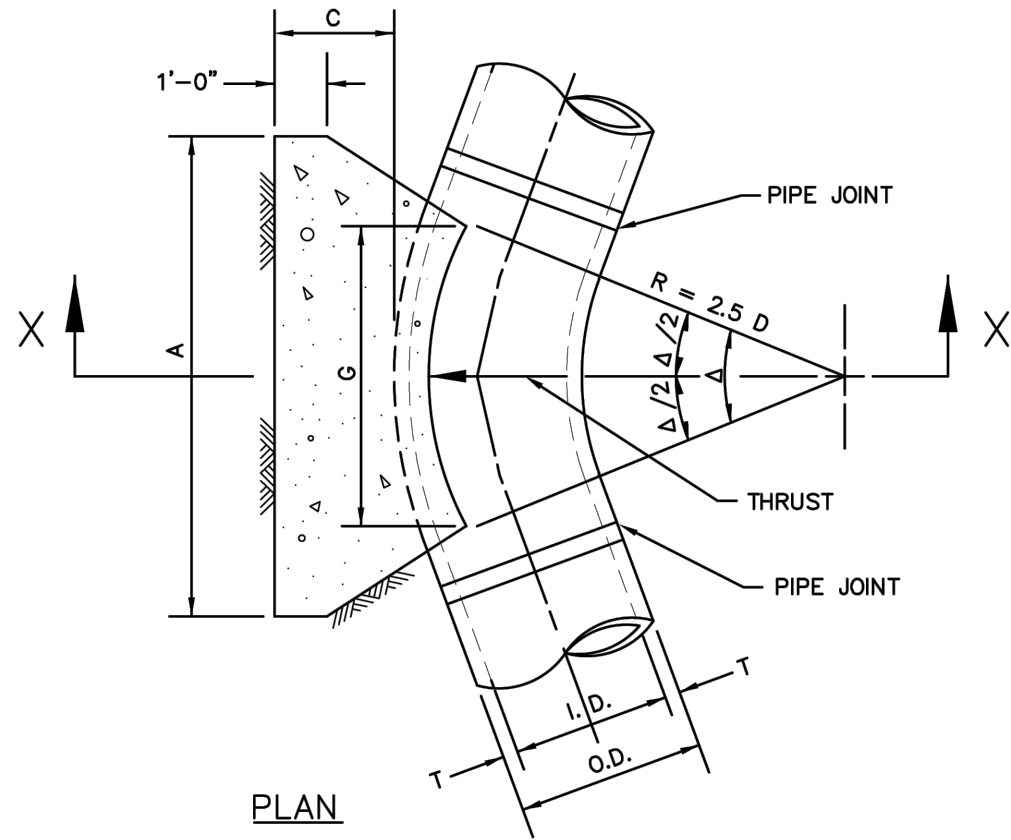
- IF THE BACKFILL MATERIAL HAS A P.I. LESS THAN OR EQUAL TO 20 IT MUST BE MOISTURE TREATED TO -2% TO 4% ABOVE OPTIMUM AT 95% STANDARD PROCTOR.
- IF THE BACKFILL MATERIAL HAS A P.I. GREATER THAN 20 IT MUST BE MOISTURE TREATED TO 3% ABOVE OPTIMUM AT 95% STANDARD PROCTOR.



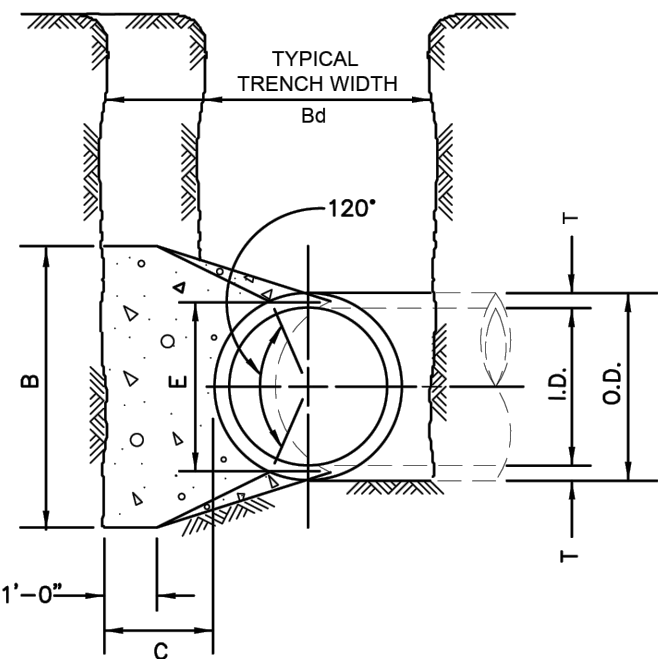
 CLASSIC TOWN, BROAD HORIZON, ENGINEERING DEPARTMENT	P.V.C. WASTEWATER MAIN EMBEDMENT	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION		
		DATE: OCTOBER, 2022	REV DATE: -	SHEET : SD-U04

 CLASSIC TOWN, BROAD HORIZON, ENGINEERING DEPARTMENT	WATER MAIN EMBEDMENT	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION	
		DATE: OCTOBER 2022	REV DATE: - SHEET: SD-U05

 CLASSIC TOWN, BROAD HORIZON, ENGINEERING DEPARTMENT	UTILITY BACKFILL DETAIL	STANDARD CONSTRUCTION DETAILS UTILITIES TRENCHLINE & STREET RESTORATION		
		DATE: OCTOBER 2022	REV DATE: --	SHEET: SD-U07



PLAN



SECTION X-X

I.D. (IN.)	T (IN.)	Δ = 11.25° (FT.)	Δ = 22.50° (FT.)	E (FT.)
4.6,8	0.4	1.5	1.5	0.9
10,12	0.5	1.5	1.5	1.2
16,18	0.6	1.5	1.5	1.6
20	0.7	1.5	1.5	1.8
24	0.9	1.5	1.5	2.1
30	2.9	1.5	1.9	2.6
36	4.5	1.5	2.3	3.3
42	5.0	1.8	2.6	3.8
48	5.5	2.0	3.0	4.3
54	6.0	2.3	3.4	4.8
60	6.5	2.5	3.8	5.3
66	6.8	2.8	4.1	5.7
72	7.5	3.0	4.5	6.3
78	7.5	3.3	4.9	6.7
84	8.0	3.5	5.3	7.2
90	8.5	3.8	5.6	7.7
96	9.0	4.0	6.0	8.2

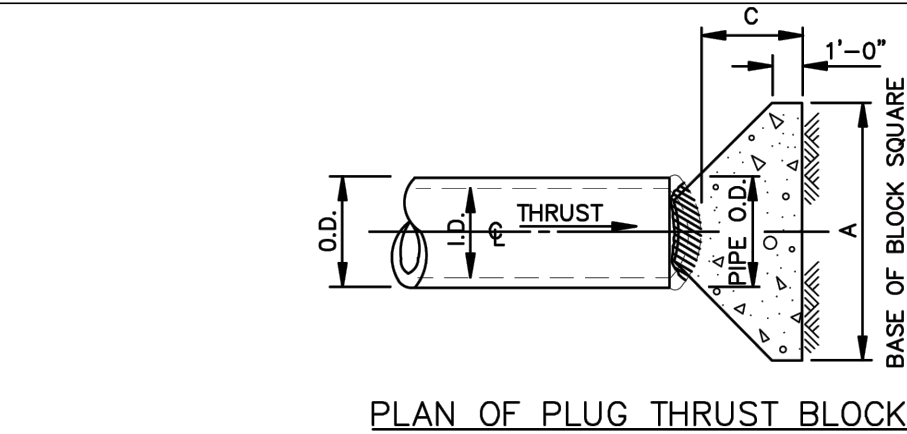
Δ = 11.25°						Δ = 22.50°					
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)
4.6,8	0.4	1.0	1.0	1.5	0.1	4.6,8	0.8	2.0	1.5	0.1	0.1
10,12	0.6	2.2	1.5	1.5	0.1	10,12	1.1	4.4	2.0	2.5	0.3
16,18	0.8	5.0	2.0	2.5	0.3	16,18	1.6	9.9	3.0	3.5	0.6
20	0.9	6.2	2.0	3.5	0.4	20	1.8	12.3	3.5	3.5	0.7
24	1.1	8.9	3.0	3.5	0.5	24	2.2	17.7	4.0	4.5	1.0
30	1.4	10.4	3.0	3.5	0.6	30	2.7	20.7	5.0	4.5	1.3
36	1.7	15.0	3.5	4.5	0.9	36	3.3	29.8	5.5	5.5	2.0
42	1.9	20.4	4.5	5.0	1.5	42	3.8	40.5	7.0	6.0	3.5
48	2.2	26.6	4.5	6.0	2.0	48	4.4	52.9	8.0	7.0	4.5
54	2.5	33.7	6.0	6.0	3.0	54	4.9	67.0	9.0	8.0	6.0
60	2.7	41.6	6.0	7.0	3.8	60	5.5	82.7	9.5	9.0	7.0
66	3.0	50.3	6.5	8.0	5.1	66	6.0	100.1	10.5	10.0	8.0
72	3.3	59.9	7.5	8.0	6.3	72	6.6	119.1	11.0	11.0	9.0
78	3.6	70.2	8.0	9.0	8.1	78	7.1	139.8	12.0	12.0	10.0
84	3.8	81.5	8.5	10.0	10.3	84	7.6	162.1	13.0	12.5	11.0
90	4.1	93.5	9.5	10.0	12.2	90	8.2	186.1	14.0	13.5	12.0
96	4.4	106.4	10.0	11.0	15.0	96	8.7	211.7	15.0	14.5	13.0

TABLES OF DIMENSIONS AND QUANTITIES

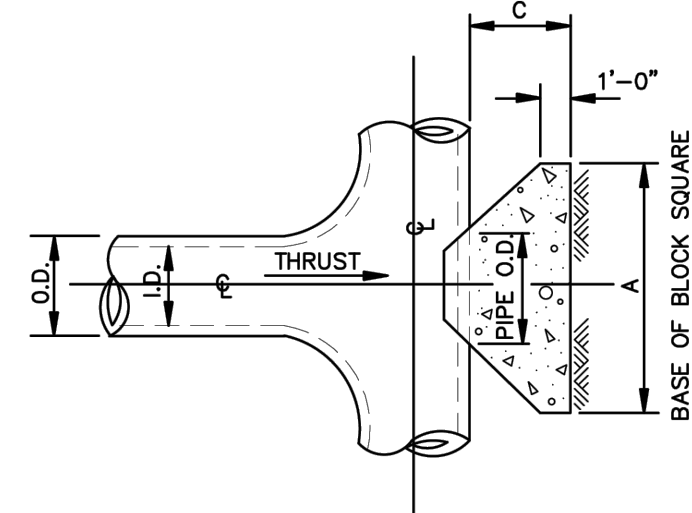
Δ = 30°						Δ = 45°					
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)
4.6,8	1.0	2.6	2.0	1.5	0.2	4.6,8	1.5	3.9	2.0	0.2	0.1
10,12	1.5	5.9	2.5	2.5	0.3	10,12	2.2	8.7	3.5	0.5	0.3
16,18	2.2	13.2	3.5	4.0	0.8	16,18	3.2	19.5	4.5	1.2	0.6
20	2.4	16.3	4.5	4.0	1.0	20	3.6	24.1	5.5	1.5	0.7
24	2.9	23.4	6.0	4.0	1.4	24	4.3	34.6	8.0	4.5	1.1
30	3.6	27.5	6.5	5.0	1.9	30	5.4	40.6	8.5	5.0	1.6
36	4.4	39.5	7.0	6.0	3.4	36	6.5	58.5	10.0	6.0	2.6
42	5.1	53.8	8.0	7.0	5.1	42	7.5	79.6	11.5	7.0	4.0
48	5.8	70.3	9.0	8.0	7.4	48	8.6	104.0	13.0	8.0	6.0
54	6.5	89.0	10.0	9.0	10.3	54	9.7	131.5	15.0	9.0	8.0
60	7.3	110.0	11.0	10.0	13.9	60	10.7	162.4	16.5	10.0	11.0
66	8.0	132.9	12.5	11.0	18.9	66	11.8	196.5	18.0	11.0	12.0
72	8.7	158.2	13.5	12.0	24.0	72	12.9	233.9	19.5	12.0	14.0
78	9.4	185.6	14.5	13.0	30.0	78	13.9	274.5	21.5	13.0	16.0
84	10.1	215.3	15.5	14.0	37.1	84	15.0	318.4	23.0	14.0	18.0
90	10.9	247.1	16.5	15.0	45.0	90	16.1	365.5	24.5	15.0	20.0
96	11.6	281.2	18.0	16.0	55.5	96	17.1	415.6	26.0	16.0	22.0

Δ = 67.50°						Δ = 90°					
I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	G (FT.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)
4.6,8	2.1	5.6	3.0	2.0	0.3	4.6,8	2.7	7.1	5.0	1.5	0.2
10,12	3.1	12.6	5.5	2.5	0.8	10,12	4.0	16.0	6.5	2.5	0.5
16,18	4.7	28.3	7.5	4.0	1.9	16,18	6.0	36.0	9.0	4.0	1.0
20	5.2	34.9	9.0	4.0	2.3	20	6.6	44.4	10.0	4.5	1.5
24	6.2	50.3	11.5	4.5	3.5	24	7.9	64.0	14.5	4.5	2.1
30	7.8	58.9	12.0	5.0	4.8	30	9.9	75.0	15.0	5.0	3.3
36	9.4	84.9	14.5	6.0	8.2	36	11.9	108.0	18.0	6.0	5.3
42	10.9	115.5	17.0	7.0	12.8	42	13.9	147.0	21.0	7.0	8.0
48	12.5	150.9	19.0	8.0	18.4	48	15.9	192.0	24.0	8.0	12.4
54	14.0	191.0	21.5	9.0	26.0	54	17.9	243.0	27.0	9.0	18.1
60	15.6	235.8	24.0	10.0	35.6	60	19.9	299.8	30.0	10.0	25.0
66	17.1	285.3	26.0	11.0	46.0	66	21.8	362.8	33.0	11.0	32.5
72	18.7	339.5	28.5	12.0	57.8	72	23.8	431.8	36.0	12.0	41.0
78	20.2	398.5	31.0	13.0	75.7	78	25.7	506.7	39.0	13.0	50.0
84	21.8	462.1	33.5	14.0	94.7	84	27.7	587.7	42.0	14.0	60.0
90	23.3	530.5	35.5	15.0	114.4	90	29.0	674.6	45.0	15.0	71.0
96	24.9	603.6	38.0	16.0	138.9	96	31.6	767.5	48.0	16.0	83.0

TABLES OF DIMENSIONS AND QUANTITIES



PLAN OF PLUG THRUST BLOCK



PLAN OF TEE THRUST BLOCK

EARTH						ROCK					
I.D. (IN.)	THRUST (TONS)	C (FT.)	A (FT.)	B (FT.)	VOL. (C.Y.)	I.D. (IN.)	THRUST (TONS)	C (FT.)	A (FT.)	B (FT.)	VOL. (C.Y.)
4.6,8	5.1	1.5	2.5	0.3	2.0	4.6,8	5.5	13.5	21.4	9.5	11.9
10,12	11.3	1.5	3.5	0.6	2.5	10,12	12.0	15.0	28.4	10.5	15.7
16,18	25.5	2.0	5.5	1.8	4.0	16,18	25.0	16.5	36.8	11.5	20.5
20	31.5	2.0	6.0	1.9	4.0	20	31.5	17.5	47.2	12.5	27.2
24	45.2	2.5	7.0	3.1	5.0	24	35.8	19.0	58.9	13.5	33.7
30	53.0	3.0	7.5	4.1	5.5	30	41.6	20.5	72.3	14.5	41.2
36	76.3	4.0	9.0	7.3	6.5	36	47.7	22.0	87.7	15.5	49.7
42	104.0	4.5	10.5	11.0	7.5	42	54.3	23.5	104.8	16.5	61.0
48	136.0	5.0	12.0	15.6	8.5	48					

TABLES OF DIMENSIONS AND QUANTITIES

Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

HORIZONTAL THRUST BLOCK
AT PIPE BEND

STANDARD CONSTRUCTION DETAILS
WATER
DATE: OCTOBER, 2012 REV DATE: SHEET: SD-W4

Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

HORIZONTAL THRUST BLOCK
DIMENSIONS & QUANTITIES

STANDARD CONSTRUCTION DETAILS
WATER
REV DATE: OCTOBER, 2012 REV DATE: SHEET: SD-W5

Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

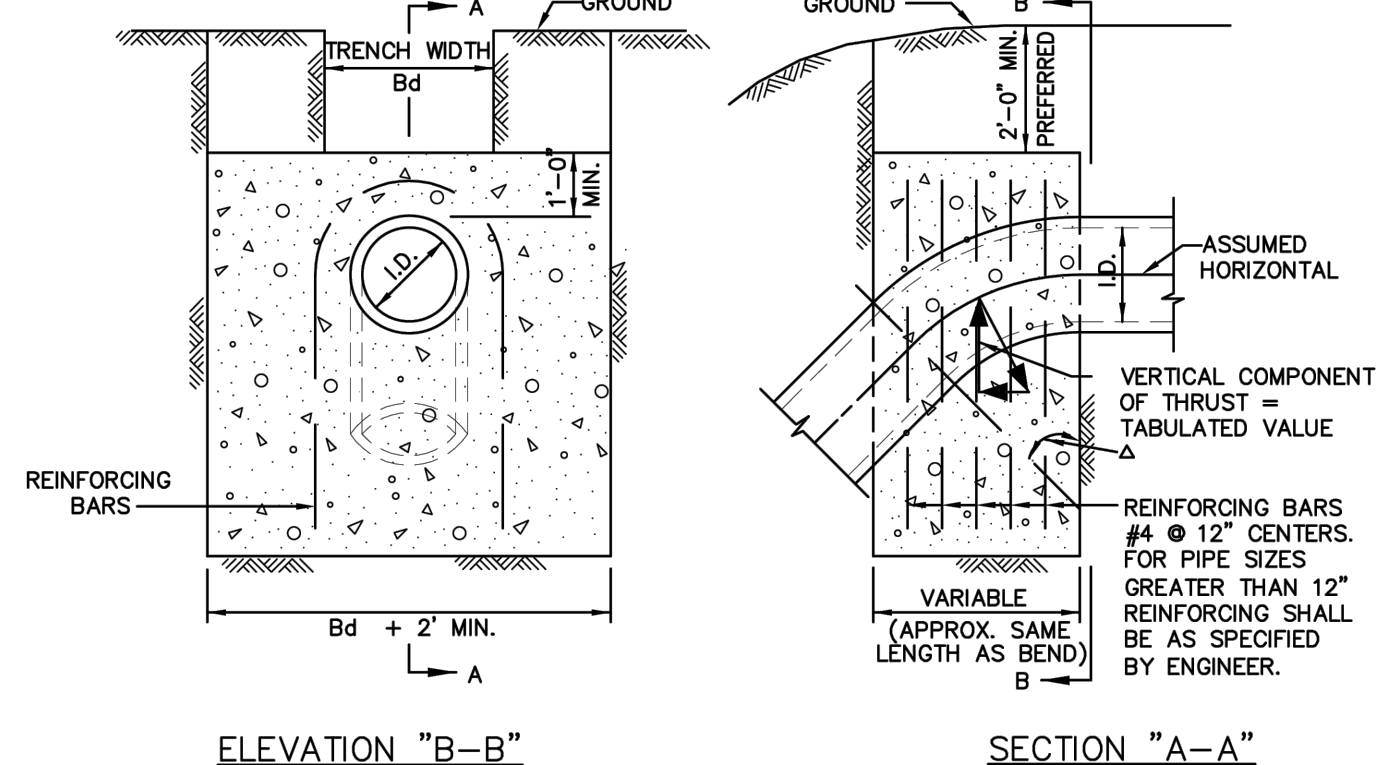
HORIZONTAL THRUST BLOCK
DIMENSIONS & QUANTITIES

STANDARD CONSTRUCTION DETAILS
WATER
DATE: APRIL, 2012 REV DATE: SHEET: SD-W6

Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

HORIZONTAL THRUST BLOCK
AT TEES & PLUGS

STANDARD CONSTRUCTION DETAILS
WATER
DATE: APRIL, 2012 REV DATE: SHEET: SD-W7



ELEVATION "B-B"

SECTION "A-A"

Δ	11.25°	22.50°	30°	45°	67.50°	90°	Δ
I.D. (IN.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	I.D. (IN.)
4.6,8	1.0	0.5	2.0	1.0	2.5	1.3	4.6,8
10,12	2.2	1.1	4.3	2.2	5.7	2.8	10,12
16,18	5.0	2.5	9.7	4.9	12.7	6.4	16,18
20	6.1	3.1	12.0	6.0	15.7	7.9	20
24	8.2	4.4	17.3	8.7	22.6	11.3	24
30	10.5	5.2	20.3	10.1	26.5	13.3	30
36	14.9	7.5	29.2	14.6	38.2	19.1	36
42	20.3	10.1	39.8	19.9	52.0	26.0	42
48	26.5	13.2	51.9	26.0	67.9	33.9	48
54	33.5	16.8	65.7	32.9	85.9	42.9	54
60	41.4	20.7	81.2	40.6	106.0	53.0	60
66	50.1	25.0	98.2	49.1	128.0	64.2	66
72	59.6	29.8	117.0	58.4	153.0	76.3	72
78	69.9	35.0	137.0	68.6	179.0	90.0	78
84	81.1	40.5	159.0	79.5	208.0	104.0	84
90	93.1	46.5	183.0	91.3	239.0	119.0	90
96	106.0	53.0	208.0	104.0	272.0	136.0	96

VERTICAL THRUST BLOCK

Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

VERTICAL THRUST BLOCK AT
PIPE BEND

STANDARD CONSTRUCTION DETAILS
WATER
DATE: APRIL, 2012 REV DATE: SHEET: SD-W8

Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

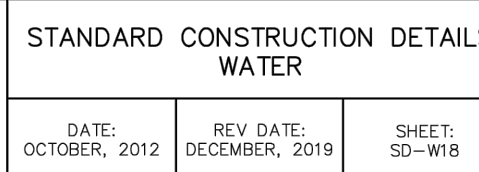
VALVE SETTING BOX

STANDARD CONSTRUCTION DETAILS
WATER
DATE: OCTOBER, 2012 REV DATE: SHEET: SD-W9

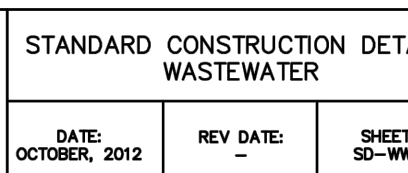
Sherman
CLASSIC TOWN, BROAD HORIZON,
ENGINEERING DEPARTMENT

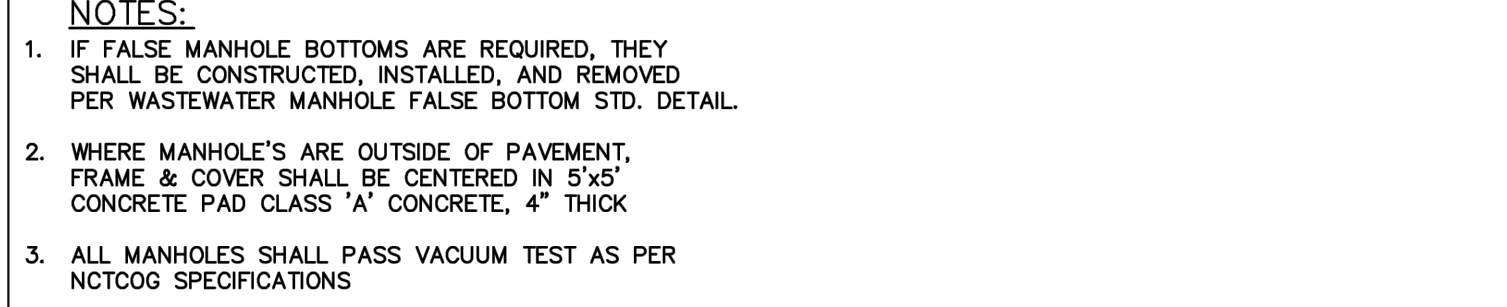
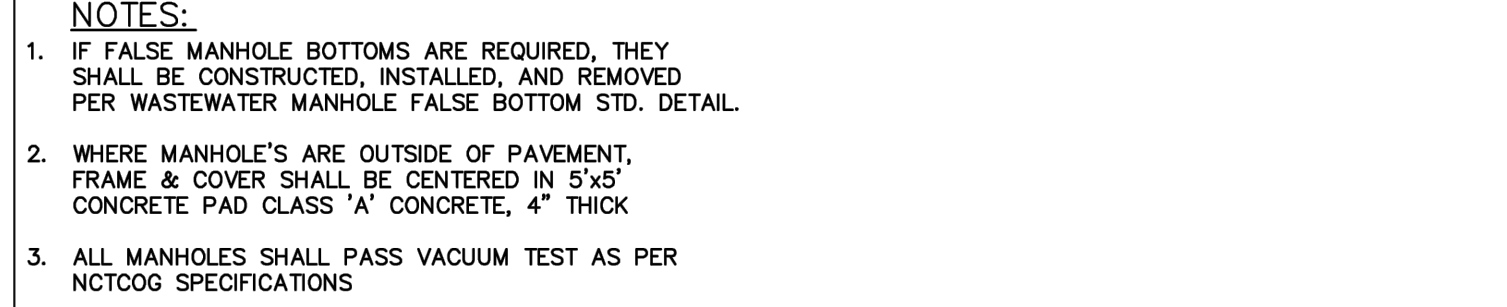
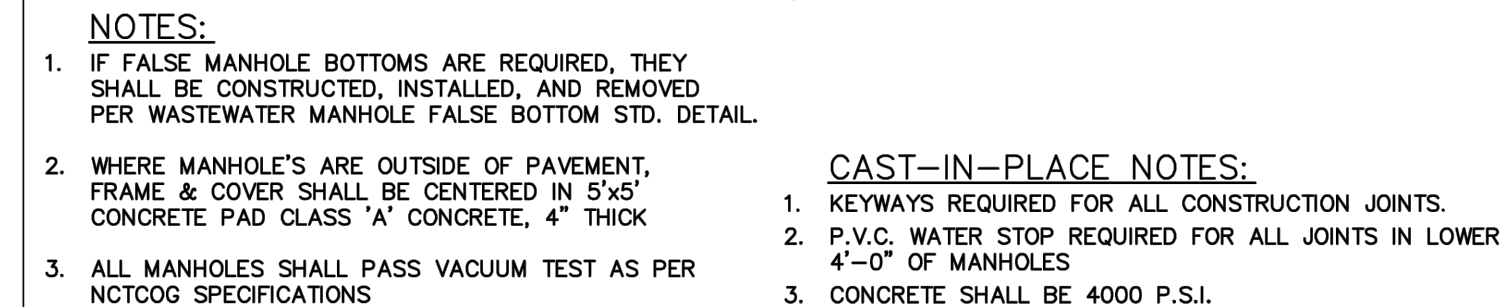
VALVE BOX WITH EXTENSION

ST

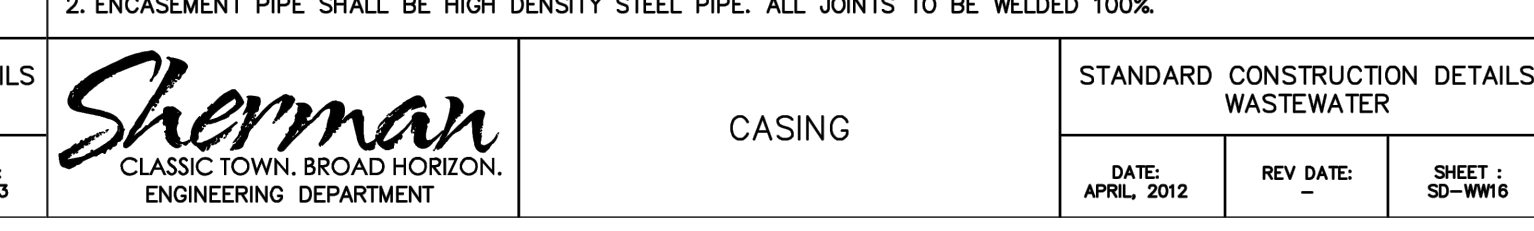
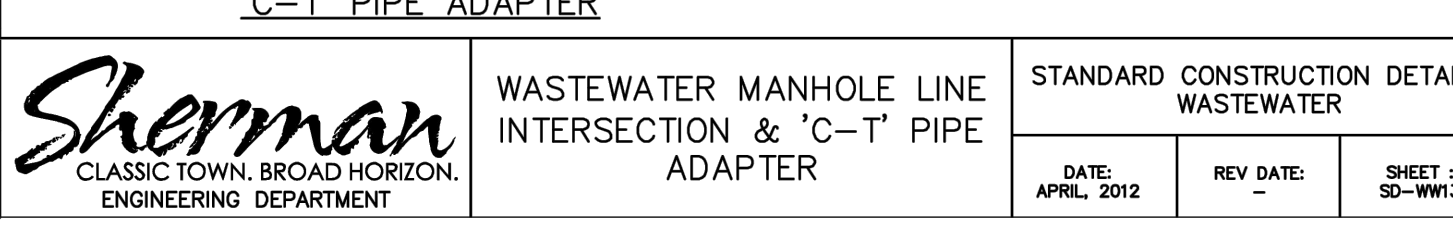


Sherman
CLASSIC TOWN. BROAD HORIZON.
ENGINEERING DEPARTMENT

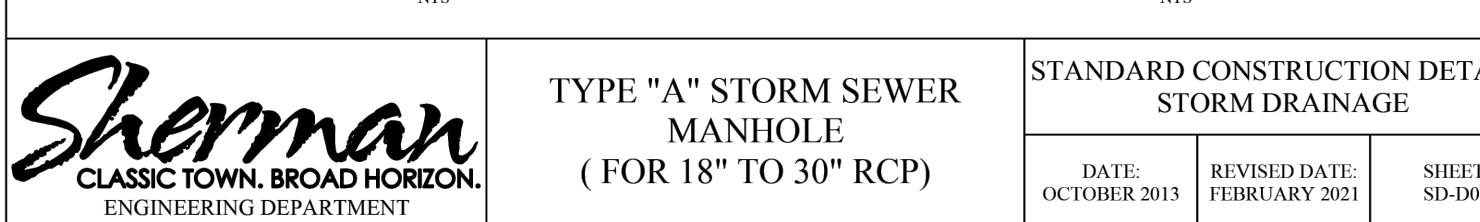




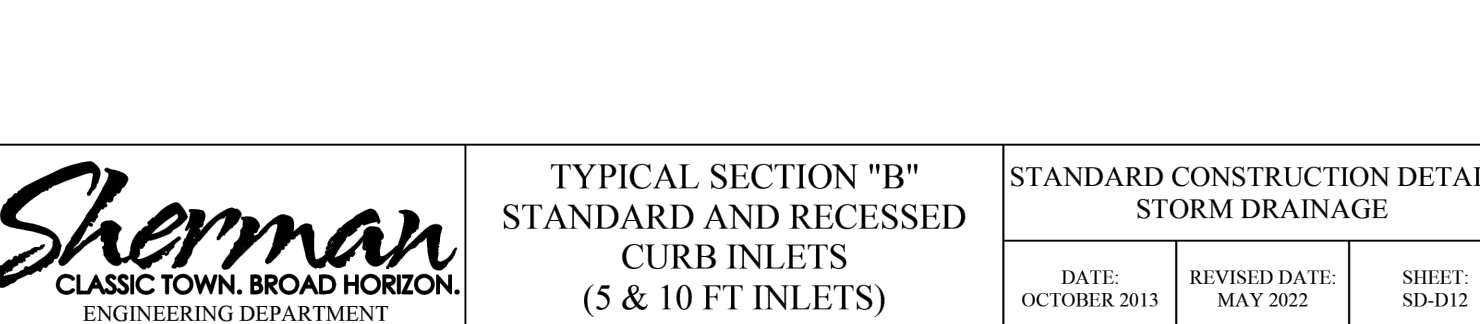
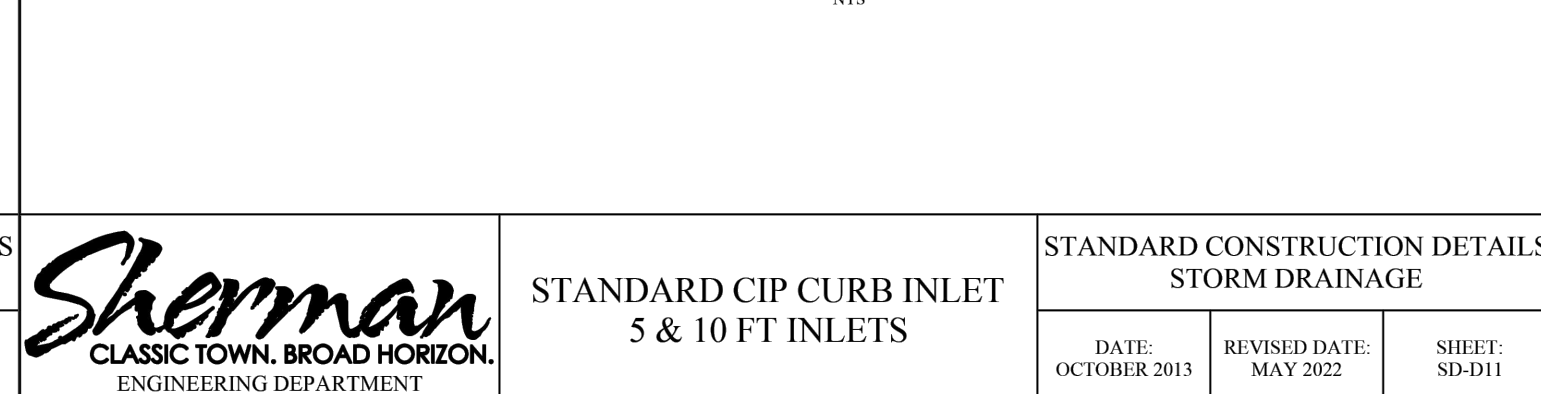
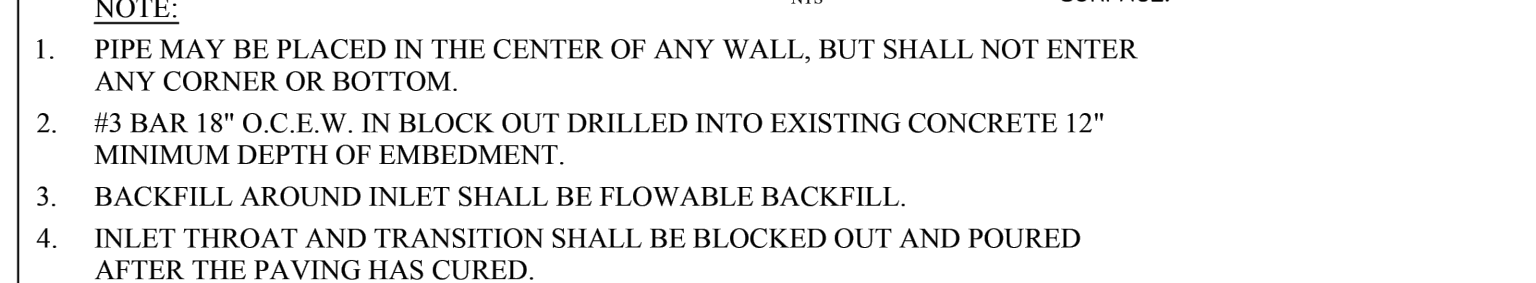
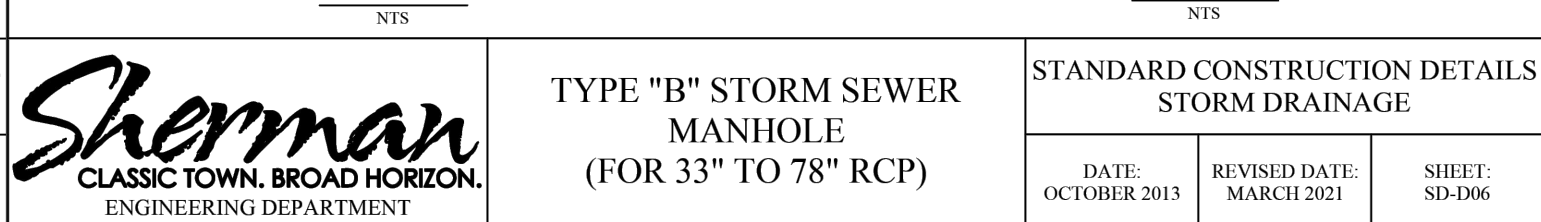
<div><div>Sherman</div><div>CLASSIC TOWN, BROAD HORIZON.</div><div>ENGINEERING DEPARTMENT</div></div>	INTERIOR DROP MANHOLE CONNECTION		STANDARD CONSTRUCTION DETAILS WASTEWATER		
			DATE: APRIL, 2012	REV DATE: MARCH 2022	SHEET : 50--W009




1. SEE CITY OF SHERMAN STD. FRAME AND COVER DETAIL.
2. ALL CAST IRON FITTINGS SHALL BE DOMESTIC.
3. SEE THE APPROVED MATERIAL LIST FOR GRADE RINGS, RING AND LID, MORTAR, NON-SHRINK GROUT AND SELF LEVELING SEALANT.
4. SEE NOTES FOR CONCRETE STRENGTH
5. CAST IRON MANHOLE FRAME AND COVER TO BE SET FLUSH WITH PAVEMENT OR NO LESS THAN 1" OR HIGHER THAN 4" ABOVE GRADE IN NON-PAVED AREAS.



1. SEE CITY OF SHERMAN STD. FRAME AND COVER DETAIL.
2. ALL CAST IRON FITTINGS SHALL BE DOMESTIC.
3. SEE THE APPROVED MATERIAL LIST FOR GRADE RINGS, RING AND LID, MORTAR, NON-SHRINK GROUT AND SELF LEVELING SEALANT.
4. SEE NOTES FOR CONCRETE STRENGTH
5. CAST IRON MANHOLE FRAME AND COVER TO BE SET FLUSH WITH PAVEMENT OR NO LESS THAN 1" OR HIGHER THAN 4" ABOVE GRADE IN NON-PAVED AREAS.



* SEE DIAGRAM FOR DIMENSIONS
* * FIELD CUT AS REQUIRED TO ACCOMMODATE DRAIN PIPE

 CLASSIC TOWN, BROAD HORIZON. ENGINEERING DEPARTMENT	STANDARD CIP CURB INLET 5 & 10 FT INLETS	STANDARD CONSTRUCTION DETAILS STORM DRAINAGE		
		DATE: OCTOBER 2013	REVISED DATE: MAY 2022	SHEET: SD-D11

	<p>REINFORCING STEEL SCHEDULE 5 & 10 FT INLETS</p>	STANDARD CONSTRUCTION DETAILS STORM DRAINAGE		
		<p>DATE: OCTOBER 2013</p>	<p>REVISED DATE: MAY 2022</p>	<p>SHEET: SD-D13</p>

Scale:

Drawn By: TEC

Checked By: BMO

Sheet CD.6



NOTE:
BAR DESIGNATIONS AND DIMENSIONS ARE DIFFERENT
FROM STEEL SCHEDULE FOR REGULAR INLETS



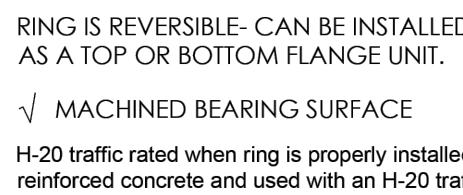
STANDARD CONSTRUCTION DETAILS

STORM DRAINAGE

DATE: OCTOBER 2013	REVISED DATE: -----	SHEET: SD-D17
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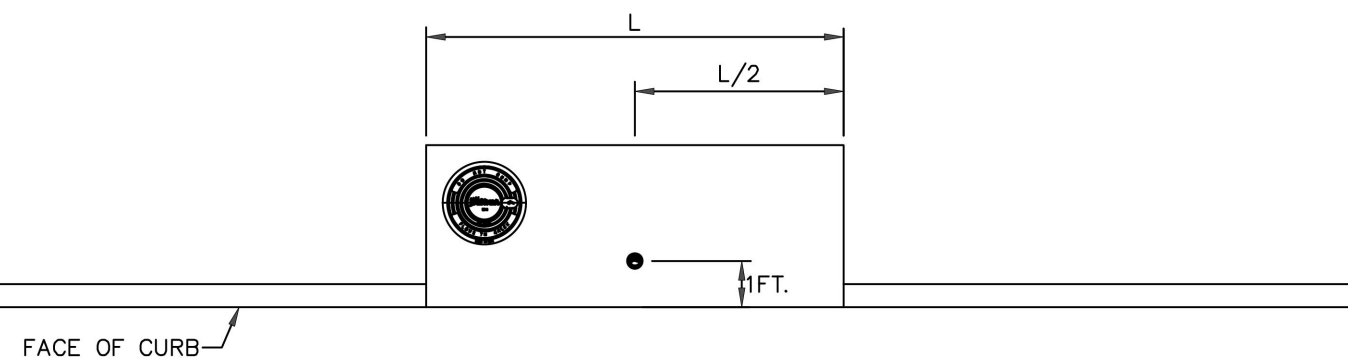
- NOTES:**
1. FOR PRECAST INLET THE FLOOR OF THE EXCAVATION MUST PROVIDE A FIRM, LEVEL BED FOR THE CRUSHED BEDDING TO REST UPON AND SUPPORT THE BASE SECTION.
 2. PIPES SHALL CONNECT TO THE SIDES OF THE INLETS. CONNECTIONS NOT TO BE MADE AT CORNERS OR BOTTOM.
 3. PRECAST INLETS MUST BE APPROVED BY THE CITY ENGINEER AND THE SUPPLIER BE LISTED ON THE APPROVED MATERIAL LIST.
 4. PIPE PENETRATIONS, FLOWLINE, TO THE PRECAST INLET MUST BE AT LEAST THE PIPE WALL THICKNESS OR GREATER FROM THE FLOOR OF THE BASE SECTION.



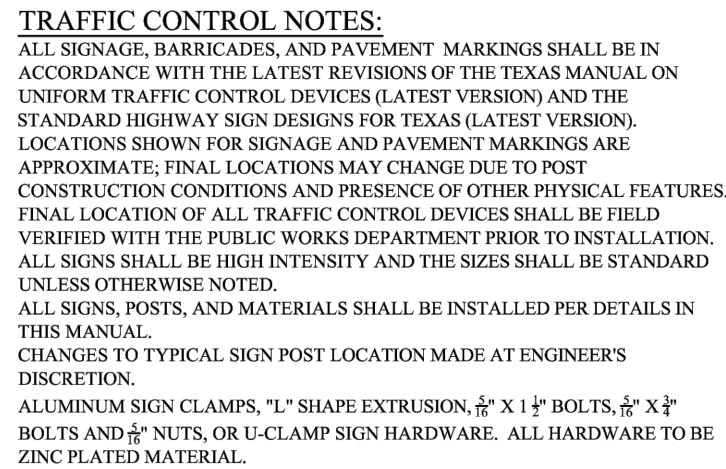
H-20 traffic rated when ring is properly installed in reinforced concrete and used with an H-20 traffic rated lid

H-20 traffic rated when ring is properly installed in reinforced concrete and used with an H-20 traffic rated lid

H-20 traffic rated when ring is properly installed in reinforced concrete and used with an H-20 traffic rated lid



- NOTES:
1. SEE STORM SEWER APPROVED MATERIALS LIST FOR APPROVED MARKERS.
 2. INSTALL ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
 - 3.



9/16 " HOLE
WEDGE

BASE SOCKET

2 3/8"



STANDARD CONSTRUCTION DETAILS

STORM DRAINAGE

DATE: OCTOBER 2013	REVISED DATE: FEBRUARY 2021	SHEET: SD-D18
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STANDARD CONSTRUCTION
STORM DRAINAGE

DATE: OCTOBER 2013	REVISED DATE: MAY 2022	SHEET: SD-D19
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STANDARD CONSTRUCTION DETAILS

STORM DRAINAGE

DATE: JANUARY 2021	REVISED DATE: -----	SHEET: SD-D31
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STANDARD CONSTRUCTION DETAILS
TRAFFIC

DATE: OCTOBER 2013	REVISED DATE: 12 APR 2022	SHEET SD-T0
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