STELLA RANCH SUBDIVISION

PHASE 2 CONSTRUCTION PLANS

BRYAN, TX 77808

MARCH 2026

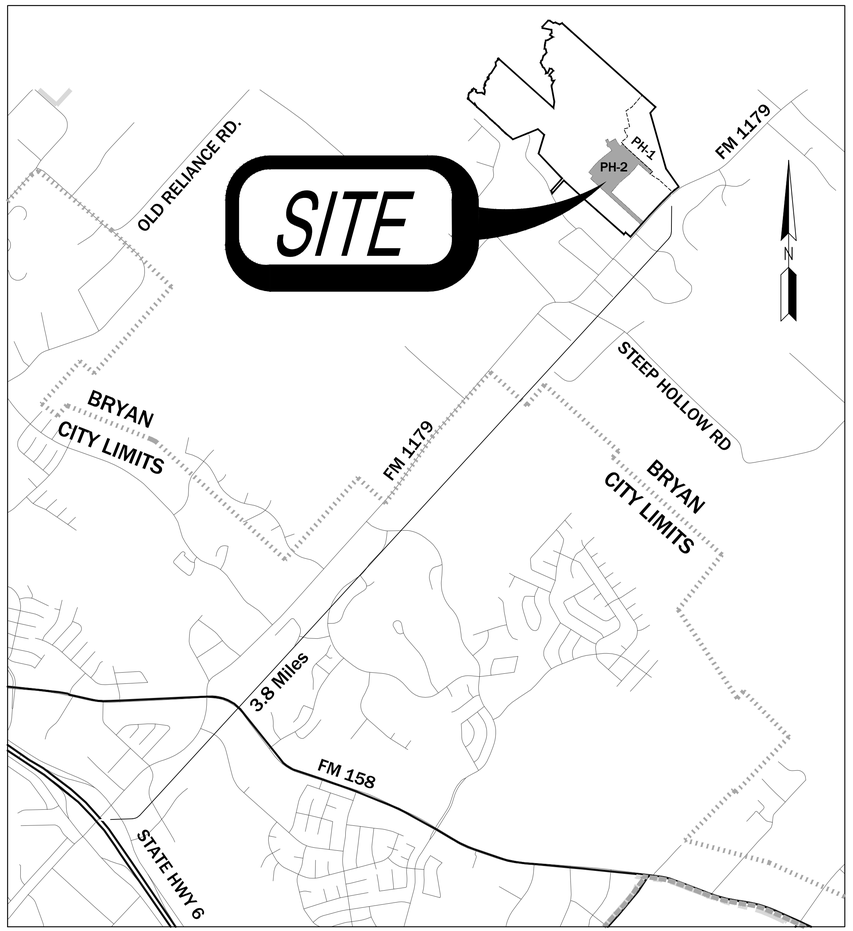
ENGINEER:

MITCHELL & MORGAN, L.L.P.
3204 EARL RUDDER FWY. S.
COLLEGE STATION, TEXAS 77845
(979) 260-6963



DEVELOPER:

STELLA RANCH, LLC
4007 CROSS PARK DR
BRYAN, TX 77802



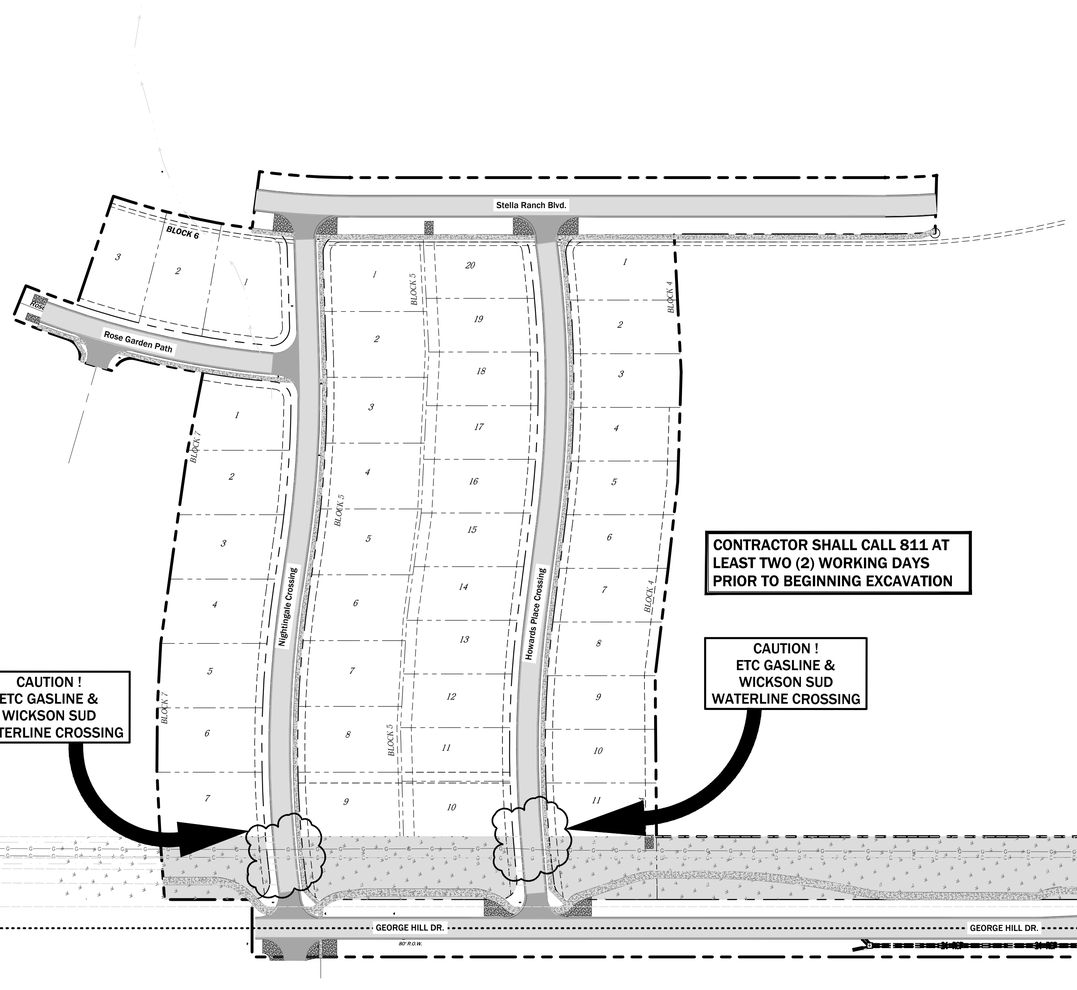
VICINITY MAP

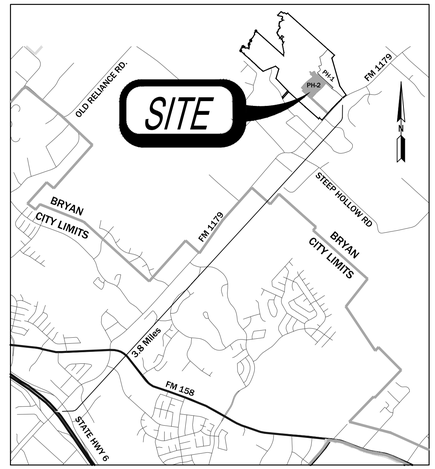
N.T.S.

SHEET NUMBER	TAG	SHEET NAME
1	CS	Cover Sheet
2	OV	Project Layout
3	FP	Final Plat
4	DP	Demo Plan
5	RP0	Overall Roadway Plan
6	RP1	Rose Garden Path
7	RP2	Stella Ranch Blvd 1
8	RP3	Stella Ranch Blvd 2
9	RP4	George Hill Dr 1
10	RP5	George Hill Dr 2
11	RP6	George Hill Dr 3
12	RP7	Nightingale Crossing 1
13	RP8	Nightingale Crossing 2
14	RP9	Howards Place Crossing 1
15	RP10	Howards Place Crossing 2
16	GP3	Grading Layout & Notes
17	GP4	Partial Grading Plan
18	GP5	Partial Grading Plan
19	GP6	Partial Grading Plan
20	GP7	Partial Grading Plan
21	GP8	Partial Grading Plan
22	GP9	Partial Grading Plan
23	DD	Drainage Area Map
24	DC	Culvert Drainage Area Map
25	SD1	Storm Drain A
26	SD2	Storm Drain A
27	SD3	Storm Drain A
28	SD4	Storm Drain B-E
29	SD5	Culverts
30	SD6	Culverts
31	SD7	Culverts
32	SD8	Culverts
33	SD9	Culverts
34	DM	Dmap-PipeInlets
35	WL1	PH2 Waterline A
36	WL2	PH2 Waterline A
37	WL3	PH2 Waterline B
38	WL4	PH2 Waterline B
39	WL5	PH2 Waterline C
40	WL6	PH2 Waterline C
41	WL7	PH2 Waterline D & E
42	WL8	Exist 8-in WL Reroute
43	WL9	Exist 8-in WL Reroute
44	WL10	Exist 10-in WL Reroute
45	SS1	Sanitary Sewer P&P 'SS-A'
46	SS2	Sanitary Sewer P&P 'SS-B'
47	SS3	Sanitary Sewer P&P 'SS-B'
48	SS4	Sanitary Sewer P&P 'SS-C'
49	SS5	Sanitary Sewer P&P 'SS-C'
50	STR1	Striping & Signing Plan
51	STR2	Striping & Signing Plan
52	STR3	Striping & Signing Plan
53	TCP	Traffic Control Plan
54	TCP2	Traffic Control Plan 2
55-57	EL	Electrical Layout
58	ECP	Erosion Control Plan
59-66	BCS	Std Details

S:\Eng\p\331 Jordan Ranch\Phase 2\331D2-0000-DSN\08 Sheet Prep\ Cover Sheet, 3/31/2026 3:03:59 PM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251





VICINITY MAP
N.T.S.

CONTRACTOR SHALL CALL 811 AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING EXCAVATION

2.00" on Paper
Scale:
1 inch = 100 feet

GENERAL CONSTRUCTION NOTES:

1. The contractor is responsible for obtaining all applicable permits for work contemplated on these plans. This requirement includes a burn permit.
2. It is the responsibility of the contractor to schedule a pre-construction meeting with the engineer of record and the regulatory agency inspector prior to commencing construction.
3. It shall be the responsibility of the Contractor to verify the exact location of ALL existing underground utilities. Furthermore, the Contractor shall contact all utility company representatives a minimum of 48 hours in advance of any excavation.
   a. Contact Dig Tess @ 1-800-344-8377
   b. Contact Korey LeMond @ ATMOS (979) 286-4939
   c. Contact Dan Augsburger @ Suddenlink 846-2229
   d. Contact Brandon Charanza @ BTU 821-5770
   e. Contact Doug Thorton @ Frontier 821-4582
   f. Contact Yida Ruan @ CSU (Electrical) 764-3504
   g. Contact Stephen Maldonado Jr. @ CSU (Water/Wastewater) 764-3433
4. All construction shall be in accordance with the current B/CS Unified Standard Specifications for Street Construction, B/CS Unified Technical Specifications, Water and Sewer and Generals, 2020, and BCS Unified Design Details. All inspection shall be performed by the staff of the City Engineer. All construction shall be coordinated with the City Engineer.
5. In lieu of using the construction materials indicated in these plans, the Contractor shall obtain written approval from the Engineer & Architect for any substitution prior to Construction. Requests for changes should include product information and an engineer's seal where applicable. The contractor shall be financially responsible for the engineer's time spent reviewing changes and redesigning based on contractor's requests.
6. Trench Safety Requirements shall be in accordance with O.S.H.A. Standard 29 CFR Part 1926 Subpart P and all federal, state and local regulations.
7. TRENCHING AND BACKFILLING: All trenching and backfilling shall conform to the specifications set out herein. Testing shall be provided by a certified laboratory, at the Owner's expense, to verify these standards. Any retesting due to substandard work shall be at the expense of the Contractor. Structural areas shall include all sidewalks and shall extend 5' beyond the curb lines of all streets, alleys and parking areas.
8. It is the responsibility of the contractor to comply with all State and Federal Regulations regarding construction activities near energized overhead power lines. Additionally, the contractor shall coordinate all proposed work and procedures with the city Electrical Division.
9. All materials & labor not identified as a Separate Bid Item shall be considered subsidiary to the item in which it is used. All materials and equipment shall be both furnished and installed unless otherwise noted.
10. The Contractor must provide construction staking from the information provided on these plans.
11. All soil exposed by construction shall receive hydromulch or sod in accordance with the landscape plan.
12. Trenches may not be left open overnight.
13. Adjustment of Water Meters, Valves, Manholes, Irrigation Systems, and any other Public or Private Utility, etc. are not separate pay items. The Price of the adjustment shall be subsidiary to the construction of Sewer Line, Force Main, etc.
14. The contractor shall coordinate with Atmos, Suddenlink Communications, BTU, CSU, and Frontier to adjust the location of existing facilities.
15. Temporary spoil areas will be identified on site by owner.
16. All materials storage and staging shall NOT be within the FEMA Floodplain.
17. Contractor shall provide parking lot striping in accordance with the layout shown within these plans.
18. All storm sewer being constructed within the public R.O.W. will be publically owned and maintained, while all storm sewer being constructed within the private H.O.A. will be privately owned and maintained by the H.O.A.
19. Cross slope and running slope of curb ramps serving the Accessible Parking shall comply with ICC A117.1 - 2009 Accessibility Standards. Maximum cross slope 1:48 (2.08%) and maximum running slope 1:12 (8.33%).
20. All work that is either implied or reasonably inferable from the contract documents shall be the responsibility of the contractor.

MITCHELL & MORGAN
T.979.260.6963
TX. FIRM # F-1443
3204 EARL RUDDER FWY. S.
COLLEGE STATION, TX 77845
PLAN & DESIGN SPECIALISTS IN
CIVIL ENGINEERING•HYDRAULICS
HYDROLOGY•UTILITIES•STREETS
SITE PLANS•SUBDIVISIONS
www.mitchellandmorgan.com

STATE OF TEXAS
JOEL J. MITCHELL
80649
LICENSED PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

PROJECT LAYOUT

Phase 2
STELLA RANCH SUBDIVISION

OV

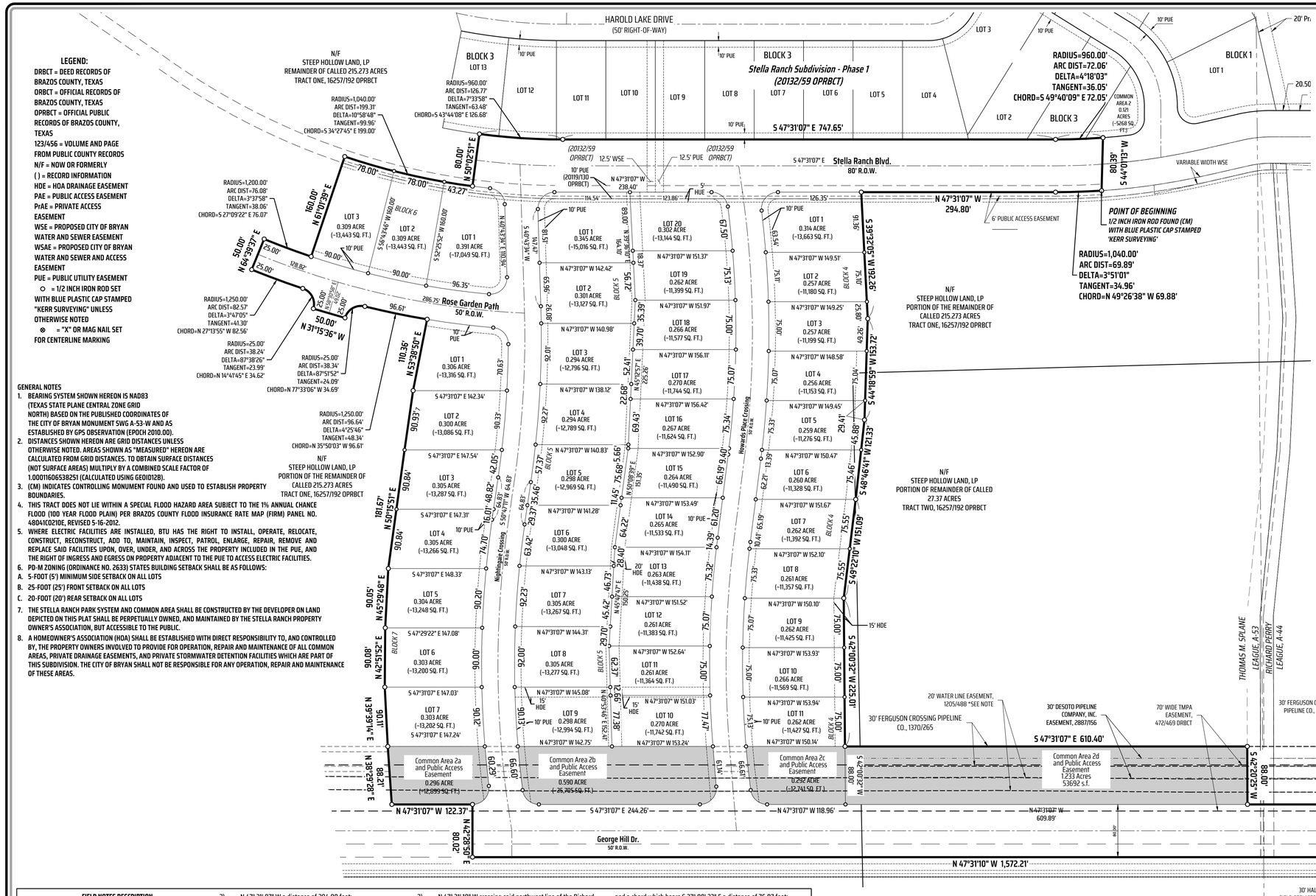
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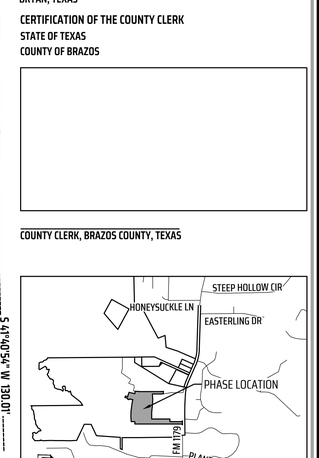
LEGEND:

DRBCT = DEED RECORDS OF BRAZOS COUNTY, TEXAS
ORBCT = OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS
OPRBCT = OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS
123/456 = VOLUME AND PAGE FROM PUBLIC COUNTY RECORDS
N/F = NOW OR FORMERLY
( ) = RECORD INFORMATION
HDE = HOA DRAINAGE EASEMENT
PAE = PUBLIC ACCESS EASEMENT
PrAE = PRIVATE ACCESS EASEMENT
WSE = PROPOSED CITY OF BRYAN WATER AND SEWER EASEMENT
WSAE = PROPOSED CITY OF BRYAN WATER AND SEWER AND ACCESS EASEMENT
PUE = PUBLIC UTILITY EASEMENT
○ = 1/2 INCH IRON ROD SET WITH BLUE PLASTIC CAP STAMPED "KERR SURVEYING" UNLESS OTHERWISE NOTED
⊗ = "X" OR MAG NAIL SET FOR CENTERLINE MARKING

GENERAL NOTES

1. BEARING SYSTEM SHOWN HEREON IS NAD83 (TEXAS STATE PLANE CENTRAL ZONE GRID NORTH) BASED ON THE PUBLISHED COORDINATES OF THE CITY OF BRYAN MONUMENT SWG A-53-W AND AS ESTABLISHED BY GPS OBSERVATION (EPOCH 2010.00).
2. DISTANCES SHOWN HEREON ARE GRID DISTANCES UNLESS OTHERWISE NOTED. AREAS SHOWN AS "MEASURED" HEREON ARE CALCULATED FROM GRID DISTANCES. TO OBTAIN SURFACE DISTANCES (NOT SURFACE AREAS) MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011600653825I (CALCULATED USING GEOID12B).
3. (CM) INDICATES CONTROLLING MONUMENT FOUND AND USED TO ESTABLISH PROPERTY BOUNDARIES.
4. THIS TRACT DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA SUBJECT TO THE 1% ANNUAL CHANCE FLOOD (100 YEAR FLOOD PLAIN) PER BRAZOS COUNTY FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 48041C0210E, REVISED 5-16-2012.
5. WHERE ELECTRIC FACILITIES ARE INSTALLED, BTU HAS THE RIGHT TO INSTALL, OPERATE, RELOCATE, CONSTRUCT, RECONSTRUCT, ADD TO, MAINTAIN, INSPECT, PATROL, ENLARGE, REPAIR, REMOVE AND REPLACE SAID FACILITIES UPON, OVER, UNDER, AND ACROSS THE PROPERTY INCLUDED IN THE PUE, AND THE RIGHT OF INGRESS AND EGRESS ON PROPERTY ADJACENT TO THE PUE TO ACCESS ELECTRIC FACILITIES.
6. PD-M ZONING (ORDINANCE NO. 2633) STATES BUILDING SETBACK SHALL BE AS FOLLOWS:
   A. 5-FOOT (5') MINIMUM SIDE SETBACK ON ALL LOTS
   B. 25-FOOT (25') FRONT SETBACK ON ALL LOTS
   C. 20-FOOT (20') REAR SETBACK ON ALL LOTS
7. THE STELLA RANCH PARK SYSTEM AND COMMON AREA SHALL BE CONSTRUCTED BY THE DEVELOPER ON LAND DEPICTED ON THIS PLAT SHALL BE PERPETUALLY OWNED, AND MAINTAINED BY THE STELLA RANCH PROPERTY OWNER'S ASSOCIATION, BUT ACCESSIBLE TO THE PUBLIC.
8. A HOMEOWNER'S ASSOCIATION (HOA) SHALL BE ESTABLISHED WITH DIRECT RESPONSIBILITY TO, AND CONTROLLED BY, THE PROPERTY OWNERS INVOLVED TO PROVIDE FOR OPERATION, REPAIR AND MAINTENANCE OF ALL COMMON AREAS, PRIVATE DRAINAGE EASEMENTS, AND PRIVATE STORMWATER DETENTION FACILITIES WHICH ARE PART OF THIS SUBDIVISION. THE CITY OF BRYAN SHALL NOT BE RESPONSIBLE FOR ANY OPERATION, REPAIR AND MAINTENANCE OF THESE AREAS.





FIELD NOTES DESCRIPTION OF A 21.50 ACRE TRACT THOMAS M. SPLANE LEAGUE SURVEY, ABSTRACT 53 RICHARDSON PERRY LEAGUE SURVEY, ABSTRACT 44 BRAZOS COUNTY, TEXAS

A FIELD NOTES DESCRIPTION OF 21.50 ACRES IN THE THOMAS M. SPLANE LEAGUE SURVEY, ABSTRACT 53, AND THE RICHARDSON PERRY LEAGUE SURVEY, ABSTRACT 44, IN BRYAN, BRAZOS COUNTY, TEXAS, BEING A PORTION OF THE REMAINDER OF A CALLED 215.273 ACRE TRACT AND A PORTION OF A CALLED 27.37 ACRE TRACT BOTH DESCRIBED IN A DEED TO STEEP HOLLOW LAND, LP IN VOLUME 16257, PAGE 192 OF THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY, TEXAS (OPRBCT); SAID 21.50 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron rod found (all 1/2 inch iron rods found with blue plastic caps stamped "KERR SURVEYING" unless otherwise noted) marking a west corner of the end of platted right-of-way of Stella Ranch Boulevard (variable width right-of-way) depicted on the plat of Stella Ranch Phase 1 filed in Volume 20132, Page 59 (OPRBCT);

THENCE, through said remainder of 215.273 acre tract and said 27.37 acre tract for the following eleven (11) courses and distances:

1) With a curve to the right having a radius of 1,040.00 feet, an arc length of 69.89 feet, a delta angle of 03° 51' 01", and a chord which bears N 49° 26' 38" W a distance of 69.88 feet;
2) N 47° 31' 07" W a distance of 294.80 feet;
3) S 39° 32' 05" W a distance of 192.26 feet;
4) S 44° 18' 59" W a distance of 153.72 feet;
5) S 48° 46' 41" W a distance of 121.33 feet;
6) S 49° 22' 10" W a distance of 151.09 feet;
7) S 42° 00' 32" W a distance of 225.01 feet;
8) S 47° 31' 07" E a distance of 610.40 feet;
9) S 42° 00' 25" W a distance of 88.00 feet;
10) S 47° 31' 07" E crossing the southeast line of said Thomas M. Splane League Survey, Abstract 53 and the northwest line of said Richard Perry League Survey, Abstract 44, a distance of 395.28 feet;
11) N 87° 04' 54" E a distance of 35.11 feet to a point on the northwest right-of-way of Farm to Market Road No. 1179 (80 foot wide right-of-way per TXDOT plans) and on the southeast line of said 27.37 acre tract; from which a 5/8 inch iron rod found with yellow plastic cap stamped "KERR 4502" bears N 41° 40' 54" E a distance of 198.74 feet;

THENCE, with said northwest right-of-way of FM 1179 and with said southeast line of 27.37 acre tract, S 41° 40' 54" W a distance of 130.01 feet to a point on said right-of-way, from which a 6 inch treated fence corner post found on said right-of-way bears S 41° 40' 54" W a distance of 351.01 feet; also for reference the City of Bryan monument GPS-30 bears S 19° 58' 34" E a distance of 4,751.20 feet;

THENCE, continuing through said 27.37 acre tract and said remainder of 215.273 acre tract for the following twenty one (21) courses and distances:

1) N 02° 55' 08" W a distance of 35.60 feet;
2) N 47° 31' 10" W crossing said northwest line of the Richard Perry League Survey, Abstract 44 and said southeast line of the Thomas M. Splane League Survey, Abstract 53, a distance of 1,572.21 feet;
3) N 42° 28' 50" E a distance of 80.02 feet;
4) N 47° 31' 07" W a distance of 122.37 feet;
5) N 38° 29' 28" E a distance of 88.21 feet;
6) N 39° 39' 14" E a distance of 90.11 feet;
7) N 42° 51' 52" E a distance of 90.08 feet;
8) N 45° 29' 48" E a distance of 90.05 feet;
9) N 50° 15' 51" E a distance of 181.67 feet;
10) N 50° 40' 06" E a distance of 90.93 feet;
11) N 53° 38' 50" E a distance of 110.36 feet;
12) with a non-tangent curve to the right having a radius of 1,250.00 feet, an arc length of 96.64 feet, a delta angle of 04° 25' 46", and a chord which bears N 35° 50' 03" W a distance of 96.61 feet;
13) with a reverse curve to the left having a radius of 25.00 feet, an arc length of 38.34 feet, a delta angle of 87° 51' 52", and a chord which bears N 71° 33' 06" W a distance of 34.69 feet;
14) N 31° 15' 36" W a distance of 50.00 feet;
15) with a non-tangent curve to the left having a radius of 25.00 feet, an arc length of 38.24 feet, a delta angle of 87° 38' 26", and a chord which bears N 14° 41' 45" E a distance of 34.62 feet;
16) with a reverse curve to the right having a radius of 1,250.00 feet, an arc length of 82.57 feet, a delta angle of 03° 47' 05", and a chord which bears N 27° 13' 55" W a distance of 82.56 feet;
17) N 64° 39' 37" E a distance of 50.00 feet;
18) with a non-tangent curve to the left having a radius of 1,200.00 feet, an arc length of 76.08 feet, a delta angle of 03° 37' 58", and a chord which bears S 27° 09' 22" E a distance of 76.07 feet;
19) N 61° 01' 39" E a distance of 160.00 feet;
20) with a non-tangent curve to the left having a radius of 1,040.00 feet, an arc length of 199.31 feet, a delta angle of 10° 58' 48", and a chord which bears S 34° 27' 45" E a distance of 199.00 feet;
21) N 50° 02' 51" E a distance of 80.00 feet to a point on the southwest curve of Lot 13, Block 3, of said Stella Ranch Phase 1;

THENCE, with said exterior boundary of Phase 1 and said remainder of 215.273 acre tract for the following three (3) courses and distances:

1) With a non-tangent curve to the left having a radius of 960.00 feet, an arc length of 126.77 feet, a delta angle of 07° 33' 58", and a chord which bears S 43° 44' 08" E a distance of 126.68 feet to a 1/2 inch iron rod found;
2) S 47° 31' 07" E a distance of 747.65 feet to a 1/2 inch iron rod found;
3) with a tangent curve to the left having a radius of 960.00 feet, an arc length of 72.06 feet, a delta angle of 04° 18' 03", and a chord which bears S 49° 40' 09" E a distance of 72.05 feet to a 1/2 inch iron rod found marking a north corner of said end of platted right-of-way of Stella Ranch Boulevard;

THENCE, with said right-of-way and said remainder of 215.273 acre tract, S 44° 01' 13" W a distance of 80.39 feet to the POINT OF BEGINNING hereof and containing 21.50 acres of land, more or less.Surveyed by this professional land surveying firm and under my supervision in 2019, 2023, and 2025.

CERTIFICATE OF OWNERSHIP AND DEDICATION

STATE OF TEXAS
COUNTY OF _____

I, _____, POSITION: _____ OF STEEP HOLLOW LAND, LP, A TEXAS LIMITED PARTNERSHIP, THE OWNER AND DEVELOPER OF THE LAND SHOWN ON THIS PLAT, BEING THE TRACT OF LAND AS CONVEYED TO US IN THE OFFICIAL PUBLIC RECORDS OF BRAZOS COUNTY IN VOLUME 16257, PAGE 192, AND WHOSE NAME IS SUBSCRIBED HERETO, HEREBY DEDICATE TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATER COURSES, DRAINS, EASEMENTS, AND PUBLIC PLACES SHOWN FOR THE PURPOSES IDENTIFIED.

_____
STEEP HOLLOW LAND, LP, A TEXAS LIMITED PARTNERSHIP BY _____, POSITION: _____

STATE OF TEXAS
COUNTY OF _____

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT THEY EXECUTED THE SAME FOR THE PURPOSE STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 20____.

_____
NOTARY PUBLIC, _____ COUNTY, TEXAS

STATE OF TEXAS
COUNTY OF BRAZOS

I, MICHAEL KONETSKI, REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6531, IN THE STATE OF TEXAS, HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECT AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY AND THAT PROPERTY MARKERS AND MONUMENTS WERE PLACED UNDER MY SUPERVISION ON THE GROUND, AND THAT THE METES AND BOUNDS DESCRIBING SAID SUBDIVISION WILL DESCRIBE A CLOSED GEOMETRIC FORM.

_____
MICHAEL KONETSKI, RPLS NO. 6531

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT.

APPROVAL OF THE CITY PLANNER

I, _____ THE UNDERSIGNED, CITY PLANNER AND/OR DESIGNATED SECRETARY OF THE PLANNING & ZONING COMMISSION OF THE CITY OF BRYAN, HEREBY CERTIFY THAT THIS PLAT IS IN COMPLIANCE WITH THE APPROPRIATE CODES AND ORDINANCES OF THE CITY OF BRYAN AND WAS APPROVED ON THE _____, DAY OF _____, 20___.

_____
CITY PLANNER, BRYAN, TEXAS

APPROVAL OF THE CITY ENGINEER

I, _____ THE UNDERSIGNED, CITY ENGINEER OF THE CITY OF BRYAN, HEREBY CERTIFY THAT THIS PLAT IS IN COMPLIANCE WITH THE APPROPRIATE CODES AND ORDINANCES OF THE CITY OF BRYAN AND WAS APPROVED ON THE _____, DAY OF _____, 20___.

_____
CITY ENGINEER, BRYAN, TEXAS

APPROVAL OF THE PLANNING & ZONING COMMISSION

I, _____, CHAIRMAN OF THE PLANNING & ZONING COMMISSION OF THE CITY OF BRYAN, STATE OF TEXAS, HEREBY CERTIFY THAT THE ATTACHED PLAT WAS DULY FILED FOR APPROVAL WITH THE PLANNING & ZONING COMMISSION OF THE CITY OF BRYAN ON THE ___ DAY OF_____, 20___ AND SAME WAS DULY APPROVED ON THE ___ DAY _____, 20___ BY SAID COMMISSION.

_____
CHAIR, PLANNING & ZONING COMMISSION, BRYAN, TEXAS

CERTIFICATION OF THE COUNTY CLERK

STATE OF TEXAS
COUNTY OF BRAZOS

_____
COUNTY CLERK, BRAZOS COUNTY, TEXAS

SCALE: 1" = 80'
0 80 160 240 Feet

FINAL PLAT OF
STELLA RANCH PHASE 2
BLOCK 4, LOTS 1-11, BLOCK 5, LOTS 1-20, BLOCK 6, LOTS 1-3, BLOCK 7, LOTS 1-7, 3.252 ACRE COMMON AREA, 7.351 ACRES RIGHT-OF-WAY
41 LOTS—21.50 ACRE TRACT
BEING A PORTION OF THE REMAINDER OF A CALLED 215.273 ACRE 'TRACT ONE' AND A PORTION OF A CALLED 27.37 ACRE 'TRACT TWO,' VOLUME 16257, PAGE 192 OPRBCT
THOMAS M. SPLANE LEAGUE SURVEY, A-53
RICHARDSON PERRY LEAGUE SURVEY, A-44
BRYAN, BRAZOS COUNTY, TEXAS

OWNER:
STEEP HOLLOW LAND, LP
TEXAS LIMITED PARTNERSHIP
4007 CROSS PARK DRIVE
BRYAN, TX 77802

ENGINEER:
MITCHELL & MORGAN, LLP
3204 EARL RUDDER FWY. S.
COLLEGE STATION, TEXAS 77845-6457

KERR SURVEYING
"When one person stands to gain over another, the facts must be uncovered"

SCALE: 1 INCH = 80 FEET
SURVEY DATE: 2023 & 2025 | PLAT DATE: 03-03-2026
JOB #: 25-1532 | CAD NAME: 25-1532-Grid StellaRanch2 FP
POINT FILE: 19-096-ALL (ctrl); 23-373; 25-1166
DRAWN BY: TJF CHECKED BY: MK
PREPARED BY: KERR SURVEYING, LLC
TBPELS FIRM#10018500
1718 BRIARCREST DRIVE, BRYAN, TEXAS 77802
PHONE: (979) 268-3195
SURVEYS@KERRSURVEYING.NET | KERRLANDSURVEYING.COM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.0001160653825 1



2.00" on Paper
Scale:
1 inch = 60 feet

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STATE OF TEXAS
JOEL J. MITCHELL
80549
LICENSED PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

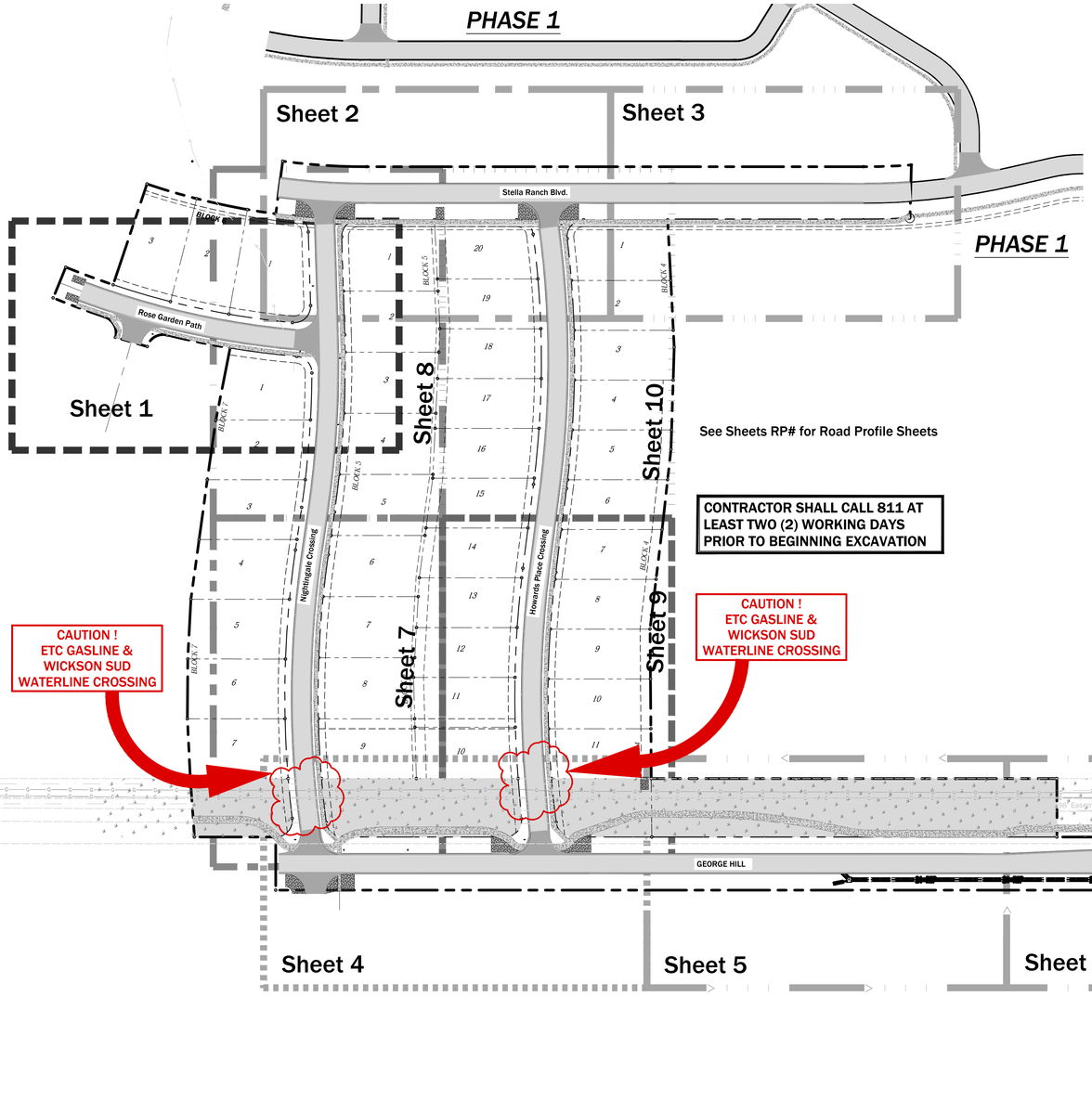
DEMOLITION PLAN

Phase 2
STELLA RANCH SUBDIVISION

DP

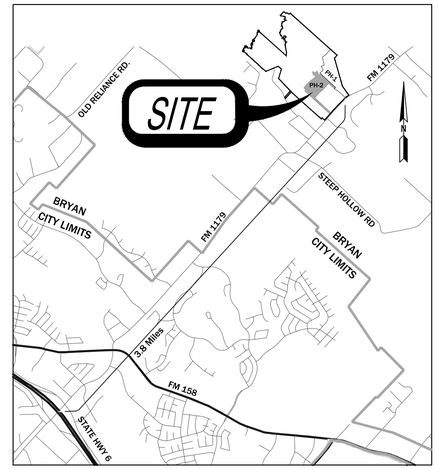
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



See Sheets RP# for Road Profile Sheets

CONTRACTOR SHALL CALL 811 AT LEAST TWO (2) WORKING DAYS PRIOR TO BEGINNING EXCAVATION



VICINITY MAP
N.T.S.

2.00" on Paper
Scale:
1 inch = 100 feet

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www.mitchellandmorgan.com
STATE OF TEXAS
JOEL J. MITCHELL
80649
PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

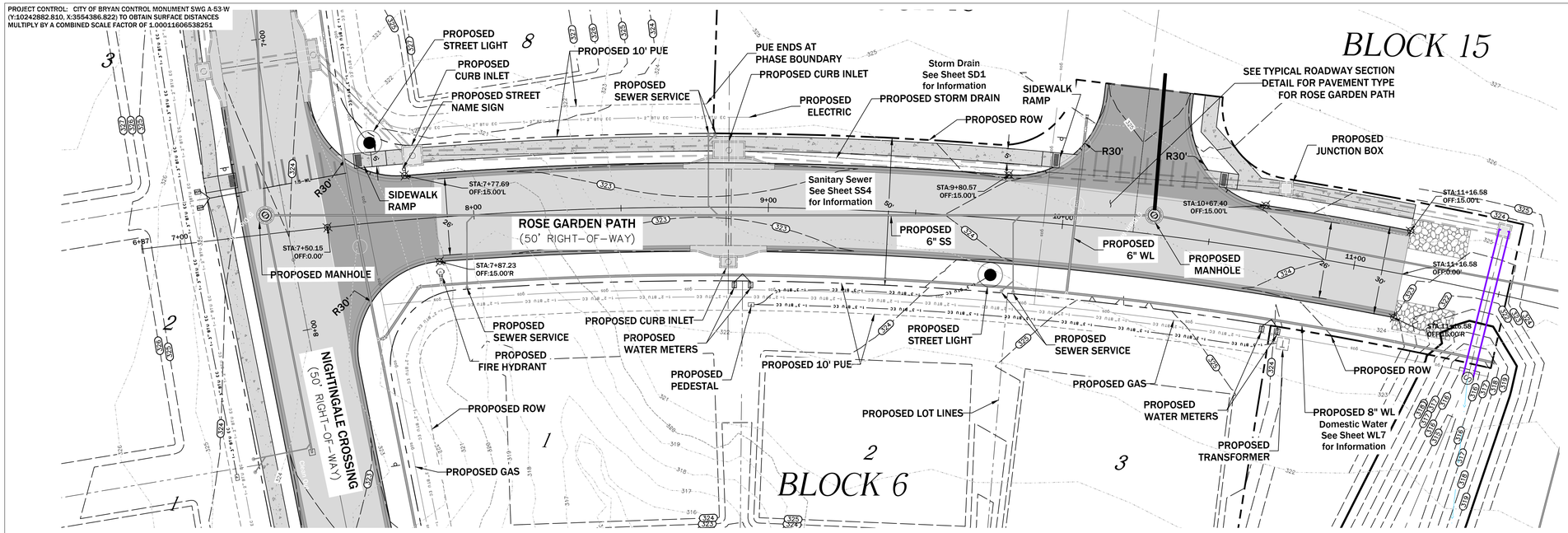
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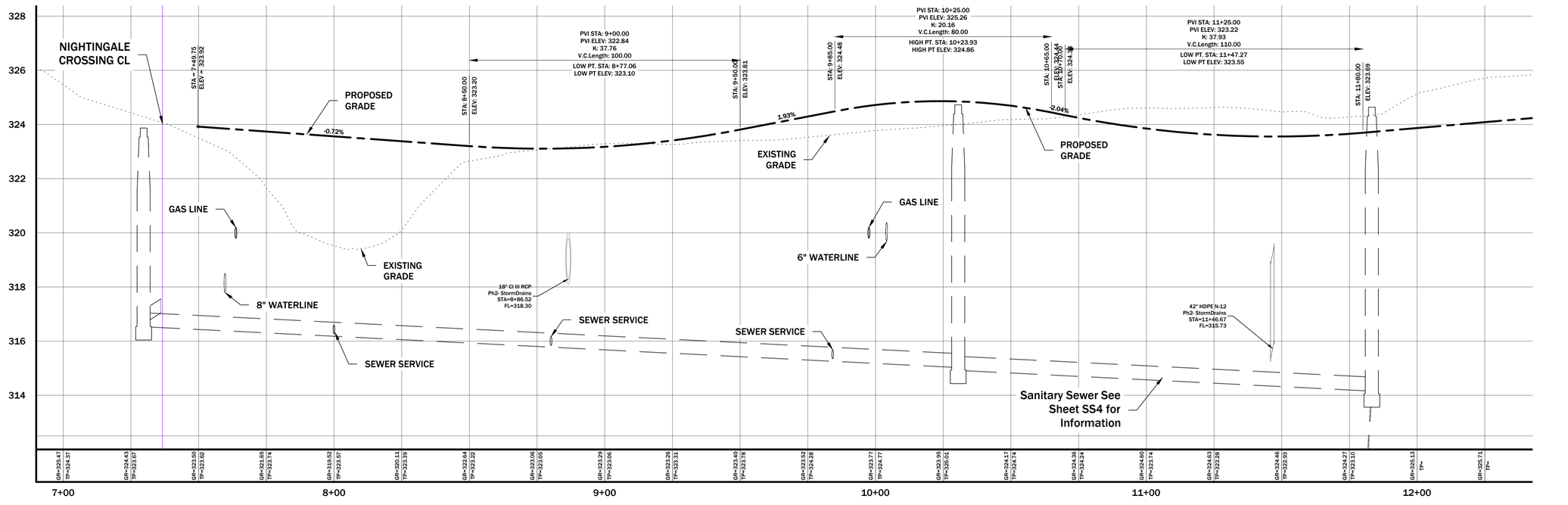
Phase 2
STELLA RANCH SUBDIVISION

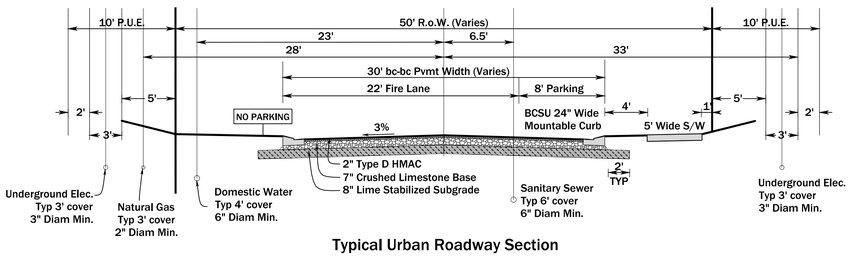
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251







Typical Urban Roadway Section
w/ Utility Assignments

N.T.S.

LEGEND:

PROPERTY LINE (ROW, LOT,ETC)	GAS LINE
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EXISTING CONTOUR LINE MNR	UNDERGROUND ELECTRIC LINE
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PROPOSED ASPHALT ROADWAY	WATER LINES, METER
PROPOSED CONCRETE APRON	STORM DRAIN LINES
CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING

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STATE OF TEXAS
JOEL J. MITCHELL
80549
LICENSED PROFESSIONAL ENGINEER
TX. FIRM # F-1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

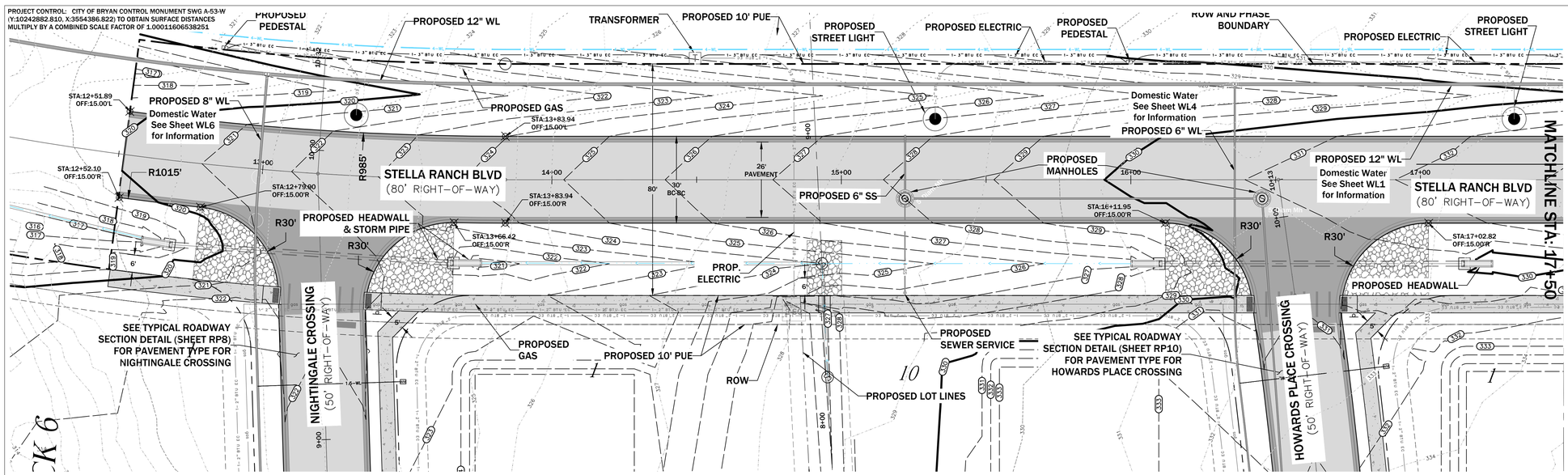
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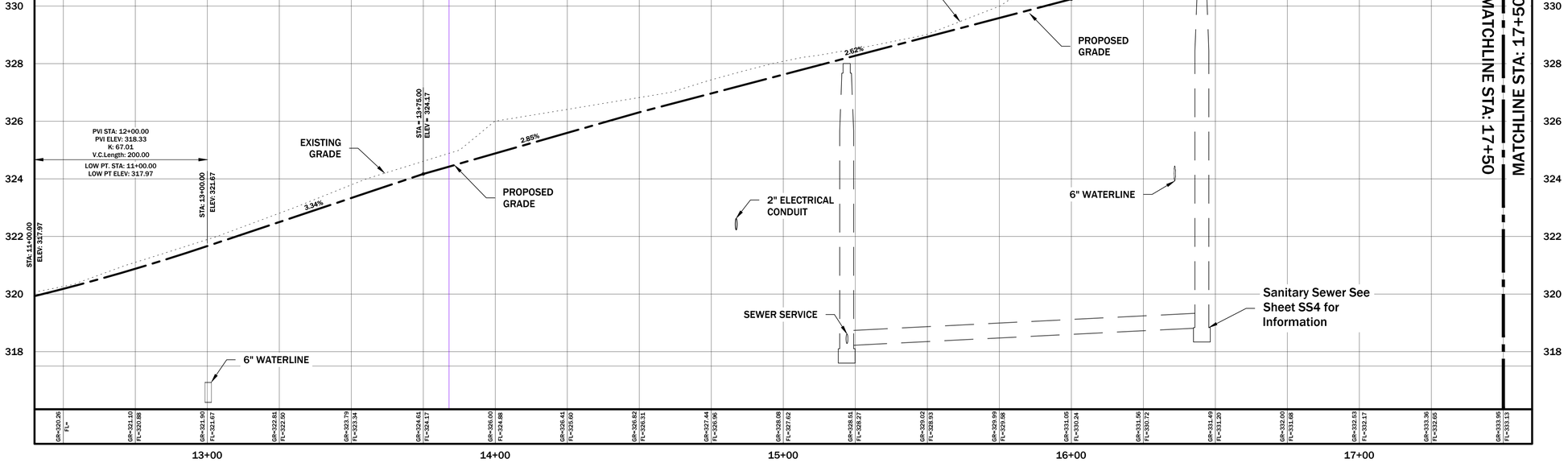
ROSE GARDEN PATH
Phase 2
STELLA RANCH SUBDIVISION

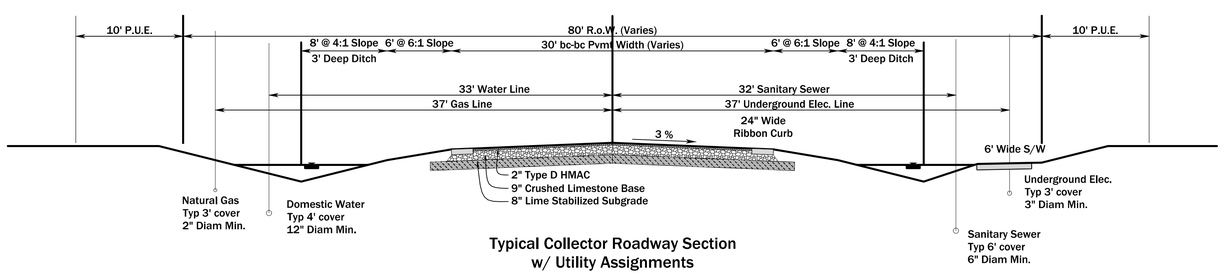
RP1

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251







Typical Collector Roadway Section w/ Utility Assignments

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	LIMITS OF GRADING

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0' 20' 40'
Scale: 1"= 20'

STATE OF TEXAS — JOEL J. MITCHELL — 80649 — LICENSED PROFESSIONAL ENGINEER
TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

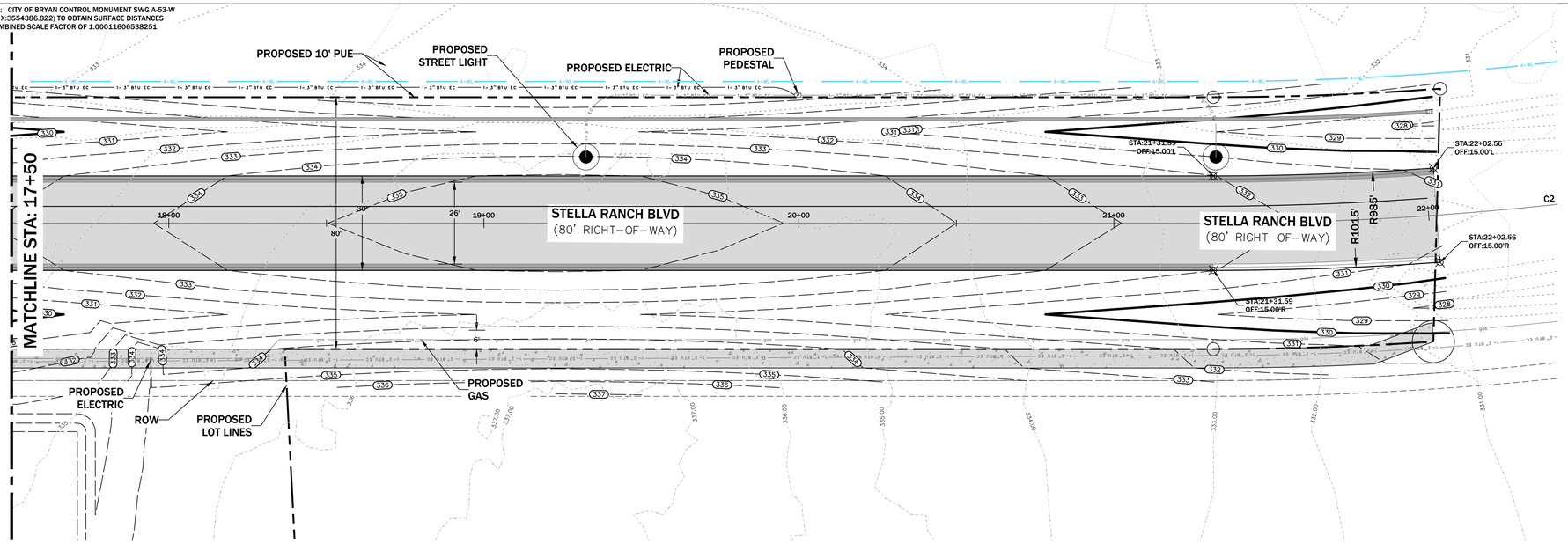
Revisions

STELLA RANCH BLVD 1
Phase 2
STELLA RANCH SUBDIVISION

RP2

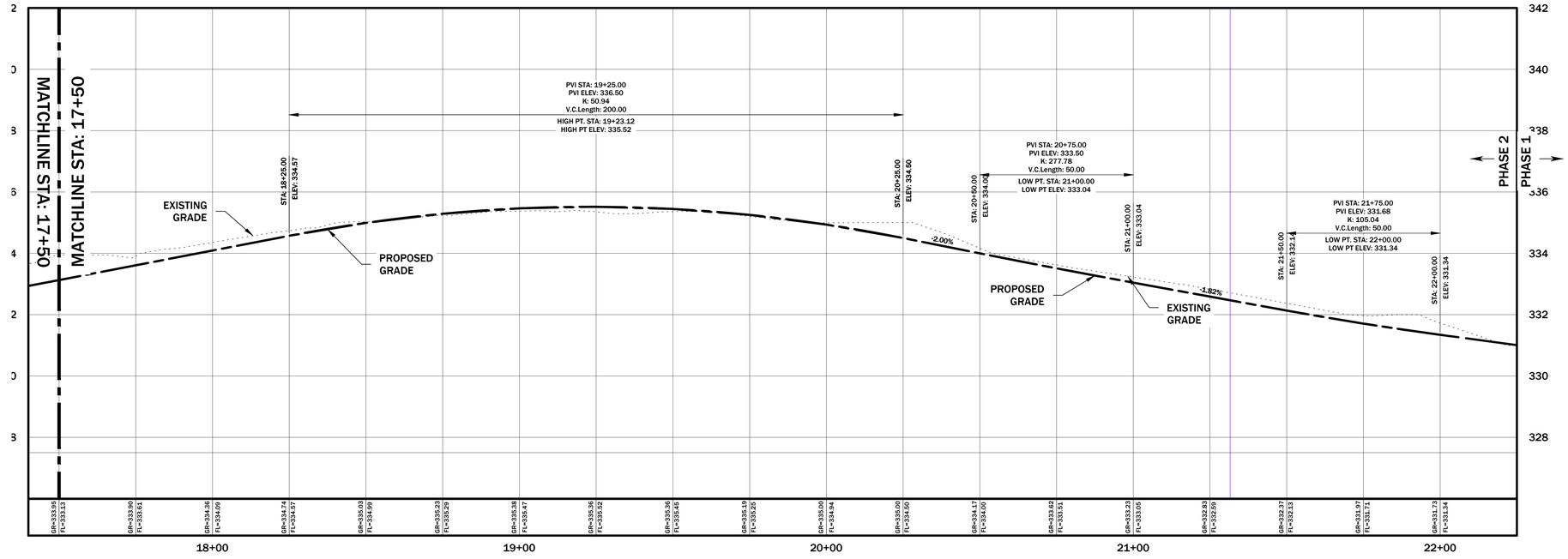
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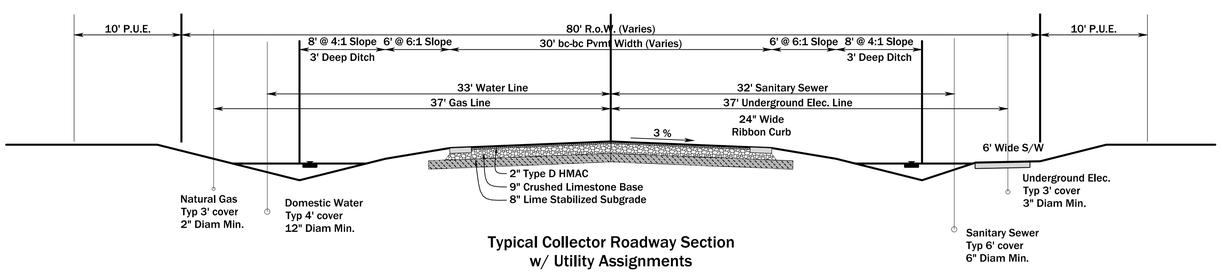
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0' 20' 40'
Scale: 1"= 20'

Stella Ranch Blvd - CL





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STATE OF TEXAS
JOEL J. MITCHELL
80549
LICENSED PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

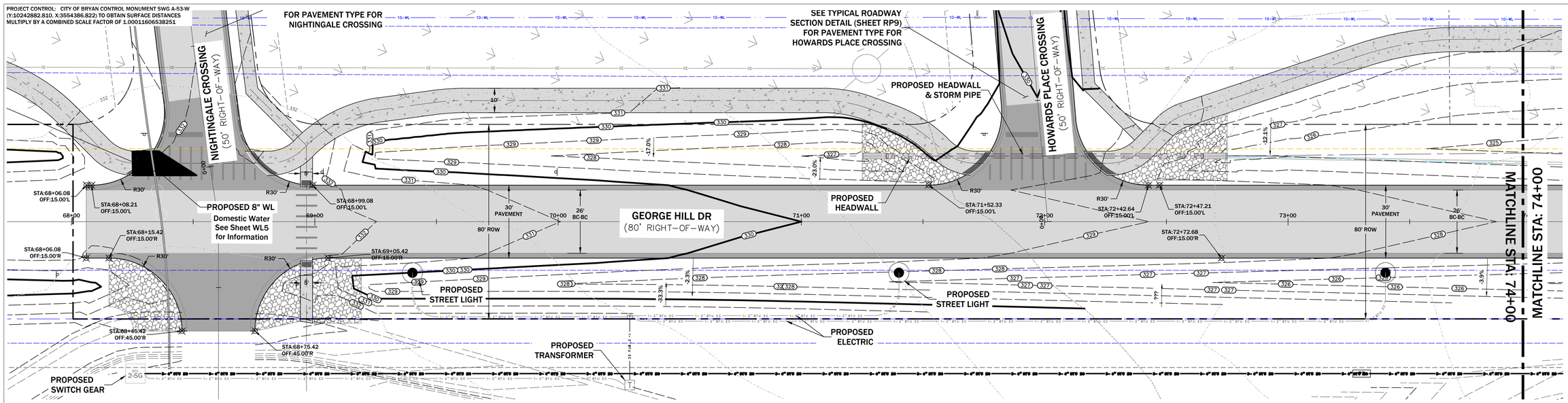
Revisions

STELLA RANCH BLVD 2
Phase 2
STELLA RANCH SUBDIVISION

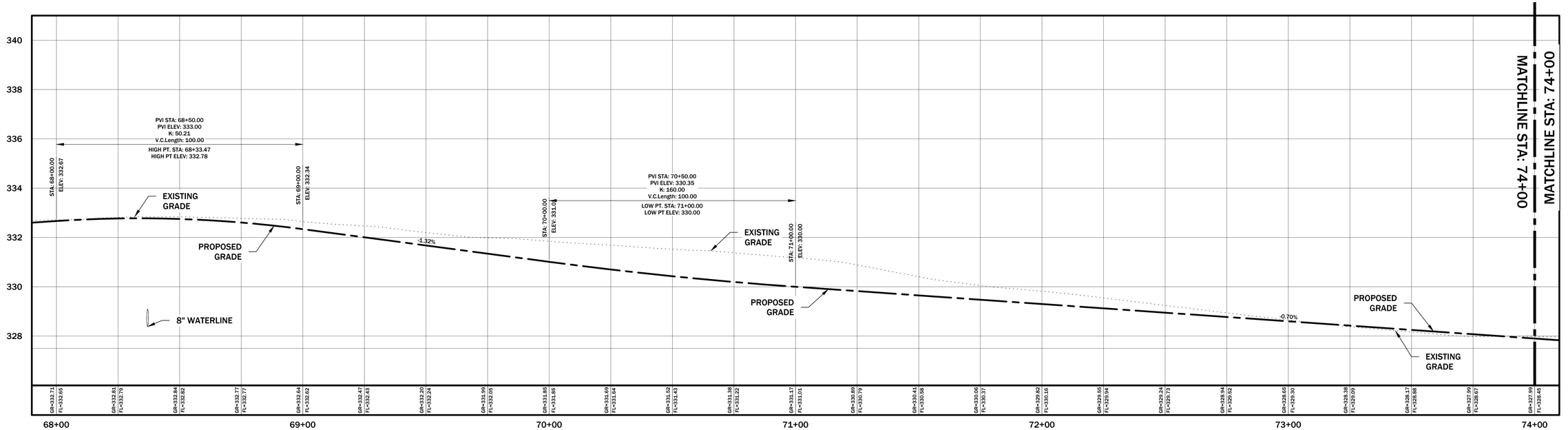
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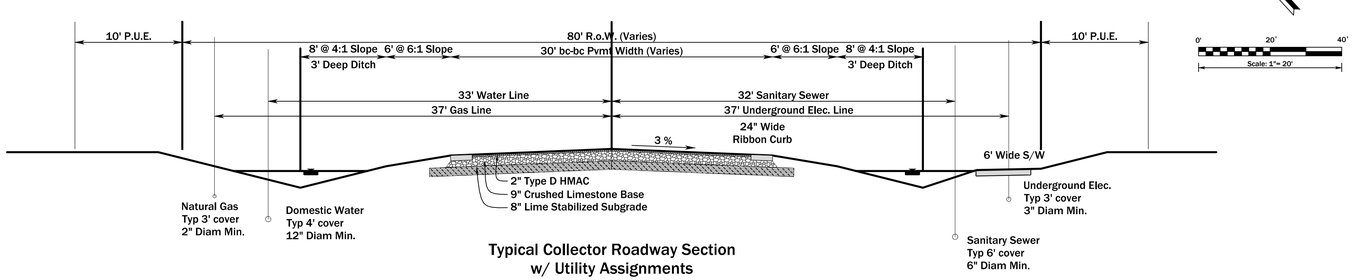
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



George Hill CL





Typical Collector Roadway Section w/ Utility Assignments

N.T.S.

0' 20' 40'
Scale: 1"= 20'

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	LIMITS OF GRADING

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STATE OF TEXAS
JOEL J. MITCHELL
80549
REGISTERED PROFESSIONAL ENGINEER
TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

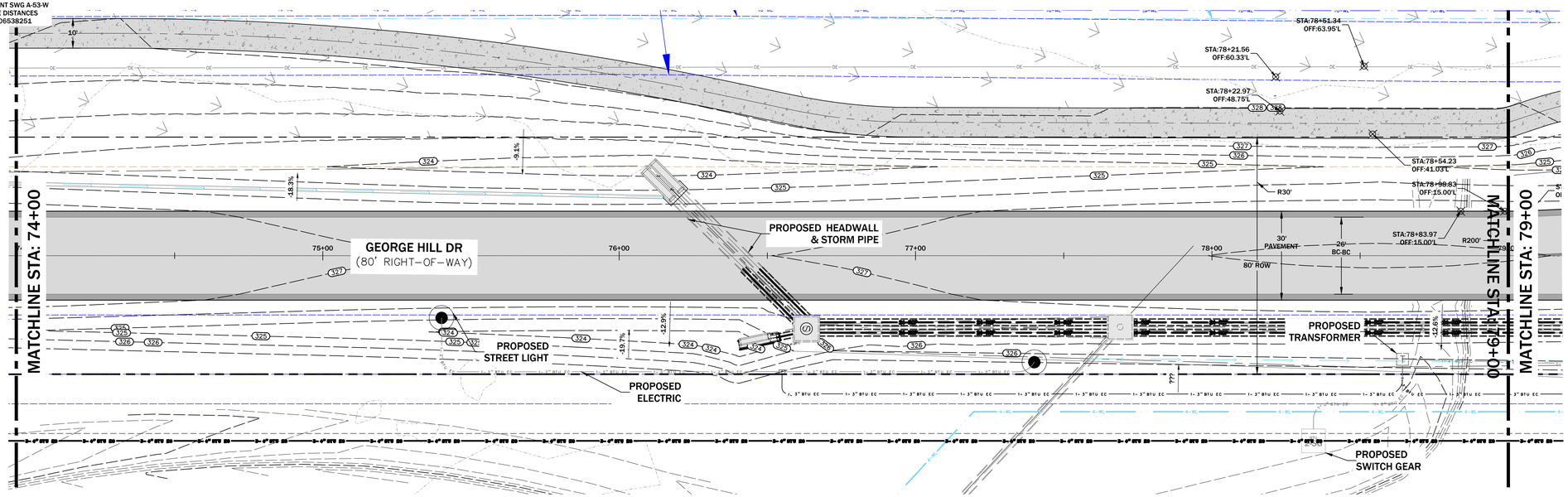
Revisions

GEORGE HILL DR 1
Phase 2
STELLA RANCH SUBDIVISION

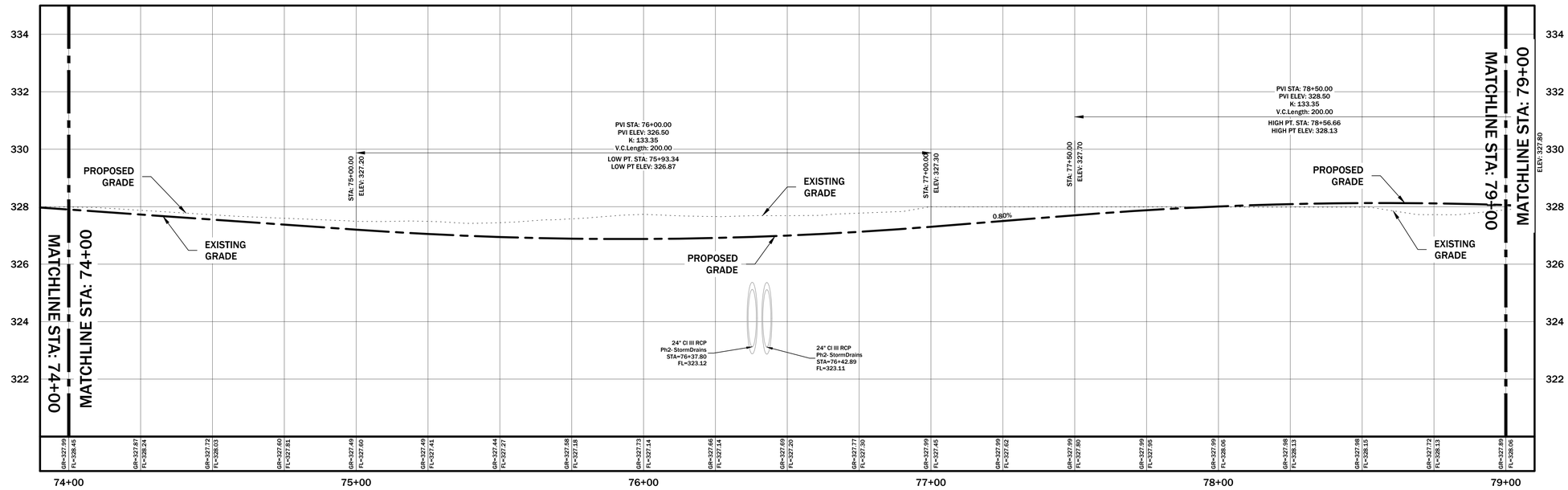
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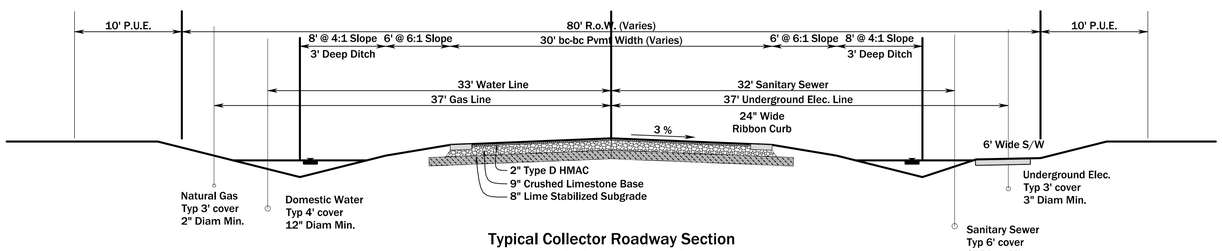
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



George Hill CL





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	LIMITS OF GRADING

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www.mitchellandmorgan.com
STATE OF TEXAS JOEL J. MITCHELL 80549 REGISTERED PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

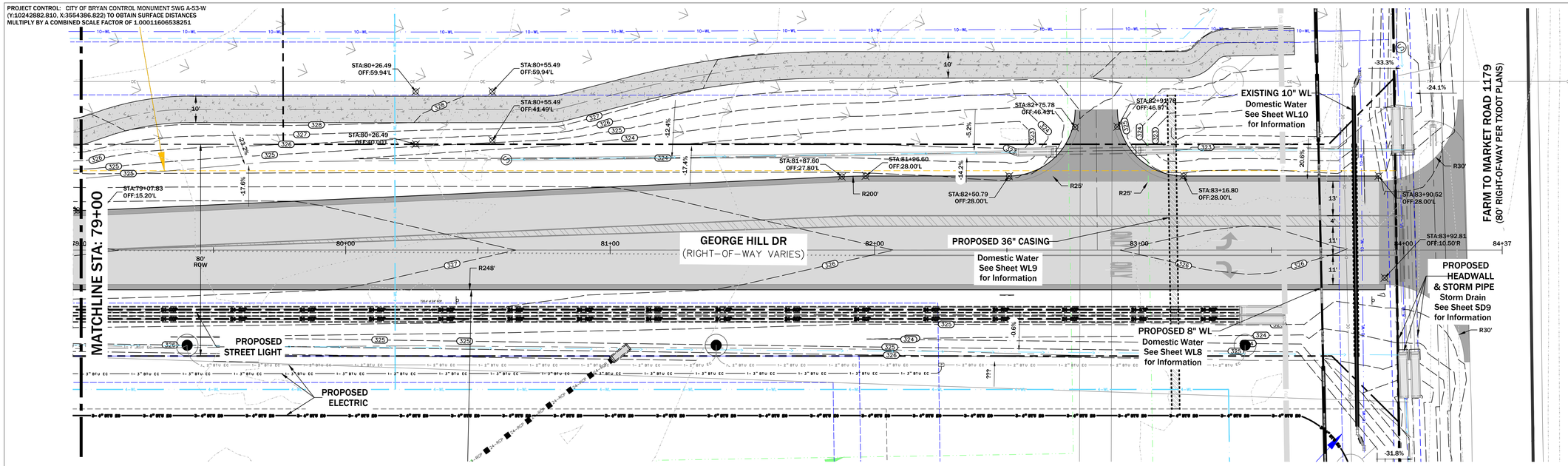
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GEORGE HILL DR 2
Phase 2
STELLA RANCH SUBDIVISION

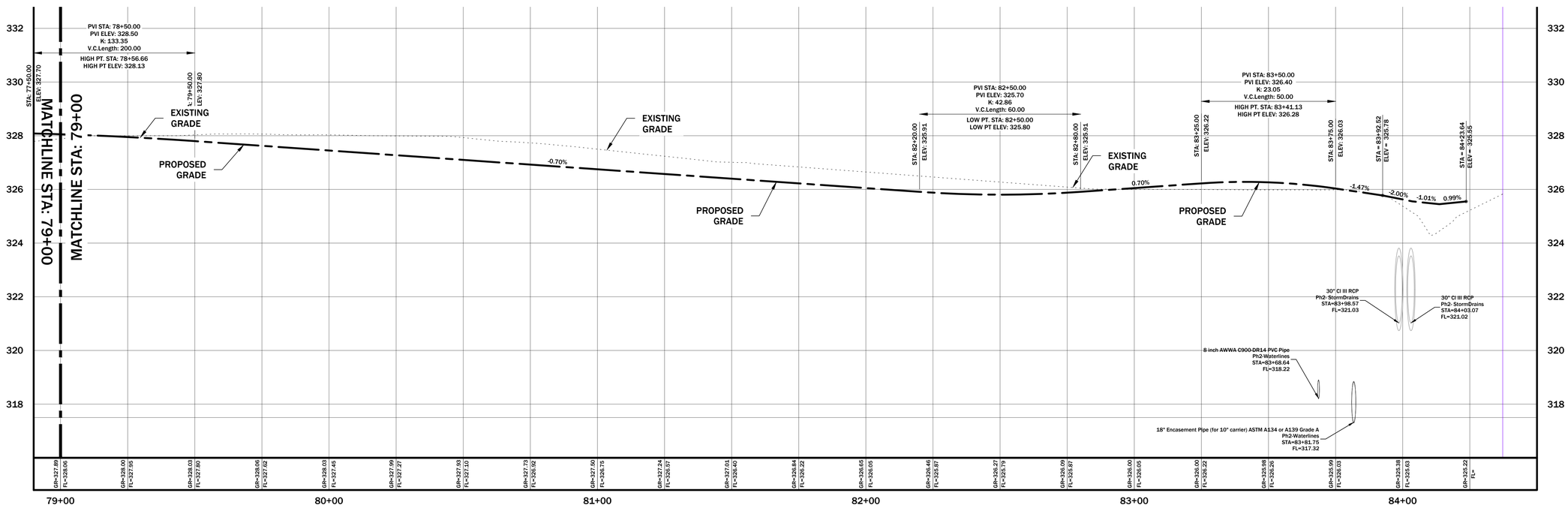
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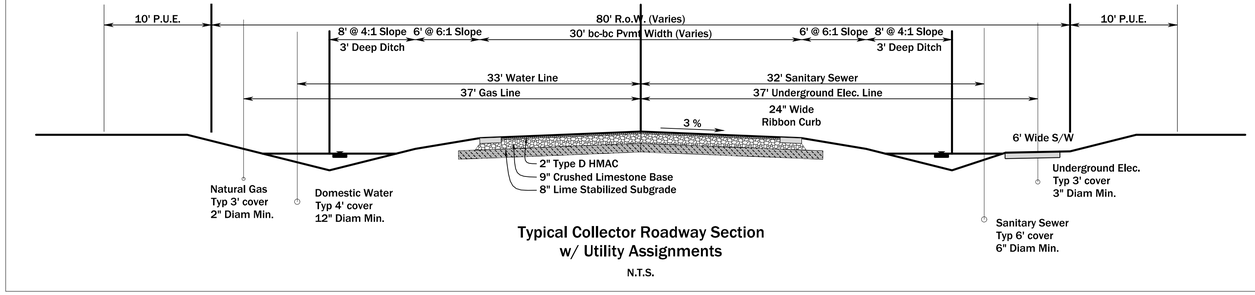
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



0' 20' 40'
Scale: 1"= 20'





Typical Collector Roadway Section
w/ Utility Assignments

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March, 2026
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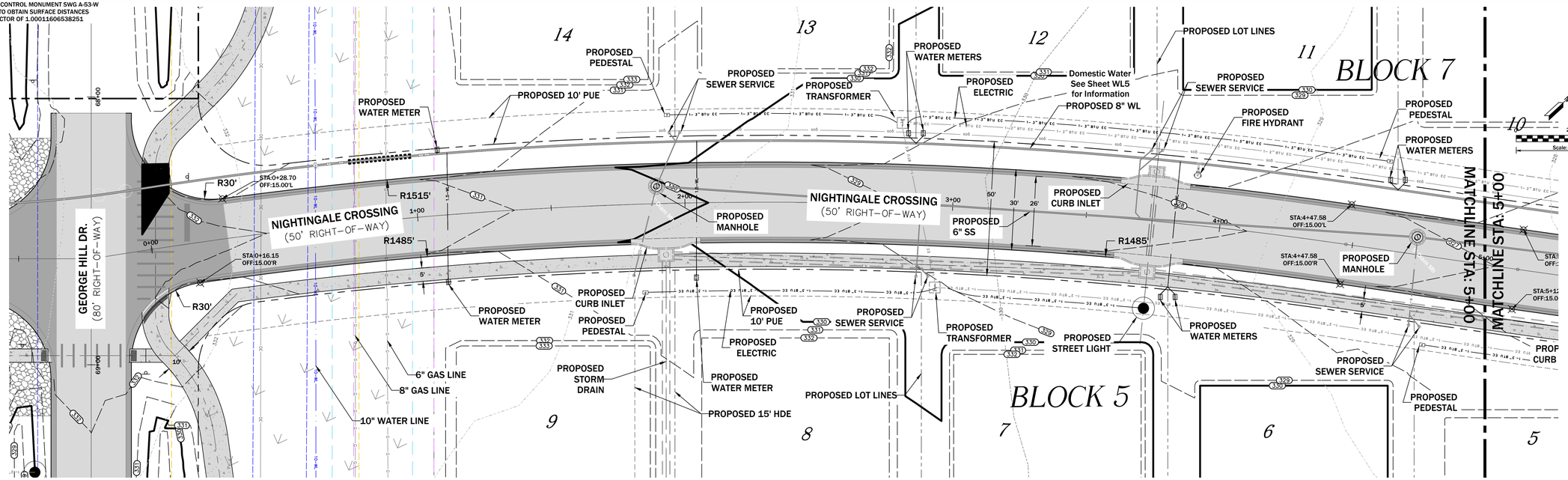
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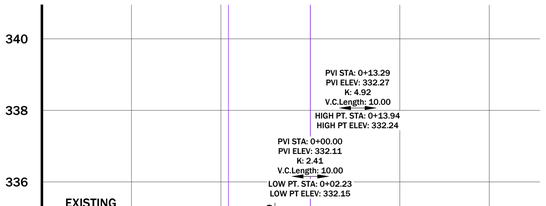
GEORGE HILL DR 3
Phase 2
STELLA RANCH SUBDIVISION

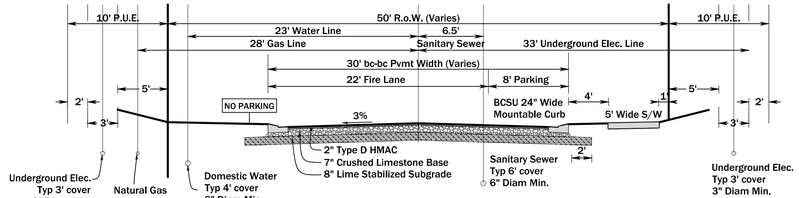
RP6

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
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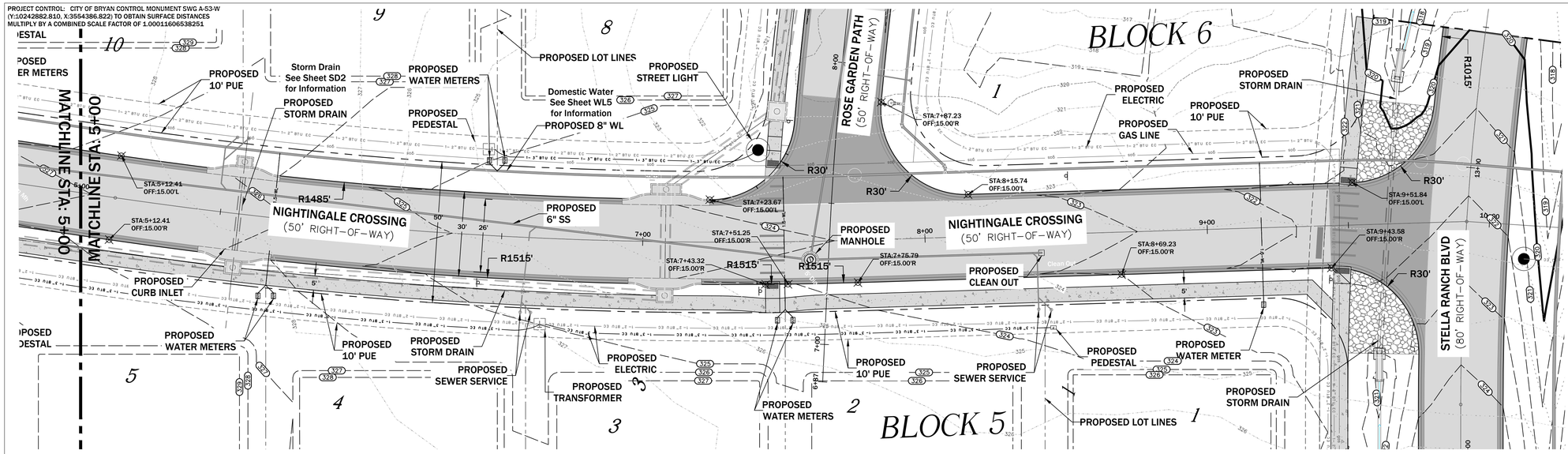
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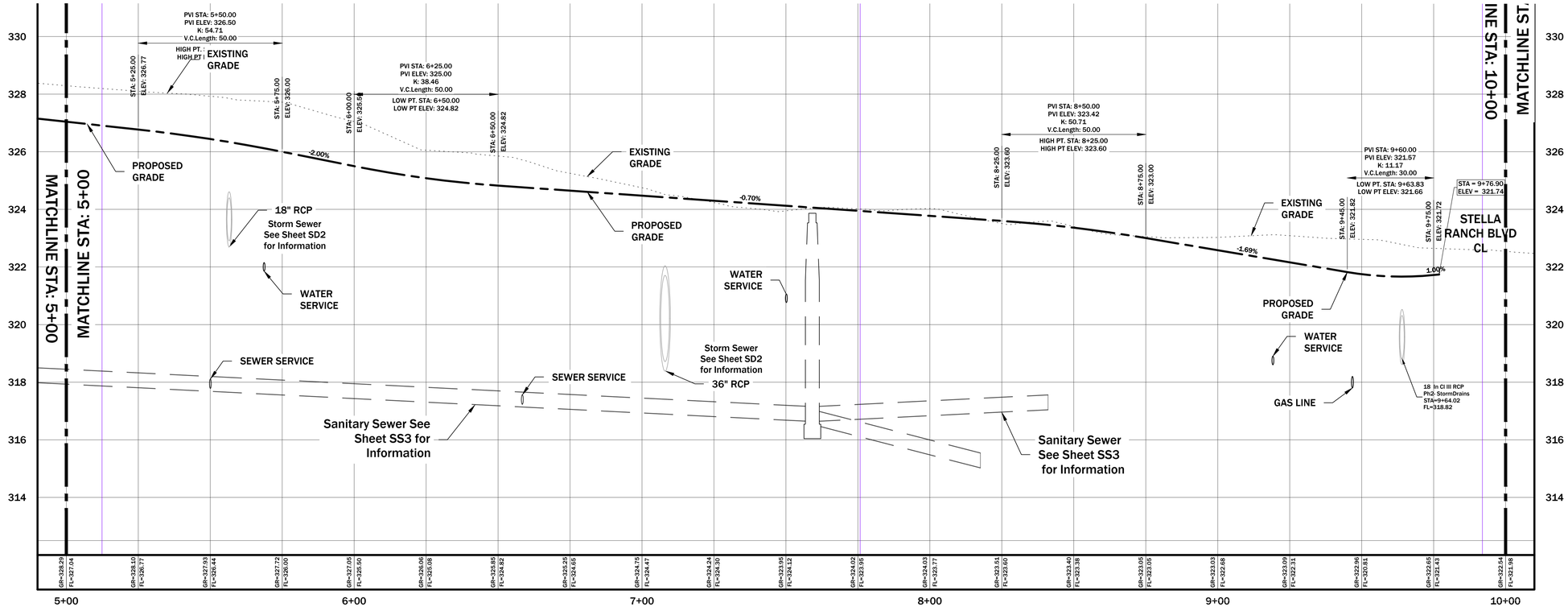
NIGHTINGALE CROSSING 1
Phase 2
STELLA RANCH SUBDIVISION

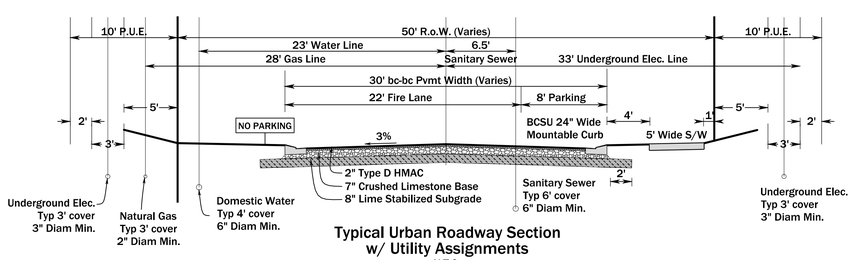
RP7

I:\Jobs\2337 Arden/Revit\Plan\2337(2) 1000 Roadway/Plt.dwg, BRY HIGHTINGALE CROSSING 1, 1/31/2026 11:48:06 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251





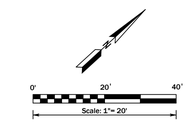


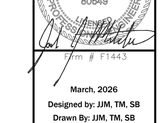
Typical Urban Roadway Section
w/ Utility Assignments
N.T.S.

LEGEND:

PROPERTY LINE (ROW, LOT,ETC)	GAS LINE
EASEMENT LINE	BARBED WIRE FENCE
EXISTING CONTOUR LINE MAJ	OVERHEAD ELECTRIC LINE
EXISTING CONTOUR LINE MNR	UNDERGROUND ELECTRIC LINE
PROPOSED CONTOUR LINE MAJ	TRANSFORMER, PEDESTAL, LIGHT
PROPOSED CONTOUR LINE MNR	SEWER LINE, MANHOLE, SERVICE
PROPOSED ASPHALT ROADWAY	WATER LINES, METER
PROPOSED CONCRETE APRON	STORM DRAIN LINES
CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING

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TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4001 Cross Park
Bryan, Texas 77802

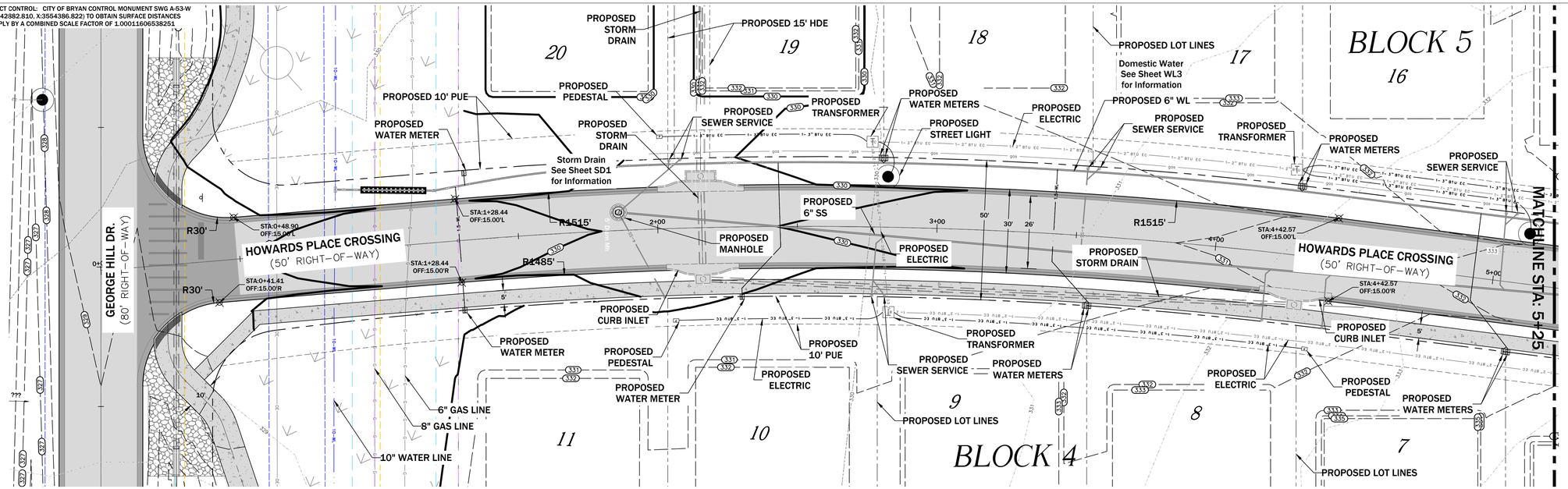
Revisions

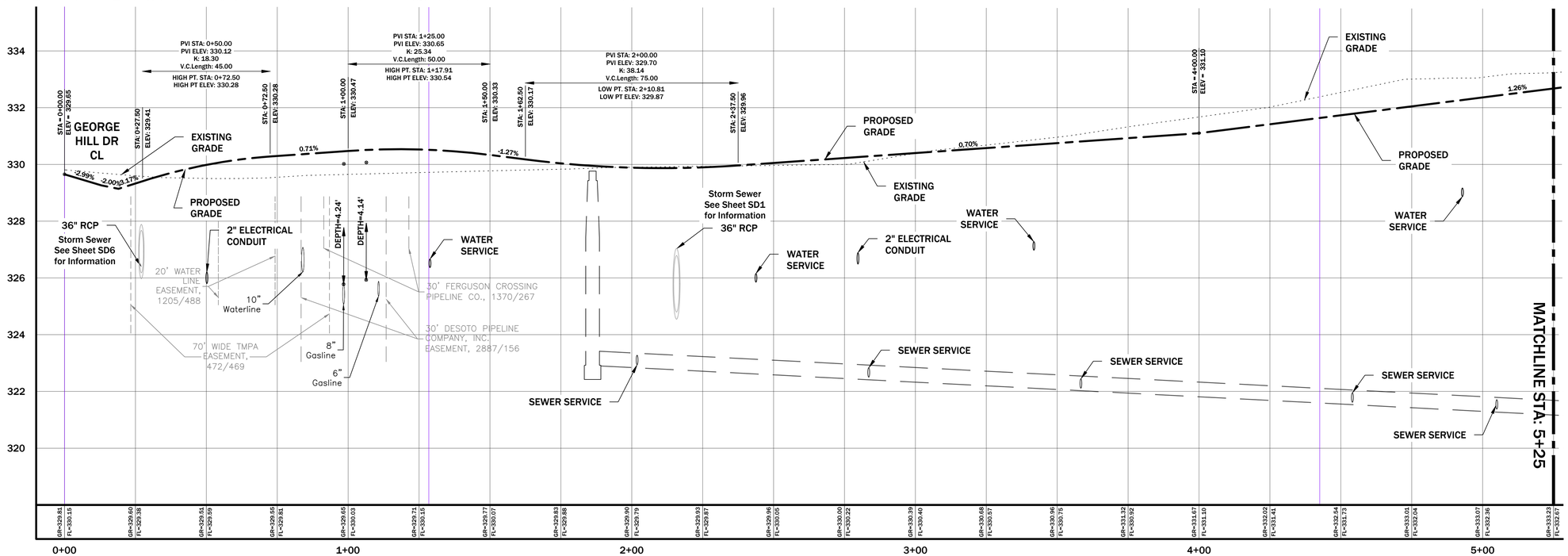
NIGHTINGALE CROSSING 2
Phase 2
STELLA RANCH SUBDIVISION

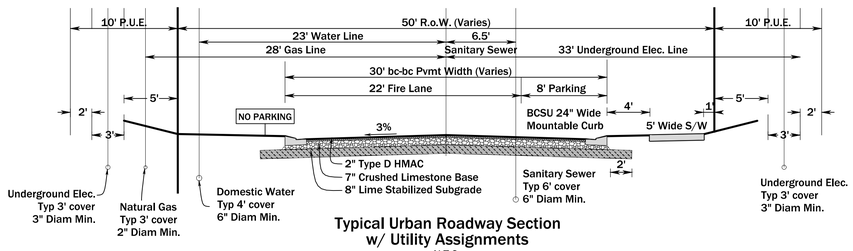
RP8

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242382.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251







Typical Urban Roadway Section w/ Utility Assignments
N.T.S.

LEGEND:

PROPERTY LINE (ROW, LOT,ETC)	GAS LINE
EASEMENT LINE	BARBED WIRE FENCE
EXISTING CONTOUR LINE MAJ	OVERHEAD ELECTRIC LINE
EXISTING CONTOUR LINE MNR	UNDERGROUND ELECTRIC LINE
PROPOSED CONTOUR LINE MAJ	TRANSFORMER, PEDESTAL, LIGHT
PROPOSED CONTOUR LINE MNR	SEWER LINE, MANHOLE, SERVICE
PROPOSED ASPHALT ROADWAY	WATER LINES, METER
PROPOSED CONCRETE APRON	STORM DRAIN LINES
CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING

0' 20' 40'
Scale: 1"= 20'

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STATE OF TEXAS JOEL J. MITCHELL 80649 REGISTERED PROFESSIONAL ENGINEER
TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

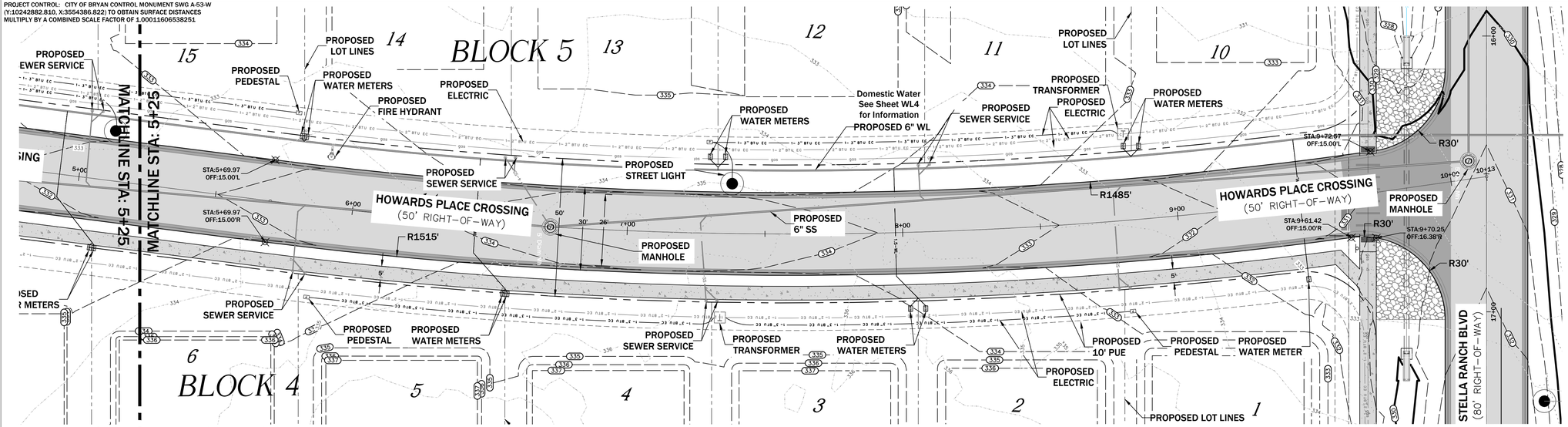
Revisions

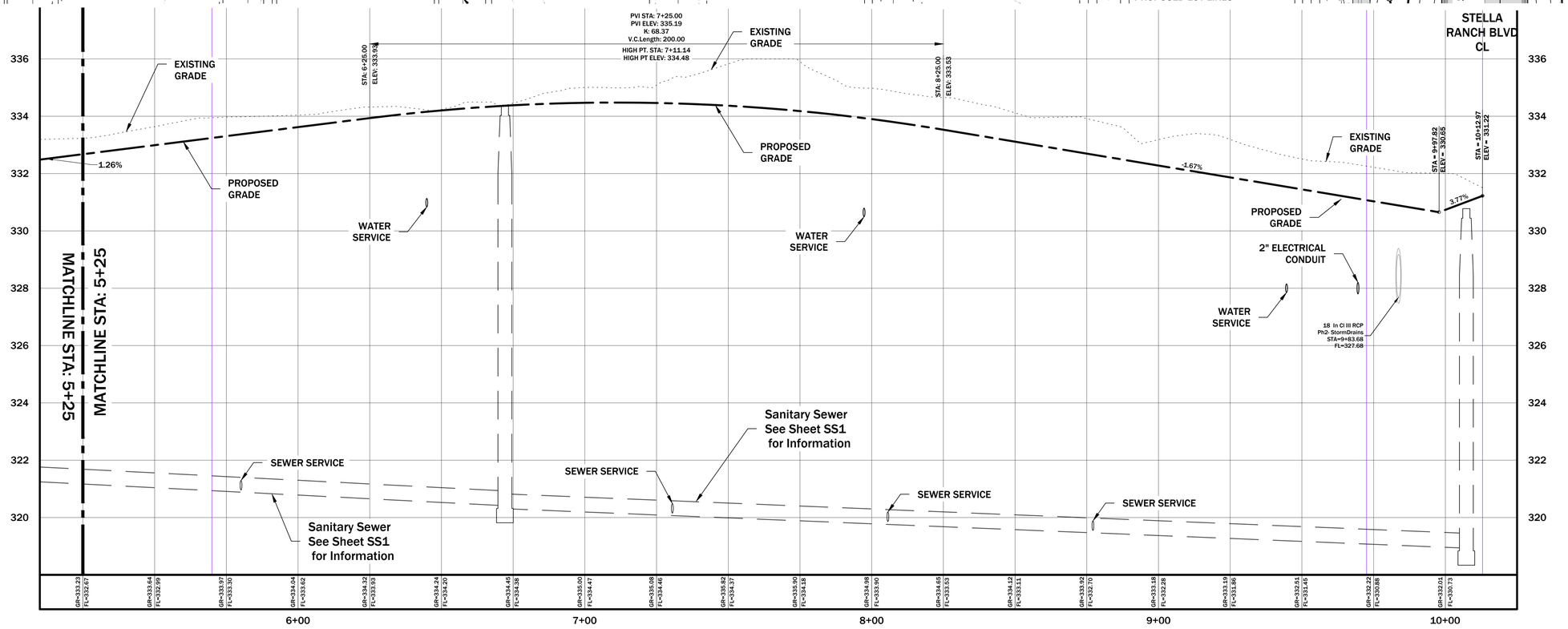
HOWARDS PLACE CROSSING 1
Phase 2
STELLA RANCH SUBDIVISION

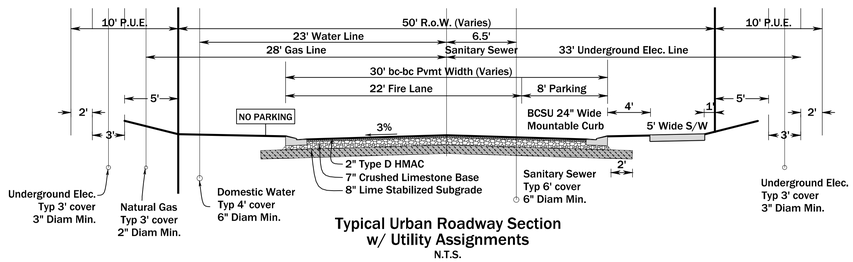
RP9

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251







Typical Urban Roadway Section
w/ Utility Assignments
N.T.S.

LEGEND:

PROPERTY LINE (ROW, LOT,ETC)	GAS LINE
EASEMENT LINE	BARBED WIRE FENCE
EXISTING CONTOUR LINE MAJ	OVERHEAD ELECTRIC LINE
EXISTING CONTOUR LINE MNR	UNDERGROUND ELECTRIC LINE
PROPOSED CONTOUR LINE MAJ	TRANSFORMER, PEDESTAL, LIGHT
PROPOSED CONTOUR LINE MNR	SEWER LINE, MANHOLE, SERVICE
PROPOSED ASPHALT ROADWAY	WATER LINES, METER
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CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING

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JOEL J. MITCHELL
80849
LICENSED PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

HOWARDS PLACE CROSSING 2
Phase 2
STELLA RANCH SUBDIVISION

RP10

S:\Jeff\Proj\2017-JulianBanuelPhase 2\2017102-1000-RoadwayPh.dwg, RP10-HOWARDS PLACE CROSSING 2, 3/11/2026 3:14:29 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y):10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

BLOCK 3

0.121 ACRES (~5268 SQ. FT.)

Scale:
1 inch = 20 feet

FF:326.10
Lot Grading B2

FF:325.40
Lot Grading B2

FF:324.70
Lot Grading B2

FF:326.13
Lot Grading A

FF:326.70
Lot Grading A

FF:327.80
Lot Grading A

FF:328.30
Lot Grading A

FF:329.70
Lot Grading A

FF:330.90
Lot Grading A

FF:332.00
Lot Grading A

FF:332.50
Lot Grading B

FF:333.90
Lot Grading B

1 FF:327.20
Lot Grading B3

2 FF:328.60
Lot Grading B3

3 FF:329.80
Lot Grading B3

4 FF:330.60
Lot Grading B3

5 FF:331.20
Lot Grading B3

6 FF:332.30
Lot Grading B3

7 FF:333.50
Lot Grading B3

FF:333.50
Lot Grading B2

9 FF:334.70
Lot Grading B2

8 FF:335.60
Lot Grading B2

FF:335.60
Lot Grading B2

6 FF:335.20
Lot Grading B2

15 FF:334.20
Lot Grading B2

4 FF:333.30
Lot Grading B2

13 FF:333.30
Lot Grading B3

12 FF:332.40
Lot Grading B3

11 FF:332.00
Lot Grading A

10 FF:331.80
Lot Grading A

FF:336.50
Lot Grading A

FF:336.70
Lot Grading A

FF:337.40
Lot Grading A

FF:337.20
Lot Grading A

FF:337.00
Lot Grading A

FF:336.10
Lot Grading B

2 FF:335.00
Lot Grading B

3 FF:333.90
Lot Grading B

FF:333.10
Lot Grading B

FF:332.40
Lot Grading B

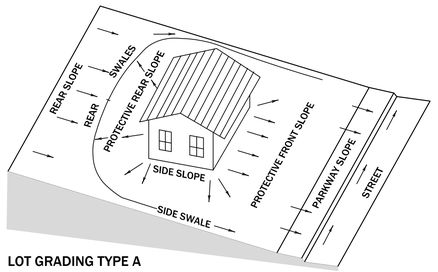
11 FF:332.50
Lot Grading B

2+00

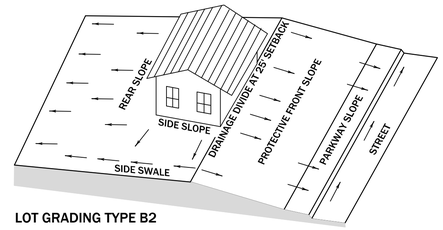
1+00

0+00

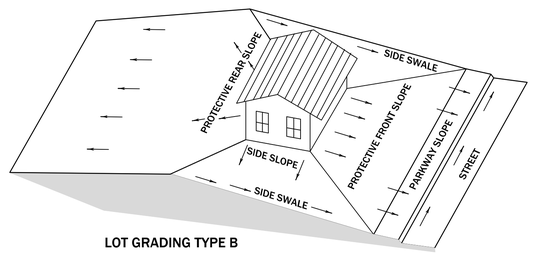
9+51



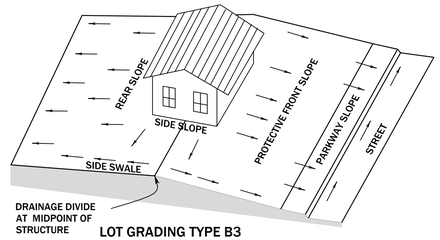
LOT GRADING TYPE A



LOT GRADING TYPE B2



LOT GRADING TYPE B



LOT GRADING TYPE B3

GRADING PLAN CONSTRUCTION SEQUENCE & NOTES:

All graded areas and shall be constructed per the following requirements. Structural areas are defined as the entire 50' right of ways, the center 60' of the 80' right of way, and the building pads defined as 25' from the front property line (right of way line,) 15' from side street right of way, and 50' (or 40' for lots less than 130' deep) from the rear property line. The building pad area is shown as the hatched area on this drawing.

Contractor shall be required (in sequence) to:

1. Place Silt Fence (10' beyond the edge of grading) & Tree Protection Fence were shown on these sheets. This work shall be governed by BCS United Spec 31 25 13 Erosion and Sediment control.

2. Demolish, remove, and haul off all existing structures and pavements within the fence line. All material generated by the demolition and clearing required for this site shall become property of the contractor for his removal and disposal. NO material shall be buried, stockpiled, or disposed of on this site.

3. Strip Topsoil from all structural areas and stockpile along the fence line in areas where no construction is planned. These stockpiles shall require silt fence when construction is not active for more than 7 days. The entire structural area shall be stripped and stockpiled. This quantity is estimated at 6" depth but can be more or less based on the found conditions. No change order will be processed where the topsoil depth is more or less than 6".

4. Within the pond and creek areas, excavate and dispose all of the silty / sediment material regardless of depth. During the construction process, the engineer or owner will determine if the material is suitable for use as topsoil or will required disposal.

5. Scarify, moisture condition, and re-compact the top 6" of native (clay) material within the structural area. This material shall be moisture conditioned to 0-4% above optimum moisture and compacted to 95% max dry density. This work shall be governed by ASTM D698 - Embankment and paid by the square yard.

6. Place suitable fill material (clay or sand) material to achieve the proper line and grade as shown on the plans (minus 6" of topsoil) with the structural area. This material shall be placed in 8" (loose) horizontal lifts. This material shall be governed by the Density Control Section of BCS United Spec 31 23 00 -Excavation and Embankment and shall be moisture conditioned to 0-4% above optimum moisture and compacted to 95% max dry density per ASTM D698 in 8" Lifts.

7. In areas to be graded that are not within the structural area, place topsoil in 8" lifts to achieve the proper line and grade as shown on the plans. This material shall be moisture conditioned to 0-4% above optimum moisture and rolled per the requirements for ordinary compaction per TxDOT Item 132, Embankment.

8. Place Hydro- Mulch Seeding per the plan per BCS United Spec 32 92 13 Hydro-Mulch Seeding for erosion control and paid by the square yard.

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JOEL J. MITCHELL
80649
LICENSED PROFESSIONAL ENGINEER
Tx. Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2

STELLA RANCH SUBDIVISION

GP3

S:\1Proj\1537-AcresBeyond\Phase 2\1537-02\-101-Grading Plan Sheets\dwg GP1-GRADING LAYOUT & NOTES, 3/11/2026 11:37:51 AM
By: JJMITCHELL 11 Mar 2026 11:37 am
XR: XREF 1537-02 Utility Survey Plan Drawing
PLOTTED: 11 Mar 2026 11:37 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

5 FF:331.20 Lot Grading B3

6 FF:332.30 Lot Grading B3

7 FF:333.50 Lot Grading B3

7 FF:332.00 Lot Grading A

8 FF:332.50 Lot Grading B

9 FF:333.90 Lot Grading B

13 FF:333.30 Lot Grading B3

12 FF:332.40 Lot Grading B3

11 FF:332.00 Lot Grading A

10 FF:331.80 Lot Grading A

8 FF:333.90 Lot Grading B

9 FF:333.10 Lot Grading B

10 FF:332.40 Lot Grading B

11 FF:332.50 Lot Grading B

-21.1%
-18.0%
-2.4%
-10.1%
-2.8%
2.00%

Scale:
1 inch = 20 feet

S:\Proj\1937-AntonRanch\Phase 2\1937-02-101-Grading Plan Sheets.dwg, GP4-PARTIAL GRADING PLAN, 3/11/2026 11:38:01 AM

Xrefs: 1937-000000-Overlay.dwt, Anno.dwg
ALERTS: 1 Mar 2026 - 1137.pc

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JOEL J. MITCHELL
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PROFESSIONAL ENGINEER
Tbpe Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2
STELLA RANCH SUBDIVISION

GP4

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

Grading B2

1 FF:327.20 Lot Grading B3
2 FF:328.60 Lot Grading B3
3 FF:329.80 Lot Grading B3
4 FF:330.60 Lot Grading B3
2 FF:326.70 Lot Grading A
3 FF:327.80 Lot Grading A
4 FF:328.30 Lot Grading A
5 FF:329.70 Lot Grading A
6 FF:330.50 Lot Grading A
19 FF:334.70 Lot Grading B2
18 FF:335.60 Lot Grading B2
17 FF:335.60 Lot Grading B2
16 FF:335.20 Lot Grading B2
15 FF:334.20 Lot Grading B2
14 FF:333.30 Lot Grading B2
2 FF:336.70 Lot Grading A
3 FF:337.40 Lot Grading A
4 FF:337.20 Lot Grading A
5 FF:337.00 Lot Grading A
6 FF:336.10 Lot Grading B
7 FF:335.00 Lot Grading B

Scale:
1 inch = 20 feet

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TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2

STELLA RANCH SUBDIVISION

GP5

S:\Bryan\1917 Ardon\Revised Phase 2\1917-02-1001-Grading Plan Sheets.dwg, GP5 -PARTIAL GRADING PLAN, 3/11/2026 11:38:09 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

Scale:
1 inch = 20 feet

BLOCK 3

LOT 13

LOT 12

LOT 11

LOT 10

FF:326.10
Lot Grading B2

FF:325.40
Lot Grading B2

FF:324.70
Lot Grading B2

FF:326.13
Lot Grading A

FF:326.70
Lot Grading A

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STATE OF TEXAS
JOEL J. MITCHELL
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PROFESSIONAL ENGINEER

Firm # F1443

March, 2026

Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2

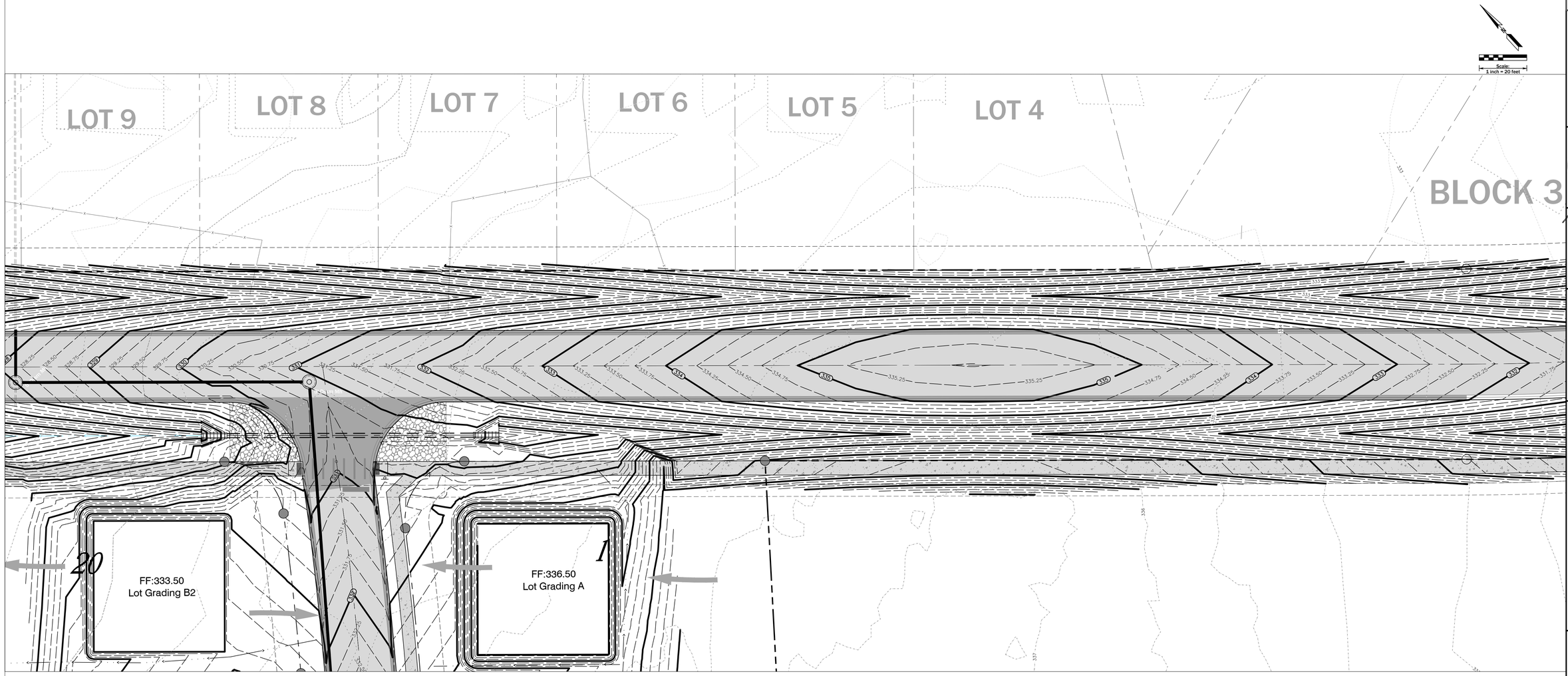
STELLA RANCH SUBDIVISION

GP6

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Xrefs: 1917-01-Utility Plan.dwg
Plotted: 11-Mar-2026 - 13:27 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



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JOEL J. MITCHELL
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PROFESSIONAL ENGINEER
TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
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4007 Cross Park
Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2

STELLA RANCH SUBDIVISION

GP7

S:\195\fp\1937-ArdenReeve\Plans\ 2\1937-02-1501-Grading Plan Sheets.dwg, GP7 -PARTIAL GRADING PLAN, 1/17/2026 11:38:23 AM
Xrefs: 1937-02-1501-Grading Plan Sheets.dwg
Acad: 13 Mar 2026 - 5:57 pm

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

Scale:
1 inch = 20 feet

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Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2

STELLA RANCH SUBDIVISION

GP8

S:\1979\gp\1937-AnfordRanchPhase 2\1937-02-1501-Grading Plan Sheets\dwg\ GP8- PARTIAL GRADING PLAN, 3/1/2026 11:38:29 AM

Xrefs: 1937-01-MSTR-Xrefs-Plan-Portrait.dwg
Author: 13 Mar 2026 - 5:33 pm

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

FM 2818

Scale:
1 inch = 20 feet

MITCHELL M&M MORGAN

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TX. FIRM # F-1443

3204 EARL RUDDER FWY. S.
COLLEGE STATION, TX 77845

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STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER

Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

PARTIAL GRADING PLAN

Phase 2

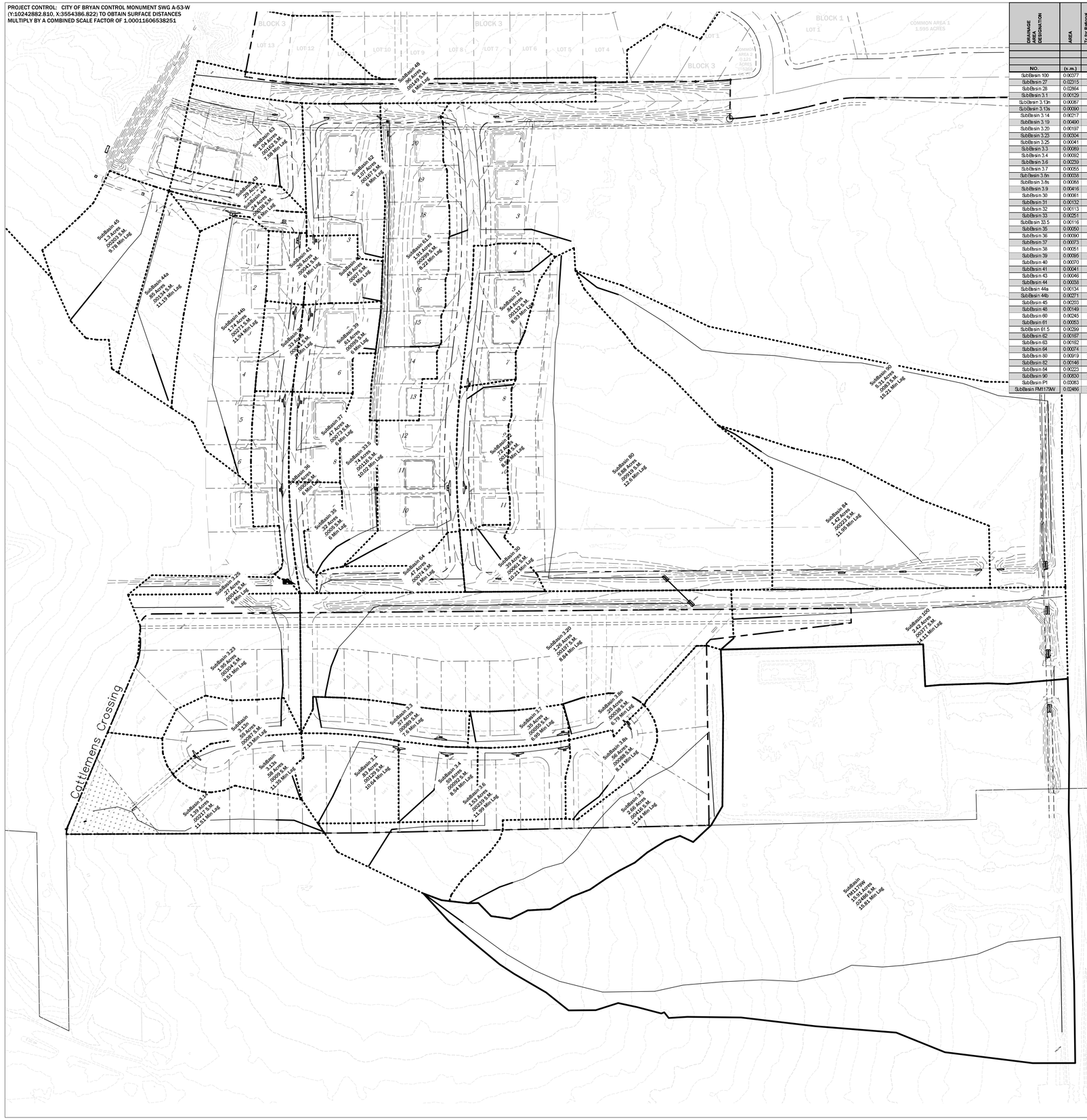
STELLA RANCH SUBDIVISION

GP9

S:\9Proj\1937-AndenBoard Phase 2\1937-20 1501-Grading Plan Sheets.dwg, GP9-PARTIAL GRADING PLAN, 3/11/2026 11:38:55 AM

Xrefs: 1937-01Xbs-Existing Plan Sheets.dwg
PLOTTED: 11 Mar 2026, 11:37 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



DRAINAGE AREA DESIGNATION	AREA	Tc for Rational (Eqn. (16 Minutes max.)	Sheet Flow (n=0.24) OVERLAND FLOW LENGTH	OVERLAND FLOW SLOPE	OVERLAND VELOCITY	OVERLAND Tc	Shallow Conc. Flow V=0.643*Sloparc 0.4 Min Slope=.018ft/ft GRASSED WATERWAY FLOW LENGTH	GRASSED WATERWAY FLOW SLOPE	GRASSED WATERWAY VELOCITY	GRASSED WATERWAY Tc	Gutter Flow V=16.135*Sqrt(Slope) Min Slope=.007ft/ft GUTTER FLOW LENGTH	GUTTER FLOW SLOPE	GUTTER VELOCITY	GUTTER Tc	Open Channel Flow V=20.328*Sqrt(Slope) Min Slope=.004ft/ft OPEN CHANNEL FLOW LENGTH	OPEN CHANNEL FLOW SLOPE	OPEN CHANNEL VELOCITY	OPEN CHANNEL Tc	Pipe Flow V=27.925*Sqrt(Slope) Min Slope=.0026ft/ft PIPE FLOW LENGTH	PIPE FLOW SLOPE	ESTIMATED PIPE VELOCITY	Pipe Tc	Calc. Tc	Tc for Rational (min.) 15 Minutes	Lag Time (0.6xTc, 9 min min.)
NO.	(s.m.)	min	ft.	%	ft/s	min	ft.	%	ft/s	min	ft.	%	ft/s	min	ft.	%	ft/s	min	ft.	%	ft/s	min	min	min	min
SubBasin 100	0.00377	23.51	100.00	1.00%	0.10	16.34	590.71	0.70%	1.35	7.17													23.51	23.51	14.11
SubBasin 27	0.02315	20.05	99.99	1.07%	0.10	15.62	664.63	2.77%	2.69	4.12													20.05	20.05	12.03
SubBasin 28	0.02864	10.00																					0.00	10.00	6.00
SubBasin 3.1	0.00129	17.73	99.99	1.00%	0.10	16.34	88.23	1.53%	1.99	0.74	80.52	1.01%	2.04	0.66									17.73	17.73	10.64
SubBasin 3.13a	0.00087	11.88	56.22	1.00%	0.10	9.19					207.58	0.40%	1.29	2.69									11.88	11.88	7.13
SubBasin 3.13c	0.00090	16.91	100.00	1.00%	0.10	16.34	25.94	5.19%	3.68	0.12	169.17	0.40%	1.29	2.45									16.91	16.91	11.35
SubBasin 3.14	0.02217	19.18	100.00	1.00%	0.10	16.34	399.96	2.11%	2.34	2.84													19.18	19.18	11.51
SubBasin 3.19	0.00490	15.80	99.98	2.05%	0.14	12.25	115.12	1.83%	2.18	0.88					430.44	0.93%	2.68	2.67					15.80	15.80	9.48
SubBasin 3.20	0.00197	14.72	99.98	1.96%	0.13	12.46	117.37	2.18%	2.38	0.82					150.00	0.40%	1.76	1.42					14.72	14.72	8.83
SubBasin 3.23	0.00304	15.83	99.98	1.85%	0.13	12.76	91.54	6.07%	3.98	0.38					283.35	0.40%	1.76	2.68					15.83	15.83	9.50
SubBasin 3.25	0.00041	10.00													275.10	1.08%	2.86	1.60					1.60	10.00	6.00
SubBasin 3.3	0.00089	12.60	61.64	1.02%	0.10	10.01					302.25	0.91%	1.94	2.60									12.60	12.60	7.56
SubBasin 3.4	0.00302	14.25	99.99	1.87%	0.13	13.32	73.61	2.11%	2.35	0.52	59.11	1.58%	2.55	0.39									14.25	14.25	8.54
SubBasin 3.6	0.00239	19.99	100.00	1.00%	0.10	16.34	181.69	1.21%	1.76	1.71	324.44	1.87%	2.78	1.95									19.99	19.99	11.99
SubBasin 3.7	0.00055	11.56	62.17	1.01%	0.10	10.13					191.87	1.21%	2.24	1.43									11.56	11.56	6.93
SubBasin 3.9a	0.00038	11.32	62.30	1.00%	0.10	10.16					120.20	0.74%	1.75	1.14									11.32	11.32	6.79
SubBasin 3.8a	0.00068	13.58	99.98	2.01%	0.13	12.35	69.39	2.90%	2.75	0.42	82.70	0.69%	1.69	0.81									13.58	13.58	8.15
SubBasin 3.9	0.00416	19.06	99.99	1.49%	0.12	13.92	521.76	2.38%	2.49	3.49					174.47	0.40%	1.76	1.65					19.06	19.06	11.44
SubBasin 30	0.00061	17.01	100.00	1.00%	0.10	16.34	71.35	1.20%	1.76	0.67													17.01	17.01	10.21
SubBasin 31	0.00132	14.87	99.98	1.80%	0.13	12.91	60.72	3.60%	3.06	0.33	224.89	1.28%	2.30	1.63									14.87	14.87	8.92
SubBasin 32	0.00113	14.28	99.98	1.84%	0.13	12.80					183.61	1.07%	2.10	1.46									14.28	14.28	8.55
SubBasin 33	0.00251	18.12	99.99	1.03%	0.10	16.17	143.50	0.98%	1.60	1.49	56.13	1.00%	2.03	0.46									18.12	18.12	10.87
SubBasin 33.5	0.00116	16.65	99.99	1.15%	0.11	15.47	62.49	0.91%	1.45	0.72					77.62	1.00%	2.78	0.47					16.65	16.65	9.99
SubBasin 35	0.00050	10.00									228.03	1.04%	2.08	1.81									1.81	10.00	6.00
SubBasin 36	0.00090	10.00									367.79	1.08%	2.12	2.90									2.90	10.00	6.00
SubBasin 37	0.00073	10.00					90.85	2.10%	2.34	0.65	62.40	1.21%	2.24	0.61									1.26	10.00	6.00
SubBasin 38	0.00051	10.00					75.69	2.57%	2.59	0.49	52.43	1.91%	2.81	0.31									0.80	10.00	6.00
SubBasin 39	0.00095	10.00	56.23	1.35%	0.12	8.14	87.58	2.30%	2.45	0.60	51.99	1.92%	2.82	0.31									9.05	10.00	6.00
SubBasin 40	0.00070	10.00	37.10	5.07%	0.20	3.17	139.01	2.15%	2.37	0.98	37.26	2.68%	3.33	0.19									4.33	10.00	6.00
SubBasin 41	0.00041	10.00					61.20	1.79%	2.16	0.47	50.11	1.81%	2.73	0.31									0.78	10.00	6.00
SubBasin 43	0.00046	10.00	40.84	2.45%	0.15	4.66					178.39	1.02%	2.05	1.45									6.11	10.00	6.00
SubBasin 44	0.00038	10.00																					0.00	10.00	6.00
SubBasin 44a	0.00134	19.65	100.00	1.00%	0.10	16.34	302.49	1.63%	2.18	2.31													18.65	18.65	11.19
SubBasin 44b	0.00271	19.90	100.00	1.00%	0.10	16.34	437.82	1.62%	2.05	3.56													19.90	19.90	11.94
SubBasin 45	0.00203	16.31	99.99	1.25%	0.11	14.93	217.96	2.89%	2.63	1.38													16.31	16.31	9.78
SubBasin 46	0.00149	10.00													621.66	2.62%	4.51	3.04					3.04	10.00	6.00
SubBasin 60	0.00245	16.59	99.98	1.40%	0.12	14.26	291.36	1.89%	2.10	2.31													16.59	16.59	9.95
SubBasin 61	0.00053	10.00	39.53	1.01%	0.10	6.43					256.28	2.11%	2.95	1.45									7.88	10.00	6.00
SubBasin 61.5	0.00299	13.69	61.09	1.00%	0.10	9.99									520.98	0.71%	2.34	3.71					13.69	13.69	8.22
SubBasin 62	0.00167	10.00	38.76	4.12%	0.18	3.69	161.19	1.81%	2.17	1.24	232.01	1.19%	2.22	1.74									6.87	10.00	6.00
SubBasin 63	0.00162	12.65	99.96	2.35%	0.14	11.61	73.54	7.20%	4.33	0.28					136.33	1.18%	3.00	0.76					12.65	12.65	7.59
SubBasin 64	0.00074	10.00													312.80	0.95%	2.71	1.93					1.93	10.00	6.00
SubBasin 80	0.00919	20.99	99.99	1.37%	0.12	14.39	567.16	1.53%	2.18	4.33					240.05	0.40%	1.76	2.27					20.99	20.99	12.60
SubBasin 82	0.00146	17.34	100.00	1.00%	0.10	16.34	135.71	1.97%	2.27	1.00													17.34	17.34	10.40
SubBasin 84	0.00223	19.90	99.99	1.09%	0.11	15.76	411.40	1.06%	1.66	4.13													19.90	19.90	11.94
SubBasin 90	0.00830	25.32	99.99	1.89%	0.13	13.23	931.33	1.11%	1.70	9.12					313.92	0.40%	1.76	2.97					25.32	25.32	15.19
SubBasin P1	0.03063	12.79	62.64	1.84%	0.13	10.56	12.93	3.61%	3.07	0.07													12.79	12.79	7.67
SubBasin RM179W	0.02466	26.35	100.00	1.00%	0.10	16.34	1285.56	2.19%	2.37	9.06					196.48	1.53%	3.44	0.95					26.35	26.35	15.81

EXHIBIT 5
Stella Ranch Subdivision - Phase 1
RATIONAL FORMAULA DRAINAGE AREA CALCULATIONS

DRAINAGE AREA	From to Point	TOTAL AREA (acres)	Phase 1 Area (ac.)	Residential Impervious Fraction (ac.)	PAVEMENT (ac.)	TOTAL CA	Calc. Tc	I2	Q2	I5	Q5	I10	Q10	I25	Q25	I50	Q50	I100	Q100
NO.		AC.	0.5	0.65	0.95		min	In/Hr	cfs	In/Hr	cfs	In/Hr	cfs	In/Hr	cfs	In/Hr	cfs	In/Hr	cfs
SubBasin 100	HW100	2.41	1.21	1.21	0.00	1.39	23.51	4.0	5.5	5.0	6.9	5.7	7.9	6.5	9.0	7.4	10.3	8.4	11.6
SubBasin 27	HOALaxe1	7.41	7.41	0.00	0.00	3.70	20.05	4.4	16.2	5.5	30.3	6.2	23.0	7.1	26.3	8.1	29.9	9.1	33.8
SubBasin 28	Wickson Creek T22.1 at PL	9.16	9.16	0.00	0.00	4.58	10.00	6.2	28.4	7.7	35.3	8.6	39.6	9.9	45.2	11.1	51.1	12.5	57.4
SubBasin 3.1	CD3.1	0.83	0.00	0.63	0.00	0.54	17.73	4.7	2.5	5.6	3.1	6.6	3.5	7.6	4.1	8.6	4.6	9.7	5.2
SubBasin 3.13b	CD3.13	0.56	0.00	0.56	0.00	0.36	11.88	5.7	2.1	7.1	2.6	8.0	2.9	9.2	3.3	10.4	3.8	11.7	4.2
SubBasin 3.13c	CD3.13	0.56	0.00	0.56	0.00	0.37	16.91	4.5	1.7	5.7	2.1	6.4	2.4	7.3	2.7	8.3	3.1	9.4	3.5
SubBasin 3.14	Ph3Pond	1.39	0.00	1.39	0.00	0.90	19.18	4.5	4.0	5.6	5.1	6.3	5.7	7.3	6.6	8.3	7.5	9.3	8.4
SubBasin 3.19	HW3.19	3.14	0.00	3.14	0.00	2.04	15.80	5.0	10.1	6.2	12.7	7.0	14.3	8.0	16.4	9.1	18.5	10.3	20.9
SubBasin 3.20	HW61	1.26	0.00	1.26	0.00	0.82	14.72	5.2	4.2	6.4	5.3	7.3	5.9	8.3	6.8	9.4	7.7	10.6	8.7
SubBasin 3.23	HW3.23	1.95	0.00	1.95	0.00	1.26	15.83	5.0	6.3	6.2	7.8	7.0	8.9	8.0	10.1	9.1	11.5	10.2	13.0
SubBasin 3.25	HW3.25	0.26	0.00	0.26	0.00	0.17	10.00	6.2	1.1	7.7	1.3	8.6	1.5	9.9	1.7	11.1	1.9	12.5	2.1
SubBasin 3.3	CD3.3	0.57	0.00	0.57	0.00	0.37	12.60	5.6	2.1	6.9	2.6	7.8	2.9	8.9	3.3	10.1	3.7	11.4	4.2
SubBasin 3.4	CD3.4	0.59	0.00	0.59	0.00	0.38	14.23	5.2	2.0	6.5	2.5	7.4	2.8	8.4	3.2	9.6	3.7	10.8	4.1
SubBasin 3.6	CD3.6	1.53	0.00	1.53	0.00	0.99	19.99	4.4	4.3	5.5	5.4	6.2	6.2	7.1	7.1	8.1	8.0	9.1	9.1
SubBasin 3.7	CD3.7	0.35	0.00	0.35	0.00	0.23	11.56	5.8	1.3	7.2	1.7	8.1	1.9	9.3	2.1	10.5	2.4	11.8	2.7
SubBasin 3.9b	CD3.8	0.24	0.00	0.24	0.00	0.16	11.32	5.9	0.9	7.3	1.2	8.2	1.3	9.4	1.5	10.6	1.7	11.9	1.9
SubBasin 3.8a	CD3.8	0.56	0.00	0.56	0.00	0.37	13.58	5.4	2.0	6.7	2.5	7.5	2.8	8.6	3.2	9.8	3.6	11.0	4.0
SubBasin 3.9	D3.9	2.66	0.00	2.66	0.00	1.73	19.06	4.5	7.8	5.6	9.7	6.4	11.0	7.3	12.6	8.3	14.3	9.4	16.2
SubBasin 30	HW25	0.39	0.00	0.39	0.00	0.25	17.01	4.8	1.2	6.0	1.5	6.8	1.7	7.7	2.0	8.8	2.2	9.9	2.5
SubBasin 31	CD31	0.84	0.00	0.84	0.00	0.55	14.87	5.1	2.8	6.4	3.5	7.2	4.0	8.3	4.5	9.4	5.1	10.6	5.8
SubBasin 32	CD32	0.72	0.00	0.72	0.00	0.47	14.28	5.2	2.5	6.5	3.1	7.4	3.5	8.4	4.0	9.6	4.5	10.8	5.1
SubBasin 33	CD33	1.61	0.00	1.61	0.00	1.04	18.12	4.6	4.8	5.8	6.0	6.5	6.8	7.5	7.8	8.5	8.9	9.6	10.0
SubBasin 33.5	Y33.5	0.74	0.00	0.74	0.00	0.48	16.65	4.8	2.3	6.0	2.9	6.8	3.3	7.8	3.8	8.9	4.3	10.0	4.8
SubBasin 35	CD35	0.32	0.00	0.32	0.00	0.21	10.00	6.2	1.3	7.7	1.6	8.6	1.8	9.9	2.1	11.1	2.3	12.5	2.6
SubBasin 36	CD36	0.58	0.00	0.58	0.00	0.37	10.00	6.2	2.3	7.7	2.9	8.6	3.2	9.9	3.7	11.1	4.2	12.5	4.7
SubBasin 37	CD37	0.47	0.00	0.47	0.00	0.30	10.00	6.2	1.9	7.7	2.3	8.6	2.6	9.9	3.0	11.1	3.4	12.5	3.8
SubBasin 38	CD38	0.33	0.00	0.33	0.00	0.21	10.00	6.2	1.3	7.7	1.6	8.6	1.8	9.9	2.1	11.1	2.4	12.5	2.7
SubBasin 39	CD39	0.61	0.00	0.61	0.00	0.40	10.00	6.2	2.4	7.7	3.0	8.6	3.4	9.9	3.9	11.1	4.4	12.5	5.0
SubBasin 40	CD40	0.45	0.00	0.45	0.00	0.29	10.00	6.2	1.8	7.7	2.2	8.6	2.5	9.9	2.9	11.1	3.2	12.5	3.6
SubBasin 41	CD41	0.26	0.00	0.26	0.00	0.17	10.00	6.2	1.1	7.7	1.3	8.6	1.5	9.9	1.7	11.1	1.9	12.5	2.1
SubBasin 43	CD43	0.29	0.00	0.29	0.00	0.19	10.00	6.2	1.2	7.7	1.5	8.6	1.7	9.9	1.9	11.1	2.1	12.5	2.4
SubBasin 44	CD44	0.24	0.00	0.24	0.00	0.16	10.00	6.2	1.0	7.7	1.2	8.6	1.4	9.9	1.6	11.1	1.8	12.5	2.0
SubBasin 44a	JB45	0.86	0.00	0.86	0.00	0.56	18.65	4.5	2.5	5.7	3.2	6.4	3.6	7.4	4.1	8.4	4.7	9.5	5.3
SubBasin 44b	CD44b	1.73	0.00	1.73	0.00	1.13	19.90	4.4	4.9	5.5	6.2	6.2	7.0	7.1	8.0	8.1	9.1	9.2	10.3
SubBasin 45	JB45	1.30	0.00	1.30	0.00	0.84	16.31	4.9	4.1	6.1	5.2	6.9	5.8	7.9	6.7	9.0	7.6	10.1	8.5
SubBasin 48	D45	0.95	0.00	0.95	0.00	0.62	10.00	6.2	3.8	7.7	4.8	8.6	5.4	9.9	6.1	11.1	6.9	12.5	7.8
SubBasin 60	HW60	1.57	0.00	1.57	0.00	1.02	16.59	4.8	4.9	6.1	6.2	6.8	7.0	7.8	8.0	8.9	9.1	10.0	10.2
SubBasin 61	HW61	0.34	0.00	0.34	0.00	0.22	10.00	6.2	1.4	7.7	1.7	8.6	1.9	9.9	2.2	11.1	2.5	12.5	2.8
SubBasin 61.5	N61.5	1.91	0.00	1.91	0.00	1.24	13.69	5.3	6.6	6.7	8.3	7.5	9.3	8.6	10.7	9.7	12.1	11.0	13.6
SubBasin 62	HW62	1.07	0.00	1.07	0.00	0.69	10.00	6.2	4.3	7.7	5.3	8.6	6.0	9.9	6.9	11.1	7.7	12.5	8.7
SubBasin 63	HW63	1.04	0.00	1.04	0.00	0.67	12.65	5.6	3.7	6.9	4.7	7.8	5.3	8.9	6.0	10.1	6.8	11.4	7.7
SubBasin 64	HW64	0.47	0.00	0.47	0.00	0.31	10.00	6.2	1.9	7.7	2.4	8.6	2.7	9.9	3.0	11.1	3.4	12.5	3.9
SubBasin 80	HW80	5.88	0.00	5.88	0.00	3.82	20.99	4.2	16.2	5.3	20.4	6.0	23.1	6.9	26.5	7.9	30.1	8.9	34.0
SubBasin 82	N83	0.93	0.00	0.93	0.00	0.61	17.34	4.7	2.9	5.9	3.6	6.7	4.1	7.7	4.7	8.7	5.3	9.8	6.0
SubBasin 84	HW84	1.43	0.00	1.43	0.00	0.93	19.90	4.4	4.1	5.5	5.1	6.2	5.8	7.1	6.6	8.1	7.5	9.1	8.5
SubBasin 90	N89	5.31	0.00	5.31	0.00	3.45	25.32	3.8	13.1	4.8	16.5	5.4	18.8	6.3	21.6	7.1	24.6	8.0	27.8
SubBasin P1	HOALaxe1	19.73	0.00	19.73	0.00	12.83	12.79	5.5	70.9	6.9	88.4	7.8	99.5	8.9	113.8	10.0	128.8	11.3	145.0
SubBasin RM179W	RM179W	15.91	15.91	0.00	0.00	7.96	26.35	3.7	29.6	4.7	37.2	5.3	42.4	6.1	48.7	7.0	55.3	7.9	62.6

TIME OF CONCENTRATION PATHS

LEGEND

- Sheet Flow Path
- Shallow Concentrated Flow Path
- Gutter Flow Path
- Pipe Flow Path
- Open Channel Flow Path
- Drainage Divide
- Existing Major Contour
- Existing Minor Contour
- Proposed Major Contour
- Proposed Minor Contour

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TX FIRM # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked by: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

Phase 2
STELLA RANCH SUBDIVISION

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

0' 100' 200'
Drawing Scale: 1"= 100'
2" on Paper = 200'

TIME OF CONCENTRATION PATHS

LEGEND

- Sheet Flow Path
- Shallow Concentrated Flow Path
- Gutter Flow Path
- Pipe Flow Path
- Open Channel Flow Path
- Drainage Divide
- Existing Major Contour
- Existing Minor Contour
- Proposed Major Contour
- Proposed Minor Contour

HW62 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	3.7	Mannings N:	0.03	D.S. Fl Elev:	317.19	Culvert N:	0.013	Top of Road:	322.56			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.005	U.S. Fl Elev:	320.25	Inlet Coeff:	0.4					Slope (ft/ft):	0.005
Lag=	10.84	Bottom Width (ft):	0	Culvert D":	18	# of Barrels:	1					Bottom Width (ft):	0
Tc=	18.1	Side Slope 1 (ft/ft):	4	Culvert L':	97	Slope:	3.15%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	3.66	8.8	0.77	1.77	317.96	319.01	0.45	8.2	319.0	0.12%	320.7	321.12	No	0.77	1.77
Q5	4.62	11.1	1.16	2.36	318.35	320.22	0.84	11.0	320.2	1.11%	321.3	322.05	No	1.16	2.36
Q10	5.70	13.7	1.26	2.47	318.45	320.51	0.96	11.5	320.5	1.69%	322.2	322.98	Yes	1.26	2.47
Q25	6.83	16.42	1.34	2.61	318.53	320.73	1.09	11.9	320.7	2.43%	323.1	323.97	Yes	1.34	2.61
Q50	8.05	19.4	1.43	2.71	318.62	320.86	1.28	12.0	320.9	3.38%	324.1	325.04	Yes	1.43	2.71
Q100	9.26	22.3	1.51	2.79	318.70	321.17	1.50	12.6	321.2	4.47%	325.5	326.49	Yes	1.51	2.79

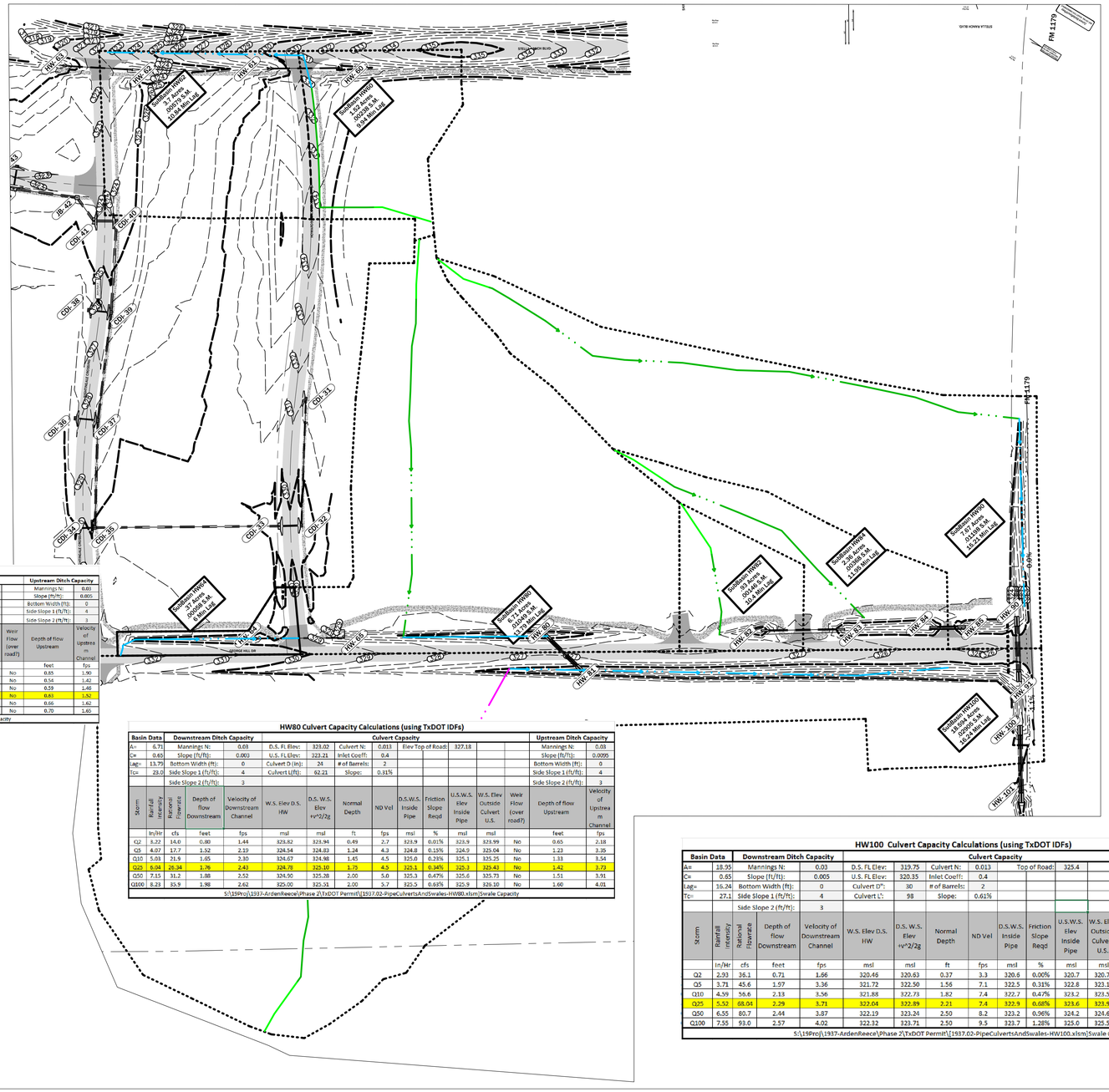
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HW60 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	1.52	Mannings N:	0.03	D.S. Fl Elev:	326.8	Culvert N:	0.013	Top of Road:	330.82			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.005	U.S. Fl Elev:	328.64	Inlet Coeff:	0.4					Slope (ft/ft):	0.005
Lag=	9.94	Bottom Width (ft):	0	Culvert D":	18	# of Barrels:	1					Bottom Width (ft):	0
Tc=	16.6	Side Slope 1 (ft/ft):	4	Culvert L':	106	Slope:	1.74%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	3.83	3.8	0.78	1.80	327.58	328.27	0.54	6.7	328.3	0.13%	329.2	329.46	No	0.78	1.80
Q5	4.82	4.8	0.85	1.88	327.65	328.43	0.61	7.1	328.4	0.20%	329.2	329.56	No	0.85	1.88
Q10	5.94	5.9	0.92	1.98	327.72	328.60	0.68	7.5	328.6	0.31%	329.3	329.67	No	0.92	1.98
Q25	7.12	7.03	0.98	2.09	327.78	328.74	0.76	7.9	328.7	0.45%	329.4	329.78	No	0.98	2.09
Q50	8.38	8.3	1.04	2.19	327.84	328.88	0.84	8.2	328.9	0.62%	329.5	329.95	No	1.04	2.19
Q100	9.63	9.5	1.10	2.25	327.90	329.01	0.91	8.5	329.0	0.82%	329.9	330.32	No	1.10	2.25

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HW82 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	0.93	Mannings N:	0.03	D.S. Fl Elev:	322.81	Culvert N:	0.013	Elev Top of Road:	327.8			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.005	U.S. Fl Elev:	323.38	Inlet Coeff:	0.4					Slope (ft/ft):	0.0509
Lag=	10.4	Bottom Width (ft):	0	Culvert D(in):	24	# of Barrels:	1					Bottom Width (ft):	0
Tc=	17.3	Side Slope 1 (ft/ft):	4	Culvert L(ft):	114.21	Slope:	0.50%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	3.74	2.3	0.77	1.80	323.58	323.85	0.66	4.1	323.8	0.03%	324.0	324.13	No	0.50	4.28
Q5	4.72	2.9	0.70	1.66	323.51	323.74	0.57	3.6	323.7	0.02%	324.0	324.04	No	0.45	4.02
Q10	5.82	3.5	0.76	1.74	323.57	323.83	0.64	4.1	323.8	0.02%	324.0	324.12	No	0.49	4.18
Q25	6.96	4.21	0.81	1.83	323.62	323.90	0.70	4.3	323.9	0.03%	324.1	324.20	No	0.53	4.28
Q50	8.21	5.0	0.86	1.92	323.67	323.98	0.77	4.5	324.0	0.03%	324.1	324.27	No	0.56	4.52
Q100	9.44	5.7	0.91	1.97	323.72	324.06	0.83	4.7	324.1	0.06%	324.2	324.34	No	0.59	4.68

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HW84 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	2.36	Mannings N:	0.03	D.S. Fl Elev:	321.8	Culvert N:	0.013	Top of Road:	325.94			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.005	U.S. Fl Elev:	321.97	Inlet Coeff:	0.4					Slope (ft/ft):	0.005
Lag=	11.95	Bottom Width (ft):	0	Culvert D":	24	# of Barrels:	1					Bottom Width (ft):	0
Tc=	19.9	Side Slope 1 (ft/ft):	4	Culvert L':	34	Slope:	0.56%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	3.48	5.3	0.75	1.77	322.55	322.81	0.63	4.1	322.8	0.02%	322.8	322.92	No	0.75	1.77
Q5	4.39	6.7	0.96	2.09	322.76	323.13	0.90	4.9	323.1	0.05%	323.2	323.31	No	0.96	2.09
Q10	5.42	8.3	1.04	2.20	322.84	323.25	1.02	5.1	323.3	0.13%	323.3	323.46	No	1.04	2.20
Q25	6.50	9.98	1.12	2.27	322.92	323.37	1.14	5.4	323.4	0.19%	323.4	323.61	No	1.12	2.27
Q50	7.68	11.3	1.19	2.33	322.99	323.47	1.28	5.6	323.5	0.27%	323.6	322.76	No	1.19	2.38
Q100	8.84	13.6	1.25	2.48	323.05	323.56	1.41	5.7	323.6	0.36%	323.7	323.88	No	1.25	2.48

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HW90 Culvert Capacity Calculations (using TxDOT IDFs)

Downstream Ditch Capacity				Culvert Capacity								Upstream Ditch Capacity	
A=	7.67	Mannings N:	0.03	D.S. Fl Elev:	320.89	Culvert N:	0.013	Top of Road:	325.71			Mannings N:	0.03
C=	0.55	Slope (ft/ft):	0.011	U.S. Fl Elev:	321.15	Inlet Coeff:	0.4					Slope (ft/ft):	0.008
Lag=	15.21	Bottom Width (ft):	8	Culvert D":	30	# of Barrels:	2					Bottom Width (ft):	8
Tc=	25.4	Side Slope 1 (ft/ft):	6	Culvert L':	77.41	Slope:	0.34%					Side Slope 1 (ft/ft):	6
		Side Slope 2 (ft/ft):	4									Side Slope 2 (ft/ft):	4

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	3.05	12.8	0.71	1.60	321.10	321.21	0.43	2.7	321.3	0.00%	321.6	321.63	No	0.23	1.45
Q5	3.85	16.2	0.53	2.88	321.42	321.72	1.01	4.4	321.9	0.04%	322.2	322.28	No	0.58	2.57
Q10	4.77	20.1	0.60	3.05	321.49	321.82	1.14	4.6	322.0	0.06%	322.3	322.42	No	0.65	2.75
Q25	5.73	24.16	0.65	3.24	321.55	321.92	1.26	4.9	322.2	0.09%	322.4	322.56	No	0.72	2.89
Q50	6.79	28.6	0.72	3.43	321.61	322.01	1.40	5.1	322.3	0.12%	322.5	322.71	No	0.78	3.09
Q100	7.82	33.0	0.78	3.55	321.67	322.09	1.53	5.2	322.4	0.16%	322.7	322.85	No	0.84	3.22

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HW64 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	0.37	Mannings N:	0.03	D.S. Fl Elev:	325.93	Culvert N:	0.013	Top of Road:	330.25			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.005	U.S. Fl Elev:	327.28	Inlet Coeff:	0.4					Slope (ft/ft):	0.005
Lag=	6	Bottom Width (ft):	0	Culvert D":	18	# of Barrels:	1					Bottom Width (ft):	0
Tc=	10.0	Side Slope 1 (ft/ft):	4	Culvert L':	131	Slope:	1.01%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	4.88	1.2	0.65	1.90	326.78	327.31	0.71	5.9	327.3	0.21%	328.0	328.20	No	0.65	1.90
Q5	6.63	1.4	0.54	1.42	326.47	326.75	0.37	4.2	326.7	0.02%	327.7	327.76	No	0.54	1.42
Q10	7.38	1.8	0.59	1.46	326.52	326.83	0.42	4.4	326.8	0.03%	327.7	327.82	No	0.59	1.46
Q25	8.39	2.11	0.63	1.52	326.56	326.90	0.45	4.7	326.9	0.04%	327.7	327.87	No	0.63	1.52
Q50	10.27	2.5	0.66	1.62	326.59	326.96	0.49	4.9	327.0	0.05%	327.8	327.92	No	0.66	1.62
Q100	11.79	2.8	0.70	1.65	326.63	327.03	0.53	5.1	327.0	0.07%	327.8	327.97	No	0.70	1.65

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HW80 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	6.71	Mannings N:	0.03	D.S. Fl Elev:	323.02	Culvert N:	0.013	Elev Top of Road:	327.18			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.003	U.S. Fl Elev:	323.21	Inlet Coeff:	0.4					Slope (ft/ft):	0.0095
Lag=	13.79	Bottom Width (ft):	0	Culvert D (in):	24	# of Barrels:	2					Bottom Width (ft):	0
Tc=	23.0	Side Slope 1 (ft/ft):	4	Culvert L(ft):	92.21	Slope:	0.35%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	3.22	14.0	0.80	1.44	323.82	323.94	0.49	2.7	323.9	0.01%	323.9	323.99	No	0.65	2.18
Q5	4.07	17.7	1.52	2.19	324.54	324.83	1.24	4.3	324.8	0.15%	324.9	325.04	No	1.23	3.35
Q10	5.03	21.9	1.65	2.30	324.67	324.98	1.45	4.5	325.0	0.23%	325.1	325.25	No	1.33	3.54
Q25	6.04	26.34	1.76	2.43	324.78	325.10	1.75	4.5	325.1	0.34%	325.3	325.43	No	1.42	3.73
Q50	7.15	31.2	1.88	2.52	324.90	325.28	2.00	5.0	325.3	0.47%	325.6	325.73	No	1.51	3.91
Q100	8.23	35.9	1.98	2.62	325.00	325.51	2.00	3.7	325.5	0.65%	325.9	326.10	No	1.60	4.01

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HW100 Culvert Capacity Calculations (using TxDOT IDFs)

Basin Data		Downstream Ditch Capacity		Culvert Capacity								Upstream Ditch Capacity	
A=	18.95	Mannings N:	0.03	D.S. Fl Elev:	319.75	Culvert N:	0.013	Top of Road:	325.4			Mannings N:	0.03
C=	0.65	Slope (ft/ft):	0.005	U.S. Fl Elev:	320.35	Inlet Coeff:	0.4					Slope (ft/ft):	0.005
Lag=	16.24	Bottom Width (ft):	0	Culvert D":	30	# of Barrels:	2					Bottom Width (ft):	0
Tc=	27.1	Side Slope 1 (ft/ft):	4	Culvert L':	98	Slope:	0.61%					Side Slope 1 (ft/ft):	4
		Side Slope 2 (ft/ft):	3									Side Slope 2 (ft/ft):	3

Storm	Rainfall Intensity	Rational Flowrate	Depth of flow Downstream	Velocity of Downstream Channel	W.S. Elev D.S. HW	D.S. W.S. Elev +v^2/2g	Normal Depth	ND Vel	D.S.W.S. Inside Pipe	Friction Slope Reqd	U.S.W.S. Elev Inside Pipe	W.S. Elev Outside Culvert U.S.	Weir Flow (over road?)	Depth of flow Upstream	Velocity of Upstream Channel
	In/Hr	cfs	feet	fps	msl	msl	ft	fps	msl	%	msl	msl		feet	fps
Q2	2.93	36.1	0.71	1.66	320.46	320.63	0.37	3.3	320.6	0.00%	320.7	320.78	No	0.71	1.66
Q5	3.71	45.6	1.97	3.36	321.72	322.50	1.56	7.1	322.5	0.31%	322.8	323.12	No	1.97	3.36
Q10	4.59	56.6	2.13	3.56	321.88	322.73	1.82	7.4	322.7	0.47%	323.2	323.53	No	2.13	3.56
Q25	5.52	68.04	2.29	3.71	322.04	322.89	2.21	7.4	322.9	0.68%	323.6	323.90	No	2.29	3.71
Q50	6.55	80.7	2.44	3.87	322.19	323.24	2.50	8.2	323.2	0.96%	324.2	324.60	No	2.44	3.87
Q100	7.55	93.0	2.57	4.02	322.32	323.71	2.50	9.5	323.7	1.28%	325.0	325.52	Yes	2.57	4.02

S:\19Proj\1937-ArdenReece\Phase 2\TxDOT Permit\[1937.02-PipeCulvertsAndSwales-HW100.xlsm]Swale Capacity

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STATE OF TEXAS
JOEL J. MITCHELL
80649
LICENSED PROFESSIONAL ENGINEER
Firm # F1443

December 8, 2025
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

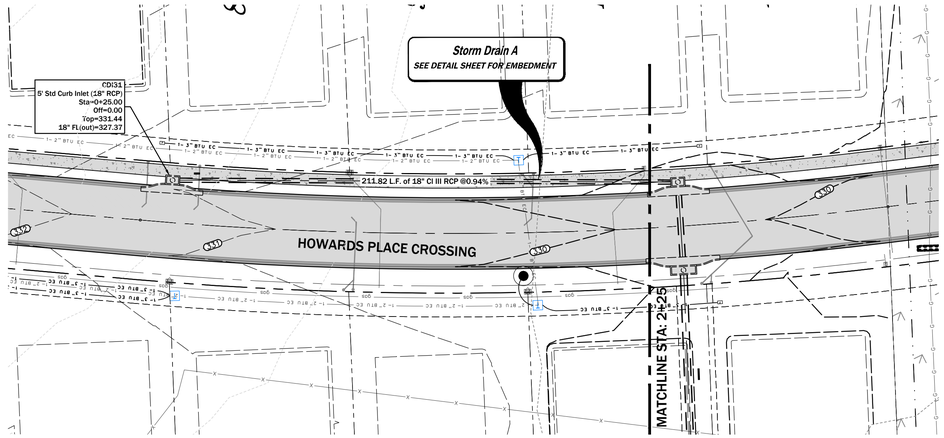
Revisions

Culvert Drainage Area Map
Phase 2
STELLA RANCH SUBDIVISION

DC

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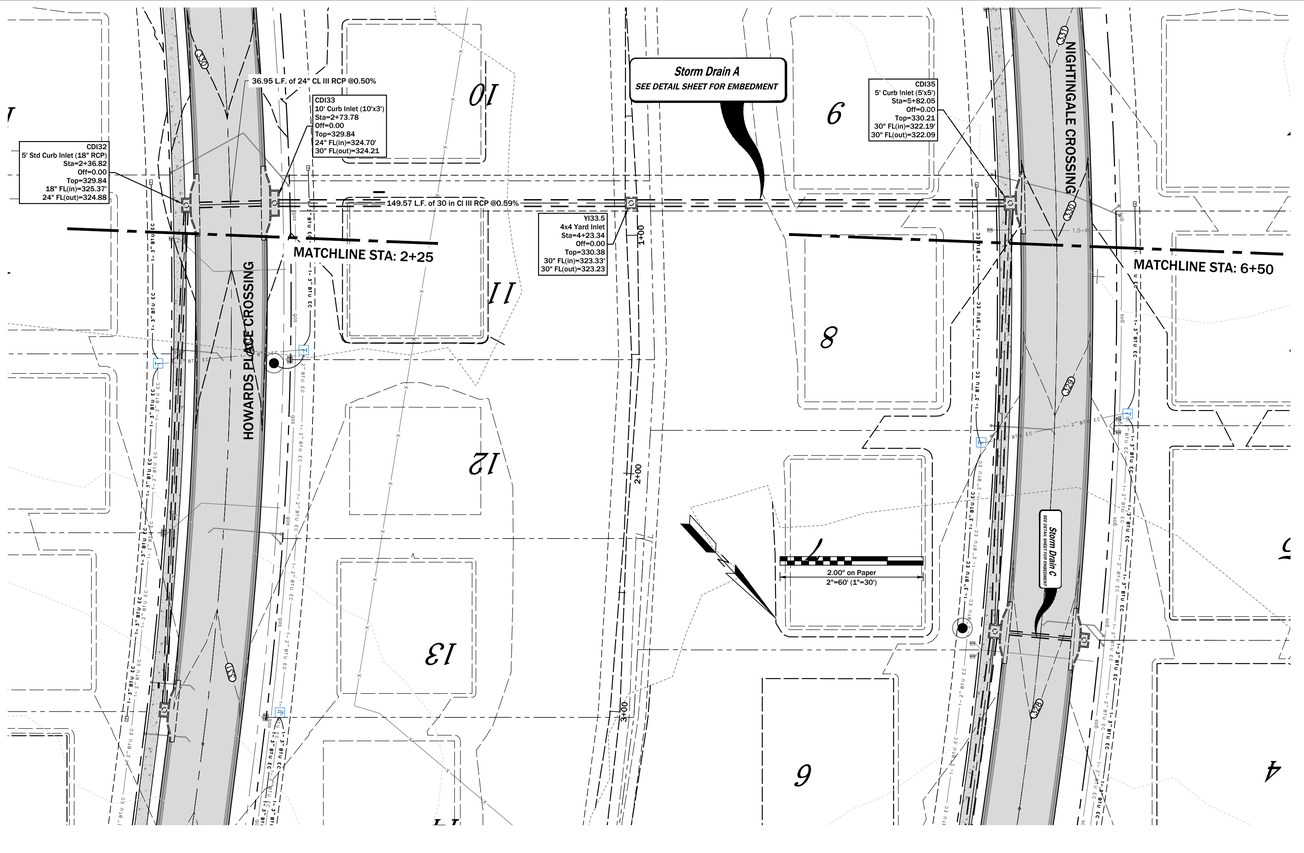
PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



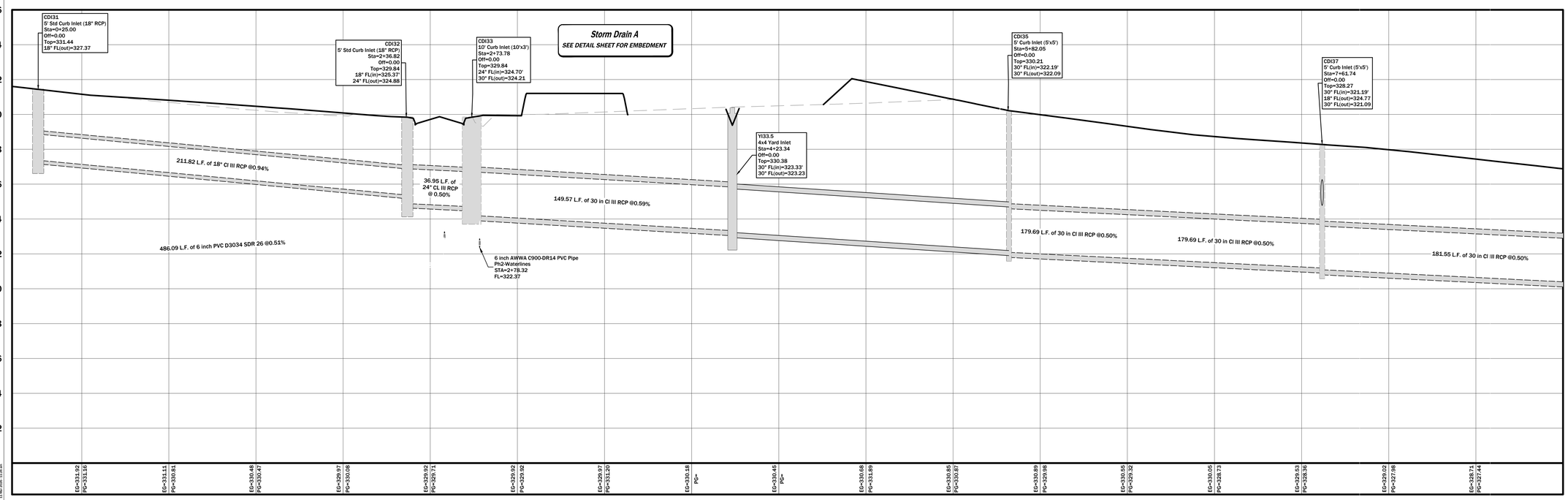
2.00" on Paper
2"=60' (1"=30')

LEGEND:

- PROPERTY LINE (ROW, LOT,ETC)
- EASEMENT LINE
- EDGE OF WATER LINE
- CENTER LINE
- EXISTING CONTOUR LINE MAJ
- EXISTING CONTOUR LINE MNR
- PROPOSED CONTOUR LINE MAJ
- PROPOSED CONTOUR LINE MNR
- EXISTING GAS LINE
- BARBED WIRE FENCE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND ELECTRIC LINE
- SEWER LINES
- WATER LINES
- STORM DRAIN LINES
- LIMITS OF GRADING



Storm Drain - SD-A PROFILE



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STATE OF TEXAS
JOEL J. MITCHELL
80649
PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

Storm Drain A

Phase 2
STELLA RANCH SUBDIVISION

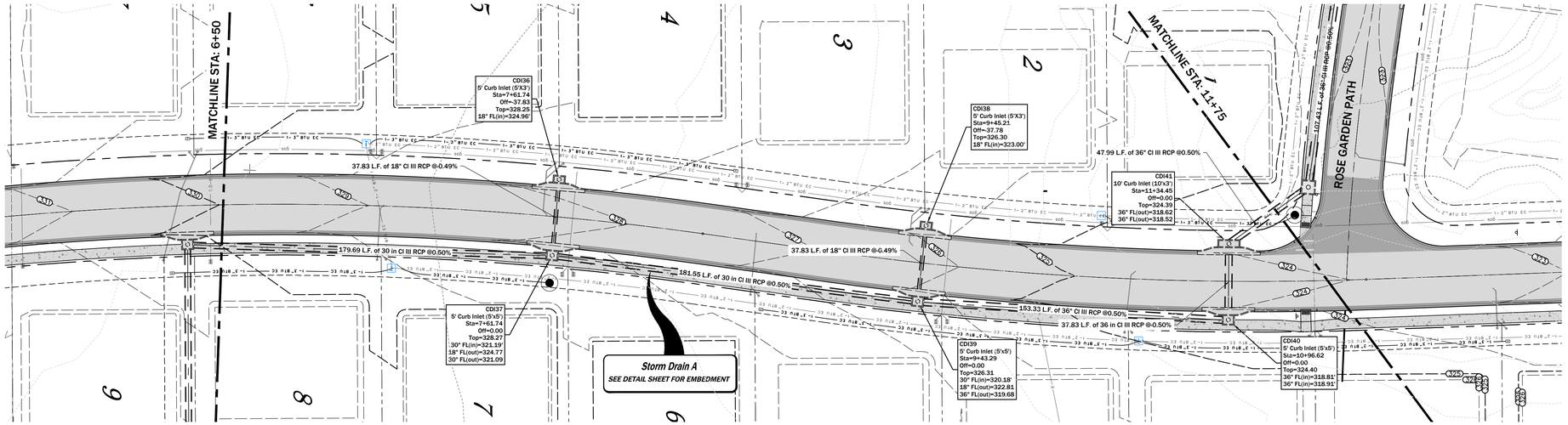
SD1

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TBONNE 1837-02-2020\0 Storm\Plan_Prof_SD1-Storm Drain A.dwg
AUTOCAD 11 Mar 2020 - 11:26 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

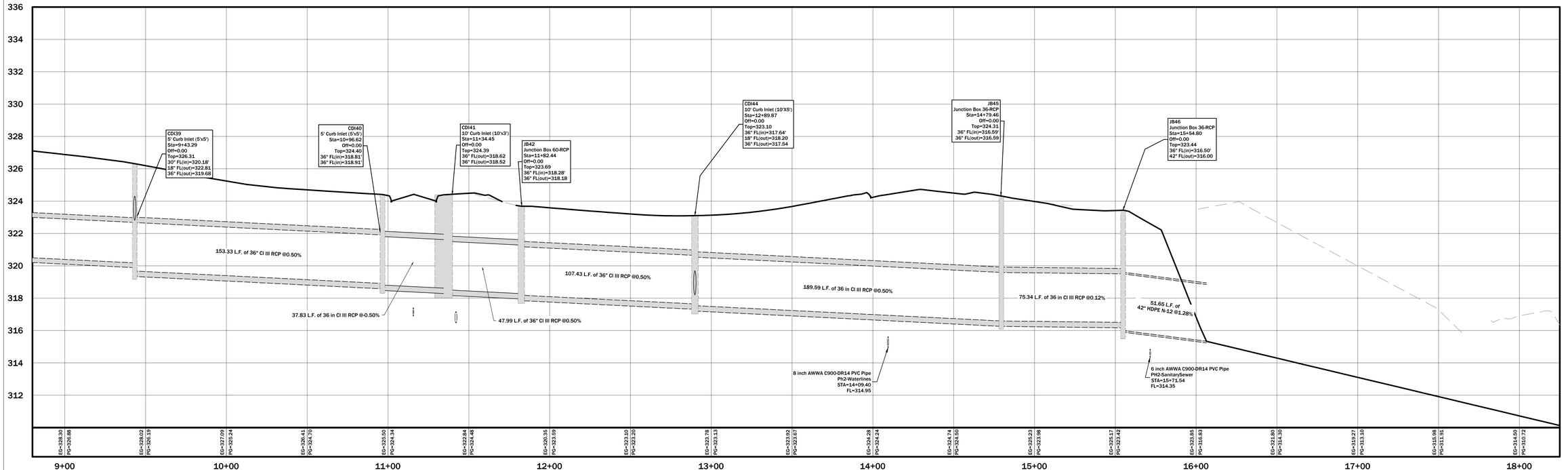
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- UNDERGROUND ELECTRIC LINE (UE)
- SEWER LINES (6"-SS, 12"-SS, 6"-WL, 8"-WL, 12"-WL)
- WATER LINES
- STORM DRAIN LINES
- LIMITS OF GRADING



2.00" on Paper
2"=60' (1"=30')

Storm Drain - SD-A PROFILE



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March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

Storm Drain A

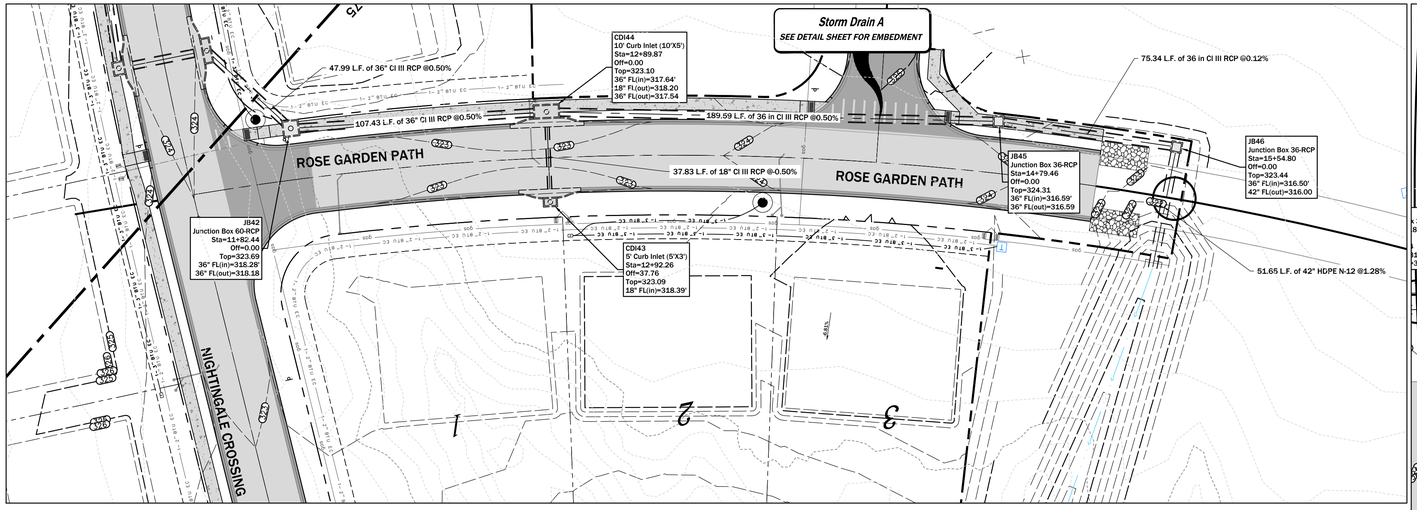
Phase 2
STELLA RANCH SUBDIVISION

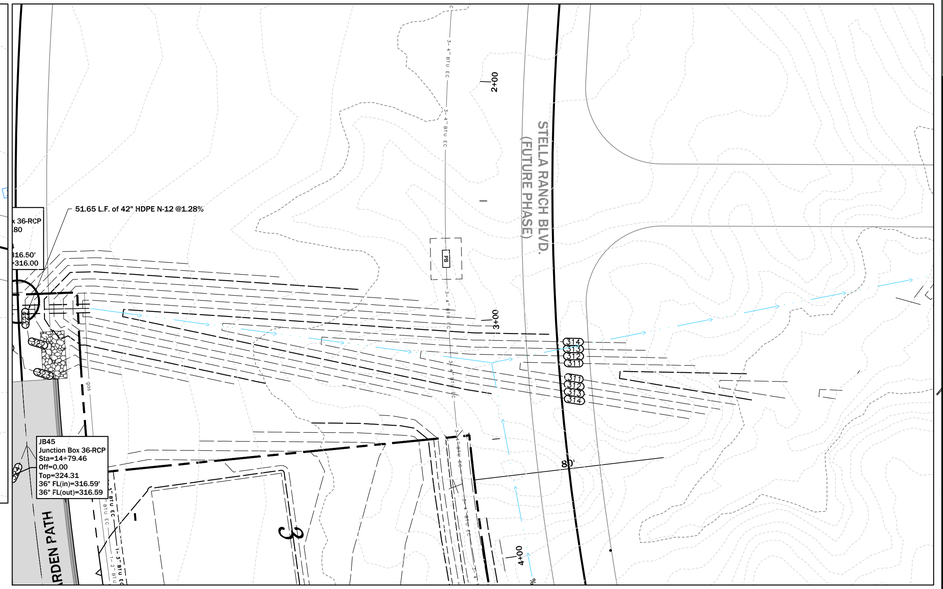
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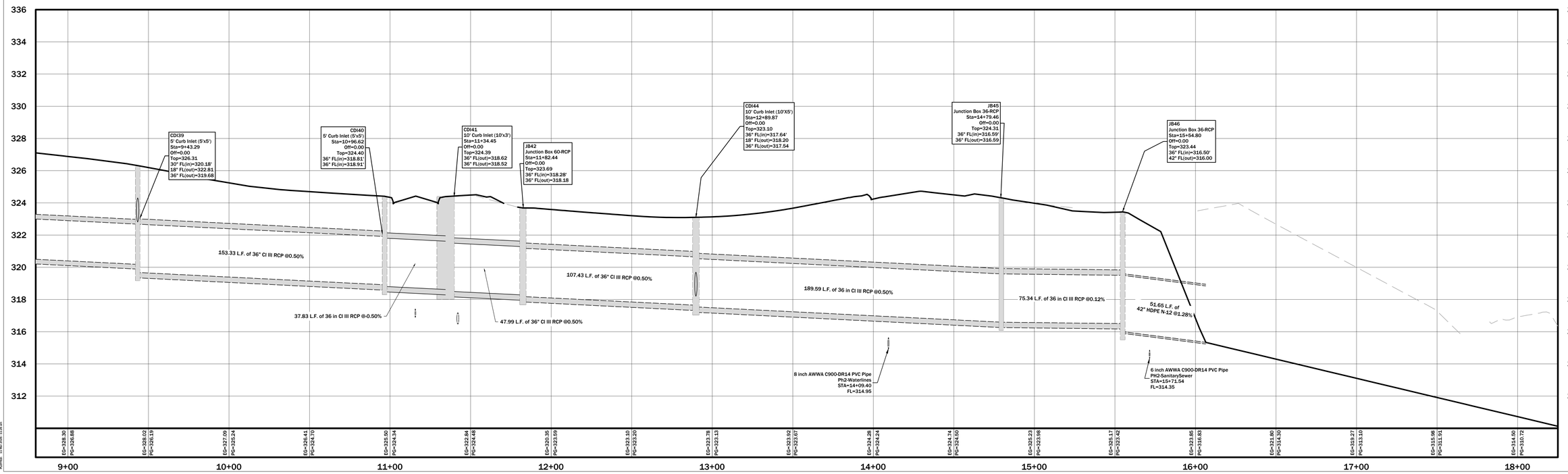
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PLOTTER: 1937.02.20000StormPlnProfAug

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251





Storm Drain - SD-A PROFILE



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4007 Cross Park
Bryan, Texas 77802

Revisions

Storm Drain A

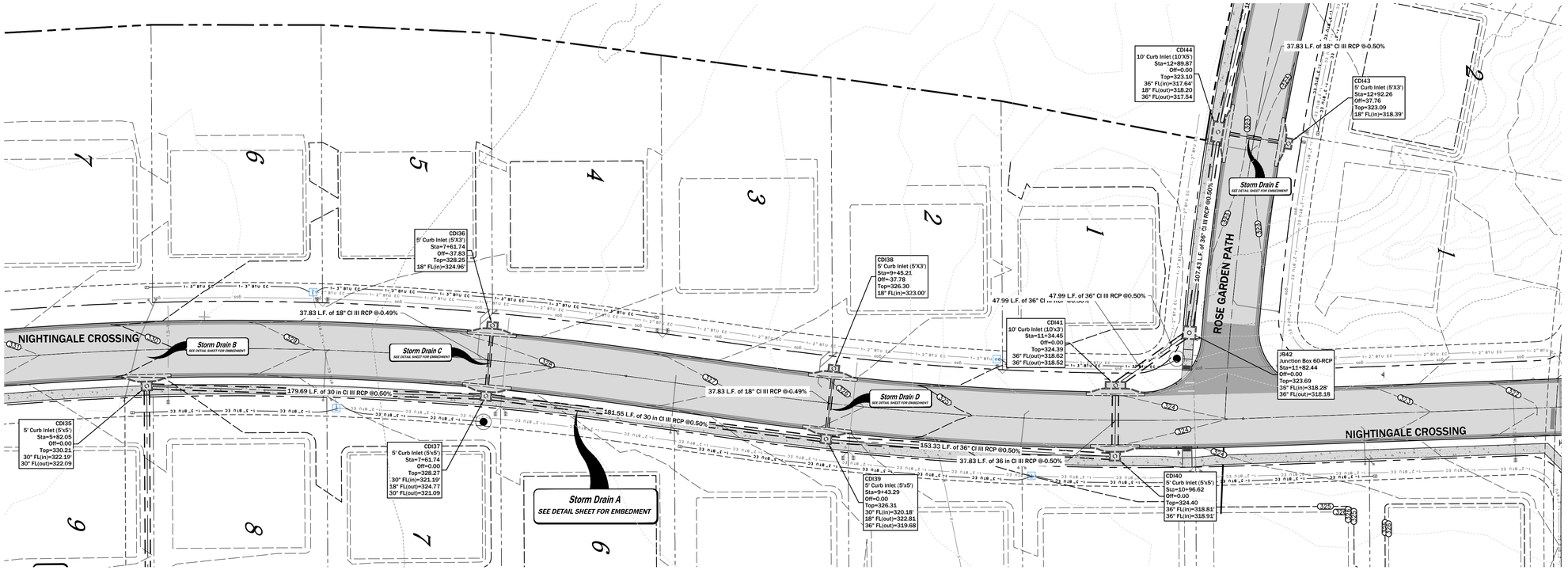
Phase 2
STELLA RANCH SUBDIVISION

SD3

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AUTOCAD 13 Mar 2026 - 11:28 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
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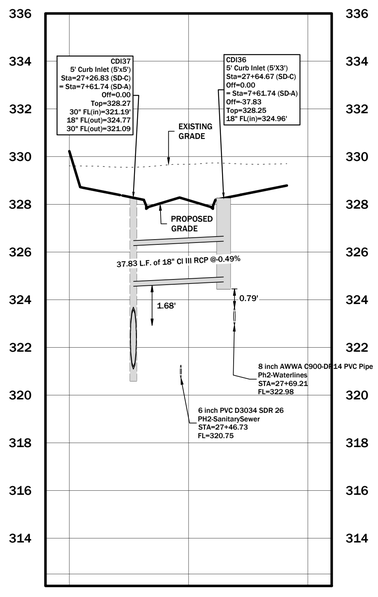


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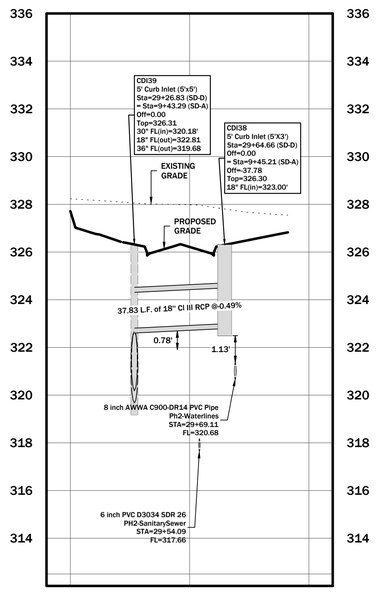
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- PROPOSED CONTOUR LINE MAJ
- PROPOSED CONTOUR LINE MNR
- EXISTING GAS LINE (GAS)
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- OVERHEAD ELECTRIC LINE (OE)
- UNDERGROUND ELECTRIC LINE (UE)
- SEWER LINES (6"SS, 12"SS, 6"WL, 12"WL)
- WATER LINES
- STORM DRAIN LINES
- LIMITS OF GRADING

2.00" on Paper
2"=60' (1"=30')

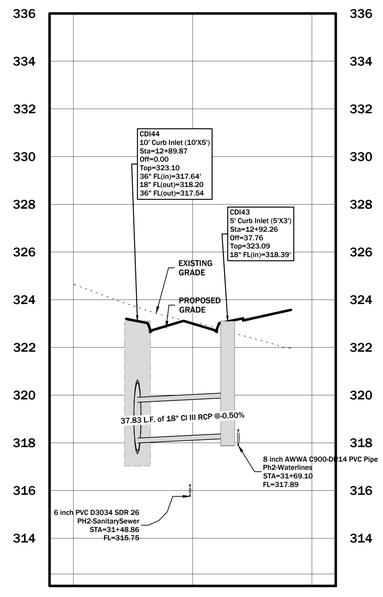
Ph2-SD-C PROFILE



Ph2-SD-D PROFILE



Ph2-SD-E PROFILE



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PROFESSIONAL ENGINEER
Tx. Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

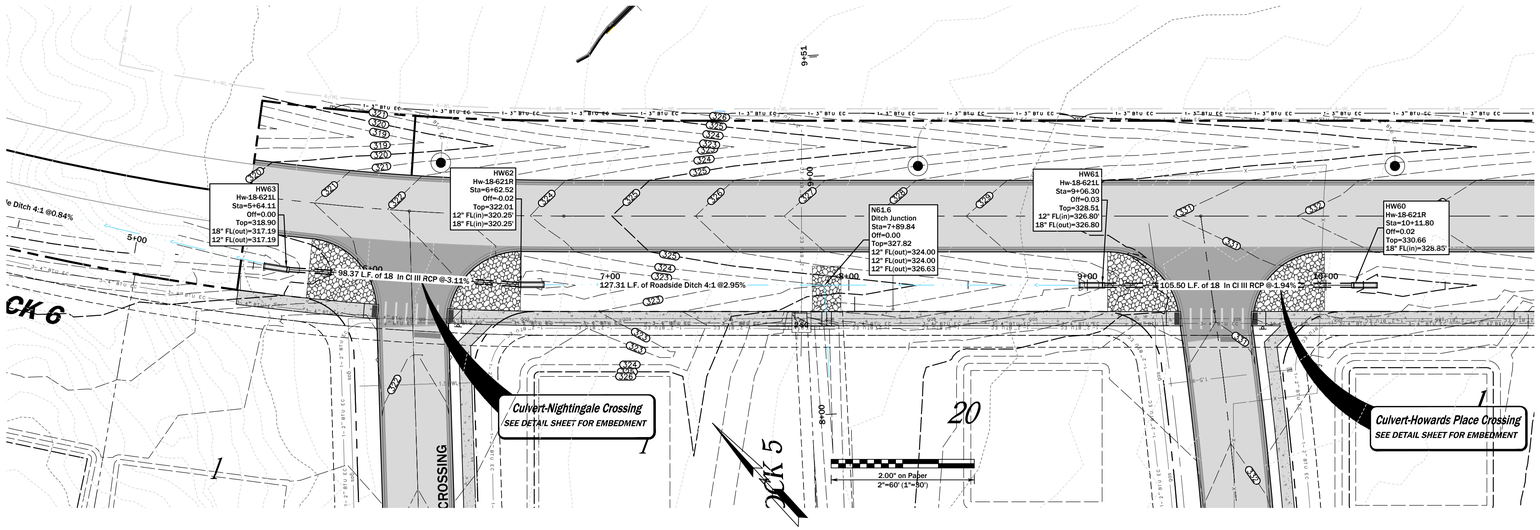
Storm Drain B–E

Phase 2
STELLA RANCH SUBDIVISION

SD4

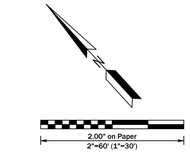
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AUTOCAD 13 Mar 2026 - 11:28 am

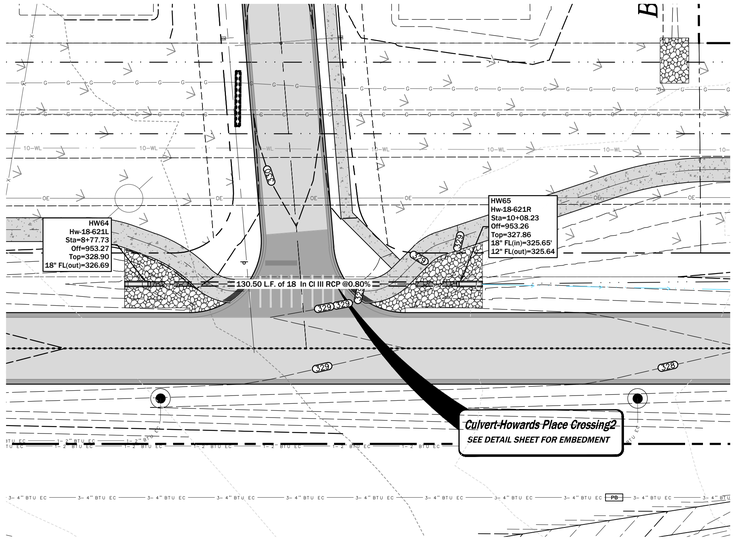
PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



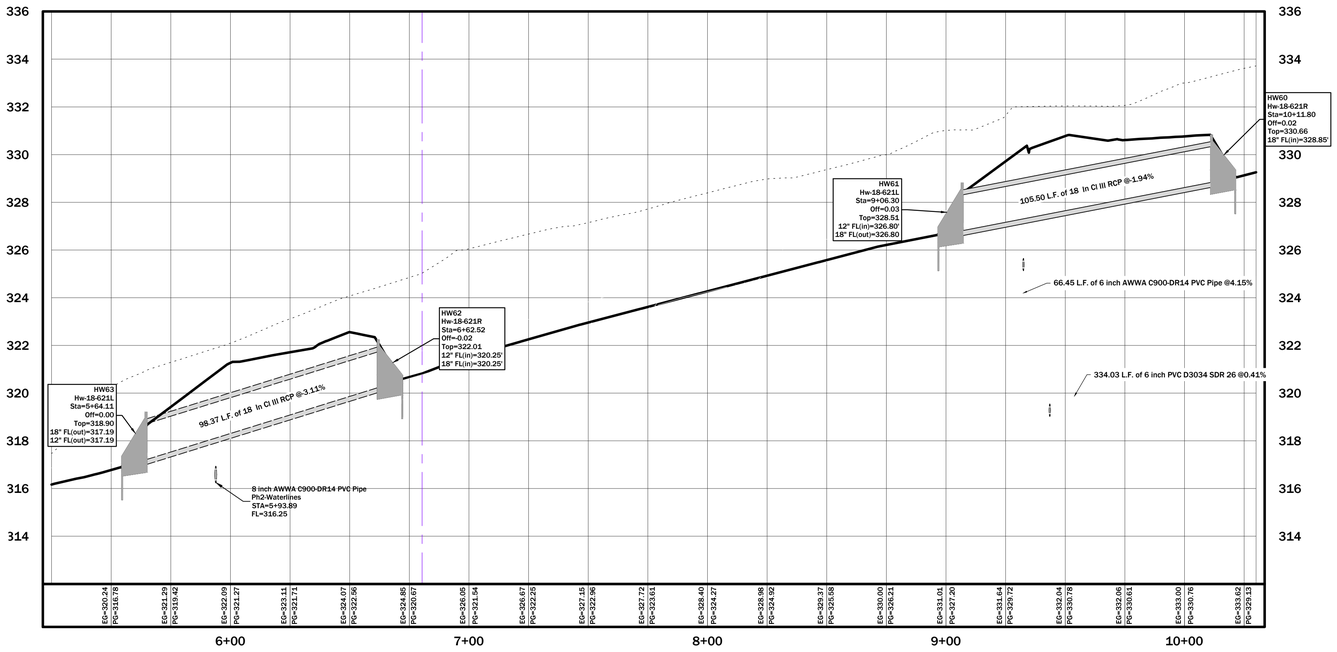
LEGEND:

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- EXISTING CONTOUR LINE MAJ
- EXISTING CONTOUR LINE MNR
- PROPOSED CONTOUR LINE MAJ
- PROPOSED CONTOUR LINE MNR
- EXISTING GAS LINE
- BARBED WIRE FENCE
- OVERHEAD ELECTRIC LINE
- UNDERGROUND ELECTRIC LINE
- SEWER LINES
- WATER LINES
- STORM DRAIN LINES
- LIMITS OF GRADING

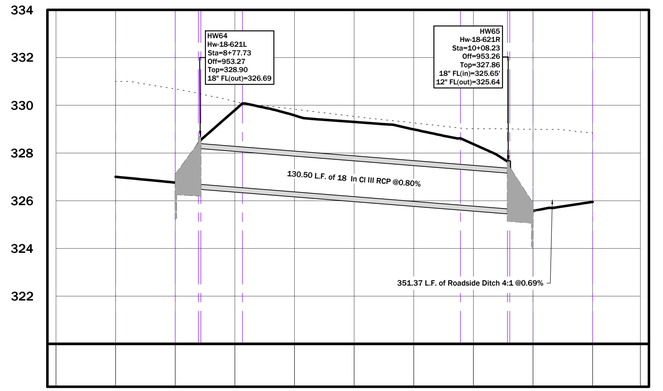




Stella Ranch Blvd -West Ditch



Culvert-Howards Place Crossing at GH



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STATE OF TEXAS
JOEL J. MITCHELL
80649
LICENSED PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

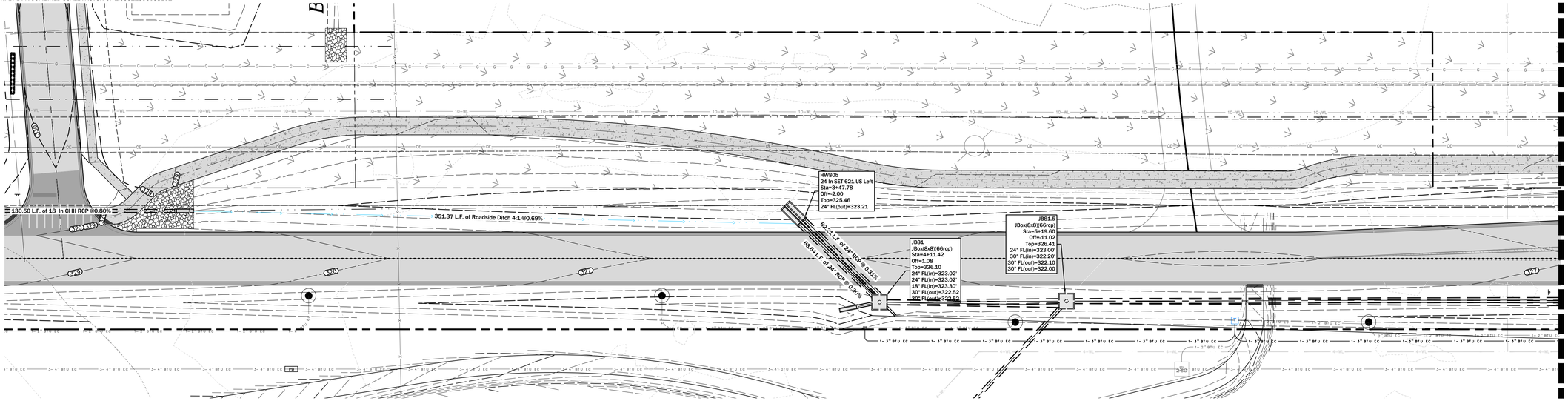
Culverts

Phase 2
STELLA RANCH SUBDIVISION

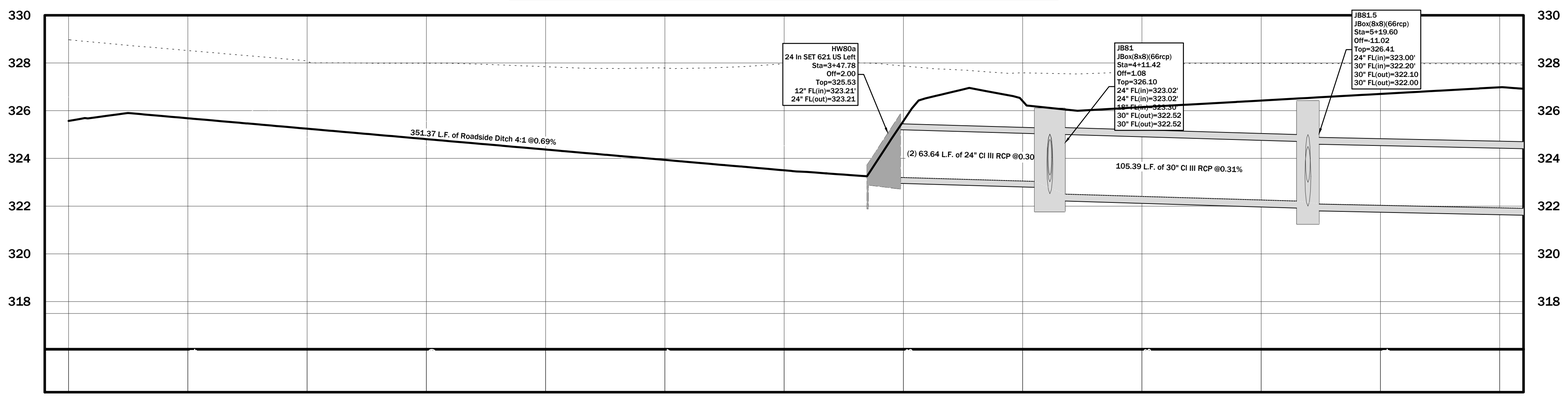
SD5

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Pltdate: 10/13/2025
Pltdate: 11 Mar 2026 - 11:28 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



Ditches and Skew Culvert along GH PROFILE



LEGEND:

- PROPERTY LINE (ROW, LOT,ETC)
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- EXISTING CONTOUR LINE MAJ
- EXISTING CONTOUR LINE MNR
- PROPOSED CONTOUR LINE MAJ
- PROPOSED CONTOUR LINE MNR
- EXISTING GAS LINE — gas
- BARBED WIRE FENCE — x
- OVERHEAD ELECTRIC LINE — OE
- UNDERGROUND ELECTRIC LINE — UE
- SEWER LINES — 6"–SS, 8"–SS, 12"–SS
- WATER LINES — 8"–W, 8"–WL, 12"–WL
- STORM DRAIN LINES
- LIMITS OF GRADING

MITCHELL MORGAN
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STATE OF TEXAS
JOEL J. MITCHELL
80649
REGISTERED
PROFESSIONAL
ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

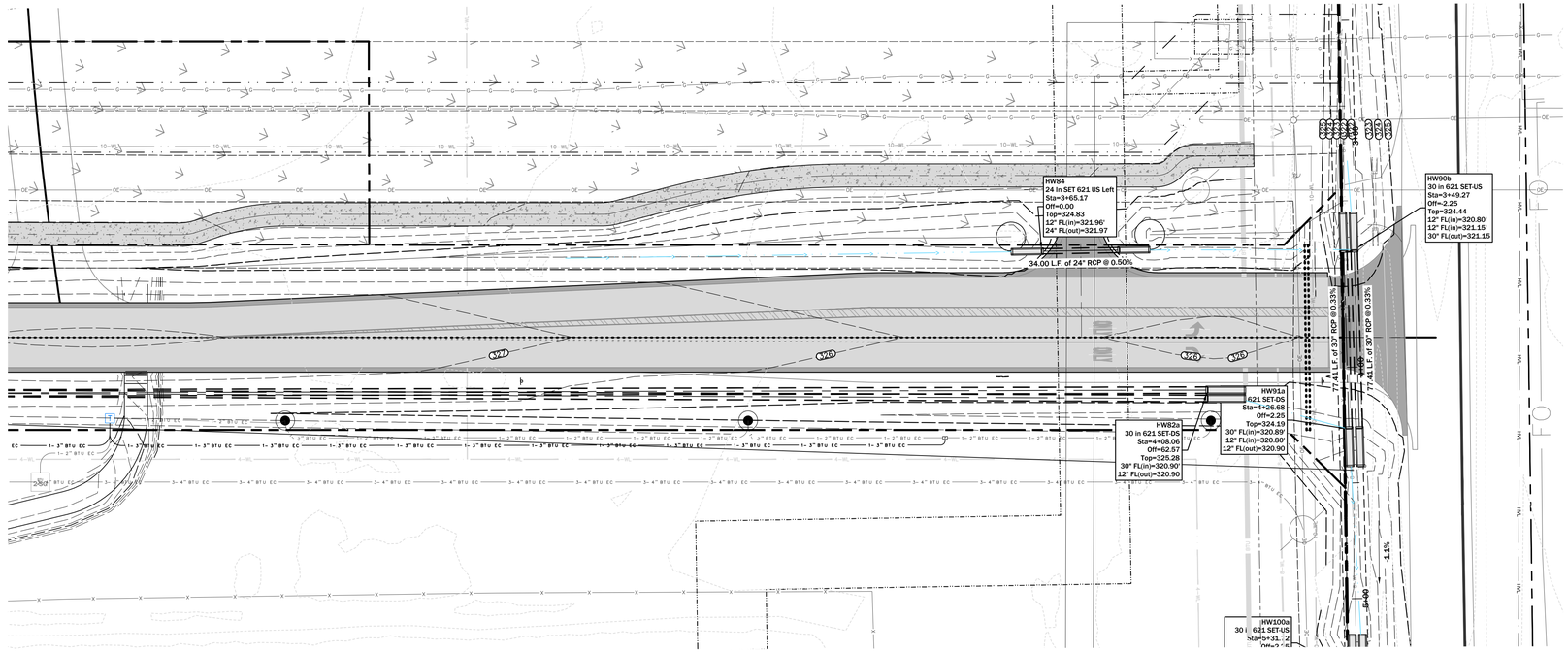
Culverts

Phase 2
STELLA RANCH SUBDIVISION

SD6

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Arden 11 Mar 2026 - 11:28 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

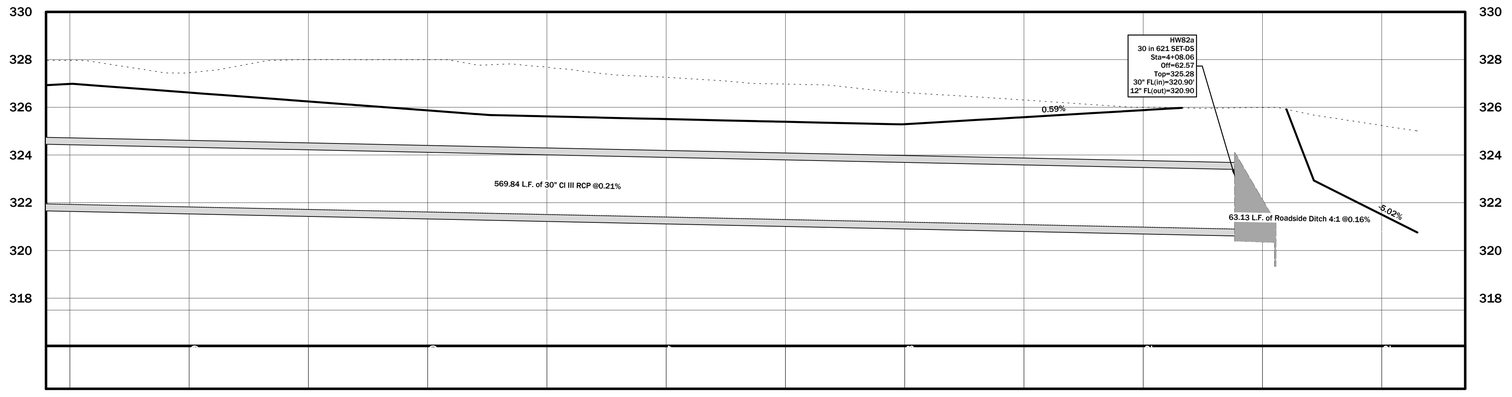


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2.00' on Paper
2"=60' (1"=30')

Ditches and Skew Culvert along GH PROFILE



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Revisions

Culverts

Phase 2
STELLA RANCH SUBDIVISION

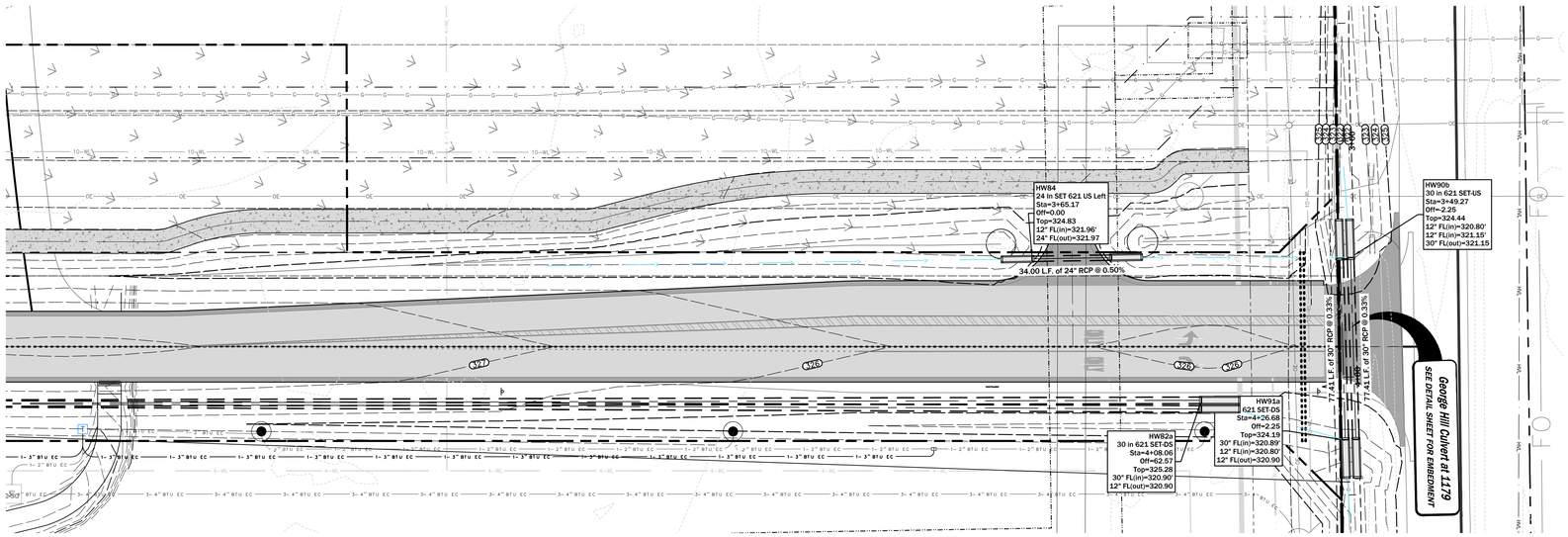
SD7

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TB/WWE 6913-00000\StormPln.dwg
Admin 13 Mar 2026 - 11:19 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
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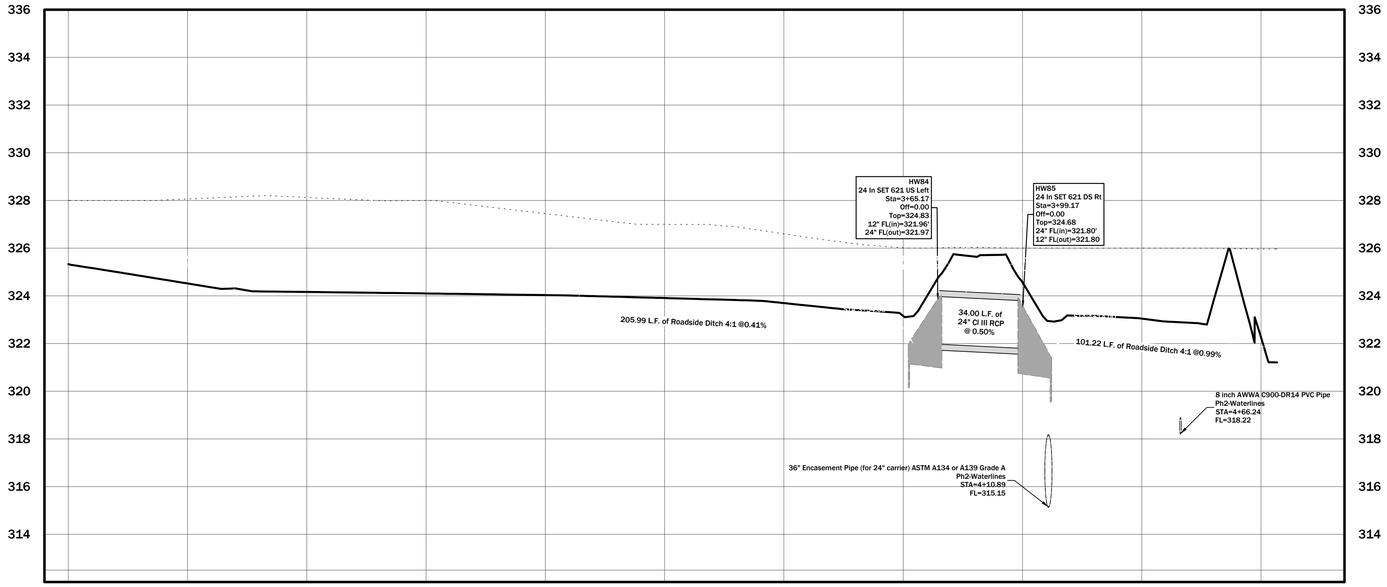
2.00" on Paper
2"=60' (1"=30')



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- UNDERGROUND ELECTRIC LINE
- SEWER LINES
- WATER LINES
- STORM DRAIN LINES
- LIMITS OF GRADING

Ditch along GH - South PROFILE



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JOEL J. MITCHELL
80649
PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

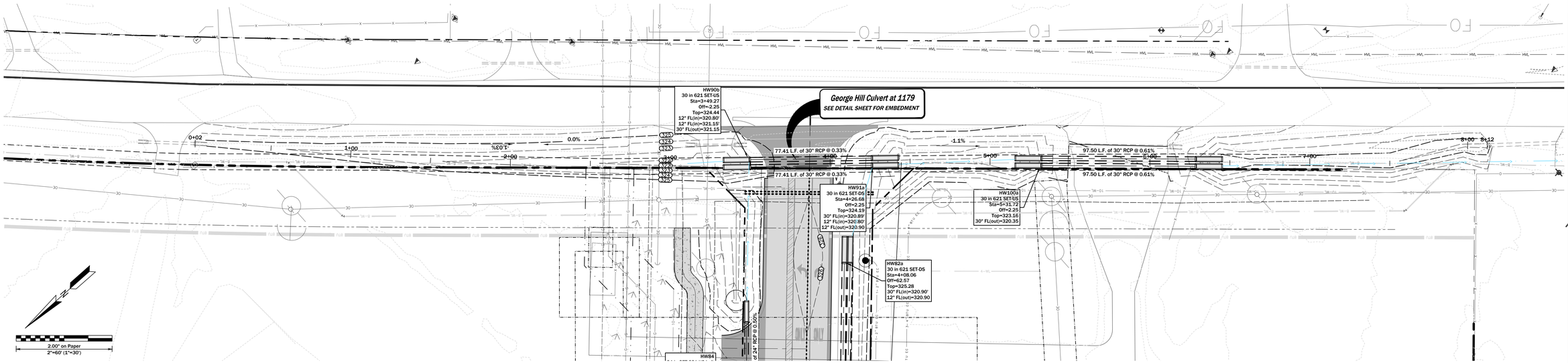
Culverts

Phase 2
STELLA RANCH SUBDIVISION

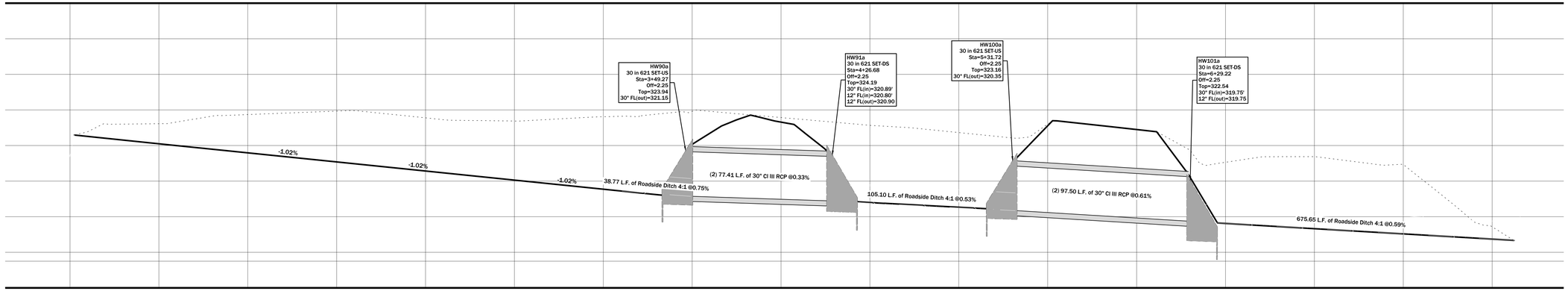
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AUTOCAD 11 Mar 2026 - 11:04 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



George Hill Culvert at 1179 PROFILE



LEGEND:

- PROPERTY LINE (ROW, LOT,ETC)
- EASEMENT LINE
- EDGE OF WATER LINE
- CENTER LINE
- EXISTING CONTOUR LINE MAJ
- EXISTING CONTOUR LINE MNR
- PROPOSED CONTOUR LINE MAJ
- PROPOSED CONTOUR LINE MNR
- EXISTING GAS LINE — GAS
- BARBED WIRE FENCE — X — X — X
- OVERHEAD ELECTRIC LINE — OE
- UNDERGROUND ELECTRIC LINE — UE
- SEWER LINES — 6"=SS — 8"=SS — 12"=SS
- WATER LINES — 6"=WL — 8"=WL — 12"=WL
- STORM DRAIN LINES
- LIMITS OF GRADING

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Revisions

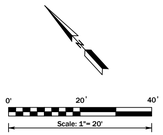
Culverts

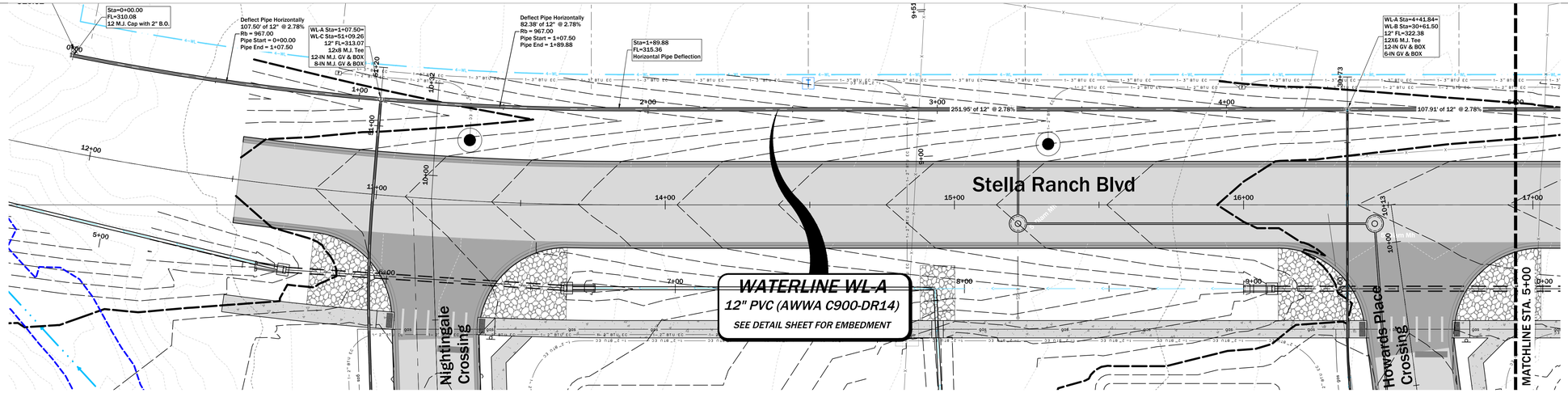
Phase 2
STELLA RANCH SUBDIVISION

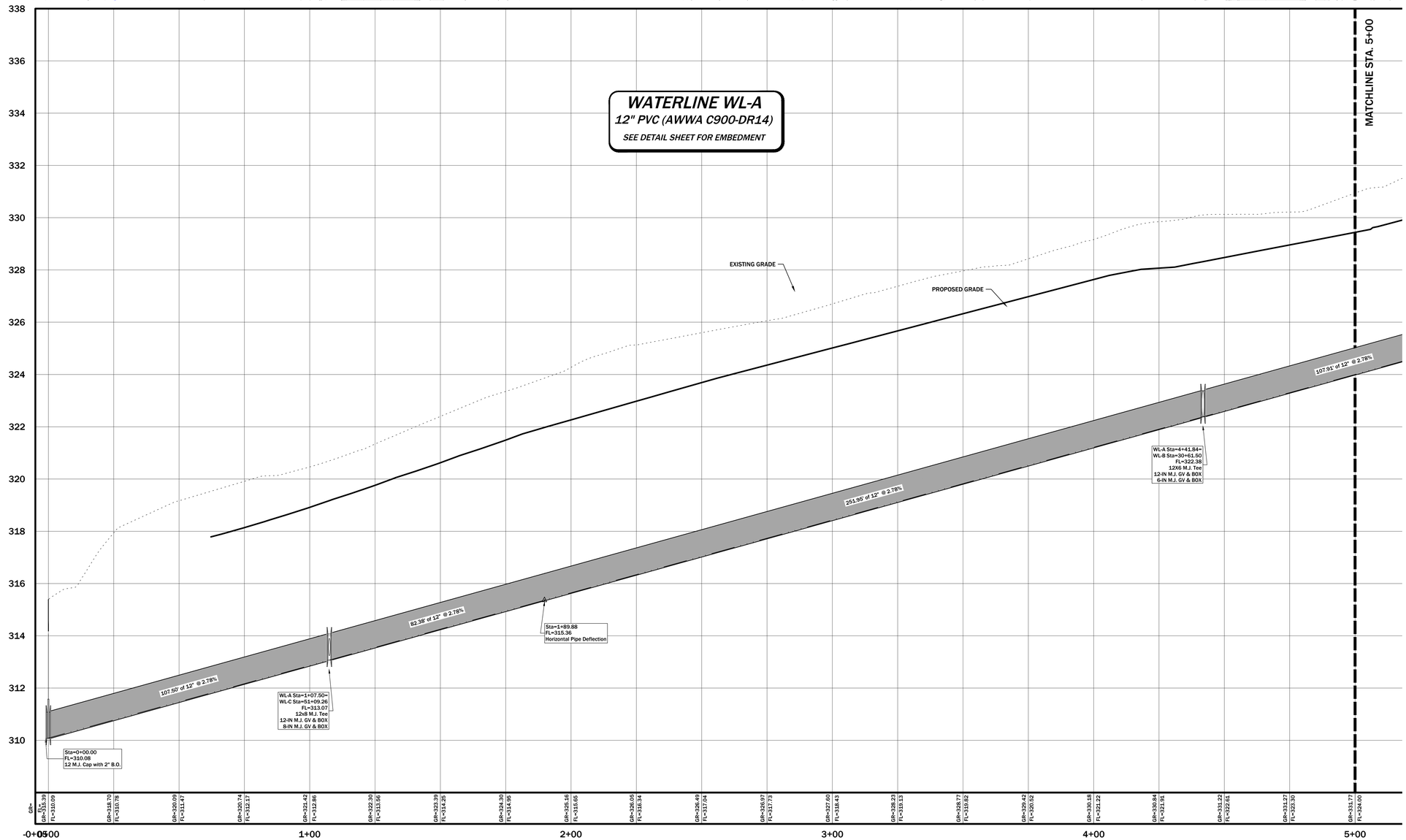
SD9

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PLOTTED: 13 Mar 2026 - 11:26 am

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
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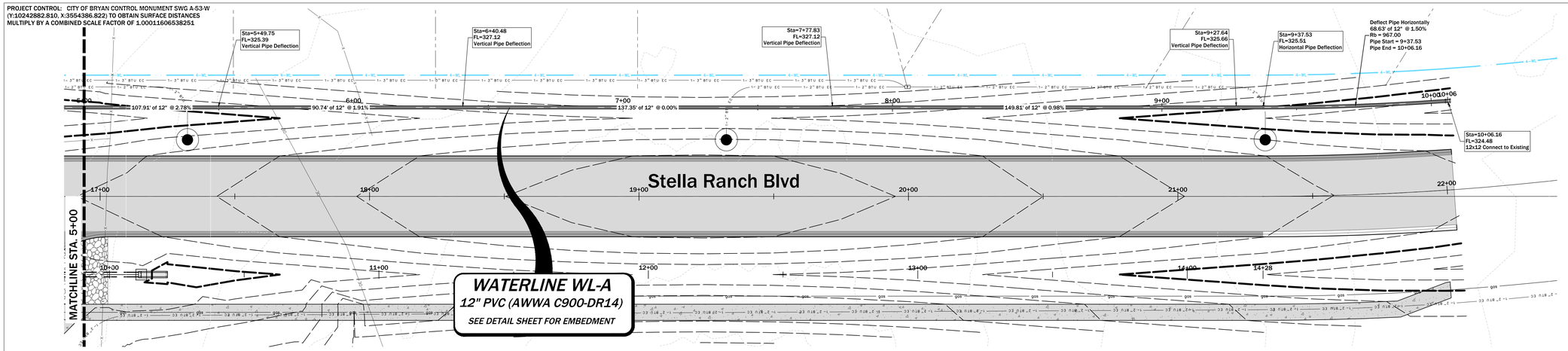
Revisions

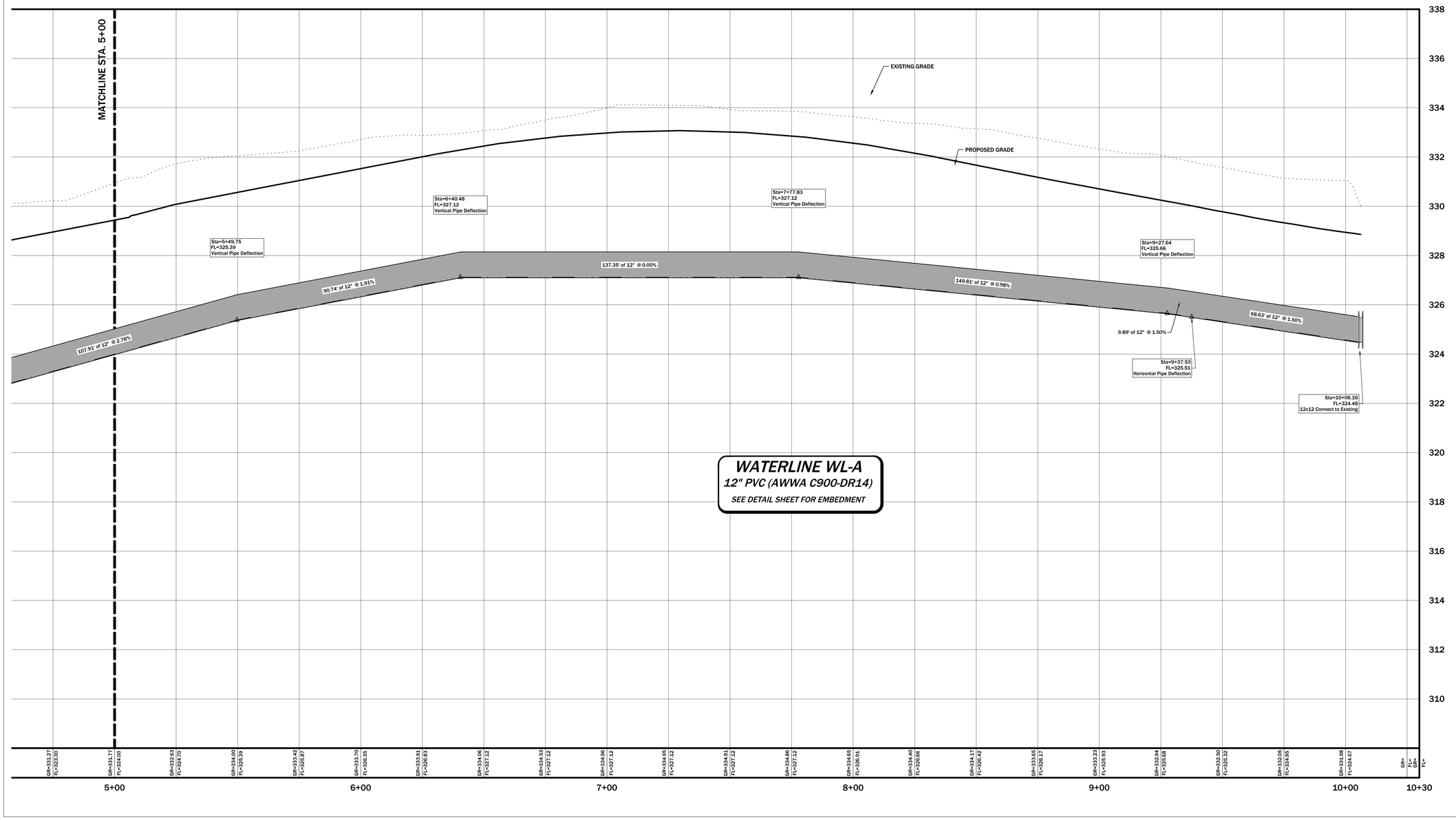
PH2 Waterline A
Phase 2
STELLA RANCH SUBDIVISION

WL1

S:\PH\p1917-AndenReeve\Phase 2\1917-02-1000-WaterlinePh2.dwg, WL1-PH2 Waterline A, 2/11/2026 11:57:29 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
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Bryan, Texas 77802

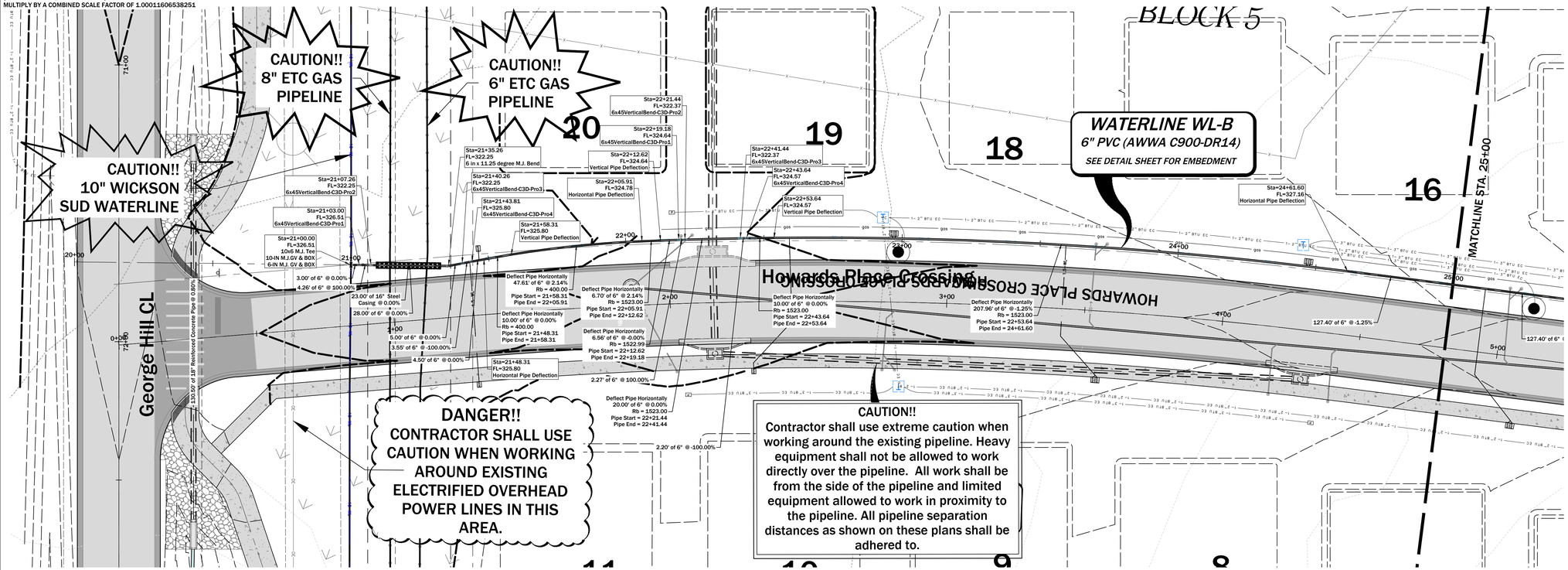
Revisions

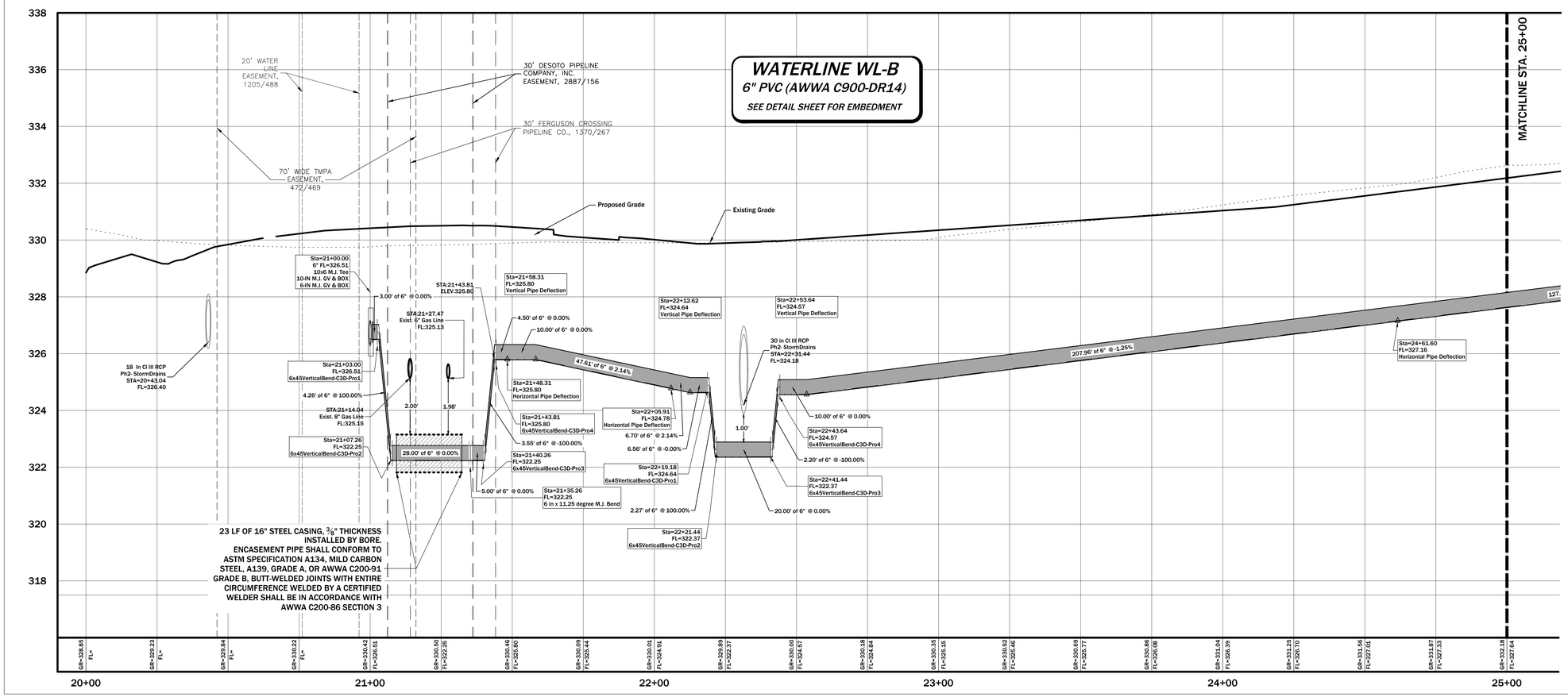
PH2 Waterline A
Phase 2
STELLA RANCH SUBDIVISION

WL2

S:\WPro\j1917-Ardin\Revit\Phase 2\1917-02-3000-WaterlinePlv.dwg, WL2-PH2 Waterline A, 3/11/2026 11:57:52 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
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March, 2026
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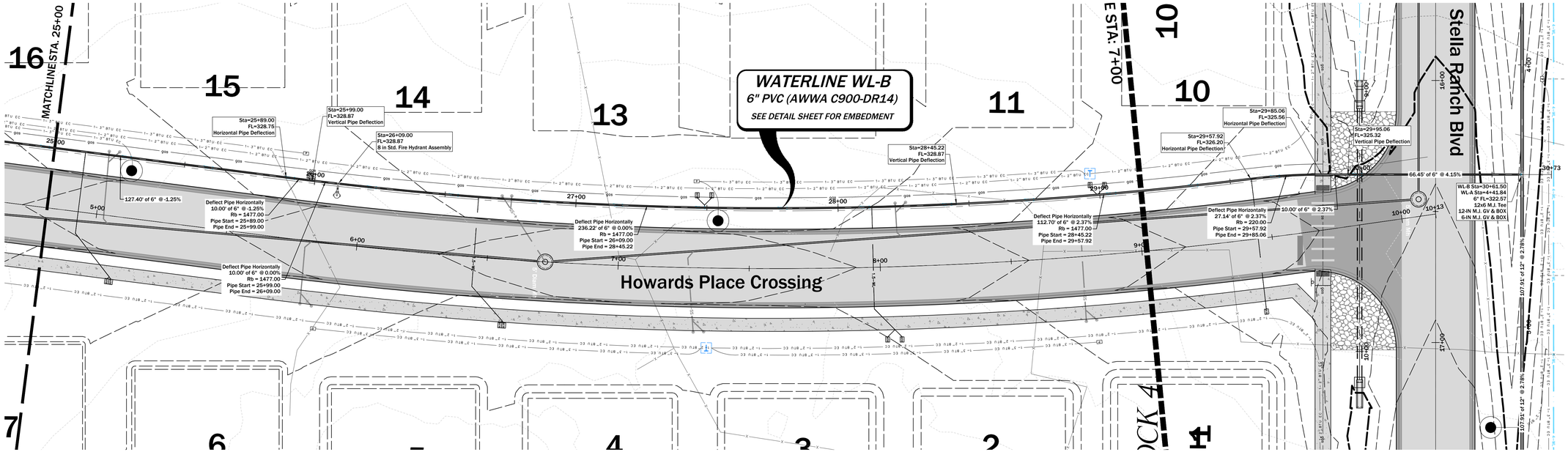
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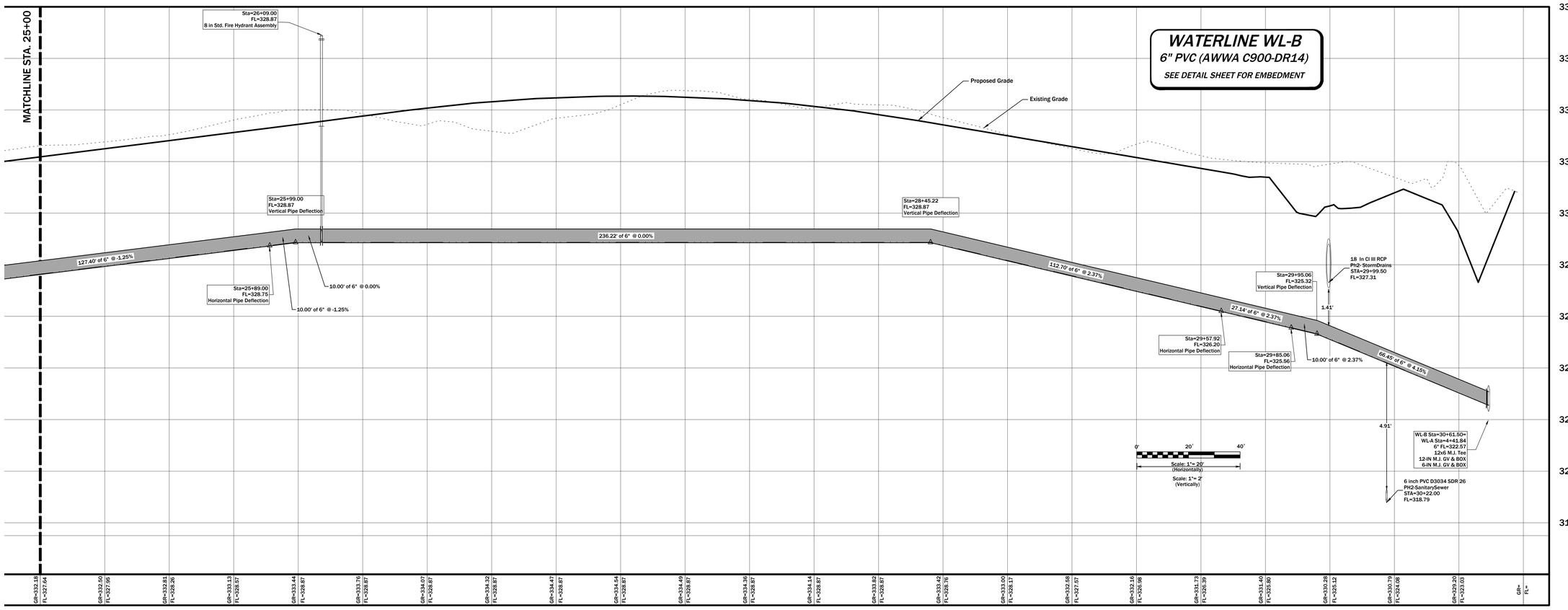
PH2 Waterline B
Phase 2
STELLA RANCH SUBDIVISION

WL3

S:\1979\cg\1937-AndrewReese\Phase 2\1937-02-3000-WaterlinePh2Aerg_WL3-PH2 Waterline B_3/11/2026 11:58:02 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
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4007 Cross Park
Bryan, Texas 77802

Revisions

PH2 Waterline B
Phase 2
STELLA RANCH SUBDIVISION

WL4

S:\19th\g\1937-AndenReece\Phase 2\1937-02-3000-WaterlinePh2.dwg, WL4-PH2 Waterline B, 3/17/2026 11:58:14 AM

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

0' 20' 40'
Scale: 1"= 20'

Existing 34" Transmission Waterline with 48" HP Casing

Sta=40+00.00
FL=328.00
8 in M.J. Cap or Plug-Left (with 2° B.O.)

Sta=40+12.84
FL=328.00
Horizontal Pipe Deflection

Sta=40+22.84
FL=328.00
Vertical Pipe Deflection

Sta=40+62.86
FL=328.44
Vertical Pipe Deflection

Sta=40+72.86
FL=328.44
Horizontal Pipe Deflection

Deflect Pipe Horizontally 12.84' of 8" @ 0.00%
Rb = 400.00
Pipe Start = 40+00.00
Pipe End = 40+12.84

Deflect Pipe Horizontally 40.02' of 8" @ -1.10%
Rb = 400.00
Pipe Start = 40+12.84
Pipe End = 40+22.84

Deflect Pipe Horizontally 10.00' of 8" @ 0.00%
Rb = 400.00
Pipe Start = 40+22.84
Pipe End = 40+62.86

Deflect Pipe Horizontally 10.00' of 8" @ 0.00%
Rb = 400.00
Pipe Start = 40+62.86
Pipe End = 40+72.86

Deflect Pipe Horizontally 71.59' of 8" @ 0.00%
Rb = 1523.00
Pipe Start = 40+72.86
Pipe End = 41+44.44

George Hill CL

Deflect Pipe Horizontally 5.06' of 8" @ 0.00%
Rb = 1523.00
Pipe Start = 41+44.44
Pipe End = 41+49.51

4.54' of 8" @ 100.00%

Sta=41+44.44
FL=328.44
10x8 M.J. Cross
1 - 10-IN M.J. GV & BOX
2 - 8-IN M.J. GV & BOX

Sta=41+49.51
FL=328.44
8x45VerticalBend-C3D-Pro1

Sta=41+54.05
FL=323.90
8x45VerticalBend-C3D-Pro2

Sta=41+84.05
FL=323.90
8x45VerticalBend-C3D-Pro3

Deflect Pipe Horizontally 30.00' of 8" @ 0.00%
Rb = 1523.00
Pipe Start = 41+54.05
Pipe End = 41+84.05

2.27' of 8" @ -100.00%

Sta=41+86.32
FL=326.17
8x45VerticalBend-C3D-Pro4

Deflect Pipe Horizontally 20.00' of 8" @ 0.00%
Rb = 1523.00
Pipe Start = 41+86.32
Pipe End = 42+06.31

Sta=42+06.31
FL=326.17
Vertical Pipe Deflection

NIGHTINGALE CROSSING

Nightingale Crossing

Storm Drain B
SEE DETAIL SHEET FOR EMBEDMENT

Storm Drain C
SEE DETAIL SHEET FOR EMBEDMENT

Deflect Pipe Horizontally 268.70' of 8" @ 1.26%
Rb = 1523.00
Pipe Start = 42+06.31
Pipe End = 44+75.01

Sta=44+75.01
Offset=10.00' L
FL=322.78
8 in Std. Fire Hydrant Assembly

Deflect Pipe Horizontally 58.69' of 8" @ 1.26%
Rb = 1523.00
Pipe Start = 44+75.01
Pipe End = 45+33.71

Sta=45+33.71
FL=322.04
Horizontal Pipe Deflection

64.83' of 8" @ 1.26%

Sta=45+98.53
FL=321.23
Horizontal Pipe Deflection

DOUBLE SAN. SEWER SERVICE

SINGLE SAN. SEWER SERVICE

CAUTION!!
6" ETC GAS PIPELINE

CAUTION!!
8" ETC GAS PIPELINE

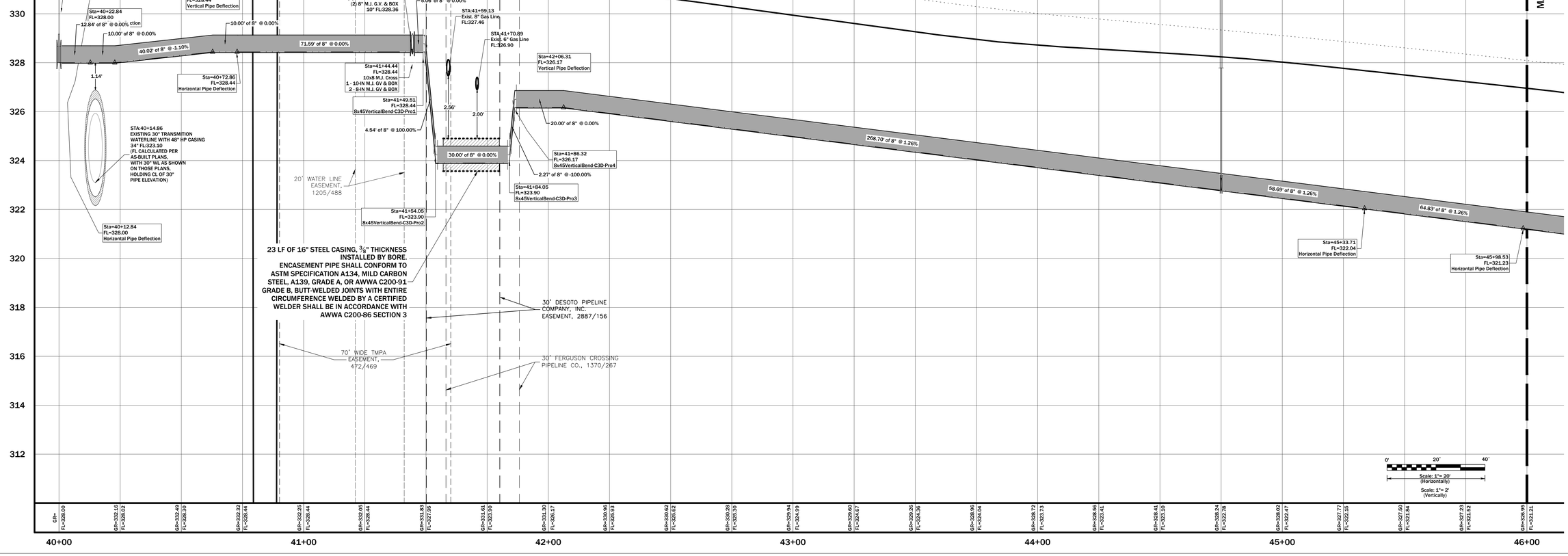
CAUTION!!
10" WICKSON SUD WATERLINE

DANGER!!
CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND EXISTING ELECTRIFIED OVERHEAD POWER LINES IN THIS AREA.

CAUTION!!
Contractor shall use extreme caution when working around the existing pipeline. Heavy equipment shall not be allowed to work directly over the pipeline. All work shall be from the side of the pipeline and limited equipment allowed to work in proximity to the pipeline. All pipeline separation distances as shown on these plans shall be adhered to.

WATERLINE WL-C
8" PVC (AWWA C900-DR14)
SEE DETAIL SHEET FOR EMBEDMENT

MATCHLINE STA. 46+00



GR=328.00 FL=328.00
GR=332.16 FL=328.02
GR=332.49 FL=328.30
GR=332.32 FL=328.44
GR=332.25 FL=328.44
GR=332.05 FL=328.44
GR=331.83 FL=327.96
GR=331.61 FL=323.90
GR=331.30 FL=326.17
GR=330.96 FL=325.93
GR=330.62 FL=325.62
GR=330.28 FL=325.30
GR=329.94 FL=324.99
GR=329.60 FL=324.67
GR=329.26 FL=324.36
GR=328.96 FL=324.04
GR=328.72 FL=323.73
GR=328.56 FL=323.41
GR=328.41 FL=323.10
GR=328.24 FL=322.78
GR=328.02 FL=322.47
GR=327.77 FL=322.15
GR=327.50 FL=321.84
GR=327.23 FL=321.52
GR=326.95 FL=321.21

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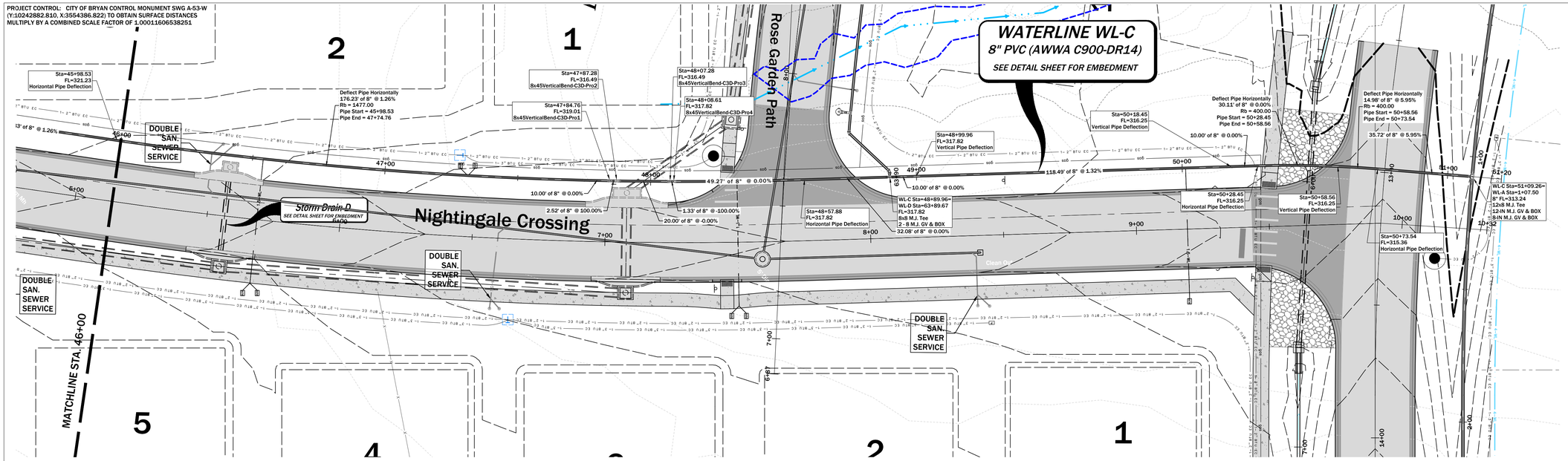
Revisions

PH2 Waterline C
Phase 2
STELLA RANCH SUBDIVISION

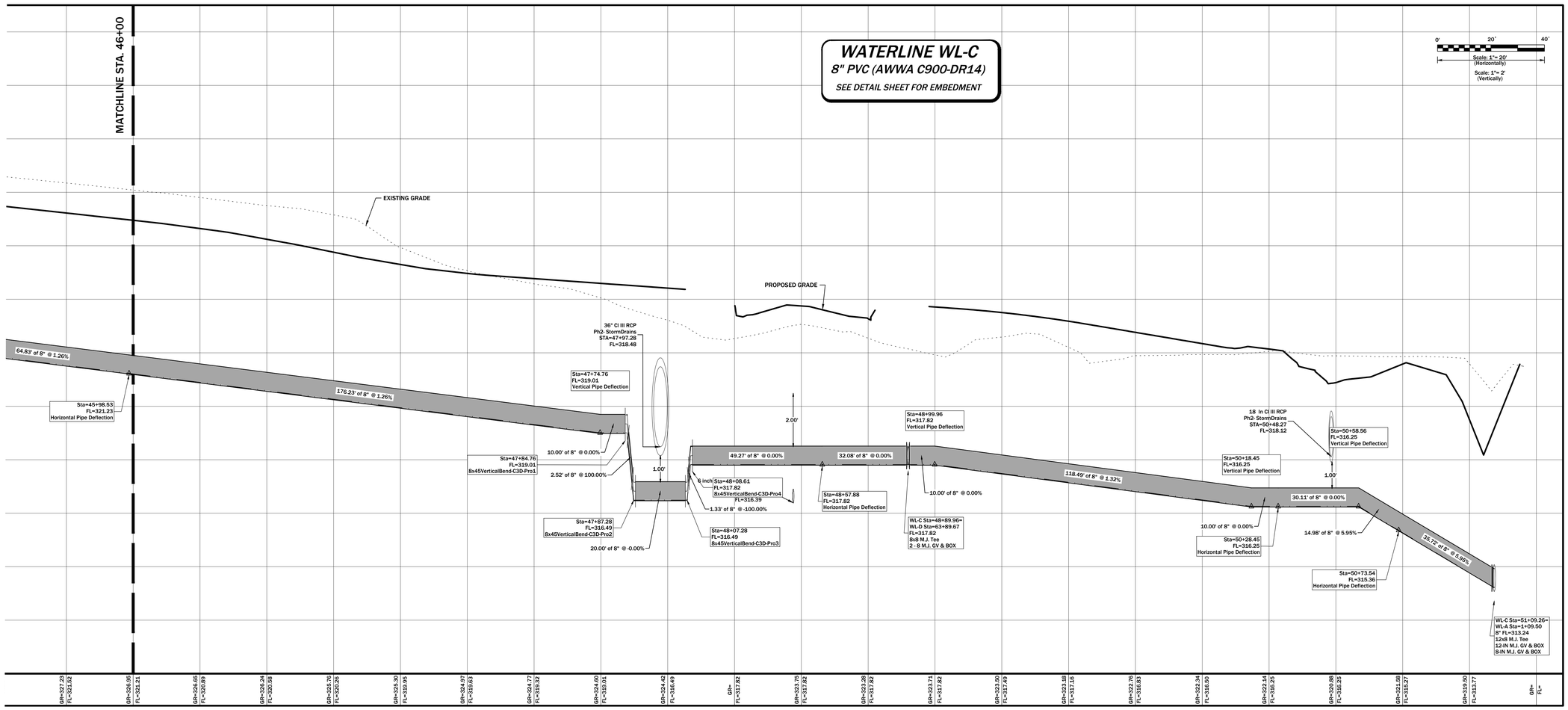
WL5

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W (Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



Ph2-WL-C



Ph2-WL-C

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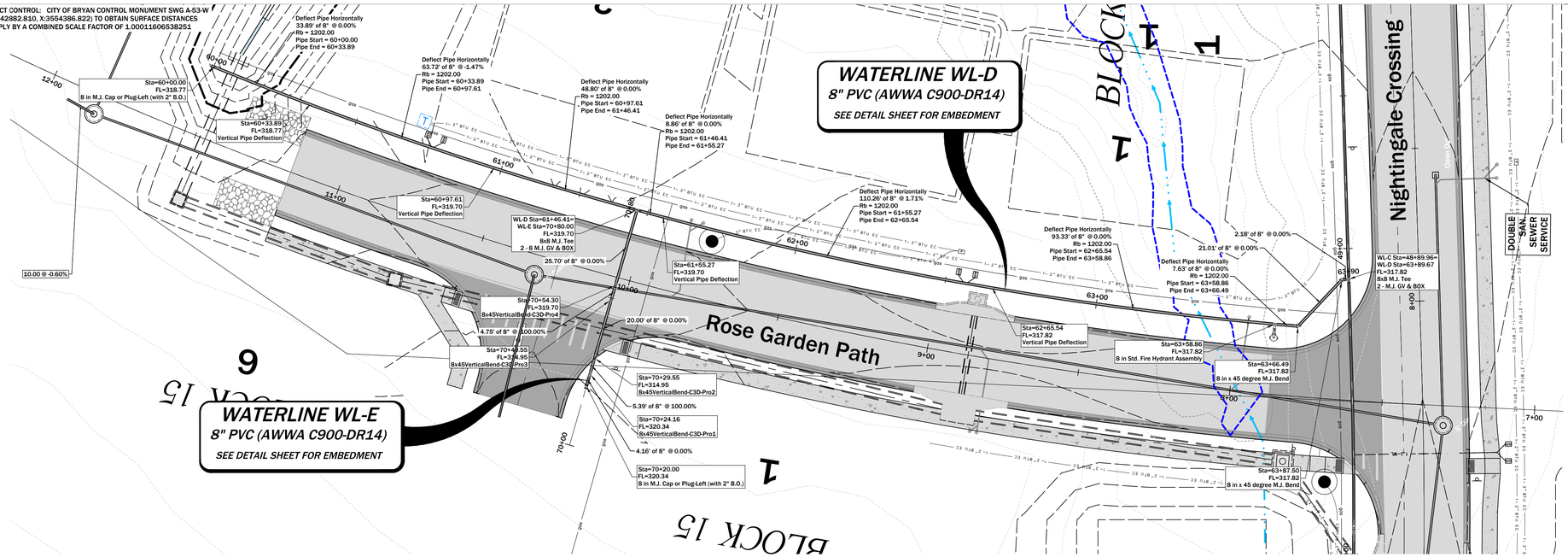
Revisions

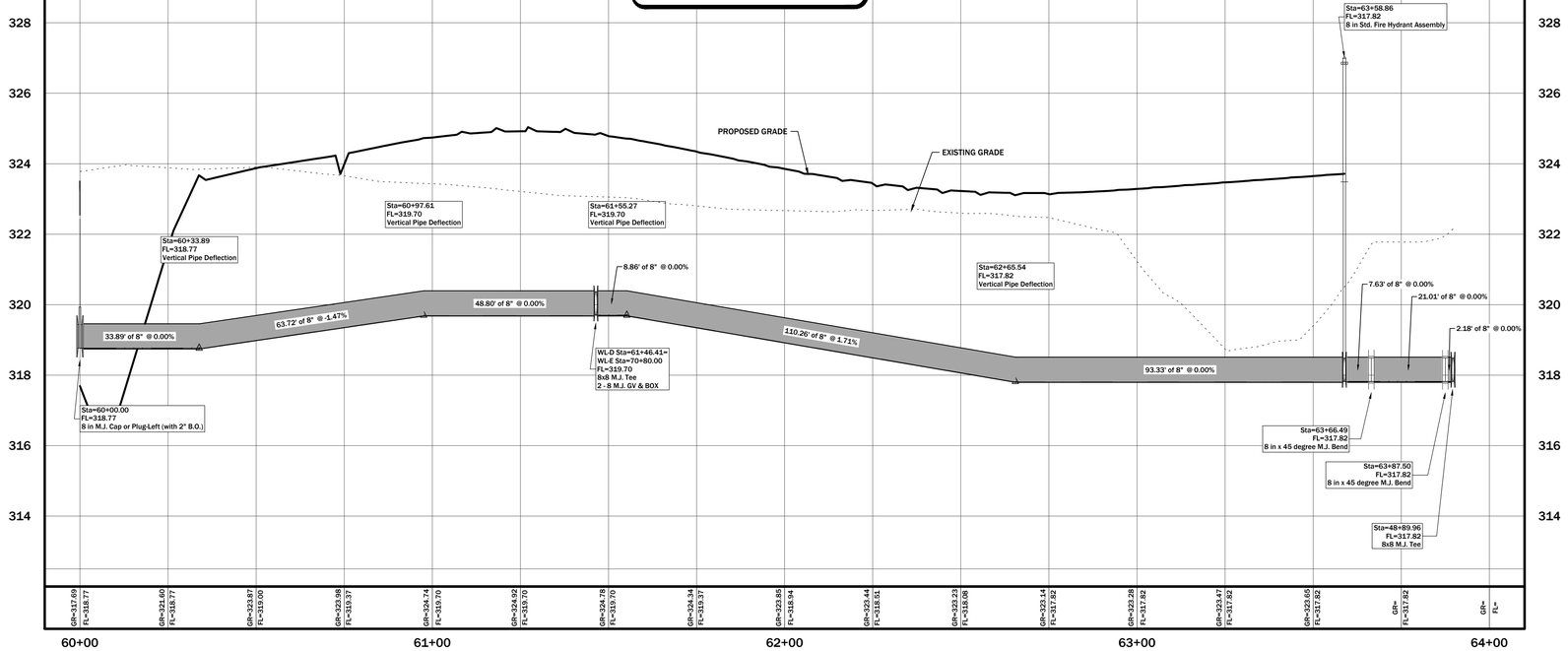
PH2 Waterline C
Phase 2
STELLA RANCH SUBDIVISION

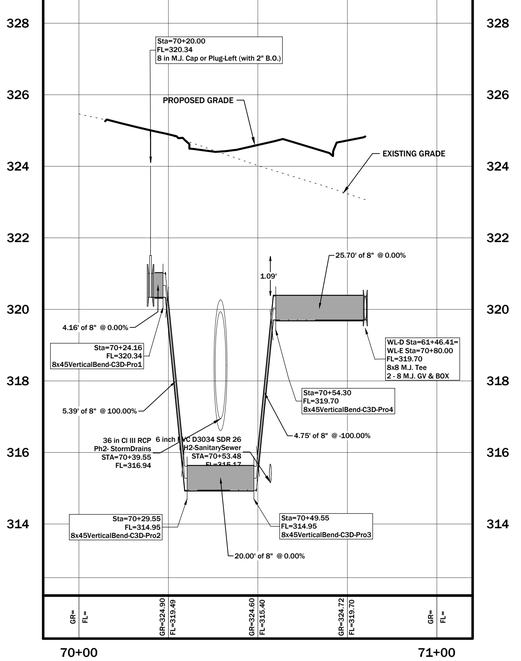
WL6

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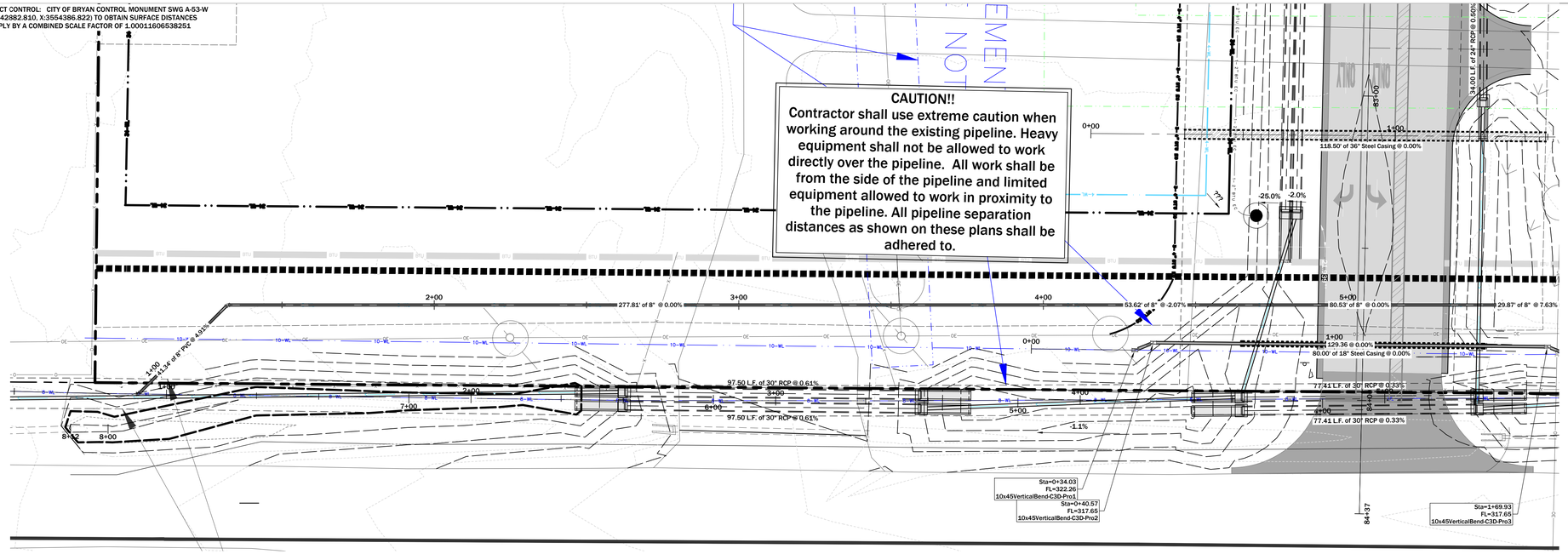
Revisions

PH2 Waterline D & E
Phase 2
STELLA RANCH SUBDIVISION

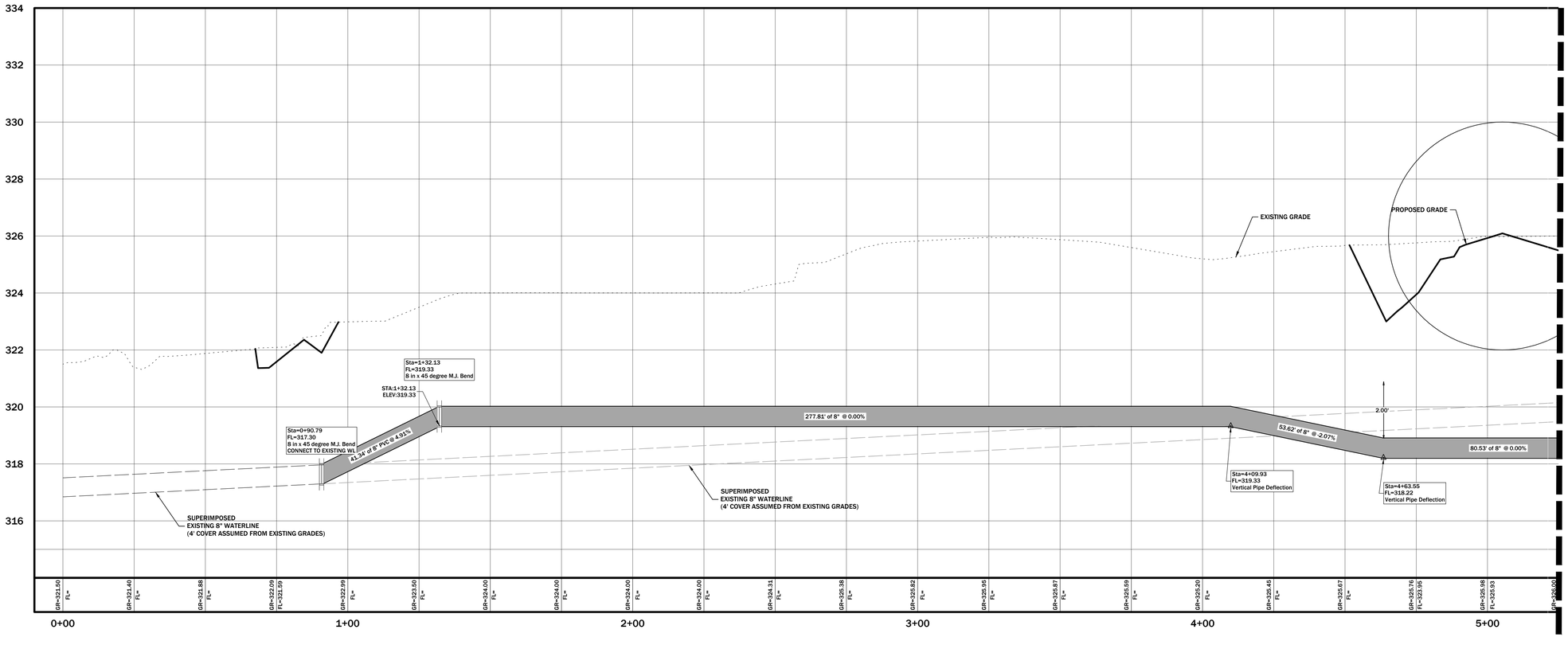
WL7

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Exist-8in-WL-ReRoute



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Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

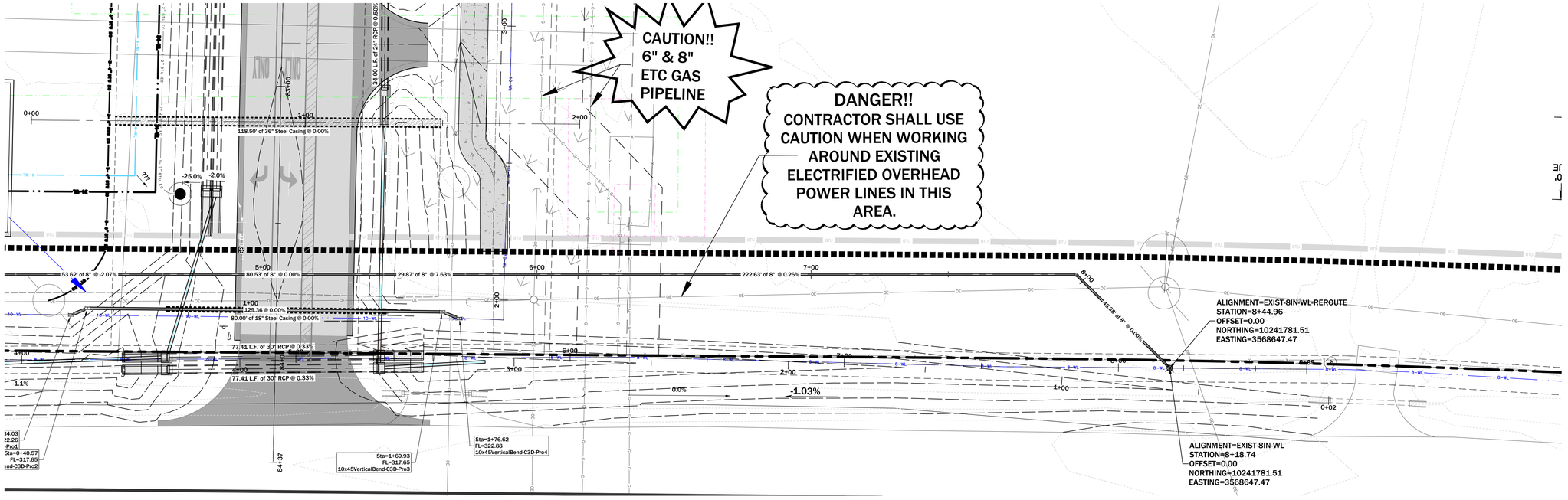
Exist 8 in WL Reroute

Phase 2
STELLA RANCH SUBDIVISION

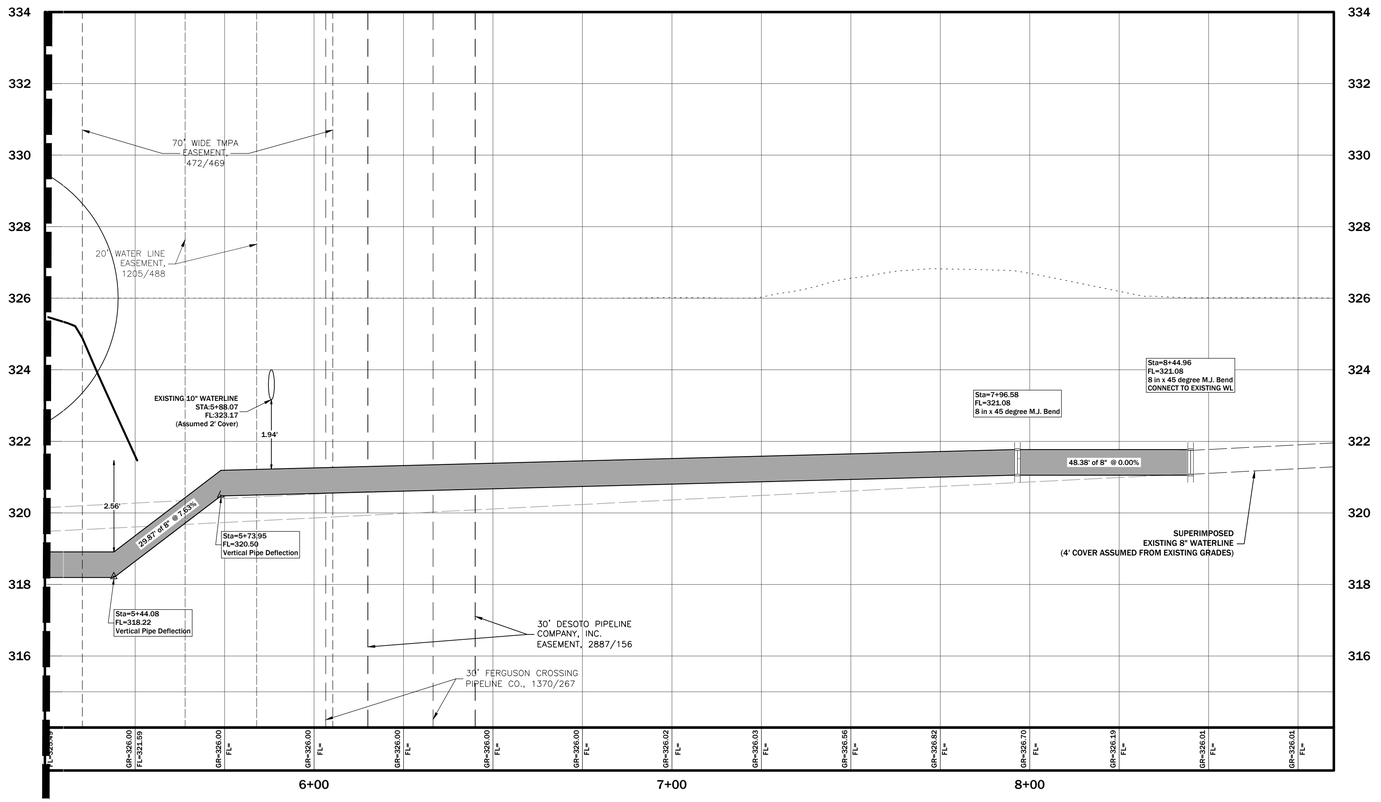
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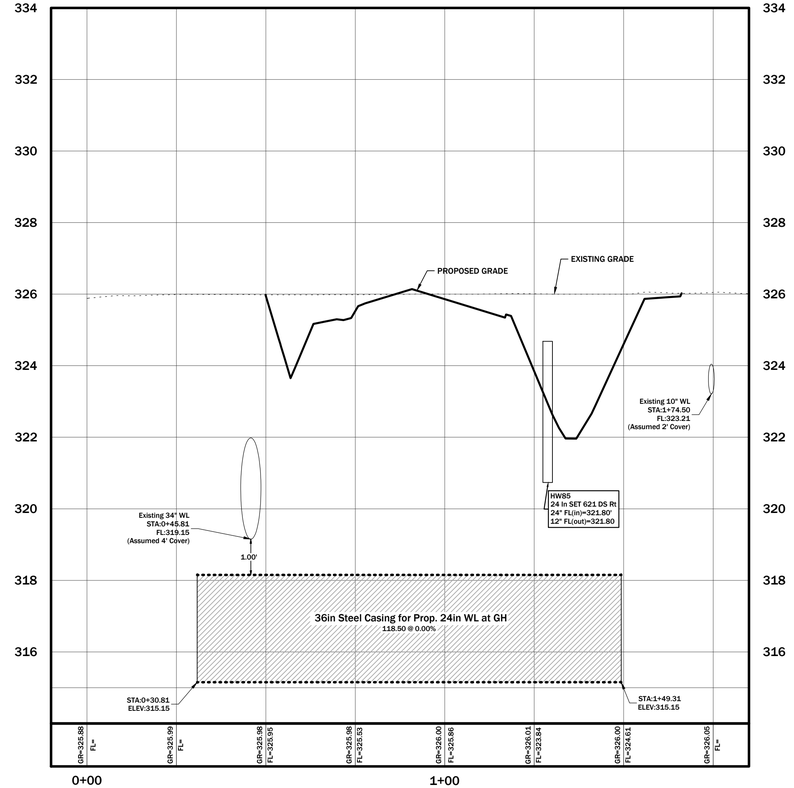
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



36in Casing for future 24in WL





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STATE OF TEXAS
JOEL J. MITCHELL
80649
REGISTERED PROFESSIONAL ENGINEER
TX. FIRM # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

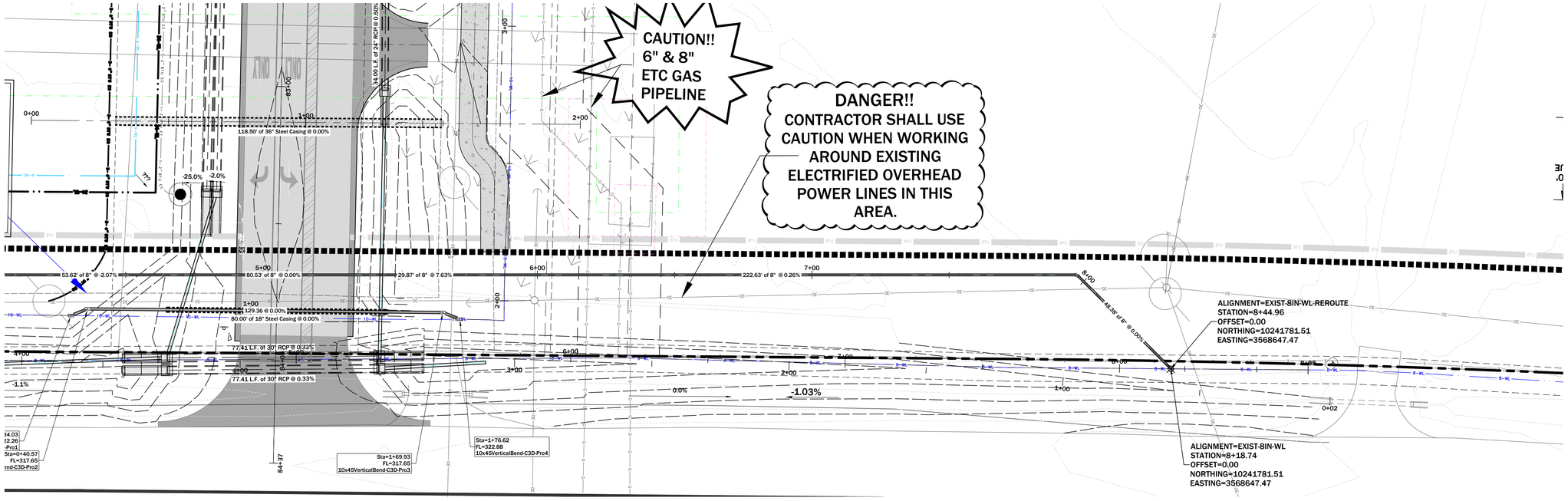
Revisions

Exist 8 in WL Reroute
Phase 2
STELLA RANCH SUBDIVISION

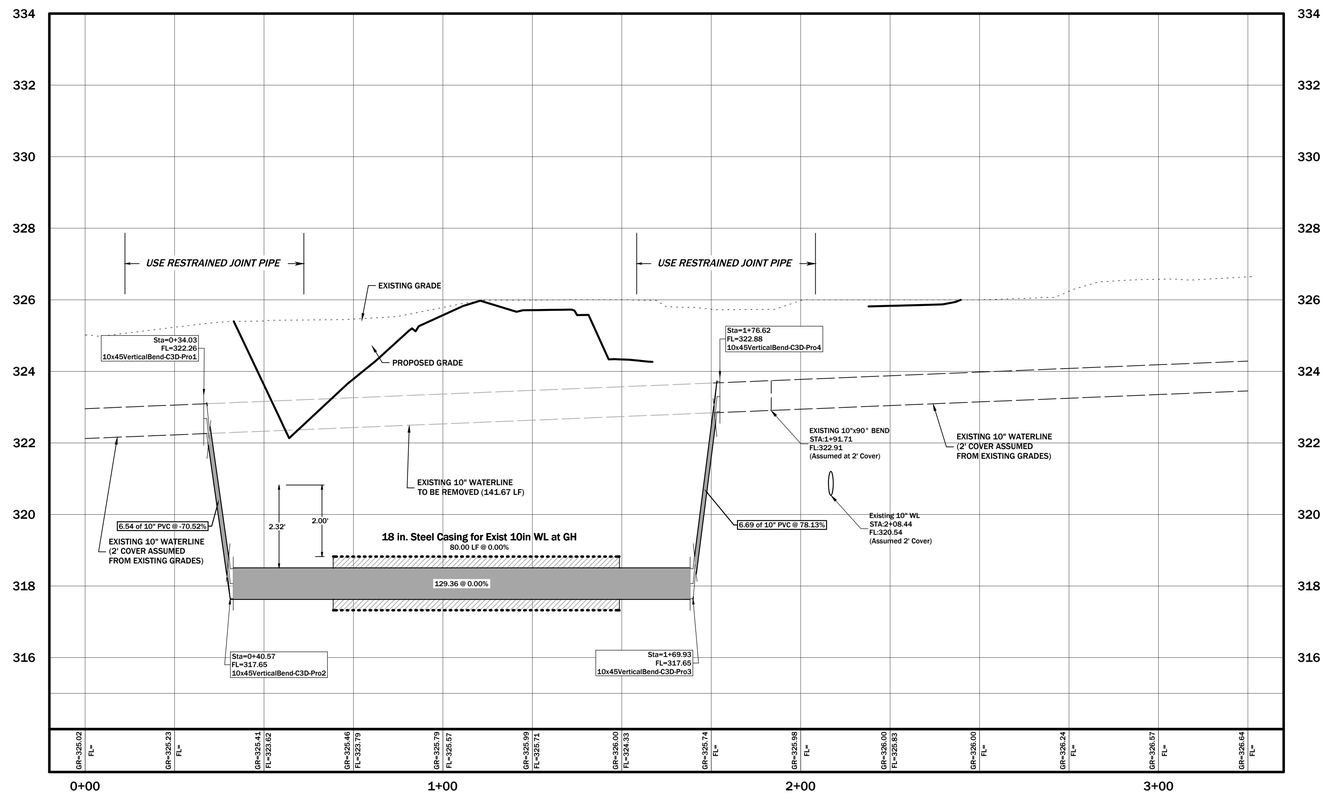
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



Ex. 10in WL



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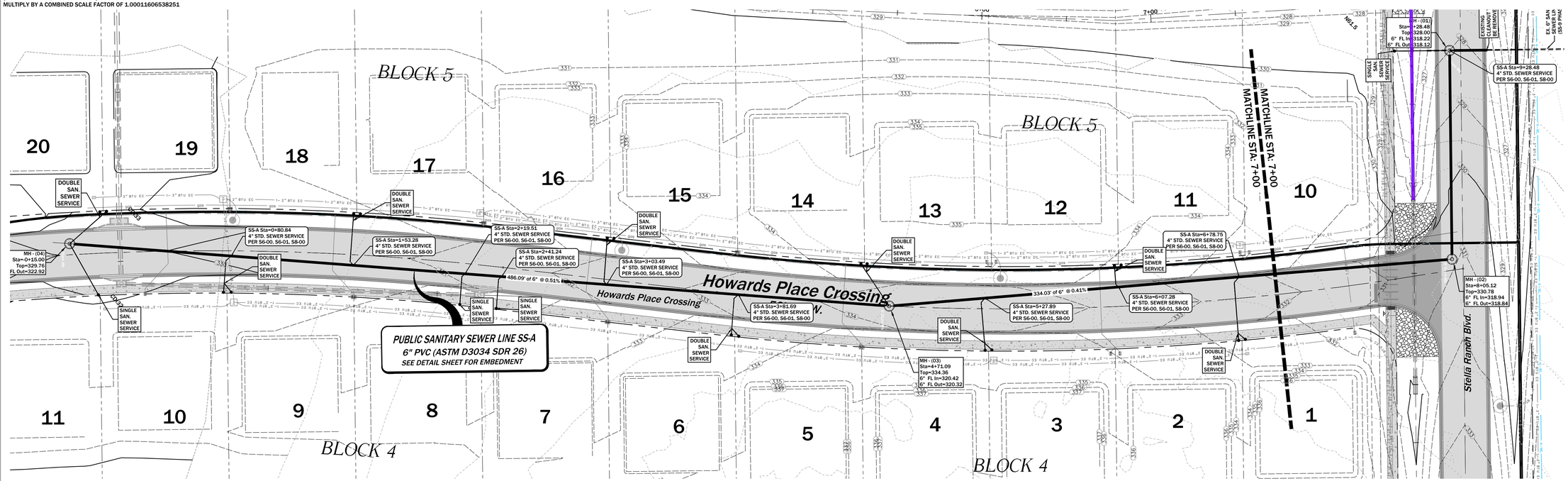
Revisions

Exist 10 in WL Reroute
Phase 2
STELLA RANCH SUBDIVISION

WL10

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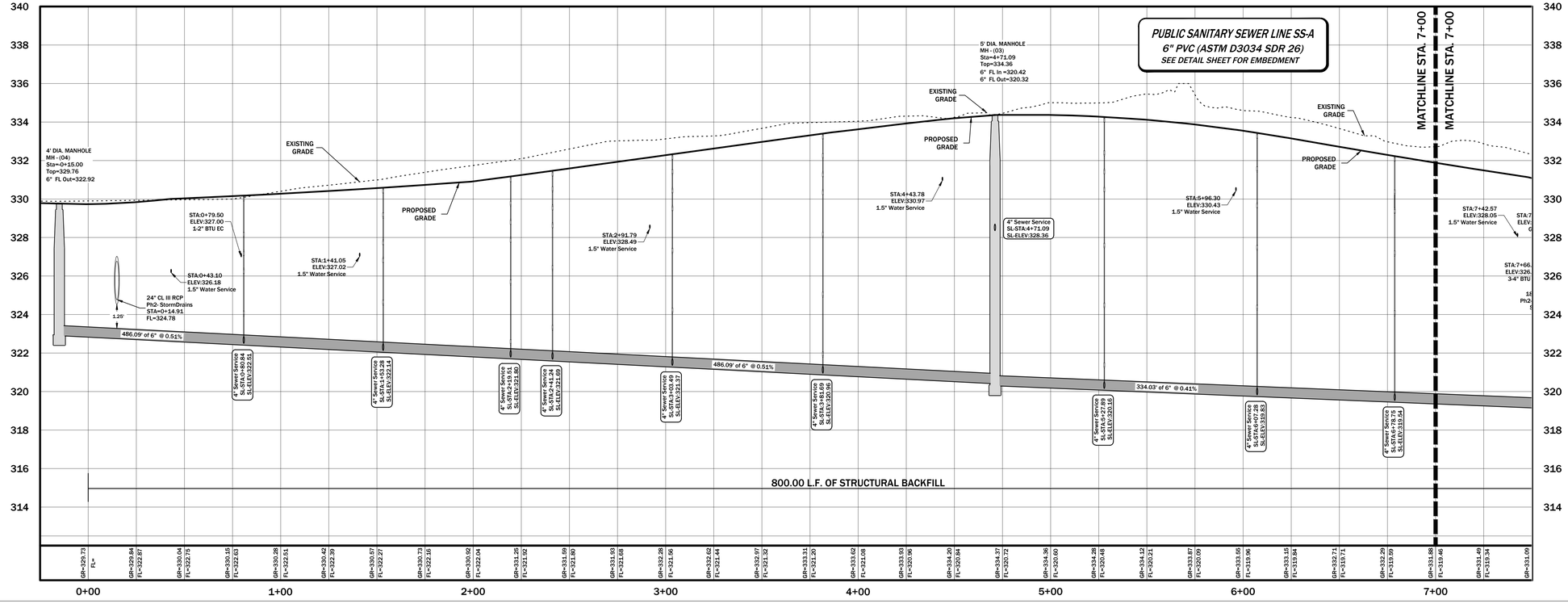
PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



2.00" on Paper
Scale: 1 inch = 30 feet

LEGEND:

PROPERTY LINE (ROW, LOT,ETC)	GAS LINE
EASEMENT LINE	BARBED WIRE FENCE
EXISTING CONTOUR LINE MAJ	OVERHEAD ELECTRIC LINE
EXISTING CONTOUR LINE MNR	UNDERGROUND ELECTRIC LINE
PROPOSED CONTOUR LINE MAJ	TRANSFORMER, PEDESTAL, LIGHT
PROPOSED CONTOUR LINE MNR	SEWER LINE, MANHOLE, SERVICE
PROPOSED ASPHALT ROADWAY	WATER LINES, METER
PROPOSED CONCRETE APRON	STORM DRAIN LINES
CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING



Scale: 1 inch = 30 feet (Horizontally)
Scale: 1 inch = 3 feet (Vertically)

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JOEL J. MITCHELL
80549
LICENSED PROFESSIONAL ENGINEER
TBPE # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

Sanitary Sewer P&P 'SS–A'

Phase 2
STELLA RANCH SUBDIVISION

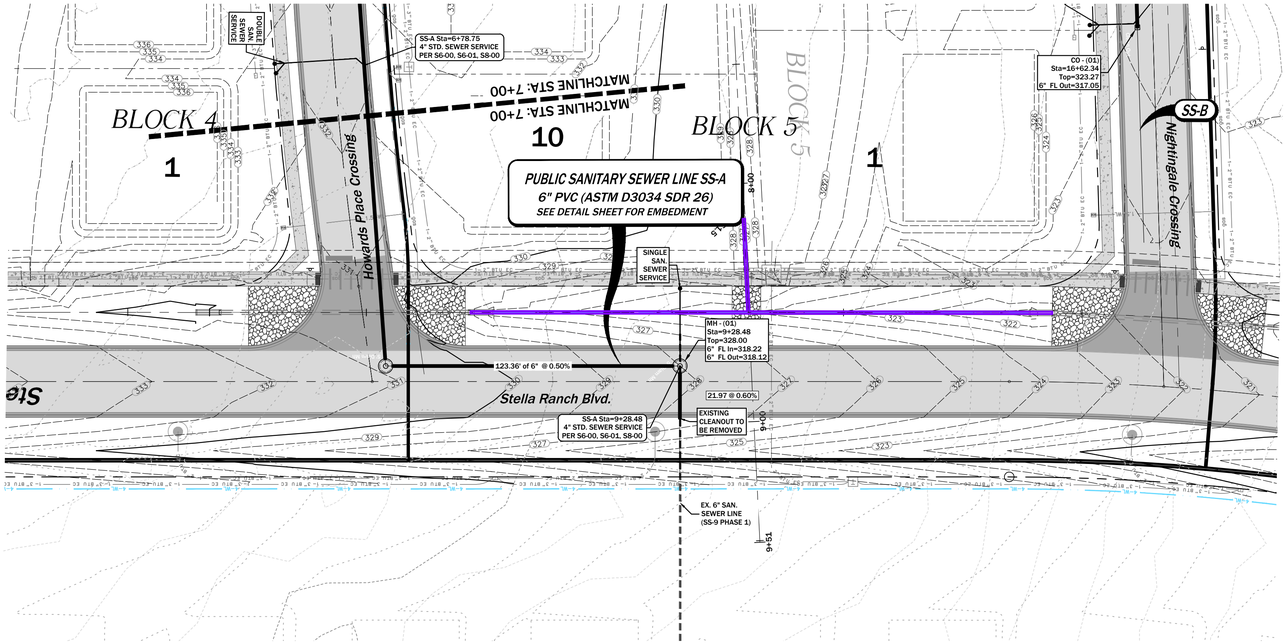
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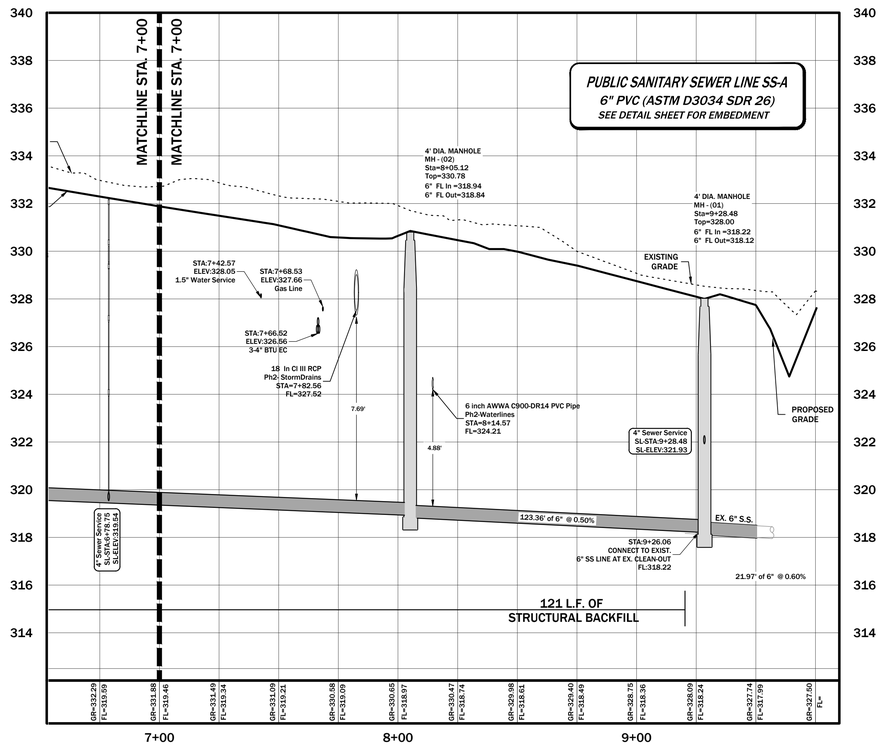
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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

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CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING





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March, 2026
Designed by: JJM, TM, SB
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Prepared For:
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Bryan, Texas 77802

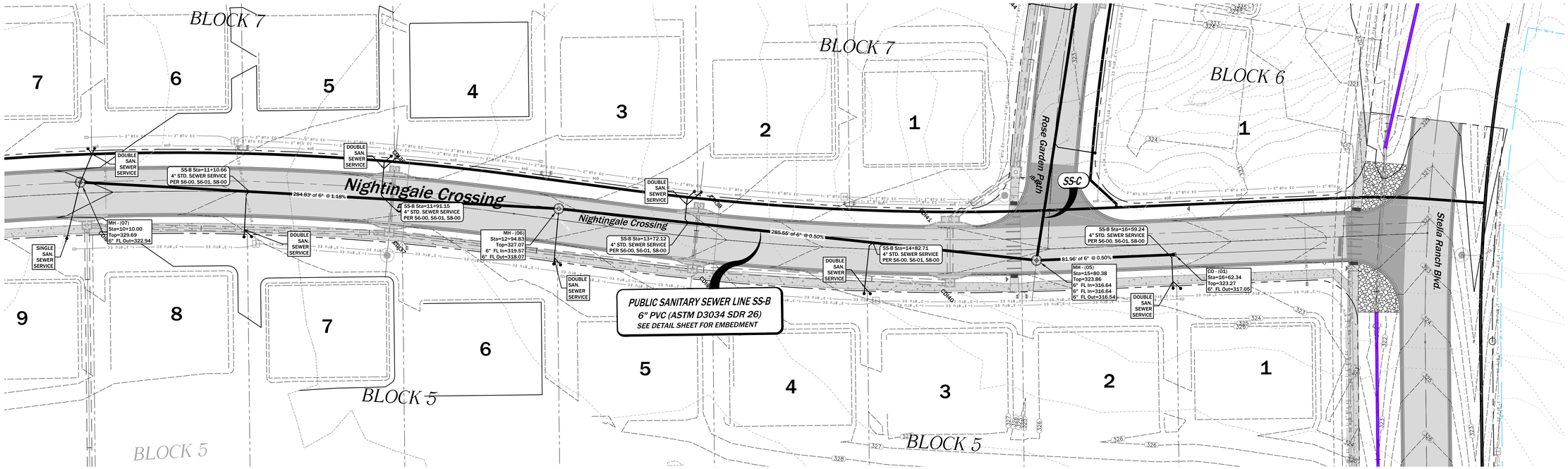
Revisions

Sanitary Sewer P&P 'SS-A'
Phase 2
STELLA RANCH SUBDIVISION

SS2

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PLOTTED BY: Tim Mitchell

PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

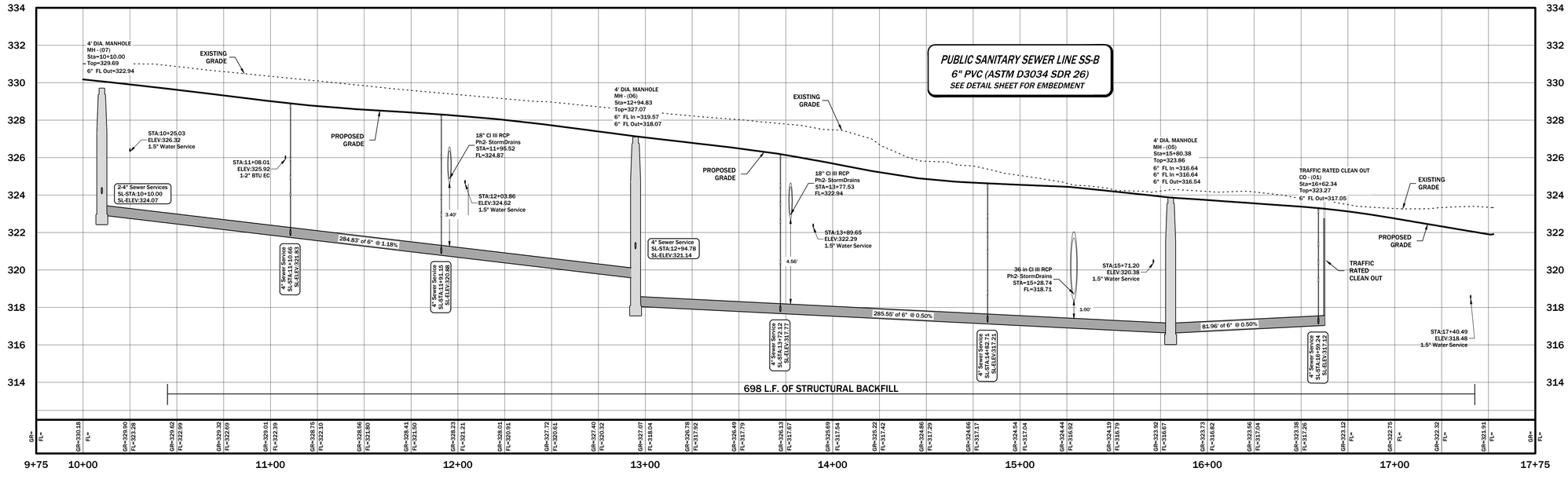


2.00" on Paper
Scale: 1 inch = 30 feet

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CONCRETE TRAIL / SIDEWALK	CURB INLET, HEADWALL, JUNCTION
	LIMITS OF GRADING

SS-B



Scale: 1 inch = 30 feet (Horizontally)
Scale: 1 inch = 3 feet (Vertically)

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TBPE F-1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

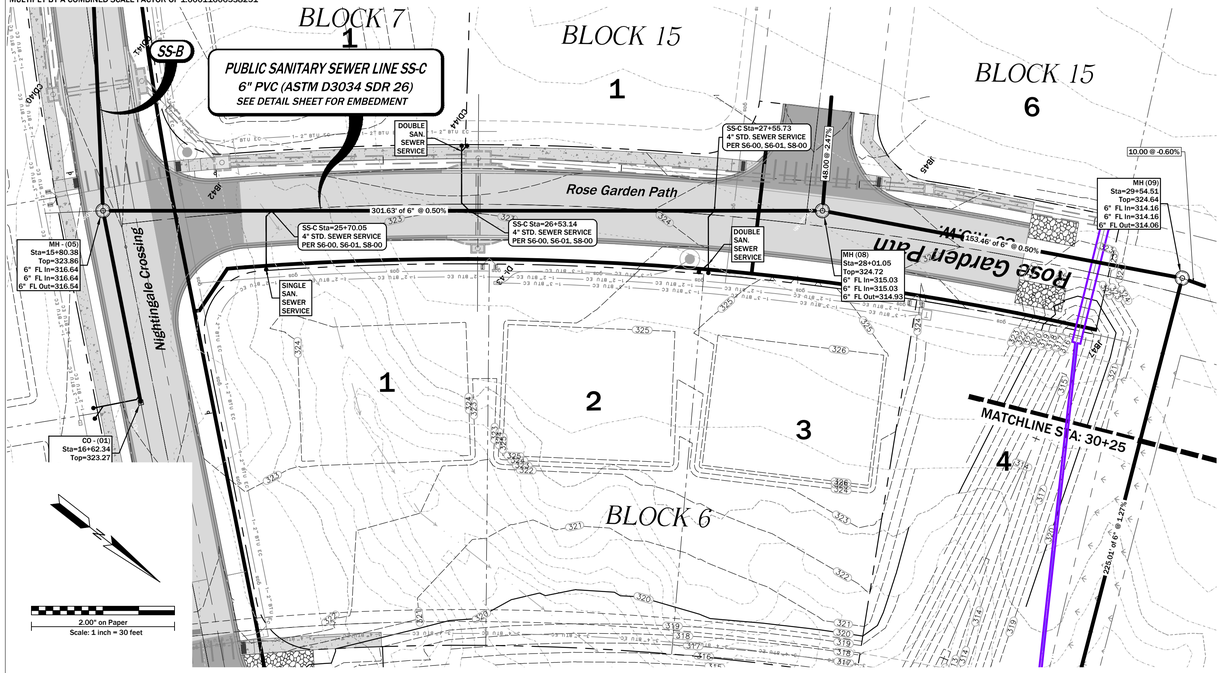
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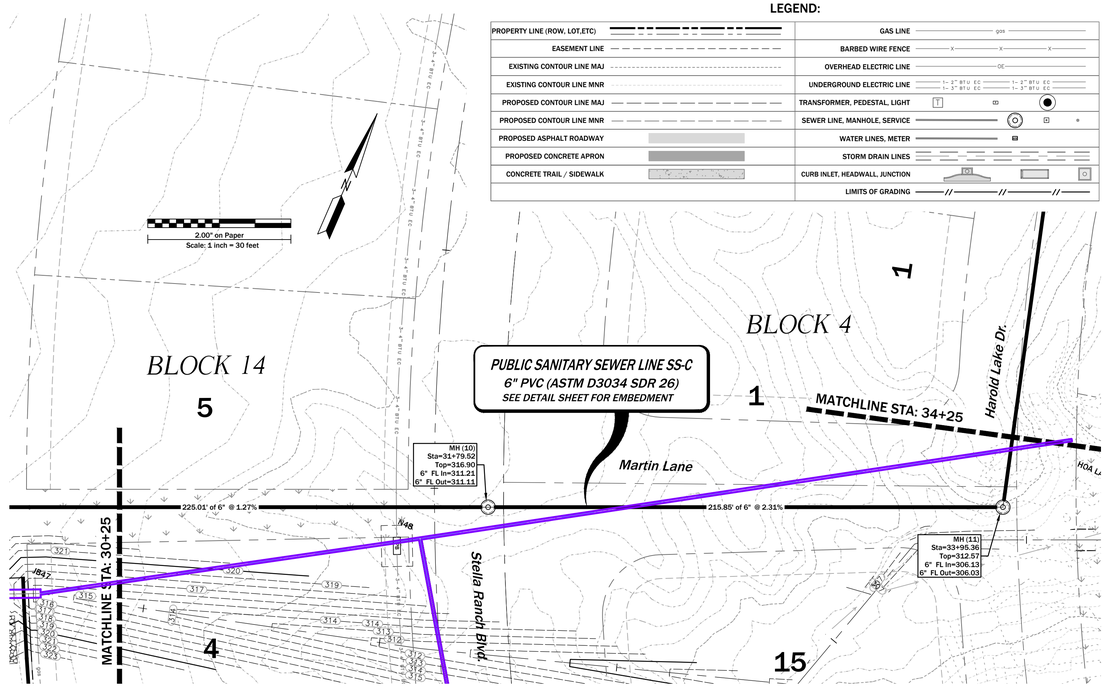
Sanitary Sewer P&P 'SS-B'
Phase 2
STELLA RANCH SUBDIVISION

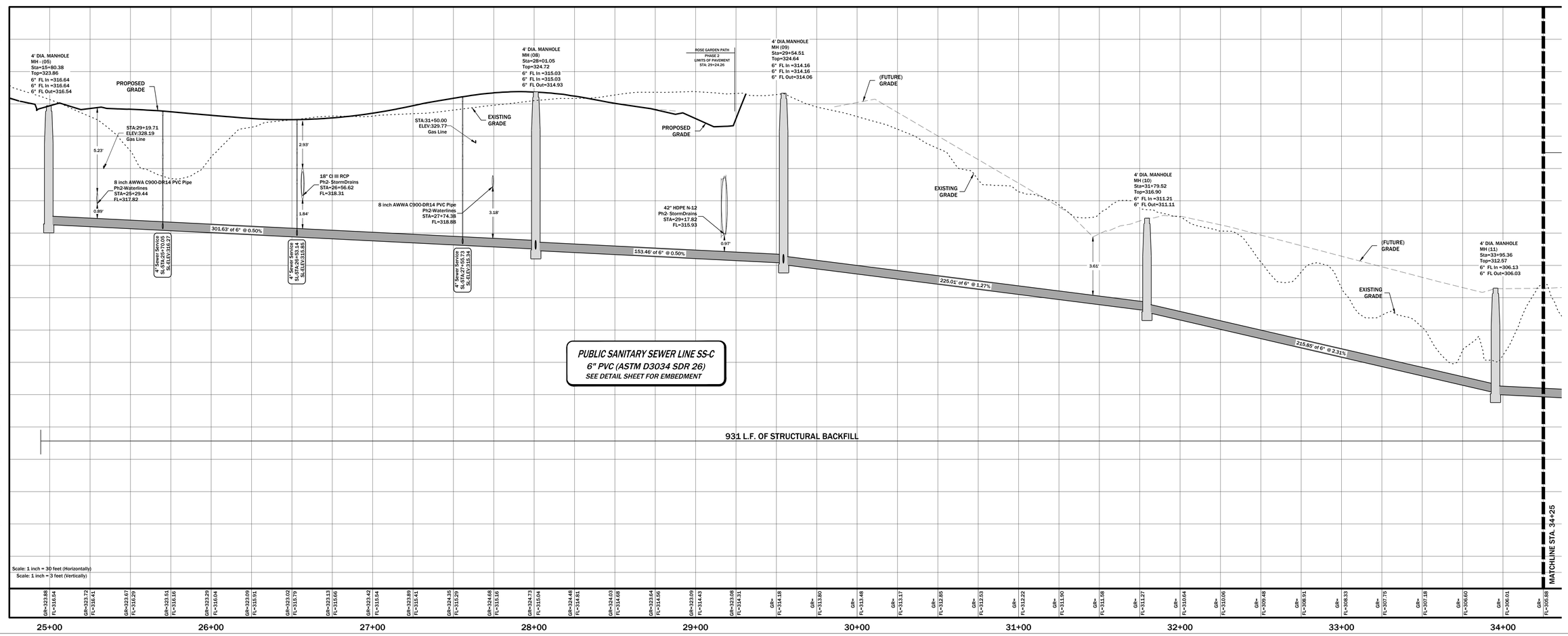
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(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251







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LICENSED PROFESSIONAL ENGINEER
TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

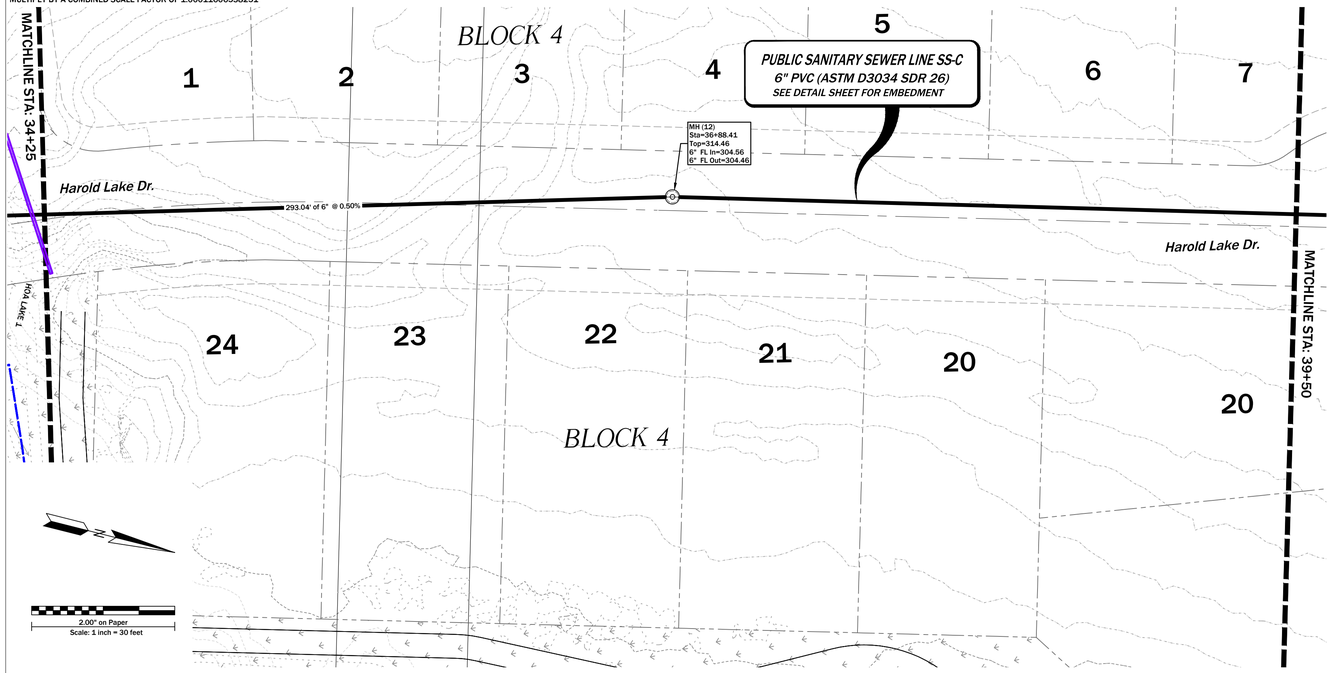
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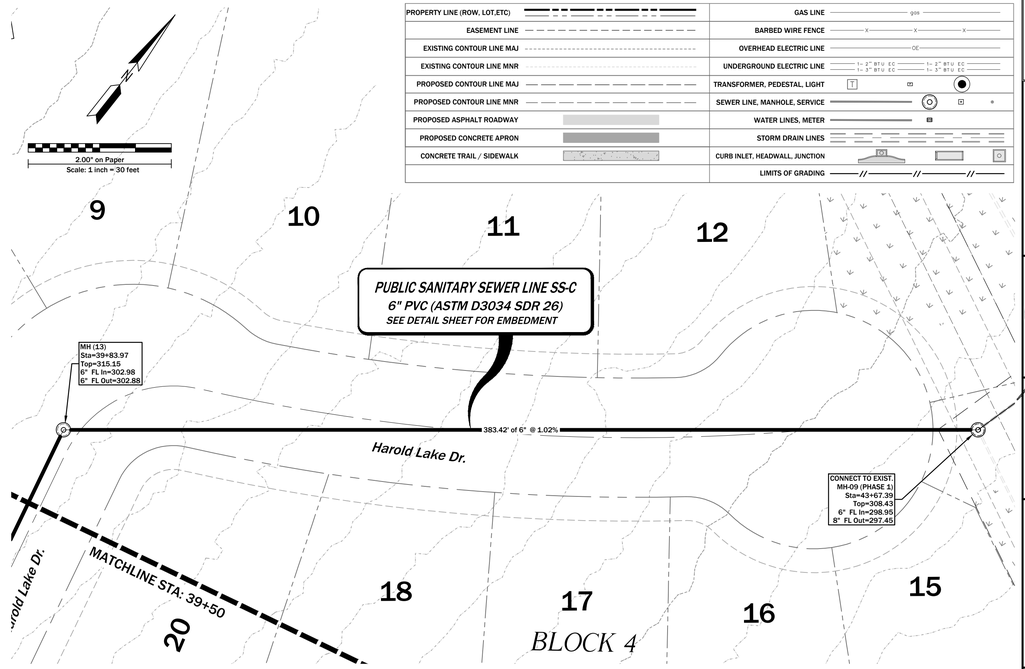
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Phase 2
STELLA RANCH SUBDIVISION

SS4

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AUTHOR - 12 Mar 2026 - 8:58 am

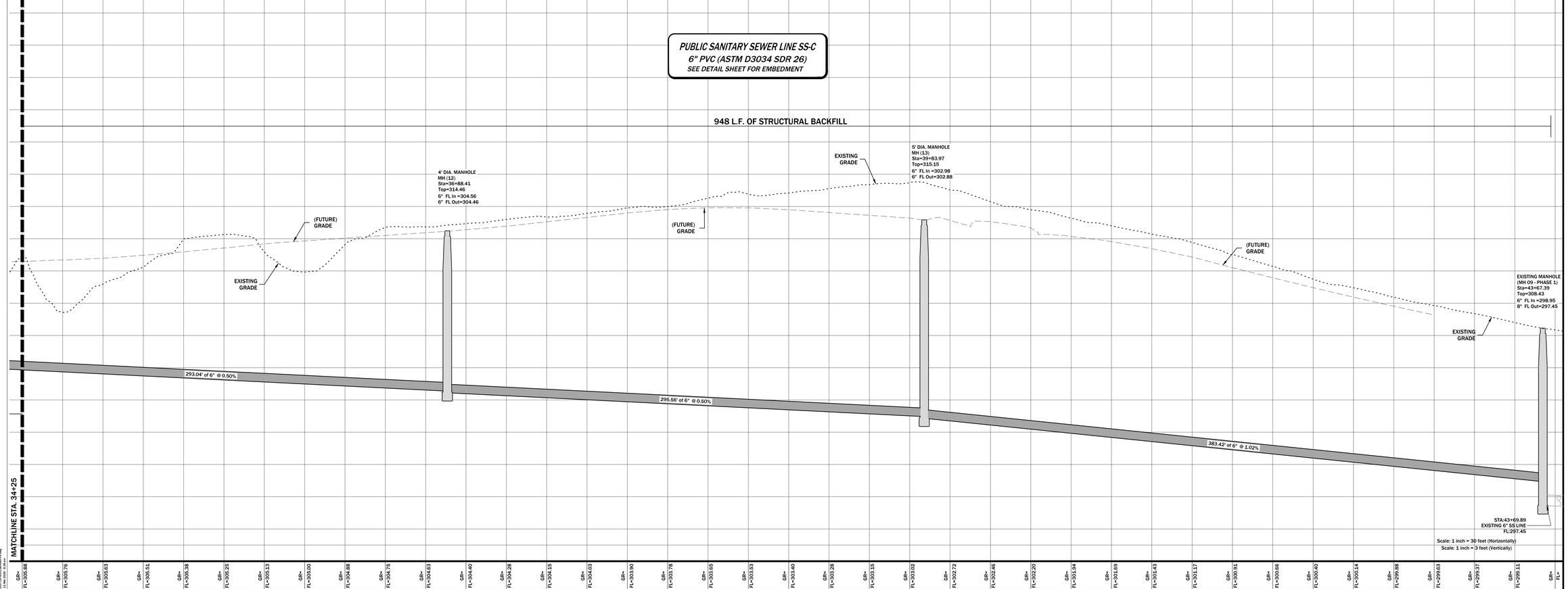
PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251





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	LIMITS OF GRADING



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STATE OF TEXAS
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Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

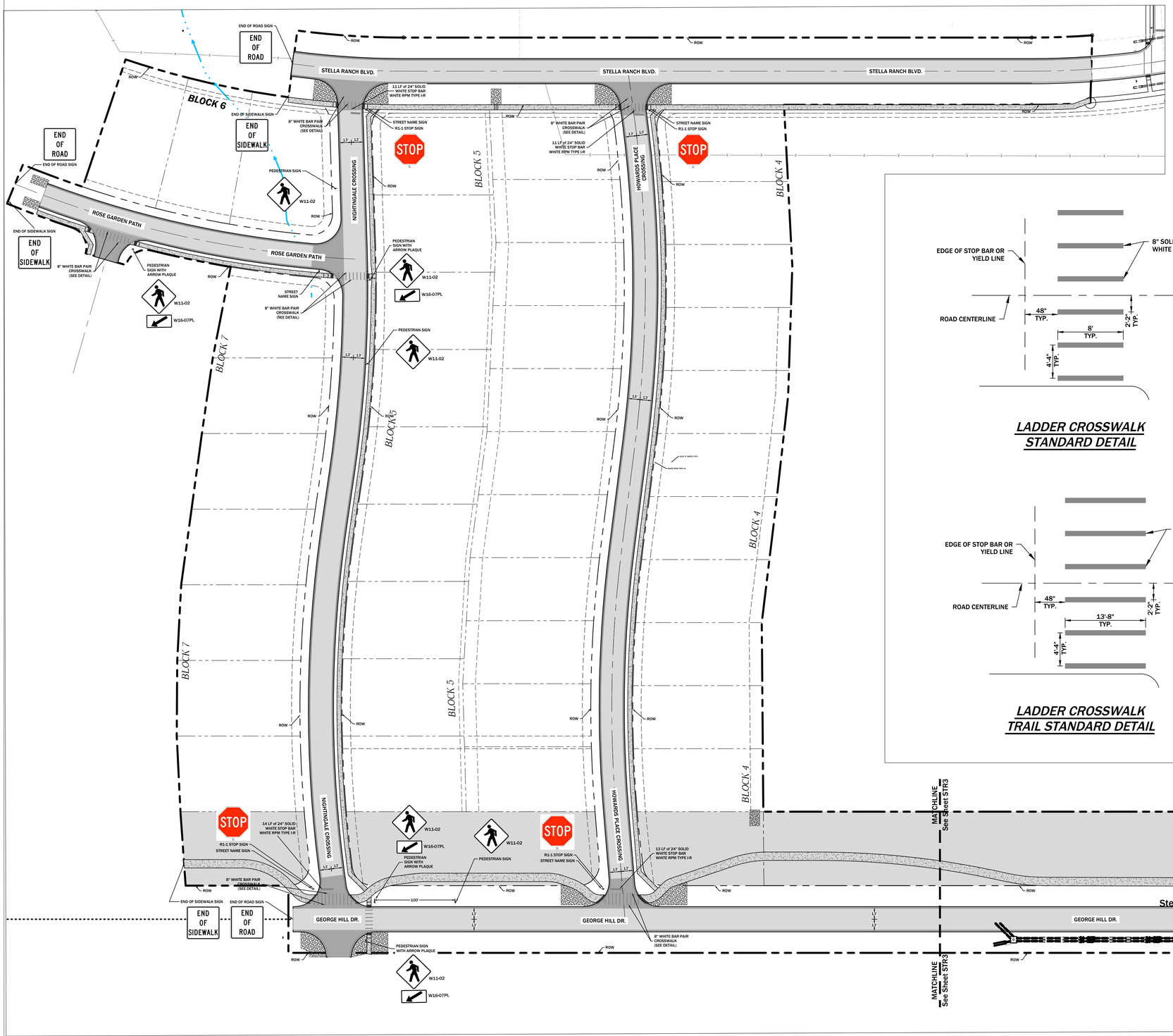
Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

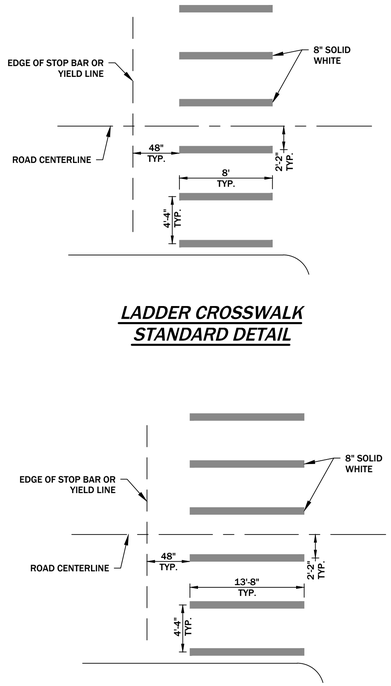
Revisions

Sanitary Sewer P&P 'SS-C'
Phase 2
STELLA RANCH SUBDIVISION

SS5

S:\Jobs\p2337-Aldenfield\Prod\Phase 2\337702-3001-SanSewPlnProfs.dwg, SS5 Sanitary Sewer P&P 'SS-C', 1/21/2026 8:40:45 AM





LADDER CROSSWALK STANDARD DETAIL

LADDER CROSSWALK TRAIL STANDARD DETAIL

Scale:
1 inch = 60 feet

Striping and Signing Notes:

1. All Striping shall conform to TxDOT Standard Specification 666, "Reflectorized Pavment Markings." All striping shall be Type I, Thermoplastic.
2. All turn lane arrows, "ONLY," etc., shall conform to TxDOT standard specification 668, "Prefabricated Pavement Markings."
3. All Raised Pavement Markers shall conform to TxDOT standard specification 672, "Raised Pavement Markings."
4. Removal of all existing pavement markings shall conform to TxDOT standard specification 677, Section 4.3 Water Blasting, "Eliminating Existing Pavement Markings and Markers."
5. Pavment marking field locations shall be fully laid out and be approved by the engineer or engineer's representative prior to application.
6. All sign locations shall be staked and approved by the engineer or engineer's representative prior to placement.
7. See TxDOT standard detail sheets PM(1-3)-12 and PM(6)-01 for additional striping and pavement marking details not shown on this plan.

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F.979.260.3564
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STATE OF TEXAS
JOEL J. MITCHELL
80649
REGISTERED PROFESSIONAL ENGINEER
Firm # F1443

MARCH 2026
Drawn By: OG, SB, TM
Checked By: JJM

Prepared For:
Steve Arden & Reese Homes
4007 Cross Park Dr.
Bryan, TX 77802

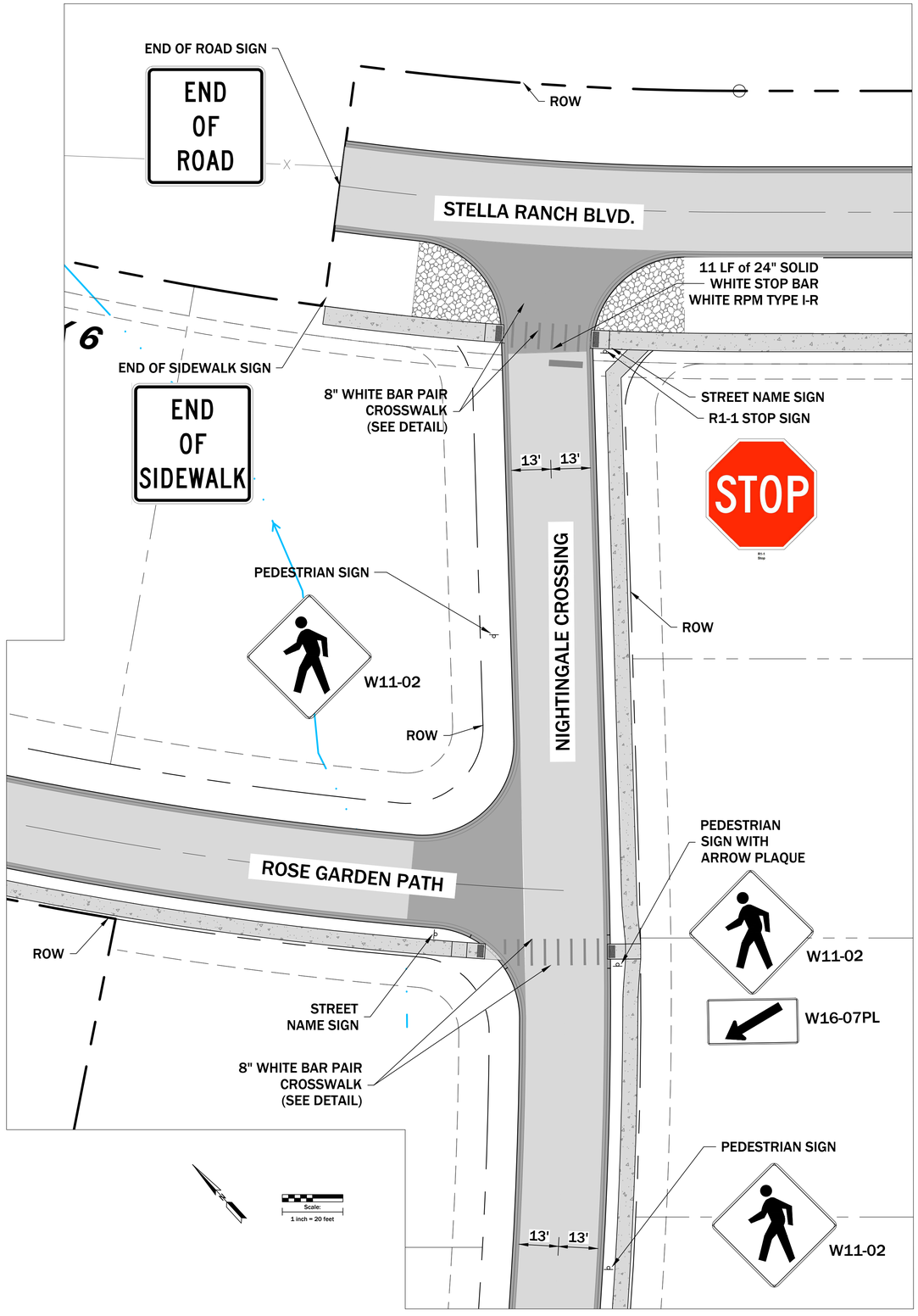
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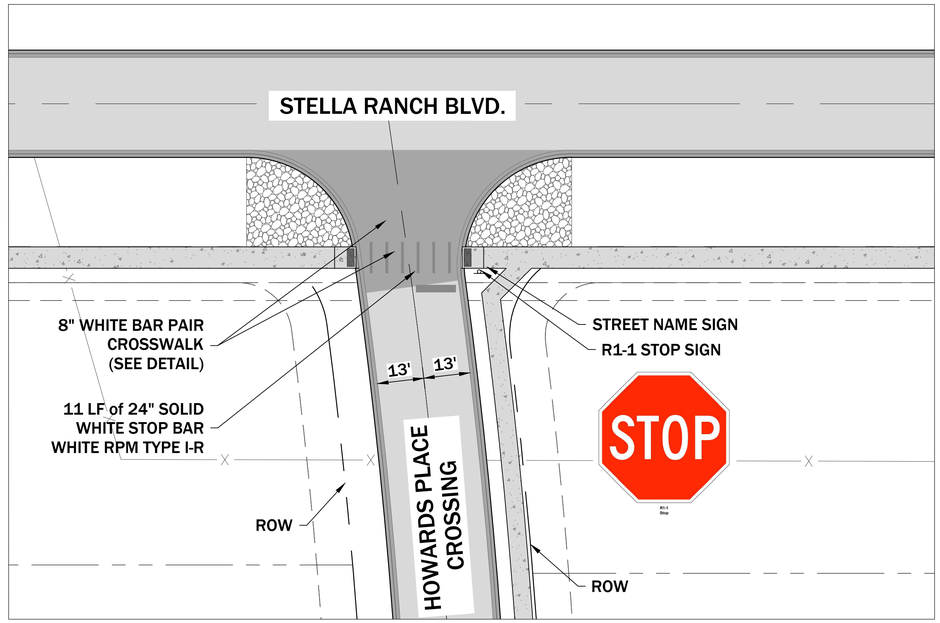
Striping & Signing Plan

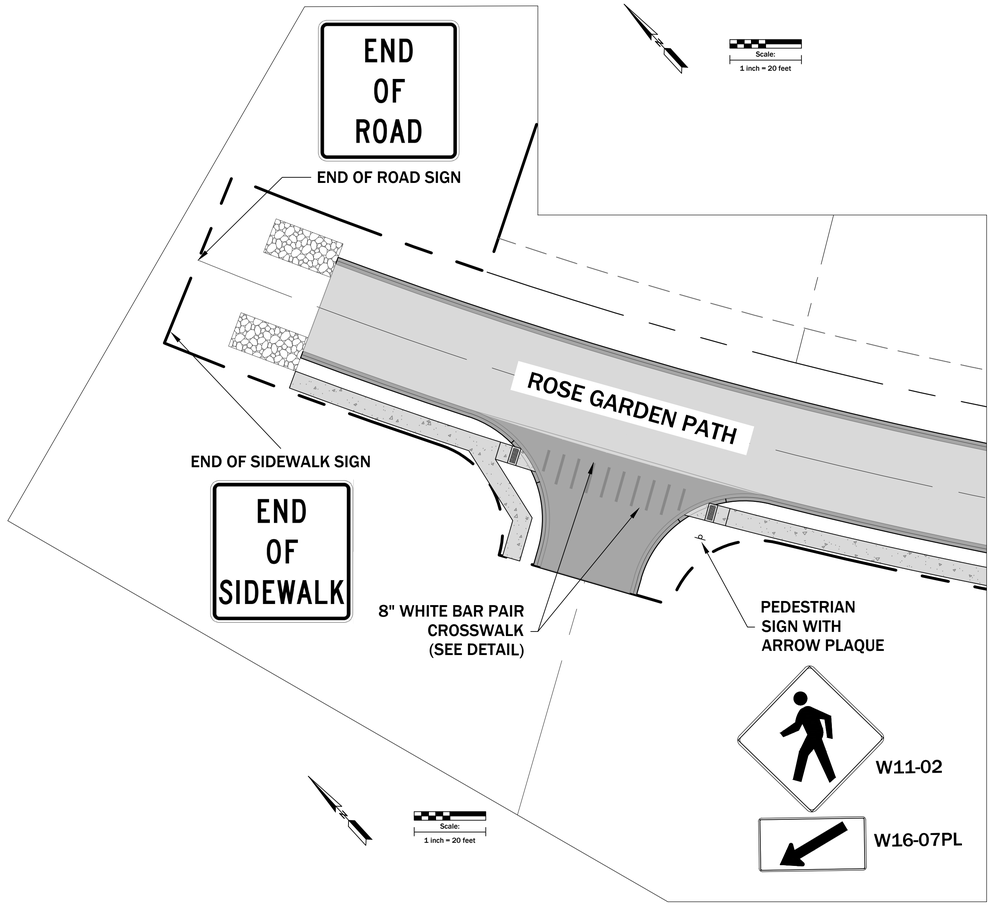
STELLA RANCH SUBDIVISION
PRELIMINARY MASTER PLAN

STR1

S:\UMPro\237-AdamBeamPhase 2\237132-7000-Striping and Signing Plan\Striping & Signing Plan_111125\26.1006.23.AM







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MARCH 2026
Drawn By: OG, SB, TM
Checked By: JJM

Prepared For:
Steve Arden & Reece Homes
4007 Cross Park Dr.
Bryan, TX 77802

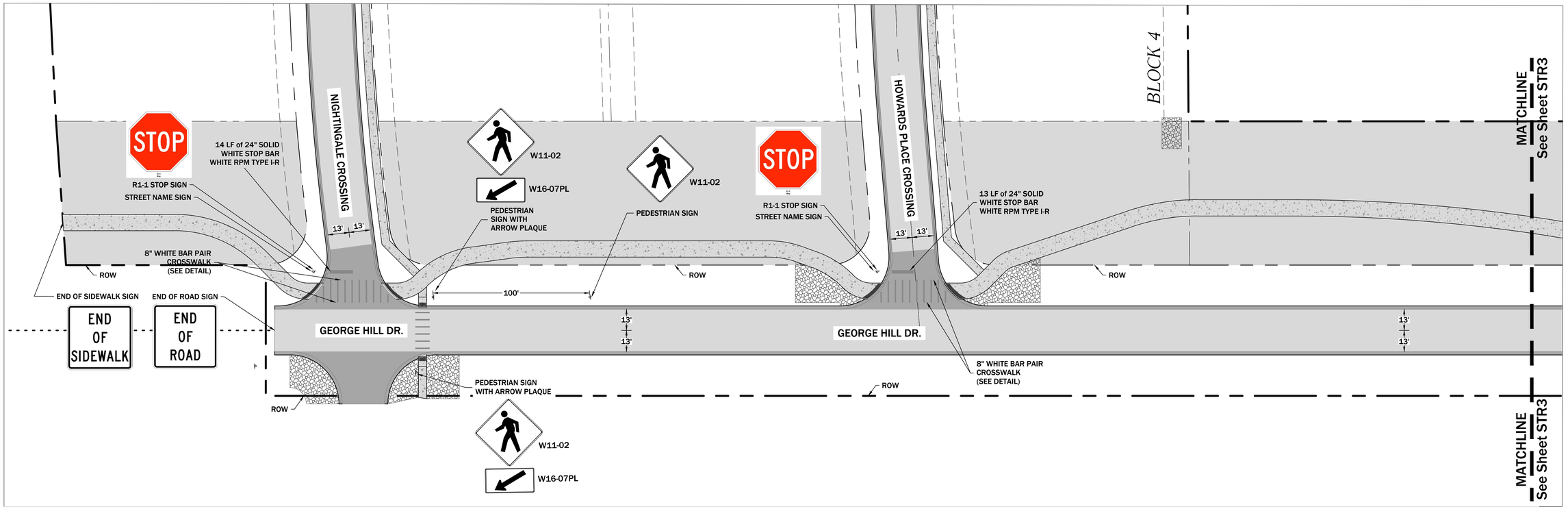
Revisions

Striping & Signing Plan

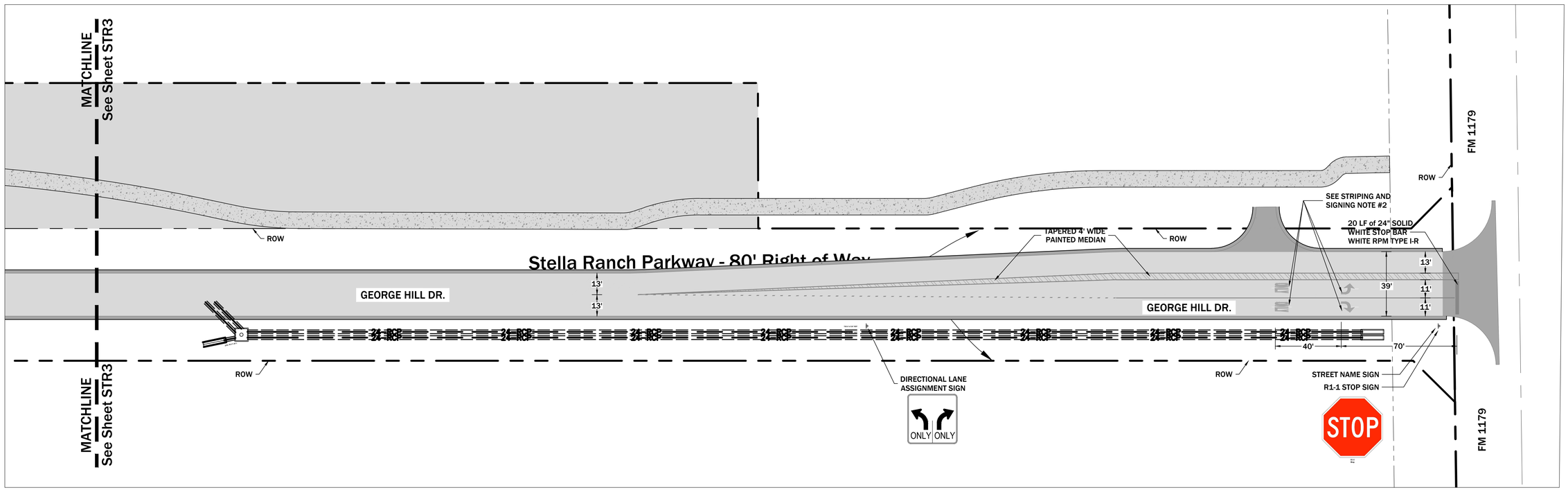
STELLA RANCH SUBDIVISION
PRELIMINARY MASTER PLAN

STR2

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Scale:
1 inch = 30 feet



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STATE OF TEXAS
JOEL J. MITCHELL
80849
PROFESSIONAL ENGINEER
Firm # F1443

MARCH 2026
Drawn By: OG, SB, TM
Checked By: JJM

Prepared For:
Steve Arden & Reece Homes
4000 Cross Pointe Dr.
Bryan, TX 77802

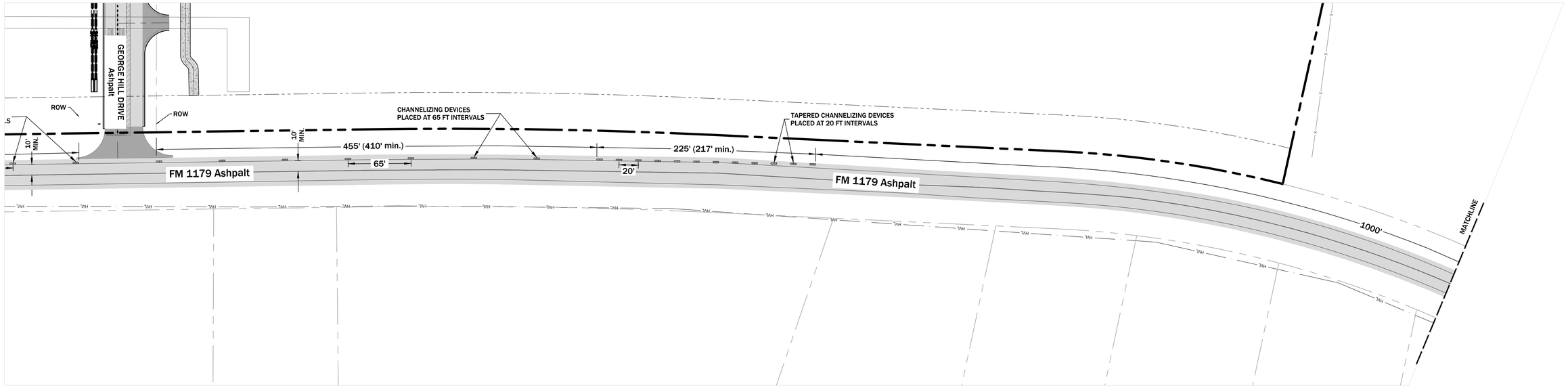
Revisions

Striping & Signing Plan

STELLA RANCH SUBDIVISION
PRELIMINARY MASTER PLAN

STR3

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LEGEND

- Sign Stand
- Channelizing Device

Scale:
1 inch = 50 feet

NOTES:

1. FM-1179 posted speed is 65 MPH.
2. Inbound taper length is derived from the table, L = 650 feet minumum.
   Using this value, Initial taper length ($\frac{1}{3}$ * L) equals 217 feet.
3. All devices shall be set in accordance with the latest edition of the TMUTCD.
4. All devices shall be 48" x 48" in size.
5. Sandbags shall be used as ballast on all barricades and signs.
6. Coordination with others should take place prior to construction activity and the installation of temporary traffic control devices:
   - 6.1. Cover any conflicting temporary signs.
   - 6.2. Do not set duplicate signs.

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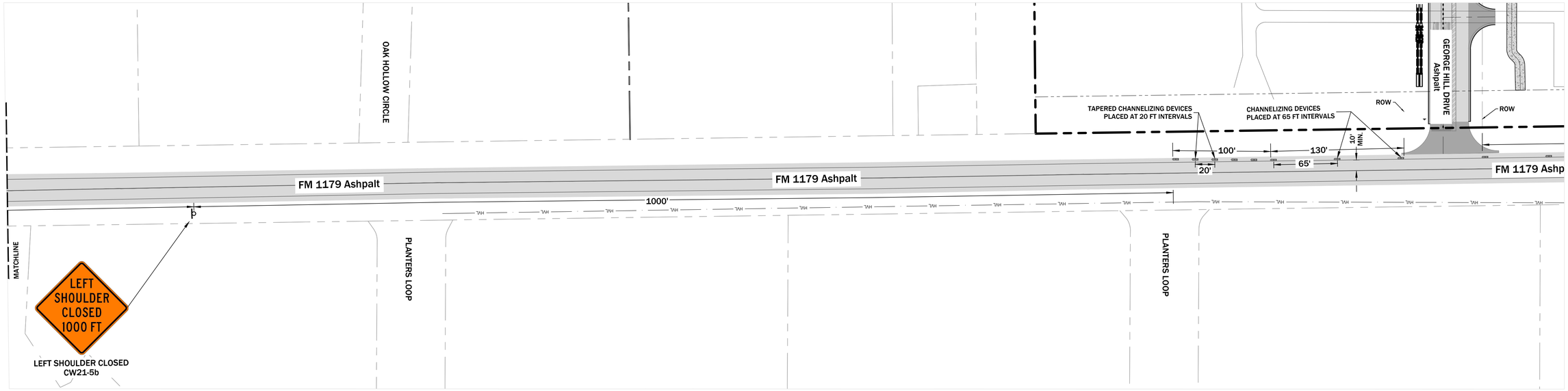
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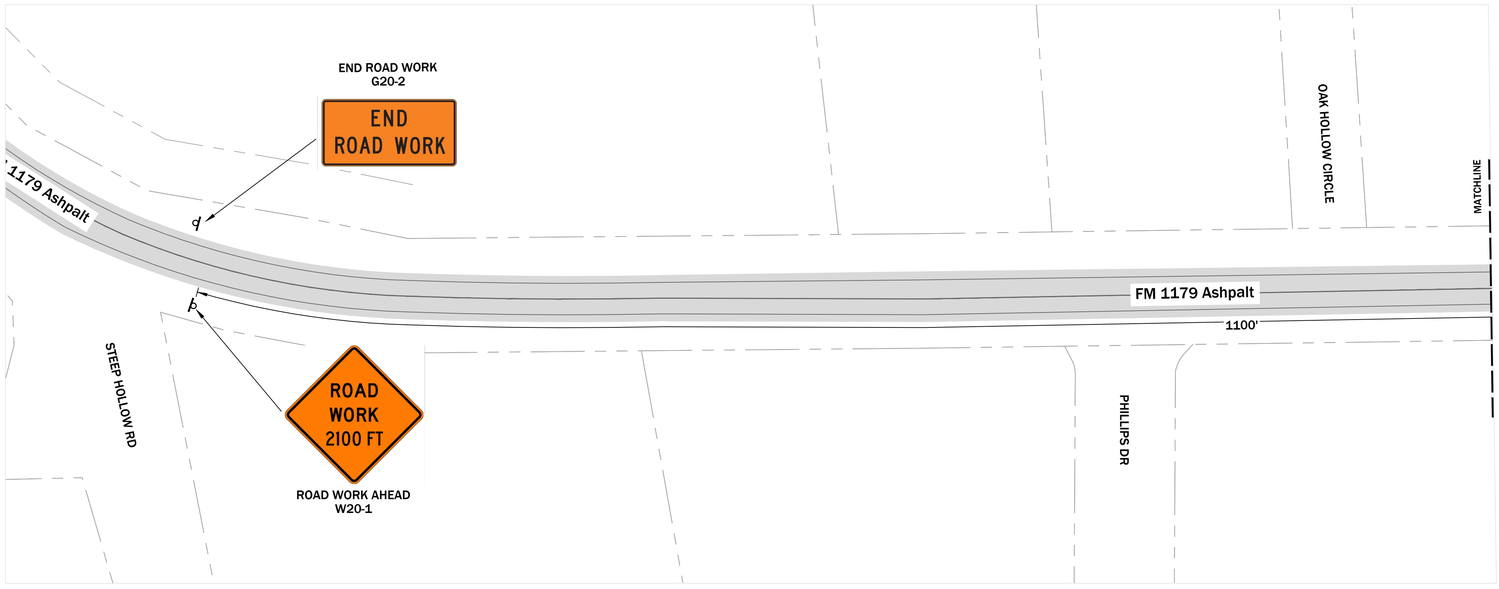
Traffic Control Plan

STELLA RANCH SUBDIVISION
PRELIMINARY MASTER PLAN

TCP

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Scale:
1 inch = 50 feet

LEGEND

- Sign Stand
- Channelizing Device

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MARCH 2026
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Revisions

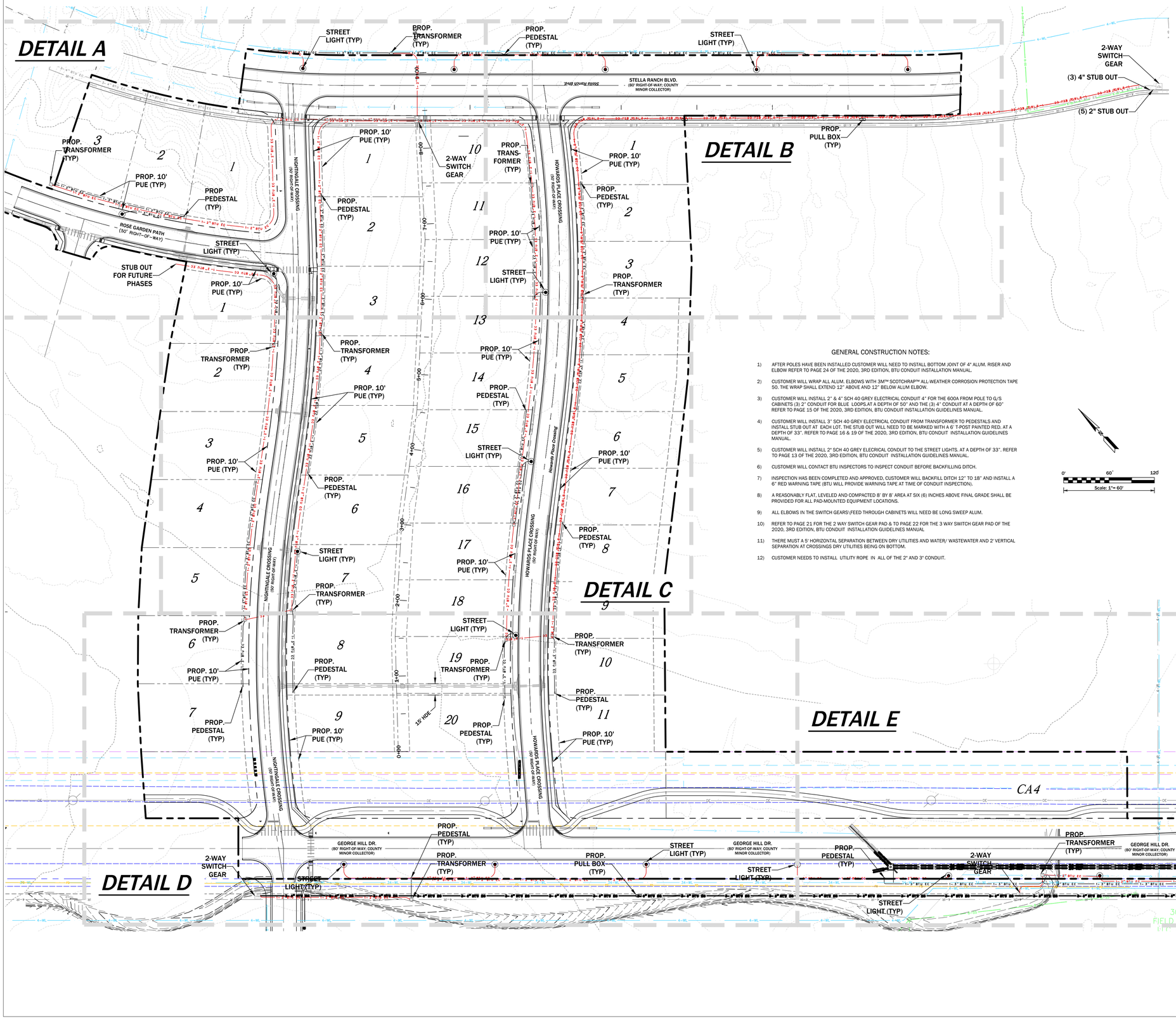
Traffic Control Plan 2

STELLA RANCH SUBDIVISION
PRELIMINARY MASTER PLAN

TCP2

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PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

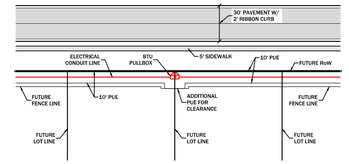


GENERAL CONSTRUCTION NOTES:

1) AFTER POLES HAVE BEEN INSTALLED CUSTOMER WILL NEED TO INSTALL BOTTOM JOINT OF 4" ALUM. RISER AND ELBOW REFER TO PAGE 24 OF THE 2020, 3RD EDITION, BTU CONDUIT INSTALLATION MANUAL.
2) CUSTOMER WILL WRAP ALL ALUM. ELBOWS WITH 3M™ SCOTCHRAP™ ALL-WEATHER CORROSION PROTECTION TAPE 50. THE WRAP SHALL EXTEND 12" ABOVE AND 12" BELOW ALUM ELBOW.
3) CUSTOMER WILL INSTALL 2" & 4" SCH 40 GREY ELECTRICAL CONDUIT 4" FOR THE 600A FROM POLE TO G/S CABINETS (3) 2" CONDUIT FOR BLUE LOOPS,AT A DEPTH OF 50" AND THE (3) 4" CONDUIT AT A DEPTH OF 60" REFER TO PAGE 15 OF THE 2020, 3RD EDITION, BTU CONDUIT INSTALLATION GUIDELINES MANUAL.
4) CUSTOMER WILL INSTALL 3" SCH 40 GREY ELECTRICAL CONDUIT FROM TRANSFORMER TO PEDESTALS AND INSTALL STUB OUT AT EACH LOT, THE STUB OUT WILL NEED TO BE MARKED WITH A 6' T-POST PAINTED RED. AT A DEPTH OF 33". REFER TO PAGE 16 & 19 OF THE 2020, 3RD EDITION, BTU CONDUIT INSTALLATION GUIDELINES MANUAL.
5) CUSTOMER WILL INSTALL 2" SCH 40 GREY ELECRICAL CONDUIT TO THE STREET LIGHTS. AT A DEPTH OF 33". REFER TO PAGE 13 OF THE 2020, 3RD EDITION, BTU CONDUIT INSTALLATION GUIDELINES MANUAL.
6) CUSTOMER WILL CONTACT BTU INSPECTORS TO INSPECT CONDUIT BEFORE BACKFILLING DITCH.
7) INSPECTION HAS BEEN COMPLETED AND APPROVED, CUSTOMER WILL BACKFILL DITCH 12" TO 18" AND INSTALL A 6" RED WARNING TAPE (BTU WILL PROVIDE WARNING TAPE AT TIME OF CONDUIT INSPECTION).
8) A REASONABLY FLAT, LEVELED AND COMPACTED 8' BY 8' AREA AT SIX (6) INCHES ABOVE FINAL GRADE SHALL BE PROVIDED FOR ALL PAD-MOUNTED EQUIPMENT LOCATIONS.
9) ALL ELBOWS IN THE SWITCH GEARS\FEED THROUGH CABINETS WILL NEED BE LONG SWEEP ALUM.
10) REFER TO PAGE 21 FOR THE 2 WAY SWITCH GEAR PAD & TO PAGE 22 FOR THE 3 WAY SWITCH GEAR PAD OF THE 2020, 3RD EDITION, BTU CONDUIT INSTALLATION GUIDELINES MANUAL
11) THERE MUST A 5' HORIZONTAL SEPARATION BETWEEN DRY UTILITIES AND WATER/ WASTEWATER AND 2' VERTICAL SEPARATION AT CROSSINGS DRY UTILITIES BEING ON BOTTOM.
12) CUSTOMER NEEDS TO INSTALL UTILITY ROPE IN ALL OF THE 2" AND 3" CONDUIT.

0' 60' 120'
Scale: 1"= 60'

FENCE CLEARANCE DETAIL



NOTE:
FENCE SHOWN OFFSET FROM THE EASEMENT LINE FOR CLARITY PURPOSES ONLY. FENCE CAN BE PLACED ON THE EASEMENT LINE.

LEGEND

- 2" PRIMARY
- 3" SERVICE
- (3) - 4" 600A
- Street Lamp
- Transformer
- Switch Gear
- Pull Box

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TBPE Firm # F1443

March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

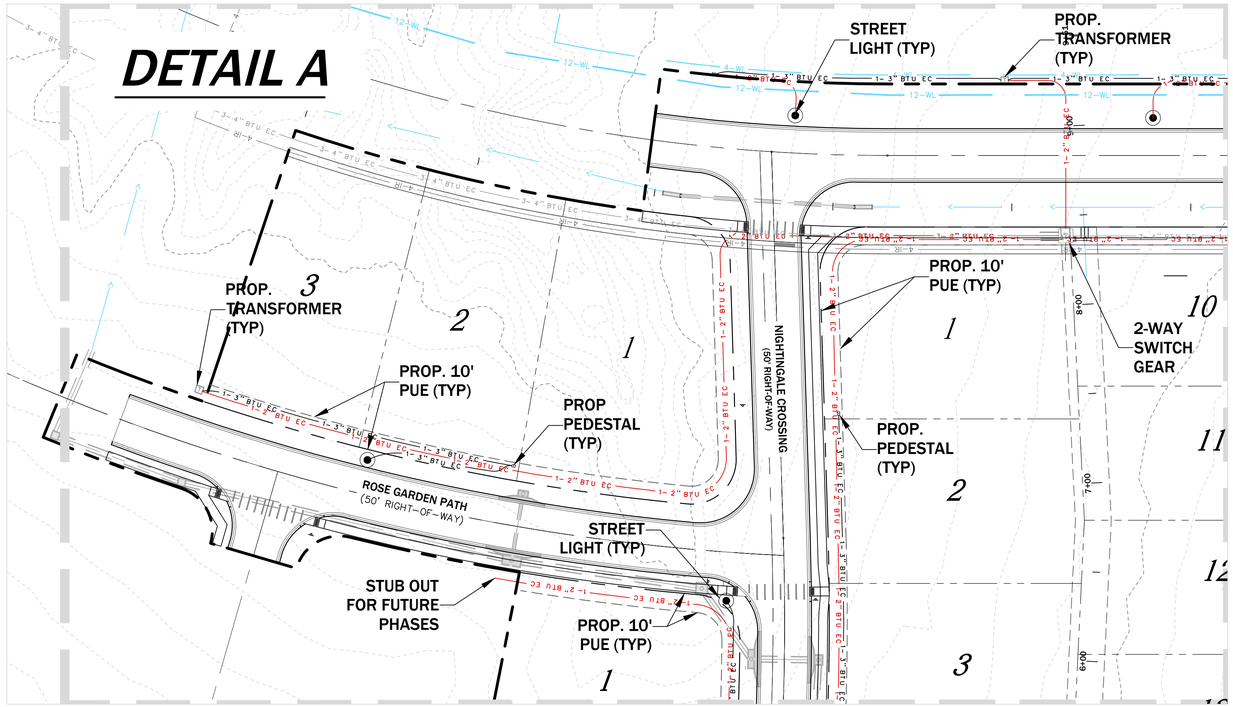
Revisions

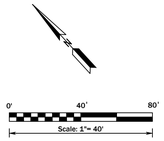
Electrical Layout
Phase 2
STELLA RANCH SUBDIVISION

EL

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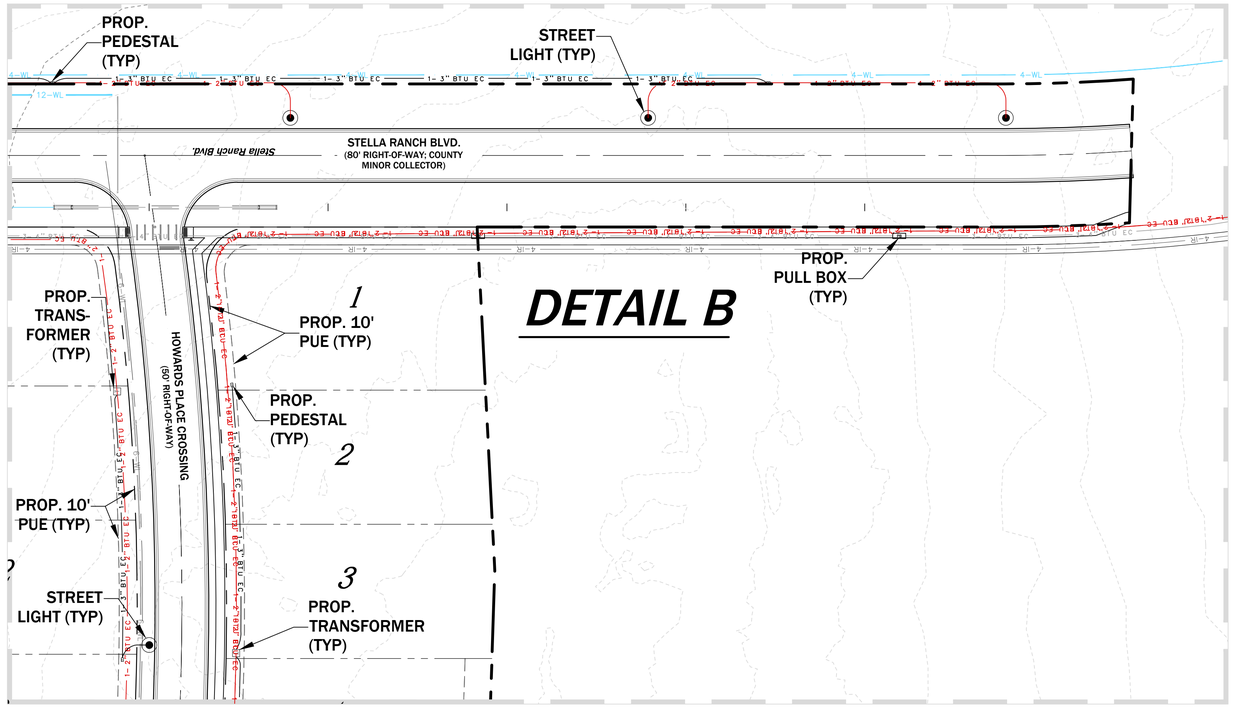
PROJECT CONTROL: CITY OF BRYAN CONTROL MONUMENT SWG A-53-W
(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251





LEGEND

- 2" PRIMARY
- 3" SERVICE
- (3) - 4" 600A
- Street Lamp
- Transformer
- Switch Gear
- Pull Box



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March, 2026
Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
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4007 Cross Park
Bryan, Texas 77802

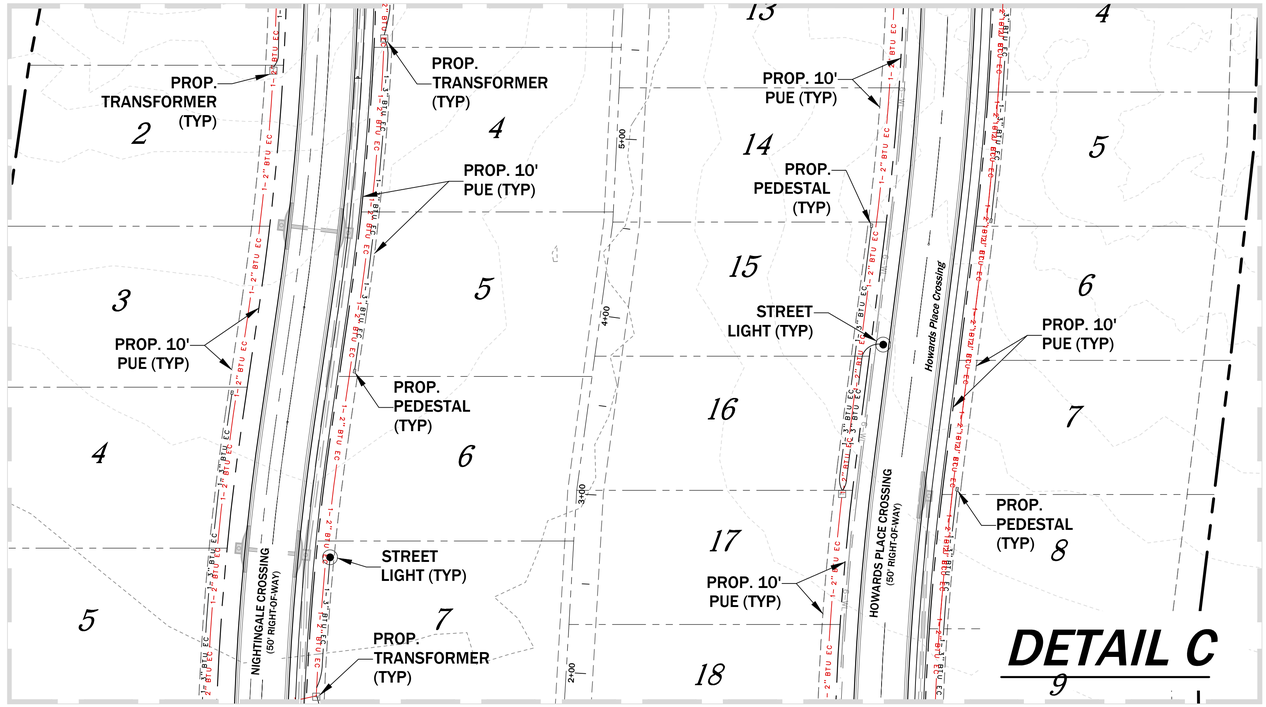
Revisions

Electrical Details
Phase 2
STELLA RANCH SUBDIVISION

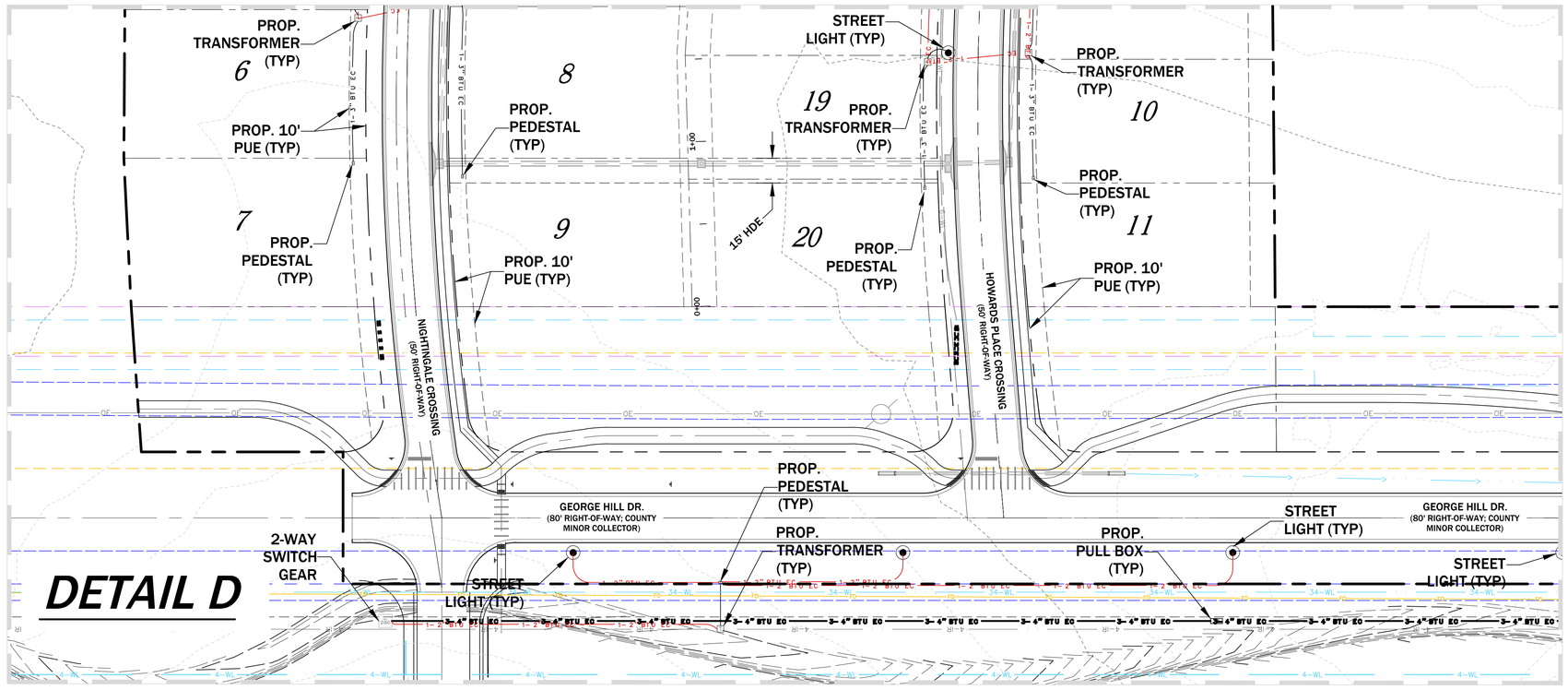
EL2

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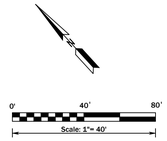
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(Y:10242882.810, X:3554386.822) TO OBTAIN SURFACE DISTANCES
MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251



DETAIL C



DETAIL D



LEGEND

1- 2" BTU EC	2" PRIMARY
1- 3" BTU EC	3" SERVICE
3- 4" BTU EC	(3) - 4" 600A
	Street Lamp
T	Transformer
	Switch Gear
	Pull Box

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Designed by: JJM, TM, SB
Drawn By: JJM, TM, SB
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

Electrical Details

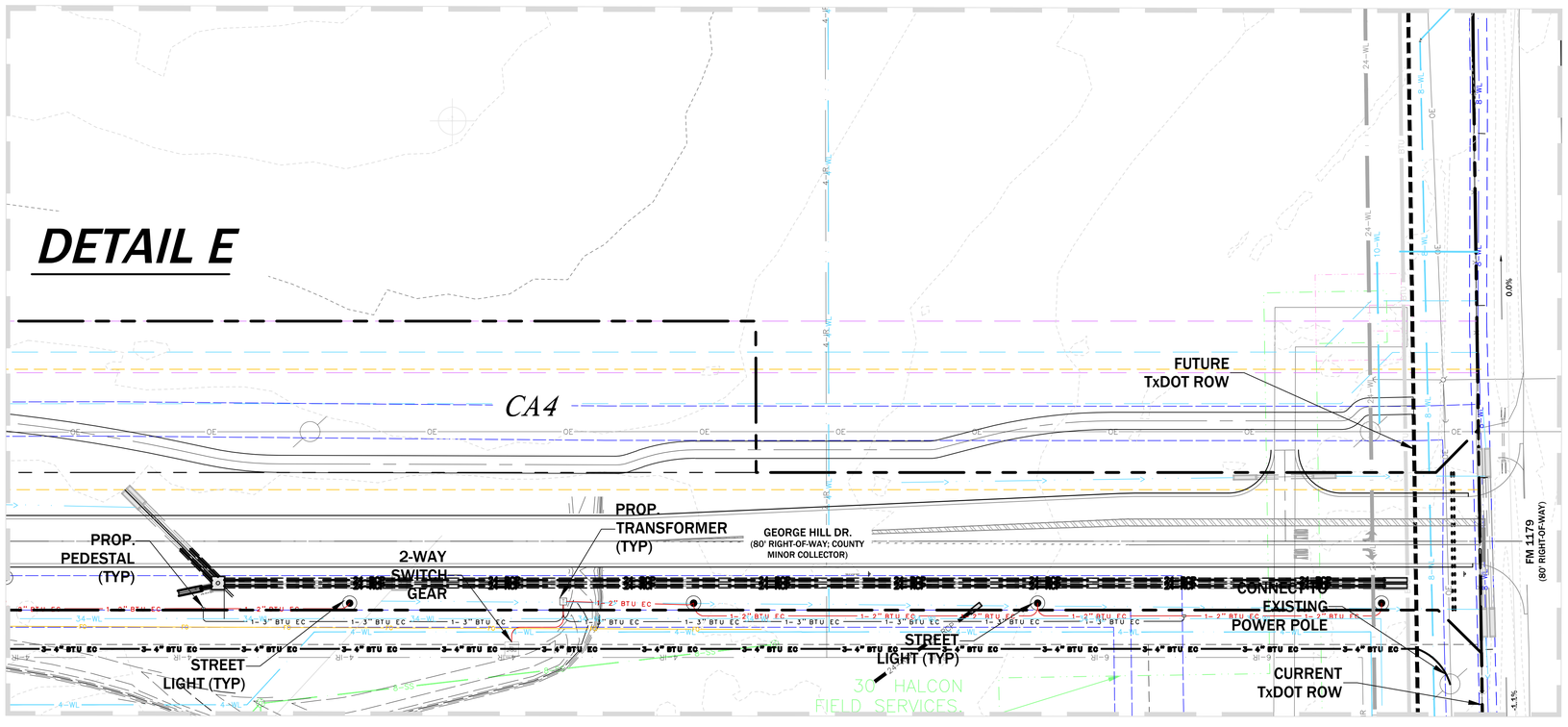
Phase 2
STELLA RANCH SUBDIVISION

EL3

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MULTIPLY BY A COMBINED SCALE FACTOR OF 1.00011606538251

DETAIL E



0' 40' 80'
Scale: 1"= 40'

LEGEND

- 2" PRIMARY
- 3" SERVICE
- (3) - 4" 600A
- Street Lamp
- Transformer
- Switch Gear
- Pull Box

MITCHELL MORGAN

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TX. FIRM # F-1443

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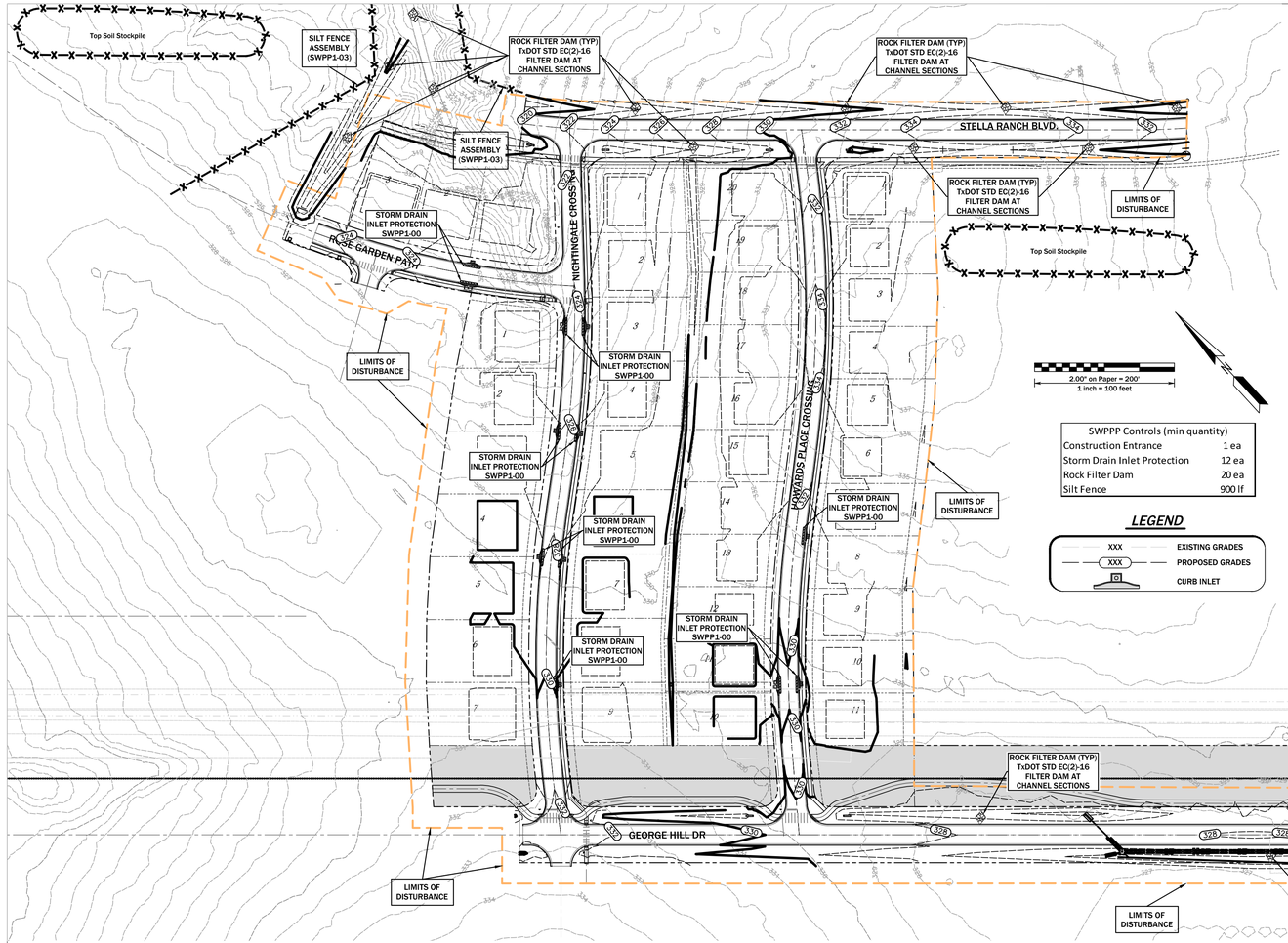
Prepared For:
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4007 Cross Park
Bryan, Texas 77802

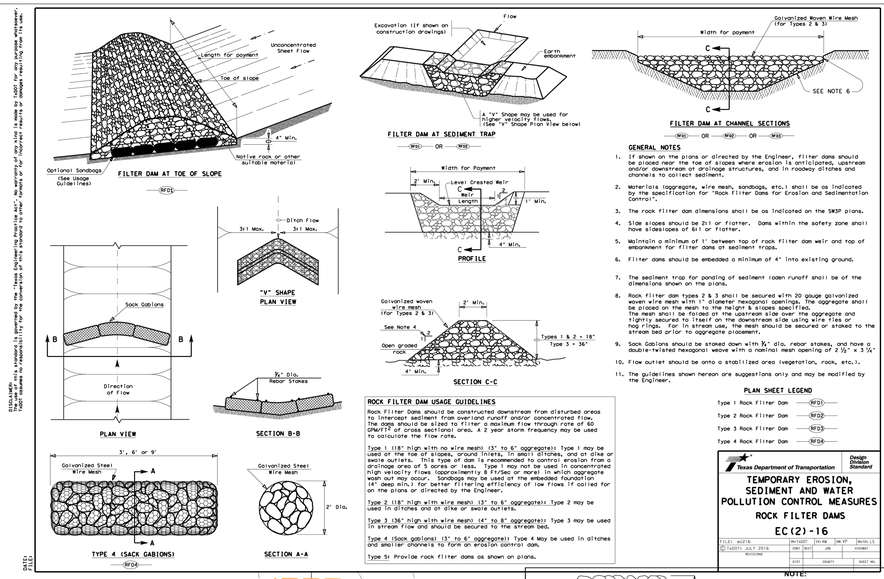
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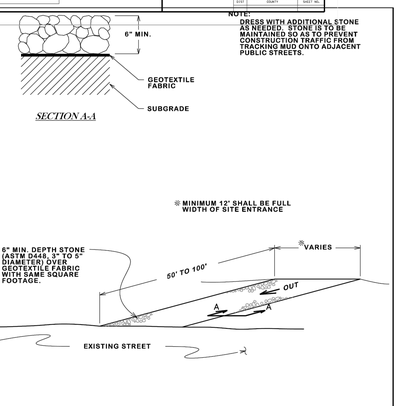
Electrical Details
Phase 2
STELLA RANCH SUBDIVISION

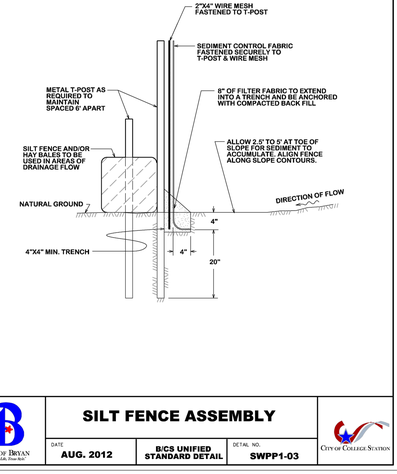
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SWPP Information:
B/CS United Specification Section 31 25 13 -EROSION AND SEDIMENTATION CONTROL (SWPPP) requires the construction contractor generate the Erosion Control Plan (ECP), Storm Water Pollution Prevention Plan (SWPPP), Notice of Intent (NOI) (if required) and Notice of Termination (NOT) (if required) using this sheet (this sheet is called the "Base Sheet" for ECP) and narrative for SWPPP. The contractor is also required to install the controls when appropriate and add storm water controls (silt fence, inlet protection, check dams, etc.) anytime an inspection reveals silt leaving the site or as directed by the owner, engineer, or inspector and UPDATE THIS PLAN. When appropriate, remove the SWPPP devices after the site is stabilized. See https://www.bcsunited.net/2021_Files/Specs/Generals_2020.pdf for more detailed information.

SWPPP Narrative.

Nature of Construction Activity:
Drainage, utility, and pavement improvements for building construction. Potential pollutants and sources - Sediment from excavation and equipment movement around the site.

Schedule of Events:
1. Install silt fencing and site controls.
2. Install stabilized construction exit.
3. Clear and grub
4. Install utilities.
5. Install pavement.
6. Complete grading and install permanent seeding.
7. When all construction activity is completed the site is stabilized. Remove silt fence and re-seed any area disturbed during construction and assure a healthy ground cover.

Area of Disturbance:
During the construction of the pavement, drainage, and utility improvements the western portion of the lot will be disturbed.

Structural Controls:
Temporary stabilization – areas where construction activity temporarily ceases for 21 days (or more) will be stabilized with temporary seed no later than 14 days from the last construction activity in that area all proposed fill material will be seeded.

Silt fence and/or rock check dams will be installed at all outfalls, areas where water runs off the site. All disturbed areas and material stockpiles will require silt fence where storm water leaves the disturbed area.

Storm Water Management:
Storm water drainage will be controlled by the detention pond and existing grassed areas adjacent to the site. All areas affected by construction will be fine graded and have permanent seeding. The remainder of the area will remain in its natural state.

Offsite vehicle tracking:
A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

Certification of Compliance with State and Local Regulations:
This storm water pollution prevention plan reflects the city's/state's requirements for storm water management, erosion, and sediment control. to ensure compliance, this plan was prepared in accordance with the city's drainage policy.

Maintenance/Inspection Procedures:
These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls:
- All control measures will be inspected at least once every 14 days and following any storm event of 0.50 inches or greater.
- All BMP's will be maintained in good working order; is a repair is necessary if will be initiated within 24 hours of the report.
- Built up sediment will be removed from silt fence when it has reached one-half the height of the fence.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Temporary and permanent and seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- A maintenance inspection report will be made after each inspection. The inspection report form will be prepared by the site superintendent and filed for record.
- A site superintendent will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.

Non-storm Water Discharges:
It is expected that the following non-storm water discharges will occur from the site during the construction period:
- Water from water line flushing

Site Description:

Project name and location:
Stella Ranch Subdivision, Phase 2
Bryan, Brazos County, Texas

Developer:
Stella Ranch LLC
4013 Cross Park
Bryan, TX 77802

The site is not located on Indian lands.

Latitude: 30°42' 10" N
Longitude: 96°16' 58" W

MS4 operator name: City of Bryan, Texas
Receiving water body: Wickson Creek Tributary 22, Bryan, Texas
Estimated area to be disturbed: 20.2 acres

The storm water pollution prevention plan shall be in compliance with state and local sediment and erosion plans.

Operator Requirements:
The operator shall submit a NOI to TCEQ (when applicable) and a copy to the operator and post a copy at the construction site in a location where it is readily available for viewing prior to commencing construction activities, and maintain the notice in that location until completion of the construction activity.

The operator shall provide a copy of NOI to the operator of the municipal separate storm sewer system receiving the discharge, at least two (2) days prior to commencing construction activities.

The operator shall submit a NOT to TCEQ (when applicable) and a copy to the operator of the municipal storm sewer system once the final stabilization has been achieved and the temporary erosion controls have been removed.

Controls must be developed to limit, to the extent practicable, offsite transport of litter, construction debris and construction materials.

Operator Inspection Requirements:
The following records must be maintained and either attached to or referenced in the storm water plan:

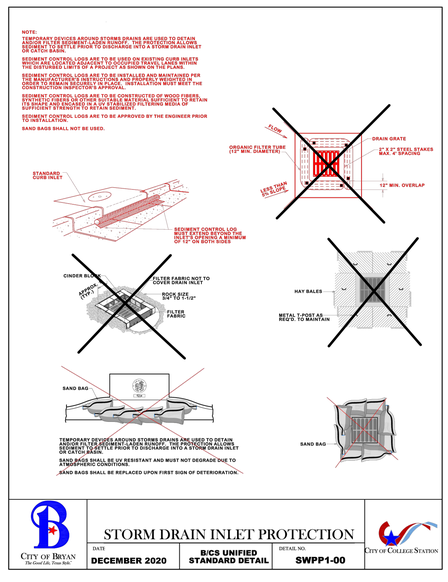
The dates when major grading activities occur.
The dates when construction activities temporarily or permanently cease on a portion of the site.
The dates when stabilization measures are initiated.

A report summarizing the scope of the inspection, name and qualifications of personnel making the inspection, the dates of the inspection, and major observations must be made and retained with the storm water plan. Major observations should include:

The locations of discharges of sediment or other pollutants from the site;
Locations of BMP's that failed to operate as designed or proved inadequate for a particular location; and location where additional BMP's are needed.

Operator's Record Keeping:
The permittee must retain the following records for a minimum of 3 years from the date that a NOT is submitted:

1. A copy of the storm water plan and All reports and actions required by this permit, including a copy of the construction site notice all data used to complete the NOI.



SWPP PLAN NOTES:
1. All contractor vehicles, including employee's vehicles, shall park within the project site to minimize traffic on the public streets adjacent to the worksite entrance. Contractor will provide sufficient parking areas to accommodate his vehicles. Any areas disturbed by vehicular parking will be repaired to original condition prior to completion of project.
2. If required on the plans, the contractor shall maintain a vehicle wash down area of sufficient size and in a location to facilitate cleaning his vehicles prior to leaving the work site.
3. All areas where existing vegetation and grass cover have been bared by construction shall be adequately block sodded or hydromulched and watered until growth is established. In developed areas where grass is present, block sod will be required. Bared areas shall be seeded or sodded within 14 calendars days of last disturbance. All erosion control measures shall remain in place until acceptable vegetative growth is established after construction is complete and then removed by contractor.
4. Approved erosion control measures must be installed during the entire time earth has been bared by construction and shall stay in place until acceptable vegetative growth is established after construction is complete and then removed by the contractor.
5. All erosion control measures should be cleaned of silt after every rain event.
6. Approved erosion control measures must be installed during the entire time earth has been bared by construction
7. It is the responsibility of the contractor to use whatever means necessary to minimize erosion and prevent sediment from leaving the project site.
8. The contractor is responsible for implementing, inspecting and maintaining the erosion and sediment control devices.
9. Construction exit is to be dressed with additional rock as needed and maintain so as to prevent construction traffic from tracking mud onto adjacent public streets.
10. Inspection shall be performed every 14 days and every rainfall event of 1/2" or more. All erosion control devices shall be cleaned of silt (as needed) after every rain.
11. Structural controls shall be installed as soon after clearing as practical and maintained in good working order until the site is stabilized. Alternate structural controls may be utilized if approved by Engineer.
12. The contractor is responsible for complying with the TPDES General Permit No. TXR150000 requirements for construction sites.
13. The contractor shall coordinate with the owner to determine a temporary spoils, earthwork, and topsoil area for the site.
14. All areas that have a slope >15% shall be hydromulched (mix determined based upon season) upon completion of grading and contractor shall utilize a rolled single net straw erosion control blanket with poly netting (US-15) as produced by US Erosion Control Products or approved equal to lay over the hydromulched slope. Contractor shall be responsible for watering and assuring 80% coverage in 21 days.
15. Contractor shall strip topsoil from the site prior to construction and stockpile and protect from contamination from other soils for later use onsite by the landscape contractor.

MITCHELL M&M MORGAN
T.979.260.6963
TX. FIRM # F-1443
3204 EARL RUDDER FWY. S.
COLLEGE STATION, TX 77845
PLAN & DESIGN SPECIALISTS IN
CIVIL ENGINEERING•HYDRAULICS
HYDROLOGY•UTILITIES•STREETS
SITE PLANS•SUBDIVISIONS
www.mitchellandmorgan.com
STATE OF TEXAS
JOEL J. MITCHELL
80649
PROFESSIONAL ENGINEER
Firm # F1443

March, 2026
Designed by: JJM
Drawn By: JJM, SB, TM
Checked By: JJM

Prepared For:
Stella Ranch, LLC
4007 Cross Park
Bryan, Texas 77802

Revisions

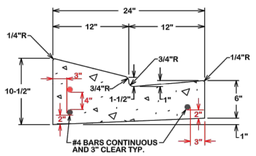
SWPPP - EROSION CONTROL PLAN
STELLA RANCH SUBDIVISION

ECP

S:\SWPPp\2021-Inder-Reno\Phase 2\2021-0-9069-Erosion Control Plan.dwg, ECP, 3/11/2026 10:33:08 AM

NOTE:
TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, P.T.'S AND P.C.'S. TYPE "B" CONTRACTION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART.

28-DAY CONCRETE STRENGTH=3500 psi.

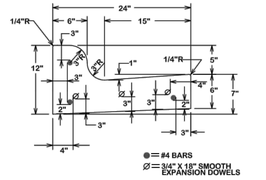


24" LAY DOWN GUTTER SECTION

ST1-00

NOTE:
TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, P.T.'S AND P.C.'S. TYPE "B" CONTRACTION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART.

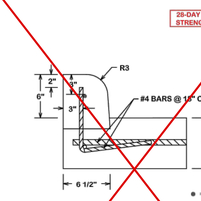
28-DAY CONCRETE STRENGTH=3500 psi.



TYPICAL COMBINED CURB & GUTTER SECTION

ST1-01

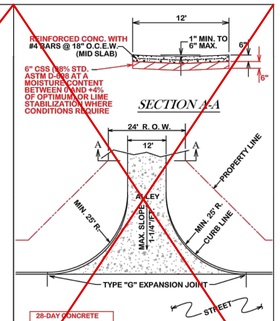
28-DAY CONCRETE STRENGTH=3500 psi.



DOWELLED IN CURBS DETAIL

ST1-02

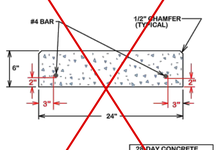
28-DAY CONCRETE STRENGTH=3500 psi.



ALLEY PAVING

ST1-06

NOTE:
TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, P.T.'s, AND P.C.'s. TYPE "B" CONTRACTION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART

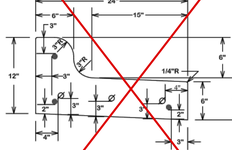


28-DAY CONCRETE STRENGTH=3500 psi.

TYPICAL RIBBON CURB

ST1-03

NOTE:
TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, P.T.'s, AND P.C.'s. TYPE "B" CONTRACTION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART



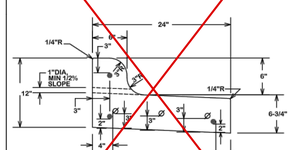
28-DAY CONCRETE STRENGTH=3500 psi.

TYPICAL COMBINED SPILL CURB

ST1-04

NOTE:
TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART

PIPE EXTENDED 1"-2" FROM BOC TO BE COVERED WITH FABRIC
2. AND TIED IN PLACE



28-DAY CONCRETE STRENGTH=3500 psi.

TYPICAL WEEPHOLE CURB

ST1-05

GENERAL NOTES:

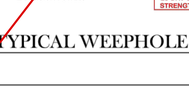
ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN DISTURBED BY CONSTRUCTION SHALL BE ADEQUATELY SOD OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

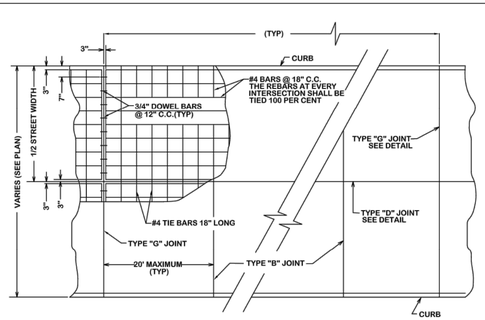
ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

ALL TRAFFIC SIGNALS AND APPURTENANCES, AND ALL PAVEMENT MARKINGS AND MARKERS SHALL BE IN ACCORDANCE WITH TXDOT STANDARDS

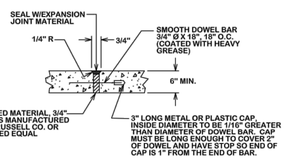
REFER TO SPEC 31 17 23.23 (PAVEMENT MARKINGS) FOR ADDITIONAL LOCAL REQUIREMENTS.



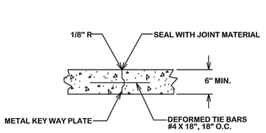
METAL KEY WAY PLATE



TYPICAL JOINT & REINFORCEMENT LAYOUT FOR CONCRETE PAVEMENT

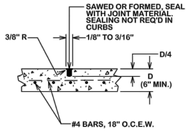


TYPE "G" EXPANSION & CONSTRUCTION JOINT

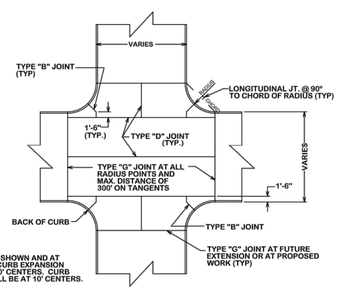


TYPE "D" LONGITUDINAL JOINT

LONGITUDINAL JOINTS SHALL BE REQUIRED ONLY ON THE CENTERLINE OF THE PAVEMENT & IN INTERSECTIONS AS DETAILED



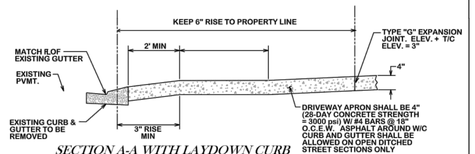
TYPE "B" CONTRACTION JOINT



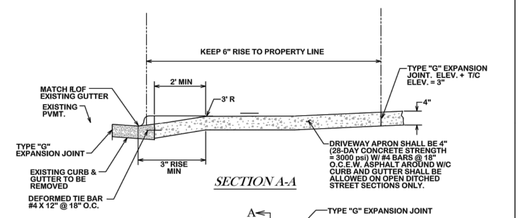
NOTE:
EXPANSION JOINTS AS SHOWN AND AT EACH RADIUS POINT. CURB EXPANSION JOINTS SHALL BE AT 60' CENTERS. CURB CONTROL JOINTS SHALL BE AT 10' CENTERS.

TYPICAL JOINT LAYOUT AT CONCRETE INTERSECTION

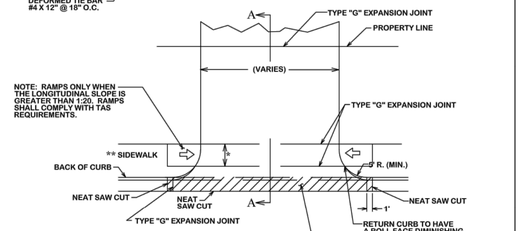
ST3-00



SECTION A-A WITH LAYDOWN CURB



SECTION A-A



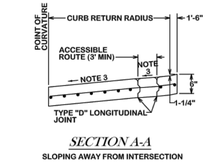
MAINTAIN 2% MAX CROSS SLOPE. 4' MIN. WIDTH.

EXISTING SIDEWALKS, (A MIN. OF 4' BEHIND BACK OF CURB) MAY REMAIN IN PLACE. OTHERWISE SIDEWALK MUST BE REMOVED.

IF EXIST. CURB & GUTTER IS TO BE REMOVED A TYPE "G" EXPANSION JOINT IS NEEDED AT EDGE OF STREET PAVEMENT. REPLACE STREET SURFACING AS NEEDED.
FOR LAYDOWN CURBS THAT REMAIN, A TYPE "G" EXPANSION JOINT SHALL BE PLACED AT THE BACK OF CURB.

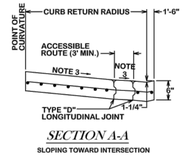
RESIDENTIAL DRIVEWAY

ST2-00



SECTION A-A

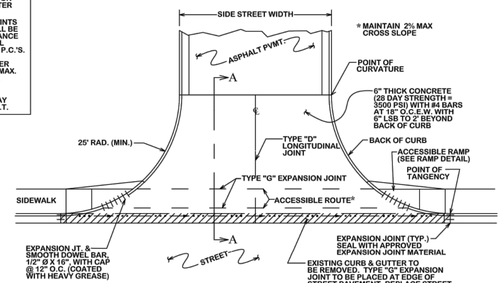
SLOPING AWAY FROM INTERSECTION



SECTION A-A

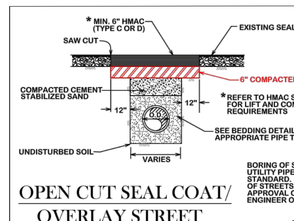
SLOPING TOWARD INTERSECTION

NOTES:
1. IF THERE IS A VALLEY GUTTER, THEN TRANSITION CROWN AT VALLEY GUTTER TO FULL CROWN IN 50'.
2. TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAX. DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, P.T.'S & P.C.'S. TYPE "B" CONTRACTION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAX. DISTANCE OF 10' APART.
3. 2% MAX SLOPE.
4. 5' MIN TRANSITION TO LAY DOWN CURB BEGIN AT P.T.



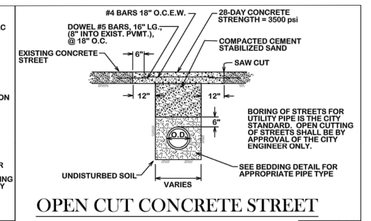
TYPICAL STREET CONCRETE APRON

ST2-01



OPEN CUT SEAL COAT/ OVERLAY STREET

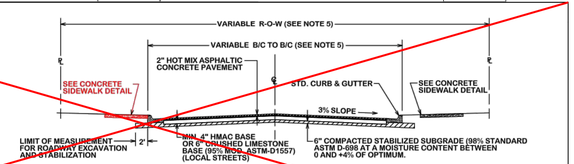
ST4-01



OPEN CUT CONCRETE STREET

ST4-02

NOTES:
1. ALL SUBGRADES SHALL BE STABILIZED.
2. FOR SUBGRADES WITH PI < 15 AND % PASSING THE #200 SIEVE ≥ 35%, USE LIME STABILIZATION.
3. FOR SUBGRADES WITH PI < 7 AND % PASSING THE #200 SIEVE < 35%, USE PORTLAND CEMENT STABILIZATION.
4. SIDEWALK PLACEMENT VARIES WITH EACH LOCATION AND WILL BE DETERMINED BY THE ENGINEER.
5. REFER TO B/CS UNIFIED DESIGN GUIDELINE MANUAL FOR ACCEPTED RIGHT OF WAY AND PAVEMENT WIDTH.
6. COLLECTOR STREETS WILL BE REQUIRED TO USE 6" HMAC BASE OR 8" CRUSHED LIMESTONE BASE AND STABILIZED SUBGRADE IN ACCORDANCE WITH THE B/CS UNIFIED DESIGN GUIDELINE MANUAL OR AS DIRECTED BY CITY ENGINEER.

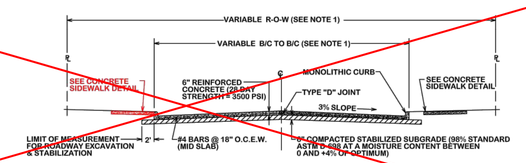


TYPICAL STREET SECTION

ASPHALTIC CONCRETE PAVEMENT

ST4-04

NOTES:
1. REFER TO B/CS UNIFIED DESIGN GUIDELINE MANUAL FOR ACCEPTED RIGHT OF WAY AND PAVEMENT WIDTH.
2. COLLECTOR STREETS WILL BE REQUIRED TO USE 8" REINFORCED CONCRETE (28 DAY STRENGTH = 3500 PSI)



TYPICAL STREET SECTION

REINFORCED CONCRETE PAVEMENT

ST4-05

REVISIONS:

BRYAN - COLLEGE STATION STANDARD STREET DETAILS

CITY OF COLLEGE STATION

CITY OF BRYAN
The Good Life, Texas Style.

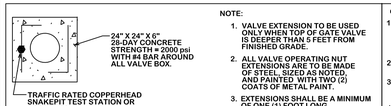
DRAWN BY:	B.I.
DATE:	12/2020
SCALE:	N T S
APPROVED:	W. P. K.

FIGURE:
ST1
SHEET 1 OF 2

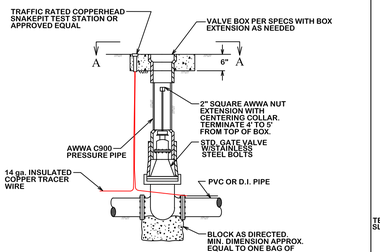
c:\pw\mydir\164-Mary Stewart - Wolfforman (Bowling Road)\connect\Planet T-construction plans\ST164-Street+Details-Print.dwg Layout:ST-PLOT(ANSI-B-24x36.ctb)

NOTE:

1. VALVE EXTENSION TO BE USED ONLY WHEN TOP OF GATE VALVE IS DEEPER THAN 5 FEET FROM FINISHED GRADE.
2. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF METAL PAINT.
3. EXTENSIONS SHALL BE A MINIMUM OF ONE (1) FOOT LONG.
4. VALVE BOX LIDS LOCATED ON VALVES TO ISOLATE FIRE SUPPRESSION LINES FROM PUBLIC WATER LINES SHALL BE EJ 8800, PRODUCT 08800044 LOCKABLE LID.



VIEW A - A

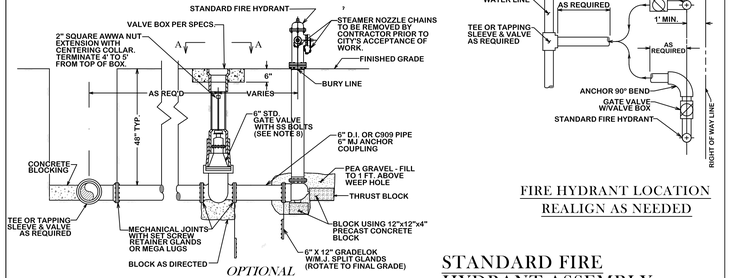


GATE VALVE & BOX

W1-00

GENERAL NOTES:

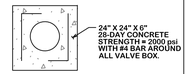
1. FINELY DIVIDED EARTH FREE OF ROCK, LUMPS AND CLODS EXCEEDING 6" SHALL BE PLACED BY HAND, AND COMPACTED AROUND THE CAST IRON PIPE TO A DEPTH OF 12" OVER THE TOP OF THE PIPE BEFORE BACKFILL IS BEGUN BY ANY MECHANICAL EQUIPMENT.
2. ALL CONCRETE BLOCKING SHALL BE - 28 DAY CONCRETE STRENGTH = 2000psi.
3. ALL THRUST BLOCKING SHALL PROVIDE A MINIMUM OF 2 SQUARE FEET OF BEARING AREA OF CONCRETE ON UNDISTURBED SOIL, OR AS DIRECTED BY THE ENGINEER.
4. WATER MAINS WILL NOT BE FULLY PRESSURIZED UNTIL CONCRETE HAS REACHED 7 DAY STRENGTH.
5. ALL PIPE WILL BE LAID SO AS THE ENTIRE BARRELL WILL HAVE FULL BEARING ON THE FINE GRADED TRENCH BOTTOM. BELL HOLES SHALL BE CUT FOR EACH BELL AND FIRE HYDRANT.
6. ALL FITTING SHALL BE MECHANICL JOINTS UNLESS OTHERWISE DIRECTED.
7. HYDRANTS SHALL BE LOCATED NO CLOSER THAN 3 FEET MEASURED FROM THE BACK OF CURB TO THE FACE OF THE STEAMER ON THE FIRE HYDRANT AND NO FURTHER THAN 15 FEET FROM BACK OF CURB
8. IF MAIN VALVE IS WITHIN 50 FEET OF FIRE HYDRANT THEN ASSEMBLY VALVE MAY BE OMITTED ON A DEAD END HYDRANT LEAD WITH NO ADDITIONAL CONNECTIONS.
9. HEIGHT OF FIRE HYDRANT MEASURED FROM THE STEAMER NOZZLE SHALL BE 18 TO 24 INCHES ABOVE NEAREST FINAL GRADE.
10. FIRE HYDRANTS SHALL COME EQUIPPED WITH STORZ QUARTER TURN PUMPER CONNECTIONS THAT ARE AN INTEGRAL PART OF THE FIRE HYDRANT, AND MUST BE FURNISHED BY THE MANUFACTURER, STORZ ADAPTERS WILL NOT BE ACCEPTED.



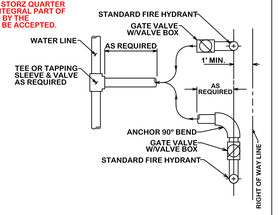
OPTIONAL

STANDARD FIRE HYDRANT ASSEMBLY

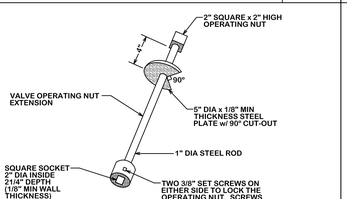
W1-02



VIEW A - A

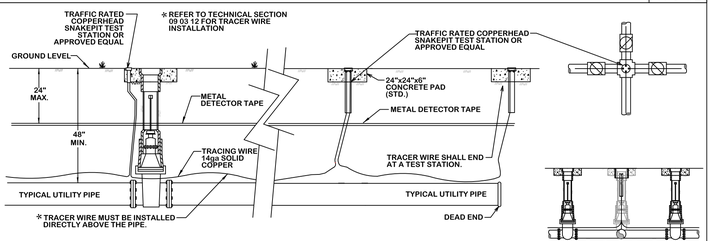


FIRE HYDRANT LOCATION REALIGN AS NEEDED



GATE VALVE EXTENSION

W1-01



UTILITY PIPE LOCATION MATERIALS

W1-03

THRUST BLOCK NOTES:

1. ALL CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 psi FOR 24" AND SMALLER INNER DIAMETER PIPE.
2. ALL BEARING SURFACES OF THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED EARTH OR ROCK.
3. CONCRETE FOR BLOCKING SHALL BE 2000 psi.
4. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.
5. WATER MAIN SHALL NOT BE PRESSURIZED UNTIL ALL CONCRETE BLOCKING HAS REACHED 1500 psi.

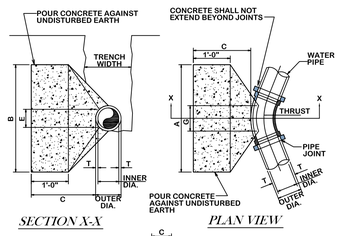
HORIZONTAL THRUST BLOCK SCHEDULE

BEND	SIZE	A (ft)	B (ft)	C (ft)	E (ft)	G (ft)	VOLUME (c.y.)
90°	6,8"	5.0	1.5	1.5	0.9	2.7	0.4
	10,12"	6.5	2.5	1.5	1.2	4.0	1.0
45°	6,8"	2.0	2.0	1.5	0.9	1.5	0.2
	10,12"	3.5	2.5	1.5	1.2	2.2	0.5
22.5°	6,8"	1.5	1.5	1.5	0.9	0.8	0.1
	10,12"	2.0	2.5	1.5	1.2	1.1	0.3
11.25°	6,8"	1.0	1.5	1.5	0.9	0.4	0.1
	10,12"	1.5	1.5	1.5	1.2	0.6	0.1

TEE SCHEDULE

ID (in)	THRUST (tons)	C (ft)	A (ft)	VOLUME (c.y.)
4,6,8	5.1	1.5	2.5	0.3
10,12	11.3	1.5	3.5	0.6

THRUST BLOCK DETAILS

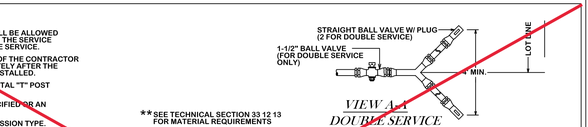


TYPICAL HORIZONTAL THRUST BLOCK

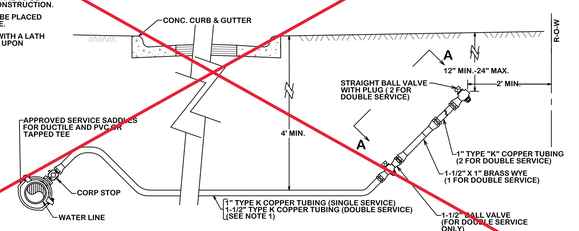
W2-00

NOTES:

1. NO SPICES IN COPPER TUBING WILL BE ALLOWED FOR SINGLE SERVICE OR BETWEEN THE SERVICE SADDLE AND THE WYE FOR DOUBLE SERVICE.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PRESSURE TEST LINE IMMEDIATELY AFTER THE STREET CROSSINGS HAVE BEEN INSTALLED.
3. MARK EACH SERVICE END WITH METAL "T" POST PAINTED BLUE.
4. MATERIAL USED SHALL BE AS SPECIFIED OR AN APPROVED EQUAL.
5. ALL CONNECTIONS TO BE COMPRESSION TYPE.
6. ALL SERVICE WYES & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
7. METERS AND VALVE BOXES SHALL BE PLACED BY THE CITY UPON PAYMENT OF FEE.
8. LOT CORNERS SHALL BE MARKED WITH A LATH UNDER THE SUPERVISION F A RPLS UPON COMPLETION OF CONSTRUCTION.



** SEE TECHNICAL SECTION 33 12 13 FOR MATERIAL REQUIREMENTS

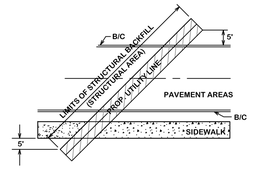


NEW WATER SERVICE

(SHORT AND LONG SIDE)

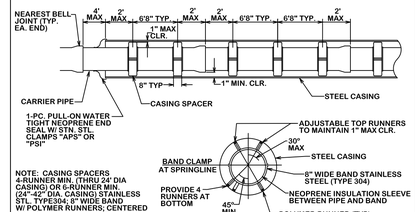
W2-01

STRUCTURAL BACKFILL AREA INCLUDES ALL PAVED AREAS (SIDEWALKS, STREETS, ALLEYS, DRIVEWAYS AND PARKING AREAS) AND SHALL EXTEND 5' BEYOND THE CURB LINE. STRUCTURAL BACKFILL SHALL BE CEMENT STABILIZED (SEE DETAIL W4-02 - AREASTO BE PAVED) OR EXCAVATED SOIL COMPACTED TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 WITHIN OPTIMUM TO +4% WET OF OPTIMUM (SEE DETAIL W4-02 - NON-STRUCTURAL AREAS)



STRUCTURAL BACKFILL AREA

W2-02



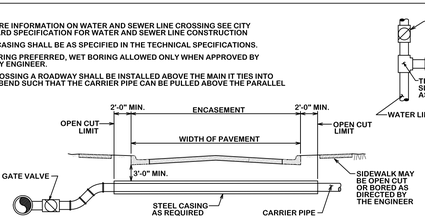
NOTE: CASING SPACERS 4-RUNNER MIN. (THRU 24" DIA CASING) OR 6-RUNNER MIN. (24"-42" DIA. CASING) STAINLESS STL. TYPE304, 4" WIDE BAND W/ POLYMER RUNNERS; CENTERED OR NON-CENTERED, CLEAR BELL, RESTRAINED FROM FLOTATION, INSULATED. "APS, INC., MOD SS18" OR "CASCADE"

CASING DETAIL

W2-03

NOTE:

1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING IS REQUIRED.
4. PIPE CROSSING A ROADWAY SHALL BE INSTALLED ABOVE THE MAIN IT TIES INTO WITH A BEND SUCH THAT THE CARRIER PIPE CAN BE PULLED ABOVE THE PARALLEL MAIN.

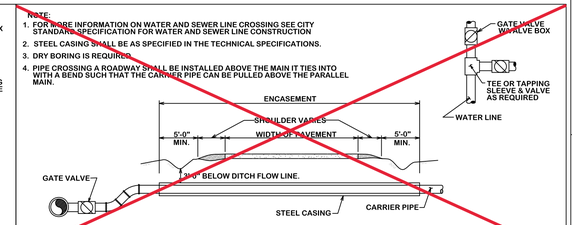


TYPICAL URBAN CITY STREET CROSSING

W4-00

NOTE:

1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING IS REQUIRED.
4. PIPE CROSSING A ROADWAY SHALL BE INSTALLED ABOVE THE MAIN IT TIES INTO WITH A BEND SUCH THAT THE CARRIER PIPE CAN BE PULLED ABOVE THE PARALLEL MAIN.



TYPICAL RURAL STREET CROSSING

W1-01

Ⓐ SELECT MATERIAL

MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (ie., YARDS, PASTURES, EASEMENTS) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NEW STREET AREAS AND STREETS TO BE RECONSTRUCTED.

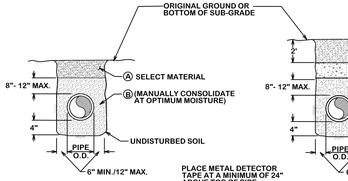
Ⓑ GRANULAR MATERIAL

MATERIAL SHALL BE BANK RUN RIVER SAND WHICH IS FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL AND WHICH, WHEN TESTED BY STANDARD LABORATORY METHODS, MEET THE FOLLOWING REQUIREMENTS:

MAXIMUM LIQUID LIMIT _____ 45
MAXIMUM PLASTICITY INDEX _____ 15
MAXIMUM PERCENT PASSING NO. 200 SIEVE _____ 35
MINIMUM PERCENT PASSING 3/4" SIEVE _____ 100

THE MATERIAL SHALL BE FREE FLOWING AND WHEN WET, SHALL NOT ADHERE TO FORM A BALL WHEN PRESSED IN THE HAND.

Ⓒ CEMENT STABILIZED SAND



NOTES:

1. *FOR BEDDING AND TRENCHING WITHIN ALL EXISTING PAVED AREAS, SEE DETAILS FOR OPEN CUT STREETS. (Details ST4-00, ST4-01, ST4-02). THIS NOTE DOES NOT APPLY TO STREETS BEING RECONSTRUCTED.*
2. *EVERY 100 FEET PROVIDE A WATER STOP BLOCK COMPOSED OF CEMENT SAND OR NATIVE MATERIAL DEPENDING ON EMBEDMENT. BLOCK SHALL BE 6 FEET IN LENGTH. NO BEDDING SAND IN THIS AREA.*
3. ALL BEDDING & INSTALLATION OF PVC PIPE SHALL BE IN ACCORDANCE WITH ANSIA/AWWA STANDARDS FOR PVC PIPE.
4. ALL BEDDING & INSTALLATION OF DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50
5. COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.
6. RELATIVE COMPACTION SHALL BE TESTED IN THE PRESENCE OF THE CITY ENGINEER.
7. DUST RESIDING FROM THE CONTRACTOR'S PERFORMANCE OF THE WORK, EITHER INSIDE OR OUTSIDE THE RIGHT-OF-WAY, SHALL BE CONTROLLED BY THE CONTRACTOR.
8. ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING FLATING PLACED AT THE END OF EACH WORKING DAY.

BEDDING AND TRENCH FOR DI PIPE & PVC PIPE

W4-02

GENERAL NOTES:

ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

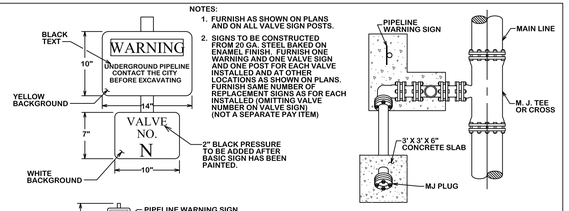
APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

ESTABLISHMENT OF VEGETATION MAY BE A WARRANTY ITEM.

NOTE:

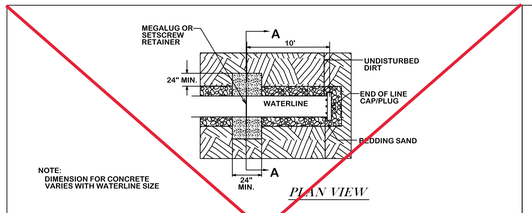
1. FURNISH AS SHOWN ON PLANS AND ON ALL VALVE SIGN POSTS.
2. SIGNS TO BE CONSTRUCTED FROM 20 GA. STEEL BAKED ON ENAMEL FINISH. FURNISH ONE WARNING AND ONE VALVE SIGN AND ONE POST FOR EACH VALVE INSTALLED AND AT OTHER LOCATIONS AS SHOWN ON PLANS. FURNISH SAME NUMBER OF REPLACEMENT SIGNS AS FOR EACH INSTALLED (OMITTING VALVE NUMBER ON VALVE SIGN). (NOT A SEPARATE PAY ITEM)



* NOTE: COMPACTION WITHIN LIMITS OF ASSEMBLY SHALL BE 95% STANDARD DENSITY PER ASTM D698

IN-LINE BLOW OFF ASSEMBLY

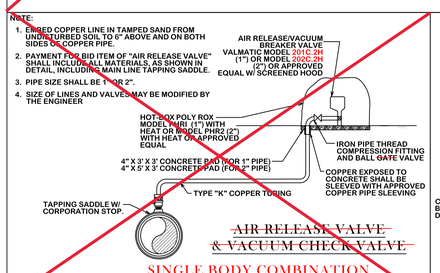
W3-01



NOTE: DIMENSION FOR CONCRETE VARIES WITH WATERLINE SIZE

END OF LINE BLOCKING

W3-00



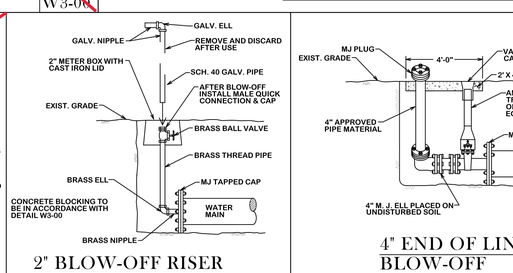
NOTE:

1. ENDED COPPER LINE IN TAMPED SAND FROM UNDISTURBED SOIL TO 6" ABOVE AND ON BOTH SIDES OF COPPER PIPE.
2. PAYMENT FOR BID ITEM OF "AIR RELEASE VALVE" SHALL INCLUDE ALL MATERIALS, AS SHOWN IN DETAIL, INCLUDING MAIN LINE TAPPING SADDLE.
3. PIPE SIZE SHALL BE 1" OR 2".
4. SIZE OF LINES AND VALVES MAY BE MODIFIED BY THE ENGINEER

~~AIR RELEASE VALVE & VACUUM CHECK VALVE~~

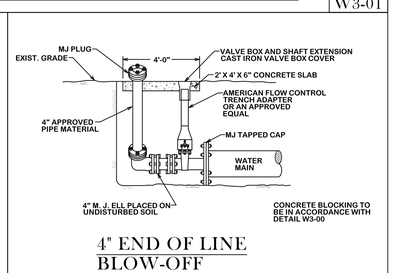
SINGLE BODY COMBINATION AIR RELEASE VALVE

W3-02



2" BLOW-OFF RISER

W3-03



4" END OF LINE BLOW-OFF

W3-04

REVISIONS:

BRYAN - COLLEGE STATION STANDARD WATER DETAILS

CITY OF COLLEGE STATION

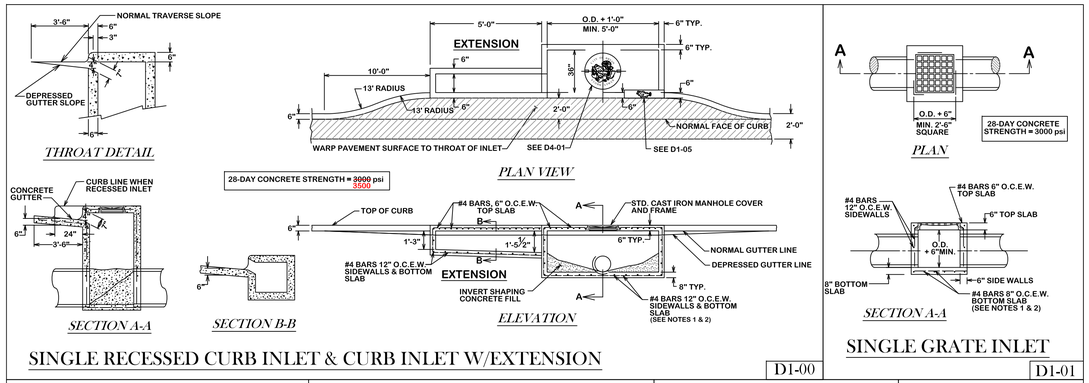
CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY:	B.I.
DATE:	12/2020
SCALE:	NTS
APPROVED:	W. P. K.

FIGURE:

W1

SHEET 1 OF 2

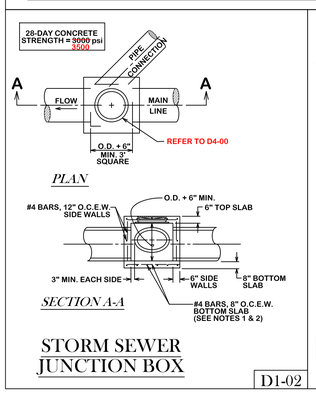


SINGLE RECESSED CURB INLET & CURB INLET W/EXTENSION

D1-00

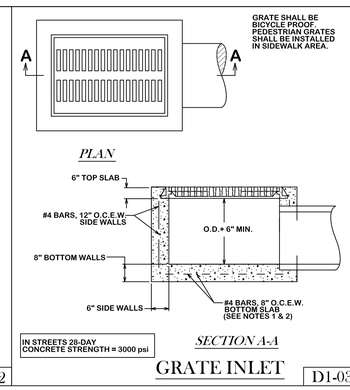
SINGLE GRATE INLET

D1-01



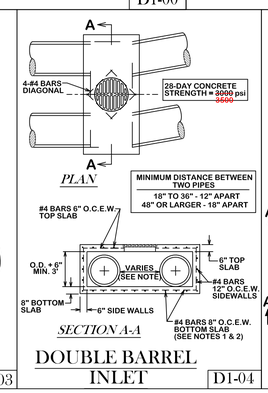
STORM SEWER JUNCTION BOX

D1-02



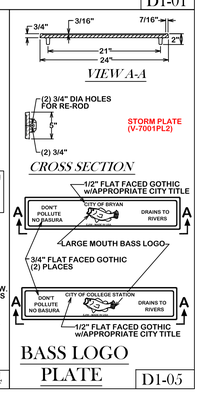
GRATE INLET

D1-03



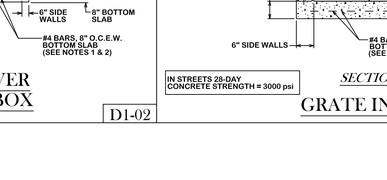
DOUBLE BARREL INLET

D1-04



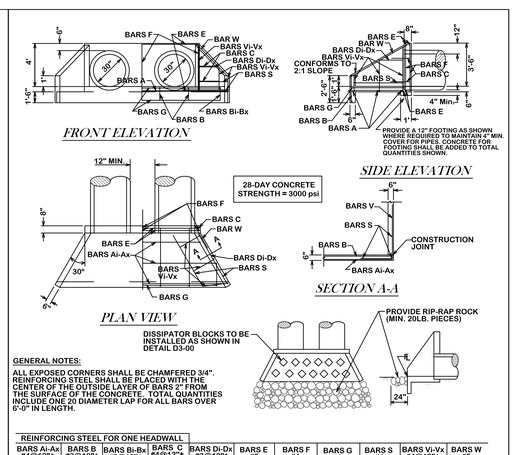
BASS LOGO PLATE

D1-05



TYPICAL CONCRETE HEADWALL & END WALL WITH WINGS

D3-00

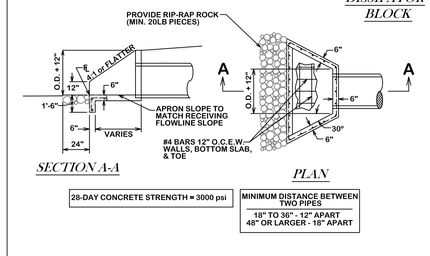


REINFORCING STEEL FOR ONE HEADWALL

BARS Ai-Ax #4@12"±	BARS B #3@18"±	BARS Bi-Bx #3@18"±	BARS C #4@12"±	BARS Di-Dx #3@12"±	BARS E #5	BARS F #4	BARS G #3	BARS S #4	BARS Vi-Vx #4@12"±	BARS W #5

CONCRETE HEADWALL FOR 2 PIPES

D3-01

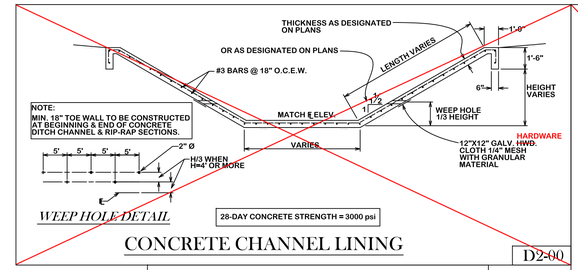


STRUCTURAL BACKFILL AREA

D3-02

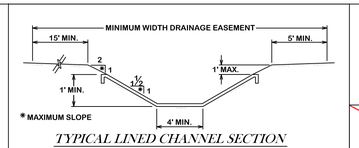
BEDDING AND TRENCH FOR REINFORCED CONCRETE PIPE AND BOX CULVERTS

D3-03



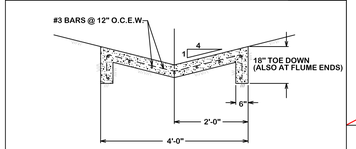
~~CONCRETE CHANNEL LINING~~

D2-00



STANDARD CHANNEL SECTION

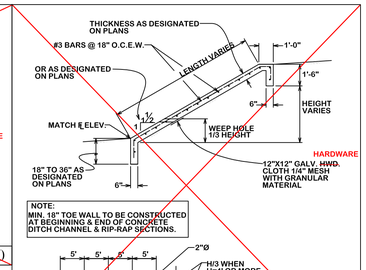
D2-02



STANDARD FLUME SECTION

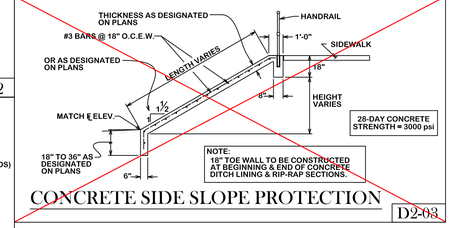
EXPANSION JOINTS AT 60' O.C.

D2-04



CONCRETE RIP-RAP

D2-01



CONCRETE SIDE SLOPE PROTECTION

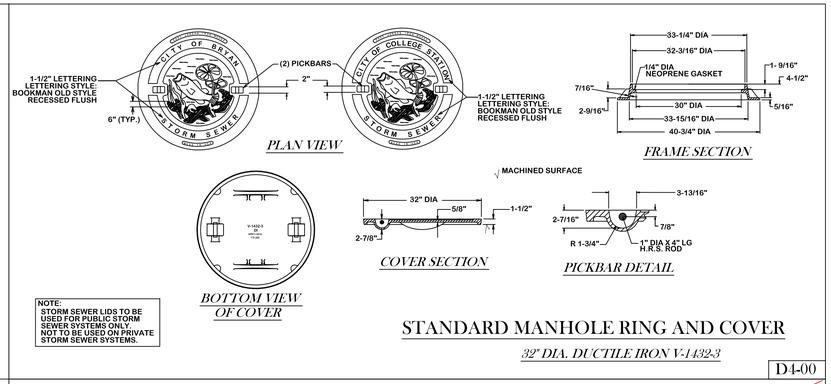
D2-03

GENERAL NOTES:

1. BASE THICKNESS AND FOUNDATION SHALL BE AS FOLLOWS:

INLET DEPTH (FT.) (MEASURED FROM FLOWLINE TO FINAL GRADE)	BASE THICKNESS
0 - 12	8"
12 AND OVER	12"

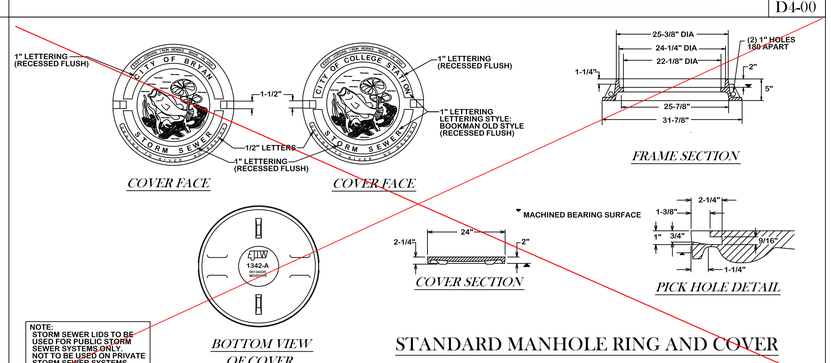
2. DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.
3. ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED.
4. APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.



STANDARD MANHOLE RING AND COVER

32" DIA. DUCTILE IRON V-1432-3

D4-00



STANDARD MANHOLE RING AND COVER

24" DIA. DUCTILE IRON V-1342-A

D4-01

REVISIONS:

BRYAN - COLLEGE STATION STANDARD DRAINAGE DETAILS

CITY OF COLLEGE STATION

CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY: B.L
DATE: 12-2020
SCALE: N T S
APPROVED: W. P. K.

FIGURE:
D
SHEET 1 OF 1

NOTES:

1. A MAX. OF 4 AND A MIN. OF 2 THROAT RINGS SHALL BE USED AT EACH MANHOLE IN NEW OR EXISTING RIGHT-OF-WAY.
2. USE ADEKA SEALANT OR APPROVED EQUAL BETWEEN RING/COVER, ADJUSTMENT RINGS AND CHIMNEY OR CORBEL/CONE SECTION.
3. MANHOLE BASE THICKNESS AND FOUNDATION FROM FLOWLINE TO RIM AS FOLLOWS:

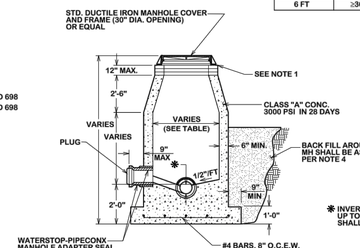
MANHOLE DEPTH (FT.)	BASE THICKNESS
0 - 12	8"
12 AND OVER	12"

4. MANHOLE LOCATION AND COMPACTION AS FOLLOWS:

LOCATION	COMPACTION REQUIREMENT
PAVEMENT	98 % STANDARD PROCTOR - ASTM D 698
LANDSCAPE AREA	90 % STANDARD PROCTOR - ASTM D 698

5. IN FLOODPLAINS OR AREAS OF CONCENTRATED FLOW, THE CONE SHALL EXTEND 1 FOOT ABOVE THE BASE FLOOD ELEVATION OR A BOLT DOWN WATER-TIGHT RING AND COVER SHALL BE USED, VENTED WHERE REQUIRED.
6. WARNING SIGN ONLY TO BE PLACED WHERE SEWER CROSSES OPEN FIELDS.

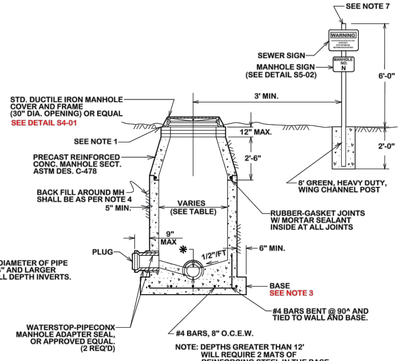
MANHOLE DIA.	MAIN SIZE
4 FT	<18in.
5 FT	≥18in. <30in.
6 FT	≥36in.



NOTE: DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.

CAST IN PLACE MANHOLE

✱ INVERT = 3/4 DIAMETER OF PIPE UP TO 24". 24" AND LARGER SHALL BE FULL DEPTH INVERTS.



NOTE: DEPTHS GREATER THAN 12' WILL REQUIRE 2 MATS OF REINFORCING STEEL IN THE BASE.

PRE-CAST MANHOLE

STANDARD MANHOLE

S1-00

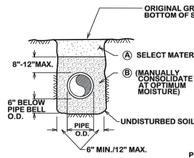
NOTES:

1. FOR BEDDING AND TRENCHING WITHIN ALL EXISTING PAVED AREAS, SEE DETAILS FOR OPEN CUT STREETS. (Details ST4-00, ST4-01, ST4-02). THIS NOTE DOES NOT APPLY TO STREETS BEING RECONSTRUCTED.
2. ALL BEDDING & INSTALLATION OF PVC PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA STANDARDS FOR PVC PIPE.
3. ALL BEDDING & INSTALLATION OF DUCTILE IRON PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA C150/A21.50.
4. COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.
5. ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING OR PLANKING PLACED AT THE END OF EACH WORKING DAY.
6. EVERY 100 FEET PROVIDE A WATER STOP BLOCK COMPOSED OF CEMENT SAND OR IMPERVIOUS NATIVE MATERIAL DEPENDING ON EMBEDMENT. BLOCK SHALL BE 6 FEET IN LENGTH. NO BEDDING SAND IN THIS AREA.

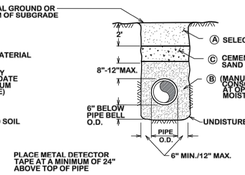
Ⓐ SELECT NATIVE MATERIAL
MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (ie...YARDS, PASTURES, EASEMENTS) (OPTION 1) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NEW STREET AREAS AND STREETS TO BE RECONSTRUCTED. (OPTION 2)

Ⓑ GRANULAR MATERIAL
MATERIAL SHALL BE BANK RUN RIVER SAND WHICH IS FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL AND WHICH, WHEN TESTED BY STANDARD LABORATORY METHODS, MEET THE FOLLOWING REQUIREMENTS:
MAXIMUM LIQUID LIMIT 45
MAXIMUM PLASTICITY INDEX 15
MAXIMUM PERCENT PASSING NO. 200 SIEVE 35
MINIMUM PERCENT PASSING 3/4" SIEVE 100
THE MATERIAL SHALL BE FREE FLOWING AND WHEN WET, SHALL NOT ADHERE TO FORM A BALL WHEN PRESSED IN THE HAND.

Ⓒ CEMENT STABILIZED SAND



NON-STRUCTURAL AREAS



PLACE METAL DETECTOR TAPE AT A MINIMUM OF 24" ABOVE TOP OF PIPE

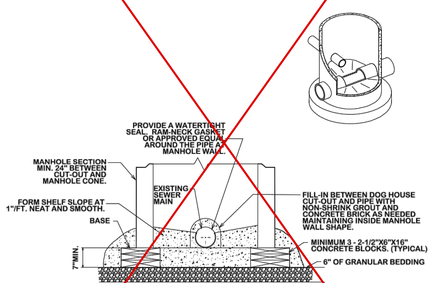
AREAS TO BE PAVED OR STREETS TO BE RECONSTRUCTED

BEDDING AND TRENCH FOR DI PIPE & PVC PIPE

S1-01

NOTES:

1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
2. THIS DETAIL TO BE USED WHEN A 6" OR LARGER LATERAL NECESSITATES CONSTRUCTION OF A NEW MANHOLE.
3. FOR ADDITIONAL STANDARDS NOT SHOWN, SEE "STANDARD MANHOLE" DETAIL S1-02.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF EXISTING SEWER DURING INSTALLATION OF MANHOLE.
5. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION, AND ANGLE OF ENTRY SHALL BE AS REQUIRED BY THE PLANS.
6. EXCAVATE TRENCH TO MIN. 13" BELOW BOTTOM OF EXISTING PIPE. COMPACT SUBGRADE. PLACE AND COMPACT 6" OF GRANULAR BEDDING. MONOLITHIC POUR OF MIN. 7" DEPTH, 6 SACK TOPPING MIX TO BE PLACED INSIDE, UNDER, AND OUTSIDE MANHOLE BARREL FROM SURFACE OF BEDDING, AROUND CONCRETE BRICK RISERS, TO A POINT APPROXIMATELY AT THE SPRING LINE OF THE EXIST. PIPE.
7. DURING THE SAME POUR, THE FINISH MANHOLE SHELF SHALL BE FORMED AND FINISHED AROUND THE BARREL AND EXISTING PIPE AS SHOWN.
8. AFTER CONCRETE SHELF HAS CURED, THE EXISTING PIPE SHALL BE SAW-CUT ON BOTH SIDES TO THE FINISHED SHELF GRADE AND REMOVED. ONLY AFTER CITY-APPROVED PASSING MANHOLE LEAKAGE TESTING. THE EXISTING PIPE SHALL FORM THE TROUGH OF THE MANHOLE AS SHOWN. FILL CUT PIPE TO GIVE SMOOTH EDGE.

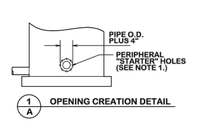


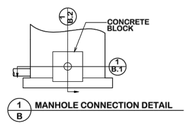
CITY OF COLLEGE STATION
GRAVITY SEWER DOGHOUSE MANHOLE

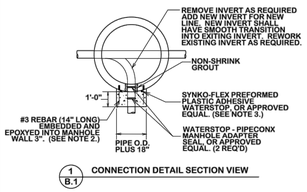
S3-00

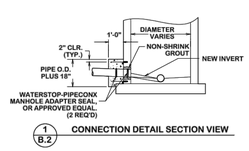
NOTES:

1. 1" DIA. "STARTER" HOLES SHALL BE DRILLED THROUGH WALL OF EXISTING MANHOLE SPACED 3" APART CENTER TO CENTER. AFTER "STARTER" HOLES HAVE BEEN INSTALLED AND APPROVED BY A CITY INSPECTOR, THE CONTRACTOR SHALL BEGIN REMOVING THE CONCRETE INSIDE THE PERIPHERAL "STARTER" HOLES. CONCRETE SHALL BE REMOVED WITH PNEUMATIC HAND TOOLS.
2. THE NUMBER OF REBAR DOWELS SHALL VARY WITH SIZE OF OPENING. REBAR SHALL NOT BE SPACED MORE THAN 12" CC.
3. WATERSTOP SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
4. CONCRETE SHALL BE 3,000 P.S.I.



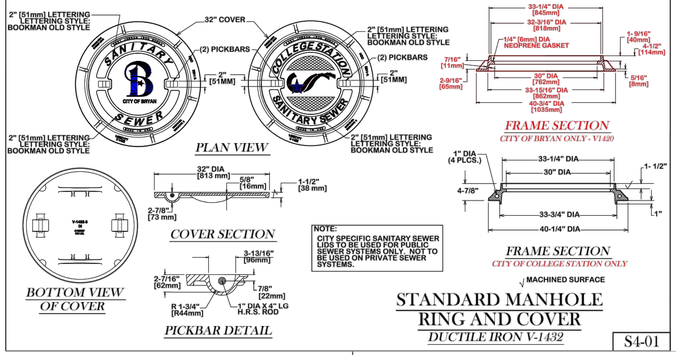






STANDARD MANHOLE TIE-IN

S3-01



NOTE: CITY SPECIFIC SANITARY SEWER LIDS TO BE USED FOR PUBLIC SEWER SYSTEMS ONLY. NOT TO BE USED ON PRIVATE SEWER SYSTEMS.

STANDARD MANHOLE RING AND COVER

DUCTILE IRON V-1432

S4-01

GENERAL NOTES:

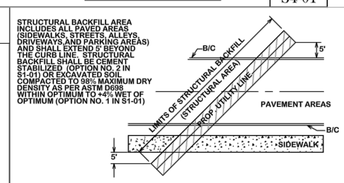
ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

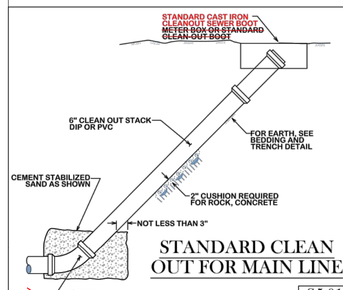
ESTABLISHMENT OF VEGETATION MAY BE A WARRANTY ITEM.

STRUCTURAL BACKFILL AREA INCLUDES ALL PAVED AREAS (SIDEWALKS, STREETS, ALLEYS, DRIVEWAYS AND PARKING AREAS) AND SHALL EXTEND 5' BEYOND THE CURB LINE. STRUCTURAL BACKFILL SHALL BE CEMENT STABILIZED (OPTION NO. 2 IN S1-01) OR EXCAVATED SOIL COMPACTED TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 WITHIN OPTIMUM TO +4% WET OF OPTIMUM (OPTION NO. 1 IN S1-01)



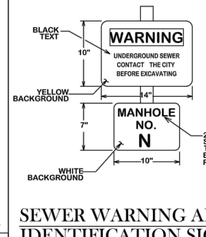
STRUCTURAL BACKFILL AREA

S5-00



STANDARD CLEAN OUT FOR MAIN LINE

S5-01



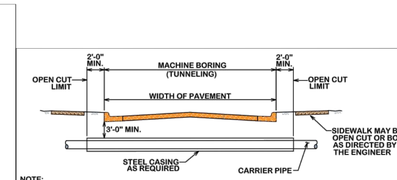
NOTES:

1. FURNISH AS SHOWN ON PLANS AND/OR AT EACH MANHOLE WHERE SEWER LINE CROSSES OPEN FIELDS
2. SIGNS TO BE CONSTRUCTED FROM 20 GA. STEEL BAKED ON ENAMEL FINISH. FURNISH ONE SIGN AND ONE POST FOR EACH OPEN FIELD CROSSING AT THE LOCATIONS AS SHOWN ON THE PLANS. FURNISH SAME NUMBER OF REPLACEMENT SIGNS AS FOR EACH INSTALLED (OMITTING MANHOLE NUMBER ON MANHOLE SIGN) (NOT A SEPARATE PAY ITEM)

2" BLACK PRESSURE SENSITIVE NUMBERS TO BE ADDED AFTER BASIC SIGN HAS BEEN PAINTED

SEWER WARNING AND MANHOLE IDENTIFICATION SIGN

S5-02

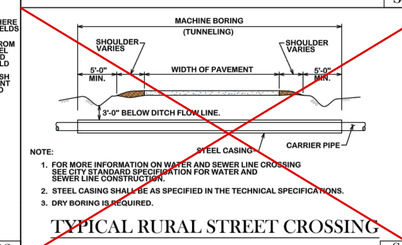


NOTE:

1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION.
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING PREFERRED. WET BORING ALLOWED ONLY WHEN APPROVED BY THE CITY ENGINEER.

TYPICAL URBAN CITY STREET CROSSING

S5-04



NOTE:

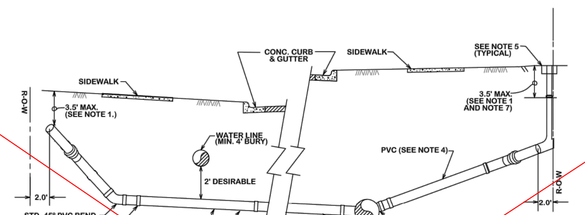
1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION.
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING IS REQUIRED.

TYPICAL RURAL STREET CROSSING

S5-05

NOTE:

1. WHERE DOUBLE WYE SERVICE ELEVATION IS LESS THAN 2'-7" BELOW PROPOSED BACK OFCURB, MIN. SLAB ELEV. MUST BE SET TO ALLOW SANITARY SEWER SERVICE.
2. MARK EACH SERVICE END WITH METAL "T" POST PAINTED GREEN.
3. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS.
4. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
5. A CLEAN OUT IS REQUIRED AND WILL BE INSTALLED BY THE PLUMBER AT THE ROW FOR EACH LONG AND SHORT SIDE SERVICE.
6. LOT CORNERS SHALL BE MARKED WITH A LATH UNDER THE SUPERVISION OF A RPLS UPON COMPLETION OF CONSTRUCTION.
7. WHEN SERVICE CONNECTION IS DEEP, CONTRACTOR MUST PLACE A VERTICAL STACK THAT SHALL BE BROUGHT WITHIN 3-1/2 FEET BELOW NATURAL GROUND.



PROFILE

PLAN

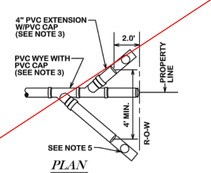


CITY OF COLLEGE STATION
SEWER SERVICE LINE CROSSING

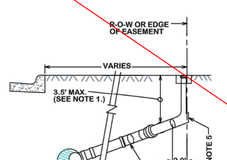
S7-00

NOTE:

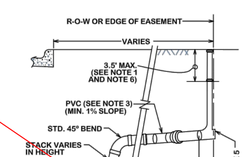
1. WHERE DOUBLE WYE SERVICE ELEVATION IS LESS THAN 2'-7" BELOW PROPOSED BACK OFCURB, MIN. SLAB ELEV. MUST BE SET TO ALLOW SANITARY SEWER SERVICE.
2. MARK EACH SERVICE END WITH METAL "T" POST PAINTED GREEN.
3. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
4. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
5. A CLEAN OUT IS REQUIRED AND WILL BE INSTALLED BY THE PLUMBER AT THE ROW FOR EACH LONG AND SHORT SIDE SERVICE.
6. WHEN SERVICE CONNECTION IS DEEP, CONTRACTOR MUST PLACE A VERTICAL STACK THAT SHALL BE BROUGHT WITHIN 3-1/2 FEET BELOW NATURAL GROUND.



PLAN



STANDARD CONNECTION PROFILE



DEEP CONNECTION PROFILE



CITY OF COLLEGE STATION
SANITARY SEWER SERVICE CONNECTION

S7-01

REVISIONS: 7/26/2022 - S4-01 FRAME

BRYAN - COLLEGE STATION STANDARD SEWER DETAILS

CITY OF COLLEGE STATION

CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY: B.I.
DATE: 12/2020
SCALE: N T S
APPROVED: W. P. K.

FIGURE: S1

SHEET 1 OF 3

X:\27hou\21104-Matt Stewart - Hollerman Dwelling Townhomes\Phase 1 construction plans\21104-Sewer Details PH1.dwg, Layout1, 7/13/2023 9:00:01 AM

NOTES:

1. A MAX. OF 4 AND A MIN. OF 2 THROAT RINGS SHALL BE USED AT EACH MANHOLE IN NEW OR EXISTING RIGHT-OF-WAY.
2. USE NP 1 SEALANT OR APPROVED EQUAL BETWEEN RING/COVER, ADJUSTMENT AND CHIMNEY OR CORBEL/CONE SECTION.
3. MANHOLE BASE THICKNESS AND FOUNDATION FROM FLOWLINE TO RIM AS FOLLOWS:

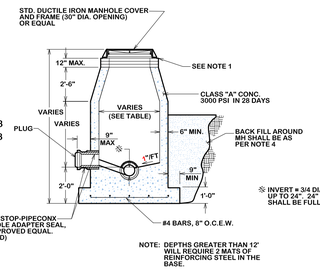
MANHOLE DEPTH (FT.)	BASE THICKNESS
0 - 12	8"
12 AND OVER	12"

4. MANHOLE LOCATION AND COMPACTION AS FOLLOWS:

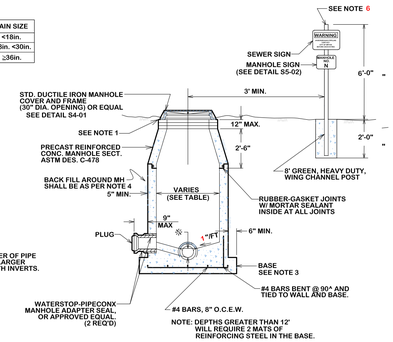
LOCATION	COMPACTION REQUIREMENT
PAVEMENT	98 % STANDARD PROCTOR - ASTM D 698
LANDSCAPE AREA	90 % STANDARD PROCTOR - ASTM D 698

5. IN FLOODPLAINS OR AREAS OF CONCENTRATED FLOW, THE CONE SHALL EXTEND 1 FOOT ABOVE THE BASE FLOOD ELEVATION OR A BOLT DOWN WATER-TIGHT RING AND COVER SHALL BE USED, VENTED WHERE REQUIRED.
6. WARNING SIGN ONLY TO BE PLACED WHERE SEWER CROSSES OPEN FIELDS.

MANHOLE DIA.	MAIN SIZE
4 FT	<18in.
5 FT	≥18in. <30in.
6 FT	≥36in.



CAST IN PLACE MANHOLE



PRE-CAST MANHOLE

STANDARD MANHOLE

S1-00

NOTES:

1. FOR BEDDING AND TRENCHING WITHIN ALL EXISTING PAVED AREAS, SEE DETAILS FOR OPEN CUT STREETS. (Details ST4-00, ST4-01, ST4-02). THIS NOTE DOES NOT APPLY TO STREETS BEING RECONSTRUCTED.
2. ALL BEDDING & INSTALLATION OF PVC PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA STANDARDS FOR PVC PIPE.
3. ALL BEDDING & INSTALLATION OF DUCTILE IRON PIPE SHALL BE IN ACCORDANCE TO ANSI/AWWA C150/A21.50.
4. COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.
5. ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING OR PLANKING PLACED AT THE END OF EACH WORKING DAY.
6. EVERY 100 FEET PROVIDE A WATER STOP BLOCK COMPOSED OF CEMENT SAND OR IMPERVIOUS NATIVE MATERIAL DEPENDING ON EMBEDMENT. BLOCK SHALL BE 6 FEET IN LENGTH. NO BEDDING SAND IN THIS AREA.

Ⓐ SELECT NATIVE MATERIAL

MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION), COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (ie., YARDS, PASTURES, EASEMENTS)(OPTION 1) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NEW STREET AREAS AND STREETS TO BE RECONSTRUCTED. (OPTION 2)

Ⓑ GRANULAR MATERIAL

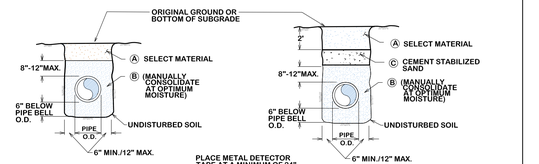
MATERIAL SHALL BE BANK RUN RIVER SAND WHICH IS FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL AND WHICH, WHEN TESTED BY STANDARD LABORATORY METHODS, MEET THE FOLLOWING REQUIREMENTS:

MAXIMUM LIQUID LIMIT	45
MAXIMUM PLASTICITY INDEX	15
MAXIMUM PERCENT PASSING NO. 200 SIEVE	35
MINIMUM PERCENT PASSING 3/4" SIEVE	100

THE MATERIAL SHALL BE FREE FLOWING AND WHEN WET, SHALL NOT ADHERE TO OR FORM A BALL WHEN PRESSED IN HAND.

Ⓒ CEMENT STABILIZED SAND

1-1/2" SACKS CEMENT/CY MINIMUM.
2 SACKS CEMENT/CY MINIMUM WHEN DISTANCE BETWEEN SANITARY LINES AND WATER LINES IS < 9FT



NON-STRUCTURAL AREAS

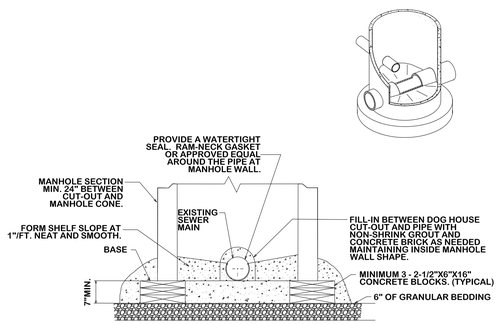
AREAS TO BE PAVED OR STREETS TO BE RECONSTRUCTED

BEDDING AND TRENCH FOR DI PIPE & PVC PIPE

S1-01

NOTES:

1. FLOW SHALL BE MAINTAINED DURING CONSTRUCTION.
2. THIS DETAIL TO BE USED WHEN A 6" OR LARGER LATERAL NECESSITATES CONSTRUCTION OF A NEW MANHOLE.
3. FOR ADDITIONAL STANDARDS NOT SHOWN, SEE "STANDARD MANHOLE" DETAIL S1-02.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORT OF EXISTING SEWER DURING INSTALLATION OF MANHOLE.
5. DOGHOUSE OPENING MAY ONLY BE USED WHEN PLACING A NEW MANHOLE OVER AN EXISTING LINE; OTHERWISE, THE OPENING MUST BE CAST. SIZE, LOCATION, AND ANGLE OF ENTRY SHALL BE AS REQUIRED BY THE PLANS.
6. EXCAVATE TRENCH TO MIN. 13" BELOW BOTTOM OF EXISTING PIPE. COMPACT SUBGRADE. PLACE AND COMPACT 6" OF GRANULAR BEDDING. MONOLITHIC POUR OF MIN. 7" DEPTH, 6 SACK TOPPING MIX TO BE PLACED INSIDE, UNDER, AND OUTSIDE MANHOLE BARREL FROM SURFACE OF BEDDING, AROUND CONCRETE BLOCK RISERS, TO A POINT APPROXIMATELY AT THE SPRING LINE OF THE EXIST. PIPE.
7. DURING THE SAME POUR, THE FINISH MANHOLE SHELF SHALL BE FORMED AND FINISHED AROUND THE BARREL AND EXISTING PIPE AS SHOWN.
8. AFTER CONCRETE SHELF HAS CURED, AND THE MANHOLE HAS BEEN VACUUM TESTED, THE EXISTING PIPE SHALL BE SAW CUT. ONLY AFTER CITY APPROVED, PASSING MANHOLE LEAKAGE TESTING. THE EXISTING PIPE SHALL FORM THE TROUGH OF THE MANHOLE AS SHOWN. FILE CUT PIPE TO GIVE SMOOTH EDGES.

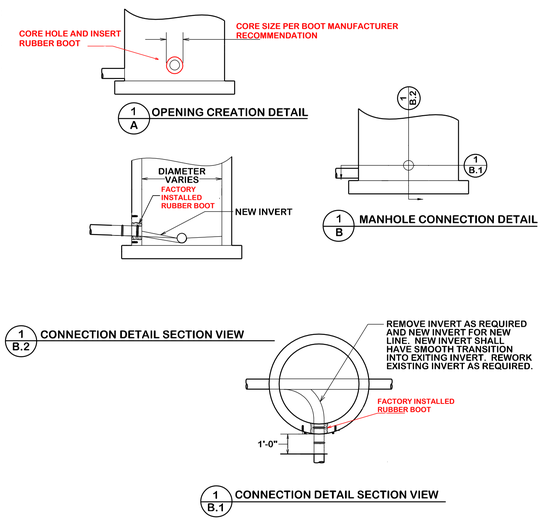


CITY OF COLLEGE STATION
GRAVITY SEWER DOGHOUSE MANHOLE

S3-00

NOTES:

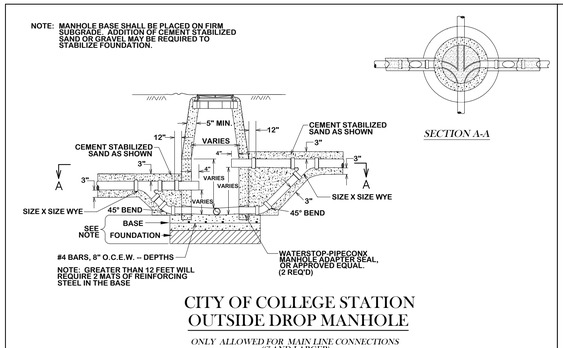
1. CONCRETE SHALL BE 3,000 P.S.I.



STANDARD MANHOLE TIE-IN

S3-01

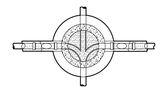
NOTE: MANHOLE BASE SHALL BE PLACED ON FIRM SUBGRADE. ADDITION OF CEMENT STABILIZED SAND OR GRAVEL MAY BE REQUIRED TO STABILIZE FOUNDATION.



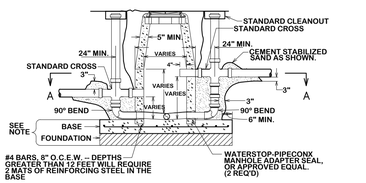
CITY OF COLLEGE STATION
OUTSIDE DROP MANHOLE

ONLY ALLOWED FOR MAIN LINE CONNECTIONS 60" AND LARGER

S2-00



NOTE: MANHOLE BASE SHALL BE PLACED ON FIRM SUBGRADE. ADDITION OF CEMENT STABILIZED SAND OR GRAVEL MAY BE REQUIRED TO STABILIZE FOUNDATION.



CITY OF BRYAN
OUTSIDE DROP MANHOLE

ONLY WHEN APPROVED BY CITY ENGINEER

S2-01

NOTE:

MANHOLE BASE SHALL BE PLACED ON FIRM SUBGRADE. ADDITION OF CEMENT STABILIZED SAND OR GRAVEL MAY BE REQUIRED TO STABILIZE FOUNDATION.

IN EXISTING MANHOLE, PLACE PVC ELBOW ON BENCH, GROUT NEW BENCH TO SPRINGLINE AND TROWEL SMOOTH. FORM SMOOTH CHANNEL TO INVERT.

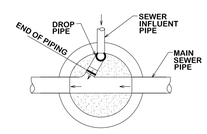
ALL NEW CONNECTION AT EXISTING MANHOLES SHALL BE BY CORING ONLY.

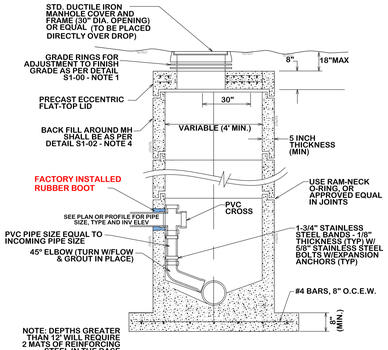
MANHOLE BOOTS SHALL BE SIZED SAME AS INCOMING PIPE.

CROSS MUST BE A MINIMUM 24" BELOW CONE SECTION.

5 FOOT DIAMETER MANHOLE WILL BE REQUIRED FOR DROPS 12" AND GREATER.

IF THERE ARE TWO DROPS INSIDE MANHOLE ON OPPOSING SIDES, THEN MANHOLE LID SHOULD BE CENTERED BETWEEN THE TWO DROPS.



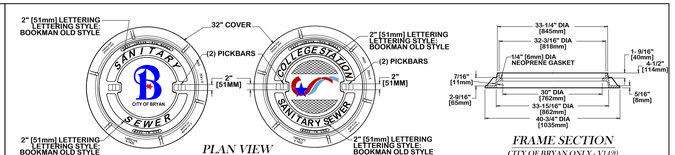


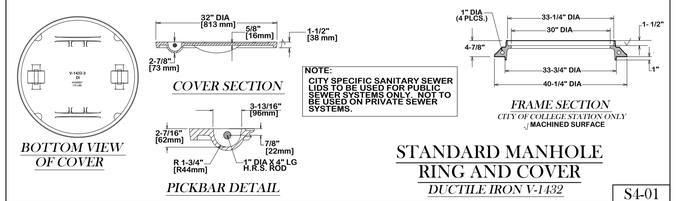
STANDARD DROP MANHOLE

CITY OF BRYAN - DROP MANHOLE TO BE USED ON LINES UP TO 12" IN SIZE

CITY OF COLLEGE STATION - DROP MANHOLE TO BE USED ON LINES UP TO 4' IN SIZE

S2-02

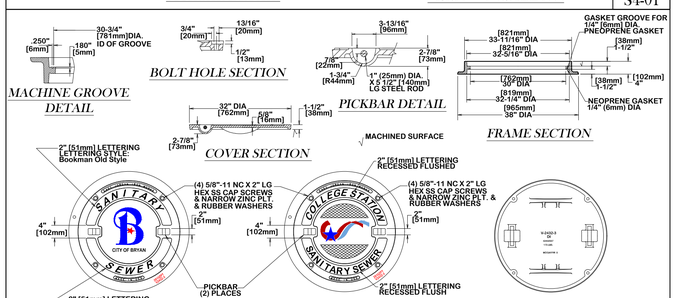




STANDARD MANHOLE RING AND COVER

DUCTILE IRON V-1432

S1-01



NOTE:
CITY SPECIFIC SANITARY SEWER LIDS TO BE USED FOR PUBLIC SEWER SYSTEMS ONLY. NOT TO BE USED ON PRIVATE SEWER SYSTEMS.

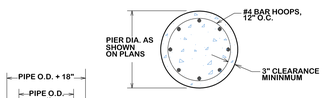
WATER TIGHT MANHOLE RING AND COVER

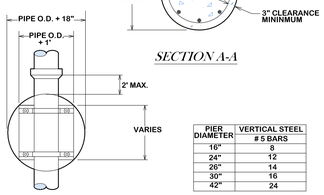
DUCTILE IRON V-2432-3

S4-02

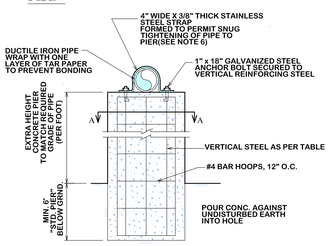
NOTES:

1. EACH PIER SHALL BE COMPLETED IN A SINGLE CONTINUOUS POUR.
2. CHAMFER EDGES 3/4".
3. CONTRACTOR SHALL CONSTRUCT CONCRETE PIER TO A MINIMUM DEPTH OF 6' OR TO A DEPTH WHERE A GOOD BEARING SOIL IS ENCOUNTERED.
4. ALL SHAFTS SHALL BE BORED VERTICALLY PLUMB WITHIN 2" TOLERANCE.
5. ALL INFORMATION SHOWN IS CITY MINIMUM. ALL PIERS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
6. NUMBER OF STRAPS DEPENDENT ON SIZE OF PIERS. MIN. 1 STRAP PER PIER.





PIER DIAMETER	VERTICAL STEEL # 5 BARS
18"	8
24"	12
26"	14
30"	16
42"	24



TYPICAL CONCRETE DRILLED PIER FOR AERIAL SEWER

S4-00

REVISIONS:
7/26/2022 – S4-01 FRAME

BRYAN - COLLEGE STATION STANDARD SEWER DETAILS

CITY OF COLLEGE STATION

CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY: K.L.
DATE: APR 2024
SCALE: N T S
APPROVED: W. P. K.

S1
SHEET 1 OF 2

GENERAL NOTES:

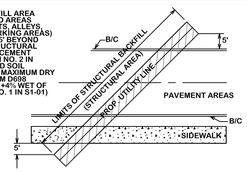
ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

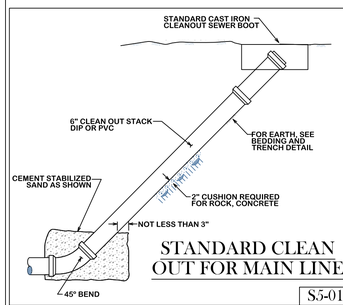
ESTABLISHMENT OF VEGETATION MAY BE A WARRANTY ITEM.

STRUCTURAL BACKFILL AREA INCLUDES ALL PAVED AREAS (SIDEWALKS, STREETS, ALLEYS, DRIVEWAYS AND PARKING AREAS) AND SHALL EXTEND 5' BEYOND THE CURB LINE. STRUCTURAL BACKFILL SHALL BE CEMENT STABILIZED (CEMENT NO. 2 IN 51-01) OR EXCAVATED SOIL COMPACTED TO A MINIMUM DRY DENSITY AS PER ASTM D-698 WITHIN OPTIMUM TO +4% WET OF OPTIMUM (OPTION NO. 1 IN S1-01)



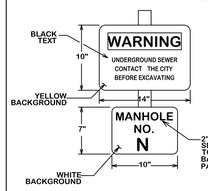
STRUCTURAL BACKFILL AREA

S5-00



STANDARD CLEAN OUT FOR MAIN LINE

S5-01



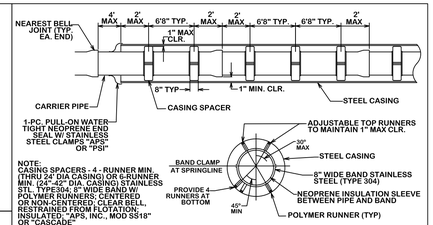
NOTES:

1. FURNISH AS SHOWN ON PLANS AND/OR AT EACH MANHOLE WHERE SEWER LINE CROSSES OPEN FIELDS.
2. SIGNS TO BE CONSTRUCTED FROM 20 GA. STEEL BAKED ON ENAMEL FINISH. FURNISH ONE SIGN AND ONE POST FOR EACH OPEN FIELD AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS. FURNISH SAME NUMBER OF REPLACEMENT SIGNS AS FOR EACH INSTALLED (OMITTING MANHOLE NUMBER ON MANHOLE SIGN) (NOT A SEPARATE PAY ITEM)

2" BLACK PRESSURE SENSITIVE NUMBERS TO BE ADDED AFTER BASIC SIGN HAS BEEN PAINTED

SEWER WARNING AND MANHOLE IDENTIFICATION SIGN

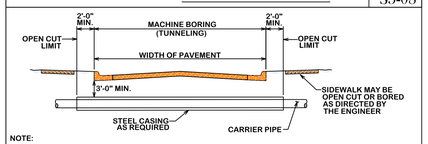
S5-02



NOTE:
CASING SPACERS - 4 - RUNNER MIN. (THRU 24' DIA CASING) OR 6-RUNNER MIN. (24"-42" DIA. CASING) STAINLESS STL. TYPE304; 8" WIDE BAND W/ POLYMER RUNNERS; CENTERED, OR NON-CENTERED, CLEAR BELL, RESTRAINED FROM FLOTATION; INSULATED; "APS, INC., MOD SS18" OR "CASCADE"

CASING DETAIL

S5-03

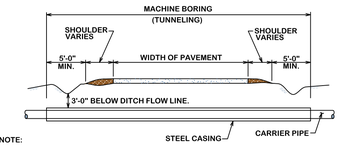


NOTE:

1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION.
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING PREFERRED. WET BORING ALLOWED ONLY WHEN APPROVED BY THE CITY ENGINEER.

TYPICAL URBAN CITY STREET CROSSING

S5-04



NOTE:

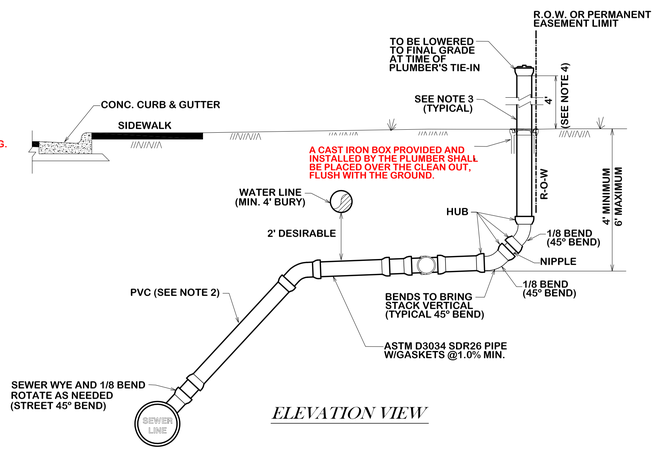
1. FOR MORE INFORMATION ON WATER AND SEWER LINE CROSSING SEE CITY STANDARD SPECIFICATION FOR WATER AND SEWER LINE CONSTRUCTION.
2. STEEL CASING SHALL BE AS SPECIFIED IN THE TECHNICAL SPECIFICATIONS.
3. DRY BORING IS REQUIRED.

TYPICAL RURAL STREET CROSSING

S5-05

NOTE:

1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
2. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
3. A CLEAN OUT IS REQUIRED AND WILL BE INSTALLED BY THE CONTRACTOR AT THE ROW FOR EACH LONG AND SHORT SIDE SERVICE CLEANOUT SHALL INCLUDE A BRASS PLUG.
4. CLEANOUTS SHALL BE EXTENDED 4 FEET ABOVE NATURAL GROUND. CLEANOUT CAP FITTING SHALL BE PLACED ON TOP.
5. NEW CONSTRUCTION (TEMPORARY) USE GLUE CAP IN PLACE OF FEMALE ADAPTER AND BRASS PLUG.



ELEVATION VIEW

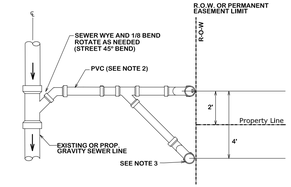
STANDARD SEWER SERVICE CONNECTION

NEW CONSTRUCTION ONLY

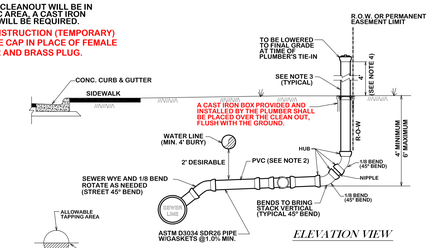
S8-00

NOTE:

1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
2. ALL SERVICE CONNECTIONS & EXTENSIONS ARE TO BE INSTALLED WITH THE MAIN LINE CONSTRUCTION.
3. A CLEAN OUT IS REQUIRED AND WILL BE INSTALLED BY THE CONTRACTOR AT THE ROW FOR EACH LONG AND SHORT SIDE SERVICE CLEANOUT SHALL INCLUDE A BRASS PLUG. CLEANOUTS SHALL BE EXTENDED 4 FEET ABOVE NATURAL GROUND. CLEANOUT CAP FITTING SHALL BE PLACED ON TOP.
4. LOT CORNERS SHALL BE MARKED WITH A LATH UNDER THE SUPERVISION OF A RPLS UPON COMPLETION OF CONSTRUCTION
5. "STANDARD" SERVICE CONNECTIONS APPLY WHEN TRENCH IS LESS THAN 7' DEEP.
6. "DEEP" SERVICE CONNECTIONS APPLY WHEN TRENCH IS MORE THAN 7' DEEP.
7. SERVICE SHALL BE AS SHALLOW AS POSSIBLE AND STILL SERVICE LOT
8. WHERE A SINGLE SERVICE THAT SERVES A SINGLE RESIDENCE TAPS INTO A MANHOLE NEAR THE PROPERTY LINE OF THAT LOT A SEWER STACK SHALL NOT BE REQUIRED.
9. WHERE A CLEANOUT WILL BE IN A TRAFFIC AREA, A CAST IRON TOP HAT WILL BE REQUIRED.
10. NEW CONSTRUCTION (TEMPORARY) USE GLUE CAP IN PLACE OF FEMALE ADAPTER AND BRASS PLUG.



PLAN VIEW



ELEVATION VIEW

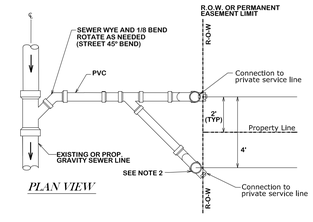
STANDARD SEWER SERVICE CONNECTION

NEW CONSTRUCTION ONLY

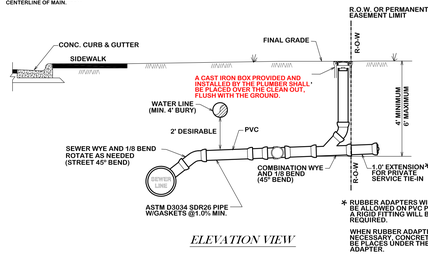
S6-00

NOTE:

1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
2. SERVICE SHALL BE AS SHALLOW AS POSSIBLE AND STILL SERVICE LOT
3. WHERE A SINGLE SERVICE THAT SERVES A SINGLE RESIDENCE TAPS INTO A MANHOLE NEAR THE PROPERTY LINE OF THAT LOT A SEWER STACK SHALL NOT BE REQUIRED.
4. WHERE A CLEANOUT WILL BE IN A TRAFFIC AREA, A CAST IRON TOP HAT WILL BE REQUIRED.
4. A CLEANOUT MUST BE INSTALLED ON EACH SERVICE RE-CONNECTION AT THE ROW LINE.



PLAN VIEW



ELEVATION VIEW

* RUBBER ADAPTERS WILL NOT BE ALLOWED ON PVC PIPE. A RIGID FITTING WILL BE REQUIRED.

WHEN RUBBER ADAPTER IS NECESSARY, CONCRETE MUST BE PLACED UNDER THE ADAPTER.

STANDARD SEWER SERVICE RE-CONNECTION

PLUMBER CONNECTION OR CIP RECONSTRUCTION

S6-01

REVISIONS:
S6-00 & S6-01 revised 10/26/2012.

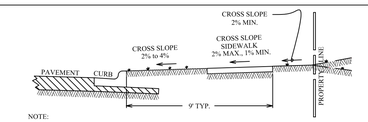
BRYAN - COLLEGE STATION STANDARD SEWER DETAILS

CITY OF COLLEGE STATION

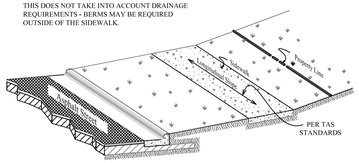
CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY: K.L.
DATE: APR 2024
SCALE: N T S
APPROVED: W. P. K.

S2
SHEET 2 OF 2

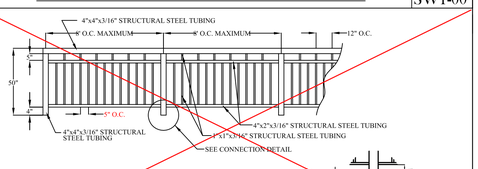


NOTE:
THIS DOES NOT TAKE INTO ACCOUNT DRAINAGE REQUIREMENTS - BERMS MAY BE REQUIRED OUTSIDE OF THE SIDEWALK.



SIDEWALK SLOPE REQUIREMENTS

SW1-00



TYPICAL PEDESTRIAN GUARDRAIL

CONNECTION DETAIL

SW1-01

GENERAL NOTES:

ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

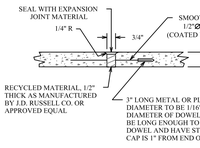
APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

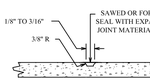
ALL TRAFFIC SIGNALS AND APPURTENANCES, AND ALL PAVEMENT MARKINGS AND MARKERS SHALL BE IN ACCORDANCE WITH TXDOT STANDARDS

REFER TO SPEC 31 17 23.23 (PAVEMENT MARKINGS) FOR ADDITIONAL LOCAL REQUIREMENTS.

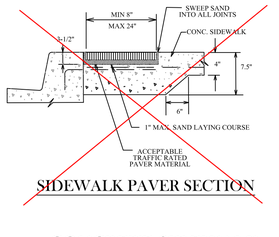
NOTES:
1. SIDEWALK PLACEMENT SHALL BE IN ACCORDANCE WITH B/CS UNIFIED DESIGN GUIDELINES.
2. FINISH: LIGHT BROOM FINISH. JOINTS TO BE TOOLED 1" DEEP AT AN INTERVAL EQUAL TO THE SIDEWALK WIDTH. EXPANSION JOINTS @ 40' O.C., CONTRACTION JOINTS @ 4' O.C.
3. DOWEL IN AND TIE TO ANY CONCRETE STRUCTURE ADJACENT TO SIDEWALK (DRIVEWAY, INLET BOX, CURB, JUNCTION BOX, ETC.) WITH #3 x 12" BARS @ 12" O.C. OR #4 x 12" BARS @ 18" O.C.
4. COMPACTION: COMPACTED SUBGRADE MATERIAL COMPACTED TO A DENSITY AT LEAST 98% OF MAXIMUM DRY DENSITY AS DETERMINED BY PROCTOR COMPACTION TEST ASTM D698 (STANDARD) AND SHALL BE 0-4% WET OF THE OPTIMUM MOISTURE CONTENT
5. A MINIMUM CLEAR PEDESTRIAN WIDTH AS DEFINED BY TAS AND ADA SHALL BE PROVIDED FOR ENTIRE LENGTH OF SIDEWALK.



SIDEWALK EXPANSION & CONSTRUCTION JOINT



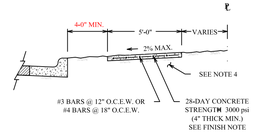
SIDEWALK CONTRACTION JOINT



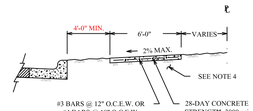
SIDEWALK PAVER SECTION

CONCRETE SIDEWALK

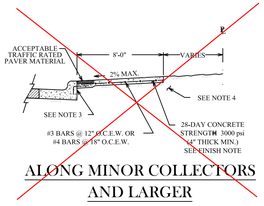
SW1-02



ALONG LOCAL STREETS

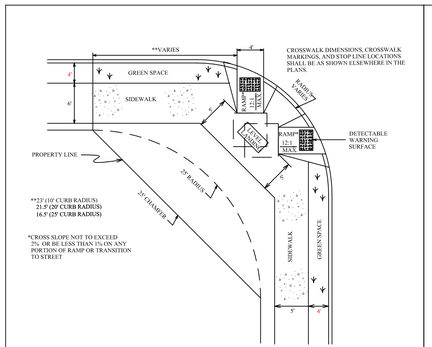


ALONG MINOR COLLECTORS AND LARGER



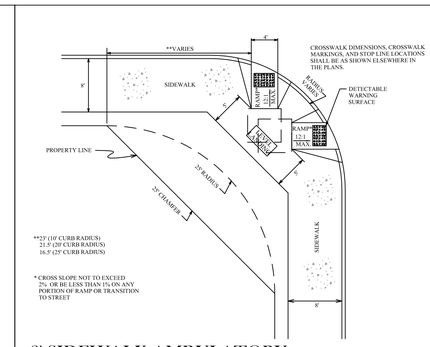
ALONG MINOR COLLECTORS AND LARGER

SW1-02



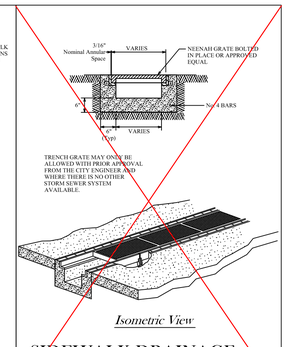
5'/6' SIDEWALK AMBULATORY RAMP AT STREET INTERSECTION

SW3-00



8' SIDEWALK AMBULATORY RAMP AT STREET INTERSECTION

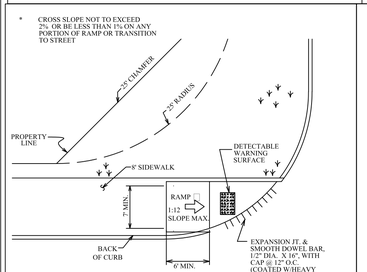
SW3-01



Isometric View

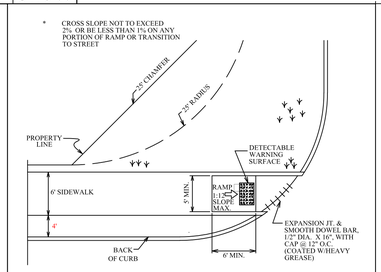
SIDEWALK DRAINAGE TRENCH GRATE

SW3-02



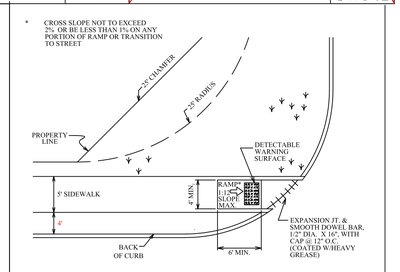
8' SIDEWALK AMBULATORY RAMP AT STREET INTERSECTION & DRIVES

SW3-03



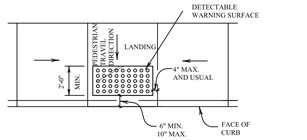
6' SIDEWALK AMBULATORY RAMP AT STREET INTERSECTION & DRIVES

SW3-04



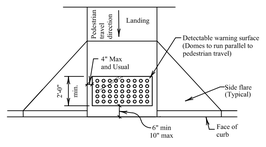
5' SIDEWALK AMBULATORY RAMP AT STREET INTERSECTION & DRIVES

SW3-05



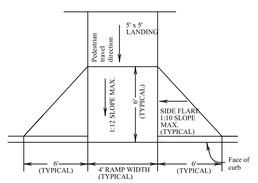
TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON LANDING AT STREET EDGE

SW2-00



TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE ON SLOPING RAMP RUN

SW2-01



TYPICAL AMBULATORY RAMP W/ FLARED WINGS

SW2-02

DETECTABLE WARNINGS GENERAL NOTES

1. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 4.29 OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACES, INCLUDING SIDE FLARES. FURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE, UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
2. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
3. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
4. SHADED AREAS ON SHEETS 3 AND 4 INDICATE THE APPROXIMATE LOCATION FOR THE DETECABLE WARNING SURFACE FOR EACH CURB RAMP TYPE.
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 10" FROM THE EXTENSION OF THE FACE OF CURB. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
7. ACCEPTABLE PAVER MATERIAL SHALL BE CLAY, VITRIFIED POLYMER COMPOSITE, PRECAST POLYMER CONCRETE, AND CONCRETE.

SW2-GN00

CROSSWALKS GENERAL NOTES

1. CROSSWALK MARKINGS ARE IMPORTANT TRAFFIC CONTROL DEVICES AT CONTROLLED INTERSECTIONS. THESE DEVICES IDENTIFY THE APPROPRIATE LOCATION FOR PEDESTRIANS TO CROSS THE INTERSECTION AS WELL AS INFORMING DRIVERS WHERE PEDESTRIANS MAYBE PRESENT. NOT ALL LOCATIONS NEED THE CROSSWALKS MARKED; HOWEVER, TYPICALLY COLLECTOR AND ARTERIAL STREETS DO. AS STATED IN THE TMUTCD, AN ENGINEERING STUDY SHOULD BE PERFORMED BEFORE CROSSWALKS ARE INSTALLED AT LOCATIONS OTHER THAN CONTROLLED INTERSECTIONS.
2. THE CITY OF BRYAN'S PREFERENCE FOR MARKING CROSSWALKS IS THE LONGITUDINAL (OR "LADDER" STYLE). THE CITY OF COLLEGE STATION'S PREFERENCE IS THE TYPICAL "TRANSVERSE" STYLE; HOWEVER, IN THE NORTHGATE AREA, ADJACENT TO SCHOOL OR SCHOOL ZONES, AND OTHER HIGH PEDESTRIAN CROSSINGS, THE LONGITUDINAL (OR "LADDER" STYLE) IS PREFERRED. DEVIATION FROM THESE PREFERENCES WILL BE ALLOWED ONLY WITH THE APPROVAL OF THE CITY ENGINEER.
3. THE LONGITUDINAL "LADDER" STYLE MARKING SHALL BE 24" WIDE AND 8 FEET IN LENGTH, SPACED 48-INCHES APART, CONSIST OF 12-INCH WIDE, WHITE LONGITUDINAL LINES SPACED 24-INCHES APART. LONGITUDINALLY, THESE MARKINGS SHALL EXTEND 8 FEET. THE TRANSVERSE MARKINGS SHALL CONSIST OF TWO 12-INCH WIDE LINES SEPARATED BY 6 FEET OF UNMARKED PAVEMENT. ALL CROSSWALK PAVEMENT MARKINGS SHALL ALWAYS MEET TxDOT'S SPECIFICATION FOR TYPE I MARKINGS UNLESS OTHERWISE BE THERMOPLASTIC, UNLESS A DIFFERENT MATERIAL IS APPROVED BY THE CITY ENGNEER.
4. ADDITIONAL INFORMATION ABOUT CROSSWALK MARKINGS CAN BE FOUND IN THE TMUTCD.
5. CROSSWALKS WITH BRICK PAVERS, STAMPED ASPHALT, STAMPED CONCRETE, ETC., SHALL ALSO REQUIRE RETRO-REFLECTIVE, THERMOPLASTIC TRANSVERSE STRIPING.

SW2-GN01

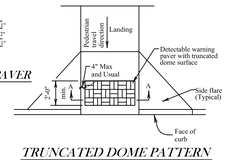
PEDESTRIAN FACILITIES GENERAL NOTES

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 SIDEWALK AS DIRECTED.
2. LANDINGS SHALL BE A 5' X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION.
3. 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.
4. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP 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 SIDES.
6. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT RELECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 68.102.
7. TO SERVE AS A PEDESTRIAN REFUGE AREA, THE MEDIAN SHOULD BE A MINIMUM OF 5' WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR THROUGH THEM.
8. 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 BE ALIGNED WITH THEORETICAL CROSSWALKS, OR AS DIRECTED BY THE ENGINEER.
9. EXISTING FEATURES THAT COMPLY WITH TAS MAY REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS.
10. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. PROVIDE CURB RAMPS WHEREVER ON ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
11. SEPARATE CURB RAMP AND LANDINGS FROM ADJACENT SIDEWALK AND ANY OTHER ELEMENTS WITH PREMOLD OR BOARD JOINT OF 3/4" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
12. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET.
13. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.

SW2-GN02



DETECTABLE WARNING PAVER

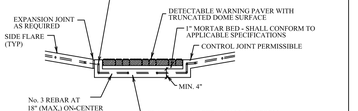


TRUNCATED DOME PATTERN CURB RAMP

GENERAL NOTES (PAVERS)

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.

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.



DETECTABLE WARNING PAVER

SECTION A-A

SW2-03

REVISIONS:

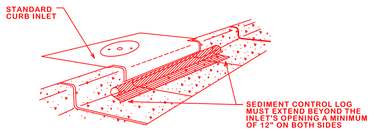
BRYAN - COLLEGE STATION STANDARD SIDEWALK DETAILS

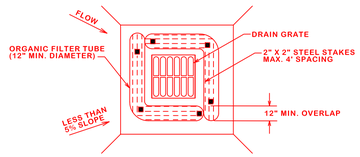
CITY OF COLLEGE STATION

CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY:	B.I.
DATE:	12/2020
SCALE:	NTS
APPROVED:	W. P. K.

FIGURE:
SW1
SHEET 1 OF 1





NOTE:

TEMPORARY DEVICES AROUND STORMS DRAINS ARE USED TO DETAIN AND/OR FILTER SEDIMENT-LADEN RUNOFF. THE PROTECTION ALLOWS SEDIMENT TO SETTLE PRIOR TO DISCHARGE INTO A STORM DRAIN INLET OR CATCH BASIN.

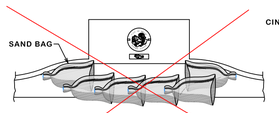
SEDIMENT CONTROL LOGS ARE TO BE USED ON EXISTING CURB INLETS WHICH ARE LOCATED ADJACENT TO OCCUPIED TRAVEL LANES WITHIN THE DISTURBED LIMITS OF A PROJECT AS SHOWN ON THE PLANS.

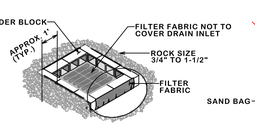
SEDIMENT CONTROL LOGS ARE TO BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S INSTRUCTIONS AND PROPERLY WEIGHTED IN ORDER TO REMAIN SECURELY IN PLACE. INSTALLATION MUST MEET THE CONSTRUCTION INSPECTOR'S APPROVAL.

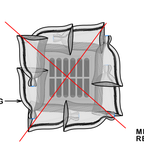
SEDIMENT CONTROL LOGS ARE TO BE CONSTRUCTED OF WOOD FIBERS, SYNTHETIC FIBERS OR OTHER SUITABLE MATERIAL SUFFICIENT TO RETAIN ITS SHAPE AND ENCASED IN A UV STABILIZED FILTERING MEDIA OF SUFFICIENT STRENGTH TO RETAIN SEDIMENT.

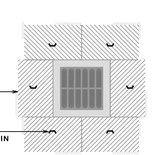
SEDIMENT CONTROL LOGS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

SAND BAGS SHALL NOT BE USED.









TEMPORARY DEVICES AROUND STORMS DRAINS ARE USED TO DETAIN AND/OR FILTER SEDIMENT-LADEN RUNOFF. THE PROTECTION ALLOWS SEDIMENT TO SETTLE PRIOR TO DISCHARGE INTO A STORM DRAIN INLET OR CATCH BASIN.

SAND BAGS SHALL BE UV RESISTANT AND MUST NOT DEGRADE DUE TO ATMOSPHERIC CONDITIONS.

SAND BAGS SHALL BE REPLACED UPON FIRST SIGN OF DETERIORATION.

STORM DRAIN INLET PROTECTION

SWPP1-00

NOTE:

POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.

VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.

NO WASHING OUT OF CONCRETE TRUCKS OR WASHING OF SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS IS ALLOWED.

EXCESS CONCRETE IS NOT ALLOWED TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED TEMPORARY CONCRETE WASHOUT PIT AREAS.

ON-SITE TEMPORARY CONCRETE WASHOUT AREAS WILL BE LOCATED AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES AS DETERMINED IN THE FIELD.

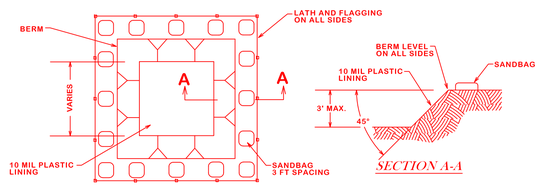
TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

WASHOUT FACILITIES WILL BE CLEANED OUT OR REPLACED ONCE THE WASHOUT IS 75% FULL.

PLASTIC LINING MATERIAL WIL BE MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND WILL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS.

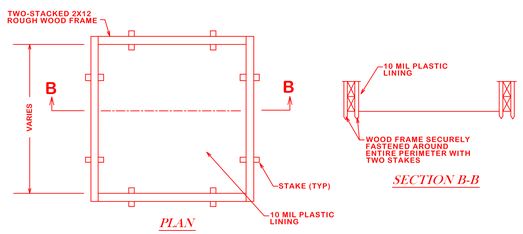
WHEN WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR WORK, THE HARDENED CONCRETE WILL BE REMOVED AND DISPOSED OF OFFSITE. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE REMOVED FROM THE SITE AND DISPOSED OF. BELOW GRADE PITS SHALL BE BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.

CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCK EQUIPMENT.



PLAN
TYPE - "BELOW GRADE"

SECTION A-A



PLAN
TYPE - "ABOVE GRADE"

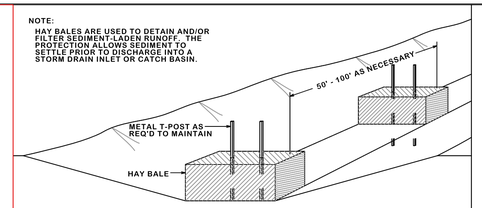
SECTION B-B

CONCRETE WASHOUT

SWPP1-04

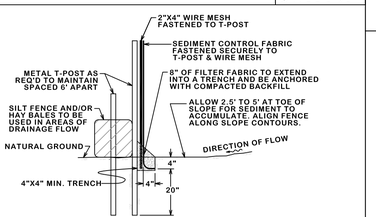
NOTE:

HAY BALES ARE USED TO DETAIN AND/OR FILTER SEDIMENT-LADEN RUNOFF. THE PROTECTION ALLOWS SEDIMENT TO SETTLE PRIOR TO DISCHARGE INTO A STORM DRAIN INLET OR CATCH BASIN.



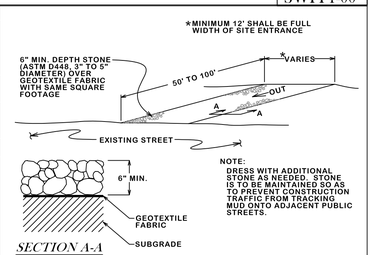
EROSION CONTROL ALONG DITCH

SWPP1-01



SILT FENCE ASSEMBLY

SWPP1-03



SECTION A-A

NOTE:

DRESS WITH ADDITIONAL STONE AS NEEDED. STONE IS TO BE MAINTAINED SO AS TO PREVENT CONSTRUCTION TRAFFIC FROM TRACKING MUD ONTO ADJACENT PUBLIC STREETS.

CONSTRUCTION EXIT SILT CONTROL

SWPP1-02

GENERAL NOTES:

ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

REVISIONS:

BRYAN - COLLEGE STATION STANDARD STORM WATER POLLUTION PREVENTION DETAILS

CITY OF COLLEGE STATION

CITY OF BRYAN
The Good Life, Texas Style.

DRAWN BY:	B.I.
DATE:	12/2020
SCALE:	N T S
APPROVED:	W. P. K.

FIGURE:

SWPP

SHEET 1 OF 1