

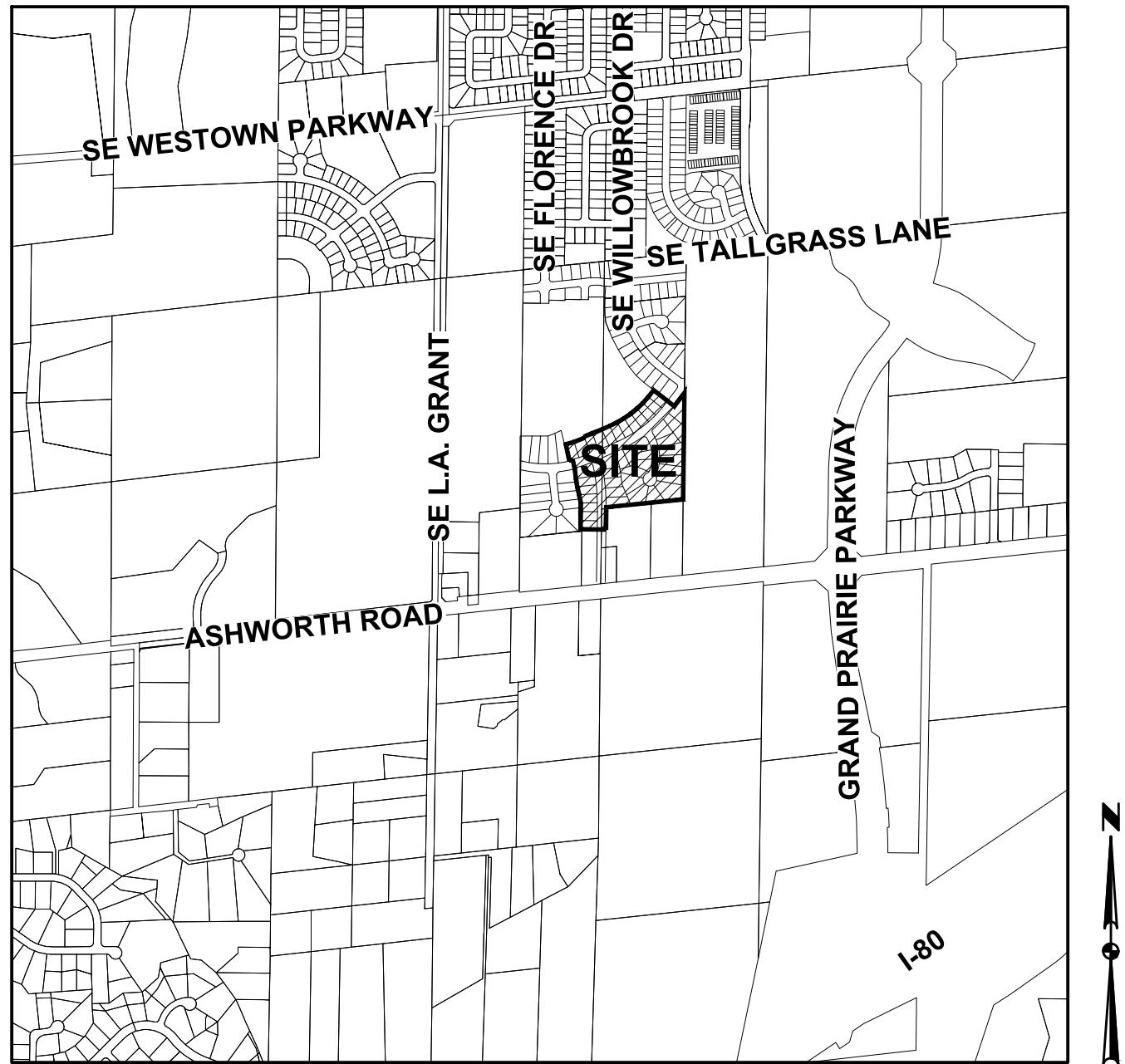
CONSTRUCTION PLANS FOR:

KETTLESTONE RIDGE PLAT 7

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

OWNER/DEVELOPER

JERRY'S HOMES
CONTACT: JAY COWAN
3900 WESTOWN PARKWAY, SUITE 100
WEST DES MOINES, IA 50266
PH: (515) 727-0356

ENGINEER

CIVIL DESIGN ADVANTAGE
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3405 SE CROSSROADS DRIVE, SUITE G
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SURVEYOR

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
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ZONING

R-2 ONE AND TWO FAMILY RESIDENTIAL DISTRICT

BULK REGULATIONS

- MIN. LOT AREA = 8,000 SF (SINGLE-FAMILY)
- 30' FRONT YARD SETBACK:
- 30' REAR YARD SETBACK:
- 15' SIDE YARD SETBACK
(TOTAL=15', MIN. SIDE=7')

SUBMITTAL DATES

FIRST SUBMITTAL: 06/30/2020
SECOND SUBMITTAL: 07/14/2020
THIRD SUBMITTAL: 07/28/2020
FINAL SUBMITTAL: 08/04/2020
AS-BUILT SUBMITTAL: 08/30/2021

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-3	TYPICAL SECTIONS AND DETAILS
4	QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES
5	HYDRANT COVERAGE PLAN
6-8	GRADING PLAN
9-11	EROSION AND SEDIMENT CONTROL PLAN
12-19	STORM AND SANITARY SEWER PLAN AND PROFILE
20-24	WATER MAIN PLAN AND PROFILE
25-27	INTERSECTION DETAILS

AS-BUILT DRAWINGS

AS-BUILT PLANS ARE BASED ON SURVEYED INVERT ELEVATIONS AND INFORMATION SUPPLIED BY THE CONTRACTOR. CIVIL DESIGN ADVANTAGE TAKES NO RESPONSIBILITY FOR UNAUTHORIZED CHANGES TO THE PLANS WITHOUT CITY/OWNER KNOWLEDGE. FIELD VERIFICATION OF UTILITIES OR OTHER PLAN ELEMENTS IS ALWAYS RECOMMENDED.

LEGAL DESCRIPTION

A PART OF THE EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER AND A PART OF THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER, ALL IN SECTION 4, TOWNSHIP 78 NORTH, RANGE 26 WEST OF THE FIFTH PRINCIPAL MERIDIAN IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 5, KETTLESTONE RIDGE PLAT 5, AN OFFICIAL PLAT; THENCE NORTH 74°30'27" EAST, 68.06 FEET; THENCE NORTH 67°49'04" EAST, 91.63 FEET; THENCE NORTHERLY ALONG A CURVE CONCAVE WESTERLY WHOSE RADIUS IS 1465.00 FEET, WHOSE ARC LENGTH IS 10.41 FEET AND WHOSE CHORD BEARS NORTH 22°23'09" WEST, 10.41 FEET; THENCE NORTH 67°24'37" EAST, 70.00 FEET; THENCE NORTH 67°24'37" EAST, 83.91 FEET; THENCE NORTH 65°31'30" EAST, 70.00 FEET; THENCE NORTH 63°23'15" EAST, 65.88 FEET; THENCE NORTH 59°48'02" EAST, 65.24 FEET; THENCE NORTH 54°48'17" EAST, 65.25 FEET; THENCE NORTH 50°16'18" EAST, 65.25 FEET; THENCE NORTH 45°44'19" EAST, 65.25 FEET; THENCE NORTH 41°12'20" EAST, 65.25 FEET; THENCE NORTH 37°29'02" EAST, 68.80 FEET TO THE SOUTHWESTERLY LINE OF KETTLESTONE RIDGE PLAT 3, AN OFFICIAL PLAT; THENCE SOUTH 52°30'58" EAST ALONG SAID SOUTHWESTERLY LINE, 139.97 FEET; THENCE SOUTH 52°53'22" EAST CONTINUING ALONG SAID SOUTHWESTERLY LINE, 70.00 FEET TO THE SOUTHERLY CORNER OF SAID KETTLESTONE RIDGE PLAT 3; THENCE NORTH 37°06'38" EAST ALONG THE SOUTHEASTERLY LINE OF SAID KETTLESTONE RIDGE PLAT 3, A DISTANCE OF 134.25 FEET TO THE EAST LINE OF SAID WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER; THENCE SOUTH 00°11'33" WEST ALONG SAID EAST LINE, 856.04 FEET TO THE SOUTHEAST CORNER OF THE NORTH THREE-FOURTHS OF SAID WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER; THENCE SOUTH 83°36'55" WEST ALONG THE SOUTH LINE OF SAID NORTH THREE-FOURTHS OF THE WEST HALF OF THE EAST HALF OF THE SOUTHWEST QUARTER, 622.69 FEET; THENCE SOUTH 00°10'36" WEST, 179.91 FEET; THENCE NORTH 89°49'24" WEST, 188.60 FEET TO THE NORTHEAST CORNER OF THE WEST 500 FEET OF THE SOUTH 500 FEET OF SAID EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER; THENCE SOUTH 83°36'55" WEST ALONG THE NORTH LINE OF SAID WEST 500 FEET OF THE SOUTH 500 FEET OF THE EAST HALF OF THE WEST HALF OF THE SOUTHWEST QUARTER, 16.51 FEET TO THE SOUTHEAST CORNER OF LOT 10, SAID KETTLESTONE RIDGE PLAT 5; THENCE NORTH 00°10'36" EAST ALONG THE EASTERLY LINE OF SAID KETTLESTONE RIDGE PLAT 5, A DISTANCE OF 144.35 FEET; THENCE NORTH 00°09'30" WEST CONTINUING ALONG SAID EASTERLY LINE, 69.46 FEET; THENCE NORTH 11°17'46" WEST CONTINUING ALONG SAID EASTERLY LINE, 66.60 FEET; THENCE NORTH 14°12'30" WEST CONTINUING ALONG SAID EASTERLY LINE, 66.11 FEET; THENCE NORTH 08°21'29" WEST CONTINUING ALONG SAID EASTERLY LINE, 65.10 FEET; THENCE NORTH 07°45'20" WEST CONTINUING ALONG SAID EASTERLY LINE, 86.64 FEET; THENCE NORTH 14°25'23" WEST CONTINUING ALONG SAID EASTERLY LINE, 70.00 FEET; THENCE WESTERLY CONTINUING ALONG SAID EASTERLY LINE AND A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 840.00 FEET, WHOSE ARC LENGTH IS 27.75 FEET AND WHOSE CHORD BEARS SOUTH 76°31'23" WEST, 27.75 FEET; THENCE NORTH 12°23'46" WEST CONTINUING ALONG SAID EASTERLY LINE, 133.72 FEET TO THE POINT OF BEGINNING AND CONTAINING 15.35 ACRES (668,819 SQUARE FEET). THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.



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PROJECT NO. 2006.277

GENERAL LEGEND

PROPOSED

SECTION LINE	----
CENTER LINE	----
RIGHT OF WAY	--- R/W ---
PERMANENT EASEMENT	--- P/E ---
TEMPORARY EASEMENT	--- T/E ---
TYPE SW-501 STORM INTAKE	
TYPE SW-503 STORM INTAKE	
TYPE SW-505 STORM INTAKE	
TYPE SW-506 STORM INTAKE	
TYPE SW-513 STORM INTAKE	
TYPE SW-401 STORM MANHOLE	
TYPE SW-402 STORM MANHOLE	
TYPE SW-301 SANITARY MANHOLE	
STORM/SANITARY CLEANOUT	
WATER VALVE	
FIRE HYDRANT ASSEMBLY	
SIGN	
DETECTABLE WARNING PANEL	
WATER CURB STOP	
STORM SEWER STRUCTURE NO.	
STORM SEWER PIPE NO.	
SANITARY SEWER STRUCTURE NO.	
SANITARY SEWER PIPE NO.	
SANITARY SEWER WITH SIZE	
SANITARY SERVICE	
STORM SEWER	
STORM SERVICE	
WATERMAIN WITH SIZE	
WATER SERVICE	
SAWCUT (FULL DEPTH)	
SILT FENCE	
USE AS CONSTRUCTED	(UAC)
TOP OF PROPOSED GROUND	TG
MINIMUM OPENING ELEVATION	MOE
MINIMUM GRADE AT STRUCTURE	MGS

EXISTING

SANITARY MANHOLE	
WATER VALVE BOX	
FIRE HYDRANT	
WATER CURB STOP	
WELL	
STORM SEWER MANHOLE	
STORM SEWER SINGLE INTAKE	
STORM SEWER DOUBLE INTAKE	
FLARED END SECTION	
DECIDUOUS TREE	
CONIFEROUS TREE	
DECIDUOUS SHRUB	
CONIFEROUS SHRUB	
ELECTRIC POWER POLE	
GUY ANCHOR	
STREET LIGHT	
POWER POLE W/ TRANSFORMER	
UTILITY POLE W/ LIGHT	
ELECTRIC BOX	
ELECTRIC TRANSFORMER	
ELECTRIC MANHOLE OR VAULT	
TRAFFIC SIGN	
TELEPHONE JUNCTION BOX	
TELEPHONE MANHOLE/VAULT	
TELEPHONE POLE	
GAS VALVE BOX	
CABLE TV JUNCTION BOX	
CABLE TV MANHOLE/VAULT	
MAIL BOX	
BENCHMARK	
SOIL BORING	
UNDERGROUND TV CABLE	
GAS MAIN	
FIBER OPTIC	
UNDERGROUND TELEPHONE	
OVERHEAD ELECTRIC	
UNDERGROUND ELECTRIC	
FIELD TILE	
SANITARY SEWER W/ SIZE	
STORM SEWER W/ SIZE	
WATER MAIN W/ SIZE	

REFER TO THE KETTLESTONE RIDGE GEOTECHNICAL REPORT PREPARED BY GEOTECH, INC.
(PN 02.15174.00) DATED AUGUST 20, 2015 FOR GEOTECHNICAL REQUIREMENTS.

THIS PROJECT REQUIRES AN IOWA NPDES PERMIT #2. CIVIL DESIGN ADVANTAGE WILL PROVIDE THE PERMITS AND THE INITIAL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE CONTRACTORS USE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING THE SWPPP THROUGHOUT CONSTRUCTION AND MEETING LOCAL, STATE AND FEDERAL REQUIREMENTS.

THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

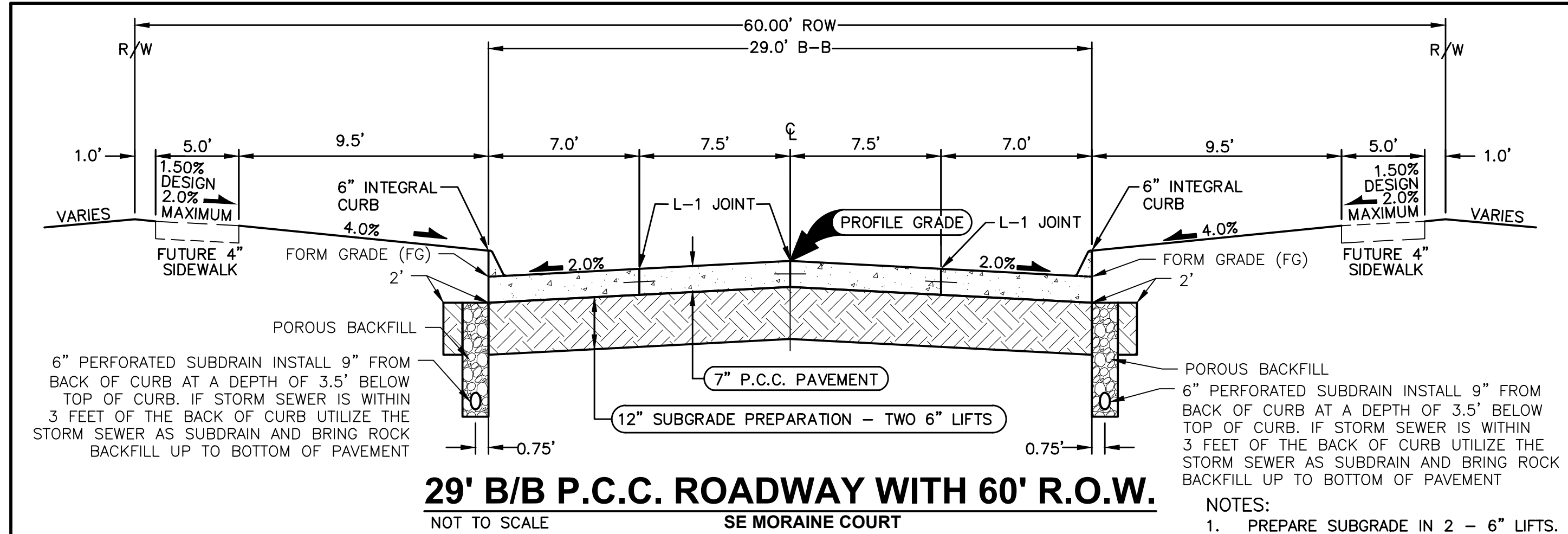
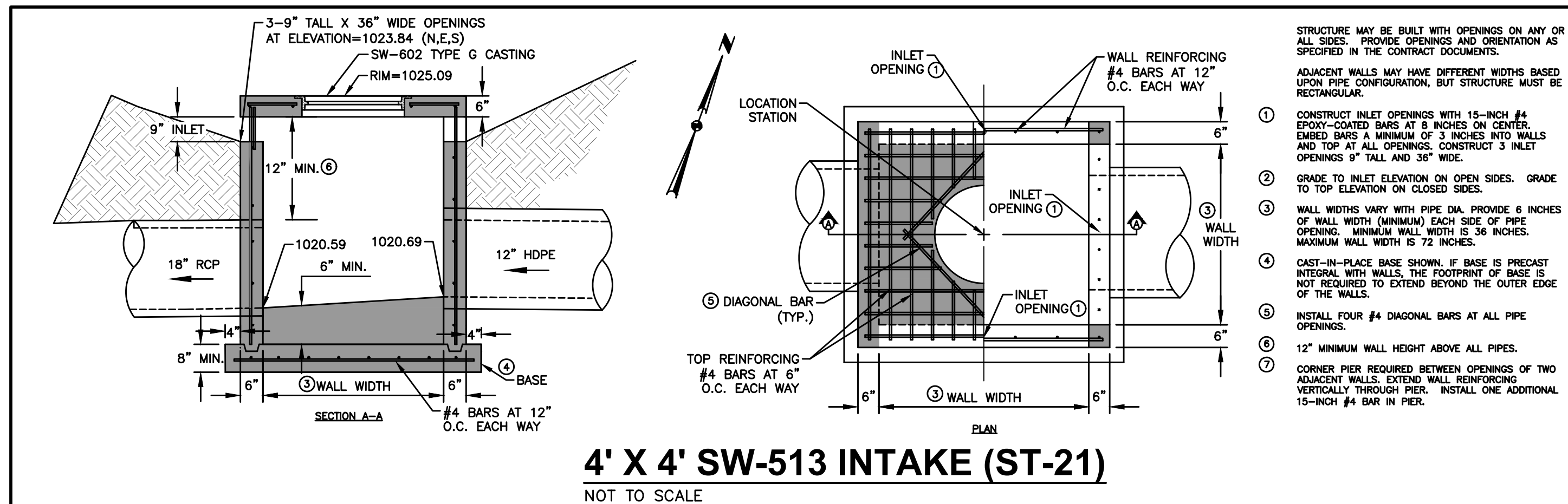
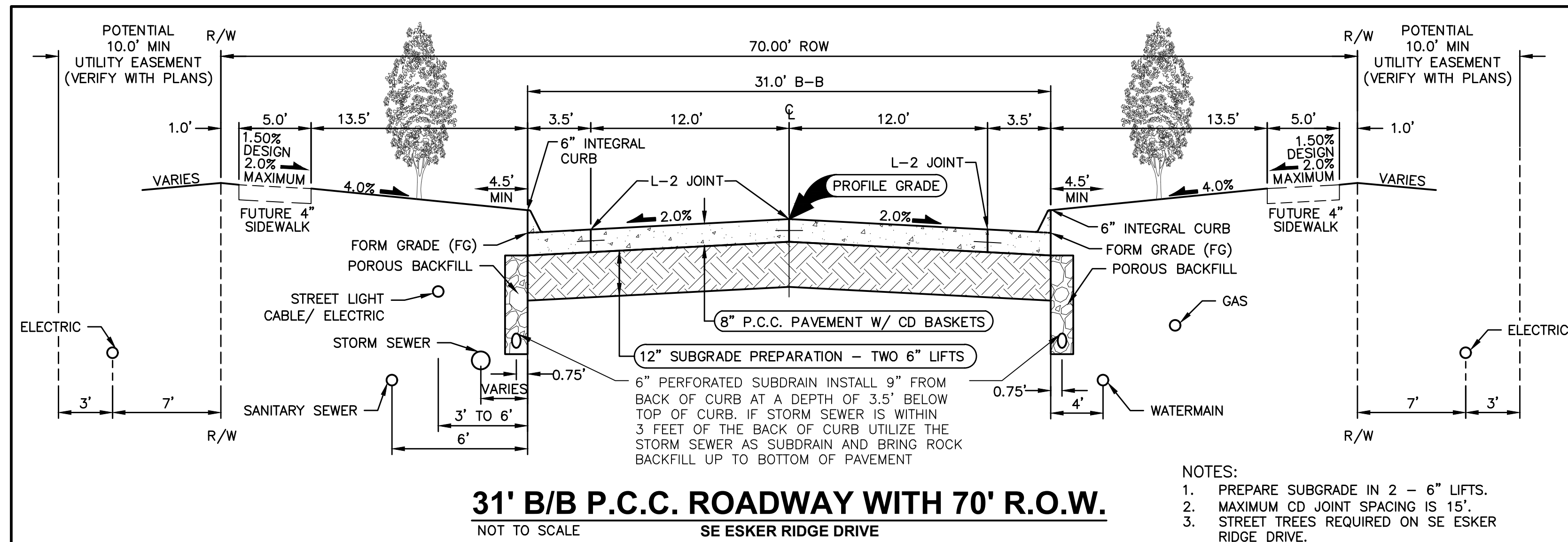
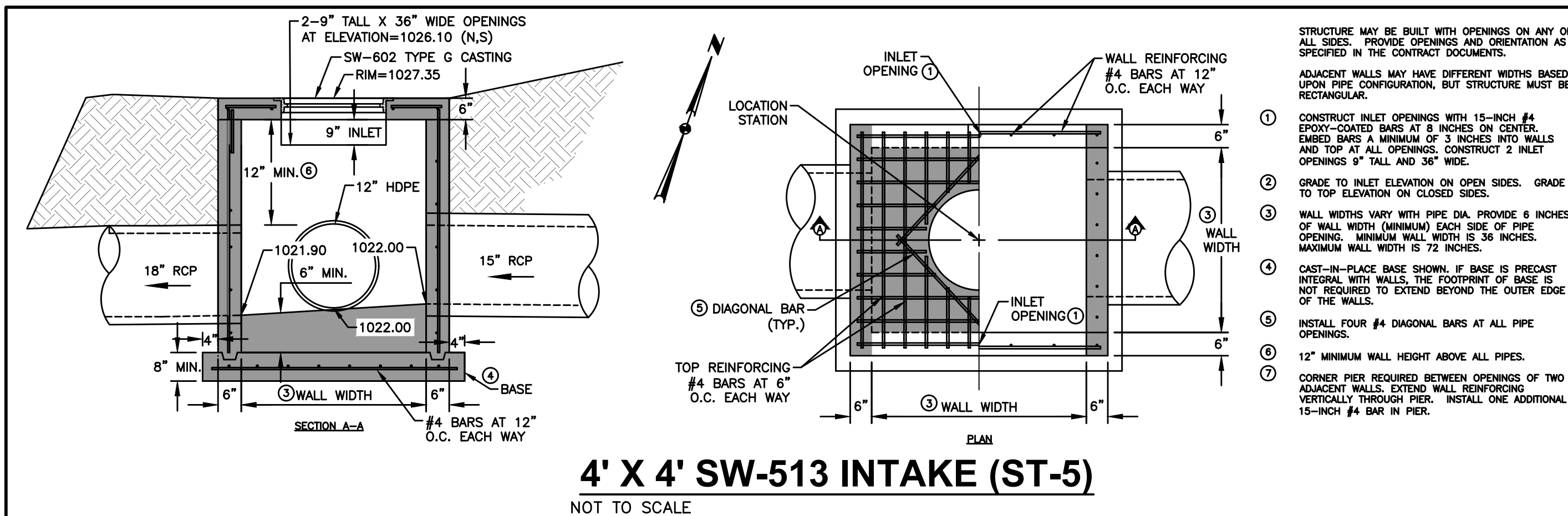
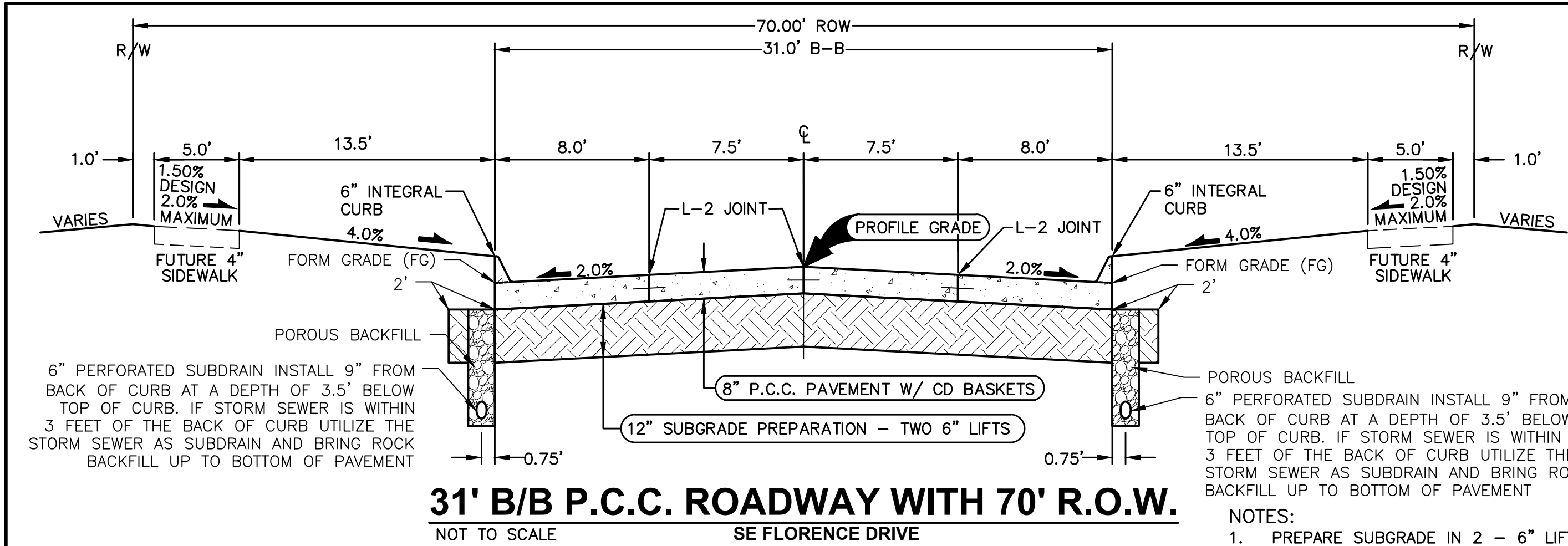
THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE MOST RECENT EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.



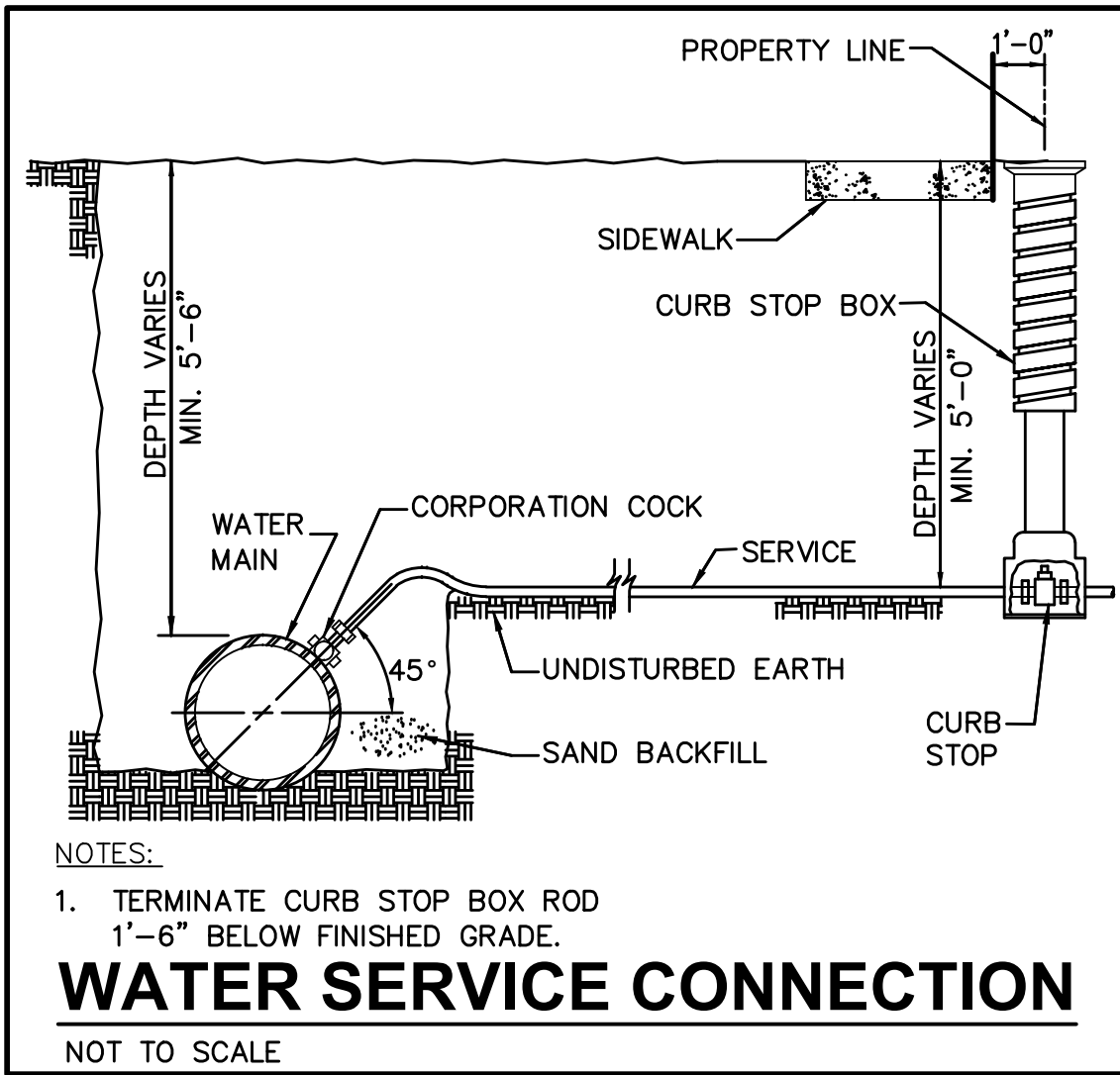
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

Erin K. Ollendike 08-30-2021
ERIN K. OLLENDIKE, P.E. DATE
LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1-27

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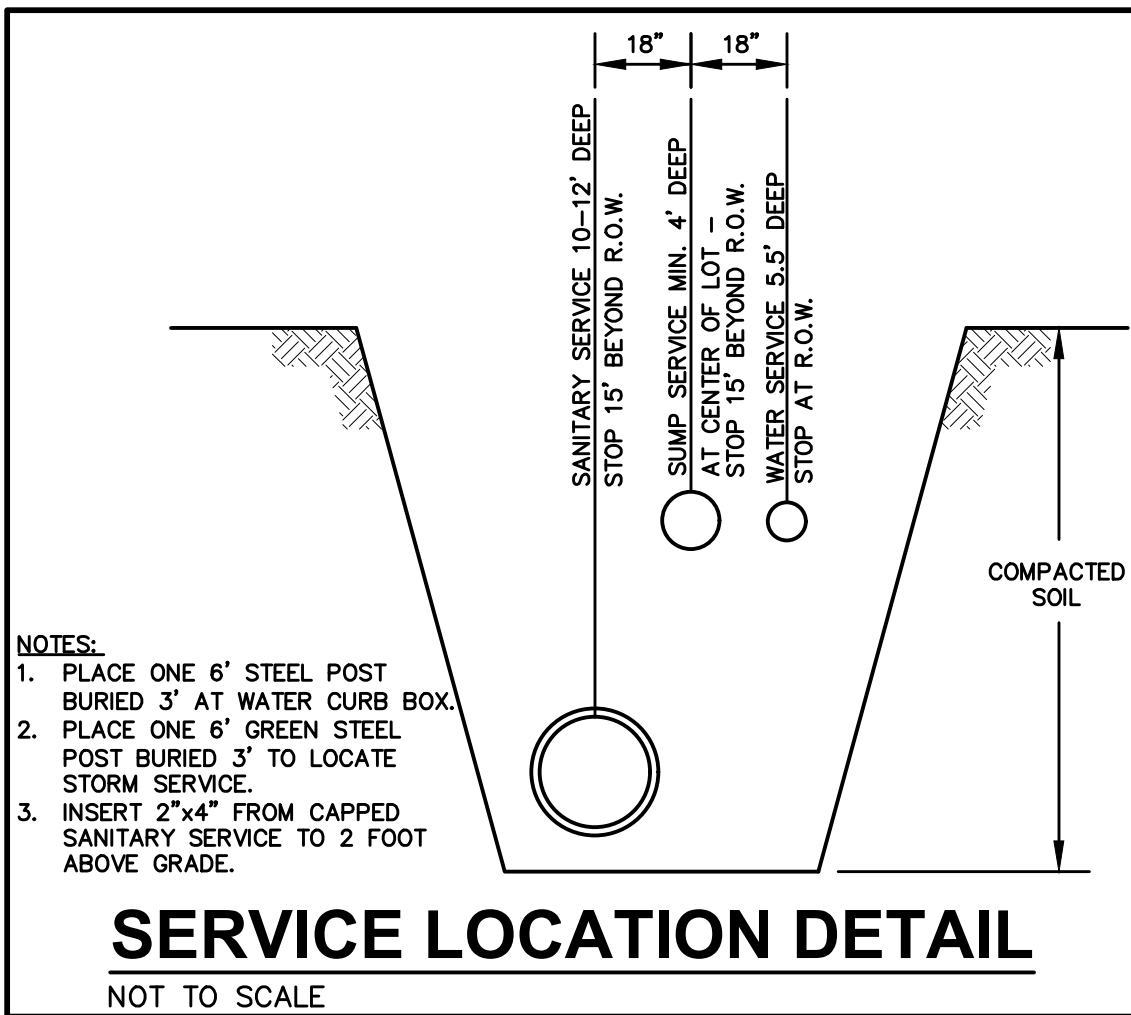
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NOTES:
1. TERMINATE CURB STOP BOX ROD 1'-6" BELOW FINISHED GRADE.

WATER SERVICE CONNECTION

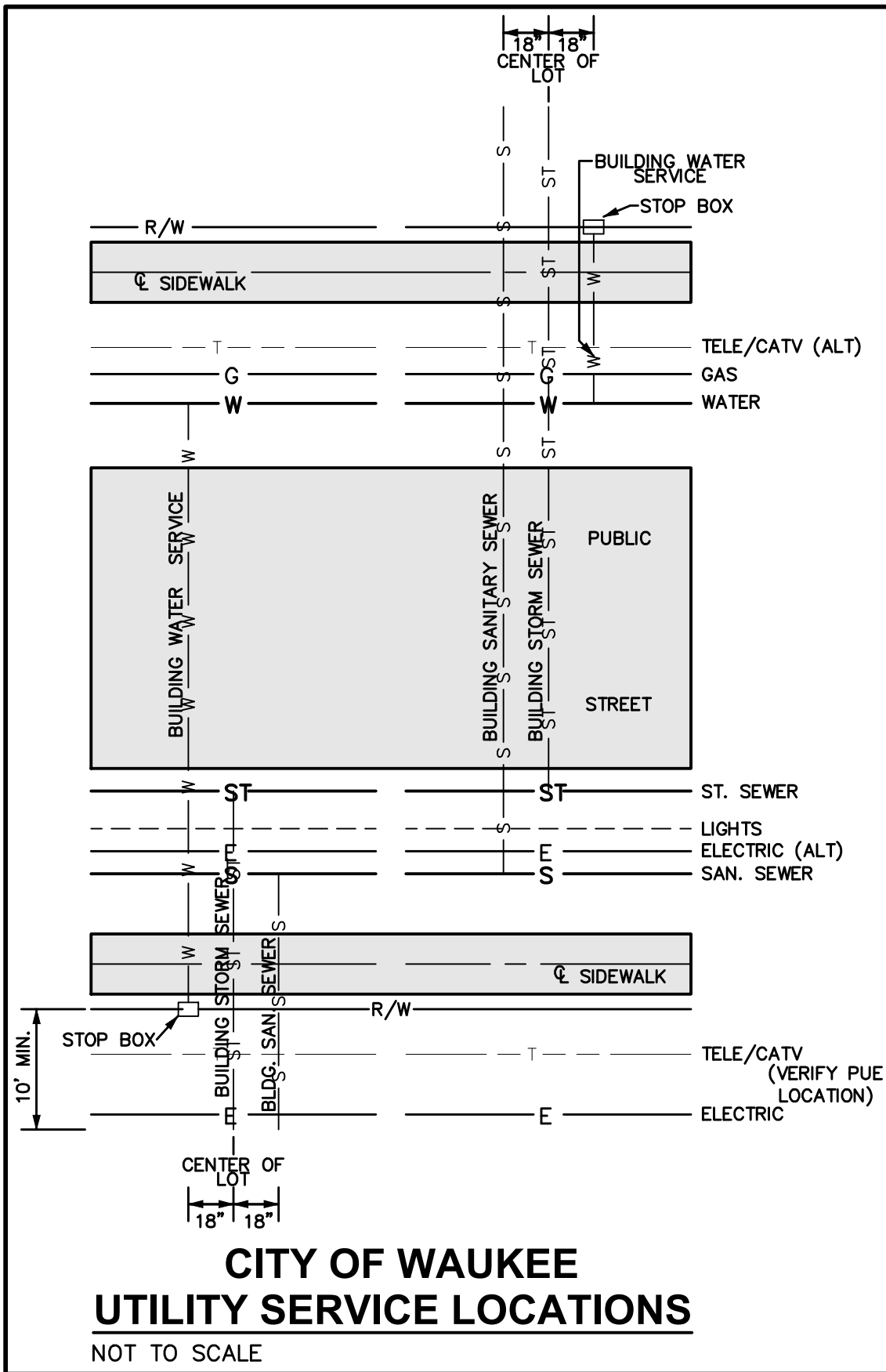
NOT TO SCALE



NOTES:
1. PLACE ONE 6" STEEL POST BURIED 3" AT WATER CURB BOX.
2. PLACE ONE 6" GREEN STEEL POST BURIED 3" TO LOCATE STORM SERVICE.
3. INSERT 2"x4" FROM CAPPED SANITARY SERVICE TO 2 FOOT ABOVE GRADE.

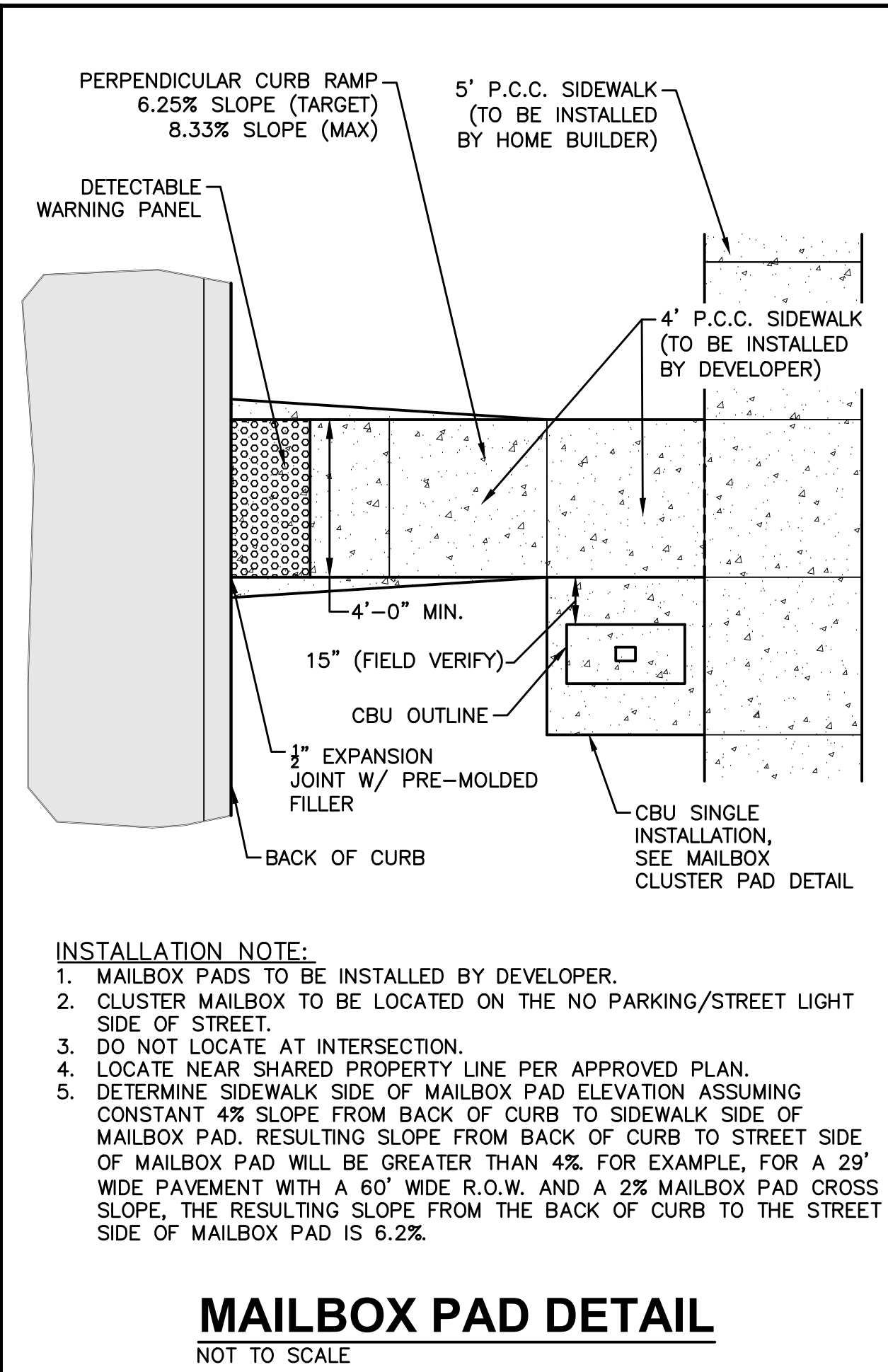
SERVICE LOCATION DETAIL

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CITY OF WAUKEE UTILITY SERVICE LOCATIONS

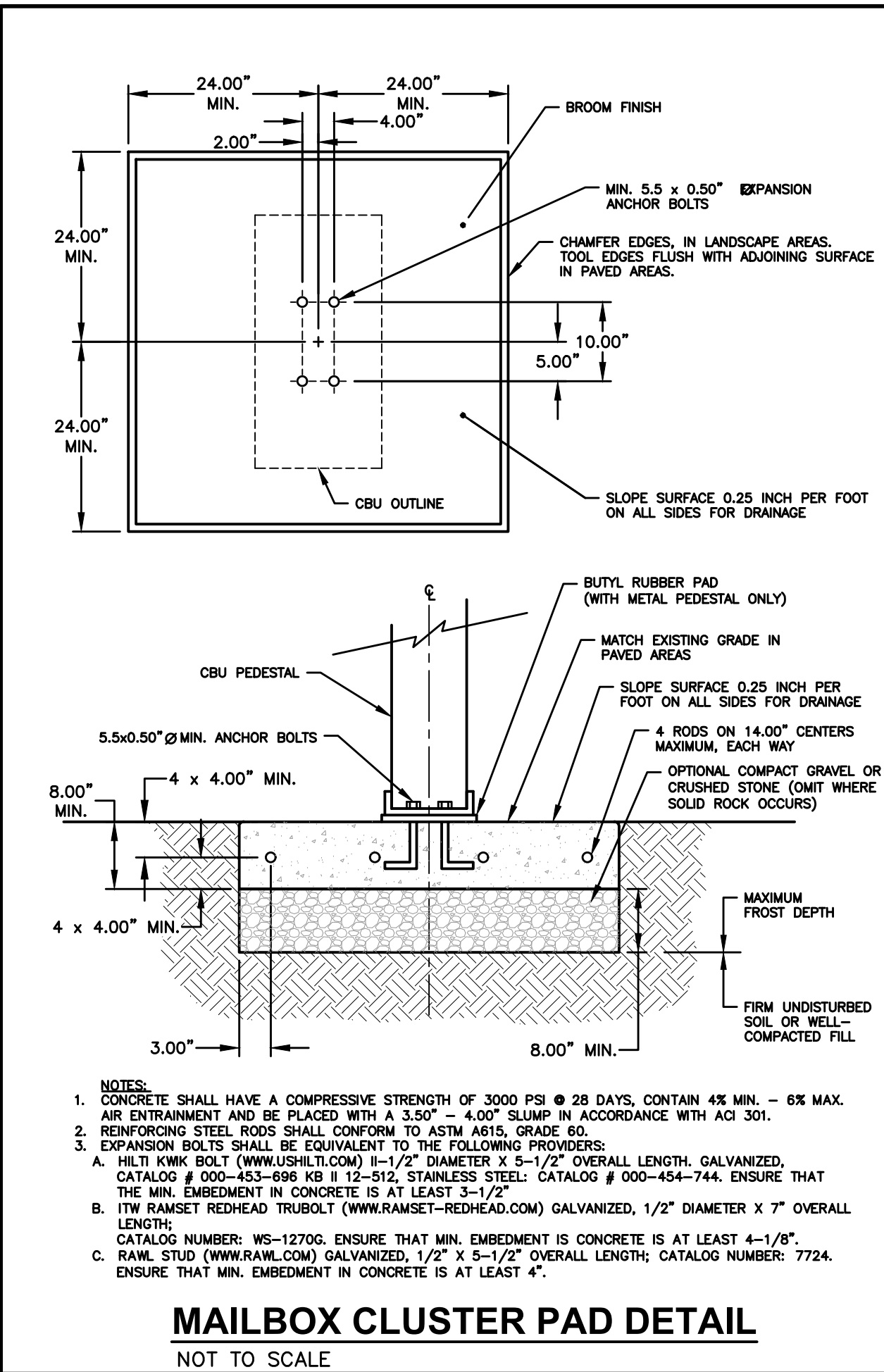
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INSTALLATION NOTE:
1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
2. CLUSTER MAILBOX TO BE LOCATED ON THE NO PARKING/STREET LIGHT SIDE OF STREET.
3. DO NOT LOCATE AT INTERSECTION.
4. LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.
5. DETERMINE SIDEWALK SIDE OF MAILBOX PAD ELEVATION ASSUMING CONSTANT 4% SLOPE FROM BACK OF CURB TO SIDEWALK SIDE OF MAILBOX PAD. RESULTING SLOPE FROM BACK OF CURB TO STREET SIDE OF MAILBOX PAD WILL BE GREATER THAN 4%. FOR EXAMPLE, FOR A 29' WIDE PAVEMENT WITH A 60' WIDE R.O.W. AND A 2% MAILBOX PAD CROSS SLOPE, THE RESULTING SLOPE FROM THE BACK OF CURB TO THE STREET SIDE OF MAILBOX PAD IS 6.2%.

MAILBOX PAD DETAIL

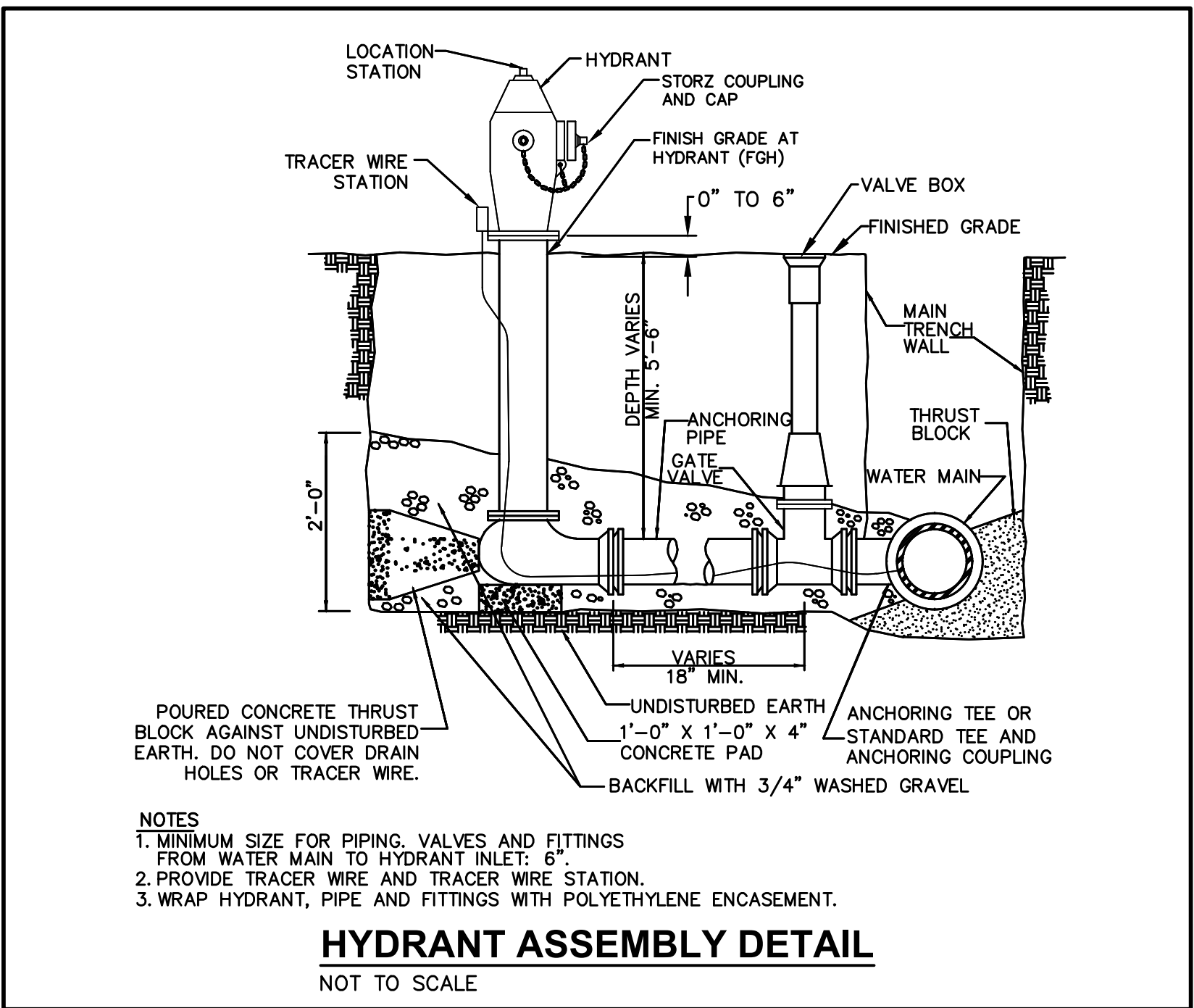
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NOTES:
1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN. - 6% MAX. AIR ENTRAINMENT AND BE PLACED WITH A 3.50" - 4.00" SLUMP IN ACCORDANCE WITH ACI 301.
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS:
A. HILTI KWIK BOLT (WWW.USHLTI.COM) 1/2" DIAMETER X 5-1/2" OVERALL LENGTH, GALVANIZED, CATALOG # 000-453-696 KB II 12-512, STAINLESS STEEL: CATALOG # 000-454-744. ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 3-1/2".
B. ITW RAMSET REDHEAD TRIBOLT (WWW.RAMSET-REDHEAD.COM) GALVANIZED, 1/2" DIAMETER X 7" OVERALL LENGTH: CATALOG NUMBER: WS-1270G. ENSURE THAT MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4-1/8".
C. RAWL STUD (WWW.RAWL.COM) GALVANIZED, 1/2" X 5-1/2" OVERALL LENGTH: CATALOG NUMBER: 7724. ENSURE THAT MIN. EMBEDMENT IN CONCRETE IS AT LEAST 4".

MAILBOX CLUSTER PAD DETAIL

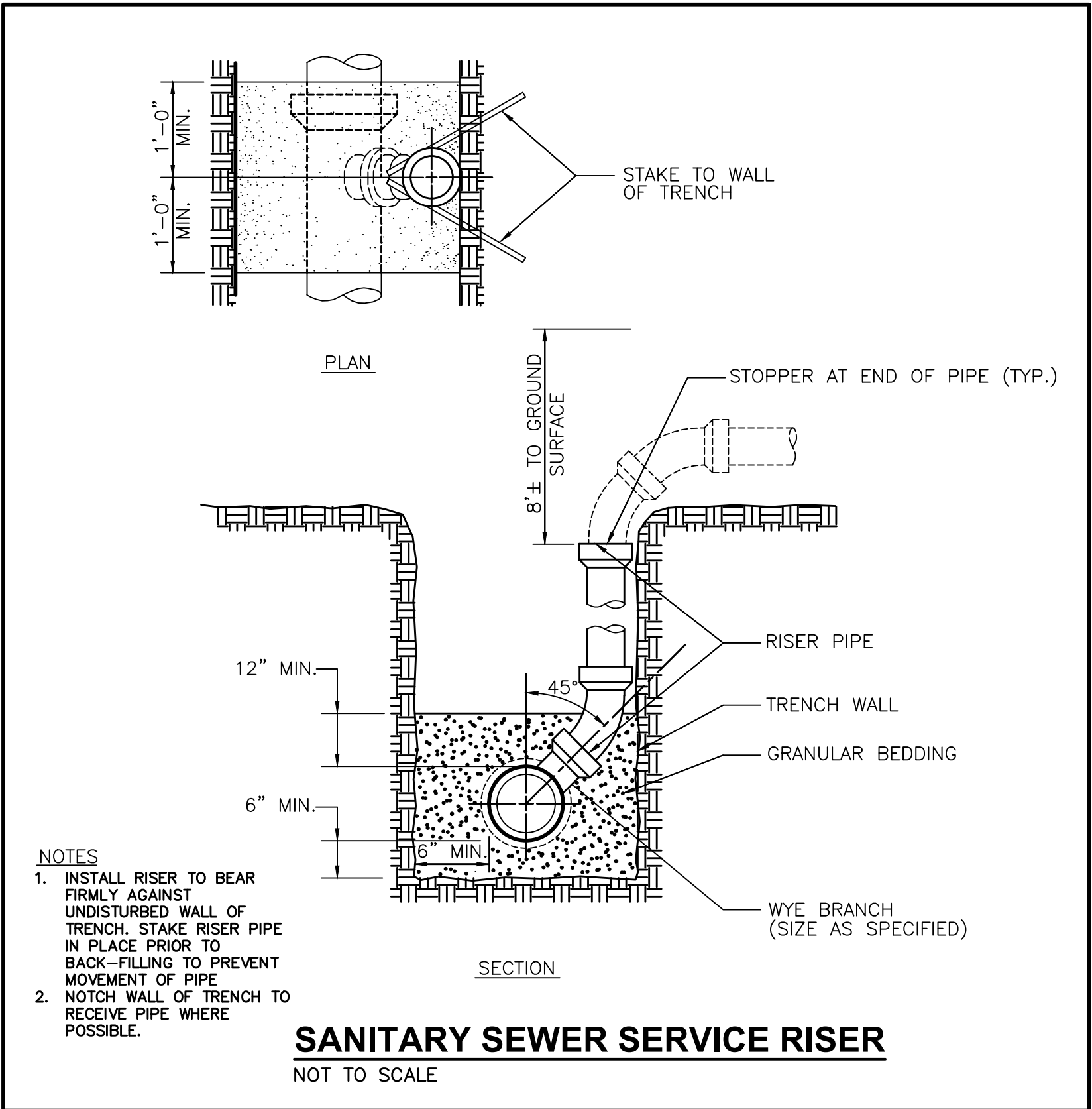
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NOTES:
1. MINIMUM SIZE FOR PIPING, VALVES AND FITTINGS FROM WATER MAIN TO HYDRANT INLET: 6".
2. PROVIDE TRACER WIRE AND TRACER WIRE STATION.
3. WRAP HYDRANT, PIPE AND FITTINGS WITH POLYETHYLENE ENCASEMENT.

HYDRANT ASSEMBLY DETAIL

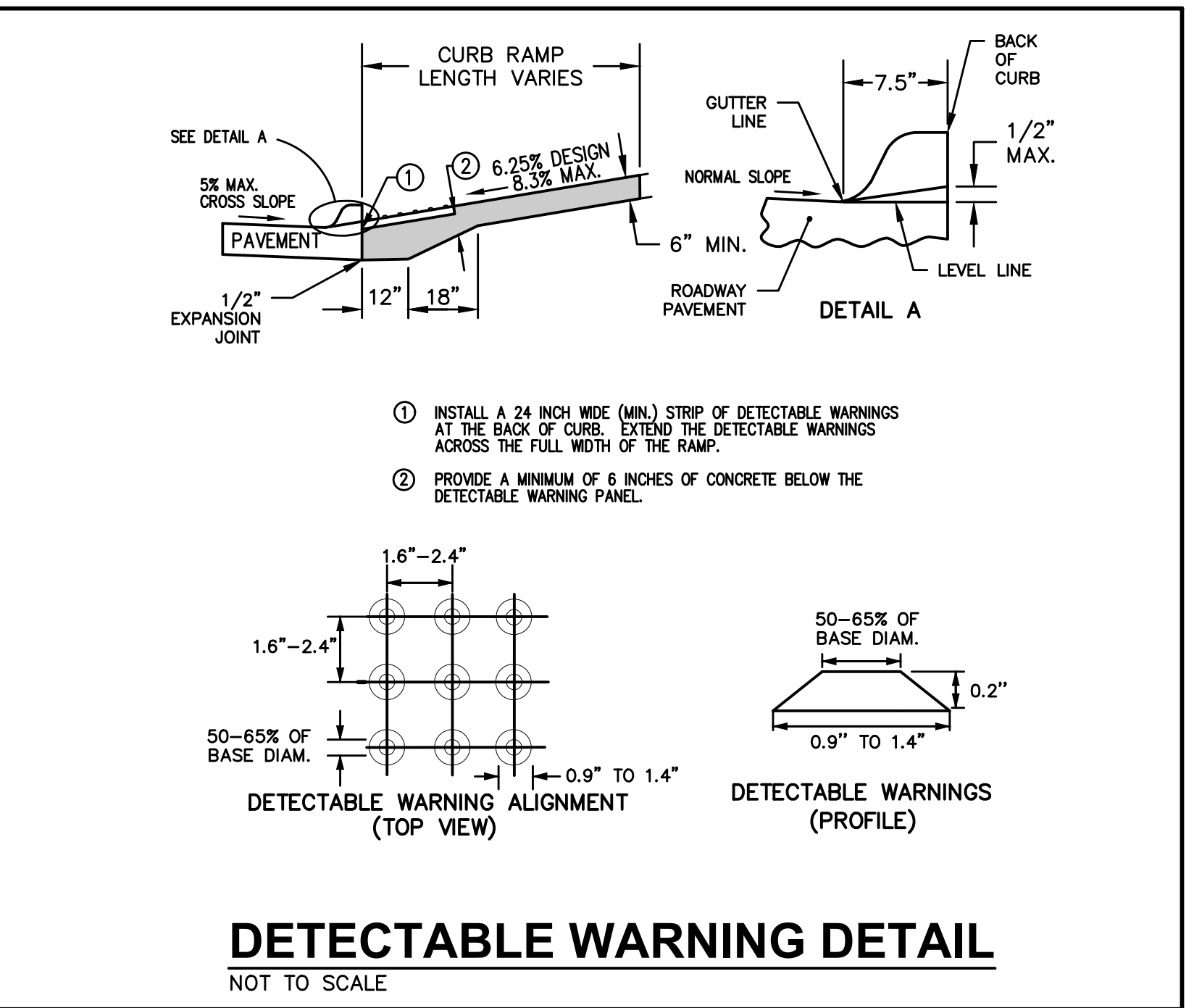
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NOTES:
1. INSTALL RISER TO BEAR FIRMLY AGAINST UNDISTURBED WALL OF TRENCH. STAKE RISER PIPE IN PLACE PRIOR TO BACK-FILLING TO PREVENT MOVEMENT OF PIPE.
2. NOTCH WALL OF TRENCH TO RECEIVE PIPE WHERE POSSIBLE.

SANITARY SEWER SERVICE RISER

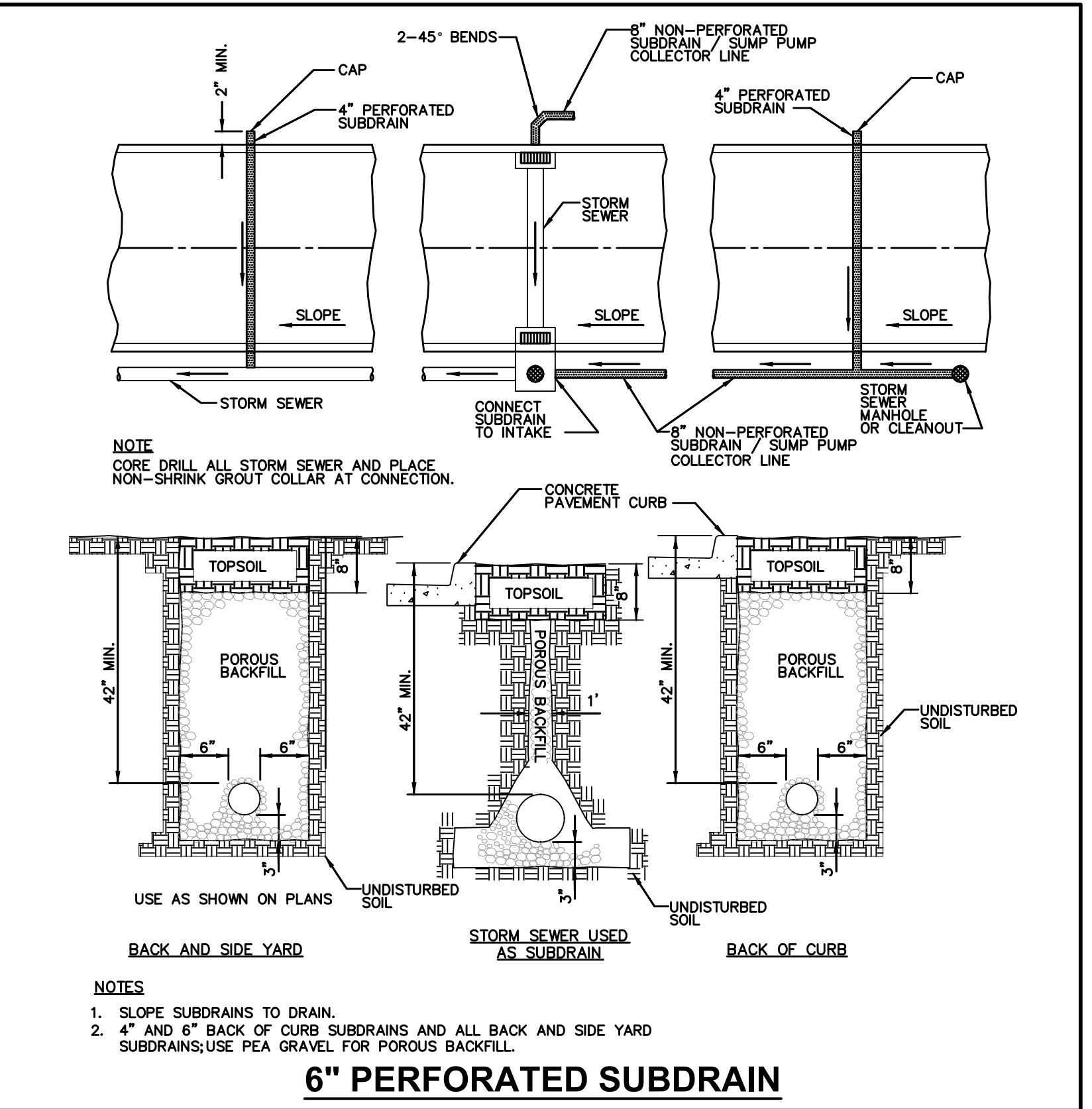
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① INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.
② PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.

DETECTABLE WARNING DETAIL

NOT TO SCALE



NOTES:
1. SLOPE SUBDRAINS TO DRAIN.
2. 4" AND 6" BACK OF CURB SUBDRAINS AND ALL BACK AND SIDE YARD SUBDRAINS; USE PEA GRAVEL FOR POROUS BACKFILL.

6" PERFORATED SUBDRAIN

ESTIMATE REFERENCE INFORMATION	
Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.	
ITEM NO.	DESCRIPTION
21	REFER TO FIG.6010.301 – CIRCULAR SANITARY SEWER MANHOLE (SW–301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE B RING AND COVER. WHEN CASTINGS ARE NOT IN PAVEMENT, INSTALL MANHOLE CONE SECTION, MANHOLE STEPS, AND RING/COVER CASTING SUCH THAT SEPARATION IS MAINTAINED BETWEEN MANHOLE COVERS AND PAVED AREAS (BACK OF CURB, SIDEWALK PAVEMENT, SIDEWALK APPROACHES/RAMPS). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.
22–24	REFER TO FIG. 6010.401 – CIRCULAR STORM SEWER MANHOLE (SW–401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
25	REFER TO SHEET 18 FOR LOCATION. REFER TO FIG 6010.604–CASTINGS FOR AREA INTAKES (SW–604) FOR TYPE 5 OPEN GRATE. BID ITEM INCLUDES INSTALLING CONTRACTOR SUPPLIED TYPE 5 GRATE AND ADDITIONAL CONCRETE ADJUSTING RINGS IF REQUIRED. BID ITEM INCLUDES REMOVAL OF EXISTING STORM MANHOLE FRAME AND LID.
26–29	REFER TO FIG. 6010.514 – BOXOUTS FOR GRATE INTAKES FOR CONSTRUCTION DETAILS. REFER TO FIG. 6010.603 – CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 12" FOR EXISTING INTAKES AND 8" FOR PROPOSED INTAKES.
26	REFER TO FIG. 6010.501 – SINGLE GRATE INTAKE (SW–501) FOR CONSTRUCTION DETAILS.
27	REFER TO FIG. 6010.503 – SINGLE GRATE INTAKE WITH MANHOLE (SW–503) FOR CONSTRUCTION DETAILS.
28	REFER TO FIG. 6010.505 – DOUBLE GRATE INTAKE (SW–505) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG. 6010.506 – DOUBLE GRATE INTAKE WITH MANHOLE (SW–506) FOR CONSTRUCTION DETAILS.
31	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
32	REFER TO FIG. 4040.232 – SUBDRAIN CLEANOUT FOR CONSTRUCTION DETAILS
33–34	REFER TO FIG. 7010.101 – JOINTS (PV–101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
35–36	REFER TO FIG. 7030.204 – GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 – CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.
37	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
38	THE SITE SEEDING SHALL CONFORM TO THE SPECIFICATION FOR TYPE (1) PERMANENT LAWN MIXTURE AND TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. <u>SEEDING QUANTITIES</u> –TYPE 1 PERMANENT LAWN MIXTURE = 1.77 AC –TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 29.79 AC
39	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS. REFER TO IDOT STANDARD ROAD PLAN SI–182 FOR CONSTRUCTION DETAILS. EACH LOCATION CONSISTS OF FIVE SIGNS WITH POSTS PER SI–182.
40	ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.
41	REFER TO SHEETS 9–11 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
42	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS. MAILBOX PAD IS LOCATED BETWEEN LOTS 7/8, 14/15, AND 30/31 .

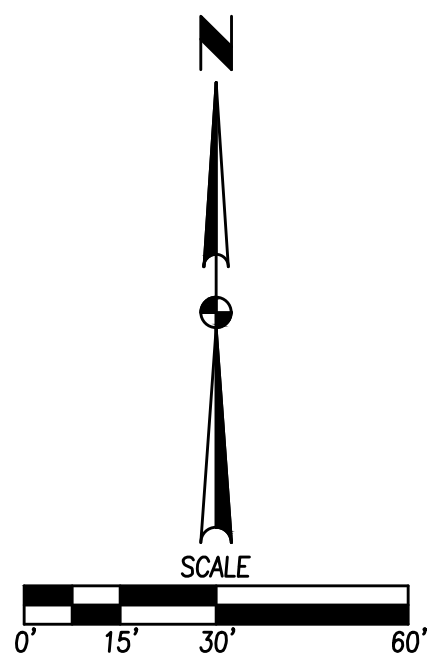
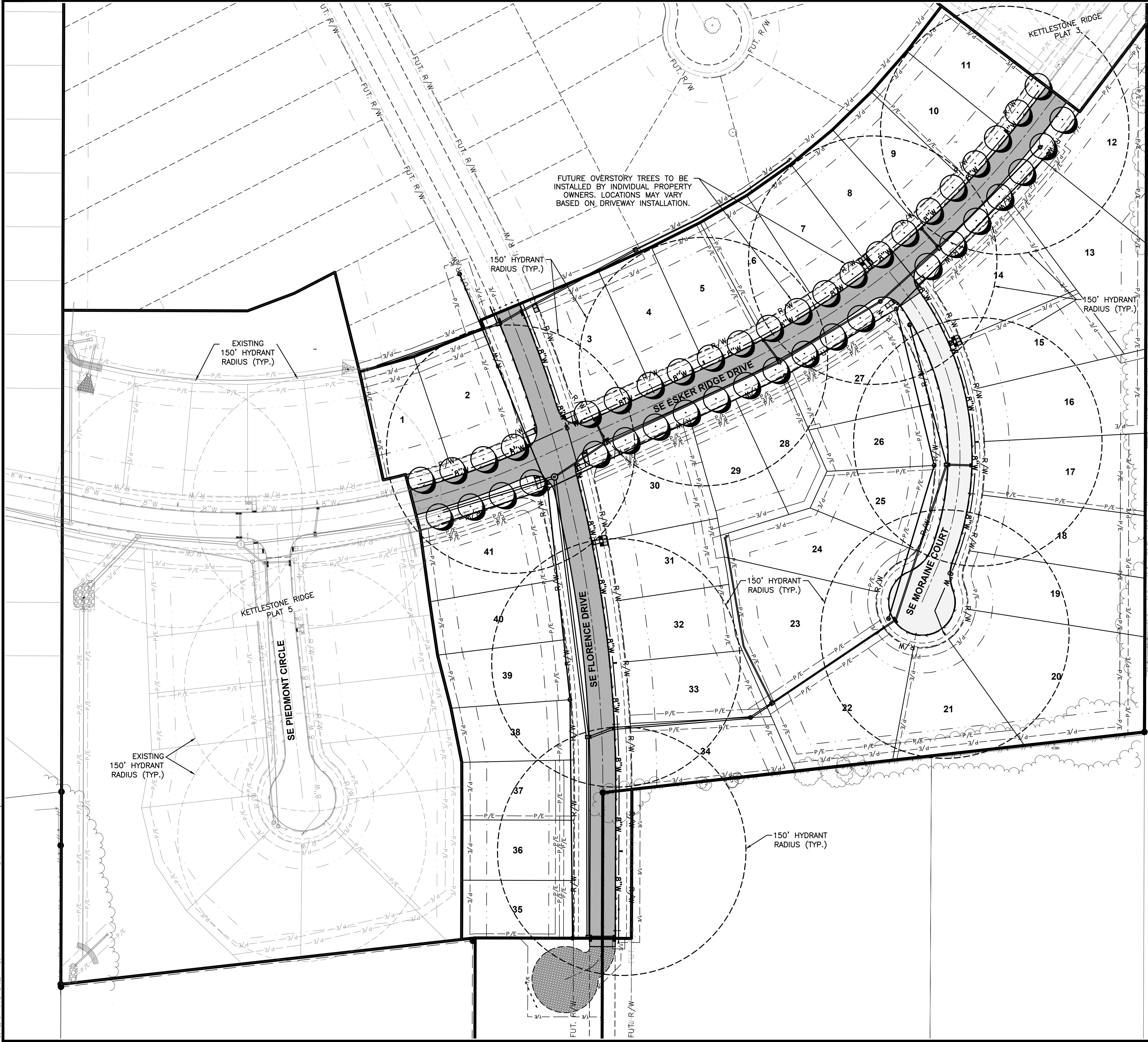
10. PRIOR TO CONSTRUCTION, THE PROJECT MANAGER SHALL CONTACT THE WAUKEE ENGINEERING DEPARTMENT AND SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST ONE WEEK PRIOR TO THE ANTICIPATED START OF CONSTRUCTION.
11. SPECIAL CARE MUST BE TAKEN WHEN FORMING AT INTERSECTIONS SO THE PROFILES SHOWN ON THE PLANS AND THE ELEVATIONS SHOWN ON THE INTERSECTION DETAILS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.
12. TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAYING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.
13. THE CONTRACTOR MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR THE CITY, TO PLACE TEMPORARY WARNING DEVICES AND SAFETY FENCE AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY. THIS SHALL BE INCIDENTAL TO THE BID ITEM TRAFFIC CONTROL. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.
14. PLAN AND PROFILE SHEETS INCLUDED IN THE PROJECT ARE FOR THE PURPOSE OF ALIGNMENT, LOCATION AND SPECIFIC DIRECTIONS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT. IRRELEVANT DATA ON THESE SHEETS IS NOT TO BE CONSIDERED A PART OF THIS CONTRACT.
15. THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
16. THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
17. ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
18. PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER, ENGINEER, AND/OR ARCHITECT, AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
19. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
20. ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
21. SIDEWALKS, ACCESSIBLE CURB RAMPS AND SIDEWALK RAMPS INCLUDING RAISED TRUNCATED DOME AND DETECTABLE WARNINGS AND WARNING PANELS SHALL BE DESIGNED AND INSTALLED TO THE LATEST P.R.O.W.A.G. AND A.D.A. REQUIREMENTS.
22. PLACE 3/4" EXPANSION JOINT BETWEEN ALL P.C.C. PAVEMENT/SIDEWALKS AND BUILDINGS. PLACE 1/2" EXPANSION JOINT BETWEEN SIDEWALKS AND P.C.C PAVEMENT. THE PCC RAMP JOINT LOCATED AT THE BACK OF CURB AND ALL EXPANSION JOINTS SHALL BE SEALED.
23. REMOVE DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
24. DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.	
ITEM NO.	DESCRIPTION
21	REFER TO FIG.6010.301 – CIRCULAR SANITARY SEWER MANHOLE (SW-301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE B RING AND COVER. WHEN CASTINGS ARE NOT IN PAVEMENT, INSTALL MANHOLE CONE SECTION, MANHOLE STEPS, AND RING/COVER CASTING SUCH THAT SEPARATION IS MAINTAINED BETWEEN MANHOLE COVERS AND PAVED AREAS (BACK OF CURB, SIDEWALK PAVEMENT, SIDEWALK APPROACHES/RAMPS). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.
22–24	REFER TO FIG. 6010.401 – CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
25	REFER TO SHEET 18 FOR LOCATION. REFER TO FIG 6010.604–CASTINGS FOR AREA INTAKES (SW-604) FOR TYPE 5 OPEN GRATE. BID ITEM INCLUDES INSTALLING CONTRACTOR SUPPLIED TYPE 5 GRATE AND ADDITIONAL CONCRETE ADJUSTING RINGS IF REQUIRED. BID ITEM INCLUDES REMOVAL OF EXISTING STORM MANHOLE FRAME AND LID.
26–29	REFER TO FIG. 6010.514 – BOXOUTS FOR GRATE INTAKES FOR CONSTRUCTION DETAILS. REFER TO FIG. 6010.603 – CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 12" FOR EXISTING INTAKES AND 8" FOR PROPOSED INTAKES.
26	REFER TO FIG. 6010.501 – SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
27	REFER TO FIG. 6010.503 – SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
28	REFER TO FIG. 6010.505 – DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG. 6010.506 – DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
31	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
32	REFER TO FIG. 4040.232 – SUBDRAIN CLEANOUT FOR CONSTRUCTION DETAILS
33–34	REFER TO FIG. 7010.101 – JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
35–36	REFER TO FIG. 7030.204 – GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 – CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.
37	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
38	THE SITE SEEDING SHALL CONFORM TO THE SPECIFICATION FOR TYPE (1) PERMANENT LAWN MIXTURE AND TYPE (4) URBAN TEMPORARY EROSION CONTROL SEED MIXTURE. SEEDING QUANTITIES –TYPE 1 PERMANENT LAWN MIXTURE = 1.77 AC –TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 29.79 AC
39	REFER TO PLAN AND PROFILE SHEETS FOR LOCATIONS. REFER TO IDOT STANDARD ROAD PLAN SI-182 FOR CONSTRUCTION DETAILS. EACH LOCATION CONSISTS OF FIVE SIGNS WITH POSTS PER SI-182.
40	ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ROAD BARRICADES AT END OF EXISTING PAVEMENTS UNTIL THE PROJECT IS ACCEPTED.
41	REFER TO SHEETS 9–11 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
42	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS. MAILBOX PAD IS LOCATED BETWEEN LOTS 7/8, 14/15, AND 30/31 .

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PLOTTER: HP DesignJet T120

COMMENT:
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2006.277



KETTLESTONE RIDGE PLAT 7
HYDRANT COVERAGE PLAN

Waukee, Iowa

CIVIL DESIGN ADVANTAGE

3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO

EI: JWM

REVISIONS

DATE	REVISIONS
08/30/2021	AS-BUILT SUBMITTAL
08/04/2020	FINAL SUBMITTAL
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07/14/2020	SECOND SUBMITTAL
06/30/2020	FIRST SUBMITTAL

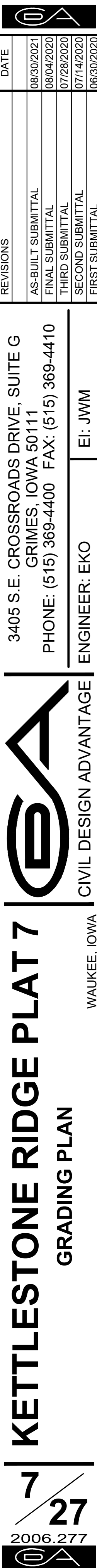


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PHONE: (515) 369-4400 FAX: (515) 369-4410

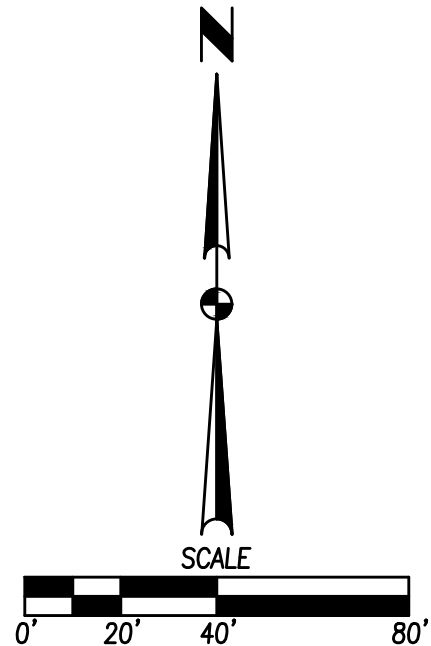
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EI: JWM





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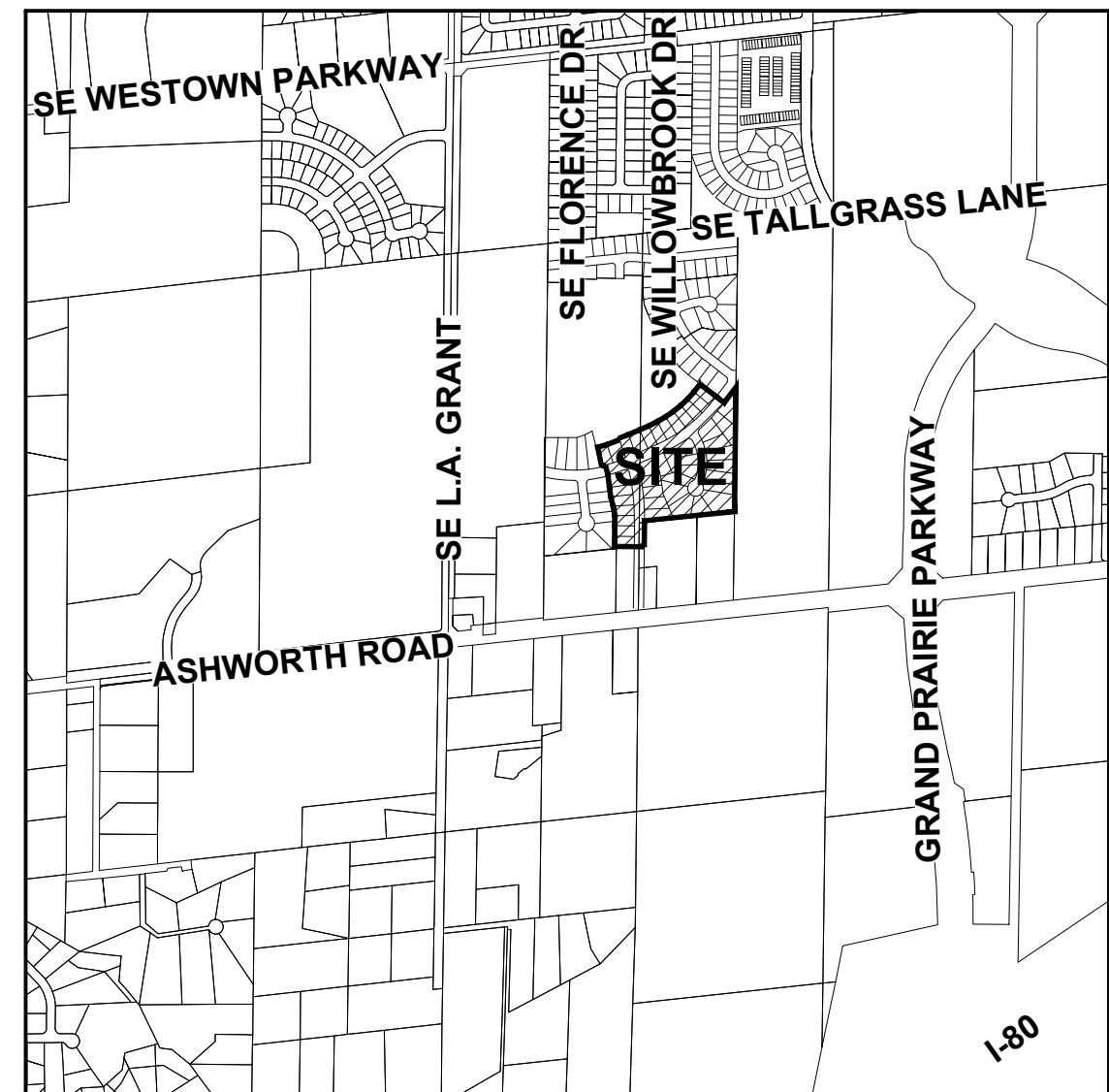


KETTLESTONE RIDGE PLAT 7

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	6,269
2	SEEDING, FERTILIZING, AND MULCHING	AC	31.56
3	INLET PROTECTION DEVICES	EA	15
4	CONCRETE WASHOUT PIT	EA	1

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF SUGAR CREEK ±600 FT
TOTAL AREA DISTURBED TO DISCHARGE POINT 13.61 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 48,996 CU FT

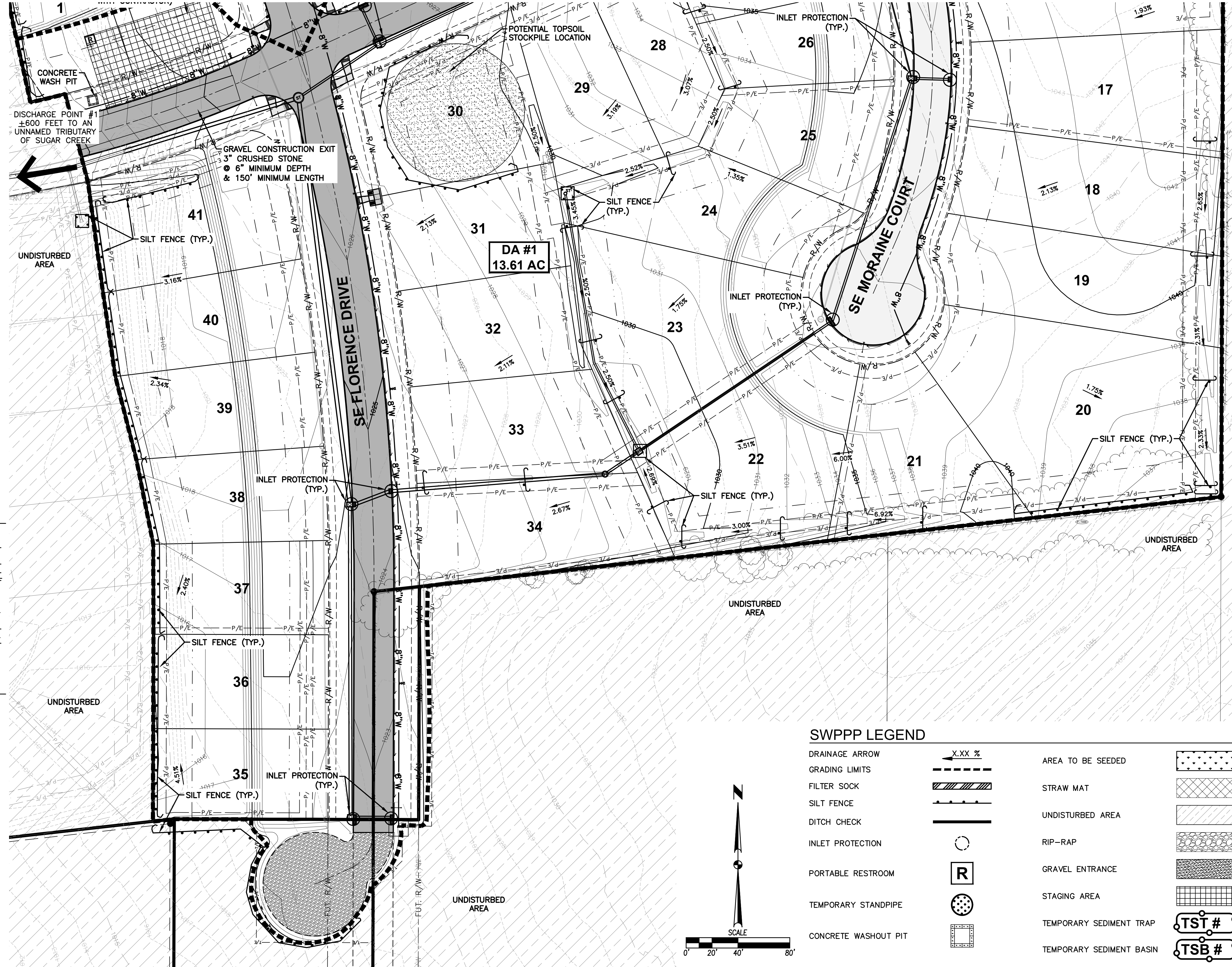
VOLUME PROVIDED IN SILT FENCE (1,905 LF @ 15 CU FT/LF OF FENCE) 28,575 CU FT
VOLUME PROVIDED IN EXISTING TSB #1 (KETTLESTONE RIDGE PLAT 5) 25,689 CU FT
TOTAL VOLUME PROVIDED 54,264 CU FT

DISCHARGE POINT #2 TO AN UNNAMED TRIBUTARY OF SUGAR CREEK ±1000 FT
TOTAL AREA DISTURBED TO DISCHARGE POINT 19.56 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT) 70,416 CU FT

VOLUME PROVIDED IN SILT FENCE (4,364 LF @ 15 CU FT/LF OF FENCE) 65,460 CU FT
VOLUME PROVIDED IN EXISTING TSB #2 (KETTLESTONE RIDGE PLAT 5) 28,721 CU FT
TOTAL VOLUME PROVIDED 94,181 CU FT

NOTES:

- STORM SEWER AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.



SWPPP LEGEND

DRAINAGE ARROW	XX %	AREA TO BE SEEDED	
GRADING LIMITS		STRAW MAT	
FILTER SOCK		UNDISTURBED AREA	
SILT FENCE		RIP-RAP	
DITCH CHECK		GRAVEL ENTRANCE	
INLET PROTECTION		STAGING AREA	
PORTABLE RESTROOM	R	TEMPORARY SEDIMENT TRAP	TST #
TEMPORARY STANDPIPE		TEMPORARY SEDIMENT BASIN	TSB #
CONCRETE WASHOUT PIT			

DATE

08/30/2021

AS-BUILT SUBMITTAL

08/04/2020

FINAL SUBMITTAL

07/28/2020

THIRD SUBMITTAL

07/14/2020

FIRST SUBMITTAL

06/30/2020

REVISIONS

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EI: JWM

KETTLESTONE RIDGE PLAT 7

EROSION AND SEDIMENT CONTROL PLAN

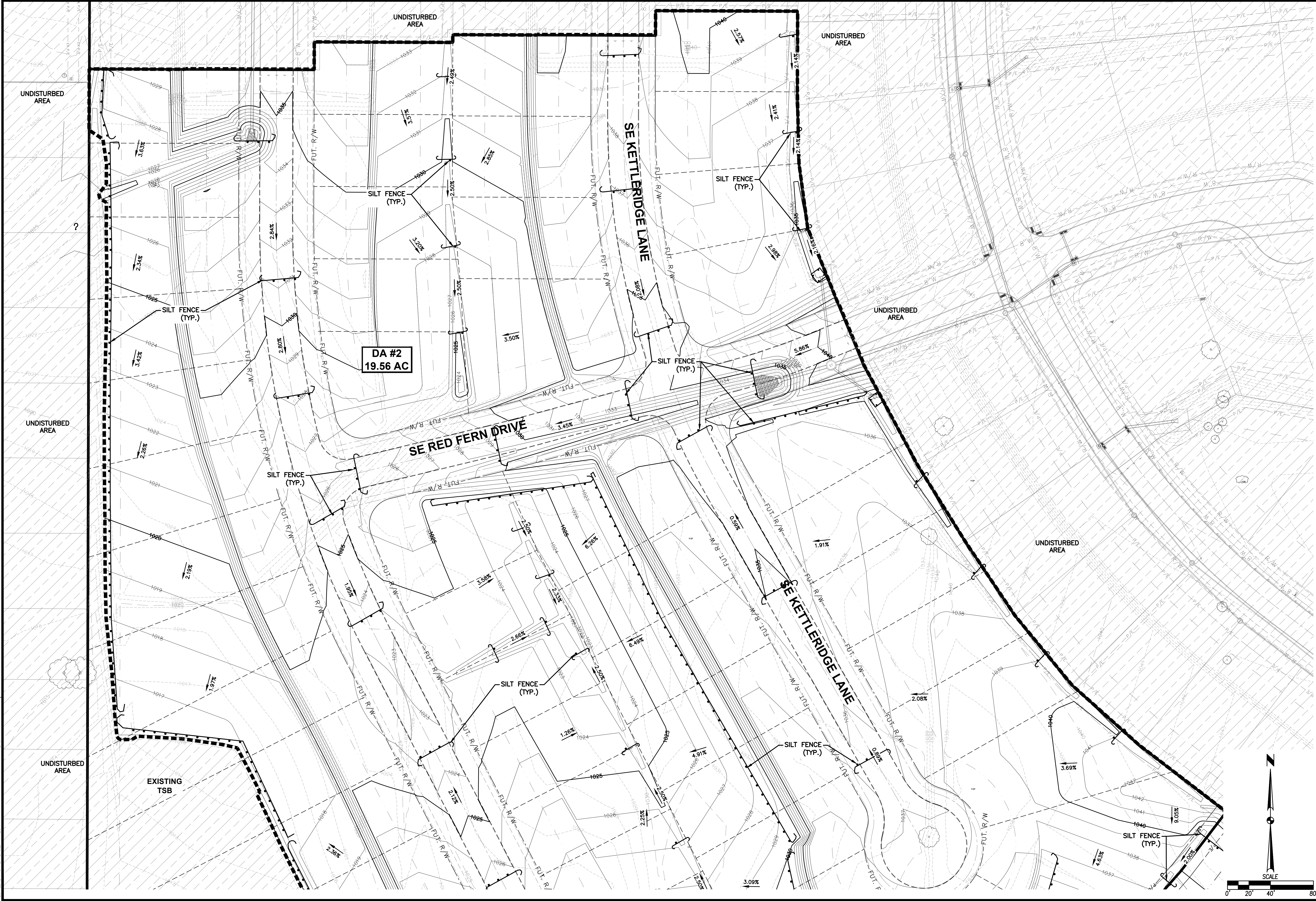
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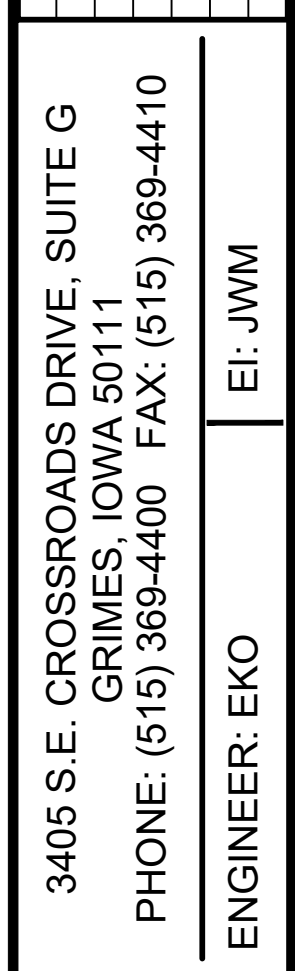
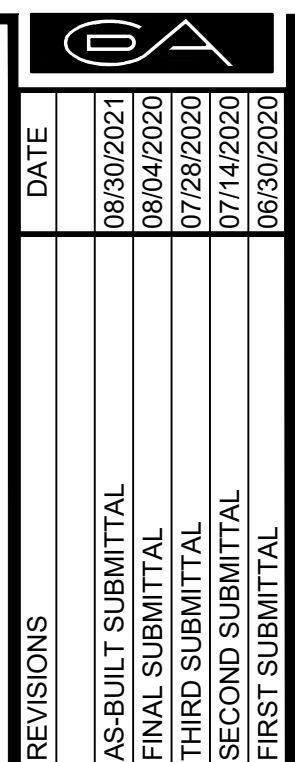
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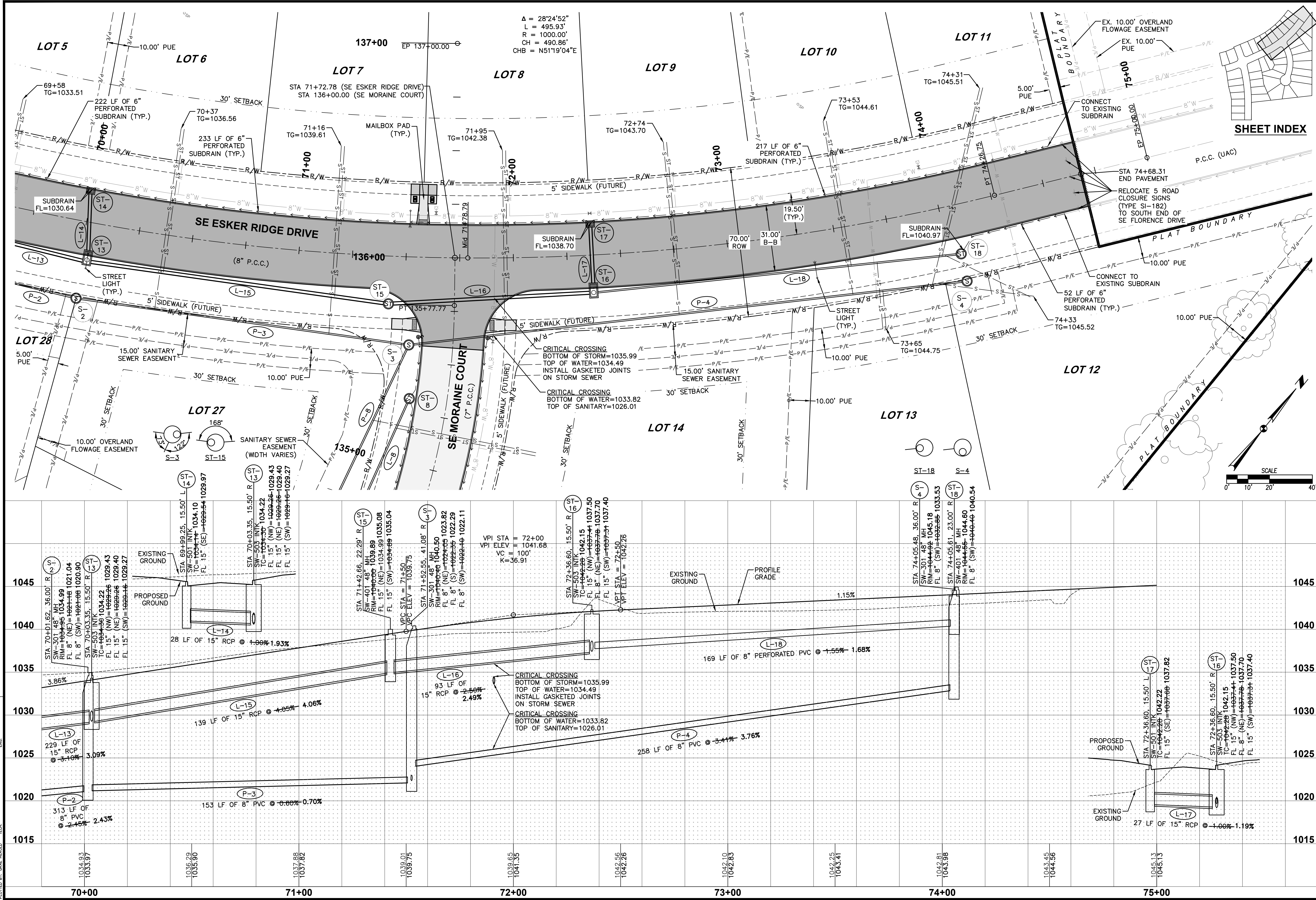
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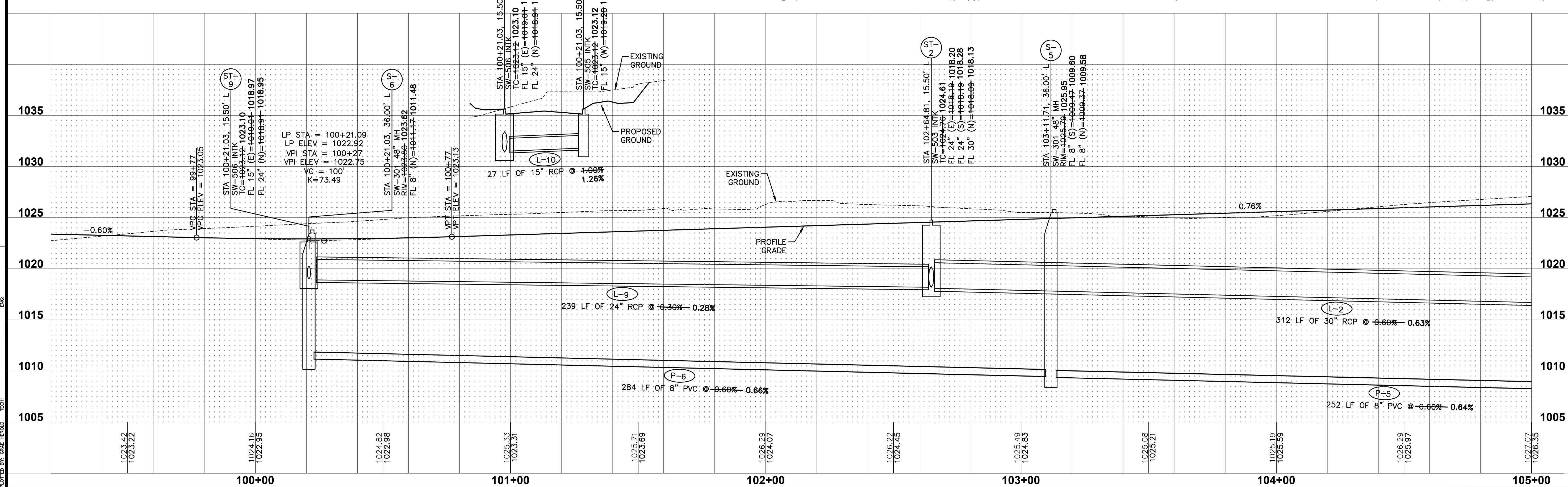
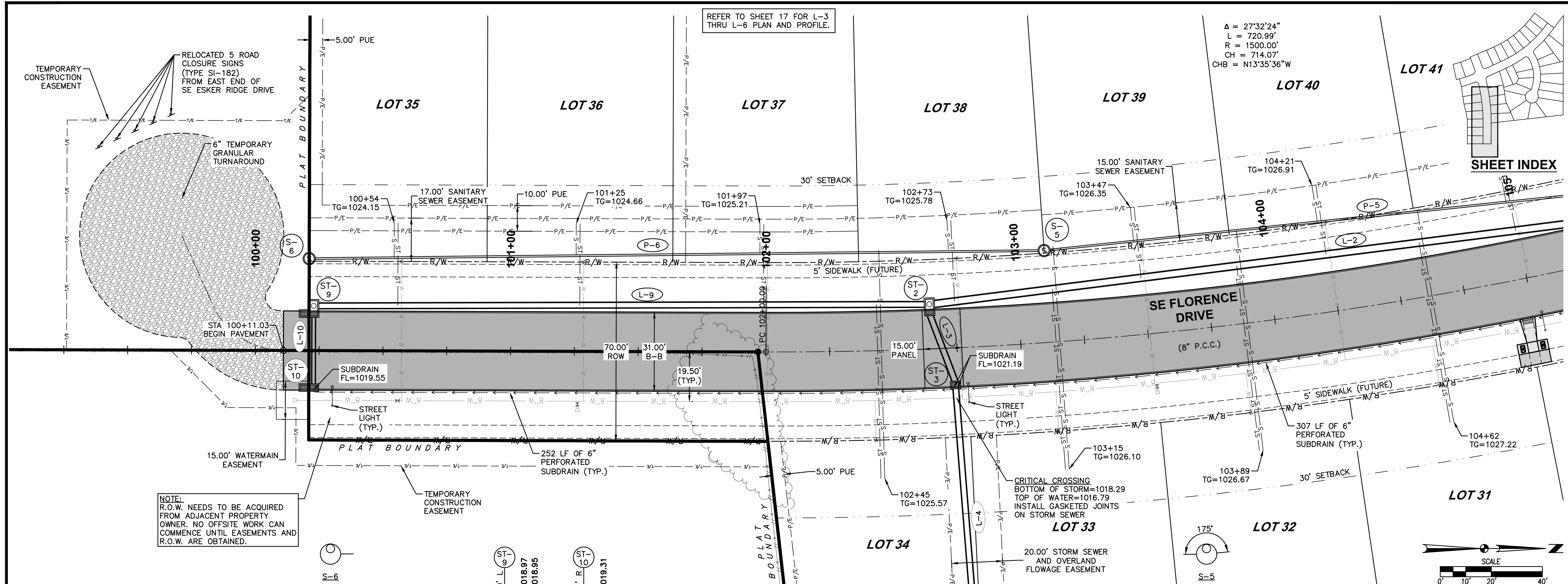
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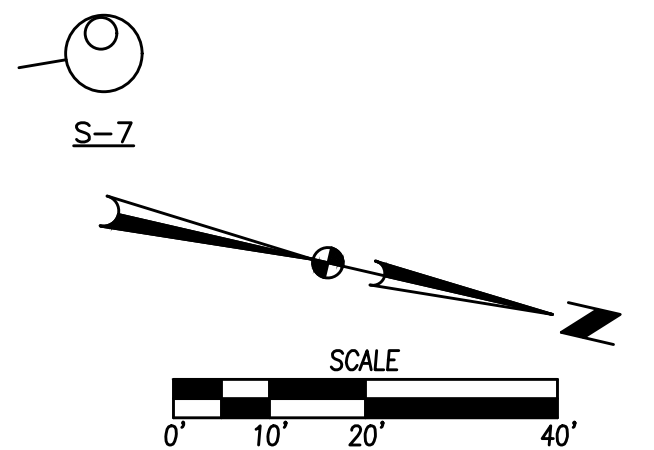
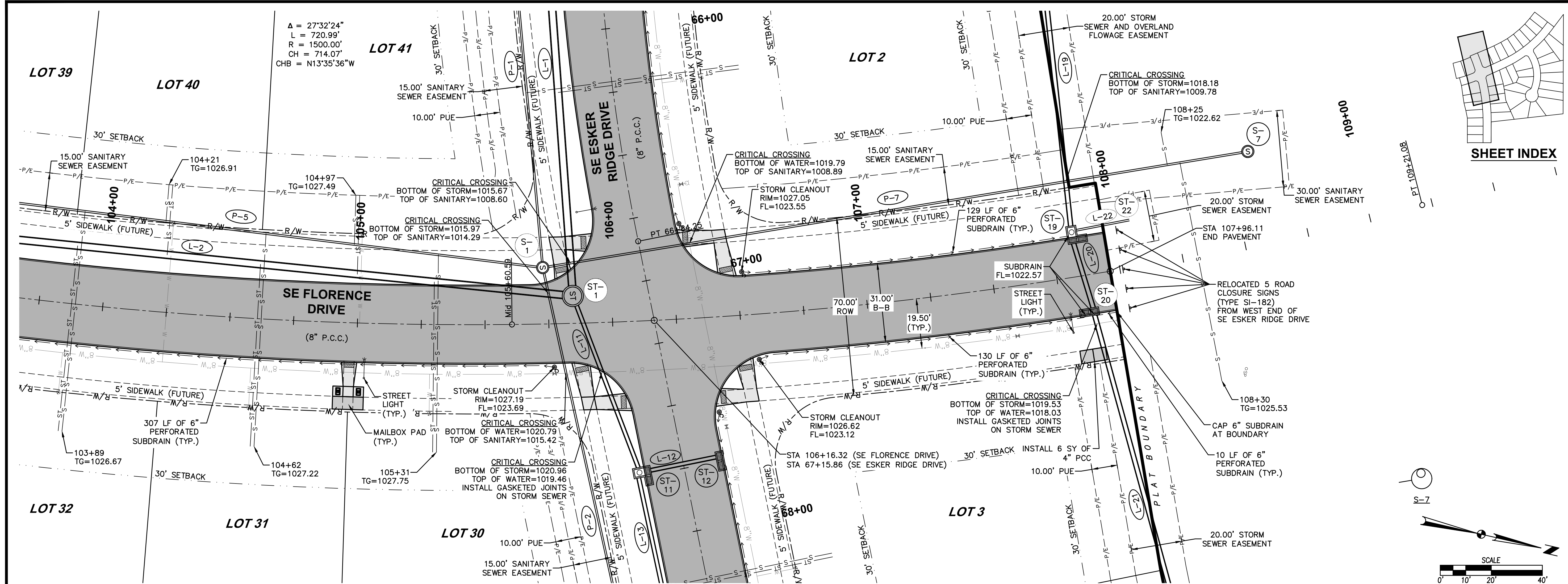


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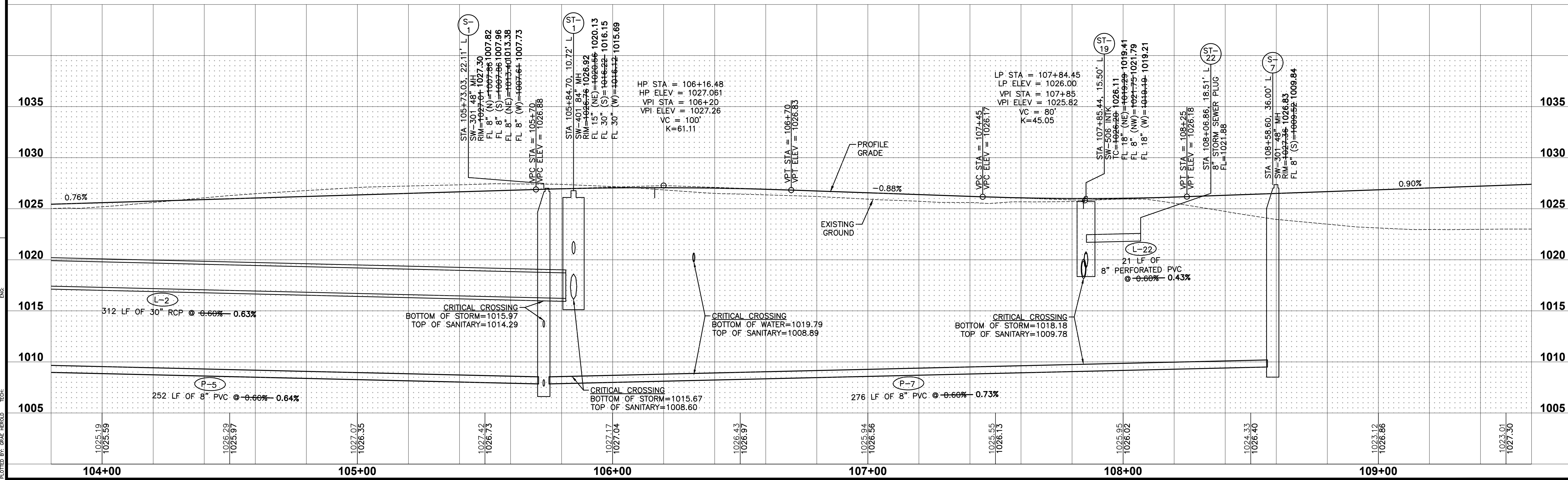
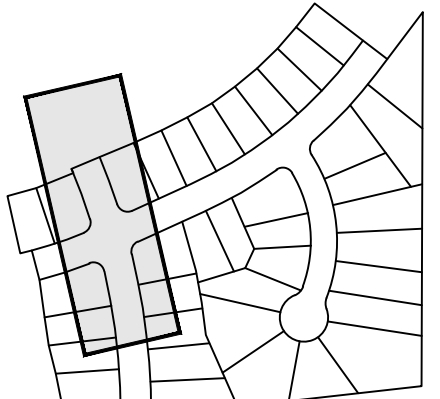




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3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	ENGINEER: EKO E.I.: JWM
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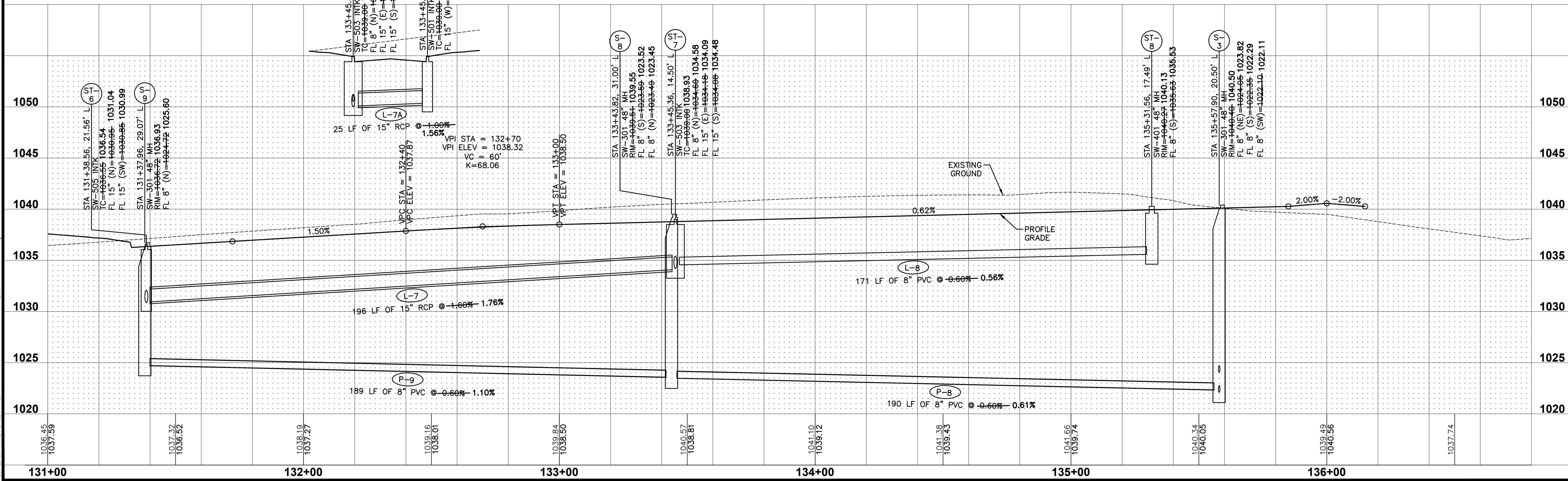
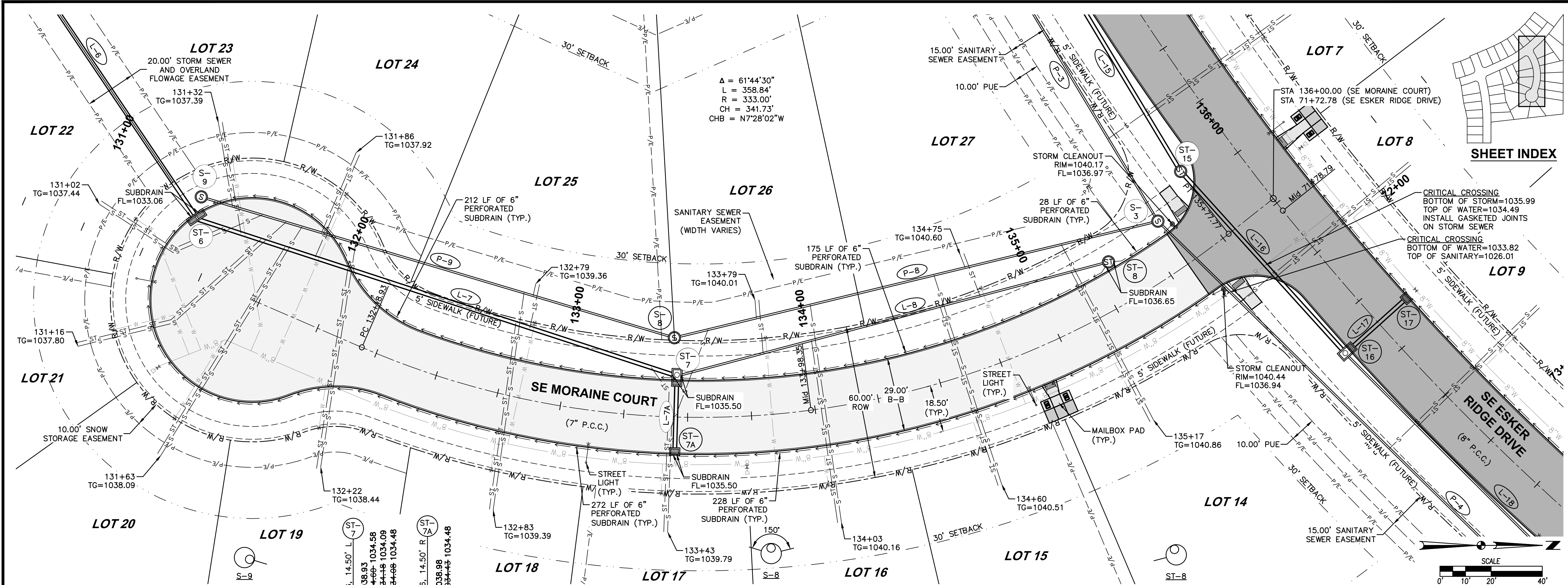
KETTLESTONE RIDGE PLAT 7

STORM AND SANITARY PLAN AND PROFILE

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07/14/2020
06/30/2020

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ENGINEER: EKO
E.I.: JWM

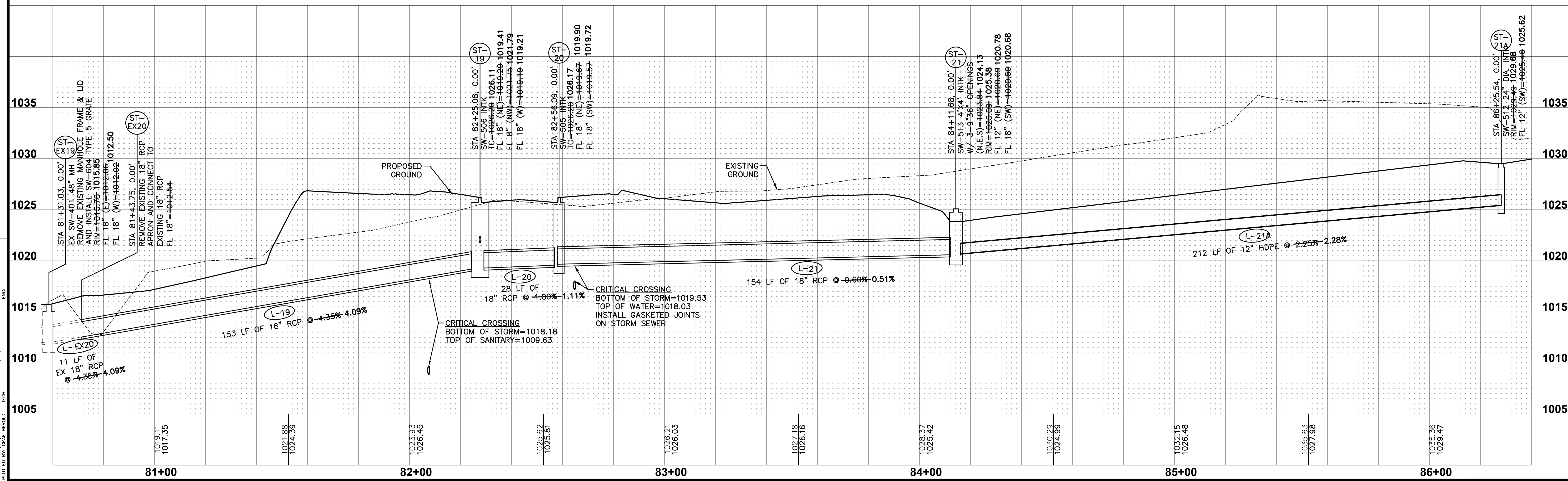
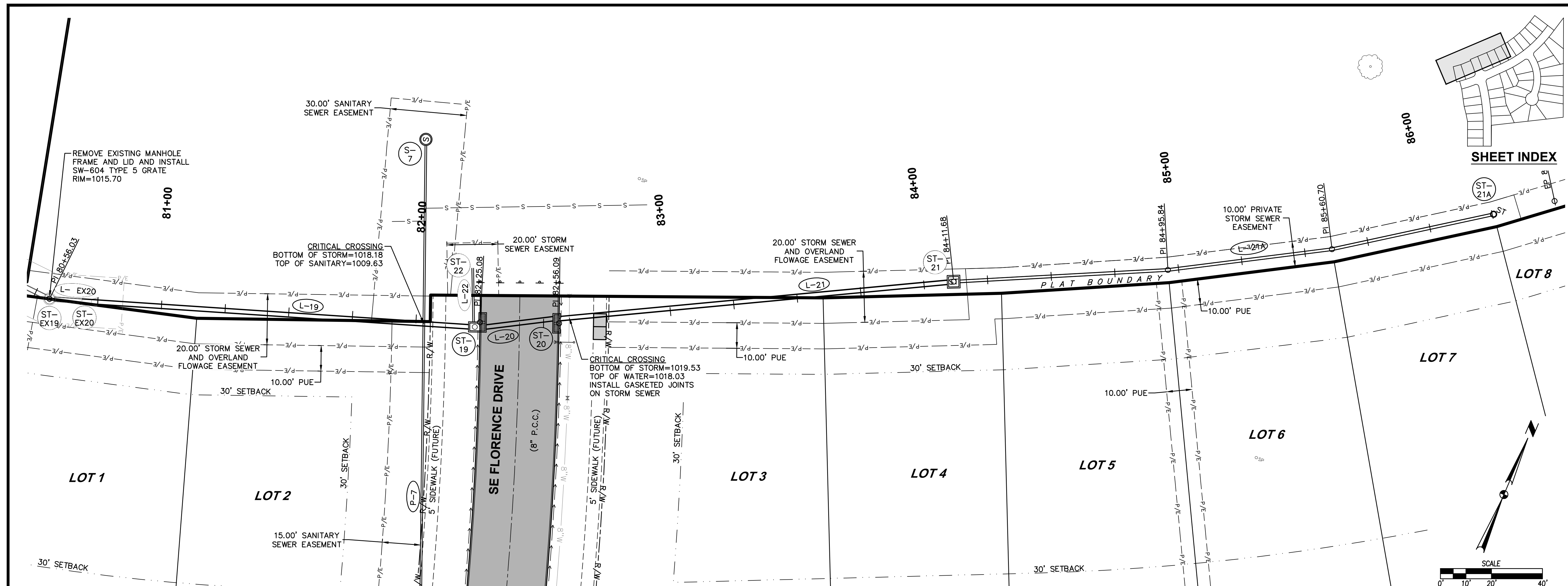
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STORM AND SANITARY PLAN AND PROFILE

16/27

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CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA





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KETTLESTONE RIDGE PLAT 7

STORM AND SANITARY PLAN AND PROFILE



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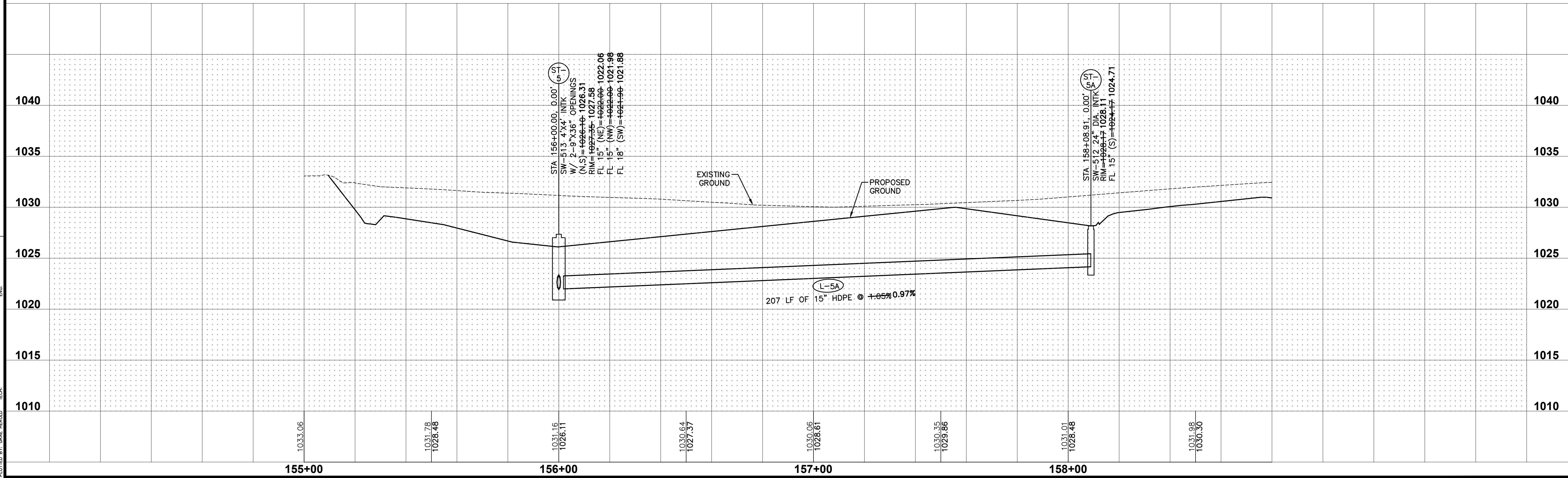
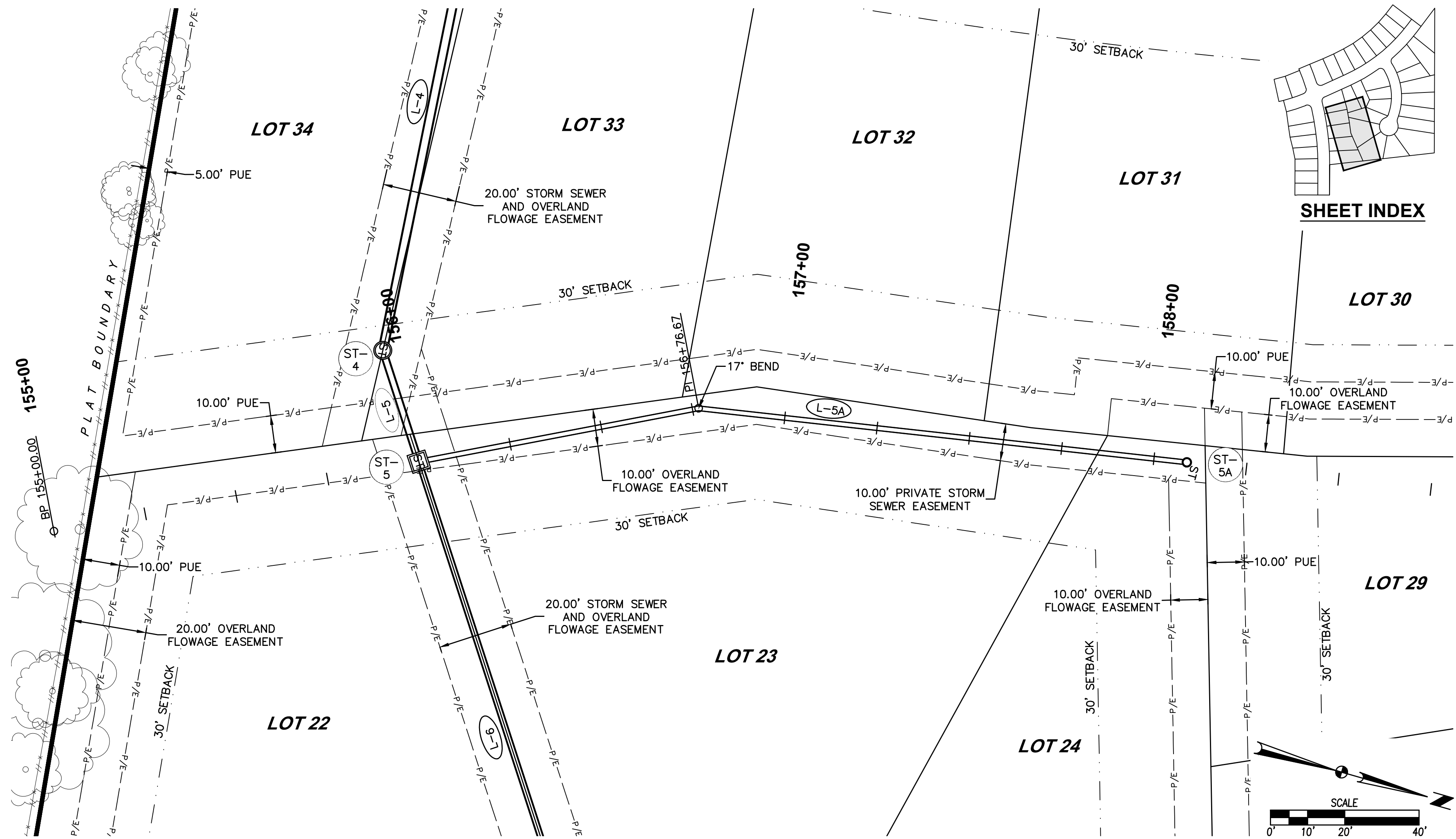
3405 S.E. CROSSROADS DRIVE, SUITE G
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ENGINEER: EKO

EI: JWM

WAUKEE, IOWA

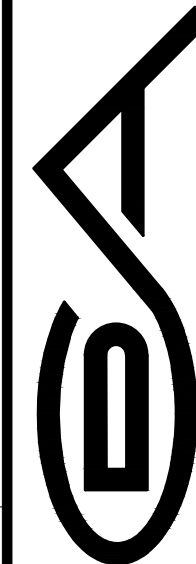
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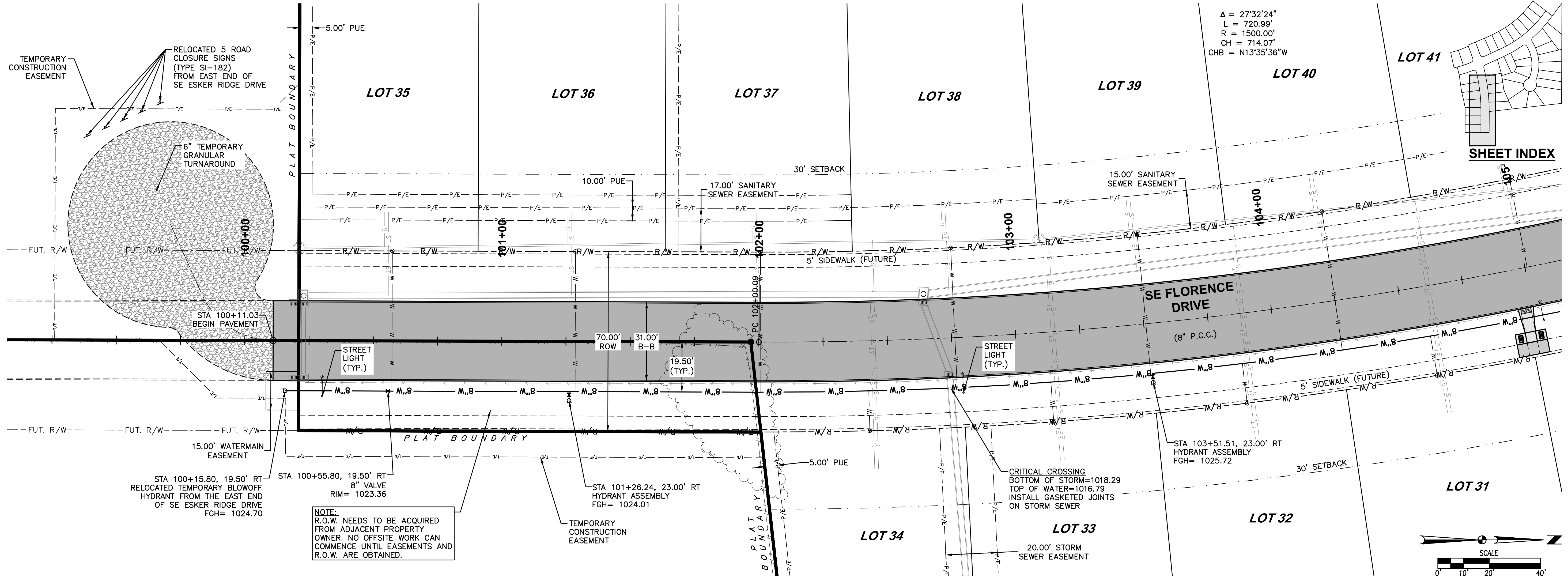
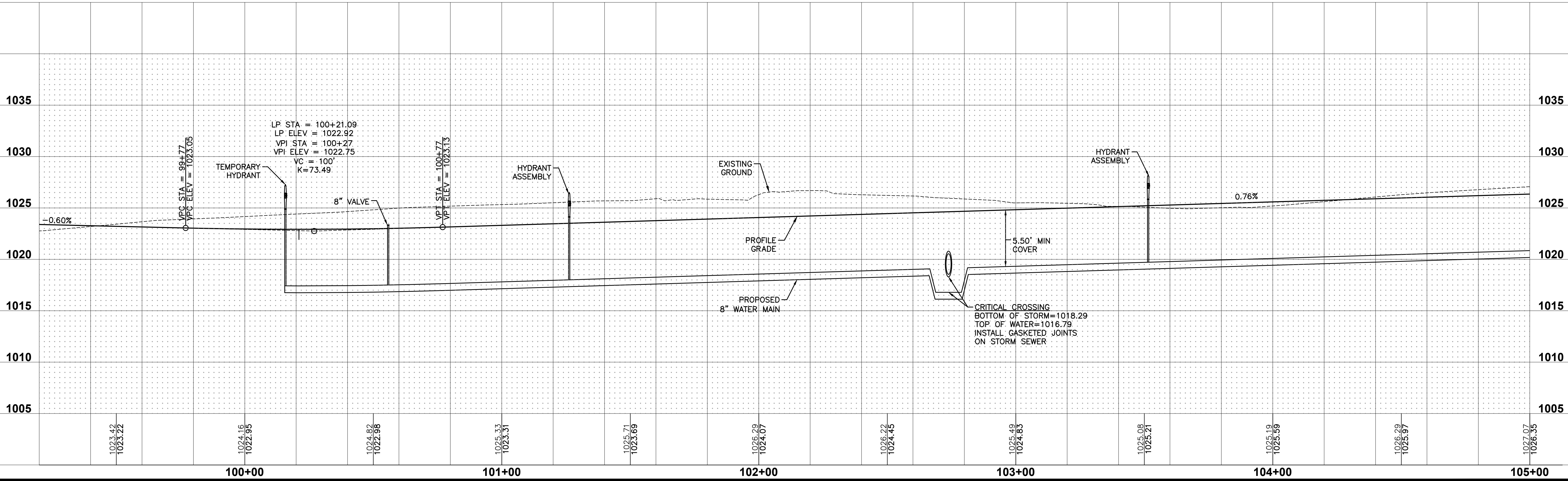
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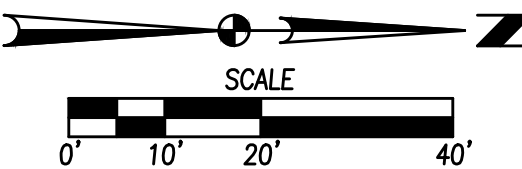
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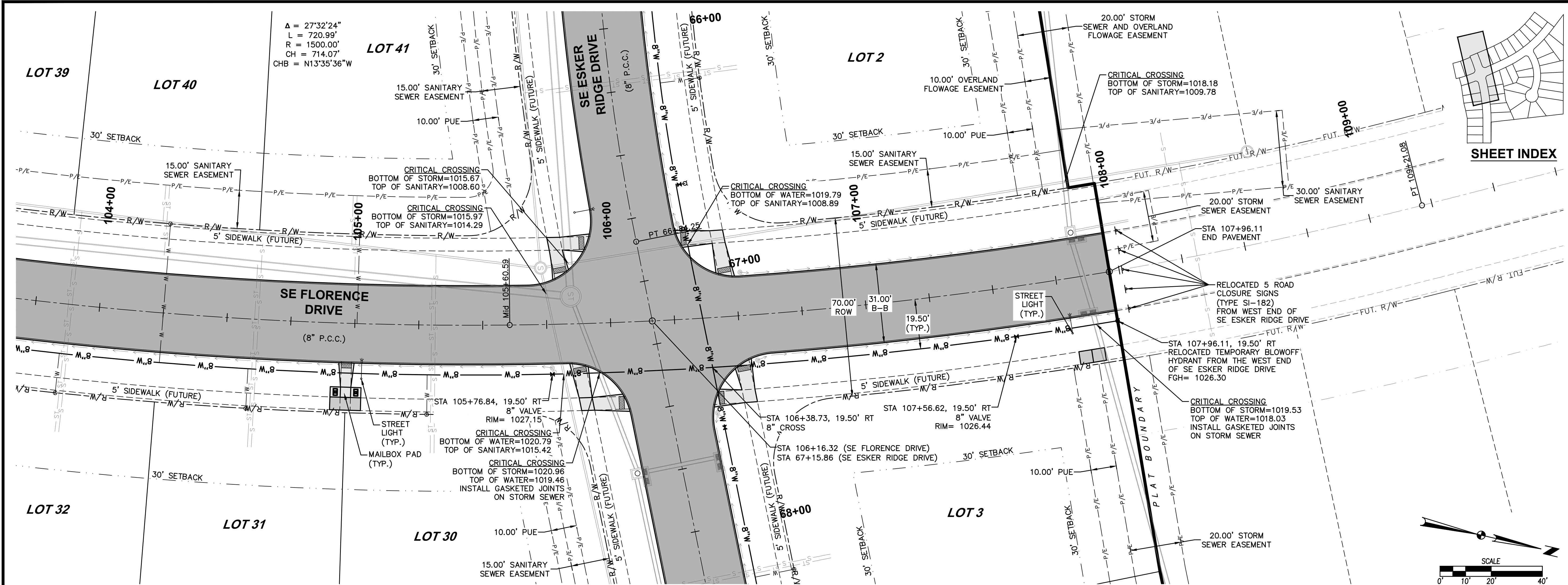
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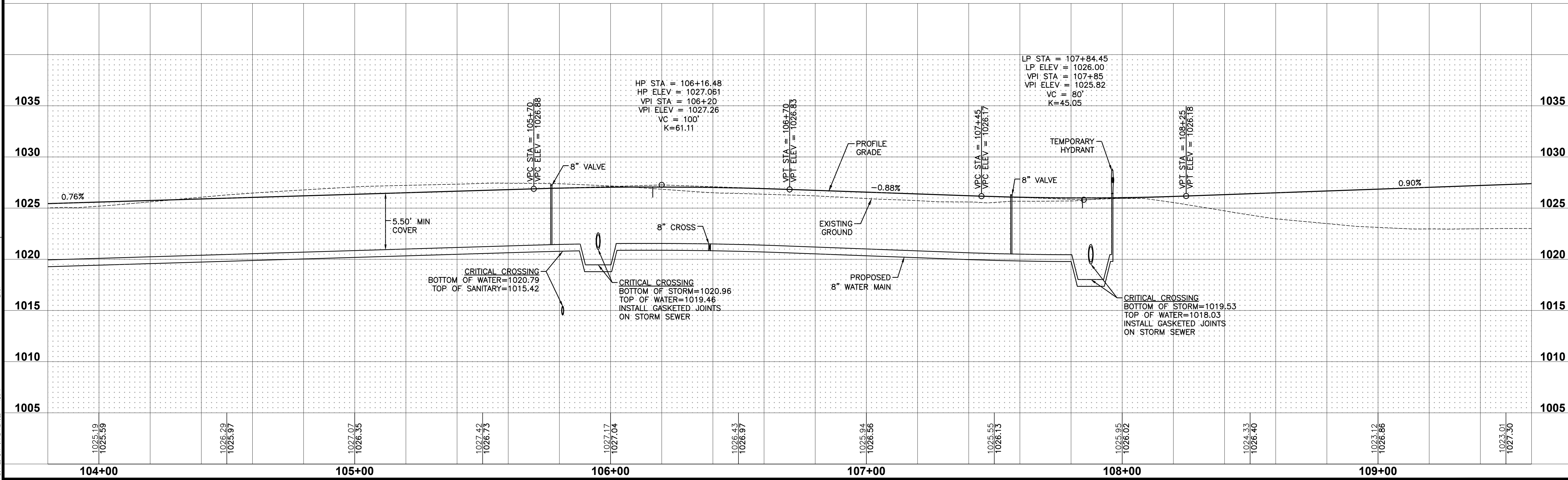
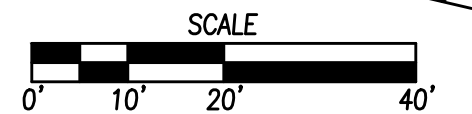
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CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

KETTLESTONE RIDGE PLAT 7

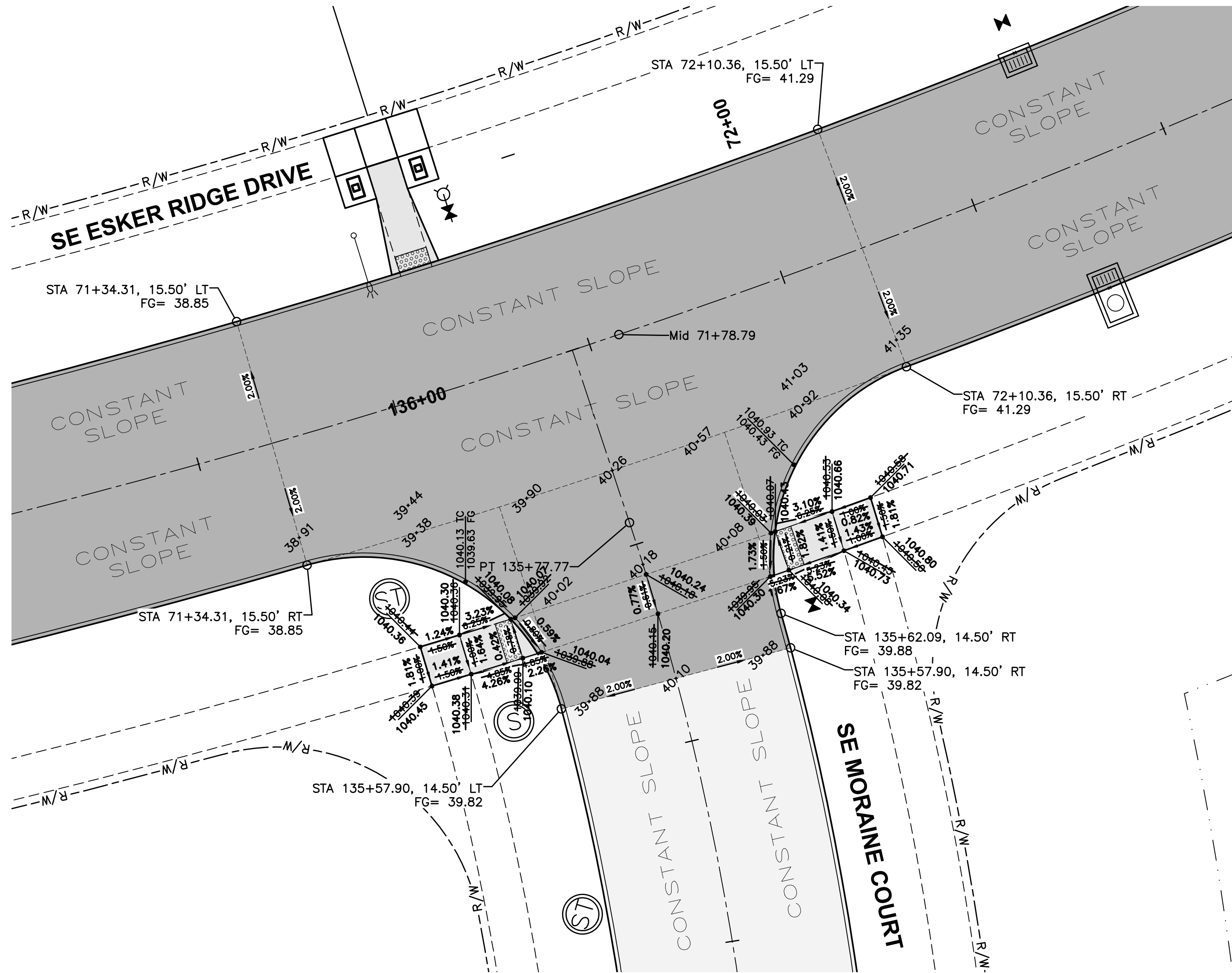
WATERMAIN PLAN AND PROFILE

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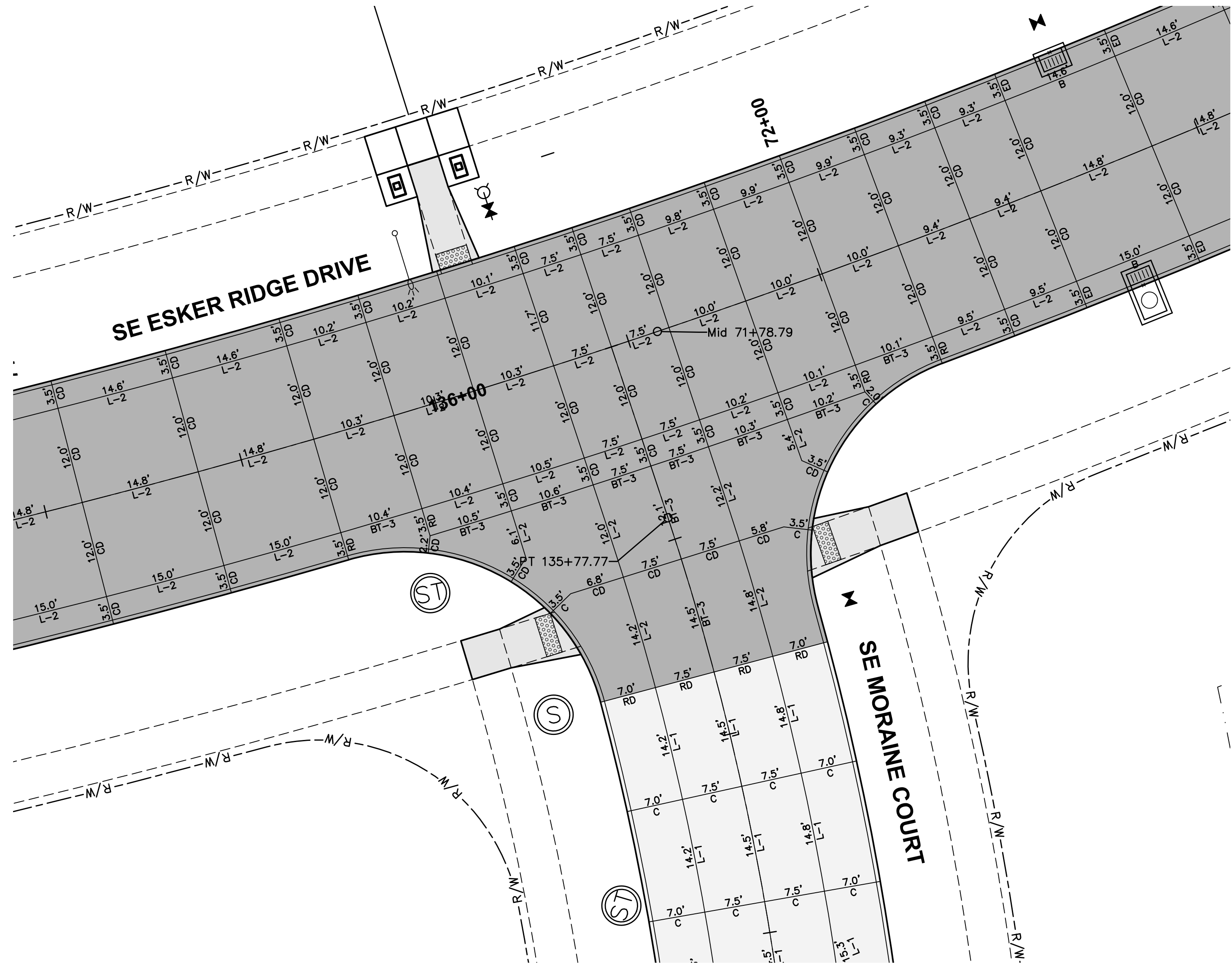
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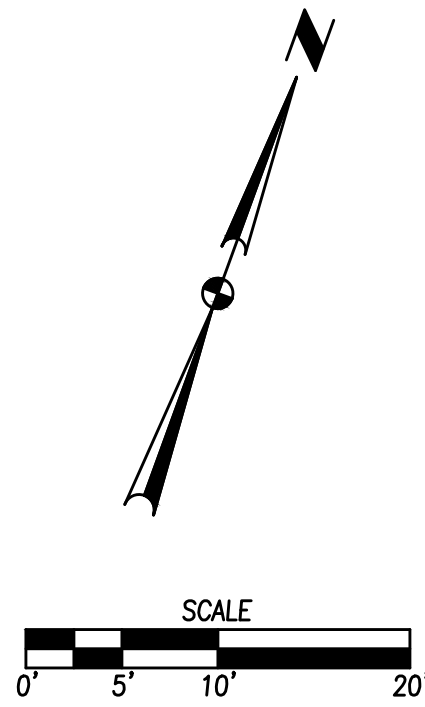
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GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



- NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
 2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
 3. ADD 1000 TO FOUR DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM.

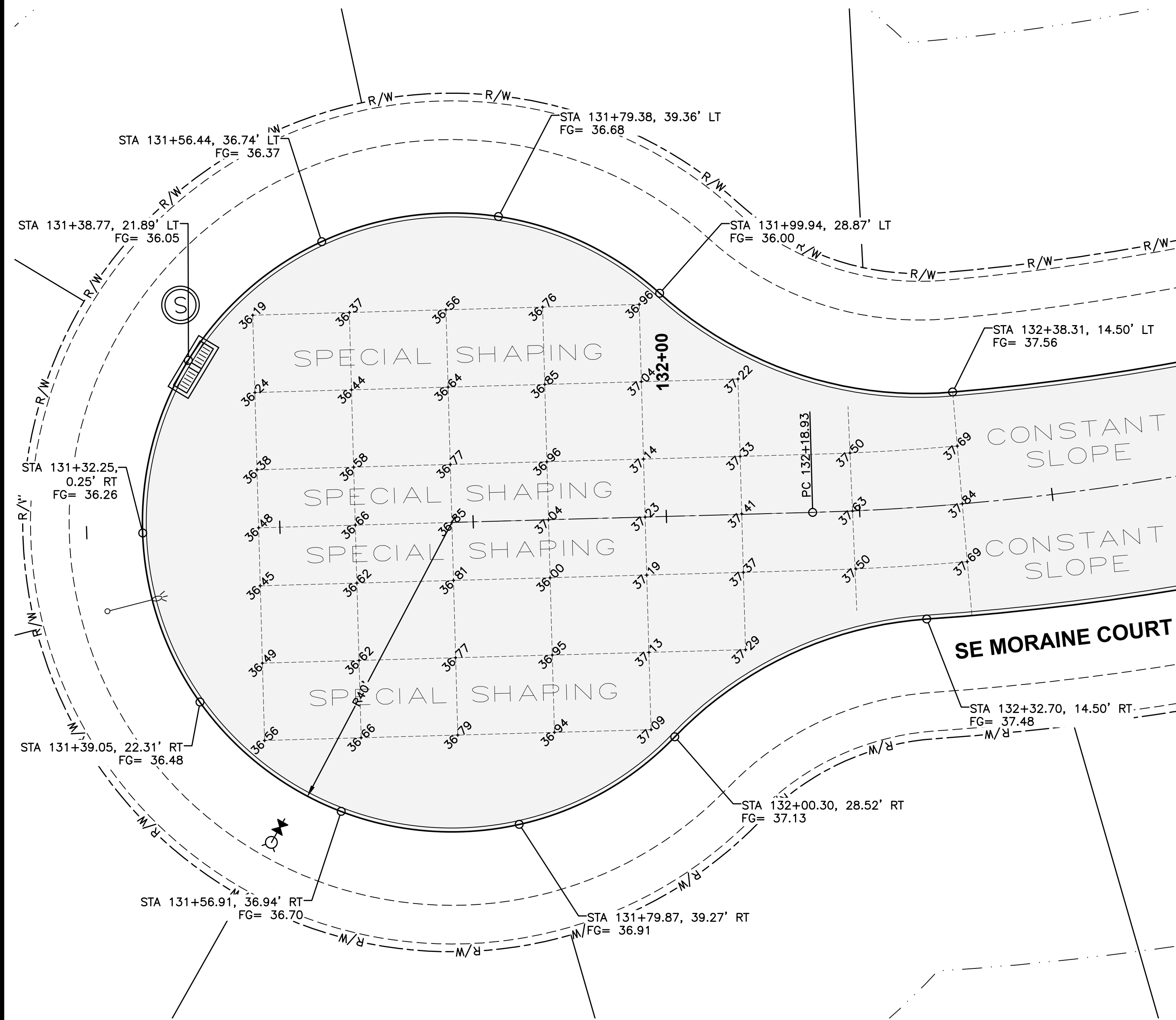
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KETTLESTONE RIDGE PLAT 7 INTERSECTION DETAILS	
3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	ENGINEER: EKO Ei: JWM

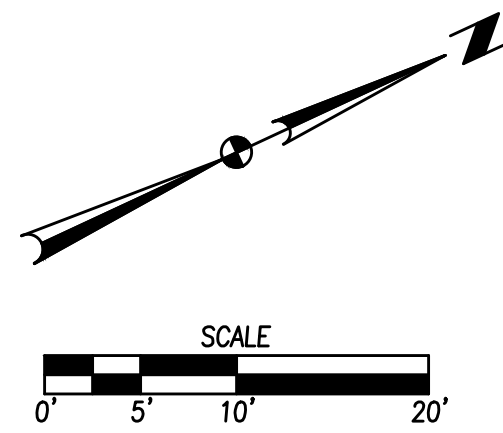
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WAUKEE, IOWA	26/27 2006.277

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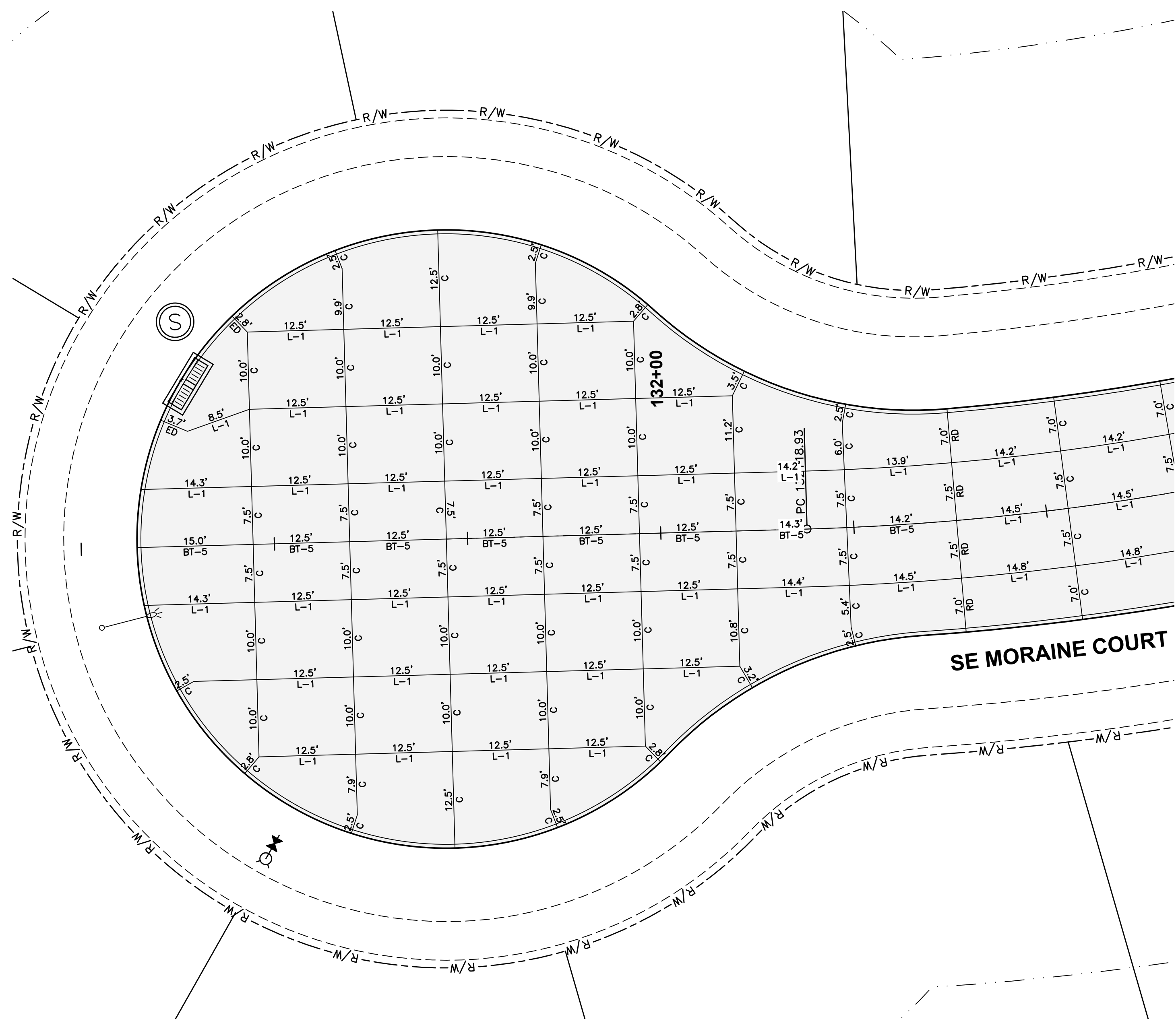


GEOMETRICS AND STAKING LAYOUT



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JOINTING LAYOUT

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CIVIL DESIGN ADVANTAGE
ENGINEER: EKO
EI: JWM

Waukee, Iowa

KETTLESTONE RIDGE PLAT 7
INTERSECTION DETAILS

27/27
2006.277