

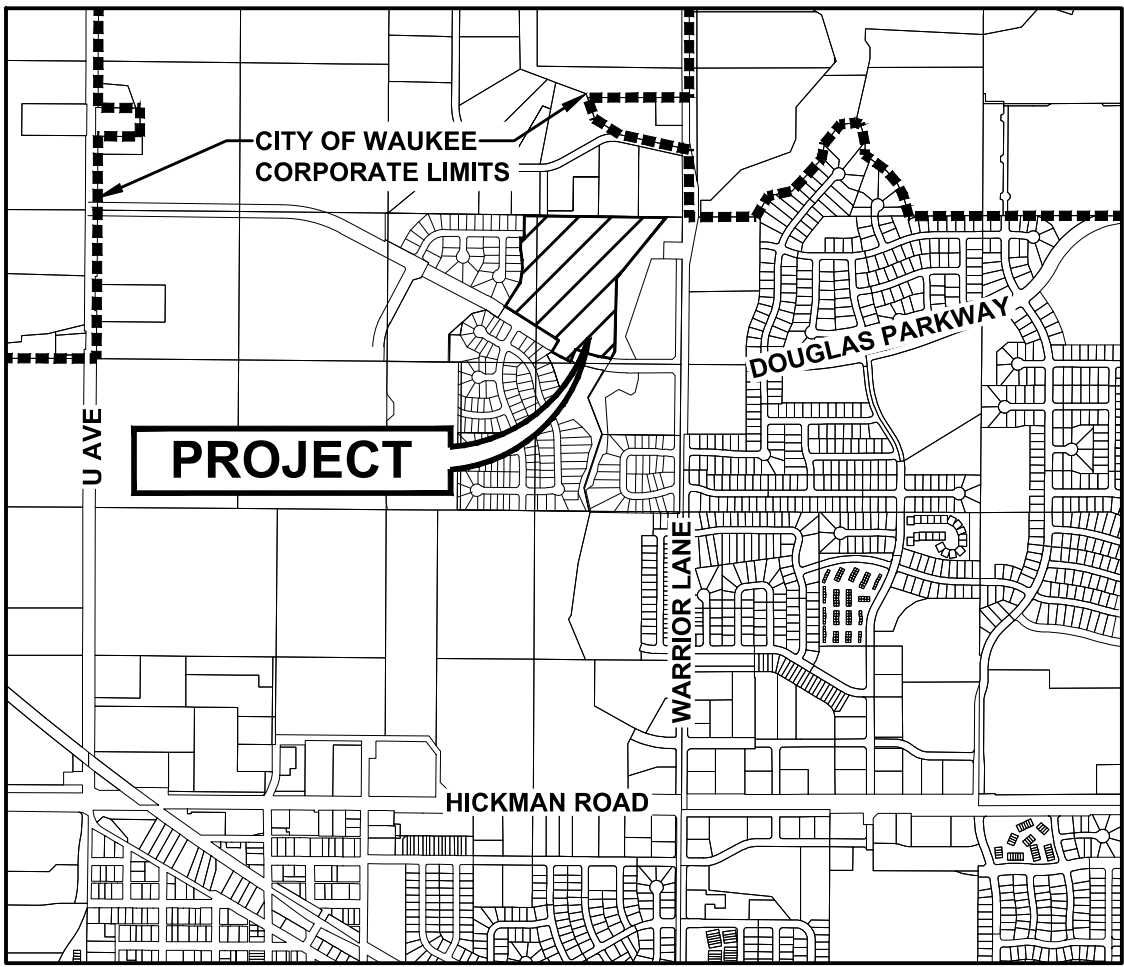
CONSTRUCTION PLANS FOR:

PRAIRIE ROSE PLAT 6

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

DEVELOPER

LANDMARK DEVELOPMENT SERVICES
9550 HICKMAN ROAD, SUITE 100
CLIVE, IOWA 50325
PH: (515) 986-5994
CONTACT: BILL SPENCER

OWNER

PRAIRIE ROSE WAUKEE, LLC
CONTACT: BILL SPENCER
9550 HICKMAN ROAD, SUITE 100
CLIVE, IA 50325
PH: (515) 986-5994

ENGINEER / SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
4121 NW URBANDALE DR.
URBANDALE, IOWA 50322
PH: 515-369-4400
CONTACT: ERIN OLLENDIKE

ZONING

R-2 - ONE AND TWO FAMILY RESIDENTIAL DISTRICT

DATE OF SURVEY:

JANUARY 21, 2021

SUBMITTALS

FIRST SUBMITTAL: 11/16/2021
SECOND SUBMITTAL: 12/21/2021
THIRD SUBMITTAL: 01/17/2022
FINAL SUBMITTAL: 02/21/2022
AS-BUILT SUBMITTAL: 11/30/2022

BULK REGULATIONS

R-2: ONE AND TWO FAMILY RESIDENTIAL DISTRICT (LOTS 1-48 AND OUTLOT 2)

FRONT YARD: 30 FEET
SIDE YARD: A TOTAL OF 15 FEET - ONE SIDE MAY BE REDUCED TO NOT LESS THAN 7 FEET
REAR YARD: 30 FEET

BENCHMARKS

SANITARY MANHOLE AT
SOUTHEAST CORNER OF WARRIOR
LANE AND GRACEWOOD DRIVE.
ELEVATION=1019.42

BURY BOLT ON HYDRANT @ SE
CORNER OF BADGER AND
WARRIOR LANE.
ELEVATION=1014.03

CONSTRUCTION SCHEDULE

SPRING 2022 - FALL 2022

DEVELOPMENT SUMMARY

TOTAL AREA OF PLAT 6 = 25.57 ACRES (1,113,702 SF)

NOTES

- ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE COMMUNITY DEVELOPMENT DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE COMMUNITY DEVELOPMENT DEPARTMENT.
- THE RESULTS OF THE GEOTECHNICAL REPORT ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. THE CONSTRUCTION DRAWINGS ARE SUBJECT TO ANY CHANGES REQUIRED BY THE REPORT.
- THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF WAUKEE'S CONTRACTOR HIRED FOR THE CONSTRUCTION OF NEW DOUGLAS PARKWAY AND NW 2ND STREET FOR ACCESS AVAILABILITY AND TIMING OF ACCESS.

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.

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2-4	TYPICAL SECTIONS AND DETAILS
5	QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES
6	HYDRANT COVERAGE AND LANDSCAPE PLAN
7	GRADING PLAN
8-9	EROSION AND SEDIMENT CONTROL PLAN
10-20	STORM & SANITARY SEWER PLAN AND PROFILE
21-27	WATER MAIN PLAN AND PROFILE
28-30	INTERSECTION DETAILS

LEGAL DESCRIPTION

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER AND A PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER, ALL IN SECTION 28, TOWNSHIP 79 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 PRAIRIE ROSE PLAT 3, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE SOUTH 89°46'18" EAST ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, 1264.87 FEET; THENCE SOUTH 38°41'34" WEST, 696.82 FEET; THENCE SOUTH 00°46'22" WEST, 658.70 FEET; THENCE SOUTH 29°59'11" WEST, 68.49 FEET; THENCE WESTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 1140.00 FEET, WHOSE ARC LENGTH IS 324.37 FEET AND WHOSE CHORD BEARS NORTH 75°53'44" WEST, 323.27 FEET; THENCE SOUTH 22°15'21" WEST, 120.00 FEET TO THE NORTHERLY LINE OF PRAIRIE ROSE PLAT 5, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE NORTHWESTERLY ALONG SAID NORTHERLY LINE AND A CURVE CONCAVE NORTHEASTERLY WHOSE RADIUS IS 1260.00 FEET, WHOSE ARC LENGTH IS 189.87 FEET AND WHOSE CHORD BEARS NORTH 63°25'39" WEST, 189.69 FEET TO THE EASTERLY LINE OF PRAIRIE ROSE PLAT 4, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE NORTH 30°53'22" EAST ALONG SAID EASTERLY LINE, 120.00 FEET; THENCE NORTHWESTERLY ALONG THE NORTHEASTERLY LINE OF SAID PRAIRIE ROSE PLAT 4 AND A CURVE CONCAVE NORTHEASTERLY WHOSE RADIUS IS 1140.00 FEET, WHOSE ARC LENGTH IS 21.41 FEET AND WHOSE CHORD BEARS NORTH 58°34'21" WEST, 21.41 FEET; THENCE NORTH 58°02'05" WEST CONTINUING ALONG SAID NORTHEASTERLY LINE, 545.03 FEET TO THE EASTERLY LINE OF SAID PRAIRIE ROSE PLAT 3; THENCE NORTH 31°57'55" EAST ALONG SAID EASTERLY LINE, 247.08 FEET; THENCE NORTH 09°36'08" EAST CONTINUING ALONG SAID EASTERLY LINE, 67.39 FEET; THENCE NORTH 05°46'34" EAST CONTINUING ALONG SAID EASTERLY LINE, 66.85 FEET; THENCE NORTH 02°17'39" WEST CONTINUING ALONG SAID EASTERLY LINE, 66.85 FEET; THENCE NORTH 07°21'55" WEST CONTINUING ALONG SAID EASTERLY LINE, 111.29 FEET; THENCE NORTH 00°13'42" EAST CONTINUING ALONG SAID EASTERLY LINE, 92.00 FEET; THENCE SOUTH 89°46'18" EAST CONTINUING ALONG SAID EASTERLY LINE, 28.54 FEET; THENCE NORTH 00°13'42" EAST CONTINUING ALONG SAID EASTERLY LINE, 200.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 25.57 ACRES (1,113,702 SQUARE FEET).

THE PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.

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 PROTECTION ELEVATION	MOE
MINIMUM GRADE AT EXPOSED 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	

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.

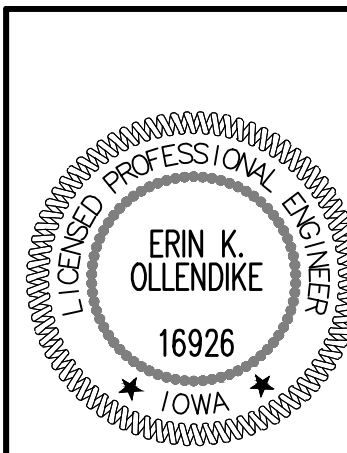
THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2021 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

CIVIL DESIGN ADVANTAGE

4121 NW URBANDALE DR. URBANDALE, IOWA 50322
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 2109.724

IOWA ONE CALL

1-800-292-8989
www.iowaonecall.com

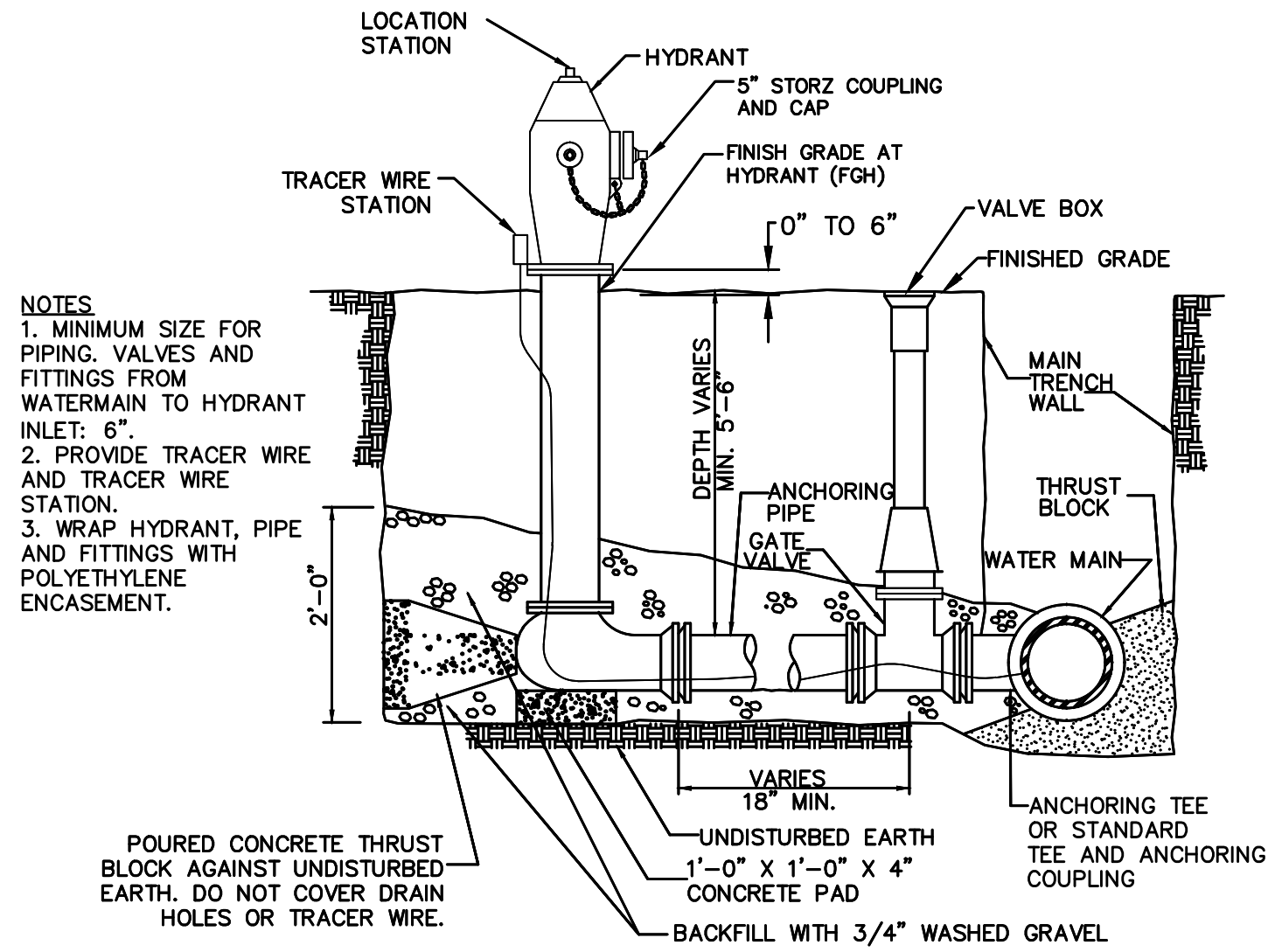


I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

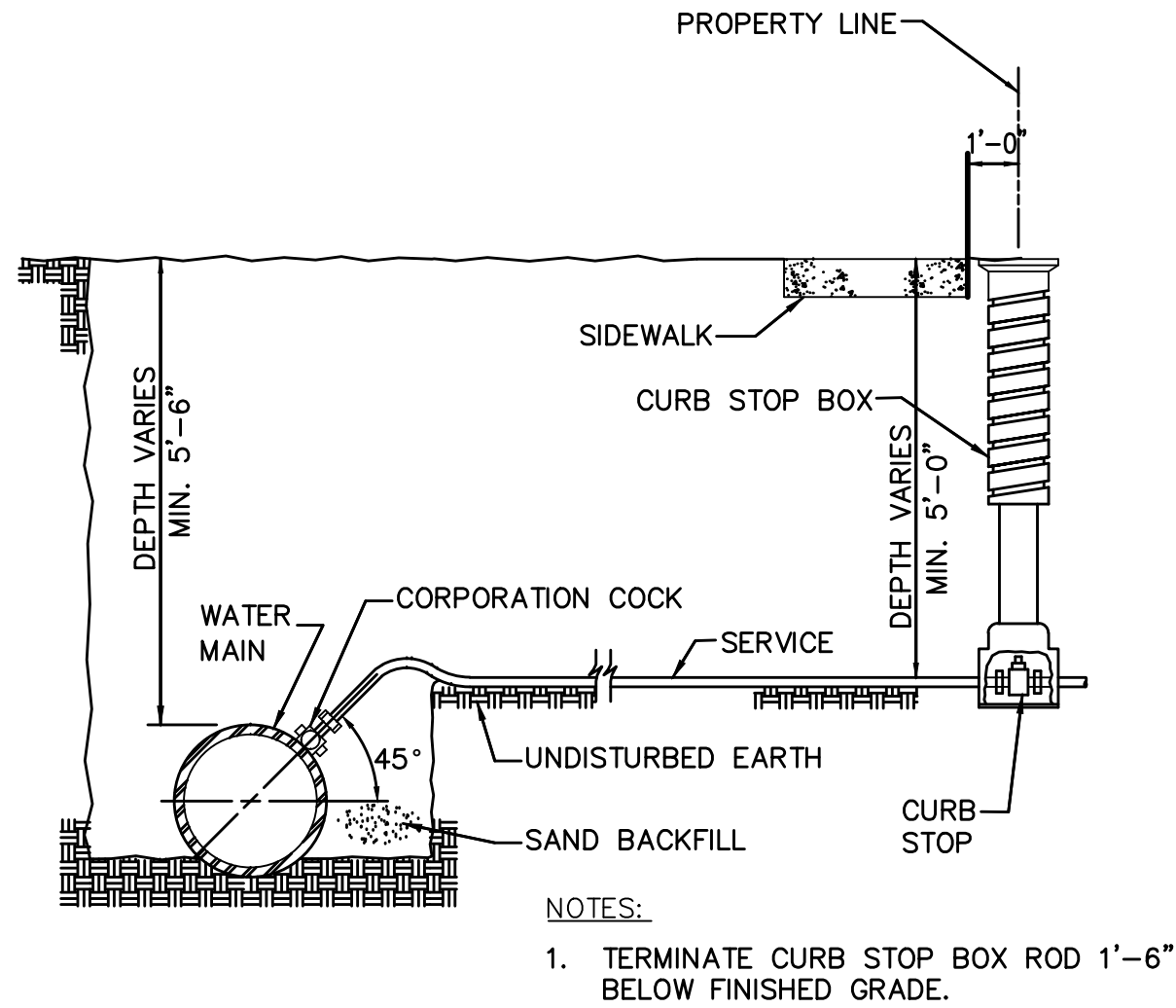
Erin K. Ollendike 11/30/2022
ERIN K. OLLENDIKE, P.E. DATE

LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
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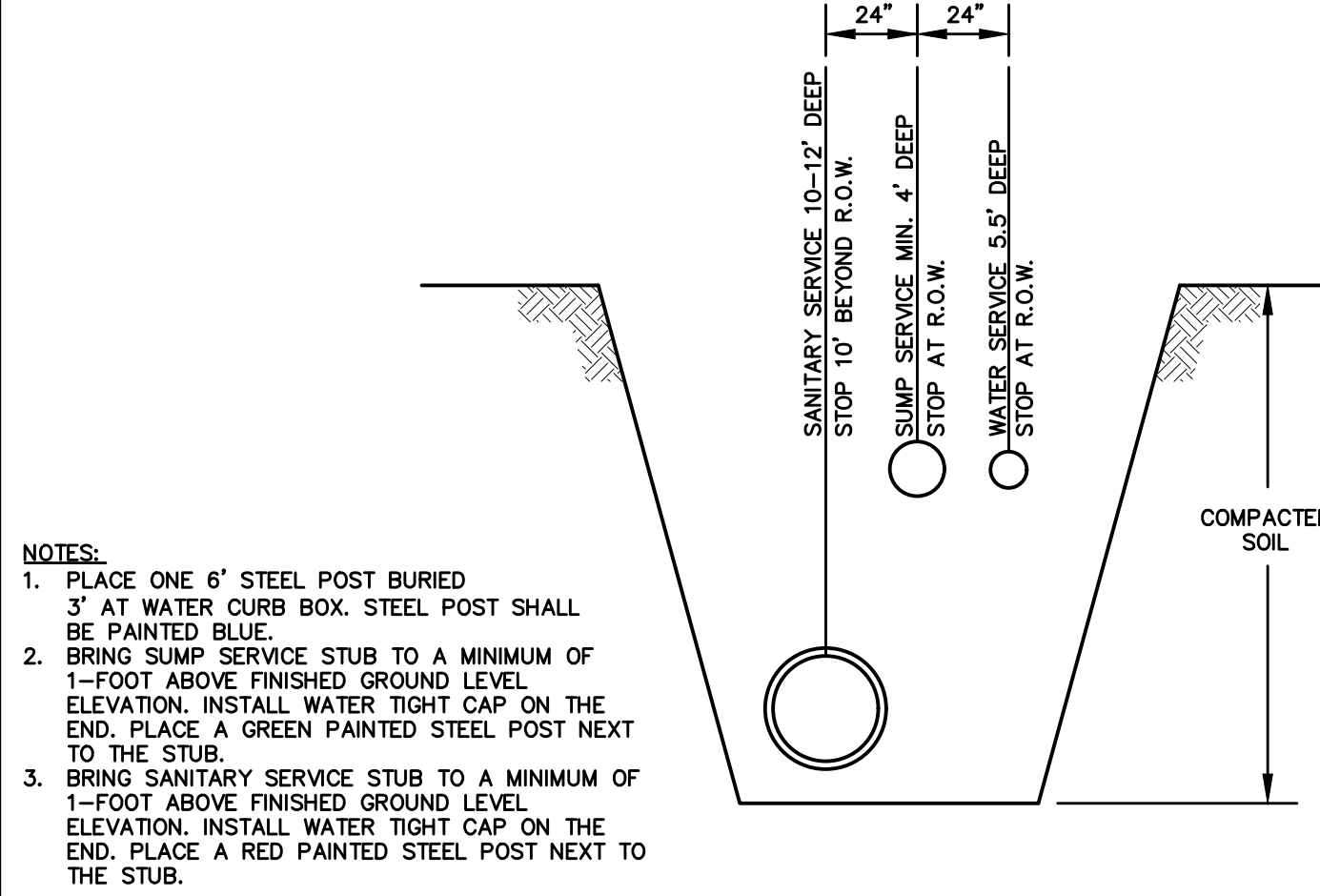
SHEETS 1-30



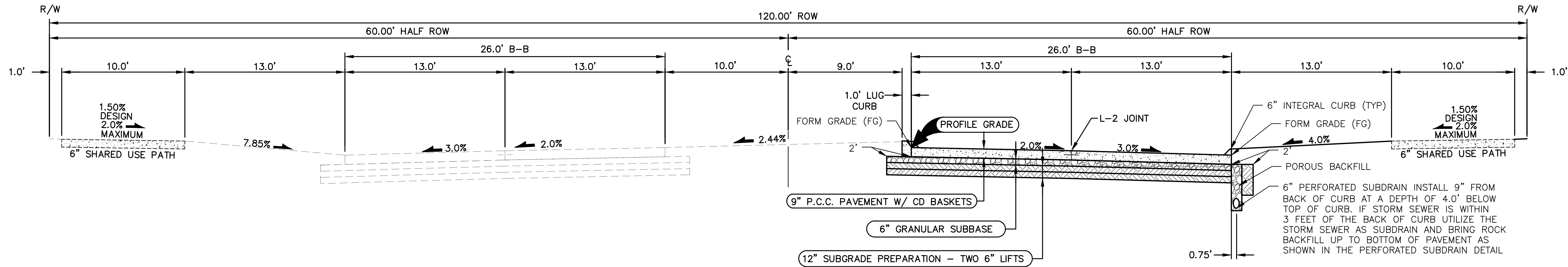
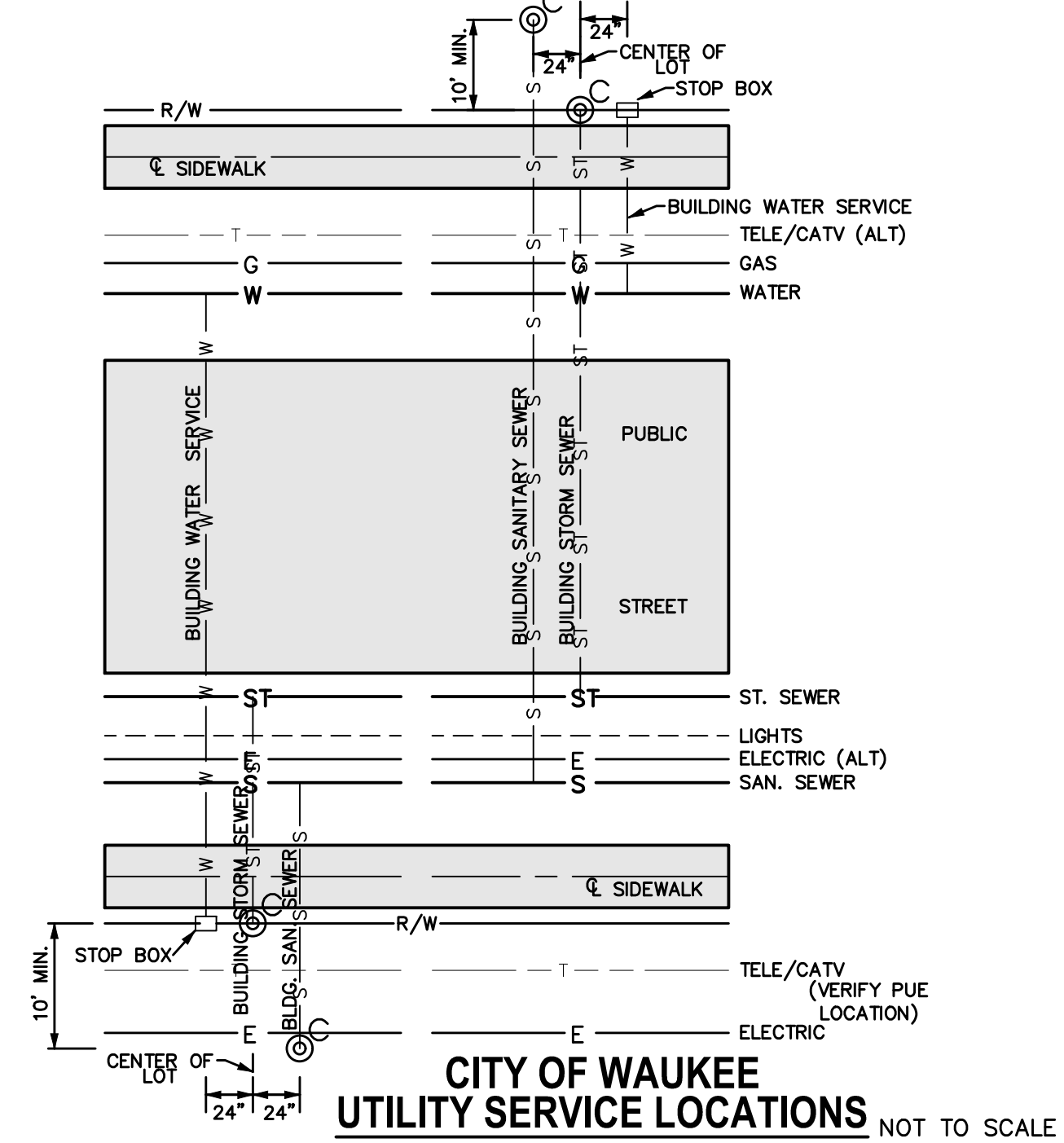
HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



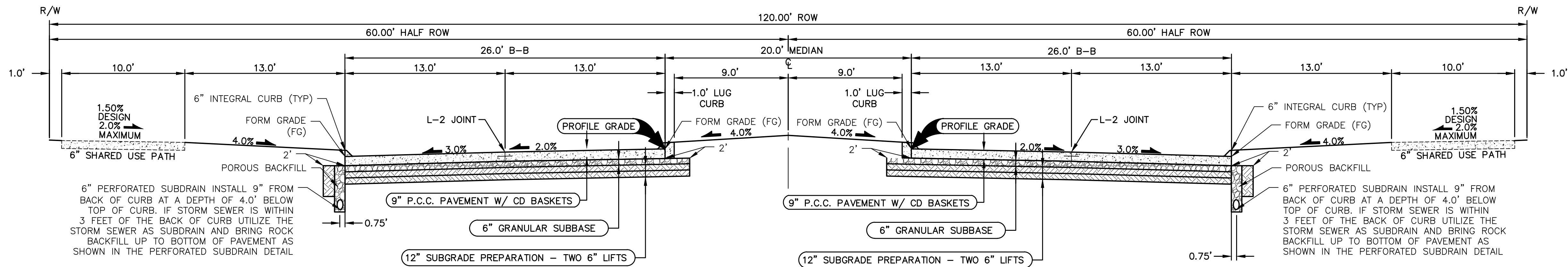
WATER SERVICE CONNECTION
NOT TO SCALE



SERVICE LOCATION DETAIL
NOT TO SCALE

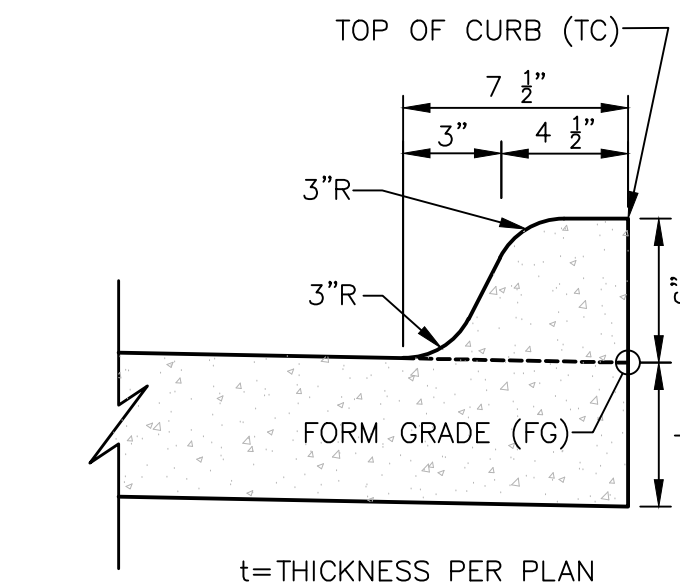


- NOTES:**
 1. PREPARE SUBGRADE IN 2 - 6" LIFTS.
 2. MAXIMUM CD JOINT SPACING IS 15'.



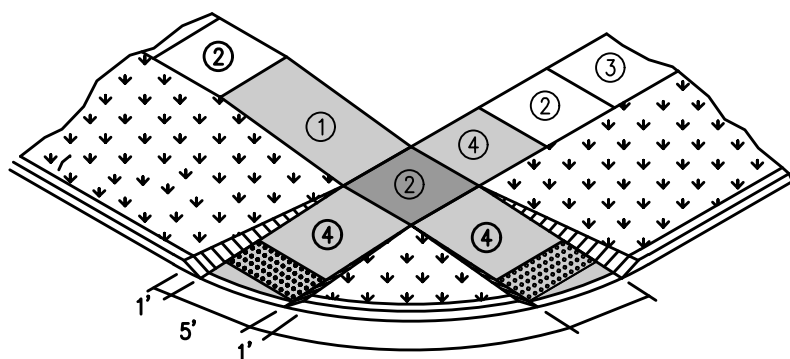
- NOTES:**
 1. PREPARE SUBGRADE IN 2 - 6" LIFTS.
 2. MAXIMUM CD JOINT SPACING IS 15'.

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PLOTTER: HP DESIGN PLOTTER



INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE

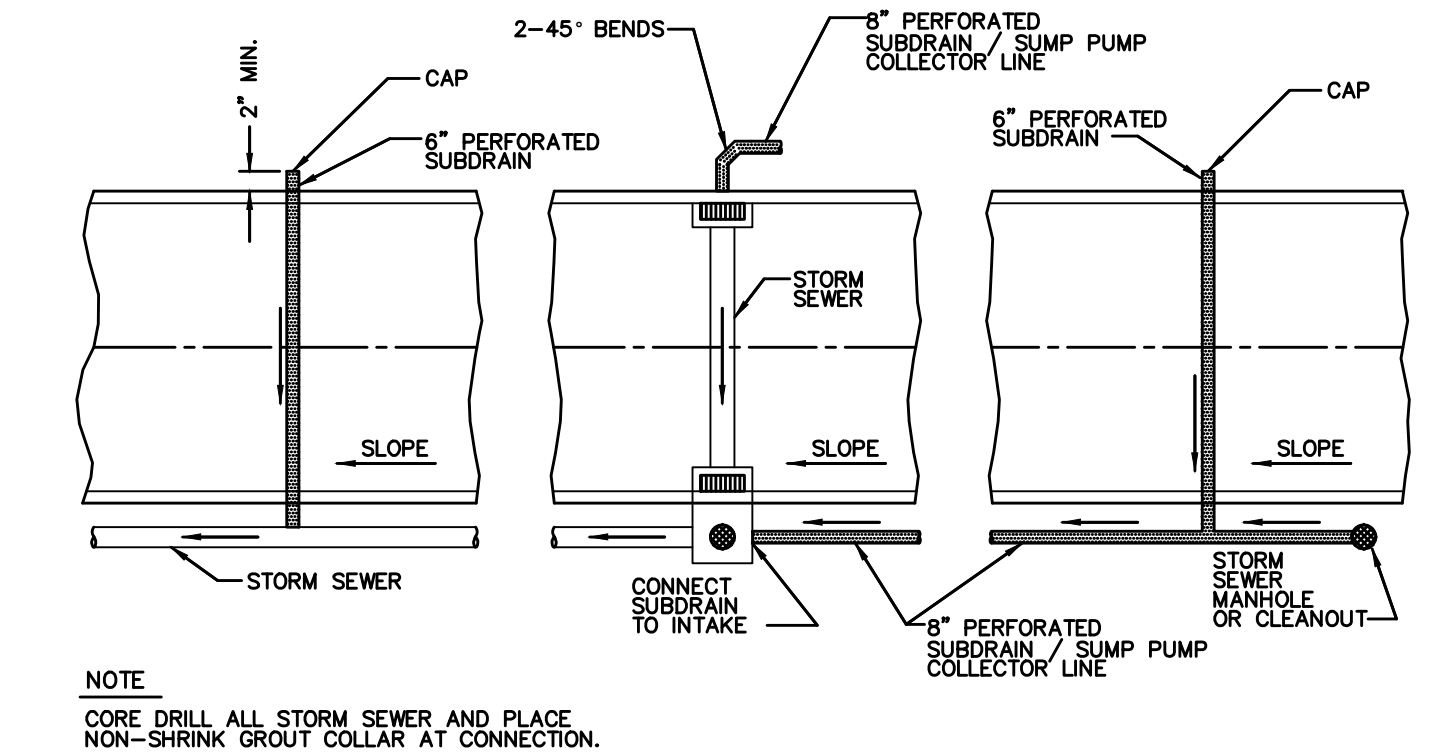


CURB RAMP FOR CLASS B OR C SIDEWALKS

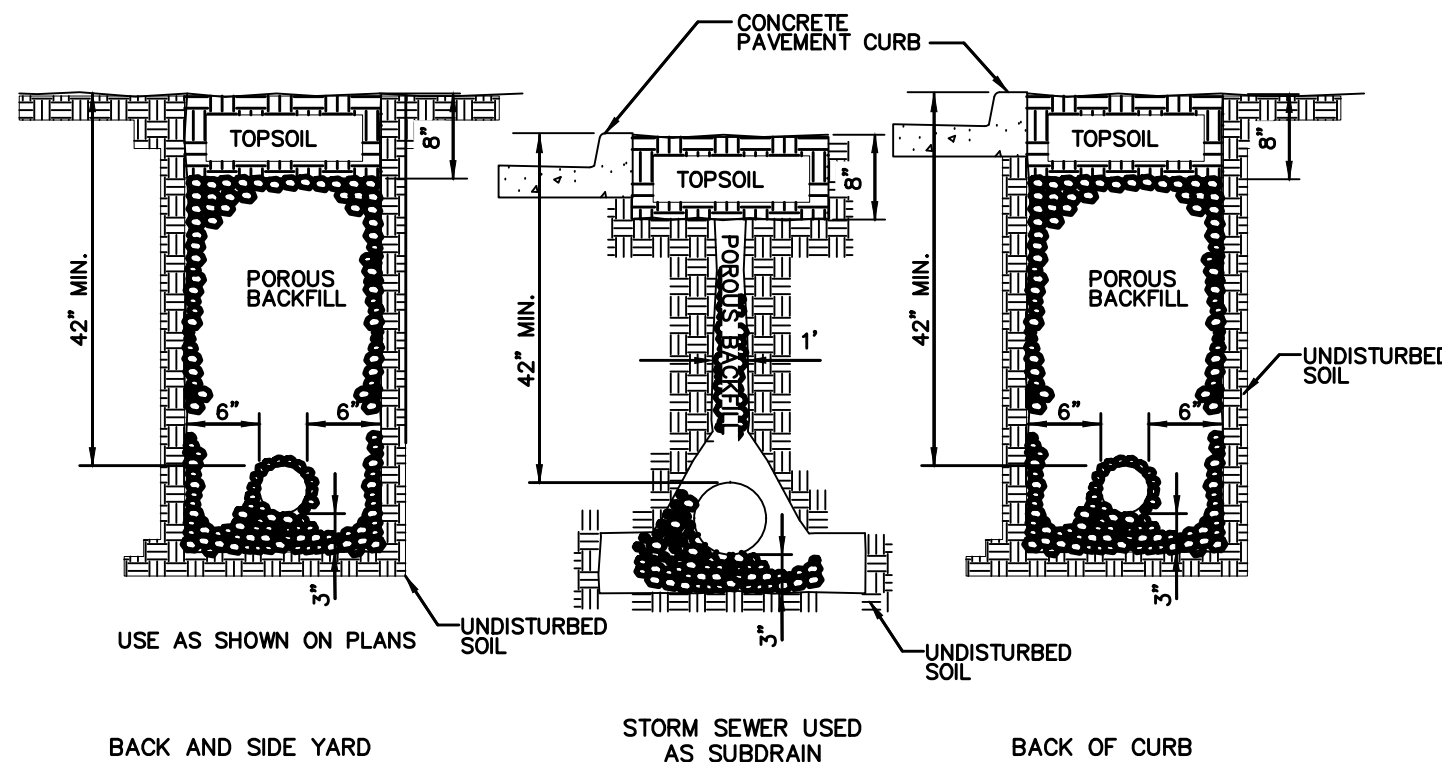
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- Key
- CURB RAMP
 - TURNING SPACE
 - DETECTABLE WARNING

- Parallel Curb Ramp: Target cross slope of 1.5% with a maximum cross slope of 2.0%. The length of the parallel ramp is not to exceed 15 feet, regardless of resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
 - Turning Space: Target slope of 1.5% with a maximum slope perpendicular to the travel directions of 2.0%. At mid-block crossings, cross slope of landing may exceed 2.0% to match the roadway grade. Minimum 5 feet by 5 feet.
 - Target cross-slope of 1.5% with a maximum cross-slope of 2.0%.
 - Perpendicular curb ramp: Target running slope of 6.25% with maximum running slope of 8.3%.
- The minimum pavement depth for ramps and landings shall be 6-inches.

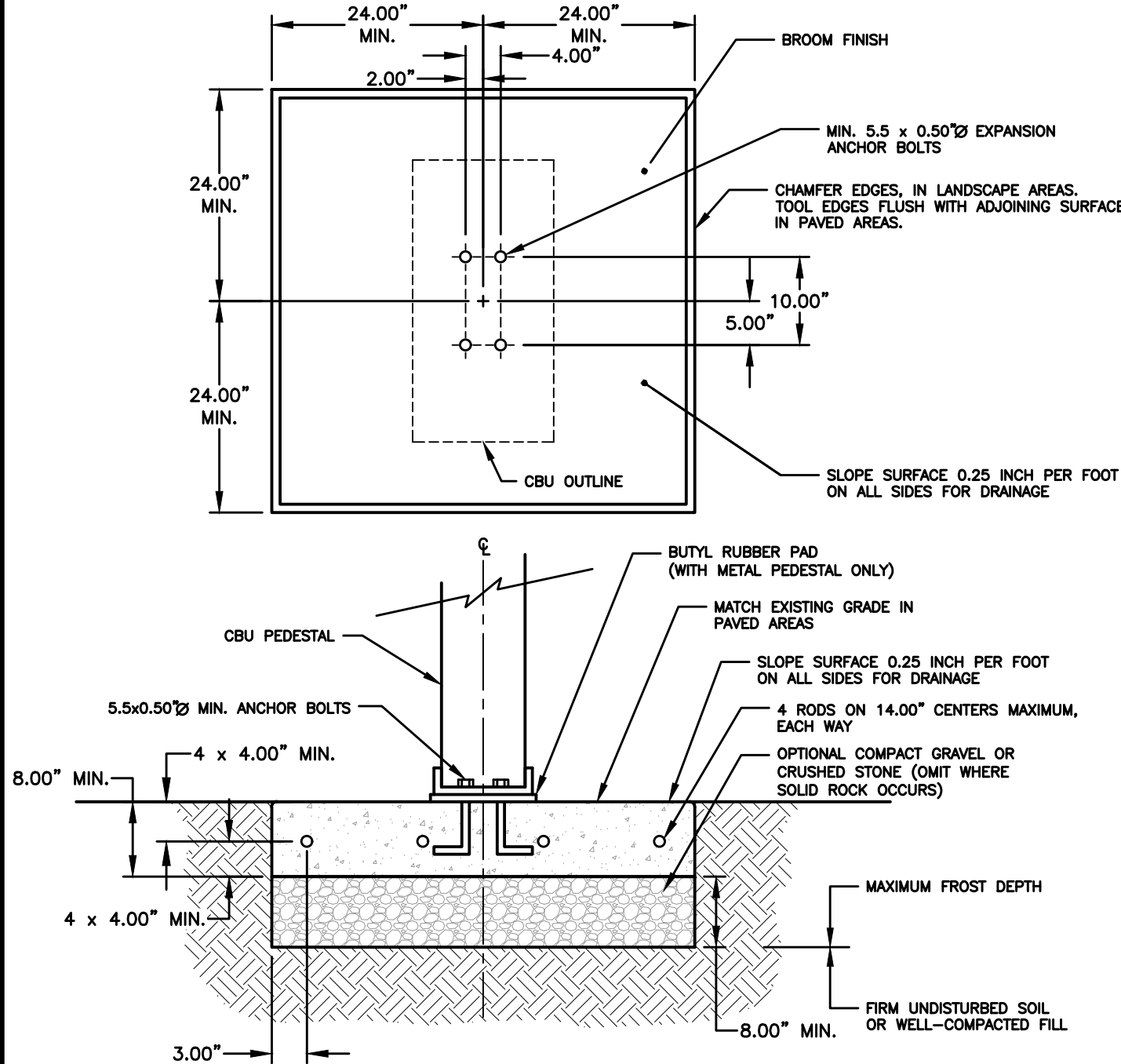


NOTE:
CORE DRILL ALL STORM SEWER AND PLACE
NON-SHRINK GROUT COLLAR AT CONNECTION.



- NOTES
- SLOPE SUBDRAINS TO DRAIN.
 - 6" BACK OF CURB SUBDRAINS AND ALL BACK AND SIDE YARD SUBDRAINS, USE PEA GRAVEL FOR POROUS BACKFILL.
 - DIRECT PERFORATIONS DOWN FOR SUBDRAINS AND UP FOR SUMP PUMP COLLECTOR LINES.

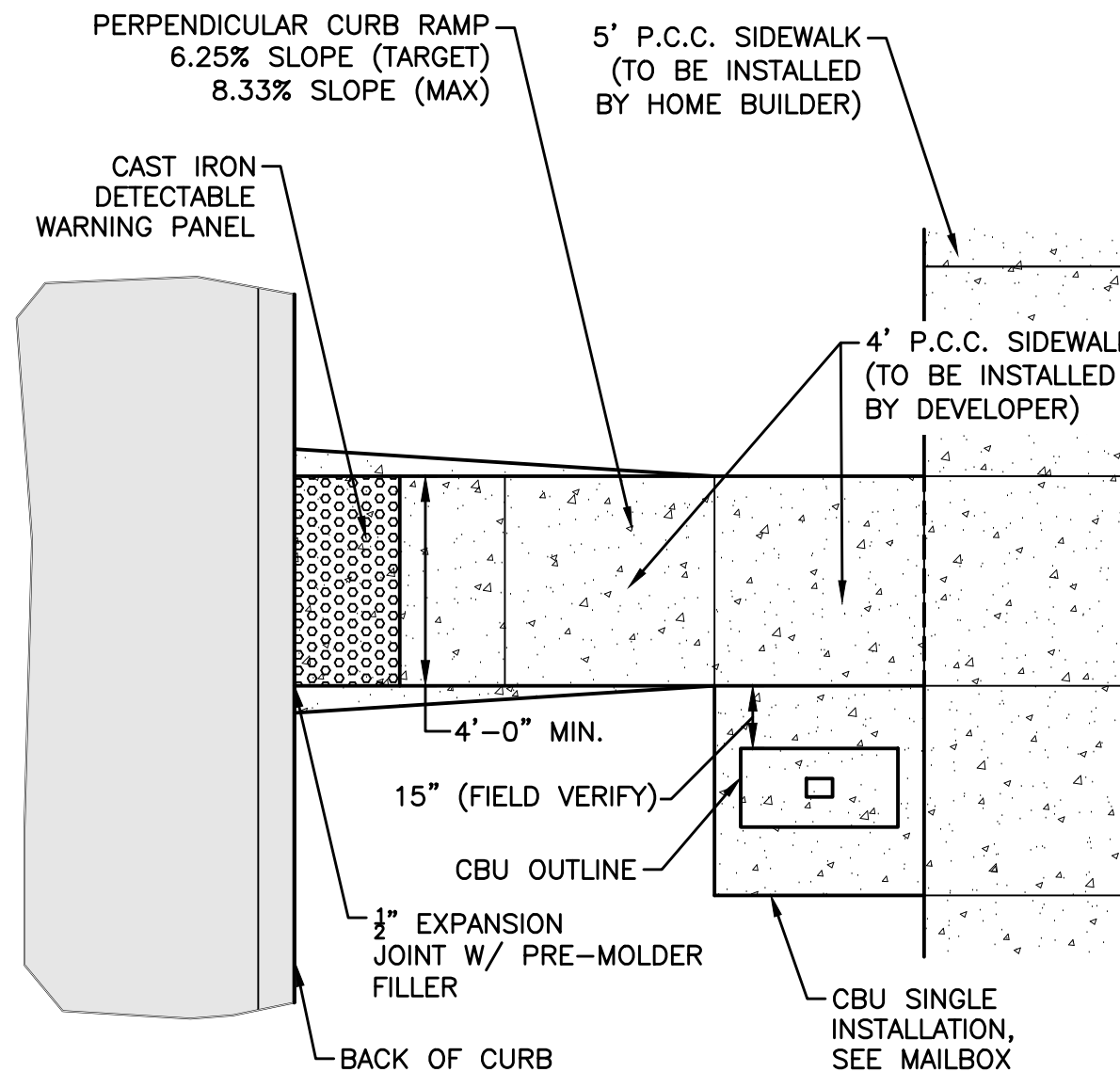
6" PERFORATED SUBDRAIN



- NOTES:
- 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" SUMP IN ACCORDANCE WITH ACI 301.
 - REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
 - EXPANSION BOLTS SHALL BE EQUIVALENT TO THE FOLLOWING PROVIDERS:
A. HILTI KWIK BOLT (WWW.HILTI.COM) 1/2" DIAMETER X 5-1/2" OVERALL LENGTH, GALVANIZED, CATALOG # 000-453-686 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 RAMSEY REDHEAD TRUBOLT (WWW.RAMSEY-REDHEAD.COM) GALVANIZED, 1/2" DIAMETER X 7" OVERALL LENGTH; CATALOG NUMBER: WS-12706. ENSURE THAT MIN. EMBEDMENT IS CONCRETE IS AT LEAST 4-1/8".
C. RAM STUP (WWW.RAM.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

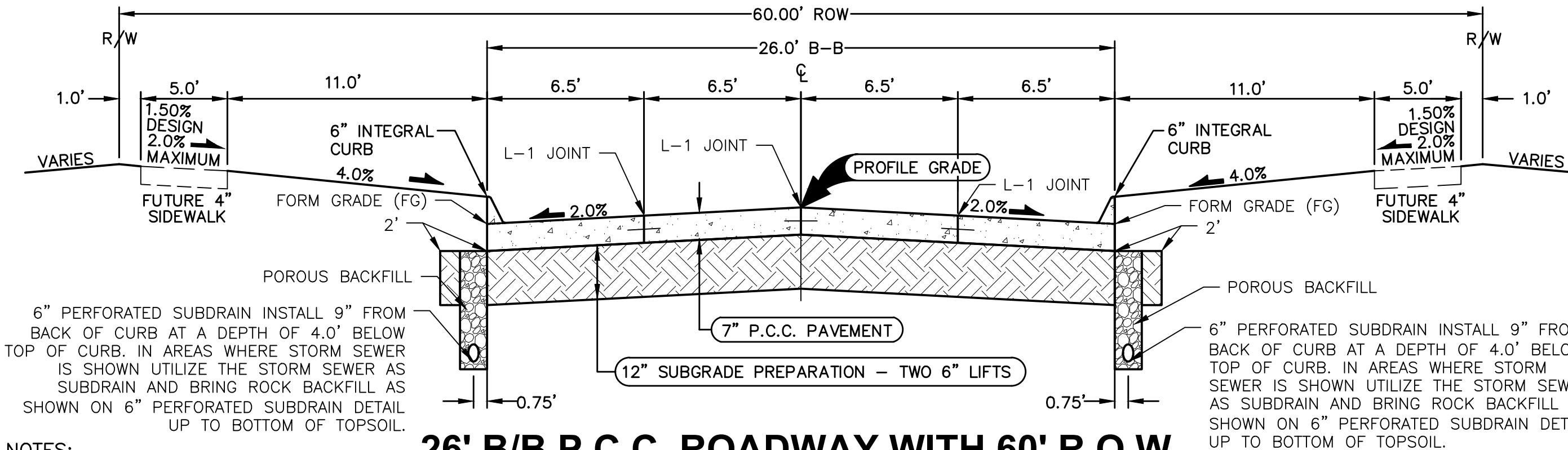
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- INSTALLATION NOTE:
- MAILBOX PADS TO BE INSTALLED WITH THE PLAT IMPROVEMENTS.
 - CLUSTER MAILBOX TO BE LOCATED ON THE NO PARKING/STREET LIGHT SIDE OF STREET.
 - DO NOT LOCATE AT INTERSECTION.
 - LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.
 - 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

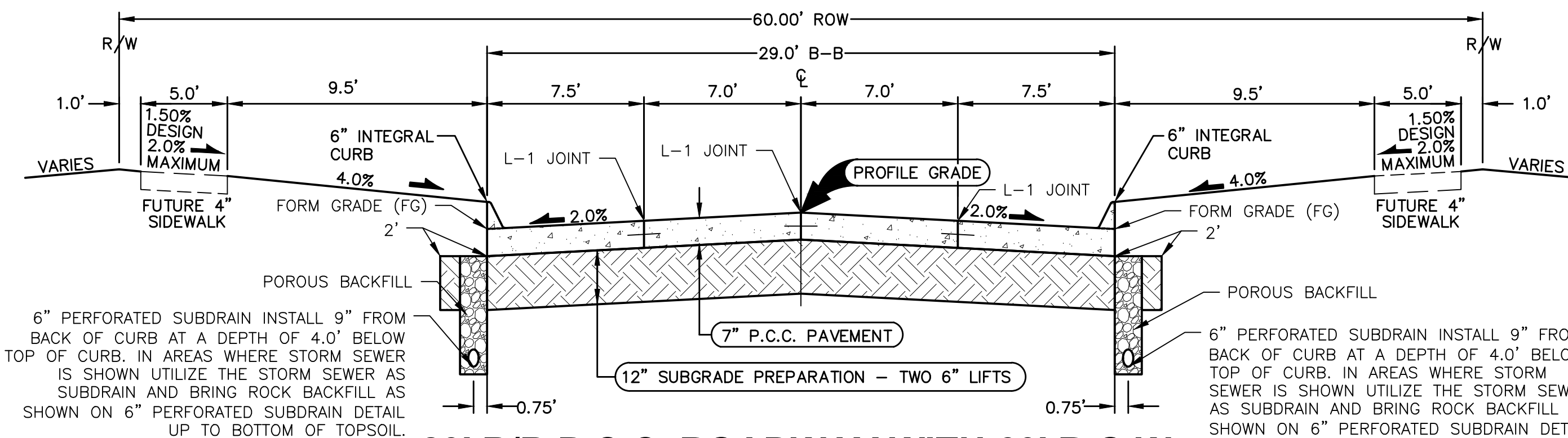
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26' B/B P.C.C. ROADWAY WITH 60' R.O.W.

NOT TO SCALE NW WOODMOOR DRIVE (EAST), NW MONTEGO COURT, AND NW COPPERLEAF COURT

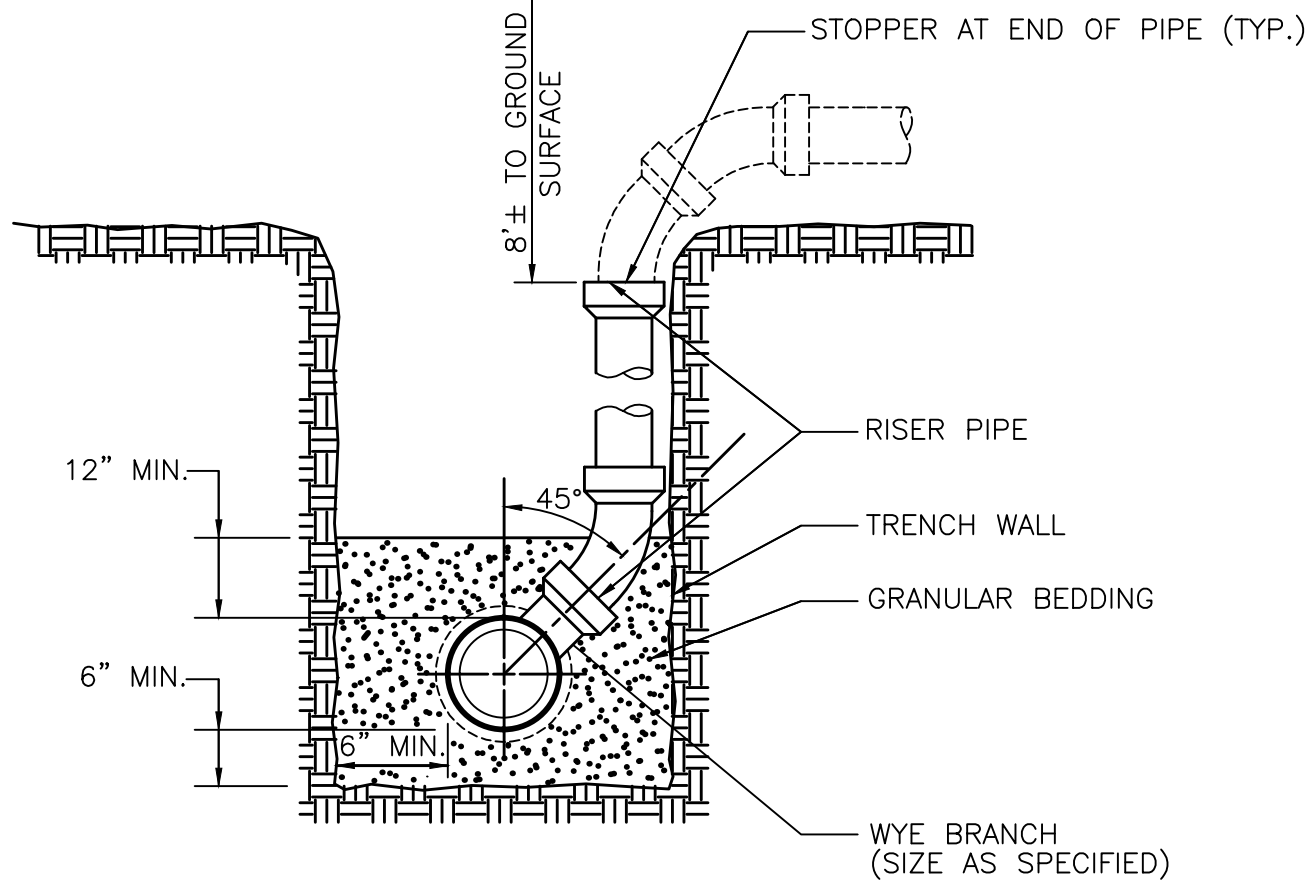
- NOTES:
- PREPARE SUBGRADE IN 2 - 6" LIFTS.
 - MAXIMUM C JOINT SPACING IS 15'.



29' B/B P.C.C. ROADWAY WITH 60' R.O.W.

NOT TO SCALE NW PRAIRIE ROSE LANE AND NW WOODMOOR DRIVE (WEST)

- NOTES:
- PREPARE SUBGRADE IN 2 - 6" LIFTS.
 - MAXIMUM C JOINT SPACING IS 15'.

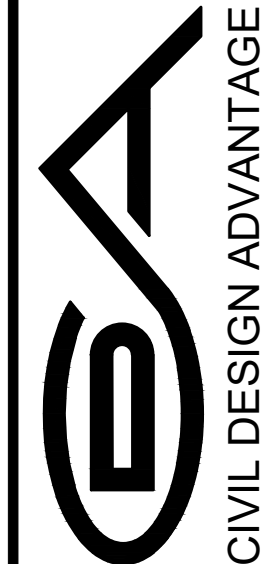


- NOTES
- INSTALL RISER TO BEAR FIRMLY AGAINST UNDISTURBED WALL OF TRENCH. STAKE RISER PIPE IN PLACE PRIOR TO BACK-FILLING TO PREVENT MOVEMENT OF PIPE.
 - NOTCH WALL OF TRENCH TO RECEIVE PIPE WHERE POSSIBLE.

SANITARY SEWER SERVICE RISER

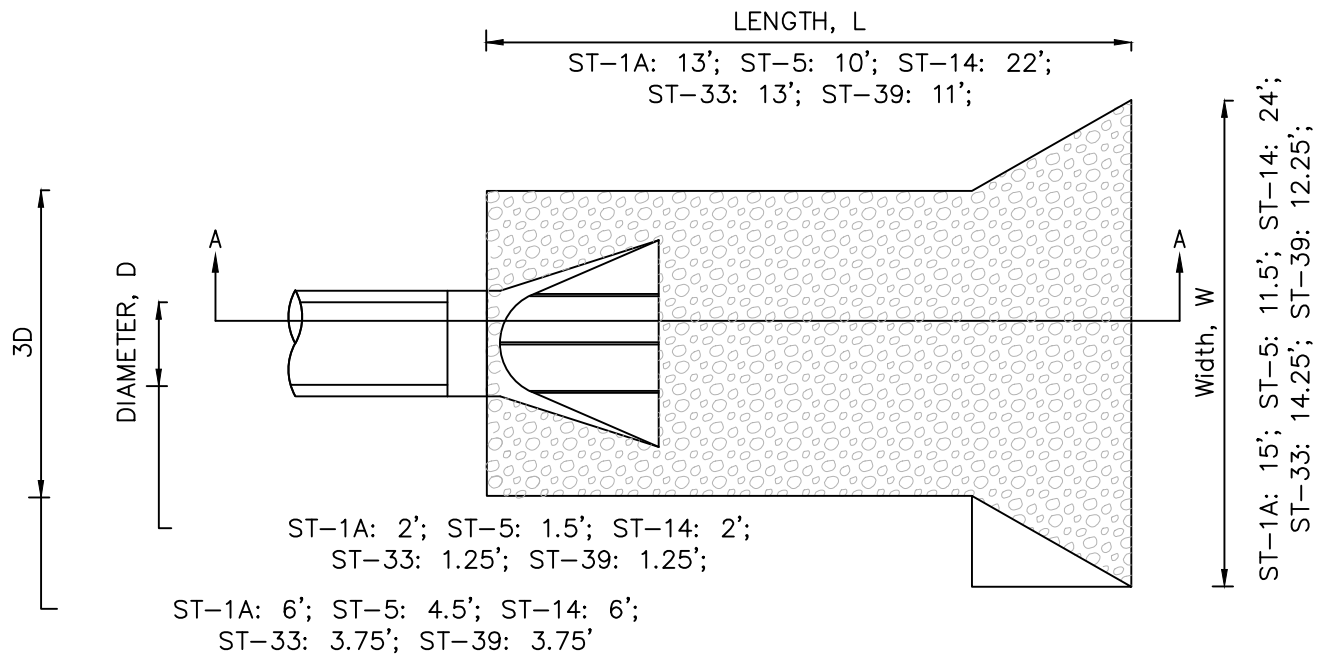
NOT TO SCALE

DATE	REVISIONS	ENGINEER
11/30/2022	AS-BUILT SUBMITTAL	4121 NW URBANDALE DR. URBANDALE, IOWA 50322
02/21/2023	FINAL SUBMITTAL	PHONE: (515) 369-4400 FAX: (515) 369-4410
01/17/2023	THIRD SUBMITTAL	ENGINEER: EKO
12/21/2021	SECOND SUBMITTAL	TECH: MST
11/16/2021	FIRST SUBMITTAL	

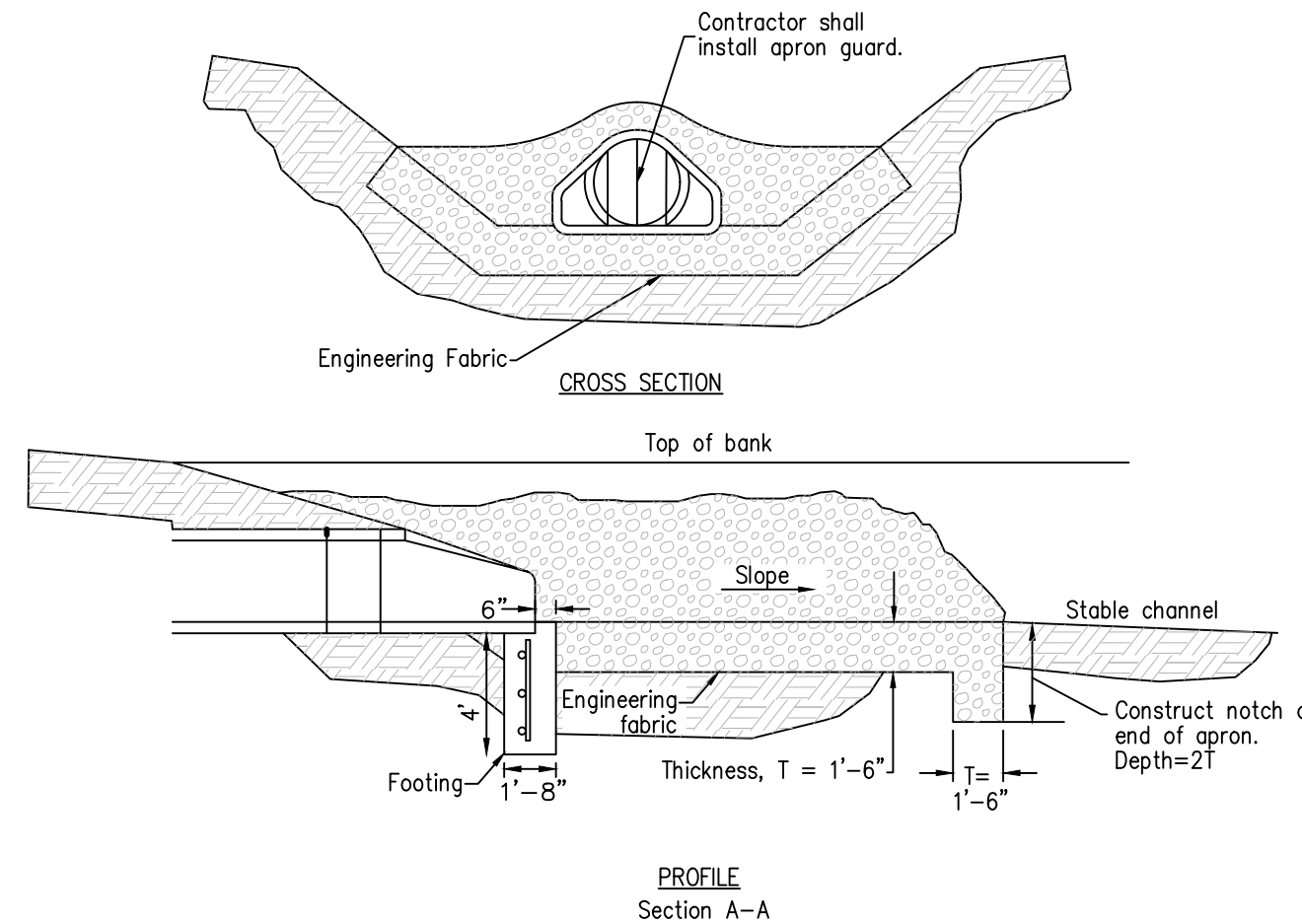


CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

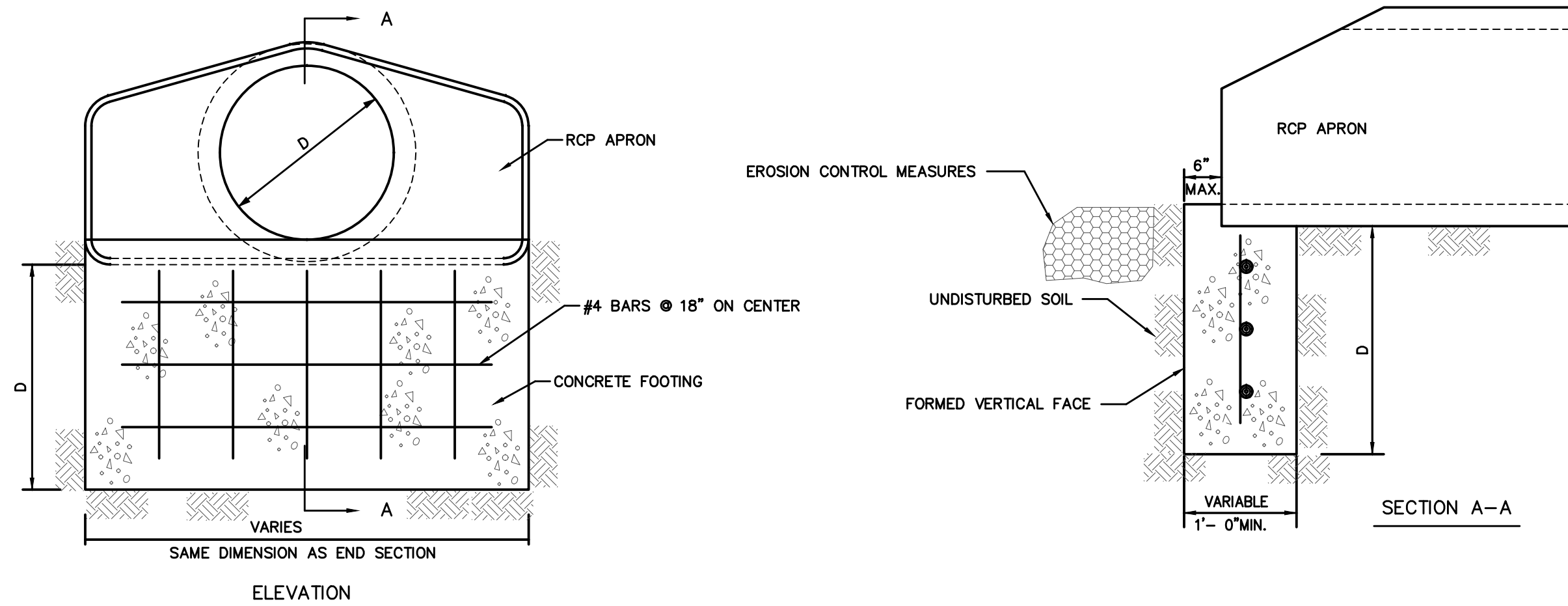
PRAIRIE ROSE PLAT 6 TYPICAL SECTIONS AND DETAILS



- NOTE:
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SUDAS.
 2. INSTALL A 3' CLAY WATERSTOP AT ALL STORM SEWER OUTLETS.



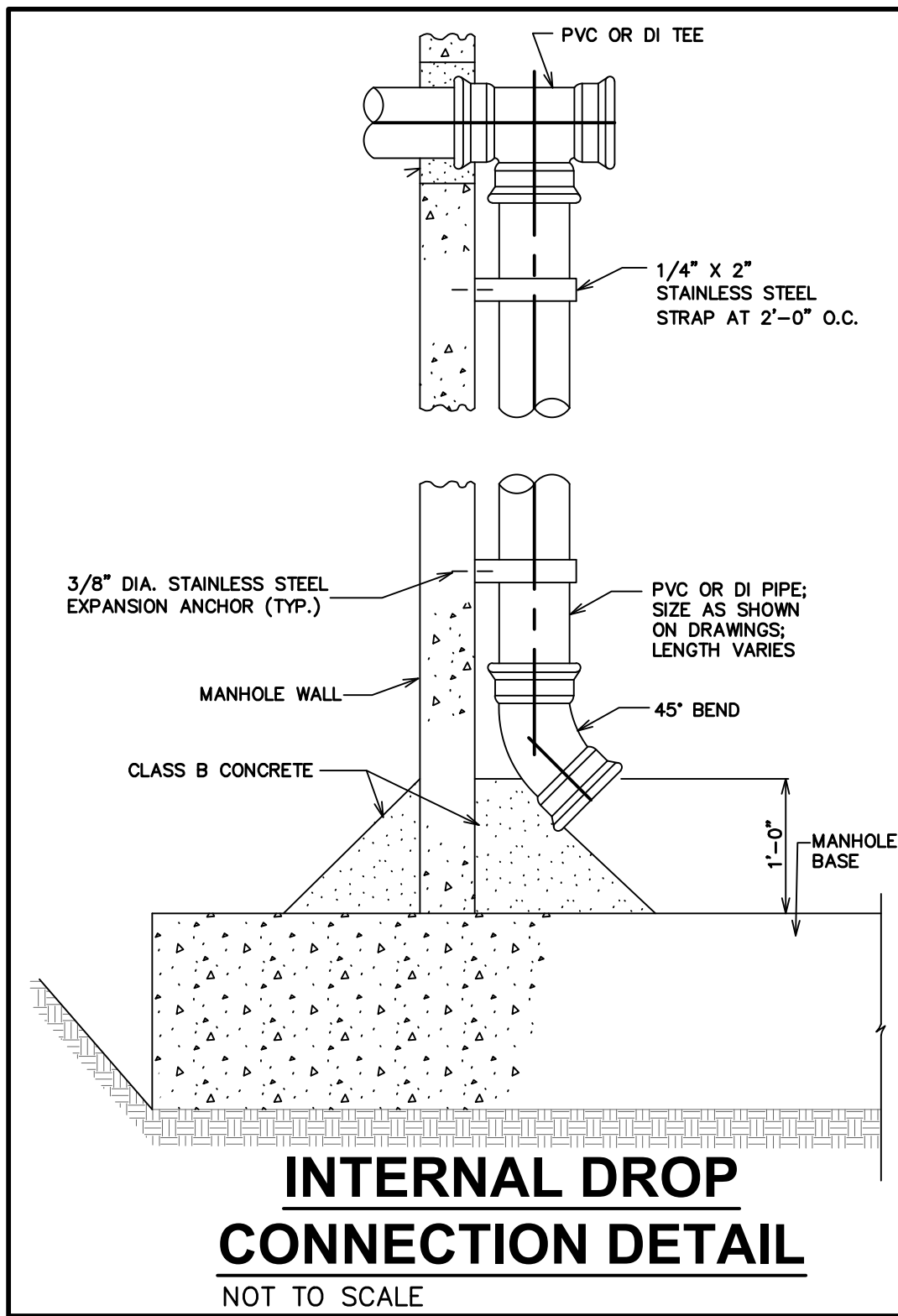
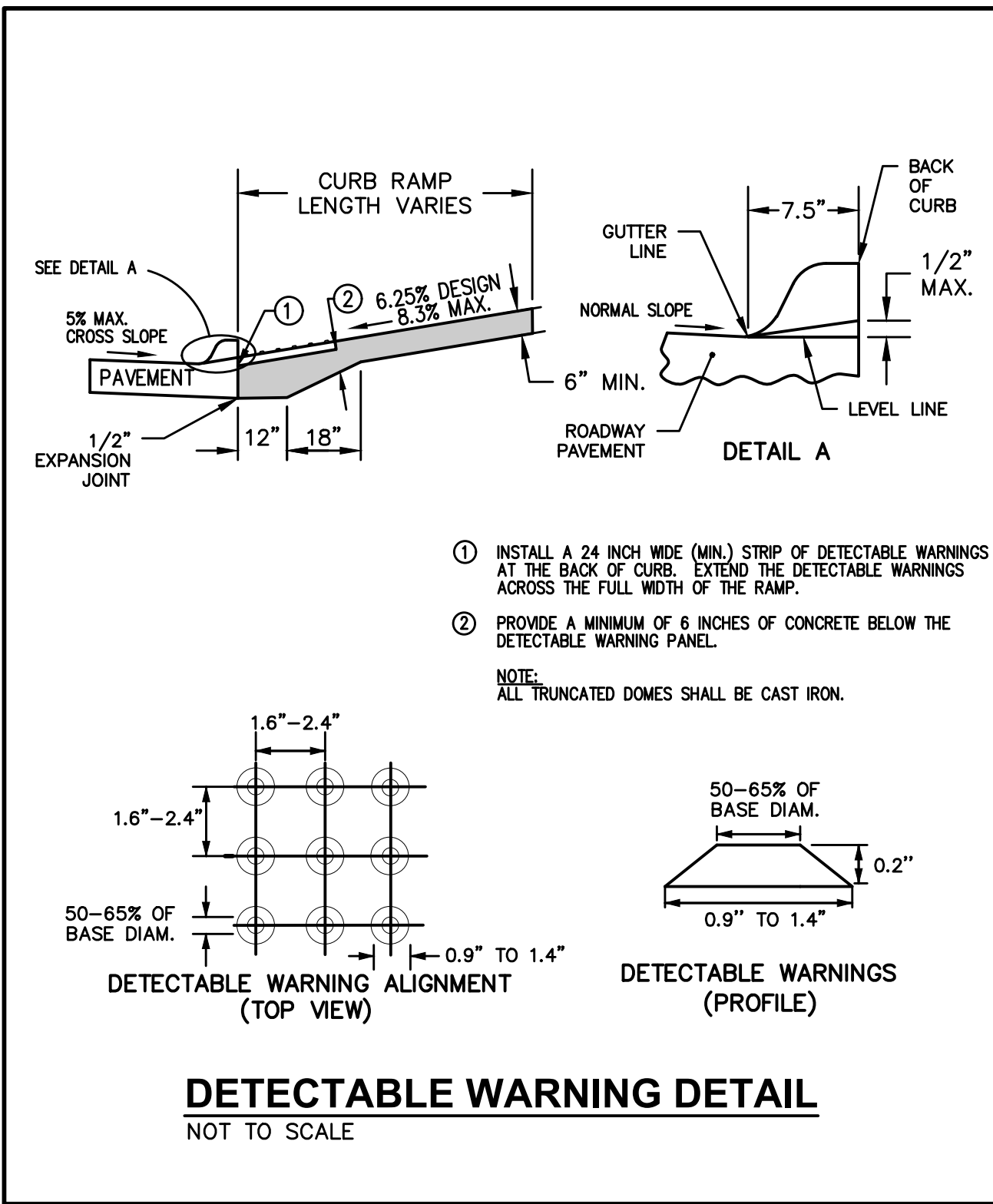
ROCK APRON FOR PIPE OUTLET
NOT TO SCALE



RCP APRON FOOTING DETAIL
NOT TO SCALE

- NOTES:
1. D=DIFFERENCE IN ELEVATION BETWEEN FLARED END INVERT AND DRAINAGE WAY CHANNEL. FLOW LINE 300 FT DOWNSTREAM OF FLARED END; MINIMUM D=42"
 2. INSTALL 3' WIDE CLAY WATERSTOP AT FLARED END SECTION PIPE JOINT.
 3. TRASH GUARDS ARE NOT ALLOWED ON PIPES 48" OR LARGER.

REINFORCING BAR LIST											
D	W	Mark	Size	Length	Count	D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3	48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	2			4f2	4	3'-8"	6
15"	2'-10"	4f1	4	2'-6"	3	54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	2			4f2	4	3'-8"	6
18"	3'-5"	4f1	4	3'-1"	3	60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	2			4f2	4	3'-8"	6
24"	4'-6"	4f1	4	4'-2"	3	66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	3			4f2	4	3'-8"	6
30"	5'-7"	4f1	4	5'-3"	3	72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	4			4f2	4	3'-8"	7
36"	6'-8"	4f1	4	6'-4"	3	78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	5			4f2	4	3'-8"	7
42"	7'-3"	4f1	4	6'-11"	3	84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	5			4f2	4	3'-8"	8



COMMENTS:
REVISIONS:
ENG:
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PLOT DATE: 11/30/2022 1:21 PM
PLOTTER: HP: PLOTTING MONITOR

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	19.95
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	9,991
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	2,286
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	48
7	SUBDRAIN, 6" PERFORATED PVC	LF	3,348
8	STORM SEWER, TRENCHED, 8" HDPE	LF	1,052
9	STORM SEWER, TRENCHED, 15" HDPE	LF	297
10	STORM SEWER, TRENCHED, 15" RCP	LF	1,490
11	STORM SEWER, TRENCHED, 18" RCP	LF	599
12	STORM SEWER, TRENCHED, 24" HDPE	LF	182
13	STORM SEWER, TRENCHED, 24" RCP	LF	953
14	STORM SEWER SERVICE STUB, 4" DIA	EA	48
15	STORM SEWER, 15" CMP APRON W/ FOOTING & APRON GUARD	EA	3
16	STORM SEWER, 15" RCP APRON W/ FOOTING & APRON GUARD	EA	7
17	STORM SEWER, 18" RCP APRON W/ FOOTING & APRON GUARD	EA	1
18	STORM SEWER, 24" RCP APRON W/ FOOTING & APRON GUARD	EA	1
19	STORM SEWER, 24" CMP APRON W/ FOOTING & APRON GUARD	EA	1
20	WATER MAIN, 8" DIA	LF	2,308
21	WATER MAIN, 12" DIA	LF	188
22	WATER SERVICE STUB, 1" DIA	EA	48
23	VALVE, 8" DIA	EA	7
24	FIRE HYDRANT ASSEMBLY	EA	11
25	TEMPORARY FIRE HYDRANT ASSEMBLY (REMOVE)	EA	1
26	TEMPORARY FIRE HYDRANT ASSEMBLY (RELOCATE)	EA	2
27	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	10
28	MANHOLE, SW-301, 60" (SANITARY SEWER)	EA	3
29	MANHOLE, SW-401, 48" (STORM SEWER)	EA	13
30	MANHOLE, SW-401, 60" (STORM SEWER)	EA	2
31	MANHOLE, SW-401, 72" (STORM SEWER)	EA	1
32	INTAKE, SW-503	EA	1
33	INTAKE, SW-505	EA	8
34	INTAKE, SW-506	EA	4
35	INTAKE, SW-512, 24" DIA.	EA	1
36	PAVEMENT, 7" P.C.C.	SY	8,282
37	PAVEMENT, 9" P.C.C.	SY	553
38	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	126
39	PAVEMENT, 4" P.C.C. SIDEWALK	SY	22
40	PAVEMENT, 6" P.C.C. TRAIL	SY	402
41	DETECTABLE WARNING PANELS	SF	184
42	SEEDING, FERTILIZING, AND MULCHING	AC	17.87
43	PERMANENT ROAD CLOSURE, URBAN, SI-182 (RELOCATE)	EA	5
44	PERMANENT ROAD CLOSURE, URBAN, SI-182 (REMOVE)	EA	10
45	TRAFFIC CONTROL	LS	1
46	EROSION CONTROL	LS	1
47	STORM SUBDRAIN CLEANOUT	EA	11
48	LANDSCAPING	LS	1
49	MAILBOX PAD	EA	4
50	PRIVACY FENCE	LF	960
51	ROCK OUTLET PROTECTION, CLASS 'E' RIPRAP	TONS	70
52	SANITARY SEWER MANHOLE MAJOR ADJUSTMENT	EA	3

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2021 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
2.

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
3.

THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
4.

THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING HIS EQUIPMENT ON THE PAVEMENT OR SIDEWALK. PAVEMENT REPLACEMENT SHALL COMPLY WITH THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
5.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.
6.

THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:

A. CITY OF WAUKEE ENGINEERING DEPARTMENT

B. APPROPRIATE UTILITY COMPANIES

C. OWNER

D. CIVIL DESIGN ADVANTAGE
- *

48 HOUR NOTICE SHALL BE GIVEN TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO WEEKEND AND HOLIDAY WORK.

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
1	THE 2020 EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2021 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN. ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS. CITY OF WAUKEE STANDARD DETAILS SHALL GOVERN IF ANY DISCREPANCIES. CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDS PRIOR TO BIDDING. INCLUDES REMOVAL OF ANY EXISTING FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDED REMOVAL OF EXISTING CROPS FOR CONSTRUCTION OF TEMPORARY ACCESS. DO NOT DISTURB CROPS OUTSIDE OF THE PROJECT LIMITS. AREA SHOWN FOR REFERENCE ONLY.
2	STRIP, SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
3	EXCAVATION INCLUDES ALL WORK NECESSARY TO ACHIEVE PROPER GRADES AS SHOWN IN THE PLANS. NO PAYMENT FOR OVERHAUL SHALL BE ALLOWED.
4	REFER TO SHEET 2 AND 3 FOR TYPICAL LOCATIONS AND THICKNESS.
5	SANITARY SEWER SHALL BE PVC TRUSS PIPE. ANY CONNECTIONS TO EXISTING SANITARY SEWER SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 3010.101 AND 3010.103 FOR PIPE EMBEDMENT DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. EXISTING SANITARY SEWER WILL NEED TO BE RETESTED AFTER SADDLE WYE INSTALLATION.
8-13	REFER TO FIGURE 3010.102 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. CONNECTIONS TO EXISTING STORM SEWER PIPE AND STRUCTURES SHALL BE CONSIDERED INCIDENTAL. WRAP ALL PIPE JOINTS IN ENGINEERING FABRIC. CLEAN AND TELEWISE SANITARY AND STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISIONING REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISIONING SHALL BE CONSIDERED INCIDENTAL. ALL STORM SEWER PIPE THAT CROSSES OVER WATERMAIN SHALL HAVE O-RING GASKETS JOINT RATED AT 13 PSI OR GREATER. O-RING GASKET JOINTS SHALL BE INSTALLED ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATER TO THE SEWER IS AT LEAST 10 FEET. THE ROCK CHIMNEY IS INCIDENTAL TO STORM SEWER CONSTRUCTION WHEN THE STORM SEWER HAS DUAL PURPOSE OF STORM SEWER AND SUBDRAIN. REFER TO SHEET 3 FOR THE CITY STANDARD SUBDRAIN DETAIL
6,14,22	REFER TO DETAILS ON SHEET 2 AND PLAN AND PROFILE SHEETS FOR LOCATION AND DEPTH. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
15-19	THE LAST THREE SECTIONS AND APRON SHALL BE CONNECTED WITH PIPE CONNECTORS. REFER TO FIG. 4030.221 - RCP APRON SECTION FOOTING FOR FOOTING CONSTRUCTION DETAILS. APRON GUARD REQUIRED ON ALL APRONS. RCP APRON FOOTING, PIPE APRON GUARD AND PIPE CONNECTORS TO BE CONSIDERED INCIDENTAL. INSTALL CLAY WATERSTOPS AT ALL RCP APRONS, MIN. 3' LONG.
20-21	REFER TO FIG. 3010.101 AND FIG. 3010.104 FOR TRENCH BEDDING AND BACKFILL ZONE DETAILS. GRANULAR PIPE BEDDING SHALL BE CONSIDERED INCIDENTAL. REFER TO FIG. 5010.101 FOR THRUST BLOCK DETAILS. REFER TO FIG. 5010.102 FOR TRACER SYSTEM DETAILS. ALL FITTINGS, POLYETHYLENE WRAP, THRUST BLOCKS, AND TRACER WIRE SYSTEM SHALL BE CONSIDERED INCIDENTAL.
24	REFER TO FIG. 5020.201 - FIRE HYDRANT ASSEMBLY FOR FIRE HYDRANT CONSTRUCTION DETAILS. INCLUDES ANCHORING TEE, ANCHORING ELBOW, GATE VALVE, VALVE BOX, ANCHORING PIPE, ANCHORING COUPLING, ELBOWS, 5" STORZ FITTINGS, POLYETHYLENE WRAP, THRUST BLOCK AND TRACER WIRE SYSTEM AND FIRE HYDRANT.
24-26	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS. ANY RELOCATED FIRE HYDRANTS ARE TO INCLUDE 5-INCH STORZ FITTINGS.
27-28	REFER TO FIG.6010.301 - CIRCULAR SANITARY SEWER MANHOLE (SW-301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE A MANHOLE CASTING WITH PRO RINGS PER THE 2020 WAUKEE STANDARD SPECIFICATIONS. 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.
29-31	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.

8.

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.
9.

SPECIAL CARE SHALL 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.
10.

TO OBTAIN THE CORRECT FORM GRADES AT LOW POINTS WHERE INTAKES ARE LOCATED, THE CONTRACTOR MUST EXERCISE ADDITIONAL CARE WHEN PAVING FULL WIDTH PAVEMENTS. THIS MAY REQUIRE POURING ONE HALF OF THE PAVEMENT AT A TIME OR OTHER METHODS APPROVED BY THE ENGINEER.
11.

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.
12.

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.
13.

THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
14.

THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
15.

ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
16.

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.
17.

ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
18.

ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
19.

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.
20.

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.
21.

REMOVE DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
22.

DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.
23.

ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
24.

IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.

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
32-34	REFER TO FIG. 6010.514 - BOXOUTS FOR GRATE INTAKES. REFER TO FIG. 6010.603 - CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS AND FIG. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 6". THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".
32	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
33	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS
34	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
36	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
38	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 CAST IRON WITH A NATURAL FINISH. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.
41	REFER TO SHEET 4 FOR CONSTRUCTION DETAILS. ALL TRUNCATED DOMES SHALL BE CAST IRON WITH A NATURAL FINISH COLOR.
42	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 =1.80 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 16.07 AC
43	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.
45	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. THE MESSAGE BOARD WILL BE REQUIRED AT LEAST 1 WEEK IN ADVANCE OF ANY LANE CLOSURES.
46	REFER TO SHEET 8-9 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
47	REFER TO SANITARY AND STORM SEWER PLAN AND PROFILE SHEETS FOR LOCATIONS.
48	REFER TO SHEET 6 FOR DETAILS.
49	MAILBOX PADS ARE LOCATED BETWEEN LOTS 18/19, 20/21, AND 29/30
50	REFER TO SHEET 6 FOR LOCATION.
52	REFER TO SHEET 7 FOR LOCATIONS.

25.

ALL FIELD TILES ENCOUNTERED SHALL BE REPAIRED AND CONNECTED TO STORM SEWERS WHERE POSSIBLE. LOCATIONS SHALL BE PROVIDED TO THE ENGINEER FOR NOTATION ON AS-BUILTS.
26.

ALL CONSTRUCTION STAKING TO BE COMPLETED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR. ALL CURB DROPS AND SIDEWALK/SHARED USE PATH SHALL ALSO BE STAKED UNDER THE DIRECTION OF A LICENSED ENGINEER OR LAND SURVEYOR
27.

THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
28.

A GEOTECHNICAL ENGINEER SHALL BE ONSITE DURING CONSTRUCTION AND FOR PROOF ROLLING TO INSPECT SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE GEOTECHNICAL ENGINEER IS PRESENT. A COPY OF ALL REPORTS AND FINDINGS REQUIRING ALTERATION FROM THE APPROVED PLAN SET IS TO BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT FOR REVIEW AND DISCUSSION PRIOR TO COMMENCING WITH PAVING WITHIN THE PROJECT.
29.

THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
30.

ALL TESTING SHALL BE COMPLETED ACCORDING TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE WAUKEE ENGINEERING DEPARTMENT SHALL BE PRESENT TO WITNESS ALL TESTING.
31.

AS-BUILTS SHALL BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT INCLUDING ALL UTILITIES AND AS-BUILT GRADES FOR DRAINAGE SWALES, OVERFLOWS, ACCESSIBLE RAMPS AND DETENTION FACILITIES. THE CONTRACTOR SHALL PROVIDE INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION ON THE RECORD AS-BUILT DRAWINGS.
32.

THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND TELEVISIONING ALL STORM AND SANITARY SEWERS. THE CITY OF WAUKEE ENGINEERING DEPARTMENT SHALL WITNESS AND APPROVE ALL CLEANING AND TELEVISIONING PRIOR TO PAVING. A COPY OF THE VIDEOS AND A HARD COPY OF THE INSPECTION REPORT SHALL BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT. ALL SANITARY SEWER MANHOLES ARE TO BE VACUUM TESTED.
33.

ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE 5-INCH STORZ FITTINGS.
34.

ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.
35.

ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.
36.

ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED.
37.

ALL EXISTING AND PROPOSED MANHOLES SHALL HAVE A MINIMUM OF 1 - 4" ADJUSTING RING TO ALLOW FOR FUTURE ADJUSTMENT SHOULD THE STRUCTURE END UP IN A DRIVEWAY.
38.

THE RESULTS OF THE GEOTECHNICAL EXPLORATION ARE TO BE PROVIDED TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT AND THE PLAN IS SUBJECT TO ANY CHANGES REQUIRED BY THE REPORT.
39.

THIS SITE WILL HAVE SAWCUTTING AND CONCRETE GRINDING SO PROTECTION OF STORM SEWERS AND DRAINAGE WAYS FROM SLURRY WILL NEED TO OCCUR FOR ALL OFFSITE DISCHARGE.

25' BUFFER REQUIREMENTS

1 OVERSTORY, 2 EVERGREEN AND 2 ORNAMENTAL TREES PER 50 LF

REQUIRED (700' + 350' OUTLOT FRONTAGE (1/3 OF REQUIREMENT))

OVERSTORY TREES 17
EVERGREEN TREES 34
ORNAMENTAL TREES 34

PROVIDED

OVERSTORY TREES 17
EVERGREEN TREES 34
ORNAMENTAL TREES 34

PLANT SCHEDULE

CODE	QTY	DESCRIPTION	SIZE	COND
CP 134	1	CHANTICLEER PEAR	1.5" CAL	B&B
RO 17	1	RED OAK	2" CAL	B&B
DF 134	1	DOUGLAS FIR	6" HT	B&B

PRAIRIE ROSE PLAT 6
HYDRANT COVERAGE & LANDSCAPE PLAN



WAUKEE, IOWA

4121 NW URBANDALE DR.
URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO

TECH: MST

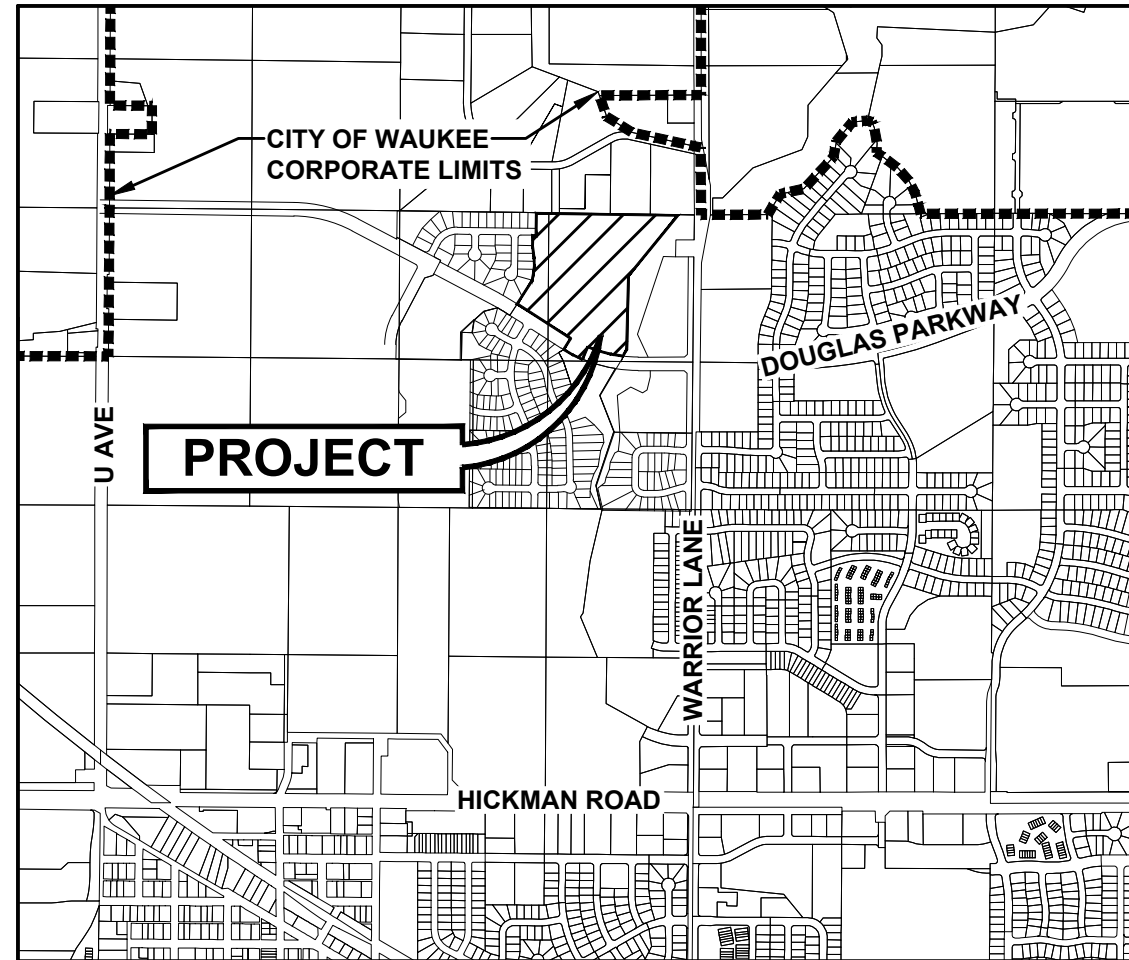
REVISIONS

DATE	REVISIONS
11/30/2022	AS-BUILT SUBMITTAL
02/21/2023	FINAL SUBMITTAL
01/17/2023	THIRD SUBMITTAL
12/21/2021	SECOND SUBMITTAL
11/16/2021	FIRST SUBMITTAL

PRAIRIE ROSE PLAT 6

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	3,787
2	DITCH CHECK	LF	2,375
3	SEEDING, FERTILIZING, AND MULCHING	AC	17.87
4	INLET PROTECTION DEVICES	EA	11
5	CONCRETE WASHOUT PIT	EA	1

NOTES:

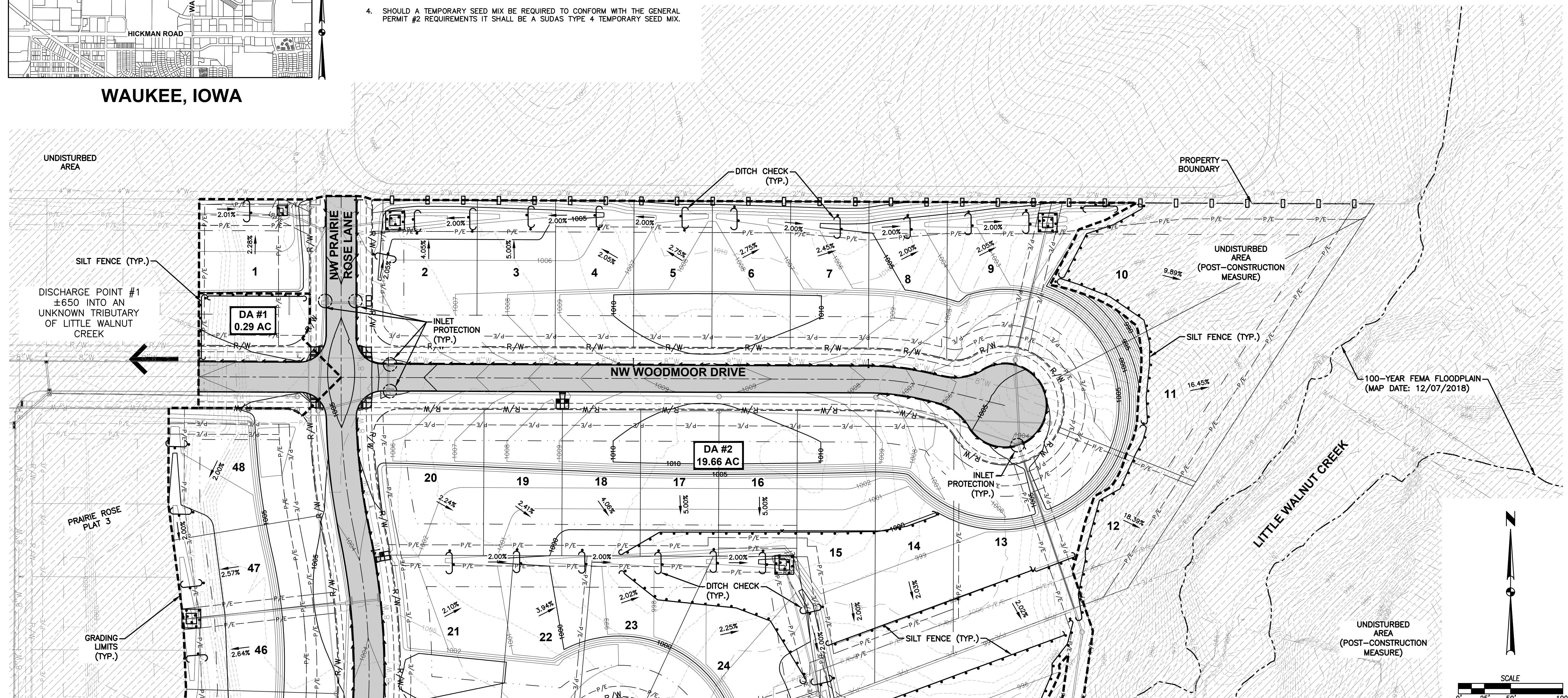
- IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
- DISTURBED AREAS SHALL BE TEMPORARILY SEED OR MULCHED IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING, OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
- STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
- SHOULD A TEMPORARY SEED MIX BE REQUIRED TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENTS IT SHALL BE A SUDAS TYPE 4 TEMPORARY SEED MIX.

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE WALNUT CREEK ±650 FT	
TOTAL AREA DISTURBED TO DISCHARGE POINT	0.29 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	1,044 CU FT
VOLUME PROVIDED IN SILT FENCE (178 LF @ 10.0 CU FT/LF OF FENCE)	1,780 CU FT
TOTAL VOLUME PROVIDED	1,780 CU FT
DISCHARGE POINT #2 TO LITTLE WALNUT CREEK ±100 FT	
TOTAL AREA DISTURBED TO DISCHARGE POINT	19.88 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	71,568 CU FT
VOLUME PROVIDED IN SILT FENCE (3,609 LF @ 10.0 CU FT/LF OF FENCE)	36,090 CU FT
VOLUME PROVIDED IN DITCH CHECK (2,375 LF @ 15.0 CU FT/LF)	35,625 CU FT
TOTAL VOLUME PROVIDED	72,715 CU FT

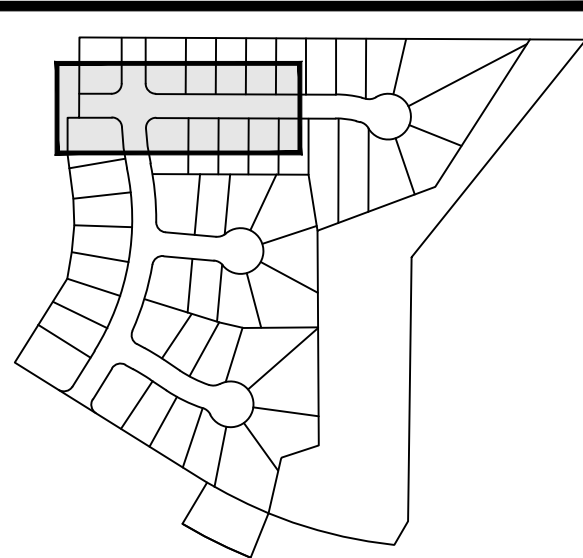
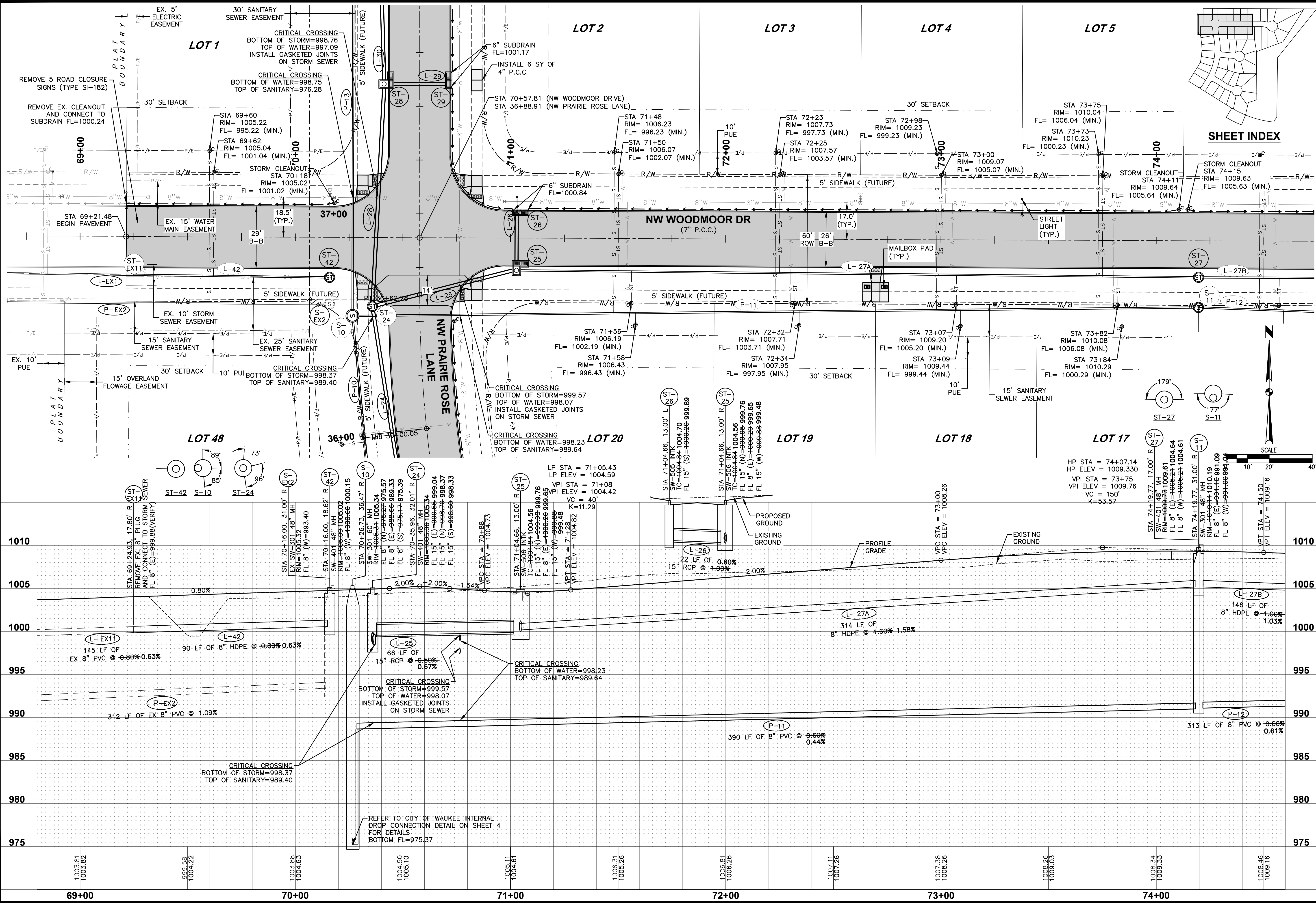
SWPPP LEGEND

DRAINAGE ARROW	X.XX %	UNDISTURBED AREA	
GRADING LIMITS		RIP-RAP	
FILTER SOCK		GRAVEL ENTRANCE	
SILT FENCE		STAGING AREA	
INLET PROTECTION		TEMPORARY SEDIMENT BASIN	TSB #
PORTABLE RESTROOM	R		
TEMPORARY STANDPIPE			
CONCRETE WASHOUT PIT			





PRAIRIE ROSE PLAT 6
EROSION AND SEDIMENT CONTROL PLAN



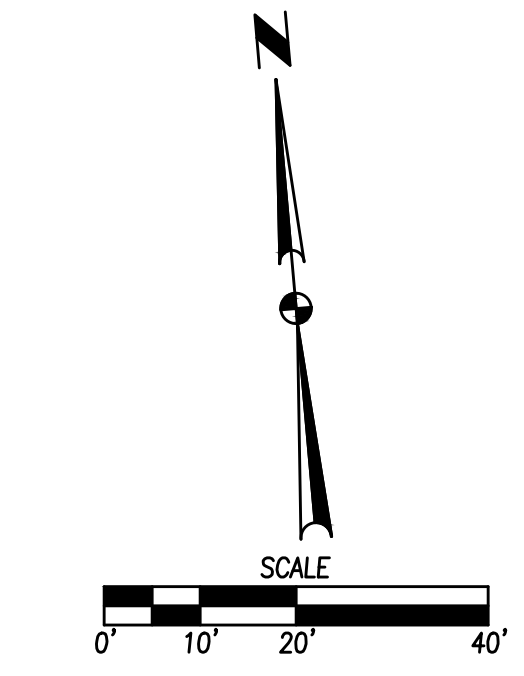
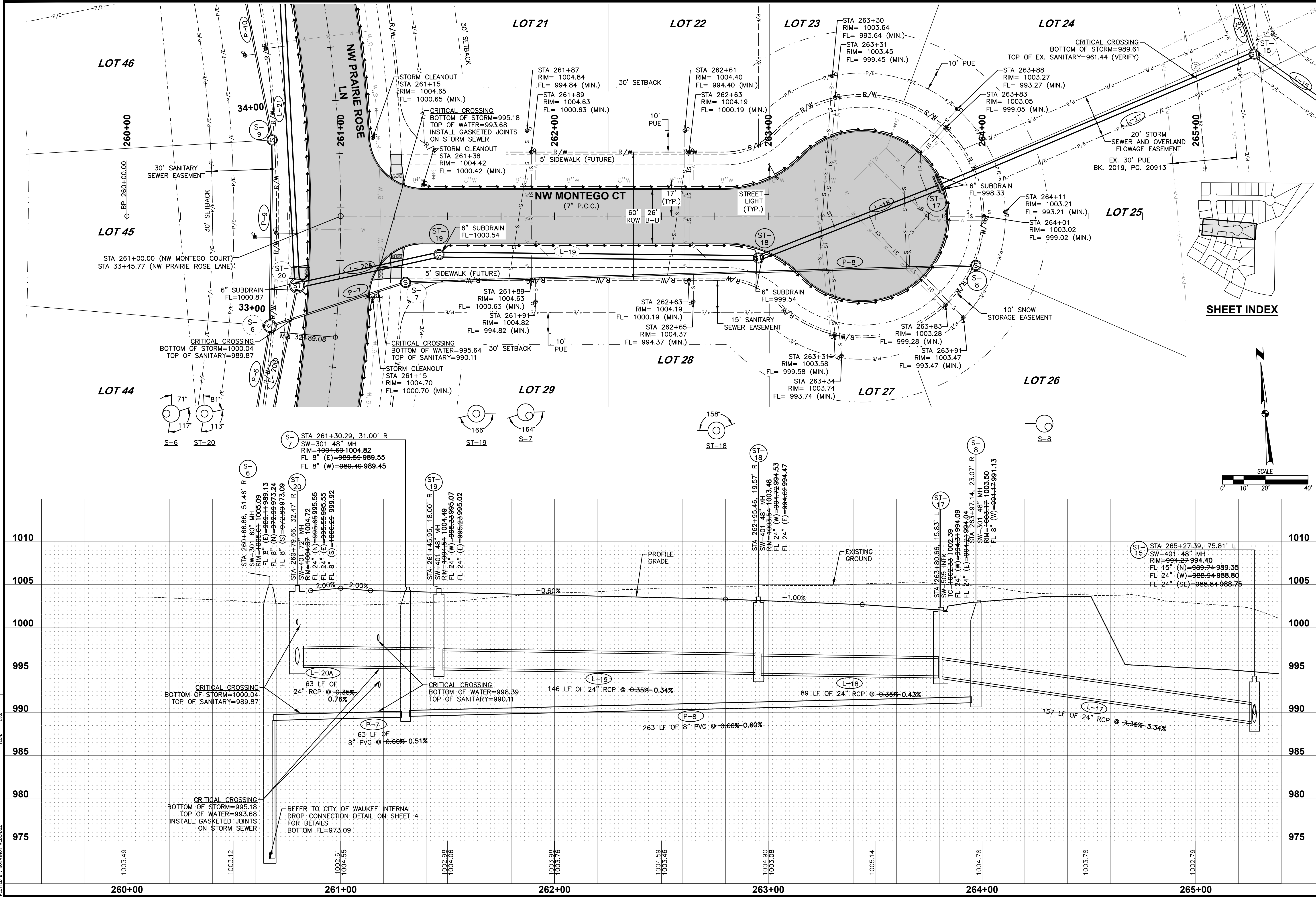
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URBANDALE, IOWA 50322
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ENGINEER: EKO
EI: JWM TECH: MST

PRAIRIE ROSE PLAT 6
STORM & SANITARY SEWER PLAN AND PROFILE
WAUKEE, IOWA

10/30
2109.724

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PLOTTER: HP DesignJet 5000
PLOTTER: HP DesignJet 5000



SHEET INDEX

DATE

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AS-BUILT SUBMITTAL

02/21/2022

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THIRD SUBMITTAL

12/21/2021

SECOND SUBMITTAL

11/16/2021

FIRST SUBMITTAL

11/16/2021

REVISIONS

4121 NW URBANDALE DR.

URBANDALE, IOWA 50322

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

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO

EI: JWM TECH: MST

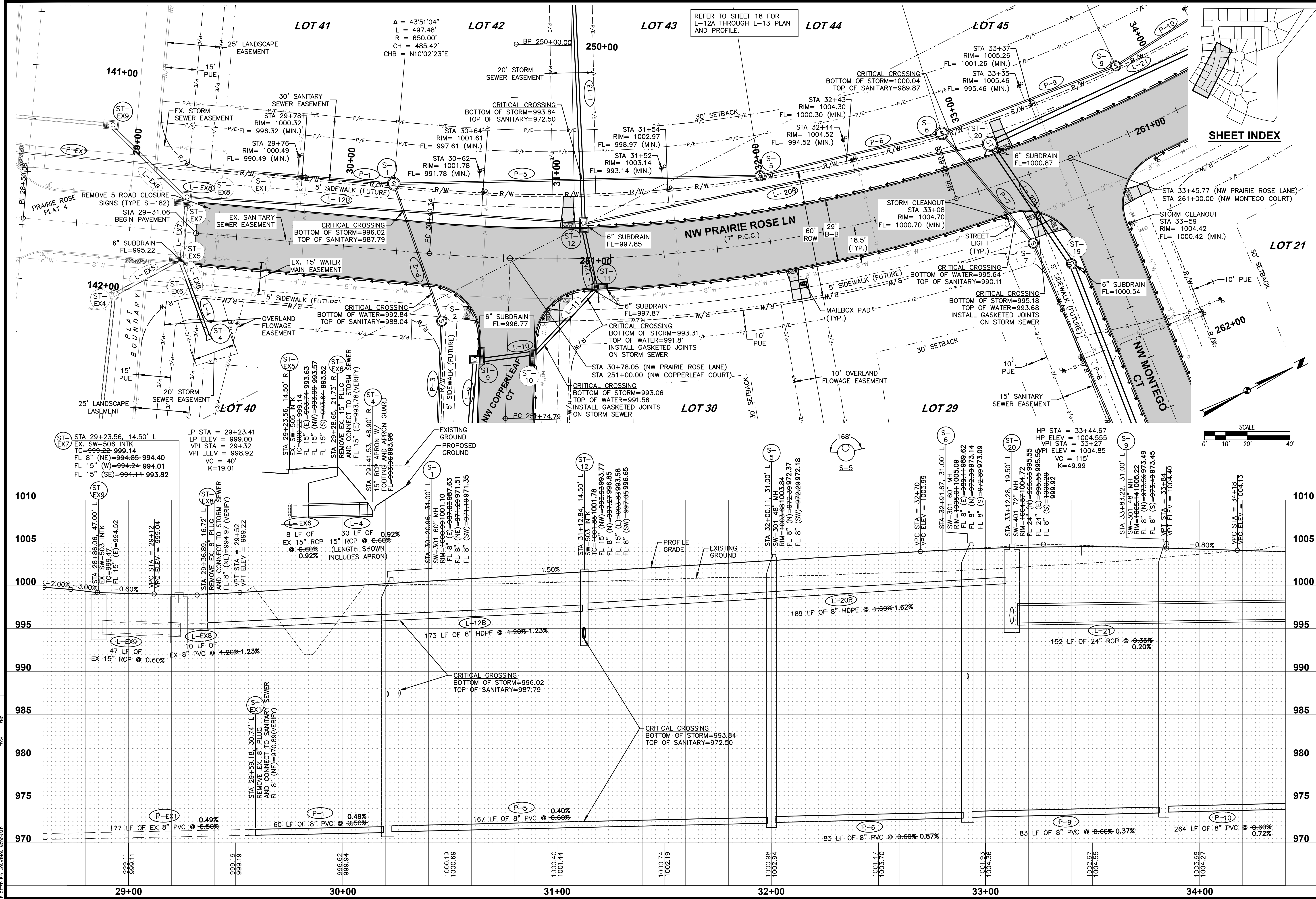
PRAIRIE ROSE PLAT 6

STORM & SANITARY SEWER PLAN AND PROFILE

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DATE
11/30/2022
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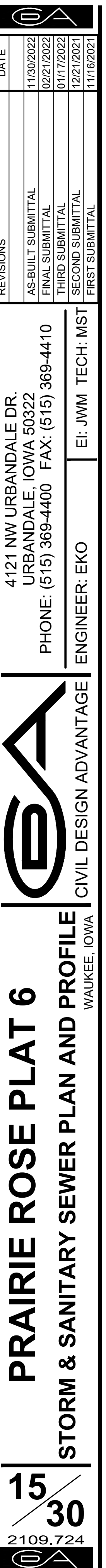
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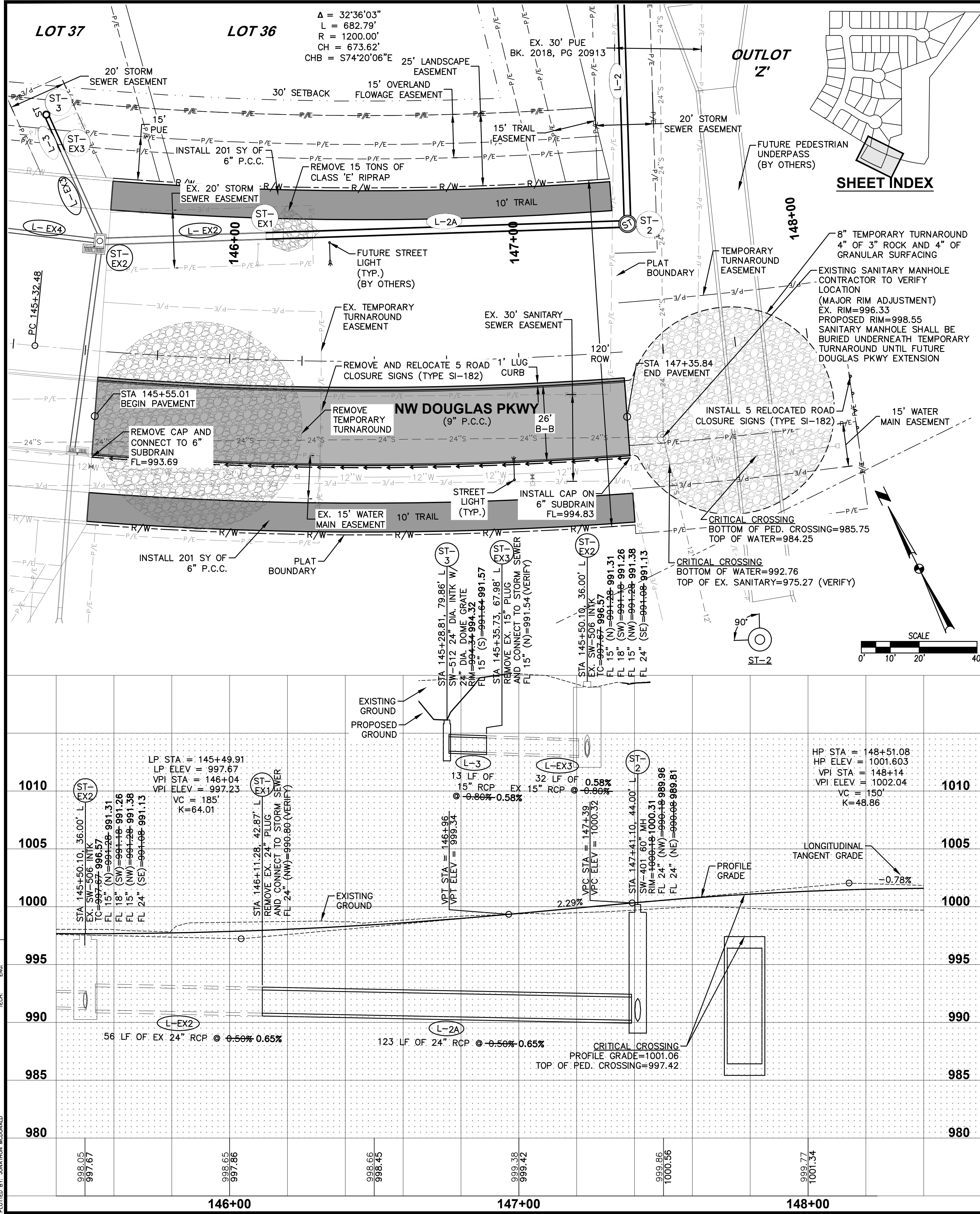
4121 NW URBANDALE DR.
URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
E: JWM TECH: MST

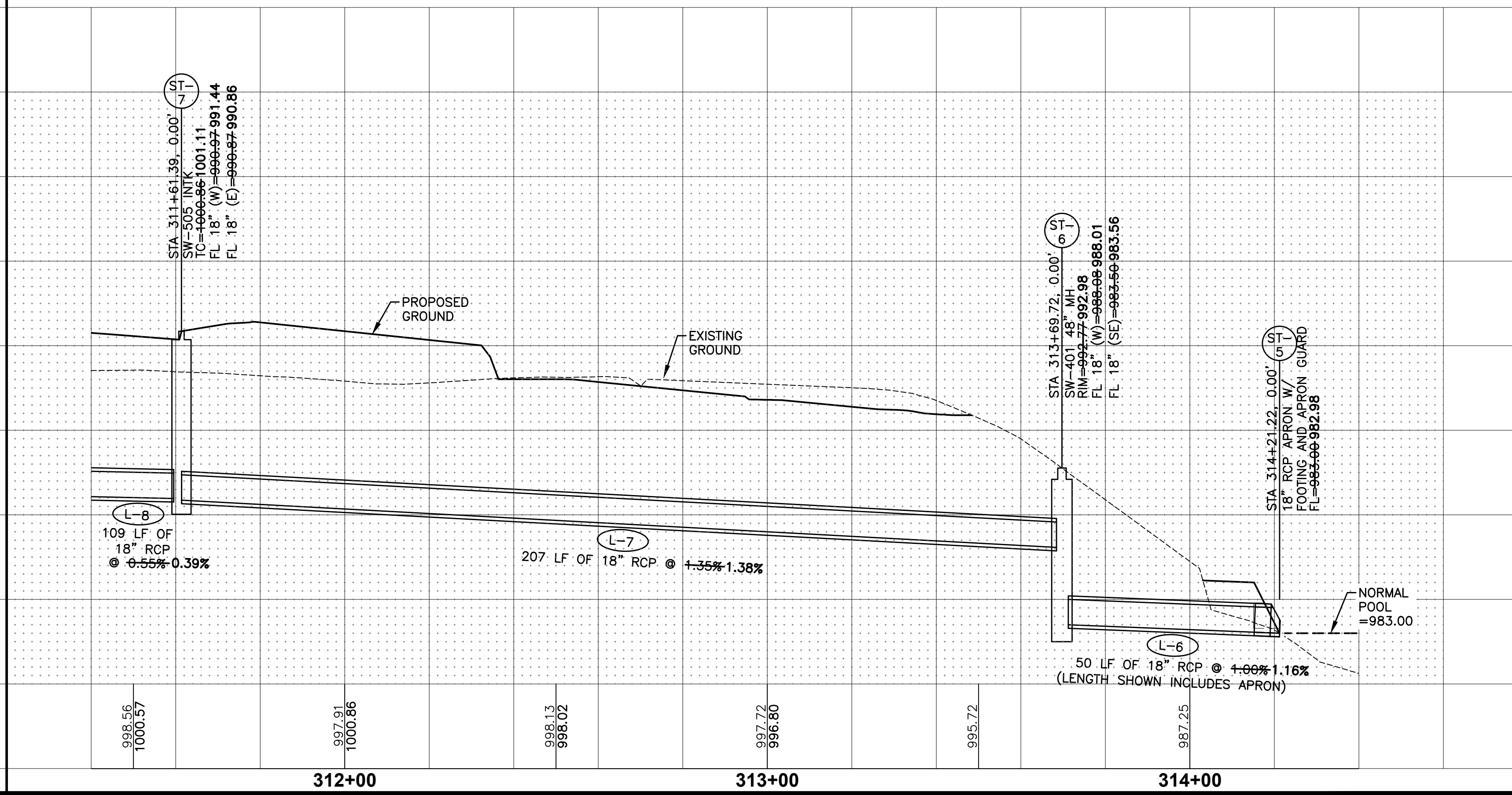
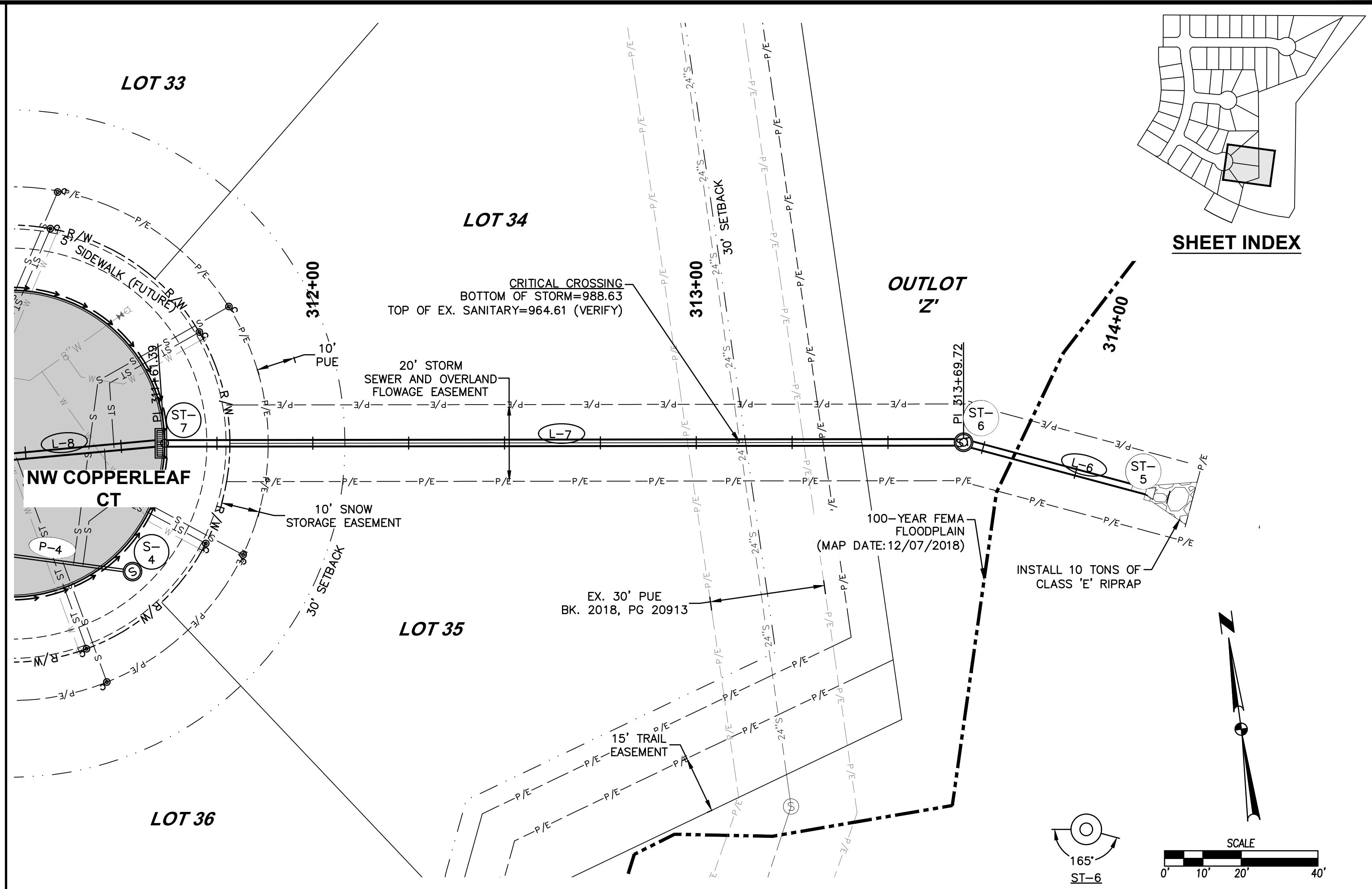
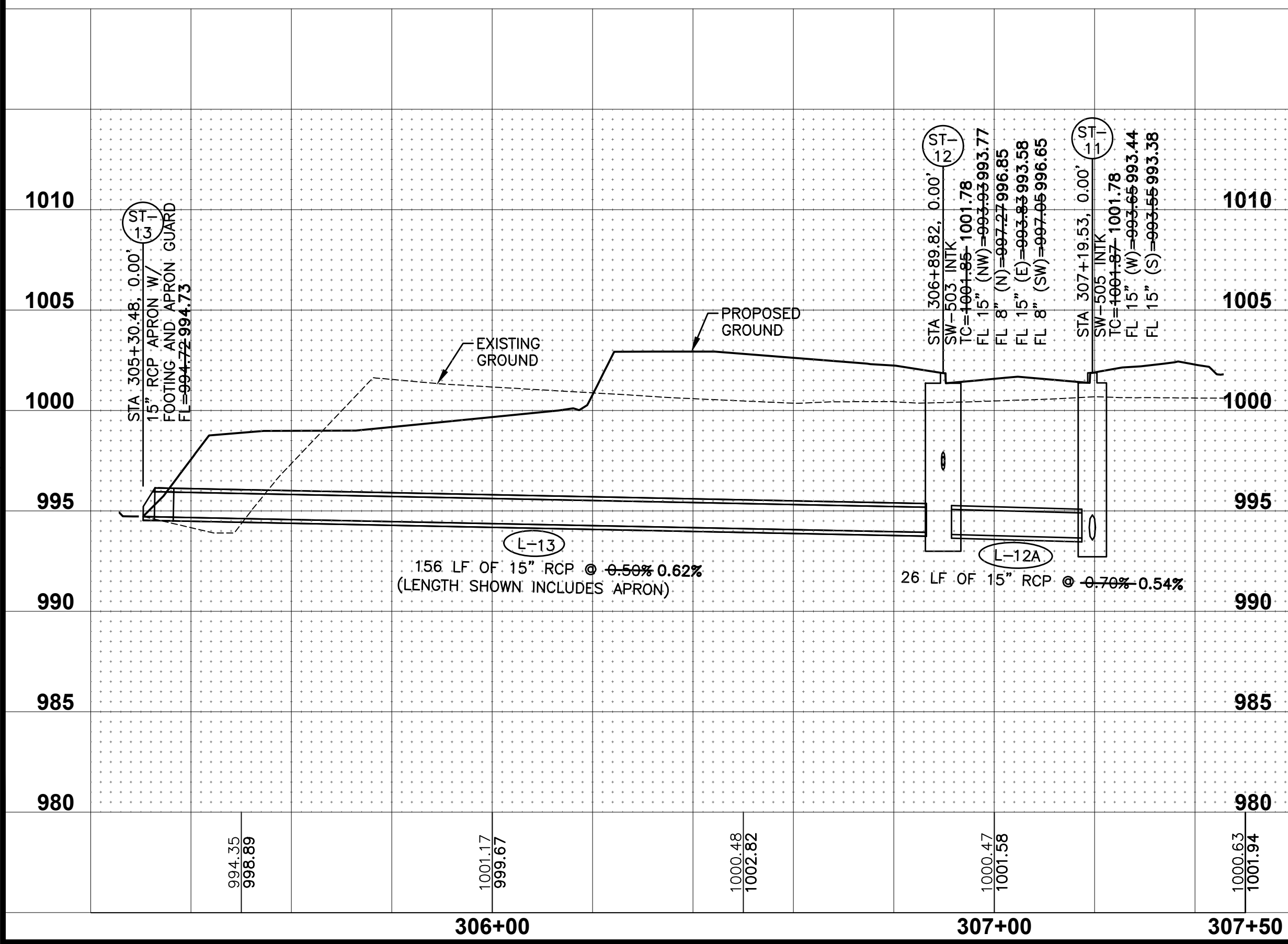
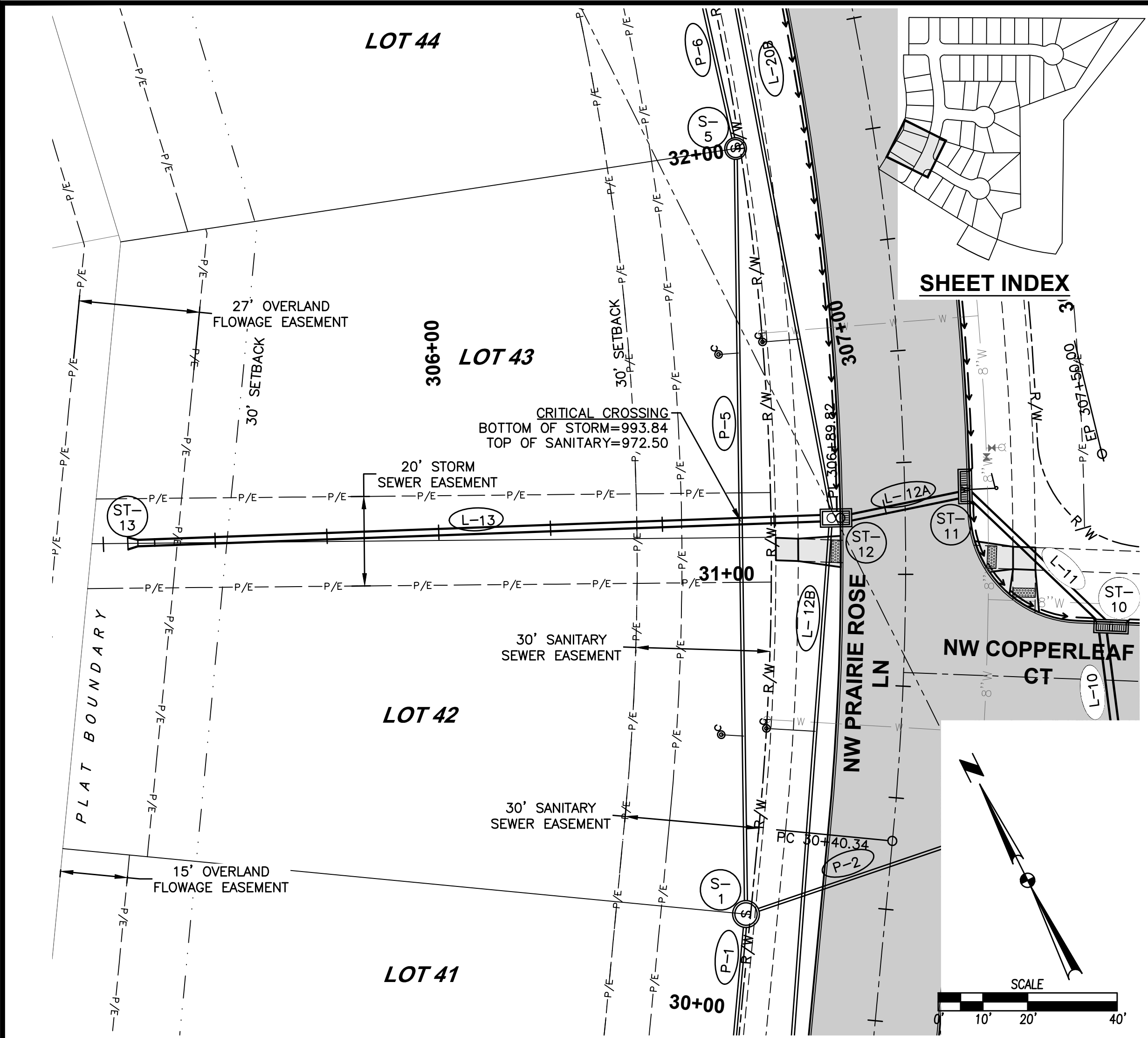
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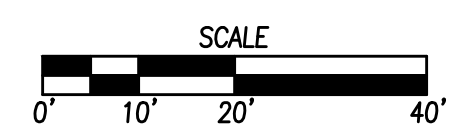
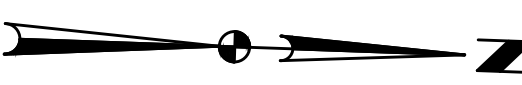
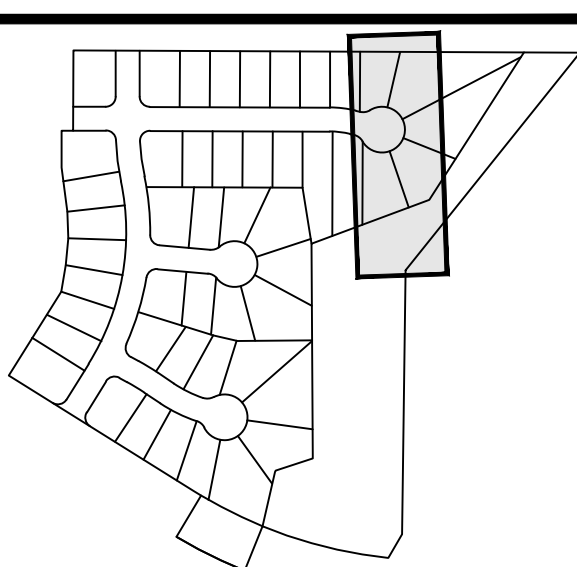
PRAIRIE ROSE PLAT 6
STORM & SANITARY SEWER PLAN AND PROFILE

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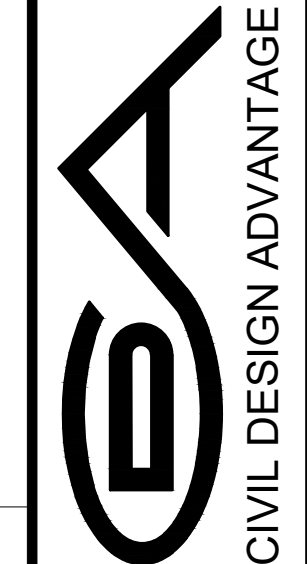






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AS-BUILT SUBMITTAL	11/30/2022
FINAL SUBMITTAL	02/21/2023
THIRD SUBMITTAL	01/17/2022
SECOND SUBMITTAL	12/21/2021
FIRST SUBMITTAL	11/16/2021

4121 NW URBANDALE DR.
 URBANDALE, IOWA 50322
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO EI: JWM TECH: MS



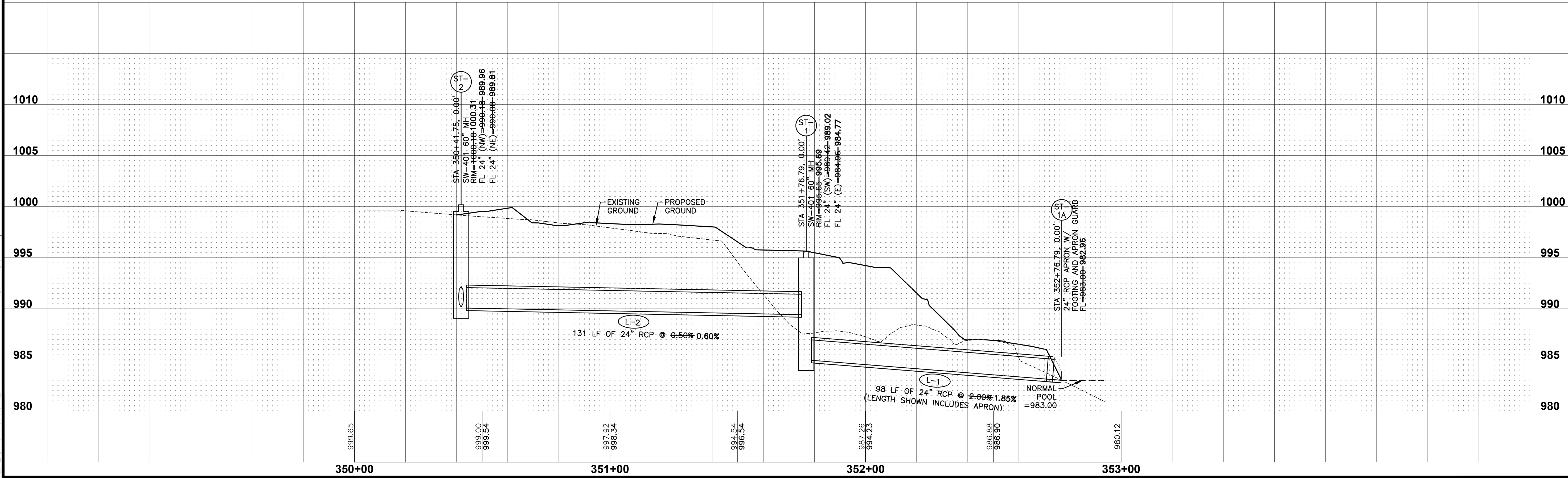
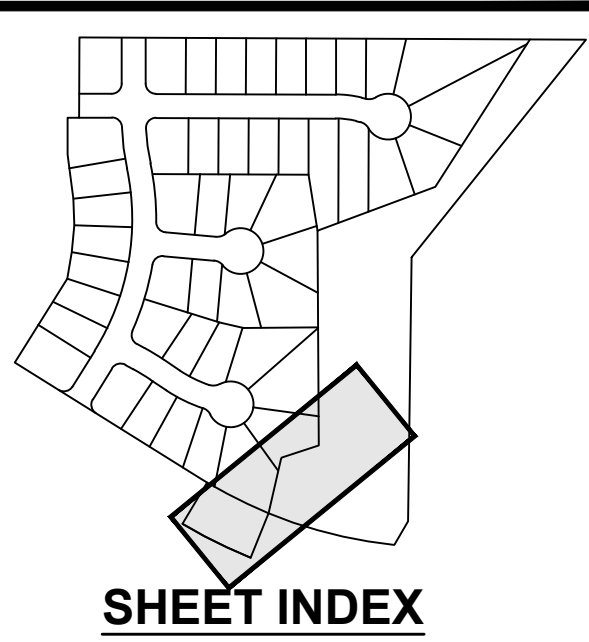
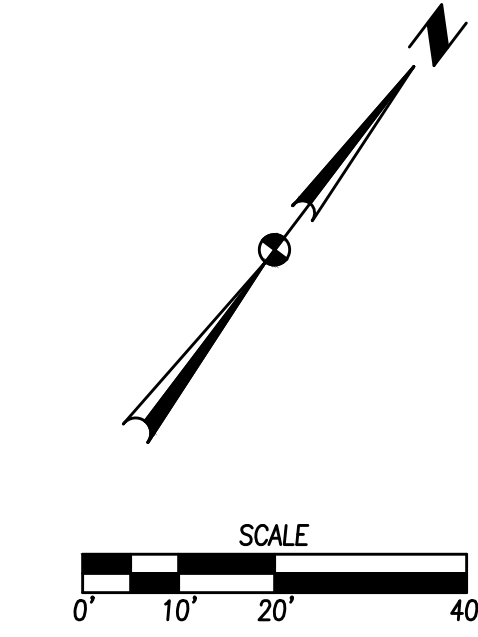
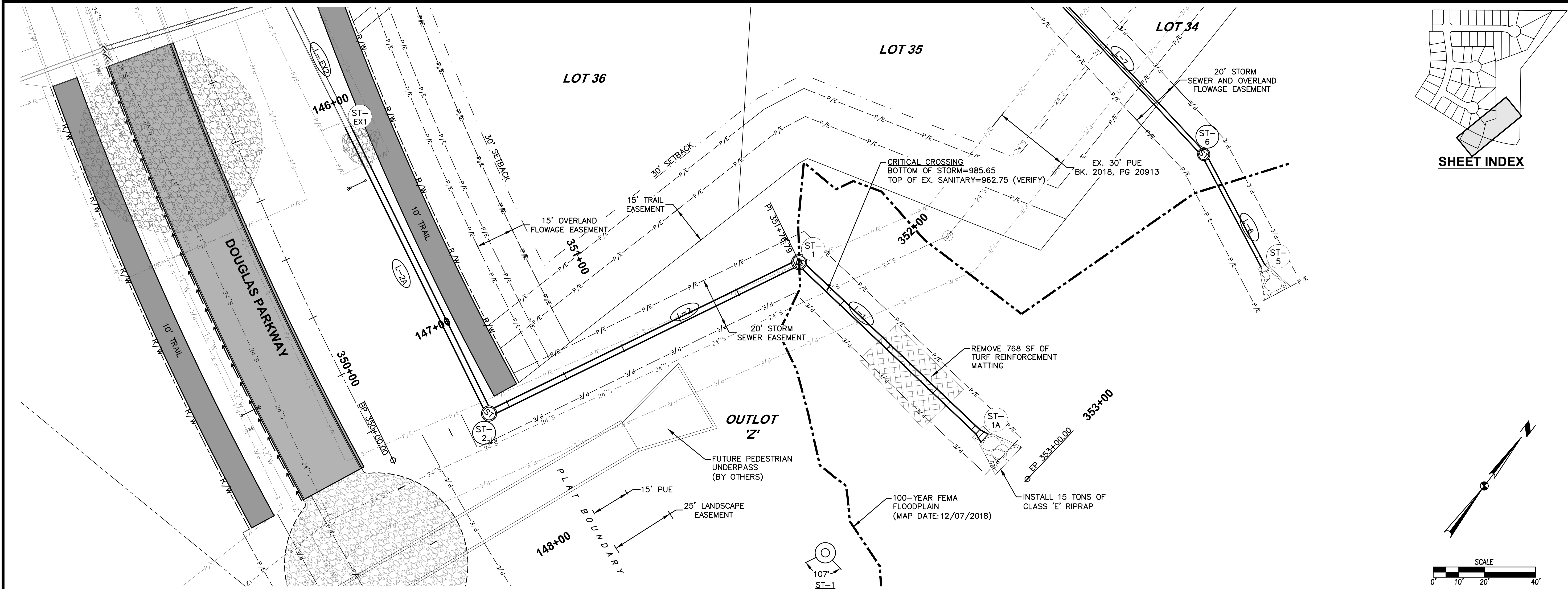
PRAIRIE ROSE PLAT 6

STORM & SANITARY SEWER PLAN AND PROFILE

WAUKEE, IOWA

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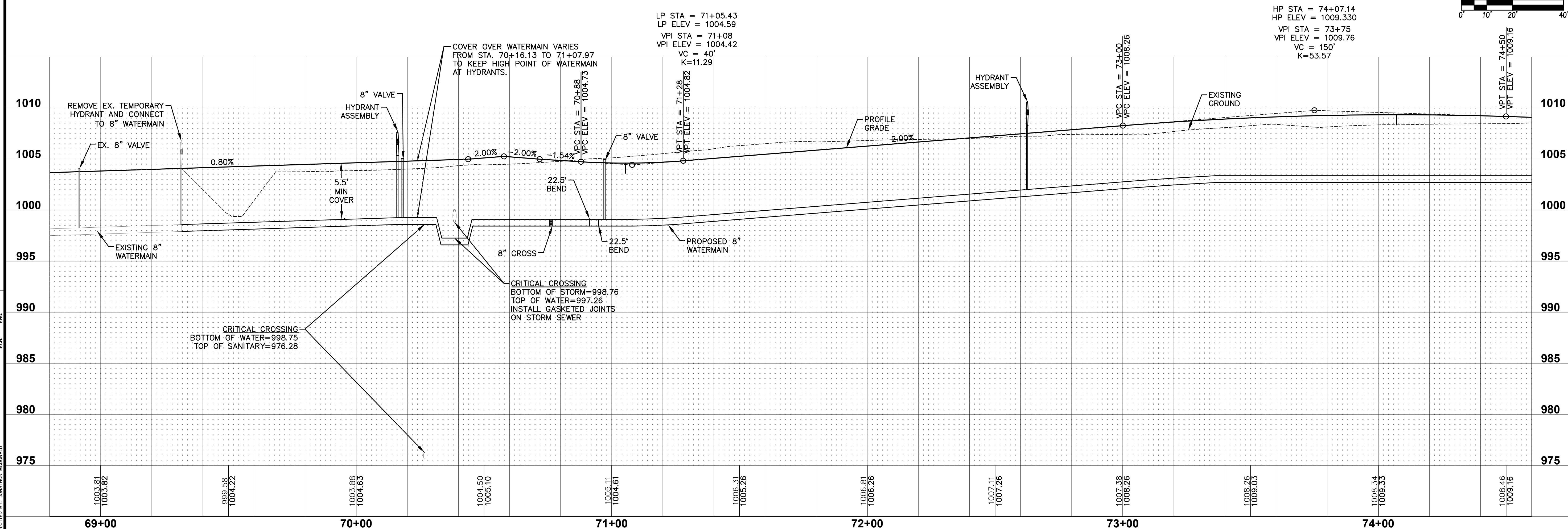


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11/16/2021	FIRST SUBMITTAL

4121 NW URBANDALE DR.
URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: JWM TECH: MST

PRAIRIE ROSE PLAT 6
STORM & SANITARY SEWER PLAN AND PROFILE
WAUKEE, IOWA

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REVISIONS	DATE
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URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO EI: JWM TECH: MS



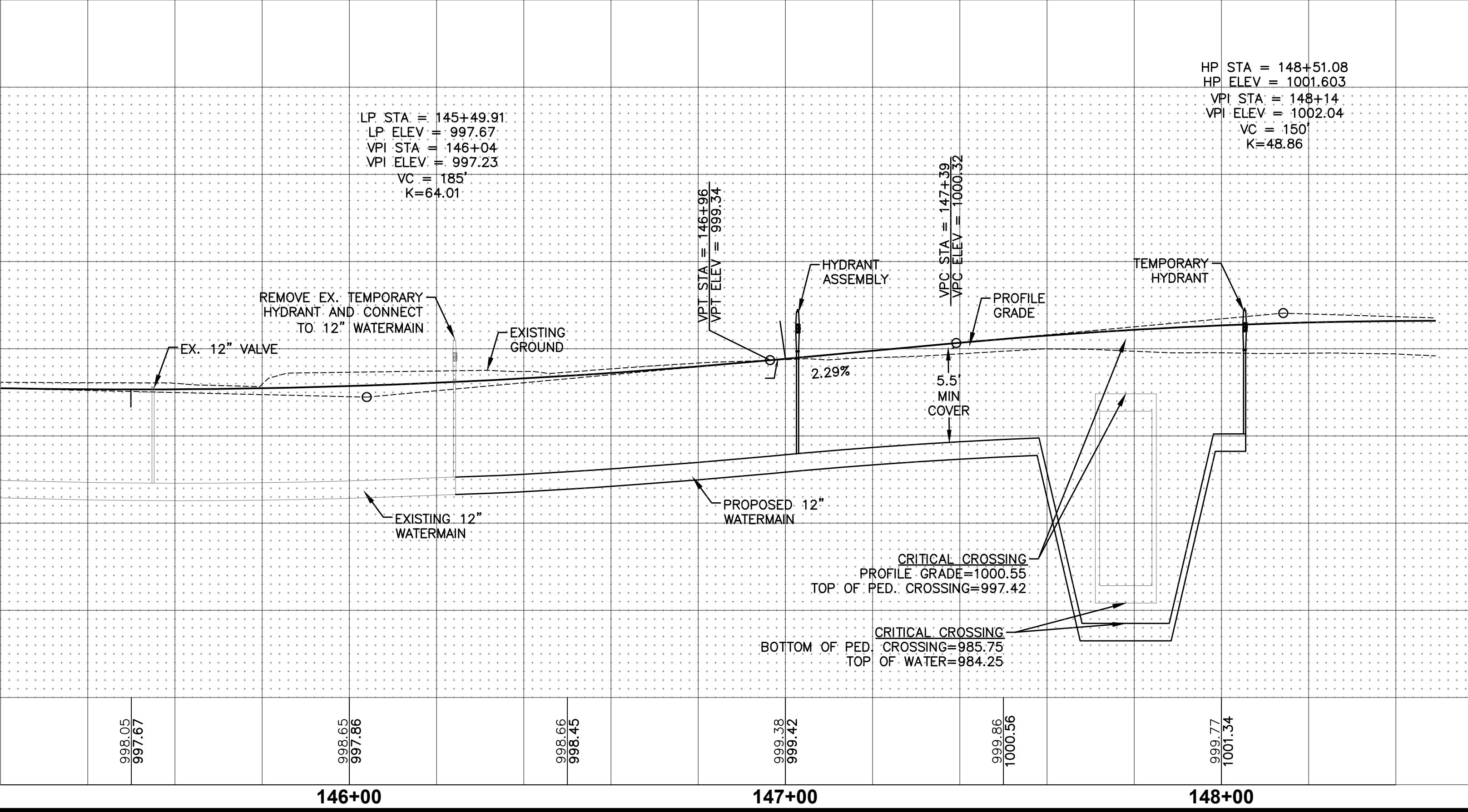
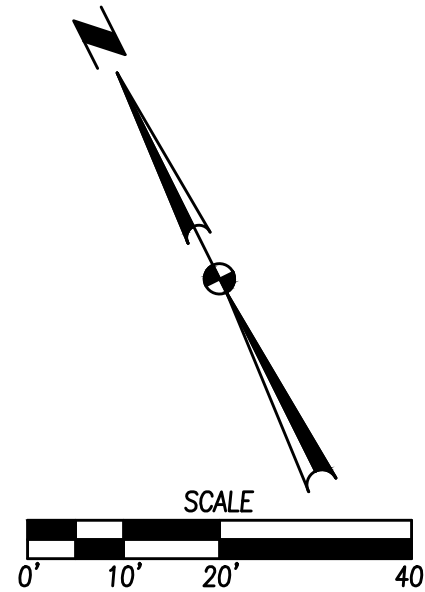
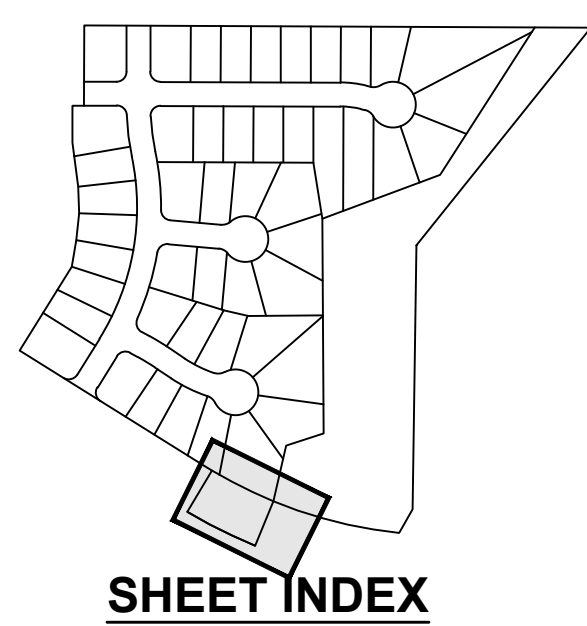
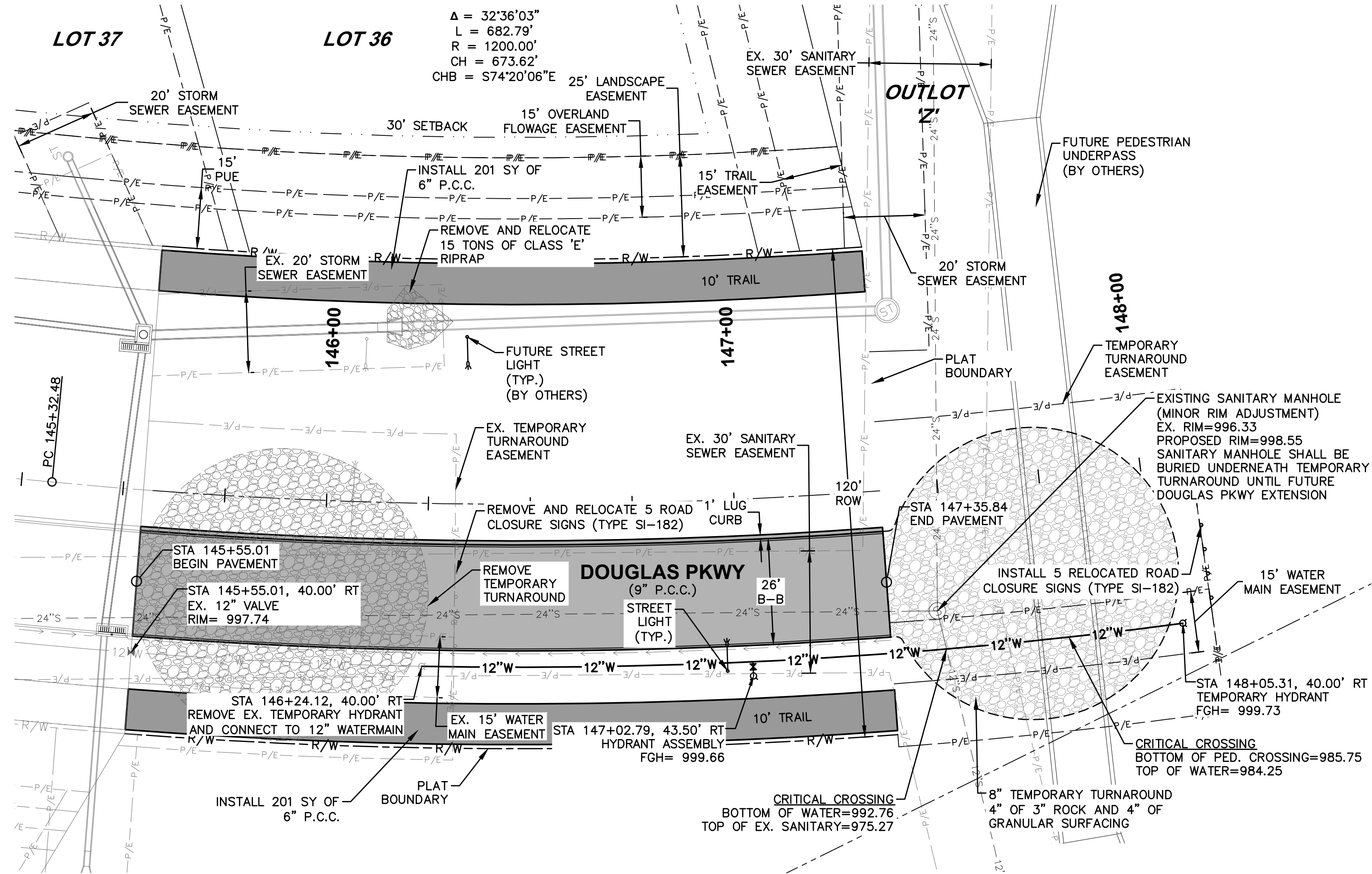
PRAIRIE ROSE PLAT 6

WATERMAIN PLAN AND PROFILE

WAUWATOSA

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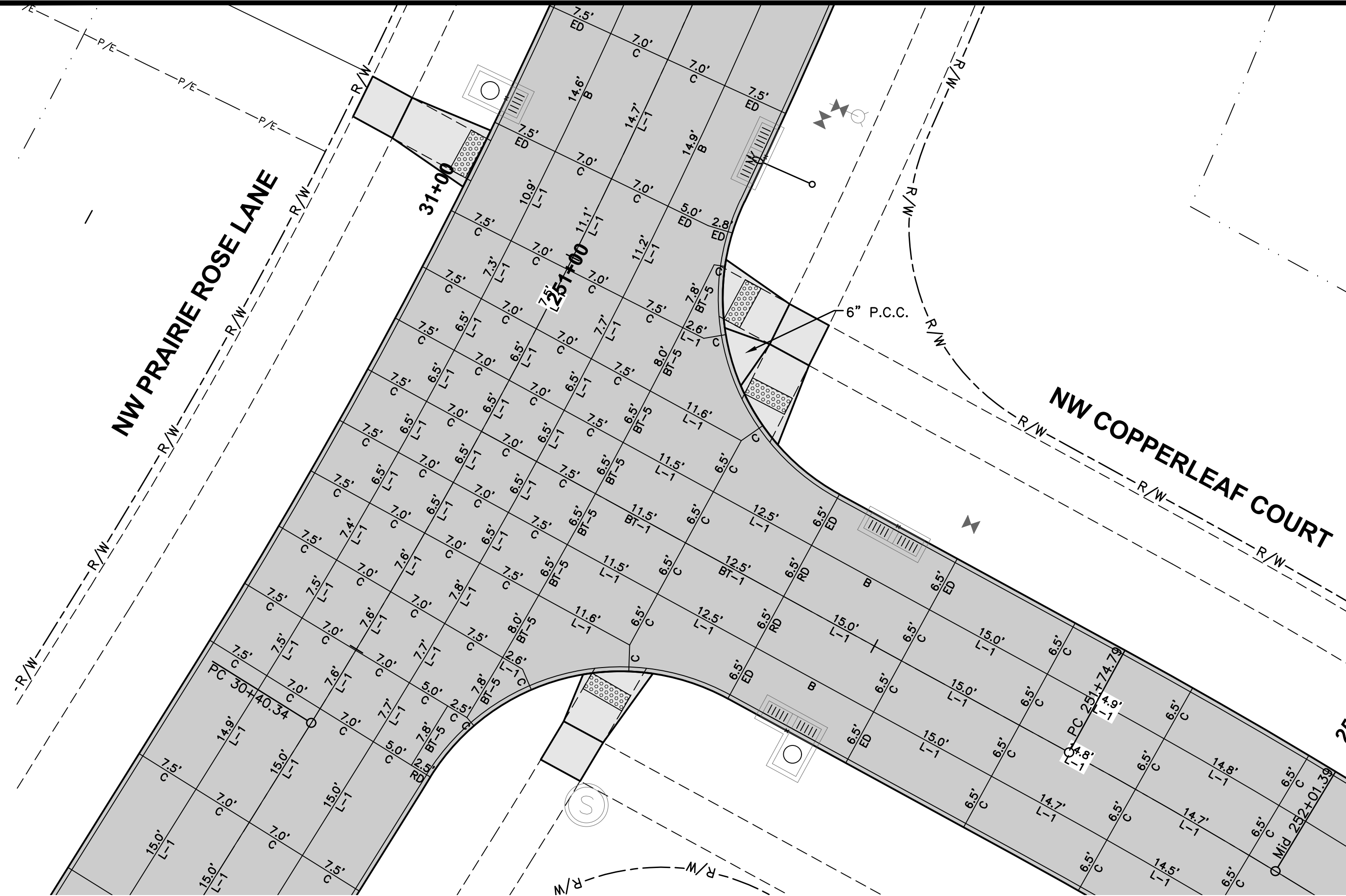
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12/21/2021	SECOND SUBMITTAL
11/16/2021	FIRST SUBMITTAL

4121 NW URBANDALE DR.
URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
Ei: JWM TECH: MST
ENGINEER: EKO

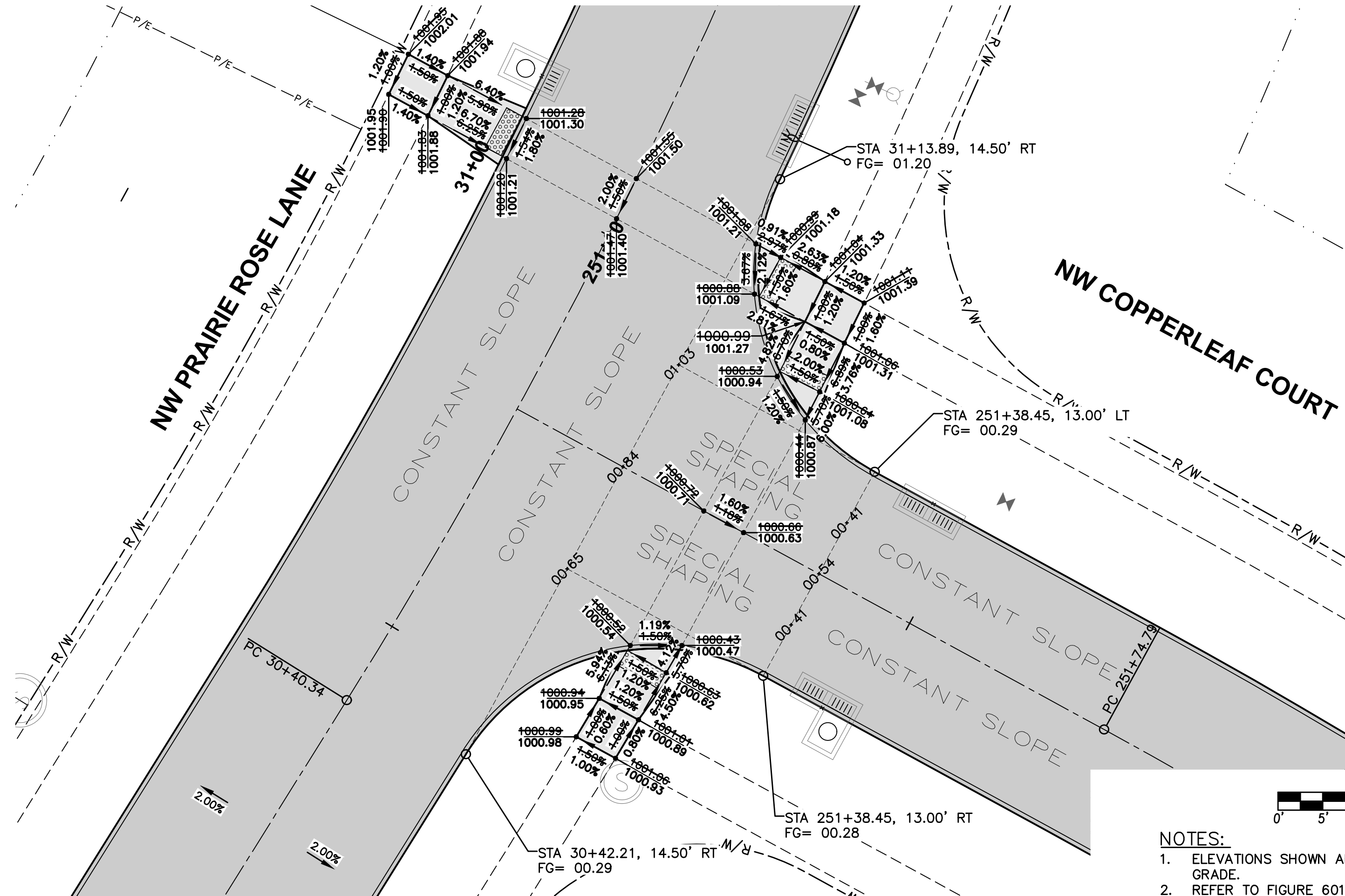
PRAIRIE ROSE PLAT 6
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

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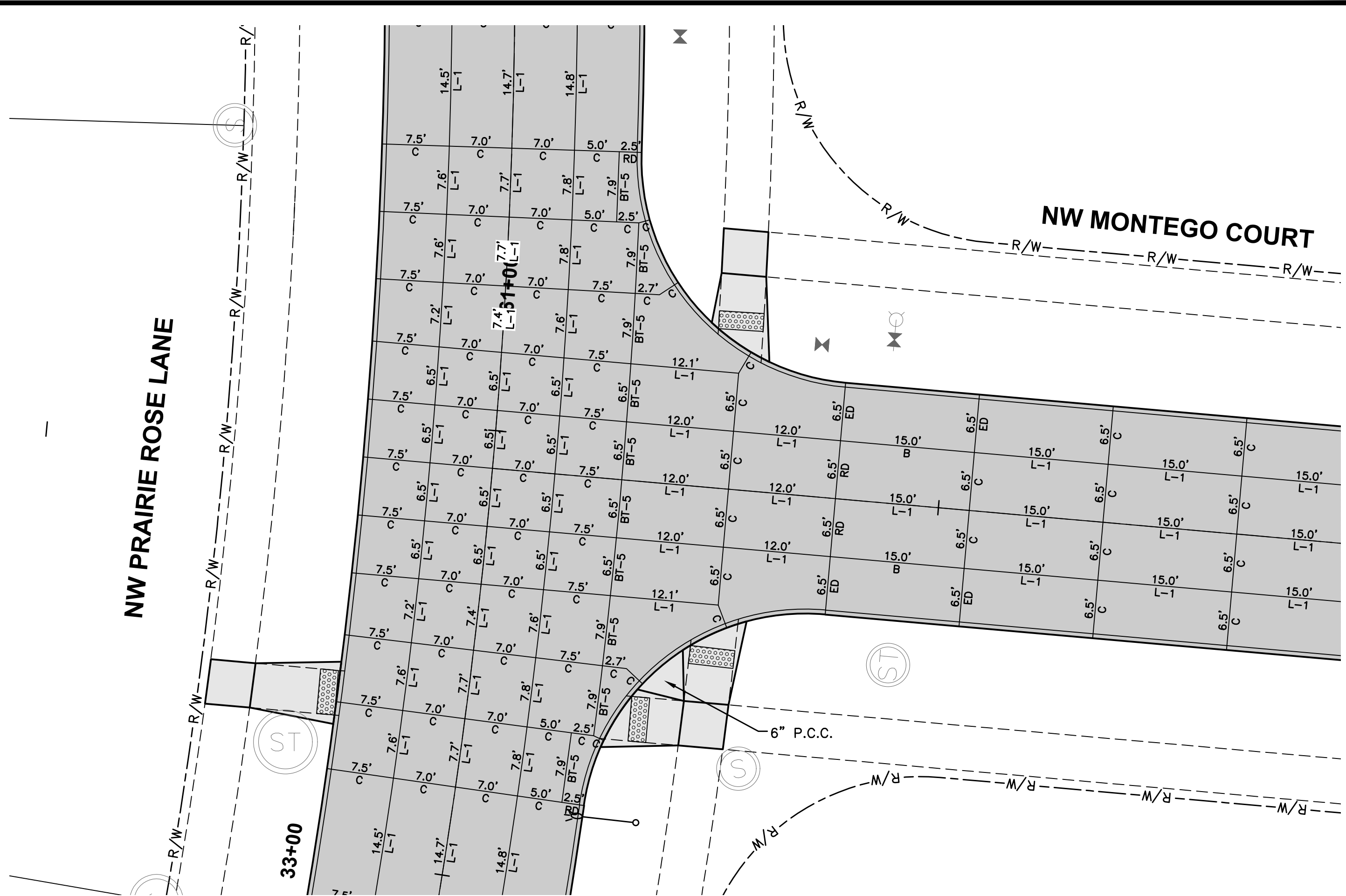
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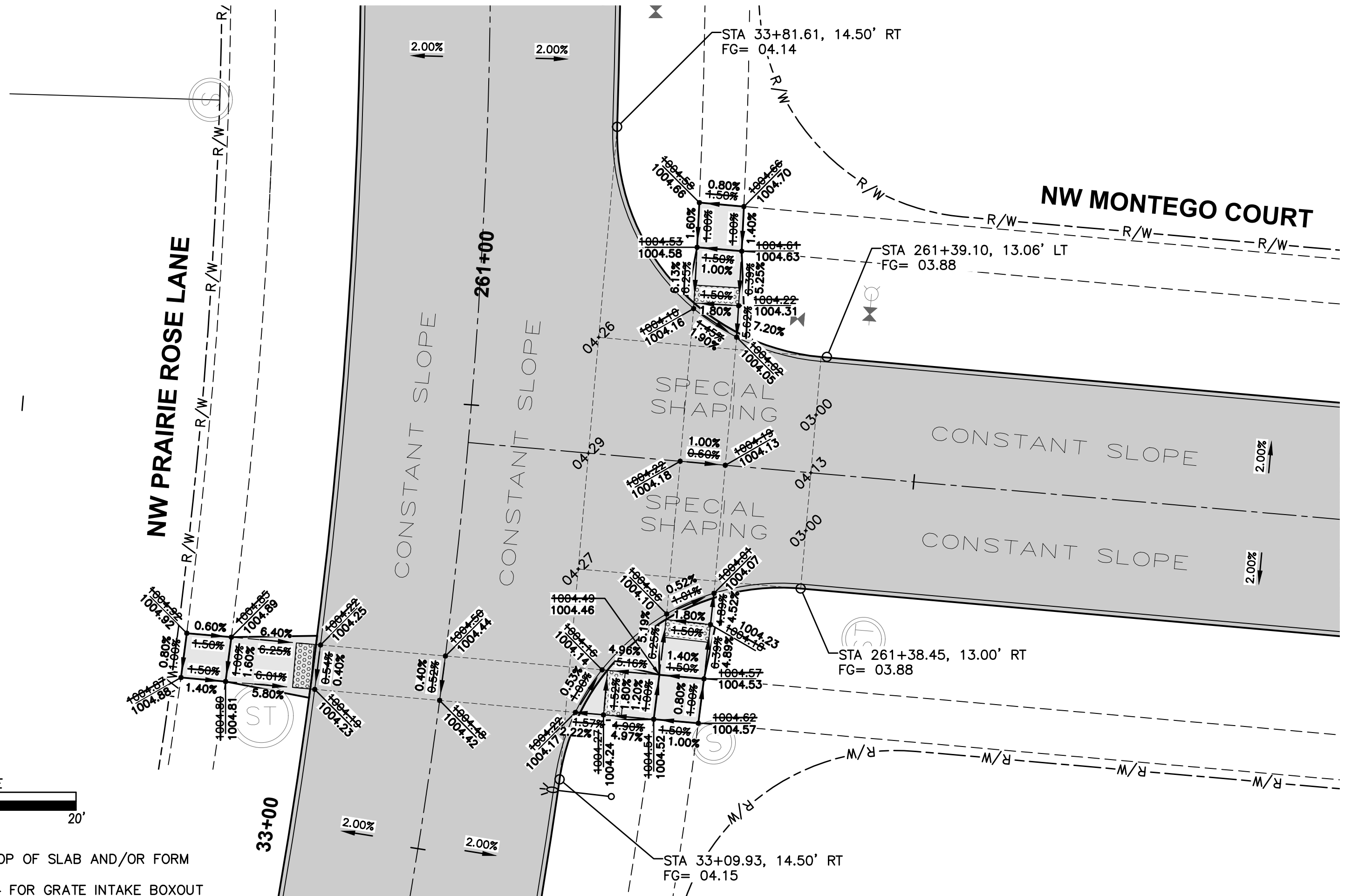
GEOMETRICS AND STAKING LAYOUT

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.



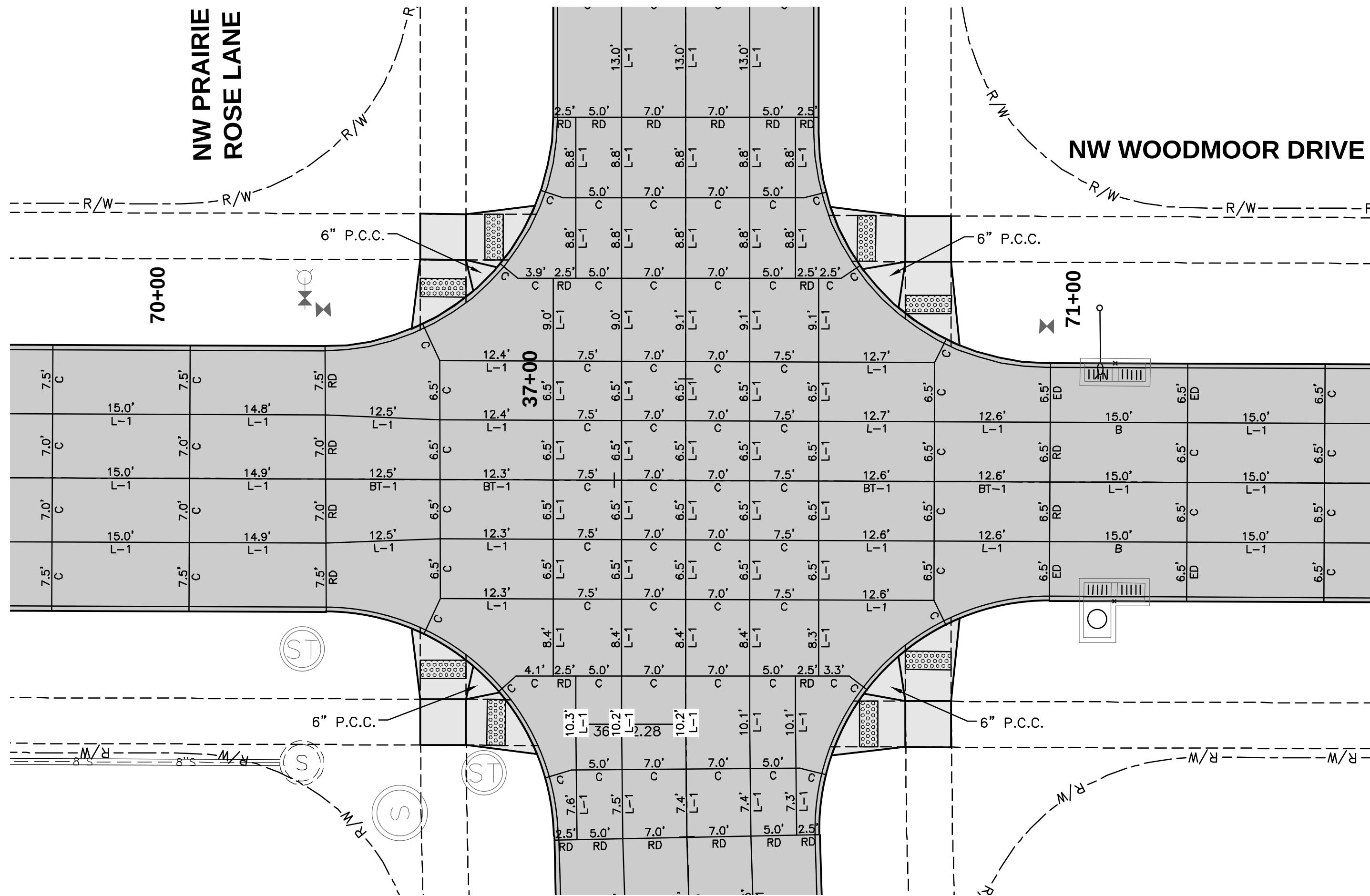
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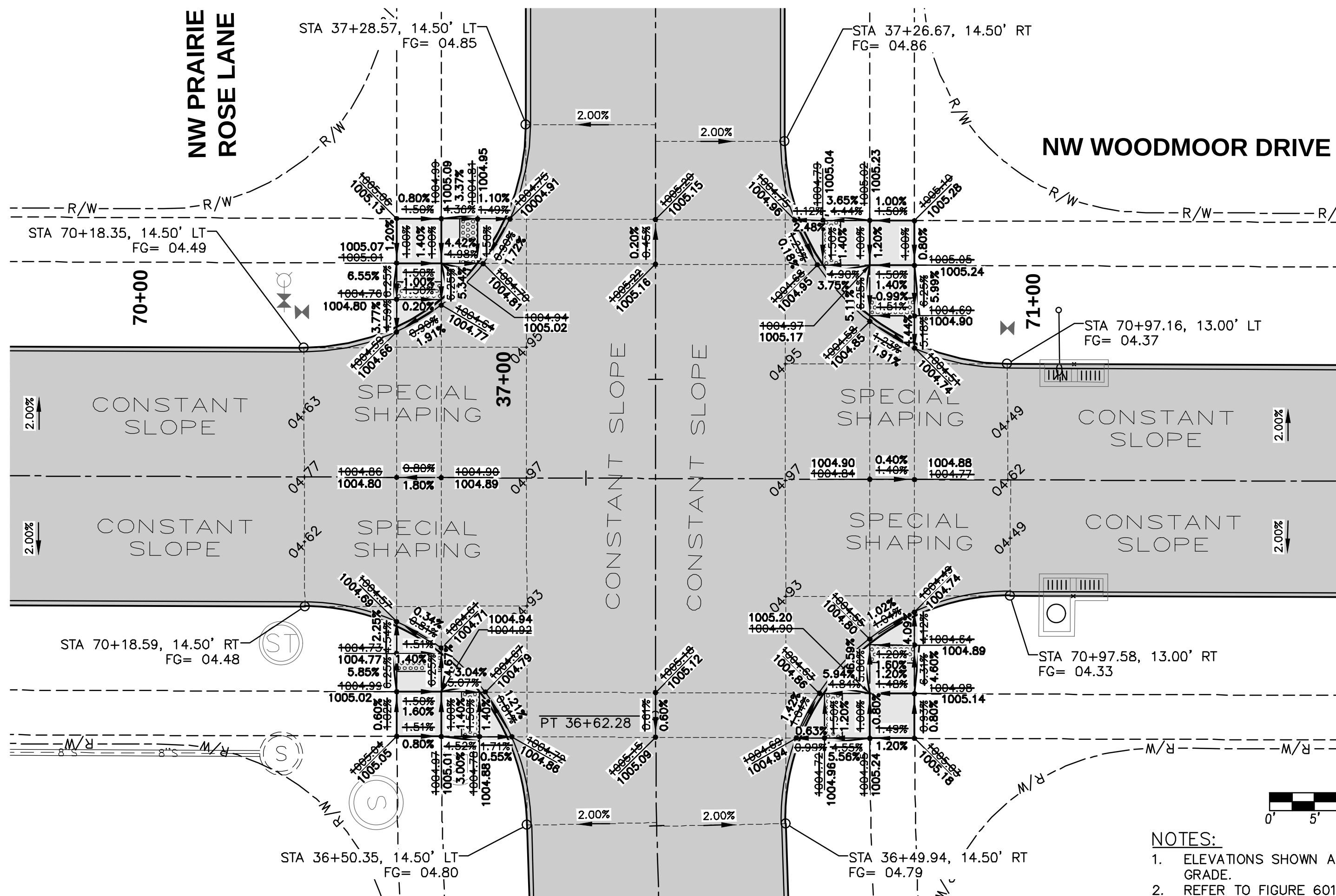
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COMMENTS:
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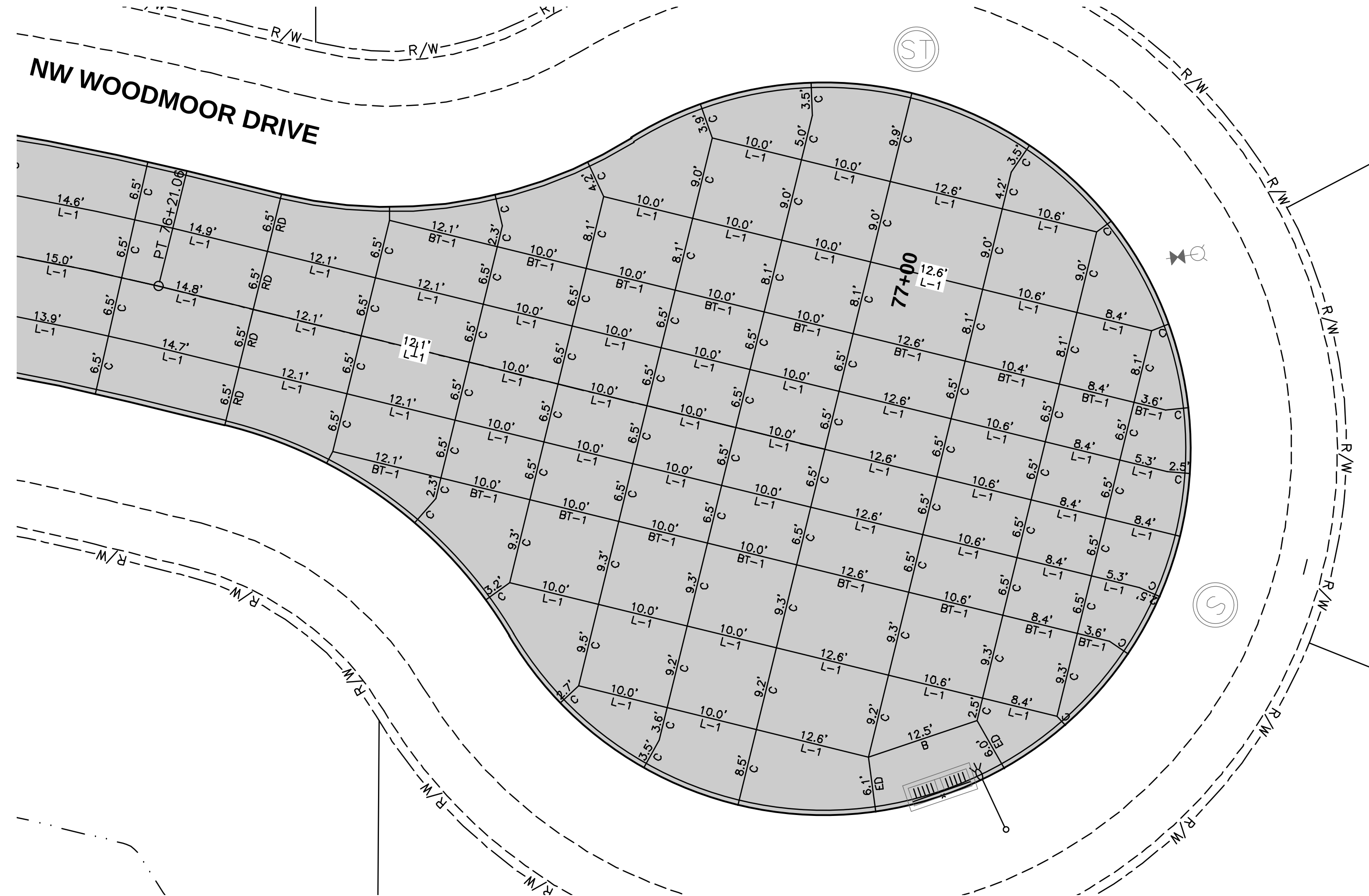
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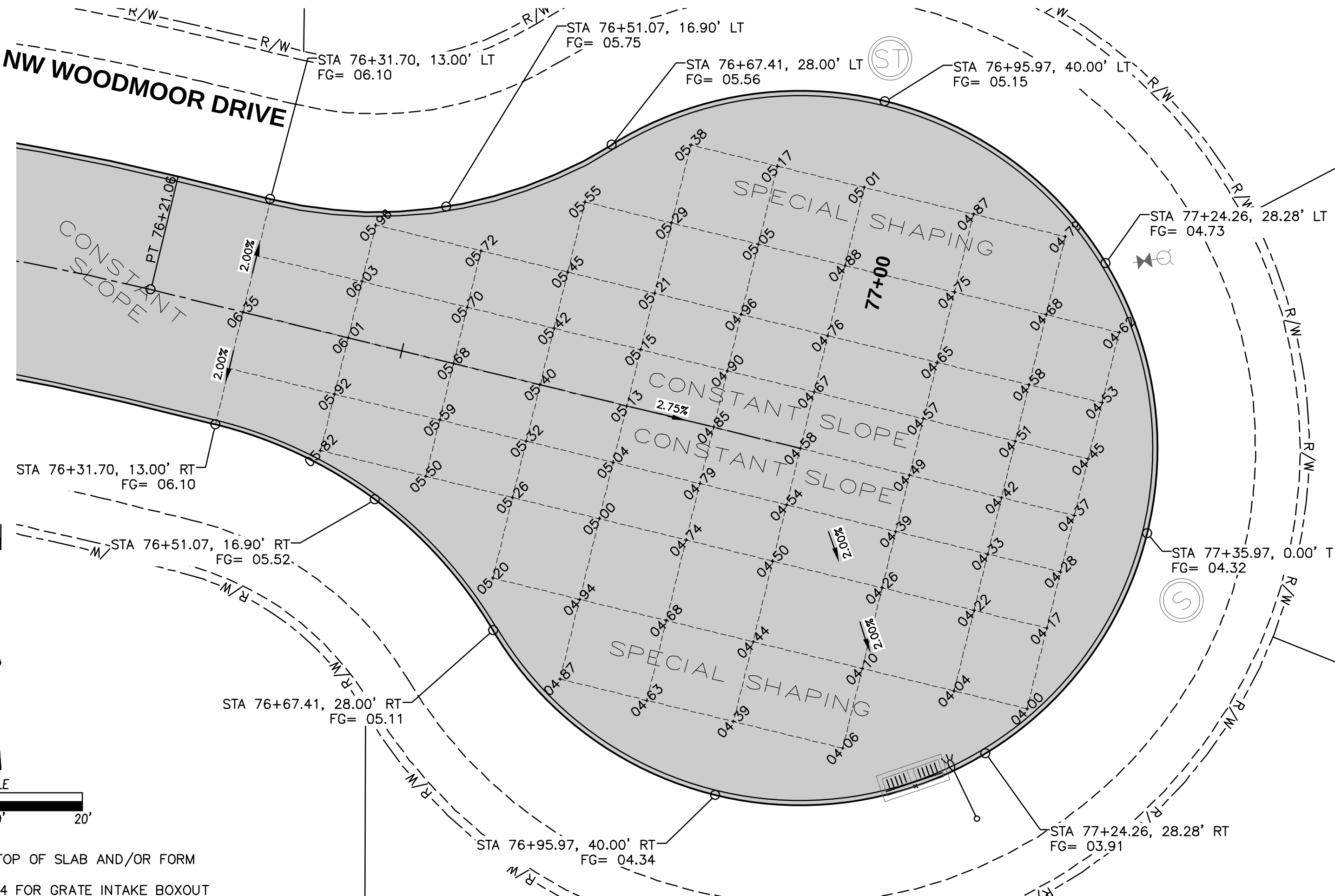
GEOMETRICS AND STAKING LAYOUT

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JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

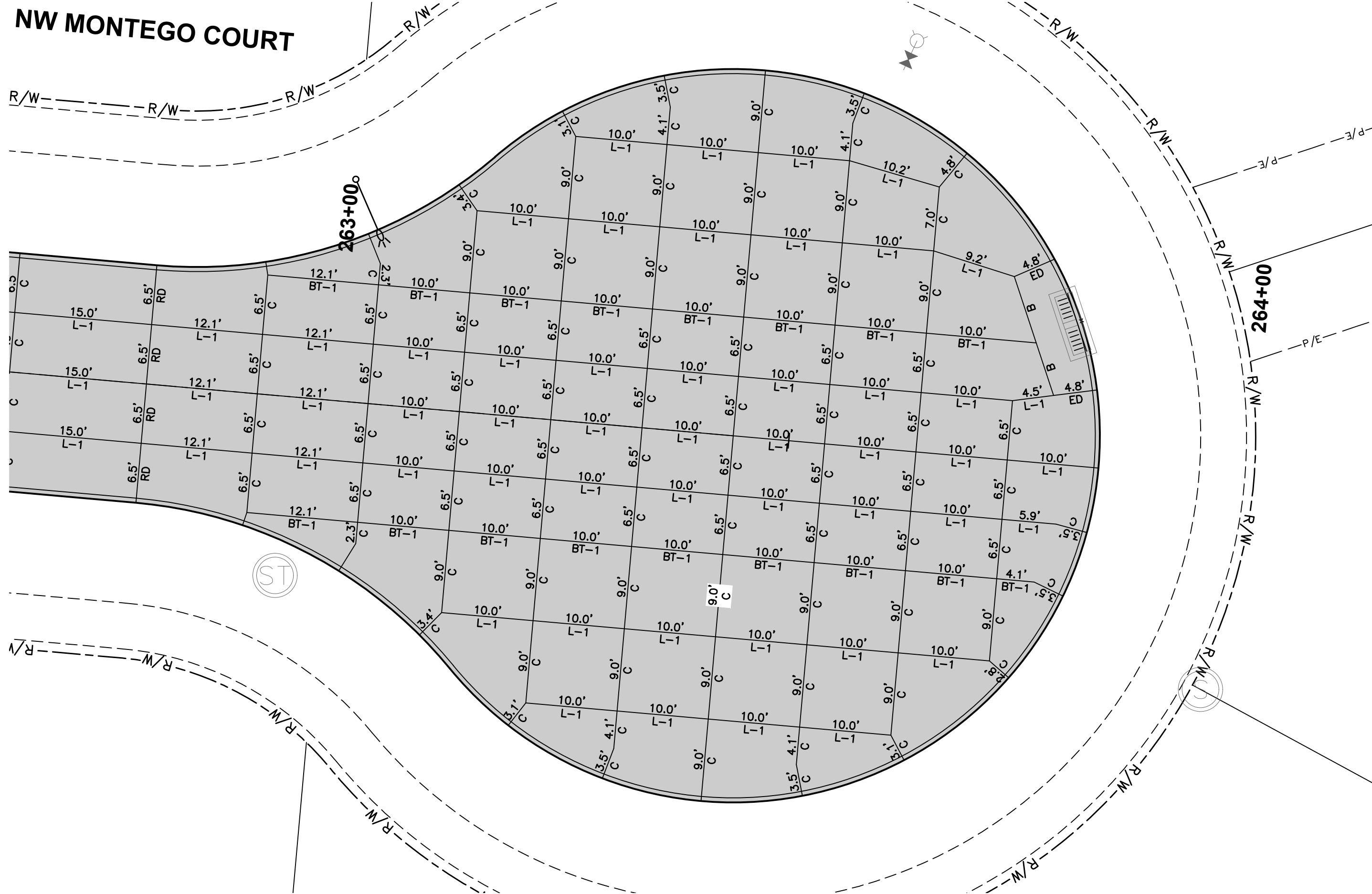
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FIRST SUBMITTAL	11/16/2021	DATE	

4121 NW URBANDALE DR.
URBANDALE, IOWA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: JWM TECH: MST

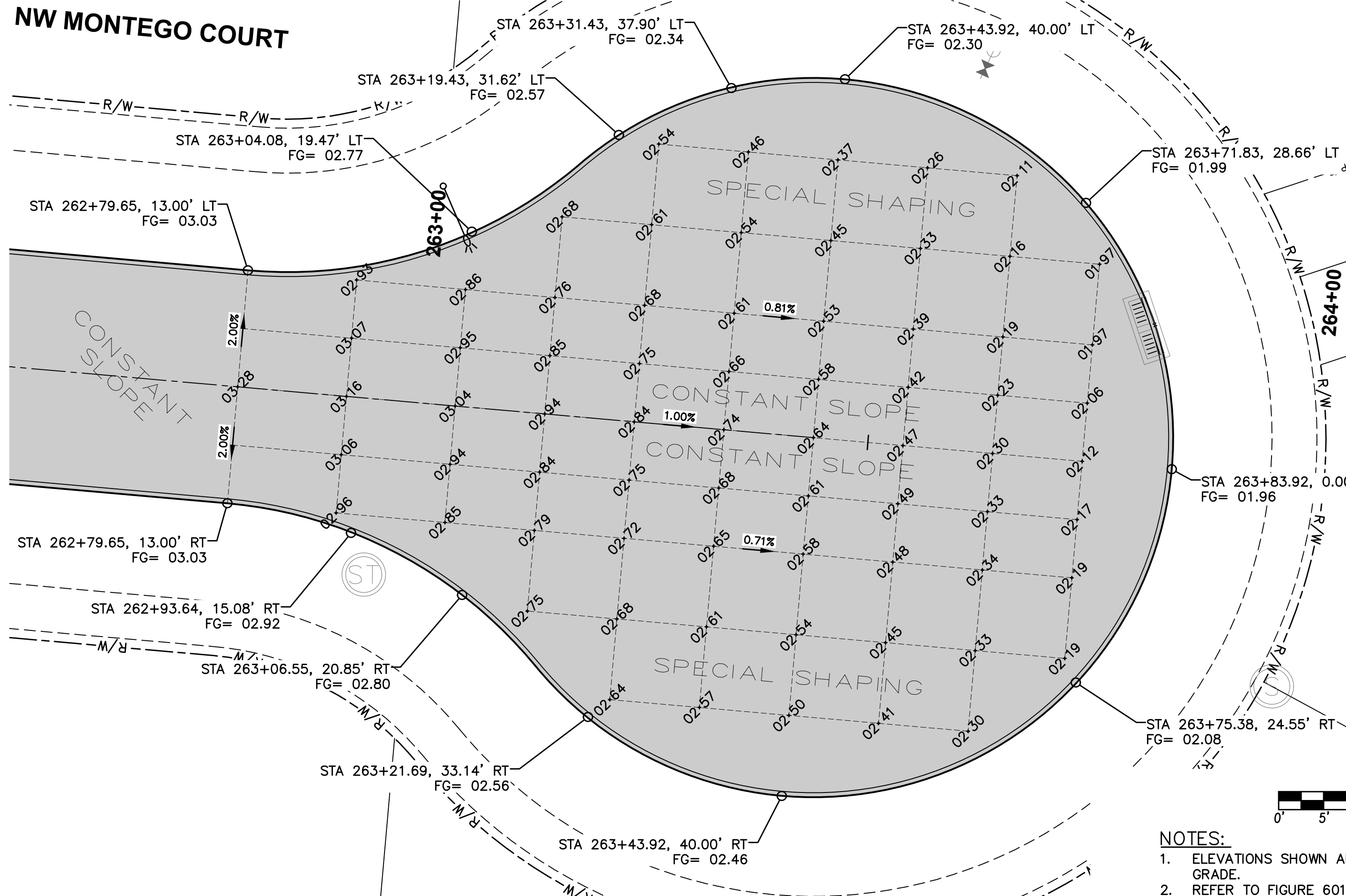
PRAIRIE ROSE PLAT 6
INTERSECTION DETAILS

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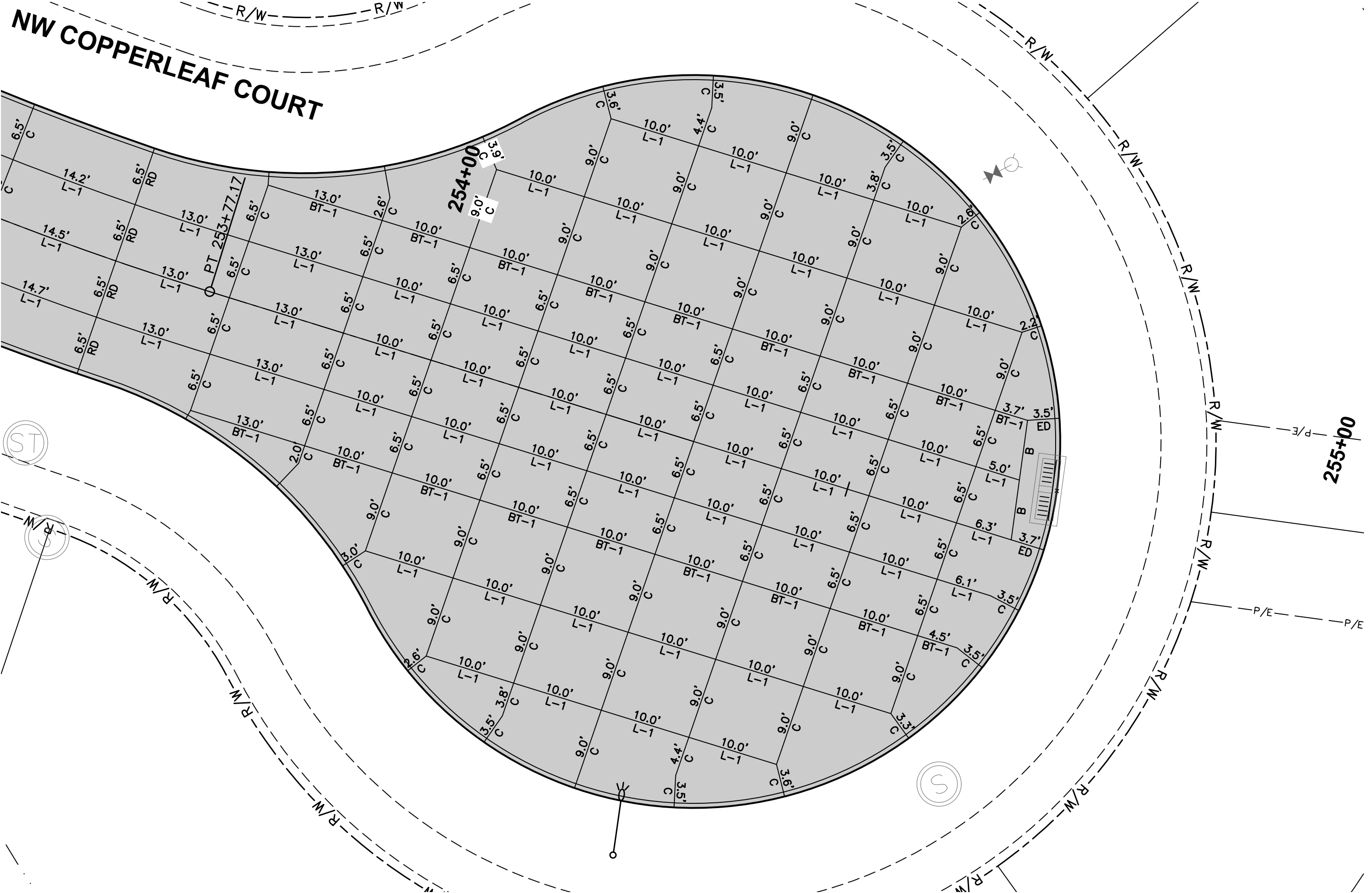
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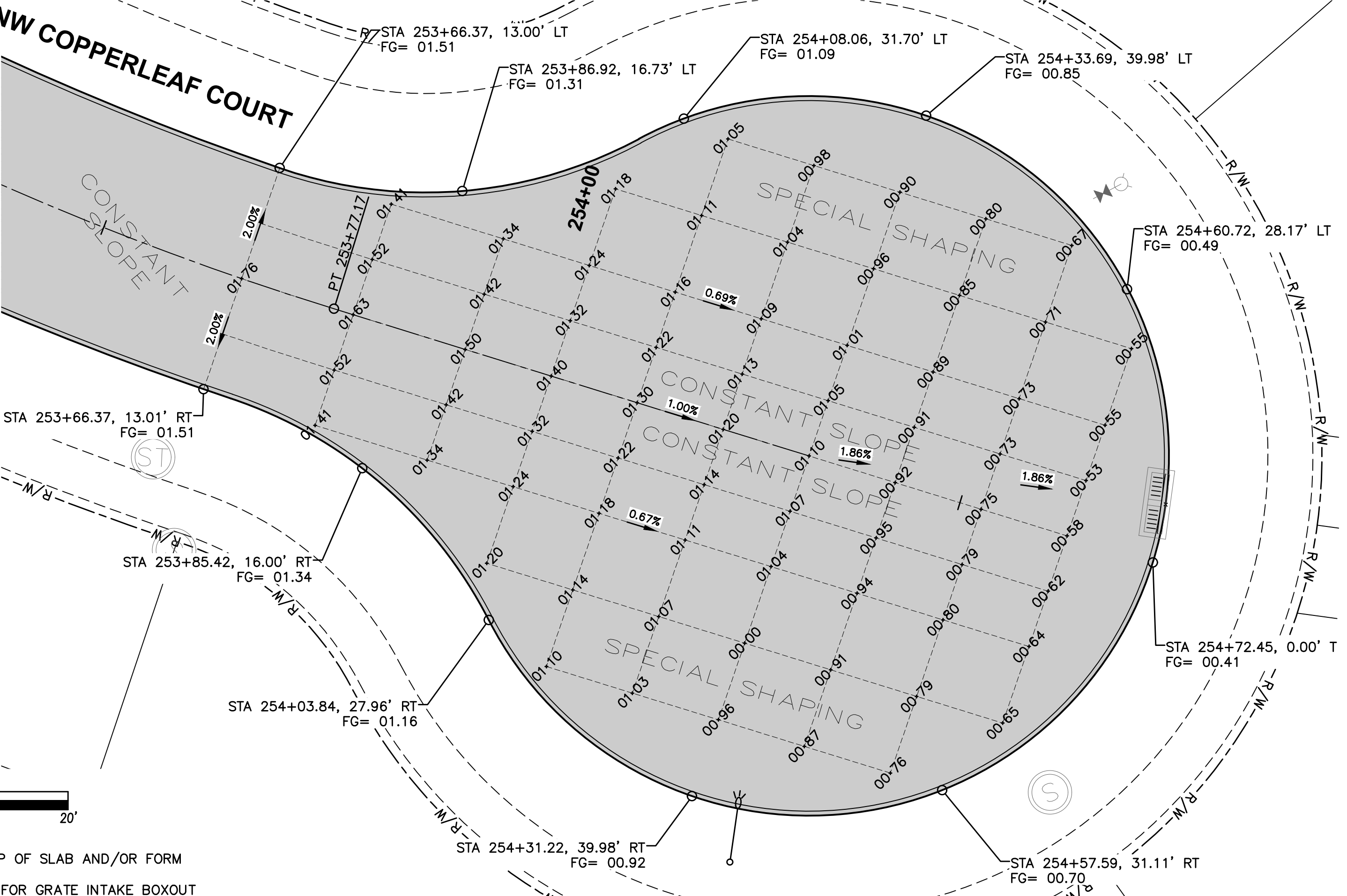
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JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

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PRAIRIE ROSE PLAT 6
INTERSECTION DETAILS

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