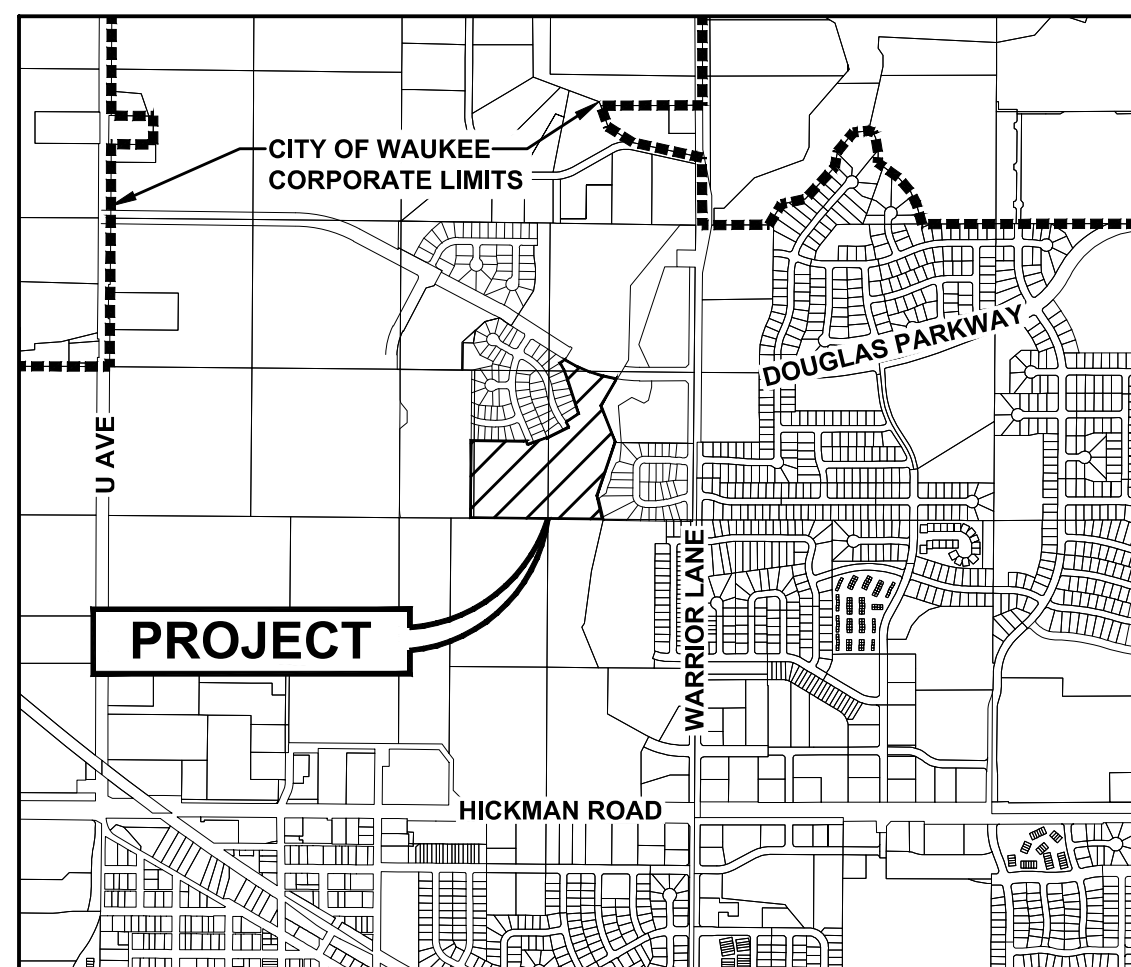


CONSTRUCTION PLANS FOR: PRAIRIE ROSE PLAT 5

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

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
10-17	STORM & SANITARY SEWER PLAN AND PROFILE
18-23	WATER MAIN PLAN AND PROFILE
24-26	INTERSECTION DETAILS

LEGAL DESCRIPTION

A PART OF THE EAST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER AND A PART OF THE SOUTHEAST 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 SOUTHWEST CORNER OF PRAIRIE ROSE PLAT 4, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE SOUTH 89°52'26" EAST ALONG THE SOUTHERLY LINE OF SAID PRAIRIE ROSE PLAT 4, A DISTANCE OF 493.24 FEET; THENCE SOUTHERLY CONTINUING ALONG SAID SOUTHERLY LINE AND A CURVE CONCAVE WESTERLY WHOSE RADIUS IS 820.00 FEET, WHOSE ARC LENGTH IS 30.52 FEET AND WHOSE CHORD BEARS SOUTH 21°04'38" EAST, 30.52 FEET; THENCE NORTH 69°59'21" EAST CONTINUING ALONG SAID SOUTHERLY LINE, 185.00 FEET; THENCE SOUTH 17°57'51" EAST CONTINUING ALONG SAID SOUTHERLY LINE, 3.50 FEET; THENCE NORTH 63°11'56" EAST CONTINUING ALONG SAID SOUTHERLY LINE, 217.10 FEET; THENCE NORTHWESTERLY CONTINUING ALONG SAID SOUTHERLY LINE AND A CURVE CONCAVE SOUTHWESTERLY WHOSE RADIUS IS 430.00 FEET, WHOSE ARC LENGTH IS 53.03 FEET AND WHOSE CHORD BEARS NORTH 30°20'04" WEST, 53.00 FEET; THENCE NORTH 56°07'56" EAST CONTINUING ALONG SAID SOUTHERLY LINE, 135.00 FEET; THENCE NORTH 18°36'26" WEST ALONG THE EASTERLY LINE OF SAID PRAIRIE ROSE PLAT 4, A DISTANCE OF 320.28 FEET; THENCE NORTH 20°17'54" WEST CONTINUING ALONG SAID EASTERLY LINE, 81.97 FEET; THENCE NORTH 28°41'36" WEST CONTINUING ALONG SAID EASTERLY LINE, 81.97 FEET; THENCE NORTH 57°24'05" EAST CONTINUING ALONG SAID EASTERLY LINE, 50.40 FEET; THENCE EASTERLY ALONG A CURVE CONCAVE NORTHERLY WHOSE RADIUS IS 1260.00 FEET, WHOSE ARC LENGTH IS 495.35 FEET AND WHOSE CHORD BEARS SOUTH 70°22'22" EAST, 492.16 FEET; THENCE SOUTH 29°59'11" WEST, 276.31 FEET; THENCE SOUTH 21°52'19" EAST, 348.21 FEET TO THE NORTHWEST CORNER OF PRAIRIE ROSE PLAT 1, AN OFFICIAL PLAT IN SAID CITY OF WAUKEE; THENCE SOUTH 17°58'37" WEST ALONG THE WESTERLY LINE OF SAID PRAIRIE ROSE PLAT 1, A DISTANCE OF 505.52 FEET; THENCE SOUTH 13°14'26" EAST CONTINUING ALONG SAID WESTERLY LINE, 216.48 FEET TO THE SOUTHWEST CORNER OF SAID PRAIRIE ROSE PLAT 1 AND THE SOUTH LINE OF SAID SOUTHEAST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 89°52'26" WEST ALONG SAID SOUTH LINE AND THE SOUTH LINE OF SAID EAST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, 1178.89 FEET TO THE SOUTHWEST CORNER OF SAID EAST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 00°02'52" WEST ALONG THE WEST LINE OF SAID EAST HALF OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, 688.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 24.19 ACRES (1,053,841 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	EXISTING
SECTION LINE	SANITARY MANHOLE
CENTER LINE	WATER VALVE BOX
RIGHT OF WAY	FIRE HYDRANT
PERMANENT EASEMENT	WATER CURB STOP
TEMPORARY EASEMENT	WELL
TYPE SW-501 STORM INTAKE	STORM SEWER MANHOLE
TYPE SW-503 STORM INTAKE	STORM SEWER SINGLE INTAKE
TYPE SW-505 STORM INTAKE	STORM SEWER DOUBLE INTAKE
TYPE SW-506 STORM INTAKE	FLARED END SECTION
TYPE SW-513 STORM INTAKE	DECIDUOUS TREE
TYPE SW-401 STORM MANHOLE	CONIFEROUS TREE
TYPE SW-402 STORM MANHOLE	DECIDUOUS SHRUB
TYPE SW-301 SANITARY MANHOLE	CONIFEROUS SHRUB
STORM/SANITARY CLEANOUT	ELECTRIC POWER POLE
WATER VALVE	GUY ANCHOR
FIRE HYDRANT ASSEMBLY	STREET LIGHT
SIGN	POWER POLE W/ TRANSFORMER
DETECTABLE WARNING PANEL	UTILITY POLE W/ LIGHT
WATER CURB STOP	ELECTRIC BOX
STORM SEWER STRUCTURE NO.	ELECTRIC TRANSFORMER
STORM SEWER PIPE NO.	ELECTRIC MANHOLE OR VAULT
SANITARY SEWER STRUCTURE NO.	TRAFFIC SIGN
SANITARY SEWER PIPE NO.	TELEPHONE JUNCTION BOX
SANITARY SEWER WITH SIZE	TELEPHONE MANHOLE/VAULT
SANITARY SERVICE	TELEPHONE POLE
STORM SEWER	GAS VALVE BOX
STORM SERVICE	CABLE TV JUNCTION BOX
WATERMAIN WITH SIZE	CABLE TV MANHOLE/VAULT
WATER SERVICE	MAIL BOX
SAWCUT (FULL DEPTH)	BENCHMARK
SILT FENCE	SOIL BORING
USE AS CONSTRUCTED	UNDERGROUND TV CABLE
TOP OF PROPOSED GROUND	GAS MAIN
MINIMUM PROTECTION ELEVATION	FIBER OPTIC
MINIMUM GRADE AT EXPOSED STRUCTURE	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC
	FIELD TILE
	SANITARY SEWER W/ SIZE
	STORM SEWER W/ SIZE
	WATER MAIN W/ SIZE

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
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PH: 515-369-4400
CONTACT: ERIN OLLENDIKE

ZONING

PD-1 - PLANNED UNIT DEVELOPMENT DISTRICT
W/ UNDERLYING R-2 - ONE AND TWO FAMILY
RESIDENTIAL DISTRICT

R-2 - ONE AND TWO FAMILY RESIDENTIAL
DISTRICT

DATE OF SURVEY:

JANUARY 21, 2021

SUBMITTALS

FIRST SUBMITTAL: 10/26/2021
SECOND SUBMITTAL: 11/16/2021
THIRD SUBMITTAL: 12/21/2021
FOURTH SUBMITTAL: 12/30/2021
FINAL SUBMITTAL: 01/18/2022
AS-BUILT SUBMITTAL: 11/28/2022

BULK REGULATIONS

PD-1: PLANNED UNIT DEVELOPMENT DISTRICT W/ UNDERLYING R-2: ONE
AND TWO FAMILY RESIDENTIAL DISTRICT (LOTS 1-34)

MIN. LOT AREA: 6,000 SQUARE FEET
MIN. LOT WIDTH: 55 FEET
FRONT YARD: 30 FEET
SIDE YARD: TOTAL OF 10 FEET - MINIMUM OF 5 FEET EACH SIDE
REAR YARD: 30 FEET

R-2: ONE AND TWO FAMILY RESIDENTIAL DISTRICT (LOTS 35-63)

FRONT YARD: 30 FEET
SIDE YARD: 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 5 = 24.19 ACRES (1,053,841 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.

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 2109.725

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com

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.

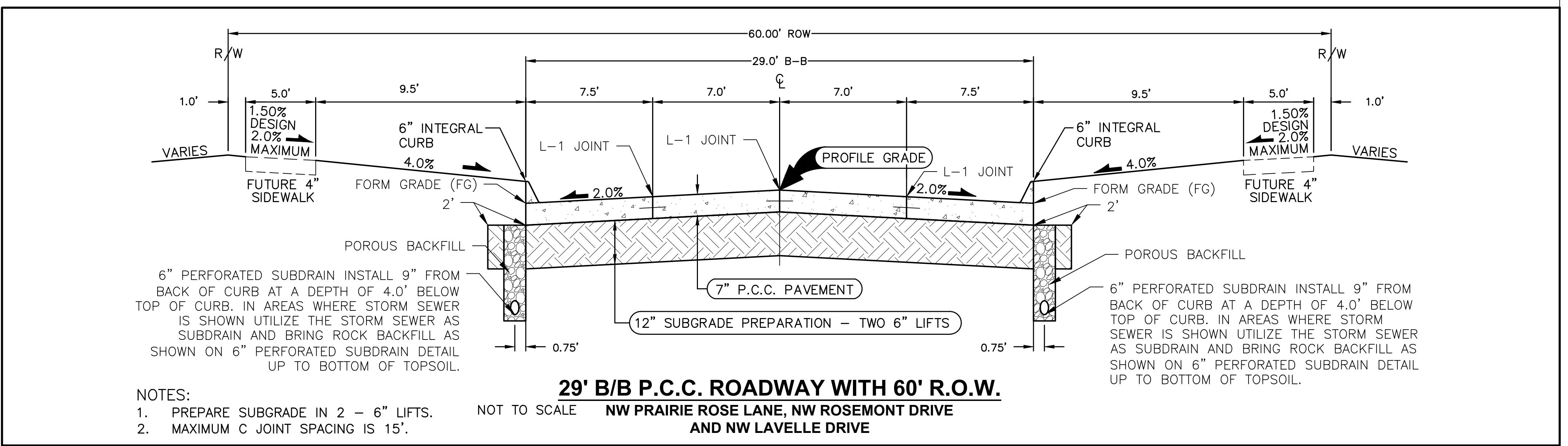
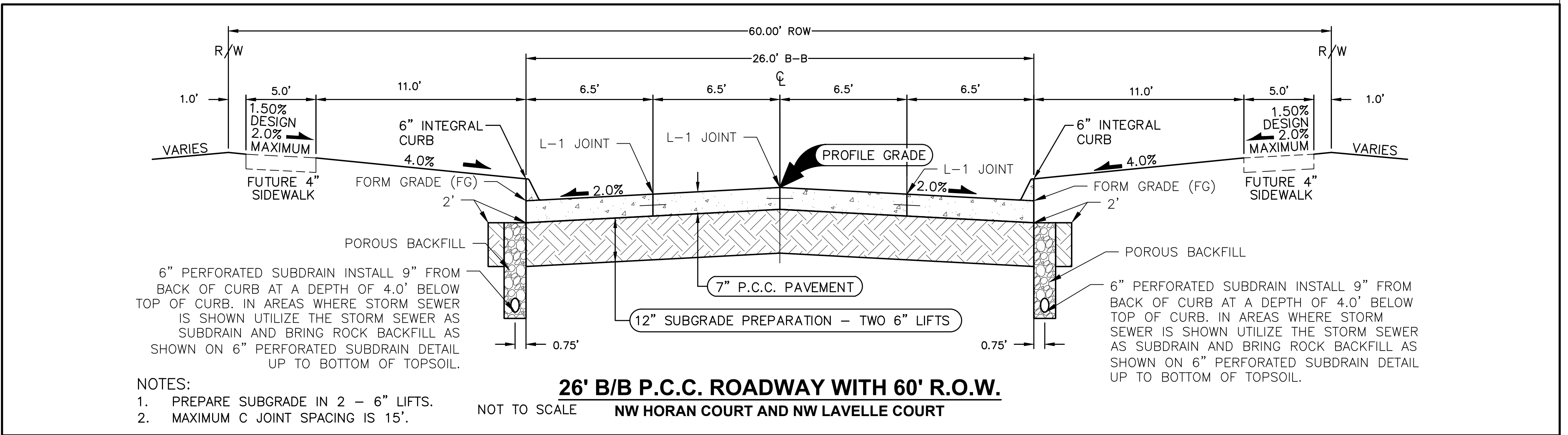
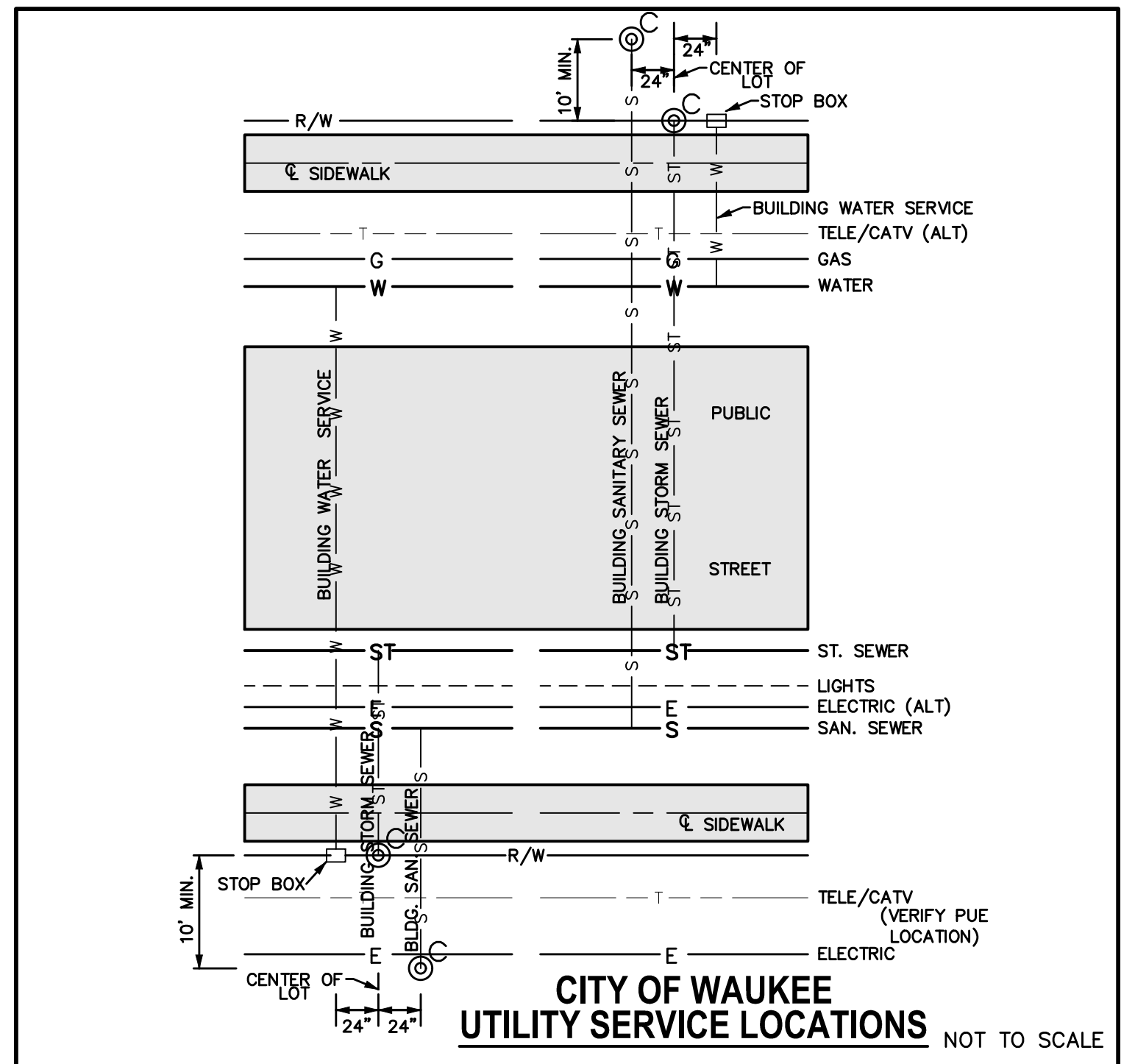
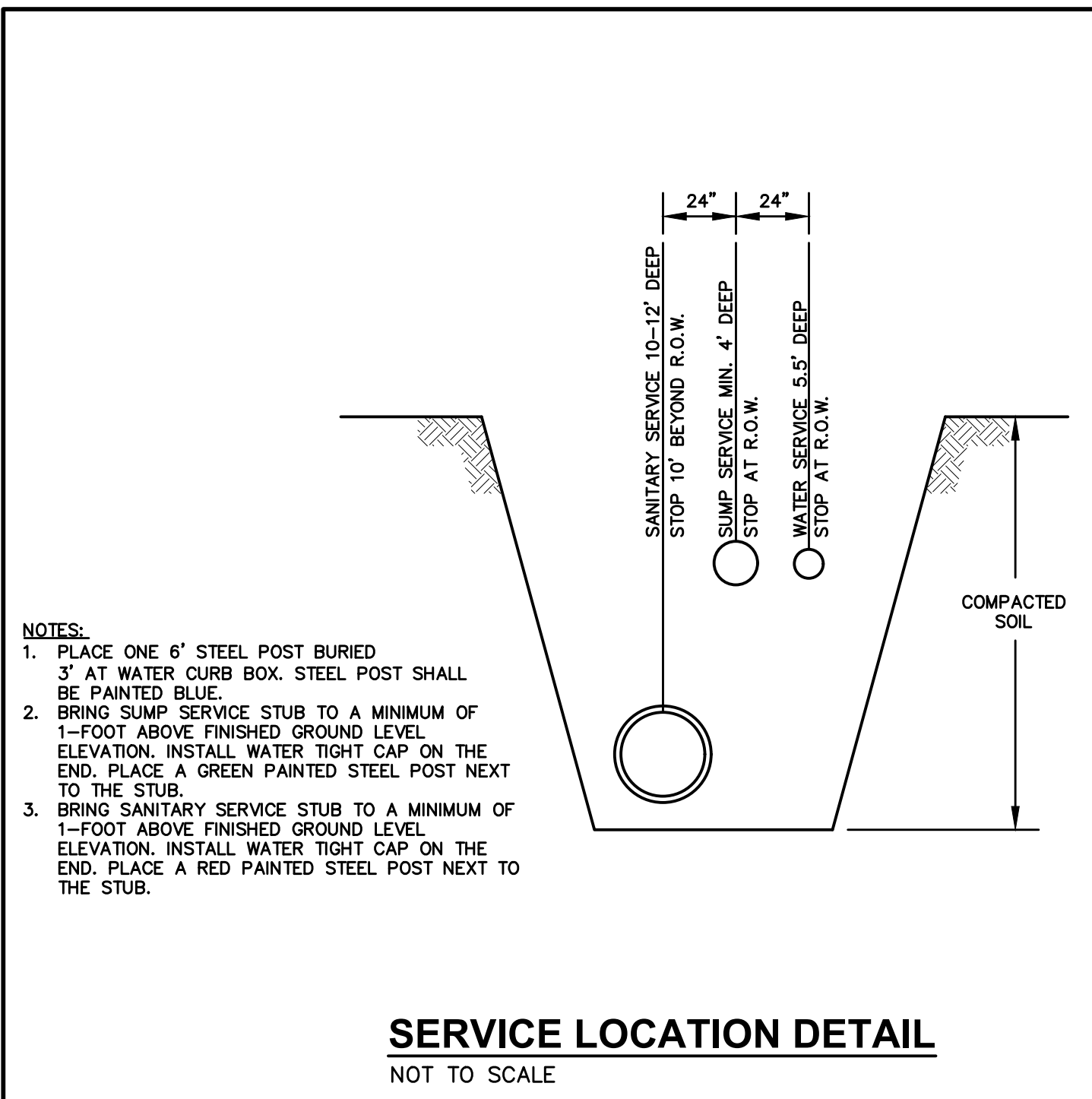
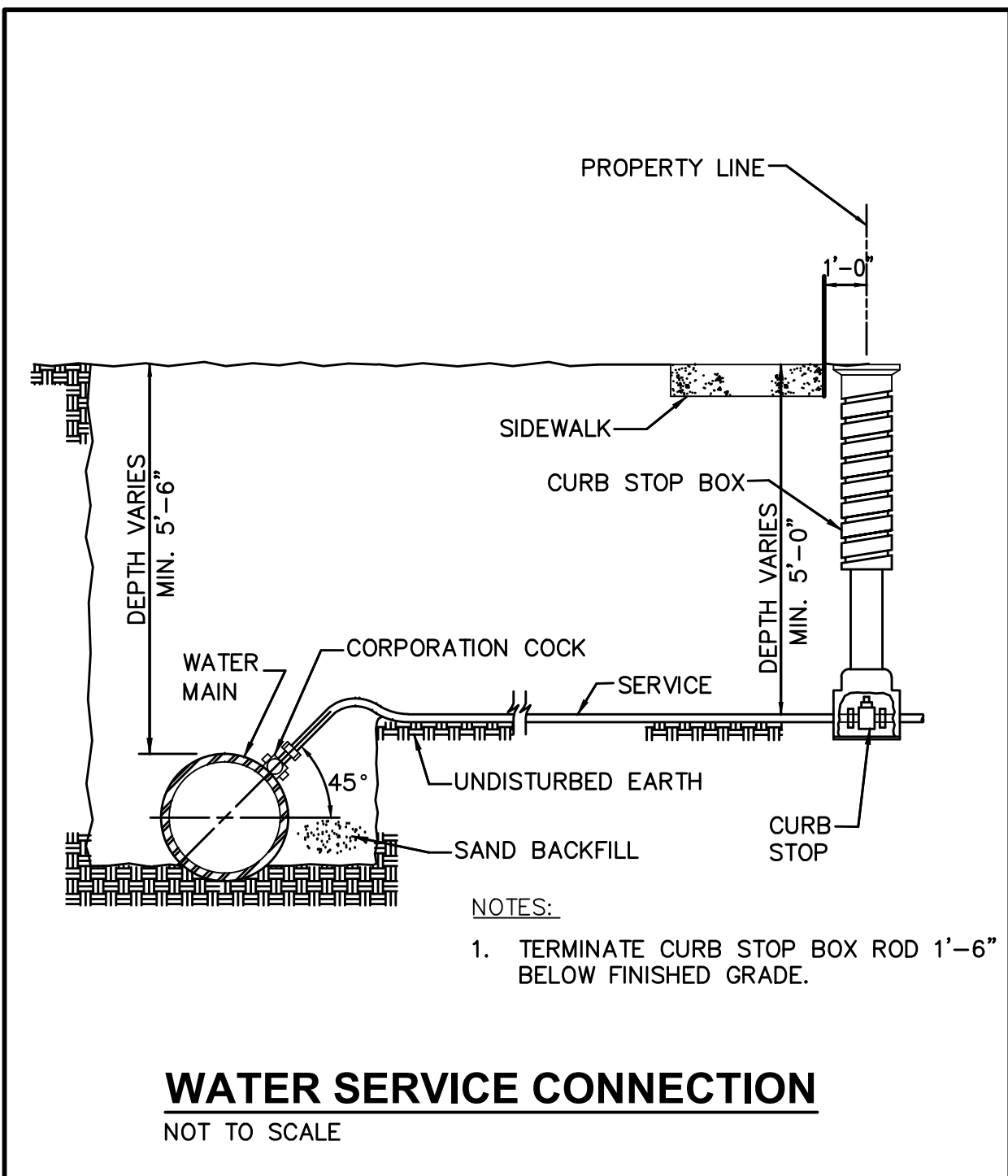
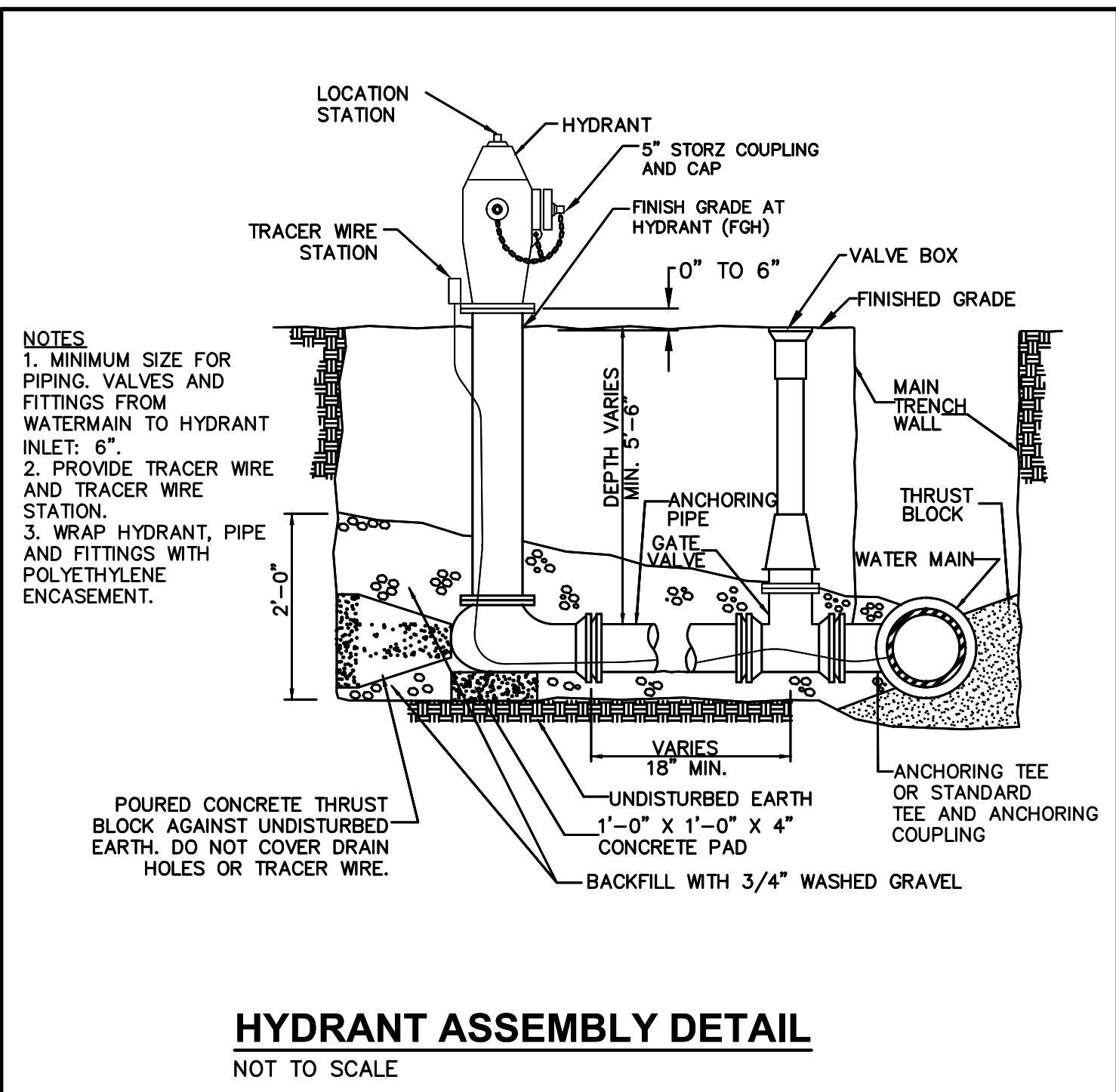
THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

THE 2020 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.

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 11/28/2022
ERIN K. OLLENDIKE, P.E. DATE

LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1-26



FILE: H:\2021\2109725\DWG\2109725-COV-BET-149-ASBUIL.DWG
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 PLOTTED BY: ANTHONY MCDONALD
 DESIGNED BY: ENGS

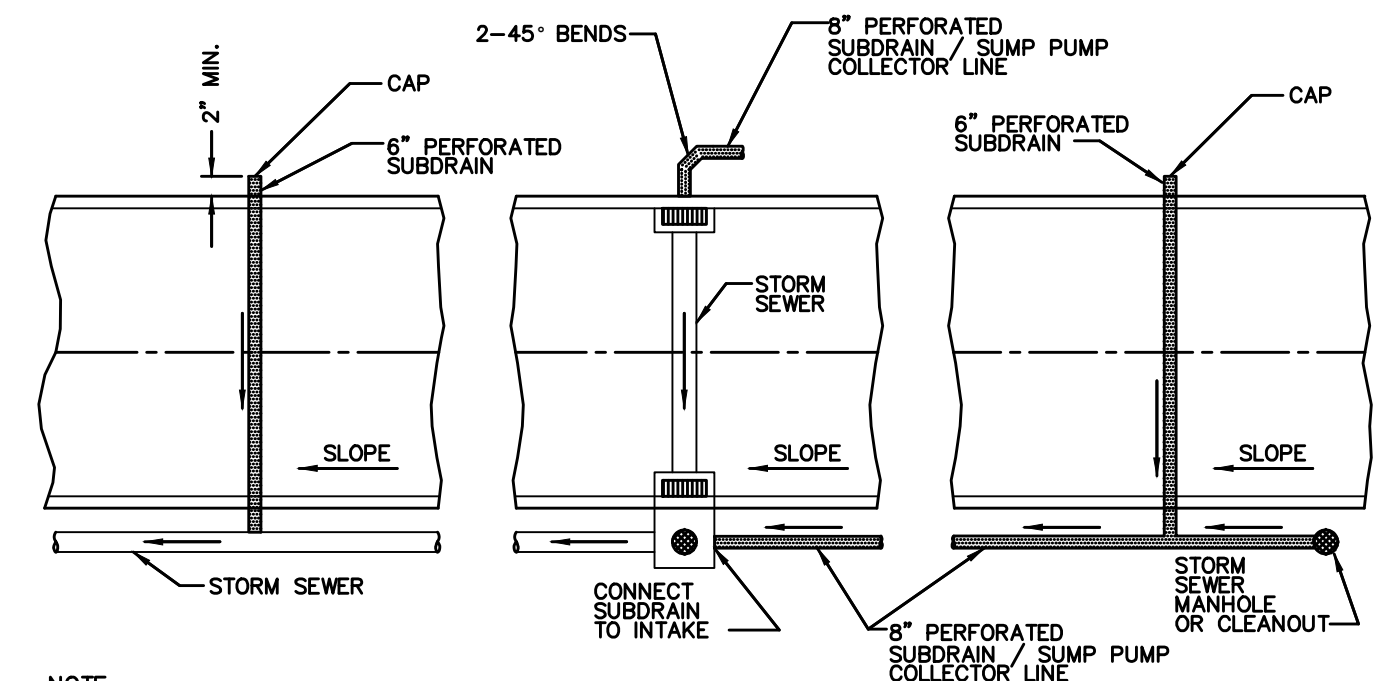
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AS-BUILT SUBMITTAL	01/18/2023
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3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO
 EI: JWM TECH: MST

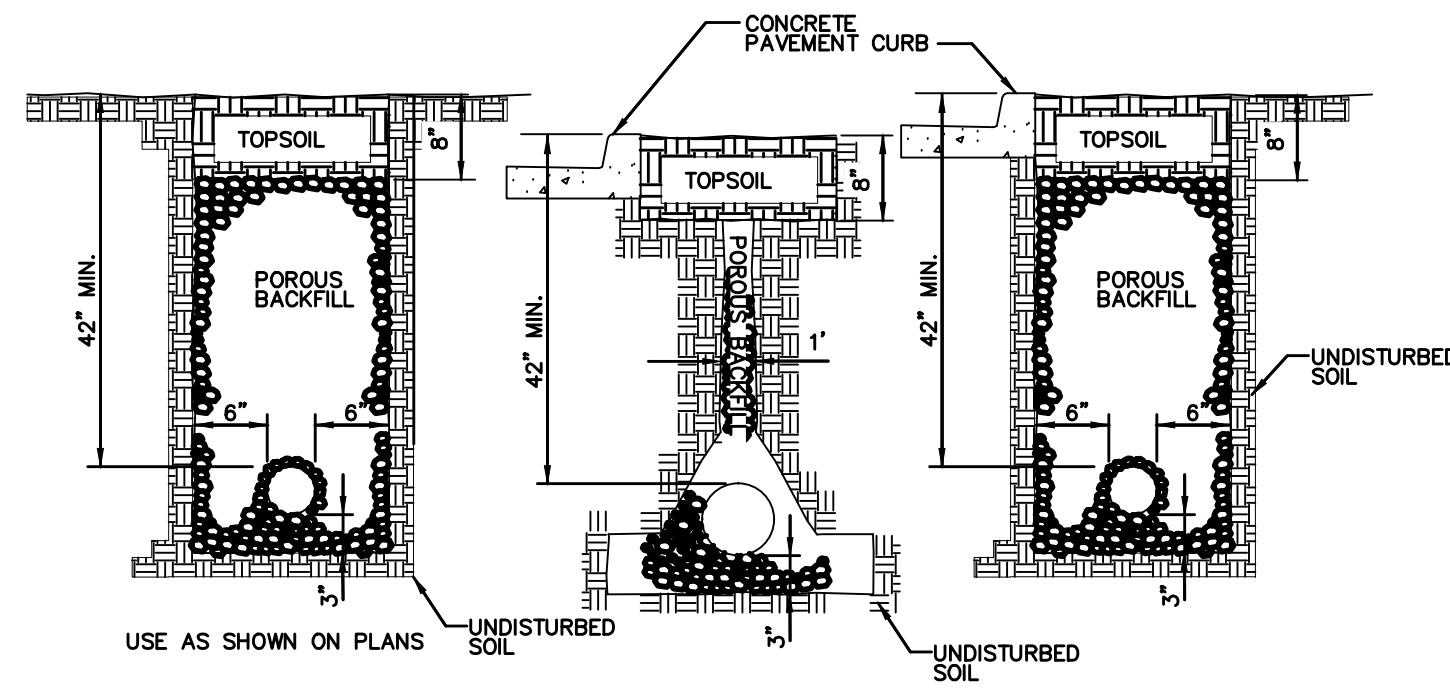
ESA
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
 TYPICAL SECTIONS AND DETAILS

2
 26
 2109.725



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



BACK AND SIDE YARD

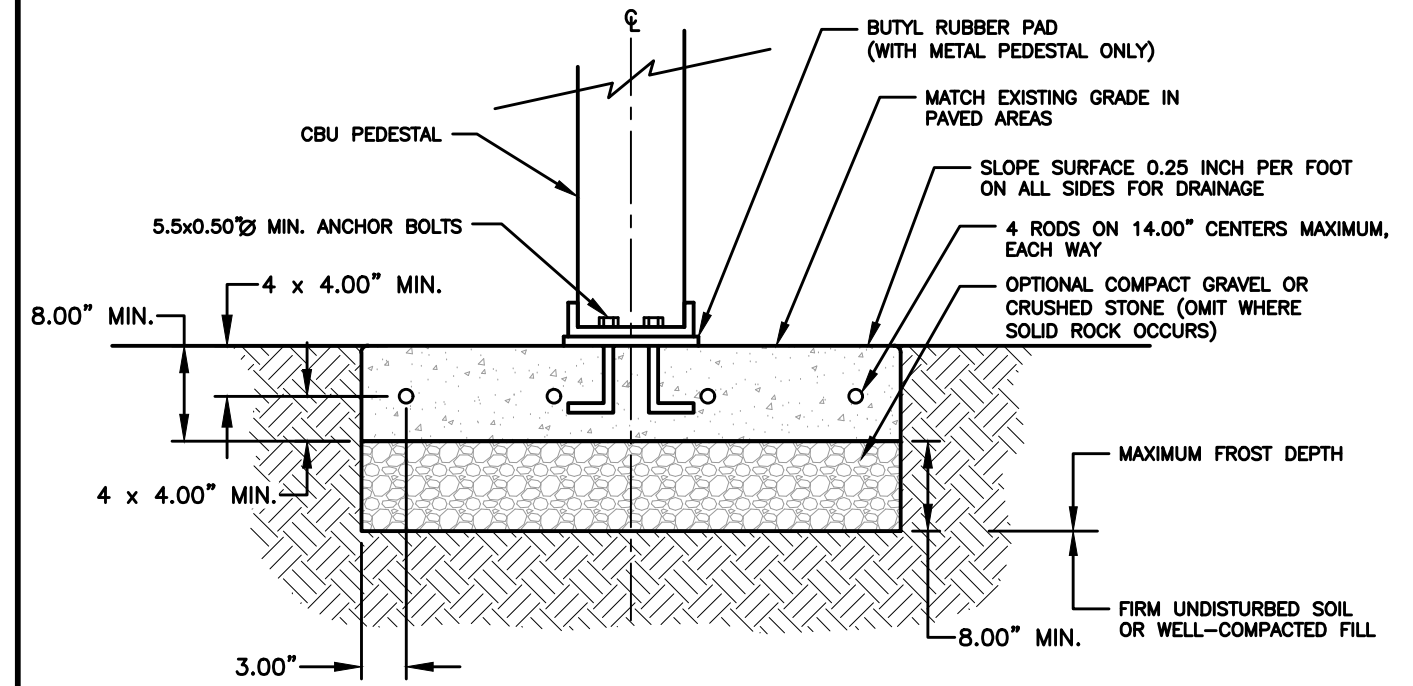
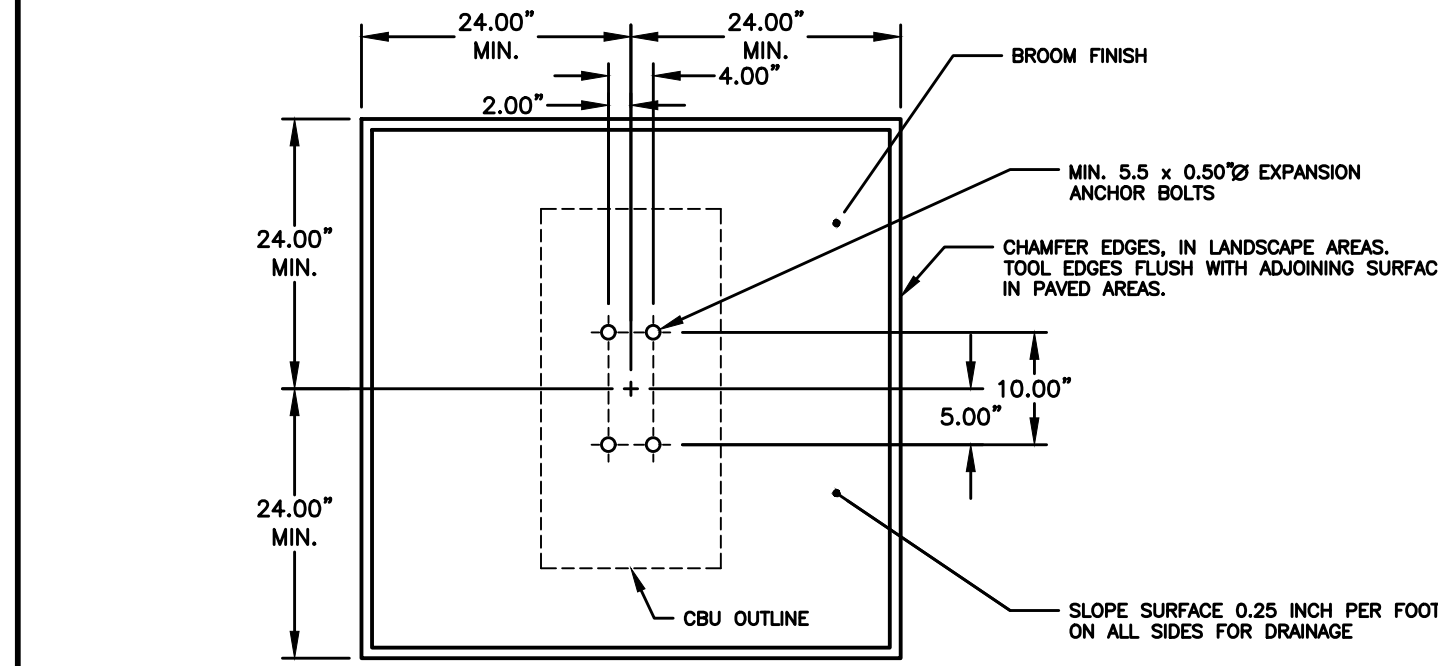
STORM SEWER USED
 AS SUBDRAIN

BACK OF CURB

NOTES

1. SLOPE SUBDRAINS TO DRAIN.
2. 6" BACK OF CURB SUBDRAINS AND ALL BACK AND SIDE YARD SUBDRAINS; USE PEA GRAVEL FOR POROUS BACKFILL.
3. DIRECT PERFORATIONS DOWN FOR SUBDRAINS AND UP FOR SUMP PUMP COLLECTOR LINES.

6" PERFORATED SUBDRAIN

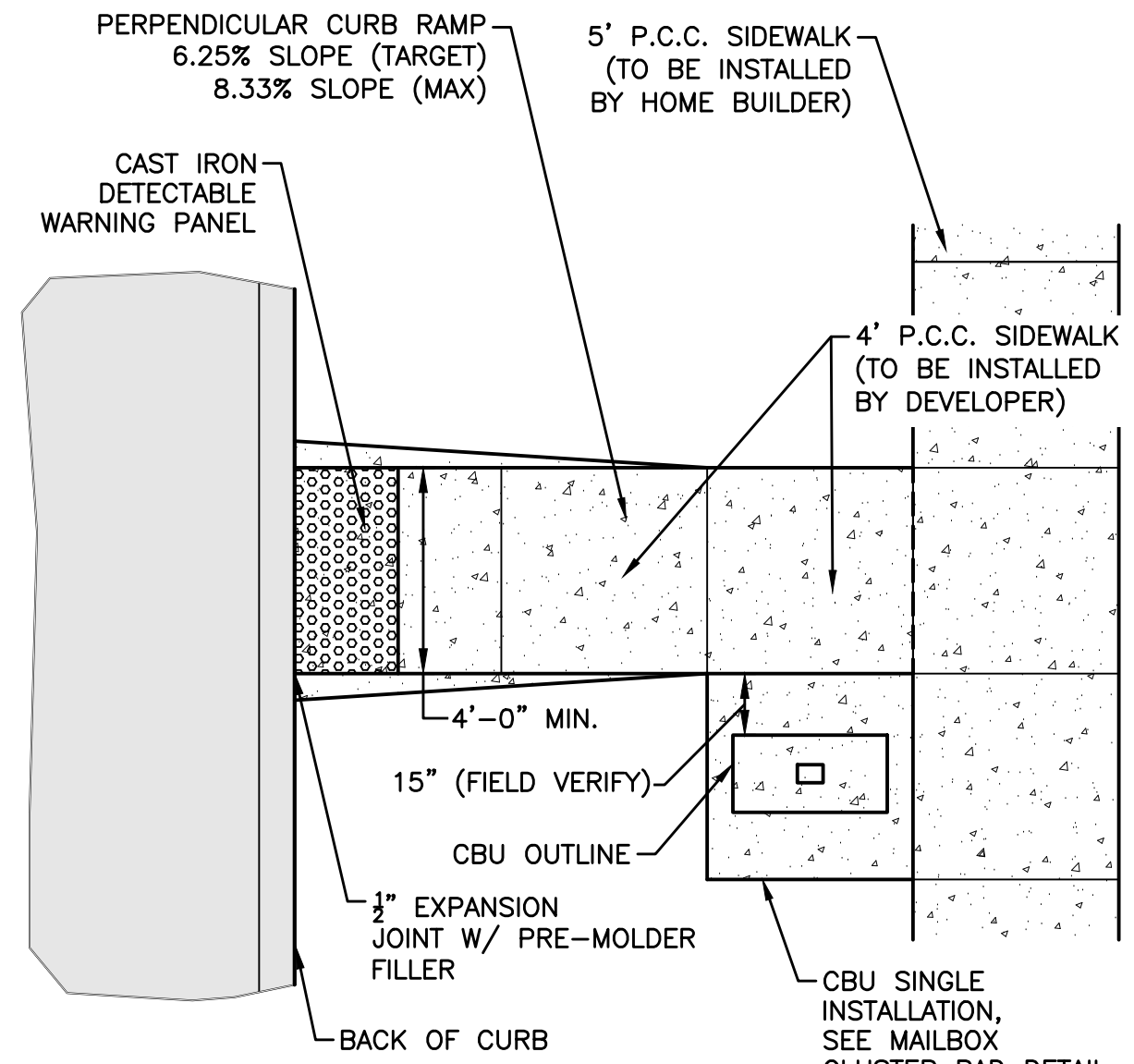


NOTES:

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.HILTI.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 TRUBOLT (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

NOT TO SCALE

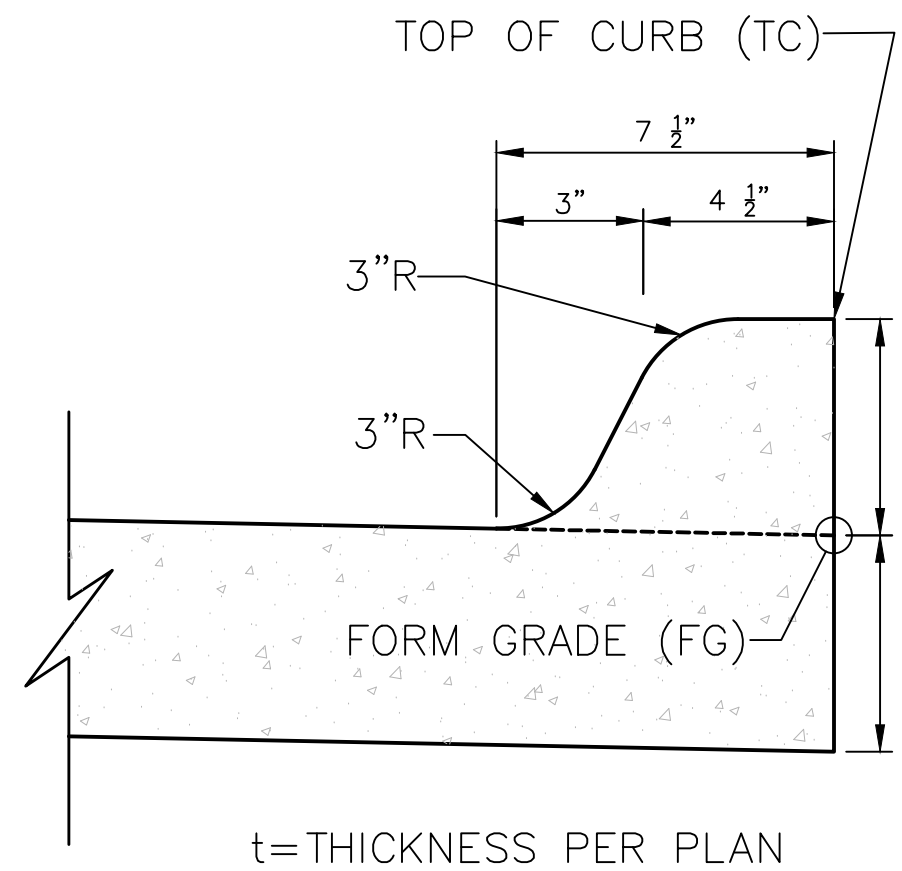


INSTALLATION NOTE:

1. MAILBOX PADS TO BE INSTALLED WITH THE PLAT IMPROVEMENTS.
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

NOT TO SCALE



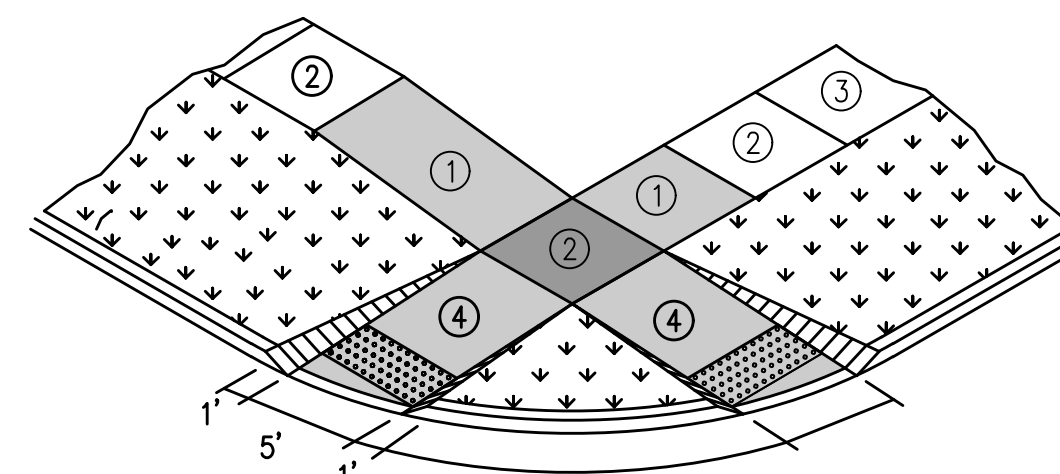
INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE

- ① 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.
- ② 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.
- ③ Target cross-slope of 1.5% with a maximum cross-slope of 2.0%.
- ④ Perpendicular curb ramp: Target running slope of 6.25% with maximum running slope of 8.3%.

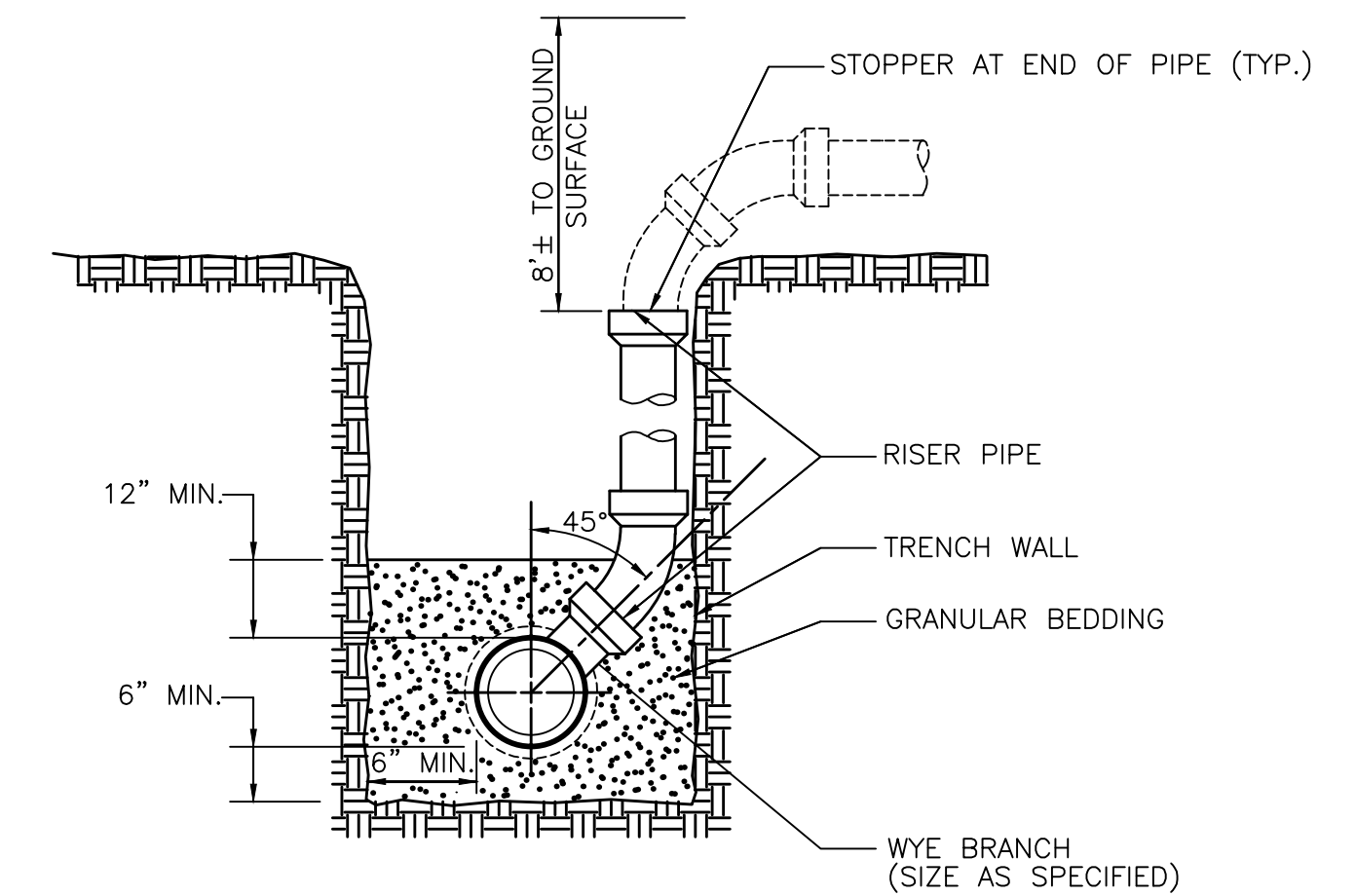
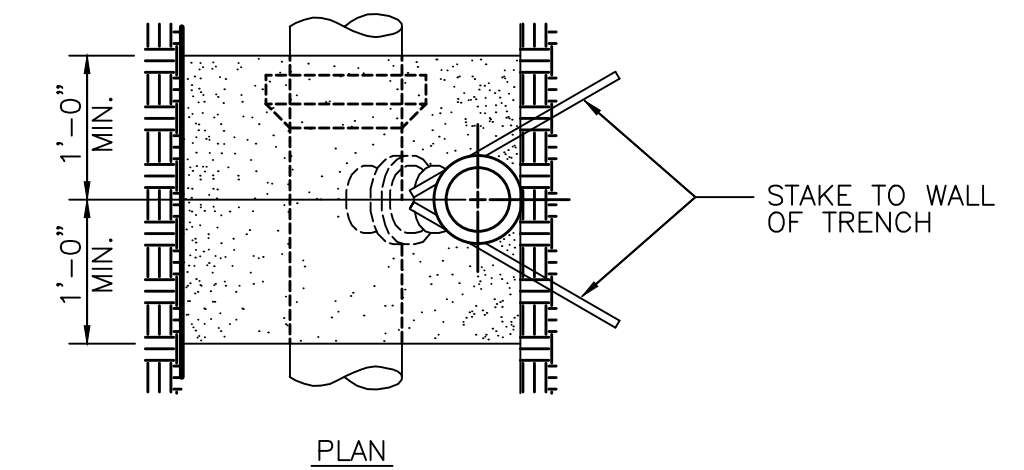
The minimum pavement depth for ramps and landings shall be 6-inches.

- Key
- CURB RAMP
 - TURNING SPACE
 - DETECTABLE WARNING



CURB RAMP FOR CLASS B OR C SIDEWALKS

NOT TO SCALE



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

NOT TO SCALE

DATE	REVISIONS
11/28/2022	AS-BUILT SUBMITTAL
01/18/2023	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
11/16/2021	SECOND SUBMITTAL
10/26/2021	FIRST SUBMITTAL

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

ENGINEER: EKO



WAUKEE, IOWA

PRAIRIE ROSE PLAT 5 TYPICAL SECTIONS AND DETAILS

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	17.77
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	9,867
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	1,614
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	63
7	SUBDRAIN, 6" PERFORATED PVC	LF	4,007
8	STORM SEWER, TRENCHED, 6" HDPE	LF	27
9	STORM SEWER, TRENCHED, 8" HDPE	LF	799
10	STORM SEWER, TRENCHED, 12" HDPE	LF	327
11	STORM SEWER, TRENCHED, 15" RCP	LF	2,004
12	STORM SEWER, TRENCHED, 18" RCP	LF	90
13	STORM SEWER, TRENCHED, 24" RCP	LF	119
14	STORM SEWER SERVICE STUB, 4" DIA	EA	63
15	STORM SEWER, 15" RCP APRON W/ FOOTING & APRON GUARD	EA	7
16	STORM SEWER, 18" RCP APRON W/ FOOTING & APRON GUARD	EA	1
17	WATER MAIN, 8" DIA	LF	2,357
18	WATER SERVICE STUB, 1" DIA	EA	63
19	VALVE, 8" DIA	EA	6
20	FIRE HYDRANT ASSEMBLY	EA	9
21	TEMPORARY FIRE HYDRANT ASSEMBLY (RELOCATED)	EA	1
22	MANHOLE, SW-301, 48" (SANITARY SEWER), MAJOR ADJUSTMENT	EA	2
23	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	6
24	MANHOLE, SW-301, 60" (SANITARY SEWER)	EA	1
25	MANHOLE, SW-401, 48" (STORM SEWER)	EA	9
26	MANHOLE, SW-401, 60" (STORM SEWER)	EA	2
27	INTAKE, SW-501	EA	2
28	INTAKE, SW-503	EA	2
29	INTAKE, SW-505	EA	3
30	INTAKE, SW-506	EA	2
31	INTAKE, SW-513, 4'X4'	EA	1
32	INTAKE, NYLOPLAST 24" DIA. W/ DOME GRATE INLET	EA	2
33	PAVEMENT, 7" P.C.C.	SY	8,747
34	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	72
35	DETECTABLE WARNING PANELS	SF	120
36	SEEDING, FERTILIZING, AND MULCHING	AC	15.72
37	PERMANENT ROAD CLOSURE, URBAN, SI-182 (RELOCATED)	EA	5
38	TRAFFIC CONTROL	LS	1
39	EROSION CONTROL	LS	1
40	STORM SEWER CLEANOUT	EA	5
41	CLASS 'E' RIPRAP	TON	30
42	SANITARY SEWER, EXTERNAL DROP CONNECTION	EA	1
43	MAILBOX PAD	EA	6
44	LANDSCAPING	LS	1

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
	THE 2020 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.
1	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 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.
5-16	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 TELEVISION REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISION 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.
6,14,18	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.
15-16	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.
17-21	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.
20	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.
21	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS. ANY RELOCATED FIRE HYDRANTS ARE TO INCLUDE 5-INCH STORZ FITTINGS.
23-24	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.
25-26	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.

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
27-30	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".
27	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
28	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS
30	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
31	REFER TO SHEET 4 FOR CONSTRUCTION DETAILS.
33	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
34	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.
35	REFER TO SHEET 4 FOR CONSTRUCTION DETAILS. ALL TRUNCATED DOMES SHALL BE CAST IRON WITH A NATURAL FINISH COLOR.
36	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 =1.84 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 13.88 AC
37	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.
38	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.
39	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.
40	REFER TO SANITARY AND STORM SEWER PLAN AND PROFILE SHEETS FOR LOCATIONS.
43	MAILBOX PADS ARE LOCATED BETWEEN LOTS 17/18, 18/19, AND 45/46.
44	REFER TO SHEET 6 FOR DETAILS

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE 2020 WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2021 EDITION OF SUDAS STANDARD SPECIFICATIONS. THE WAUKEE STANDARD SPECIFICATIONS SHALL GOVERN IF ANY DISCREPANCIES.
- 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 CONTRACTOR'S 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.
- 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.
- 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.
- 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.
- 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.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:
 - CITY OF WAUKEE ENGINEERING DEPARTMENT
 - APPROPRIATE UTILITY COMPANIES
 - OWNER
 - CIVIL DESIGN ADVANTAGE
- 48 HOUR NOTICE SHALL BE GIVEN TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO WEEKEND AND HOLIDAY WORK.

- 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.
- 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.
- 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.
- 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.
- 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.
- THE CONTRACTOR SHALL APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.
- THE CONTRACTOR IS REQUIRED TO BE FAMILIAR WITH AND COMPLY WITH OSHA STANDARDS. NOTHING WITHIN THESE PLANS SHALL RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
- ALL MATERIAL TESTING SHALL BE CONSIDERED INCIDENTAL TO OTHER CONSTRUCTION.
- 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.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD)
- ALL SLOPES IN PAVEMENT SHALL BE UNIFORM TO AVOID PONDING.
- 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.
- 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.
- REMOVE DEBRIS SPILLED INTO R.O.W. AT THE END OF EACH WORK DAY AND BEFORE RAIN EVENTS.
- DO NOT STORE CONSTRUCTION MATERIALS AND EQUIPMENT IN THE R.O.W.
- ALL PROPERTY PINS SHALL BE PROTECTED FROM GRADING OR OTHER OPERATIONS. ANY PINS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
- IN THE EVENT OF A DISCREPANCY BETWEEN DETAILED PLANS AND QUANTITIES, THE DETAILED PLANS SHALL GOVERN.

- 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.
- 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
- THE CONTRACTOR SHALL SUBMIT A LIST OF CONSTRUCTION MATERIALS TO THE CITY OF WAUKEE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- 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.
- THE CONTRACTOR SHALL COORDINATE ALL EXISTING PUBLIC UTILITY CONNECTIONS WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT.
- 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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR CLEANING AND TELEVISION ALL STORM AND SANITARY SEWERS. THE CITY OF WAUKEE ENGINEERING DEPARTMENT SHALL WITNESS AND APPROVE ALL CLEANING AND TELEVISION 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.
- ALL FIRE HYDRANTS INCLUDING ANY RELOCATED HYDRANTS SHALL HAVE 5-INCH STORZ FITTINGS.
- ALL PROPOSED PEDESTRIAN CROSSINGS SHALL BE INSTALLED AS PART OF THE PLAT IMPROVEMENTS.
- ALL CONNECTIONS TO EXISTING MANHOLES ARE TO BE CORE DRILLED AND USE A LINK SEAL.
- ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED.
- 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.
- 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.
- 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.

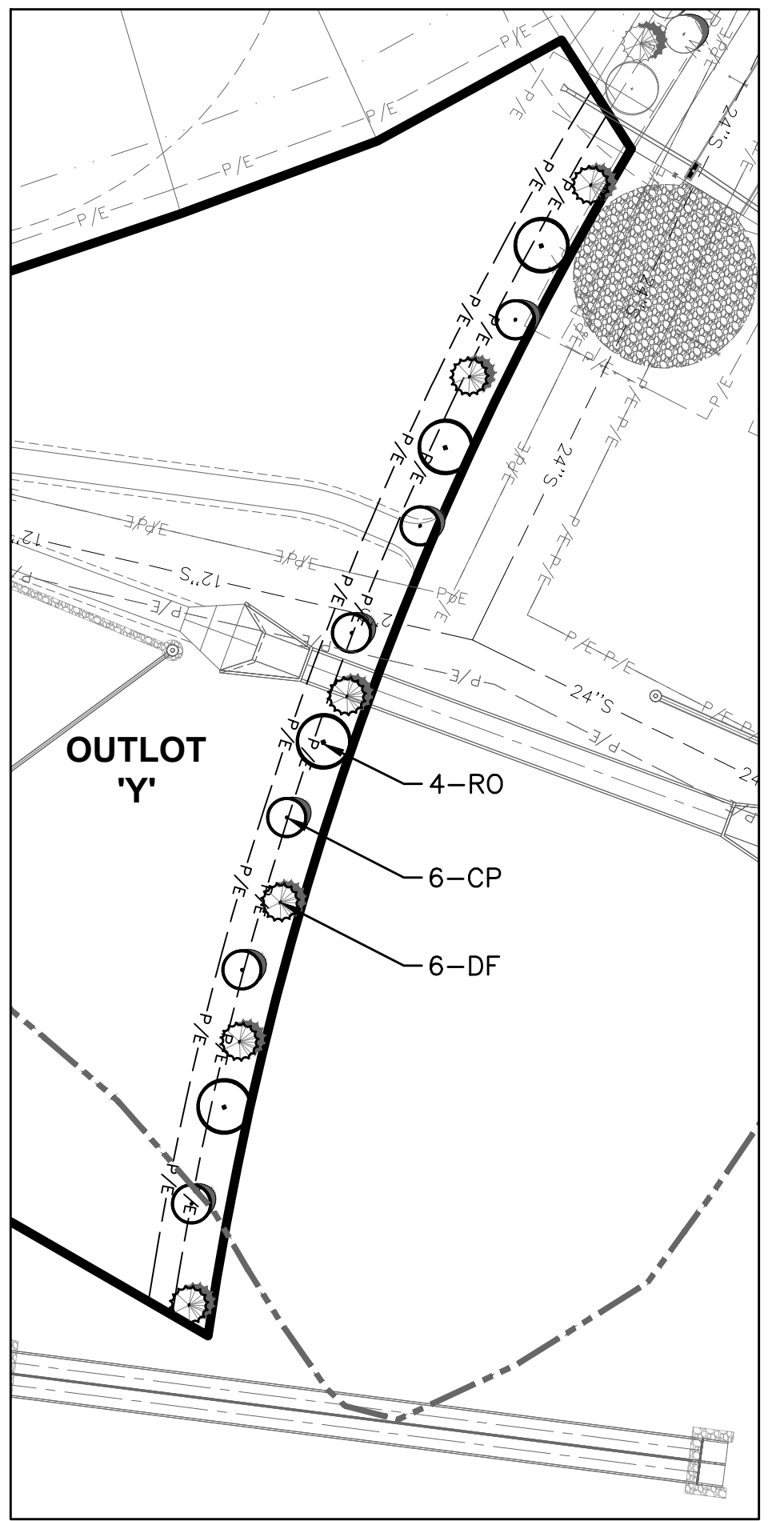
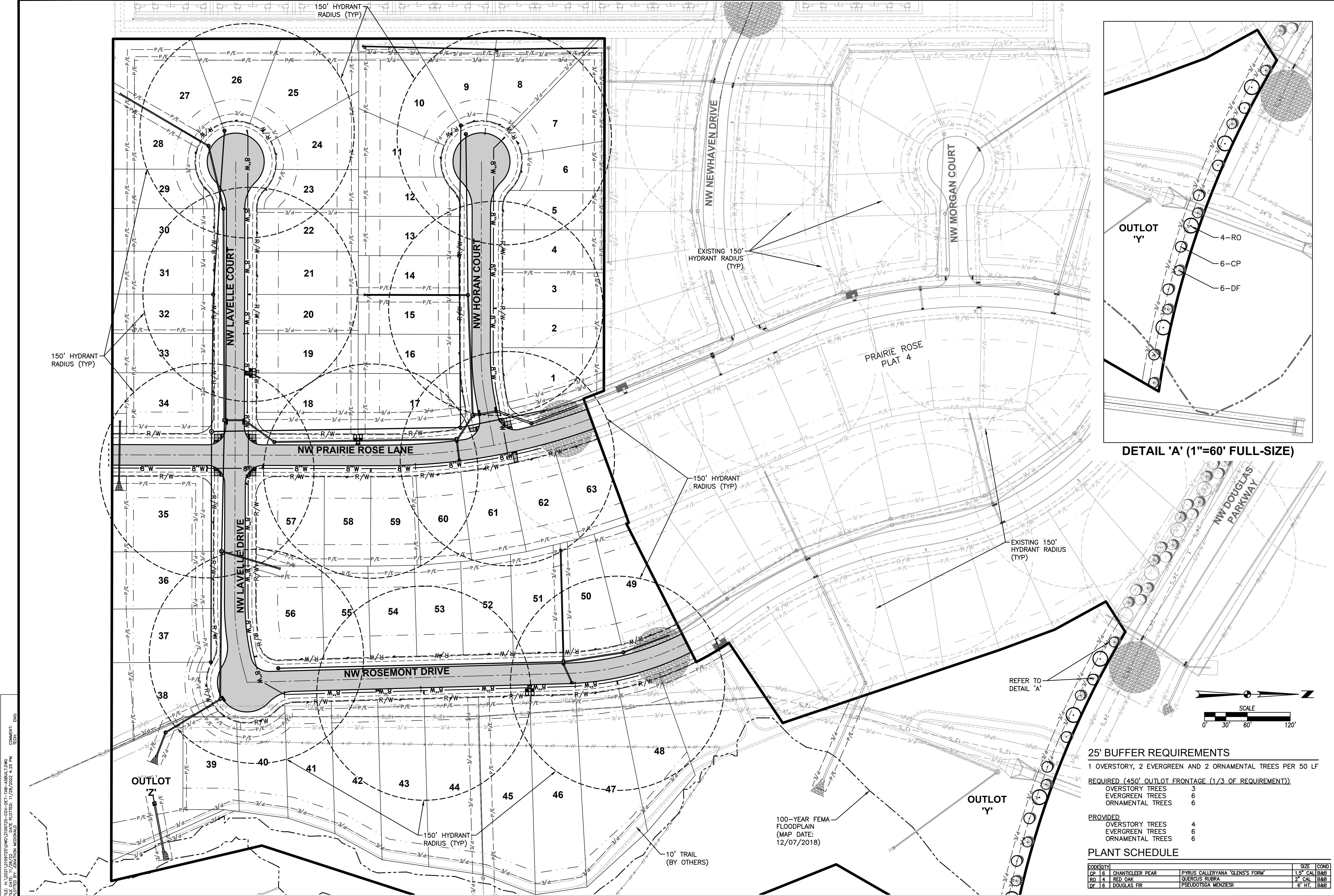
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DATE	11/28/2022
AS-BUILT SUBMITTAL	01/18/2023
FINAL SUBMITTAL	12/30/2021
FOURTH SUBMITTAL	12/21/2021
THIRD SUBMITTAL	11/19/2021
FIRST SUBMITTAL	10/26/2021

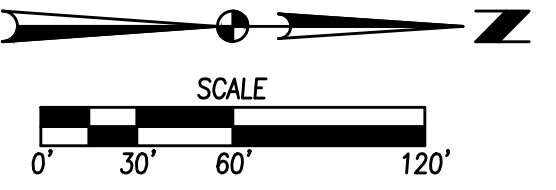
REVISIONS
 3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO
 Ei: JWM TECH: MST
CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
QUANTITIES, GENERAL NOTES AND
BID ITEM REFERENCE NOTES

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DETAIL 'A' (1"=60' FULL-SIZE)



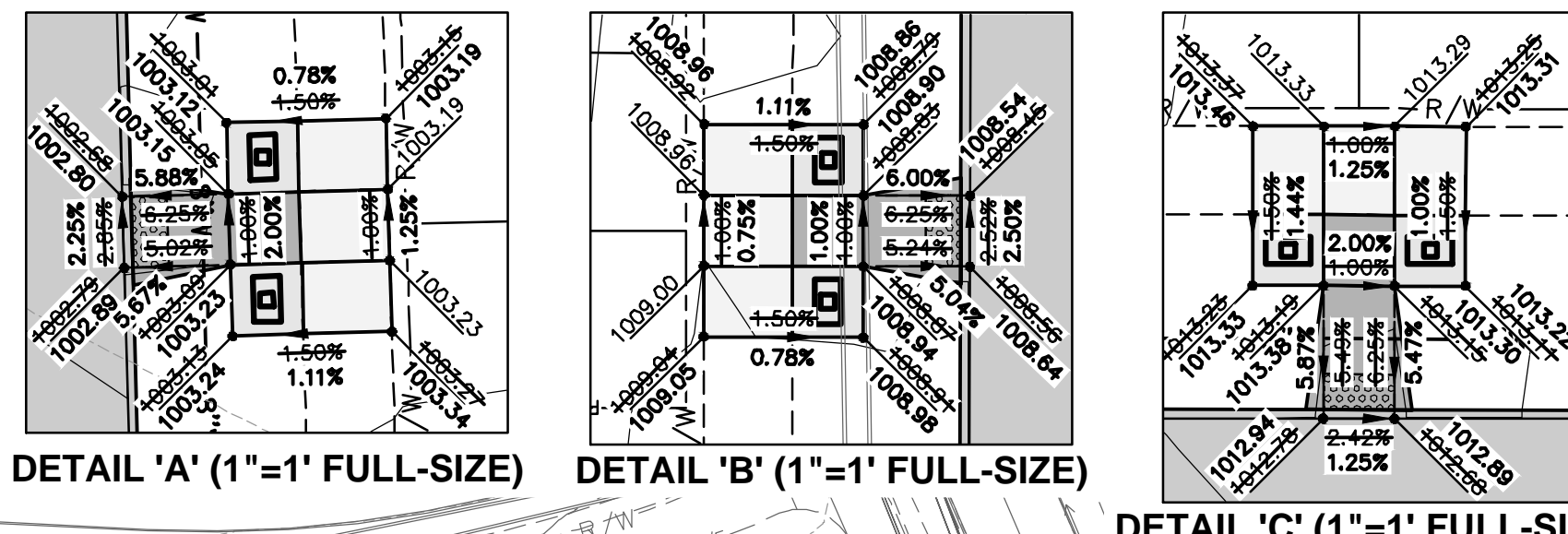
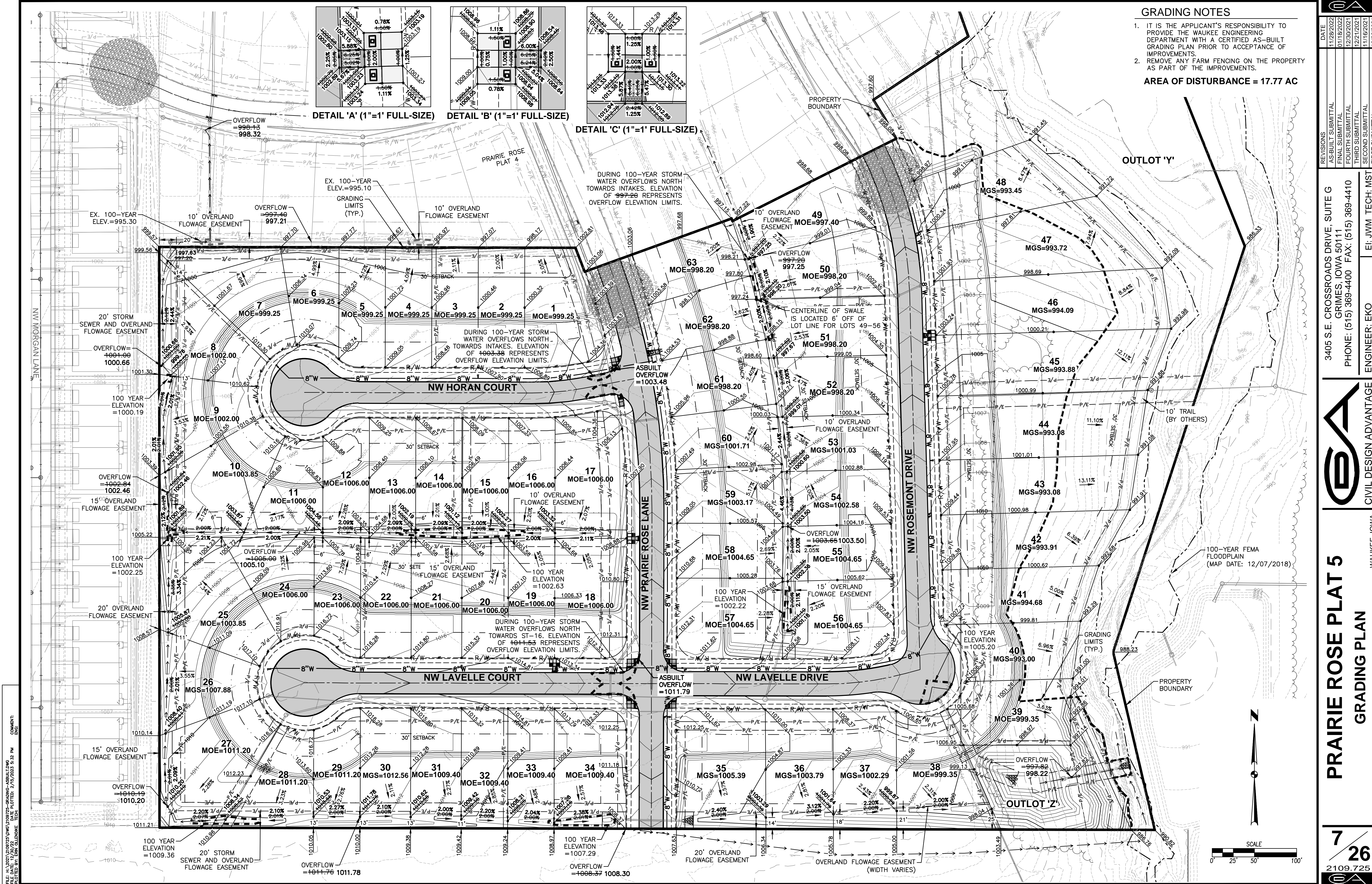
- 25' BUFFER REQUIREMENTS**
 1 OVERSTORY, 2 EVERGREEN AND 2 ORNAMENTAL TREES PER 50 LF
- REQUIRED (450' OUTLOT FRONTAGE (1/3 OF REQUIREMENT))**
- | | |
|------------------|---|
| OVERSTORY TREES | 3 |
| EVERGREEN TREES | 6 |
| ORNAMENTAL TREES | 6 |
- PROVIDED**
- | | |
|------------------|---|
| OVERSTORY TREES | 4 |
| EVERGREEN TREES | 6 |
| ORNAMENTAL TREES | 6 |

PLANT SCHEDULE

CODE	QTY	DESCRIPTION	SIZE (COND)
OP	6	CHANTICLEER PEAR	PYRUS CALLERYANA 'GLEN'S FORM' 1.5" CAL B&B
RO	4	RED OAK	QUERCUS RUBRA 2" CAL B&B
DF	6	DOUGLAS FIR	PSEUDOTSUGA MENZIESII 6" HT. B&B

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REVISIONS	11/28/2022 AS-BUILT SUBMITTAL 01/18/2023 FINAL SUBMITTAL 12/30/2021 FOURTH SUBMITTAL 12/21/2021 THIRD SUBMITTAL 11/16/2021 SECOND SUBMITTAL 10/26/2021 FIRST SUBMITTAL
DATE	
3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410	
EA CIVIL DESIGN ADVANTAGE	
WAUKEE, IOWA	
ENGINEER: EKO	
TECH: MST	
PROJECT: PRAIRIE ROSE PLAT 5 HYDRANT COVERAGE & LANDSCAPE PLAN	
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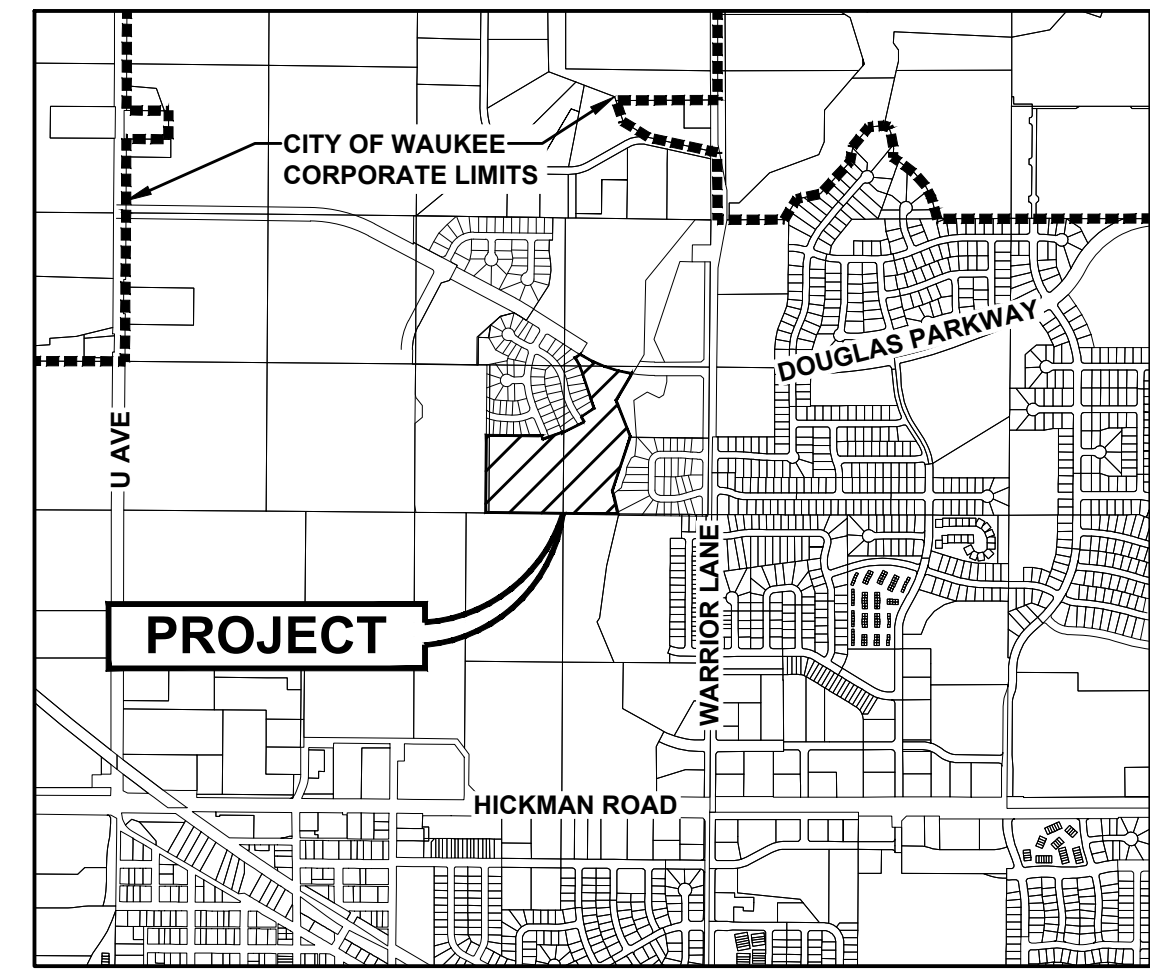


PRAIRIE ROSE PLAT 5

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	4,404
2	DITCH CHECK	LF	1,264
3	CLASS E RIP-RAP	TON	30
4	SEEDING, FERTILIZING, AND MULCHING	AC	15.72
5	INLET PROTECTION DEVICES	EA	9
6	CONCRETE WASHOUT PIT	EA	1
7	FILTER FABRIC	LS	1
8	EROSION STONE	TON	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 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.
- 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.
- IN ORDER TO CONVERT TSB #1 INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.
- THE DEVELOPER IS RESPONSIBLE FOR SHORT-TERM (FIRST 3 YEARS) MAINTENANCE AND ROUTINE LONG-TERM MAINTENANCE FOR THE DRY DETENTION AREA (BMP'S) AS DEFINED IN SECTION 9.10-4 OF THE IOWA STORM WATER MANAGEMENT MANUAL.

SWPPP LEGEND

DRAINAGE ARROW		UNDISTURBED AREA	
GRADING LIMITS		RIp-RAP	
FILTER SOCK		GRAVEL ENTRANCE	
SILT FENCE		STAGING AREA	
INLET PROTECTION		TEMPORARY SEDIMENT BASIN	
PORTABLE RESTROOM			
TEMPORARY STANDPIPE			
CONCRETE WASHOUT PIT			

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 INTO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK ±650 FT	
TOTAL AREA DISTURBED TO DISCHARGE POINT	9.19 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	33,084 CU FT
VOLUME PROVIDED IN SILT FENCE (2,347 LF @ 10.0 CU FT/LF OF FENCE)	23,470 CU FT
VOLUME PROVIDED IN DITCH CHECK (682 LF @ 15.0 CU FT/LF)	10,230 CU FT
TOTAL VOLUME PROVIDED	33,700 CU FT
DISCHARGE POINT #2 INTO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK ±100 FT	
TOTAL AREA DISTURBED TO DISCHARGE POINT	8.57 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	30,852 CU FT
VOLUME PROVIDED IN SILT FENCE (2,057 LF @ 10.0 CU FT/LF OF FENCE)	20,570 CU FT
VOLUME PROVIDED IN DITCH CHECK (582 LF @ 15.0 CU FT/LF)	8,730 CU FT
VOLUME PROVIDED IN TSB #1	4,362 CU FT
TOTAL VOLUME PROVIDED	33,662 CU FT



REVISIONS	DATE
AS-BUILT SUBMITTAL	11/28/2022
FINAL SUBMITTAL	01/18/2023
FOURTH SUBMITTAL	12/30/2021
THIRD SUBMITTAL	12/21/2021
SECOND SUBMITTAL	11/16/2021
FIRST SUBMITTAL	10/26/2021

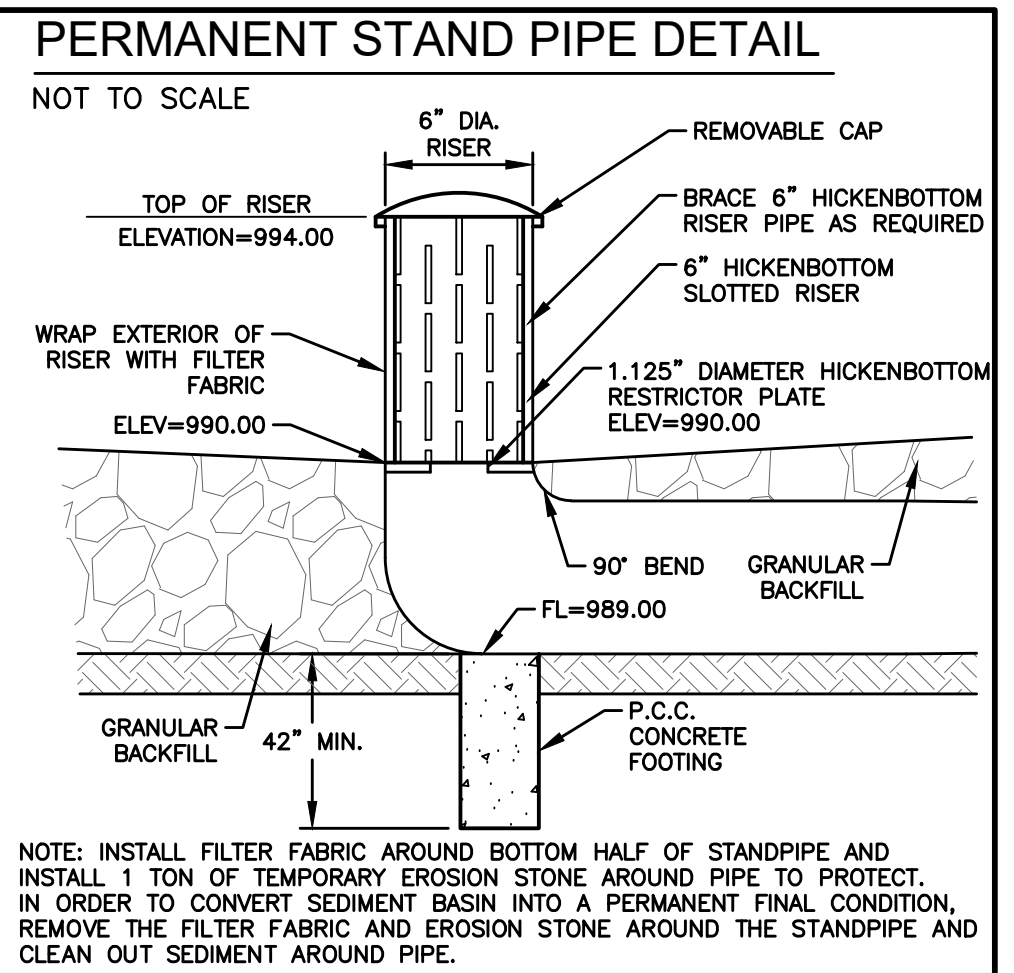
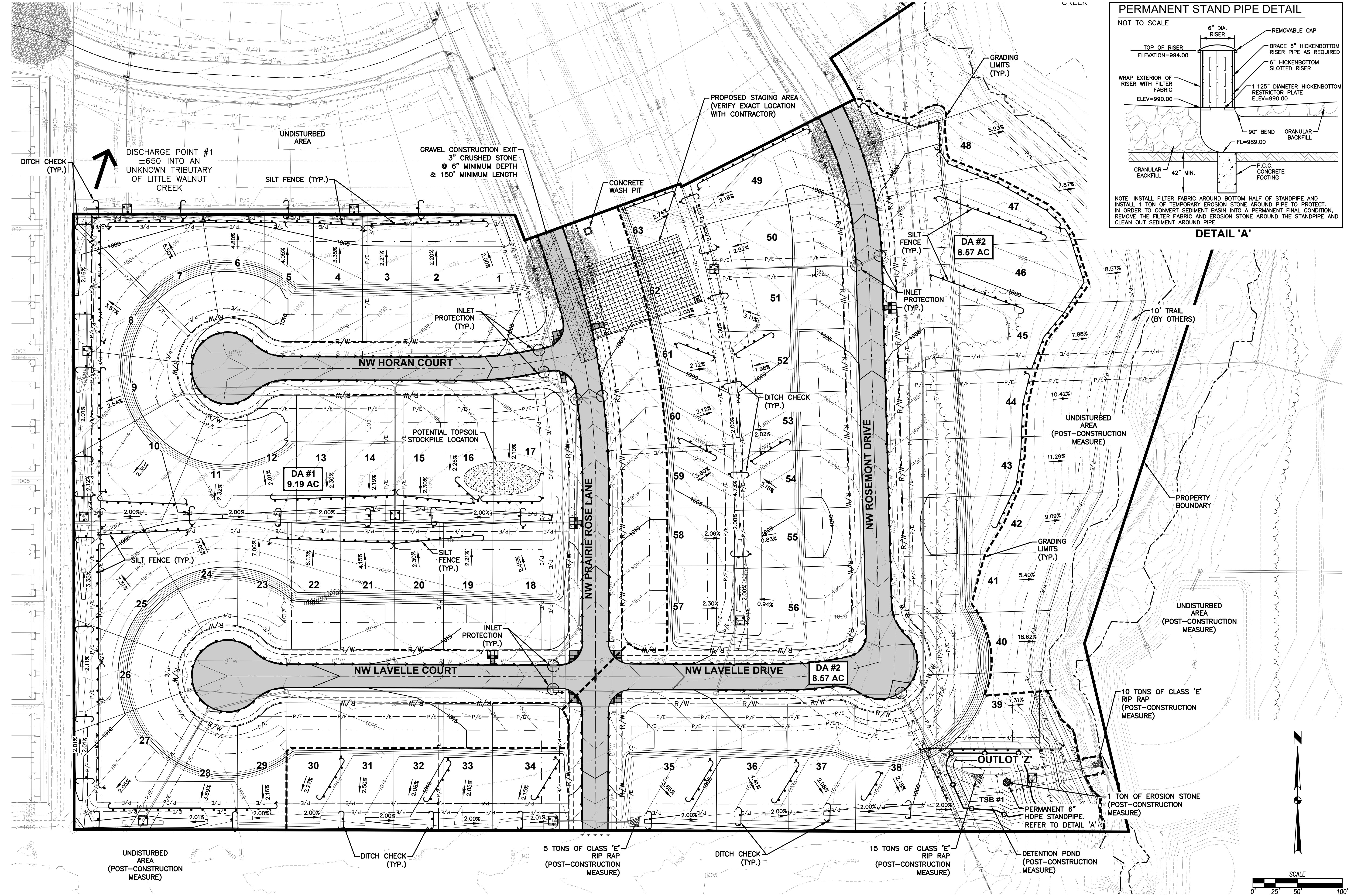
3405 S.E. CROSSROADS DRIVE, SUITE G
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 ENGINEER: EKO
 TECH: MST



WAUKEE, IOWA
PRAIRIE ROSE PLAT 5
 EROSION AND SEDIMENT CONTROL PLAN

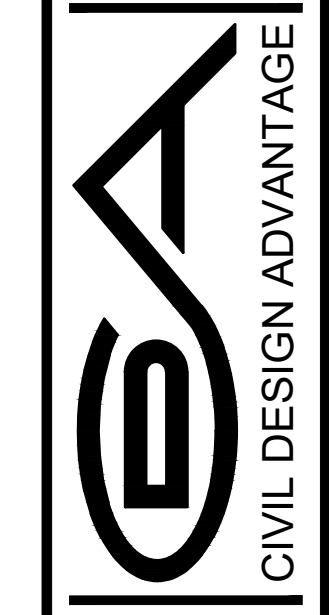
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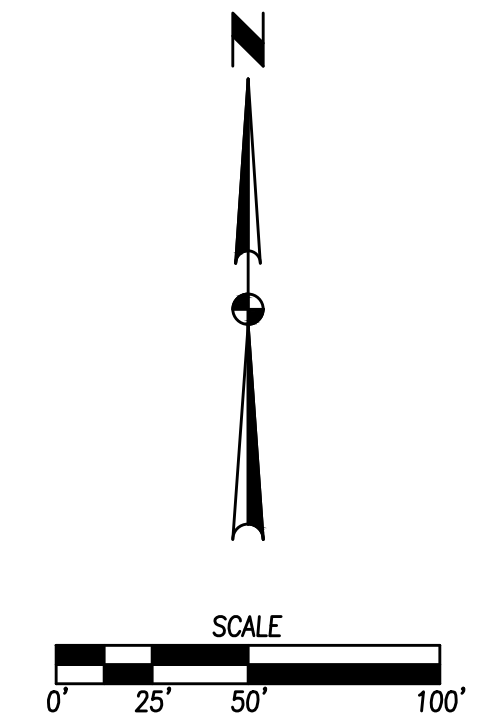
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10/26/2021	FIRST SUBMITTAL

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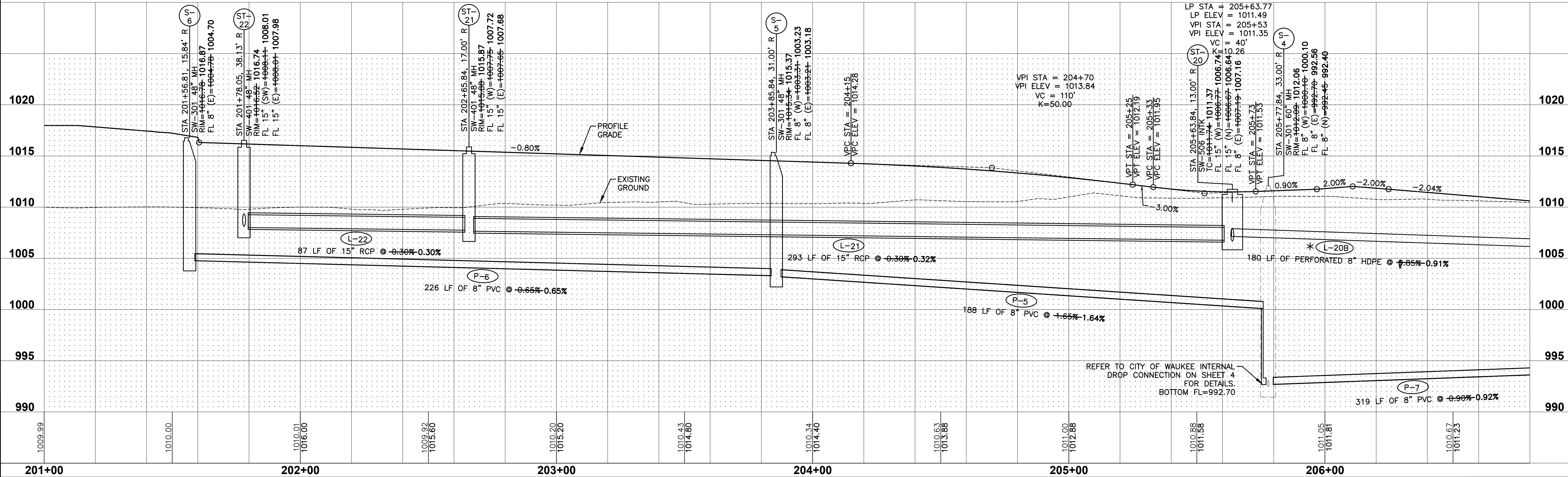
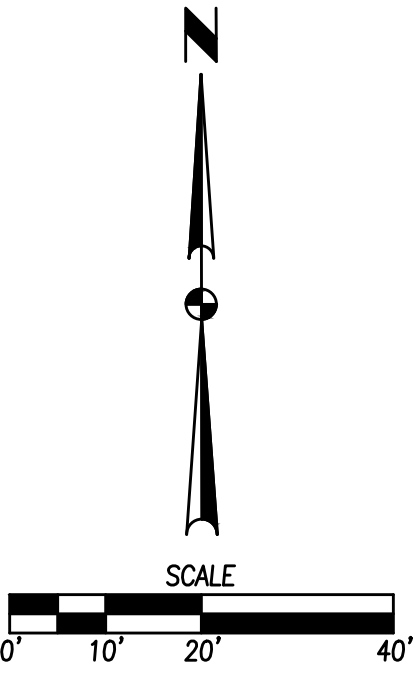
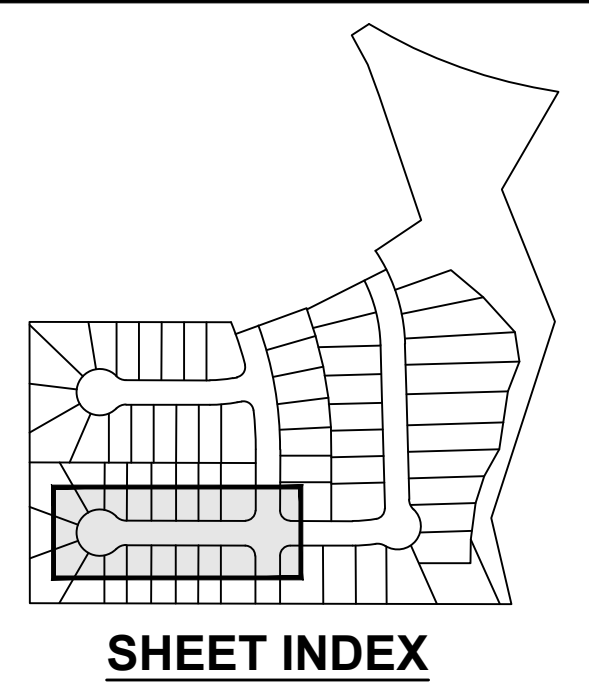
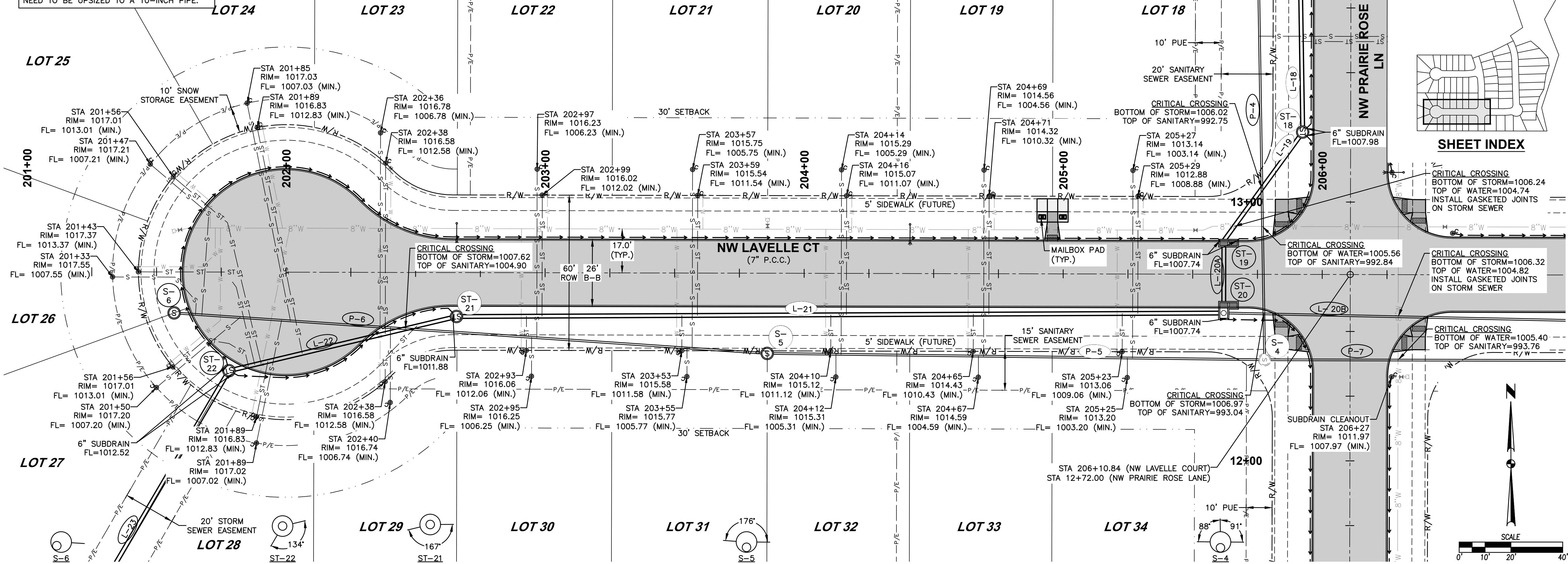


WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
EROSION AND SEDIMENT CONTROL PLAN



*NOTE: IF ROMAC SADDLES ARE USED FOR SUMP SERVICE CONNECTIONS, L-20B WILL NEED TO BE UPSIZED TO A 10-INCH PIPE.



FILE: H:\2021\2109725\DWG\2109725-PRAIRIE-RSE-ASBUILT.DWG
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 REVISION: 11/28/2022 4:28 PM
 PLOTTED BY: ADVANTAGE MCDONALD

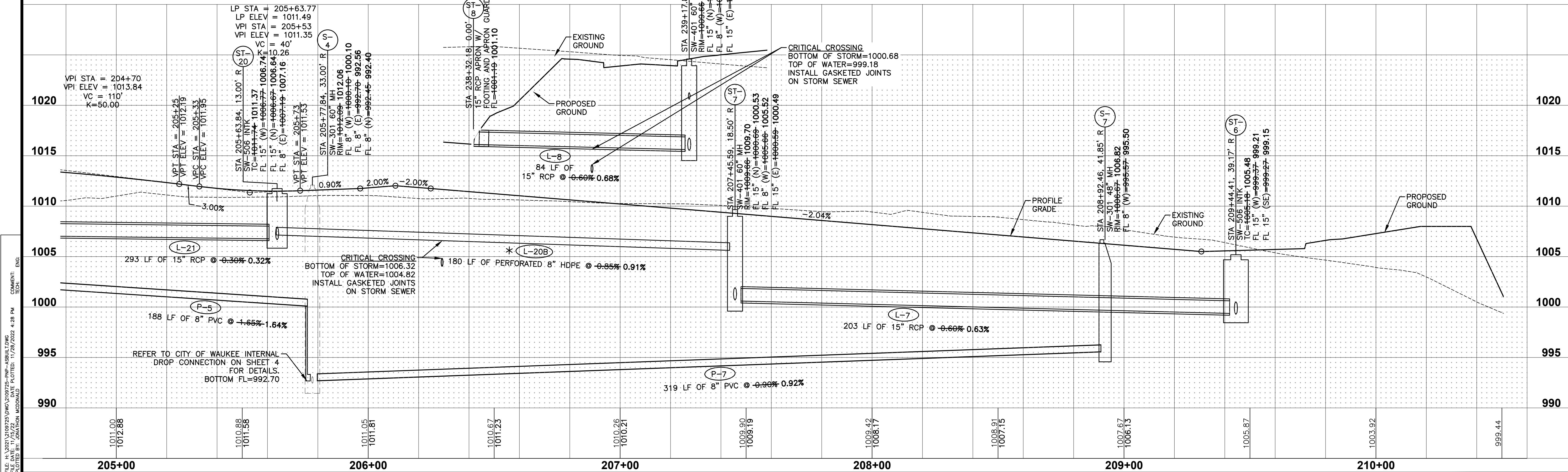
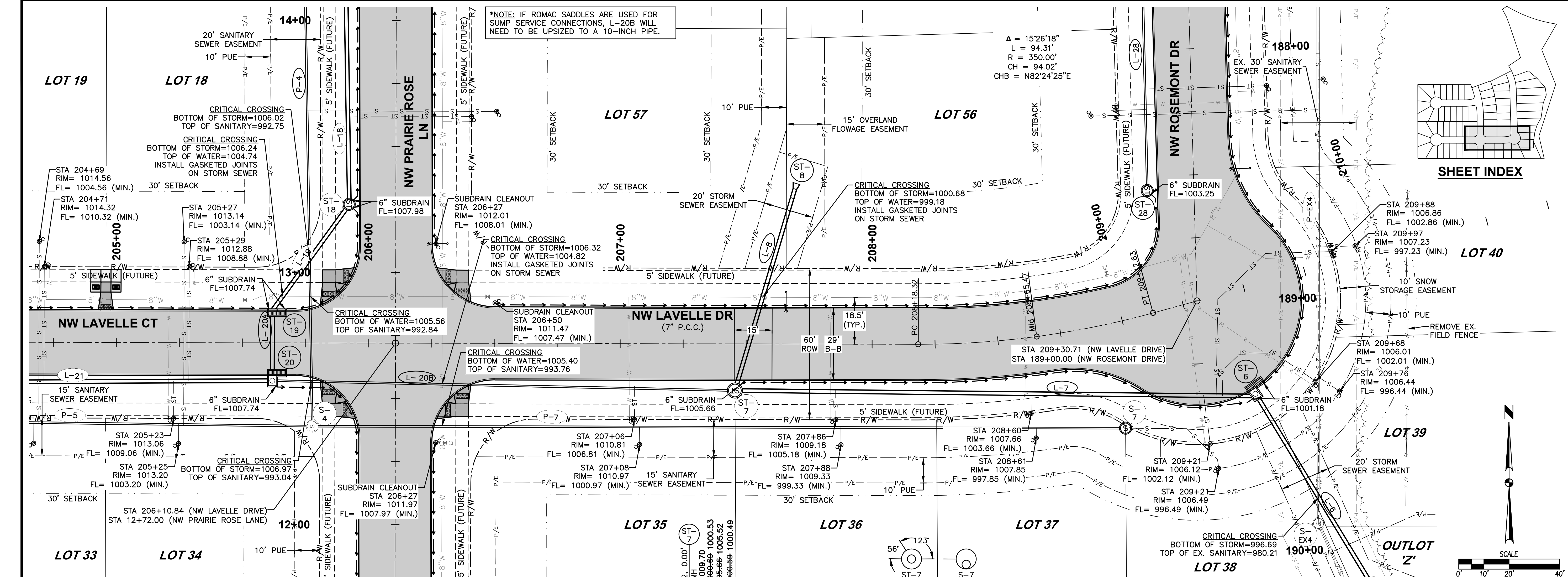
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AS-BUILT SUBMITTAL	01/18/2023
FINAL SUBMITTAL	12/30/2021
FOURTH SUBMITTAL	12/21/2021
THIRD SUBMITTAL	11/16/2021
FIRST SUBMITTAL	10/26/2021

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

SA
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE

11/26
 2109.725



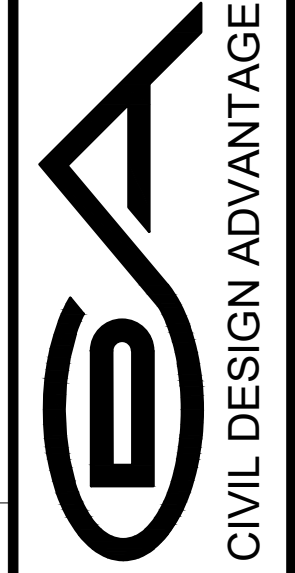
*NOTE: IF ROMAC SADDLES ARE USED FOR SUMP SERVICE CONNECTIONS, L-20B WILL NEED TO BE UPSIZED TO A 10-INCH PIPE.

Δ = 15'26"18"
 L = 94.31'
 R = 350.00'
 CH = 94.02'
 CHB = N82°24'25"E

SHEET INDEX

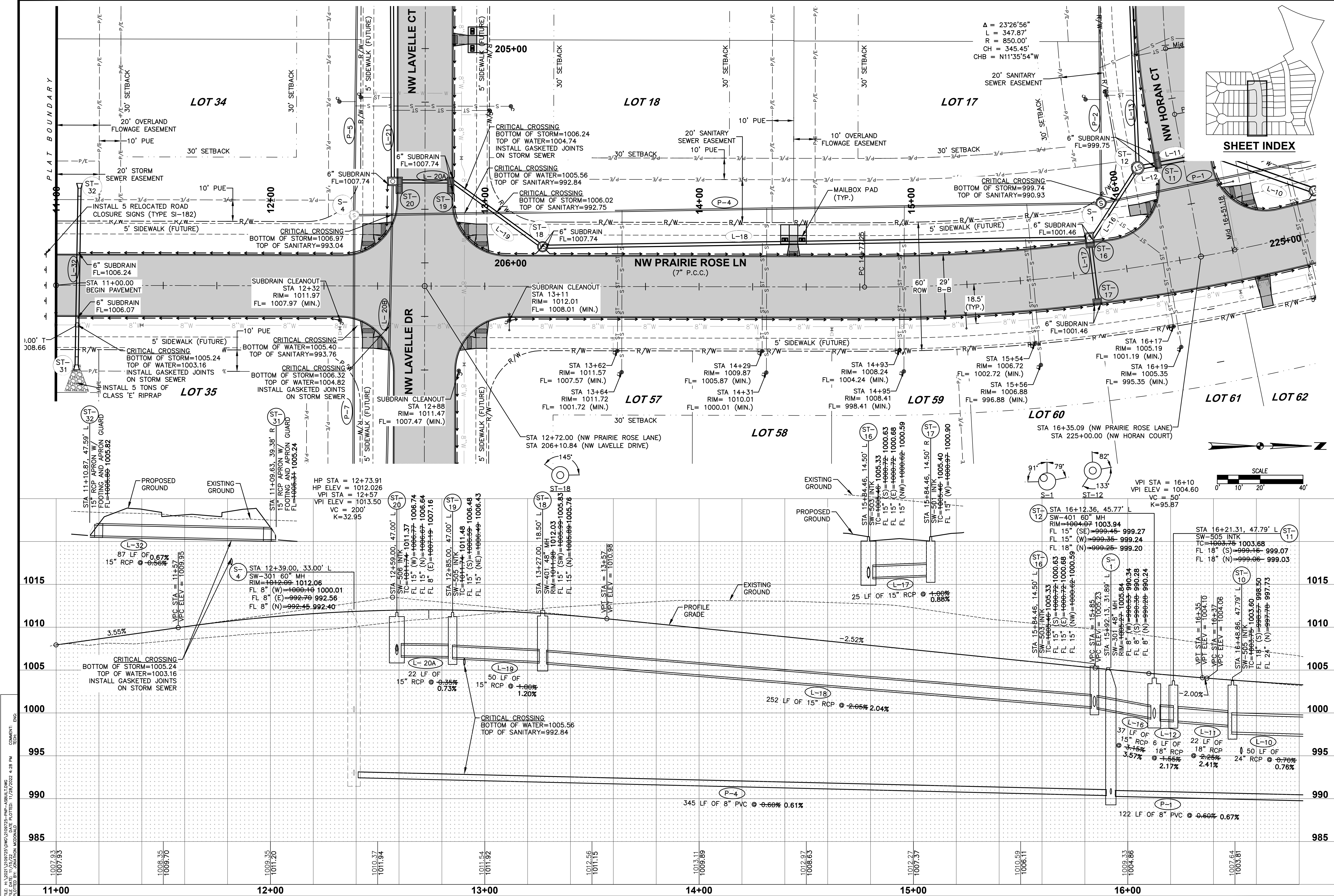
DATE	REVISIONS
11/28/2022	AS-BUILT SUBMITTAL
01/18/2023	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
11/16/2021	SECOND SUBMITTAL
10/26/2021	FIRST SUBMITTAL

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



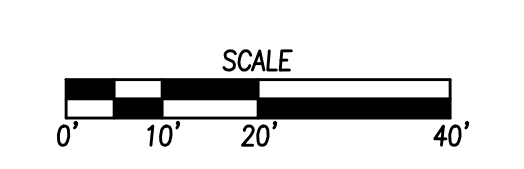
PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE

COMMENT: ENCS
 FILE: H:\2021\2109725\DWG\2109725-PWP-ASBUILT.DWG
 PLOTTED BY: ADVANTAGE MCDONALD
 PLOTTED DATE: 11/28/2022 4:28 PM



$\Delta = 23'26''56''$
 $L = 347.87'$
 $R = 850.00'$
 $CH = 345.45'$
 $CHB = N11'35'54''W$

SHEET INDEX



DATE	11/28/2022
AS-BUILT SUBMITTAL	01/18/2023
FINAL SUBMITTAL	12/30/2021
FOURTH SUBMITTAL	12/21/2021
THIRD SUBMITTAL	11/16/2021
FIRST SUBMITTAL	10/26/2021

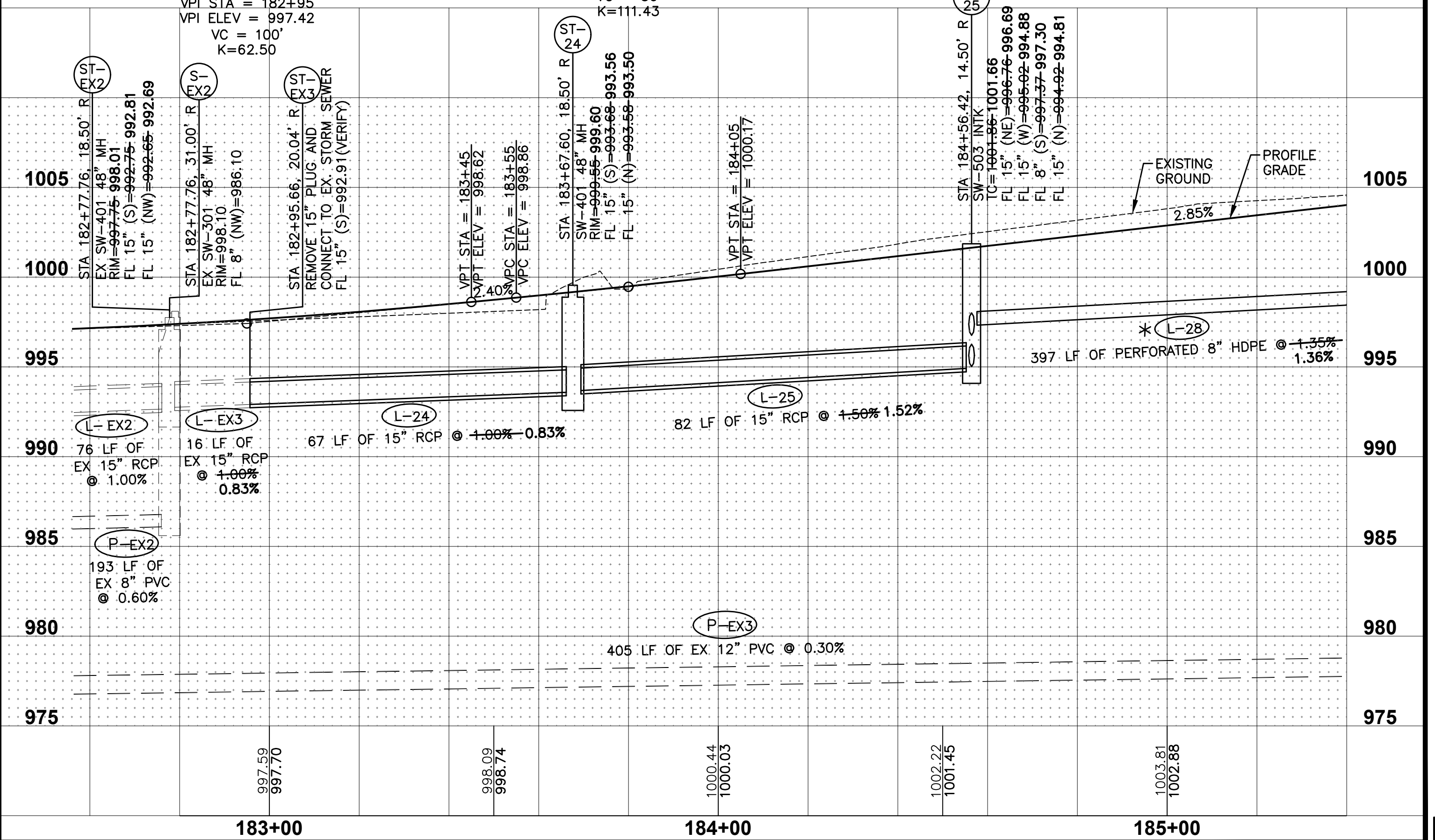
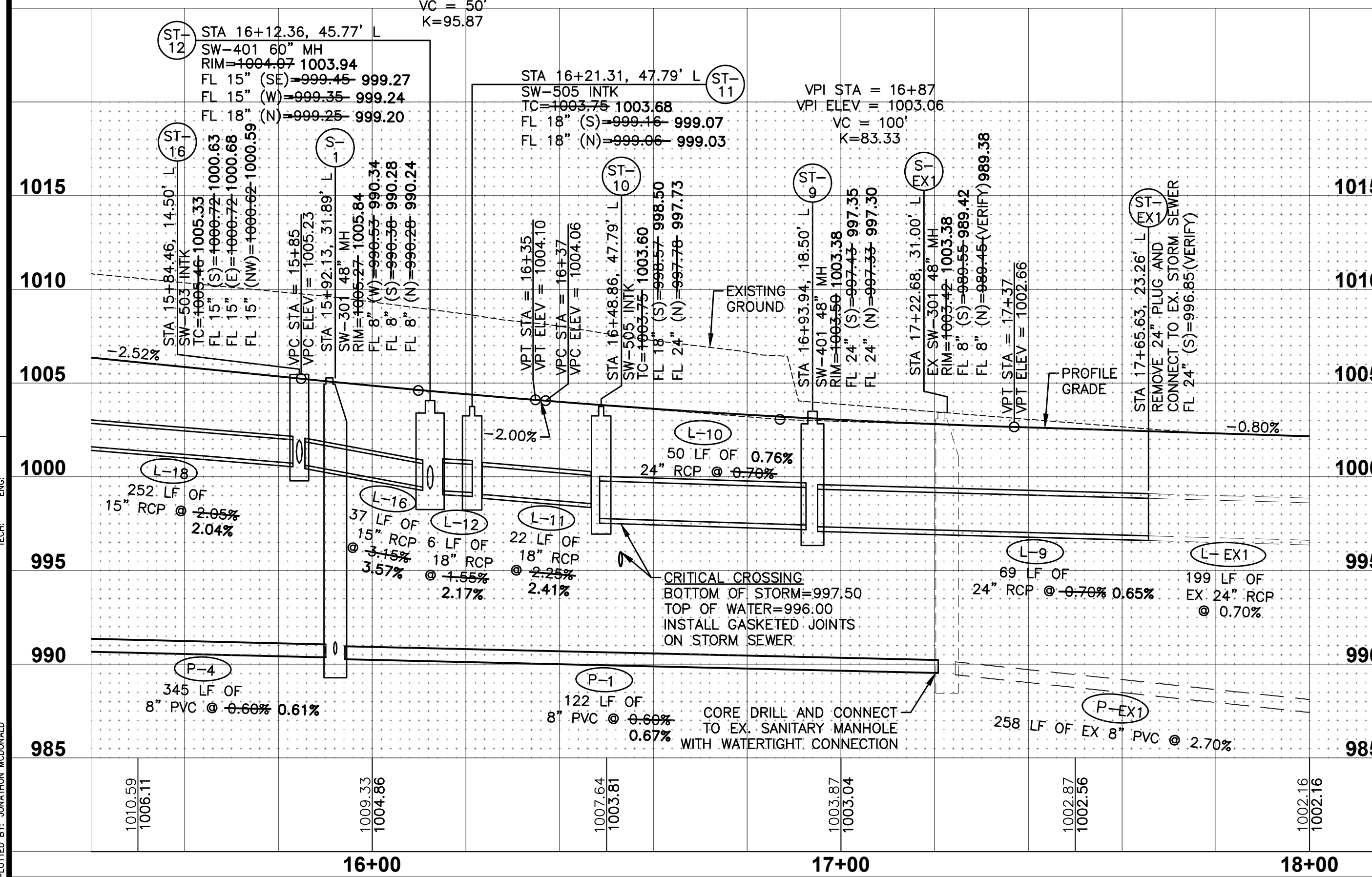
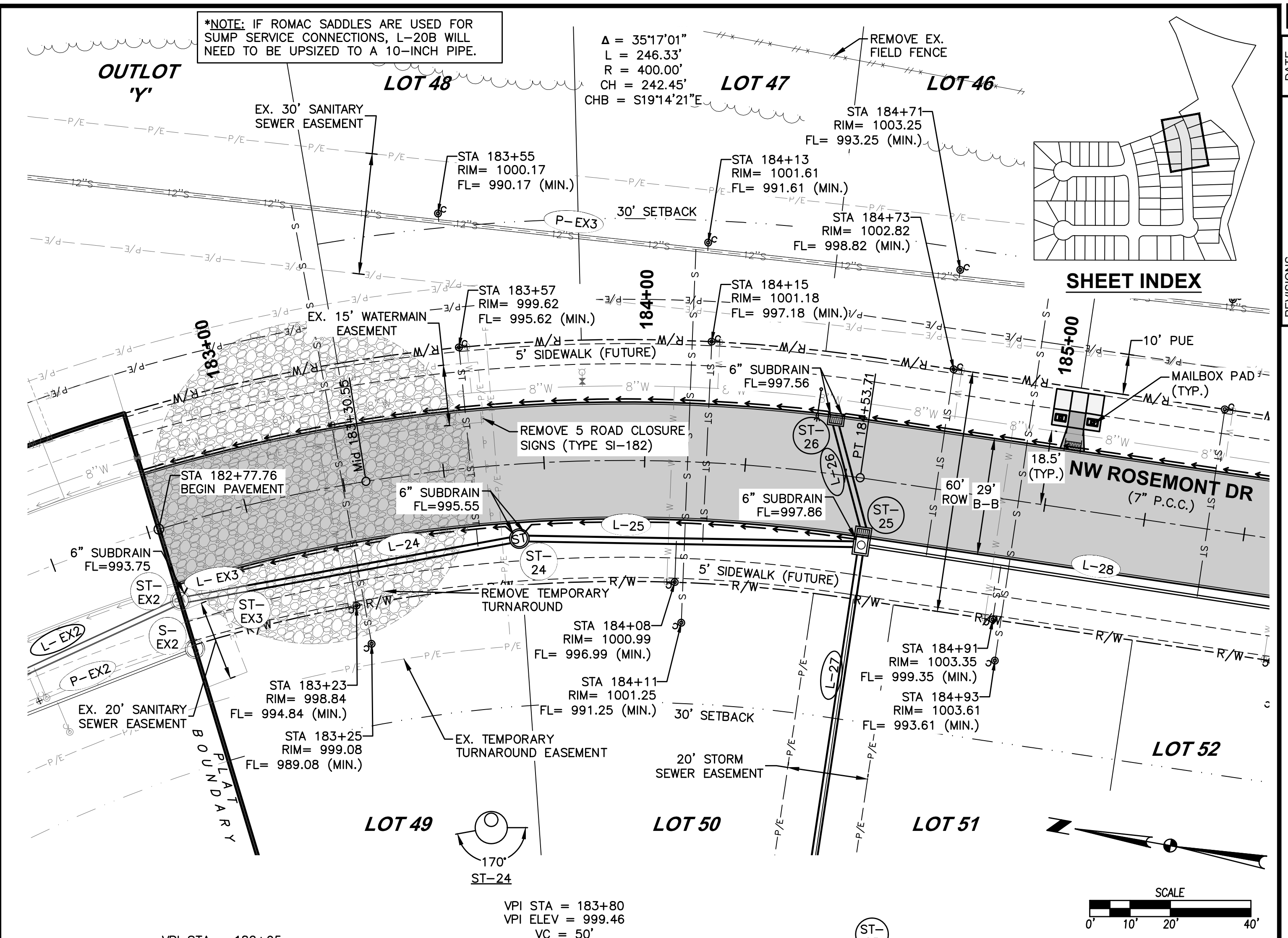
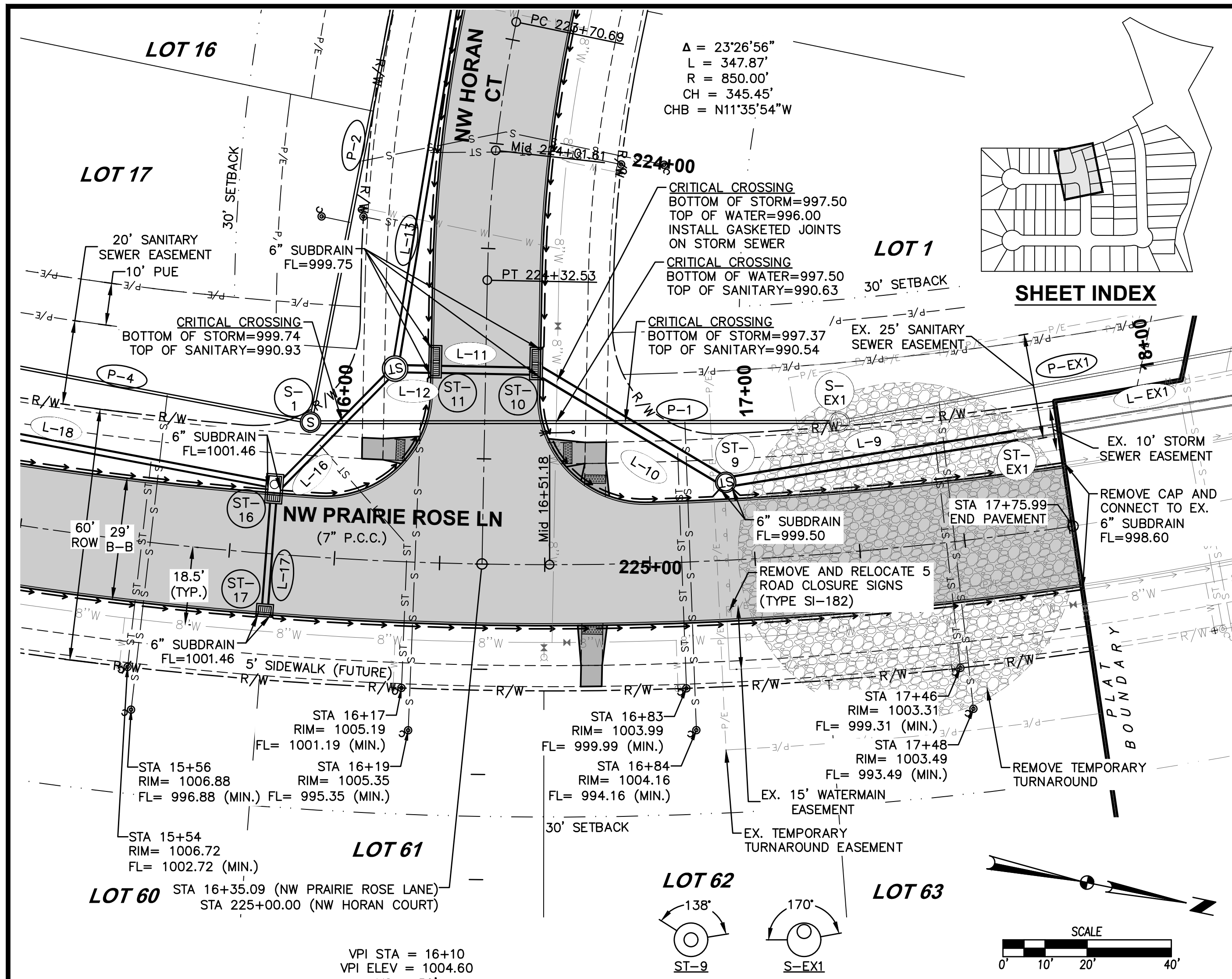
REVISIONS
 AS-BUILT SUBMITTAL
 FINAL SUBMITTAL
 FOURTH SUBMITTAL
 THIRD SUBMITTAL
 FIRST SUBMITTAL

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

EA
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE

13
 26
 2109.725



FILE: H:\2021\2109725\DWG\2109725-PROP-ASBUILT.DWG
 COMMENT: ENDS
 PLOTTED BY: ADVANTION MCDONALD
 PLOTTED DATE: 11/28/2022 4:29 PM

DATE: 11/28/2022
 AS-BUILT SUBMITTAL: 01/18/2023
 FINAL SUBMITTAL: 12/30/2021
 FOURTH SUBMITTAL: 12/21/2021
 THIRD SUBMITTAL: 11/16/2021
 FIRST SUBMITTAL: 10/26/2021

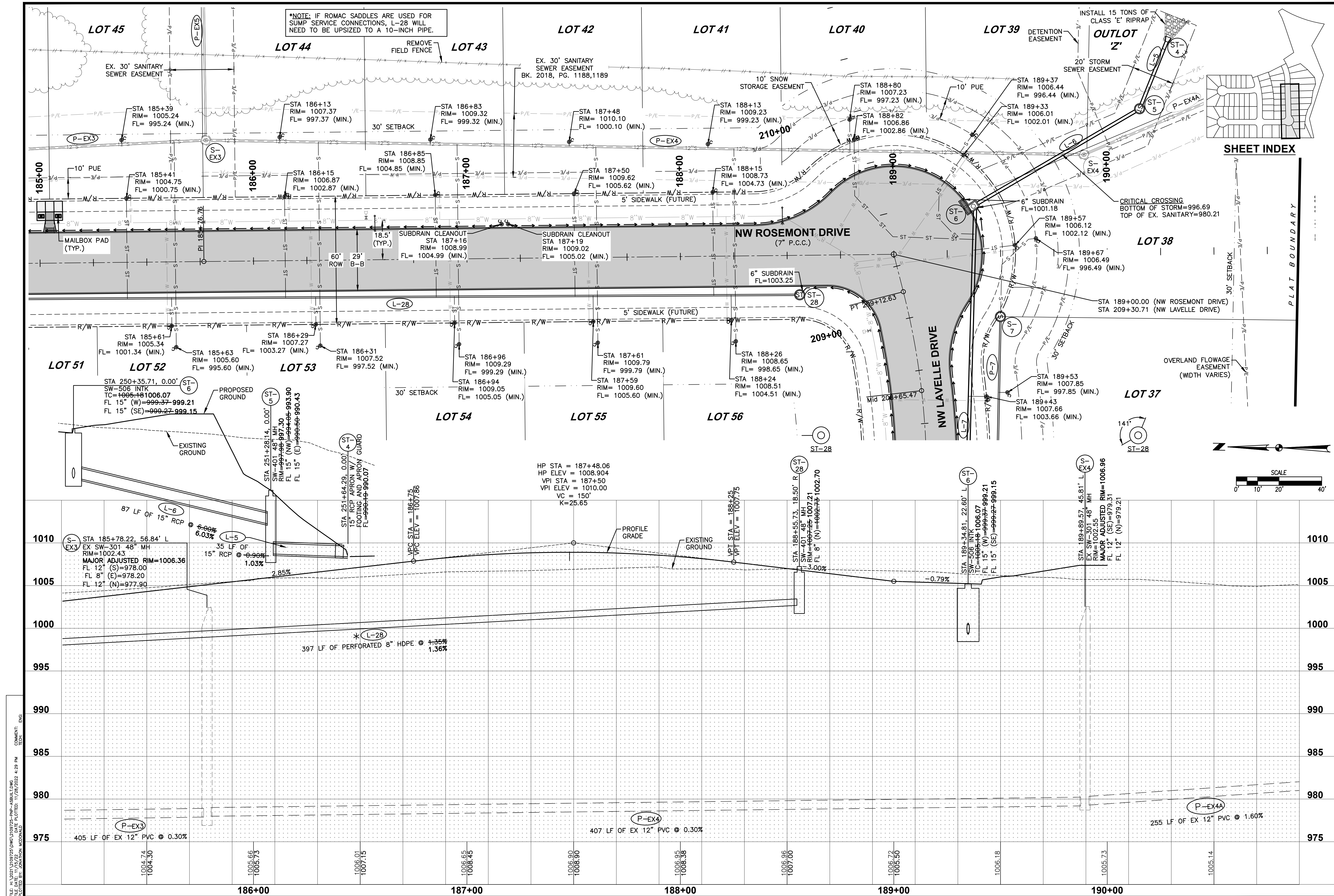
REVISIONS

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

ENGINEER: EKO
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE

14
 26
 2109.725



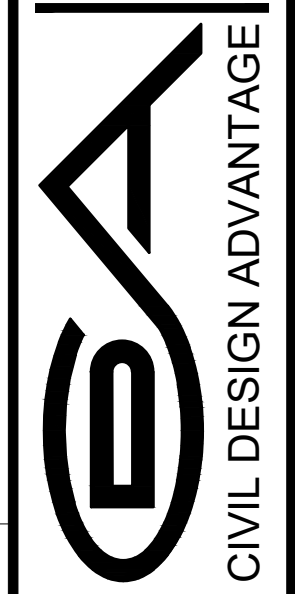
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 REVISION: ENR
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 PLOTTED ON: 11/28/2022 4:29 PM

*NOTE: IF ROMAC SADDLES ARE USED FOR
 SUMP SERVICE CONNECTIONS, L-28 WILL
 NEED TO BE UPSIZED TO A 10-INCH PIPE.

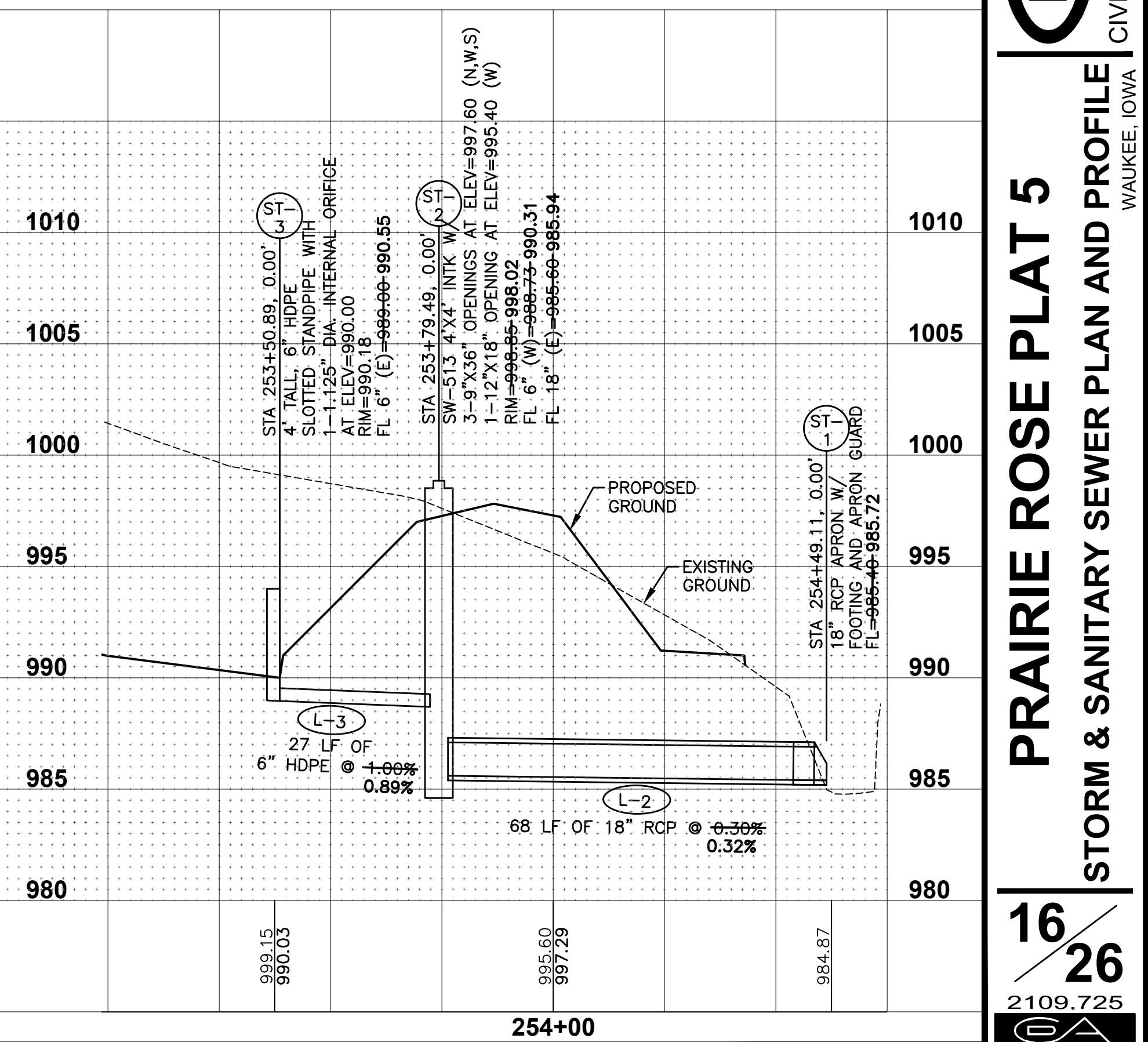
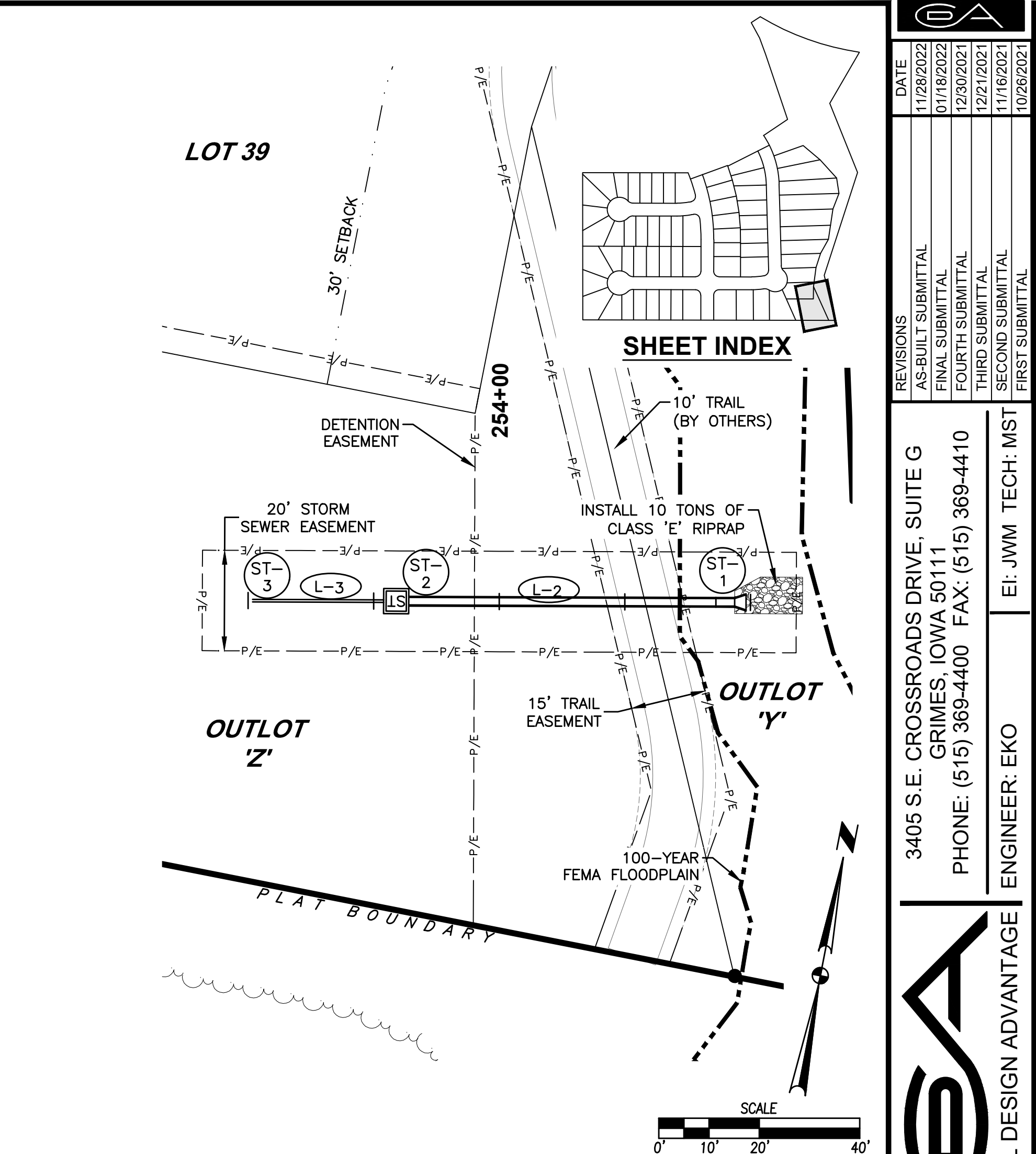
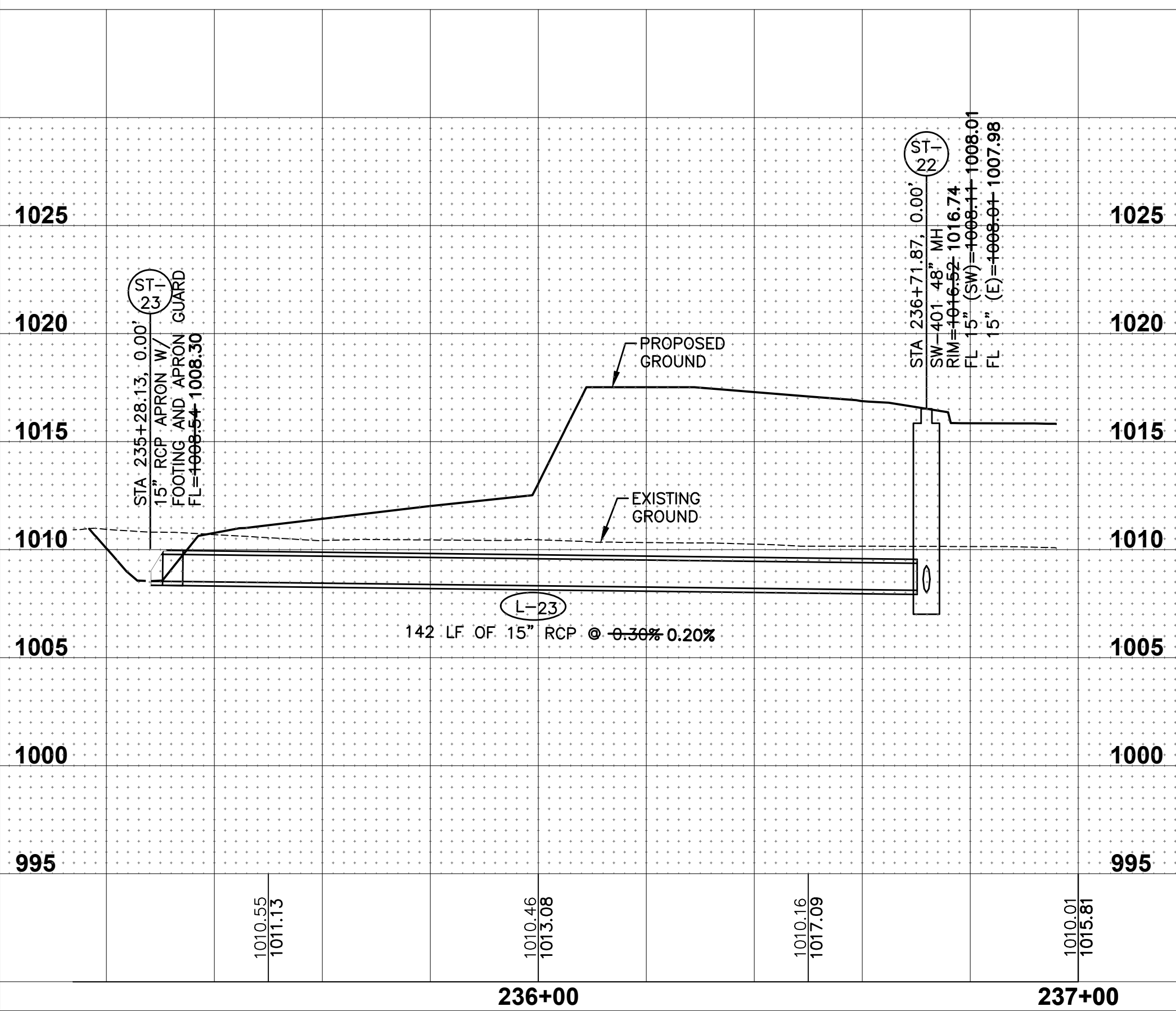
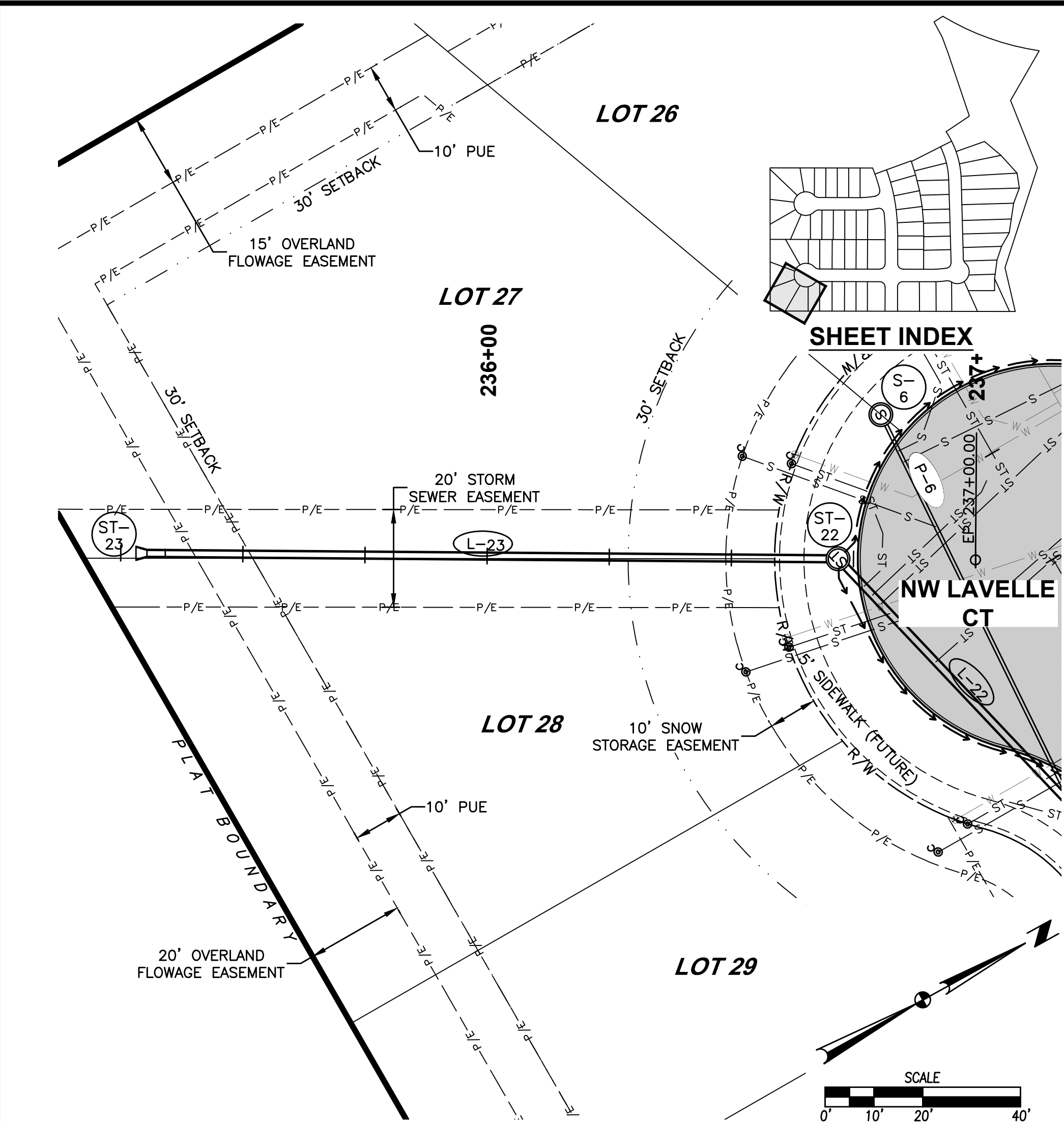
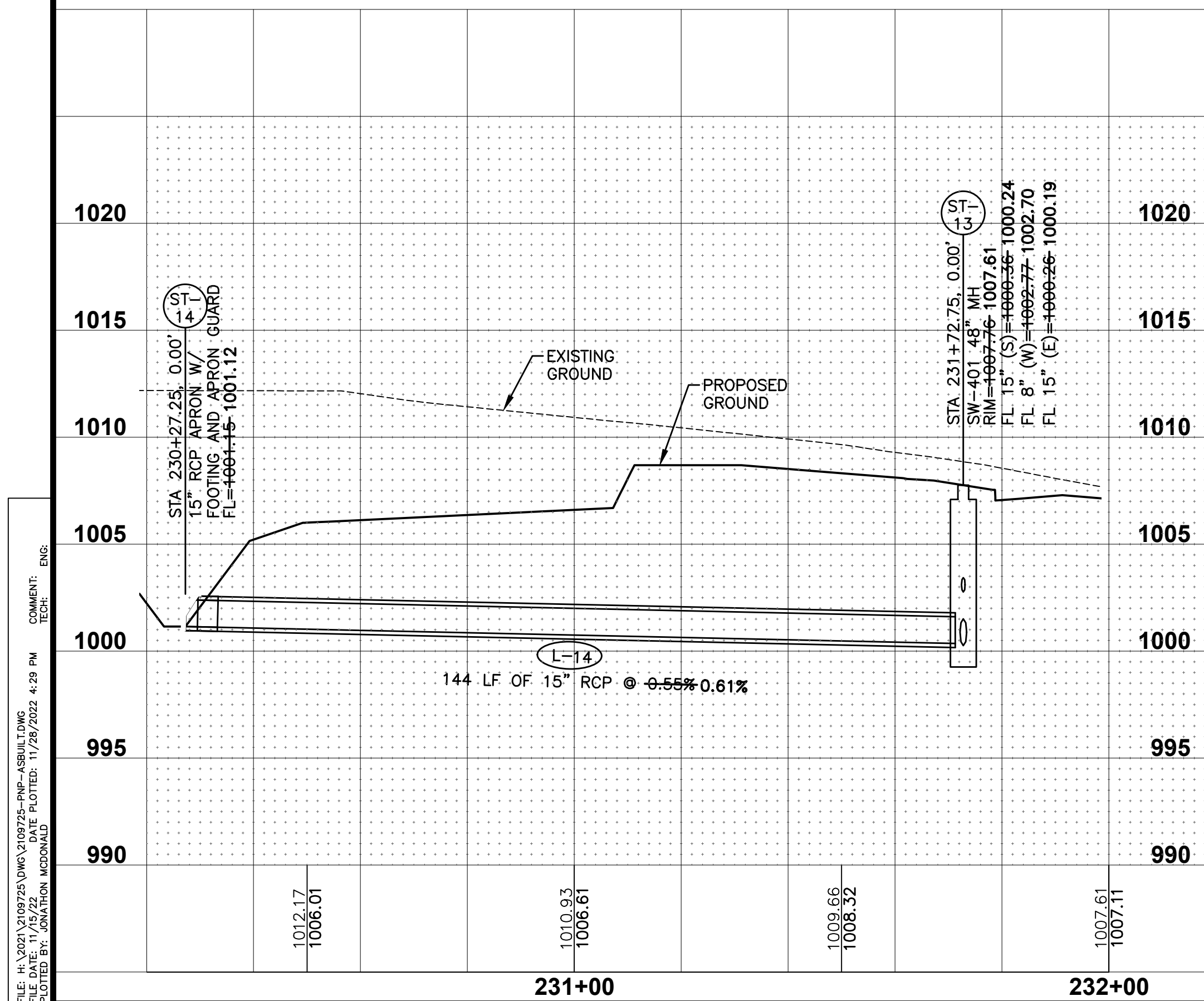
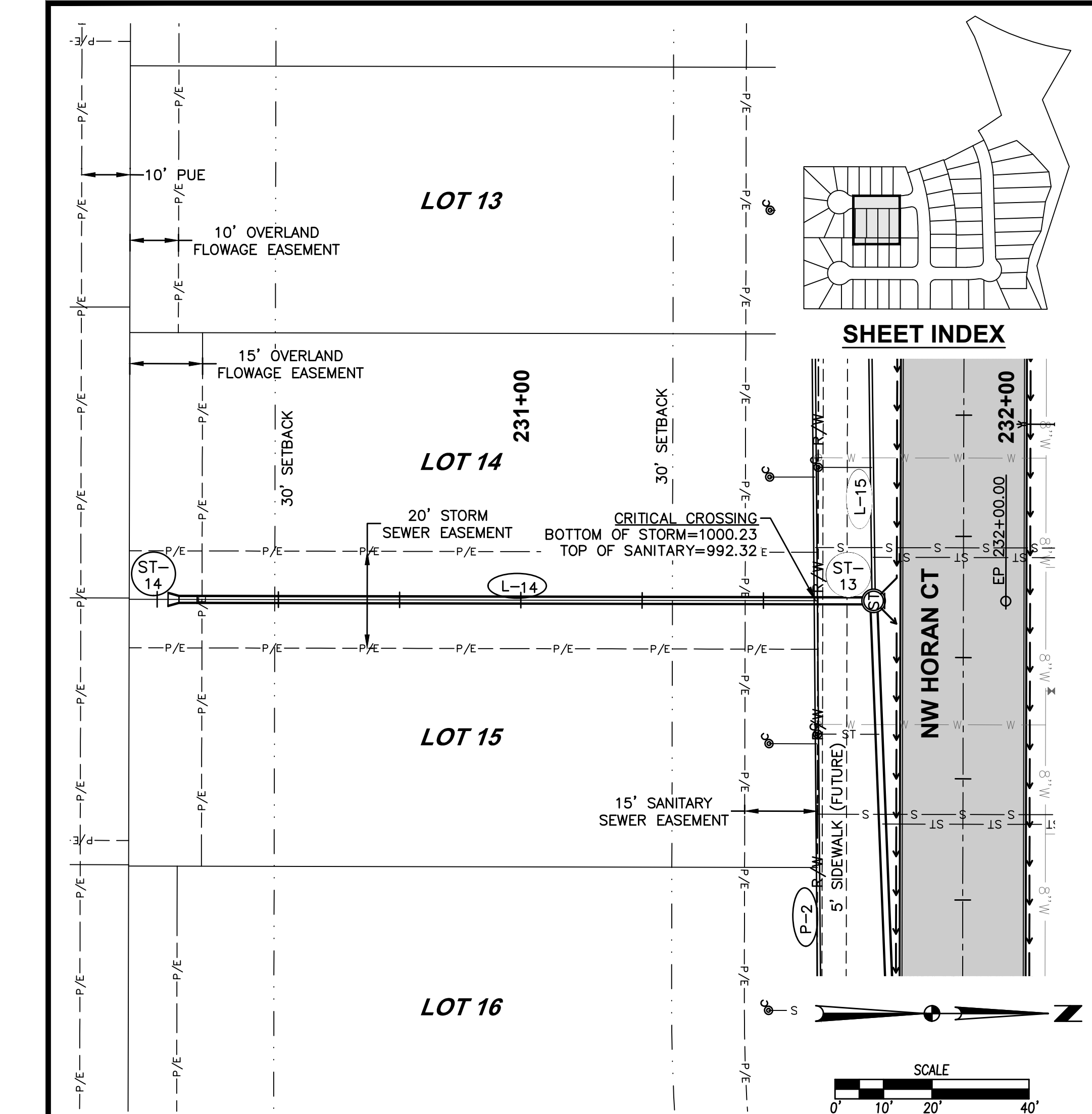
SHEET INDEX

DATE	REVISIONS
11/28/2022	AS-BUILT SUBMITTAL
01/18/2023	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
12/21/2021	SECOND SUBMITTAL
11/16/2021	FIRST SUBMITTAL

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



PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE



FILE: H:\2021\2109725\DWG\2109725-PFP-AS-BUILD.DWG
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 REVISION: ENR
 PLOTTED BY: ADVANTION MCDONALD
 PLOTTED DATE: 11/28/2022 4:29 PM

DATE	11/28/2022
AS-BUILT SUBMITTAL	01/18/2023
FINAL SUBMITTAL	12/30/2021
FOURTH SUBMITTAL	12/21/2021
THIRD SUBMITTAL	11/16/2021
SECOND SUBMITTAL	10/26/2021
FIRST SUBMITTAL	

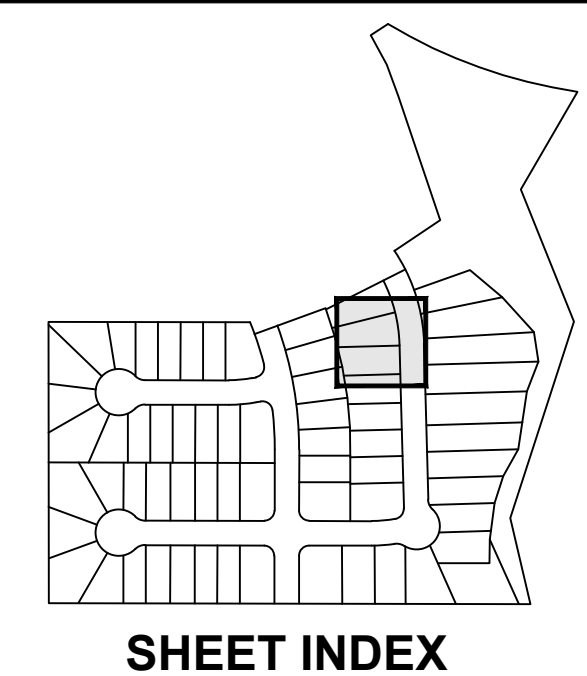
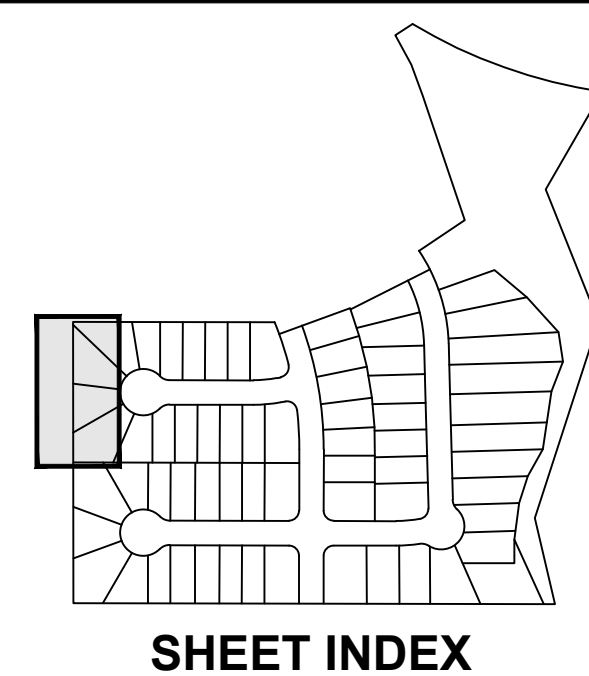
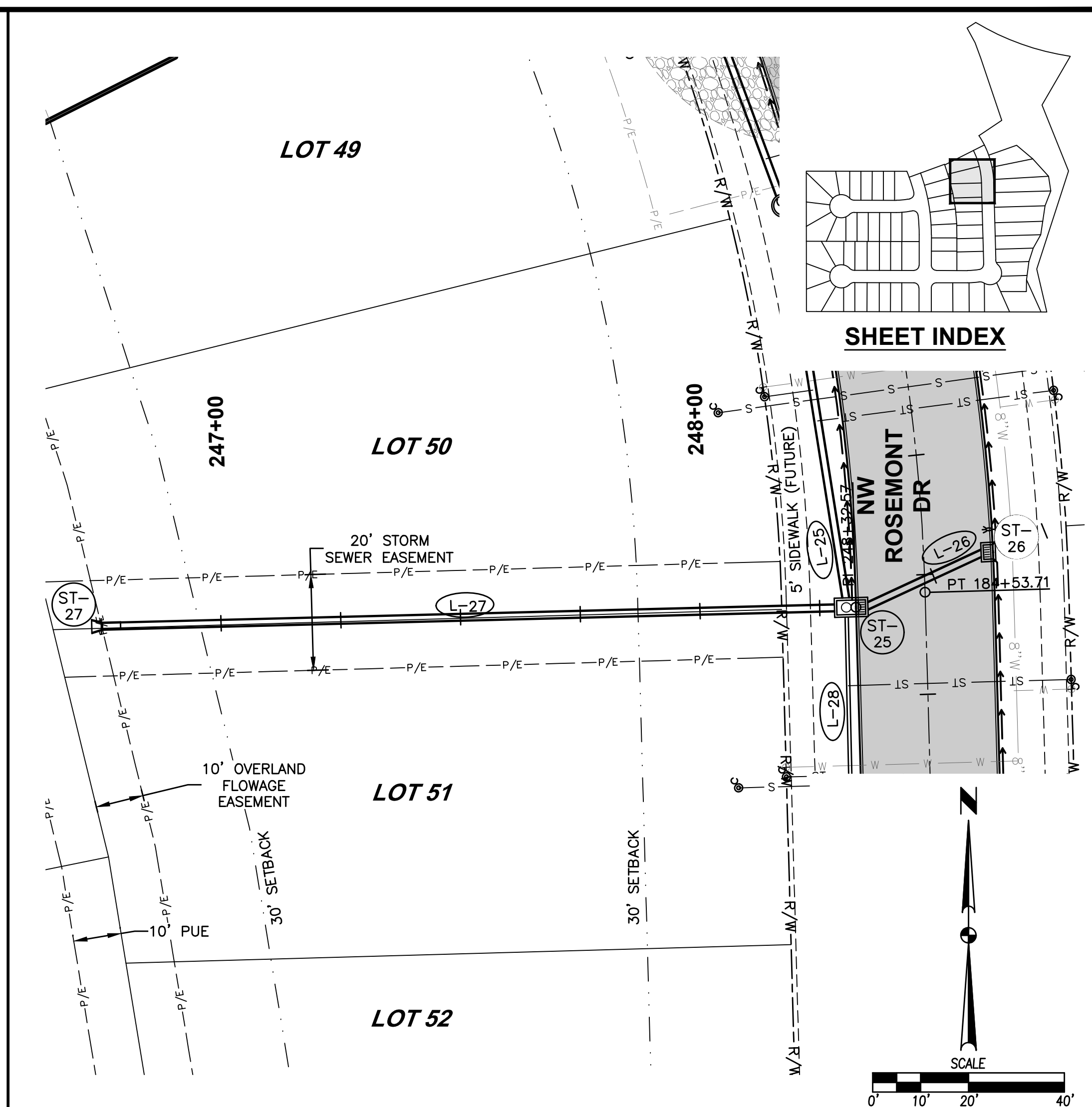
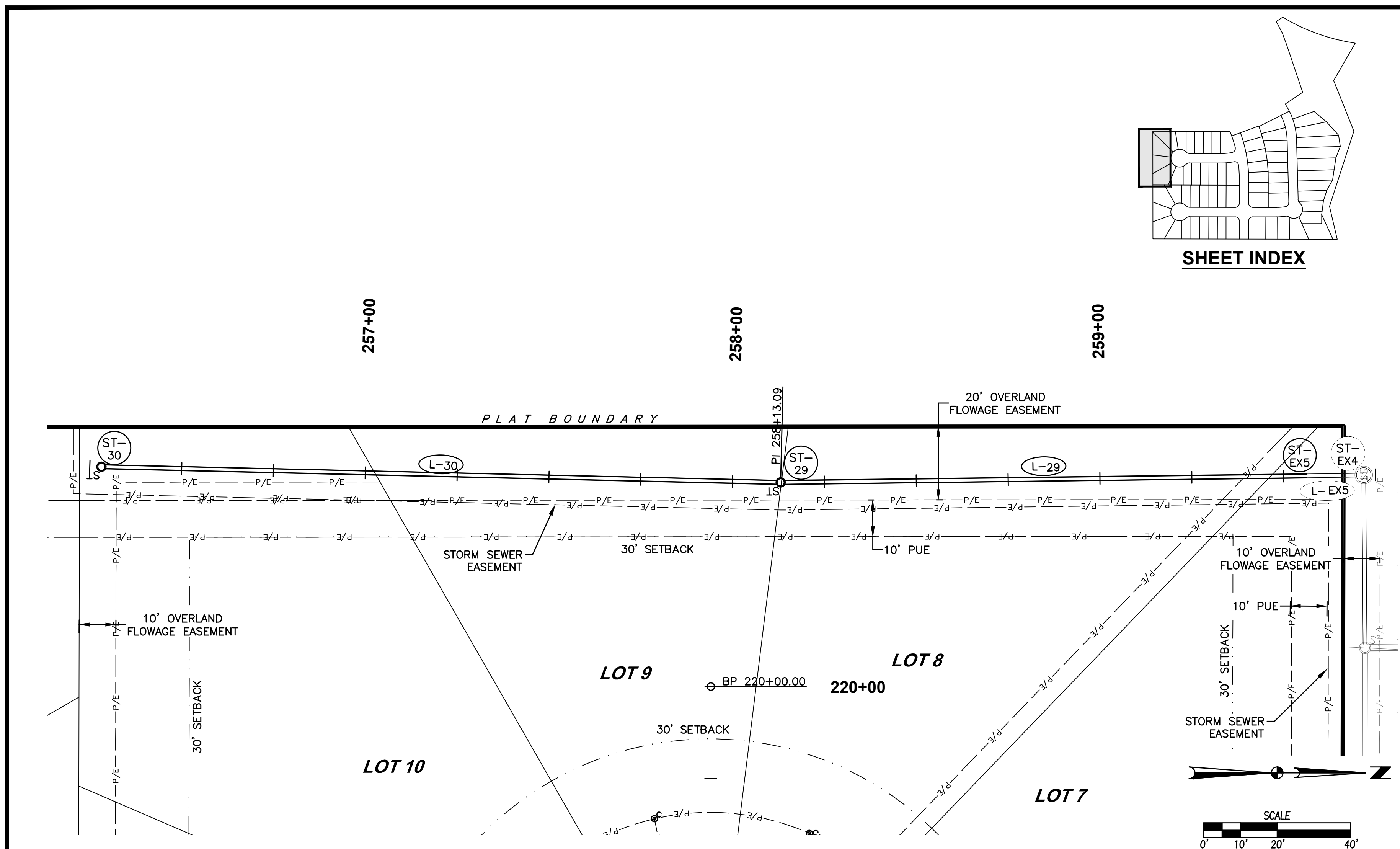
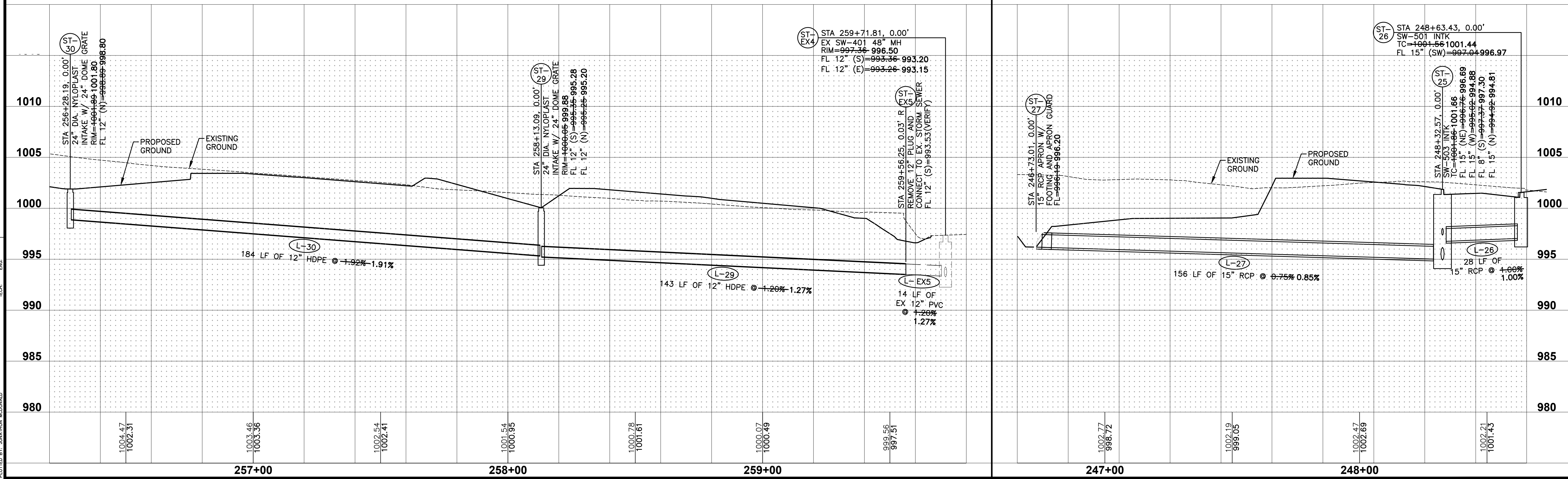
REVISIONS
 3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO
 EI: JWM TECH: MST

SA
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE

16
 26
 2109.725

FILE: H:\2021\2109725\DWG\2109725-PNP-ASBUILT.DWG COMMENT: ENR: PLOTTED BY: ADVANTION MCDONALD DATE: 11/28/2022 4:30 PM



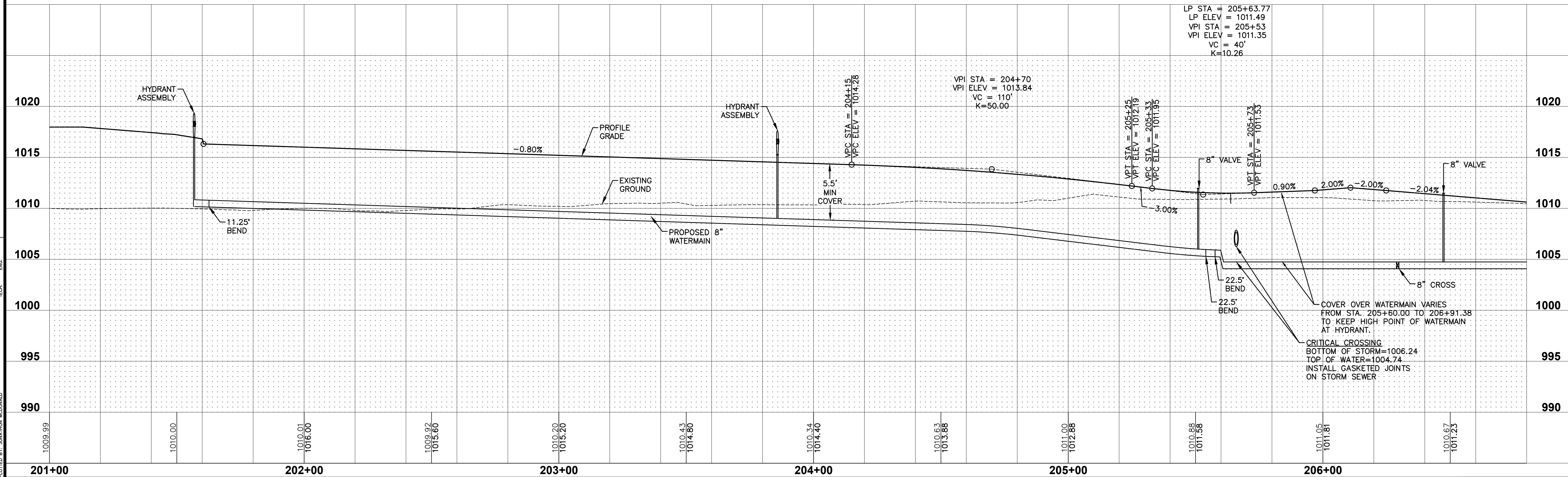
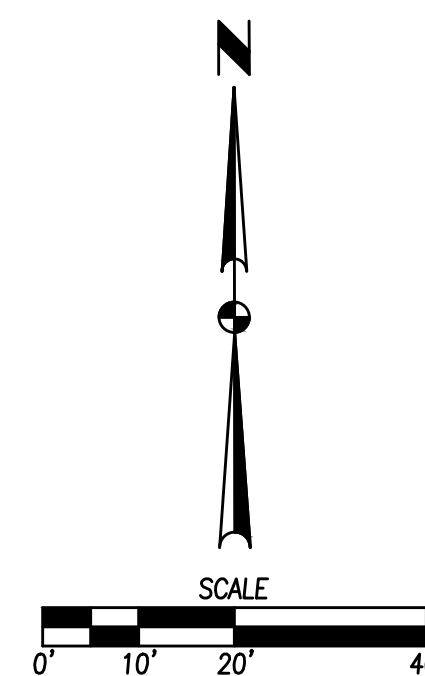
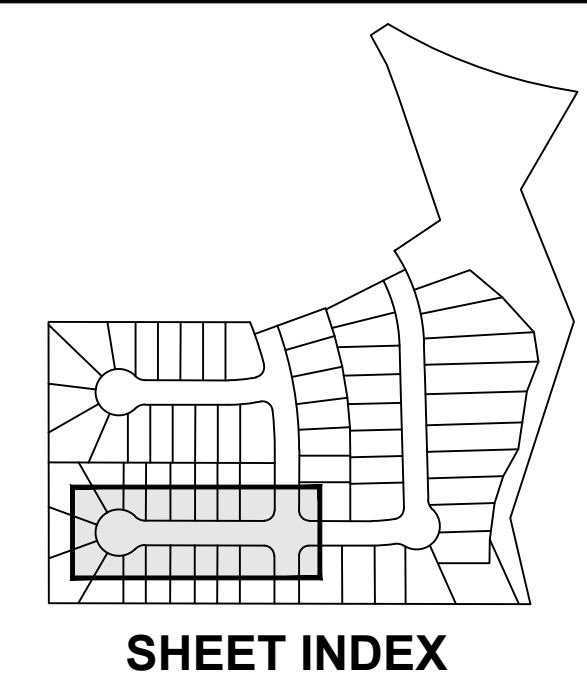
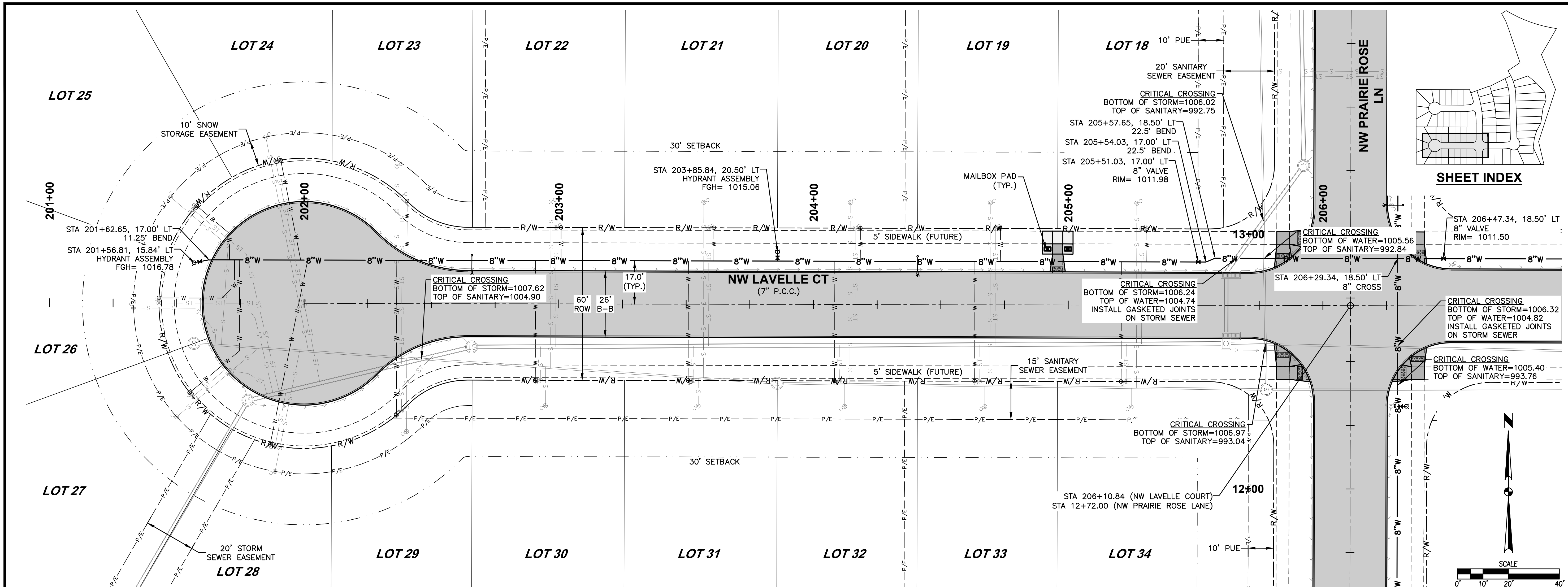
SA
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
STORM & SANITARY SEWER PLAN AND PROFILE

DATE: 11/28/2022
AS-BUILT SUBMITTAL: 01/18/2023
FINAL SUBMITTAL: 12/30/2021
FOURTH SUBMITTAL: 12/21/2021
THIRD SUBMITTAL: 11/16/2021
SECOND SUBMITTAL: 10/26/2021

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

17/26
2109.725



FILE: H:\2021\2109725\DWG\2109725-PWP-WATERMAIN-ASBUILT.DWG
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 PLOTTED ON: 11/28/2022 4:30 PM

DATE	11/28/2022
AS-BUILT SUBMITTAL	01/18/2023
FINAL SUBMITTAL	12/30/2021
FOURTH SUBMITTAL	12/21/2021
THIRD SUBMITTAL	11/16/2021
SECOND SUBMITTAL	11/16/2021
FIRST SUBMITTAL	10/26/2021

REVISIONS
 AS-BUILT SUBMITTAL
 FINAL SUBMITTAL
 FOURTH SUBMITTAL
 THIRD SUBMITTAL
 SECOND SUBMITTAL
 FIRST SUBMITTAL

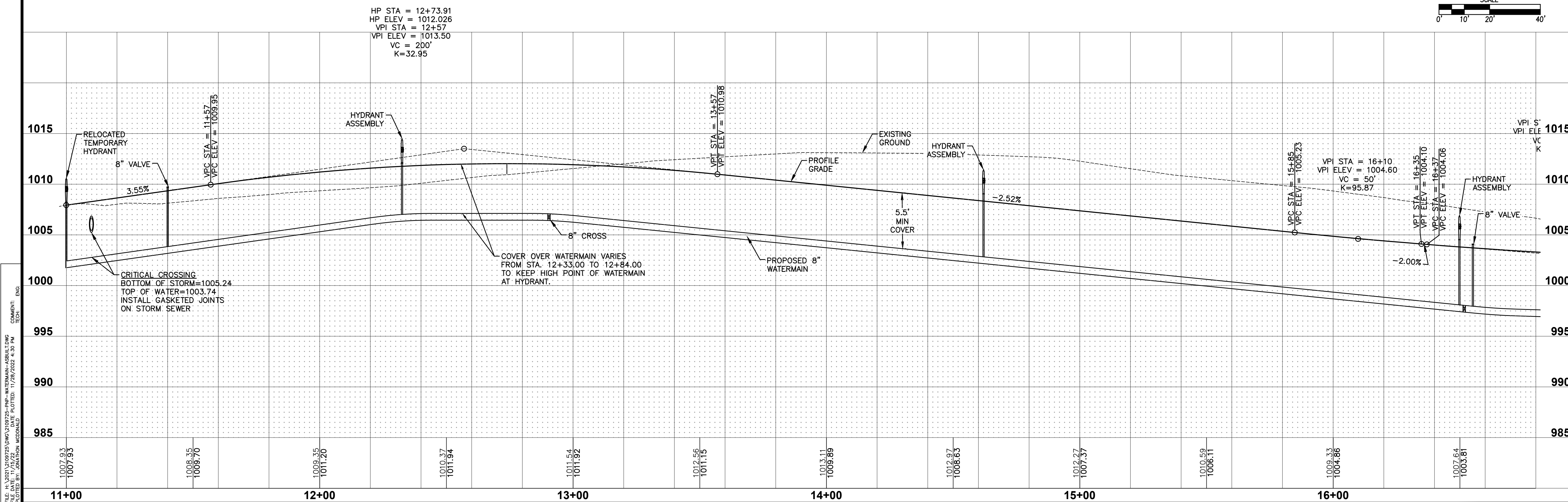
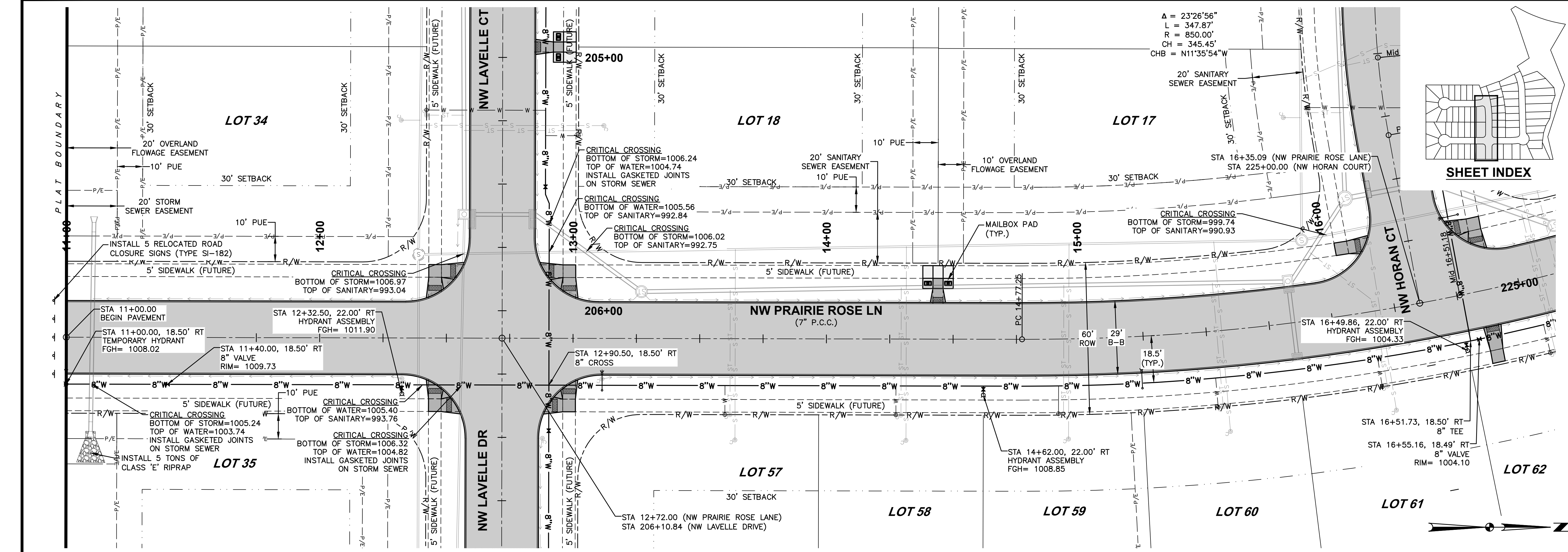
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

EA
 CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

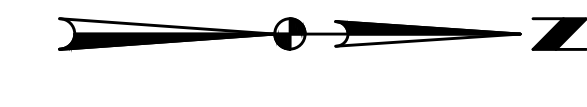
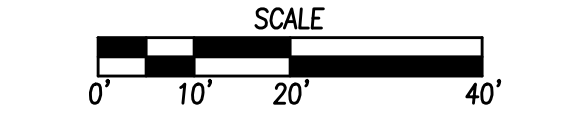
ENGINEER: EKO
TECH: MST

PRAIRIE ROSE PLAT 5
WATERMAIN PLAN AND PROFILE

19
26
 2109.725

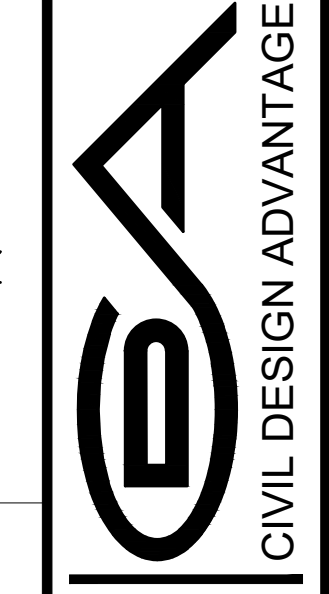


COMMENT: ENSURE ALL CONDUITS ARE PROTECTED BY AN APPROVED METHOD.
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 DRAWN BY: JAWM



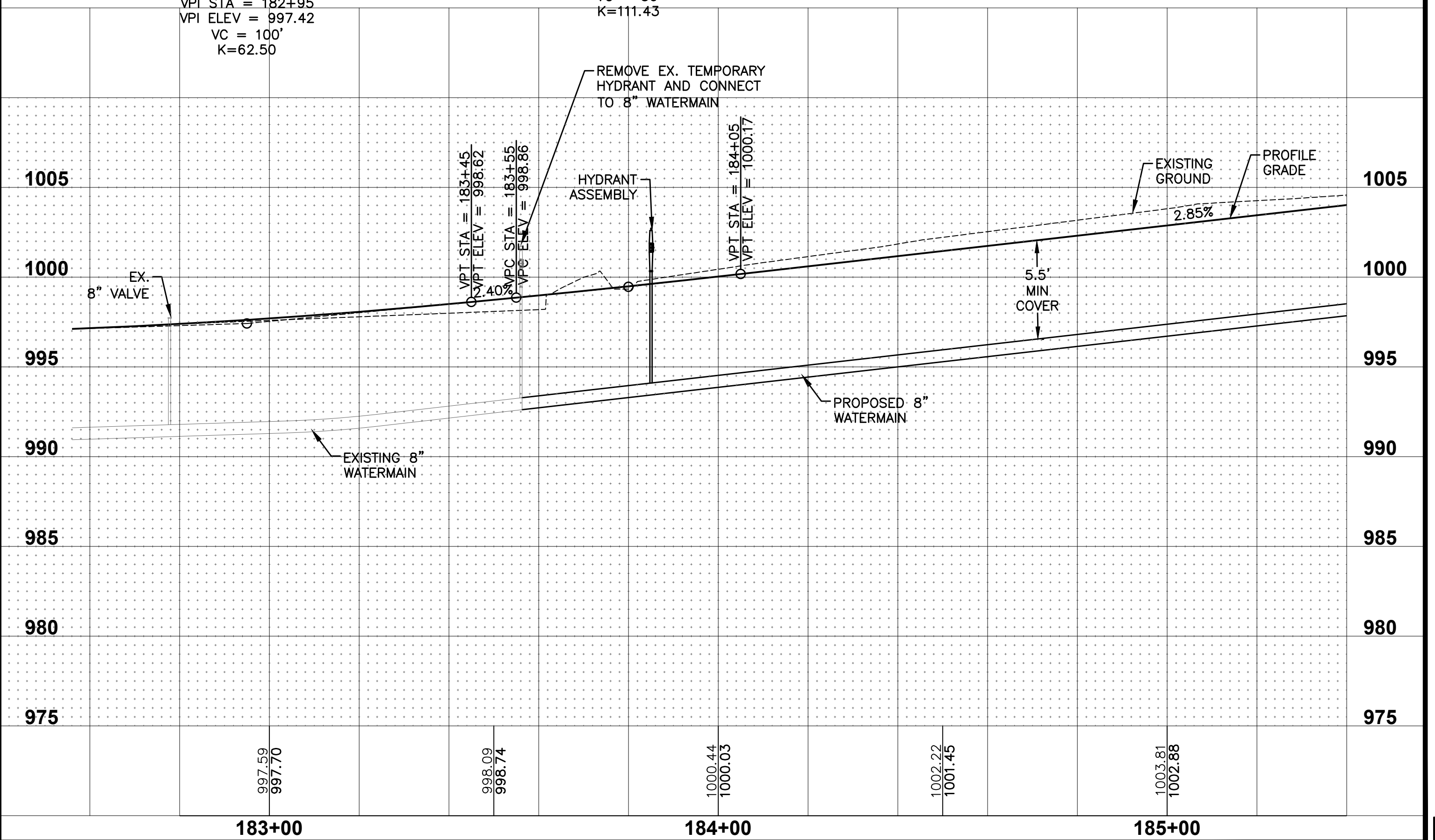
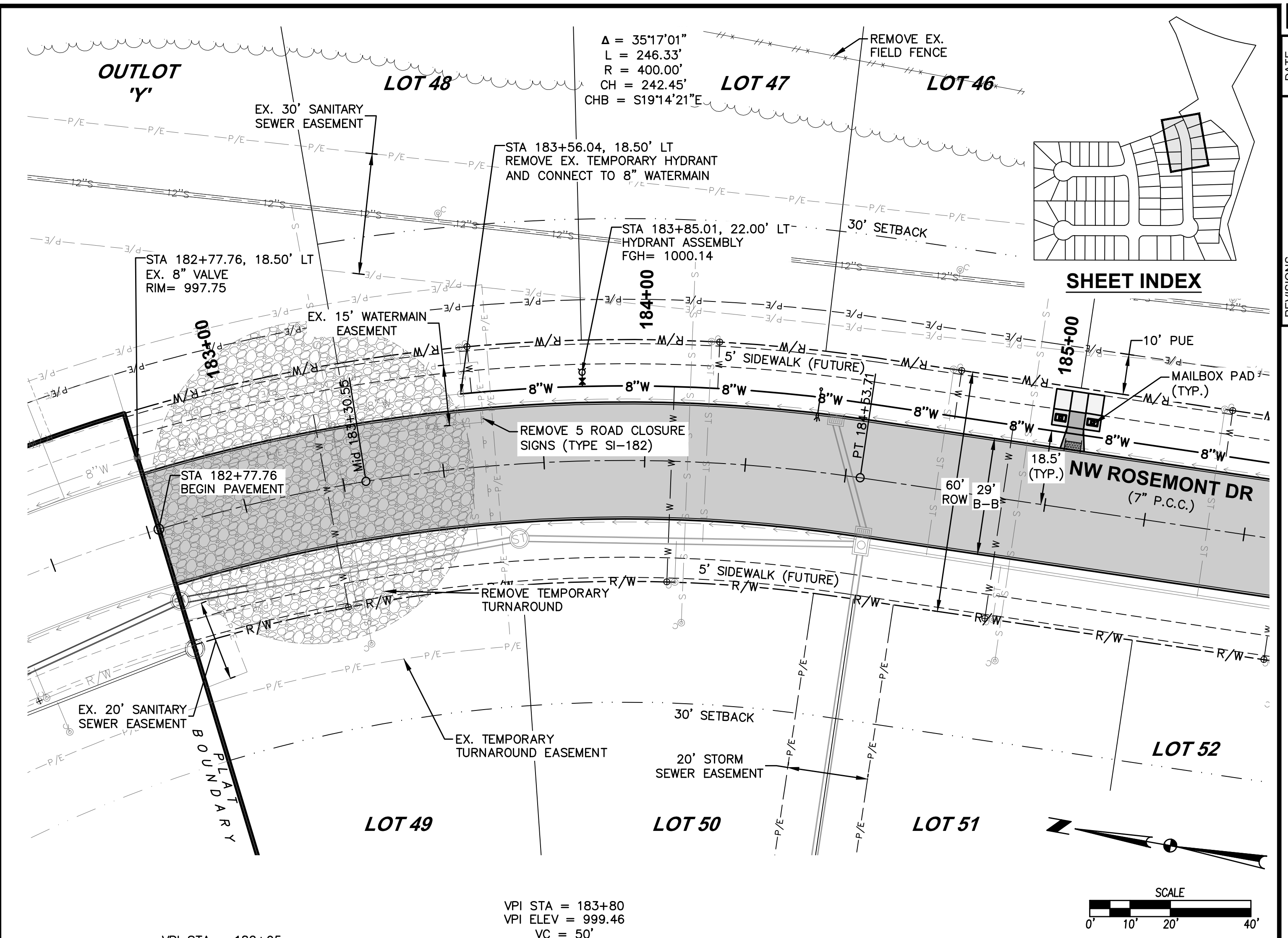
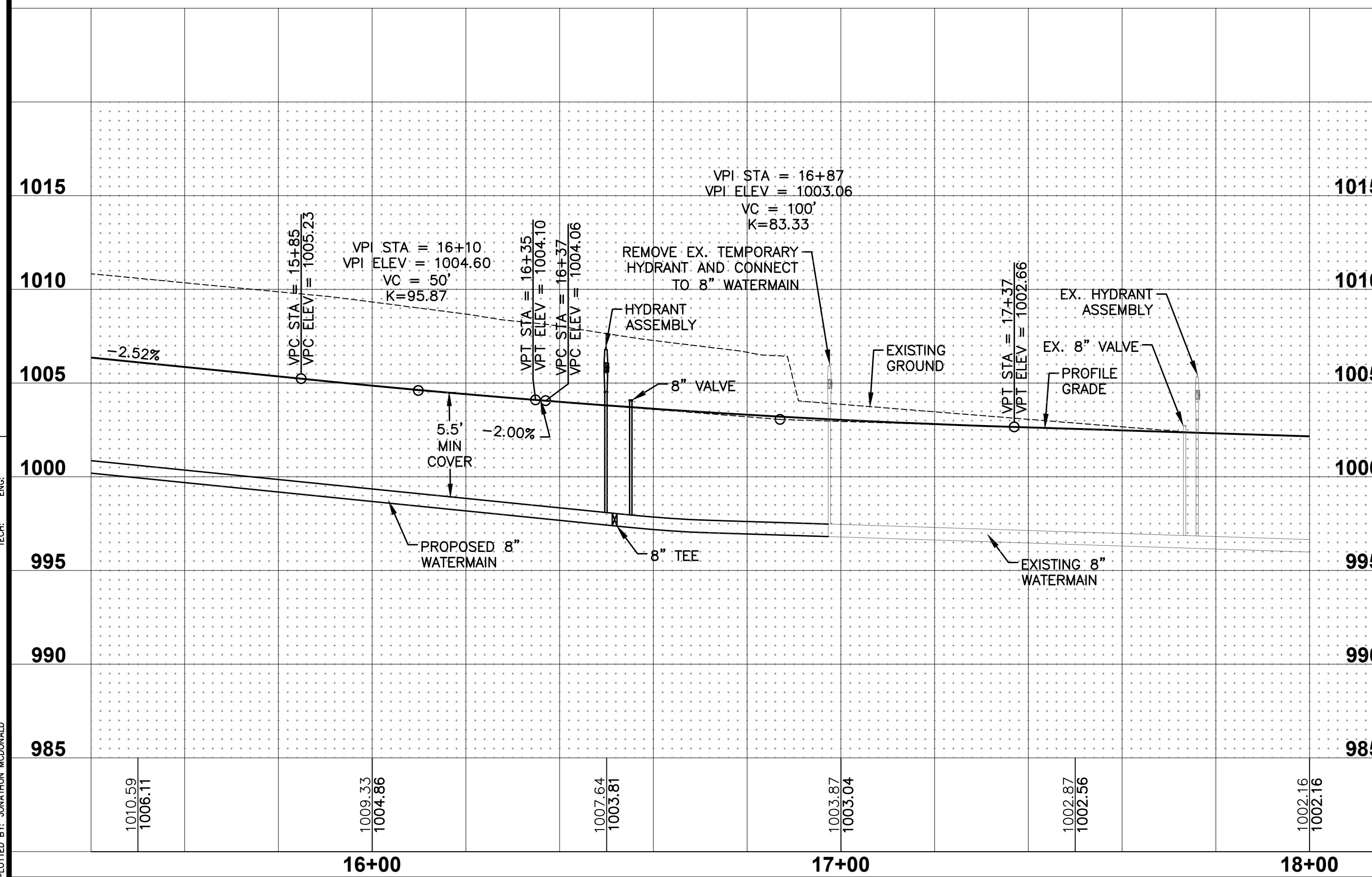
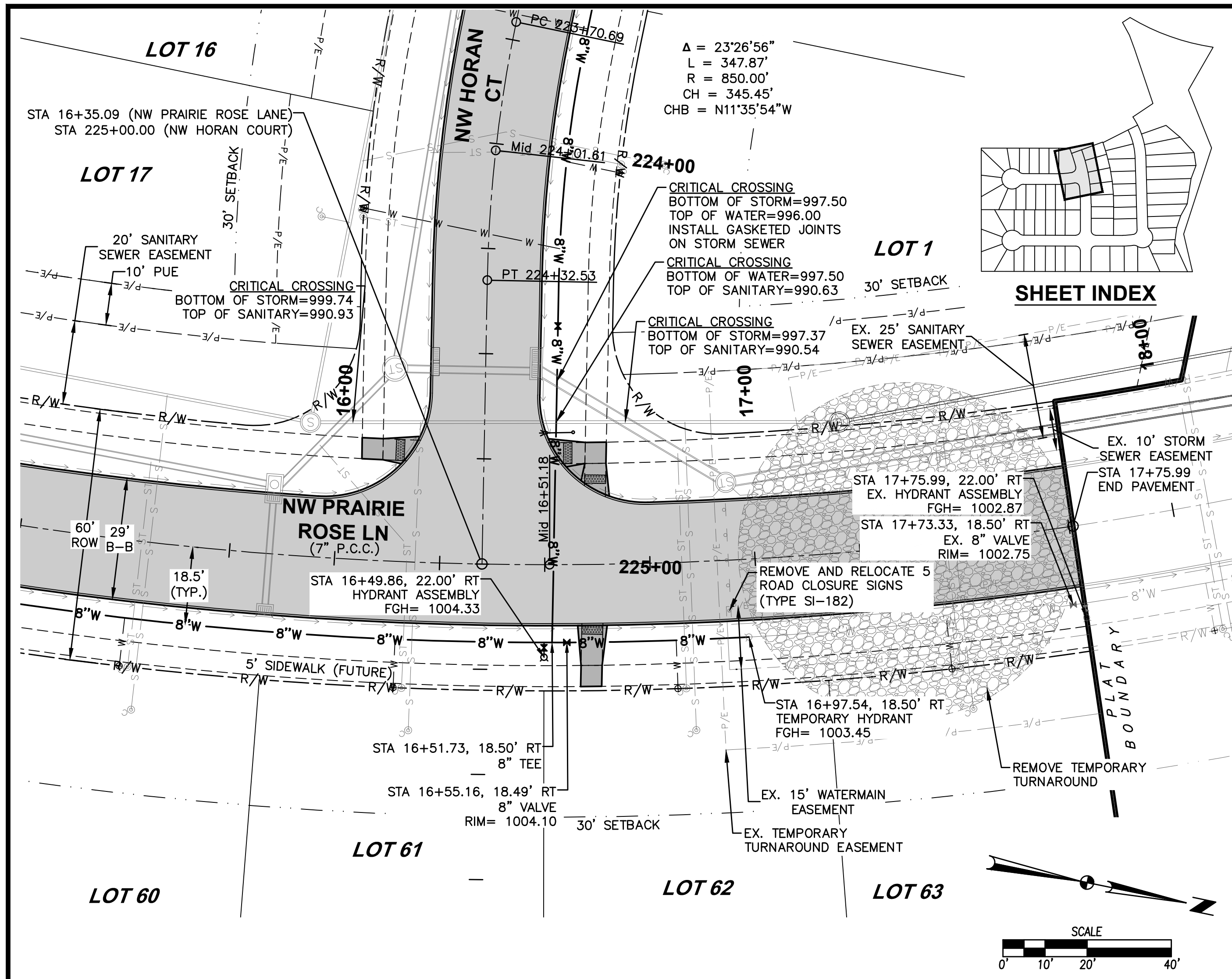
DATE	REVISIONS
11/28/2022	AS-BUILT SUBMITTAL
01/18/2023	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
11/16/2021	SECOND SUBMITTAL
10/26/2021	FIRST SUBMITTAL

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



CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5 WATERMAIN PLAN AND PROFILE

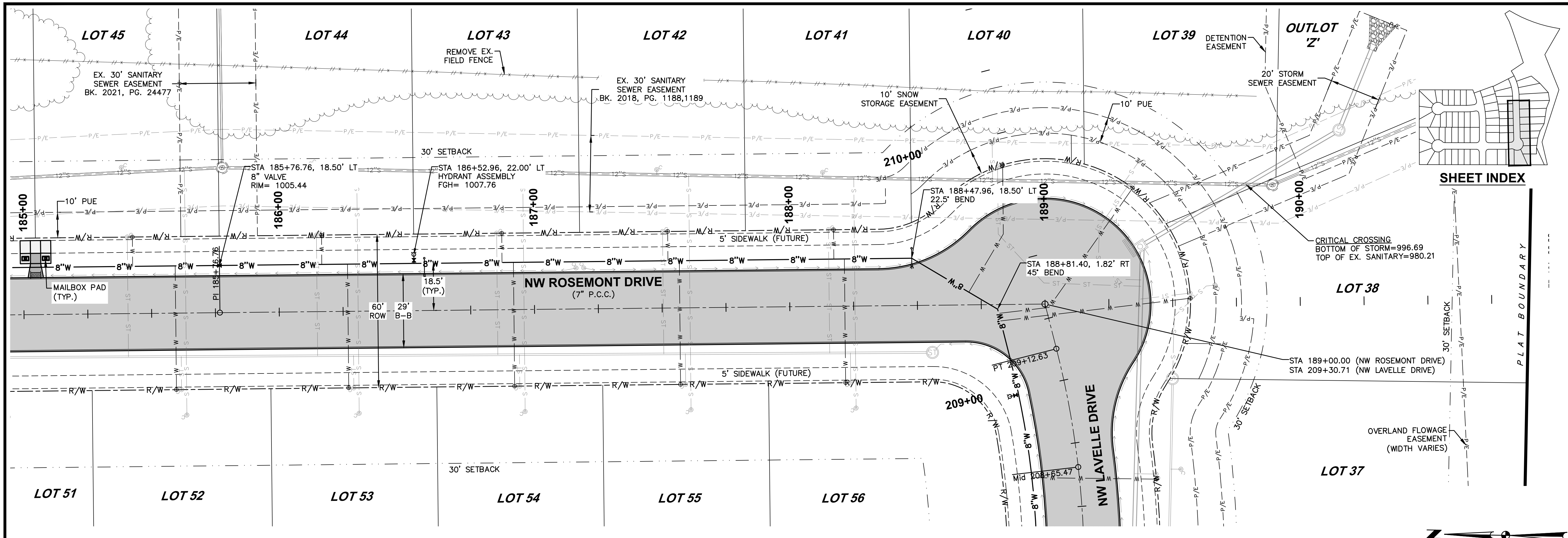


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 DESIGNED BY: ADVANTION MCDONALD

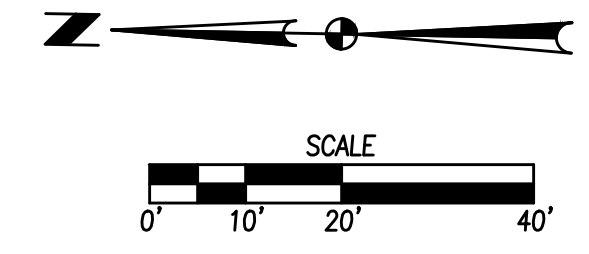
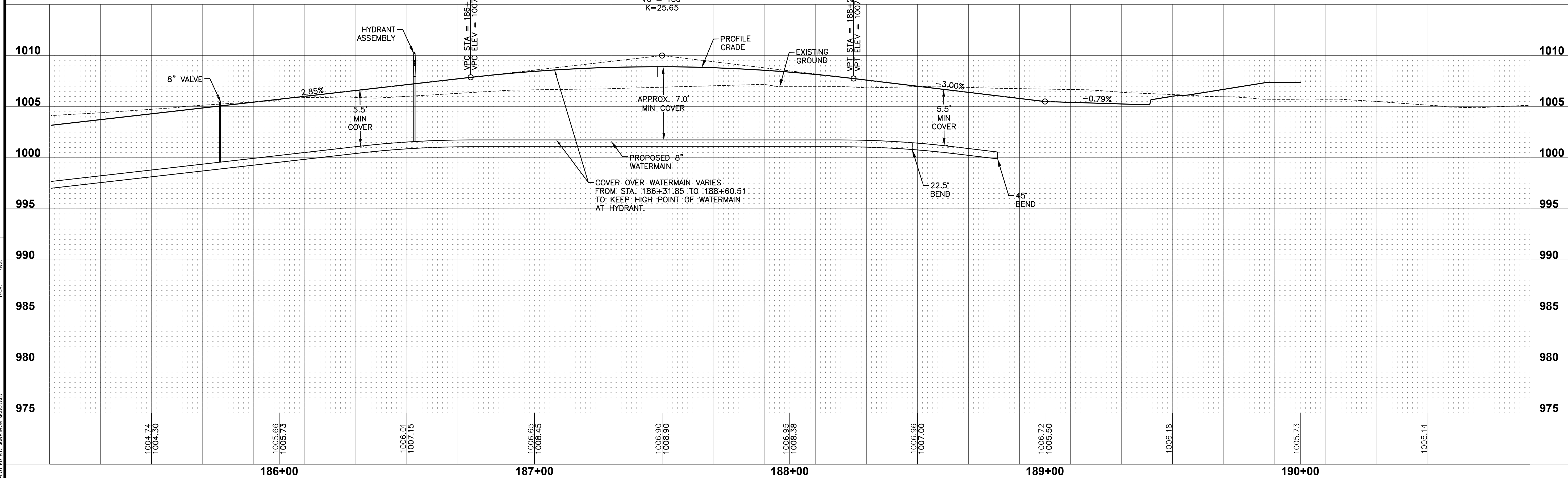
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AS-BUILT SUBMITTAL	01/18/2023
FINAL SUBMITTAL	12/30/2021
FOURTH SUBMITTAL	12/21/2021
THIRD SUBMITTAL	11/16/2021
SECOND SUBMITTAL	10/26/2021
FIRST SUBMITTAL	

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

22
26
 2109.725

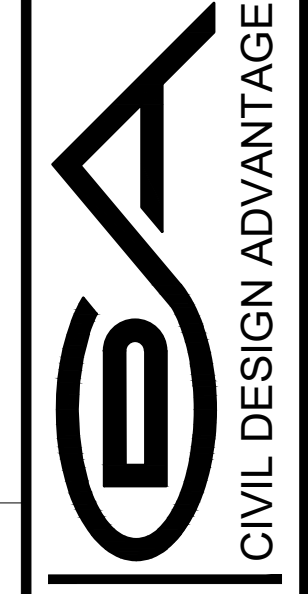


HP STA = 187+48.06
 HP ELEV = 1008.904
 VPI STA = 187+50
 VPI ELEV = 1010.00
 VC = 150'
 K=25.65



DATE	REVISIONS
11/28/2021	AS-BUILT SUBMITTAL
01/18/2022	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
11/16/2021	SECOND SUBMITTAL
10/26/2021	FIRST SUBMITTAL

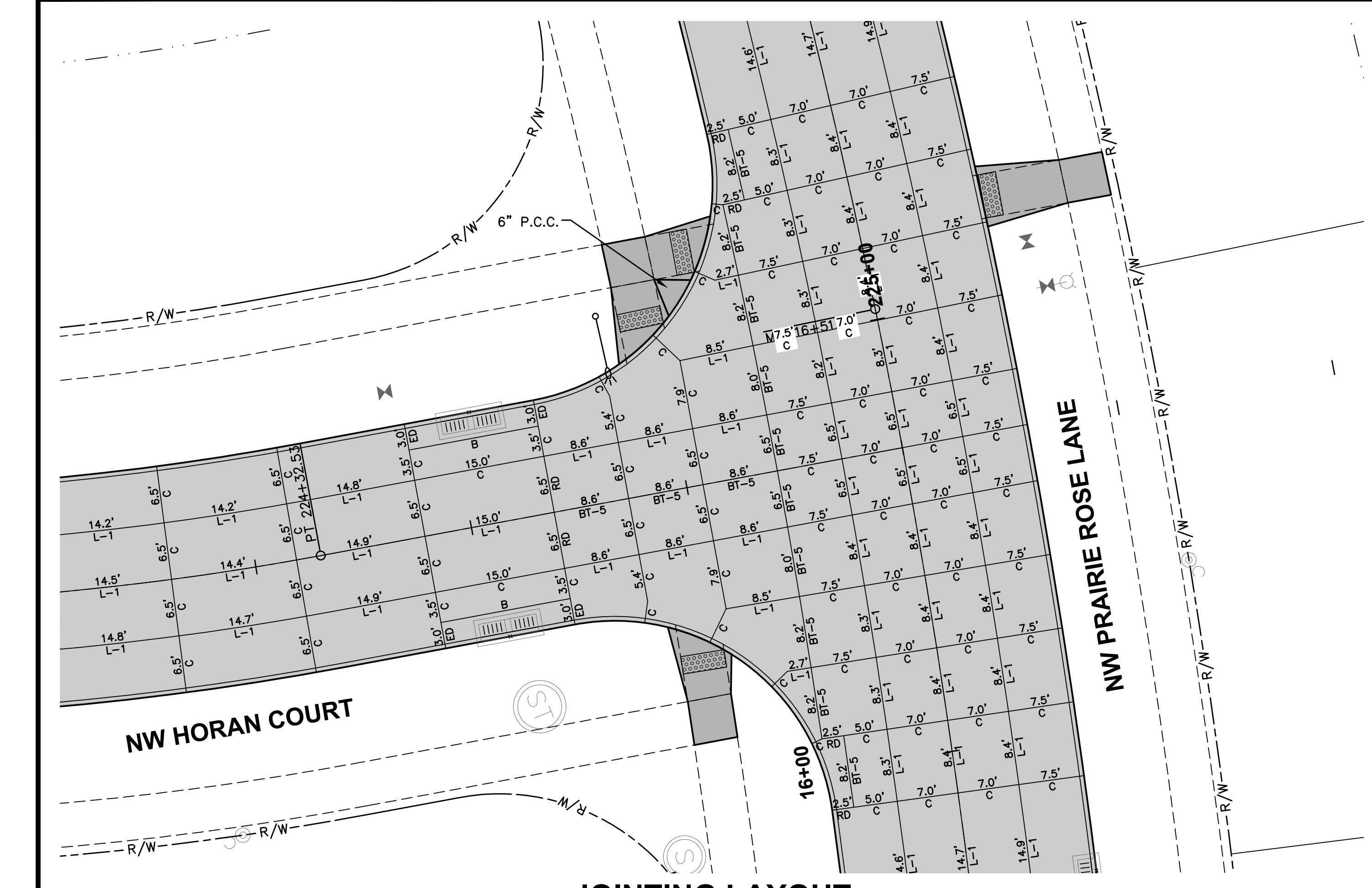
3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO
 TECH: MST



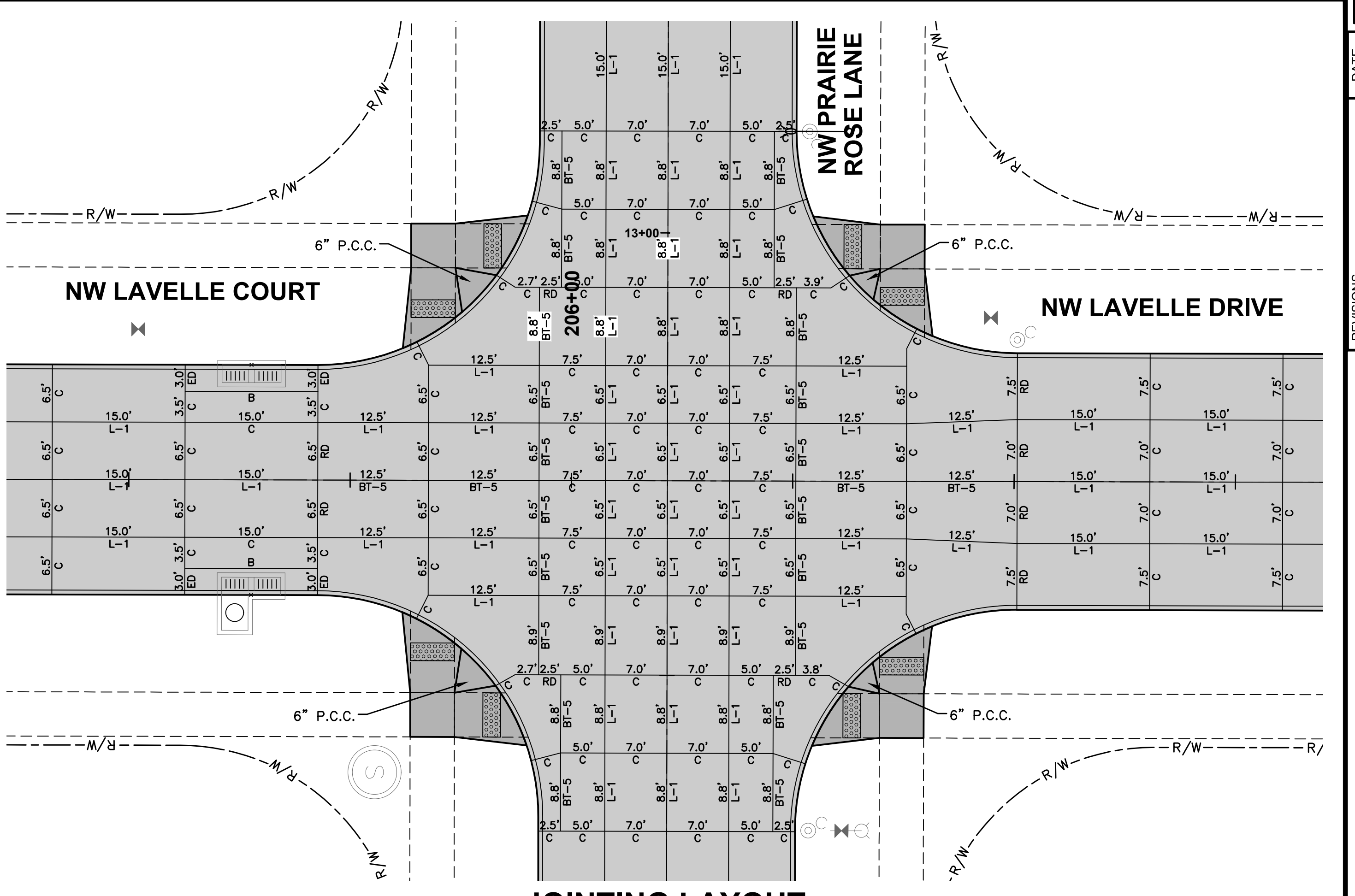
WAUKEE, IOWA

PRAIRIE ROSE PLAT 5

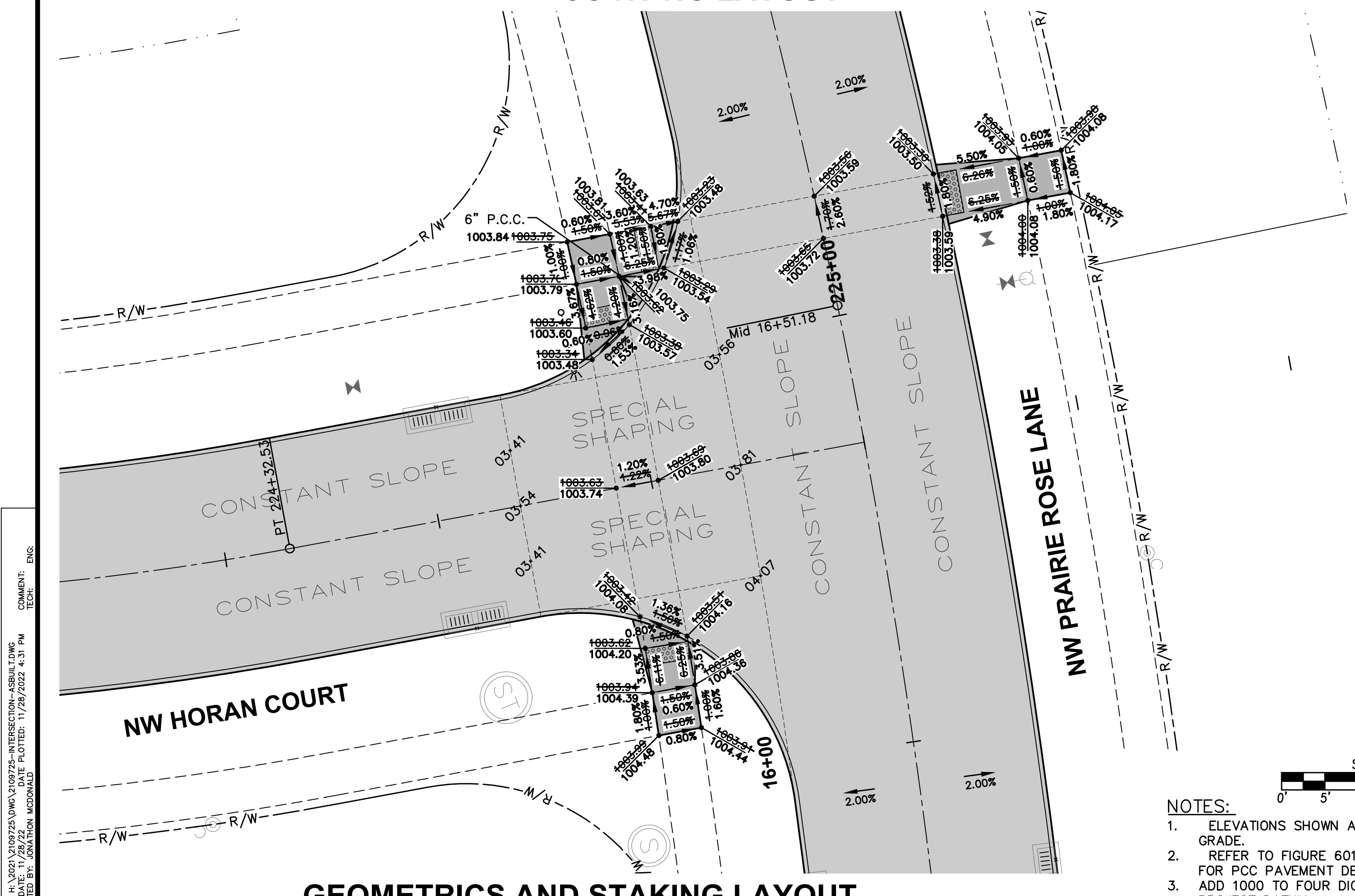
WATERMAIN PLAN AND PROFILE



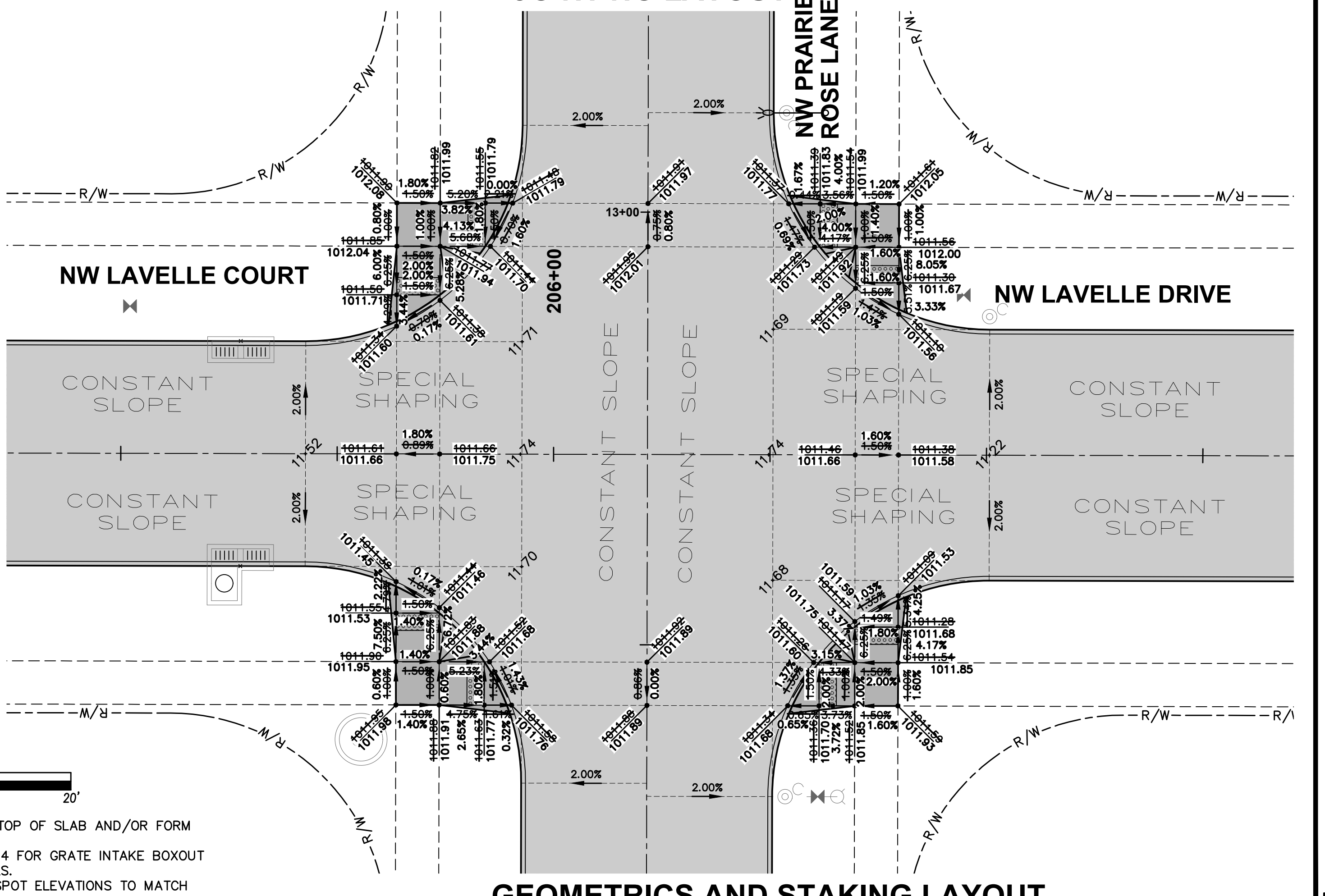
JOINTING LAYOUT



JOINTING LAYOUT

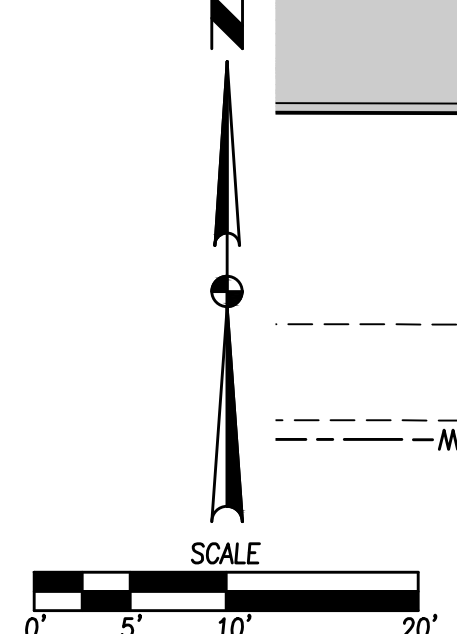


GEOMETRICS AND STAKING LAYOUT



GEOMETRICS AND STAKING LAYOUT

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



FILE: H:\2021\2109725\DWG\2109725-INTERSECTION-ASRUIL.DWG
 COMMENT: ENCL
 PLOTTED BY: ANTHONY MCDONALD
 DATE: 11/28/2022 4:31 PM

DATE	REVISIONS
11/28/2022	AS-BUILT SUBMITTAL
01/18/2023	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
11/16/2021	SECOND SUBMITTAL
10/26/2021	FIRST SUBMITTAL

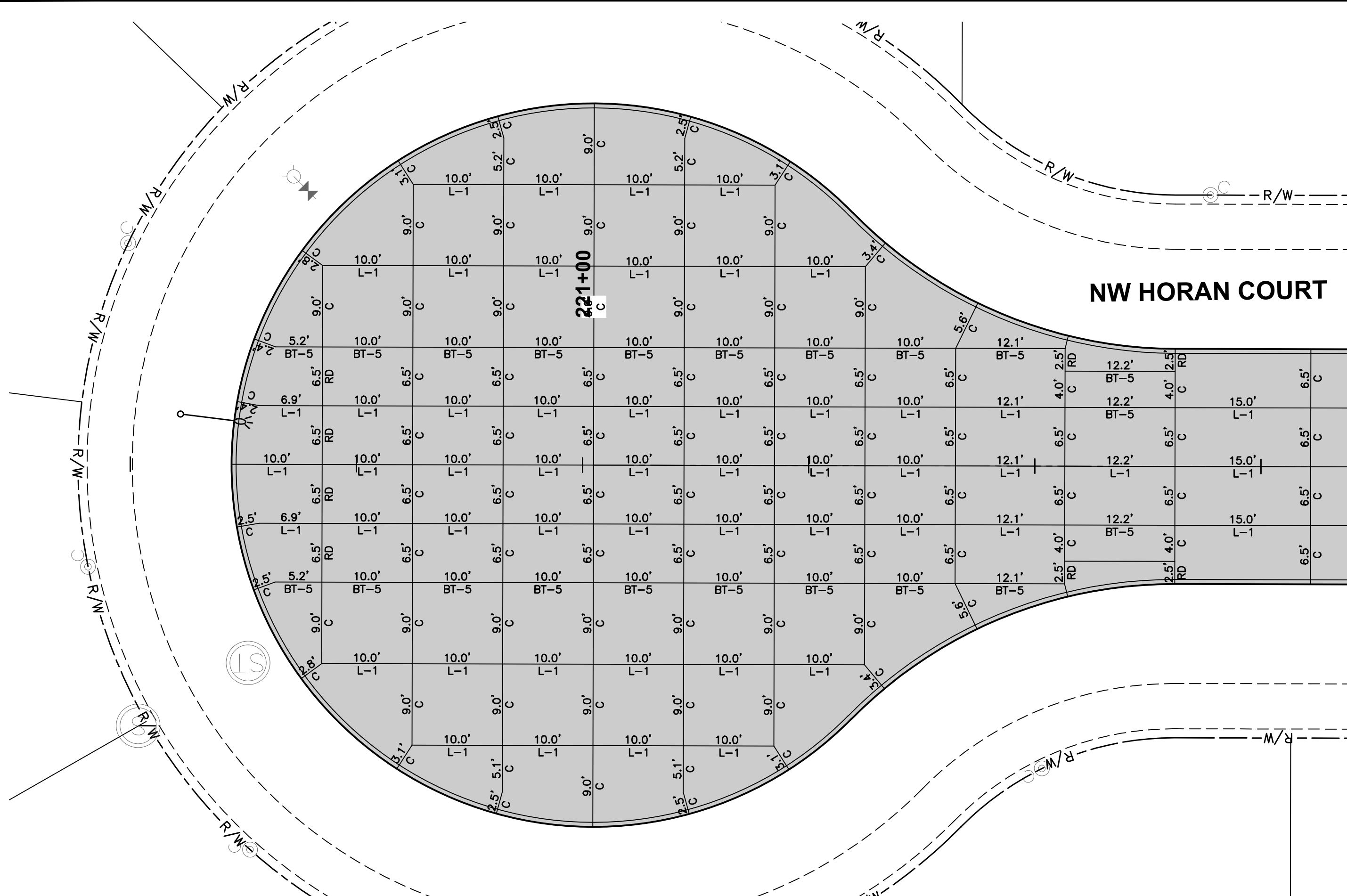
3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO
 EI: JWM TECH: MST



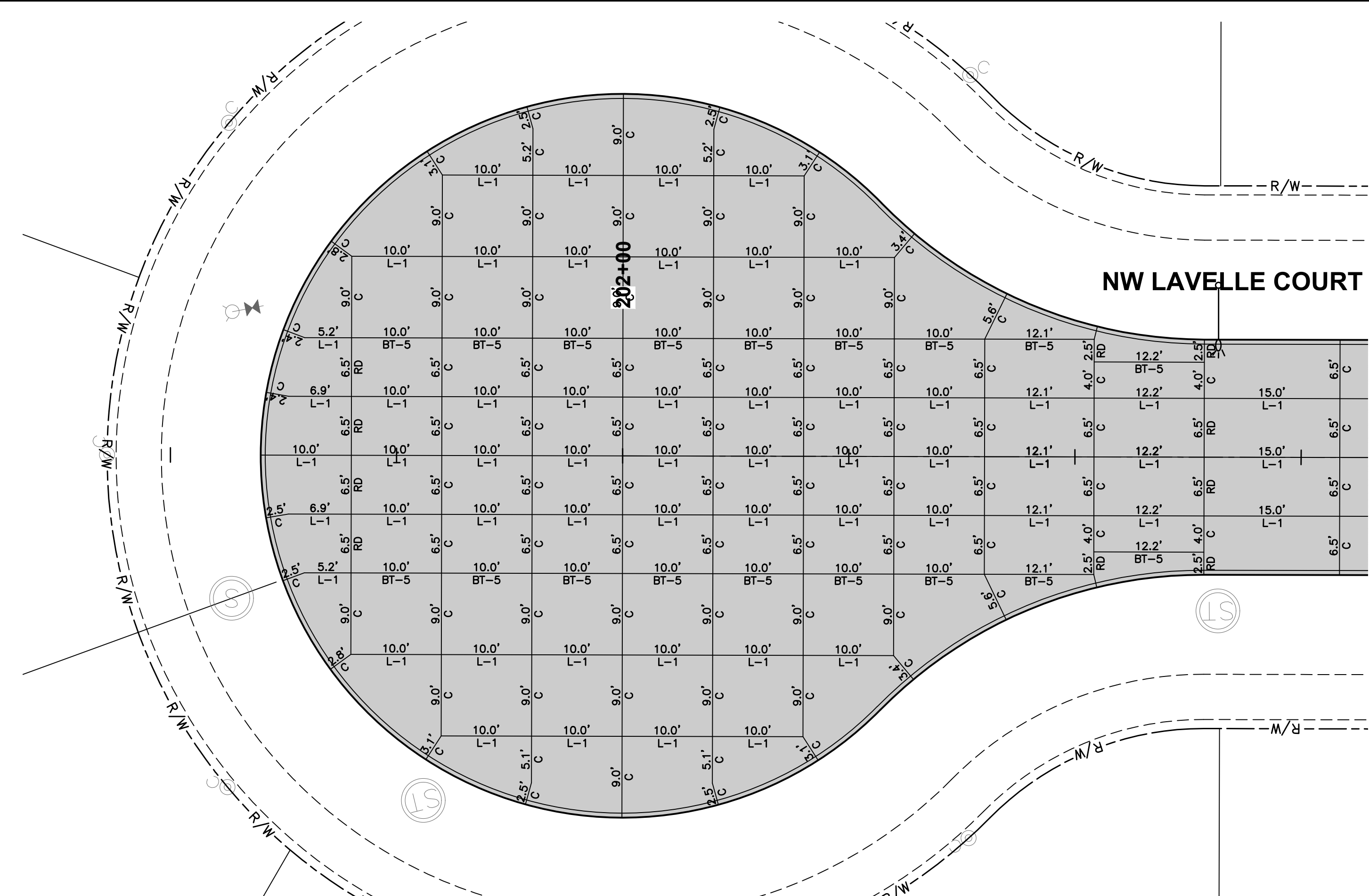
WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
INTERSECTION DETAILS

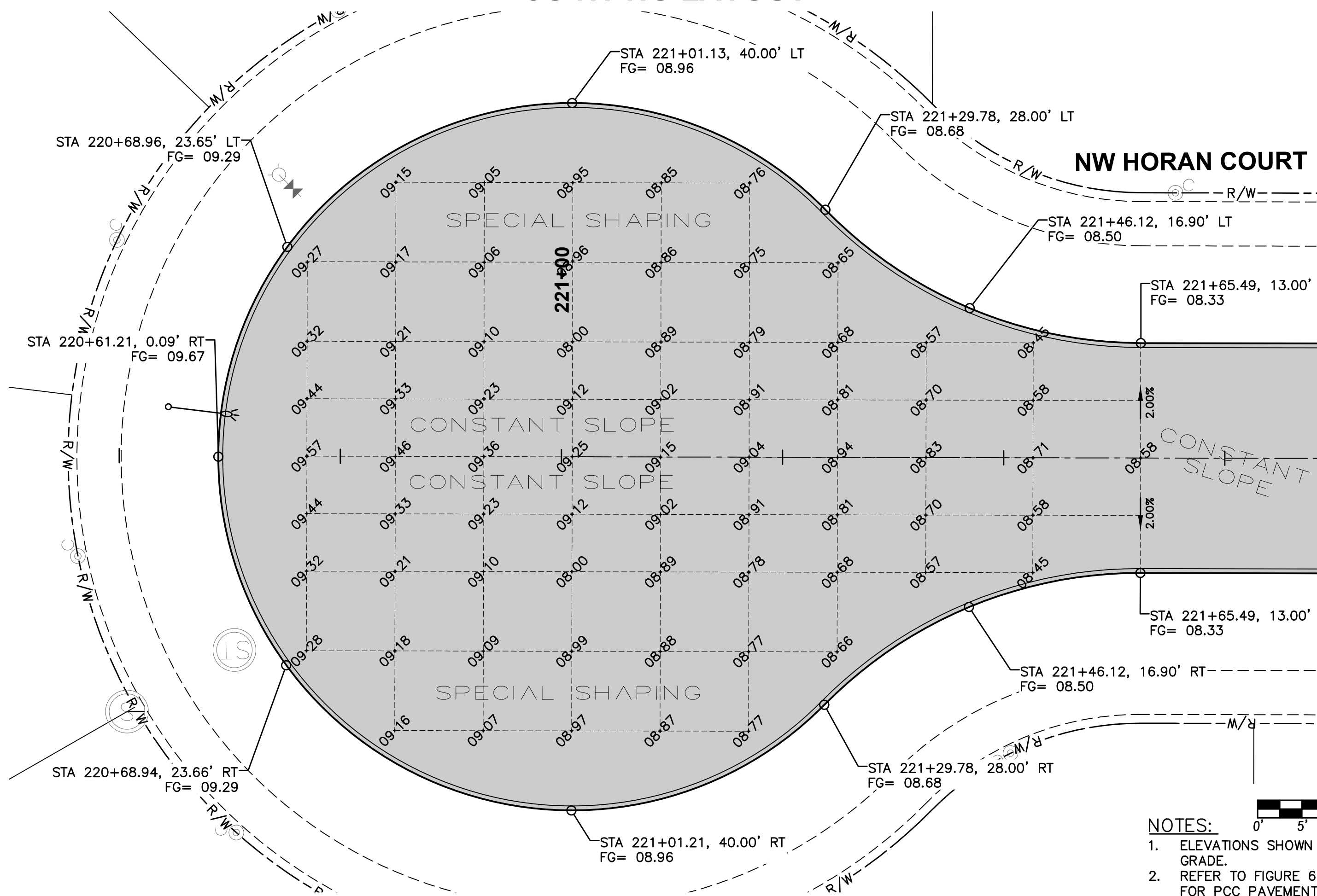
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 PLOTTED BY: ANTHONY MCDONALD



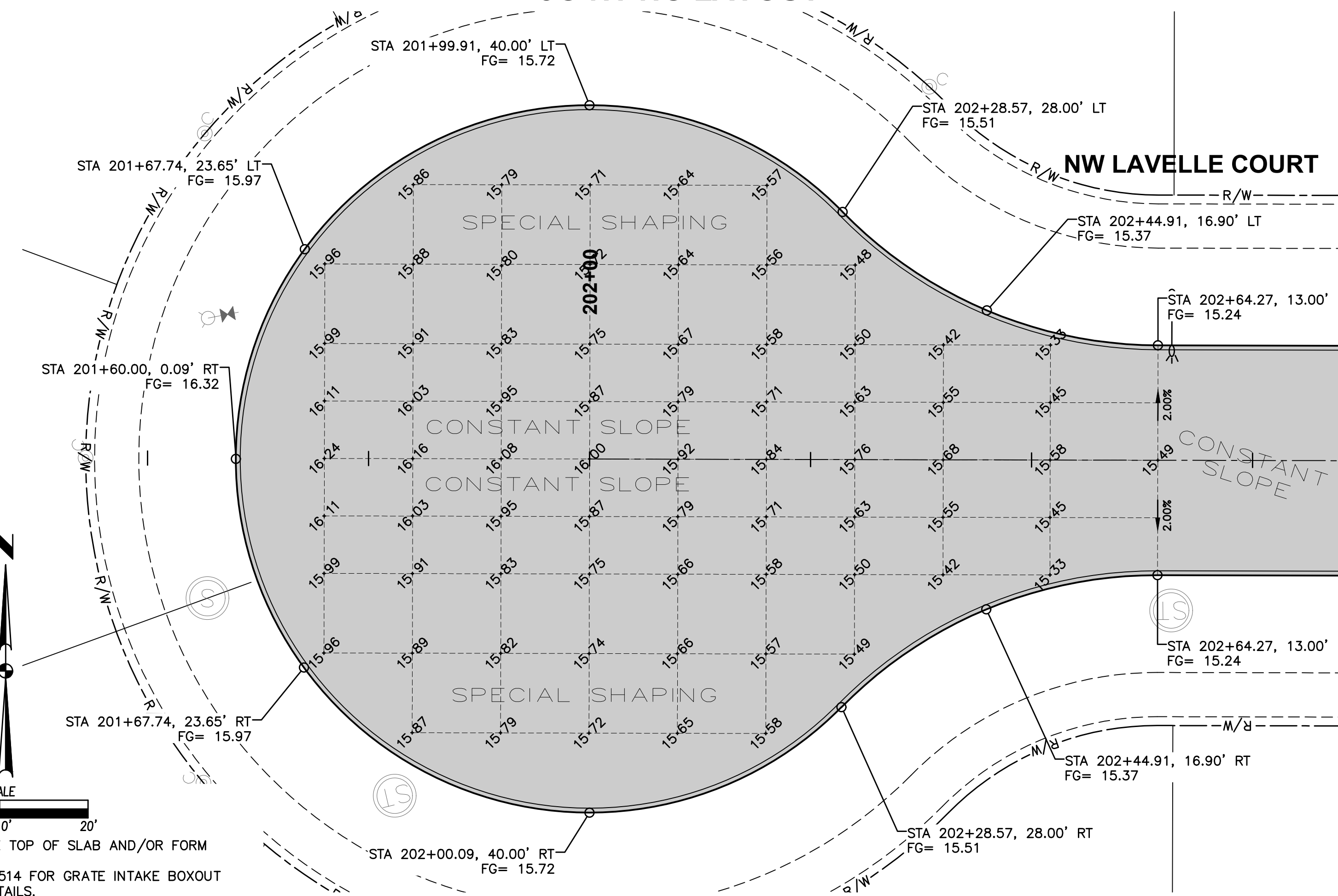
JOINTING LAYOUT



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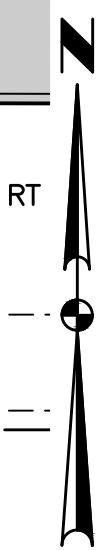


GEOMETRICS AND STAKING LAYOUT



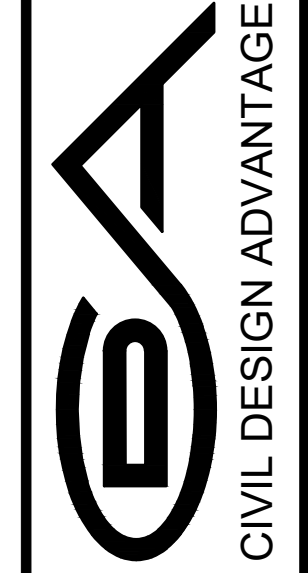
GEOMETRICS AND STAKING LAYOUT

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



DATE	REVISIONS
11/28/2022	AS-BUILT SUBMITTAL
01/18/2023	FINAL SUBMITTAL
12/30/2021	FOURTH SUBMITTAL
12/21/2021	THIRD SUBMITTAL
11/16/2021	SECOND SUBMITTAL
10/26/2021	FIRST SUBMITTAL

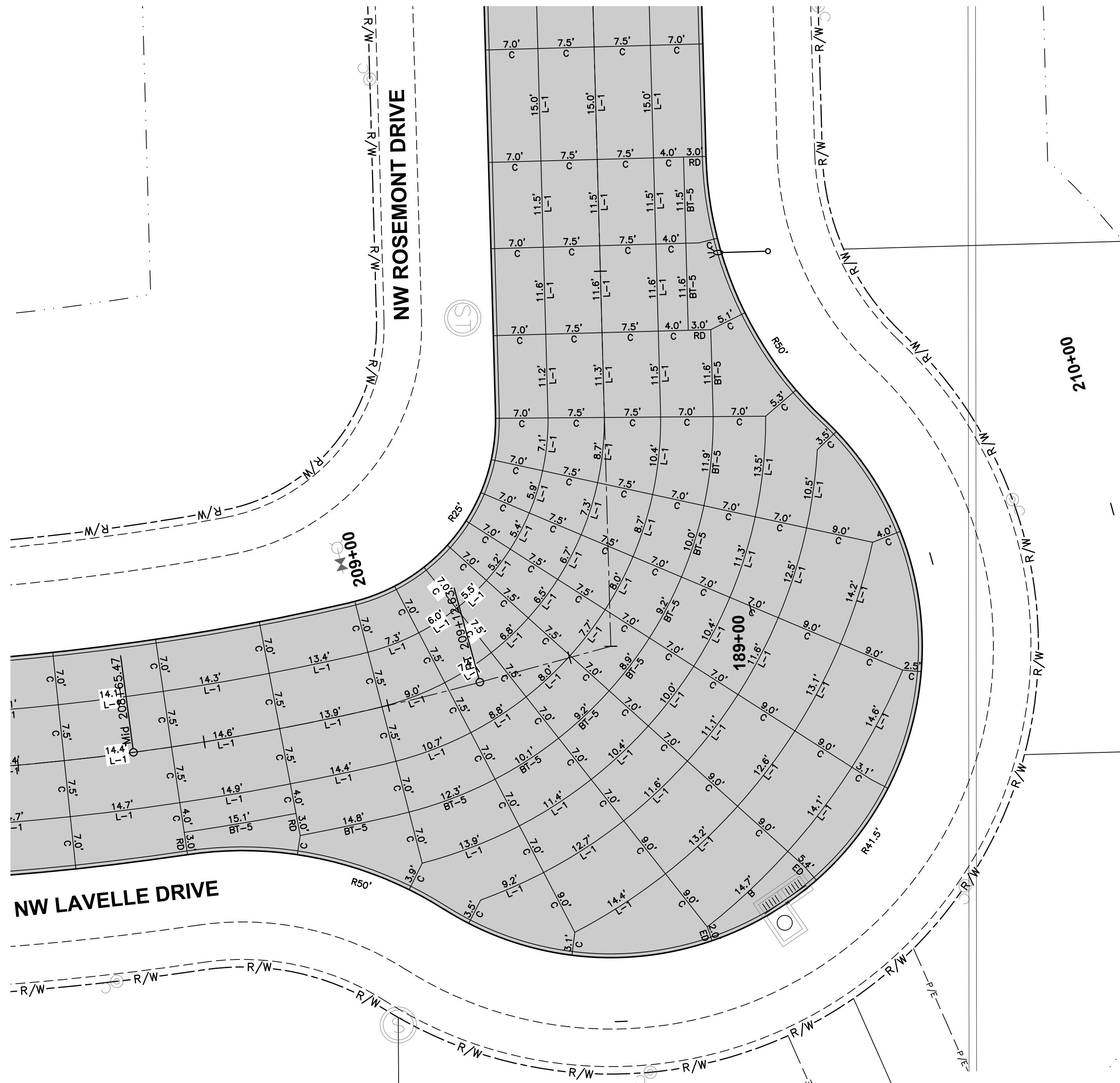
3405 S.E. CROSSROADS DRIVE, SUITE G
 GRIMES, IOWA 50111
 PHONE: (515) 369-4400 FAX: (515) 369-4410
 ENGINEER: EKO
 EI: JWM TECH: MST



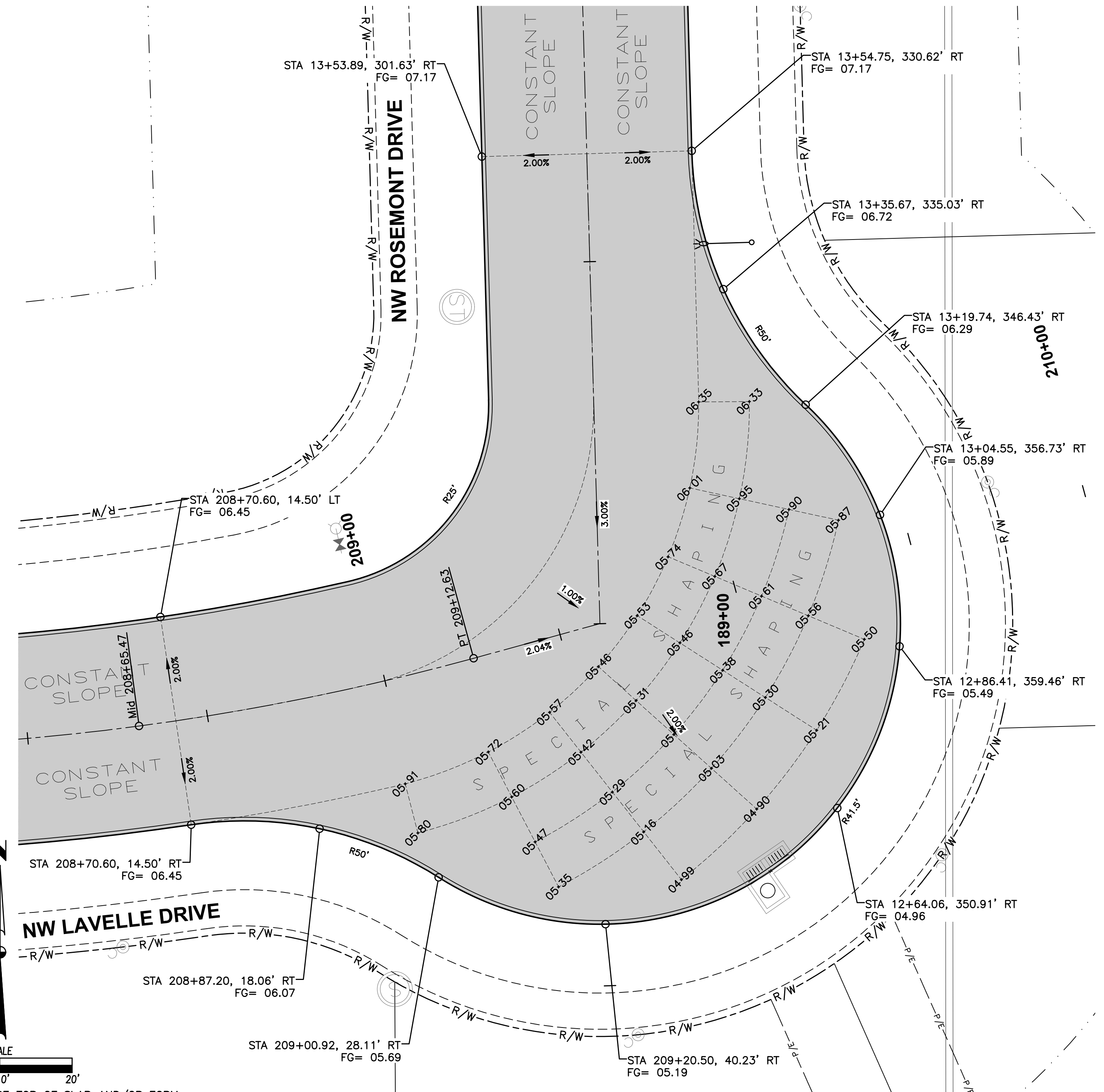
CIVIL DESIGN ADVANTAGE
 WAUKEE, IOWA

PRAIRIE ROSE PLAT 5
INTERSECTION DETAILS

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 PLOTTED BY: ANTHONY MCCONNOR
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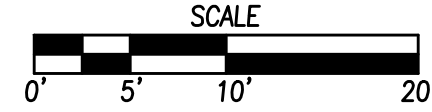
JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

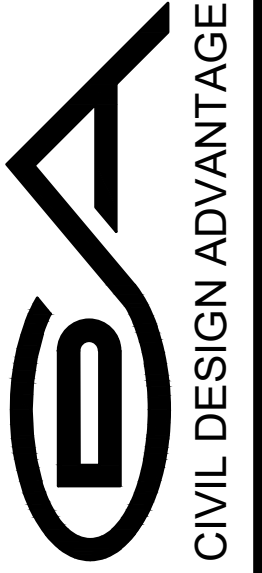
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 INTERSECTION DETAILS**