

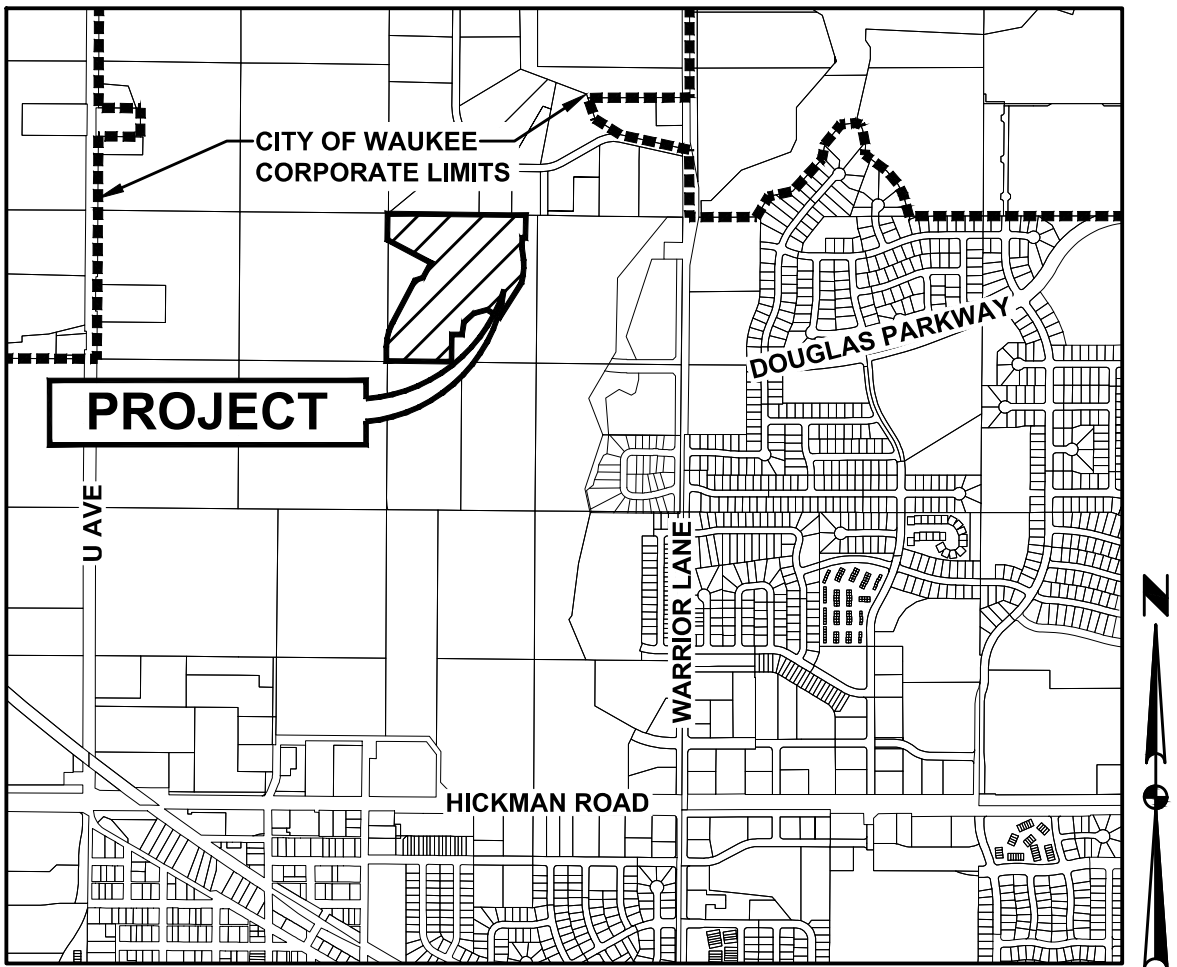
CONSTRUCTION PLANS FOR:

PRAIRIE ROSE PLAT 3

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
9550 HICKMAN RD, STE 100
CLIVE, IOWA 50325
PH: (515) 986-5994
CONTACT: BILL SPENCER

ENGINEER / SURVEYOR

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

ZONING

R-2 ONE- AND TWO-FAMILY RESIDENTIAL DISTRICT

R-3 RENTAL MULTI-FAMILY RESIDENTIAL DISTRICT

DATE OF SURVEY:

JANUARY 21, 2021

SUBMITTALS

FIRST SUBMITTAL:	03/23/2021
SECOND SUBMITTAL:	04/20/2021
THIRD SUBMITTAL:	05/11/2021
FOURTH SUBMITTAL:	06/08/2021
FIFTH SUBMITTAL:	06/14/2021
FINAL SUBMITTAL:	07/14/2021
AS-BUILT SUBMITTAL:	04/21/2022

BULK REGULATIONS

R-2 - ONE AND TWO FAMILY RESIDENTIAL DISTRICT (LOTS 1-36 AND OUTLOT 'Z')

FRONT YARD: 30 FEET
SIDE YARD: A TOTAL OF 15 FEET, ONE SIDE MAY BE REDUCED TO NO LESS THAN 7 FEET
REAR YARD: 30 FEET

R-3 - RENTAL MULTI-FAMILY RESIDENTIAL (OUTLOT 'Y')

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 2021 - SUMMER 2021

DEVELOPMENT SUMMARY

TOTAL AREA OF PLAT 3 = 26.76 ACRES (1,165,593 SF)

NOTES

- ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE DEVELOPMENT SERVICES DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE DEVELOPMENT SERVICES 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 NW DOUGLAS PARKWAY AND NW 2ND STREET FOR ACCESS AVAILABILITY AND TIMING OF ACCESS.

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
7-9	GRADING PLAN
10-12	EROSION AND SEDIMENT CONTROL PLAN
13-23	SANITARY AND STORM SEWER PLAN AND PROFILE
24-30	WATER MAIN PLAN AND PROFILE
31-33	INTERSECTION DETAILS

LEGAL DESCRIPTION

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF 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 NORTHWEST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE SOUTH 89°46'18" EAST ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER, 1234.01 FEET; THENCE SOUTH 00°13'42" WEST, 200.00 FEET; THENCE NORTH 89°46'18" WEST, 28.54 FEET; THENCE SOUTH 00°13'42" WEST, 92.00 FEET; THENCE SOUTH 07°21'55" EAST, 111.29 FEET; THENCE SOUTH 02°17'39" EAST, 66.85 FEET; THENCE SOUTH 05°46'34" WEST, 66.85 FEET; THENCE SOUTH 09°36'08" WEST, 67.39 FEET; THENCE SOUTH 31°57'55" WEST, 367.08 FEET; THENCE NORTH 58°02'05" WEST, 77.86 FEET; THENCE NORTHWESTERLY ALONG A CURVE CONCAVE SOUTHWESTERLY WHOSE RADIUS IS 1140.00 FEET, WHOSE ARC LENGTH IS 50.64 FEET AND WHOSE CHORD BEARS NORTH 59°18'26" WEST, 50.64 FEET; THENCE SOUTH 74°32'46" WEST, 127.07 FEET; THENCE SOUTH 47°07'44" WEST, 116.35 FEET; THENCE SOUTH 08°45'09" WEST, 111.52 FEET; THENCE NORTH 89°49'22" WEST, 90.24 FEET; THENCE SOUTH 00°10'38" WEST, 244.84 FEET TO THE SOUTH LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 89°49'22" WEST ALONG SAID SOUTH LINE, 582.03 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER, 127.68 FEET TO THE EASTERLY LINE OF PARCEL 14 AS SHOWN ON THE RIGHT-OF-WAY ACQUISITION PLAT ON SHEET 9 OF 113 OF THE CONDEMNATION PROCEEDINGS DOCUMENT RECORDED IN BOOK 2018, PAGE 18855; THENCE NORTHERLY ALONG SAID EASTERLY LINE OF AND A CURVE CONCAVE EASTERLY WHOSE RADIUS IS 460.00 FEET, WHOSE ARC LENGTH IS 219.15 FEET AND WHOSE CHORD BEARS NORTH 13°34'43" EAST, 217.08 FEET; THENCE NORTH 27°13'39" EAST CONTINUING ALONG SAID EASTERLY LINE, 433.47 FEET; THENCE NORTH 72°13'39" EAST CONTINUING ALONG SAID EASTERLY LINE, 75.00 FEET; THENCE NORTH 27°13'39" EAST CONTINUING ALONG SAID EASTERLY LINE, 150.00 FEET; THENCE NORTH 62°46'21" WEST CONTINUING ALONG SAID EASTERLY LINE, 439.15 FEET TO THE WEST LINE OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER; THENCE NORTH 00°04'09" WEST ALONG SAID WEST LINE, 235.94 FEET TO THE POINT OF BEGINNING AND CONTAINING 26.76 ACRES (1,165,593 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.

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.



CIVIL DESIGN ADVANTAGE

3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111

PH: (515) 369-4400 Fax: (515) 369-4410

PROJECT NO. 2103.134

GENERAL LEGEND

PROPOSED

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

EXISTING

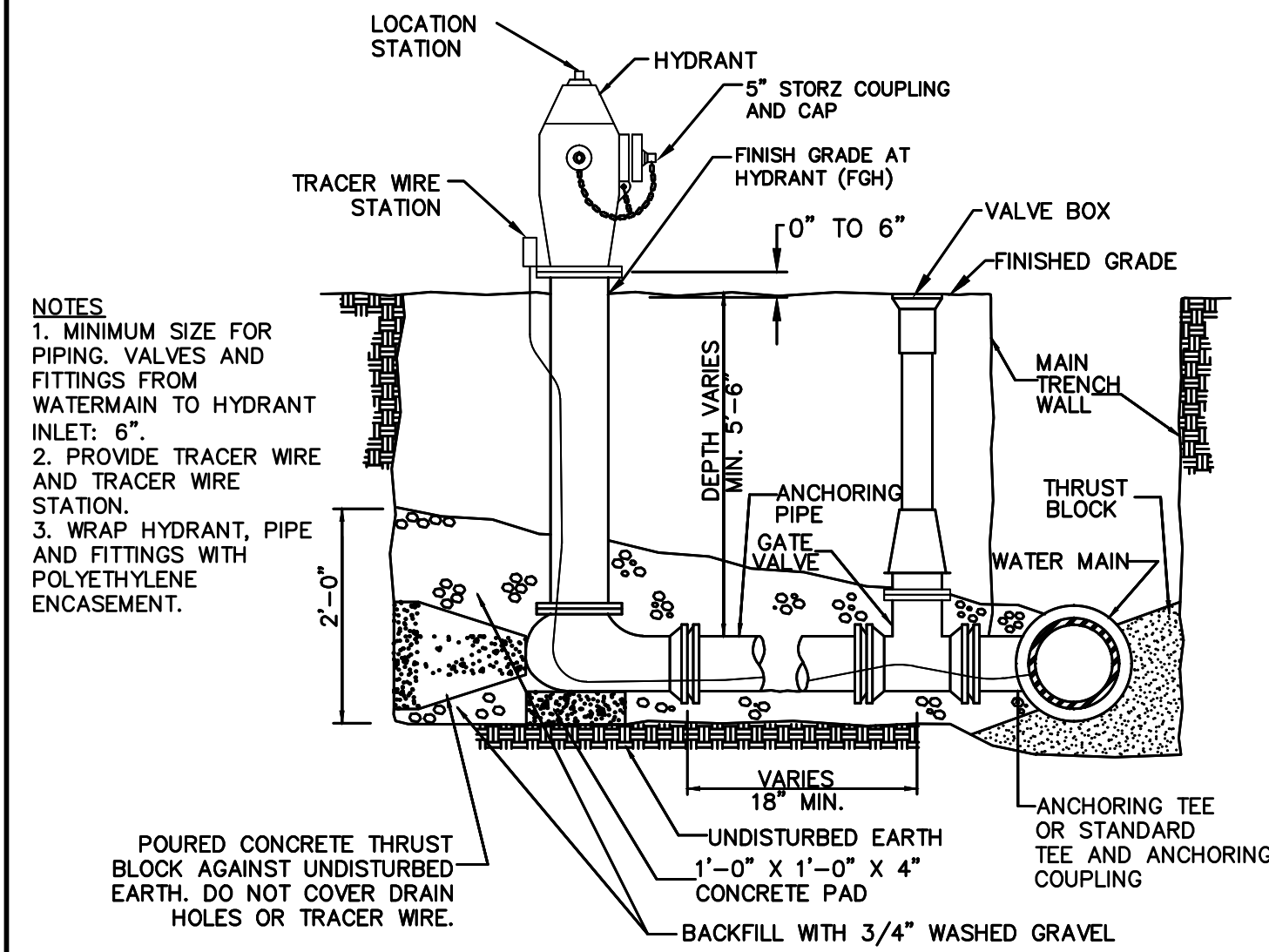
SANITARY MANHOLE	
WATER VALVE BOX	
FIRE HYDRANT	
WATER CURB STOP	
WELL	
STORM SEWER MANHOLE	
STORM SEWER SINGLE INTAKE	
STORM SEWER DOUBLE INTAKE	
FLARED END SECTION	
DECIDUOUS TREE	
CONIFEROUS TREE	
DECIDUOUS SHRUB	
CONIFEROUS SHRUB	
ELECTRIC POWER POLE	
GUY ANCHOR	
STREET LIGHT	
POWER POLE W/ TRANSFORMER	
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.

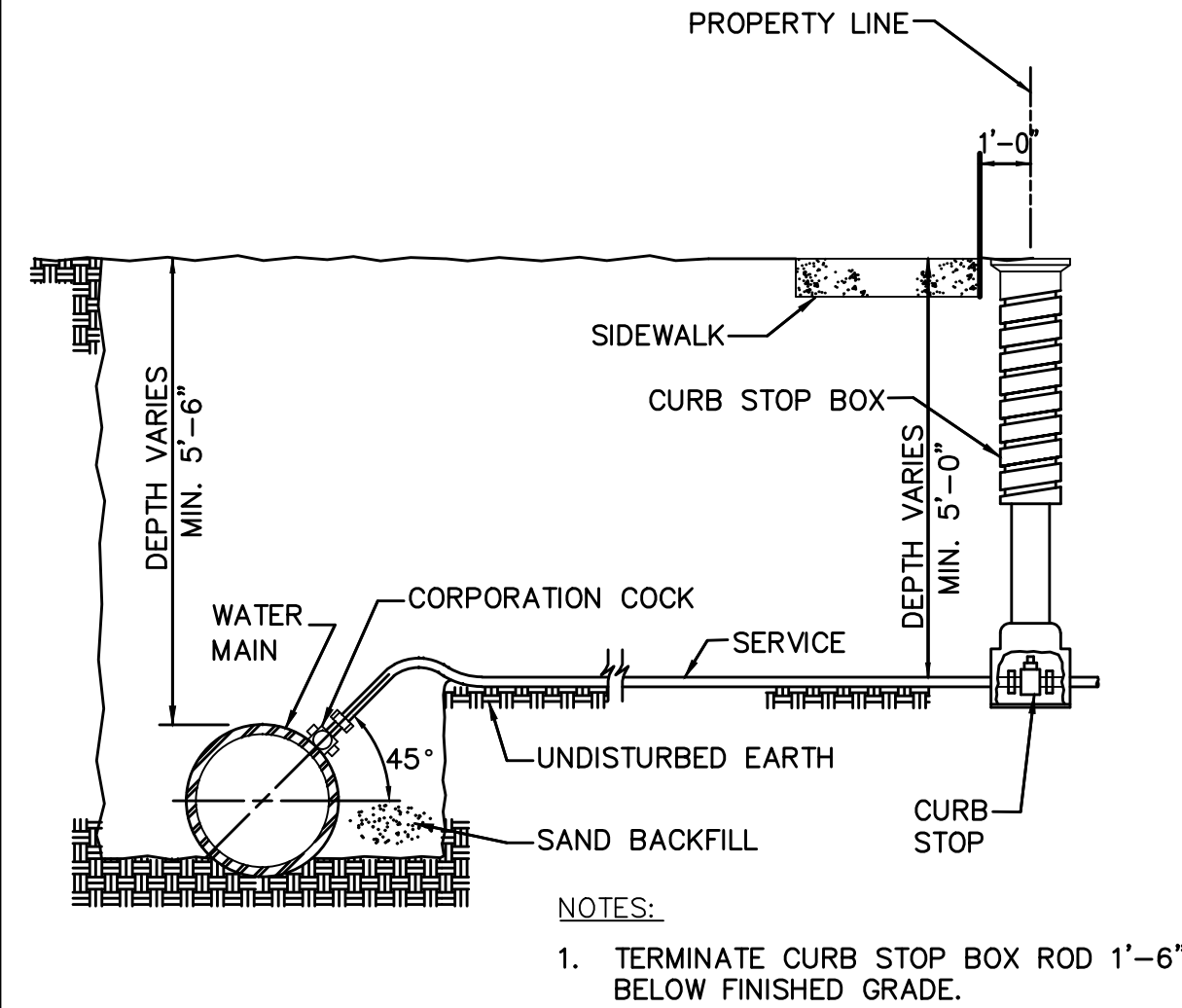
THIS DESIGN SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

THE MOST RECENT 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.

	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.	
		04/21/2022
ERIN K. OLLENDIKE, P.E.		
DATE		
LICENSE NUMBER 16926		
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2023		
PAGES OR SHEETS COVERED BY THIS SEAL:		
ALL SHEETS		



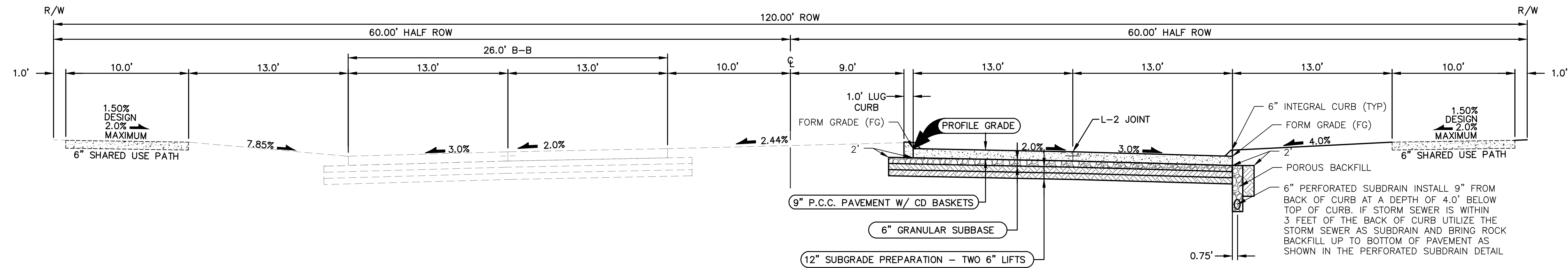
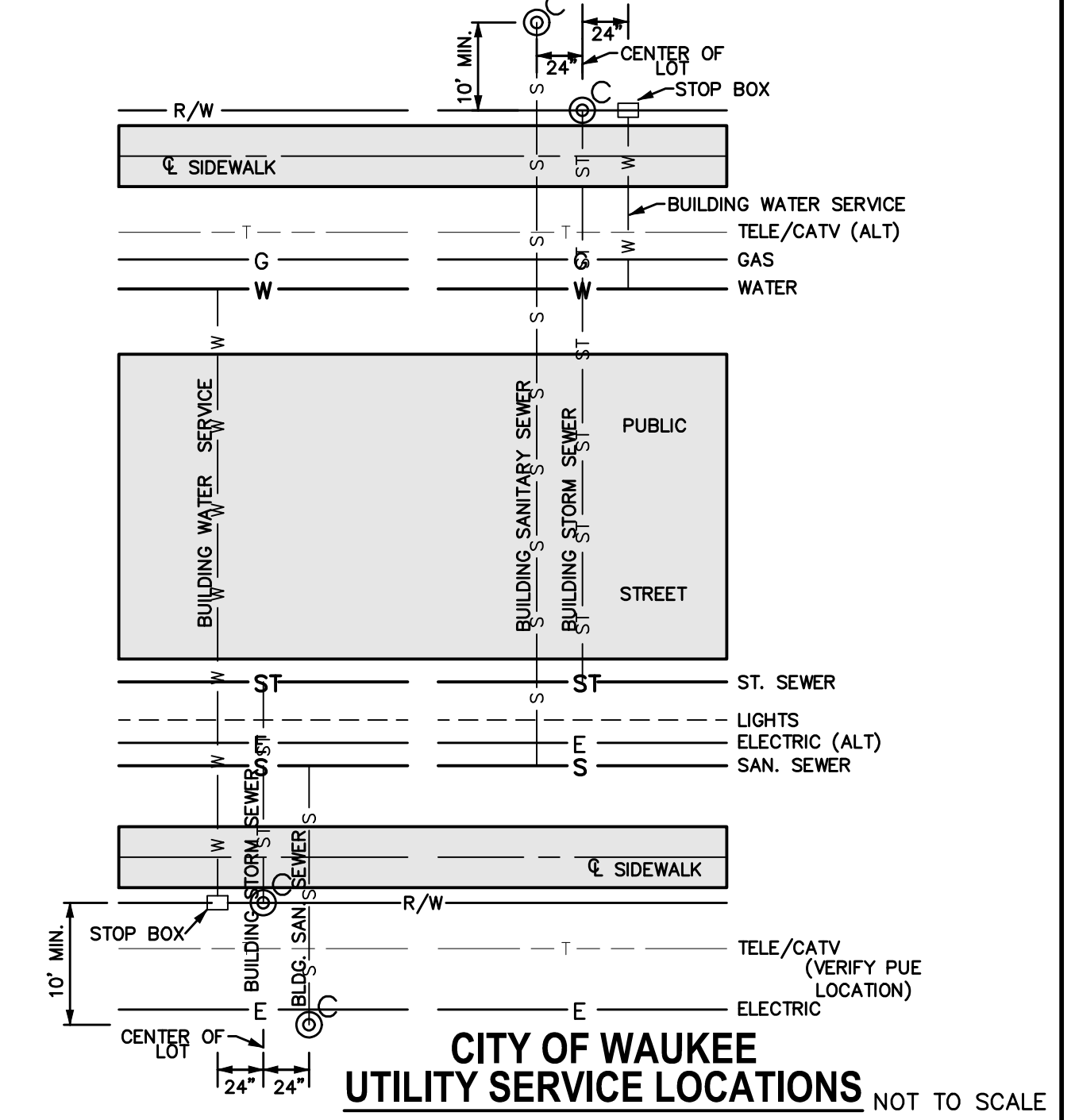
HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



WATER SERVICE CONNECTION
NOT TO SCALE

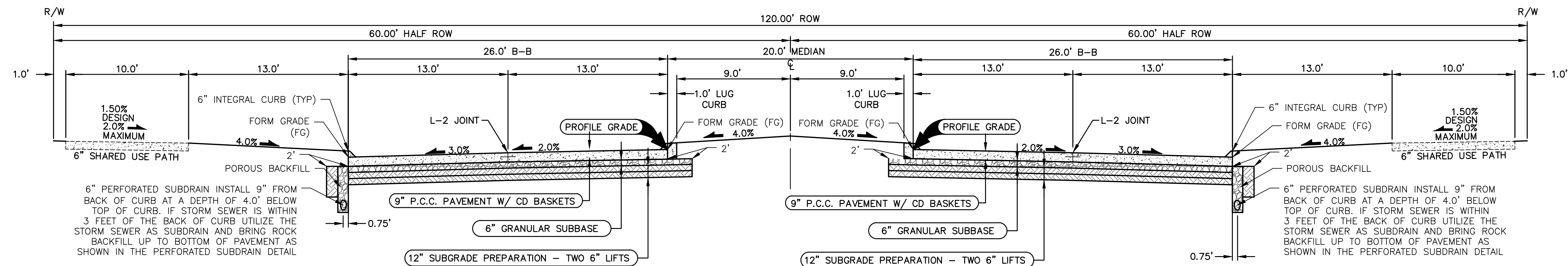
- NOTES:**
 1. PLACE ONE 6" STEEL POST BURIED 3' AT WATER CURB BOX. STEEL POST SHALL BE PAINTED BLUE.
 2. BRING SUMP SERVICE STUB TO A MINIMUM OF 1-FOOT ABOVE FINISHED GROUND LEVEL ELEVATION. INSTALL WATER TIGHT CAP ON THE END. PLACE A GREEN PAINTED STEEL POST NEXT TO THE STUB.
 3. BRING SANITARY SERVICE STUB TO A MINIMUM OF 1-FOOT ABOVE FINISHED GROUND LEVEL ELEVATION. INSTALL WATER TIGHT CAP ON THE END. PLACE A RED PAINTED STEEL POST NEXT TO THE STUB.

SERVICE LOCATION DETAIL
NOT TO SCALE



TYPICAL SECTION - NW DOUGLAS PARKWAY (PARTIAL BUILD) WITH 120' R.O.W.
NOT TO SCALE

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

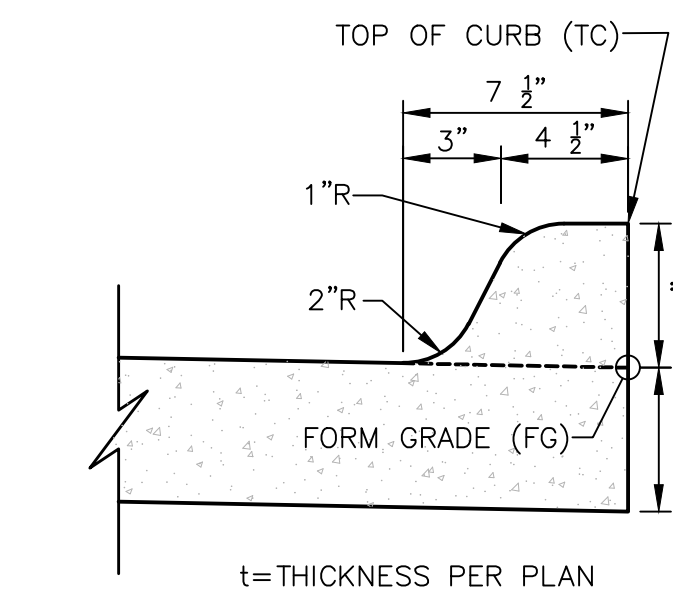
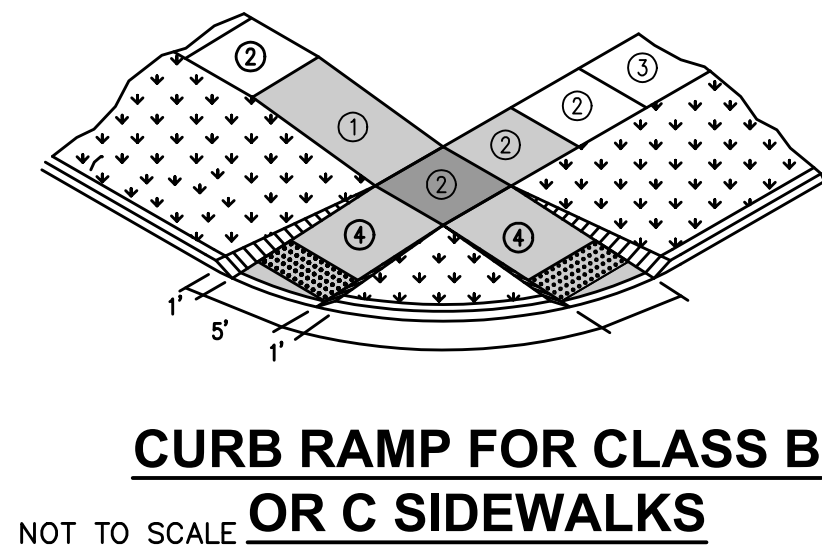


TYPICAL SECTION - NW DOUGLAS PARKWAY (FULL BUILD) WITH 120' R.O.W. (FUTURE)
NOT TO SCALE

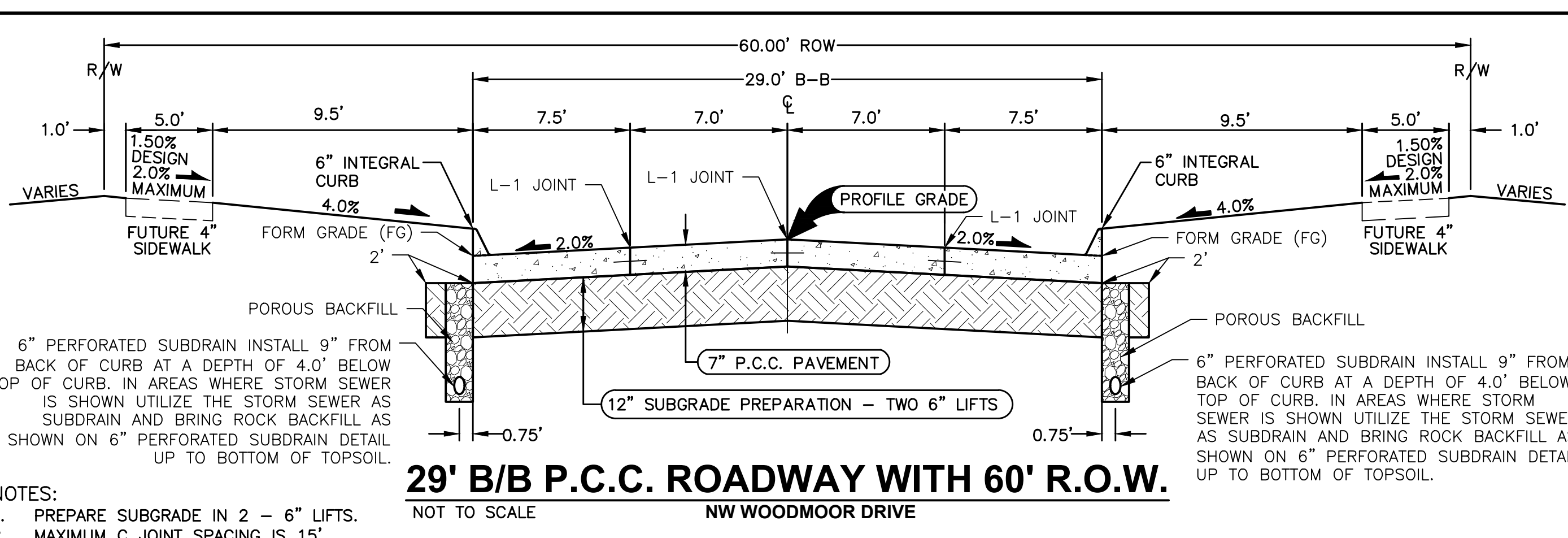
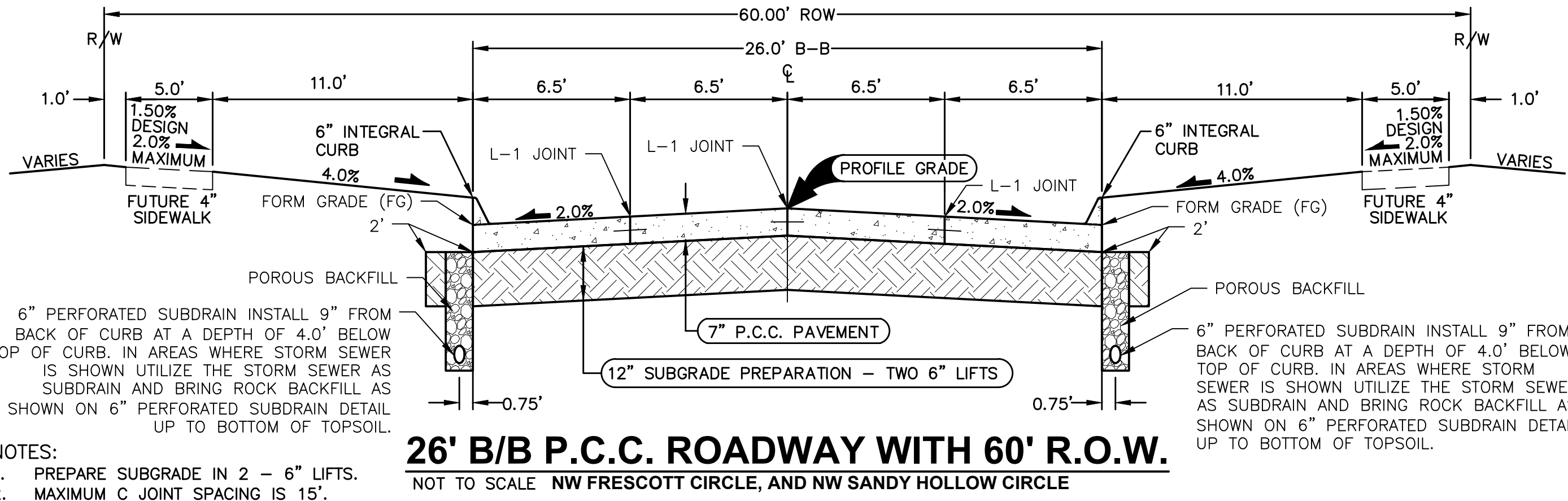
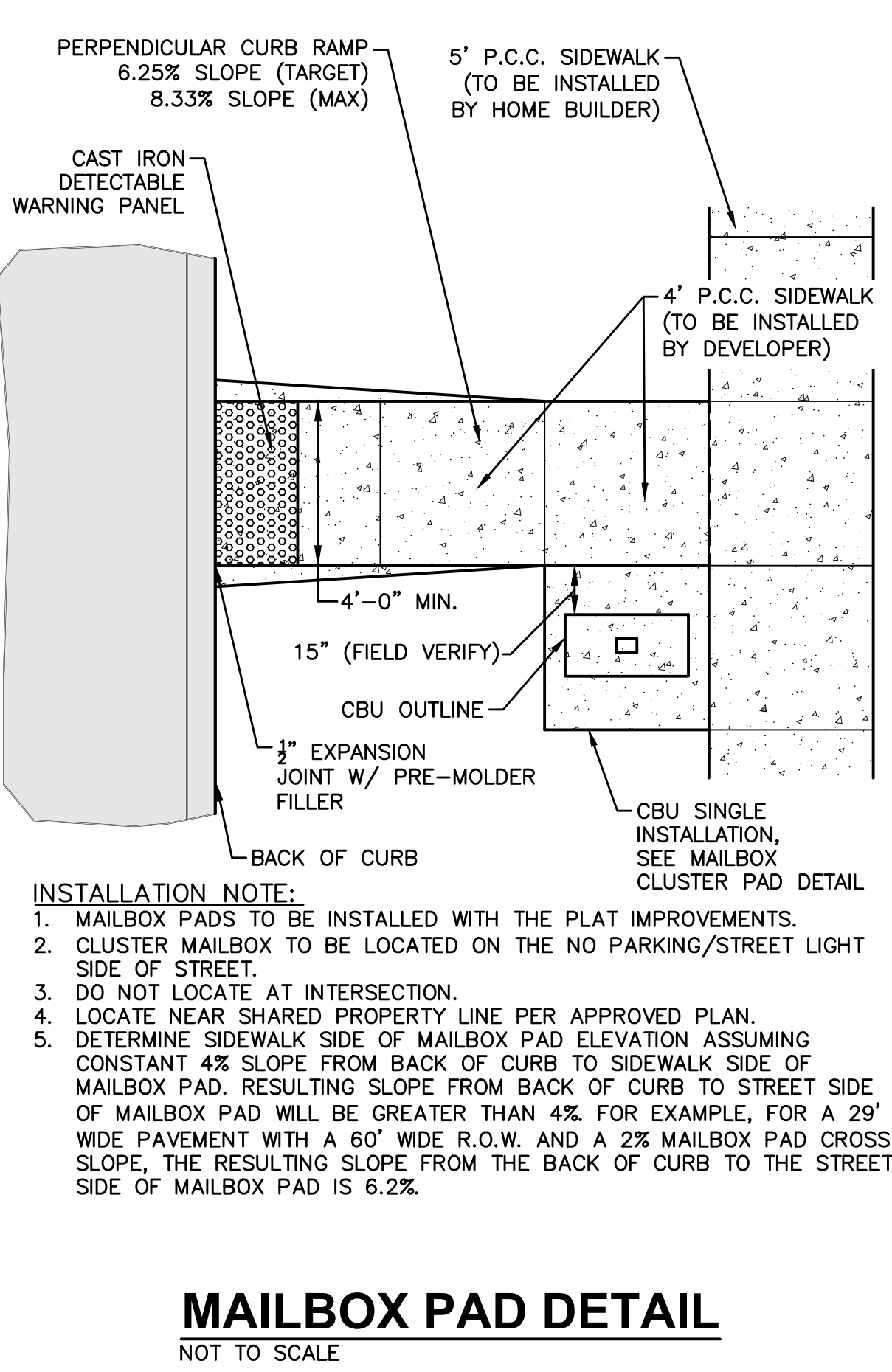
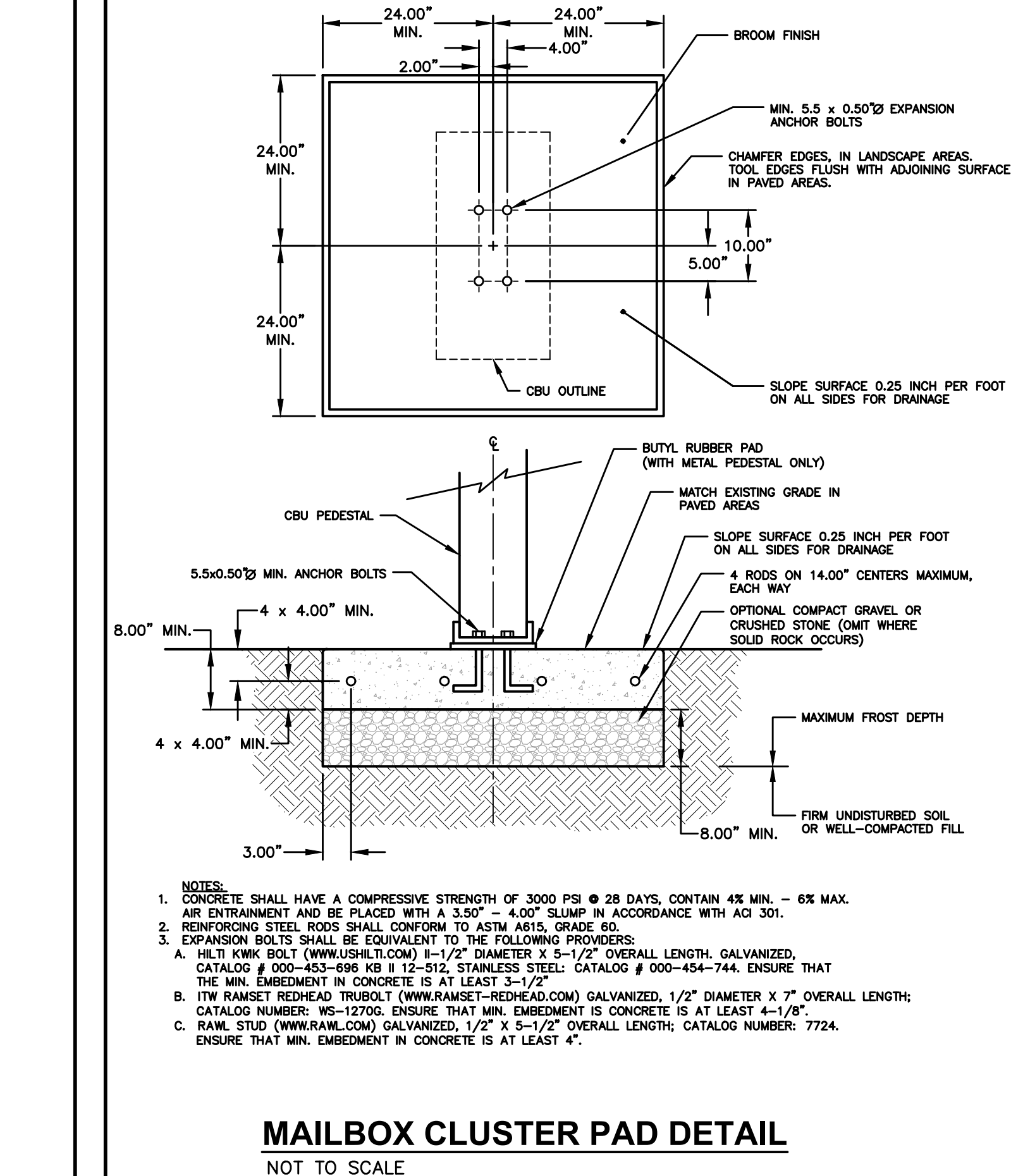
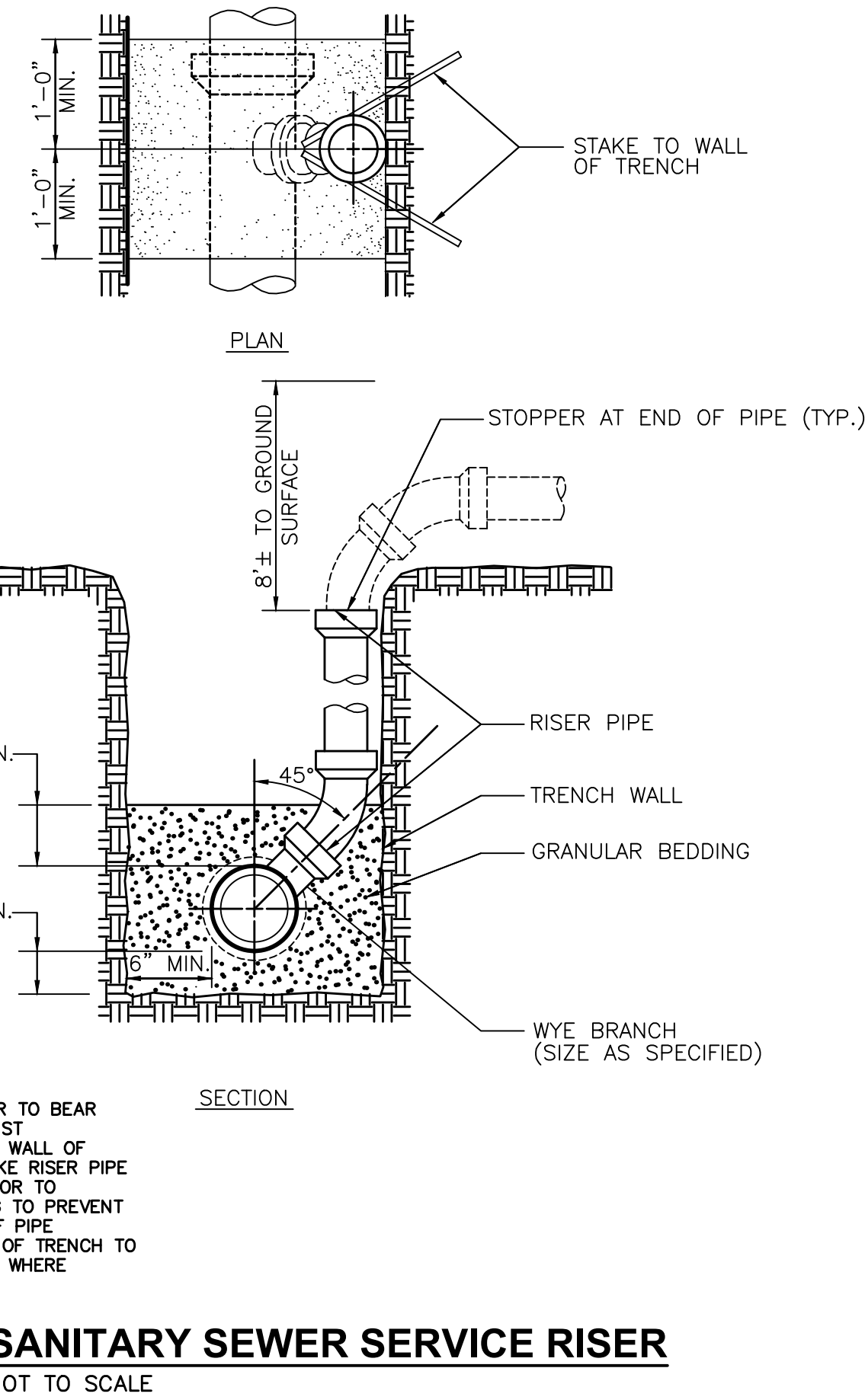
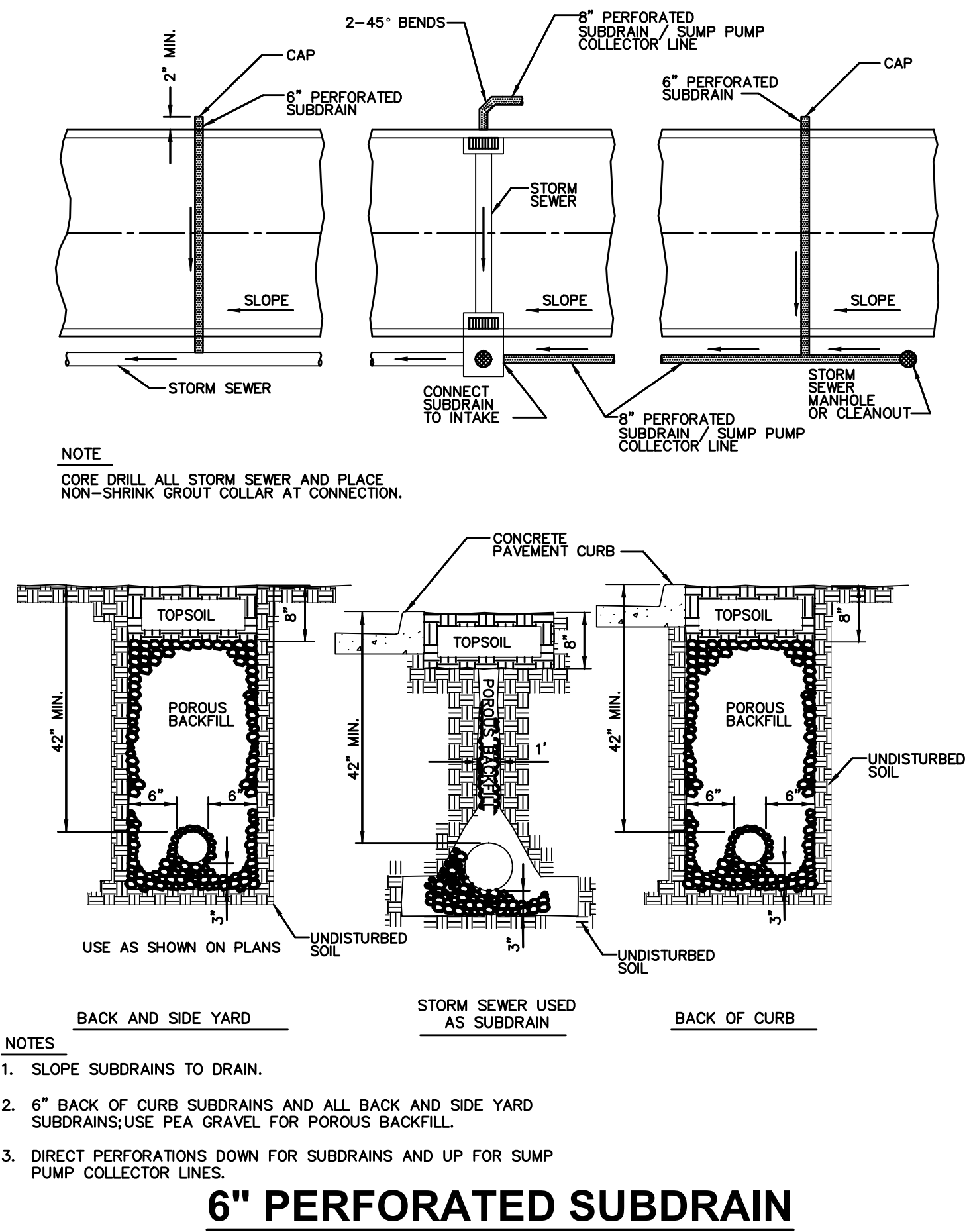
- NOTES:**
 1. PREPARE SUBGRADE IN 2 - 6" LIFTS.
 2. MAXIMUM CD JOINT SPACING IS 15'.

FILE: H:\2021\210313A\DWG\210313A-COV-BET-TAB-ASBUIL.DWG
 COMMENT: EKO
 PLOTTED BY: GRAE HEROLD
 DATE: 4/25/2022 10:17 AM

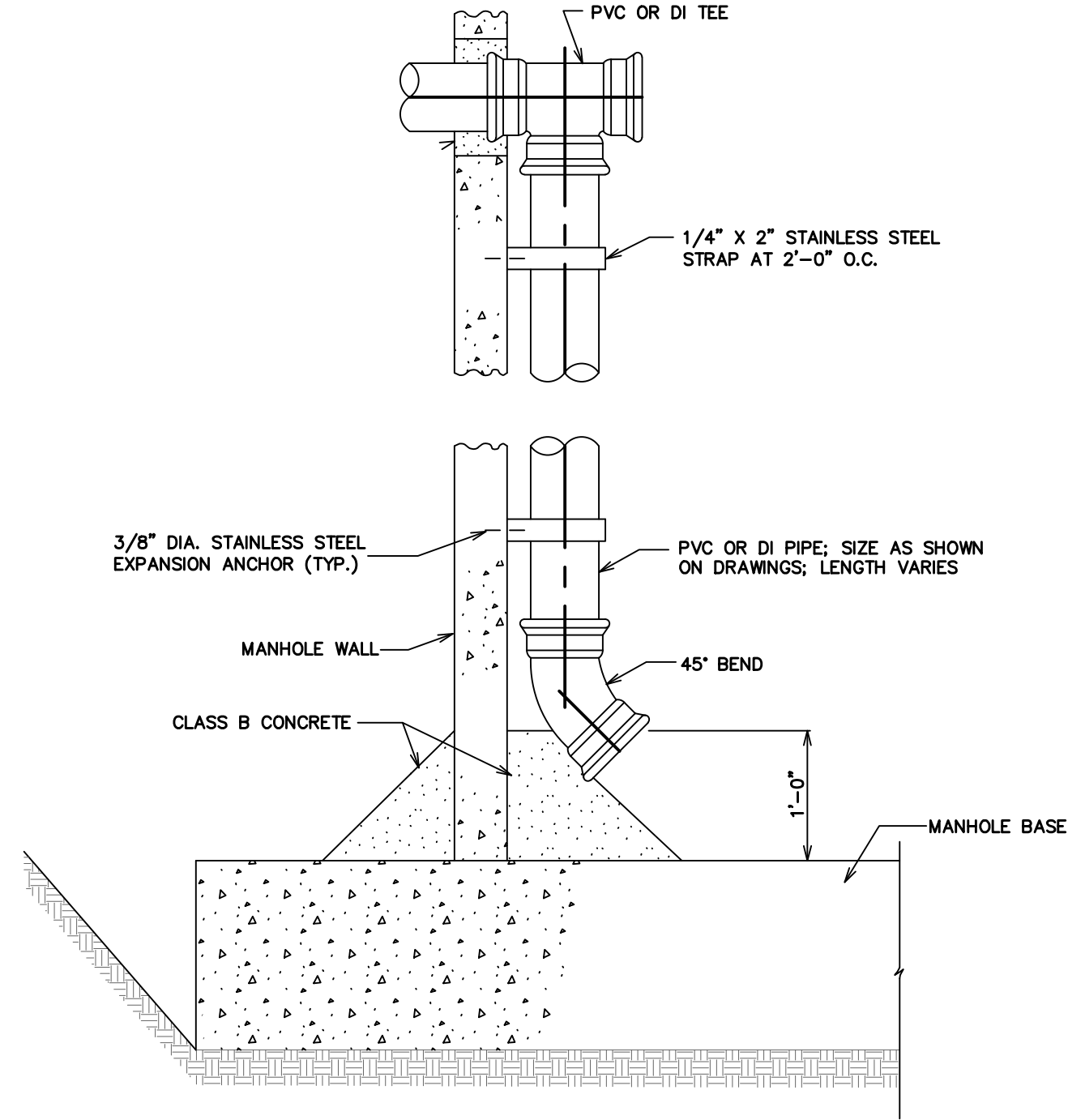
FILE: H:\2021\2103\3A\DWG\210313A-COV-BEF-TAB-ASBUIL.DWG
DATE: 4/25/2022 10:17 AM
DRAWN BY: J. ROSE
CHECKED BY: J. ROSE
COMMENTS:



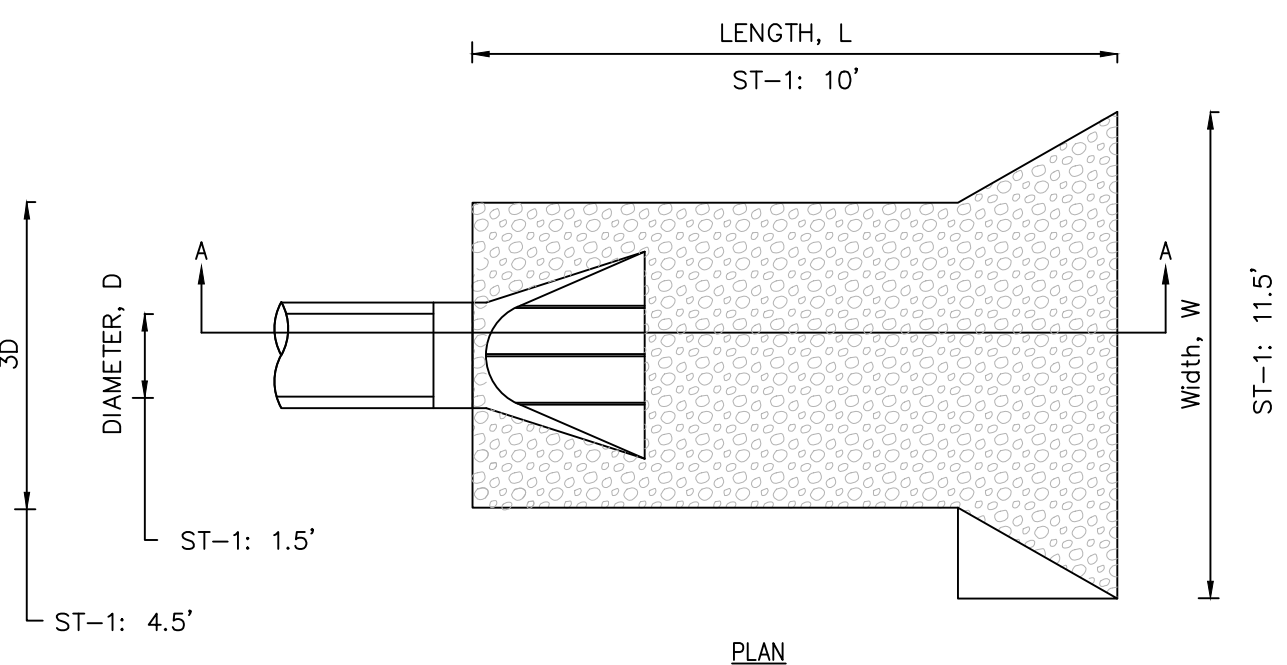
INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL



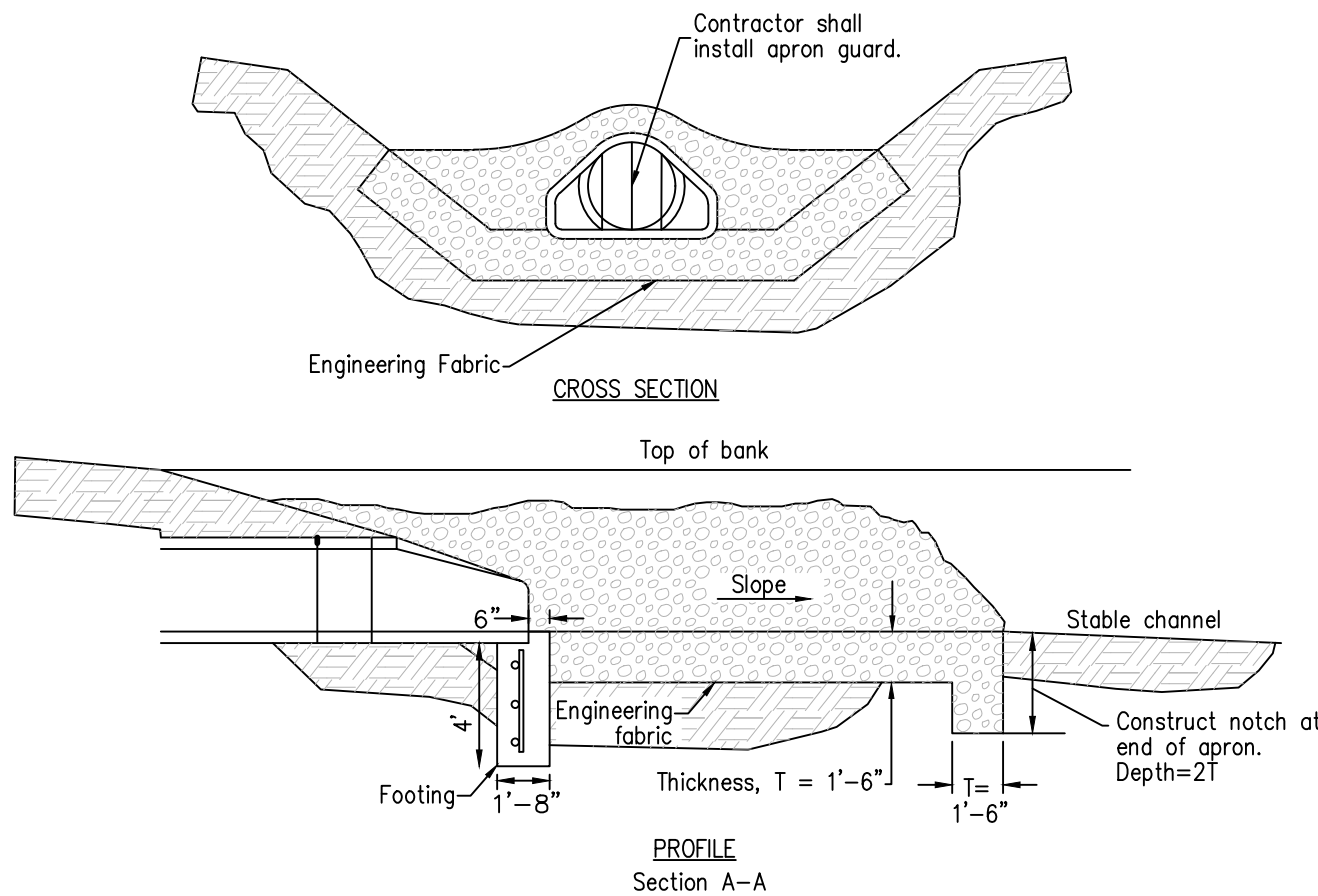
FILE: H:\2021\2103\1A\DWG\210313A-COV-BEF-TAB-ASBUIL.DWG
DRAWN BY: J. GRAY
CHECKED BY: J. GRAY
PLOTTER: HP PLOTTER
PLOT DATE: 4/25/2022 10:17 AM
COMMENT: RCP APRON FOOTING DETAIL



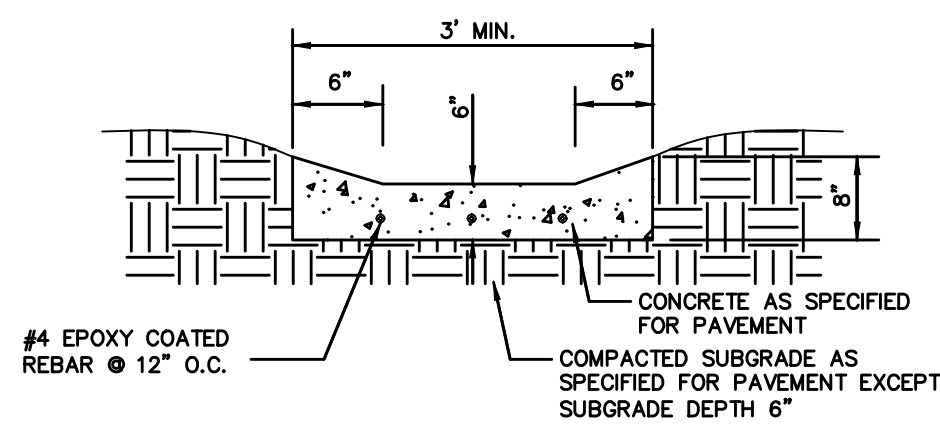
INTERNAL DROP CONNECTION DETAIL
NOT TO SCALE



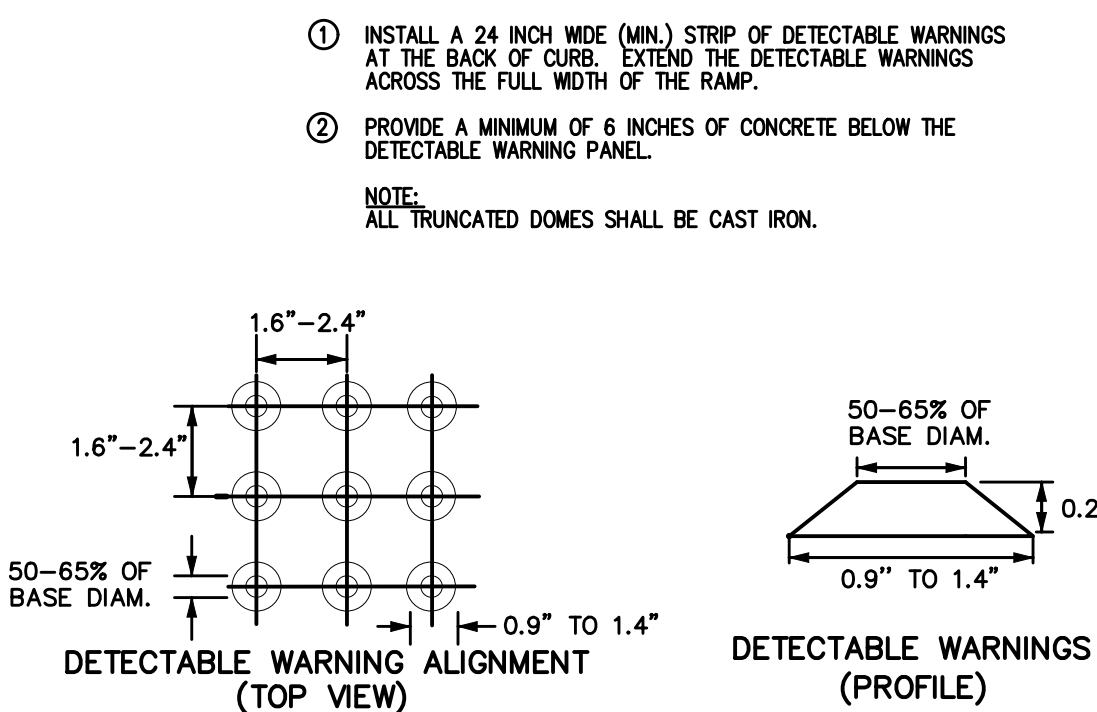
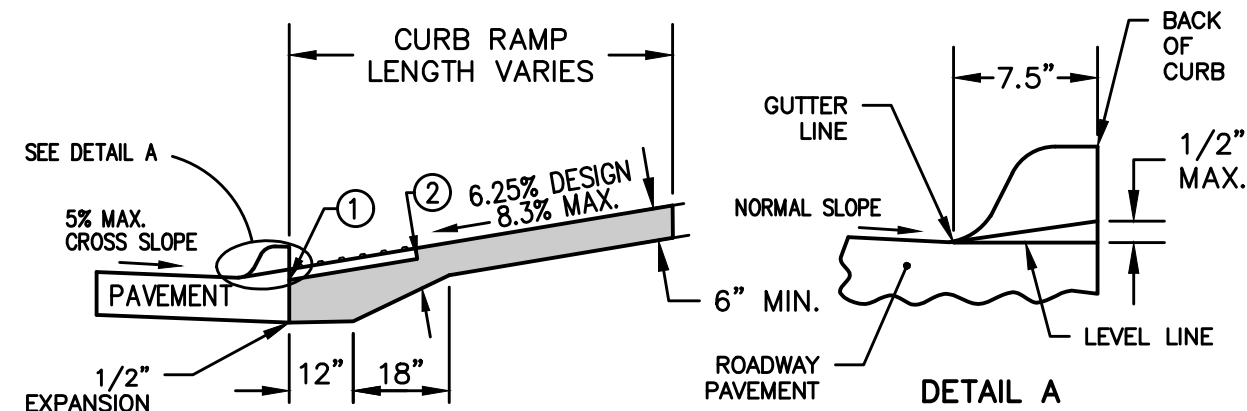
- NOTE:**
1. THE LAST THREE SECTIONS AND THE APRON SHALL BE CONNECTED WITH PIPE CONNECTIONS PER SECTION 4030.302C OF SUDAS.
 2. INSTALL A 3' CLAY WATERSTOP AT ALL STORM SEWER OUTLETS.



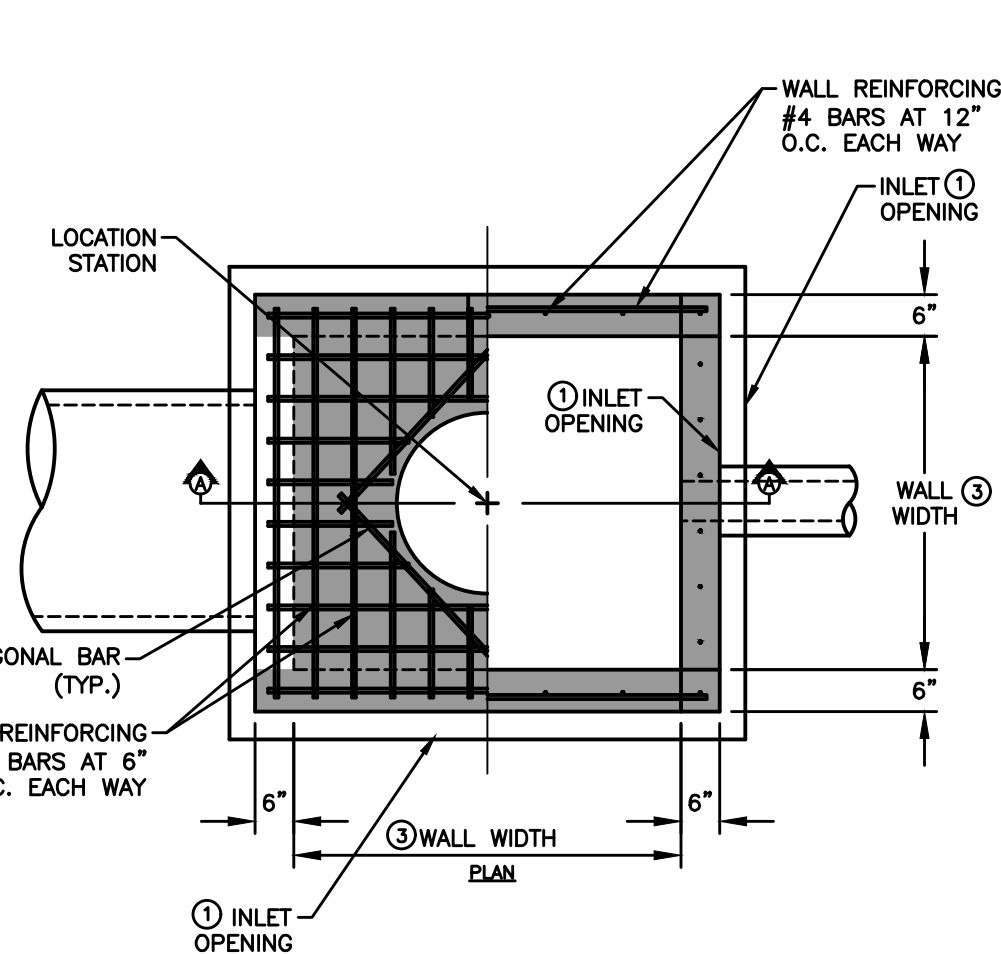
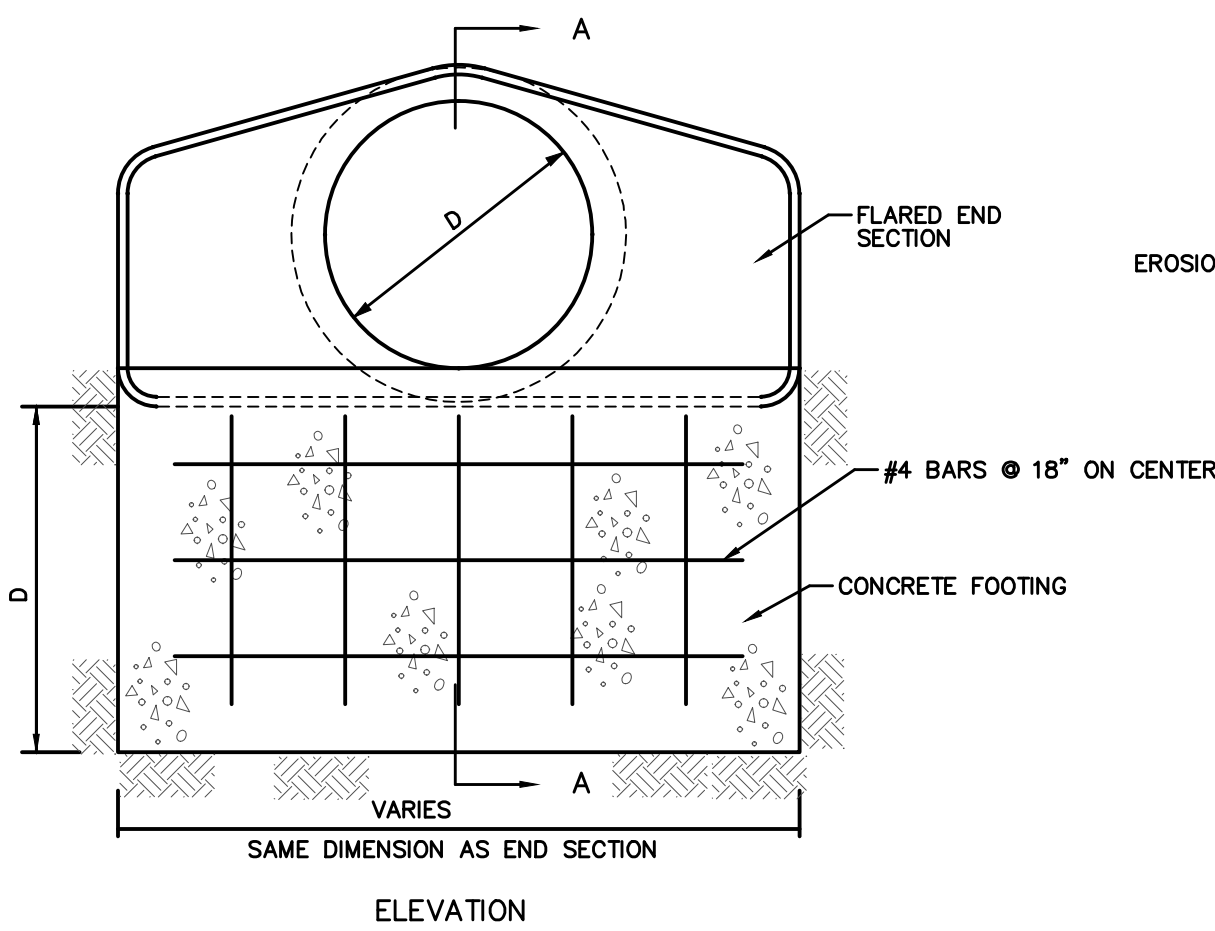
ROCK APRON FOR PIPE OUTLET
NOT TO SCALE



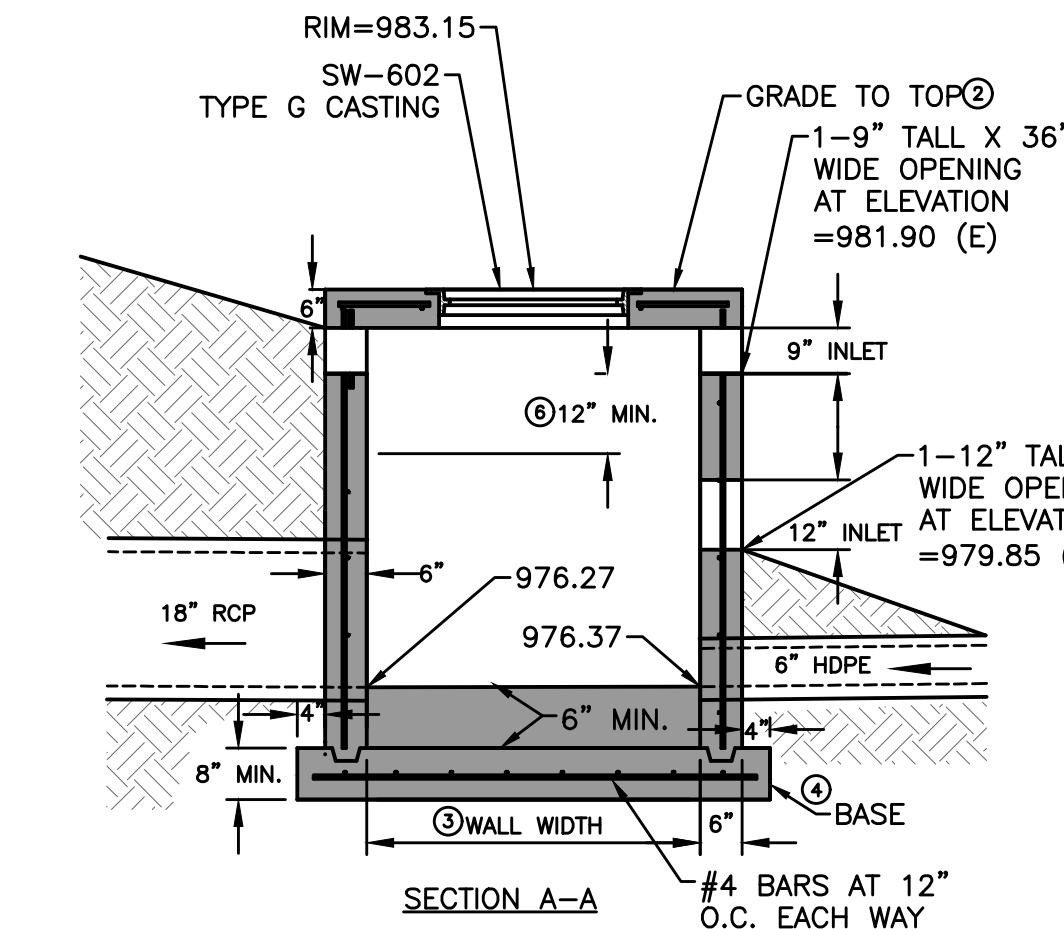
PCC FLUME DETAIL
NOT TO SCALE



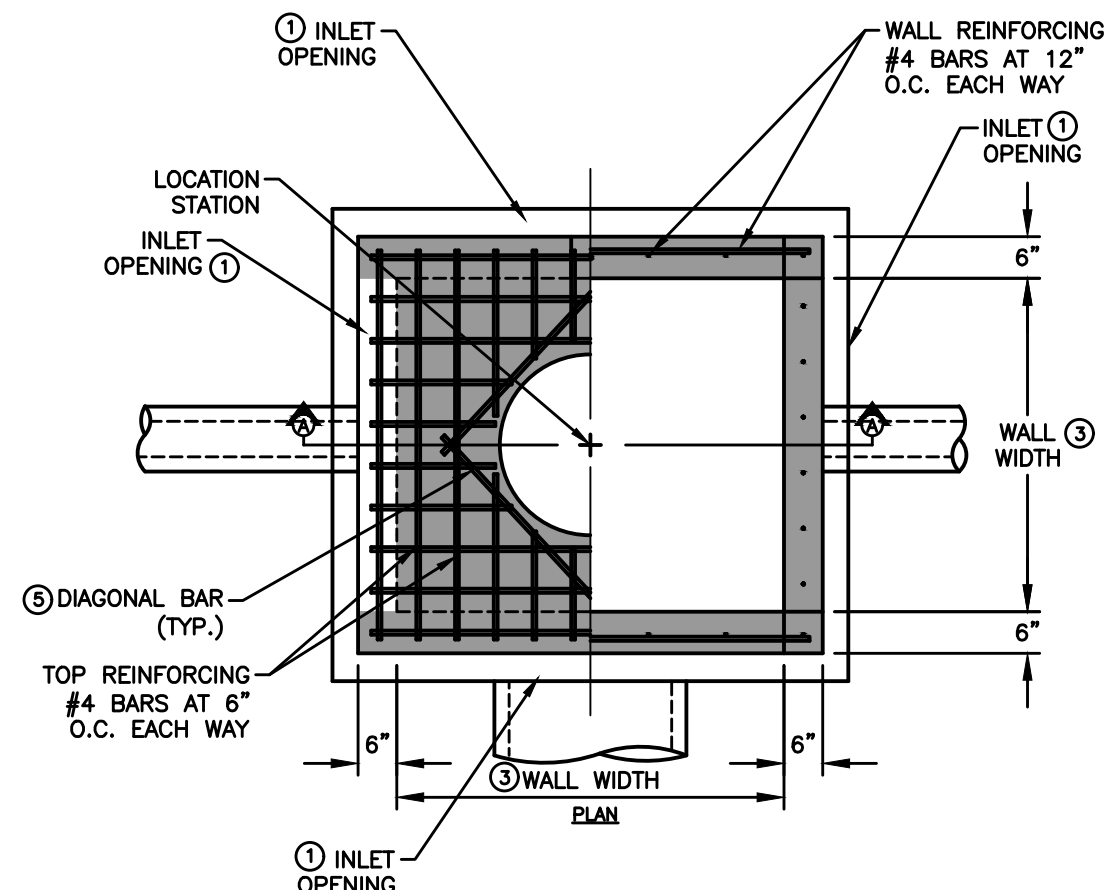
DETECTABLE WARNING DETAIL
NOT TO SCALE



4' X 4' SW-513 INTAKE (ST-2)
NOT TO SCALE



4' X 4' SW-513 INTAKE (ST-10)
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
12"	2'-4"	4f1	4	2'-0"	3	48"	7'-10"	4f1	4
		4f2	4	3'-8"	2			4f2	4
15"	2'-10"	4f1	4	2'-6"	3	54"	8'-5"	4f1	4
		4f2	4	3'-8"	2			4f2	4
18"	3'-5"	4f1	4	3'-1"	3	60"	8'-11"	4f1	4
		4f2	4	4'-2"	3			4f2	4
24"	4'-6"	4f2	4	3'-8"	3	66"	8'-11"	4f2	4
		4f1	4	5'-3"	3			4f1	4
30"	5'-7"	4f2	4	3'-8"	4	72"	10'-0"	4f2	4
		4f1	4	6'-4"	3			4f1	4
36"	6'-8"	4f2	4	3'-8"	5	78"	10'-7"	4f2	4
		4f1	4	6'-11"	3			4f1	4
42"	7'-3"	4f2	4	3'-8"	5	84"	11'-1"	4f2	4
								4f1	4

RCP APRON FOOTING DETAIL
NOT TO SCALE

FILE: H:\2021\210313A\DWG\210313A-COV-BEF-TAB-ASBUIL.DWG
DRAWN BY: J. GRAY
PLOTED BY: J. GRAY
DATE: 4/23/2022 10:17 AM
COMMENT:
END

GENERAL NOTES

1.

ALL CONSTRUCTION SHALL CONFORM TO 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 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.
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.

ESTIMATED PROJECT QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	44.95
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	9,788
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	1,683
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	36
7	SUBDRAIN, 6" PERFORATED PVC	LF	3,246
8	STORM SEWER, TRENCHED, 6" HDPE	LF	23
9	STORM SEWER, TRENCHED, 8" HDPE	LF	775
10	STORM SEWER, TRENCHED, 15" HDPE	LF	678
11	STORM SEWER, TRENCHED, 15" RCP	LF	1,414
12	STORM SEWER, TRENCHED, 18" RCP	LF	476
13	STORM SEWER, TRENCHED, 24" RCP	LF	488
14	STORM SEWER SERVICE STUB, 4" DIA	EA	36
15	STORM SEWER, 15" RCP APRON W/ FOOTING & APRON GUARD	EA	2
16	STORM SEWER, 18" RCP APRON W/ FOOTING & APRON GUARD	EA	2
17	STORM SEWER, 24" RCP APRON W/ FOOTING & APRON GUARD	EA	1
18	WATER MAIN, 8" DIA	LF	1,851
19	WATER MAIN, 12" DIA	LF	857
20	WATER SERVICE STUB, 1" DIA	EA	36
21	VALVE, 8" DIA	EA	6
22	VALVE, 12" DIA	LF	2
23	FIRE HYDRANT ASSEMBLY	EA	11
24	TEMPORARY FIRE HYDRANT ASSEMBLY	EA	1
25	TEMPORARY FIRE HYDRANT ASSEMBLY (RELOCATE)	EA	1
26	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	9
27	MANHOLE, SW-401, 48" (STORM SEWER)	EA	9
28	INTAKE, SW-501	EA	5
29	INTAKE, SW-503	EA	5
30	INTAKE, SW-505	EA	5
31	INTAKE, SW-506	EA	4
32	INTAKE, SW-512, 30" DIA.	EA	1
33	INTAKE, SW-513, 4'x4'	EA	2
34	INTAKE, NYLOPLAST 24" DIA. W/ DOME GRATE INLET	EA	3
35	PAVEMENT, 7" P.C.C.	SY	6,014
36	PAVEMENT, 9" P.C.C.	SY	2,675
37	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	113
38	PAVEMENT, 4" P.C.C. SIDEWALK	SY	75
39	PAVEMENT, 4" P.C.C. FLUME	SY	115
40	PAVEMENT, 6" P.C.C. TRAIL	SY	2,274
41	DETECTABLE WARNING PANELS	SF	160
42	SEEDING, FERTILIZING, AND MULCHING	AC	42.35
43	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	10
44	TRAFFIC CONTROL	LS	1
45	EROSION CONTROL	LS	1
46	STORM SUBDRAIN CLEANOUT	EA	3
47	MAILBOX PAD	EA	4
48	ROCK OUTLET PROTECTION, CLASS 'e' RIPRAP	TONS	15
49	TEMPORARY 8" GRANULAR TURNAROUND	EA	1
50	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 MOST RECENT 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.
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 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.
8-17	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.
6,14,20	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.
15-17	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.
18-25	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.
23	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.
24-25	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS. ANY RELOCATED FIRE HYDRANTS ARE TO INCLUDE 5-INCH STORZ FITTINGS.
26	REFER TO FIG.6010.301 - CIRCULAR SANITARY SEWER MANHOLE (SW-301) FOR CONSTRUCTION DETAILS. CASTINGS IN PAVEMENT SHALL BE TYPE B RING AND COVER. WHEN CASTINGS ARE NOT IN PAVEMENT, INSTALL MANHOLE CONE SECTION, MANHOLE STEPS, AND RING/COVER CASTING SUCH THAT SEPARATION IS MAINTAINED BETWEEN MANHOLE COVERS AND PAVED AREAS (BACK OF CURB, SIDEWALK PAVEMENT, SIDEWALK APPROACHES/RAMPS). ALL SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED.
27	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
28-31	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".
28	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
29	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
30	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS
31	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
35-36	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C JOINT SPACING IS 15 FEET.
37	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.
39	REFER TO SHEET 4 FOR CONSTRUCTION DETAILS.
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. SEEDING QUANTITIES -TYPE 1 PERMANENT LAWN MIXTURE =1.50 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 42.35 AC -NATIVE GRASS SEED MIX (WET AND DRY BLEND) = 1,015 SF
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.
44	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.
45	REFER TO SHEET 10-12 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
46	REFER TO SANITARY AND STORM SEWER PLAN AND PROFILE SHEETS FOR LOCATIONS.
47	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS. MAILBOX PADS ARE LOCATED BETWEEN LOTS 27/28.
48	REFER TO SHEET 4 FOR CONSTRUCTION DETAILS AND SHEETS 10-12 FOR LOCATIONS.
49	8-INCH THICK; 4-INCHES OF 3-INCH ROCK AND 4-INCHES OF GRANULAR SURFACING. REFER TO SHEET 19 FOR LOCATION.
50	REFER TO SHEET 6 FOR PLANT SCHEDULE AND BUFFER REQUIREMENTS.

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.

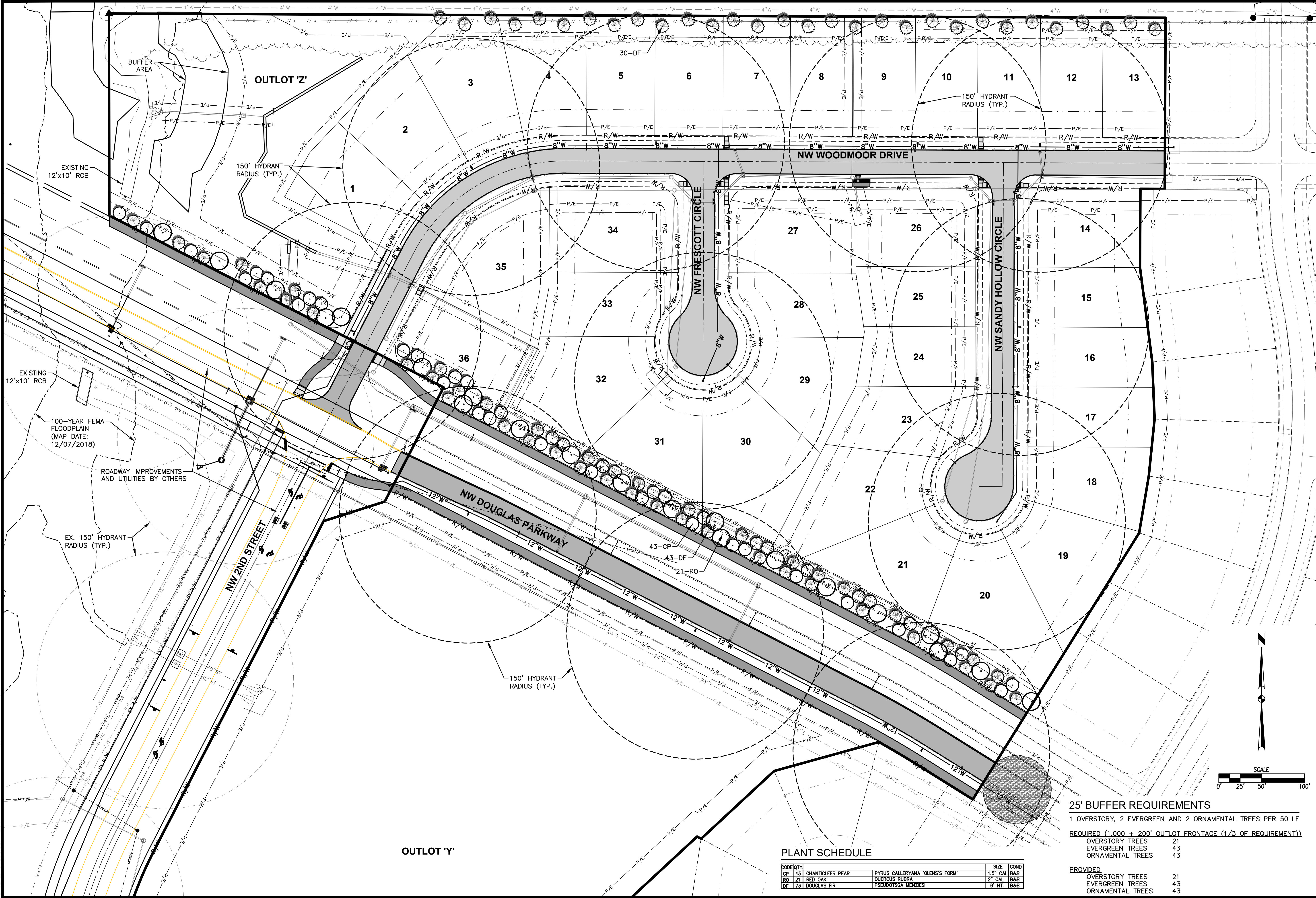
ANY FIELD FENCE LOCATED WITHIN THE PROPERTY IS TO BE REMOVED.
37.

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.

FILE: H:\2021\2103\2103\2103\34-COV-BET-TAB-ASBUILDWG
DATE: 04/21/2022
DRAWN BY: JAW
CHECKED BY: JAW
PLOT DATE: 4/21/2022 10:17 AM
PLOT BY: JAW



OUTLOT 'Y'

PLANT SCHEDULE

CODE	QUANTITY	DESCRIPTION	SIZE	COND
CP	43	CHANTICLEER PEAR	1.5" CAL	B&B
RO	21	RED OAK	2" CAL	B&B
DF	73	DOUGLAS FIR	6" HT.	B&B

25' BUFFER REQUIREMENTS

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

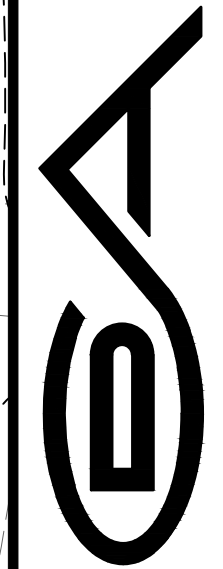
REQUIRED (1,000 + 200' OUTLOT FRONTAGE (1/3 OF REQUIREMENT))

OVERSTORY TREES	21
EVERGREEN TREES	43
ORNAMENTAL TREES	43

PROVIDED	
OVERSTORY TREES	21
EVERGREEN TREES	43
ORNAMENTAL TREES	43

PRAIRIE ROSE PLAT 3

HYDRANT COVERAGE & LANDSCAPE PLAN



WAUKEE, IOWA

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

ENGINEER: EKO

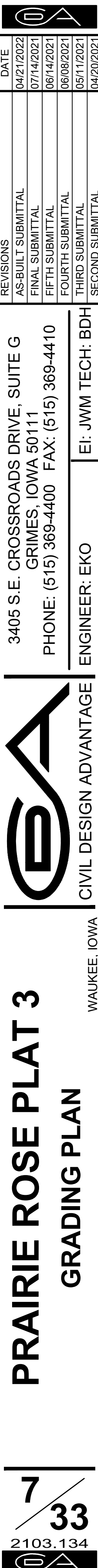
EI: JWM TECH: BDH

REVISIONS

DATE	DESCRIPTION
04/21/2022	AS-BUILT SUBMITTAL
07/14/2021	FINAL SUBMITTAL
06/14/2021	FIFTH SUBMITTAL
06/08/2021	FOURTH SUBMITTAL
05/11/2021	THIRD SUBMITTAL
04/20/2021	SECOND SUBMITTAL

6/33

2103.134



PRAIRIE ROSE PLAT 3

EROSION AND SEDIMENT CONTROL PLAN

SWPPP LEGEND

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

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 DIRECTLY TO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK	16.87 ACRES
TOTAL AREA DISTURBED TO DISCHARGE POINT	60,732 CU FT
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	
VOLUME PROVIDED IN SILT FENCE (1,875 LF @ 10.0 CU FT/LF OF FENCE)	18,750 CU FT
VOLUME PROVIDED IN DITCH CHECK (1,425 LF @ 15.0 CU FT/LF)	21,375 CU FT
VOLUME PROVIDED IN TSB #1	30,425 CU FT
TOTAL VOLUME PROVIDED	70,550 CU FT
DISCHARGE POINT #2 DIRECTLY TO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK	12.97 ACRES
TOTAL AREA DISTURBED TO DISCHARGE POINT	46,692 CU FT
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	
VOLUME PROVIDED IN SILT FENCE (2,150 LF @ 10.0 CU FT/LF OF FENCE)	21,500 CU FT
VOLUME PROVIDED IN DITCH CHECK (250 LF @ 15.0 CU FT/LF)	3,750 CU FT
VOLUME PROVIDED IN TSB #2	36,298 CU FT
TOTAL VOLUME PROVIDED	61,546 CU FT
DISCHARGE POINT #3 DIRECTLY TO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK	14.33 ACRES
TOTAL AREA DISTURBED TO DISCHARGE POINT	51,588 CU FT
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	
VOLUME PROVIDED IN SILT FENCE (3,500 LF @ 10.0 CU FT/LF OF FENCE)	35,000 CU FT
VOLUME PROVIDED IN DITCH CHECK (1,520 LF @ 15.0 CU FT/LF)	22,800 CU FT
TOTAL VOLUME PROVIDED	57,800 CU FT

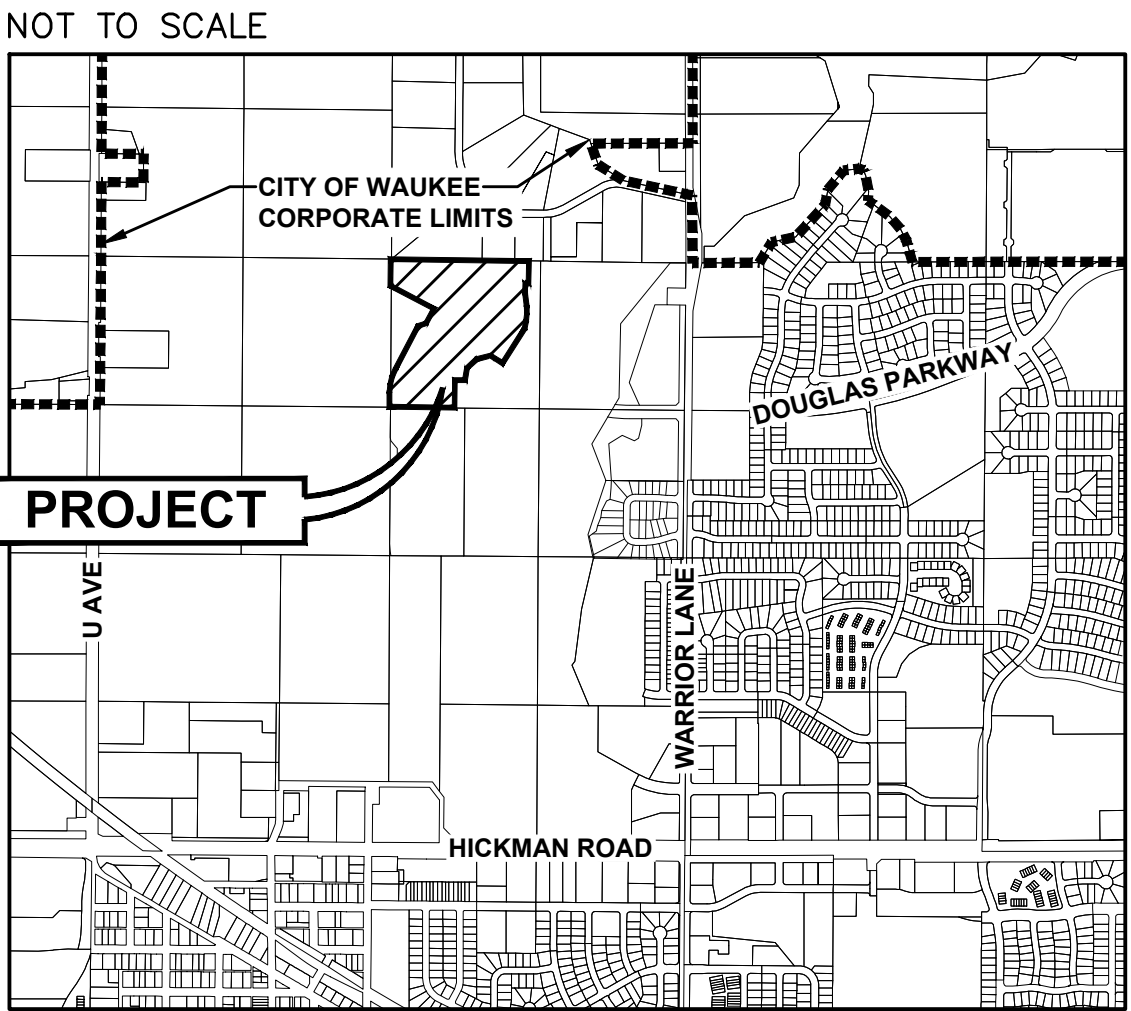
STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	7,525
2	DITCH CHECKS	LF	3,195
3	SEEDING, FERTILIZING, AND MULCHING	AC	42.35
4	INLET PROTECTION DEVICES	EA	18
5	CONCRETE WASHOUT PIT	EA	1
6	FILTER FABRIC	LS	1
7	EROSION STONE	TON	0.25

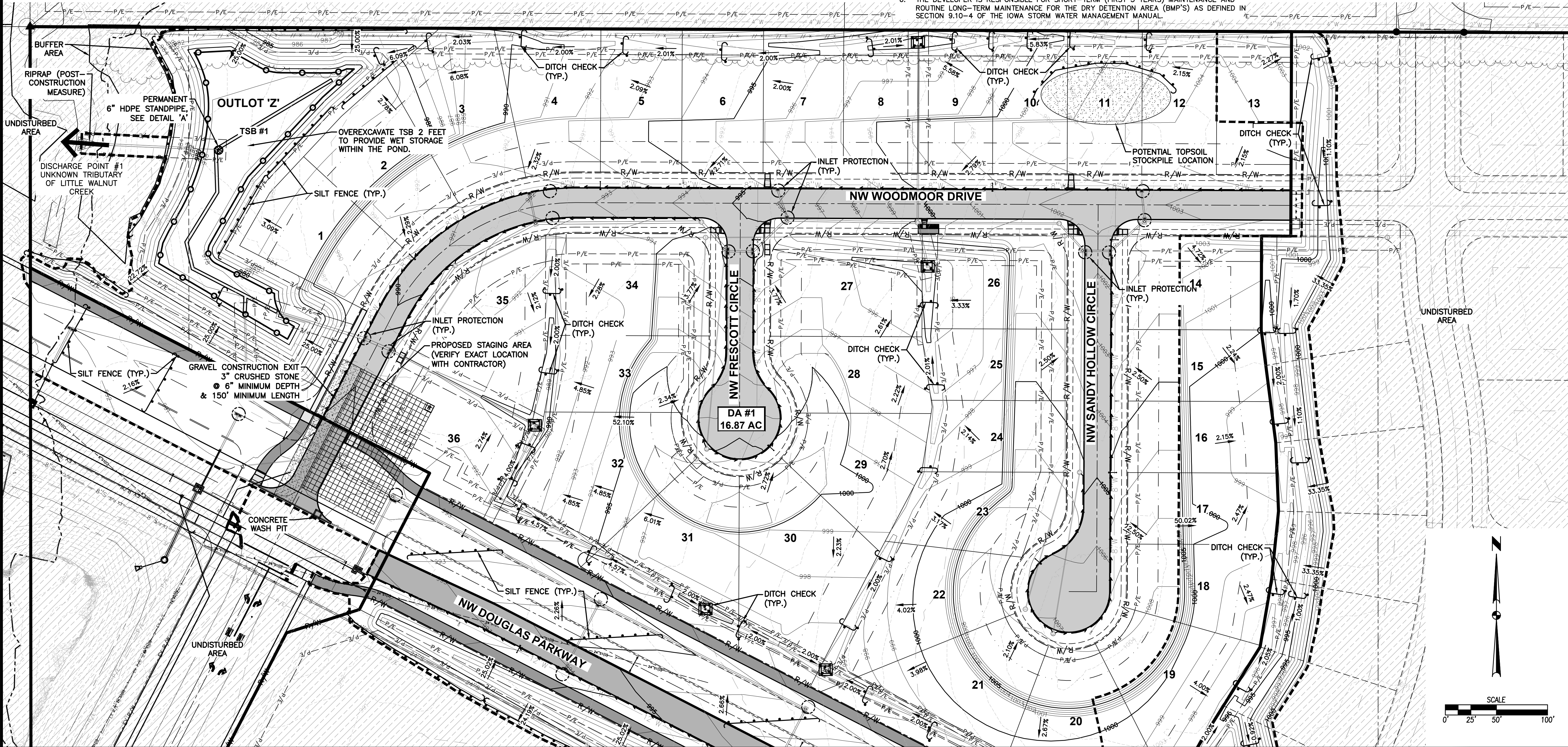
NOTES:

- 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.

VICINITY MAP



WAUKEE, IOWA



DATE

04/21/2022

AS-BUILT SUBMITTAL

07/14/2021

FIFTH SUBMITTAL

06/14/2021

FOURTH SUBMITTAL

06/08/2021

THIRD SUBMITTAL

05/11/2021

SECOND SUBMITTAL

04/20/2021

REVISIONS

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

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

ENGINEER: EKO

EI: JWM TECH: BDH

PRAIRIE ROSE PLAT 3

EROSION AND SEDIMENT CONTROL PLAN

10

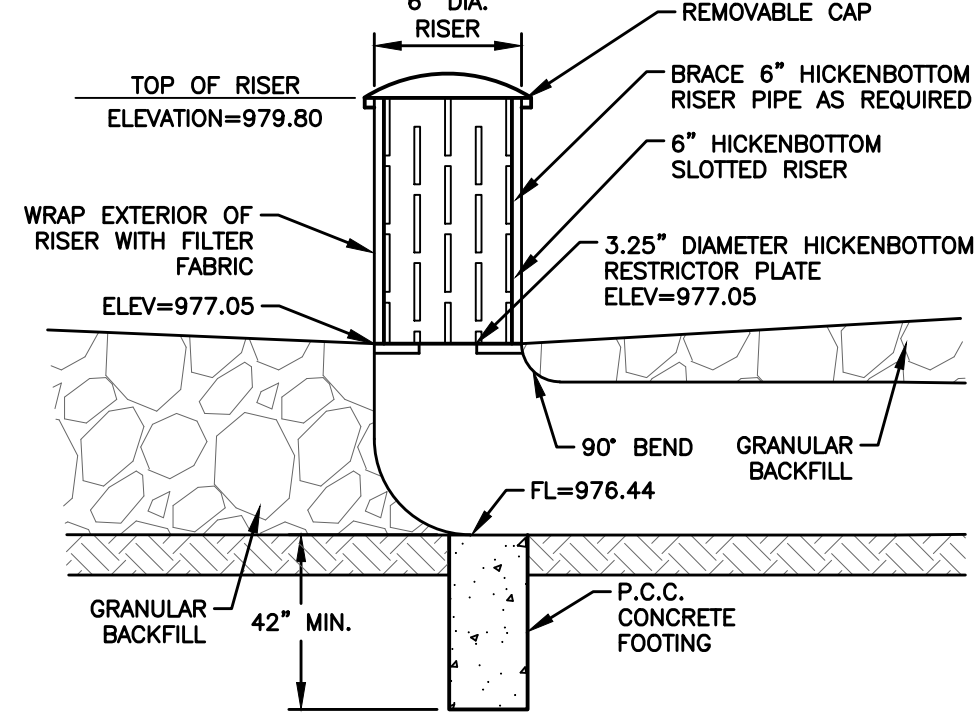
33

2103.134

FILE: H:\2021\210313A\DWG\210313A-SWPPP-ASBUIL.DWG
DATE PLOTTED: 4/21/2022 10:18 AM
PLOTTER: HP DesignJet T1200
COMMENTS: EROSION CONTROL PLAN

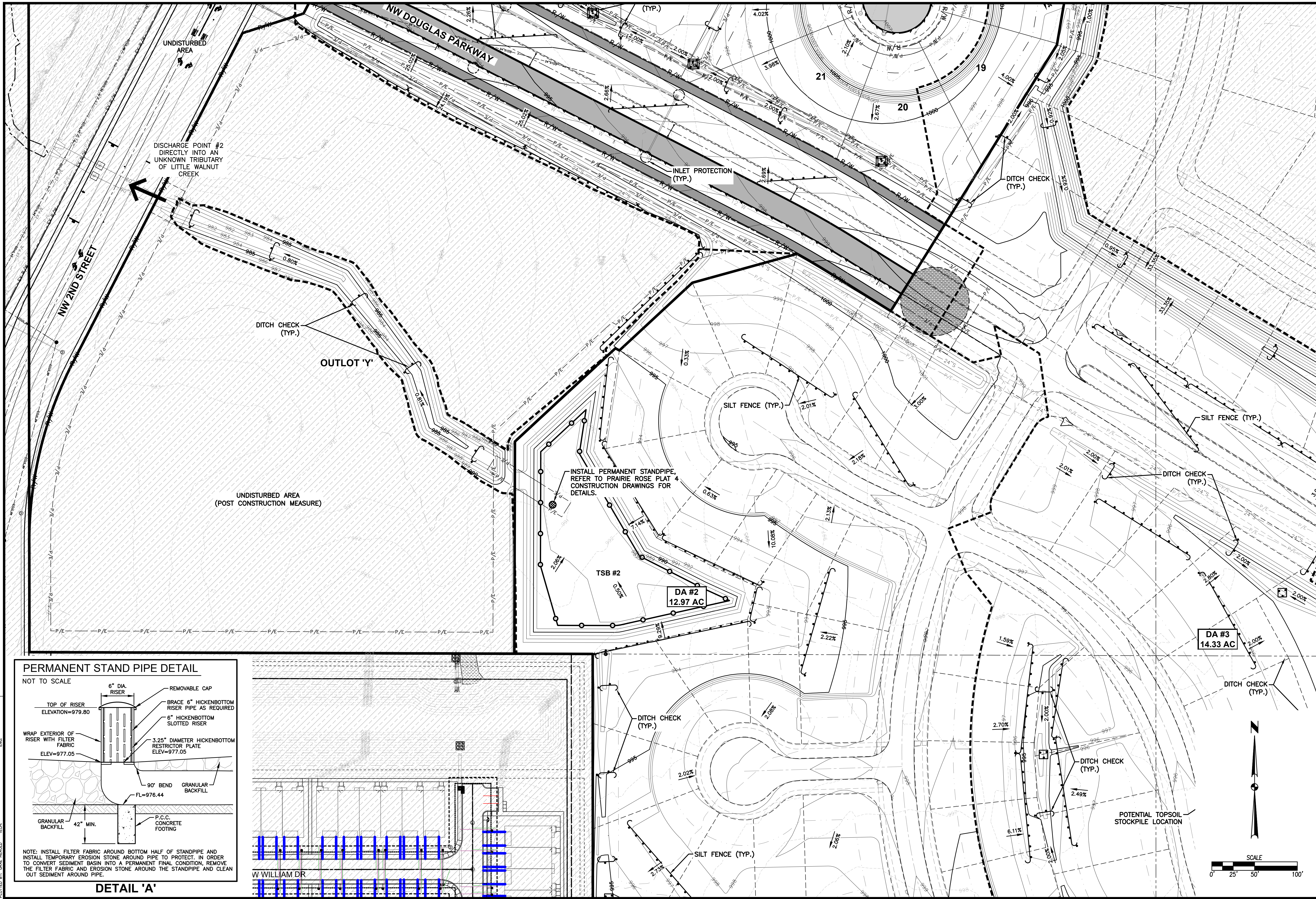
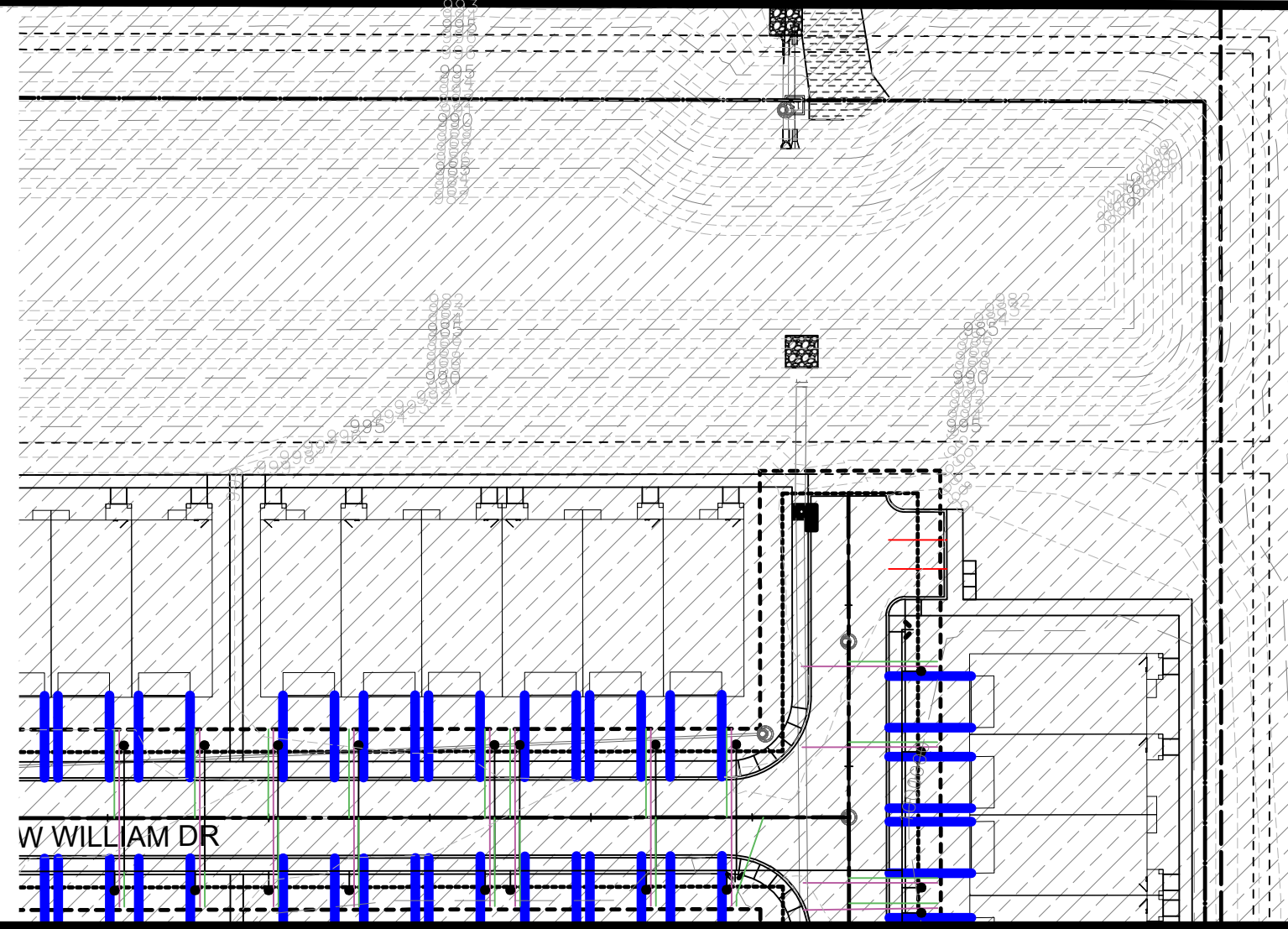
PERMANENT STAND PIPE DETAIL

NOT TO SCALE



NOTE: INSTALL FILTER FABRIC AROUND BOTTOM HALF OF STANDPIPE AND INSTALL TEMPORARY EROSION STONE AROUND PIPE TO PROTECT. IN ORDER TO CONVERT SEDIMENT BASIN INTO A PERMANENT FINAL CONDITION, REMOVE THE FILTER FABRIC AND EROSION STONE AROUND THE STANDPIPE AND CLEAN OUT SEDIMENT AROUND PIPE.

DETAIL 'A'



CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

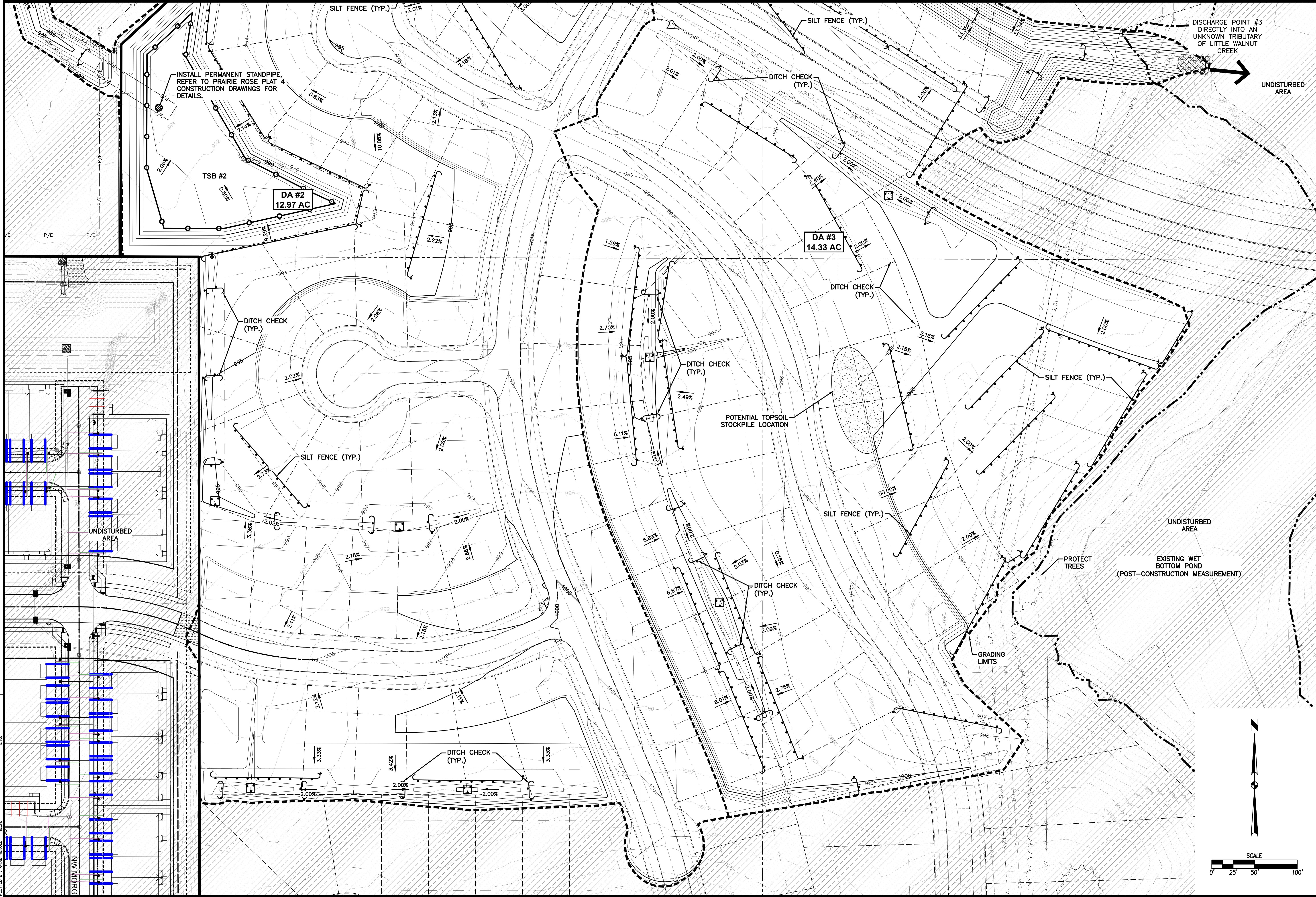
PRAIRIE ROSE PLAT 3
EROSION AND SEDIMENT CONTROL PLAN

11
33
2103.134

REVISIONS	DATE	BY	APP'D
AS-BUILT SUBMITTAL	04/21/2022		
FINAL SUBMITTAL	07/14/2021		
FIFTH SUBMITTAL	06/14/2021		
FOURTH SUBMITTAL	06/08/2021		
THIRD SUBMITTAL	05/11/2021		
SECOND SUBMITTAL	04/20/2021		

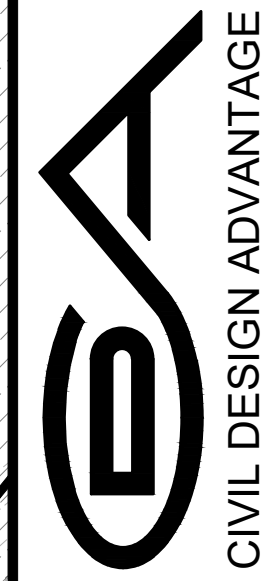
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: JWM TECH: BDH

FILE: H:\2021\210313A\DWG\210313A-SWPPP-ASBUIL.DWG
DATE PLOTTED: 4/21/2022 10:18 AM
PLOTTER: HP PLOTTER
COMMENTS:
END



PRAIRIE ROSE PLAT 3
EROSION AND SEDIMENT CONTROL PLAN

12/33
2103.134



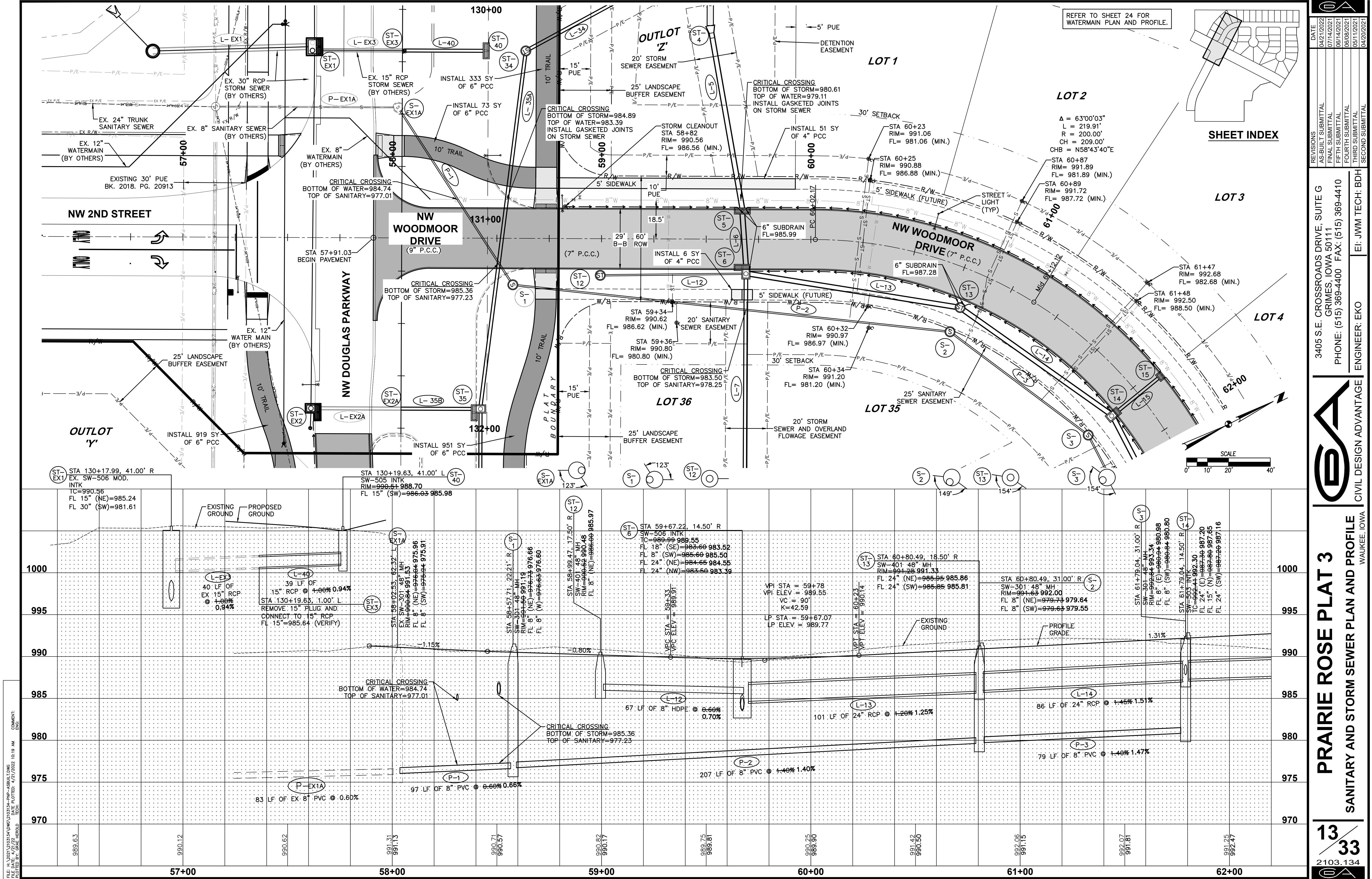
WAUKEE, IOWA

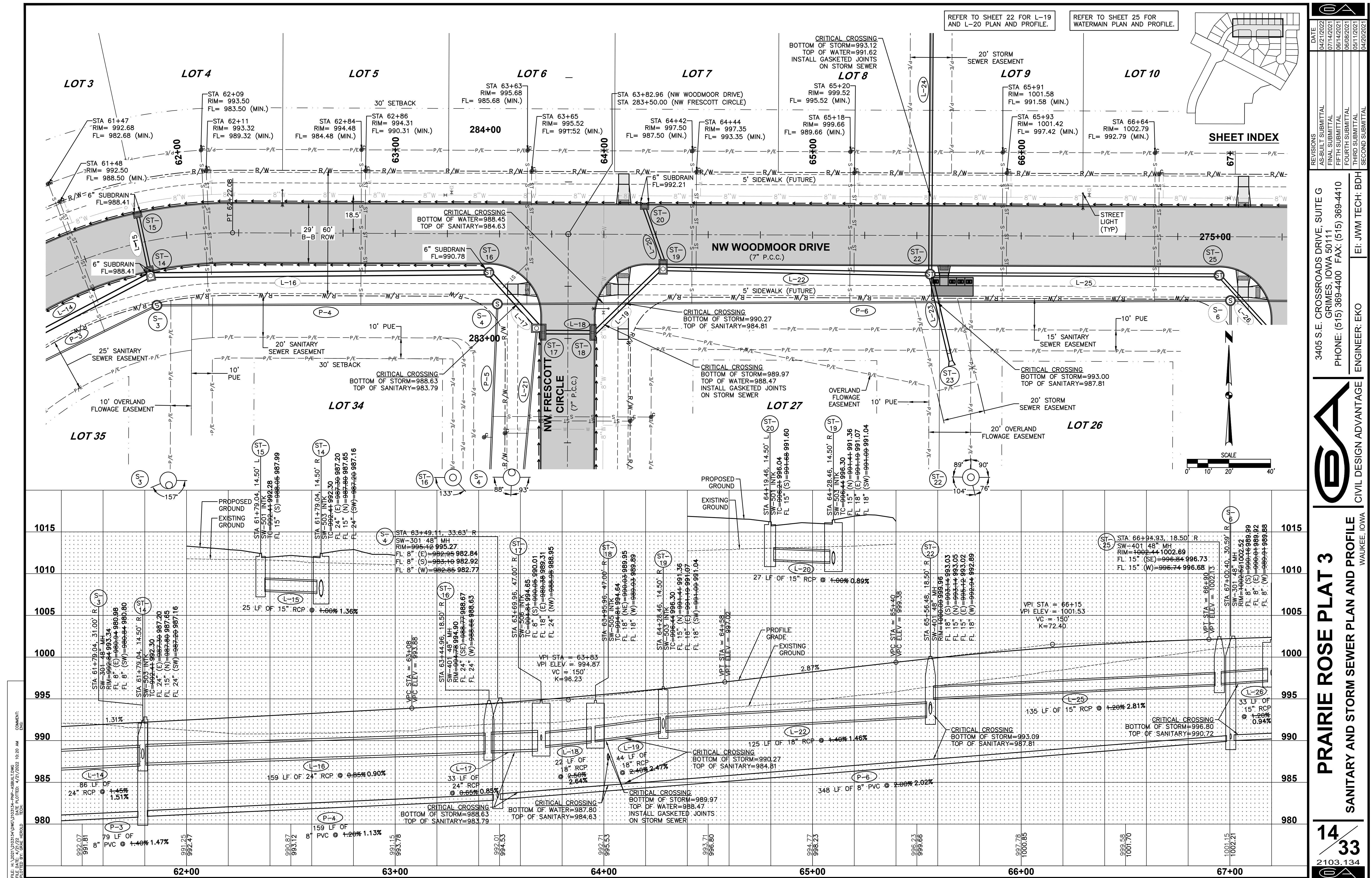
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: JWM TECH: BDH

REVISIONS

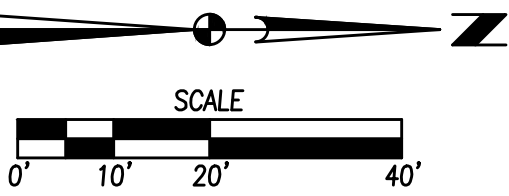
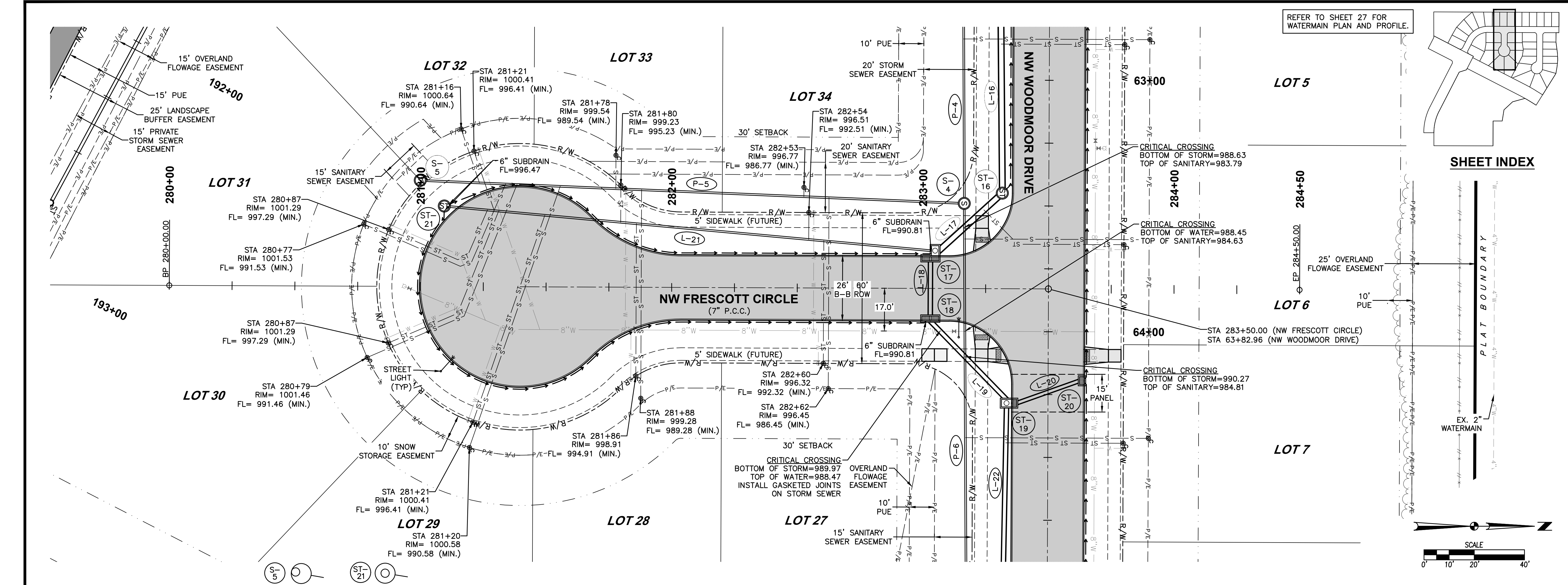
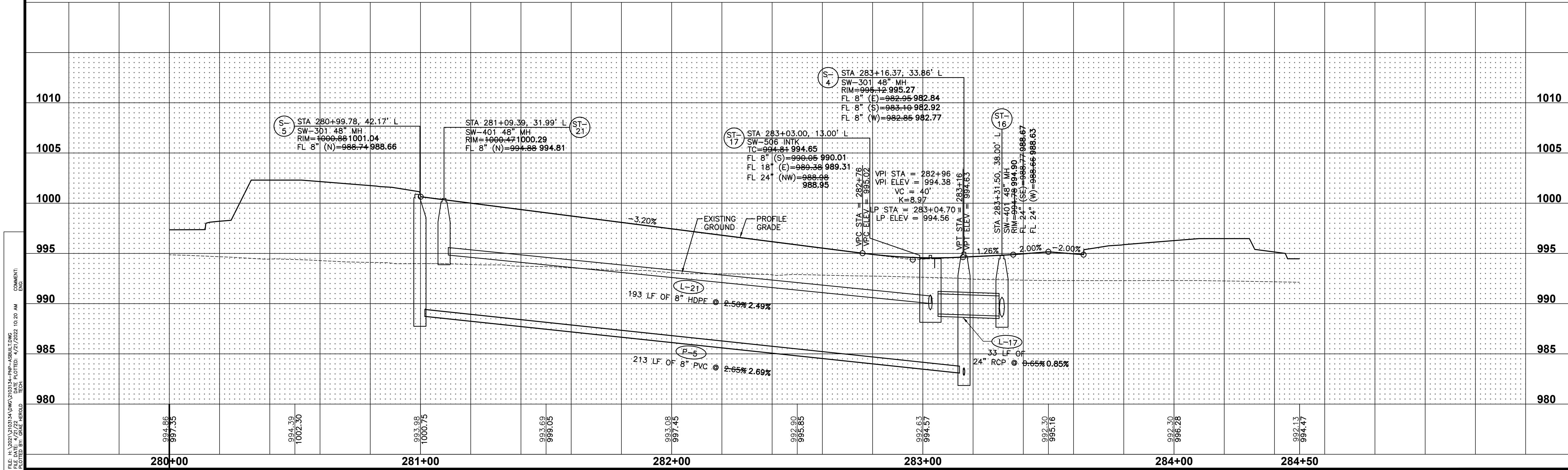
DATE	04/21/2022
AS-BUILT SUBMITTAL	07/14/2021
FINAL SUBMITTAL	06/14/2021
FIFTH SUBMITTAL	06/08/2021
FOURTH SUBMITTAL	05/17/2021
THIRD SUBMITTAL	04/20/2021

04/21/2022
07/14/2021
06/14/2021
06/08/2021
05/17/2021
04/20/2021

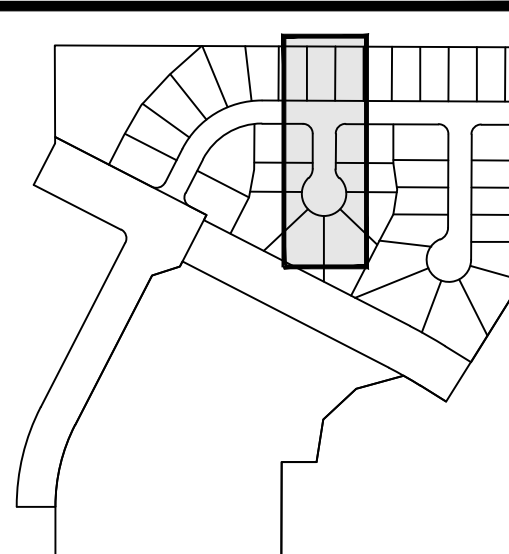


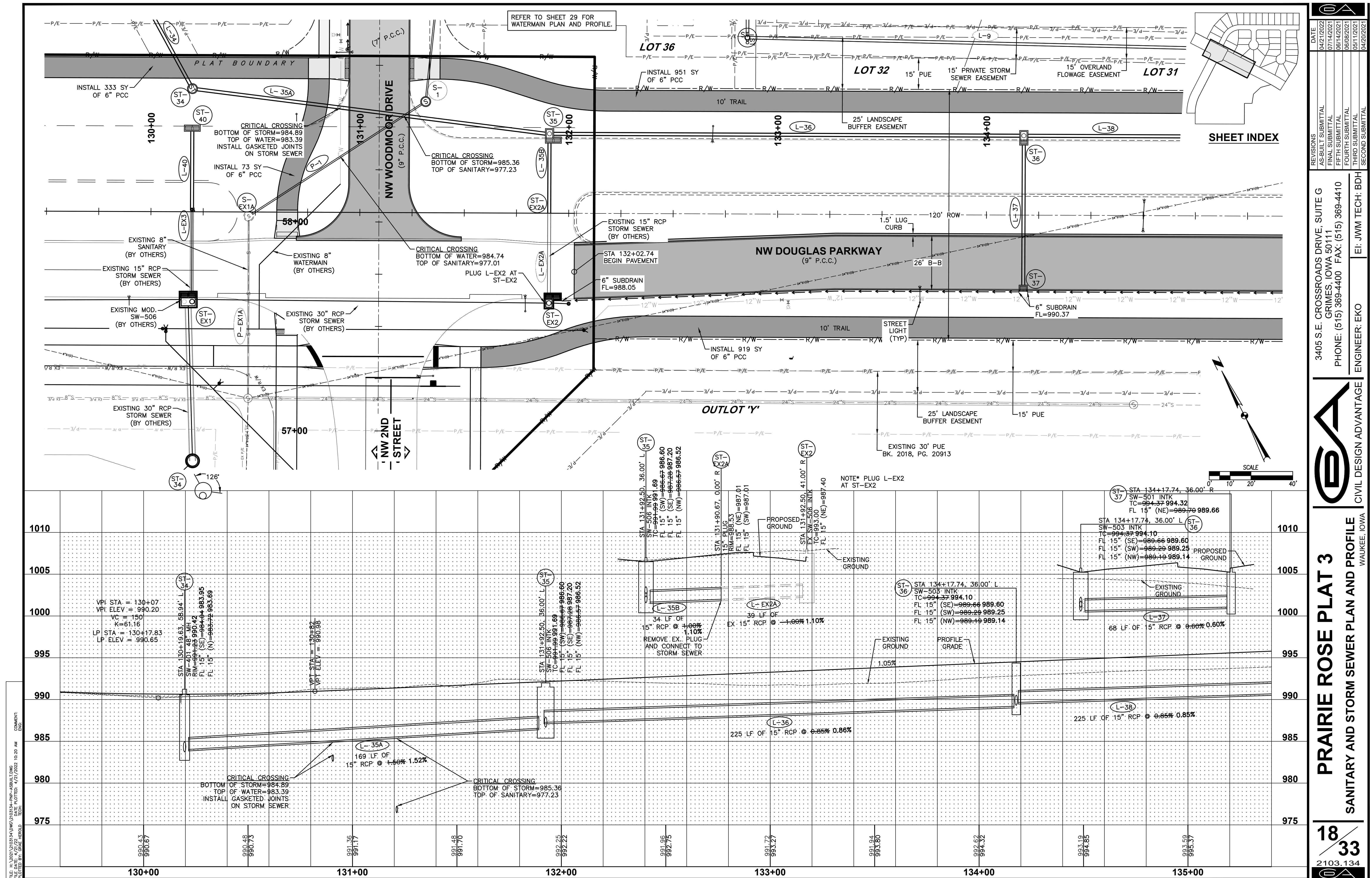


FILE: H:\2021\210313A\DWG\210313A-PNP-AS-BUILD.DWG
PLOT: 16/33
DATE: 4/21/2022 10:20 AM
DRAWN BY: JWM
CHECKED BY: EKO

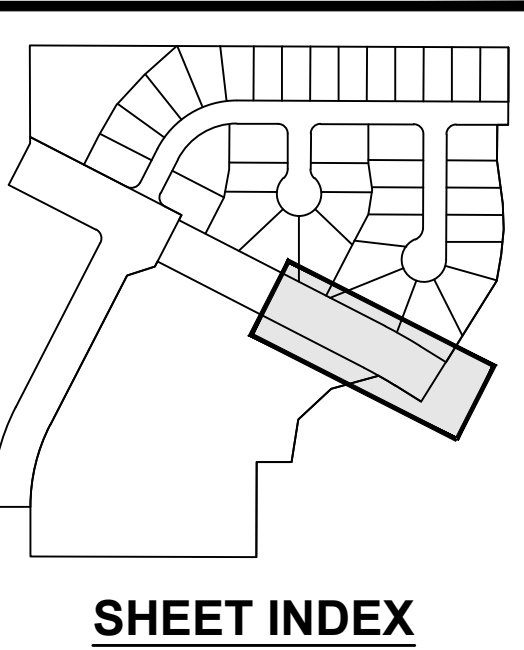
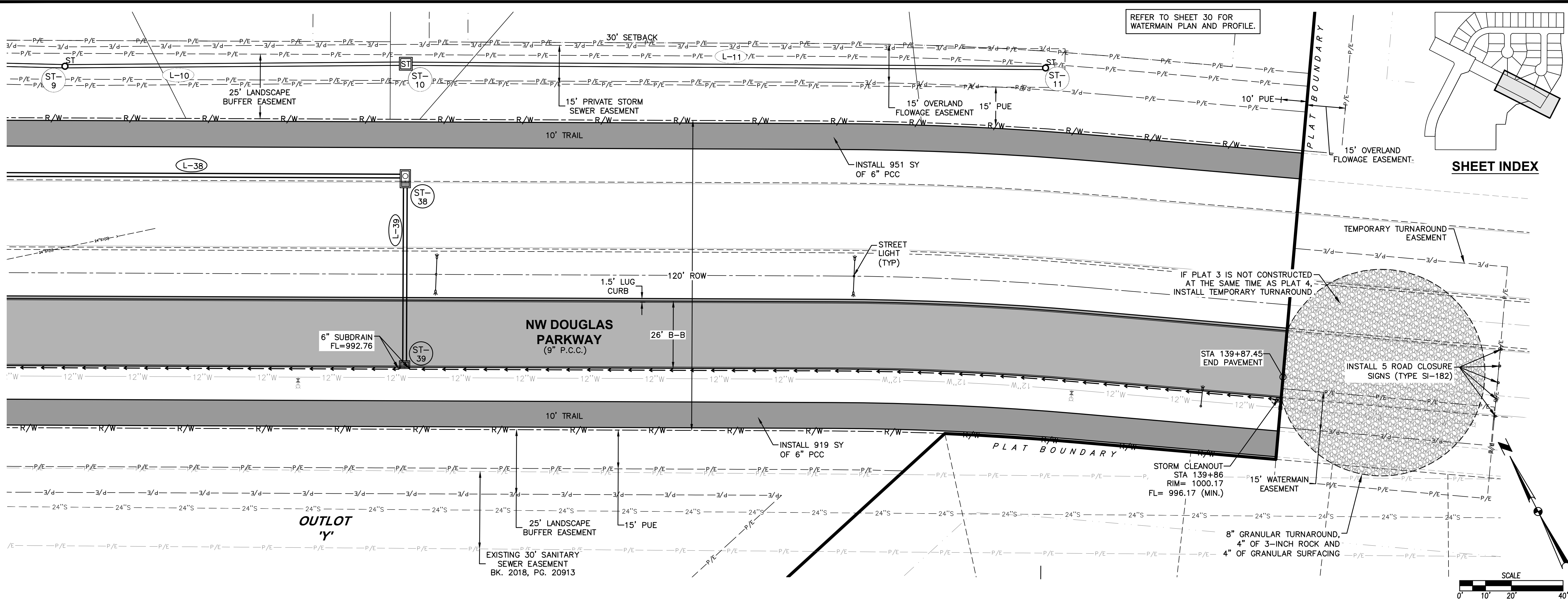
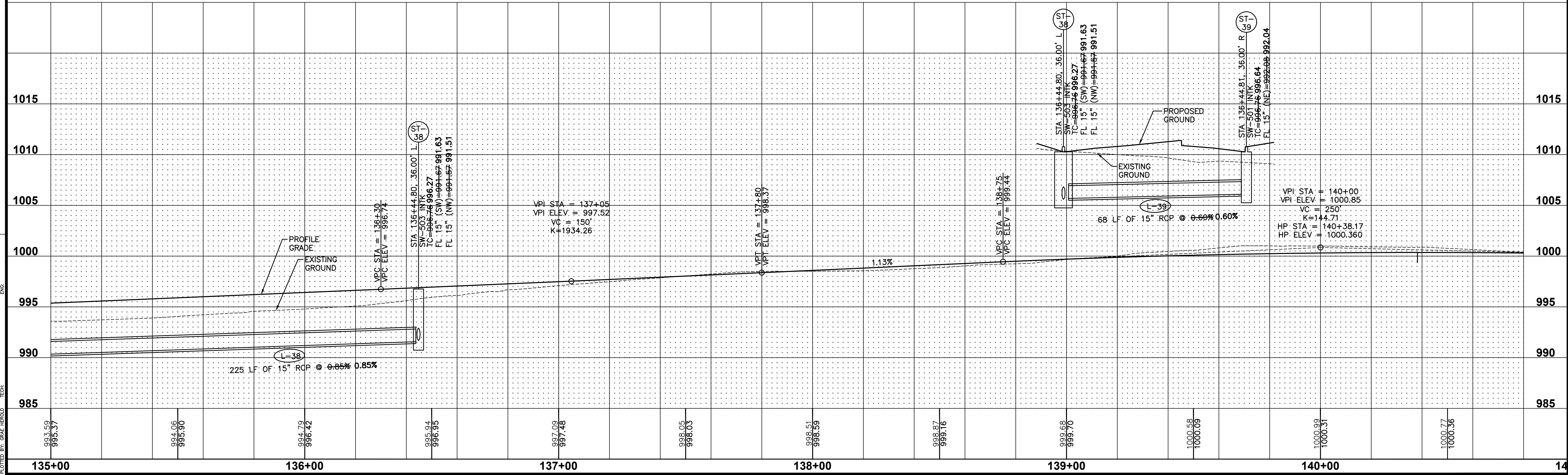


SHEET INDEX





FILE: H:\2021\210313A\DWG\210313A-PNP-AS-BUILD.DWG
PLOT: 4/21/2022 10:21 AM
DRAWN BY: JAW
CHECKED BY: JAW
DATE: 4/21/2022



DATE

04/21/2022

AS-BUILT SUBMITTAL

07/14/2021

FIFTH SUBMITTAL

06/14/2021

FOURTH SUBMITTAL

06/08/2021

THIRD SUBMITTAL

05/11/2021

SECOND SUBMITTAL

04/20/2021

REVISIONS

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

PRAIRIE ROSE PLAT 3

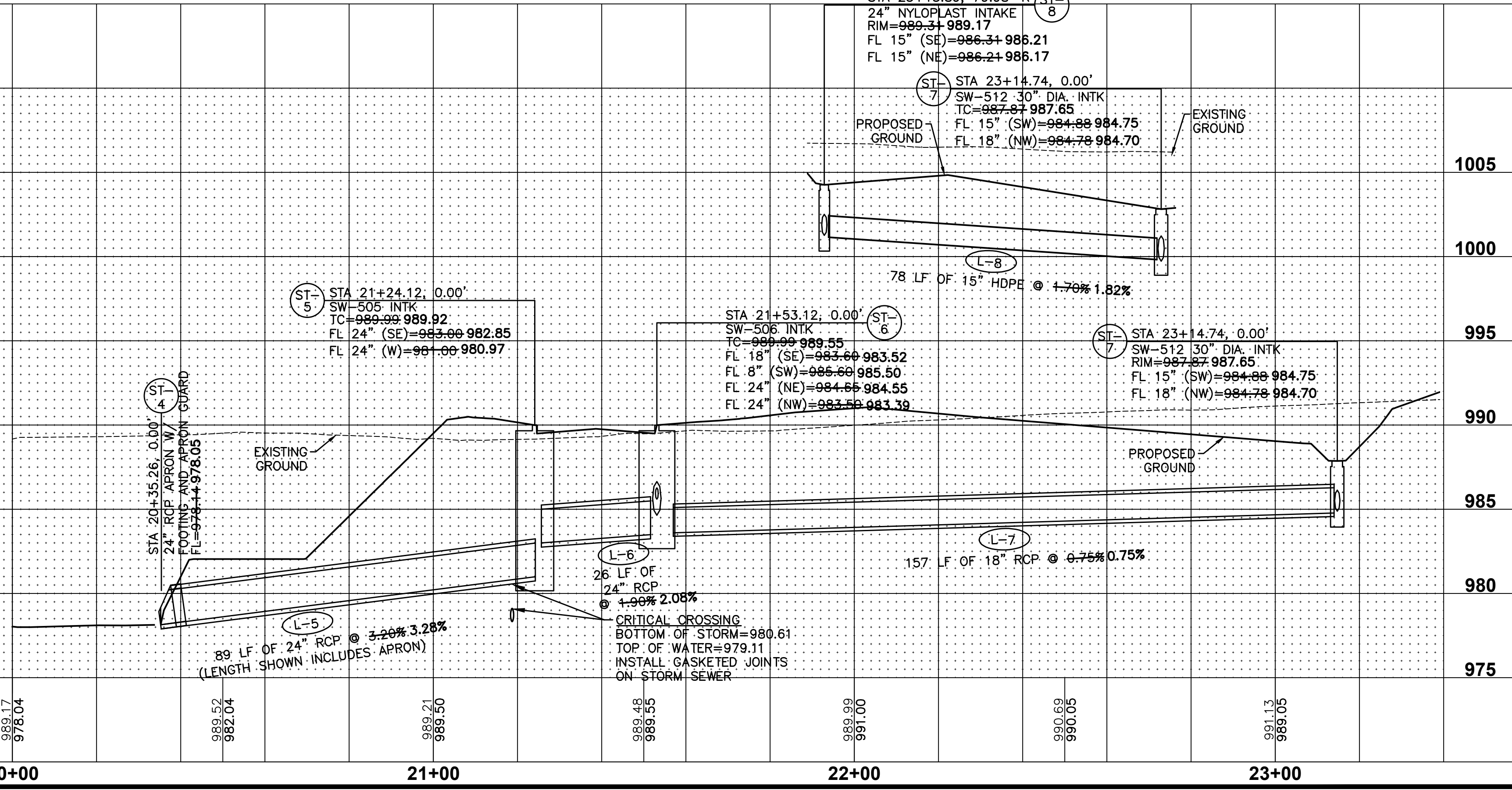
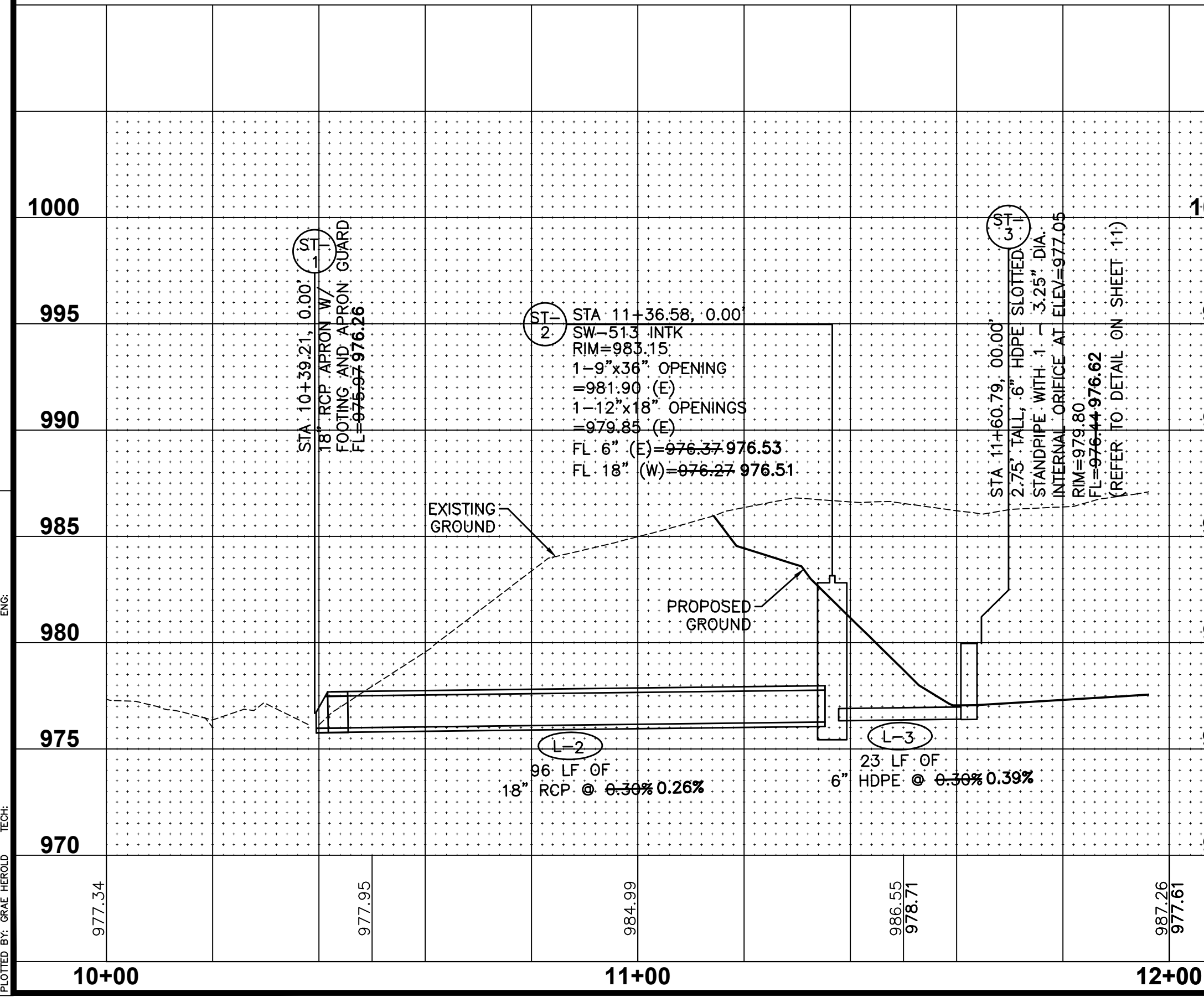
SANITARY AND STORM SEWER PLAN AND PROFILE

19/33

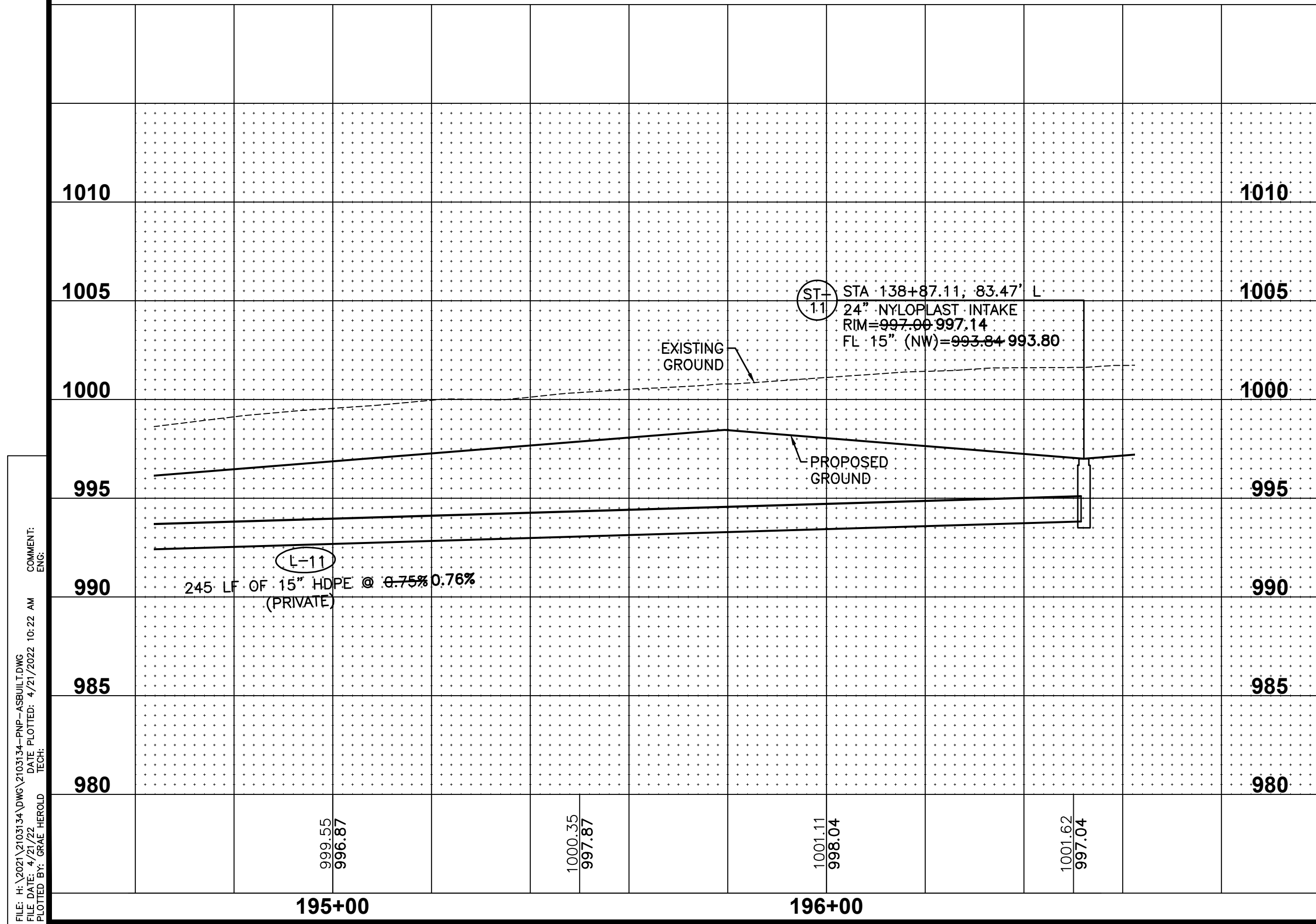
2103.134

CIVIL DESIGN ADVANTAGE

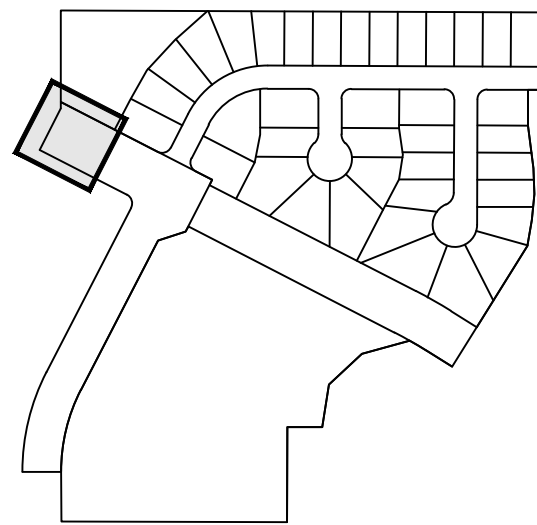
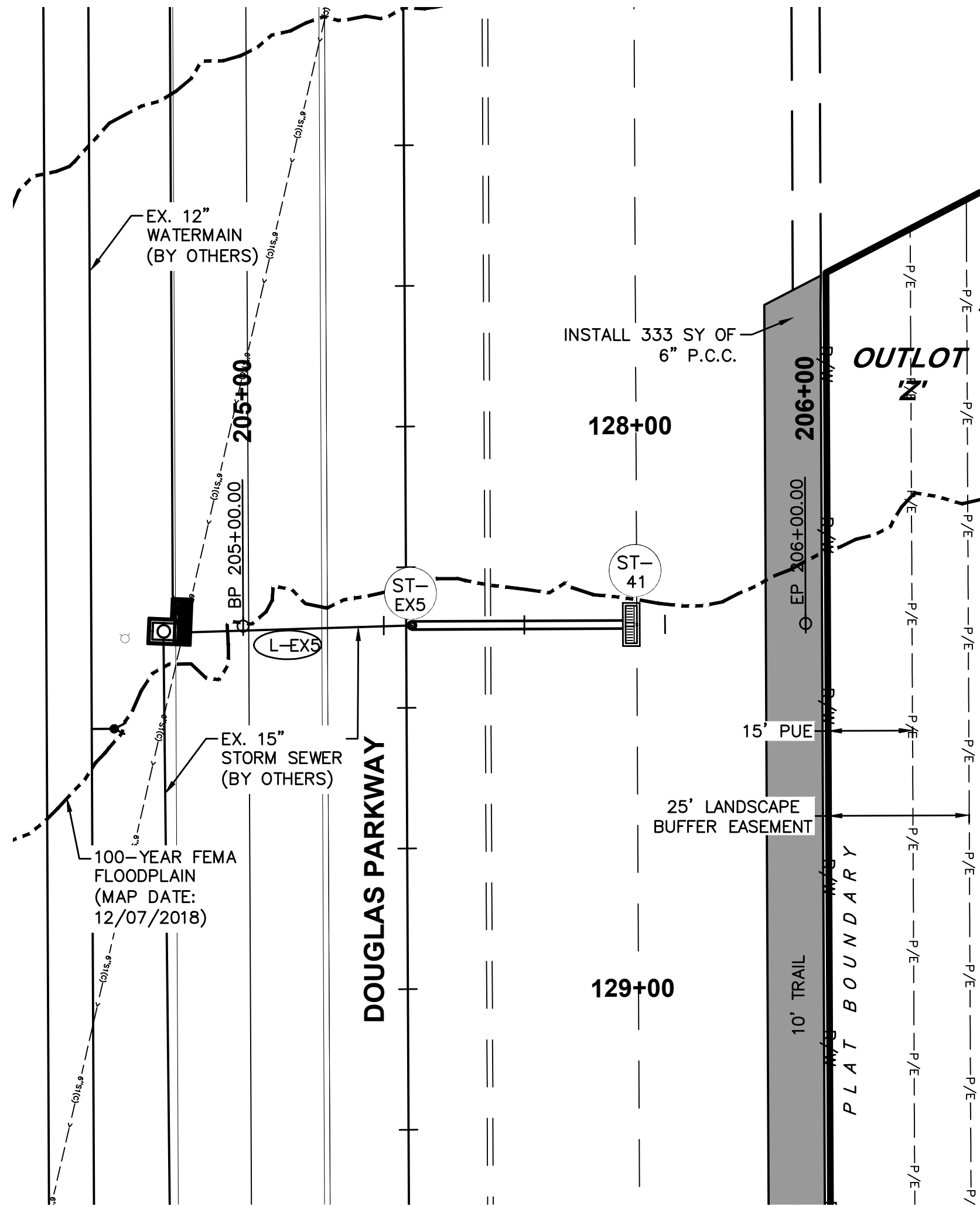
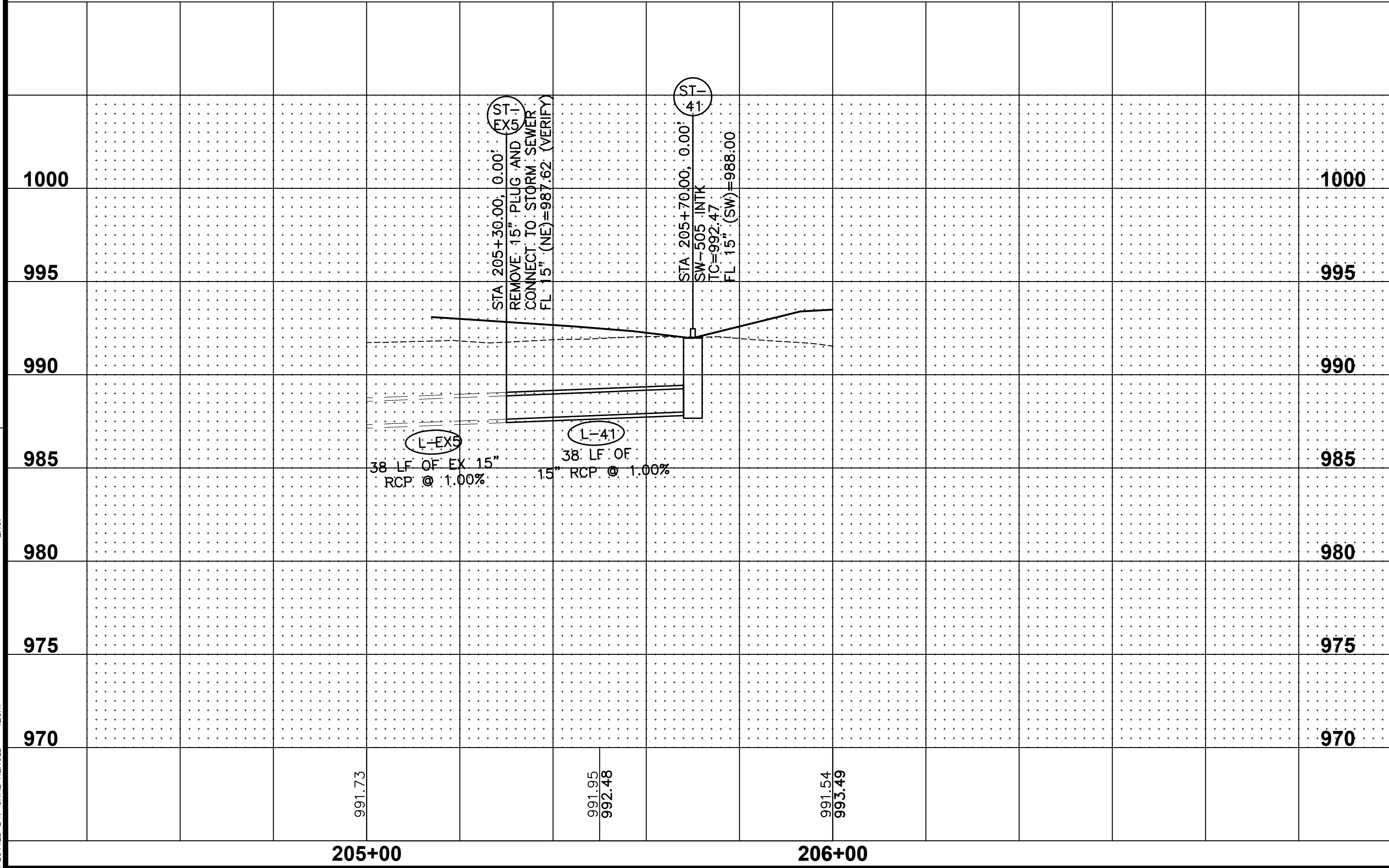
WAUKEE, IOWA



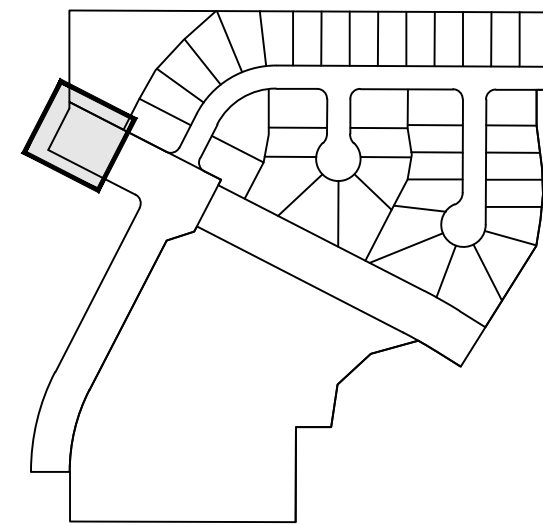
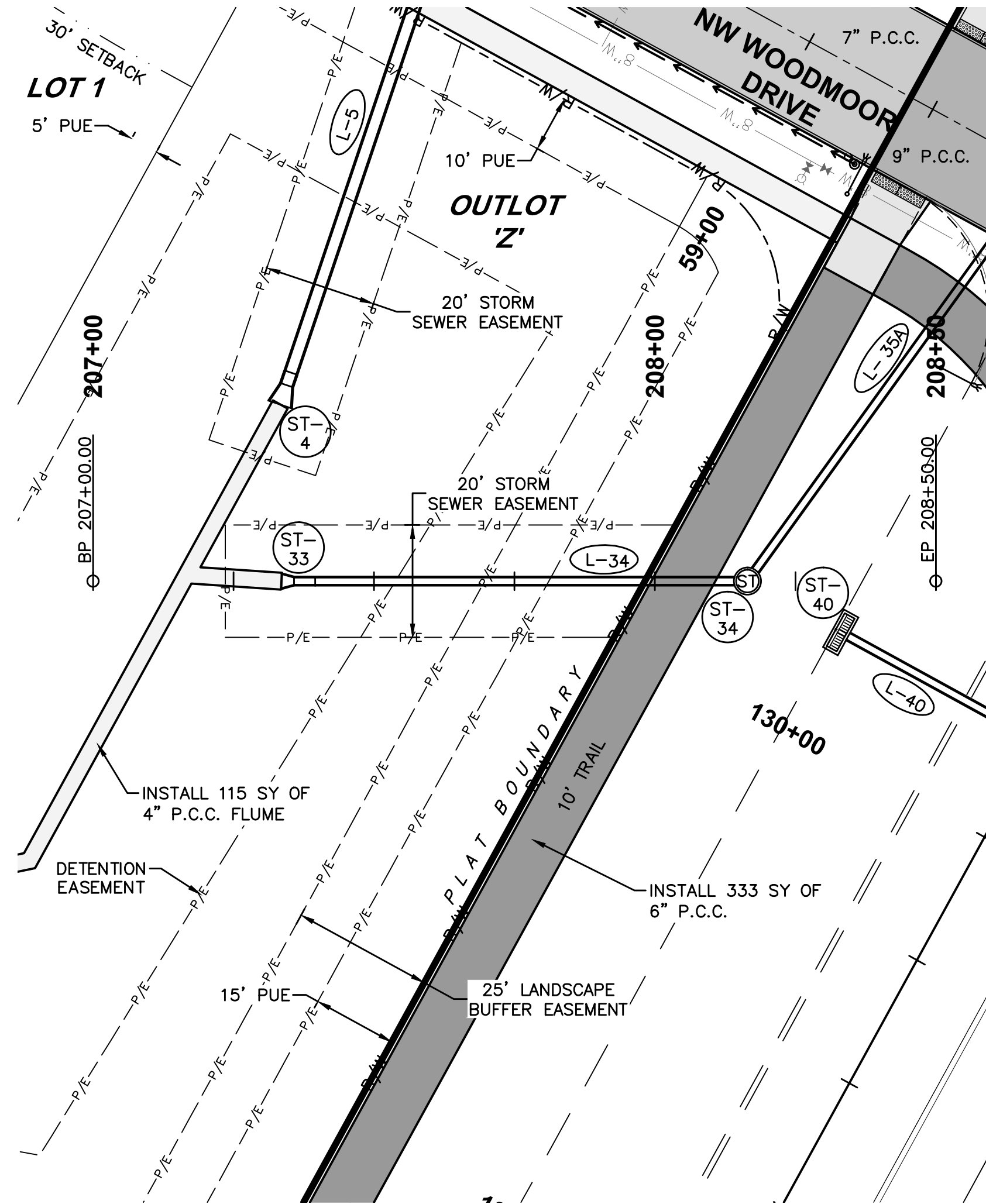
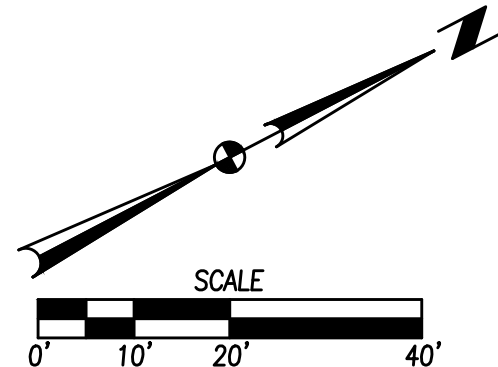
FILE: H:\2021\210313A\DWG\210313A-PNP-AS-BUILD.DWG
DATE: 4/21/2022 10:22 AM
DRAWN BY: JMM
CHECKED BY: JMM
PLOTTER: HP DesignJet T1100e
PLOT SCALE: 1"=40'



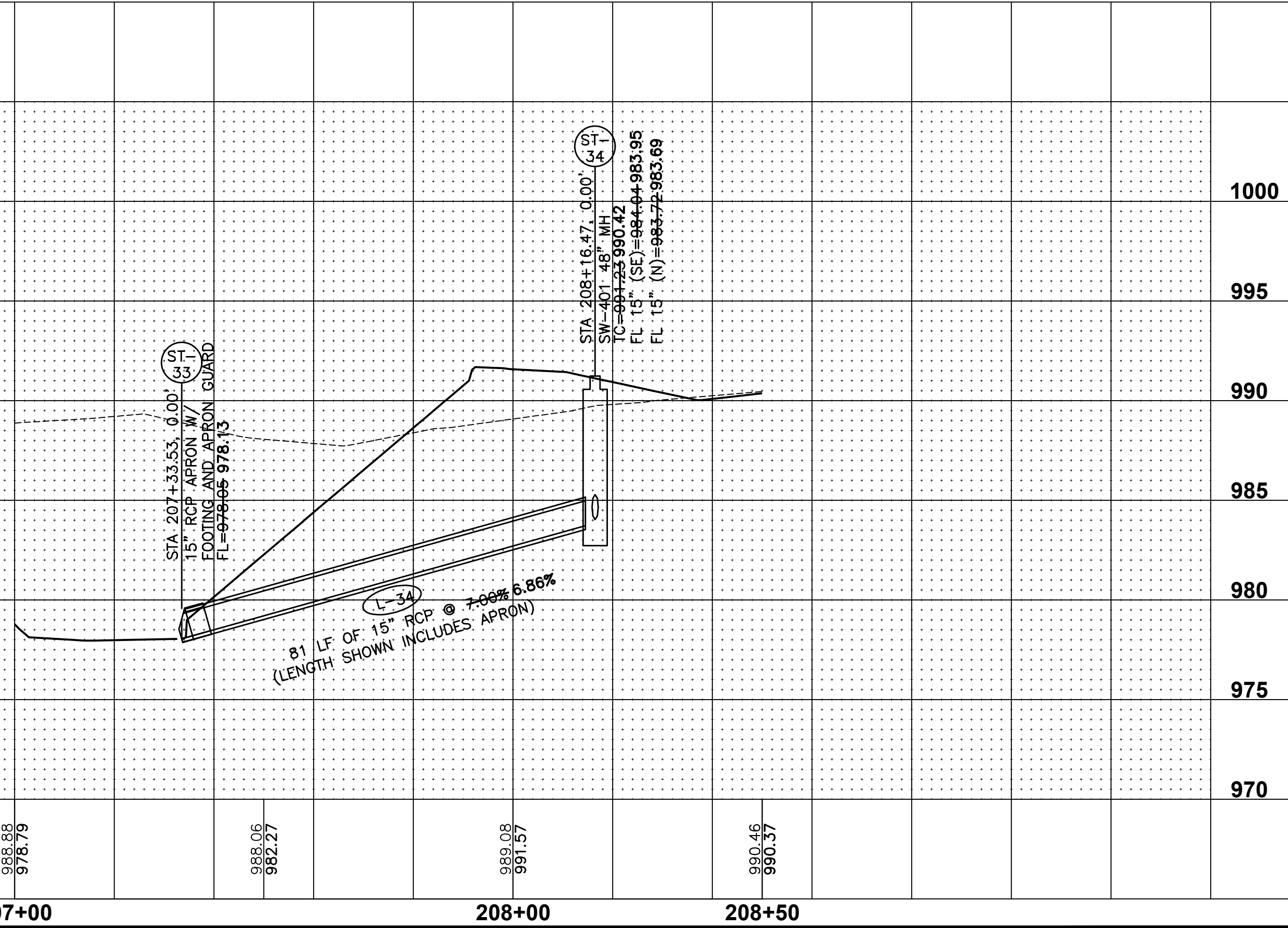
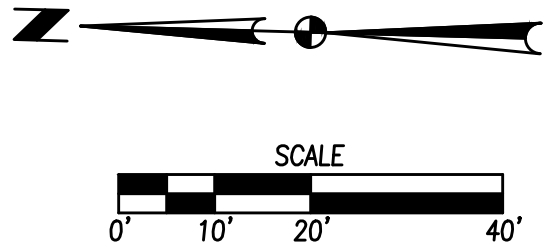
FILE: H:\2021\210333A\DWG\210333A-PNP-AS-BUILD.DWG
DRAWN BY: JAW
CHECKED BY: JAW
PLOTTER: 4/21/2022 10:22 AM
COMMENTS:

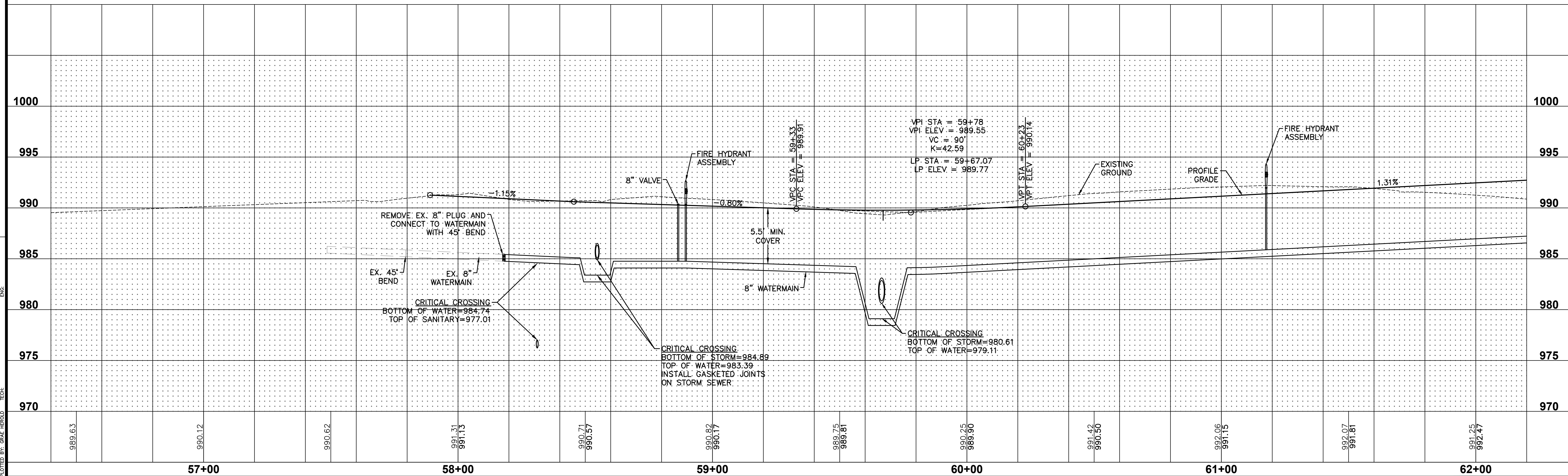
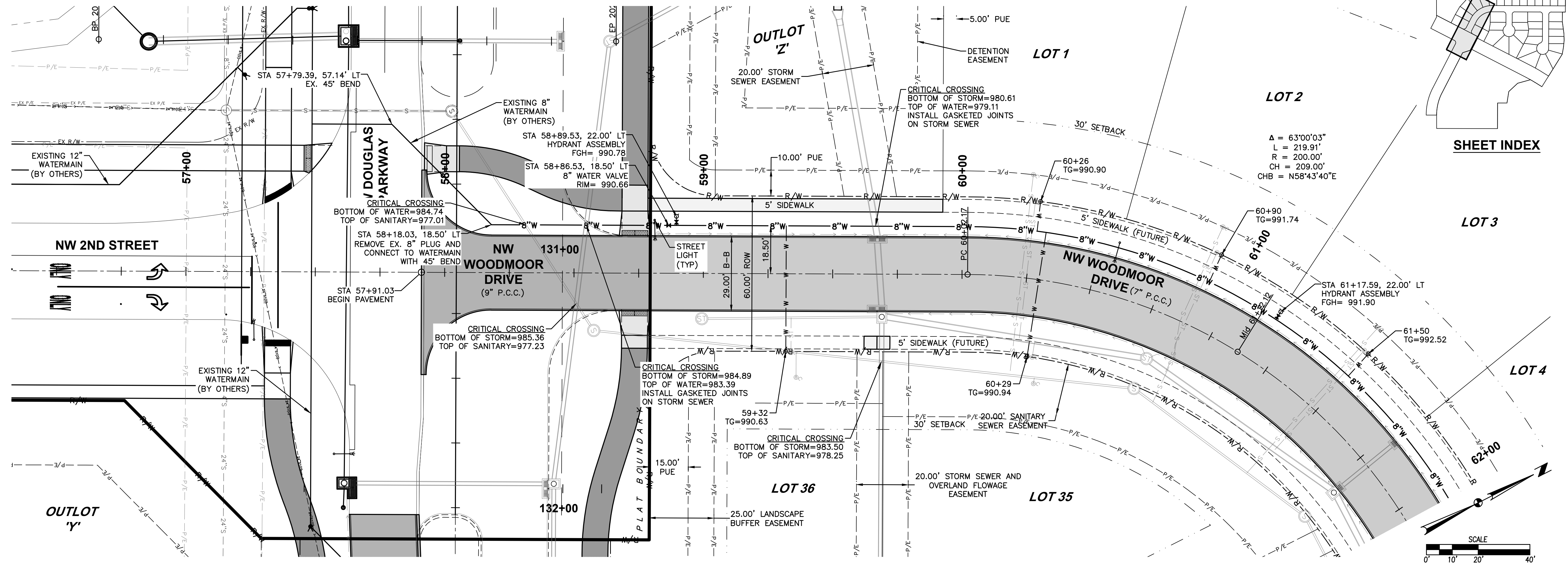


SHEET INDEX



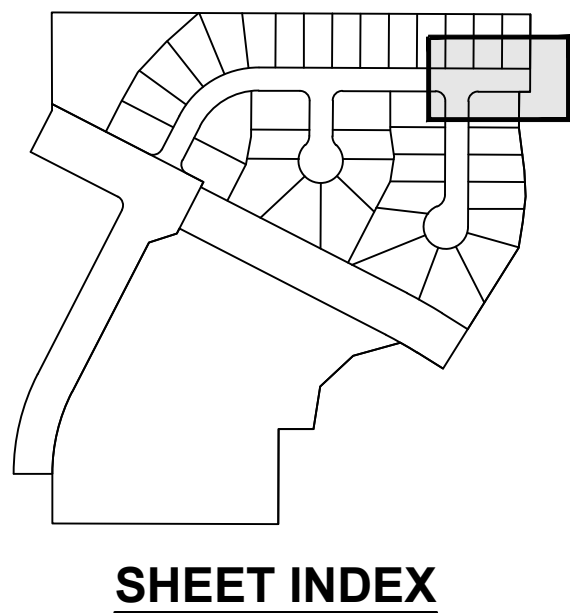
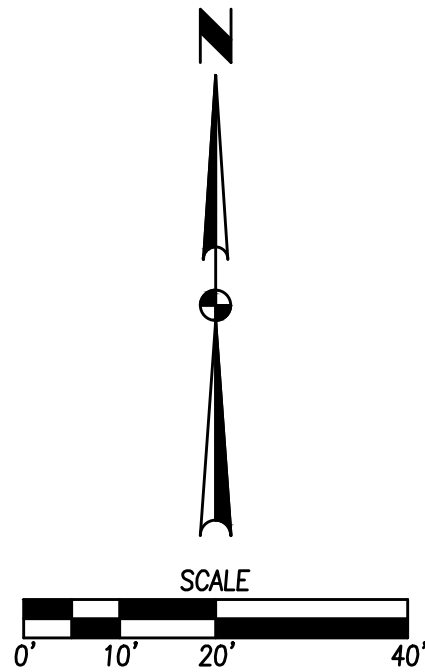
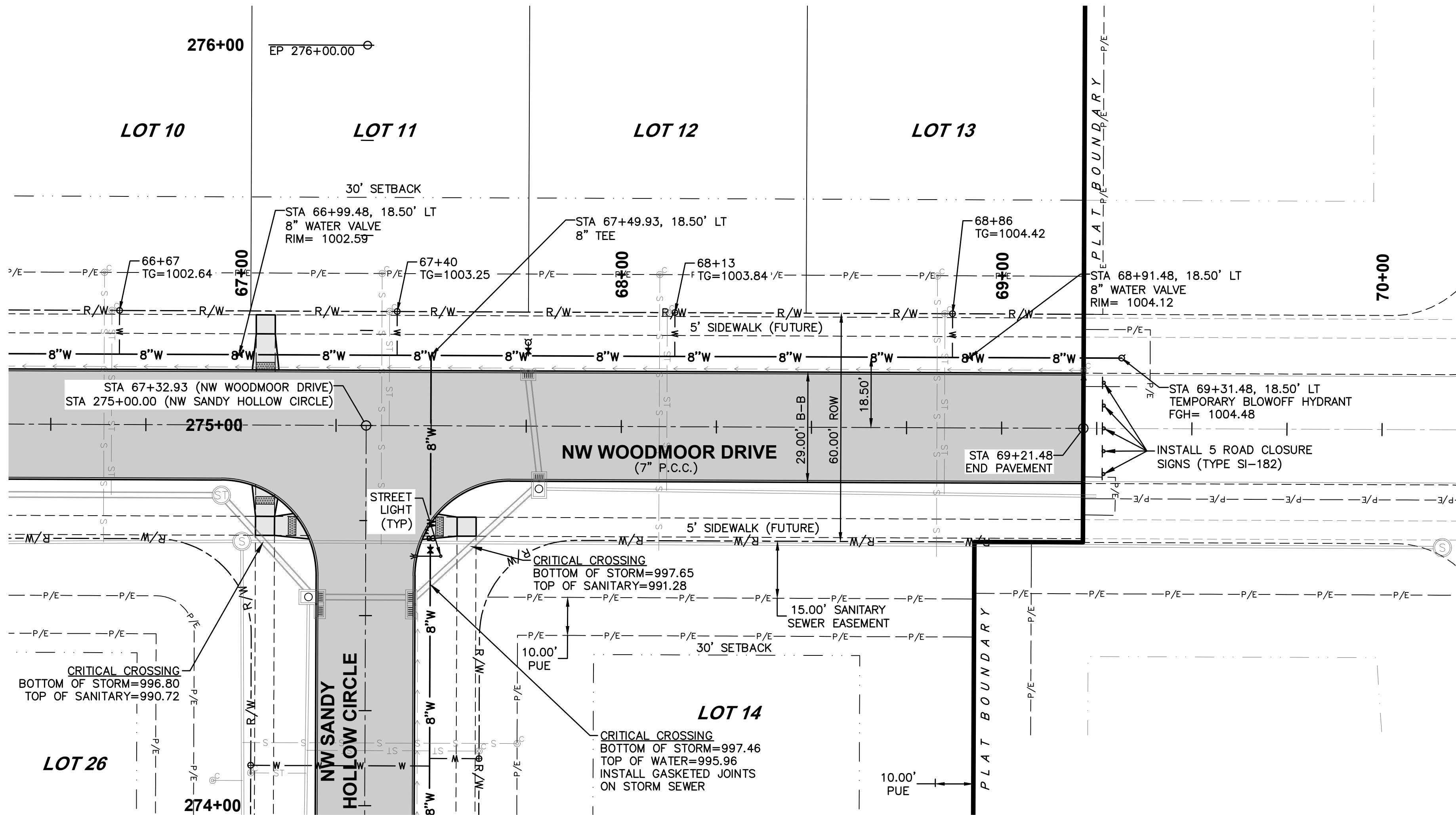
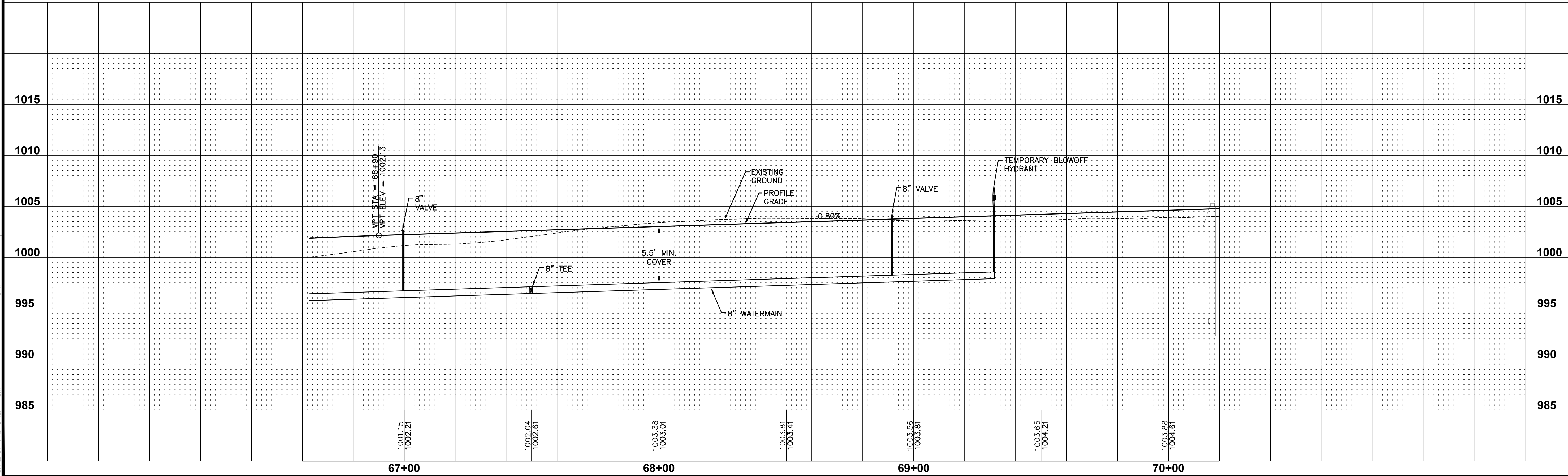
SHEET INDEX





FILE: H:\2021\210313A\DWG\210313A-WATERMAIN-PNF-AS-BUILDING.dwg
PLOT: 4/21/2022 10:23 AM
PLOTED BY: JRM/ERD

COMMENT:
END

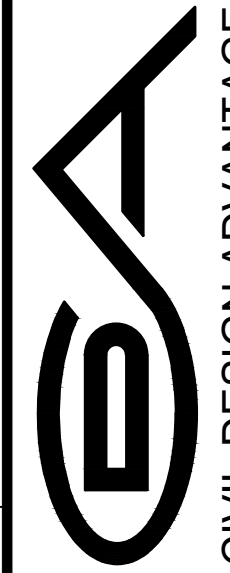


SHEET INDEX

PRAIRIE ROSE PLAT 3
WATERMAIN PLAN AND PROFILE

26/33
2103.134

WAUKEE, IOWA



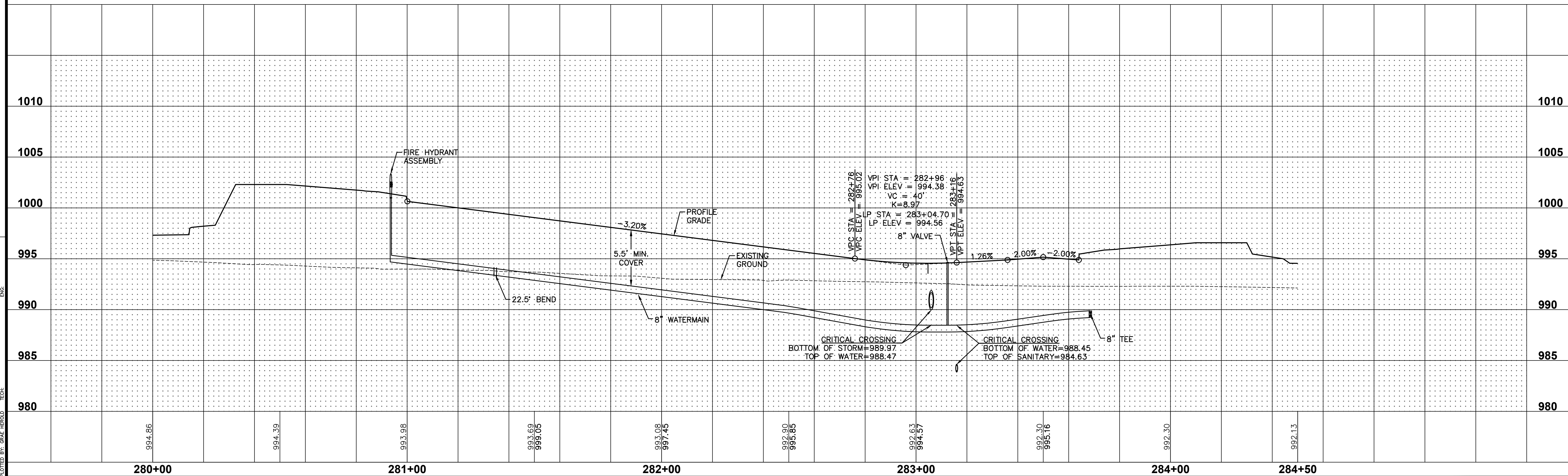
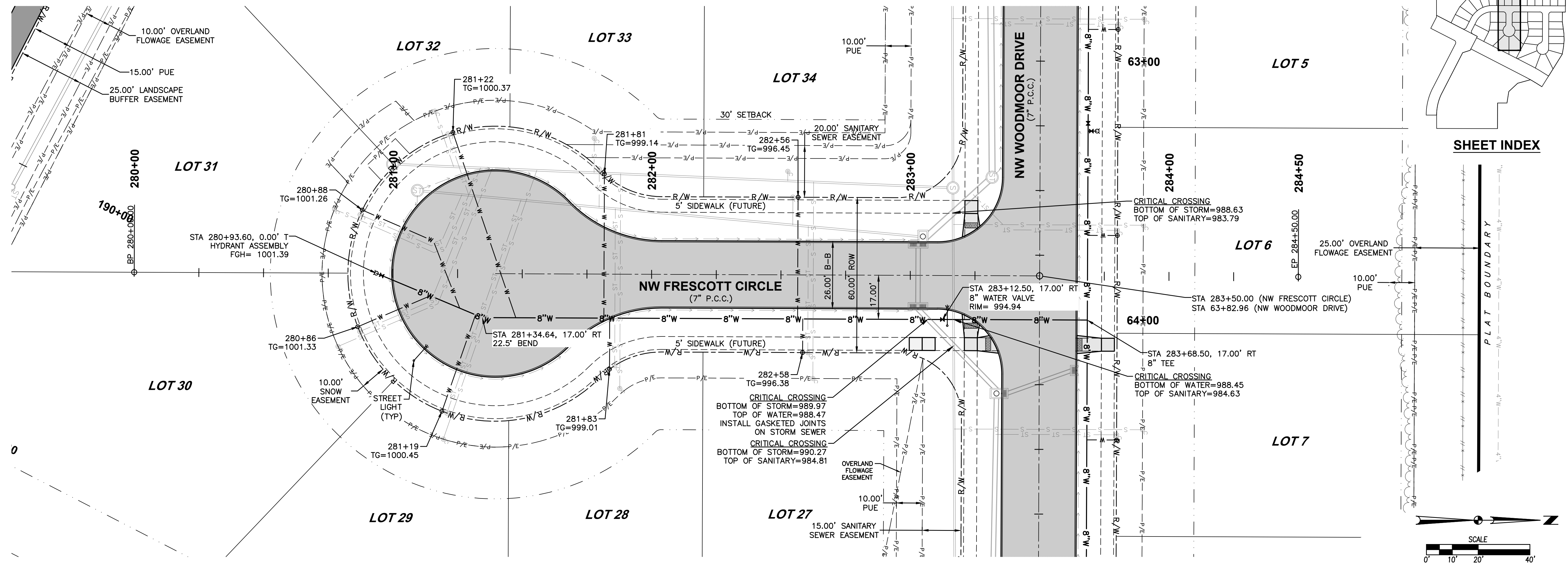
ENGINEER: EKO

EI: JWM TECH: BDH

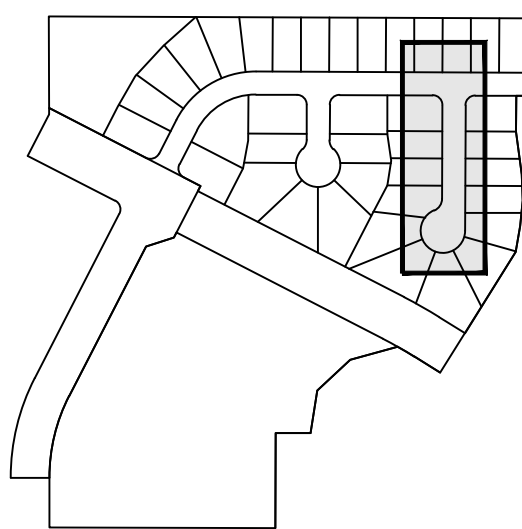
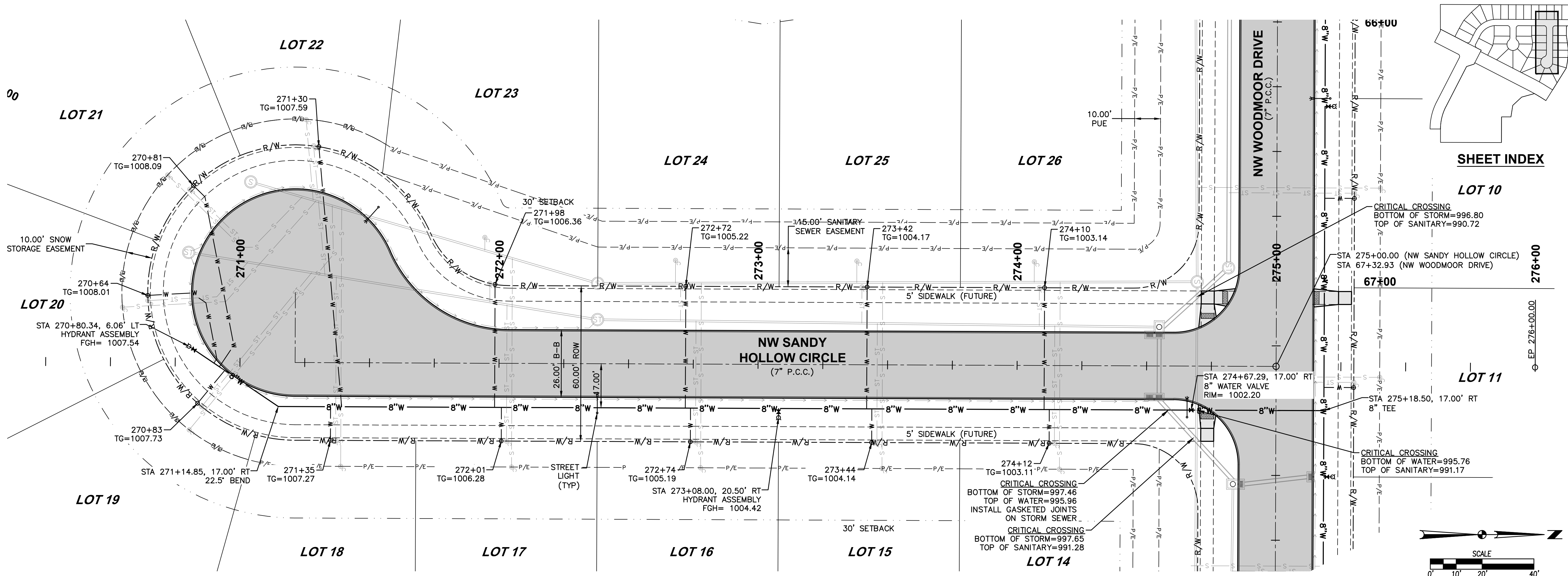
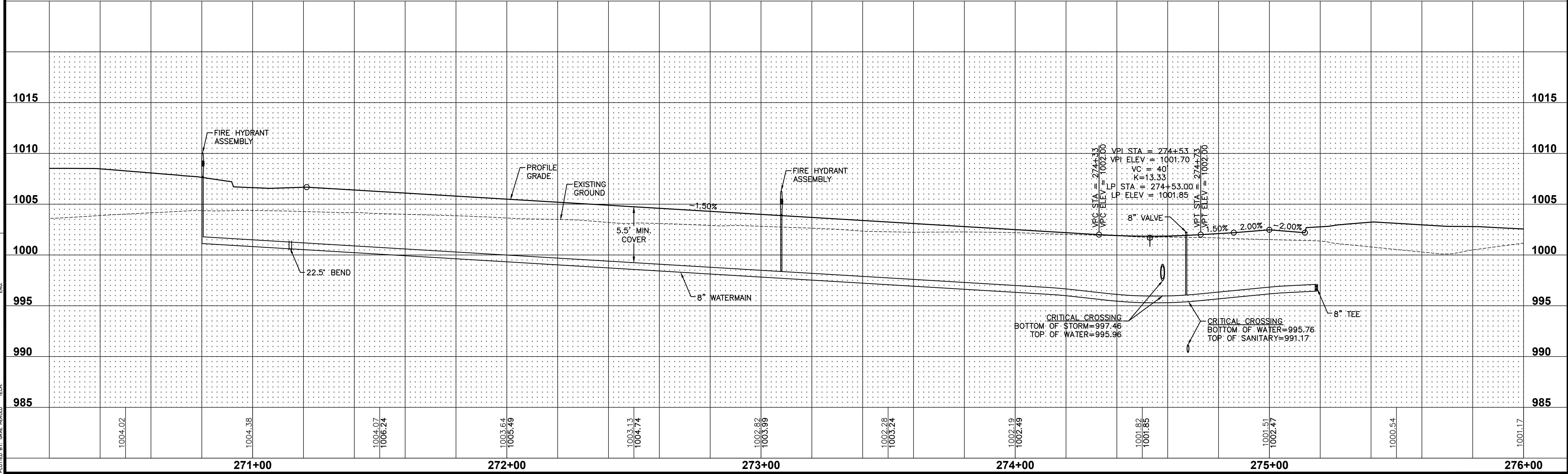
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

REVISIONS

DATE	REVISIONS
04/21/2022	AS-BUILT SUBMITTAL
07/14/2021	FINAL SUBMITTAL
06/14/2021	FIFTH SUBMITTAL
06/08/2021	FOURTH SUBMITTAL
05/11/2021	THIRD SUBMITTAL
04/20/2021	SECOND SUBMITTAL



FILE: H:\2021\210313A\DWG\210313A-WATERMAIN-PMP-AS-BUILDING
DRAWING: PMP-AS-BUILDING
DATE: 4/21/2022
PLOT: 4/21/2022 10:23 AM
PLOT: 4/21/2022 10:23 AM
PLOT: 4/21/2022 10:23 AM



DATE

04/21/2022

AS-BUILT SUBMITTAL

07/14/2021

FINAL SUBMITTAL

06/14/2021

FIFTH SUBMITTAL

06/08/2021

FOURTH SUBMITTAL

05/11/2021

THIRD SUBMITTAL

04/20/2021

REVISIONS

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

28

33

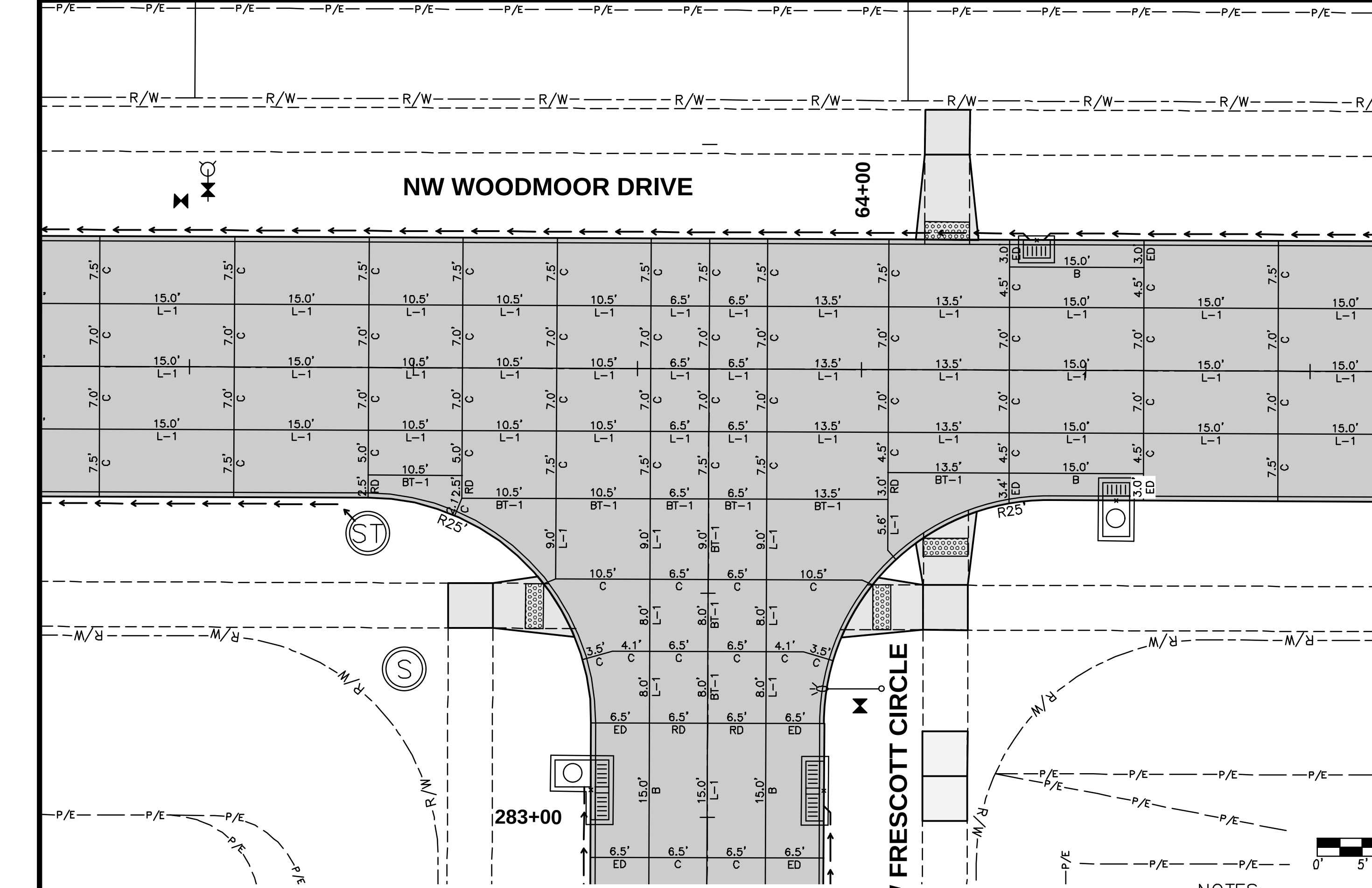
2103.134

PRAIRIE ROSE PLAT 3

WATERMAIN PLAN AND PROFILE

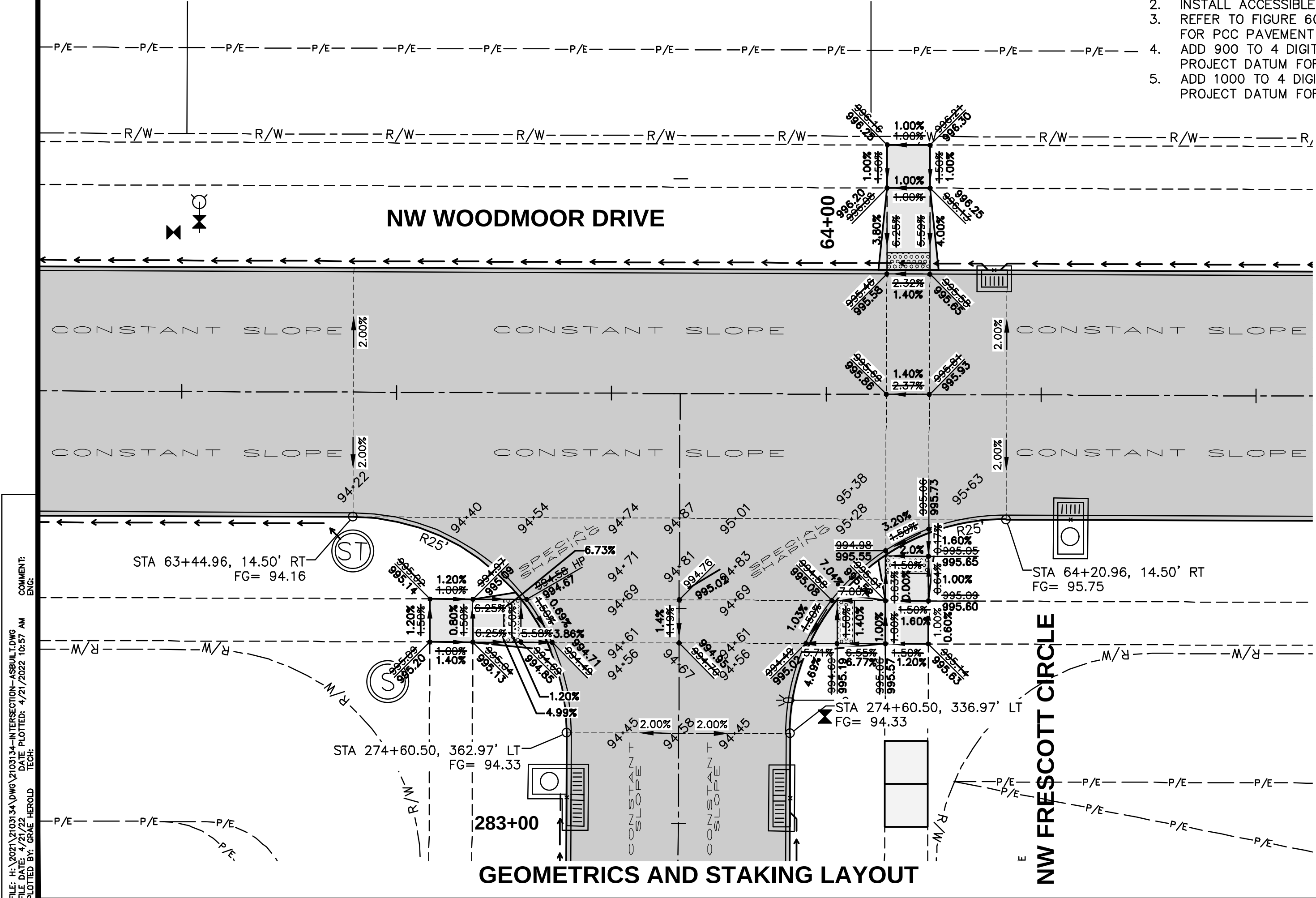
WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

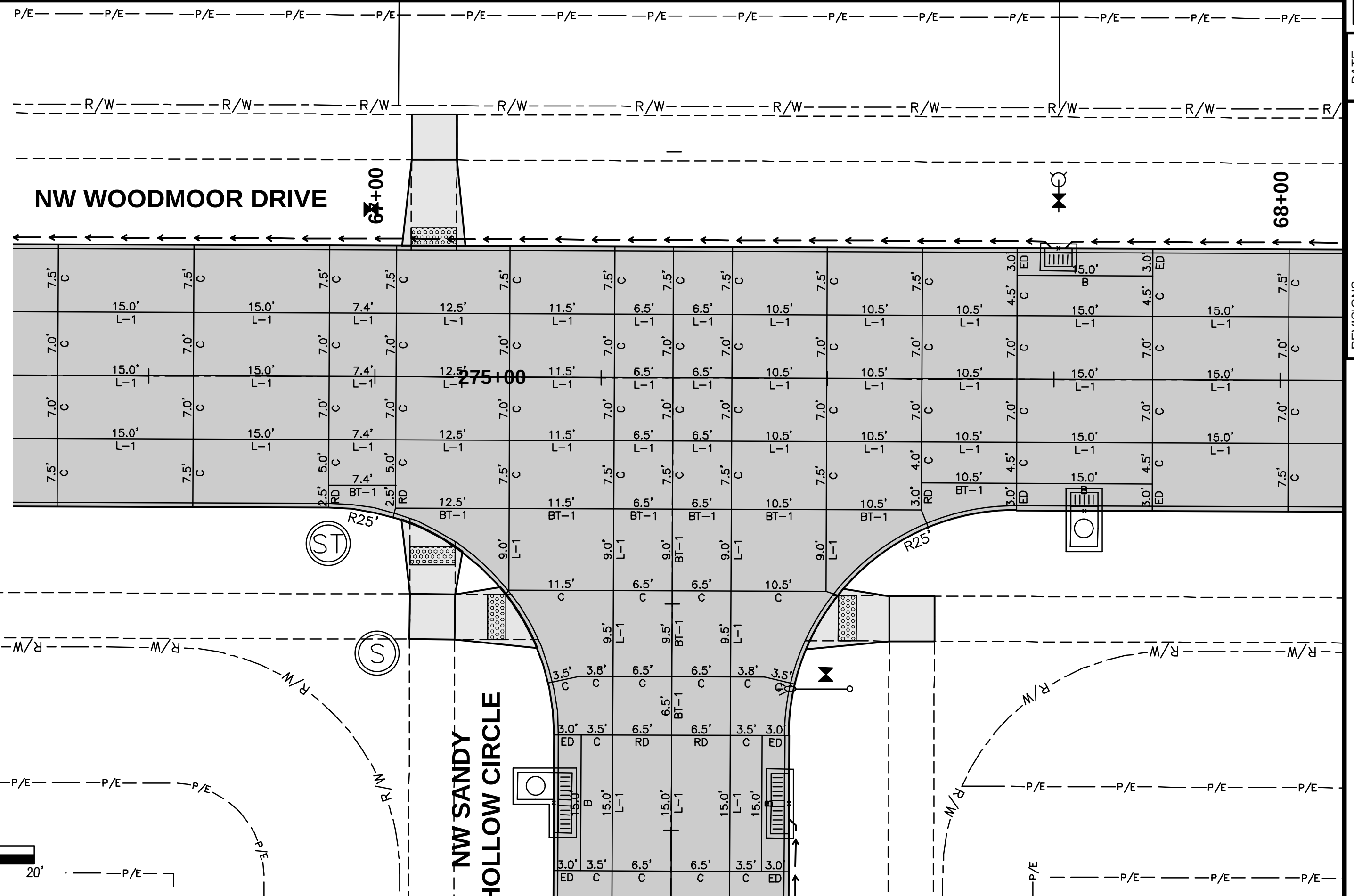


JOINTING LAYOUT

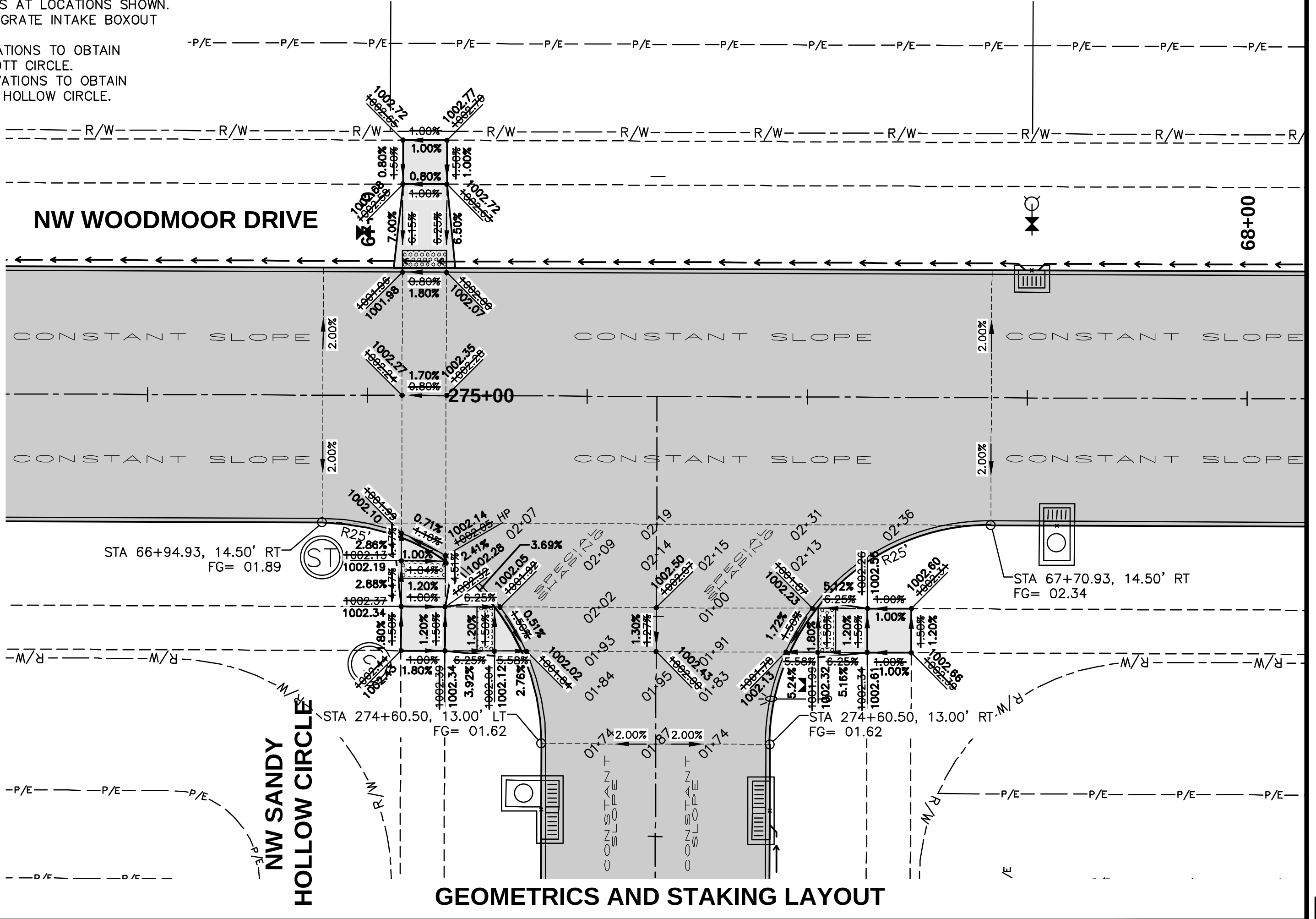
- NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
 2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
 3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
 4. ADD 900 TO 4 DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM FOR NW FRESCOTT CIRCLE.
 5. ADD 1000 TO 4 DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM FOR NW SHADY HOLLOW CIRCLE.



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

FILE: H:\2021\21033A\DWG\21033A-INTERSECTION-ASBLLINGS
PLOT: 21033A-INTERSECTION-ASBLLINGS
DATE PLOTTED: 4/21/2022 10:57 AM
PLOT BY: JWM

DATE

04/21/2022

AS-BUILT SUBMITTAL

07/14/2021

FIFTH SUBMITTAL

06/14/2021

FOURTH SUBMITTAL

06/09/2021

THIRD SUBMITTAL

05/11/2021

SECOND SUBMITTAL

04/20/2021

REVISIONS

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

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO

EI: JWM TECH: BDH

WAUKEE, IOWA

PRAIRIE ROSE PLAT 3

INTERSECTION DETAILS

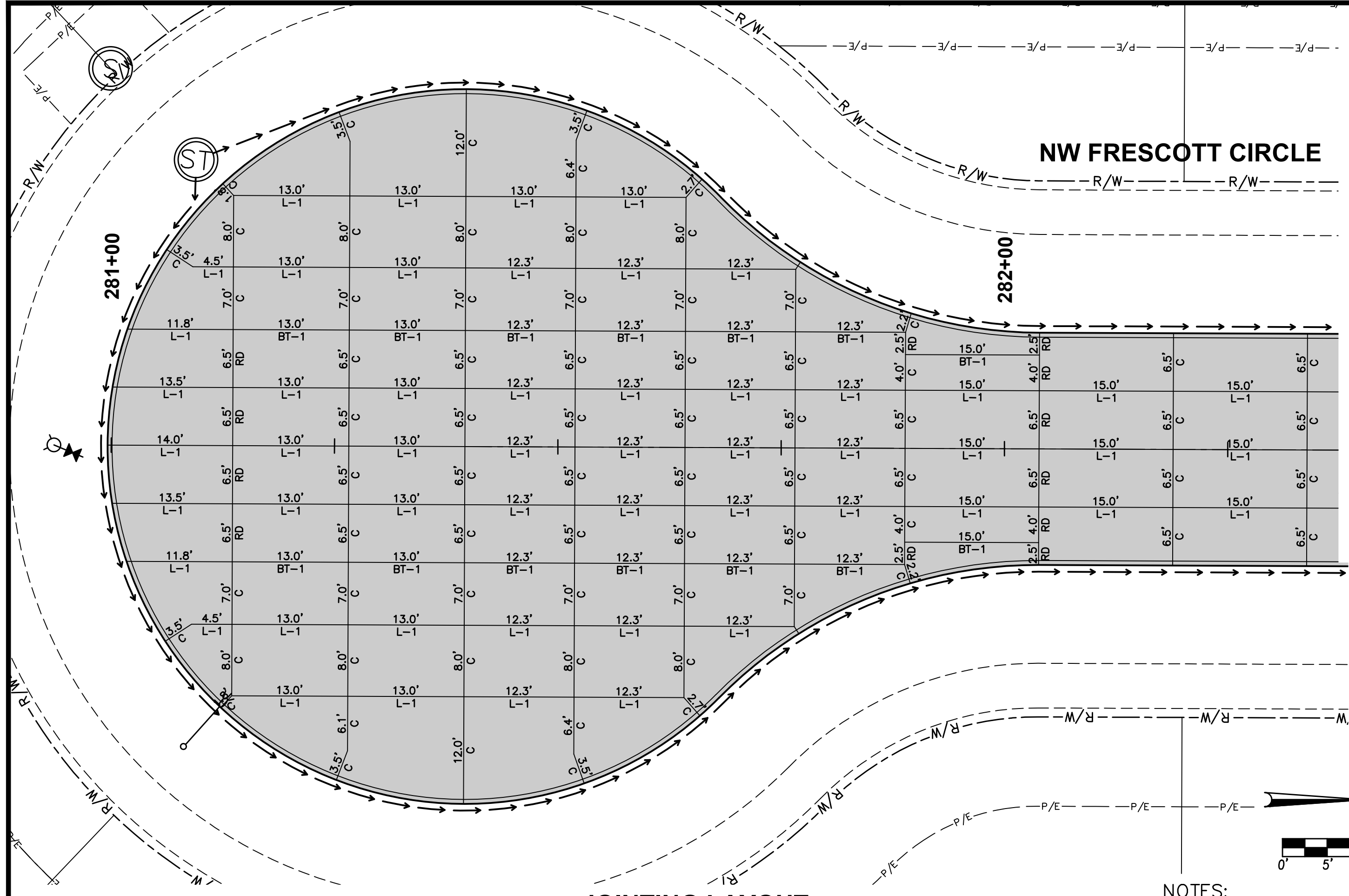
31

33

2103.134

FILE: H:\2021\2103\3A\DWG\210313A-INTERSECTION-AS-BUILD.DWG
DATE PLOTTED: 4/25/2022 10:24 AM
PLOT BY: GRAE HEROLD

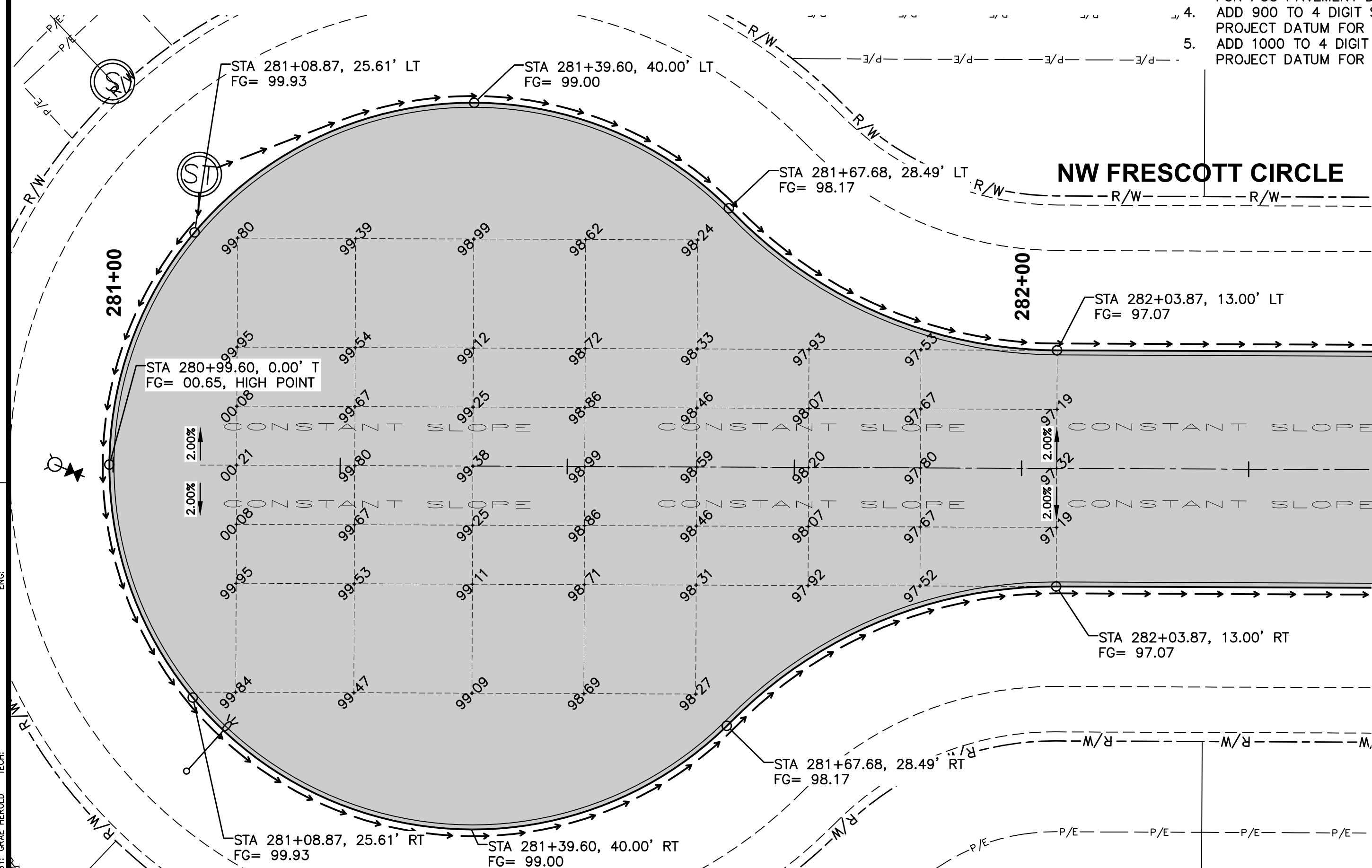
COMMENT:
DRAWN BY: GRAE HEROLD



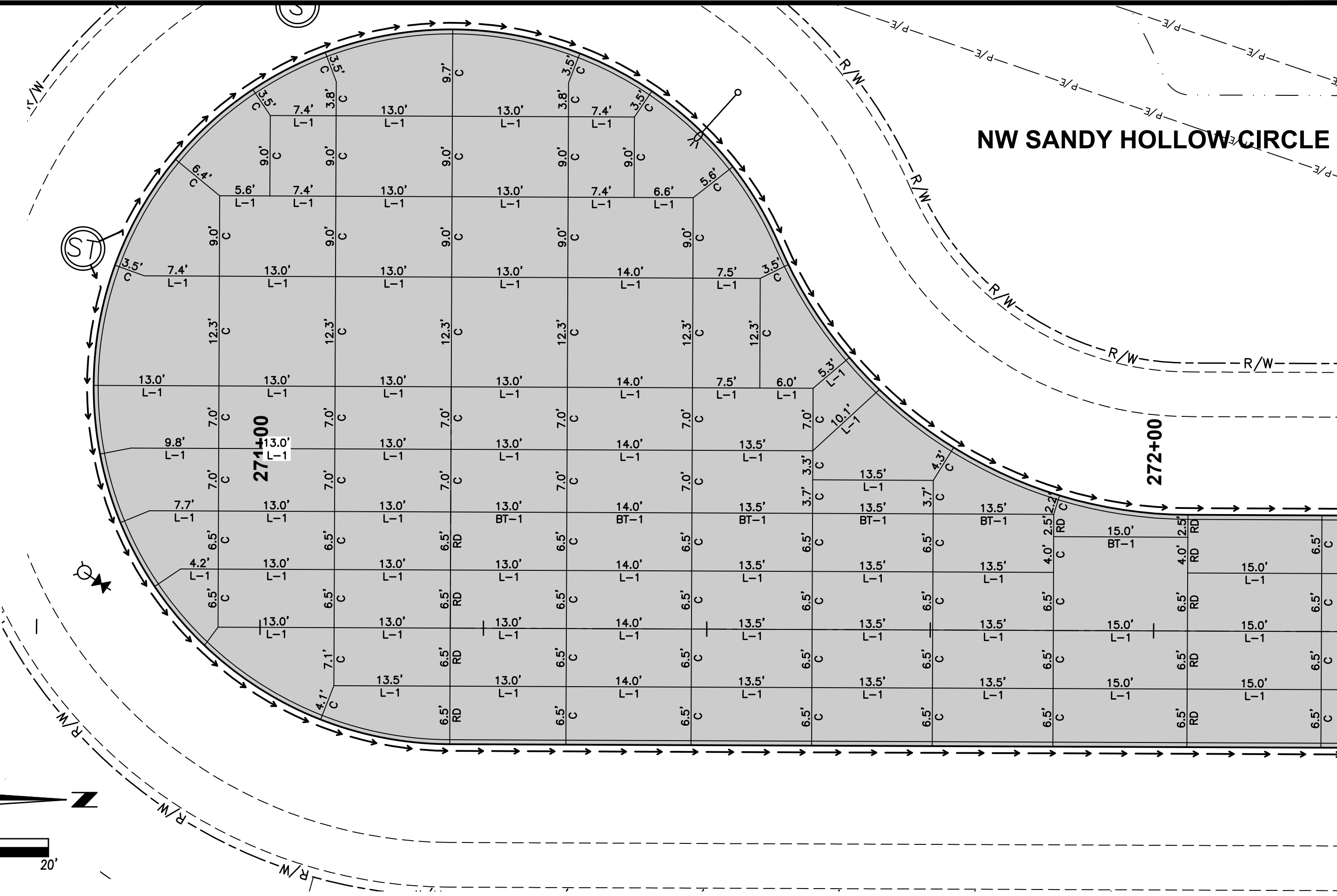
JOINTING LAYOUT

NOTES:

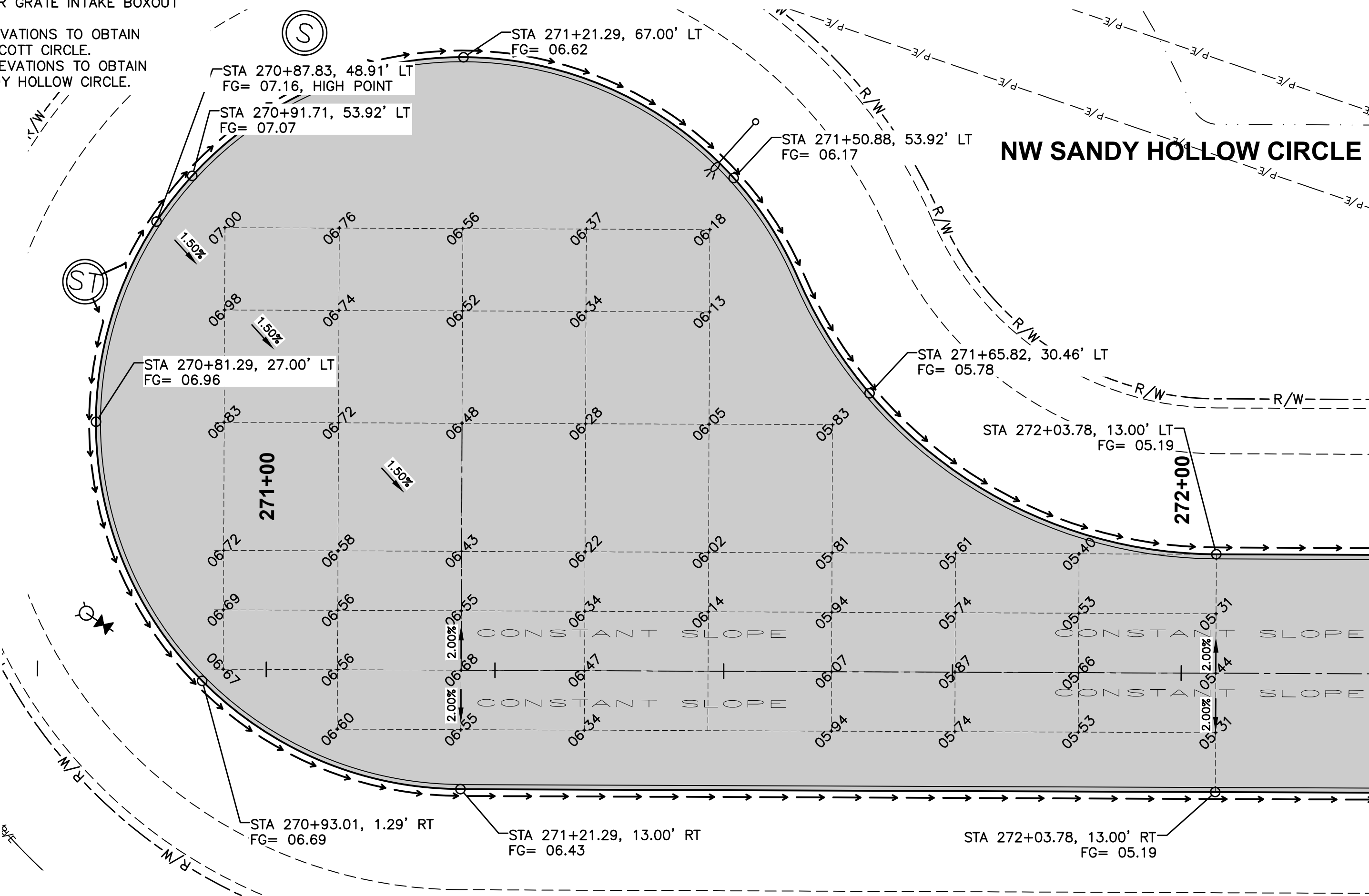
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ADD 900 TO 4 DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM FOR NW FRESCOTT CIRCLE.
5. ADD 1000 TO 4 DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM FOR NW SHADY HOLLOW CIRCLE.



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



GEOMETRICS AND STAKING LAYOUT

REVISIONS	
DATE	DESCRIPTION
04/21/2022	AS-BUILT SUBMITTAL
07/14/2021	FINAL SUBMITTAL
06/14/2021	FIFTH SUBMITTAL
06/08/2021	FOURTH SUBMITTAL
05/11/2021	THIRD SUBMITTAL
04/20/2021	SECOND SUBMITTAL

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

PRAIRIE ROSE PLAT 3
INTERSECTION DETAILS

32/33
2103.134

