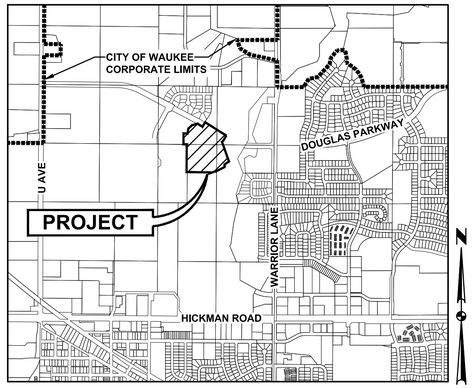
CONSTRUCTION PLANS FOR:

PRAIRIE ROSE PLAT 4

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
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5	QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES
6	HYDRANT COVERAGE AND LANDSCAPE PLAN
7–8	GRADING PLAN
9–10	EROSION AND SEDIMENT CONTROL PLAN
11–24	STORM & SANITARY SEWER PLAN AND PROFILE
25–33	WATER MAIN PLAN AND PROFILE
34–36	INTERSECTION DETAILS

GENERAL LEGEND

PROPOSED		EXISTING	
SECTION LINE		SANITARY MANHOLE	S
CENTER LINE		WATER VALVE BOX	W
RIGHT OF WAY	R/W	FIRE HYDRANT	
PERMANENT EASEMENT	P/E	WATER CURB STOP	CS
TEMPORARY EASEMENT	T/E	WELL	WELL
TYPE SW–501 STORM INTAKE		STORM SEWER MANHOLE	ST
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	ST	DECIDUOUS TREE	
TYPE SW–401 STORM MANHOLE	ST	CONIFEROUS TREE	
TYPE SW–402 STORM MANHOLE	ST	DECIDUOUS SHRUB	
TYPE SW–301 SANITARY MANHOLE	S	CONIFEROUS SHRUB	
STORM/SANITARY CLEANOUT	C	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	E
STORM SEWER STRUCTURE NO.	ST–10	ELECTRIC TRANSFORMER	E
STORM SEWER PIPE NO.	L–10	ELECTRIC MANHOLE OR VAULT	E
SANITARY SEWER STRUCTURE NO.	S–10	TRAFFIC SIGN	
SANITARY SEWER PIPE NO.	P–10	TELEPHONE JUNCTION BOX	T
SANITARY SEWER WITH SIZE	8"S	TELEPHONE MANHOLE/VAULT	T
SANITARY SERVICE	S	TELEPHONE POLE	
STORM SEWER		GAS VALVE BOX	G
STORM SERVICE	ST	CABLE TV JUNCTION BOX	TV
WATERMAIN WITH SIZE	8"W	CABLE TV MANHOLE/VAULT	TV
WATER SERVICE	W	MAIL BOX	M
SAWCUT (FULL DEPTH)		BENCHMARK	BM
SILT FENCE		SOIL BORING	SB
USE AS CONSTRUCTED	(UAC)	UNDERGROUND TV CABLE	TV
TOP OF PROPOSED GROUND	TG	GAS MAIN	G
MINIMUM PROTECTION ELEVATION	MOE	FIBER OPTIC	FO
MINIMUM GRADE AT EXPOSED STRUCTURE	MGS	UNDERGROUND TELEPHONE	T
		OVERHEAD ELECTRIC	OE
		UNDERGROUND ELECTRIC	E
		FIELD TILE	TILE
		SANITARY SEWER W/ SIZE	8"S
		STORM SEWER W/ SIZE	15" RCP
		WATER MAIN W/ SIZE	8"W

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.

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:	03/23/2021
SECOND SUBMITTAL:	04/20/2021
THIRD SUBMITTAL:	06/08/2021
FOURTH SUBMITTAL:	06/14/2021
FIFTH SUBMITTAL:	06/28/2021
FINAL SUBMITTAL:	07/09/2021
AS–BUILT SUBMITTAL:	10/26/2022
AS–BUILT SUBMITTAL:	12/28/2022
AS–BUILT SUBMITTAL:	01/16/2023

BULK REGULATIONS

PD–1: PLANNED UNIT DEVELOPMENT DISTRICT W/ UNDERLYING R–2: ONE AND TWO FAMILY RESIDENTIAL DISTRICT (LOTS 1–44)

FRONT YARD: 25 FEET
SIDE YARD: A TOTAL OF 10 FEET – MINIMUM OF 5 FEET EACH SIDE
REAR YARD: 25 FEET

R–2: ONE AND TWO FAMILY RESIDENTIAL DISTRICT (LOTS 45–63)

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

BENCHMARKS

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

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

CONSTRUCTION SCHEDULE

SPRING 2021 – SUMMER 2021

DEVELOPMENT SUMMARY

TOTAL AREA OF PLAT 4 = 20.31 ACRES (884,542 SF)

NOTES

1. ANY CHANGES PROPOSED TO THE CONSTRUCTION DRAWINGS DURING CONSTRUCTION SHALL BE APPROVED IN WRITING BY THE DEVELOPMENT SERVICES DEPARTMENT.

2. THE CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES MADE DURING CONSTRUCTION THAT HAVE NOT BEEN GRANTED APPROVAL IN WRITING BY THE DEVELOPMENT SERVICES DEPARTMENT.

3. 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.

4. 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.

LEGAL DESCRIPTION

A PART OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 29 NORTH, RANGE 26 WEST OF THE FIFTH PRINCIPAL MERDIAN IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE WEST HALF OF THE SOUTHWEST QUARTER OF SAID NORTHEAST QUARTER; THENCE NORTH 89°49'22" WEST ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID NORTHEAST QUARTER, 76.67 FEET; THENCE NORTH 00°10'38" EAST, 244.84 FEET; THENCE SOUTH 89°49'22" EAST, 90.24 FEET; THENCE NORTH 08°45'09" EAST, 111.52 FEET; THENCE NORTH 47°07'44" EAST, 116.35 FEET; THENCE NORTH 74°32'46" EAST, 127.07 FEET; THENCE SOUTHEASTERLY ALONG A CURVE CONCAVE SOUTHWESTERLY WHOSE RADIUS IS 1140.00 FEET, WHOSE ARC LENGTH IS 50.64 FEET AND WHOSE CHORD BEARS SOUTH 59°18'26" EAST, 50.64 FEET; THENCE SOUTH 58°02'05" EAST, 77.86 FEET; THENCE NORTH 31°57'55" EAST, 120.00 FEET; THENCE SOUTH 58°02'05" EAST, 545.03 FEET; THENCE SOUTHEASTERLY ALONG A CURVE CONCAVE NORTHEASTERLY WHOSE RADIUS IS 1140.00 FEET, WHOSE ARC LENGTH IS 21.41 FEET AND WHOSE CHORD BEARS SOUTH 58°34'21" EAST, 21.41 FEET; THENCE SOUTH 30°53'22" WEST, 120.00 FEET; THENCE SOUTH 57°24'05" WEST, 33.11 FEET; THENCE SOUTH 18°36'26" EAST, 487.10 FEET; THENCE SOUTH 56°07'56" WEST, 135.00 FEET; THENCE SOUTHEASTERLY ALONG A CURVE CONCAVE SOUTHWESTERLY WHOSE RADIUS IS 430.00 FEET, WHOSE ARC LENGTH IS 53.03 FEET AND WHOSE CHORD BEARS SOUTH 30°20'04" EAST, 53.00 FEET; THENCE SOUTH 63°11'56" WEST, 217.10 FEET; THENCE NORTH 17°57'51" WEST, 3.50 FEET; THENCE SOUTH 69°59'21" WEST, 185.00 FEET; THENCE NORTHERLY ALONG A CURVE CONCAVE WESTERLY WHOSE RADIUS IS 820.00 FEET, WHOSE ARC LENGTH IS 30.52 FEET AND WHOSE CHORD BEARS NORTH 21°04'38" WEST, 30.52 FEET; THENCE NORTH 89°52'26" WEST, 493.24 FEET TO THE WEST LINE OF THE EAST HALF OF THE SOUTHWEST QUARTER OF SAID NORTHEAST QUARTER; THENCE NORTH 00°02'52" WEST ALONG SAID WEST LINE, 628.67 FEET TO THE POINT OF BEGINNING AND CONTAINING 20.54 ACRES (894740 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.

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 2103.135

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

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.

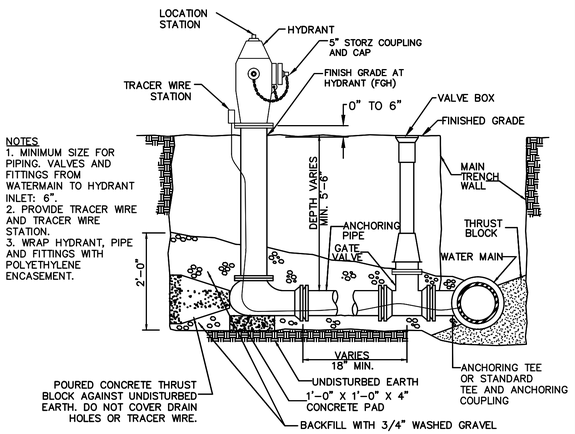
THE MOST RECENT EDITION OF THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND THE 2021 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

LICENSED PROFESSIONAL ENGINEER
ERIN K. OLLENDIKE
16926
IOWA

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.

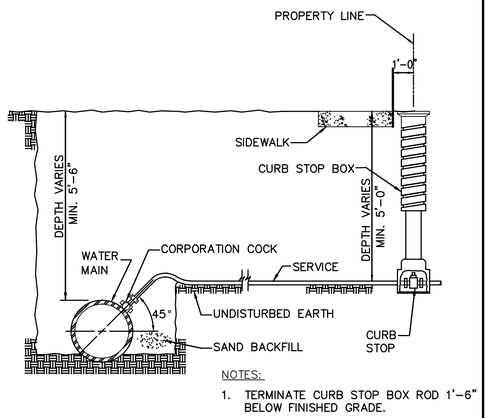
Erin K Ollendike — 01/17/2023
ERIN K. OLLENDIKE, P.E. — DATE

LICENSE NUMBER 16926
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021
PAGES OR SHEETS COVERED BY THIS SEAL:
SHEETS 1–36



HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

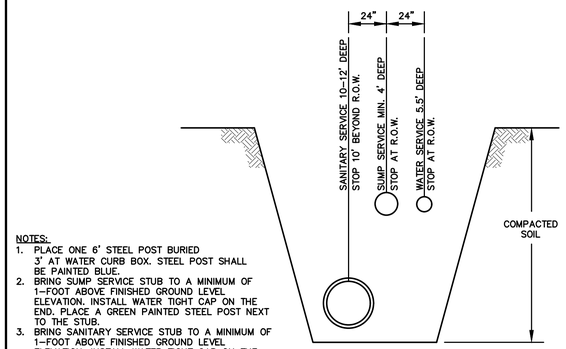


NOTES:

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

WATER SERVICE CONNECTION

NOT TO SCALE

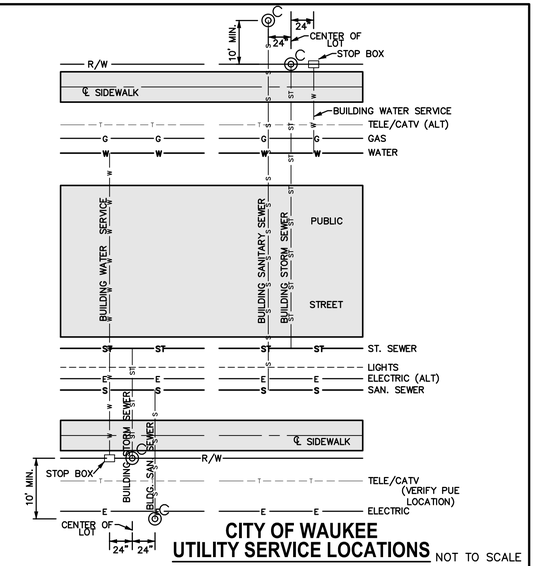


NOTES:

1. PLACE ONE 6' STEEL POST BURIED 3' AT WATER CURB BOX. 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.

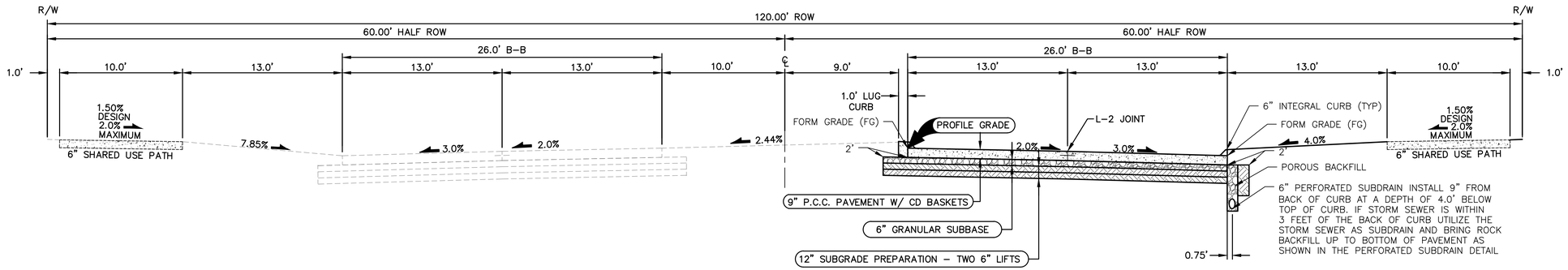
SERVICE LOCATION DETAIL

NOT TO SCALE



CITY OF WAUKEE UTILITY SERVICE LOCATIONS

NOT TO SCALE

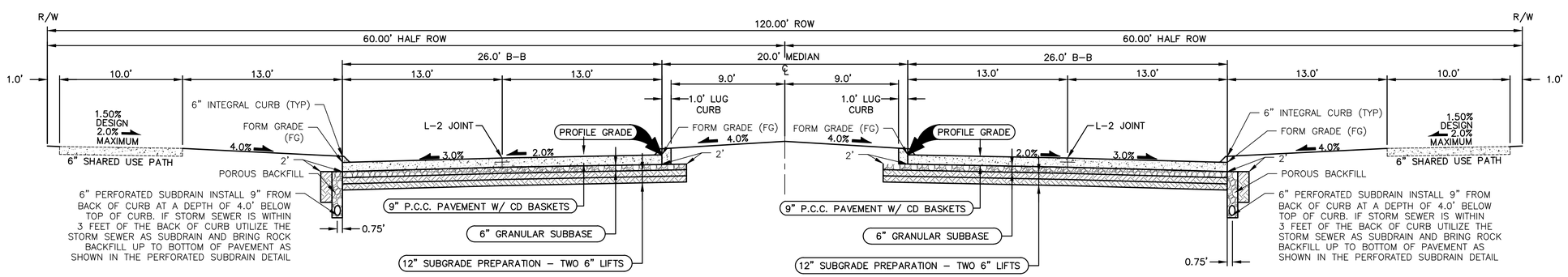


NOTES:

1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM CD JOINT SPACING IS 15'.

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

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
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

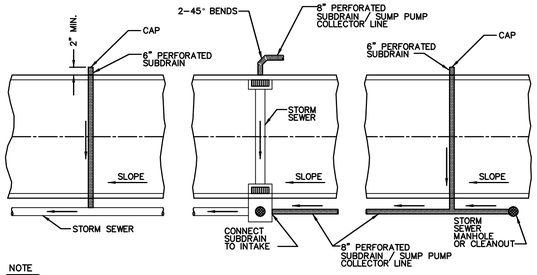
CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

TYPICAL SECTIONS AND DETAILS

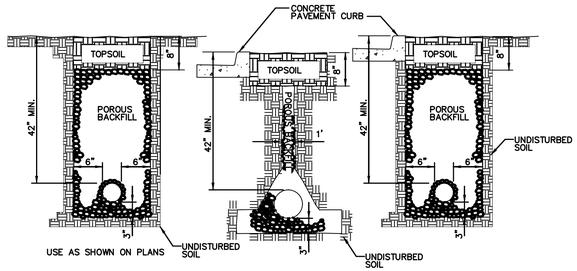
WAUKEE, IOWA

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PLOTTED BY: JONATHON MCDONALD
COMMENT:
TEDK:
ENG:



NOTE

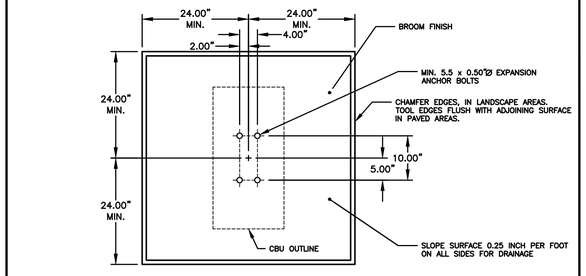
CORE DRILL ALL STORM SEWER AND PLACE NON-SHRINK GROUT COLLAR AT CONNECTION.

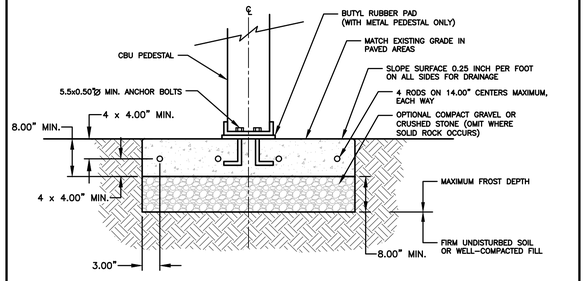


NOTES

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



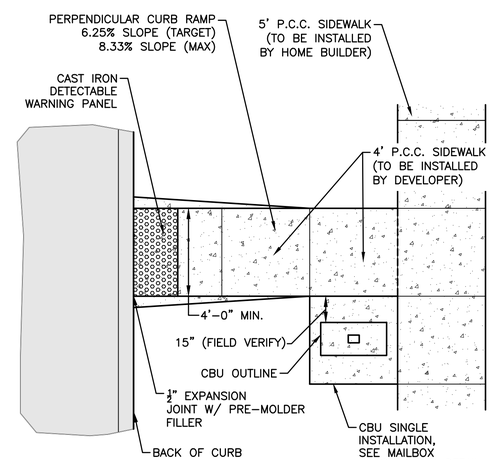


NOTES:

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.USHILTI.COM) ℓ=1/2" DIAMETER X 5-1/2" OVERALL LENGTH. GALVANIZED, CATALOG # 000-453-696 KB ℓ 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 IS 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

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%. Ath 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%.

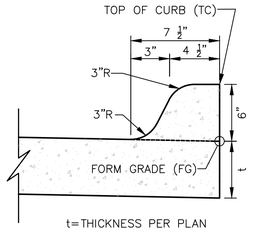
④ Perpendicular curb ramp: Target running slope of 6.25% with maximum running slope of 8.3%

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

Key
- CURB RAMP
- TURNING SPACE
- DETECTABLE WARNING

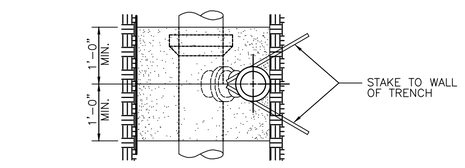
CURB RAMP FOR CLASS B OR C SIDEWALKS

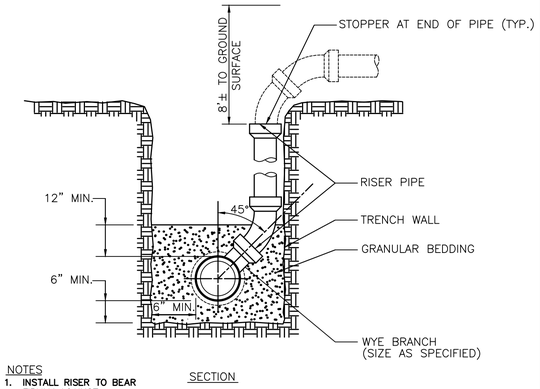
NOT TO SCALE



INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE



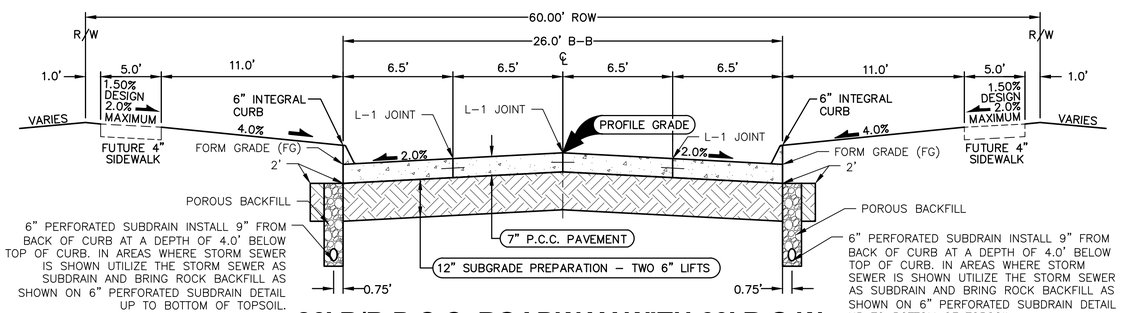


NOTES

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



6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 4.0' BELOW TOP OF CURB. IN AREAS WHERE STORM SEWER IS SHOWN UTILIZE THE STORM SEWER AS SUBDRAIN AND BRING ROCK BACKFILL AS SHOWN ON 6" PERFORATED SUBDRAIN DETAIL UP TO BOTTOM OF TOPSOIL.

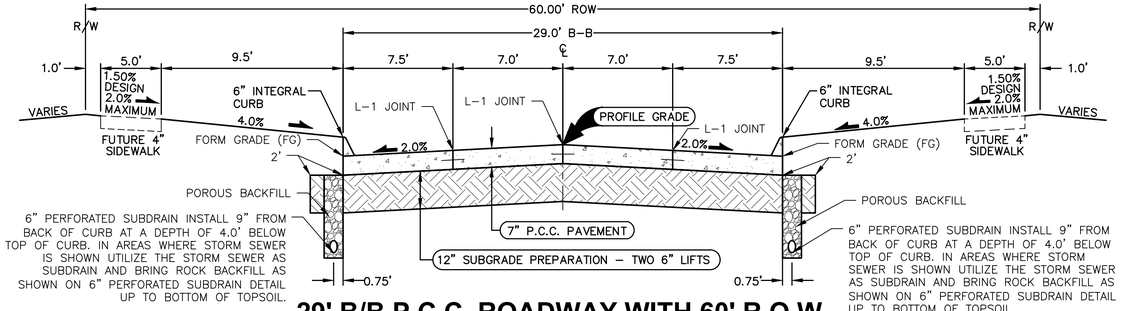
6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 4.0' BELOW TOP OF CURB. IN AREAS WHERE STORM SEWER IS SHOWN UTILIZE THE STORM SEWER AS SUBDRAIN AND BRING ROCK BACKFILL AS SHOWN ON 6" PERFORATED SUBDRAIN DETAIL UP TO BOTTOM OF TOPSOIL.

NOTES:

1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM C JOINT SPACING IS 15'.

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

NOT TO SCALE — NW ROSEMONT CIRCLE AND NW MORGAN COURT



6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 4.0' BELOW TOP OF CURB. IN AREAS WHERE STORM SEWER IS SHOWN UTILIZE THE STORM SEWER AS SUBDRAIN AND BRING ROCK BACKFILL AS SHOWN ON 6" PERFORATED SUBDRAIN DETAIL UP TO BOTTOM OF TOPSOIL.

6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 4.0' BELOW TOP OF CURB. IN AREAS WHERE STORM SEWER IS SHOWN UTILIZE THE STORM SEWER AS SUBDRAIN AND BRING ROCK BACKFILL AS SHOWN ON 6" PERFORATED SUBDRAIN DETAIL UP TO BOTTOM OF TOPSOIL.

NOTES:

1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM C JOINT SPACING IS 15'.

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

NOT TO SCALE — NW PRAIRIE ROSE LANE, NW ROSEMONT DRIVE AND NW NEWHAVEN DRIVE

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

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

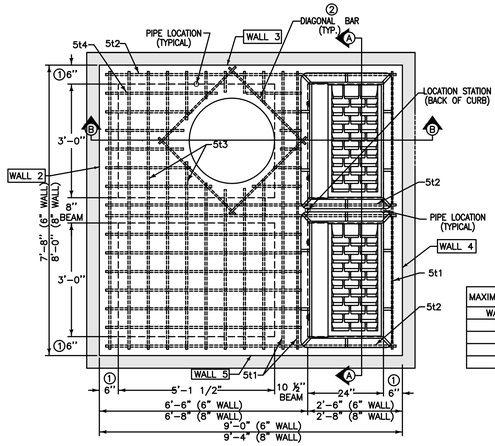
PRAIRIE ROSE PLAT 4

TYPICAL SECTIONS AND DETAILS

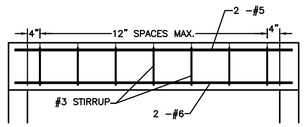
3 / 36

2103.135

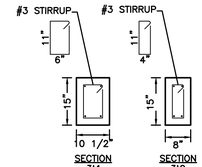
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PLOT DATE: 1/9/2023 8:42 AM
PLOTTED BY: JONATHAN MCDONALD
COMMENT:
ENG:
TECH:



PLAN



10 1/2" AND 8" BEAM DETAIL



SECTION 3t1 SECTION 3t2

MAXIMUM PIPE DIAMETERS	
WALL	MAX. DIA.
2	48"
3	36"
4	48"
5	36"

REINFORCING BAR LIST									
MARK	SIZE	LOCATION	SHAPE	COUNT		LENGTH		SPACING	
				6" WALL	8" WALL	6" WALL	8" WALL	6" WALL	8" WALL
3t1	3	TOP		7	7	3'-2" *	3'-2" *	12"	12"
3t2	3	TOP		8	8	2'-10"*	2'-10"*	10 ⅞"	10 ⅞"
5b1	5	BASE		9	9	7'-10"	8'-2"	12 ⅞"	12 ⅞"
5b2	5	BASE		9	9	8'-2"	8'-6"	11 ¾"	12 ⅛"
6w1	6	WALLS		30	30	WALL HEIGHT MINUS 4"		12"	12"
6w2	6	WALLS		VARIES	VARIES	7'-8"	8'-0"	12"	12"
6w3	6	WALLS		VARIES	VARIES	7'-4"	7'-8"	12"	12"
5t1	5	TOP		4	4	7'-4"	7'-8"	SEE DETAIL	SEE DETAIL
5t2	5	TOP		6	6	7'-8"	8'-0"	SEE DETAIL	SEE DETAIL
5t3	5	TOP		18	18	7'-4"	7'-8"	6 ⅞"	6 ¼"
5t4	5	TOP		24	24	5'-2"	5'-4"	5 ⅞"	6"
6t1	6	TOP		2	2	7'-4"	7'-8"	SEE DETAIL	SEE DETAIL
6t2	6	TOP		2	2	7'-8"	8'-0"	SEE DETAIL	SEE DETAIL

① USE 8" WALL OPTION FOR INTAKE DEPTHS GREATER THAN 7'-0" AND LESS THAN 10'-0".

② INSTALL FOUR #4 DIAGONAL BARS AT MANHOLE OPENING AND AT ALL PIPE OPENINGS.

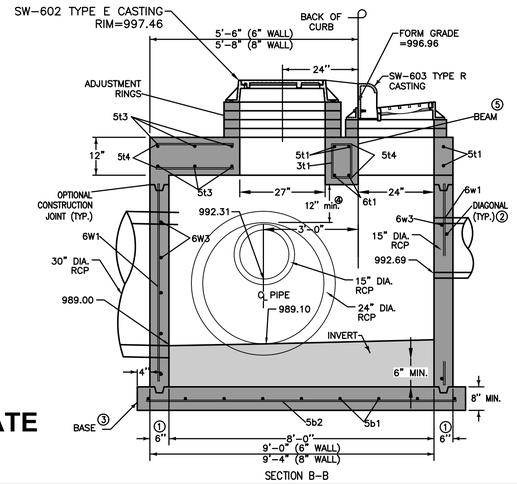
③ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

④ 12 INCH MINIMUM WALL HEIGHT ABOVE ALL PIPES.

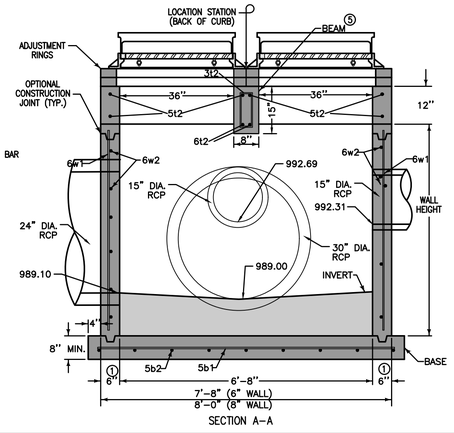
⑤ CONSTRUCT 8"X15" AND 10 ½"X15" P.C. CONCRETE BEAMS INTEGRAL WITH 12" P.C. CONCRETE FLAT TOP.

SW-506 MODIFIED DOUBLE GRATE INTAKE WITH MANHOLE (ST-14)

NOT TO SCALE



SECTION B-B



SECTION A-A

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
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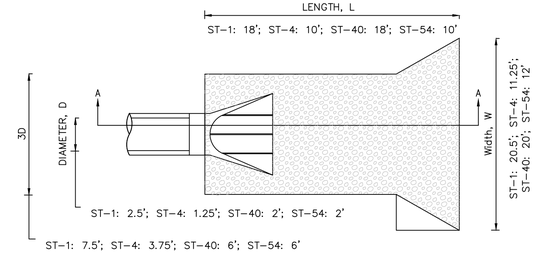
3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

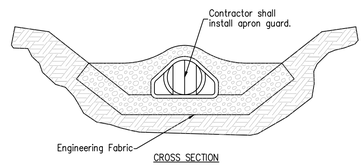
PRAIRIE ROSE PLAT 4

DETAILS

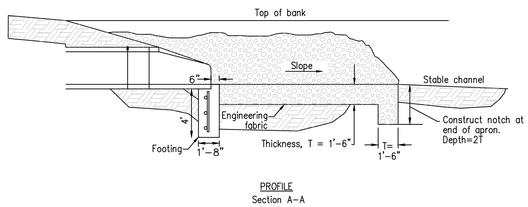


PLAN

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.



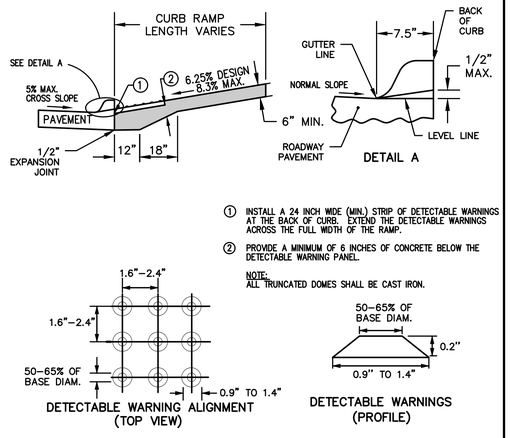
CROSS SECTION



PROFILE
Section A-A

ROCK APRON FOR PIPE OUTLET

NOT TO SCALE



① INSTALL A 24 INCH WIDE (MIN.) STRIP OF DETECTABLE WARNINGS AT THE BACK OF CURB. EXTEND THE DETECTABLE WARNINGS ACROSS THE FULL WIDTH OF THE RAMP.

② PROVIDE A MINIMUM OF 6 INCHES OF CONCRETE BELOW THE DETECTABLE WARNING PANEL.

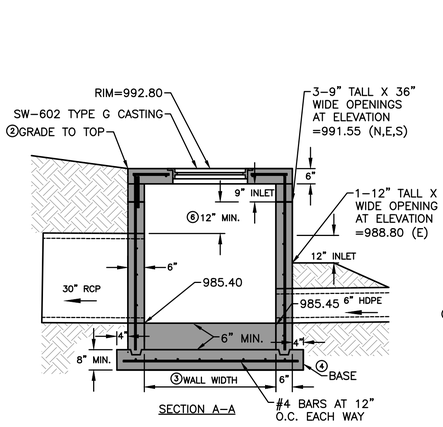
NOTE:
ALL TRUNCATED DOMES SHALL BE CAST IRON.

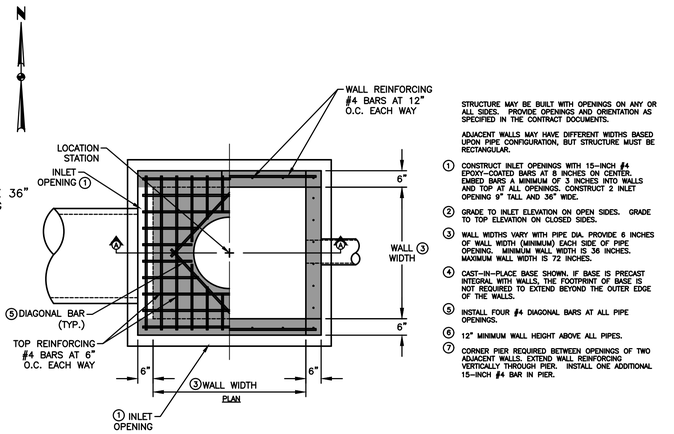
DETECTABLE WARNING ALIGNMENT (TOP VIEW)

DETECTABLE WARNINGS (PROFILE)

DETECTABLE WARNING DETAIL

NOT TO SCALE





STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.

ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.

① CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 6 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 2 INLET OPENING 9" TALL AND 36" WIDE.

② GRADE TO INLET ELEVATION ON OPEN SIDES. GRADE TO TOP ELEVATION ON CLOSED SIDES.

③ WALL WIDTHS VARY WITH PIPE DIA. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.

④ CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.

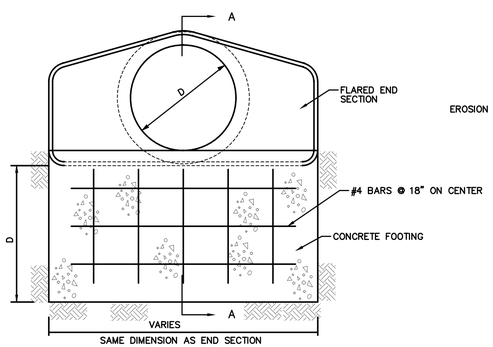
⑤ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

⑥ 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.

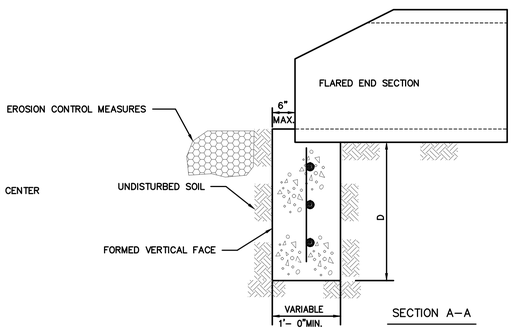
⑦ CORNER PIER REQUIRED BETWEEN OPENINGS OF TWO ADJACENT WALLS. EXTEND WALL REINFORCING VERTICALLY THROUGH PIER. INSTALL ONE ADDITIONAL 15-INCH #4 BAR IN PIER.

4' X 4' SW-513 INTAKE (ST-2)

NOT TO SCALE



ELEVATION



SECTION A-A

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
12"	2'-4"	4f1	4	2'-0"	3
		4f2	4	3'-8"	2
15"	2'-10"	4f1	4	2'-6"	3
		4f2	4	3'-8"	2
18"	3'-5"	4f1	4	3'-1"	3
		4f2	4	3'-8"	3
24"	4'-6"	4f1	4	4'-2"	3
		4f2	4	3'-8"	3
30"	5'-7"	4f1	4	5'-3"	3
		4f2	4	3'-8"	4
36"	6'-8"	4f1	4	6'-4"	3
		4f2	4	3'-8"	5
42"	7'-3"	4f1	4	6'-11"	3
		4f2	4	3'-8"	5
48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	6
54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	6
60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	7
78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	7
84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	8

RCP APRON FOOTING DETAIL

NOT TO SCALE

2103.135

FILE: N:\2021\2103135\DWG\2103135-CDV-DET-TAB-ASBUILTDWG
PLOT STYLE TABLE: ASBUILT.CTB 7/5/2023 8:54 AM
PLOTTED BY: JONATRON MCDONALD
COMMENT:
TECH: ENG

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	24.10
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	13,150
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	2,929
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	63
7	SUBDRAIN, 6" PERFORATED PVC	LF	4,732
8	STORM SEWER, TRENCHED, 6" HDPE	LF	17
9	STORM SEWER, TRENCHED, 8" HDPE	LF	1,000
10	STORM SEWER, TRENCHED, 12" HDPE	LF	226
11	STORM SEWER, TRENCHED, 15" HDPE	LF	252
12	STORM SEWER, TRENCHED, 24" HDPE	LF	368
13	STORM SEWER, TRENCHED, 15" RCP	LF	1,729
14	STORM SEWER, TRENCHED, 18" RCP	LF	478
15	STORM SEWER, TRENCHED, 24" RCP	LF	1,238
16	STORM SEWER, TRENCHED, 30" RCP	LF	252
17	STORM SEWER SERVICE STUB, 4" DIA	EA	63
18	STORM SEWER, 15" RCP APRON W/ FOOTING & APRON GUARD	EA	5
19	STORM SEWER, 24" CMP APRON W/ FOOTING & APRON GUARD	EA	1
20	STORM SEWER, 24" RCP APRON W/ FOOTING & APRON GUARD	EA	2
21	STORM SEWER, 30" RCP APRON W/ FOOTING & APRON GUARD	EA	2
22	WATER MAIN, 8" DIA	LF	3,164
23	WATER MAIN, 12" DIA	LF	565
24	WATER SERVICE STUB, 1" DIA	EA	63
25	VALVE, 8" DIA	EA	11
26	VALVE, 12" DIA	LF	2
27	FIRE HYDRANT ASSEMBLY	EA	14
28	TEMPORARY FIRE HYDRANT ASSEMBLY	EA	5
29	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	18
30	MANHOLE, SW-301, 60" (SANITARY SEWER)	EA	1
31	MANHOLE, SW-401, 48" (STORM SEWER)	EA	20
32	INTAKE, SW-501	EA	4
33	INTAKE, SW-503	EA	4
34	INTAKE, SW-505	EA	8
35	INTAKE, SW-506	EA	5
36	INTAKE, SW-506, MODIFIIED	EA	1
37	INTAKE, SW-513, 4'X4'	EA	1
38	INTAKE, NYLOPLAST 24" DIA. W/ DOME GRATE INLET	EA	2
39	INTAKE, NYLOPLAST 30" DIA. W/ DOME GRATE INLET	EA	3
40	PAVEMENT, 7" P.C.C.	SY	9,544
41	PAVEMENT, 9" P.C.C.	SY	2,075
42	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	223
43	DETECTABLE WARNING PANELS	SF	304
44	PAVEMENT, 4" P.C.C. SIDEWALK	SY	41
45	PAVEMENT, 4" P.C.C. FLUME	SY	161
46	PAVEMENT, 6" P.C.C. TRAIL	SY	1,168
47	SEEDING, FERTILIZING, AND MULCHING	AC	21.37
48	PERMANENT ROAD CLOSURE, URBAN, SI-182	EA	20
49	PERMANENT ROAD CLOSURE, URBAN, SI-182 (RELOCATED)	EA	5
50	TRAFFIC CONTROL	LS	1
51	EROSION CONTROL	LS	1
52	STORM SEWER CLEANOUT	EA	10
53	MAILBOX PAD	EA	10
54	CLASS 'E' RIPRAP	TON	70
55	TEMPORARY GRANULAR TURNAROUND	EA	4

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 CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.
3. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY AREAS OF PAVEMENT OR SIDEWALK NOT TO BE REMOVED THAT IS DAMAGED DUE TO OPERATING HIS EQUIPMENT ON THE PAVEMENT OR SIDEWALK. PAVEMENT REPLACEMENT SHALL COMPLY WITH THE WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF WORK BETWEEN ALL SUPPLIERS AND SUBCONTRACTORS INVOLVED IN THE PROJECT. INCLUDING STAGING OF CONSTRUCTION DETAILS.
6. THE CONTRACTOR SHALL CONFINE HIS GRADING OPERATIONS TO WITHIN THE PROPOSED AND EXISTING RIGHT OF WAY, CONSTRUCTION LIMITS AND EASEMENTS SHOWN ON THE PLANS. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL NOTIFY (48 HRS NOTICE) THE FOLLOWING:
   A. CITY OF WAUKEE ENGINEERING DEPARTMENT
   B. APPROPRIATE UTILITY COMPANIES
   C. OWNER
   D. CIVIL DESIGN ADVANTAGE

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

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
	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.
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 TELEVISE SANITARY AND STORM SEWER PRIOR TO PAVING AND PROVIDE TELEVISING REPORT TO CITY IN HARD COPY AND DISC FORMAT. TELEVISING 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.
6,17,24	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.
18-21	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.
22-28	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.
27	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.
28	REFER TO WATERMAIN PLAN AND PROFILE SHEETS FOR LOCATIONS OF HYDRANTS. ANY RELOCATED FIRE HYDRANTS ARE TO INCLUDE 5-INCH STORZ FITTINGS.
29-30	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.
31	REFER TO FIG. 6010.401 - CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.

ESTIMATE REFERENCE INFORMATION

Data listed below is for informational purpose only and shall not constitute a basis for any extra work orders.

ITEM NO.	DESCRIPTION
32-35	REFER TO FIG. 6010.514 - BOXOUTS FOR GRATE INTAKES. REFER TO FIG. 6010.603 - CASTINGS FOR GRATE INTAKES FOR TYPE R GRATE DETAILS AND FIG. 6010.602 - CASTINGS FOR STORM SEWER MANHOLES FOR TYPE E CASTING DETAILS. THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR INTAKE CASTINGS IS 6". THE MAXIMUM HEIGHT OF ADJUSTING RINGS ALLOWED FOR MANHOLE CASTINGS IS 12".
32	REFER TO FIG. 6010.501 - SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
33	REFER TO FIG. 6010.503 - SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
34	REFER TO FIG. 6010.505 - DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS
35	REFER TO FIG. 6010.506 - DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
36	REFER TO SHEET 4 FOR DETAILS.
40-41	REFER TO FIG. 7010.101 - JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
42	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.
43	REFER TO SHEET 4 FOR CONSTRUCTION DETAILS. ALL TRUNCATED DOMES SHALL BE CAST IRON WITH A NATURAL FINISH COLOR.
44-46	REFER TO STORM & SANITARY SEWER PLAN AND PROFILE SHEETS FOR LOCATIONS.
47	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 =2.83 AC -TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 15.69 AC
48-49	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.
50	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.
51	REFER TO SHEET 9-10 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
52	REFER TO SANITARY AND STORM SEWER PLAN AND PROFILE SHEETS FOR LOCATIONS.
53	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS. MAILBOX PADS ARE LOCATED BETWEEN LOTS 21/22, 34 AND 53.
55	REFER TO SHEET 6 FOR LOCATIONS

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.
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 TELEVISING ALL STORM AND SANITARY SEWERS. THE CITY OF WAUKEE ENGINEERING DEPARTMENT SHALL WITNESS AND APPROVE ALL CLEANING AND TELEVISING 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.

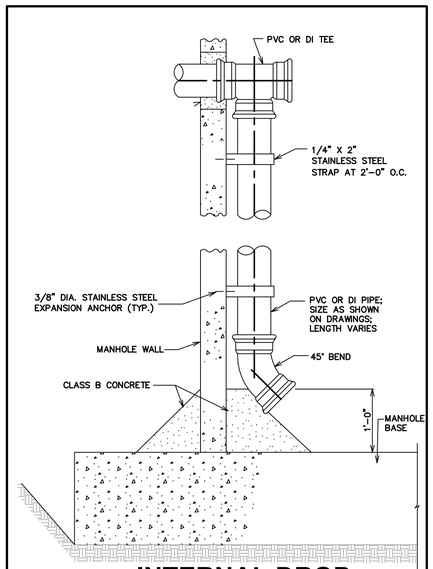
3405 S.E. CROSSROADS DRIVE, SUITE G
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PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO | EI: JWM TECH: BDH

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
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FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

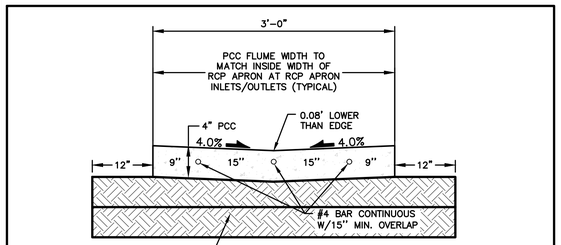
PRAIRIE ROSE PLAT 4
QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES

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TECH:
ENG:

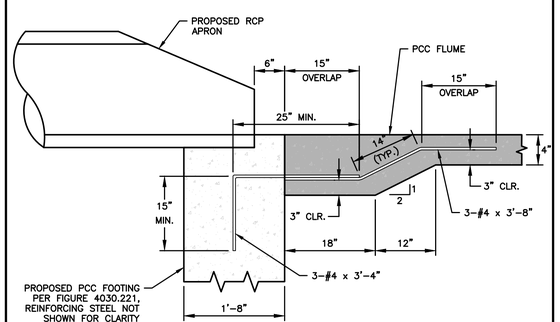


INTERNAL DROP CONNECTION DETAIL

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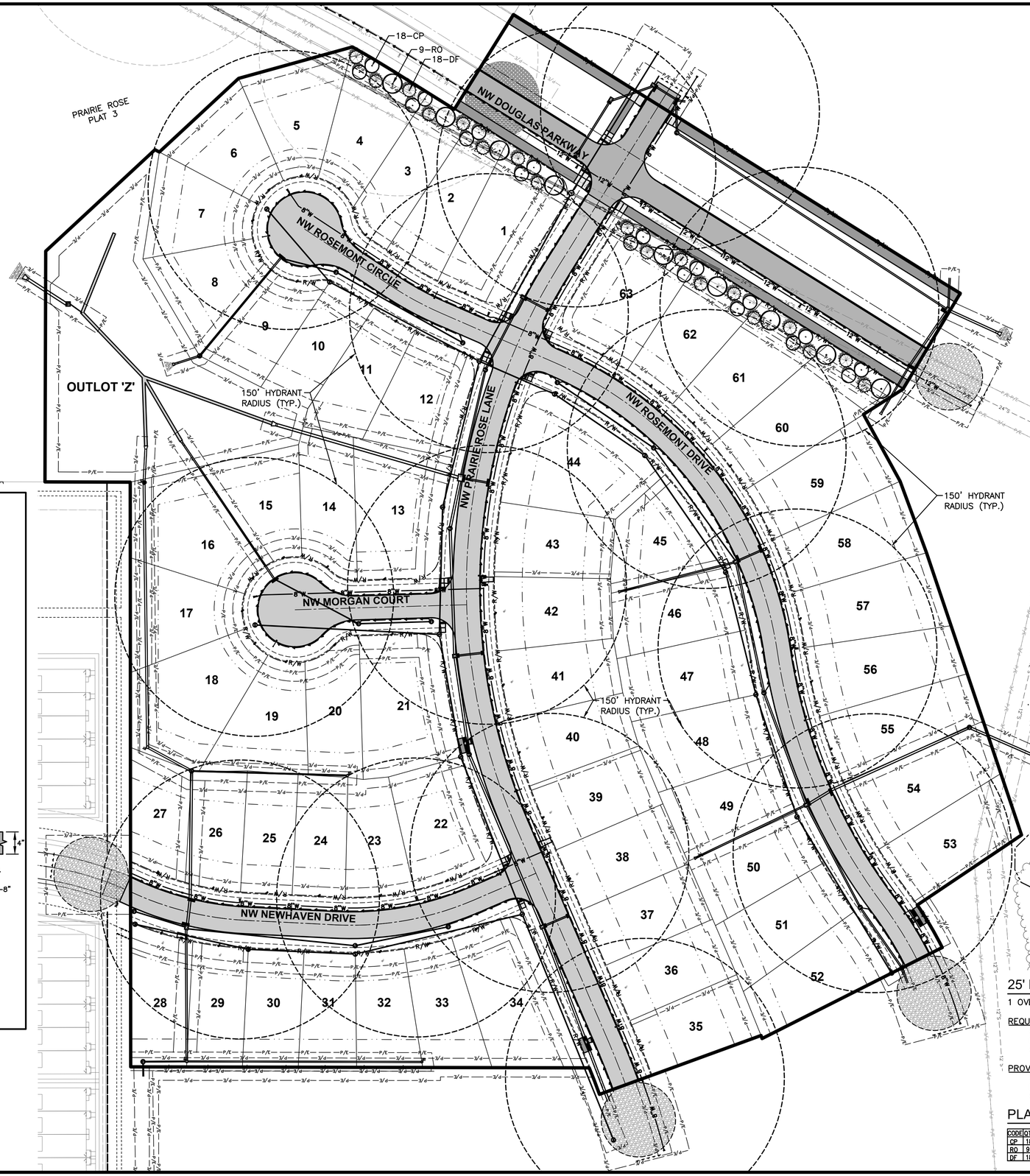
TYPICAL CROSS SECTION



LONGITUDINAL SECTION

PCC FLUME DETAIL

NOT TO SCALE



25' BUFFER REQUIREMENTS

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

REQUIRED (450')

OVERSTORY TREES	9
EVERGREEN TREES	18
ORNAMENTAL TREES	18

PROVIDED

OVERSTORY TREES	9
EVERGREEN TREES	18
ORNAMENTAL TREES	18

PLANT SCHEDULE

CODE	QTY			SIZE	COND
CP	18	CHANTICLEER PEAR	PYRUS CALLERYANA 'GLENS'S FORM'	1.5" CAL	B&B
RO	9	RED OAK	QUERCUS RUBRA	2" CAL	B&B
DF	18	DOUGLAS FIR	PSEUDOTSGA MENZIESII	6' HT.	B&B

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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

HYDRANT COVERAGE & LANDSCAPE PLAN

WAUKEE, IOWA

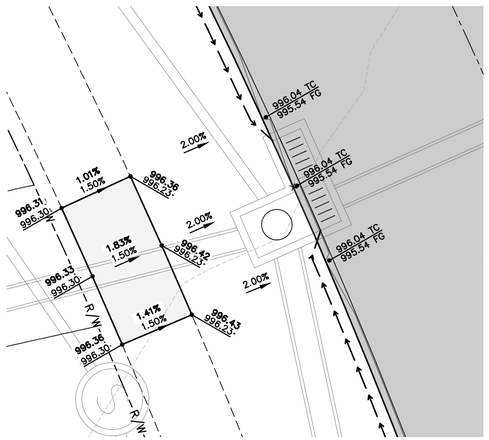
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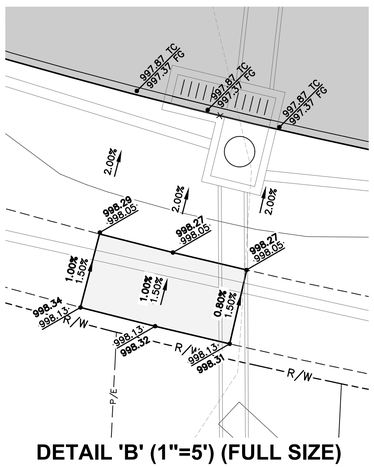
GRADING NOTES

1. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE THE WAUKEE ENGINEERING DEPARTMENT WITH A CERTIFIED AS-BUILT GRADING PLAN PRIOR TO ACCEPTANCE OF IMPROVEMENTS.
2. REMOVE ANY FARM FENCING ON THE PROPERTY AS PART OF THE IMPROVEMENTS.

AREA OF DISTURBANCE = 24.10 AC



DETAIL 'A' (1"=5') (FULL SIZE)



DETAIL 'B' (1"=5') (FULL SIZE)

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
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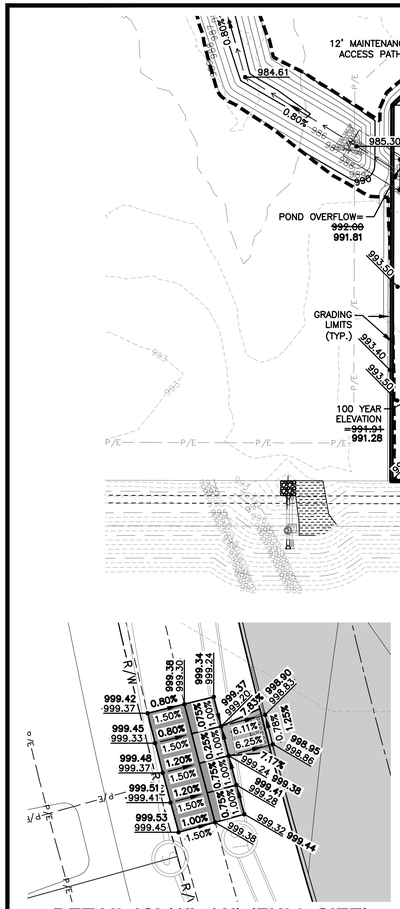
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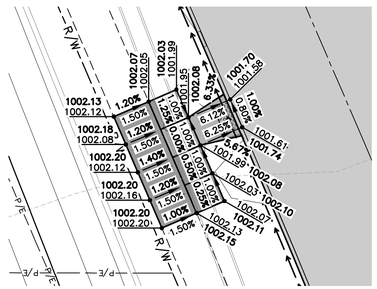
CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

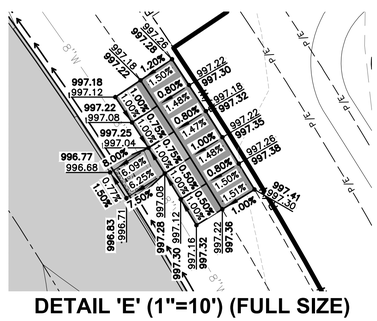
PRAIRIE ROSE PLAT 4
GRADING PLAN

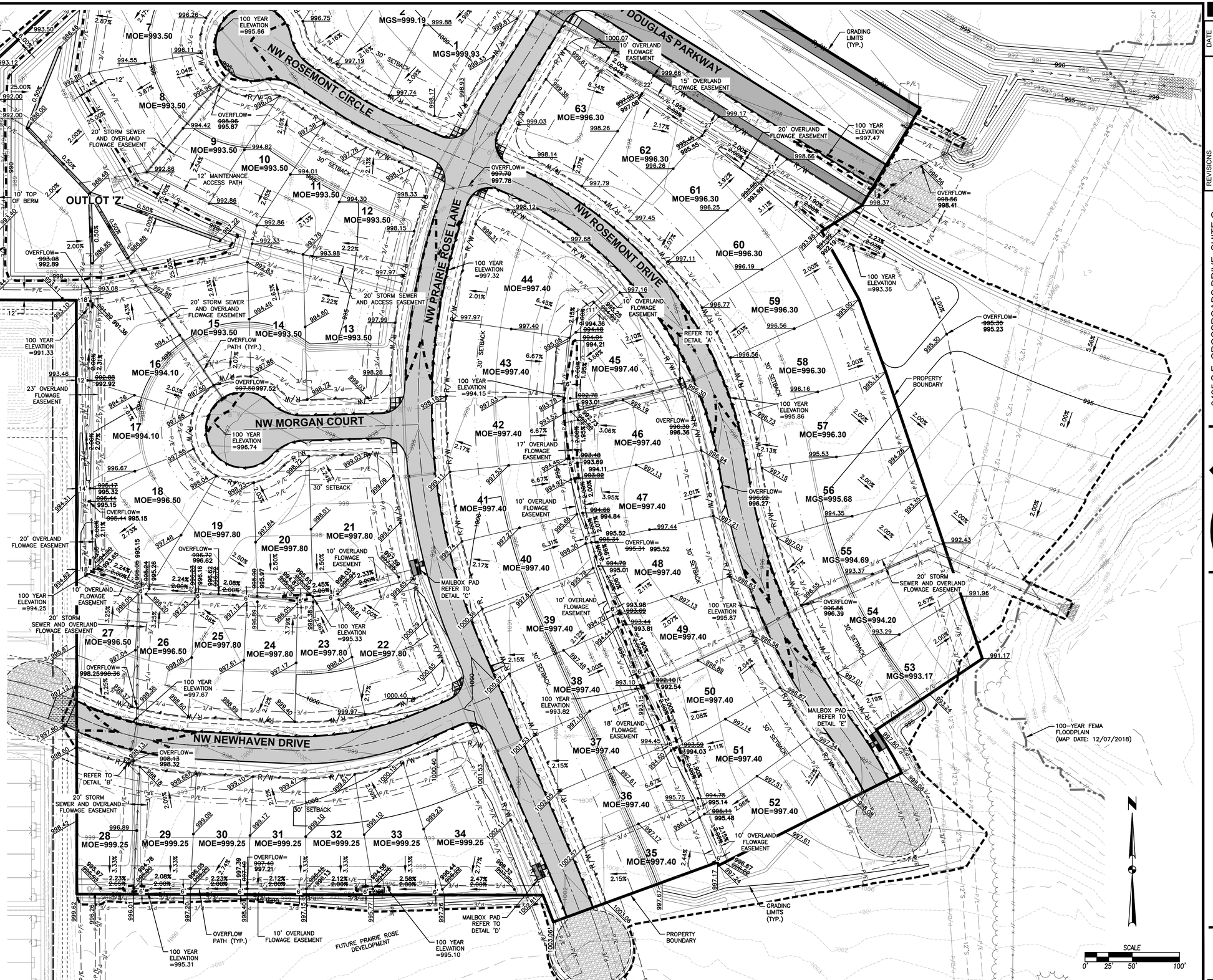
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REVISIONS	DATE
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CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

PRAIRIE ROSE PLAT 4

GRADING PLAN

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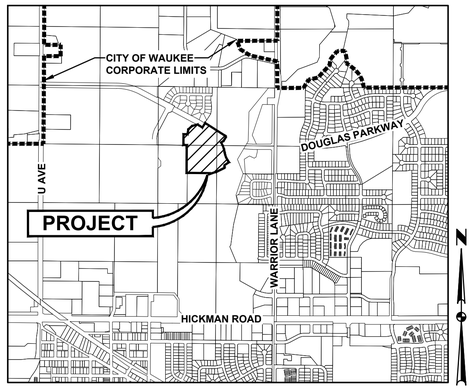
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PLOTTED BY: JONATHON MCDONALD 7/7/2023 8:50 AM TECH:

PRAIRIE ROSE PLAT 4

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	5,427
2	DITCH CHECK	LF	1,154
3	CLASS E RIP-RAP	TON	70
4	SEEDING, FERTILIZING, AND MULCHING	AC	21.37
5	INLET PROTECTION DEVICES	EA	19
6	CONCRETE WASHOUT PIT	EA	1
7	FILTER FABRIC	LS	1
8	EROSION STONE	TON	0.25

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO LITTLE WALNUT CREEK ±650 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	13.30 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	47,880 CU FT
VOLUME PROVIDED IN SILT FENCE (2,017 LF @ 10.0 CU FT/LF OF FENCE)	20,170 CU FT
VOLUME PROVIDED IN DITCH CHECK (487 LF @ 15.0 CU FT/LF)	7,305 CU FT
VOLUME PROVIDED IN TSB #1	36,296 CU FT
TOTAL VOLUME PROVIDED	67,771 CU FT

DISCHARGE POINT #2 TO LITTLE WALNUT CREEK ±250 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	9.44 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	33,984 CU FT
VOLUME PROVIDED IN SILT FENCE (2,609 LF @ 10.0 CU FT/LF OF FENCE)	26,090 CU FT
VOLUME PROVIDED IN DITCH CHECK (537 LF @ 15.0 CU FT/LF)	8,055 CU FT
TOTAL VOLUME PROVIDED	34,145 CU FT

DISCHARGE POINT #3 TO LITTLE WALNUT CREEK ±250 FT

TOTAL AREA DISTURBED TO DISCHARGE POINT	1.36 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	4,896 CU FT
VOLUME PROVIDED IN SILT FENCE (801 LF @ 10.0 CU FT/LF OF FENCE)	8,010 CU FT
VOLUME PROVIDED IN DITCH CHECK (130 LF @ 15.0 CU FT/LF)	1,950 CU FT
TOTAL VOLUME PROVIDED	9,960 CU FT

SWPPP LEGEND

DRAINAGE ARROW X.XX %

GRADING LIMITS

FILTER SOCK

SILT FENCE

INLET PROTECTION

PORTABLE RESTROOM (R)

TEMPORARY STANDPIPE

CONCRETE WASHOUT PIT

AREA TO BE SEEDED

STRAW MAT

UNDISTURBED AREA

RIP-RAP

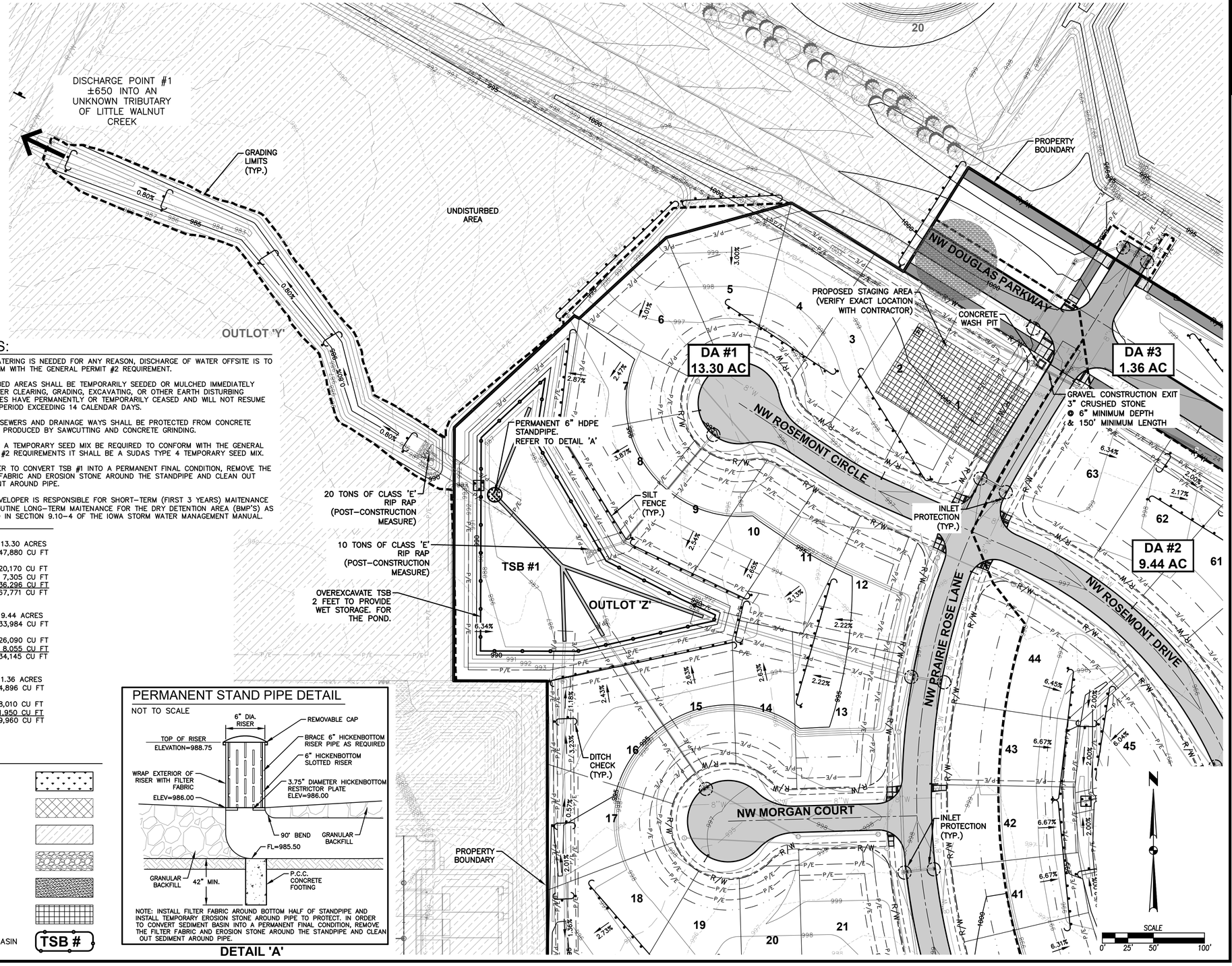
GRAVEL ENTRANCE

STAGING AREA

TEMPORARY SEDIMENT BASIN TSB #

NOTES:

1. IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE IS TO CONFORM WITH THE GENERAL PERMIT #2 REQUIREMENT.
2. 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.
3. STORM SEWERS AND DRAINAGE WAYS SHALL BE PROTECTED FROM CONCRETE SLURRY PRODUCED BY SAWCUTTING AND CONCRETE GRINDING.
4. 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.
5. 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.
6. THE DEVELOPER IS RESPONSIBLE FOR SHORT-TERM (FIRST 3 YEARS) MAITENANCE AND ROUTINE LONG-TERM MAITENANCE FOR THE DRY DETENTION AREA (BMP'S) AS DEFINED IN SECTION 9.10-4 OF THE IOWA STORM WATER MANAGEMENT MANUAL.



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'

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

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

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

9 / 36

2103.135

F:\E: H:\2021\2103135\DWG\2103135-SWPPP-ASBUILTING
PLOTTED: 1/9/2023 9:42 AM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH:
ENG:

NW ROSEMONT CIRCLE
NW PRAIRIE ROSE LANE
NW ROSEMONT DRIVE
NW DOUGLAS PARKWAY
NW MORGAN COURT
NW NEWHAVEN DRIVE
OUTLOT 'Z'
TSB #1
DA #1
13.30 AC
DA #2
9.44 AC
DA #3
1.36 AC
GRAVEL CONSTRUCTION EXIT
3" CRUSHED STONE
@ 6" MINIMUM DEPTH
& 150' MINIMUM LENGTH
PERMANENT 6" HDPE STANDPIPE. REFER TO DETAIL 'A'
20 TONS OF CLASS 'E' RIP RAP (POST-CONSTRUCTION MEASURE)
10 TONS OF CLASS 'E' RIP RAP (POST-CONSTRUCTION MEASURE)
OVEREXCAVATE TSB 2 FEET TO PROVIDE WET STORAGE. FOR THE POND.
SILT FENCE (TYP.)
INLET PROTECTION (TYP.)
DITCH CHECK (TYP.)
PROPERTY BOUNDARY
FUTURE IMPROVEMENTS (BY OTHERS)
UNDISTURBED AREA
775 SF OF EXISTING TYPE 1 TRM (POST-CONSTRUCTION MEASURE)
15 TONS OF CLASS 'E' RIP RAP (POST-CONSTRUCTION MEASURE)
DISCHARGE POINT #1
±250 INTO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK
POTENTIAL TOPSOIL STOCKPILE LOCATION
25 TONS OF CLASS 'E' RIP RAP (POST-CONSTRUCTION MEASURE)
DISCHARGE POINT #2
±250 INTO AN UNKNOWN TRIBUTARY OF LITTLE WALNUT CREEK
100-YEAR FEMA FLOODPLAIN (MAP DATE: 12/07/2018)
GRADING LIMITS (TYP.)
SCALE
0' 25' 50' 100'

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

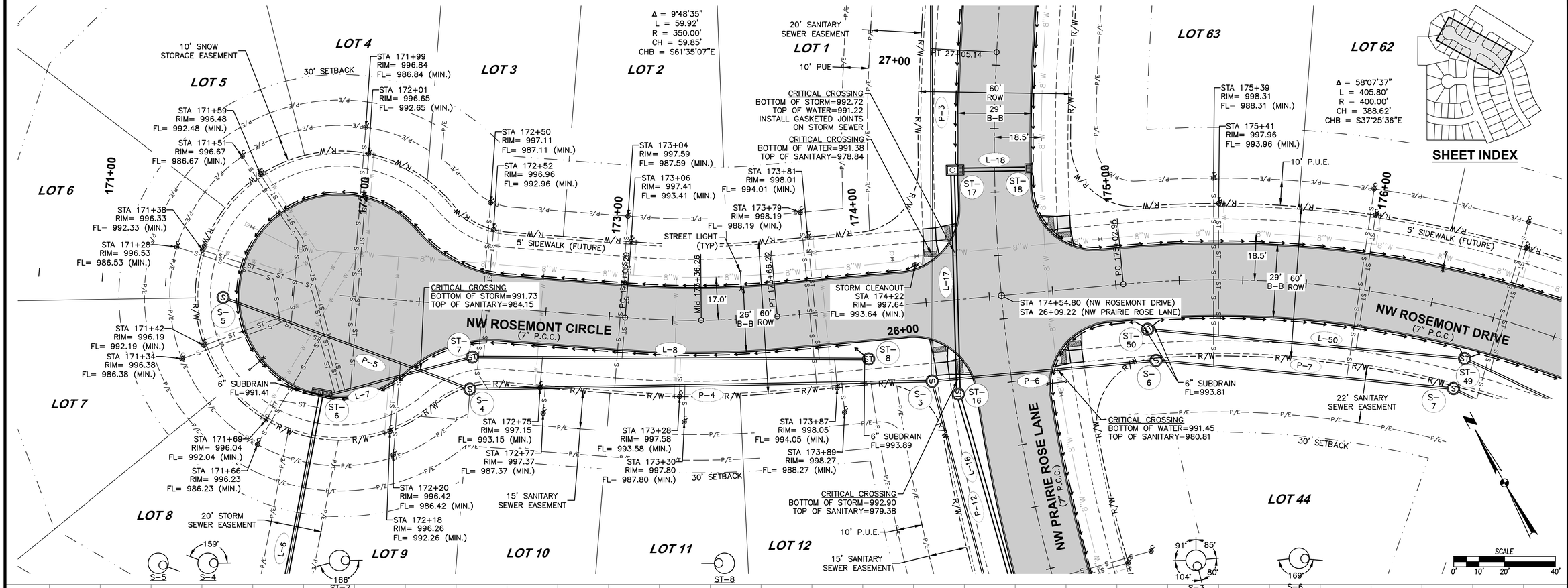
EROSION AND SEDIMENT CONTROL PLAN

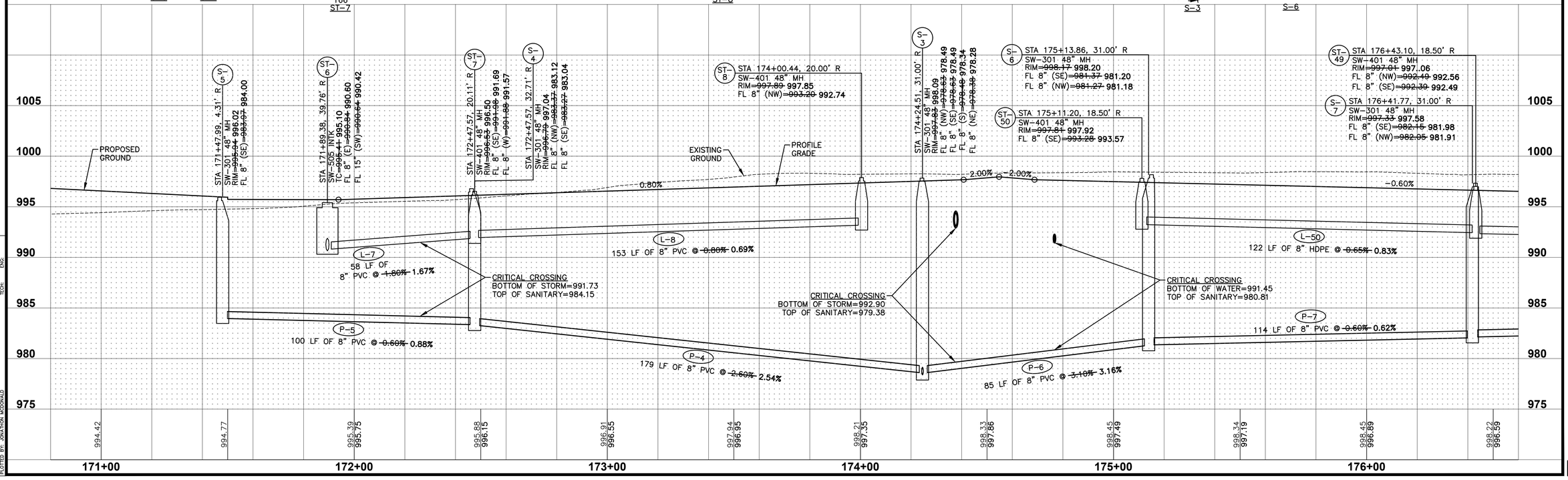
WAUKEE, IOWA

10/36

2103.135

FILE: H:\2021\2103135\DWG\2103135-SWPPP-ASBUILT.DWG
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PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:





REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
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FOURTH SUBMITTAL	06/14/2021

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GRIMES, IOWA 50111
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CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

11/36

2103.135

COMMENT:
TECH:
ENG:

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XREF: XREF-PROFILE
PLOTTED BY: JONATHON MCDONALD PLOTTED: 7/9/2022 9:42 AM

LOT 62 | LOT 61 | LOT 60 | LOT 59 | LOT 58 | LOT 57 | LOT 56 | LOT 55 | LOT 54

LOT 45 | LOT 46 | LOT 47 | LOT 48 | LOT 49 | LOT 50 | LOT 44

NW ROSEMONT DRIVE
(7" P.C.C.)

Δ = 58°07'37"
L = 405.80'
R = 400.00'
CH = 388.62'
CHB = S37°25'36"E

Δ = 28°31'04"
L = 298.64'
R = 600.00'
CH = 295.56'
CHB = S22°37'19"E

STA 175+98 RIM= 997.62 FL= 993.62 (MIN.)
STA 175+96 RIM= 997.83 FL= 993.83 (MIN.)
STA 176+53 RIM= 997.49 FL= 987.49 (MIN.)
STA 176+55 RIM= 997.28 FL= 993.28 (MIN.)
STA 177+09 RIM= 997.15 FL= 987.15 (MIN.)
STA 177+11 RIM= 996.94 FL= 992.94 (MIN.)
STA 177+66 RIM= 996.81 FL= 986.81 (MIN.)
STA 177+68 RIM= 996.60 FL= 992.60 (MIN.)
STA 178+23 RIM= 996.77 FL= 986.77 (MIN.)
STA 178+24 RIM= 996.57 FL= 992.57 (MIN.)
STA 178+79 RIM= 997.13 FL= 987.13 (MIN.)
STA 178+81 RIM= 996.95 FL= 992.95 (MIN.)
STORM CLEANOUT STA 179+09 RIM= 996.71 FL= 992.71 (MIN.)
STA 179+47 RIM= 997.42 FL= 987.42 (MIN.)
STA 179+49 RIM= 997.22 FL= 993.22 (MIN.)
STA 180+27 RIM= 996.93 FL= 986.93 (MIN.)
STA 180+29 RIM= 996.71 FL= 992.71 (MIN.)
STA 177+39 RIM= 996.77 FL= 992.77 (MIN.)
STA 177+41 RIM= 996.96 FL= 986.96 (MIN.)
STA 178+41 RIM= 996.65 FL= 992.65 (MIN.)
STA 178+44 RIM= 996.86 FL= 986.86 (MIN.)
STA 179+16 RIM= 997.18 FL= 993.18 (MIN.)
STA 179+18 RIM= 997.38 FL= 987.38 (MIN.)
STA 179+82 RIM= 997.08 FL= 993.08 (MIN.)
STA 179+84 RIM= 997.27 FL= 987.27 (MIN.)
STA 180+45 RIM= 996.62 FL= 992.62 (MIN.)
STA 180+47 RIM= 996.81 FL= 986.81 (MIN.)

176+00 | 177+00 | 178+00 | 179+00 | 180+00 | 181+00

STREET LIGHT (TYP.)
Mid 177+05.85
Mid 180+58.07
60' ROW
29' B-B
18.5'
30' SETBACK
5' SIDEWALK (FUTURE)
PRC 179+08.75

6" SUBDRAIN FL=992.04
6" SUBDRAIN FL=993.01
6" SUBDRAIN FL=993.02
6" SUBDRAIN FL=992.06

CRITICAL CROSSING
BOTTOM OF STORM=991.46
TOP OF SANITARY=983.72

CRITICAL CROSSING
BOTTOM OF STORM=989.05
TOP OF WATER=987.55
INSTALL GASKETED JOINTS ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF STORM=990.96
TOP OF SANITARY=985.60

INSTALL 6 SY OF 4" P.C.C.

22' SANITARY SEWER EASEMENT
20' SANITARY SEWER EASEMENT
15' SANITARY SEWER EASEMENT
10' OVERLAND FLOWAGE EASEMENT
17' OVERLAND FLOWAGE EASEMENT
20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT
20' STORM SEWER EASEMENT
10' PUE
10' P.U.E.

ST-50 | S-6 | 169° | S-7 | 157° | 158° | ST-49 | 157° | S-8 | 175° | S-9 | 173° | ST-45 | S-10 | 168°

SCALE 0' 10' 20' 40'

SHEET INDEX

20' STORM SEWER AND OVERLAND FLOWAGE EASEMENT

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
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ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

WAUKEE, IOWA

12/36

2103.135

1010 | 1005 | 1000 | 995 | 990 | 985 | 980

-0.60% | 0.80% | -0.80%

PROFILE GRADE
EXISTING GROUND
PROPOSED GROUND

ST-49 STA 176+43.10, 18.50' R
SW-401 48" MH
RIM=~~997.01~~ 997.06
FL 8" (NW)=~~992.49~~ 992.56
FL 8" (SE)=~~992.39~~ 992.49

S-7 STA 176+41.77, 31.00' R
SW-301 48" MH
RIM=~~997.33~~ 997.58
FL 8" (SE)=~~982.15~~ 981.98
FL 8" (NW)=~~982.05~~ 981.91

ST-46 STA 177+99.86, 14.50' R
SW-506 INTK
TC=~~996.04~~ 995.93
FL 15" (NE)=~~991.27~~ 991.53
FL 15" (W)=~~991.53~~ 991.72
FL 8" (NW)=~~991.50~~ 991.69
FL 18" (S)=~~991.17~~ 991.58

S-8 STA 178+08.46, 31.00' R
SW-301 48" MH
RIM=~~996.45~~ 996.78
FL 8" (S)=~~983.15~~ 983.03
FL 8" (NW)=~~983.05~~ 982.91

ST-48 STA 177+69.13, 144.07' R
FES RCP APRON W/ GUARD
FOOTING APRON
FL=~~990.50~~ 982.73

ST-47 STA 178+23.00, 0.00'
SW-506 INTK
TC=~~996.04~~ 995.93
FL 15" (NE)=~~991.27~~ 991.53
FL 15" (W)=~~991.53~~ 991.72
FL 8" (NW)=~~991.50~~ 991.69
FL 18" (S)=~~991.17~~ 991.58

ST-46 STA 308+76.40, 0.00'
SW-506 INTK
TC=~~996.04~~ 995.93
FL 15" (NE)=~~991.27~~ 991.53
FL 15" (W)=~~991.53~~ 991.72
FL 8" (NW)=~~991.50~~ 991.69
FL 18" (S)=~~991.17~~ 991.58

ST-47 STA 309+05.40, 0.00'
SW-505 INTK
TC=~~996.04~~ 995.92
FL 15" (SW)=~~991.52~~ 991.82

L-48 129 LF OF 15" RCP @ ~~0.75%~~ 0.78%
(LENGTH SHOWN INCLUDES APRON)

L-47 25 LF OF 15" RCP @ ~~1.00%~~ 1.16%

ST-45 STA 179+49.93, 22.00' R
SW-401 48" MH
RIM=~~997.02~~ 997.00
FL 18" (N)=~~990.46~~ 990.75
FL 18" (S)=~~990.36~~ 990.70

S-9 STA 179+49.93, 31.00' R
SW-301 48" MH
RIM=~~997.23~~ 997.28
FL 8" (S)=~~984.05~~ 983.86
FL 8" (N)=~~983.95~~ 983.76

ST-43 STA 180+73.00, 14.50' R
SW-506 INTK
TC=~~996.06~~ 995.95
FL 15" (SW)=~~991.04~~ 991.10
FL 18" (N)=~~989.73~~ 990.04
FL 15" (SE)=~~990.58~~ 990.64
FL 24" (NE)=~~989.63~~ 989.84

S-10 STA 180+82.01, 31.00' R
SW-301 48" MH
RIM=~~996.69~~ 996.71
FL 8" (SE)=~~984.05~~ 984.74
FL 8" (N)=~~984.85~~ 984.70

L-50 122 LF OF 8" HDPE @ ~~0.65%~~ 0.83%
L-49 148 LF OF 8" HDPE @ ~~0.60%~~ 0.54%
L-46 141 LF OF 18" RCP @ ~~0.50%~~ 0.59%
L-45 126 LF OF 18" RCP @ ~~0.50%~~ 0.52%
P-7 114 LF OF 8" PVC @ ~~0.60%~~ 0.62%
P-8 149 LF OF 8" PVC @ ~~0.60%~~ 0.62%
P-9 131 LF OF 8" PVC @ ~~0.60%~~ 0.56%
P-10 135 LF OF 8" PVC @ ~~0.60%~~ 0.62%

LP STA = 177+99.90
LP ELEV = 995.82
VPI STA = 178+07
VPI ELEV = 995.64
VC = 100'
K=71.37

HP STA = 179+40.00
HP ELEV = 996.508
VPI STA = 179+40
VPI ELEV = 996.71
VC = 100'
K=62.50

LP STA = 180+73.00
LP ELEV = 995.84
VPI STA = 180+73
VPI ELEV = 995.64
VC = 100'
K=62.50

VPC STA = 177+57
VPC ELEV = 995.94
VPT STA = 178+57
VPT ELEV = 996.04
VPC STA = 178+90
VPC ELEV = 996.31
VPT STA = 179+90
VPT ELEV = 996.31
VPC STA = 180+23
VPC ELEV = 996.04

998.34 997.19 | 998.45 996.89 | 998.22 996.59 | 998.24 996.29 | 997.84 995.99 | 998.09 995.82 | 998.42 995.99 | 997.84 996.38 | 997.80 996.50 | 998.04 996.23 | 998.56 995.89 | 998.97 995.90

176+00 | 177+00 | 178+00 | 179+00 | 180+00 | 181+00

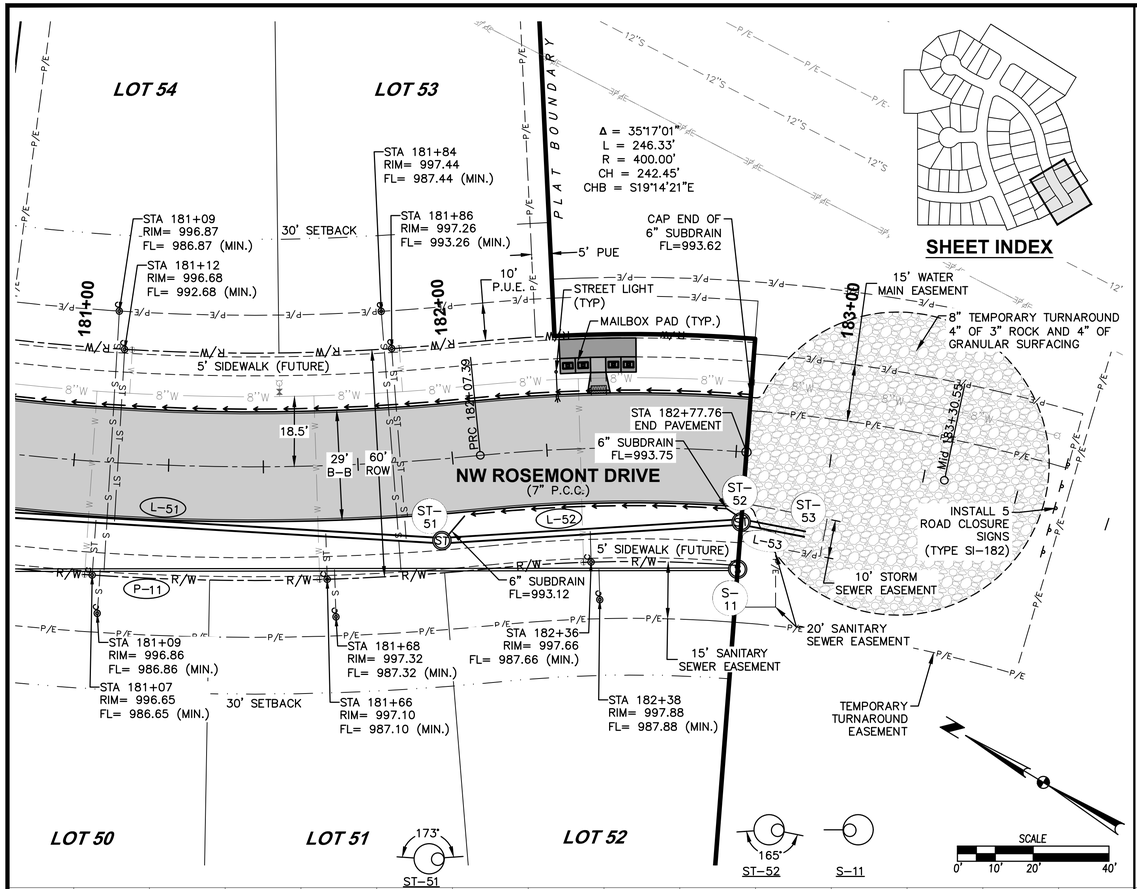
CRITICAL CROSSING
BOTTOM OF STORM=991.46
TOP OF SANITARY=983.72

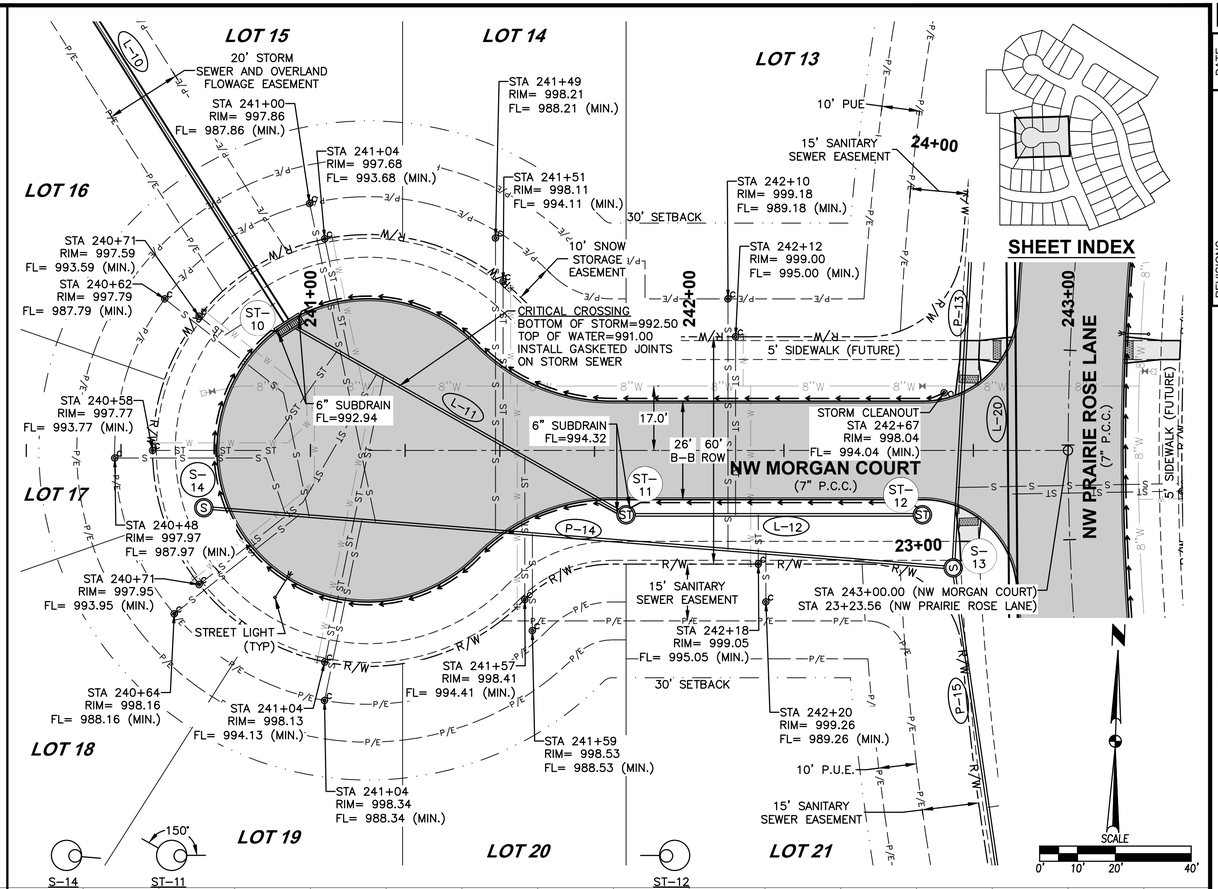
CRITICAL CROSSING
BOTTOM OF STORM=990.00
TOP OF SANITARY=985.60

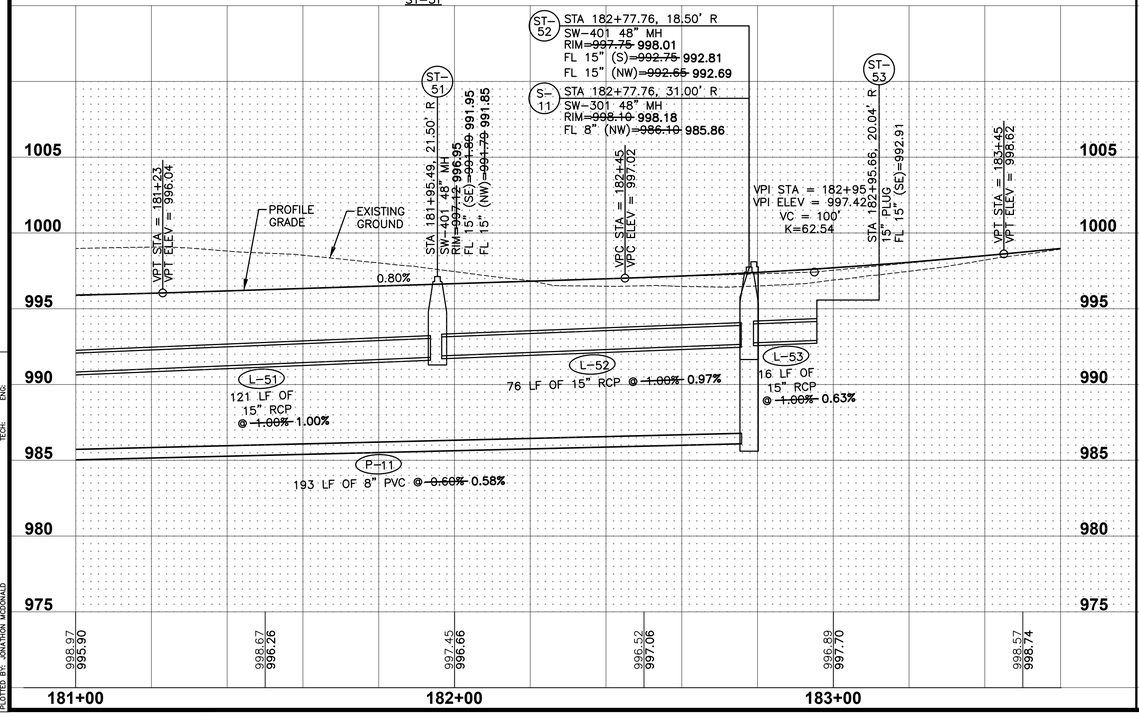
CRITICAL CROSSING
BOTTOM OF STORM=
TOP OF SANITARY=

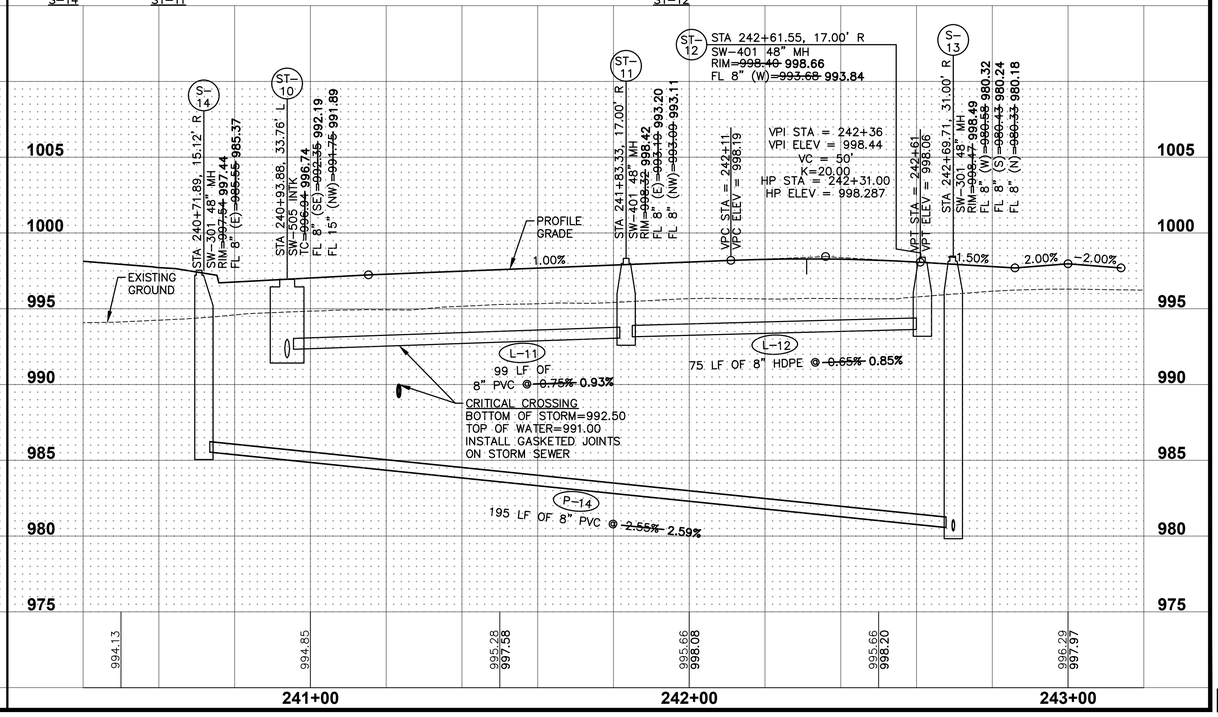
EXISTING GROUND

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PLOT DATE: 1/9/2023 8:43 AM
PLOTTED BY: JONATRON MCDONALD
COMMENT:
TECH: ENG









REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
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CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

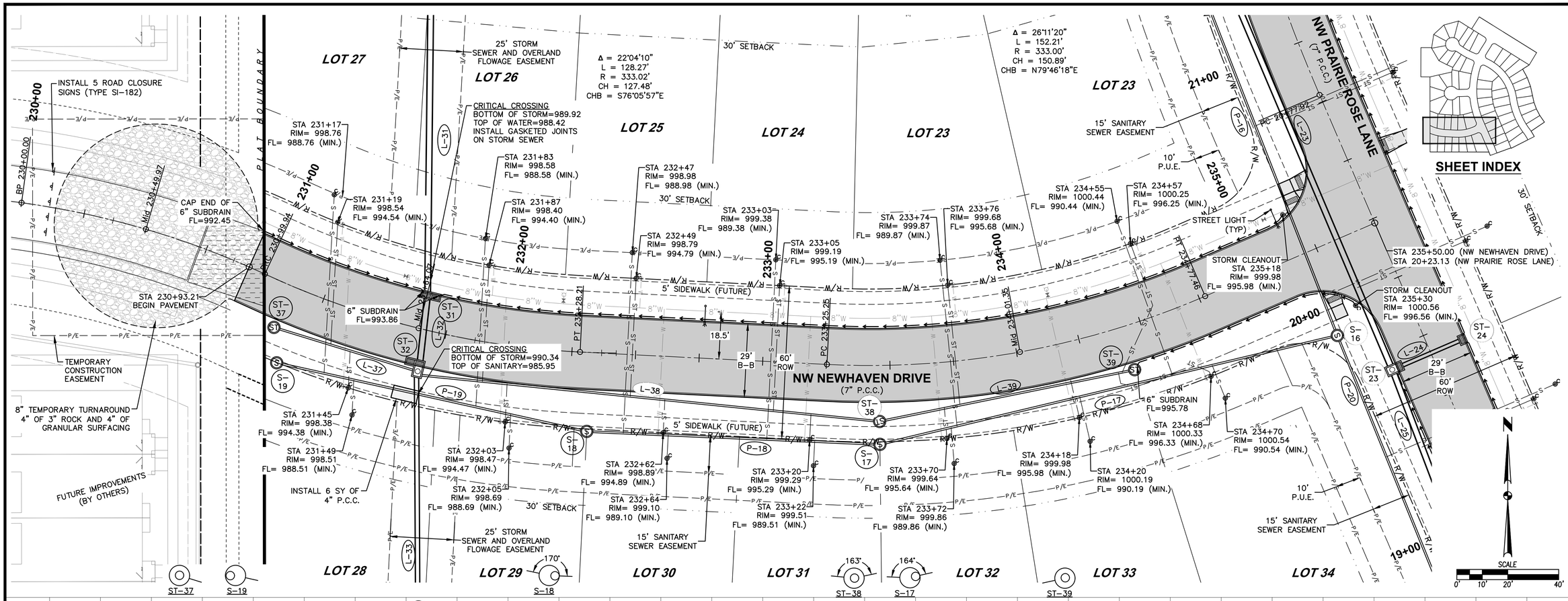
PRAIRIE ROSE PLAT 4

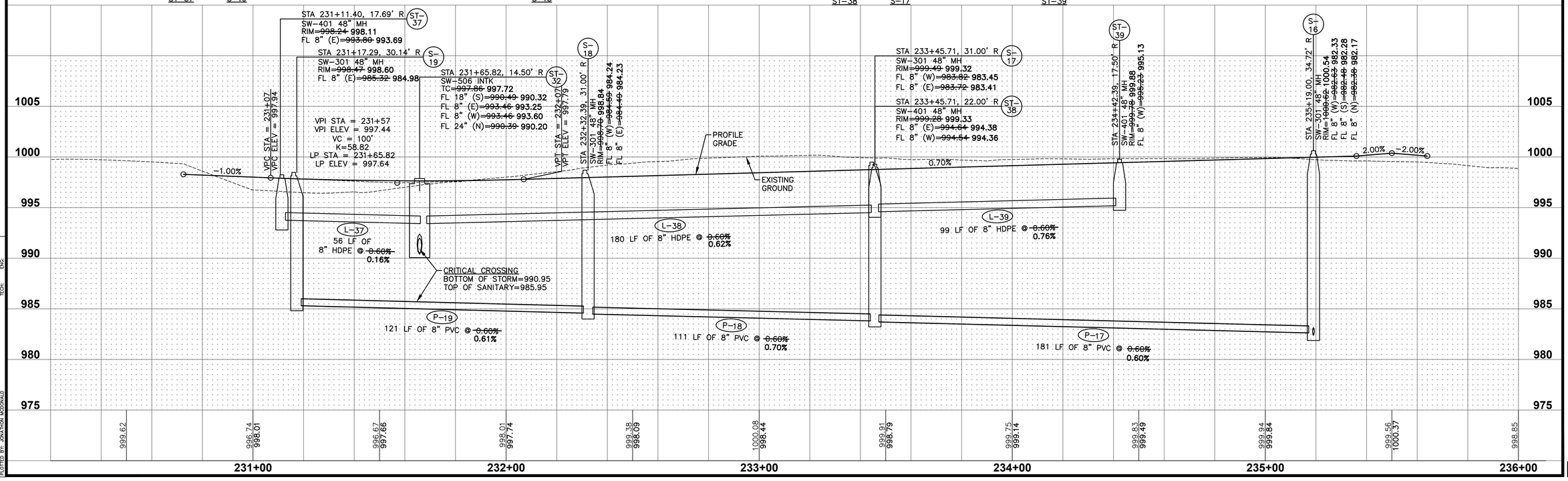
STORM AND SANITARY PLAN AND PROFILE

13/36

2103.135

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PLOT DATE: 1/9/2023 8:43 AM PLOTTED BY: JONATHON MCDONALD
COMMENT:
ENG:
TECH:





SHEET INDEX

30' SETBACK

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

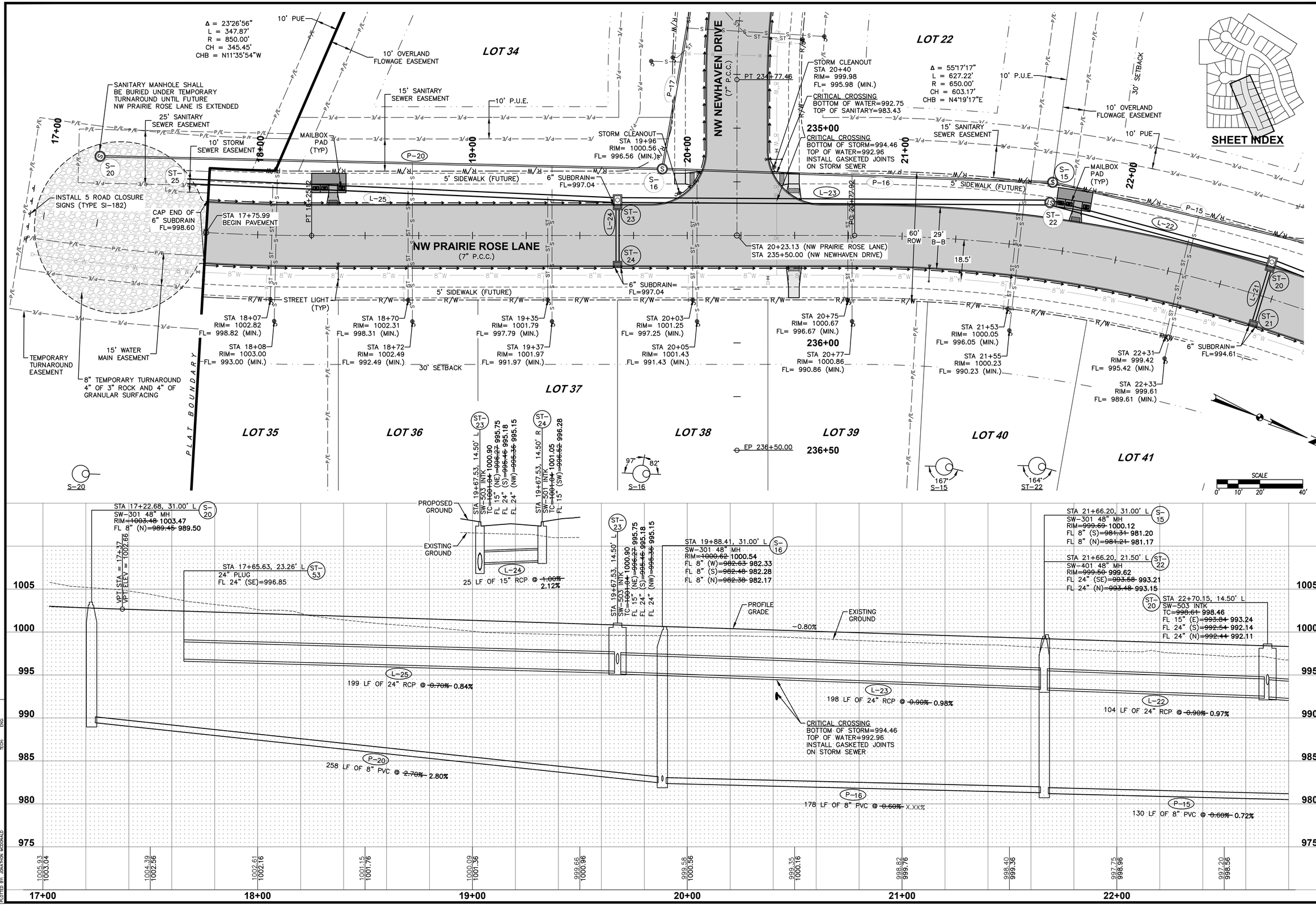
STORM AND SANITARY PLAN AND PROFILE

WAUKEE, IOWA

14/36

2103.135

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PLOT DATE: 1/10/2023 9:43 AM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG



REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
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PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

WAUKEE, IOWA

15/36

2103.135

FILE: H:\2021\2103135\DWG\2103135-PRP-ASBUILT.DWG
XREF: XREF: XREF:
PLOTTED BY: JONATHON MCDONALD PLOTTED: 7/9/2022 9:43 AM
COMMENT:
ENG:
TECH:

LOT 20

LOT 21

LOT 13

LOT 12

LOT 42

LOT 43

LOT 44

LOT 41

LOT 40

NW MORGAN COURT (7" P.C.C.)

NW PRAIRIE ROSE LANE (7" P.C.C.)

NW ROSEMONT DRIVE (7" P.C.C.)

Δ = 55°17'17"
L = 627.22'
R = 650.00'
CH = 603.17'
CHB = N4°19'17"E

20' STORM SEWER AND ACCESS EASEMENT

10' PUE

15' SANITARY SEWER EASEMENT

30' SETBACK

10' OVERLAND FLOWAGE EASEMENT

22' SANITARY SEWER EASEMENT

60' ROW

29' B-B

18.5'

CRITICAL CROSSING
BOTTOM OF WATER=988.75
TOP OF SANITARY=980.80

CRITICAL CROSSING
BOTTOM OF STORM=990.95
TOP OF WATER=989.45
INSTALL GASKETED JOINTS ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF STORM=988.66
TOP OF SANITARY=980.03

CRITICAL CROSSING
BOTTOM OF STORM=992.90
TOP OF SANITARY=979.38

CRITICAL CROSSING
BOTTOM OF WATER=991.38
TOP OF SANITARY=978.84

CRITICAL CROSSING
BOTTOM OF STORM=992.72
TOP OF WATER=991.22
INSTALL GASKETED JOINTS ON STORM SEWER

6" SUBDRAIN= FL=994.61

6" SUBDRAIN= FL=993.46

6" SUBDRAIN= FL=994.48

6" SUBDRAIN= FL=994.48

5' SIDEWALK (FUTURE)

STREET LIGHT (TYP)

MAILBOX PAD (TYP)

STA 22+31 RIM= 999.42 FL= 995.42 (MIN.)

STA 22+33 RIM= 999.61 FL= 989.61 (MIN.)

STA 23+12 RIM= 998.77 FL= 994.77 (MIN.)

STA 23+14 RIM= 998.96 FL= 988.96 (MIN.)

STA 23+23.56 (NW PRAIRIE ROSE LANE)
STA 243+00.00 (NW MORGAN COURT)

STA 23+97 RIM= 998.13 FL= 994.13 (MIN.)

STA 23+99 RIM= 998.31 FL= 988.31 (MIN.)

STA 24+94 RIM= 998.01 FL= 994.01 (MIN.)

STA 24+96 RIM= 998.22 FL= 988.22 (MIN.)

STA 26+09.22 (NW PRAIRIE ROSE LANE)
STA 174+54.80 (NW ROSEMONT DRIVE)

PC 175+02.95

PT 27+05.14

EP 244+00.00

242+00 243+00 244+00 22+00 23+00 24+00 25+00 26+00 175+00 174+00

88° 104° S-13

166° ST-19

167° S-12

166° ST-16

STA 26+58.97, 14.50' L
SW-503 INTK
TC=~~998.46~~ 998.41
FL 15" (SE)=~~993.79~~ 993.30
FL 15" (SW)=~~993.69~~ 993.24

STA 26+58.97, 14.50' R
SW-501 INTK
TC=~~998.46~~ 998.46
FL 15" (NW)=~~993.59~~ 993.84

PROPOSED GROUND

EXISTING GROUND

SCALE 0' 10' 20' 40'

SHEET INDEX

1	3405 S.E. CROSSROADS DRIVE, SUITE G GRIMES, IOWA 50111 PHONE: (515) 369-4400 FAX: (515) 369-4410
2	ENGINEER: EKO
3	EI: JWM TECH: BDH

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FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

STA 21+66.20, 31.00' L
SW-301 48" MH
RIM=~~999.69~~ 1000.12
FL 8" (S)=~~981.31~~ 981.20
FL 8" (N)=~~981.21~~ 981.17

STA 21+66.20, 21.50' L
SW-401 48" MH
RIM=~~999.50~~ 999.62
FL 24" (SE)=~~993.58~~ 993.21
FL 24" (N)=~~993.48~~ 993.15

STA 22+70.15, 14.50' L
SW-503 INTK
TC=~~998.61~~ 998.46
FL 15" (E)=~~993.84~~ 993.24
FL 24" (S)=~~992.54~~ 992.14
FL 24" (N)=~~992.44~~ 992.11

STA 22+93.96, 31.00' L
SW-301 48" MH
RIM=~~998.47~~ 989.49
FL 8" (W)=~~980.58~~ 980.32
FL 8" (S)=~~980.43~~ 980.24
FL 8" (N)=~~980.33~~ 980.18

STA 22+70.15, 14.50' L
SW-503 INTK
TC=~~998.61~~ 998.46
FL 15" (E)=~~993.84~~ 993.24
FL 24" (S)=~~992.54~~ 992.14
FL 24" (N)=~~992.44~~ 992.11

STA 22+70.15, 14.50' R
SW-501 INTK
TC=~~998.61~~ 998.52
FL 15" (W)=~~994.09~~ 993.67

PROPOSED GROUND

EXISTING GROUND

25 LF OF 15" RCP @ 1.00%

PROFILE GRADE

-0.80%

VPC STA = 23+72
VPC ELEV = 997.58

STA 24+03.75, 20.50' L
SW-401 48" MH
RIM=~~997.78~~ 989.77
FL 24" (S)=~~990.67~~ 989.77
FL 24" (N)=~~990.57~~ 989.73

STA 24+24.75, 31.00' L
SW-301 48" MH
RIM=~~997.98~~ 998.30
FL 8" (S)=~~979.53~~ 979.35
FL 8" (N)=~~979.43~~ 979.33

STA 24+57.71, 14.50' L
SW-506 MOD. INTK
TC=~~997.46~~ 997.34
FL 15" (N)=~~992.31~~ 991.78
FL 15" (E)=~~992.44~~ 992.09
FL 24" (S)=~~989.10~~ 988.85
FL 30" (W)=~~989.00~~ 988.58

VPI STA = 24+47
VPI ELEV = 996.98
VC = 150'
K=106.96
LP STA = 24+57.57
LP ELEV = 997.24

VPI STA = 25+72
VPI ELEV = 997.45

EXISTING GROUND

STA 25+73.38, 21.50' L
SW-401 48" MH
RIM=~~997.85~~ 998.16
FL 15" (NE)=~~993.09~~ 992.64
FL 15" (S)=~~992.99~~ 992.59

STA 25+79.62, 31.00' L
SW-301 48" MH
RIM=~~997.83~~ 998.09
FL 8" (NW)=~~978.63~~ 978.49
FL 8" (SE)=~~978.63~~ 978.49
FL 8" (S)=~~978.48~~ 978.34
FL 8" (NE)=~~978.38~~ 978.28

25 LF OF 15" RCP @ 1.00%

0.60%

STA 26+58.97, 14.50' L
SW-503 INTK
TC=~~998.46~~ 998.41
FL 15" (SE)=~~993.79~~ 993.30
FL 15" (SW)=~~993.69~~ 993.24

104 LF OF 24" RCP @ ~~0.90%~~ 0.97%

135 LF OF 24" RCP @ ~~1.75%~~ 1.73%

51 LF OF 24" RCP @ ~~1.70%~~ 1.73%

114 LF OF 15" RCP @ ~~0.60%~~ 0.71%

85 LF OF 15" RCP @ ~~0.60%~~ 0.71%

130 LF OF 8" PVC @ ~~0.60%~~ 0.72%

133 LF OF 8" PVC @ ~~0.60%~~ 0.62%

158 LF OF 8" PVC @ ~~0.60%~~ 0.63%

202 LF OF 8" PVC @ ~~0.60%~~ 0.44%

CRITICAL CROSSING
BOTTOM OF STORM=990.45
TOP OF WATER=989.45
INSTALL GASKETED JOINTS ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF STORM=988.66
TOP OF SANITARY=980.03

CRITICAL CROSSING
BOTTOM OF STORM=992.90
TOP OF SANITARY=979.38

CRITICAL CROSSING
BOTTOM OF STORM=992.72
TOP OF WATER=991.22
INSTALL GASKETED JOINTS ON STORM SEWER

997.75 996.96
997.20 998.56
996.46 998.16
996.45 997.76
996.30 997.39
996.91 997.24
997.10 997.32
997.88 997.60
998.27 997.90
998.62 998.20
998.84 998.50

22+00 23+00 24+00 25+00 26+00 27+00

1005 1000 995 990 985 980 975

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

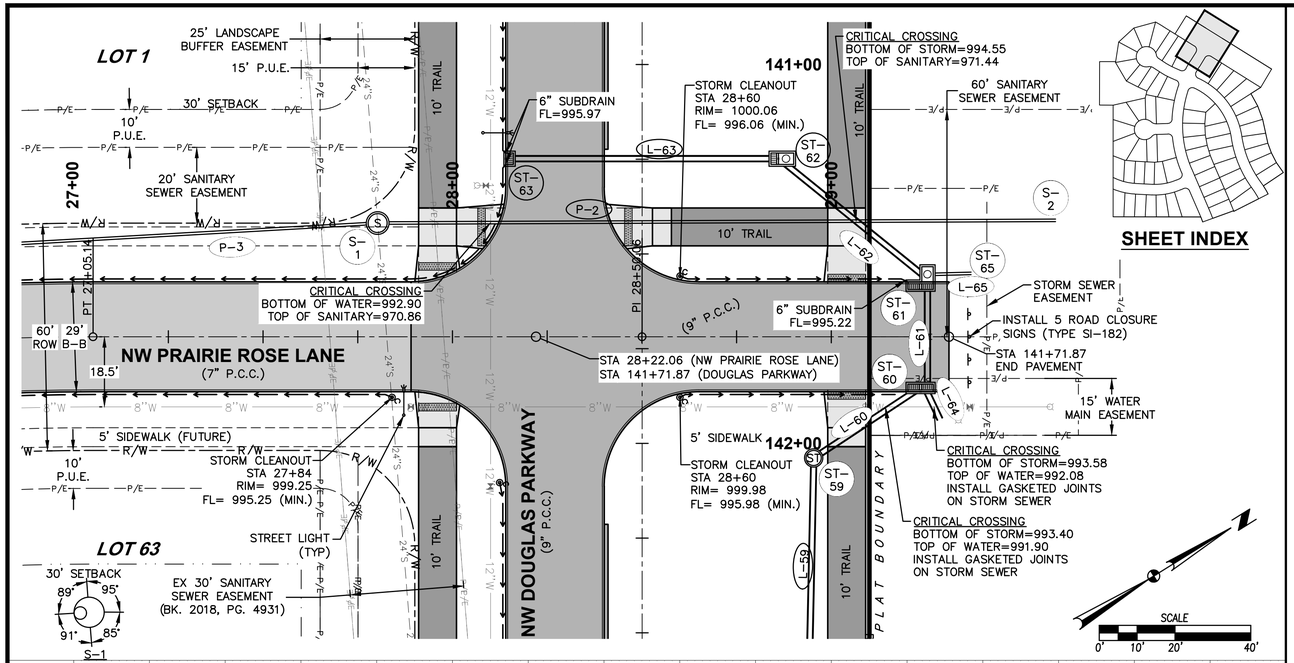
WAUKEE, IOWA

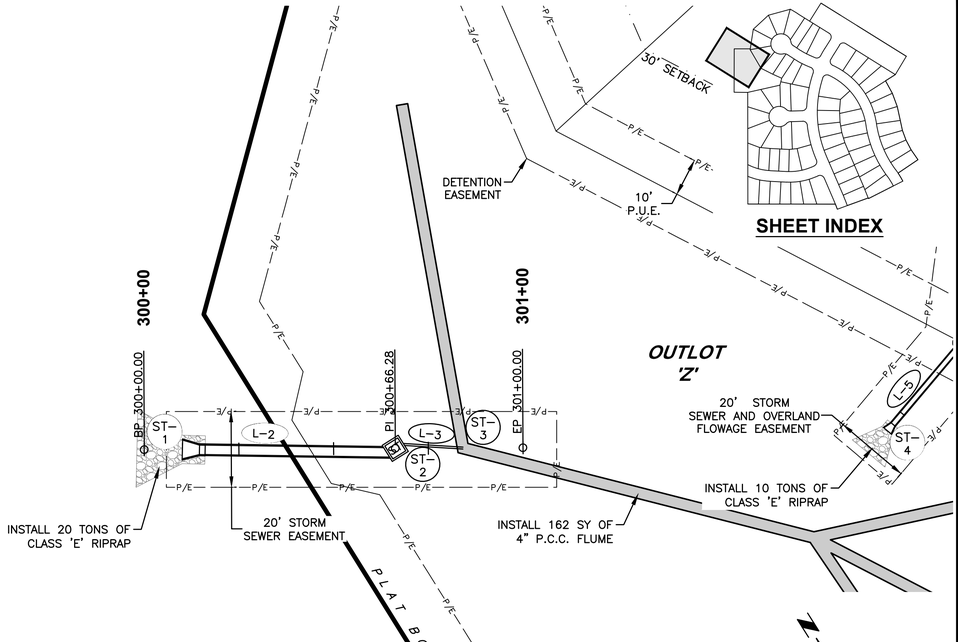
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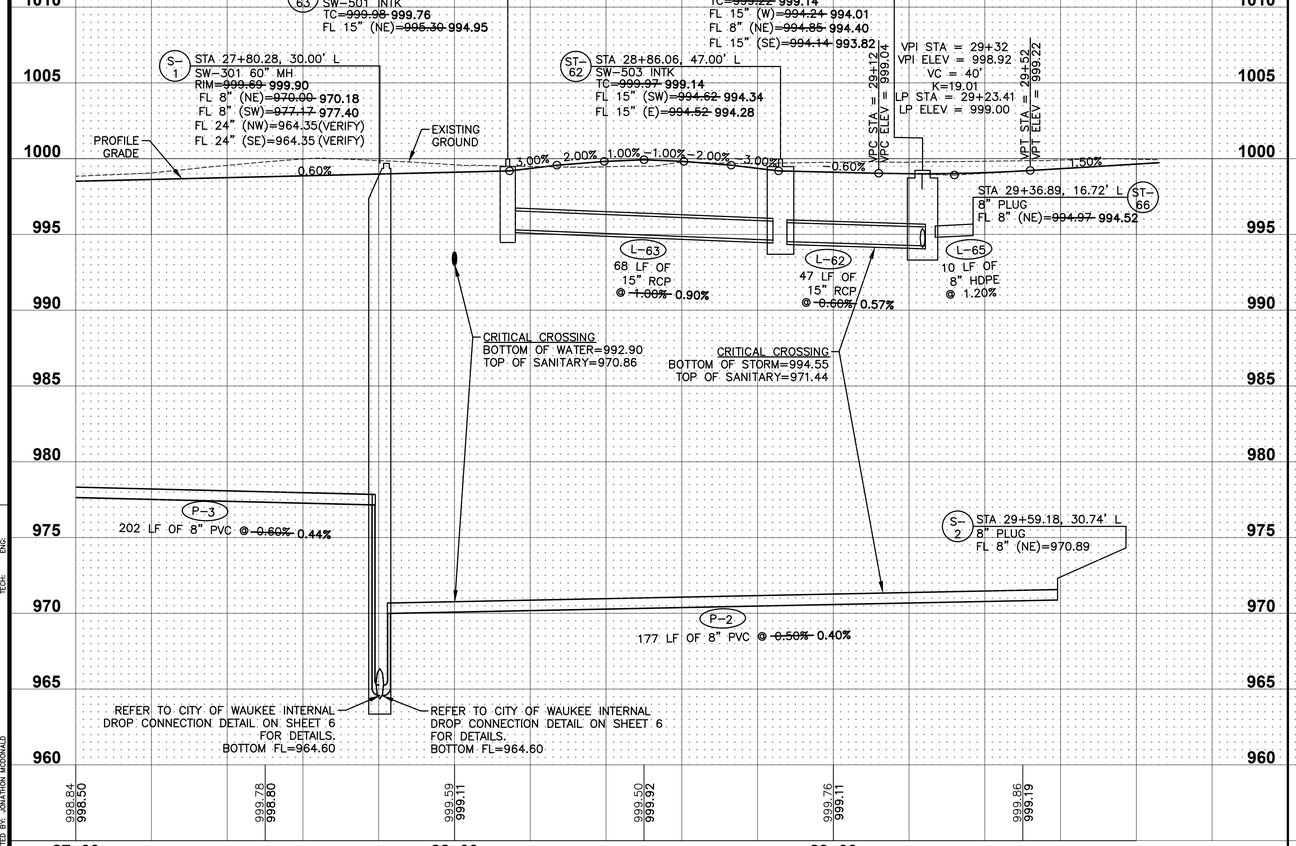
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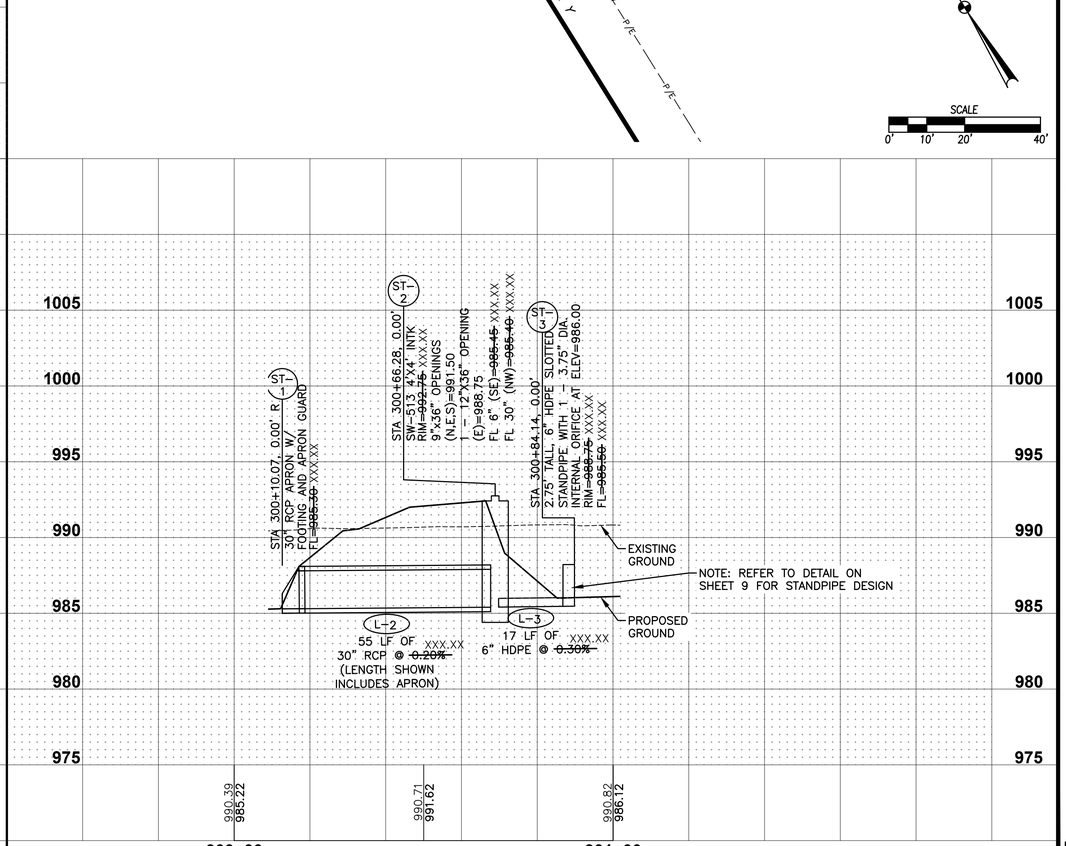
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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

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15' OVERLAND FLOWAGE EASEMENT (PRAIRIE ROSE PLAT 3)

15' PUE (PRAIRIE ROSE PLAT 3)

25' LANDSCAPE BUFFER EASEMENT (PRAIRIE ROSE PLAT 3)

CRITICAL CROSSING
BOTTOM OF STORM=994.55
TOP OF SANITARY=971.44

CRITICAL CROSSING
BOTTOM OF STORM=993.40
TOP OF WATER=991.90
INSTALL GASKETED JOINTS ON STORM SEWER

PLAT BOUNDARY

10' TRAIL

TEMPORARY TURNAROUND EASEMENT (PRAIRIE ROSE PLAT 3)

IF PLAT 4 IS NOT CONSTRUCTED WITH PLAT 3, REMOVE TEMPORARY TURNAROUND

PLAT BOUNDARY

RELOCATE 5 ROAD CLOSURE SIGNS TO SOUTHEAST END OF DOUGLAS PARKWAY (TYPE SI-182)

STA 141+71.87 (DOUGLAS PARKWAY)
STA 28+22.06 (NW PRAIRIE ROSE LANE)

P 28+50.06

120' ROW

1' LUG CURB

26' B-B

NW DOUGLAS PARKWAY
(9" P.C.C.)

CRITICAL CROSSING
BOTTOM OF WATER=992.90
TOP OF SANITARY=970.86

CRITICAL CROSSING
BOTTOM OF WATER=991.81
TOP OF SANITARY=965.35

EXISTING SANITARY MANHOLE (MINOR RIM ADJUSTMENT)
EX. RIM=996.92
PROPOSED RIM=999.40

STORM CLEANOUT
STA 139+88
RIM= 1000.20
FL= 996.20 (MIN.)

6" SUBDRAIN
FL=995.98

STORM CLEANOUT
STA 142+10
RIM= 999.44
FL= 995.44 (MIN.)

15' P.U.E.

10' OVERLAND FLOWAGE EASEMENT

15' PUE

30' SETBACK

25' LANDSCAPE BUFFER EASEMENT

EX 30' SANITARY SEWER EASEMENT (BK. 2018, PG. 4931)

20' SANITARY SEWER EASEMENT

10' PUE

NW PRAIRIE ROSE LANE
(7" P.C.C.)

LOT 63

15' OVERLAND FLOWAGE EASEMENT

25' LANDSCAPE BUFFER EASEMENT

15' OVERLAND FLOWAGE EASEMENT

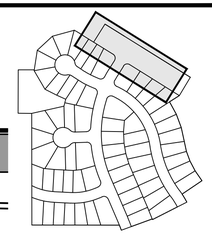
126'

ST-60

LOT 4 | LOT 3 | LOT 2 | LOT 1 | LOT 62 | LOT 61 | LOT 60

SCALE 0' 10' 20' 40'

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S-1 STA 141+41.87, 69.78' R
SW-301 60" MH
RIM=~~999.69~~ 999.90
FL 8" (NE)=~~970.00~~ 970.30
FL 8" (SW)=~~977.17~~ 997.40
FL 24" (NW)=964.35(VERIFY)
FL 24" (SE)=964.35(VERIFY)

ST-59 STA 142+03.87, 45.32' L
SW-401 48" MH
RIM=~~999.48~~ 999.69
FL 15" (N)=~~993.45~~ 993.19
FL 15" (SE)=~~993.35~~ 993.12

ST-60 STA 29+23.56, 14.50' R
SW-505 INTK
TC=~~999.22~~ 999.14
FL 15" (E)=~~993.74~~ 993.63
FL 15" (NW)=~~993.99~~ 993.57
FL 15" (S)=~~993.64~~ 993.52

ST-60 STA 29+23.56, 14.50' L
SW-506 INTK
TC=~~999.22~~ 999.14
FL 15" (W)=~~994.24~~ 994.01
FL 8" (NE)=~~994.85~~ 994.40
FL 15" (SE)=~~994.14~~ 993.82

VPI STA = 140+00
VPI ELEV = 1000.85
VC = 250'
K=144.71
HP STA = 140+38.17
HP ELEV = 1000.360

VPT STA = 141+25
VPT ELEV = 1000.16

EXISTING GROUND

PROPOSED GROUND

EXISTING GROUND
STA 141+24.87, 36.00' L ST-65
15" PLUG
FL=993.78

L-61 25 LF OF 15" RCP @ ~~0.60%~~ 1.00%

L-64 8 LF OF 15" RCP @ ~~0.60%~~ 1.88%

-0.60%

PROFILE GRADE

CRITICAL CROSSING
BOTTOM OF STORM=993.40
TOP OF WATER=991.90
INSTALL GASKETED JOINTS ON STORM SEWER

L-60 31 LF OF 15" RCP @ ~~0.60%~~ 1.06%

L-59 345 LF OF 15" RCP @ ~~0.60%~~ 0.50%

VPC STA = 144+70
VPC ELEV = 998.03

1005 | 1000 | 995 | 990 | 985 | 980 | 975

1000.58 1000.09 | 1000.99 1000.31 | 1000.77 1000.36 | 1000.36 1000.23 | 999.77 999.95 | 999.67 999.65 | 999.41 999.35 | 999.14 999.05 | 998.92 998.75 | 998.48 998.45 | 997.96 998.15 | 998.13 997.88

140+00 | 141+00 | 142+00 | 143+00 | 144+00 | 145+00

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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

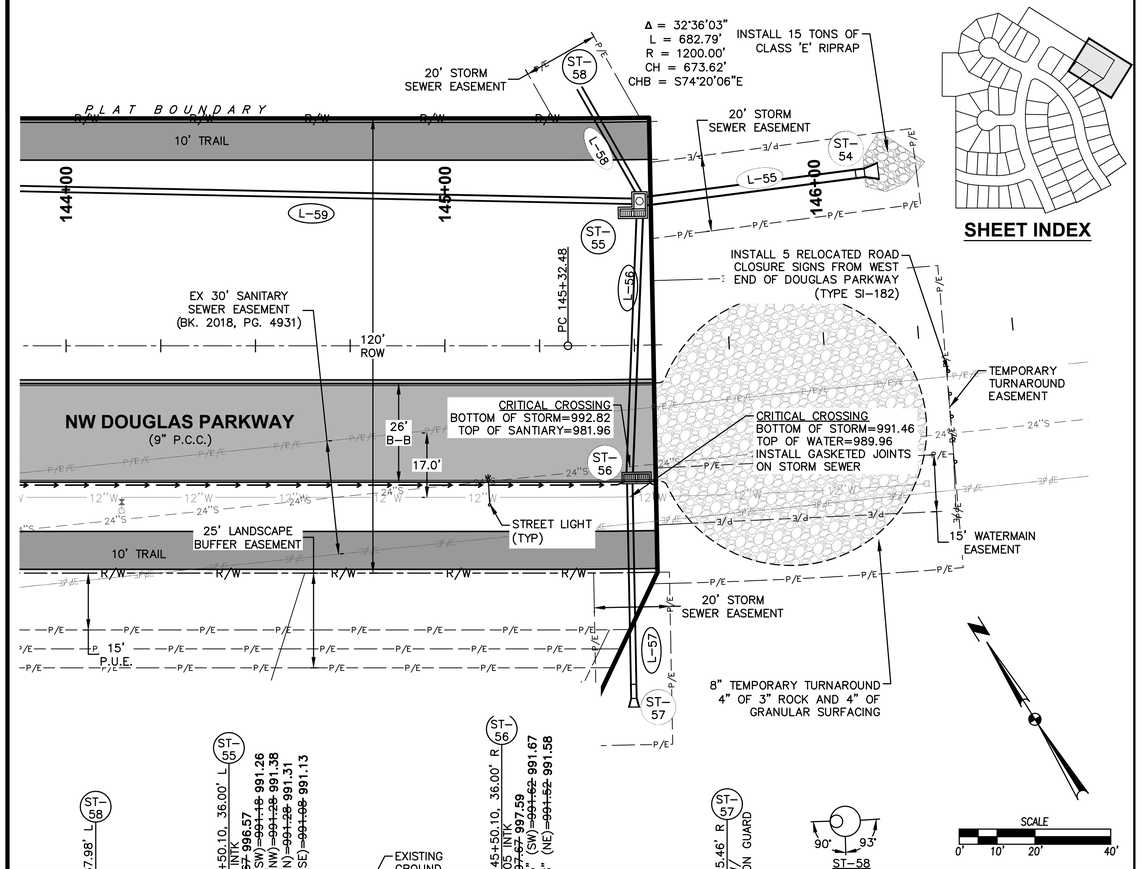
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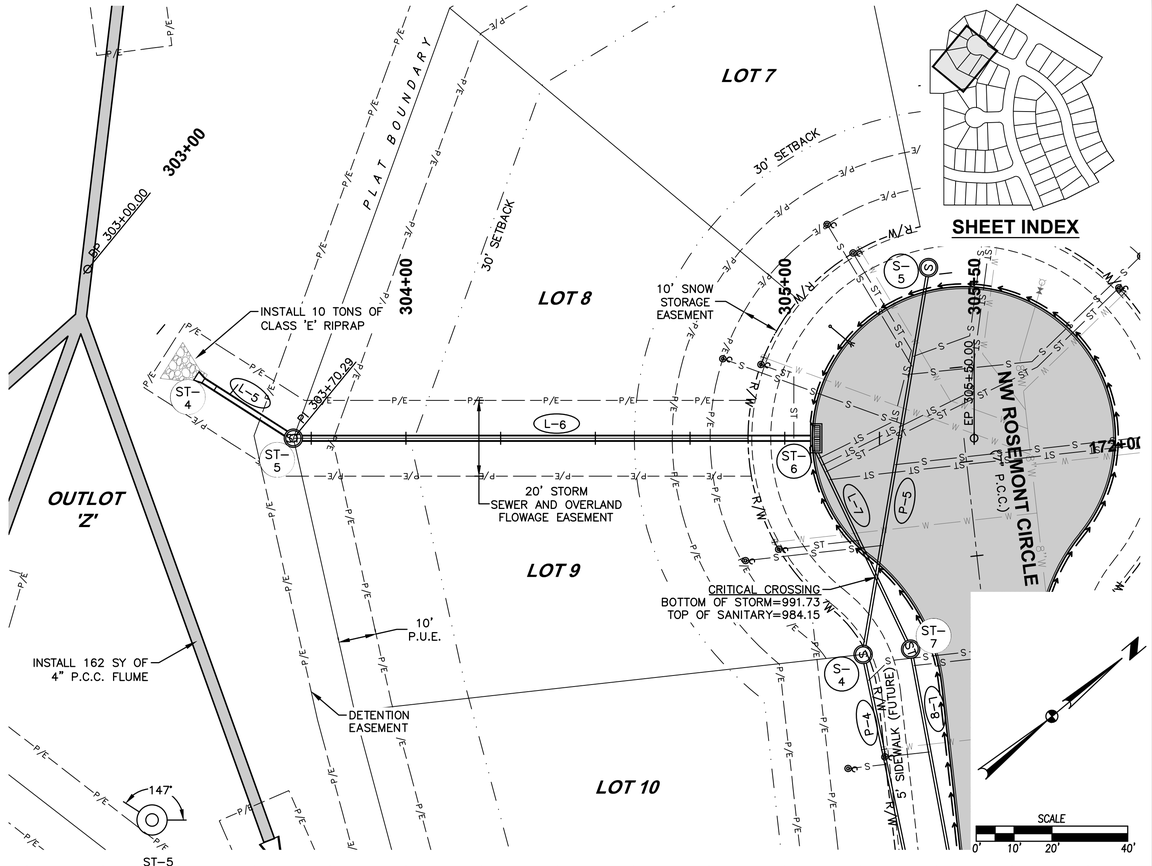
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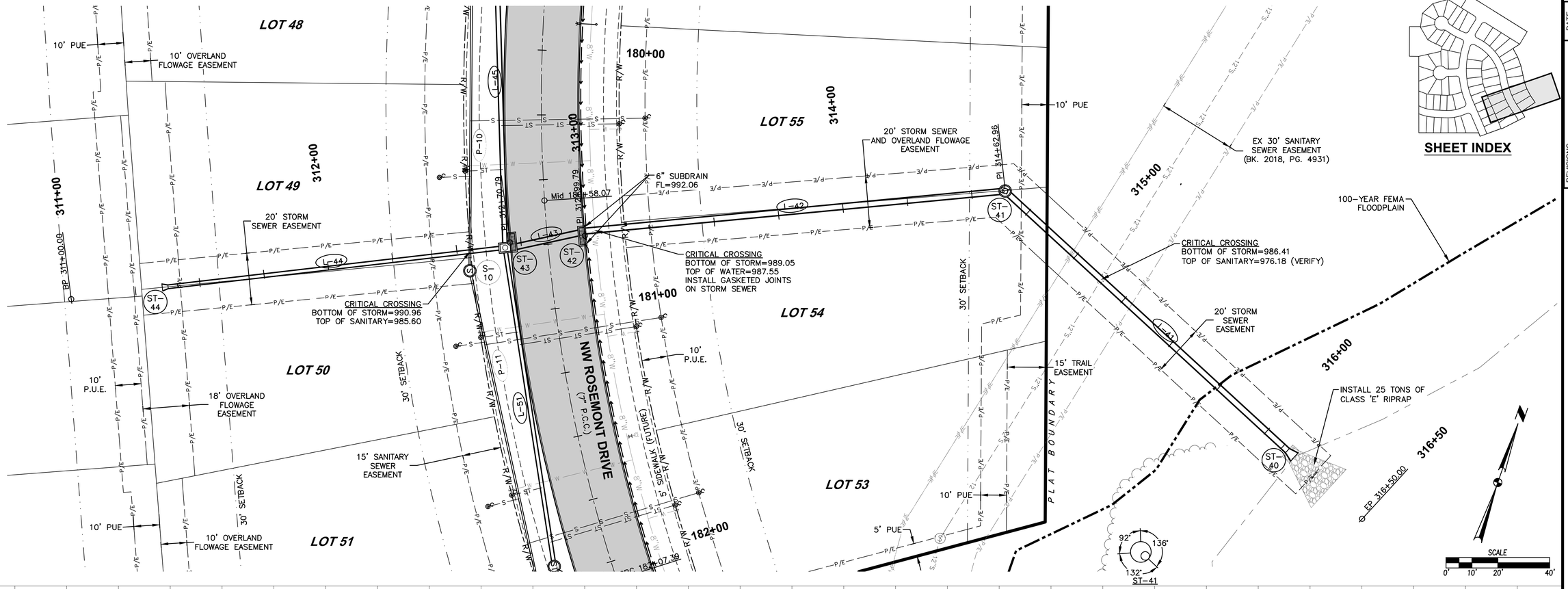
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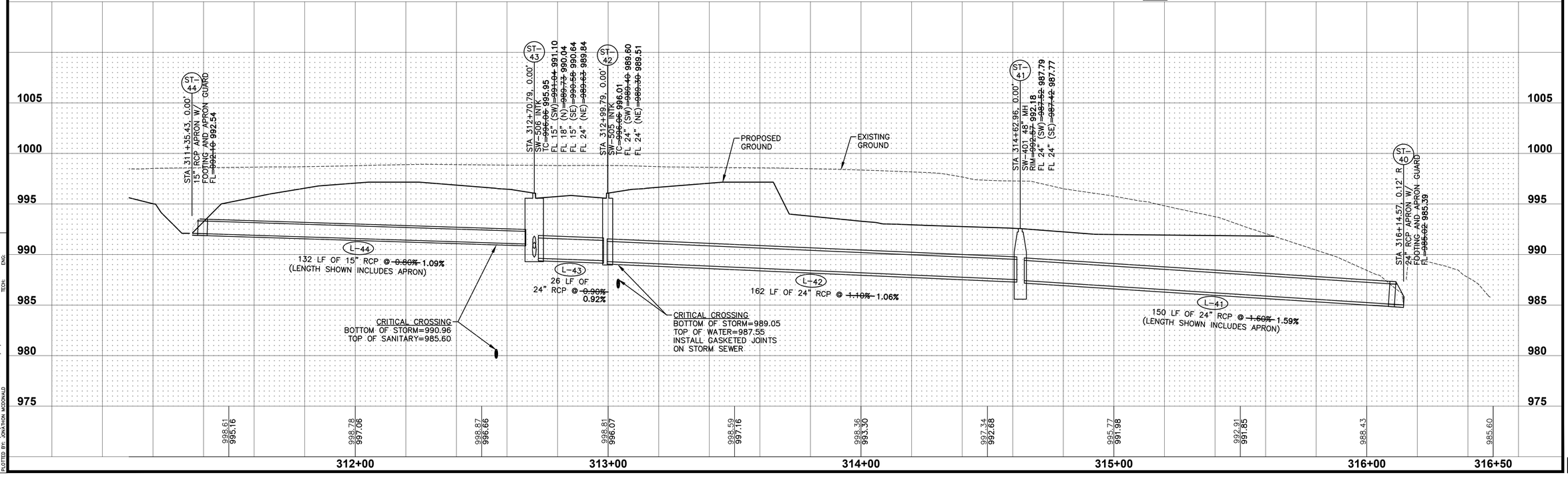
PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

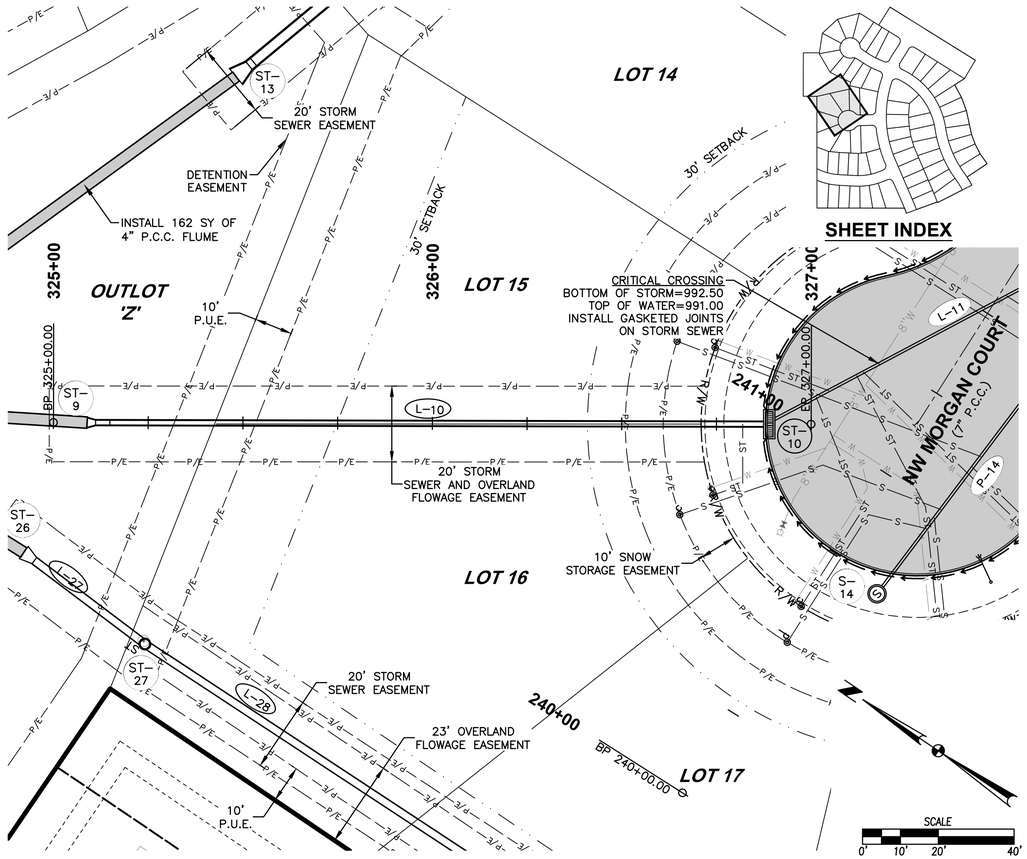
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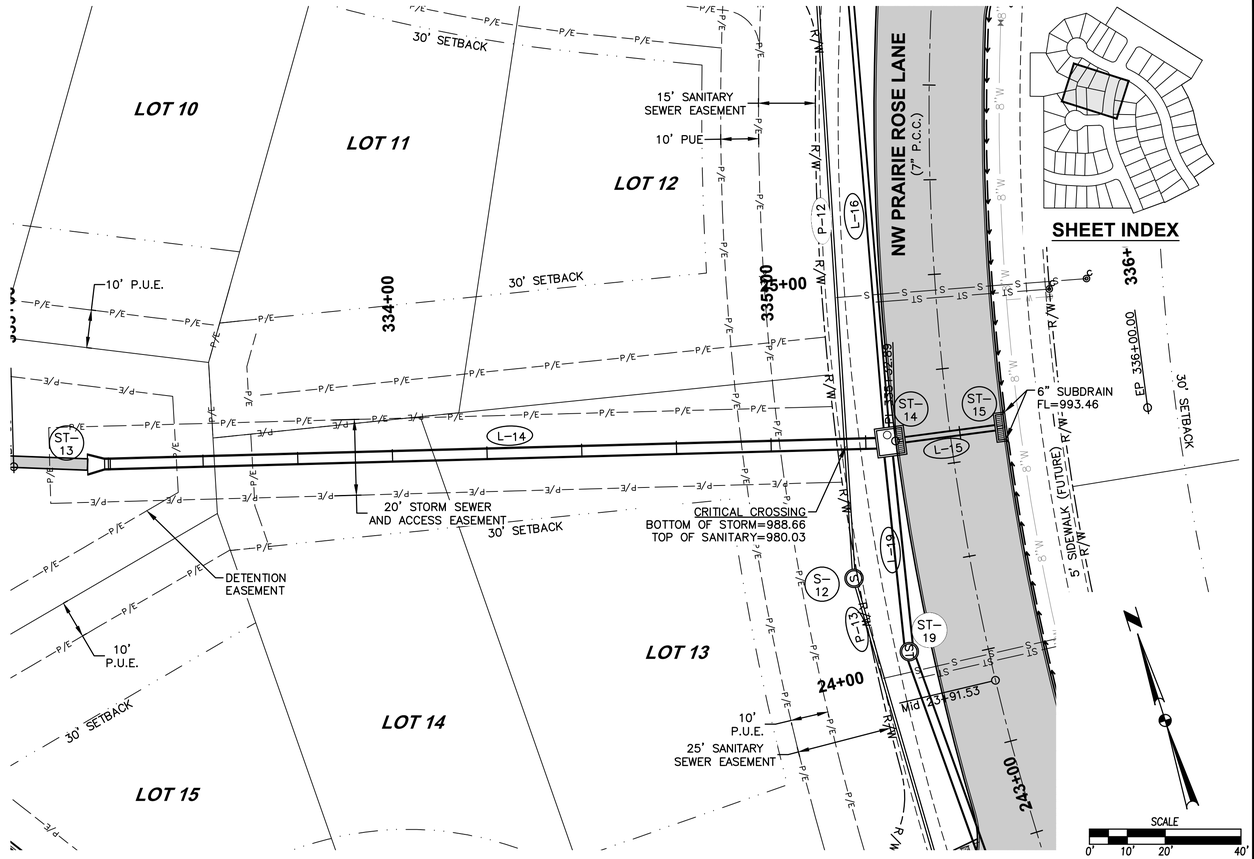
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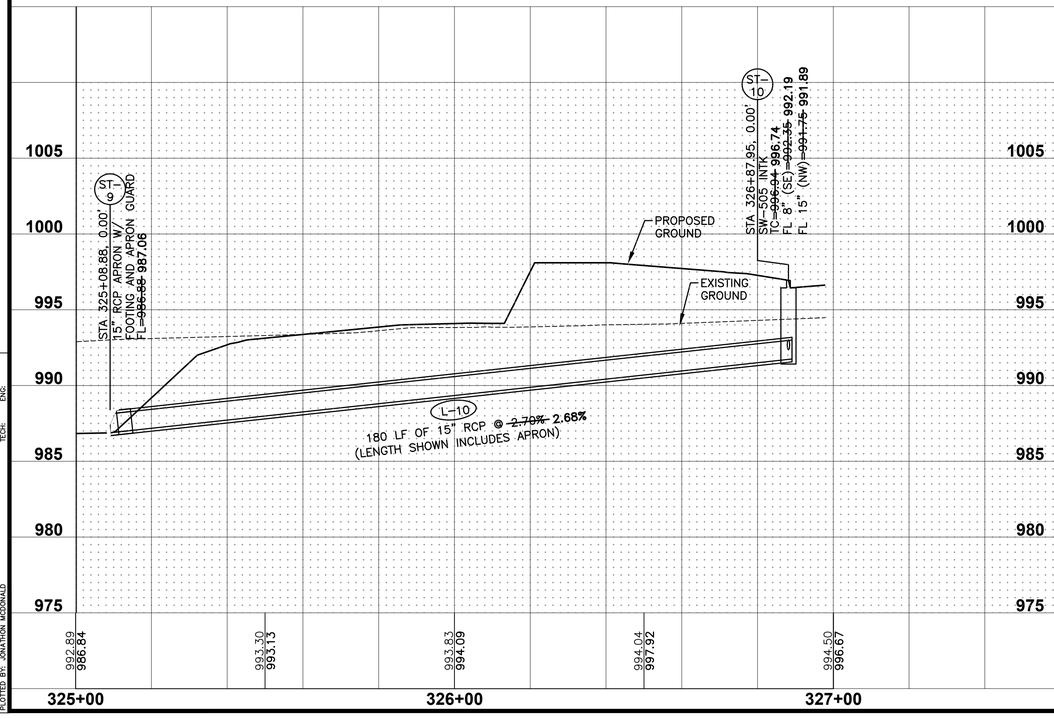
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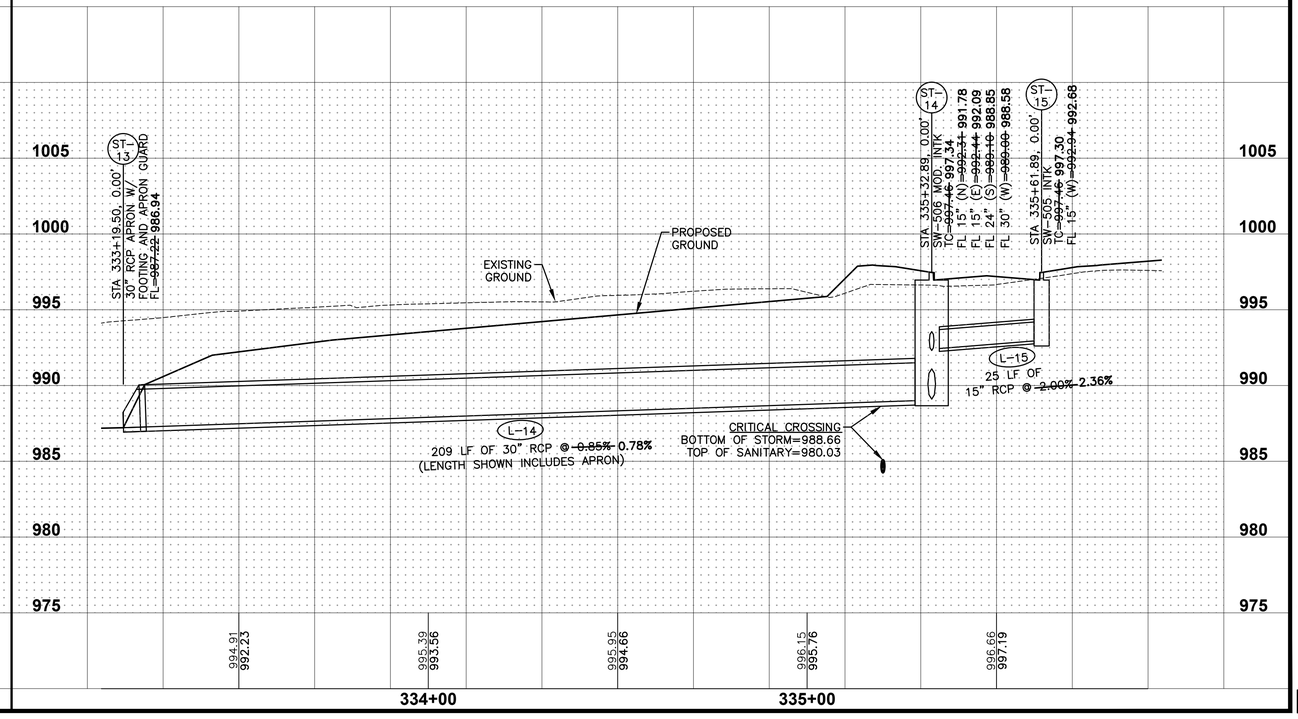


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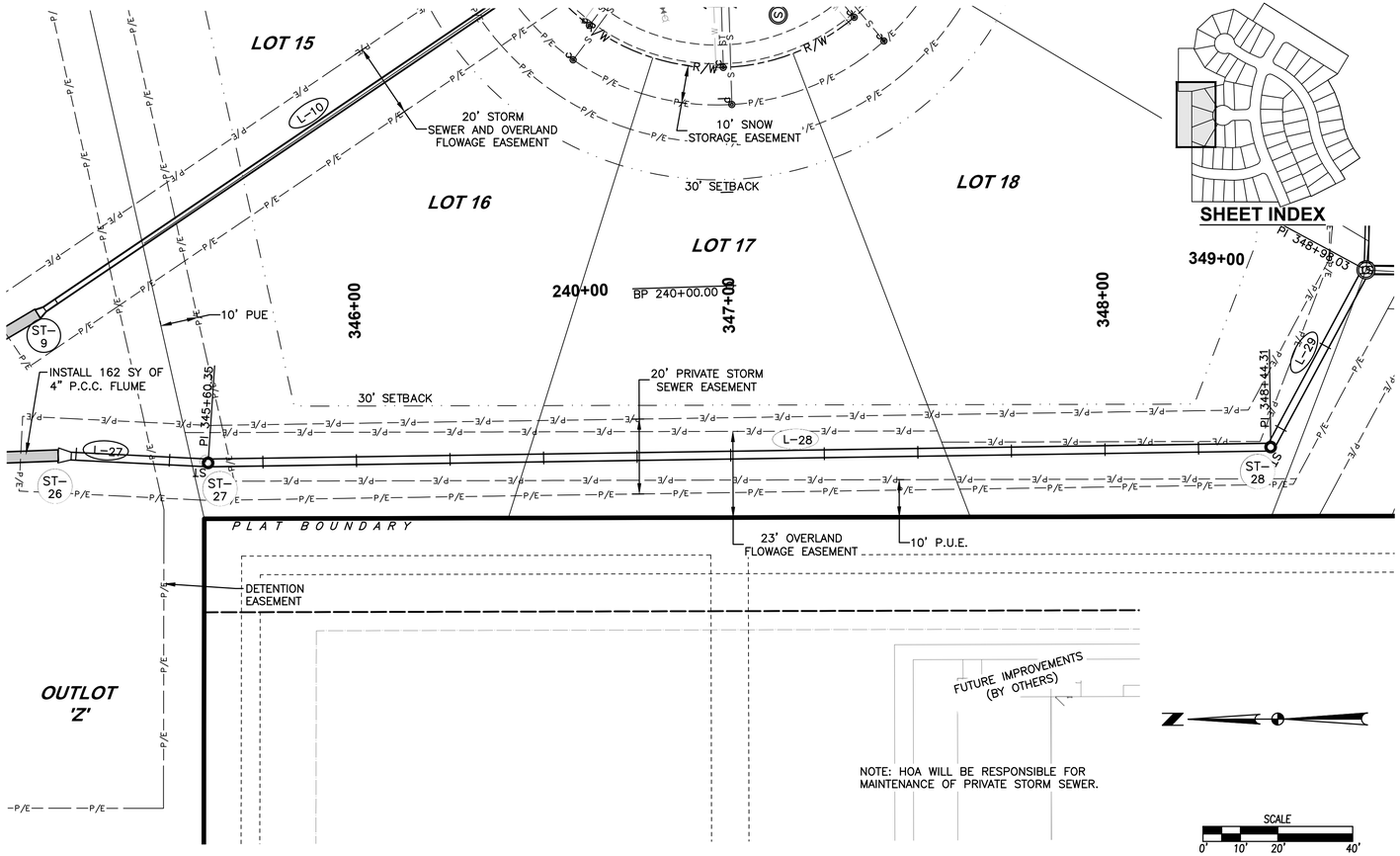
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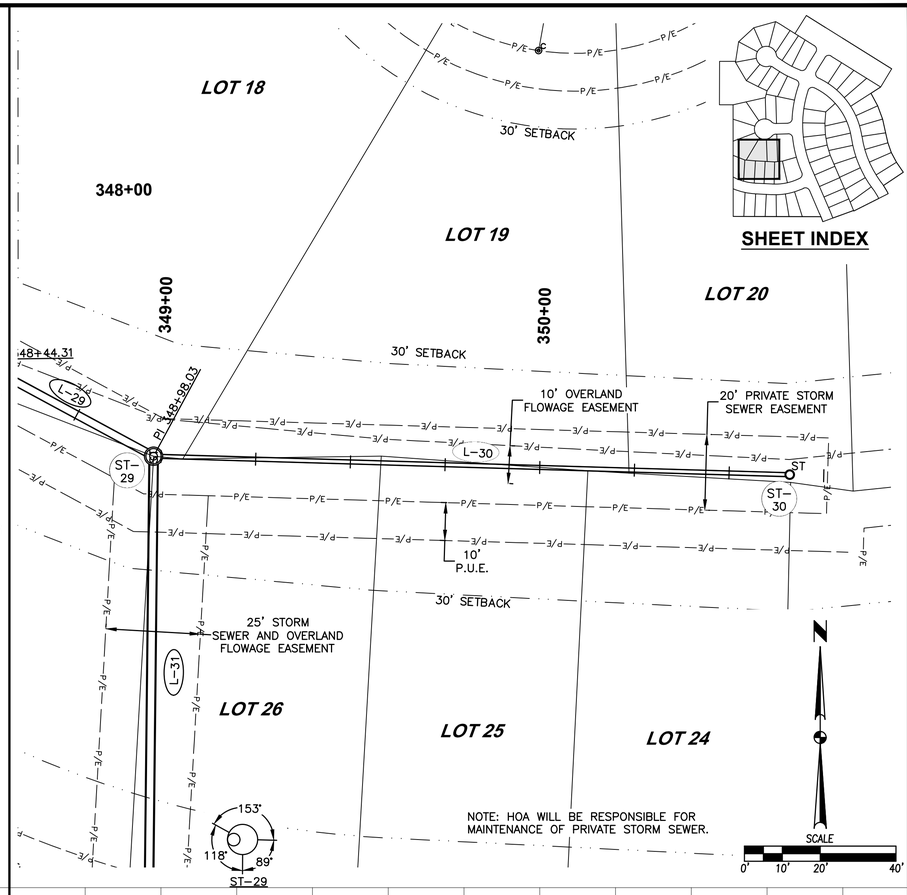
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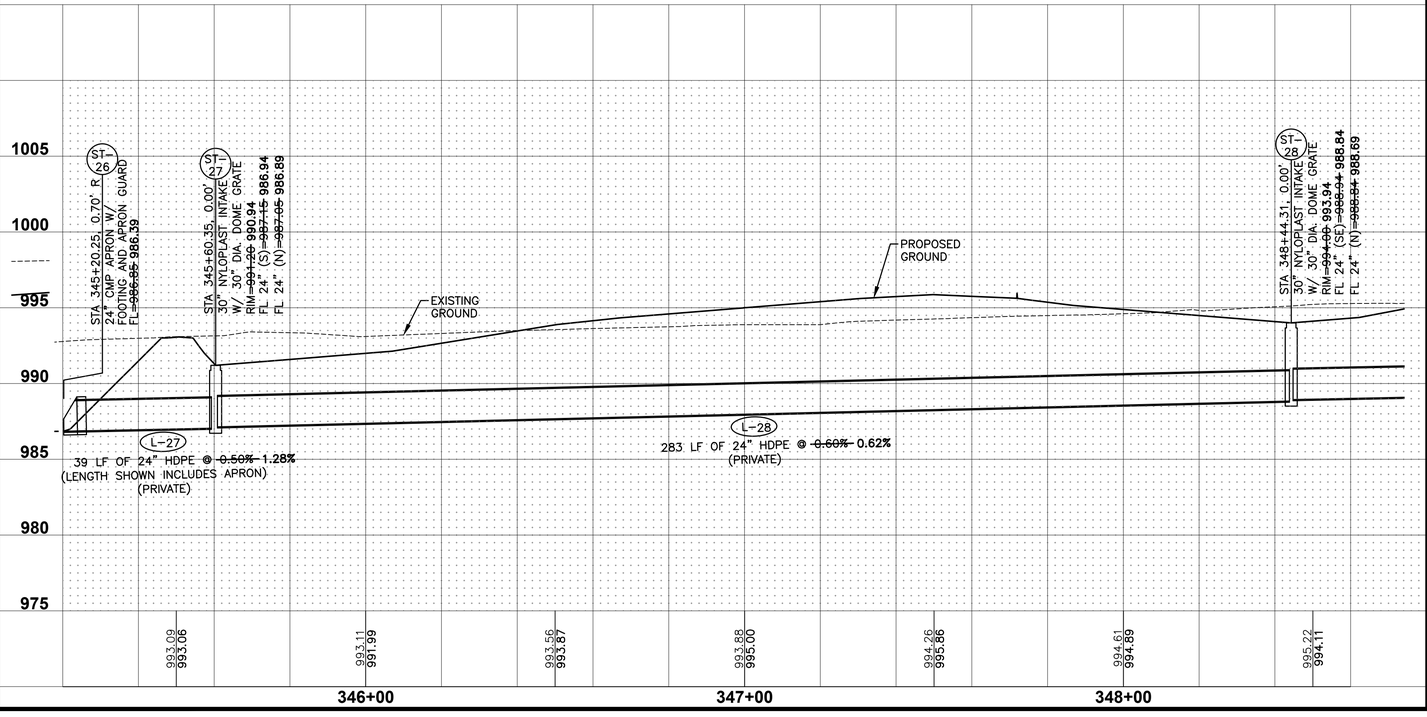
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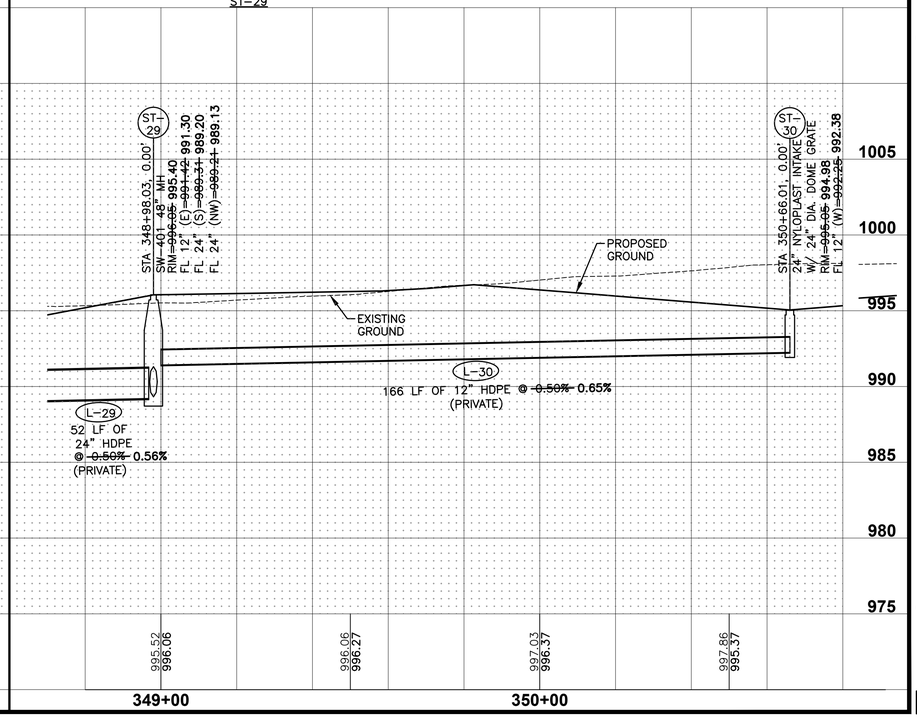




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PRAIRIE ROSE PLAT 4

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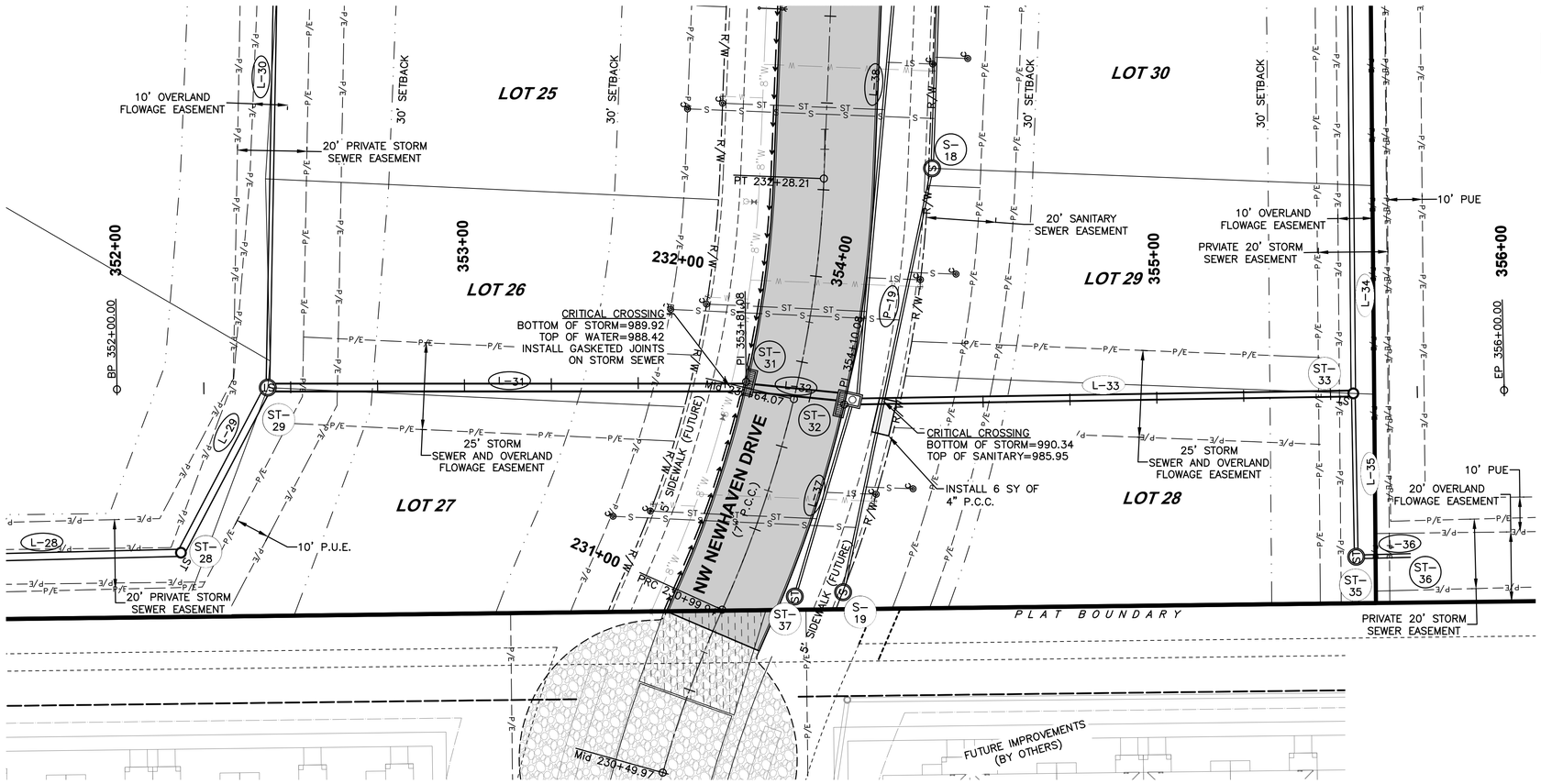
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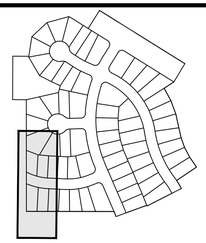
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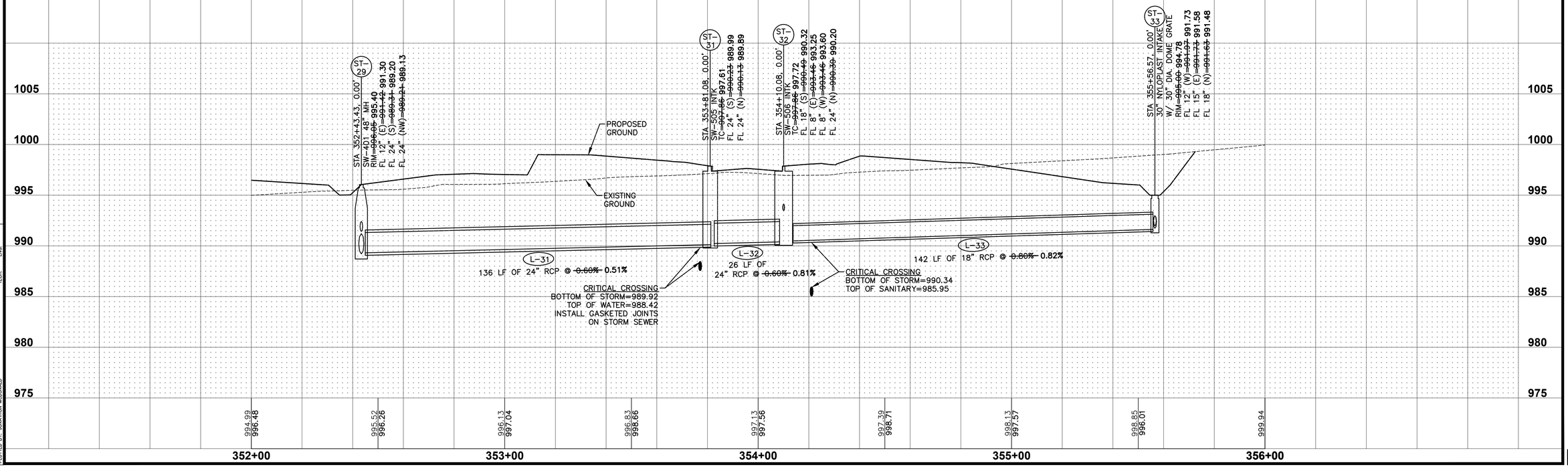
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FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

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

ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

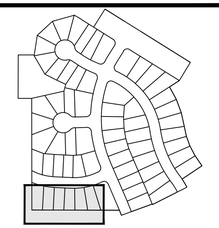
WAUKEE, IOWA

23/36

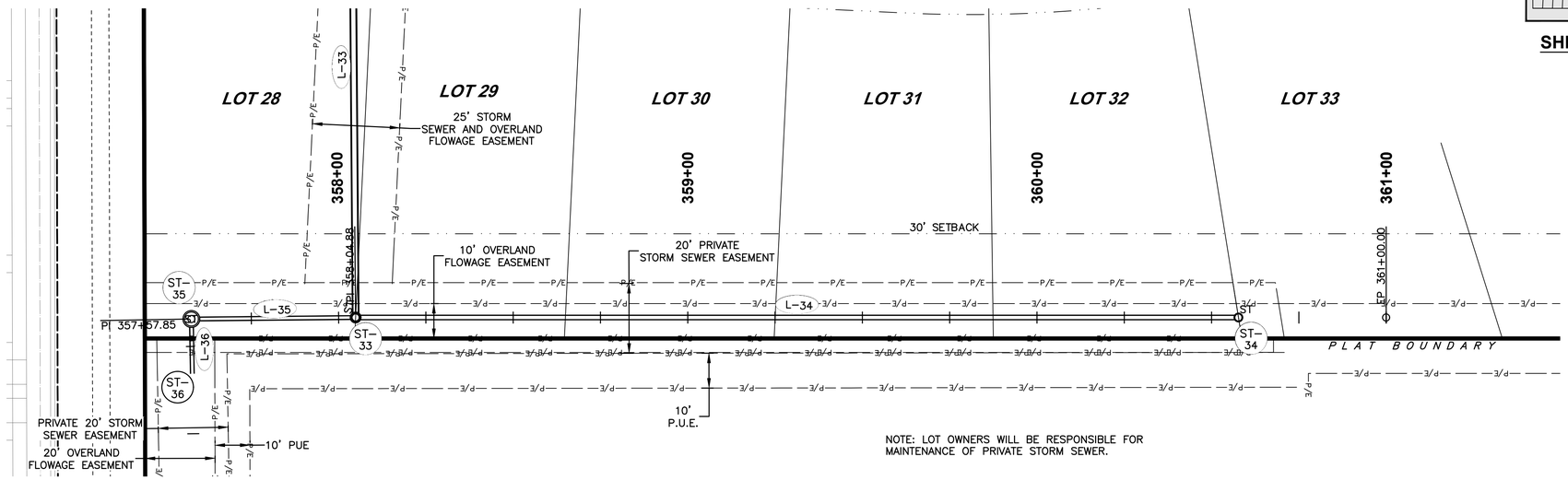
2103.135

FILE: H:\2021\2103135\DWG\2103135-PRP-ASBUILT.DWG
PLOT DATE: 1/6/2023 9:44 AM
PLOTTED BY: JONATHON MCDONALD

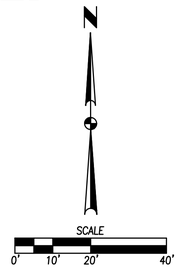
COMMENT:
TECH:
ENG:

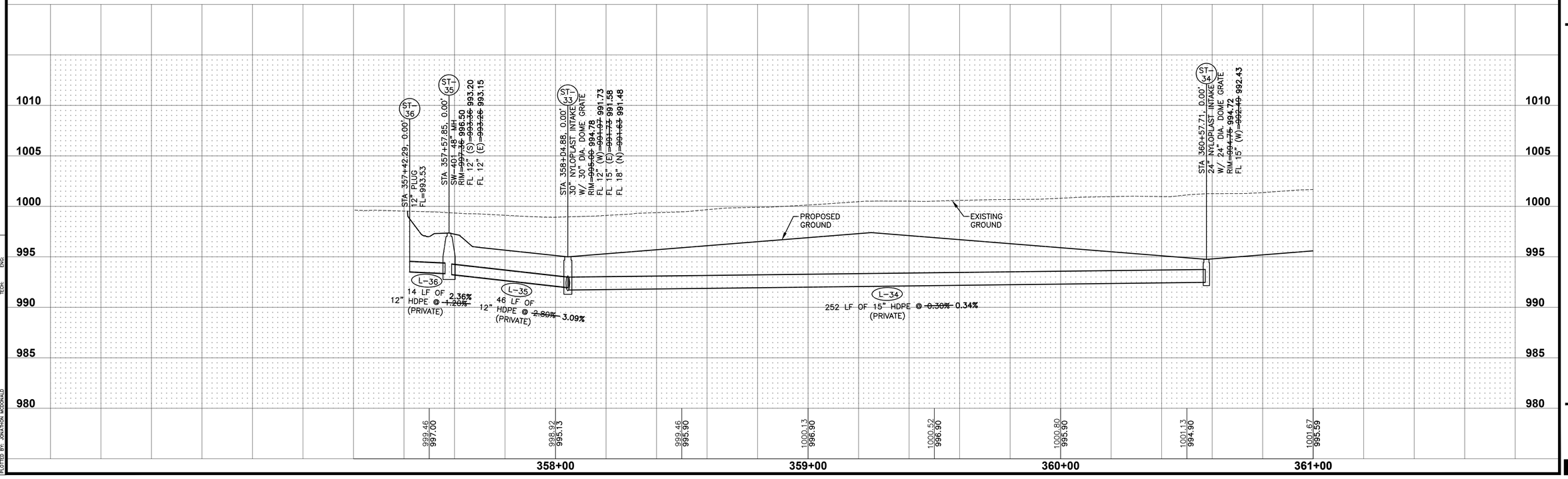


SHEET INDEX









REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

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

ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

STORM AND SANITARY PLAN AND PROFILE

WAUKEE, IOWA

24/36

2103.135

FILE: H:\2021\2103135\DWG\2103135-PHP-ASBUILT.DWG
REF: XREF: 2103135-PROF
PLOTTED BY: JONATHON MCDONALD PLOTTED: 1/9/2023 8:44 AM
COMMENT:
TECH: ENG:

LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
LOT 11
LOT 12
LOT 44
LOT 62
LOT 63

Δ = 58°07'37"
L = 405.80'
R = 400.00'
CH = 388.62'
CHB = S37°25'36"E

Δ = 9°48'35"
L = 59.92'
R = 350.00'
CH = 59.85'
CHB = S61°35'07"E

10.0' P.U.E.
30' SETBACK
10.0' SNOW STORAGE EASEMENT
15.0' SANITARY SEWER EASEMENT
20.0' STORM SEWER EASEMENT
22.0' SANITARY SEWER EASEMENT

171+00
172+00
173+00
174+00
175+00
176+00
26+00
27+00

STA 171+74.64, 17.00' LT
22.5° BEND
STA 171+55.20, 25.05' LT
HYDRANT ASSEMBLY
FGH= 996.09

CRITICAL CROSSING
BOTTOM OF STORM=991.73
TOP OF SANITARY=984.15

PC 173+06.29
Mid 173+36.26
PT 173+66.22
17.0'
26' B–B
60' ROW

STA 174+13.43, 20.50' LT
HYDRANT ASSEMBLY
FGH= 997.93

STREET LIGHT (TYP)

5' SIDEWALK (FUTURE)

NW ROSEMONT CIRCLE
(7" P.C.C.)

CRITICAL CROSSING
BOTTOM OF STORM=992.72
TOP OF WATER=991.22
INSTALL GASKETED JOINTS
ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF WATER=991.38
TOP OF SANITARY=978.84

STA 174+23.05, 18.50' LT
8" VALVE
RIM= 997.79

PT 27+05.14
60' ROW
29' B–B
18.5'

STA 174+73.57, 18.50' LT
8" CROSS

STA 174+95.58, 18.50' LT
8" VALVE
RIM= 997.83

PC 174+12.95

STA 174+20.05, 18.50' LT
22.5° BEND

STA 174+16.43, 17.00' LT
22.5° BEND

STA 174+54.80 (NW ROSEMONT DRIVE)
STA 26+09.22 (NW PRAIRIE ROSE LANE)

NW ROSEMONT DRIVE
(7" P.C.C.)

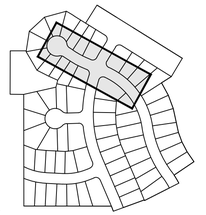
NW PRAIRIE ROSE LANE
(7" P.C.C.)

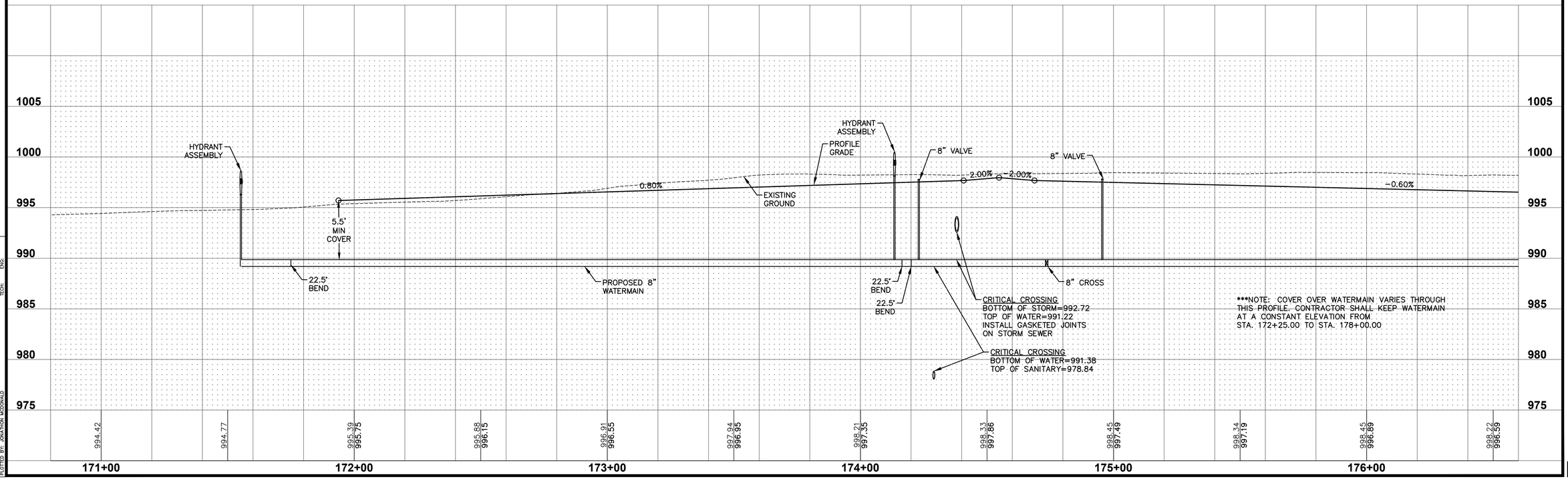
CRITICAL CROSSING
BOTTOM OF WATER=991.45
TOP OF SANITARY=980.81

CRITICAL CROSSING
BOTTOM OF STORM=992.90
TOP OF SANITARY=979.38

SCALE
0' 10' 20' 40'

SHEET INDEX





REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
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FOURTH SUBMITTAL	06/14/2021

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

ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

25/36

2103.135

FILE: H:\2021\210315\DWG\2103.35-PW-WATER-ASBUILT.DWG
PLOT DATE: 1/6/2023 9:44 AM
PLOTTED BY: JONATHON MCDONALD

COMMENT:
TECH:
ENG:

LOT 62 | LOT 61 | LOT 60 | LOT 59 | LOT 58 | LOT 57 | LOT 56 | LOT 55

Δ = 58°07'37"
L = 405.80'
R = 400.00'
CH = 388.62'
CHB = S37°25'36"E

Δ = 28°31'04"
L = 298.64'
R = 600.00'
CH = 295.56'
CHB = S22°37'19"E

STA 176+82.99, 22.00' LT
HYDRANT ASSEMBLY
FGH= 996.91

STA 178+52.69, 18.50' LT
8" VALVE
RIM= 996.39

STA 179+09.40, 22.00' LT
HYDRANT ASSEMBLY
FGH= 996.95

176+00 | 177+00 | 178+00 | 179+00 | 180+00 | 181+00

Mid 177+45.85

Mid 180+38.07

10.0' P.U.E.

STREET LIGHT (TYP.)

8"W

R/W

NW ROSEMONT DRIVE
(7" P.C.C.)

60' ROW

29' B-B

18.5'

30' SETBACK

5' SIDEWALK (FUTURE)

PRC 179+08.75

CRITICAL CROSSING
BOTTOM OF STORM=991.46
TOP OF SANITARY=983.72

CRITICAL CROSSING
BOTTOM OF STORM=989.05
TOP OF WATER=987.55
INSTALL GASKETED JOINTS
ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF STORM=990.96
TOP OF SANITARY=985.60

INSTALL 6 SY OF
4" P.C.C.

22.0' SANITARY
SEWER EASEMENT

10.0' OVERLAND
FLOWAGE EASEMENT

10.0' P.U.E.

15.0' OVERLAND
FLOWAGE EASEMENT

20.0' STORM
SEWER EASEMENT

5' SIDEWALK (FUTURE)

36' SETBACK

LOT 44 | LOT 45 | LOT 46 | LOT 47 | LOT 48 | LOT 49

P/E

M.8

SHEET INDEX

SCALE
0' 10' 20' 40'

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

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

ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

PRAIRIE ROSE PLAT 4

WATERMAIN PLAN AND PROFILE

26/36

2103.135

1005 | 1000 | 995 | 990 | 985 | 980 | 975

EXISTING GROUND

HYDRANT ASSEMBLY

PROFILE GRADE

PROPOSED 8" WATERMAIN

-0.60%

0.80%

-0.80%

8" VALVE

5.5' MIN COVER

VPC STA = 177+57
VPC ELEV = 995.94

VPI STA = 178+07
VPI ELEV = 995.64
VC = 100'
K=71.37
LP STA = 177+99.90
LP ELEV = 995.82

VPT STA = 178+57
VPT ELEV = 996.04

VPC STA = 178+90
VPC ELEV = 996.31

VPI STA = 179+40
VPI ELEV = 996.71
VC = 100'
K=62.50
HP STA = 179+40.00
HP ELEV = 996.508

VPT STA = 179+90
VPT ELEV = 996.31

VPC STA = 180+23
VPC ELEV = 996.04

VPI STA = 180+73
VPI ELEV = 995.64
VC = 100'
K=62.50
LP STA = 180+73.00
LP ELEV = 995.84

VPT STA = 181+23
VPT ELEV = 996.04

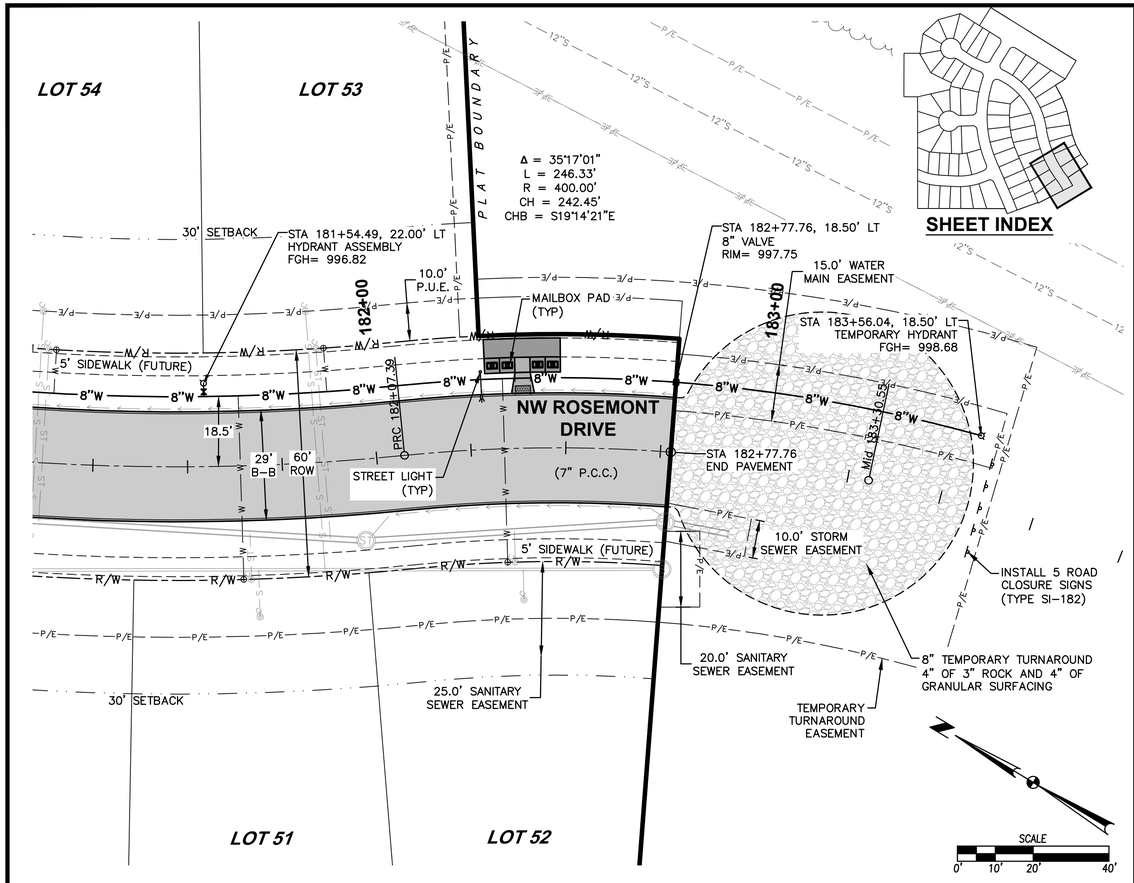
998.34 997.19 | 998.45 996.89 | 998.22 996.59 | 998.24 996.29 | 997.84 995.99 | 998.09 995.82 | 998.42 995.99 | 997.84 996.38 | 997.80 996.50 | 998.04 996.23 | 998.56 995.89 | 998.97 995.90

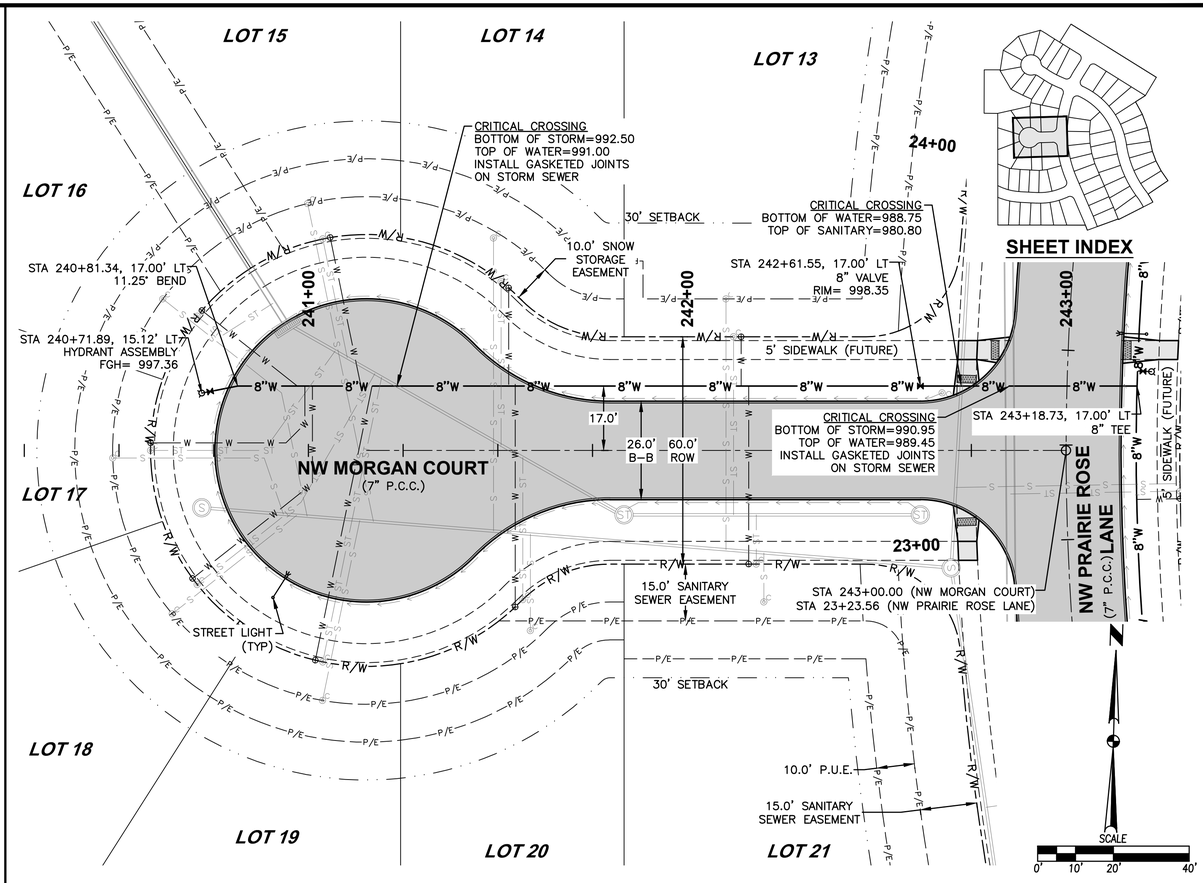
176+00 | 177+00 | 178+00 | 179+00 | 180+00 | 181+00

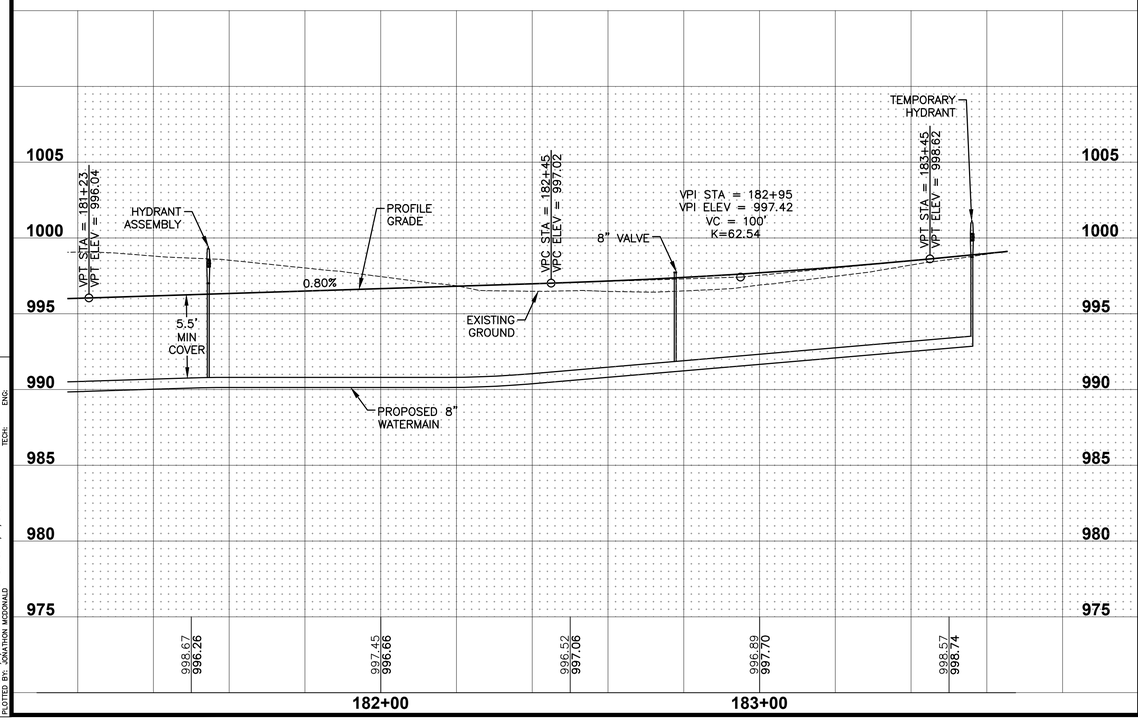
***NOTE: COVER OVER WATERMAIN VARIES THROUGH THIS PROFILE. CONTRACTOR SHALL KEEP WATERMAIN AT A CONSTANT ELEVATION FROM STA. 172+25.00 TO STA. 178+00.00

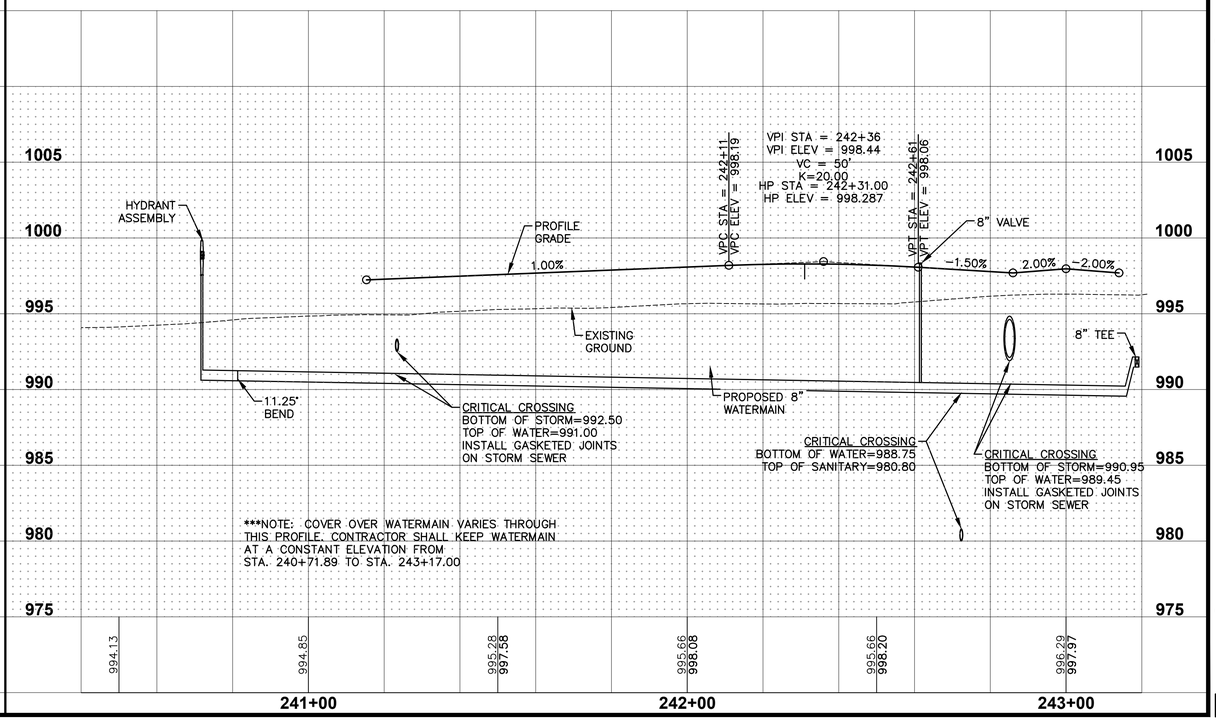
CRITICAL CROSSING
BOTTOM OF STORM=989.05
TOP OF WATER=987.55
INSTALL GASKETED JOINTS
ON STORM SEWER

FILE: N:\2021\2103135\DWG\210313S-PHP-WATER-ASBUILT.DWG
PLOT DATE: 1/10/2023 8:54 AM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG









REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

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

PRAIRIE ROSE PLAT 4
WATERMAIN PLAN AND PROFILE
WAUKEE, IOWA

27/36
2103.135

FILE: H:\2021\2103135\DWG\2103135-PW-WATER-ASBUILT.DWG
DATE: 1/6/2023 8:44 AM PLOTTED: 1/6/2023 8:44 AM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH:
ENG:

INSTALL 5 ROAD CLOSURE SIGNS (TYPE SI-182)

BP 230+00.00

Mid 230+49.97

STA 230+93.21
BEGIN PAVEMENT

TEMPORARY CONSTRUCTION EASEMENT

8" TEMPORARY TURNAROUND
4" OF 3" ROCK AND 4" OF GRANULAR SURFACING

FUTURE IMPROVEMENTS (BY OTHERS)

PLAT BOUNDARY

15' WATERMAIN EASEMENT

STA 230+91.54, 18.50' LT
TEMPORARY HYDRANT
FGH= 998.28

25.0' STORM SEWER EASEMENT

LOT 27

LOT 26

LOT 25

LOT 24

LOT 23

LOT 28

LOT 29

LOT 30

LOT 31

LOT 32

LOT 33

LOT 34

Δ = 22°04'10"
L = 128.27'
R = 333.02'
CH = 127.48'
CHB = S76°05'57"E

Δ = 26°11'20"
L = 152.21'
R = 333.00'
CH = 150.89'
CHB = N79°46'18"E

30' SETBACK

STA 231+53.74, 18.50' LT
8" VALVE
RIM= 998.04

CRITICAL CROSSING
BOTTOM OF STORM=989.92
TOP OF WATER=988.42
INSTALL GASKETED JOINTS
ON STORM SEWER

STA 232+20.25, 22.00' LT
HYDRANT ASSEMBLY
FGH= 998.40

STA 234+16.96, 22.00' LT
HYDRANT ASSEMBLY
FGH= 999.78

PC 231+49.94

Mid 232+01.07

PT 232+28.21

PC 233+15.25

Mid 234+01.30

PT 234+77.46

5' SIDEWALK (FUTURE)

18.5'

29.0'
B-B

60.0'
ROW

NW NEWHAVEN DRIVE
(7" P.C.C.)

CRITICAL CROSSING
BOTTOM OF STORM=990.34
TOP OF SANITARY=985.95

INSTALL 6 SY OF
4" P.C.C.

15.0' SANITARY SEWER EASEMENT

20.0' SANITARY SEWER EASEMENT

10.0' P.U.E.

STA 235+10.50, 18.50' LT
8" VALVE
RIM= 1000.16

STA 235+68.50, 18.50' LT
8" TEE

PC 20+77.92

STREET LIGHT (TYP)

CRITICAL CROSSING
BOTTOM OF WATER=992.75
TOP OF SANITARY=983.43

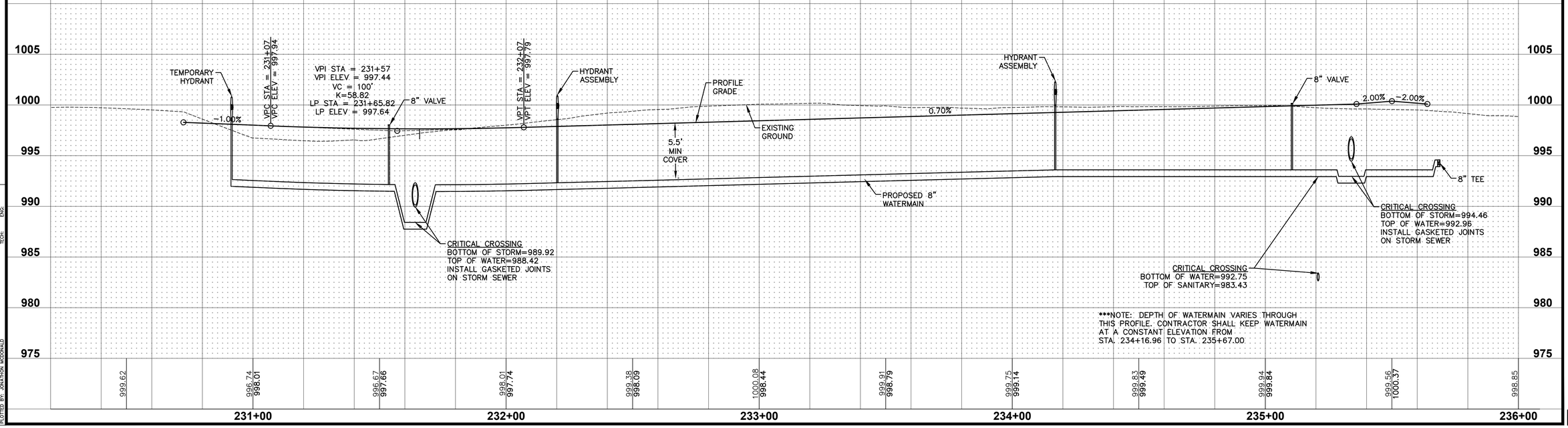
CRITICAL CROSSING
BOTTOM OF STORM=994.46
TOP OF WATER=992.96
INSTALL GASKETED JOINTS
ON STORM SEWER

NW PRAIRIE ROSE LANE

SHEET INDEX

STA 235+50.00 (NW NEWHAVEN DRIVE)
STA 20+23.13 (NW PRAIRIE ROSE LANE)

SCALE
0' 10' 20' 40'



***NOTE: DEPTH OF WATERMAIN VARIES THROUGH THIS PROFILE. CONTRACTOR SHALL KEEP WATERMAIN AT A CONSTANT ELEVATION FROM STA. 234+16.96 TO STA. 235+67.00

REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
FINAL SUBMITTAL	07/09/2021
FIFTH SUBMITTAL	06/28/2021
FOURTH SUBMITTAL	06/14/2021

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

ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

28/36

2103.135

FILE: N:\2021\2103135\DWG\2103135-PRP-WATER-ASBUILT.DWG
PLOT DATE: 1/9/2023 8:44 AM
PLOTTED BY: JONATHON MCDONALD

COMMENT:
TECH:
ENG:

Δ = 23°26'56"
L = 347.87'
R = 850.00'
CH = 345.45'
CHB = N11°35'54"W

10.0' OVERLAND FLOWAGE EASEMENT

LOT 34

PLAT BOUNDARY

INSTALL 5 ROAD CLOSURE SIGNS (TYPE SI-182)

25.0' SANITARY SEWER EASEMENT

10.0' PUE

10.0' STORM SEWER EASEMENT

10.0' P.U.E.

15.0' SANITARY SEWER EASEMENT

17+00

18+00

19+00

20+00

NW NEWHAVEN DRIVE
(7" P.C.C.)

PT 234+77.46

CRITICAL CROSSING
BOTTOM OF WATER=993.50
TOP OF SANITARY=983.43

235+00

CRITICAL CROSSING
BOTTOM OF STORM=994.46
TOP OF WATER=992.96
INSTALL GASKETED JOINTS ON STORM SEWER

21+00

Δ = 55°17'17"
L = 627.22'
R = 650.00'
CH = 603.17'
CHB = N4°19'17"E

LOT 22

10.0' P.U.E.

30' SETBACK

LOT 21

10.0' OVERLAND FLOWAGE EASEMENT

15.0' SANITARY SEWER EASEMENT

10.0' PUE

22+00

5' SIDEWALK (FUTURE)

STA 16+97.54, 18.50' RT
TEMPORARY HYDRANT
FGH= 1005.66

STA 17+75.99
BEGIN PAVEMENT

PT 18+25.12

NW PRAIRIE ROSE LANE
(7" P.C.C.)

PC 20+77.92

STA 20+23.13 (NW PRAIRIE ROSE LANE)
STA 235+50.00 (NW NEWHAVEN DRIVE)

60' ROW

29' B-B

18.5'

8"W

STREET LIGHT (TYP)

5' SIDEWALK (FUTURE)

STA 17+75.99, 22.00' RT
HYDRANT ASSEMBLY
FGH= 1003.09

15.0' WATER MAIN EASEMENT

TEMPORARY TURNAROUND EASEMENT

TEMPORARY TURNAROUND OF 3" ROCK AND 4" OF GRANULAR SURFACING

STA 17+73.33, 18.50' RT
8" VALVE
RIM= 1002.37

30' SETBACK

236+00

STA 20+37.54, 22.00' RT
HYDRANT ASSEMBLY
FGH= 1000.78

STA 20+41.63, 18.50' RT
8" TEE

LOT 35

LOT 36

LOT 37

LOT 38

LOT 39

LOT 40

LOT 41

EP 236+50.00

236+50

SCALE
0' 10' 20' 40'

SHEET INDEX



REVISIONS	DATE
AS-BUILT SUBMITTAL	01/16/2023
AS-BUILT SUBMITTAL	12/28/2022
AS-BUILT SUBMITTAL	10/26/2022
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3405 S.E. CROSSROADS DRIVE, SUITE G
GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

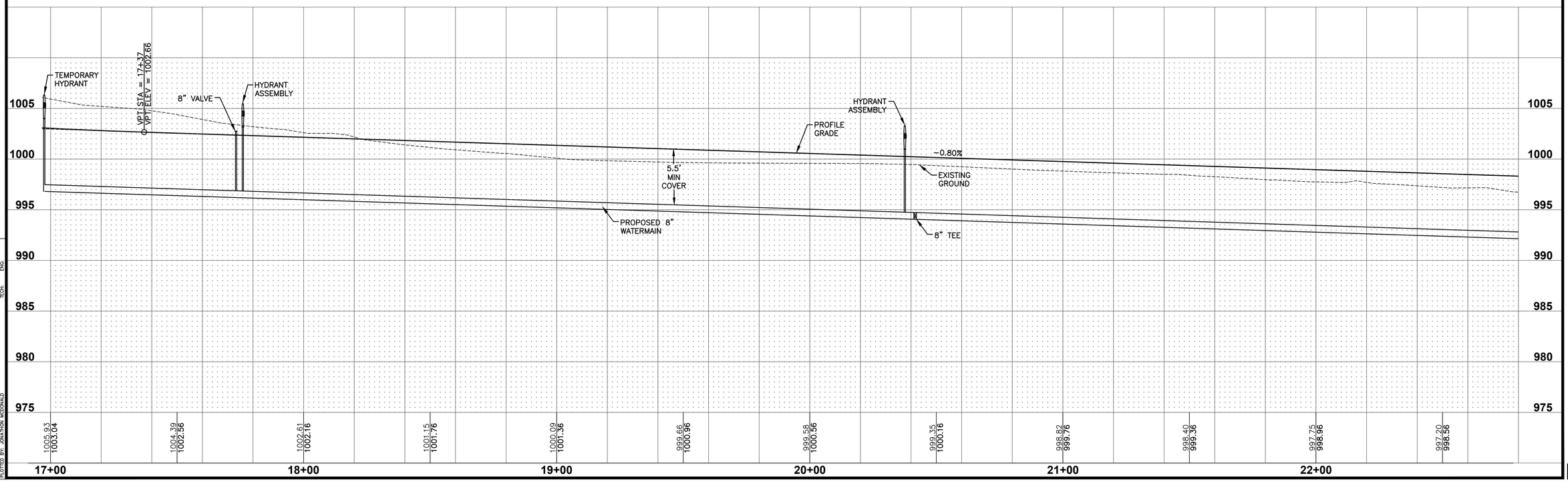
ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

PRAIRIE ROSE PLAT 4

WATERMAIN PLAN AND PROFILE

FILE: H:\2021\2103.135\DWG\2103135-PNP-WATER-ASBUILT.DWG
PLOTTED BY: JONATHON MCDONALD PLOTTED: 7/6/2022 8:45 AM
COMMENT:
TECH:
ENG:



LOT 20

LOT 21

LOT 13

LOT 12

LOT 43

LOT 44

Δ = 55°17'17"
L = 627.22'
R = 650.00'
CH = 603.17'
CHB = N4°19'17"E

STA 23+23.56 (NW PRAIRIE ROSE LANE)
STA 243+00.00 (NW MORGAN COURT)

NW MORGAN COURT
(7" P.C.C.)

NW PRAIRIE ROSE LANE
(7" P.C.C.)

NW ROSEMONT DRIVE
(7" P.C.C.)

STA 26+09.22 (NW PRAIRIE ROSE LANE)
STA 174+54.80 (NW ROSEMONT DRIVE)

PT 174+05.14

PC 175+02.95

60' ROW

29' B-B

18.5'

30' SETBACK

15.0' SANITARY SEWER EASEMENT

10.0' P.U.E.

10.0' OVERLAND FLOWAGE EASEMENT

20.0' STORM SEWER EASEMENT

10.0' PUE

22.0' SANITARY SEWER EASEMENT

5' SIDEWALK (FUTURE)

STREET LIGHT (TYP)

CRITICAL CROSSING
BOTTOM OF WATER=991.50
TOP OF SANITARY=980.80

CRITICAL CROSSING
BOTTOM OF STORM=990.95
TOP OF WATER=989.45
INSTALL GASKETED JOINTS
ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF STORM=988.66
TOP OF SANITARY=980.03

CRITICAL CROSSING
BOTTOM OF STORM=992.90
TOP OF SANITARY=979.38

CRITICAL CROSSING
BOTTOM OF WATER=991.38
TOP OF SANITARY=978.84

CRITICAL CROSSING
BOTTOM OF STORM=992.72
TOP OF WATER=991.22
INSTALL GASKETED JOINTS
ON STORM SEWER

CRITICAL CROSSING
BOTTOM OF WATER=991.45
TOP OF SANITARY=980.81

STA 23+41.06, 18.50' RT
8" TEE

STA 23+45.11, 22.19' RT
HYDRANT ASSEMBLY
FGH= 998.29

STA 25+67.13, 18.50' RT
8" VALVE
RIM= 997.96

STA 26+28.26, 18.50' RT
8" CROSS

Mid 243+91.53

EP 244+00.00

22+00 23+00 24+00 25+00 26+00 174+00 175+00

242+00 243+00 244+00

8"W

R/W

P/E

S

W

3/d

M.8

SHEET INDEX

SCALE
0' 10' 20' 40'

1005
1000
995
990
985
980
975

HYDRANT ASSEMBLY
PROFILE GRADE
5.5' MIN COVER
-0.80%
VPC STA = 23+72
VPC ELEV = 997.58
VPI STA = 24+47
VPI ELEV = 996.98
VC = 150'
K=106.96
LP STA = 24+57.57
LP ELEV = 997.24
VPT STA = 25+22
VPT ELEV = 997.43
EXISTING GROUND
8" VALVE
0.60%
PROPOSED 8" WATERMAIN
8" TEE
8" CROSS
CRITICAL CROSSING
BOTTOM OF WATER=991.45
TOP OF SANITARY=980.81
***NOTE: COVER OVER WATERMAIN VARIES THROUGH THIS PROFILE. CONTRACTOR SHALL KEEP WATERMAIN AT A CONSTANT ELEVATION FROM STA. 25+50.00 TO STA. 29+57.73

997.75 998.06
997.20 998.56
996.46 998.16
996.45 997.76
996.90 997.39
996.91 997.24
997.10 997.32
997.88 997.60
998.27 997.90
998.62 998.20
998.84 998.50

22+00 23+00 24+00 25+00 26+00 27+00

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ENGINEER: EKO | EI: JWM TECH: BDH

CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

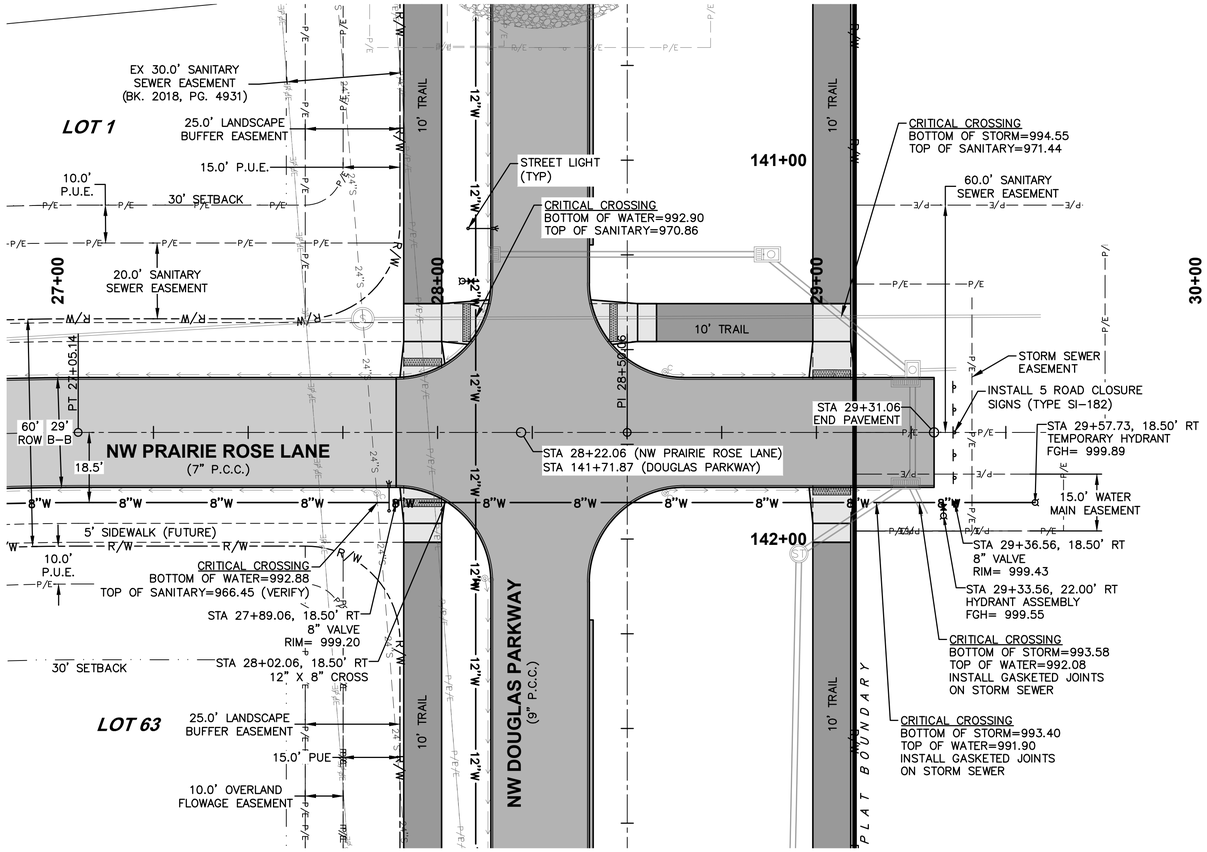
WATERMAIN PLAN AND PROFILE

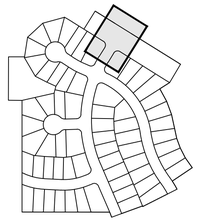
WAUKEE, IOWA

2103.135

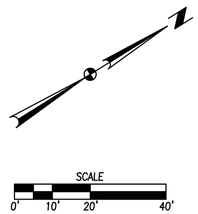
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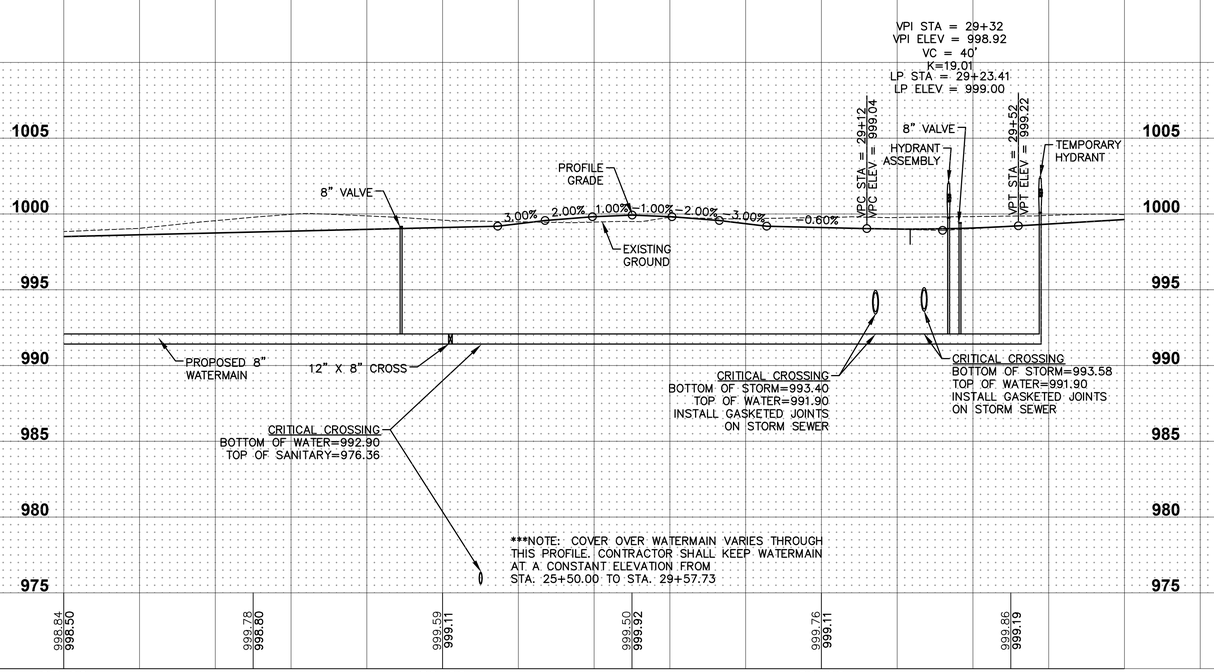
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SHEET INDEX





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CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

PRAIRIE ROSE PLAT 4

WATERMAIN PLAN AND PROFILE

2103.135

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PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH:
ENG:

15.0' OVERLAND FLOWAGE EASEMENT (PRAIRIE ROSE PLAT 3)

CRITICAL CROSSING
BOTTOM OF STORM=994.55
TOP OF SANITARY=971.44

15.0' PUE (PRAIRIE ROSE PLAT 3)

25.0' LANDSCAPE BUFFER EASEMENT (PRAIRIE ROSE PLAT 3)

PLAT BOUNDARY

10' TRAIL

10' TRAIL

140+00 | 141+00 | 29+00 | 142+00 | 143+00 | 144+00

TEMPORARY TURNAROUND EASEMENT (PRAIRIE ROSE PLAT 3)

IF PLAT 4 IS NOT CONSTRUCTED WITH PLAT 3, REMOVE TEMPORARY TURNAROUND

RELOCATE 5 ROAD CLOSURE SIGNS TO SOUTHEAST END OF DOUGLAS PARKWAY (TYPE SI-182)

STA 141+71.87 (DOUGLAS PARKWAY)
STA 28+22.06 (NW PRAIRIE ROSE LANE)

PT 139+09.58

15.0' WATERMAIN EASEMENT (PRAIRIE ROSE PLAT 3)

PT 28+50.06

120' ROW

STA 141+90.37, 40.00' RT
12" X 8" CROSS

STA 139+87.45, 40.00' RT
EX. 12" VALVE
RIM= 1000.30

CRITICAL CROSSING
BOTTOM OF WATER=992.90
TOP OF SANITARY=970.86

STA 142+11.37, 40.00' RT
12" VALVE
RIM= 999.41

26' B-B

17.0'

STREET LIGHT (TYP)

NW DOUGLAS PARKWAY
(9" P.C.C.)

CRITICAL CROSSING
BOTTOM OF WATER=991.46
TOP OF SANITARY=965.35

12"W

STA 141+31.95, 43.50' RT
EX. HYDRANT ASSEMBLY
FGH= 999.69

28+00

STA 140+62.45, 40.00' RT
REMOVE EX. TEMPORARY HYDRANT AND CONNECT TO 12" WATERMAIN

10' TRAIL

15.0' PUE

10' TRAIL

24"S

15.0' OVERLAND FLOWAGE EASEMENT

STA 144+14.70, 43.50' RT
HYDRANT ASSEMBLY
FGH= 998.54

30' SETBACK

EX 30.0' SANITARY SEWER EASEMENT (BK. 2018, PG. 4931)

25.0' LANDSCAPE BUFFER EASEMENT

15.0' P.U.E.

NW PRAIRIE ROSE LANE
(7" P.C.C.)

10.0' OVERLAND FLOWAGE EASEMENT

30' SETBACK

CRITICAL CROSSING
BOTTOM OF WATER=992.88
TOP OF SANITARY=966.45 (VERIFY)

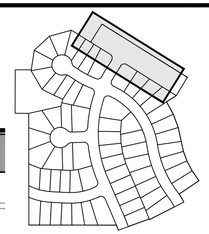
25.0' LANDSCAPE BUFFER EASEMENT

15.0' OVERLAND FLOWAGE EASEMENT

LOT 4 | LOT 3 | LOT 2 | LOT 1 | LOT 63 | LOT 62 | LOT 61 | LOT 60

SCALE
0' 10' 20' 40'

SHEET INDEX



VPI STA = 140+00
VPI ELEV = 1000.85
VC = 250'
K=144.71
HP STA = 140+38.17
HP ELEV = 1000.360

REMOVE TEMPORARY HYDRANT AND CONNECT TO EX. 12" WATERMAIN

VPT STA = 141+25
VPT ELEV = 1000.10

HYDRANT ASSEMBLY

EX. 12" VALVE

PROFILE GRADE

12" VALVE

HYDRANT ASSEMBLY

VPC STA = 144+70
VPC ELEV = 998.03

5.5' MIN COVER

-0.60%

EXISTING GROUND

EXISTING 12" WATERMAIN

PROPOSED 12" WATERMAIN

12" X 8" CROSS

1005 | 1000 | 995 | 990 | 985 | 980 | 975

1000.58 / 1000.09 | 1000.99 / 1000.31 | 1000.77 / 1000.36 | 1000.36 / 1000.23 | 999.77 / 999.95 | 999.67 / 999.65 | 999.41 / 999.35 | 999.14 / 999.05 | 998.92 / 998.75 | 998.48 / 998.45 | 997.96 / 998.15 | 998.13 / 997.88

140+00 | 141+00 | 142+00 | 143+00 | 144+00 | 145+00

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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

WATERMAIN PLAN AND PROFILE

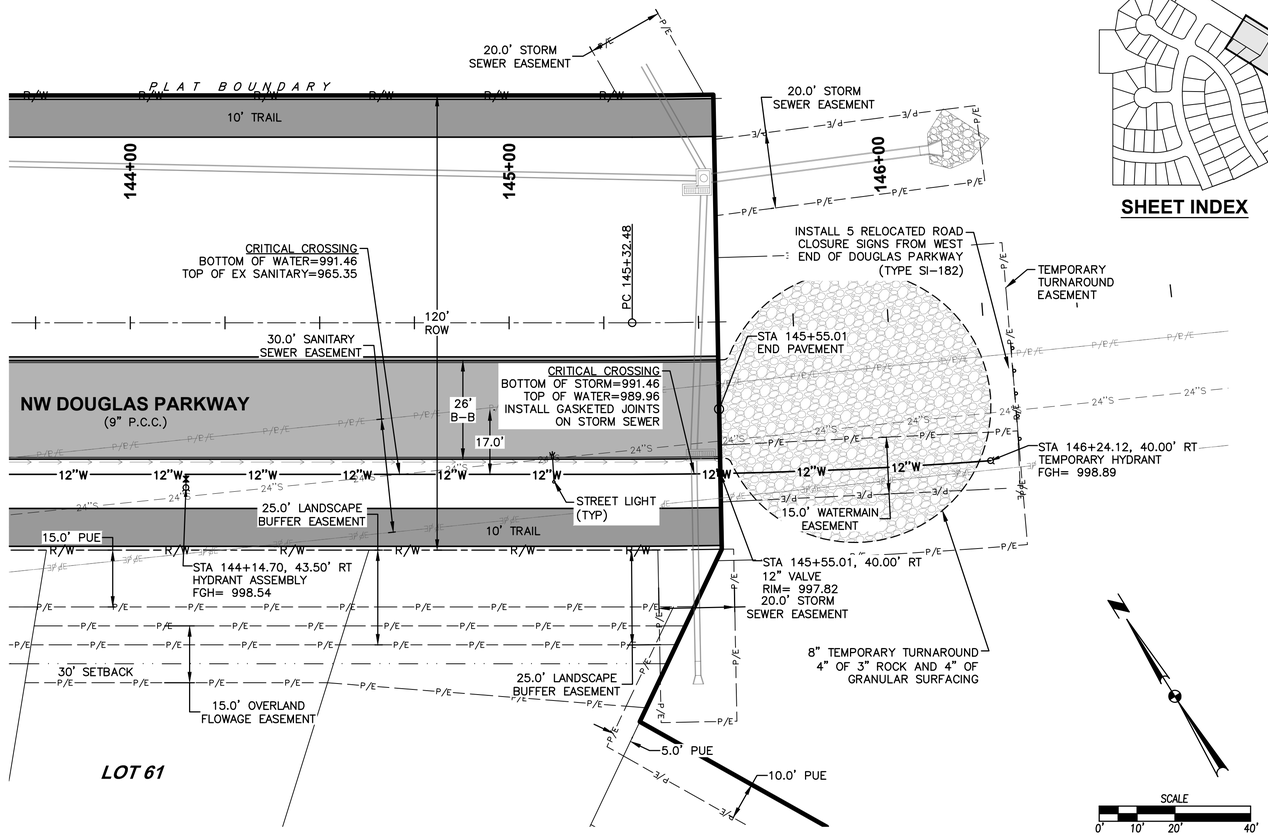
WAUKEE, IOWA

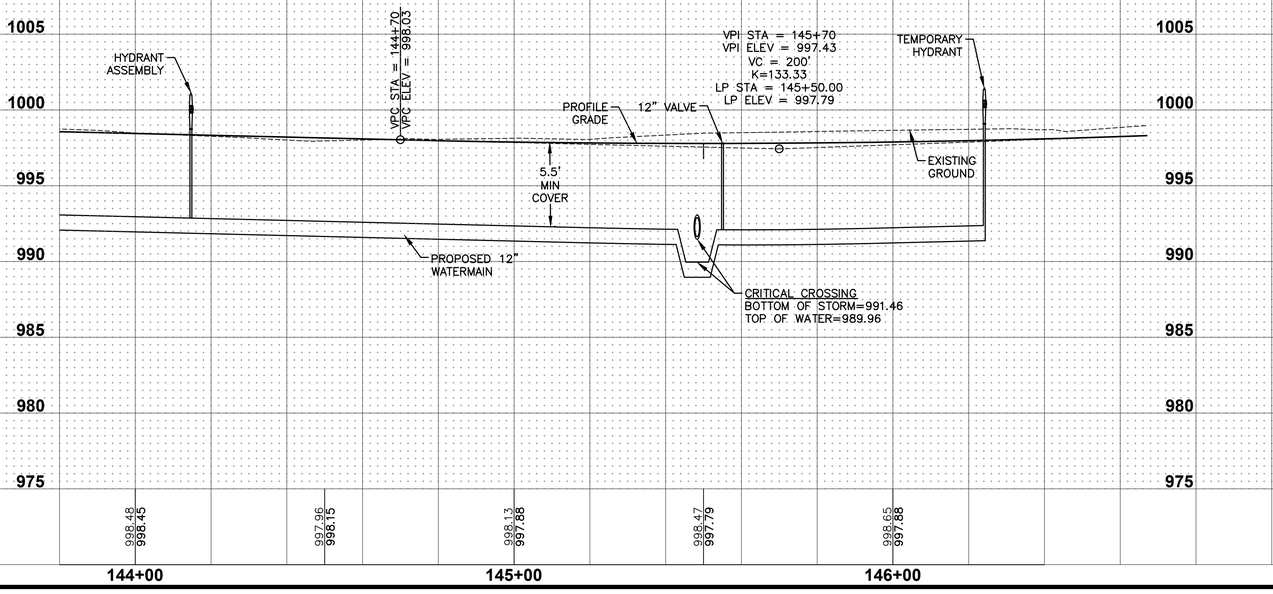
32/36

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TECH: ENG





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CIVIL DESIGN ADVANTAGE

PRAIRIE ROSE PLAT 4

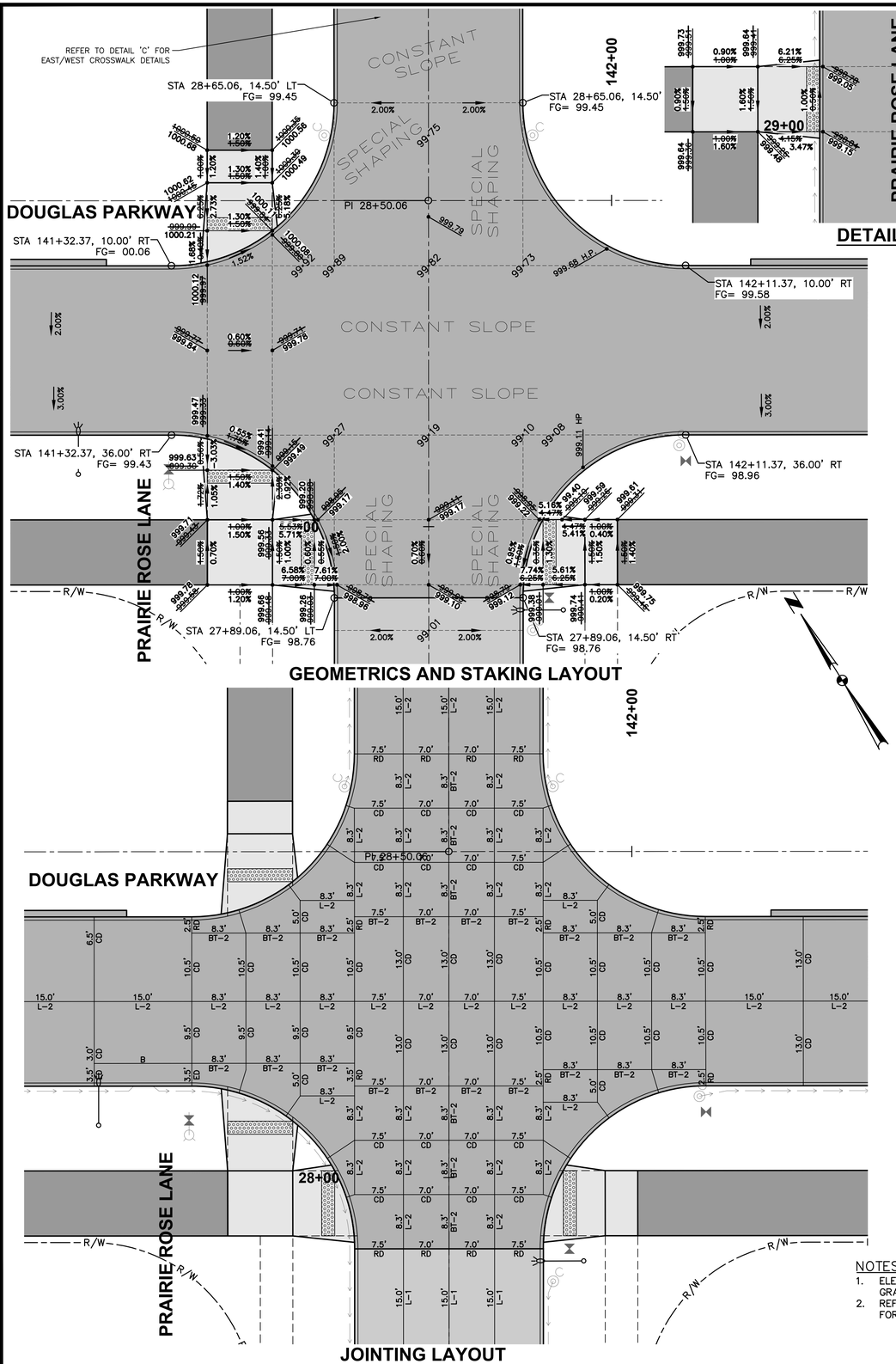
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

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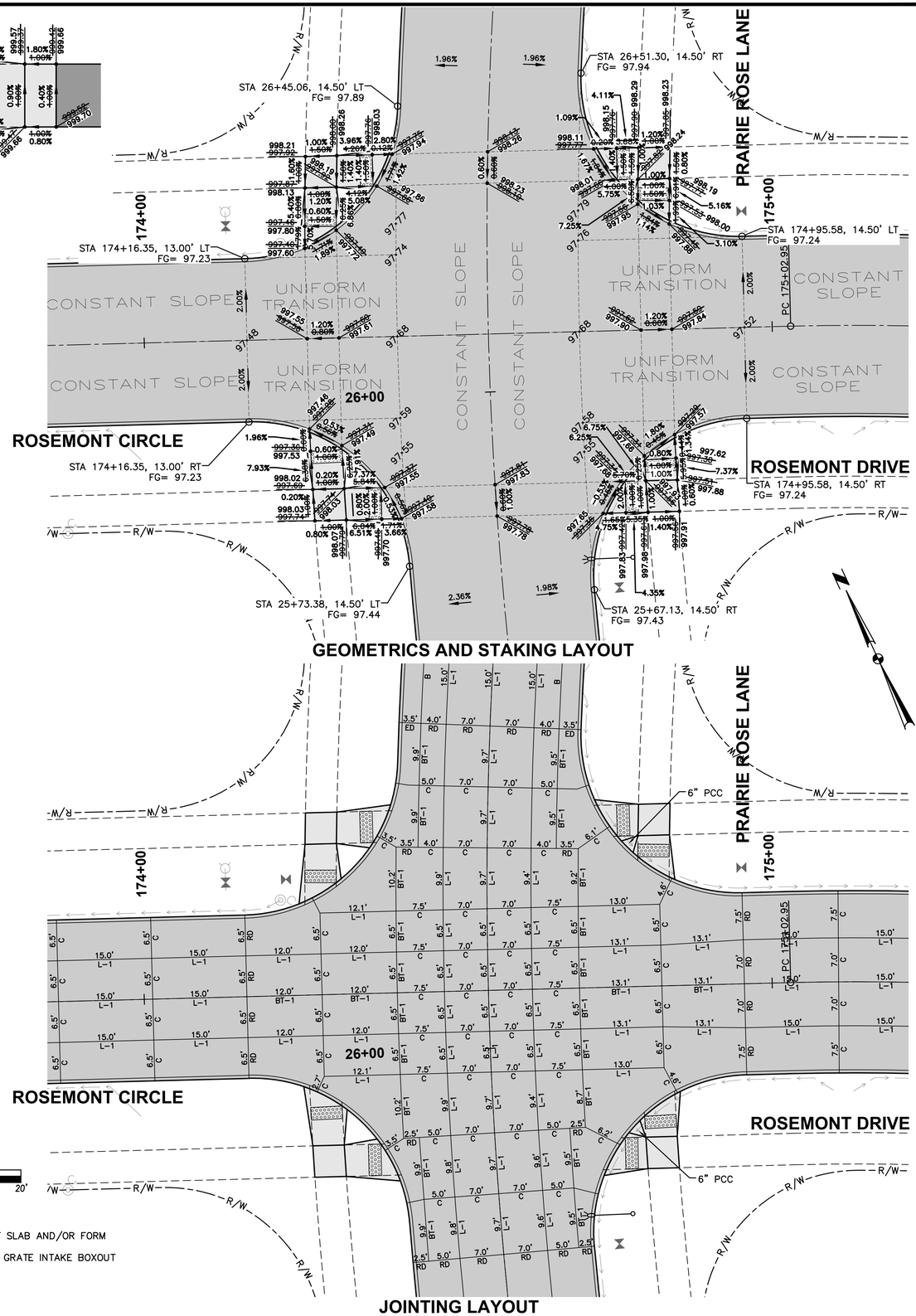
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PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH:
ENG:



DETAIL 'C' (1"=10')

GEOMETRICS AND STAKING LAYOUT



GEOMETRICS AND STAKING LAYOUT

JOINTING LAYOUT

JOINTING LAYOUT

SCALE
0' 5' 10' 20'

NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

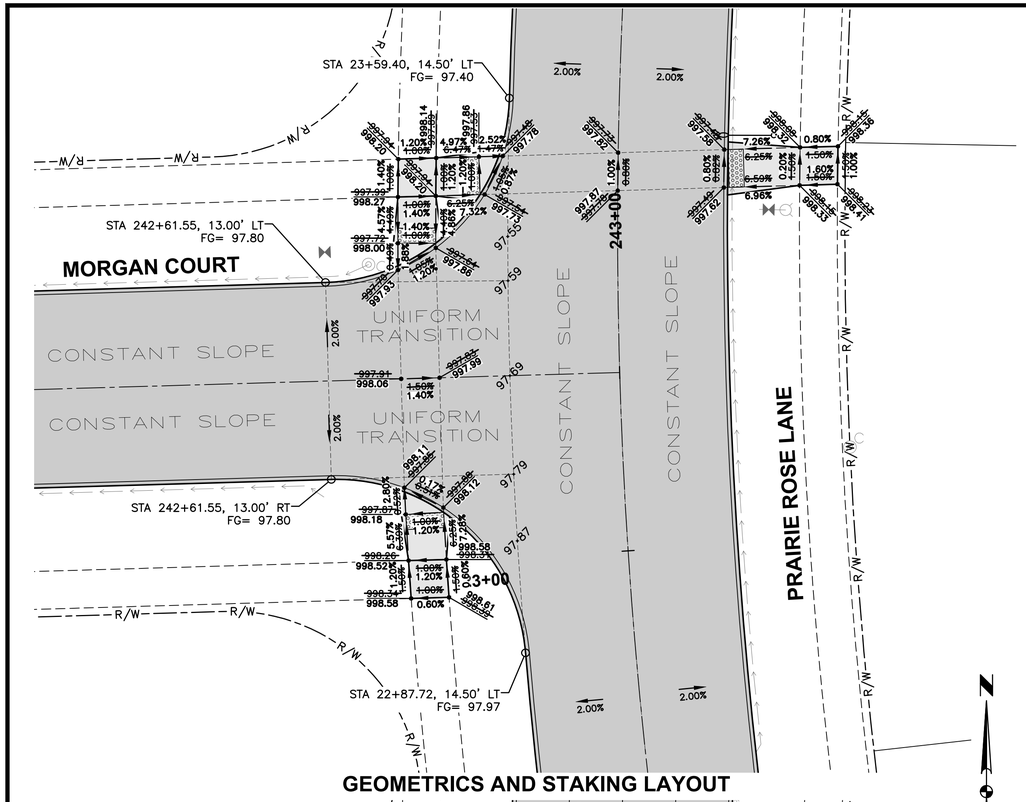
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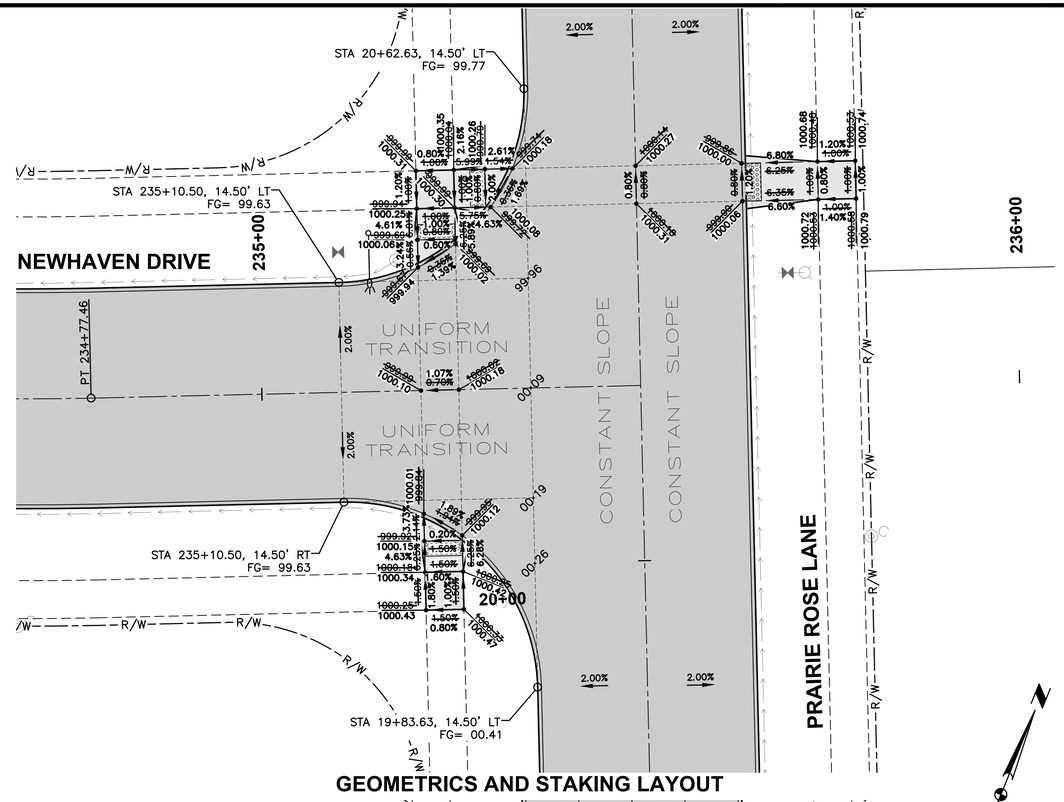
PRAIRIE ROSE PLAT 4
INTERSECTION DETAILS

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

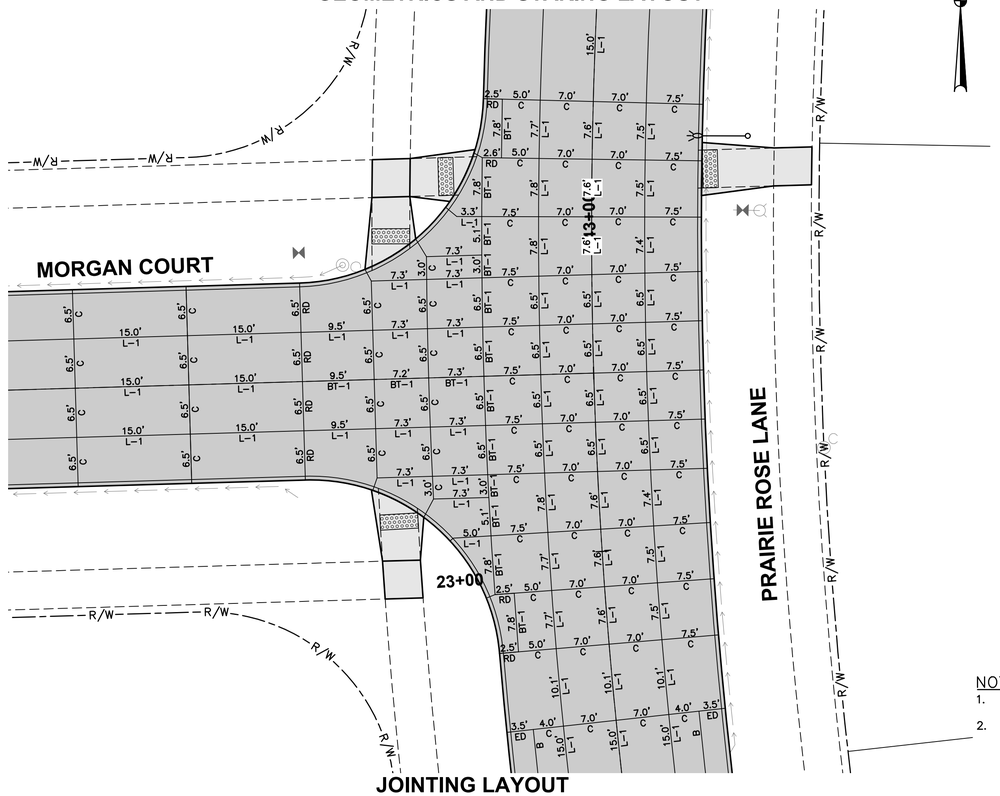
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COMMENT:
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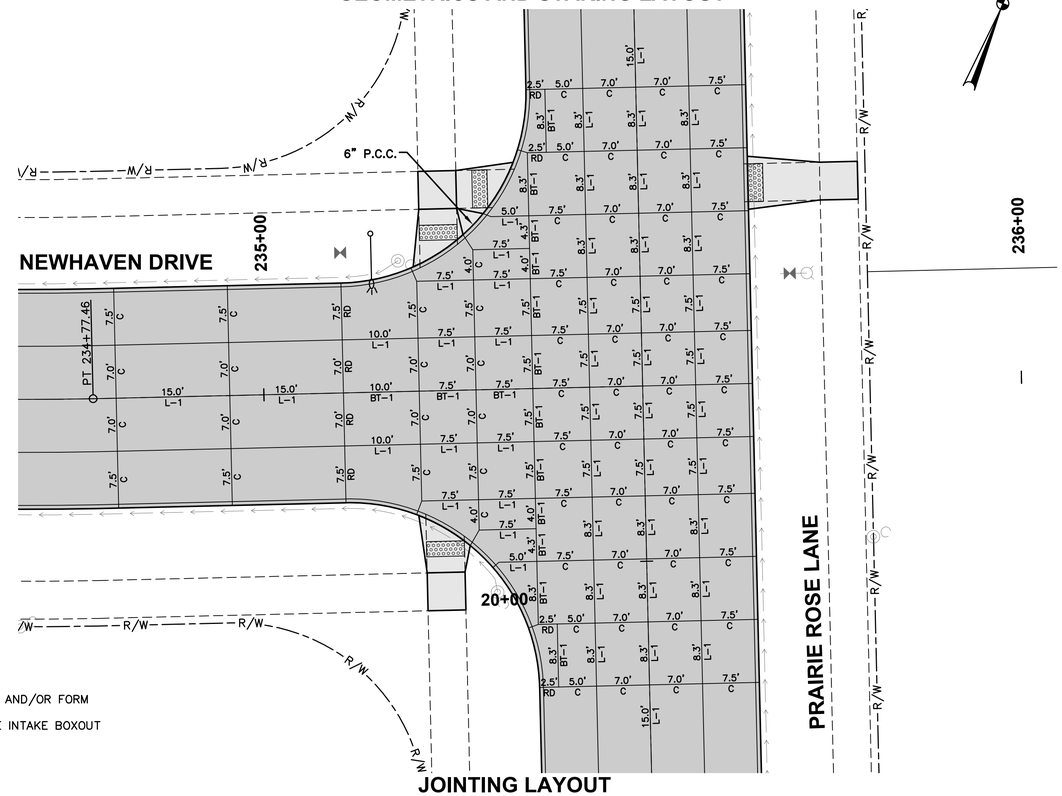
GEOMETRICS AND STAKING LAYOUT



GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



JOINTING LAYOUT

SCALE
0' 5' 10' 20'

NOTES:
1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.

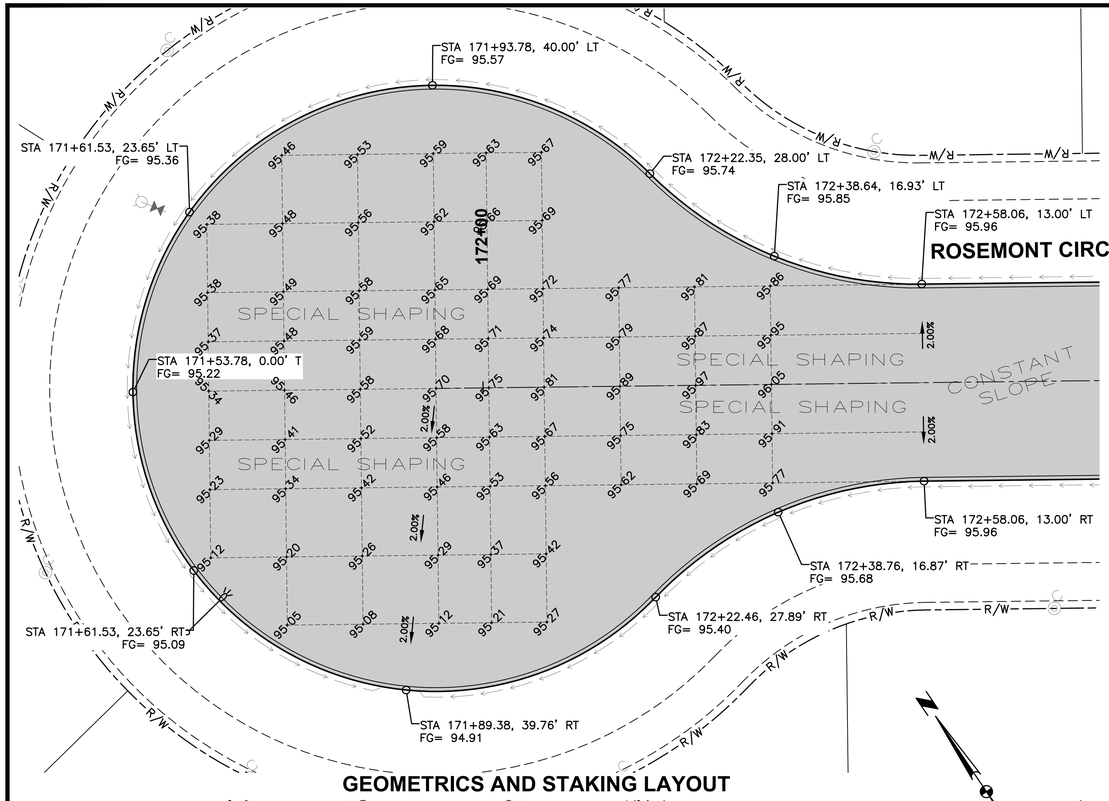
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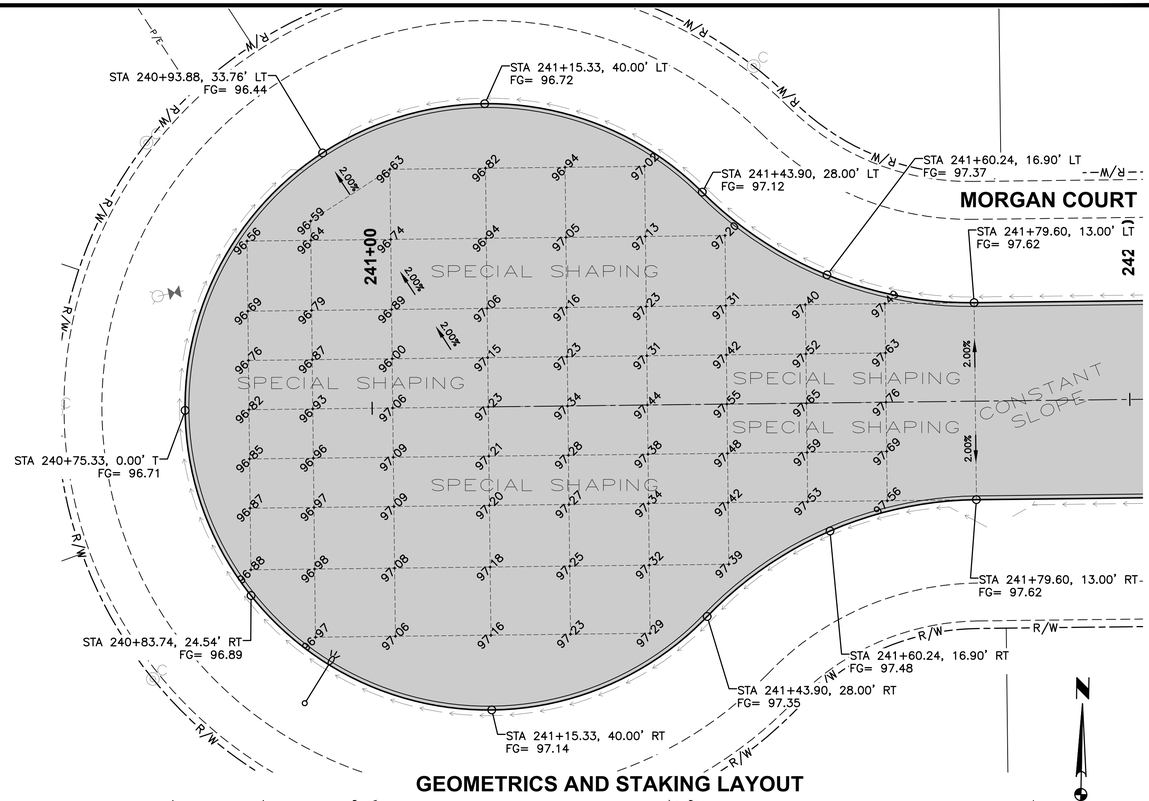
PRAIRIE ROSE PLAT 4
INTERSECTION DETAILS

CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

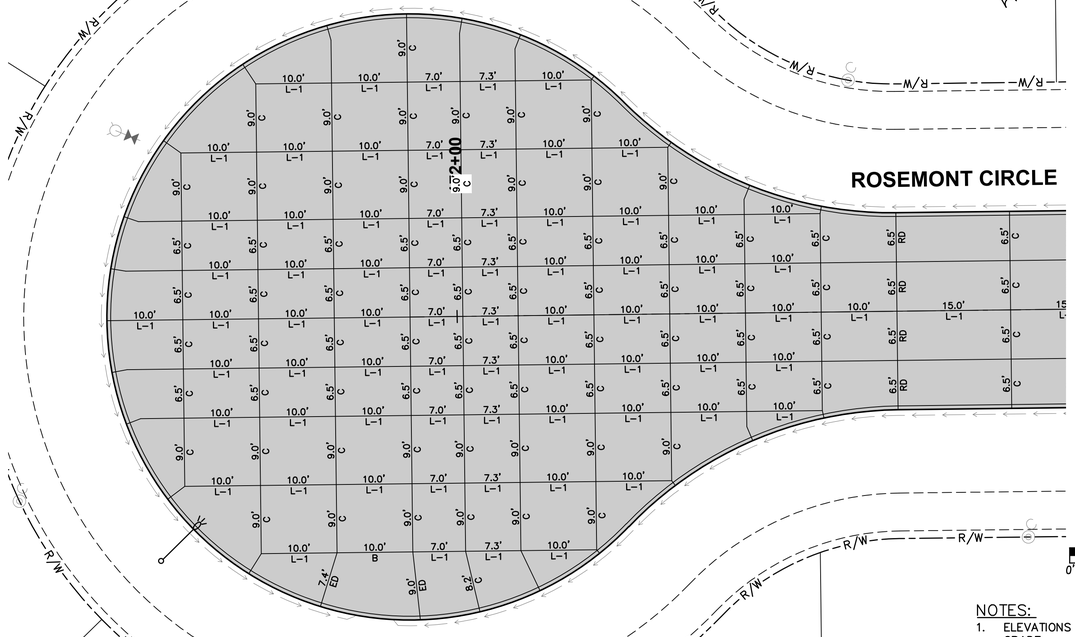
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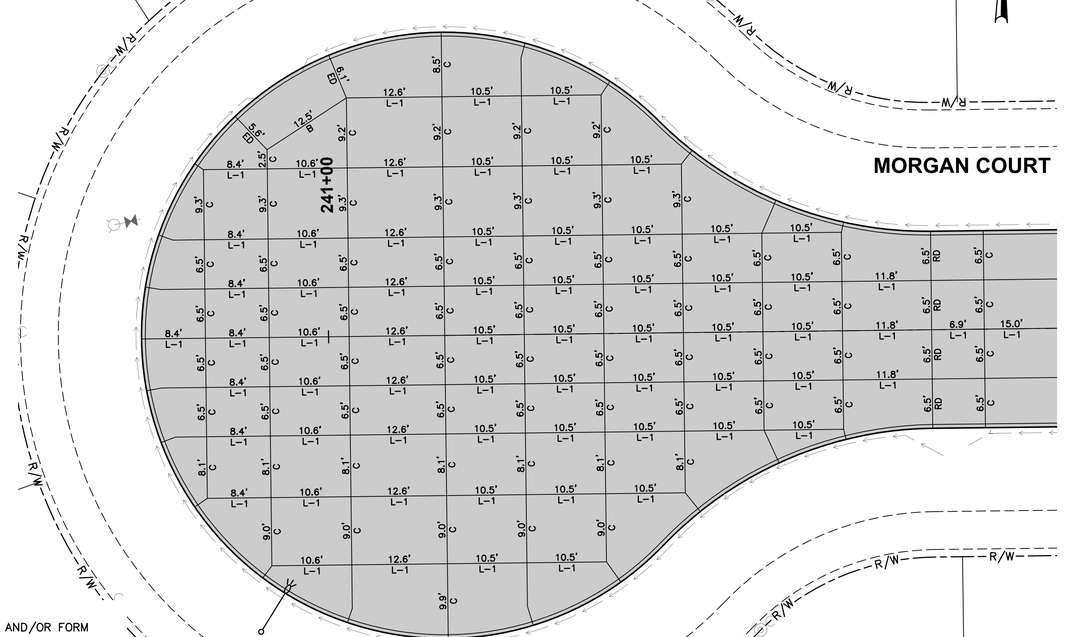
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GEOMETRICS AND STAKING LAYOUT



JOINTING LAYOUT



JOINTING LAYOUT

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CIVIL DESIGN ADVANTAGE
WAUKEE, IOWA

PRAIRIE ROSE PLAT 4
INTERSECTION DETAILS

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