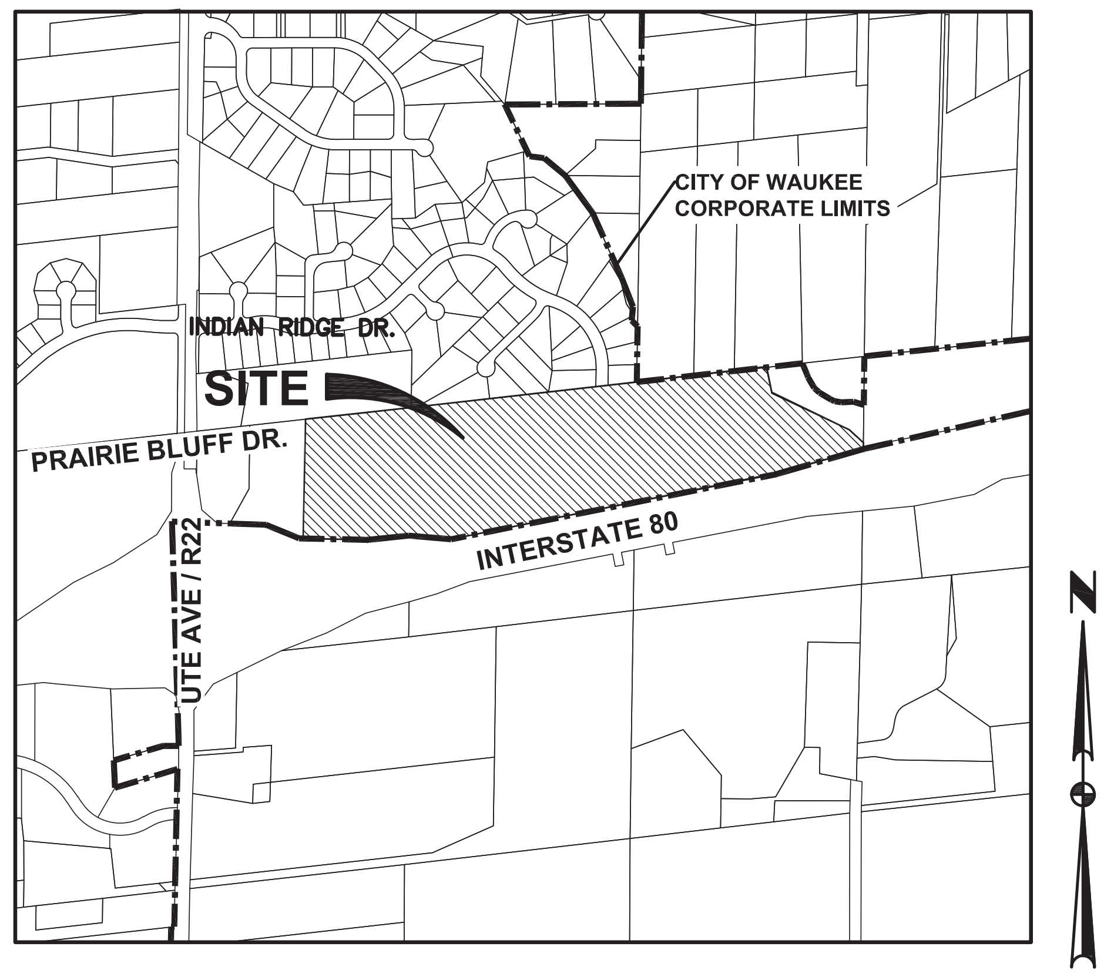
CONSTRUCTION PLANS FOR:

PAINTED WOODS SOUTH - PLAT 1

WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

INDEX OF SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2–3	TYPICAL SECTIONS AND DETAILS
4	QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES
5–7	HYDRANT COVERAGE PLAN
8–10	GRADING PLAN
11–13	EROSION AND SEDIMENT CONTROL PLAN
14–28	STORM & SANITARY SEWER PLAN AND PROFILE
29–40	WATERMAIN PLAN AND PROFILE
41–44	INTERSECTION DETAILS
45–46	LANDSCAPE PLAN

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.

OWNER / DEVELOPER

WEST SIDE LAND COMPANY
CONTACT: TOBY TORSTENSON
9550 HICKMAN ROAD, SUITE 101
CLIVE, IA 50325

ENGINEER / SURVEYOR

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

ZONING

R–1: SINGLE–FAMILY RESIDENTIAL DISTRICT
R–4: ROW DWELLING & TOWNHOME DWELLING DISTRICT
PD–1: PLANNED DEVELOPMENT W/ UNDERLYING
R–2: ONE AND TWO FAMILY RESIDENTIAL DISTRICT ZONING (LOTS 27–75)

DATE OF SURVEY:

FEBRUARY 15, 2018

BENCHMARKS

BURY BOLT ON HYDRANT AT THE SOUTH END OF PAVED PRAIRIE BLUFF DRIVE.
ELEVATION=987.756

CDA GPS#1
FROM I–80 INDUSTRIAL
ELEVATION=1002.32

FLOOD ZONE

MAP NUMBER 19049C0355E
EFFECTIVE: DECEMBER 4, 2007

PROPERTY LIES WITHIN ZONE X WHICH IS AN AREA OF MINIMAL FLOOD HAZARD.

SUBMITTALS

FIRST SUBMITTAL:	07/05/2018
SECOND SUBMITTAL:	09/11/2018
THIRD SUBMITTAL:	09/25/2018
FOURTH SUBMITTAL:	10/05/2018
FINAL SUBMITTAL:	10/30/2018
REVISED SIDEWALK:	03/07/2019
AS–BUILT SUBMITTAL:	06/30/2019

DEVELOPMENT SUMMARY:

TOTAL AREA OF SITE = 46.52 ACRES
(2,026,468 SQUARE FEET)

DEVELOPMENT SCHEDULE:

GRADING: OCTOBER 2018
UTILITIES: NOVEMBER 2018
PAVING: DECEMBER 2018

LEGAL DESCRIPTION

OUTLOT 'Y', PRAIRIE BLUFF PLAT 1, AN OFFICIAL PLAT, EXCEPT PARCEL 17–250 AND EXCEPT PARCEL 17–254 AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2017, PAGE 22109, ALL BEING IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA AND CONTAINING 46.50 ACRES (2,025,538 SQUARE FEET).

PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

UTILITY NOTE

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.

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.

BULK REGULATIONS:

'R–1' SINGLE FAMILY RESIDENTIAL DISTRICT ZONING REGULATIONS SHALL APPLY TO THIS AREA:

A. PRINCIPAL PERMITTED USES FOR THIS AREA SHALL INCLUDE SINGLE–FAMILY DWELLINGS.
B. MINIMUM LOT AREA: 10,000 SQUARE FEET FOR EACH DWELLING PLUS ITS ACCESSORY BUILDING. WHERE PUBLIC SEWER FACILITIES ARE NOT AVAILABLE, NOT LESS THAN 20,000 SQUARE FEET.
C. MINIMUM FLOOR AREA: 1,050 SQUARE FEET FOR SINGLE STORY DWELLING. IF BUILDING IS TWO OR MORE STORIES, MINIMUM SQUARE FOOTAGE SHALL BE 1,400 SQUARE FEET WITH A MINIMUM FIRST FLOOR SQUARE FOOTAGE OF 700 SQUARE FEET. IF BUILDING IS A SPLIT FOYER, THE SQUARE FOOTAGE SHALL BE A MINIMUM OF 1,050 SQUARE FEET PER STORY.
D. LOT WIDTH: 80 FEET; 100 FEET WHERE PUBLIC SEWER IS NOT AVAILABLE. CORNER LOTS SHALL BE 10 FEET WIDER.
E. FRONT YARD: 30 FEET; WHEN FRONTING ON THE RIGHT–OF–WAY OF A STREET, THE FRONT YARD SHALL BE MEASURED FROM THE PROPOSED RIGHT–OF–WAY LINE.
F. SIDE YARD: A TOTAL OF 15 FEET; ONE SIDE MAY BE REDUCED TO NOT LESS THAN 7 FEET; 15 FEET FOR ANY OTHER PRINCIPAL BUILDING
G. REAR YARD: DWELLING – 30 FEET; ANY OTHER PRINCIPAL BUILDING – 40 FEET
H. MAXIMUM BUILDING HEIGHT: PRINCIPAL BUILDING – 40 FEET. ACCESSORY BUILDING – 14 FEET.
I. MAXIMUM STORIES: PRINCIPAL BUILDING – 3 STORIES. ACCESSORY BUILDING – 1 STORY

'R–4' ROW DWELLING AND TOWNHOME DISTRICT ZONING REGULATIONS SHALL APPLY TO THIS AREA:

A. PRINCIPAL PERMITTED USES FOR THIS AREA SHALL INCLUDE ROW DWELLINGS OR TOWNHOMES CONSISTING OF NOT MORE THAN 12 DWELLING UNITS IN ONE BUILDING OR ATTACHED STRUCTURE; AND NOT TO EXCEED 6 UNITS IN LENGTH.
B. MINIMUM LOT AREA: 3,500 SQUARE FEET PER UNIT.
C. MINIMUM FLOOR AREA: 800 SQUARE FEET PER UNIT.
D. LOT WIDTH: 20 FEET PER UNIT.
E. FRONT YARD: 30 FEET; WHEN FRONTING ON THE RIGHT–OF–WAY OF A STREET, THE FRONT YARD SHALL BE MEASURED FROM THE PROPOSED RIGHT–OF–WAY LINE.
F. SIDE YARD: A TOTAL OF 15 FEET; ONE SIDE MAY BE REDUCED TO NOT LESS THAN 7 FEET; 15 FEET FOR ANY OTHER PRINCIPAL BUILDING
G. REAR YARD: DWELLING – 30 FEET; ANY OTHER PRINCIPAL BUILDING – 40 FEET
H. MAXIMUM BUILDING HEIGHT: PRINCIPAL BUILDING – 40 FEET. ACCESSORY BUILDING – 14 FEET.
I. MAXIMUM STORIES: PRINCIPAL BUILDING – 3 STORIES. ACCESSORY BUILDING – 1 STORY

'PD–1' PLANNED UNIT DEVELOPMENT DISTRICT W/ UNDERLYING R–2 ZONING REGULATIONS APPLYING TO THIS AREA:

A. PRINCIPAL PERMITTED USES FOR THIS AREA SHALL INCLUDE ONE– AND TWO–FAMILY RESIDENTIAL DWELLINGS.
B. MINIMUM LOT AREA: 7,000 SQUARE FEET.
C. MINIMUM FLOOR AREA: 1,300 SQUARE FEET – SINGLE STORY.
D. LOT WIDTH: 55 FEET.
E. FRONT YARD: 30 FEET.
F. SIDE YARD: A TOTAL OF 10 FEET; ONE SIDE MAY BE REDUCED TO NOT LESS THAN 5 FEET.
G. REAR YARD: DWELLING – 30 FEET

GENERAL LEGEND

PROPOSED		EXISTING	
SECTION LINE	—·—·—·—	SANITARY MANHOLE	Ⓢ
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 — — 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	Ⓢ	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	Ⓔ
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	Ⓣ
SANITARY SERVICE	—S—S—S—S—	TELEPHONE POLE	⊕
STORM SEWER	══════	GAS VALVE BOX	G ⋈
STORM SERVICE	—ST—ST—ST—	CABLE TV JUNCTION BOX	TV
WATERMAIN WITH SIZE	——8"W——	CABLE TV MANHOLE/VAULT	TV
WATER SERVICE	—W—W—W—W—	MAIL BOX	M
SAWCUT (FULL DEPTH)	//////////	BENCHMARK	○BM
SILT FENCE	•—•—•—•	SOIL BORING	⊕SB
USE AS CONSTRUCTED	(UAC)	UNDERGROUND TV CABLE	— —TV— — —TV— —
TOP OF PROPOSED GROUND	TG	GAS MAIN	— —G— — —G— —
MINIMUM OPENING ELEVATION	MOE	FIBER OPTIC	— —FO— — —FO— —
		UNDERGROUND TELEPHONE	— —T— — —T— —
		OVERHEAD ELECTRIC	— —OE— — —OE— —
		UNDERGROUND ELECTRIC	— —E— — —E— —
		FIELD TILE	—— — —TILE— — ——
		SANITARY SEWER W/ SIZE	—— —8"S— — ——
		STORM SEWER W/ SIZE	— — 15" RCP — —
		WATER MAIN W/ SIZE	—— —8"W— — ——

ALL CONSTRUCTION SHALL CONFORM TO THE PROJECT SPECIFICATIONS AND THE SOILS REPORT PREPARED BY CONSTRUCTION MATERIALS TESTING (CMT) (PN 1802048PWW) DATED SEPTEMBER 4, 2018.

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 2018 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN.

CIVIL DESIGN ADVANTAGE
3405 SE CROSSROADS DR. SUITE G GRIMES, IOWA 50111
PH: (515) 369-4400 Fax: (515) 369-4410
PROJECT NO. 1706.340

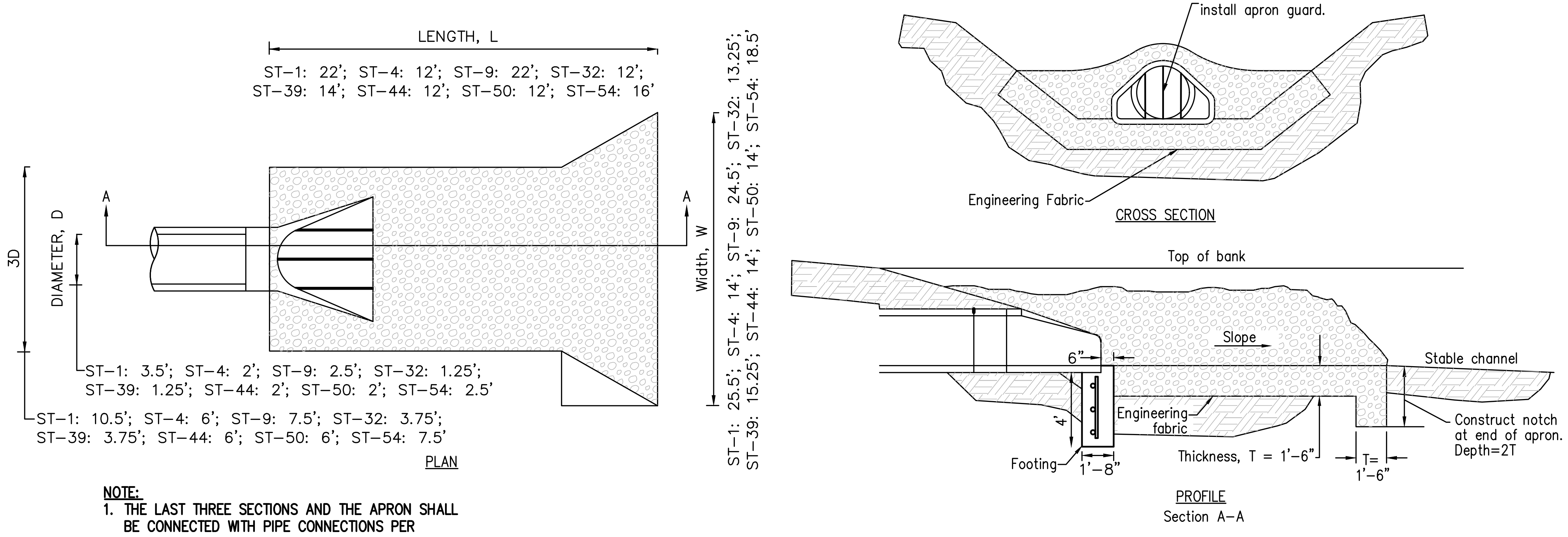
IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

ERIN K. OLLENDIKE
16926

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 07-09-2020
ERIN K. OLLENDIKE, P.E. DATE

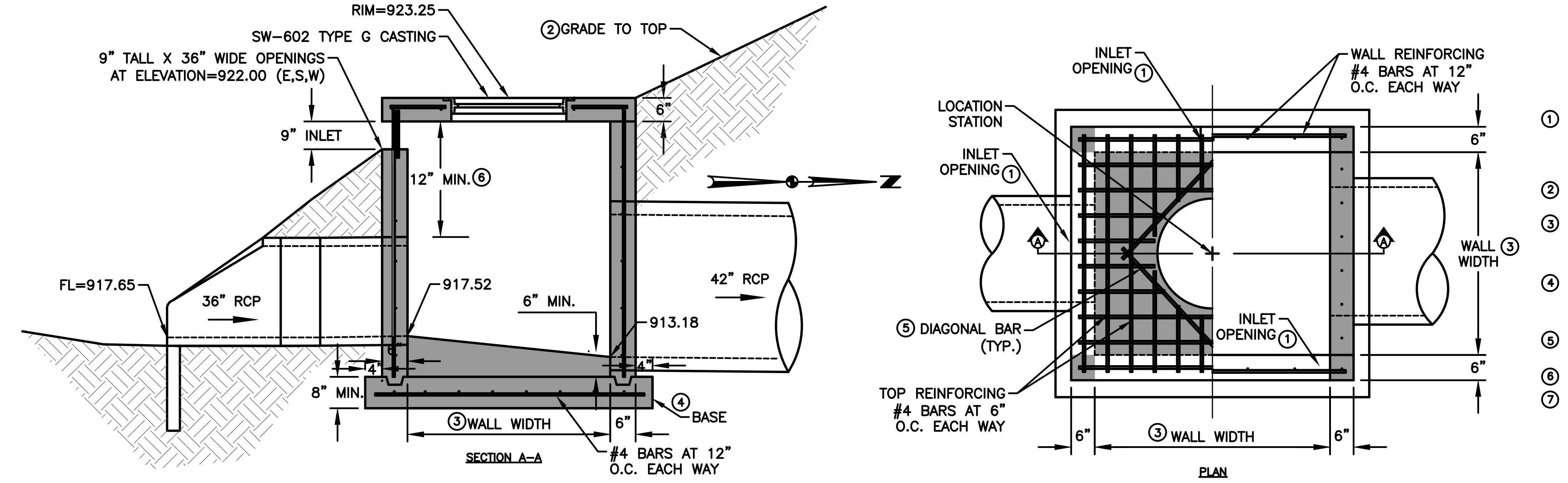
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021
PAGES OR SHEETS COVERED BY THIS SEAL:
1–44


LENGTH, L
ST–1: 22'; ST–4: 12'; ST–9: 22'; ST–32: 12';
ST–39: 14'; ST–44: 12'; ST–50: 12'; ST–54: 16'
3D
DIAMETER, D
A
A
Width, W
ST–1: 25.5'; ST–4: 14'; ST–9: 24.5'; ST–32: 13.25';
ST–39: 15.25'; ST–44: 14'; ST–50: 14'; ST–54: 18.5'
ST–1: 3.5'; ST–4: 2'; ST–9: 2.5'; ST–32: 1.25';
ST–39: 1.25'; ST–44: 2'; ST–50: 2'; ST–54: 2.5'
ST–1: 10.5'; ST–4: 6'; ST–9: 7.5'; ST–32: 3.75';
ST–39: 3.75'; ST–44: 6'; ST–50: 6'; ST–54: 7.5'
PLAN
Contractor shall install apron guard.
Engineering Fabric
CROSS SECTION
Top of bank
Slope
Stable channel
6"
4'
Engineering fabric
Footing
1'–8"
Thickness, T = 1'–6"
T= 1'–6"
Construct notch at end of apron. Depth=2T
PROFILE
Section A–A

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

ROCK APRON FOR PIPE OUTLET

NOT TO SCALE


RIM=923.25
SW–602 TYPE G CASTING
9" TALL X 36" WIDE OPENINGS AT ELEVATION=922.00 (E,S,W)
② GRADE TO TOP
9" INLET
6"
12" MIN. ⑥
FL=917.65
36" RCP
917.52
6" MIN.
42" RCP
913.18
8" MIN.
③ WALL WIDTH
6"
④ BASE
#4 BARS AT 12" O.C. EACH WAY
SECTION A–A
N
INLET OPENING ①
LOCATION STATION
INLET OPENING ①
WALL REINFORCING #4 BARS AT 12" O.C. EACH WAY
6"
WALL WIDTH ③
INLET OPENING ①
⑤ DIAGONAL BAR (TYP.)
TOP REINFORCING #4 BARS AT 6" O.C. EACH WAY
6"
③ WALL WIDTH
6"
PLAN

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 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 3 INLETS OPENING 12" 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.

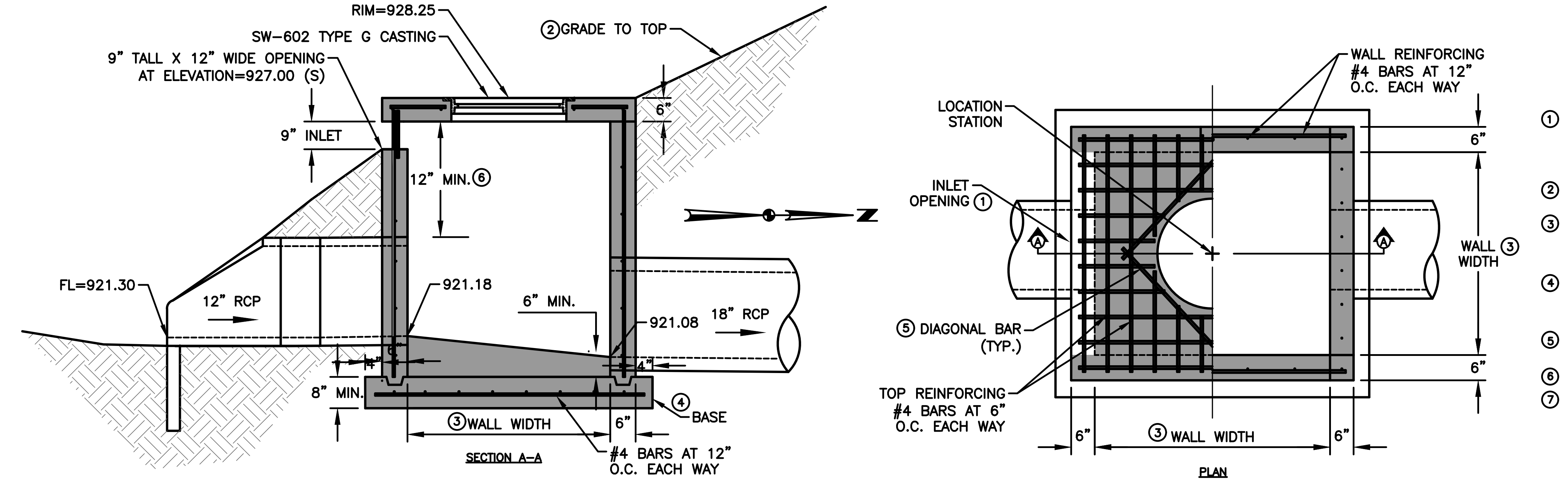
⑤ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

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.

5' X 5' SW-513 INTAKE (ST-2)

NOT TO SCALE


RIM=928.25
SW–602 TYPE G CASTING
9" TALL X 12" WIDE OPENING AT ELEVATION=927.00 (S)
② GRADE TO TOP
9" INLET
6"
12" MIN. ⑥
FL=921.30
12" RCP
921.18
6" MIN.
921.08
18" RCP
8" MIN.
③ WALL WIDTH
6"
④ BASE
#4 BARS AT 12" O.C. EACH WAY
SECTION A–A
N
LOCATION STATION
INLET OPENING ①
WALL REINFORCING #4 BARS AT 12" O.C. EACH WAY
6"
WALL WIDTH
⑤ DIAGONAL BAR (TYP.)
TOP REINFORCING #4 BARS AT 6" O.C. EACH WAY
6"
③ WALL WIDTH
6"
PLAN

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 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS. CONSTRUCT 1 INLET OPENING 9" TALL AND 12" 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.

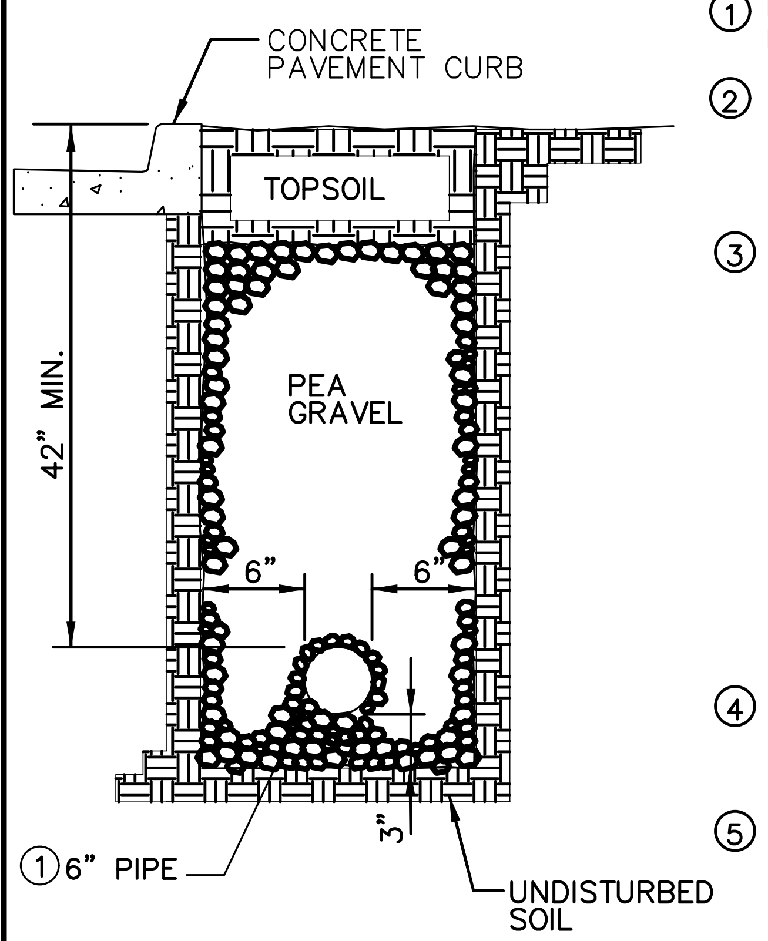
⑤ INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.

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-7)

NOT TO SCALE


CONCRETE PAVEMENT CURB
TOPSOIL
42" MIN.
PEA GRAVEL
6"
6"
3"
① 6" PIPE
UNDISTURBED SOIL

① PLACE PERFORATIONS DOWN FOR ALL INSTALLATIONS.

② ALL SUBDRAINS ARE TO BE TIED INTO STORM SEWER STRUCTURES AND THEIR LOCATIONS ARE TO BE INCLUDED IN THE AS–BUILTS FOR THE SUBDIVISION.

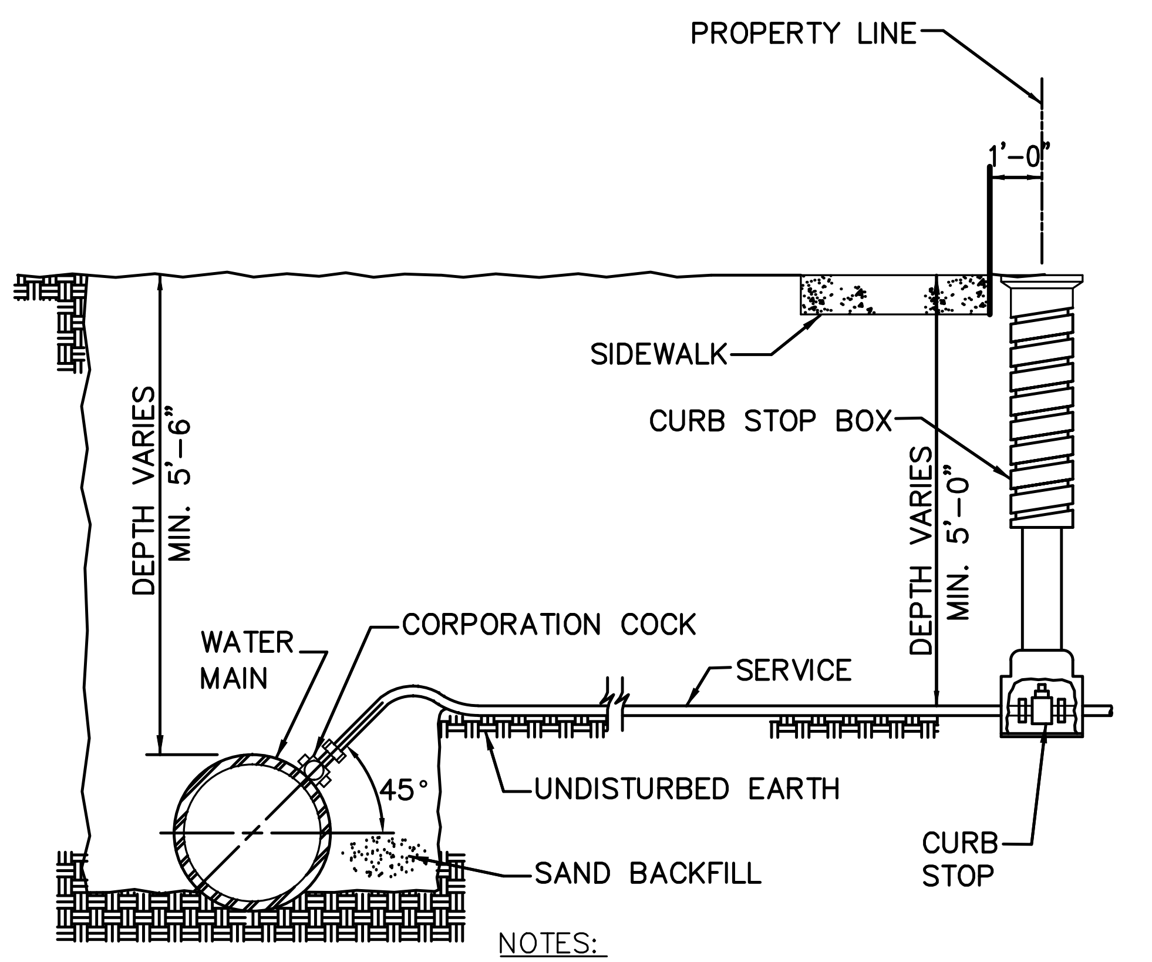
③ THE GEOTECHNICAL ENGINEER SHALL BE PRESENT ONSITE DURING SUBGRADE PREPARATION AND PROOF ROLL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE GEOTECHNICAL ENGINEER IS PRESENT ONSITE AND A COPY OF ALL REPORTS AND FINDINGS REQUIRING ALTERATION FROM THE APPROVED PLAN SET BE PROVIDED TO THE WAUKEE ENGINEERING DEPARTMENT FOR REVIEW AND DISCUSSION PRIOR TO COMMENCING WITH PAVING WITHIN THE PROJECT.

④ CORE DRILL ALL STORM SEWER AND PLACE NON–SHRINK GROUT COLLAR AT CONNECTION.

⑤ RODENT GUARDS ARE TO BE INSTALLED WHERE THE PIPE TIES INTO THE STRUCTURE.

6" PERFORATED SUBDRAIN

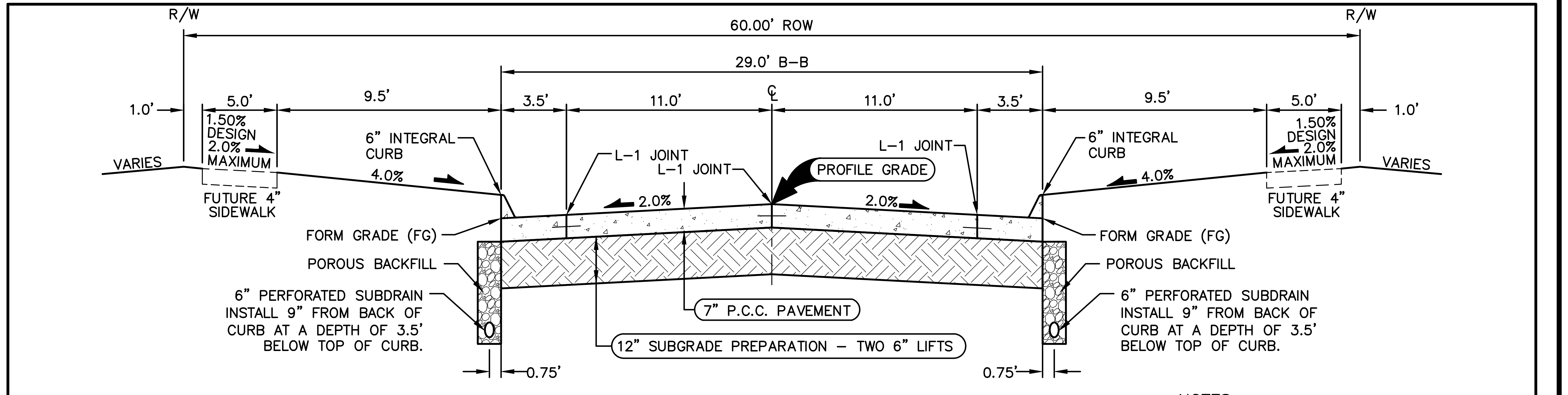
NOT TO SCALE


PROPERTY LINE
1'–0"
SIDEWALK
CURB STOP BOX
DEPTH VARIES MIN. 5'–6"
DEPTH VARIES MIN. 5'–0"
WATER MAIN
CORPORATION COCK
SERVICE
45°
UNDISTURBED EARTH
SAND BACKFILL
CURB STOP

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

WATER SERVICE CONNECTION

NOT TO SCALE

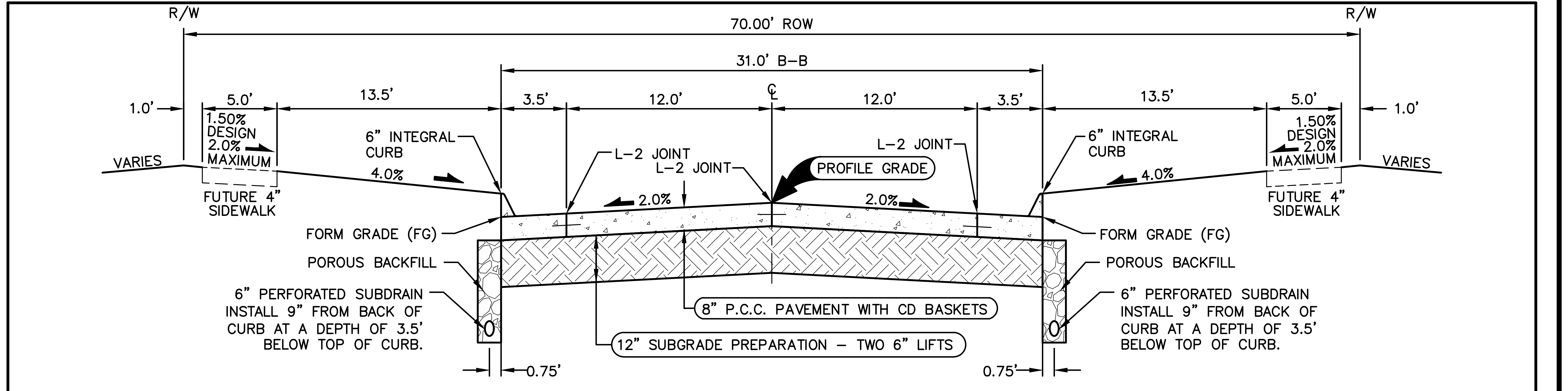

R/W
R/W
60.00' ROW
29.0' B–B
1.0'
5.0'
9.5'
3.5'
11.0'
℄
11.0'
3.5'
9.5'
5.0'
1.0'
1.50% DESIGN 2.0% MAXIMUM
VARIES
4.0%
FUTURE 4" SIDEWALK
6" INTEGRAL CURB
L–1 JOINT
L–1 JOINT
L–1 JOINT
PROFILE GRADE
2.0%
2.0%
6" INTEGRAL CURB
4.0%
1.50% DESIGN 2.0% MAXIMUM
VARIES
FUTURE 4" SIDEWALK
FORM GRADE (FG)
POROUS BACKFILL
6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 3.5' BELOW TOP OF CURB.
7" P.C.C. PAVEMENT
12" SUBGRADE PREPARATION – TWO 6" LIFTS
0.75'
0.75'
FORM GRADE (FG)
POROUS BACKFILL
6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 3.5' BELOW TOP OF CURB.

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

NOT TO SCALE

PRAIRIE BLUFF DRIVE (STA 36+76.10 - STA 46+65.28)
DAKOTA CIRCLE, CHEYENNE COURT AND CHEROKEE COURT

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

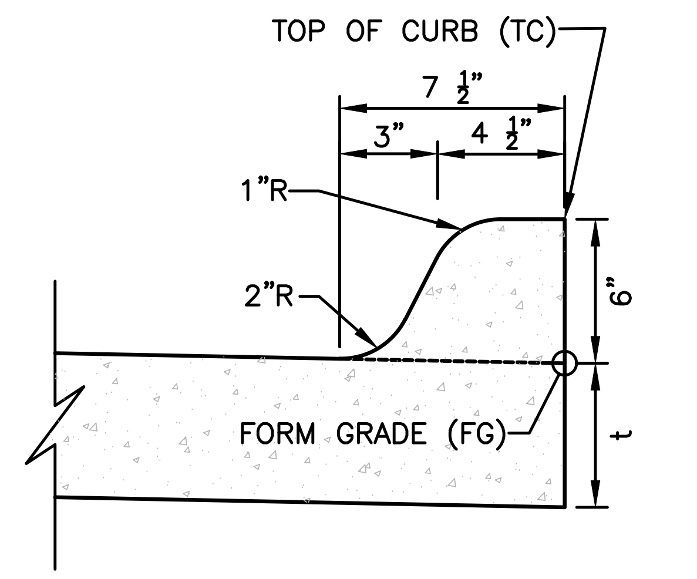

R/W
R/W
70.00' ROW
31.0' B–B
1.0'
5.0'
13.5'
3.5'
12.0'
℄
12.0'
3.5'
13.5'
5.0'
1.0'
1.50% DESIGN 2.0% MAXIMUM
VARIES
4.0%
FUTURE 4" SIDEWALK
6" INTEGRAL CURB
L–2 JOINT
L–2 JOINT
L–2 JOINT
PROFILE GRADE
2.0%
2.0%
6" INTEGRAL CURB
4.0%
1.50% DESIGN 2.0% MAXIMUM
VARIES
FUTURE 4" SIDEWALK
FORM GRADE (FG)
POROUS BACKFILL
6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 3.5' BELOW TOP OF CURB.
8" P.C.C. PAVEMENT WITH CD BASKETS
12" SUBGRADE PREPARATION – TWO 6" LIFTS
0.75'
0.75'
FORM GRADE (FG)
POROUS BACKFILL
6" PERFORATED SUBDRAIN INSTALL 9" FROM BACK OF CURB AT A DEPTH OF 3.5' BELOW TOP OF CURB.

31' B/B P.C.C. ROADWAY WITH 70' R.O.W.

PRAIRIE BLUFF DRIVE (STA 15+95.76 - STA 36+76.10)
INDIAN RIDGE DRIVE

NOT TO SCALE

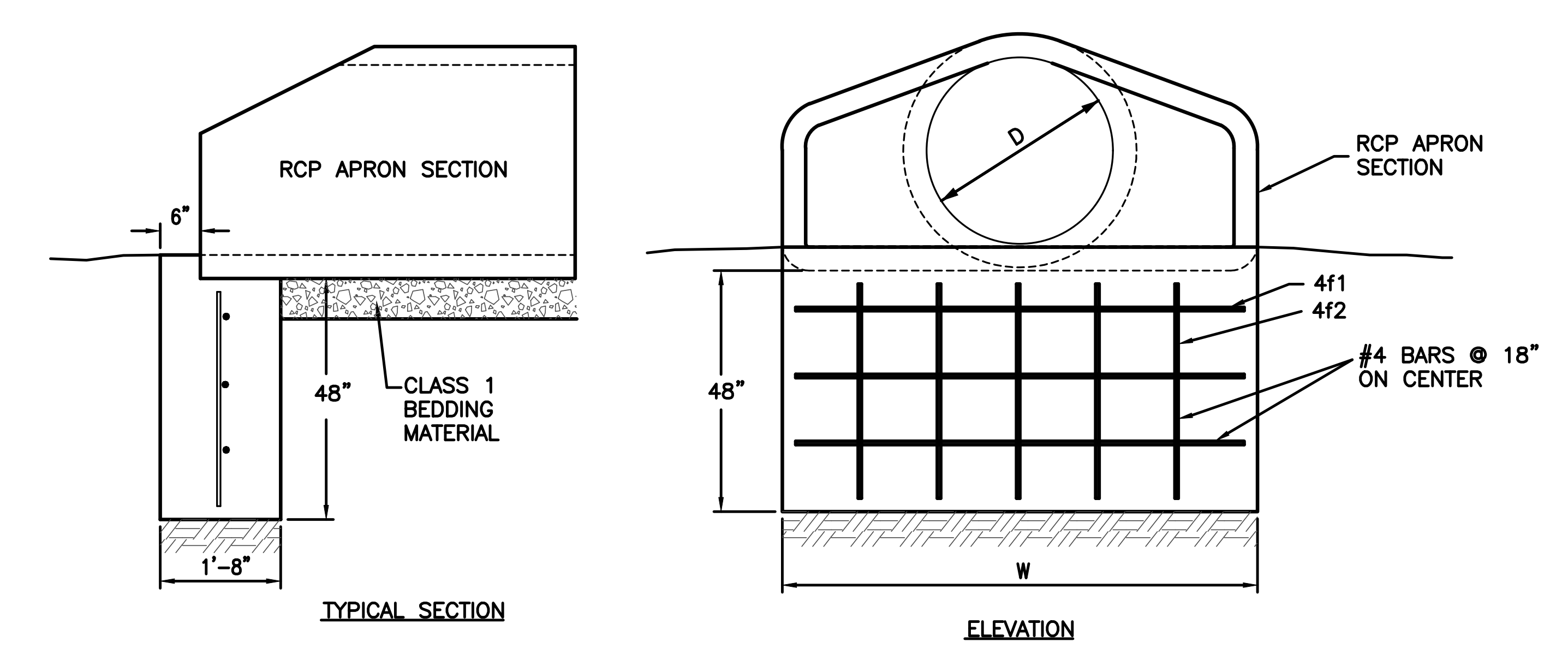
NOTES:
1. PREPARE SUBGRADE IN 2 – 6" LIFTS.
2. MAXIMUM CD JOINT SPACING IS 15'.


TOP OF CURB (TC)
7 1/2"
3"
4 1/2"
1"R
2"R
6"
t
FORM GRADE (FG)

INTEGRAL 6" STANDARD SPOT ELEVATION REFERENCE DETAIL

NOT TO SCALE

–INSTALL A 3 FOOT CLAY WATER STOP AT ALL STORM SEWER OUTLETS.


RCP APRON SECTION
6"
48"
CLASS 1 BEDDING MATERIAL
1'–8"
TYPICAL SECTION
D
RCP APRON SECTION
4f1
4f2
#4 BARS @ 18" ON CENTER
48"
W
ELEVATION

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 1/2"	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

D	W	Mark	Size	Length	Count
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

FILE: H:\2017\1706340\DWG\1706340–COV–DET–TAB–ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:31 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

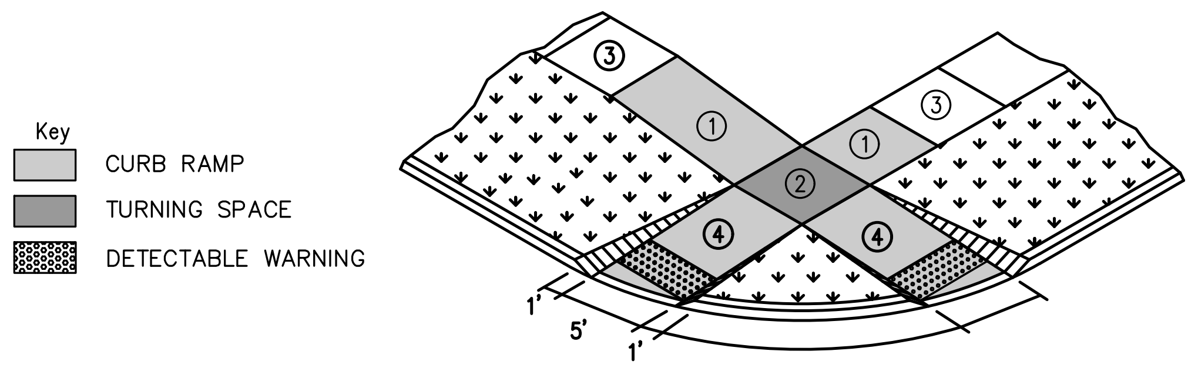
ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

TYPICAL SECTIONS AND DETAILS

WAUKEE, IOWA


Key
CURB RAMP
TURNING SPACE
DETECTABLE WARNING
①
②
③
④
1'
5'
1'

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.

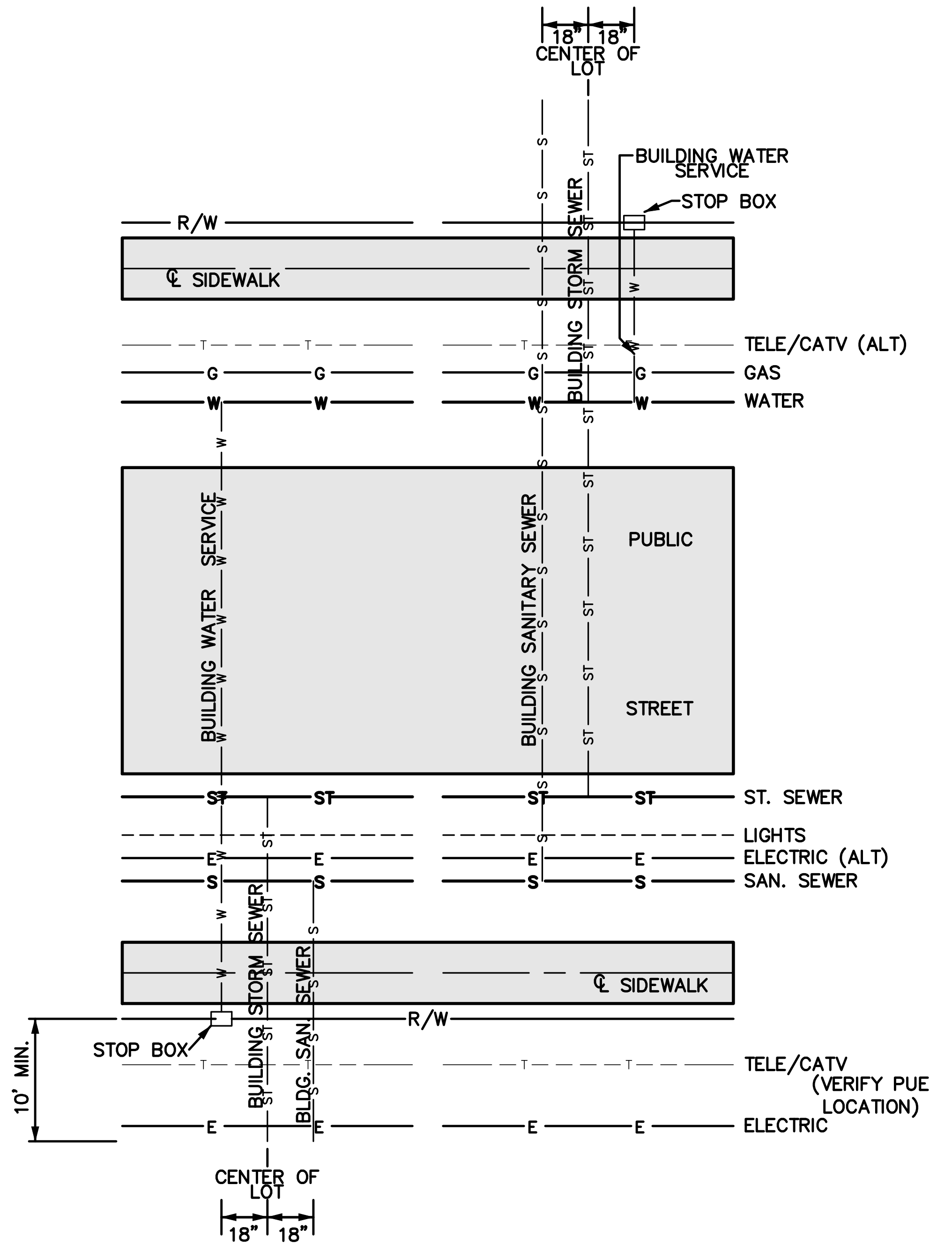
③ Target cross-slope of 1.5% with a maximum cross-slope of 2.0%.

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.

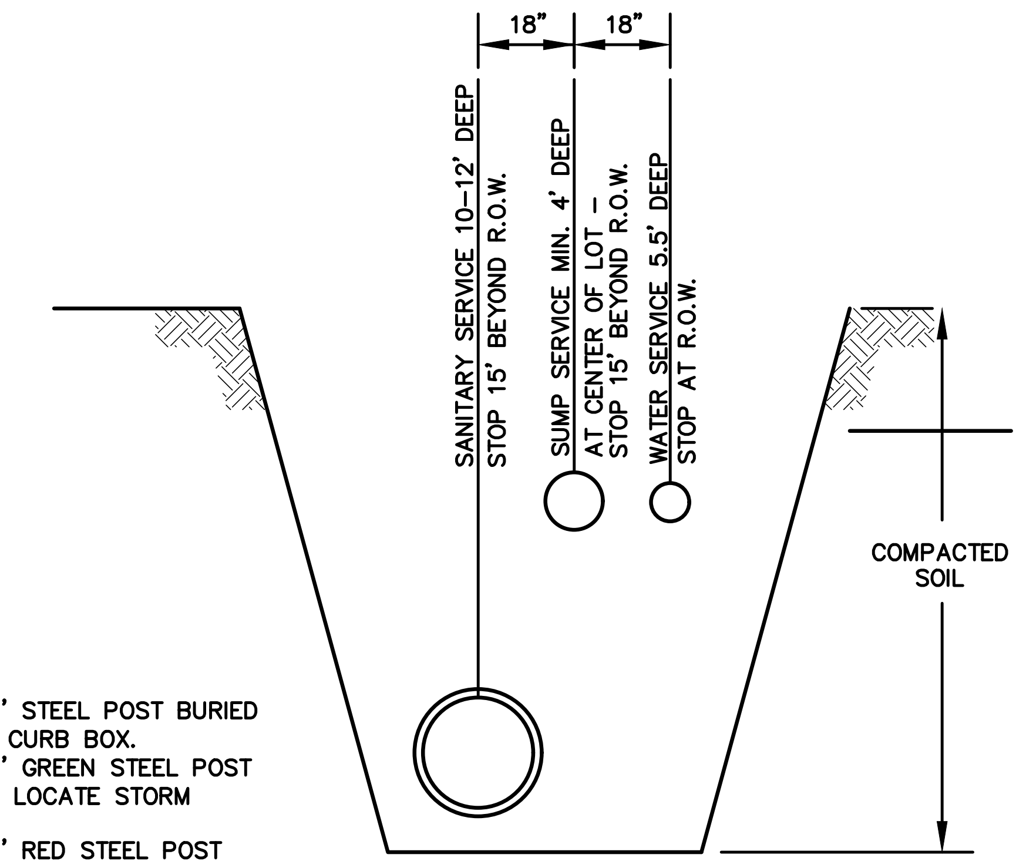
CURB RAMPS OUTSIDE OF INTERSECTION RADIUS

NOT TO SCALE


18" 18"
CENTER OF LOT
BUILDING WATER SERVICE
STOP BOX
R/W
℄ SIDEWALK
BUILDING STORM SEWER
TELE/CATV (ALT)
GAS
WATER
BUILDING WATER SERVICE
BUILDING SANITARY SEWER
PUBLIC
STREET
ST. SEWER
LIGHTS
ELECTRIC (ALT)
SAN. SEWER
℄ SIDEWALK
BUILDING STORM SEWER
BLDG. SAN. SEWER
R/W
STOP BOX
10' MIN.
TELE/CATV (VERIFY PUE LOCATION)
ELECTRIC
CENTER OF LOT
18" 18"

CITY OF WAUKEE UTILITY SERVICE LOCATIONS

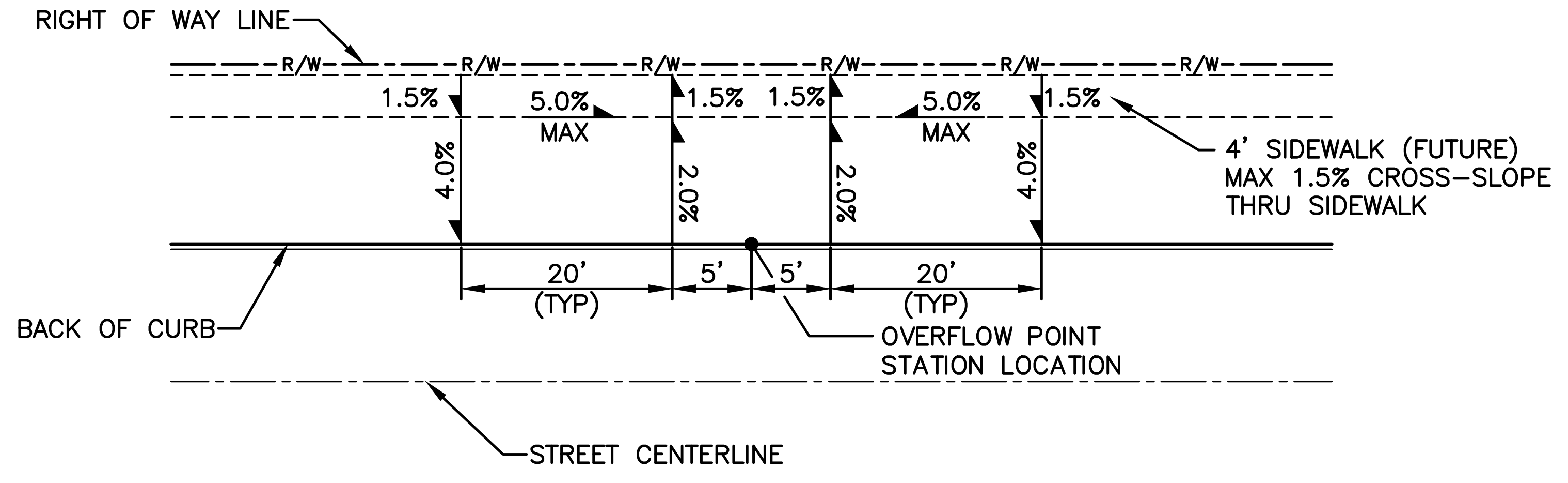
NOT TO SCALE


18" 18"
SANITARY SERVICE 10-12' DEEP STOP 15' BEYOND R.O.W.
SUMP SERVICE MIN. 4' DEEP AT CENTER OF LOT. STOP 15' BEYOND R.O.W.
WATER SERVICE 5.5' DEEP STOP AT R.O.W.
COMPACTED SOIL

NOTES:
1. PLACE ONE 6' STEEL POST BURIED 3' AT WATER CURB BOX.
2. PLACE ONE 6' GREEN STEEL POST BURIED 3' TO LOCATE STORM SERVICE.
3. PLACE ONE 6' RED STEEL POST BURIED 3' TO LOCATE SANITARY SERVICE

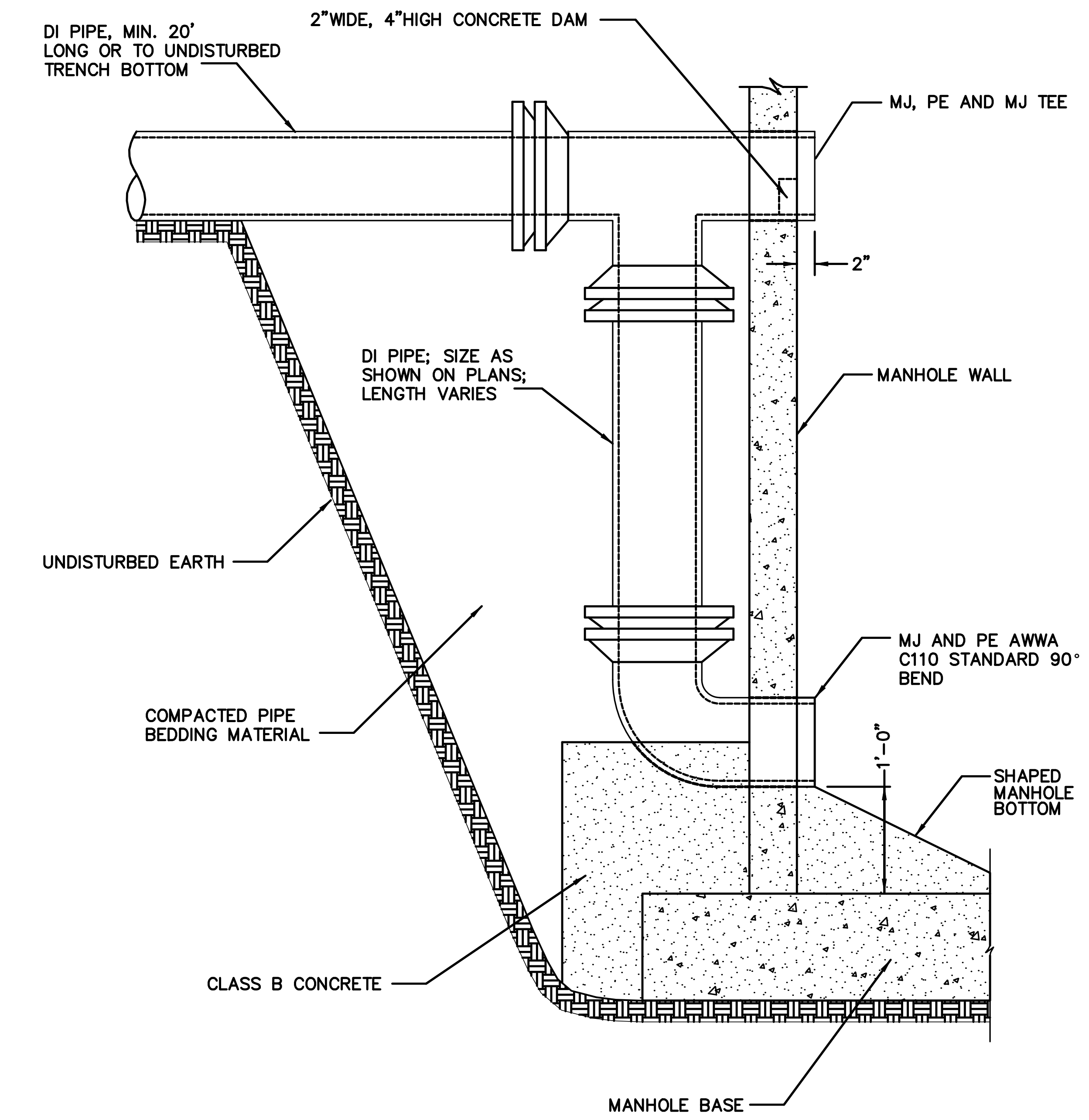
SERVICE LOCATION DETAIL

NOT TO SCALE


RIGHT OF WAY LINE
R/W
R/W
R/W
R/W
1.5%
5.0% MAX
1.5%
1.5%
5.0% MAX
1.5%
4.0%
2.0%
2.0%
4.0%
4' SIDEWALK (FUTURE) MAX 1.5% CROSS-SLOPE THRU SIDEWALK
20' (TYP)
5'
5'
20' (TYP)
BACK OF CURB
OVERFLOW POINT STATION LOCATION
STREET CENTERLINE

TYPICAL RIGHT OF WAY GRADING AT STORM WATER OVERFLOW POINTS

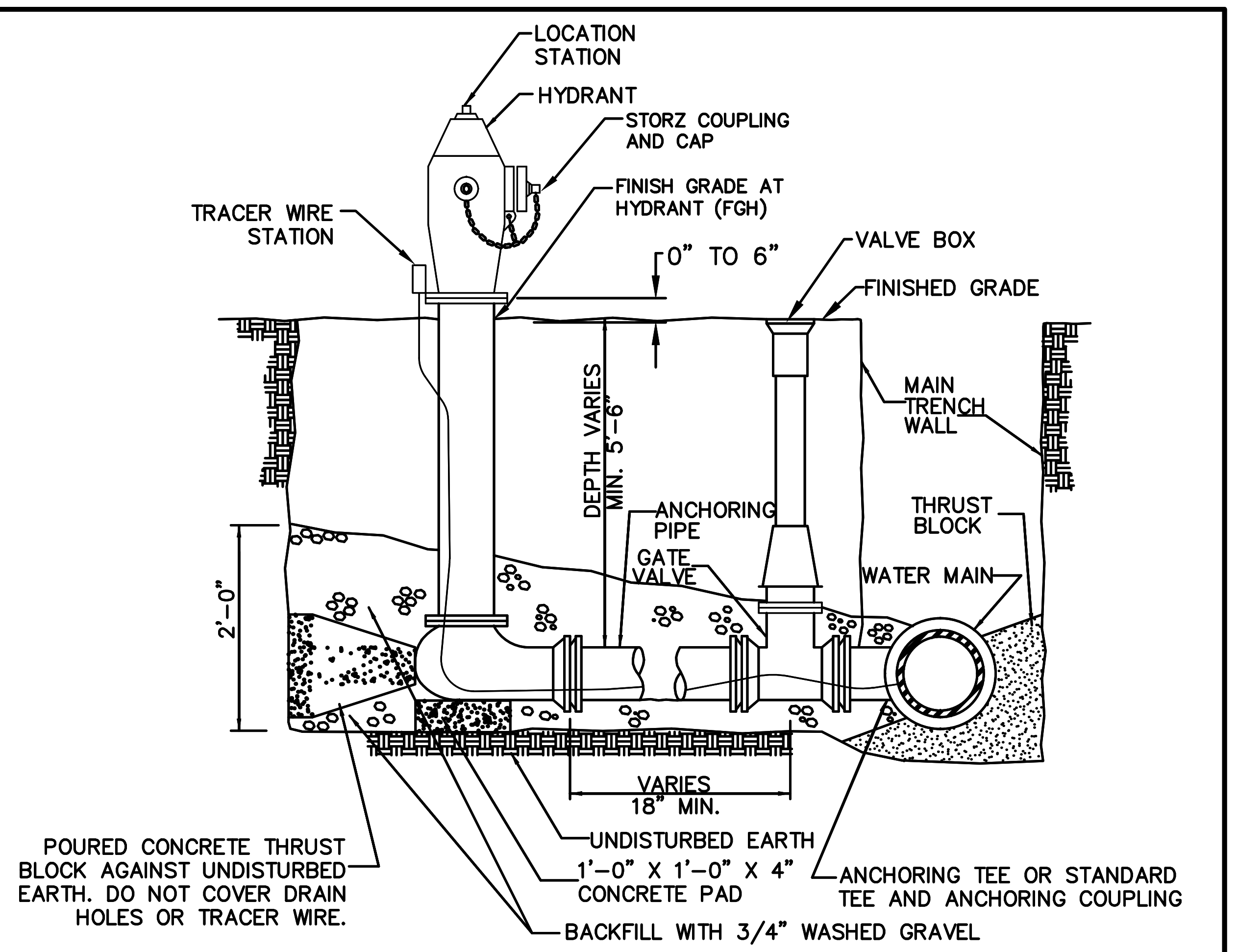
NOT TO SCALE


DI PIPE, MIN. 20' LONG OR TO UNDISTURBED TRENCH BOTTOM
2"WIDE, 4"HIGH CONCRETE DAM
MJ, PE AND MJ TEE
2"
DI PIPE; SIZE AS SHOWN ON PLANS; LENGTH VARIES
MANHOLE WALL
UNDISTURBED EARTH
MJ AND PE AWWA C110 STANDARD 90° BEND
COMPACTED PIPE BEDDING MATERIAL
1'-0"
SHAPED MANHOLE BOTTOM
CLASS B CONCRETE
MANHOLE BASE

NOTES:
1. EXTEND CLASS B CONCRETE SUPPORT FOR MJ AND PE QUARTER BEND 8" ALL SIDES.
2. USE ANSI A21.50 DUCTILE IRON PIPE; MINIMUM THICKNESS CLASS 52; COAT WITH STANDARD COATING INSIDE AND OUT.
3. USE ANSI A21.10 MECHANICAL JOINT FITTINGS; 150 PSI PRESSURE RATING. COAT WITH STANDARD COATING INSIDE AND OUT.
4. GROUT PIPE IN BLOCKOUT WITH NON-SHRINK GROUT IF PRECAST MANHOLE SECTION IS USED.
5. DROP CONNECTIONS NOT PERMITTED ON 18" OR LARGER SEWER PIPE.

OUTSIDE DROP CONNECTION DETAIL

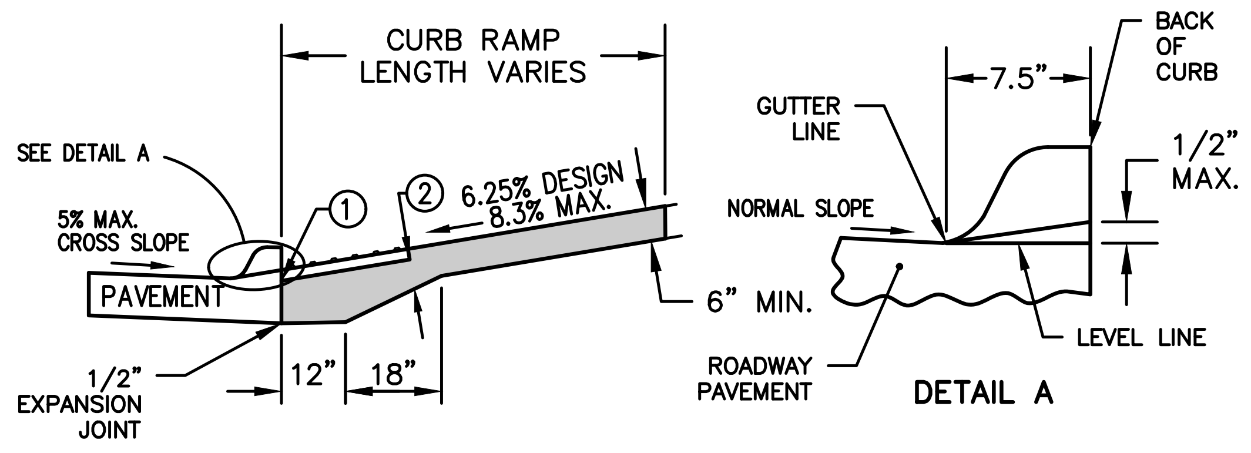
NOT TO SCALE


LOCATION STATION
HYDRANT
STORZ COUPLING AND CAP
FINISH GRADE AT HYDRANT (FGH)
TRACER WIRE STATION
0" TO 6"
VALVE BOX
FINISHED GRADE
MAIN TRENCH WALL
DEPTH VARIES MIN. 5'-6"
ANCHORING PIPE
GATE VALVE
THRUST BLOCK
WATER MAIN
2'-0"
VARIES 18" MIN.
UNDISTURBED EARTH
POURED CONCRETE THRUST BLOCK AGAINST UNDISTURBED EARTH. DO NOT COVER DRAIN HOLES OR TRACER WIRE.
1'-0" X 1'-0" X 4" CONCRETE PAD
ANCHORING TEE OR STANDARD TEE AND ANCHORING COUPLING
BACKFILL WITH 3/4" WASHED GRAVEL

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

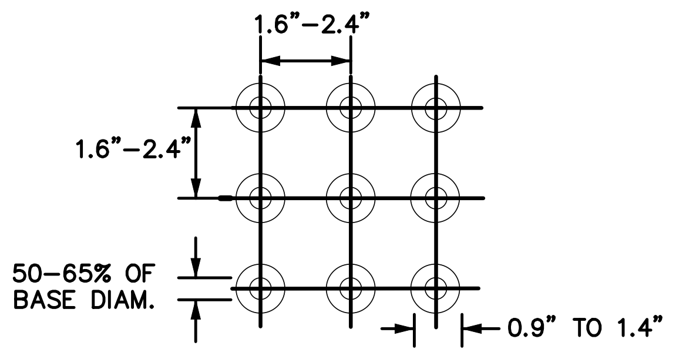
HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

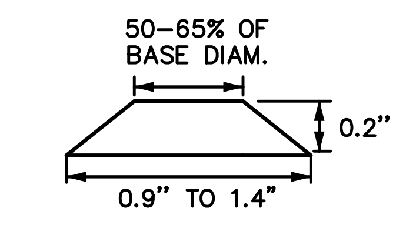

CURB RAMP LENGTH VARIES
SEE DETAIL A
5% MAX. CROSS SLOPE
①
②
6.25% DESIGN 8.3% MAX.
PAVEMENT
1/2" EXPANSION JOINT
12"
18"
6" MIN.
GUTTER LINE
NORMAL SLOPE
ROADWAY PAVEMENT
7.5"
BACK OF CURB
1/2" MAX.
LEVEL LINE
DETAIL A

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.


1.6"-2.4"
1.6"-2.4"
50-65% OF BASE DIAM.
0.9" TO 1.4"

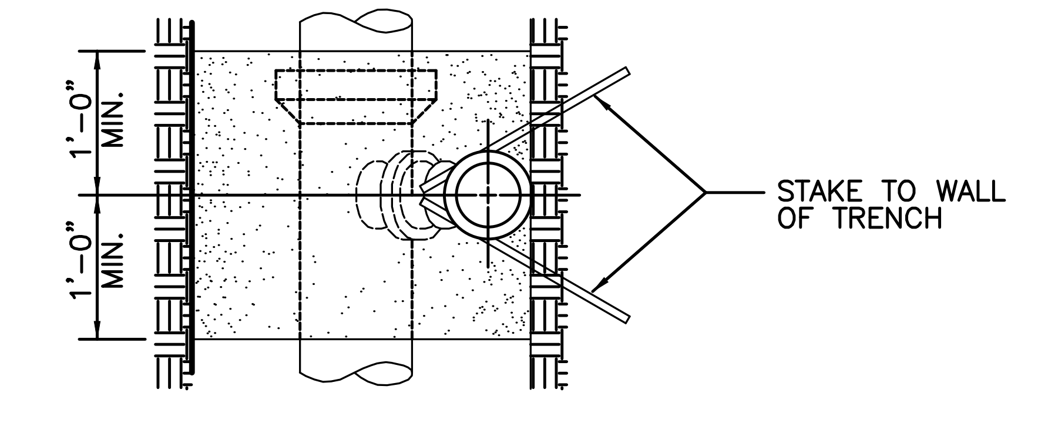
DETECTABLE WARNING ALIGNMENT
(TOP VIEW)


50-65% OF BASE DIAM.
0.2"
0.9" TO 1.4"

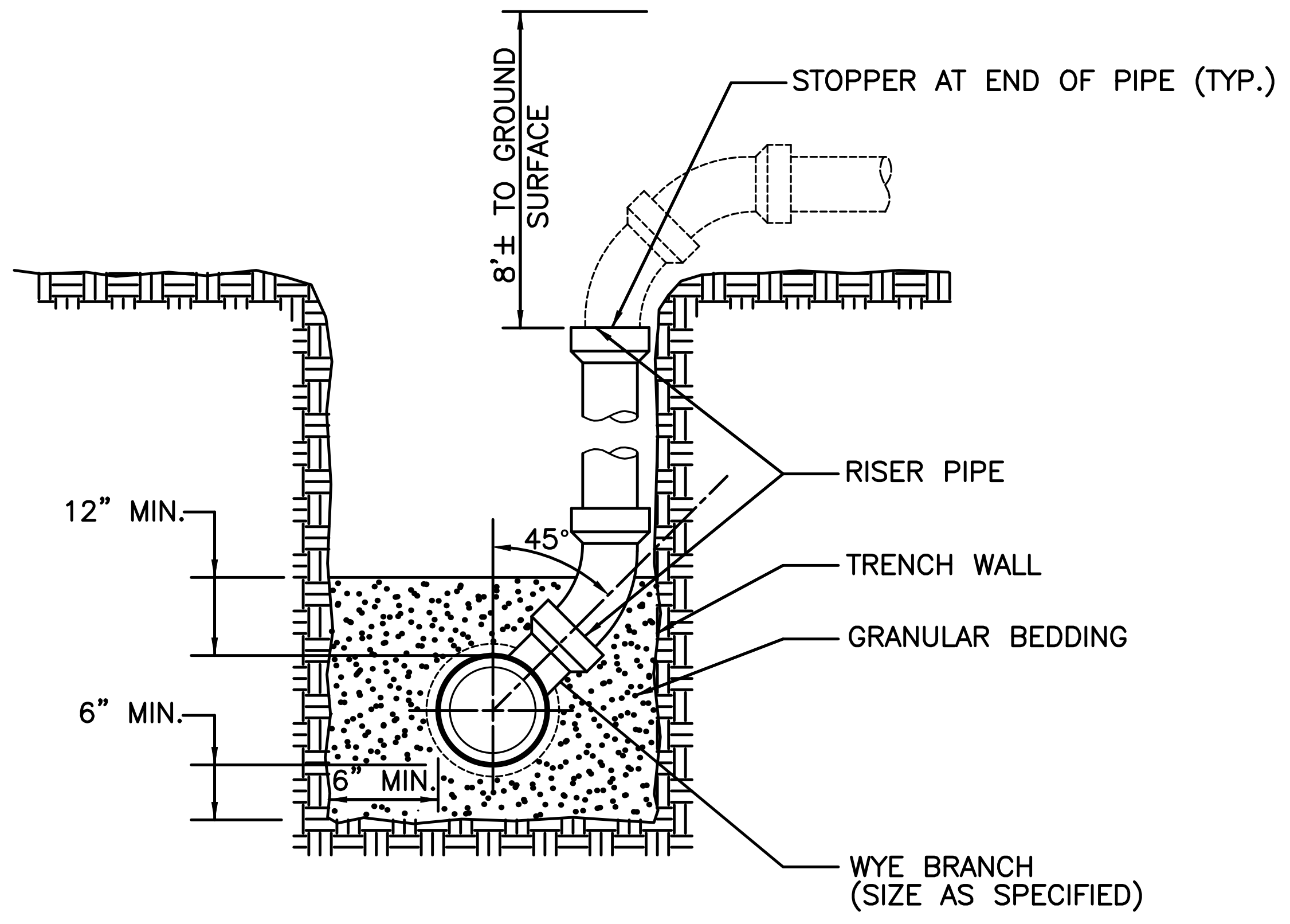
DETECTABLE WARNINGS
(PROFILE)

DETECTABLE WARNING DETAIL

NOT TO SCALE


1'-0" MIN.
1'-0" MIN.
STAKE TO WALL OF TRENCH

PLAN


STOPPER AT END OF PIPE (TYP.)
8'± TO GROUND SURFACE
12" MIN.
45°
RISER PIPE
TRENCH WALL
GRANULAR BEDDING
6" MIN.
6" MIN.
WYE BRANCH (SIZE AS SPECIFIED)

SECTION

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

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ENGINEER: EKO
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CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WAUKEE, IOWA

DETAILS

3/46
1706.340

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1	COMBINED CLEARING AND GRUBBING	AC	41.88
2	STRIPPING, SALVAGING AND SPREAD TOPSOIL	LS	1
3	CLASS 10 EXCAVATION	LS	1
4	SUBGRADE PREPARATION	SY	21,148
5	SANITARY SEWER GRAVITY MAIN, 8" DIA	LF	5,103
6	SANITARY SEWER SERVICE STUB, 4" DIA	EA	75
7	SUBDRAIN, 6" PERFORATED PVC	LF	5,702
8	STORM SEWER, TRENCHED, 8" PERFORATED PVC	LF	1,790
9	STORM SEWER, TRENCHED, 12" RCP	LF	86
10	STORM SEWER, TRENCHED, 15" RCP	LF	1,410
11	STORM SEWER, TRENCHED, 18" RCP	LF	790
12	STORM SEWER, TRENCHED, 24" RCP	LF	1,645
13	STORM SEWER, TRENCHED, 30" RCP	LF	1,098
14	STORM SEWER, TRENCHED, 36" RCP	LF	5
15	STORM SEWER, TRENCHED, 42" RCP	LF	17
16	STORM SEWER SERVICE STUB, 4" DIA	EA	75
17	STORM SEWER, 12" RCP APRON W/ FOOTING & APRON GUARD	EA	2
18	STORM SEWER, 15" RCP APRON W/ FOOTING & APRON GUARD	EA	5
19	STORM SEWER, 18" RCP APRON W/ FOOTING & APRON GUARD	EA	2
20	STORM SEWER, 24" RCP APRON W/ FOOTING & APRON GUARD	EA	5
21	STORM SEWER, 30" RCP APRON W/ FOOTING & APRON GUARD	EA	2
22	STORM SEWER, 36" RCP APRON W/ FOOTING & APRON GUARD	EA	1
23	STORM SEWER, 42" RCP APRON W/ FOOTING & APRON GUARD	EA	1
24	WATER MAIN, 6" DIA	LF	56
25	WATER MAIN, 8" DIA	LF	5,474
26	WATER SERVICE STUB, 1" DIA	EA	75
27	VALVE, 8" DIA	EA	16
28	FIRE HYDRANT ASSEMBLY	EA	23
29	TEMPORARY FIRE HYDRANT ASSEMBLY (REMOVE)	EA	1
30	MANHOLE, SW-301, 48" (SANITARY SEWER)	EA	27
31	MANHOLE, SW-401, 48" (STORM SEWER)	EA	15
32	MANHOLE, SW-401, 60" (STORM SEWER)	EA	4
33	MANHOLE, SW-401, 72" (STORM SEWER)	EA	1
34	INTAKE, SW-501	EA	7
35	INTAKE, SW-503	EA	8
36	INTAKE, SW-505	EA	7
37	INTAKE, SW-506	EA	6
38	INTAKE, SW-513	EA	2
39	PAVEMENT, 7" P.C.C.	SY	10,626
40	PAVEMENT, 8" P.C.C. WITH CD BASKETS	SY	8,161
41	PAVEMENT, 4" P.C.C. SIDEWALK	SY	341
42	PAVEMENT, 6" P.C.C. SHARED USE PATH	SY	685
43	PAVEMENT, 6" P.C.C. SIDEWALK RAMPS	SY	144
44	DETECTABLE WARNING PANELS	SF	204
45	SEEDING, FERTILIZING, AND MULCHING	AC	37.80
46	PERMANENT ROAD CLOSURE, URBAN, SI-182 (REMOVE)	EA	5
47	TRAFFIC CONTROL	LS	1
48	EROSION CONTROL	LS	1
49	ROCK OUTLET PROTECTION, CLASS 'E' RIP RAP	TONS	120
50	STORM SEWER CLEANOUT	EA	14
51	SANITARY SEWER CLEANOUT	EA	1
52	MAILBOX PAD	EA	6
53	LANDSCAPING	LS	1

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS AND TO THE 2018 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.

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 4-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.

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 2018 EDITION OF SUDAS STANDARD SPECIFICATIONS SHALL APPLY TO ALL WORK PERFORMED ON THIS PROJECT EXCEPT AS MODIFIED HEREIN. ALL REFERENCES TO SECTIONS AND FIGURES ARE TO THE SUDAS STANDARD SPECIFICATIONS. CITY OF WAUKEE STANDARD DETAILS SHALL GOVERN IF ANY DISCREPANCIES.
1	CLEAR AND GRUB ALL AREAS AFFECTED BY GRADING OPERATIONS. THE CONTRACTOR SHALL FIELD VERIFY CLEARING AND GRUBBING NEEDS PRIOR TO BIDDING. INCLUDES REMOVAL OF ANY EXISTING FIELD FENCE. ALL MATERIAL THAT IS REMOVED FROM THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDED REMOVAL OF EXISTING CROPS FOR CONSTRUCTION OF TEMPORARY ACCESS. DO NOT DISTURB CROPS OUTSIDE OF THE PROJECT LIMITS. AREA SHOWN FOR REFERENCE ONLY.
2	STRIP, SALVAGE AND RE-SPREAD TOPSOIL PER SECTION 2010 OF SUDAS STANDARD SPECIFICATIONS OR PROVIDE THE CITY WITH A TOPSOIL PRESERVATION PLAN. TOPSOIL TO BE RESPREAD SHALL BE FREE OF ROCK AND DEBRIS AND BE SUITABLE FOR THE GROWTH OF GRASS. COORDINATE LOCATION OF STOCKPILE WITH OWNER.
3	EXCAVATION INCLUDES ALL WORK NECESSARY TO ACHIEVE PROPER GRADES AS SHOWN IN THE PLANS. NO PAYMENT FOR OVERHAUL SHALL BE ALLOWED.
4	REFER TO SHEET 2 FOR TYPICAL LOCATIONS AND THICKNESS.
5	SANITARY SEWER FOR 8" 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.
6,16,26	REFER TO DETAILS ON SHEETS 2, 3 AND PLAN AND PROFILE SHEETS FOR LOCATION AND DEPTH. STORM SEWER SERVICES TYING INTO EXISTING RCP PIPE ARE TO BE CORE DRILLED.
17–23	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.
24–26	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.
28–29	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, STORZ FITTINGS, POLYETHYLENE WRAP, THRUST BLOCK AND TRACER WIRE SYSTEM AND FIRE HYDRANT.
27–29	REFER TO SHEETS 29–40 FOR LOCATIONS OF HYDRANTS AND VALVES.
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.

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
31–33	REFER TO FIG. 6010.401 – CIRCULAR STORM SEWER MANHOLE (SW-401) FOR CONSTRUCTION DETAILS. MANHOLE INSIDE DIAMETERS GREATER THAN 48" SHALL BE CONSIDERED INCIDENTAL.
34–37	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". ST-5 AND ST-6 ARE TO BE CONSTRUCTED WITH 8" WALLS.
34	REFER TO FIG. 6010.501 – SINGLE GRATE INTAKE (SW-501) FOR CONSTRUCTION DETAILS.
35	REFER TO FIG. 6010.503 – SINGLE GRATE INTAKE WITH MANHOLE (SW-503) FOR CONSTRUCTION DETAILS.
36	REFER TO FIG. 6010.505 – DOUBLE GRATE INTAKE (SW-505) FOR CONSTRUCTION DETAILS.
37	REFER TO FIG. 6010.506 – DOUBLE GRATE INTAKE WITH MANHOLE (SW-506) FOR CONSTRUCTION DETAILS.
38	REFER TO SHEET 2 FOR CONSTRUCTION DETAILS.
39–40	REFER TO FIG. 7010.101 – JOINTS (PV-101) FOR JOINT DETAILS. MAXIMUM C AND CD JOINT SPACING IS 15 FEET.
43	REFER TO FIG. 7030.204 – GENERAL SIDEWALK AND ACCESSIBLE RAMP DETAILS AND FIG. 7030.208 – CURB RAMPS WITHIN INTERSECTION RADIUS FOR CLASS B OR C SIDEWALK FOR CONSTRUCTION DETAILS. DETECTABLE WARNING PANELS TO BE ARMOR TILE, ADA SOLUTIONS OR APPROVED EQUAL, BRICK RED IN COLOR. ACCESSIBLE CURB RAMPS INCLUDING TURNING SPACES SHALL BE 6" THICK P.C.C.
44	REFER TO SHEET 3 FOR CONSTRUCTION DETAILS.
45	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 = 3.99 AC –TYPE 4 URBAN TEMPORARY EROSION CONTROL MIXTURE = 33.81 AC
46	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.
47	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.
48	REFER TO SHEETS 11–13 OF THE CONSTRUCTION DRAWINGS FOR EROSION AND SEDIMENT CONTROLS AND GRADING OF TEMPORARY SEDIMENT BASINS. REFER TO SEPARATE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR SPECIFIC DETAILS.
49	INSTALL ENGINEERING FABRIC UNDER ALL RIP RAP. ENGINEERING FABRIC SHALL BE CONSIDERED INCIDENTAL. REFER TO STORM AND SANITARY PLAN AND PROFILE SHEETS FOR LOCATION.
50	REFER TO FIG. 4040.232 – SUBDRAIN CLEANOUTS FOR CONSTRUCTION DETAILS.
51	REFER TO FIG. 4010.203 – SANITARY SEWER CLEANOUT FOR CONSTRUCTION DETAILS.
52	REFER TO SHEET 5 FOR CONSTRUCTION DETAILS. MAILBOX PADS ARE LOCATED BETWEEN LOTS 9/10, 49, 58/59, 66/67, 73/74.
53	REFER TO SHEETS 45–46 FOR LANDSCAPE PLAN.

DATE	REVISIONS
06/30/20	AS-BUILT SUBMITTAL
06/28/19	REVISED STORM SEWER
03/07/19	REVISED SIDEWALK
10/30/18	FINAL SUBMITTAL
10/05/18	FOURTH SUBMITTAL
09/25/18	THIRD SUBMITTAL

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CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

QUANTITIES, GENERAL NOTES AND BID ITEM REFERENCE NOTES

WAUKEE, IOWA

4/46

1706.340

FILE: H:\2017\1706340\DWG\1706340-COV-DET-TAB-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:31 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
CHEYENNE COURT
OUTLOT 'T'
OUTLOT 'V'
150' HYDRANT RADIUS (TYP)
150' HYDRANT RADIUS (TYP)
150' HYDRANT RADIUS (TYP)
EX 6" TILE FL=944.88
1
2
3
4
5
6
7
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27
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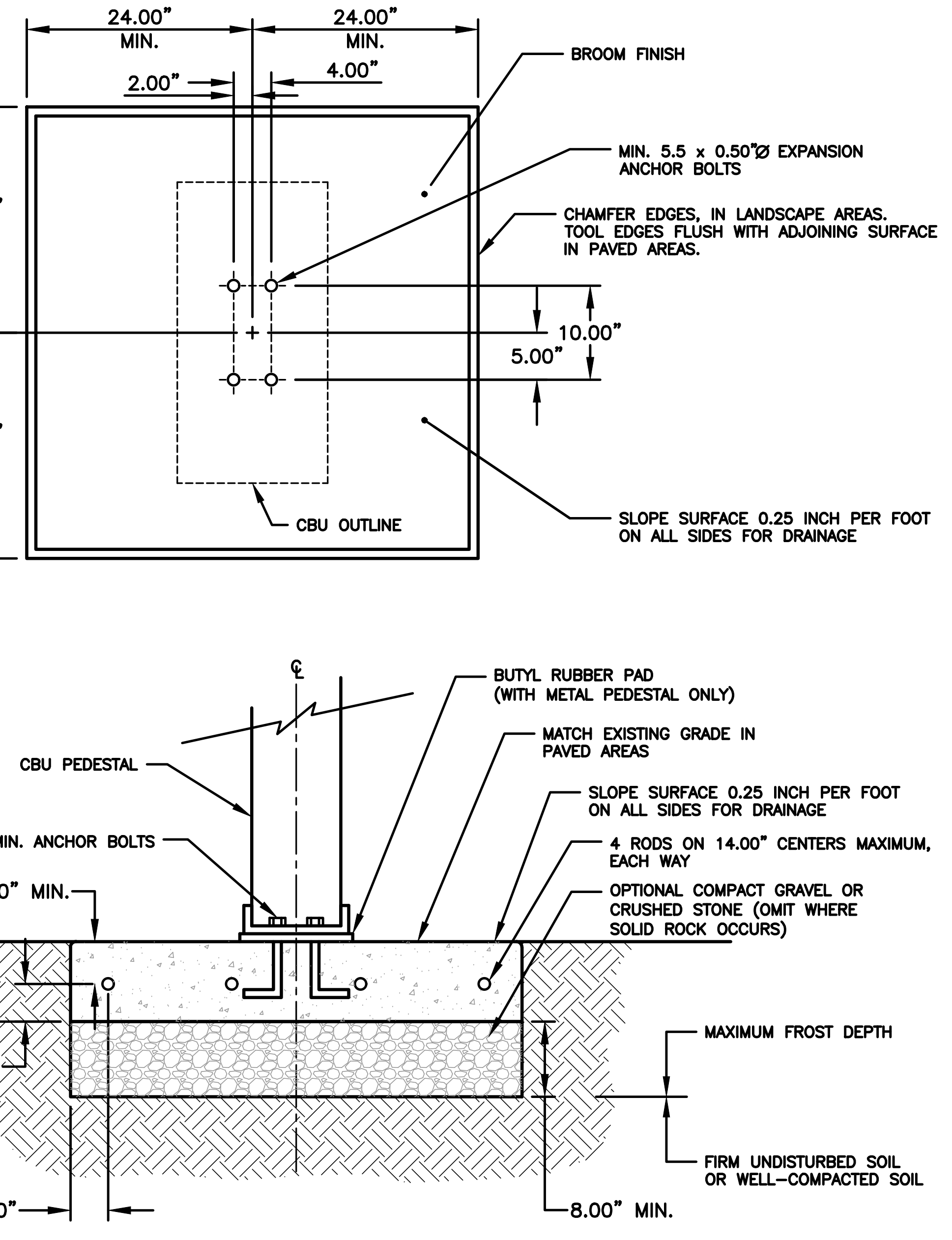
69
70
71
72
73
74
75
R/W
P/E
N
SCALE
0'
30'
60'
120'

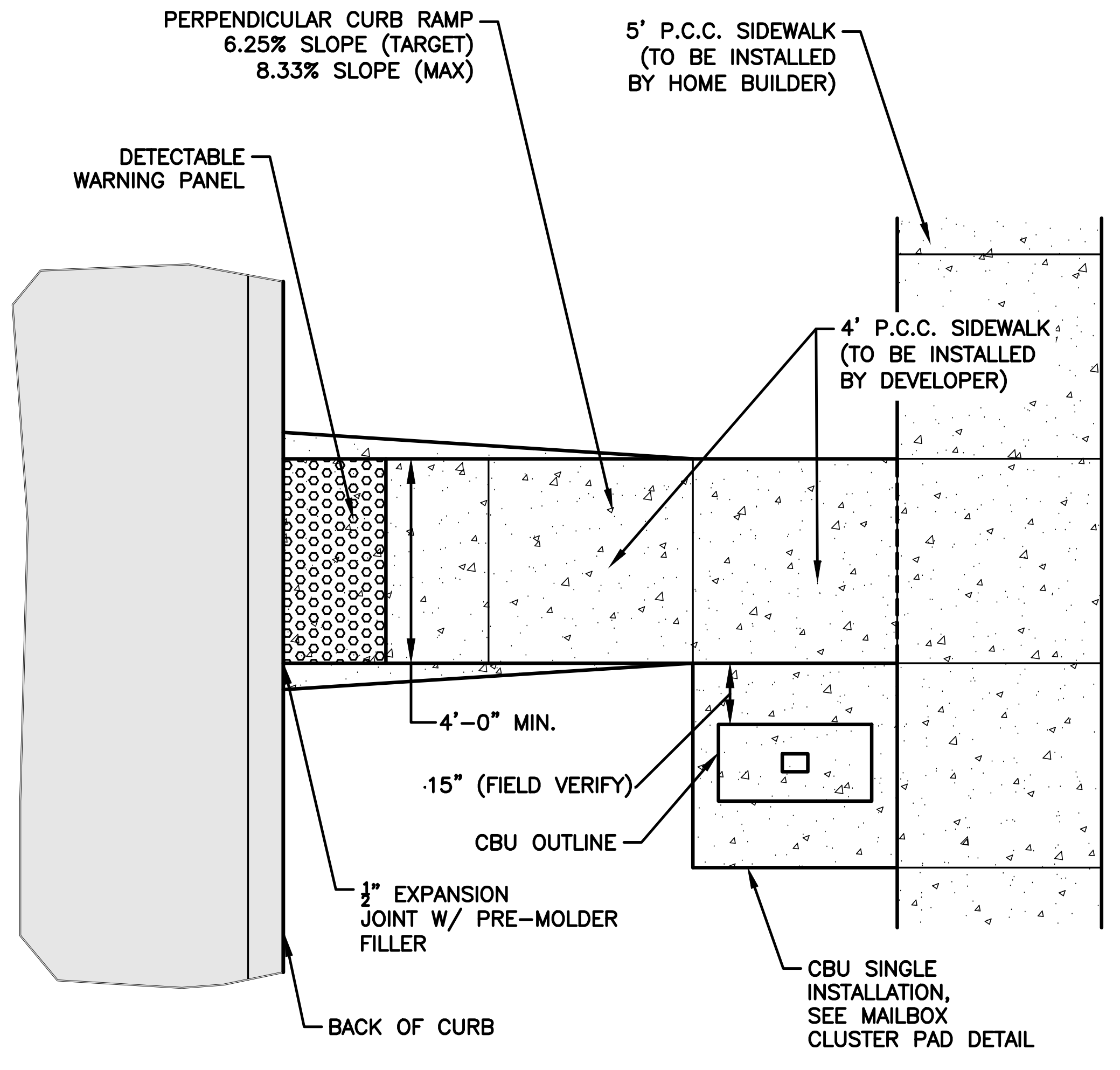

24.00" MIN.
24.00" MIN.
2.00"
4.00"
24.00" MIN.
24.00" MIN.
10.00"
5.00"
BROOM FINISH
MIN. 5.5 x 0.50"Ø EXPANSION ANCHOR BOLTS
CHAMFER EDGES, IN LANDSCAPE AREAS. TOOL EDGES FLUSH WITH ADJOINING SURFACE IN PAVED AREAS.
CBU OUTLINE
SLOPE SURFACE 0.25 INCH PER FOOT ON ALL SIDES FOR DRAINAGE
℄
CBU PEDESTAL
BUTYL RUBBER PAD (WITH METAL PEDESTAL ONLY)
MATCH EXISTING GRADE IN PAVED AREAS
SLOPE SURFACE 0.25 INCH PER FOOT ON ALL SIDES FOR DRAINAGE
5.5x0.50"Ø MIN. ANCHOR BOLTS
4 RODS ON 14.00" CENTERS MAXIMUM, EACH WAY
4 x 4.00" MIN.
OPTIONAL COMPACT GRAVEL OR CRUSHED STONE (OMIT WHERE SOLID ROCK OCCURS)
8.00" MIN.
4 x 4.00" MIN.
MAXIMUM FROST DEPTH
FIRM UNDISTURBED SOIL OR WELL-COMPACTED SOIL
3.00"
8.00" MIN.

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) II–1/2" DIAMETER X 5–1/2" OVERALL LENGTH. GALVANIZED, CATALOG # 000–453–696 KB II 12–512, STAINLESS STEEL: CATALOG # 000–454–744. ENSURE THAT THE MIN. EMBEDMENT IN CONCRETE IS AT LEAST 3–1/2"
   B. ITW RAMSET REDHEAD TRUBOLT (WWW.RAMSET–REDHEAD.COM) GALVANIZED, 1/2" DIAMETER X 7" OVERALL LENGTH;
      CATALOG NUMBER: WS–1270G. ENSURE THAT MIN. EMBEDMENT 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


PERPENDICULAR CURB RAMP 6.25% SLOPE (TARGET) 8.33% SLOPE (MAX)
5' P.C.C. SIDEWALK (TO BE INSTALLED BY HOME BUILDER)
DETECTABLE WARNING PANEL
4' P.C.C. SIDEWALK (TO BE INSTALLED BY DEVELOPER)
4'–0" MIN.
15" (FIELD VERIFY)
CBU OUTLINE
½" EXPANSION JOINT W/ PRE–MOLDER FILLER
CBU SINGLE INSTALLATION, SEE MAILBOX CLUSTER PAD DETAIL
BACK OF CURB

INSTALLATION NOTE:

1. MAILBOX PADS TO BE INSTALLED BY DEVELOPER.
2. CLUSTER MAILBOX TO BE LOCATED ON THE NO PARKING/STREET LIGHT SIDE OF STREET.
3. DO NOT LOCATE AT INTERSECTION.
4. LOCATE NEAR SHARED PROPERTY LINE PER APPROVED PLAN.

MAILBOX RAMP DETAIL

NOT TO SCALE

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PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
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EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

HYDRANT COVERAGE PLAN

WAUKEE, IOWA

5/46

1706.340

EXISTING 150' HYDRANT RADIUS (TYP)
FEMA FLOODPLAIN (MAP LOCATION)
150' HYDRANT RADIUS (TYP)
150' HYDRANT RADIUS (TYP)
150' HYDRANT RADIUS (TYP)
PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
DAKOTA CIRCLE
CHEYENNE COURT
OUTLOT 'T'
OUTLOT 'V'
OUTLOT 'X'
OUT
EX 6" TILE FL=944.88
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68
69
70
71
72
73
74
75
N
SCALE
0'
30'
60'
120'

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
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PAINTED WOODS SOUTH PLAT 1

HYDRANT COVERAGE PLAN

WAUKEE, IOWA

6/46

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COMMENT:
TECH: ENG:

EXISTING 150' HYDRANT RADIUS (TYP)
FEMA FLOODPLAIN (MAP LOCATION)
OUTLOT 'W'
150' HYDRANT RADIUS (TYP)
INDIAN RIDGE DRIVE
CHEROKEE COURT
PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
OUTLOT 'X'
OUTLOT 'Y'
OUTLOT 'Z'
OUTLOT 'U'
150' HYDRANT RADIUS (TYP)
11
12
13
14
15
16
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52
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54
55
56
57
58
59
60
61
62
63
R/W
P/E
8"W
N
SCALE
0'
30'
60'
120'

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PAINTED WOODS SOUTH PLAT 1

HYDRANT COVERAGE PLAN

WAUKEE, IOWA

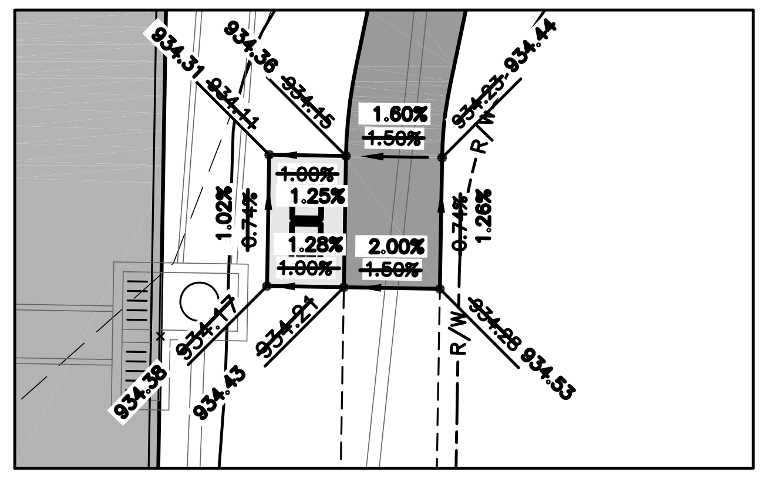
7/46

1706.340

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.
3. LOT 69 WILL REQUIRE A DETAILED GRADING PLAN FOR INDIVIDUAL LOT DEVELOPMENT.

AREA OF DISTURBANCE = 41.88 AC



MAILBOX RAMP DETAIL #5

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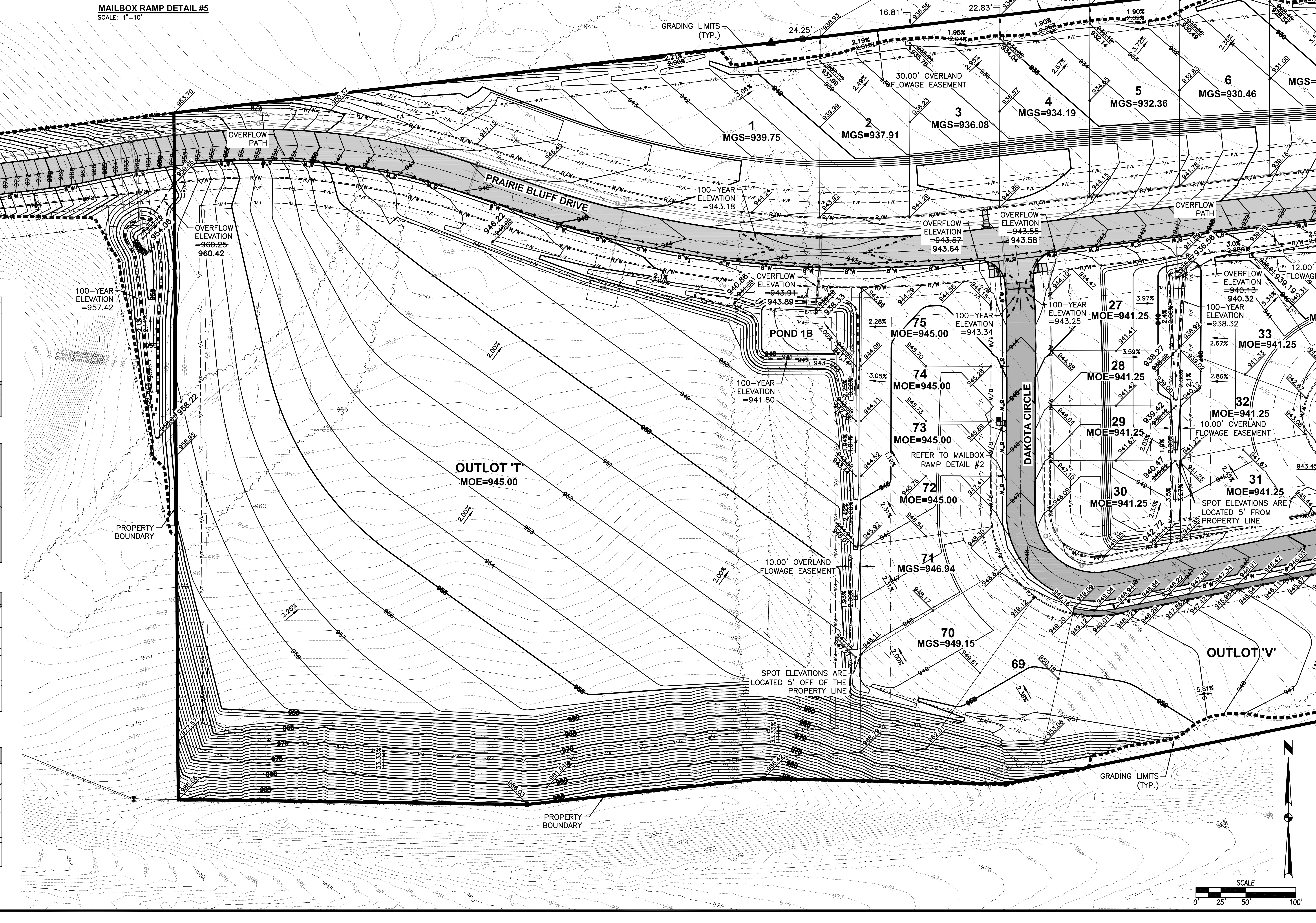
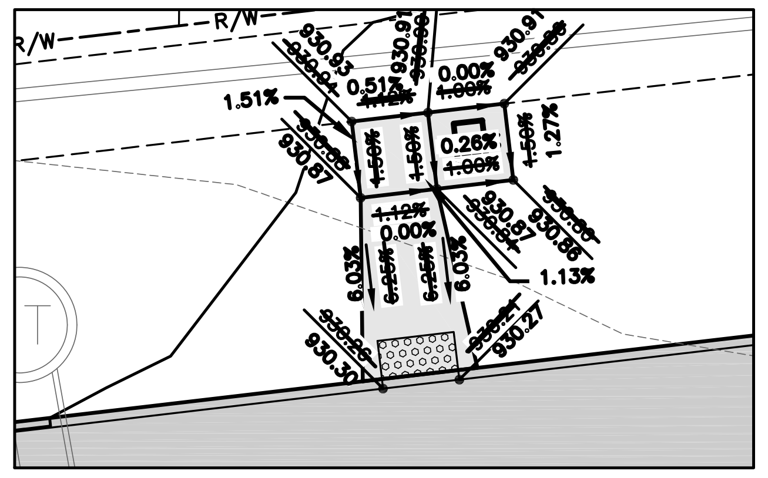
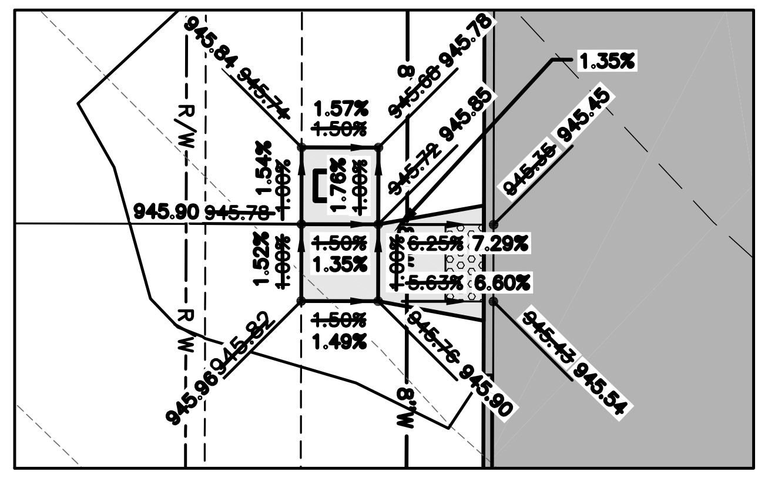


PROPERTY BOUNDARY
GRADING LIMITS (TYP.)
30.00' OVERLAND FLOWAGE EASEMENT
1 MGS=939.75
2 MGS=937.91
3 MGS=936.08
4 MGS=934.19
5 MGS=932.36
6 MGS=930.46
OVERFLOW PATH
PRAIRIE BLUFF DRIVE
100-YEAR ELEVATION =943.18
OVERFLOW ELEVATION =943.57 943.64
OVERFLOW ELEVATION =943.55 943.58
OVERFLOW ELEVATION =960.25 960.42
100-YEAR ELEVATION =957.42
OVERFLOW ELEVATION =943.91 943.89
POND 1B
100-YEAR ELEVATION =941.80
100-YEAR ELEVATION =943.34
100-YEAR ELEVATION =943.25
OVERFLOW ELEVATION =940.13 940.32
100-YEAR ELEVATION =938.32
12.00' FLOWAGE
75 MOE=945.00
74 MOE=945.00
73 MOE=945.00
72 MOE=945.00
71 MGS=946.94
70 MGS=949.15
69
REFER TO MAILBOX RAMP DETAIL #2
DAKOTA CIRCLE
27 MOE=941.25
28 MOE=941.25
29 MOE=941.25
30 MOE=941.25
31 MOE=941.25
32 MOE=941.25
33 MOE=941.25
10.00' OVERLAND FLOWAGE EASEMENT
SPOT ELEVATIONS ARE LOCATED 5' FROM PROPERTY LINE
OUTLOT 'T' MOE=945.00
10.00' OVERLAND FLOWAGE EASEMENT
SPOT ELEVATIONS ARE LOCATED 5' OFF OF THE PROPERTY LINE
OUTLOT 'V'
GRADING LIMITS (TYP.)
PROPERTY BOUNDARY
SCALE
0' 25' 50' 100'



MAILBOX RAMP DETAIL #1

SCALE: 1"=10'



MAILBOX RAMP DETAIL #2

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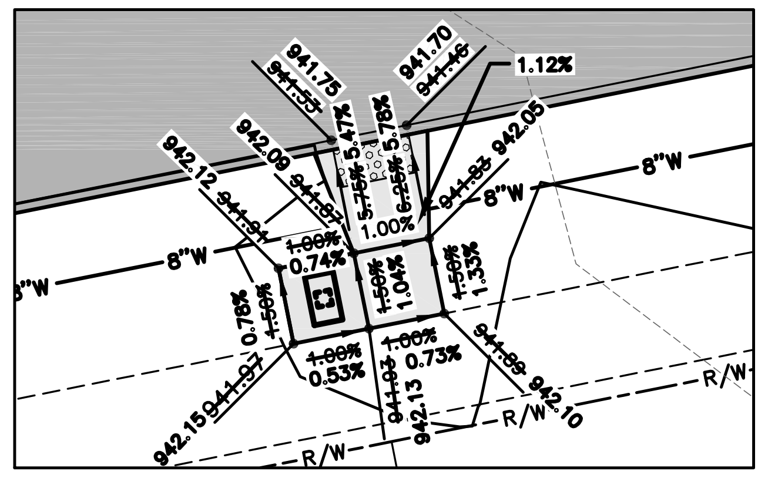

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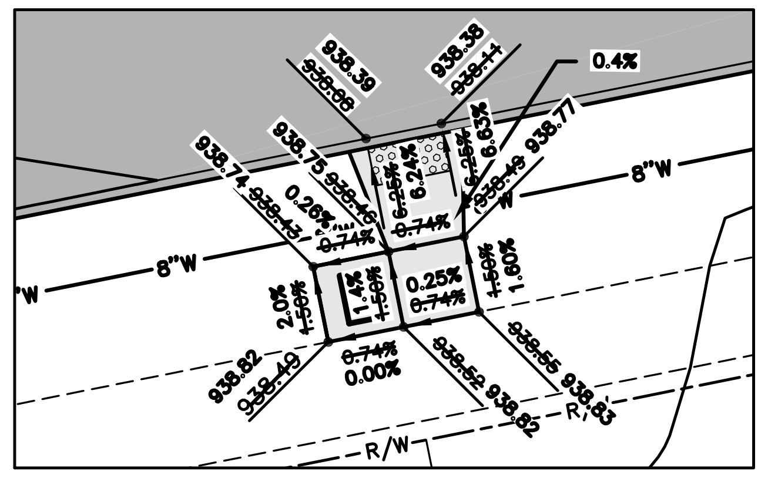

MAILBOX RAMP DETAIL #4

SCALE: 1"=10'

FILE: H:\2017\1706340\DWG\1706340-GRADING-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 10:38 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WAUKEE, IOWA

GRADING PLAN

8/46

1706.340

PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
DAKOTA CIRCLE
CHEYENNE COURT
OUTLOT 'X'
POND 1C
OUTLOT 'V'
POND 1B
POND 1D
PROPERTY BOUNDARY
GRADING LIMITS (TYP.)
35.00' OVERLAND FLOWAGE EASEMENT
30.00' OVERLAND FLOWAGE EASEMENT
12.00' OVERLAND FLOWAGE EASEMENT
10.00' OVERLAND FLOWAGE EASEMENT
29' OVERLAND FLOWAGE EASEMENT
OVERLAND FLOWAGE EASEMENT
1 MGS=939.75
2 MGS=937.91
3 MGS=936.08
4 MOE=934.19
5 MGS=932.36
6 MGS=930.46
7 MGS=928.65
8 MGS=926.73
9 MOE=924.50
10 MOE=924.50
11 MOE=924.50
12 MGS=910.71
13 MGS=923.32
27 MOE=941.25
28 MOE=941.25
29 MOE=941.25
30 MOE=941.25
31 MOE=941.25
32 MOE=941.25
33 MOE=941.25
34 MGS=937.58
35 MGS=933.56
36 MGS=934.88
37 MGS=936.81
38 MOE=932.25
39 MOE=932.25
40 MOE=932.25
41 MOE=932.25
42 MOE=932.25
43 MOE=932.25
44 MOE=932.25
45 MOE=932.25
46 MOE=932.25
47 MOE=932.25
48 MOE=935.50
55
56 MOE=935.00
57 MGS=938.36
58 MOE=939.60
59 MOE=939.60
60 MOE=939.60
61 MOE=939.60
62 MOE=939.60
63 MOE=939.60
64 MOE=939.60
65 MOE=939.60
66 MOE=939.60
67 MGS=942.71
68 MGS=943.83
69
70 MGS=949.15
71 MGS=946.94
72 MOE=945.00
73 MOE=945.00
74 MOE=945.00
75 MOE=945.00
OVERFLOW ELEVATION =923.50 923.55
OVERFLOW ELEVATION =930.47 930.49
100-YEAR ELEVATION =921.98
REFER TO MAILBOX RAMP DETAIL #1
REFER TO SIDEWALK DETAIL 1.
100-YEAR ELEVATION =930.29
100-YEAR ELEVATION =943.18
OVERFLOW ELEVATION =943.57 943.64
OVERFLOW ELEVATION =943.55 943.58
OVERFLOW PATH
OVERFLOW ELEVATION =943.91 943.89
100-YEAR ELEVATION =943.34
100-YEAR ELEVATION =941.80
100-YEAR ELEVATION =943.25
OVERFLOW ELEVATION =940.13 940.32
100-YEAR ELEVATION =938.32
SPOT ELEVATIONS ARE LOCATED 7' FROM PROPERTY LINE
OVERFLOW ELEVATION =932.29 930.57
100-YEAR ELEVATION =931.53
OVERFLOW ELEVATION =931.10 931.24
OVERFLOW ELEVATION =934.50 934.55
100-YEAR ELEVATION =933.69
100-YEAR ELEVATION =929.34
OVERFLOW ELEVATION =942.85 942.56
100-YEAR ELEVATION =941.53
REFER TO MAILBOX RAMP DETAIL #2
REFER TO MAILBOX RAMP DETAIL #3
REFER TO MAILBOX RAMP DETAIL #4
100-YEAR ELEVATION =937.39
SPOT ELEVATIONS ARE LOCATED 5' FROM PROPERTY LINE
SPOT ELEVATIONS ARE LOCATED 5' OFF OF THE PROPERTY LINE
ST-2 STORM CLEANOUT RIM=935.21 FL 6" (W)=930.08 FL 6" (E)=929.98
ST-3 STORM CLEANOUT RIM=937.96 FL 6" (E)=931.75
L-3 278 LF OF 6" PERFORATED PVC @ 0.60%
HIGH POINT
SIDE YARD SWALE
HOUSE
DRIVEWAY
SCALE
0' 25' 50' 100'
N

SIDEWALK DETAIL 1 (1"=10' SCALE - FULL SIZE)

TYPICAL BACK TO FRONT GRADING
NOT TO SCALE

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TECH:
COMMENT:
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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: GH
CIVIL DESIGN ADVANTAGE

WAUKEE, IOWA

PAINTED WOODS SOUTH PLAT 1

GRADING PLAN

FEMA FLOODPLAIN (MAP LOCATION)
OUTLOT 'W'
PROPERTY BOUNDARY (TYP.)
GRADING LIMITS (TYP.)
12 MGS=910.71
13 MGS=923.32
14 MGS=913.04
15 MGS=910.71
16 MGS=911.60
17 MGS=918.59
18 MGS=911.60
19 MGS=923.25
20 MGS=920.67
21 MGS=919.40
22 MOE=936.00
23 MOE=936.00
24 MOE=936.00
25 MOE=935.25
26 MOE=935.25
44 MOE=932.25
45 MOE=932.25
46 MOE=932.25
47 MOE=932.25
48 MOE=935.50
49 MOE=935.00
50 MOE=935.00
51 MOE=935.00
52 MOE=935.00
53 MOE=935.00
54 MOE=935.00
55 MOE=935.00
56 MOE=935.00
57 MGS=938.36
58 MOE=939.60
59 MOE=939.60
CHEROKEE COURT
PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
OUTLOT 'Y' POND 1A
OUTLOT 'Z' (PARKLAND)
OUTLOT 'U'
OVERFLOW PATH
OVERFLOW ELEVATION =934.50 934.55
OVERFLOW ELEVATION =934.10 934.16
OVERFLOW ELEVATION =933.72 933.83
OVERFLOW ELEVATION =933.81 933.92
OVERFLOW ELEVATION =932.91 932.87
OVERFLOW ELEVATION =934.90 934.68
REFER TO MAILBOX RAMP DETAIL #5
REFER TO MAILBOX RAMP DETAIL #4
100-YEAR ELEVATION =933.48
100-YEAR ELEVATION =933.64
100-YEAR ELEVATION =933.69
100-YEAR ELEVATION =933.52
100-YEAR ELEVATION =930.14
100-YEAR ELEVATION =930.91
100-YEAR ELEVATION =934.59
30.00' OVERLAND FLOWAGE EASEMENT
15.00' OVERLAND FLOWAGE EASEMENT
20' OVERLAND FLOWAGE EASEMENT
20.00' OVERLAND FLOWAGE EASEMENT
29.00' OVERLAND FLOWAGE EASEMENT
ST-1 CORE DRILL 6" SUBDRAIN INTO STORM MANHOLE FL 6" (W)=928.46
ST-2 STORM CLEANOUT RIM=935.21 FL 6" (W)=930.08 FL 6" (E)=929.98
L-2 253 LF OF 6" PERFORATED PVC @ 0.60%
L-3 278 LF OF 6" PERFORATED PVC @ 0.60%
EANOUT 6 =931.75
N
SCALE
0' 25' 50' 100'

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EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

GRADING PLAN

WAUKEE, IOWA

10/46

1706.340

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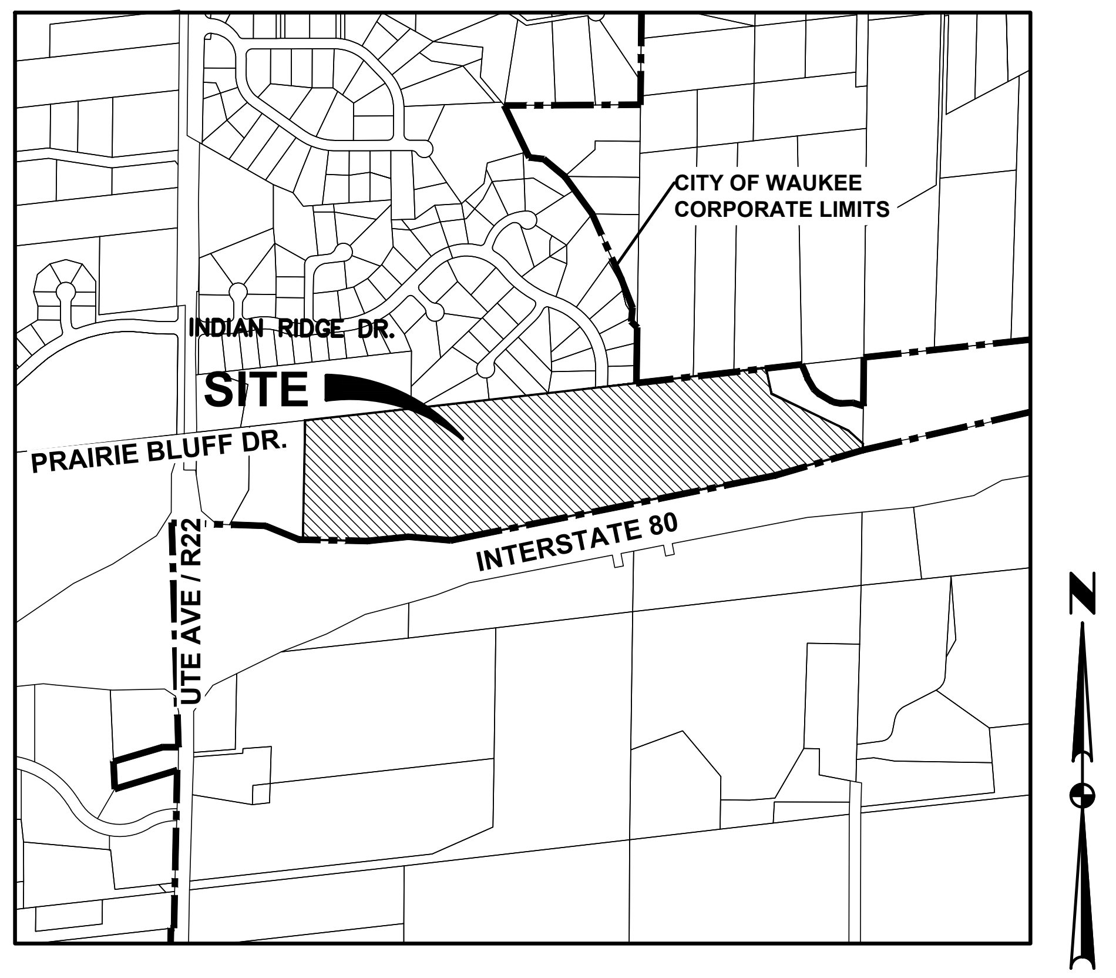
PAINTED WOODS SOUTH PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

VICINITY MAP

NOT TO SCALE


CITY OF WAUKEE CORPORATE LIMITS
INDIAN RIDGE DR.
SITE
PRAIRIE BLUFF DR.
INTERSTATE 80
UTE AVE / R22
N

WAUKEE, IOWA

SWPPP LEGEND

DRAINAGE ARROW	← X.XX %
GRADING LIMITS	– – – –
FILTER SOCK	▨
SILT FENCE	•—•—•
INLET PROTECTION	◌
PORTABLE RESTROOM	R
TEMPORARY STANDPIPE	⊙
CONCRETE WASHOUT PIT	▣
UNDISTURBED AREA	▧
RIP-RAP	▒
GRAVEL ENTRANCE	▓
STAGING AREA	▦
TEMPORARY SEDIMENT BASIN	TSB #

STABILIZATION QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	SILT FENCE	LF	7,816
2	FILTER SOCK	LF	40
3	SEEDING, FERTILIZING, AND MULCHING	AC	37.80
4	INLET PROTECTION DEVICES	EA	28
5	CONCRETE WASHOUT PIT	EA	1
6	8" CMP OR HDPE TEMPORARY STANDPIPE	EA	2
7	18" CMP OR HDPE TEMPORARY STANDPIPE	EA	1
8	30" CMP OR HDPE TEMPORARY STANDPIPE	EA	1
9	TYPE 1 TRM	SF	1,670

NOTES:

1. IF DEWATERING IS NEEDED FOR ANY REASON, DISCHARGE OF WATER OFFSITE SHALL CONFORM WITH GENERAL PERMIT #2 REQUIREMENTS.
2. DISTURBED AREAS SHALL BE TEMPORARILY SEEDED OR MULCHED PRIOR TO THE SITE SHUTTING DOWN FOR WINTER CONDITIONS CONFORMING WITH GENERAL PERMIT #2 0/14 DAY REQUIREMENTS.

DISCHARGE POINT SUMMARY

DISCHARGE POINT #1 TO AN UNNAMED TRIBUTARY OF SUGAR CREEK ±800 FT

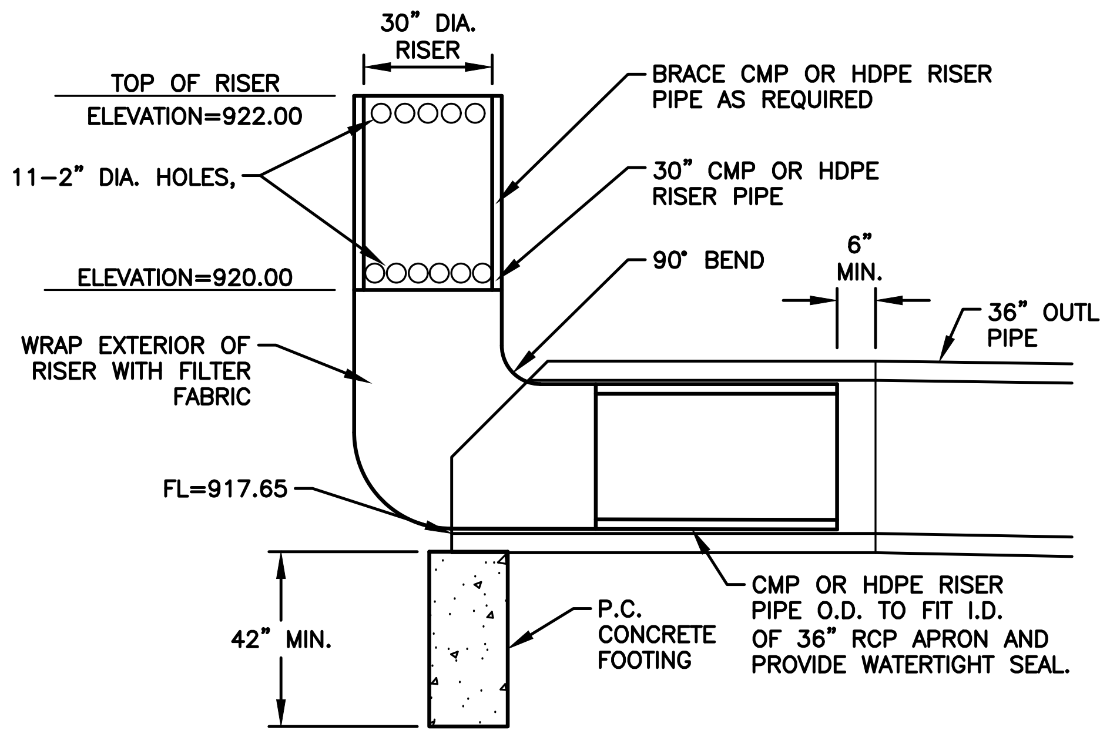
TOTAL AREA DISTURBED TO DISCHARGE POINT	38.75 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	139,500 CU FT
VOLUME PROVIDED IN SILT FENCE (6,339 LF @ 4.5 CU FT/LF OF FENCE)	28,526 CU FT
VOLUME PROVIDED IN TSB #1	26,749 CU FT
VOLUME PROVIDED IN TSB #2	44,292 CU FT
VOLUME PROVIDED IN TSB #3	18,961 CU FT
VOLUME PROVIDED IN TSB #4	21,849 CU FT
TOTAL VOLUME PROVIDED	140,377 CU FT

DISCHARGE POINT #2 DIRECTLY INTO AN UNNAMED TRIBUTARY OF SUGAR CREEK

TOTAL AREA DISTURBED TO DISCHARGE POINT	3.13 ACRES
STORAGE VOLUME REQUIRED (# OF ACRES*3600 CU FT)	11,268 CU FT
VOLUME PROVIDED IN FILTER SOCK (40 LF @ 2.0 CU FT/LF OF SOCK)	80 CU FT
VOLUME PROVIDED IN SILT FENCE (1,477 LF @ 9.0 CU FT/LF OF FENCE)	13,293 CU FT
TOTAL VOLUME PROVIDED	13,373 CU FT

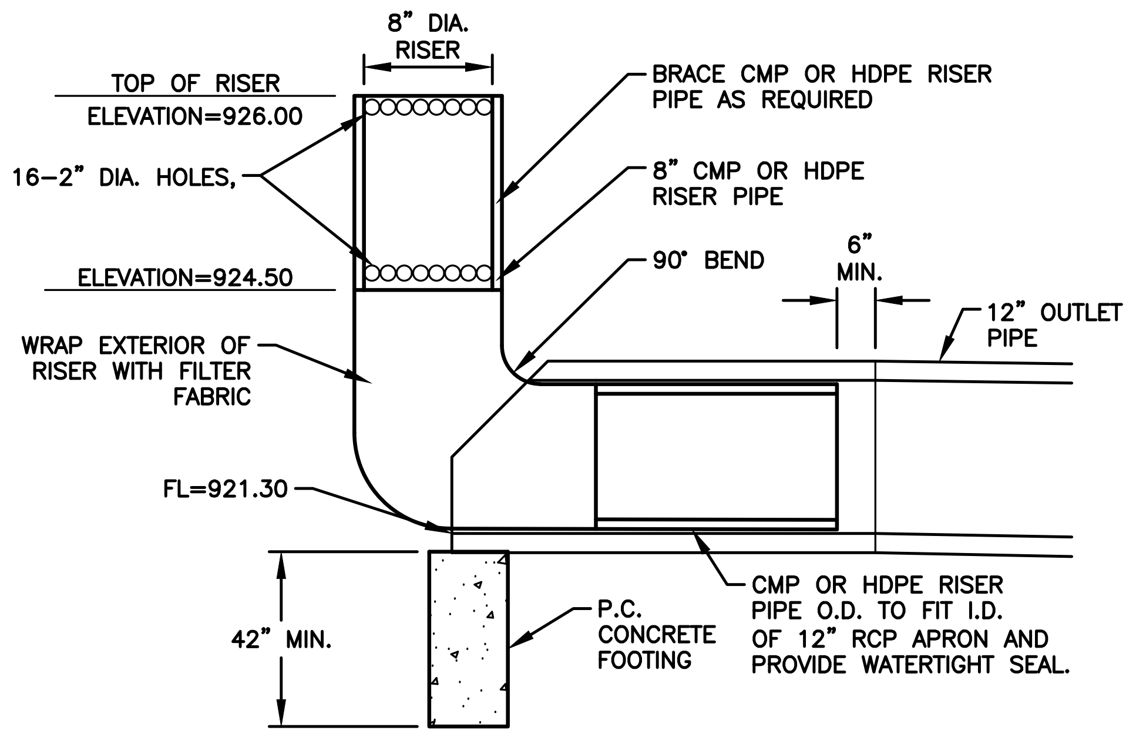
TEMPORARY STAND PIPE DETAIL #1

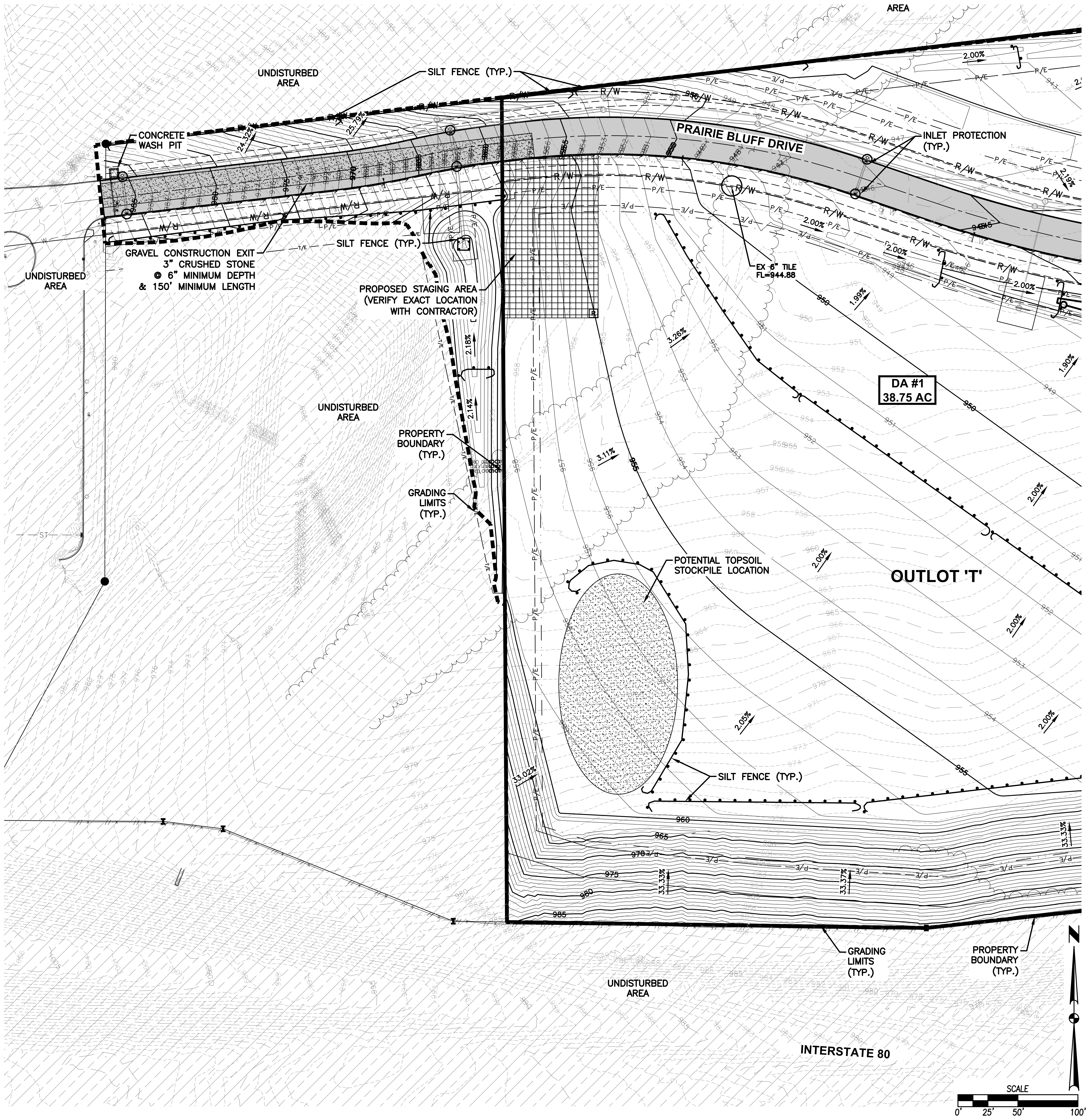
NOT TO SCALE


30" DIA. RISER
TOP OF RISER
ELEVATION=922.00
11-2" DIA. HOLES,
ELEVATION=920.00
WRAP EXTERIOR OF RISER WITH FILTER FABRIC
FL=917.65
42" MIN.
BRACE CMP OR HDPE RISER PIPE AS REQUIRED
30" CMP OR HDPE RISER PIPE
90° BEND
6" MIN.
36" OUTLET PIPE
P.C. CONCRETE FOOTING
CMP OR HDPE RISER PIPE O.D. TO FIT I.D. OF 36" RCP APRON AND PROVIDE WATERTIGHT SEAL.

TEMPORARY STAND PIPE DETAIL #2

NOT TO SCALE


8" DIA. RISER
TOP OF RISER
ELEVATION=926.00
16-2" DIA. HOLES,
ELEVATION=924.50
WRAP EXTERIOR OF RISER WITH FILTER FABRIC
FL=921.30
42" MIN.
BRACE CMP OR HDPE RISER PIPE AS REQUIRED
8" CMP OR HDPE RISER PIPE
90° BEND
6" MIN.
12" OUTLET PIPE
P.C. CONCRETE FOOTING
CMP OR HDPE RISER PIPE O.D. TO FIT I.D. OF 12" RCP APRON AND PROVIDE WATERTIGHT SEAL.


AREA
UNDISTURBED AREA
SILT FENCE (TYP.)
CONCRETE WASH PIT
24.32%
25.79%
PRAIRIE BLUFF DRIVE
INLET PROTECTION (TYP.)
R/W
P/E
2.00%
2.19%
GRAVEL CONSTRUCTION EXIT 3" CRUSHED STONE @ 6" MINIMUM DEPTH & 150' MINIMUM LENGTH
SILT FENCE (TYP.)
PROPOSED STAGING AREA (VERIFY EXACT LOCATION WITH CONTRACTOR)
EX 6" TILE FL=944.88
1.99%
3.26%
1.90%
DA #1
38.75 AC
UNDISTURBED AREA
2.18%
2.14%
PROPERTY BOUNDARY (TYP.)
3.11%
GRADING LIMITS (TYP.)
2.00%
POTENTIAL TOPSOIL STOCKPILE LOCATION
OUTLOT 'T'
2.05%
33.02%
SILT FENCE (TYP.)
33.33%
GRADING LIMITS (TYP.)
PROPERTY BOUNDARY (TYP.)
UNDISTURBED AREA
INTERSTATE 80
N
SCALE
0' 25' 50' 100'

FILE: H:\2017\1706340\DWG\1706340-SWPPP-ASBUILT.DWG
FILE DATE: 4/2/20 DATE PLOTTED: 6/30/2020 4:32 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
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REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
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3405 S.E. CROSSROADS DRIVE, SUITE G
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ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

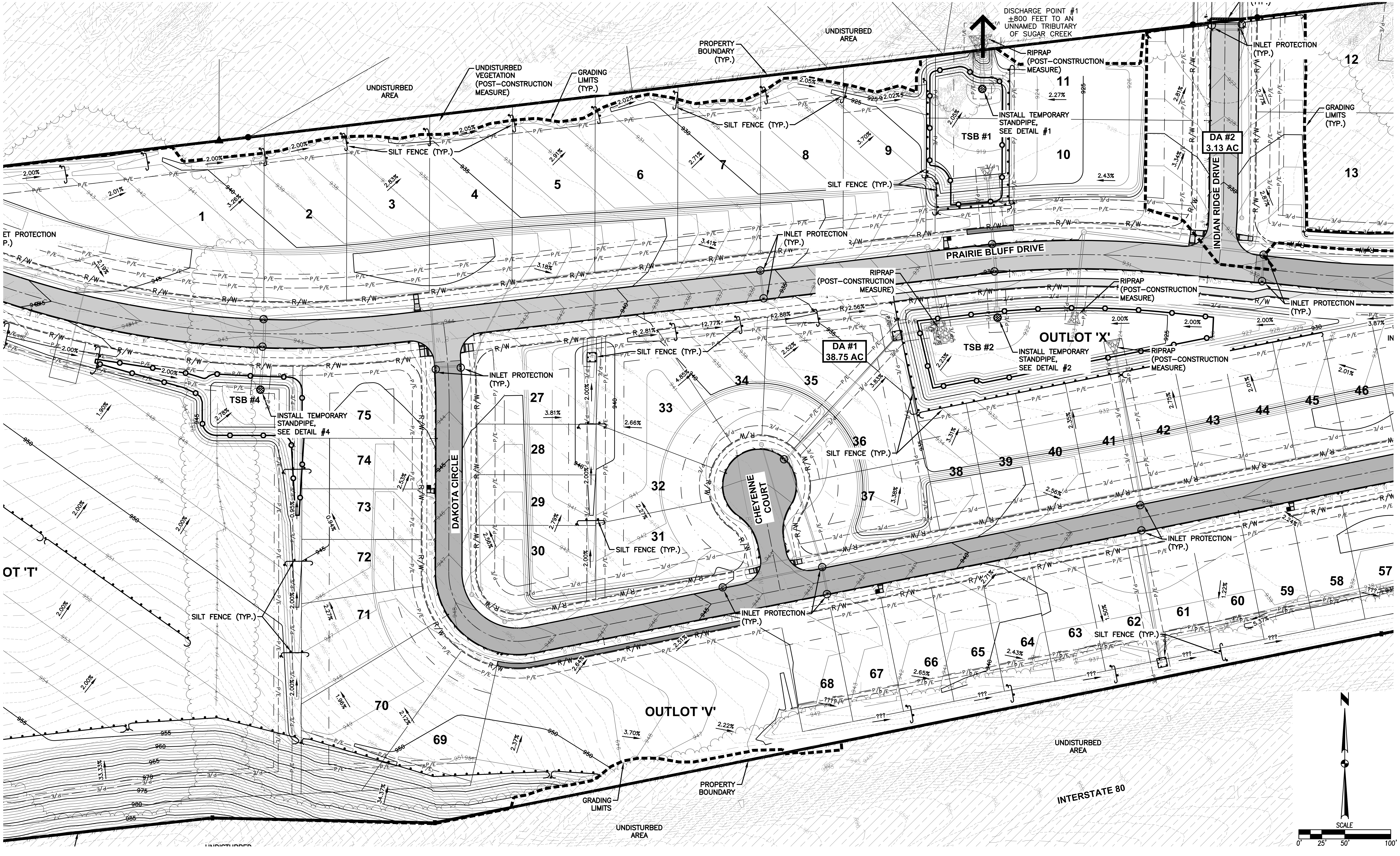
EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

1706.340

PAINTED WOODS SOUTH PLAT 1

EROSION AND SEDIMENT CONTROL PLAN



DISCHARGE POINT #1 ±800 FEET TO AN UNNAMED TRIBUTARY OF SUGAR CREEK
UNDISTURBED AREA
PROPERTY BOUNDARY (TYP.)
UNDISTURBED VEGETATION (POST-CONSTRUCTION MEASURE)
GRADING LIMITS (TYP.)
RIPRAP (POST-CONSTRUCTION MEASURE)
INLET PROTECTION (TYP.)
SILT FENCE (TYP.)
INSTALL TEMPORARY STANDPIPE, SEE DETAIL #1
TSB #1
DA #2 3.13 AC
INDIAN RIDGE DRIVE
PRAIRIE BLUFF DRIVE
TSB #2
INSTALL TEMPORARY STANDPIPE, SEE DETAIL #2
OUTLOT 'X'
DA #1 38.75 AC
TSB #4
INSTALL TEMPORARY STANDPIPE, SEE DETAIL #4
DAKOTA CIRCLE
CHEYENNE COURT
OT 'T'
OUTLOT 'V'
INTERSTATE 80
UNDISTURBED AREA
PROPERTY BOUNDARY
GRADING LIMITS
1
2
3
4
5
6
7
8
9
10
11
12
13
27
28
29
30
31
32
33
34
35
36
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38
39
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41
42
43
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46
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
N
SCALE
0'
25'
50'
100'

REVISIONS	DATE
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GRIMES, IOWA 50111
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CIVIL DESIGN ADVANTAGE

ENGINEER: EKO
EI: GH

PAINTED WOODS SOUTH PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

WAUKEE, IOWA

12/46

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COMMENT:
TECH: ENG:

PAINTED WOODS SOUTH PLAT 1

EROSION AND SEDIMENT CONTROL PLAN

TEMPORARY STAND PIPE DETAIL #3
NOT TO SCALE
8" DIA. RISER
TOP OF RISER ELEVATION=930.00
8-2" DIA. HOLES,
ELEVATION=928.00
WRAP EXTERIOR OF RISER WITH FILTER FABRIC
FL=925.64
42" MIN.
BRACE CMP OR HDPE RISER PIPE AS REQUIRED
8" CMP OR HDPE RISER PIPE
90° BEND
6" MIN.
12" OUTLET PIPE
P.C. CONCRETE FOOTING
CMP OR HDPE RISER PIPE O.D. TO FIT I.D. OF 12" RCP APRON AND PROVIDE WATERTIGHT SEAL.
TEMPORARY STAND PIPE DETAIL #4
NOT TO SCALE
18" DIA. RISER
TOP OF RISER ELEVATION=943.00
8-2" DIA. HOLES,
ELEVATION=941.00
WRAP EXTERIOR OF RISER WITH FILTER FABRIC
FL=938.18
42" MIN.
BRACE CMP OR HDPE RISER PIPE AS REQUIRED
18" CMP OR HDPE RISER PIPE
90° BEND
6" MIN.
24" OUTLET PIPE
P.C. CONCRETE FOOTING
CMP OR HDPE RISER PIPE O.D. TO FIT I.D. OF 24" RCP APRON AND PROVIDE WATERTIGHT SEAL.
UNNAMED TRIBUTARY OF SUGAR CREEK
DISCHARGE POINT #2 DIRECTLY INTO AN UNNAMED TRIBUTARY OF SUGAR CREEK
UNDISTURBED AREA
OUTLOT 'W'
PROPERTY BOUNDARY (TYP.)
GRADING LIMITS (TYP.)
UNDISTURBED VEGETATION (POST-CONSTRUCTION MEASURE)
SILT FENCE (TYP.)
INSTALL 750 SF TYPE 1 TRM
INSTALL 920 SF TYPE 1 TRM
CHEROKEE COURT
PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
DA #2 3.13 AC
DA #1 38.75 AC
OUTLOT 'Z'
OUTLOT 'Y'
OUTLOT 'U'
TSB #3
INSTALL TEMPORARY STANDPIPE, SEE DETAIL #3
RIPRAP (POST-CONSTRUCTION MEASURE)
INLET PROTECTION (TYP.)
POTENTIAL TOPSOIL STOCKPILE LOCATION
INTERSTATE 80
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
46
47
48
49
50
51
52
53
54
55
56
57
58
5.17%
5.11%
5.53%
2.49%
6.35%
4.62%
2.21%
3.82%
6.00%
3.37%
2.36%
2.22%
3.87%
2.15%
2.01%
4.65%
3.17%
4.57%
3.74%
2.28%
3.51%
2.00%
1.82%
1.65%
1.32%
R/W
P/E
935
930
939
933
SCALE
0'
25'
50'
100'

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EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1
EROSION AND SEDIMENT CONTROL PLAN
WAUKEE, IOWA

13/46
1706.340

REFER TO SHEET 29 FOR
WATERMAIN PLAN AND PROFILE.

SHEET INDEX
Δ = 6°13'19"
L = 70.58'
R = 650.00'
CH = 70.55'
CHB = N80°11'40"E
Δ = 6°13'19"
L = 70.58'
R = 650.00'
CH = 70.55'
CHB = N80°11'40"E
Δ = 25°27'09"
L = 288.75'
R = 650.00'
CH = 286.38'
CHB = S83°58'10"E
PLAT BOUNDARY
15.00' SANITARY SEWER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=958.58 TOP OF SANITARY=949.31
R/W
5' SIDEWALK (FUTURE)
STREET LIGHT (TYP.)
STORM CLEANOUT RIM=984.72 FL=980.72
18 LF OF 6" PERFORATED SUBDRAIN (TYP.)
EXISTING STREET LIGHT
REMOVE EXISTING ROAD CLOSURE SIGNS
STA 15+95.76 BEGIN PAVEMENT
STORM CLEANOUT RIM=986.61 FL=982.61
18 LF OF 6" PERFORATED SUBDRAIN (TYP.)
6" SUBDRAIN FL=982.32
75.00' ROW
31.00' B-B
18.50' (TYP.)
PRAIRIE BLUFF DRIVE
8" P.C.C.
8' SHARED USE PATH (FUTURE)
278 LF OF 6" PERFORATED SUBDRAIN (TYP.)
10.00' PUE
10.00' WATERMAIN EASEMENT
20.00' TEMPORARY CONSTRUCTION EASEMENT
16+00
17+00
18+00
19+00
20+00
21+00
L-30
L-31
ST-30
ST-31
PC 17+87.88
Mid 18+23.17
PRC 18+58.47
PT 19+29.05
PC 19+45.21
Mid 18+91.76
Mid 20+89.58
S-12
S-11
S-13
ST-27
ST-28
ST-29
ST-26
P-12
P-13
P-11
L-26
L-27
L-28
L-29
CRITICAL CROSSING BOTTOM OF WATER=957.56 TOP OF SANITARY=949.53
30.00' SANITARY SEWER EASEMENT
6" SUBDRAIN FL=959.03
CRITICAL CROSSING BOTTOM OF STORM=953.16 TOP OF WATER=951.66 INSTALL GASKETED JOINTS ON STORM SEWER
20.00' STORM SEWER EASEMENT
TEMPORARY CONSTRUCTION EASEMENT
335 LF OF 6" PERFORATED SUBDRAIN (TYP.)
70.00' ROW
31.00' B-B
18.50' (TYP.)
10.00' PUE
25.00' LANDSCAPE BUFFER EASEMENT
30' SETBACK
30' SETBACK
25.00' LANDSCAPE BUFFER EASEMENT
OUTLOT 'T'
REMOVE EXISTING TREES
SCALE 0' 10' 20' 40'
95°
S-12
165°
S-11
168°
ST-26
VPC STA = 16+05
VPC ELEV = 986.25
6.50%
STA 16+14.61, 15.50' L SW-503 INTK TC=~~985.62~~ 985.47 FL 15" (S)=~~981.05~~ 980.68 FL 15" (E)=~~980.95~~ 980.56
VPI STA = 16+80
VPI ELEV = 981.38
VC = 150'
K=60.00
VPT STA = 17+55
VPT ELEV = 974.63
PROFILE GRADE
-9.00%
273 LF OF 15" RCP @ ~~8.40%~~ 8.36%
STA 16+14.61, 15.50' L SW-503 INTK TC=~~985.62~~ 985.47 FL 15" (S)=~~981.05~~ 980.68 FL 15" (E)=~~980.95~~ 980.56
STA 16+14.61, 15.50' R SW-501 INTK TC=~~985.62~~ 985.61 FL 15" (N)=~~981.32~~ 981.08
PROPOSED GROUND
EXISTING GROUND
27 LF OF 15" RCP @ ~~1.00%~~ 1.48%
STA 18+91.62, 15.50' L SW-503 INTK TC=~~962.63~~ 962.21 FL 15" (W)=~~958.03~~ 957.74 FL 24" (S)=~~953.13~~ 953.01 FL 24" (E)=~~953.03~~ 952.97
STA 18+91.62, 15.50' R SW-501 INTK TC=~~962.5~~ 962.45 FL 24" (S)=~~953.39~~ 953.53 FL 24" (N)=~~953.29~~ 953.38
PROPOSED GROUND
EXISTING GROUND
STA 18+85.57, 82.26' R 24" RCP APRON W/ FOOTING & APRON GUARD FL=~~953.76~~ 954.06
27 LF OF 24" RCP @ ~~0.60%~~ 1.37%
67 LF OF 24" RCP @ ~~0.55%~~ 0.79% (LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING BOTTOM OF STORM=953.16 TOP OF WATER=951.66 INSTALL GASKETED JOINTS ON STORM SEWER
STA 18+82.73, 27.40' L SW-301 48" MH RIM=~~961.13~~ 961.66 FL 8" (S)=~~948.58~~ 948.51 FL 8" (E)=~~948.48~~ 948.49
VPC STA = 18+88
VPC ELEV = 962.70
CRITICAL CROSSING BOTTOM OF STORM=958.58 TOP OF SANITARY=949.31
EXISTING GROUND
126 LF OF 24" RCP @ ~~4.20%~~ 4.31%
136 LF OF 8" PVC @ ~~4.90%~~ 4.98%
STA 18+82.73, 27.40' L SW-301 48" MH RIM=~~961.13~~ 961.66 FL 8" (S)=~~948.58~~ 948.51 FL 8" (E)=~~948.48~~ 948.49
STA 18+70.04, 51.87' R SW-203 CLEANOUT RIM=~~961.04~~ 961.87 FL 8" (N)=~~949.04~~ 948.98
PROPOSED GROUND
EXISTING GROUND
CRITICAL CROSSING BOTTOM OF STORM =958.58 TOP OF SANITARY =949.31
CRITICAL CROSSING BOTTOM OF WATER =957.56 TOP OF SANITARY =949.53
78 LF OF 8" PVC @ ~~0.60%~~ 0.60%
STA 20+17.23, 21.50' L SW-401 48" MH RIM=~~953.25~~ 953.51 FL 24" (W)=~~947.74~~ 947.54 FL 24" (E)=~~947.64~~ 947.50
STA 20+17.46, 32.50' L SW-301 48" MH RIM=~~953.15~~ 953.67 FL 8" (W)=~~941.80~~ 941.72 FL 8" (E)=~~941.70~~ 941.67
VPI STA = 20+50
VPI ELEV = 948.08
VC = 325'
K=40.62
127 LF OF 8" PVC @ ~~4.30%~~ 4.37%
126 LF OF 24" RCP @ ~~4.20%~~ 4.27%
970
965
960
955
950
945
940
989.65
986.35
986.58
983.65
983.16
978.39
979.32
973.44
975.07
967.89
970.58
961.86
966.08
957.21
961.59
954.24
957.56
951.69
954.13
949.40
951.33
947.99
949.1
16+00
17+00
18+00
19+00
20+00
21+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

14/46
1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:32 PM COMMENT:
PLOTTED BY: JONATHON MCDONALD TECH: ENG:

REFER TO SHEET 30 FOR WATERMAIN PLAN AND PROFILE.
SHEET INDEX
PLAT BOUNDARY
Δ = 25°27'09"
L = 288.75'
R = 650.00'
CH = 286.38'
CHB = S83°58'10"E
Δ = 25°27'09"
L = 444.23'
R = 1000.00'
CH = 440.59'
CHB = S83°58'10"E
30.00' OVERLAND FLOWAGE EASEMENT
30' SETBACK
LOT 1
LOT 2
REMOVE EXISTING TREES
26+35 TG=944.35
25+41 TG=944.37
10.00' PUE
15.00' SANITARY SEWER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=939.38 TOP OF SANITARY=933.93
5' SIDEWALK (FUTURE)
PRAIRIE BLUFF DRIVE
8" P.C.C.
70.00' ROW
31.00' B-B
18.50' (TYP.)
6" SUBDRAIN FL=942.92
6" SUBDRAIN FL=939.76
159 LF OF 6" PERFORATED SUBDRAIN (TYP.)
335 LF OF 6" PERFORATED SUBDRAIN (TYP.)
359 LF OF 6" PERFORATED SUBDRAIN (TYP.)
STREET LIGHT (TYP.)
CRITICAL CROSSING BOTTOM OF WATER=938.63 TOP OF SANITARY=934.35
CRITICAL CROSSING BOTTOM OF STORM=937.59 TOP OF WATER=936.09 INSTALL GASKETED JOINTS ON STORM SEWER
8' SHARED USE PATH (FUTURE)
20.00' STORM SEWER EASEMENT
30.00' SANITARY SEWER EASEMENT
25.00' LANDSCAPE BUFFER EASEMENT
OUTLOT 'T'
Mid 20+89.58
PT 22+33.98
PC 24+07.61
Mid 25+19.22
21+00
22+00
23+00
24+00
25+00
26+00
S-10
S-8
S-9
S-7
ST-25
ST-23
ST-24
ST-22
ST-19
ST-20
ST-21
P-11
P-10
P-9
P-8
P-7
L-26
L-25
L-24
L-23
L-22
L-21
L-20
L-19
170°
168°
93°
96°
173°
166°
SCALE 0' 10' 20' 40'
N
ST-23 STA 22+35.40, 15.50' L SW-503 INTK TC=~~946.42~~ 946.36 FL 24" (W)=~~941.32~~ 941.07 FL 15" (S)=~~941.42~~ 941.15 FL 24" (E)=~~941.22~~ 940.96
ST-24 STA 22+35.40, 15.50' R SW-501 INTK TC=~~946.42~~ 946.25 FL 15" (N)=~~941.69~~ 941.49
PROPOSED GROUND
EXISTING GROUND
27 LF OF 15" RCP @ ~~1.00%~~ 1.26%
S-8 STA 23+90.04, 26.50' L SW-301 48" MH RIM=~~945.32~~ 945.48 FL 8" (W)=~~933.23~~ 933.27 FL 8" (S)=~~933.23~~ 933.28 FL 8" (E)=~~933.13~~ 933.23
S-9 STA 23+89.38, 65.03' R SW-301 48" MH RIM=~~947.31~~ 948.64 FL 8" (N)=~~934.11~~ 934.17
CRITICAL CROSSING BOTTOM OF STORM =939.38 TOP OF SANITARY =933.93
CRITICAL CROSSING BOTTOM OF WATER =938.63 TOP OF SANITARY =934.35
88 LF OF 8" PVC @ ~~1.00%~~ 1.01%
ST-25 STA 21+42.42, 21.50' L SW-401 48" MH RIM=~~948.20~~ 948.35 FL 24" (W)=~~942.35~~ 942.12 FL 24" (E)=~~942.25~~ 942.07
S-10 STA 21+42.44, 27.79' L SW-301 48" MH RIM=~~948.45~~ 948.62 FL 8" (W)=~~936.26~~ 936.12 FL 8" (E)=~~936.16~~ 936.07
VPT STA = 22+12 VPT ELEV = 946.45
ST-23 STA 22+35.40, 15.50' L SW-503 INTK TC=~~946.42~~ 946.36 FL 24" (W)=~~941.32~~ 941.07 FL 15" (S)=~~941.42~~ 941.15 FL 24" (E)=~~941.22~~ 940.96
ST-22 STA 23+82.34, 20.50' L SW-401 48" MH RIM=~~945.15~~ 945.35 FL 24" (W)=~~939.79~~ 939.44 FL 24" (E)=~~939.69~~ 939.38
S-8 STA 23+90.04, 26.50' L SW-301 48" MH RIM=~~945.32~~ 945.48 FL 8" (W)=~~933.23~~ 933.27 FL 8" (S)=~~933.23~~ 933.28 FL 8" (E)=~~933.13~~ 933.23
-1.00%
126 LF OF 24" RCP @ ~~4.20%~~ 4.27%
93 LF OF 24" RCP @ ~~1.00%~~ 1.08%
143 LF OF 24" RCP @ ~~1.00%~~ 1.06%
127 LF OF 8" PVC @ ~~4.30%~~ 4.37%
245 LF OF 8" PVC @ ~~1.20%~~ 1.14%
CRITICAL CROSSING BOTTOM OF STORM=939.38 TOP OF SANITARY=933.93
203 LF OF 24" RCP @ ~~1.10%~~ 1.08%
191 LF OF 8" PVC @ ~~0.75%~~ 0.81%
ST-19 STA 25+90.64, 15.50' L SW-506 INTK TC=~~943.26~~ 943.12 FL 24" (S)=~~937.46~~ 937.18 FL 24" (W)=~~937.46~~ 937.18 FL 30" (E)=~~937.36~~ 937.13
ST-20 STA 25+90.64, 15.50' R SW-505 INTK TC=~~943.26~~ 943.14 FL 24" (S)=~~937.84~~ 937.74 FL 24" (N)=~~937.74~~ 937.61
ST-21 STA 25+89.87, 61.35' R 24" RCP APRON W/ FOOTING & APRON GUARD FL=~~938.18~~ 938.33
27 LF OF 24" RCP @ ~~0.95%~~ 1.78%
46 LF OF 24" RCP @ ~~0.80%~~ 1.28% (LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING BOTTOM OF STORM=937.59 TOP OF WATER=936.09 INSTALL GASKETED JOINTS ON STORM SEWER
VPC STA = 25+12 VPC ELEV = 943.45
LP STA = 25+90.62 LP ELEV = 943.06 VPI STA = 25+75 VPI ELEV = 942.83 VC = 125' K=78.12
EXISTING GROUND
PROFILE GRADE
ST-19 STA 25+90.64, 15.50' L SW-506 INTK TC=~~943.26~~ 943.12 FL 24" (S)=~~937.46~~ 937.18 FL 24" (W)=~~937.46~~ 937.18 FL 30" (E)=~~937.36~~ 937.13
S-7 STA 25+90.92, 26.50' L SW-301 48" MH RIM=~~943.70~~ 943.63 FL 8" (W)=~~931.70~~ 931.69 FL 8" (E)=~~931.60~~ 931.53
VPT STA = 26+38 VPT ELEV = 943.20
0.60%
178 LF OF 30" RCP @ ~~1.10%~~ 1.04%
268 LF OF 8" PVC @ ~~0.60%~~ 0.63%
960
955
950
945
940
935
930
947.59 949.13
946.53 947.56
946.55 946.59
945.99 946.08
944.85 945.58
946.23 945.08
945.95 944.58
946.77 944.08
947.14 943.58
946.38 943.17
944.49 943.07
942.99 943.28

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 7/6/2020 11:00 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

REFER TO SHEET 41 FOR INTERSECTION DETAILS.

REFER TO SHEET 20 FOR DAKOTA CIRCLE PLAN AND PROFILE.

REFER TO SHEET 31 FOR WATERMAIN PLAN AND PROFILE.

Δ = 25°27'09"
L = 444.23'
R = 1000.00'
CH = 440.59'
CHB = S83°58'10"E
BP 60+00.00
60+00
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
SHEET INDEX
STA 27+87.93 (PRAIRIE BLUFF DRIVE)
STA 61+00.00 (DAKOTA CIRCLE)
30' SETBACK
26+35 TG=944.35
27+30 TG=944.92
28+22 TG=945.04
29+12 TG=943.37
30+03 TG=940.76
30+94 TG=938.15
31+84 TG=935.54
15.00' SANITARY SEWER EASEMENT
10.00' PUE
17.50' SANITARY SEWER EASEMENT
S-7
S-4
S-3
P-7
P-4
P-3
26+00
27+00
28+00
29+00
30+00
31+00
R/W
5' SIDEWALK (FUTURE)
STREET LIGHT (TYP.)
L-19
L-15
L-13
L-11
ST-19
ST-15
ST-13
ST-11
ST-12
ST-20
L-20
L-16
L-14
L-12
P-5
PRAIRIE BLUFF DRIVE
PT 27+41.84
CRITICAL CROSSING
BOTTOM OF STORM=933.83
TOP OF SANITARY=931.08
61+00
70.00' ROW
31.00' B-B
18.50' (TYP.)
6" SUBDRAIN FL=939.76
8" P.C.C.
PC 61+14.84
STORM CLEANOUT RIM=943.82 FL=940.32
STORM CLEANOUT RIM=942.93 FL=939.43
8' SHARED USE PATH (FUTURE)
6" SUBDRAIN FL=932.47
310 LF OF 6" PERFORATED SUBDRAIN (TYP.)
251 LF OF 6" PERFORATED SUBDRAIN (TYP.)
159 LF OF 6" PERFORATED SUBDRAIN (TYP.)
OUTLOT 'T'
CRITICAL CROSSING
BOTTOM OF STORM=938.14
TOP OF WATER=936.64
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=937.28
TOP OF SANITARY=932.16
CRITICAL CROSSING
BOTTOM OF STORM=935.64
TOP OF WATER=934.14
INSTALL GASKETED JOINTS ON STORM SEWER
10.00' PUE
L-17
ST-16
ST-17
S-5
ST-14
Mid 61+53.65
20.00' STORM SEWER EASEMENT
12.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
25.00' LANDSCAPE BUFFER EASEMENT
10.00' OVERLAND FLOWAGE EASEMENT
30' SETBACK
DAKOTA CIRCLE
7" P.C.C.
L-18A
5' SIDEWALK (FUTURE)
20.00' SANITARY SEWER EASEMENT
10.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
LOT 75
LOT 27
LOT 33
LOT 34
PT 61+92.46
P-6
62+00
ST-15
S-4
ST-13
S-3
90°
92°
56°
124°
81°
98°
179°
N
SCALE
0'
10'
20'
40'

VPT STA = 26+38
VPT ELEV = 943.20
0.60%
VPC STA = 27+62
VPC ELEV = 943.95
ST-15
STA 27+76.46, 20.50' L
SW-401 60" MH
RIM=~~944.58~~ 944.58
FL 30" (W)=~~935.40~~ 935.28
FL 15" (S)=~~937.94~~ 937.28
FL 30" (E)=~~935.30~~ 935.14
HP STA = 27+87.86
HP ELEV = 944.025
VPI STA = 28+37
VPI ELEV = 944.40
VC = 150'
K=43.10
S-4
STA 28+67.10, 36.00' L
SW-301 48" MH
RIM=~~944.17~~ 944.05
FL 8" (W)=~~929.99~~ 929.85
FL 8" (E)=~~929.89~~ 929.85
FL 8" (SW)=~~929.99~~ 929.81
VPT STA = 29+12
VPT ELEV = 942.24
EXISTING GROUND
PROFILE GRADE
PROPOSED GROUND
STA 29+56, 20.46' L
SW-401 60" MH
RIM=~~941.37~~ 941.36
FL 30" (W)=~~932.66~~ 932.35
FL 15" (S)=~~935.05~~ 933.86
FL 30" (E)=~~932.56~~ 932.33
ST-13
ST-14
STA 29+43.72, 56.34' R
15" RCP APRON W/ FOOTING & APRON GUARD
FL=~~936.57~~ 936.56
L-14
76 LF OF 15" RCP @ ~~2.00%~~ 3.55%
(LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING
BOTTOM OF STORM=935.64
TOP OF WATER=934.14
INSTALL GASKETED JOINTS ON STORM SEWER
ST-11
STA 31+36.70, 15.50' L
SW-503 INTK
TC=~~935.67~~ 935.67
FL 15" (S)=~~931.08~~ 930.60
FL 30" (W)=~~929.99~~ 929.61
FL 30" (E)=~~929.89~~ 929.53
ST-12
STA 31+36.70, 15.50' R
SW-501 INTK
TC=~~935.67~~ 935.78
FL 15" (N)=~~931.35~~ 930.96
L-12
27 LF OF 15" RCP @ 1.33% ~~1.00%~~
ST-11
STA 31+36.70, 15.50' L
SW-503 INTK
TC=~~935.67~~ 935.67
FL 15" (S)=~~931.08~~ 930.60
FL 30" (W)=~~929.99~~ 929.61
FL 30" (E)=~~929.89~~ 929.53
S-3
STA 31+39.16, 36.00' L
SW-301 48" MH
RIM=~~935.82~~ 935.82
FL 8" (W)=~~919.56~~ 919.67
FL 8" (E)=~~919.46~~ 919.61
-2.88%
L-19
178 LF OF 30" RCP @ 1.04% ~~1.10%~~
L-15
176 LF OF 30" RCP @ 1.59% ~~1.50%~~
P-7
268 LF OF 8" PVC @ 0.63% ~~0.60%~~
CRITICAL CROSSING
BOTTOM OF STORM=933.83
TOP OF SANITARY=931.08
L-13
177 LF OF 30" RCP @ 1.54% ~~1.50%~~
L-11
180 LF OF 30" RCP @ 2.97% ~~3.25%~~
P-4
268 LF OF 8" PVC @ 3.78% ~~3.85%~~
P-3
342 LF OF 8" PVC @ 0.71% ~~0.70%~~
950
945
940
935
930
925
920
944.49
943.07
942.99
943.28
941.90
943.58
940.74
943.88
939.43
944.01
937.53
943.58
935.91
942.57
934.93
941.14
934.09
939.70
933.01
938.26
932.12
936.82
931.36
935.38
26+00
27+00
28+00
29+00
30+00
31+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

16/46

1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 7/6/2020 11:02 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REFER TO SHEET 27 FOR L-33 AND L-34 PLAN AND PROFILE.
REFER TO SHEET 32 FOR WATERMAIN PLAN AND PROFILE.
REFER TO SHEET 25 FOR L-5, L-6, L-7 AND L-8 PLAN AND PROFILE.
REFER TO SHEET 24 FOR INDIAN RIDGE DRIVE PLAN AND PROFILE.
REFER TO SHEET 41 FOR INTERSECTION DETAILS.
SHEET INDEX
LOT 7
LOT 8
LOT 9
LOT 10
LOT 34
LOT 35
OUTLOT 'X'
PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
8" P.C.C.
7" P.C.C.
Δ = 12°43'09"
L = 221.99'
R = 1000.00'
CH = 221.54'
CHB = N89°39'50"E
INSTALL 10 TONS OF CLASS 'E' RIPRAP
INSTALL 35 TONS OF CLASS 'E' RIPRAP
DETENTION EASEMENT
25.00' STORM SEWER EASEMENT
17.50' SANITARY SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
20.00' STORM SEWER EASEMENT
12.00' OVERLAND FLOWAGE EASEMENT
10.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
30' SETBACK
29 SY OF 5' P.C.C. SIDEWALK
5' SIDEWALK (FUTURE)
5' SIDEWALK (FUTURE)
8' SHARED USE PATH
8' SHARED USE PATH (FUTURE)
STA 34+14.33 END PAVEMENT
STA 33+65.07 BEGIN PAVEMENT
STA 32+77.52 BEGIN PAVEMENT
31+84 TG=935.54
32+75 TG=932.94
70 LF OF 6" PERFORATED SUBDRAIN (TYP.)
100 LF OF 6" PERFORATED SUBDRAIN (TYP.)
251 LF OF 6" PERFORATED SUBDRAIN (TYP.)
291 LF OF 6" PERFORATED SUBDRAIN (TYP.)
310 LF OF 6" PERFORATED SUBDRAIN (TYP.)
6" SUBDRAIN FL=927.23
6" SUBDRAIN FL=926.97
6" SUBDRAIN FL=927.37
6" SUBDRAIN FL=932.47
6" SUBDRAIN FL=928.89
MAILBOX PAD (TYP.)
STREET LIGHT (TYP.)
70.00' ROW
31.00' B-B
18.50' (TYP.)
CRITICAL CROSSING BOTTOM OF STORM=920.04 TOP OF SANITARY=918.47
CRITICAL CROSSING BOTTOM OF STORM=922.94 TOP OF WATER=921.44 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF WATER=924.10 TOP OF STORM=922.56
CRITICAL CROSSING BOTTOM OF STORM=922.87 TOP OF WATER=921.37 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF WATER=925.12 TOP OF SANITARY=916.84
CRITICAL CROSSING BOTTOM OF STORM=923.48 TOP OF WATER=921.98 INSTALL GASKETED JOINTS ON STORM SEWER
PT 101+77.61
Mid 101+46.37
PC 101+15.13
PC 33+66.14
Mid 34+77.14
PT 35+88.13
STA 36+77.38 BEGIN 15:1 TAPER
STA 36+92.38 END 15:1 TAPER
STA 36+03.03 (PRAIRIE BLUFF DRIVE)
STA 101+00.00 (INDIAN RIDGE DRIVE)
BP 100+00.00
32+00
33+00
34+00
35+00
36+00
37+00
100+00
101+00
102+00
ST-1 ST-2 ST-3 ST-4 ST-5 ST-6 ST-7 ST-8 ST-9 ST-10 ST-11 ST-12 ST-32 ST-33 ST-39 ST-44 ST-45 ST-46 ST-47 ST-68
S-1 S-2 S-3
L-5 L-6 L-7 L-8 L-10 L-11 L-12 L-13 L-33 L-34 L-40 L-45 L-46 L-47 L-48 L-68
P-1 P-2 P-3 P-4 P-14
ST-10 92°
S-2 168°
ST-45 89°
S-1 82° 92°
SCALE 0' 10' 20' 40'
N
STA 33+20.33, 20.50' L
SW-401 60" MH
RIM=~~931.22~~ 931.28
FL 30" (W)=~~923.95~~ 924.18
FL 30" (S)=~~923.85~~ 924.08
STA 34+88.71, 24.46' L
SW-401 60" MH
RIM=~~931.41~~ 931.39
FL 24" (E)=~~923.35~~ 923.63
FL 24" (S)=~~923.25~~ 923.53
PROPOSED GROUND
EXISTING GROUND
STA 33+25.52, 66.75' R 30" RCP APRON W/ FOOTING & APRON GUARD FL=~~922.43~~ 922.51
STA 34+78.48, 66.23' R 24" RCP APRON W/ FOOTING & APRON GUARD FL=~~922.88~~ 922.99
STA 31+36.70, 15.50' L SW-503 INTK TC=~~935.57~~ 935.87 FL 15" (S)=~~931.08~~ 930.60 FL 30" (W)=~~929.99~~ 929.61 FL 30" (E)=~~929.89~~ 929.53
STA 31+39.16, 36.00' L SW-301 48" MH RIM=~~936.57~~ 936.82 FL 8" (W)=~~919.56~~ 919.67 FL 8" (E)=~~919.46~~ 919.61
VPC STA = 32+67
VPC ELEV = 932.01
CRITICAL CROSSING BOTTOM OF STORM=922.94 TOP OF WATER=921.44 INSTALL GASKETED JOINTS ON STORM SEWER
86 LF OF 30" RCP @ ~~1.65%~~ 1.83% (LENGTH SHOWN INCLUDES APRON)
LP STA = 33+88.30
LP ELEV = 930.27
VPI STA = 33+42
VPI ELEV = 929.85
VC = 150'
K=42.12
STA 33+89.71, 15.50' L SW-506 INTK TC=~~930.47~~ 930.40 FL 24" (S)=~~920.49~~ 920.46 FL 24" (N)=~~920.39~~ 920.44
VPT STA = 34+17
VPT ELEV = 930.36
PROFILE GRADE
STA 34+81.05, 36.00' L SW-301 48" MH RIM=~~931.64~~ 931.62 FL 8" (W)=~~917.07~~ 917.17 FL 8" (E)=~~916.97~~ 917.12
STA 34+88.71, 24.46' L SW-401 60" MH RIM=~~931.41~~ 931.39 FL 24" (E)=~~923.35~~ 923.63 FL 24" (S)=~~923.25~~ 923.53
CRITICAL CROSSING BOTTOM OF STORM=922.87 TOP OF WATER=921.37 INSTALL GASKETED JOINTS ON STORM SEWER
90 LF OF 24" RCP @ ~~0.30%~~ 0.60% (LENGTH SHOWN INCLUDES APRON)
STA 36+67.39, 26.00' L SW-301 48" MH RIM=~~931.83~~ 932.49 FL 8" (W)=~~915.85~~ 915.91 FL 8" (E)=~~915.85~~ 915.93 FL 8" (N)=~~915.75~~ 915.89
STA 36+83.60, 14.50' L SW-503 INTK TC=~~932.31~~ 932.23 FL 24" (E)=~~923.93~~ 923.99 FL 15" (S)=~~927.13~~ 927.04 FL 24" (W)=~~923.83~~ 923.90
-2.88%
0.68%
180 LF OF 30" RCP @ ~~3.25%~~ 2.97%
CRITICAL CROSSING BOTTOM OF STORM=920.04 TOP OF SANITARY=918.47
194 LF OF 24" RCP @ ~~0.30%~~ 0.14%
CRITICAL CROSSING BOTTOM OF STORM=923.48 TOP OF WATER=921.98 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF WATER=925.12 TOP OF SANITARY=916.84
342 LF OF 8" PVC @ ~~0.70%~~ 0.71%
186 LF OF 8" PVC @ ~~0.60%~~ 0.65%
945 940 935 930 925 920 915
931.36 935.38
930.66 933.94
929.87 932.50
929.43 931.19
929.30 930.44
929.20 930.28
929.23 930.59
929.39 930.93
929.64 931.27
929.62 931.61
929.49 931.95
929.56 932.29
32+00 33+00 34+00 35+00 36+00 37+00

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
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PLOTTED BY: ERIN OLLENDIKE TECH: COMMENT: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

17/46

1706.340

REFER TO SHEET 33 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 23 FOR L-57A, L-58, AND L-59.

REFER TO SHEET 23 FOR L-55 AND L-56 PLAN AND PROFILE.

REFER TO SHEET 42 FOR INTERSECTION DETAILS.

INDIAN RIDGE DRIVE
8" P.C.C.
PRAIRIE BLUFF DRIVE
7" P.C.C.
CHEROKEE COURT
7" P.C.C.
DAKOTA CIRCLE
7" P.C.C.
LOT 13
LOT 14
LOT 17
LOT 44
LOT 45
LOT 46
LOT 47
LOT 48
LOT 49
OUTLOT 'X'
OUTLOT 'Y'
Δ = 13°15'37"
L = 231.43'
R = 1000.00'
CH = 230.92'
CHB = N89°23'40"E
Δ = 10°01'49"
L = 175.06'
R = 1000.00'
CH = 174.84'
CHB = N87°46'40"E
15.00' SANITARY SEWER EASEMENT
20.00' SANITARY SEWER EASEMENT
17.50' SANITARY SEWER EASEMENT
10.00' PUE
30' SETBACK
REMOVE EXISTING TREES
10.00' SNOW STORAGE EASEMENT
STA 40+79.18 (PRAIRIE BLUFF DRIVE)
STA 78+73.36 (DAKOTA CIRCLE)
CRITICAL CROSSING
BOTTOM OF WATER=928.00
TOP OF SANITARY=920.85
343 LF OF 6" PERFORATED SUBDRAIN (TYP.)
5' SIDEWALK (FUTURE)
CRITICAL CROSSING
BOTTOM OF STORM=927.62
TOP OF SANITARY=921.09
CRITICAL CROSSING
BOTTOM OF STORM=927.76
TOP OF SANITARY=921.48
CRITICAL CROSSING
BOTTOM OF STORM=927.92
TOP OF SANITARY=921.64
STORM SEWER EASEMENT
145 LF OF 6" PERFORATED SUBDRAIN (TYP.)
STORM CLEANOUT
RIM=934.19
FL=930.69
8' SHARED USE PATH (FUTURE)
CRITICAL CROSSING
BOTTOM OF WATER=927.89
TOP OF SANITARY=921.87
CRITICAL CROSSING
BOTTOM OF STORM=927.47
TOP OF WATER=925.97
INSTALL GASKETED JOINTS ON STORM SEWER
MAILBOX PAD (TYP.)
30.00' B-B
8" P.C.C.
STA 36+77.38
BEGIN 15:1 TAPER
6" SUBDRAIN
FL=928.89
STA 36+92.38
END 15:1 TAPER
10.00' WATERMAIN EASEMENT
60.00' ROW
29.00' B-B
17.50' (TYP.)
352 LF OF 6" PERFORATED SUBDRAIN (TYP.)
STREET LIGHT (TYP.)
15.00' PANEL
6" SUBDRAIN
FL=930.62
8' SHARED USE PATH
8' SHARED USE PATH (FUTURE)
CRITICAL CROSSING
BOTTOM OF STORM=925.01
TOP OF WATER=923.51
INSTALL GASKETED JOINTS ON STORM SEWER
20.00' STORM SEWER EASEMENT
STORM CLEANOUT
RIM=934.57
FL=931.07
20.00' STORM SEWER EASEMENT
10.00' PUE
INSTALL 15 TONS OF CLASS 'E' RIPRAP
CRITICAL CROSSING
BOTTOM OF STORM=927.08
TOP OF WATER=925.58
INSTALL GASKETED JOINTS ON STORM SEWER
5' SIDEWALK
PC 37+31.05
Mid 38+46.77
PT 39+62.48
PC 40+64.26
Mid 41+52.31
37+00
38+00
39+00
40+00
41+00
42+00
78+00
79+00
P-1
P-2
P-14
P-15
P-16
P-17
P-19
L-46
L-47
L-48
L-49
L-55
L-56
L-57A
L-58
L-59
L-60
L-68
S-1
S-14
S-15
S-16
ST-46
ST-47
ST-48
ST-49
ST-54
ST-55
ST-56
ST-58
ST-59
ST-68
172°
118°
103°
84°
78°
95°
85°
86°
S-14
ST-48
S-15
ST-58
SHEET INDEX
SCALE
0'
10'
20'
40'
N

ST-1
STA 36+67.39, 26.00' L
SW-301 48" MH
RIM=~~931.83~~ 932.49
FL 8" (W)=~~915.85~~ 915.91
FL 8" (E)=~~915.85~~ 915.93
FL 8" (N)=~~915.75~~ 915.89
ST-46
STA 36+83.60, 14.50' L
SW-503 INTK
TC=~~932.40~~ 932.23
FL 24" (E)=~~924.03~~ 923.99
FL 15" (S)=~~927.13~~ 927.04
FL 24" (W)=~~923.93~~ 923.90
ST-47
STA 36+84.88, 15.00' R
SW-501 INTK
TC=~~932.39~~ 932.30
FL 15" (N)=~~927.39~~ 927.49
PROPOSED GROUND
EXISTING GROUND
L-47
26 LF OF 15" RCP @ ~~1.00%~~ 1.73%
STA 39+06.20, 19.50' L
ST-48
SW-401 48" MH
RIM=~~934.12~~ 934.08
FL 12" (SE)=~~924.78~~ 924.67
FL 24" (W)=~~924.68~~ 924.53
PROPOSED GROUND
EXISTING GROUND
ST-49
STA 39+38.39, 61.57' R
12" RCP APRON W/ FOOTING & APRON GUARD
FL=~~925.64~~ 926.85
L-49
86 LF OF 12" RCP @ ~~1.00%~~ 2.53%
(LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING
BOTTOM OF STORM=925.01
TOP OF WATER=923.51
S-14
STA 38+75.68, 31.00' L
SW-301 48" MH
RIM=~~934.19~~ 933.79
FL 8" (E)=~~919.04~~ 919.28
FL 8" (W)=~~918.94~~ 919.11
ST-48
STA 39+06.20, 19.50' L
SW-401 48" MH
RIM=~~934.12~~ 934.08
FL 12" (SE)=~~924.78~~ 924.67
FL 24" (W)=~~924.68~~ 924.53
PROFILE GRADE
EXISTING GROUND
0.68%
L-48
216 LF OF 24" RCP @ ~~0.30%~~ 0.25%
P-14
200 LF OF 8" PVC @ ~~1.55%~~ 1.59%
VPC STA = 39+80
VPC ELEV = 934.20
HP STA = 40+31.94
HP ELEV = 934.378
VPI STA = 40+30
VPI ELEV = 934.54
VC = 100'
K=76.22
VPT STA = 40+80
VPT ELEV = 934.23
P-15
236 LF OF 8" PVC @ ~~0.60%~~ 0.59%
CRITICAL CROSSING
BOTTOM OF WATER=928.00
TOP OF SANITARY=920.85
CRITICAL CROSSING
BOTTOM OF STORM =927.62
TOP OF SANITARY =921.09
ST-58
STA 41+05.97, 42.22' L
SW-402 72" MH
RIM=~~934.52~~ 935.02
FL 8" (N)=~~930.52~~ 930.82
FL 30" (E)=~~928.02~~ 928.14
FL 30" (S)=~~927.93~~ 928.12
S-15
STA 41+16.33, 31.99' L
SW-301 48" MH
RIM=~~934.23~~ 934.70
FL 8" (E)=~~920.56~~ 920.70
FL 8" (N)=~~920.56~~ 920.73
FL 8" (S)=~~920.56~~ 920.73
FL 8" (W)=~~920.46~~ 920.68
-0.63%
L-60
158 LF OF 30" RCP @ ~~0.30%~~ 0.16%
CRITICAL CROSSING
BOTTOM OF STORM=927.76
TOP OF SANITARY=921.48
CRITICAL CROSSING
BOTTOM OF STORM=927.92
TOP OF SANITARY=921.64
P-17
166 LF OF 8" PVC @ ~~0.80%~~ 0.81%
945
940
935
930
925
920
915
929.49 931.95
929.56 932.29
929.87 932.63
929.89 932.97
929.64 933.32
929.17 933.66
928.63 934.00
928.39 934.31
928.91 934.36
929.60 934.10
930.52 933.79
930.18 933.47
37+00
38+00
39+00
40+00
41+00
42+00

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
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REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

18/46

1706.340

REFER TO SHEET 34 FOR WATERMAIN PLAN AND PROFILE.

REFER TO SHEET 43 FOR INTERSECTION DETAILS.

REFER TO SHEET 27 FOR L-65 PLAN AND PROFILE.

SHEET INDEX
LOT 17
LOT 18
LOT 19
LOT 20
LOT 21
OUTLOT 'Z'
LOT 49
LOT 26
LOT 25
LOT 24
LOT 23
LOT 22
REMOVE EXISTING TREES
30' SETBACK
Δ = 10°01'49"
L = 175.06'
R = 1000.00'
CH = 174.84'
CHB = N87°46'40"E
20.00' OVERLAND FLOWAGE EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=927.92
TOP OF SANITARY=921.64
15.00' SANITARY SEWER EASEMENT
10.00' PUE
43+32
TG=934.63
44+29
TG=935.85
45+23
TG=937.03
46+19
TG=938.09
15.00' SANITARY SEWER EASEMENT
10.00' SNOW STORAGE EASEMENT
STA 46+62.67
END PAVEMENT
42+00
43+00
44+00
45+00
46+00
47+00
S-17
P-17
P-18
S-18
ST-64
R/W
5' SIDEWALK (FUTURE)
L-60
L-63
L-64
L-65
L-61
L-62
STREET LIGHT (TYP.)
Mid 41+52.31
PT 42+39.84
ST-60
ST-61
ST-62
ST-63
PRAIRIE BLUFF DRIVE
7" P.C.C.
60.00' ROW
29.00' B-B
17.50' (TYP.)
STORM CLEANOUT
RIM=938.34
FL=934.84
8' SHARED USE PATH
20.00' STORM SEWER EASEMENT
10.00' WATERMAIN EASEMENT
6" SUBDRAIN
FL=929.90
145 LF OF 6" PERFORATED SUBDRAIN (TYP.)
432 LF OF 6" PERFORATED SUBDRAIN (TYP.)
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=928.68
TOP OF WATER=927.18
INSTALL GASKETED JOINTS ON STORM SEWER
43+05
TG=934.28
43+94
TG=935.34
44+85
TG=936.47
45+75
TG=937.76
8' SHARED USE PATH (FUTURE)
10.00' WATERMAIN EASEMENT
10.00' PUE
STA 46+66.99
BEGIN PAVEMENT
46+56
TG=938.32
30.00' OVERLAND FLOWAGE EASEMENT
N
SCALE
0'
10'
20'
40'
178"
S-17
179"
ST-63
S-18
120"
ST-64

945
940
935
930
925
920
915
ST-60
STA 42+63.02, 14.50' L
SW-506 INTK
TC=~~933.40~~ 933.37
FL 15" (S)=~~928.60~~ 928.41
FL 18" (E)=~~928.60~~ 928.46
FL 30" (W)=~~928.50~~ 928.40
VPC STA = 42+30
VPC ELEV = 933.28
LP STA = 42+63.53
LP ELEV = 933.17
VPI STA = 42+80
VPI ELEV = 932.97
VC = 100'
K=53.18
S-17
STA 42+82.18, 31.00' L
SW-301 48" MH
RIM=~~933.82~~ 934.19
FL 8" (E)=~~921.98~~ 922.06
FL 8" (W)=~~921.88~~ 922.04
VPT STA = 43+30
VPT ELEV = 933.59
ST-60
STA 42+63.02, 14.50' L
SW-506 INTK
TC=~~933.40~~ 933.37
FL 15" (S)=~~928.60~~ 928.41
FL 18" (E)=~~928.60~~ 928.46
FL 30" (W)=~~928.50~~ 928.40
ST-61
STA 42+63.02, 14.50' R
SW-505 INTK
TC=~~933.40~~ 933.32
FL 15" (SW)=~~928.85~~ 928.51
FL 15" (N)=~~928.75~~ 928.47
ST-62
STA 42+39.76, 48.90' R
15" RCP APRON W/ FOOTING & APRON GUARD
FL=~~929.11~~ 928.93
EXISTING GROUND
PROPOSED GROUND
L-61
25 LF OF 15" RCP @ ~~0.60%~~ 0.24%
L-62
41 LF OF 15" RCP @ ~~0.65%~~ 1.02%
(LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING
BOTTOM OF STORM=928.68
TOP OF WATER=927.18
INSTALL GASKETED JOINTS ON STORM SEWER
1.25%
ST-63
STA 44+77.31, 19.50' L
SW-401 48" MH
RIM=~~935.85~~ 935.77
FL 18" (E)=~~929.57~~ 929.35
FL 18" (W)=~~929.46~~ 929.31
PROFILE GRADE
S-18
STA 46+57.90, 31.00' L
SW-301 48" MH
RIM=~~937.98~~ 938.22
FL 8" (W)=~~925.89~~ 926.04
ST-64
STA 47+01.98, 19.77' L
SW-401 48" MH
RIM=~~938.90~~ 938.81
FL 18" (SE)=~~930.68~~ 930.38
FL 18" (W)=~~930.58~~ 930.34
L-60
158 LF OF 30" RCP @ ~~0.30%~~ 0.16%
CRITICAL CROSSING
BOTTOM OF STORM=927.92
TOP OF SANITARY=921.64
P-17
166 LF OF 8" PVC @ ~~0.80%~~ 0.81%
EXISTING GROUND
L-63
213 LF OF 18" RCP @ ~~0.40%~~ 0.40%
L-64
222 LF OF 18" RCP @ ~~0.45%~~ 0.45%
P-18
372 LF OF 8" PVC @ ~~1.05%~~ 1.07%
930.18
933.47
928.94
933.19
927.69
933.30
929.37
933.84
930.64
934.47
931.43
935.09
932.02
935.72
933.12
936.34
933.92
936.97
934.73
935.40
42+00
43+00
44+00
45+00
46+00
47+00

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REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

REFER TO SHEET 35 FOR WATERMAIN PLAN AND PROFILE.
SHEET INDEX
LOT 5
LOT 4
LOT 3
LOT 27
LOT 28
LOT 29
LOT 30
OUTLOT 'V'
LOT 69
LOT 70
LOT 71
LOT 72
LOT 73
LOT 74
LOT 75
PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
8" P.C.C.
7" P.C.C.
Δ = 6°50'33"
L = 77.62'
R = 650.00'
CH = 77.58'
CHB = S3°16'30"E
Δ = 101°26'55"
L = 132.80'
R = 75.00'
CH = 116.12'
CHB = S50°34'40"E
30' SETBACK
10.00' PUE
15.00' SANITARY SEWER EASEMENT
20.00' SANITARY SEWER EASEMENT
5' SIDEWALK (FUTURE)
8' SHARED USE PATH (FUTURE)
CRITICAL CROSSING
BOTTOM OF WATER=937.28
TOP OF SANITARY=932.16
CRITICAL CROSSING
BOTTOM OF STORM=933.83
TOP OF SANITARY=931.08
CRITICAL CROSSING
BOTTOM OF STORM=938.14
TOP OF WATER=936.64
INSTALL GASKETED JOINTS ON STORM SEWER
STA 61+00.00 (DAKOTA CIRCLE)
STA 27+87.93 (PRAIRIE BLUFF DRIVE)
60.00' ROW
29.00' B-B
18.50' (TYP.)
6" SUBDRAIN
FL=940.09
339 LF OF 6" PERFORATED SUBDRAIN (TYP.)
363 LF OF 6" PERFORATED SUBDRAIN (TYP.)
MAILBOX PAD (TYP.)
STREET LIGHT (TYP.)
STORM CLEANOUT
RIM=948.77
FL=945.27
STORM CLEANOUT
RIM=948.77
FL=945.27
61+82 TG=944.73
62+36 TG=945.78
62+91 TG=946.84
63+51 TG=948.01
64+57 TG=949.49
64+26 TG=949.29
63+96 TG=948.87
63+64 TG=948.25
63+07 TG=947.15
62+52 TG=946.08
62+00 TG=945.09
PC 61+14.84
PT 61+92.46
PC 63+71.43
PT 65+04.23
PT 27+41.84
BP 60+00.00
S-4
S-5
S-6
S-24
ST-15
ST-16
ST-17
ST-18
ST-38
P-4
P-5
P-6
P-7
P-24
L-15
L-16
L-17
L-18A
L-18B
L-19
L-38
SCALE
0' 10' 20' 40'
PROPOSED GROUND
EXISTING GROUND
PROFILE GRADE
64 LF OF 15" RCP @ ~~1.05%~~ 1.67%
25 LF OF 15" RCP @ ~~1.00%~~ 0.88%
242 LF OF 8" PERFORATED PVC @ ~~1.80%~~ 1.94%
43 LF OF 8" PERFORATED PVC @ ~~0.60%~~ 1.02%
236 LF OF 8" PERFORATED PVC @ ~~1.10%~~ 1.00%
83 LF OF 8" PVC @ ~~2.30%~~ 2.51%
253 LF OF 8" PVC @ ~~1.85%~~ 1.96%
314 LF OF 8" PVC @ ~~2.40%~~ 2.40%
LP STA = 61+49.86
LP ELEV = 943.37
VPI STA = 61+53
VPI ELEV = 943.16
VC = 50'
K=14.57
HP STA = 64+68.68
HP ELEV = 948.491
VPI STA = 64+65
VPI ELEV = 949.18
VC = 150'
K=40.75
VPC STA = 61+28
VPC ELEV = 943.53
VPT STA = 61+78
VPT ELEV = 943.64
VPC STA = 63+90
VPC ELEV = 947.73
VPT STA = 65+40
VPT ELEV = 947.87
2.00%
-2.00%
-1.50%
1.93%
930
935
940
945
950
955
960
60+00
61+00
62+00
63+00
64+00
65+00

PAINTED WOODS SOUTH PLAT 1
SANITARY & STORM SEWER PLAN AND PROFILE
WAUKEE, IOWA

CIVIL DESIGN ADVANTAGE

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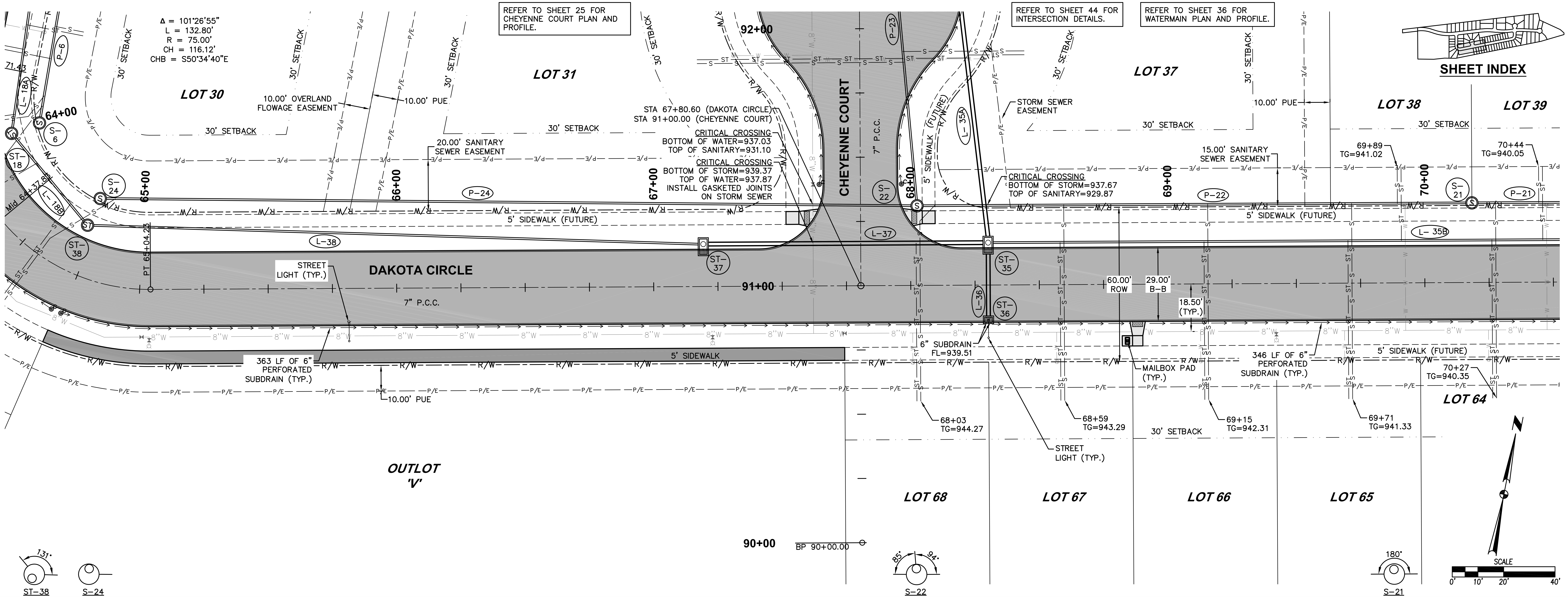
ENGINEER: EKO
EI: GH

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

20/46
1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:36 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:


REFER TO SHEET 25 FOR CHEYENNE COURT PLAN AND PROFILE.
REFER TO SHEET 44 FOR INTERSECTION DETAILS.
REFER TO SHEET 36 FOR WATERMAIN PLAN AND PROFILE.
SHEET INDEX
Δ = 101°26'55"
L = 132.80'
R = 75.00'
CH = 116.12'
CHB = S50°34'40"E
LOT 30
LOT 31
LOT 37
LOT 38
LOT 39
LOT 64
LOT 65
LOT 66
LOT 67
LOT 68
OUTLOT 'V'
30' SETBACK
10.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
20.00' SANITARY SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
STORM SEWER EASEMENT
STA 67+80.60 (DAKOTA CIRCLE)
STA 91+00.00 (CHEYENNE COURT)
CRITICAL CROSSING
BOTTOM OF WATER=937.03
TOP OF SANITARY=931.10
CRITICAL CROSSING
BOTTOM OF STORM=939.37
TOP OF WATER=937.87
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF STORM=937.67
TOP OF SANITARY=929.87
CHEYENNE COURT
7" P.C.C.
5' SIDEWALK (FUTURE)
DAKOTA CIRCLE
7" P.C.C.
STREET LIGHT (TYP.)
5' SIDEWALK
363 LF OF 6" PERFORATED SUBDRAIN (TYP.)
346 LF OF 6" PERFORATED SUBDRAIN (TYP.)
6" SUBDRAIN FL=939.51
MAILBOX PAD (TYP.)
60.00' ROW
29.00' B-B
18.50' (TYP.)
PT 65+04.22
Mid 64+37.
71.43
64+00
65+00
66+00
67+00
68+00
69+00
70+00
91+00
92+00
90+00
BP 90+00.00
69+89 TG=941.02
70+44 TG=940.05
70+27 TG=940.35
68+03 TG=944.27
68+59 TG=943.29
69+15 TG=942.31
69+71 TG=941.33
S-6
S-24
S-22
S-21
ST-18
ST-38
ST-37
ST-35
ST-36
P-6
P-23
P-24
P-22
P-21
L-18A
L-18B
L-38
L-37
L-35A
L-35B
L-36
131°
85°
94°
180°
ST-38
S-24
S-22
S-21
SCALE
0'
10'
20'
40'

S-24
STA 64+70.05, 31.00' L
SW-301 48" MH
RIM=~~949.11~~ 949.17
FL 8" (E)=~~937.06~~ 936.97
ST-38
STA 64+70.15, 19.50' L
SW-401 48" MH
RIM=~~948.91~~ 948.92
FL 8" (NW)=~~943.16~~ 942.89
FL 8" (E)=~~943.06~~ 942.88
VPT STA = 65+40
VPT ELEV = 947.87
ST-37
STA 67+19.36, 14.50' L
SW-503 INTK
TC=~~944.95~~ 945.15
FL 8" (W)=~~940.45~~ 940.52
FL 15" (E)=~~940.35~~ 940.34
S-22
STA 68+02.60, 31.00' L
SW-301 48" MH
RIM=~~943.28~~ 942.58
FL 8" (N)=~~929.53~~ 929.45
FL 8" (W)=~~929.53~~ 929.43
FL 8" (E)=~~929.43~~ 929.37
ST-35
STA 68+30.17, 14.50' L
SW-503 INTK
TC=~~943.01~~ 943.18
FL 15" (W)=~~938.03~~ 938.05
FL 15" (S)=~~938.03~~ 938.05
FL 15" (N)=~~937.93~~ 937.91
FL 8" (E)=~~938.22~~ 938.41
S-21
STA 70+18.47, 31.00' L
SW-301 48" MH
RIM=~~940.23~~ 940.12
FL 8" (W)=~~927.32~~ 927.10
FL 8" (E)=~~927.22~~ 927.06
PROFILE GRADE
EXISTING GROUND
-1.75%
L-38
236 LF OF 8" PERFORATED PVC @ ~~1.10%~~ 1.00%
CRITICAL CROSSING
BOTTOM OF STORM=939.37
TOP OF WATER=937.87
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=937.03
TOP OF SANITARY=931.10
L-37
108 LF OF 15" RCP @ ~~2.15%~~ 2.12%
CRITICAL CROSSING
BOTTOM OF STORM=937.67
TOP OF SANITARY=929.87
L-35B
351 LF OF 8" PERFORATED PVC @ ~~1.50%~~ 1.63%
P-24
314 LF OF 8" PVC @ ~~2.40%~~ 2.40%
P-22
212 LF OF 8" PVC @ 1.07% ~~1.06%~~
955
950
945
940
935
930
925
949.44
948.37
946.43
947.69
944.01
946.82
942.40
945.94
940.87
945.07
939.50
944.19
937.73
943.32
937.61
942.44
936.70
941.57
935.29
940.69
935.65
939.82
65+00
66+00
67+00
68+00
69+00
70+00

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:37 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

REFER TO SHEET 26 FOR L-40, L-41 AND L-42 PLAN AND PROFILE.
REFER TO SHEET 37 FOR WATERMAIN PLAN AND PROFILE.
20.00' STORM SEWER EASEMENT
SHEET INDEX
LOT 38
LOT 39
LOT 40
LOT 41
LOT 42
LOT 43
LOT 44
LOT 45
LOT 46
LOT 47
LOT 48
L-40
CRITICAL CROSSING
BOTTOM OF STORM=928.89
TOP OF SANITARY=926.92
30' SETBACK
69+89 TG=941.02
70+44 TG=940.05
70+99 TG=939.09
71+56 TG=938.36
72+16 TG=938.45
72+74 TG=938.88
73+29 TG=939.28
15.00' SANITARY SEWER EASEMENT
73+84 TG=939.69
74+39 TG=939.92
74+94 TG=939.47
75+49 TG=938.62
70+00
71+00
72+00
73+00
74+00
75+00
P-22
S-21
P-21
S-20
P-20
5' SIDEWALK (FUTURE)
L-35B
L-43A
L-43B
ST-40
L-41
ST-41
ST-43
DAKOTA CIRCLE
STREET LIGHT (TYP.)
60.00' ROW
29.00' B-B
7" P.C.C.
18.50' (TYP.)
MAILBOX PAD (TYP.)
STREET LIGHT (TYP.)
6" SUBDRAIN FL=934.00
346 LF OF 6" PERFORATED SUBDRAIN (TYP.)
5' SIDEWALK (FUTURE)
218 LF OF 6" PERFORATED SUBDRAIN (TYP.)
345 LF OF 6" PERFORATED SUBDRAIN (TYP.)
73+71 TG=939.59
74+27 TG=939.92
10.00' PUE
STORM CLEANOUT RIM=939.05 FL=935.55
STORM CLEANOUT RIM=939.08 FL=935.58
70+27 TG=940.35
70+83 TG=939.37
71+41 TG=938.48
72+01 TG=938.35
72+59 TG=938.77
73+15 TG=939.18
74+83 TG=939.62
75+39 TG=938.77
CRITICAL CROSSING
BOTTOM OF STORM=932.57
TOP OF WATER=931.07
INSTALL GASKETED JOINTS ON STORM SEWER
30' SETBACK
L-42
LOT 64
LOT 63
LOT 62
LOT 61
LOT 60
LOT 59
LOT 58
LOT 57
LOT 56
LOT 55
20.00' STORM SEWER EASEMENT
180°
S-20
179°
ST-43
SCALE
0'
10'
20'
40'
R/W
P/E
ST
S
W
8"W

950
945
940
935
930
925
920
S-21
STA 70+18.47, 31.00' L
SW-301 48" MH
RIM=~~940.23~~ 940.12
FL 8" (W)=~~927.32~~ 927.10
FL 8" (E)=~~927.22~~ 927.06
VPC STA = 71+10
VPC ELEV = 937.89
LP STA = 71+80.32
LP ELEV = 937.28
VPI STA = 71+60
VPI ELEV = 937.02
VC = 100'
K=40.19
ST-40
STA 71+82.16, 14.50' L
SW-506 INTK
TC=~~937.50~~ 937.37
FL 15" (S)=~~932.08~~ 931.84
FL 8" (W)=~~932.97~~ 932.78
FL 8" (E)=~~932.97~~ 932.77
FL 15" (N)=~~929.51~~ 929.31
VPT STA = 72+10
VPT ELEV = 937.39
-1.75%
0.74%
PROFILE GRADE
VPC STA = 74+00
VPC ELEV = 938.79
ST-43
STA 74+13.47, 19.50' L
SW-401 48" MH
RIM=~~939.29~~ 939.36
FL 8" (W)=~~934.33~~ 934.27
FL 8" (E)=~~934.33~~ 934.36
S-20
STA 74+13.47, 31.01' L
SW-301 48" MH
RIM=~~939.60~~ 939.57
FL 8" (W)=~~924.87~~ 924.57
FL 8" (E)=~~924.77~~ 924.55
HP STA = 74+32.08
HP ELEV = 938.907
VPI STA = 74+50
VPI ELEV = 939.16
VC = 100'
K=43.45
VPT STA = 75+00
VPT ELEV = 938.38
-1.56%
L-35B
351 LF OF 8" PERFORATED PVC @ ~~1.50%~~ 1.63%
CRITICAL CROSSING
BOTTOM OF STORM=928.89
TOP OF SANITARY=926.92
L-43A
226 LF OF 8" PERFORATED PVC @ ~~0.60%~~ 0.66%
EXISTING GROUND
L-43B
250 LF OF 8" PERFORATED PVC @ ~~1.10%~~ 1.03%
P-21
391 LF OF 8" PVC @ ~~0.60%~~ 0.64%
P-20
322 LF OF 8" PVC @ 0.61% ~~0.60%~~
935.65 939.82
935.17 938.94
934.64 938.07
934.21 937.39
933.74 937.32
933.37 937.68
932.75 938.05
932.32 938.42
932.15 938.79
931.97 938.87
931.80 938.38
931.51 937.59
70+00
71+00
72+00
73+00
74+00
75+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:39 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REFER TO SHEET 28 FOR L-51, L-52 AND L-53 PLAN AND PROFILE.
REFER TO SHEET 38 FOR WATERMAIN PLAN AND PROFILE.
REFER TO SHEET 42 FOR INTERSECTION DETAILS.
SHEET INDEX
LOT 55
LOT 54
LOT 53
LOT 52
LOT 51
LOT 50
LOT 49
LOT 14
LOT 15
LOT 16
LOT 17
OUTLOT 'Y'
DAKOTA CIRCLE
PRAIRIE BLUFF DRIVE
CHEROKEE COURT
15.00' SANITARY SEWER EASEMENT
20.00' STORM SEWER EASEMENT
345 LF OF 6" PERFORATED SUBDRAIN (TYP.)
30' SETBACK
75+95 TG=937.90
Δ = 77°44'04" L = 101.75' R = 75.00' CH = 94.13' CHB = N39°49'50"E
INSTALL 10 TONS OF CLASS 'E' RIPRAP
INSTALL 15 TONS OF CLASS 'E' RIPRAP
10.00' PUE
8' SHARED USE PATH
5' SIDEWALK (FUTURE)
5' SIDEWALK
7" P.C.C.
PT 39+62.48
17.50' SANITARY SEWER EASEMENT
OVERLAND FLOWAGE EASEMENT
REMOVE EXISTING TREES
STA 78+73.36 (DAKOTA CIRCLE) STA 40+79.18 (PRAIRIE BLUFF DRIVE)
79+60 TG=936.13
STREET LIGHT (TYP.)
80+23 TG=936.68
CRITICAL CROSSING BOTTOM OF WATER=928.00 TOP OF SANITARY=920.85
10.00' SNOW STORAGE EASEMENT
PC 76+53.44
76+50 TG=937.04
CRITICAL CROSSING BOTTOM OF STORM=927.03 TOP OF SANITARY=923.91
130 LF OF 6" PERFORATED SUBDRAIN (TYP.)
CRITICAL CROSSING BOTTOM OF STORM=927.28 TOP OF WATER=925.78 INSTALL GASKETED JOINTS ON STORM SEWER
6" SUBDRAIN FL=932.61
CRITICAL CROSSING BOTTOM OF STORM=927.08 TOP OF WATER=925.58 INSTALL GASKETED JOINTS ON STORM SEWER
6" SUBDRAIN FL=930.36
PC 40+64.36
5.00' OVERLAND FLOWAGE EASEMENT
PT 77+55.20
18.50' (TYP.)
60.00' ROW
29.00' B-B
76+86 TG=936.48
6" SUBDRAIN FL=931.78
CRITICAL CROSSING BOTTOM OF STORM=927.62 TOP OF SANITARY=921.09
343 LF OF 6" PERFORATED SUBDRAIN (TYP.)
CRITICAL CROSSING BOTTOM OF STORM=931.03 TOP OF WATER=929.53 INSTALL GASKETED JOINTS ON STORM SEWER
20.00' STORM SEWER EASEMENT
80+33 TG=936.80
6" SUBDRAIN FL=932.41
CRITICAL CROSSING BOTTOM OF WATER=928.82 TOP OF SANITARY=923.64
CRITICAL CROSSING BOTTOM OF STORM=927.47 TOP OF WATER=925.97 INSTALL GASKETED JOINTS ON STORM SEWER
77+18 TG=935.98
20.00' SANITARY SEWER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=927.76 TOP OF SANITARY=921.48
15.00' OVERLAND FLOWAGE EASEMENT
25.00' LANDSCAPE BUFFER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=930.52 TOP OF SANITARY=923.53
77+49 TG=935.49
77+97 TG=934.78
CRITICAL CROSSING BOTTOM OF WATER=927.89 TOP OF SANITARY=921.87
STORM SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
79+76 TG=936.20
Mid 41+52.31
Mid 77+44.32
76+00
77+00
78+00
79+00
80+00
81+00
40+00
41+00
ST-49
ST-50
ST-51
ST-52
ST-54
ST-55
ST-56
ST-57
ST-58
ST-59
S-15
S-16
S-19
L-43B
L-49
L-51
L-52
L-53
L-55
L-56
L-57A
L-57B
L-58
L-59
L-60
P-15
P-16
P-17
P-19
P-20
R/W
ST-51
ST-57
S-19
S-16
ST-59
SCALE
0'
10'
20'
40'
N

945
940
935
930
925
920
915
ST-51 STA 76+71.87, 19.50' L SW-401 48" MH RIM=~~937.11~~ 936.14 FL 24" (SE) ~~927.41~~ 927.46 FL 8" (W) ~~931.58~~ 931.78 FL 24" (NW) ~~927.31~~ 927.42 FL 8" (E) ~~931.69~~ 931.88
ST-57 STA 77+27.87, 20.54' R SW-401 48" MH RIM=~~935.39~~ 935.31 FL 8" (W) ~~930.73~~ 930.59 FL 8" (N) ~~930.63~~ 930.54
S-19 STA 77+34.19, 22.00' R SW-301 48" MH RIM=~~935.24~~ 935.30 FL 8" (W) ~~922.84~~ 922.58 FL 8" (N) ~~922.74~~ 922.55
VPC STA = 77+85 VPC ELEV = 933.92
ST-56 STA 78+20.36, 14.50' R SW-506 INTK TC=~~933.06~~ 933.90 FL 8" (S) ~~929.34~~ 929.11 FL 30" (W) ~~927.56~~ 927.41 FL 30" (N) ~~927.66~~ 927.63
LP STA = 78+20.72 LP ELEV = 933.64 VPI STA = 78+20 VPI ELEV = 933.37 VC = 70' K=22.85
VPT STA = 78+55 VPT ELEV = 933.90
S-15 STA 79+09.30, 34.00' R SW-301 48" MH RIM=~~934.37~~ 934.70 FL 8" (E) ~~920.56~~ 920.70 FL 8" (N) ~~920.56~~ 920.73 FL 8" (S) ~~920.56~~ 920.73 FL 8" (W) ~~920.46~~ 920.68
ST-58 STA 79+18.44, 22.32' R SW-401 72" MH RIM=~~934.52~~ 935.02 FL 8" (N) ~~930.52~~ 930.82 FL 30" (E) ~~928.02~~ 928.14 FL 30" (S) ~~927.93~~ 928.12
S-16 STA 79+93.40, 41.75' R SW-301 48" MH RIM=~~935.09~~ 936.26 FL 8" (S) ~~923.56~~ 924.06
ST-59 STA 79+95.74, 35.99' R SW-401 48" MH RIM=~~936.11~~ 935.98 FL 8" (S) ~~931.41~~ 931.35
ST-54 STA 78+07.40, 48.15' L 30" RCP APRON FOOTING & APRON GUARD FL=~~927.20~~ 927.23
ST-55 STA 78+20.36, 14.50' L SW-505 INTK TC=~~933.86~~ 933.76 FL 30" (E) ~~927.49~~ 927.36 FL 30" (W) ~~927.39~~ 927.34
ST-56 STA 78+20.36, 14.50' R SW-506 INTK TC=~~933.66~~ 933.90 FL 8" (S) ~~929.34~~ 929.11 FL 30" (W) ~~927.56~~ 927.41 FL 30" (N) ~~927.66~~ 927.63
PROPOSED GROUND
EXISTING GROUND
L-55 37 LF OF 30" RCP @ ~~0.30%~~ 0.30% (LENGTH SHOWN INCLUDES APRON)
L-56 25 LF OF 30" RCP @ ~~0.30%~~ 0.20%
CRITICAL CROSSING BOTTOM OF STORM=927.08 TOP OF WATER=925.58 INSTALL GASKETED JOINTS ON STORM SEWER
-1.56%
PROFILE GRADE
EXISTING GROUND
1.50%
1.90%
-2.06%
1.50%
L-43B 250 LF OF 8" PERFORATED PVC @ ~~1.10%~~ 1.03%
L-57B 63 LF OF HDPE @ ~~1.50%~~ 2.05%
8"
L-57A 98 LF OF 8" HDPE @ ~~1.32%~~ 1.46%
L-58 93 LF OF 30" RCP @ ~~0.30%~~ 0.53%
L-59 74 LF OF 8" PERFORATED PVC @ ~~1.20%~~ 0.72%
CRITICAL CROSSING BOTTOM OF STORM=927.03 TOP OF SANITARY=923.91
CRITICAL CROSSING BOTTOM OF STORM=930.52 TOP OF SANITARY=923.53
CRITICAL CROSSING BOTTOM OF STORM=927.47 TOP OF WATER=925.97 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF STORM =927.62 TOP OF SANITARY =921.09
CRITICAL CROSSING BOTTOM OF STORM=927.76 TOP OF SANITARY=921.48
P-20 322 LF OF 8" PVC @ ~~0.60%~~ 0.61%
CRITICAL CROSSING BOTTOM OF STORM=931.03 TOP OF WATER=929.53 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF WATER=928.82 TOP OF SANITARY=923.64
P-19 178 LF OF 8" PVC @ ~~1.23%~~ 1.02%
CRITICAL CROSSING BOTTOM OF WATER=927.89 TOP OF SANITARY=921.87
P-16 81 LF OF 8" PVC @ ~~4.25%~~ 4.11%
931.51 937.59
931.39 936.81
931.32 936.03
931.29 935.25
930.86 934.47
930.16 933.74
929.62 933.83
929.59 934.13
929.96 934.88
929.71 935.63
929.31
928.33
76+00
77+00
78+00
79+00
80+00
81+00

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY--ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:41 AM
PLOTTED BY: ERIN OLLENDIKE TECH: ENG: COMMENT:

DATE	REVISIONS
06/30/20	AS-BUILT SUBMITTAL
06/28/19	REVISED STORM SEWER
03/07/19	REVISED SIDEWALK
10/30/18	FINAL SUBMITTAL
10/05/18	FOURTH SUBMITTAL
09/25/18	THIRD SUBMITTAL

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

REFER TO SHEET 39 FOR WATERMAIN PLAN AND PROFILE.
SHEET INDEX
LOT 42
LOT 43
LOT 44
LOT 45
OUTLOT 'X'
LOT 10
LOT 11
LOT 12
LOT 13
PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
PLAT BOUNDARY
8' SHARED USE PATH
8" P.C.C.
7" P.C.C.
10.00' PUE
15.00' SANITARY SEWER EASEMENT
30' SETBACK
CRITICAL CROSSING BOTTOM OF STORM=923.48 TOP OF WATER=921.98 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF WATER=925.12 TOP OF SANITARY=916.84
STORM CLEANOUT RIM=931.21 FL=927.71
PT 35+88.13
PC 101+15.13
Mid 101+46.37
PT 101+77.61
PC 37+31.05
102+12 TG=930.54
103+04 TG=928.19
102+11 TG=930.56
103+21 TG=927.94
212 LF OF 6" PERFORATED SUBDRAIN (TYP.)
5' SIDEWALK (FUTURE)
STREET LIGHT (TYP.)
REMOVE EXISTING GRAVEL TURNAROUND
6" SUBDRAIN FL=923.05
STA 103+62.79 END PAVEMENT
19.50' (TYP.)
70.00' ROW
31.00' B-B
STA 101+00.00 (INDIAN RIDGE DRIVE)
STA 36+36.03 (PRAIRIE BLUFF DRIVE)
BP 100+00.00
EP 105+00.00
100+00
101+00
102+00
103+00
104+00
105+00
36+00
37+00
Δ = 5°30'27"
L = 62.48'
R = 650.00'
CH = 62.46'
CHB = N3°16'10"E
ST-46
ST-47
ST-66
ST-67
ST-68
ST-EX1
ST-EX2
S-1
S-EX1
S-EX2
L-46
L-47
L-48
L-66
L-67
L-68
L-EX2
P-1
P-2
P-14
P-EX2
ST-68
180°
S-EX2
165°
ST-EX2
SCALE
0'
10'
20'
40'
S-1
STA 101+25.50, 31.45' R
SW-301 48" MH
RIM=~~931.83~~ 932.49
FL 8" (W)=~~915.85~~ 915.91
FL 8" (E)=~~915.85~~ 915.93
FL 8" (N)=~~915.75~~ 915.89
VPC STA = 101+31
VPC ELEV = 931.28
ST-68
STA 101+51.65, 20.50' R
SW-401 48" MH
RIM=~~931.28~~ 931.20
FL 8" (N)=~~926.24~~ 926.60
VPI STA = 101+71
VPI ELEV = 930.56
VC = 80'
K=75.93
VPT STA = 102+11
VPT ELEV = 929.43
VPC STA = 102+55
VPC ELEV = 928.17
VPI STA = 103+00
VPI ELEV = 926.89
VC = 90'
K=44.11
VPT STA = 103+45
VPT ELEV = 926.53
ST-66
STA 103+55.29, 15.81' R
SW-503 INTK
TC=~~926.58~~ 926.60
FL 15" (W)=~~922.84~~ 923.00
FL 8" (S)=~~922.84~~ 923.10
FL 15" (N)=~~922.74~~ 922.99
ST-EX2
STA 103+67.05, 18.81' R
EX SW-401 48" MH
RIM=~~926.97~~ 926.38
FL 15" (S)=~~922.70~~ 922.70
FL 15" (N)=~~922.60~~ (VERIFY) 922.58
S-EX2
STA 103+67.84, 24.65' R
EX SW-301 48" MH
RIM=~~926.78~~ 926.93
FL 8" (S)=~~910.64~~ 911.04
FL 8" (N)=~~910.54~~ 910.58
ST-67
STA 103+55.29, 15.20' L
SW-501 INTK
TC=~~926.35~~ 926.56
FL 15" (E)=~~922.95~~ 923.30
EXISTING GROUND
PROPOSED GROUND
27 LF OF 15" RCP @ ~~0.40%~~ 1.11%
PROFILE GRADE
EXISTING GROUND
2.00%
-2.00%
-1.79%
-2.84%
-0.80%
202 LF OF 8" PERFORATED PVC @ ~~1.68%~~ 1.73%
9 LF OF 15" RCP @ ~~3.40%~~ 3.33%
61 LF OF EX 15" RCP @ 1.00%
CORE DRILL SANITARY SEWER CONNECTION AND PROVIDE WATERTIGHT SEAL
241 LF OF 8" PVC @ ~~2.12%~~ 2.01%
59 LF OF EX 8" PVC @ 1.00%
940
935
930
925
920
915
910
930.86
929.95
929.57
931.86
928.91
930.91
928.47
929.72
927.88
928.31
927.18
927.12
926.34
926.49
925.65
925.37
925.05

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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EI: GH

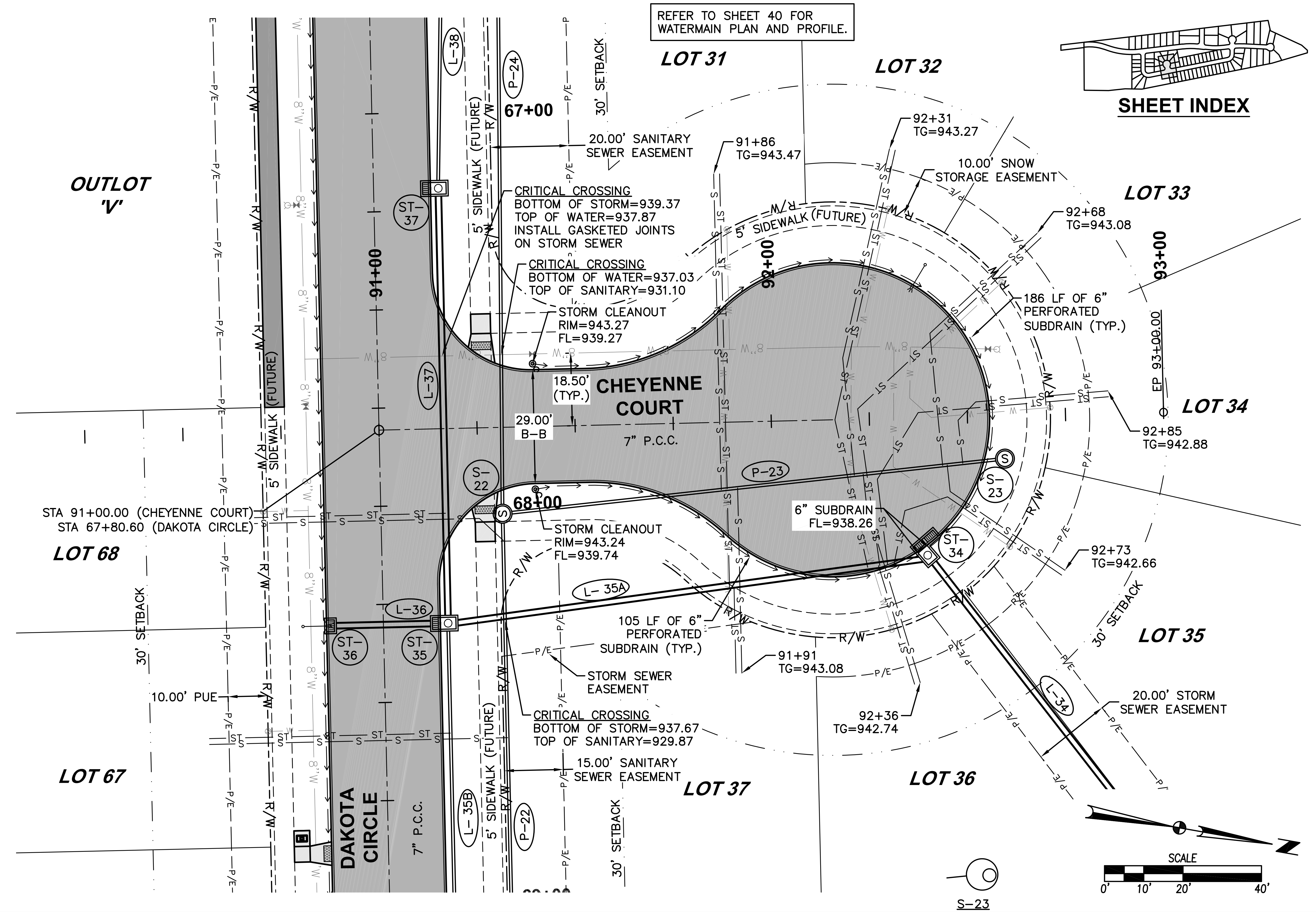
CIVIL DESIGN ADVANTAGE

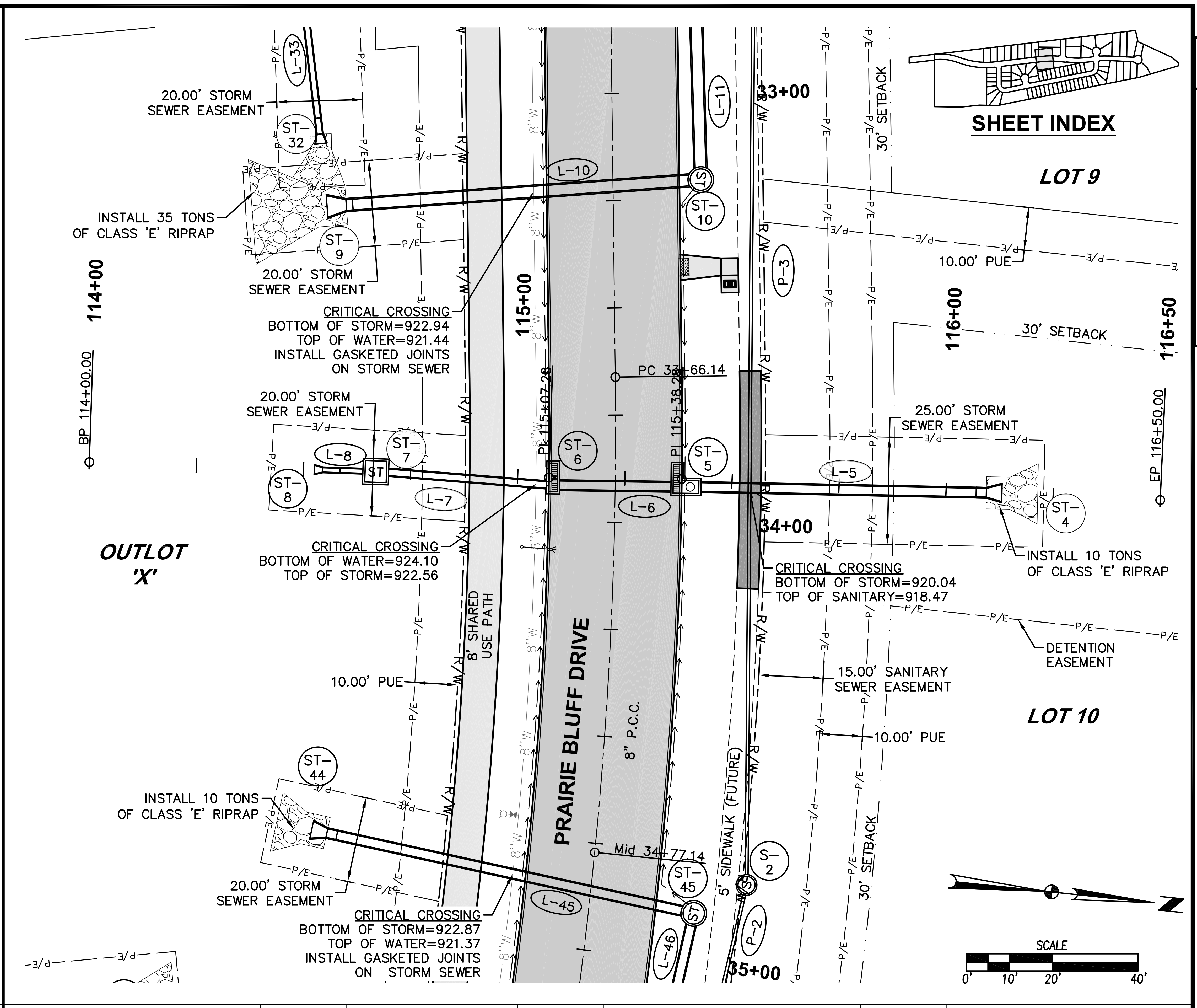
PAINTED WOODS SOUTH PLAT 1
SANITARY & STORM SEWER PLAN AND PROFILE
WAUKEE, IOWA

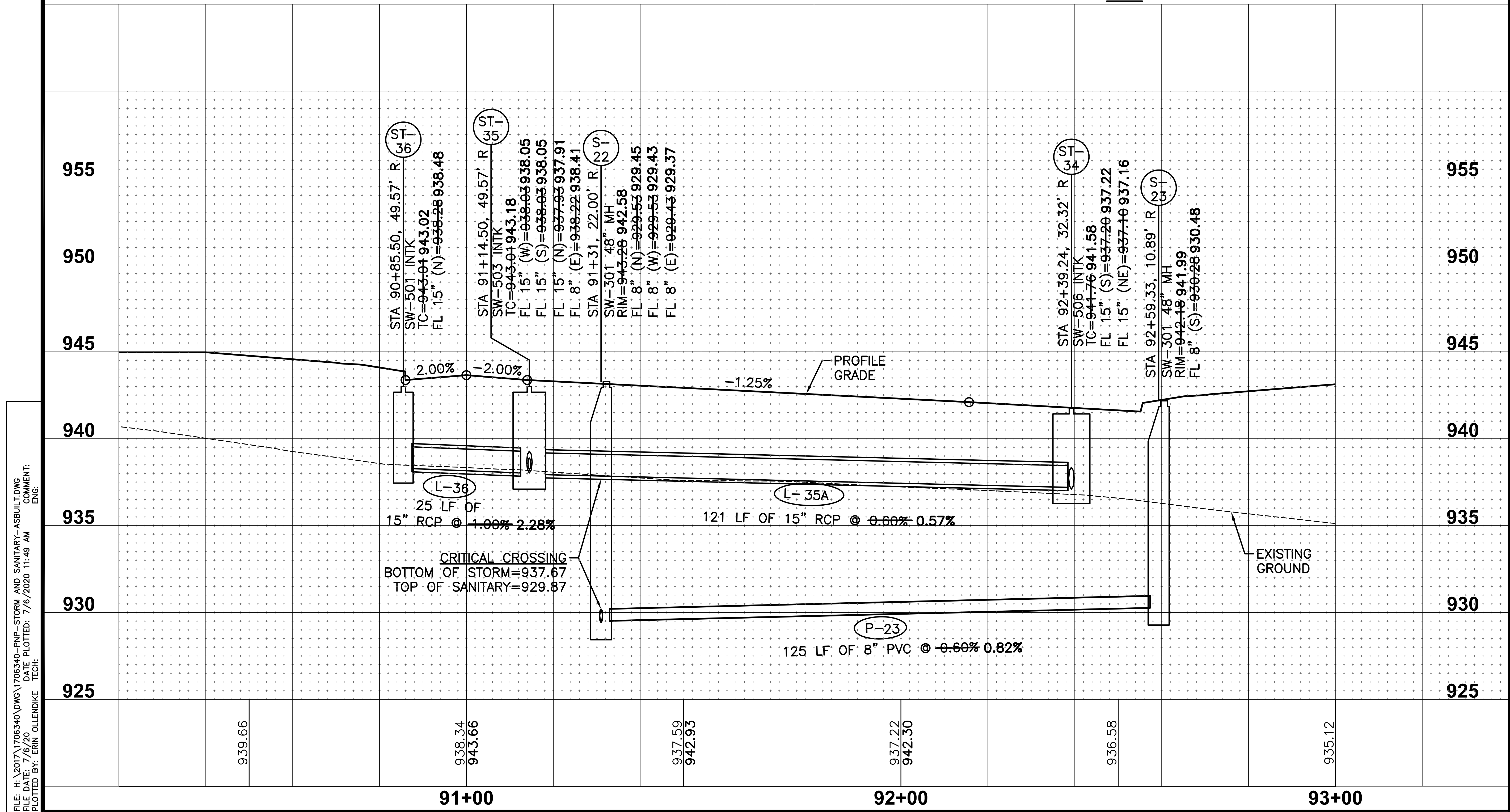
24/46
1706.340

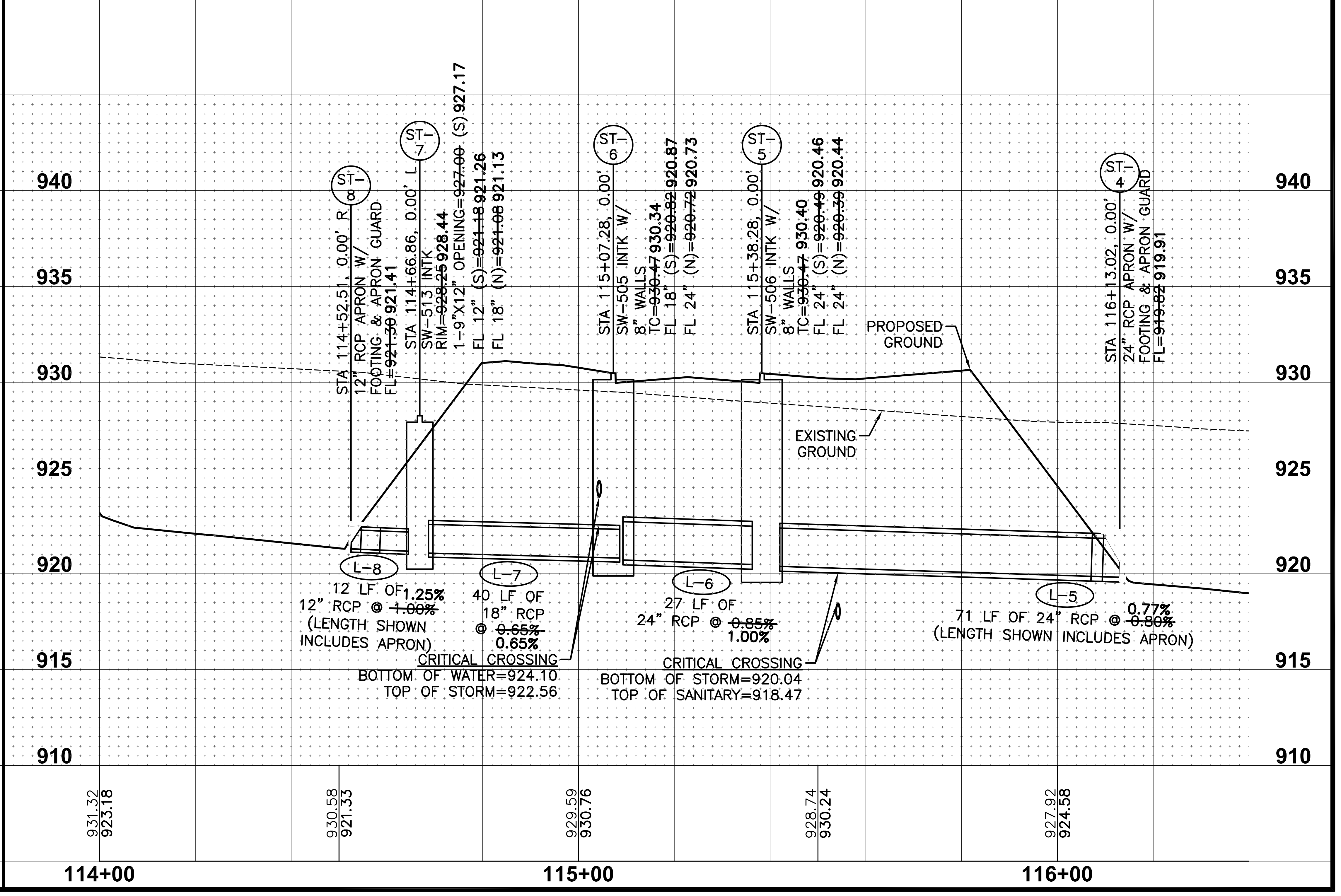
FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:43 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REFER TO SHEET 40 FOR WATERMAIN PLAN AND PROFILE.


SHEET INDEX
OUTLOT 'V'
LOT 31
LOT 32
LOT 33
LOT 34
LOT 35
LOT 36
LOT 37
LOT 67
LOT 68
CHEYENNE COURT
7" P.C.C.
DAKOTA CIRCLE
7" P.C.C.
91+00
92+00
93+00
67+00
68+00
20.00' SANITARY SEWER EASEMENT
91+86 TG=943.47
92+31 TG=943.27
10.00' SNOW STORAGE EASEMENT
92+68 TG=943.08
CRITICAL CROSSING
BOTTOM OF STORM=939.37
TOP OF WATER=937.87
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=937.03
TOP OF SANITARY=931.10
STORM CLEANOUT
RIM=943.27
FL=939.27
186 LF OF 6" PERFORATED SUBDRAIN (TYP.)
EP 93+00.00
18.50' (TYP.)
29.00' B-B
92+85 TG=942.88
STA 91+00.00 (CHEYENNE COURT)
STA 67+80.60 (DAKOTA CIRCLE)
STORM CLEANOUT
RIM=943.24
FL=939.74
6" SUBDRAIN
FL=938.26
92+73 TG=942.66
105 LF OF 6" PERFORATED SUBDRAIN (TYP.)
STORM SEWER EASEMENT
91+91 TG=943.08
92+36 TG=942.74
CRITICAL CROSSING
BOTTOM OF STORM=937.67
TOP OF SANITARY=929.87
15.00' SANITARY SEWER EASEMENT
20.00' STORM SEWER EASEMENT
10.00' PUE
30' SETBACK
5' SIDEWALK (FUTURE)
R/W
ST-37
ST-36
ST-35
ST-34
S-22
S-23
L-34
L-35A
L-35B
L-36
L-37
L-38
P-22
P-23
P-24
S-23
SCALE
0' 10' 20' 40'
N


SHEET INDEX
LOT 9
LOT 10
OUTLOT 'X'
PRAIRIE BLUFF DRIVE
8" P.C.C.
8' SHARED USE PATH
5' SIDEWALK (FUTURE)
114+00
115+00
116+00
116+50
33+00
34+00
35+00
BP 114+00.00
EP 116+50.00
PC 33+66.14
PI 115+07.28
PI 115+38.28
Mid 34+77.14
20.00' STORM SEWER EASEMENT
INSTALL 35 TONS OF CLASS 'E' RIPRAP
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=922.94
TOP OF WATER=921.44
INSTALL GASKETED JOINTS ON STORM SEWER
20.00' STORM SEWER EASEMENT
10.00' PUE
25.00' STORM SEWER EASEMENT
30' SETBACK
INSTALL 10 TONS OF CLASS 'E' RIPRAP
CRITICAL CROSSING
BOTTOM OF WATER=924.10
TOP OF STORM=922.56
CRITICAL CROSSING
BOTTOM OF STORM=920.04
TOP OF SANITARY=918.47
DETENTION EASEMENT
15.00' SANITARY SEWER EASEMENT
10.00' PUE
10.00' PUE
INSTALL 10 TONS OF CLASS 'E' RIPRAP
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=922.87
TOP OF WATER=921.37
INSTALL GASKETED JOINTS ON STORM SEWER
ST-32
ST-9
ST-10
ST-8
ST-7
ST-6
ST-5
ST-4
ST-44
ST-45
S-2
L-5
L-6
L-7
L-8
L-10
L-11
L-33
L-45
L-46
P-2
P-3
SCALE
0' 10' 20' 40'
N


955
950
945
940
935
930
925
ST-36
STA 90+85.50, 49.57' R
SW-501 INTK
TC=~~943.01~~ 943.02
FL 15" (N)=~~938.28~~ 938.48
ST-35
STA 91+14.50, 49.57' R
SW-503 INTK
TC=~~943.01~~ 943.18
FL 15" (W)=~~938.03~~ 938.05
FL 15" (S)=~~938.03~~ 938.05
FL 15" (N)=~~937.93~~ 937.91
FL 8" (E)=~~938.22~~ 938.41
S-22
STA 91+31, 22.00' R
SW-301 48" MH
RIM=~~943.28~~ 942.58
FL 8" (N)=~~929.53~~ 929.45
FL 8" (W)=~~929.53~~ 929.43
FL 8" (E)=~~929.43~~ 929.37
ST-34
STA 92+39.24, 32.32' R
SW-506 INTK
TC=~~941.76~~ 941.58
FL 15" (S)=~~937.20~~ 937.22
FL 15" (NE)=~~937.10~~ 937.16
S-23
STA 92+59.33, 10.89' R
SW-301 48" MH
RIM=~~942.18~~ 941.99
FL 8" (S)=~~930.28~~ 930.48
2.00%
-2.00%
-1.25%
PROFILE GRADE
L-36
25 LF OF 15" RCP @ ~~1.00%~~ 2.28%
L-35A
121 LF OF 15" RCP @ ~~0.60%~~ 0.57%
CRITICAL CROSSING
BOTTOM OF STORM=937.67
TOP OF SANITARY=929.87
EXISTING GROUND
P-23
125 LF OF 8" PVC @ ~~0.60%~~ 0.82%
939.66
938.34
943.66
937.59
942.93
937.22
942.30
936.58
935.12
91+00
92+00
93+00


940
935
930
925
920
915
910
ST-8
STA 114+52.51, 0.00' R
12" RCP APRON W/ FOOTING & APRON GUARD
FL=~~921.30~~ 921.41
ST-7
STA 114+66.86, 0.00' L
SW-513 INTK
RIM=~~928.25~~ 928.44
1-9"X12" OPENING=~~927.00~~ (S) 927.17
FL 12" (S)=~~921.18~~ 921.26
FL 18" (N)=~~921.08~~ 921.13
ST-6
STA 115+07.28, 0.00'
SW-505 INTK W/ 8" WALLS
TC=~~930.47~~ 930.34
FL 18" (S)=~~920.82~~ 920.87
FL 24" (N)=~~920.72~~ 920.73
ST-5
STA 115+38.28, 0.00'
SW-506 INTK W/ 8" WALLS
TC=~~930.47~~ 930.40
FL 24" (S)=~~920.49~~ 920.46
FL 24" (N)=~~920.39~~ 920.44
ST-4
STA 116+13.02, 0.00'
24" RCP APRON W/ FOOTING & APRON GUARD
FL=~~919.82~~ 919.91
PROPOSED GROUND
EXISTING GROUND
L-8
12 LF OF 12" RCP @ ~~1.00%~~ 1.25%
(LENGTH SHOWN INCLUDES APRON)
L-7
40 LF OF 18" RCP @ ~~0.65%~~ 0.65%
L-6
27 LF OF 24" RCP @ ~~0.85%~~ 1.00%
L-5
71 LF OF 24" RCP @ ~~0.80%~~ 0.77%
(LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING
BOTTOM OF WATER=924.10
TOP OF STORM=922.56
CRITICAL CROSSING
BOTTOM OF STORM=920.04
TOP OF SANITARY=918.47
931.32
923.18
930.58
921.33
929.59
930.76
928.74
930.24
927.92
924.58
114+00
115+00
116+00

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FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:49 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

CIVIL DESIGN ADVANTAGE

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ENGINEER: EKO
EI: GH

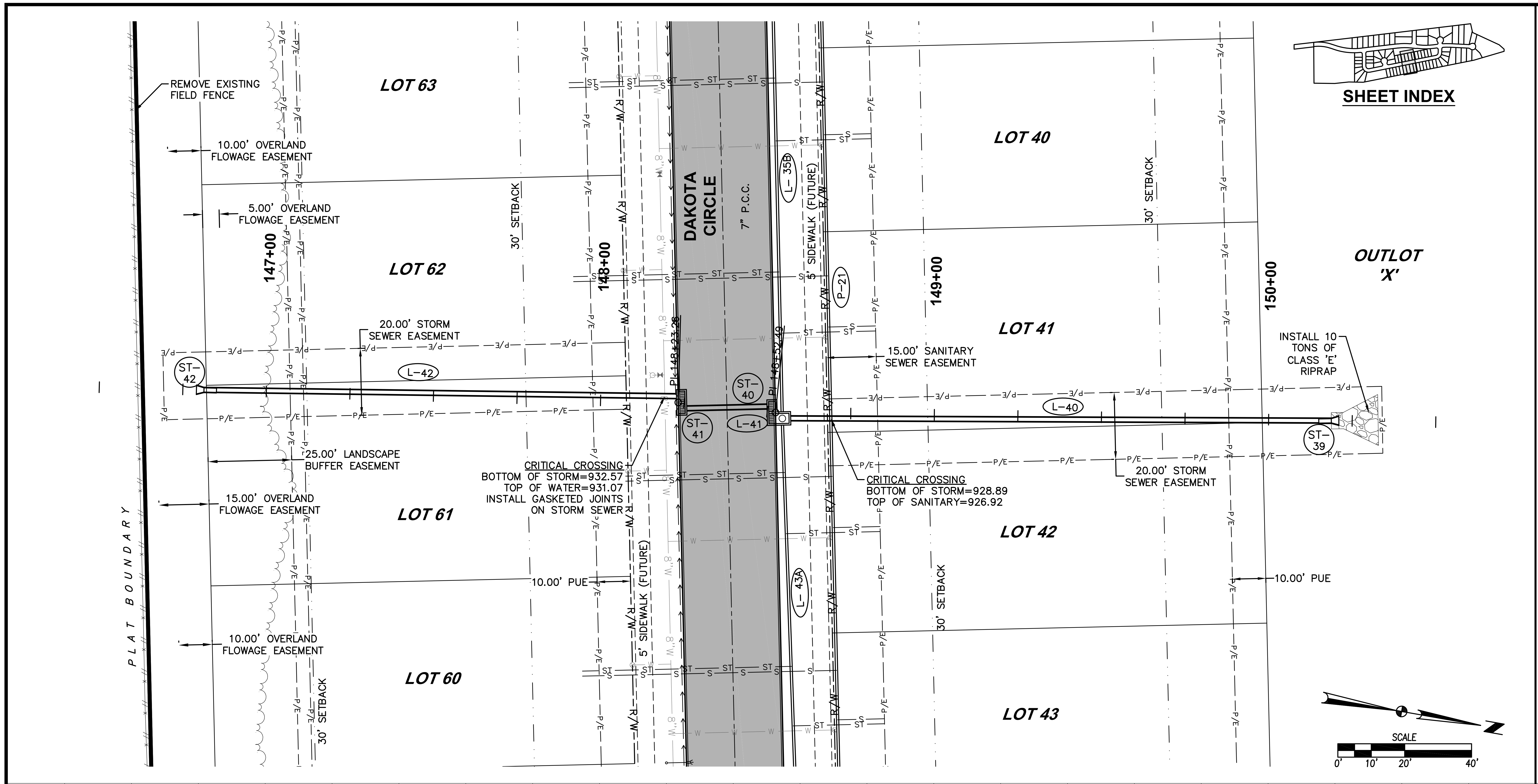
PAINTED WOODS SOUTH PLAT 1

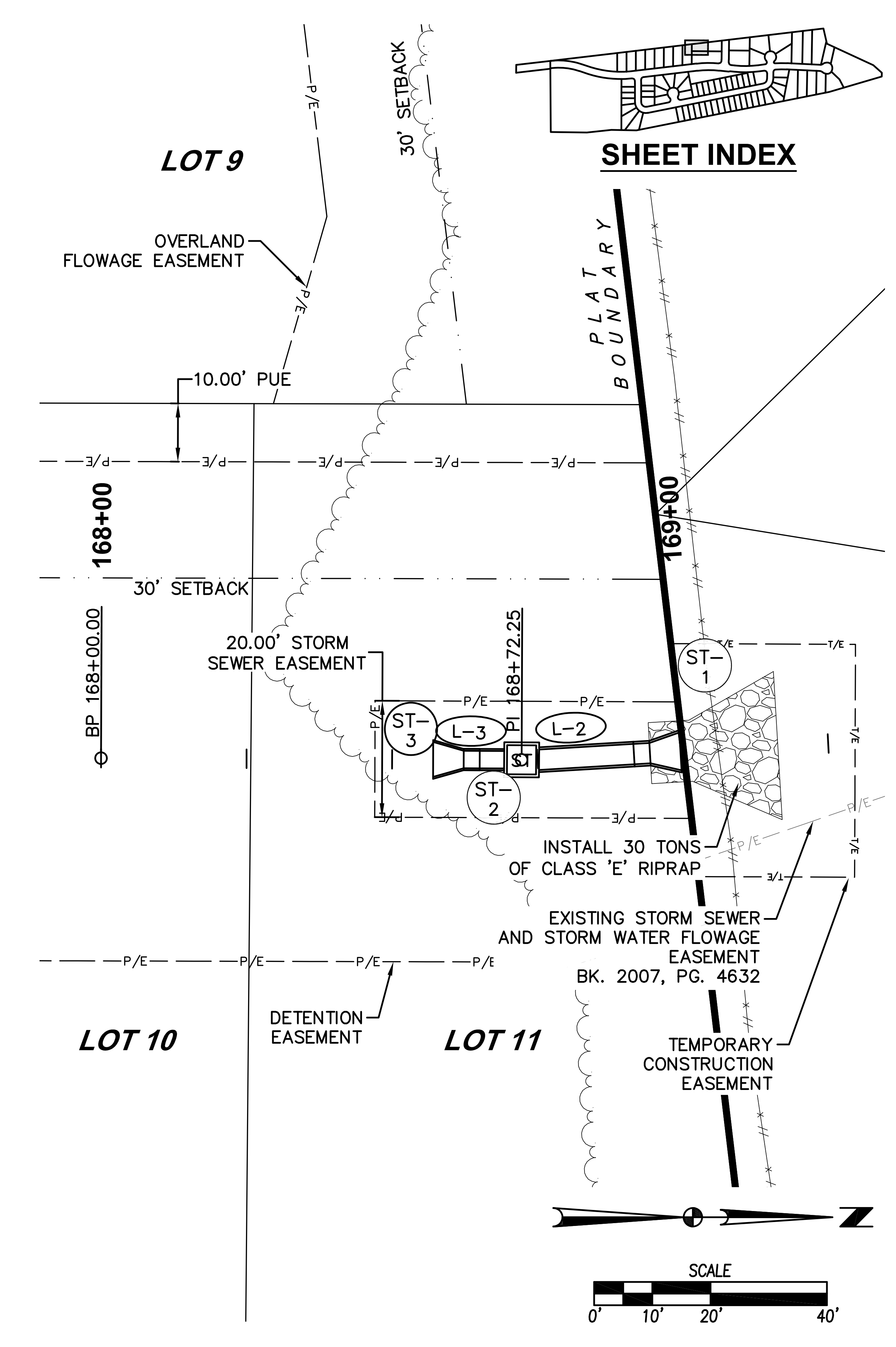
SANITARY & STORM SEWER PLAN AND PROFILE

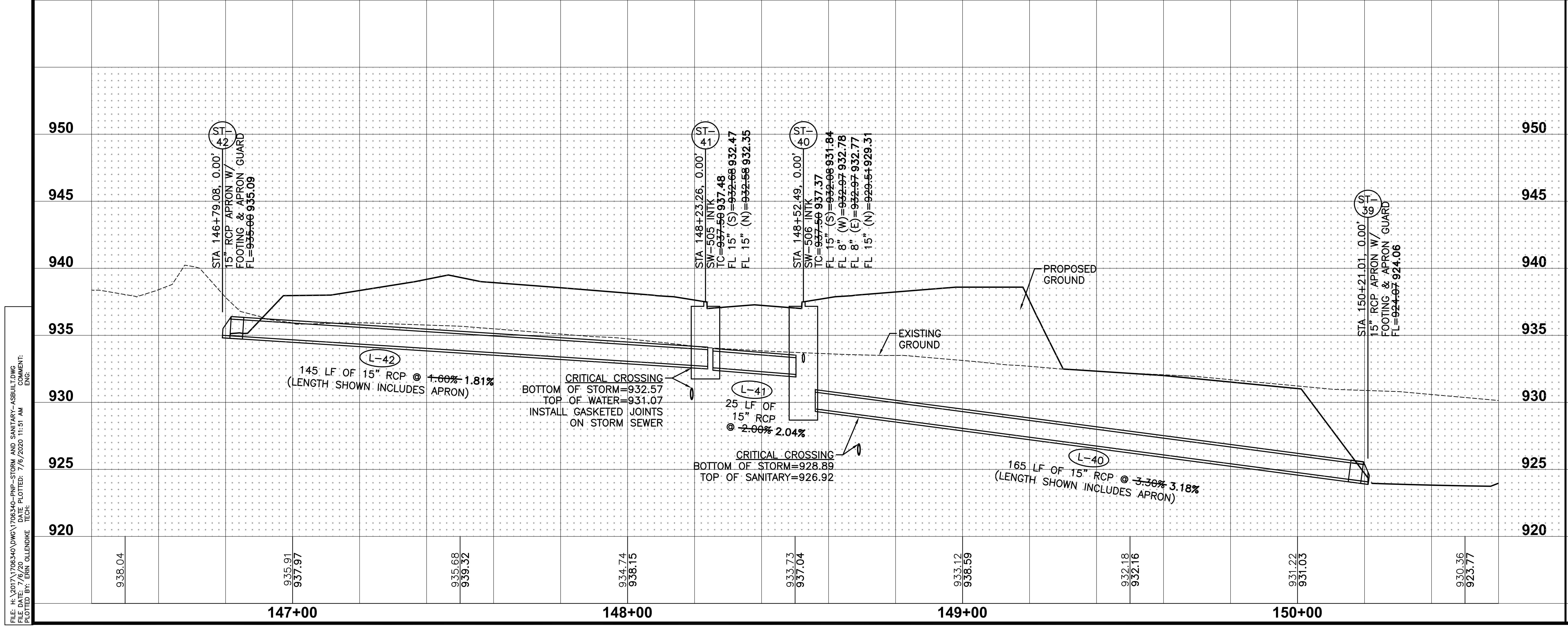
WAUKEE, IOWA

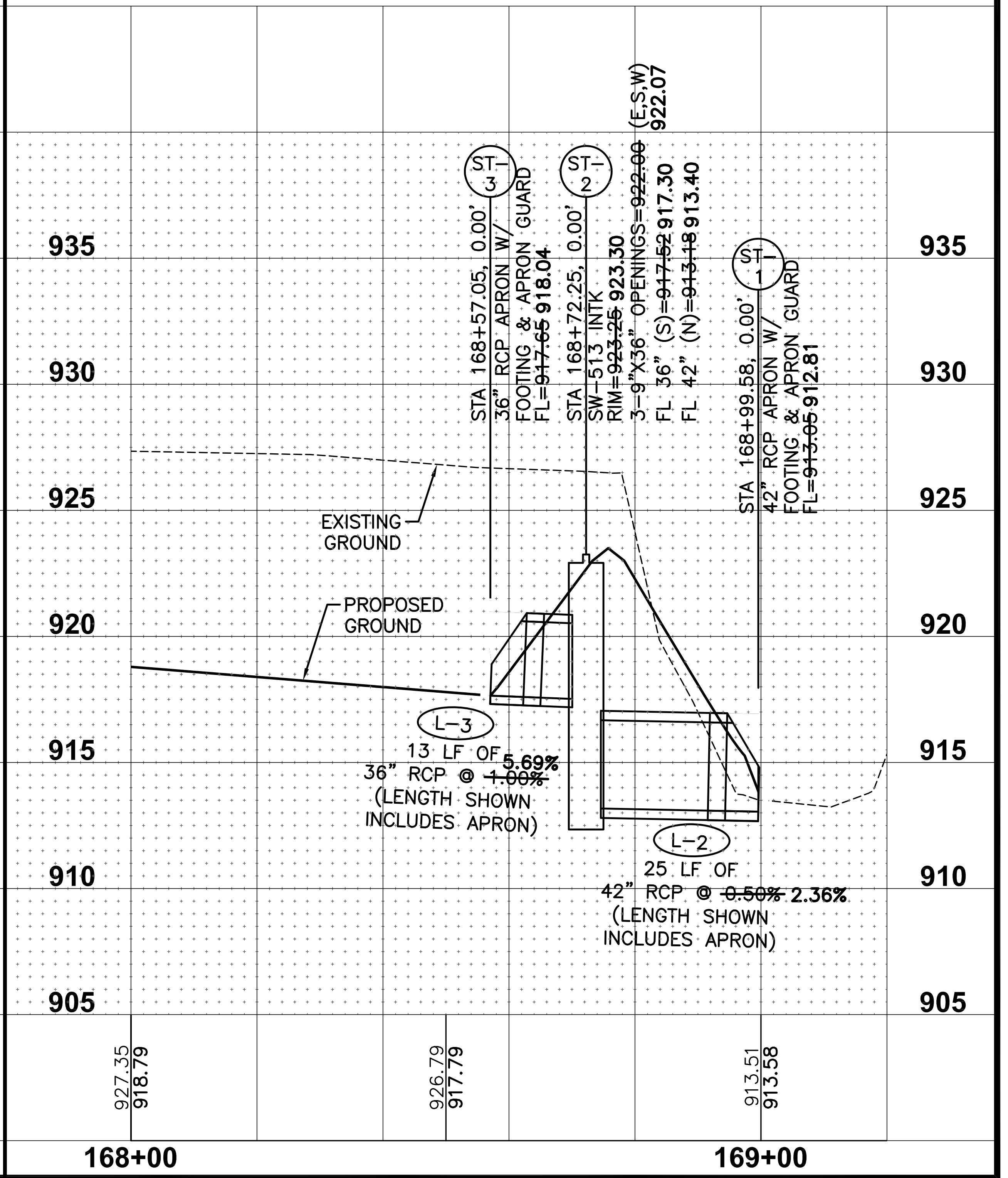
25/46

1706.340


REMOVE EXISTING FIELD FENCE
LOT 63
SHEET INDEX
10.00' OVERLAND FLOWAGE EASEMENT
5.00' OVERLAND FLOWAGE EASEMENT
30' SETBACK
DAKOTA CIRCLE
7" P.C.C.
L-35B
5' SIDEWALK (FUTURE)
LOT 40
147+00
148+00
149+00
150+00
LOT 62
P-21
OUTLOT 'X'
LOT 41
20.00' STORM SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
INSTALL 10 TONS OF CLASS 'E' RIPRAP
ST-42
L-42
PI 148+23.26
ST-40
PI 148+52.49
ST-41
L-41
L-40
ST-39
25.00' LANDSCAPE BUFFER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=932.57
TOP OF WATER=931.07
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF STORM=928.89
TOP OF SANITARY=926.92
20.00' STORM SEWER EASEMENT
15.00' OVERLAND FLOWAGE EASEMENT
LOT 61
LOT 42
PLAT BOUNDARY
10.00' PUE
10.00' PUE
L-43A
5' SIDEWALK (FUTURE)
10.00' OVERLAND FLOWAGE EASEMENT
LOT 60
30' SETBACK
30' SETBACK
LOT 43
SCALE
0' 10' 20' 40'


LOT 9
30' SETBACK
SHEET INDEX
OVERLAND FLOWAGE EASEMENT
PLAT BOUNDARY
10.00' PUE
168+00
169+00
30' SETBACK
20.00' STORM SEWER EASEMENT
BP 168+00.00
PI 168+72.25
ST-1
ST-3
L-3
L-2
ST-2
INSTALL 30 TONS OF CLASS 'E' RIPRAP
EXISTING STORM SEWER AND STORM WATER FLOWAGE EASEMENT
BK. 2007, PG. 4632
DETENTION EASEMENT
LOT 10
LOT 11
TEMPORARY CONSTRUCTION EASEMENT
SCALE
0' 10' 20' 40'


950
945
940
935
930
925
920
ST-42
STA 146+79.08, 0.00'
15" RCP APRON W/ FOOTING & APRON GUARD
FL=~~935.00~~ 935.09
ST-41
STA 148+23.26, 0.00'
SW-505 INTK
TC=~~937.50~~ 937.48
FL 15" (S)=~~932.68~~ 932.47
FL 15" (N)=~~932.58~~ 932.35
ST-40
STA 148+52.49, 0.00'
SW-506 INTK
TC=~~937.50~~ 937.37
FL 15" (S)=~~932.08~~ 931.84
FL 8" (W)=~~932.97~~ 932.78
FL 8" (E)=~~932.97~~ 932.77
FL 15" (N)=~~929.51~~ 929.31
ST-39
STA 150+21.01, 0.00'
15" RCP APRON W/ FOOTING & APRON GUARD
FL=~~924.07~~ 924.06
PROPOSED GROUND
EXISTING GROUND
L-42
145 LF OF 15" RCP @ ~~1.60%~~ 1.81%
(LENGTH SHOWN INCLUDES APRON)
CRITICAL CROSSING
BOTTOM OF STORM=932.57
TOP OF WATER=931.07
INSTALL GASKETED JOINTS ON STORM SEWER
L-41
25 LF OF 15" RCP @ ~~2.00%~~ 2.04%
CRITICAL CROSSING
BOTTOM OF STORM=928.89
TOP OF SANITARY=926.92
L-40
165 LF OF 15" RCP @ ~~3.30%~~ 3.18%
(LENGTH SHOWN INCLUDES APRON)
938.04
935.91
937.97
935.68
939.32
934.74
938.15
933.73
937.04
933.12
938.59
932.18
932.16
931.22
931.03
930.36
923.77
147+00
148+00
149+00
150+00


935
930
925
920
915
910
905
ST-3
STA 168+57.05, 0.00'
36" RCP APRON W/ FOOTING & APRON GUARD
FL=~~917.65~~ 918.04
ST-2
STA 168+72.25, 0.00'
SW-513 INTK
RIM=~~923.25~~ 923.30
3-9"X36" OPENINGS=~~922.00~~ (E,S,W) 922.07
FL 36" (S)=~~917.52~~ 917.30
FL 42" (N)=~~913.18~~ 913.40
ST-1
STA 168+99.58, 0.00'
42" RCP APRON W/ FOOTING & APRON GUARD
FL=~~913.05~~ 912.81
EXISTING GROUND
PROPOSED GROUND
L-3
13 LF OF 36" RCP @ ~~1.00%~~ 5.69%
(LENGTH SHOWN INCLUDES APRON)
L-2
25 LF OF 42" RCP @ ~~0.50%~~ 2.36%
(LENGTH SHOWN INCLUDES APRON)
927.35
918.79
926.79
917.79
913.51
913.58
168+00
169+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

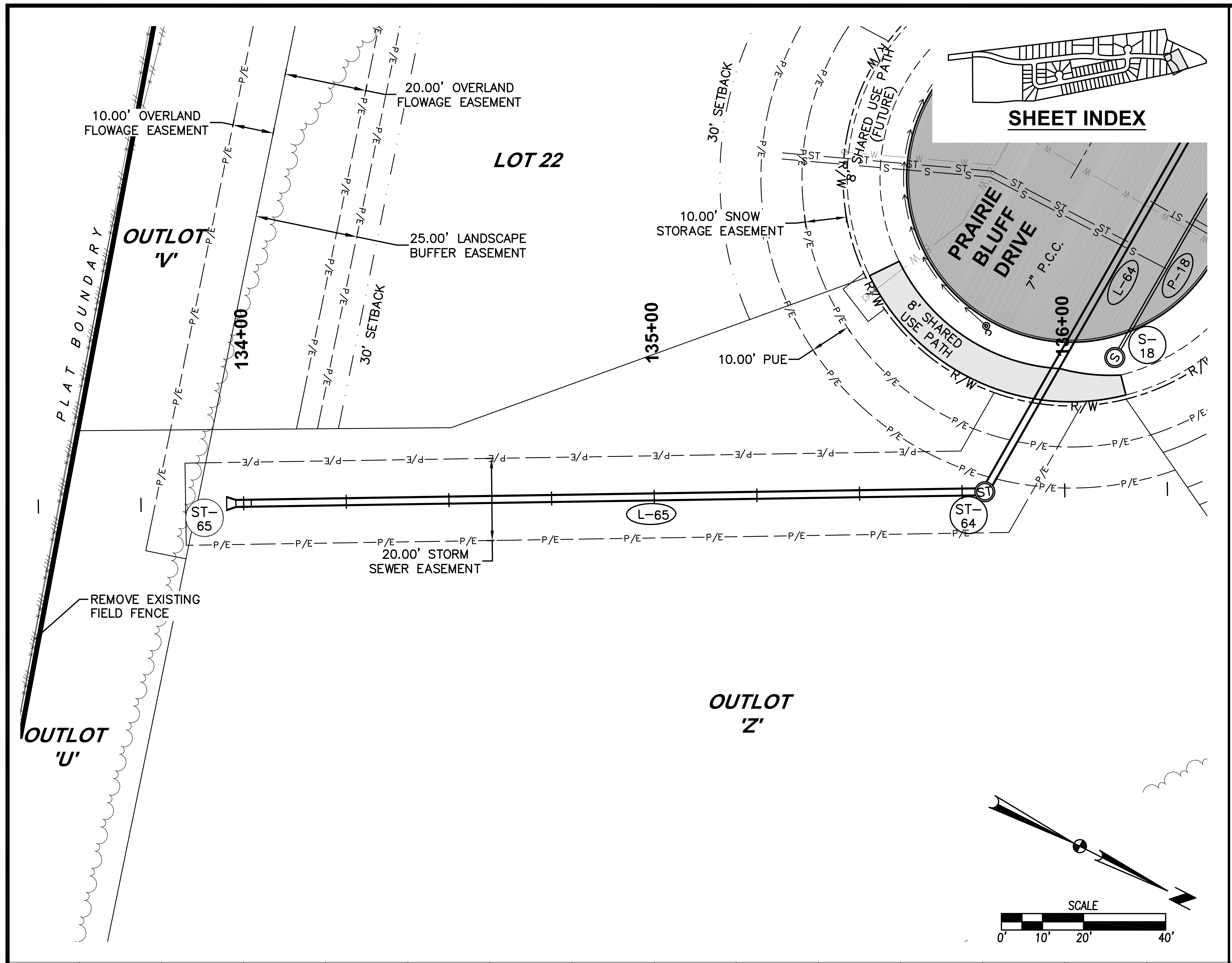
SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

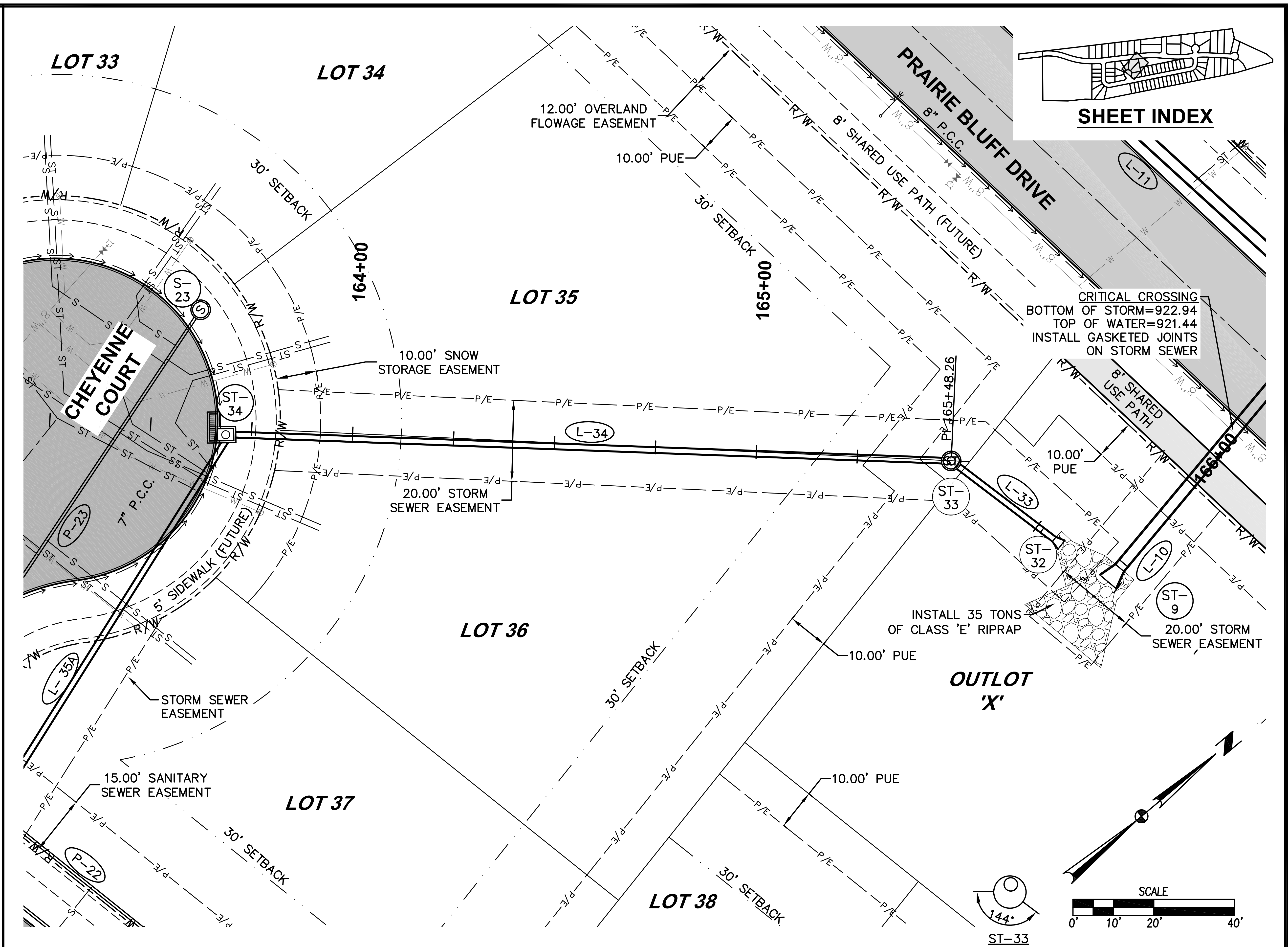
26/46

1706.340

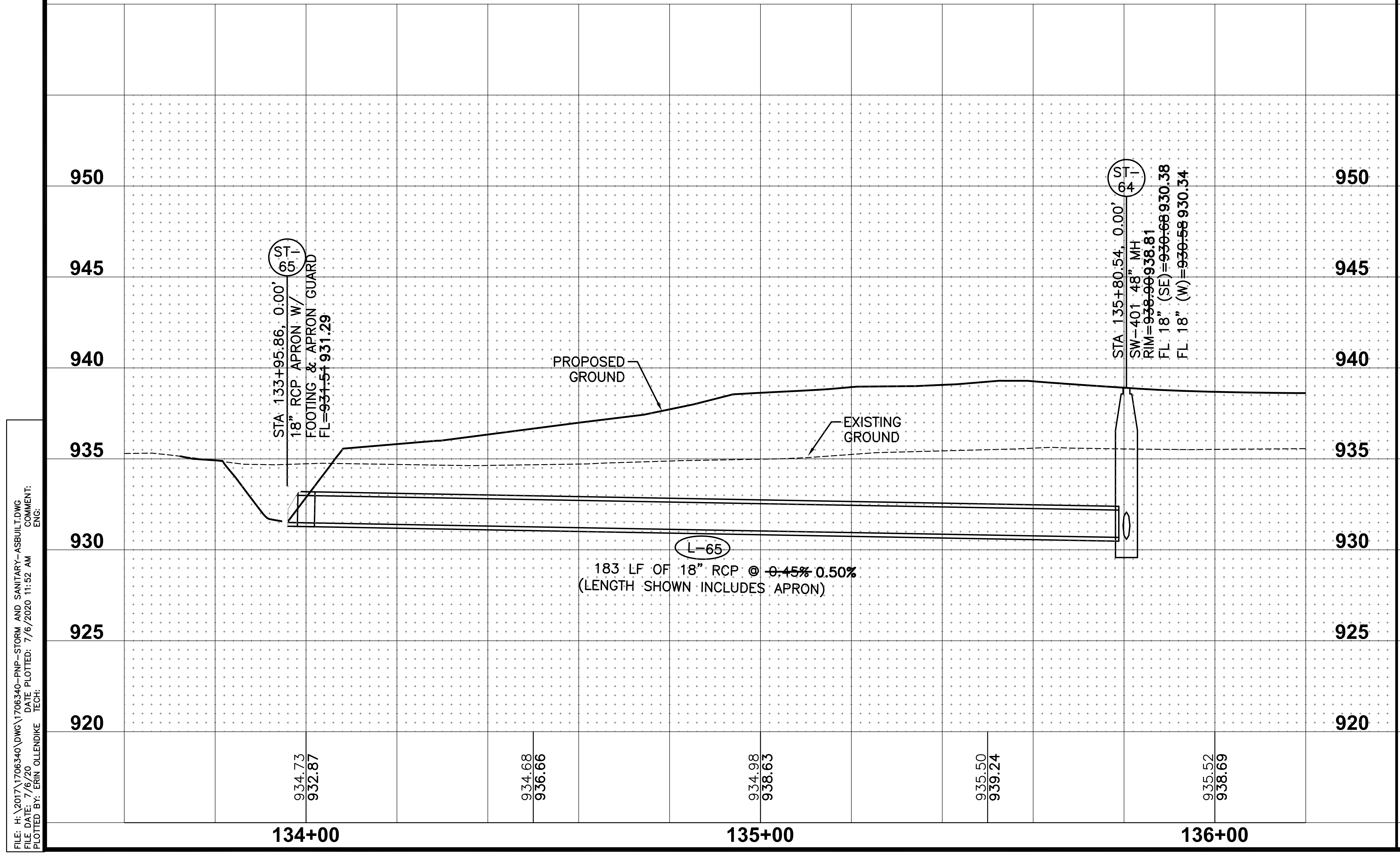
FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:51 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:



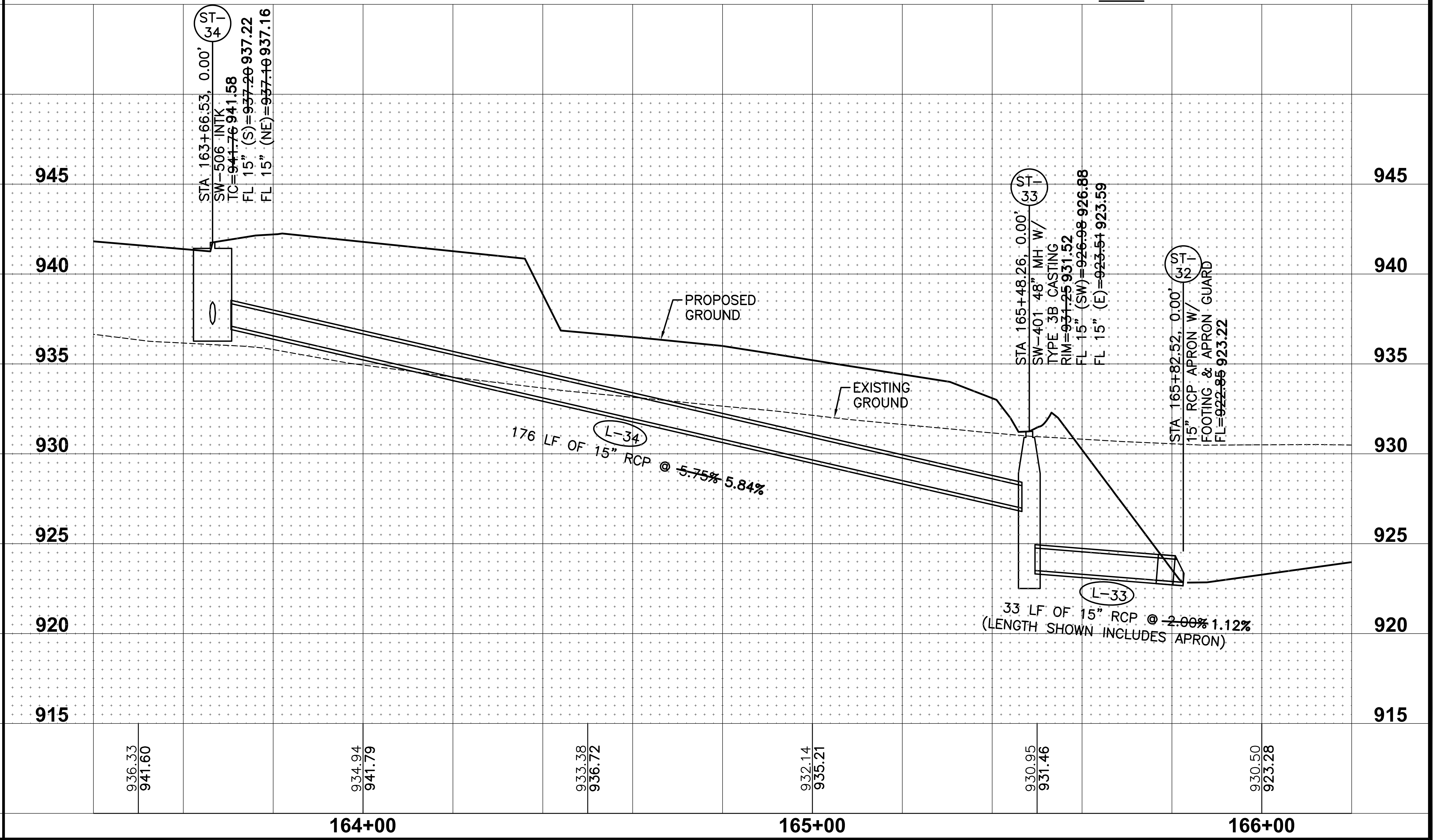
SHEET INDEX
PLAT BOUNDARY
10.00' OVERLAND FLOWAGE EASEMENT
20.00' OVERLAND FLOWAGE EASEMENT
LOT 22
OUTLOT 'V'
25.00' LANDSCAPE BUFFER EASEMENT
30' SETBACK
10.00' SNOW STORAGE EASEMENT
8' SHARED USE PATH (FUTURE)
PRAIRIE BLUFF DRIVE
7" P.C.C.
8' SHARED USE PATH
134+00
135+00
136+00
10.00' PUE
L-64
P-18
S-18
ST-65
ST-64
L-65
20.00' STORM SEWER EASEMENT
REMOVE EXISTING FIELD FENCE
OUTLOT 'Z'
OUTLOT 'U'
SCALE
0' 10' 20' 40'



LOT 33
LOT 34
SHEET INDEX
12.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
PRAIRIE BLUFF DRIVE
8" P.C.C.
8' SHARED USE PATH (FUTURE)
30' SETBACK
L-11
164+00
165+00
LOT 35
ST-23
CRITICAL CROSSING
BOTTOM OF STORM=922.94
TOP OF WATER=921.44
INSTALL GASKETED JOINTS ON STORM SEWER
CHEYENNE COURT
10.00' SNOW STORAGE EASEMENT
ST-34
L-34
P: 165+48.26
8' SHARED USE PATH
10.00' PUE
166+00
20.00' STORM SEWER EASEMENT
ST-33
L-33
ST-32
L-10
ST-9
7" P.C.C.
P-23
5' SIDEWALK (FUTURE)
INSTALL 35 TONS OF CLASS 'E' RIPRAP
20.00' STORM SEWER EASEMENT
LOT 36
10.00' PUE
OUTLOT 'X'
L-35A
STORM SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
LOT 37
10.00' PUE
P-22
LOT 38
144°
ST-33
SCALE
0' 10' 20' 40'



950
945
940
935
930
925
920
ST-65
STA 133+95.86, 0.00'
18" RCP APRON W/
FOOTING & APRON GUARD
FL=~~931.51~~ 931.29
ST-64
STA 135+80.54, 0.00'
SW-401 48" MH
RIM=~~938.90~~ 938.81
FL 18" (SE)=~~930.68~~ 930.38
FL 18" (W)=~~930.58~~ 930.34
PROPOSED GROUND
EXISTING GROUND
L-65
183 LF OF 18" RCP @ ~~0.45%~~ 0.50%
(LENGTH SHOWN INCLUDES APRON)
934.73 932.87
934.68 936.66
934.98 938.63
935.50 939.24
935.52 938.69
134+00
135+00
136+00



945
940
935
930
925
920
915
ST-34
STA 163+66.53, 0.00'
SW-506 INTK
TC=~~941.76~~ 941.58
FL 15" (S)=~~937.20~~ 937.22
FL 15" (NE)=~~937.10~~ 937.16
PROPOSED GROUND
EXISTING GROUND
L-34
176 LF OF 15" RCP @ ~~5.75%~~ 5.84%
ST-33
STA 165+48.26, 0.00'
SW-401 48" MH W/
TYPE 3B CASTING
RIM=~~931.25~~ 931.52
FL 15" (SW)=~~926.98~~ 926.88
FL 15" (E)=~~923.51~~ 923.59
ST-32
STA 165+82.52, 0.00'
15" RCP APRON W/
FOOTING & APRON GUARD
FL=~~922.85~~ 923.22
L-33
33 LF OF 15" RCP @ ~~2.00%~~ 1.12%
(LENGTH SHOWN INCLUDES APRON)
936.33 941.60
934.94 941.79
933.38 936.72
932.14 935.21
930.95 931.46
930.50 923.28
164+00
165+00
166+00

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:52 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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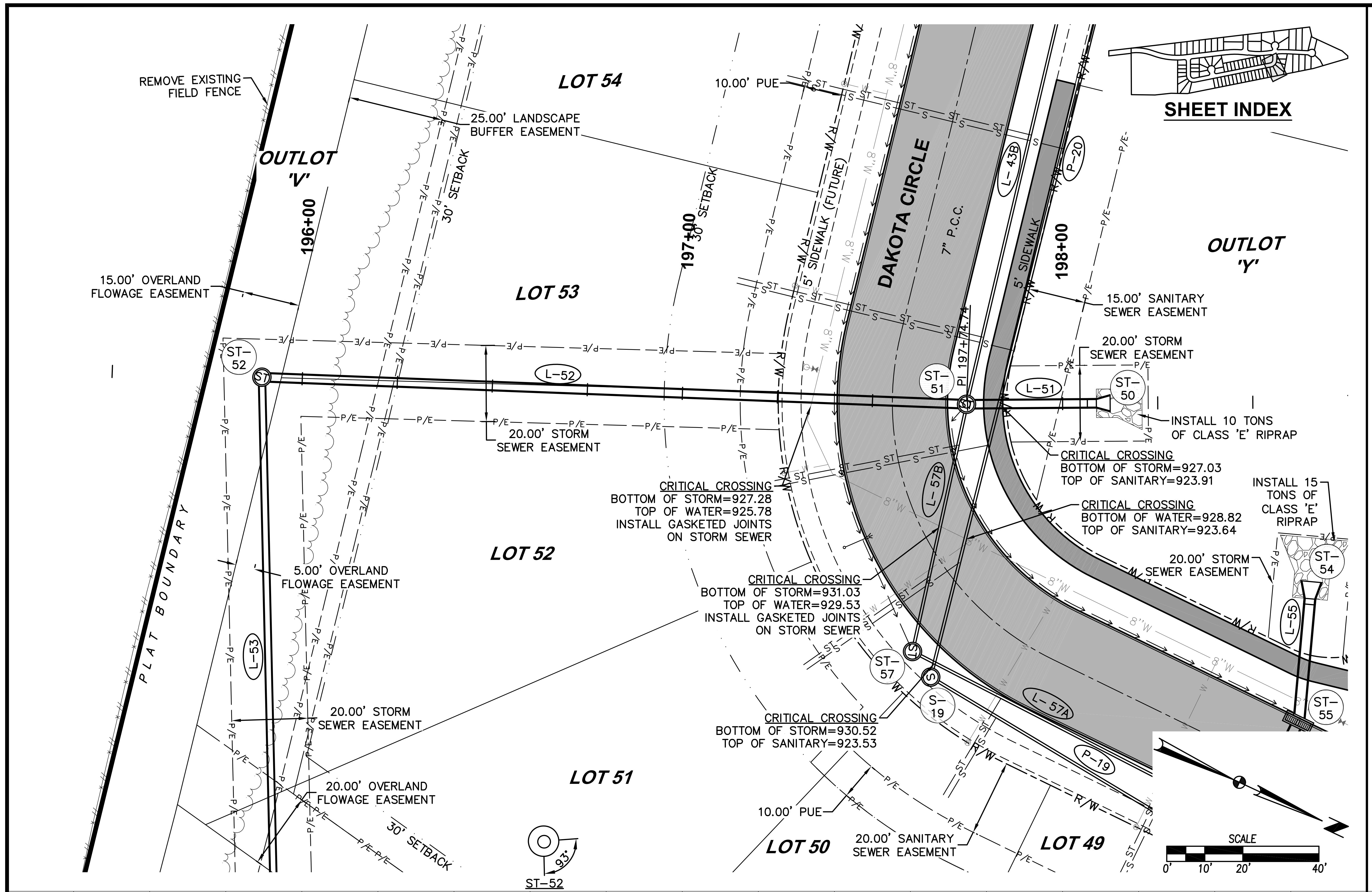
ENGINEER: EKO
EI: GH

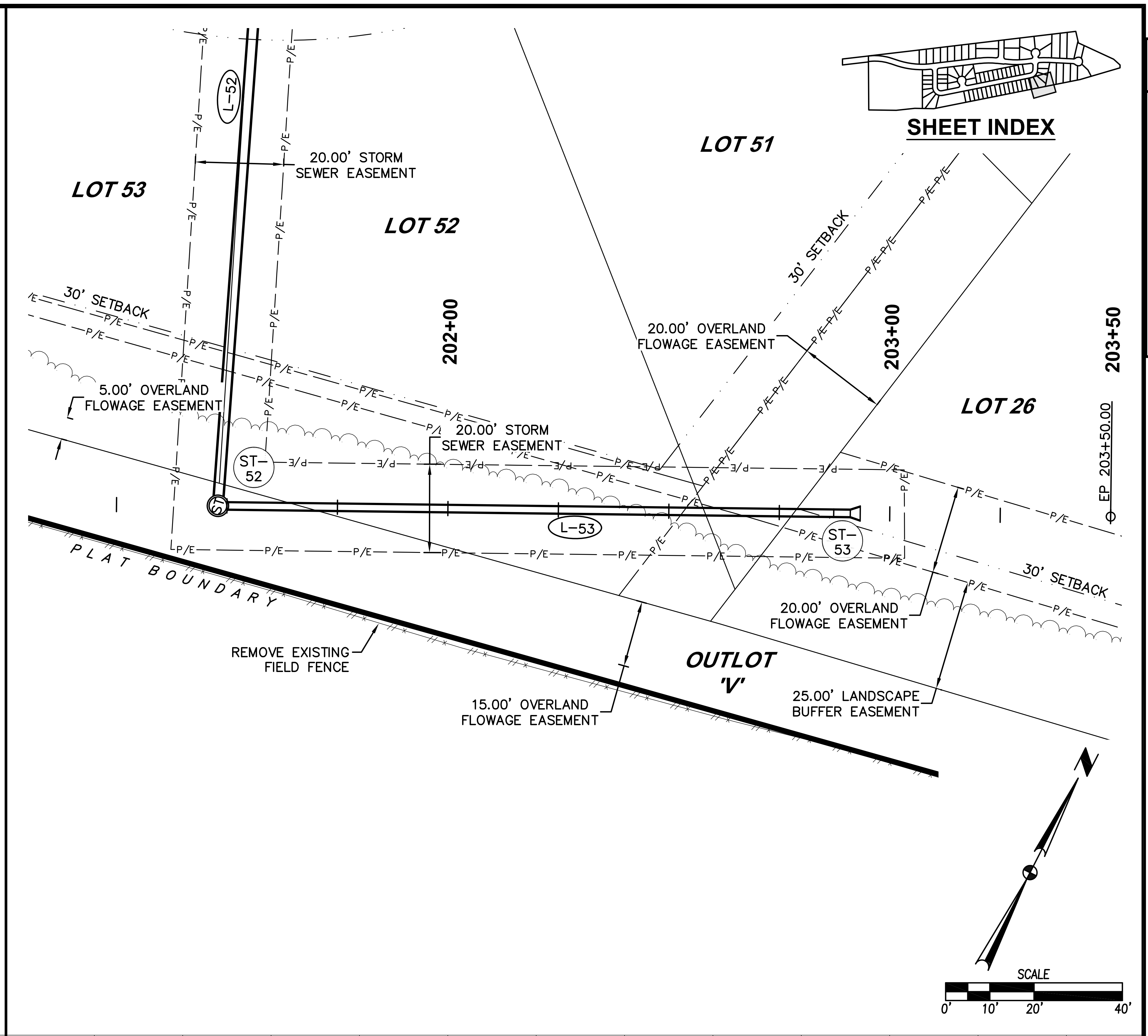
CIVIL DESIGN ADVANTAGE

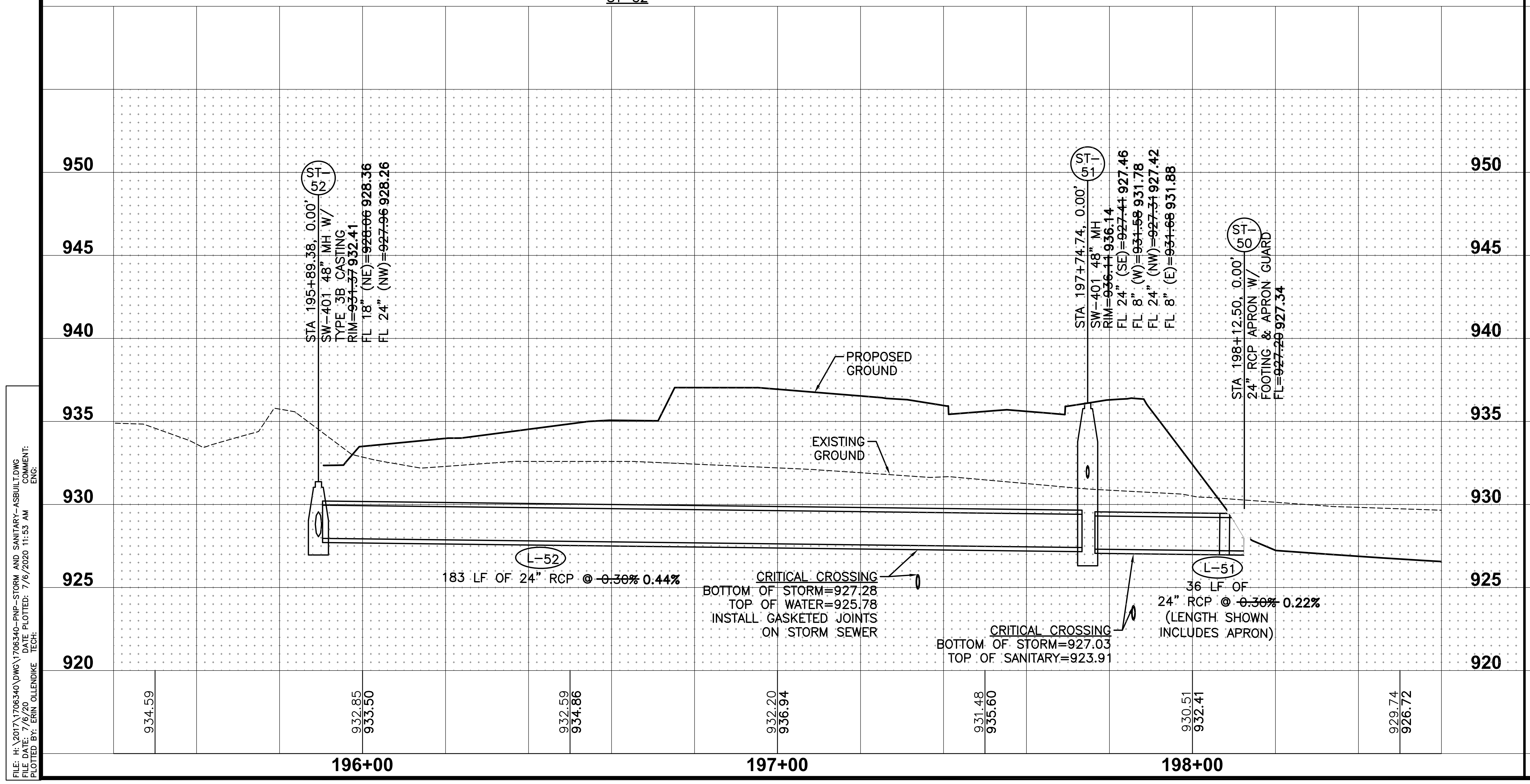
PAINTED WOODS SOUTH PLAT 1

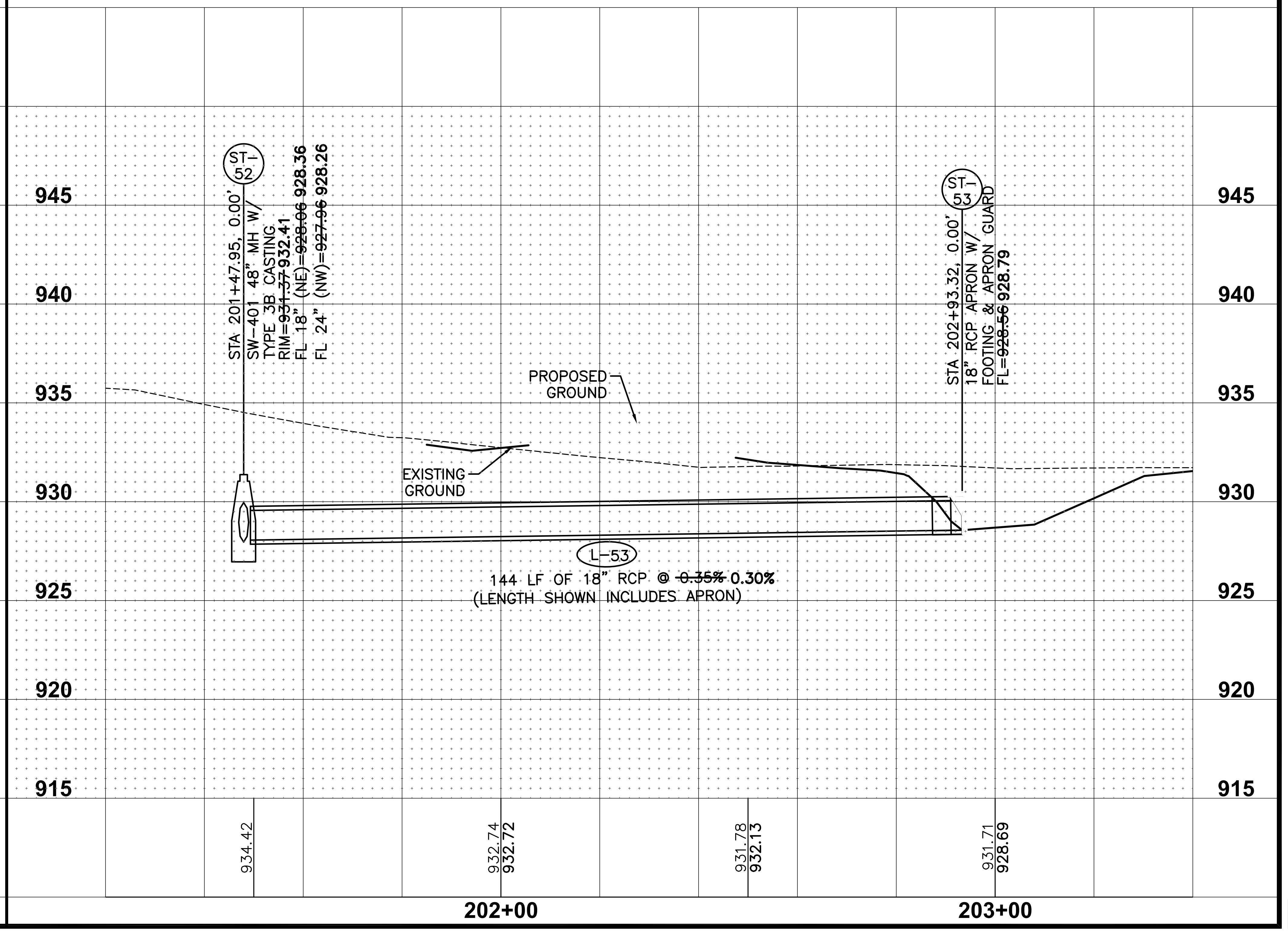
SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA


REMOVE EXISTING FIELD FENCE
LOT 54
10.00' PUE
25.00' LANDSCAPE BUFFER EASEMENT
SHEET INDEX
OUTLOT 'V'
196+00
30' SETBACK
197+00
30' SETBACK
5' SIDEWALK (FUTURE)
DAKOTA CIRCLE
7" P.C.C.
L-43B
P-20
5' SIDEWALK
198+00
OUTLOT 'Y'
15.00' OVERLAND FLOWAGE EASEMENT
LOT 53
15.00' SANITARY SEWER EASEMENT
20.00' STORM SEWER EASEMENT
ST-52
L-52
ST-51
PI 197+74.74
L-51
ST-50
INSTALL 10 TONS OF CLASS 'E' RIPRAP
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=927.03
TOP OF SANITARY=923.91
CRITICAL CROSSING
BOTTOM OF STORM=927.28
TOP OF WATER=925.78
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=928.82
TOP OF SANITARY=923.64
INSTALL 15 TONS OF CLASS 'E' RIPRAP
LOT 52
L-57B
20.00' STORM SEWER EASEMENT
ST-54
PLAT BOUNDARY
5.00' OVERLAND FLOWAGE EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=931.03
TOP OF WATER=929.53
INSTALL GASKETED JOINTS ON STORM SEWER
L-55
L-53
ST-57
S-19
L-57A
ST-55
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=930.52
TOP OF SANITARY=923.53
P-19
20.00' OVERLAND FLOWAGE EASEMENT
LOT 51
10.00' PUE
30' SETBACK
LOT 50
20.00' SANITARY SEWER EASEMENT
LOT 49
SCALE
0' 10' 20' 40'
ST-52
93°


L-52
20.00' STORM SEWER EASEMENT
LOT 53
LOT 52
LOT 51
SHEET INDEX
30' SETBACK
202+00
203+00
203+50
5.00' OVERLAND FLOWAGE EASEMENT
20.00' OVERLAND FLOWAGE EASEMENT
30' SETBACK
LOT 26
20.00' STORM SEWER EASEMENT
ST-52
L-53
ST-53
EP 203+50.00
PLAT BOUNDARY
30' SETBACK
20.00' OVERLAND FLOWAGE EASEMENT
REMOVE EXISTING FIELD FENCE
OUTLOT 'V'
15.00' OVERLAND FLOWAGE EASEMENT
25.00' LANDSCAPE BUFFER EASEMENT
SCALE
0' 10' 20' 40'


950
945
940
935
930
925
920
ST-52
STA 195+89.38, 0.00'
SW-401 48" MH W/
TYPE 3B CASTING
RIM=~~931.37~~ 932.41
FL 18" (NE)=~~928.06~~ 928.36
FL 24" (NW)=~~927.96~~ 928.26
ST-51
STA 197+74.74, 0.00'
SW-401 48" MH
RIM=~~936.11~~ 936.14
FL 24" (SE)=~~927.41~~ 927.46
FL 8" (W)=~~931.58~~ 931.78
FL 24" (NW)=~~927.31~~ 927.42
FL 8" (E)=~~931.68~~ 931.88
ST-50
STA 198+12.50, 0.00'
24" RCP APRON W/
FOOTING & APRON GUARD
FL=~~927.29~~ 927.34
PROPOSED GROUND
EXISTING GROUND
L-52
183 LF OF 24" RCP @ ~~0.30%~~ 0.44%
CRITICAL CROSSING
BOTTOM OF STORM=927.28
TOP OF WATER=925.78
INSTALL GASKETED JOINTS
ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF STORM=927.03
TOP OF SANITARY=923.91
L-51
36 LF OF
24" RCP @ ~~0.30%~~ 0.22%
(LENGTH SHOWN
INCLUDES APRON)
934.59
932.85
933.50
932.59
934.86
932.20
936.94
931.48
935.60
930.51
932.41
929.74
926.72
196+00
197+00
198+00


945
940
935
930
925
920
915
ST-52
STA 201+47.95, 0.00'
SW-401 48" MH W/
TYPE 3B CASTING
RIM=~~931.37~~ 932.41
FL 18" (NE)=~~928.06~~ 928.36
FL 24" (NW)=~~927.96~~ 928.26
ST-53
STA 202+93.32, 0.00'
18" RCP APRON W/
FOOTING & APRON GUARD
FL=~~928.56~~ 928.79
PROPOSED GROUND
EXISTING GROUND
L-53
144 LF OF 18" RCP @ ~~0.35%~~ 0.30%
(LENGTH SHOWN INCLUDES APRON)
934.42
932.74
932.72
931.78
932.13
931.71
928.69
202+00
203+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

SANITARY & STORM SEWER PLAN AND PROFILE

WAUKEE, IOWA

28/46
1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-STORM AND SANITARY-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 11:53 AM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

SHEET INDEX
Δ = 6°13'19"
L = 70.58'
R = 650.00'
CH = 70.55'
CHB = N80°11'40"E
Δ = 6°13'19"
L = 70.58'
R = 650.00'
CH = 70.55'
CHB = N80°11'40"E
Δ = 25°27'09"
L = 288.75'
R = 650.00'
CH = 286.38'
CHB = S83°58'10"E
15.00' SANITARY SEWER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=958.58 TOP OF SANITARY=949.31
PLAT BOUNDARY
R/W
16+00
17+00
18+00
19+00
20+00
21+00
EXISTING STREET LIGHT
5' SIDEWALK (FUTURE)
PC 17+87.88
Mid 18+23.17
PRC 18+58.47
Mid 18+93.76
PT 19+29.05
PC 19+45.21
Mid 20+89.58
PRAIRIE BLUFF DRIVE
75.00' ROW
31.00' B-B
18.50' (TYP.)
8" P.C.C.
70.00' ROW
31.00' B-B
18.50' (TYP.)
REMOVE EXISTING ROAD CLOSURE SIGNS
STA 15+95.76 BEGIN PAVEMENT
CRITICAL CROSSING BOTTOM OF WATER=957.56 TOP OF SANITARY=949.53
STREET LIGHT (TYP.)
8"W
8' SHARED USE PATH (FUTURE)
STA 19+91.57, 18.50' RT 8" VALVE RIM= 954.99
STA 15+90.39, 21.97' RT EXISTING 8" VALVE (UAC)
STA 16+19.66, 18.50' RT 11.25' BEND
STA 15+93.46, 22.32' RT REMOVE TEMPORARY BLOWOFF HYDRANT AND CONNECT TO EXISTING 8" WATERMAIN
10.00' WATERMAIN EASEMENT
STA 17+87.88, 32.09' RT HYDRANT ASSEMBLY FGH= 972.20
10.00' PUE
CRITICAL CROSSING BOTTOM OF STORM=953.16 TOP OF WATER=951.66 INSTALL GASKETED JOINTS ON STORM SEWER
STA 20+21.62, 22.00' RT HYDRANT ASSEMBLY FGH= 953.30
10.00' PUE
30' SETBACK
25.00' LANDSCAPE BUFFER EASEMENT
20.00' TEMPORARY CONSTRUCTION EASEMENT
30.00' SANITARY SEWER EASEMENT
20.00' STORM SEWER EASEMENT
30' SETBACK
OUTLOT 'T'
TEMPORARY CONSTRUCTION EASEMENT
25.00' LANDSCAPE BUFFER EASEMENT
REMOVE EXISTING TREES
N
SCALE
0' 10' 20' 40'
EXISTING 8" VALVE (UAC)
VPC STA = 16+05
VPC ELEV = 986.25
6.50'
VPI STA = 16+80
VPI ELEV = 981.38
VC = 150'
K=60.00
EXISTING 8" WATER MAIN
11.25' BEND
REMOVE TEMPORARY BLOWOFF HYDRANT AND CONNECT TO EXISTING 8" WATERMAIN
5.5' MINIMUM DEPTH
VPT STA = 17+55
VPT ELEV = 974.63
HYDRANT ASSEMBLY
PROFILE GRADE
-9.00%
VPC STA = 18+88
VPC ELEV = 962.70
PROPOSED 8" WATER MAIN
EXISTING GROUND
CRITICAL CROSSING BOTTOM OF WATER=957.56 TOP OF SANITARY=949.53
CRITICAL CROSSING BOTTOM OF STORM=953.16 TOP OF WATER=951.66 INSTALL GASKETED JOINTS ON STORM SEWER
8" VALVE
HYDRANT ASSEMBLY
VPI STA = 20+50
VPI ELEV = 948.08
VC = 325'
K=40.62
970
965
960
955
950
945
940
989.65
986.35
986.58
983.65
983.16
978.39
979.32
973.44
975.07
967.89
970.58
961.86
966.08
957.21
961.59
954.24
957.56
951.69
954.13
949.40
951.33
947.59
949.13
16+00
17+00
18+00
19+00
20+00
21+00

FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:36 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

DATE	REVISIONS
06/30/20	AS-BUILT SUBMITTAL
06/28/19	REVISED STORM SEWER
03/07/19	REVISED SIDEWALK
10/30/18	FINAL SUBMITTAL
10/05/18	FOURTH SUBMITTAL
09/25/18	THIRD SUBMITTAL

3405 S.E. CROSSROADS DRIVE, SUITE G
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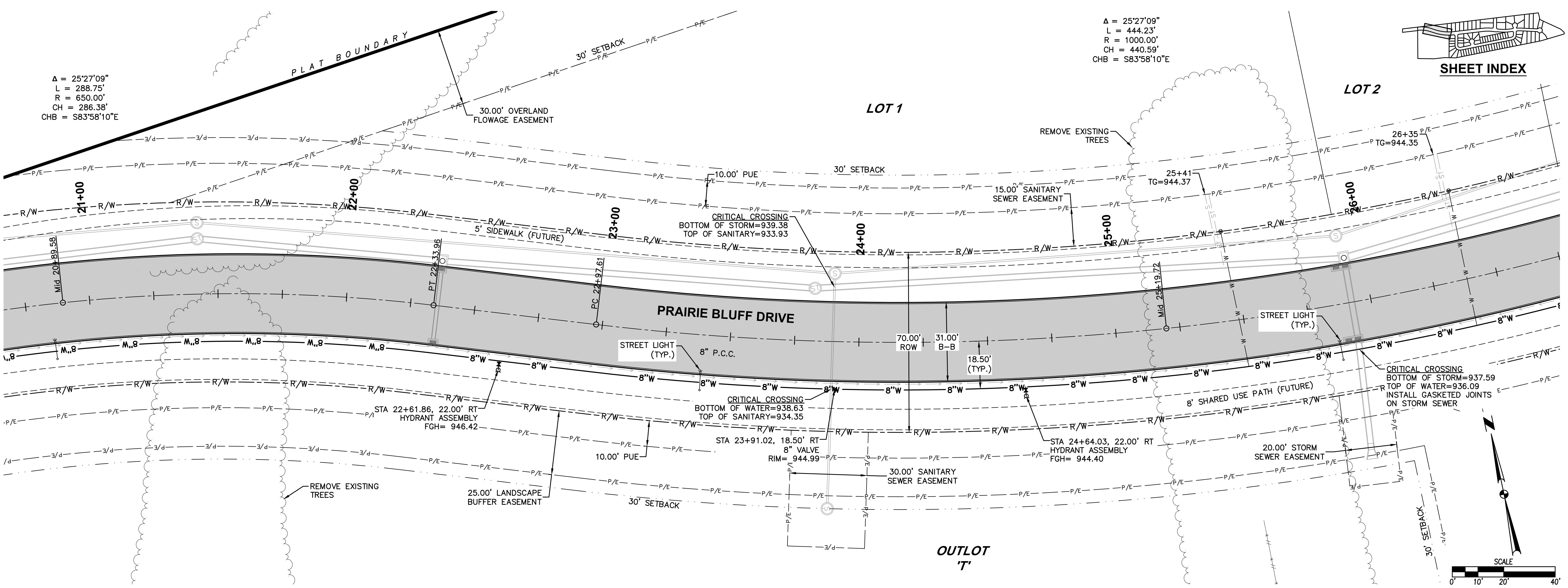
PHONE: (515) 369-4400 FAX: (515) 369-4410
ENGINEER: EKO
EI: GH
CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA


PLAT BOUNDARY
Δ = 25°27'09"
L = 288.75'
R = 650.00'
CH = 286.38'
CHB = S83°58'10"E
30' SETBACK
30.00' OVERLAND FLOWAGE EASEMENT
LOT 1
Δ = 25°27'09"
L = 444.23'
R = 1000.00'
CH = 440.59'
CHB = S83°58'10"E
SHEET INDEX
LOT 2
REMOVE EXISTING TREES
26+35
TG=944.35
25+41
TG=944.37
10.00' PUE
30' SETBACK
15.00' SANITARY SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=939.38
TOP OF SANITARY=933.93
5' SIDEWALK (FUTURE)
21+00
22+00
23+00
24+00
25+00
26+00
Mid 20+89.58
PT 22+33.96
PC 22+97.61
Mid 25+19.72
PRAIRIE BLUFF DRIVE
STREET LIGHT (TYP.)
8" P.C.C.
70.00' ROW
31.00' B-B
18.50' (TYP.)
CRITICAL CROSSING
BOTTOM OF WATER=938.63
TOP OF SANITARY=934.35
STA 22+61.86, 22.00' RT
HYDRANT ASSEMBLY
FGH= 946.42
STA 23+91.02, 18.50' RT
8" VALVE
RIM= 944.99
STA 24+64.03, 22.00' RT
HYDRANT ASSEMBLY
FGH= 944.40
8' SHARED USE PATH (FUTURE)
CRITICAL CROSSING
BOTTOM OF STORM=937.59
TOP OF WATER=936.09
INSTALL GASKETED JOINTS ON STORM SEWER
20.00' STORM SEWER EASEMENT
10.00' PUE
25.00' LANDSCAPE BUFFER EASEMENT
30.00' SANITARY SEWER EASEMENT
REMOVE EXISTING TREES
30' SETBACK
OUTLOT 'T'
30' SETBACK
N
SCALE
0'
10'
20'
40'
8"W
R/W
P/E
3/d

960
955
950
945
940
935
930
VPT STA = 22+12
VPT ELEV = 946.45
HYDRANT ASSEMBLY
5.5' MINIMUM DEPTH
8" VALVE
-1.00%
HYDRANT ASSEMBLY
PROFILE GRADE
VPC STA = 25+12
VPC ELEV = 943.45
EXISTING GROUND
LP STA = 25+90.62
LP ELEV = 943.06
VPI STA = 25+75
VPI ELEV = 942.83
VC = 125'
K=78.12
VPT STA = 26+38
VPT ELEV = 943.20
CRITICAL CROSSING
BOTTOM OF WATER=938.63
TOP OF SANITARY=934.35
PROPOSED 8" WATER MAIN
CRITICAL CROSSING
BOTTOM OF STORM=937.59
TOP OF WATER=936.09
INSTALL GASKETED JOINTS ON STORM SEWER
947.59
949.13
946.53
947.56
946.55
946.59
945.99
946.08
944.85
945.58
946.23
945.08
945.95
944.58
946.77
944.08
947.14
943.58
946.38
943.17
944.49
943.07
942.99
943.28
21+00
22+00
23+00
24+00
25+00
26+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

30/46
1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:36 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

Δ = 25°27'09"
L = 444.23'
R = 1000.00'
CH = 440.59'
CHB = S83°58'10"E
BP 60+00.00
60+00
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
SHEET INDEX
STA 27+87.93 (PRAIRIE BLUFF DRIVE)
STA 61+00.00 (DAKOTA CIRCLE)
30' SETBACK
10.00' PUE
26+35
TG=944.35
27+30
TG=944.92
28+22
TG=945.04
29+12
TG=943.37
15.00' SANITARY SEWER EASEMENT
30+03
TG=940.76
10.00' PUE
30+94
TG=938.15
17.50' SANITARY SEWER EASEMENT
31+84
TG=935.54
26+00
27+00
28+00
29+00
30+00
31+00
R/W
P/E
5' SIDEWALK (FUTURE)
PT 27+41.84
PRAIRIE BLUFF DRIVE
8" P.C.C.
61+00
CRITICAL CROSSING
BOTTOM OF STORM=933.83
TOP OF SANITARY=931.08
STREET LIGHT (TYP.)
70.00' ROW
31.00' B-B
18.50' (TYP.)
8"W
PC 61+14.84
8' SHARED USE PATH (FUTURE)
STA 27+33.07, 22.00' RT
HYDRANT ASSEMBLY
FGH= 944.23
OUTLOT 'T'
10.00' PUE
STA 27+69.42, 18.50' RT
8" TEE
CRITICAL CROSSING
BOTTOM OF STORM=938.14
TOP OF WATER=936.64
INSTALL GASKETED JOINTS ON STORM SEWER
30' SETBACK
25.00' LANDSCAPE BUFFER EASEMENT
10.00' OVERLAND FLOWAGE EASEMENT
LOT 75
5' SIDEWALK (FUTURE)
DAKOTA CIRCLE
7" P.C.C.
Mid 61+53.65
PT 61+92.46
62+00
CRITICAL CROSSING
BOTTOM OF WATER=937.28
TOP OF SANITARY=932.16
STA 28+25.53, 18.50' RT
8" VALVE
RIM= 944.00
20.00' SANITARY SEWER EASEMENT
LOT 27
20.00' STORM SEWER EASEMENT
10.00' OVERLAND FLOWAGE EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=935.64
TOP OF WATER=934.14
INSTALL GASKETED JOINTS ON STORM SEWER
STA 29+87.94, 22.00' RT
HYDRANT ASSEMBLY
FGH= 940.51
12.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
LOT 33
LOT 34
N
SCALE
0'
10'
20'
40'

950
945
940
935
930
925
920
VPT STA = 26+38
VPT ELEV = 943.20
HYDRANT ASSEMBLY
0.60%
VPC STA = 27+82
VPC ELEV = 943.95
HP STA = 27+87.86
HP ELEV = 944.025
VPI STA = 28+37
VPI ELEV = 944.40
VC = 150'
K=43.10
8" VALVE
VPT STA = 29+12
VPT ELEV = 942.24
PROFILE GRADE
HYDRANT ASSEMBLY
5.5' MINIMUM DEPTH
-2.88%
EXISTING GROUND
8" TEE
CRITICAL CROSSING
BOTTOM OF STORM=938.16
TOP OF WATER=936.66
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=937.28
TOP OF SANITARY=932.16
CRITICAL CROSSING
BOTTOM OF STORM=935.64
TOP OF WATER=934.14
INSTALL GASKETED JOINTS ON STORM SEWER
PROPOSED 8" WATER MAIN
944.49
943.07
942.99
943.28
941.90
943.58
940.74
943.88
939.43
944.01
937.53
943.58
935.91
942.57
934.93
941.14
934.09
939.70
933.01
938.26
932.12
936.82
931.36
935.38
26+00
27+00
28+00
29+00
30+00
31+00

FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG COMMENT:
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PLOTTED BY: JONATHON MCDONALD

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

31/46

1706.340

LOT 7
LOT 8
LOT 9
LOT 10
LOT 34
LOT 35
OUTLOT 'X'
SHEET INDEX
PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
8" P.C.C.
7" P.C.C.
INSTALL 10 TONS OF CLASS 'E' RIPRAP
Δ = 12°43'09"
L = 221.99'
R = 1000.00'
CH = 221.54'
CHB = N89°39'50"E
DETENTION EASEMENT
30' SETBACK
10.00' PUE
25.00' STORM SEWER EASEMENT
17.50' SANITARY SEWER EASEMENT
31+84 TG=935.54
32+75 TG=932.94
15.00' SANITARY SEWER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=920.04 TOP OF SANITARY=918.47
CRITICAL CROSSING BOTTOM OF WATER=925.12 TOP OF SANITARY=916.84
CRITICAL CROSSING BOTTOM OF STORM=923.48 TOP OF WATER=921.98 INSTALL GASKETED JOINTS ON STORM SEWER
PT 101+77.61
MH 101+46.37
PT 35+88.13
PC 101+15.13
PC 33+66.14
Mid 34+77.14
5' SIDEWALK (FUTURE)
MAILBOX PAD (TYP.)
70.00' ROW
31.00' B-B
18.50' (TYP.)
101+00
102+00
100+00
BP 100+00.00
STREET LIGHT (TYP.)
8" SHARED USE PATH (FUTURE)
8' SHARED USE PATH
STA 32+25.68, 18.50' RT 8" VALVE RIM= 933.52
STA 32+29.68, 22.00' RT HYDRANT ASSEMBLY FGH= 933.55
CRITICAL CROSSING BOTTOM OF STORM=922.94 TOP OF WATER=921.44 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF WATER=924.10 TOP OF STORM=922.56
STA 34+70.13, 22.00' RT HYDRANT ASSEMBLY FGH= 931.19
CRITICAL CROSSING BOTTOM OF STORM=922.87 TOP OF WATER=921.37 INSTALL GASKETED JOINTS ON STORM SEWER
STA 36+16.53, 18.50' RT 8" TEE
STA 36+21.53, 18.50' RT 8" VALVE RIM= 932.08
STA 36+36.03 (PRAIRIE BLUFF DRIVE) STA 101+00.00 (INDIAN RIDGE DRIVE)
STA 36+77.38 BEGIN 15:1 TAPER
STA 36+92.38 END 15:1 TAPER
12.00' OVERLAND FLOWAGE EASEMENT
20.00' STORM SEWER EASEMENT
INSTALL 35 TONS OF CLASS 'E' RIPRAP
INSTALL 10 TONS OF CLASS 'E' RIPRAP
32+00
33+00
34+00
35+00
36+00
37+00
8"W
SCALE
0'
10'
20'
40'

945
940
935
930
925
920
915
HYDRANT ASSEMBLY
8" VALVE
VPC STA = 32+67
VPC ELEV = 932.01
LP STA = 33+88.30
LP ELEV = 930.27
VPI STA = 33+42
VPI ELEV = 929.85
VC = 150'
K=42.12
VPT STA = 34+17
VPT ELEV = 930.36
PROFILE GRADE
EXISTING GROUND
5.5' MINIMUM DEPTH
0.68%
8" TEE
PROPOSED 8" WATER MAIN
CRITICAL CROSSING BOTTOM OF WATER=924.10 TOP OF STORM=922.56
CRITICAL CROSSING BOTTOM OF STORM=922.94 TOP OF WATER=921.44 INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING BOTTOM OF STORM=922.87 TOP OF WATER=921.37 INSTALL GASKETED JOINTS ON STORM SEWER
931.36
935.38
930.66
933.94
929.87
932.50
929.43
931.19
929.30
930.44
929.20
930.28
929.23
930.59
929.39
930.93
929.64
931.27
929.62
931.61
929.49
931.95
929.56
932.29
32+00
33+00
34+00
35+00
36+00
37+00

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AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO
EI: GH

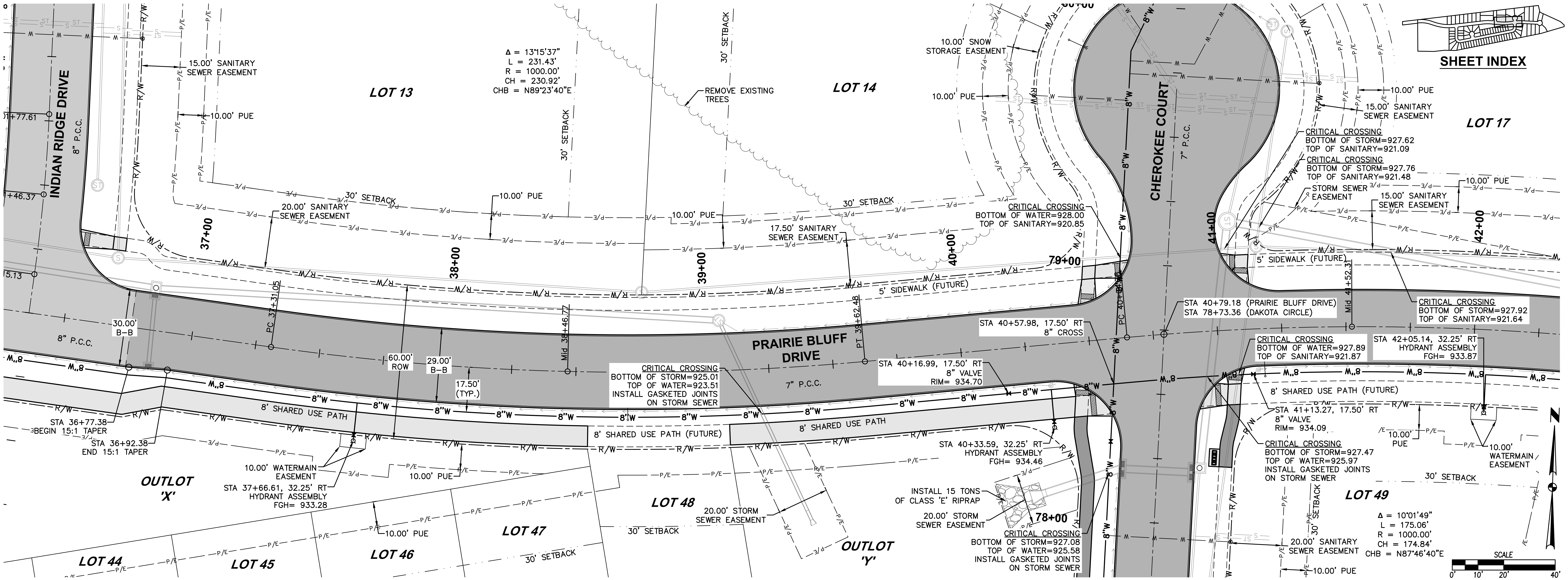
PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

32/46

1706.340


SHEET INDEX
LOT 13
LOT 14
LOT 17
LOT 44
LOT 45
LOT 46
LOT 47
LOT 48
LOT 49
OUTLOT 'X'
OUTLOT 'Y'
INDIAN RIDGE DRIVE
8" P.C.C.
PRAIRIE BLUFF DRIVE
7" P.C.C.
CHEROKEE COURT
7" P.C.C.
Δ = 13°15'37"
L = 231.43'
R = 1000.00'
CH = 230.92'
CHB = N89°23'40"E
15.00' SANITARY SEWER EASEMENT
10.00' PUE
30' SETBACK
20.00' SANITARY SEWER EASEMENT
REMOVE EXISTING TREES
17.50' SANITARY SEWER EASEMENT
10.00' SNOW STORAGE EASEMENT
CRITICAL CROSSING
BOTTOM OF WATER=928.00
TOP OF SANITARY=920.85
CRITICAL CROSSING
BOTTOM OF STORM=927.62
TOP OF SANITARY=921.09
CRITICAL CROSSING
BOTTOM OF STORM=927.76
TOP OF SANITARY=921.48
STORM SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
5' SIDEWALK (FUTURE)
CRITICAL CROSSING
BOTTOM OF STORM=927.92
TOP OF SANITARY=921.64
STA 40+79.18 (PRAIRIE BLUFF DRIVE)
STA 78+73.36 (DAKOTA CIRCLE)
STA 40+57.98, 17.50' RT
8" CROSS
CRITICAL CROSSING
BOTTOM OF WATER=927.89
TOP OF SANITARY=921.87
STA 42+05.14, 32.25' RT
HYDRANT ASSEMBLY
FGH= 933.87
STA 40+16.99, 17.50' RT
8" VALVE
RIM= 934.70
CRITICAL CROSSING
BOTTOM OF STORM=925.01
TOP OF WATER=923.51
INSTALL GASKETED JOINTS ON STORM SEWER
30.00' B-B
60.00' ROW
29.00' B-B
17.50' (TYP.)
PC 37+31.05
Mid 38+46.77
PT 39+62.48
PC 40+
Mid 41+52.31
37+00
38+00
39+00
40+00
41+00
42+00
79+00
78+00
+77.61
+46.37
5.13
STA 36+77.38
BEGIN 15:1 TAPER
STA 36+92.38
END 15:1 TAPER
8' SHARED USE PATH
8' SHARED USE PATH (FUTURE)
8' SHARED USE PATH (FUTURE)
10.00' WATERMAIN EASEMENT
STA 37+66.61, 32.25' RT
HYDRANT ASSEMBLY
FGH= 933.28
20.00' STORM SEWER EASEMENT
STA 40+33.59, 32.25' RT
HYDRANT ASSEMBLY
FGH= 934.46
INSTALL 15 TONS OF CLASS 'E' RIPRAP
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=927.08
TOP OF WATER=925.58
INSTALL GASKETED JOINTS ON STORM SEWER
STA 41+13.27, 17.50' RT
8" VALVE
RIM= 934.09
CRITICAL CROSSING
BOTTOM OF STORM=927.47
TOP OF WATER=925.97
INSTALL GASKETED JOINTS ON STORM SEWER
10.00' WATERMAIN EASEMENT
Δ = 10°01'49"
L = 175.06'
R = 1000.00'
CH = 174.84'
CHB = N87°46'40"E
20.00' SANITARY SEWER EASEMENT
R/W
P/E
8"W
SCALE
0' 10' 20' 40'
N

945
940
935
930
925
920
915
HYDRANT ASSEMBLY
PROFILE GRADE
0.68%
EXISTING GROUND
VPC STA = 39+80
VPC ELEV = 934.20
HP STA = 40+31.94
HP ELEV = 934.378
VPI STA = 40+30
VPI ELEV = 934.54
VC = 100'
K=76.22
VPT STA = 40+80
VPT ELEV = 934.23
HYDRANT ASSEMBLY
8" VALVE
8" VALVE
-0.63%
HYDRANT ASSEMBLY
5.5' MINIMUM DEPTH
PROPOSED 8" WATER MAIN
8" CROSS
CRITICAL CROSSING
BOTTOM OF STORM=925.01
TOP OF WATER=923.51
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF STORM=927.47
TOP OF WATER=925.97
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=927.89
TOP OF SANITARY=921.87
929.49 931.95
929.56 932.29
929.87 932.63
929.89 932.97
929.64 933.32
929.17 933.66
928.63 934.00
928.39 934.31
928.91 934.36
929.60 934.10
930.52 933.79
930.18 933.47
37+00
38+00
39+00
40+00
41+00
42+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

33/46
1706.340

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FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:37 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

SHEET INDEX
LOT 17
LOT 18
LOT 19
LOT 20
LOT 21
OUTLOT 'Z'
LOT 49
LOT 26
LOT 25
LOT 24
LOT 23
LOT 22
Δ = 10°01'49"
L = 175.06'
R = 1000.00'
CH = 174.84'
CHB = N87°46'40"E
30' SETBACK
REMOVE EXISTING TREES
20.00' OVERLAND FLOWAGE EASEMENT
15.00' SANITARY SEWER EASEMENT
10.00' PUE
43+32 TG=934.63
44+29 TG=935.85
45+23 TG=937.03
46+19 TG=938.09
10.00' SNOW STORAGE EASEMENT
STREET LIGHT (TYP.)
42+00
43+00
44+00
45+00
46+00
47+00
5' SIDEWALK (FUTURE)
CRITICAL CROSSING
BOTTOM OF STORM=927.92
TOP OF SANITARY=921.64
Mid 41+52.31
PT 42+39.84
PRAIRIE BLUFF DRIVE
7" P.C.C.
60.00' ROW
29.00' B-B
17.50' (TYP.)
20.00' STORM SEWER EASEMENT
8' SHARED USE PATH
8"W
10.00' WATERMAIN EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=928.68
TOP OF WATER=927.18
INSTALL GASKETED JOINTS ON STORM SEWER
8' SHARED USE PATH (FUTURE)
STA 46+75.28, 28.86' RT
HYDRANT ASSEMBLY
FGH= 938.31
STA 42+05.14, 32.25' RT
HYDRANT ASSEMBLY
FGH= 933.87
43+05 TG=934.28
STA 43+47.50, 17.50' RT
8" VALVE
RIM= 934.15
43+94 TG=935.34
STA 44+37.55, 32.25' RT
HYDRANT ASSEMBLY
FGH= 935.62
44+85 TG=936.47
45+75 TG=937.76
STA 46+47.85, 17.50' RT
22.5° BEND
46+56 TG=938.32
20.00' STORM SEWER EASEMENT
30.00' OVERLAND FLOWAGE EASEMENT
N
SCALE
0' 10' 20' 40'

945
940
935
930
925
920
915
HYDRANT ASSEMBLY
VPC STA = 42+30
VPC ELEV = 933.28
LP STA = 42+63.53
LP ELEV = 933.17
VPI STA = 42+80
VPI ELEV = 932.97
VC = 100'
K=53.18
VPT STA = 43+30
VPT ELEV = 933.59
8" VALVE
PROFILE GRADE
HYDRANT ASSEMBLY
1.25%
5.5' MINIMUM DEPTH
HYDRANT ASSEMBLY
22.5° BEND
EXISTING GROUND
PROPOSED 8" WATER MAIN
CRITICAL CROSSING
BOTTOM OF STORM=928.68
TOP OF WATER=927.18
INSTALL GASKETED JOINTS ON STORM SEWER
930.18 933.47
928.94 933.19
927.69 933.30
929.37 933.84
930.64 934.47
931.43 935.09
932.22 935.72
933.12 936.34
933.92 936.97
934.73
935.40
42+00
43+00
44+00
45+00
46+00
47+00

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REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
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THIRD SUBMITTAL	09/25/18

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EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

34/46

1706.340

LOT 5
LOT 4
LOT 3
LOT 27
LOT 28
LOT 29
LOT 30
OUTLOT 'V'
LOT 69
LOT 70
LOT 71
LOT 72
LOT 73
LOT 74
LOT 75
PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
SHEET INDEX
Δ = 6°50'33" L = 77.62' R = 650.00' CH = 77.58' CHB = S3°16'30"E
Δ = 101°26'55" L = 132.80' R = 75.00' CH = 116.12' CHB = S50°34'40"E
30' SETBACK
20.00' SANITARY SEWER EASEMENT
10.00' PUE
15.00' SANITARY SEWER EASEMENT
5' SIDEWALK (FUTURE)
8" SHARED USE PATH (FUTURE)
8' SHARED USE PATH (FUTURE)
8" P.C.C.
7" P.C.C.
29+00
28+00
60+00
61+00
62+00
63+00
64+00
65+00
BP 60+00.00
PT 27+41.84
PC 61+14.84
Mid 61+53.65
PT 61+92.46
PC 63+71.43
Mid 64+37.83
PT 65+04.23
CRITICAL CROSSING BOTTOM OF WATER=937.28 TOP OF SANITARY=932.16
CRITICAL CROSSING BOTTOM OF STORM=933.83 TOP OF SANITARY=931.08
CRITICAL CROSSING BOTTOM OF STORM=938.14 TOP OF WATER=936.64 INSTALL GASKETED JOINTS ON STORM SEWER
STA 61+00.00 (DAKOTA CIRCLE) STA 27+87.93 (PRAIRIE BLUFF DRIVE)
61+82 TG=944.73
62+36 TG=945.78
62+91 TG=946.84
63+51 TG=948.01
64+57 TG=949.49
64+26 TG=949.29
63+96 TG=948.87
63+64 TG=948.25
63+07 TG=947.15
62+52 TG=946.08
62+00 TG=945.09
60.00' ROW
29.00' B-B
18.50' (TYP.)
STREET LIGHT (TYP.)
MAILBOX PAD (TYP.)
STA 61+42.17, 18.50' RT 8" VALVE RIM= 943.68
STA 61+18.61, 18.50' RT 8" TEE
STA 63+36.12, 22.00' RT HYDRANT ASSEMBLY FGH= 947.21
STA 63+78.78, 18.95' RT 11.25' BEND
STA 64+00.87, 20.33' RT 22.5' BEND
STA 64+29.55, 20.13' RT 22.5' BEND
STA 64+60.64, 20.01' RT 22.5' BEND
STA 64+89.85, 20.24' RT 22.5' BEND
STA 65+01.36, 18.57' RT 8" VALVE RIM= 948.74
STA 65+03.65, 22.00' RT HYDRANT ASSEMBLY FGH= 948.86
8"W
R/W
P/E
SCALE
0' 10' 20' 40'

960
955
950
945
940
935
930
LP STA = 61+49.86 LP ELEV = 943.37 VPI STA = 61+53 VPI ELEV = 943.16 VC = 50' K=14.57
HP STA = 64+68.68 HP ELEV = 948.491 VPI STA = 64+65 VPI ELEV = 949.18 VC = 150' K=40.75
VPC STA = 61+28 VPC ELEV = 943.53
VPT STA = 61+78 VPT ELEV = 943.64
VPC STA = 63+90 VPC ELEV = 947.73
VPT STA = 65+40 VPT ELEV = 947.87
2.00%
-2.00%
-1.50%
1.93%
8" VALVE
HYDRANT ASSEMBLY
EXISTING GROUND
PROFILE GRADE
5.5' MINIMUM DEPTH
11.25' BEND
22.5' BEND
22.5' BEND
22.5' BEND
22.5' BEND
PROPOSED 8" WATER MAIN
8" TEE
936.34
938.07
939.87 944.03
940.80 943.37
941.93 944.06
943.62 945.03
945.73 945.99
948.02 946.96
950.24 947.91
950.99 948.45
949.44 948.37
946.43 947.69
60+00
61+00
62+00
63+00
64+00
65+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

35/46

1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:37 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

Δ = 101°26'55"
L = 132.80'
R = 75.00'
CH = 116.12'
CHB = S50°34'40"E
LOT 30
LOT 31
LOT 37
LOT 38
LOT 39
SHEET INDEX
30' SETBACK
10.00' OVERLAND FLOWAGE EASEMENT
10.00' PUE
20.00' SANITARY SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
STORM SEWER EASEMENT
5' SIDEWALK (FUTURE)
5' SIDEWALK
64+00
65+00
66+00
67+00
68+00
69+00
70+00
91+00
92+00
90+00
BP 90+00.00
Mid 64+37.83
PT 65+04.23
STA 67+80.60 (DAKOTA CIRCLE)
STA 91+00.00 (CHEYENNE COURT)
CRITICAL CROSSING
BOTTOM OF WATER=937.03
TOP OF SANITARY=931.10
CRITICAL CROSSING
BOTTOM OF STORM=939.37
TOP OF WATER=937.87
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF STORM=937.67
TOP OF SANITARY=929.87
CHEYENNE COURT
7" P.C.C.
DAKOTA CIRCLE
7" P.C.C.
STREET LIGHT (TYP.)
STA 64+60.64, 20.01' RT
22.5' BEND
STA 64+89.85, 20.24' RT
22.5' BEND
STA 65+03.65, 22.00' RT
HYDRANT ASSEMBLY
FGH= 948.86
STA 65+01.36, 18.57' RT
8" VALVE
RIM= 948.74
STA 67+22.83, 22.00' RT
HYDRANT ASSEMBLY
FGH= 945.19
STA 67+62.10, 18.50' RT
8" TEE
STA 67+74.17, 18.50' RT
8" VALVE
RIM= 944.15
68+03
TG=944.27
68+59
TG=943.29
69+15
TG=942.31
69+71
TG=941.33
69+89
TG=941.02
70+44
TG=940.05
70+27
TG=940.35
60.00' ROW
29.00' B-B
18.50' (TYP.)
MAILBOX PAD (TYP.)
STA 69+42.17, 22.00' RT
HYDRANT ASSEMBLY
FGH= 941.35
OUTLOT 'V'
LOT 68
LOT 67
LOT 66
LOT 65
LOT 64
8"W
R/W
P/E
SCALE
0'
10'
20'
40'

955
950
945
940
935
930
925
HYDRANT ASSEMBLY
8" VALVE
VPT STA = 65+40
VPT ELEV = 947.87
PROFILE GRADE
EXISTING GROUND
HYDRANT ASSEMBLY
8" VALVE
1.75%
5.5' MINIMUM DEPTH
HYDRANT ASSEMBLY
22.5' BEND
22.5' BEND
PROPOSED 8" WATER MAIN
8" TEE
949.44
948.37
946.43
947.69
944.01
946.82
942.40
945.94
940.87
945.07
939.50
944.19
937.73
943.32
937.61
942.44
936.70
941.57
935.29
940.69
935.65
939.82
65+00
66+00
67+00
68+00
69+00
70+00

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COMMENT:
TECH:
ENG:

DATE	REVISIONS
06/30/20	AS-BUILT SUBMITTAL
06/28/19	REVISED STORM SEWER
03/07/19	REVISED SIDEWALK
10/30/18	FINAL SUBMITTAL
10/05/18	FOURTH SUBMITTAL
09/25/18	THIRD SUBMITTAL

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

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

36/46

1706.340

SHEET INDEX
LOT 38
LOT 39
LOT 40
LOT 41
LOT 42
LOT 43
LOT 44
LOT 45
LOT 46
LOT 47
LOT 48
20.00' STORM SEWER EASEMENT
CRITICAL CROSSING BOTTOM OF STORM=928.89 TOP OF SANITARY=926.92
30' SETBACK
69+89 TG=941.02
70+44 TG=940.05
70+99 TG=939.09
71+56 TG=938.36
72+16 TG=938.45
72+74 TG=938.88
73+29 TG=939.28
15.00' SANITARY SEWER EASEMENT
73+84 TG=939.69
74+39 TG=939.92
74+94 TG=939.47
75+49 TG=938.62
70+00
71+00
72+00
73+00
74+00
75+00
5' SIDEWALK (FUTURE)
DAKOTA CIRCLE
7" P.C.C.
60.00' ROW
29.00' B-B
18.50' (TYP.)
MAILBOX PAD (TYP.)
STREET LIGHT (TYP.)
STREET LIGHT (TYP.)
8"W
5' SIDEWALK (FUTURE)
70+27 TG=940.35
70+83 TG=939.37
71+41 TG=938.48
72+01 TG=938.35
72+59 TG=938.77
73+15 TG=939.18
73+71 TG=939.59
74+27 TG=939.92
10.00' PUE
74+83 TG=939.62
75+39 TG=938.77
STA 71+10.17, 18.51' RT 8" VALVE RIM= 938.27
STA 71+70.17, 22.00' RT HYDRANT ASSEMBLY FGH= 937.81
CRITICAL CROSSING BOTTOM OF STORM=932.57 TOP OF WATER=931.07 INSTALL GASKETED JONITS ON STORM SEWER
STA 73+98.17, 22.00' RT HYDRANT ASSEMBLY FGH= 939.30
STA 75+10.17, 18.50' RT 8" VALVE RIM= 938.60
30' SETBACK
LOT 64
LOT 63
LOT 62
LOT 61
LOT 60
LOT 59
LOT 58
LOT 57
LOT 56
LOT 55
20.00' STORM SEWER EASEMENT
SCALE
0'
10'
20'
40'

950
945
940
935
930
925
920
8" VALVE
VPC STA = 71+10
VPC ELEV = 937.89
LP STA = 71+80.32
LP ELEV = 937.28
VPI STA = 71+60
VPI ELEV = 937.02
VC = 100'
K=40.19
HYDRANT ASSEMBLY
VPT STA = 72+10
VPT ELEV = 937.39
0.74%
PROFILE GRADE
HYDRANT ASSEMBLY
VPC STA = 74+00
VPC ELEV = 938.79
HP STA = 74+32.08
HP ELEV = 938.907
VPI STA = 74+50
VPI ELEV = 939.16
VC = 100'
K=43.45
VPT STA = 75+00
VPT ELEV = 938.38
8" VALVE
5.5' MINIMUM DEPTH
CRITICAL CROSSING BOTTOM OF STORM=932.57 TOP OF WATER=931.07 INSTALL GASKETED JOINTS ON STORM SEWER
PROPOSED 8" WATER MAIN
EXISTING GROUND
935.65
939.82
935.17
938.94
934.64
938.07
934.21
937.39
933.74
937.32
933.37
937.68
932.75
938.05
932.32
938.42
932.15
938.79
931.97
938.87
931.80
938.38
931.51
937.59
70+00
71+00
72+00
73+00
74+00
75+00

REVISIONS	DATE
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ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

37/46

1706.340

FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:37 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

LOT 55
LOT 54
LOT 53
LOT 52
LOT 51
LOT 50
LOT 49
LOT 14
LOT 15
LOT 16
LOT 17
OUTLOT 'Y'
DAKOTA CIRCLE
PRAIRIE BLUFF DRIVE
CHEROKEE COURT
SHEET INDEX
15.00' SANITARY SEWER EASEMENT
76+00
Δ = 77°44'04"
L = 101.75'
R = 75.00'
CH = 94.13'
CHB = N39°49'50"E
20.00' STORM SEWER EASEMENT
10.00' PUE
8' SHARED USE PATH
PT 39+62.48
17.50' SANITARY SEWER EASEMENT
OVERLAND FLOWAGE EASEMENT
REMOVE EXISTING TREES
STA 78+73.36 (DAKOTA CIRCLE)
STA 40+79.18 (PRAIRIE BLUFF DRIVE)
STREET LIGHT (TYP.)
75+95
TG=937.90
30' SETBACK
5' SIDEWALK (FUTURE)
7" P.C.C.
INSTALL 10 TONS OF CLASS 'E' RIPRAP
CRITICAL CROSSING
BOTTOM OF STORM=927.03
TOP OF SANITARY=923.91
20.00' STORM SEWER EASEMENT
PC 76+53.46
STA 78+30.76, 18.50' LT
8" VALVE
RIM= 934.03
20.00' STORM SEWER EASEMENT
INSTALL 15 TONS OF CLASS 'E' RIPRAP
CRITICAL CROSSING
BOTTOM OF STORM=927.08
TOP OF WATER=925.58
INSTALL GASKETED JOINTS ON STORM SEWER
40+00
79+60
TG=936.13
80+23
TG=936.68
76+50
TG=937.04
STA 76+64.17, 23.00' RT
HYDRANT ASSEMBLY
FGH= 936.37
77+00
78+00
79+00
80+00
81+00
CRITICAL CROSSING
BOTTOM OF WATER=928.00
TOP OF SANITARY=920.85
STA 79+82.61, 18.50' LT
22.5° BEND
10.00' SNOW STORAGE EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=927.28
TOP OF WATER=925.78
INSTALL GASKETED JOINTS ON STORM SEWER
5' SIDEWALK
Mid 77+04.39
PT 77+35.20
8"W
PC 40+81.76
5.00' OVERLAND FLOWAGE EASEMENT
STA 76+74.89, 22.46' RT
45° BEND
18.50' (TYP.)
60.00' ROW
29.00' B-B
STA 78+53.12, 18.50' LT
8" CROSS
STA 80+14.94, 5.11' LT
HYDRANT ASSEMBLY
FGH= 936.45
76+86
TG=936.48
20.00' STORM SEWER EASEMENT
80+33
TG=936.80
STA 76+86.59, 17.63' RT
45° BEND
41+00
CRITICAL CROSSING
BOTTOM OF STORM=931.03
TOP OF WATER=929.53
INSTALL GASKETED JOINTS ON STORM SEWER
R/W
CRITICAL CROSSING
BOTTOM OF STORM=930.52
TOP OF SANITARY=923.53
CRITICAL CROSSING
BOTTOM OF STORM=927.47
TOP OF WATER=925.97
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=927.76
TOP OF SANITARY=921.48
10.00' PUE
CRITICAL CROSSING
BOTTOM OF WATER=928.82
TOP OF SANITARY=923.64
77+18
TG=935.98
15.00' OVERLAND FLOWAGE EASEMENT
77+49
TG=935.49
77+97
TG=934.78
CRITICAL CROSSING
BOTTOM OF WATER=927.89
TOP OF SANITARY=921.87
CRITICAL CROSSING
BOTTOM OF STORM=927.62
TOP OF SANITARY=921.09
25.00' LANDSCAPE BUFFER EASEMENT
STORM SEWER EASEMENT
79+76
TG=936.20
10.00' PUE
20.00' SANITARY SEWER EASEMENT
Mid 41+52.31
15.00' SANITARY SEWER EASEMENT
10.00' PUE
N
SCALE
0'
10'
20'
40'

945
940
935
930
925
920
915
LP STA = 78+20.72
LP ELEV = 933.64
VPI STA = 78+20
VPI ELEV = 933.37
VC = 70'
K=22.85
VPC STA = 77+85
VPC ELEV = 933.92
VPT STA = 78+55
VPT ELEV = 933.90
HYDRANT ASSEMBLY
HYDRANT ASSEMBLY
-1.56%
PROFILE GRADE
8" VALVE
1.50%
1.90%
-2.06%
1.50%
45° BEND
EXISTING GROUND
5.5' MINIMUM DEPTH
CRITICAL CROSSING
BOTTOM OF STORM=927.28
TOP OF WATER=925.78
INSTALL GASKETED JOINTS ON STORM SEWER
22.5° BEND
8" CROSS
PROPOSED 8" WATER MAIN
45° BEND
CRITICAL CROSSING
BOTTOM OF WATER=928.82
TOP OF SANITARY=923.64
CRITICAL CROSSING
BOTTOM OF STORM=931.03
TOP OF WATER=929.53
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF STORM=927.08
TOP OF WATER=925.58
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=928.00
TOP OF SANITARY=920.85
931.51
937.59
931.39
936.81
931.32
936.03
931.29
935.25
930.86
934.47
930.16
933.74
929.62
933.83
929.59
934.13
929.96
934.88
929.71
935.63
929.31
928.33
76+00
77+00
78+00
79+00
80+00
81+00

FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:37 PM
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COMMENT:
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REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
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THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

38/46

1706.340

SHEET INDEX
LOT 42
LOT 43
LOT 44
LOT 45
OUTLOT 'X'
LOT 10
LOT 11
LOT 12
LOT 13
PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
8" SHARED USE PATH
8" P.C.C.
7" P.C.C.
PLAT BOUNDARY
15.00' SANITARY SEWER EASEMENT
10.00' PUE
30' SETBACK
5' SIDEWALK (FUTURE)
CRITICAL CROSSING
BOTTOM OF STORM=923.48
TOP OF WATER=921.98
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=925.12
TOP OF SANITARY=916.84
PT 35+88.13
STA 101+42.19, 19.50' LT
8" VALVE
RIM= 931.35
STA 101+45.11, 23.00' LT
HYDRANT ASSEMBLY
FGH= 931.44
STA 100+81.50, 19.50' LT
8" TEE
STA 101+00.00 (INDIAN RIDGE DRIVE)
STA 36+36.03 (PRAIRIE BLUFF DRIVE)
PC 101+15.13
Mid 101+46.37
PT 101+77.61
102+12
TG=930.54
103+04
TG=928.19
STA 103+60.30, 19.50' LT
11.25° BEND
STA 103+63.74, 18.81' LT
CONNECT TO EXISTING 8" WATERMAIN AT EXISTING VALVE (UAC)
STA 103+69.23, 21.47' LT
EXISTING HYDRANT ASSEMBLY (UAC)
19.50' (TYP.)
70.00' ROW
31.00' B-B
STA 103+62.79
END PAVEMENT
REMOVE EXISTING TEMPORARY TURNAROUND
102+11
TG=930.56
103+21
TG=927.94
PC 37+31.05
Δ = 5°30'27"
L = 62.48'
R = 650.00'
CH = 62.46'
CHB = N3°16'10"E
BP 100+00.00
EP 105+00.00
100+00
101+00
102+00
103+00
104+00
105+00
36+00
37+00
SCALE
0'
10'
20'
40'
N

940
935
930
925
920
915
910
VPI STA = 101+71
VPI ELEV = 930.56
VC = 80'
K=75.93
VPC STA = 101+31
VPC ELEV = 931.28
8" VALVE
HYDRANT ASSEMBLY
VPT STA = 102+11
VPT ELEV = 929.43
VPC STA = 102+55
VPC ELEV = 928.17
VPI STA = 103+00
VPI ELEV = 926.89
VC = 90'
K=44.11
VPT STA = 103+45
VPT ELEV = 926.53
CONNECT TO EXISTING 8" WATERMAIN AT EXISTING VALVE (UAC)
EXISTING HYDRANT ASSEMBLY (UAC)
2.00%
-2.00%
-1.79%
-2.84%
-0.80%
PROFILE GRADE
EXISTING GROUND
8" TEE
5.5' MINIMUM DEPTH
PROPOSED 8" WATER MAIN
CRITICAL CROSSING
BOTTOM OF STORM=923.48
TOP OF WATER=921.98
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=925.12
TOP OF SANITARY=916.84
11.25° BEND
EXISTING 8" WATER MAIN
930.86
929.95
929.57
931.86
928.91
930.91
928.47
929.72
927.88
928.31
927.18
927.12
926.34
926.49
925.65
925.37
925.05
100+00
101+00
102+00
103+00
104+00
105+00

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CIVIL DESIGN ADVANTAGE
ENGINEER: EKO
EI: GH

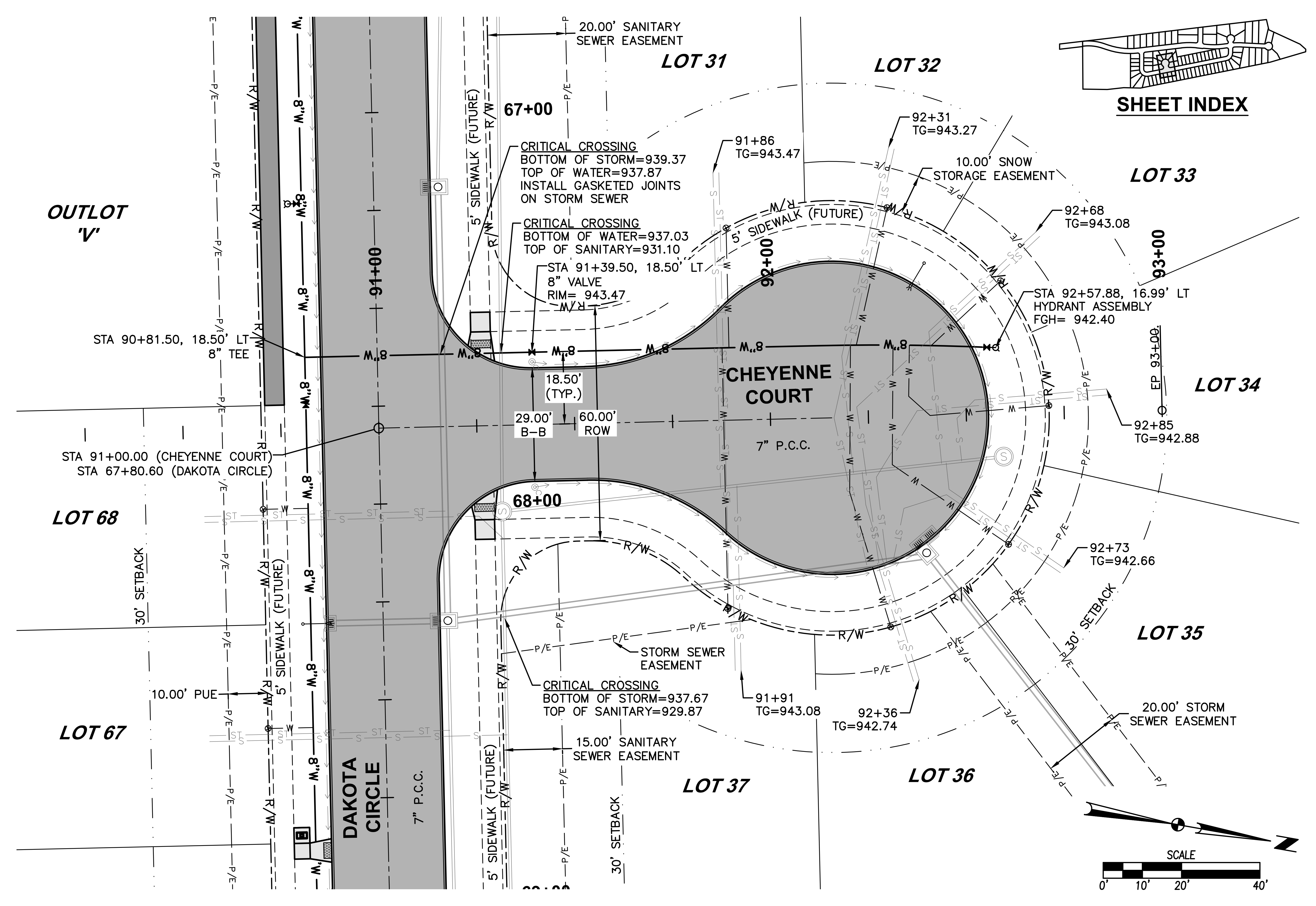
PAINTED WOODS SOUTH PLAT 1

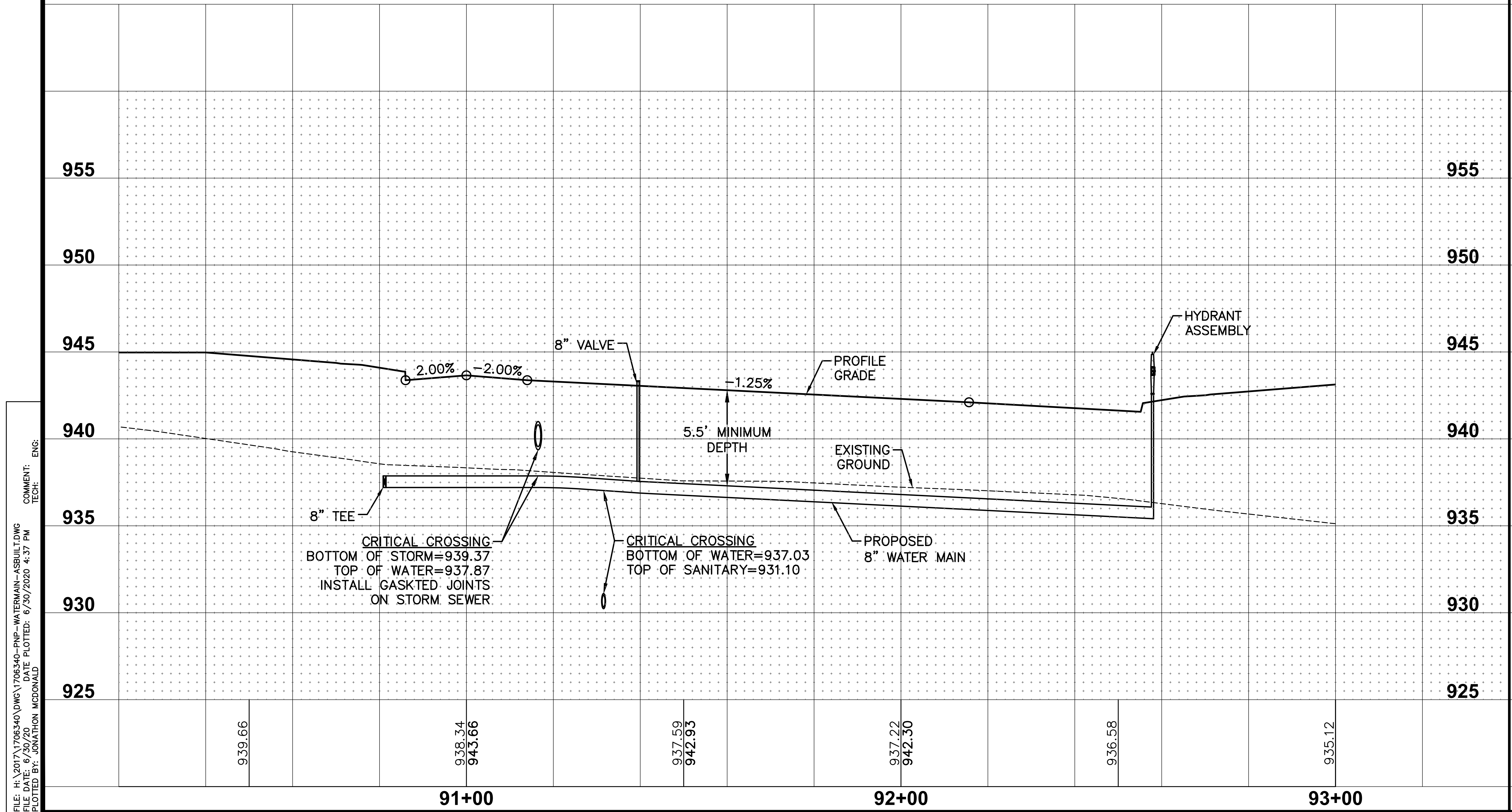
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

39/46

1706.340


20.00' SANITARY SEWER EASEMENT
LOT 31
LOT 32
LOT 33
LOT 34
LOT 35
LOT 36
LOT 37
LOT 67
LOT 68
OUTLOT 'V'
SHEET INDEX
67+00
68+00
91+00
92+00
93+00
CRITICAL CROSSING
BOTTOM OF STORM=939.37
TOP OF WATER=937.87
INSTALL GASKETED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=937.03
TOP OF SANITARY=931.10
STA 91+39.50, 18.50' LT
8" VALVE
RIM= 943.47
91+86
TG=943.47
92+31
TG=943.27
10.00' SNOW STORAGE EASEMENT
92+68
TG=943.08
STA 92+57.88, 16.99' LT
HYDRANT ASSEMBLY
FGH= 942.40
EP 93+00
92+85
TG=942.88
92+73
TG=942.66
5' SIDEWALK (FUTURE)
STA 90+81.50, 18.50' LT
8" TEE
18.50' (TYP.)
29.00' B-B
60.00' ROW
CHEYENNE COURT
7" P.C.C.
STA 91+00.00 (CHEYENNE COURT)
STA 67+80.60 (DAKOTA CIRCLE)
30' SETBACK
10.00' PUE
STORM SEWER EASEMENT
CRITICAL CROSSING
BOTTOM OF STORM=937.67
TOP OF SANITARY=929.87
91+91
TG=943.08
92+36
TG=942.74
20.00' STORM SEWER EASEMENT
15.00' SANITARY SEWER EASEMENT
DAKOTA CIRCLE
7" P.C.C.
8"W
R/W
P/E
SCALE
0'
10'
20'
40'


955
950
945
940
935
930
925
HYDRANT ASSEMBLY
8" VALVE
2.00%
-2.00%
-1.25%
PROFILE GRADE
5.5' MINIMUM DEPTH
EXISTING GROUND
8" TEE
CRITICAL CROSSING
BOTTOM OF STORM=939.37
TOP OF WATER=937.87
INSTALL GASKTED JOINTS ON STORM SEWER
CRITICAL CROSSING
BOTTOM OF WATER=937.03
TOP OF SANITARY=931.10
PROPOSED 8" WATER MAIN
939.66
938.34
943.66
937.59
942.93
937.22
942.30
936.58
935.12
91+00
92+00
93+00

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
REVISED STORM SEWER	06/28/19
REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
FOURTH SUBMITTAL	10/05/18
THIRD SUBMITTAL	09/25/18

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

ENGINEER: EKO
EI: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

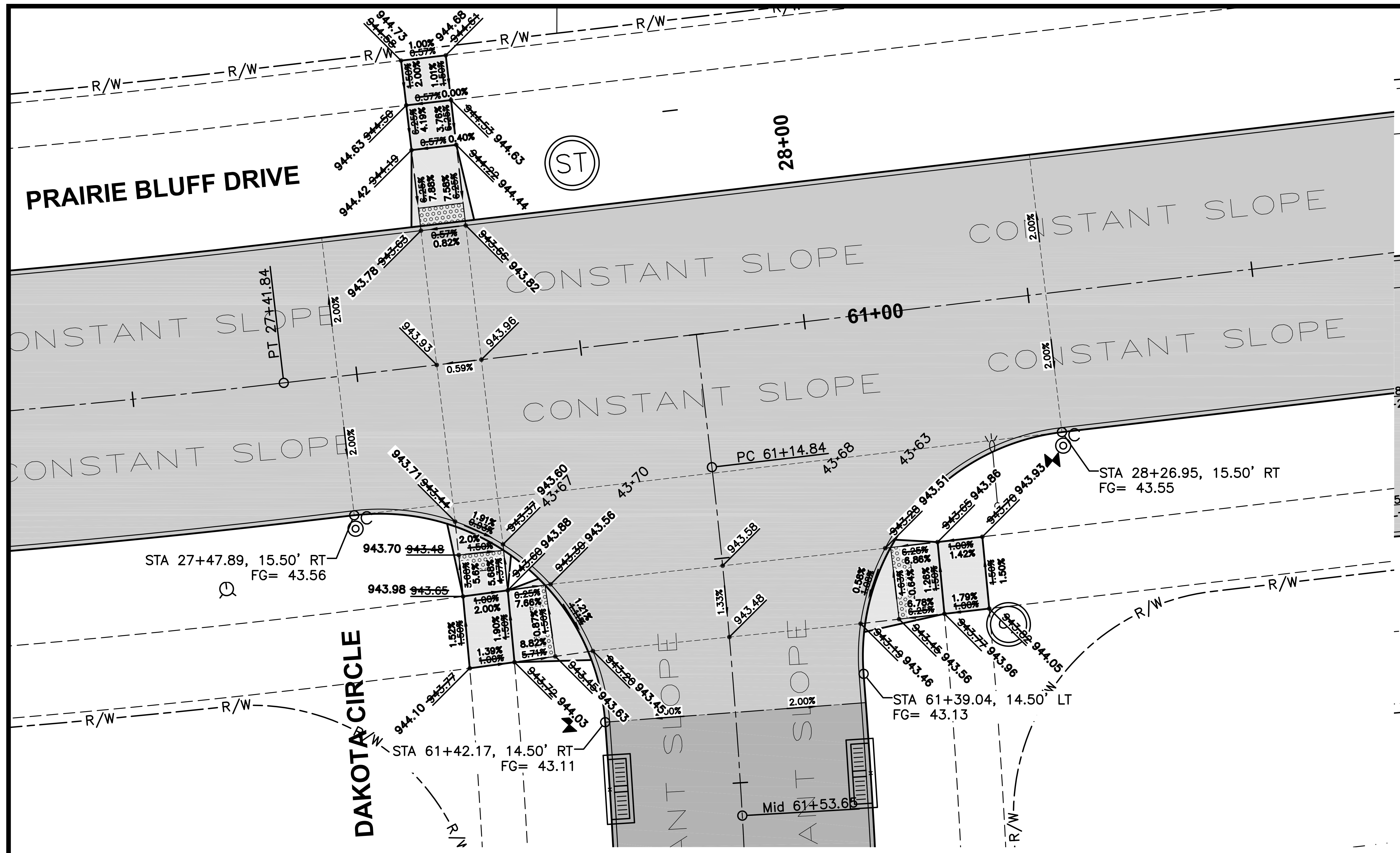
WATERMAIN PLAN AND PROFILE

WAUKEE, IOWA

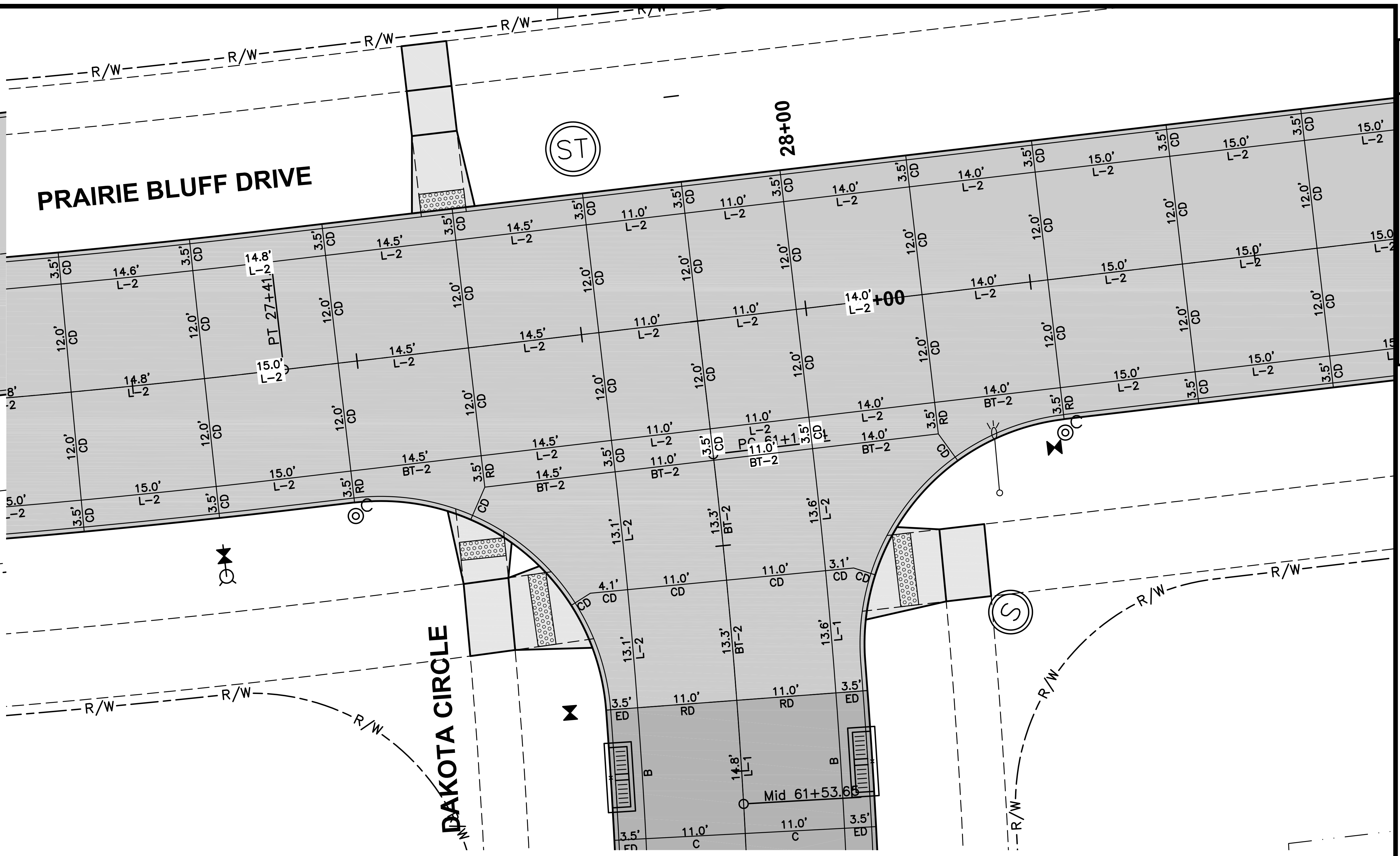
40/46

1706.340

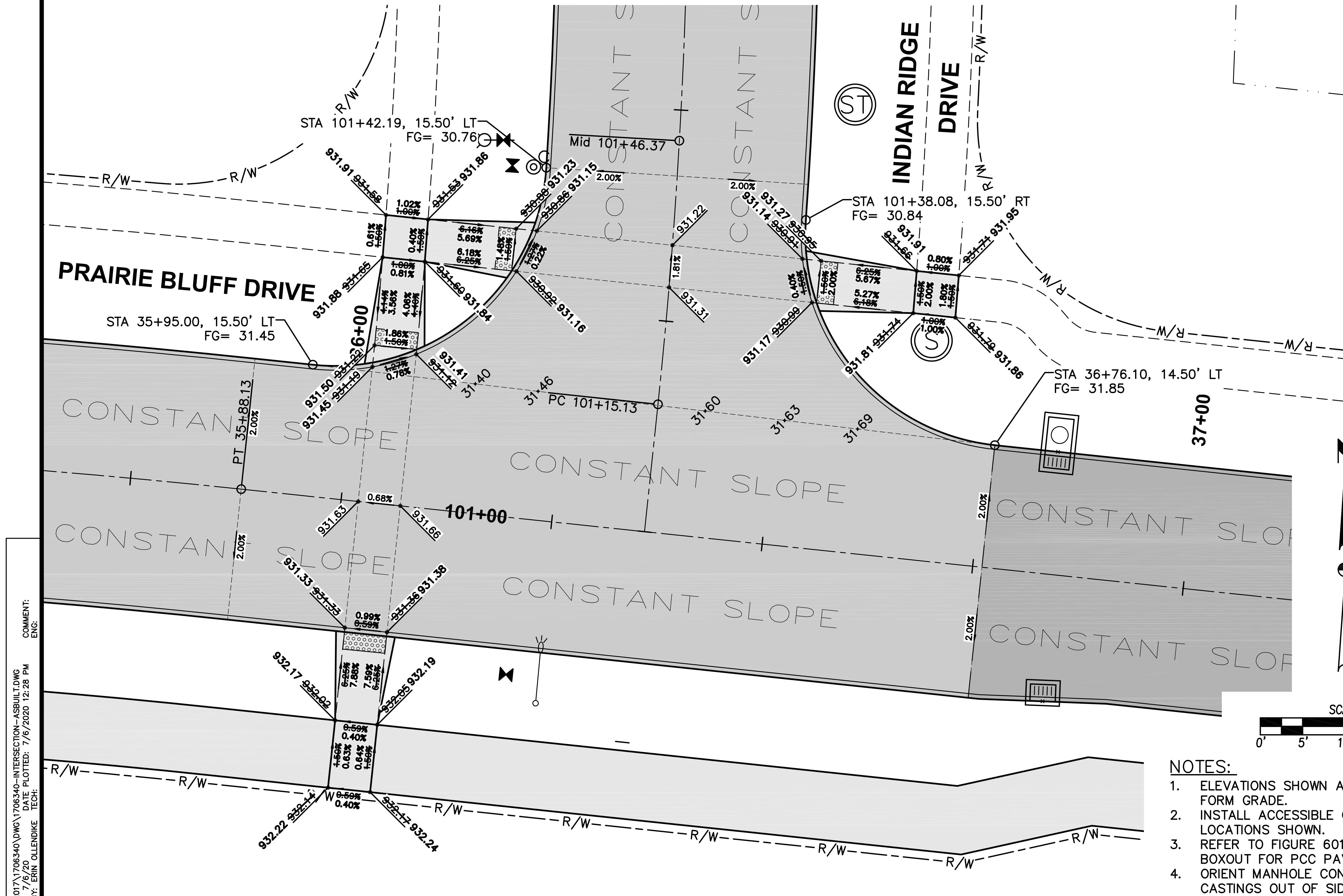
FILE: H:\2017\1706340\DWG\1706340-PNP-WATERMAIN-ASBUILT.DWG
FILE DATE: 6/30/20 DATE PLOTTED: 6/30/2020 4:37 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:


PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
28+00
61+00
R/W
CONSTANT SLOPE
ST
S
PT 27+41.84
PC 61+14.84
Mid 61+53.66
STA 27+47.89, 15.50' RT
FG= 43.56
STA 28+26.95, 15.50' RT
FG= 43.55
STA 61+42.17, 14.50' RT
FG= 43.11
STA 61+39.04, 14.50' LT
FG= 43.13
43-70
43-68
43-63
2.00%
0.59%
943.93
943.96
943.70
943.98
944.10
944.63
944.42
943.78
943.82
944.73
944.88

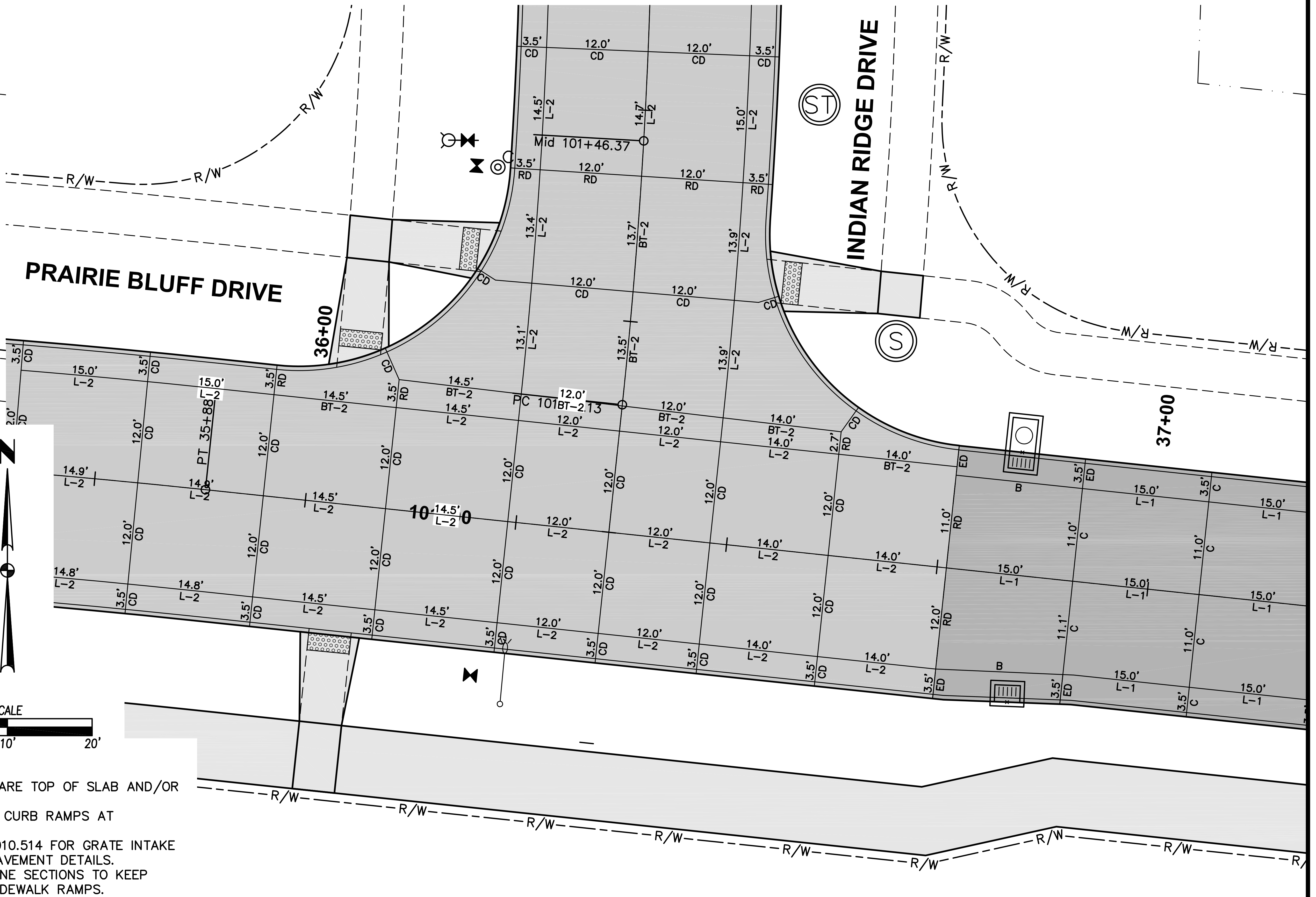
GEOMETRICS AND STAKING LAYOUT


PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
28+00
R/W
ST
S
PT 27+41
Mid 61+53.66
12.0' CD
14.5' L-2
15.0' L-2
11.0' L-2
3.5' CD
14.0' BT-2
13.1' L-2
13.3' BT-2
13.6' L-2
11.0' RD
3.5' ED
14.8' L-1
11.0' C
B

JOINTING LAYOUT


PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
36+00
37+00
101+00
R/W
ST
S
N
CONSTANT SLOPE
Mid 101+46.37
PC 101+15.13
PT 35+88.13
STA 101+42.19, 15.50' LT
FG= 30.76
STA 101+38.08, 15.50' RT
FG= 30.84
STA 35+95.00, 15.50' LT
FG= 31.45
STA 36+76.10, 14.50' LT
FG= 31.85
31-46
31-60
31-63
31-69
2.00%
0.68%
931.63
931.66
931.33
931.38
932.17
932.19
932.22
932.24
SCALE
0'
5'
10'
20'

GEOMETRICS AND STAKING LAYOUT


PRAIRIE BLUFF DRIVE
INDIAN RIDGE DRIVE
36+00
37+00
R/W
ST
S
PT 35+88
Mid 101+46.37
PC 101
12.0' CD
12.0' RD
14.5' L-2
14.5' BT-2
15.0' L-1
15.0' L-2
14.0' L-2
14.0' BT-2
11.0' C
3.5' ED
B

JOINTING LAYOUT

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ORIENT MANHOLE CONE SECTIONS TO KEEP CASTINGS OUT OF SIDEWALK RAMPS.
5. ADD 900 TO FOUR DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM.

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
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REVISED SIDEWALK	03/07/19
FINAL SUBMITTAL	10/30/18
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THIRD SUBMITTAL	09/25/18

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

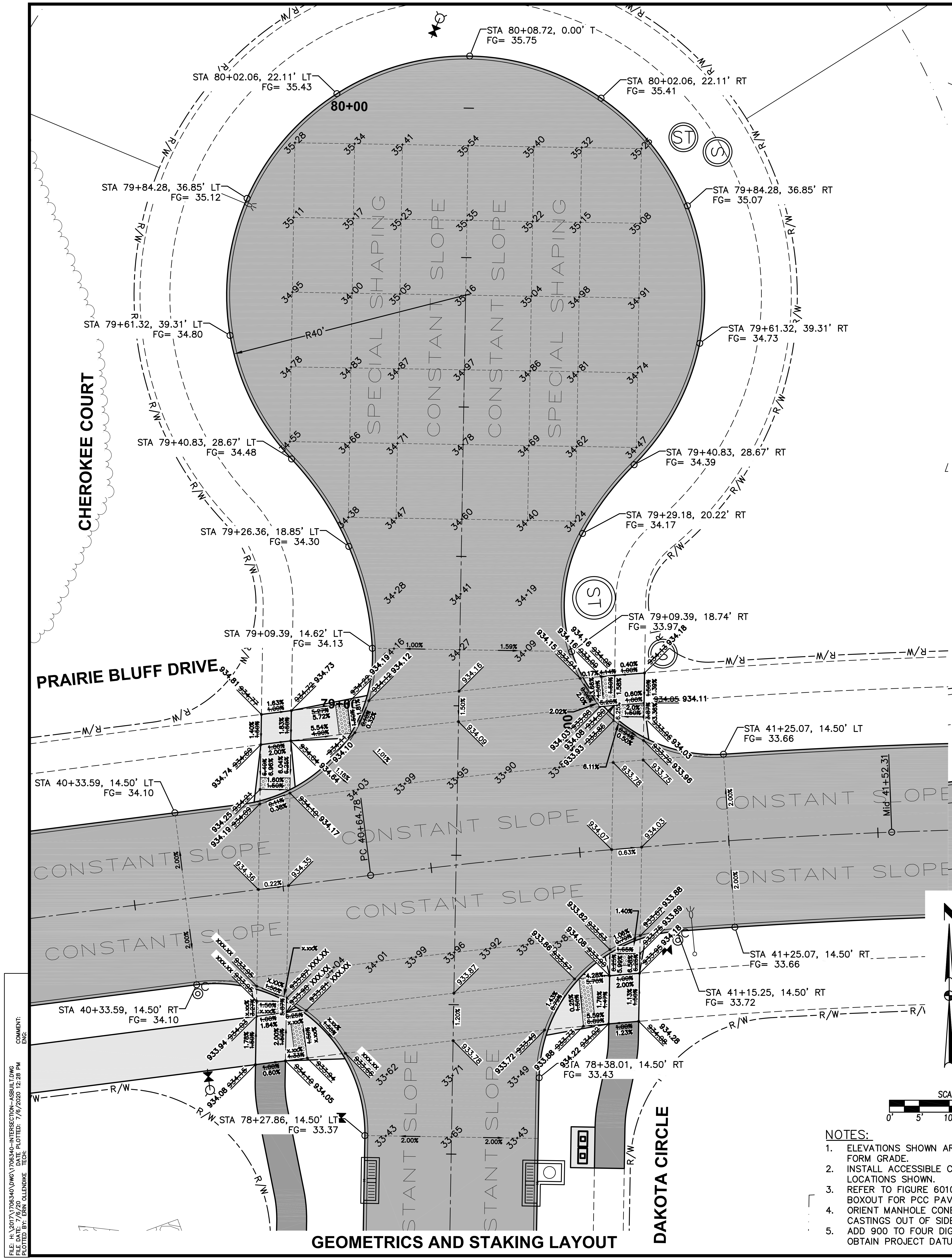
WAUKEE, IOWA

PAINTED WOODS SOUTH PLAT 1
INTERSECTION DETAILS

41/46

1706.340

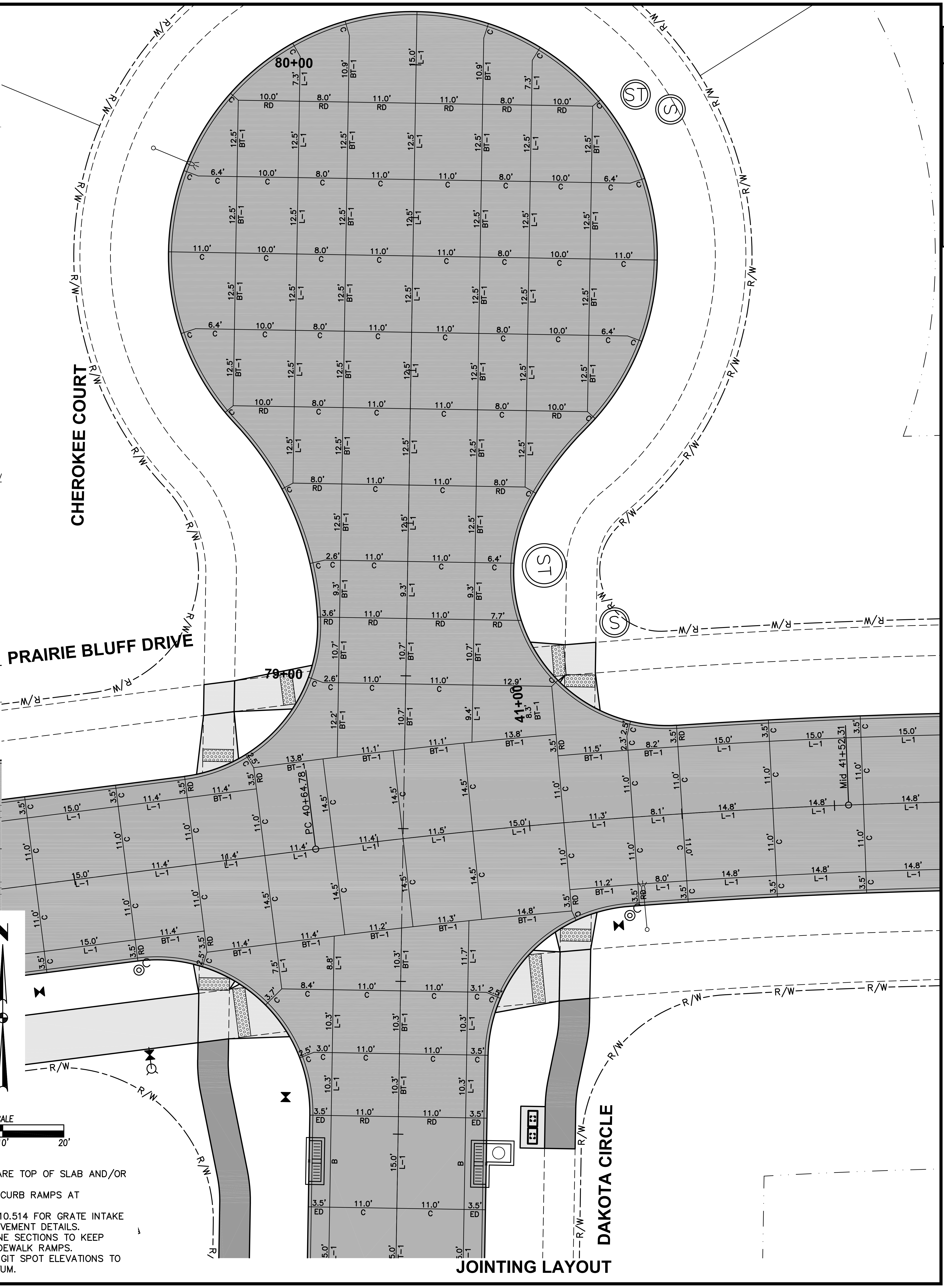
FILE: H:\2017\1706340\DWG\1706340-INTERSECTION-ASBUILT.DWG
FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 12:28 PM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:


STA 80+08.72, 0.00' T
FG= 35.75
STA 80+02.06, 22.11' LT
FG= 35.43
STA 80+02.06, 22.11' RT
FG= 35.41
80+00
STA 79+84.28, 36.85' LT
FG= 35.12
STA 79+84.28, 36.85' RT
FG= 35.07
STA 79+61.32, 39.31' LT
FG= 34.80
STA 79+61.32, 39.31' RT
FG= 34.73
R40'
SPECIAL SHAPING
CONSTANT SLOPE
CONSTANT SLOPE
SPECIAL SHAPING
STA 79+40.83, 28.67' LT
FG= 34.48
STA 79+40.83, 28.67' RT
FG= 34.39
STA 79+26.36, 18.85' LT
FG= 34.30
STA 79+29.18, 20.22' RT
FG= 34.17
STA 79+09.39, 14.62' LT
FG= 34.13
STA 79+09.39, 18.74' RT
FG= 33.97
CHEROKEE COURT
PRAIRIE BLUFF DRIVE
ST
S
R/W
STA 41+25.07, 14.50' LT
FG= 33.66
STA 40+33.59, 14.50' LT
FG= 34.10
PC 40+64.78
Mid 41+52.31
CONSTANT SLOPE
CONSTANT SLOPE
CONSTANT SLOPE
CONSTANT SLOPE
CONSTANT SLOPE
CONSTANT SLOPE
STA 41+25.07, 14.50' RT
FG= 33.66
STA 41+15.25, 14.50' RT
FG= 33.72
STA 40+33.59, 14.50' RT
FG= 34.10
STA 78+38.01, 14.50' RT
FG= 33.43
STA 78+27.86, 14.50' LT
FG= 33.37
DAKOTA CIRCLE
N
SCALE
0'
5'
10'
20'

GEOMETRICS AND STAKING LAYOUT

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
4. ORIENT MANHOLE CONE SECTIONS TO KEEP CASTINGS OUT OF SIDEWALK RAMPS.
5. ADD 900 TO FOUR DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM.


80+00
79+00
41+00
CHEROKEE COURT
PRAIRIE BLUFF DRIVE
DAKOTA CIRCLE
PC 40+64.78
Mid 41+52.31
ST
S
R/W
RD
BT-1
L-1
C
ED
B

JOINTING LAYOUT

REVISIONS	DATE
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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: GH

CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1
INTERSECTION DETAILS

WAUKEE, IOWA

42/46

1706.340

FILE: H:\2017\1706340\DWG\1706340-INTERSECTION-ASBUILT.DWG
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DATE PLOTTED: 7/6/2020 12:28 PM
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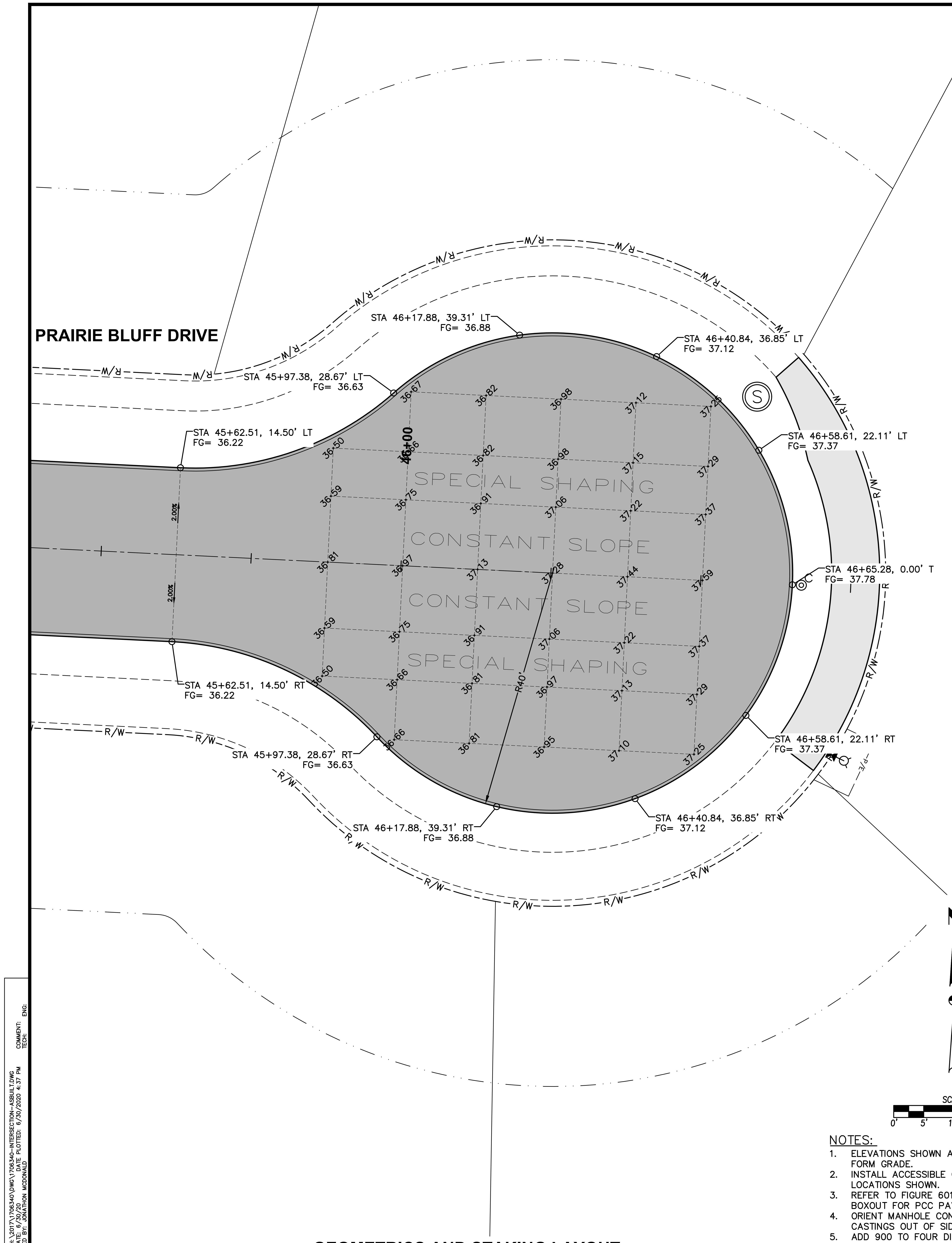
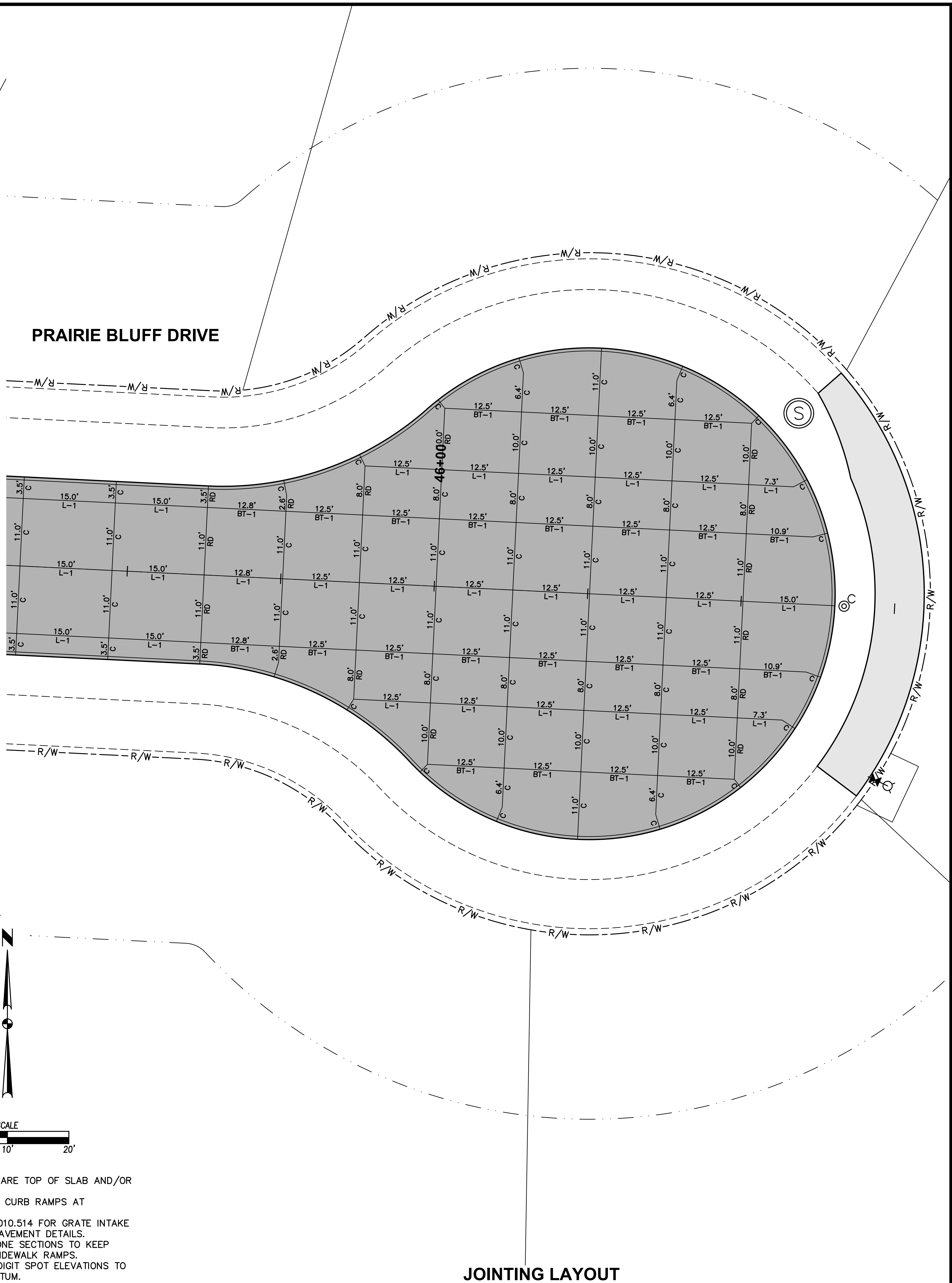

PRAIRIE BLUFF DRIVE
R/W
STA 46+17.88, 39.31' LT
FG= 36.88
STA 46+40.84, 36.85' LT
FG= 37.12
STA 45+97.38, 28.67' LT
FG= 36.63
STA 45+62.51, 14.50' LT
FG= 36.22
STA 46+58.61, 22.11' LT
FG= 37.37
STA 46+65.28, 0.00' T
FG= 37.78
STA 45+62.51, 14.50' RT
FG= 36.22
STA 46+58.61, 22.11' RT
FG= 37.37
STA 45+97.38, 28.67' RT
FG= 36.63
STA 46+17.88, 39.31' RT
FG= 36.88
STA 46+40.84, 36.85' RT
FG= 37.12
46+00
SPECIAL SHAPING
CONSTANT SLOPE
CONSTANT SLOPE
SPECIAL SHAPING
R40'
2.00%
2.00%
S

GEOMETRICS AND STAKING LAYOUT


PRAIRIE BLUFF DRIVE
R/W
46+00
S
15.0' L-1
12.5' BT-1
12.5' L-1
12.8' BT-1
12.8' L-1
10.9' BT-1
7.3' L-1
11.0' C
10.0' C
8.0' RD
6.4' C
3.5' C
2.6' RD

JOINTING LAYOUT

SCALE
0' 5' 10' 20'

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
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4. ORIENT MANHOLE CONE SECTIONS TO KEEP CASTINGS OUT OF SIDEWALK RAMPS.
5. ADD 900 TO FOUR DIGIT SPOT ELEVATIONS TO OBTAIN PROJECT DATUM.

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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: GH
CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1

INTERSECTION DETAILS

WAUKEE, IOWA

43/46
1706.340

FILE: H:\2017\1706340\DWG\1706340-INTERSECTION-ASBUILT.DWG
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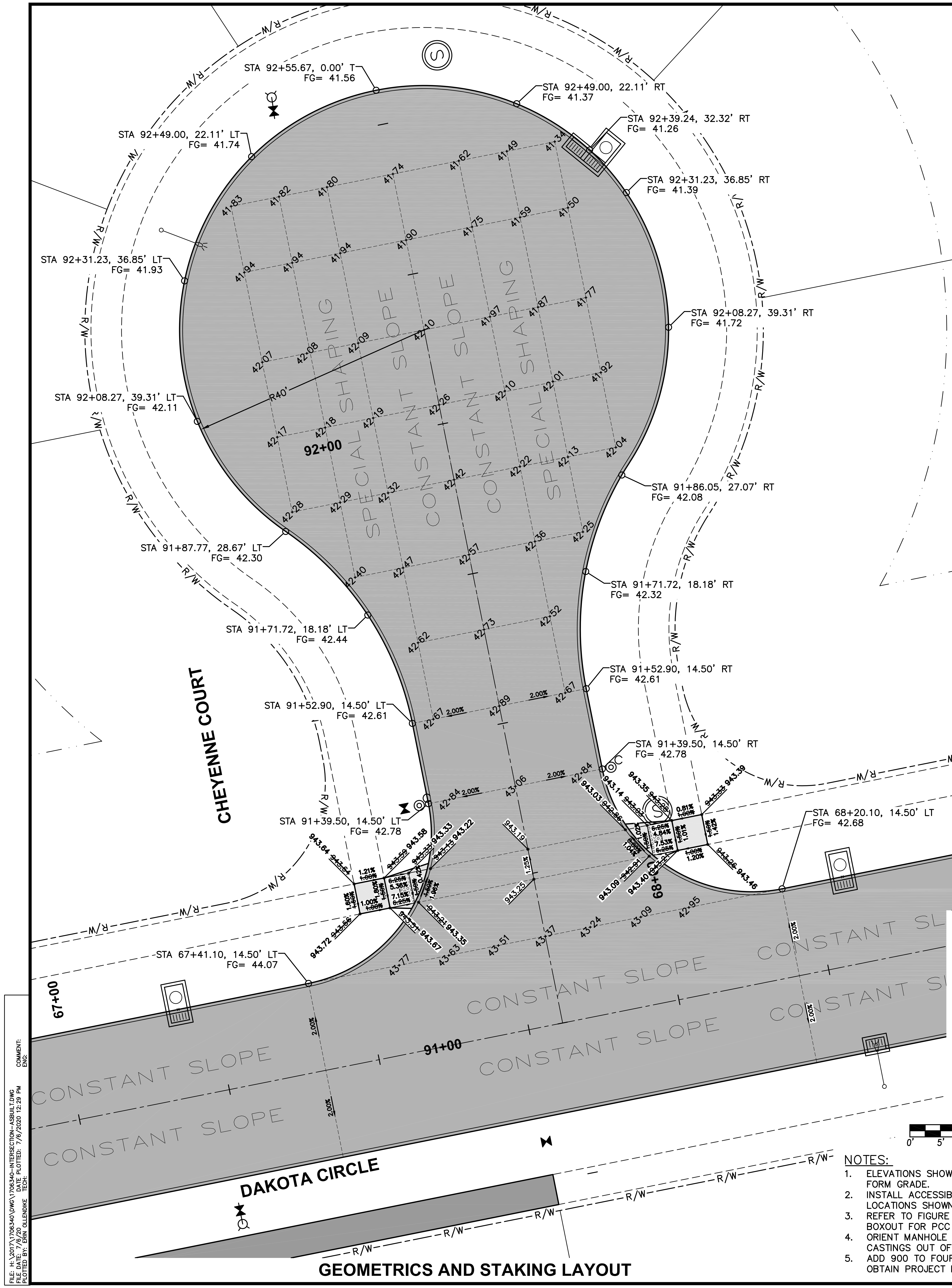
COMMENT:
TECH: ENG:


STA 92+55.67, 0.00' T
FG= 41.56
STA 92+49.00, 22.11' RT
FG= 41.37
STA 92+39.24, 32.32' RT
FG= 41.26
STA 92+49.00, 22.11' LT
FG= 41.74
STA 92+31.23, 36.85' RT
FG= 41.39
STA 92+31.23, 36.85' LT
FG= 41.93
STA 92+08.27, 39.31' RT
FG= 41.72
STA 92+08.27, 39.31' LT
FG= 42.11
R40'
92+00
SPECIAL SHAPING
CONSTANT SLOPE
CONSTANT SLOPE
SPECIAL SHAPING
STA 91+86.05, 27.07' RT
FG= 42.08
STA 91+87.77, 28.67' LT
FG= 42.30
STA 91+71.72, 18.18' RT
FG= 42.32
STA 91+71.72, 18.18' LT
FG= 42.44
STA 91+52.90, 14.50' RT
FG= 42.61
STA 91+52.90, 14.50' LT
FG= 42.61
STA 91+39.50, 14.50' RT
FG= 42.78
STA 91+39.50, 14.50' LT
FG= 42.78
STA 68+20.10, 14.50' LT
FG= 42.68
STA 67+41.10, 14.50' LT
FG= 44.07
CHEYENNE COURT
68+00
67+00
91+00
CONSTANT SLOPE
DAKOTA CIRCLE
R/W

GEOMETRICS AND STAKING LAYOUT

SCALE
0' 5' 10' 20'

NOTES:

1. ELEVATIONS SHOWN ARE TOP OF SLAB AND/OR FORM GRADE.
2. INSTALL ACCESSIBLE CURB RAMPS AT LOCATIONS SHOWN.
3. REFER TO FIGURE 6010.514 FOR GRATE INTAKE BOXOUT FOR PCC PAVEMENT DETAILS.
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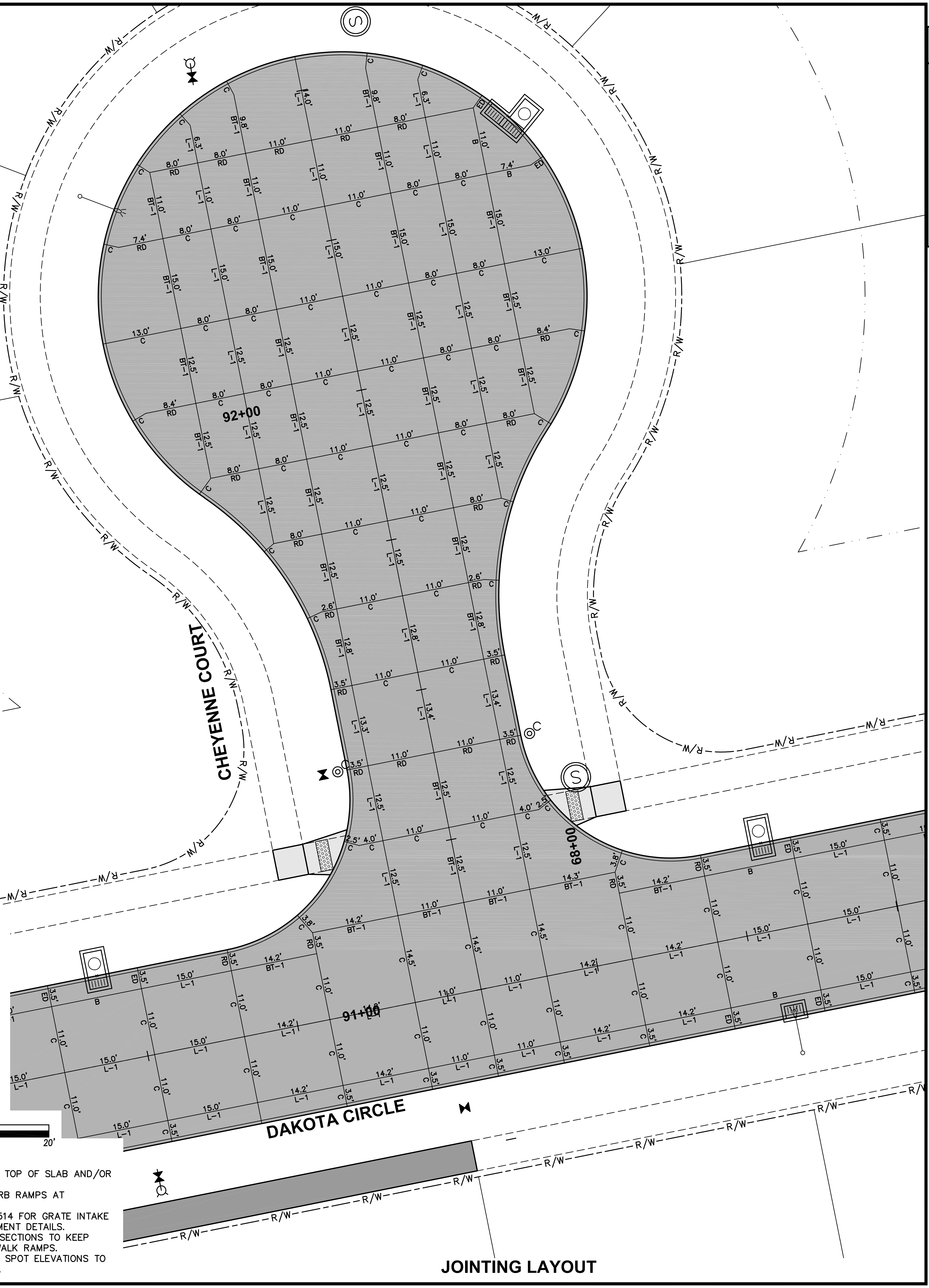
92+00
68+00
91+00
CHEYENNE COURT
DAKOTA CIRCLE
R/W
BT-1
L-1
C
RD
B
ED

JOINTING LAYOUT

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
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CIVIL DESIGN ADVANTAGE

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GRIMES, IOWA 50111
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ENGINEER: EKO
EI: GH

PAINTED WOODS SOUTH PLAT 1
INTERSECTION DETAILS

WAUKEE, IOWA

44/46
1706.340

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FILE DATE: 7/6/20 DATE PLOTTED: 7/6/2020 12:29 PM COMMENT:
PLOTTED BY: ERIN OLLENDIKE TECH: ENG:

PROTECTED TREE LINE
BASED ON GRADING LIMITS
1
2
3
4
5
6
7
8
9
PRAIRIE BLUFF DRIVE
27
28
29
30
31
32
33
34
35
36
37
38
39
CHEYENNE COURT
DAKOTA CIRCLE
75
74
73
72
71
70
69
68
67
66
65
64
OUTLOT 'T'
OUTLOT 'V'
PROTECTED TREE LINE
BASED ON GRADING LIMITS

PLANT SCHEDULE

CODE	QTY.			SIZE	COND
RO	36	RED OAK	QUERCUS RUBRA	2" CAL	B&B

PLANT SCHEDULE

CODE	QTY.			SIZE	COND
CP	72	CHANTICLEER PEAR	PYRUS CALLERYANA 'GLENS'S FORM'	1.5" CAL	B&B

PLANT SCHEDULE

CODE	QTY.			SIZE	COND
DF	72	DOUGLAS FIR	PSEUDOTSGA MENZIESII	6' HT.	B&B

25' BUFFER REQUIREMENTS (LOTS 22-26 & 51-70)

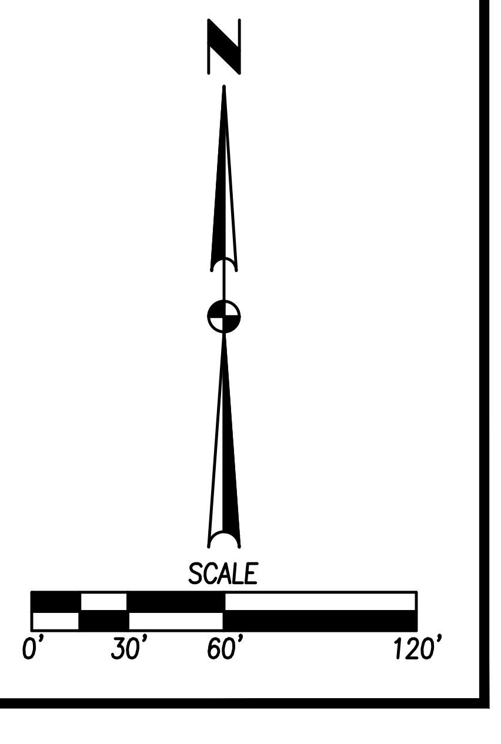
1 OVERSTORY, 2 EVERGREEN AND 2 ORNAMENTAL TREES PER 50 LF

REQUIRED (1,797')

OVERSTORY TREES	36
EVERGREEN TREES	72
ORNAMENTAL TREES	72

PROVIDED

OVERSTORY TREES	36
EVERGREEN TREES	72
ORNAMENTAL TREES	72


N
SCALE
0'
30'
60'
120'

FILE: H:\2017\1706340\DWG\1706340-LANDSCAPE-ASBUILT.DWG
FILE DATE: 12/10/19 DATE PLOTTED: 6/30/2020 4:37 PM
PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG:

REVISIONS	DATE
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GRIMES, IOWA 50111
PHONE: (515) 369-4400 FAX: (515) 369-4410

CIVIL DESIGN ADVANTAGE

ENGINEER: EKO
EI: GH

PAINTED WOODS SOUTH PLAT 1
LANDSCAPE PLAN

WAUKEE, IOWA

OUTLOT 'W'
PROTECTED TREE LINE BASED ON GRADING LIMITS
INDIAN RIDGE DRIVE
CHEROKEE COURT
PROTECTED TREE LINE BASED ON GRADING LIMITS
11
10
12
13
14
15
16
17
18
19
20
21
OUTLOT 'Z'
OUTLOT 'X'
OUTLOT 'Y'
48
47
46
45
44
43
42
41
40
39
38
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
26
25
24
23
22
OUTLOT 'U'
PROTECTED TREE LINE BASED ON GRADING LIMITS

REVISIONS	DATE
AS-BUILT SUBMITTAL	06/30/20
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CIVIL DESIGN ADVANTAGE

PAINTED WOODS SOUTH PLAT 1
LANDSCAPE PLAN

WAUKEE, IOWA

46/46
1706.340

FILE: H:\2017\1706340\DWG\1706340-LANDSCAPE-ASBUILT.DWG
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PLOTTED BY: JONATHON MCDONALD
COMMENT:
TECH: ENG: