

ELM MEADOWS FIRST SUBDIVISION WATER MAIN EXTENSION DISTRICT 2024-1 HASTINGS, NEBRASKA DWG. NO.:WR-136 W.O. NO.:WA-134

Drinking Water Project
NEBRASKA
Good Life. Great Resources.
DEPT. OF ENVIRONMENT AND ENERGY
APPROVED
Cyril Martumaa PE

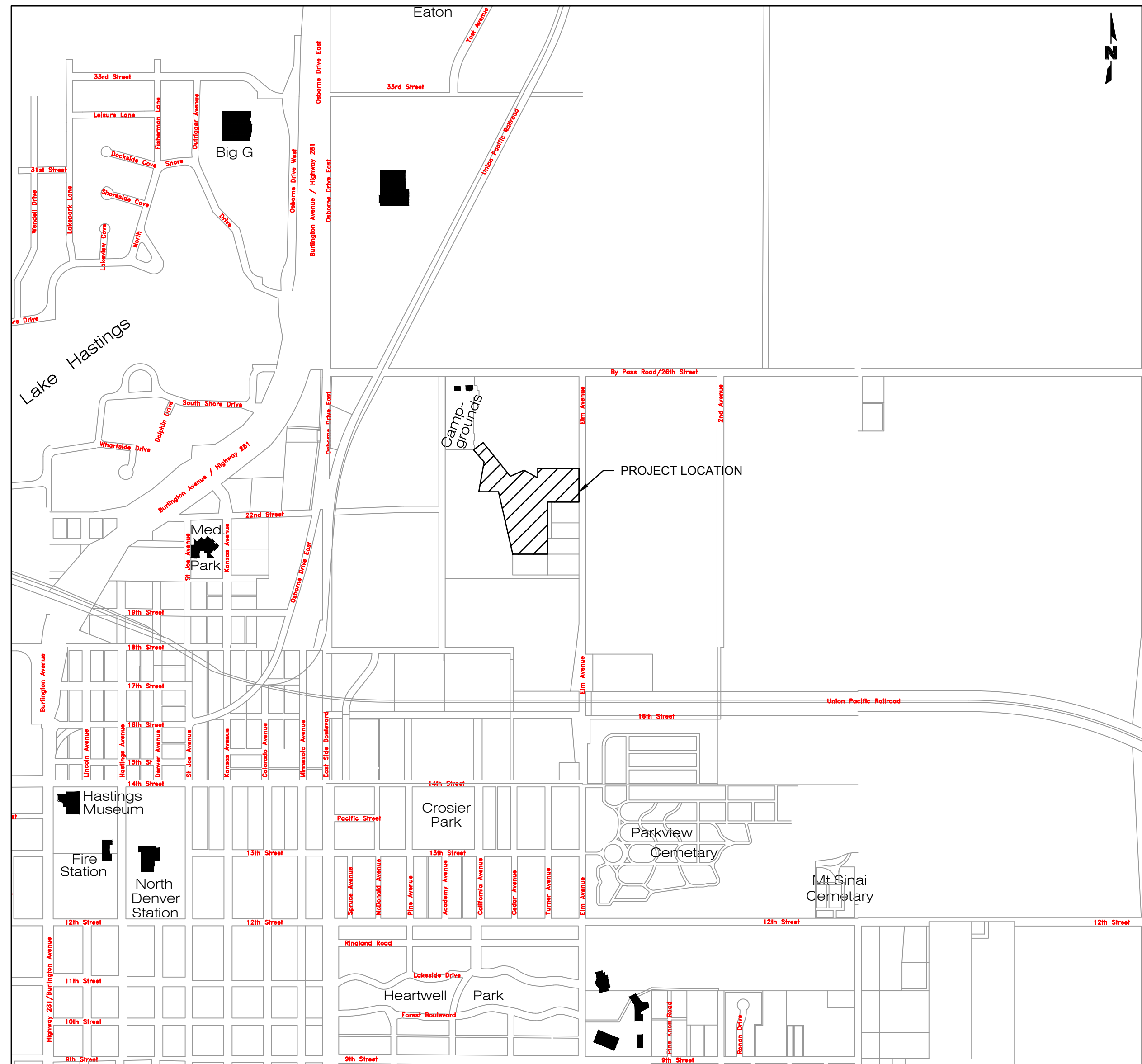
NDEE Project No. W-6-2025
February 4, 2025

LEGEND

SD	STORM SEWER PIPE
SS	SANITARY SEWER MAIN
G	GAS MAIN
W	WATER MAIN
CATV	UNDERGROUND CABLE TV
PO	OVERHEAD POWER
CL	CHAINLINK FENCE
PP	POWER POLE
LTP	LIGHT POLE
LPPP	POWER POLE/LIGHT POLE
FHT	FIRE HYDRANT
WV	WATER VALVE
PI	POST INDICATOR VALVE
MP	WATER METER PIT
SM	SANITARY SEWER MANHOLE
SM	STORM SEWER MANHOLE
GM	GAS METER
AC	AIR CONDITIONER
EM	ELECTRIC METER
TP	TELEPHONE PEDESTAL
TR	TELEPHONE RISER
TR	TRANSFORMER
SCV	SPRINKLER CONTROL VALVES
RD	ROOF DRAIN
SGI	STORM SEWER GRATE INLET
MB	MAILBOX
SB	STEEL BOLLARD
S	SIGN
SC	SECTION CORNER
CP	CONTROL POINT
B	BUSH
T	TREE

GENERAL NOTES

- CONTRACTOR SHALL PRESERVE ALL SURVEY CONTROL AND PROPERTY CORNER MONUMENTS. IF THEY ARE DISTURBED DURING CONSTRUCTION THEY SHALL BE RESET BY A NEBRASKA REGISTERED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- THE LOCATION OF ALL AERIAL AND UNDERGROUND UTILITY FACILITIES MAY NOT BE INDICATED ON THESE PLANS. UNDERGROUND UTILITIES, WHETHER INDICATED OR NOT WILL BE LOCATED AND FLAGGED BY THE UTILITIES AT THE REQUEST OF THE CONTRACTOR. NO EXCAVATION WILL BE PERMITTED IN THE AREA OF UNDERGROUND UTILITY FACILITIES UNTIL ALL SUCH FACILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES. THE EXCAVATION MUST BE ACCOMPLISHED WITH EXTREME CARE IN ORDER TO AVOID ANY POSSIBILITY OF DAMAGE TO THE UTILITY FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES. CONTRACTOR SHALL PRESERVE ALL PROPERTY CORNER MONUMENTS OR RE-ESTABLISH THEM IF THEY ARE DISTURBED DURING CONSTRUCTION AT THEIR EXPENSE.
- BEFORE EXCAVATING, CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS TO LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF NECESSARY BECAUSE OF ACTUAL LOCATIONS OF EXISTING FACILITIES.
- THE CONTRACTOR SHALL USE EXTREME CAUTION IN THE AREA OF EXISTING MANHOLES, POWER POLES, AND EXISTING UTILITIES, AND SHALL BE RESPONSIBLE FOR DAMAGES. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL WATER MAIN WORK SHALL BE IN ACCORDANCE WITH THE CITY OF HASTINGS UTILITIES STANDARD SPECIFICATIONS AND STANDARD DRAWINGS.
- THE CONTRACTOR SHALL COORDINATE ALL WATER LINE WORK WITH HASTINGS UTILITIES. TYLER WAITE, COORDINATING ENGINEER. 402-831-1393
- THE UTILITY TRENCHES SHALL BE BACKFILLED, MECHANICALLY TAMPED AND TESTED. BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY UNDER FUTURE PAVED AREAS AND 92% UNDER TURF AREAS.
- PIPE BEDDING AND ENCASEMENTS SHALL BE SUBSIDIARY TO PIPE INSTALLATION.
- TRACER WIRE, BURY TAPE AND SACRIFICIAL ANODES SHALL BE PROVIDED BY HASTINGS UTILITIES AND INSTALLED BY THE CONTRACTOR.
- ALL WATER SERVICES SHALL BE MARKED WITH A TEE POST AND REFLECTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATER MAIN TESTING REQUIRED BY HASTINGS UTILITIES SPECIFICATIONS. OWNER SHALL PROVIDE DENSITY TESTING.
- CONSTRUCTION STAKING SHALL BE COMPLETED BY THE ENGINEER.
- PRIOR TO MOVING OFF SITE THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING REQUESTING A FINAL WALK-THROUGH OF THE PROJECT.

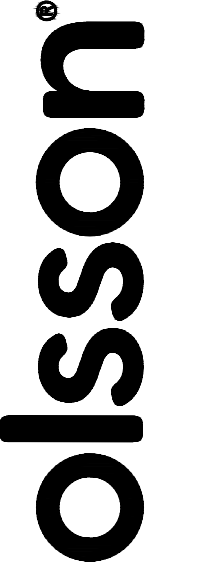


SHEET INDEX	
Sheet #	Sheet Title
1	COVER SHEET
2	HORIZONTAL & VERTICAL CONTROL
3	WATER MAIN PLAN & PROFILE STA. 400+00 TO STA. 400+50
4	WATER MAIN PLAN & PROFILE STA. 410+00 TO STA. 414+00
5	WATER MAIN PLAN & PROFILE STA. 414+00 TO STA. 418+00
6-7	DETAILS

TABLE OF APPROXIMATE QUANTITIES		
ITEM DESCRIPTION	UNIT	QUANTITY
MOBILIZATION	L.S.	1
16" D.I. WATER MAIN	L.F.	214
16"X10" REDUCER	EA.	1
16" M.J. TEE	EA.	2
16" PLUG	EA.	2
10" D.I. WATER MAIN	L.F.	950-958
10" M.J. TEE	EA.	6
10" M.J. GATE VALVE	EA.	5
10" M.J. PLUG	EA.	6
10"X6" M.J. TEE	EA.	3
10" M.J. 11.25 BEND	EA.	3
10" M.J. 22.5 BEND	EA.	2
10" FOSTER ADAPTER	EA.	8
6" M.J. GATE VALVE	EA.	3
6" 90 SWVL. X SWVL. HYDRANT ELBOW	EA.	3
6"X36" SWVL. X SWVL. ADAPTER	EA.	3
FIRE HYDRANT	EA.	3
1" PE SERVICE TUBING	L.F.	378
1" CORPORATION STOP	EA.	18
1" CURB STOP W/BOX	EA.	18
THRUST BLOCK	EA.	9
TRACER WIRE RISER	EA.	4
LOCATE & CONNECT TO EXISTING 16" VALVE	EA.	1
DIRECTIONAL DRILL	L.F.	60
REMOVE & REPLACE CONCRETE PAVEMENT	S.Y.	8


APPROVED FOR CONSTRUCTION

Lee Vrooman 2-11-25
DIRECTOR OF ENGINEERING, CITY OF HASTINGS DATE



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Nebraska COA #CA-0638



REV. NO.	DATE	DESCRIPTION	REVISIONS
1	1-30-2025	ADDENDUM NO. 1	

COVER SHEET

ELM MEADOWS FIRST SUBDIVISION
WATER MAIN EXTENSION DISTRICT 2024-1

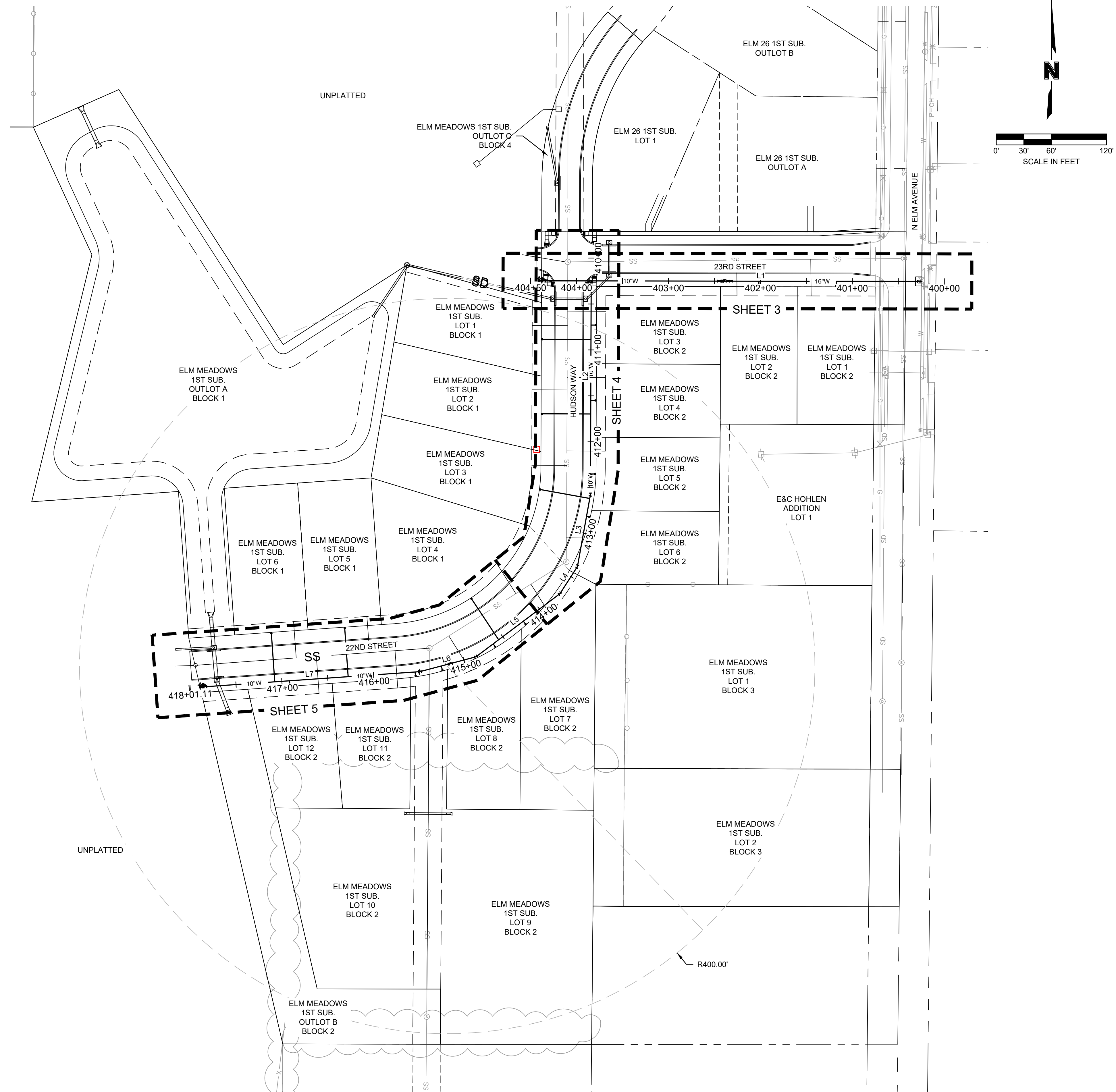
HASTINGS, NEBRASKA

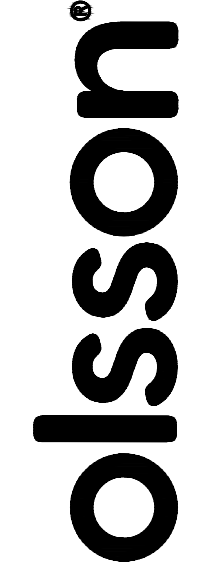
drawn by: _____ KDG
designed by: _____ AST
project no.: 024-04930
date: January 10, 2025

SHEET
1 of 7

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DATE: Jan 30, 2025 6:21pm USER: atarango

ALIGNMENT LINES					
LINE ID #	STATION RANGE	START COORD.	END COORD.	DIRECTION	LENGTH (FT)
L1	400+00 404+50	N: 111457.76 E: 117156.33	N: 111458.45 E: 116706.33	N89°54'46"W	450.00
L2	410+00 412+57.33	N: 111483.25 E: 116772.33	N: 111225.92 E: 116771.43	S0°12'05"W	257.33
L3	412+57.33 413+36.90	N: 111225.92 E: 116771.43	N: 111147.61 E: 116757.31	S10°13'19"W	79.57
L4	413+36.90 413+72.03	N: 111147.61 E: 116757.31	N: 111118.06 E: 116738.32	S32°43'19"W	35.13
L5	413+72.03 414+86.40	N: 111118.06 E: 116738.32	N: 111049.36 E: 116646.88	S53°04'47"W	114.37
L6	414+86.40 415+49.51	N: 111049.36 E: 116646.88	N: 111033.20 E: 116585.87	S75°09'56"W	63.11
L7	415+49.51 418+01.11	N: 111033.20 E: 116585.87	N: 111015.56 E: 116334.89	S85°58'49"W	251.60






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REV. NO.	DATE	DESCRIPTION	REVISIONS

HORIZONTAL & VERTICAL CONTROL

ELM MEADOWS FIRST SUBDIVISION
WATER MAIN EXTENSION DISTRICT 2024-1

HASTINGS, NEBRASKA

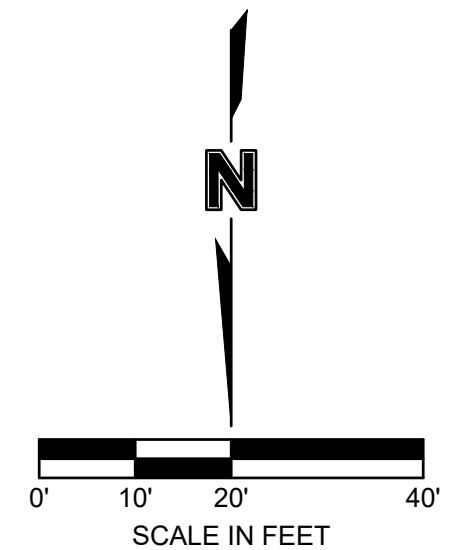
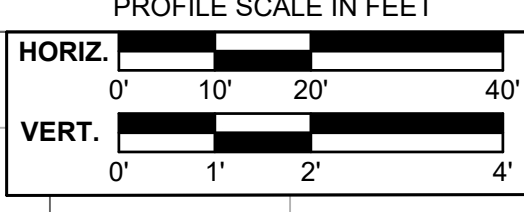
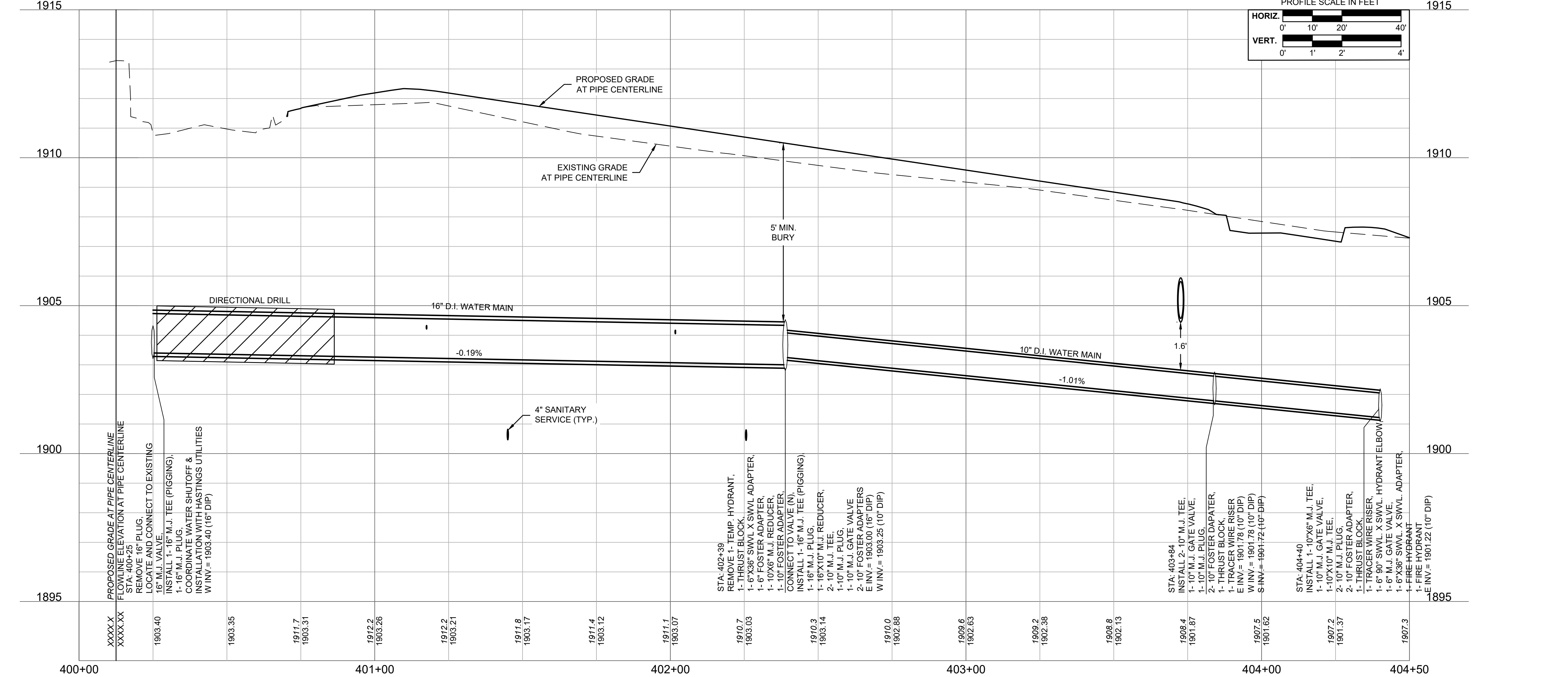
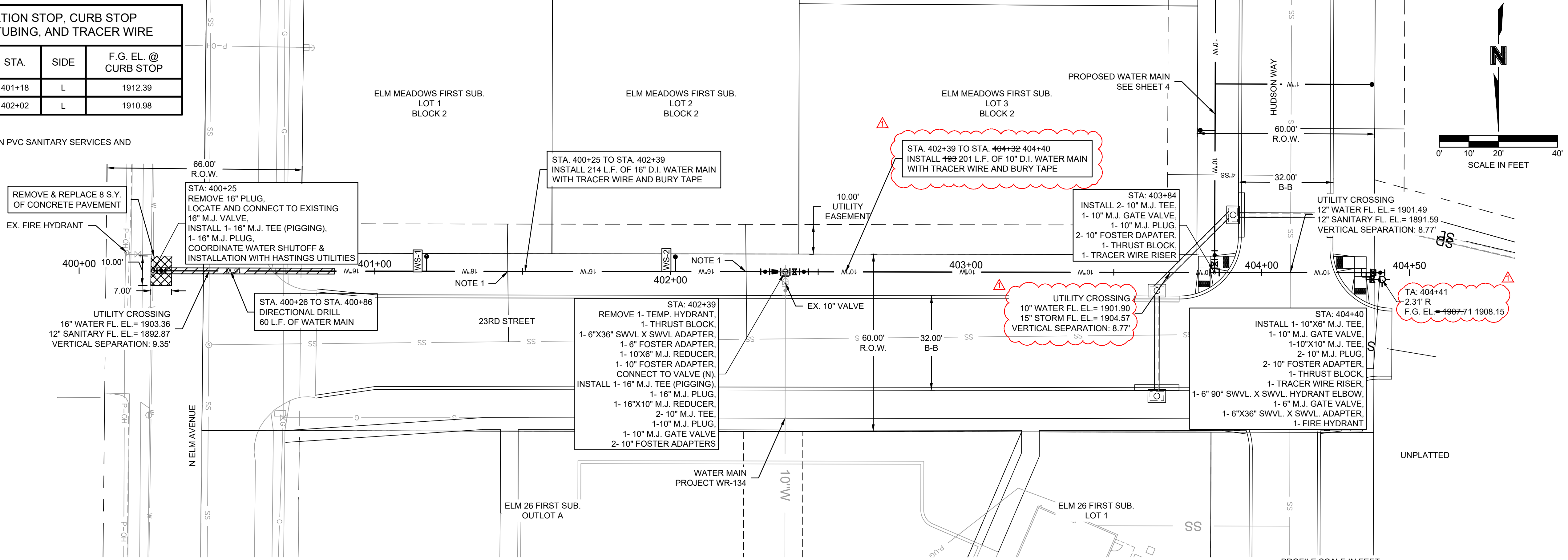
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 designed by: _____ AST
 project no.: 024-04930
 date: January 10, 2025

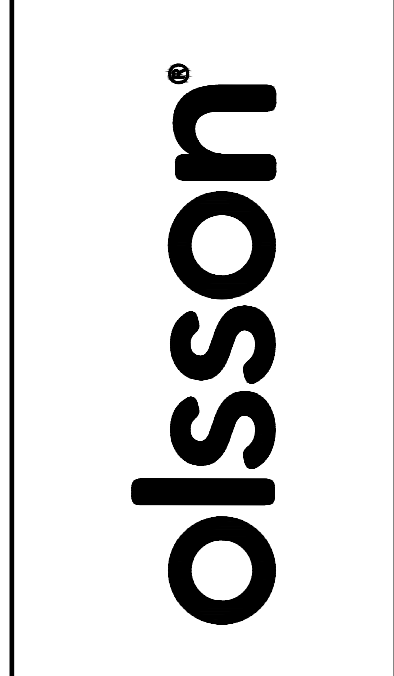
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INSTALL 1" CORPORATION STOP, CURB STOP WITH BOX, 1" SERVICE TUBING, AND TRACER WIRE				
PIPE ID	2D LENGTH (LF)	STA.	SIDE	F.G. EL. @ CURB STOP
WS-1	5.0	401+18	L	1912.39
WS-2	5.0	402+02	L	1910.98

NOTE:
1. 18" VERTICAL SEPARATION BETWEEN PVC SANITARY SERVICES AND WATER MAIN.



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REV. NO.	DATE	DESCRIPTION
1	1-30-2025	UPDATED FINISHED GRADE & STORM SEWER CROSSING AT 23RD STREET & HUDSON WAY INTERSECTION

STA. 400+00 TO STA. 404+50
WATER MAIN PLAN & PROFILE

ELM MEADOWS FIRST SUBDIVISION
WATER MAIN EXTENSION DISTRICT 2024-1

HASTINGS, NEBRASKA

2025

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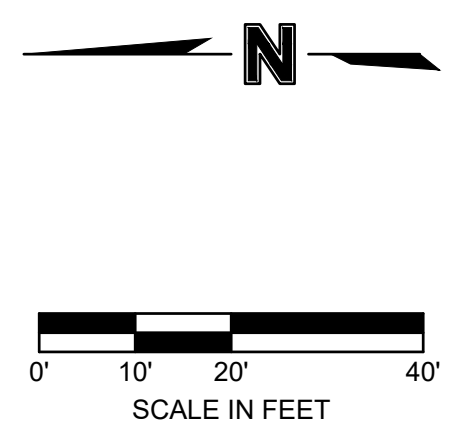
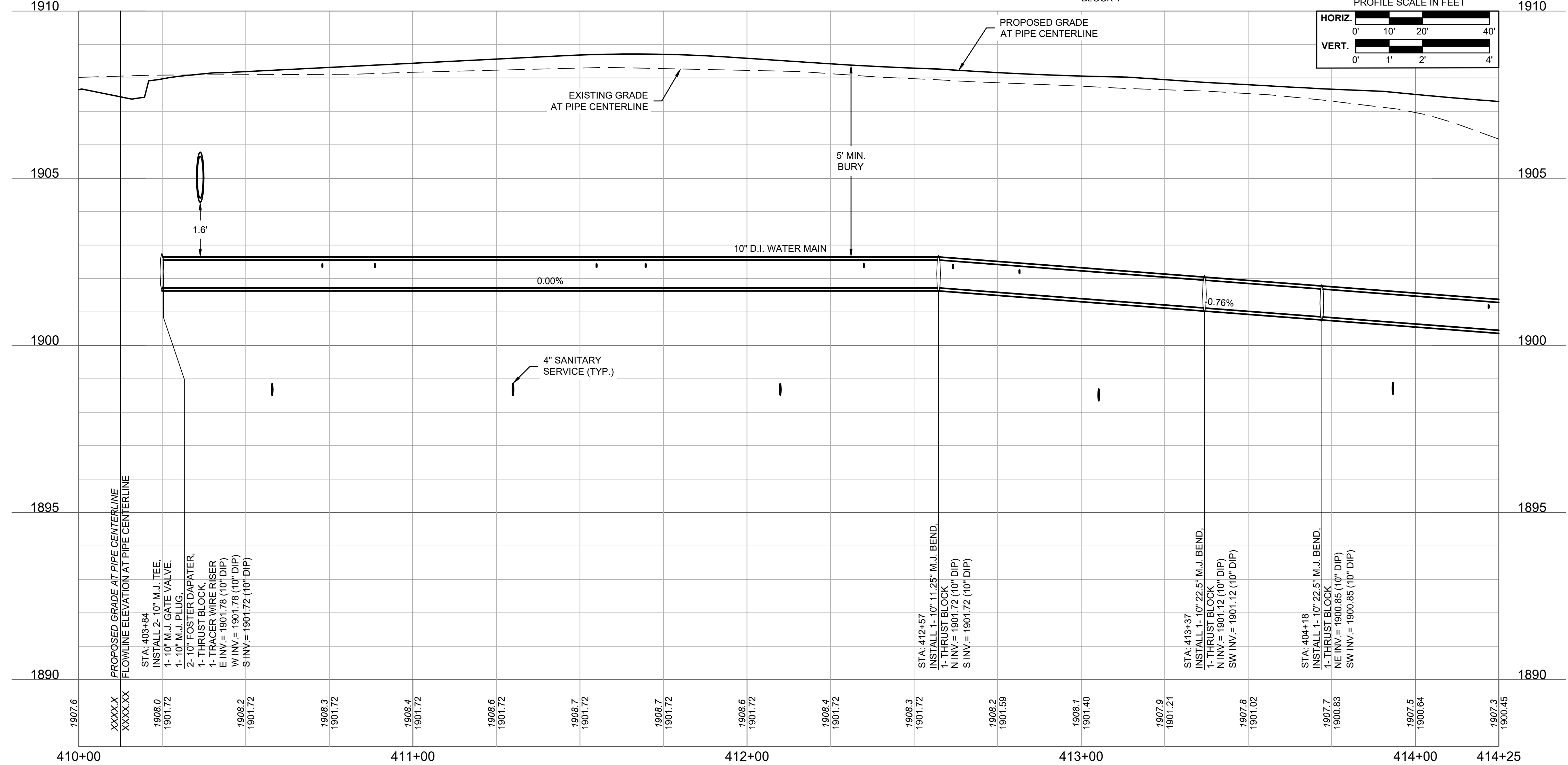
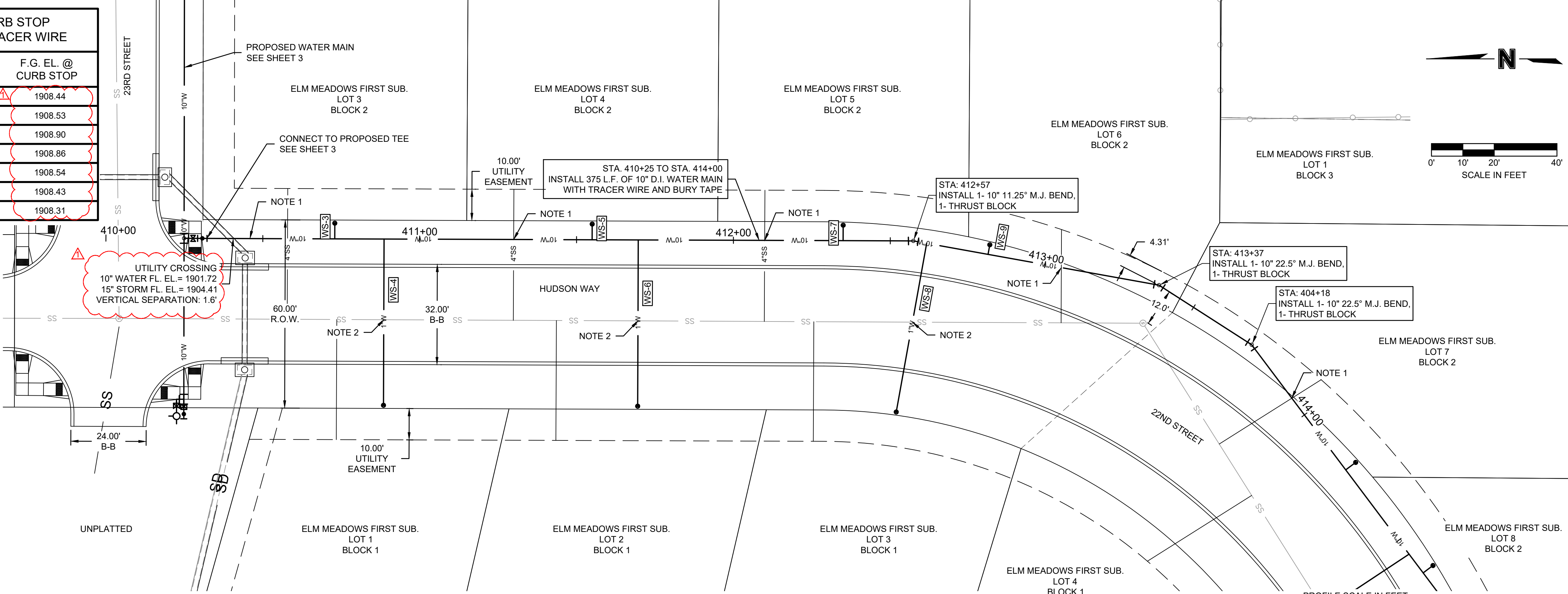
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INSTALL 1" CORPORATION STOP, CURB STOP WITH BOX, 1" SERVICE TUBING, AND TRACER WIRE

PIPE ID	2D LENGTH (LF)	STA.	SIDE	F.G. EL. @ CURB STOP
WS-3	5.0	410+73	L	1908.44
WS-4	53.0	410+89	R	1908.53
WS-5	5.0	411+55	L	1908.90
WS-6	53.0	411+70	R	1908.86
WS-7	4.9	412+35	L	1908.54
WS-8	54.6	412+62	R	1908.43
WS-9	3.1	412+82	L	1908.31

- NOTES:
- 18" VERTICAL SEPARATION BETWEEN PVC SANITARY SERVICES AND WATER MAIN.
 - 18" MINIMUM VERTICAL SEPARATION BETWEEN 1" COPPER WATER SERVICE LINE AND SANITARY MAIN REQUIRED. ROUTE WATER SERVICE SUCH THAT MINIMUM SEPARATION AN 5' BURY REQUIREMENTS ARE MET.



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1	1-30-2025	UPDATED FINISHED GRADE & STORM SEWER CROSSING AT 23RD STREET & HUDSON WAY INTERSECTION

STATIONING: 410+00 TO STA. 414+00

WATER MAIN PLAN & PROFILE

ELM MEADOWS FIRST SUBDIVISION

WATER MAIN EXTENSION DISTRICT 2024-1

HASTINGS, NEBRASKA

2025

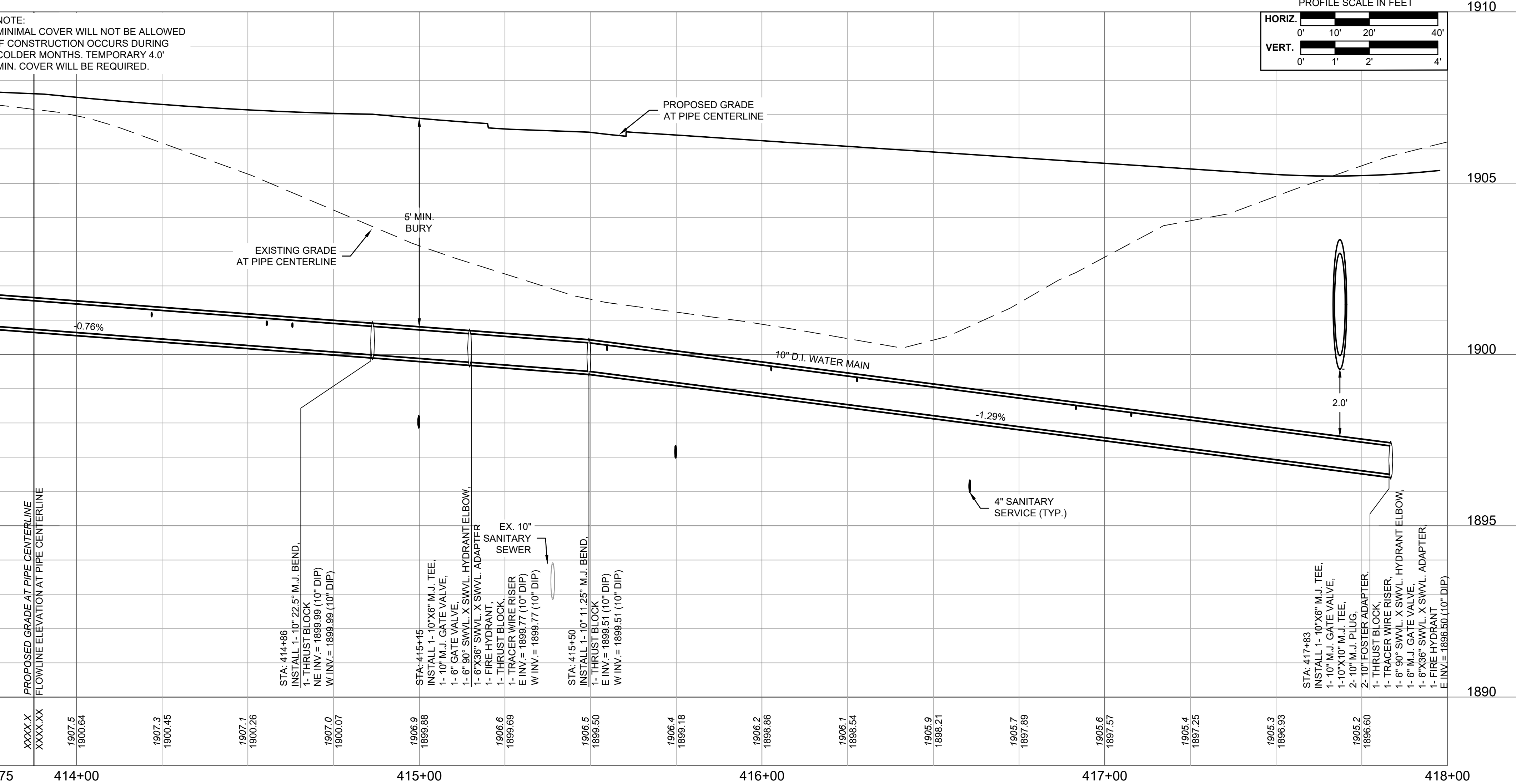
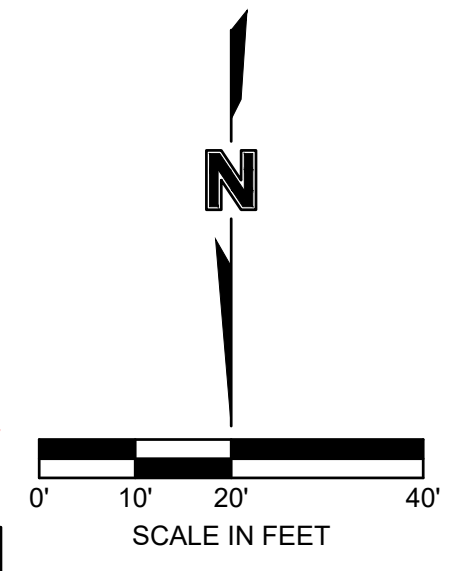
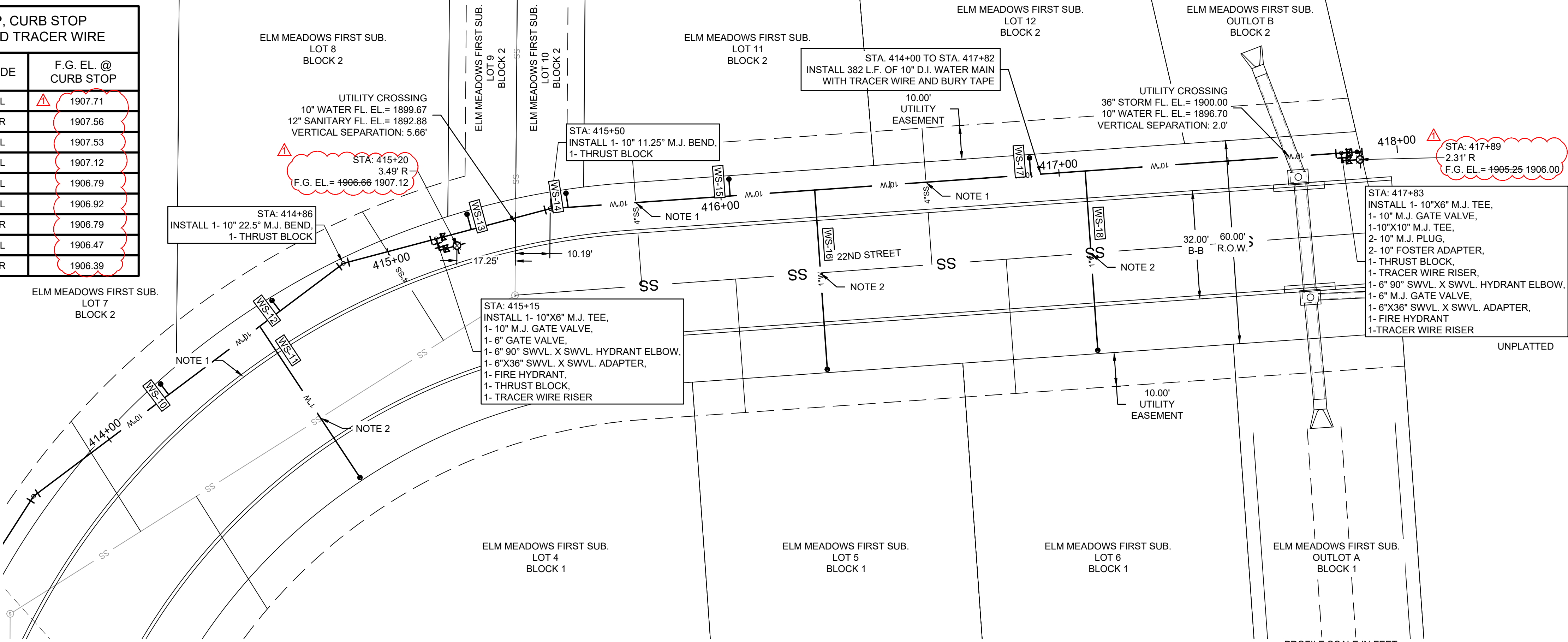
REVISIONS

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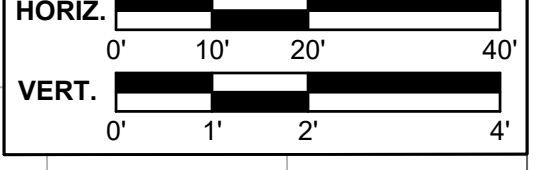
INSTALL 1" CORPORATION STOP, CURB STOP WITH BOX, 1" SERVICE TUBING, AND TRACER WIRE				
PIPE ID	2D LENGTH (LF)	STA.	SIDE	F.G. EL. @ CURB STOP
WS-10	4.0	414+22	L	1907.71
WS-11	53.5	414+56	R	1907.56
WS-12	3.9	414+63	L	1907.53
* WS-13	4.7	415+25	L	1907.12
* WS-14	4.2	415+55	L	1906.79
WS-15	5.0	416+03	L	1906.92
WS-16	53.0	416+28	R	1906.79
WS-17	5.0	416+92	L	1906.47
WS-18	53.0	417+08	R	1906.39

* 1.5" SERVICE

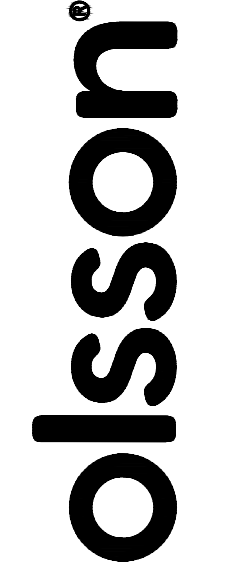
- NOTES:
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 - 18" MINIMUM VERTICAL SEPARATION BETWEEN 1" COPPER WATER SERVICE LINE AND SANITARY MAIN REQUIRED. ROUTE WATER SERVICE SUCH THAT MINIMUM SEPARATION AN 5' BURY REQUIREMENTS ARE MET.



NOTE: MINIMAL COVER WILL NOT BE ALLOWED IF CONSTRUCTION OCCURS DURING COLDER MONTHS. TEMPORARY 4.0' MIN. COVER WILL BE REQUIRED.




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REV. NO.	DATE	DESCRIPTION	REVISIONS
1	1-30-2025	UPDATED FINISHED GRADE	

STA. 414+00 TO STA. 418+00
WATER MAIN PLAN & PROFILE

ELM MEADOWS FIRST SUBDIVISION
WATER MAIN EXTENSION DISTRICT 2024-1

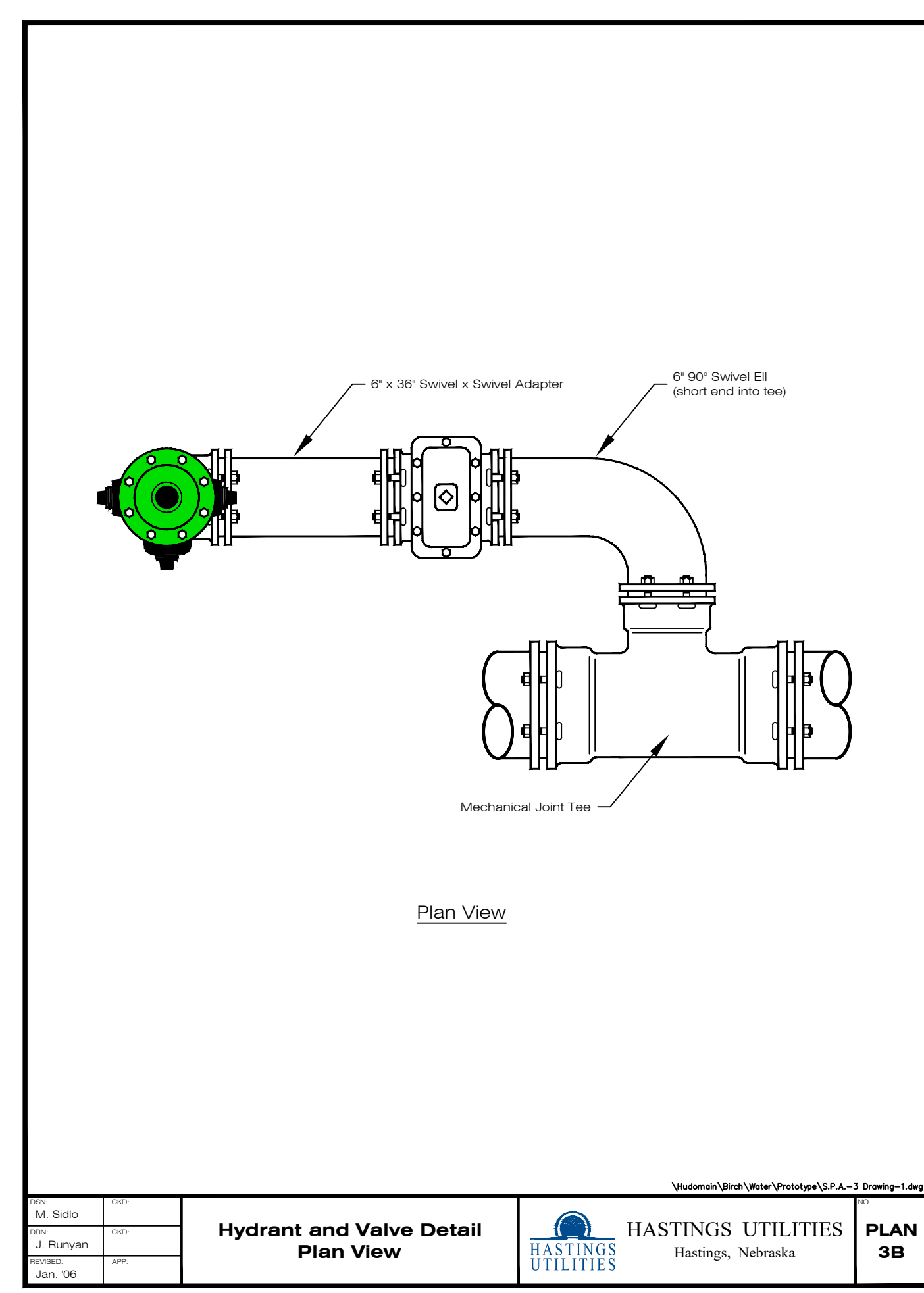
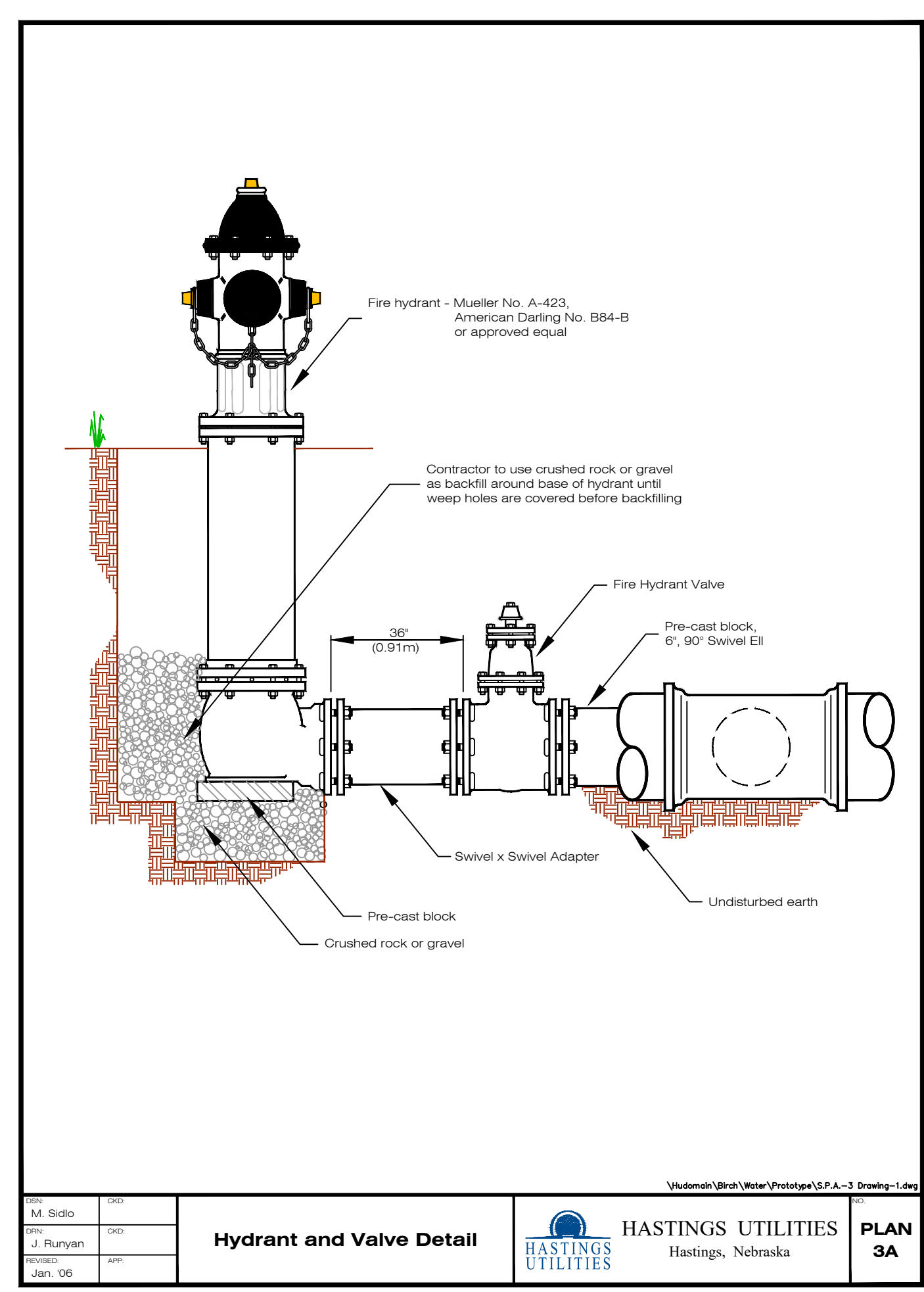
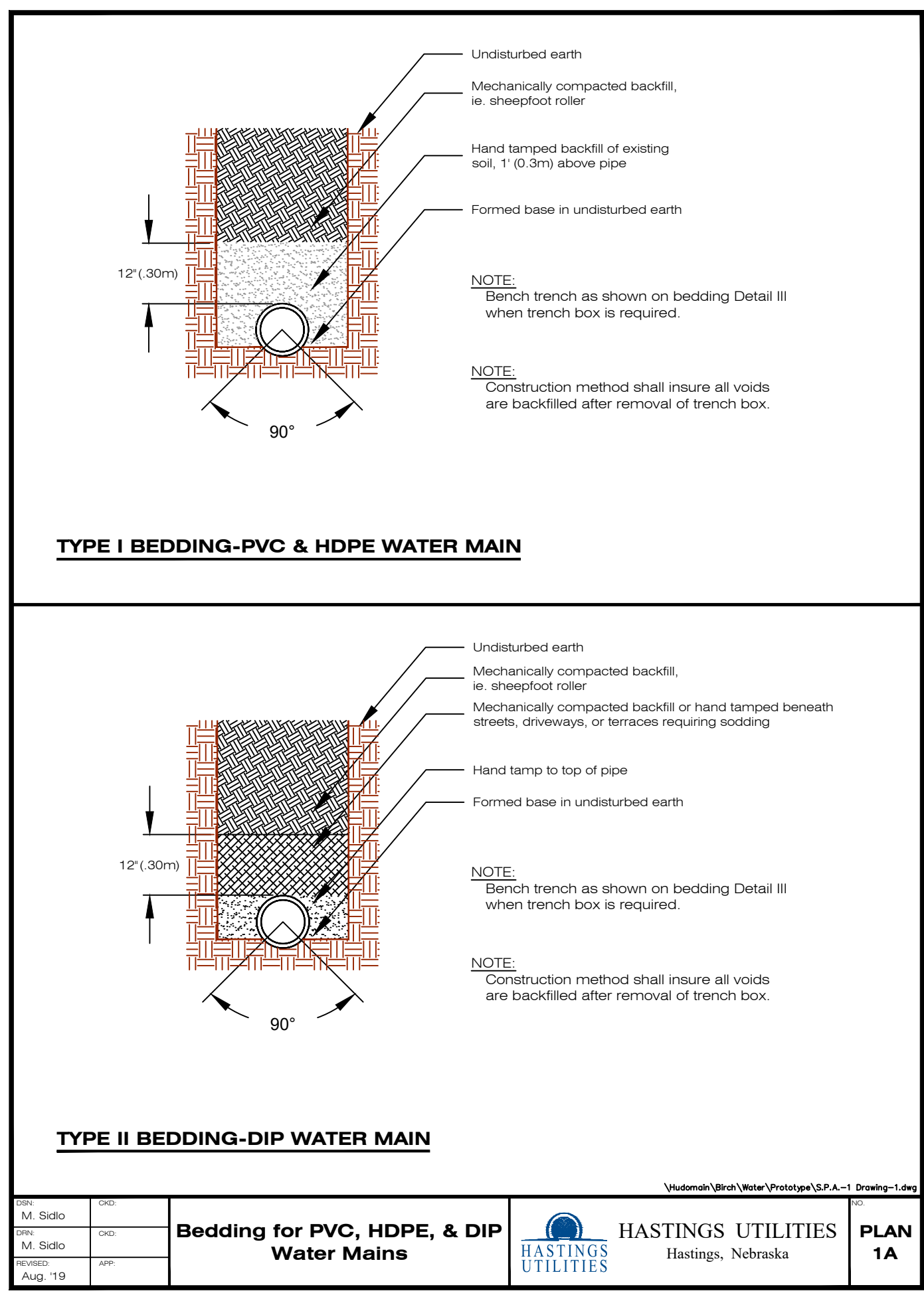
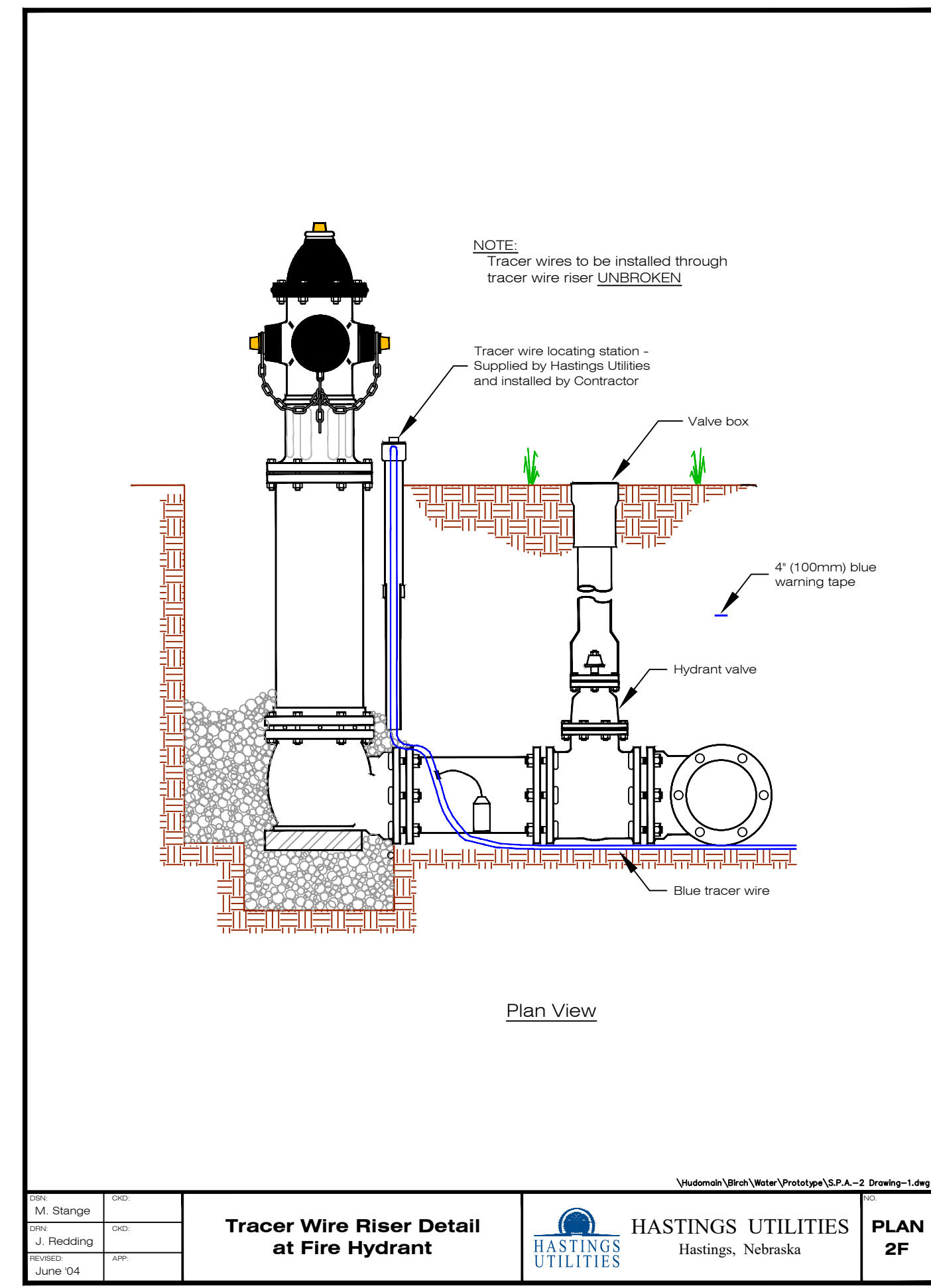
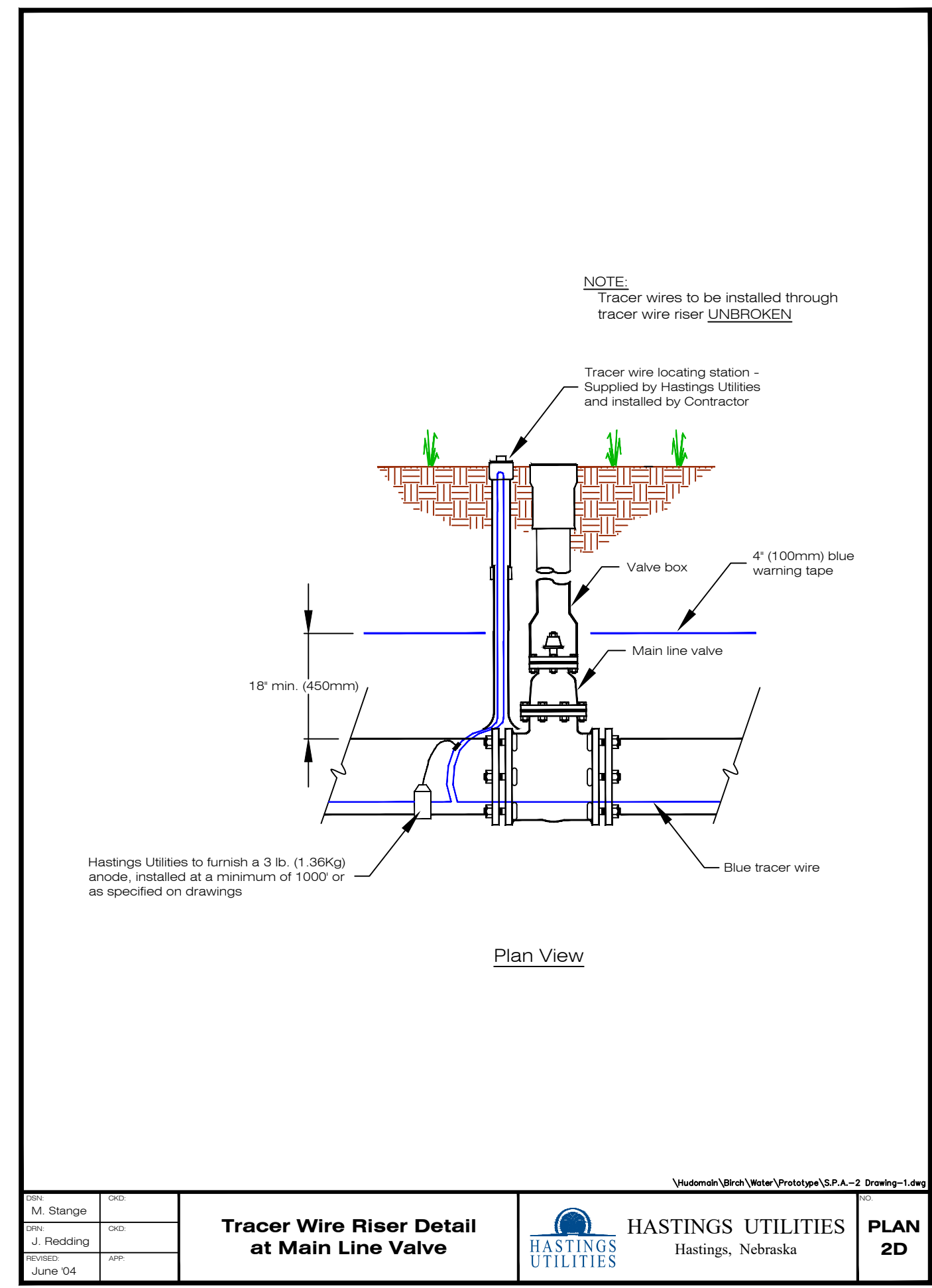
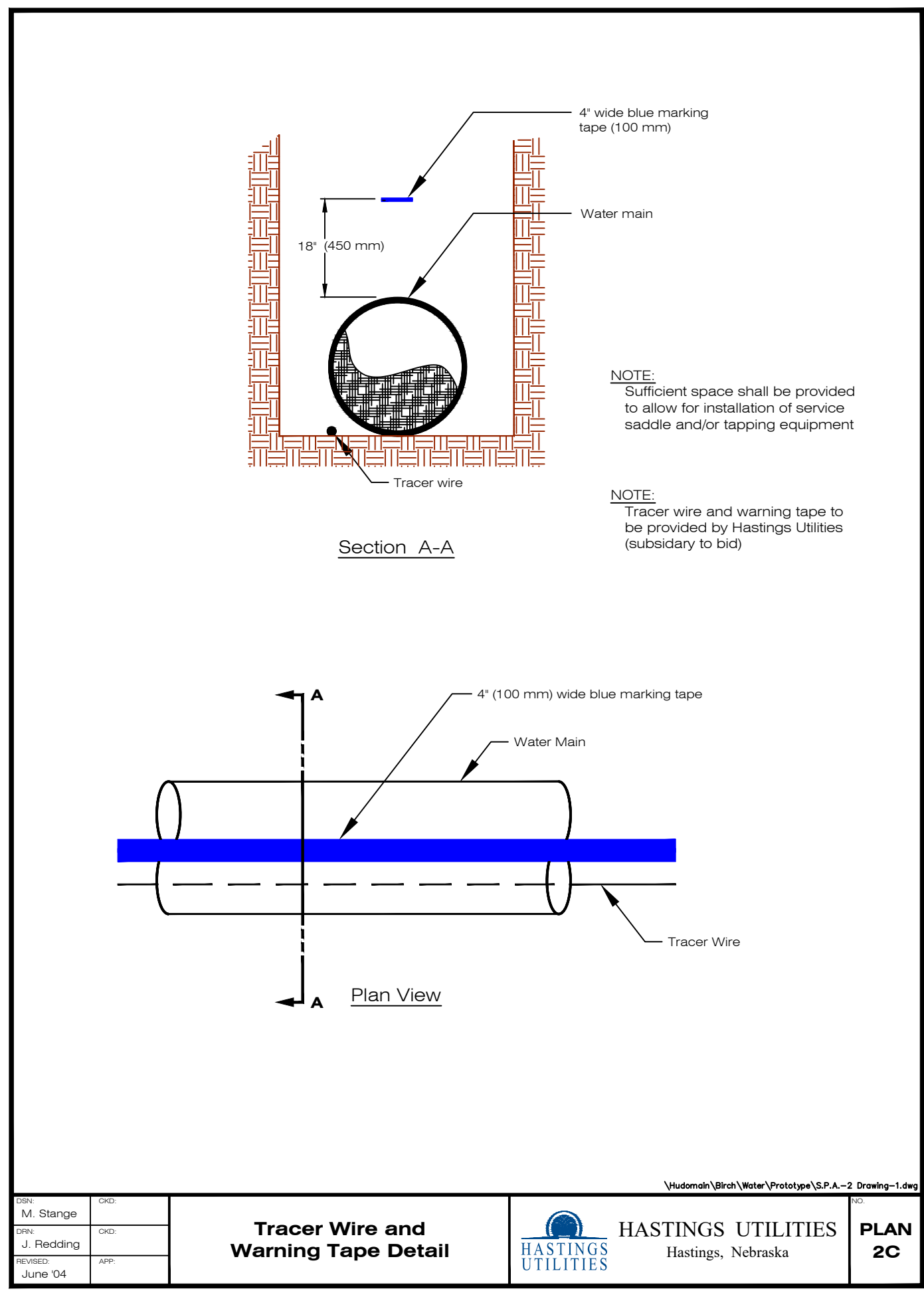
HASTINGS, NEBRASKA

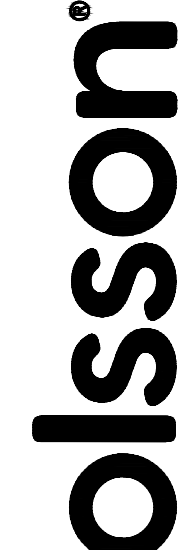
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SHEET
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REV. NO.	DATE	DESCRIPTION

DETAILS

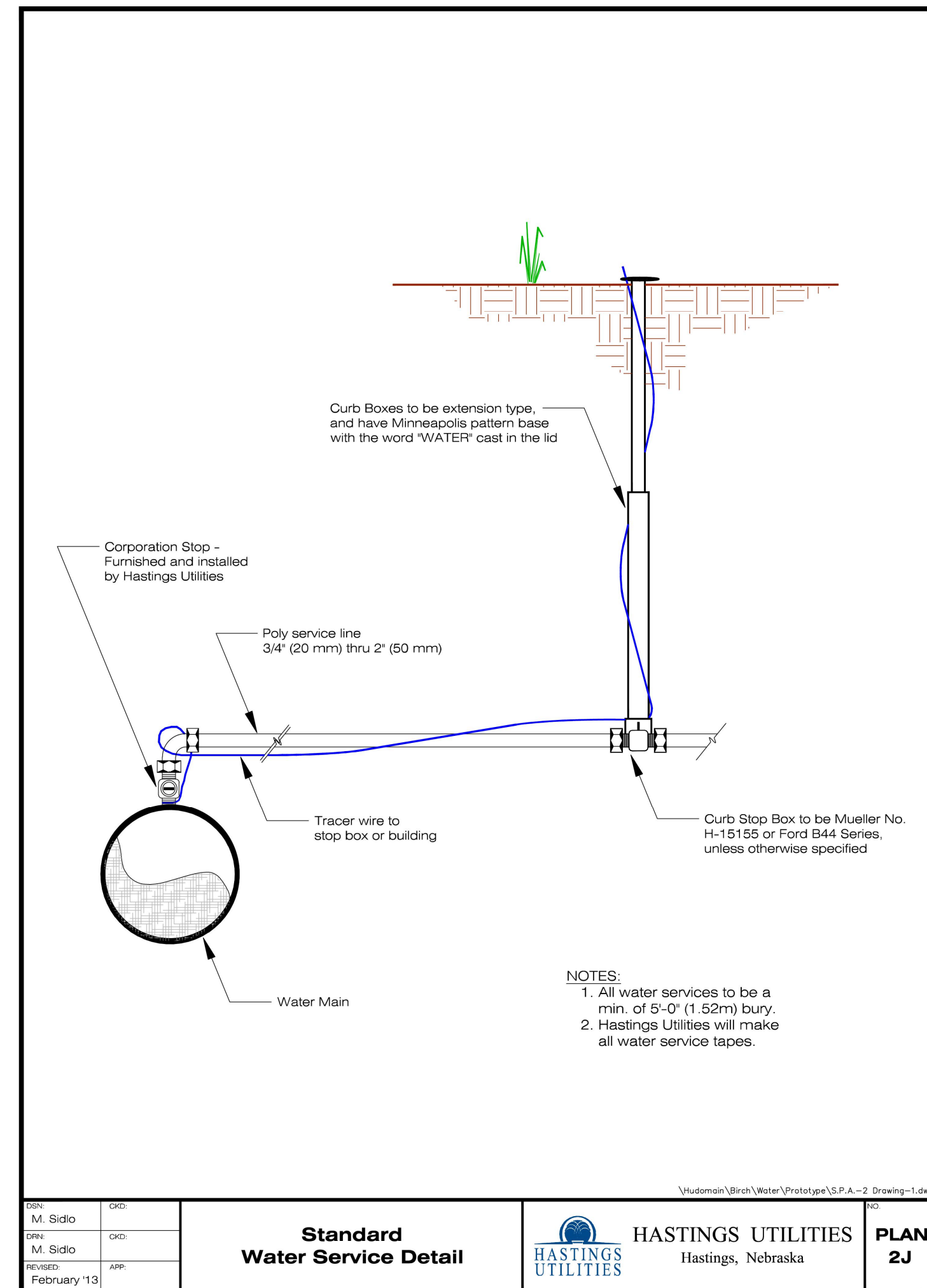
ELM MEADOWS FIRST SUBDIVISION
WATER MAIN EXTENSION DISTRICT 2024-1

HASTINGS, NEBRASKA

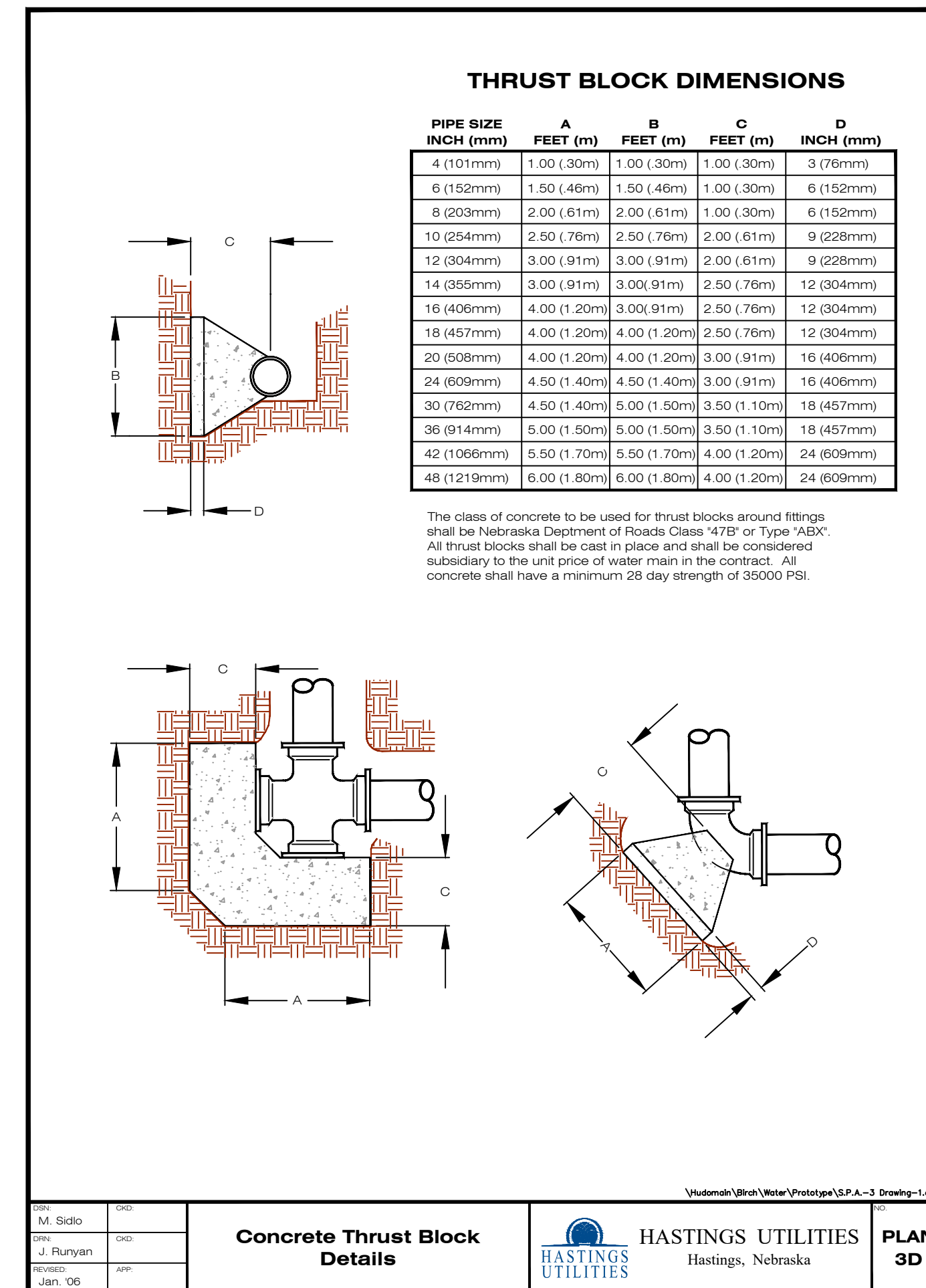
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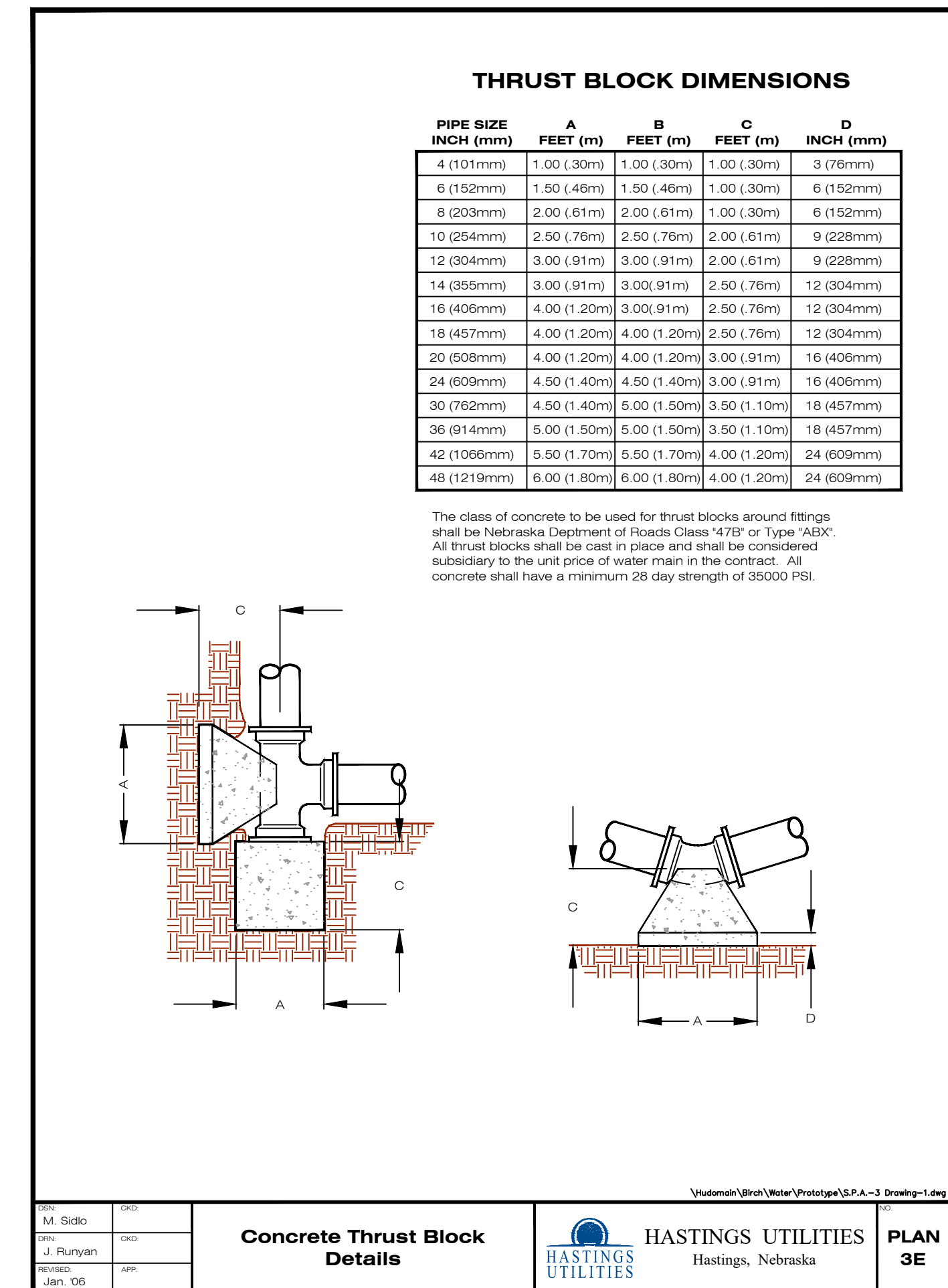
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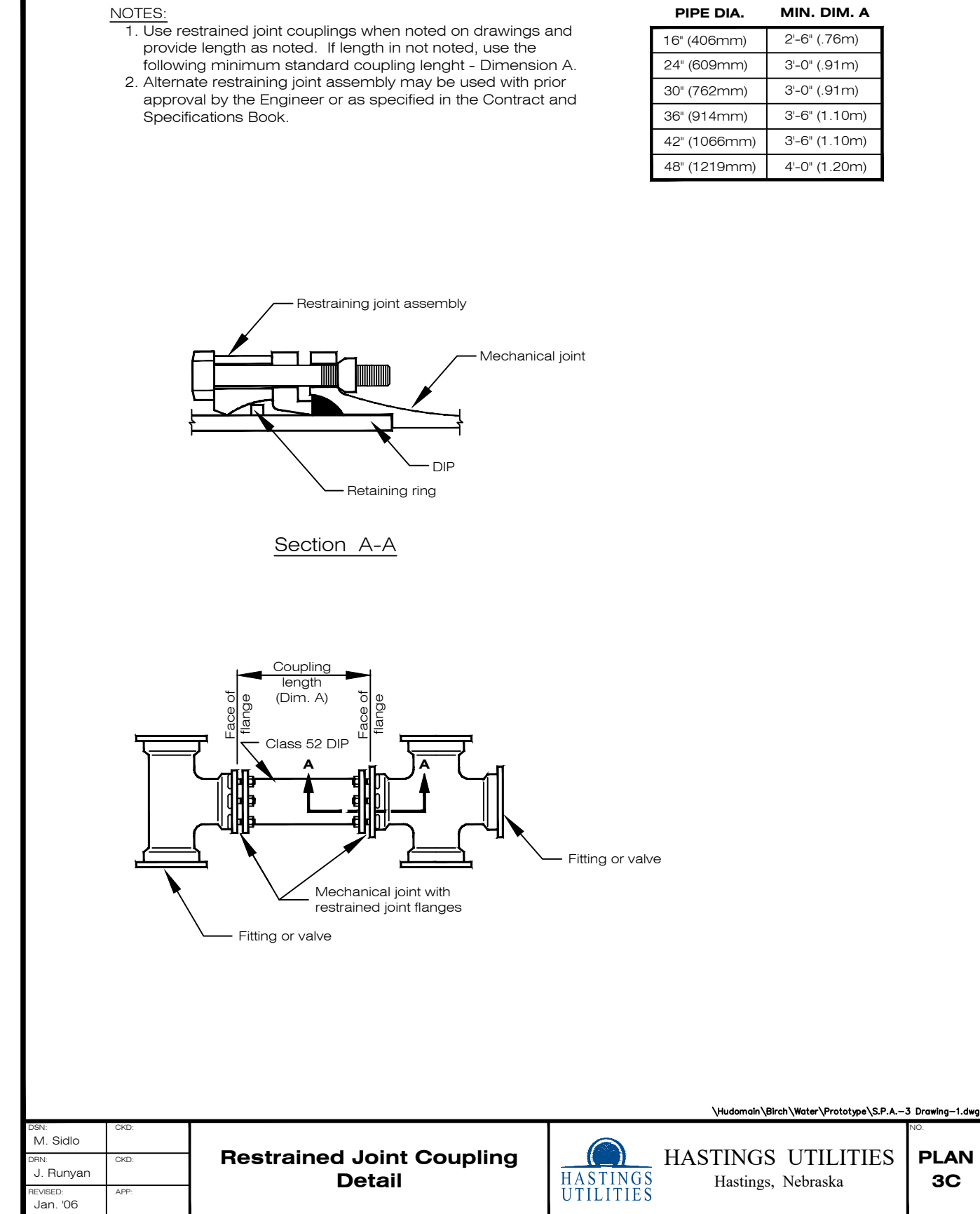
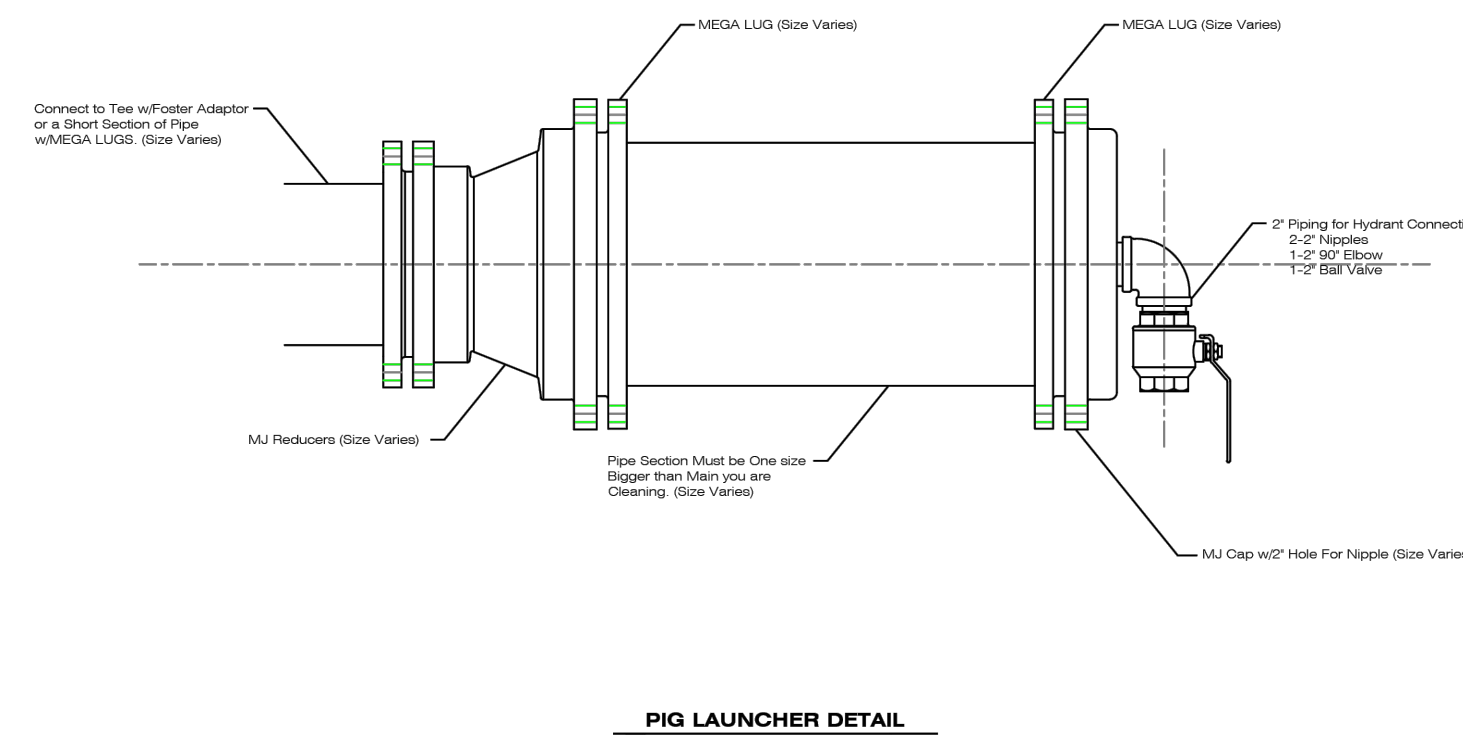
DRN: M. Sidlo	CHK: J. Ruryan	DATE: February 13	PROJECT: 024-04930	SHEET: 2J
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DRN: M. Sidlo	CHK: J. Ruryan	DATE: Jan. 06	PROJECT: 024-04930	SHEET: 3D
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DRN: M. Sidlo	CHK: J. Ruryan	DATE: Jan. 06	PROJECT: 024-04930	SHEET: 3E
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DRN: M. Sidlo	CHK: J. Ruryan	DATE: Jan. 06	PROJECT: 024-04930	SHEET: 3C
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SHEET
7 of 7

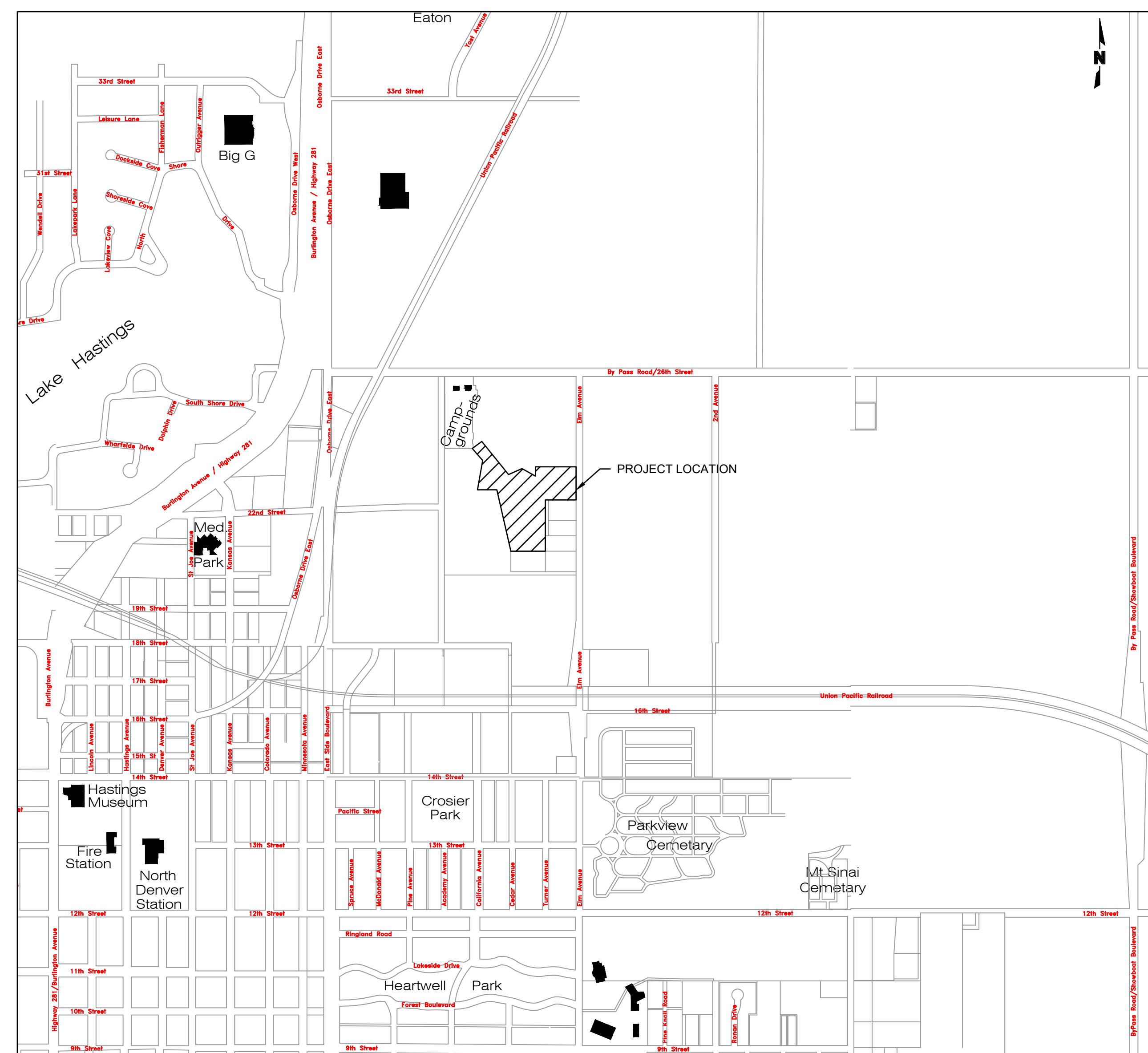
ELM MEADOWS FIRST SUBDIVISION SANITARY SEWER EXTENSION DISTRICT 2024-3 HASTINGS, NEBRASKA DWG NO: SR-100 W.O. NO.:SW-384

LEGEND

SD	STORM SEWER PIPE
SS	SANITARY SEWER MAIN
G	GAS MAIN
W	WATER MAIN
CATV	UNDERGROUND CABLE TV
PO	OVERHEAD POWER
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T	TREE

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE MOST CURRENT CITY OF HASTINGS STANDARD SPECIFICATIONS AND STANDARD DRAWINGS AND SPECIAL PROVISIONS FOR SULFATE RESISTANT CONCRETE. IF SULFATE RESISTANT CONCRETE IS UNAVAILABLE FOR CONCRETE MANHOLES (TYPE I), TYPE II MANHOLES WITH CONSHIELD CAN BE SUBSTITUTED.
- THE LOCATION OF ALL AERIAL AND UNDERGROUND UTILITY FACILITIES MAY NOT BE INDICATED ON THESE PLANS. UNDERGROUND UTILITIES, WHETHER INDICATED OR NOT WILL BE LOCATED AND FLAGGED BY THE UTILITIES AT THE REQUEST OF THE CONTRACTOR. NO EXCAVATION WILL BE PERMITTED IN THE AREA OF UNDERGROUND UTILITY FACILITIES UNTIL ALL SUCH FACILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES. THE EXCAVATION MUST BE ACCOMPLISHED WITH EXTREME CARE IN ORDER TO AVOID ANY POSSIBILITY OF DAMAGE TO THE UTILITY FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES.
- CONTRACTOR SHALL PRESERVE ALL PROPERTY CORNER MONUMENTS OR RE-ESTABLISH THEM (BY A NEBRASKA LICENSED SURVEYOR) IF THEY ARE DISTURBED DURING CONSTRUCTION AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL OBTAIN AND PAY THE COST OF ALL REQUIRED PERMITS AND FEES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COSTS OF TESTING REQUIRED BY THE CITY OF HASTINGS SPECIFICATIONS INCLUDING TV INSPECTION (DONE BY CITY OF HASTINGS), DEFLECTION TESTS, AIR PRESSURE TESTS, AND EXFILTRATION/INFILTRATION TESTS.
- THE CONTRACTOR SHALL USE EXTREME CAUTION IN THE AREA OF EXISTING MANHOLES, POWER POLES, AND EXISTING UTILITIES, AND SHALL BE RESPONSIBLE FOR DAMAGES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL. TRAFFIC CONTROL PLAN SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE MANUAL UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO IMPLEMENTATION. CONTRACTOR TO NOTIFY CITY PUBLIC WORKS DEPARTMENT A MINIMUM OF 72 HOURS IN ADVANCE OF ANY LANE OR ROAD CLOSURES.
- THE TRENCHES SHALL BE BACKFILLED, MECHANICALLY TAMPED AND TESTED. OWNER IS RESPONSIBLE FOR ALL COSTS OF TESTING. SEE GRAND ISLAND STANDARD SPECIFICATIONS FOR COMPACTION REQUIREMENTS.
- THE ENDS OF ALL SERVICES AND MAINS SHALL BE MARKED W/STEEL TEE POSTS.
- PRIOR TO MOVING OFF SITE THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING REQUESTING A FINAL WALK-THROUGH OF THE PROJECT.
- MANHOLE RECONSTRUCTION SHALL FOLLOW CITY OF HASTINGS MANHOLE REQUIREMENTS, CONTRACTOR SHALL NOT EXCEED ALLOWABLE BARREL AND/OR RING DEPTHS.



Pollution Control Project
NEBRASKA
Good Life. Great Resources.
DEPT. OF ENVIRONMENT AND ENERGY
APPROVED
Cybil Martinmaas PE

NDEE Project No. 2025-0008
February 4, 2025

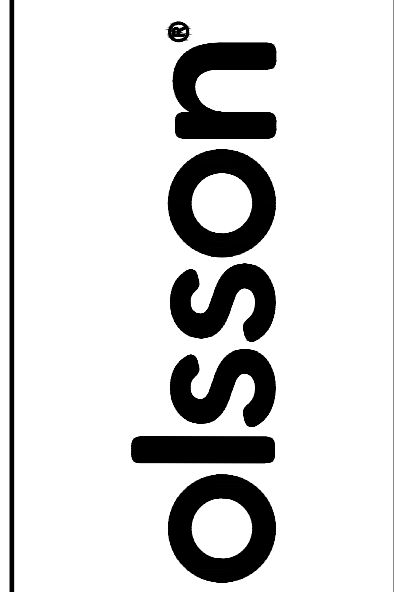
SHEET INDEX	
Sheet #	Sheet Title
1	COVER SHEET
2	HORIZONTAL & VERTICAL CONTROL
3	SANITARY SEWER PLAN & PROFILE STA. 70+00 TO STA. 74+25
4	SANITARY SEWER PLAN & PROFILE STA. 8+50 TO STA. 14+00
5	SANITARY SEWER PLAN & PROFILE STA. 300+00 TO STA. 303+25
6	DETAILS

TABLE OF APPROXIMATE QUANTITIES		
ITEM DESCRIPTION	UNIT	QUANTITY
MOBILIZATION	L.S.	1
8" PVC SANITARY SEWER PIPE	L.F.	327
4" PVC SANITARY SEWER SERVICE	L.F.	631
8"x4" SERVICE TEE	EA.	4
12"x4" INSERTA TEE	EA.	12
8" PVC CAP	EA.	2
4" SERVICE CAP	EA.	16
4" PVC WYE	EA.	16
4" PVC 45 BEND	EA.	16
4" PVC PLUG	EA.	16
48" SANITARY MANHOLE	EA.	1
RECONSTRUCT MANHOLE	EA.	3

APPROVED FOR CONSTRUCTION

Lee Vrooman 2-11-25

DIRECTOR OF ENGINEERING, DATE
CITY OF HASTINGS



201 East 2nd Street
Grand Island, NE 68801

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REV. NO.	DATE	DESCRIPTION
1	1-30-2025	ADDENDUM NO. 1

COVER SHEET

ELM MEADOWS FIRST SUBDIVISION
SANITARY SEWER EXTENSION DISTRICT 2024-3

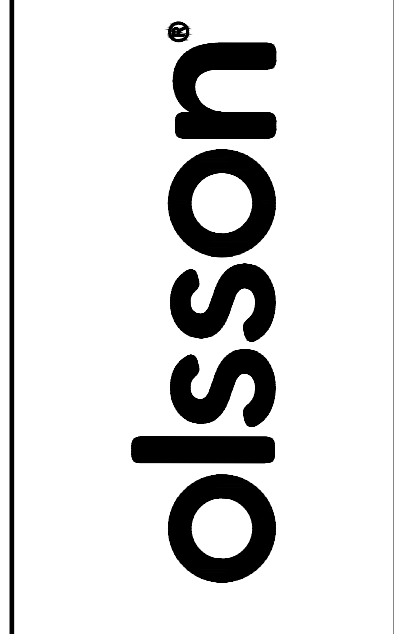
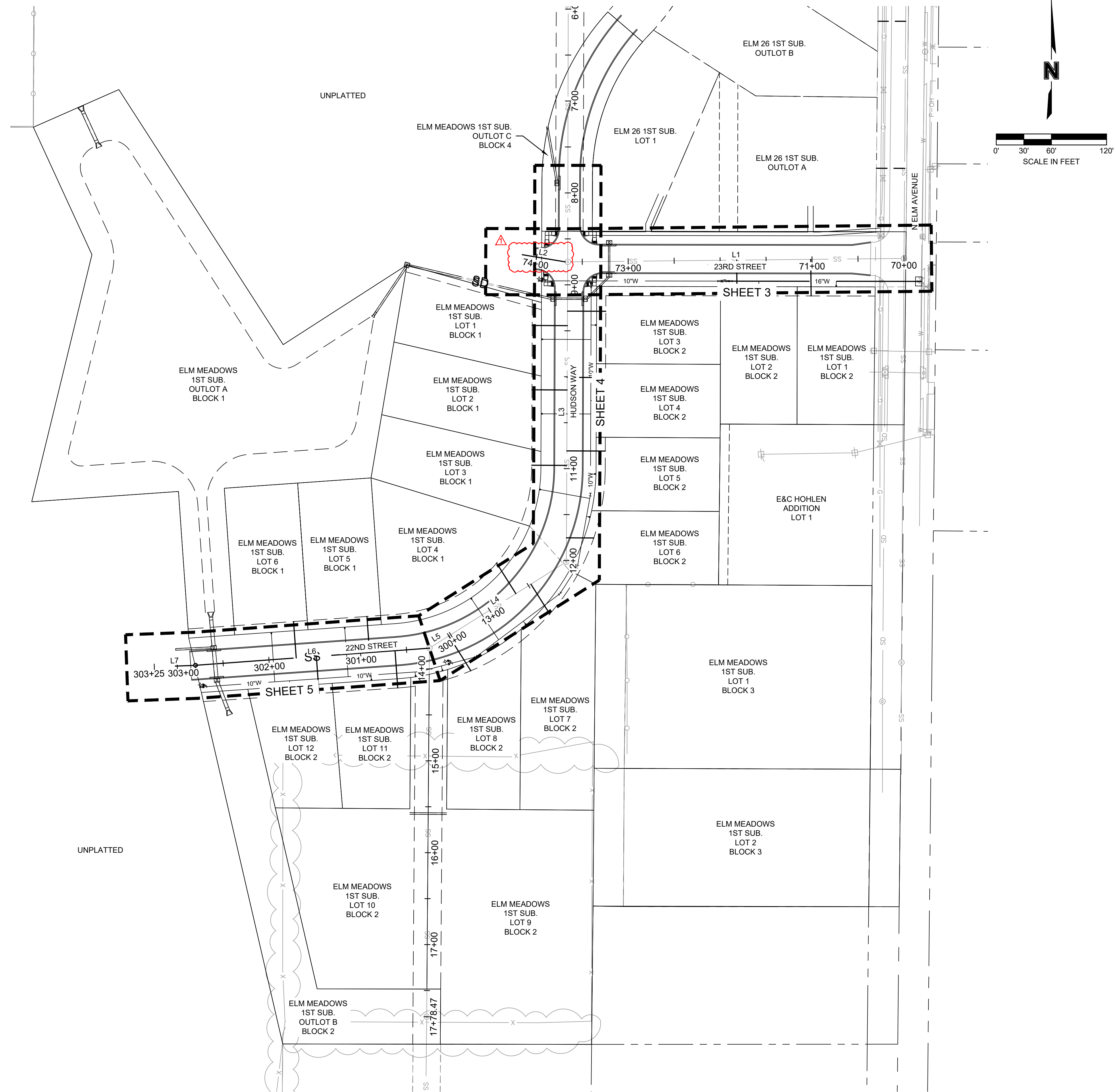
HASTINGS, NEBRASKA

2025 REVISIONS

drawn by: _____ KDG
designed by: _____ AST
project no.: 024-04930
date: January 10, 2025

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DATE: Jan 30, 2025 6:04pm USER: atarango

ALIGNMENT LINES					
LINE ID #	STATION RANGE	START COORD.	END COORD.	DIRECTION	LENGTH (FT)
L1	70+00 73+65.81	N: 111482.81 E: 117112.48	N: 111479.06 E: 116746.70	S89°24'46"W	365.81
L2	73+65.81 74+25	N: 111479.06 E: 116746.70	N: 111488.32 E: 116688.23	N80°59'57"W	59.19
L3	8+75 12+01.35	N: 111479.06 E: 116746.70	N: 111152.71 E: 116745.18	S0°15'56"W	326.35
L4	12+01.35 13+77.46	N: 111152.71 E: 116745.18	N: 111058.73 E: 116596.25	S57°44'53"W	176.11
L5	12+01.35 13+77.46	N: 111152.71 E: 116745.18	N: 111058.73 E: 116596.25	S57°44'53"W	176.11
L6	300+25 302+80.14	N: 111058.73 E: 116596.25	N: 111040.11 E: 116341.79	S85°48'49"W	255.14
L7	302+80.14 303+25	N: 111040.11 E: 116341.79	N: 111038.48 E: 116296.96	S87°55'29"W	44.86



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REV. NO.	DATE	DESCRIPTION
1	1-30-2025	SANITARY SEWER STUB ALIGNMENT CHANGE

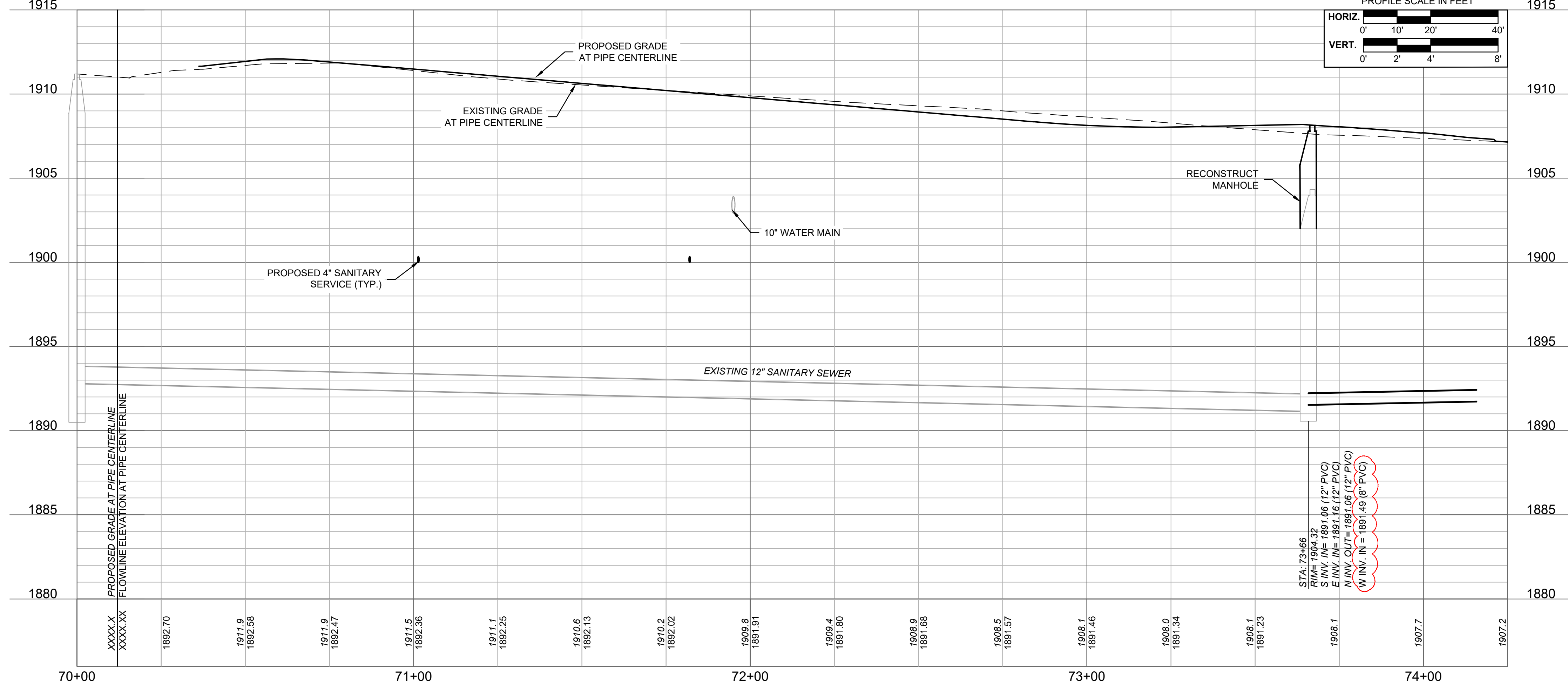
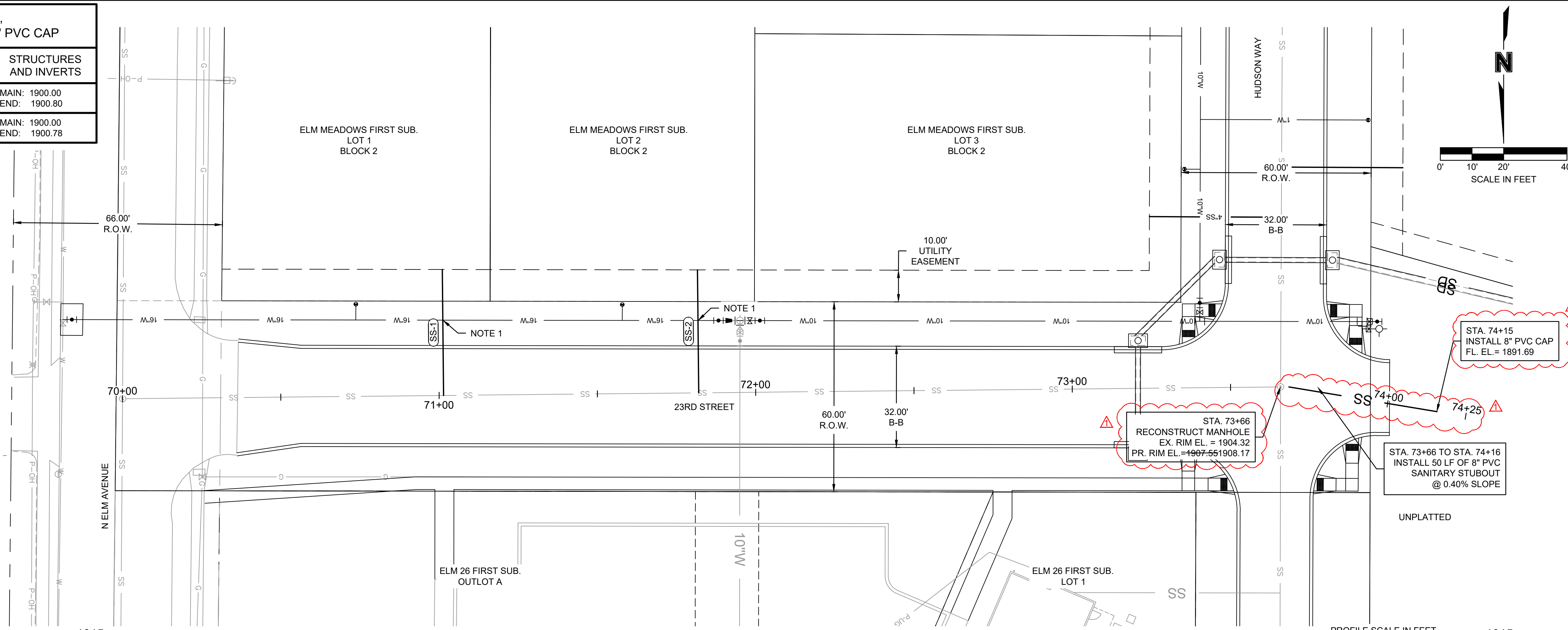
HORIZONTAL & VERTICAL CONTROL
ELM MEADOWS FIRST SUBDIVISION
SANITARY SEWER EXTENSION DISTRICT 2024-3
HASTINGS, NEBRASKA

drawn by: KDG
designed by: AST
project no.: 024-04930
date: January 10, 2025

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DATE: Jan 30, 2025 6:05pm USER: atarango

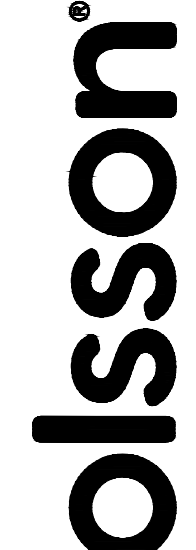
INSTALL 12"x4" INSERTA TEE, 4" SERVICE LINE, 4" CLEANOUT AND 4" PVC CAP					
PIPE ID	LENGTH (LF)	STA.	SIDE	SLOPE	STRUCTURES AND INVERTS
SS-1	40	71+01	L	2.00%	MAIN: 1900.00 END: 1900.80
SS-2	39	71+82	L	2.00%	MAIN: 1900.00 END: 1900.78

NOTE:
1. 18" VERTICAL SEPARATION BETWEEN PVC SANITARY SERVICES AND WATER MAIN.



STA: 73+66
S INV. IN = 1904.32
S INV. IN = 1891.06 (12" PVC)
E INV. IN = 1891.16 (12" PVC)
M INV. OUT = 1891.06 (12" PVC)
W INV. IN = 1891.49 (8" PVC)

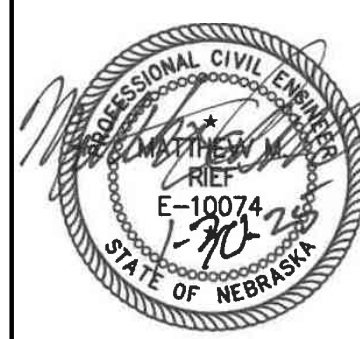
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DATE: Jan 31, 2025 9:47am USER: atarango



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REV. NO.	DATE	DESCRIPTION
1	1-30-2025	UPDATED FINISHED GRADE & SANITARY SEWER ALIGNMENT CHANGE

STA. 70+00 TO STA. 74+25
SANITARY SEWER PLAN & PROFILE

ELM MEADOWS FIRST SUBDIVISION
SANITARY SEWER EXTENSION DISTRICT 2024-3

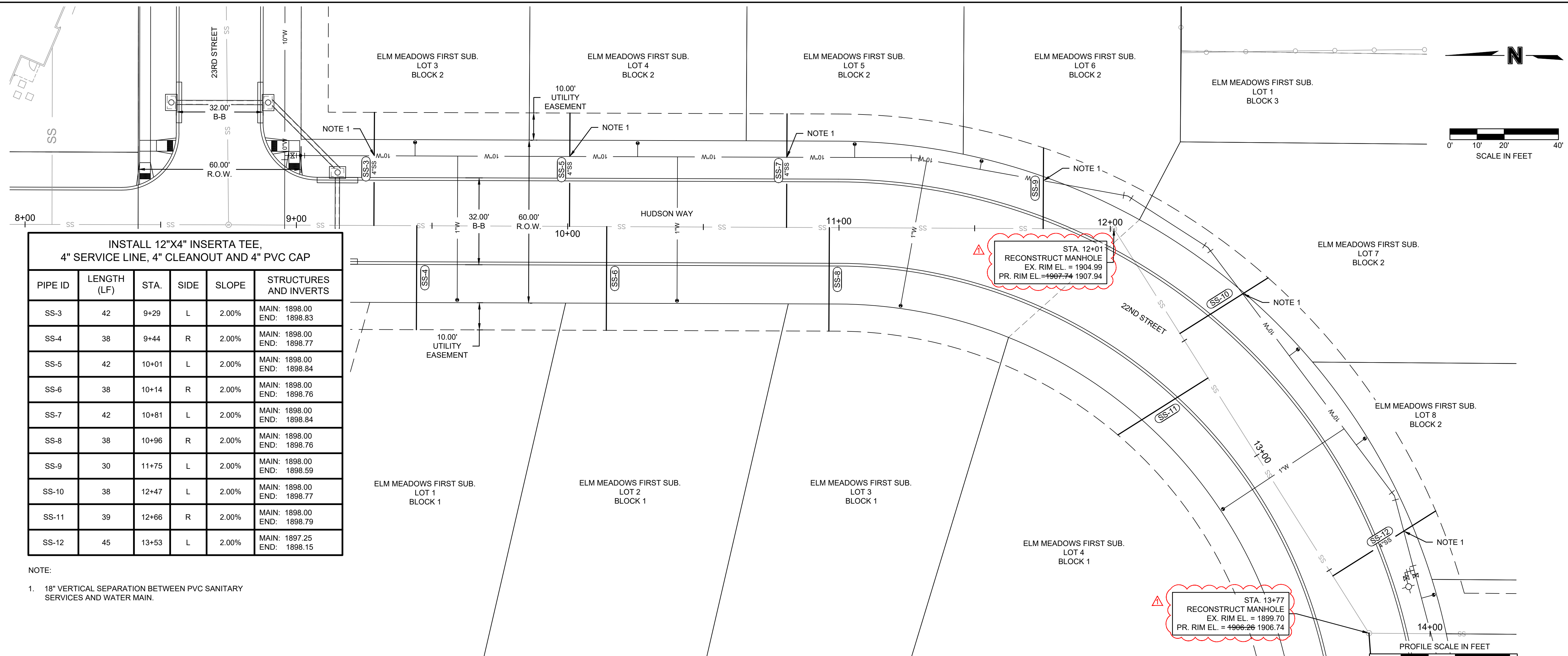
HASTINGS, NEBRASKA

2025

drawn by: _____ KDG
designed by: _____ AST
project no.: 024-04930
date: January 10, 2025

SHEET
3 of 6

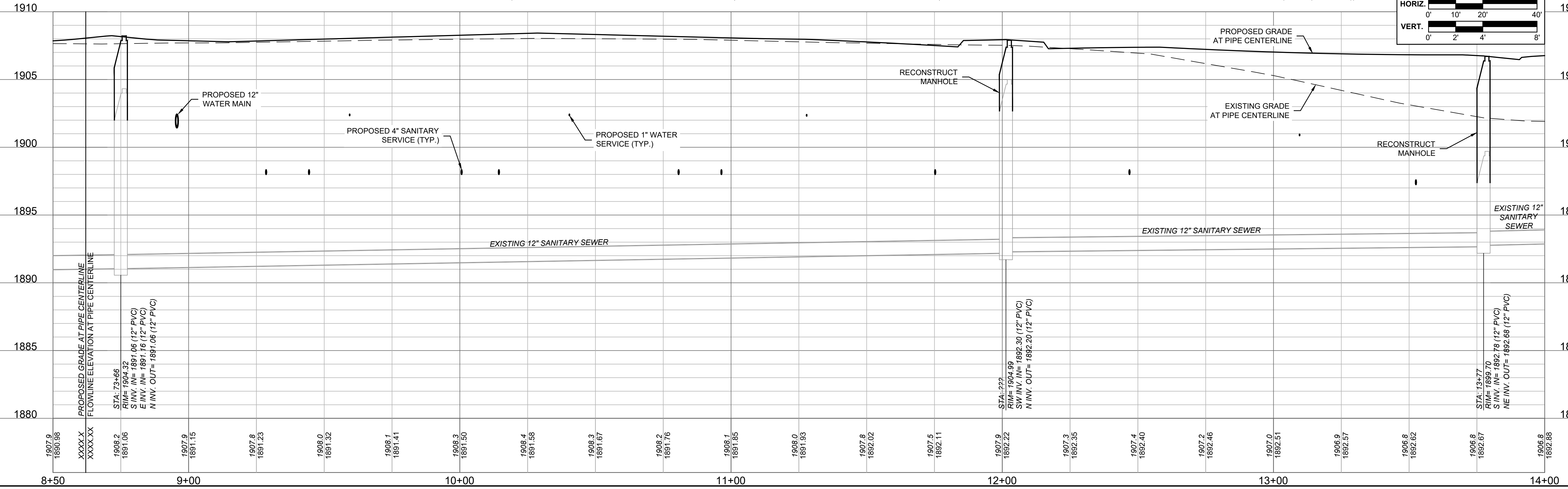
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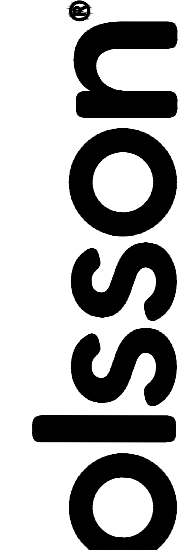


**INSTALL 12"X4" INSERTA TEE,
4" SERVICE LINE, 4" CLEANOUT AND 4" PVC CAP**

PIPE ID	LENGTH (LF)	STA.	SIDE	SLOPE	STRUCTURES AND INVERTS
SS-3	42	9+29	L	2.00%	MAIN: 1898.00 END: 1898.83
SS-4	38	9+44	R	2.00%	MAIN: 1898.00 END: 1898.77
SS-5	42	10+01	L	2.00%	MAIN: 1898.00 END: 1898.84
SS-6	38	10+14	R	2.00%	MAIN: 1898.00 END: 1898.76
SS-7	42	10+81	L	2.00%	MAIN: 1898.00 END: 1898.84
SS-8	38	10+96	R	2.00%	MAIN: 1898.00 END: 1898.76
SS-9	30	11+75	L	2.00%	MAIN: 1898.00 END: 1898.59
SS-10	38	12+47	L	2.00%	MAIN: 1898.00 END: 1898.77
SS-11	39	12+86	R	2.00%	MAIN: 1898.00 END: 1898.79
SS-12	45	13+53	L	2.00%	MAIN: 1897.25 END: 1898.15

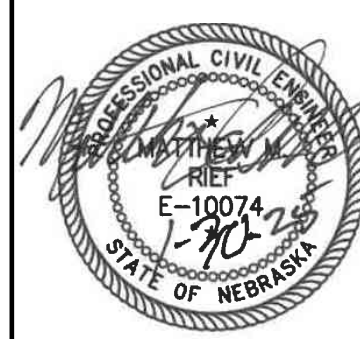
NOTE:
 1. 18" VERTICAL SEPARATION BETWEEN PVC SANITARY SERVICES AND WATER MAIN.





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REV. NO.	DATE	DESCRIPTION	REVISIONS
1	1-30-2025	UPDATED FINISHED GRADE	

STA. 8+50 TO STA. 14+00

SANITARY SEWER PLAN & PROFILE

ELM MEADOWS FIRST SUBDIVISION
 SANITARY SEWER EXTENSION DISTRICT 2024-3

HASTINGS, NEBRASKA

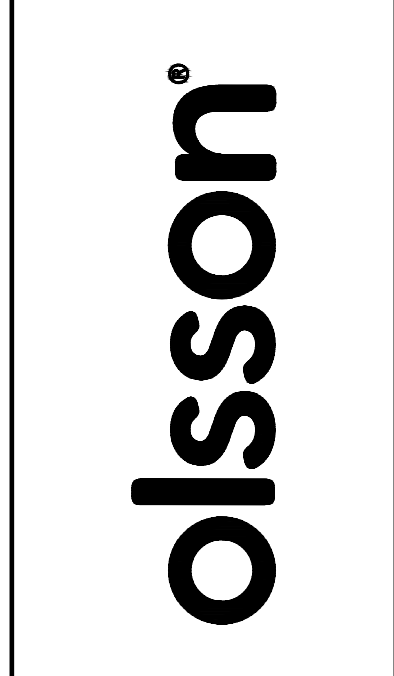
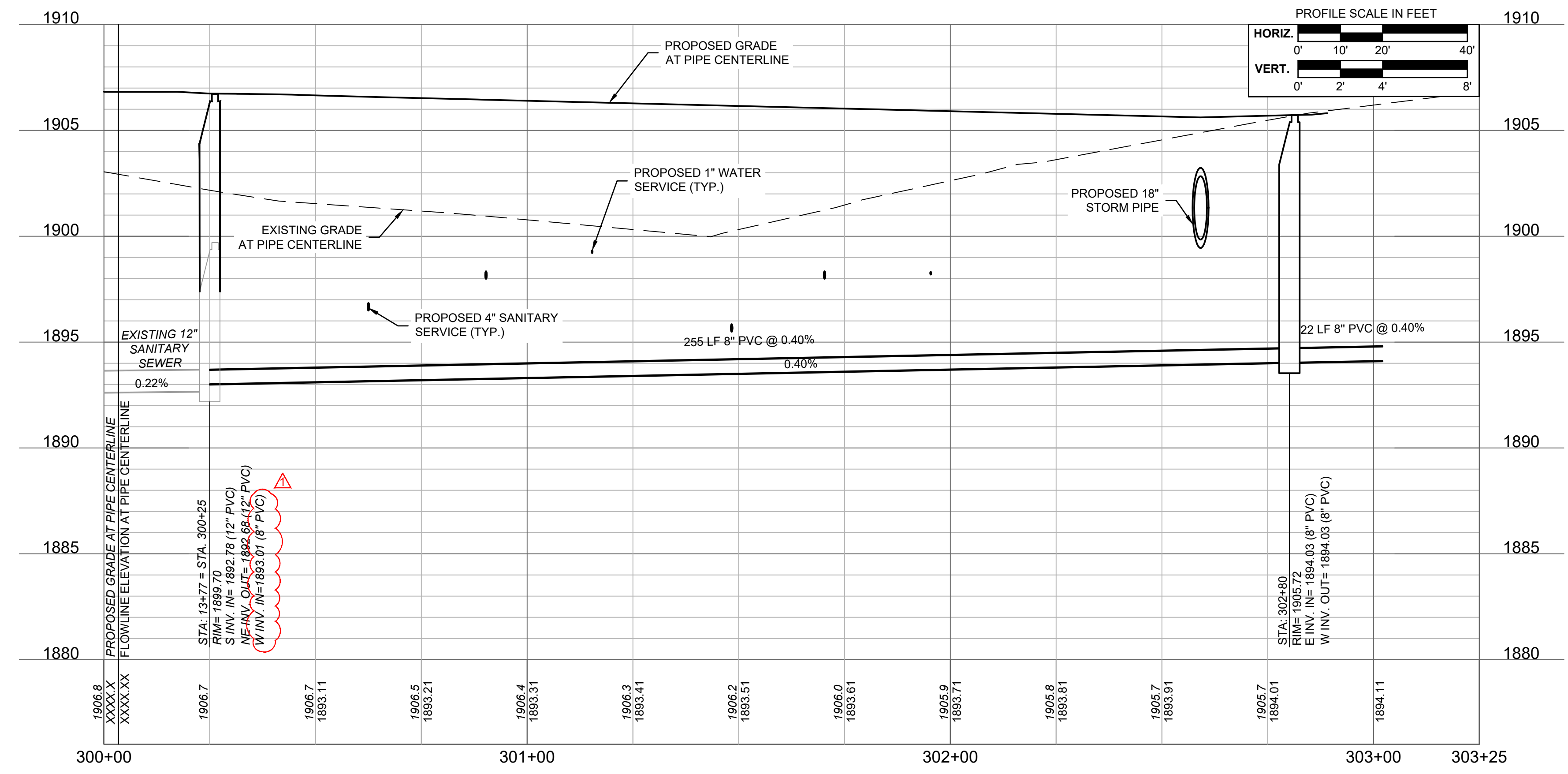
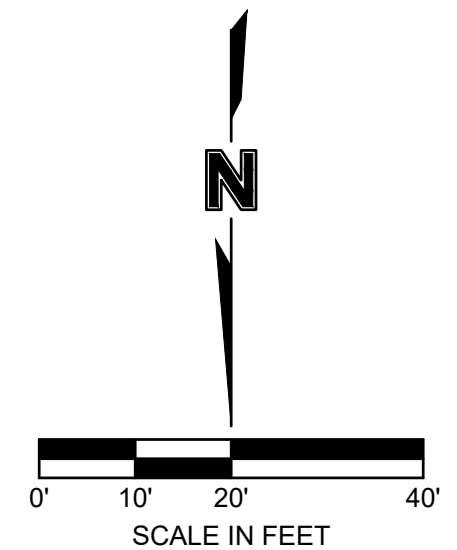
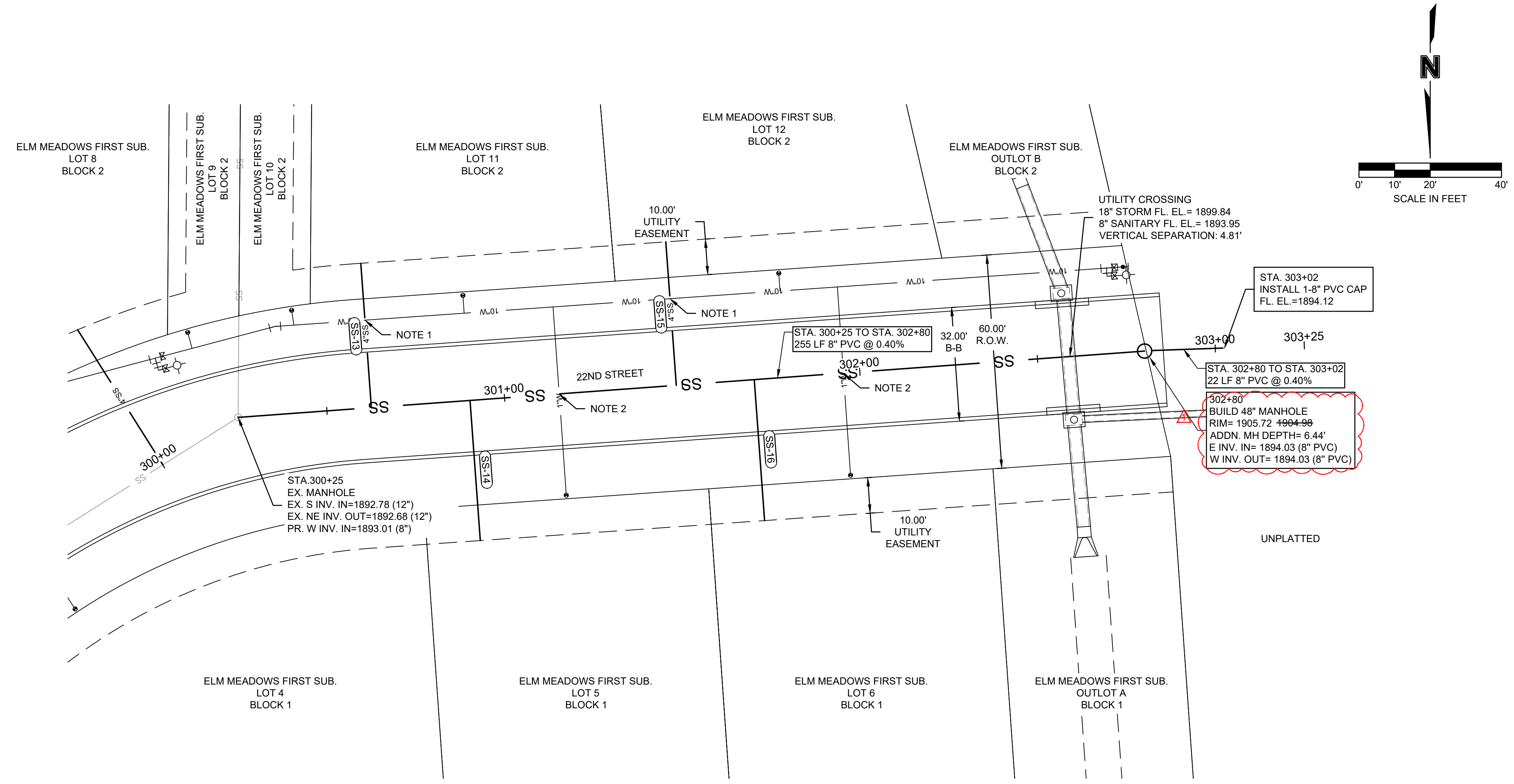
drawn by: _____ KDG
 designed by: _____ AST
 project no.: 024-04930
 date: January 10, 2025

SHEET
4 of 6

**INSTALL 8"X4" SERVICE TEE,
4" SERVICE LINE, 4" CLEANOUT, AND 4" PVC CAP**

PIPE ID	LENGTH (LF)	STA.	SIDE	SLOPE	STRUCTURES AND INVERTS
SS-13	41	300+63	L	2.00%	MAIN: 1896.50 END: 1897.31
SS-14	39	300+90	R	2.00%	MAIN: 1898.00 END: 1898.79
SS-15	40	301+48	L	2.00%	MAIN: 1895.50 END: 1896.31
SS-16	40	301+70	R	2.00%	MAIN: 1898.00 END: 1898.79

- NOTES:
- 18" VERTICAL SEPARATION BETWEEN PVC SANITARY SERVICES AND WATER MAIN.
 - 18" MINIMUM VERTICAL SEPARATION BETWEEN 1" COPPER WATER SERVICE LINE AND SANITARY MAIN REQUIRED. ROUTE WATER SERVICE SUCH THAT MINIMUM SEPARATION AN 5' BURY REQUIREMENTS ARE MET.



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REV. NO.	DATE	DESCRIPTION
1	1-30-2025	UPDATED FINISHED GRADE & UPDATED PROFILE INVERT ELEVATION

STA. 300+00 TO STA. 303+25
SANITARY SEWER PLAN & PROFILE

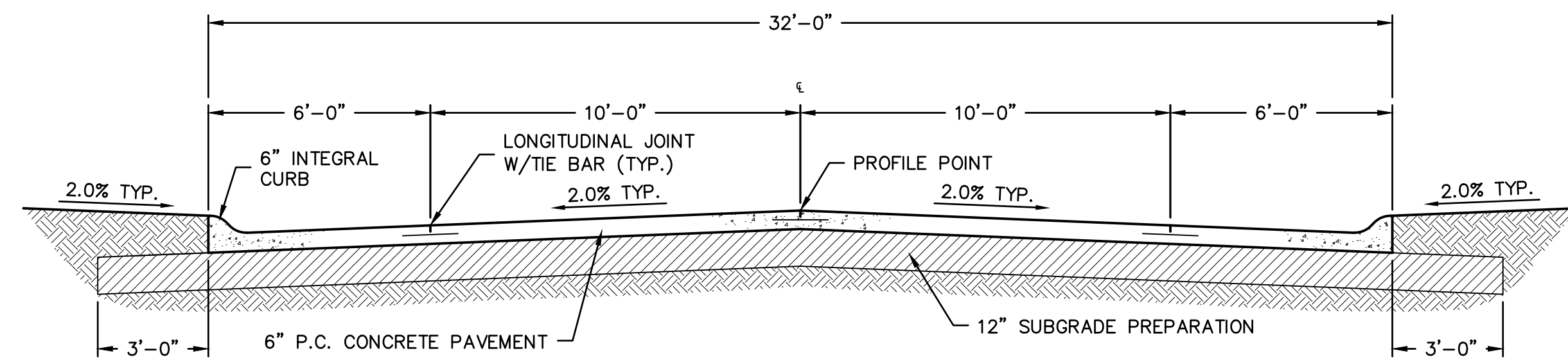
ELM MEADOWS FIRST SUBDIVISION
SANITARY SEWER EXTENSION DISTRICT 2024-3

HASTINGS, NEBRASKA

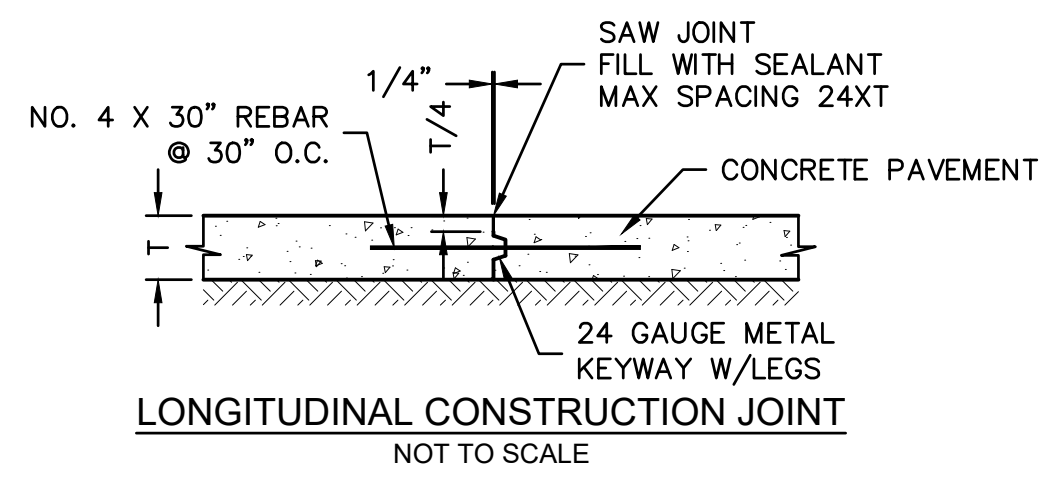
2025

drawn by: KDG
designed by: AST
project no.: 024-04930
date: January 10, 2025

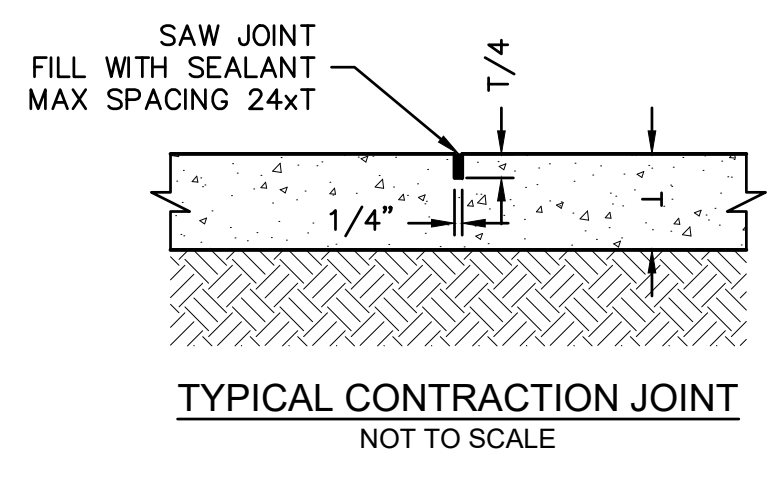
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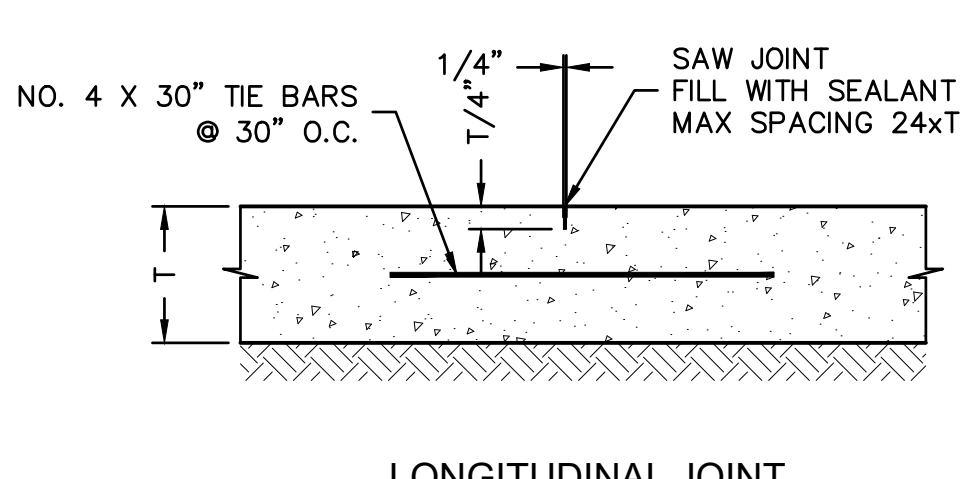
32' B-B TYPICAL SECTION
NOT TO SCALE



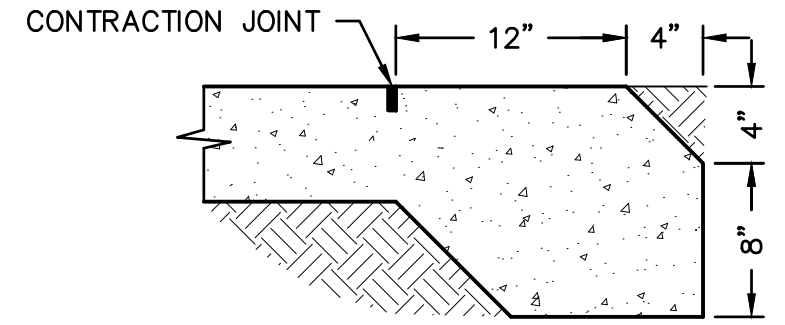
LONGITUDINAL CONSTRUCTION JOINT
NOT TO SCALE



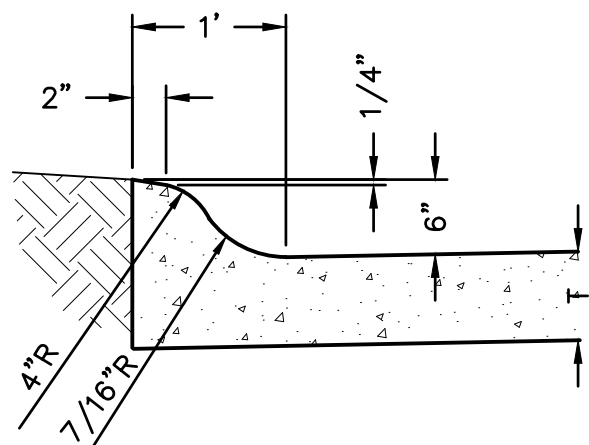
TYPICAL CONTRACTION JOINT
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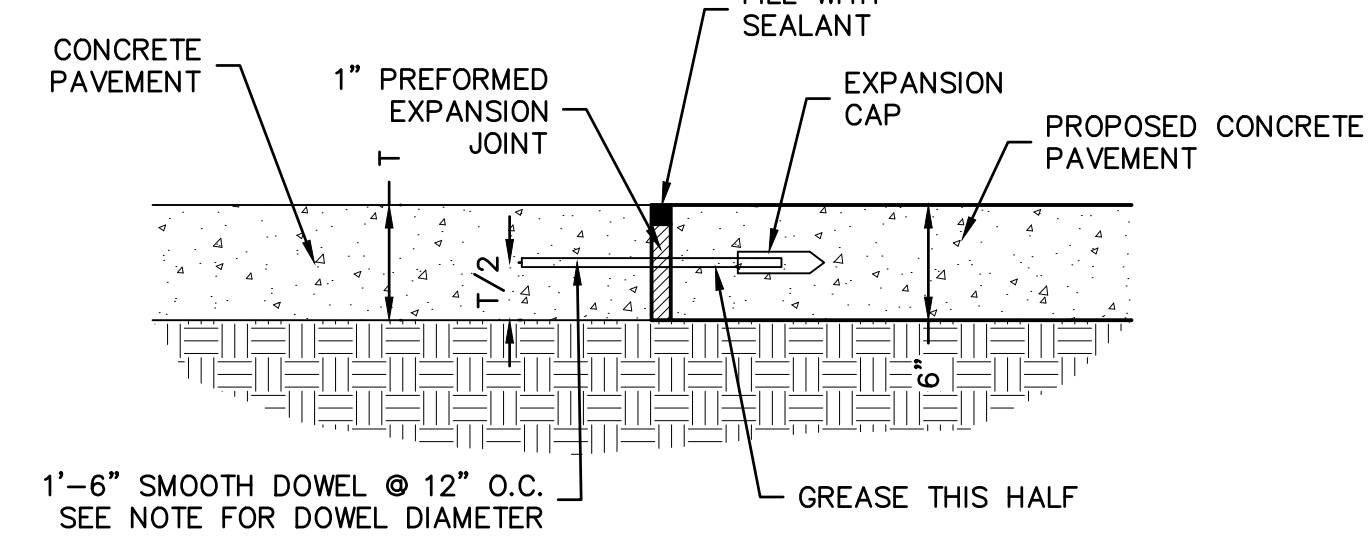
LONGITUDINAL JOINT
NOT TO SCALE



TYPICAL CONCRETE HEADER DETAIL
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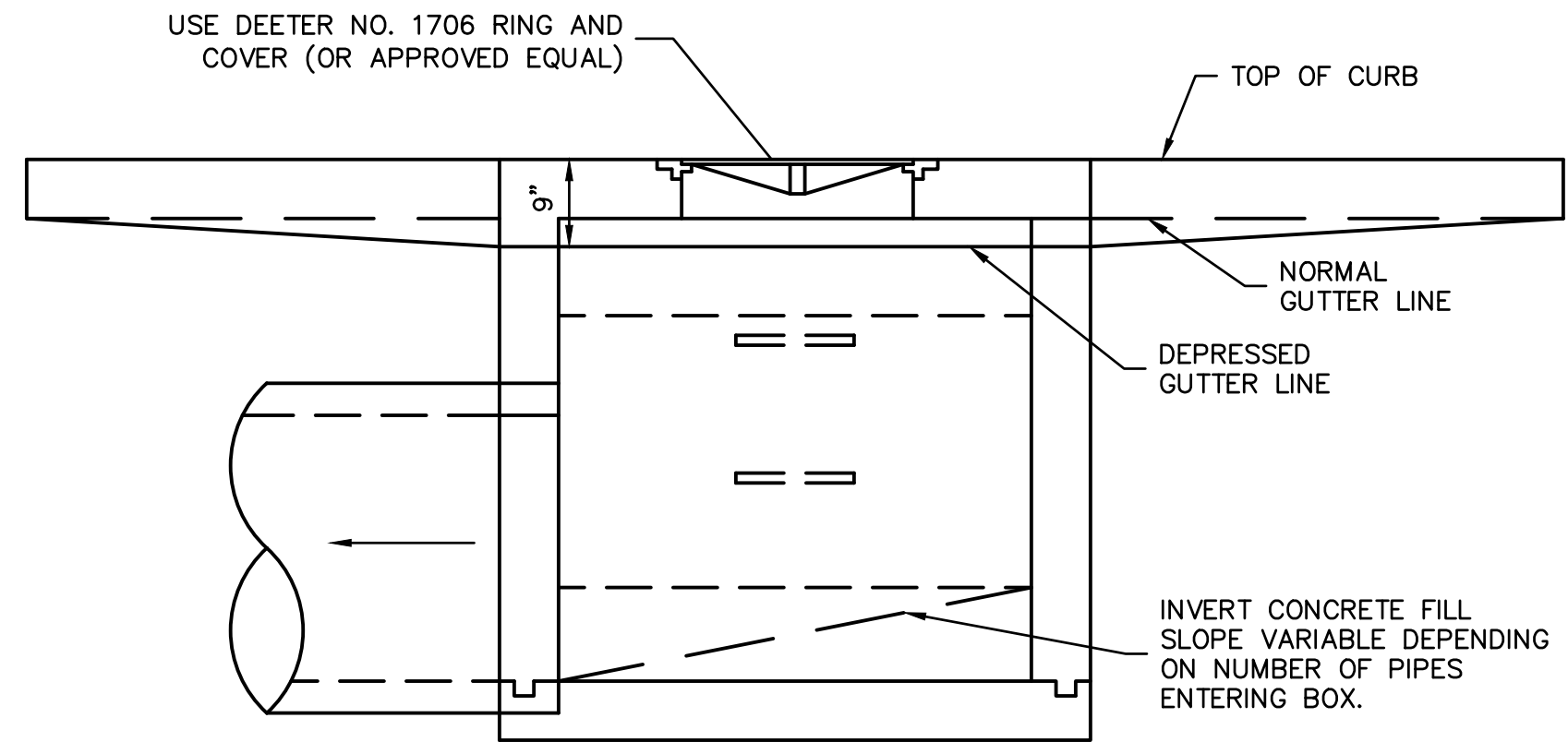


INTEGRAL CURB
NOT TO SCALE

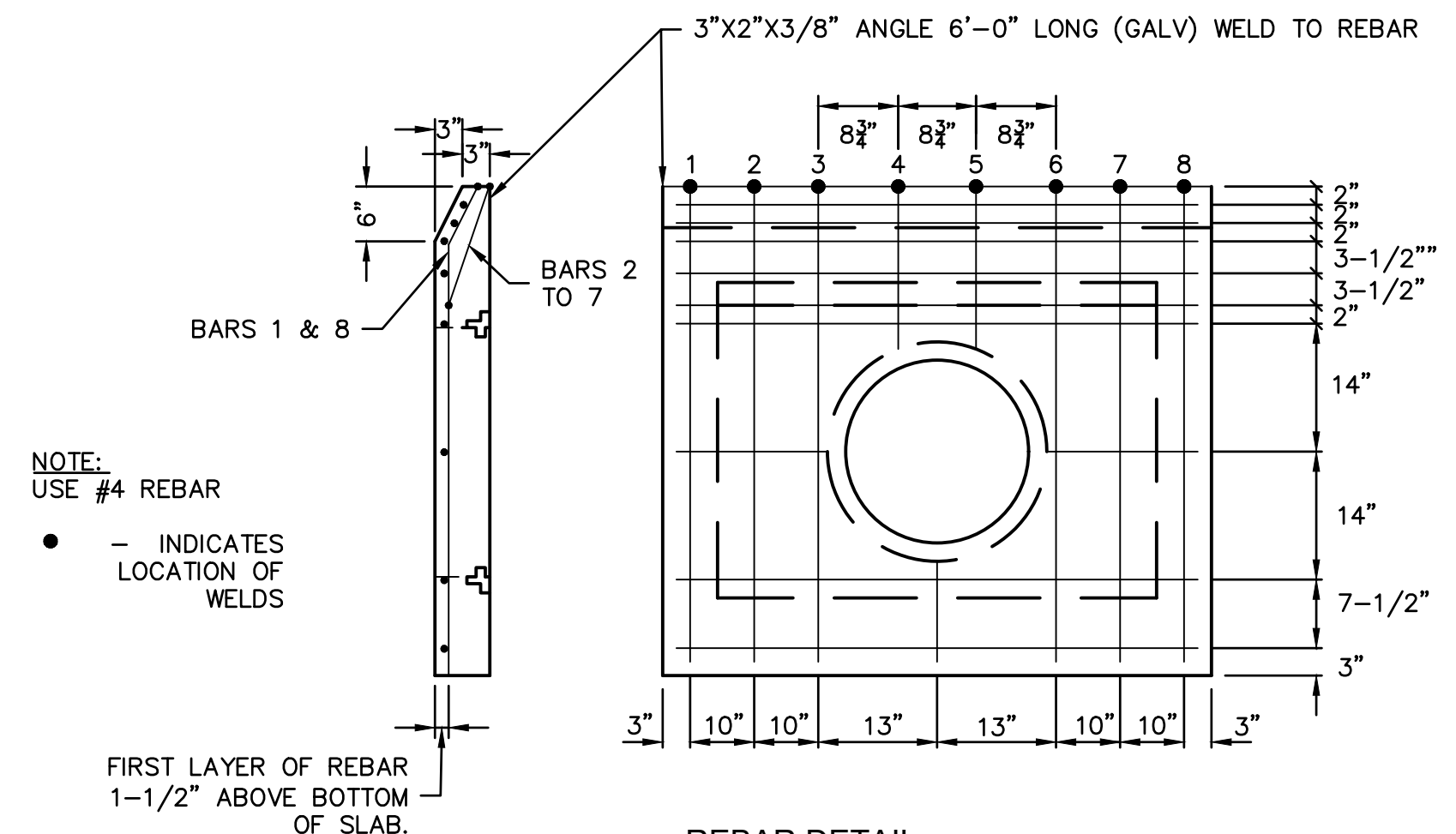


DOWELED EXPANSION JOINT
NOT TO SCALE

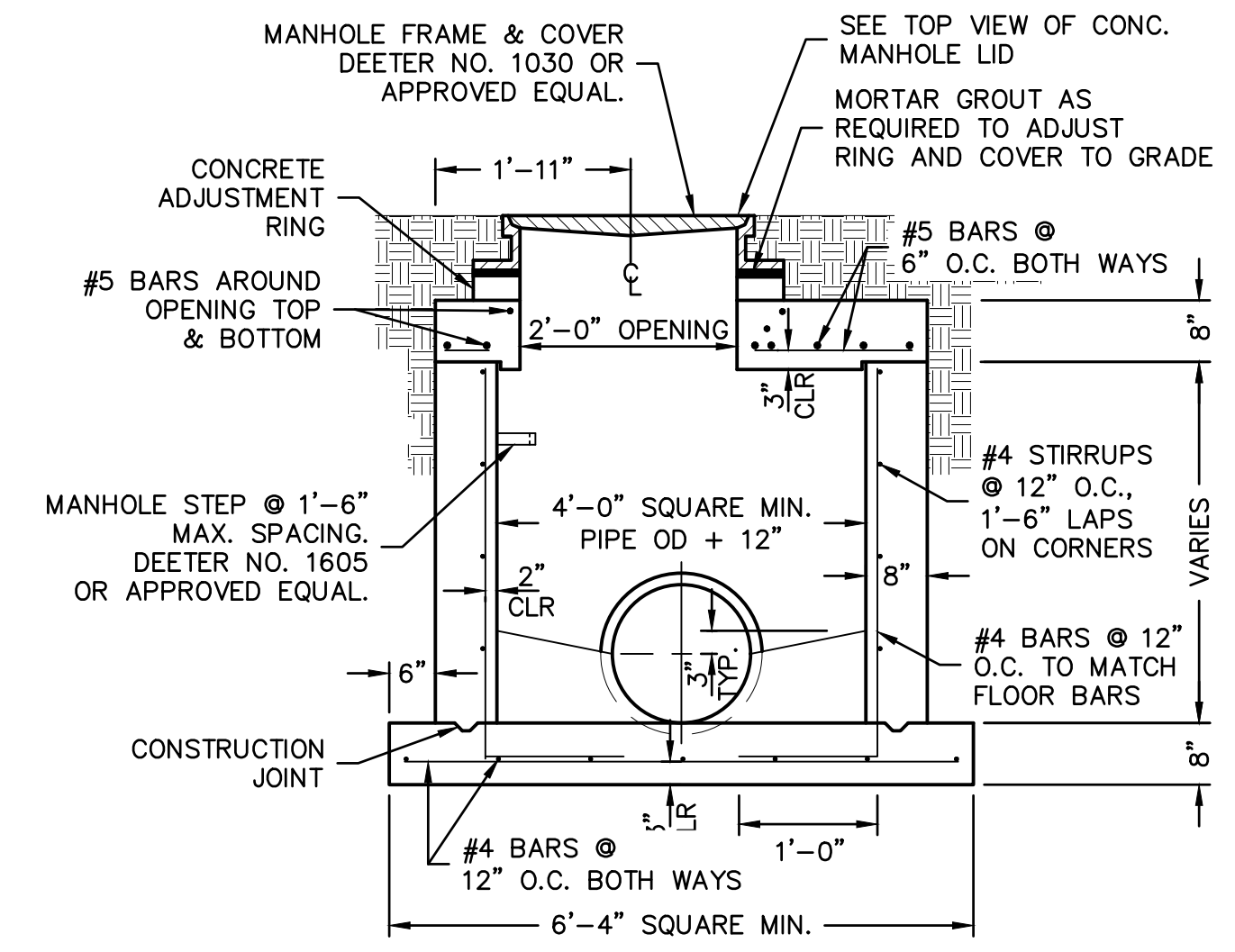
NOTE:
T = 6", 3/4" DOWEL
T = 8", 1" DOWEL
T = 9", 1-1/4" DOWEL
T = 10", 1-1/2" DOWEL



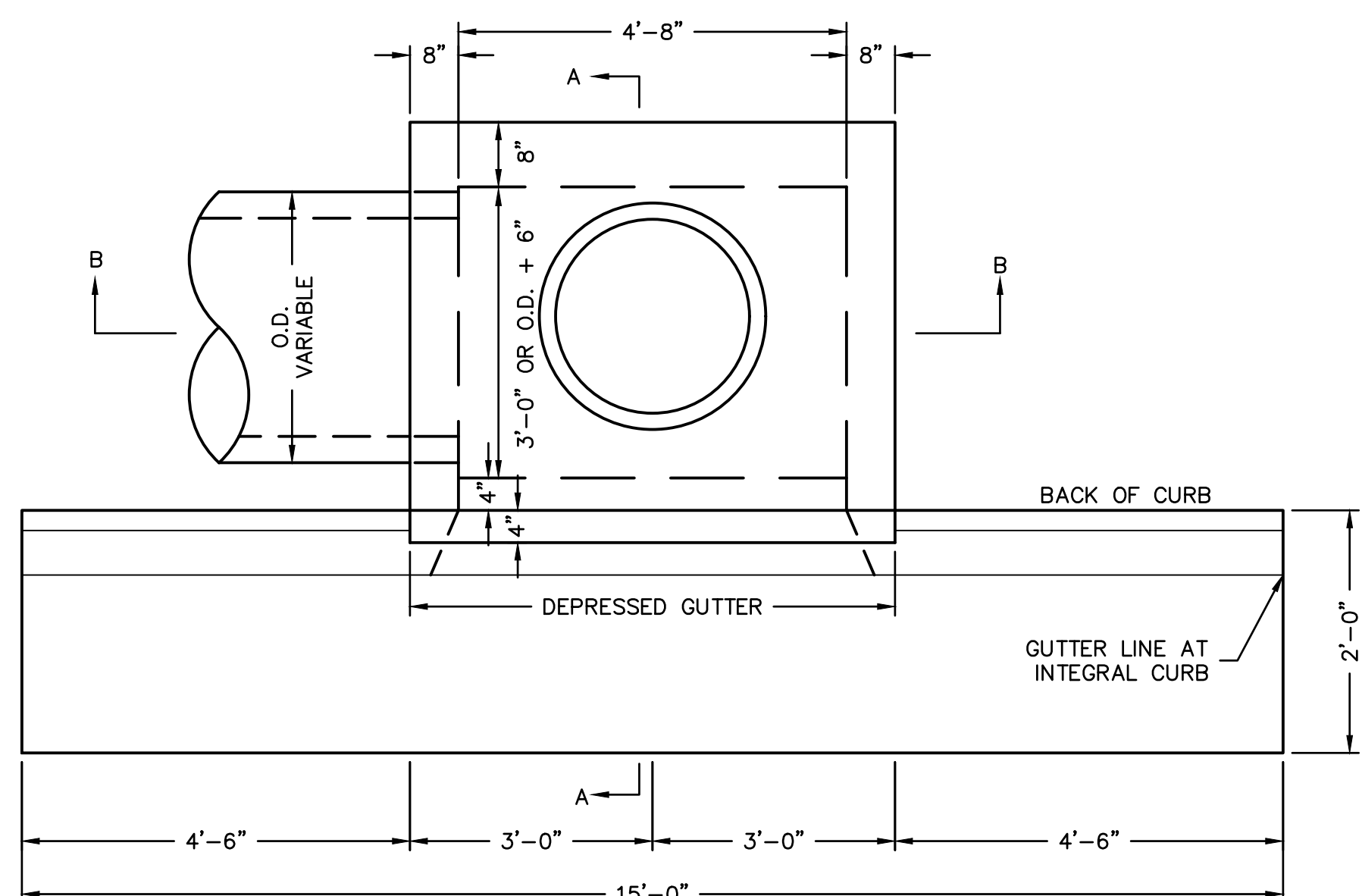
SECTION B-B



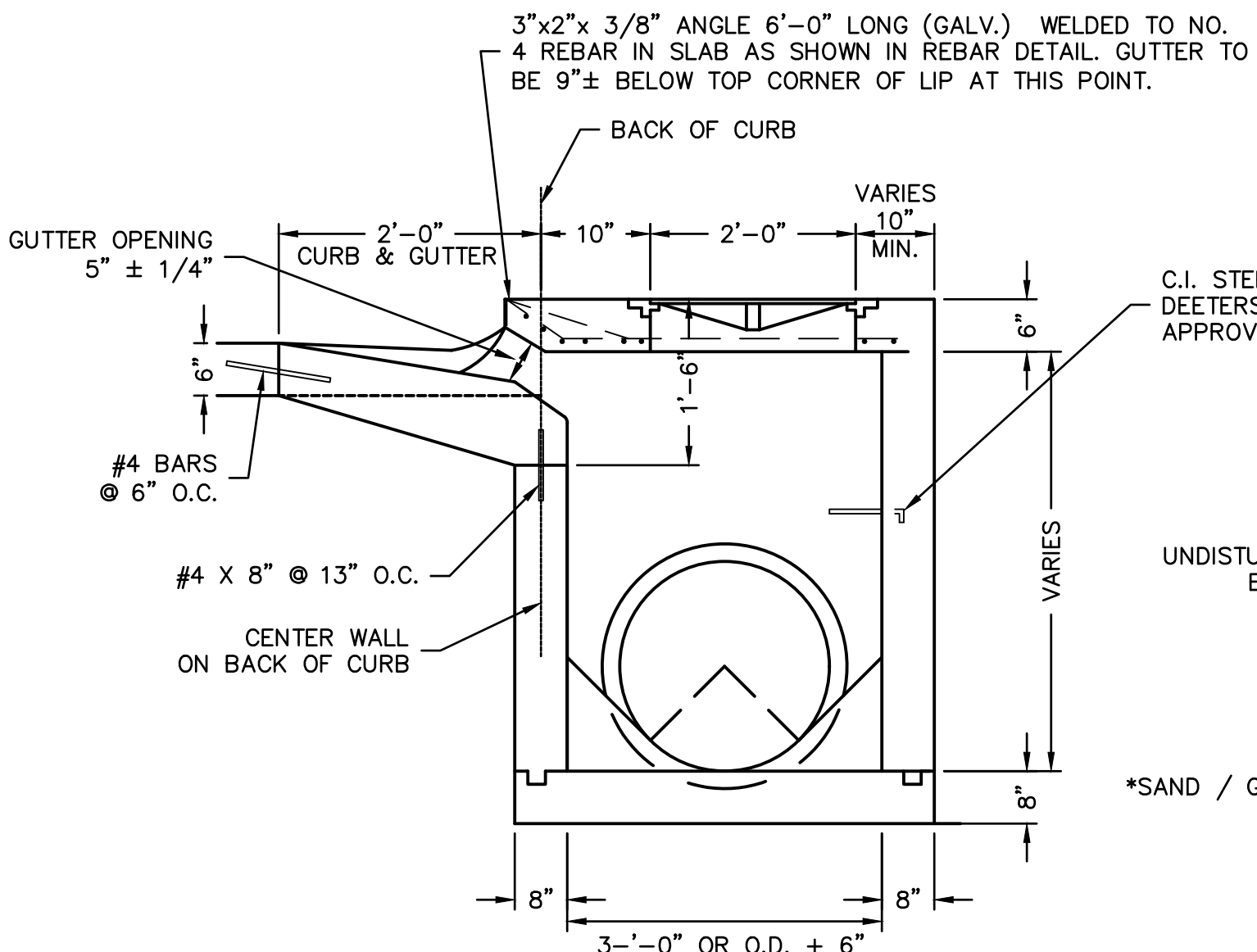
REBAR DETAIL



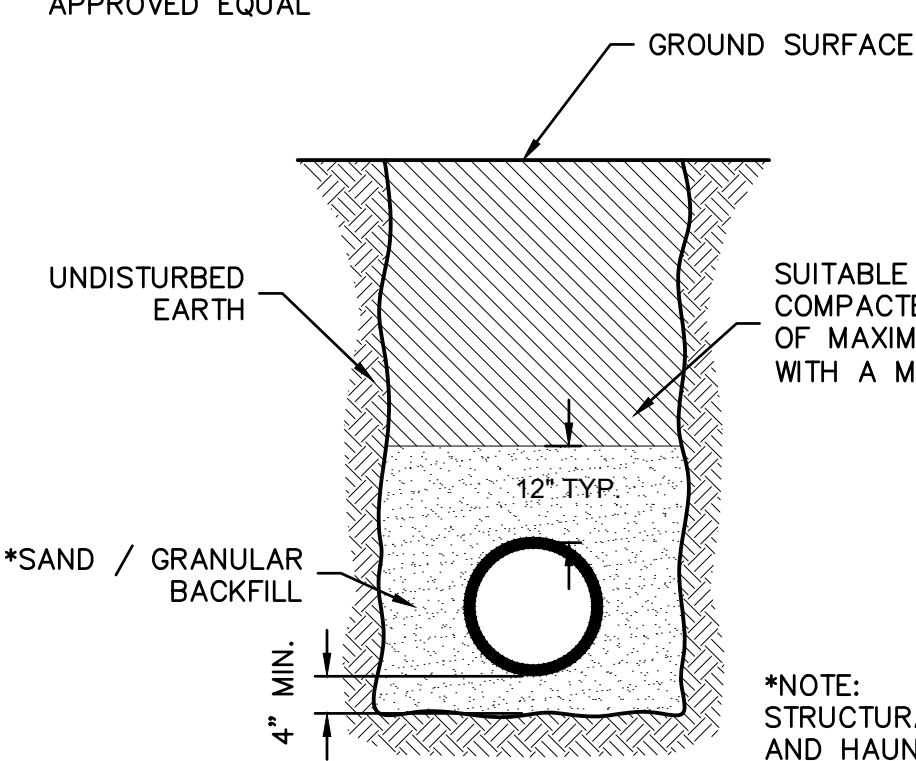
STORM JUNCTION BOX
NOT TO SCALE



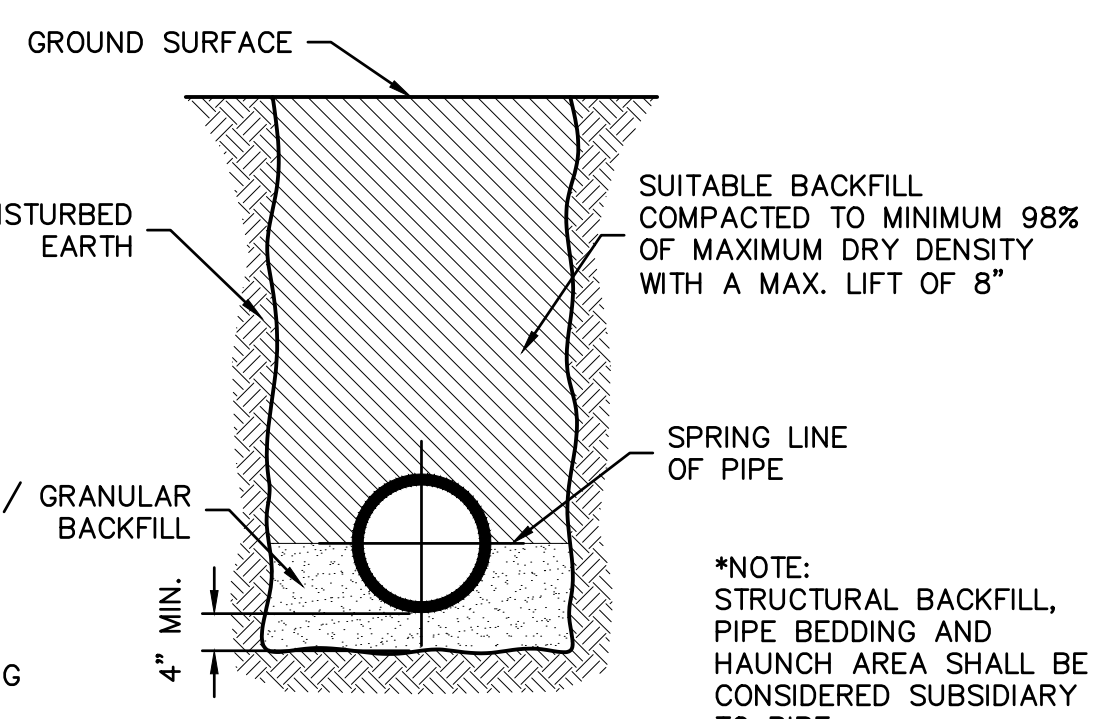
TYPE D MODIFIED CURB INLET
CURB INLET REPLACEMENT
NOT TO SCALE



SECTION A-A



FLEXIBLE PIPE TRENCH BACKFILL
NOT TO SCALE



RC PIPE TRENCH BACKFILL
NOT TO SCALE

*NOTE: STRUCTURAL BACKFILL, PIPE BEDDING AND HAUNCH BACKFILL SHALL BE CONSIDERED SUBSIDIARY TO PIPE. STRUCTURAL BACKFILL REQUIREMENTS PER MANUFACTURER'S RECOMMENDATION FOR FLEXIBLE PIPE SHALL BE CONSIDERED SUBSIDIARY TO PIPE.

REV. NO.	DATE	DESCRIPTION

DETAILS

ELM MEADOWS FIRST SUBDIVISION
STREET IMPROVEMENT DISTRICT 2024-1

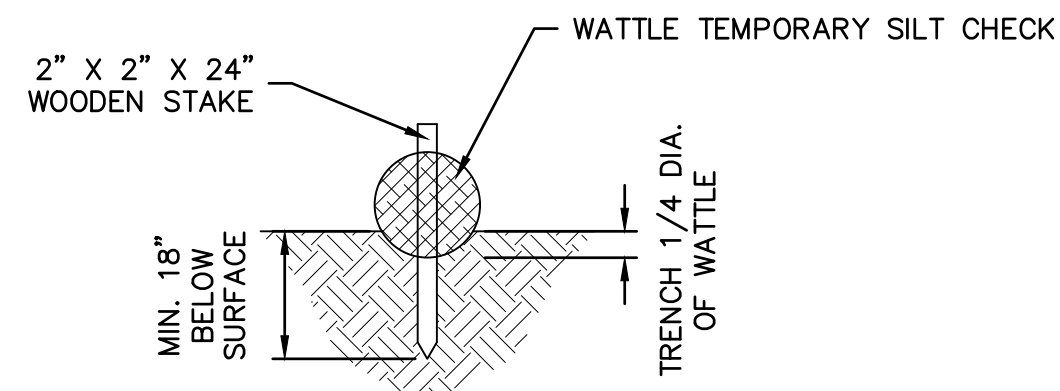
HASTINGS, NEBRASKA

drawn by: KDG
designed by: AST
project no.: 024-04930
date: January 28, 2025

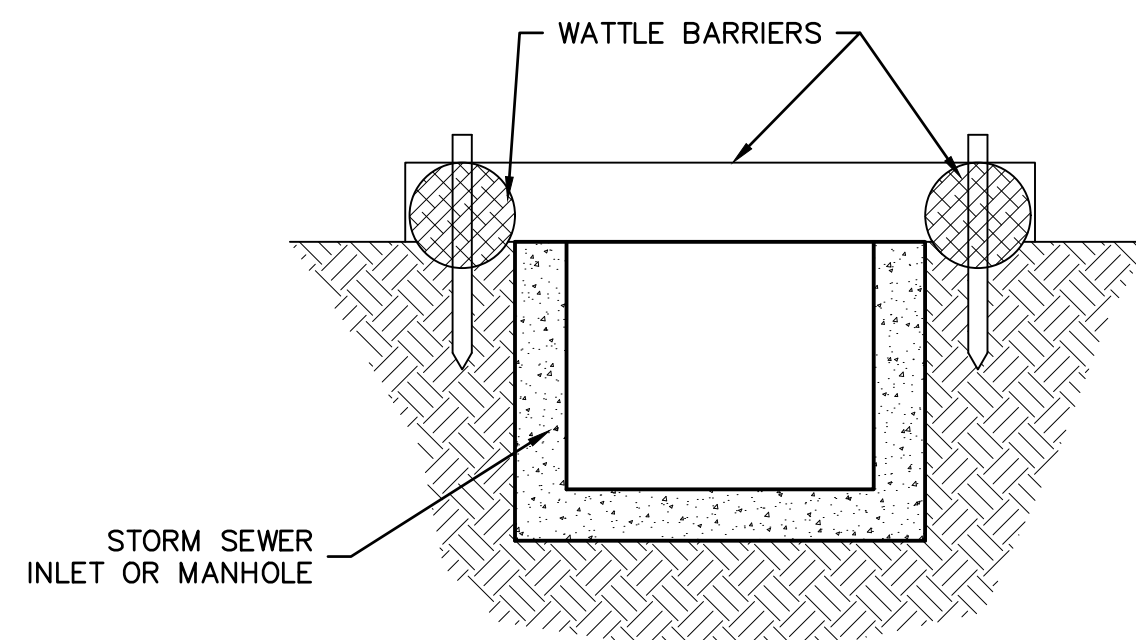
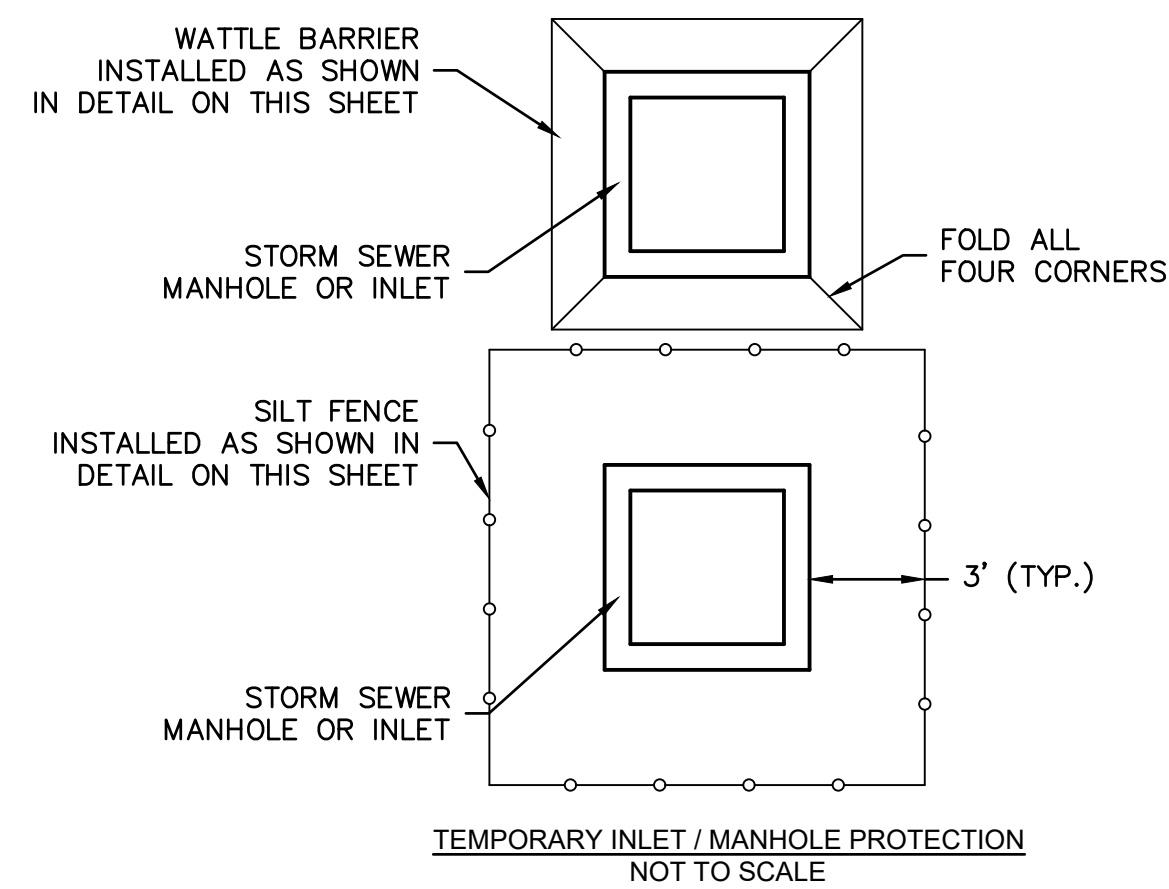
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WATTLE NOTES

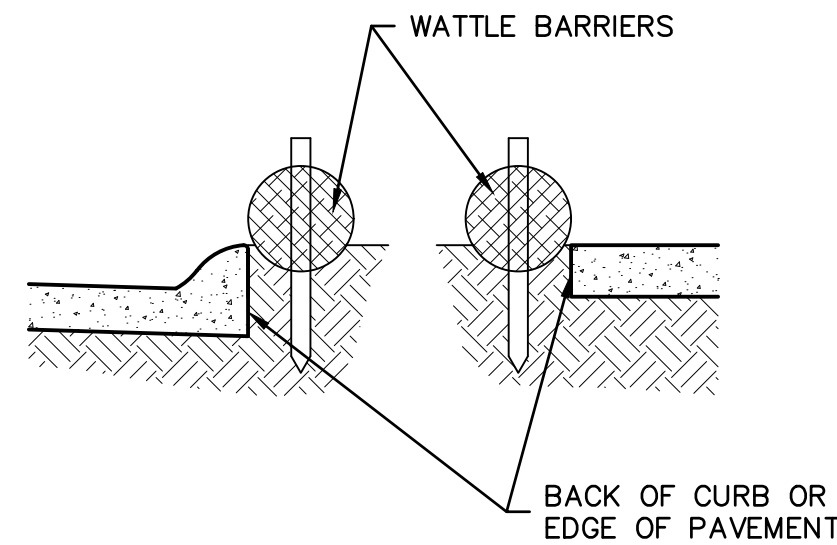
1. WATTLES SHALL EXTEND AN ADEQUATE DISTANCE TO PREVENT RUNOFF FROM FLOWING AROUND THE END OF THE BARRIER.
2. TIGHTLY ABUT WATTLE ENDS TO PREVENT GAPS.
3. WOOD STAKES SHALL BE PLACED AT 4' MAX. SPACING ALONG THE LENGTH OF WATTLES



TYPICAL INSTALLATION

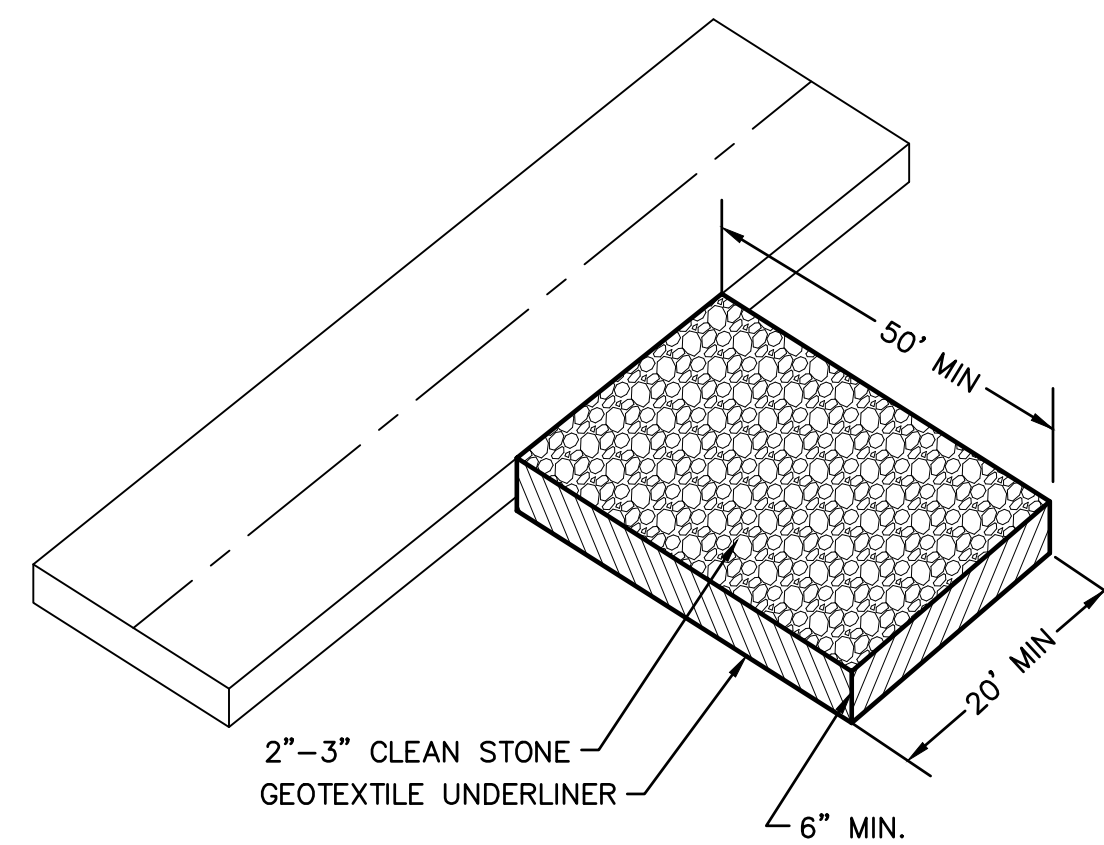


INLET PROTECTION

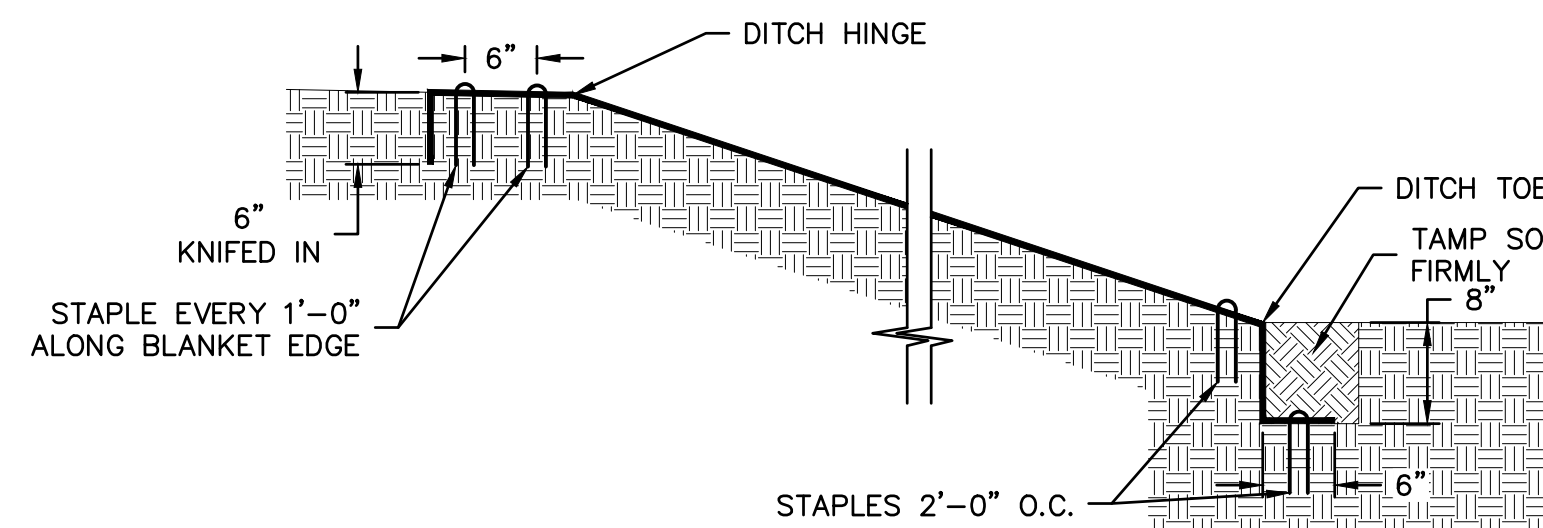


PAVEMENT EDGE

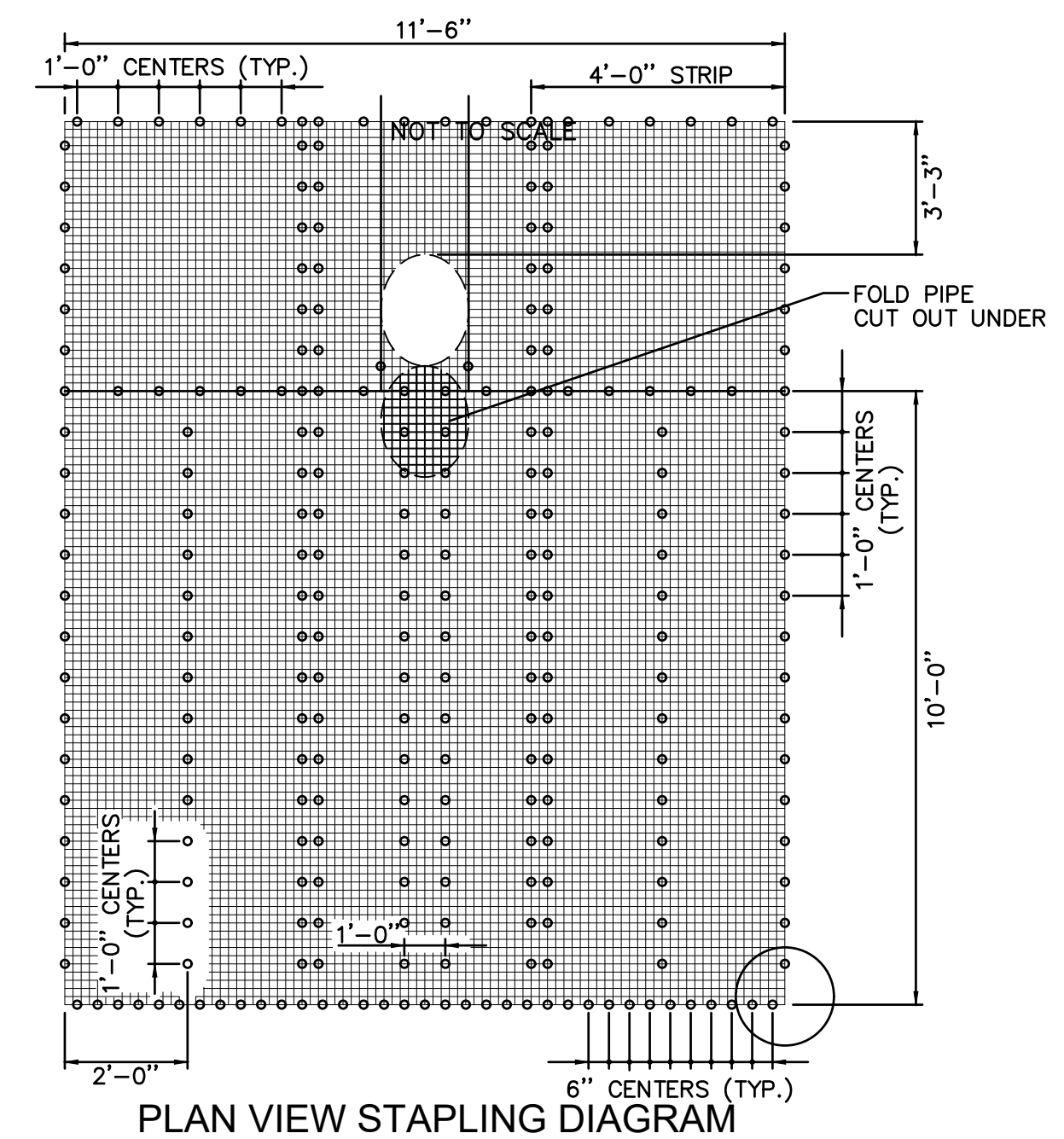
WATTLE BARRIER DETAILS
NOT TO SCALE



ROCK CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE



EROSION CONTROL MAT ANCHOR DETAIL AT CULVERTS
NOT TO SCALE



PLAN VIEW STAPLING DIAGRAM



DESCRIPTION

DATE

REV. NO.

DETAILS

ELM MEADOWS FIRST SUBDIVISION
STREET IMPROVEMENT DISTRICT 2024-1

HASTINGS, NEBRASKA

2025

REVISIONS



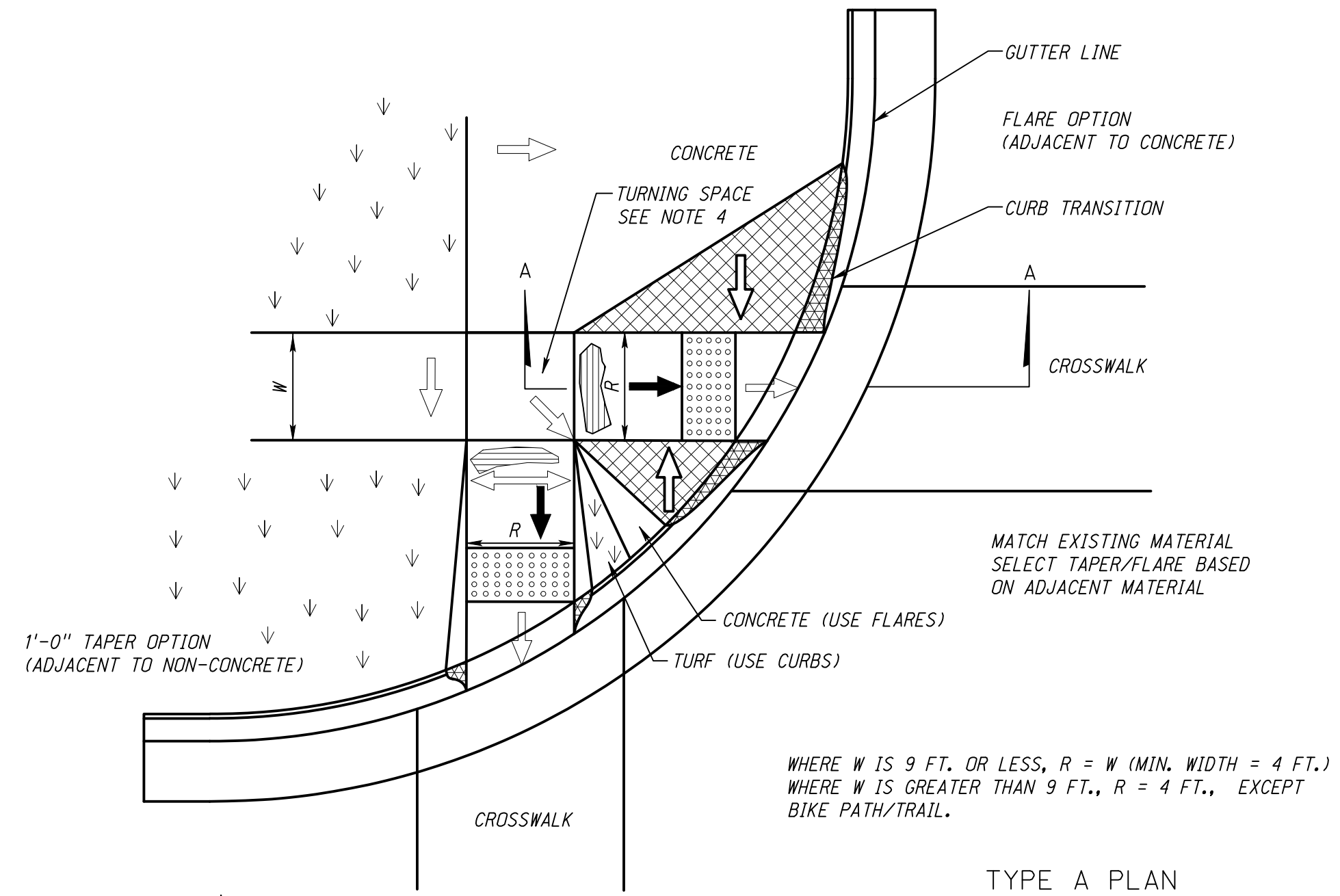
REV. NO.	DATE	DESCRIPTION

REVISIONS

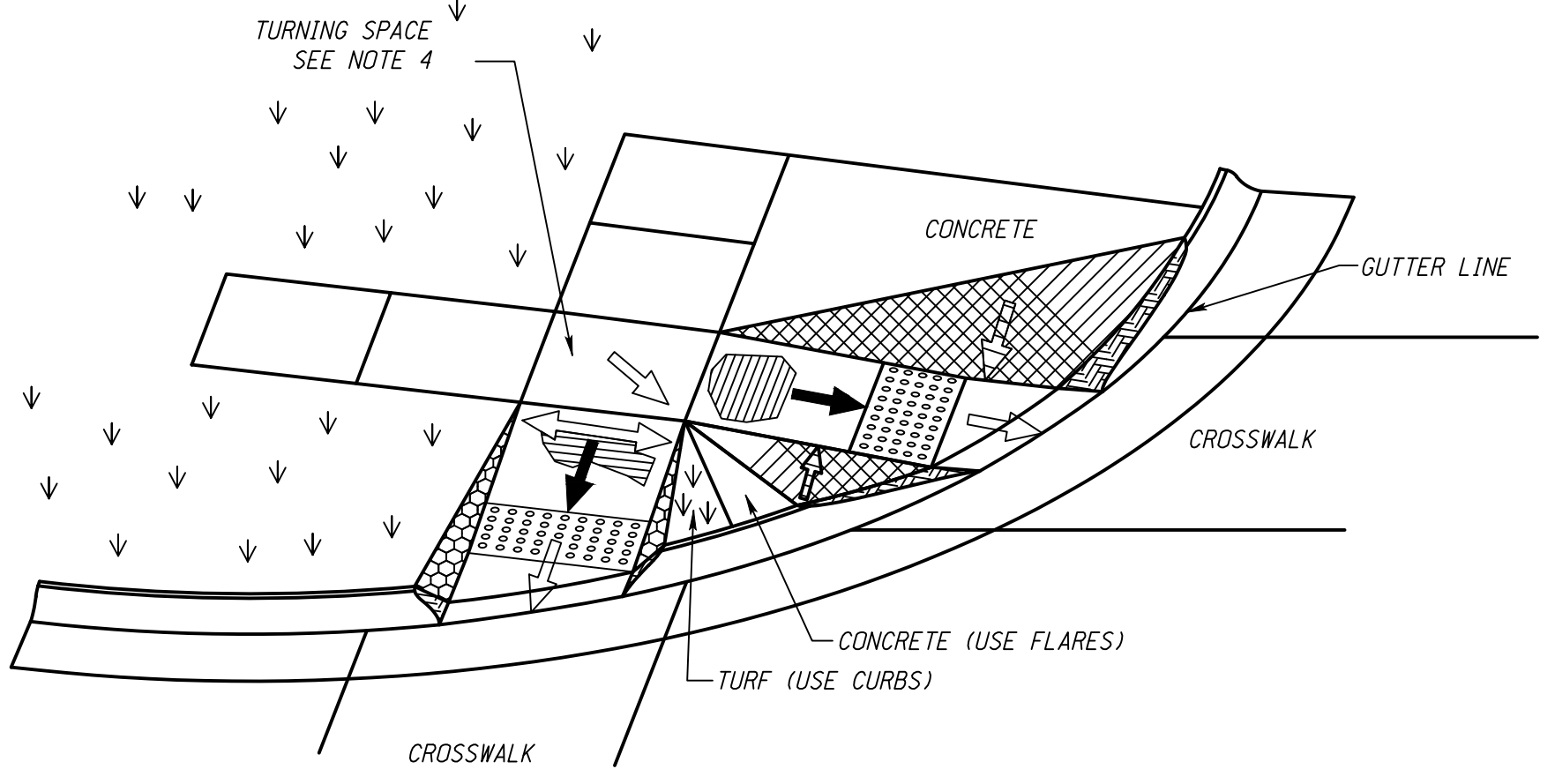
2025

DETAILS
 ELM MEADOWS FIRST SUBDIVISION
 STREET IMPROVEMENT DISTRICT 2024-1
 HASTINGS, NEBRASKA

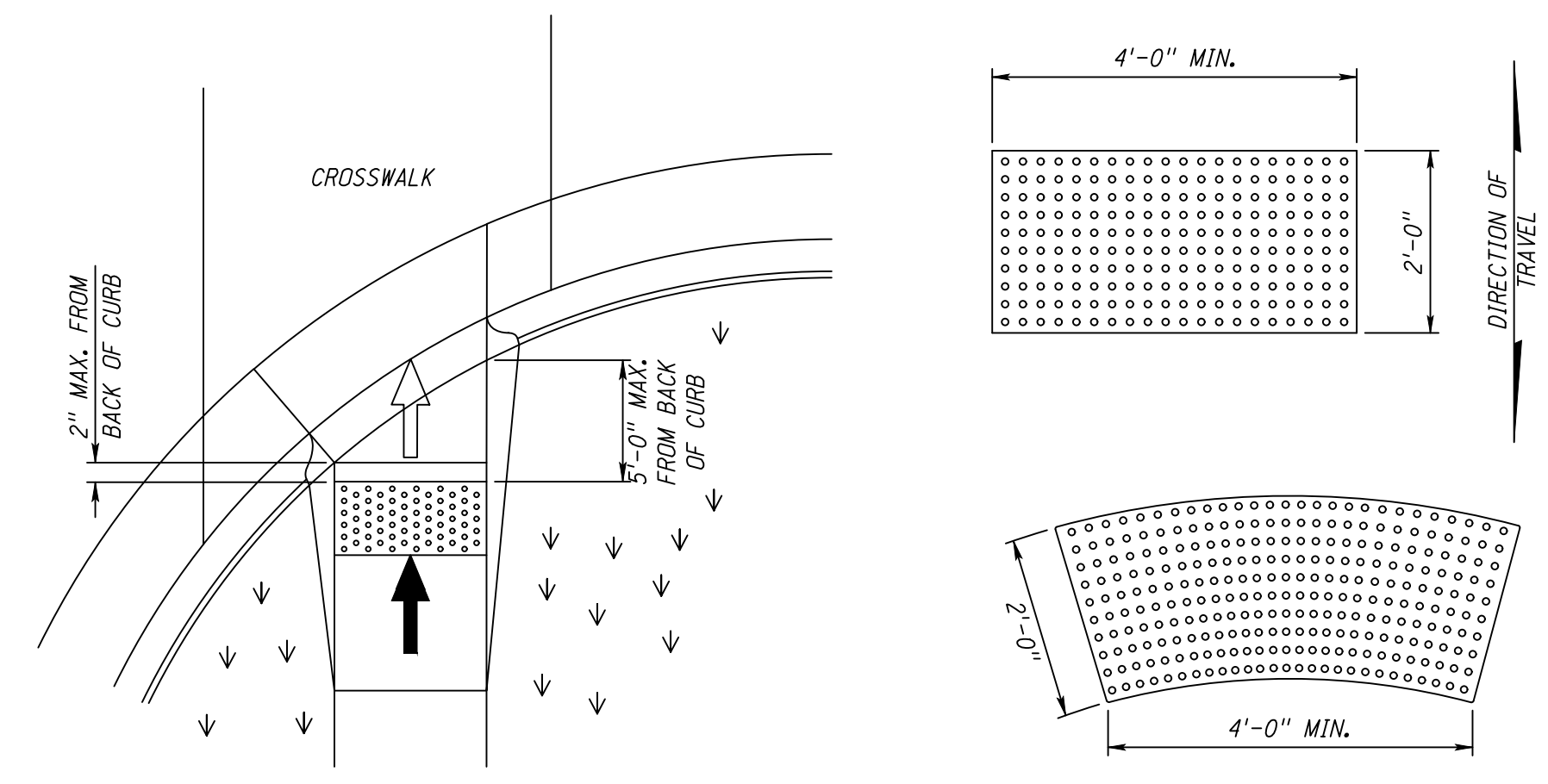
drawn by: KDG
 designed by: AST
 project no.: 024-04930
 date: January 28, 2025



TYPE A PLAN



ISOMETRIC VIEW



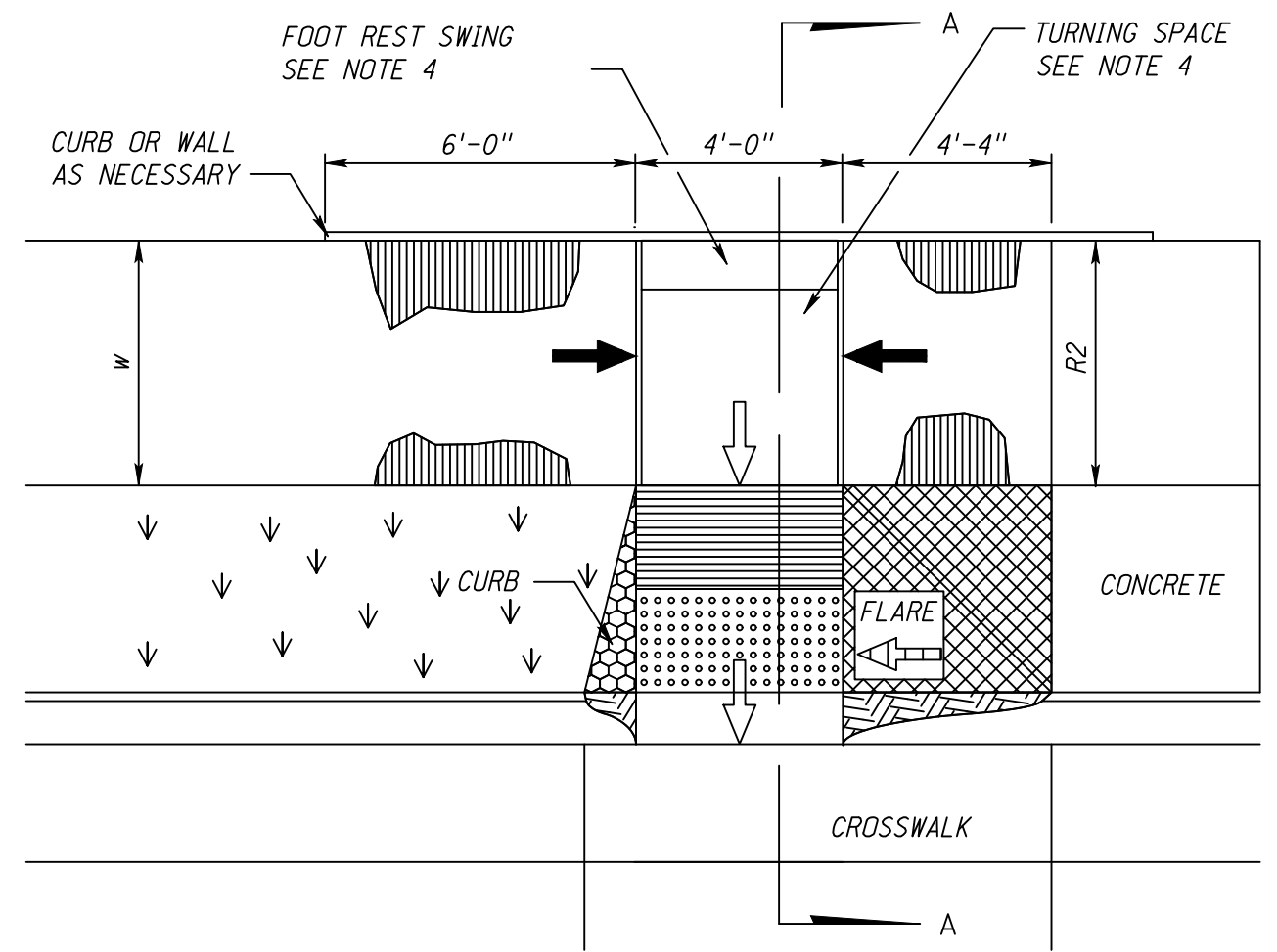
DETECTABLE WARNING PANEL PLACEMENT DETAIL

DETECTABLE WARNING PANELS

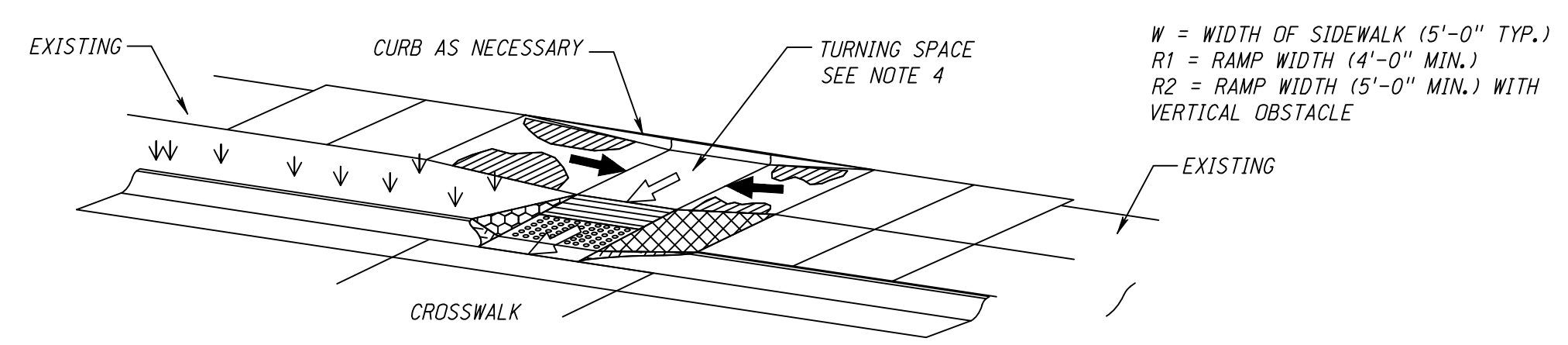
LEGEND

	DETECTABLE WARNING PANEL (DWP)
	BROOMED CURB RAMP WHEN 5% TO 8.3%
	RAMP FLARE
	GRASS OR NON WALKING SURFACE
	CURB TRANSITION
	CURB FACE SLOPE 1 VERT. : 2 HORIZ.

- NOTES:
- THE SURFACE OF ALL CURB RAMPS SHALL BE BROOMED PERPENDICULAR TO THE SLOPE OF THE CURB RAMP.
 - CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE CURB RAMP, FREE OF SAGS AND SHORT GRADE CHANGES.
 - ALL CURB RAMPS SHALL BE CONSTRUCTED WITH A DETECTABLE WARNING PANEL (DWP), 2 FT. x 4 FT. MINIMUM, PLACED WITHIN 2" OF THE BACK OF CURB.
 - DETECTABLE WARNING PANEL:
 - SHALL BE SUBSIDIARY TO CURB RAMP
 - SHALL BE A CONTRASTING COLOR TO THE SURROUNDING SURFACING.
 - SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP.
 - NEW CURB RAMPS SHALL HAVE CAST IN CONCRETE DETECTABLE WARNING PANELS.
 - TURNING SPACE SHALL HAVE MINIMUM DIMENSIONS OF 4 FT. x 4 FT. AND SHALL BE A MINIMUM OF 1 FT. FROM ANY OBSTACLE SUCH AS A CURB OR RETAINING WALL FOR SWING OF WHEELCHAIR FOOT REST. THE SLOPE SHALL BE 2% MAXIMUM IN ANY DIRECTION.
 - THE WORK OF CONSTRUCTING CURB RAMPS AND INSTALLING DETECTABLE WARNING PLATES SHALL BE INCLUDED IN THE CURB RAMP BID ITEM. CURB RAMP PAVEMENT IS INCLUDED IN SIDEWALK PAVEMENT QUANTITY.



TYPE F PLAN

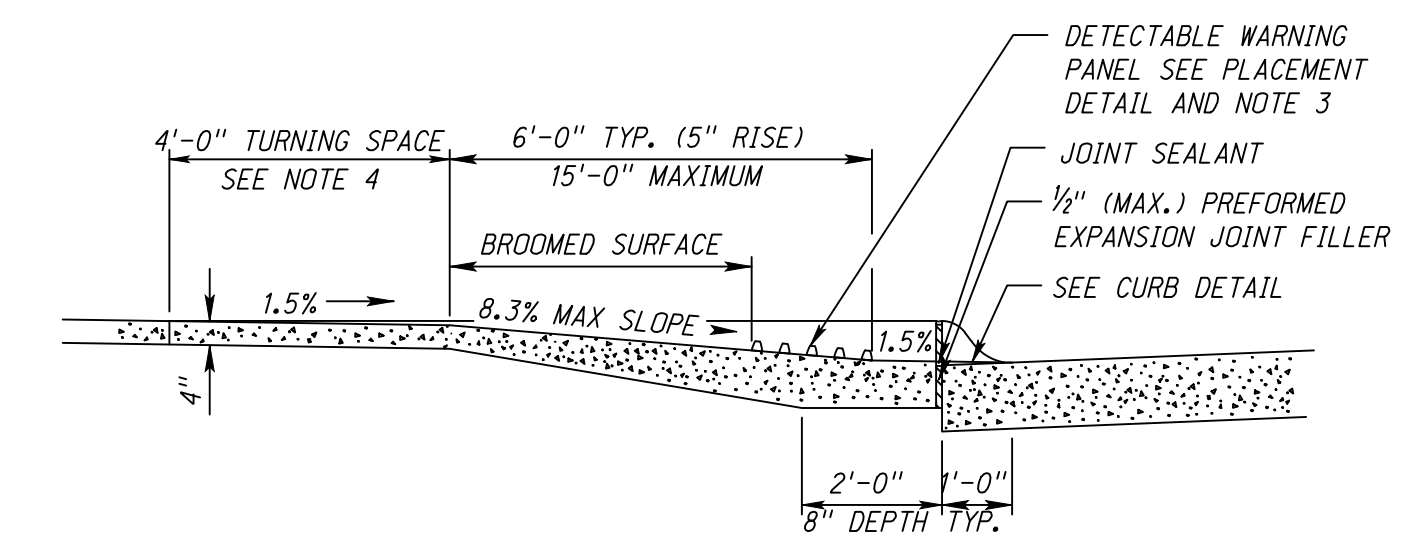


ISOMETRIC VIEW

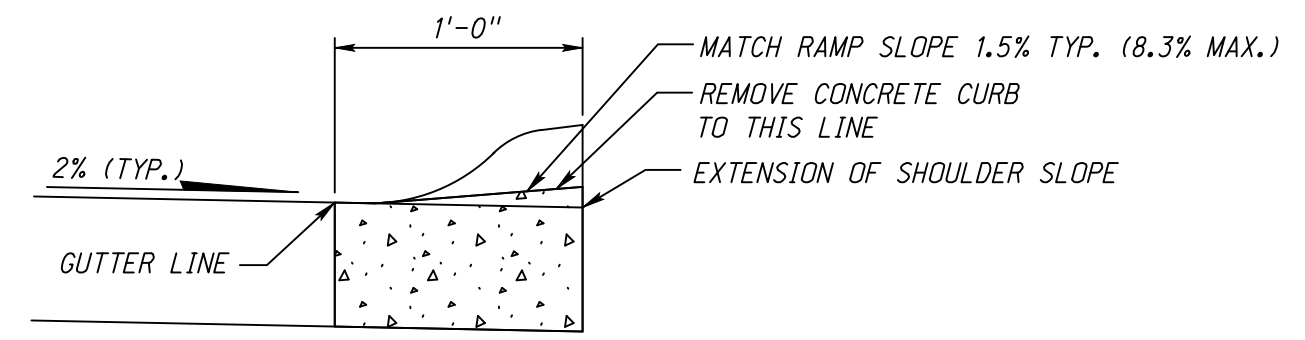
SLOPE LEGEND

	SIDEWALK/TURNING SPACE AND RAMP CROSS SLOPE 1.5% TYPICAL, 2.0% MAX. SLOPE
	RAMP RUNNING SLOPE 8.0% TYPICAL, 8.3% MAX. SLOPE
	FLARE 90° TO RAMP 9.0% TYPICAL, 10.0% MAX. SLOPE

THE CONTRACTOR SHOULD ACCOUNT FOR CONSTRUCTION TOLERANCES TO PREVENT EXCEEDING THE MAXIMUM SLOPES. ANY SLOPES EXCEEDING THE MAXIMUMS SHALL NOT BE ACCEPTED WITHOUT PRIOR APPROVAL FROM THE PROJECT MANAGER.



TYPICAL RAMP PROFILE (A-A SECTION)



NOTE: COMBINATION CONCRETE CURB AND GUTTER MAY BE REMOVED AND REPLACED IN LIEU OF MILLING.

CURB DETAIL

PIPES				
PIPE ID	LENGTH (LF)	DIAMETER AND MATERIAL	SLOPE	STRUCTURES AND INVERTS
SD-1	33	36" RCP	0.50%	START: 1900.09 END: CI-1 1899.92
SD-2	34	36" RCP	0.50%	START: CI-1 1899.92 END: CI-2 1899.75
SD-3	31	36" RCP	0.50%	START: CI-2 1899.75 END: FES-2 1899.60
*SD-4	40	18" RCP	0.30%	START: CI-2 1901.25 END: 29 1901.37

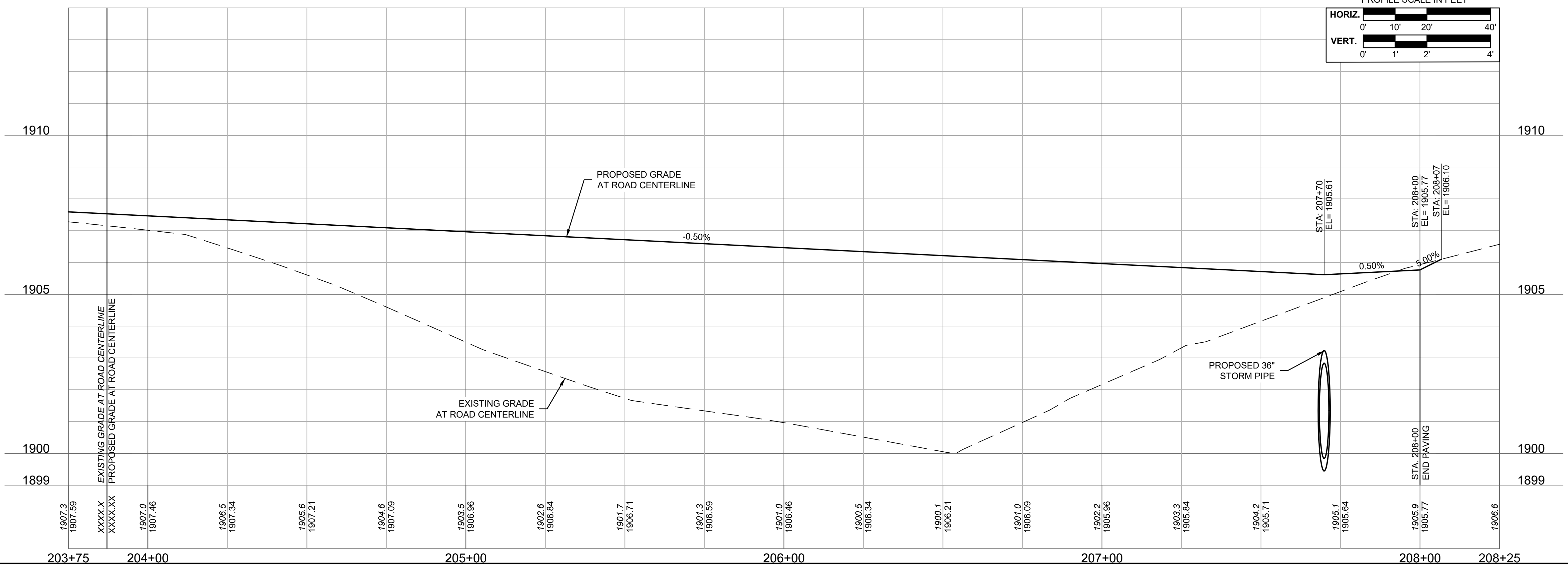
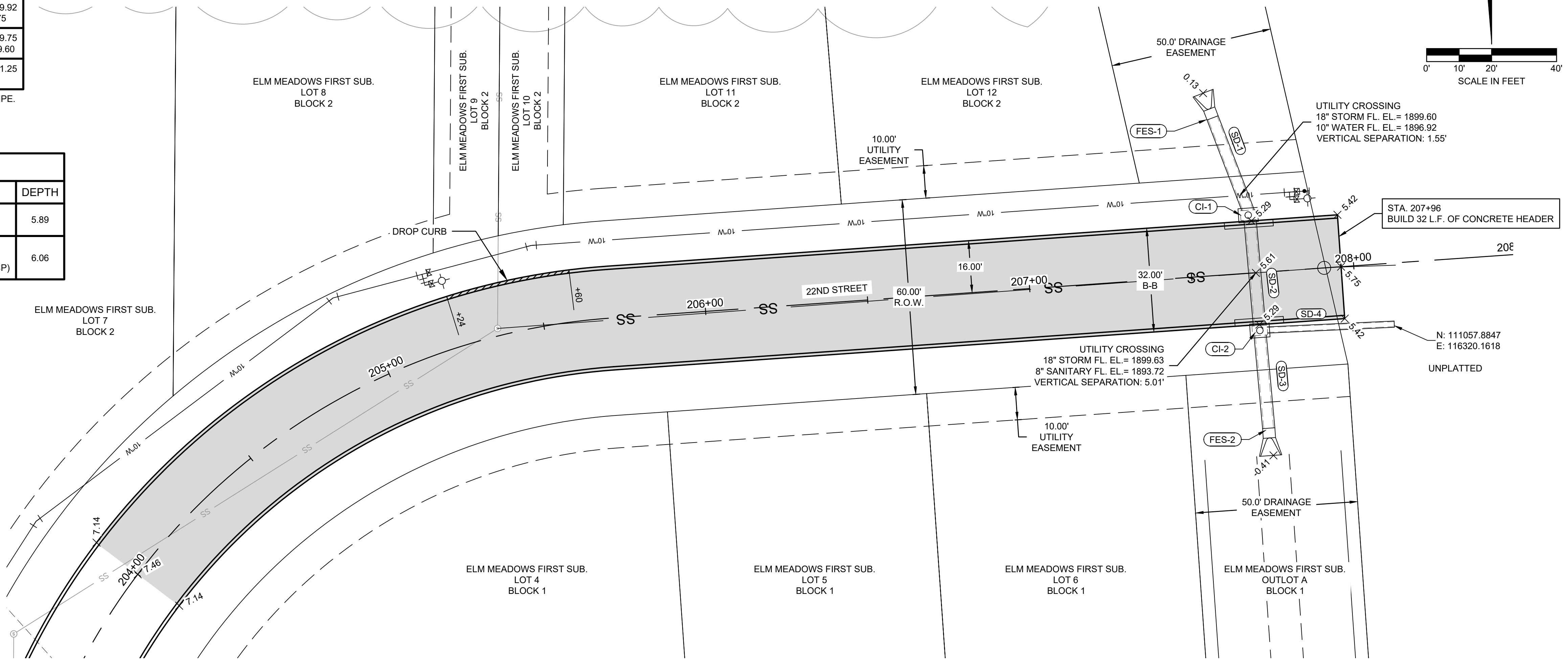
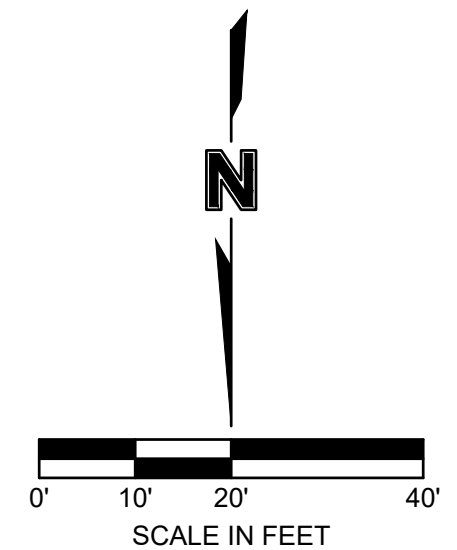
*CONTRACTOR TO INSTALL TEMPORARY CONCRETE PLUG AT END OF PIPE.

CURB INLET				
ID	STATION, OFFSET	RIM	INVERT	DEPTH
CI-1	207+69, 16.74 L	1905.81	IN INV. IN= 1899.92 (36") OUT INV. OUT= 1899.92 (36")	5.89
CI-2	207+71, 16.74 R	1905.81	IN INV. IN= 1899.75 (36") OUT INV. OUT= 1899.75 (36") OUT INV. OUT= 1901.25 (18" RCP)	6.06

FLARED END SECTION			
ID	DESC.	NORTHING EASTING	INVERT
FES-1	36" FES	N: 110994.00 E: 116376.24	
FES-2	36" FES	N: 111089.36 E: 116357.98	1899.60 (36")

BUILD 6" CONCRETE PAVEMENT W/ INTEGRAL CURB		
STA. TO STA.	LENGTH (L.F.)	SQ. YDS.
204+00 - 207+96	396	1408

NOTE:
ALL SPOT ELEVATIONS ARE TO TOP OF SLAB.
DATUM ELEVATION = 1900.00



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Nebraska COA #CA-0638



REV. NO.	DATE	DESCRIPTION

STA. 204+00 TO STA. 208+00
22ND STREET PAVING PLAN & PROFILE
ELM MEADOWS FIRST SUBDIVISION
STREET IMPROVEMENT DISTRICT 2024-1
HASTINGS, NEBRASKA

drawn by: KDG
designed by: AST
project no.: 024-04930
date: January 28, 2025

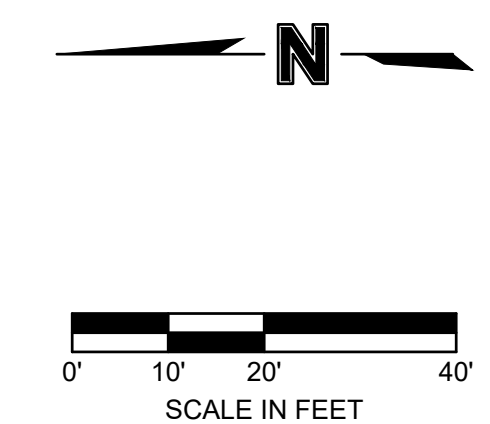
SHEET
10 of 10

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DATE: Jan 31, 2025 10:25am USER: alarango

ALTERNATE BID

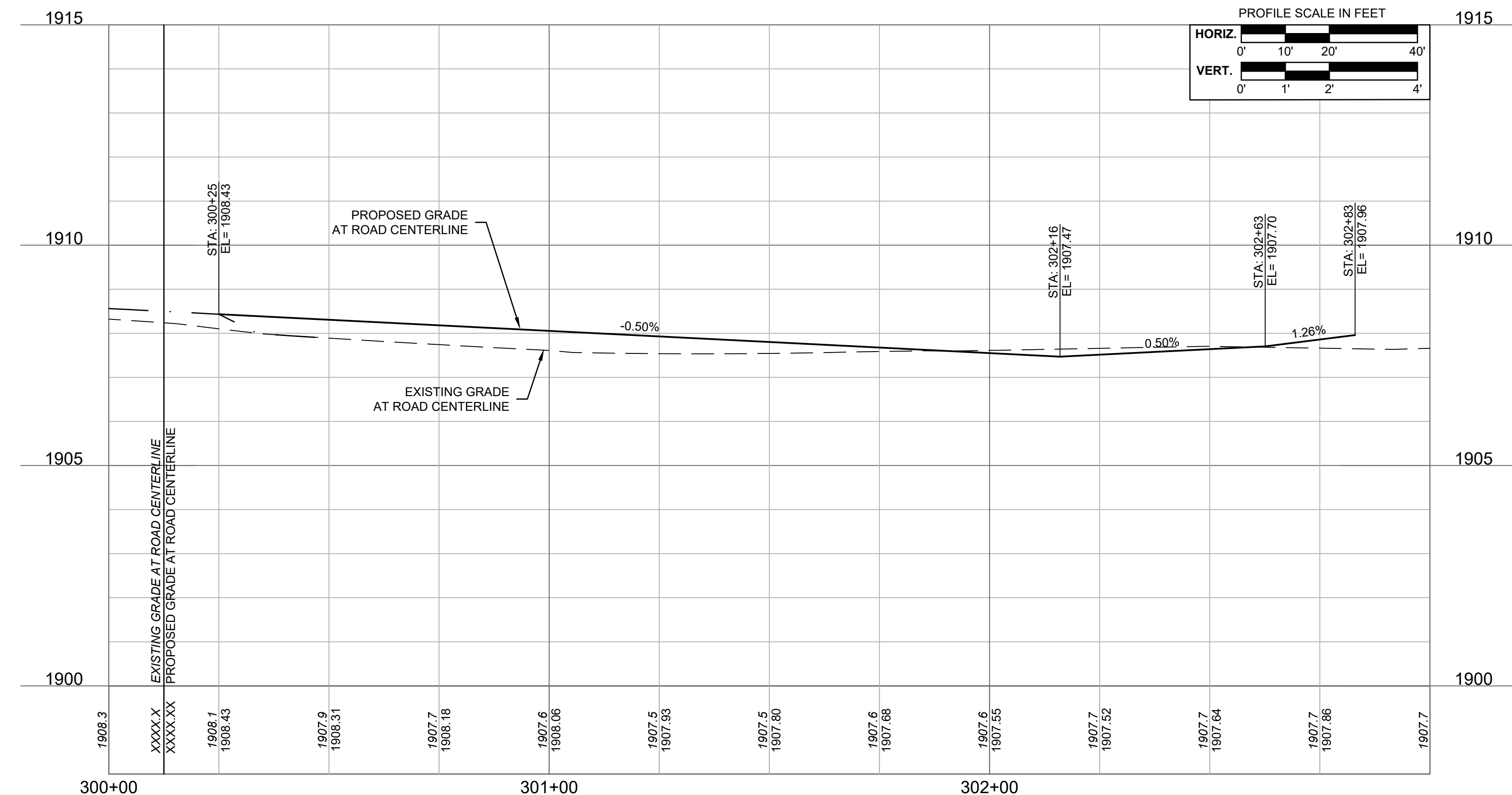
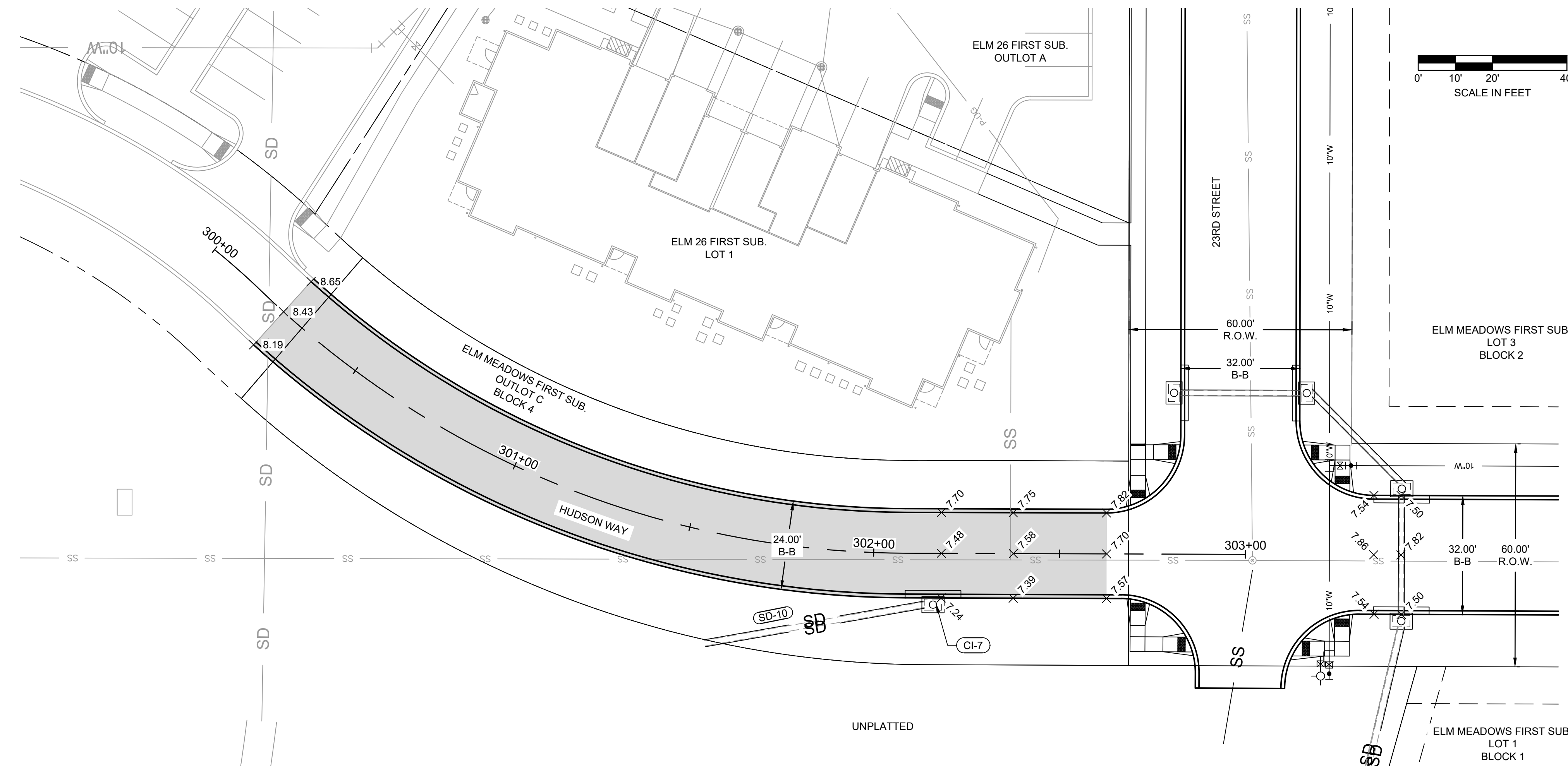
BUILD 6" CONCRETE PAVEMENT W/ INTEGRAL CURB		
STA. TO STA.	LENGTH (L.F.)	SQ. YDS.
300+25 - 302+63	238	634

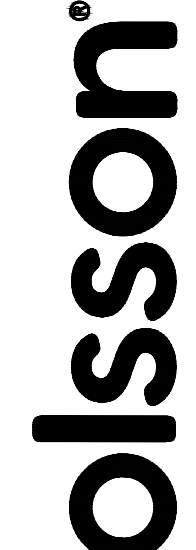
NOTE:
ALL SPOT ELEVATIONS ARE TO TOP OF SLAB.
DATUM ELEVATION = 1900.00



PIPES				
PIPE ID	LENGTH (LF)	DIAMETER AND MATERIAL	SLOPE	STRUCTURES AND INVERTS
SD-10	64	18" RCP	1.20%	START: 1903.47 END: CI-7 1904.24


CURB INLET				
ID	STATION, OFFSET	RIM	INVERT	DEPTH
CI-7	103+40, 82.58 R	1907.73	IN INV. IN= 1904.24 (18" RCP)	3.49





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REV. NO.	DATE	DESCRIPTION	REVISIONS

STA. 300+00 TO STA. 302+75
HUDSON WAY PAVING PLAN & PROFILE

ELM MEADOWS FIRST SUBDIVISION
STREET IMPROVEMENT DISTRICT 2024-1

HASTINGS, NEBRASKA

drawn by: _____ KDG
designed by: _____ AST
project no.: 024-04930
date: January 28, 2025

SHEET
P1

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