

Ogden City Engineering

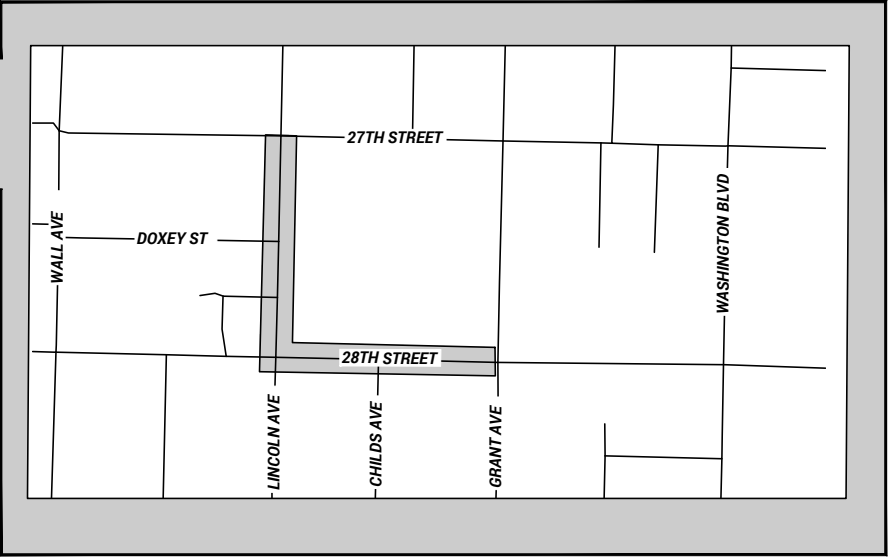
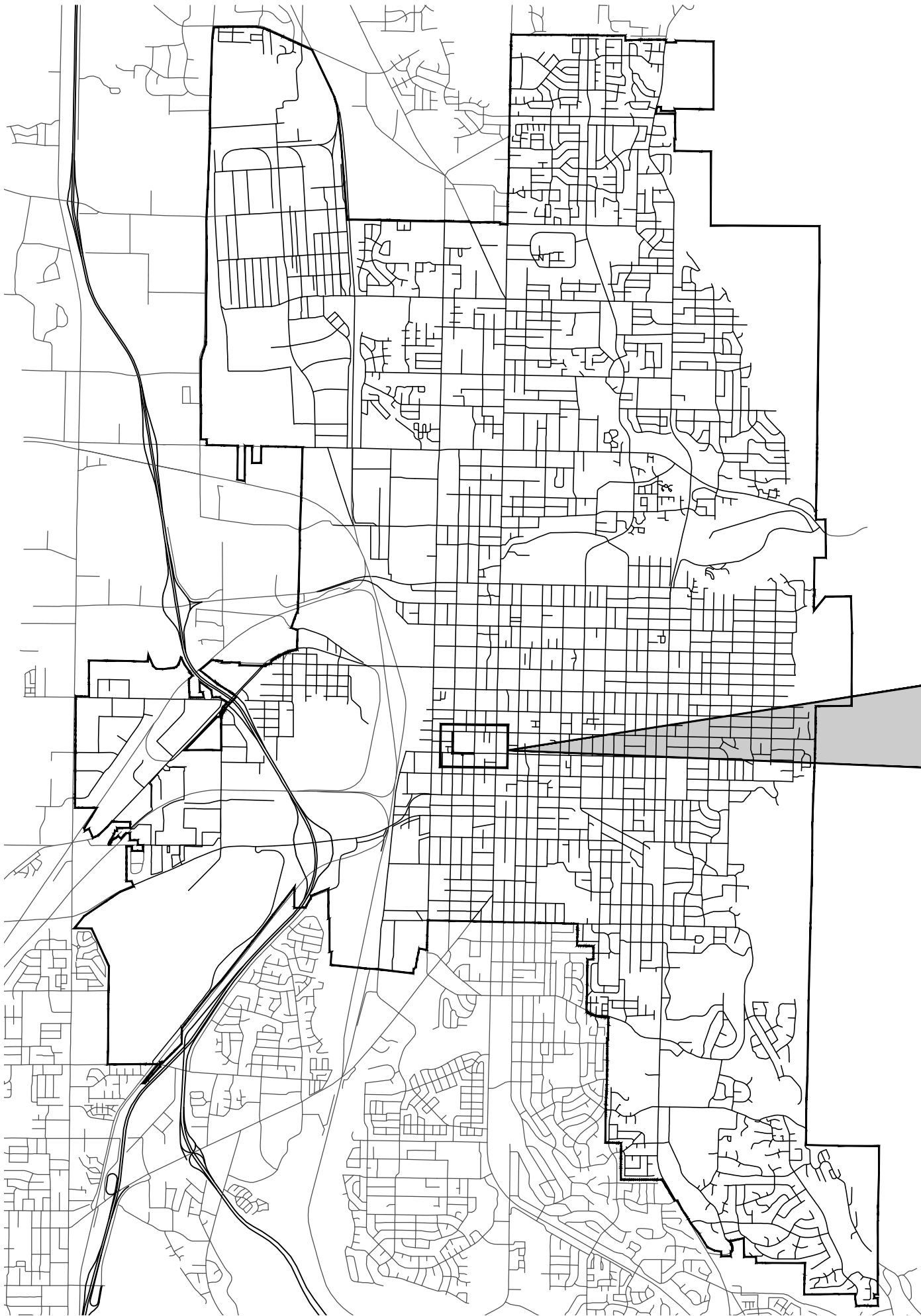
28TH ST UTILITY IMPROVEMENTS

PROJECT

GRANT TO LINCOLN

SHEET INDEX

Pg	TITLE	DESCRIPTION
1-2	G1-G2	TITLESHEET/NOTES
3	SC1	SURVEY CONTROL
4-5	W1-W2	WATER LINE PLAN & PROFILE
6-9	SD1-SD4	STORM PLAN & PROFILE
10-12	DT1-DT3	UTILITY DETAILS



TITLESHEET

28TH ST IMPROVEMENTS PROJECT
28TH ST GRANT TO LINCOLN TO 27TH ST

DESIGNED PJS DATE 3/12/2024
DRAWN PJS
CHECKED

DRAWING SCALE
H: NONE (22x34)
V: NONE (11x17)
This bar measures
on the original drawing
(the original drawing)



REV	DATE	DESCRIPTION
0	MM/DD/YY	DESCRIPTION

G1	SHEET	REVISION
	1	0

3. ALL WORK SHALL CONFORM TO THE CURRENT EDITION OF THE "MANUAL OF STANDARD SPECIFICATIONS" AND "MANUAL OF STANDARD PLANS" PREPARED BY THE UTAH CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AND OGDEN CITY AMENDMENTS TO SUCH STANDARD SPECIFICATIONS AND STANDARD PLANS UNLESS SPECIFIED OTHERWISE.
2. THE CONTRACTOR SHALL FULLY COMPLY WITH THE CONDITIONS OF THE UDOT PERMIT AND/OR OGDEN CITY ORDINANCES, POLICIES, REGULATIONS, SPECIFICATIONS AND STANDARDS RELATIVE TO WORK IN THE PUBLIC WAY AS APPLICABLE.
3. ALL EXISTING VALVES BEING ABANDONED SHALL HAVE SURFACE IMPROVEMENTS (RISER, COVER, AND CONCRETE COLLAR) REMOVED AND SURFACE REPAIRED.
4. ALL PAVING AND RESURFACING SHALL BE COMPLETE WITHIN 3 CALENDAR DAYS FROM THE TIME OF EXCAVATION UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. NO BACKFILL SHALL OCCUR UNTIL INSPECTED AND APPROVED.
6. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS DURING ALL PHASES OF PROJECT.
7. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITH DILIGENCE AND EXPEDITION AND RESTORE THE PUBLIC RIGHT OF WAY TO CITY SPECS WITHOUT DELAY AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND THE PUBLIC.
8. CONTRACTOR IS RESPONSIBLE TO RESTORE ALL LAND WHETHER PUBLIC OWNERSHIP OR PRIVATE OWNERSHIP, TO ITS ORIGINAL STATE.
9. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY CONSTRUCTION FACILITIES, WATER, POWER, SANITATION, AND TELEPHONE SERVICE AS NEEDED.
10. CONTRACTOR IS RESPONSIBLE TO LOCATE ALL EXISTING WATER, UDOT, SEWER, ELECTRICAL, GAS AND OTHER UTILITY LINES.
11. CONTRACTOR IS RESPONSIBLE TO SUBMIT AS-BUILT DRAWINGS TO THE CITY PRIOR TO FINAL PAYMENT.
12. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING COMPLETION OF WORK. REASONABLE WEAR EXCEPTED.

1. CONTRACTOR IS RESPONSIBLE FOR ALL PIPE FABRICATION AND SIZING (PVC-C900).
2. MINIMUM COVER REQUIRED SHALL BE 60 INCHES WITHIN UDOT R.O.W. AND 48 INCHES IN OGDEN CITY R.O.W.
3. ALL WORK SHALL HAVE 18" MINIMUM CLEARANCE FROM ALL OTHER UTILITIES.
4. CONTRACTOR TO REPLACE ALL EXISTING ACTIVE SERVICES WITH POLY PIPING; UPSIZING SERVICES LESS THAN 1" TO 1" AND REPLACING IN LIKE SIZE FOR SERVICES GREATER THAN 1" FROM WATER MAIN TO METER BOX.
5. WATER SERVICES TO BE LOOPED UNDER EXISTING UTILITIES SO TO MAINTAIN MINIMUM COVER OF 60" FROM FINISH GRADE.
6. SECURE ALL MECHANICAL JOINTS (MJ) FITTINGS WITH MEGALUGS.
7. MINIMUM MECHANICAL BEND RADIUS ON SERVICES WILL BE 4".
8. FITTINGS CONNECTED TO OTHER FITTINGS WILL BE FLANGED CONNECTIONS UNLESS NOTED IN THE PLANS.
9. ABANDONED LINES SHALL BE CAPPED WITH A CONCRETE PLUG.
10. OLD FIRE HYDRANTS REMOVED SHALL BE SALVAGED AND TURNED OVER TO OGDEN CITY.
11. OWNER RESERVES THE RIGHT TO MAKE CHANGES IN ALIGNMENT, CONNECTION DETAIL, ETC. AS FELT TO BE IN THE BEST INTEREST OF THE PROJECT AT NO CHANGE IN UNIT PRICES FOR PIPING, FITTINGS, ETC.
12. DUCTILE IRON CLASS 350 PIPE, SPOOLS, AND FITTINGS SHALL HAVE THE FOLLOWING COATINGS.
 - A. INTERIOR COATING SHALL BE CEMENT MORTAR.
 - B. EXTERIOR COATING SHALL BE ASPHALT COATING, 1 MIL. MIN. THICKNESSAND WRAPPED WITH POLYETHYLENE PER ANSI/AWWA C105.
13. ALL DUCTILE IRON PIPE FITTINGS AND SPOOLS SHALL BE 350 PSI WORKING PRESSURE.
14. ALL BOLTS ON PIPING (FLANGE BOLTS, ALL THREADS, TIE RODS, ETC.) TO RECEIVE TWO COATS OF NO-OXIDE WAX FOLLOWING INSTALLATION.
15. CONCRETE THRUST BLOCKING: SHALL OCCUR AT TAPS, TEMPORARY DEAD ENDS AND AT THE BASE OF ALL HYDRANTS. ALL OTHER LOCATIONS SHALL RELY ON RESTRAINED JOINTS TO HANDLE THRUST.

1. EXCAVATED MATERIAL MAY NOT BE USED AS BACKFILL IN THE PIPE ZONE.
2. EXCAVATION SHALL BE DONE IN ACCORDANCE WITH OSHA REQUIREMENTS (LATEST REVISION).
3. TEMPORARY SHORING OF THE EXCAVATION, IF REQUIRED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS BASED ON INFORMATION GATHERED FROM UTILITIES AND/OR FROM ABOVE-GROUND STRUCTURES OR EVIDENCE FOUND AT THE TIME OF SURVEY. AS SUCH, THE UNDERGROUND INFORMATION IS A BEST ESTIMATE. OGDEN CITY DOES NOT REPRESENT OR GUARANTEE THAT THE UNDERGROUND INFORMATION PROVIDED IS CORRECTLY OR UP TO DATE.

NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY THE CONTRACTORS ACTIONS.

1. ALL WATERLINE SHUT DOWNS WILL REQUIRE FIVE WORKING DAYS NOTICE FOR COMMERCIAL AND THREE WORKING DAYS NOTICE FOR RESIDENTIAL. CONTRACTOR IS TO COORDINATE WITH OGDEN CITY FOR SHUT DOWN DATES AND TIMES. CONTRACTOR WILL PROVIDE NOTICES AND OGDEN CITY WATER WILL PERFORM VALVE SHUT DOWNS.
2. ALL CULINARY WATER TAPS SHALL BE COORDINATED WITH OGDEN CITY WATER DEPARTMENT AND ENGINEER FOR LOCATION OF TAPS AND LATERAL REPLACEMENT. OGDEN CITY WATER TO TAP ALL CONNECTIONS.
3. APPLICATION FOR INSPECTION BY OGDEN CITY ENGINEERING SHALL BE MADE BY THE CONTRACTOR A MINIMUM OF 24 HOURS BEFORE SERVICES ARE REQUIRED.

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO DISPOSE OF ALL EXCESS OR UNSUITABLE MATERIALS OFF SITE. THIS INCLUDES CLEARED AND GRUBBED MATERIAL, TREES, BRUSH, FENCING, PIPING, CONCRETE OR ANY OTHER MATERIALS THAT CANNOT BE USED IN CONJUNCTION WITH THE PROJECT.
2. THE CONTRACTOR WILL BE RESPONSIBLE TO OBTAIN A SUITABLE SITE FOR DISPOSAL OF EXCESS OR REJECTED MATERIALS.

UTILITY COMPANIES:
 BLUE STAKES 800-662-4111
 QUESTAR GAS DAN MACDONALD 801-324-3539
 ROCKY MOUNTAIN POWER CRAIG BRUESTLE 801-629-4430
 UDOT WES EGGLESTON 801-648-8050

OGDEN CITY:
 OGDEN CITY ENGINEERING DANIEL GILLIES 629-8991
 WATER DAVID LEMAY 629-8384
 SEWER BILL SIMPSON 629-8331
 URBAN FORESTER MONTE STEWART 629-8286

UDOT:
 GENERAL NUMBER: 620-1600

G2		SHEET 2	0	REVISION
REV.	DATE	DESCRIPTION		
0	MM/DD/YYYY	DESCRIPTION		



DESIGNED ▶	PJS	DATE	DRAWN ▶	PJS	DATE
CHECKED ▶					

DRAWING SCALE

H: 1" = 20' (22x34)
 1" = 40' (11x17)

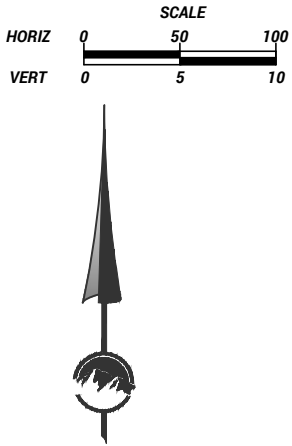
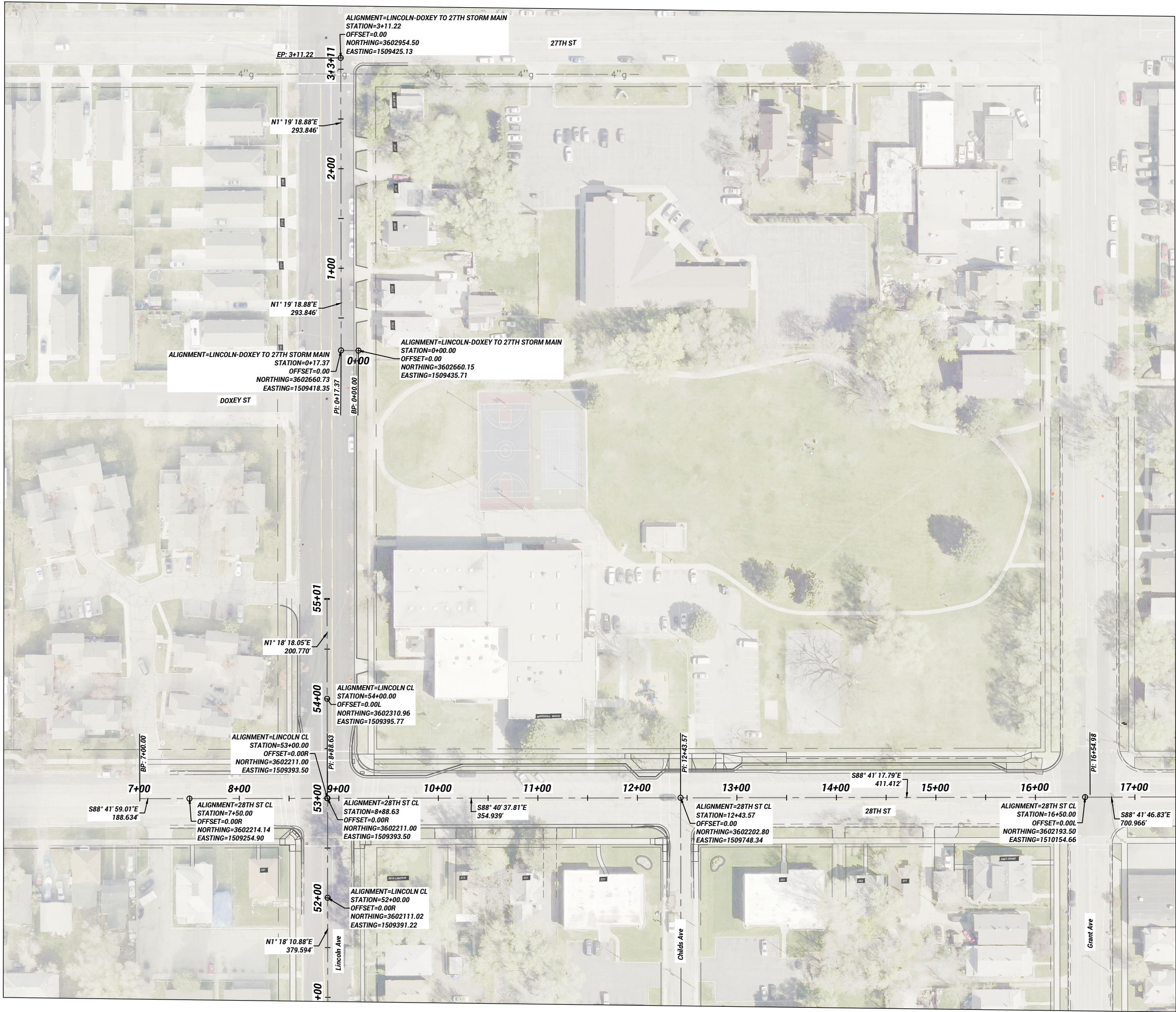
V: 1" = 5' (22x34)
 1" = 10' (11x17)

This has measures exactly one inch on the original drawing

NOTES 28TH ST IMPROVEMENTS PROJECT 28th St- Lincoln to Grant	PLOT DATE: 3/13/2024 5:05 PM DRAWING NAME: SC SURVEY SHEETS.dwg
--	--



2549 Washington Blvd, Suite 760 Ogden, UT 84401
Phone: 801-625-8990 engineering.ogdencity.com



NOTES:

1. THE HORIZONTAL DATUM TO BE USED IS THE NAD 83 STATE PLANE UTAH NORTH ZONE GRID
2. THE VERTICAL DATUM TO BE USED IS NAVD 88 USING GEOID 12A.

SC1

0

3

REVISION

REV	DATE	DESCRIPTION
0	MM/DD/YY	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER

DANIEL BROWN, P.E.

NO. 123456789

EXP. 12/31/2025

STATE OF UTAH

CIVIL

DESIGNED

DATE

PJS

DRAWN

DATE

PJS

CHECKED

DATE

PJS

DRAWING SCALE

H: 1" = 50' (22x34)

V: 1" = 5' (11x17)

1" = 10' (22x34)

1" = 10' (11x17)

This bar measures on the original drawing

SURVEY CONTROL

28TH ST IMPROVEMENTS PROJECT

28th St- Lincoln to Grant

Ogden

UTAH

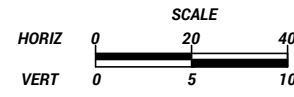
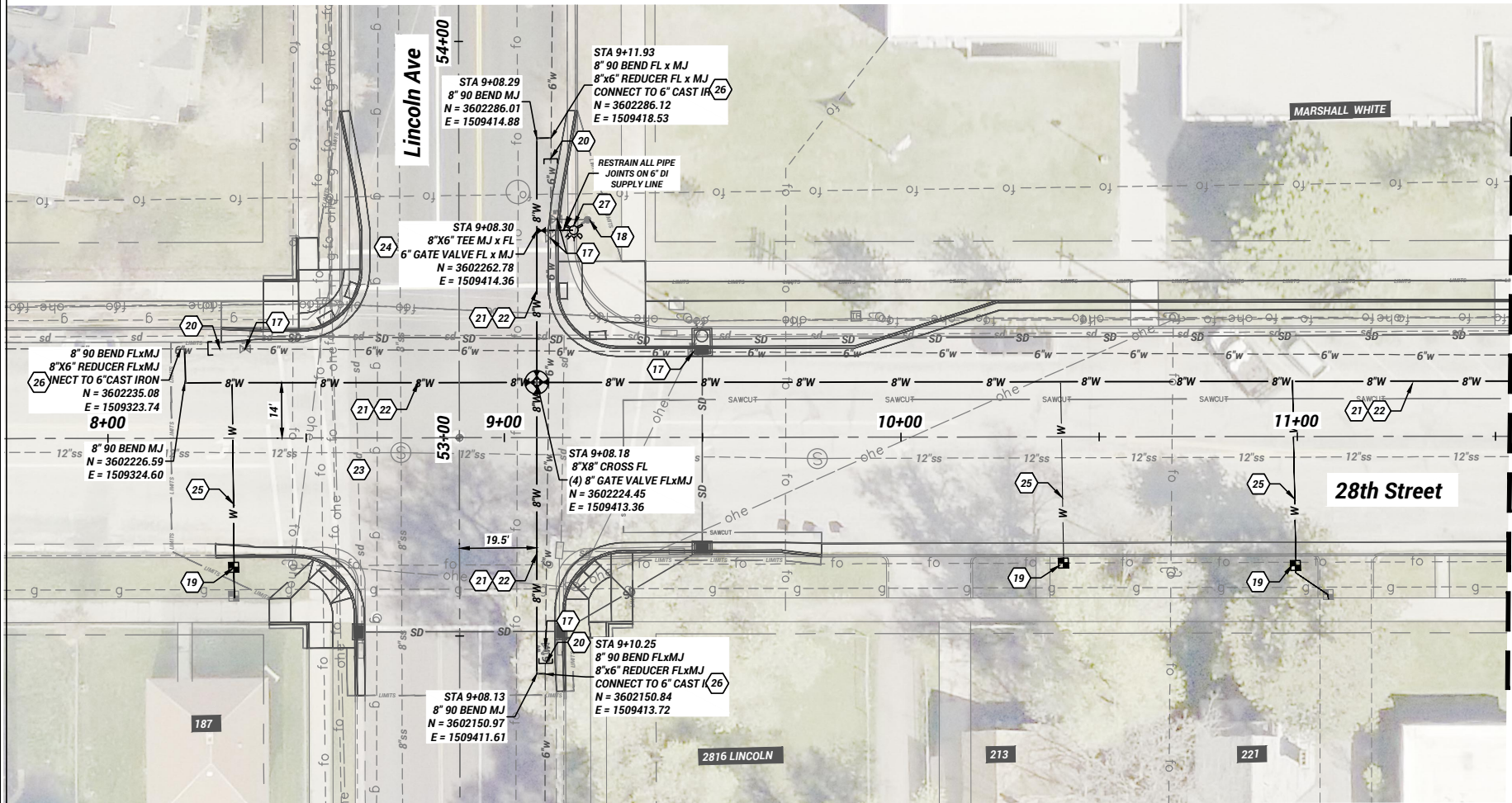
Still Untamed™

2549 Washington Blvd, Suite 760 Ogden, UT 84401

Phone: 801-629-8980 engineering.ogdencity.com

PLOT DATE: 3/14/2024 9:58 AM

DRAWING NAME: SC SURVEY SHEETS.dwg



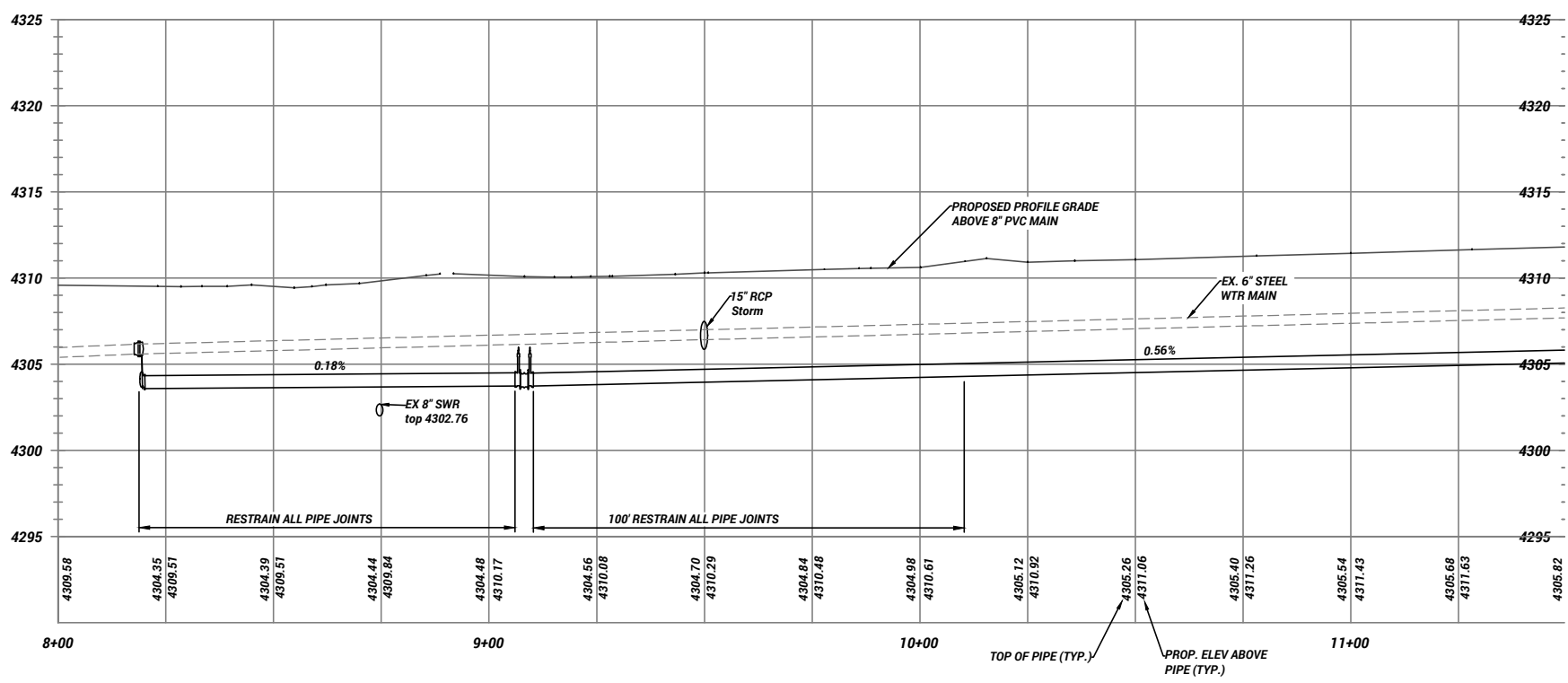
KEYED NOTES:

- 17 REMOVE VALVE BOX
- 18 REMOVE FIRE HYDRANT ASSEMBLY
- 19 INSTALL NEW WATER METER ASSEMBLY AND TAP
- 20 CUT, CAP, ABANDON EX. 6\"/>
- 21 8\"/>
- 22 3\"/>
- 23 8\"/>
- 24 6\"/>
- 25 1\"/>
- 26 EXISTING WATER MAIN CONNECTION
- 27 FIRE HYDRANT ASSEMBLY
- 28 REMOVE EXISTING 6\"/>

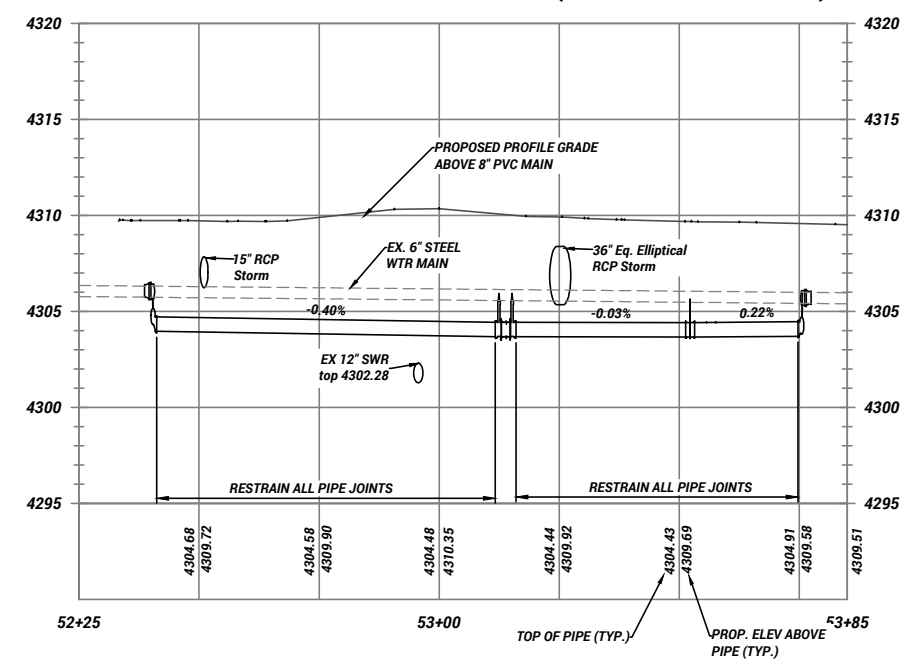
NOTES:

1. THE PROPOSED WATER MAIN SHALL HAVE NO LOCKING GASKETS FOR PIPE JOINT RESTRAINTS.
2. USE ALL IMPORT BACKFILL FOR WATER MAIN.
3. ALL 1\"/>
4. FOLLOW ALL 811 BLUE STAKES REQUIREMENTS PER THE 811 EXCAVATOR GUIDE AND UTAH STATE CODE.

28th street water main profile (West to East)



Lincoln Water Main Profile (South to North)



W1

0

4

REV	DATE	DESCRIPTION
0		MODIFY DESCRIPTION

DESIGNED

DATE

PJS

DRAWN

DATE

PJS

CHECKED

DATE

PJS

APPROVED

DATE

PJS

PROFESSIONAL ENGINEER

NO. 123456789

EXP. 12/31/2025

CIVIL

STATE OF UTAH

WATER-28TH LINCOLN TO CHILDS

28th Street Improvements

28th St-Grant to Lincoln to 27th St

Ogden

UTAH

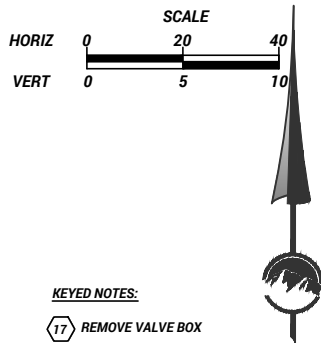
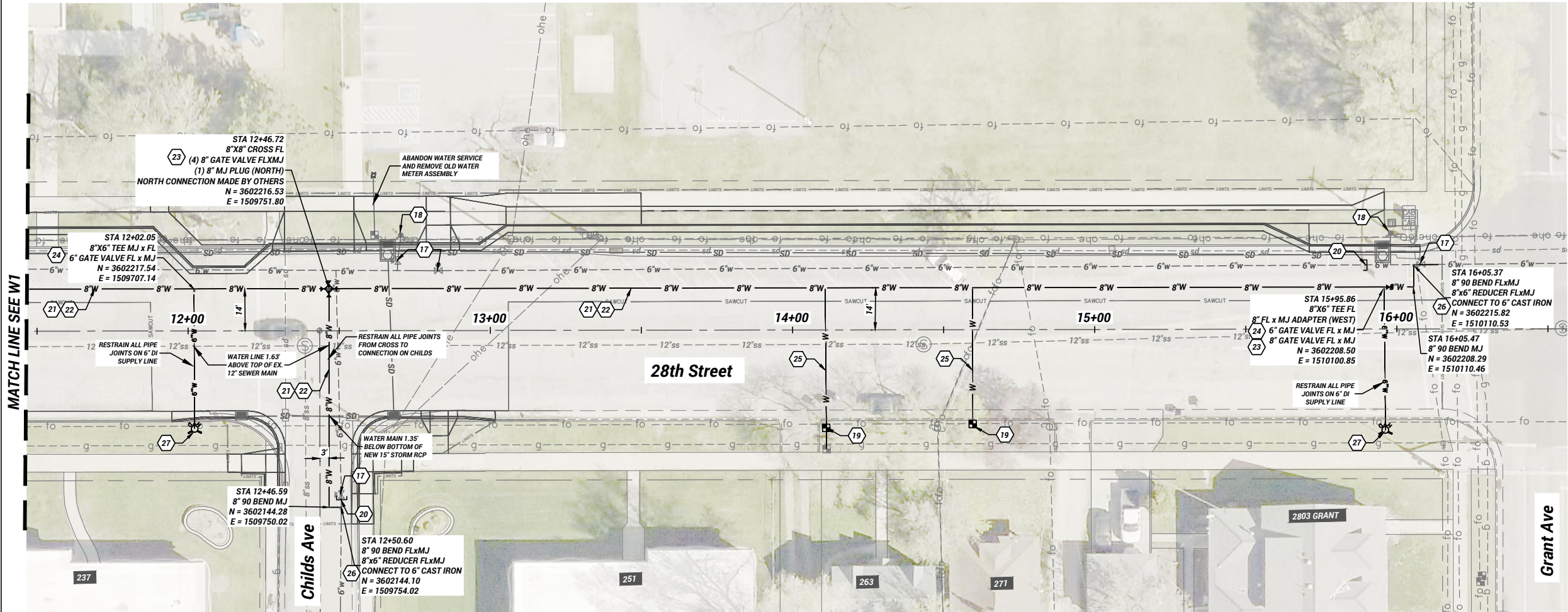
Still Untamed™

2549 Washington Blvd, Suite 760 Ogden, UT 84401

Phone: 801-629-9990 engineering@ogdenity.com

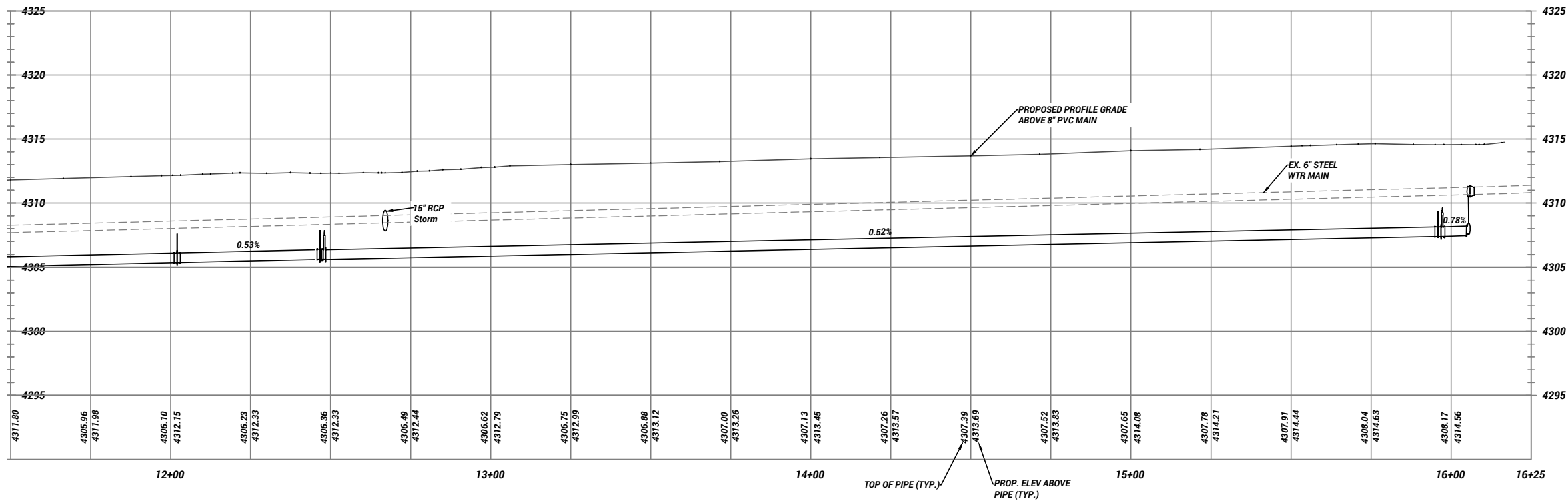
PLOT DATE: 3/14/2024 9:42 AM

DRAWING NAME: W SHEETS 28th Marshall White.dwg



- KEYED NOTES:**
- 17 REMOVE VALVE BOX
 - 18 REMOVE FIRE HYDRANT ASSEMBLY
 - 19 INSTALL NEW WATER METER ASSEMBLY AND TAP
 - 20 CUT, CAP, ABANDON EX. 6" WATERLINE
 - 21 8" PVC C900 DR18 WATER MAIN (IMPORT SAND BEDDING)
 - 22 3" MINUS GRANULAR IMPORT BORROW (WATER MAIN BACKFILL)
 - 23 8" GATE VALVE (CLASS 250)
 - 24 6" GATE VALVE (CLASS 250)
 - 25 1" AWWA C901 SERVICE LINE (CTS POLY)
 - 26 EXISTING WATER MAIN CONNECTION
 - 27 FIRE HYDRANT ASSEMBLY
 - 28 REMOVE EX. 6" WATERLINE

28th street water main profile (West to East)



- NOTES:**
1. THE PROPOSED WATER MAIN SHALL HAVE NO LOCKING GASKETS FOR PIPE JOINT RESTRAINTS.
 2. USE ALL IMPORT BACKFILL FOR WATER MAIN.
 3. ALL 1" TAPS (AND MATERIALS) TO BE PROVIDED BY CONTRACTOR.
 4. FOLLOW ALL 811 BLUE STAKES REQUIREMENTS PER THE 811 EXCAVATOR GUIDE AND UTAH STATE CODE.

W2

0

5

REV	DATE	DESCRIPTION

DESIGNED

DRAWN

CHECKED

DATE

DATE

PJS

PJS

DRAWING SCALE

H: 1" = 20'

V: 1" = 5'

NO. 223434

DATE 11/17/2024

BY 11/17/2024

11/17/2024

PROFESSIONAL ENGINEER

STATE OF UTAH

CIVIL

WATER-28TH CHILDS TO GRANT

28th Street Improvements

28th St-Grant to Lincol to 27th St

Ogden

UTAH

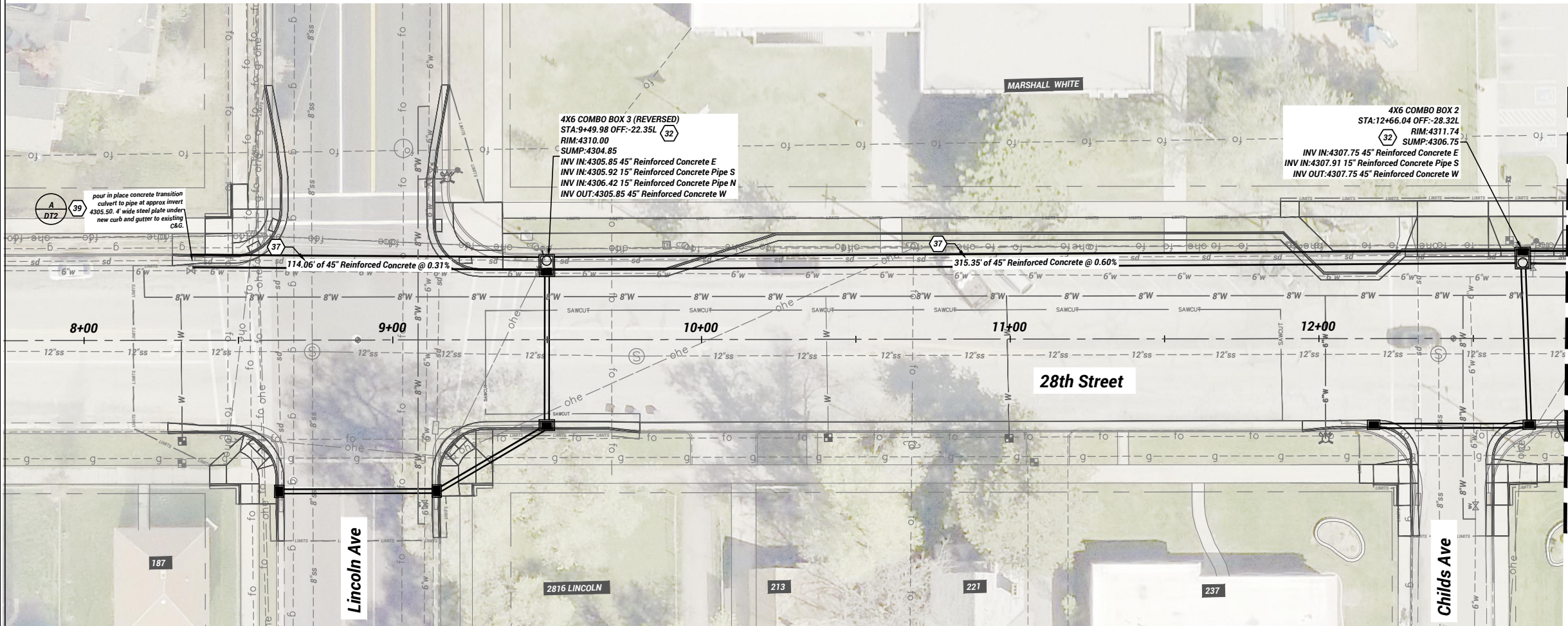
Still Untamed

2549 Washington Blvd, Suite 760 Ogden, UT 84401

Phone: 801-629-9990 engineering.ogdenity.com

PLOT DATE: 3/14/2024 9:42 AM

DRAWING NAME: W SHEETS 28th Marshall White.dwg



HORIZ

02040

VERT

0510

SCALE

KEYED NOTES:

30

INSTALL 2X3 CATCH BASIN

31

INSTALL 2.5X4 CATCH BASIN

32

INSTALL 4X6 COMBO BOX

33

INSTALL 60" MANHOLE

34

INSTALL 72" MANHOLE

35

INSTALL 15" RCP

36

INSTALL 15" RCP (CLASS 5)

37

INSTALL 36" EQUIV (29"X45") ELLIPTICAL RCP

38

CONNECT EXISTING PIPE TO NEW MANHOLE

39a

4" WIDE STEEL PLATE

39b

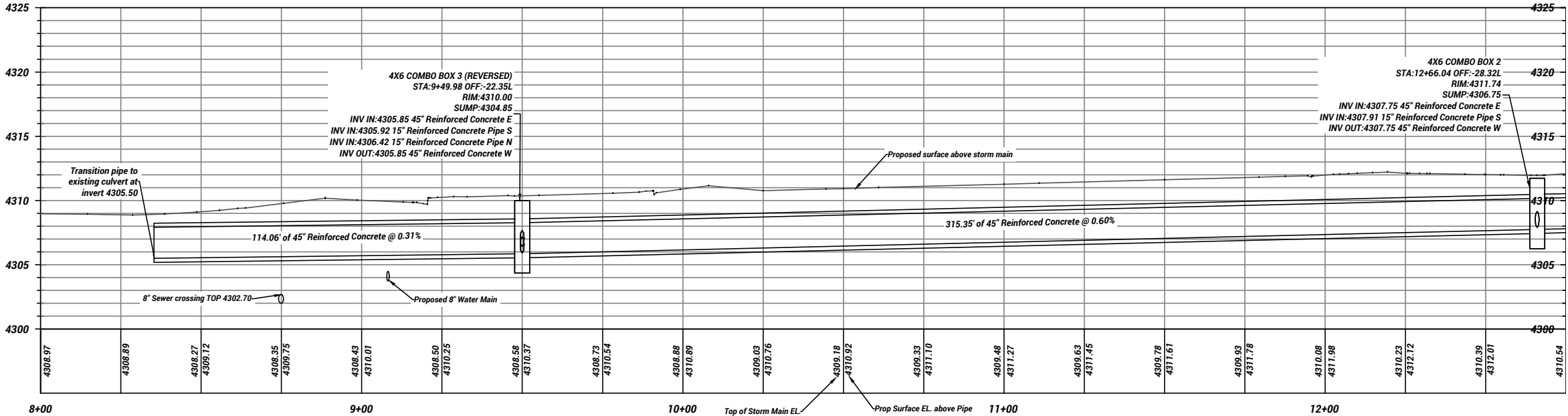
CONCRETE TRANSITION PIPE TO CULVERT

- NOTES:
1.

USE ALL IMPORT BEDDING AND BACKFILL FOR STORM DRAIN INSTALLATION.
2.

COMBO BOX AND CB RIM ELEVATION AND OFFSET LOCATION SET AT CURB FLOWLINE.

28th street storm main profile



STORM MAIN - LINCOLN TO CHILDS
28TH ST IMPROVEMENTS PROJECT
28th St-Grant to Lincoln to 27th St

Ogden

UTAH

Still Untamed™

2549 Washington Blvd, Suite 760 Ogden, UT 84401

Phone: 801-629-8980 engineering.ogden-city.com

DESIGNED	DATE	PJS
DRAWN	DATE	PJS
CHECKED		

DRAWING SCALE

H:

1" = 20'

(22x34)

V:

1" = 40'

(11x17)

V:

1" = 5'

(22x34)

V:

1" = 10'

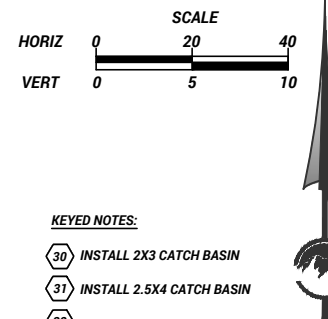
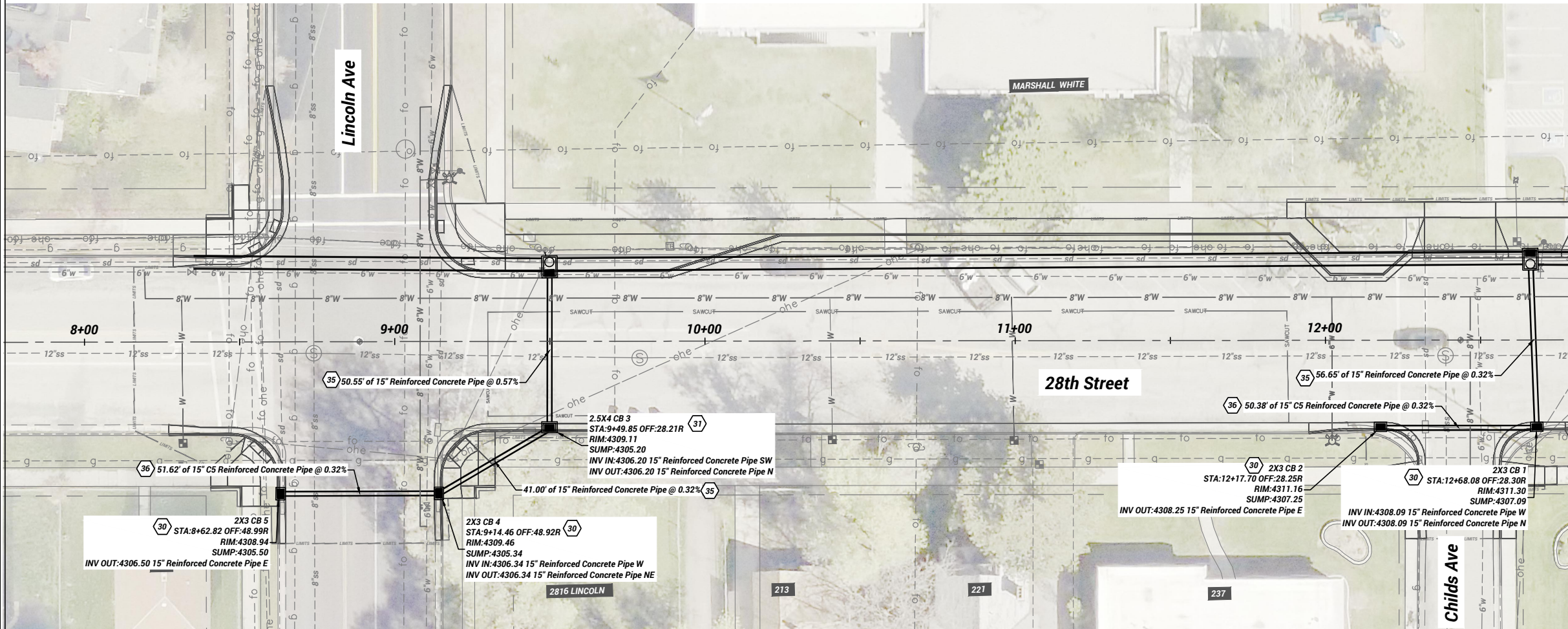
(11x17)

This bar measures on the original drawing



REV	DATE	DESCRIPTION
0	MM/DD/YY	DESCRIPTION

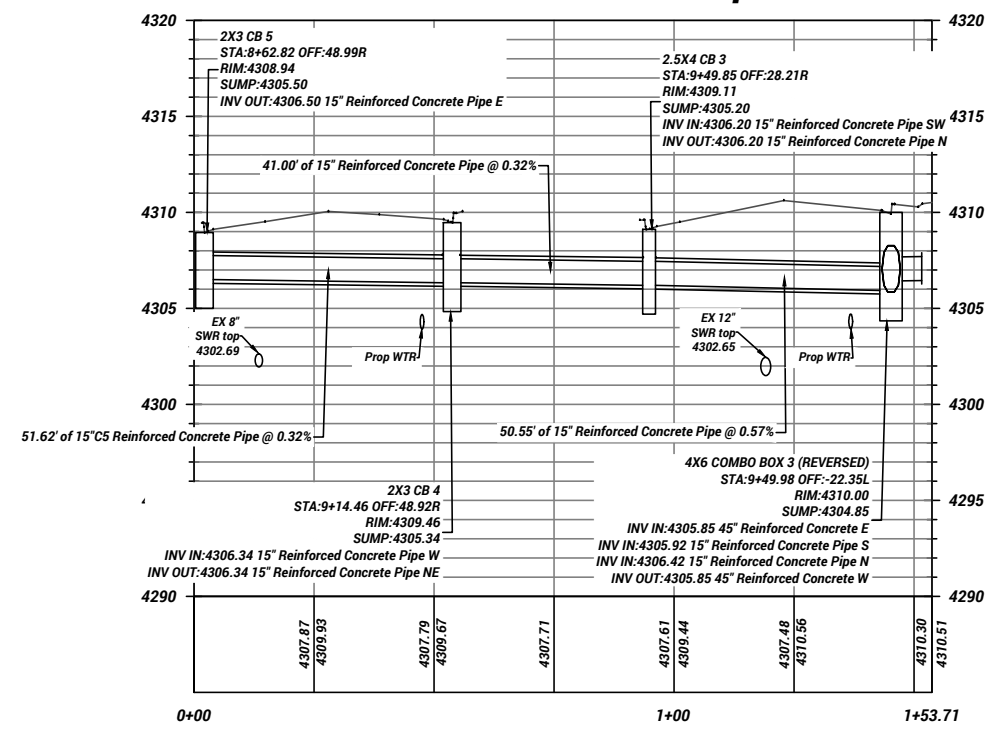
SD1	SHEET	0
	6	REVISION



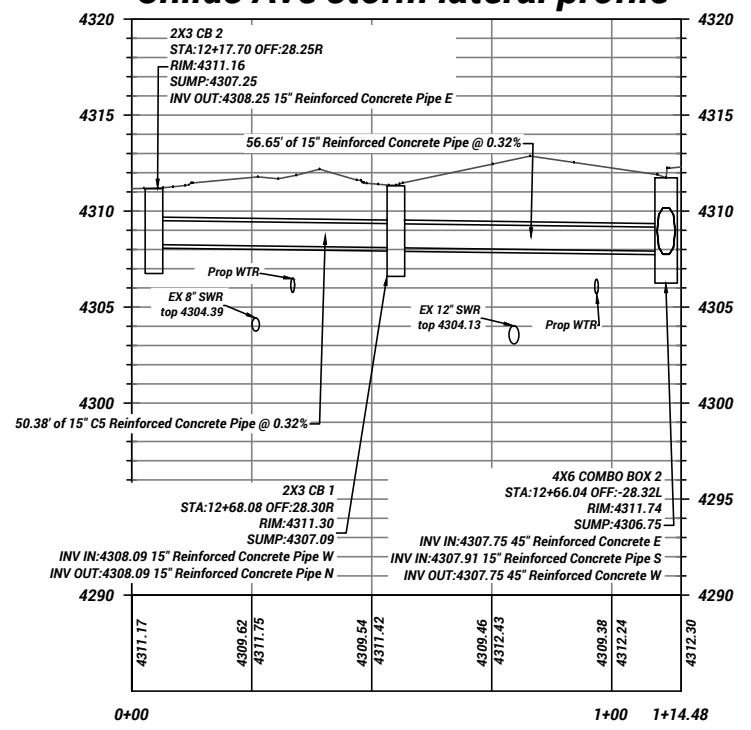
- KEYED NOTES:**
- 30 INSTALL 2X3 CATCH BASIN
 - 31 INSTALL 2.5X4 CATCH BASIN
 - 32 INSTALL 4X6 COMBO BOX
 - 33 INSTALL 60" MANHOLE
 - 34 INSTALL 72" MANHOLE
 - 35 INSTALL 15" RCP
 - 36 INSTALL 15" RCP (CLASS 5)
 - 37 INSTALL 36" EQUIV (29"X45") ELLIPTICAL RCP
 - 38 CONNECT EXISTING PIPE TO NEW MANHOLE
 - 39a 4" WIDE STEEL PLATE
 - 39b CONCRETE TRANSITION PIPE TO CULVERT

- NOTES:**
- USE ALL IMPORT BEDDING AND BACKFILL FOR STORM DRAIN INSTALLATION.
 - COMBO BOX AND CB RIM ELEVATION AND OFFSET LOCATION SET AT CURB FLOWLINE.

Lincoln Ave storm lateral profile



Childs Ave storm lateral profile



STORM - LINCOLN & CHILDS LATERALS
28TH ST IMPROVEMENTS PROJECT
28th St-Grant to Lincoln to 27th St

SD2
SHEET 7
0
REVISION

REV	DATE	DESCRIPTION
0	MM/DD/YY	DESCRIPTION



DESIGNED	DATE	PJS
DRAWN	DATE	PJS
CHECKED		

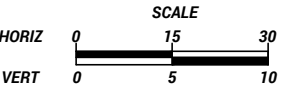
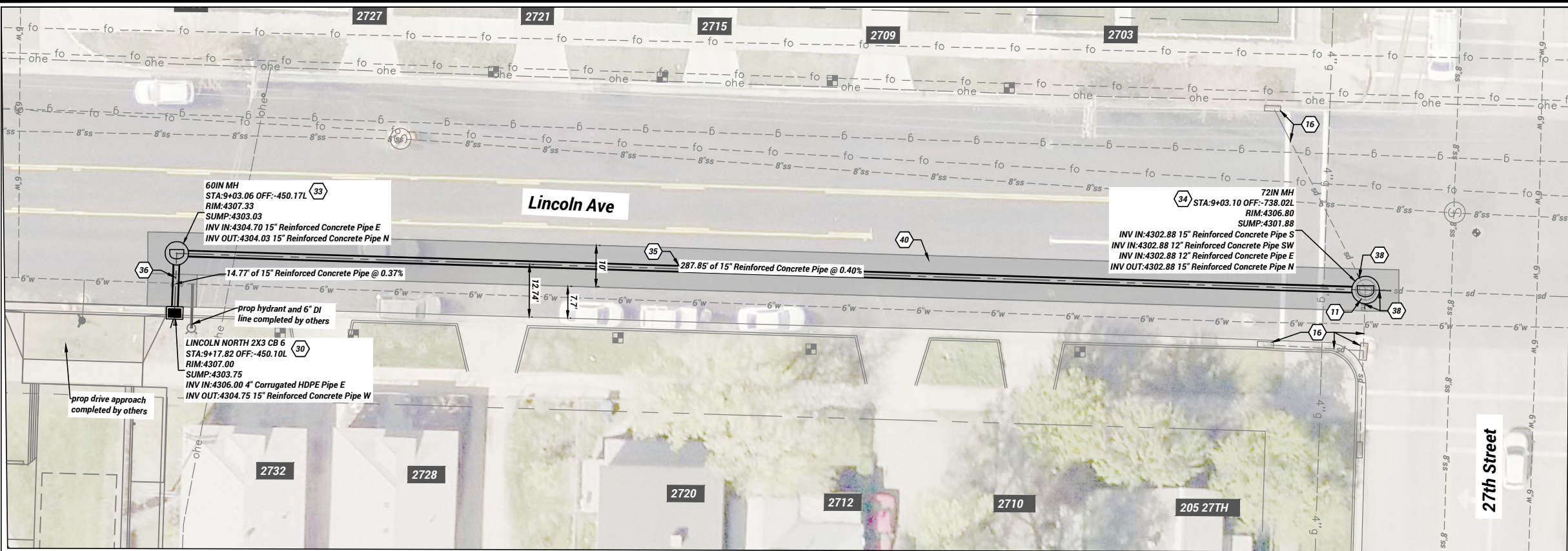
DRAWING SCALE

H: 1" = 20' (22x34)
V: 1" = 5' (22x34)
1" = 10' (11x17)

This bar measures exactly one inch on the original drawing

Ogden UTAH
Still Untamed™
2549 Washington Blvd, Suite 760 Ogden, UT 84401
Phone: 801-629-8980 engineering.ogdencity.com

DRAWING NAME: SD SHEETS 28th Marshall White.dwg
PLOT DATE: 3/14/2024 9:41 AM



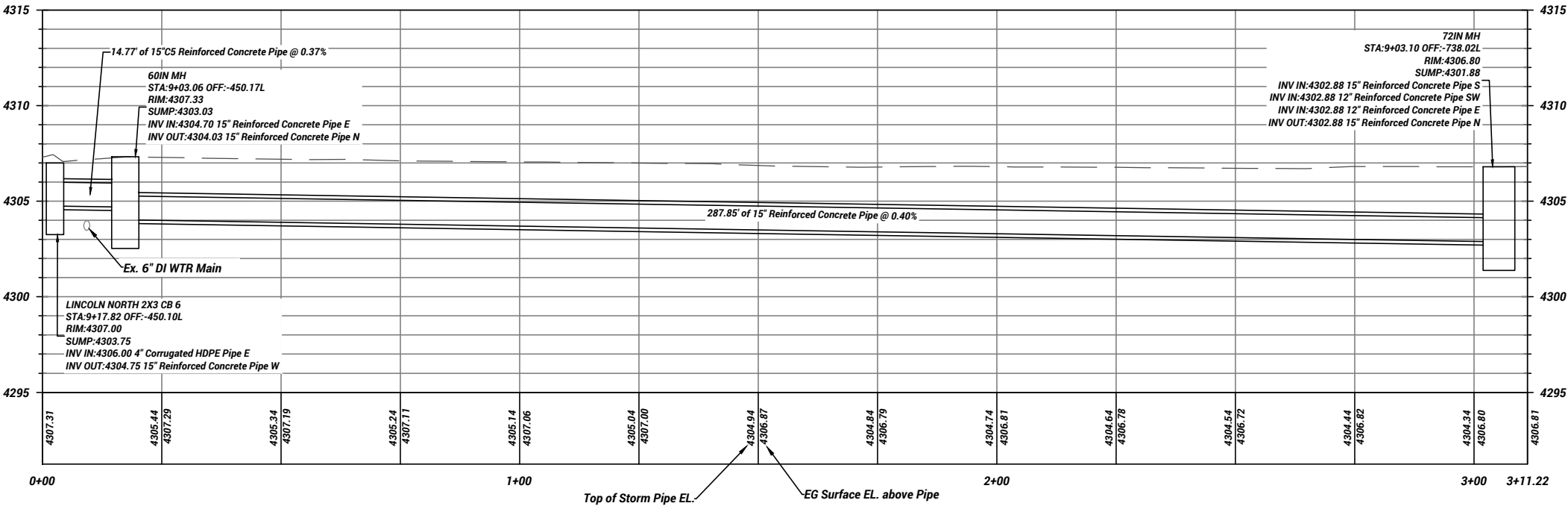
KEYED NOTES:

- 11 REMOVE STORM STRUCTURE
- 16 PROTECT IN PLACE
- 30 INSTALL 2X3 CATCH BASIN
- 31 INSTALL 2.5X4 CATCH BASIN
- 32 INSTALL 4X6 COMBO BOX
- 33 INSTALL 60\" MANHOLE
- 34 INSTALL 72\" MANHOLE
- 35 INSTALL 15\" RCP
- 36 INSTALL 15\" RCP (CLASS 5)
- 37 36\" (29\"X45\") ELLIPTICAL RCP
- 38 CONNECT EXISTING PIPE TO NEW MANHOLE
- 39a 4\" WIDE STEEL PLATE
- 39b CONCRETE TRANSITION PIPE TO CULVERT
- 40 ASPHALT \"T\" PATCH HMA PG58-28 (7\" THICK)

NOTES:

- USE ALL IMPORT BEDDING AND BACKFILL FOR STORM DRAIN INSTALLATION.
- COMBO BOX AND CB RIM ELEVATION AND OFFSET LOCATION SET AT CURB FLOWLINE.

Lincoln Ave Doxey St to 27th St Storm Main Profile



SD4

SHEET 9

REVISION 0

REV	DATE	DESCRIPTION
0		INITIAL DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER

STATE OF UTAH

CIVIL

EXP. 12/31/2024

DATE

DATE

DESIGNED

DRAWN

CHECKED

PJS

PJS

PJS

DRAWING SCALE

H: 1\" = 15'

V: 1\" = 5'

28TH ST IMPROVEMENTS PROJECT

28th St-Grant to Lincoln to 27th St

STORM - LINCOLN-DOXEY TO 27TH

28TH ST IMPROVEMENTS PROJECT

28th St-Grant to Lincoln to 27th St

Ogden UTAH

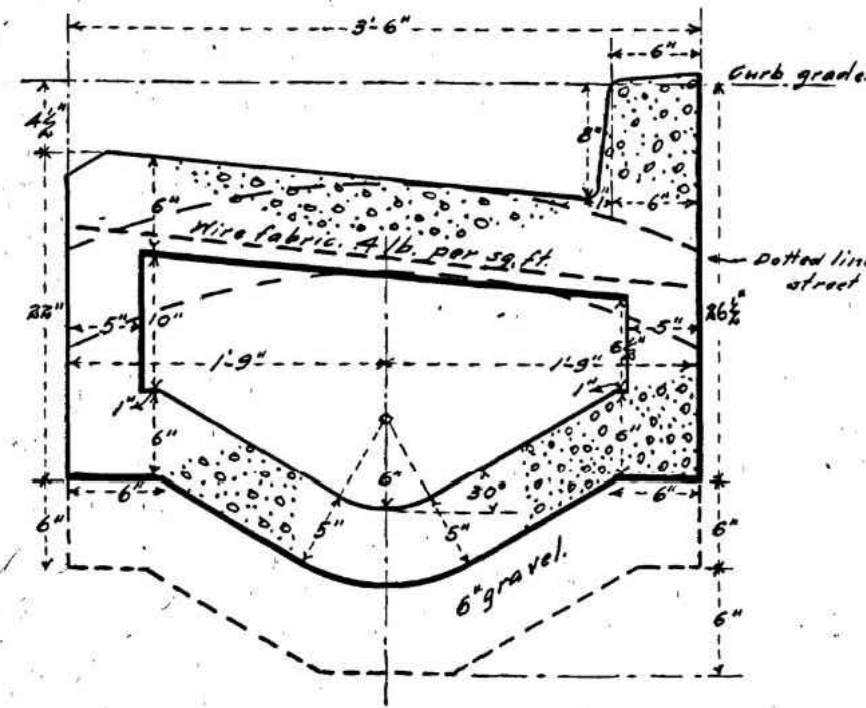
Still Untamed™

2549 Washington Blvd, Suite 760 Ogden, UT 84401

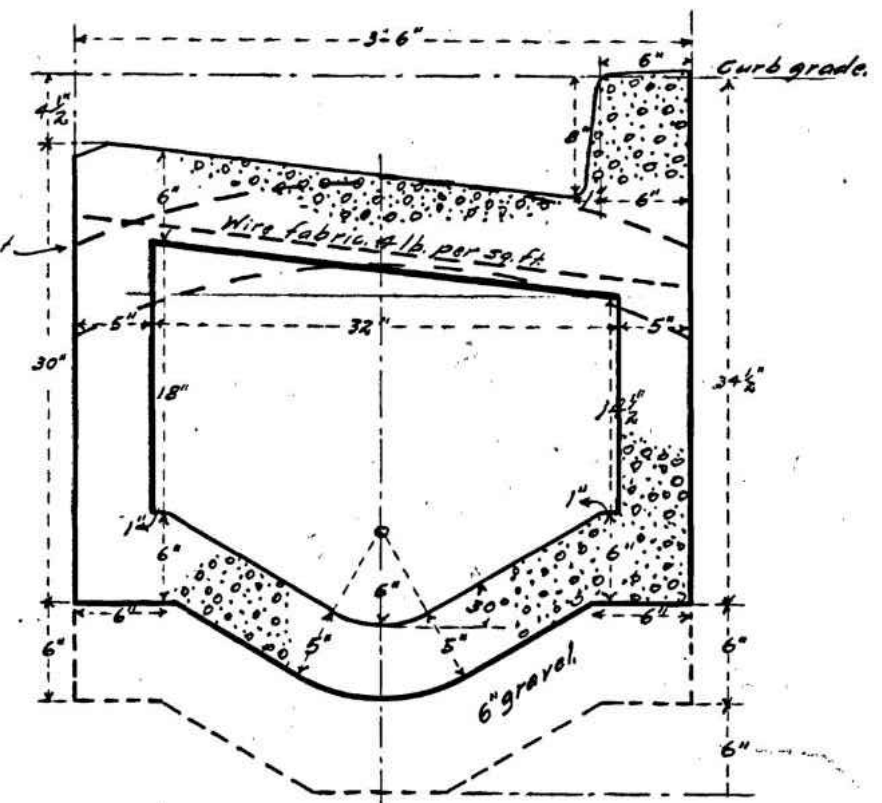
Phone: 801-629-9990 engineering.ogdencity.com

PLOT DATE: 3/14/2024 9:41 AM

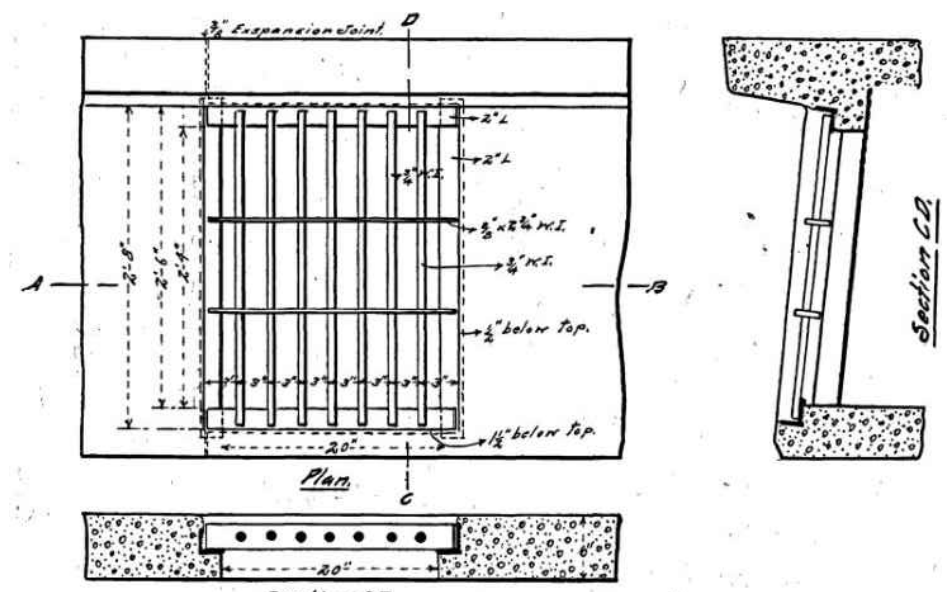
DRAWING NAME: SD SHEETS 28th Marshall White.dwg



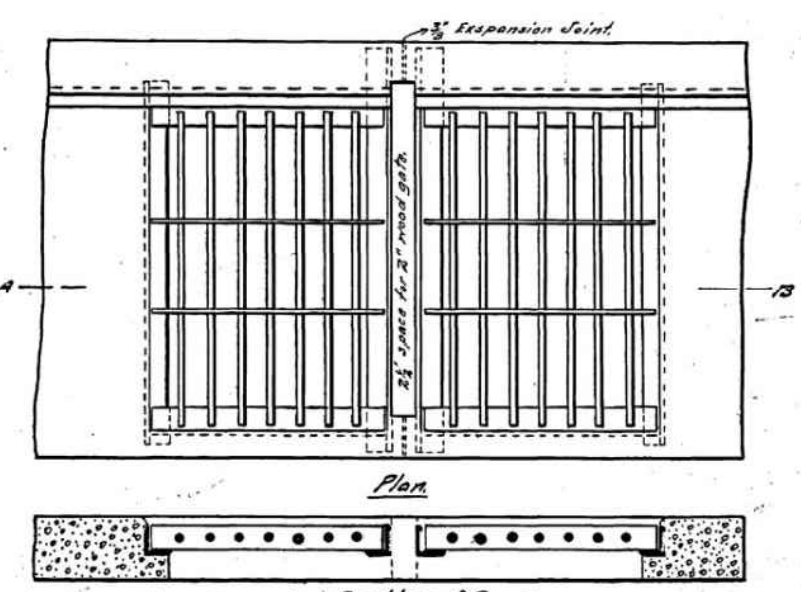
Combined
Curb and gutter and Waterway,
Approximate Minimum Size.



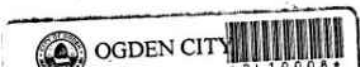
Combined
Curb and gutter and Waterway,
Approximate Maximum Size.



Section A.B.
Curb Grating,
100 ft. apart.



Section A.B.
Grating for diverting water.



REV	DATE	DESCRIPTION
0		MOODY



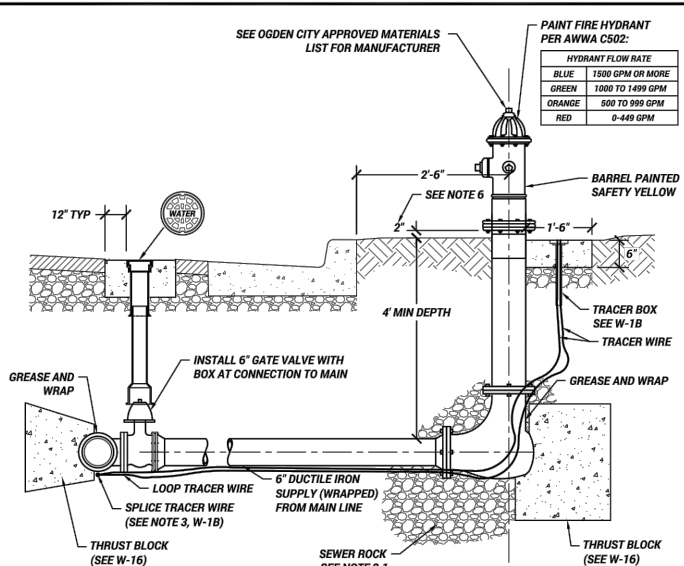
DESIGNED	DRAWN	CHECKED	DATE
PJS	PJS		3/12/2024
H: NONE	(22x34)		
V: NONE	(11x17)		

EXISTING STORM CULVERT DETAILS
28TH ST IMPROVEMENTS PROJECT
28TH ST GRANT TO LINCOLN TO 27TH ST
DRAWING NAME: G-1_TileSheet_28th Marshall White.dwg
PLOT DATE: 3/13/2024 3:55 PM



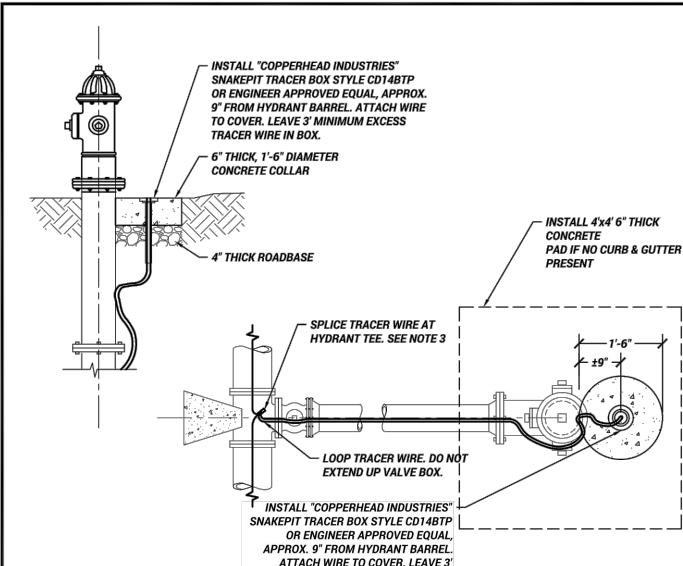
A CURB AND GUTTER PATCH DETAIL
NOT TO SCALE

Ogden UTAH *Still Untamed™*
2549 Washington Blvd, Suite 760 Ogden, UT 84401
Phone: 801-629-8980 engineering.ogdenacity.com



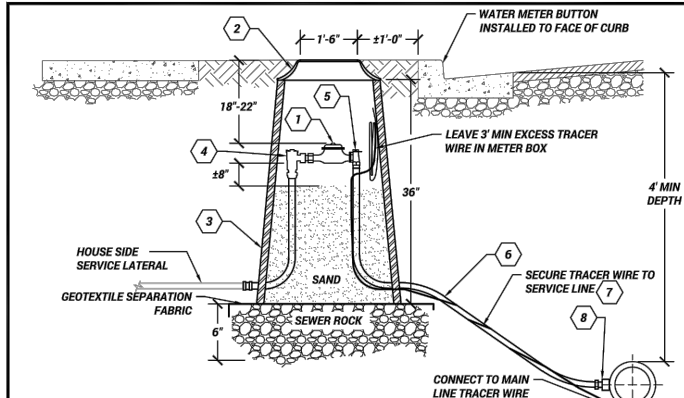
- FIRE HYDRANT NOTES:**
1. PROVIDE AND PLACE BACKFILL PER APWA SECTION 33 05 20. COMPACT PER APWA SECTION 31 23 26 TO A MODIFIED PROCTOR DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS IS 8" WHEN USING RIDING COMPACTION AND 6" WHEN USING HAND HELD COMPACTION EQUIPMENT.
 2. HYDRANT: DRY BARREL PER AWWA C502. ADDITIONAL WATER SYSTEM REQUIREMENTS SPECIFIED IN APWA SECTION 33 11 00.
 - 2.1. PROVIDE AT LEAST ONE (1) CUBIC YARD OF SEWER ROCK AROUND DRAIN HOLE OF FIRE HYDRANT. WRAP GEOTEXTILE AROUND SEWER ROCK AND TAPE GEOTEXTILE TO HYDRANT SPOOL TO PREVENT SILTING.
 - 2.2. APPLY NON-OXIDE GREASE TO ALL BURIED METAL SURFACES. WRAP WITH 8 MIL THICK POLYETHYLENE SHEET AND TAPE WRAP.
 - 2.3. NOTIFY FIRE DEPARTMENT AS SOON AS HYDRANT IS PLACED IN SERVICE.
 - 2.4. BLACK-WRAP ANY HYDRANT NOT IN SERVICE.
 3. THRUST BLOCKS:
 - 3.1. PRIOR TO POURING CONCRETE, WRAP PIPE SYSTEM WITH 8 MIL THICK PLASTIC SHEET TO PREVENT BONDING OF CONCRETE TO PIPE SYSTEM.
 - 3.2. NOT REQUIRED AT THE MAIN FOR FLANGED OR RESTRAINED PIPE SYSTEMS.
 4. VALVE BOXES ARE TO BE SLIP-TYPE, ADJUSTED TO GRADE, AND PAVED WITH A CONCRETE COLLAR.
 5. INSTALL A 4"x4' 6" THICK CONCRETE PAD AROUND THE HYDRANT BASE IF NO CURB AND GUTTER IS PRESENT.
 6. PASS OFF HYDRANT BASE HEIGHT WITH AN OGDEN CITY ENGINEERING INSPECTOR.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS		
	FIRE HYDRANT ASSEMBLY	W-1A
JUSTIN ANDERSON, CITY ENGINEER		SHEET 1 OF 2 2022



- TRACER WIRE NOTES:**
1. TRACER BOX TO BE LOCATED ON BACK SIDE OF HYDRANT UNLESS DIRECTED OTHERWISE BY ENGINEER.
 2. ALL TRACER WIRE TO BE 12 GA INSULATED, BLUE TRACER WIRE PLACED BENEATH PIPE.
 3. TRACER WIRE SHALL BE COPPER WIRE WITH BLUE INSULATION RATED FOR DIRECT BURIAL. ALL WIRE CONNECTORS SHALL BE 3M DBR DIRECT BURY SPLICE OR ENGINEER APPROVED EQUAL AND SHALL BE WATERTIGHT TO PROVIDE ELECTRICAL CONTINUITY.
 4. ALL TRACER WIRE SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF A REPRESENTATIVE FROM OGDEN CITY WATER PRIOR TO ASPHALT PLACEMENT. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE PRIOR TO ASPHALT PLACEMENT.
 5. ALL TRACER WIRE WILL BE RE-TESTED AT THE 1-YEAR WARRANTY INSPECTION. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

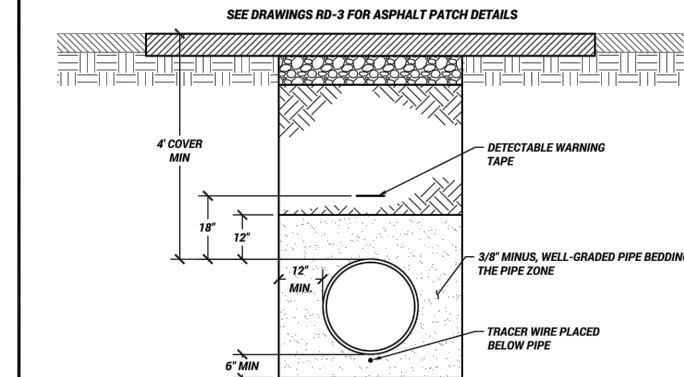
OGDEN CITY ENGINEERING - STANDARD DRAWINGS		
	FIRE HYDRANT ASSEMBLY	W-1B
JUSTIN ANDERSON, CITY ENGINEER		SHEET 2 OF 2 2022



- NOTES:**
1. CONTRACTOR TO PROVIDE AND INSTALL ALL MATERIALS AS SHOWN ON THE DETAIL, UNLESS DIRECTED OTHERWISE BY OGDEN CITY WATER. PURCHASE METER BOX FROM OGDEN CITY.
 2. METERS TO BE INSTALLED IN THE PARK STRIP, 1' BEHIND THE BACK OF CURB, OR 1' BEHIND THE SIDEWALK WHERE THE SIDEWALK IS ADJACENT TO THE CURB. DO NOT PLACE METER BOXES IN OR UNDER DRIVEWAY APPROACHES, SIDEWALKS, OR CURB AND GUTTER. IN THE CASE OF NO CURB AND GUTTER, PLACE METER WITHIN 7' OF THE PROPERTY LINE (STREET SIDE).
 3. FILL METER BOX WITH SAND UP TO APPROXIMATELY 8" FROM BOTTOM OF METER. TAMP SAND TO STABILIZE METER. SEPARATE SAND FROM SEWER ROCK WITH A GEOTEXTILE SEPARATION FABRIC
 4. PROVIDE AND PLACE IMPORT BACKFILL PER APWA SECTION 33 05 20 SURROUNDING THE METER ASSEMBLY. COMPACT PER APWA SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER, MODIFIED PROCTOR DENSITY. MAXIMUM LIFT THICKNESS IS 8" WHEN USING RIDING COMPACTION AND 6" WHEN USING HAND HELD COMPACTION EQUIPMENT.
 5. ALL TRACER WIRE SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF A REPRESENTATIVE FROM OGDEN CITY WATER PRIOR TO ASPHALT PLACEMENT. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE PRIOR TO ASPHALT PLACEMENT.
 6. ALL TRACER WIRE WILL BE RE-TESTED AT THE 1-YEAR WARRANTY INSPECTION. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

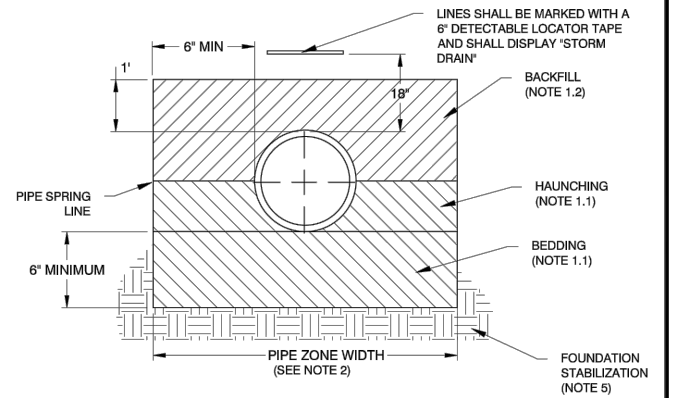
ITEM	QTY	DESCRIPTION
1	1	1" OR SMALLER WATER METER (CITY PROVIDED WITH METER/TAPPING FEE)
2	1	18" FRAME AND COVER WITH RECESSED HOLE FOR ANTENNA READ
3	1	RAVEN METER BOX OR APPROVED EQUAL
4	1	1" ASSE 1024 DUAL CHECK VALVE (BACKFLOW PREVENTER, TOP ENTRY ONLY)
5	1	1" ANGLE VALVE - KV43-444WQ/G OR EQUIVALENT
6	VARIES	1" AWWA C901 CTS POLY TUBING
7	VARIES	TRACER WIRE
8	1	CORP STOP WITH TEE-HEAD CAP ADAPTOR

OGDEN CITY ENGINEERING - STANDARD DRAWINGS		
	TYPICAL SERVICE INSTALLATION FOR WATER METERS 1" OR SMALLER	W-3
JUSTIN ANDERSON, CITY ENGINEER		SHEET 1 OF 1 2022



- NOTES:**
1. PIPE ZONE WIDTH IS RECOMMENDED BY THE MANUFACTURE OF THE PIPE. WIDTH OF THE PIPE ZONE IS MEASURED AT THE PIPE SPRING LINE AND INCLUDES ANY NECESSARY SHEATHING. FOLLOW MANUFACTURER RECOMMENDATIONS FOR ANY TRENCH BOX APPLICATIONS.
 2. INSTALL THE PIPE IN THE CENTER OF THE TRENCH.
 3. BASE COURSE PER APWA SECTION 32 11 23.
 4. WIDTH OF EXCAVATION IS MEASURED AT THE PIPE SPRING LINE AND INCLUDES ANY NECESSARY SHEATHING.
 5. USE 3/8" MINUS WELL-GRADED PIPE BEDDING IMPORT FILL IN THE PIPE ZONE. MAXIMUM LIFT THICKNESS IS 8" BEFORE COMPACTION.
 6. DO NOT USE RECYCLED RAP AGGREGATE IN THE TRENCH. IF MANUFACTURER RECOMMENDS ANYTHING CONTRARY TO WHAT IS LISTED BELOW, CONSULT WITH THE ENGINEERING DEPARTMENT.
 - 6.1. HAUNCHING/BEDDING: INSTALL AND COMPACT PER MANUFACTURER RECOMMENDATIONS AND ASTM SPECIFICATIONS.
 - 6.1.1. WATER JETTING IS NOT ALLOWED.
 - 6.1.2. SUBMISSION OF COMPACTION TEST DATA FOR THE HAUNCHING AREAS MAY BE REQUESTED AT ANY TIME.
 - 6.2. BACKFILL: INSTALL AND COMPACT PER MANUFACTURER RECOMMENDATIONS AND ASTM SPECIFICATIONS. DO NOT PLACE IN LIFTS GREATER THAN 6" BEFORE COMPACTION.
 - 6.2.1. COMPACT PER APWA SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING AND 6" WHEN USING HAND COMPACTION EQUIPMENT.
 7. PEA GRAVEL IS NOT ALLOWED IN ANY PART OF THE TRENCH.
 8. REFER TO APWA SECTION 33 05 07 FOR ADDITIONAL INFORMATION ON PVC PIPE.
 9. ALL TRACER WIRE SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF A REPRESENTATIVE FROM OGDEN CITY WATER PRIOR TO ASPHALT PLACEMENT. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE PRIOR TO ASPHALT PLACEMENT.
 10. ALL TRACER WIRE WILL BE RE-TESTED AT THE 1-YEAR WARRANTY INSPECTION. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS		
	TYPICAL WATERLINE TRENCH	W-18
JUSTIN ANDERSON, CITY ENGINEER		SHEET 1 OF 1 2022



- NOTES:**
1. DO NOT USE SEWER ROCK OR RECYCLED RAP AGGREGATE IN THE PIPE ZONE WITH OUT THE APPROVAL OF THE CITY ENGINEER. IF MANUFACTURER RECOMMENDS ANYTHING CONTRARY TO WHAT IS LISTED BELOW, CONSULT WITH THE ENGINEERING DEPARTMENT.
 - 1.1. HAUNCHING/BEDDING: INSTALL AND COMPACT PER MANUFACTURER RECOMMENDATIONS AND ASTM SPECIFICATIONS.
 - 1.1.1. WATER JETTING IS NOT ALLOWED.
 - 1.1.2. SUBMISSION COMPACTION TEST DATA FOR THE HAUNCHING AREAS MAY BE REQUESTED AT ANY TIME.
 - 1.2. BACKFILL: INSTALL AND COMPACT PER MANUFACTURER RECOMMENDATIONS AND ASTM SPECIFICATIONS. COMPACT PER SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING AND 6" WHEN USING HAND COMPACTION EQUIPMENT.
 2. PIPE ZONE WIDTH IS RECOMMENDED BY THE MANUFACTURER OF THE PIPE. WIDTH OF PIPE ZONE IS MEASURED AT THE PIPE SPRING LINE AND INCLUDES ANY NECESSARY SHEATHING. FOLLOW MANUFACTURE RECOMMENDATIONS FOR ANY TRENCH BOX APPLICATIONS.
 3. INSTALL THE PIPE IN THE CENTER OF THE TRENCH. THE EDGE OF THE PIPE WALL SHALL BE A MINIMUM DISTANCE OF 6" FROM THE TRENCH WALL.
 4. PEA GRAVEL IS NOT ALLOWED IN ANY PART OF THE TRENCH.
 5. FOUNDATION STABILIZATION REQUIRES SEWER ROCK PER APWA SECTION 31 05 13.
 - 5.1. INSTALLATION OF STABILIZATION-SEPARATION GEOTEXTILE PER APWA SECTION 31 05 19 WILL BE REQUIRED TO SEPARATE BACKFILL MATERIAL AND NATIVE SUBGRADE MATERIAL IF SEWER ROCK CANNOT PROVIDE A WORKING SURFACE OR PREVENT SOIL MIGRATION.
 6. REFER TO SECTION 33 05 02 FOR ADDITIONAL INFORMATION ON CONCRETE PIPE.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS		
	STORM DRAIN PIPE ZONE	SD-6
JUSTIN ANDERSON, CITY ENGINEER		SHEET 1 OF 1

DT3		0	
SHEET		12	
REV	DATE	DESCRIPTION	
0		MUDDY	



DESIGNED	DATE	PJS	PJS
▲	3/12/2024	▲	▲
DRAWN		CHECKED	
▲		▲	▲
DRAWING SCALE			
H:	NONE (22x34)		
V:	NONE (11x17)		
	NONE (22x34)		
	NONE (11x17)		

This bar measures all dimensions in feet and inches. The original drawing is in inches.

UTILITY STANDARD DETAILS

28TH ST IMPROVEMENTS PROJECT

28TH ST GRANT TO LINCOLN TO 27TH ST

2549 Washington Blvd, Suite 760 Ogden, UT 84401
Phone: 801-629-8990 engineering.ogden-city.com

PLOT DATE: 3/13/2024 5:55 PM

DRAWING NAME: G_1_TileSheet_28th Marshall White.dwg