HYRUM CITY POWER GENERATION

HYRUM CITY POWER

MARCH 2025

PROJECT NO. 57-23-005

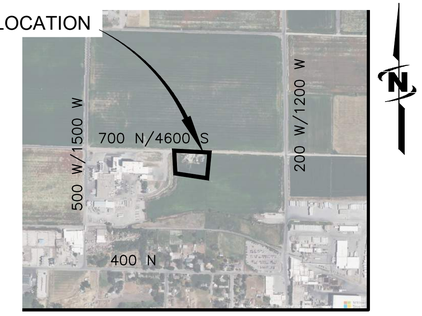
J-U-B ENGINEERS, INC.

THE LANGDON GROUP

GATEWAY MAPPING INC.

J-U-B FAMILY OF COMPANIES

PROJECT LOCATION



VICINITY MAP

Sheet List Table	
Sheet Number	Sheet Title
CC101	COVER SHEET
CS101	SITE AND UTILITY PLAN
CG101	GRADING AND DRAINAGE PLAN
CE101	EROSION AND SEDIMENT CONTROL PLAN
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ABBREVIATIONS

BLDG	BUILDING
BM	BENCH MARK
C/L	CENTER LINE
CMP	CORRUGATED METAL PIPE
CONT	CONTINUOUS
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DEG OR °	DEGREE
DET	DETAIL
DIA OR Ø	DIAMETER
EA	EACH
ELEV	ELEVATION
EXIST	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
FT OR '	FEET
IN OR "	INCH
LB OR #	POUND
LF	LINEAL FEET
MAX	MAXIMUM
MIN	MINIMUM
NO OR #	NUMBER
PL	PROPERTY LINE
R	RADIUS
REQ'D	REQUIRED
R/W	RIGHT-OF-WAY
STA	STATION
STD	STANDARD
TBC	TOP BACK OF CURB
TYP	TYPICAL

LEGEND

EXISTING		PROPOSED
	BOUNDARY LINE	
	SECTION LINE	
— S —	SANITARY SEWER LINE	—S—
— W —	WATER LINE	—W—
— IRRG —	GRAVITY IRRIGATION PIPE	—IRRG—
— PIRR —	PRESSURE IRRIGATION LINE	—PIRR—
— SD —	STORM DRAIN LINE	—SD—
	CENTERLINE	
	PUBLIC RIGHT OF WAY LINE	
	LOT LINE	
S	SEWER MANHOLE	S
D	STORM DRAIN MANHOLE	D
	STORM DRAIN INLET	
	PRESSURE IRRIGATION SERVICE	
	STREET LIGHT	
	FIRE HYDRANT	
— EG —	EDGE OF GRAVEL	
— OHP —	OVERHEAD POWER	
— X —	FENCE LINE	
	STREET SIGN	
	SINGLE WATER SERVICE	
	DOUBLE WATER SERVICE	
	WATER VALVE	

EXISTING UTILITIES

1. APPROXIMATE LOCATIONS OF UTILITIES ARE SHOWN ON THE PLANS. THEY ARE TO BE USED FOR GENERAL INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE APPROPRIATE UTILITY COMPANY FIELD-LOCATE ANY UTILITY INSTALLATIONS WHICH MIGHT BE AFFECTED BY CONSTRUCTION PRIOR TO BEGINNING WORK IN THAT AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICE OF EXISTING UTILITIES AND FOR RESTORING ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. DEPTHS AND ELEVATIONS OF UTILITIES ARE UNKNOWN UNLESS OTHERWISE SHOWN. CONTRACTOR SHALL FIELD VERIFY UTILITY DEPTHS, ELEVATIONS, ANY DISCREPANCIES AND/OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

INSPECTION AND TESTING

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS TESTING INCLUDING BUT NOT LIMITED TO CONCRETE, FLUSHING, DISINFECTION, LEAK, PRESSURE, BACTERIOLOGICAL, AND COMPACTION. ALL TESTS SHALL MEET MINIMUM ENGINEER REQUIREMENTS. SEE THE CONTRACT DOCUMENTS AND DRAWINGS FOR FREQUENCY OF TESTING. RESULTS ARE TO BE DELIVERED TO SPECIAL INSPECTOR, OWNER AND ENGINEER.
2. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ENGINEER AND SPECIAL INSPECTOR FOR INSPECTIONS OF WORK AT APPROPRIATE INTERVALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR ADDITIONAL INSPECTIONS THAT ARE THE RESULT OF HIS WORKMANSHIP.

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR DUST ABATEMENT AND ANY LIABILITY ISSUES RELATED TO DUST AT ANY LOCATION WHICH MAY BE CAUSED BY THIS PROJECT.
2. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION OF PEDESTRIANS IN AND AROUND THIS WORK. REFERENCE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD LATEST EDITION FOR WORK ZONE TRAFFIC CONTROL).
3. ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THE REQUIREMENTS OF THAT AGENCY AND, IN PARTICULAR, REQUIREMENTS OF ANY RIGHT-OF-WAY SPECIAL USE PERMIT, OR OTHER PERMIT. ALL WORK SHALL MEET CURRENT OSHA REQUIREMENTS.
4. WHERE WORK IS PERFORMED ON EASEMENTS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ELIMINATE ANY ADVERSE EFFECTS ON THE ADJACENT PROPERTY AND/OR TO RESTORE IT TO ITS ORIGINAL CONDITION.
5. ALL DISTANCES AND DATA SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. IN CASE OF CONFLICT THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT CLARIFICATION MAY BE MADE PRIOR TO THE START OF THE WORK.
6. THE CONTRACTOR SHALL ARRANGE FOR, SECURE AND PAY FOR DIRECTLY, ANY AND ALL TEMPORARY UTILITY SUPPLIES (E.G. WATER, POWER, AND TELEPHONE) IT MAY REQUIRE FOR PROSECUTION OF ITS WORK. THE COST OF SUCH UTILITIES SHALL BE INCLUDED IN THE APPROPRIATE BID ITEM WITH WHICH IT IS ASSOCIATED.
7. SHOULD CONSTRUCTION BE HALTED BECAUSE OF INCLEMENT WEATHER CONDITIONS, THE CONTRACTOR WILL COMPLETELY CLEAN UP ALL AREAS AND MAINTAIN THE SURFACE IN GOOD CONDITION DURING THE SHUT-DOWN PERIOD.
8. THE CONTRACTOR'S PERSONNEL, EQUIPMENT, AND OPERATIONS SHALL COMPLY FULLY WITH ALL APPLICABLE STANDARDS, REGULATIONS, AND REQUIREMENTS OF EXISTING FEDERAL, UTAH STATE, AND LOCAL GOVERNMENTAL AGENCIES.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR STORM WATER POLLUTION PREVENTION AS A RESULT OF CONSTRUCTION ACTIVITIES. WHEN CALLED FOR IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR APPROVAL BY THE ENGINEER AND FOR SUBMITTAL TO LOCAL AUTHORITIES FOR REVIEW AND APPROVAL. IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE, CONTRACTOR SHALL FILE A "NOTICE OF INTENT" FOR PERMIT COVERAGE UNDER THE STATE'S UPDES STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTR300000) AND PAY ALL ASSOCIATED FEES. THE NOI MAY BE FILED ELECTRONICALLY AT THE FOLLOWING WEBSITE: HTTPS://DEQ.UTAH.GOV/WATER-QUALITY/GENERAL-CONSTRUCTION-STORM-WATER-UPDES-PERMITS. THE CONSTRUCTION GENERAL PERMIT (CGP) DOES NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH OTHER REGULATIONS OR CONTRACT REQUIREMENTS REGARDING STORM WATER POLLUTION PREVENTION INCLUDING BUT NOT LIMITED TO: PROTECTION OF SURFACE WATERS, PREVENTION OF SOIL RUNOFF INTO DRAINS, DUST CONTROL, PREVENTION OF TRACKING SOILS TO ADJACENT STREETS, FUEL CONTAINMENT, SPILL CONTROL, ETC.
10. ALL WORK SHALL BE CONTAINED IN OR LIMITED TO THE SITE PROPERTY, EASEMENTS, OR APPROVED STAGING AREAS.
11. CONTRACTOR TO PROVIDE, CONSTRUCT, MAINTAIN AND REMOVE A TEMPORARY FENCE AROUND THE CONSTRUCTION SITE USED TO PROTECT NEIGHBORING PROPERTIES FROM DAMAGE. CONTRACTOR IS ALSO RESPONSIBLE TO PROTECTION TO SAFE GUARD WORK SITE. PAY ITEM TO BE INCLUDED IN MOBILIZATION.
12. CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES AND BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND EXISTING IMPROVEMENTS AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.
13. DURING CONSTRUCTION, ALL OPEN ENDS OF ALL PIPE LINES SHALL BE COVERED AND SEALED AT THE END OF THE WORK DAY.
14. CONTRACTOR RESPONSIBLE FOR ALL CONSTRUCTION STAKING LAYOUT.

REUSE OF DOCUMENTS

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811 Know what's below. Call before you dig.

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

J-U-B ENGINEERS, INC.
1047 South 100 West, Suite 180
Logan, UT 84321
Phone: 435.713.9514
www.jub.com

BID SET

REGISTERED PROFESSIONAL ENGINEER
12717219-2202
DANIEL AARON NETZLEY
03/05/2025
STATE OF UTAH

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

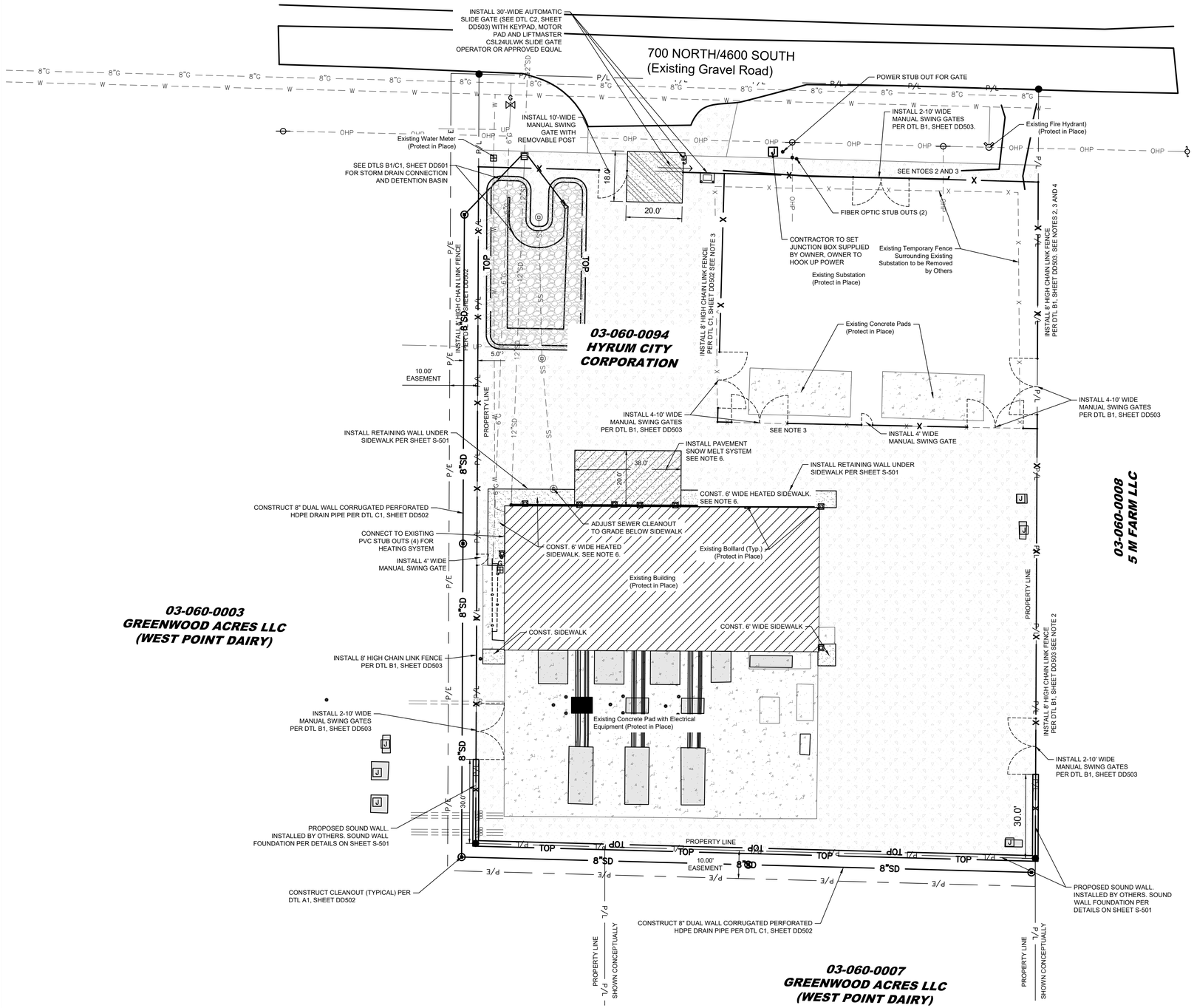
HYRUM GENERATION PROJECT
HYRUM CITY POWER

COVER SHEET

FILE: 57-23-005_G-001
JUB PROJ. #: 57-23-005_012
DRAWN BY: EM
DESIGN BY: TIH
CHECKED BY:
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 3/3/2025

SHEET NUMBER:
CC101

Plot Date:3/3/2025 12:02 PM Plotted By: Daniel Netzley
Date Created:1/29/2025 \\JUB\CENTRAL\CLIENTS\UT\HYRUM\CITYPROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEET\57-23-005_G-001.DWG



NOTES:

1. ALL UTILITIES NOT CALLED OUT FOR REMOVAL ARE TO BE PROTECTED IN PLACE.
2. INSTALL SLATS IN FENCE AROUND NORTH AND EAST SIDES OF PROPERTY
3. INSTALL 3 STRANDS ON FENCE AROUND EXISTING SUBSTATION.
4. INSTALL CONCRETE CURB UNDER FENCE ONLY ON THE EAST SIDE
5. THERE ARE (2) ALTERNATIVES FOR THE PROPOSED RETAINING WALL UNDER SIDEWALK. COORDINATE WITH OWNER PRIOR TO BIDDING AND CONSTRUCTION. SEE DETAILS ON SHEET S-501
6. WHEELER MACHINERY WILL BE INSTALLING THE PAVEMENT SNOW MELT SYSTEM. CONTRACTOR IS TO COORDINATE WITH JASON SOARES AT 801-201-4280, GIVING A MIN. OF THREE (3) BUSINESS DAYS PRIOR TO NEEDING ON SITE. SEE DETAIL C2 ON SHEET DD502.

VEHICULAR CONCRETE PAVEMENT SECTION WITHOUT PAVEMENT SNOW MELT SYSTEM — A1 / DD501

VEHICULAR CONCRETE PAVEMENT SECTION WITH PAVEMENT SNOW MELT SYSTEM — A1 / DD501, C2 / DD502

PISGAH STONE CROSS SECTION — C3 / DD501

3"-6" ROCK TO BE INSTALLED 6" DEPTH — C1 / DD501

CONCRETE SIDEWALK CONCRETE TO BE CONSTRUCTED WITH SNOW MELT SYSTEM — B2 / DD501

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03/05/2025
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NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

HYRUM GENERATION PROJECT
HYRUM CITY POWER

SITE AND UTILITY PLAN

FILE :	57-23-005_CS101
JUB PROJ. # :	57-23-005_012
DRAWN BY:	DAN
DESIGN BY:	DAN
CHECKED BY:	PRW

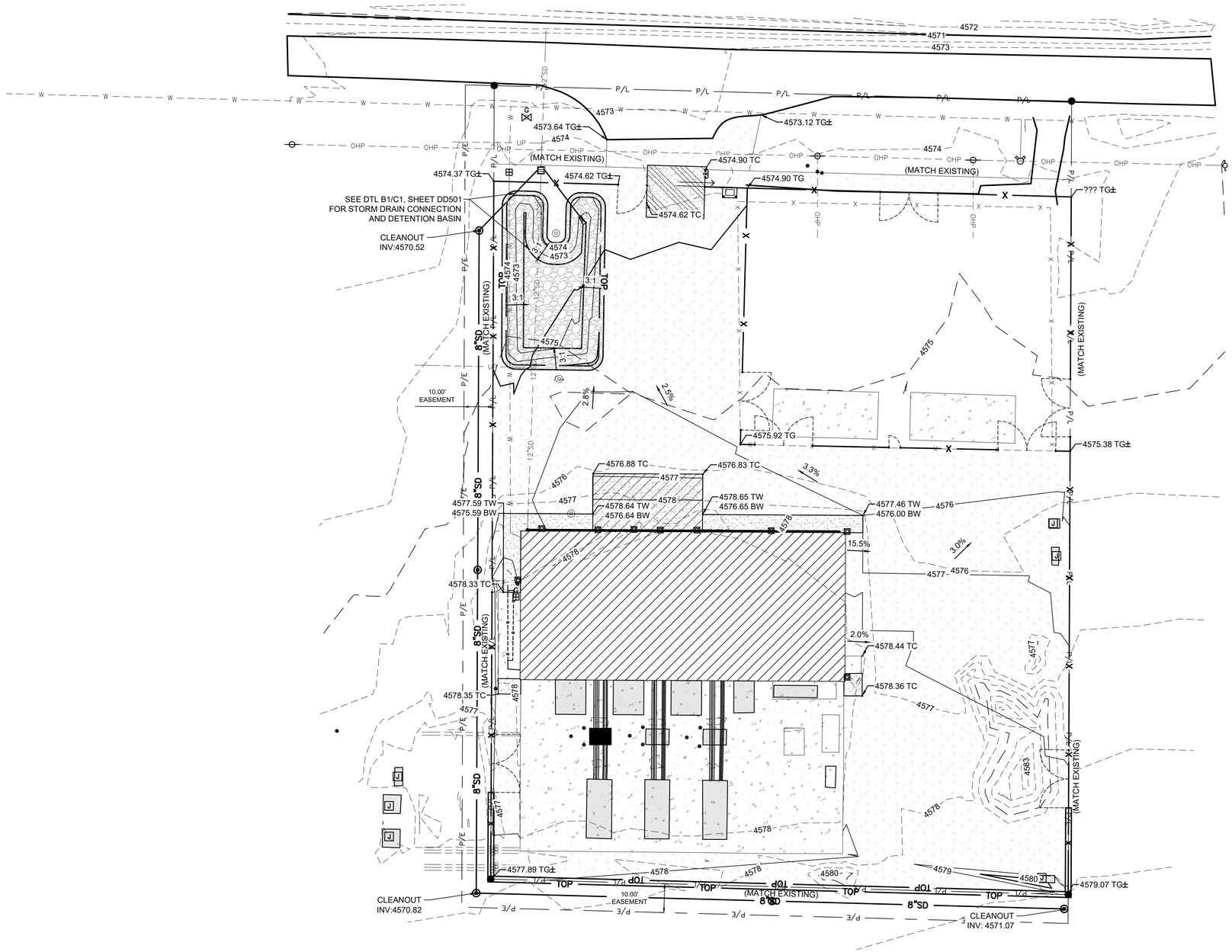
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 3/3/2025

SHEET NUMBER:

CS101

Plot Date:3/3/2025 12:04 PM Plotted By: Daniel Netzley
Date Created:2/27/2025 \\JUBJCENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEETS\57-23-005_CS101.DWG



0 20 40

SCALE IN FEET

X.X% — GRADING SLOPE AND DIRECTION (DOWNHILL)
X:1
TG — TOP OF GRAVEL
TC — TOP OF CONCRETE
TW — TOP OF WALL/SIDEWALK
BW — BOTTOM OF WALL
4577 — EXISTING CONTOUR MINOR (4577.00)
4575 — EXISTING CONTOUR MAJOR (4575.00)
4577 — CONTOUR MINOR (FG) (4577.00)
4575 — CONTOUR MAJOR (FG) (4575.00)

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	REVISION			

HYRUM GENERATION PROJECT
HYRUM CITY POWER

GRADING AND DRAINAGE PLAN

FILE :	57-23-005_CG101
JUB PROJ. # :	57-23-005_012
DRAWN BY:	DAN
DESIGN BY:	DAN
CHECKED BY:	PRW

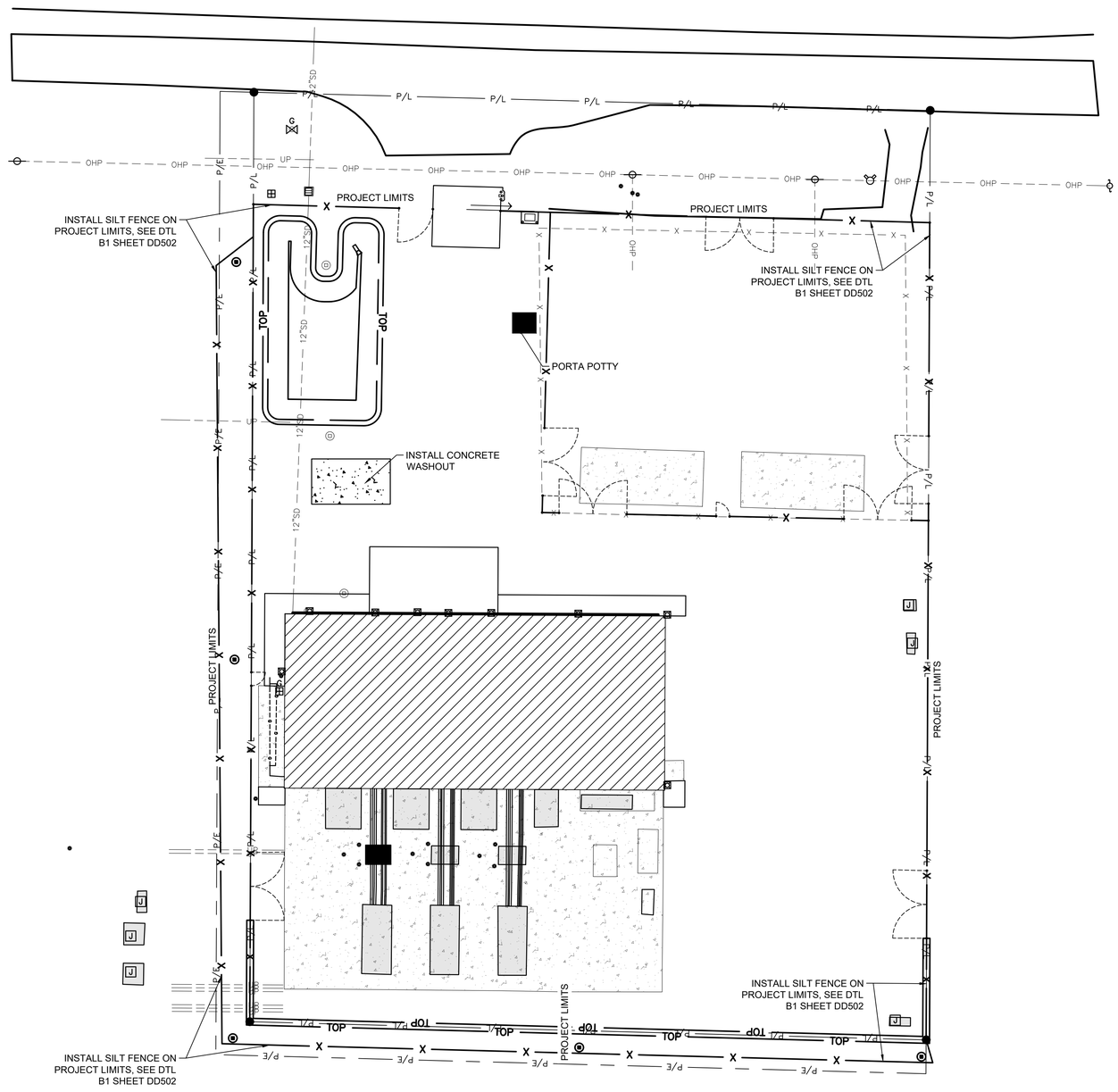
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 3/3/2025

SHEET NUMBER:

CG101

Plot Date:3/3/2025 12:04 PM, Plotted By: Daniel Netzley
Date Created:10/3/2024 \\JUB\CENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEET\57-23-005_CG101.DWG



0 20 40

SCALE IN FEET

N

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03/05/2025
STATE OF UTAH

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

HYRUM GENERATION PROJECT
HYRUM CITY POWER

EROSION AND SEDIMENT CONTROL PLAN

FILE :	57-23-005_CE101
JUB PROJ. # :	57-23-005_012
DRAWN BY:	DAN
DESIGN BY:	DAN
CHECKED BY:	PRW

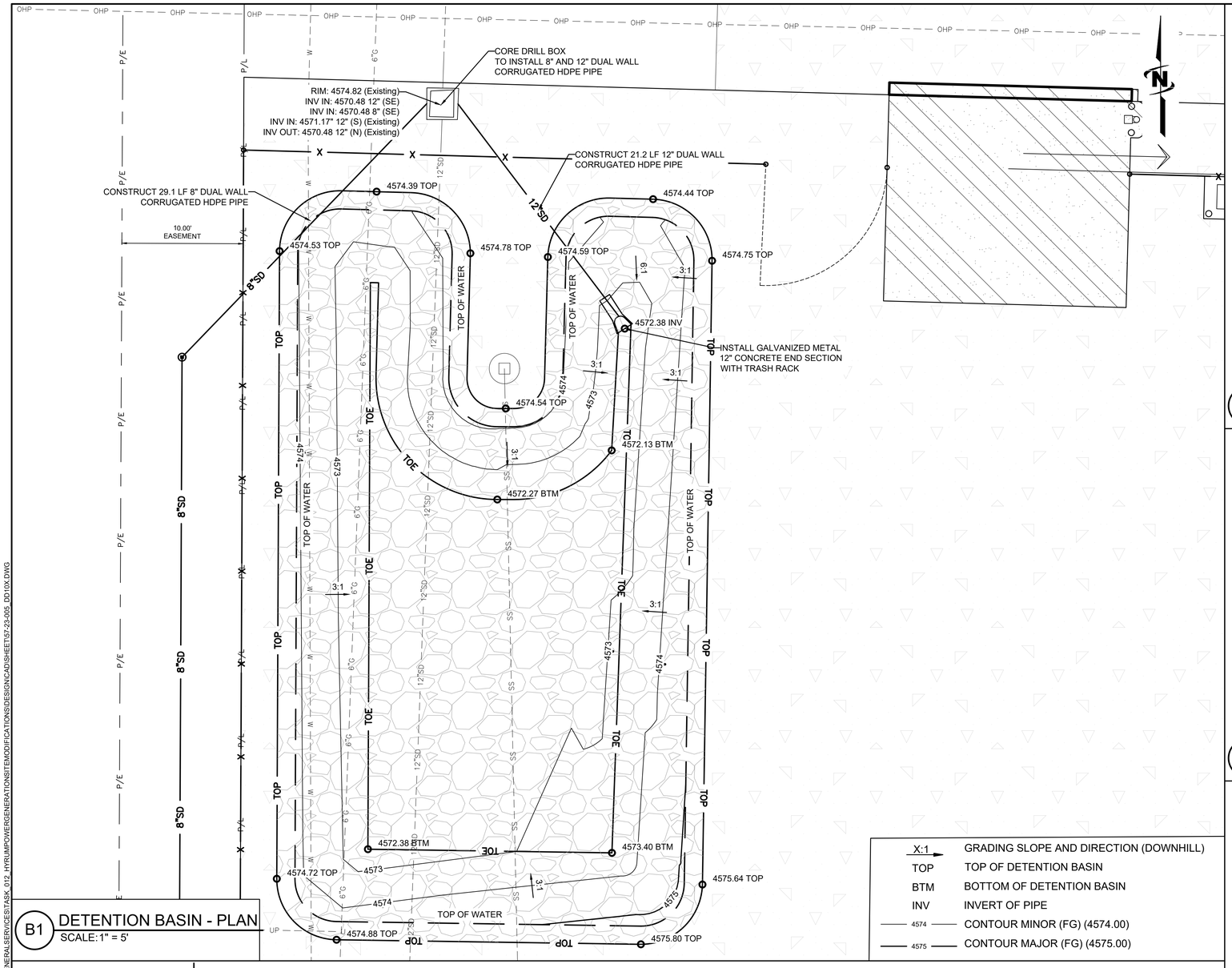
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 3/3/2025

SHEET NUMBER:

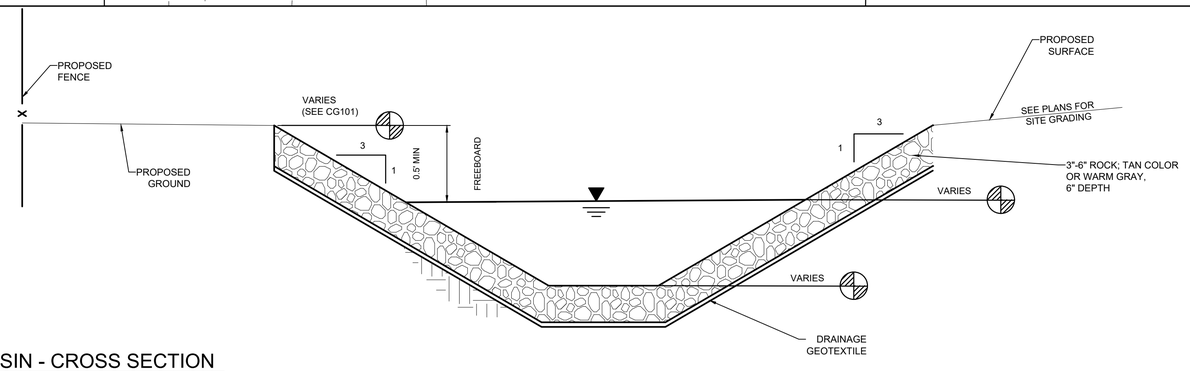
CE101

Plot Date:3/3/2025 12:05 PM Plotted By: Daniel Netzley
Date Created:10/3/2024 \\JUBVCENTRAL\CLIENT\SUT\HYRUM\CITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEET\57-23-005_CE101.DWG

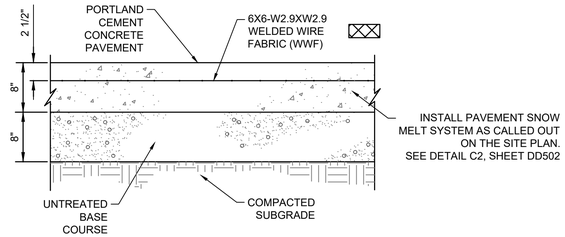


B1 DETENTION BASIN - PLAN
SCALE: 1" = 5'

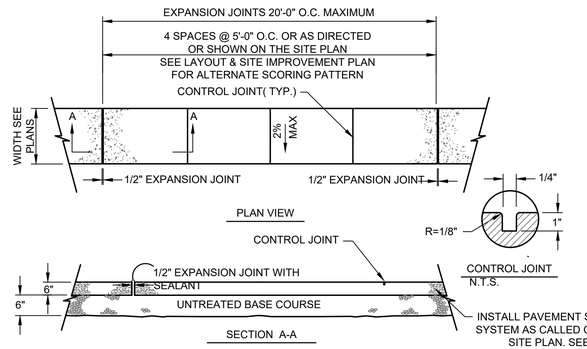
X:1	GRADING SLOPE AND DIRECTION (DOWNHILL)
TOP	TOP OF DETENTION BASIN
BTM	BOTTOM OF DETENTION BASIN
INV	INVERT OF PIPE
4574	CONTOUR MINOR (FG) (4574.00)
4575	CONTOUR MAJOR (FG) (4575.00)



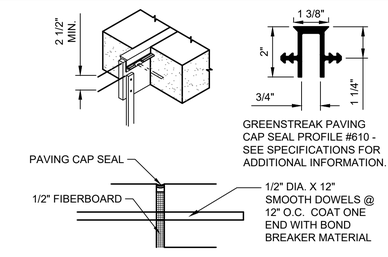
C1 DETENTION BASIN - CROSS SECTION
SCALE:N.T.S.



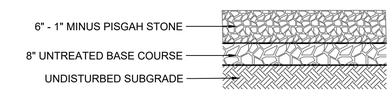
A1 VEHICULAR CONCRETE SECTION
SCALE:N.T.S.



B2 CONCRETE SIDEWALK
SCALE:N.T.S.



C2 TYPICAL EXPANSION JOINT
SCALE:N.T.S.



C3 PISGAH STONE CROSS SECTION
SCALE:N.T.S.

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HYRUM GENERATION PROJECT
HYRUM CITY POWER

CIVIL DETAILS

FILE :	57-23-005_DD10X
JUB PROJ. # :	57-23-005_012
DRAWN BY:	DAN
DESIGN BY:	DAN
CHECKED BY:	PRW

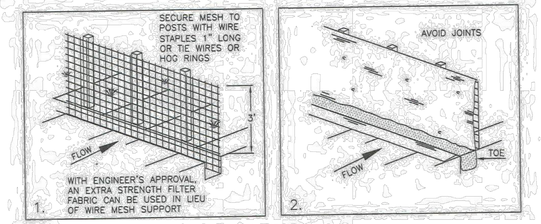
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 3/3/2025

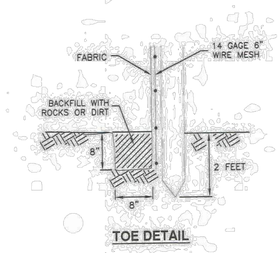
SHEET NUMBER:
DD501

Plot Date:3/3/2025 12:06 PM Plotted By: Daniel Netzley
Date Created:2/27/2025 \\JUB\CENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK 012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEET\57-23-005_DD10X.DWG

NARRATIVE: THIS PLAN MAY BE USED FOR THE CONSTRUCTION OF A STORM WATER BEST MANAGEMENT PRACTICE (BMP). IT IS NOT INCLUSIVE OF ALL PRACTICES AVAILABLE AND IS ONLY SPECIFIC TO THE CONSTRUCTION OF THIS TYPE. MAINTENANCE OF THIS TYPE OF INSTALLATION IS IMPORTANT AND SHOULD BE CONTINUOUSLY MONITORED BY THE CONTRACTOR AND ENGINEER. DETAILS SHOWN HERE HIGHLIGHT IMPORTANT PARTS OF CONSTRUCTION, AND SHOULD BE MODIFIED AS NEEDED.



INSTALLATION SEQUENCE



TOE DETAIL

APWA Utah Chapter

Silt fence

Plan 122 February 2006

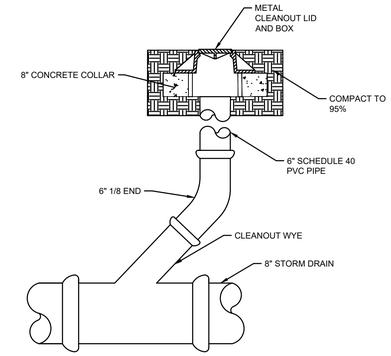
Silt fence

1. **GENERAL**
   - A. Description. A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched.
   - B. Application. To intercept sediment from disturbed areas of limited extent.
   - C. Perimeter Control: Place barrier at down gradient limits of disturbance.
   - D. Sediment Barrier: Place barrier at toe of slope or soil stockpile.
   - E. Protection of Existing Waterways: Place barrier at top of stream bank.
   - F. Inlet Protection.

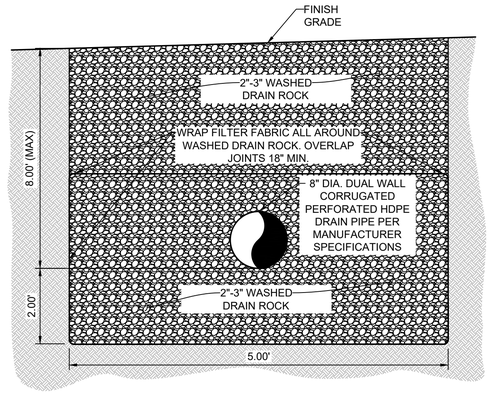
2. **PRODUCTS**
   - A. Fabric. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester, or polyethylene yarn. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 deg F to 120 deg F.
   - B. Burlap. 10 ounces per square yard of fabric.
   - C. Posts. Either 2" x 4" diameter wood, or 1.33 pounds per linear foot steel with a minimum length of 5 feet, or steel posts with projections for fastening wire to them.

3. **EXECUTION**
   - A. Cut the fabric on site to desired width, unroll, and drape over the barrier. Secure the fabric toe with rocks or dirt and secure the fabric to the mesh with twin, staples or similar devices.
   - B. When attaching two silt fences together, place the end post of the second fence inside the end post of the first fence. Rotate both posts at least 180 degrees on a clockwise direction to create a tight seal with the filter fabric. Drive both posts into the ground and bury the flap.
   - C. When used to control sediments from a steep slope, place silt fences away from the toe of the slope for increased holding capacity.
   - D. Maintenance.
     1) Inspect immediately after each rainfall and at least daily during prolonged rainfall.
     2) Should the fabric on a silt fence or filter barrier decompose or become ineffective before the end of the expected usable life and the barrier still be necessary, replace the fabric promptly.
     3) Remove sediment deposits after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.
     4) Re-anchor fence as necessary to prevent shortcutting.
     5) Inspect for runoff bypassing ends of barriers or undercutting barriers.

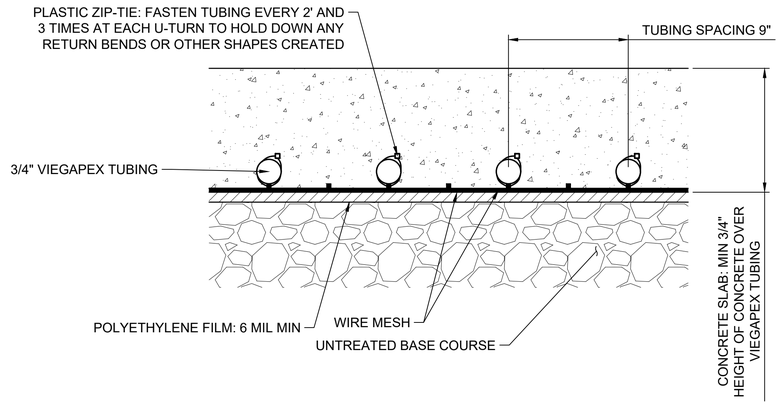
B1 SILT FENCE
SCALE:N.T.S.



A1 CLEANOUT ASSEMBLY
SCALE:N.T.S.



C1 PERCOLATION TRENCH SECTION
SCALE:N.T.S.



C2 HEATED CONCRETE CROSS SECTION
SCALE:N.T.S.

NOTE: ALL CONCRETE PREPWORK, INCLUDING PLACING AND COMPACTION OF UNTREATED BASE COURSE AND FORMWORK TO BE DONE BY CONTRACTOR. PAVEMENT SNOW MELTING SYSTEM TO BE INSTALLED BY WHEELER MACHINERY. CONTRACTOR TO INSTALL CONCRETE AFTER SNOW MELT SYSTEM COMPLETE INSTALLATION. CONTRACTOR ALSO RESPONSIBLE FOR FINISHING AND SEALING OF CONCRETE; AND REMOVAL OF FORMWORK.

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BID SET

REGISTERED PROFESSIONAL ENGINEER
12717219-2202
DANIEL AARON NETZLEY
03/05/2025
STATE OF UTAH

NO.	DESCRIPTION	BY	APR.	DATE
	REVISION			

HYRUM GENERATION PROJECT
HYRUM CITY POWER

CIVIL DETAILS

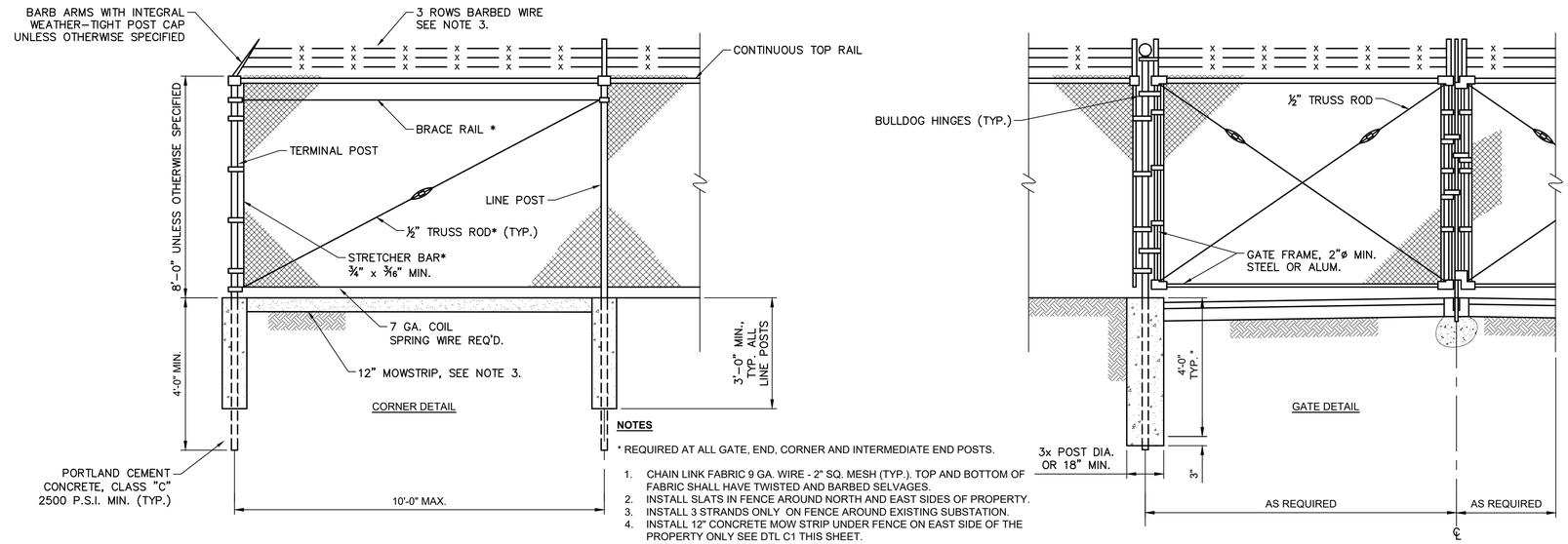
FILE : 57-23-005_DD10X
JUB PROJ. # :57-23-005_012
DRAWN BY: DAN
DESIGN BY: DAN
CHECKED BY: PRW
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 3/3/2025

SHEET NUMBER:
DD502

Plot Date:3/3/2025 12:06 PM Plotted By: Daniel Netzley
Date Created:2/27/2025 \\JUBICENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEETS\57-23-005_DD10X.DWG

MINIMUM MEMBER SIZE AND WEIGHT FOR CHAIN LINK FENCE

MATERIAL	BRACE & TOP RAILS				LINE POSTS						END, CORNER, INTER. END				GATE POSTS					
	TUBULAR		ROLL FORMED		TUBULAR		H–SECTION		ROLL FORMED		TUBULAR		ROLL FORMED		FOR GATE LEAF WIDTH	TUBULAR		ROLL FORMED	
	O.D.	#/FT.	SIZE	#/FT.	O.D.	#/FT.	SIZE	#/FT.	SIZE	#/FT.	O.D.	#/FT.	SIZE	#/FT.		O.D.	#/FT.	SIZE	#/FT.
GALVANIZED OR ALUMINUM COATED	1⅝"	2.27	1⅝" x 1¼"	1.35	2"	2.72	1⅞" x 1⅝"	2.70	1⅞" x 1⅞"	2.28	2⅜"	5.79	3½" x 3½"	5.14	0' - 6' 6' - 13' 13' - 18'	2 ⅞" 4" 6 ⅝"	5.79 9.10 18.97	3½" x 3½" ----- -----	5.14 ----- -----
ALUMINUM ALLOY	1⅝"	0.786	-----	-----	2"	1.264	1⅞" x 1⅝"	0.913	-----	-----	2⅜"	2.004	3" x 3"	2.00	0' - 6' 6' - 13' 13' - 18'	2 ⅞" 4" 6 ⅝"	2.00 3.15 6.56	3" x 3" ----- -----	2.00 ----- -----

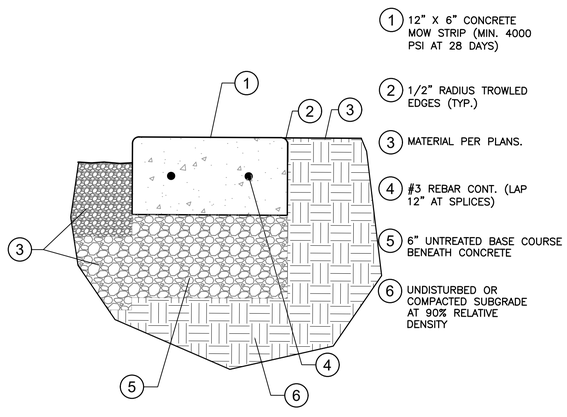


NOTES

* REQUIRED AT ALL GATE, END, CORNER AND INTERMEDIATE END POSTS.

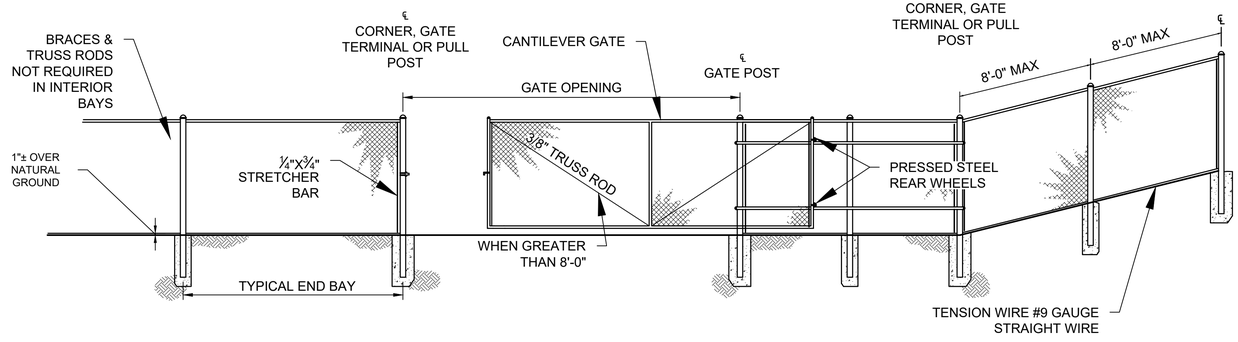
1. CHAIN LINK FABRIC 9 GA. WIRE - 2" SQ. MESH (TYP.). TOP AND BOTTOM OF FABRIC SHALL HAVE TWISTED AND BARBED SELVAGES.
2. INSTALL SLATS IN FENCE AROUND NORTH AND EAST SIDES OF PROPERTY.
3. INSTALL 3 STRANDS ONLY ON FENCE AROUND EXISTING SUBSTATION.
4. INSTALL 12" CONCRETE MOW STRIP UNDER FENCE ON EAST SIDE OF THE PROPERTY ONLY SEE DTL C1 THIS SHEET.

B1 CHAIN LINK FENCE AND SWING GATE DETAIL
SCALE:N.T.S.



NOTE: PROVIDE CONSTRUCTION OR CONTROL JOINTS AT 5' O.C. MAX. AND EXPANSION JOINTS WHERE MOWSTRIP ABUTS ANY MASONRY TYPE IMPROVEMENT.

C1 12" CONCRETE MOWSTRIP
SCALE:N.T.S.



NOTES:
1. ALL FABRIC SHALL BE 6'-0" HIGH CHAIN LINK OF 2" GALVANIZED MESH OF 11 GAUGE.
2. ALL STEEL PIPE MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. DESIGNATION A-120, SCHEDULE 40, HOT DIPPED ZINC COATED STEEL PIPE.

C2 SLIDE GATE WITH FENCE
SCALE:N.T.S.

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HYRUM GENERATION PROJECT
HYRUM CITY POWER

CIVIL DETAILS

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LAST UPDATED: 3/3/2025

SHEET NUMBER:
DD503

Plot Date:3/3/2025 12:06 PM Plotted By: Daniel Netzley
Date Created:2/27/2025 \\JUB\CENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEETS\57-23-005_DD10X.DWG

GENERAL STRUCTURAL NOTES AND SPECIFICATIONS

1. GENERAL

   A. These General Structural Notes and Specifications supplement the project written technical specifications and the project structural drawings.
   B. Where conflicts or discrepancies exist between the Project Drawings, the Contract Documents, Project Geotechnical Report, Technical Specifications, and/or any locally adopted standards or regulations, the more stringent requirement shall apply, unless specifically approved in writing by the Engineer.
   C. The structures shown on the drawings have been designed for stability under final conditions only. These plans do not include the necessary components or equipment for the structures during construction. The Contractor is responsible for all construction bracing, temporary shoring, and other site safety controls required during construction in accordance with all applicable Local, State and Federal regulations, to ensure the stability and safety of all construction until it is completed and self–supporting.
   D. The Contractor is responsible for all water, both above and below ground, runoff and other environmental controls required during construction to ensure the site is maintained in compliance with all applicable Local, State and Federal regulations.
   E. Details on these plans are intended to depict the general construction details and methods for this structure. Connection details and conditions not specifically shown that are similar in nature to those that are specified shall be assumed one and the same. If questions regarding the application of details are encountered, notify the Engineer for clarification or instruction.
   F. Visits to the job site by the Engineer to observe the construction do not in any way mean that they are guarantors of the Contractor's work, nor responsible for comprehensive or special inspections, coordination, supervision, nor safety at the job site.
   G. Prior to implementing any changes to these plans, the Engineer shall be notified in writing for their written approval. Changes implemented without the Engineer's written approval shall relieve the Engineer of any claim or liability resulting from that portion of the structure changed or affected by the change.

2. CONTRACTOR RESPONSIBILITY FOR COORDINATION

   A. It is the Contractors Prime responsibility to coordinate the work shown on all of the Project Drawings, general, special and technical specifications.
   B. The Contractor is responsible to verify all existing construction material types, dimensions, elevations, and conditions.
   C. The Contractor shall verify and coordinate the dimensions among all drawings and in the field prior to proceeding with any work or fabrication, any discrepancy shall be immediately reported to the Engineer for direction and/or clarification. Any construction work done by the Contractor before obtaining such clarification from the project Engineer shall be at the Contractor's own risk and cost. Furthermore; any work required to correct, replace and/or restore the work as directed by the Engineer shall be at the Contractor's own risk and cost.
   D. No structural members shall be cut for pipes, ducts, etc. unless specifically detailed or approved in writing by the Engineer.

3. CODES

   A. Unless otherwise noted, all referenced building codes and standards refer to their current editions, including any local, state, or federal amendments or changes, as adopted in the locality of the Project on the date these drawings are signed and sealed by the Project Engineer.
   B. GENERAL:
      B.1. International Code Council, ICC, International Building Code, 2021 IBC.
      B.2. Minimum Design Loads for Buildings and Other Structures, ASCE 7–16.
   C. CONCRETE:
      C.1. American Concrete Institute, ACI 301, Specifications for Structural Concrete.
      C.2. American Concrete Institute, ACI 318, Building Code Requirements for Structural Concrete.

4. DESIGN CRITERIA

A.	Occupancy or Use; IBC Table 1607.1:	U
B.	Risk Category; ASCE Table 1.5–2:	III
C.	Vehicle Load:	250 PSF
D.	Sidewalk Load:	60 PSF
E.	WIND:	
	E.1. WIND SPEED:	113 MPH
	E.2. WIND EXPOSURE:	C

5. SUBMITTALS

   A. Submit required copies, one (1) electronic .pdf file or three (3) minimum hardcopy, of product or material design information to the Engineer for review for the following items:
      A.1. Concrete mix designs and admixtures.
      A.2. Frame–tie ground anchors.
   B. Submit required copies of shop drawings, one (1) electronic .pdf file or three (3) minimum hardcopy, to the Engineer for review prior to fabrication of the following items:
      B.1. Reinforcing steel for all concrete.

6. SPECIAL INSPECTIONS. Special Inspections per IBC Chapter 17 are required for the following items:

Special Inspections

All special inspection shall be performed by approved inspectors.

		Material	Frequency
A.	Soils. (By Geotechnical Engineer)		
	A.1.	Site preparation	Periodic
	A.2.	Site excavations	Periodic
	A.3.	Fill material verification	Continuous
	A.4.	Fill placement and compaction	Continuous
	A.5.	Lift thickness	Continuous
B.	Concrete		
	B.1.	Reinforcement placement	Periodic
	B.2.	Reinforcing welding	Refer to Steel Welding Requirements
	B.3.	Placement of cast–in–place anchors	Periodic
	B.4.	Verification of use of required mix	Periodic
	B.5.	Concrete placement	Continuous
	B.6.	Concrete curing maintenance	Periodic
	B.7.	Verification of in–situ concrete prior to removal of forms and shores from elevated beams and slabs	Periodic
	B.8.	Verification of formwork	Periodic

7. FOUNDATIONS

   A. All footings to be placed on firm undisturbed, inorganic material. Proof roll sub–grade prior to placing concrete where the material has been disturbed by the excavating equipment.
   B. All soil bearing surfaces shall be inspected by the soils Engineer prior to placement of reinforcing steel.
   C. All piers and footings outside or at the perimeter of the structure, or in other unheated areas shall be set to a depth of at least 16" below finish grade, unless otherwise noted on the plans.
   D. All foundations and retaining walls below finish grade shall receive an approved damp–proof coating. Foundation walls below maximum anticipated ground water levels shall receive an approved water–proof coating; extend water–proofing to a minimum of 1–ft above the maximum anticipated ground water level.
   E. Allowable bearing pressure for all footings Qa=1,500 psf on compacted subgrade.
   F. Excavations shall be shored as required to prevent subsidence or damage to adjacent existing structures, streets, utilities, etc.
   G. Local areas of soft and/or unacceptable material encountered at bottom of footing elevations indicated on the plans must be over–excavated and brought up to design grade with compacted structural fill or lean concrete fill, at no additional cost to the owner.
   H. All structural fill and/or backfill shall be granular, free draining, material; Unified Soils Classification GW, GP, GM or SW; maximum aggregate size of 3–in. and no more than 5% passing a number 200 sieve. Material shall be placed in lifts no greater than 6–in. in depth and compacted to 95% of maximum density as determined per ASTM D1557.
   I. Design for the mitigation of subsurface water flow and/or perched water tables shall be the responsibility of others.
   J. The Engineer shall be notified in writing if any unexpected ground water, clay type soils, debris or unconsolidated materials are encountered during excavations for foundations.
   K. Non–Frost Susceptible Soil is granular soils with less than 6% by mass passing a #200 sieve.
   L. Refer to the final geotech report by A Cache Corp. Dated September 10, 2022.

8. CONCRETE

   A. GENERAL. Concrete shall be proportioned to provide an average compressive strength, f'c, as prescribed in ACI 318 and shall satisfy the durability criteria of ACI 318/350.
   B. PROJECT CONCRETE MIX TYPES: Concrete shall be proportioned and furnished for the various project uses for exposure classes F2, S1, W2, C1, and as indicated on the plans and as follows:
      B.1. M4000–std: Standard general structural concrete mix for walls, columns, foundations, exterior slabs, and beams: f'c = 4000 psi, Absolute water–cement ratio by weight = 0.45, Air Content = 6% (+/–1.5%), maximum aggregate size 1–inch; slump 3 to 5 inches.
   C. CONCRETE MIX COMPONENTS.
      C.1. Cement: ASTM C150 Type II; ASTM C595 Type IL(MS); ASTM C1157 Type MS.
      C.2. Water: Clean & Potable.
      C.3. Aggregate: 3/4–inch Maximum aggregate per ASTM C33. Unless noted otherwise.
      C.4. Air entraining agent: ASTM C260. Except where concrete is noted to be non–air entrained.
      C.5. A water–reducing admixture conforming to ASTM C494, used in strict conformance with the manufacturer's instructions, shall be incorporated in all concrete mix designs.
      C.6. For all water–retaining concrete structural walls and slabs, a high–range water–reducing (HRWR) admixture conforming to ASTM C494, Type F or G, shall be used. The total slump shall be less than 10–in.
      C.7. Higher water–cement ratios than shown above may be used if substantiated in accordance with ACI 350.
      C.8. Fly–ash conforming to ASTM C618 Type F or C, may replace up to 20% of the cement content, provided that the mix strength is substantiated by test data.
      C.9. Mix Proportioning: ACI 211.1 and 350R.
   D. CONCRETE ACCESSORIES:
      D.1. REINFORCING STEEL: Reinforcing steel shall conform to ASTM A615 Grade 60; #3 bars may be Grade 40.
      D.2. WELDED WIRE FABRIC: ASTM A185 or A497.
      D.3. WIRE: Plain wire shall conform to ASTM A 82. Deformed wire shall conform to ASTM A 496, and Epoxy coated wire shall conform to ASTM A 884.
      D.4. JOINTING MATERIALS: In accordance with ACI 350 Section 4.8.2. All jointing materials including water–stops, expansion joints and sealants, shall be resistant to chemical attack for the design life of the facility. Sealants shall conform to ASTM C920 and Federal Specification TT–S–00227E and PVC Water–stop shall conform to ASTM D570, ASTM D746, ASTM D1149 and CRD–C572.
   E. CONCRETE PROPORTIONS.
      E.1. Concrete mix proportioning shall be in accordance with ACI 211.1; Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
      E.2. Concrete mix proportioning for lightweight concrete shall be in accordance with ACI 211.2; Standard Practice for Selecting Proportions for Lightweight Concrete.
   F. CONCRETE MIX VERIFICATION: Concrete mix designs shall be verified by standard 28–day cylinder tests per ASTM C39.
   G. EVALUATION AND ACCEPTANCE OF CONCRETE. Concrete shall be tested in accordance with the requirements of ACI 318/350.
   H. MIXING & PLACING CONCRETE. Concrete shall be prepared, mixed, placed and consolidated in accordance with ACI 318/350 and as follows:
      H.1. ACI 304; Guide for Measuring, Mixing, Transporting, and Placing Concrete.
      H.2. ACI 309; Guide for Consolidation of Concrete.
   I. MINIMUM TIME BETWEEN ADJACENT PLACEMENTS:
      I.1. Non–liquid Retaining Structures:
         I.1.a. Construction Joints: Five (5) days wet cure, or seven (7) days dry cure.
         I.1.b. Control Joints: Two (2) days.
         I.1.c. Expansion Joints: One (1) day.
   J. CONCRETE CURING. Concrete shall be maintained above 50–degrees F and in a moist condition for at least 7 days after placement, except when cured in accordance with ACI 318/350.
      J.1. Curing of concrete shall be per the recommendations given in ACI 308; Guide to Curing Concrete.
   K. COLD WEATHER REQUIREMENTS. Adequate equipment shall be provided for heating concrete materials and protecting concrete during freezing or near–freezing weather. The recommended procedures listed in ACI 306; Cold Weather Concreting shall be followed.
      K.1. Cold weather is defined as a period when, for more than three (3) consecutive days, the following conditions exist:
         K.1.1. The average daily air temperature is less than 40–degrees F and
         K.1.2. The air temperature is not greater than 50–degrees F for more than one–half of any 24–hour period.
   L. HOT WEATHER REQUIREMENTS. During hot weather, proper attention shall be given to ingredients, production methods, handling, placing, protection, and curing to prevent excessive concrete temperatures or water evaporation that could impair required strength or serviceability of the member or structure. The recommended procedures listed in ACI 305; Hot Weather Concreting shall be followed.
      L.1. Hot weather is any combination of the following conditions that tends to impair the quality of freshly mixed or hardened concrete by accelerating the rate of moisture loss and rate of cement hydration, or otherwise causing detrimental results:
         L.1.1. High ambient temperature.
         L.1.2. High concrete temperature.
         L.1.3. Low relative humidity.
         L.1.4. Wind speed.
         L.1.5. Solar radiation.

9. FORMWORK

   A. Forms shall result in a final structure that conforms to shapes, lines, and dimensions of the members as required by the design drawings and specifications.
      A.1. Design of formwork shall be in accordance with ACI 318/350.
      A.2. Formwork shall be in accordance with ACI 347; Guide to Formwork for Concrete.
   B. Tolerances for finished concrete surfaces shall meet the following requirements, class of surface is per ACI 117 Section 4.8.3:
      B.1. Footings: Class C
      B.2. Foundation walls: Class B
      B.3. Above grade concrete not visible to sight: Class B
      B.4. Above–grade concrete visible to sight: Class A
   C. Chamfer all exposed corners and fillet entrant angles ¾" unless otherwise noted on the drawings.
   D. REMOVAL OF FORMS.
      D.1. Concrete forms shall not be removed until the retained concrete has reached the following minimum percentage of the required 28 day compressive strength:
         D.1.a. Footings and base slabs on grade: 50% of f'c.
         D.1.b. Foundation walls and columns: 67% of f'c.
         D.1.c. Elevated structural slabs, beams & joists: 95% f'c.
      D.2. Where concrete cylinder tests are not available for strength verification the following guide may be used when permitted by the Project Engineer:
         D.2.a. Footings and base slabs on grade: 12 hours.
         D.2.b. Foundation walls and columns: 24 hours.
         D.2.c. Elevated structural slabs, beams and joists:
            D.2.c.1. Spans under 10–feet: 4 days
            D.2.c.2. Spans between 10–feet and 15–feet.: 7 days.
            D.2.c.3. Spans between 15–feet and 20–feet: 10 days
            D.2.c.4. Spans greater than 20–feet: by cylinder strength verification only.
   E. OPENINGS AND EMBEDMENTS IN CONCRETE.
      E.1. Conduits, pipes, and sleeves of any material not harmful to concrete and within limitations of ACI 318/350 shall be permitted to be embedded in concrete with approval of the Project Engineer, provided they are not considered to replace structurally the displaced concrete, except as provided per code requirements.
      E.2. The Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, and inserts prior to placement of concrete.
      E.3. Conduits and pipes of aluminum shall not be embedded in structural concrete

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PROFESSIONAL ENGINEER
No. 7944020-2202
BRANDON LEE COX
STATE OF UTAH

MAR 03 2025

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

HYRUM GENERATION PROJECT
HYRUM CITY POWER

GENERAL STRUCTURAL NOTES

FILE : 57-23-005_012_S-001
JUB PROJ. # : 57-23-005_012
DRAWN BY: EM
DESIGN BY: TIH
CHECKED BY:
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LAST UPDATED: 2/20/2025

SHEET NUMBER:
S-001

Plot Date:2/20/2025 7:05 PM Plotted By: Brandon Cox
Date Created:9/4/2024 \\JUB.COM\CENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEET\57-23-005_012_S-001.DWG

GENERAL STRUCTURAL NOTES AND SPECIFICATIONS CONTINUED

unless effectively coated or covered to prevent aluminum–concrete reaction or electrolytic action between aluminum and steel.

F. CONSTRUCTION JOINTS.

F.1. Construction joints shall only be placed where indicated on the project drawings or as approved by the Project Engineer. Contractor may revise the locations of joints, subject to specified requirements, and shall submit all revised joint locations for review by the engineer prior to placing any concrete.

F.2. Continuous waterstop as specified shall be installed in all construction joints except where specifically noted otherwise.

F.3. Roughen and clean all construction joints as specified prior to placing adjacent concrete. Sandblasting or other preparation of horizontal and vertical joints is required.

F.4. Construction joints shall be constructed in accordance with ACI 318/350. Conform to ACI 301.

10. CONCRETE FINISHING. All concrete surfaces shall be finished in accordance with ACI 301.

A. Formed Concrete Surfaces. After removal of forms, give each formed surface one or more of the following finishes in conformance with ACI 301:

A.1. Non–liquid Retaining Concrete Structures:

A.1.a. Concrete footings and foundations not exposed to view. Provide an As–Cast, SF–1.0 surface finish.

A.1.b. Foundation wall and other surfaces below grade and not exposed to view. Provide an As–Cast, SF–1.0 surface finish.

A.1.c. Interior, exterior and top surfaces exposed to view to 6–inches below grade. Provide an Smooth–rubbed, SF–2.0 surface finish.

A.1.d. Column, beam and joist surfaces that are exposed to view. Provide an Smooth–rubbed, SF–2.0 surface finish.

A.1.e. Concrete surfaces to be painted or receive other coating systems. Provide an As–cast, SF–3.0 surface finish. Assure a smooth surface and voids greater than ⅛" in any direction are filled.

B. Unformed Concrete Surfaces. Unformed concrete surfaces including the top surface of all concrete roof and floor slabs shall be finished in accordance with ACI 301 and ACI 302.

B.1. Non–liquid Retaining Concrete Structures:

B.1.a. For the top surfaces of walls, provide a scratch finish.

B.1.b. Interior areas receiving only light foot traffic shall receive a Troweled finish.

B.1.c. Interior garage, industrial or work areas subject to equipment or traffic loads shall receive a Broom finish.

B.2. Liquid Retaining Concrete Structures:

B.2.a. For the top surfaces of walls, provide a scratch finish.

B.2.b. Interior areas in contact with liquid shall receive a Troweled finish.

B.3. Provide a Nonslip finish for exterior surfaces and where indicated on the plans.

C. Sawed contraction joints. Conform to ACI 301.

11. DETAILS OF REINFORCEMENT

A. Placement of all reinforcing steel within concrete structures shall be in conformance with ACI 318/350.

B. All reinforcing steel shall be uncoated unless specifically noted otherwise.

C. Reinforcing steel hooks, bends, ties, splices and other reinforcement details shall be in accordance with ACI 315; Details and Detailing of Concrete Reinforcement.

D. All reinforcing steel shall be bent by the fabricator prior to delivery to the site. Reinforcing steel shall not be field bent, unless specifically approved by the Engineer in writing.

E. Spacing limits for reinforcement shall be in conformance with ACI 318/350.

F. Concrete protection for reinforcement. Unless noted elsewhere on the drawings, all reinforcing steel shall have the following concrete cover:

F.1. For non–liquid containing concrete structures; per ACI 318:

F.1.a. Concrete cast against earth: 3.00 inch

F.1.b. Concrete exposed to earth or weather;

F.1.b.1. No. 5 or smaller bars: 1.50–inch

F.1.b.2. No. 6 or larger bars: 2.00–inch

F.1.c. Concrete not exposed to earth or weather;

F.1.c.1. No. 11 or smaller bars: 0.75–inch

F.1.c.2. No. 14 or larger bars: 1.50–inch

F.1.d. Beams and columns;

F.1.d.1. Primary rein., ties, stirrups or spirals: 1.50–inch

G. Concrete blocks or plastic–coated bar chairs shall be provided for support of all slab reinforcing steel, sufficient in number to prevent settlement or sagging, but in no case shall such support be continuous. Metal clips or supports shall not be placed in contact with the forms or the sub–grade.

H. Dowels and anchor bolts shall be wired or otherwise held in correct position prior to placing concrete. Care shall be taken to ensure that dowels and anchor bolts remain plum after concrete is poured and vibrated. In no case shall dowels or anchor bolts be stabbed into freshly poured concrete.

I. Provide dowels in footings and at construction joints to match vertical reinforcing bar size and spacing, unless otherwise noted on the drawings.

J. Where drilled in anchors are to be post–installed into concrete surfaces take care to locate reinforcing steel so that it will not interfere with the drilling operations. Move bars plus or minus 1 to 2 inches in order to avoid drilling conflicts.

K. All bar bends, hooks, splices and other reinforcing steel details shall conform to the requirements of ACI 315.

L. Unless otherwise noted on the plans all bars shall be spliced with a minimum Class B lap splice; lap splices of deformed bars and deformed wire in tension zones shall be Class A splices.

M. At all corners and wall intersections provide bent bars to match the horizontal reinforcing steel and in accordance with the typical corner reinforcing details.

N. Coordinate placement of dowels into masonry or brick walls with the masonry shop drawings.

O. If the Contractor fails to properly tie reinforcing and anchors before concrete is cast in place, the Contractor shall remove all substandard work and reconstruct the concrete work at his own expense. However, if the Project Engineer determines the concrete work to be adequate to remain in place, the substandard work shall be paid out at a 50% pay deduction for all associated concrete work.

P. At slab and wall openings provide a minimum of (4) #5 bars; over, under and at either side of the openings. Extend these bars a minimum of 24–in. past the opening edge. Provide (1) matt of (4) #5 bars for walls or slabs with single–layer reinforcing and (2) matts of (4) #5 bars for double–layer reinforcing walls or slabs. Provide #4, 48–inch long diagonal bars at each re–entrant corner in slabs; (1) bar for slabs with single layer reinforcing and (2) bars for slabs with double layer reinforcing.

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PROFESSIONAL ENGINEER
No. 7944020-2202
BRANDON LEE COX
STATE OF UTAH

MAR 03 2025

NO.	DESCRIPTION	BY	APPR.	DATE
	REVISION			

HYRUM GENERATION PROJECT
HYRUM CITY POWER

GENERAL STRUCTURAL NOTES

FILE : 57-23-005_012_S-001
JUB PROJ. # : 57-23-005_012
DRAWN BY: EM
DESIGN BY: TIH
CHECKED BY:
ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY
LAST UPDATED: 2/20/2025

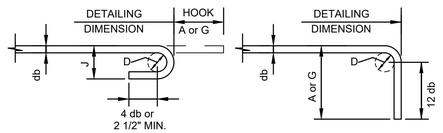
SHEET NUMBER:
S-002

Plot Date:2/20/2025 7:05 PM, Plotted By: Brandon Cox
Date Created:9/4/2024 \\JUB.COM\CENTRAL\CLIENTS\UT\HYRUMCITY\PROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEET\57-23-005_012_S-001.DWG

BAR SIZE	LAP CLASS	f'c=3,000 psi		f'c=4,000 psi		f'c=4,500 psi		f'c=5,000 psi	
		CAT.1	CAT.2	CAT.1	CAT.2	CAT.1	CAT.2	CAT.1	CAT.2
#3	A	16	25	14	21	14	20	13	19
	B	21	32	19	28	18	27	17	25
#4	A	22	33	19	28	18	27	17	25
	B	28	43	25	37	24	35	22	33
#5	A	27	41	24	36	23	34	21	32
	B	36	53	31	46	30	44	28	41
#6	A	33	49	28	43	27	41	25	38
	B	43	64	37	55	36	53	33	50
#7	A	49	72	42	62	40	59	37	56
	B	62	93	54	81	51	77	48	72
#8	A	55	82	47	71	45	68	42	64
	B	71	106	61	92	58	88	55	83
#9	A	62	92	53	80	51	76	48	72
	B	80	120	69	104	66	99	62	93

NOTES:
1. FOR GRADE 60 REINFORCING STEEL BARS.
2. ALL LAP SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE.
3. CATEGORY 1: CLEAR COVER >= db & CLR. SPACING >= db, AND STIRRUPS OR TIES THROUGHOUT Ld ARE PROVIDED. CATEGORY 1: CLEAR COVER >= db & CLR. SPACING >= 2db. CATEGORY 2: CLEAR COVER < db OR CLR. SPACING < 2db.
4. FOR TOP BARS MULTIPLY LAP LENGTH LISTED BY 1.30 TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.

A1 TYP REBAR LAP SPLICE SCHEDULE
SCALE:NTS

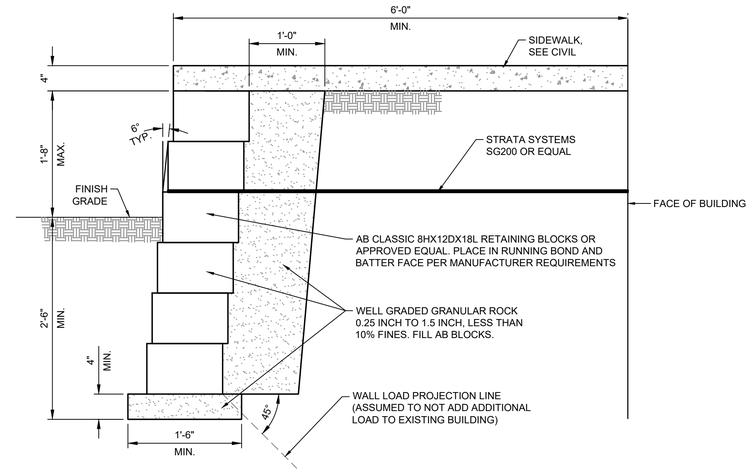


180° HOOKS 90° HOOKS

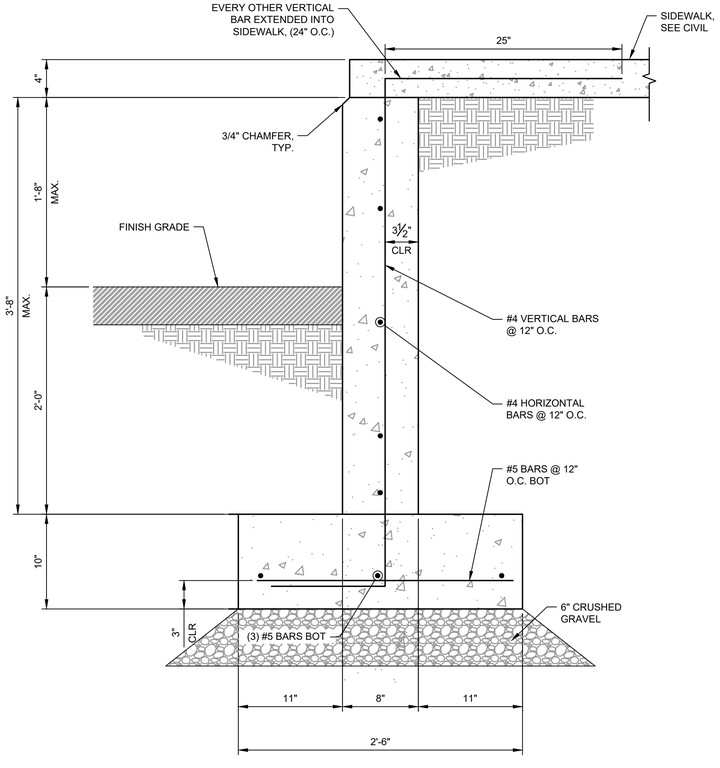
BAR SIZE	D	180° HOOKS		90° HOOKS
		A or G	J	A or G
#3	2 1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3 3/4"	7"	5"	10"
#6	4 1/2"	8"	6"	1'-0"
#7	5 1/4"	10"	7"	1'-2"
#8	6"	11"	8"	1'-4"

NOTES: db = NOMINAL BAR DIAMETER.
D = FINISHED INSIDE BEND DIAMETER.
MINIMUM D = 6 db FOR #3 TO #8 BARS
MINIMUM D = 8 db FOR #9 TO #11 BARS
MINIMUM D = 10 db FOR #14 AND #18 BARS
TYPICAL MINIMUM END HOOKS, ALL GRADES OF STEEL.

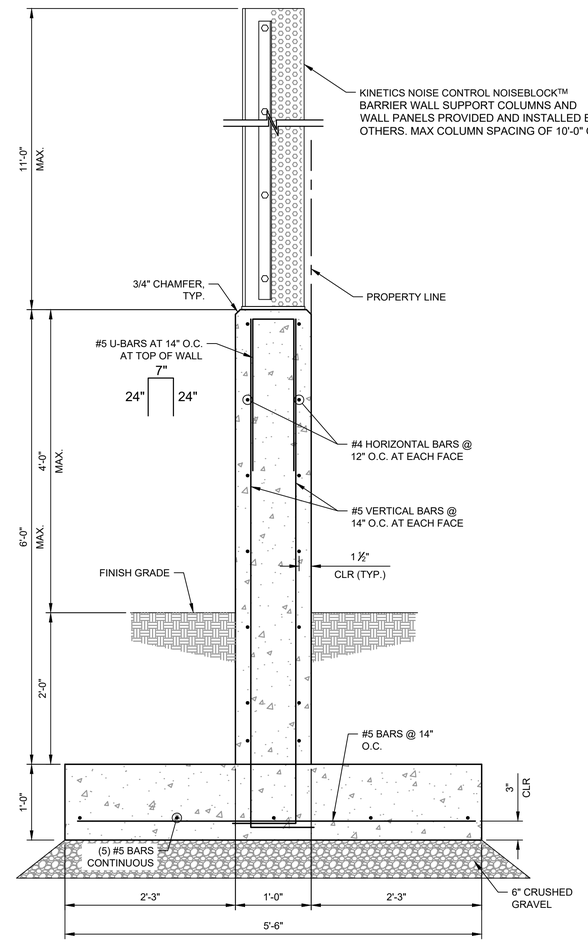
A2 TYP REBAR HOOK DETAIL
SCALE:NTS



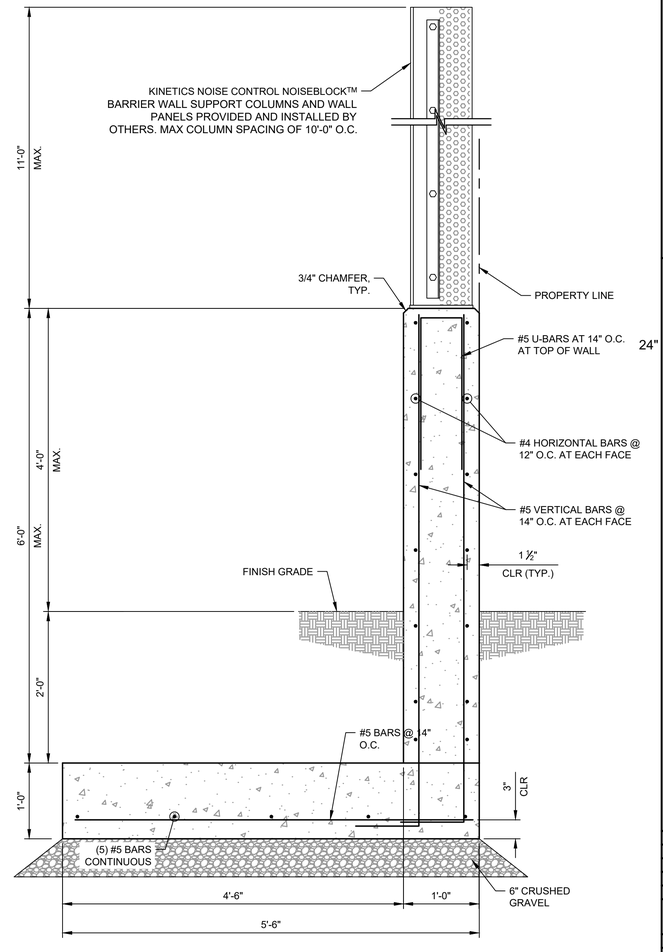
A3 GRAVITY BLOCK RETAINING WALL AT BUILDING OPTION
SCALE:1 1/2"=1'-0"



C1 CONCRETE RETAINING WALL AT BUILDING OPTION
SCALE:1 1/2"=1'-0"



C2 SOUND WALL FOUNDATION AT SOUTH AND WEST PROPERTY LINES
SCALE:1"=1'-0"



C3 SOUND WALL FOUNDATION AT EAST PROPERTY LINE
SCALE:1"=1'-0"

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NO.	DESCRIPTION	BY	APR.	DATE
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HYRUM GENERATION PROJECT
HYRUM CITY POWER

STRUCTRUAL DETAILS

FILE :	57-23-005_012_S-501
JUB PROJ. #:	57-23-005_012
DRAWN BY:	EM
DESIGN BY:	TIH
CHECKED BY:	###

ONE INCH
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY

LAST UPDATED: 2/20/2025

SHEET NUMBER:
S-501

Plot Date:2/20/2025 7:08 PM Plotted By: Brandon Cox
Date Created:2/13/2025 \\JUB.COM\CENTRAL\CLIENTS\UT\HYRUM\CITYPROJECTS\57-23-005_2023GENERALSERVICES\TASK_012_HYRUMPOWERGENERATIONSITEMODIFICATIONS\DESIGN\CAD\SHEETS\57-23-005_012_S-501.DWG