Bloomington Well Project Permit Application

Weber County Development Process

In an effort to streamline the building permit process, Weber County has produced this packet as a means to assist you in understanding the application procedure and requirements when applying for a building permit. This packet includes the necessary submittal checklists outlining the required information you will need to prepare and provide for a complete building permit submittal.

Prior to any site or construction designs, please contact our office for assistance in determining if the property is considered a "Lot of Record" and if the building lot falls within a potential geologic hazard area. If it is determined that the lot is not considered a "Lot of Record", the subdivision process will need to be approved prior to accepting any development plans. If a potential geologic hazard exists, a site reconnaissance letter or a geologic and geotechnical report addressing the hazards prepared and signed by a qualified geologist and geotechnical engineer will be required at the time of building permit submittal.

The following materials have been included in this application packet for your convenience:

- Building Permit Submittal Checklist
- Building Permit Application
- Example site plan

Incomplete applications will not be accepted, receipted, or processed. In order to adequately process your building permit request, the following materials will be required at the time of submission of your application:

- Complete and Signed Building Permit Application
- All items listed on the attached Submittal Checklist (incomplete applications will not be accepted)
- Geologic and/or geotechnical studies or reports regarding the building lot if it is found to be in a potential geologic-hazardous area
- Other supporting materials as applicable

Weber County requires that adequate proof of culinary and waste water approvals have been received and/or the applicable connection fees have been paid to the servicing providers. These items will not be required at the initial submittal stage; however these items will be required to be submitted to our office prior to the issuance of the building permit.

By following the outlined procedures your applications will be processed and reviewed in the timeliest manner possible. If you have any further questions regarding the required materials, process, or ordinances for building permit applications, please feel free to contact our office at the address and phone number listed below.

Weber County Engineering and Planning Division | www.co.weber.ut.us
2380 Washington Blvd., Suite 240 Ogden, Utah 84401-1473 | Voice: (801) 399-8374 | Fax: (801) 399-8862

Residential Building Permit Submittal Checklist

Incomplete applications will not be accepted or held. All required items shall be submitted.

_____ A lot located in an approved/ recorded subdivision or proof of a "Lot of Record" determination
_____ Adequate Right of Way Dedication per LUC §108-7-19(2)
_____ Geologic site reconnaissance clearing the lot for development or
*If an engineering geologist deems additional studies are necessary,
_____ A copy of the final geotechnical and geologic reports stamped, signed and dated by an approved Utah State Engineering Geologist and Geotechnical Engineer, if applicable.
_____ Letter from Structural Engineer stating the plans have been designed to meet the Engineering Geologist and Geotechnical Engineer's recommendations, if applicable
_____ A copy of final, approved Hillside Review, if applicable
_____ Completed permit application including the signature of the general contractor and or the owner.

- Must include the name, address and state contractor's license numbers for the General Contractor, Electrical, Plumbing and Mechanical sub-contractors.

_____ Site plans with labels and scale on a PDF

Site plans shall include, at a minimum, but are not limited to the following information for review:

- Lot/Parcel Boundary Lines
- North Arrow
- Existing site contours
- The proposed location of new structure footprint with dimensions from proposed structure to the property lines
- All existing structure footprint locations
- Street (labeled) and driveway location
- Easements/right-of-ways, if applicable
- Seasonal or year-round stream corridors

_____ Complete plans with scale on a PDF.

All plans shall include, at a minimum, but are not limited to the following information for land use and building permit reviews:

- Building elevations (renderings) reflecting natural grade with dimensions showing height measured from highest natural grade and the lowest natural grade to the highest point of the coping of a flat roof, or to the deck line of a mansard roof, or to the highest point of the ridge of a pitch or hip roof.
- Footing\Foundation plan including all decks/porches/covered patios
- Floor, Deck and Roof framing plans.
- Floor plans (all levels)
- Building sections and Engineered Details.

_____ Structural calculations from the Engineer of record
_____ Energy Conservation Compliance Method:

- REScheck
- Other _____

_____ Exterior Lighting Plan
_____ SWPPP Storm Water Pollution Prevention Plan (State/Local)
_____ All engineered, architectural and site plans are to be combined into one PDF file format to scale to be provided by email to buildingpermits@co.weber.ut.us

The following items will not be required at the initial submittal stage; however, these items will be required to be submitted to our office prior to the issuance of the building permit:

_____ Receipt for payment of Fire District Impact Fee and approval of the fire protection system.
_____ Septic Tank Permit from Weber County Environmental Health Department or authorization to connect to an approved wastewater disposal system
_____ Receipt from an approved culinary water system or an authorization specific to the building lot for connection to the water system. An approved and tested well permit from Weber County Environmental Health Department is also permitted.

Submitted by: Bill Lewis (Nelson Brothers Construction Company)
Date Received: _____ Received by: _____

Weber County Building Permit Application

Incomplete applications will not be accepted or held. All required items shall be submitted.

Date Submitted /Completed	Fees *(Office Use)*	Receipt Number *(Office Use)*

Property Owner Contact Information		**Authorized Representative Contact Information**	
Name of Property Owner(s) SMHG LANDCO LLC		Name of Person Authorized to Represent the Property Owner(s) BILL LEWIS	
Phone 303-905-3496	Email (Required) dguerra@powdermountain.com	Phone 801-381-1920	Email(Required) blewis@nelsonbros.com

Property Information

Property Address	Land Serial Number		Current Zoning
Approx 7670 E. Summit Pass Road	23-012-0136		DRR-1
Subdivision Name N/A	Lot Number N/A	Acreage 18.4	Frontage 2200'
Culinary Water Provider PMWSID	Secondary Water Provider N/A		Waste Water Provider PMWSID

Detailed Description of Proposed Use/Structure

800 square foot utility building for pumping and metering water from an existing well to an existing water tank. Building will be owned and operated by Powder Mountain Water and Sewer Improvement District after constructed

Contractor Information

Architect or Engineer: Bowen Collins & Associates Contact: Eric Neil	Phone Number: 801-495-2224
General Contractor: Nelson Brothers Construction Co.	Contractor's Address: 347 West 1600 South Salt Lake City, Utah 84115
Phone number: 801-487-5401	State License: 225 813-5501
Electrical Contractor: ID Electric Company	Contractor's Address: 3690 S 500 W Salt Lake City, Utah 84115
Phone number: 801-268-1471	State License: 243078-5501
Plumbing Contractor: Not Applicable (N/A)	Contractor's Address: N/A
Phone number: N/A	State License: N/A
Mechanical Contractor: Carver Sheet Metal	Contractor's Address: 1349 Jefferson Street Salt Lake City, Utah 84115
Phone number: 801-484-4387	State License: 225971-5501

Submittal Requirements: *(Check all that apply)*

Parcel Information: *Check one*

- [x] Lot of Record
- [ ] Lot within an approved subdivision meeting the applicable notes on the plat

Site plan with required information demonstrated on the site plan as outlined on the Submittal Checklist:

- **Site Access:** *Check One*
  - [x] Across own front property line
  - [ ] Flag lot approval date: _____
  - [ ] Alternative Access approval date: _____
- **Setback Requirements:** *Check all that apply*
  - [x] Meets setbacks per ordinance:
    Front: 0 Side: 5 Rear: 10 Side Street: 5
  - [x] Meets additional setbacks per outlined "Site Restrictions"
- **Large Accessory Building:**
  - [ ] Located in the front or side of main dwelling with conforming architectural style and material as main building.
  - [ ] Located behind dwelling
- **Height Requirements:** *Check one*
  - [x] Meets height requirements per Weber County Land Use Code
  - [ ] Height Variance approval date:_____

Site Restrictions: *Check all that apply*

- [ ] FEMA Flood Zone_____
- [ ] Buildable area recorded on the plat
- [ ] Lot identified as a "R" (restricted lot)
- [ ] Areas of slope greater than 25%
- [x] Geologic Study Area
- [ ] Site Elevation below 4,218
- [ ] Wetlands as identified by the USGS

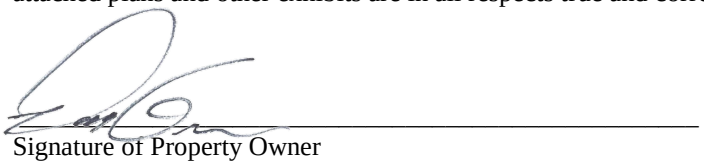
- Western Weber Stream Corridor:
  - [ ] Year-Round stream; or
  - [ ] Ephemeral stream
- Ogden Valley Sensitive Lands:
  - [ ] Scenic Corridor
  - [ ] Ridgeline
  - [ ] Historic/Prehistoric and/or Cultural Resources
- Ogden Valley Stream corridor setbacks:
  - [ ] North Fork, South Fork & Middle Fork of the Ogden River: 100' setback from high water mark
  - [ ] Year Round: 75' setback from high water mark
  - [ ] Ephemeral: 50' setback from high water mark

The following submittal items are considered required items and shall be submitted with the building permit application. Incomplete applications will not be accepted or held.

- Geology:
  - [x] Geologic Unit: Tw as determined by Weber County staff member: _____
    - [x] Geologic site reconnaissance required? Yes (●) No ( )
  - [x] If yes, Geologic site reconnaissance clearing the lot for development will be required to be submitted or if an engineering geologist deems additional studies are necessary, the final geotechnical and geologic reports will be required to be stamped, signed and dated by an approved Utah State Engineering Geologist and Geotechnical Engineer.
- Two complete and identical sets of the plans with scale including the following information:
  - [ ] Site Plan including existing site contours and lot/parcel boundary lines
  - [ ] Building elevations (renderings) reflecting natural grade
  - [ ] Structure Footing\Foundation plan including all decks/porches/covered patios
  - [ ] Floor plans (all levels)
  - [ ] Section\Details
  - [ ] Structural calculations from the Engineer of record
  - [ ] Energy Conservation Compliance Method (REScheck or other method)
  - [ ] SWPPP Storm Water Pollution Prevention Plan (State/Local)
  - [ ] Receipt for payment of Fire District Impact Fee
  - [ ] All engineered, architectural and site plans are to be combined into one PDF file format to scale
- The following items will not be required at the initial submittal stage; however these items will be required to be submitted to our office prior to the issuance of the building permit:
  - [ ] Proof of approved wastewater disposal system
  - [ ] Proof of approved culinary water system

Signature of Property Owner or Authorized Representative

I (We), DON GUERRA, depose and say that I (we) am (are) the owner(s) or authorized representative of the property identified in this application and that the statements herein contained, the information provided in the attached plans and other exhibits are in all respects true and correct to the best of my (our) knowledge.



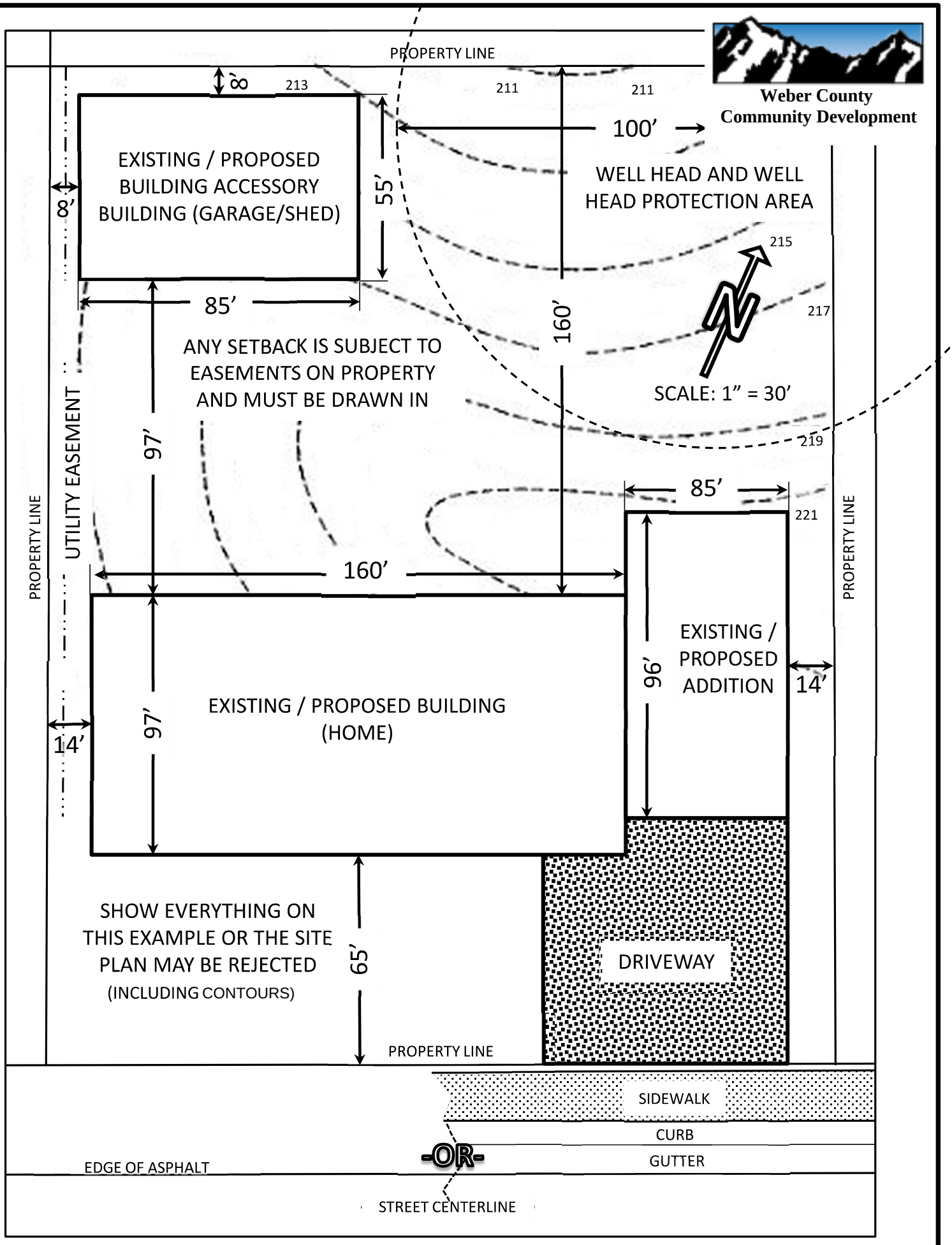
Signature of Property Owner

Or

_____

Signature of Authorized Representative

This permit becomes null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work is commenced. I hereby certify that I have read and examined this application and know the same to true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not the granting of a permit dose not presume to give authority to violate or cancel the provisions of any State or local law regulating construction or the performance of construction and I make this statement under penalty of perjury.



SITE PLAN EXAMPLE

THIS IS AN EXAMPLE ONLY & IS NOT DRAWN TO SCALE

SITE PLANS SHOULD BE DRAWN TO SCALE, & ZONING WILL DETERMINE SETBACKS

CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

BLOOMINGTON WELL PROJECT

Volume 2 of 2
Drawings

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

POWDER MOUNTAIN

Summit Mountain Holding Group

For Information Regarding this Project Contact:
Eric Neil, P.E.
154 East 14075 South
Draper, Utah 84020
(801) 495-2224

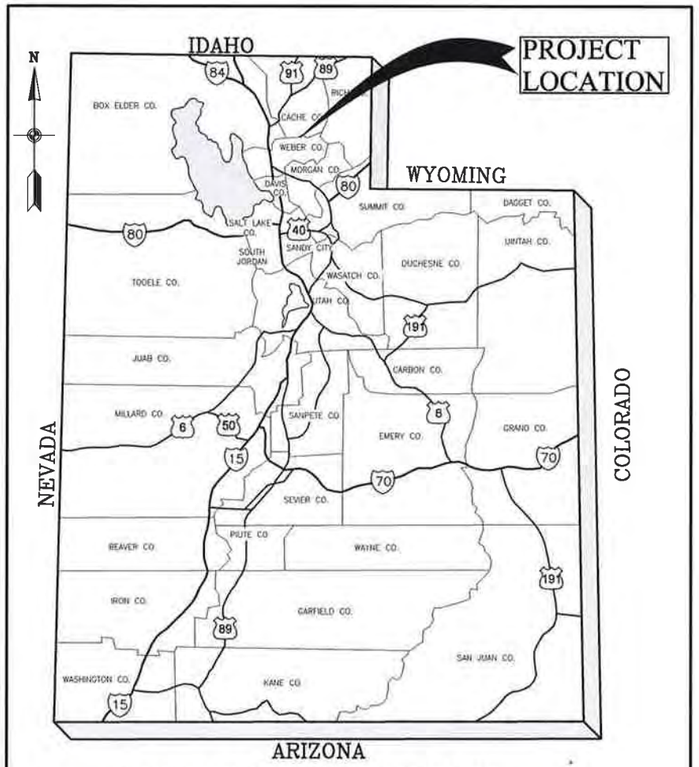
BOWEN COLLINS & ASSOCIATES

February 2019

DRAWINGS FOR CONSTRUCTION OF

BLOOMINGTON WELL PROJECT

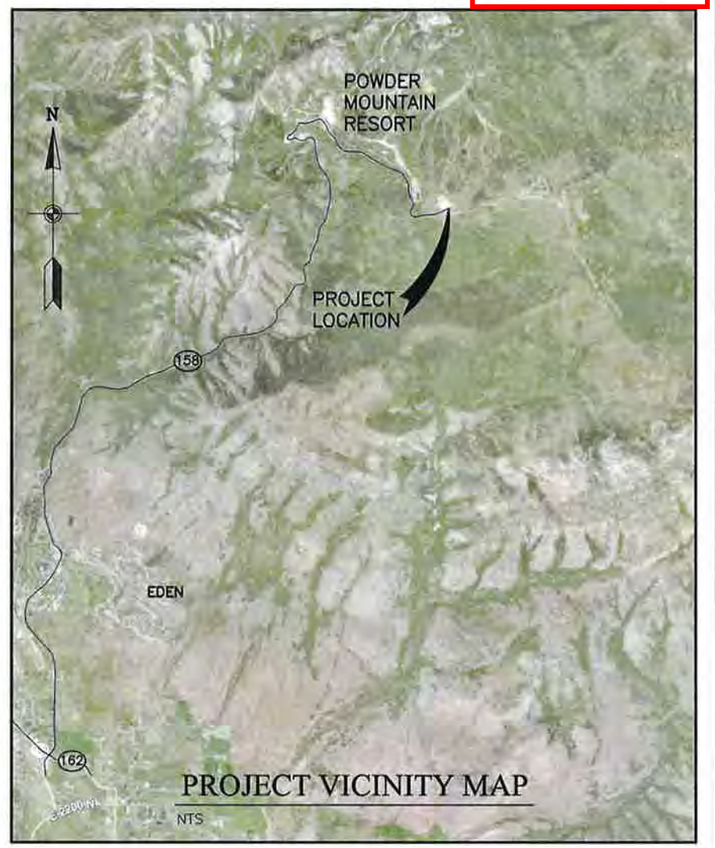
WEBER COUNTY, UTAH



PROJECT LOCATION MAP

NTS

INDEX OF DRAWINGS		
SHT NO.	DWG NO.	DESCRIPTION
		GENERAL
1	G–01	TITLE, PROJECT LOCATION MAP, INDEX OF DRAWINGS & VICINITY MAP
2	G–02	SYMBOLS
3	G–03	ABBREVIATIONS
4	G–04	GENERAL NOTES
		CIVIL
5	C–01	OVERALL SITE PLAN
6	C–02	GRADING PLAN
7	C–03	YARD PIPING
8	GC–01	GENERAL CIVIL DETAILS – 1
9	GC–02	GENERAL CIVIL DETAILS – 2
10	GC–03	GENERAL CIVIL DETAILS – 3
11	GC–04	GENERAL CIVIL DETAILS – 4
		ARCHITECTURAL
12	A–01	PUMP STATION FLOOR PLAN
13	A–02	PUMP STATION EXTERIOR ELEVATIONS
14	A–03	PUMP STATION SECTION & DETAILS
15	A–04	PUMP STATION DETAILS
		STRUCTURAL
16	S–01	WELL PUMP STATION FOUNDATION PLAN
17	S–02	WELL PUMP STATION ROOF FRAMING PLAN
18	S–03	WELL PUMP STATION SECTION
19	S–04	WELL PUMP STATION SECTION
20	S–05	WELL PUMP STATION SECTION
21	S–06	WELL PUMP STATION SECTIONS AND DETAILS 1
22	S–07	WELL PUMP STATION SECTIONS AND DETAILS 2
23	GS–01	GENERAL STRUCTURAL NOTES
24	GS–02	GENERAL STRUCTURAL DETAILS 1
25	GS–03	GENERAL STRUCTURAL DETAILS 2
26	GS–04	GENERAL STRUCTURAL DETAILS 3
		MECHANICAL
27	M–01	WELL PUMP STATION MECHANICAL PLAN
28	M–02	WELL PUMP STATION MECHANICAL SECTION
29	M–03	WELL PUMP STATION MECHANICAL SECTION
30	M–04	MECHANICAL EQUIPMENT SCHEDULE
31	GM–01	PIPE MATERIAL SCHEDULE
32	GM–02	GENERAL MECHANICAL DETAILS – 1
33	GM–03	GENERAL MECHANICAL DETAILS – 2
34	GM–04	GENERAL MECHANICAL DETAILS – 3
		ELECTRICAL
35	E–01	ELECTRICAL SYMBOLS
36	E–02	SCHEDULES AND NOTES
37	E–03	ELECTRICAL SITE PLAN
38	E–04	WELL PUMP STATION GROUNDING, POWER, & INSTRUMENTATION PLAN
39	E–05	WELL PUMP STATION LIGHTING PLAN
40	E–06	POWER ONE–LINE DIAGRAM
41	E–07	PANEL SCHEDULE LP–A
42	E–08	CONTROL ONE–LINE DIAGRAM
43	E–09	PUMP CONTROL SCHEMATIC
44	GE–01	GENERAL ELECTRICAL DETAILS – 1
45	GE–02	GENERAL ELECTRICAL DETAILS – 2
46	GE–03	GENERAL ELECTRICAL DETAILS – 3



POWDER MOUNTAIN WATER & SEWER IMPROVEMENT DISTRICT
APPROVED FOR CONSTRUCTION

SIGNATURE

PROFESSIONAL ENGINEER
ERIC W. NEIL
7702647
STATE OF UTAH
8/22/2018
CIVIL/MECHANICAL

STATE OF UTAH
HANS RICHARD HOFFMAN
5104026-0301
LICENSED ARCHITECT
22 August 2018
ARCHITECTURAL

PROFESSIONAL STRUCTURAL ENGINEER
No. 7753350-2203
CHRIS D. PATTEN
08/22/18
STATE OF UTAH
STRUCTURAL

LICENSED PROFESSIONAL ENGINEER
DOUGLAS MAX STEWART
No. 173312
STATE OF UTAH
ELECTRICAL

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
- [X] ENERGY
- [ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER ERIC W. NEIL 7702647 STATE OF UTAH 08-22-2018

REVISIONS

NO	DESCRIPTION	DATE	REV. BY

SUMMIT MOUNTAIN HOLDING GROUP
WEBER COUNTY, UTAH
BLOOMINGTON WELL PROJECT

DESIGN E. NEIL
DRAWN R. GARCIA
REVIEW
CHECKED J. BECKMAN
APPROVED E. NEIL

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

GENERAL
TITLE, PROJECT LOCATION MAP, INDEX OF DRAWINGS & VICINITY MAP

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. G-01
SHEET 1 OF 46

P:\Powder Mountain\347-17-01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_G-01.dwg Plotted: 8/23/2018 10:41 AM By: Eric Neil

SECTION IDENTIFICATION

(1) SECTION CUT SHOWN ON DRAWING AS:

SECTION LETTER — A — R-M-03

DRAWING NUMBER WHERE THE SECTION IS SHOWN (SEE NOTE)

(2) THIS SECTION IS IDENTIFIED AS:

SECTION — SCALE: AS DESIGNATED. — A / R-M-02

SECTION LETTER

DRAWING ON WHICH THE SECTION CUT IS SHOWN

(1) DETAIL IDENTIFICATION SHOWN ON DRAWING AS:

DETAIL NUMBER — 3 — R-M-03

DRAWING NUMBER WHERE THE DETAIL IS SHOWN (SEE NOTE)

THE DETAIL NAME IS OPTIONAL AND LOCATED HERE, FOLLOWING DETAIL CALLOUT

(2) THIS DETAIL IS IDENTIFIED AS:

DETAIL — SCALE: AS DESIGNATED. SEE NOTE — 3 / R-M-02

DETAIL NUMBER

DRAWING ON WHICH THE DETAIL CALLOUT IS LOCATED

NOTE:
IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACED BY A HORIZONTAL LINE.

TYPICAL DETAIL IDENTIFICATION

DETAIL NAME — M / 3000

TYPICAL DETAIL NUMBER ON DRAWINGS WHERE DETAIL IS TAKEN AND SHOWN (SEE INDEX TO DRAWINGS FOR LOCATION OF GENERAL DRAWINGS)

DRAWING IDENTIFICATION SYSTEM

LETTER	DISCIPLINE
G	GENERAL
C	CIVIL
GC	GENERAL CIVIL
A	ARCHITECTURAL
GA	GENERAL ARCHITECTURAL
S	STRUCTURAL
GS	GENERAL STRUCTURAL
M	MECHANICAL
GM	GENERAL MECHANICAL
E	ELECTRICAL
GE	GENERAL ELECTRICAL

S-02 — INDIVIDUAL DRAWING NUMBER; DISCIPLINE

NOTES:

A. PREFIX LETTER INDICATES THE FOLLOWING: C-CIVIL, A-ARCHITECTURAL, S-STRUCTURAL, M-MECHANICAL, E-ELECTRICAL.

B. ELECTRICAL SYMBOLS SHOWN ON ELECTRICAL SHEETS.

C. FOR WELDING SYMBOLS USE AMERICAN WELDING SOCIETY STANDARD SYMBOLS. SEE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL.

D. IF SECTION AND/OR DETAILS ARE THE SAME SCALE AND ON THE SAME DRAWING, SEE TITLE BLOCK AT "SCALE:"; THE SCALE TEXT AT CALLOUT SHALL BE OMITTED.

- MASONRY
- CAST IRON
- STEEL
- BRONZE
- INSULATION
- GRAVEL
- CONCRETE
- EARTH
- SAND
- ALUMINUM OR METAL DECKING
- CHECKERED PLATE
- GRATING (SPAN)
- PLASTIC, RUBBER OR NEOPRENE
- WOOD (FINISH)
- WOOD (ROUGH FRAMING) OR, OPENING OR DEPRESSION IN SLAB OR WALL
- 12 X 24 — DUCT (FIRST DIMENSION DUCT SIDE SHOWN, SECOND DIMENSION DUCT SIDE NOT SHOWN)
- 24 X 12 — SUPPLY OR OUTSIDE AIR DUCT (FIRST DIMENSION, DUCT WIDTH)
- 24 X 12 — EXHAUST OR RETURN AIR DUCT (FIRST DIMENSION, DUCT WIDTH)
- SIZE / CFM — CEILING SUPPLY DIFFUSER (SIZE IN INCHES)
- SIZE / CFM — CEILING RETURN OR EXHAUST AIR GRILLE OR REGISTER (SIZE IN INCHES, WIDTH X HEIGHT)
- SIZE / CFM — EXHAUST OR RETURN AIR GRILLE OR REGISTER (SIZE IN INCHES, WIDTH X HEIGHT)
- SIZE / CFM — SUPPLY GRILLE OR REGISTER (SIZE IN INCHES, WIDTH X HEIGHT)
- AIR TURNING VANES IN DUCT
- DD — DEFLECTING DAMPER
- FHC — FIRE HOSE CABINET
- FE — FIRE EXTINGUISHER
- UNIT HEATER
- CENTERLINE
- PROPERTY LINE
- NEW STRUCTURE OR FACILITY
- EXISTING STRUCTURE OR FACILITY
- FUTURE STRUCTURE OR FACILITY
- NEW FENCE
- EXISTING FENCE
- NEW PIPELINE (CIVIL SHEETS)
- NEW PIPELINE (CIVIL SHEETS) 10" DIA. AND SMALLER
- EXISTING PIPELINE
- OPEN CHANNEL

- 123 — CONTOUR LINE, FINISHED GRADE
- 123 — CONTOUR LINE, EXISTING GRADE
- 123.20 — FINISHED ELEVATION
- (123.20) — EXISTING ELEVATION
- TOP / TOE — CUT OR FILL SLOPE TO BE CONSTRUCTED
- NEW A.C. PAVING
- EXISTING A.C. PAVING
- RAILING
- FH — FIRE HYDRANT
- MH — MANHOLE
- PCOTG — PRESSURE CLEANOUT TO GRADE
- WCO — WALL CLEANOUT
- FCO — FLOOR CLEANOUT
- COTG — CLEANOUT TO GRADE
- BLOW OFF ASSEMBLY
- HUB DRAIN
- FLOOR DRAIN
- FLOOR SINK
- DRAIN TRAP
- ELEVATION INDICATOR
- BENCH MARK
- VAULT OR JUNCTION STRUCTURE
- CHANGE IN PIPING MATERIAL
- ROUND OR DIAMETER
- SQUARE
- AT
- ANGLE
- 24" RCP-RW — PIPE SIZE AND TYPE/FLUID ABBREVIATION (USE FOR EXISTING PIPE CALLOUT)
- 2" UW (2) — PIPE CALLOUT (SEE PIPING SCHEDULE)
- ME-2 — EQUIPMENT NUMBER (SEE EQUIPMENT SCHEDULE)
- BACKWATER VALVE
- BACKFLOW PREVENTER
- STOP GATE
- SLIDE GATE
- SLUICE GATE

- GATE VALVE, BURIED WITH VALVE BOX
- MUD VALVE
- BUTTERFLY VALVE, BURIED WITH VALVE BOX
- ECCENTRIC PLUG VALVE, BURIED WITH VALVE BOX
- LUBRICATED PLUG VALVE, BURIED WITH VALVE BOX
- GATE VALVE
- BUTTERFLY VALVE
- ECCENTRIC PLUG VALVE
- LUBRICATED PLUG VALVE
- GLOBE VALVE
- BALL VALVE
- DIAPHRAGM VALVE
- CHECK VALVE
- PRESSURE REGULATING VALVE
- BACK-PRESSURE VALVE
- M / P — MOTOR OPERATOR FOR VALVES (M = ELECTRIC, P = PNEUMATIC, H = HYDRAULIC)
- T — TEMPERATURE CONTROL VALVE
- S — SOLENOID VALVE
- MULTIPORT VALVE - 3 WAY
- MULTIPORT VALVE - 4 WAY
- FLOAT OPERATED VALVE
- NEEDLE VALVE
- PRESSURE RELIEF VALVE
- ANGLE VALVE
- HOSE BIBB (H/B)
- B — BUBBLER LEVEL CONTROL
- CENTRIFUGAL OR TURBINE PUMP OR FAN
- METERING PUMP
- PROGRESSIVE CAVITY, POSITIVE DISPLACEMENT PUMP
- BLOWER OR COMPRESSOR
- INJECTOR OR EDUCTOR
- F/A — FLAME ARRESTER
- AIR VACUUM AND AIR RELEASE ASSEMBLY
- THERMOMETER
- PIPE ANCHOR

- T — ROOM THERMOSTAT
- G — PRESSURE GAUGE
- G — PRESSURE GAUGE WITH DIAPHRAGM SEAL
- S — PRESSURE SWITCH
- S — PRESSURE SWITCH WITH DIAPHRAGM SEAL
- FLANGED FITTING
- WELDED FITTING
- MECHANICAL-TYPE FITTING (GROOVED)
- SCREWED, SOCKET-WELD, BELL AND SPIGOT OR HUBLESS FITTING
- SLEEVE-TYPE COUPLING
- FLANGED ADAPTER COUPLING
- FLANGED ADAPTER - SET SCREW TYPE
- EXPANSION JOINT
- MECHANICAL TYPE COUPLING
- FLEXIBLE COUPLING
- UNION
- QUICK DISCONNECT COUPLER
- CAPPED END OR PLUGGED END
- BLIND FLANGE
- REDUCER OR INCREASER
- CUT PIPE
- STRAINER
- DRAIN
- FLOW TUBE
- M M — MAGNETIC METER
- D M — DENSITY METER
- P M — PROPELLER METER
- ORIFICE PLATE AND FLANGES
- ROTAMETER
- T — CONDENSATE TRAP
- PIPE SUPPORT (IN PLAN ONLY)
- CB — CATCH BASIN
- PULSATION DAMPENER
- AD — AREA DRAIN
- LIQUID SURFACE

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

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BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 7702647 — STATE OF UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL EQUIPING

WEBER COUNTY, UTAH

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN — DESIGN BCA STANDARDS — DRAWN BCA STANDARDS

REVIEW — CHECKED J. BECKMAN — APPROVED E. NEIL

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

GENERAL

SYMBOLS

DRAWING NO. G-02

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P:\Powder Mountain\347-17-01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_G-02.dwg Plotted: 8/23/2018 10:29 AM By: Eric Neil

@	AT
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS
AB	ANCHOR BOLT
ABBR	ABBREVIATION
ABS	ACRYLONITRILE–BUTADIENE–STYRENE
AC	ASPHALTIC CONCRETE OR ALTERNATING CURRENT OR ACTIVATED CARBON
ACI	AMERICAN CONCRETE INSTITUTE
ACP	ASPHALTIC CONCRETE PAVEMENT
ADDL	ADDITIONAL
ADJ	ADJACENT OR ADJUSTABLE
AER	AERATION
AFF	ABOVE FINISH FLOOR
AGGR	AGGREGATE
AH	AIR HANDLER
AIR CONT	AIR CONDITIONING
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL	ALUMINUM, ALUM
ALTN	ALTERNATIVE, ALTERNATE
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APVD	APPROVED
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ARV	AIR RELEASE VALVE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
ASSY	ASSEMBLY
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AIR VALVE
AVAR	AIR VACUUM AND AIR RELEASE VALVE
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BEGIN CURVE, BOLT CIRCLE
BF	BLIND FLANGE, BUTTERFLY VALVE
BFP	BACK FLOW PREVENTER
BFV	BUTTERFLY VALVE
BHD	BULKHEAD
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BLK	BLACK OR BLOCK
BLKG	BLOCKING
BLT	BOLT
BM	BEAM, BENCH MARK
BO	BLOW–OFF ASSEMBLY, BLOW–OFF
BOT	BOTTOM
BPS	BOOSTER PUMPING STATION
BPV	BACK PRESSURE VALVE
BRK	BRICK
B & S	BELL & SPIGOT
BTWN	BETWEEN
BTU	BRITISH THERMAL UNIT
BUR	BUILT–UP ROOFING
BVC	BEGIN VERTICAL CURVE
BW	BACK WASH, FILTER BACKWASH
C	CENTIGRADE OR CELSIUS
CAB	CABINET
CAP	CAPACITY
CARV	COMBINATION AIR RELEASE VALVE
CB	CATCH BASIN
CC	CENTER TO CENTER
CCP	CONCRETE CYLINDER PIPE
CD	CEILING DIFFUSER CHEMICAL DRAIN AND VENT
CER	CERAMIC
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CG	CHLORINE GAS
CHBD	CHALKBOARD
CHEM	CHEMICAL
CHG	CHANGE
CHKD PL	CHECKERED PLATE
CI	CAST IRON
CIP	CAST IRON PIPE
CISP	CAST IRON SOIL PIPE
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CHLORINATOR, CHAIN LINK, CLEARANCE, CENTERLINE OR CHLORINE
CLR	CLEAR
CLST	CEMENT LINED STEEL PIPE
CM	CENTIMETER
CML & C	CEMENT MORTAR LINED AND COATED
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COL	COLUMN
COMM	COMMUNICATION
COMB	COMBINED
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONST	CONSTRUCTION, CONSTRUCT
CONT	CONTINUED, CONTINUOUS, CONTINUATION
COORD	COORDINATE
COTG	CLEAN–OUT TO GRADE
COP	COPPER
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CAST STEEL OR CAUSTIC SODA
CTRD	CENTERED
CTR	CENTER
CTSK	COUNTERSUNK
CU FT	CUBIC FOOT
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CULV	CULVERT
CV	CHECK VALVE
CW	COLD WATER
CWO	CHAIN WHEEL OPERATOR
CYL	CYLINDER
d	PENNY
DBA	DEFORMED ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DET	DETAIL
DEG	DEGREE
DEMO	DEMOLITION, DEMOLISH
DI	DUCTILE IRON, DROP INLET
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIFF	DIFFUSER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DISCH	DISCHARGE
DIR	DIRECTION
DIST	DISTANCE
DIV	DIVISION
D–LOAD	LOADING CONDITION FOR RCP
DMPR	DAMPER
DN	DOWN, DECANT
DOT	DEPARTMENT OF TRANSPORTATION
DP	DAMP PROOFING
DR	DOOR, DRAIN
DS	DRENCH SHOWER & EYE WASH, DOWNSPOUT
DWG	DRAWING
DWL	DOWEL
E(UG)	ELECTRICAL (UNDERGROUND)
E(OH)	ELECTRICAL (OVERHEAD POWER)
E	EAST
EA	EACH
EB	EXPANSION BOLT
EC	END CURVE
ECC	ECCENTRIC
EF	EACH FACE, EXHAUST FAN
EFF	EFFLUENT
EG	EXISTING GRADE
EL	ELEVATION, ELBOW
ELEV	ELEVATION
ELEC	ELECTRICAL, ELECTRONIC
EMB	EMBEDMENT
EMER	EMERGENCY
ENCL	ENCLOSURE
ENG	ENGINE
ENGR	ENGINEER
EP	EDGE OF PAVEMENT
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
ETC	ETCETERA
EVAP	EVAPORATOR
EVC	END VERTICAL CURVE
EW	EACH WAY, EYE WASH
EXH	EXHAUST
EXP ANR	EXPANSION BOLT, ANCHOR
EXP JT	EXPANSION JOINT
EXIST	EXISTING
EXT	EXTERIOR, EXTENSION, EXTERNAL
F	FAHRENHEIT, FACE
FAB	FABRICATION, FABRICATE, OR FABRICATED
FB	FLAT BAR
FC	FLEXIBLE COUPLING
FCA	FLANGE COUPLING ADAPTER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDN	FOUNDATION
FDR	FEEDER
FEXT	FIRE EXTINGUISHER
FF	FLAT FACE, FAR FACE, FINISH FLOOR
F TO F	FACE TO FACE
FG	FINISH GRADE, FLOW GLASS
FH	FIRE HYDRANT
FLR	FLOOR
FL	FLOW LINE
FLEX	FLEXIBLE
FLG	FLANGE
FM	FORCE MAIN (SANITARY SEWER)
FND	FOUND
FNSH	FINISH
FO	FIBER OPTIC
G	GAS
GA	GAGE, GAUGE
GAL	GALLON
GALV	GALVANIZED
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GI	GALVANIZED IRON
GIS	GEOGRAPHIC INFORMATION SYSTEM
GL	GLASS
GLAZ	GLAZING
GLV	GLOBE VALVE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRADE
GR BRK	GRADE BREAK, GRADE CHANGE
GRTG	GRATING
GV	GATE VALVE
GSP	GALVANIZED STEEL PIPE
GYP	GYPSUM BOARD
H	HEIGHT
HAS	HEADED ANCHOR STUD
HB	HOSE BIBB
HD	HUB DRAIN
HDPE	HIGH DENSITY POLYETHYLENE
HDR	HEADER
HDW	HARDWARE
HEX	HEXAGONAL
HGR	HANGER
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSEPOWER, HIGH PRESSURE, HEAT PUMP
H/P, HPT	HIGH POINT
HR	HEATING RETURN, HOUR, HOSE RACK
HS	HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SECTION
HTG	HEATING
HTR	HEATER
HV	HOSE VALVE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWL	HIGH WATER LEVEL
HWO	HANDWHEEL OPERATED
HYD	HYDRANT, HYDRAULIC
ICFM	INLET CUBIC FEET PER MINUTE
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
IN LB	INCH–POUND
INFL	INFLUENT
INSUL	INSULATING
IE	INVERT ELEVATION
INVT	INVERT
IPS	IRON PIPE SIZE
IRR	IRRIGATION
JT	JOINT
K	KELVIN, KILO OR THOUSAND POUNDS
KG	KILOGRAM
KV	KILOVOLT
KW	KILOWATT
KWH	KILOWATT HOUR
L	LEFT OR LITER
LAB	LABORATORY
LAV	LAVATORY
LB	POUND
LC	LENGTH OF CURVE
LF	LINEAR FEET
LG	LENGTH OR LONG
LH	LEFT HAND
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LOL	LENGTH OF LINE
LPT	LOW POINT
LR	LONG RADIUS
LT	LIGHT, LEFT
LVL	LEVEL
LWL	LOW WATER LEVEL
LWR	LOWER
M	METER, MALE (PIPE THREAD)
MACH	MACHINE
MAN	MAGNETIC
MAN	MANUAL
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL, MECHANISM
MEMB	MEMBRANE
MET	METAL
MFR	MANUFACTURER
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MH	MANHOLE, MONORAIL HOIST
MI	MALLEABLE IRON
MID	MIDDLE
MIL	1/1,000 INCH
MIN	MINIMUM OR MINUTE
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MTL	METAL OR MATERIAL
MTG	MOUNTING
MTR	MOTOR
MPH	MILES PER HOUR
MWS	MAXIMUM WATER SURFACE
N	NORTH
NAVD	NORTH AMERICAN VERTICAL DATUM
NBS	NATIONAL BUREAU OF STANDARDS
NC	NORMALLY CLOSED
NE	NORTHEAST
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURES ASSOCIATION
NF	NEAR FACE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER OR NORMALLY OPEN
NOM	NOMINAL
NPT	NATIONAL PIPE THREAD
NS	NEAR SIDE
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER, OVER–CROSSING
OD	OUTSIDE DIAMETER, OVERALL DIMENSION
OF	OUTSIDE FACE
OH	OVERHEAD
OPER	OPERATOR, OPERATING
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
O TO O	OUT TO OUT
OVHD	OVERHEAD
OZ	OUNCE
PV	PAVEMENT
PC	PORTLAND CEMENT, POINT OF CURVE OR PRIMARY CLARIFIER
PCC	PORTLAND CEMENT CONCRETE
PCF	POUNDS PER CUBIC FOOT
PG	PRESSURE GAUGE
PE	PLAIN END, POLYELECTROLYTE POLYMER, POLYETHYLENE
pH	HYDROGEN ION CONCENTRATION
PI	PLANT INFLUENT, POINT OF INTERSECTION
PJF	PREMOLDED JOINT FILLER
PL	PLATE, PROPERTY LINE, PLACE
PLYWD	PLYWOOD
PM	PUMP, PROPELLER METER
PI	POINT OF BEGINNING
PT	POINT OF TANGENT
PJF	PREMOLDED JOINT FILLER
PL	PLATE, PROPERTY LINE, OR PLACE
PP	POTASSIUM PERMANGANATE
PPD	POUNDS PER DAY
PPH	POUNDS PER HOUR
PPM	PARTS PER MILLION
PR	PAIR
PRC	POINT OF REVERSE CURVE
PREFAB	PREFABRICATED
PRI	PRIMARY
PRV	PRESSURE REGULATING/REDUCING VALVE
PS	PRESSURE SWITCH, PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	POINT OF TANGENT, PRESSURE TREATED
PTDF	PRESSURE TREATED DOUGLAS FIR
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PW	POTABLE WATER
RAD	RADIUS
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN OR ROAD
RDCR	REDUCER, REDUCING
RECIRC	RECIRCULATION
RED	REDUCING
REF	REFERENCE, REFER
REG	REGULATING, REGISTER
REINF	REINFORCE, REINFORCED
REQD	REQUIRED
REV	REVISION
RF	ROOF, RAISED FACE
RND	ROUND
R.O.	ROUGH OPENING
RPM	REVOLUTIONS PER MINUTE
RP	RADIUS POINT
RS	RAW SEWAGE
RST	REINFORCING STEEL, RESET
RT	REGULATING TANK, RADIOGRAPHIC, RIGHT
RV	ROOF VENT
R/W	RIGHT OF WAY
RW	RAW WATER
S	SOUTH, SECOND
SA	SAMPLE, SAMPLE LINE
SR	SUPPLY AIR REGISTER
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SLP	SLOPE
SP	SPACING, STATIC PRESSURE
SPEC	SPECIFIED, SPECIFICATION
SPECS	SPECIFICATIONS
SPG	SPACING
SPKR	SPEAKER
SPLY	SUPPLY
SPRT	SUPPORT
SQ	SQUARE
SQ FT	SQUARE FOOT
SR	SUPPLY REGISTER
SS	SANITARY SEWER, SERVICE SINK
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRL	STRUCTURAL
SYM	SYMBOL
SYMM	SYMMETRICAL
SYS	SYSTEM
T	THICKNESS, TOP, TOILET
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TAN	TANGENT
TBM	TEMPORARY BENCH MARK
TBC	TOP OF CATCH BASIN
TC	TOP OF CURB, TOP OF CONCRETE
TDH	TOTAL DYNAMIC HEAD
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
THK	THICK
THR'D	THREADED
TK	TANK
T.O.	TOP OF
TOG	TOP OF GRADE
TP	TELEPHONE POLE, TURNING POINT
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UD	UNDERDRAIN
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS OTHERWISE NOTED
USBR	U.S. BUREAU OF RECLAMATION
V	VALVE, VENT, VOLT, VACUUM
VAR	VARIES, OR VARIABLE
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VOL	VOLUME
VTC	VENT THROUGH CEILING
VTR	VENT THROUGH ROOF
VSS	VOLATILE SUSPENDED SOLIDS
W	WEST, WASTE, WIDE FLANGE (BEAM)
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN OR WATER CLOSET
WCO	WALL CLEANOUT
WD	WOOD
WH	WATER HEATER
WS	WATER STOP, WATER SURFACE
WSP	WELDED STEEL PIPE
WSTP	WATER STOP
WT	WEIGHT
WWM	WELDED WIRE MESH
XMTR	TRANSMITTER
XS	EXTRA STRONG
YD	YARD
YR	YEAR

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
- [X] ENERGY
- [ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 7702647 — STATE OF UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN BCA STANDARDS — DESIGN — CHECKED J. BECKMAN — REVIEW — APPROVED E. NEIL — DRAWN BCA STANDARDS

GENERAL

ABBREVIATIONS

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. G-03

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GENERAL NOTES

1. SYMBOLS FOR STRUCTURES, PIPE AND ETC. USED FOR IDENTIFICATION ARE SHOWN IN LEGENDS AND SHALL BE FOLLOWED THROUGHOUT THE PLANS WHENEVER APPLICABLE. NOT ALL OF THE VARIOUS COMPONENTS SHOWN IN THESE LEGENDS ARE NECESSARILY USED IN THE PROJECT.

2. SCALE OF THE DRAWINGS OR DETAILS ARE SHOWN IN TITLE BLOCK OR DIRECTLY UNDER THE PLAN OR DETAIL. THE SIZE OF THE ORIGINAL PLOTTED DRAWINGS IS 22"X34". CARE SHOULD BE TAKEN TO VERIFY THE SCALE BAR IN THE TITLE BLOCK AREA TO DETERMINE THE SCALE OF REDUCED REPRODUCTIONS.

3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PERFORM CONSTRUCTION ACTIVITIES PER THE CONTRACT DOCUMENTS. ANY ADDITIONS, DELETIONS, OR MODIFICATIONS SHALL FIRST MEET WITH THE WRITTEN APPROVAL OF THE ENGINEER AND THE OWNER.

4. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMIT(S) AND COMPLY WITH ALL REQUIREMENTS OF GOVERNING AGENCIES.

5. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE ESTABLISHED RIGHTS-OF-WAY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO, VEHICLES AND EQUIPMENT, LIMITS OF TRENCH EXCAVATION, AND EXCAVATED MATERIAL AND BACKFILL STORAGE. IF THE CONTRACTOR REQUIRES ADDITIONAL CONSTRUCTION EASEMENTS, IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH EASEMENTS.

6. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE WHICH ARE TO REMAIN IN PLACE. ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTORS OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED TO ORIGINAL OR BETTER CONDITION TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.

7. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFORMANCE WITH LOCAL AND FEDERAL CODES GOVERNING SHORING AND BRACING OF EXCAVATIONS AND TRENCHES. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE PUBLIC AND PROTECTION OF PERSONNEL AND WORKERS.

8. CONTRACTOR SHALL NOT DESTROY, REMOVE, OR DISTURB ANY EXISTING SURVEY MONUMENTS WITHOUT AUTHORIZATION OF CONTROLLING AGENCY. ALL SURVEY MONUMENTS OR POINTS DISTURBED BY THE CONTRACTOR SHALL BE ACCURATELY RESET BY A REGISTERED LAND SURVEYOR AFTER ALL RESTORATION AND RESURFACING HAS BEEN COMPLETED.

9. TRENCH SUPPORTS AND DEWATERING (NOTE 10) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. MAXIMUM OPEN TRENCH DURING WORKING HOURS SHALL BE 300 FEET.

10. DEWATERING: GROUND WATER AND SURFACE WATER CONTROL SHALL BE PERFORMED AND RESPONSIBLY HANDLED BY THE CONTRACTOR ACCORDING TO, AND IN COMPLIANCE WITH, ALL LOCAL GOVERNING AUTHORITIES. HEAVY GROUND WATER AND/OR SURFACE WATER PUMPING MAY BE REQUIRED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE POTENTIAL PUMPING NEEDS. THE CONTRACTOR SHALL NOT RELY ON OWNER SUPPLIED PROCTOR, GROUND WATER AND/OR SURFACE WATER DATA. CONTRACTOR SHALL OBTAIN DEWATERING PERMIT AS NECESSARY. DEWATERING ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

11. AERIAL PHOTOS IN DRAWINGS:
THE AERIAL PHOTOS PROVIDED AS BACKGROUND IN THESE DRAWINGS ARE PROVIDED TO HELP CLARIFY THE WORK SITE. HOWEVER, PRESENT DAY CONDITIONS MAY VARY FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. BID SHALL INCLUDE ALL WORK REQUIRED TO COMPLETE THE PROJECT.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY SETTLEMENT OF EXCAVATIONS, AND ANY DAMAGE OF UTILITIES RESULTING FROM SETTLEMENT.

13. CONTRACTOR SHALL PREVENT ANY GROUND WATER OR DEBRIS FROM ENTERING NEW PIPES DURING CONSTRUCTION. THE ENDS OF THE PIPES SHALL BE SEALED AT THE END OF EACH WORKDAY.

14. PROFILE DRAWINGS ARE HORIZONTAL PROJECTIONS OF THE PIPELINE CENTERLINE, UNLESS OTHERWISE NOTED.

15. LAY PIPE TO DEPTH AND ALONG HORIZONTAL ALIGNMENT AS DEFINED IN THESE DRAWINGS. CONTRACTOR SHALL NOT DEVIATE FROM PROPOSED ALIGNMENT OR GRADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. AVOID HIGH AND LOW POINTS EXCEPT WHERE DESIGNED.

16. ALL BURIED REBAR, FITTINGS, COUPLINGS, VALVES, AND MECHANICAL JOINT NUTS AND BOLTS ARE TO BE COATED WITH NON OXIDE GREASE CHEVRON FM 1 OR APPROVED EQUAL, COVERED WITH 8 MIL POLYETHYLENE SHEETING, AND TAPE WRAPPED PER AWWA C105. SEE SPECIFICATION 05500 FOR ADDITIONAL BOLT AND NUT COATING REQUIREMENTS.

17. UNLESS NOTED OTHERWISE, ALL WATER MAIN SHALL BE 4-INCH AND 6-INCH DUCTILE IRON CLASS 250. SIZE OF FITTINGS SHOWN ON THE PLANS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, AND SHALL BE DUCTILE IRON FITTINGS.

18. ALL FITTINGS REQUIRED FOR THE COMPLETION OF THE WORK ARE NOT SHOWN IN THE DRAWINGS. MAXIMUM PIPE JOINT DEFLECTION SHALL BE 1-DEGREE. ADDITIONAL FITTINGS REQUIRED TO MAINTAIN THE ALIGNMENT SHOWN IN THE PLANS SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

19. MINIMUM DEPTH OF NEW PIPE: 6 FEET TO TOP OF PIPE, UNLESS OTHERWISE NOTED.

20. CONTRACTOR SHALL PERFORM CHLORINATION TEST, PRESSURE TEST, AND BACTERIA TEST. ALL WATERLINES INSTALLED SHALL BE DISINFECTED IN ACCORDANCE WITH THE "AMERICAN WATER WORKS ASSOCIATION STANDARD FOR DISINFECTING WATER MAINS" (AWWA C651). ALL CHLORINATED WATER SHALL BE DISPOSED OF IN ACCORDANCE WITH THE UTAH DEPT OF ENVIRONMENTAL QUALITY RULES AND REQUIREMENTS FOR SURFACE DISCHARGE AND COORDINATED WITH WEBER COUNTY.

21. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN A WORKMANLIKE AND SAFE MANNER AND IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND JOB-SITE RELATED CONSTRUCTION CONDITIONS AND REQUIREMENTS. OBTAIN PERMITS, INSPECTIONS AND APPROVALS AS REQUIRED BY JURISDICTIONAL AGENCIES AND PAY ALL ASSOCIATED FEES. CONTRACTOR AND INSTALLERS SHALL BE LICENSED AS REQUIRED BY STATE AND LOCAL JURISDICTIONS, AND BONDED AS DETERMINED BY PROJECT REQUIREMENTS.

22. PRESSURE TEST ALL PIPELINES TO 150 PSI MINIMUM FOR TWO HOURS WITH ZERO LEAKAGE. IN THE CASE OF PIPELINES THAT FAIL TO PASS THE LEAKAGE TEST, THE CONTRACTOR SHALL DETERMINE THE CAUSE OF THE EXCESSIVE LEAKAGE, SHALL TAKE CORRECTIVE MEASURES NECESSARY TO REPAIR THE LEAKS, AND SHALL AGAIN TEST THE PIPELINES, ALL AT NO COST TO THE OWNER.

23. WORKING PRESSURE FOR THE SYSTEM IS 70 PSI WITH TEST PRESSURE OF 150 PSI. ALL FLANGES, VALVES, FITTINGS, THRUST BLOCKS, ETC. SHALL BE RATED APPROPRIATELY.

24. ALL PIPE, FITTINGS, AND VALVES SHALL BE NSF 61 COMPLIANT FOR CULINARY WATER USE.

25. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTROL OF DRAINAGE AND EROSION DURING CONSTRUCTION AT CONSTRUCTION SITE, STAGING, AND SPOILS AREA. CONTRACTOR SHALL SUBMIT STORM RUNOFF CONTROL PLAN FOR APPROVAL BY ENGINEER AND OBTAIN A UPDES PERMIT FROM THE UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY.

26. INSTALL ALL MATERIALS ACCORDING TO MANUFACTURER RECOMMENDATIONS AND STATE AND LOCAL REQUIREMENTS. USE ONLY NEW AND UNUSED MATERIALS. ALL MATERIALS SHALL BE PROVIDED BY MANUFACTURERS REGULARLY ENGAGED IN PRODUCING SAID ITEMS, AND WHICH SHALL BE FIRST QUALITY, HEAVY DUTY, COMMERCIAL/INDUSTRIAL GRADE, SUITABLE FOR THE INTENDED USE.

27. EXCAVATION LIMITS SHOWN IN THE DRAWINGS ARE GRAPHICAL REPRESENTATIONS ONLY, AND DO NOT REPRESENT ACTUAL EXCAVATION LIMITS OR SAFE TRENCH CONDITIONS REQUIRED TO COMPLETE THE WORK.

28. ALL DUCTILE IRON FITTINGS SHALL BE MADE IN THE U.S.A. AND HAVE MEGALUGS ON ALL MECHANICAL JOINTS.

29. ALL MATERIALS WHICH MAY CONTACT DRINKING WATER, INCLUDING PIPES, GASKETS, LUBRICANTS, AND O-RINGS, SHALL BE ANSI-CERTIFIED AS MEETING THE REQUIREMENTS OF NSF STANDARD 61. TO PERMIT FIELD VERIFICATION, COMPONENTS SHALL BE STAMPED WITH THE APPROPRIATE NSF LOGO.

30. TRACER WIRE: METALLIC TRACER WIRE AND WARNING TAPE SHALL BE PROVIDE ON ALL UTILITIES.

31. UTILITY CROSSING: CONTRACTOR SHALL BACKFILL TRENCH AREAS WHERE NEW WATERLINES CROSS UNDER EXISTING BURIED UTILITIES WITH FLOWABLE FILL (CLSM) IN ACCORDANCE WITH SPECIFICATIONS SECTION 02200 IF STANDARD MECHANICAL COMPACTION EQUIPMENT CAN NOT ADEQUATELY COMPACT BACKFILL.

32. FINAL RIM ELEVATIONS: CONTRACTOR SHALL ADJUST GRADE OF NEW MANHOLE RIMS, VALVE BOXES, AND INLET GRATES TO MATCH FINAL GRADES.

33. CONSTRUCTION SURVEYING: CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEYING AND FOR LAYING OUT WORK.

34. AS-BUILT SURVEY: CONTRACTOR SHALL PERFORM SURVEY OF ALL IMPROVEMENTS AS INSTALLED, INCLUDING LOCATIONS AND DEPTHS OF BURIED FITTINGS AND VALVES, AND LOCATIONS OF ALL STRUCTURES, SURFACE IMPROVEMENTS, AND FACILITIES ASSOCIATED WITH THIS PROJECT. THIS SURVEY INFORMATION SHALL BE INCORPORATED INTO THE RECORD DRAWINGS AND PROVIDED IN AUTOCAD FORMAT TO THE OWNER. COORDINATES SHALL BE SURVEY GRADE (± 1 CM) IN THE PROJECT DATUM.

35. EROSION AND SEDIMENTATION CONTROL AND PERMIT: CONTRACTOR SHALL CONSTRUCT BERMS AND/OR DRAINAGE DITCHES AS NEEDED TO KEEP STORM RUNOFF FROM ENTERING CONSTRUCTION EXCAVATIONS OR INTERFERING WITH CONSTRUCTION EFFORTS. CONTRACTOR SHALL INSTALL EXCELSIOR EROSION CONTROL MATTING ON ALL DISTURBED AREAS WITH SLOPES OF 3H:1V OR STEEPER. EROSION CONTROL MATS SHALL BE CURLEX TYPE I AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR EQUAL. INSTALL AND ANCHOR PER MANUFACTURER'S RECOMMENDATIONS.

36. VEGETATION: CONTRACTOR SHALL REMOVE AND DISPOSE OF TREES AND VEGETATION AS REQUIRED TO INSTALL IMPROVEMENTS.

37. UNLESS NOTED OTHERWISE, FITTINGS WITH A CONNECTION TO ANOTHER FITTING OR VALVE SHALL HAVE FLANGED CONNECTIONS. ALL FITTINGS WITH A CONNECTION TO A STRAIGHT RUN OF PIPE SHALL HAVE MECHANICAL JOINTS. ALL FITTINGS TO BE PRESSURE CLASS 250 DUCTILE IRON PER SPECIFICATION SECTIONS 02509, 15000. ALL COUPLINGS SHALL BE SLEEVE TYPE AND SHALL BE 12-INCH MINIMUM LENGTH.

38. ALL VALVES SHALL BE GATE VALVES LESS THAN 12-INCHES PER SPECIFICATION SECTION 40 05 61, WITH SLIP TYPE VALVE BOX AND COVER, SEE C 2126

39. ALL FITTINGS AND APPURTENANCES SHALL BE EQUIPPED WITH THRUST BLOCKS PER THE SPECIFICATIONS AND STANDARD DRAWINGS. CONTRACTOR SHALL PROVIDE TEMPORARY THRUST RESTRAINT AS NECESSARY DURING CONSTRUCTION AND GIVING SPECIAL ATTENTION TO THE TEES, VALVES, AND THRUST BLOCKS ON EXISTING WATERLINES.

40. FOR GEOTECHNICAL INFORMATION, SEE REPORT PREPARED BY IGES ENTITLED "DESIGN GEOTECHNICAL INVESTIGATION", POWDER MOUNTAIN RESORT, WEBER COUNTY, UTAH, NOVEMBER 9, 2012, PREPARED FOR SUMMIT, LLC,

41. EXISTING UTILITIES SHOWN ON PLANS ARE BASED ON A RECORD SEARCH BY LOCAL CONTROLLING AGENCIES ARE APPROXIMATELY LOCATED. EXISTING UTILITIES ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF, AND PRESERVING, ALL UTILITIES INCLUDING THOSE NOT SHOWN OR INCORRECTLY SHOWN ON THE PLANS. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES TWO (2) WEEKS IN ADVANCE OF UTILITY CONFLICTS REQUIRING RELOCATION OF MAIN LINES, AND ONE (1) WEEK IN ADVANCE OF CONFLICTS REQUIRING RELOCATION OF SERVICE LATERALS. NOTIFY BLUE STAKES AT LEAST 48 HOURS PRIOR TO EXCAVATION IN THE VICINITY OF UNDERGROUND UTILITIES.

42. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESEEDED AND LANDSCAPED AS SPECIFIED. SEE C 2004 FOR SEED MIX.

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER ERIC W. NEIL 7702647 STATE OF UTAH 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN E. NEIL
DRAWN R. GARCIA
CHECKED J. BECKMAN
APPROVED E. NEIL
REVIEW

GENERAL
GENERAL NOTES

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. G-04

SHEET 4 OF 46

N

20 0 40 80
SCALE IN FEET

BENCH MARKS COORDINATES			
POINT NO.	NORTH	EAST	DESCRIPTION
1	3659674.55	1569324.07	CP-198 SECTION CORNER BRASS CAP
2	3658229.05	1567711.73	CP-3000 SET NAIL
3	3659167.26	1567157.56	CP-207 NAIL

HIDDEN LAKE SKI LIFT

EXISTING PUMP HOUSE

EXISTING 10" PW

EXISTING 2" PIPE

WEBER STATE UNIVERSITY PROPERTY LINE

HIDDEN LAKE LODGE

EXISTING POWER SERVICE

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

EXISTING RESERVOIR

BLOOMINGTON WELL HEAD

PROPOSED POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

EXISTING HIDDEN LAKE WELL HEAD

EXISTING DRAIN COLLECTION VAULT

BLOOMINGTON PUMP STATION

EXISTING HIDDEN LAKE PUMP STATION

REMOVE EXISTING RIP RAP AND RELOCATE EXISTING DRAINAGE DITCH

PROVIDE PARKING AREA WITH 6" COMPACTED ROAD BASE

WEBER STATE UNIVERSITY PROPERTY LINE

PROPOSED POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

EXISTING OUTLET STRUCTURE

POWDER RIDGE ROAD

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

REMOVE EXISTING ACCESS ROAD AND CONTRUCT NEW 20' WIDE ACCESS ROAD WITH 6" COMPACTED ROAD BASE

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] STRUCTURAL
- [X] MECHANICAL
- [X] PLUMBING
- [X] ELECTRICAL
- [X] ENERGY
- [ ] ACCESSIBILITY
- [ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
ERIC W. NEIL
7702647
STATE OF UTAH
08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW
CHECKED J. BECKMAN
APPROVED E. NEIL

DESIGN
DESIGN E. NEIL
DRAWN R. GARCIA

CIVIL
OVERALL SITE PLAN

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO.
C-01
SHEET 5 OF 46

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BLOOMINGTON
WELL HEAD
SEE NOTE 4

EXISTING CONCRETE WATER
STORAGE RESERVOIR

POWDER MOUNTAIN
WATER AND SEWER
IMPROVEMENT DISTRICT
EASEMENT LINE

SEE NOTE 1

EXISTING HIDDEN
LAKE WELL HEAD

EXISTING OVERFLOW
OUTLET STRUCTURE

INSTALL SILT FENCE AND
STRAWBALES AS NECESSARY
C 2015 C 2016 C 2280

SEE NOTE 1

PROPOSED POWDER
MOUNTAIN WATER AND
SEWER IMPROVEMENT
DISTRICT EASEMENT LINE

SEE NOTE 2

EXISTING DRAIN
COLLECTION VAULT

EXISTING HIDDEN
LAKE PUMP STATION

8875.49 CONC
8874.75 FG

RE-GRADE AND
ROUTE DRAINAGE
SWALE AROUND NEW
PUMP HOUSE

8873.78±
EX-FG

8874.36±
EX-FG

WEBER STATE UNIVERSITY
PROPERTY LINE

8874.5±
EX-FG

INSTALL SILT FENCE AND
STRAWBALES AS NECESSARY
C 2015 C 2016 C 2280

BLOOMINGTON
PUMP STATION
FF 8876.50

EXISTING
AIR VALVE
AND VAULT

8872.0 FG

8871.75 FG

SEE NOTE 5

8872.5
TOC

8872.0 FG

8867.05 FG

8867.76 FG

EXISTING DRAIN OUTLET
STRUCTURE

8866.54±
EX-FG

8871.44 FG

8870.76 FG

SEE NOTE 1

8864.22 FG

PROPOSED POWDER
MOUNTAIN WATER AND
SEWER IMPROVEMENT
DISTRICT EASEMENT LINE

POWDER MOUNTAIN
WATER AND SEWER
IMPROVEMENT DISTRICT
EASEMENT LINE

SEE
NOTE 2

8855.71 FG

8863.72 FG

SEE NOTE 5

SEE NOTE 1

8841.72±
EX-FG

PROPOSED
GRAVEL
ROAD

EXISTING RIPRAP CHANNEL

8855.31 FG

8855.64±
EX-FG

8854.33±
EX-FG

N

10 0 20 40
SCALE IN FEET

NOTES:

1. ALL NON-ROAD AREAS DISTURBED DURING CONSTRUCTION SHALL BE RE-SEEDED. ALL GRAVEL ROADS SHALL BE REPAIRED TO MATCH EXISTING, SEE C 2004
2. PRESERVE AND PROTECT EXISTING RIP RAP CHANNEL.
3. SEE DRAWING C-01 FOR BENCHMARKS.
4. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF WELL HEAD WITH WELL DRILLER.
5. Gravel Road C 2004

EXISTING DIRT ROAD

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
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BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

STRUCTURE COORDINATES

POINT NO.	NORTHING	EASTING	DESCRIPTION
1	3658104.72	1568181.96	NORTHWEST CORNER OF OUTSIDE FOUNDATION WALL
2	3658129.33	1568206.56	NORTHEAST CORNER OF OUTSIDE FOUNDATION WALL

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
ERIC W. NEIL
7702647
STATE OF UTAH
08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN E. NEIL
DRAWN R. GARCIA
CHECKED J. BECKMAN
APPROVED E. NEIL
REVIEW

CIVIL
GRADING PLAN

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. C-02
SHEET 6 OF 46

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N

10 0 20 40
SCALE IN FEET

BLOOMINGTON WELL HEAD
WITH PITLESS ADAPTER, COORDINATE WITH WELL DRILLER
B M-02

AIR RELEASE/AIR VACUUM MANHOLE C 2660

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

4" WYE W/4"X2" REDUCING COMPANION FLANGE

4" AV (11)

SEE NOTE 7

C 2231

C 2562 RELOCATE EXISTING 4" AIR VENT LINE AND VENT NEAR TANK BEHIND THE EXISTING BOULDERS, SLOPE TO EXISTING MANHOLE

EXISTING CONCRETE WATER STORAGE RESERVOIR

EXISTING RESERVOIR OVERFLOW

CONNECT TO EXISTING CONCRETE TANK WITH 90° BEND ROTATED TO CIRCULATE WATER AROUND RESERVOIR. SEAL WITH NSF-61 APPROVED LINK SEAL CENTERED IN WALL. GROUT BOTH SIDES OF LINK SEAL WITH XYPEX MIXTURE (PATCH'N PLUG, OR EQUAL) FOR A WATERTIGHT CONNECTION. INSTALL WITH 6-FT MINIMUM COVER
M 3307

EXISTING AIR RELEASE/AIR VACUUM MANHOLE

EXISTING HIDDEN LAKE WELL HEAD

EXISTING 6" RESERVOIR INLET

EXISTING 6" RESERVOIR DRAIN

PROPOSED POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

4" DR (11)
SEE NOTE 6

EXISTING 4" AIR VENT LINE. CAP BOTH ENDS AND ABANDON

EXISTING OVERFLOW OUTLET STRUCTURE

EXISTING 6" RESERVOIR PERIMETER UNDERDRAIN

EXISTING 6" RESERVOIR UNDERDRAIN

EXISTING 6" PW

C 2231 6" 45° BEND
N 3658182.31
E 1568161.31
SEE NOTE 9

4" PW (11)
INSTALL WITH 72" MIN COVER, PROVIDE VERTICAL BENDS AS NECESSARY, SEE NOTE 9

EXISTING 4" PW FROM HIDDEN LAKE WELL

EXISTING DRAIN COLLECTION BOX

EXISTING HIDDEN LAKE PUMP STATION

C 2231 4" 45° BEND
N 3658166.95
E 1568094.24

4" 45° & 22.5° BEND
N 3658166.96
E 1568162.92

4"X6" REDUCER

BLOOMINGTON PUMP STATION

C 2231

EXISTING AIR VENT

6" PW (11)
RESERVOIR INLET, 72" MIN COVER, PROVIDE VERTICAL BENDS AS NECESSARY

EXISTING AIR RELEASE/AIR VACUUM VALVE MANHOLE

EXISTING 16" RESERVOIR OUTLET

C 2126 V-15

EXISTING 18" DRAIN LINE

WEBER STATE UNIVERSITY PROPERTY LINE

12" DR (27)
SLOPE @ 2%

POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

NEW ACCESS ROAD

PROPOSED POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT EASEMENT LINE

NOTE

1. PROVIDE THRUST RESTRAINT AS NECESSARY SEE C 2231
2. SEE DRAWING M-04 FOR EQUIPMENT SCHEDULE.
3. SEE DRAWING C-02 FOR BUILDING COORDINATES.
4. FOR TYPICAL TRENCH SECTION, SEE C 2124
5. SEE DRAWING C-01 FOR BENCHMARKS.
6. INSTALL (2) 4" DUCTILE IRON DRAIN PIPES @ 2% SLOPE TO THE EXISTING BANK. PROVIDE 90° BEND ON END OF PIPE AND 12" MINIMUM AIR GAP WITH #4 SST SCREEN OVER #14 SST MESH SCREEN SECURELY ATTACHED BETWEEN TWO FLANGES. C 2251
7. INSTALL 4" DUCTILE IRON VENT PIPING WITH 1% MINIMUM SLOPE DRAINING TOWARDS THE PITLESS MANHOLE AND AIR/VAC MANHOLE. INSTALL GOOSENECK VENT PIPE ADJACENT TO TANK BEHIND THE EXISTING BOULDERS. M 3326
8. WHERE STANDARD COMPACTION CANNOT BE MET, SEE C 2128
9. CONTRACTOR SHALL POTHOLE AND VERIFY EXISTING PIPE ELEVATIONS.

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW:
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER ERIC W. NEIL 7702647 STATE OF UTAH 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN E. NEIL
DRAWN R. GARCIA
REVIEW J. BECKMAN
CHECKED E. NEIL
APPROVED

CIVIL
YARD PIPING

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. C-03
SHEET 7 OF 46

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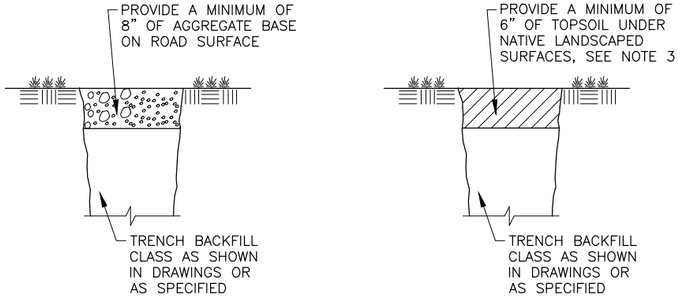


GRAVEL TOPSOIL

NOTES:

1. BASE RESTORATION – SELECT FILL:
   A. USE UNTREATED BASE COURSE TYPE G
   B. MATCH EXISTING AGGREGATE BASE THICKNESS OR PROVIDE AT LEAST 8 INCHES OF AGGREGATE BASE.
   C. INSTALL AND COMPACT ALL BACKFILL MATERIAL PER SPECIFICATION SECTION 31 23 00.

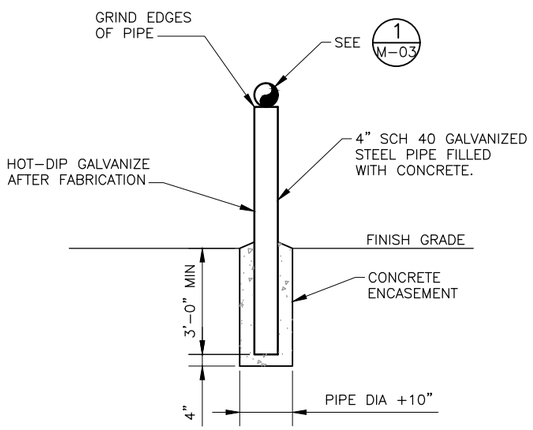
2. PROVIDE SURFACE TO MATCH EXISTING GRADE. REPLACE VEGETATION TO MATCH PRE-CONSTRUCTION CONDITIONS AS SPECIFIED.

3. REVEGETATION – USE THE SEED MIX BELOW FOR ALL DISTURBED AREAS:

NO.	COMMON NAME	BOTANICAL NAME	LBS PLS/ACRE	% OF MIX	SEED/SF
1	INDIAN RICEGRASS	ANCHNATHERUM HYMENOIDES	4.7	27.5	15
2	WYOMING BIG SAGEBRUSH	ARETEMISIA TRIDENTATA WYGENSIS	0.1	0.8	8
3	RUBBER RABBITBRUSH	CHRYSOTHANMNUS NAUSEOUS	0.5	3.0	5
4	WHITE EVENING PRIMROSE	OENOTHERA PALLIDA	0.3	1.7	3
5	WESTERN WHEATGRASS	PASCOPYRUM SMITHII	10.5	62.0	27
6	SANDBERG BLUEGRASS	POA SANDERGII	0.7	4.0	14
7	SAND DROPSEED	SPOROBOLUS CRYPTANDRUS	0.2	1.0	21
		TOTAL	17.0	100.0	93

SURFACE RESTORATION — C 2004

SCALE: NTS

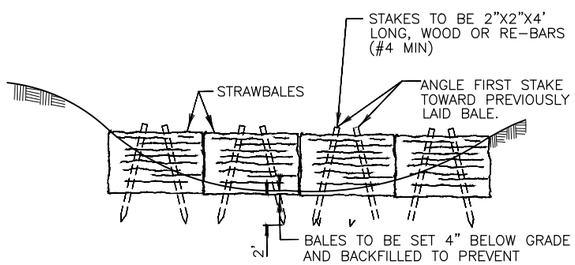


BOLLARD PIPE SUPPORT — C 2011

SCALE: NTS

NOTES :

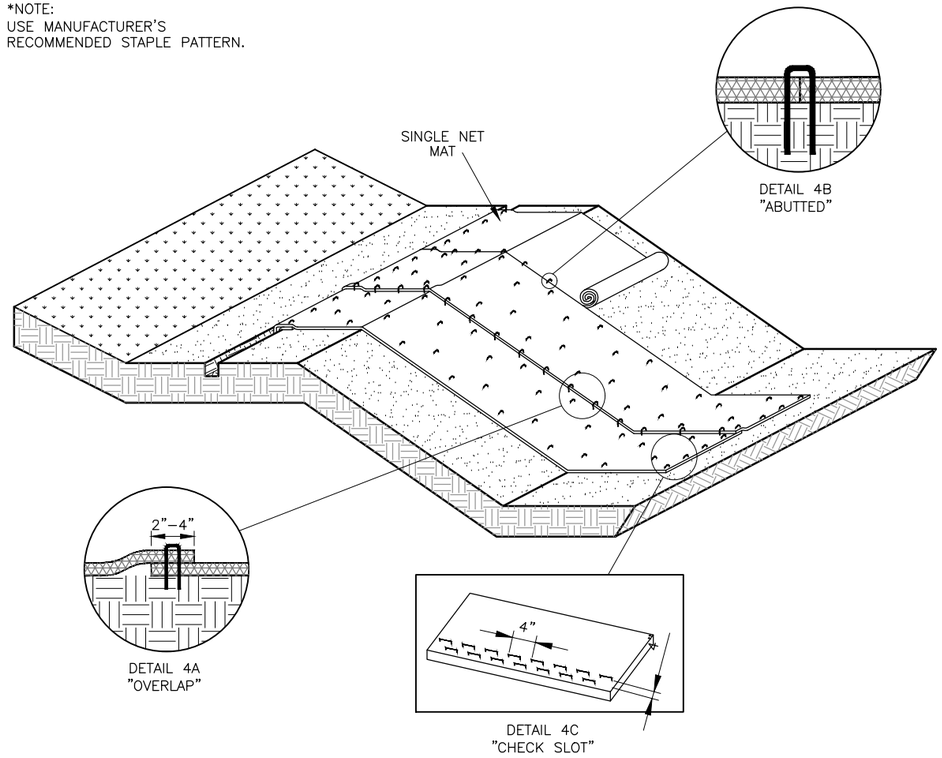
1. STRAWBALES TO BE REPLACED AS NECESSARY DUE TO DAMAGE OR CLOGGING WITH SILT. SILT TO BE REMOVED IN FRONT OF BALES REGULARLY TO PREVENT EXCESSIVE SOIL BEARING WEIGHT ON THE BALES.
2. STRAWBALES TO BE PLACED ON EXISTING GRADE IN UNDISTURBED AREAS.

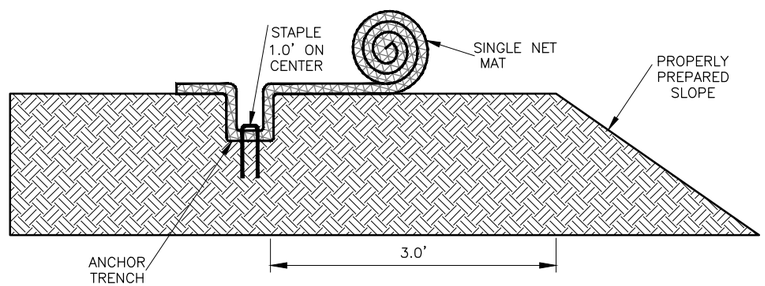


STAKED STRAWBALE DETAIL — C 2015

SCALE: NTS

*NOTE:
USE MANUFACTURER'S RECOMMENDED STAPLE PATTERN.





EROSION CONTROL BLANKET/NET MAT — C 2016

SCALE: NTS

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
- [X] ENERGY
- [ ] FIRE

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BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 7702647 — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN BCS STANDARDS — DRAWN BCA STANDARDS — CHECKED E. NEIL — APPROVED J. BECKMAN — REVIEW

CIVIL

GENERAL CIVIL DETAILS-1

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. GC-01

SHEET 8 OF 46

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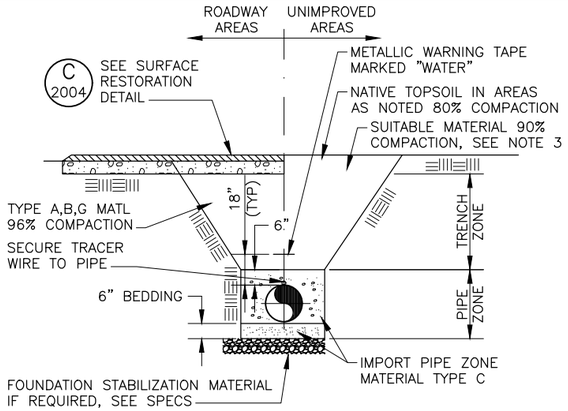


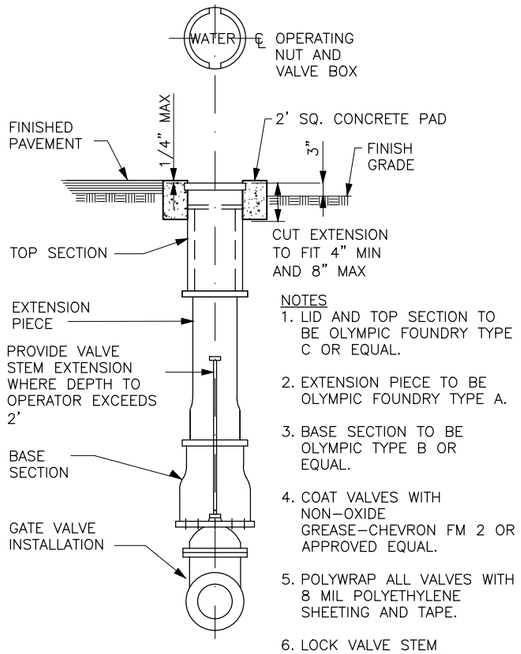
NOTES:

1. SEE SPECIFICATIONS SECTION 31 23 00 "EARTHWORK" FOR DEFINITION OF BACKFILL MATERIAL AND COMPACTION REQUIREMENTS.
2. IMPORT BACKFILL REQUIRED FOR TRENCH BACKFILL UNDER ROADWAY AREAS.
3. NATIVE MATERIAL MEETING SPECIFICATION REQUIREMENT FOR 'SUITABLE MATERIAL' MAY BE USED FOR TRENCH ZONE BACKFILL IN UNIMPROVED AREAS.
4. BENCH TRENCH AS REQUIRED TO INSTALL DUAL WATER LINES TO DEPTHS AND GRADES SHOWN ON PLANS.

TYPICAL TRENCH BACKFILL SECTION

C 2124

SCALE: NTS



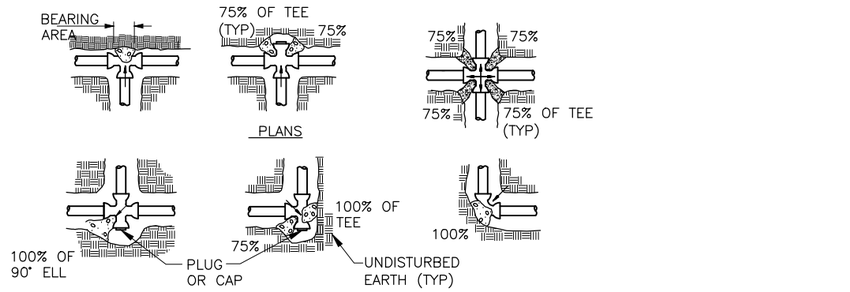
NOTES

1. LID AND TOP SECTION TO BE OLYMPIC FOUNDRY TYPE C OR EQUAL.
2. EXTENSION PIECE TO BE OLYMPIC FOUNDRY TYPE A.
3. BASE SECTION TO BE OLYMPIC TYPE B OR EQUAL.
4. COAT VALVES WITH NON-OXIDE GREASE-CHEVRON FM 2 OR APPROVED EQUAL.
5. POLYWRAP ALL VALVES WITH 8 MIL POLYETHYLENE SHEETING AND TAPE.
6. LOCK VALVE STEM EXTENSION TO NUT.
7. INSTALL TRACER WIRE.

BURRIED VALVE INSTALLATION

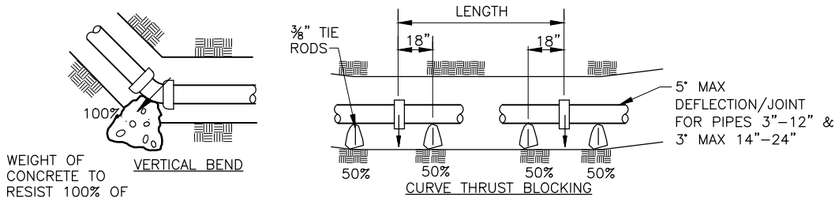
C 2126

SCALE: NTS



NOTE:
ARROWS INDICATE THRUST DIRECTION

NOTE:
FIGURE (100%) AT THRUST BLOCK INDICATES PERCENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.



NOTE:
CONC. FOR THRUST BLOCKS SHALL BE 2000 PSI

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
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BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

REQUIRED LENGTH OF RESTRAINED PIPE FOR VARIOUS FITTINGS (FT)

PIPE SIZE (N)	DEAD END OR TEE	HORIZ. 90° BEND	VERTICAL 22.5° BEND	HORIZ. 45° BEND
6-DI	57	21	12	9
6-PVC	38	17	10	8
12-PVC	71	32	15	14
16-PVC	92	41	19	17

MINIMUM BEARING AREA OF CONCRETE THRUST BLOCKS FOR VARIOUS FITTINGS (FT^2)

PIPE SIZE (N)	DEAD END OR TEE	90° BEND	45° BEND	22.5° BEND
4	2	3	2	1
6	4	6	3	2
12	16	22	12	6
16	28	38	21	11

1. LENGTH GIVEN FOR BENDS REPRESENTS THE RESTRAINED LENGTH REQUIRED FOR EACH SIDE OF BEND.

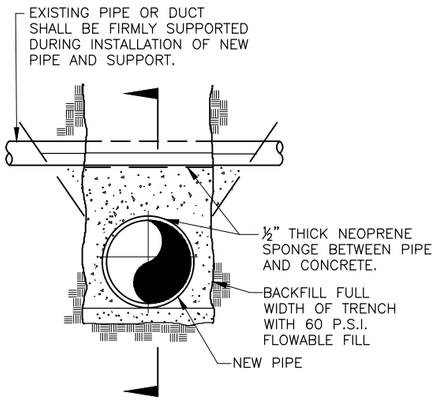
NOTE:
CONTRACTOR SHALL INSTALL THRUST RESTRAINT AT ALL FITTINGS PRIOR TO PRESSURIZING THE WATER LINE. IN ALL AREAS WHERE THE PIPELINE WILL NOT BE PRESSURIZED FOR 5 DAYS, CONTRACTOR SHALL HAVE THE OPTION OF USING RESTRAINED PIPE LENGTHS OR CONCRETE THRUST BLOCKS IN ACCORDANCE WITH THE TABLES ABOVE. WHERE THE NEW LINES WILL CONNECT TO EXISTING WATER MAINS, MECHANICAL THRUST RESTRAIN AND THRUST BLOCKS WILL BE REQUIRED TO ALLOW THE NEW PIPELINE TO BE PUT INTO SERVICE IMMEDIATELY AFTER ACCEPTANCE.

1. THRUST BLOCKS TO BE INSTALLED IN ACCORDANCE WITH DETAIL SHOWN ABOVE.
2. CONCRETE MUST BE ALLOWED TO CURE IN THRUST RESTRAINTS FOR 5 DAYS PRIOR TO PRESSURIZING WATER LINES OR HAVE ADDITIONAL APPROVED THRUST RESTRAINTS INSTALLED PRIOR TO PRESSURIZING THE WATERLINE.
3. PRIOR TO POURING CONCRETE FOR THRUST BLOCKS, WRAP PIPE SYSTEM WITH 8 MIL THICK PLASTIC SHEET TO PREVENT BONDING OF CONCRETE TO PIPE SYSTEM.
4. VALUES PROVIDE ASSUME AT LEAST 5 FEET OF COVER AND SOIL BEARING STRENGTH OF 3500 PSF.

CONCRETE THRUST BLOCKS

C 2231

SCALE: NTS

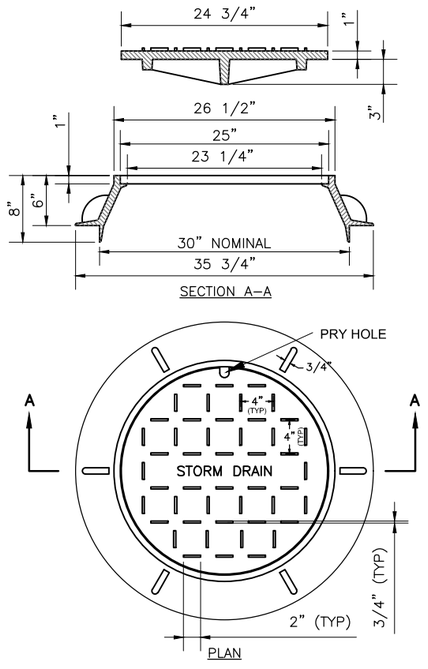


NOTES:
1. UNDERGROUND UTILITY SUPPORTS ARE TO BE PROVIDED WITHOUT ADDED COST TO OWNER WHEN MINIMUM CLEARANCE OF 12 INCHES CANNOT BE PROVIDED OR ADEQUATE COMPACTION CAN NOT BE OBTAINED USING MECHANICAL MEANS.

UNDERGROUND UTILITY SUPPORT

C 2128

SCALE: NTS



30" FRAME AND COVER

C 2130

SCALE: NTS

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
ERIC W. NEIL
7702647
STATE OF UTAH
08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

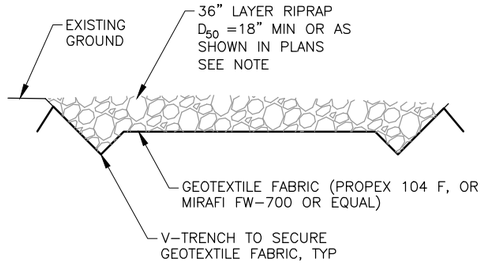
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

DESIGN
REVIEW CHECKED E. NEIL APPROVED J. BECKMAN
DESIGN BCS STANDARDS
DRAWN BCA STANDARDS

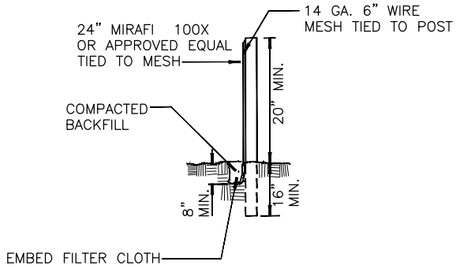
CIVIL
GENERAL CIVIL DETAILS-2
DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. GC-02
SHEET 9 OF 46



NOTE:
WHEN D_{50}=6", PROVIDE 18" LAYER RIPRAP, SEE PLAN FOR LOCATION.

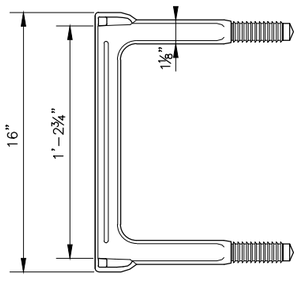
RIPRAP & ARMOR PROTECTION (C 2251)
SCALE: NTS

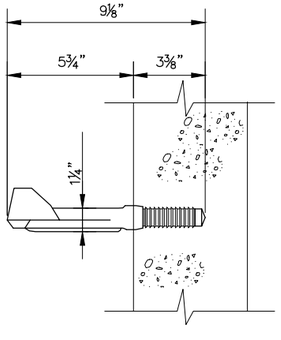


NOTES:

1. POSTS SPACED 10' O.C. MAX.
2. FILTER CLOTH TO BE TIED TO MESH EVERY 24" AT TOP AND MIDDLE WITH 6" FOLDED OVERLAP AT VERTICAL SEAMS
3. FENCE SHALL BE MAINTAINED AND ACCUMULATED MATERIAL REMOVED

SILT FENCE DETAIL (C 2280)
SCALE: NTS





NOTES:

1. M.A. INDUSTRIES INC. COPOLYMER POLYPROPYLENE PLASTIC STEPS, OR EQUAL.
2. STEPS SHALL BE INSTALLED IN FORM AND CAST IN WITH WALL PLACEMENT.

LADDER RUNG DETAIL (C 2580)
SCALE: NTS

PLAN REVIEW ACCEPTANCE

- FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 7702647 — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

DESIGN BCS STANDARDS — DRAWN BCA STANDARDS — CHECKED E. NEIL — APPROVED J. BECKMAN — REVIEW

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

CIVIL

GENERAL CIVIL DETAILS-3

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. GC-03

SHEET 10 OF 46

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

☒ BUILDING	☒ STRUCTURAL
☒ MECHANICAL	☒ PLUMBING
☒ ELECTRICAL	☒ ENERGY
☐ ACCESSIBILITY	☐ FIRE

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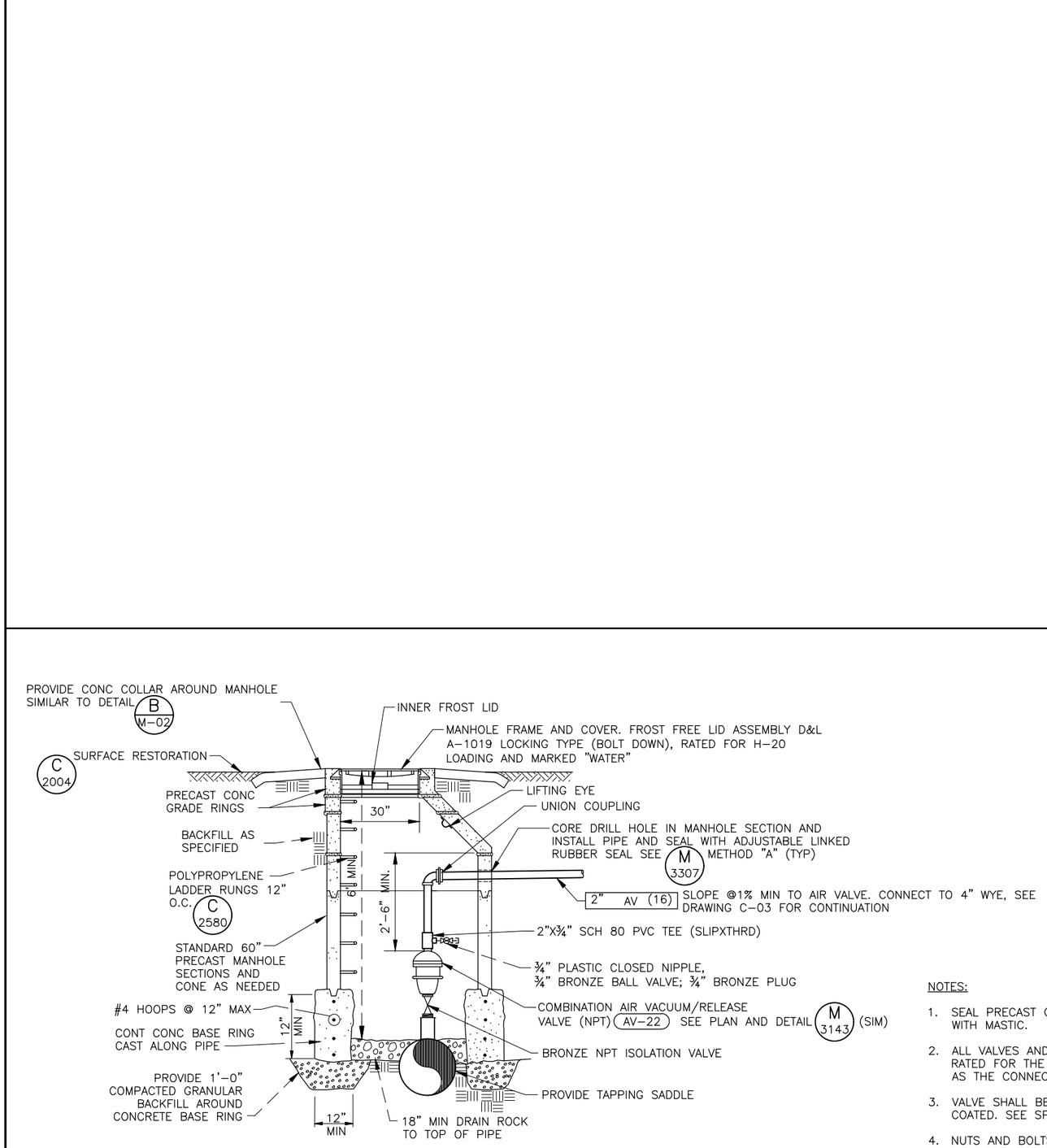
BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.



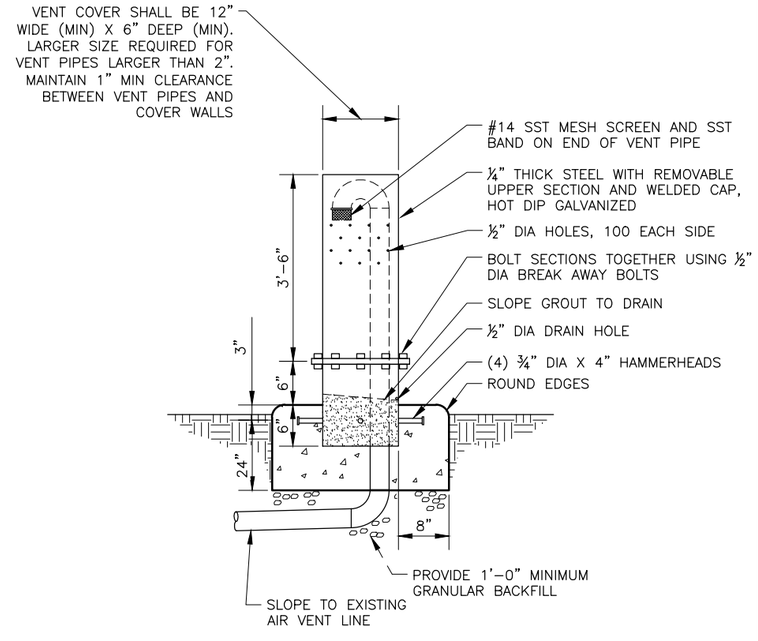
NOTES:

1. SEAL PRECAST CONCRETE SECTIONS WITH MASTIC.
2. ALL VALVES AND FITTINGS SHALL BE RATED FOR THE SAME TEST PRESSURE AS THE CONNECTED WATERLINE.
3. VALVE SHALL BE EPOXY LINED AND COATED. SEE SPECIFICATIONS.
4. NUTS AND BOLTS SHALL BE 316 SST WITH ANTI-SIEZE LUBRICANT.
5. SEE DRAWING M-04 FOR EQUIPMENT SCHEDULE.

AIR/VAC MANHOLE

NTS

C 2660



AIR VENT DETAIL

SCALE: NTS

C 2562

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER ERIC W. NEIL 7702647 STATE OF UTAH 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN BCS STANDARDS DRAWN BCA STANDARDS CHECKED J. BECKMAN APPROVED E. NEIL REVIEW

CIVIL

GENERAL CIVIL DETAILS-4

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. GC-04

SHEET 11 OF 46

P:\Powder Mountain\347-17-01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_GC-04.dwg Plotted: 8/23/2018 10:30 AM By: Eric Neil

BUILDING ENVELOPE SCHEDULE

ELEMENT	MINIMUM REQUIREMENTS	DESCRIPTION
ROOF:	R-49 OR U-0.021	PER PLANS.
WALLS: FRAMED	R-13 + 7.5ci OR U-0.051 R-20 + R-3.8ci	PER PLANS.
BELOW WALLS GRADE	R-7.5 ci OR C-0.119	PER PLANS.
UNHEATED SLAB ON GRADE:	R-10 FOR 24" BELOW, MIN.	PROVIDE R-10 RIGID INSULATION.
DOOR: SWINGING	R-6	PROVIDE INSULATED DOOR PER PLAN.
PIPING:	PIPING INSULATION SHALL BE 1" THICK FOR PIPING SMALLER THAN 1-1/2" WITH FLUID TEMPERATURES UP TO 140',AND 1-1/2" THICK FOR PIPING 1-1/2" AND LARGER. FOR FLUIDS OVER 140', THE INSULATION SHALL BE 1-1/2" THICK FOR PIPING UP THRU 1-1/4", AND 2" THICK FOR 1-1/2" AND LARGER. INSULATION SHALL HAVE AN R-VALUE OF NO LESS THAN R-3.75.	

AIR BARRIER: THE CONTINUOUS AIR BARRIER SHALL BE CONSTRUCTED TO COMPLY WITH THE FOLLOWING: AIR BARRIER JOINTS AND SEAMS SHALL BE SEALED, INCLUDING SEALING TRANSITIONS IN PLACES AND CHANGES IN MATERIALS. AIR BARRIER PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH 2015 IECC SECTION C402.4.2. THE JOINTS AND SEALS SHALL BE SECURELY INSTALLED IN OR ON THE JOINT FOR ITS ENTIRE LENGTH SO AS NOT TO DISLODGE, LOOSEN OR OTHERWISE IMPAIR ITS ABILITY TO RESIST POSITIVE AND NEGATIVE PRESSURE FROM WIND, STACK EFFECT AND MECHANICAL VENTILATION.

AIR BARRIER COMPLIANCE: THE CONTINUOUS AIR BARRIER FOR THE OPAQUE BUILDING ENVELOPE SHALL COMPLY WITH THE BUILDING TEST METHOD. THE COMPLETED BUILDING SHALL BE TESTED AND THE AIR LEAKAGE RATE OF THE BUILDING ENVELOPE SHALL NOT EXCEED 0.40 CFM/FT2 AT A PRESSURE DIFFERENTIAL OF 0.3 INCHES WATER GAUGE (2.0 L/S ·M2 AT 75 PA) IN ACCORDANCE WITH ASTM E 779 OR AN EQUIVALENT METHOD APPROVED BY THE CODE OFFICIAL PROVIDED APPROVAL DOCUMENTATION TO ARCHITECT. OTHER APPROVAL METHODS MAY BE ALLOWED, PROVIDE SUBMITTAL FOR REVIEW.

ROOF REFERENCE NOTES

A. PROVIDE VENTILATION AS INDICATED.
B. ROOFING TO BE CLASS C.
C. ROOFING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
D. VERIFY ALL CONDITIONS PRIOR TO INSTALLATION.
E. CRICKETS AND OVERHANGS SHALL PROVIDE A MIN. ⅜" SLOPE
F. EXTEND ICE AND WATERSHIELD UNDERLAYMENT PROTECTION OVER ROOF, EXPECT WITHIN 24" OF RIDGES, INCLUDING ALL ROOF PERIMETERS, PROJECTIONS, PENETRATIONS, VALLEYS AND WALL INTERSECTIONS AND EXTERIOR WALL/ROOF INTERSECTIONS. 24" AT RIDGES SHALL RECEIVE 30# ROOF UNDERLAYMENT, OVERLAP ICE SHIELD.
G. ALL EXPOSED MECHANICAL VENTS & GRILLES TO BE PRE-FINISHED AS SELECTED BY ARCHITECT.
H. ALL EXPOSED WOOD SHALL BE PAINTED AND / OR STAINED.
J. PROVIDE 28 GAUGE GALVANIZED SHEET METAL VALLEY FLASHING 12" BOTH SIDE OF VALLEY OR EQUIPMENT CURB.
K. REFER TO FLASHING DETAILS FOR PERIMETER FLASHING.
L. PROVIDE METAL ROOF CRICKETS AT ALL ROOF PENETRATIONS.
M. ALL FLUES / VENT SHALL BE U.L. LISTED.
N. REFER TO MECHANICAL PLANS FOR PIPE VENTS.

ROOF VENTILATION

ATTIC VENTILATION (1/300 SF REQUIRED), PROVIDE 1 PERM VAPOR BARRIER ON WARM SIDE OF ALL CEILINGS AT ROOF.

ROOF AREA / VENTILATION CALCULATION:
ROOF AREA: 1,015 SF
(1,015 / 300 = 3.4 SF)

REQUIRED VENT AREA = 3.4 S.F.
ROOF PERIMETER: 128'
ROOF LENGTH (SOFFIT LENGTH): 38.42' (34.92' AT INTERIOR)

PROVIDED:
LOW SIDE:
(102) 2" DIA VENTILATION HOLES = (0.02SF * 102) = 2.04 SF
PROVIDE THREE HOLES PER CAVITY, WITH INSECT SCREEN.

HIGH SIDE:
(102) 2" DIA VENTILATION HOLES = (0.02SF * 102) = 2.04 SF
PROVIDE THREE HOLES PER CAVITY, WITH INSECT SCREEN.

TOTAL ROOF VENTILATION PROVIDED = 4.08 SF

CODE OVERVIEW

OCCUPANCY CLASSIFICATION:
CHAPTER THREE: U UTILITY AND MISCELLANEOUS

BUILDING AREA PER FLOOR:
CHAPTER FIVE:
TOTAL BUILDING: 800 S.F.

ALLOWABLE AREA:
BASE ALLOWABLE (TABLE 506.2): 5,500 S.F.

TYPE OF CONSTRUCTION:
CHAPTER SIX: VB, NS

SPRINKLER SYSTEM:
NOT EQUIPPED WITH AUTOMATIC SPRINKLER SYSTEM.

MEANS OF EGRESS OCCUPANT CALCULATIONS:
CHAPTER 10:
MECHANICAL ROOM OCCUPANTS: (300 S.F./GROSS = 800 S.F.)
3 OCCUPANTS

TOTAL EGRESS WIDTH:
3 * 0.2 = 0.6" MINIMUM REQUIRED EXIT WIDTH.
144" ACTUAL EXIT WIDTH PROVIDED EGRESS:

STAIRS:
3 * 0.3 = 0.9" MINIMUM REQUIRED EXIT WIDTH.
42" ACTUAL EXIT WIDTH PROVIDED EGRESS:

TRAVEL DISTANCE: 30' EXIT

PLUMBING FIXTURE CALCULATIONS:
CHAPTER 29. TABLE 2902.1: NOT REQUIRED U OCCUPANCY

BASIS OF DESIGN

APPLICABLE CODES:

2015 EDITION OF THE INTERNATIONAL BUILDING CODE W/ STATE OF UTAH AMENDMENTS.
2015 EDITION OF THE INTERNATIONAL PLUMBING CODE.
2015 EDITION OF THE INTERNATIONAL MECHANICAL CODE.
2014 EDITION OF THE NATIONAL ELECTRICAL CODE.
2015 EDITION OF THE INTERNATIONAL FIRE CODE.
2015 EDITION OF THE INTERNATIONAL FUEL GAS CODE.
2015 EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE.
2009 ICC/ANSI A117.1

AND STATE OF UTAH AMENDMENTS TO THOSE CODES.

DEFERRED SUBMITTALS
2015 IBC SECTION 107.3.4.1 DEFERRED SUBMITTALS: IN ADDITIONAL TO THE ITEMS LISTED ON THE STRUCTURAL DRAWINGS, ITEMS TO BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO THE WORK COMMENCING SHALL INCLUDE:

1. N.A.

NOTE:

CONTRACTOR SHALL ABIDE BY THE UTAH DIVISION OF AIR QUALITY REQUIREMENTS AND SHALL CONTRACT THE UTAH DIVISION OF AIR QUALITY AT (801) 536-4400.

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

PLAN REFERENCE NOTES

1. ALL PIPING, EQUIPMENT, ELECTRICAL PANELS, ETC. SHOWN ON THIS SHEET FOR REFERENCE ONLY. REFER TO DISCIPLINE SHEET FOR INFORMATION AND INSTRUCTIONS.
2. STAIR RUNS TO HAVE EQUAL TREADS, AND EQUAL RISERS TO WITHIN 1/8". TYP.
3. PROVIDE SWPPP PLAN & CONSTRUCTION MITIGATION PLAN PER CIVIL.
4. DIMENSIONS SHALL BE TO EDGE OF CONCRETE, EDGE OF MASONRY, CENTER OF COLUMNS, AND PER STRUCTURAL UNLESS NOTED OTHERWISE.
5. PROVIDE DOOR AND FRAMES PER NOTES. ALL HARDWARE TO MEET ACCESSIBILITY STANDARDS OF ANSI A117.1-2012.
6. PROVIDE SLAB ON GRADE THICKNESS AND REINFORCING PER STRUCTURAL.
7. ALL SURFACES SHALL BE PAINTED, U.O.N.

DOOR NOTES

DOOR SPEC: MANUFACTURER: CECO DOOR PRODUCTS, AN ASSA ABLOY GROUP COMPANY.

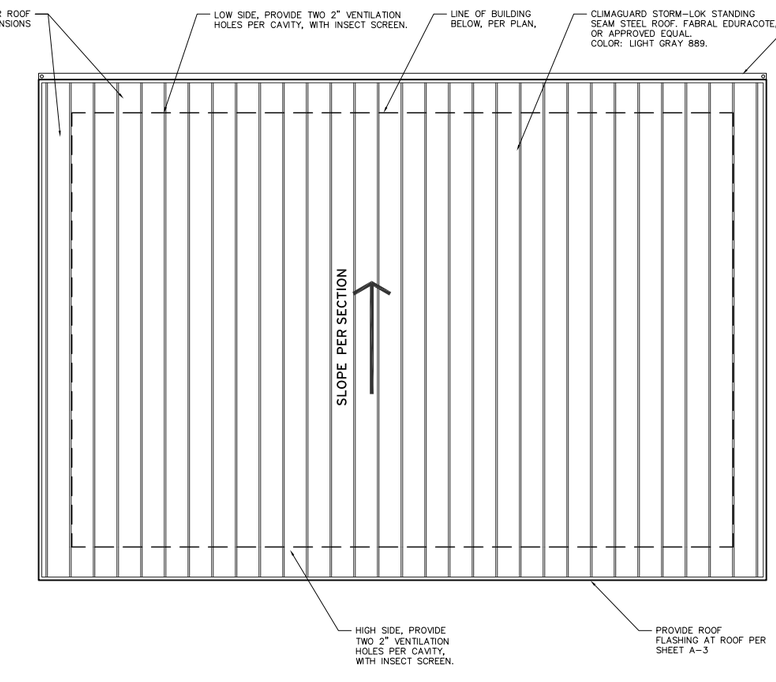
EXTERIOR INSULATED DOOR. INSULATED R=6.0; EXTRA HEAVY DUTY. FACE SHEETS FABRICATED FROM METALLIC-COATED STEEL SHEET. COMPLY WITH ANSI/SDI A250.8 FOR LEVEL AND MODEL AND ANSI/SDI A250.4 FOR PHYSICAL PERFORMANCE LEVEL: LEVEL 3 AND PHYSICAL PERFORMANCE LEVEL A, MODEL 2 (SEAMLESS).

DOOR KEYED LOCKSET TO MATCH EXISTING HIDDEN LAKE PUMP STATION, FIELD VERIFY.

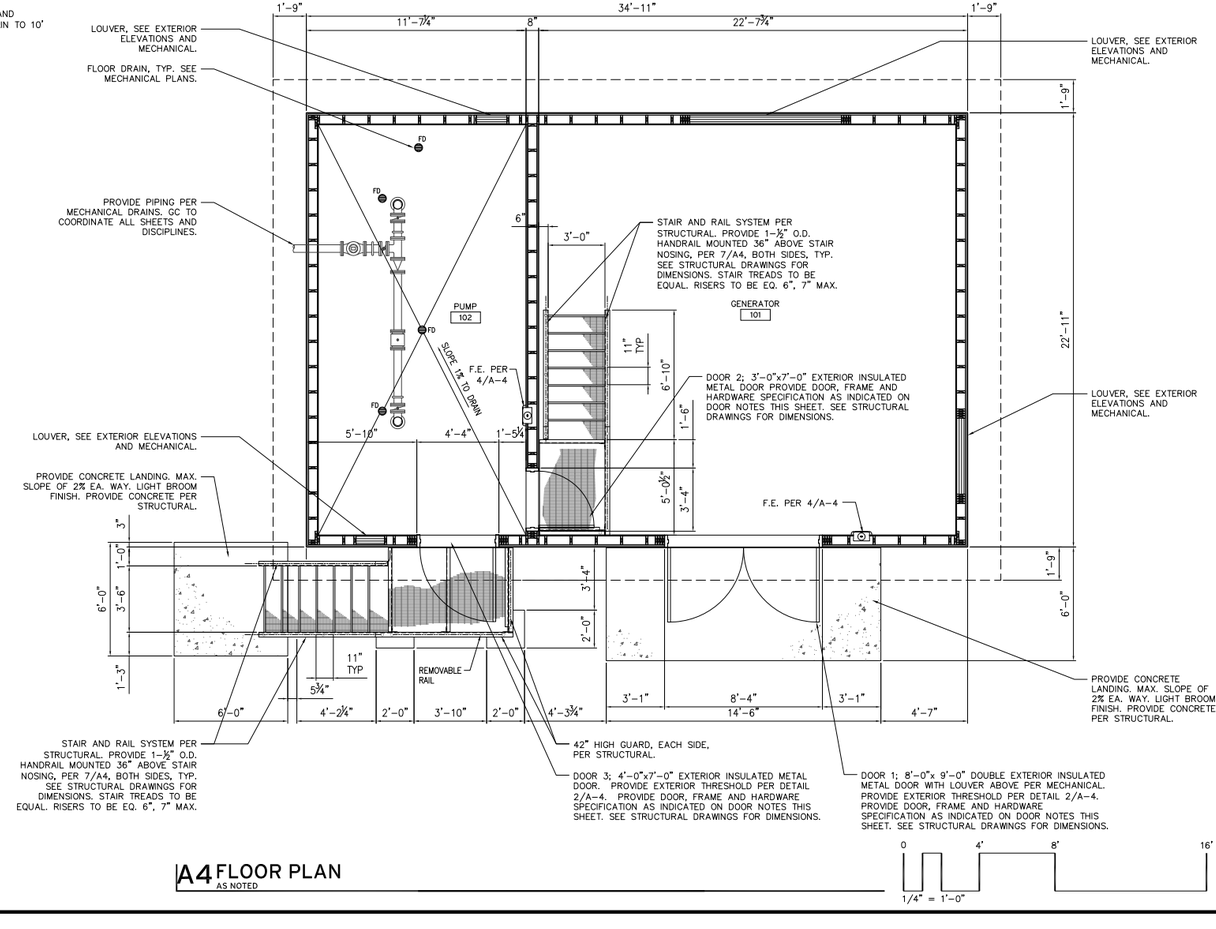
DOOR HARDWARE:

DOOR 1:			
2	CONTINUOUS HINGE CFM SLF-HD		PE
2	FLUSH BOLT 555	US26D	RO
1	DUST PROOF STRIKE 570	US26D	RO
1	CYLINDRICAL LOCK (CLASSROOM) 28 10G37 LL LC	US26D	SA
1	SURFACE OVERHEAD HOLDER 9-X26	630	RF
2	PROTECTION PLATE K1050 10" X 2" LDW 4BE CSK	US32D	RO
1	THRESHOLD 271A FHSL14		PE
1	GASKETING 45041CNB X TKSP8		PE
2	SWEEP 18062CNB X TKSP8		PE
DOORS 2 & 3:			
3	HINGES T4A3386 4½x4½ NRP	32D	MC
1	CLOSER 351 CPS	EN	SA
1	KICKPLATE KP50 10" x 2" LDW	US32D	MC
1	WEATHERSTRIP MCK2891 AS @ HEAD		MC
2	WEATHERSTRIP MCK290 AS @ JAMBS		MC
1	DOOR BOTTOM MCK315 CN		MC
1	THRESHOLD MCK271 A		MC

MANUFACTURER'S ABBREVIATION:
MC McKINNEY
SA SARGENT
PE PEMKO
RO ROCKWOOD
RF RIXSON



A1 ROOF PLAN
AS NOTED



A4 FLOOR PLAN
AS NOTED

hoffman architects LLC
1308 south 1700 east #202
salt lake city, utah 84108
o 801 583 3400
f 866 213 9895
hhoffman.com

BOWEN COLLINS & ASSOCIATES

STATE OF UTAH
HANS RICHARD HOFFMAN
5104758-0301
LICENSED ARCHITECT
22 AUGUST 2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

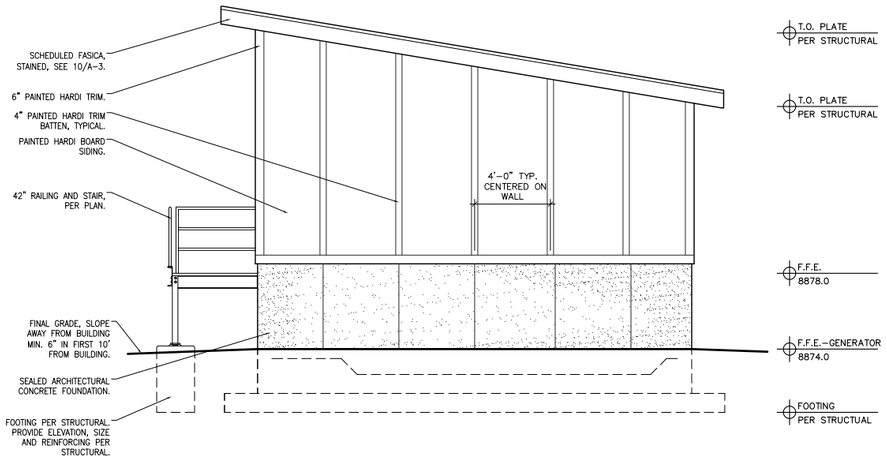
REVIEW
CHECKED HRH
APPROVED

DESIGN
DESIGN OTHERS
DRAWN STAFF

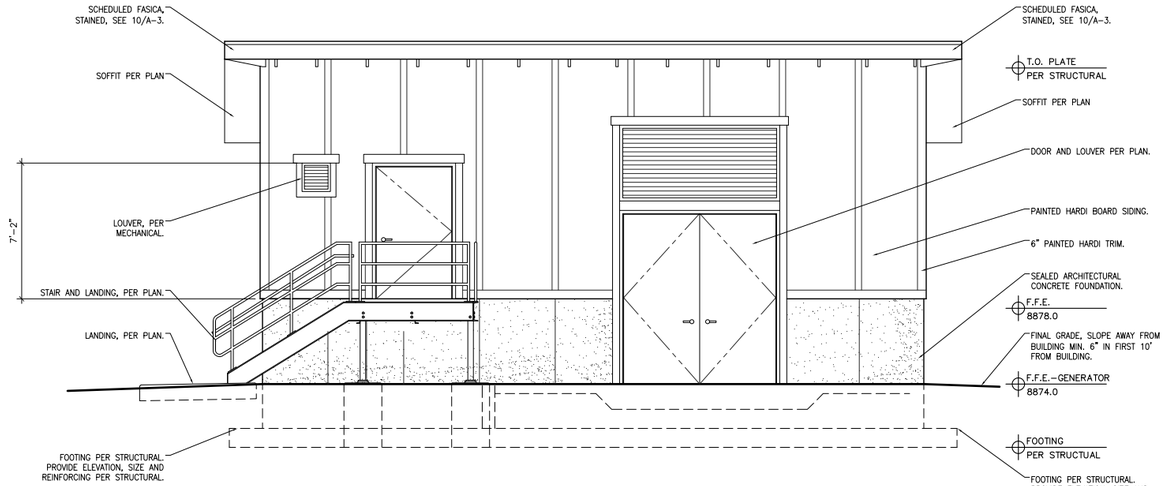
ARCHITECTURAL
PUMP STATION FLOOR PLAN

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. A-1
SHEET 12 OF 46



B1 SIDE ELEVATION
AS NOTED



B2 FRONT ELEVATION
AS NOTED

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODE IDENTIFIED BELOW

X BUILDING	X STRUCTURAL
X MECHANICAL	X PLUMBING
X ELECTRICAL	X ENERGY
☐ ACCESSIBILITY	☐ FIRE

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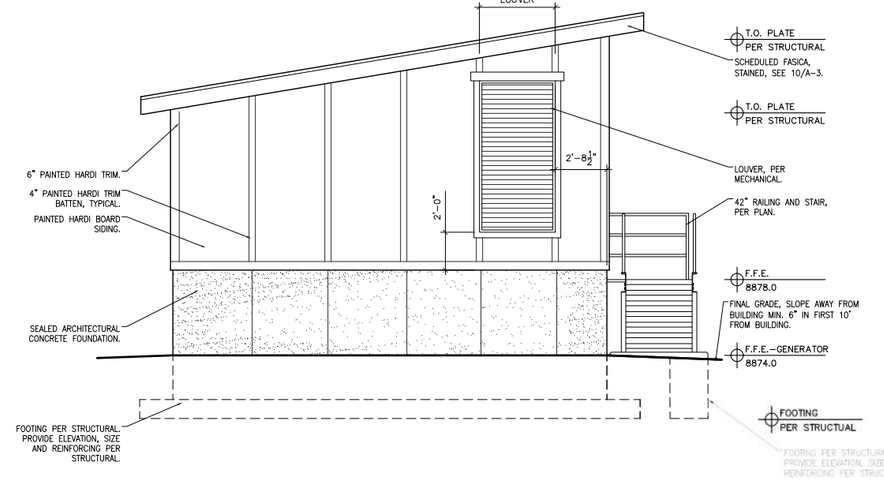
BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

A1 BACK ELEVATION
AS NOTED



A2 SIDE ELEVATION
AS NOTED

0 4' 8' 16'
1/4" = 1'-0"

hoffman architects LLC
1308 south 1700 east #202
salt lake city, utah 84108
o 801 583 3400
f 866 213 9895
hhoffman.com

BOWEN COLLINS & ASSOCIATES

STATE OF UTAH
HANS RICHARD HOFFMAN
5140842-0301
LICENSED ARCHITECT
22 AUGUST 2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

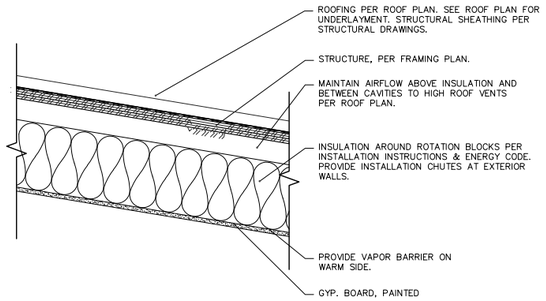
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN REVIEW
DESIGN HRH CHECKED
OTHERS APPROVED
DRAWN STAFF

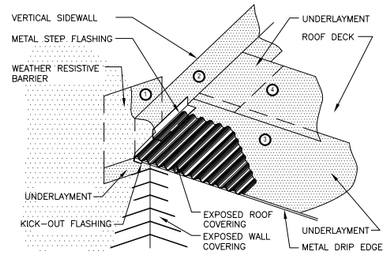
ARCHITECTURAL
PUMP STATION EXTERIOR ELEVATIONS

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. A-2
SHEET 13 OF 46

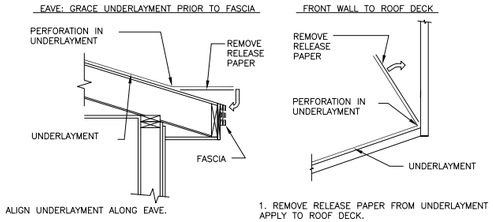


9 ROOFING UNDERLAYMENT
N.T.S.



NOTES:
1. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION.
2. EXTEND UNDERLAYMENT ON THE WALL SHEATHING ABOVE THE HIGHEST EXPECTED LEVEL OF SNOW AND ICE.
3. EXTEND UNDERLAYMENT ABOVE THE HIGHEST EXPECTED LEVEL OF WATER BACK-UP FROM ICE DAMS.
4. EXTEND UNDERLAYMENT BEYOND EAVE ONTO VERTICAL SIDE WALL FOR PROTECTION AGAINST RUN-OFF.
5. THE METAL FLASHING IS INSTALLED OVER THE UNDERLAYMENT.
6. INSTALL UNDERLAYMENT IN ORDER AS SHOWN BY NUMBERS.
7. INSTALL UNDERLAYMENT & WEATHER RESISTIVE BARRIER TO FORM WATER SHEDDING LAPS.

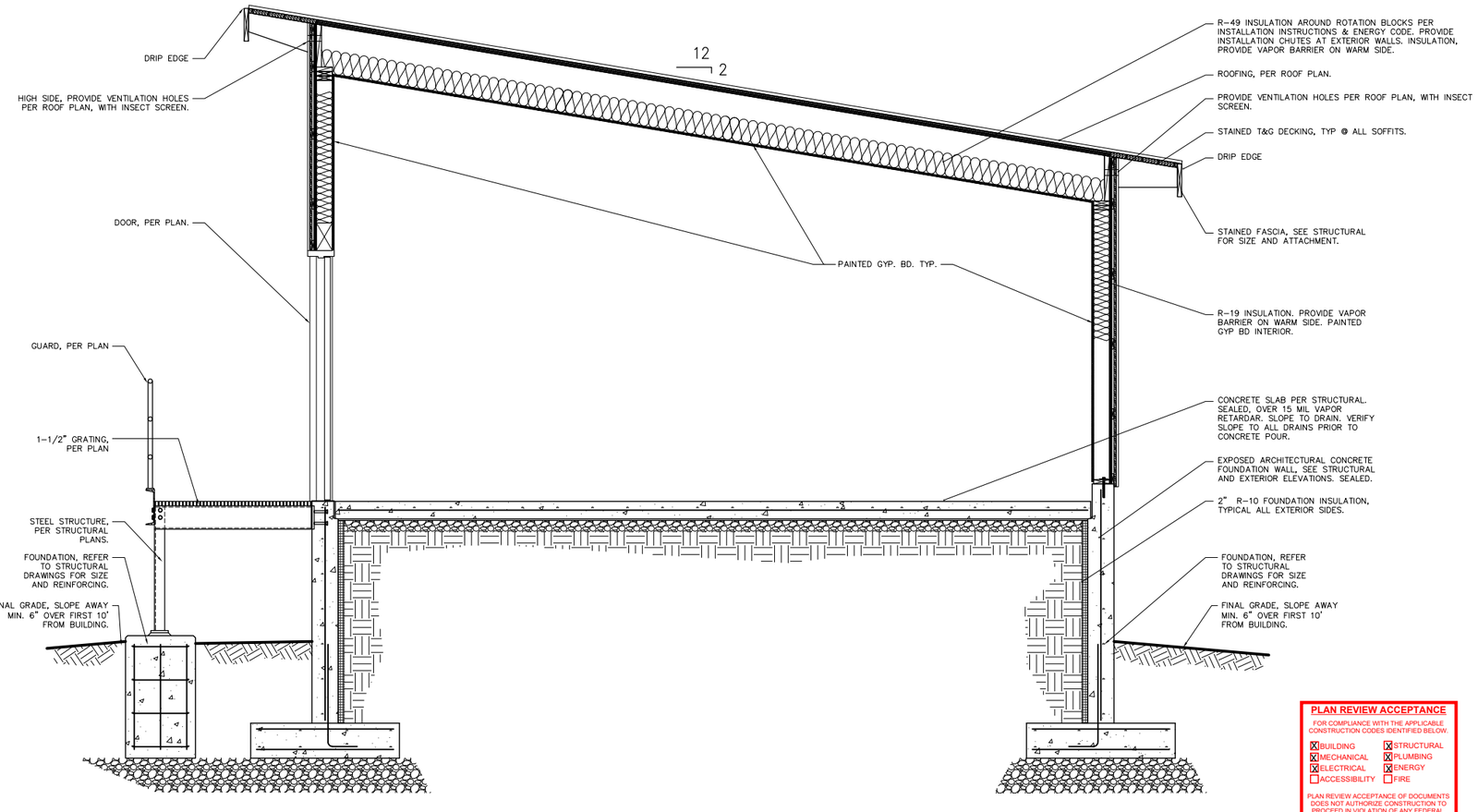
5 ROOFING UNDERLAYMENT
N.T.S.



1. ALIGN UNDERLAYMENT ALONG EAVE.
2. REMOVE RELEASE PAPER FROM UPPER HALF OF UNDERLAYMENT & APPLY TO ROOF DECK.
3. REMOVE RELEASE PAPER ALONG EAVE AFTER FASCIA IS INSTALLED OR FOR FUTURE TIE-IN.

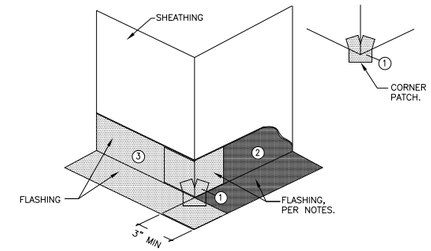
1. REMOVE RELEASE PAPER FROM UNDERLAYMENT & APPLY TO ROOF DECK.
2. REMOVE REMAINING RELEASE PAPER & APPLY TO WALL.
3. EXTEND UNDERLAYMENT ON THE WALL SHEATHING ABOVE THE HIGHEST EXPECTED LEVEL OF SNOW AND ICE.

1 ROOFING UNDERLAYMENT RELEASE
N.T.S.



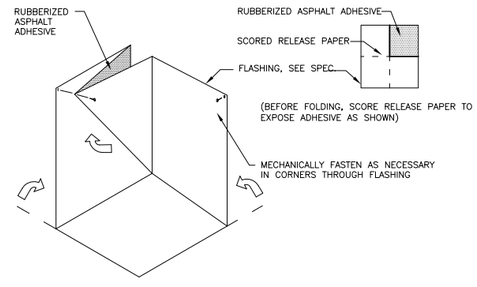
10 TYPICAL BUILDING SECTION
1/2" = 1'-0"

1. INSTALL FLASHING AND WEATHER RESISTIVE BARRIER TO FORM WATER SHEDDING LAPS.
2. SPLIT THE RELEASE PAPER FOR EASE OF INSTALLATION & TO MINIMIZE SCORING CUTS.
3. REMOVE ALL RELEASE PAPER PER STANDARD INSTALLATION INSTRUCTIONS & ADHERE TO SUBSTRATE.
4. INSTALL FLASHING IN ORDER AS SHOWN BY NUMBERS.

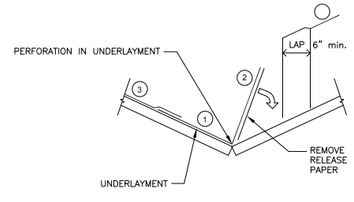


2 SELF ADHERED FLASHING
N.T.S.

1. INSTALL FLASHING & WEATHER RESISTIVE BARRIER TO FORM WATER SHEDDING LAPS.
2. USE A SQUARE PIECE OF FLASHING MATERIAL (6" x 6" MINIMUM).
3. SPLIT THE RELEASE PAPER USING FOR EASE OF INSTALLATION & TO MINIMIZE SCORING CUTS.
4. FOLD AS SHOWN BY ARROWS.
5. REMOVE ALL RELEASE PAPER PER STANDARD INSTALLATION INSTRUCTIONS & ADHERE TO SUBSTRATE.
6. ANGLE OF CORNER MAY VARY, ADJUST FOLDING OF THE FLASHING ACCORDINGLY TO FIT TIGHTLY TO CORNER.



3 SELF ADHERED FLASHING - WALL
N.T.S.



1. INSTALL IN ORDER AS SHOWN BY NUMBERS.
2. ENGAGE UNDERLAYMENT TO SPLIT RELEASE PAPER.
3. ALIGN & INSTALL UNDERLAYMENT OVER VALLEY.
4. REFER TO NRCA OR SMACNA FOR VALLEY METAL FLASHING & ROOF COVERING OPTIONS.

4 ROOFING UNDERLAYMENT
N.T.S.

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
- [X] ENERGY
- [ ] FIRE

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WEST COAST CODE CONSULTANTS, INC.

hoffman architects LLC
1308 south 1700 east #202
salt lake city, utah 84108
o 801 583 3400
f 866 213 9895
hhoffman.com

BOWEN COLLINS & ASSOCIATES

STATE OF UTAH
HANS RICHARD HOFFMAN
5104758-5301
LICENSED ARCHITECT
22 AUGUST 2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
WEBER COUNTY, UTAH
BLOOMINGTON WELL PROJECT

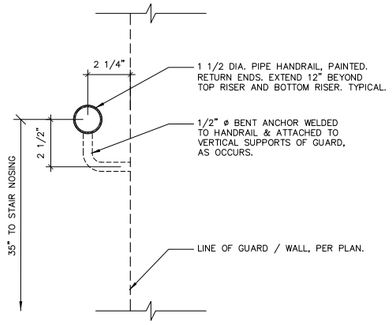
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW HRH
DESIGN OTHERS STAFF
CHECKED APPROVED
DESIGN DRAWN

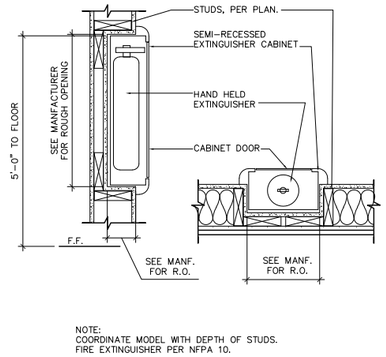
ARCHITECTURAL
PUMP STATION SECTION & DETAILS

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. A-3
SHEET 14 OF 46

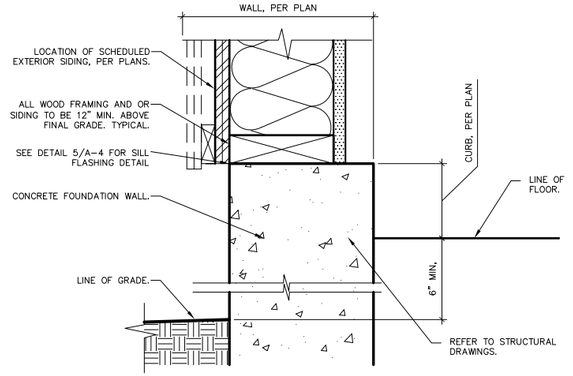


7 HANDRAIL
1-1/2" = 1'-0"

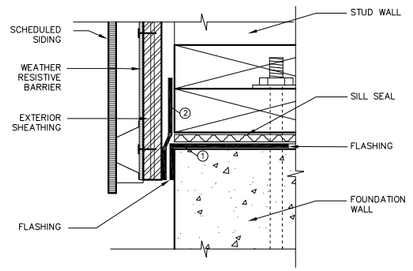


NOTE:
COORDINATE MODEL WITH DEPTH OF STUDS.
FIRE EXTINGUISHER PER NFPA 10.

4 RECESSED FIRE EXTINGUISHER
N.T.S.

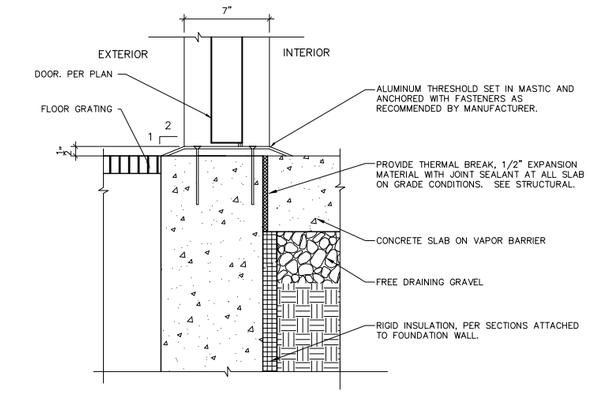


1 TOP OF FOUNDATION
N.T.S.

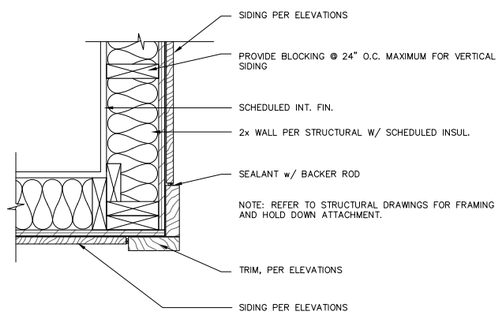


* INSTALL FLASHING IN ORDER AS SHOWN BY NUMBERS
** INSTALL FLASHING AND WEATHER RESISTIVE BARRIER TO FORM WATER SHEDDING LAPS

5 SELF ADHERED FLASHING @ SILL
N.T.S.

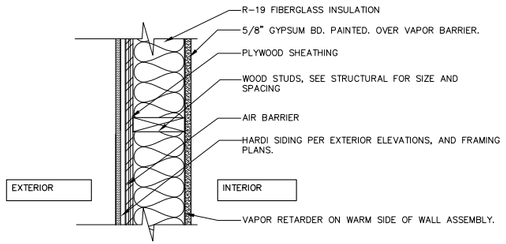


2 THRESHOLD DETAIL
N.T.S.



6 CORNER DETAIL
N.T.S.

INTERIOR WALL:
INTERIOR WALL TO BE 2x6 STUD FRAMING PER STRUCTURAL PLAN, 5/8" PAINTED GYP. BD. EACH SIDE.



BEARING WALL RATING – N.A.

1. WOOD STUDS – NOM. 2 X 6 INCH SPACED 16 INCHES O.C. WITH TWO 2 X6 INCH TOP AND ONE 2 X 6 INCH BOTTOM PLATES. STUDS LATERALLY BRACED AND EFFECTIVELY FIRE STOPPED AT TOP AND BOTTOM OF WALL. 2. BATTS AND BLANKETS* – MINERAL FIBER OR GLASS FIBER INSULATION, 5 1/2" THICK. MINERAL FIBER INSULATION TO BE UNFACED AND TO HAVE A MIN DENSITY OF 3 PCF. GLASS FIBER INSULATION TO BE FACED AND HAVE A MINIMUM DENSITY OF 0.9 PCF. 3. WALLBOARD, GYPSUM* – 5/8 IN. THICK, 4 FT. WIDE, APPLIED VERTICALLY WITH 6D CEMENT COATED NAILS @ 6 INCHES O.C. 4. WOOD STRUCTURAL SHEATHING – 4 FT WIDE WOOD STRUCTURAL PANELS. INSTALLED WITH LONG DIMENSION OF SHEET OR FACE GRAIN OF PLYWOOD PARALLEL WITH OR PERPENDICULAR TO STUDS. VERTICAL JOINTS CENTERED ON STUDS. HORIZONTAL JOINTS BACKED WITH NOM. 2 X 4 INCH WOOD BLOCKING. 5. EXTERIOR WALL FACINGS: INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS.

3 TYPICAL WALL
N.T.S.

PLAN REVIEW ACCEPTANCE
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☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
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STATE OF UTAH
HANS RICHARD HOFFMAN
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LICENSED ARCHITECT
22 AUGUST 2018

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SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

REVIEW HRH
CHECKED APPROVED

DESIGN OTHERS
DESIGN DRAWN STAFF

ARCHITECTURAL
PUMP STATION
DETAILS

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO.
A-4
SHEET 15 OF 46

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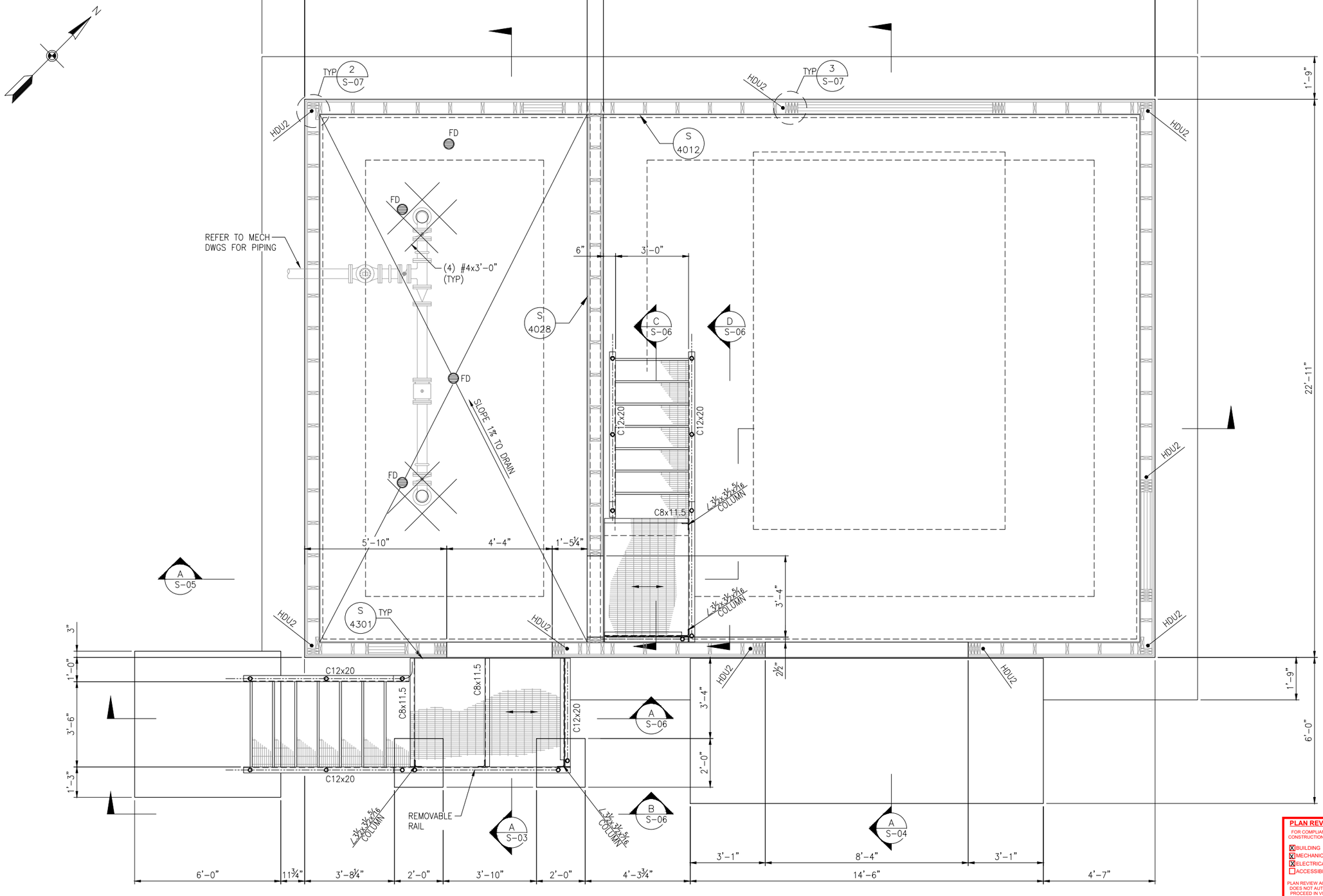

FOUNDATION PLAN

SCALE: 1/2"=1'-0"

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
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WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL STRUCTURAL ENGINEER
No. 7753350-2203
CHRIS D. PATTEN
08/22/18
STATE OF UTAH

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BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

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DRAWN C. PATTEN
CHECKED E. NEILL
APPROVED C. PATTEN
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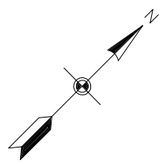
STRUCTURAL
WELL PUMP STATION FOUNDATION PLAN
DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. S-01
SHEET 16 OF 46

SHEAR WALL SCHEDULE				
WALL	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	PLATE ATTACHMENT
1	23/32" STRUCT 1 PANEL BLOCKED ONE SIDE OF WALL	10d SINKER NAILS @ 6"	10d SINKER NAILS @ 12"	1/2" TITEN HD @ 48"

SHEAR WALL NOTES:

1. A MINIMUM OF 2 ANCHOR BOLTS SHALL BE USED ON EACH BASE PLATE. PROVIDE ANCHOR BOLT WITHIN 9 INCHES OF EACH END OF EACH PIECE.
2. PROVIDE CONTINUOUS TOP PLATE AT ALL SHEAR WALLS. UNLESS NOTED OTHERWISE, LAP SPLICE TOP PLATE A MINIMUM OF 48" WITH (20) 16d NAILS STAGGERED AT 4" OC ON EACH SIDE OF SPLICE JOINT.
3. PROVIDE FULL-HEIGHT DOUBLE STUDS MINIMUM AT ENDS OF SHEAR WALL PANELS.
4. ANCHOR BOLTS ARE TITEN HD AS MANUFACTURED BY SIMPSON STRONG-TIE, INC.
5. CORROSION RESISTANT NAILS ARE REQUIRED WHERE INSTALLED INTO PRESSURE TREATED SILL PLATE. PROVIDE STAINLESS STEEL OR HOT-TUMBLED GALVANIZED NAILS.



PLAN NOTES:

1. TYPICAL ROOF SHEATHING AND NAILING SHALL BE AS FOLLOWS:
   2 LAYERS 23/32" STRUCTURAL 1 PANELS – STAGGER JOINTS.
   10d AT 6" BOUNDARY NAILING (DIAPHRAGM BOUNDARIES, SHEAR PANEL BLOCKING, SOLID BLOCKING, AND DRAG MEMBERS.
   10d AT 6" EDGE NAILING (AT PANEL EDGES).
   10d AT 12" FIELD NAILING (ALONG INTERMEDIATE FRAMING MEMBERS.
2. SOLID SAWN HEADERS SHOWN ON THE FRAMING PLAN MAY BE SUBSTITUTED WITH BUILT-UP HEADERS PER DETAIL S/4501.

ROOF FRAMING PLAN

SCALE: 1/2"=1'-0"

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☒ BUILDING	☒ STRUCTURAL
☒ MECHANICAL	☒ PLUMBING
☒ ELECTRICAL	☒ ENERGY
☐ ACCESSIBILITY	☐ FIRE

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08/22/18
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WELL PUMP STATION
ROOF FRAMING PLAN
DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO.
S-02
SHEET 17 OF 46

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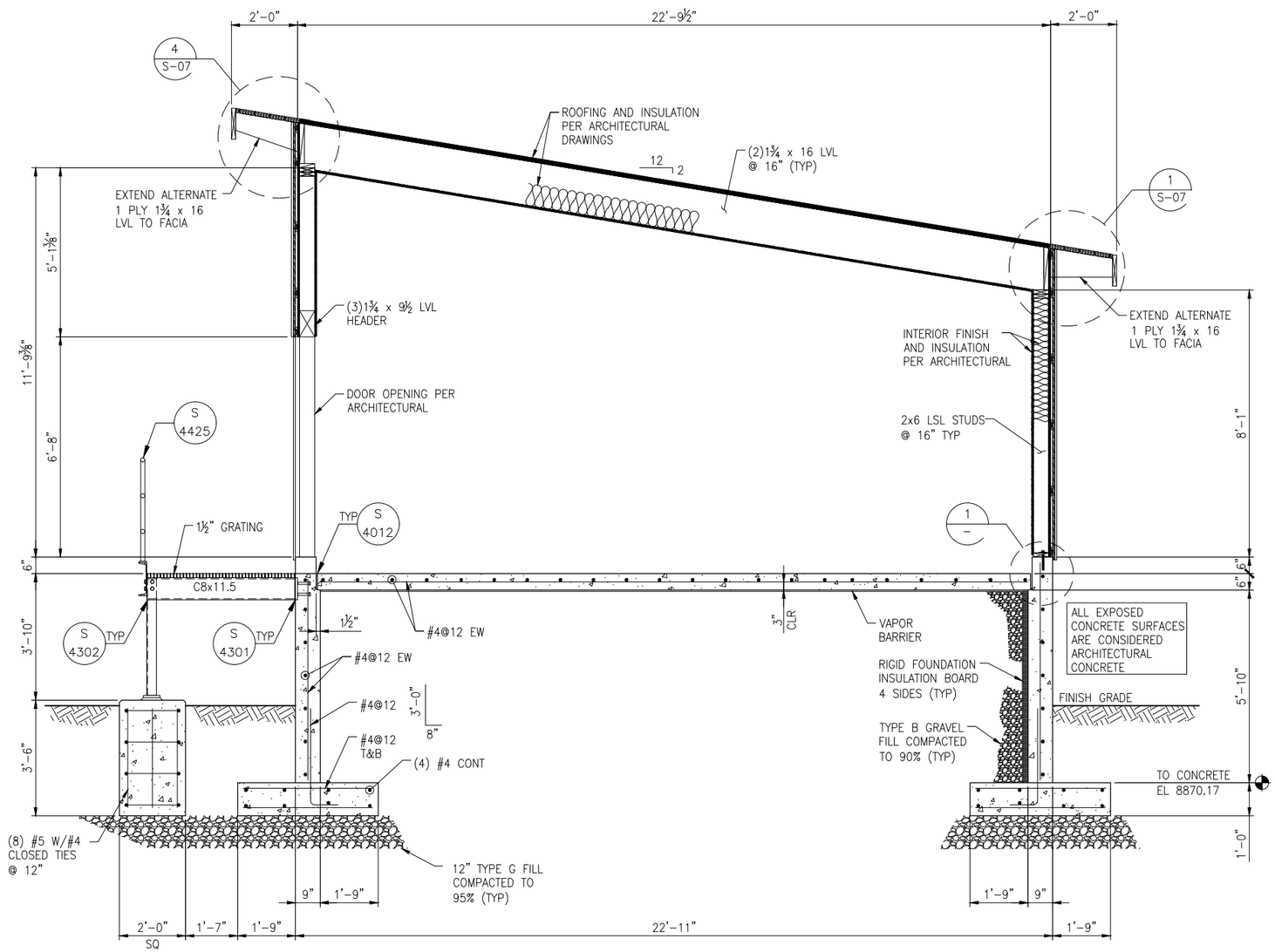
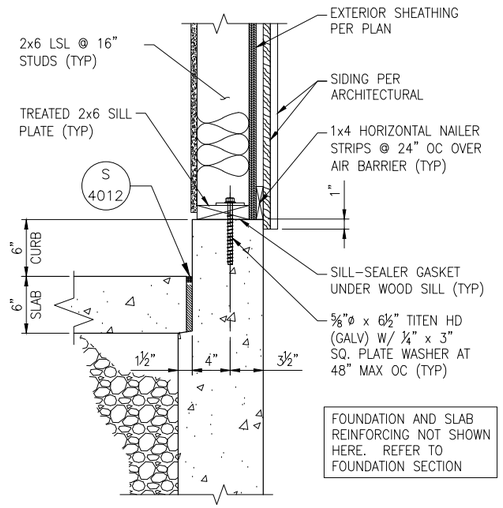


SECTION

SCALE: 1/2"=1'-0"

A
S-01
S-02



DETAIL

SCALE: 1-1/2"=1'-0"

1
–

PLAN REVIEW ACCEPTANCE

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STRUCTURAL

WELL PUMP STATION SECTION

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO.
S-03
SHEET 18 OF 46

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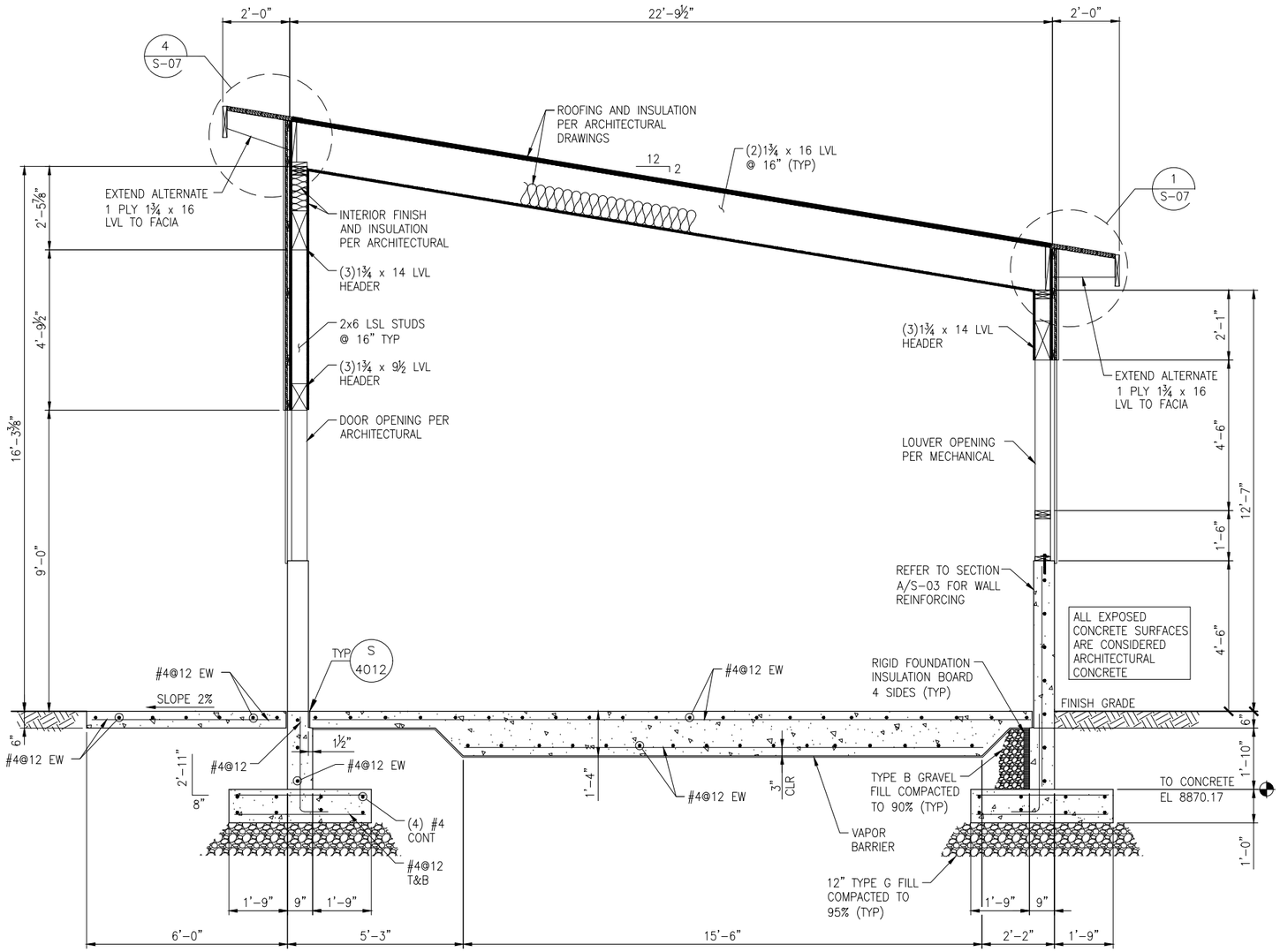

SECTION

SCALE: 1/2"=1'-0"

A
S-01
S-02

PLAN REVIEW ACCEPTANCE

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X BUILDING	X STRUCTURAL
X MECHANICAL	X PLUMBING
X ELECTRICAL	X ENERGY
☐ ACCESSIBILITY	☐ FIRE

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REVIEW E. NEIL
CHECKED C. PATTEN
APPROVED

STRUCTURAL

WELL PUMP STATION SECTION

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

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SHEET 19 OF 46

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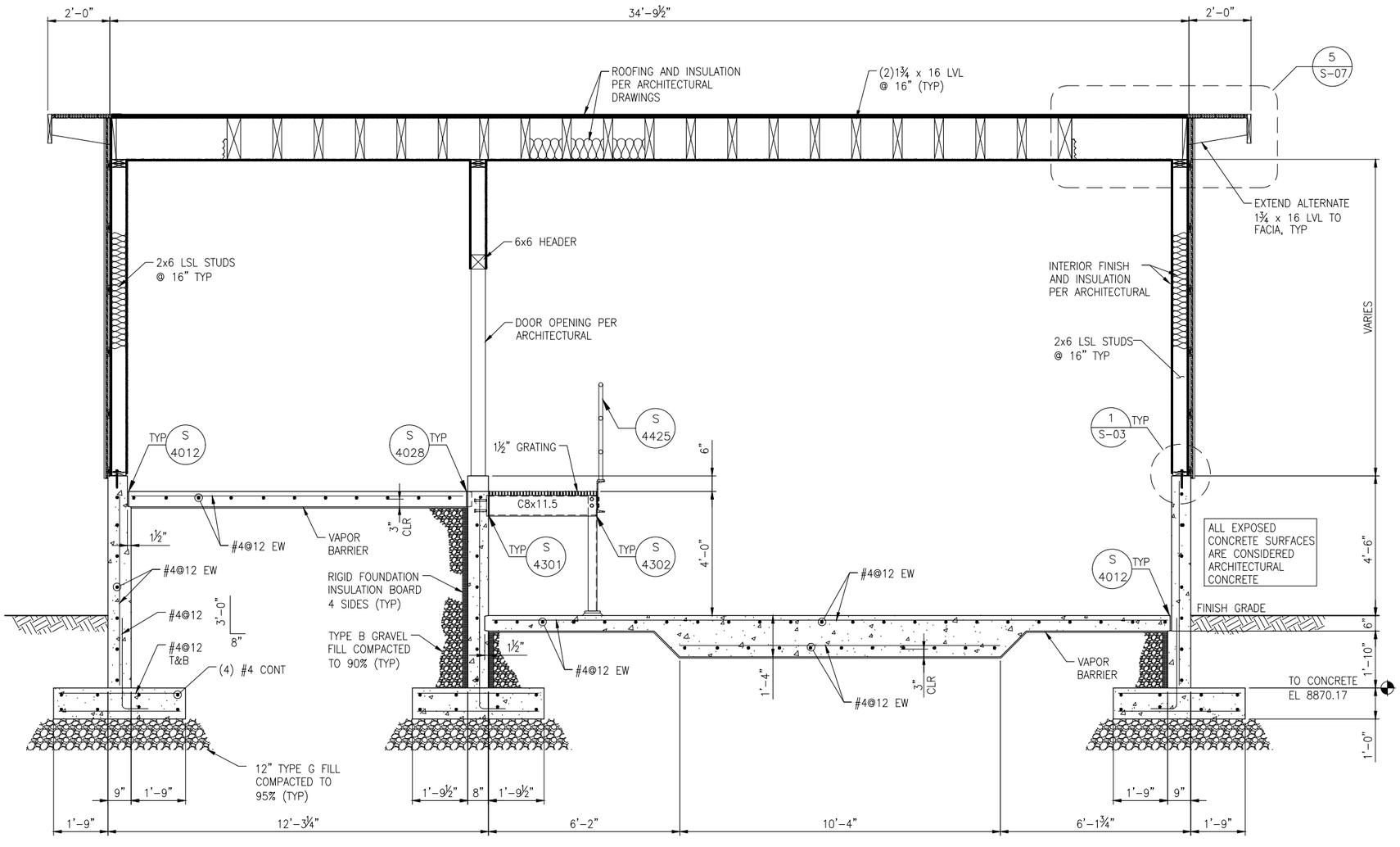

SECTION
SCALE: 1/2"=1'-0"

A
S-01
S-02

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[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
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CHRIS D. PATTEN
08/22/18
STATE OF UTAH

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SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

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REVIEW: CHECKED E. NEIL; APPROVED C. PATTEN
DESIGN: DESIGN C. PATTEN; DRAWN C. PATTEN

STRUCTURAL
WELL PUMP STATION SECTION
DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

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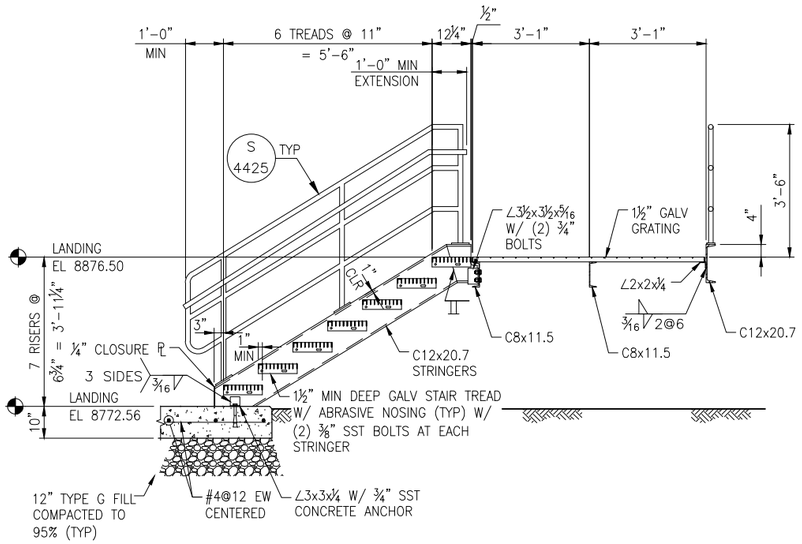

SECTION
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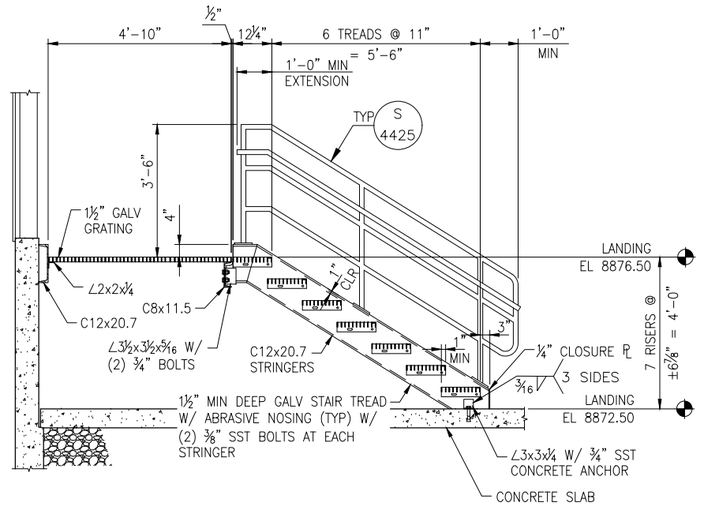
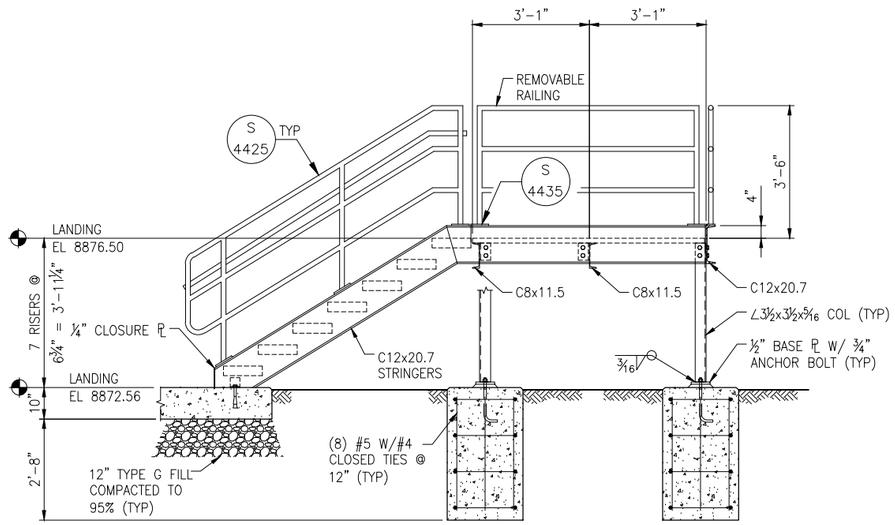
A S-01



SECTION
SCALE: 1/2"=1'-0"
C S-01



SECTION
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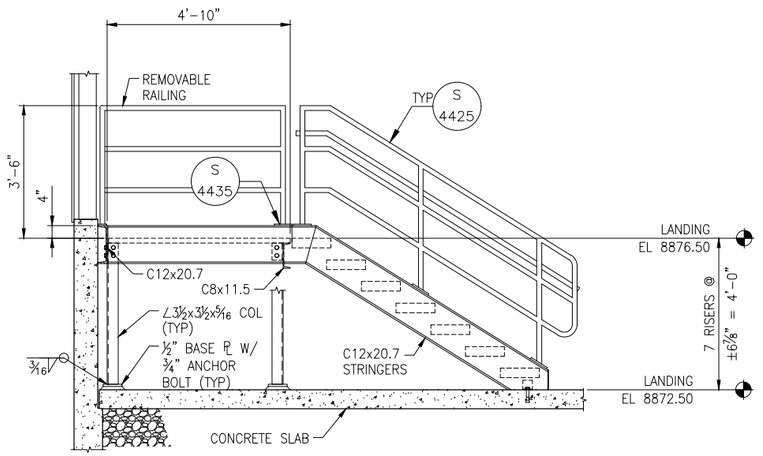
B S-01



SECTION
SCALE: 1/2"=1'-0"
D S-01

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☒ BUILDING	☒ STRUCTURAL
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☒ ELECTRICAL	☒ ENERGY
☐ ACCESSIBILITY	☐ FIRE

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BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL STRUCTURAL ENGINEER
No. 7753350-2203
CHRIS D. PATTEN
08/22/18
STATE OF UTAH

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN C. PATTEN
REVIEW CHECKED E. NEIL APPROVED C. PATTEN
DRAWN C. PATTEN

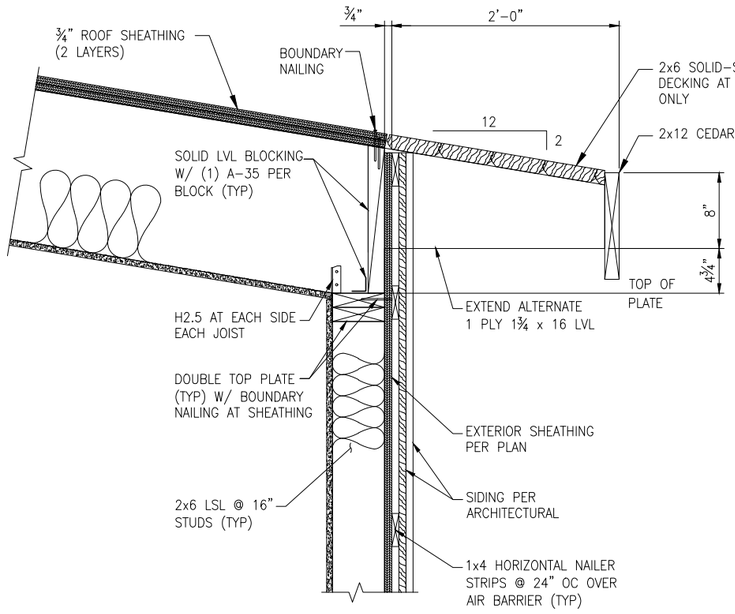
STRUCTURAL
WELL PUMP STATION SECTIONS AND DETAILS 1

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

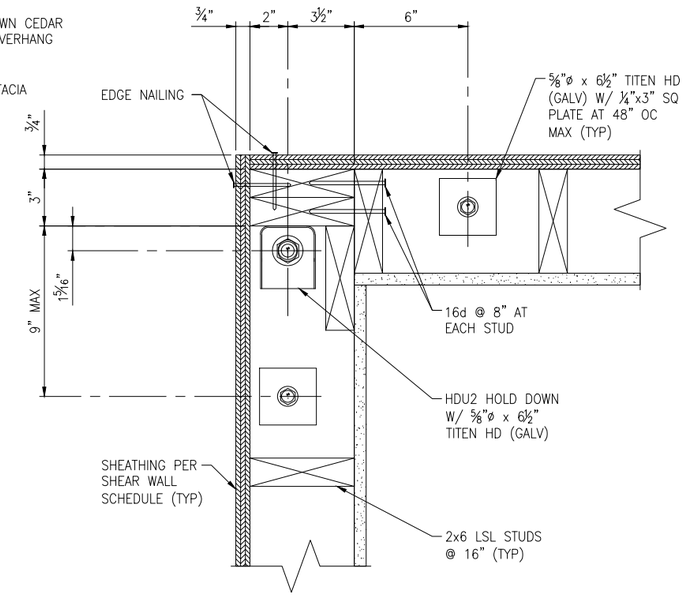
DRAWING NO.
S-06

SHEET 21 OF 46

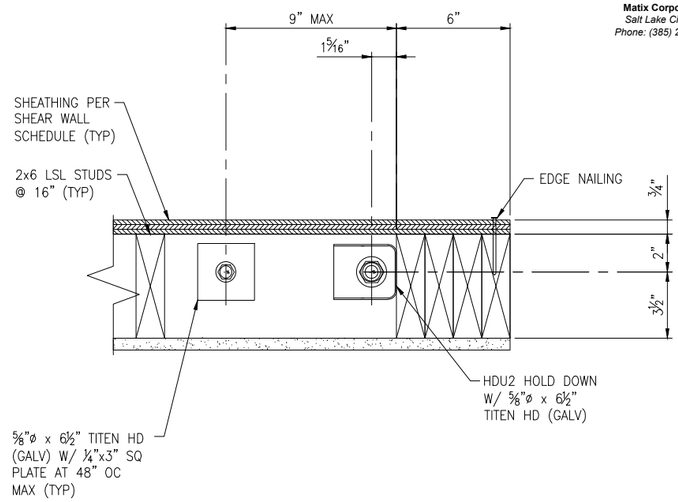
MATIX
Matix Corporation
Salt Lake City, UT
Phone: (385) 226-5966



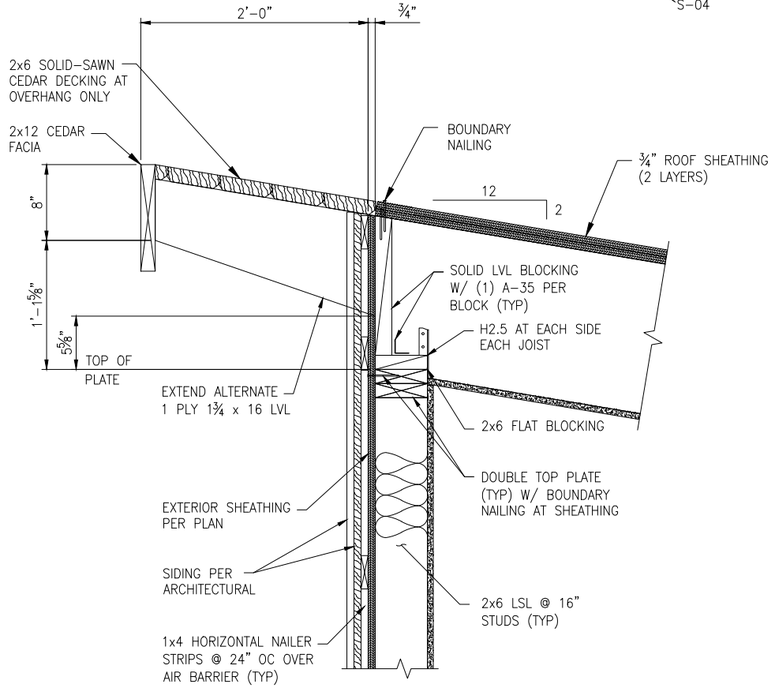
DETAIL
SCALE: 1-1/2"=1'-0"
1 S-03 S-04



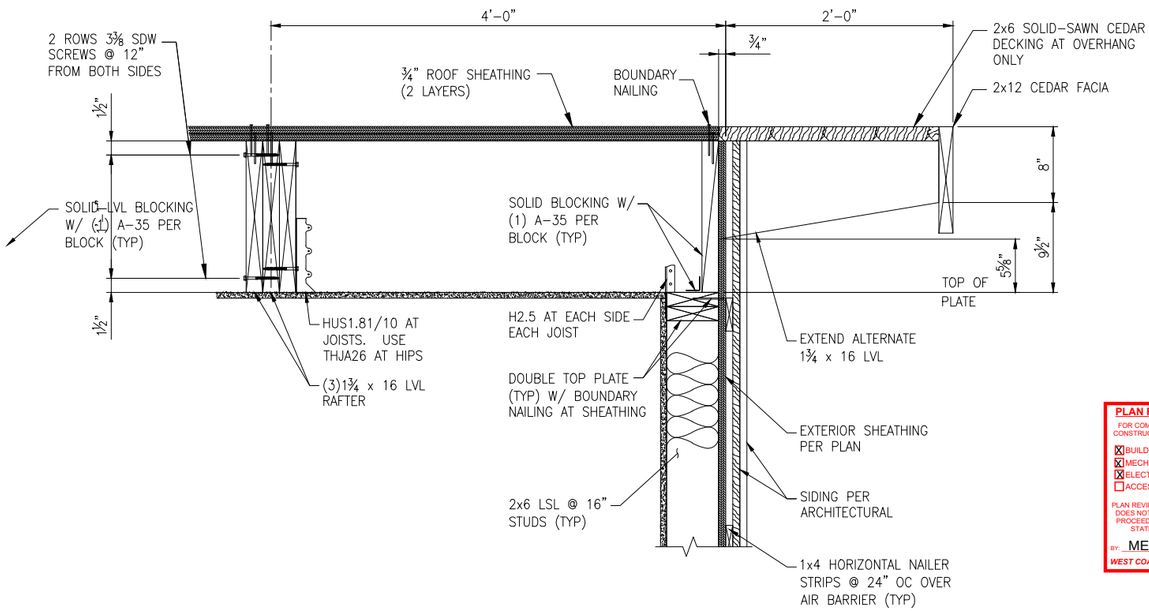
DETAIL
SCALE: 1-1/2"=1'-0"
2 S-01



DETAIL
SCALE: 3"=1'-0"
3 S-01



DETAIL
SCALE: 1-1/2"=1'-0"
4 S-03 S-04



DETAIL
SCALE: 1-1/2"=1'-0"
5 S-05

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
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BOWEN COLLINS & ASSOCIATES

PROFESSIONAL STRUCTURAL ENGINEER
No. 7753350-2203
CHRIS D. PATTEN
08/22/18
STATE OF UTAH

NO.	DATE	REV. BY	DESCRIPTION

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SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN C. PATTEN
DRAWN C. PATTEN
CHECKED E. NEIL
APPROVED C. PATTEN
REVIEW

STRUCTURAL
WELL PUMP STATION SECTIONS AND DETAILS 2

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. S-07
SHEET 22 OF 46

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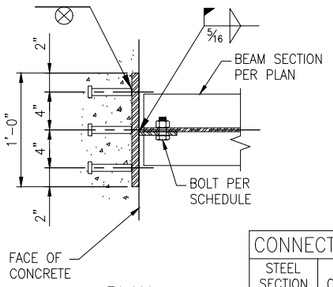
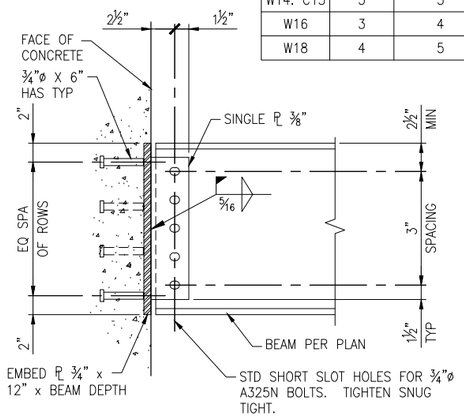


PLAN

CONNECTION SCHEDULE		
STEEL SECTION	ROWS OF HAS	ROWS OF A325N BOLTS
W8, C8	2	2
W10, C10	2	2
W12, C12	2	3
W14. C15	3	3
W16	3	4
W18	4	5



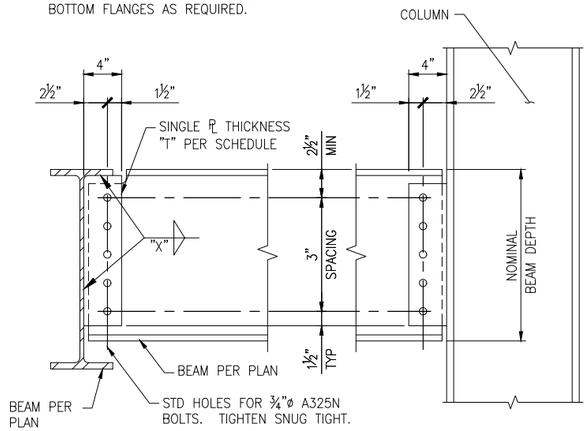
ELEVATION

EMBEDDED BEAM CONNECT

NOT TO SCALE

S 4301

NOTE:
TOP OF CONNECTING BEAMS TO BE FLUSH UNLESS OTHERWISE INDICATED ON THE PLANS. COPE TOP AND BOTTOM FLANGES AS REQUIRED.



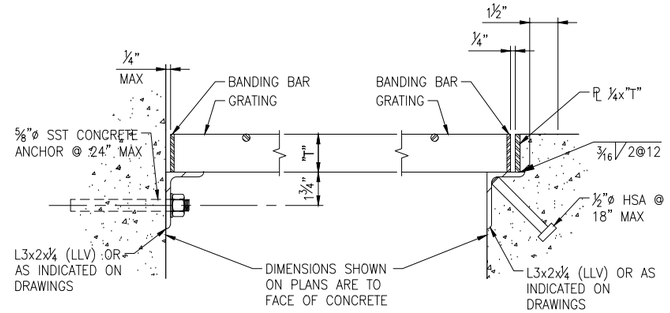
CONNECTION SCHEDULE			
NOMINAL BEAM DEPTH (IN)	ROWS OF A325N BOLTS	SINGLE PL THICK "T" (IN)	FILLET WELD SIZE "X" (IN)
W8, C8	2	⅜	5/16
W10, C10	2	⅜	5/16
W12, C12	3	⅜	5/16
W14, C15	3	⅜	5/16
W16	4	⅜	5/16
W18	5	⅜	5/16

NOTE:
SCHEDULE APPLIES TO ALL BEAMS UNLESS NUMBER OF BOLTS PER LEG IS OTHERWISE INDICATED ON THE FRAMING PLANS BY ⟨3⟩ WHERE THE SYMBOL INDICATES THE NUMBER OF ROWS OF A325N BOLTS TO BE USED FOR THE SPECIAL CONNECTION.

SINGLE PLATE BEAM CONNECT

NOT TO SCALE

S 4302



GRATING NOTES:

1. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL GRATING IS GALVANIZED STEEL.
2. GRATING DEPTH "T" AS NOTED ON DRAWINGS.
3. ALL EDGES AND OPENINGS ARE TO BE BANDED.
4. WEIGHT OF INDIVIDUAL GRATING SECTION SHALL NOT EXCEED 80 LBS.
5. METAL BEARING BARS ARE TO BE DEPTH "T"x3/16" @ 1 3/16" OC. CROSS BARS ARE TO BE AT 4" OC.
6. PROVIDE A MINIMUM OR 4 CLIPS PER GRATING PANEL AND LOCATE APPROXIMATELY 4" FROM PANEL CORNERS. MAXIMUM SPACING OF CLIPS IS 3'-0".
7. MATERIALS:
   - 7.1. ALUMINUM GRATING – USE ALUMINUM ANGLE SUPPORTS AND STAINLESS STEEL BOLTS AND CLIPS.
   - 7.2. GALVANIZED STEEL GRATING – USE GALVANIZED STEEL SUPPORTS, BOLTS, AND CLIPS. HOT-DIP GALVANIZE AFTER FABRICATION.
   - 7.3. STAINLESS STEEL GRATING – USE 316 STAINLESS STEEL ANGLE SUPPORTS, BOLTS, AND CLIPS.

GRATING EDGE

NOT TO SCALE

S 4416

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

☒ BUILDING	☒ STRUCTURAL
☒ MECHANICAL	☒ PLUMBING
☒ ELECTRICAL	☒ ENERGY
☐ ACCESSIBILITY	☐ FIRE

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BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL STRUCTURAL ENGINEER
No. 7753350-2203
CHRIS D. PATTEN
08/22/18
STATE OF UTAH

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN C. PATTEN
DRAWN C. PATTEN
CHECKED E. NEIL
APPROVED C. PATTEN
REVIEW

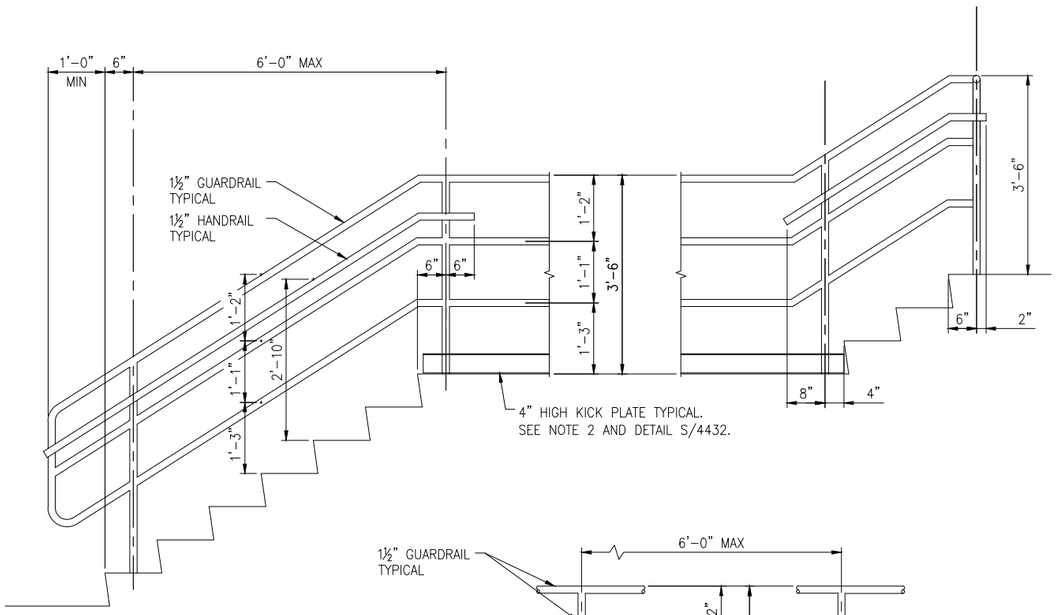
STRUCTURAL

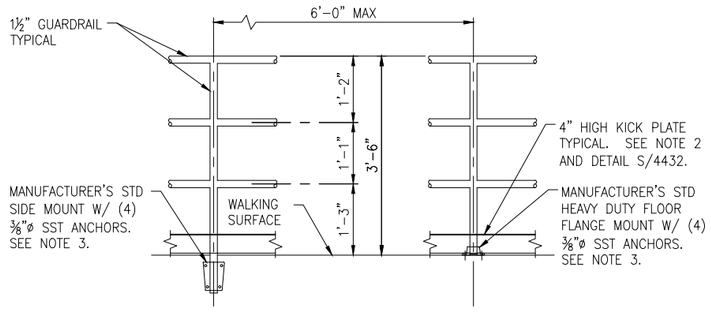
GENERAL STRUCTURAL DETAILS 2

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. GS-03
SHEET 25 OF 46

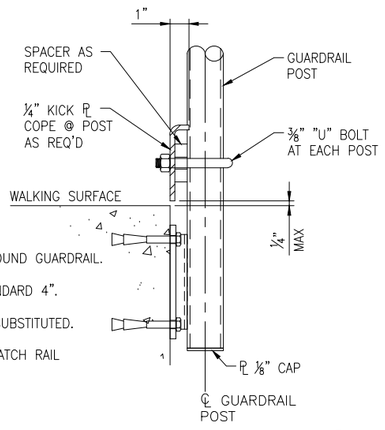
MATIX
Matix Corporation
Salt Lake City, UT
Phone: (385) 226-5966





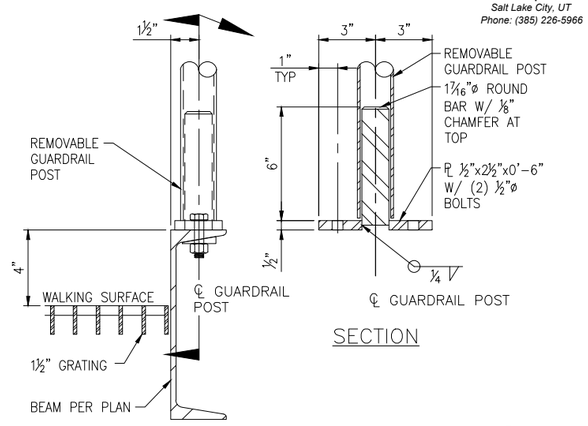
NOTES:
1. PLACE CENTER OF FLOOR FLANGE MOUNTED POSTS 4" FROM EDGE OF CONCRETE OR 6" FROM STAIR NOSINGS UNLESS OTHERWISE NOTED ON DRAWINGS.
2. KICKPLATE MAY BE EXTRUDED SHAPE OR BENT PLATE AND SHALL BE ATTACHED WITH STAINLESS STEEL BOLTS. BOLT KICKPLATE TO POSTS WITH BOTTOM ¼" CLEAR FROM WALKING SURFACE. FOR SIDE MOUNTED RAILS, PROVIDE STANDARD SPACER BLOCK BETWEEN POST AND KICKPLATE TO MAINTAIN ¼" MAXIMUM CLEAR SPACING. PROVIDE KICKPLATE AT ALL PLACES WHERE DROP FROM ONE LEVEL TO ANOTHER EXCEEDS 2'-6" AND WHERE INDICATED ON THE DRAWINGS. HAND TIGHTEN AND CENTER PUNCH BOLT THREADS TO LOCK. KICKPLATE MAY BE OMITTED WHERE RAILING IS MOUNTED ON MINIMUM 4" HIGH STEEL OR CONCRETE CURB.
3. VARIOUS POST MOUNTINGS ARE SHOWN IN THIS DETAIL. SIDE MOUNTING IS PREFERRED WHEN PRACTICAL. REFER TO DRAWINGS FOR SPECIFIC MOUNTING REQUIREMENTS.
4. PLACE RAIL POSTS OPPOSITE EACH OTHER WHEN POSSIBLE AND WHERE GUARDRAILS ARE PARALLEL.
5. COAT ALL SURFACES OF ALUMINUM IN CONTACT WITH CONCRETE IN ACCORDANCE WITH SPECIFICATIONS. PLACE NEOPRENE GASKET BETWEEN ALUMINUM AND STEEL.
6. ALL GUARDRAILS ARE FIXED UNLESS OTHERWISE NOTED ON DRAWINGS.
7. ALL JOINTS IN STEEL RAIL SHALL BE COPED, WELDED, AND GROUND SMOOTH.
8. FOR RAIL POSTS MOUNTED TO BEAM OR STAIR CHANNEL, PROVIDE MANUFACTURER'S STANDARD REINFORCED CONNECTION FROM POST TO PLATE. BOTH THE PLATE AND REINFORCED INSERT TO BE GALVANIZED STEEL, ALUMINUM, OR STAINLESS STEEL TO MATCH RAIL MATERIAL.
9. SEE DRAWINGS AND SPECIFICATIONS FOR GUARDRAIL MATERIALS.

THREE–RAIL GUARDRAIL
NOT TO SCALE — S 4425



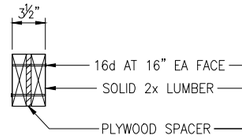
NOTES:
1. COPE KICK PLATE AROUND GUARDRAIL.
2. MANUFACTURER'S STANDARD 4".
3. KICK PLATE MAY BE SUBSTITUTED.
4. PLATE MATERIAL TO MATCH RAIL MATERIAL.

KICK PLATE
NOT TO SCALE — S 4432



REMOVABLE RAIL ANCHORAGE
NOT TO SCALE — S 4435

SECTION

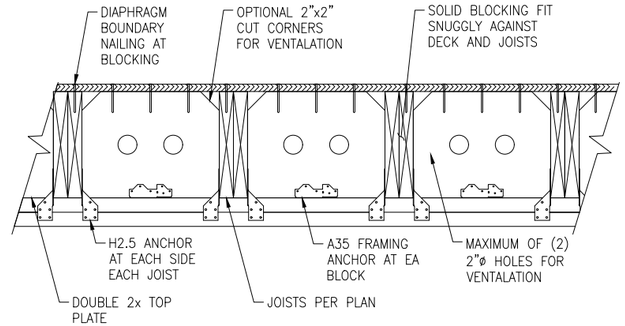


SOLID HEADER	BUILT–UP HEADER
4x4	(2) 2x6
4x6	(2) 2x8
4x8	(2) 2x10
4x10	(2) 2x12

SOLID HEADER	BUILT–UP HEADER
FLAT 4x6	(3) 2x6
6x6	(3) 2x8
6X8	(3) 2x10
6x10	(3) 2x12

NOTES:
1. BUILT–UP HEADER MAY BE USED AS AN ALTERNATIVE TO SOLID 4x AND 6x HEADERS UNLESS NOTED OTHERWISE ON DRAWINGS.
2. BUILT–UP HEADER ALTERNATIVE SHALL NOT BE USED IN LIEU OF BEAMS.

BUILT–UP HEADER
NOT TO SCALE — S 4501



NOTES:
1. MAY USE EITHER ROUND HOLES OR CUT CORNERS FOR VENTILATION BUT NOT BOTH.

JOIST BLOCKING
NOT TO SCALE — S 4502

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
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BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL STRUCTURAL ENGINEER
No. 7753350-2203
CHRIS D. PATTEN
08/22/18
STATE OF UTAH

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

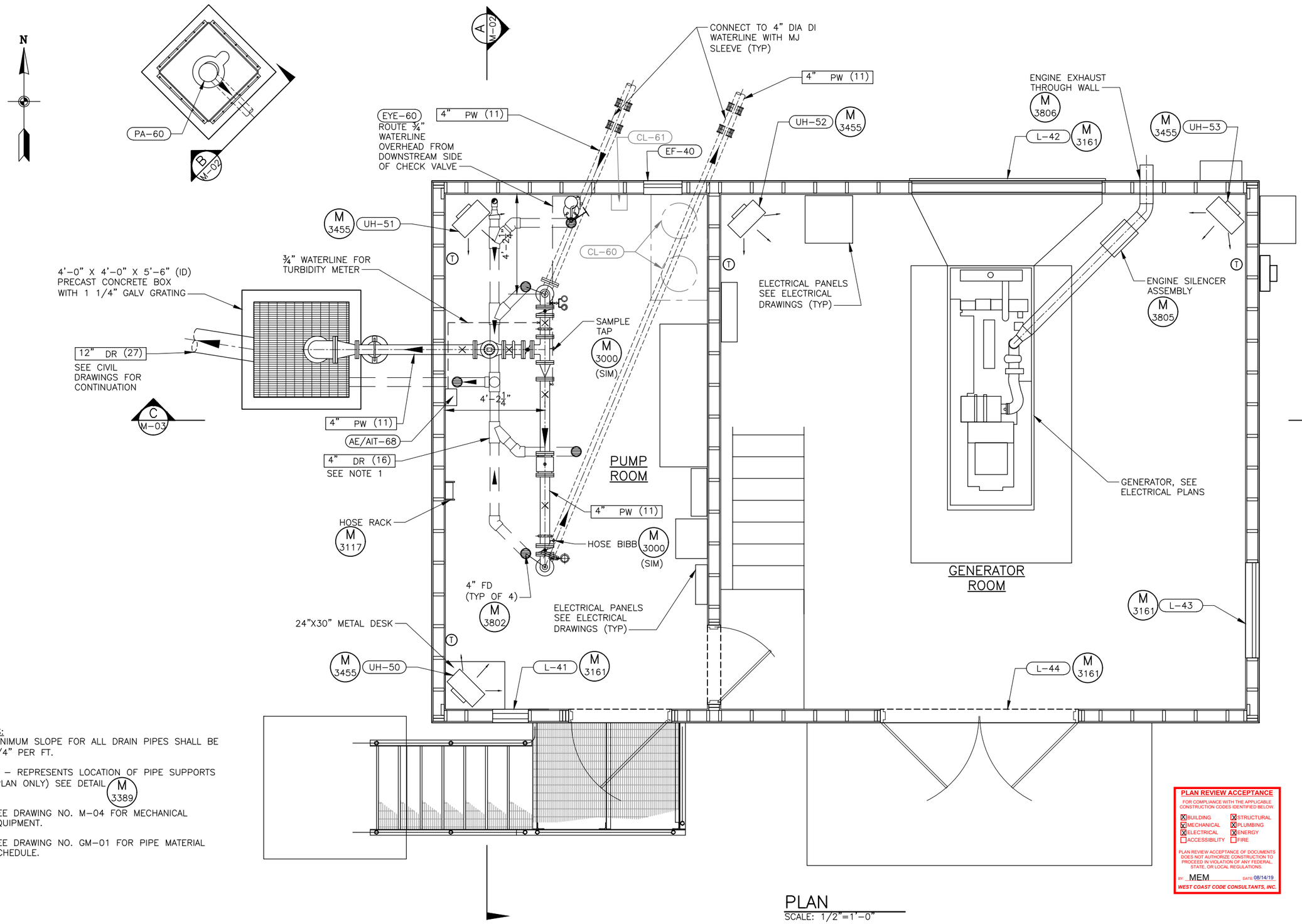
SUMMIT MOUNTAIN HOLDING GROUP
PROJECT
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW — CHECKED E. NEIL — APPROVED C. PATTEN
DESIGN — DESIGN C. PATTEN — DRAWN C. PATTEN

STRUCTURAL
GENERAL STRUCTURAL DETAILS 3
DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. GS-04
SHEET 26 OF 46



NOTES:

1. MINIMUM SLOPE FOR ALL DRAIN PIPES SHALL BE 1/4" PER FT.
2. ✕ – REPRESENTS LOCATION OF PIPE SUPPORTS (PLAN ONLY) SEE DETAIL M 3389
3. SEE DRAWING NO. M–04 FOR MECHANICAL EQUIPMENT.
4. SEE DRAWING NO. GM–01 FOR PIPE MATERIAL SCHEDULE.

PLAN
SCALE: 1/2"=1'–0"

PLAN REVIEW ACCEPTANCE

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☒ BUILDING	☒ STRUCTURAL
☒ MECHANICAL	☒ PLUMBING
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WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 7702647 — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN E. NEIL
DRAWN R. GARCIA
CHECKED J. BECKMAN
APPROVED E. NEIL
REVIEW

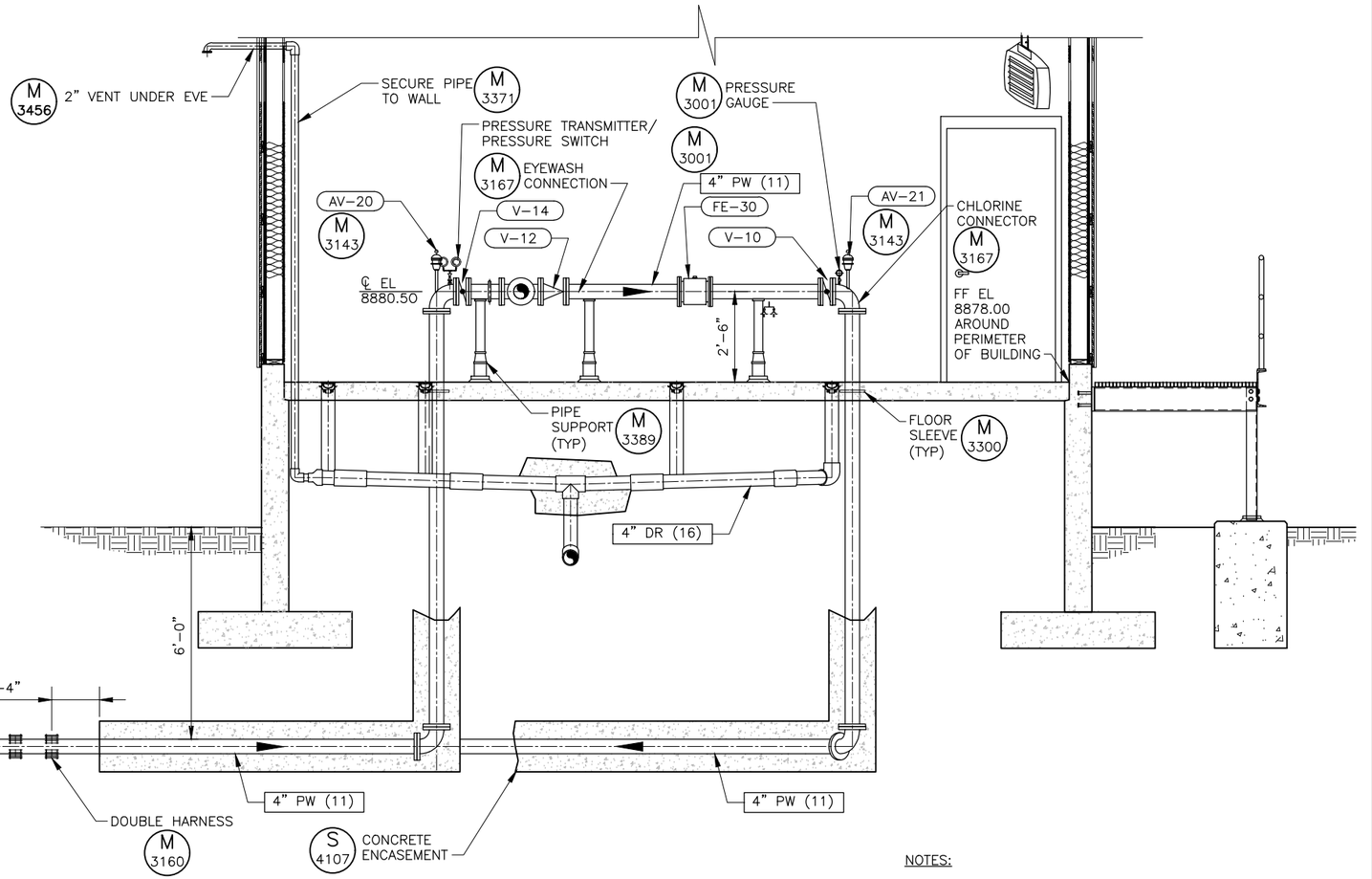
MECHANICAL

WELL PUMP STATION MECHANICAL PLAN

PROJECT NUMBER: 347–17–01
DATE: AUGUST 2018

DRAWING NO. M–01
SHEET 27 OF 46

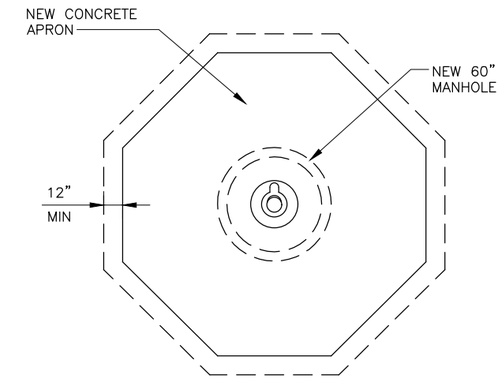
P:\Powder Mountain\347–17–01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_M–01.dwg Plotted: 2/19/2019 4:20 PM By: Eric Neil



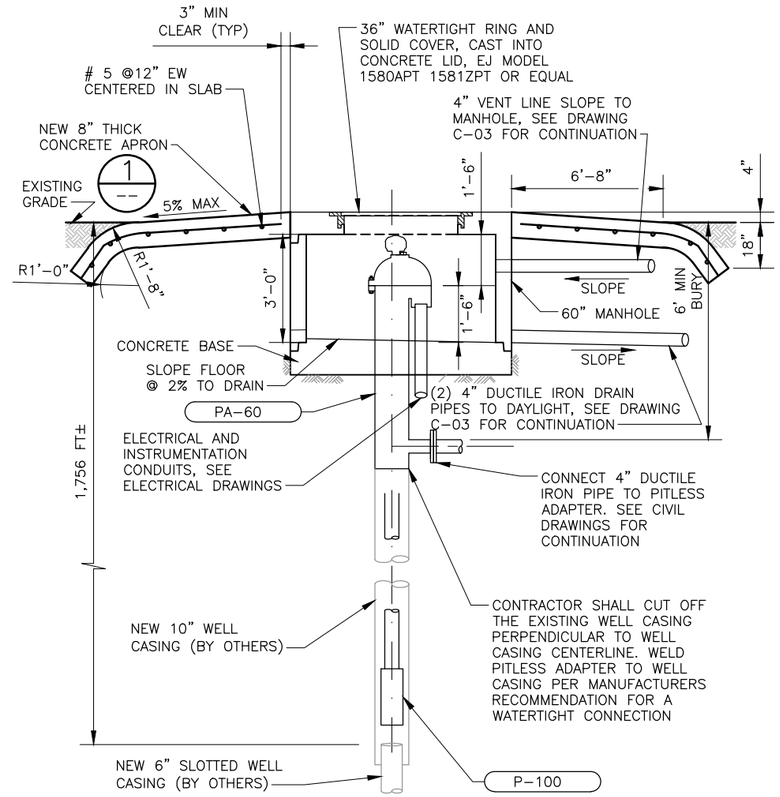
SECTION
SCALE: 1/2"=1'-0"
A
M-01

NOTES:

1. SEE DRAWING M-04 FOR EQUIPMENT SCHEDULE.
2. SEE DRAWING GM-01 FOR PIPE MATERIAL SCHEDULE.



CONCRETE APRON-PLAN
NTS
1



SECTION
NTS
B
M-01

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW:

X BUILDING	X STRUCTURAL
X MECHANICAL	X PLUMBING
X ELECTRICAL	X ENERGY
☐ ACCESSIBILITY	☐ FIRE

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WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
ERIC W. NEIL
7702647
STATE OF UTAH
08-22-2018

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SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

REVIEW J. BECKMAN
CHECKED E. NEIL
APPROVED

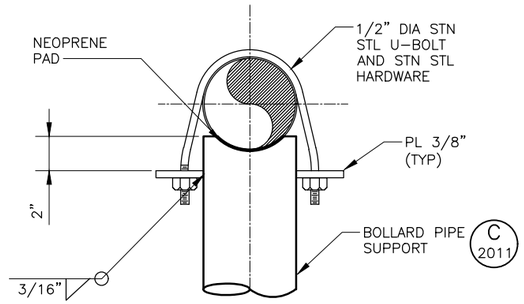
DESIGN E. NEIL
DRAWN R. GARCIA

MECHANICAL

WELL PUMP STATION
MECHANICAL SECTION

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

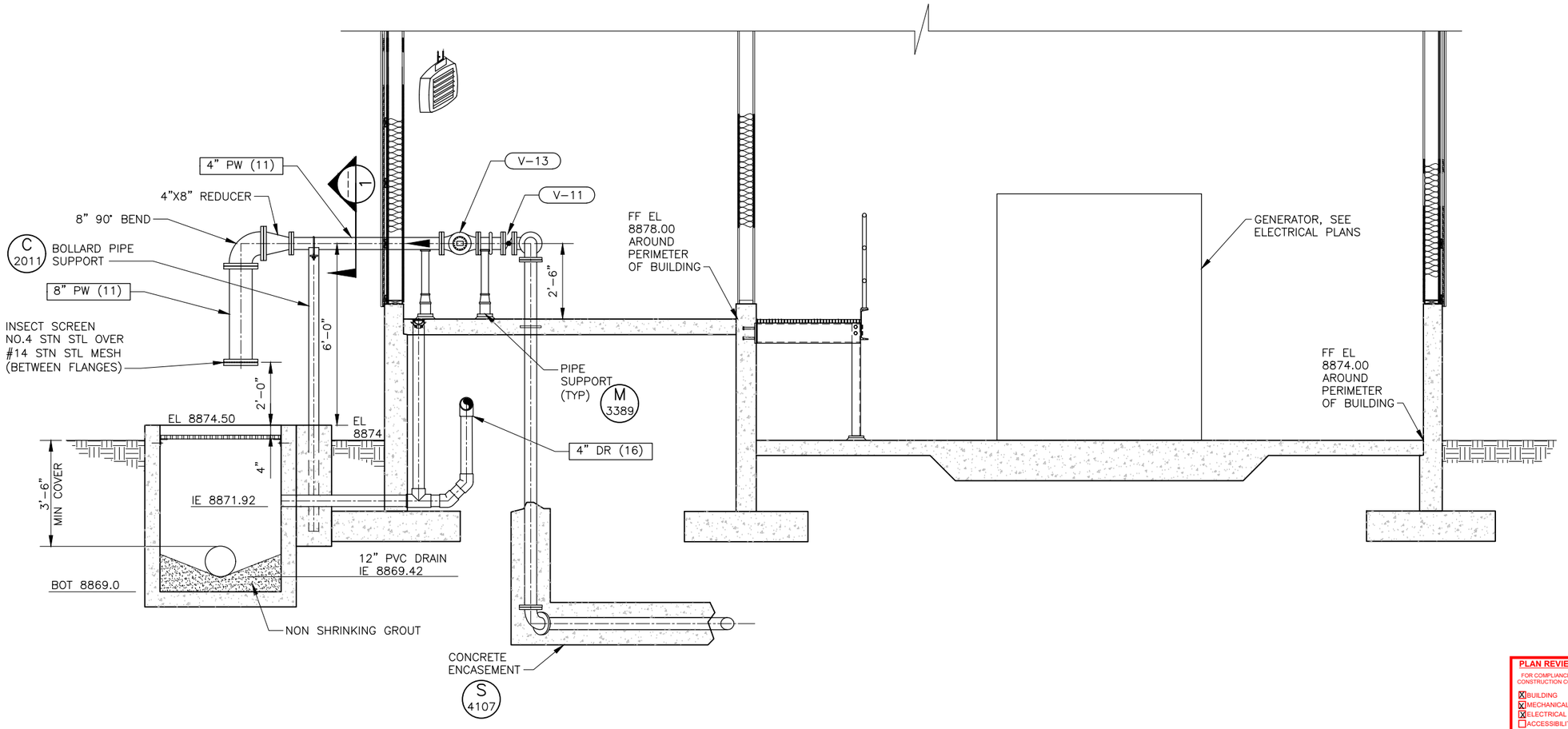
DRAWING NO.
M-02
SHEET 28 OF 46



SECTION 1
NO SCALE

NOTES:

1. SEE DRAWING M-04 FOR EQUIPMENT SCHEDULE.
2. SEE DRAWING GM-01 FOR PIPE MATERIAL SCHEDULE.



SECTION C
SCALE: 1/2"=1'-0" M-01

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

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PROFESSIONAL ENGINEER
ERIC W. NEIL
7702647
STATE OF UTAH
08-22-2018

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BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

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DRAWN R. GARCIA
REVIEW
CHECKED J. BECKMAN
APPROVED E. NEIL

MECHANICAL

WELL PUMP STATION
MECHANICAL SECTION

PROJECT NUMBER: 347-17-01
DATE: AUGUST 2018

DRAWING NO.
M-03
SHEET 29 OF 46

MECHANICAL EQUIPMENT SCHEDULES

VALVE SCHEDULE

NO.	LOCATION	SIZE (INCH)	JOINT TYPE	REMARKS
V-10	PUMP ROOM	4	FL	BUTTERFLY VALVE WITH HAND OPERATOR
V-11	PUMP ROOM	4	FL	BUTTERFLY VALVE WITH HAND OPERATOR
V-12	PUMP ROOM	4	FL	SILENT GLOBE CHECK VALVE, CLA-VAL SERIES 581 OR EQUAL
V-13	PUMP ROOM	4	FL	DEEP WELL PUMP CONTROL VALVE, CLA-VAL MODEL 61-02KC OR EQUAL. PROVIDE WITH 2 LIMIT SWITCHES
V-14	PUMP ROOM	4	FL	BUTTERFLY VALVE WITH HAND OPERATOR
V-15	RESERVOIR INLET PIPE	6	FLXMJ	GATE VALVE WITH 2" OPERATING NUT
AV-20	PUMP ROOM	1	NPT	NSF 61 APPROVED, COMBINATION AIR RELEASE/AIR VACUUM VALVE, RATED FOR TEST PRESSURES, VAL-MATIC MODEL 201C.2 OR APPROVED EQUAL, TERMINATE EXHAUST/RELIEF PIPING AT LEAST 6" ABOVE FLOOR AND COVER WITH #14 SST MESH SCREEN
AV-21	PUMP ROOM	1	NPT	NSF 61 APPROVED, AIR RELEASE VALVE RATED FOR TEST PRESSURES, VAL-MATIC MODEL 22.3 OR APPROVED EQUAL, TERMINATE EXHAUST/RELIEF PIPING AT LEAST 6" ABOVE FLOOR AND COVER WITH #14 SST MESH SCREEN
AV-22	AIR RELEASE/VACUUM VALVE MANHOLE AT WELL HEAD	2	NPT	NSF 61 APPROVED, COMBINATION AIR RELEASE/AIR VACUUM VALVE, RATED FOR TEST PRESSURES, VAL-MATIC MODEL 202C.2 OR APPROVED EQUAL, SEE DRAWINGS C-03 & GC-03

FLOW METER SCHEDULE

NO.	LOCATION	SIZE (INCH)	TYPE	DESIGN FLOW (GPM)	REMARKS
FE-30	PUMP ROOM	4	ELECTROMAGNETIC	200	FLXFL, EPOXY COATED CARBON STEEL BODY, SIEMENS SITRANS FM MAG 5100 W WITH MAG 5000 INDICATOR (TRANSMITTER MOUNTED INTEGRALLY ON THE METER OR EQUAL)

EXHAUST FAN/LOUVER SCHEDULE

NO.	LOCATION	AIRFLOW (CFM)	DRIVE	HP	VOLTAGE	PHASE	REMARKS
EF-40	PUMP ROOM (EXHAUST)	350 (MIN)	DIRECT	0.022	120	SINGLE	DIRECT DRIVE PROPELLER WALL COLLAR EXHAUST FAN WITH MOTORIZING BACKDRAFT DAMPER KIT, ACME MODEL FN14WCP OR APPROVED EQUAL WITH MOTOR-SIDE GUARD, ACME MODEL BA14FQ OR APPROVED EQUAL
L-41	PUMP ROOM (INTAKE)	350 (MIN)	---	---	120	SINGLE	18"X18" ADJUSTABLE LOUVER WITH BIRD SCREEN, AMERICAN WARMING MODEL LE-65C OR EQUAL WITH ELECTRIC ACTUATOR, POWER OPEN/POWER CLOSE
L-42	GENERATOR ROOM (EXHAUST)	17,551 (MIN)	---	---	120	SINGLE	8'-0"X4'-6" ADJUSTABLE LOUVER WITH BIRD SCREEN, AMERICAN WARMING MODEL BD-20 OR EQUAL WITH GRAVITY DAMPER
L-43	GENERATOR ROOM (INTAKE)	9,229 (MIN)	---	---	120	SINGLE	4'-0"X8'-0" ADJUSTABLE LOUVER WITH BIRD SCREEN, AMERICAN WARMING MODEL LE-65C OR EQUAL WITH ELECTRIC ACTUATOR, SPRING OPEN/POWER CLOSE
L-44	GENERATOR ROOM (INTAKE)	9,229 (MIN)	---	---	120	SINGLE	8'-0"X4'-0" ADJUSTABLE LOUVER WITH BIRD SCREEN, AMERICAN WARMING MODEL LE-65C OR EQUAL WITH ELECTRIC ACTUATOR, SPRING OPEN/POWER CLOSE

UNIT HEATER SCHEDULE

NO.	LOCATION	TYPE	SIZE	VOLTAGE	PHASE	REMARKS
UH-50	PUMP ROOM	ELECTRICAL	5 KW	480	3	WALL MOUNTED, CHROMALOX MODEL LUH-05-43-32 WITH WALL MOUNTED THERMOSTAT
UH-51	PUMP ROOM	ELECTRICAL	5 KW	480	3	WALL MOUNTED, CHROMALOX MODEL LUH-05-43-32 WITH WALL MOUNTED THERMOSTAT
UH-52	GENERATOR ROOM	ELECTRICAL	7.5 KW	480	3	WALL MOUNTED, CHROMALOX MODEL LUH-07-43-32 WITH WALL MOUNTED THERMOSTAT
UH-53	GENERATOR ROOM	ELECTRICAL	7.5 KW	480	3	WALL MOUNTED, CHROMALOX MODEL LUH-07-43-32 WITH WALL MOUNTED THERMOSTAT

MISCELLANEOUS MECHANICAL EQUIPMENT SCHEDULE

NO.	LOCATION	DESCRIPTION	SIZE	REMARKS
PA-60	WELL	PITLESS ADAPTER	10"	NSF 61 APPROVED, INSTALL PER MANUFACTURER RECOMMENDATIONS, BAKER MONITOR OR EQUAL
EYE-60	PUMP ROOM	EYE WASH STATION	---	WALL MOUNTED EYEWASH/DRENCH HOSE, GUARDIAN MODEL G5026 OR EQUAL. PIPE DRAIN LINE TO FLOOR DRAIN. CONNECT WATERLINE ON DOWN STREAM SIDE OF CHECK VALVE
CL-60 (FUTURE)	PUMP ROOM	FUTURE CHLORINE METER PUMP	---	FUTURE GRUNDFOS SMART DIGITAL DDE METER PUMP WITH PV/V/C (P=PVDF BODY, V=VITON GASKETS, C=CERAMIC CHECK BALL VALVES) MALFUNCTION VALVE (BACK PRESSURE, PRESSURE RELIEF AND ANTI SIPHONING), AND TUBING KIT (INCLUDING TUBING, FOOT VALVE, AND INJECTION QUILL) AS SUPPLIED BY MANUFACTURER. PROVIDE RIGID PVC SHELF FOR PUMP AND MOUNTING
CL-61 (FUTURE)	PUMP ROOM	FUTURE HYPOCHLORITE & SPILL CONTROL PALLET	---	(2) 15 GALLON DRUMS, 16" DIAMETER (12% NSF-61 THATCHER CHEMICAL T-CHLOR) 2"X4' SPILL CONTROL PALLET (ENPAL SPILL PAL)
PIT-61	PUMP ROOM	PRESSURE TRANSMITTER	---	SEE ELECTRICAL PLANS & SPECIFICATIONS
PI-62	PUMP ROOM	PRESSURE INDICATOR	---	SEE ELECTRICAL PLANS & SPECIFICATIONS
PSH-63	PUMP ROOM	PRESSURE SWITCH	---	SEE ELECTRICAL PLANS & SPECIFICATIONS
RTU-60	PUMP ROOM	TELEMETRY	---	MISSION CONTROL TELEMETRY SCADA SYSTEM, PROVIDED AND INSTALLED BY DELCO WESTERN
GEN-65	GENERATOR ROOM	GENERATOR	480V, 300KW	CATERPILLAR C-9 OR APPROVED EQUAL WITH INTEGRAL 24 HR (643 GALLON) DIESEL FUEL TANK
AE/AIT-68	PUMP ROOM	TURBIDITY METER	---	ATI, MODEL Q46/76 OR APPROVED EQUAL. PROVIDE WITH CONTROLLER. DRAIN TO FLOOR DRAIN

SUBMERSIBLE PUMP SCHEDULE

NO.	LOCATION	SIZE (IN)	HORSEPOWER	TDH (FT)	DESIGN FLOW (GPM)	REMARKS
P-100	WELL	9.25	150	1,777	200	SUBMERSIBLE WELL PUMP SUPPLIED BY DELCO WESTERN. PUMP SHALL BE MANUFACTURED BY FLOWSERVE/PLEUGER OR EQUAL. PUMP SHALL BE NB86-IP WITH 20 STAGES. PUMP SHALL BE SUPPLIED WITH A VARIABLE FREQUENCY DRIVE, SINE WAVE FILTER, AND DOWN HOLE LEVEL TRANSDUCER

NOTES:

1. REFER TO DRAWINGS AND SPECIFICATIONS FOR MORE EQUIPMENT INFORMATION.
2. CHLORINE EQUIPMENT CL-60 AND CL-61 SHALL BE PROVIDED BY OTHERS AT A FUTURE TIME.

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒BUILDING ☒STRUCTURAL
☒MECHANICAL ☒PLUMBING
☒ELECTRICAL ☒ENERGY
☐ACCESSIBILITY ☐FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY MEM DATE 08/14/19
WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER ERIC W. NEIL 7702647 STATE OF UTAH 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW CHECKED J. BECKMAN APPROVED E. NEIL

DESIGN DESIGN E. NEIL DRAWN E. NEIL

MECHANICAL
MECHANICAL EQUIPMENT SCHEDULE
PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. M-04
SHEET 30 OF 46

FLUID ABBREVIATION	FUNCTION (SEE NOTE 5)	PIPING MATERIAL (SEE SCHEDULE AT RIGHT)				FIELD TEST REQUIREMENTS (SEE NOTE 3 AND NOTE 4)		
		EXPOSED PIPING (SEE NOTE 14)		BURIED PIPING (SEE NOTE 13)		MIN TEST PRESSURE PSI	TEST MEDIUM	LEAKAGE ALLOWANCE (SEE NOTE 2)
		2" DIA & SMALLER	2 1/2 " DIA & LARGER	2" DIA & SMALLER	2 1/2 " DIA & LARGER			
AV	AIR VENT	2, 14, 16	2, 14	2, 14, 16	2, 16, 24	NOTE 7	--	--
CLS	CHLORINE SOLUTION							
CV	CHLORINE VENT							
DR	DRAIN	16	16	2	8, 12, 16, 22, 28, 36, 27, 51 52, 53, 54, 55	NOTE 6	WATER	2,16,8,27,51,52,53(A), 12,28(B), 22,54,55(C)
HWS	DOMESTIC HOT WATER SUPPLY							
LSP	LANDSCAPING SPRINKLING SYSTEM	12, 16	12, 16	12, 16	12, 16	NOTE 7	-	--
OF	OVERFLOW	16	8	16	8	150	WATER	(A)
PW	POTABLE WATER	12, 24	2, 11	4, 24	2,11,19,36,51,52	150	WATER	2, 11, 24(A), 19(B)
RL	REFRIGERANT LIQUID							
RS	REFRIGERANT SUCTION							
RW	RAW WATER	2	8, 11	2	8, 11, 28	125	WATER	2, 8, 11(A), 28(B)
SA	SAMPLE LINE	2, 16, 18, 24	--	16, 18, 24	--	125	WATER	(A)
SD	SANITARY DRAIN	4, 12, 16	2, 16	12, 16, 27	12, 16, 21, 27	NOTE 7	--	--
SDR	STORM DRAIN	--	8	--	16, 22, 28	NOTE 6	WATER	8, 16(A), 28(B), 22(C)
SS	SANITARY SEWER							
SV	SANITARY VENT							
TOF	TANK OVERFLOW							
TW	TREATED WATER (POTABLE)	16, 24	2, 8, 16	24	2,8,11,16,51,52	150	WATER	(A)
UW	UTILITY WATER (NON-POTABLE WATER)	2, 16, 24	2, 11, 16, 32	2, 16, 24	2, 8, 15, 16, 18	125	WATER	2, 11, 24(A), 19(B)

GENERAL NOTES:

1. ALTHOUGH SEVERAL PIPING MATERIALS ARE SHOWN THAT MAY BE USED FOR A GIVEN FUNCTION, ONLY THE CALLED OUT PIPING MATERIAL SHOWN ON THE CONSTRUCTION DRAWINGS AND SPECIFICATION SHALL BE USED. THE CONTRACTOR DOES NOT HAVE THE OPTION TO USE A DIFFERENT MATERIAL.

TYPICAL PIPE DESIGNATION:

PIPE SIZE
FLUID ABBREVIATION
PIPE MATERIAL

2" PW (2) — PIPE CALLOUT (SEE PIPING SCHEDULE THIS SHEET)

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] STRUCTURAL
- [X] MECHANICAL
- [X] PLUMBING
- [X] ELECTRICAL
- [X] ENERGY
- [ ] ACCESSIBILITY
- [ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

DRAWING NOTES:

1. PROPRIETARY NAMES HAVE BEEN QUOTED FOR IDENTIFICATION PURPOSES ONLY. SUBSTITUTIONS WILL BE PERMITTED SUBJECT TO REQUIREMENTS OF THE SPECIFICATIONS.
2. LEAKAGE ALLOWANCE IS AS FOLLOWS:
   (A) PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE.
   (B) PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE FOR UNBURIED PIPE AND NOT MORE THAN 0.002 GALLON PER HOUR PER INCH DIAMETER PER 100 FEET OF BURIED PIPE.
   (C) PIPES SO DESIGNATED SHALL NOT SHOW A LEAKAGE OF MORE THAN 0.15 GALLON PER HOUR PER INCH OF DIAMETER PER 100 FEET OF PIPE.
   (D) PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF PRESSURE OF MORE THAN 5 PERCENT.
   (E) PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF VACUUM OR MORE THAN 4 INCHES MERCURY COLUMN.
3. FOR FIELD TEST PROCEDURES AND ADDITIONAL TEST REQUIREMENTS, SEE PIPING SECTION OF SPECIFICATIONS.
4. ANY DEVIATION FROM THE PIPING MATERIALS OR FIELD TEST REQUIREMENTS SHOWN WILL BE NOTED IN THE SPECIFICATIONS OR ON THE DRAWINGS.
5. PIPING GROUP NUMBER SHOWN THUS * SHALL BE INSULATED, SEE PIPING SECTION OF SPECIFICATIONS FOR INSULATING MATERIALS.
6. STATIC WATER TEST WITH SURFACE 5 FEET ABOVE HIGH POINT OF PIPE.
7. INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE PLUMBING CODE.
8. NO APPARENT LEAKS UNDER NORMAL OPERATING CONDITIONS.
9. INSPECTION AND TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS.
10. PIPING MATERIALS SHALL BE IN ACCORDANCE WITH NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS.
11. FOR VALVES 4 INCHES AND LARGER SEE VALVE SCHEDULE. FOR SPECIAL VALVES SEE SPECIFICATIONS.
12. CHANGE IN PIPING MATERIAL GROUP NUMBER IS INDICATED, THUS:
13. FOR PIPE LINING AND COATING, SEE SPECIFICATIONS.
14. EXPOSED PIPING SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATIONS. COLORS TO BE SELECTED BY ENGINEER.
15. PIPING MATERIAL SHALL BE NON-ABRASIVE FLEXIBLE RUBBER HOSE AND QUICK CONNECTION COUPLINGS WITH GROUP NO. 1 AT EQUIPMENT.
16. VALVES 2-1/2 INCH AND SMALLER MAY HAVE SCREWED ENDS VALVES 3 INCH AND LARGER SHALL HAVE FLANGED ENDS. UNLESS OTHERWISE SHOWN OR SPECIFIED.

PIPE MATERIAL SCHEDULE (SEE NOTE 4)

GROUP NO.	PIPE	FITTINGS	VALVES
1	STEEL, ASTM 53 SCHEDULE 40, BLACK WELDED	2-1/2 INCH AND SMALLER, MALLEABLE IRON, ANSI B16.3. THREADED, BANDED, BLACK, 150 PSI OR STEEL, ANSI B16.9 BUTT-WELDED. 3-INCH AND LARGER, CAST IRON, ANSI B16.1, 125 PSI FLANGED OR MECHANICAL COUPLINGS.	BRONZE, THREADED, GATE STOCKHAM B-105. GLOBE, STOCKHAM B-37, CHECK, STOCKHAM B-319, STEEL LUBRICATED PLUG, NORDSTROM, FIG. 142 OR 143, ECCENTRIC PLUG, DEZURIK SERIES 118 BALL, JAMESBURY FIG. 351.
2	STEEL, ASTM 53 SCHEDULE 40 WELDED, GALVANIZED	2-1/2 INCH AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED, GALVANIZED 150 PSI, 3 INCH AND LARGER, CAST IRON ANSI B16.1, 125 PSI FLANGED OR MECHANICAL COUPLINGS.	2-1/2 INCH AND SMALLER, ECCENTRIC PLUG, SYNTHETIC RUBBER FACED, DEZURIK 118S BALL, JAMESBURY FIG. 351 3 INCH AND LARGER, ECCENTRIC PLUG, SYNTHETIC RUBBER FACED, DEZURIK 118F GATE, AWWA C500, BUTTERFLY, AWWA, FLANGED.
3	STEEL, ASTM A106 OR A53, SCHEDULE 80, SEAMLESS, BLACK.	FORGED STEEL, ANSI B16.11, SOCKET WELDED OR THREADED, BLACK, 2000 PSI, OR STEEL, ANSI B16.9, BUTT-WELDED, SCHEDULE 80.	CAST IRON, LUBRICATED PLUG, NORDSTROM FIG. 214 OR 305.
4	SAME AS GROUP NO. 1	CAST IRON, ANSI B16.12, THREADED, DRAINAGE PATTERN.	--------
5	WELDED STEEL, AWWA C200, UNLINED.	WELDED STEEL, FABRICATED, AWWA C200, UNLINED.	AS INDICATED ON DRAWINGS.
6	STEEL, ASTM A106, OR A53, SCHEDULE 40, SEAMLESS, BLACK.	STEEL, ANSI B16.9, BUTT-WELDED, CAST IRON, ANSI B16.1, 125 PSI, FLANGED, FORGED STEEL, SOCKET WELDED, ANSI B16.11, 2000 PSI OR STEEL, ANSI B16.5, 150 PSI FLANGED.	CAST IRON, FLANGED, LUBRICATED PLUG, NORDSTROM FIG. 143 OR 133GG.
7	SAME AS GROUP NO. 2.	MALLEABLE IRON, ANSI B16.3, THREADED, BANDED, GALVANIZED, 300 PSI.	BRONZE THREADED, GLOBE, STOCKHAM B-62 OR B-32, BALL, JAMESBURY FIG. 351 CHECK, STOCKHAM B-322T.
8	WELDED STEEL, AWWA C200.	WELDED, STEEL, AWWA C200, FABRICATED.	AS INDICATED ON DRAWINGS.
9	SAME AS GROUP 1	2-1/2 INCH AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED, BLACK, 150 PSI, 3-INCH AND LARGER, STEEL. ANSI B16.9, BUTT-WELDED.	ECCENTRIC PLUG, DEZURIK SERIES 118 CHECK, CRANE NO. 366E, BALL, JAMESBURY FIG. 351.
10	SAME AS GROUP NO. 3.	1-1/4 INCH AND SMALLER, FORGED STEEL, ANSI B16.11, THREADED OR SOCKET WELDED, BLACK, 3000 PSI, WITH FLANGED AMMONIA UNIONS. 1-1/2 INCH AND LARGER, STEEL, ANSI B16.9, BUTT-WELDED OR FLANGED, SCHEDULE 80.	SEMI-PLUG AND YOKE TYPE OR BALL FOR CHLORINE SERVICE, FORGED CARBON STEEL.
11	DUCTILE IRON, ANSI A21.51, (AWWA C151) OR CAST IRON ANSI A21.6, CLASS 52, BELL AND SPIGOT, MECHANICAL JOINTS, MECHANICAL COUPLINGS, OR CLASS 52 FLANGED (TYPICAL SERVICE - WATER LINES) (PREINSULATED) PER SPECIFICATION SECTION 02565	DUCTILE IRON OR CAST IRON, ANSI A21.10 OR AWWA C110, BELL AND SPIGOT, MECHANICAL COUPLINGS, FLANGED OR MECHANICAL JOINTS, 350 PSI (PRESSURE RATING) 12-INCHES AND SMALLER, 350 PSI (PRESSURE RATING) 14-INCHES AND LARGER, WITH 125 PSI ANSI B16.1 FLANGES.	GATE, AWWA C500, 'O' RING SEALS, MECHANICAL JOINT ENDS, MUELLER A-2380-20 BUTTERFLY, AWWA, ECCENTRIC PLUG, DEZURIK SERIES 118 BALL, PRATT.
12	CAST IRON SOIL, ANSI/ASTM A-74, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS, AT THE OPTION OF THE CONTRACTOR, DUCTILE IRON (GROUP NO. 11) MAY BE SUBSTITUTED.	CAST IRON SOIL, ANSI/ASTM A-74, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS. AT THE OPTION OF THE CONTRACTOR, DUCTILE IRON (GROUP NO. 11) MAY BE SUBSTITUTED.	AS INDICATED ON DRAWINGS.
13	CORROSION RESISTANT (HIGH SILICON CONTENT) CAST IRON, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS.	CORROSION RESISTANT (HIGH SILICON CONTENT) CAST IRON, SERVICE WEIGHT, BELL AND SPIGOT OR HUBLESS.	--------
14	STAINLESS STEEL, TYPE 316, ASTM A312, SCHEDULE 40S.	STAINLESS STEEL, TYPE 316 ANSI B16.3, SCREWED, 150 PSI, ANSI B16.9, BUTT-WELDED, SCHEDULE 40S, OR 150 PSI FLANGED.	STAINLESS STEEL, BALL, FLANGED, JAMESBURY TYPE A/D150F. CHECK, LADISH, NO. 5272 OR AS SHOWN ON DRAWINGS.
15	STAINLESS STEEL, TYPE 316, ASTM A312, SCHEDULE 10S.	STAINLESS STEEL, TYPE 316 ANSI B16.9, BUTT-WELDED SCHEDULE 10S OR 150 PSI FLANGED.	STAINLESS STEEL, AS INDICATED ON DRAWINGS.
16	POLYVINYL, CHLORIDE, SCHEDULE 80, NORMAL IMPACT, ASTM D1785.	POLYVINYL CHLORIDE, SCHEDULE 80, NORMAL IMPACT, SOCKET SOLVENT WELD JOINTS, ASTM D2467.	POLYVINYL CHLORIDE, BALL, DIAPHRAGM, BUTTERFLY, BALL OR LIFT CHECK. NIBCO/CHEMTROL OR HILLS-MCCANNA.
17	POLYPROPYLENE, ASTM D4101, SCHEDULE 40, WITH HEAT FUSED JOINTS.	POLYPROPYLENE, SCHEDULE 40, DRAINAGE TYPE WITH HEAT FUSED SOCKET JOINTS.	--------
18	FIBERGLASS REINFORCED PLASTIC, ASTM D2996, FILAMENT WOUND, SOCKET AND SPIGOT ENDS, ADHESIVE BONDED.	FIBERGLASS REINFORCED PLASTIC, FILAMENT-WOUND, SOCKET ENDS, ADHESIVE BONDED, OR FIBERGLASS FLANGED.	PLASTIC LINED, FLANGED, FLANGES TO MATCH 150 PSI ANSI B16.5 DIMENSIONS, OR AS INDICATED ON DRAWINGS.
19	POLYVINYL CHLORIDE PRESSURE PIPE ASTM D2241 WITH BELL AND SPIGOT JOINTS.	CAST IRON, 150 PSI, FOR POLYVINYL CHLORIDE PIPE, AWWA C110 CEMENT MORTAR LINED, AWWA C104.	SAME AS GROUP NO. 11.
20	VITRIFIED CLAY, PERFORATED, ASTM C 700, EXTRA STRENGTH, FLEXIBLE COMPRESSION JOINTS FOR BELL AND SPIGOT PIPE OR PLAIN END WITH MECHANICAL COMPRESSION JOINTS.	VITRIFIED CLAY, ASTM C700, FLEXIBLE JOINTS FOR BELL AND SPIGOT PIPE OR PLAIN END WITH MECHANICAL COMPRESSION JOINTS.	--------
21	VITRIFIED CLAY, ASTM C700, EXTRA STRENGTH, FLEXIBLE COMPRESSION JOINTS FOR BELL AND SPIGOT PIPE OR PLAIN END WITH MECHANICAL COMPRESSION JOINTS.	VITRIFIED CLAY, ASTM C700, FLEXIBLE JOINTS FOR BELL AND SPIGOT PIPE OR PLAIN END WITH MECHANICAL COMPRESSION JOINTS.	--------
22	REINFORCED CONCRETE, ASTM C76 TONGUE AND GROOVE JOINTS, (TYPICAL SERVICE - CULVERTS)	SAME AS GROUP NO. 8	--------
23	TEMPERED GLASS, (ARMORED, WHERE BURIED). ANSI/ASTM C599.	TEMPERED GLASS DRAINAGE TYPE WITH COMPRESSION COUPLINGS AND TEFLON JOINTS, ANSI/ASTM C599 (ARMORED WHERE BURIED).	--------
24	COPPER, ASTM B88, TYPE K, SOFT TEMPERED WHERE BURIED, HARD TEMPERED WHERE EXPOSED.	WROUGHT COPPER OR CAST BRONZE, ANSI B16.22, SOLDER JOINT, 150 PSI, OR COMPRESSION FITTINGS, (FOR OXYGEN PIPING USE SILVER SOLDER, FOR COMPRESSED AIR PIPING USE 95-5 TIN-ANTIMONY SOLDER).	BRONZE, SOLDER JOINT, GLOBE, CRANE NO. 1310 OR STOCKHAM B-14T. CHECK, CRANE NO. 1342 OR 36, OR STOCKHAM B-309 OR B-345. GATE, CRANE NO. 426, OR STOCKHAM B-104 OR B-105.
25	STEEL, ASTM A106 OR A53, SCHEDULE 40, SEAMLESS, BLACK, SARAN OR POLYPROPYLENE-LINED.	STEEL, ANSI B16.5, 150 PSI FLANGED, SARAN OR POLYPROPYLENE-LINED.	CAST STEEL PLUG, DIAPHRAGM OR CHECK, 150 PSI FLANGED, SARAN OR POLYPROPYLENE-LINED.
26	SAME AS GROUP NO. 11 (TYPICAL SERVICE - SLUDGE AND SEWAGE LINES).	SAME AS GROUP NO. 11.	SEE SPECIFICATIONS.
27	POLYVINYL CHLORIDE GRAVITY SEWER PIPE, SDR 35 ASTM D3034, BELL AND SPIGOT.	POLYVINYL CHLORIDE, ANSI/ASTM D3034 & F679, BELL AND/OR SPIGOT.	--------
28	REINFORCED CONCRETE, AWWA C302, CLASS- SEE DRAWINGS. (TYPICAL SERVICE - PRESSURE PIPELINES).	SAME AS GROUP NO. 8.	AS INDICATED ON DRAWINGS.
29	SAME AS GROUP NO. 1.	2-INCH AND SMALLER, MALLEABLE IRON, ANSI B16.3, THREADED, BANDED, BLACK, 150 PSI, 2-1/2 INCH AND LARGER, STEEL ANSI B16.9, BUTT-WELDED.	SAME AS GROUP NO. 1, EXCEPT LUBRICATED PLUG SHALL BE ROCKWELL FIG. 114 OR 115, OR POWELL FIG. 2202 OR 2203.
30	SAME AS GROUP NO. 11, GLASS-LINED OR STEEL ASTM A120, SCHEDULE 40, GLASS-LINED.	SAME AS GROUP NO. 11, GLASS-LINED OR STEEL, ANSI B16.9, SCHEDULE 40, GROOVED WITH MECHANICAL COUPLINGS, GLASS-LINED.	SAME AS GROUP NO. 26.
31	2-1/2 INCH AND SMALLER, STEEL, ASTM A106 OR A53, SCHEDULE 80, SEAMLESS, BLACK. 3-INCH AND LARGER DUCTILE IRON, ANSI A21.51 (AWWA C151) OR CAST IRON ANSI A21.56 OR A21.8 MECHANICAL COUPLINGS OR 125 PSI FLANGED.	2-1/2 INCH AND SMALLER, FORGED STEEL, ANSI B16.11, SOCKET-WELDED OR THREADED, BLACK, 2000 PSI, OR STEEL, ANSI B16.9, BUTT-WELDED SCHEDULE 80. 3-INCH AND LARGER, DUCTILE IRON OR CAST IRON, ANSI A21.10 OR AWWA C110, MECHANICAL COUPLING OR 125 PSI FLANGED.	CAST IRON, LUBRICATED PLUG, ROCKWELL FIG. 142 OR 143, OR POWELL FIG. 2200 OR 2201.
32	PVC TYPE 1, GRADE 1, 18 ASTM D-1784 AWWA C-905.	SHORT BODY CAST IRON OR DUCTILE IRON AWWA C110.	SAME AS GROUP 11.
33	CORRUGATED HDPE SLOTTED, SPLIT COUPLING JOINTS.	FABRICATED OR MOLDED.	--------
34	FIBERGLASS DOUBLE CONTAINMENT (FOR USE WITH FLAMMABLE LIQUIDS) SEE SPECS.	FIBERGLASS.	AS PER MANUFACTURER'S RECOMMENDATIONS.
35	CPVC	CPVC	CPVC
36	HIGH DENSITY POLYETHYLENE, DR-11, DR-17	4 INCH AND LARGER HIGH DENSITY POLYETHYLENE, DR-11, DR-17	SAME AS GROUP NO. 11
51	PVC AWWA C905	DUCTILE IRON AWWA C110	SAME AS GROUP NO. 11
52	PVC AWWA C900	DUCTILE IRON AWWA C110	SAME AS GROUP NO. 11
53	NOT USED	NOT USED	--------
54	DOUBLE - WALL CORRUGATED HDPE, ADS N-12, SOLID WALL	FABRICATED OR MOLDED	--------
55	DOUBLE - WALL CORRUGATED HDPE, ADS N-12, SLOTTED	FABRICATED OR MOLDED	--------

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 770264 — STATE OF UTAH — 08-22-2018

NO.	DESCRIPTION	DATE	REV. BY
	REVISIONS		

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

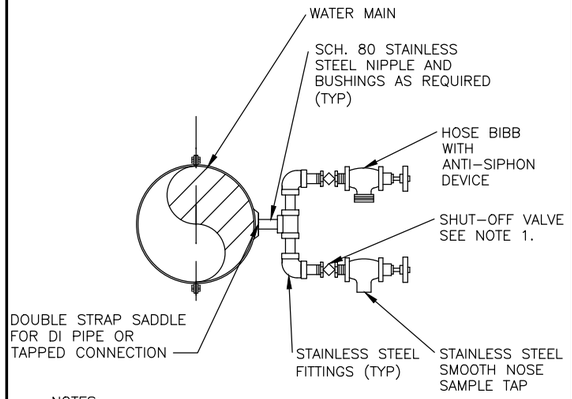
DESIGN BCS STANDARDS
DRAWN BCA STANDARDS
CHECKED J. BECKMAN
APPROVED E. NEIL
REVIEW

MECHANICAL

PIPE MATERIAL SCHEDULE

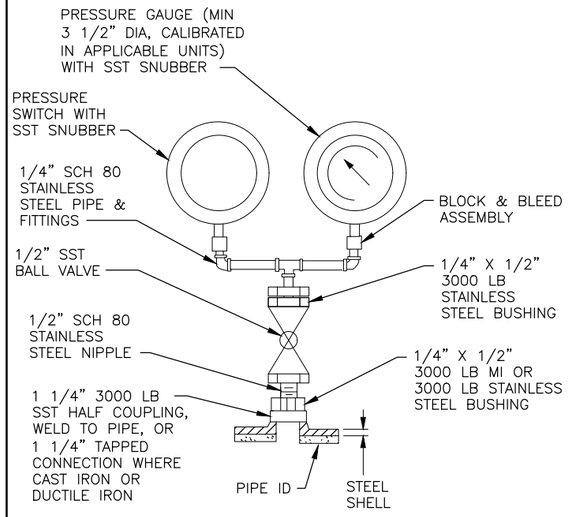
PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. GM-01
SHEET 31 OF 46



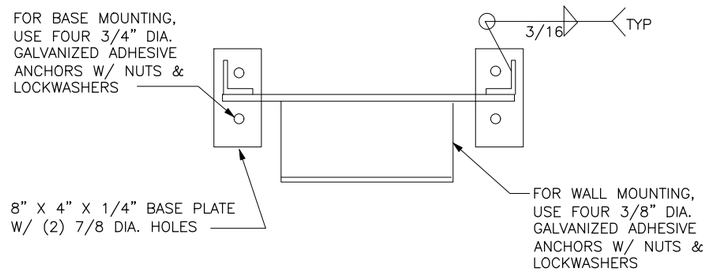
NOTES:
1. ALL HOSE BIBBS TO BE CONTROLLED BY INDIVIDUAL SHUT-OFF VALVES (BALL VALVES) EXCEPT WHERE INDIVIDUALLY CONTROLLED BRANCH MAIN SERVES HOSE BIBBS ONLY.
2. FOR SIZE AND LOCATION SEE DRAWINGS.
3. ALL FITTINGS, VALVES, NIPPLES, GAUGES AND WELDS SHALL BE ABLE TO MEET OR EXCEED TEST PRESSURE.
4. ROTATE AS DIRECTED BY OWNER.

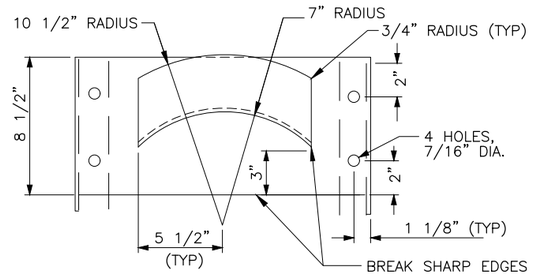
HOSE BIBB/SAMPLE TAP
NTS — M 3000



NOTES:
1. GAUGES SHALL BE RATED FOR APPROPRIATE OPERATING PRESSURES BASE ON LOCATION.

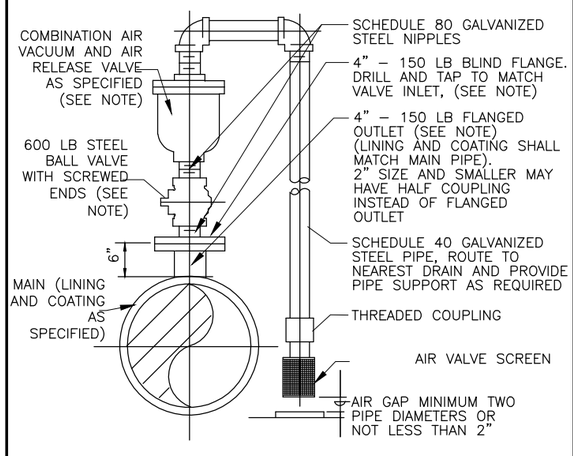
PRESSURE GAUGE AND PRESSURE SWITCH
NTS — M 3001





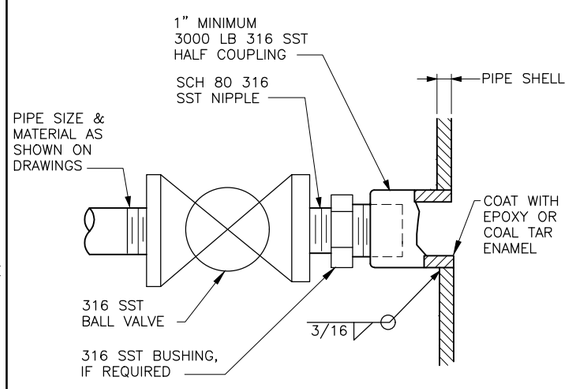
NOTES:
1. WHERE HOSE RACK IS FREE-STANDING, PROVIDE (2) STL. 2 X 2 X 1/4" BASE PLATES. (OMIT BASE PLATES WHERE ANGLES CAN BE SET IN CONCRETE.)
2. CONSTRUCTION: B GA. STEEL SHEET, ALL WELDED, GALVANIZED AFTER FABRICATION.

HOSE RACK
NTS — M 3117



NOTE:
FOR PIPING SYSTEM WITH SERVICE PRESSURE CLASS GREATER THAN 150 PSI. ALL COMPONENTS FURNISHED SHALL BE SUITABLE FOR THE HIGHER PRESSURE

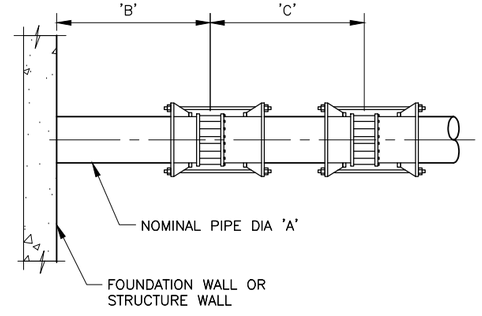
AIR VACUUM AND AIR RELEASE VALVE ASSEMBLY
SCALE: NTS — M 3143



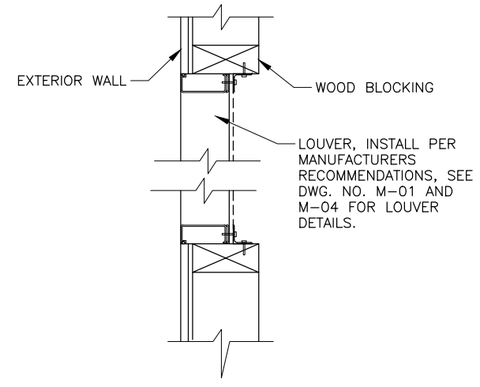
NOTE:
IF PIPE MATERIAL IS STAINLESS STEEL, SAME TYPE MATERIAL ATTACHMENT SHALL BE USED.

PIPE CONNECTION 2 1/2" AND SMALLER
SCALE: NTS — M 3167

DIMENSIONS IN INCHES (MM)		
'A'	'B'	'C'
4 (150)	16 (400)	48 (1200)
6 (150)	16 (400)	48 (1200)



EXTERIOR DOUBLE HARNESS SET
SCALE: NTS — M 3160



PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY MEM DATE 08/14/19
WEST COAST CODE CONSULTANTS, INC.

LOUVER WITH ELECTRIC ACTUATOR
NTS — M 3161

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 770264 — STATE OF UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN BCS STANDARDS — DESIGN REVIEW — CHECKED J. BECKMAN — APPROVED E. NEIL
DRAWN BCA STANDARDS

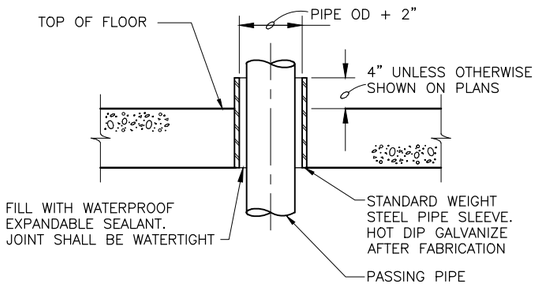
MECHANICAL

GENERAL MECHANICAL DETAILS-1

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

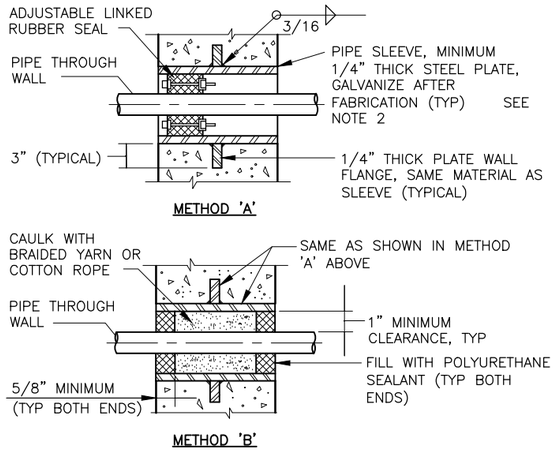
DRAWING NO. GM-02
SHEET 32 OF 46

P:\Powder Mountain\347-17-01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_GM-02.dwg Plotted: 8/23/2018 10:46 AM By: Eric Neil



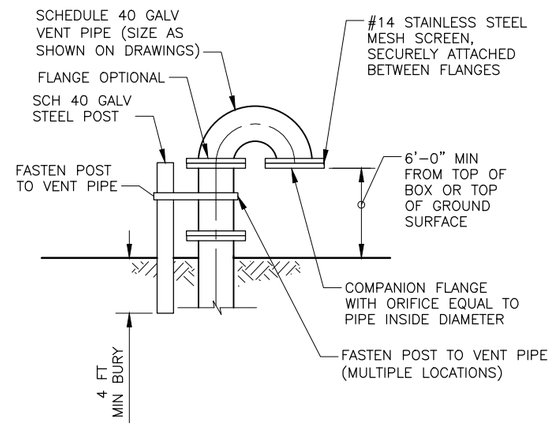
NOTE:
COAT FLOOR SLEEVE WITH SPECIFIED PAINT SYSTEM BEFORE CONCRETE PLACEMENT.

FLOOR SLEEVE
SCALE: NTS — M 3300

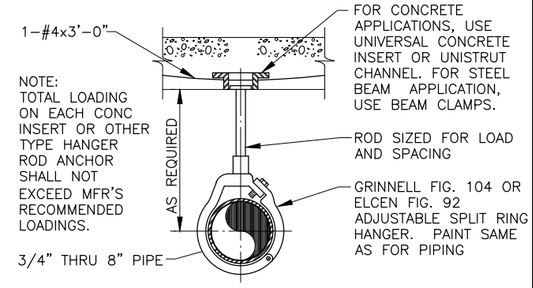


NOTES:
1. FOR WATER BEARING WALLS, USE METHOD 'A' WITH ADJUSTABLE LINKED RUBBER SEAL AT BOTH ENDS.
2. SLEEVES ARE NOT REQUIRED IN CORE DRILLED WALLS, PENETRATIONS THROUGH EXISTING WALLS, OR FLOORS

SLEEVED PIPE OPENING
SCALE: NTS — M 3307

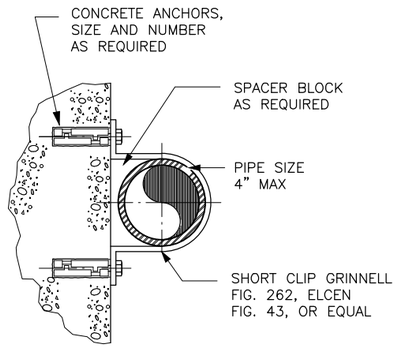


AIR VENT DETAIL
SCALE: NTS — M 3326



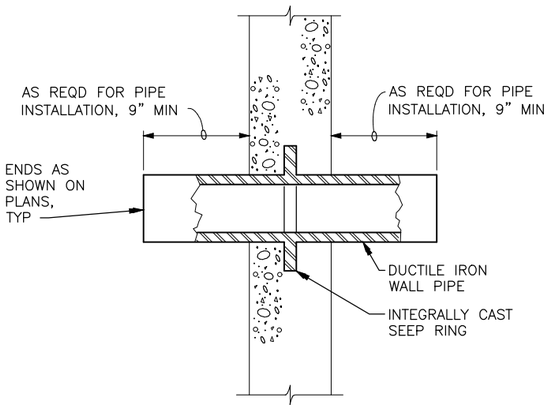
PIPE HANGER
SCALE: NTS — M 3355

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
[X] BUILDING [X] STRUCTURAL
[X] MECHANICAL [X] PLUMBING
[X] ELECTRICAL [X] ENERGY
[ ] ACCESSIBILITY [ ] FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY MEM DATE 08/14/19
WEST COAST CODE CONSULTANTS, INC.



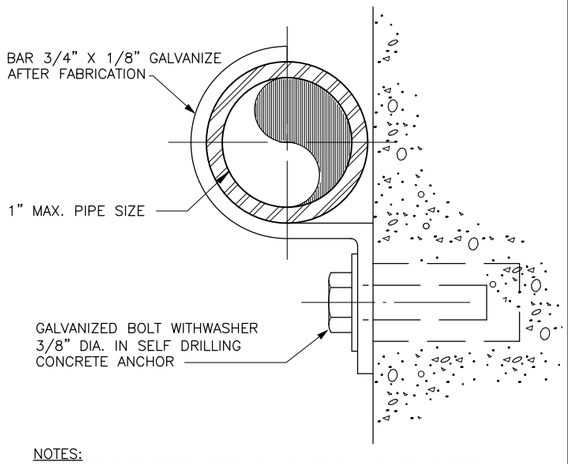
NOTE:
ALL HARDWARE SHALL BE STAINLESS STEEL.

PIPE SUPPORT
SCALE: NTS — M 3367



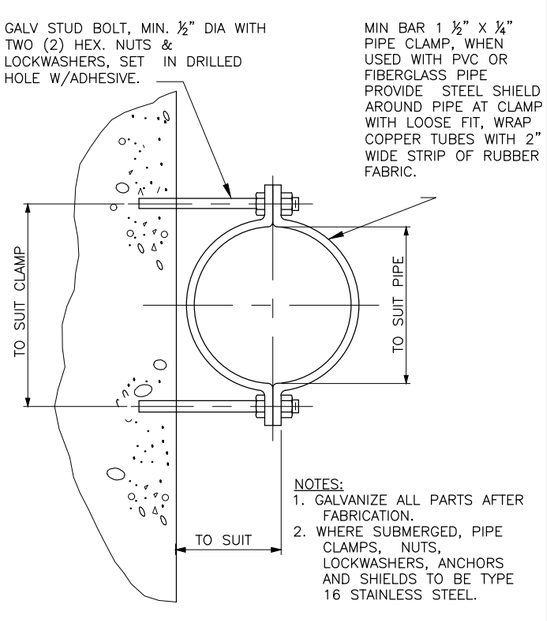
NOTE:
COAT WALL PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.

WALL THIMBLE
NTS — M 3010



NOTES:
1. WHERE SUBMERGED, PIPE CLAMP, BOLT, WASHER, SHIELD AND SELF DRILLING CONCRETE ANCHOR TO BE TYPE 316 STAINLESS STEEL.
2. WHEN USED WITH PVC OR FIBERGLASS PIPE, PROVIDE STEEL SHIELD AROUND PIPE AT CLAMP WITH LOOSE FIT, WRAP COPPER TUBES WITH 2" WIDE STRIP OF RUBBER FABRIC.

PIPE CLAMP FOR INDIVIDUAL PIPES
SCALE: NTS — M 3370



NOTES:
1. GALVANIZE ALL PARTS AFTER FABRICATION.
2. WHERE SUBMERGED, PIPE CLAMPS, NUTS, LOCKWASHERS, ANCHORS AND SHIELDS TO BE TYPE 16 STAINLESS STEEL.

PIPE CLAMP
SCALE: NTS — M 3371

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 770264 — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

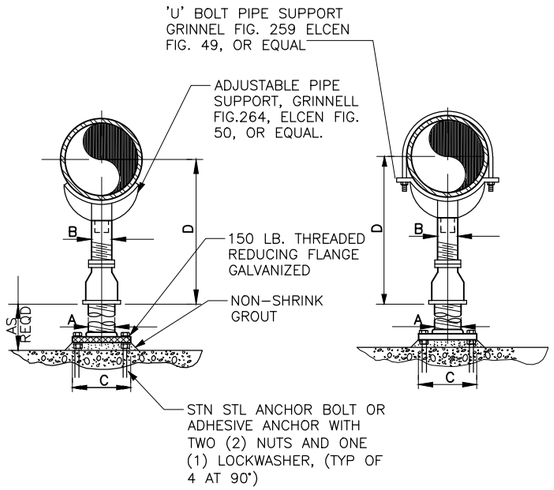
DESIGN BCS STANDARDS
DRAWN BCA STANDARDS
CHECKED J. BECKMAN
APPROVED E. NEIL
REVIEW

MECHANICAL

GENERAL MECHANICAL DETAILS-2

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

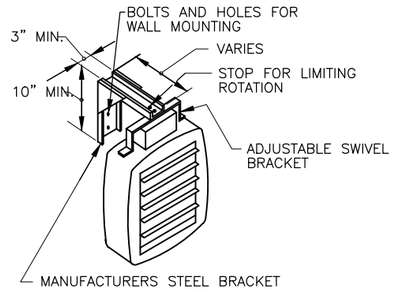
DRAWING NO. GM-03
SHEET 33 OF 46



DIMENSION TABLE					
PIPE SIZE	A	B	C	D MIN	D MAX
2-1/2"	2-1/2"	1-1/2"	9"	8"	11-1/2"
3"	2-1/2"	1-1/2"	9"	8-1/4"	11-3/4"
3-1/2"	2-1/2"	1-1/2"	9"	8-1/2"	12-0"
4"	3"	2-1/2"	9"	10-1/4"	14-0"
6"	3"	2-1/2"	9"	11-5/8"	15-1/4"

NOTE:
ENTIRE UNIT SHALL BE GALVANIZED AFTER FABRICATION.

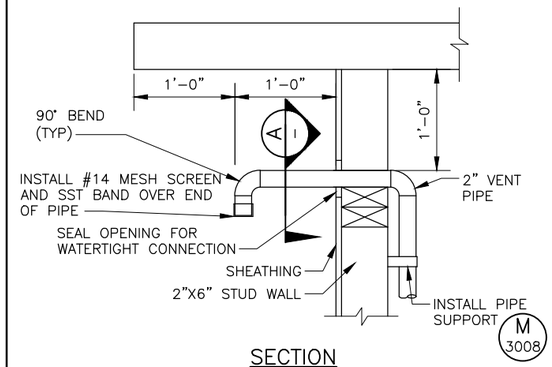
ADJUSTABLE PIPE SUPPORT WITH OR WITHOUT U-BOLT
SCALE: NTS — M 3389



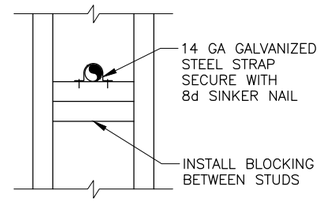
NOTES:
1. HEATER TO BE CONTROLLED FROM INTERNAL THERMOSTAT.
2. SEE ELECTRICAL DWGS FOR WIRING DETAILS.

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

ELECTRIC UNIT HEATER MOUNTED
SCALE: NTS — M 3455

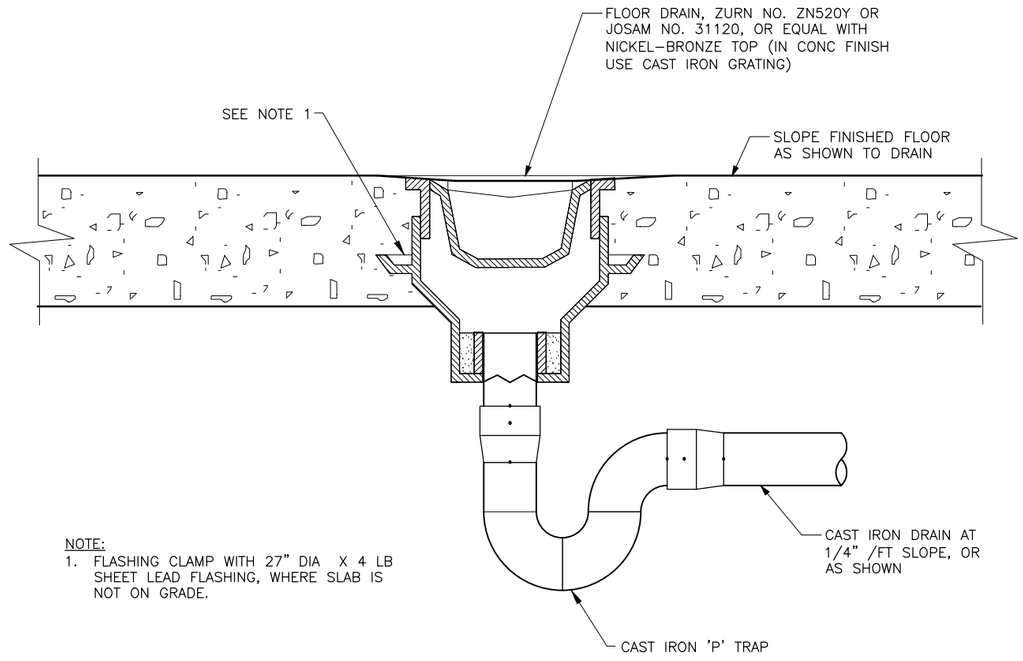


SECTION



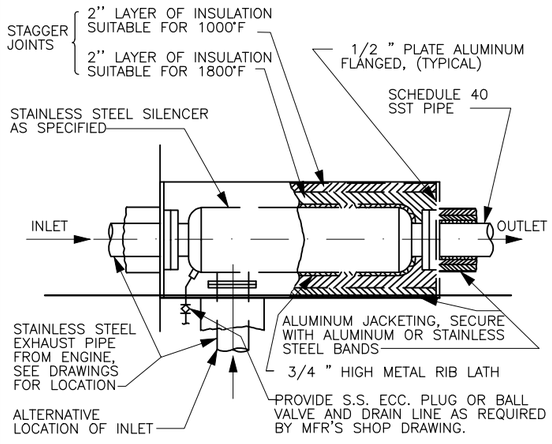
SECTION A

VENT THROUGH WALL
NTS — M 3456

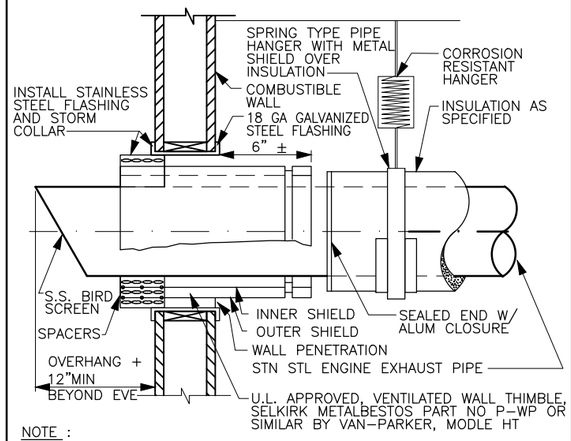


NOTE:
1. FLASHING CLAMP WITH 27" DIA X 4 LB SHEET LEAD FLASHING, WHERE SLAB IS NOT ON GRADE.

FLOOR DRAIN
SCALE: NTS — M 3802



ENGINE SILENCER ASSEMBLY
NTS — M 3805



NOTE :
ENGINE EXHAUST TO BE INSTALLED 10'-0" (MINIMUM) ABOVE TRAFFIC AREA

ENGINE EXHAUST THROUGH WALL
NTS — M 3806

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — ERIC W. NEIL — 770264 — STATE OF UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN BCS STANDARDS — REVIEW J. BECKMAN — APPROVED E. NEIL
DRAWN BCA STANDARDS — CHECKED

MECHANICAL

GENERAL MECHANICAL DETAILS-3

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. GM-04
SHEET 34 OF 46

P:\Powder Mountain\347-17-01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_GM-04.dwg Plotted: 8/23/2018 10:44 AM By: Eric Neil

SCHEMATIC SWITCHES

NORMALLY OPEN (NO)	NORMALLY CLOSED (NC)	
		MOMENTARY PUSHBUTTON
		MAINTAINED POSITION MUSHROOM HEAD PUSHBUTTON
		LEVEL OR FLOAT
		TEMPERATURE
		FLOW
		TIME
		FORCE OR TORQUE
		PRESSURE
		LIMIT
HAND OFF AUTO OR	HAND OFF AUTO	SELECTOR SWITCH, THREE POSITION MAINTAINED CONTACT WITH HAND–OFF–AUTO LEGEND

POWER SYMBOLS

- DUPLEX FLOOR BOX
- QUAD FLOOR BOX
- DUPLEX IN CEILING
- QUAD IN CEILING
- DUPLEX GFCI
- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- DUPLEX SPLIT WIRED
- COMBO MOIOR STARTER
- FUSED DISCONNECT
- DISCONNECT
- JUNCTION BOX
- CONTROL STATION
- SINGLE POLE TOGGLE SWITCH
- THREE WAY TOGGLE SWITCH
- FOUR WAY TOGGLE SWITCH
- DATA JACK
- VOICE JACK
- DATA/VOICE JACK
- PHOTOELECTRIC CONTROL UNIT
- THERMOSTAT

LIGHTING SYMBOLS

- F1 — DESIGNATES FIXTURE NUMBER – REFER TO FIXTURE SCHEDULE
- WALL MOUNTED
- 2'x4' FLUORESCENT LIGHT
- 1'x4' FLUORESCENT LIGHT
- EMERGENCY LIGHT
- 2' WALL MOUNT LIGHT
- 4' WALL MOUNT LIGHT
- POLE MOUNTED W/ONE LUMINAIRE
- PENDANT OR CEILING MOUNTED
- EXIT LIGHT
- WARNING LIGHT

POWER ONE–LINE SYMBOLS

- UTILITY METERING CURRENT TRANSFORMER
- M — UTILITY METERING SOCKET
- TRANSFER SWITCH ATS: AUTOMATIC TRANSFER SWITCH MTS: MANUAL TRANSFER SWITCH
- DISCONNECT
- FUSED DISCONNECT
- M — MOTOR (HP SHOWN)
- GENERATOR
- POWER FEED
- POWER FACTOR CAPACITOR
- CIRCUIT BREAKER OR MCP (MOTOR CIRCUIT PROTECTOR)
- M — UTILITY METERING SOCKET WITH CIRCUIT BREAKER
- X — MOTOR STARTER WITH OVERLOADS: X = NEMA SIZE
- DELTA–WYE TRANSFORMER
- RVSS, BC — REDUCED VOLTAGE SOFT STARTER
- SURGE SUPPRESSOR OR SURGE ARRESTOR
- VFD — VARIABLE FREQUENCY DRIVE
- PNL — POWER DISTRIBUTION PANEL GRAY = EXISTING AND FUTURE AS INDICATED
- CIRCUIT DISTRIBUTION PANELBOARD
- CONTROL PANEL ENCLOSURE
- SPD — SURGE PROTECTION DEVICE

SCHEMATIC/CONTROL DIAGRAM SYMBOLS

- CONDUCTOR
- CONDUCTOR (OUTSIDE EQUIPMENT, ENCLOSURE OR CONTROLLER)
- ELECTRICAL CONNECTION OR NODE
- NO CONNECTION OR NODE
- NORMALLY CLOSED (NC) CONTACTS
- NORMALLY OPEN (NO) CONTACTS
- FUSE HOLDER AND FUSE
- F5 5A — FUSE TERMINAL FUSE NUMBER: F5 FUSE RATING: 5 AMPS
- M 30 — CONTRACTOR CONTACT (GANG OPERATED). NUMBER OF CONTACTS SHOWN. 30 = 30 AMP RATED
- MOTOR OVERLOAD MOTOR OVERLOAD MODIFIERS: BLANK = SOLID STATE ELECTRONIC BI = BI–METALLIC
- CRX — CONTROL RELAY X = RELAY NUMBER
- ON W — PILOT LIGHT LEGEND PLATE: ON MODIFIERS: A: AMBER LENS B: BLUE LENS G: GREEN LENS R: RED LENS W: WHITE LENS
- ON W — PILOT LIGHT – PUSH–TO–TEST
- TAG H — PLC DIGITAL INPUT
- TAG H — PLC DIGITAL OUTPUT
- TAG A — PLC ANALOG INPUT
- TAG A — PLC ANALOG OUTPUT
- 4–20mA / 4–20mA — SIGNAL CONDITIONER

CONTROL ONE–LINE SYMBOLS

- ENCLOSURE OR CONTROL PANEL
- A/B — HOME RUN TO POWER PANEL "A" CIRCUIT "B"
- INSTRUMENT CONNECTION POINT
- J — JUNCTION BOX

PLAN SYMBOLS

GROUNDING

- GROUND ROD
- GROUND ROD IN GROUND WELL
- GROUND RISER FROM THE GROUND PLATE (REBAR)
- BOLTED AND WELDED GROUND CONNECTIONS, RESPECTIVELY
- GROUND CABLE:
  - EMBEDDED IN CONCRETE
  - BURIED IN EARTH
  - EXPOSED

HVAC EQUIPMENT

- UNIT HEATER – WALL MOUNTED, AND CEILING MOUNTED RESPECTIVELY
- PAD MOUNTED CONDENSING UNIT, SIDE DISCHARGE, AND UP FLOW, RESPECTIVELY
- ROOFTOP MOUNTED EQUIPMENT
- EF — EXHAUST FAN

CONDUIT & RACEWAYS

- CONCEALED RACEWAY OR WIRING SYSTEM – BELOW GRADE, BEHIND WALLS AND EQUIPMENT, ETC.
- FLEX CONDUIT
- RACEWAY OR WIRING SYSTEM ABOVE FLOOR LEVEL BELOW CEILING, EXPOSED
- HOMERUN: DESIGNATIONS INDICATE A ONE–LINE DIAGRAM OR PANELBOARD SCHEDULE REFERENCE
- J — JUNCTION BOX
- RACEWAY OR WIRING SYSTEM TURNED TOWARD THE VIEWER (UP ON PLAN DRAWINGS)
- RACEWAY OR WIRING SYSTEM TURNED AWAY FROM THE VIEWER (DOWN ON PLAN DRAWINGS)
- RACEWAY OR WIRING SYSTEM CHANGE IN ELEVATION OR DISTANCE FROM VIEWER
- CONDUIT STUB AND CAP

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

☒ BUILDING	☒ STRUCTURAL
☒ MECHANICAL	☒ PLUMBING
☒ ELECTRICAL	☒ ENERGY
☐ ACCESSIBILITY	☐ FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

LICENSED PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — State of Utah — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART — REVIEW D. YOUNGSTROM — CHECKED — APPROVED D. STEWART — DRAWN D. STEWART

ELECTRICAL

ELECTRICAL SYMBOLS

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. E-01

SHEET 35 OF 46

P:\Powder Mountain\347-17-01 Bloomington Well Equiping\Design Phase\Drawings\Sht\3471701_E-01.dwg Plotted: 8/23/2018 11:01 AM By: Eric Neil

EQUIPMENT GROUNDING CONDUCTORS	
FUSE OR CB SIZE	SIZE (COPPER)
15	14
20	12
30	10
40	10
60	10
100	8
200	6
300	4
400	3
500	2
600	1
800	1/0
1000	2/0
1200	3/0
1600	4/0
2000	250
2500	350

GROUNDING ELECTRODE CONDUCTOR SERVICE ENTRANCE OR SEPARATELY DERIVED SYSTEM	
COPPER CONDUCTOR	WIRE SIZE
#2 OR SMALLER	#8
1 OR 1/0	#6
2/0 OR 3/0	#4
>3/0 THRU 350 KCMIL	#2
>350 KCMIL THRU 600 KCMIL	1/0
>600 KCMIL THRU 1100 KCMIL	2/0
>1100 KCMIL	3/0

GENERAL NOTES:

A. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH–IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO ENSURE NEC CODE CLEARANCE REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.

B. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED BEFORE BEGINNING ROUGH–IN.

C. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH–IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC.

D. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THROUGH ELECTRICAL ROOMS OR SPACES; OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN THE OTHER AREAS.

E. ALL PENETRATIONS OF FLOORS, WALLS AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL.

F. FOR PACKAGE EQUIPMENT PROVIDED ON THE PROJECT, SOME CONDUITS AND WIRES ARE SHOWN ON THE DRAWINGS, BUT IT IS EXPECTED THAT SOME ADDITIONAL CONDUITS AND WIRES MAY BE REQUIRED BY EQUIPMENT MANUFACTURERS TO COMPLETE INSTALLATION. IT IS INCUMBENT UPON THE GENERAL CONTRACTOR TO COORDINATE THIS REQUIREMENT WITH HIS SUBCONTRACTORS TO MAKE SURE THAT EQUIPMENT SUPPLIER PROVIDED ALL NECESSARY ELECTRICAL INFORMATION TO ELECTRICAL SUBCONTRACTOR FOR INCLUSION WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS.

G. IF OTHER THAN FIRST NAMED EQUIPMENT IS USED, IT SHALL BE CAREFULLY CHECKED FOR ELECTRICAL REQUIREMENTS AND CONTROL REQUIREMENTS OF ALTERNATE EQUIPMENT. SHOULD CHANGES OR ADDITIONS OCCUR IN ELECTRICAL WORK, OR THE WORK OF OTHER CONTRACTORS BE REVISED BY THE ALTERNATE EQUIPMENT, THE COST OF ALL CHANGES SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.

H. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO DELIVER THE COMPLETE SET OF PLANS IN ORDER TO INSURE THAT ALL ITEMS RELATED TO ELECTRICAL POWER AND CONTROL SYSTEMS ARE COMPLETELY ACCOUNTED FOR.

I. ALL EQUIPMENT DIMENSIONS SHOWN ON PLANS AND ELEVATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL USE THE SHOP DRAWINGS FOR PROPER LAYOUT, FOUNDATION AND PAD, ETC. FOR FINAL INSTALLATION WITHOUT ANY ADDITIONAL COST TO THE OWNER.

J. THE DRAWINGS DIAGRAMMATICALLY INDICATE THE DESIRED LOCATION AND ARRANGEMENT OF OUTLETS, CONDUIT RUNS, EQUIPMENT AND OTHERS ITEMS. DETERMINE EXACT LOCATIONS IN THE FIELD BASED ON PHYSICAL SIZE AND ARRANGEMENT OF EQUIPMENT, FINISHED ELEVATIONS, AND OTHERS OBSTRUCTIONS. LOCATIONS SHOWN ON THE DRAWINGS, HOWEVER, SHALL BE ADHERED TO AS CLOSELY AS POSSIBLE.

K. THE ELECTRICAL INSTALLATION SHALL COMPLY WITH THE CURRENT VERSION OF THE NEC.

FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	CATALOG NO.	VA	LAMP	MOUNTING	NOTES
F1	ENCLOSED INDUSTRIAL FIBERGLASS HOUSING, WET LOCATION, LED, 120 VOLT WITH CHAIN MOUNT SUSPENSION BRACKET AND CHAIN	HOLOPHANE	EVT4 4000LM PCL MD MVOLT 40K 80CRI CMB WITH 10' OF CHAIN	33	LED	CHAIN	SUSPEND WITH CHAIN TO MOUNT LEVEL WITH FLOOR
F2	DELEON TL UNIVERSAL FACE EXIT SIGN UL WET/DAMP LOCATION LISTED DUAL VOLTAGE 120/277 w/GREEN EXIT LETTERS SELF–CONTAINED, SEALED MAINTENANCE FREE NICKEL CADMIUM BATTERY	HOLOPHANE	LNME–D–NC–G–SG–S–N	5	LED	WALL	
F3	WALL PACK, CUTOFF, LED, 120 VOLT AC, BLACK	HOLOPHANE	W4GLED 10C 1000 40K T3M 120 BK	38	LED	WALL	
F4	EMERGENCY LIGHT WITH TWO HEADS, 90MIN BATTERY POWER, WET LOCATION, INPUT POWER 120 VAC	HOLOPHANE	DM30 WL LED	8	LED	WALL	

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

LICENSED PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — State of UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART — DRAWN D. STEWART — CHECKED D. YOUNGSTROM — APPROVED D. STEWART — REVIEW

ELECTRICAL

SCHEDULES AND NOTES

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. E-02

SHEET 36 OF 46

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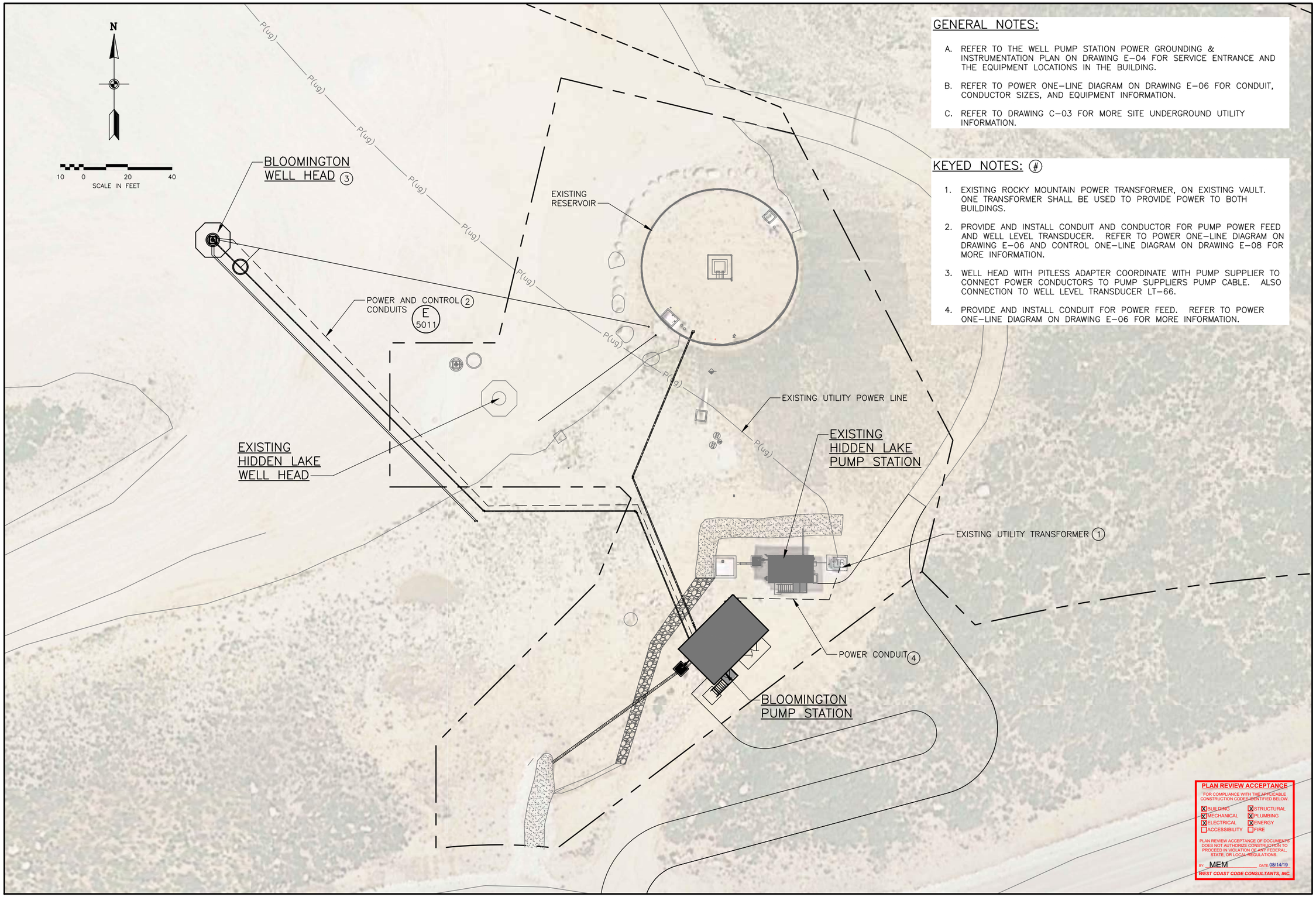

GENERAL NOTES:

A. REFER TO THE WELL PUMP STATION POWER GROUNDING & INSTRUMENTATION PLAN ON DRAWING E-04 FOR SERVICE ENTRANCE AND THE EQUIPMENT LOCATIONS IN THE BUILDING.

B. REFER TO POWER ONE-LINE DIAGRAM ON DRAWING E-06 FOR CONDUIT, CONDUCTOR SIZES, AND EQUIPMENT INFORMATION.

C. REFER TO DRAWING C-03 FOR MORE SITE UNDERGROUND UTILITY INFORMATION.

KEYED NOTES: (#)

1. EXISTING ROCKY MOUNTAIN POWER TRANSFORMER, ON EXISTING VAULT. ONE TRANSFORMER SHALL BE USED TO PROVIDE POWER TO BOTH BUILDINGS.
2. PROVIDE AND INSTALL CONDUIT AND CONDUCTOR FOR PUMP POWER FEED AND WELL LEVEL TRANSDUCER. REFER TO POWER ONE-LINE DIAGRAM ON DRAWING E-06 AND CONTROL ONE-LINE DIAGRAM ON DRAWING E-08 FOR MORE INFORMATION.
3. WELL HEAD WITH PITLESS ADAPTER COORDINATE WITH PUMP SUPPLIER TO CONNECT POWER CONDUCTORS TO PUMP SUPPLIERS PUMP CABLE. ALSO CONNECTION TO WELL LEVEL TRANSDUCER LT-66.
4. PROVIDE AND INSTALL CONDUIT FOR POWER FEED. REFER TO POWER ONE-LINE DIAGRAM ON DRAWING E-06 FOR MORE INFORMATION.

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

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BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
DOUGLAS MAX STEWART
No. 173312
LICENSED
STATE OF UTAH
08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART
DRAWN R. GARCIA
CHECKED D. YOUNGSTROM
APPROVED D. STEWART

ELECTRICAL

ELECTRICAL SITE PLAN

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. E-03
SHEET 37 OF 46

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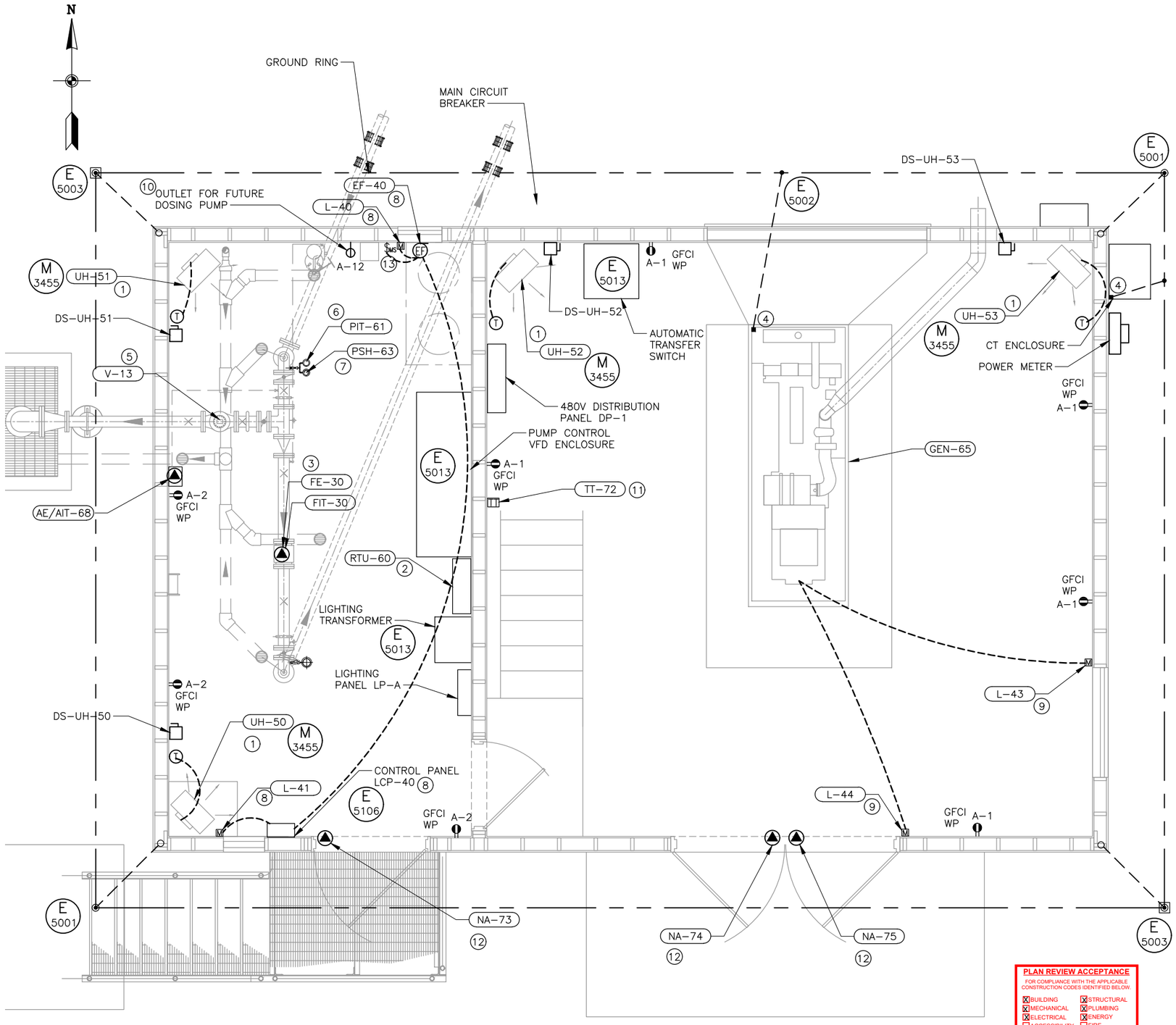

PLAN
SCALE: 1/2"=1'-0"

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

X BUILDING	X STRUCTURAL
X MECHANICAL	X PLUMBING
X ELECTRICAL	X ENERGY
☐ ACCESSIBILITY	☐ FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

GENERAL NOTES:

A. PROVIDE AND INSTALL A #2/0 AWG BARE COPPER GROUND RING BURIED NOT LESS THAN 30" BELOW THE EARTH'S SURFACE. CONNECT REBAR (GROUND RISERS) TO GROUND RING VIA #2/0 AWG BARE COPPER GROUND CABLE. CONNECT CT ENCLOSURE, AND GENERATOR TO THE GROUND RING WITH #2/0 AWG BARE COPPER GROUND CABLE. THE GROUND RING SHALL BE A MINIMUM OF 2 FEET FROM BUILDING FOUNDATION. REFER TO GROUNDING PLAN SYMBOLS ON DRAWING E-01.

B. DRAWING SHOWS TYPICAL LOCATIONS OF GROUNDING SYSTEM COMPONENTS.

C. DRAWING SHOWS APPROXIMATE LOCATIONS AND MINIMUM NUMBER OF RISERS GROUNDING CONNECTIONS TO BE INSTALLED.

D. SUPPORT ELECTRICAL CONDUITS ON SUPPORTS INDEPENDENT OF PIPING. SUPPORTING THE ELECTRICAL CONDUIT OFF PIPING WILL NOT BE ALLOWED. WHERE POSSIBLE ALL CONDUITS WILL BE EMBEDDED IN WALLS AND FLOOR OF BUILDING. CONDUITS TO EQUIPMENT IN CENTER OF ROOM WILL BE EMBEDDED IN FLOOR AND AVOID RUNNING ACROSS OPEN SPACES.

E. PROVIDE AND INSTALL INSULATED UNION AT ELECTRICAL CONDUIT CONNECTIONS TO VALVE ACTUATORS, SENSORS OR OTHER EQUIPMENT IN CONTACT WITH PIPING.

F. RECEPTACLES IN VAULT SHALL BE MOUNTED 48" ABOVE FINISHED FLOOR AND SHALL BE WEATHER PROOF GFCI.

G. ALL EXPOSED CONDUIT, BOXES, AND FITTINGS IN THE BUILDING SHALL BE GALVANIZED RIGID STEEL SUPPORTED ON ZINC COATED STRUT. CONDUIT EMBEDDED IN CONCRETE SHALL BE PVC CONDUIT, TRANSITIONS FROM EMBEDDED CONDUIT TO EXPOSED CONDUIT SHALL BE MADE WITH PVC WRAPPED GALVANIZED RIGID STEEL.

H. REFER TO POWER ONE-LINE DIAGRAM ON DRAWING E-06, PANEL SCHEDULE ON DRAWING E-07 AND CONTROL ONE-LINE DIAGRAM ON DRAWING E-08 FOR CONDUIT/CONDUCTOR QUANTITY AND SIZES.

KEY NOTES: (#)

1. PROVIDE AND INSTALL ELECTRIC UNIT HEATER WITH WALL MOUNTED THERMOSTAT. REFER TO POWER ONE-LINE DIAGRAM ON DRAWING E-06 FOR MORE INFORMATION.
2. PROVIDE AND INSTALL ALL CONDUIT AND CONDUCTORS TO THE MISSION CONTROL PANEL. REFER TO THE CONTROL ONE-LINE DIAGRAM FOR MORE INFORMATION. THE MISSION CONTROL PANEL AND PROGRAMMING WILL BE PROVIDED BY OTHERS.
3. MAGNETIC FLOW METER ELEMENT AND INTEGRAL MOUNTED TRANSMITTER. FE-30 AND FIT-30.
4. CONNECT GROUND RING TO CT ENCLOSURE AND GENERATOR. SEE GENERAL NOTE A.
5. PUMP CONTROL VALVE, WITH SOLENOID CONTROL SV-13 AND LIMIT SWITCHES ZSC-13 AND ZSO-13. THE SECOND LIMIT SWITCH SHALL BE CONNECTED TO THE RTU PANEL. REFER TO PUMP MOTOR SCHEMATIC FOR VALVE CONTROL INFORMATION. REFER TO CONTROL ONE-LINE DIAGRAM FOR CONDUIT AND CONDUCTOR INFORMATION.
6. PRESSURE INDICATING TRANSMITTER REFER TO CONTROL ONE-LINE DIAGRAM FOR MORE INFORMATION.
7. HIGH DISCHARGE PRESSURE SWITCH REFER TO CONTROL ONE-LINE DIAGRAM FOR MORE INFORMATION.
8. EXHAUST FAN CONTROL PANEL; STARTS EF-40 AND OPENS MOTOR OPERATED LOUVERS WHEN LIGHTS ARE TURNED ON. REFER TO DETAIL E 5106.
9. MOTOR OPERATED LOUVERS ARE POWERED CLOSED AND SPRING OPENED. LOUVERS OPEN WHEN THE GENERATOR IS RUNNING. REFER TO CONTROL ONE-LINE DIAGRAM.
10. SIMPLEX OUTLET FOR FUTURE DOSING PUMP CL-61, CONNECT POWER TO OUTLET THROUGH PANEL RTU-60. OUTLET WILL BE ENERGIZED WHEN THE WELL IS PUMPING WATER TO THE SYSTEM.
11. TEMPERATURE TRANSMITTER. REFER TO CONTROL ONE-LINE DIAGRAM FOR MORE INFORMATION.
12. DOOR OPEN ALARM SENSOR. REFER TO CONTROL ONE-LINE DIAGRAM FOR MORE INFORMATION.
13. EXHAUST FAN MANUAL MOTOR STARTER, REFER TO CONTROL ONE-LINE DIAGRAM FOR MORE INFORMATION.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — LICENSED — State of UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
WEBER COUNTY, UTAH
BLOOMINGTON WELL PROJECT

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART
DRAWN R. GARCIA
CHECKED D. YOUNGSTROM
APPROVED D. STEWART
REVIEW

ELECTRICAL
WELL PUMP STATION GROUNDING, POWER, & INSTRUMENTATION PLAN

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO. E-04
SHEET 38 OF 46

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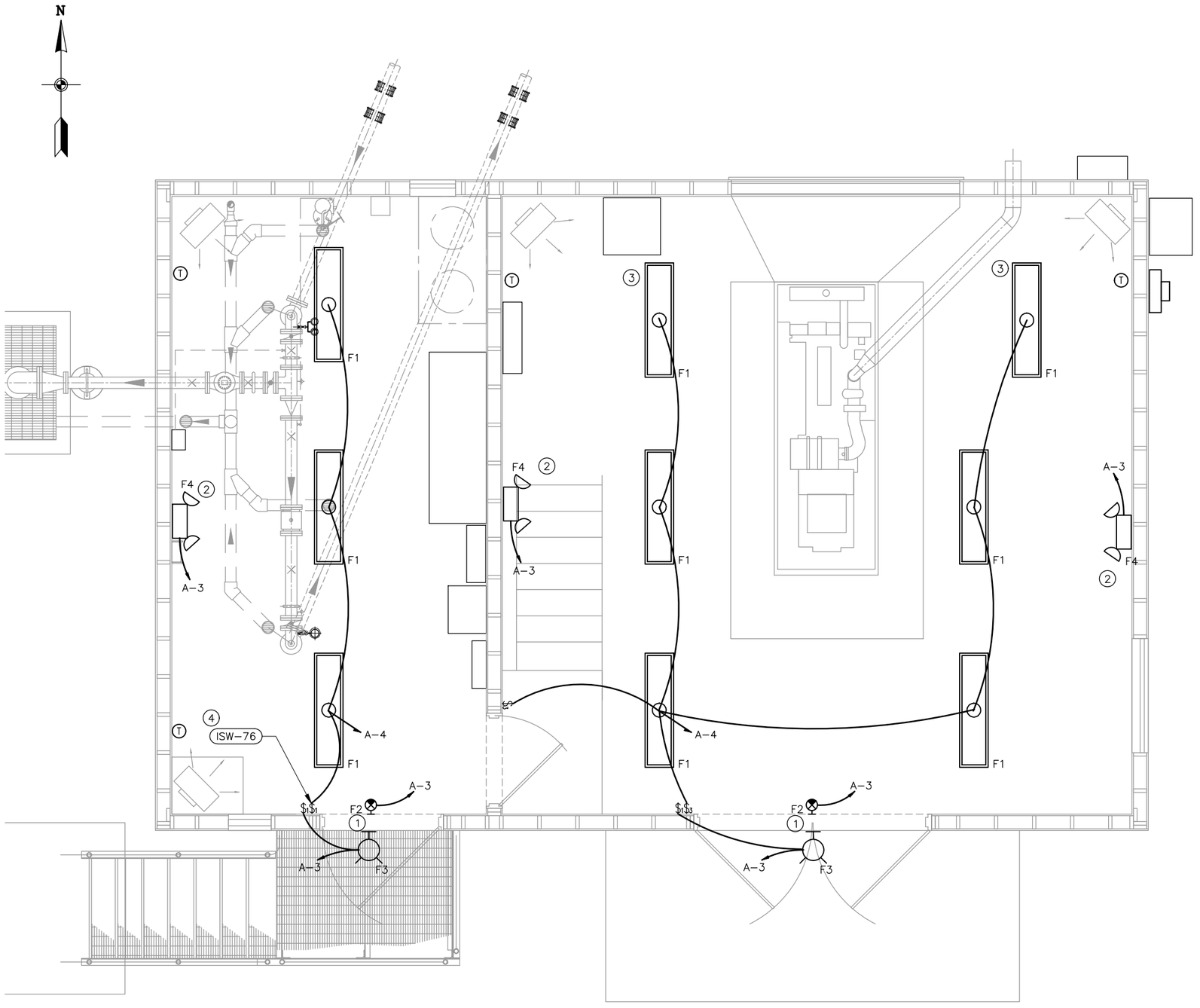

PLAN
SCALE: 1/2"=1'-0"

GENERAL NOTES:

A. REFER TO FIXTURE SCHEDULE ON DRAWING E-02 FOR FIXTURE INFORMATION.

B. REFER TO PANEL SCHEDULE ON DRAWING E-07 FOR CIRCUIT NUMBERS, CONDUIT/CONDUCTOR QUANTITY AND SIZES.

C. THE TYPE F1 FIXTURES SHALL BE INSTALLED WITH CHAIN AND SHALL BE LEVEL WITH FLOOR.

KEY NOTES: (#)

1. INSTALL WALL PACK AND EXIT SIGN FIXTURES APPROXIMATELY 6" ABOVE TOP OF DOOR.
2. INSTALL EMERGENCY LIGHT FIXTURES APPROXIMATELY 7' ABOVE FINISHED FLOOR.
3. COORDINATE FIXTURE INSTALLATION WITH MECHANICAL AND OTHER ELECTRICAL EQUIPMENT TO AVOID INTERFERENCE.
4. INFRARED AND DETECTION OF HUMAN ACTIVITY SENSING SWITCH TO TURN OFF LIGHTS AFTER A PRESET TIME DELAY WHEN THIS ROOM IS UNOCCUPIED. REFER TO INSTRUMENT LIST SPECIFICATION 40 75 01 TAG NUMBER ISW-76.

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

[X] BUILDING	[X] STRUCTURAL
[X] MECHANICAL	[X] PLUMBING
[X] ELECTRICAL	[X] ENERGY
[ ] ACCESSIBILITY	[ ] FIRE

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BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — LICENSED — DOUGLAS MAX STEWART — No. 173312 — STATE OF UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW
CHECKED D. YOUNGSTROM
APPROVED D. STEWART

DESIGN
DESIGN D. STEWART
DRAWN R. GARCIA

ELECTRICAL

WELL PUMP STATION LIGHTING PLAN

DATE: AUGUST 2018
PROJECT NUMBER 347-17-01

DRAWING NO.
E-05
SHEET 39 OF 46

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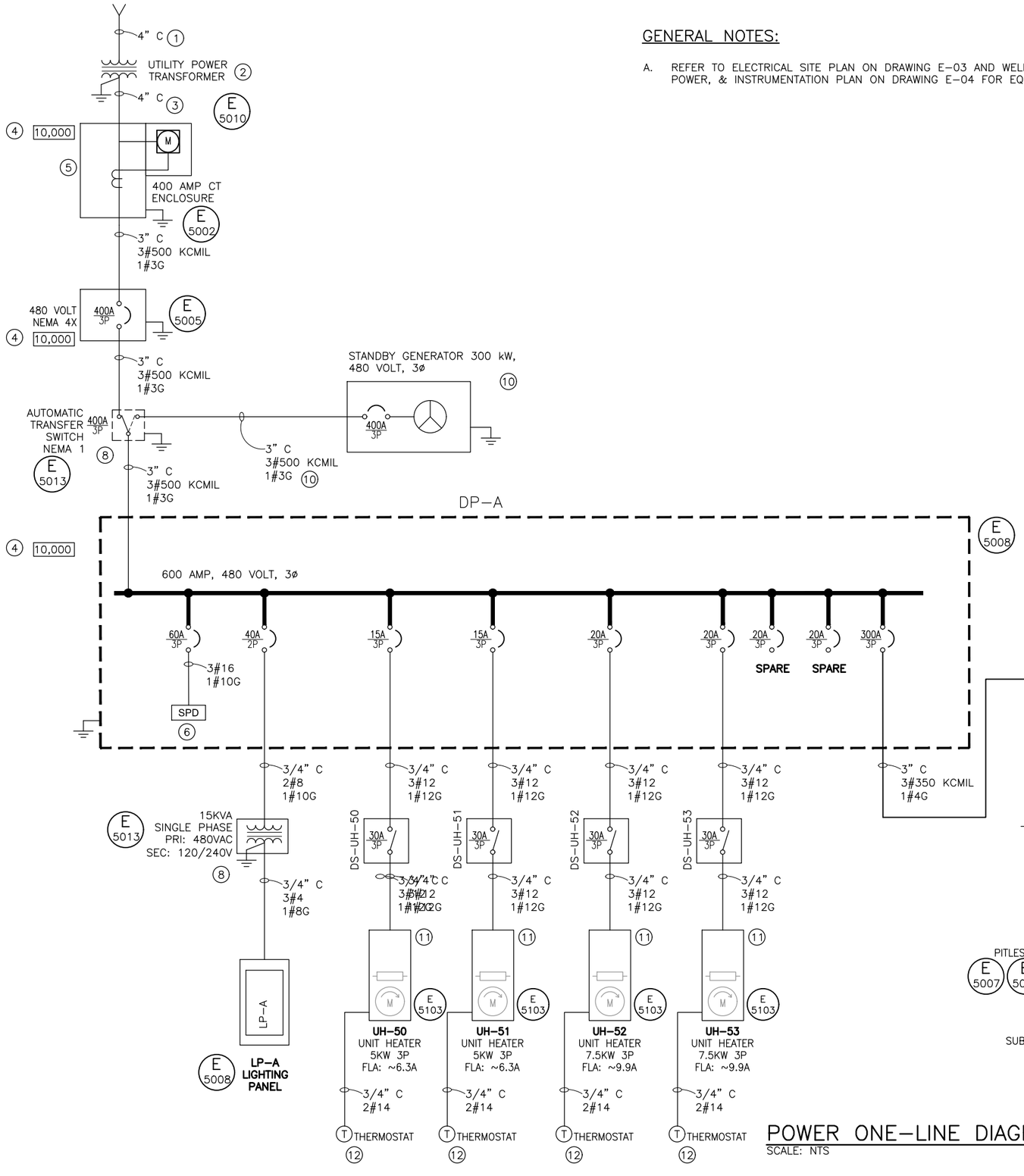

POWER ONE-LINE DIAGRAM

SCALE: NTS

GENERAL NOTES:

A. REFER TO ELECTRICAL SITE PLAN ON DRAWING E-03 AND WELL PUMP STATION GROUNDING, POWER, & INSTRUMENTATION PLAN ON DRAWING E-04 FOR EQUIPMENT LOCATIONS.

KEY NOTES: (#)

1. ROCKY MOUNTAIN POWER EXISTING POWER FEED.
2. ROCKY MOUNTAIN POWER EXISTING TRANSFORMER ON EXISTING VAULT. COORDINATE WITH ROCKY MOUNTAIN POWER TO PROVIDE AND INSTALL CONDUIT FROM EXISTING TRANSFORMER VAULT.
3. PROVIDE AND INSTALL CONDUIT FROM TRANSFORMER TO CT ENCLOSURE. REFER TO DRAWINGS E-03 AND E-04 FOR LOCATIONS. COORDINATE WITH ROCKY MOUNTAIN POWER FOR ACCESS TO TRANSFORMER VAULT AND OUTAGES AS REQUIRED. UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40, WITH MULE TAPE IN CONDUIT, UNDERGROUND ELBOWS SHALL BE FIBERGLASS. EXPOSED CONDUIT SHALL BE GALVANIZED RIGID STEEL, TRANSITION FROM BELOW GROUND TO ABOVE GROUND CONDUIT SHALL BE MADE WITH PVC WRAPPED GALVANIZED RIGID STEEL CONDUIT. CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH ROCKY MOUNTAIN POWER REQUIREMENTS. CONDUCTORS SHALL BE PROVIDED AND INSTALLED BY ROCKY MOUNTAIN POWER.
4. SHORT CIRCUIT CURRENT AVAILABLE IN AMPS. OVER CURRENT PROTECTIVE DEVICES SHALL BE RATED TO WITHSTAND AVAILABLE SHORT CIRCUIT CURRENT.
5. PROVIDE AND INSTALL CT ENCLOSURE AND METER BASE IN ACCORDANCE WITH ROCKY MOUNTAIN POWER REQUIREMENTS.
6. PROVIDE AND INSTALL A SURGE PROTECTIVE DEVICE. THE SPD SHALL BE RATED 240 KA PER PHASE AND 120 KA PER MODE, 3-WIRE, 3-PHASE 480 VOLTS. REFER TO SPECIFICATION FOR MORE INFORMATION.
7. HARMONIC FILTER FOR VFD, REFER TO SPECIFICATION FOR MORE INFORMATION.
8. PROVIDE AND INSTALL HOUSEKEEPING PAD FOR VFD, TRANSFORMER, AND AUTOMATIC TRANSFER SWITCH.
9. OUTPUT SIGN WAVE FILTER FOR THE VFD. SEE VFD SPECIFICATION.
10. PROVIDE AND INSTALL GENERATOR IN ACCORDANCE WITH SPECIFICATION. REFER TO PANEL SCHEDULE A AND CONTROL ONE-LINE DIAGRAM FOR ADDITIONAL CONDUIT AND CONDUCTOR INFORMATION.
11. PROVIDE AND INSTALL ELECTRIC UNIT HEATERS. REFER TO EQUIPMENT SCHEDULE ON DRAWING M-03 FOR MORE INFORMATION.
12. PROVIDE AND INSTALL WALL MOUNTED HEATING THERMOSTAT. SHALL BE CHROMALOX WCRT HEATING, WALL MOUNTED THERMOSTAT.

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
- [X] ENERGY
- [ ] FIRE

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BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — LICENSED — DOUGLAS MAX STEWART — No. 173312 — State of UTAH — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART — REVIEW CHECKED D. YOUNGSTROM — APPROVED D. STEWART — DRAWN D. STEWART

ELECTRICAL

POWER ONE-LINE DIAGRAM

DATE: AUGUST 2018 — PROJECT NUMBER 347-17-01

DRAWING NO. E-06

SHEET 40 OF 46

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

PANEL: A **VOLT:240/120** **AMP:100** **PHASE:1 WIRE:3**

LOCATION (ROOM #):	ELECT ROOM	NOTE:	- - -
MFG:	SEE SPECIFICATION	AIC RATING:	10,000
TYPE:	SURFACE MOUNT	GROUND BUS:	YES
TYPE OF MAIN:	80A M.C.B.	MOUNTING:	SURFACE
FEEDER:	SEE ONE-LINE	FED FROM:	SEE ONE-LINE

CIRCUIT DESCRIPTION	P L	BRK AMP	CKT NO	A	B	CKT NO	BRK AMP	P L	CIRCUIT DESCRIPTION
GENERATOR ROOM RECEPTACLES	1	20	1	900 540		2	20	1	MAIN ROOM RECEPTACLES
OUTSIDE LIGHTS, EMERGENCY LIGHT EXIT SIGNS	1	20	3		110 297	4	20	1	INSIDE LIGHTS
GNERATOR COOLANT HEATER	2	20	5	800 300		6	20	1	GENERATOR BATTERY CHARGER
-	*	**	7		800 200	8	20	2	LOUVERS IN GENERATOR ROOM (THROUGH GEN. CONT. PANEL)
EXHAUST FAN AND LOUVERS CONTROL PANEL LCP-40	1	20	9	300 300		10	20	1	FLOW METER FE/FIT-30
RTU PANEL RTU-60 (MISSION CONTROL PANEL)	1	20	11		300 0	12	15	1	FUTURE DOSING PUMP OUTLET (CONNECTED THROUGH RTU)
TURBIDITY METER AE/AIT-68	1	20	13	300 0		14	20	1	SPARE
SPARE	1	20	15		0 0	16	20	1	SPARE
SPARE	1	20	17	0 0		18	20	1	SPARE
SPARE	1	20	19		0 0	20	20	1	SPARE
SPARE	1	20	21	0 0		22	20	1	SPARE
SPARE	1	20	23		0 0	24	20	1	SPARE
SPACE	1	20	25	0 0		26	20	1	SPACE
SPACE	1	20	27		0 0	28	20	1	SPACE
SPACE	1	20	29	0 0		30	20	1	SPACE
PHASE TOTALS				**3440**	**1707**				
TOTAL WATTS				**5147**					
TOTAL AMPS				**25**					2/19/19

GENERAL NOTES:

A. THE MINIMUM SIZE POWER CONDUCTORS SHALL BE #12 AWG. THE MINIMUM SIZE CONDUIT SHALL BE 3/4". CONTRACTOR TO SIZE ALL OTHER CONDUIT AND CONDUCTORS TO MEET OR EXCEED CURRENT NATIONAL ELECTRICAL CODE (NEC) REQUIREMENTS.

B. FOR EQUIPMENT LOCATIONS REFER TO THE WELL PUMP STATION POWER GROUNDING & INSTRUMENTATION PLAN ON DRAWING E-04.

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
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- [ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY: MEM DATE: 08/14/19

WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — LICENSED — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART
DRAWN D. STEWART
REVIEW CHECKED D. YOUNGSTROM APPROVED D. STEWART

ELECTRICAL

PANEL SCHEDULE LP-A

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. E-07
SHEET 41 OF 46

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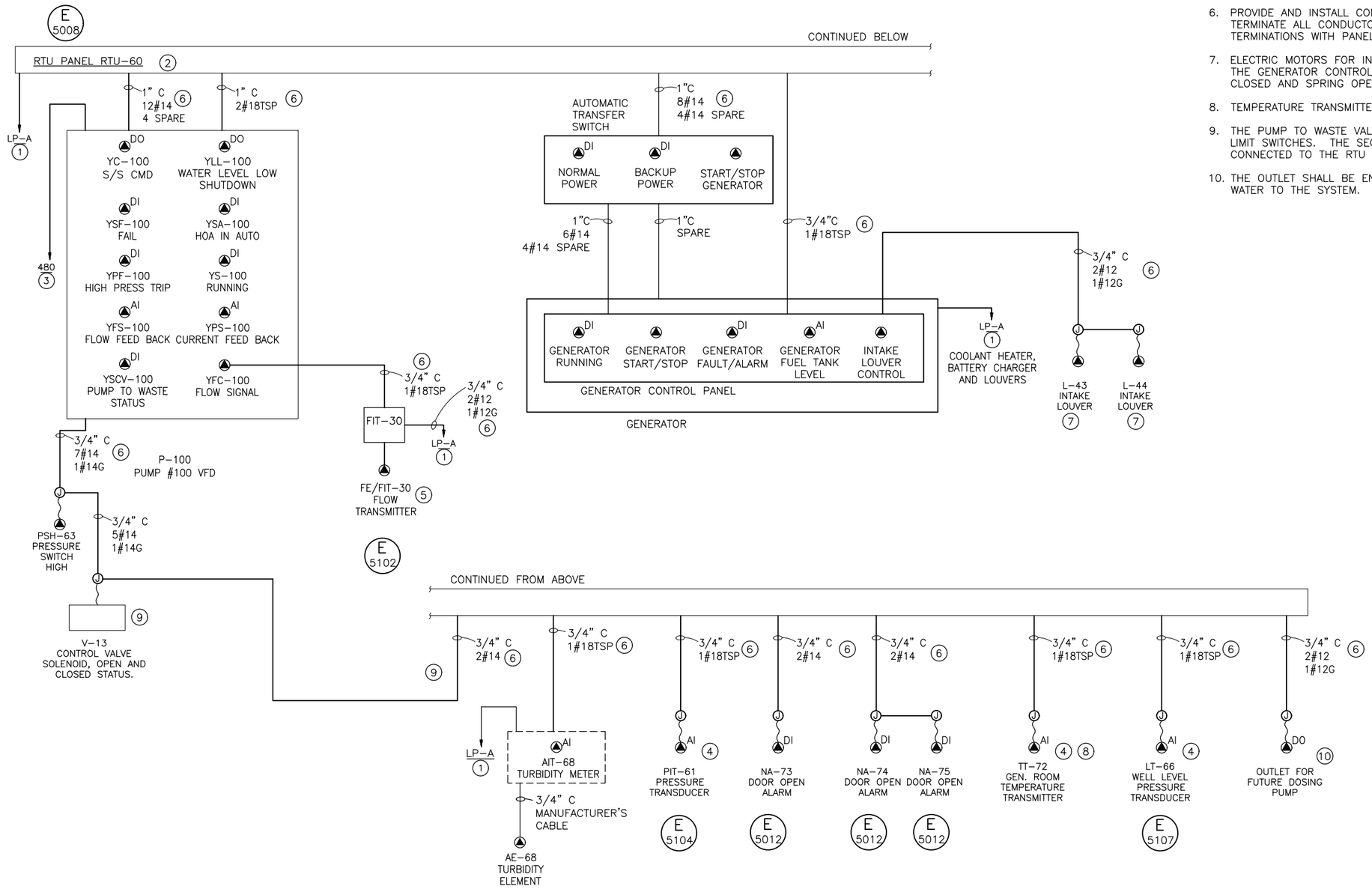
GENERAL NOTES:

A. FOR EQUIPMENT LOCATIONS REFER TO WELL PUMP STATION GROUNDING, POWER, & INSTRUMENTATION PLAN ON DRAWING E–04.

B. REFER TO THE POWER ONE LINE DIAGRAM ON DRAWING E–06 FOR EQUIPMENT INFORMATION AND CONDUIT/CONDUCTOR SIZES. REFER TO THE PANEL SCHEDULE A ON DRAWING E–07 FOR CONDUIT/CONDUIT SIZES AND CIRCUIT NUMBERS.

KEY NOTES: (#)

1. REFER TO PANEL SCHEDULE A FOR CIRCUIT NUMBER, CONDUIT AND CONDUCTOR SIZES.
2. RTU PANEL INSTALLED BY CONTRACTOR PROVIDED AND PROGRAMMED BY OTHERS.
3. REFER TO POWER ONE–LINE DIAGRAM FOR 480 VOLT POWER FEED TO VFD.
4. 24VDC LOOP POWERED INSTRUMENT.
5. FLOW METER WITH INTEGRAL MOUNTED TRANSMITTER.
6. PROVIDE AND INSTALL CONDUITS AND CONDUCTORS AND TERMINATE ALL CONDUCTORS AT BOTH ENDS. COORDINATE TERMINATIONS WITH PANEL PROVIDER.
7. ELECTRIC MOTORS FOR INTAKE LOUVERS ARE CONTROLLED BY THE GENERATOR CONTROL PANEL. THE LOUVERS ARE POWERED CLOSED AND SPRING OPEN.
8. TEMPERATURE TRANSMITTER SHALL BE OMEGA EWS–TX.
9. THE PUMP TO WASTE VALVE SHALL BE PROVIDED WITH TWO LIMIT SWITCHES. THE SECOND LIMIT SWITCH SHALL BE CONNECTED TO THE RTU PANEL.
10. THE OUTLET SHALL BE ENERGIZED WHEN THE WELL IS PUMPING WATER TO THE SYSTEM.



CONTROL BLOCK DIAGRAM

PLAN REVIEW ACCEPTANCE
FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.
☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.
BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER LICENSED DOUGLAS MAX STEWART No. 173312 STATE OF UTAH 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION
			REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW CHECKED D. YOUNGSTROM APPROVED D. STEWART
DESIGN D. STEWART DESIGN
DRAWN D. STEWART DRAWN

ELECTRICAL
CONTROL ONE–LINE DIAGRAM
PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

DRAWING NO. E–08
SHEET 42 OF 46

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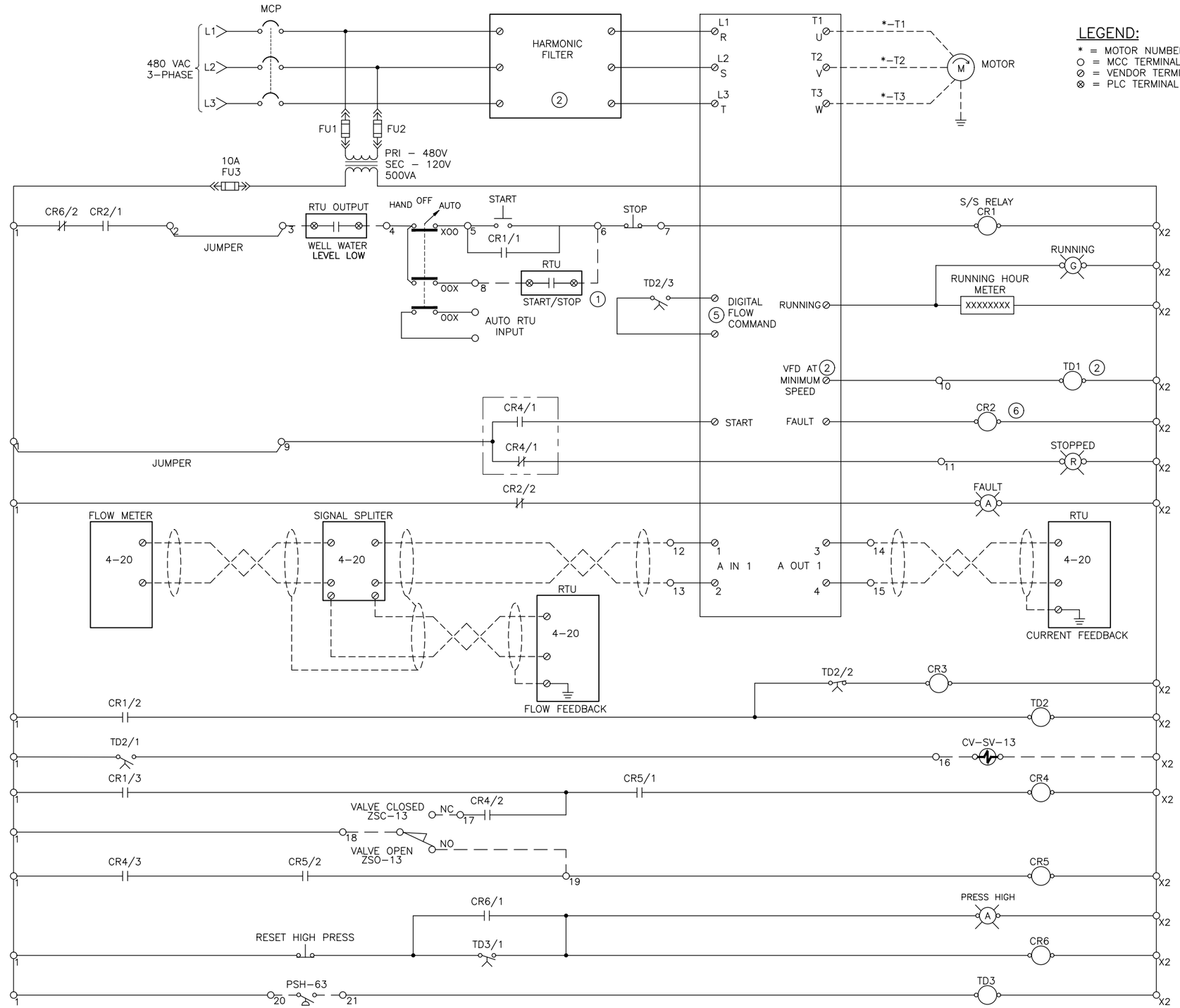

LEGEND:

* = MOTOR NUMBER
○ = MCC TERMINAL
⊘ = VENDOR TERMINAL
⊗ = PLC TERMINAL

GENERAL NOTES:

A. THIS IS A GENERIC WIRING DIAGRAM FOR THE VARIABLE FREQUENCY DRIVE.

B. VFD KEYPAD SHALL BE ACCESSIBLE ON FRONT DOOR OF VFD ENCLOSURE.

C. CONTROL START SEQUENCE:
1. CONTROL VALVE IS OPEN AND PUMP IS NOT RUNNING.
2. START COMMAND ENERGIZES CR1, TD1, CR4, AND STARTS THE VFD. THE WELL IS NOW PUMPING TO BYPASS.
3. AFTER TD1 TIMES OUT IT ENERGIZES THE PUMP CONTROL VALVE SOLENOID, WHICH CLOSES THE VALVE AND IT STOPS PUMPING TO BYPASS. THE WELL IS NOW PUMPING WATER TO THE SYSTEM.

E. CONTROL STOP SEQUENCE:
1. PUMP IS RUNNING AND WATER IS PUMPING TO SYSTEM.
2. STOP COMMAND DE-ENERGIZES CR1, AND TD1. THE PUMP CONTROL VALVE SOLENOID DE-ENERGIZES, THE CONTROL VALVE OPENS TO BYPASS.
3. WHEN PUMP CONTROL VALVE IS FULL OPEN; CR4 DE-ENERGIZES AND THE VFD STOPS.

KEY NOTES: (#)

1. WITH SELECTOR SWITCH IN AUTO THE RTU OUTPUT CAN START MOTOR BASED ON TANK LEVEL OR AT ANY DISPLAY SCREEN.

2. WHEN TD1 ENERGIZES IT ENERGIZES A CONTACTOR WIRED TO TURN ON THE CAPACITORS IN THE HARMONIC FILTER. WHEN THE VFD IS NOT RUNNING AT MINIMUM SPEED THE CAPACITORS ARE OFF. RELAY IS DELAY ON 0 TO 2 MINUTES. REFER TO SPECIFICATION FOR MORE INFORMATION.

3. PUMP TO WASTE STATUS, SENDS SIGNAL TO RTU AT STARTUP, PUMP IS RUNNING AND CONTROL VALVE IS OPEN TO WASTE.

4. THE RELAY CR5 IS AN INTERLOCK RELAY TO PREVENT STARTING MOTOR IF THE PUMP TO WASTE VALVE IS CLOSED.

5. RTU COMMANDS THE VFD TO SET THE FLOW AT A SAFE VALUE WHEN THE WATER IS FLOWING TO WASTE.

6. RELAY CR2 IS DE-ENERGIZED WHEN THE VFD HAS A FAULT..

PLAN REVIEW ACCEPTANCE
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☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE
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BY: MEM DATE: 08/14/19
WEST COAST CODE CONSULTANTS, INC.

PUMP CONTROL SCHEMATIC

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — LICENSED — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

SUMMIT MOUNTAIN HOLDING GROUP
BLOOMINGTON WELL PROJECT
WEBER COUNTY, UTAH

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW
CHECKED D. YOUNGSTROM
APPROVED D. STEWART

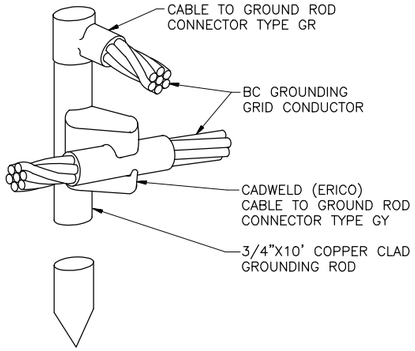
DESIGN D. STEWART
DRAWN D. STEWART

ELECTRICAL

PUMP CONTROL SCHEMATIC

PROJECT NUMBER 347-17-01
DATE: AUGUST 2018

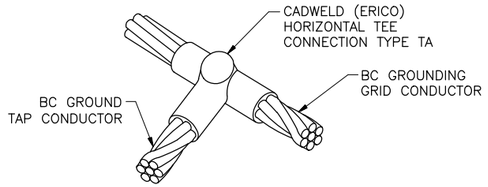
DRAWING NO. E-09
SHEET 43 OF 46



GROUND ROD CONNECTION DETAIL

SCALE: NTS

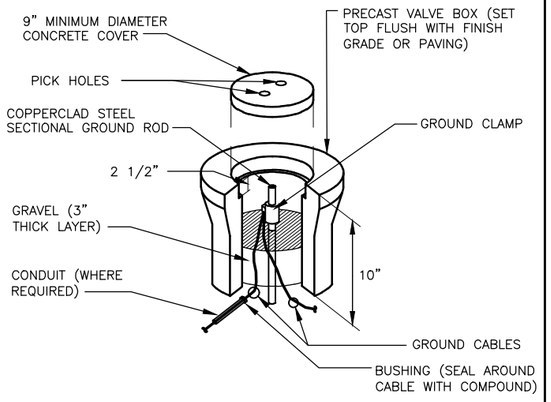
E 5001



GROUND TAP DETAIL

SCALE: NTS

E 5002



GROUND ROD AND WELL

SCALE: NTS

E 5003

NOT USED

SCALE: NTS

E 5004

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

- [X] BUILDING
- [X] MECHANICAL
- [X] ELECTRICAL
- [ ] ACCESSIBILITY
- [X] STRUCTURAL
- [X] PLUMBING
- [X] ENERGY
- [ ] FIRE

PLAN REVIEW ACCEPTANCE OF DOCUMENTS DOES NOT AUTHORIZE CONSTRUCTION TO PROCEED IN VIOLATION OF ANY FEDERAL, STATE, OR LOCAL REGULATIONS.

BY MEM DATE 08/14/19

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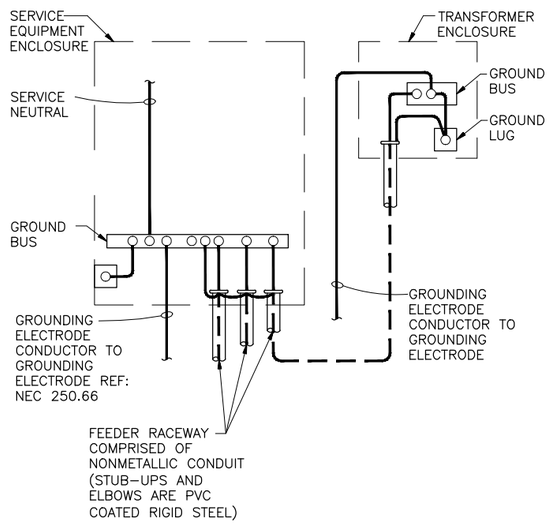


SERVICE AND EQUIPMENT GROUNDING DETAIL

SCALE: NTS

E 5005

NOT USED

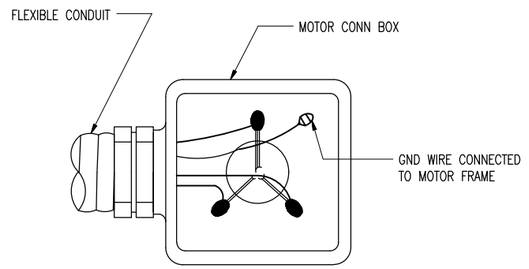
SCALE: NTS

E 5006

NOTES:

1. LUGGED AND BOLTED, INSULATED WITH 1/2 LAPPED LAYER OF VARNISHED CAMBRIC TAPE AND TWO 1/2 LAPPED LAYERS OF VINYL PLASTIC ELECTRICIANS TAPE WITH IRREGULAR SURFACES PADDED PER SPEC.

   (TYPICAL FOR NON STAR-DELTA STARTED MOTORS)



MAKEUP AT MOTOR DETAIL

SCALE: NTS

E 5007

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — STATE OF UTAH — 08-22-2018

NO.	DATE	REVISIONS DESCRIPTION	REV. BY

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN: D. STEWART — REVIEW: CHECKED D. YOUNGSTROM — APPROVED D. STEWART — DRAWN D. STEWART

ELECTRICAL

GENERAL ELECTRICAL DETAILS - 1

PROJECT NUMBER 347-17-01

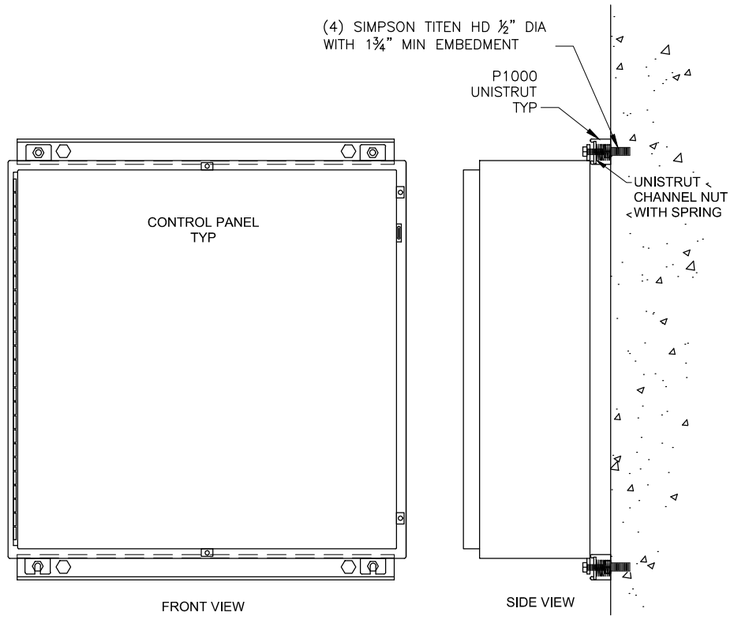
DATE: AUGUST 2018

DRAWING NO. GE-01

SHEET 44 OF 46

GENERAL NOTES

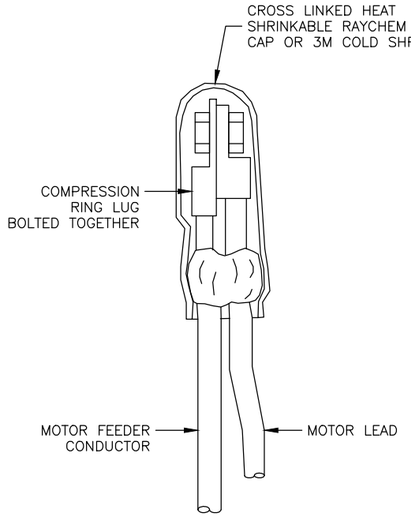
1. MOUNT PANEL OR INDICATING TRANSMITTER AT ABOUT 4' TO 5' ABOVE FINISHED FLOOR UNLESS OTHERWISE SPECIFIED IN DRAWINGS.
2. ANCHORAGE BASED ON HOLLOW CMU AND 500 LBS MAXIMUM WEIGHT OF CABINET.
3. FASTEN CABINET TO UNISTRUT WITH MIN (4) ⅜" DIA BOLTS AND CHANNEL NUTS.



TYPICAL PANEL MOUNTING DETAIL ON WALL

SCALE: NTS

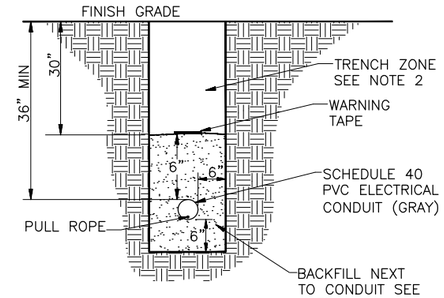
E 5008



TYPICAL MOTOR LEAD TERMINATION

SCALE: NTS

E 5009



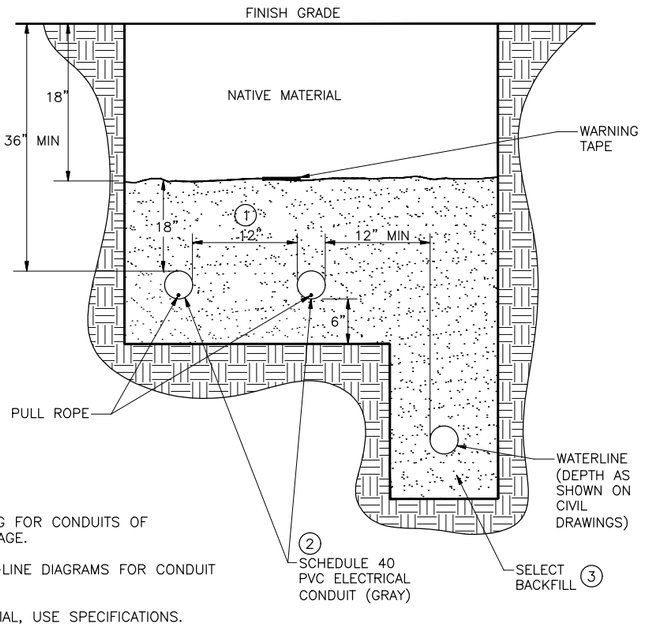
NOTES:

1. BACKFILL MATERIAL SHALL BE TYPE B, OR C COMPACTED TO 95% PER ASTM D 1557. SEE SPECIFICATION 31 23 00.
2. NATIVE MATERIAL MEETING SPECIFICATION 31 23 00 FOR SUITABLE MATERIAL MAY BE USED FOR TRENCH ZONE BACKFILL IN UNIMPROVED AREAS, COMPACT TO 85%.
3. FOR MORE THAN ONE CONDUIT IN TRENCH ALLOW 6 INCHES BETWEEN CONDUITS.
4. REFER TO POWER ONE-LINE DIAGRAM FOR CONDUIT SIZES.

ROCKY MOUNTAIN POWER CONDUIT TRENCH DETAIL

SCALE: NTS

E 5010



NOTES:

1. TYPICAL SPACING FOR CONDUITS OF DIFFERENT VOLTAGE.
2. REFER TO ONE-LINE DIAGRAMS FOR CONDUIT SIZE.
3. BACKFILL MATERIAL, USE SPECIFICATIONS.

CONDUIT TRENCH DETAIL

SCALE: NTS

E 5011

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

☒ BUILDING ☒ STRUCTURAL
☒ MECHANICAL ☒ PLUMBING
☒ ELECTRICAL ☒ ENERGY
☐ ACCESSIBILITY ☐ FIRE

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BY: MEM DATE: 08/14/19

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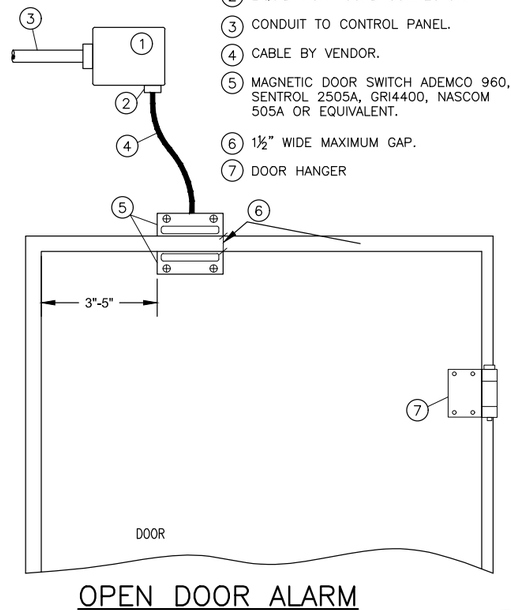
NOTES:

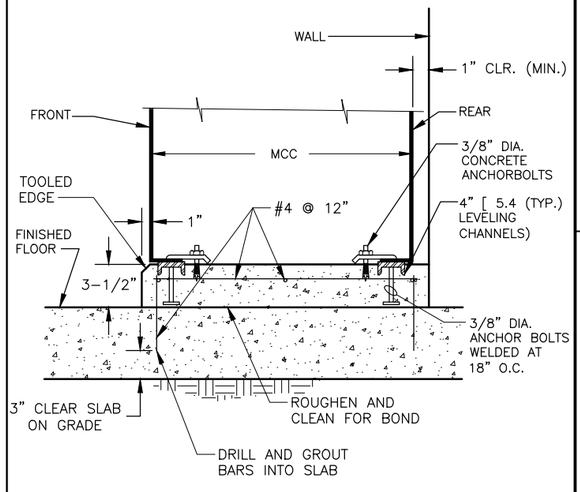
1. JUNCTION BOX.
2. LIQUID TIGHT CORD CONNECTOR.
3. CONDUIT TO CONTROL PANEL.
4. CABLE BY VENDOR.
5. MAGNETIC DOOR SWITCH ADEMCO 960, SENTROL 2505A, GRI4400, NASCOM 505A OR EQUIVALENT.
6. 1½" WIDE MAXIMUM GAP.
7. DOOR HANGER



OPEN DOOR ALARM INSTALLATION DETAIL

SCALE: NTS

E 5012



HOUSEKEEPING PAD

SCALE: NTS

E 5013

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PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — STATE OF UTAH — LICENSED — 08-22-2018

NO.	DATE	REV. BY	DESCRIPTION

REVISIONS

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

VERIFY SCALE — BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN D. STEWART | REVIEW CHECKED G. LOSCHER | DRAWN D. STEWART | APPROVED D. STEWART

D. YOUNGSTROM

GENERAL ELECTRICAL DETAILS - 2

PROJECT NUMBER 347-17-01

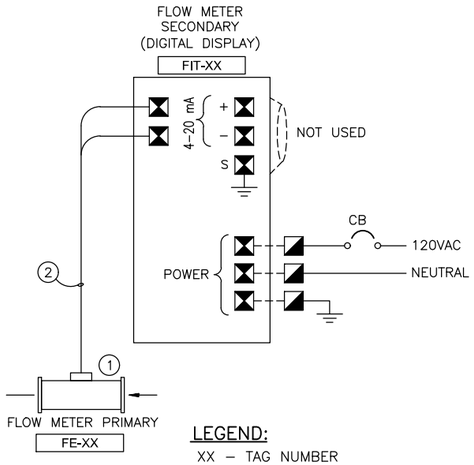
DATE: AUGUST 2018

DRAWING NO. GE-02

SHEET 45 OF 46

NOTES:

1. GROUND FLOW METER PRIMARY AS REQUIRED BY MANUFACTURERS.
2. CABLE NOT REQUIRED, FLOW METER SECONDARY SHALL BE MOUNTED ON FLOW METER PRIMARY.



LEGEND:

XX – TAG NUMBER

CP – CONTROL PANEL TERMINALS

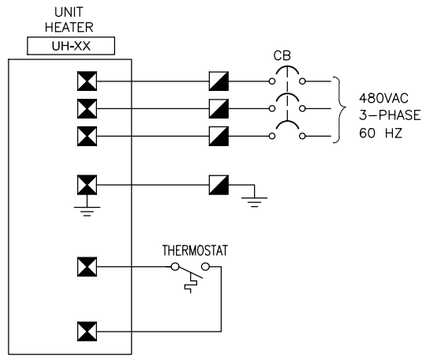
– POWER PANEL TERMINALS

– FLOW METER DISPLAY TERMINALS

TYPICAL FLOW METER SCHEMATIC

SCALE: NTS

E 5102



LEGEND:

XX – TAG NUMBER

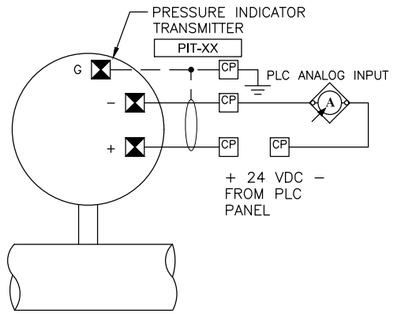
– MCC TERMINALS

– UNIT HEATER TERMINALS

TYPICAL UNIT HEATER CONNECTION DIAGRAM

SCALE: NTS

E 5103



LEGEND:

XX – TAG NUMBER

CP – CONTROL PANEL TERMINALS

– PRESSURE TRANSMITTER TERMINALS

PRESSURE TRANSMITTER SCHEMATIC

SCALE: NTS

E 5104

NOT USED

SCALE: NTS

E 5105

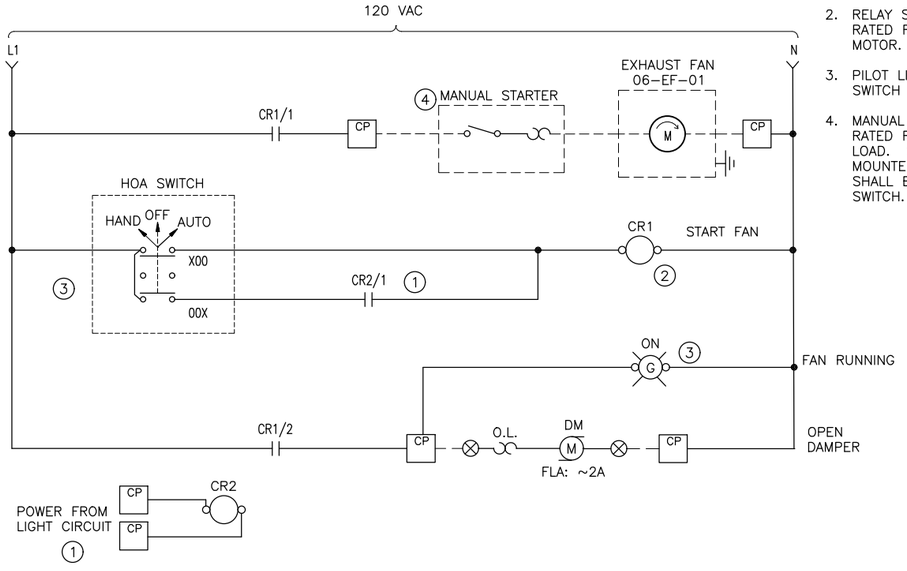
LEGEND:

CP STARTER PANEL TERMINALS

EXTERNAL CONNECTION

KEY NOTES: (#)

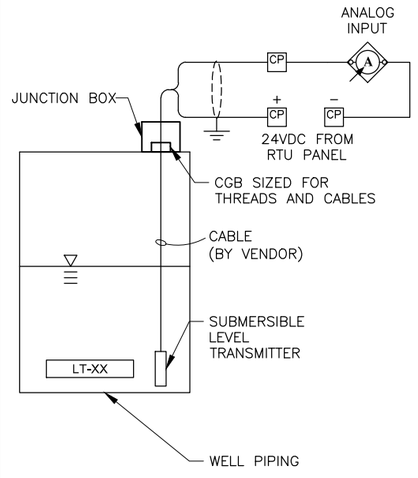
1. PUMP ROOM EXHAUST FAN WILL START WHEN LIGHTS ARE ON. WHEN SELECTOR SWITCH IS IN AUTO POSITION.
2. RELAY SHALL BE HORSEPOWER RATED FOR SPECIFIC VENT FAN MOTOR.
3. PILOT LIGHT AND SELECTOR SWITCH MOUNTED ON DOOR.
4. MANUAL STARTER SHALL BE RATED FOR THE EXHAUST FAN LOAD. STARTER SHALL BE MOUNTED NEAR THE FAN AND SHALL BE THE FAN DISCONNECT SWITCH.



CONTROL PANEL LCP–40

SCALE: NTS

E 5106



LEGEND:

XX – TAG NUMBER

CP – CONTROL PANEL TERMINALS

TYPICAL SUBMERSIBLE LEVEL TRANSDUCER

SCALE: NTS

E 5107

NOT USED

SCALE: NTS

E 5108

PLAN REVIEW ACCEPTANCE

FOR COMPLIANCE WITH THE APPLICABLE CONSTRUCTION CODES IDENTIFIED BELOW.

X BUILDING	X STRUCTURAL
X MECHANICAL	X PLUMBING
X ELECTRICAL	X ENERGY
☐ ACCESSIBILITY	☐ FIRE

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BY: MEM DATE: 08/14/19

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PROFESSIONAL ENGINEER — DOUGLAS MAX STEWART — No. 173312 — LICENSED — STATE OF UTAH — 08-22-2018

REVISIONS

NO.	DATE	REV. BY	DESCRIPTION

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING

SUMMIT MOUNTAIN HOLDING GROUP

BLOOMINGTON WELL PROJECT

WEBER COUNTY, UTAH

REVIEW — CHECKED D. YOUNGSTROM — APPROVED D. STEWART

DESIGN D. STEWART — DRAWN D. STEWART

ELECTRICAL

GENERAL ELECTRICAL DETAILS–3

PROJECT NUMBER 347-17-01

DATE: AUGUST 2018

DRAWING NO. GE–03

SHEET 46 OF 46

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