

HAYDEN 2
40.52006°N
107.29707°W

County Road 76
Scenic Dr
Homesteader Ln
CR-76A

76A 79 74

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SITE NAME: HAYDEN 2
SITE NUMBER: SV383-05
CO09874-A

DESCRIPTION: COLO
140' SELF SUPPORT TOWER



LOCATION:
40.520863, -107.297072

ADJ. ADDRESS:
6985 HOMESTEADER LANE
HAYDEN, CO 91639
ROUTT COUNTY

HAYDEN 2

SV383-05

[illegible]

PROJECT:
HARRIS-SELF SUPPORT

DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

TITLE SHEET

T-1

PROPERTY OWNER: Mountain Comm & Electronics, Inc.
TYRONE THOMPSON
(P) 970-376-7373

APPLICATION: L3L3HARRIS
JOE OZDYCH
(E) joseph.ozdych@l3l3harris.com
(P) 703-463-1169

REAL ESTATE: P. MARSHALL & ASSOCIATES
3545 WHITEHALL PARK DR. #450
CHARLOTTE, NC 28273
MITCH DIXON
(E) mdixon@pmass.com
(P) 704-975-6168

ENGINEERING: P. MARSHALL & ASSOCIATES
3545 WHITEHALL PARK DRIVE SUITE 450
CHARLOTTE, NORTH CAROLINA 28273
TREVOR MCALLISTER
(E) tmcallister@pmass.com
(P) 478-542-3291

SCOPE OF WORK

THE PROPOSED PROJECT SCOPE WILL CONSIST OF CONSTRUCTING A NEW TELECOMMUNICATIONS BASE STATION INSTALLATION ON AN EXISTING TOWER SITE. THE PROPOSED CONSTRUCTION WILL INCLUDE THE INSTALLATION OF ANTENNAS, RADIOS, CABLES AND RELATED EQUIPMENT ON THE TOWER AS WELL AS THE RADIOS, CABINETS, UTILITIES AND ANCILLARY EQUIPMENT ON THE GROUND.

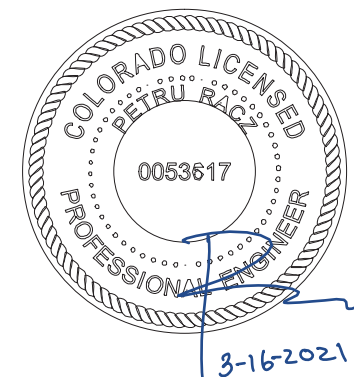
CODES

ALL CONSTRUCTION SPECIFIED ON DOCUMENTS SUBMITTED FOR BUILDING PERMIT SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING & ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES :

- 2018 IBC
- 2018 IFC
- 2018 IMC
- 2018 IPC
- 2018 IECC
- TIA-222-G

SITE ADDRESS:	6985 HOMESTEADER LANE HAYDEN, CO 91639 ROUTT COUNTY	JURISDICTION:	ROUTT COUNTY
		PARCEL ID:	929314004
		ZONING:	AF
<u>SITE INFO:</u>		ACREAGE:	1.41 ACRES
CARRIER	L3HARRIS GROUP	(E) IMPERVIOUS:	582 SQFT. (0.94758%)
TENANT	SV383-05	(P) IMPERVIOUS:	34+582 SQFT. (1.00294%)
TENANT ID/NAME	HAYDEN 2	COMPOUND SIZE:	2921 SQFT.
PROJECT NAME	CO WAM	UTILITIES:	
SITE LATITUDE(NAD83):	40° 31' 15.4668" (40.520863)	POWER COMPANY:	HOLY CROSS ENERGY
SITE LONGITUDE(NAD83):	107° 17' 49.4592" (-107.297072)	FIBER COMPANY:	CENTURY LINK
GND ELEVATION (NAVD88):	7,292' AMSL (NAVD 88)		
TOWER HGHT (AGL.)	140'		

T-1	TITLE SHEET	E-4	GROUNDING PLAN
T-2	GENERAL NOTES	E-5	ELECTRICAL DETAILS
C-1	OVERALL SITE PLAN	E-6	ELECTRICAL DETAILS
C-1A	SITE PLAN	E-7	ELECTRICAL DETAILS
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C-4	PROPOSED ANTENNA PLAN		
C-5	ANTENNA MOUNT DETAILS		
C-6	EQUIPMENT SCHEMATICS		
C-7	CABINET DETAILS		
C-8	SLAB DETAILS		
C-9	HVAC DETAILS		
C-10	DETAILS		
C-11	GRADING NOTES & DETAILS		
C-12	GRADING NOTES & DETAILS		
E-1	ELECTRICAL NOTES		
E-2	ELECTRICAL SITE PLAN		
E-3	ONE-LINE DIAGRAM		



A circular prohibition sign with a diagonal slash. Inside the circle are icons for an open flame, a lit match, and a lit lighter, indicating that open flames or heat are prohibited.

CALL BEFORE
YOU DIG
COLORADO
ONE-CALL 811

<http://www.colorado811.com/>

GENERAL NOTES

1. THE GENERAL CONTRACTOR MUST VERIFY ALL EXISTING & PROPOSED DIMENSIONS, CONDITIONS, AND ELEVATIONS BEFORE STARTING WORK. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
2. IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC., IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL ORDINANCES, TO SAFELY EXECUTE ALL WORK AND SHALL BE RESPONSIBLE FOR SAME. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
3. THE CONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE 3. COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
4. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND PRIME CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
5. SITE GROUNDING SHALL COMPLY WITH ENERGY GROUNDING STANDARDS, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT, THEY 5. SHALL GOVERN. GROUNDING SHALL BE COMPLETED BEFORE ERECTION OF A NEW TOWER.
6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION, AND UTILITIES 6. SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION. IF TEMPORARY LIGHTING AND MARKING IS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION (FAA), IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE NECESSARY LIGHTS AND NOTIFY THE PROPER AUTHORITIES IN THE EVENT OF A PROBLEM.
7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES OR ORDINANCES. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
8. THE CONTRACTOR SHALL RESTORE ALL PROPERTY TO IT'S PRE-CONSTRUCTION CONDITIONS TO THE OWNER'S SATISFACTION. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS TO PROTECT ALL EXISTING PROPERTY LINE MONUMENTATION, STRUCTURES, UTILITIES. ANY DAMAGE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR OR ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO SCHEDULE THE REQUIRED INSPECTIONS. A MINIMUM OF 24 9. HOURS OF NOTICE SHOULD BE GIVEN THE BUILDING INSPECTION DEPARTMENTS HAVE REQUESTED THAT GROUPS OF TWO OR THREE SITES BE SCHEDULED AT ONE TIME IF POSSIBLE.

GENERAL NOTES

10. THE COMPLETE BID PACKAGE INCLUDES THESE CONSTRUCTION DRAWINGS ALONG WITH THE SPECIFICATIONS AND TOWER DRAWINGS/ANALYSIS. CONTRACTOR IS 10. RESPONSIBLE FOR REVIEW OF THE TOTAL BID PACKAGE PRIOR TO BID SUBMITTAL. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL DRAWGINS & SPECIFICATIONS AND TO COORDINATE HIS WORK WITH THE WORK OF ALL OTHER TO ENSURE THAT WORK PROGRESSION IS INTERRUPTED AND DOES NOT INTERRUPT THE PROPERTY OWNER'S OPERATIONS AT ANY TIME.
11. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION. ALL CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY COMPANY PRIOR TO EACH CONNECTION.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE 12. DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
13. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE KEPT TO A MINIMUM. ONLY THE TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED. ANY DAMAGE TO PROPERTY OUTSIDE THE LEASED PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR.
14. ALL SUITABLE BORROW MATERIAL FOR BACKFILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
15. SEEDING AND MULCHING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE SITE DEVELOPMENT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING AN ADEQUATE COVER OF VEGETATION OVER THE SITE FOR A ONE YEAR PERIOD.
16. RECORD DRAWINGS: MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS, ETC., BETWEEN THE WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DRAWINGS WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT.
17. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED LICENSES, FEES, INSPECTIONS, ETC. BUILDING PERMITS WILL BE OBTAINED BY CONTRACTOR & PAID FOR BY THE COUNTY.
18. CONTRACTOR SHALL KEEP THE PROJECT SITE FREE FROM ACCUMULATION OF WASTE MATERIALS & RUBBISH AT ALL TIMES DURING CONSTRUCTION PERIOD & SHALL REMOVE. ALL WASTE MATERIALS & RUBBISH FROM PROJECT SITE AT THE COMPLETION OF WORK, EXCEPT THOSE SPECIFICALLY REQUIRED BY THE CONTRACT DOCUMENTS TO BE LEFT FOR THE OWNER'S MAINTENANCE. CONSTRUCTION WASTE MAY NEITHER BE BURNED NOR BURIED AND MUST BE TAKEN TO AN APPROVED LANDFILL AT CONTRACTOR EXPENSE.
19. SECURITY TO THE SITE SHALL BE MAINTAINED AT ALL TIMES.
20. CONTRACTOR IS RESPONSIBLE FOR THE CONDITION OF THE ALL CABINETS AND /OR SHELTER DURING AND AFTER CONSTRUCTION. CABINETS AND /OR SHELTERS SHALL NOT BE USED FOR STORAGE OF TOOLS. CONSTRUCTION MATERIAL OR EQUIPMENT. CONTRACTOR SHALL ENSURE THE CABINETS AND /OR SHELTERS IS CLEANED AT THE CONCLUSION OF CONSTRUCTION. SHELTER FLOORS SHALL BE CLEANED, WAXED AND BUFFED TO SHINE.

ABBREVIATION KEY

&	AND
AMSL	AVERAGE ABOVE MEAN SEALEVEL
BTM.	BOTTOM
€	CENTERLINE
CONC.	CONCRETE
CONT.	CONTINOUS
C.J.	CONTROL JOINT
DIA.	DIAMETER
(E)	EXISTING
EL.	ELEVATION
E.S.	EACH SIDE
E.W.	EACH WAY
FFI	FLANGE FACING INSIDE
FFO	FLANGE FACING OUTSIDE
FT.	FEET
F.V.	FIELD VERIFY
GALV.	GALVANIZED
HORIZ.	HORIZONTAL
IN.	INCH
LFP	LEG FACING OUTSIDE
LLVD	LONG LEG VERTICAL DOWN
LLVU	LONG LEG VERTICAL UP
MAX.	MAXIMUM
MFR.	MANUFACTURER
MIN.	MINIMUM
MPH	MILES PER HOUR
O.C.	ON CENTER
(P)	PROPOSED
REINF.	REINFORCE
REQ'D	REQUIRED
SIM.	SIMILAR
STD.	STANDARD
STL.	STEEL
TYP.	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
VLD	VERTICAL LEG DOWN
VLU	VERTICAL LEG UP
W/	WITH



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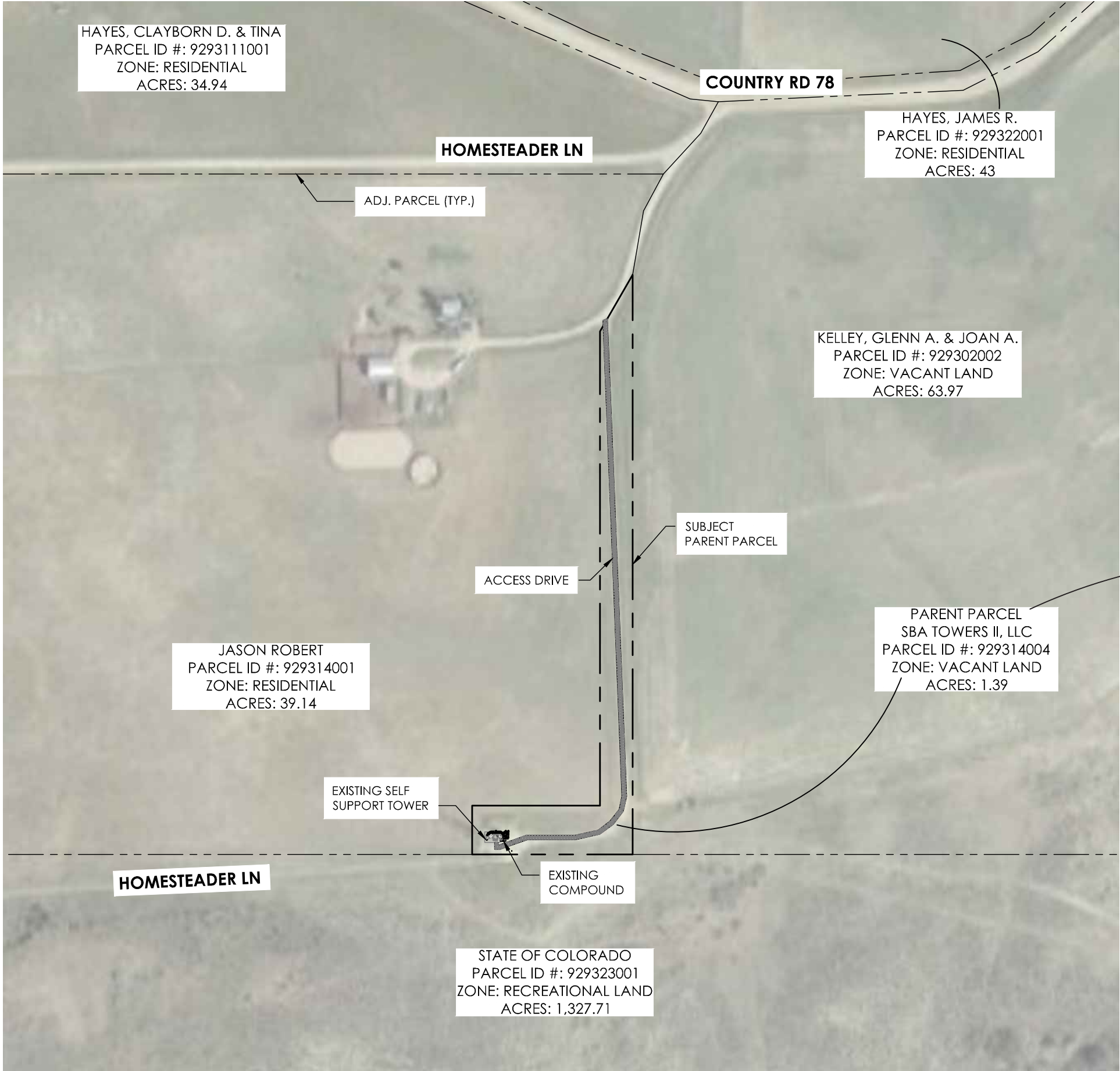
SV383-05

NO.	DATE	DESCRIPTION
1	3/15/21	FCD

PROJECT:
HARRIS-SELF SUPPORT

DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

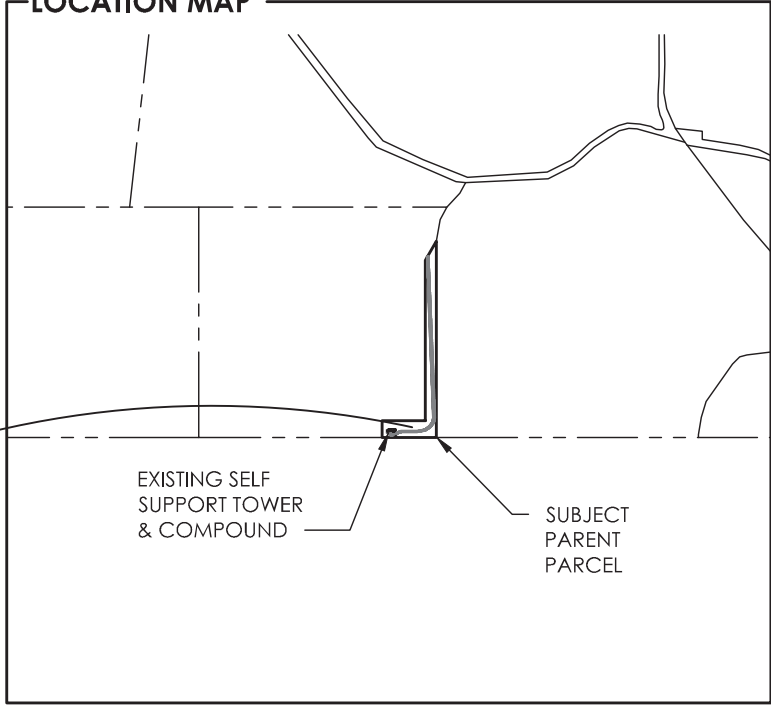
GENERAL NOTES



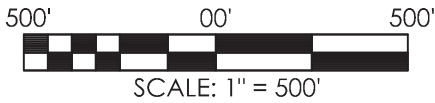
GENERAL NOTES

- 1. SITE PLAN SHOWN WAS TAKEN FROM SURVEY INFORMATION PROVIDED BY GARFIELD COUNTY. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.
- 2. PARCEL DATA SHOWN WAS TAKEN FROM INFORMATION PROVIDED BY qPUBLIC.NET GARFIELD COUNTY GIS, PROPERTY INFORMATION RESEARCH WEB SITE.
- 3. NO EXISTING WETLANDS ON-SITE.
- 4. *THIS SITE IS IN A 0% ANNUAL CHANCE FLOOD HAZARD AREA PER FIRM PANEL 08107C0620D. DATED: 02/04/2005.
- 5. ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES BY COLORADO STATE CODE.
- 6. PROPOSED ROUTES ARE SHOWN AS SCHEMATIC.

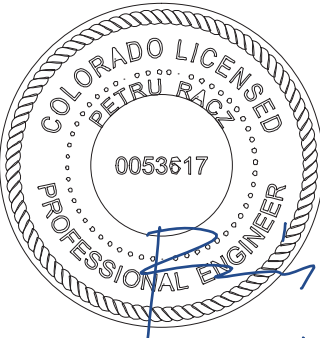
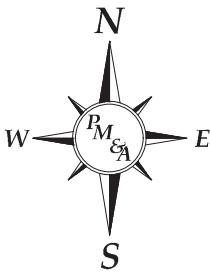
LOCATION MAP



GRAPHIC SCALE



NORTH ARROW



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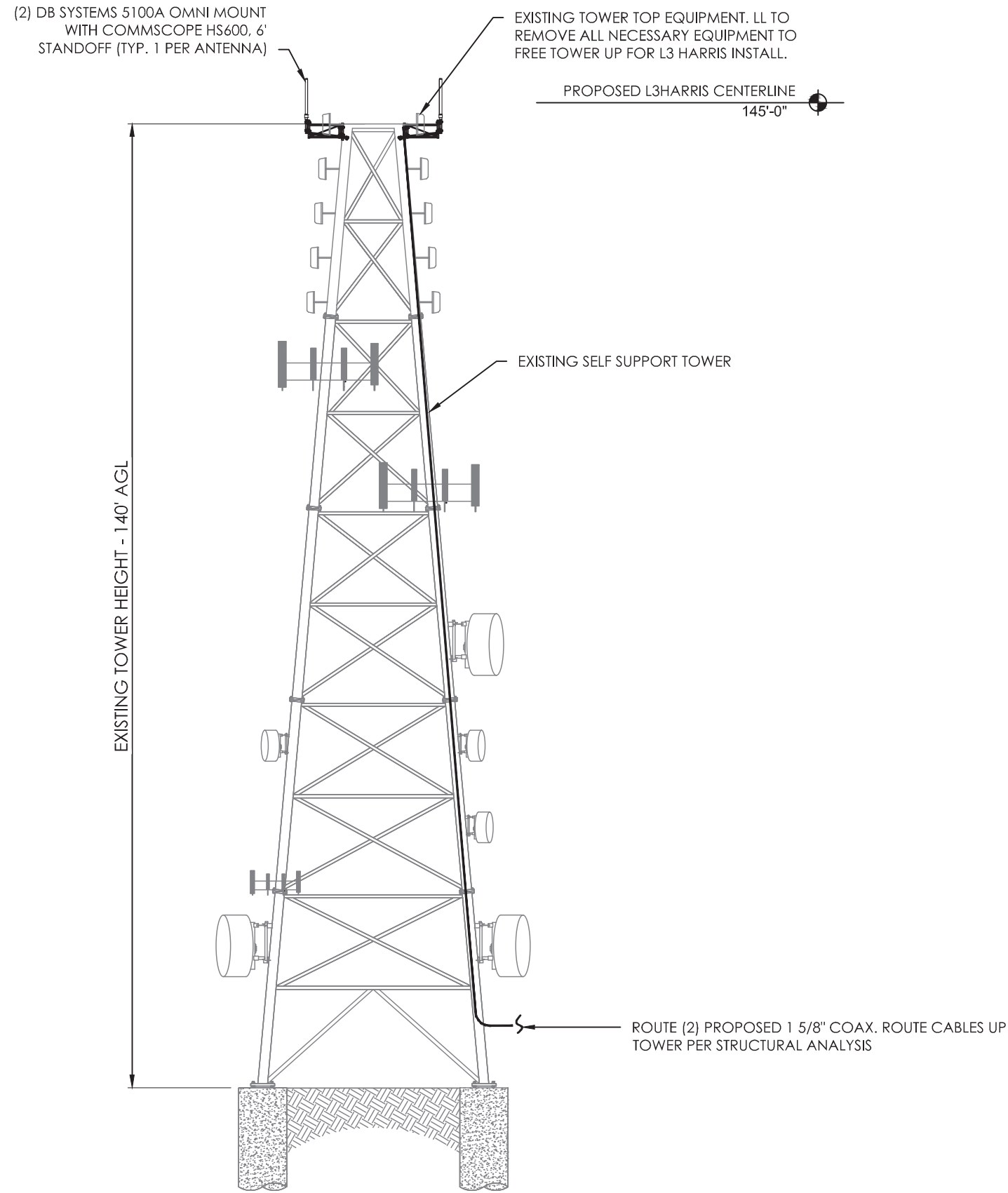
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OVERALL SITE PLAN



- GENERAL NOTES**
1. REFER TO TOWER STRUCTURAL ANALYSIS FOR PROPOSED ANTENNA CABLE LOADING DETAILS
 2. TOWER ELEVATION SHOWN IS NOT DRAWN TO SCALE AND IS ONLY INTENDED FOR REFERENCE PURPOSES. REFER TO ORIGINAL TOWER DESIGN FOR ADDITIONAL INFORMATION.
 3. ALL TOWER DIMENSIONS SHALL BE VERIFIED WITH THE PLANS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED.
 4. ALL HARDWARE ASSEMBLE MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
 5. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND OF QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.

- FINISH NOTES:**
- | | |
|--------------------------|-------------------------------|
| TOWER- | GALVANIZED |
| TOWER MOUNTS- | GALVANIZED |
| ANTENNA- | NEUTRAL (MANUFACTURER FINISH) |
| FOUNDATIONS- | UNPAINTED CONCRETE |
| ICE BRIDGE- | GALVANIZED |
| CABLES- | BLACK |
| BASE CABINETS/EQUIPMENT- | NEUTRAL (MANUFACTURER FINISH) |



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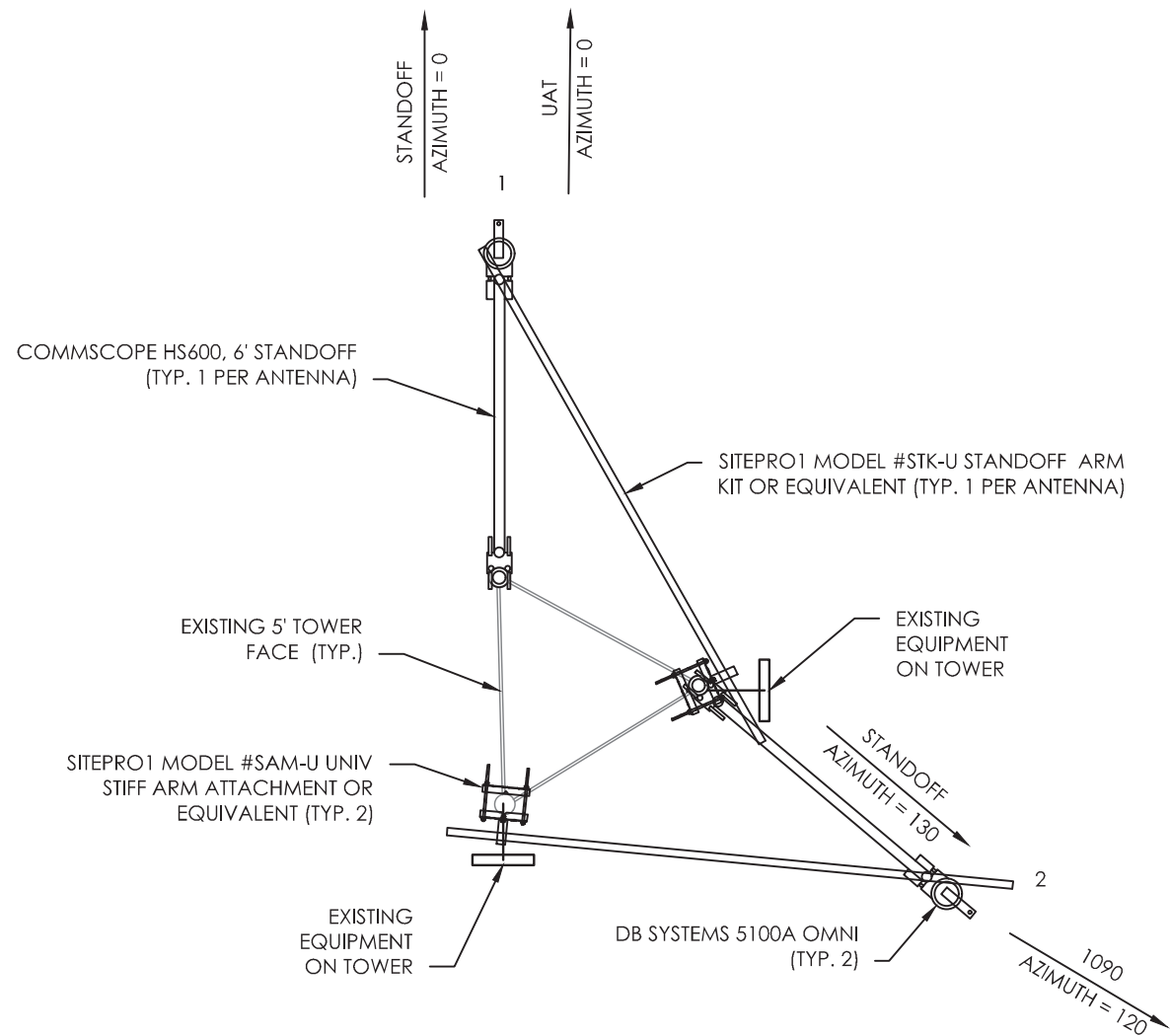
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TOWER
ELEVATION

C-3



Antenna Specifications									
ID	Antenna				Cables				
	Make	Qty	Model	RAD Center	Length	Size	Type	Color Code	Qty
ANT 1 - 1090	DB Systems	1	5100A	145'	180'	1-5/8"	AVA7-50	RED	1
ANT 2 - UAT	DB Systems	1	5100A	145'	180'	1-5/8"	AVA7-50	YELLOW	1
GPS 1	Panasonic	1	VIC100	ICE BRIDGE	25'	NA	LMR400	WHITE	1
GPS 2	Panasonic	1	VIC100	ICE BRIDGE	25'	NA	LMR400	WHITE/WHITE	1
LTE #1	LAIRD	1	OC69271	ICE BRIDGE	25'	NA	LMR400	BLUE	1
LTE #2	LAIRD	1	OC69271	ICE BRIDGE	25'	NA	LMR400	BLUE/BLUE	1

EQUIPMENT NOTES

1. THE CONTRACTOR SHALL CONFIRM THE TOWER TOP EQUIPMENT LIST WITH THE FINAL L3HARRIS RFDS PRIOR TO INSTALLATION.
2. DO NOT SCALE DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANT OF ANY ERRORS OR OMISSIONS. NO VARIATIONS OR MODIFICATIONS TO WORK SHOWN SHALL BE IMPLEMENTED WITHOUT PROPER L3HARRIS APPROVAL. ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERCEDED BY THE LATEST REVISION. ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF L3HARRIS.
3. REFER TO EQUIPMENT MANUFACTURER'S SPECIFICATION SHEETS FOR ADDITIONAL INFORMATION NOT LISTED ABOVE.
4. CONTRACTOR TO FIELD COORDINATE EXACT LOCATION OF PROPOSED EQUIPMENT WITH EXISTING CONDITIONS ON SITE.
5. PROPOSED EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE FASTENERS SHALL BE HIGH STRENGTH (A325, A36)
6. DRILLING OF EXISTING STEEL MEMBERS IS NOT PERMITTED.
7. BOND PROPOSED EQUIPMENT TO SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS. PROVIDE ADDITIONAL SECTOR GROUND BARS AS REQUIRED.
8. ALL ANTENNAS, CABLES, AND MOUNTS SHALL BE INSTALLED IN ACCORDANCE WITH THE ENGINEER'S RECOMMENDATIONS IN A MANNER CONSISTENT WITH THE STRUCTURAL ANALYSIS REPORT.
9. THIS ANTENNA ORIENTATIONS PLAN IS SCHEMATIC. THE CONTRACTOR SHALL VERIFY TOWER ORIENTATION AND FIELD COORDINATE REQUIRED ADJUSTMENTS TO ACHIEVE THE DESIRED ANTENNA AZIMUTHS.
10. CONTRACTOR TO CONTACT L3HARRIS FOR UP-TO-DATE RF DESIGN DATA. NOTIFY ENGINEER IF CONFLICT EXISTS.
11. ANTENNA CONNECTION TORQUE REQUIREMENTS DAMAGE TO ANTENNA WILL RESULT IF THE FOLLOWING REQUIREMENTS ARE NOT MET:
ATTACH (N-TYPE) CABLE CONNECTOR TO ANTENNA CONNECTOR USING MANUFACTURER SUPPLIED TORQUE WRENCH (ANDREW PART # 244379) WITH 15-20 IN-LBS (INCH-POUNDS) OF TORQUE
- NOTES:

A. LIGHTNING RODS ONLY INSTALLED L3HARRIS IS AT THE TOP OF THE TOWER OR ONLY TENANT ON TOWER TO BE SUPPLIED BY L3HARRIS

B. TORQUE ALL 1/2" HARDWAR TO 50-60 FT-LBS.

C. TORQUE ALL 5/8" HARDWARE TO 100-120 FT-LBS

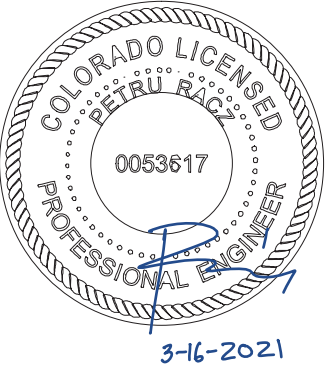
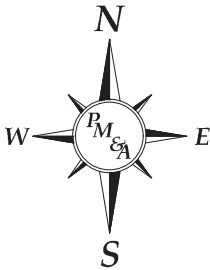
ANTENNA NOTE

CONTRACTOR TO ROTATE THE ANTENNAS AND/OR MOUNTS TO OBTAIN NEW AZIMUTHS. REFER TO FINAL RF DOCUMENTS TO CONFIRM NEW AZIMUTHS

(E)- EXISTING (P) - PROPOSED

GC TO PROVIDE POST CONSTRUCTION DOCUMENTATION ON ALL ANTENNA AZIMUTHS AND COLOR CODING FOR CABLES.

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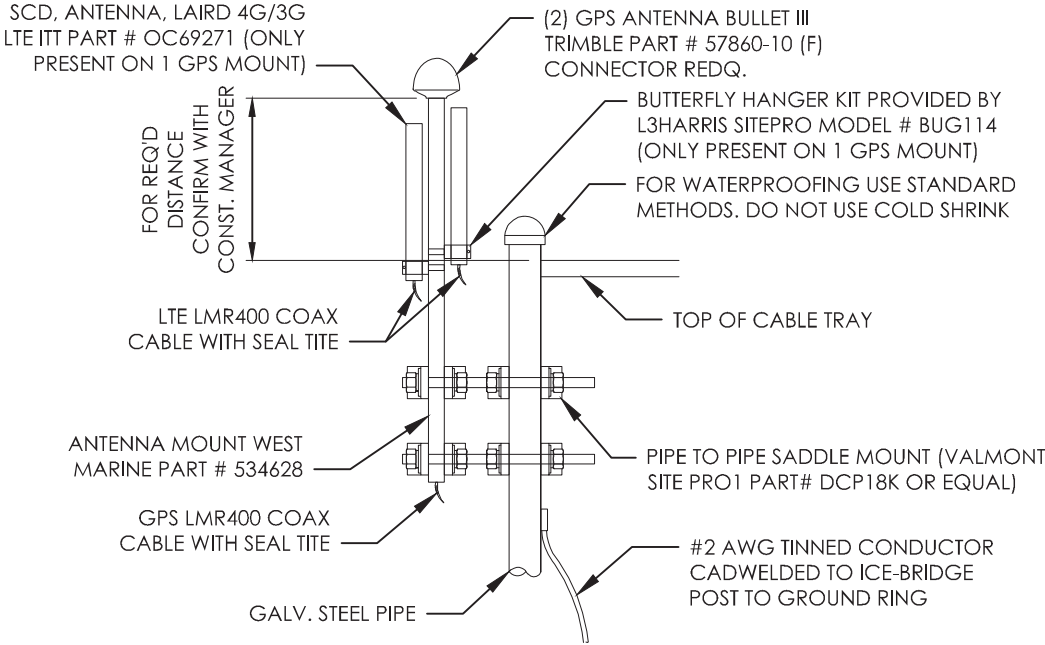
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PROPOSED ANTENNA PLAN

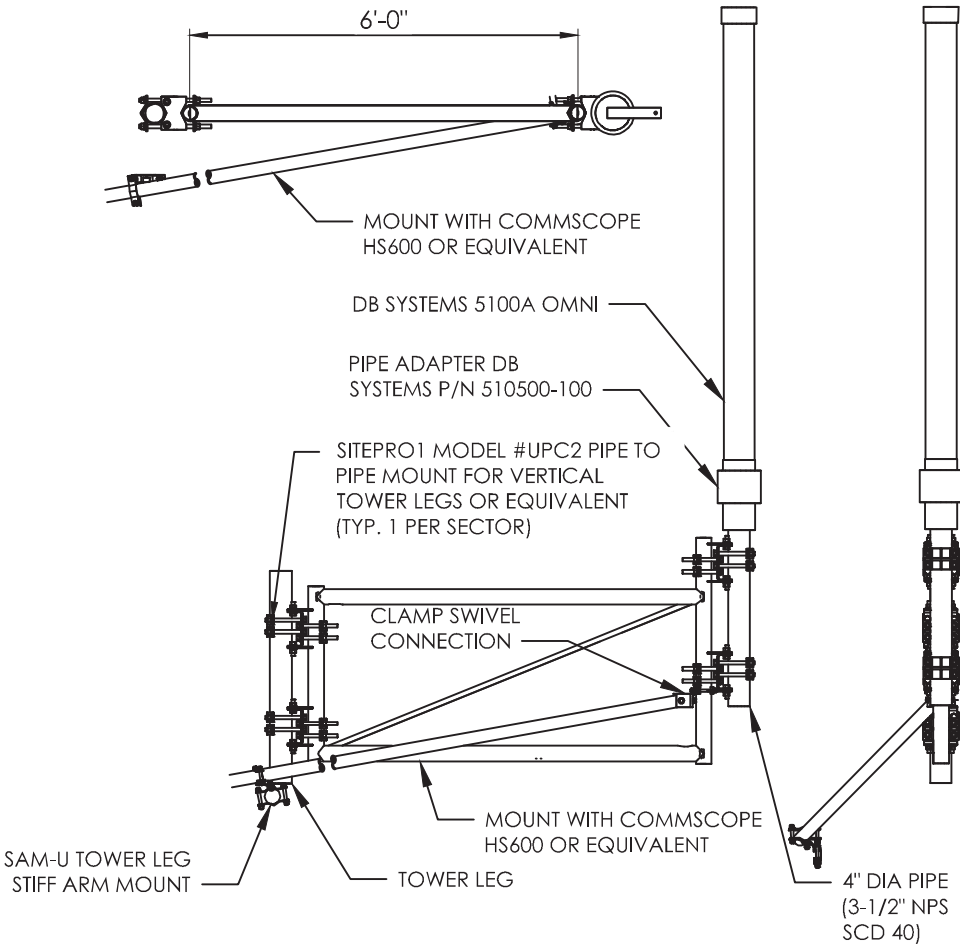
NOTE:

1. (2) GPS ANTENNAS TO BE INSTALLED
2. ALL GPS ANTENNAS TO BE FURNISHED BY L3HARRIS AND INSTALLED BY CONTRACTOR.
3. ALL WEATHER STRIPING KITS SHALL BE SUPPLIED AND INSTALLED BY ANTENNA CONTRACTOR.
4. VERIFY GPS AND MOUNT SHAPE (TYP. OF TWO) VERIFY DIRECTION OF SATELLITE FOR CLEAR VIEW
5. MINIMUM 6' BETWEEN MOUNTS



GPS MOUNT DETAILS

SCALE: NTS



NOTE:TORQUE ALL 1/2" HARDWARE TO 50-60 FT-LBS.
TORQUE ALL 5/8" HARDWARE TO 100-120 FT-LBS.

DB SYSTEMS 5100A OMNI

NOT TO SCALE

GENERAL NOTES

ANTENNA CONNECTION
TORQUE REQUIREMENTS
DAMAGE TO ANTENNA WILL
RESULT IF THE FOLLOWING
REQUIREMENTS ARE NOT MET:

- ATTACH (N-TYPE) CABLE CONNECTOR TO ANTENNA CONNECTOR USING MANUFACTURER SUPPLIED TORQUE WRENCH (ANDREW PART # 244379) WITH 15-20 IN-LBS (INCH-POUNDS) OF TORQUE

NOTES:

- A. LIGHTNING RODS ONLY INSTALLED L3HARRIS IS AT THE TOP OF THE TOWER OR ONLY TENANT ON TOWER TO BE SUPPLIED BY L3HARRIS
- B. TORQUE ALL 1/2" HARDWAR TO 50-60 FT-LBS.
- C. TORQUE ALL 5/8" HARDWARE TO 100-120 FT-LBS



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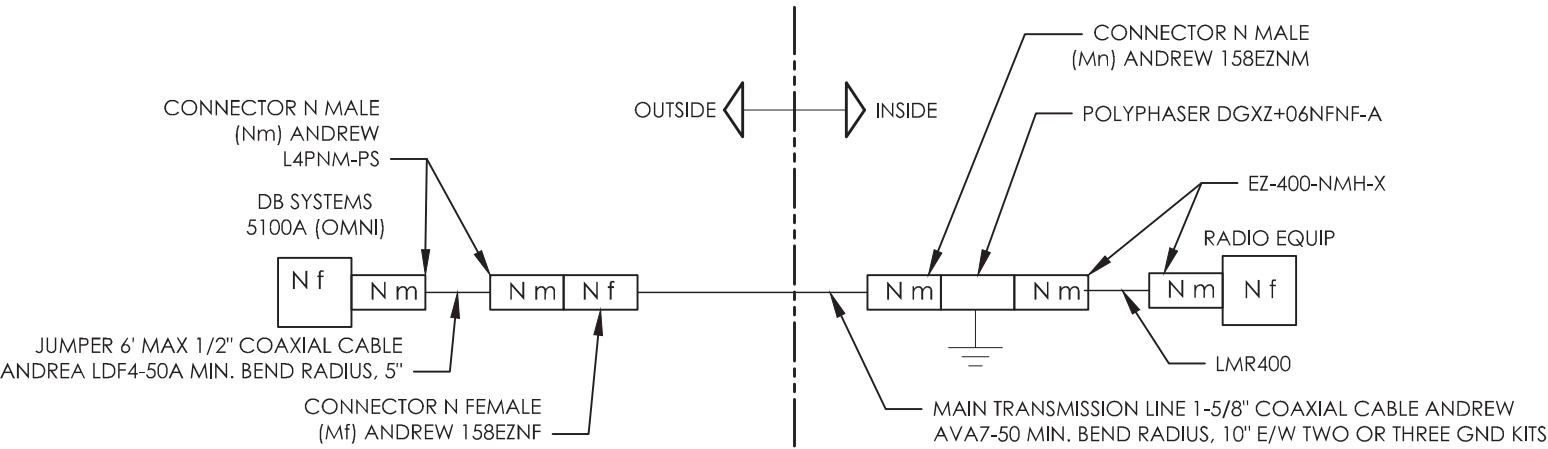
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ANTENNA MOUNT
DETAILS

C-5

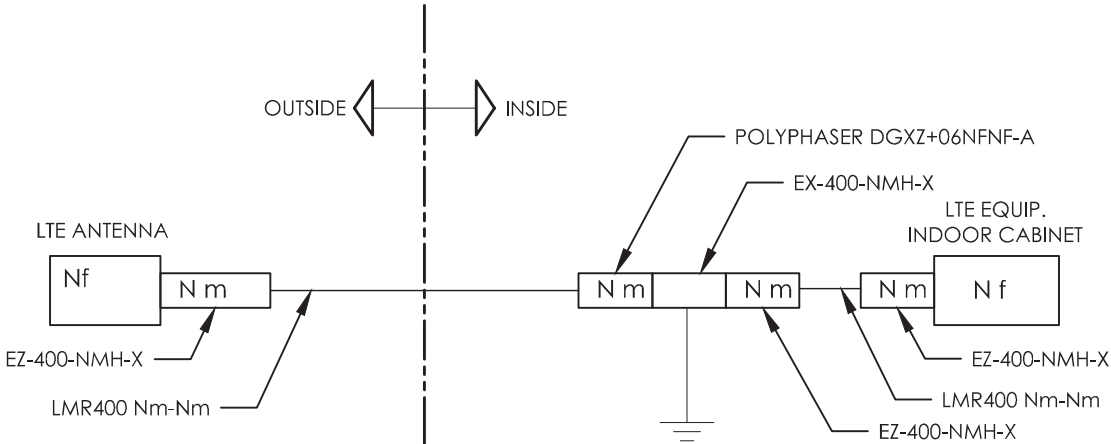


3-16-2021



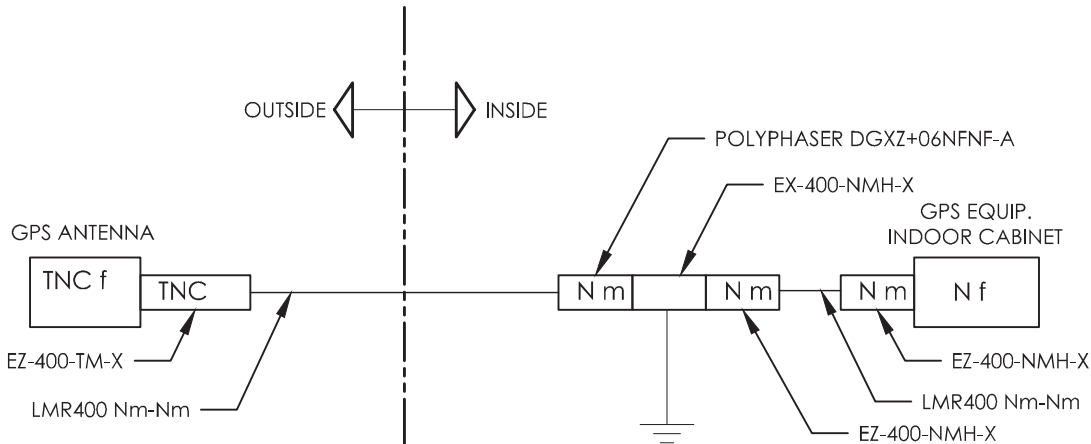
RF CABLE SCHEMATIC- DB SYSTEMS 5100A RF CABLE SCHEMATIC TYP. 1

NOT TO SCALE



LTE CABLE SCHEMATIC

NOT TO SCALE



GPS CABLE SCHEMATIC

NOT TO SCALE

GENERAL NOTES

- A. FACTORY PROVIDED JUMPER WITH END CONNECTORS AS SHOWN PASTERNAK ENTERPRISES PART#PE3519-120 120 INCHES LONG



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ADJ. ADDRESS:
6985 HOMESTEADER LANE
HAYDEN, CO 91639
ROUTT COUNTY

HAYDEN 2

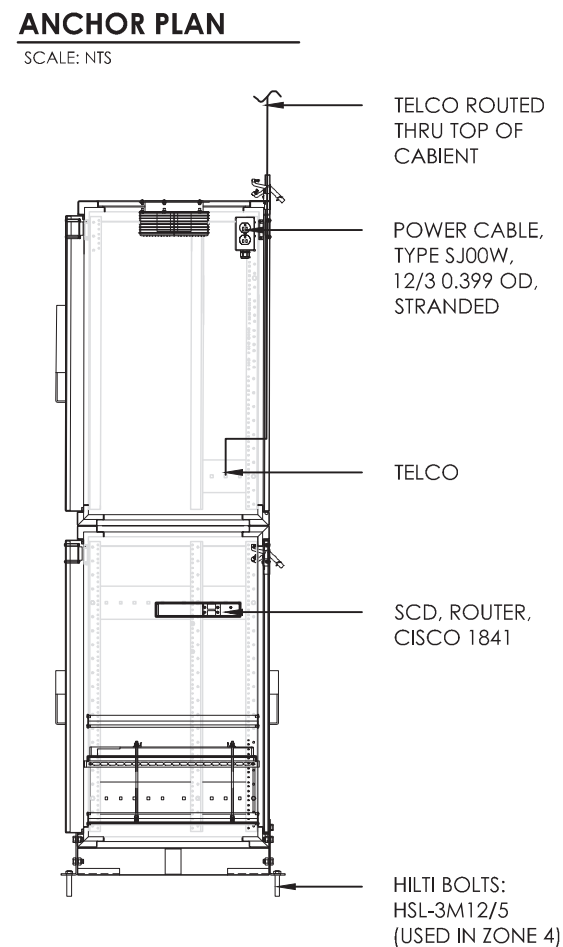
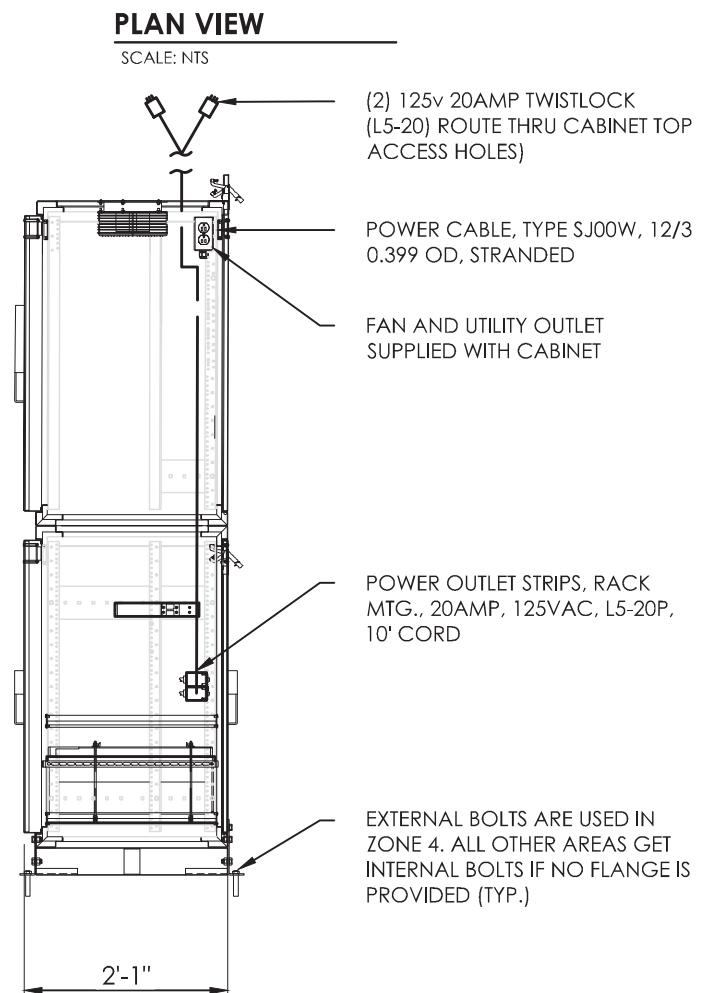
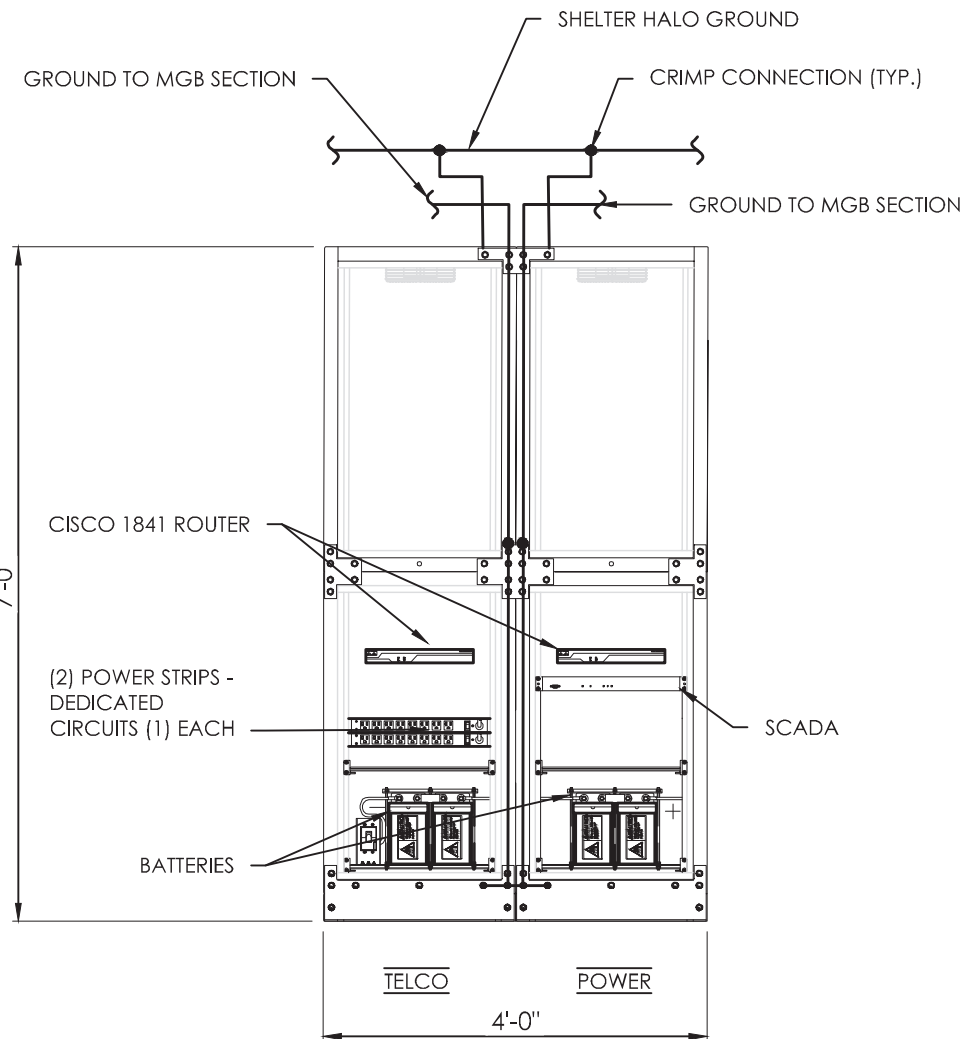
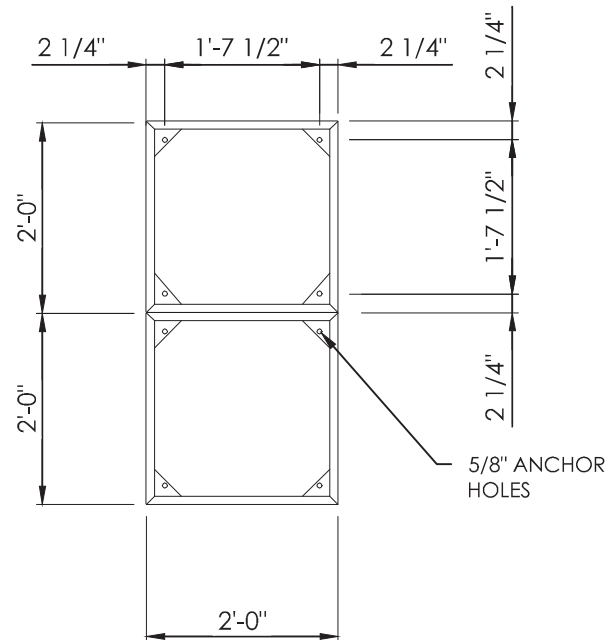
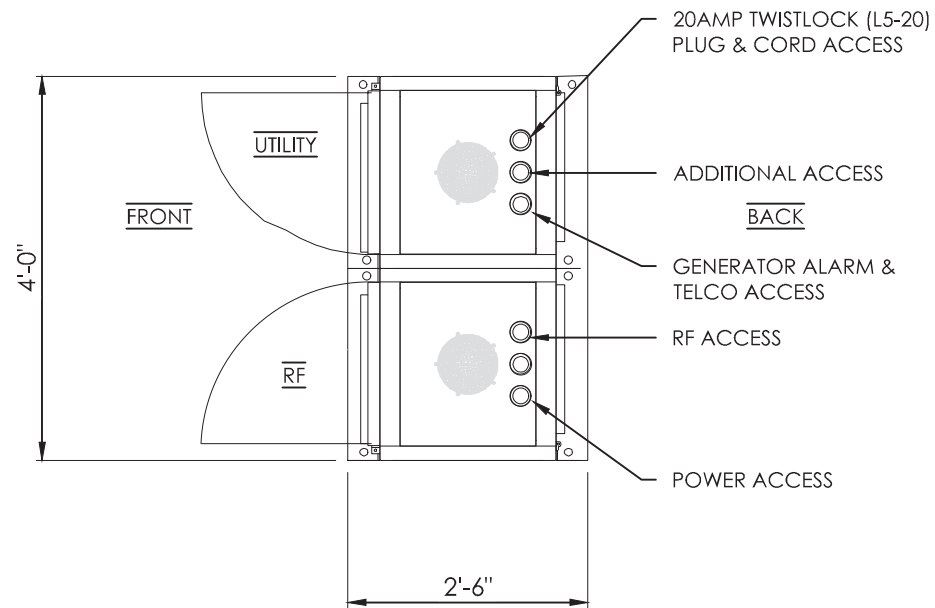
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NO.	DATE	DESCRIPTION
1	3/15/21	FCD

PROJECT:
HARRIS-SELF SUPPORT
DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

EQUIPMENT SCHEMATICS





GENERAL NOTES

- 36" MINIMUM SPACE NEEDED FOR FRONT AND BACK DOOR OPENING
- GROUNDS TO BE 2 LUGS CRIMPED WITH 3/8" SS HARDWARE.
- ORIENTATION OF FINAL CABINET INSTALL WILL BE DETERMINED BY THE MOST DIRECT RF PATH IN (SHORTEST ROUTE TO RAD CENTER)
- CABINET DETAILS PROVIDED BY MANUFACTURER. DETAILS SUBJECT TO CHANGE WITH LATEST RELEASE OF CABINET DESIGN PRODUCTION DRAWINGS. DO NOT SCALE DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND ADVISE CONSULTANTS OF ANY ERRORS OR OMISSIONS. NO VARIATIONS OR MODIFICATIONS TO WORK SHOWN SHALL BE IMPLEMENTED WITHOUT PRIOR L3HARRIS APPROVAL. ALL PREVIOUS ISSUES OF THIS DRAWINGS ARE SUPERCEDED BY THE LATEST REVISION. ALL DRAWINGS AND SPECIFICATIONS REMAIN THE PROPERTY OF L3HARRIS CORPORATION.



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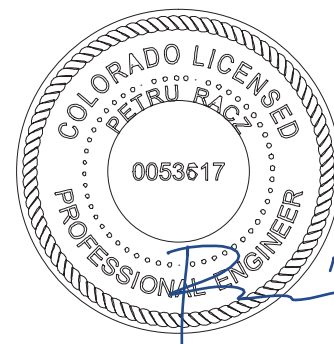
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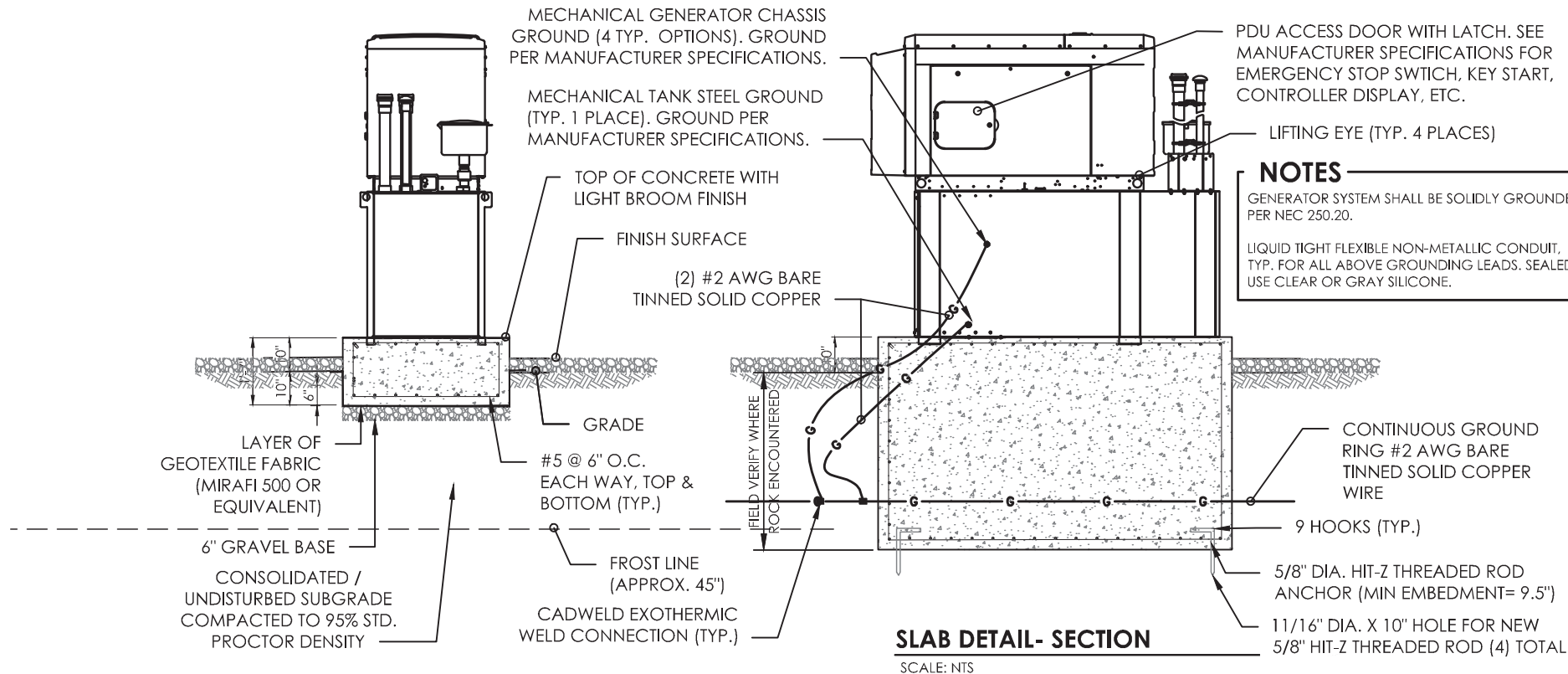
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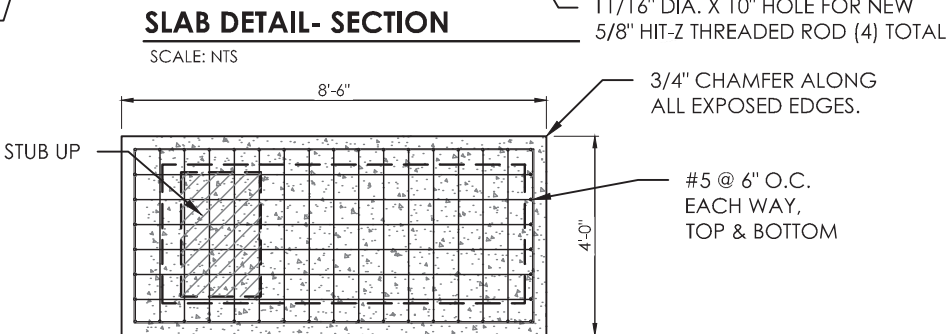
CABINET DETAILS





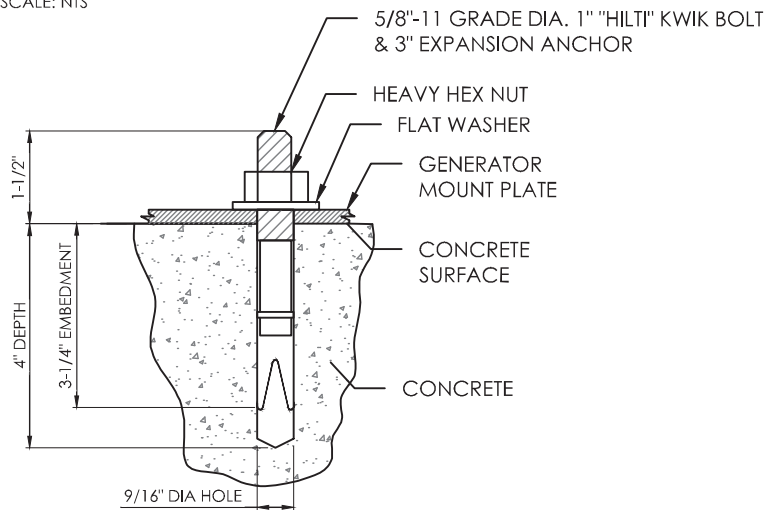
SLAB DETAIL- SECTION

SCALE: NTS



SLAB DETAIL- PLAN

SCALE: NTS



NOTES

1. BOLTS CAN BE INSTALLED 2 DAYS AFTER POURING CONCRETE PROVIDED THE KWIK BOLTS ARE ONLY TIGHTENED TO A SNUG TIGHT CONDITION.
2. APPLY "HILTI" HIT-RE 500-SD EPOXY TO ALL GAPS TO PREVENT WATER/MOISTURE BUILD-UP.
3. PROVIDE 6 (SEE MANUFACTURERS INSTALLATION DRAWINGS) ANCHOR BOLTS PER SIDE.

ATTACHMENT DETAIL

SCALE: NTS

REINFORCED CONCRETE NOTES

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI SPECIFICATIONS FOR THE DESIGN & CONSTRUCTION OF CAST-IN-PLACE CONCRETE, AND WHERE CODES CONFLICT THE MORE STRINGENT NATIONAL OR LOCAL CODE SHALL GOVERN.
2. SITECAST CONCRETE FOR SLABS AND POST FOOTINGS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONCRETE TESTING IS NOT REQUIRED FOR SLABS AND POST FOOTINGS UNLESS NOTED OTHERWISE.

SLUMP - 4" MIN. / 6" MAX.

AIR ENTRAINMENT - 2% TO 3% BY VOLUME

CLASSES OF CONCRETE

CLASS	28 DAY STRENGTH (PSI)	MAX WATER/CEMENT RATIO	PLACEMENT LOCATION	NOTES
TYPE I	3000	0.55	SLABS & POST FOOTINGS	NORMAL WIEGHT
TYPE III *	5000	0.45	SLABS & POST FOOTINGS	HIGH EARLY STRENGTH

*IF REQUIRED BY THE CONSTRUCTION SCHEDULE THE CONTRACTOR MAY SUBSTITUTE TYPE III HIGH EARLY STRENGTH CONCRETE WITH THE APPROVAL OF THE CONSTRUCTION MANAGER.

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES FOR REBAR SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO. LAPS FOR WELDED WIRE FABRIC SHALL BE AT LEAST 8 INCHES, UNO.

THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 AND LARGER	2"
#5 AND SMALLER & W.W.F.	1-1/2"

MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4".

4. INSTALLATION OF CONCRETE ANCHORS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO THE ANCHOR MANUFACTURER'S SPECIFICATIONS FOR MATERIAL STRENGTH, EMBEDMENT DEPTH, SPACING, AND EDGE DISTANCE OR AS DETAILED ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE. EXPANSION BOLTS SHALL BE PROVIDED BY RAMSET/REDHEAD, HILTI, OR APPROVED EQUAL. IF THE MANUFACTURER'S SPECIFICATIONS AND DETAILS ARE FOUND TO CONFLICT WITH THAT SHOWN HEREIN, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

5. THE CONTRACTOR SHALL VERIFY FROST LINE AND FOOTING DEPTH REQUIREMENTS WITH THE JURISDICTION HAVING AUTHORITY PRIOR TO CONSTRUCTION AND CONSULT THE ENGINEER ACCORDINGLY.

6. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL CONDUIT SIZES AND PENETRATION LOCATIONS PRIOR TO POURING.



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SLAB DETAILS

C-8

NFPA 704 HAZARD IDENTIFICATION SYSTEM 15" DIAMOND



NOTE:

1. SIGNS MUST BE MADE OF DURABLE MATERIAL
2. LETTERS SHALL NOT BE LESS THAN 3" (76.2 mm) MIN. IN HEIGHT & 1/2" (12.7 mm) IN STROKE.
3. SIGNS SHALL NOT BE OBSCURED OR REMOVED & SHALL BE IN ENGLISH AS A PRIMARY LANGUAGE.
4. SIGNS TO BE PLACED ON GENERATOR/FUEL TANK PER NEPA 704.
5. CONTRACTOR TO PROVIDE ALL REQUIRED SIGNAGE.

HAZARD RATINGS:

NINE O'CLOCK - HEALTH (BLUE BACKGROUND, BLACK LETTERING)
TWELVE O'CLOCK - FLAMMABILITY (RED BACKGROUND, BLACK LETTERING)
THREE O'CLOCK - INSTABILITY (YELLOW BACKGROUND, BLACK LETTERING)
SIX O'CLOCK - SPECIAL (WHITE BACKGROUND, BLACK LETTERING)

DIESEL

COMBUSTIBLE

FLAMMABLE

NO SMOKING

(WHITE LETTERING W/ RED BACKGROUND)
(BLACK LETTERING W/ WHITE BACKGROUND)
(BLACK LETTERING W/ WHITE BACKGROUND)
(BLACK LETTERING W/ WHITE BACKGROUND)

GENERATOR SIGNAGE

SCALE: NTS



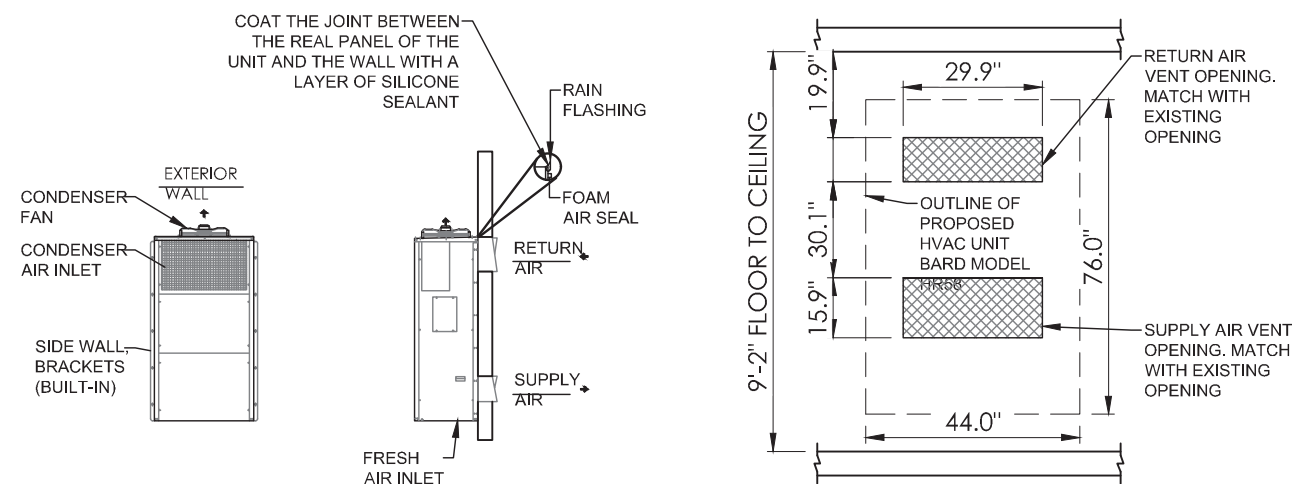
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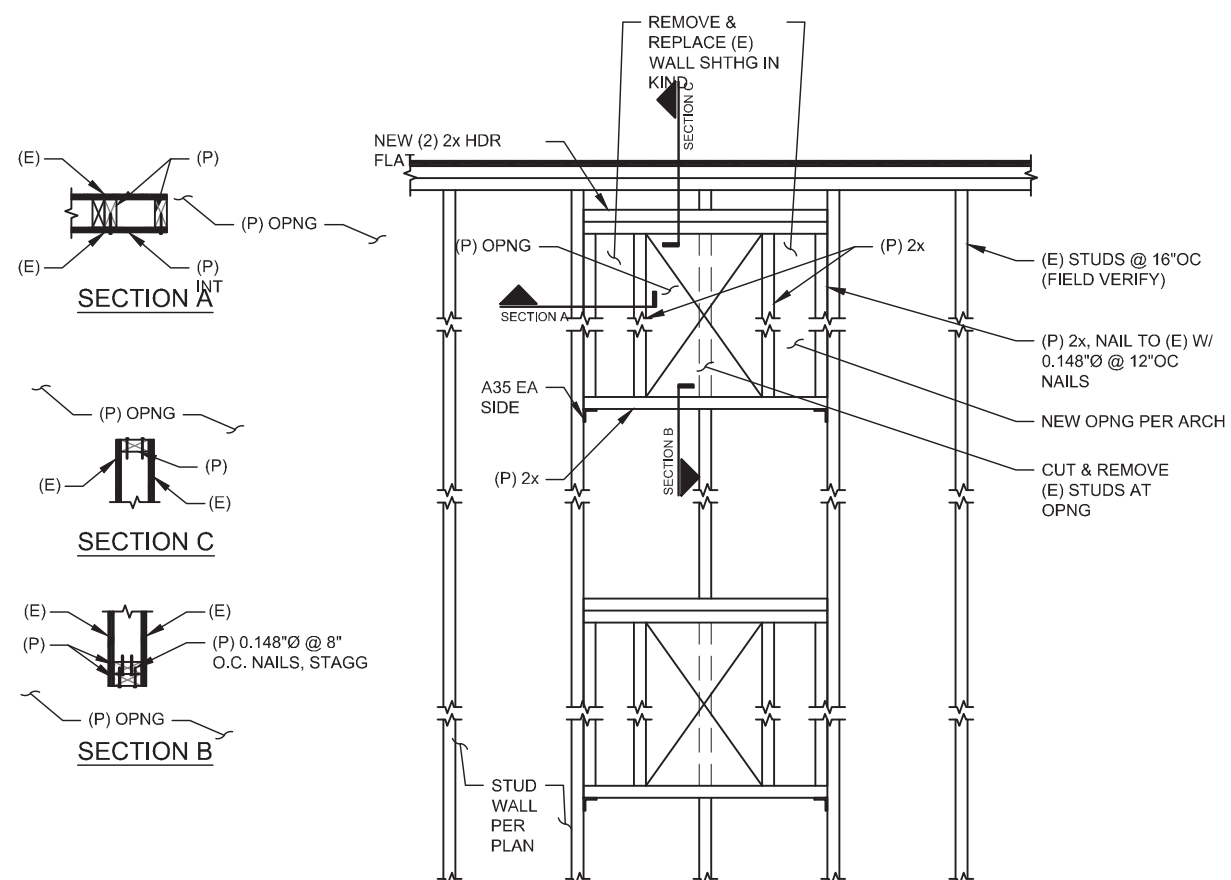
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C-9

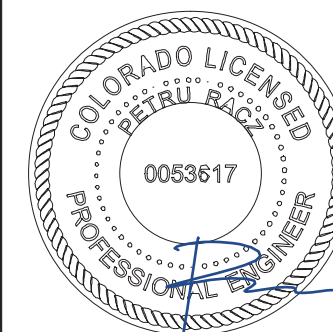


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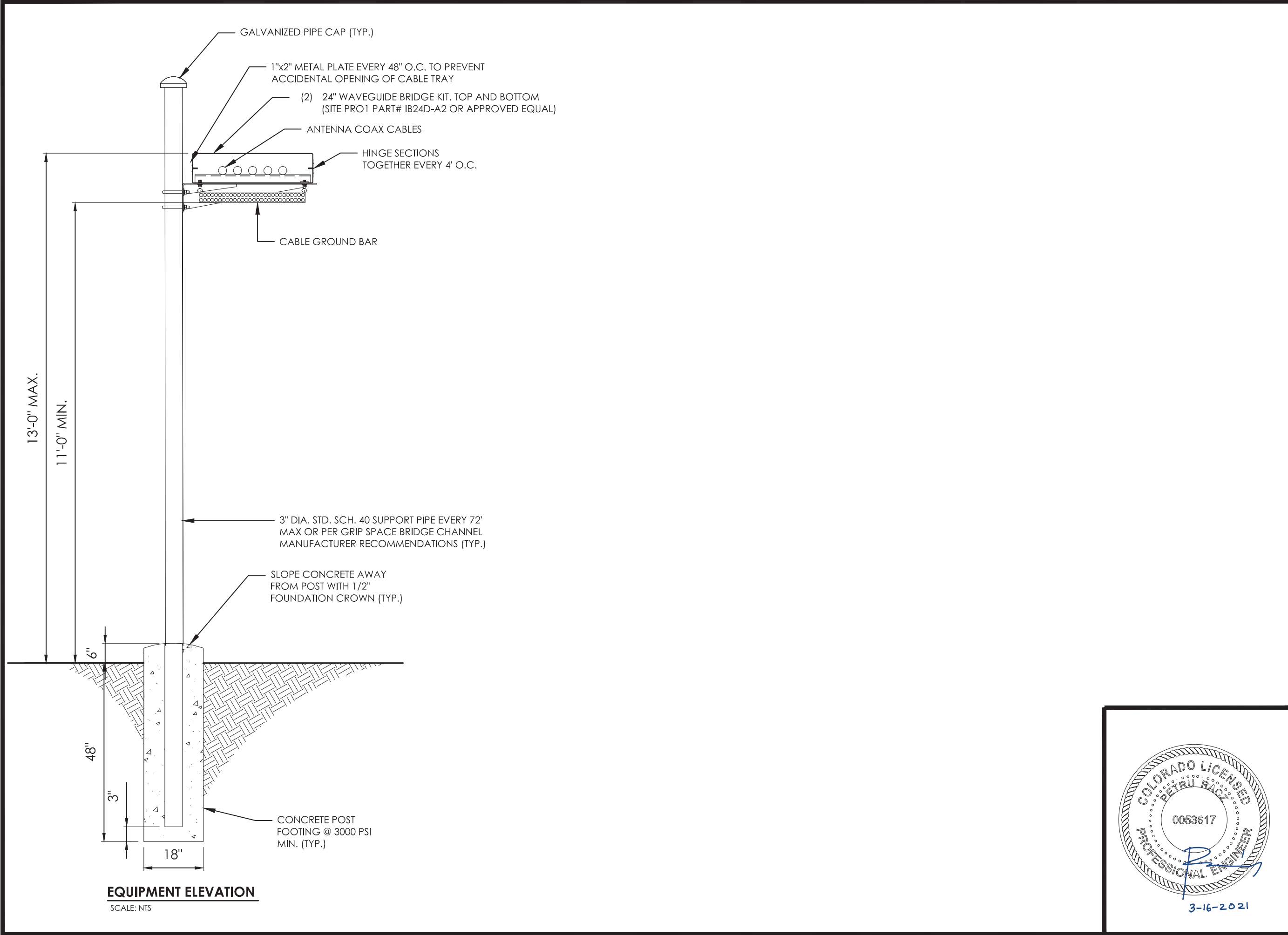
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3-16-2021



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DETAILS

C-10

EROSION & SEDIMENT CONTROL NOTES

1. COMPOUND SHALL BE RELATIVELY FLAT. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE.
2. DISTURBED AREAS LEFT IDLE SHALL BE STABILIZED WITH TEMPORARY VEGETATION AFTER 14 DAYS; AFTER 30 DAYS PERMANENT VEGETATION SHALL BE ESTABLISHED.
3. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES, THE LIMITS OF THE DISTURBANCE SHALL BE CLEARLY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS.
4. THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. CONTRACTOR SHALL CALL APPROPRIATE COUNTY FOR AN INSPECTION OF SOIL EROSION CONTROL MEASURES PRIOR TO BEGIN GRADING ACTIVITY. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED.
5. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE SYSTEMS. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
6. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR ELECTIVE EROSION CONTROL. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
7. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE.
8. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED.
9. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH SEEDING.
10. CONTRACTOR SHALL REMOVE ALL EROSION CONTROL MEASURES AFTER COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
11. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-SIDTURBING ACTIVITIES.
12. ALL CUT AND FILL SLOPES MUST BE SURFACED ROUGHENED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION.
13. ALL FILL SLOPES WILL HAVE SILT FENCES AT THE TOE OF THE SLOPE.
14. ALL SEDIMENT AND EROSION CONTROL MEASURES WILL BE CHECKED DAILY AND ANY DEFICIENCIES NOTED WILL BE CORRECTED BY THE END OF EACH DAY. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY AFTER ON-SITE INSPECTION BY THE ISSUING AUTHORITY.
15. A 25' MIN. UNDISTURBED VEGETATION BUFFER ADJ. TO ALL RUNNING STREAMS AND CREEKS WILL BE LEFT AND MAINTAINED.
16. MAINTENANCE STATEMENT: EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN AND REPAIRED BY THE GENERAL CONTRACTOR.
17. ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS.
18. CONSTRUCTION EXIT - TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION AREA ONTO PUBLIC RIGHT-OF-WAYS, STREETS, ALLEYS, SIDEWALKS, OR PARKING AREAS. IMMEDIATELY REMOVE MUD AND DEBRIS TRACKED OR SPILLED ONTO ROADWAYS.

EROSION & SEDIMENT CONTROL NOTES

19. TYPE C SEDIMENT BARRIER - TO PREVENT ANY SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE SITE AND ENTERING NATURAL DRAINAGE WAYS OR STORM DRAINAGE SYSTEMS.
- 20.DISTURBED AREA STABILIZATION (TEMPORARY) - TO ESTABLISH A TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS ON DISTURBED AREAS.
- 21.DISTURBED AREA STABILIZATION (PERMANENT) - TO ESTABLISH A PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD, OR LEGUMES ON DISTURBED AREAS.
- 22.DISTURBED AREA DUST CONTROL- TO CONTROL THE SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADWAYS, AND SIMILAR SITES.

EROSION & SEDIMENT CONTROL COMPOUND NOTES

- A. USE OF SWALES AND/OR DRAINAGE DITCHES FOR PROPER WATER RUNOFF AS NEEDED.
- B. AGGREGATE IS BASED ON STANDARD AASHTO.
- C. SLOPE NOT TO EXCEED 1/4" PER FOOT TO MAX. GRADE OF 6" FROM CENTER OF COMPOUND TO EACH FENCE LINE.
- D. SUB-GRADE SHALL BE COMPACTED BY SHEEPS FOOT VIBRATOR OR RUBBER TIRED ROLLERS WEIGHING AT LEAST EIGHT TONS.
- E. FINISHED GRADE SHALL BE COMPACTED BY SMOOTH DRUM VIBRATOR ROLLERS WEIGHING AT LEST EIGHT TONS. FINISHED GRADE SHALL BE UNIFORM AND LEVEL.
- F. GRADING IS REQUIRED FOR THE PROPOSED CONSTRUCTION. COMPOUND SHALL BE RELATIVELY FLAT. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE.
- G. DISTURBED AREAS LEFT IDLE SHALL BE STABILIZED WITH TEMPORARY VEGETATION AFTER 14 DAYS; AFTER 30 DAYS PERMANENT VEGETATION SHALL BE ESTABLISHED.
- H. MAINTENANCE STATEMENT: EROSION CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY, AFTER EACH RAIN AND REPAIRED BY THE GENERAL CONTRACTOR.
- I. ADDITIONAL EROSION CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS.
- J. CONSTRUCTION EXIT - TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE CONSTRUCTION AREA ONTO PUBLIC RIGHT-OF-WAYS, STREETS, ALLEYS, SIDEWALKS, OR PARKING AREAS. IMMEDIATELY REMOVE MUD AND DEBRIS TRACKED OR SPILLED ONTO ROADWAYS.
- K. TYPE C SEDIMENT BARRIER - TO PREVENT ANY SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE SITE AND ENTERING NATURAL DRAINAGE WAYS OR STORM DRAINAGE SYSTEMS.
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- M. DISTURBED AREA STABILIZATION (PERMANENT) - TO ESTABLISH A PERMANENT VEGETATIVE COVER SUCH AS TREES, SHRUBS, VINES, GRASSES, SOD, OR LEGUMES ON DISTURBED AREAS. CONTRACTOR TO INSTALL SOD TO MATCH THE SPECIES USED BY THE UNIVERSITY OF HOUSTON.
- N. DISTURBED AREA DUST CONTROL - TO CONTROL THE SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADWAYS, AND SIMILAR SITES.



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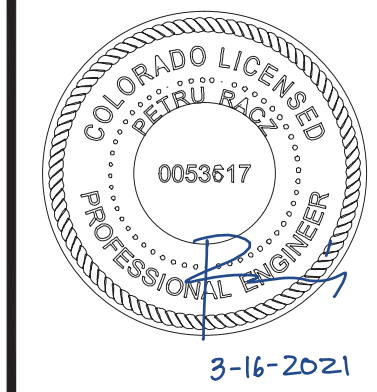
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GRADING NOTES & DETAILS

C-11

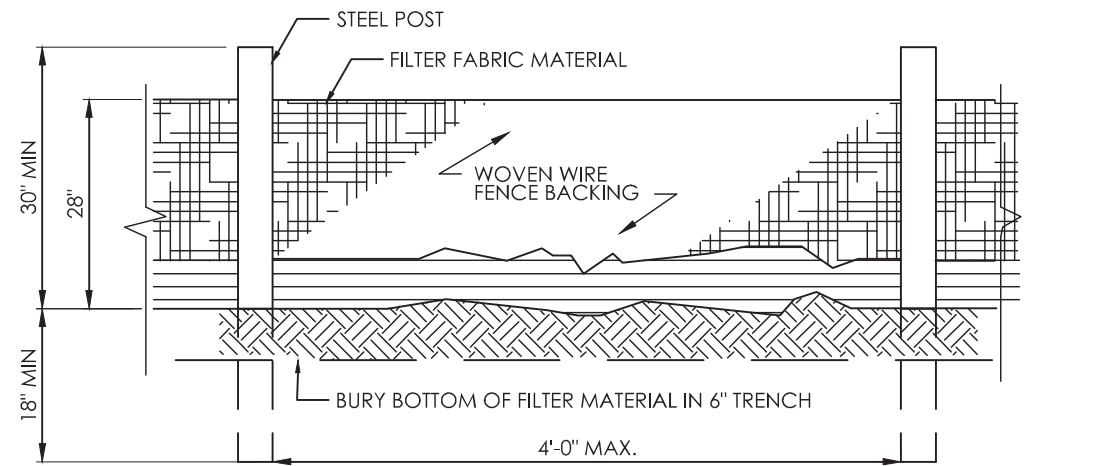


FOUNDATION, EXCAVATION & GRADING NOTES

1. ALL CUT AND FILL SLOPES SHALL BE 2 : 1 MAXIMUM.
2. ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY
3. HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUND WATER. DEWATERING FOR EXCESS GROUND WATER SHALL BE PROVIDED IF REQUIRED.
4. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION SHALL BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
5. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
6. AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND 5. BEFORE BACK FILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
7. ALL BACKFILLING SHALL (1) USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, 6. SANDY CLAYS, SAND AND GRAVEL, OR SOFT SHALE, (2) BE FREE FROM CLODS OR STONES OVER 2 1/2" MAXIMUM DIMENSIONS, AND (3) BE PLACED IN LAYERS AND COMPACTED.
8. SITE FILL MATERIAL AND FOUNDATION BACK FILL SHALL BE PLACED IN LAYERS, MAXIMUM 6" 7. DEEP BEFORE COMPACTION. EACH LAYER SHALL BE SPRINKLED IF REQUIRED AND COMPACTED BY HAND OR MACHINE TAMPERS TO 95% OF MAXIMUM DENSITY, AT THE OPTIMUM MOISTURE CONTENT OF ±2% AS DETERMINED BY ASTM DESIGNATION D-698, UNLESS OTHERWISE APPROVED. SUCH BACK FILL SHALL NOT BE PLACED BEFORE 3 DAYS AFTER PLACEMENT OF CONCRETE.
9. THE FOUNDATION AREA SHALL BE GRADED TO PROVIDE WATER RUNOFF AND PREVENT 8. WATER FROM STANDING. THE FINAL GRADE SHALL SLOPE AWAY IN ALL DIRECTIONS FROM THE FOUNDATION AREA (UP TO 1 FOOT OUTSIDE THE FENCE OR GROUND SYSTEM PERIMETER) AND SHALL BE COVERED WITH A GEOTEXTILE FABRIC MIRAFI 500X OR APPROVED EQUAL TO PREVENT REOCCURRENCE OF VEGETATIVE GROWTH, AN THEN SHALL BE COVERED WITH 4" DEEP COMPACTED STONE OR GRAVEL.
- 10.THE CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES 9. AS REQUIRED BY LOCAL, CITY, COUNTY, AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS FROM LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS, AND CHECK DAMS.
- 11.FILL PREPARATION: REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIAL FROM GROUND SURFACE PRIOR TO PLACING FILLS. PLOW STRIP OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING SURFACE. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DENSITY LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO REQUIRED DEPTH, PULVERIZE, MOISTURE CONDITION OR AERATE SOIL, AND RECOMPACT TO REQUIRED DENSITY.

FOUNDATION, EXCAVATION & GRADING NOTES

- 12.REPLACE EXISTING GRAVEL SURFACING ON AREAS FROM WHICH GRAVEL SURFACING IS REMOVED DURING CONSTRUCTION OPERATIONS. GRAVEL SURFACING SHALL BE REPLACED TO MATCH EXISTING ADJACENT GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS. SURFACES AND GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED IF INJURIOUS AMOUNTS OF EARTH, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ALL ADDITIONAL GRAVEL RESURFACING MATERIAL AS REQUIRED. BEFORE GRAVEL SURFACING IS REPLACED, SUBGRADE SHALL BE GRADED TO CONFORM TO REQUIRED SUBGRADE ELEVATIONS, AND LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED. DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL SHALL NO BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE.
- 13.PROTECT EXISTING GRAVEL SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD EQUIPMENT LOADS. REPAIR ANY DAMAGE TO EXISTING GRAVEL SURFACING OR SUBGRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
- 14.RIPRAP SHALL BE CLEAN, HARD, SOUND, DURABLE, UNIFORM IN QUALITY, AND FREE OF ANY 14. DETRIMENTAL QUANTITY OF SOFT, FRIABLE, THIN, ELONGATED OR LAMINATED PIECES, DISINTEGRATED MATERIAL, ORGANIC MATTER, OIL, ALKALI, OR OTHER DELETERIOUS SUBSTANCE.
- 15.REMOVE ALL ORGANICS, ROCKS GREATER THAN 3", UNUSED FILL AND OTHER DEBRIS TO AN 15. AREA OFF SITE IN A LEGAL MANNER



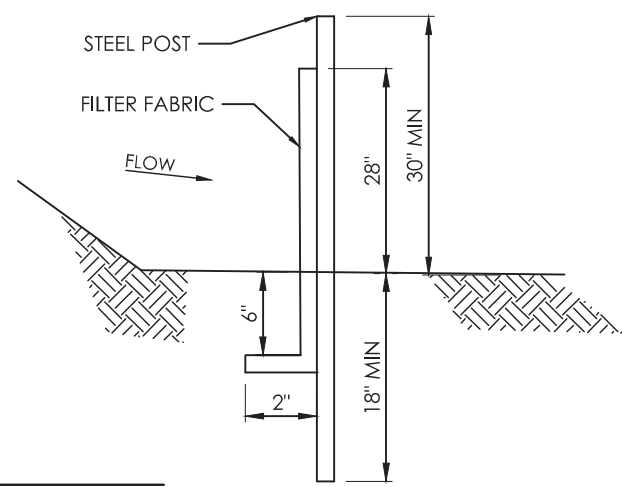
NOTES

1. USE 36" DOT APPROVED FABRIC
2. USE STEEL POSTS

- Ds2DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)
- Ds3DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

SFC-SILT FENCE, TYPE-C

SCALE: NTS



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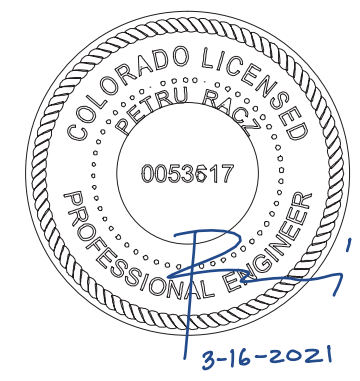
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GRADING NOTES & DETAILS

C-12



ELECTRICAL INSTALLATION NOTES

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- 10.POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- 11.SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- 12.POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND POWER GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

ELECTRICAL INSTALLATION NOTES CONT.

- 14.RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- 15.ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- 16.ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- 17.GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- 18.RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- 19.LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- 20.CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- 21.CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- 22.WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 23.EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS
- 24.METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 25.NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 26.THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 27.THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

GROUNDING GENERAL NOTES

- A. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC AND AT&T ND-00071.
- B. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- C. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS.
- D. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK-TO-BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- E. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- F. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. IN ALL CASES, BENDS SHALL BE MADE WITH A MINIMUM BEND RADIUS OF 8 INCHES.
- G. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TIN-PLATED COPPER UNLESS OTHERWISE INDICATED.
- H. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE. CONNECTIONS TO ABOVE GRADE EXTERIOR UNITS SHALL BE MADE WITH EXOTHERMIC WELDS WHERE PRACTICAL OR WITH 2 HOLE MECHANICAL TYPE BRASS CONNECTORS WITH STAINLESS STEEL HARDWARE, INCLUDING SET SCREWS.

GROUNDING GENERAL NOTES CONT.

- I. EXOTHERMIC WELDS SHALL BE PERMITTED ON TOWERS ONLY WITH THE EXPRESS APPROVAL OF THE TOWER MANUFACTURER OR THE CONTRACTORS STRUCTURAL ENGINEER.
- J. ALL WIRE TO WIRE GROUND CONNECTIONS TO THE INTERIOR GROUND RING SHALL BE FORMED USING HIGH PRESS CRIMPS OR SPLIT BOLT CONNECTORS WHERE INDICATED IN THE DETAILS.
- K. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- L. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- M. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- N. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF THE BURIED GROUND RING WITH # 2 SOLID AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- O. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., STEEL CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT WITH LISTED BONDING FITTINGS.



LOCATION:
40.520863, -107.297072

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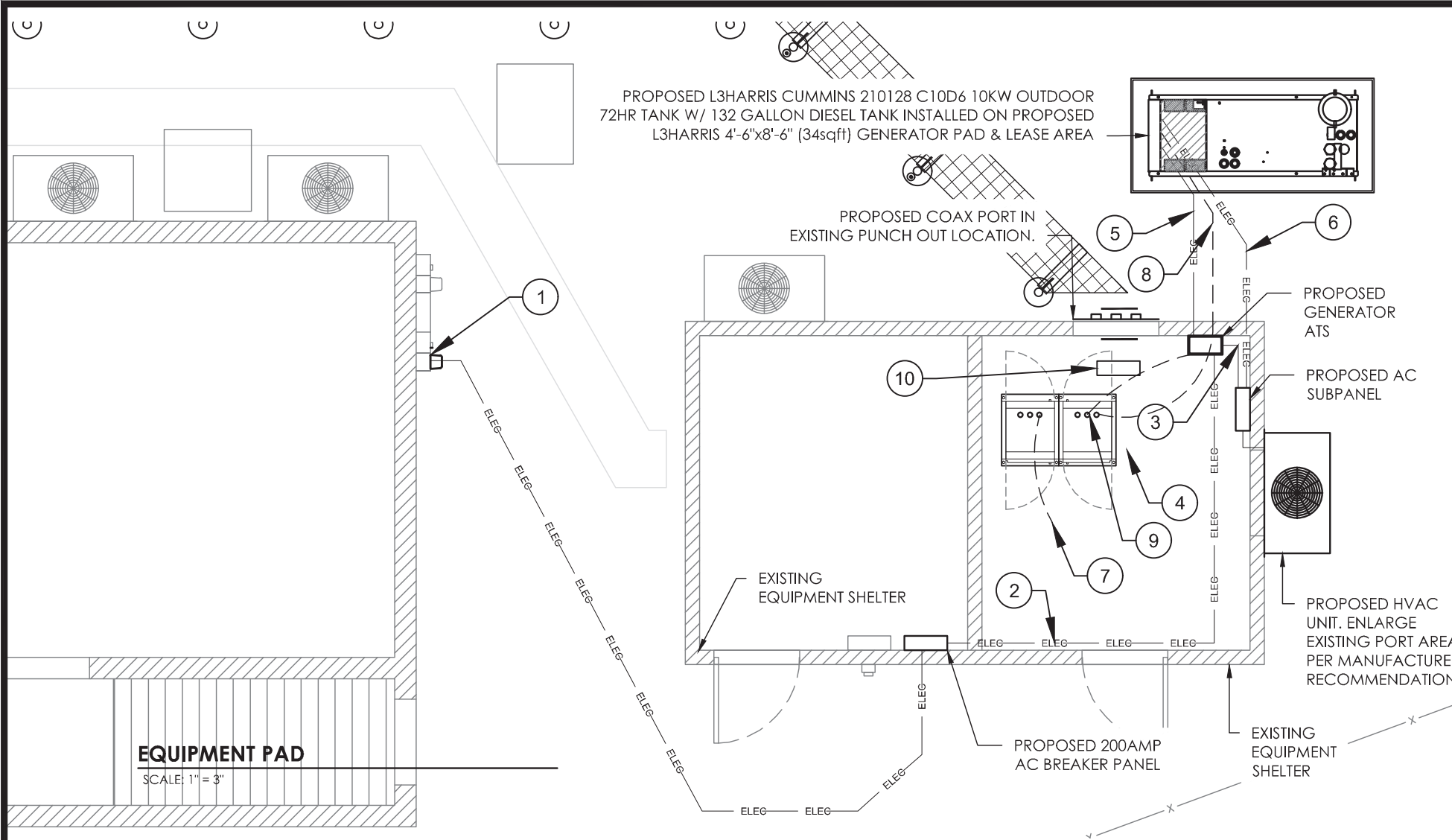
NO.	DATE	DESCRIPTION
1	3/15/21	FCD

PROJECT:
HARRIS-SELF SUPPORT

DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

ELECTRICAL
NOTES





PROPOSED L3HARRIS CUMMINS 210128 C10D6 10KW OUTDOOR 72HR TANK W/ 132 GALLON DIESEL TANK INSTALLED ON PROPOSED L3HARRIS 4'-6"x8'-6" (34sqft) GENERATOR PAD & LEASE AREA

PROPOSED COAX PORT IN EXISTING PUNCH OUT LOCATION.

PROPOSED GENERATOR ATS

PROPOSED AC SUBPANEL

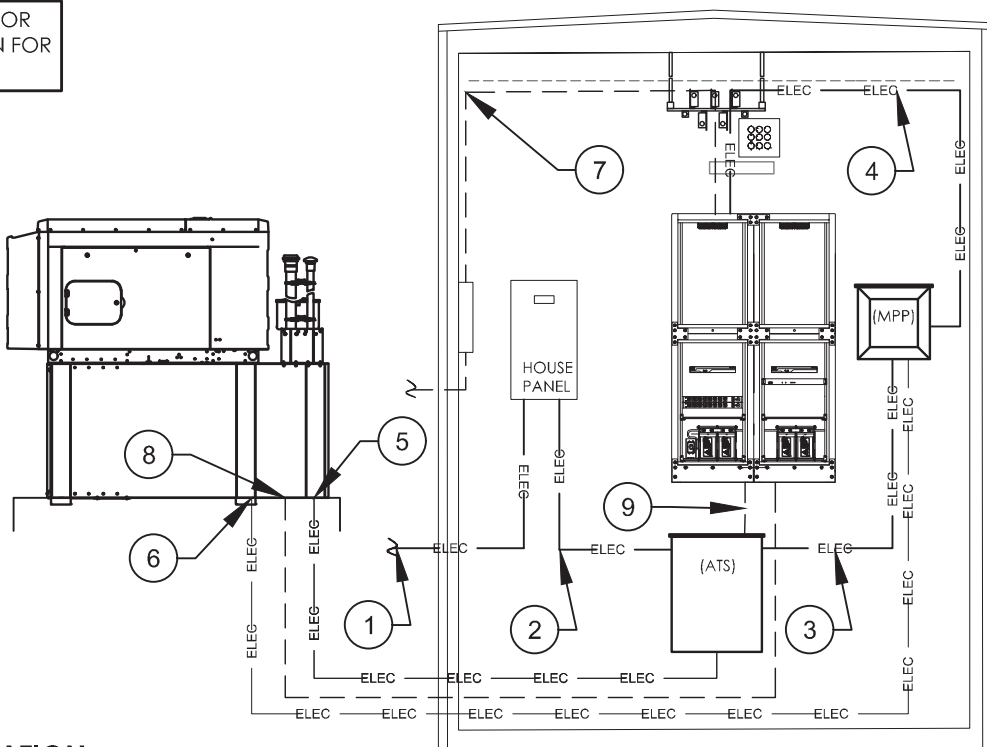
EXISTING EQUIPMENT SHELTER

PROPOSED HVAC UNIT. ENLARGE EXISTING PORT AREA PER MANUFACTURER RECOMMENDATIONS

EXISTING EQUIPMENT SHELTER

PROPOSED 200AMP AC BREAKER PANEL

PROPOSED EQUIPMENT SHOWN FOR REFERENCE. SEE EQUIPMENT PLAN FOR FINAL APPROVED LAYOUT



EQUIPMENT ELEVATION

SCALE: 1" = 3'

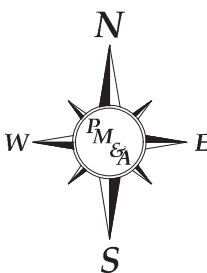
GENERAL NOTES

- THE CONTRACTOR IS TO ARRANGE AND PAY FOR UNDERGROUND UTILITY LOCATION SURVEY FOR ALL TRENCHING. REUSE NATIVE BACK FILL AND REINSTATE TO ORIGINAL CONDITION. INSTALL A 6" WIDE METALLIC LINED RED PLASTIC MARKER TAPE 8" ABOVE ALL BURIED CONDUIT.
- BOND TO EQUIPMENT SYSTEM WITH A #2 AWG SOLID TINNED Cu WIRE (2) 5/8" X 8'-0" DRIVEN GROUND ELECTRODES 10'-0" APART FOR MAIN SERVICE GROUND.
- APPROXIMATE LOCATION OF #2 AWG SOLID TINNED GROUND RING. EXACT LOCATION AND NUMBER OF GROUND RODS TO BE DETERMINED ON SITE AND BASED ON "FALL OF POTENTIAL GROUND RESISTANCE METHOD" FOR RESISTANCE <5 OHMS. UNLESS OTHERWISE NOTED, DRIVEN GROUND RODS ARE TO BE BURIED AT 10 FEET INTERVALS.
- ALL EXPOSED UNISTRUT IS TO BE COLD SAWN AND RUBBER CAPPED. ALL POWER CABINETS SHALL BE BONDED TO GROUND RING WITH TWO HOLE LUGS AND NO. 2 TINNED COPPER. ALL GROUND FROM GROUND RING SHALL BE BROUGHT UP IN PVC OR NON METALLIC SEAL TYPE, AND EXPOSED END SEALED WITH CAULK.
- CONDUCTORS WIRES FOR NOTE TO BE DIFFERENT COLORS.
- ALL CONDUIT TRANSITIONING THROUGH PAD AT REAR OF GENERATOR TO BE RGS TRANSITIONING TO CARFLEX.
- ALL CONDUIT SHALL BE LABELED AT BOTH TERMINATING ENDS OF THE CONDUIT PER NAMING CONVENTION.

KEYED NOTES

- SERVICE: EXISTING METER BASE & SERVICE CONDUIT
- MAIN POWER: PULL (3) #3 AWG, (1) #8 GND IN 2" RGS CONDUIT FROM HOUSE PANEL TO PROPOSED ATS
- PULL (3) #3 AWG, (1) #8 GND IN 2" RGS CONDUIT FROM ATS TO SUB PANEL
- PULL (6) #12 AWG THWN IN 3/4" CONDUIT FROM POWER PANEL (POWER PANEL PP1) TO RECEPTACLE BOX, TWIST LOCK, L520R, 20AMP, 125V LOCATED APPROXIMATELY 1' ABOVE CABINETS.
- GEN. POWER: PULL (3) #6 AWG THWN AND (1) #8 GND IN 2" RGS CONDUIT FROM ATS TO GENERATOR.
- GEN.CONTROLS: PULL (7) #12 AWG THWN AND (1) #12 GND IN 2" RGS CONDUIT FROM L3HARRIS PANEL TO GENERATOR, CONDUCTOR WIRES TO BE DIFFERENT COLORS.
- MAIN TELCO: PULL (2) CONTINUOUS BELDEN 7838A CABLES IN 2" CONDUIT FROM DEMARC TO L3HARRIS TELCO ENCLOSURE AND ONTO EQUIPMENT CABINET. LEAVE 6' UNCUT LOOP IN THE DEMARC AND A 10' LOOP IN THE BTS.
- BTS TELCO: PULL (2) CAT 5 IN 1" CONDUIT FROM EQUIPMENT CABINET TELCO J-BOX TO GENERATOR. IDENTIFY AT ALL JUNCTION ENDS.
- PULL (6) #14 THWN STRANDED IN 1" RGS FROM ATS TO CABINET.
- PROPOSED POLYPHASER RACK

NORTH ARROW



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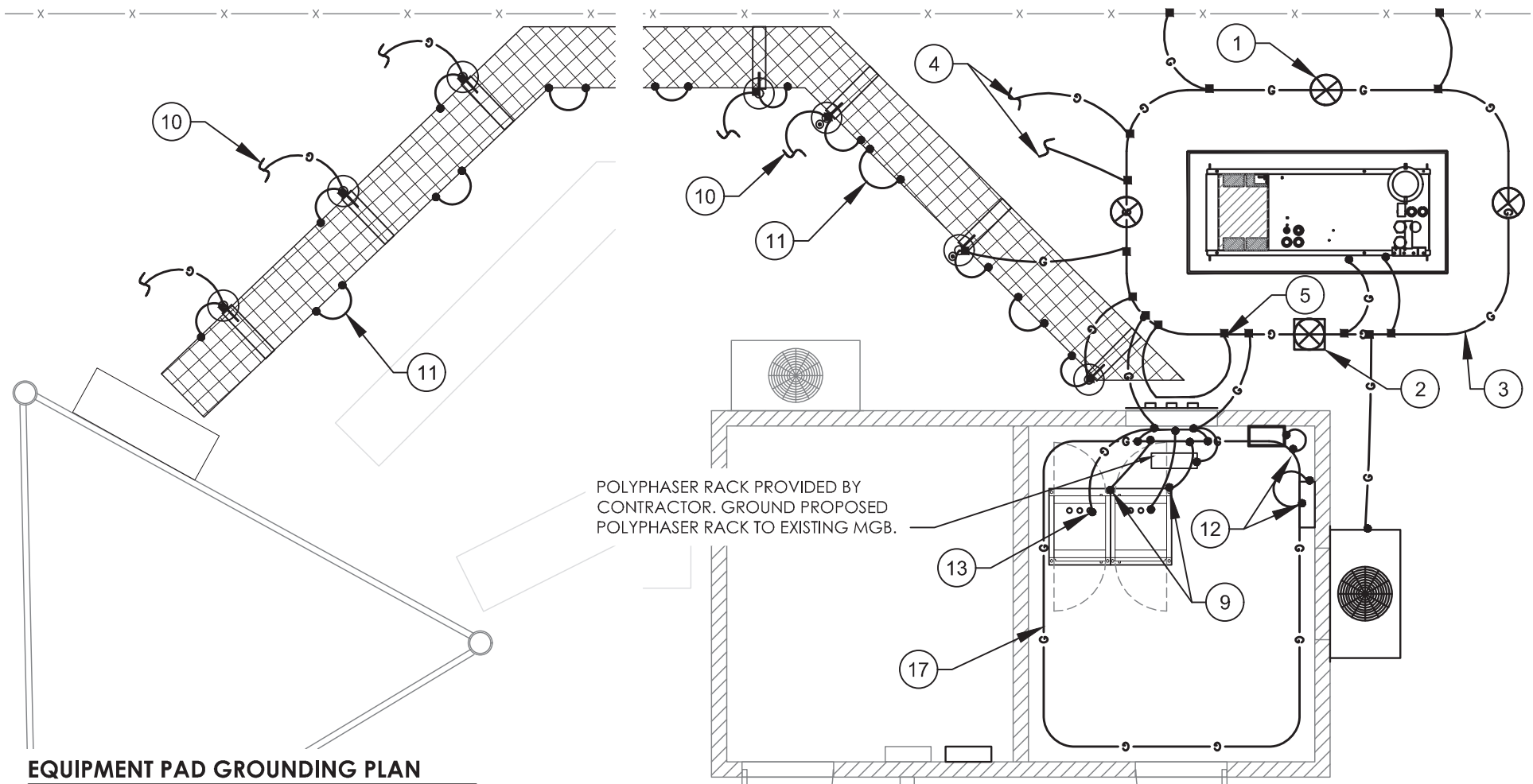
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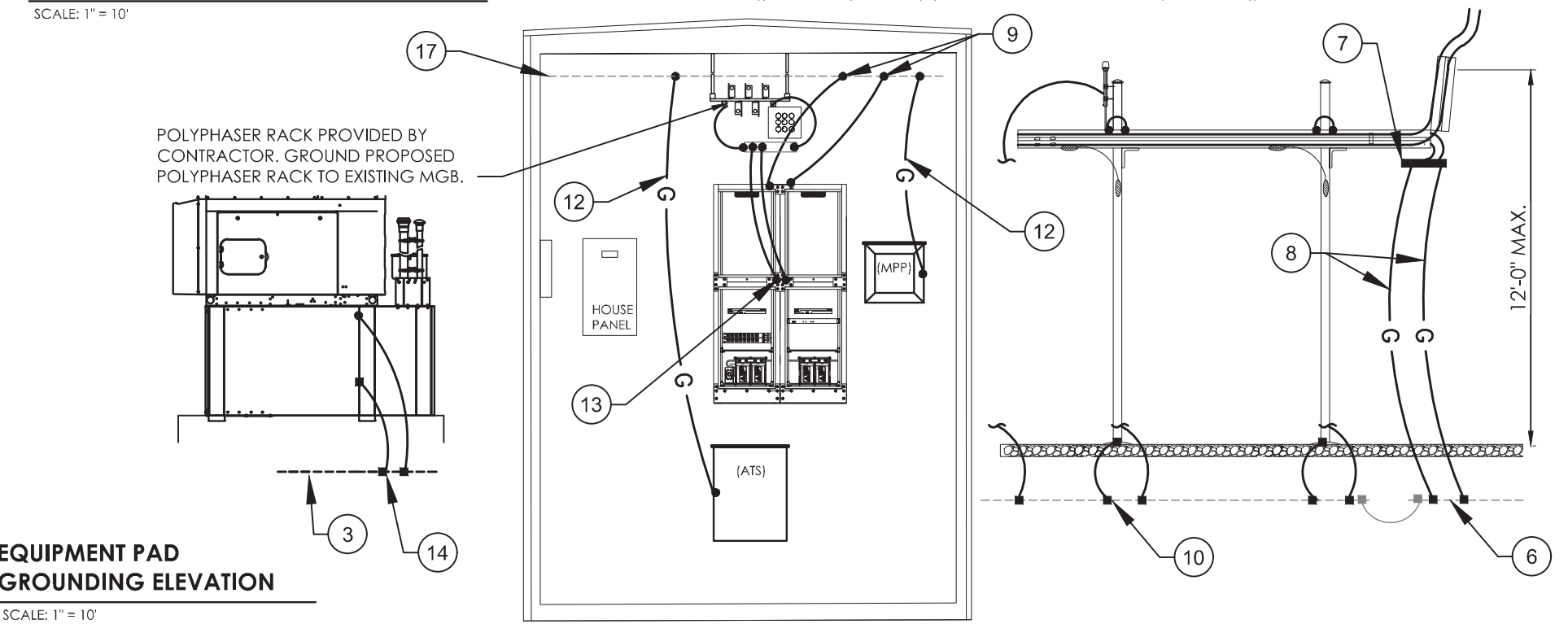
DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

ELECTRICAL SITE PLAN



EQUIPMENT PAD GROUNDING PLAN

SCALE: 1" = 10'



EQUIPMENT PAD GROUNDING ELEVATION

SCALE: 1" = 10'

GRAPHIC LEGEND

■

EXOTHERMIC WELD

●

MECHANICAL CONNECTION

⊗

5/8" X 10' COPPER CLAD GROUND ELECTRODE

⊗

5/8" X 10' COPPER CLAD GROUND ELECTRODE W/ INSPECTION WELL

GRAPHIC SCALE

10'00'10'

SCALE: 1" = 10'

KEYED NOTES

1.

PROPOSED GROUND ROD 5/8"x10'-0" LONG (VIF TYP.)

2.

PROPOSED GROUND ROD WITH INSPECTION WELL (VIF TYP.)

3.

PROPOSED #2 TINNED SOLID COPPER EQUIPMENT GROUND RING.. CONDUCT GROUNDING SYSTEM TEST AND INCLUDE IN THE CLOSEOUT PACKAGE TO L3HARRIS. ADDITIONAL GROUNDING MAY BE REQUIRED PENDING THE RESULTS OF THE GROUNDING SYSTEM TEST

4.

PROPOSED #2 TINNED SOLID COPPER GROUND WIRE FROM EXISTING GROUND RING TO GROUND ROD IN EQUIPMENT GROUND RING. IF DISTANCE IS GREATER THAN 20' BUT LESS THAN 30' INSTALL A GROUND ROD AT CENTER OF LEAD.X 2)

5.

PROPOSED #2 TINNED SOLID COPPER GROUND WIRE FROM GROUND RING TO BUSS BAR

6.

EXISTING TOWER GROUND RING. CONTRACTOR TO VERIFY IN FIELD.

7.

PROPOSED ISOLATED BOTTOM TOWER GROUND BAR.

8.

PROPOSED #2 TINNED SOLID COPPER GROUND WIRE FROM GROUND BAR TO TOWER GROUND RING

9.

GROUND PROPOSED INTERIOR RACKS WITH CONNECTION TO EXISTING GROUND HALO RING (TYP.)

10.

PROPOSED GROUND ICE BRIDGE POST WITH CADWELD CONNECTION TO GROUND RING (TYP.) VERIFY EXISTING LOCATION

11.

GROUND ICE BRIDGE CHANNEL SECTIONS WITH 2-HOLE LUG CONNECTION. BOND ADJOINING CHANNEL SECTIONS TOGETHER WITH 2-HOLE LUG JUMPERS, THEN BOND FIRST AND LAST SECTION TO GROUND BAR (TYP.)

12.

GROUND PROPOSED POWER PANEL & ATS PER NEC 250 AND LOCAL UTILITY REQUIREMENTS (TYP.)

13.

GROUND PROPOSED RACK GROUND BAR WHERE REQUIRED PER MANUFACTURER (TYP.)

14.

GROUND GENERATOR PER MANUFACTURERS SPECIFICATIONS WITH #2 AWG BARE TINNED SOLID COPPER WIRE & 2-HOLE LUG CONNECTION TO GENERATOR BASE FRAME, CADWELD CONNECTION TO GROUND RING (TYP.)

15.

#2 TINNED SOLID COPPER GROUND WIRE FROM CADWELD AT GROUND RING TO 2-LUG CONNECTION LP TANK PER MANUFACTURER RECOMMENDATIONS

16.

PROVIDE (2) #2 GROUND LEADS FROM MASTER GROUND BAR TO EQUIPMENT GROUND RING.

17.

PROPOSED GROUND HALO IN EXISTING SHELTER. INSTALL #6 AWG STRANDED Cu WIRE WITH GREEN, 600V, THWN INSULATION. MECHANICAL CONNECTION FOR ALL EQUIPMENT INSTALLED. CONNECT TO PROPOSED MGB.

NORTH ARROW

N

W

E

S

COLORADO LICENSED
PETRU RACZ
0053617
PROFESSIONAL ENGINEER

3-16-2021

L3HARRIS™

PMA

LOCATION:
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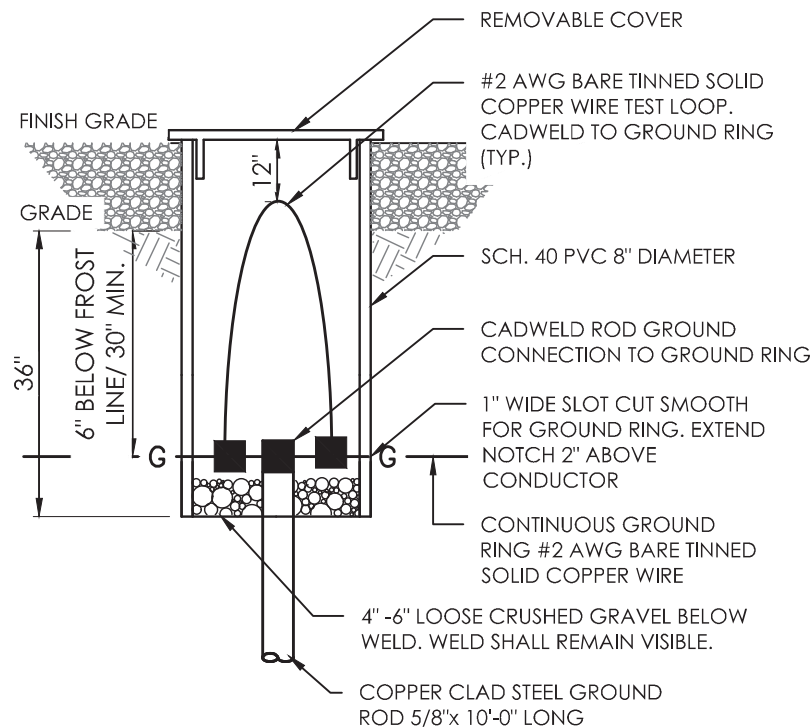
DESIGNER: RLB

CHECKED: JTM

JOB #: 20KHAHANCO-0009

GROUNDING PLAN

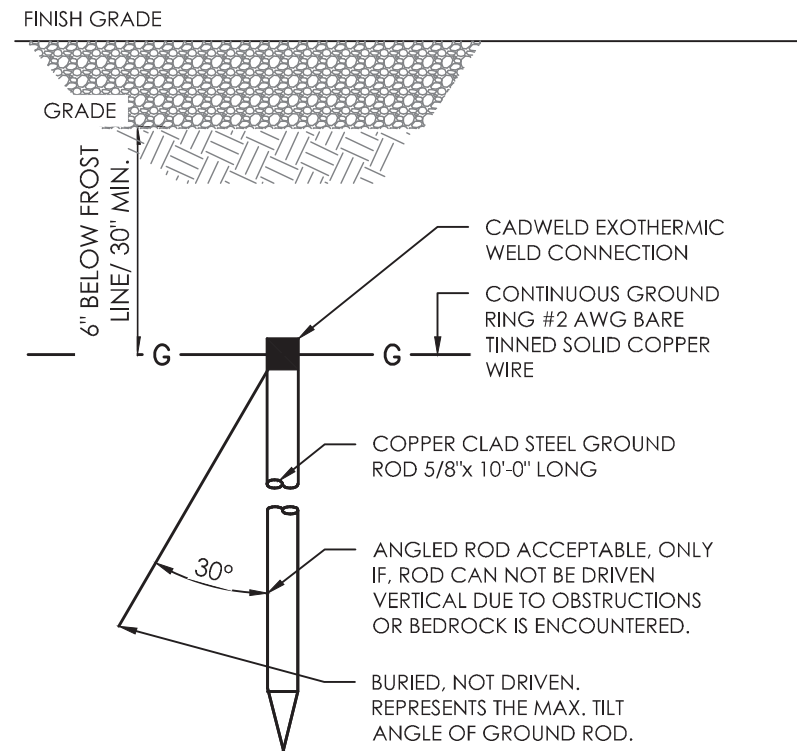
E-4



- NOTES**
- ONE TEST WELL SHALL BE PROVIDED BETWEEN THE TOWER GROUND LOOP AND THE EQUIPMENT GROUND LOOP

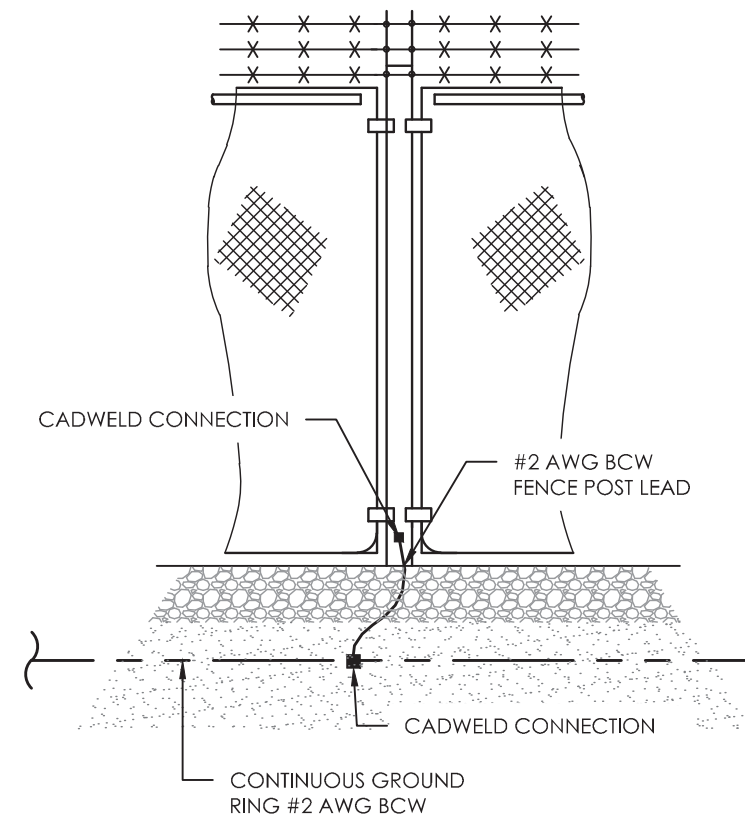
GROUND ROD INSPECTION WELL

SCALE: NTS



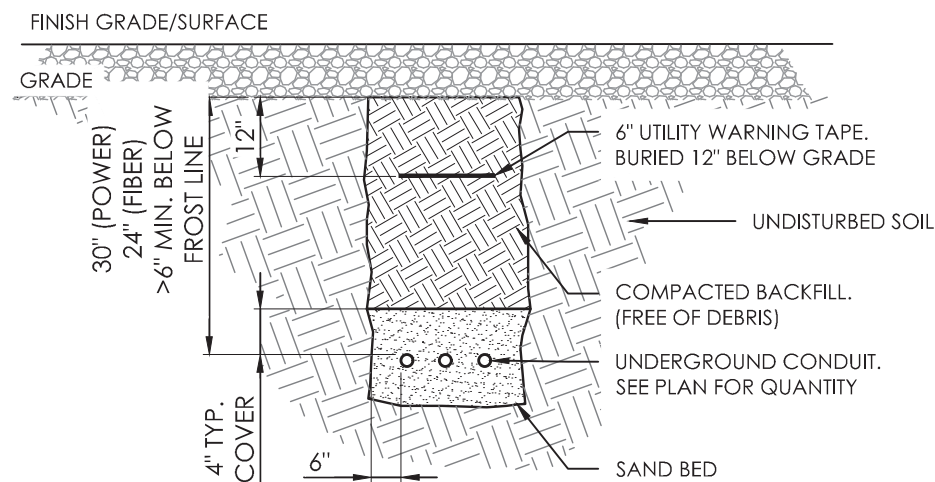
GROUND ROD DETAIL

SCALE: NTS



FENCE GROUNDING

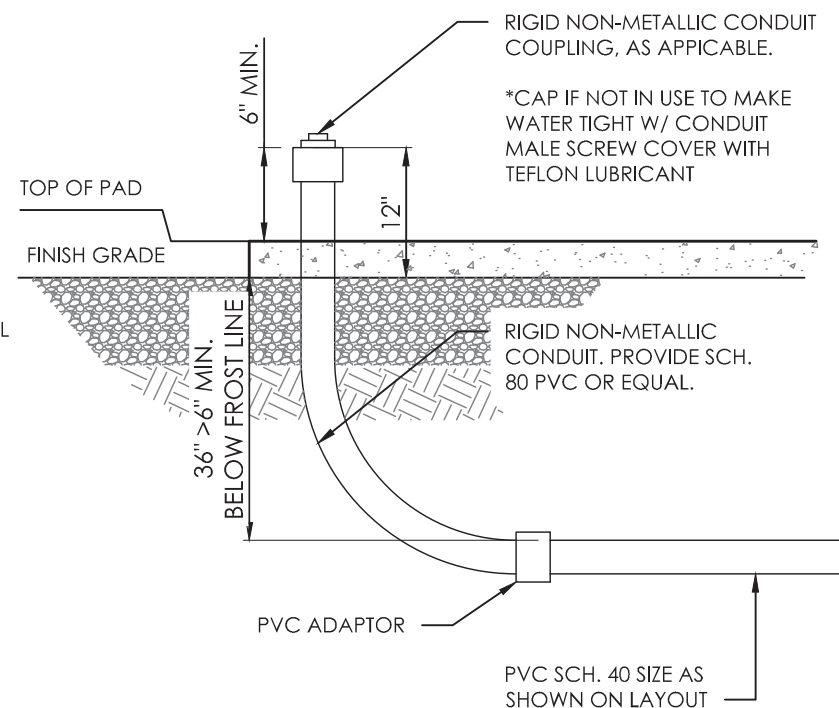
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- NOTES**
- PROVIDE PVC CONDUIT BELOW GRADE EXCEPT AS NOTED.
 - PROVIDE RGS CONDUIT BELOW PARKING LOTS & ROADWAYS.
 - 4" TYP. SEPARATION BETWEEN CONDUIT IN SHARED TRENCH. VERIFY FINAL REQUIREMENTS WITH LOCAL UTILITY COMPANY.

UNDERGROUND CONDUIT TRENCH

SCALE: NTS



- NOTES**
- PROVIDE RGS CONDUIT AND ELBOWS AT STUB-UP LOCATIONS

UNDERGROUND CONDUIT STUB-UP

SCALE: NTS



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ELECTRICAL DETAILS

E-5



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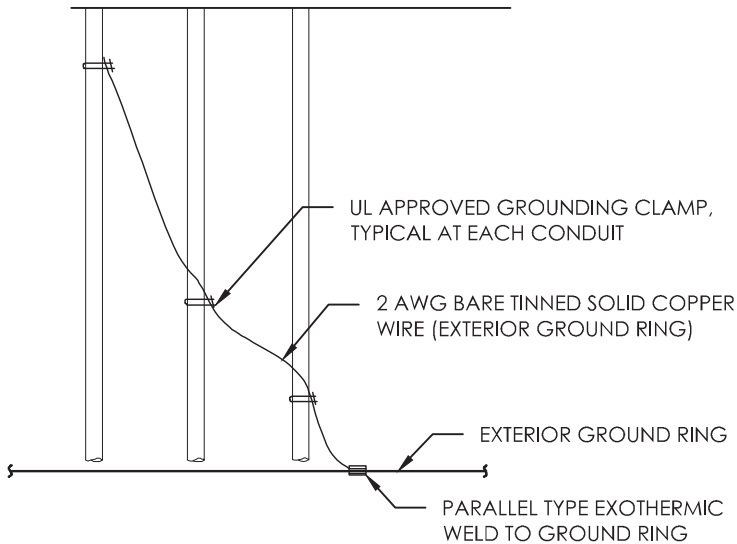
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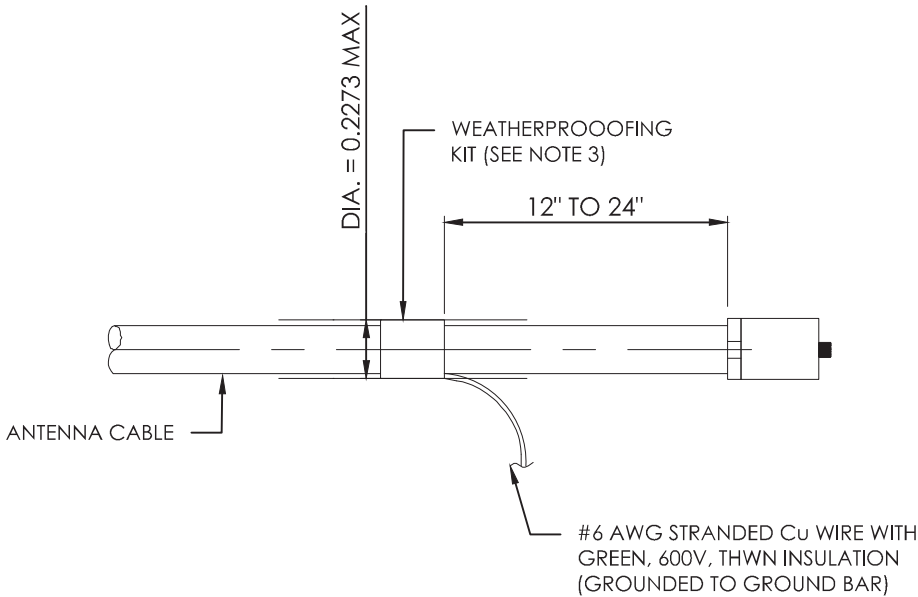
ELECTRICAL
DETAILS

NOTE:
CONTRACTOR TO USE KOPR-SHEILD, PENETROX
TYPE "E" AT THESE CONNECTIONS



MULTIPLE CONDUIT GROUNDINGS

SCALE: NTS

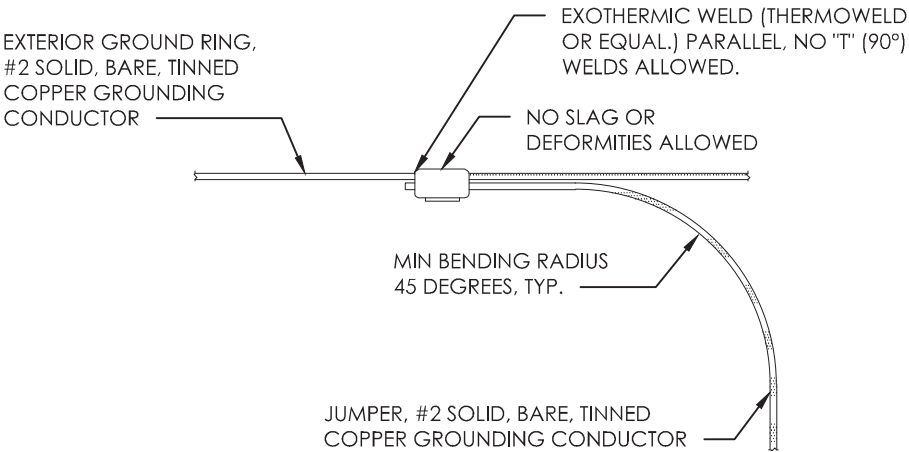


NOTES

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WORE DOWN TO GROUND BAR.
- GROUND KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
- WEATHER PROOFING SHALL BE (TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.

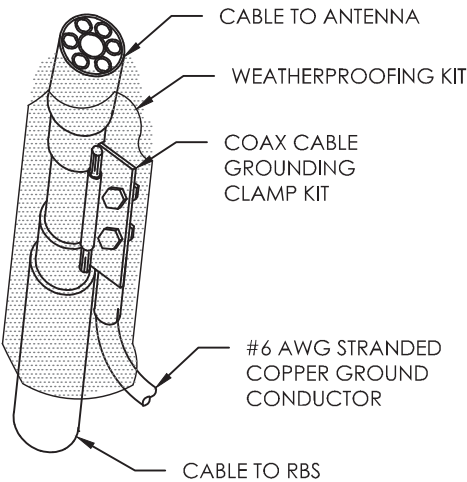
CONNECTION GROUND KIT TO ANTENNA CABLE

SCALE: NTS



TYP. GROUND CONNECTION

SCALE: NTS

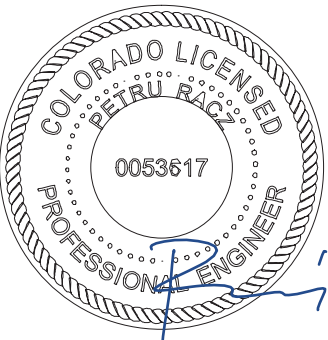


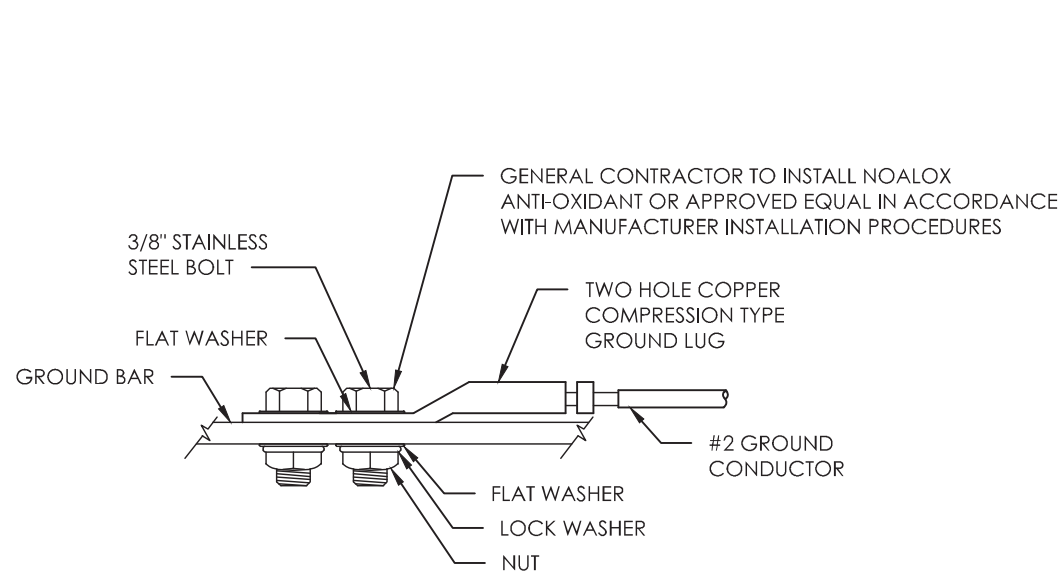
NOTES

- DO NOT INSTALL CABLE GROUND KIT AT BEND
- ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR
- GROUNDING KIT & WEATHER PROOFING KIT SHALL BE TYPE & PART # AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER

COAX CABLE GROUND KIT

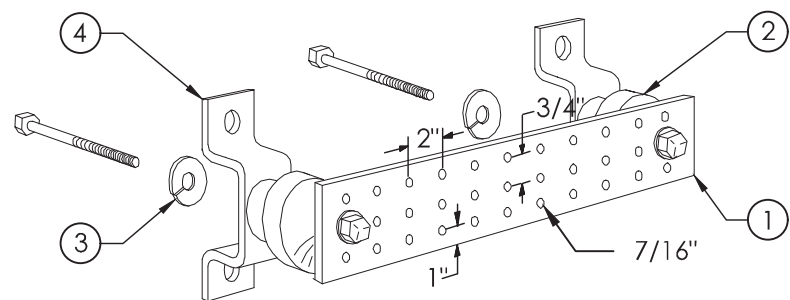
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MECHANICAL GROUND CONNECTION

SCALE: NTS

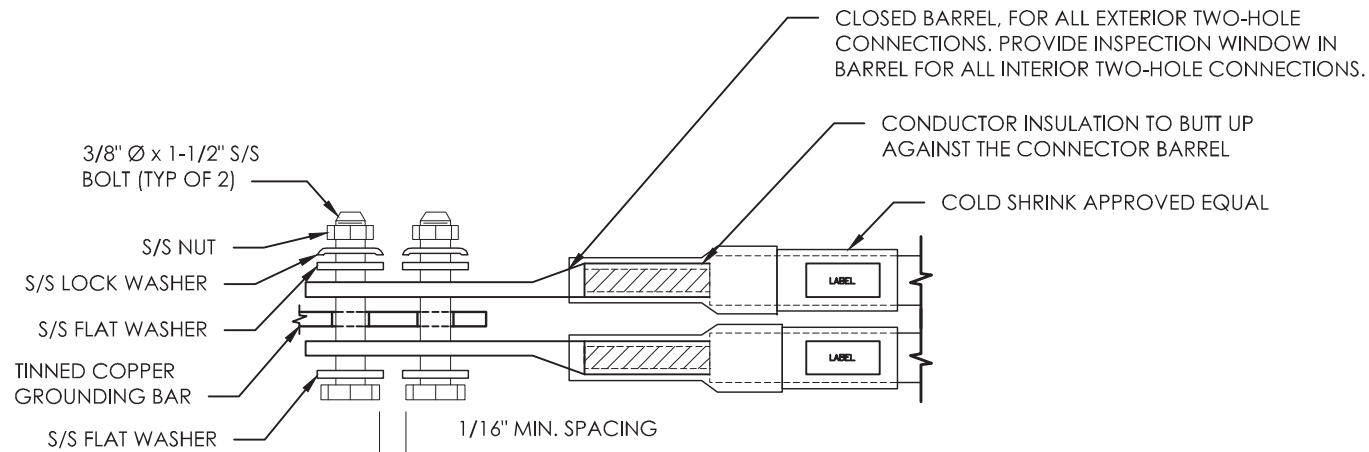


KEY NOTES

1. TINNED COPPER GROUND BAR $\frac{1}{2}$ "x4"x20" (MIN.). NEWTON INSTRUMENT CO. CAT. NO. B-6142. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. INSULATORS, NEWTON INSTRUMENT CO. CAT. NO. 3061-4.
3. $\frac{5}{8}$ " LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-B
4. WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT. NO. A-6056.
5. $\frac{5}{8}$ x1"x1" H.H.C.S BOLTS, NEWTON INSTRUMENT CO. CAT. NO. 301.
6. GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY.
7. GROUND BAR SHALL BE NEITHER FIELD FABRICATED NOR NEW HOLES DRILLED.
8. GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR.
9. HARDWARE DIAMETER SHALL BE MINIMUM $\frac{3}{8}$ ".

EXTERIOR GROUND BAR (EGB)

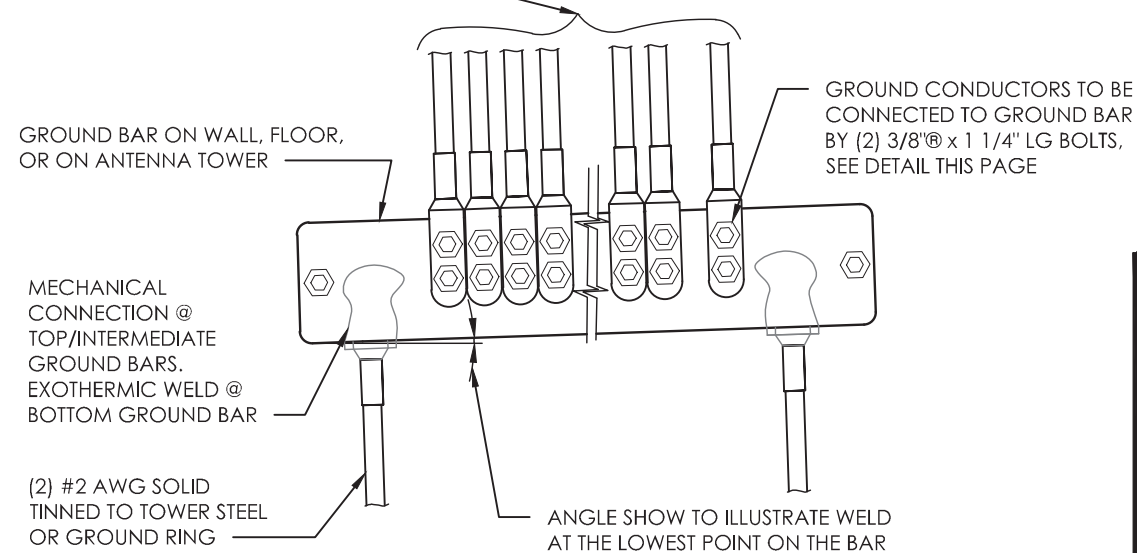
SCALE: NTS



BACK TO BACK PLACEMENT (WHEN EXISTING GB DOES NOT ALLOW SINGLE)

SCALE: NTS

#6 AWG STRANDED Cu WIRE WITH GREEN, 600V, THWN INSULATION FROM COAX CABLE GROUND KITS



INSTALLATION OF GROUND WIRE TO COAX CABLE GROUND BAR

SCALE: NTS



LOCATION:
40.520863, -107.297072
ADJ. ADDRESS:
6985 HOMESTEADER LANE
HAYDEN, CO 91639
ROUTT COUNTY

HAYDEN 2

SV383-05

NO.	DATE	DESCRIPTION
1	3/15/21	FCD

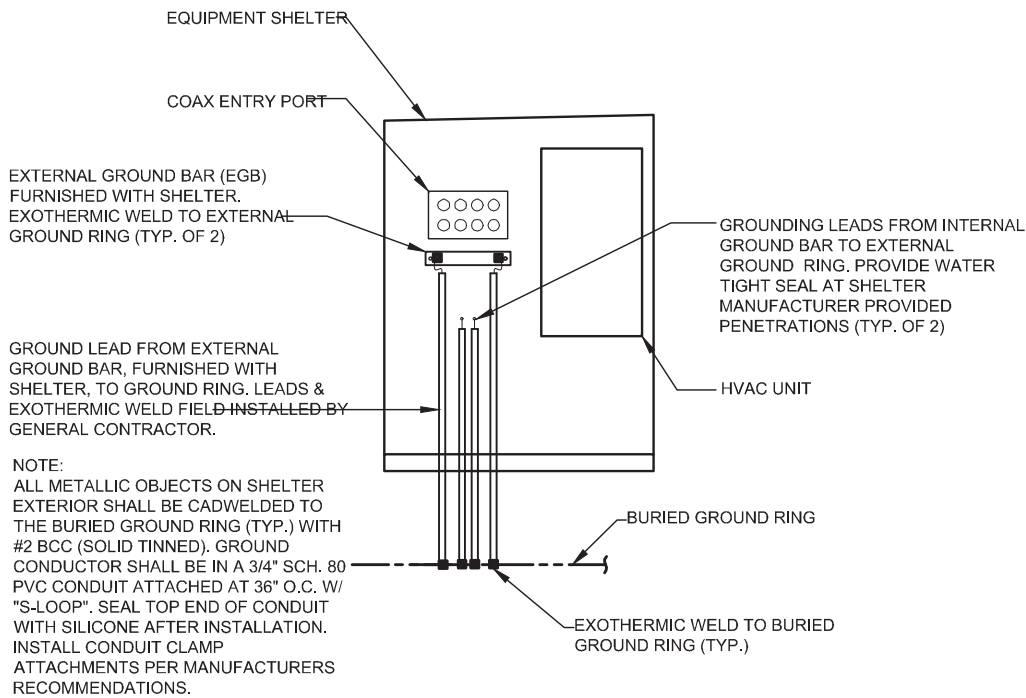
PROJECT:
HARRIS-SELF SUPPORT

DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

ELECTRICAL DETAILS

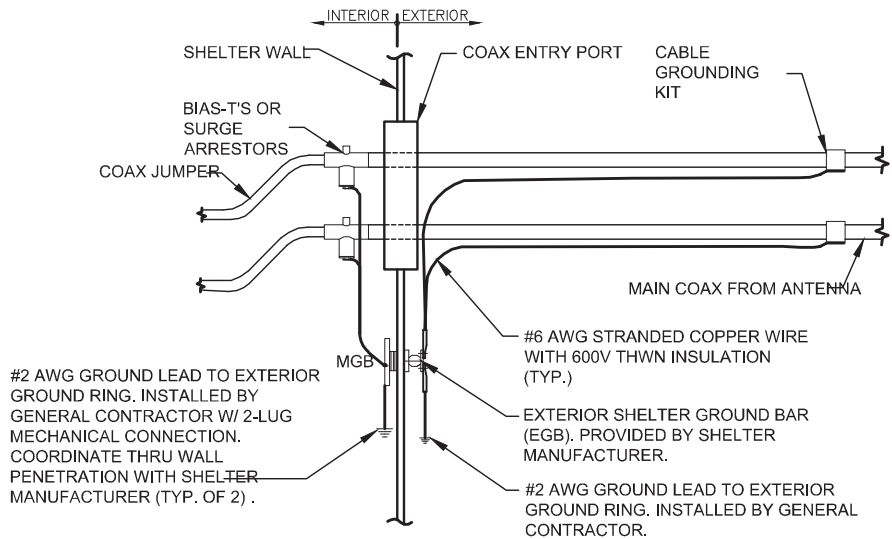
E-7





SHELTER GROUND BAR DETAIL

NOT TO SCALE



COAX GROUNDING DETAIL

NOT TO SCALE



LOCATION:
40.520863, -107.297072

ADJ. ADRESS:
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HAYDEN, CO 91639
ROUTT COUNTY

HAYDEN 2

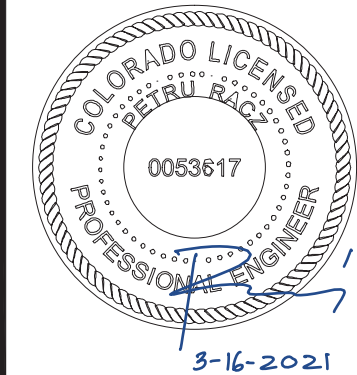
SV383-05

NO.	DATE	DESCRIPTION
1	3/15/21	FCD

PROJECT:
HARRIS-SELF SUPPORT

DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

ELECTRICAL
DETAILS



LOCATION:
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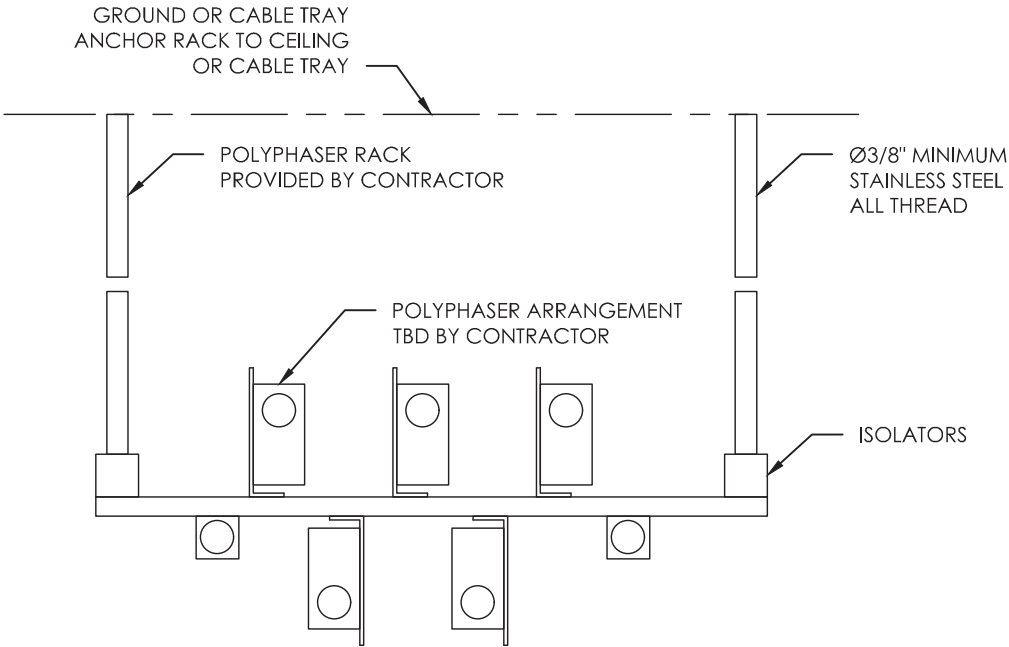
HAYDEN 2

SV383-05

NO.	DATE	DESCRIPTION
1	3/15/21	FCD

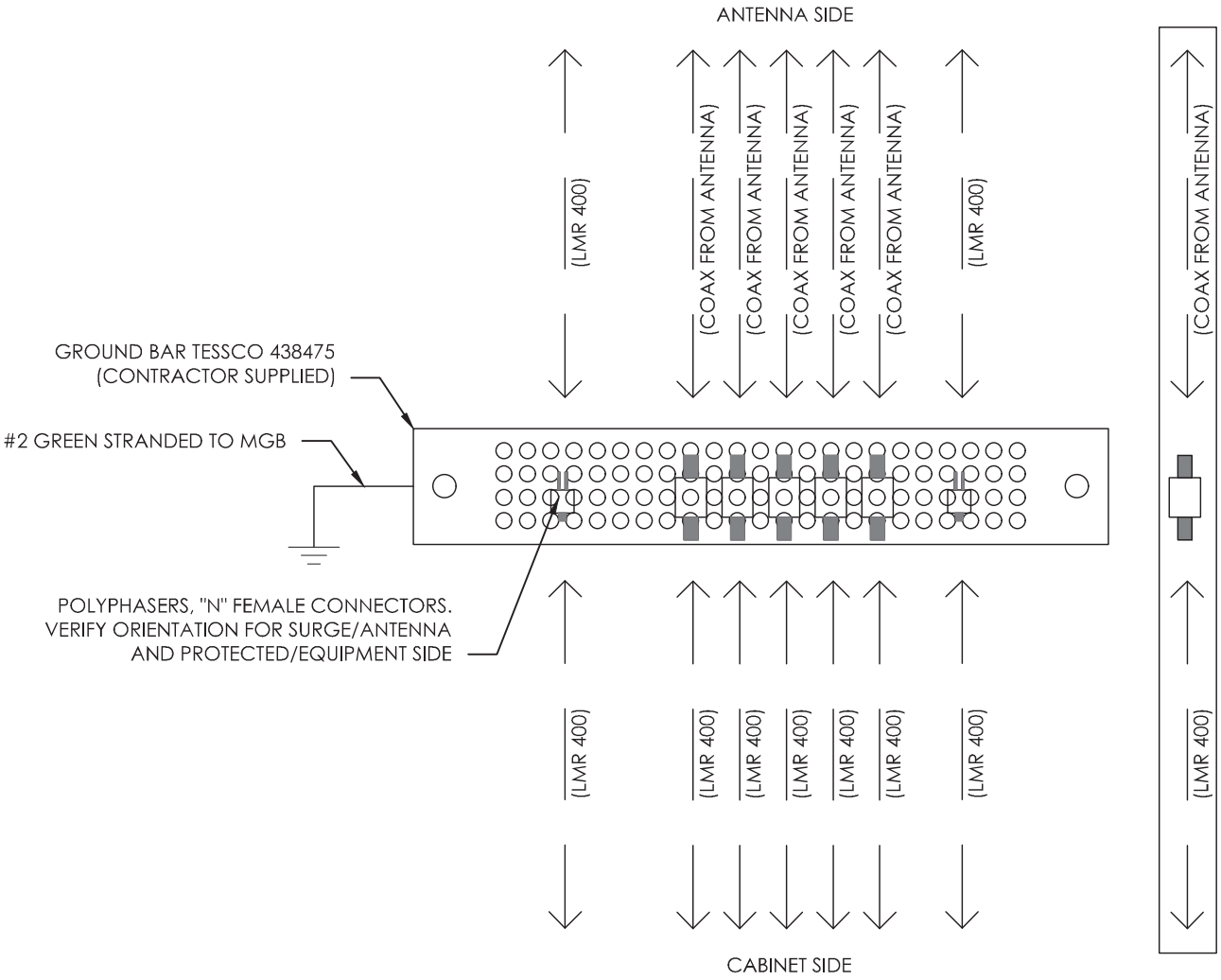
PROJECT:
HARRIS-SELF SUPPORT
DESIGNER: RLB
CHECKED: JTM
JOB #: 20KHAHANCO-0009

POLYPHASER
DETAILS



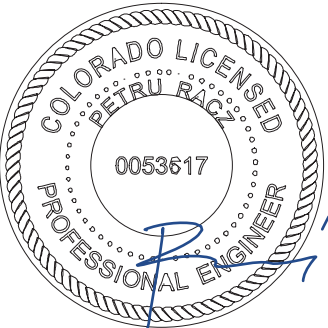
POLYPHASER MOUNT DETAIL

SCALE: NTS



POLYPHASER DETAIL

SCALE: NTS



3-16-2021