



Crown Castle Fiber LLC
250 Hawthorne Ave.
Jurisdiction: Municipality of Princeton
Proposed Small Cell Site



LOCATION MAP

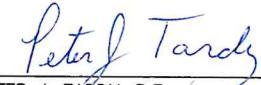
Latitude: 40.357047°N
Longitude: -74.649691°W
Block: 31.04, Lot 16



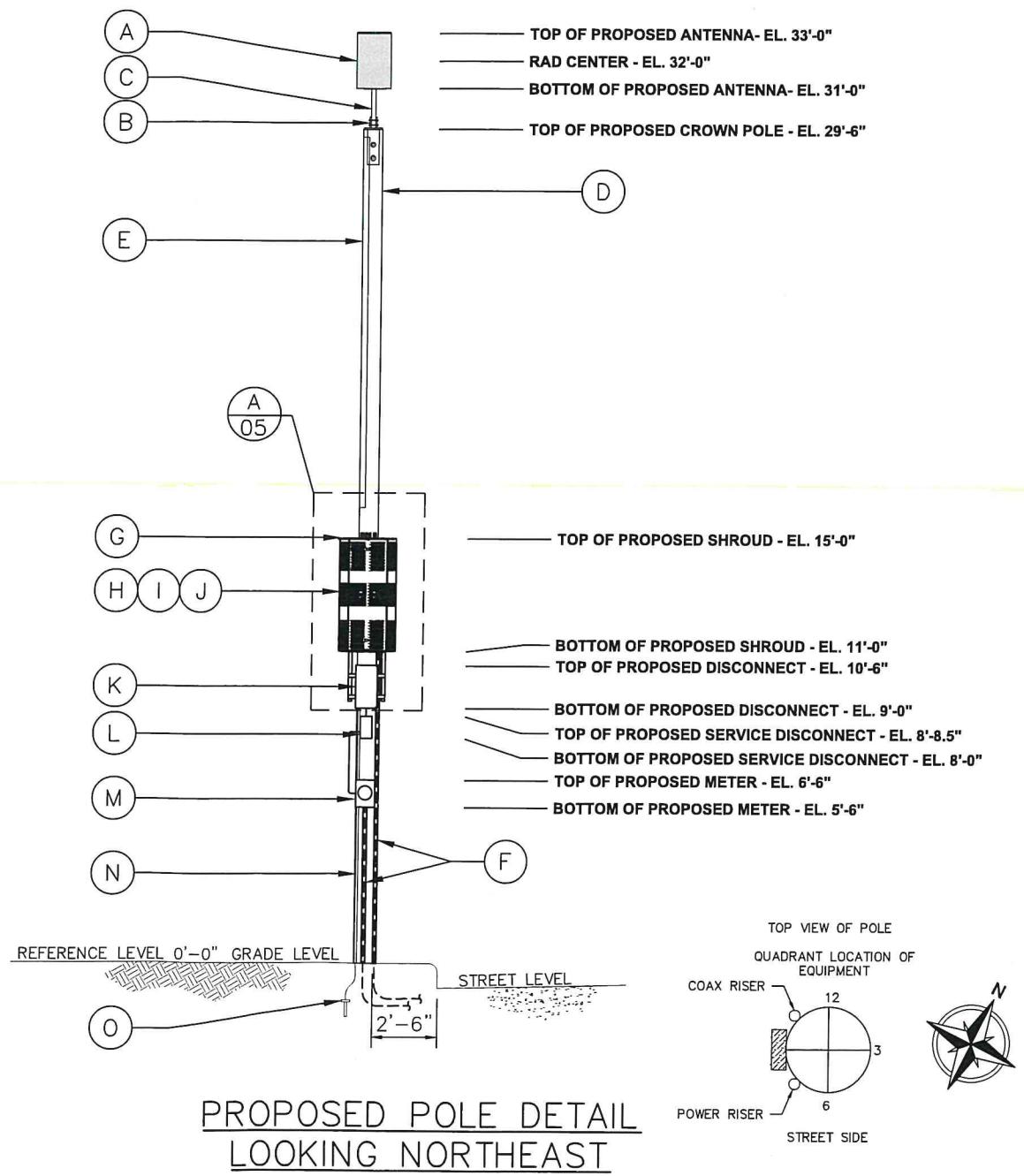
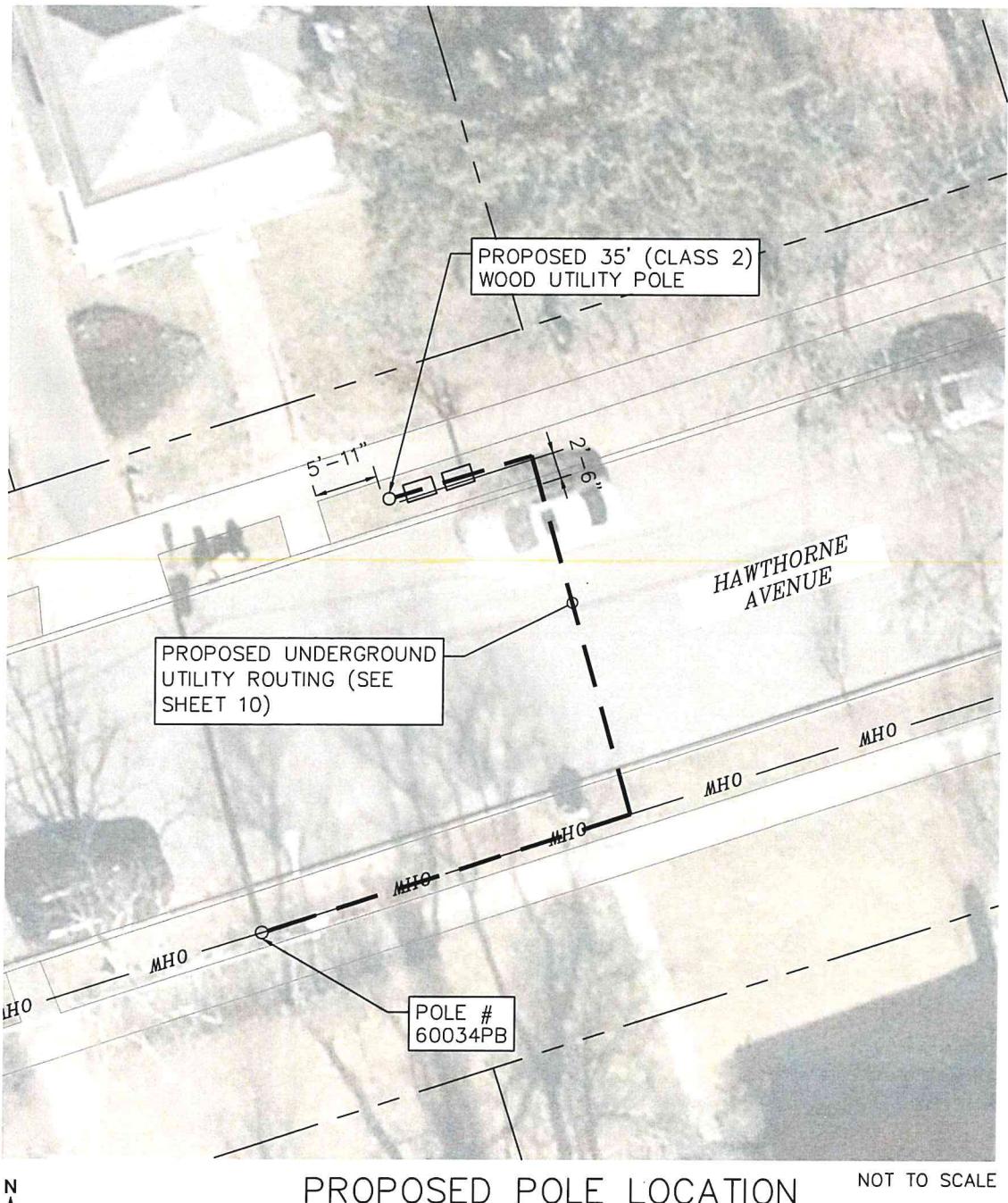
NODE PLACEMENT

250 Hawthorne Ave.
Proposed Crown wood pole
On the North side of
Hawthorne Ave. West of N Harrison St.
Pole ID: TBD

INDEX TO SHEETS	
DWG #	DRAWING TITLE
1	COVER SHEET
2	PROPOSED POLE CONFIGURATION
3	PROPOSED POLE LOCATION PHOTOS (N&S)
4	PROPOSED POLE LOCATION PHOTOS (W)
5	PROPOSED EQUIPMENT DETAILS
6	PROPOSED ANTENNA & RADIO DETAILS
7	WIRING DIAGRAM
8	DISCONNECT BOX
9	UNDERGROUND UTILITY NOTES
10	UNDERGROUND UTILITY PLAN
11	UNDERGROUND ROUTING DETAILS

NODE ID:	PRC-071																		
SCU #:	528027																		
PROPOSED POLE CLASS: 2																			
																			
 <p>PETER J. TARDY 08/21/2025</p> <p>PETER J. TARDY, P.E. DATE NEW JERSEY PROFESSIONAL ENGINEER NJ LIC. NO. 41990</p>																			
<p>ENGINEER:</p> <p>FPA FRENCH & PARRELO ASSOCIATES Camden Office: 2 Riverside Drive, Suite 503 Camden, New Jersey 08101 609.862.1582 FPAengineers.com</p>																			
<p>OWNER/DEVELOPER:</p> <p>CROWN CASTLE The Foundation for a Wireless World.</p>																			
<p>TITLE: Crown Castle Fiber LLC 250 HAWTHORNE AVENUE PRINCETON, NJ JURISDICTION: MUNICIPALITY OF PRINCETON</p>																			
<p>REVISIONS</p> <table border="1"> <tr> <th>REV.</th> <th>DATE</th> <th>REVISION DESCRIPTION</th> </tr> <tr> <td>1</td> <td>10/24/23</td> <td>ISSUED AS FINAL</td> </tr> <tr> <td>2</td> <td>10/16/24</td> <td>REVISED POLE HEIGHT</td> </tr> <tr> <td>3</td> <td>11/14/24</td> <td>REVISED PER COMMENTS</td> </tr> <tr> <td>4</td> <td>06/27/25</td> <td>REVISED PER UG ROUTING</td> </tr> <tr> <td>5</td> <td>08/21/25</td> <td>REVISED BLOCK/LOT</td> </tr> </table>		REV.	DATE	REVISION DESCRIPTION	1	10/24/23	ISSUED AS FINAL	2	10/16/24	REVISED POLE HEIGHT	3	11/14/24	REVISED PER COMMENTS	4	06/27/25	REVISED PER UG ROUTING	5	08/21/25	REVISED BLOCK/LOT
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<p>DRAWN BY: D.R. CHECKED BY: A.R.C. APPROVED BY: P.J.T.</p>																			
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<p>SCU # / CASCADE ID: 528027/PH6026BA_51LAB</p>																			
<p>DATE DRAWN: 09/13/2023</p>																			
<p>SHEET: 1 OF 11</p>																			

NOTES:
POINT OF CONTACT FOR POWER AND
TELCO TO BE DETERMINED PENDING
UTILITY COORDINATION.



A. PROPOSED ANTENNA:
(1) AMPHENOL 266U2VT360X06Fwsys4
24.0" x14.6" (HxD) - 28.56 LBS

B. INSTALL ANTENNA MOUNTING BRACKET

C. INSTALL POLE TOP MOUNT

D. INSTALL NEW 35' CLASS 2 WOOD UTILITY POLE
TOP HEIGHT = 29'-6" (AGL)

E. INSTALL 2" PVC RISER U-GUARD:
PROPOSED #4 AWG GROUND WIRE AND COAX/FIBER CABLES
TO BE ROUTED WITHIN

F. INSTALL 3" PVC SCH. 80 POWER RISER CONDUIT FROM METER
TO PULLBOX. INSTALL 2" PVC SCH. 80 FIBER RISER CONDUIT
FROM SHROUD TO PULLBOX.

G. INSTALL SHROUD CABINET:
RAYCAP RAES-23541B-C35
48.0" x24.0" (HxD) - 433 LBS
INTERNAL ERICSSON COMPONENTS TO BE INSTALLED:
ODA-935 PSU AC OB, & FRONTHAUL 6585
EQUIPMENT COLOR: BROWN
TO BE THRU-BOLTED TO POLE

H. INSTALL RADIO UNIT WITHIN NEW SHROUD CABINET:
(1) ERICSSON RADIO 4455 B2/B25 B66A
31.3" x10.9" x5.9" (HxD) - 67.2 LBS

I. INSTALL RADIO UNIT WITHIN NEW SHROUD CABINET:
(1) ERICSSON RADIO 8863 B41 W/FAN
18.1" x14.8" x5.7" (HxD) - 50.9 LBS

J. INSTALL DIPLEXER WITHIN NEW SHROUD CABINET:
(1) KAEULUS DBCT156FV12-1
4.33" x9.41" x3.51" (HxD) - 9.7 LBS

K. INSTALL 100A DISCONNECT:
(1) RAYCAP RPS100A-100GHS-21NN
18.25" x9.10" x6.05" (HxD) - 23.6 LBS
EQUIPMENT COLOR: BROWN
TO BE MOUNTED BELOW EQUIPMENT SHROUD

L. INSTALL SERVICE DISCONNECT:
(1) SQUARE D QO2-4L70RB
9.37" x4.88" (HxD) - 5.05 LBS
EQUIPMENT COLOR: BROWN
TO BE MOUNTED BELOW 100A DISCONNECT

M. INSTALL POWER METER:
(1) MILBANK U8569-YL-PSE&G-DES
11.5" x8.0" x3.3" (HxD)
EQUIPMENT COLOR: BROWN
TO BE MOUNTED BELOW 100A DISCONNECT

N. INSTALL 1" PVC U-GUARD:
PROPOSED #4 AWG GROUND WIRE ROUTED WITHIN

O. INSTALL 8' GROUND ROD

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08/21/2025
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OWNER/DEVELOPER:
CROWN CASTLE
The Foundation for a Wireless World.

TITLE:
Crown Castle Fiber LLC
250 HAWTHORNE AVENUE
PRINCETON, NJ
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D.R. A.R.C. P.J.T.

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PROPOSED POLE PHOTO
LOOKING NORTH



PROPOSED POLE PHOTO
LOOKING SOUTH

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PROPOSED POLE PHOTO
LOOKING WEST

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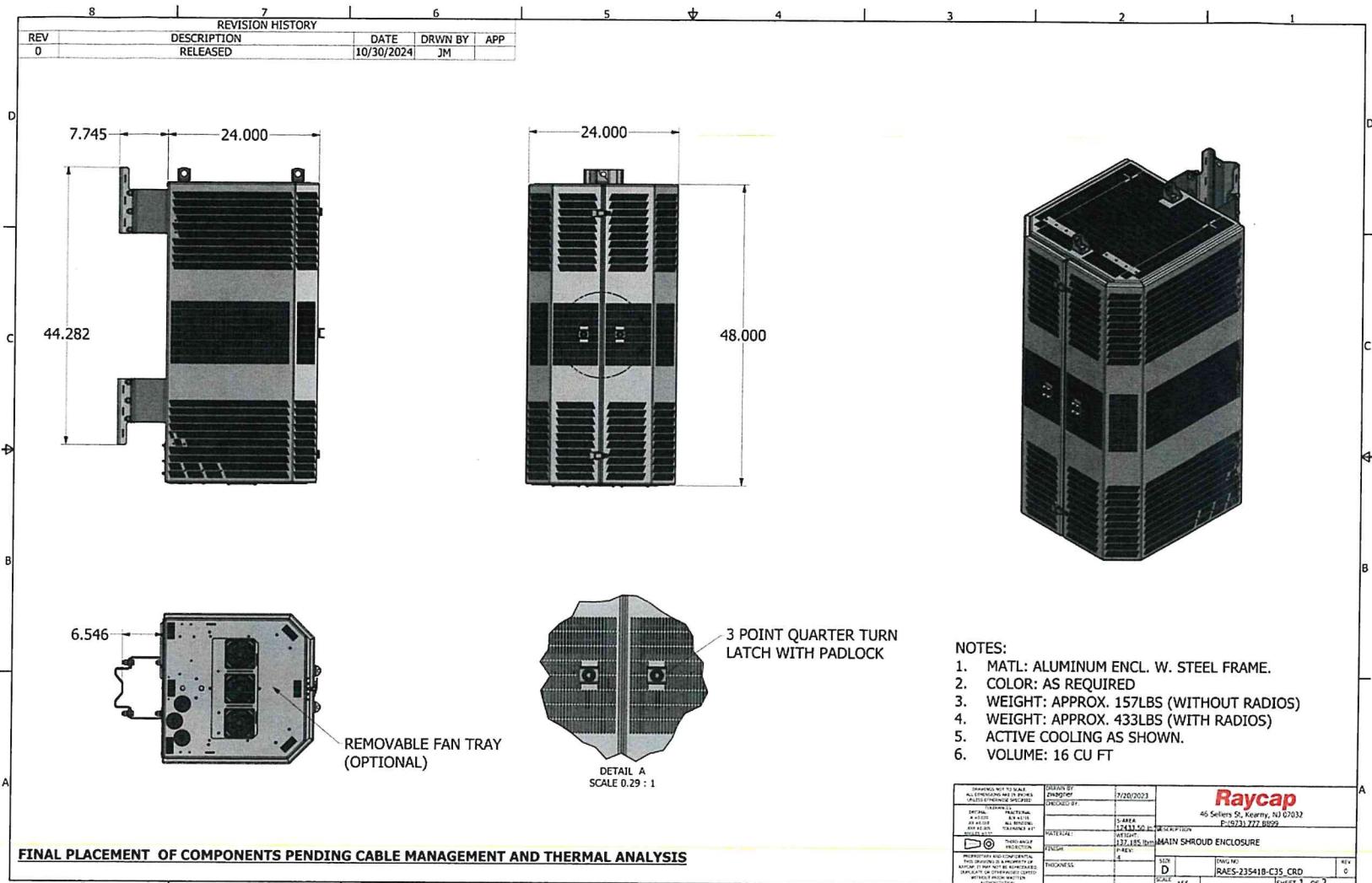
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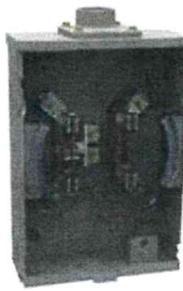
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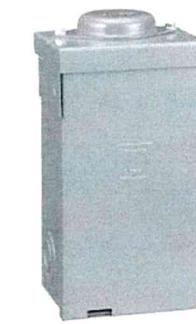
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MILBANK U8569-YL-PSEG-DES
METER PAN



MECHANICAL SPECIFICATIONS:
HEIGHT: 11.5 IN.
WIDTH: 8.0 IN.
DEPTH: 3.3 IN.



MECHANICAL SPECIFICATIONS:
HEIGHT: 9.37 IN.
WIDTH: 4.88 IN.
WEIGHT: 5.05 LBS.

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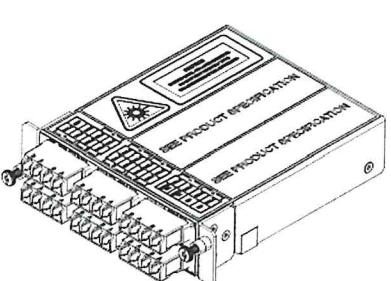
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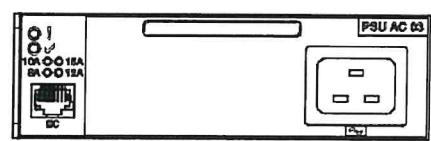
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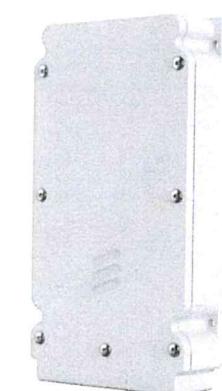
MECHANICAL SPECIFICATIONS:
HEIGHT: 1.1 IN.
WIDTH: 4.7 IN.
DEPTH: 4.6 IN.
WEIGHT: 0.66 LBS.

ERICSSON
OAD-9-S



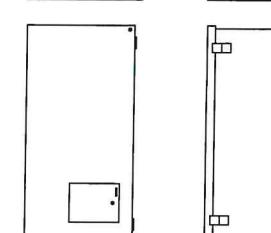
MECHANICAL SPECIFICATIONS:
HEIGHT: 2.72 IN.
WIDTH: 10.79 IN.
DEPTH: 7.09 IN.
WEIGHT: 11.5 LBS.

ERICSSON
PSU AC 08

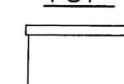


MECHANICAL SPECIFICATIONS:
HEIGHT: 9.63 IN.
WIDTH: 5.12 IN.
DEPTH: 1.50 IN.
WEIGHT: 1.54 LBS.

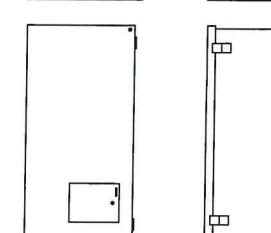
ERICSSON
FRONTHAUL 6585



TOP
LED POWER ON STATUS INDICATOR (SEE NOTE)



SIDE

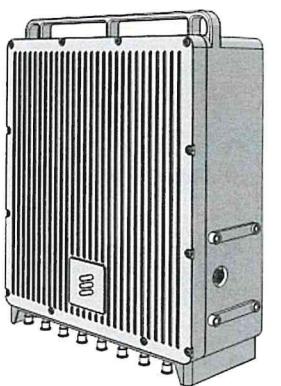
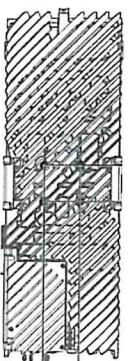


FRONT

NOTES:
1. NEMA 4 RATED, UL LISTED
2. CONTRACTOR SHALL ORDER BROWN
ENCLOSURE COLOR TO MATCH
EXISTING/PROPOSED STRUCTURE

MECHANICAL SPECIFICATIONS:
HEIGHT: 18.25 IN.
WIDTH: 9.10 IN.
DEPTH: 6.05 IN.
WEIGHT: 23.6 LBS.

RAYCAP RSD-FMC-Z16MS-21NN
DISCONNECT



ERICSSON
RADIO 4455 B2/B25 B66A

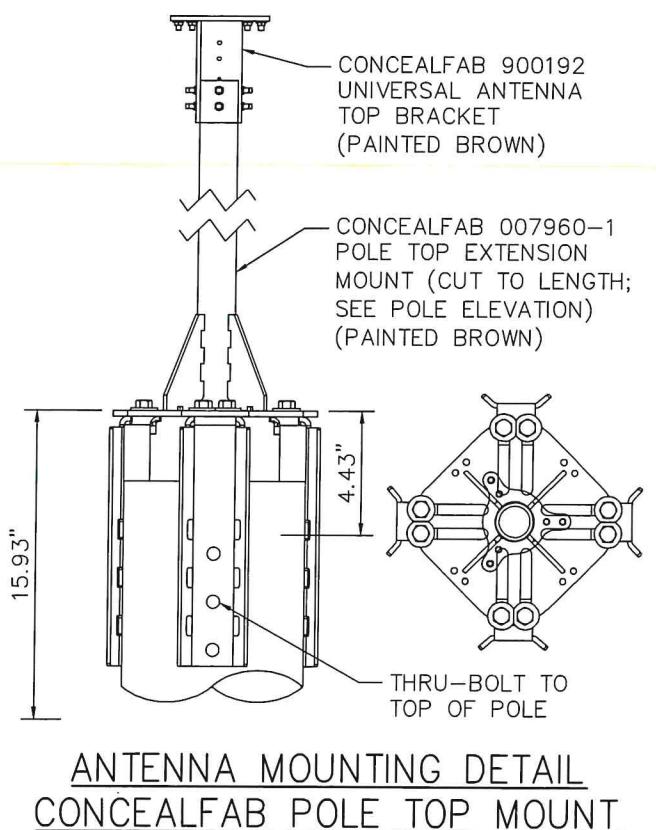
ERICSSON
ERICSSON RADIO 8863 B41 W/FAN



KAELOS
DBCT156F1V12-1 DIPLEXER



AMPHENOL
2C6U2VT360X06Fwxy4
ANTENNA



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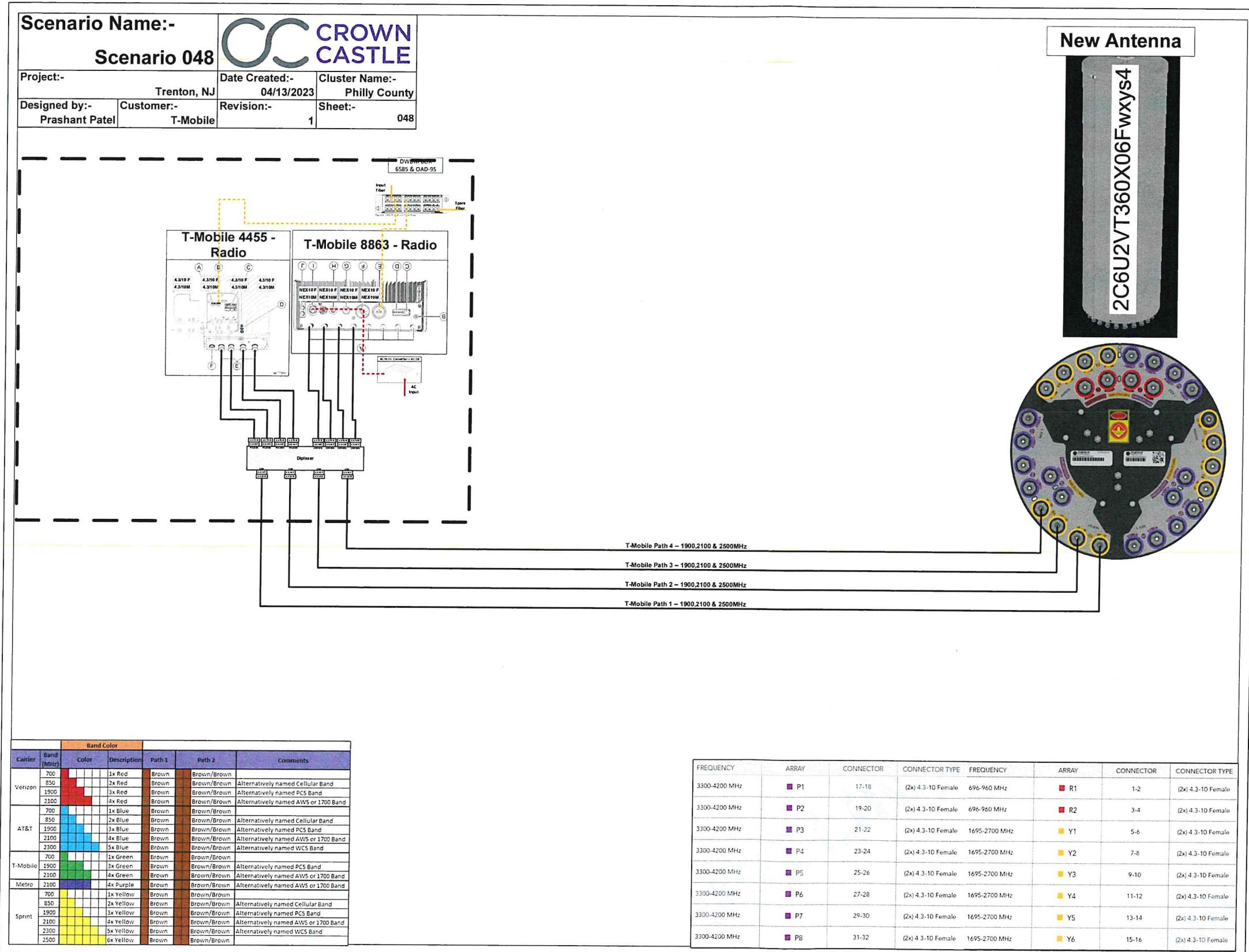
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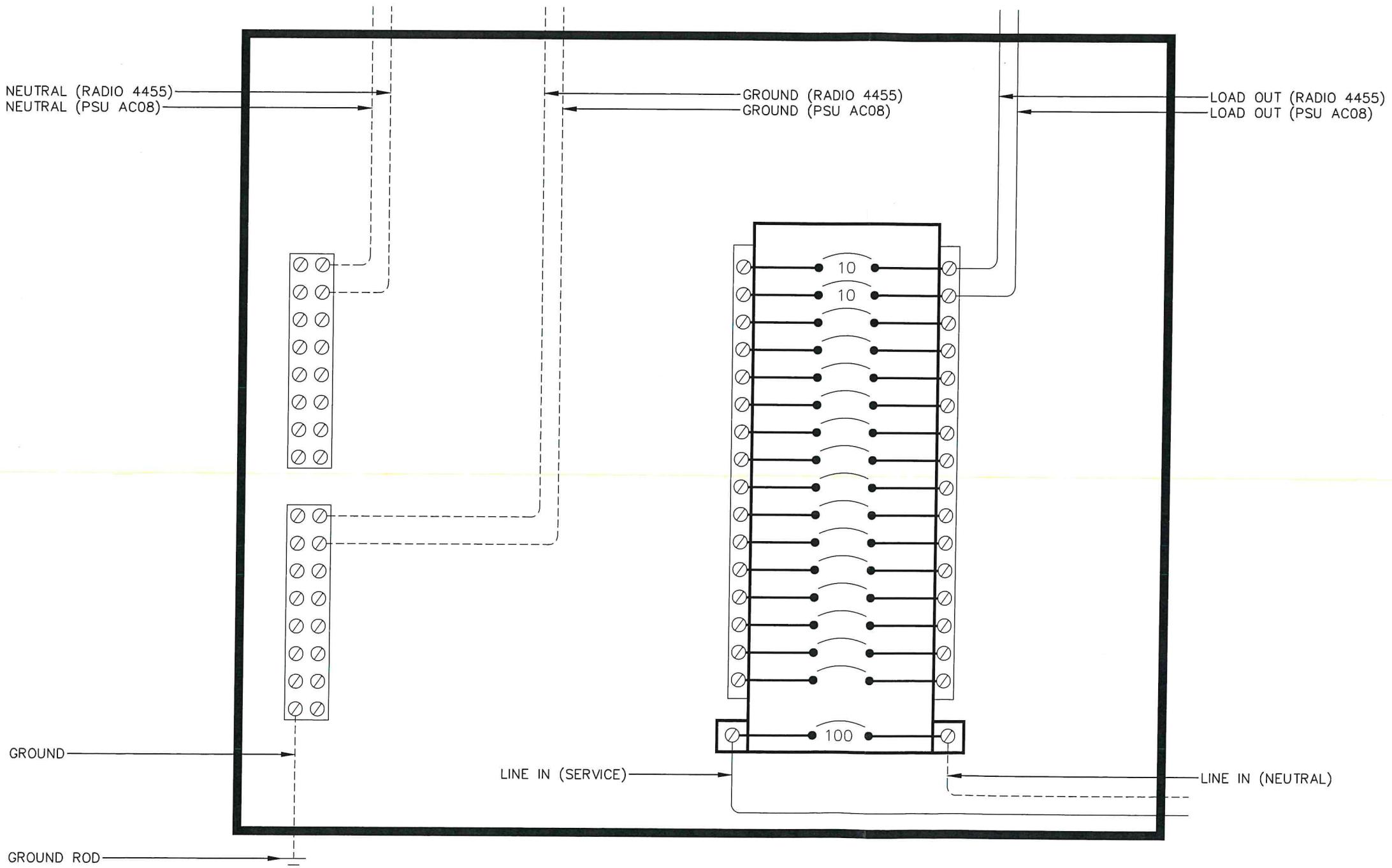
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GENERAL CONSTRUCTION NOTES

1. CONTACT "NJ ONE CALL" SYSTEM FOR UNDERGROUND UTILITY LOCATES, 72 HOURS PRIOR TO CONSTRUCTION
NJ PHONE NO.: 1-800-272-1000
2. CONTRACTOR TO FOLLOW ALL OSHA, LOCAL, STATE, AND BUILDING CODES
3. CONTRACTOR TO VERIFY ALL DIMENSIONS & MATERIALS REQUIRED
4. MAINTAIN A MINIMUM 6' SWEEP ON ALL CONDUIT BENDS
5. PLACE PULL ROPES IN ALL CONDUIT & INNERDUCTS
6. CONTRACTOR MUST CLEAN UP WORK AREAS AT THE END OF EACH WORK DAY & REMOVE TRASH & DEBRIS FROM WORK SITE
7. CONTRACTOR WILL GROUT & SEAL ALL BUILDING ENTRANCES WITH APPROVED MATERIALS
8. PLACE BUSHINGS ON ALL CONDUIT ENDS FOR CABLE PROTECTION
9. PLACE TRIPLEX DUCT PLUG & BLANK DUCT PLUGS AT BUILDING ENTRANCE CONDUITS
10. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR/REPLACEMENT OF DAMAGED FACILITIES AND/OR PROPERTY
11. ALL DISTURBED SURFACES WILL BE RESTORED TO ORIGINAL OR BETTER CONDITION
12. ALL WORK TO BE PERFORMED PER CONSTRUCTION SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY CROWN CASTLE
13. THE CONTRACTOR WILL PROVIDE AS-BUILT RECORDS TO BE GIVEN TO MANAGEMENT UPON COMPLETION OF CONSTRUCTION
14. CONTRACTOR TO COMPLY WITH TRAFFIC CONTROL PLAN AS PER NJDOT. USE APPROPRIATE ATTACHMENT
15. CONTRACTOR TO BOND CABLE SUPPORT STRAND WITH #6 AWG SOLID COPPER CONDUCTOR AT ALL POWER VDL(S)
16. CONTRACTOR TO ENSURE THAT ALL FLOOR/WALL PENETRATIONS ARE SEALED WITH APPROVED FIRESTOP

GENERAL CONTRACTOR UNDERGROUND UTILITY AVOIDANCE NOTES

- GENERAL CONTRACTOR IS RESPONSIBLE TO FOLLOW ALL FEDERAL & STATE STATUTES AND REGULATIONS; INDUSTRY BEST PRACTICES; BUILDING AND FIRE CODES; GENERAL CONTRACTOR LICENSES; AND LOCAL LAWS, REGULATION & ORDINANCES. IN THE EVENT A CONFLICT EXISTS BETWEEN THESE REGULATIONS AND THIS DOCUMENT, THE REGULATIONS SHALL CONTROL THE GENERAL CONTRACTOR'S ACTIONS.
- AT MINIMUM, WHEN NOT IN CONFLICT WITH FEDERAL, STATE, AND LOCAL STATUTES, THE GENERAL CONTRACTOR SHALL FOLLOW THE "COMMON GROUND ALLIANCE (CGA) BEST PRACTICES VERSION 17.0 MANUAL OR LATEST - THE DEFINITIVE GUIDE FOR UNDERGROUND SAFETY & DAMAGE PREVENTION" RECOMMENDATIONS.
- GENERAL CONTRACTOR SHALL PREPARE AN EMERGENCY RESPONSE PLAN, INCLUDING APPROPRIATE CONTACT INFORMATION, ONE-CALL TICKET DETAILS, AND IMMEDIATE CONTACTING DETAILS, IN EVENT OF UNDERGROUND UTILITY DAMAGE, IS AVAILABLE AT THE INSTALLATION SITE.
- GENERAL CONTRACTOR SHALL TAKE NECESSARY MEASURES TO ENSURE ALL ELECTRICAL STRIKE SYSTEMS ARE IN PLACE, IF APPLICABLE, AND HAS BRIEFED THE INSTALLATION CREW ON THE GENERAL CONTRACTOR'S ELECTRICAL AND GAS LINE STRIKE PROCEDURES EACH DAY PRIOR TO WORK COMMENCING.
- GENERAL CONTRACTOR SHALL WHITE LINE THE PROPOSED CONSTRUCTION ROUTE PRIOR TO CONTACTING THE UTILITY ONE-CALL SYSTEM.
- GENERAL CONTRACTOR SHALL IDENTIFY, PRIOR TO WORK COMMENCEMENT, A COMPETENT PERSON ON THE WORK CREW WHO IS CAPABLE OF IDENTIFYING HAZARDS AND HAS THE AUTHORIZATION TO TAKE PROMPT CORRECTIVE MEASURES, INCLUDING STOP WORK AUTHORITY, TO ELIMINATE THEM, AND SHALL BE ON SITE AT ALL TIMES.
- GENERAL CONTRACTOR SHALL CONTACT THE ONE-CALL FACILITY FOR EXISTING UTILITY LOCATES AS REQUIRED BY LAW AND PRESERVE ALL MARKS UNTIL THE PROJECT IS COMPLETED AND REFRESH THE ONE-CALL IF REQUIRED BY STATE OR JURISDICTIONAL REQUIREMENTS.
- FOR PROJECTS WITH HIGH PRIORITY UTILITIES, OR ANY UNUSUAL OR COMPLEX CONSTRUCTION, THE GENERAL CONTRACTOR SHALL ARRANGE FOR A PRE-EXCAVATION MEETING WITH THE AFFECTED UTILITIES AND/OR THEIR DESIGNATED LOCATING COMPANY TO DISCUSS THE PROJECT. HIGH PRIORITY UTILITIES SHALL INCLUDE, BUT NOT LIMITED TO, HIGH-PRESSURE GAS LINES, HIGH-VOLTAGE ELECTRIC LINES, MAJOR PIPELINES, MAJOR WATER LINES, AND HIGH CAPACITY FIBER OPTIC LINES.
- THE GENERAL CONTRACTOR SHALL ENSURE ANY UTILITIES IDENTIFIED FOR LOCATING WHICH ARE NOT MARKED ON THE GROUND HAVE PROVIDED POSITIVE CONFIRMATION NO CONFLICT EXISTS. IF THERE IS A LACK OF POSITIVE CONFIRMATION, THE GENERAL CONTRACTOR MUST RE-CALL THE ONE-CALL CENTER OR RELEVANT UTILITY DIRECTLY FOR CONFIRMATION.
- IN THE EVENT A UTILITY CANNOT BE LOCATED, WHERE POSITIVE CONFIRMATION IS NOT RECEIVED, OR WHERE THERE IS A LIKELIHOOD OF UNDOCUMENTED UTILITIES, SUCH AS PRIVATE INFRASTRUCTURE, THE GENERAL CONTRACTOR SHALL TAKE THE STEP OF SYSTEMATICALLY UTILIZING A GROUND PENETRATING RADAR (GPR) SYSTEM OR SIMILAR ADVANCED LOCATING TECHNOLOGY WITHIN THE TOLERANCE ZONE TO IDENTIFY AND DOCUMENT ANY UTILITIES WITHIN THE CONSTRUCTION ZONE. ANY UTILITY LOCATED USING GPR SHALL BE PROPERLY LOCATED AND EXPOSED AS OUTLINED WITHIN THIS STANDARD PRIOR TO DIGGING.
- THE GENERAL CONTRACTOR SHALL INSPECT THE AREA PRIOR TO INSTALLATION FOR ANY UNDERGROUND UTILITY INFRASTRUCTURE WHICH MAY HAVE BEEN MISSED BY SURVEYING THE CONSTRUCTION AREA AND SURROUNDING ENVIRONMENT FOR CLEANOUTS, SUNKEN AREAS, RISERS, OUTBUILDINGS, LIGHT POLES, METERS, UTILITY BOXES, PEDESTALS, MANHOLE COVERS, MARKERS, ETC. PARTICULAR ATTENTION SHOULD BE MADE TO IDENTIFY SERVICE FEEDS FROM BUILDINGS AND HOMES THAT ARE MARKED.
- THE GENERAL CONTRACTOR SHALL CONTACT ANY UTILITY WHERE LOCATES ARE IN QUESTION AND/OR UNVERIFIED. NO ASSUMPTIONS SHOULD BE MADE ON LOCATION OR DEPTH OF EXISTING UTILITIES.
- THE GENERAL CONTRACTOR, AT A MINIMUM, SHALL TAKE AND STORE A PHOTO SERIES TO BE SUBMITTED WITH THE CLOSE OUT PACKAGE OF ALL EXCAVATION AREAS ONCE LOCATES ARE COMPLETE AND PRIOR TO EXCAVATION.
- GENERAL CONTRACTOR SHALL MEET ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING WORKER SAFETY AND TRAINING WHEN WORKING AROUND UNDERGROUND FACILITIES.
- GENERAL CONTRACTOR SHALL VISUALLY EXPOSE (POT-HOLE) ALL EXISTING UTILITIES CROSSING THE TOLERANCE ZONE AND SHALL POSITIVELY IDENTIFY THEIR LOCATION AND DEPTH USING APPROPRIATE TECHNIQUES WITHIN THE TOLERANCE ZONE.
- GENERAL CONTRACTOR SHALL VISUALLY EXPOSE (POT-HOLE) ALL EXISTING UTILITIES RUNNING PARALLEL WITH THE PROPOSED PATH AT THE APPROPRIATE INTERVALS WITHIN THE TOLERANCE ZONE AND APPROPRIATE BUFFER ZONE. UNLESS MORE STRINGENT REGULATIONS EXIST, THE GENERAL CONTRACTOR SHALL EXPOSE (POT-HOLE) AT MINIMUM ANY PARALLEL UTILITY WITHIN 3' OF THE TOLERANCE ZONE EVERY 25'. AND ANY PARALLEL UTILITY BETWEEN 3' TO 5' OF THE TOLERANCE ZONE EVERY 100'.
- THE TOLERANCE ZONE SHALL BE A MINIMUM OF 30" BEYOND EACH SIDE OF THE INSTALLED PIPE, OR GREATER IF CODE REQUIRES.
- GENERAL CONTRACTOR SHALL USE A DRILL HEAD TRACKING DEVICE WHEN BORING AND TRACK THE DRILL HEAD AT A MINIMUM OF EVERY 5' OR AS REQUIRED BY CODE. A LOG SHALL BE CREATED RECORDING THE LOCATION AND DEPTH AND SUBMITTED WITH THE GENERAL CONTRACTOR AS-BUILT PACKAGE.
- GENERAL CONTRACTOR SHALL ENSURE THESE REQUIREMENTS ARE ENFORCED WITH ALL SUB-CONTRACTORS RETAINED BY THE GENERAL CONTRACTOR.

Peter J. Tardy 08/21/2025
PETER J. TARDY, P.E.
NEW JERSEY PROFESSIONAL ENGINEER
NJ LIC. NO. 41990

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OWNER/DEVELOPER:
CROWN CASTLE
The Foundation for a Wireless World.

TITLE: Crown Castle Fiber LLC
250 HAWTHORNE AVENUE
PRINCETON, NJ
JURISDICTION: MUNICIPALITY OF PRINCETON

REVISIONS		
REV.	DATE	REVISION DESCRIPTION
1	10/24/23	ISSUED AS FINAL
2	10/16/24	REVISED POLE HEIGHT
3	11/14/24	REVISED PER COMMENTS
4	06/27/25	REVISED PER UG ROUTING
5	08/21/25	REVISED BLOCK/LOT

DRAWN BY: **D.R.** CHECKED BY: **A.R.C.** APPROVED BY: **P.J.T.**

PROJECT NUMBER: 2438C.125.011

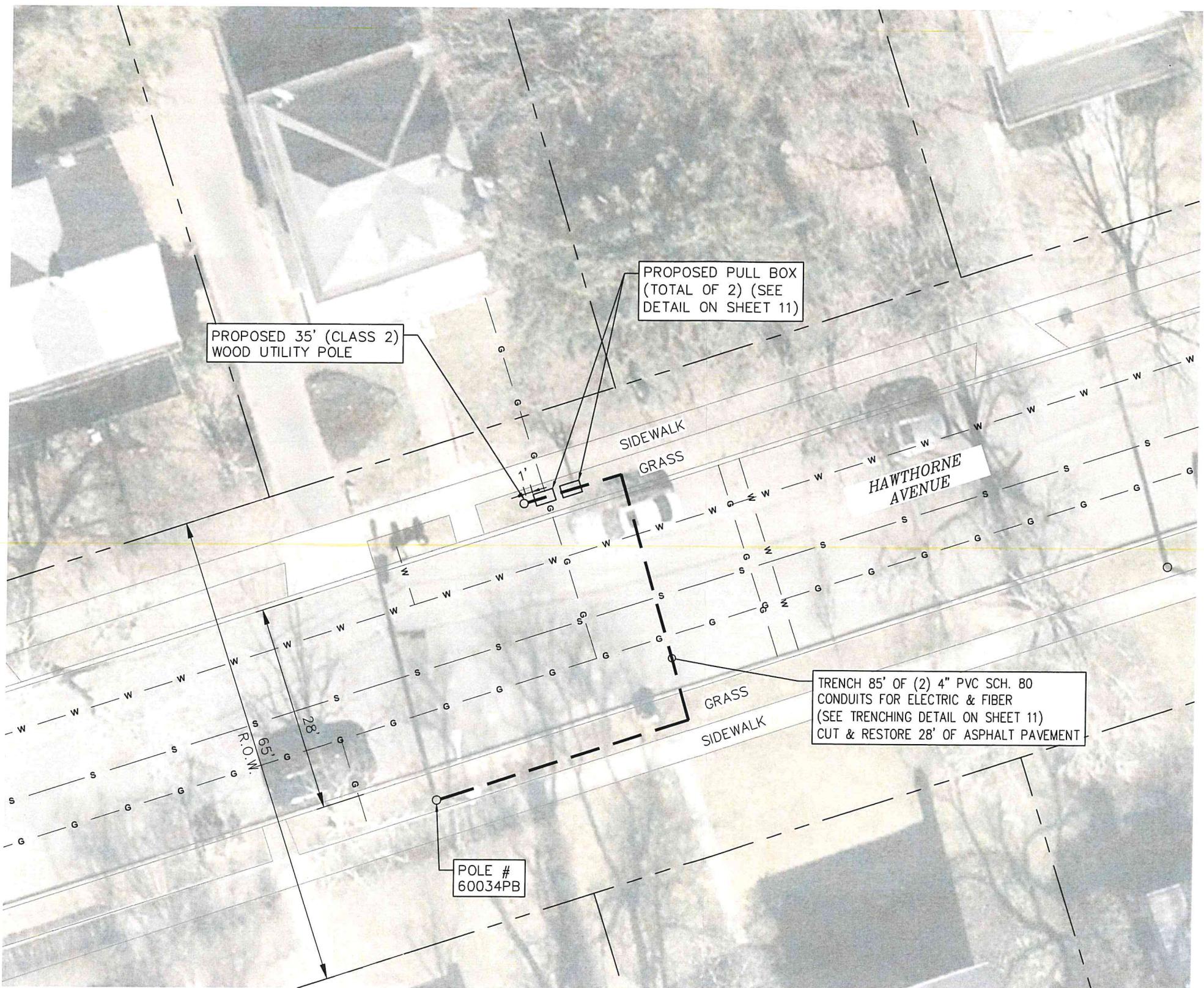
NODE ID: PRC-071

SCU # / CASCADE ID: 528027/PH6026BA_51LAB

DATE DRAWN: 09/13/2023

SHEET: 9 OF 11

NOTE:
DRAWING NOT FROM
ACTUAL SITE PLAN
INFORMATION TAKEN
FROM BEST AVAILABLE
RECORDS CONTRACTOR
IS RESPONSIBLE TO
VERIFY ALL DIMENSIONS
AND MATERIAL REQUIRED
FOR CONSTRUCTION.



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New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

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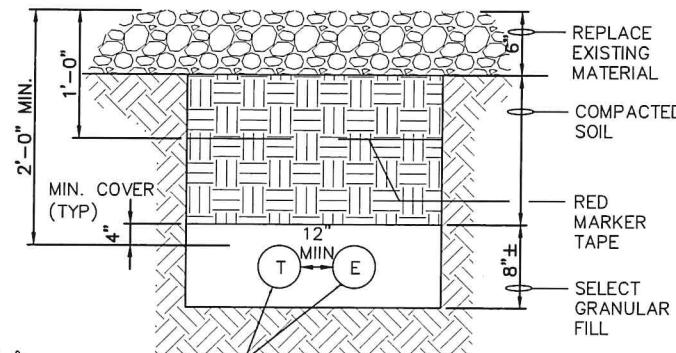
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CONTRACTOR TO LOCATE EXISTING UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF NEW UTILITIES. ANY CONFLICTS TO BE REPORTED TO ENGINEER IMMEDIATELY.

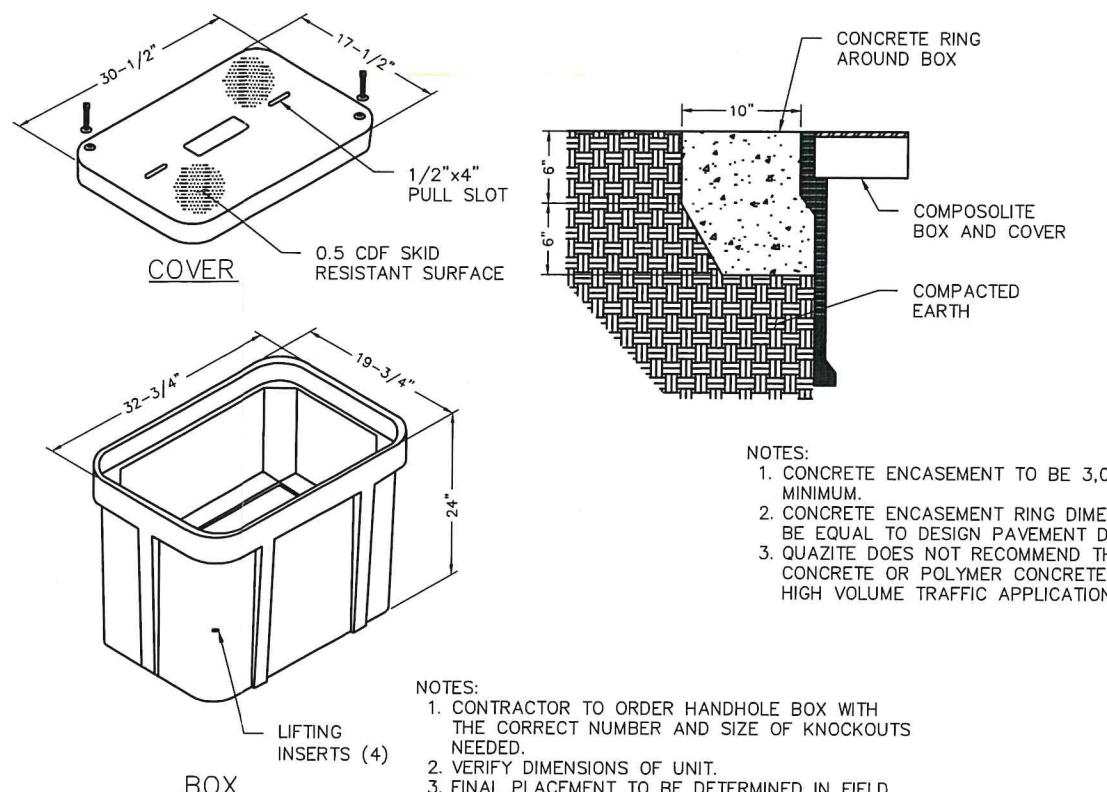
(2) SCH.40 PVC ELECTRIC & TELCO CONDUITS WITH PULL STRINGS (REFER TO PLAN) (TYP.)



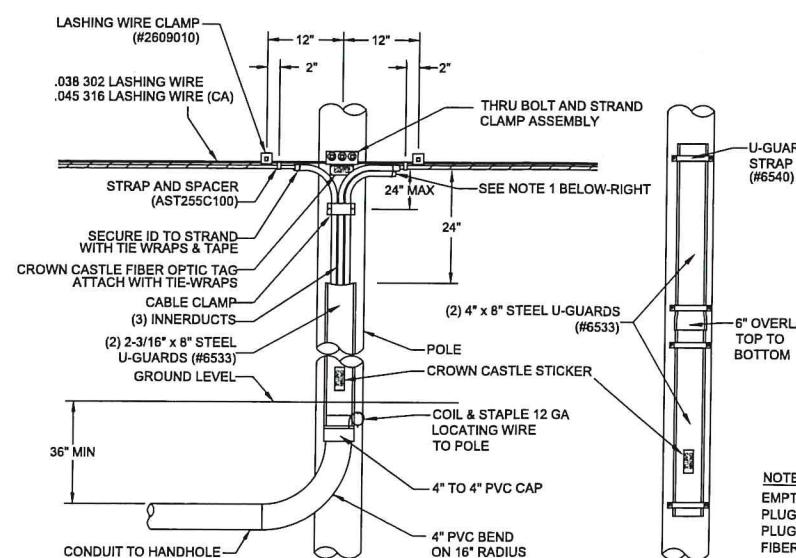
NOTES:

1. REMOVE & HAUL OFF-SITE ALL EXCESS SITE SOIL.
2. RESTORE ALL SURFACES TO ORIGINAL CONDITION.
3. CONDUIT SHALL BE UV-RESISTANT WHERE EXPOSED TO ATMOSPHERE.

UNDERGROUND ELECTRIC AND TELCO DUCT BANK



PULL BOX DETAIL



TYPICAL TANGENT RISER POLE DETAIL

NOTE 1
EMPTY INNERDUCTS ENDS SHALL BE PLUGGED WITH EXPANDABLE JACKMOON PLUGS. INNERDUCTS POPULATED WITH FIBER OPTIC CABLE(S) SHALL BE PLUGGED WITH EXPANDING FOAM.

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