

ISSUE: Certificate of Appropriateness for alterations (standalone pole with small cell antenna)

APPLICANT: Cellco Partnership dba Verizon Wireless

LOCATION: Old and Historic Alexandria District
New standalone pole in the right-of-way near 500 South Royal Street

ZONE: RM/Residential Townhouse Zone

STAFF RECOMMENDATION

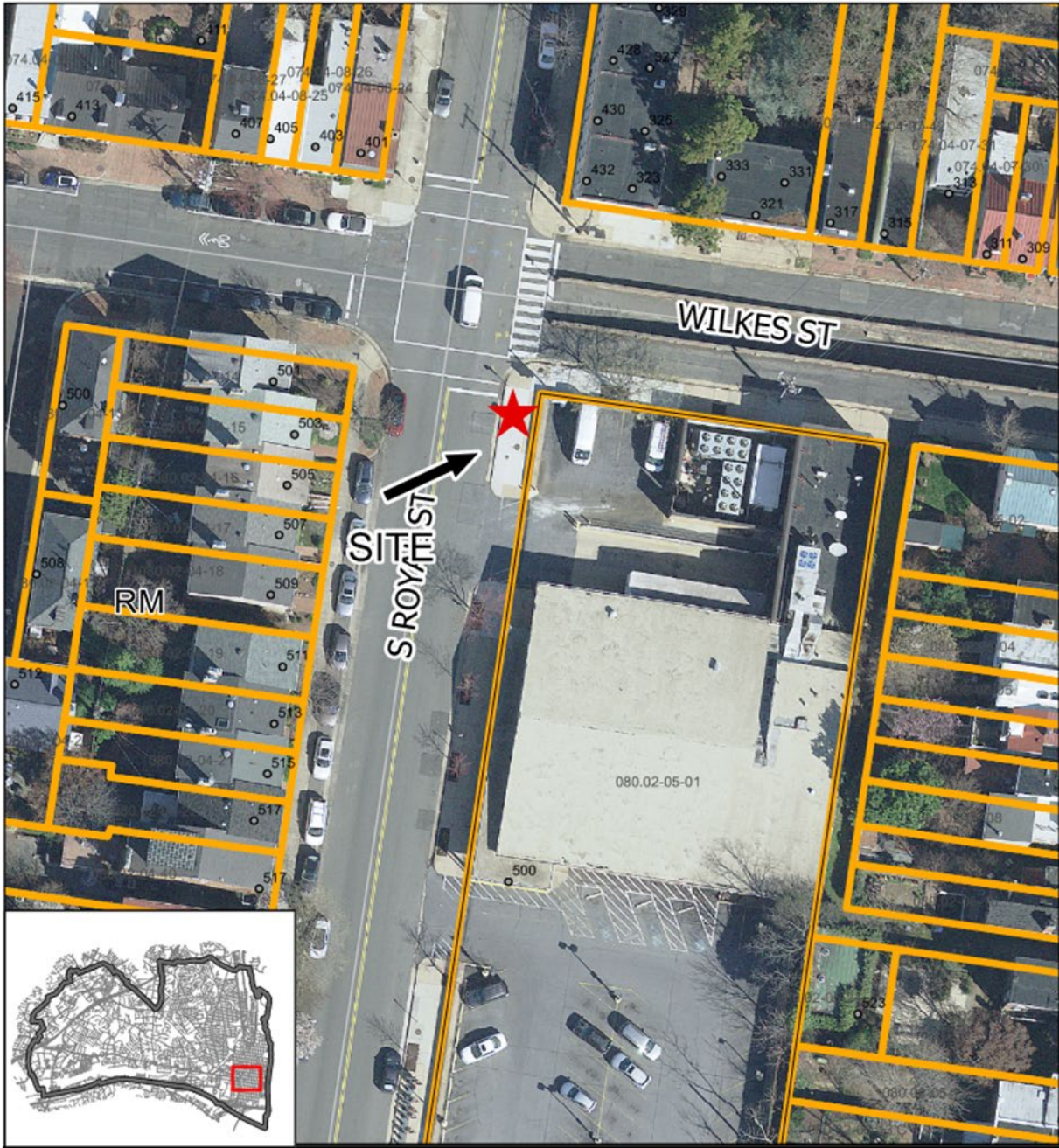
Staff recommends approval of the Certificate of Appropriateness as submitted.

BOARD ACTION: Deferred

By unanimous consent, the Board of Architectural Review accepted the request for deferral of BAR #2020-00598.

GENERAL NOTES TO THE APPLICANT

1. **ISSUANCE OF CERTIFICATES OF APPROPRIATENESS AND PERMITS TO DEMOLISH:** Applicants must obtain a copy of the Certificate of Appropriateness or Permit to Demolish PRIOR to applying for a building permit. Contact BAR Staff, Room 2100, City Hall, 703-746-3833, or preservation@alexandriava.gov for further information.
2. **APPEAL OF DECISION:** In accordance with the Zoning Ordinance, if the Board of Architectural Review denies or approves an application in whole or in part, the applicant or opponent may appeal the Board's decision to City Council on or before 14 days after the decision of the Board.
3. **COMPLIANCE WITH BAR POLICIES:** All materials must comply with the BAR's adopted policies unless otherwise specifically approved.
4. **BUILDING PERMITS:** Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Department of Code Administration (including signs). The applicant is responsible for obtaining all necessary construction permits after receiving Board of Architectural Review approval. Contact Code Administration, Room 4200, City Hall, 703-746-4200 for further information.
5. **EXPIRATION OF APPROVALS NOTE:** In accordance with Sections 10-106(B) and 10-206(B) of the Zoning Ordinance, any official Board of Architectural Review approval will expire 12 months from the date of issuance if the work is not commenced and diligently and substantially pursued by the end of that 12-month period.
6. **HISTORIC PROPERTY TAX CREDITS:** Applicants performing extensive, certified rehabilitations of historic properties may separately be eligible for state and/or federal tax credits. Consult with the Virginia Department of Historic Resources (VDHR) prior to initiating any work to determine whether the proposed project may qualify for such credits.



BAR #2020-00598
500 South Royal Street

0 20 40 80 Feet



Update

The application was deferred from the January 21, 2021 hearing by the request of the applicant.

I. APPLICANT'S PROPOSAL

The applicant is requesting a Certificate of Appropriateness to install a new standalone metal pole with small cell equipment in the right-of-way in front of the parcel at 500 South Royal Street.

The new 40'-11" high standalone aluminum alloy smart pole will be placed on a concrete pier foundation. The decorative Raycap Stealth base (4.42 CU FT) is 20" in diameter and 5'-6" tall with a decorative top connecting it to the pole's fluted Rapco Tri-Chamber 8" diameter shaft. The 5G small cell facility (1.92 CU FT) measuring approximately 2'-6" high will be mounted on top of the pole which will have a Hapco cap and decorative finial at the top end (Figure 1). The pole and equipment will be black.

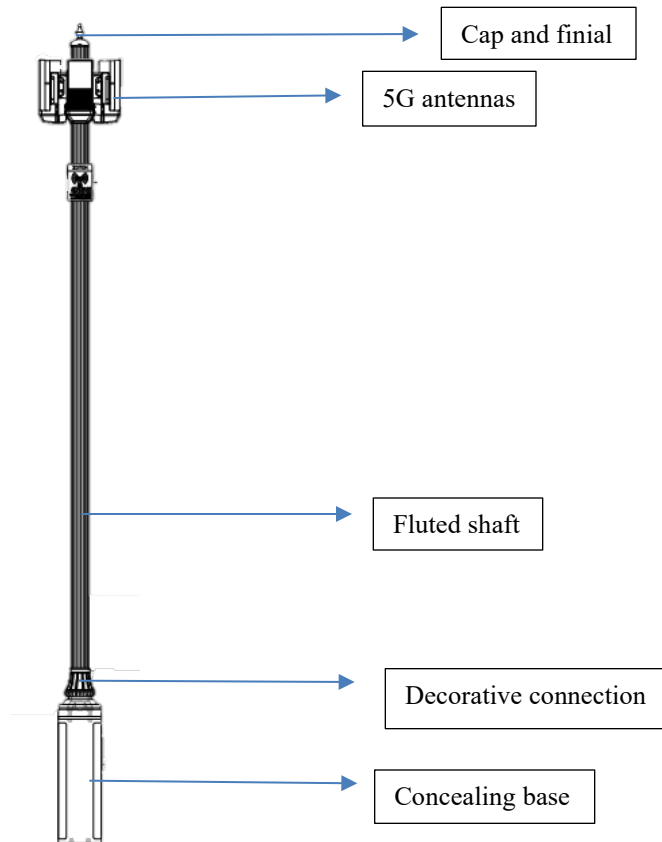


Figure 1- proposed pole

Site context

The new standalone metal pole will be installed at the southeast corner of South Royal and Wilkes streets intersection in the right-of-way in front of the Safeway Supermarket parking lot and service entrance. The pole will be across the street from a row of 1960s townhouses to the west and the Wilkes Tunnel to the north.

II. HISTORY

The one story, brick supermarket building was built in 1964. The site is adjacent to the historic Wilkes Tunnel entrance. The Wilkes Street Tunnel is noted as one of only two historic railroad structures currently in existence throughout the city. Completed in 1856, the tunnel was originally used by the Orange & Alexandria rail company as a route service and major connector between Washington D.C. and Richmond.¹

III. ANALYSIS

To address the growing demand for wireless services across the United States, telecommunication providers are increasing the capacity of their networks by deploying small cell wireless facilities within the public right-of-way to reduce the data traffic load on roof-mounted equipment and larger cell towers. Small cell facilities are low-powered antennas that provide wireless service coverage to a limited geographic area (often with ranges of a few hundred feet) and are used to supplement and expand the coverage provided by the traditional, larger-scale network. The next generation of small cell wireless facilities, known as 5G, is currently being installed across the city. The new 5G networks will not just serve cellphones, but also be used as general internet service providers for laptops, desktop computers, smart home digital devices, urban infrastructure monitoring, smart traffic control, remote health monitoring, emergency monitoring and notification systems, connected and autonomous vehicles, and many more applications.

In the past several years, Federal and State legislation has been enacted to further streamline the local approval process for cellular facilities, shortening the approval time and limiting jurisdictions' authority. In 2017, and again in March 2020, City Council approved amendments to the zoning ordinance to ensure compliance with these laws.

In June 2019, the BAR approved the first small cell facilities in the historic district and shortly after adopted a BAR administrative policy for approval of certain small cell facilities (4G) in the historic districts. To date, several small cell facilities have been approved in the historic districts, either by the BAR at public hearing or administratively by staff. City Council has recently approved license agreements for some of the wireless carriers and the City has seen a sharp increase in the number of applications for small cell facilities. Because the design of the antennas has evolved since the BAR administrative policy was adopted in June 2019, BAR staff proposed amendments to the policy to allow for more administrative approvals at the Board's April 22, 2020 electronic hearing (conducted electronically due to the Covid-19 emergency) at which time the Board tabled proposed amendments and rescinded the administrative policy. As a result, at this time all small cell facilities must now be approved by the BAR at public hearing.

A Certificate of Appropriateness is required in the historic districts under Section 10-103 (A) and 203(A) of the zoning ordinance, which states that "No building or structure shall be erected, reconstructed, altered or restored within the Old and Historic Alexandria District unless and until an application for a certificate of appropriateness shall have been approved..."

¹ City of Alexandria website, https://www.alexandriava.gov/news_display.aspx?id=13486 last accessed 1/13/21

Staff has no objection to the pole's design or the installation of the small cell facility equipment in this location. The proposed smart pole was developed specifically for small cell facilities and is compatible with the standalone pole design approved by the City Council (Figure 2). The base conceals the equipment which would otherwise be placed in the right-of-way or mounted on an existing pole and the shaft is divided in chambers for wiring management. The smart poles are more efficient and have a more streamlined appearance than regular poles carrying multiple utility functions.

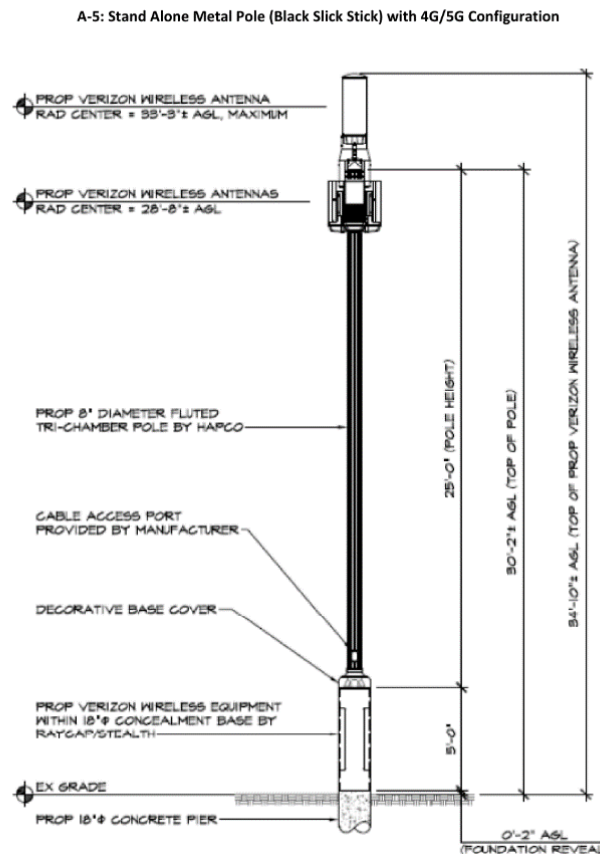


Figure 2- Standalone pole design approved by the City Council

The standalone metal pole design has been found to be appropriate by the City's internal Small Cell Pole Design Review Committee based upon design requirements for 4G and 5G installations. The Review Committee was composed of staff from Land Use Services, Historic Preservation and Transportation and Environmental Services. This style of standalone pole is the same as, or similar to, poles that have been installed in other historic districts throughout the country and would be installed in other locations around the city as well. In addition, the standalone metal pole design has been approved by City Council under the Verizon's Franchise Agreement passed on December 12, 2020, therefore staff recommends approval of the application as submitted.

STAFF

Marina Novaes, Historic Preservation Planner, Planning & Zoning
Tony LaColla, AICP, Land Use Services Division Chief, Planning & Zoning

IV. CITY DEPARTMENT COMMENTS

Legend: C- code requirement R- recommendation S- suggestion F- finding

Zoning

- F-1 Height of the pole shall not exceed 50.00 feet without a Special Use Permit.
Pole height is 34' feet and overall height is 40' 11". There will be a base with concealed equipment that will measure 5' 6"
- F-2 Pole must be in the same general location as existing pole.
There is no pole in proposed location. This will be a new pole.
- F-3 The pole is not located in a manner that requires the removal of an existing tree or impacts of root zone.
Pole will not require a tree to be removed
- F-4 Pole shall be located that meets ADA requirements that do not impede or hinder pedestrian or vehicular travel.



In Compliance

- F-5 Wireless facility shall be painted to match similar infrastructure on the block or earth tone color.
**Revised plans indicate facility to be a metal pole wood pole.
(ZAP2020-00360)**

Code Administration

A building permit and plan review are required prior to construction.

Transportation and Environmental Services

- R-1 The building permit must be approved and issued prior to the issuance of any permit for demolition, if a separate demolition permit is required. (T&ES)
- R-2 Applicant shall be responsible for repairs to the adjacent city right-of-way if damaged during construction activity. (T&ES)
- R-3 No permanent structure may be constructed over any existing private and/or public utility easements. It is the responsibility of the applicant to identify any and all existing easements on the plan. (T&ES)
- F-1 After review of the information provided, an approved grading plan is not required at this time. Please note that if any changes are made to the plan it is suggested that T&ES be included in the review. (T&ES)
- C-1 The applicant shall comply with the City of Alexandria's Solid Waste Control, Title 5, Chapter 1, which sets forth the requirements for the recycling of materials (Sec. 5-1-99). (T&ES)
- C-2 The applicant shall comply with the City of Alexandria's Noise Control Code, Title 11, Chapter 5, which sets the maximum permissible noise level as measured at the property line. (T&ES)
- C-3 All secondary utilities serving this site shall be placed underground. (Sec. 5-3-3) (T&ES)
- C-4 Any work within the right-of-way requires a separate permit from T&ES. (Sec. 5-2) (T&ES)
- C-5 All improvements to the city right-of-way such as curbing, sidewalk, driveway aprons, etc. must be city standard design. (Sec. 5-2-1) (T&ES)
- C-6 An encroachment request will be required for projections into the public right of way. (T&ES)

- C-7 The owner shall obtain and maintain a policy of general liability insurance in the amount of \$1,000,000 which will indemnify the owner (and all successors in interest); and the City as an Additional Insured, against claims, demands, suits and related costs, including attorneys' fees, arising from any bodily injury or property damage which may occur as a result of the encroachment. (Sec. 5-29 (h)(1)) (T&ES)

**Please submit Insurance Certificate:
City of Alexandria T&ES
Attn: Development Services
301 King Street, Room 4130
Alexandria, VA 22314**

Alexandria Archaeology

- F-1 No archaeological oversight required

V. ATTACHMENTS

- 1 – Application Materials*
2 – Supplemental Materials

ADDRESS OF PROJECT: _____

DISTRICT: ☐ Old & Historic Alexandria ☐ Parker – Gray ☐ 100 Year Old Building

TAX MAP AND PARCEL: _____ ZONING: _____

APPLICATION FOR: *(Please check all that apply)*

☐ CERTIFICATE OF APPROPRIATENESS

☐ PERMIT TO MOVE, REMOVE, ENCAPSULATE OR DEMOLISH
(Required if more than 25 square feet of a structure is to be demolished/impacted)

☐ WAIVER OF VISION CLEARANCE REQUIREMENT and/or YARD REQUIREMENTS IN A VISION
CLEARANCE AREA *(Section 7-802, Alexandria 1992 Zoning Ordinance)*

☐ WAIVER OF ROOFTOP HVAC SCREENING REQUIREMENT
(Section 6-403(B)(3), Alexandria 1992 Zoning Ordinance)

Applicant: ☐ Property Owner ☐ Business *(Please provide business name & contact person)*

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail : _____

Authorized Agent *(if applicable)*: ☐ Attorney ☐ Architect ☐ _____

Name: _____ Phone: _____

E-mail: _____

Legal Property Owner:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

- ☐ Yes ☐ No Is there an historic preservation easement on this property?
☐ Yes ☐ No If yes, has the easement holder agreed to the proposed alterations?
☐ Yes ☐ No Is there a homeowner's association for this property?
☐ Yes ☐ No If yes, has the homeowner's association approved the proposed alterations?

If you answered yes to any of the above, please attach a copy of the letter approving the project.

NATURE OF PROPOSED WORK: *Please check all that apply*

- ☐ NEW CONSTRUCTION
☐ EXTERIOR ALTERATION: *Please check all that apply.*

☐ awning
☐ doors
☐ lighting
☐ other _____

☐ fence, gate or garden wall
☐ windows
☐ pergola/trellis

☐ HVAC equipment
☐ siding
☐ painting unpainted masonry

☐ shutters
☐ shed

☐ ADDITION
☐ DEMOLITION/ENCAPSULATION
☐ SIGNAGE

DESCRIPTION OF PROPOSED WORK: *Please describe the proposed work in detail (Additional pages may be attached).*

metal not wood updated for 2.17.2021 BAR Hearing

SUBMITTAL REQUIREMENTS:

Items listed below comprise the **minimum supporting materials** for BAR applications. Staff may request additional information during application review. Please refer to the relevant section of the *Design Guidelines* for further information on appropriate treatments.

Applicants must use the checklist below to ensure the application is complete. Include all information and material that are necessary to thoroughly describe the project. Incomplete applications will delay the docketing of the application for review. Pre-application meetings are required for all proposed additions. All applicants are encouraged to meet with staff prior to submission of a completed application.

Demolition/Encapsulation : *All applicants requesting 25 square feet or more of demolition/encapsulation must complete this section. Check N/A if an item in this section does not apply to your project.*

- N/A
☐ ☐ Survey plat showing the extent of the proposed demolition/encapsulation.
☐ ☐ Existing elevation drawings clearly showing all elements proposed for demolition/encapsulation.
☐ ☐ Clear and labeled photographs of all elevations of the building if the entire structure is proposed to be demolished.
☐ ☐ Description of the reason for demolition/encapsulation.
☐ ☐ Description of the alternatives to demolition/encapsulation and why such alternatives are not considered feasible.

Additions & New Construction: *Drawings must be to scale and should not exceed 11" x 17" unless approved by staff. Check N/A if an item in this section does not apply to your project.*

- ☐ ^{N/A} ☐ Scaled survey plat showing dimensions of lot and location of existing building and other structures on the lot, location of proposed structure or addition, dimensions of existing structure(s), proposed addition or new construction, and all exterior, ground and roof mounted equipment.
- ☐ ☐ FAR & Open Space calculation form.
- ☐ ☐ Clear and labeled photographs of the site, surrounding properties and existing structures, if applicable.
- ☐ ☐ Existing elevations must be scaled and include dimensions.
- ☐ ☐ Proposed elevations must be scaled and include dimensions. Include the relationship to adjacent structures in plan and elevations.
- ☐ ☐ Materials and colors to be used must be specified and delineated on the drawings. Actual samples may be provided or required.
- ☐ ☐ Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- ☐ ☐ For development site plan projects, a model showing mass relationships to adjacent properties and structures.

Signs & Awnings: *One sign per building under one square foot does not require BAR approval unless illuminated. All other signs including window signs require BAR approval. Check N/A if an item in this section does not apply to your project.*

- ☐ ^{N/A} ☐ Linear feet of building: Front: _____ Secondary front (if corner lot): _____.
- ☐ ☐ Square feet of existing signs to remain: _____.
- ☐ ☐ Photograph of building showing existing conditions.
- ☐ ☐ Dimensioned drawings of proposed sign identifying materials, color, lettering style and text.
- ☐ ☐ Location of sign (show exact location on building including the height above sidewalk).
- ☐ ☐ Means of attachment (drawing or manufacturer's cut sheet of bracket if applicable).
- ☐ ☐ Description of lighting (if applicable). Include manufacturer's cut sheet for any new lighting fixtures and information detailing how it will be attached to the building's facade.

Alterations: *Check N/A if an item in this section does not apply to your project.*

- ☐ ^{N/A} ☐ Clear and labeled photographs of the site, especially the area being impacted by the alterations, all sides of the building and any pertinent details.
- ☐ ☐ Manufacturer's specifications for materials to include, but not limited to: roofing, siding, windows, doors, lighting, fencing, HVAC equipment and walls.
- ☐ ☐ Drawings accurately representing the changes to the proposed structure, including materials and overall dimensions. Drawings must be to scale.
- ☐ ☐ An official survey plat showing the proposed locations of HVAC units, fences, and sheds.
- ☐ ☐ Historic elevations or photographs should accompany any request to return a structure to an earlier appearance.

ALL APPLICATIONS: *Please read and check that you have read and understand the following items:*

- ☐ I have submitted a filing fee with this application. (Checks should be made payable to the City of Alexandria. Please contact staff for assistance in determining the appropriate fee.)
- ☐ I understand the notice requirements and will return a copy of the three respective notice forms to BAR staff at least five days prior to the hearing. If I am unsure to whom I should send notice I will contact Planning and Zoning staff for assistance in identifying adjacent parcels.
- ☐ I, the applicant, or an authorized representative will be present at the public hearing.
- ☐ I understand that any revisions to this initial application submission (including applications deferred for restudy) must be accompanied by the BAR Supplemental form and revised materials.

The undersigned hereby attests that all of the information herein provided including the site plan, building elevations, prospective drawings of the project, and written descriptive information are true, correct and accurate. The undersigned further understands that, should such information be found incorrect, any action taken by the Board based on such information may be invalidated. The undersigned also hereby grants the City of Alexandria permission to post placard notice as required by Article XI, Division A, Section 11-301(B) of the 1992 Alexandria City Zoning Ordinance, on the property which is the subject of this application. The undersigned also hereby authorizes the City staff and members of the BAR to inspect this site as necessary in the course of research and evaluating the application. The applicant, if other than the property owner, also attests that he/she has obtained permission from the property owner to make this application.

APPLICANT OR AUTHORIZED AGENT:

Signature: Joshua Schakola

Printed Name: _____

Date: _____

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

1. Applicant. State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
1.		
2.		
3.		

2. Property. State the name, address and percent of ownership of any person or entity owning an interest in the property located at _____ (address), unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
1.		
2.		
3.		

3. Business or Financial Relationships. Each person or entity listed above (1 and 2), with an ownership interest in the applicant or in the subject property is required to disclose **any** business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the 12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review.

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
1.		
2.		
3.		

NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

_____	_____	_____ <i>Joshua Schakola</i>
Date	Printed Name	Signature

GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE VERIZON REPRESENTATIVE OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRIORITIZE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S VENDOR'S SPECIFICATIONS UNLESS OTHERWISE NOTED OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVEMENTS, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL MAINTAIN THE GENERAL WORK AREA AS CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DEBRIS, TRASH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. DETAILS OF EQUIPMENT TO BE INCLUDED IN RFQ PACKAGE. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE CONTRACTOR SHALL NOTIFY THE VERIZON REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE VERIZON REPRESENTATIVE.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
16. ALL UNISTRUT, HARDWARE, AND OUTDOOR JUNCTION BOXES SHALL BE GALVANIZED STEEL. FOR FIELD CUTS OF GALVANIZED ITEMS, FIRST COAT SHALL BE COLD GALVANIZED AND SECOND COAT SHALL BE MARINE GRADE GALVANIZED.
17. RETURN ANY UNUSED MATERIALS WITH REQUIRED DOCUMENTATION TO THE VERIZON WAREHOUSE WITHIN 14 DAYS OF PROJECT COMPLETION. RETURNED MATERIAL NEEDS TO BE ACCOMPANIED WITH AN RMA FORM AND PACKAGING REQUIREMENTS STIPULATED BY THE VZN CONSTRUCTION ENGINEER.
18. CONTRACTOR IS RESPONSIBLE FOR STORAGE OF ALL MATERIALS PROVIDED BY VERIZON AND IS LIABLE FOR THOSE MATERIALS ONCE PICKED UP FROM THE WAREHOUSE.
19. CONTRACTOR SHALL PERFORM A PUNCH WALK WITH VZN CONSTRUCTION & OPERATION REPRESENTATIVE PRIOR TO DECLARING CONSTRUCTION COMPLETE.
20. GENERAL CONTRACTOR SHALL PROVIDE A 10LB. DRY-CHEMICAL FIRE EXTINGUISHER ON SITE DURING CONSTRUCTION. UPON COMPLETION OF ALL WORK, CONTRACTOR SHALL REMOVE FIRE EXTINGUISHER FROM SITE.

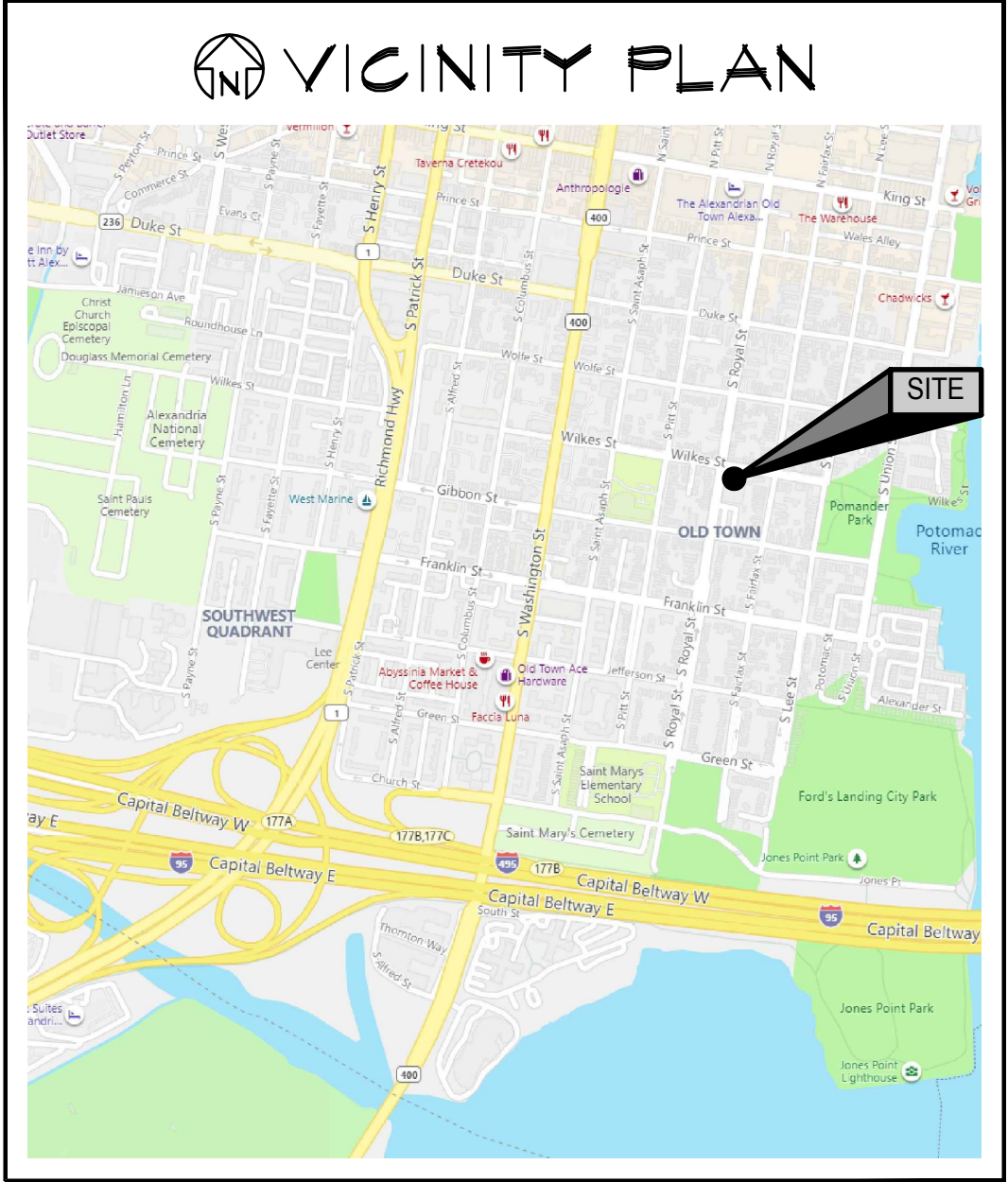
INDEX OF DRAWINGS

CS-1	SITE LOCATION AND VICINITY PLAN, INDEX OF DRAWINGS, AND CODE ANALYSIS
C-1	SITE PLAN
C-2	SITE DETAILS
TMP-1	TRANSPORTATION MANAGEMENT PLAN NOTES
TMP-2	TRANSPORTATION MANAGEMENT PLAN
S-1	STRUCTURAL SECTIONS AND DETAILS
S-2	GENERAL NOTES
E-1	ROUTING SITE PLAN
E-2	ELECTRICAL SPECIFICATIONS, SYMBOLS LIST, PANEL SCHEDULE AND DETAILS
E-3	POWER PLANS, POWER RISER, DETAILS, AND NOTES
E-4	GROUNDING DIAGRAM, DETAILS, AND NOTES
E-5	DIAGRAMS

CODE ANALYSIS

APPLICABLE BUILDING CODE:	IBC 2015
USE GROUP:	UTILITY (U)
CONSTRUCTION TYPE:	IIB
UTILITY COMPANY:	DOMINION

RAND McNALLY LICENSE # RL04-S-97



PROJECT DESCRIPTION

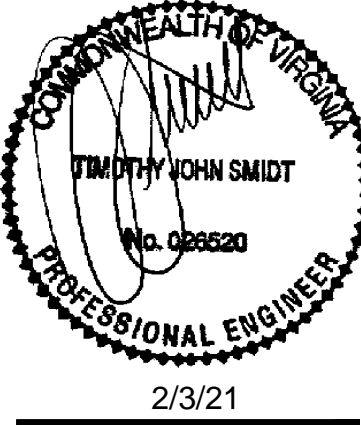
THIS PROJECT CONSISTS OF THE INSTALLATION OF VERIZON WIRELESS TELECOMMUNICATIONS EQUIPMENT ON A PROPOSED DECORATIVE METAL POLE PLANT. THE ASSOCIATED ANTENNAS WILL BE MOUNTED ON THE PROPOSED DECORATIVE METAL POLE PLANT AT A RAD CENTER OF 38'-6".

DIRECTIONS TO SITE

- FROM JUNCTION DRIVE:
- TURN LEFT ONTO HENKELS LANE
 - TAKE RAMP ON LEFT FOR MD-32 EAST
 - TAKE EXIT #10C RAMP ON RIGHT FOR BALTIMORE WASHINGTON PARKWAY SOUTH
 - TAKE EXIT #1C RAMP ON RIGHT FOR I-495 SOUTH
 - TAKE EXIT #111B RAMP ON RIGHT FOR US-1 NORTH
 - KEEP STRAIGHT ONTO CHURCH STREET
 - TURN LEFT ONTO VA-400
 - TURN RIGHT ONTO WILKES STREET
 - TURN RIGHT ONTO SOUTH ROYAL STREET
 - DESTINATION WILL BE ON THE LEFT

VERIZON WIRELESS REVIEW

BUILDING OWNER	DATE
ENGINEERING	DATE
OPERATIONS	DATE
CONSTRUCTION	DATE



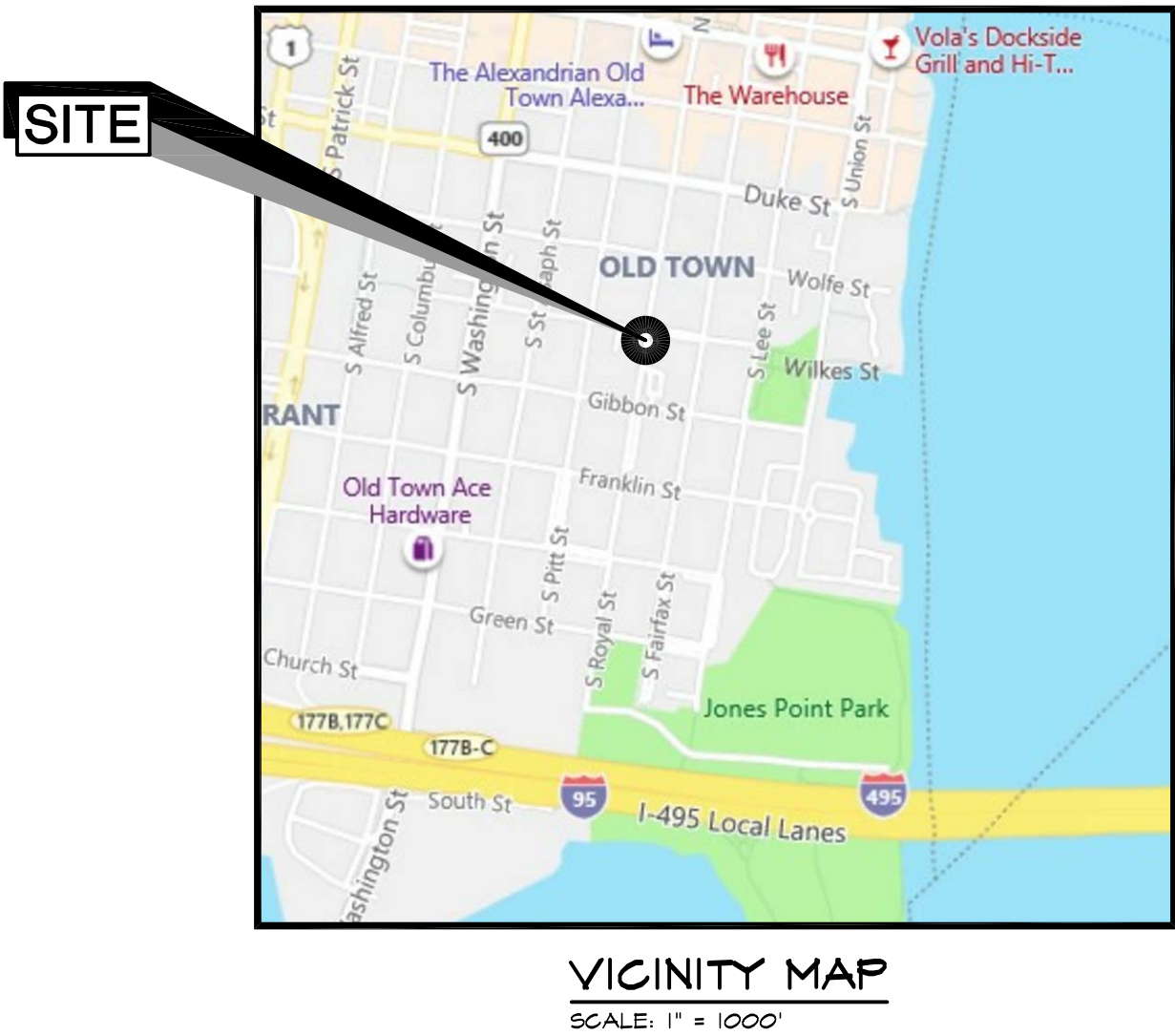
verizon
OLD TOWN 4 - D - SMALL CELL
RIGHT OF WAY ADJACENT TO 500 S ROYAL ST, ALEXANDRIA,
CITY OF ALEXANDRIA, VIRGINIA 22314

REVISIONS:		
NO.	DESCRIPTION	DATE
	POLE UPDATE	2/3/21
	PERMIT DWGS	8/31/20

LAST REV.:
PROJECT NO: 20103B
DATE: AUGUST 31, 2020
SCALE: AS NOTED

TITLE:
SITE LOCATION
AND VICINITY
PLAN, INDEX OF
DRAWINGS, AND
CODE ANALYSIS

SHEET:
CS-1



- SITE NOTES:**
1. APPLICANT: VERIZON WIRELESS
10712 JUNCTION DRIVE, SITE 300
ANNAPOLIS JUNCTION, MD 20701
TEL: (301) 512-2000
FAX: (301) 512-2186
 2. APPLICANT'S REPRESENTATIVE: JOSHUA SCHAKOLA
MASTEC NETWORK SOLUTIONS
9115 GUILFORD RD, SITE 400
COLUMBIA, MD 21046
 3. STRUCTURE OWNER: VERIZON WIRELESS
10712 JUNCTION DRIVE, SITE 300
ANNAPOLIS JUNCTION, MD 20701
TEL: (301) 512-2000
 4. ADJACENT PROPERTY OWNER: RODERICK H CUSHMAN
CO SAFEMAY INC
COMPREHENSIVE PROP TAX SVC
1871 OAKLAND BLVD SITE 200
WALNUT CREEK, CA 94596-4344
 5. ADJACENT SITE DATA: MAP-BLOCK-LOT NUMBER: 080.02-05-01
ACCOUNT NUMBER: 12448000
TRACT AREA: 43,585 SQ FT
ADDRESS: 500 S ROYAL ST
ALEXANDRIA, VIRGINIA 22314
EXISTING USE: COMMERCIAL
 6. ZONING: RM
 7. HORIZONTAL AND VERTICAL CONTROL SHOWN HEREON IS BASED ON SATELLITE IMAGERY PROGRAMS AND INFORMATION PROVIDED BY VERIZON WIRELESS.
LATITUDE: N29° 47' 54.2" (86.799447°)
LONGITUDE: W77° 02' 40.34" (-77.044553°)
GROUND ELEVATION: 16.0'± AMSL (AVS)
 8. TOTAL DISTURBED AREA = 8 SF
 9. THE PROPOSED FACILITIES WILL CONSIST OF THREE (3) ANTENNAS WITH ASSOCIATED EQUIPMENT MOUNTED ON A NEW DECORATIVE POLE WITH A RAD CENTER AT AN ELEVATION OF 38'-6" ABOVE GRADE LEVEL FOR THE RECEPTION OF VERIZON WIRELESS TELECOMMUNICATIONS.
 10. THE APPLICANT WILL PROVIDE A CERTIFICATION FROM A REGISTERED ENGINEER THAT THE STRUCTURE WILL MEET THE APPLICABLE DESIGN STANDARDS FOR WIND LOADS PER THE REQUIREMENTS OF THE TELECOMMUNICATIONS INDUSTRY ASSOCIATION.
 11. IF THE ANTENNAS ARE NO LONGER USED FOR TELECOMMUNICATIONS PURPOSES FOR A CONTINUOUS PERIOD OF ONE (1) YEAR, THEY SHALL BE REMOVED BY THE ANTENNA OWNER AT OWNER'S EXPENSE.
 12. NO WATER OR SANITARY UTILITIES ARE REQUIRED FOR THE OPERATION OF THIS FACILITY.
 13. STORMWATER MANAGEMENT NOTE: NO STORMWATER MANAGEMENT IS REQUIRED FOR THIS SITE.
 14. BOUNDARY SHOWN PER COUNTY RECORDS.
 15. THIS PLAN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. PLAN IS SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.
 16. ALL DETAILS SHOWN ARE 'STANDARD' OR 'TYPICAL' FOR REFERENCE ONLY. FOR ACTUAL DETAILS, SEE ARCHITECTURAL, STRUCTURAL, OR CONSTRUCTION PLANS BY OTHERS.
 17. STRUCTURAL ANALYSIS/DESIGN TO BE PERFORMED BY OTHERS AT CLIENT AND/OR OWNER'S DISCRETION PRIOR TO COMMENCEMENT OF ANY WORK.
 18. THE COMMUNICATION EQUIPMENT SHALL BE UNMANNED, WITH INFREQUENT VISITS (FOUR OR FEWER PER YEAR) BY MAINTENANCE PERSONNEL, AND WITH ACCESS AND PARKING FOR NO MORE THAN ONE VEHICLE. THE PROPOSED FACILITY IS NOT FOR HUMAN HABITATION AND THEREFORE HANDICAP ACCESS IS NOT REQUIRED.

- GENERAL NOTES:**
1. CONTRACTOR SHALL NOTIFY 'MISS UTILITY' (811) 48 HOURS PRIOR TO DOING ANY EXCAVATION IN THIS AREA. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATIONS BY TEST PIT AS NECESSARY. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. DAMAGE TO UTILITIES OR PROPERTY OF OTHER BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.
 2. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND ORDINANCES, THE LATEST EDITION THEREOF.
 3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
 4. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS.
 5. THESE PLANS ARE NOT FOR RECORDATION OR CONVEYANCE.
 6. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS BY THE CONTRACTOR.

PROPERTY OWNER CHART				
#	PROPERTY OWNER	ACCOUNT NO.	TRACT AREA (SQ FT)	ZONING
1	JASON C ROBERTS TR, HEIDI N GOMEZ TR	11757520	1,466	RM
2	YUNYUN CHENG TURIM, JASON R TURIM	11757540	1,440	RM
3	SUZANNE B LIPCAMAN	11757560	1,440	RM



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PROTECT YOURSELF. GIVE THREE WORKING DAYS NOTICE.
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SITE PLAN
SCALE: 1" = 20'-0"



MORRIS & RITCHIE ASSOCIATES, INC.
Civil / Structural Engineers
1320-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax



verizon
OLD TOWN 4 - D - SMALL CELL
RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

REVISIONS:	
NO.	DESCRIPTION
1	PERMIT DWGS
2	POLE UPDATE

DESIGNED BY: RJD
DRAWN BY: CMS
PROJECT NO: 10427.2441
DATE: 07/31/2020
SCALE: AS NOTED

TITLE:
Site Plan

SHEET:

C-1



MORRIS & RITCHIE ASSOCIATES, INC.
Civil / Structural Engineers
1320-C East Joppa Road, Suite 505
Towson, Maryland 21286
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verizon
OLD TOWN 4 - D - SMALL CELL
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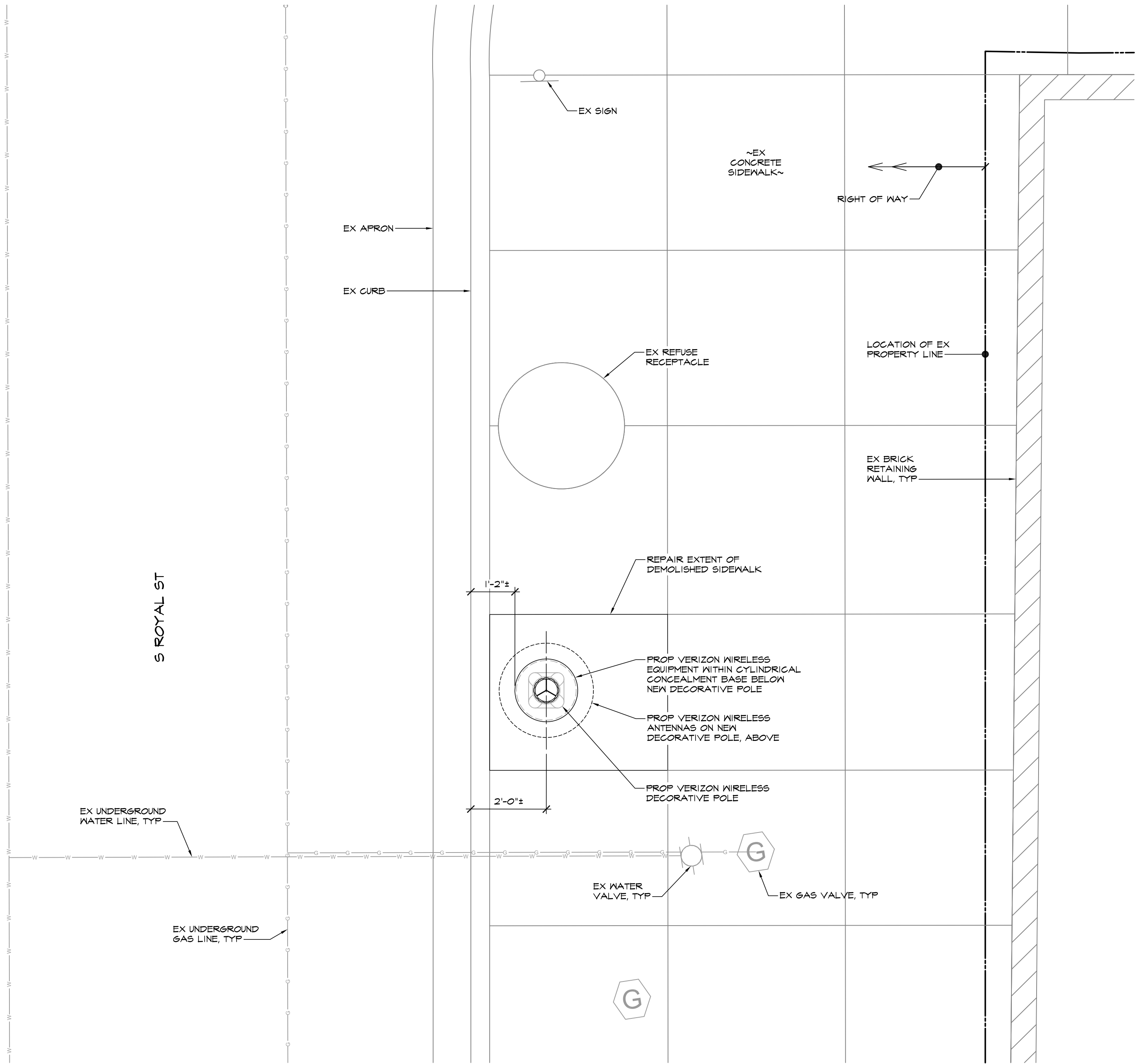
REVISIONS:		
NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/31/20
2	POLE UPDATE	02/03/21

DESIGNED BY: RJD
DRAWN BY: CMS
PROJECT NO: 10427.2441
DATE: 07/31/2020
SCALE: AS NOTED

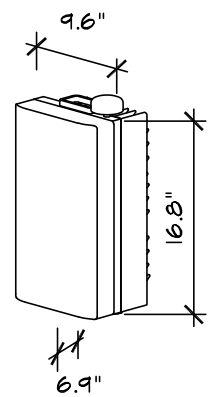
TITLE:
Site Details

SHEET:

C-2

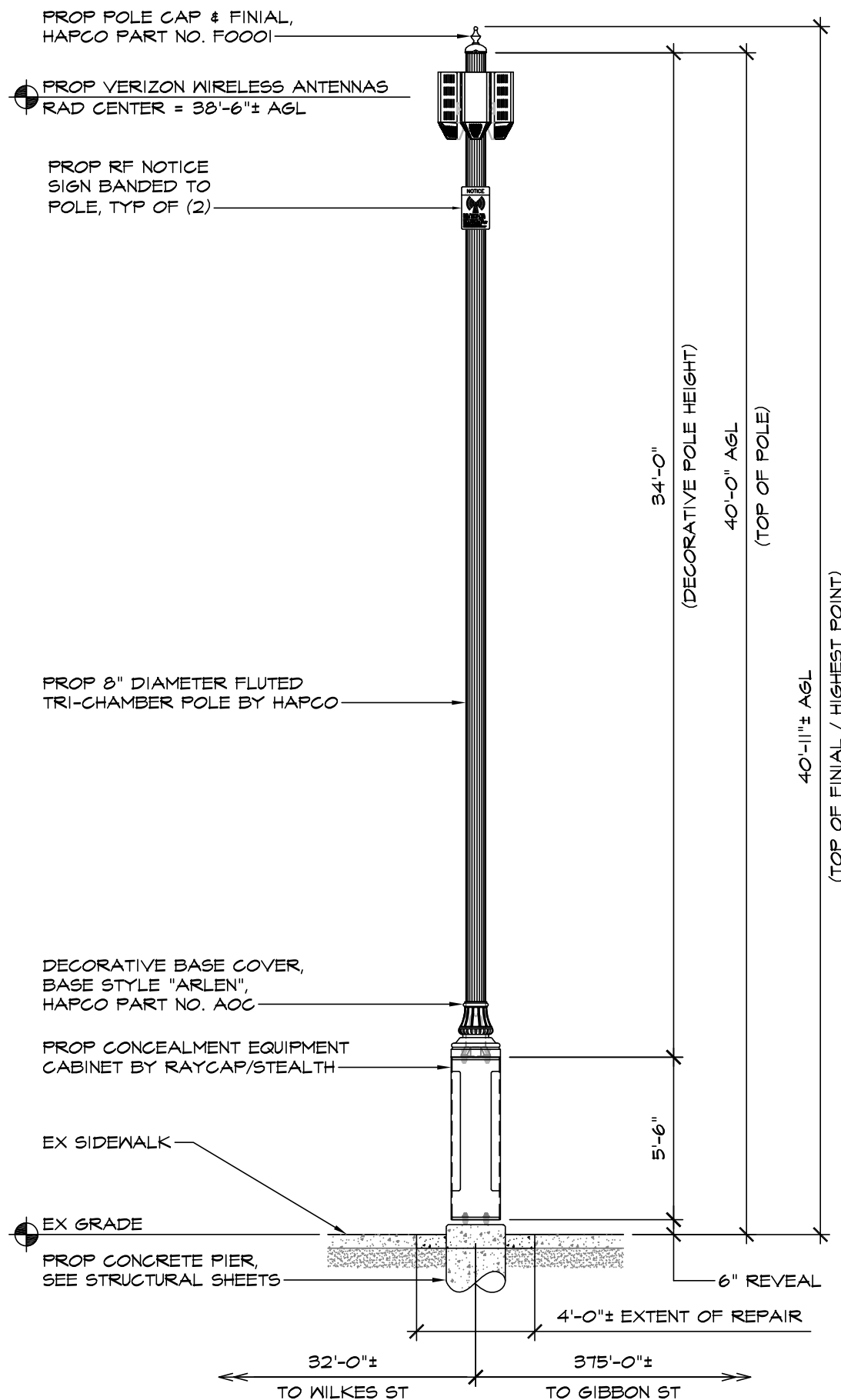


ENLARGED EQUIPMENT LAYOUT
SCALE: 1" = 5'-0"



SAMSUNG VZ-ATIKOI NR AU

VERIZON WIRELESS ANTENNA DETAILS
NOT TO SCALE



PROPOSED POLE ELEVATION
SCALE: 1" = 5'-0"

VOLUMETRIC CALCULATIONS			
ANTENNA VOLUMETRIC CALCULATION		EQUIPMENT VOLUMETRIC CALCULATION	
SAMSUNG NR AU (3 ANTENNAS, 0.64 CU FT EACH)	1.92 CU FT	RAYCAP/STEALTH CONCEALMENT BASE	12.0 CU FT
TOTAL	1.92 CU FT	TOTAL	12.0 CU FT

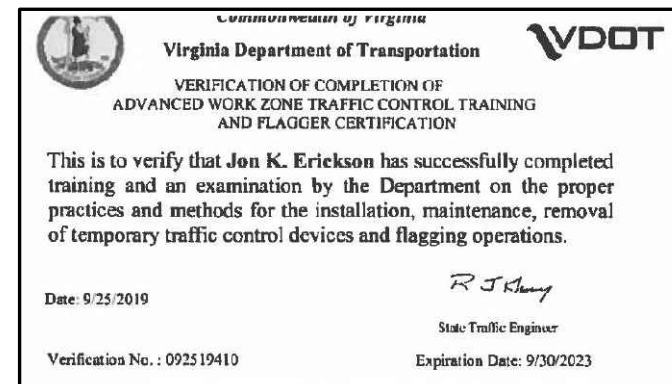


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TRANSPORTATION MANAGEMENT PLAN

TEMPORARY TRAFFIC CONTROL PLAN NOTES & WORK AREA PROTECTION MANUAL TTC'S



PROJECT INFORMATION

- THE PROJECT'S TMP PLAN HAS BEEN DESIGNED IN CONFORMANCE WITH TMP TYPE A.
- WORK ZONE AREAS SHALL BE SETUP AS SHOWN ON TTC'S ON THIS PLAN SHEET. THE WORK ZONE LENGTHS AND WIDTHS MAY VARY BY LOCATION IN ACCORDANCE WITH APPLICABLE TTC.
- CONSTRUCTION HOURS: 9AM-3:30PM, MONDAY-THURSDAY. 9AM-2PM FRIDAY. NO WORK ON NIGHTS, WEEKENDS OR HOLIDAYS. NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.
- EXISTING INTERSECTIONS: THE NEAREST INTERSECTION IS WILKES ST AND S ROYAL ST.
- EXISTING PEDESTRIAN ACCESS POINTS: THERE IS EXISTING SIDEWALK LOCATED WITHIN THE PROJECT LIMITS.
EXISTING BUS STOPS: THERE ARE NO BUS STOPS NEAR THE PROJECT LIMITS.
EXISTING ENTRANCES: THERE IS A COMMERCIAL ENTRANCE LOCATED WITHIN THE CONSTRUCTION LIMITS.
- THE TRAFFIC ON THE ROADWAY CONSIST PRIMARILY OF PASSENGER VEHICLES AND PEDESTRIANS. THE SURROUNDING AREA IS RESIDENTIAL.
- THE CONTRACTOR SHALL:

DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMITTED WORK. THIS PERSON SHALL COORDINATE WITH THE INSPECTOR FOR THE DURATION OF CONSTRUCTION.

ENSURE THAT PERSONNEL IMPLEMENTING THE MOT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITY IN ACCORDANCE WITH VIRGINIA WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.

INFORM COUNTY OF ANY WORK REQUIRING LANE SHIFTS, LANE CLOSURES, AND/OR PHASE CHANGES A MINIMUM OF TWO WORKING DAYS PRIOR TO IMPLEMENTING THIS ACTIVITY

PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF COUNTY ENGINEERS. CONTRACTOR SHALL MAINTAIN A COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.

COORDINATE WITH CITY OF ALEXANDRIA POLICE DEPARTMENT AND CITY OF ALEXANDRIA FIRE/RESCUE DEPARTMENT FOR ANY LANE CLOSURES AND ANY DETOURS OF ANY NATURE, AT NO ADDITIONAL COST TO THE PROJECT.

SCHEDULE ALL PHASES OF CONSTRUCTION IN SUCH A MANNER THAT WATER, SANITARY SEWER, CABLE, FIBER CABLE/OPTIC CABLE, ANY OVERHANGING UTILITIES, AND ANY UNDERGROUND UTILITIES SERVICES WILL NOT BE INTERRUPTED.

- THIS TMP PLAN IS INTENDED AS A GUIDE. IF THE CONTRACTOR IS TO DEViate FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO COUNTY FOR REVIEW AND APPROVAL.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
- WHERE GROUP 2 CHANNELIZING DEVICES ARE USED TO SEPARATE THE CONSTRUCTION AREA AND TRAFFIC, A MINIMUM CLEAR ZONE AREA SUCH AS DEFINED IN THE VWAPM IS TO BE MAINTAINED.
- CONTRACTOR IS TO COORDINATE WITH CITY FOR LOCATION(S) OF THE CONSTRUCTION STAGING AREA. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND/OR EASEMENTS AS NECESSARY.
- IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN
DURING THE FIRST DAY OF THE NEW WORK ZONE TRAFFIC PATTERN, THE PROJECT'S MANAGER AND CITY'S INSPECTOR SHALL INSPECT THE WORK ZONE TO ENSURE COMPLIANCE WITH THE TMP. ON THE THIRD TO FIFTH DAY OF IMPLEMENTATION OF THE TMP'S NEW WORK ZONE TRAFFIC PATTERN THE CONSTRUCTION INSPECTOR SHALL CONDUCT AN ON-SITE REVIEW OF THE WORK ZONE'S PERFORMANCE IN COORDINATION WITH COUNTY AND RECOMMEND TO THE CONTRACTOR ANY REQUIRED CHANGES TO THE TMP TO ENHANCE THE WORK ZONE'S SAFETY AND MOBILITY. ALL SUCH CHANGES SHALL BE DOCUMENTED. AN ON-SITE REVIEW OF THE PROJECT'S WORK ZONE TRAFFIC CONTROL BY THE PROJECT MANAGER AND CONTRACTOR SHALL BE CONDUCTED (WITH COORDINATION FROM COUNTY) WITHIN 48 HOURS OF ANY FATAL INCIDENT/CRASH WITHIN THE WORK ZONE.
- PUBLIC COMMUNICATIONS PLAN
THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
 - NOTIFYING THE PROJECT MANAGER AND CITY INSPECTOR TWO WEEKS IN ADVANCE OF ANY SCHEDULED WORK PLANS AND TRAFFIC DELAYS.
 - NOTIFYING THE PROJECT MANAGER, CITY INSPECTOR, AND CORRESPONDING COUNTY ENGINEER OF ANY UNSCHEDULED TRAFFIC DELAYS.
- TRANSPORTATION OPERATIONS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:
 - NOTIFY THE REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) 1 WEEK IN ADVANCE IN ORDER TO PLAN LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC.
 - IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
 - NOTIFY THE PROJECT'S CONSTRUCTION INSPECTOR AND COUNTY ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.
 - WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE COMPLETED AND NECESSARY ADJUSTMENT MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE INCIDENTS.

CONTACT NUMBERS

PROJECT MANAGER: TBD
CITY INSPECTOR: TBD
EMERGENCY CALL: 911

NON-EMERGENCY NUMBERS:
CITY OF ALEXANDRIA POLICE: 703-746-4444
CITY OF ALEXANDRIA FIRE & RESCUE: 703-746-4357

GENERAL CONSTRUCTION NOTES

NOTE: VWAPM VIRGINIA WORK AREA PROTECTION MANUAL (2011) INCLUDING REVISION 2 DATED SEPTEMBER 1, 2019.

- THE CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS DURING BOTH WORK AND NON-WORK HOURS TO ENSURE THE PROTECTION AND SAFETY OF PEDESTRIANS, VEHICULAR TRAFFIC, AND THE GENERAL PUBLIC FROM ANY CONSTRUCTION RELATED ACTIVITY, CONSTRUCTION EQUIPMENT, AND THE CONSTRUCTION SITE ITSELF.

Page 6H-14

September 2019

Typical Traffic Control
Stationary Operation on a Shoulder
(Figure TTC-4.2)
NOTES

Standard:

- For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-5bR), RIGHT SHOULDER CLOSED (W21-5aR)), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed.

Guidance:

- Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.

Option:

- The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
- For short duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or oscillating lights is used.

Standard:

- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.
- Taper length (L) shall be at the following:

Speed Limit (mph)	Lane Width (Feet)				Remarks
	9	10	11	12	
25	95	105	115	125	L+SW/W60
30	135	150	165	180	L+SW/W60
35	185	205	225	245	L+SW/W60
40	240	270	295	320	L+SW/W60
45	405	450	495	540	L+SW

Limited Access highways shall use a 1000' merging taper regardless of the posted speed, for shifting taper see Table 6H-2

Shoulder Taper = 1/4 L Minimum

Channelizing device spacing shall be at the following:

Channelizing Device Spacing		Channelizing Device Spacing		Channelizing Device Spacing	
Location Spacing	Speed Limit (mph)	Location Spacing	Speed Limit (mph)	Location Spacing	Speed Limit (mph)
0-35	36+	0-35	36+	0-35	36+
Transition	20' 40'	Travelway	40' 80'	*Construction Access	80' 120'

*Construction access spacing may be increased to this distance, but shall not exceed one access per 1/4 mile.

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.

A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph for operations with a duration greater than 60 minutes.

When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

September 2019

Page 6H-15

Stationary Operation on a Shoulder
(Figure TTC-4.2)

1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

Page 6H-78

September 2019

Typical Traffic Control
Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)
NOTES

Standard:

- When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.

Guidance:

- Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.
- Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.
- Temporary markings should be considered for operations exceeding three days in duration.

Option:

- Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWING (W5-1) signs, may be used to control vehicular traffic.
- For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
- Signs, such as KEEP RIGHT (R4-VTR) and KEEP LEFT (R4-VTL), may be placed along a temporary sidewalk to guide or direct pedestrians.

Standard:

- All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.

2: Revision 2 - 9/1/2019

September 2019

Page 6H-79

Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)

2: Revision 2 - 9/1/2019

verizon
OLD TOWN 4 - D - SMALL CELL
RIGHT OF WAY ADJACENT TO 500 S ROYAL ST
ALEXANDRIA, VIRGINIA 22314 (CITY OF ALEXANDRIA)

REVISIONS:	
NO.	DESCRIPTION
1	PERMIT DWGS
2	DATE
3	DATE
4	DATE
5	DATE
6	DATE
7	DATE
8	DATE
9	DATE
10	DATE
11	DATE

DESIGNED BY: JKE
DRAWN BY: ML
PROJECT NO: 10421.2441
DATE: 07/31/2020
SCALE: AS NOTED
TITLE:
TRANSPORTATION
MANAGEMENT
PLAN

SHEET:

TMP-1

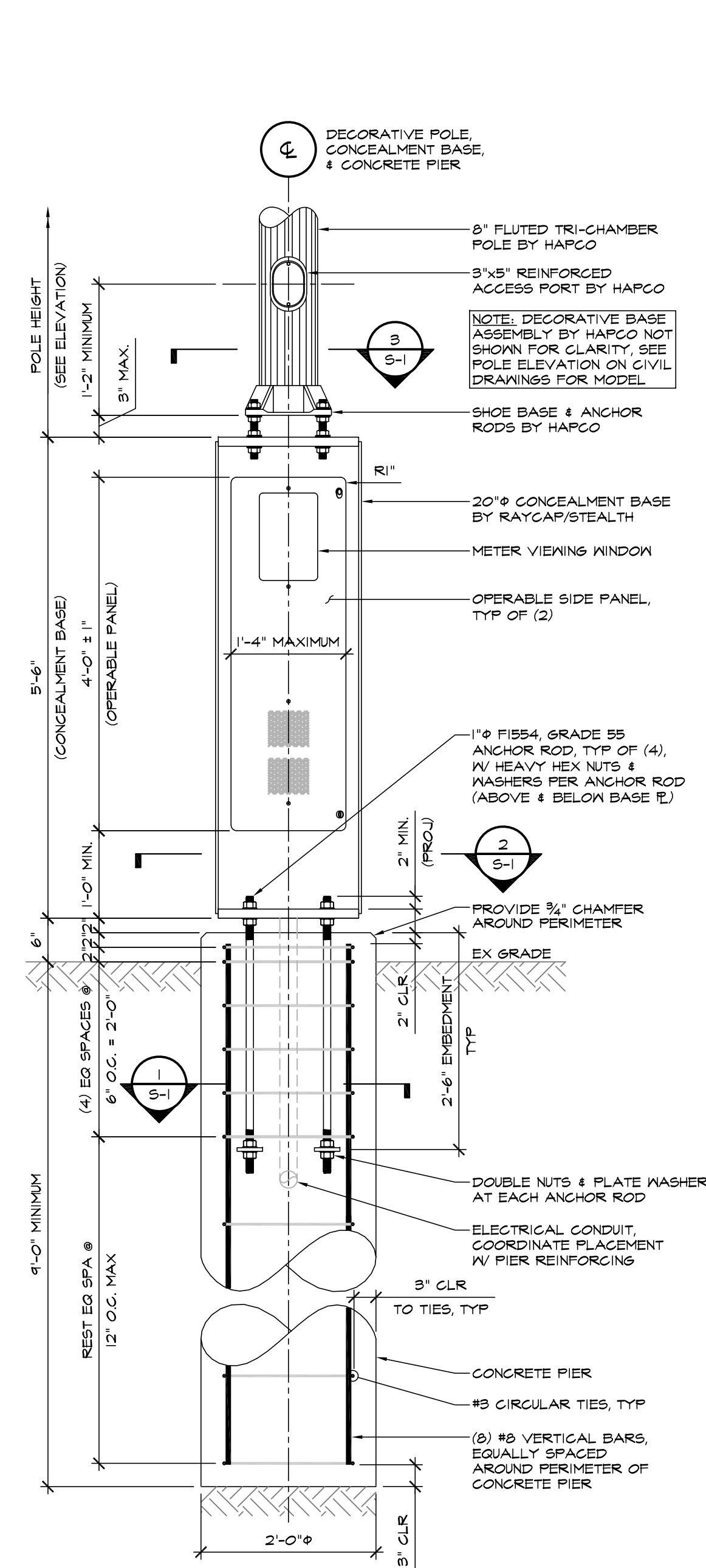


**Know what's below.
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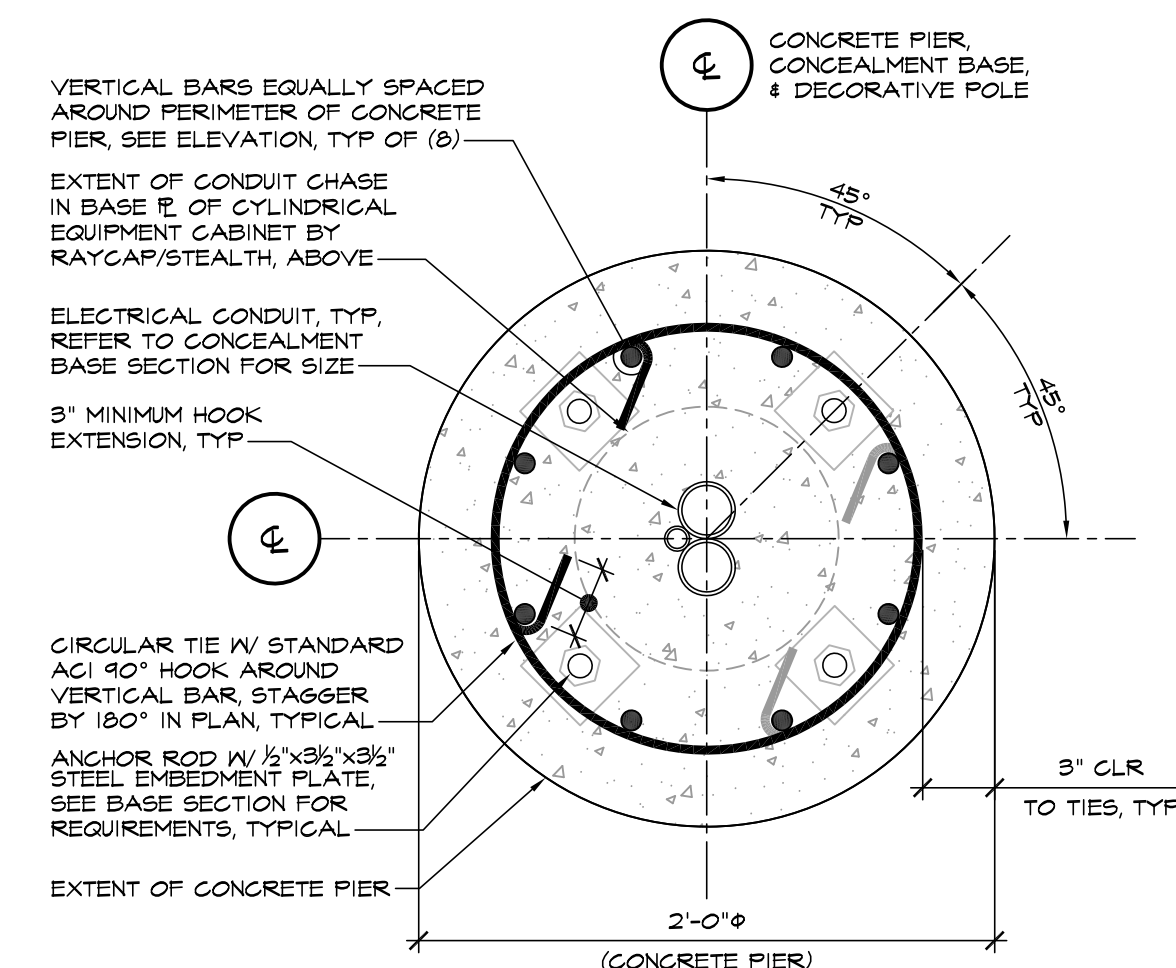
PROTECT YOURSELF, GIVE THREE
WORKING DAYS NOTICE

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WITH THE OCCUPATIONAL SAFETY AND HEALTH
ACT OF 1970 AND ALL RULES AND REGULATIONS
THERE TO APPURTENANT.

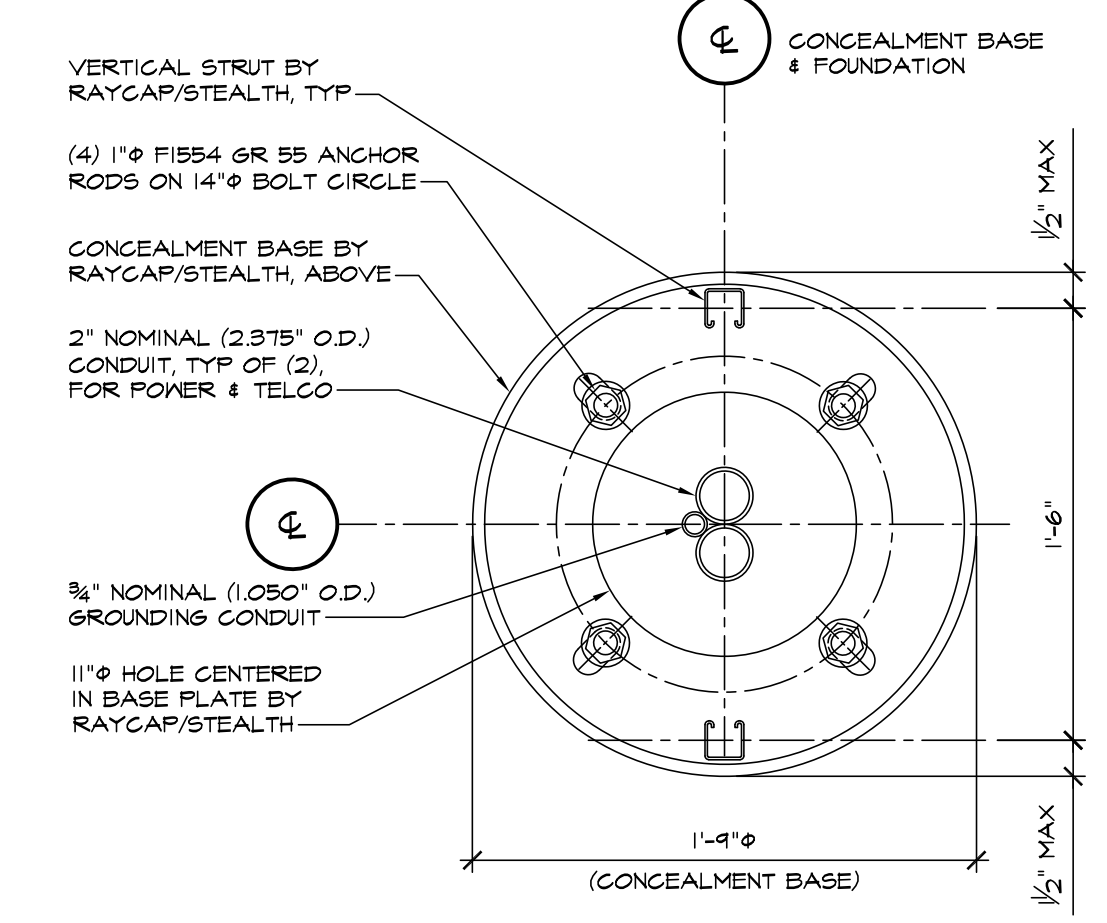
A B C D E F G H J K L M N P Q R



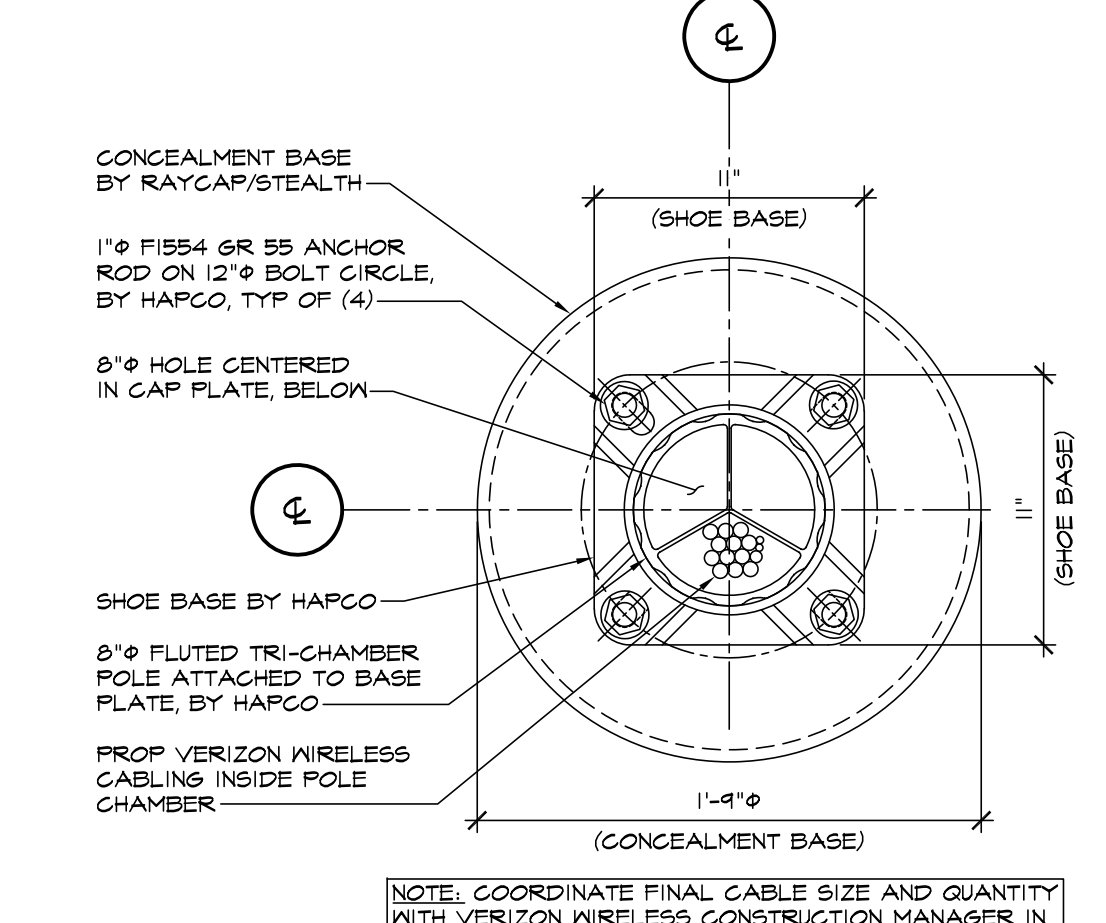
A POLE FOUNDATION DETAIL
SCALE: 3/4" = 1'-0"



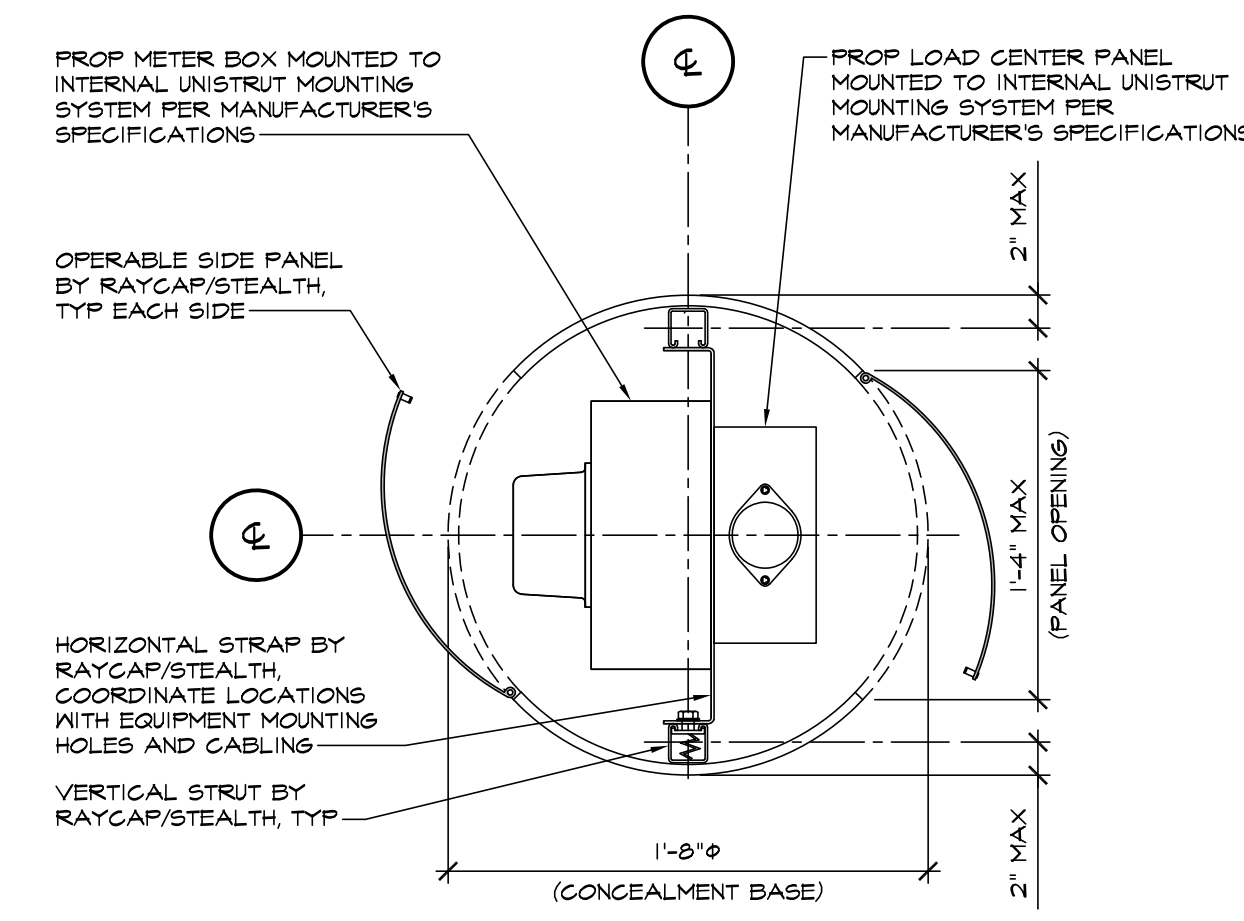
1 PIER REINFORCING SECTION
SCALE: 1-1/2" = 1'-0"



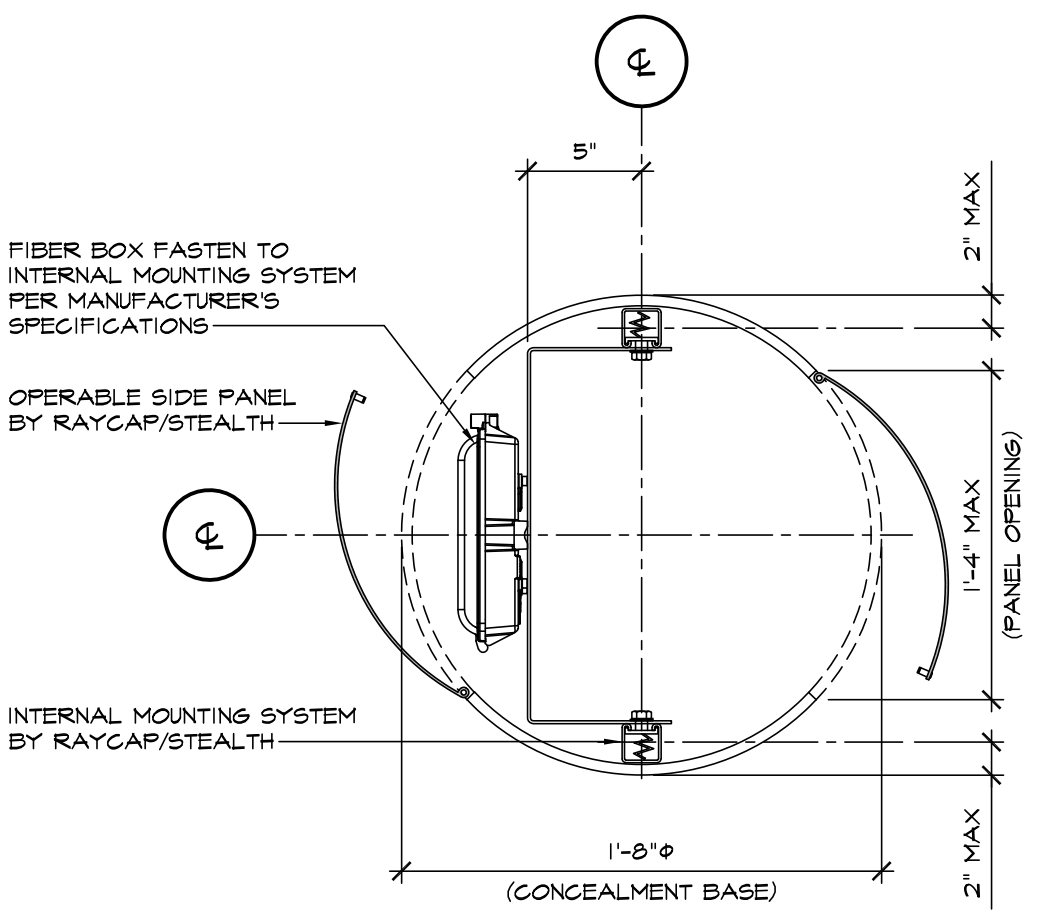
2 CONCEALMENT BASE SECTION
SCALE: 1-1/2" = 1'-0"



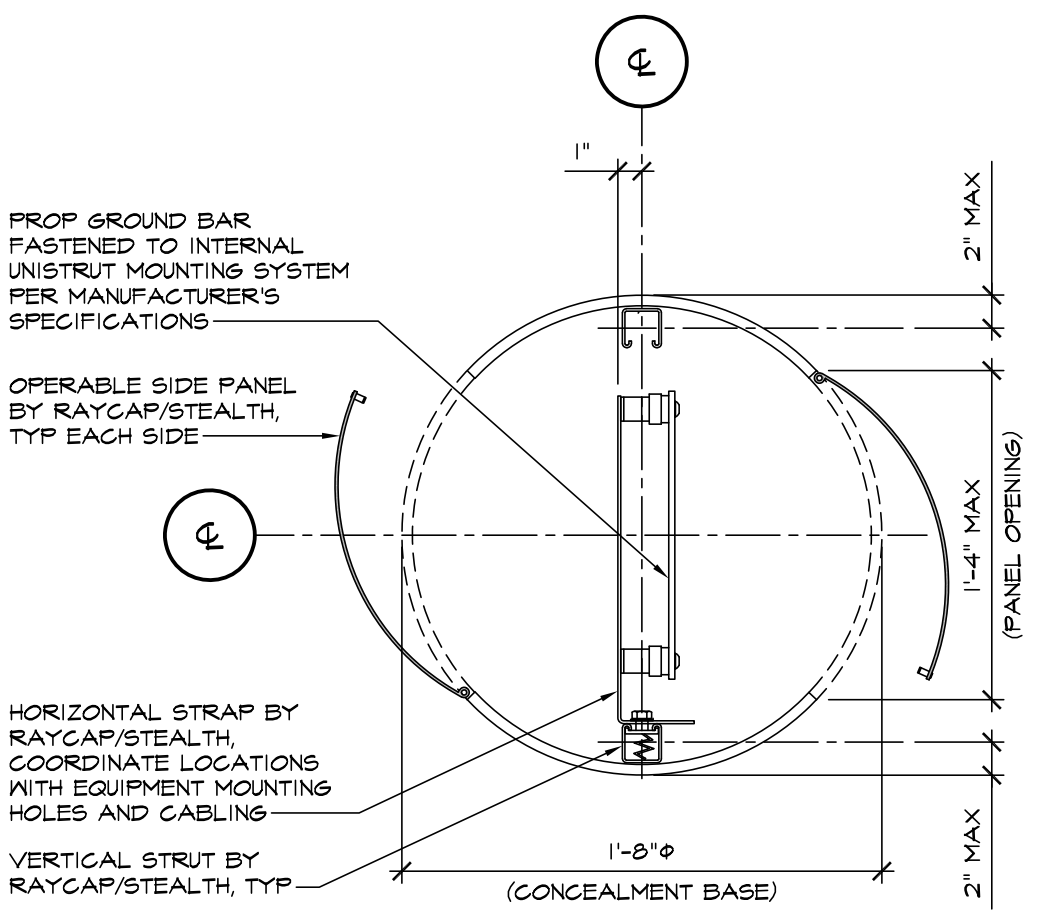
3 POLE BASE SECTION
SCALE: 1-1/2" = 1'-0"



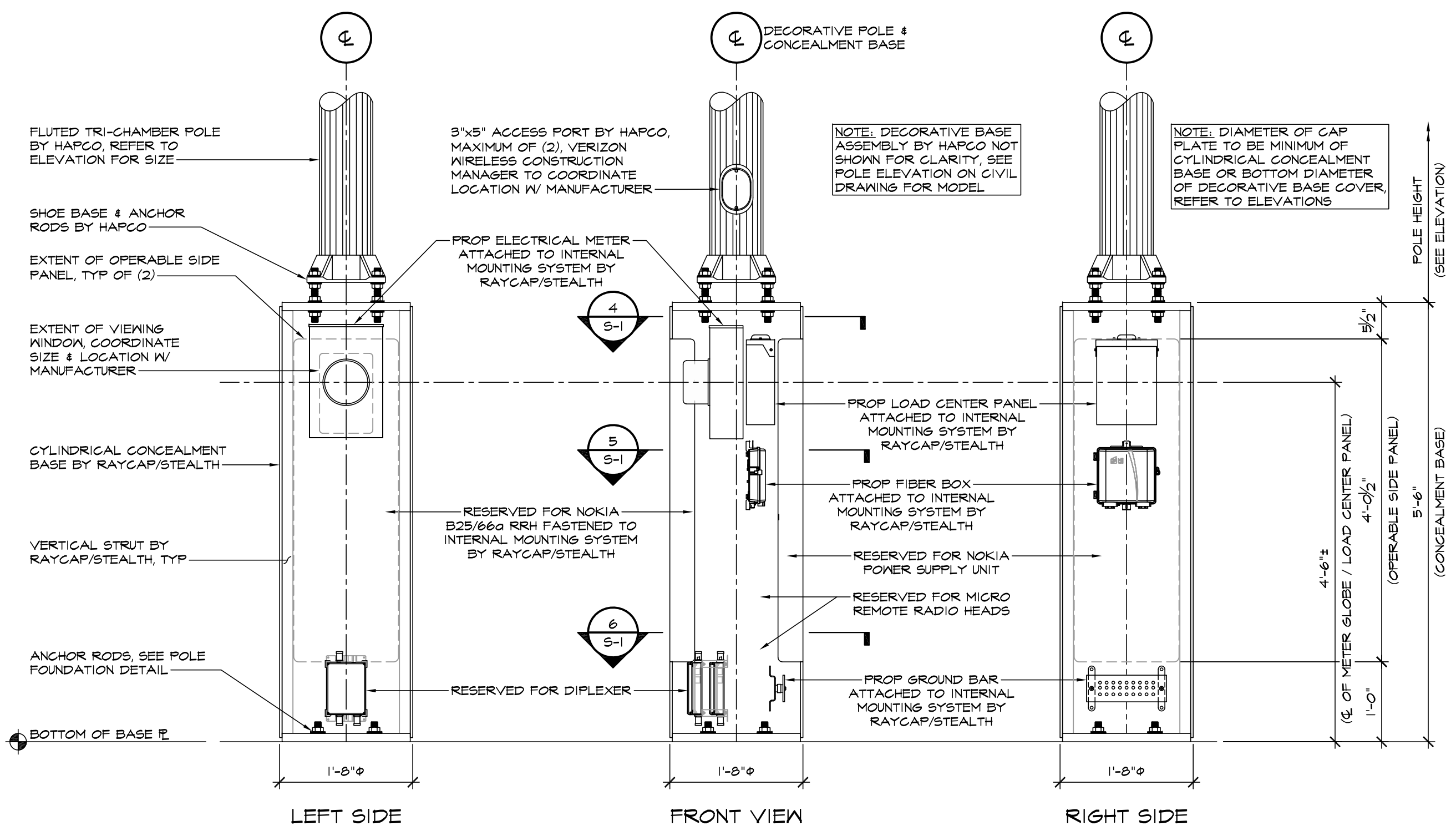
4 TYPICAL EQUIPMENT CONCEALMENT BASE SECTION
SCALE: 1-1/2" = 1'-0"



5 UPPER EQUIPMENT EQUIPMENT CABINET SECTION
SCALE: 1-1/2" = 1'-0"



6 LOWER EQUIPMENT CONCEALMENT BASE SECTION
SCALE: 1-1/2" = 1'-0"



B BASE CYLINDRICAL EQUIPMENT CABINET DETAILS
SCALE: 3/4" = 1'-0"

NOTE: PROPOSED POLE, ANTENNAS AND EQUIPMENT ARE TO BE COLORED BLACK. COORDINATE WITH VERIZON WIRELESS CONSTRUCTION MANAGER PRIOR TO COLORING.



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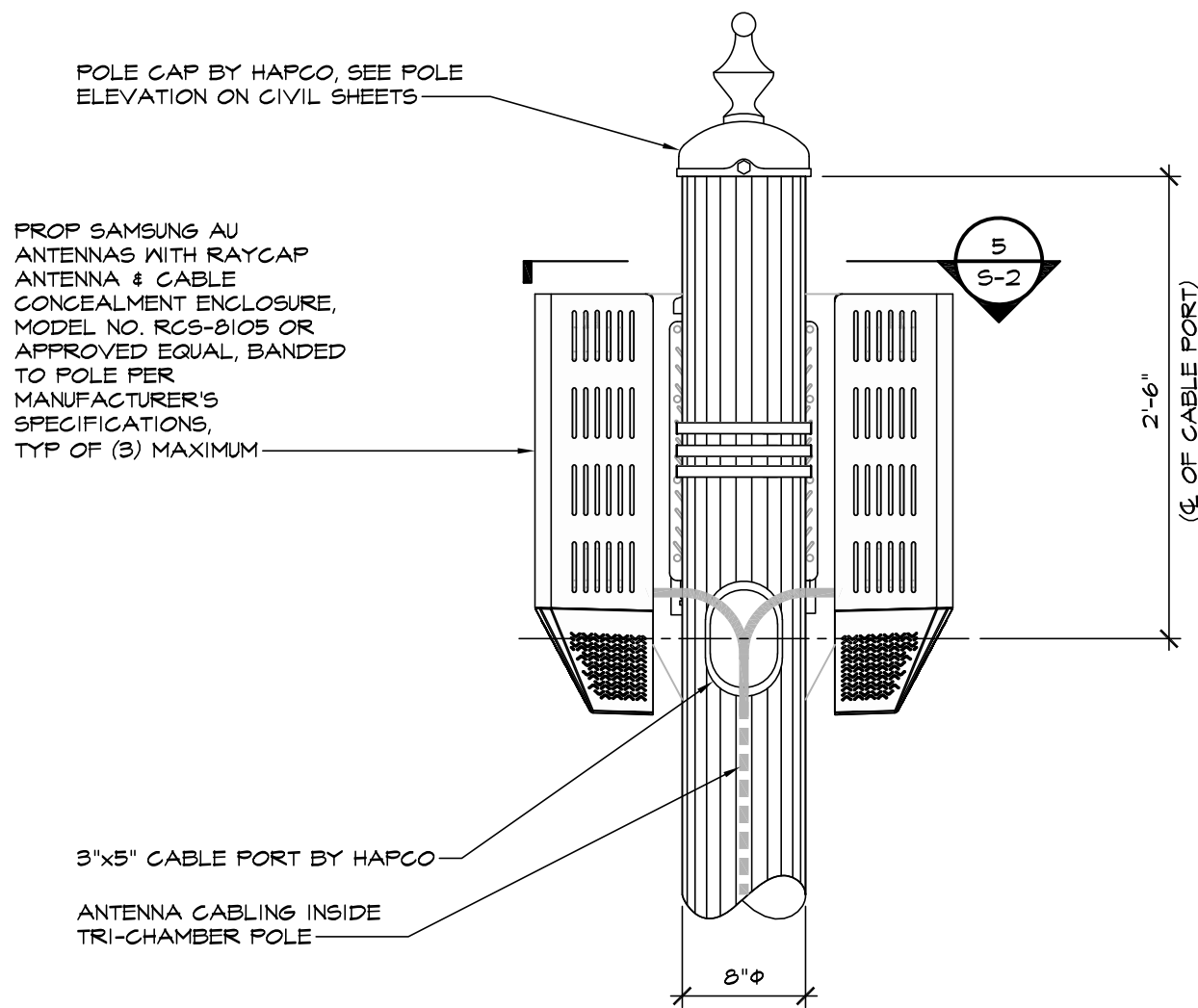
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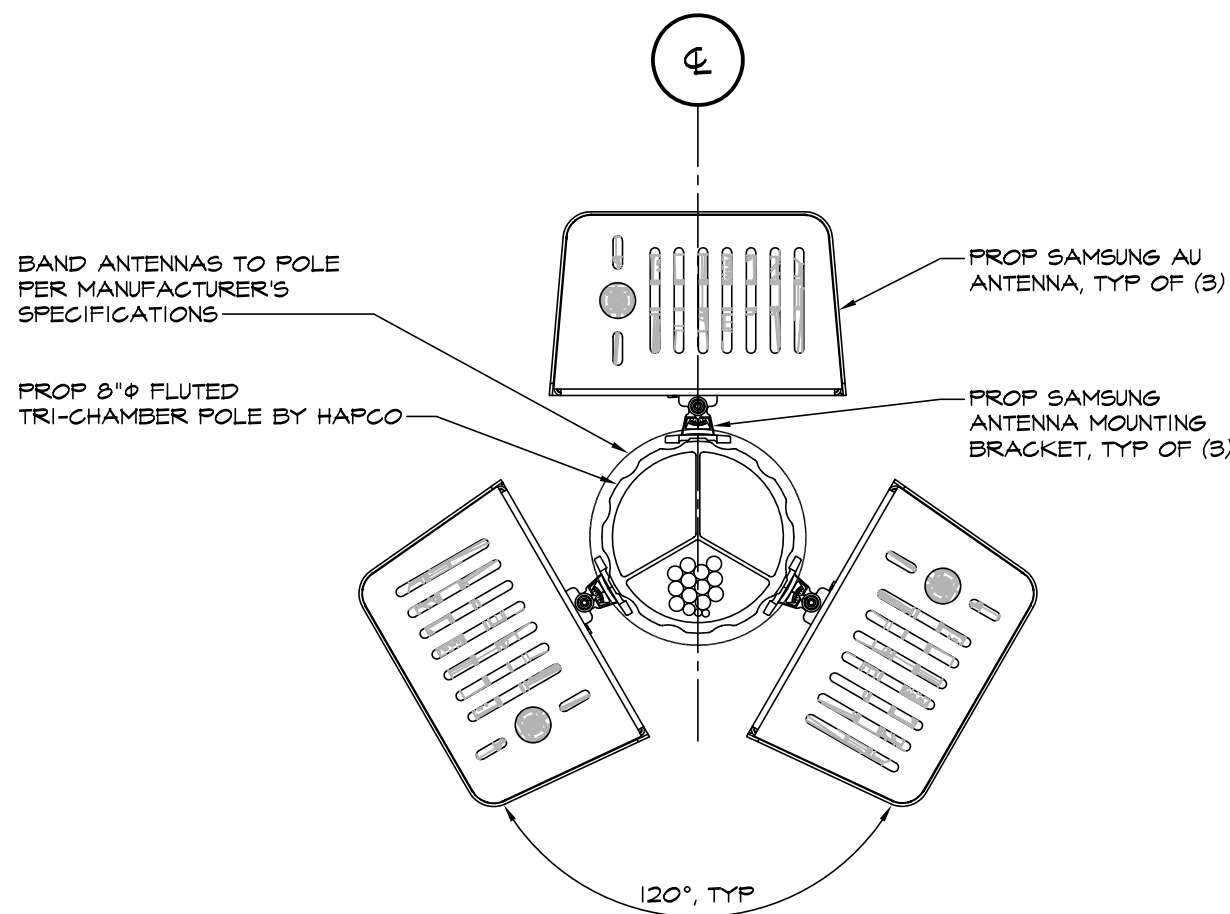
DESIGNED BY: RJD
DRAWN BY: CMS
PROJECT NO: 10427.2441
DATE: 07/31/2020
SCALE: AS NOTED

TITLE:
Structural Sections & Details

SHEET:
S-1



B INTEGRAL MOUNTED ANTENNA DETAIL
SCALE: 3/4" = 1'-0"



5 ANTENNA MOUNTING SECTION
SCALE: 1-1/2" = 1'-0"

CODES

- A. ANSI/TIA-222-H-2017 "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS", AND ALL SUBSEQUENT SUPPLEMENTS
- B. INTERNATIONAL BUILDING CODE (IBC-2015)
- C. VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VA USBC 2015)
- D. IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH THE GOVERNING LOCAL BUILDING CODE

DESIGN LOADS

- A. THE DECORATIVE POLE AND ASSOCIATED FOUNDATION HAS BEEN DESIGNED TO SUPPORT THE APPURTENANCES AS SPECIFIED IN THESE DRAWINGS IN ACCORDANCE WITH THE FOLLOWING DESIGN LOADS.
- B. WIND LOAD DESIGN DATA
 - ULTIMATE WIND SPEED (NO ICE): $V_{ult} = 118$ MPH
 - BASIC WIND SPEED (WITH ICE): $V_I = 40$ MPH
 - DESIGN RADIAL ICE THICKNESS: 1" (ICE THICKNESS INCREASES WITH HEIGHT)
 - RISK CATEGORY: II
 - EXPOSURE CATEGORY: C
 - TOPOGRAPHIC CATEGORY: I
- C. EARTHQUAKE LOAD DESIGN DATA
 - SHORT PERIOD ACCELERATION, S_s : 0.195 g
 - ONE SECOND PERIOD ACCELERATION, S_1 : 0.044 g
 - SEISMIC DESIGN CATEGORY: B
 - SEISMIC RESPONSE COEFFICIENT, C_s : 0.072
- **WIND LOADS GOVERN
- D. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED DURING ERECTION AND CONSTRUCTION. DESIGN OF TEMPORARY BRACING IS THE RESPONSIBILITY OF THE CONTRACTOR.

MISCELLANEOUS

- A. THE CONTRACTOR SHALL INSTALL THE EMBEDDED STEEL POLE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. IN ADDITION TO THE SPECIFICATIONS ON THESE DRAWINGS.
- B. THE CONTRACTOR SHALL LOCATE ALL UTILITIES IN THE AREA OF CONSTRUCTION AND PREVENT DAMAGE TO THEM. SHOULD DAMAGE OCCUR TO ANY UTILITIES THE CONTRACTOR IS REQUIRED TO REPAIR THE DAMAGE TO THE SATISFACTION OF THE OWNER AT HIS OWN EXPENSE.
- C. IN CASES OF CONFLICT BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.
- D. THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.
- E. SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- F. APPLY DETAILS, SECTIONS AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.
- G. PROVIDE SHORING AND PROTECTION FOR EXCAVATION AS NECESSARY TO PREVENT CAVING AND COMPLY WITH ALL APPLICABLE OSHA RULES AND REGULATIONS.
- H. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR OR OWNER FOR REVIEW BY THE ENGINEER. IF THE CONTRACTOR OR OWNER FAILS TO SUBMIT THE SHOP DRAWINGS, THE ENGINEER WILL NOT BE RESPONSIBLE FOR STRUCTURAL CERTIFICATION AND DESIGN OF THE PROJECT. THE SHOP DRAWINGS SHALL INDICATE ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMISSION AND MAKE ALL CORRECTIONS DEEMED NECESSARY.

FOUNDATION SOIL

- A. ALL FOUNDATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING MINIMUM SOIL CONDITIONS. SHOULD THE ACTUAL SOIL CONDITIONS DIFFER, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER:

	SAND	BLOCKS/FT
STANDARD PENETRATION VALUE, N:	28	DEGREES
ANGLE OF INTERNAL FRICTION, ϕ :	100	PCF
EFFECTIVE UNIT WEIGHT OF SOIL, γ :	0	PSF
COHESION, c:		
- B. A REGISTERED GEOTECHNICAL ENGINEER SHALL BE ON SITE AT THE TIME OF CONSTRUCTION TO VERIFY THE ASSUMED SOIL PARAMETERS ABOVE. SOILS THAT DO NOT MEET THE INDICATED SOIL PARAMETERS SHALL BE EVALUATED AND FOUNDATION MAY NEED TO BE REDESIGNED.
- C. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING IMMEDIATELY THE GEOTECHNICAL ENGINEER OF RECORD IF GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION.
- D. BEARING ELEVATION OF DRILLED PIER FOUNDATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED IN FIELD.
- E. DRILLED PIER FOUNDATIONS SHALL BE DRILLED WITHOUT DISTURBING THE SURROUNDING SOIL AND SHALL BE KEEP FREE OF WATER INFILTRATION UNTIL CONCRETE CAN BE PLACED.
- F. ALL FOUNDATION DESIGN ASSUMES LEVEL GRADE AT ALL STEEL POLE LOCATIONS. IMMEDIATELY CONTACT MRA SHOULD SLOPED GRADES (SLOPED GRADES GREATER THAN 3") BE PRESENT.

STRUCTURAL AND MISCELLANEOUS STEEL

- A. ALL STEEL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE AISC STEEL CONSTRUCTION MANUAL "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 360) AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- B. ALL MISCELLANEOUS STEEL PLATES AND ANGLES SHALL CONFORM TO ASTM A36 ($F_y = 36$ KSI).
- C. ALL PIPE SHALL CONFORM TO ASTM A53, GRADE B ($F_y = 35$ KSI).
- D. ALL STRUCTURAL BOLTS & THRU-BOLTS SHALL USE ASTM A325 STEEL, UNLESS NOTED OTHERWISE BY CONTRACT DRAWINGS.
- E. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436.
- F. ALL STRUCTURAL STEEL SHALL HAVE LONGITUDINAL CHAMFY V-NOTCH VALUES NOT LESS THAN 15.0 FT-LBS AT -20 DEGREES FAHRENHEIT. ALL CHAMFY V-NOTCH TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM A510.
- G. ALL RODS, WASHERS, AND NUTS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM F2324.
- H. ALL WELDED CONNECTIONS SHALL USE E70XX LOW-HYDROGEN ELECTRODES.
- I. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY CERTIFIED WELDERS AND CONFORM TO THE AMERICAN WELDING SOCIETY CODE FOR BUILDINGS AWS D1.1. WELDS SHALL DEVELOP THE FULL STRENGTH OF MATERIALS BEING WELDED UNLESS OTHERWISE INDICATED.
- J. ALL STRUCTURAL STEEL SHALL BE FINISHED (GALVANIZED, PRIMED, POWDER COATED, PAINTED, ETC.) AS DIRECTED BY THE CONSTRUCTION MANAGER. ALL FINISHES SHALL BE INSTALLED OR APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- K. THE CONTRACTOR SHALL NOT SPLICE OR CUT OPENINGS IN STEEL MEMBERS NOT SHOWN ON CONTRACT DRAWINGS WITHOUT THE PERMISSION OF THE STRUCTURAL ENGINEER.
- L. AN INDEPENDENT INSPECTION AGENCY SHALL INSPECT ALL STRUCTURAL STEEL AND VERIFY THAT IT CONFORMS TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. FIELD INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN 5 DAYS OF THE INSPECTION. THE CONTRACTOR SHALL NOTIFY THE INSPECTION AGENCY OF ALL PHASES OF STEEL CONSTRUCTION AND WELDING.
- M. SHOW ALL HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE STRUCTURAL ENGINEER.

CAST-IN-PLACE CONCRETE

- A. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301)", AND TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)".
- B. IN ADDITION TO THE ABOVE, ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:
 - RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING (ACI 305).
 - RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306).
 - RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI 347).
 - STANDARD SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS (ACI 117).
 - CHEMICAL ADMIXTURES FOR CONCRETE (ACI 212.3).
 - STANDARD SPECIFICATION FOR CURING CONCRETE (ACI 308.1).
- C. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE STONE AGGREGATE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 6% +/- 1.5%. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. MAXIMUM AGGREGATE SIZE SHALL BE 3/4", AND MAXIMUM SLUMP SHALL BE 4". MAXIMUM WATER / CEMENT (W/C) RATIO = 0.45. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 AND NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C88.
- D. ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE.
- E. ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACING OF ANY CONCRETE. TESTING SHALL BE IN ACCORDANCE WITH ASTM C112.
- F. THE CONCRETE STRUCTURE SHALL NOT SUPPORT THE DESIGN LIVE LOAD FOR A MINIMUM OF 28 DAYS AND ALL SHORING AND RE-SHORING REQUIRED TO SUPPORT THE CONCRETE STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR. SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE JURISDICTION IN WHICH THE PROJECT IS LOCATED, SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INDICATE THE TYPE, EXTENT, SIZE, AND LOCATION OF ALL SHORING AND RE-SHORING AS WELL AS THE SEQUENCE OF CONSTRUCTION.
- G. GROUND BLAST FURNACE SLAG MAY BE USED TO REPLACE UP TO 50 PERCENT OF THE PORTLAND CEMENT IN A CONCRETE MIX, AND FLY ASH OR POZZOLAN MAY BE USED TO REPLACE UP TO 25 PERCENT OF PORTLAND CEMENT, SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND SHALL CONFORM TO ASTM C494.
- H. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615 GRADE 60 ($F_y = 60$ KSI).
- I. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE", ACI 315' DETAILS AND DETAILING OF CONCRETE REINFORCEMENT", ACI SP 66 "DETAILING MANUAL".
- J. ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER INFILTRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.
- K. ALL CONCRETE CONSTRUCTION SHALL BE INSPECTED IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE.

ALUMINUM

- A. ALL ALUMINUM CONSTRUCTION SHALL CONFORM TO THE 2015 EDITION OF THE ALUMINUM ASSOCIATION ALUMINUM DESIGN MANUAL (ADM 2015).
- B. ALUMINUM POLE SHALL BE EXTRUDED FROM 6005A-T5 ALUMINUM WITH THE FOLLOWING MINIMUM PROPERTIES:

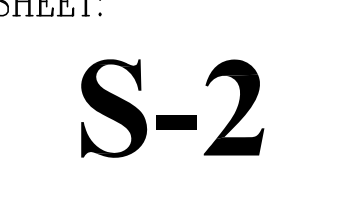
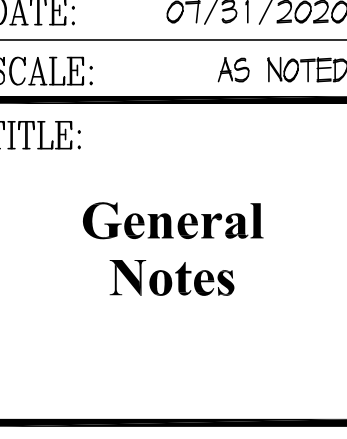
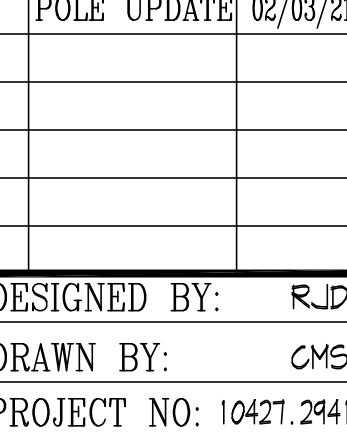
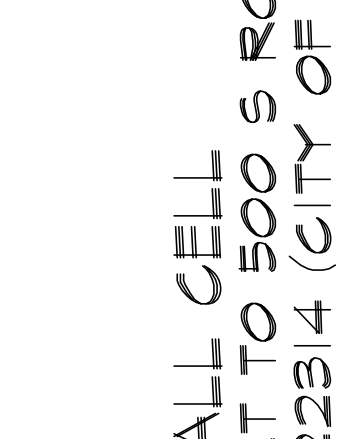
	UNWELDED	WELDED
TENSILE ULTIMATE STRENGTH, F_u :	58 KSI	24 KSI
TENSILE YIELD STRENGTH, F_y :	31 KSI	13 KSI
COMPRESSION YIELD STRENGTH, F_{cy} :	31 KSI	13 KSI
MODULUS OF ELASTICITY, E:	10,000 KSI	
- C. ALL ACCESS PORTS, HANDHOLES, CABLE PORTS, ETC. SHALL BE REINFORCED USING ALUMINUM CASTINGS WITH STRUCTURAL PROPERTIES WHICH MEET OR EXCEED THE POLE SHAFT STRENGTH INDICATED ABOVE.
- D. WELDED JOINTS ARE ONLY PERMITTED AT REINFORCED ACCESS PORTS AND POLE BASE LOCATIONS. LONGITUDINAL SHAFT WELDS ARE NOT PERMITTED. ALUMINUM ALLOY 4043 ELECTRODE SHALL BE USED IN THE WELDING PROCESS IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS SPECIFICATION D1.2).
- E. POLE SHAFT SHALL BE FULL-LENGTH HEAT TREATED AFTER WELDING TO PRODUCE A T5 TEMPER TO RECOVER THE MINIMUM STRENGTH AS SPECIFIED BY THE ALUMINUM POLE MANUFACTURER. HEAT-TREATING PROCESS IS TO BE IN CONFORMANCE WITH ASTM B591.
- F. UNLESS NOTED OTHERWISE, ALL ALUMINUM STRUCTURAL CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER GALVANIZED ASTM F3125 GRADE A325 BOLTS WITH 15/16" DIAMETER HOLES ON GAGE FIELD DRILL AS REQUIRED. SEE STRUCTURAL AND MISCELLANEOUS STEEL NOTES FOR ADDITIONAL INFORMATION.

POST-INSTALLATION INSPECTION

- A. A POST-INSTALLATION INSPECTION REPORT IS REQUIRED AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID. A POST-INSTALLATION INSPECTION IS A VISUAL INSPECTION OF TOWER INSTALLATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE INSTALLATION DRAWINGS.
- B. THE POST-INSTALLATION INSPECTION REPORT SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER LICENSED IN THE JURISDICTION IN WHICH THE PROJECT IS LOCATED.
- C. THE INTENT OF THE POST-INSTALLATION INSPECTION REPORT IS TO CONFIRM INSTALLATION AND CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE INSTALLATION DESIGN ITSELF.
- D. TO ENSURE THAT THE REQUIREMENTS OF THE POST-INSTALLATION INSPECTION REPORT ARE MET, IT IS VITAL THAT THE CONTRACTOR AND POST-INSTALLATION INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED.



MORRIS & RITCHIE ASSOCIATES, INC.
Civil / Structural Engineers
1320-C East Joppa Road, Suite 505
Towson, Maryland 21286
410-821-1690
410-821-1748 Fax



REVISIONS:		
NO.	DESCRIPTION	DATE
1	PERMIT DWGS	08/31/20
2	POLE UPDATE	02/03/21

DESIGNED BY: RJD
DRAWN BY: CMS
PROJECT NO: 10427.2441
DATE: 07/31/2020
SCALE: AS NOTED

TITLE:
General Notes

SHEET:
S-2



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

PROTECT YOURSELF. GIVE THREE
WORKING DAYS NOTICE.
THIS DRAWING DOES NOT INCLUDE NECESSARY
COMPONENTS FOR CONSTRUCTION SAFETY. ALL
CONSTRUCTION MUST BE DONE IN COMPLIANCE
WITH THE OCCUPATIONAL SAFETY AND HEALTH
ACT OF 1970 AND ALL RULES AND REGULATIONS
THERE TO APPURTENANT.

DOMINION CONDUIT SPECIFICATIONS




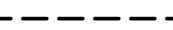


1. CUSTOMER INSTALLED CONDUITS SHOULD BE INSTALLED IN ACCORDANCE WITH THE GUIDELINES OUTLINED

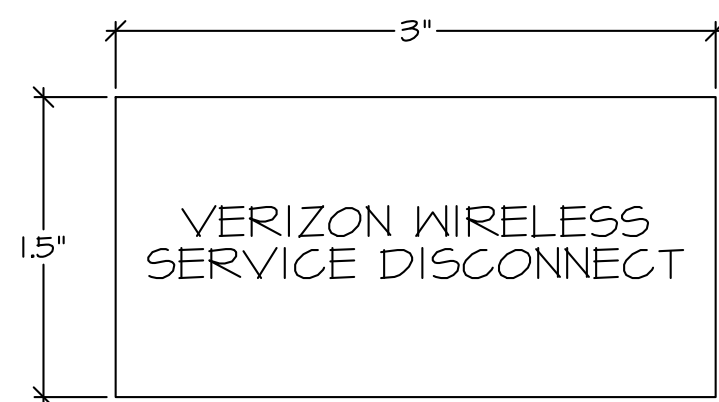
1. CUSTOMER INSTALLED CONDUITS SHOULD BE INSTALLED IN ACCORDANCE WITH THE GUIDELINES OUTLINED BY DOMINION ENERGY AND LOCAL GOVERNMENT AGENCIES AND CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRIC SAFETY CODE AND APPLICABLE VDOT LAND USE MANUAL.
2. THE CUSTOMER IS RESPONSIBLE FOR INSTALLING THE PROPER DIAMETER SIZE CONDUIT, AT THE SPECIFIED DEPTH AS DETERMINED BY DOMINION ENERGY IN THE EVENT THAT DOMINION ENERGY FINDS CUSTOMER INSTALLED CONDUIT UNSUITABLE, IT IS UNDERSTOOD THAT THE CONNECTION OF SERVICE MAY BE DELAYED.
3. ALL CUSTOMER INSTALLED CONDUITS INSTALLED FOR THIS PROJECT ARE TO BE EITHER OF THE OPTIONS SPECIFIED BELOW. THE INSTALLER SHOULD MAINTAIN AS STRAIGHT A PATH AS POSSIBLE WITH NO MORE THAN A TOTAL OF 270 DEGREE BENDS UNLESS SPECIFIED BY DOMINION ENERGY.
 - A. PVC STICK CONDUIT, ELECTRICAL GRADE, GRAY IN COLOR, AND MEET THE REQUIREMENTS OF THE NEMA TC2 FOR SCHEDULE 40 OR THICKER. CONDUIT SIZE REFERS TO THE INSIDE DIAMETER.
 - B. HDPE CONDUIT MUST BE ELECTRICAL GRADE, BLACK IN COLOR AND MEET THE REQUIREMENTS OF NEMA TC1 FOR EACH TRADE SIZE. HDPE CONDUIT IS NOT APPROVED FOR METER RISERS. CONDUIT SIZE REFERS TO THE OUTSIDE DIAMETER.
 - I. HDPE COILABLE CONDUIT WITH TRADE SIZES 2" OR SMALLER SHALL FOLLOW SCHEDULE 40. HDPE COILABLE CONDUIT WITH TRADE SIZES GREATER THAN 2" SHALL USE A STANDARD DIMENSION RATIO (SDR) OF 15 OR LESS.
 - II. HDPE STICK CONDUIT WITH TRADE SIZES GREATER THAN 4" SHALL USE A STANDARD DIMENSION RATIO (SDR) OF 13.5 OR LESS (DOMINION ENERGY BLUE BOOK, 2017 EDITION, PAGE 17)
4. ALL ROAD CROSSING CONDUITS TO BE INSTALLED AT 36" BELOW GRADE, MEASURED FROM THE TOP OF THE CONDUIT.
5. CONDUIT MUST BE INSTALLED WITH A PULL STRING (1000LB TEST NYLON). INDIVIDUAL PULL STRINGS MUST BE SECURELY TIED TOGETHER WHERE THEY MEET, ALL CONDUIT MUST BE CONNECTED (WITH ELBOWS IF APPROPRIATE) AND GLUED, WHEN CONNECTING A 90 DEGREE BEND, USE A 24" RADIUS FOR 2" CONDUIT AND A 36" RADIUS FOR A 4" OR 6" CONDUIT.
6. CONDUIT ENDS NEED TO BE CAPPED AND CLEARLY MARKED ABOVE GROUND.
7. CUSTOMER INSTALLED DOMINION ISSUED SPLICE BOXES ARE TO BE INSTALLED IN GREEN SPACE IF POSSIBLE AND ARE NOT TO BE INSTALLED IN ROADWAYS OR ANY AREA WITH VEHICLE TRAFFIC. THE SPLICE BOX IS TO BE INSTALLED AT A FLAT AREA OF TERRAIN AND THE TOP OF THE SPLICE BOX IS TO BE FLUSH WITH THE SURFACE. CUSTOMERS ARE TO ENTER THE SPLICE BOX AT OPPOSITE ENDS TO ALLOW FOR PROPER SPACE FOR SPLICING.

LENGTH OF BEAM L

-
- 2" SCHEDULE 40
PVC CONDUIT
- 12"
- 3"
- 2.375"

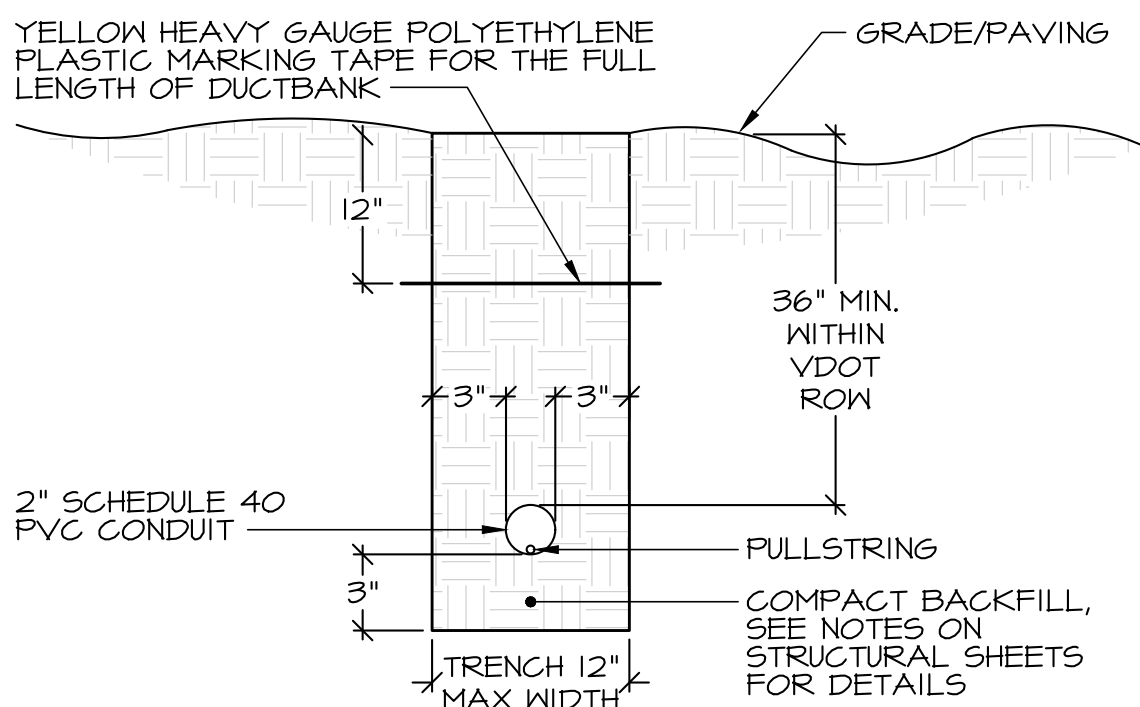
MANUFACTURER	PART #	COMPONENT TYPE	QUANTITY	DIMENSIONS (HxWxD)	WEIGHT
SAMSUNG	ATIKOI	ANTENNA/ REMOTE RADIO HEAD	3	16.8"x9.6"x6.9"	32.0 LBS.
SQUARE-D	Q0816L100RB	LOAD CENTER PANEL	1	12.64"x8.90"x4.27"	9.68 LBS.
DOMINION STANDARD	65.T3T000	ELECTRIC METER	1	17.0"x11.0"x5.0"	5.25 LBS.
		CONDUIT CABLING	3±	VARIES	20.0 LBS.
				TOTAL WEIGHT:	130.93 LBS.
				TOTAL VOLUME:	2.74 CU.FT.

	120/240V, 1Ø, PANELBOARD OR LOAD CENTER
	DRAWING NOTE
-----E-----	ELECTRIC FEEDERS
-----T-----	TELEPHONE SERVICE
-----	BRANCH CIRCUIT
	METER
	GROUND CONDUCTOR
 R	BURIED GROUND ROD
	DESIGNATES FRONT

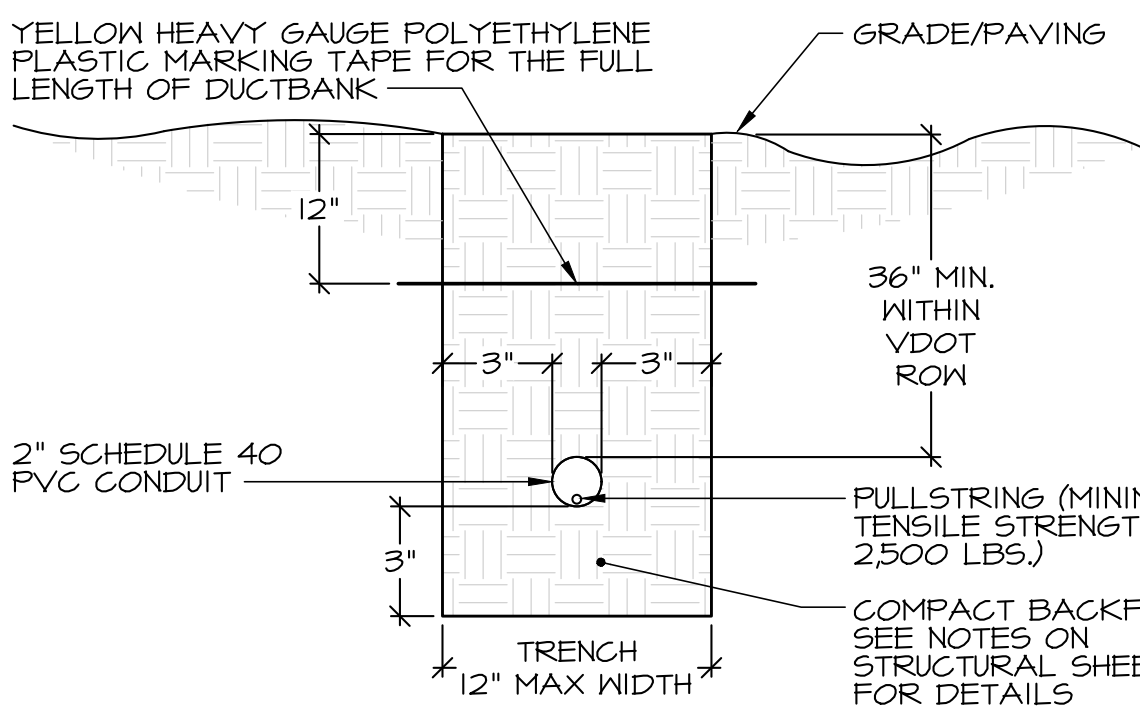


* PHENOLIC NAMEPLATE SHALL HAVE A BLACK BACKGROUND WITH WHITE LETTERING AND BE PERMANENTLY INSTALLED ON FRONT OF COVER.

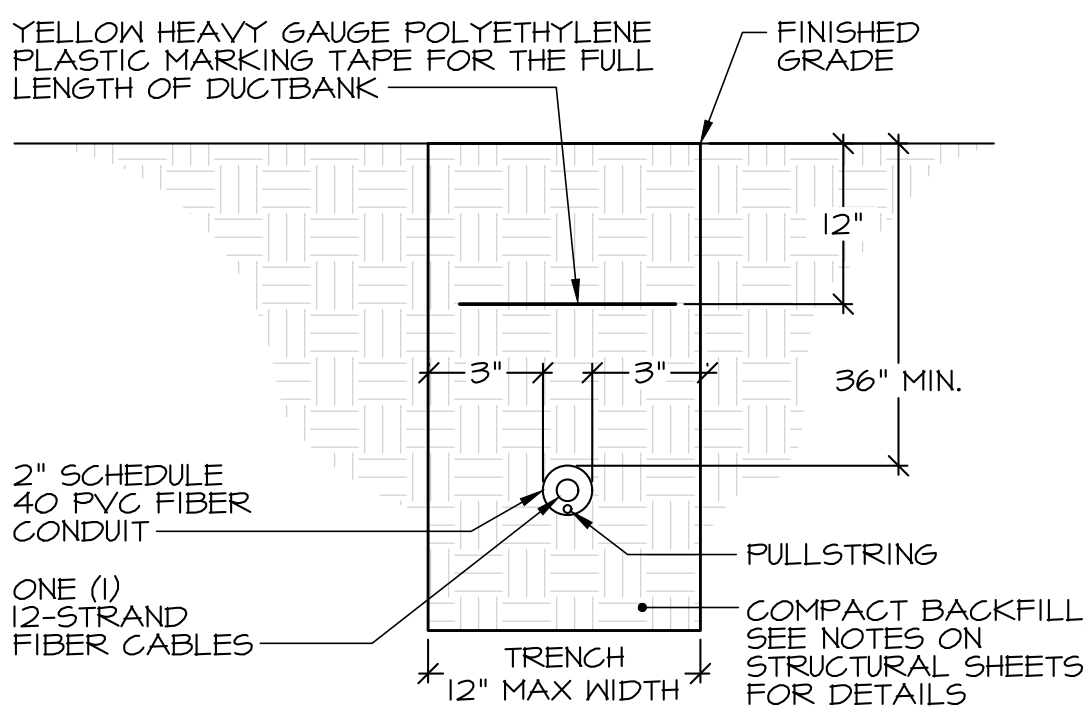
NO SCALE (DISCONNECTING MEANS)



NO SCALE (HANDHOLE TO POLE)



NO SCALE (UTILITY SOURCE TO HANDHOLE)



NO SCALE



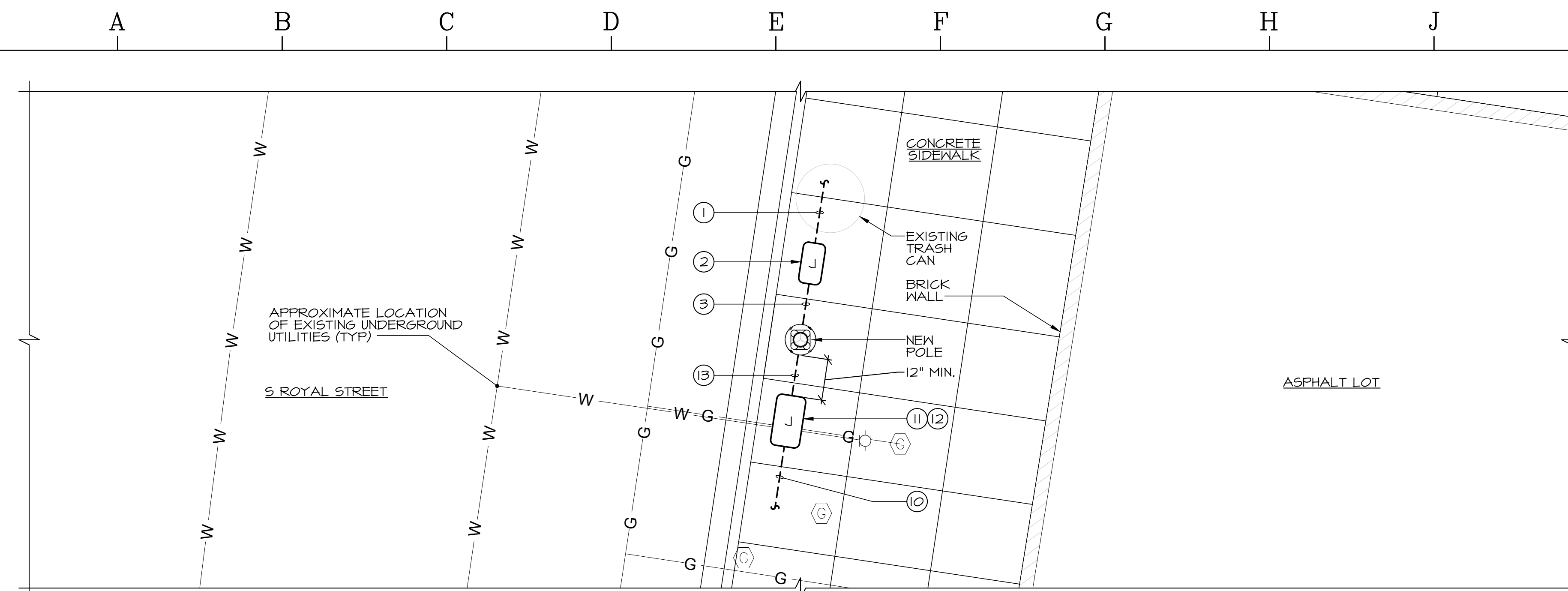
verizon
OLD TOWN 4 - D - SMALL CELL

REVISIONS:		
NO.	DESCRIPTION	DATE
	POLE UPDATE	2/3/20
	PERMIT DWGS.	8/31/20

LAST REV.:
PROJECT NO: 20103B
DATE: AUGUST 31, 2020
SCALE: AS NOTED
TITLE:
SPECIFICATIONS, SYMBOLS LIST, PANEL SCHEDULE AND DETAILS

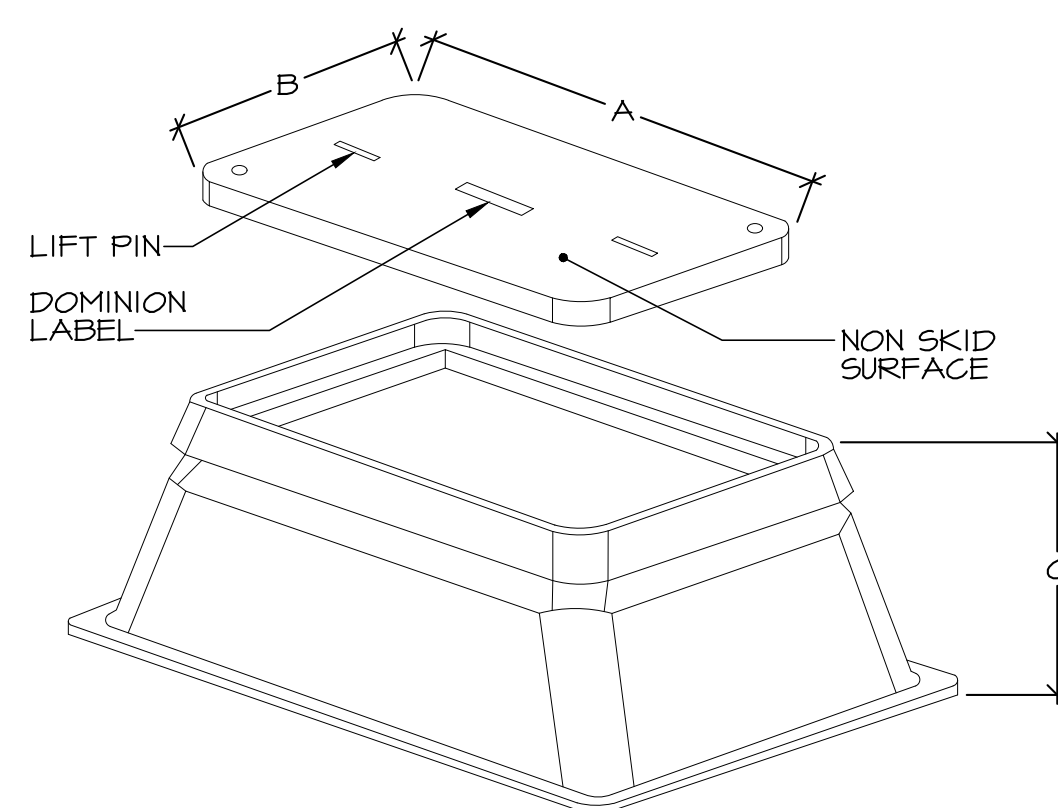
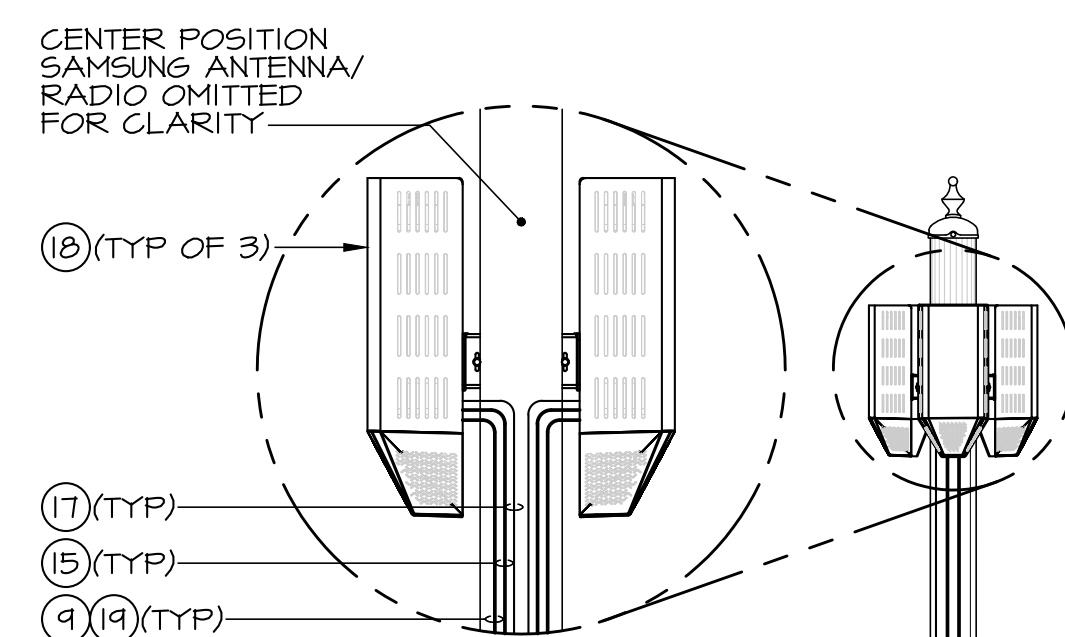
SHEET:

III-2



202122 POLE UTILITY PLAN

SCALE: 1/4" = 1'-0"

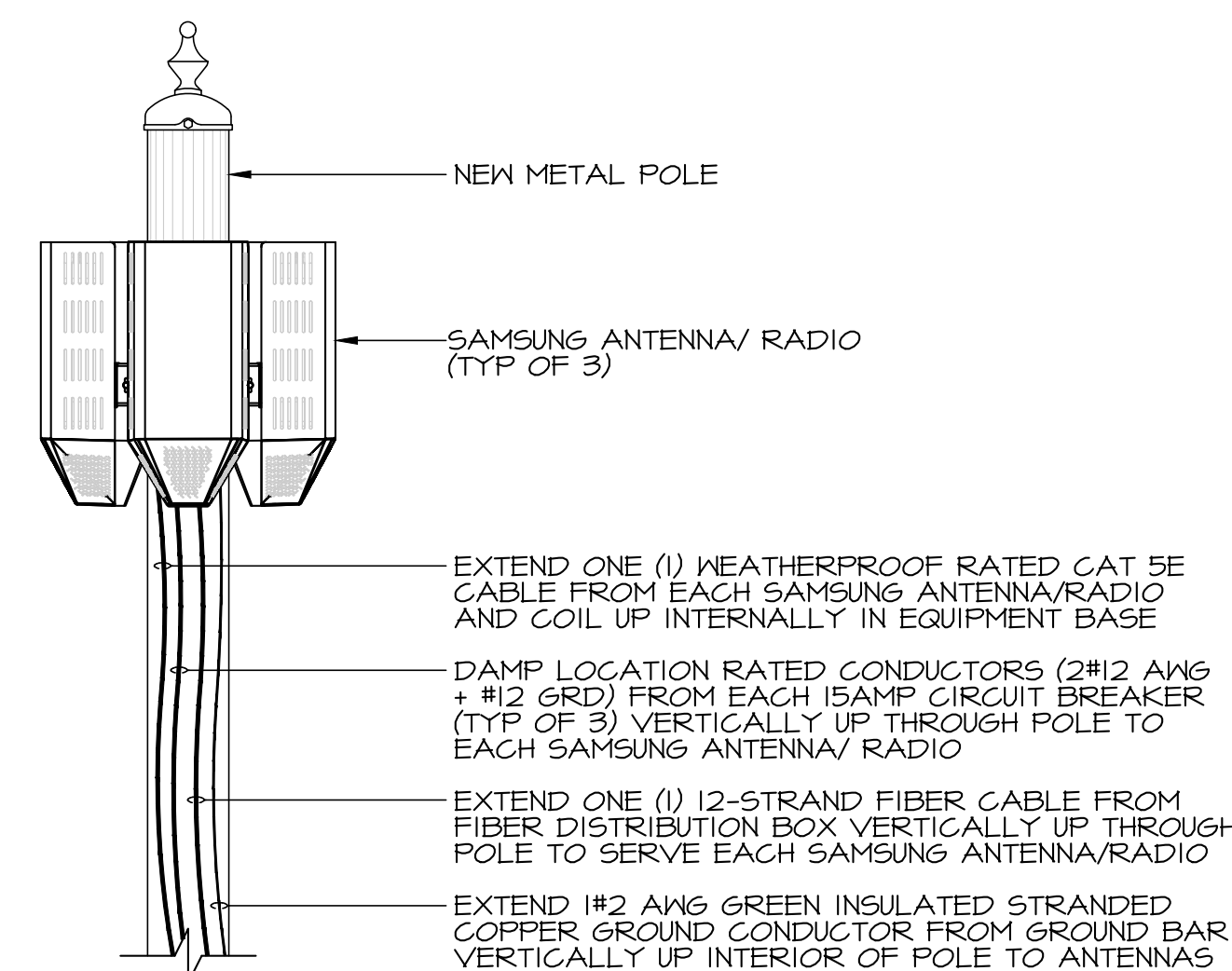


CU	STOCK NUMBER	A	B	C
SBOX24	42086295	24"	13"	18"

DETAIL - ELECTRIC PULLBOX

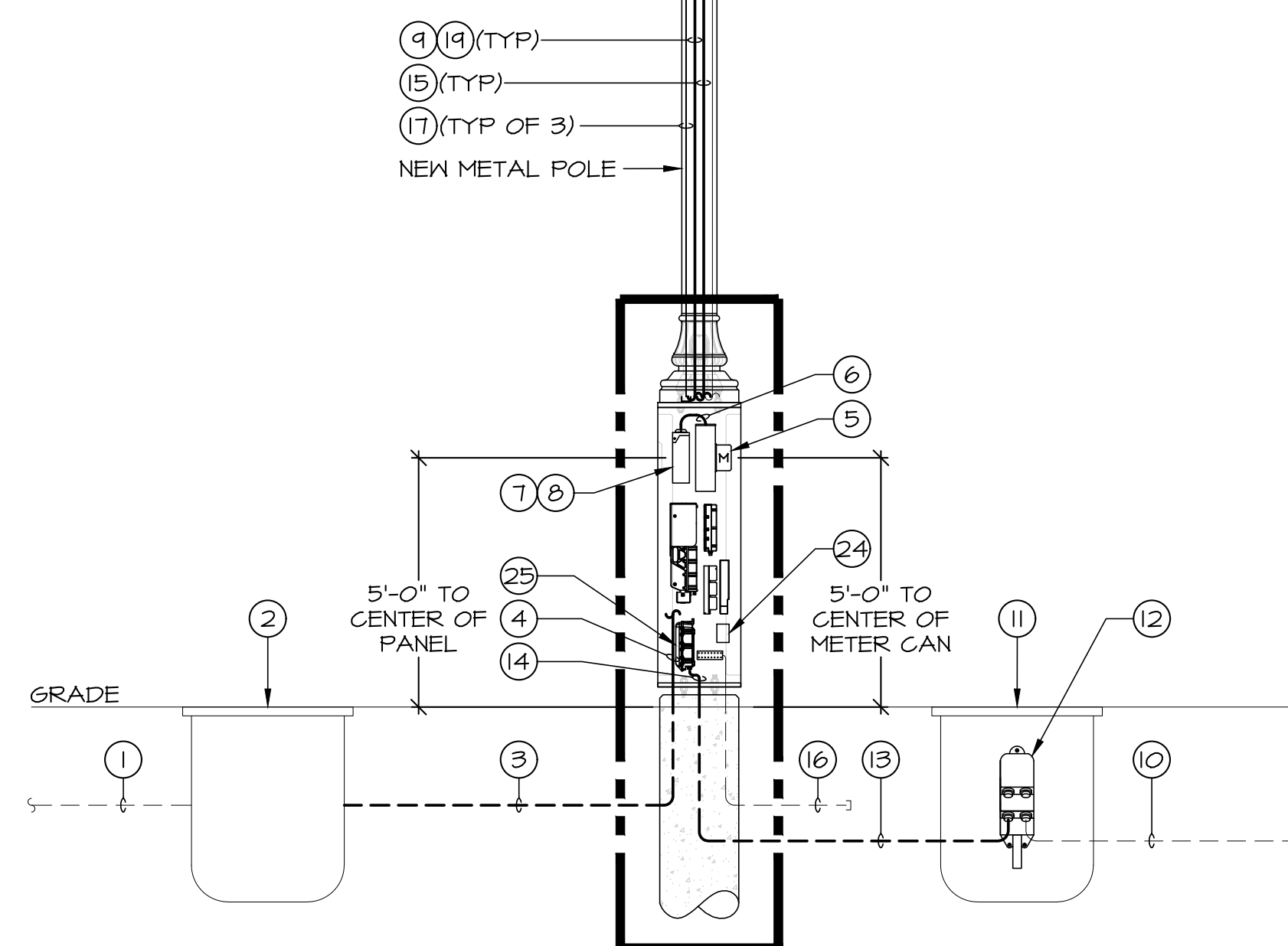
NO SCALE

(TIER 15)



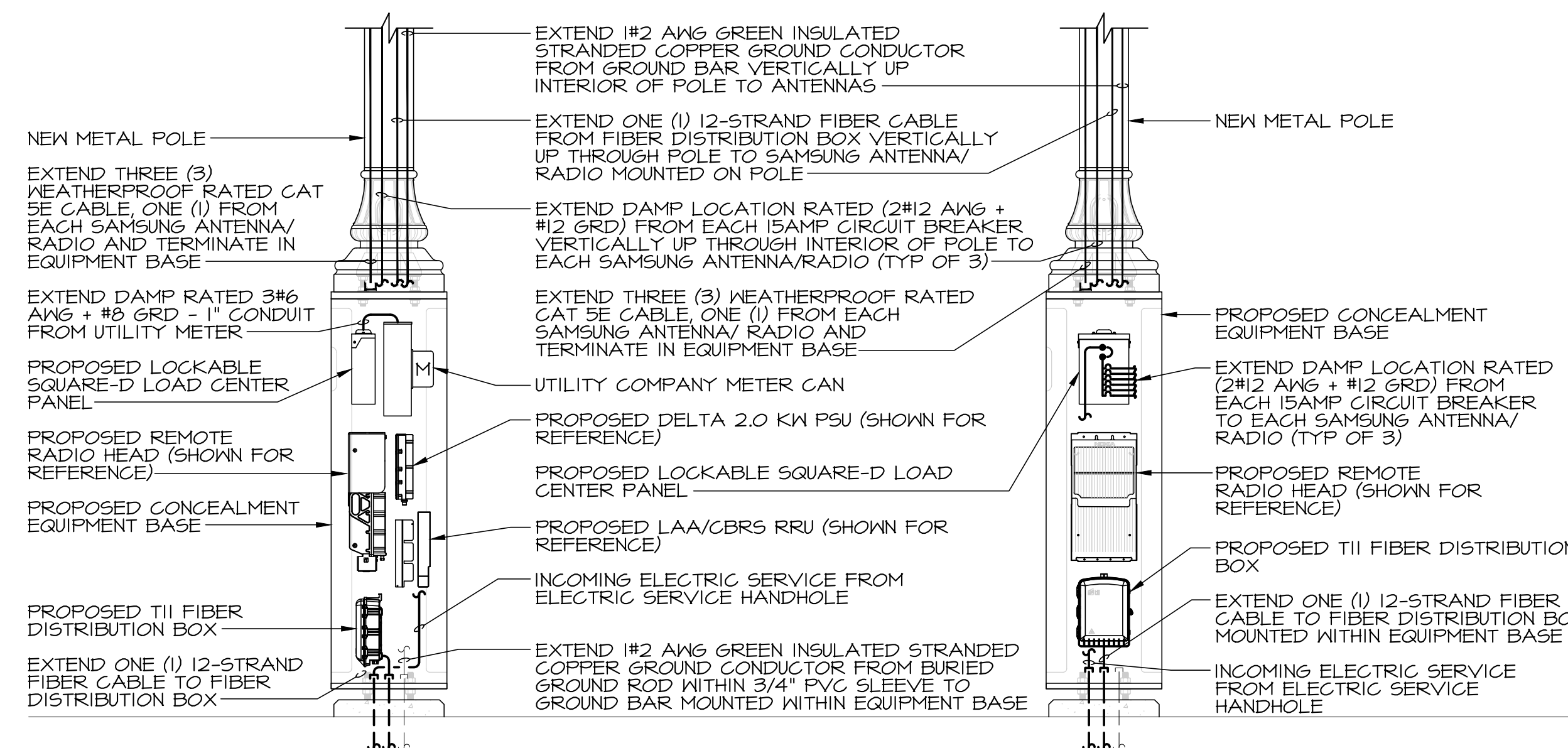
202122 DETAIL - UPPER POLE CABLING

NO SCALE



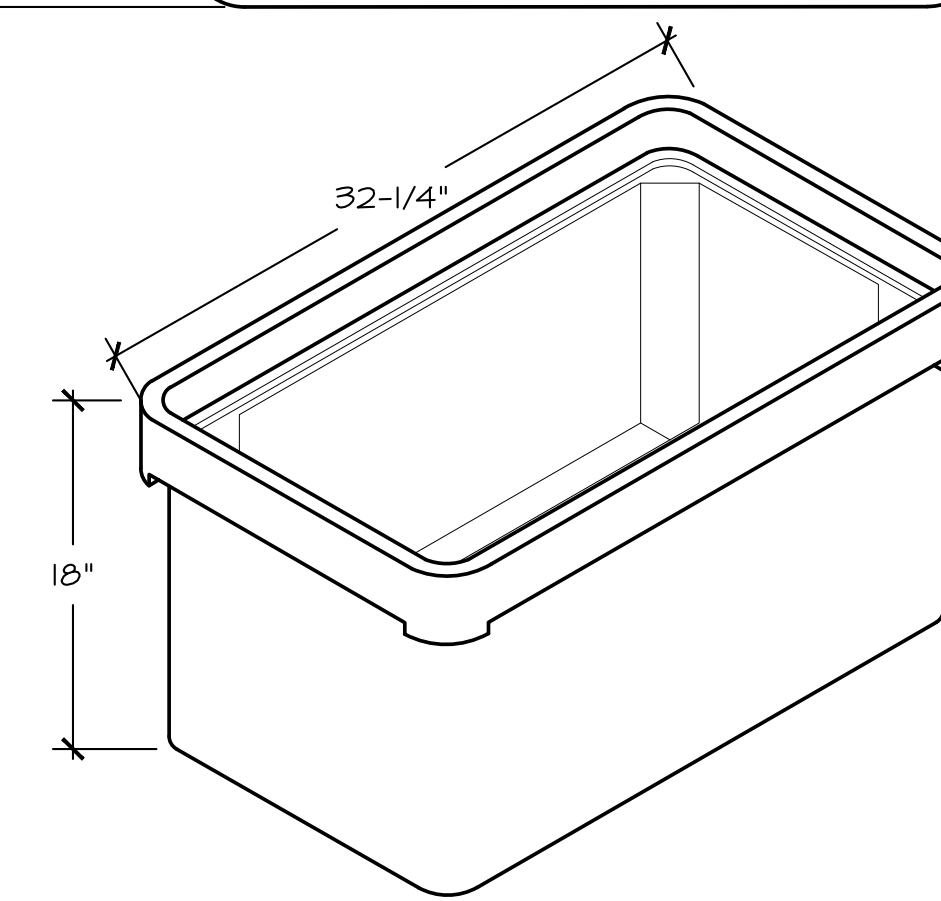
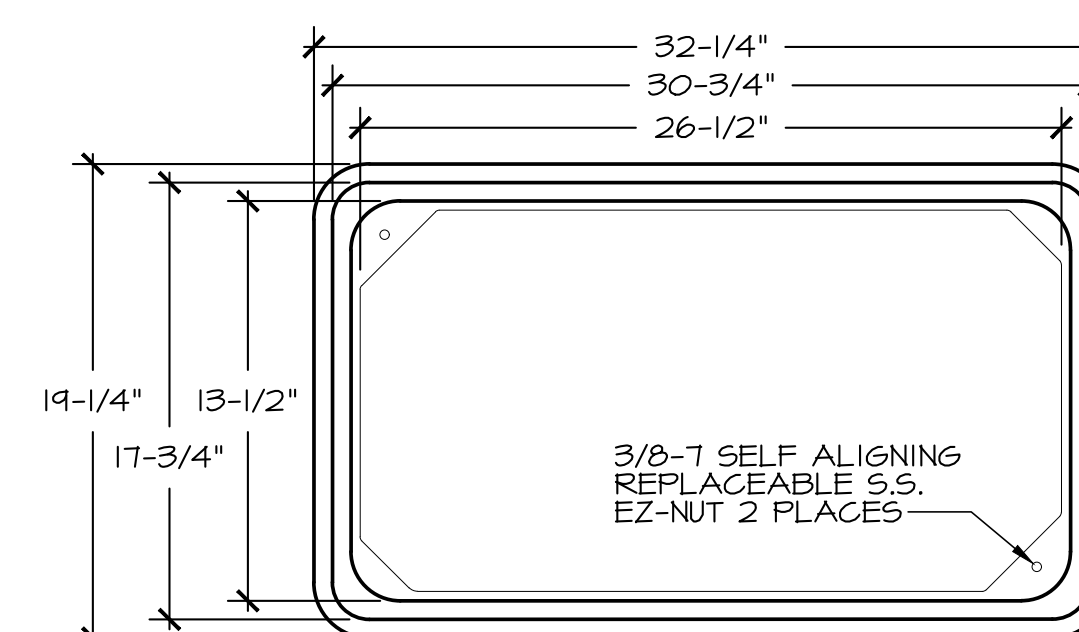
20212223 POWER RISER DIAGRAM

NO SCALE



20212223 DETAIL - LOWER POLE CABLING

NO SCALE



DETAIL - FIBER PULLBOX

NO SCALE

(TIER 22)



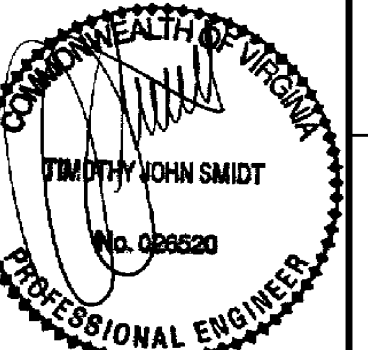
SCALE: 1/4" = 1'-0"

DRAWING NOTES

- (1) CONTRACTOR SHALL EXTEND ONE (1) 2" SCHEDULE 40 PVC CONDUIT BELOW GRADE FROM LOCATION DETERMINED AT TIME OF POWER JACK TO POWER COMPANY HANDHOLE FOR EXTENSION OF ELECTRIC SERVICE CABLES BY UTILITY COMPANY. REFER TO TRENCH DETAIL, SHEET E-2. COORDINATE FINAL ROUTING WITH UTILITY COMPANY REPRESENTATIVE.
- (2) DOMINION PROVIDED. VERIZON WIRELESS CONTRACTOR INSTALLED 24"x13"x18" DEEP PULLBOX FOR EXTENSION OF ELECTRIC SERVICE CABLES. COORDINATE PULLBOX REQUIREMENTS/LOCATION WITH UTILITY COMPANY IN THE FIELD. REFER TO ELECTRIC PULLBOX DETAIL, THIS SHEET FOR ADDITIONAL INFORMATION.
- (3) CONTRACTOR SHALL PROVIDE AND INSTALL ONE (1) 2" SCHEDULE 40 PVC CONDUIT FROM POLE BASE TO PROPOSED ELECTRIC SERVICE HANDHOLE. REFER TO TRENCH DETAIL, SHEET E-2.
- (4) EXTEND DAMP LOCATION RATED 3# 1/2 AWG + #6 GRD - 2" CONDUIT FROM METER CAN IN EQUIPMENT BASE, THROUGH 2" CONDUIT IN FOUNDATION TO ELECTRIC SERVICE HANDHOLE. COIL 3'-0" OF CONDUCTOR IN ELECTRIC HANDHOLE.
- (5) PROVIDE WEATHERPROOF 200 AMP RATED UTILITY COMPANY METER CAN MOUNTED WITHIN EQUIPMENT BASE PER MANUFACTURER'S INSTRUCTIONS. PROVIDE PHENOLIC METER GLOBE PROVIDED AND INSTALLED BY UTILITY COMPANY. PROVIDE PHENOLIC NAMEPLATE READING: VERIZON WIRELESS.
- (6) EXTEND DAMP LOCATION RATED 3#6 AWG + #8 GRD - 1" CONDUIT FROM UTILITY COMPANY METER TO PROPOSED SERVICE ENTRANCE RATED LOAD CENTER PANEL MOUNTED WITHIN EQUIPMENT BASE.
- (7) PROVIDE AND INSTALL WEATHERPROOF SERVICE ENTRANCE RATED 120/240 VOLT, 1Ø, 3W, 100 AMP M.L.O. EIGHT (8) POSITION GROUND LOAD CENTER PANEL (MODEL #Q0816L00RB) WITH FIELD INSTALLED 2P40A MAIN CIRCUIT BREAKER MOUNTED IN EQUIPMENT BASE. PROVIDE PHENOLIC NAMEPLATE READING: VERIZON WIRELESS SERVICE DISCONNECT. REFER TO SPECIFICATIONS AND PANEL SCHEDULE, SHEET E-2 FOR ADDITIONAL INFORMATION.
- (8) CONTRACTOR SHALL PROVIDE AND INSTALL MASTER LOCK BRASS 4 DIGIT PAD LOCK SET TO STANDARD VERIZON WIRELESS COMBINATION. PAD LOCK SHALL BE PLACED THROUGH CLASP ON LOAD CENTER PANEL TO PROHIBIT COVER FROM BEING OPENED. COMBINATION FOR MASTER LOCK IS THE STANDARD VERIZON WIRELESS FOUR DIGIT CODE. CONTRACTOR CAN'T INSTALL THE COMBINATION LOCK ON THE DISCONNECT UNTIL ALL INSPECTIONS ARE DONE AND FINAL.
- (9) EXTEND DAMP LOCATION RATED CONDUCTORS (2#12 AWG + #12 GRD) FROM EACH 15AMP CIRCUIT BREAKER (TYP OF 3) VERTICALLY UP THROUGH INTERIOR OF POLE TO EACH SAMSUNG ANTENNA/ RADIO MOUNTED ON POLE (TYP OF 3). REFER TO PANEL SCHEDULE, SHEET E-2, FOR ADDITIONAL INFORMATION.
- (10) PROPOSED INCOMING FIBER CONDUIT TO FIBER HANDHOLE (PROVIDED AND INSTALLED BY OTHERS) FOR EXTENSION OF VERIZON FIBER.
- (11) VERIZON WIRELESS CONTRACTOR INSTALLED 17"x30"x18" DEEP JUNCTION BOX PROVIDED BY OTHERS FOR EXTENSION OF TELEPHONE SERVICE CABLES. PROVIDE 6" OF PEA GRAVEL IN BASE OF BOX. COORDINATE PULLBOX REQUIREMENTS/LOCATION WITH UTILITY COMPANY IN THE FIELD. REFER TO FIBER PULLBOX DETAIL, THIS SHEET FOR ADDITIONAL INFORMATION.
- (12) VERIZON LANDLINE PROVIDED AND INSTALLED OPTISHEATH MULTIPORT TERMINAL MOUNTED WITHIN FIBER HANDHOLE.
- (13) CONTRACTOR SHALL EXTEND ONE (1) 2" SCHEDULE 40 PVC CONDUIT FROM FIBER HANDHOLE TO POLE BASE FOR EXTENSION OF INCOMING VERIZON FIBER.
- (14) EXTEND NECESSARY 12-STRAND FIBER JUMPER FROM POLE BASE VERTICALLY UP THROUGH INTERIOR OF EQUIPMENT BASE TO FIBER DISTRIBUTION BOX MOUNTED WITHIN EQUIPMENT BASE.
- (15) EXTEND ONE (1) 12-STRAND FIBER CABLE FROM FIBER DISTRIBUTION BOX MOUNTED WITHIN EQUIPMENT BASE VERTICALLY UP THROUGH INTERIOR OF POLE TO EACH SAMSUNG ANTENNA/RADIO MOUNTED ON POLE.
- (16) PROVIDE 3/4" SCHEDULE 40 PVC SLEEVE FOR EXTENSION OF GROUND CONDUCTOR. REFER TO GROUNDING DETAILS, SHEET E-4 FOR ADDITIONAL INFORMATION.
- (17) EXTEND ONE (1) WEATHERPROOF RATED CAT 5E CABLE FROM EACH SAMSUNG ANTENNA/RADIO AND COIL UP INTERNALLY IN EQUIPMENT BASE. PROVIDE AND INSTALL RJ45 PLUG KIT WITH CAP TO KEEP CONNECTION WEATHERPROOF. EACH CAT 5E CABLE MUST BE LABELED (TYP OF 3). REFER TO FIBER DIAGRAM, SHEET E-5.
- (18) VERIZON WIRELESS PROVIDED, CONTRACTOR INSTALLED SAMSUNG ANTENNA/RADIO MOUNTED ON POLE.
- (19) A/C CONNECTION TO SAMSUNG 56 NR AU ANTENNA/ RADIO UNIT SHALL UTILIZE #12 AWG SAMSUNG POWER CONNECTOR.
- (20) NOTE TO CONTRACTOR: ELECTRICAL CONDUCTORS BEING EXTENDED VERTICALLY UP INSIDE OF POLE TO SERVE SAMSUNG ANTENNA/ RADIOS SHALL BE DAMP LOCATION RATED CONDUCTORS.
- (21) CONTRACTOR SHALL REFER TO LATEST EDITION OF VZW FIBER DESIGN STANDARDS FOR FIBER QUANTITIES, ETC.
- (22) VERIZON CONTRACTOR SHALL COORDINATE FINAL AVAILABLE SERVICE CHARACTERISTICS (VOLTAGE, PHASE, ETC.) WITH UTILITY COMPANY PRIOR TO START OF WORK. PREFERRED VOLTAGE IS: 120/240V, 1Ø, ACCEPTABLE VOLTAGE IS: 120/208V, 1Ø.
- (23) LINE SIDE CONDUIT MUST BE GREY 2" PVC AND EXTEND FROM ELECTRICAL PULLBOX TO METER CAN. CONDUIT MUST NOT CUT MAIN LINE FITTINGS ON LINE SIDE AND CAN NOT ENTER REAR OR SIDE OF METER CAN. CONDUIT MUST ENTER BOTTOM OF METER CAN.
- (24) CONTRACTOR SHALL PROVIDE AND INSTALL 1/2" AMP DUPLEX GFCI OUTLET IN SINGLE GANG, WEATHERPROOF, THREADED BOX WITH 1/2" GROUNDING WEATHERPROOF COVER WITH 1/2" EFFECTS STANDARD VERIZON WIRELESS PAD LOCK. PROVIDE AND INSTALL PADLOCK WITH STANDARD VERIZON WIRELESS FOUR DIGIT CODE. CONTRACTOR CAN'T INSTALL THE COMBINATION LOCK ON THE GFCI OUTLET UNTIL INSPECTIONS ARE DONE AND FINAL.
- (25) PROVIDE AND INSTALL TII OUTDOOR FIBER SPLICE BOX, PART #FET26-12-RLCN, WITHIN EQUIPMENT BASE FOR FIBER DISTRIBUTION.



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2/3/21

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OLD TOWN 4 - D - SMALL CELL
RIGHT OF WAY ADJACENT TO 500 S ROYAL ST, ALEXANDRIA,
CITY OF ALEXANDRIA, VIRGINIA 22314

REVISIONS:

WORK PERFORMED:		
NO.	DESCRIPTION	DATE
	POLE UPDATE	2/3/21
	PERMIT DWGS.	8/31/20

LAST REV.:

PROJECT NO: 20103B

DATE: AUGUST 31, 2020

SCALE: AS NOTED

SCALE: AS NOTED
TITLE:

TITLE:
POWER PLAN,

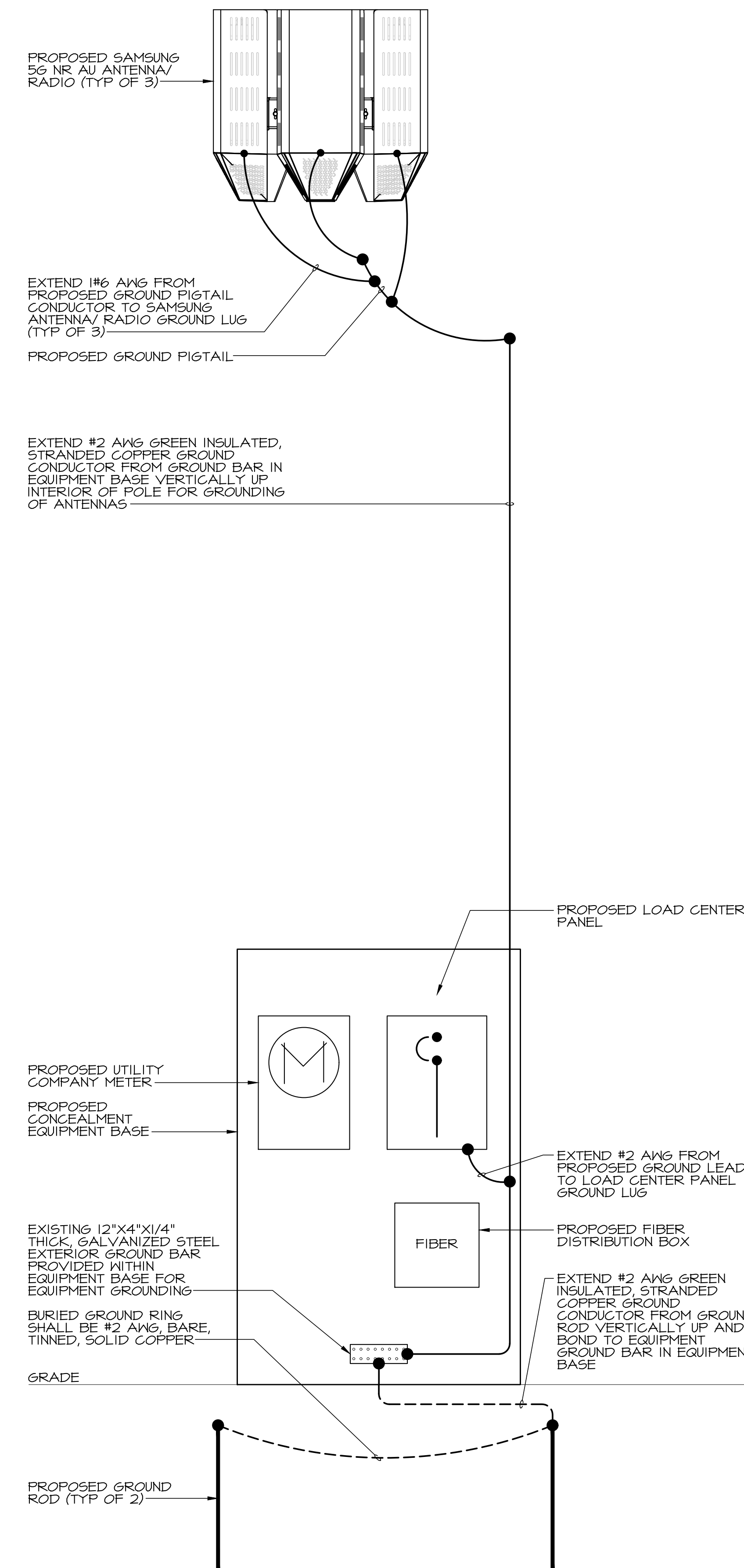
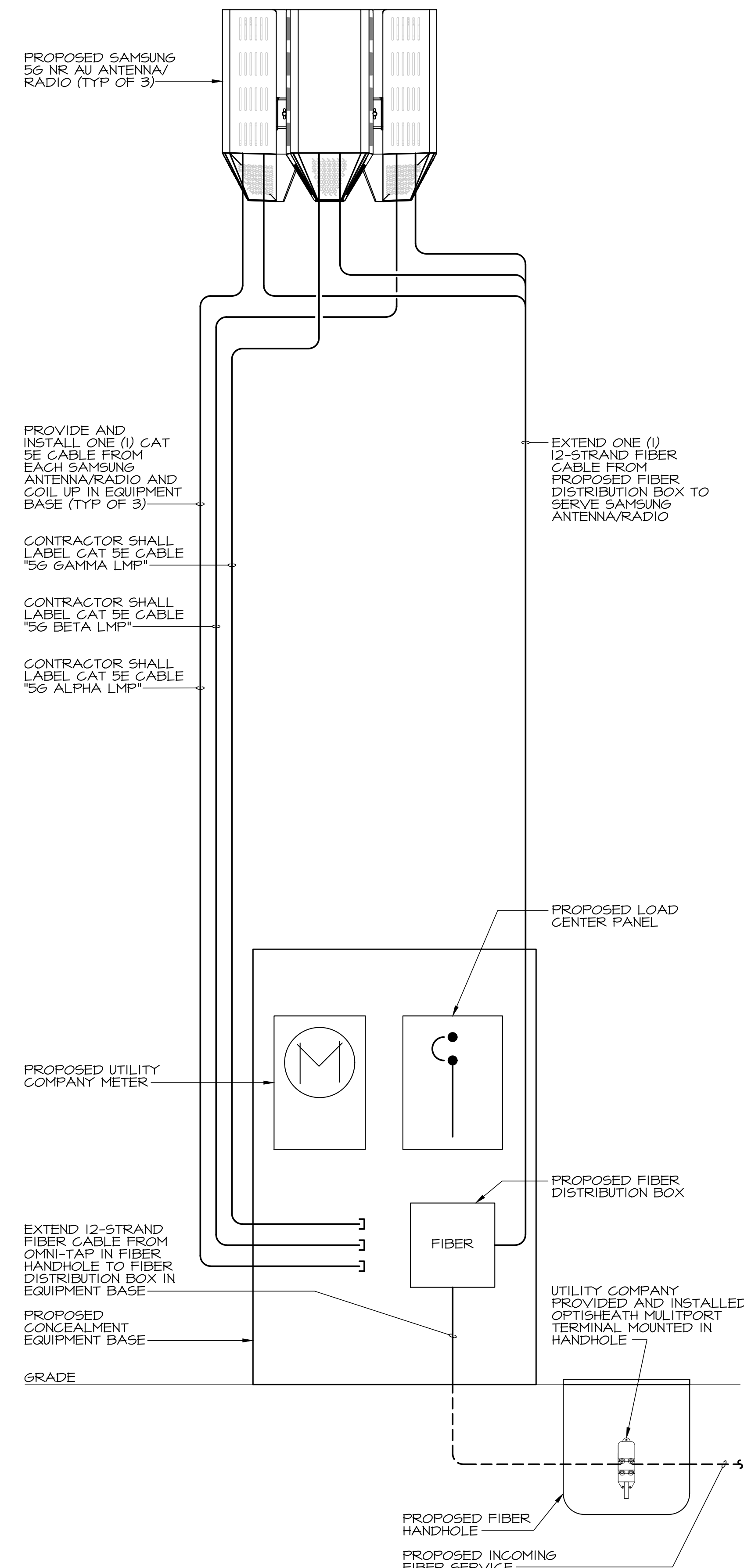
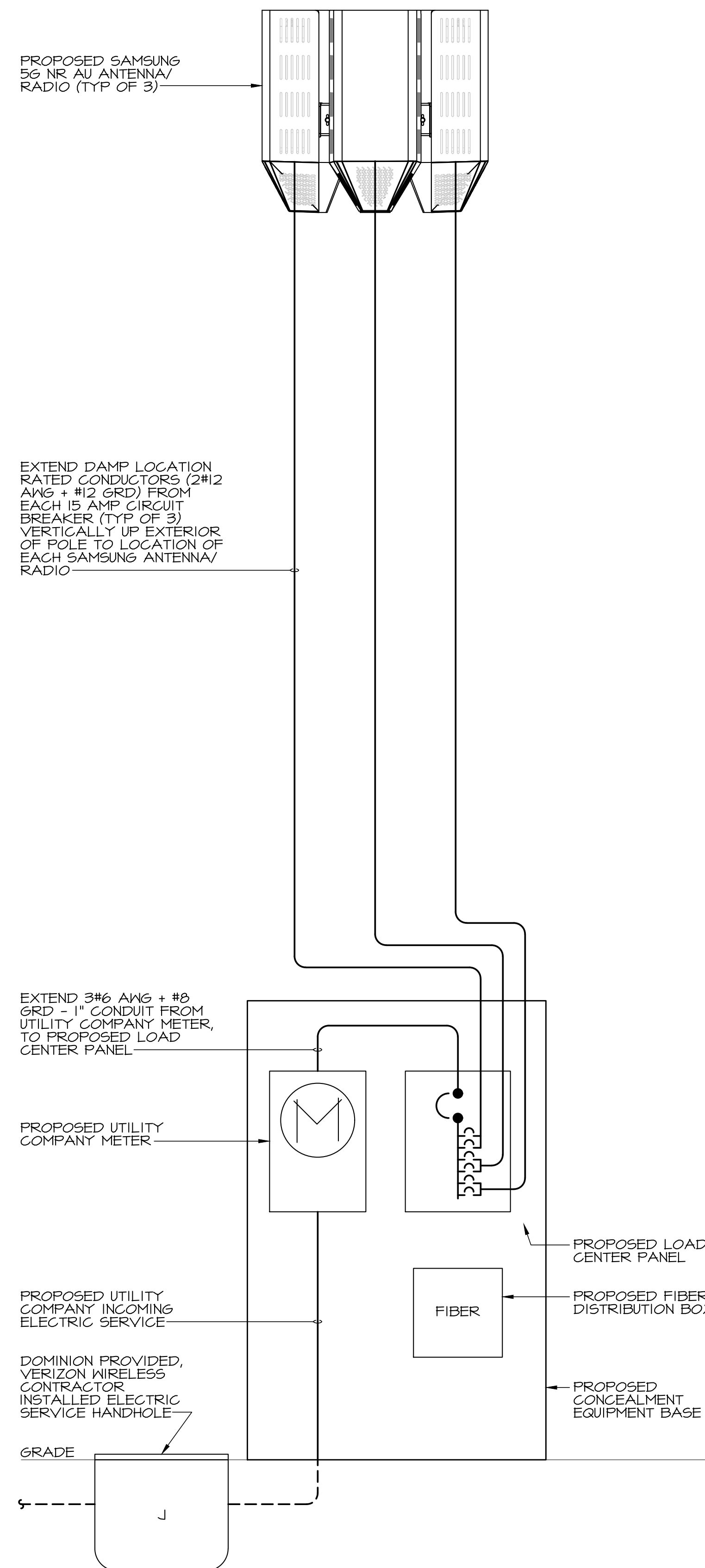
POWER RISER, DETAILS, AND NOTES



SHEET:

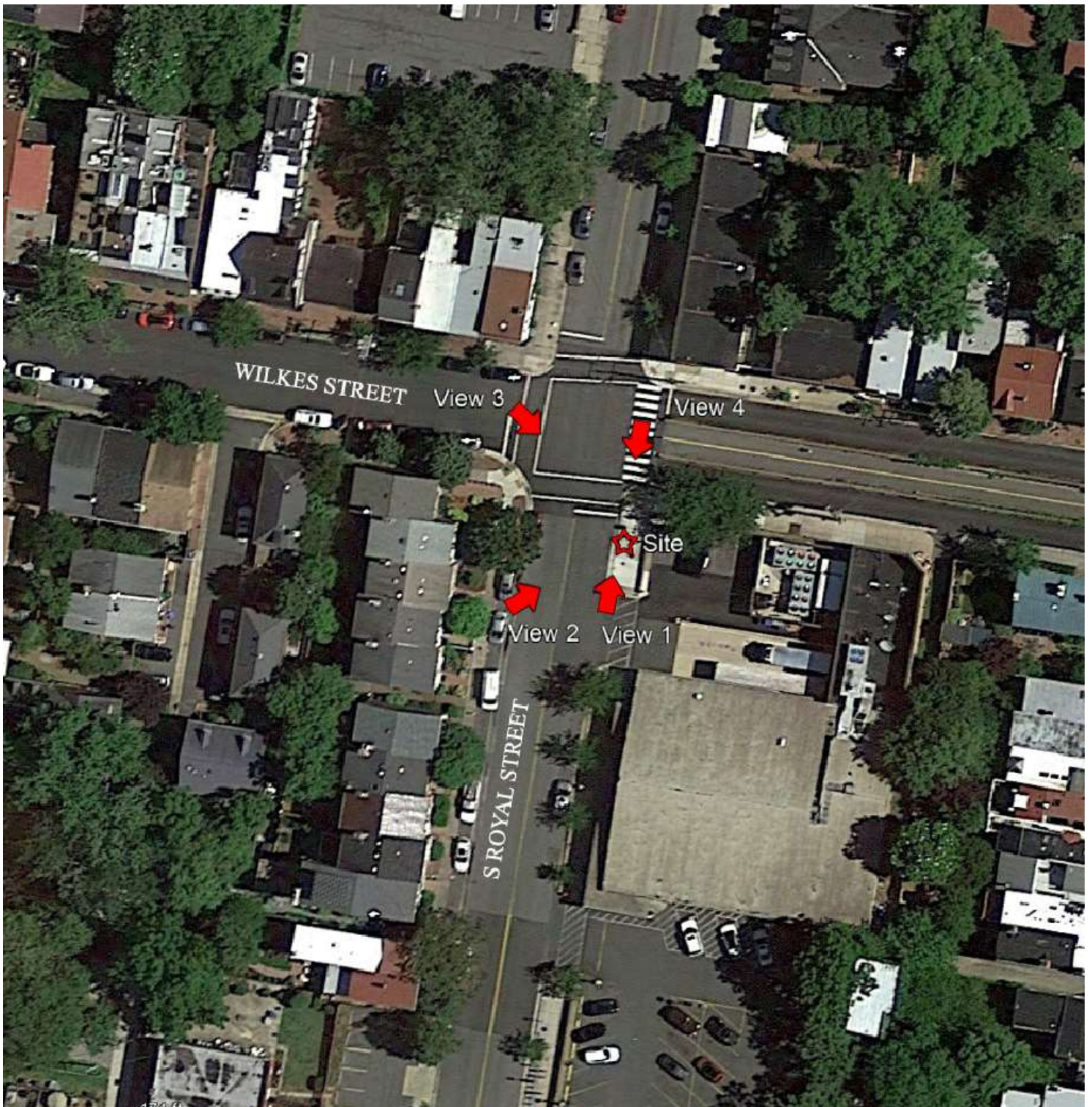
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TE#20|03B





		
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2/3/21		
<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> verizon </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> OLD TOWN 4 - D - SMALL CELL RIGHT OF WAY ADJACENT TO 500 S ROYAL ST, ALEXANDRIA, CITY OF ALEXANDRIA, VIRGINIA 22314 </div> </div>		
REVISIONS:		
NO.	DESCRIPTION	DATE
	POLE UPDATE	2/3/21
	PERMIT DWG55	8/31/20
LAST REV.:		
PROJECT NO: 2010103B		
DATE: AUGUST 31, 2020		
SCALE: AS NOTED		
TITLE: DIAGRAMS		
SHEET: <div style="text-align: center; font-size: 1.5em; font-weight: bold;">E-5</div>		



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Old Town 4 - D Overall Site Layout

03 February 2021



Project# 10427.2941



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Old Town 4 - D Existing View 1

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Old Town 4 - D Proposed View 1

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PROPOSED VERIZON WIRELESS
ANTENNAS COLORED BLACK

NEW POLE



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