**MCPB** Item No.: 6

Date: 11/15/2018

#### Mandatory Referral MR2018012 - PSSM at Fire Station 30

Joshua Penn, Planner Coordinator, Area 3 Joshua. Penn@montgomeryplanning.org, 301-495-4546

Frederick V. Boyd, Supervisor, Area 3 Fred.Boyd@montgomeryplanning.org, 301-495-4654



Richard Weaver, Chief, Area 3 Richard.Weaver@montgomeryplanning.org, 301-495-4544

Staff Report Date: November 7, 2018

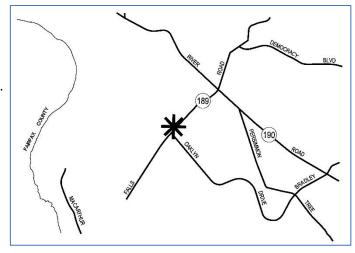
#### Description

- Mandatory Referral associated with a request to construct a Public Safety System Modernization (PSSM) radio communications tower in Potomac.
- Applicant: Montgomery County Department of Technology Services (DTS)
- Application Date: January 9, 2018

Zone: RE-2

Property Size: 1.47 Ac

Master Plan: 2002 Potomac Subregion



Staff Recommendation: Transmit comments.

#### **SUMMARY:**

The Applicant proposes to construct a 189-foot tall communications tower for public safety radio communications. The tower is considered a Public Use (59.3.4.9) under the Zoning Code and not a Telecommunications Facility (59.3.5.2.C). The Public Use category does not provide review standards. However, because this use is similar in character to a telecommunications facility, the conditional use review standards for a telecommunications facility were used to provide guidance to inform the review of the project. Although the applicant has done an alternative site search analysis, they concluded that the subject site is preferred. Staff believes this tower and land use is inappropriate for this small parcel and has a direct negative impact on the residential character of the surrounding neighborhood. Therefore, we recommend that this site not be used.

Staff recommends comments to be transmitted to the Montgomery County Department of Technology Services.

#### **RECOMMENDATIONS:**

Staff recommends transmittal of comments on the Mandatory Referral to the Montgomery County Department of Technology Services (DTS):

 The proposed tower does not meet recommended setbacks for telecommunications facilities; there are single family residences within 200 feet; it has negative impacts on the surrounding neighborhood and is not consistent with the Master Plan's recommendation to retain the residential character of the neighborhood. This property should not be used for the proposed tower.

If Department of Technology Services proceeds with construction on this property, staff recommends transmittal of these comments:

- 1. Maintain the fire station's residential appearance and compatibility with the surrounding residential neighborhood.
- 2. Landscaping should be provided along the southern edge of the tower compound area to screen the fenced-in equipment.
- 3. There should be no outdoor storage of equipment or other items.
- 4. Per Code, install a sign not more than two feet square affixed to the equipment compound identifying the owner, operator, and maintenance service provider of the support structure and the emergency telephone number of a contact person.
- 5. Submit documentation on height and location of the tower to the Department of Permitting Services prior to final inspection of the building permit.
- 6. Certify that the telecommunications monopole is operating within Federal Communications Commission (FCC) standards on an annual basis, in addition, an actual radio frequency (RF) measurement should be provided after the telecommunications monopole/unipole is installed, and after each co-location on the subject pole.
- 7. The owner of the tower is responsible for maintaining the tower in a safe condition.
- 8. Remove the tower and equipment compound within twelve months of cessation of the use of the facility.

#### **Mandatory Referral Review**

This proposal for the construction of a new public safety radio communications facility requires the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized.

#### **PROJECT DESCRIPTION**

#### **Project History**

This Mandatory Referral was originally scheduled for Planning Board on April 12,2018. In response to citizen correspondence, the Applicant requested the application be postponed. The postponement occurred after the Staff report was posted on April 4, 2018 and was intended to allow the Applicant additional time to analyze alternative sites.

#### **Background**

The Montgomery County Department of Technology Services (DTS) has applied for Mandatory Referral review of a proposal to construct a radio communications tower. This tower is part of the County's Public Safety System Modernization (PSSM) Project, a multi-agency, \$110 million capital improvement project that will replace the current systems that support Montgomery County's public safety agencies and personnel. The Applicant finds that, "the current system fails to provide adequate radio coverage in several areas in the County" and states that, "new base stations are sited and designed to provide complete and effective coverage according to a "95/95" coverage mandate: 95% coverage reliability in 95% of the County service area." The Applicant further states that in areas where existing radio coverage is inadequate, "there are significant consequences for emergency response personnel. A lack of radio service can increase response time, the number of personnel required to effectively respond to an emergency situation, and the amount of time it takes to resolve an incident." The existing and proposed coverage in the Potomac area is shown below.

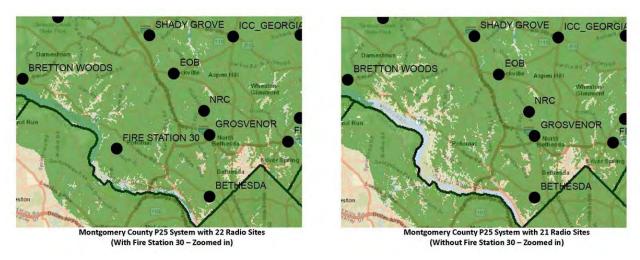


Figure 1. Existing and proposed coverage in the Potomac area.

Nearly twenty Federal, Local, and County agencies will use the system, including the Montgomery County Police Department, Montgomery County Fire and Rescue Services, the Office of Emergency Management and Homeland Security, Maryland State Police, and M-NCPPC Park Police. The Applicant proposes to build a 185-foot-tall monopole on the northwest side of Falls Road south of Potomac's village center (See Figure 2). The Property is a 1.47-acre parcel of land currently owned by the Cabin John Park Volunteer Fire Department. The tower facility will be unmanned. The tower will be topped by a 4 foot tall lightning rod, making the entire structure 189 feet tall.



Figure 2. Vicinity Map.

#### **Site Description**

The Subject Property is at 9404 Falls Road (Tax Map FP121, Parcel 027) south of Potomac's Village Center near the intersection of Falls Road and Oaklyn Drive on the northwest side of Falls Road It is the existing Cabin John Park Volunteer Fire Department and Fire Station #30.

The Property is generally flat and almost completely developed. There are some existing evergreen trees along the northeast and southwest sides, as well as offsite forest along the northwest boundary. The Property is bounded on the southeast side by Falls Road.



Figure 3. 2017 Aerial image of the Subject Property and surrounding neighborhood.

#### **Surrounding Neighborhood**

The overall area contains medium density residential properties. The northwest side of Falls Road is zoned RE-2 and the southeast side across Falls Road is zoned R-200. All the adjoining and confronting properties are developed as single family residential uses.

#### **Proposed Project**

The site layout for the project is shown in Figure 4. The tower will be contained within a 40' x 50' x 56' x 48.5' area in the northwest corner of the Property. An 11' 8" x 30' shelter with an internal generator will be next to the tower. The facility will use the existing access drive for the fire station. Existing trees and brush may be cut back and removed from the area and access drive if needed. Although no landscaping is proposed, remaining vegetation—mostly trees—and the existing compound in front of the monopole compound should screen most of the view of the compound from Falls Road.



Figure 4. Site Layout.

The site location drawing (Figure 5) shows details of the proposed project. Staff has concerns about the proximity of the proposed tower and the property line. There are multiple structures within the 300-foot recommended setback<sup>1</sup> that would apply to a telecommunication tower of the same height. However, the tower will be built to Structure Class III standards, which has a "return period" of 1700 years. This means the observed wind speed is statistically likely to meet or exceed the design wind load only once every 1700 years. According to the Applicant, Class III structures are capable of withstanding storms that would otherwise devastate nearby structures, and these structures are frequently among the last structures standing after a catastrophic weather event.



Figure 5. Site location drawing provided by the Applicant.

<sup>&</sup>lt;sup>1</sup> §59.3.5.2.C.2.b.ii(b) In Residential Detached zones, a distance of one foot for every foot of height or 300 feet from an existing dwelling, whichever provides the greater setback.

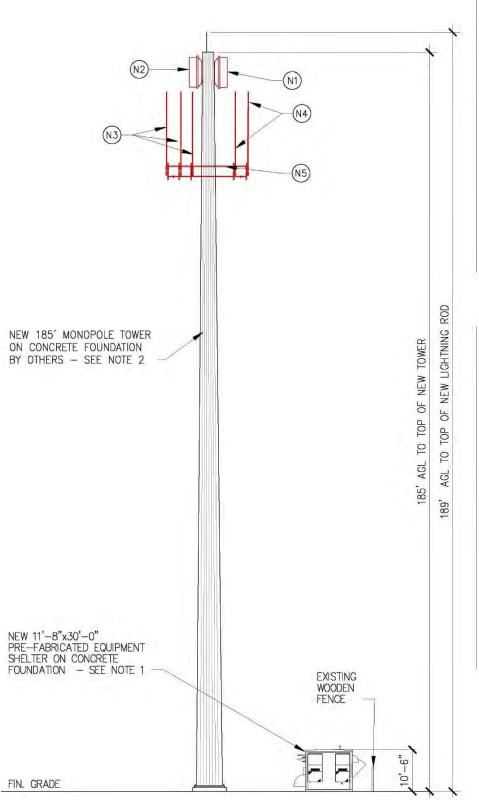


Figure 6. Architectural drawing of the tower and equipment shelter.

#### Zoning

The Subject Property is in the RE-2 zone under the Montgomery County Zoning Ordinance (Chapter 59) (the "Zoning Code"). The RE-2 zone is considered a single-family residential zone.

The proposed use under the Zoning Code is "Public Use (Except Utilities)," covered by Section 3.4.9 of the Code. A Public Use is a permitted use in all zones. According to the Zoning Code:

Public Use (Except Utilities) means a publicly-owned or publicly operated use. Public Use (Except Utilities) includes County office buildings, maintenance facilities, public schools and parks, post office, State and Federal buildings. Public Use (Except Utilities) does not include a Public Utility Structure (see Section 3.6.7.E, Public Utility Structure).

According to Section 3.6.7.E of the Zoning Code:

Public Utility Structure means a utility structure other than transmission lines or pipelines. Public Utility Structure includes structures for the occupancy, use, support, or housing of switching equipment, regulators, stationary transformers, and other such devices for supplying electric service or other public utilities.

Section 3.4.9 does not provide review standards for a public utility structure. Although the proposed use is a public use and not a conditional use, it is similar in character to a telecommunications facility, which is a conditional use, and therefore similar guidance should inform the review of the project. Staff looked to Section 3.5.2.C of the Code, "Telecommunications Tower," to provide the best guidance to inform this report.

The Conditional Use standards for a Telecommunications Tower are numerous, but because the application is for a Public Use, <u>these standards are not mandatory</u>; only the most pertinent standards from §59.3.5.2.C.2.b are discussed below.

i. Before the Hearing Examiner approves any conditional use for a Telecommunications Tower, the proposed facility must be reviewed by the County Transmission Facility Coordinating Group. The applicant for a conditional use must file a recommendation from the Transmission Facility Coordinating Group with the Hearing Examiner at least 5 days before the date set for the public hearing. The recommendation must be no more than 90 days old.

The Transmission Facility Coordinating Group "Recommended (approval), conditioned on approval through the Mandatory Referral process" the tower application at its January 3, 2018 meeting.

- *ii.* A Telecommunications Tower must be set back from the property line, as measured from the base of the support structure, as follows:
  - (b) In Residential Detached zones, a distance of one foot for every foot of height or 300 feet from an existing dwelling, whichever provides the greater setback.

There are six structures on adjacent lots within 300 feet of the proposed tower location, at least three of those structure single-family residential houses. Three of those structures are within the 1' to 1' setback. This proposed tower does not meet the recommended setback.

iii. The maximum height of a support structure and antenna is 155 feet, unless it can be demonstrated that additional height up to 199 feet is needed for service, collocation, or public safety communication purposes. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection required by the building permit, the applicant must certify to DPS that the height and location of the support structure conforms with the height and location of the support structure on the building permit.

The proposed height of 189 feet is necessary for public safety communication purposes.

iv. The support structure must be located to minimize its visual impact. Screening under Division 6.5 is not required, however, the Hearing Examiner may require the support structure to be less visually obtrusive by use of screening, coloring, stealth design, or other visual mitigation options, after considering the height of the structure, topography, existing vegetation and environmental features, and nearby residential properties.

Staff recommends additional screening on the south side of the equipment compound.

viii. The equipment compound must have sufficient area to accommodate equipment sheds or cabinets associated with all the carriers. Outdoor storage of equipment or other items is prohibited.

The equipment compound contains an 11' 8" x 30' shelter with an internal generator next to the tower and has sufficient area inside for the required equipment. No outdoor storage is proposed.

ix. The support structure must be removed at the cost of the owner of the Telecommunications Tower when the Telecommunications Tower is no longer in use by any wireless communication carrier for more than 12 months.

Staff has included this provision in its comments.

x. The support structure must be identified by a sign 2 square feet or smaller, affixed to the support structure or any equipment building. The sign must identify the owner and the maintenance service provider of the support structure or any attached antenna and provide the telephone number of a person to contact regarding the structure. The sign must be updated and the Hearing Examiner notified within 10 days of any change in ownership.

Staff has included this provision in its comments.

xi. Each owner of the Telecommunications Tower is responsible for maintaining the wireless communications tower in a safe condition.

Staff has included this provision in its comments.

In addition to this Application, there was a previous Special Exception (Conditional Use) application (S-2154 and A-4260) in 1996, for a 120-foot monopole. However, that application was reviewed as a Telecommunications Tower and not as Public Use. This previous application was denied by the County Board of Appeals in part because it could not meet the setbacks required in the Code.

#### **Master Plan Consistency**

The Subject Property falls within the area of the 2002 *Potomac Subregion Master Plan*. The Property is close to the Rock Run Watershed described in the Plan. The stream valley buffer of this stream is shown on the Master Plan's Forest Preservation Map, but none of the Property falls within the limits of the buffer. The Master Plan does not make any specific watershed or stream valley recommendations for the Property.

The Potomac Master Plan's Land Use and Zoning Plan includes design principles intended to preserve the Potomac Subregion's "green and rural character, while creating a pedestrian and bicycle-friendly environment" (p. 33). However, none of the specific design principles apply to the proposed type of project, but instead refer to more typical development of streets, neighborhoods, and communities. However, attempts should be made to help preserve the "green and rural character" of the area.

The Master Plan's Special Exception Policy includes the following recommendations:

- Limit the impacts of existing special exceptions in established neighborhoods. Increase the scrutiny in reviewing special exception applications for highly visible sites and properties adjacent to the Chesapeake & Ohio Canal National Historical Park.
- Avoid an excessive concentration of special exceptions along major transportation corridors.
- Sites along these corridors are more vulnerable to over-concentration because they have high visibility. Uses that might diminish safety or reduce capacity of roadways with too many access points or conflicting turn movements should be discouraged.
- Protect the Chesapeake & Ohio Canal National Park, major transportation corridors and residential communities from incompatible design of special exception uses. (p. 35-36)

Although the proposed use is a public use facility and not a Conditional Use, it is similar in character to a telecommunications facility, which is a Conditional Use, and therefore similar guidance should inform the review of the project. There does not appear to be a concentration of special exceptions along Falls Road, a major transportation corridor, but it is still important to increase the scrutiny in reviewing this application since the Fire Station is a highly visible site. One guideline provided by the Master Plan is that "efforts should be made to enhance or augment screening and buffering as viewed from abutting residential areas and major roadways" (p. 36). This guideline should be followed in the review of the proposed facility.

The Master Plan recommended ROW for Falls Road from River Road to MacArthur Blvd., designated "A-314" in the Plan, is 120 feet, with 2 travel lanes. The existing front lot line of the Property is set back 100 feet from the centerline of Falls Road (plat 9598). The Plan recommends classifying this section of Falls Road as an arterial road, whereas the previous master plan had recommended it as a major highway.

The Master Plan recommends a Class I (off-road) bike path for Falls Road from the Rockville City Line to MacArthur Blvd. (PB-14 in the Plan). There is currently a shared-use off-road path along the Property's Falls Road frontage.

The Master Plan contains the following recommendation for Fire Station 30:

Cabin John Park Volunteer Fire Department Station 30, presently located at 9404 Falls Road, should be renovated on site. Any renovation/expansion should maintain the fire station's residential appearance and compatibility with the surrounding residential neighborhood. (p. 145)

The Fire Station appears to have been expanded and renovated and the residential appearance was maintained. For the purposes of the review of the proposed tower, the same recommendation should hold regarding the maintenance of the fire station's residential appearance and compatibility with the surrounding residential neighborhood.

#### **Neighborhood Compatibility**

The Property itself is an institutional use, however it is surrounded by single family residential uses on all adjacent lots and those confronting across Falls Road. The existing use has been blended into the neighborhood through scale and design. The addition of a 189-foot monopole changes the dynamic of the Property and intensifies the use. This intensification would undo previous efforts to help maintain the residential character of the Property.

#### **Alternative Site Analysis**

Numerous alternative sites were investigated to identify sites that satisfy a) 95% coverage reliability, b) high level river coverage, and c) effective line-of-sight communication to the rest of the system. The majority of sites failed to satisfy one of these criteria and are eliminated for technical requirements. Two sites with existing Crown Castle towers would meet these criteria but would require significant tower extensions which are not feasible from an engineering perspective. Aside from the proposed location at Cabin John Fire Station 30 (under review by this Application), one other site was identified that could meet the technical requirements and for which a landlord would be willing to consider a new tower. However, at the Falls Road Golf Course at 10800 Falls Road, a 350' tower would be required to meet technical requirements at this site. As discussed in the attached supporting documents, the Falls Road Golf Course site would have a significantly greater visual impact on the surrounding community, due to the extra height and placement, than the proposed location, however it could meet all setback recommendations.

#### **Transportation**

The Applicant has submitted information to show that a traffic study is not required to satisfy the Local Area Transportation Review under the 2016-2020 Subdivision Staging Policy because the proposed use generates fewer than 50 total person peak-hour trips within the weekday morning and evening peak periods.

The 2005 Countywide Bikeways Functional Master Plan calls for dual bikeways on Falls Road – a shared use path on the east side and bike lanes. The Planning Department's in-process Bicycle Master Plan Update recommends the same bike facilities on Falls Road. Since there is an existing shared use path in front of the Property, the Applicant should work with the state (Maryland State Highway Administration) to implement conventional bike lanes (or a 5' shoulder) in front of the Property since Falls Road is a state road.

#### **Historic Preservation and Rustic Roads**

There are no historic preservation issues with the Fire Station 30 Property. The proposed project is not in the vicinity of a Rustic Road.

#### **Environment**

The County's Forest Conservation Law, Chapter 22A, is applicable, however this project is exempt under section 22A-5(t): Modification to an Existing Developed Property. The exemption was confirmed by Staff on January 8<sup>th</sup>, 2018.

#### **Impacts to Parkland**

This project has no direct impact on existing or proposed parkland.

#### **COMMUNITY OUTREACH AND NOTIFICATION**

This Application was noticed in accordance with the Uniform Standards for Mandatory Referral Review. Several adjoining property owners and a civic association were notified. Staff has received three letters (Attachment B) as of the date of this Staff Report; two letters were from an attorney, David Brown, of Knopf & Brown. The first letter was sent on February 16, 2018 and was in regard to a noticing issue. The issue was resolved and a new notice was sent out. The second letter was sent March 13, 2018 and was focused on four primary issues;

- 1. The Application is not consistent with the 2002 Potomac Subregion Master Plan.
- 2. The Application is not consistent with the intent and requirements for a telecommunications tower use in the RE-2 zone.
- 3. The Application is not compatible with the surrounding neighborhood properties, based on size scale, height, and location.
- 4. The Applicant's alternative location selection process.

Staff believes that items 1-3 were addressed previously in this Staff Report. Staff reviewed Item 4 and the Applicant provided a list of possible alternate locations (Attachment C). The list included eight alternative locations of which only three were listed as meeting the 95 percent coverage reliability goals of the project. These three sites had engineering limitations. The third letter was from an adjoining property owner, who lives directly north of the Subject Property. His concerns about the tower being out of context with the residential character of the neighborhood and that the fire station itself has

been expanding over the years. He also notes this Property was already the subject of a Conditional Use for a cell tower, which was denied by the Hearing Examiner. Furthermore, he is concerned with the health and safety risks a tower so close to his house could create. He specifically mentions concerns over fall hazards, Electro Magnetic Emissions, and possibility of ice accumulating on the arrays and falling onto his home or property.

#### **Updated Community Correspondence:**

On October 18, 2018 Staff received additional correspondence from David Brown, representing West Montgomery Civic Association and Mr. C.O. North (an adjacent property owner), this letter reaffirms Mr. Brown's previous letter and continues to state the Fire Station #30 Site is not acceptable and that the Falls Road Golf Course site even with the increased height and visibility is a more acceptable location, because it could meet all setback requirements.

#### CONCLUSION

Based on the small parcel size and direct negative impact on the residential character of the surrounding neighborhood, Staff recommends this site not be used and that the comments outlined at the beginning of this staff report be transmitted to the Montgomery County Department of Technology Services.

#### Attachments:

Attachment A – Mandatory Referral Package

Attachment B – Community Correspondence

Attachment C – Alternate Location Table (Revised)

Attachment D – Fire Station #30 Site Photo Simulation of Impacts

Attachment E – Falls Road Golf Course Photo Simulation of Impacts



# TOTALLY COMMITTED.

Montgomery County Planning Department Maryland-National Capital Park and Planning Commission

**Re:** Montgomery County Department of Technology Services

Radio Communications Services

Public Safety System Modernization Project

Site: Fire Station 30

9404 Falls Road

39°00'36.76"N, 77°13'12.69"W

Please accept the enclosed application and materials in support of Montgomery County Radio Communications Services' proposal to construct a new tower facility at the location described above.

RCS, part of the Montgomery County Department of Technology Services, operates communications networks for the use of Montgomery County emergency services, including police, fire, and medical first responders. RCS is tasked with ensuring that these emergency responders have effective and reliable radio coverage throughout the County coverage area.

When the 800 MHz radio system was first deployed in Montgomery County, technical barriers limited the number of base stations that could be developed. The current system fails to provide adequate radio coverage in several areas in the County, particularly as the County continues to modernize and urbanize. New technologies currently being implemented, however, will allow the development of additional sites to expand radio coverage.

These new base stations are sited and designed to provide complete and effective coverage according to a "95/95" coverage mandate: 95% coverage reliability in 95% of the County service area. Coverage reliability is calculated according to expected loss "zones" throughout the County. The County service area includes all areas within the border of Montgomery County, Maryland, including waterways, and all areas within three miles of the County border. New base stations must be sited within the existing network framework to provide optimum coverage and reliability.

Effective public safety radio serves the public health, safety, and welfare of Montgomery County residents. Where no existing site can provide adequate radio coverage, there are significant consequences for emergency response personnel. A lack of radio service can increase response time, the number of personnel required to effectively respond to an emergency situation, and the amount of time it takes to resolve an incident.

RCS is proposing to construct a new tower at the location described above to fill coverage gaps left by the existing legacy system. The proposed site would consist of a 185' monopole tower, designed to support RCS antennas and equipment, and an associated compound at the base of the tower.

If you have any questions or concerns, or need any further information regarding this application, please free to contact me.

Sincerely,

Justin David Blanset Network Building + Consulting

908.902.9110 jblanset@nbcllc.com

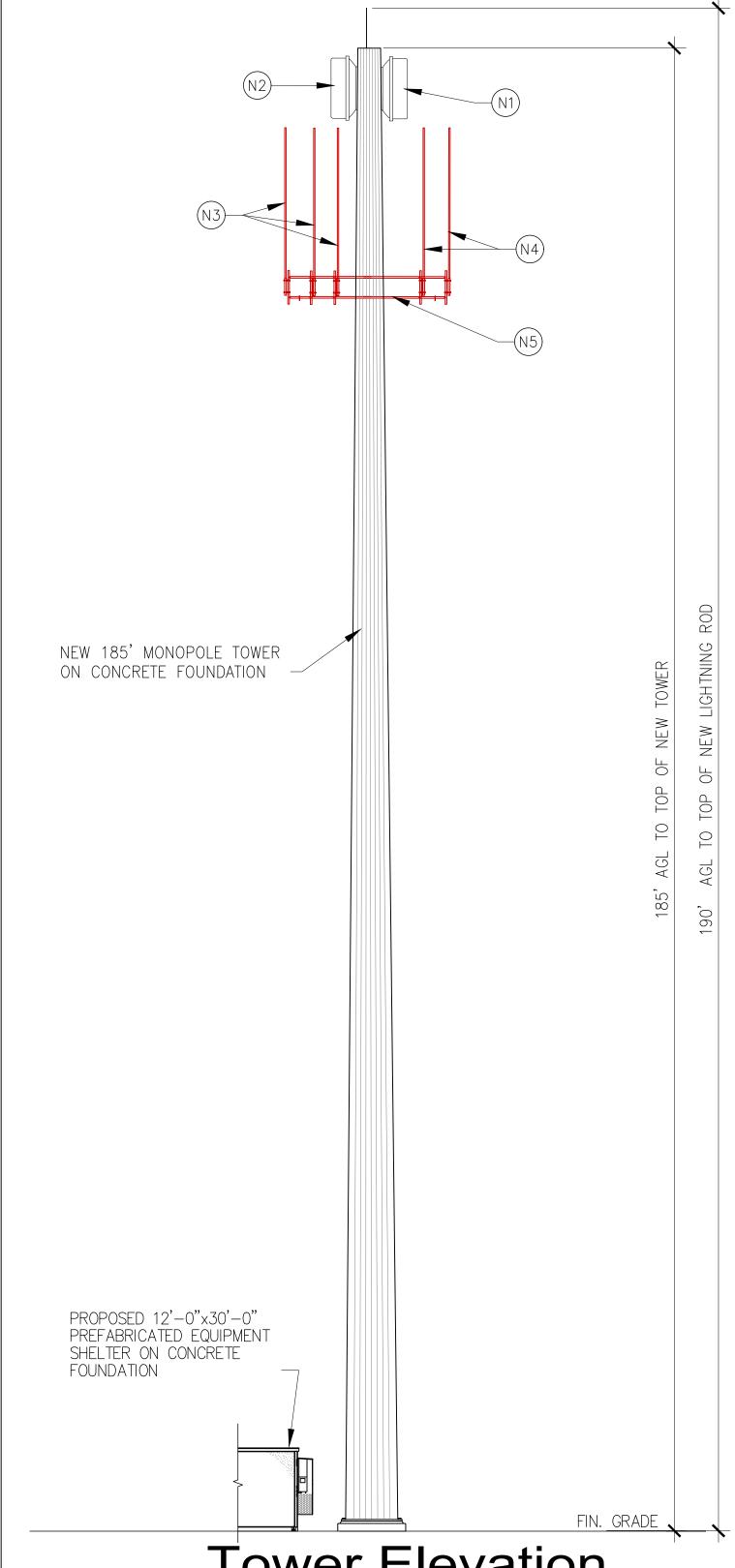
#### **Statements of Compliance**

This submission complies with the requirements of the Montgomery County Mandatory Referral submission guidelines as follows.

- 1) The proposed facility is an unmanned communications facility. There will be no regular occupation of the compound or associated shelter. Routine maintenance will not exceed 2 visits per month. As such:
  - a. The facility operates 24 hours a day, 7 days a week, as a radio communications base station.
  - b. The facility conforms in all respects to the General Plan. As an unmanned radio site for county public safety use, it has no notable effect on long or short term land development. The build-out plan for the Montgomery County Public Safety Radio Communications System is designed to accommodate and support the Wedges and Corridors concept.
  - c. As an unmanned facility outside the right of way, the facility has no impact on pedestrian and bicycle traffic. The facility's use as a public safety radio base station will promote pedestrian and cyclist safety in the area.
  - d. No new roadway is proposed.
  - e. A Historic Work Permit will be acquired if the National Environmental Policy Act determines an effect on County-designated historic properties. No effect is expected.
  - f. There is no phasing plan; the construction will begin once all applicable approvals and permits are obtained.
  - g. The subject property is owned by Cabin John Park Volunteer Fire Department Inc. in fee simple. The County will maintain a lease to the subject area of the property.
  - h. The project is funded by County funds specifically designated for the project.
  - i. No impact is expected on public parkland or lands owned by M-NCPPC, as the project is proposed on private property. The facility's use as a public safety radio base station will promote safe enjoyment of parkland in the area.
  - i. LEED certification is not applicable to this type of facility.
- 2) The general location map is included in the enclosed drawings.
- 3) The site plan is included in the enclosed drawings.
- 4) Utilities and affected rights of way are included in the enclosed drawings.
- 5) Site ingress and egress are shown in the enclosed drawings, including the proposed site access driveway. The existing access drive will be used.
- 6) A Natural Resource Inventory is included with this submission.
- 7) The subject property is not in a Special Protection Area.
- 8) To the extent applicable, a waiver is requested from Forest Conservation Plan requirements.
- 9) Topographic contours are shown in the enclosed drawings.
- 10) Stormwater impact calculations are shown on the enclosed drawings. To the extent required, a Stormwater Concept Plan or Sediment Control Plan will be submitted to the Department of Permitting Services.
- 11)Landscaping plans are shown on the enclosed drawings. No exterior lighting is proposed aside from that required by the Federal Aviation Administration, subject to an Air Hazard Navigation Report.
- 12) The proposed facility is part of the Public Safety System Modernization Project. An area map showing the location of all affected radio communications sites is included.
- 13) The proposed facility complies with the Montgomery County Noise Ordinance, Section 31(b) of the Montgomery County Code, and is consistent with the Montgomery County Department of Park and

Planning Noise Guidelines. The site will not produce noise in excess of that allowed by the ordinance or guidelines.

- 14) All relevant architectural diagrams are included in the enclosed drawings.
- 15) No traffic impact is expected. The facility is unmanned and unoccupied, and routine maintenance visits are expected to be limited to one visit twice per month.



Fire Station 30, 185' MONOPOLE TOWER LAT: 39 00 36.76 LONG:-77 13 12.69

# Antenna/Appurtenance Location Chart

E = EXISTING N = NEWF = FUTURE

	ANTENNA INFORMATION							FEEDLINE II	NFORMATION					
ANTENNA ID	MANUFACTURER	MODEL	TYPE	LENGTH	BOTTOM ELEV	RAD CENTER	TOP ELEV.	AZIMUTH	QTY.	TYPE	MANUFACTURER	MODEL	SIZE	QTY.
N1	COMMSCOPE	PAD6-59	MW	6.0'	177.0'	180.0'	183'	66.45	1	Eliptical	COMMSCOPE	EWP63	N/A	1
N2	COMMSCOPE	PAR6-59	MW	6.0'	177.0'	180.0'	183'	117.02	1	Eliptical	COMMSCOPE	EWP63	N/A	1
N3	SINCLAIR	SC412-HF2LDF	TX	21.0'	155.0'	165.5'	176.0'	N/A	3	COAX	COMMSCOPE	AVA6-50	1-1/4"	3
N4	SINCLAIR	SC412-HF2LDF	RX	21.0'	155.0'	165.5'	176.0'	N/A	2	COAX	COMMSCOPE	AVA5-50	7/8"	2
N5	-	-	TTA	-	-	155.0'	-	N/A	1	COAX	COMMSCOPE	LDF4-50	1/2"	1
	REFER TO TOWER MANUFACTURER DRAWINGS FOR BEACON AND OBSTRUCTION LIGHTING HEIGHTS													

GENERAL NOTES:

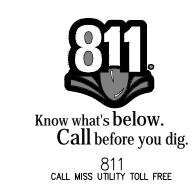
EXISTING OR NEW LOADING OF ANY STRUCTURES AT THIS TIME. FINAL STRUCTURAL ANALYSIS TO BE COMPLETED BY OTHERS PRIOR TO CONSTRUCTION ACTIVITIES COMMENCE.

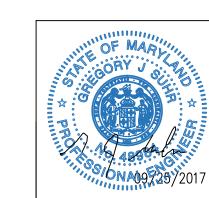
2. ALL VERTICAL TRANSMISSION LINE RUNS FROM THE ANTENNAS SHALL BE GROUNDED NEAR THE TOP & BOTTOM OF THE TOWER (BEFORE THE CABLE MAKES HORIZONTAL TRANSITION & NEAR ENTRY PORT ON THE SHELTER). ADDITIONAL TRANSMISSION LINE GROUND KITS SHALL BE INSTALLED AS NEEDED TO LIMIT THE DISTANCE BETWEEN GROUND KITS TO 75 FEET.

3. THE CONTRACTOR SHALL CONDUCT A TDR SWEEP TEST ON ALL THE NEWLY INSTALLED TRANSMISSION LINES TO DETERMINE THE CABLE CONDUCTOR RESISTANCE. CABLE INSERTION LOSS, REFLECTION & STIMULUS RESPONSE MEASUREMENTS. RESULTS TO BE SUBMITTED TO MOTOROLA.

4. DRIP LOOPS SHALL BE INCORPORATED IN CABLE RUNS TO PREVENT WATER FROM TRICKLING DOWN THE LINES INTO THE SHELTER.

5. ALL TRANSMISSION LINES SHALL BE MARKED WITH APPROPRIATE COLOR TAPE BANDS (ONE INCH WIDE COLOR TAPE) FOR IDENTIFICATION NEAR THE ANTENNA. JUST BEFORE ÈNTERING THE SHELTER AS WELL AS INSIDE THE SHELTER, BEFORE CONNECTING TO THE SURGE SUPPRESSORS. SEE EQUIPMENT & COAXIAL CABLE SCHEDULE FOR COLOR CODING SCHEME.





811 call miss utility toll free 1-800-257-7777 or outside maryland

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED AND PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

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TS IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER

**Tower Elevation** 

NOT TO SCALE 09-25-17 ZONING DRAWING 09-22-17 ZONING DRAWINGS REVIEW 09-15-17 ADD EASEMENT / LEASE AREA 02-07-17 ISSUED FOR REVIEW 12-13-16 SSUED FOR REVIEW REVISIONS DATE



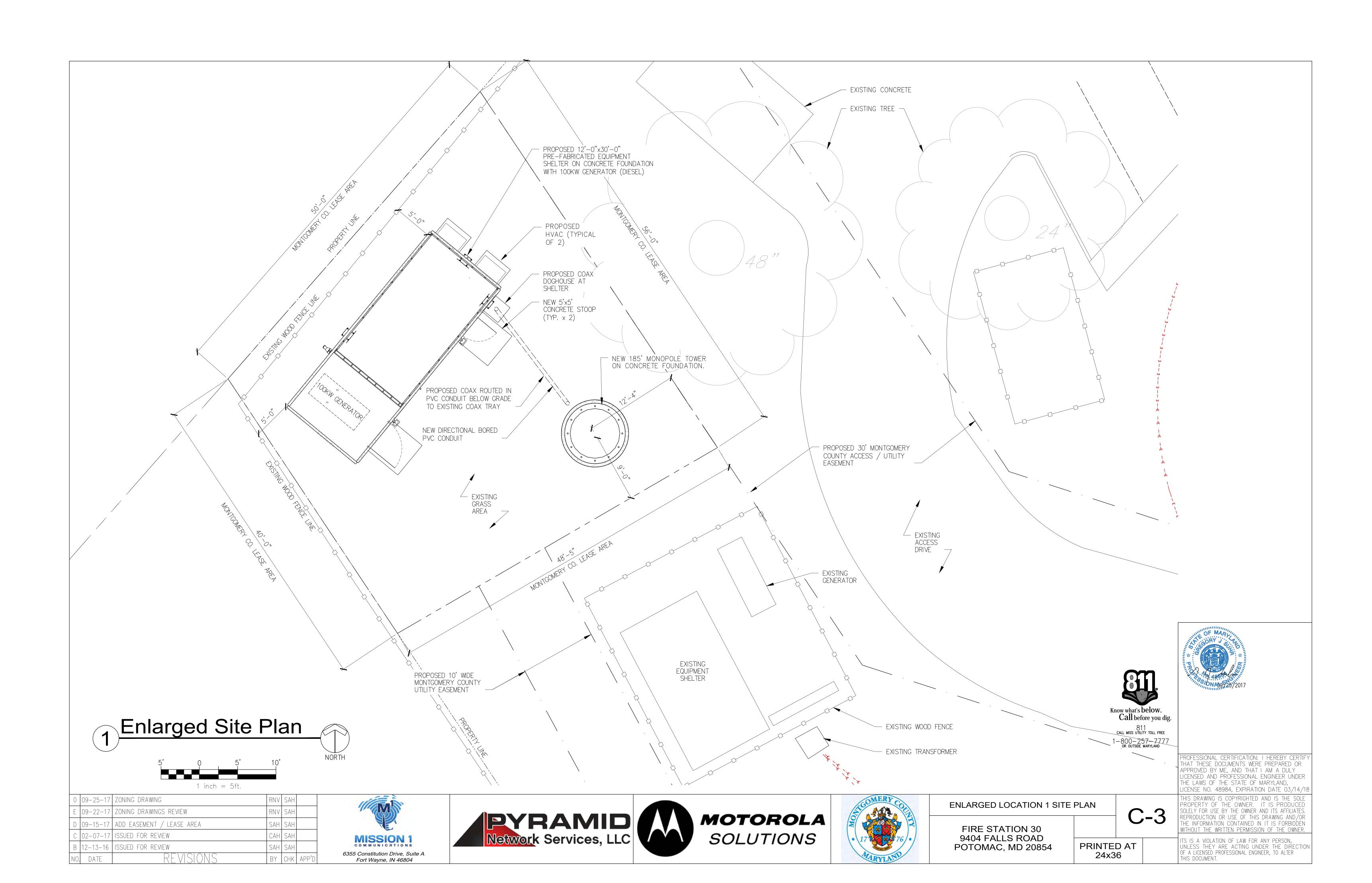


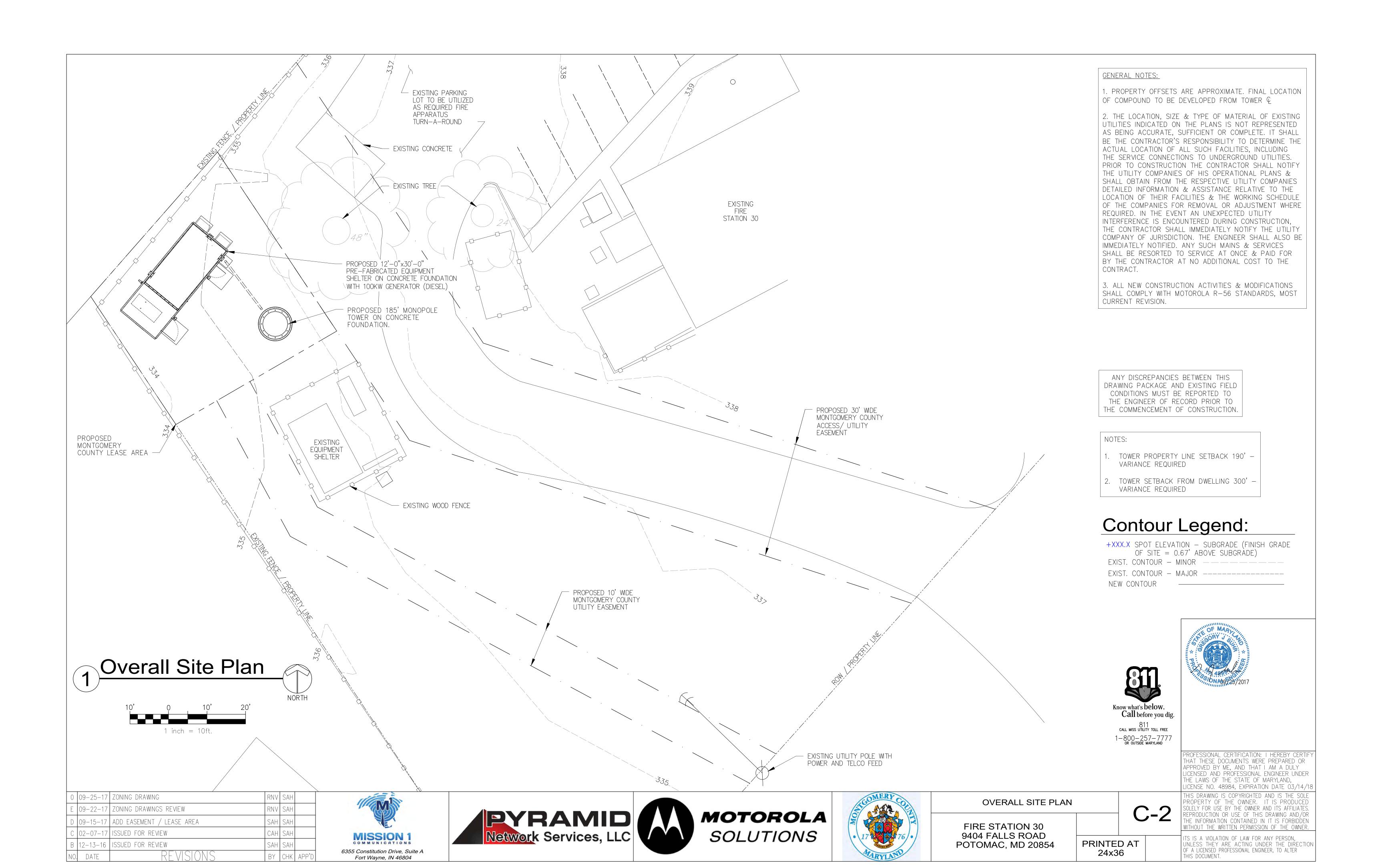


**TOWER ELEVATION AND ANTENNA** INFORMATION

FIRE STATION 30 9404 FALLS ROAD POTOMAC, MD 20854

PRINTED AT 24x36







<u>GENERAL NOTES:</u>

1. PROPERTY OFFSETS ARE APPROXIMATE. FINAL LOCATION OF COMPOUND TO BE DEVELOPED FROM TOWER Q

2. THE LOCATION, SIZE & TYPE OF MATERIAL OF EXISTING UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING THE SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS & SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION & ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES & THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS & SERVICES SHALL BE RESORTED TO SERVICE AT ONCE & PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

3. ALL NEW CONSTRUCTION ACTIVITIES & MODIFICATIONS SHALL COMPLY WITH MOTOROLA R-56 STANDARDS, MOST CURRENT REVISION.

ANY DISCREPANCIES BETWEEN THIS DRAWING PACKAGE AND EXISTING FIELD CONDITIONS MUST BE REPORTED TO THE ENGINEER OF RECORD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

# NOTES

- 1. TOWER PROPERTY LINE SETBACK 190' VARIANCE REQUIRED
- 2. TOWER SETBACK FROM DWELLING 300' VARIANCE REQUIRED

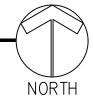


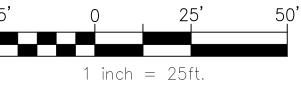
Know what's below.
Call before you dig.

811
call miss utility toll free
1-800-257-7777
or outside maryland

NA09725/201

Site Location Plan













SITE LOCATION PLAN

FIRE STATION 30

9404 FALLS ROAD

POTOMAC, MD 20854

**C**-

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24x36

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ITS IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR

APPROVED BY ME, AND THAT I AM A DULY LICENSED AND PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

LICENSE NO. 48984, EXPIRATION DATE 03/14/18

0	09-25-17	ZONING DRAWING	RNV	SAH	
E	09-22-17	ZONING DRAWINGS REVIEW	RNV	SAH	
D	09-15-17	ADD EASEMENT / LEASE AREA	SAH	SAH	
С	02-07-17	ISSUED FOR REVIEW	CAH	SAH	
В	12-13-16	ISSUED FOR REVIEW	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D



#### 1.10. PERMITS

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 CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. THE CONTRACTOR SHALL MEET ALL OF THE REGULATORY REQUIREMENTS OF THE JURISDICTION GOVERNING CONSTRUCTION.

#### 1.11. SITE INSPECTION

THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR ARRANGING WITH MOTOROLA FOR AN INSPECTION PRIOR TO COVERING UP ALL WORK THAT WILL BE COVERED IN FINISHED CONDITION. IT IS THE SITE GENERAL CONTRACTOR'S RESPONSIBILITY TO MANAGE THE SEQUENCE OF WORK AND REQUEST THE INSPECTIONS IN A TIMELY MANNER. THE SITE GENERAL CONTRACTOR SHALL NOT REQUEST AN INSPECTION UNLESS ALL OF THE RELATED WORK HAS BEEN COMPLETED. WORK SHALL. NOT PROCEED TO THE NEXT STEP UNTIL THE PREVIOUS STEP HAS BEEN INSPECTED AND APPROVED BY THE LOCAL INSPECTORS AND THE MOTOROLA REPRESENTATIVE. THE PRESENCE OF THE OWNER OR MOTOROLA REPRESENTATIVE ON THE JOB SITE IN NO WAY RELIEVES THE SITE GENERAL CONTRACTOR OF THE ASSOCIATED RESPONSIBILITIES OF THE JOB. ANY WORK WHICH DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS WILL BE CORRECTED OR REMOVED SOLELY AT THE SITE GENERAL CONTRACTOR'S EXPENSE.

THE FOLLOWING INFORMATION IS INCLUDED AS A GUIDE TO THE CONTRACTOR TO ASSIST IN DETERMINING THE TYPE AND FREQUENCY OF INSPECTIONS. THE LISTED INSPECTIONS REPRESENT THOSE REQUIRED FOR SMALL OR SIMPLE PROJECTS. LARGE OR COMPLEX PROJECTS MAY REQUIRE ADDITIONAL INSPECTIONS DEPENDING ON THE SEQUENCE OF WORK.

•FOUNDATION EXCAVATIONS AND REBAR: TO BE MADE AFTER TRENCHES ARE EXCAVATED AND FORMS ERECTED REINFORCEMENT PLACED, COMPACTION TESTED, SOIL TREATED, VAPOR BARRIER PLACED, AND ESSENTIALLY READY FOR CONCRETE PLACEMENT.

•GROUNDING: TO BE MADE AFTER THE BELOW GROUND CADWELD CONNECTIONS HAVE BEEN COMPLETED, PRIOR TO COVERING

•ELECTRICAL WORK WITHIN WALLS: TO BE MADE AFTER THE ROOF, FRAMING, FIRE BLOCKING AND BRACING IS IN PLACE PRIOR TO THE INSTALLATION OF INSULATION OR WALL/CEILING MEMBRANES.

AS A GENERAL RULE. THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE TO MOTOROLA FOR INSPECTION OF ALL WORK PRIOR TO CONCEALMENT. THE CONTRACTOR HAS RESPONSIBILITIES RELATIVE TO ALL TYPES OF INSPECTIONS AND IS RESPONSIBLE FOR CONTACTING ALL OF THE INSPECTING ENTITIES TO DETERMINE HIS RESPONSIBILITIES. ALL OF THESE INSPECTING ENTITIES HAVE UNIQUE AND SEPARATE RESPONSIBILITIES. ONE INSPECTION FROM AN ENTITY WILL NOT SUBSTITUTE FOR AN INSPECTION FROM ANOTHER ENTITY.

#### 1.12. SAFETY

THE CONTRACTOR, HIS EMPLOYEES, ANY SUB-CONTRACTORS, VENDORS, THEIR RESPECTIVE EMPLOYEES AND CONTRACTOR'S VISITORS SHALL COMPLY WITH ALL SAFETY STANDARDS, ACCIDENT PREVENTION REGULATIONS AND ENVIRONMENTAL REGULATIONS PROMULGATED BY FEDERAL. STATE OR LOCAL. AUTHORITIES HAVING JURISDICTION AND SHALL AT ALL TIMES CONDUCT ALL OPERATIONS UNDER THE CONTRACT IN A MANNER TO AVOID THE RISK OF BODILY HARM TO ANY PERSONS AND THE RISK OF DAMAGE TO ANY PROPERTY, EQUIPMENT OR MATERIAL SUCH PARTIES SHALL ALSO COMPLY WITH ANY SAFETY PROGRAMS AND/OR RULES PROMULGATED BY OWNER AND/OR MOTOROLA.

# 1.13. ELECTRO MAGNETIC EMISSIONS

THE CONTRACTOR SHALL ACKNOWLEDGE ALL OR PORTIONS OF THE WORK MAY INVOLVE POSSIBLE EXPOSURE OF CONTRACTOR. SUB-CONTRACTORS, AND THEIR RESPECTIVE EMPLOYEES, AGENTS, INVITEES, LICENSEES AND OTHER VISITORS TO THE JOBSITE AND/OR MOTOROLA PREMISES TO ELECTRO-MAGNETIC ENERGY ("EME") WHILE PERFORMING WORK UNDER THIS CONTRACT, ESPECIALLY IF WORK IS PERFORMED ON EXISTING ANTENNA TOWERS WHERE ANTENNAS ARE LOCATED. THE CONTRACTOR REPRESENTS THAT CONTRACTOR, SUBCONTRACTORS, AND ALL OF THEIR RESPECTIVE EMPLOYEES, AGENTS, INVITEES, LICENSEES, AND OTHER AUTHORIZED REPRESENTATIVES WHO ARE PERFORMING SERVICES UNDER THIS AGREEMENT WILL COMPLY WITH ALL ANSI AND ANY OTHER APPLICABLE EME STANDARDS, RULES OR REGULATIONS, INCLUDING, BUT NOT LIMITED TO THOSE RULES OR REGULATIONS IMPOSED OR SUGGESTED BY MOTOROLA, IF ANY.

THE CONTRACTOR SHALL ADHERE TO ALL OSHA RULES. REGULATIONS AND ADOPTED POLICIES. ALL CONTRACTOR PERSONNEL SHALL HAVE UNDERGONE ELECTROMAGNETIC ENERGY (EME) TRAINING FOR PERSONNEL WORKING IN THE VICINITY OF ACTIVE ANTENNAS. AS SUCH IT IS RECOMMENDED THAT RF MONITORS BE USED BY THE TOWER PERSONNEL TO MONITOR EXPOSURE LEVELS. IF EME LEVELS AT THE SITE EXCEED THE MAXIMUM PERMISSIBLE EXPOSURE LIMITS, THE CONTRACTOR SHALL COORDINATE WITH THE INDIVIDUALS RESPONSIBLE FOR USE OF THE TRANSMITTER TO MAKE SURE THAT THE EQUIPMENT IS DEACTIVATED BEFORE WORK CAN BE RESUMED, WITHOUT CAUSING A SERIOUS DISRUPTION OF THE SERVICE.

# 1.14. SITE CLEANUP

12-13-16

DATE

THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE AT ALL TIMES DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, VEGETATION, AND RUBBISH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. WHENEVER THE WORK-SITE IS LEFT UNATTENDED, THE CONTRACTOR SHALL BLOCK THE OPENING WITH WARNING TAPE TO DISCOURAGE TRESPASSING. THE PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE AT THE CONCLUSION OF SITE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LANDSCAPE GRADING AND SEEDING OF THE DISTURBED SOIL THE CONTRACTOR SHALL USE LOCAL GRASS SEED TO STABILIZE SOIL AND SHALL COVER DISTURBED AREAS WITH HAY MULCH TO REDUCE RUNOFF OF SEDIMENT TO DOWNSTREAM AREAS. THE CONTRACTOR SHALL RESTORE THE SITE TO ITS ORIGINAL CONDITION. ALL SLOPES AND DISTURBED AREAS NOT RECEIVING AGGREGATE SURFACING ARE TO BE PREPARED AND BROADCAST SEEDED AND FERTILIZED FOR EROSION PROTECTION. SEEDING FOR AREAS DISTURBED SHALL BE ESTABLISHED SEASONALLY AS REQUIRED BY LOCAL CODES.

THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE OR INTERRUPTION OF EXISTING UNDERGROUND OR OVERHEAD ELECTRIC SERVICES, UNDERGROUND GROUNDING AND FUEL LINES, EQUIPMENT AND BUILDINGS ON THE SITE, PLUS OFF SITE SERVICES, BURIED OR OVERHEAD, SURROUNDING THE EXISTING OR EXPANDED COMPOUND. ANY PROPERTY DAMAGE CAUSED BY THE CONTRACTOR OR HIS OPERATIONS SHALL BE CORRECTED AND/OR RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER(S) AND MOTOROLA AT NO ADDITIONAL COST TO THE PROPERTY OWNER OR MOTOROLA. BURNING WILL NOT BE PERMITTED.

#### 1.15. FACILITY STARTUP & COMMISSIONING

THE CONTRACTOR AND/OR SUB-CONTRACTORS SHALL DEMONSTRATE TO MOTOROLA THAT ALL SYSTEMS AND SUB-SYSTEMS INSTALLED UNDER THIS CONTRACT, OPERATE PROPERLY PRIOR TO THE FINAL ACCEPTANCE INSPECTION AND PROVIDE THE OPERATIONS AND MAINTENANCE MANUALS AT THIS TIME.

#### 1.16. SHOP DRAWINGS/AS-BUILT DRAWINGS

THE MODIFICATIONS TO THE DRAWINGS AFTER CONSTRUCTION START SHALL RECEIVE ENGINEERING AND MOTOROLA APPROVAL PRIOR TO ANY CHANGES BEING MADE. THE ENGINEER OF RECORD SHALL MAKE THE REQUIRED CHANGE AND WILL SUBMIT CHANGES TO MOTOROLA AND ANY JURISDICTION HAVING AUTHORITY.

THE CONTRACTOR SHALL KEEP UP-TO-DATE MARKED-UP PRINTS OF THE PROJECT DRAWINGS. UPON COMPLETION OF WORK AT THE SITE. THE CONTRACTOR SHALL REVIEW THE COMPLETED AS-BUILT DRAWINGS, AND ASCERTAIN THAT ALL DATA FURNISHED ON THE DRAWINGS IS ACCURATE AND TRULY REPRESENTS THE WORK IS ACTUALLY INSTALLED. MARKINGS INDICATING CHANGES TO THE DRAWINGS SHALL BE RED OR GREEN AND CLEARLY VISIBLE. TWO (2) SETS OF "AS-BUILT" DRAWINGS SHALL BE FURNISHED TO THE MOTOROLA REPRESENTATIVE WITHIN 5 DAYS OF THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL ALSO SHOW THE FOLLOWING:

• MODIFICATIONS TO SITE LAYOUT. GROUNDING SYSTEM LAYOUT.

•UNDERGROUND FUEL LINE RUN.

•UNDERGROUND TELCO CABLE RUN.

•UNDERGROUND ELECTRICAL RUN.

WHERE THE CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE SITE EQUIPMENT SHELTER. ISOLATION TRANSFORMER. GENERATOR, ETC.) THAT REQUIRES PERIODIC MAINTENANCE, THE CONTRACTOR SHALL INCLUDE ALL OPERATION AND MAINTENANCE MANUALS AND ALL AS-BUILT DRAWINGS WHICH FULLY DESCRIBE THE ACTUAL INSTALLED EQUIPMENT.

#### 1.17. TEST PROCEDURES AND RESULTS

CONTRACTOR WILL CONTRACT WITH A THIRD PARTY "INDEPENDENT" TESTING FIRM TO PERFORM & SUBMIT THE RESULTS OF ALL TESTS REQUIRED BY THE PROJECT SPECIFICATIONS AND DRAWINGS THAT FALL WITHIN THE SCOPE OF WORK. THESE RESULTS SHALL BE SUBMITTED TO THE DESIGNATED MOTOROLA REPRESENTATIVE. IN GENERAL, THE "INDEPENDENT" TESTING FIRM SHALL SUBMIT THE FOLLOWING TEST RESULTS:

MIX DESIGN/CONCRETE COMPRESSION TEST FOR ALL CONCRETE WORK.

• TIME DOMAIN REFLECTOMETER (TDR) WITH PRECISION LOAD / SWEEP TEST FOR ANTENNA AND TRANSMISSION LINE INSTALLATION WORK.

• FUEL LINE LEAKAGE TEST FOR FUEL TANK AND PIPING INSTALLATION WORK.

• SLUMP TEST FOR CONCRETE WORK.

• GROUNDING RESISTANCE TEST FUR GROUNDING WORK. • STRUCTURAL STEEL FABRICATION DRAWINGS.

ANY OTHER TEST THAT MAY BE REQUIRED.

# 1.18. CONTRACT CLOSEOUT - IN ACCORDANCE WITH MOTOROLA'S SUBCONTRACT AGREEMENT TERMS AND CONDITIONS

THE MOTOROLA REPRESENTATIVE WILL PROVIDE A CERTIFICATE OF COMPLETION AND APPROVE FINAL PAYMENT WHEN ALL PUNCH-LIST ITEMS HAVE BEEN CORRECTED, RECORD DRAWINGS SUBMITTED. AND ALL SYSTEMS ARE ACCEPTABLE. THE CONTRACTOR MUST ALSO RECEIVE A CERTIFICATE OF COMPLETION FROM THE MUNICIPALITY. AFTER FINAL PAYMENT, CONTRACTOR WILL SIGN A RELEASE OF LIEN.

# 1.19. WARRANTY

ALL WORK PERFORMED BY THE CONTRACTOR IN COMPLETING THE SCOPE IDENTIFIED ON THE DRAWINGS SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL COMPLETION OF THE PROJECT. THIS GUARANTEE SHALL COVER ALL MATERIALS, EQUIPMENT OR WORKMANSHIP WHICH IN THE OPINION OF MOTOROLA IS RENDERED DEFECTIVE OR INFERIOR OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT DURING THE GUARANTEE PERIOD. IF, WITHIN THE GUARANTEE PERIOD, REPAIRS OR CHANGES ARE REQUIRED TO CORRECT THE GUARANTEE WORK. THEN UPON RECEIPT OF NOTICE, THE CONTRACTOR SHALL PROMPTLY AND WITHOUT EXPENSE TO MOTOROLA OR THE OWNER, PROCEED TO:

 PLACE IN SATISFACTORY CONDITION ALL OF SUCH GUARANTEED WORK AND CORRECT ALL DEFECTS THEREIN. • MAKE GOOD ALL DAMAGES TO THE STRUCTURE OR SITE OR EQUIPMENT OR CONTENTS THEREOF, WHICH, IN THE OPINION OF THE MOTOROLA, IS THE RESULT OF THE USE OF MATERIALS, EQUIPMENT, OR WORKMANSHIP WHICH ARE INFERIOR, DEFECTIVE, OR NOT IN ACCORDANCE WITH THE TERMS OF THE CONTRACT;

• MAKE GOOD ANY WORK, MATERIALS OR EQUIPMENT. AND ADJACENT STRUCTURES DISTURBED IN FULFILLING THE GUARANTEE.

# 1.20. RELATED DOCUMENTS

CONTRACTOR SHALL BECOME FAMILIAR WITH THE INFORMATION AND REQUIREMENTS CONTAINED IN THE FOLLOWING DOCUMENTS RELATED TO THE PROJECT:

A. TOWER AND TOWER FOUNDATION DRAWINGS BY THE MANUFACTURER.

B. R-56 STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES BY MOTOROLA.

C. ALL OTHER PERTINENT DOCUMENTS.

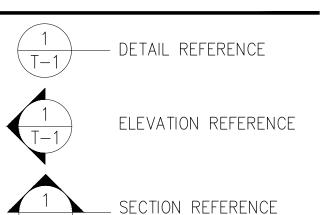
Symbols

1 REVISION

<1> KEY NOTE

|100 | ROOM NUMBER

22 KEYED NOTE



#### AIR CONDITIONING N/A NIC ADJUSTABLE NOT APPLICABLE ABOVE FINISH FLOOR NOT IN CONTRACT NTS NOT TO SCALE APPROXIMATELY

Abbreviations and Symbols

071	AMERICAN SOCIETY FOR	,,,,	1101 10 00/122
	TESTING AND MATERIALS AMERICAN WIRE GAUGE	0/C,O.C. OD OPG	ON CENTER OUTSIDE DIAMETER OPENING
	BUILDING BI OCK	OPP	OPPOSITE
	BASE MOBILE RADIO BUILDING STANDARD	PLYWD PR	PLYWOOD PAIR
	CEILING	PROJ PROP	PROJECT PROPERTY

BLK BMR

CLR

CND,C

EQUIP

ΕW

EXT

EXIST

FLUOR

CONDUIT

ELEVATION ELECTRICAL

EQUAL

PROP PT	PROPERTY PRESSURE TREATED
REQ'D RM RO	REQUIRED ROOM ROUGH OPENING

CONC CONST CONT	CONCRETE CONSTRUCTION CONTINUOUS	REQ'[ RM RO
DBL DIA,Ø DIAG DIM DN DTL,DETL DWG	DOUBLE DIAMETER DIAGONAL DIMENSION DOWN DETAIL DRAWING	S SHT SIM SPEC SQ SS STL
E FA	EAST FACH	STRU SUSP SV

SQ SS STL STRUCT SUSP SV	SQUARE STAINLESS STEEL STEEL STRUCTURAL SUSPENDED SHEET VINYL
THRU	THROUGH

SOUTH

SHEET

SIMILAR

SPECIFICATION

TOP OF CONCRETE

TOP OF MASONRY

UNIFORM BUILDING

UNLESS NOTED

VERIFY IN FIELD

OTHERWISE

VERTICAL

VINYL TILE

WITH

ANGLE

AND

ΑТ

NUMBER

W/O

WINDOW

WITHOUT

WATERPROOF

CENTER LINE

PROPERTY LINE

TYPICAL

EQUIPMENT EACH WAY EXISTING EXTERIOR	TOC TOM TYP
FINISH	UBC
FLUORESCENT	UNO

GA GALV GC	GAUGE GALVANIZE(D) GENERAL CONTRACTOR	VERT VIF VT
GRND GWB	GROUND GYPSUM WALL BOARD	W W/
GYP BD	GYPSUM BOARD	\A/ÍN I

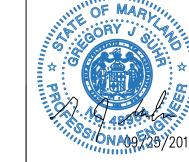
ARD'WD HARDWOOD DRIZ HORIZONTAL R HOUR F HEIGHT	

IT IVAC	HEIGHT HEATING, VENTING O AIR CONDITIONING	<u>&amp;</u>
	INSIDE DIA.	

FO SUL. T	INCH INFORMATION INSULATION INTERIOR

LB(S)	POUND(S

MAX	MAXIMUM
MECH	MECHANICAL
MET,MTL	METAL
MFR	MANUFACTURER
MGR	MANAGER
MIN	MINIMUM
MISC	MISCELLANEOUS

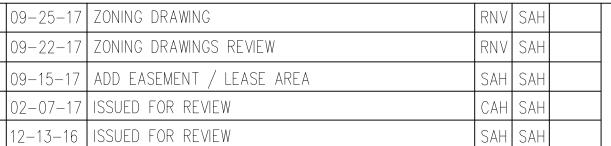


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FIRE STATION 30 9404 FALLS ROAD POTOMAC, MD 20854

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#### GENERAL REQUIREMENTS

#### 1.1. SUMMARY OF WORK

A. THE WORK MAY CONSIST OF, BUT NOT BE LIMITED TO, THE INSTALLATION OF EQUIPMENT CABINETS, ANTENNAS ,AND LINES. FUEL TANKS, GROUNDING, ELECTRICAL WORK, ETC., ASSOCIATED WITH THE MOTOROLA EQUIPMENT AS INDICATED ON DRAWINGS AND AS SPECIFIED HEREIN. CONTRACTOR SHALL SUPPLY ALL PERMANENT MATERIALS/EQUIPMENT REQUIRED AND ALL LABOR, EQUIPMENT, TOOLS, UTILITIES, MINOR HARDWARE/MATERIALS, TRANSPORTATION AND FACILITIES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF SERVICES AND INSTALL WORK, WHETHER TEMPORARY OR PERMANENT. CONTRACTOR SHALL BE OBLIGATED TO PERFORM ALL THE WORK OUTLINED IN THESE DRAWINGS IN ACCORDANCE WITH THE CONTRACT AGREEMENT, FEDERAL REGULATIONS, STATE REQUIREMENTS, LOCAL CODES, COMMERCIAL/INDUSTRY STANDARDS, DETAILED SCOPE OF WORK AND THE DOCUMENTS IDENTIFIED BELOW. IN CASE OF A CONFLICT BETWEEN THE ABOVE LISTED DOCUMENTS REGARDING STANDARDS OF WORK, THE MORE STRINGENT CRITERIA SHALL APPLY. ANY ADDITIONAL COSTS OR DELAYS RESULTING FROM CORRECTION OF THE WORK TO COMPLY WITH THE ABOVE REQUIREMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

#### 1.2. SITE VISIT

CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE ITSELF WITH THE SCOPE OF WORK REQUIRED PER THE DRAWINGS AND ALL LOCAL CONDITIONS AND LAWS AND REGULATIONS THAT MAY IN ANY MANNER AFFECT THE PRICE, PROGRESS AND PERFORMANCE OF WORK, INCLUDING ANY COSTS ASSOCIATED WITH IT. THE CONTRACTOR SHALL AL.SO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND NOTIFY THE MOTOROLA REPRESENTATIVE OF ANY DISCREPANCIES OR INTERFERENCES WHICH AFFECT THE WORK OF THIS CONTRACT.

#### 1.3. STANDARDS AND CODES

THE FOLLOWING DOCUMENTS (LATEST REVISION) SHALL BE CONSIDERED TO BE SPECIFICATION AND ARE INCORPORATED HEREIN BY REFERENCE. IN THE EVENT OF CONFLICT BETWEEN THE REQUIREMENTS OF THIS SPECIFICATION AND THE REQUIREMENTS OF THE REFERENCED DOCUMENTS, THE STRICTER SPECIFICATION SHALL GOVERN. WHERE PROVISIONS OF THE CODES AND STANDARDS ARE IN CONFLICT WITH THE BUILDING CODE IN FORCE FOR THIS PROJECT, THE BUILDING CODE SHALL GOVERN.

#### A. AMERICAN CONCRETE INSTITUTE:

• ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".

- ACI 305 "HOT WEATHER CONCRETING".
- ACI 306 "COLD WEATHER CONCRETING".
- •ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."
- ACI 614 "RECOMMENDED PRACTICE FOR MEASURING, MIXING AND PL.ACING CONCRETE".
- ACI 311 "RECOMMENDED PRACTICE FOR CONCRETE INSPECTION".
- ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
- ACI 613 "RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR CONCRETE".

# B. AMERICAN NATIONAL STANDARDS INSTITUTE:

• ANSI Z359 REQUIREMENTS FOR PERSONAL FALL ARREST SYSTEMS, SUBSYSTEMS AND COMPONENTS

- ANSI Z87.1 OCCUPATIONAL AND EDUCATIONAL EYE AND FACE PROTECTION
- ANSI Z89.1 PROTECTIVE HEADWEAR FOR INDUSTRIAL WORKERS REQUIREMENTS
- ·ANSI/IEEE C95.1 SAFETY LEVEL..S WITH RESPECT TO HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY •ANSI/TLA/EIA STANDARD 222: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- C. AMERICAN INSTITUTE OF STEEL CONSTRUCTION"

• AISC MANUAL OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION: LATEST EDITION

# D. AMERICAN SOCIETY FOR TESTING AND MATERIALS:

- •ASTM A615 "SPECIFICATION FOR DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT".
- •ASTM C94-80 "SPECIFICATION FOR READY-MIX CONCRETE:
- •ASTM C39-77 "SPECIFICATION FOR TEST FOR COMPREHENSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMEN".
- •ASTM 33 "SPECIFICATION FOR CONCRETE AGGREGATES". •ASTM C150 - "SPECIFICATION FOR PORTLAND CEMENT".
- •ASTM C172 "SAMPLING FRESH CONCRETE".
- •ASTM C143 "SLUMP OF PORTLAND CEMENT CONCRETE"
- •ASTM D698-91 "TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT".
- •ASTM D1556-84- "DENSITY OF SOIL IN PLACE BY THE SAND-CONE METHOD".
- •ASTM D1557 "TEST FOR MOISTURE-UNIT WEIGHT RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES USING 10-LB. HAMMER AND 18-IN. DROP". (PROCEDURE C)
- •ASTM D2487 "STANDARD CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION
- SYSTEM)9
- •ASTM D2922 "DENSITY OF SOIL AND SOIL AGGREGATE IN PLACE BY NUCLEAR METHODS SHALLOW DEPTH". •ASTM D2940 - "STANDARD SPECIFICATION FOR GRADED AGGREGATE MATERIAL FOR BASES OR SUB-BASES FOR HIGHWAYS OR AIRPORTS"

# E. AMERICAN WELDING SOCIETY:

• AWS D12.1 - "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL. METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION".

# F. CONCRETE REINFORCING STEEL INSTITUTE:

"MANUAL OF STANDARD PRACTICE"

# G. FEDERAL AVIATION ADMINISTRATION:

09-25-17 ZONING DRAWING

•DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR, AC 70/7460-1G: OBSTRUCTION MARKING AND LIGHTING. •DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR, 150-5345-43, FAA/DOD SPECIFICATION L-856: HIGH INTENSITY OBSTRUCTION LIGHTING SYSTEMS.

# H. FEDERAL COMMUNICATIONS COMMISSION:

•FEDERAL COMMUNICATIONS COMMISSION — RULES AND REGULATIONS PART 17, CONSTRUCTION, MARKING, AND LIGHTING OF ANTENNA STRUCTURES.

# G. STRUCTURAL STEEL PAINTING COUNCIL:

•SSPC-SP-1-63: SPECIFICATION FOR PAINTING STEEL STRUCTURES.

#### I. MOTOROLA R56 STANDARDS AND GUIDELINES FOR COMMUNICATIONS SITES (LATEST REVISION).

#### K. MOTOROLA'S CIVIL WORKS BID SPECIFICATIONS

- L. NATIONAL FIRE PROTECTION ASSOCIATION:
  - 2015 NFPA 1 FIRE PREVENTION CODE
  - 2015 NFPA 101 LIFE SAFETY CODE • 2015 NFPA 111 - STANDARD ON STORED ELECTRICAL ENERGY, EMERGENCY AND STANDBY POWER SYSTEMS
  - 2015 NFPA 780 STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS

#### M. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION:

- OSHA 1926
- OSHA DIRECTIVES CPL 2-1.29 INTERIM INSPECTION PROCEDURES DURING COMMUNICATION TOWER CONSTRUCTION ACTIVITIES.
- N. MARYLAND STATE BUILDING AND ELECTRICAL CODE, OR AHJ CODES.
  - 2015 INTERNATIONAL BUILDING CODE
  - 2014 NATIONAL ELECTRIC CODE
  - 2015 INTERNATIONAL FIRE CODE

#### 1.4. NOTICE TO PROCEED

WHEN THE SITE IS READY FOR INSTALLATION, MOTOROLA SHALL ISSUE A NOTICE TO PROCEED TO THE CONTRACTOR. UPON RECEIPT OF THE NOTICE OF PROCEED. THE CONTRACTOR SHALL SUBMIT TO MOTOROLA A SCHEDULE REFLECTING THE WORK PLAN. THE CONTRACTOR SHALL ADVISE THE MOTOROLA REPRESENTATIVE IMMEDIATELY OF ANY SCHEDULE CHANGES. THE CONTRACTOR SHALL ADJUST HIS WORK, AS REQUIRED, TO COORDINATE WITH THE MOTOROLA INSTALLATION TEAM IF THE SCHEDULES OVERLAP.

### 1.5. MOTOROLA REPRESENTATIVE

MOTOROLA SHALL DESIGNATE A REPRESENTATIVE. THIS PERSON IS THE ONLY CONTACT POINT AUTHORIZED TO MAKE ANY CHANGES TO THE CONTRACT PROVISIONS OR THE PLANS AND SPECIFICATIONS. ANY CHANGES MADE BY THE CONTRACTOR ARE AT THE CONTRACTOR'S RESPONSIBILITY AND RISK.

#### 1.6. CONTRACTORS FIELD REPRESENTATIVE

CONTRACTOR SHALL ASSIGN A FIELD REPRESENTATIVE WHO IS FAMILIAR WITH THESE SPECIFICATIONS AND WILL REPRESENT THE CONTRACTOR AND HAVE THE AUTHORITY TO ACT FOR THE CONTRACTOR AND SUPERVISE ALL CONSTRUCTION ACTIVITIES. THE AND REPRESENTATIVE SHALL BE AVAILABLE WHEN CONSTRUCTION ACTIVITIES BEGIN. THE FIELD REPRESENTATIVE SHALL BE THE PRIMARY POINT OF CONTACT FOR MOTOROLA DURING THE CONSTRUCTION PHASE OF THE

# 1.7. PROJECT MEETINGS

THE CONTRACTOR SHALL CONDUCT THE INITIAL (PRE-CONSTRUCTION) MEETING (INCLUDING ALL SUB-CONTRACTORS) WITH THE MOTOROLA REPRESENTATIVE WITHIN TWO WEEKS AFTER AWARD OF THE CONTRACT. SUBSEQUENTLY. THE CONTRACTOR SHALL PROVIDE PROGRESS SCHEDULE UPDATES TO MOTOROLA ON A WEEKLY BASIS.

# 1.8. MATERIALS

CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AS REQUIRED FOR COMPLETE SYSTEMS INCLUDING: ALL PARTS OBVIOUSLY OR REASONABLY INCIDENTAL TO A COMPLETE INSTALLATION, WHETHER SPECIFICALLY INDICATED OR NOT. ALL SYSTEMS SHALL BE COMPLETELY ASSEMBLED, TESTED, ADJUSTED, AND DEMONSTRATED TO BE READY FOR OPERATION PRIOR TO MOTOROLA'S ACCEPTANCE.

MATERIALS AND WORKMANSHIP SHALL BE THE BEST OF THEIR RESPECTIVE KINDS (AS DEFINED BY INDUSTRY STANDARDS), FREE OF DEFECTS AND ALL MATERIALS SHALL BE NEW AND UNUSED IN ALL CASES, UNLESS OTHERWISE SPECIFIED WHERE THE NAME OF A CONCERN OR MANUFACTURER IS MENTIONED ON DRAWINGS OR IN SPECIFICATIONS IN REFERENCE TO A REQUIRED SERVICE OR PRODUCT, AND NO QUALIFICATIONS OR SPECIFICATION OF SUCH IS INCLUDED, THEN THE MATERIAL SPECIFICATIONS, DETAILS OF MANUFACTURE, FINISH, ETC., SHALL BE IN ACCORDANCE WITH MANUFACTURER'S STANDARD PRACTICE, DIRECTION OR SPECIFICATIONS. THE CONTRACTOR SHALL INSTALL. ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

# 1.9. VERIFICATION OF EXISTING CONDITIONS

BEFORE STARTING ANY OPERATION, THE CONTRACTOR SHALL EXAMINE EXISTING WORK, OR WORK PERFORMED BY OTHERS, TO WHICH ITS WORK IS TO ADJOIN OR BE APPLIED. AND SHALL REPORT TO MOTOROLA PROJECT MANAGER ANY CONDITIONS THAT WILL PREVENT SATISFACTORY ACCOMPLISHMENT OF HIS WORK. PRIOR TO COMMENCING ANY EXCAVATION OR GRADING, THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF ALL SURVEY DATA AS INDICATED IN THE PLANS AND SPECIFICATIONS ANO/OR AS PROVIDED BY MOTOROLA. SHOULD THE CONTRACTOR DISCOVER ANY INACCURACIES, ERRORS, OR OMISSIONS IN THE SURVEY DATA, HE SHALL IMMEDIATELY NOTIFY THE MOTOROLA REPRESENTATIVE IN ORDER THAT PROPER ADJUSTMENTS CAN BE ANTICIPATED AND ORDERED. FAILURE TO NOTIFY THE MOTOROLA REPRESENTATIVE OF DEFICIENCIES, ERRORS OR FAULTS PRIOR TO COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE THEREOF AND WAIVER OF ANY CLAIMS OF UNSUITABILITY, ERRORS, OMISSIONS OR INACCURACIES.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, 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. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PRESERVING ALL ESTABLISHED SURVEY CONTROL POINTS. IF THE CONTRACTOR OR ANY OF HIS SUB-CONTRACTORS MOVE OR DESTROY ANY SURVEY CONTROL POINTS, THE COST INCURRED BY THE LAND OWNER OR MOTOROLA TO RE-ESTABLISH THEM WILL BE BORNE BY THE CONTRACTOR.



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FIRE STATION 30 9404 FALLS ROAD POTOMAC, MD 20854

**GENERAL NOTES** 

PRINTED AT 24x36

# PROJECT DESCRIPTION

INSTALLATION OF ANTENNAS, MICROWAVE DISHES, COAXIAL CABLE, AND ASSOCIATED MOUNTS ON A NEW 185' MONOPOLE.

INSTALLATION OF A 12'-0"x30'-0" UNMANNED EQUIPMENT SHELTER ON CONCRETE FOUNDATION.

NEW ELECTRIC SERVICE TO SITE AND EQUIPMENT SHELTER. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

## <u>SITE NAME:</u> FIRE STATION 30

# SITE ADDRESS:

9404 FALLS ROAD POTOMAC, MD 20854

# SITE COORDINATES

LATITUDE - N 39° 00' 36.76" LONGITUDE - W 77° 13' 12.69"

# SITE INFORMATION

PH: (301) 299-4300

# <u>LANDLORD</u>

CABIN JOHN VOLUNTEER FIRE DEPARTMENT

# <u>APPLICANT</u>

JUDY MILLER PSSM RADIO SYSTEM INFRASTRUCTURE PROJECT DEPARTMENT OF TECHNOLOGIES SERVICES MONTGOMERY COUNTY PH: (240) 773 7214

# <u>CONTACT</u>

PAUL KETNER MOTOROLA SOLUTIONS PH: (484) 767 9559

# PROJECT MANAGER

PYRAMID NETWORK SERVICES, LLC KEVIN GLARDON PH: (513) 228-2992 EMAIL: KGLARDON@PYRAMIDNS.COM

# ARCHITECTURAL AND ENGINEERING

MISSION 1 COMMUNICATIONS SCOTT HARTMAN 6355 CONSTITUTION DRIVE, SUITE A FORT WAYNE, IN 46804 PH: (260) 410-0852 EMAIL: SHARTMAN@M1COMM.COM

# CONSULTANT TEAM

	MONTGOMERY COUNTY REPRESENTATIVE :	RECEIVED :
		ACCEPTED :
	MOTOROLA :	RECEIVED :
		ACCEPTED :
	PROPERTY OWNER:	RECEIVED :
		ACCEPTED :
	RECEIVED AND ACCEPTED	

# DIDECTIONS TO SITE

		ECTIONS TO SITE			
0	09-25-17	ZONING DRAWING	RNV	SAH	
E	09-22-17	ZONING DRAWINGS REVIEW	RNV	SAH	
D	09-15-17	ADD EASEMENT / LEASE AREA	SAH	SAH	
С	02-07-17	ISSUED FOR REVIEW	CAH	SAH	
В	12-13-16	ISSUED FOR REVIEW	SAH	SAH	
NO.	DATE	REVISIONS	BY	CHK	APP'D

# FIRE STATION 30

9404 FALLS ROAD POTOMAC, MD 20854 MONTGOMERY COUNTY

PLAN NO. MR2018012



# Potomac Logan Dr 1 inch = 1000 ft.

**VICINITY MAP** 

MISSION 1

6355 Constitution Drive, Suite A

Fort Wayne, IN 46804

# DRAWING INDEX

PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX T-1

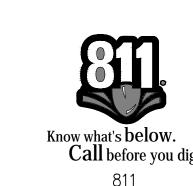
**GENERAL NOTES** 

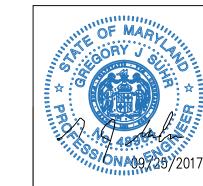
GENERAL NOTES AND LEGEND

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**ENLARGED SITE PLAN** TOWER ELEVATION AND ANTENNA INFORMATION C-4

**APPROVALS PAGE** 





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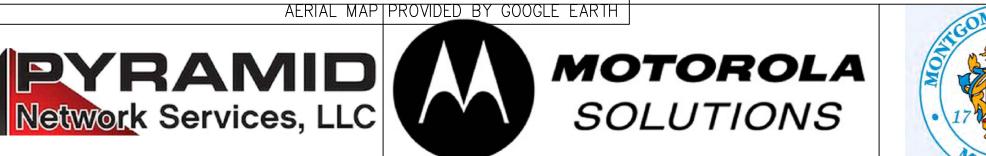
FIRE STATION 30 9404 FALLS ROAD POTOMAC, MD 20854 PLAN NO. MR2018012

PROJECT INFORMATION, LOCATION MAPS,

AND DRAWING INDEX

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MAP PROVIDED BY GOOGLE MAPS



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Knopf & Brown

40! EAST JEFFERSON STREET SUITE 206

ROCKVILLE, MARYLAND 20850 (301) 545-6100 FAX: (301) 545-6103

E-MAIL BROWNOKNOPF-BROWN.COM

WRITER'S DIRECT DIAL
(301) \$45-8105
Sole Practitioner

DAVID W. BROWN

February 16, 2018

#### Gwen. Wright@montgomeryplanning.org

Planning Director Gwen Wright Montgomery County Planning Department 8787 Georgia Avenue Silver Spring, Maryland 20910

Re:

Montgomery County Radio Communications Services

Mandatory Referral Application, MR2018012

Dear Director Wright:

I write to request that you restart the 60-day clock on the Mandatory Referral Application MR2018012, of Montgomery County Radio Communications Services for construction of a 185' monopole tower at Fire Station 30, 9404 Falls Road, Potomac, Maryland 20854. I represent two parties quite concerned about the selection of this site for a monopole, in that this location was earlier rejected as not suitable for a 120' telecommunications tower by the Board of Appeals. My clients are the West Montgomery County Citizens Association (WMCCA) and a homeowner who lives adjacent to Fire Station 30, C.O. North, 9400 Falls Road.

WMCCA, one of the civic associations whose territorial jurisdiction includes Fire Station 30, has advised me that it did not receive notice of the Mandatory Referral application from Board staff. This has been confirmed with the lead reviewer, Joshua Penn. Mr. North also received no notice of the application. Under the Board's Uniform Standards for Mandatory Referral Review (Jan. 2, 2008), Section V, "The staff will notify the area civic associations when the project is accepted as a complete application and the 60-day clock starts." In addition, Section V requires staff to "work with the applicant to determine appropriate outreach in each case." Section V specifies that such outreach should include "noticing adjacent, abutting and confronting property owners."

When this deficiency was brought to the attention of Mr. Penn by WMCCA earlier today, my client was advised that, in the case of civic associations, there is no notice requirement associated with acceptance of the application, and that usual notice of the Board hearing would suffice. I respectfully disagree. Under Land Use Art. § 20-305(a), Md. Ann. Code, part of the codification of the mandatory referral provision in the Regional District Act, former Art. 28, § 7-112, the Board was required to "adopt uniform standards of review to be followed in reviewing changes to property subject to review." There can be no doubt that "to be followed" is a state law

<sup>&</sup>lt;sup>1</sup> Board of Appeals Opinion, Case No. S-2154 and A-4260 (Jan. 22, 1996).

Montgomery County Planning Board February 16, 2018 Page 2

requirement that the Board's adopted Uniform Standards be followed unless and until changed. Plainly, under Section V, when the application is deemed complete, contemporaneous notification to area civic associations is required. Hence, if notice to WMCCA is not provided and the clock is not restarted accordingly, this issue will be raised directly with the Board at the hearing on this matter.

I note also that this request is not for purposes of correction of a technical notice error alone; my clients wish to present substantial evidence to staff and the Board that (a) Fire Station 30 is an inappropriate location for the 185' monopole and (b) that the applicant actually had several other locations under consideration that would have been more than adequate for its purposes and would not have presented the setback deficiency that previously resulted in rejection of this 1.47 acre site for a considerably lower tower. A restarting of the clock will facilitate our presentation of these facts and circumstances to staff and the Board, as well as staff's ability to evaluate more comprehensively an application whose review to date by the Tower Committee has been confined solely to technical considerations.

Please advise me as soon as possible of your decision on my request.

Very truly yours,

David W. Brown

cc: Joshua Penn, <u>Joshua.Penn@montgomeryplanning.org</u>

Richard Weaver. Richard. Weaver@montgomervplanning.org

Judy Miller, Judy.Miller@montgomerycountymd.gov

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#### KNOPF & BROWN

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WRITER'S DIRECT DIAL

Sole Practitioner

DAVID W. BROWN

March 13, 2018

#### Joshua.Penn@montgomervplanning.org

Joshua Penn, Planner Montgomery County Planning Department 8787 Georgia Avenue Silver Spring, Maryland 20910

Re: Montgomery County Radio Communications Services

Mandatory Referral Application, MR2018012

#### Dear Joshua Penn:

This letter follows up on my letter of February 16, 2018 to the Planning Director on the above-referenced mandatory referral application, on behalf of my clients, the West Montgomery County Citizens Association, and Mr. C. O. North, a homeowner who resides immediately adjacent to Fire Station #30, also known as the Cabin John Volunteer Fire Department Station, at 9404 Falls Road, Potomac, Maryland 20854, the property that is the subject of this Mandatory Referral. My purpose is to provide you additional information we consider relevant to preparation of the staff report to the Planning Board.

#### Prior Monopole Application

Enclosed for your reference is a copy of the 1996 Board of Appeals Opinion cited in my prior letter for our point that this very location had earlier been rejected as unsuitable for a 120 telecommunications tower by the Board of Appeals. (Attachment 1).

#### Current Application: Alternative Sites Considered

Also enclosed for your reference is an excerpt from the current RCS application for a monopole at the Fire Station. In the application, RCS was required to list "alternative sites considered and [provide] an explanation as to why each possible alternative was not selected." The RCS response (p.5) was as follows:

Other properties investigated for potential new build sites include Falls Road Golf Course, with whom no agreement could be reached; the Bolger Center, which was not interested; the Madeira School in Fairfax County, which was not interested; Riverbend Park, which Joshua Penn, Director, MNCPPC March 13, 2018 Page 2

was not interested; and the MCPS property on Brickyard Road, to which RCS was told the property is being reserved for a future school, and MCPS does not permit towers on School properties. (Attachment 2).

This description was amended slightly later in the application (p.51) to indicate that the Falls Road Golf Course "declined to offer space." Not included in this list, by disclosed by RCS at its public meeting on the project as a prime candidate for tower location, is the WSSC Water Filtration Plant on River Road.

Despite the inclusion of this information in the application, the Tower Committee's consideration of it, as you are no doubt aware, was limited to evaluating whether the proposed tower met the technical communication requirements associated with the location chosen. If the alternative sites had a coverage inadequacy problem due to radio frequency issues, such was to be disclosed. None of the alternative sites were identified as presenting technical coverage issues.

As you are also likely aware, in keeping with the technical role of the Tower Committee's work, the Committee meetings where applications are reviewed are not open to public comment, and the Committee does not evaluate applications from the point of view of land use compatibility, whether the application is thereafter headed to the Office of Zoning and Administrative Hearings (OZAH) for limited or conditional use review, or, as in this case, to the Planning Board for Mandatory Referral review.

#### Mandatory Referral on the Burtonsville Tower

The staff report submitted to the Board for the March 8, 2018 Mandatory Referral hearing for the RCS tower proposed for Burtonsville evaluated the tower in terms of compliance with the use requirements for a telecommunications tower in the RC zone, where it is to be located. The staff report explained that the standards in Section 3.5.2.C. of the Zoning Code "provide the best guidance to inform this report." *Id.* at 9. In that case, there was some uncertainty whether to apply the limited use standards of 3.5.2.C.a or the conditional use standards of 3.5.2.C.b., and both were discussed. In this case, the subject property, Fire Station #30, is in the RE-2 zone. Hence, we anticipate that you will evaluate the proposed Fire Station #30 tower exclusively with respect to 3.5.2.C.b., as a telecommunications tower is allowed in the RE-2 zone only as a conditional use.

We therefore commend for your consideration the OZAH Hearing Examiner's March 7, 2018 Report recommending denial of an application for a telecommunications tower for Verizon Wireless on Gainsborough Road in Potomac, Maryland, OZAH Case No. CU-T-17-01 (cover page only enclosed (Attachment 3); the rest of the 96-page report is available on the OZAH website). The subject property in the Verizon case is, like the Fire Station #30 property, in a residential zone within the area covered by the Potomac Subregion Master Plan. Hence, I urge you to carefully evaluate the Hearing Examiner's negative analysis of compliance with both Section 3.5.2.C.b. and

Joshua Penn, Director, MNCPPC March 13, 2018 Page 3

the Potomac Subregion Master Plan. We believe those negative analyses should inform and control the result in this case as well.

More generally, we believe that on review in this application of the eight land use and planning aspects highlighted for consideration in Part VI of the Board's Uniform Standards for Mandatory Referral Review, those considerations weigh strongly in favor of a denial recommendation. Among its major deficiencies, the project is not consistent with the Potomac Subregion Master Plan (1); it is not consistent with the intent and requirements for a telecommunications tower conditional use in the RE-2 zone (2); the size, scale, height and location of the tower is not compatible with the surrounding neighborhood properties (3); and, despite the project's glaringly obvious adverse impacts, there has been no consideration of available and workable alternative locations (8).

#### Conclusion

We assume your report in this instance will generally track the analytical methodology employed in the Burtonsville report and also evaluate it in terms of the land use considerations in the Uniform Standards. We note also that should the Planning Board adopt a negative recommendation on the project tied to its land use and planning deficiencies, the alternative site disclosures made by RCS in the course of pursing their Fire Station #30 application, enumerated above, point to several technically suitable alternatives that, in our view, have a strong likelihood of earing a positive recommendation from you and the Planning Board under your evaluative framework.

Very truly yours.

David W Brown

BOARD OF APPEALS for MONTGOMERY COUNTY

Stella B. Werner Council Office Building 100 Maryland Avenue Rockville, Maryland 20850 (301) 217-5600

Case No. S-2154 and A-4260

PETITIONS OF AMERICAN PCS, L.P.

(BY: MARGARET C. RUGGIERI)

(Hearings held September 20 and November 28, 1995)

OPINION OF THE BOARD (Effective date of Opinion, January 22, 1996)

"The policy that establishes certain uses as permitted is predicated upon the satisfaction, not avoidance, of conditions. Conditions the legislative body attaches to the granting of a conditional use normally must be met in accordance with the statute - not avoided." Cathell, J. in Chester Haven Beach Partnership, Board of Appeals for Queen Anne's County 104 Md App 324, 653 A.2d. 532 (1995).

The applicant, American PCS, L.P., has proposed to construct a monopole on the property of the Cabin John Volunteer Fire Station in Potomac, Maryland, "in order to properly serve the area within a two mile radius around the proposed site" (A-4260, Exhibit No. 3). American PCS is licensed by the Federal Communications Commission as an operator in Personal Communications Service to provide service in the Washington Metropolitan area. In addition to the monopole itself, the PCS station will involve an equipment shelter. The monopole structure (reduced to the height of 120 feet at the time of the hearing) will involve eighteen panel-type antennas, 4 communication link dishes and 4 omni whip antennas.

In order to accommodate this base station, the applicant requested that this Board:

- 1. Grant it a special exception pursuant to Section 59-G-2.43 (Public Utility Buildings and Public Utility Structures).
- 2. Grant it a variance of 40 feet from the rear (north) lot line as the monopole is within 80 feet of that line. The required setback, pursuant to Section 59-G-2.43(d), is 120 feet.

Both the special exception and variance applications were accompanied by extensive technical documentation. The applicant is not the owner of the property, but the applications were based on a 10 year lease with the Cabin John Volunteer Fire Department, Inc.

Case Nos. 5-2154 land A-4260

- 2 -

The subject property is Part of a tract of land called Cool Spring Level Subdivision, Cabin John Park Volunteer Fire Station, No. 30, located at 9404 Falls Road, Potomac, Maryland, in the R-200 Zone (Tax Account No. 1000850052)

In its application for variance (Exhibit No. 1) the applicant stated the narrowness and shallowness of the property as the basis for the variance claiming that "the property is so small that it is not possible to locate a tower anywhere on the property and meet this setback requirement." The claimed practical difficulty if the requested variance were not to be granted was stated as follows: "American PCS, L.P. would not be able to provide service to this area of Montgomery County as required under the provisions of its FCC license" (ibid). The original application envisioned a 190 foot monopole. The parcel on which the substation is to be located is irregular in shape - its rear line is 271 feet long, its front property line measures 329 feet. Its two, side property lines measure 215 feet and 219 feet. The total area of the lot is 1.47 acres. The firehouse is located on the subject property. There is no evidence - and no claim is made, that any characteristic of the property impedes the operation of the fire company.

The applicant claimed uniqueness for the project because "the fire station has declined to accept ownership of the monopole. If it had accepted ownership of the monopole, then no special exception and no setback variances would be required. Because of their own unique reasons and their reluctance to accept ownership of the pole, it causes American Personal Communications to file for both a special exception and for a setback variance." (Application, Exhibit No. 3.)

#### PLANNING BOARD AND STAFF RECOMMENDATIONS

#### The Staff

The Staff recommended denial based chiefly on the size of the lot "Given the height of the monopole, the structure will be visible to the surrounding neighborhood. By at least providing the minimum setback requirement for these facilities, there is greater mitigation of the visual intrusion."

#### The Planning Board

The Board unanimously recommended denial. It stated its belief "that the site is too small for the proposed pole." It noted the pendence of a comprehensive study of the monopole problem and stated "we believe we would be setting a bad precedent to recommend that a variance be granted for an individual application just before the comprehensive study is released."

#### EVIDENCE AT THE HEARINGS

Hearings were held on September 20, 1995 and November 28, 1995. James R. Michal, Esquire, represented the applicant and presented witnesses. Howard J. Thomas, Esquire, represented the Potomac Falls Homeowners Association and a number of individuals. The Board notes that the opposition had not presented all of its witnesses when the hearing came to a close and that there were individuals in the audience who were not represented by Mr. Thomas, who also wished to speak.

Case Nos. S-2154 and A-4260

#### a. The Applicant's Case

Peter Broy, Project Director and Zoning Manager, testified that he was involved in the preparation of the application. He searched for a site and found the fire station site "as a potentially suitable site for our PCS base station," because it already had a monopole used by the fire department and, "most importantly," it was within the Potomac community which the applicant wished to serve. The original application specified 190 feet for the height of the tower because the applicant had planned to accommodate another carrier on this tower as well as County-use antennas. Following meetings with citizen's groups, the applicant investigated the availability of Heritage Farm Park and other properties, as well as the Krishna property, consisting of some 12 acres. The Krishna property would not have required a variance, but its Board of Directors declined the applicant's request to locate the facility on the property.

The applicant flew balloons to test the visibility of the tower from neighboring properties. One of the balloons was 5 feet in diameter and the other balloon was 1 foot in diameter. The balloons were flown to a height of 140 feet and 120 feet. The applicant introduced a series of photographs demonstrating the relative visibility of these balloons.

There is no place on the subject site on which the monopole could be located without requiring a variance. The small size of the lot resulted from a 1970 dedication of property for Falls Road. Other parcels in the neighborhood were not subject to the same dedication.

When the proposed height of the monopole was reduced to 120 feet, the applicant applied for, and received, another special exception for a monopole in Potomac Village to compensate for the reduction. The fire department has maintained a monopole of its own on the subject property for the past 17 years.

Mr. Broy has traveled in the neighborhood. He testified that a number of properties are heavily wooded and the applicant's monopole would not be visible from many of the properties. The applicant does not plan to install lights on the tower.

Mr. Broy testified that he had attempted to contact other property owners without success. He was unable to take measurements of the existing fire department's tower, but he believes that it is 95 feet high. He agreed, on cross-examination that the existing tower can be seen from several nearby properties. The owner of the north property would have a "direct and clear" view of the fire-company property. The applicant knew, when it entered into the lease, that there would be a problem in meeting the setback requirements. The applicant had made no investigation as to the availability of any undeveloped land for the proposed monopole, although Mr. Broy believes that two acre sites, or larger, are available for sale in the area.

Farhad Dastfan, the applicant's manager of RF Engineering, testified that the service provided by the applicant is not classified by the FCC as "broadcasting." The power level of the facility would be very low and would meet the applicable radiation safety standards. The applicant has been operating 300 similar sites and has had no radiation complaints. While the Potomac Village site provides coverage for the Village, there is no coverage outside the Village. A tower in the 120-140 foot range is needed to provide adequate and continuous service to the area.

- 3 -

The proposed facility will have no on-site personnel, except for periodic visits for maintenance. Without the requested facility there will be no coverage between MacArthur Boulevard and Potomac Village.

The applicant is not the only licensed operator in the PCS service area and the FCC is expected to license more carriers to provide that service.

#### b. The Opposition's Case

George Barnes, the Zoning Chairman of the West Montgomery County Civic Association, testified that the site is too small for the proposed use. The owner of the property, the fire department, is not experiencing any difficulties in adequately serving the community. The proposed use is too massive for the area. Mobile service is now available from Nextel so that the area is not devoid of such service and more carriers are on the way.

C. O. North, an adjoining landowner, made a lengthy statement and submitted extensive written material (Exhibit No. 48).

#### His contentions were:

- 1. The approval of this project will prevent the eventual conversion of the firehouse into a single family home, an outcome anticipated since the firehouse was constructed.
- 2. The lease between the fire department and the applicant is not legal because the former did not comply with all legally required steps.
- 3. The grant of the variance would violate Maryland judicial precedents i.e. the <a href="Cromwell">Cromwell</a> and <a href="Chester Haven">Chester Haven</a> decisions.
  - 4. The applicant needs two variances, not one, as requested.
- 5. As a mere prospective <u>lessee</u>, the applicant has no standing to request a variance, a privilege reserved only to <u>owners</u>.
- 6. Setback requirement cannot be granted for commercial property adjoining residential land unless the adjoining land is proposed for commercial use in the Master Plan, a fact which does not exist in this case.
  - 7. The selected location is necessary to provide the service.
- 8. The proposed use is "massive and ugly" and out of scale with the neighborhood.
  - 9. The proposed use may pose a danger to the neighborhood from falling ice.
- 10. The proposed use may pose health hazards form "exposure to combined transmissions from twenty six antennas."

- 11. The proposed use makes the fire house more intrusive and may create noise, odors and vibrations.
- 12. The proposed use will cause a decline in property values. " ... While towers such as that proposed may not in every case adversely impact the value of some houses in other neighborhoods, buyers of more expensive homes tend to be more demanding."

At the conclusion of Mr. North's testimony, the Chairman scheduled an oral argument dealing solely with the question of the variance, with the understanding that the opposition could resume its case if the variance issue is decided favorably to the applicant.

#### THE BOARD'S CONSIDERATION AND RULING REGARDING THE VARIANCE

On the first day of the hearing, September 20, 1995, following Mr. Broy's testimony, Board member, William Green inquired of the appellant as to information it proposed to submit pertaining to the variance request. Counsel for the applicant responded that Mr. Broy is the only witness who had information regarding the need for a variance (T. 69). (The full text of the colloquy (T.69-72) is attached).

At the morning session of November 28, 1995, following Mr. North's testimony, the Chairman scheduled an oral argument for the afternoon solely on the issue of whether the variance should be granted, because if the variance were to be denied, there were no reasons to go on with the case.

At the argument, appellant's position was:

- 1. No variance is required for the facility, and
- If a variance is required, the applicant has met its burden of making the necessary showing.

#### The Need for a Variance

The applicant argued that it is exempt from the setback requirement of one foot of distance from the property line for each foot of height because the section imposing that requirement applies to "broadcasting" towers. Because the FCC does not classify cellular communications as "broadcasting," the applicant contended that it is not subject to the 1 to 1 requirement. Had the County Council intended to apply to the 1:1 rule to all towers it would not have, in 1970, used the term "broadcasting."

#### Meeting of Requirement for Variance

The applicant argued that the subject property is unique because it is currently used for non-residential use (fire house) although it, and its surroundings, are zoned residential. It now houses an existing tower while the surrounding properties do not. The present size and configuration of the property are the result of a 1970 road taking, while other properties have not been so diminished.

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The variance is the minimum necessary to accomplish the public necessity of providing cellular communication to the area. Contrary to the opposition's claims, the project will not be detrimental to the adjoining properties.

The opposition argued that the question of a need for a variance has been mooted by the applicant's failure to appeal the denial of the building permit application for failure to meet the setback requirement. Moreover, the Federal terminology ("broadcasting") does not control land use decisions in Montgomery County in the absence of a specific reference thereto.

Under Maryland judicial decisions the applicant must prove uniqueness of the subject property. There is nothing unique about this parcel.

The project <u>will</u> be detrimental to the neighbors' properties and the applicant's own gradual reduction in the requested heights of the tower indicates that this may not be the absolute minimum requirement.

#### DISCUSSION BY THE BOARD

#### Is a Variance Required?

The applicant's argument that no variance is needed misses the point of the issue before this Board. The applicant has come to this Board and requested a variance and the Board must decide whether or not to grant the applicant's request. To argue that no variance is needed does not advance the applicant's plea that the variance should be granted.

Moreover, the Board specifically notes that on January 19, 1995, the Department of Environmental Protection (DEP) denied the applicant's building permit application because it failed to meet the 1:1 setback requirements (Exhibit No. 7 of Case A-4260). The applicant did not challenge that determination. This was the juncture of the proceedings at which the argument should have been made that the 1:1 rule does not apply to this project because it does not involve "broadcasting." This the applicant failed to do. It cannot cure that failure.

Moreover, neither the application for a variance nor the underlying "justification" even raised the issue of the need for a variance (Exhibit Nos. 1 and 3, Case No. A-4260).

The question of timeliness aside, the Board finds no merit in the claim that the term "broadcasting" in the Ordinance limits its applicability to the FCC designated definition. The applicant has submitted no information to show that when it enacted this provision, the Council had intended to conform the Ordinance to the Communications Act of 1934, or that the Council was ever aware of that technical definition. As a practical matter, the apparent need for the 1:1 rule is the provision of safety to the neighbors in case the tower collapsed. This being the case, the nature of the material being transmitted is irrelevant unless, of course, the applicant would argue that a tower transmitting hard rock music is more likely to collapse than a tower transmitting a telephone call from a man telling his wife that he will be late for the theater.

Case Nos. S-2154 and A-4260

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Under those circumstances, the Board determines that the applicant's project is NOT EXEMPT FROM THE 1:1 SETBACK REQUIREMENT.

## Does the Applicant Meet the Legal Requirements for a Variance?

In line with the Court's admonition in <u>Cromwell v. Ward</u> 102 Md App 691 (1995) we first consider whether "The subject property is unusual or unique". Our own Zoning Ordinance requires such a finding (59-G-3.1(a)).

No claim is made that the subject property's <u>topography</u> causes the need for a variance. The size and shape of the lot are the cause of the problem. There is no evidence that the shape and size of the lot are unique in the area. Section 59-C-1.43(a) permits a minimum lot size of 15,000 square feet in the R-200 Zone. However, Mr. Broy, himself, testified that the applicant knew that a variance would be required for the subject property when it signed the <u>conditional</u> lease. (See par. 3 of lease, Exhibit No. 6). Mr. Broy has testified that the applicant had not investigated the availability of undeveloped land for its proposed use.

We also note, in passing, that the <u>owner</u> of the property, the fire department, is not experiencing any difficulties in its own operations.

The applicant's argument that the property is "unique" because it is the only property in the area on which a fire house is located, has been disposed of by the Court in North v. St. Mary's County 99 Md App 502 (1994), "In the Zoning context the 'unique' aspect of a variance requirement does not refer to the extent of improvements upon the property or upon neighboring property" at p. 512.

Insofar as the fact that the portion of the subject property has been dedicated for Falls Road, that dedication took place some 20 years ago and all properties along Falls Road are subject to the same dedication requirement at the time of subdivision.

Giving additional support for denial is the fact that the applicant, a contract lessee, knew of the need for a variance when it signed the contract and, thus, can hardly be heard to complain of a practical difficulty, since all the factors of that "practical difficulty," existed at the time of the contract.

The Court in <u>Cromwell v Ward</u>, <u>Supra.</u>, cited the decision of the Supreme Judicial Court of Maine, <u>Sibley v. Inhabitants of the Town of Wells</u> 462 A.27 (1983), which held: [W]hen a landowner purchases land with actual or constructive knowledge of the Zoning restrictions, he may not be granted a variance on the grounds of undue hardship." (<u>Cromwell</u> at p. 717).

Under these circumstances the Board determines that the variance request must be denied. The Board notes, parenthetically, that the applicant has not conclusively demonstrated that the subject property is the only one in the neighborhood from which service can be rendered to the area.

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## THE BOARD'S CONSIDERATION AND RULING ON THE SPECIAL EXCEPTION

In the preceding portion of this opinion the Board determined that the variance request must be DENIED.

In Chester Haven, supra., the Court held:

" ... if the variance process fails, the entire [special exception] application fails."

Because the special exception depends on the grant of the variance, that request having been denied, the special exception which depends on the grant of the variance must also be denied.

The Board adopted the following Resolution:

BE IT RESOLVED by the Board of Appeals for Montgomery County, Maryland, that the opinion stated above be adopted as the Resolution required by law as its decision on the above entitled Appeal.

On a motion by William Green, seconded by Allison Bryant, with, Helen Strang in agreement, the Board adopted the above Resolution. Judith B. Heimann was a member of the Board at the time of the decision and concurred in the foregoing Resolution. K. Lindsay Raufaste was a member of the Board at the time of the decision. She was not present at the second hearing and did not participate in the foregoing Resolution Judy Clark and Susan Turnbull were not members of the Board at the time of the decision and did not participate in the foregoing Resolution.

I do hereby certify that the foregoing Opinion was officially entered in the Opinion book of the County Board of Appeals this 22nd day of January, 1996.

Tedl S. Osias

Executive Secretary to the Board

NOTE: Any decision by the County Board of Appeals may, within thirty (30) days after the decision is rendered, be appealed by any person aggrieved by the decision of the Board and a party to the proceeding before it, to the Circuit Court for Montgomery County in accordance with the Maryland Rules of Procedure.

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If not, describe results of investigation about possible co-location. Include a listing of alternative sites considered and an explanation as to why each possible alternative was not selected. If a site was ruled out because of radio frequency (RF) issues, provide RF propagation maps documenting inadequate coverage:  There are no existing towers within a mile of the subject site. There are two towers to the south approximately 1.5
miles away: a 135' monopole registered to Crown Castle at 10010 Oaklyn Drive, and a 130' monopole registered to
American Tower at 11511 MacArthur Blvd. With existing installations on both towers, they would be unable to
accommodate the space required for the proposed equipment at a height above the prevailing tree line. In addition,
the necessary microwave pathing would be unavailable at any height attainable with normal construction methods,
given the low height of the towers and the fact that both towers are at a lower ground elevation. A third tower is
located at Bullis School, a 130' monopole registered to Crown Castle; it is similarly too low and is almost two miles
from the subject site, exacerbating the height issues.
The existing 90' flaggole at the subject site is far too low to provide the required coverage and microwave pathing.
As part of this project, it is anticipated to be decommissioned,
Other properties investigated for potential new build sites include Falls Road Golf Course, with whom no agreement
could be reached; the Bolger Center, which was not interested; the Madeira School in Fairfax County, which was
not interested; Riverhend Park, which was not interested; and the MCPS property on Brickyard Road, to which RCS
was told the property is being reserved for a future school, and MCPS does not permit towers on school properties.
Justification of why this site was selected; This site was selected because existing towers in the area lacked the
necessary height. The the proposed site is an ideal location to cover both inland areas and the river. Existing tree
cover along in the area will screen the proposed tower from most views.
The location was selected to work in concert with the rest of the 800 MHz public safety system. As part of the
PSSM project, this site will be integrated into a network of fixed, interconnected sites, 11 of which are existing
today and 11 of which are planned new sites for expansion. These 22 sites are sited relative to each other and to
County geograpy to ensure effective radio connectivity as mandated County-wide,
Will site be used to support government telecommunications facilities or other equipment for government use?  Yes  No
If yes, describe: Montgomery County Public Safety Radio System
Attach a site plan of the proposed facility showing location of monopole, tower, or structure on the property, location of existing and proposed equipment buildings or cabinets, and distance of any new structures or buildings from property lines and other buildings or residences within 300 feet. Clearly identify existing versus proposed facilities by carrier. Also provide an elevation sketch of the structure showing major dimensions, existing attachments, and mounting height of proposed antennas. If a balloon test has been performed, please provide copies of the photographs.

Will the antenna installation be in compliance with the maximum permissible RF exposure limits set forth in §1.1310 of the FCC Rules and Regulations? Yes No \( \subseteq \text{No} \subseteq \text{No} \subseteq \text{No} \subseteq \text{No} \subseteq \text{If the answer is no, please attach an explanation.}
Type of compliance study required under §1.1307 of the FCC Rules and Regulations:  Categorically Excluded  Routine Environmental Evaluation  Environmental Assessment
If antennas will be located on a rooftop, please attach a description of any steps that have been or will be taken to prevent the aggregate RF from exceeding exposure limits.

## OFFICE OF ZONING AND ADMINISTRATIVE HEARINGS Stella B. Werner Council Office Building Rockville, Maryland 20850 (240) 777-6660

IN THE MATTER OF	4:	
CELLCO PARTNERSHIP	: :	
d/b/a VERIZON WIRELESS and	:1:	
EAST GATE RECREATION ASSN., INC.	<b>:</b>	
Applicants	<b>#</b> :	
William Landfair, Philip Savard,	*	
Brian Siverling, Robert Posilkin, Esq.	:k	
Paul Dugan, Robert Steere	1/2	
For the Application	##	
Cathy Borten, Esquire	+	
Greg Diamond, Esquire	¥:	
Thomas Barnard, Esquire	H:	
Elizabeth Cappiello, Esquire	altr	
Attorneys for the Applicants <sup>1</sup>	*	
*********		OZAH Case No. CU-T-17-01
Howard & Monica Finkel,	*	
Greer Dellafiora, Jeanine Resnick,	#	
Ac Tedesco, Annette Perlin, Dana Ettinger,	भेद भेद	
Geralynn Franceschini, Jamie Perry	ैं: #:	
William J. Chen, Jr., Esquire	:: :::	
Attorney for Adjacent Property	sk:	
Owners opposing the Application		
Grace Chen, Alan Privot, Brian Pashkoff,	#	
Cheryl Wetter, Don Pace, Jessica Bejaranno,	*	
Carolyn Tebo, Jerry Garson (for the SLCA),	4.5	
Susanne Lee (for the WMCCA), Fatima	:	
	*	
Beth Lilienstein, Marilynn Leon, Terrance	#:	
McPherson, Ronald Danielian, Lawrence	181	
Monroe, Russell Reese and Joe Davis	#	
Witnesses Opposing the Application	*	
*****	41	
Before: Tammy J. CitaraManis, Hearing Examiner Office of Zoning and Administrative Hearin	gs	
	_	

## HEARING EXAMINER'S REPORT AND DECISION

<sup>&</sup>lt;sup>1</sup> Ms. Borten and Mr. Diamond represent the Applicant, Cellco Partnership d/b/a Verizon Wireless (Cellco). Mr. Barnard and Ms. Cappiello represent the Co-applicant, East Gate Recreation Association, Inc. (East Gate).

Montgomery County Planning Department

March 26, 2018

The Maryland-National Capital Park and Planning Commission

8787 Georgia Avenue

Silver Spring, MD, 20910-3760

Attention: Mr. Joshua Penn

Ref: Mandatory Referral Notice-MR2018012-PSSM at Fire Station #30

Dear Mr. Penn,

Thank you for the above notice advising us of a hearing date (April 12) regarding a County proposed project, to construct a 185 feet tall communications tower adjacent to our house, at the Fire Station #30 located at 9404 Falls Road in Potomac.

We are deeply concerned about the proposed project for the following reasons:

First, the project ignores the original context within which the Fire Station #30 was meant to operate when it was first constructed in the 1970s.

The Fire Station was meant to operate as a small "satellite" station, to blend with the tranquil and rustic setting of the surrounding neighborhoods. The same context was conveyed to homeowners such as ourselves when we purchased our house in 1984.

Over the years the Fire Station has expanded substantially. Viewing it from our family room, there is a large 4-bay building to house the fire engines, a large shelter, a wire-fenced building, a large waste dumpster and a parking lot with an average of 10-12 parked cars.

Second, the project ignores the efforts by the neighborhoods which resulted in stopping the construction of a 130 feet tall tower.

About 2008, the Fire Station decided to invite a cellular provider to lease part of its land to build a 130 feet tower. The community appealed to the Board of Zoning Appeal, arguing that such a visible structure on a small lot would damage the residential character of the neighborhood. The BZA rejected the construction of 130 ft tower.

Third, the project ignores the adverse effects it would potentially have on our health, safety and property.

While the BZA rejected the construction of a 130 feet tower, the construction of a 185 feet tall tower simply exacerbates the adverse effects mentioned above, and more:

- a) If this tower falls, it will destroy our family/laundry/or dining room, depending how it might fall.
- b) There is a danger of being exposed to Electro Magnetic Emission, which could have a health implication as well as negatively impacting the value of the property. In fact, the project documents specifically require the contractor to acknowledge the risk of being exposed to EME.
- c) Ice is known to form on tall monopoles and then fall off in sheets under certain conditions. I understand that County has a usual requirement of "no closer than 300' from a residence". As such, this tower places our house at risk of such events.

In summary, the proposed project results in our family having the view of--in addition to facilities already there--an unsightly 185 feet tall tower with two platforms each 21 feet wide, generator of 100 kw, and a 12 ft by 30 feet shelter. Our property with such an industrial view across its fence, with potential of the tower falling on the house, and the risk of being exposed to EME, surely will be heavily discounted when it is put in the market.

As responsible citizens who have been living in this house for 34 years, we respect the need for projects which enhance the safety and security of our neighborhood, and are grateful for the volunteering services provided by our firemen, but there must be other locations which yield better cost-benefit.

With regards

Mr. and Mrs. M. M. Farhandi 9401 Firethorn Court Potomac, MD, 20854

Site	Address	Existing Tower Height	New Tower Height Required	River Coverage Rank	Coverage Reliability 95%	Microwave Path Antenna Height	Reason site was rejected
Chosen Tower							
Fire Station 30	9404 Falls Rd, Potomac, MD	100'	185'	1 (tied)	Acceptable	180' to Bethesda 180' to NRC	Selected. Reaches coverage target, tied for best river coverage. Favorable lease terms with lease funds paid to local volunteer fire department.
Potomac Candidates							
Crown Castle monopine at Avenel Golf Course	10010 Oaklyn Dr, Potomac, MD	130' monopole	160'	3	Acceptable	145' to Bethesda 155' to NRC	Tower would need at least 30' extension, which Crown Castle states is not feasible at this site. Per Ken Hartman, Regional Director, Community Association would not permit a second tower in this location.
Crown Castle monopole at Bullis School	10601 Falls Rd, Potomac, MD	130' monopole	155'	4	Acceptable	150' to Bethesda 130' to NRC	Tower would need at least 25' extension, which Crown Castle states is likely not feasible here. Landlord gets 45% revenue share that would need to be passed along to the County in rent fees.
Crown Castle monopole at Fire Station 33	11430 Falls Rd, Potomac, MD	150' monopole	N/A	10	Not Acceptable	N/A	Does not reach coverage goal. Poor river coverage.
ATC managed rooftop	10221 River Road, Potomac, MD	rooftop 26'	200'	6	Acceptable	190' to Bethesda 195' to NRC	Microwave pathing cannot be achieved at this site without an extension 175' above the roof, which cannot support a tower of that height. Poor river coverage.
ATC managed rooftop	10001 Georgetown Pike, Great Falls, VA	14' rooftop	N/A	5	Not Acceptable	N/A	Does not reach coverage goal.
ATC monopine near Great Falls Park	11511 MacArthur Blvd, Potomac, MD	130' monopole	N/A	2	Not Acceptable	N/A	Does not reach coverage goal.
ATC Site 10001 - Blockhouse Point Rd.	14100 River Rd, Potomac, MD	143' monopole	N/A	8	Not Acceptable	N/A	Does not reach coverage goal. Poor river coverage.
WSSC Potomac Filtration Plant	12200 River Rd, Potomac, MD	Existing tower not available	325'	7	Not Acceptable	320' to NRC	WSSC has not given the County space to build a tower at this site because expansion plans mandated by the State have not been finalized. Does not reach coverage goal.
Falls Road Golf Course	10800 Falls Rd, Potomac, MD	Existing tower cannot be used. New tower required.	350'	1 (tied)	Acceptable	350' to Bethesda 320' to NRC	Existing tower at the site does provide sufficient coverage or microwave pathing. A new tower would be required at 350'. New tower at this height is much higher impact on heighborhood than at Fire Station 30.

