

City of Syracuse
Office of Zoning Administration

**ANTENNA / TOWER / SATELLITE DISH
APPLICATION**

City Hall Commons - Room 500 * 201 E. Washington Street * Syracuse, NY 13202-1426
315-448-8640 * [zoning@syr.gov.net](mailto:zoning@syr.gov) * www.syr.gov.net/Zoning.aspx

Office Use _____ Filing Date: _____ Case: _____ Zoning District: _____

REQUESTED (Check applicable and briefly describe.)

Type	Proposed or Upgraded	Location
<input checked="" type="checkbox"/> Antenna:	Proposed	947 Pond Street, Syracuse, NY, 13208
<input type="checkbox"/> Tower:		
<input type="checkbox"/> Satellite Dish:		

<u>TAX ASSESSMENT ADDRESS(ES)</u>	<u>TAX MAP ID(S)</u> (000.-00-00.0)	<u>OWNER(S)</u>	<u>DATE ACQUIRED</u>
1) 947 Pond Street, Syracuse, NY, 13208	Tax Map 006.-12-53.01	Syracuse Housing Authority	1973
2) _____	_____	_____	_____
3) _____	_____	_____	_____
4) _____	_____	_____	_____

As listed in the *Department of Assessment property tax records* at <http://syr.gov.net/Assessment.aspx> - 315-448-8280.

COMPANION ZONING APPLICATION(S) (List any related City Zoning applications, if applicable, e.g., Resubdivision, Special Permit, Project Site Review, etc.)

1) N/A _____ 2) _____ 3) _____

PROJECT DESCRIPTION (Provide a brief description of the project, including and purpose or need, and justification.)

Tilson Technology Management, Inc., ("Tilson") on behalf of Dish Wireless, LLC, ("Dish"), is applying to locate six (6) communications antennas on the rooftop located at 947 Pond Street, Syracuse, NY, 13208.

ANTENNA						
Proposed or Upgrading	Installation (building or tower)	Antenna Support Structure Construction (describe)	Total Number of Antennas	Total Antenna Structure Height (feet)	Building Installations	
					Base Antenna Height Above Grade (feet)	Maximum Antenna Height Above Roof Line (feet)
Proposed	building	panel antenna mounts	6	7		4

TOWER							
Proposed or Upgrading	Number of Service Providers	Construction Type (monopole, lattice work, guyed support, etc.)	Maximum Tower Height (feet)	Minimum Distance to Property Boundary (feet)	Color	Lighting	Accessory Equipment / Enclosure / Pad / Building (type and square feet)

SATELLITE DISH					
Proposed or Upgrading	Total Number on Property	Diameter (feet)	Location (ground / building / roof)	Distance to Street Line (feet)	Base Height Above Grade (feet)

City of Syracuse Office of Zoning Administration

PROPERTY OWNER(S) (required)

As listed in Department of Assessment property tax records (<http://syrgov.net/Assessment.aspx> - 315-448-8280). If not listed as the owner, please provide proof of ownership, e.g., a copy of the deed. Attorney's signing on behalf of the owner must include a letter describing the legal arrangement. If the property owner is a Corporation or Organization, the person signing must provide member verification. **Contract purchasers, tenants, architects, engineers, contractors, etc. CANNOT sign on behalf of the owner.**

William	Simmons	Executive Director	Syracuse Housing Authority		
<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
516 Burt Street		Syracuse	NY	13208	Phone: 315-470-4210
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i> wsimmons@syracusehousing.org

* Signature: *See letter of authorization* Date: 08/18/2021

<i>Melanie Dorn</i>					
<i>8/18/2021</i>					
<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
					<i>Phone:</i>
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i>

* Signature: Date:

<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
					<i>Phone:</i>
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i>

* Signature: Date:

<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
					<i>Phone:</i>
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i>

* Signature: *Melinda* Date: 8/18/2021

*** OWNER SIGNATURE DECLARATION**

I understand that false statements made herein are punishable as a Class A Misdemeanor, pursuant to section 210.45 of the Penal Law of the State of New York. I declare that, subject to the penalties of perjury, any statements made on this application and any attachments are the truth and to the best of my knowledge correct. I also understand that any false statements and/or attachments presented knowingly in connection with this application will be considered null and void.

APPLICANT(S) (if applicable)

			Dish Wireless, LLC		
<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
5701 South Santa Fe		Littleton	CO	80120	Phone: (610) 858-5493
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i> chelsea.walters@dish.com

Melanie	Dorn	Staff Attorney	Tilson Technology Management, Inc.		
<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
16 Middle Street	Fourth Floor	Portland	ME	04101	Phone: 5087891871
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i> mdorn@tilsonotech.com

REPRESENTATIVE(S)/CONTACT(S) (if applicable)

16 Middle Street	Dorn	Staff Attorney	Tilson Technology Management, Inc.		
<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
16 Middle Street	Fourth Floor	Portland	ME	04101	Phone: 5087891971
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i> mdorn@tilsonotech.com

<i>First Name</i>	<i>Last Name</i>	<i>Title</i>	<i>Company</i>		
					<i>Phone:</i>
<i>Street Address</i>	<i>Apt / Suite / Other</i>	<i>City</i>	<i>St</i>	<i>Zip</i>	<i>Email:</i>



SYRACUSE HOUSING AUTHORITY
Building Neighborhoods, Growing Dreams.

August 13, 2021

**RE: Owner Authorization to Submit Applications for Required Permits and Regulatory Approvals Tower Owner: Syracuse Housing Authority
Tower Tenant/Lessee: Dish Wireless, LLC**

To Whom It May Concern:

This letter authorizes Dish Wireless, LLC, and their agent, Tilson Technology Management, Inc., to apply for all necessary permits in order to add an additional communications antenna array and related equipment to the rooftop of the building that the undersigned owns, located at

947 Pond St., Syracuse, NY 13208.

Sincerely,

A handwritten signature in blue ink, appearing to read 'William J. Simmons', is written over a horizontal line.

Mr. William J. Simmons,
Executive Director
wsimmons@syrhousing.org ;
ecorrea@syrhousing.org
Ofc. 315-470-4210



Short Environmental Assessment Form

Part 1 - Project Information


Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

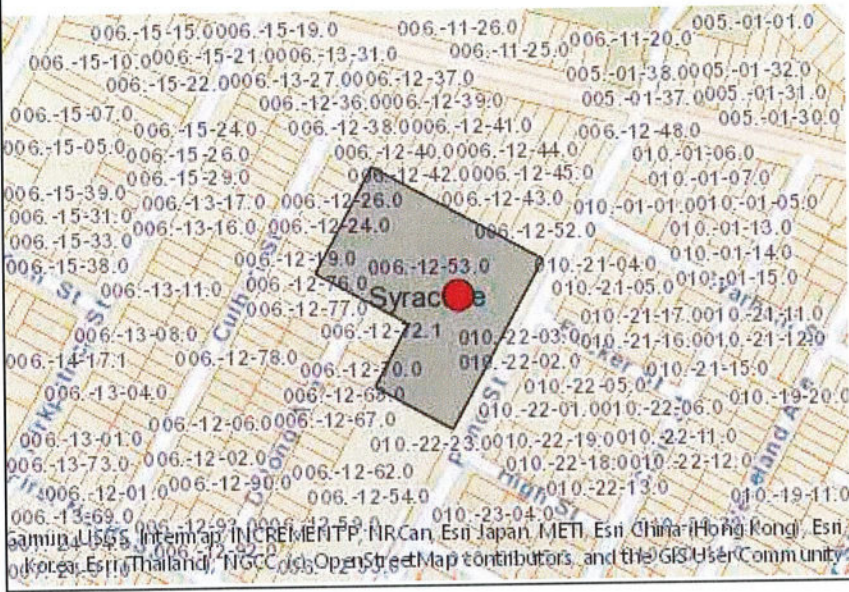
Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
Tilson Technology Management, Inc., on behalf of Dish Wireless, Inc.			
Name of Action or Project: SYSYR00328B			
Project Location (describe, and attach a location map): 947 Pond Street, Syracuse, NY, 13208			
Brief Description of Proposed Action: Tilson Technology Management, Inc., ("Tilson") on behalf of Dish Wireless, LLC, ("Dish"), is applying to locate six (6) communications antennas on the rooftop located at 947 Pond Street, Syracuse, NY, 13208. This property is owned by Syracuse Housing Authority with a mailing address of 516 Burt Street, Syracuse, NY, 13202 ("Landlord"). This property, Tax 006.-12-53.01, is within the Residential District, Class B, ("RB-1").			
Name of Applicant or Sponsor: Melanie Dorn		Telephone: 508-789-1871 E-Mail: mdorn@tilsontech.com	
Address: 16 Middle Street			
City/PO: Portland		State: ME	Zip Code: 04101
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.		NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:		NO <input type="checkbox"/>	YES <input checked="" type="checkbox"/>
3. a. Total acreage of the site of the proposed action? _____		>1 acres	
b. Total acreage to be physically disturbed? _____		>1 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____		0 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
5. <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential (suburban) <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other(Specify): <input type="checkbox"/> Parkland			

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations? b. Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NO YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels? b. Are public transportation services available at or near the site of the proposed action? c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO YES
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NO YES
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO YES
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NO YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency? b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NO YES
	<input type="checkbox"/>	<input type="checkbox"/>	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input checked="" type="checkbox"/> Urban <input type="checkbox"/> Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Is the project site located in the 100-year flood plan?	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: _____ _____	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment: _____ _____	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____ _____	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____ _____	NO	YES
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: <u>Melanie Dorn</u> Date: <u>8/18/2021</u> Signature: <u></u> Title: <u>Staff Attorney</u>		

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



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Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

August 18, 2021

Office of Zoning Administration
ATTN: Jeff Harrop
201 East Washington Street, Room 500
City of Syracuse, New York 13202

RE: Application to Co-locate Communications Antenna Array on Rooftop Located at 947 Pond Street, Syracuse, NY, 13208

To Whom it May Concern,

Tilson Technology Management, Inc., (“Tilson”) on behalf of Dish Wireless, LLC, (“Dish”), is applying to locate six (6) communications antennas on the rooftop located at 947 Pond Street, Syracuse, NY, 13208. This property is owned by Syracuse Housing Authority with a mailing address of 516 Burt Street, Syracuse, NY, 13202 (“Landlord”). Dish has authorization from the Landlord to apply for such permits, as demonstrated in the exhibits in this application. Tilson respectfully requests that the Office of Zoning Administration review this application and schedule review for the next available Planning Commission meeting.

In accordance with Syracuse Zoning Ordinance (“Ordinance”), Part C, Section I, Article 7, rooftop communications antennas in residential districts are permissible through Site Plan Approval, so long as the site meets design standards set out in the Ordinance. This property, Tax Map 006.-12-53.01, is within the Residential District, Class B, (“RB-1”).

Tilson is providing the following Exhibits along with this application to apply for Site Plan Review according to Ordinance, Part C, Section I, Article 7(F):

- Completed Antenna Application Form (Attachment 1)
- Zoning Compliance Letter (Exhibit A)
- Letter of Authorization (Exhibit B)
- State Environmental Quality Review (SEQR) Assessment Form (Exhibit C)
- Photographs and Photo Simulations (Exhibit D)
- Property Survey (Exhibit E)
- Site Plan Drawing (Exhibit F)
- Radio Frequency Coverage Map (Exhibit G)

Please let us know if there is anything further needed to complete this application.

Thank you for your time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Melanie Dorn', with a stylized flourish at the end.

Melanie Dorn
Staff Attorney
16 Middle Street, Fourth Floor
Portland ME 04101
mdorn@tilsontech.com
508.789.1871

August 18, 2021

Office of Zoning Administration
ATTN: Jeff Harrop
201 East Washington Street, Room 500
City of Syracuse, New York 13202

RE: (Exhibit A) Zoning Compliance, Communications Antenna Array on Rooftop Located at 947 Pond Street, Syracuse, NY, 13208

To Whom it May Concern,

Tilson Technology Management, Inc., ("Tilson") on behalf of Dish Wireless, LLC, ("Dish"), is applying to locate six (6) communications antennas on the rooftop located at 947 Pond Street, Syracuse, NY, 13208. This property is owned by Syracuse Housing Authority with a mailing address of 516 Burt Street, Syracuse, NY, 13202 ("Landlord"). This property, Tax 006.-12-53.01, is within the Residential District, Class B, ("RB-1").

To demonstrate compliance with the Syracuse Zoning Ordinance, Tilson is submitting this letter marked Exhibit A. In accordance with Syracuse Zoning Ordinance ("Ordinance"), Part C, Section I, Article 7, rooftop communications antennas in residential districts are permissible through Site Plan Approval, so long as the site meets design standards set out in the Ordinance.

- **Ordinance Part C, Section I, Article 7 ("Article 7") Section A**, states:

"These regulations are established in order to minimize the impact of telecommunication antennas and their supporting structures and frameworks, including towers and dishes, on the visual quality and general welfare of the City of Syracuse."

Article 7(A).

Tilson and Dish (together "Applicants") have worked diligently to design this site in order to create the least visually intrusive communications antennas, as is demonstrated in Exhibit D. Additionally, by locating antennas on a rooftop and utilizing its existing structure height, the number of towers within the City is reduced.

- **Article 7(B)** outlines the definitions under this Article. The scope of this project is adding additional antennas to the rooftop at 947 Pond Street, Syracuse, NY, 13208. This project meets the definition of antenna, which is defined as "[a]ny exterior transmitting or receiving device mounted on a tower,

building, or other support structure fixed to the ground and used in communications that radiate or capture electromagnetic waves, digital signals, analog signals, radio frequencies (excluding radar signals), wireless telecommunications signals or other communications signals.” Article 7(B). The facilities being proposed at this site will provide wireless telecommunications signals in order to offer better coverage for the City.

- **Article 7(C)** outlines the siting parameters applicable to communications antennas.

Article 7(C)(1)(a) states that in all zoning districts, antennas must be at least 30’ above grade and not extend more than 20’ above the building roof lines. As demonstrated in Exhibit F of this application, the proposed antennas would be mounted over 30’ above grade, at least 110’ above grade. Additionally, the antenna will extend approximately 4’ above the existing roofline, which is well within the limit of 20’.

Article 7(C)(1)(b)(1) states that in residential districts, antennas shall be in accordance with height limits outlined in Article 7(C)(1)(a), which as noted above will be met by this proposal.

Article 7(C)(1)(b)(2) states that antennas must be installed in accordance with Article 7(D), which is outlined below in this letter.

Article 7(C)(1)(b)(3) Tilson and Dish, with this letter, are applying for Site Plan Approval according to this section and Article 7(F).

Article 7(C)(1)(b)(4) this project is proposed to be installed on a building that does not have wood framing. In addition, this building has more than four dwelling units.

- **Article 7(D)** outlines “General Standards for Towers and Antennas (not including Satellite Dish Antennas”).

Article 7(D)(1) is not applicable as this proposal is not for a new tower.

Article 7(D)(2) this proposed communications antenna array will comply with all setbacks required of the underlying zone, which are outlined in Ordinance Part B, Section I, Article 5(4), as the building is setback over 20’ from parcel lines in the front, and 15% of lot depth in the back yard. The building is set back far over side yard requirements of 3 additional feet per two stories of the building, with a side yard setback of over 70’ on both sides.

Article 7(D)(3)— (8) are not applicable as this proposal is not for a new tower.

Article 7(D)(9) No lighting is proposed for this antenna array.

Article 7(D)(10) The equipment ancillary to this proposed antenna array will be located as to maintain the least visually intrusive footprint to passersby. This can be seen on the photo simulation provided as a part of this application packet in Exhibit D.

Article 7(D)(11) This site will comply with all Federal and Local standards.

Article 7(D)(12) No signs are proposed with this site except for small contact information provided on the site.

- **Article 7(F) Site Plan Review**

Article 7(F)(1) The Applicants are applying for Site Plan Approval as required by this Article. This letter is provided to show that the standards have been met, and Exhibit G is provided to demonstrate a need for this proposed communications antenna array.

Article 7(F)(2) Waivers This section is not applicable to this application.

Article 7(F)(3) The Applicants recognize that the Planning Commission may impose reasonable conditions on this proposal.

Article 7(F)(4) The Applicants recognize that because this site is within a residential district, the review by the Planning Commission shall include a Public Hearing.

Article 7(F)(5) The applicants have provided the following in compliance with this section

A property survey (Exhibit E)

Scaled site plan (Exhibit F)

Scaled elevation view (Exhibit F)

Drawings demonstrating the location and dimensions of the proposal (Exhibit F)

Radio frequency coverage (Exhibit G)

- **Article 7(H), (I).** The Applicants recognize that antennas must be removed within 90 days of receipt of notice of the Building Officials should the proposal be abandoned. The Applicants also acknowledge that this Article shall be severable.

As demonstrated above and in the Exhibits for this application, Tilson and Dish respectfully request that the City approve this application as it complies with the City Zoning Ordinance.

Thank you for your time.

Respectfully,

A handwritten signature in black ink, appearing to read "Melanie Dorn". The signature is fluid and cursive, with a large initial "M" and a distinct "D".

Melanie Dorn
Staff Attorney
16 Middle Street, Fourth Floor
Portland ME 04101
mdorn@tilsontech.com
508.789.1871

Antenna / Tower / Satellite Dish
Application
PROCEDURES

Antenna / Tower / Satellite Dish applications are reviewed by the City Planning Commission and may require a public hearing. Meetings are scheduled every three weeks on Mondays at 6:00 p.m. in the Common Council Chambers on the third floor of City Hall, unless otherwise noted. The annual meeting scheduled is posted at http://www.syr.gov.net/Planning_Commission.aspx.

An application will not be considered complete and ready to be heard by the City Planning Commission until all required submittals have been received and have been through a preliminary review by Zoning Office staff, including an evaluation of the application under the New York State Environmental Quality Review Act (SEQR).

Applications are also referred (forwarded) to other departments, typically the Departments of Public Works and Engineering, and the City Division of Planning for review and comment and to also assist with coordinating the project with their requirements. Applications involving historic properties are referred to the Syracuse Landmark Preservation Board for review and comment. Applications involving properties within the jurisdiction of the Onondaga County Planning Board are referred for their review.

This review process will ultimately make the process of obtaining any additional permits, like building permits, more efficient. Applicants will be required to address any comments, often through the modification of the application plans that must be resubmitted to the Syracuse Zoning Office. This review process is often iterative in nature and may require additional review time if the project is complex.

Once an application is complete and reviewed, the application will be placed on the next available City Planning Commission meeting agenda. If a public hearing is required, it must first be authorized at a regularly scheduled meeting by the City Planning Commission for the following regularly scheduled meeting. Following a public hearing authorization, and at least ten (10) days prior to the public hearing date, a "Public Notice" will be published in Syracuse Post Standard as well as mailed to: the applicant and applicant's representative (if applicable); surrounding property owners within at least a 200 foot radius from the applicant's property; and to other City departments and neighborhood organizations. The application and its contents will then be available for inspection at the Syracuse Zoning Office. http://www.syr.gov.net/Planning_Commission.aspx.

The applicant or their representative must present the application to the City Planning Commission. A decision will typically be rendered on the same day, but occasionally the application will be held open until the next meeting pending additional information and/or further consideration.

PLEASE NOTE: Application approval does not relieve you or your representative from compliance with any other regulatory or licensing provisions additionally required by other Federal, State, County, or City authorities. You are still required to pursue and obtain all applicable permits, such as building permits from the Central Permit Office in the Division of Code Enforcement.

Antenna / Tower / Satellite Dish

Application

INSTRUCTIONS AND REQUIRED SUBMITTALS

Incomplete applications will not be processed.

Applications together with the required submittals below must be submitted in **HARD COPY, SINGLE SIDED** and **NOT BOUND**, to the City of Syracuse Office of Zoning Administration, City Hall Commons – Room 500, 201 East Washington St., Syracuse, NY 13202. E-mailed submissions will not be processed.

Please submit **ONE (1) COPY** of the following:

- APPLICATION** – filled out completely, dated, and **signed by property owner(s) as instructed.**
- STATE ENVIRONMENTAL QUALITY REVIEW ACT (SEQR) ASSESSMENT FORM** (for most applications a Short Form (SEAF) - Part One) – filled out to the best of your ability, dated, and signed.
- PHOTOGRAPHS** and **SIMULATIONS (COLOR)** illustrating before and after photos of the proposed exact location of proposed antenna, tower, or satellite dish.
- APPLICATION FEE** – \$0.

Please submit **THREE FULL-SIZE AND TO-SCALE SETS** for review purposes, and **ONE (1) REDUCED SET** (11x17, or smaller) for copying, of the items listed below. All plans must include a title block with author, date, scale, and Department of Assessment property tax address, and must be an accurate graphic representation of all pertinent information that can be correctly interpreted by any person without additional explanation. Plans do not need to be stamped by a licensed professional unless noted below.

- AS BUILT PROPERTY SURVEY(S)** of all involved properties illustrating **boundaries, easements, and current conditions** including structures, fencing, parking surface, retaining walls (**signed and stamped by a licensed surveyor**).
- SITE PLANS, DRAWINGS, CALCULATIONS, and DOCUMENTATION** (**signed and sealed by a licensed engineer, as necessary**) including:
 1. existing conditions to remain
 2. proposed site changes
 3. existing and proposed structure locations
 4. antenna placement, design, dimensions, and support structure details
 5. tower design, height, materials, colors, lighting, and requirements
 6. distance to street and property lines / setbacks
 7. accessory equipment/components, pads, enclosures, and structures with dimensions
 8. fencing
 9. landscaping
 10. topography and topographic analyses
 11. radio area frequency coverage
 12. additional information as maybe determined by the City Planning Commission



TILSON

On a Mission

TEMSCO

[SYSYR00328B] – Alpha Angle

Before Installation





TILSON

On a Mission

TEMSCO

[SYSYR00328B] – Alpha Angle

After Installation



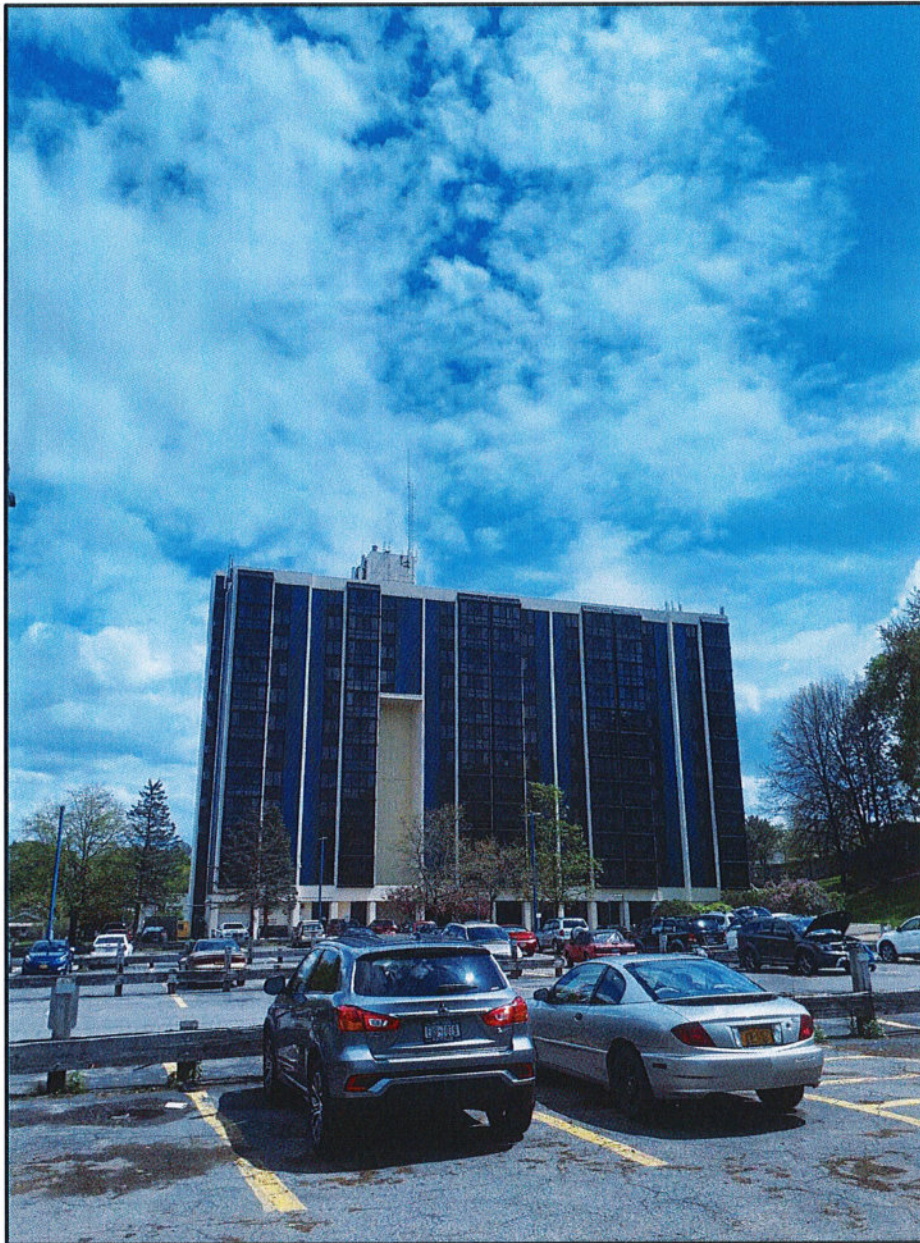


TILSON
On a Mission

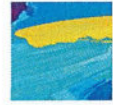
TEMSCO

[SYSYR00328B] – Beta + Gamma Angles

Before Installation



TEMSCO



TILSON
On a Mission

[SYSYR00328B] – Beta + Gamma Angles

After Installation



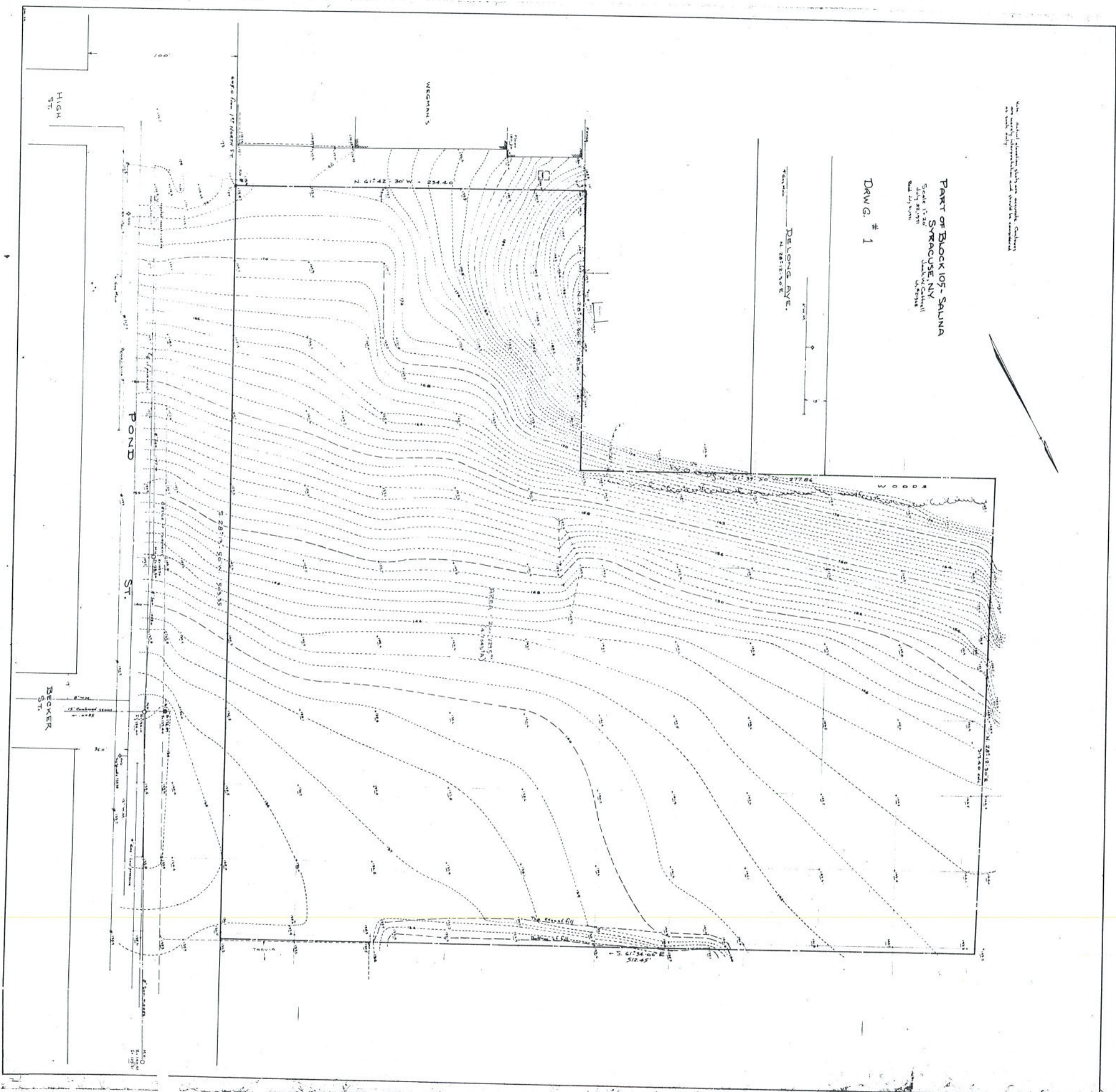
These actual elevations which are accurate contours
are used for the purpose of showing the ground to be contoured

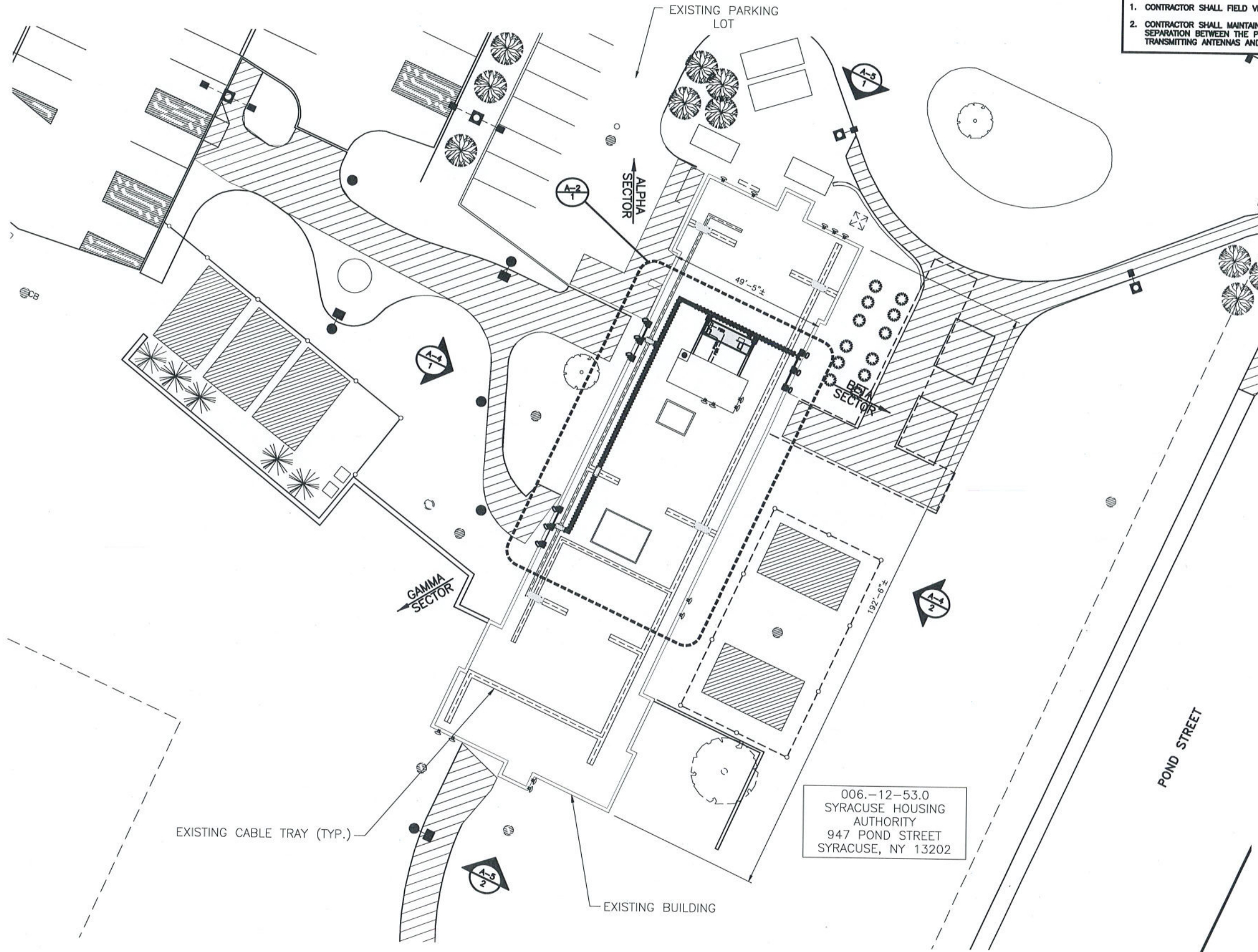


PART OF BLOCK 105 - SALINA
SYRACUSE, NY
Scale 1" = 20'
July 1927
J. M. C. C. C. C.
and 1928

DRWG. # 1

DELONG AVE.
N 281° 12' 30" E





- NOTES**
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
 2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.

dish
wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

16 MIDDLE STREET, 4TH FLOOR,
PORTLAND, ME 04101
(207) 591-6427
INFO@TILSONTECH.COM TILSONTECH.COM



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DRAWN BY:	CHECKED BY:	APPROVED BY:
MWM	RWB	RWB

RFDS REV #:

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
A	08/04/2021	ISSUED FOR REVIEW
B	08/10/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
SYSYR00328B

DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

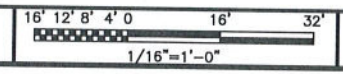
**947 POND STREET
SYRACUSE_NY_13208**

SHEET TITLE
**OVERALL
SITE PLAN**

SHEET NUMBER

A-1

OVERALL SITE PLAN





DISH WIRELESS, LLC. SITE ID:

SYSYR00328B

DISH WIRELESS, LLC. SITE ADDRESS:

**947 POND STREET
SYRACUSE, NY 13208**

NEW YORK CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2021 IBC
MECHANICAL	2021 IMC
ELECTRICAL	2020 NEC

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
A-1	OVERALL SITE PLAN
A-2	ENLARGED BUILDING PLAN
A-3	ANTENNA PLAN, ELEVATION AND SCHEDULE
A-4	NORTH AND SOUTH ELEVATIONS
A-5	EAST AND WEST ELEVATIONS
A-6	EQUIPMENT PLATFORM AND H-FRAME DETAILS
A-7	EQUIPMENT DETAILS
A-8	EQUIPMENT DETAILS
A-9	ADDITIONAL DETAILS (1)
A-10	ADDITIONAL DETAILS (2)
E-1	ELECTRICAL/FIBER ROUTE PLAN AND NOTES
E-2	ELECTRICAL DETAILS
E-3	ELECTRICAL ONE-LINE, FAULT CALCS & PANEL SCHEDULE
G-1	GROUNDING PLANS AND NOTES
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
RF-1	RF CABLE COLOR CODE
S-1	GENERAL STRUCTURAL NOTES
S-2	GENERAL STRUCTURAL PLANS & DETAILS
GN-1	LEGEND AND ABBREVIATIONS
GN-2	GENERAL NOTES
GN-3	GENERAL NOTES
GN-4	GENERAL NOTES

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

SECTOR SCOPE OF WORK:

- INSTALL (9) PROPOSED PANEL ANTENNAS (3 PER SECTOR)
- INSTALL (9) PROPOSED ANTENNA MOUNTS (3 PER SECTOR)
- INSTALL PROPOSED JUMPERS
- INSTALL (18) PROPOSED RRU's (6 PER SECTOR)
- INSTALL (3) PROPOSED OVER VOLTAGE PROTECTION DEVICE (OVP) (3 TOTAL)
- INSTALL (3) PROPOSED HYBRID CABLE
- INSTALL PROPOSED CABLE LADDER TRAY OR CABLE TRAY

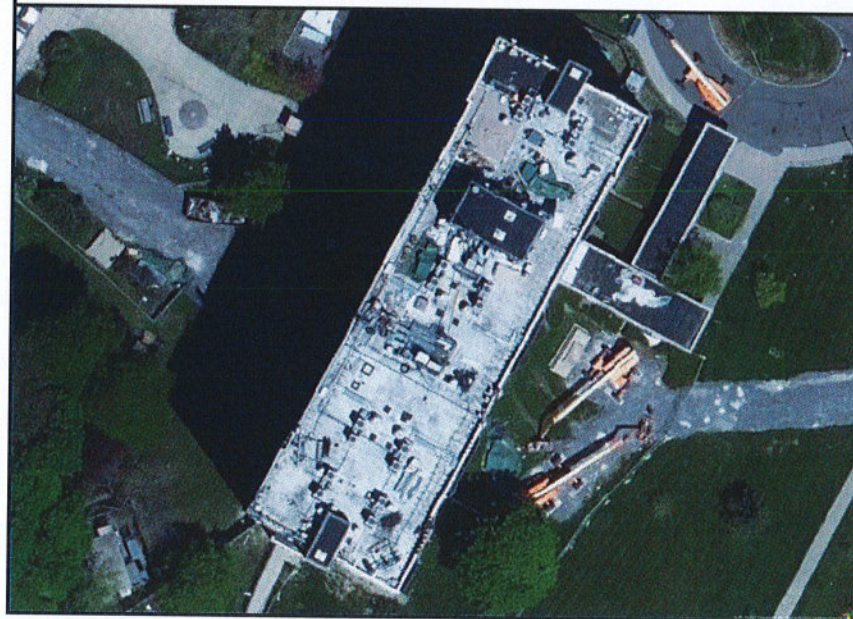
ROOFTOP SCOPE OF WORK:

- INSTALL (1) PROPOSED METAL PLATFORM WITH H-FRAME
- INSTALL (1) PROPOSED CABLE LADDER TRAY OR CABLE TRAY
- INSTALL (1) PROPOSED BBU IN CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED TELCO CONDUIT
- INSTALL (1) PROPOSED NEMA 3 TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS UNIT

STRUCTURAL ANALYSIS

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STRUCTURAL ANALYSIS AND STRUCTURAL LETTER, PERFORMED BY TEMSCO, P.C. ON BEHALF OF TILSON AND DATED 5/26/2021.

SITE PHOTO



UNDERGROUND SERVICE ALERT - NEW YORK 811
UTILITY NOTIFICATION CENTER OF NEW YORK
(800) 272-4480
WWW.NEWYORK-811.COM



CALL 2 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SITE INFORMATION

PROPERTY OWNER: SYRACUSE HOUSING AUTHORITY
ADDRESS: 518 BURT STREET
SYRACUSE, NY 13202

ASSET CLASS: ROOFTOP

COUNTY: ONONDAGA

LATITUDE (NAD 83): 43° 04' 19.20" N
43.072000 N

LONGITUDE (NAD 83): 76° 08' 52.08" W
76.147800 W

ZONING JURISDICTION: SYRACUSE, CITY OF NY

ZONING DISTRICT: ADMIN REVIEW

PARCEL NUMBER: 006.-12-53.0

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: NATIONAL GRID
(800) 867-5222

TELEPHONE COMPANY: VERIZON (212)-395-1000

PROJECT DIRECTORY

APPLICANT: DISH WIRELESS, LLC.
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120
(800) 454-0843

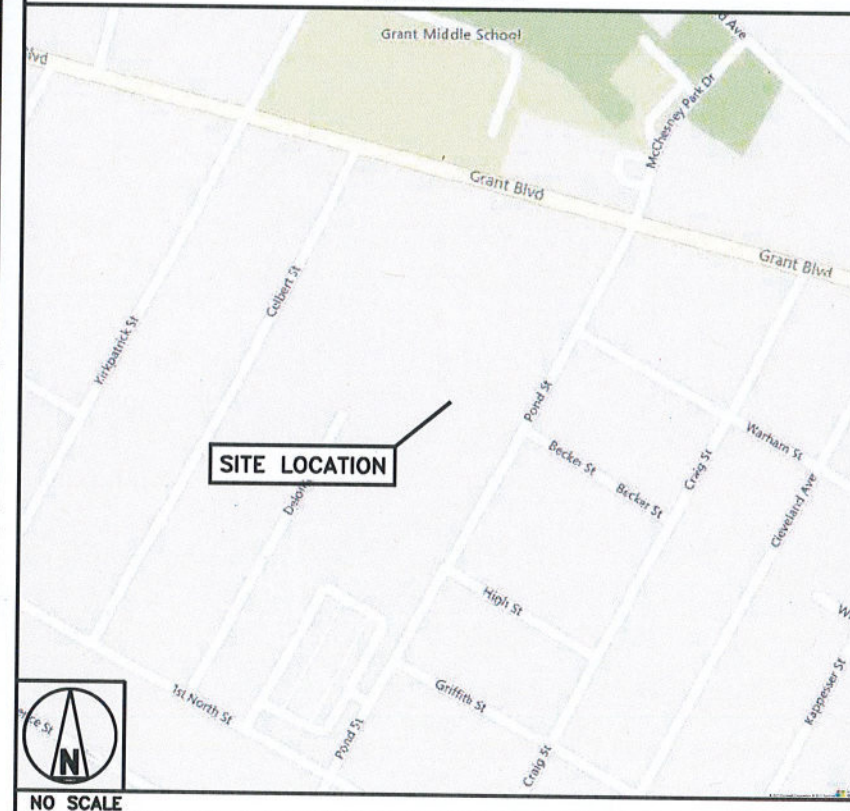
PROPERTY OWNER: SYRACUSE HOUSING AUTHORITY
518 BURT STREET
SYRACUSE, NY 13202
(315) 422-0408

SITE DESIGNER: TILSON
16 MIDDLE STREET, 4TH FLOOR
PORTLAND, ME 04101
207-591-6427

DIRECTIONS

DIRECTIONS FROM SYRACUSE HANCOCK INTERNATIONAL AIRPORT:
GET ON US-11 SOUTH/BREWERTON ROAD IN SALINA FROM COL EILEEN COLLINS BOULEVARD AND EXIT 26. FOLLOW US-11 SOUTH TO GRANT BOULEVARD IN SYRACUSE. TURN LEFT ONTO GRANT BOULEVARD AND FOLLOW FOR ABOUT 0.8 MILES. THEN MAKE A RIGHT ONTO POND STREET, THE SITE WILL BE ON THE RIGHT.

VICINITY MAP



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

16 MIDDLE STREET, 4TH FLOOR,
PORTLAND, ME 04101
(207) 591-6427
INFO@TILSONTECH.COM TILSONTECH.COM



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DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #: ---

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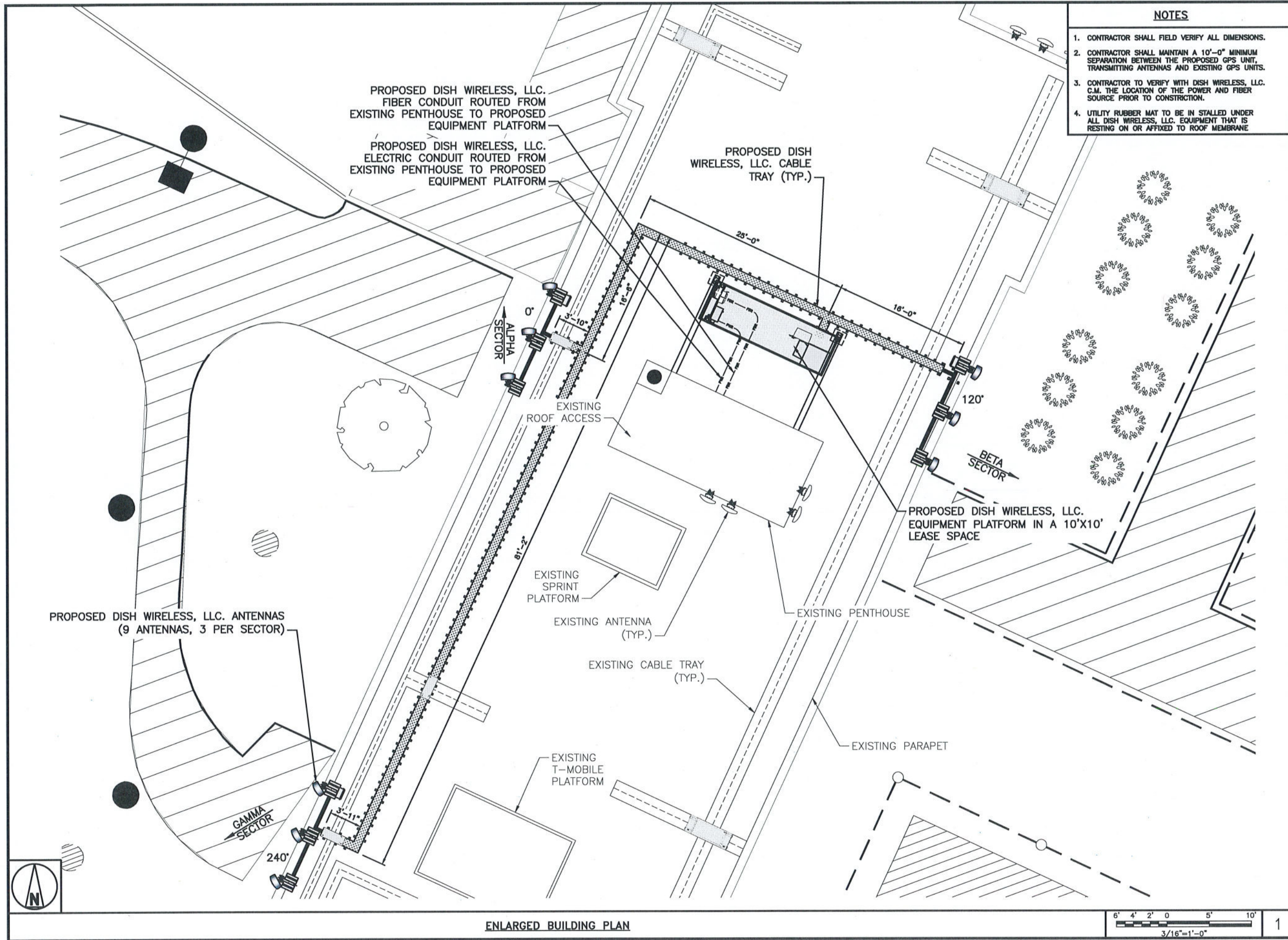
DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
TITLE SHEET

SHEET NUMBER

T-1



- NOTES**
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
 2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
 3. CONTRACTOR TO VERIFY WITH DISH WIRELESS, LLC. C.M. THE LOCATION OF THE POWER AND FIBER SOURCE PRIOR TO CONSTRUCTION.
 4. UTILITY RUBBER MAT TO BE INSTALLED UNDER ALL DISH WIRELESS, LLC. EQUIPMENT THAT IS RESTING ON OR AFFIXED TO ROOF MEMBRANE

dish wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

16 MIDDLE STREET, 4TH FLOOR,
PORTLAND, ME 04101
(207) 591-6427
INFO@TILSONTECH.COM TILSONTECH.COM

STATE OF NEW YORK
ROBERT W. BRANDON
LICENSED PROFESSIONAL ENGINEER
102614
8/17/21

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MWM	RWB	RWB
RFDS REV #:		

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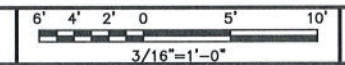
DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
ENLARGED BUILDING PLAN

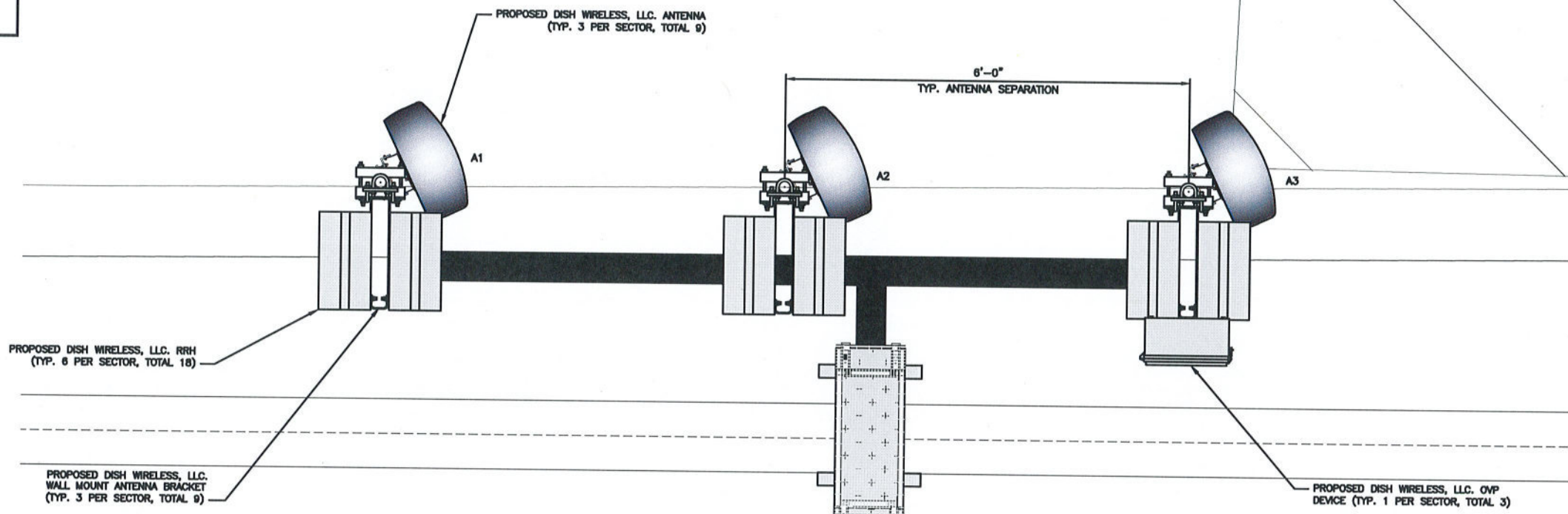
SHEET NUMBER
A-2

ENLARGED BUILDING PLAN



NOTES

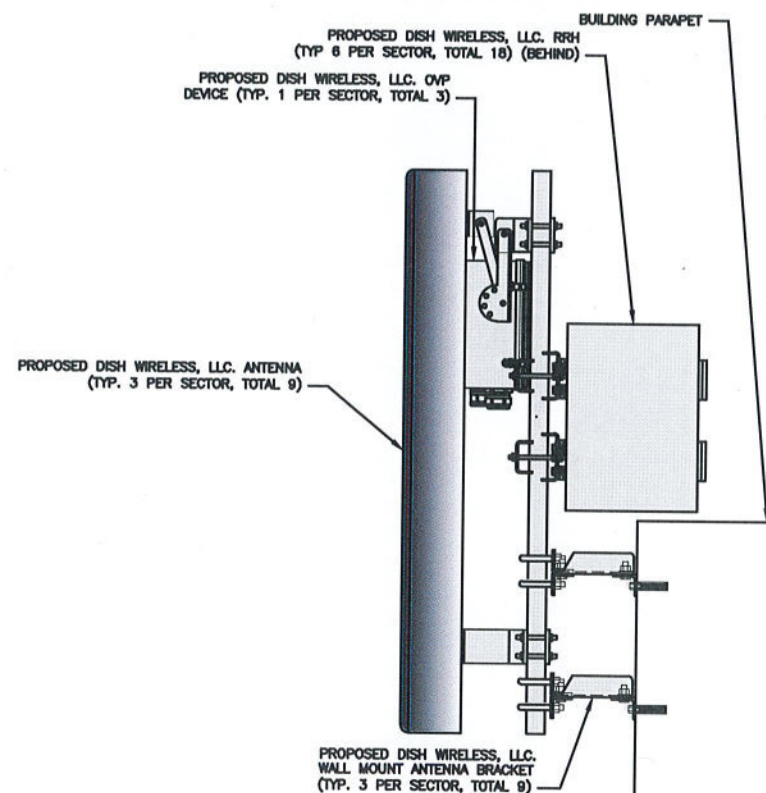
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. EXISTING EQUIPMENT AND FENCE OMITTED FOR CLARITY.
4. ALPHA SECTOR SHOWN TYPICAL FOR BETA AND GAMMA SECTORS.



ANTENNA PLAN (TYPICAL PER SECTOR)

12" 9" 6" 3" 0 1' 2'
1"=1'-0"

1



ANTENNA ELEVATION

12" 9" 6" 3" 0 1' 2'
1"=1'-0"

2

SECTOR	POSITION	RRH		TECHNOLOGY
		MANUFACTURER - MODEL NUMBER		
ALPHA	A1	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	A1	FUJITSU TRI BAND - TA08025-B605		N71/N66
	A2	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	A2	FUJITSU TRI BAND - TA08025-B605		N71/N66
	A3	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	A3	FUJITSU TRI BAND - TA08025-B605		N71/N66
BETA	B1	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	B1	FUJITSU TRI BAND - TA08025-B605		N71/N66
	B2	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	B2	FUJITSU TRI BAND - TA08025-B605		N71/N66
	B3	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	B3	FUJITSU TRI BAND - TA08025-B605		N71/N66
GAMMA	C1	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	C1	FUJITSU TRI BAND - TA08025-B605		N71/N66
	C2	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	C2	FUJITSU TRI BAND - TA08025-B605		N71/N66
	C3	FUJITSU DUAL BAND - TA08025-B604		N71/N29
	C3	FUJITSU TRI BAND - TA08025-B605		N71/N66

- NOTES**
1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
 2. ANTENNA AND RRH MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.

SECTOR	POSITION	ANTENNA						TRANSMISSION CABLE
		EXISTING OR PROPOSED	MANUFACTURER - MODEL NUMBER	TECHNOLOGY	SIZE (h>w)	AZIMUTH	RAD CENTER	FEED LINE TYPE AND LENGTH
ALPHA	A1	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	0°	115°-0"	(1) HIGH-CAPACITY HYBRID CABLE (60' LONG)
	A2	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	0°	115°-0"	
	A3	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	0°	115°-0"	
BETA	B1	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	120°	115°-0"	(1) HIGH-CAPACITY HYBRID CABLE (35' LONG)
	B2	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	120°	115°-0"	
	B3	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	120°	115°-0"	
GAMMA	C1	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	240°	115°-0"	(1) HIGH-CAPACITY HYBRID CABLE (130' LONG)
	C2	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	240°	115°-0"	
	C3	PROPOSED	JMA - MX08FRO665-20_V0F	5G	72.0" x 20.0"	240°	115°-0"	

ANTENNA SCHEDULE

NO SCALE

3

dish wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

16 MIDDLE STREET, 4TH FLOOR,
PORTLAND, ME 04101
(207) 591-6427
INFO@TILSONTECH.COM TILSONTECH.COM



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MWM RWB RWB
RFDS REV #:

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DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
**ANTENNA PLAN,
ELEVATION AND SCHEDULE**

SHEET NUMBER

A-3

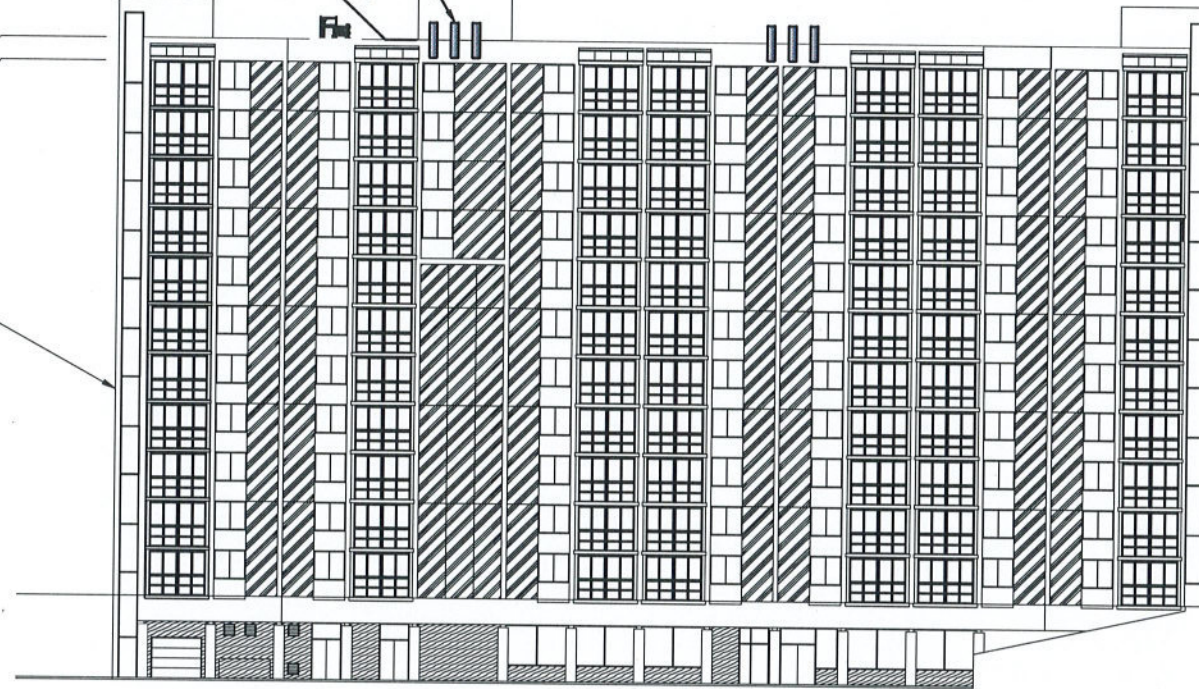
TOP OF PENTHOUSE
EL. @ 132'-0" AGL
PROPOSED DISH WIRELESS, LLC. ANTENNA (TYP. 9)
RAD CENTER @ 115'-0" AGL

TOP OF BUILDING PARAPET
EL. @ 115'-0" AGL
TOP OF BUILDING
EL. @ 111'-6" AGL

GRADE
EL. = 0'-0"

PROPOSED DISH WIRELESS, LLC.
ANTENNAS (TYP.)

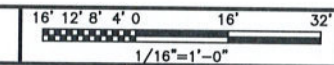
EXISTING BUILDING



BUILDING WEST ELEVATION

NOTES

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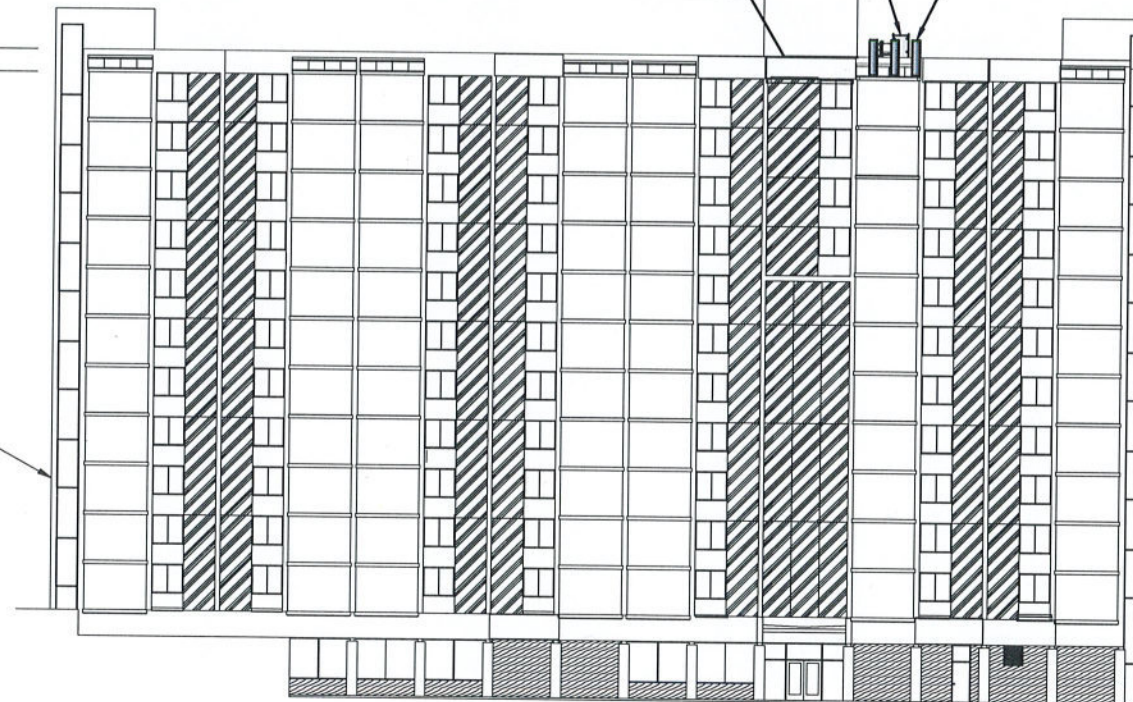
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EL. @ 132'-0" AGL
PROPOSED DISH WIRELESS, LLC. ANTENNA (TYP. 9)
RAD CENTER @ 115'-0" AGL

TOP OF BUILDING PARAPET
EL. @ 115'-0" AGL
TOP OF BUILDING
EL. @ 111'-6" AGL

GRADE
EL. = 0'-0"

PROPOSED DISH WIRELESS, LLC.
EQUIPMENT (TYP.)
PROPOSED DISH WIRELESS, LLC.
ANTENNAS (TYP.)

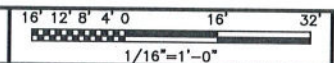
EXISTING BUILDING



BUILDING EAST ELEVATION

NOTES

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dish
wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING
PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

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PORTLAND, ME 04101
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DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
NORTH AND SOUTH
ELEVATIONS

SHEET NUMBER

A-4

PROPOSED DISH WIRELESS, LLC. ANTENNAS (TYP.)

PROPOSED DISH WIRELESS, LLC. EQUIPMENT

TOP OF PENTHOUSE
EL @ 132'-0" AGL

PROPOSED DISH WIRELESS, LLC ANTENNA (TYP. 9)
RAD CENTER @ 115'-0" AGL

TOP OF BUILDING PARAPET
EL @ 115'-0" AGL

TOP OF BUILDING
EL @ 111'-6" AGL

EXISTING BUILDING

GRADE
EL = 0'-0"

NOTES

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5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

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On a Mission

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PORTLAND, ME 04101
(207) 591-6427
INFO@TILSONTECH.COM TILSONTECH.COM



BUILDING NORTH ELEVATION

16' 12' 8' 4' 0 16' 32'
1/16"=1'-0" 1

NOTES

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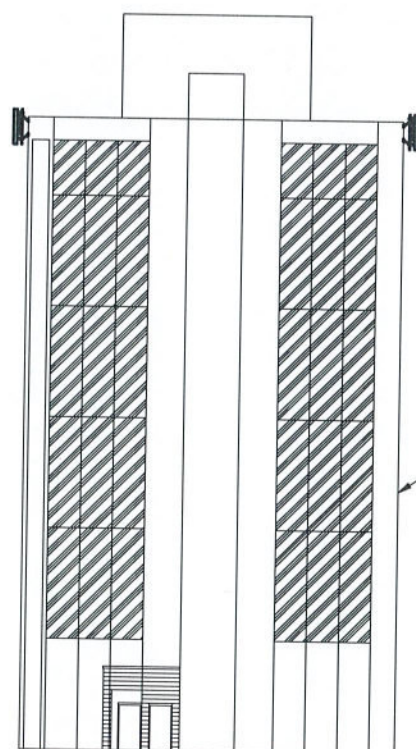
DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
EAST AND WEST
ELEVATIONS

SHEET NUMBER

A-5



TOP OF PENTHOUSE
EL @ 132'-0" AGL

PROPOSED DISH WIRELESS, LLC ANTENNA (TYP. 9)
RAD CENTER @ 115'-0" AGL

TOP OF BUILDING PARAPET
EL @ 115'-0" AGL

TOP OF BUILDING
EL @ 111'-6" AGL

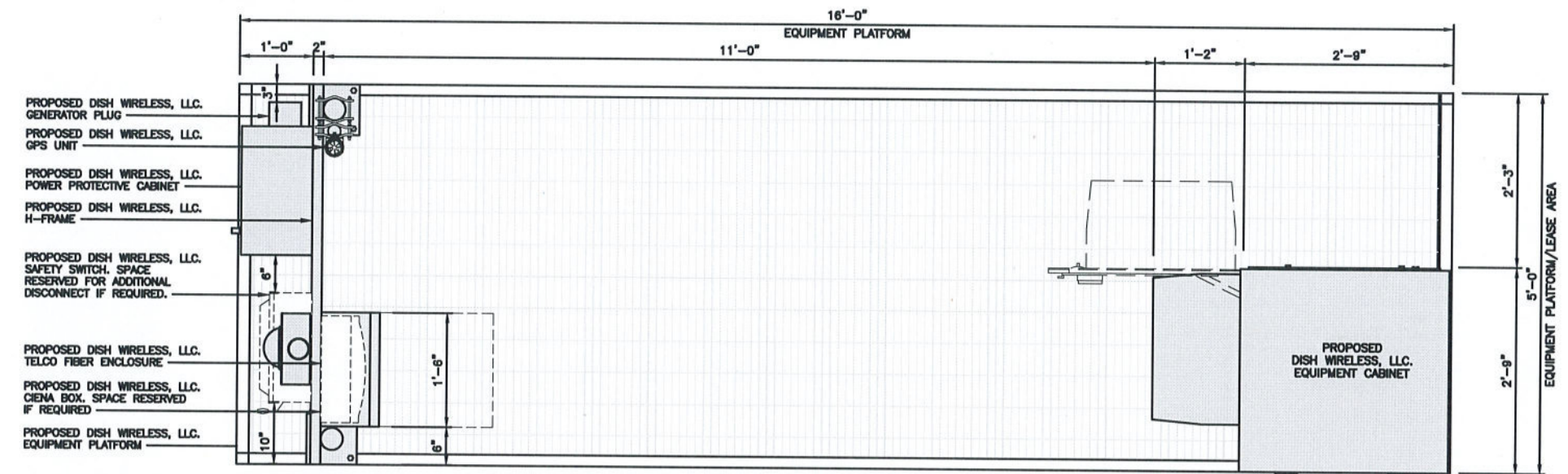
EXISTING BUILDING

GRADE
EL = 0'-0"

BUILDING SOUTH ELEVATION

16' 12' 8' 4' 0 16' 32'
1/16"=1'-0" 2

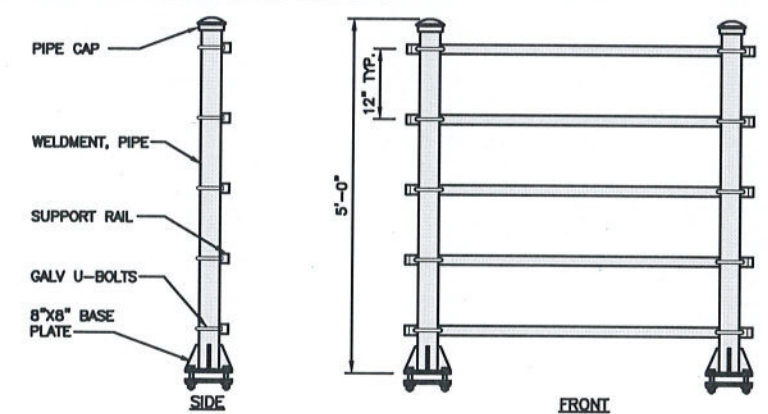
NOTES:
1. HANDRAIL OMITTED FOR CLARITY



PLATFORM EQUIPMENT PLAN

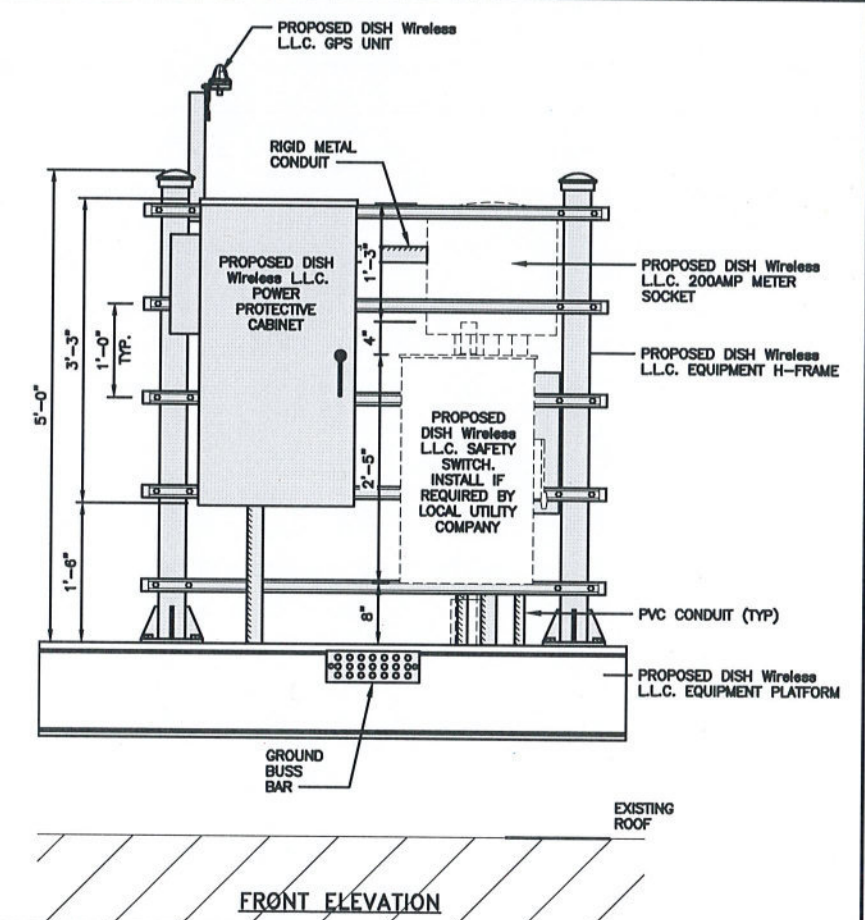
12' 9" 6" 3" 0' 1' 2' 1"=1'-0"

KENWOOD T1701KT5-5S H-FRAME	
UNISTRUT/SUPPORT RAIL	5
WEIGHT/ VOLUME	173.6 LBS



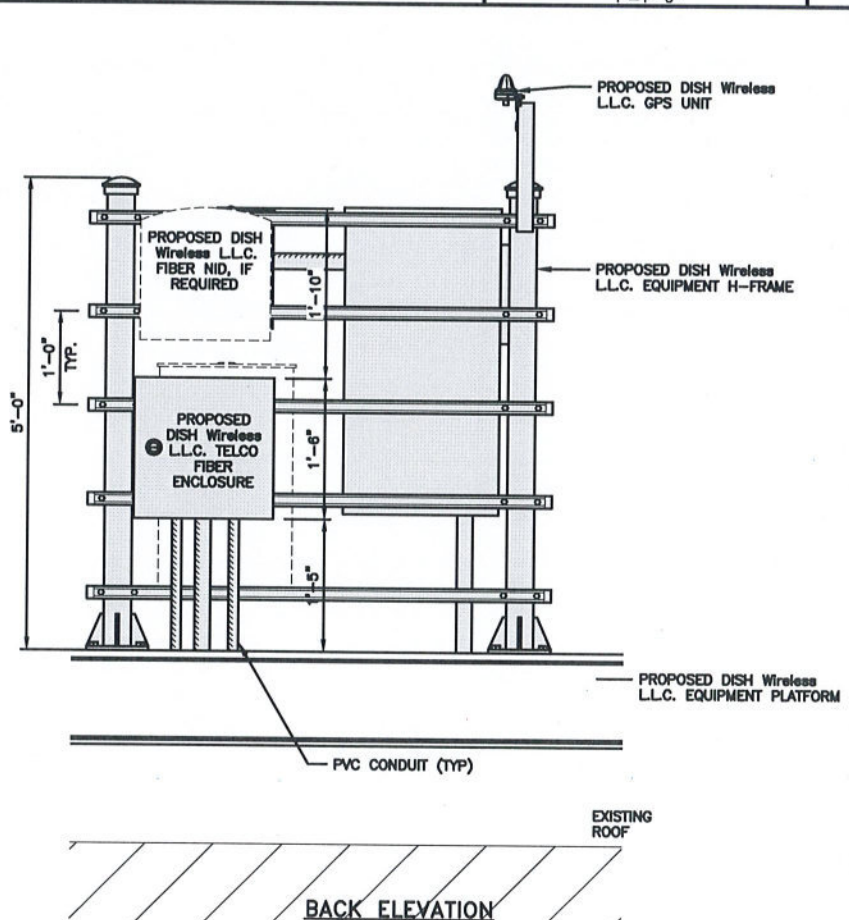
H-FRAME DETAIL

NO SCALE 2



H-FRAME ELEVATION

NO SCALE 3



H-FRAME ELEVATION

4



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

16 MIDDLE STREET, 4TH FLOOR,
PORTLAND, ME 04101
(207) 591-6427
INFO@TILSONTECH.COM TILSONTECH.COM



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DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #: ---

CONSTRUCTION DOCUMENTS

SUBMITTALS		
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A&E PROJECT NUMBER
SYSYR00328B

DISH WIRELESS, L.L.C.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
EQUIPMENT PLATFORM AND H-FRAME DETAILS

SHEET NUMBER
A-6

CHARLES INDUSTRY HEX CUBE-PM639155N4	
DIMENSIONS (HxWxD):	74"x32"x32"
POWER PLANT:	-48VDC ABB/600W
TOTAL WEIGHT (EMPTY)	408 LBS

SQUARE D SAFETY SWITCH D324NRB	
ENCLOSURE DIM (HxWxD)	29.25"x17.25"x8.25"
TOTAL WEIGHT (EMPTY)	45.33 LBS
MAX VOLTAGE/AMPS/WATT	240V/200A/48000W
ENCLOSURE RATING	OUTDOOR NEMA 3R

GE BREAKER PANEL TLM1220RCUP	
ENCLOSURE DIM (HxWxD)	29"x13"x5"
TOTAL WEIGHT (EMPTY)	28 LBS
MAX VOLTAGE/MAX AMPS	240V/200A
ENCLOSURE RATING	OUTDOOR NEMA 3R

CABINET DETAIL NO SCALE 1

SAFETY SWITCH NO SCALE 2

BREAKER PANEL DETAIL NO SCALE 3

LEVITON 1N240-21 SUBMETER	
WATTAGE	3
AMPS	200
VOLTS AC	120, 208, 240
PHASE	1

ROSENBERGER GPSGLONASS-36-N-S	
DIMENSION (DIA x H)	69mm x 98.5mm
WEIGHT (WITH ACCESSORIES)	515.74g
CONNECTOR	N-FEMALE
FREQUENCY RANGE	1559 MHz ~ 1610.5MHz

E-MON D-MON DETAIL NO SCALE 4

GPS ANTENNA DETAIL NO SCALE 5

GPS MINIMUM SKY VIEW REQUIREMENTS NO SCALE 6

NOT USED NO SCALE 7

NOT USED NO SCALE 8

NOT USED NO SCALE 9

5701 SOUTH SANTA FE DRIVE
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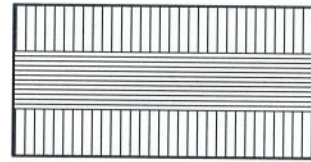
DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

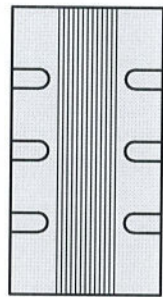
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-7

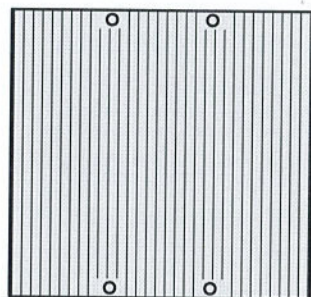
FUJITSU TA08025-B604 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x200/14.9"x15.7"x7.8"
WEIGHT(KG,LB)/ VOLUME	29kg,63.9lb/ 30L
POWER SUPPLY	DC-58V-36V



PLAN

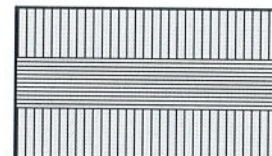


SIDE

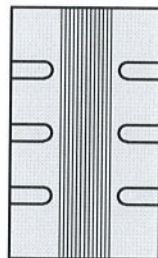


FRONT

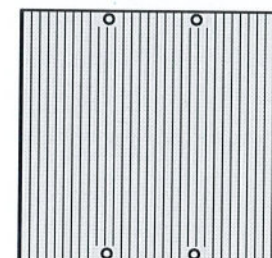
FUJITSU TA08025-B605 RRH	
DIMENSIONS (HxWxD) (KG/IN)	380x400x230/14.9"x15.7"x9.0"
WEIGHT(KG,LB)/ VOLUME	34kg,74.9lb/ 35L
POWER SUPPLY	DC-58V-36V



PLAN



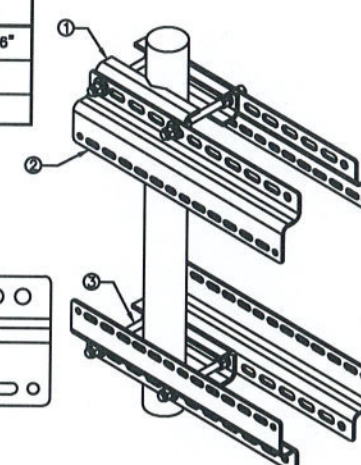
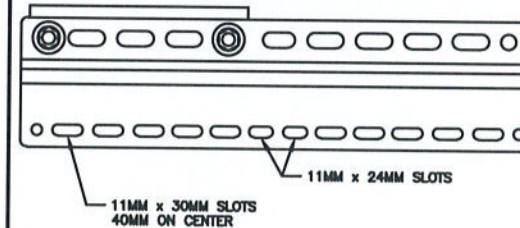
SIDE



FRONT

SABRE INDUSTRIES RRU BRACKET MOUNT C10123155	
DIMENSIONS (HxWxD) (1 BRACKET)	5"x20"x1-13/16"
WEIGHT (FULL ASSEMBLY)	35.79 lbs
PACKAGE QUANTITY	4

ITEM#	DESCRIPTION
1	PLATE, CHANNEL BRACKET
2	RRR Z BRACKET, 3/16"
3	THREADED ROD ASSEMBLY 1/2"x12"



REMOTE RADIO HEAD DETAIL

NO SCALE

1

REMOTE RADIO HEAD DETAIL

NO SCALE

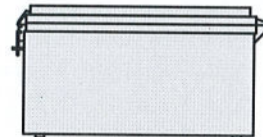
2

REMOTE RADIO MOUNT DETAIL

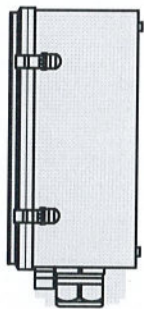
NO SCALE

3

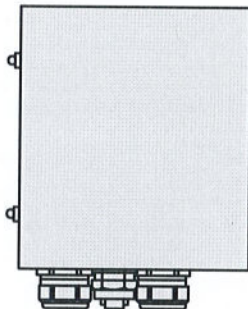
RAYCAP RDIDC-4045-PF-48 SURGE PROTECTION DEVICE (OVP)	
DIMENSIONS (HxWxD)	14" x 16" x 8"
WEIGHT	21.85 LBS



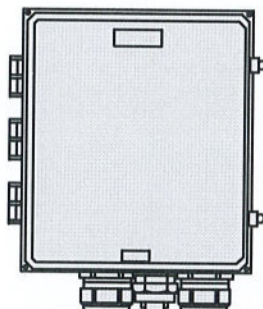
PLAN



SIDE



BACK



FRONT

SURGE PROTECTION DEVICE DETAIL (OVP)

NO SCALE

4

JMA MX08FRO665-21	
DIMENSIONS (HxWxD)	72"x20.0"x8.0"
RF PORTS, CONNECTOR TYPE	8 x 4.3-10 FEMALE
WEIGHT	64.5 lbs
WEIGHT WITH BRACKETS	82.5 lbs



PLAN



SIDE



FRONT

ANTENNA DETAIL

NO SCALE

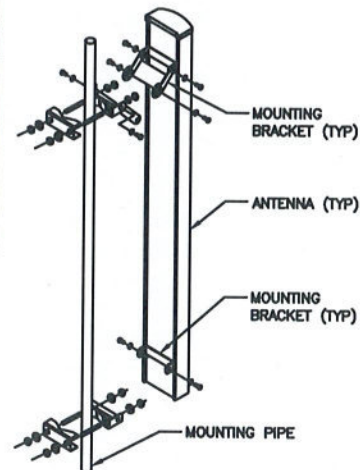
5

NOT USED

NO SCALE

6

M04 MOUNTING BRACKET HPA-33R-BUU-H4-K	
WIDTH	5" (135mm)
DEPTH	2" (51mm)
HEIGHT	8" (213mm)
TOTAL WEIGHT (WITH BRACKETS)	1.5 LBS (15.50 Kg)
HOUSING MATERIAL	ASA/ABS/ALUMINUM
RADOME COLOR	LIGHT GRAY
CONNECTOR	1X8-PIN DAISY CHAIN



MOUNTING BRACKET (TYP)

ANTENNA (TYP)

MOUNTING BRACKET (TYP)

MOUNTING PIPE

ANTENNA MOUNTING DETAIL

NO SCALE

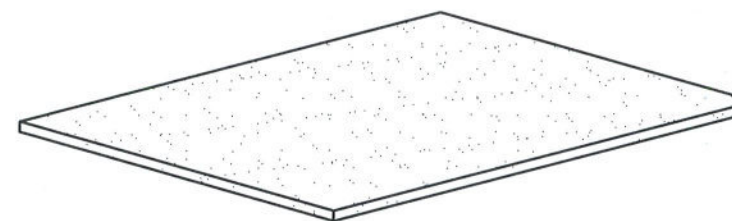
7

NOT USED

NO SCALE

8

UTILITY RUBBER MAT, BLACK	
DIMENSIONS	4'x 3'x 1/2"
WEIGHT/ VOLUME	38.5 LB AVERAGE
MATERIAL	100% RECYCLE RUBBER



UTILITY RUBBER MAT DETAIL

NO SCALE

9

dish
wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING
PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
TILSON
On a Mission

16 MIDDLE STREET, 4TH FLOOR,
PORTLAND, ME 04101
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DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #: ---

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DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER

A-8

NOT USED

NO SCALE 1

NOT USED

NO SCALE 2

SITEPRO1 SBWM-HD SLIDER BRACKET WALL MOUNTS

DIMENSIONS (WxD)	14.5" x 10.5"
WEIGHT	53.48 LB
ANTENNA PIPE SIZE	3.5" & 4.5" O.D.

PLAN FRONT SIDE

dish wireless, LLC.

5701 SOUTH SANTA FE DRIVE
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DURA-BLOK DB10 ROOFTOP CABLE SUPPORT

DIMENSIONS (HxWxD)	5"x6"x9.6"
WEIGHT/ VOLUME	5.28 LBS
ULTIMATE LOAD CAPACITY	500 LBS

NOTE: NON-PENETRATING

PLAN FRONT SIDE

UNISTRUT PIPE CLAMP WALL MOUNT

STANDOFF	12"
DIMENSIONS (HxWxD)	10" x 7" x 12"
WEIGHT WITH BRACKETS	55.75 LBS

PLAN SIDE FRONT

CABLE WALL MOUNT SUPPORT

UNISTRUT TYPE	GRAINGER P1000T
UNISTRUT DIMENSIONS (HxWxD)	1 5/8" x 1 5/8" x 12"
WEIGHT/ VOLUME	1.85 LB PER FOOT
ULTIMATE LOAD CAPACITY	718.5 LB

NOTES:
1. ALL HARDWARE AND PARTS SHALL BE HOT DIPPED GALVANIZED WITH LOCK WASHERS AND HEAVY HEX NUTS.
2. VERTICAL CABLE MOUNT: 4'-0" MAX. UNISTRUT SEPARATION
3. HORIZONTAL CABLE MOUNT: 3'-0" MAX UNISTRUT SEPARATION

PLAN SIDE

STATE OF NEW YORK
ROBERT W. BRANDON
LICENSED PROFESSIONAL ENGINEER
102614
8/17/22

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DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #:

SITEPRO1 STEP 48 ROOFTOP STEEL STEP OVER

DIMENSIONS (HxWxD)	13.2"x41.5"x70.5"
WEIGHT/ VOLUME	146.387 LBS

NOTE: NON-PENETRATING

PLAN FRONT

COMMSCOPE RT-ST ROOFTOP STEEL STEP OVER

DIMENSIONS (HxWxD)	13.2"x41.5"x70.5"
WEIGHT/ VOLUME	146.387 LBS

NOTE: NON-PENETRATING

PLAN FRONT

COMMSCOPE MT-365G ROOFTOP HOOD ENTRY KIT

DIMENSIONS (HxWxD)	32"x34"x49"
WEIGHT/ VOLUME	229.94 LB
MATERIAL TYPE	GALVANIZED STEEL

BACK FRONT SIDE

CONSTRUCTION DOCUMENTS

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DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-9

ROOFTOP STEEL STEP OVER DETAIL

NO SCALE 7

ROOFTOP STEEL STEP OVER DETAIL

NO SCALE 8

ROOFTOP HOOD ENTRY KIT DETAIL

NO SCALE 9



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

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ON BEHALF OF:
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On a Mission

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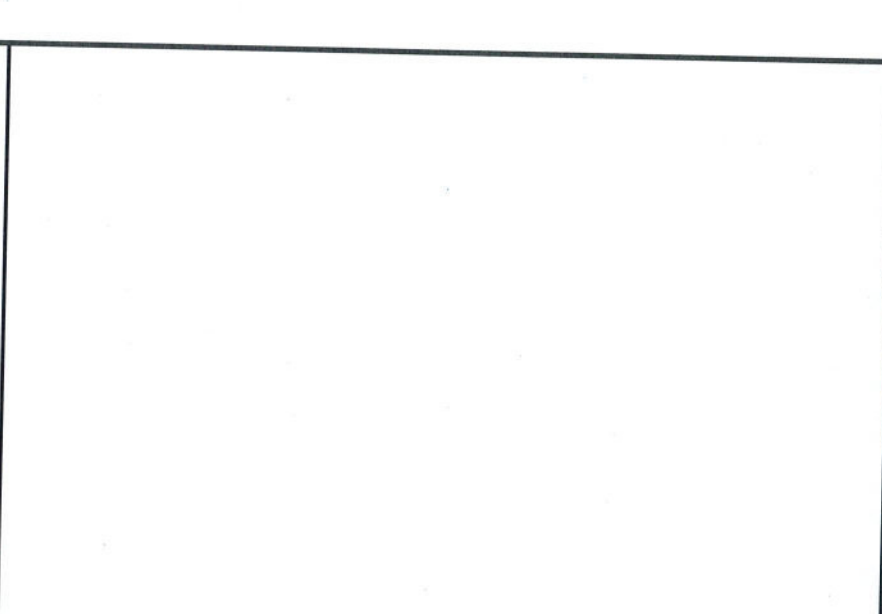
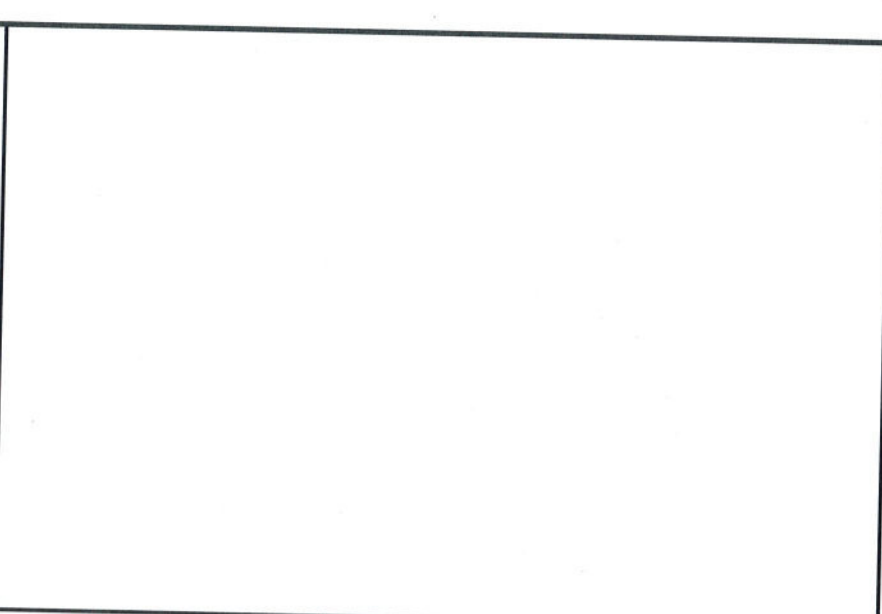
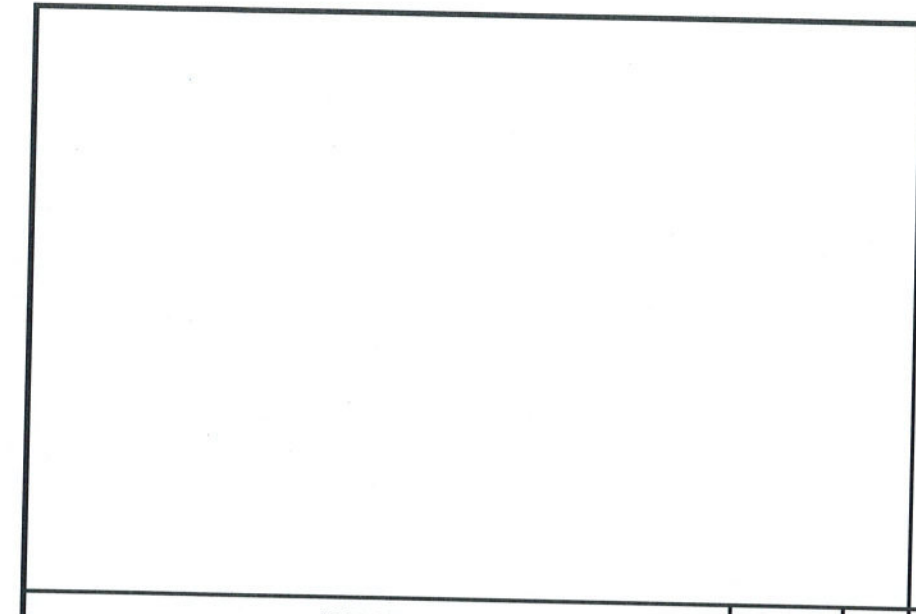
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DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-10



NOT USED

NO SCALE

1

NOT USED

NO SCALE

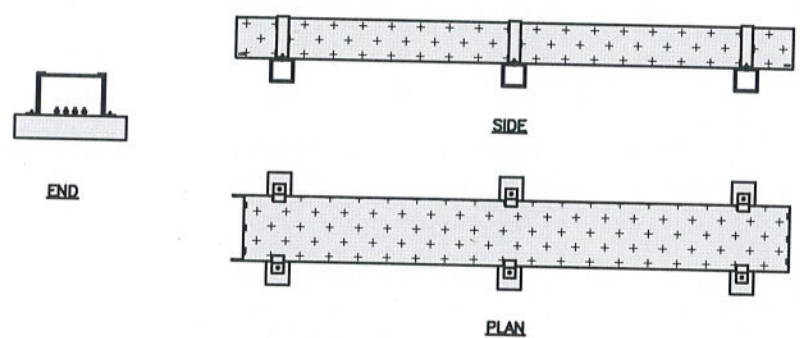
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NOT USED

NO SCALE

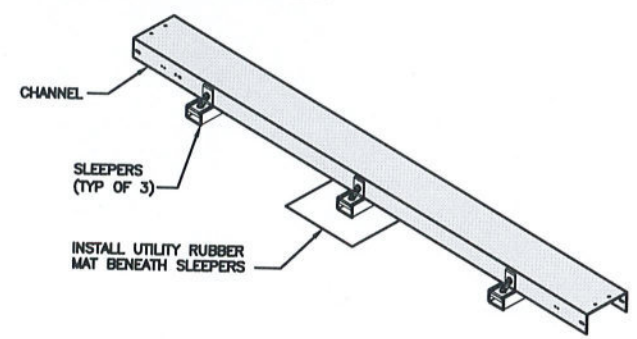
3

COMMSCOPE RT-CB4D ROOFTOP COVER KIT		MOUNTING	NON-PENETRATING
DIMENSIONS (HxWxD)	7"x 11.25"x 96"	INCLUDED PRODUCTS:	RTCB4D.01 CHANNEL (1) MT-F1598 SLEEPERS (3) RTCUH HARDWARE RTHC.01 HOLD-DOWN CLAMPS (6)
WEIGHT/ VOLUME	85.98 LBS		
CABLE RUN (QTY)	4		

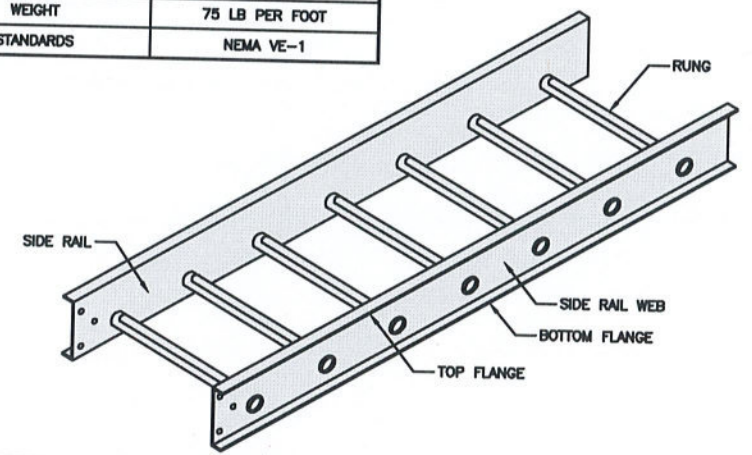


COMMSCOPE MT-F1543 ROOFTOP CABLE BRIDGE KIT	
DIMENSIONS (HxWxD)	7"x30"x96"
WEIGHT	112.3 lbs
CABLE RUN, QUANTITY	8

NOTE: NON-PENETRATING, 12-GAUGE COVER, OR APPROVED EQUAL INCLUDES: CHANNEL, HARDWARE AND (3) SLEEPERS



COPE 1B48-12SL-12-09 ROOFTOP LADDER TRAY	
DIMENSIONS (HxWxD)	5.25"x12"x12'
WEIGHT	75 LB PER FOOT
STANDARDS	NEMA VE-1



ROOFTOP CABLE TRAY DETAIL

NO SCALE

4

WALL MOUNTED CABLE TRAY DETAIL

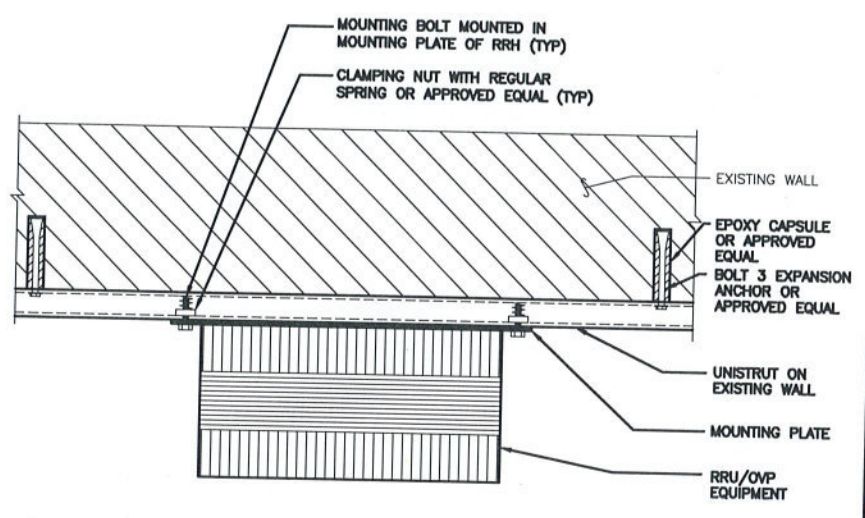
NO SCALE

5

ROOFTOP LADDER TRAY DETAIL

NO SCALE

6



RRH/OVP UNISTRUT WALL MOUNT DETAIL

NO SCALE

7

NOT USED

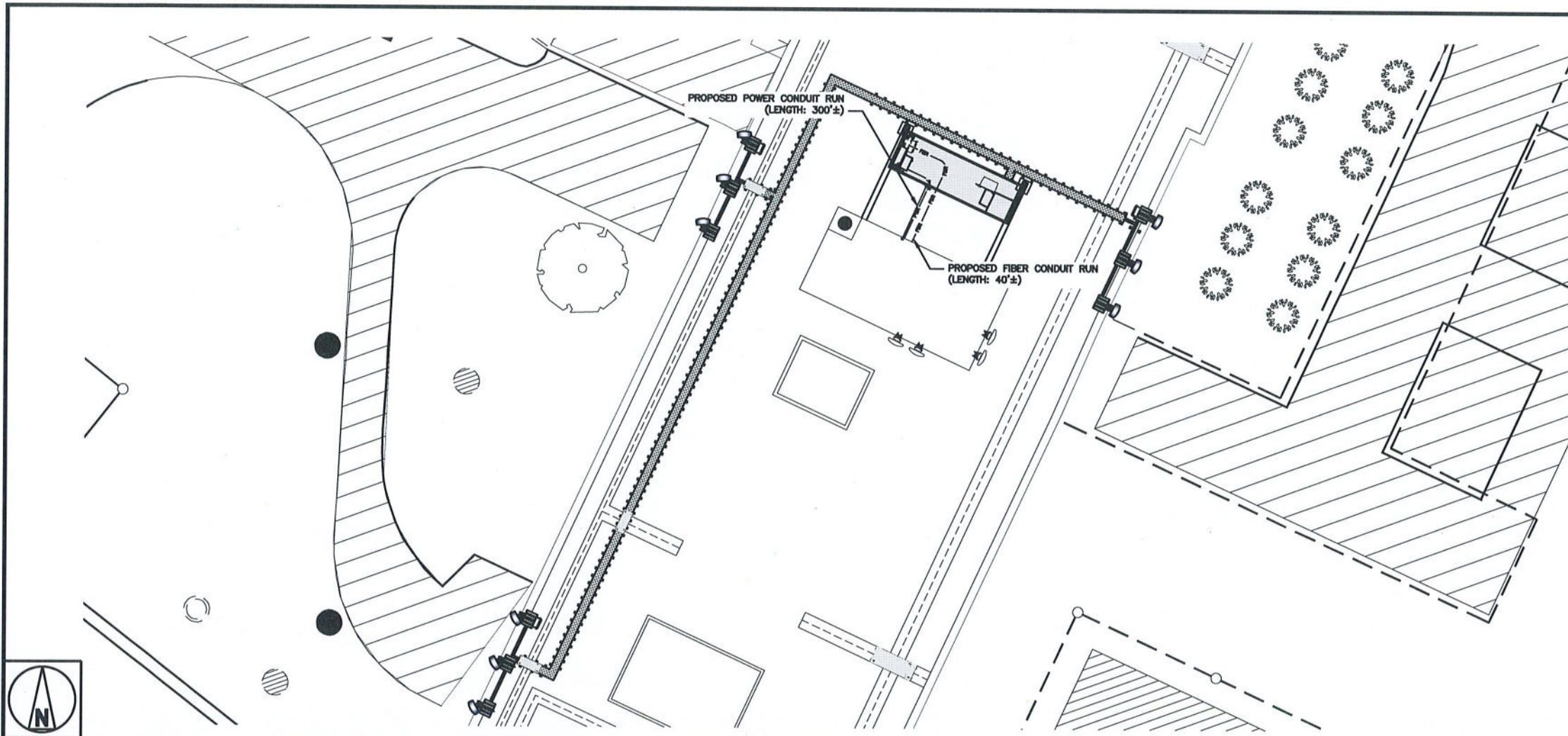
NO SCALE

8

NOT USED

NO SCALE

9



NOTE
CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.

dish
wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

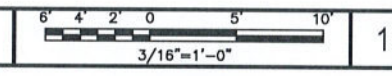
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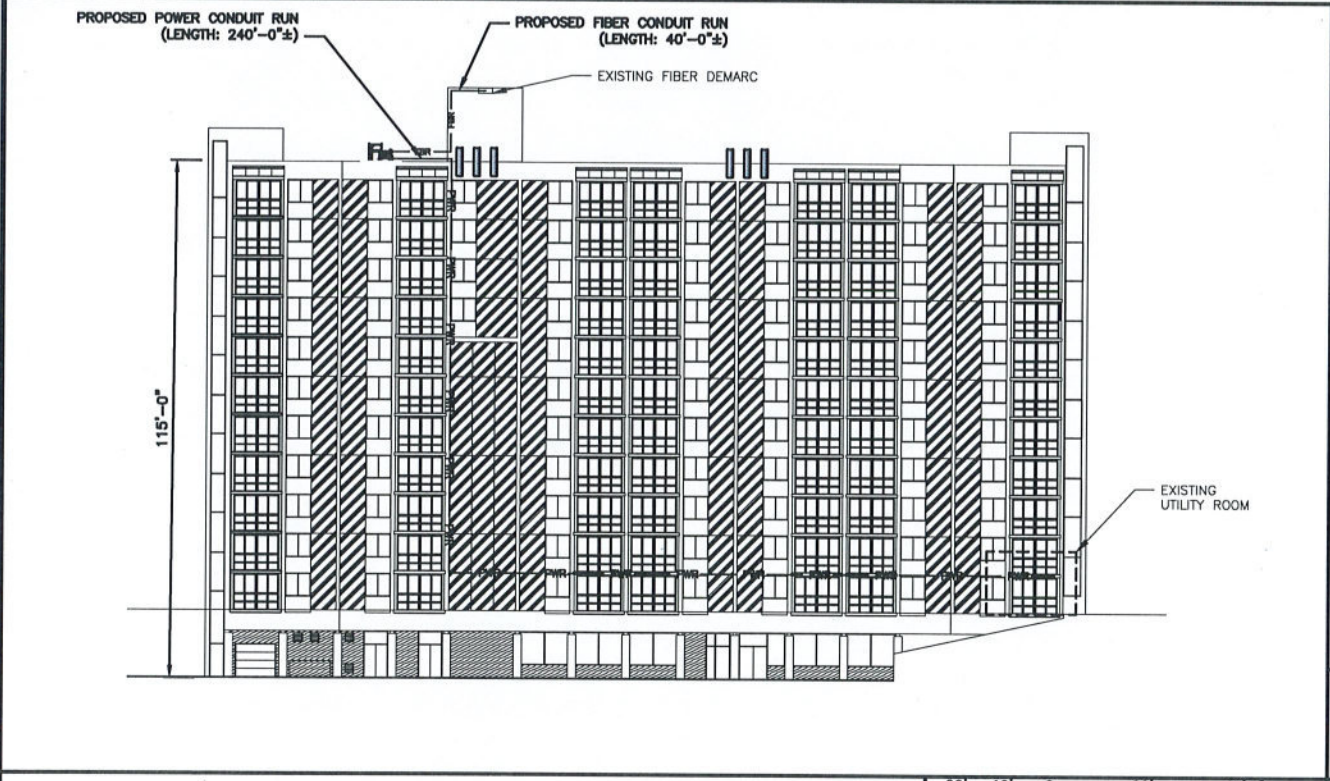
STATE OF NEW YORK
ROBERT W. BRANDON
LICENSED PROFESSIONAL ENGINEER
102614
8/17/20

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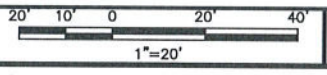
UTILITY ROUTE PLAN



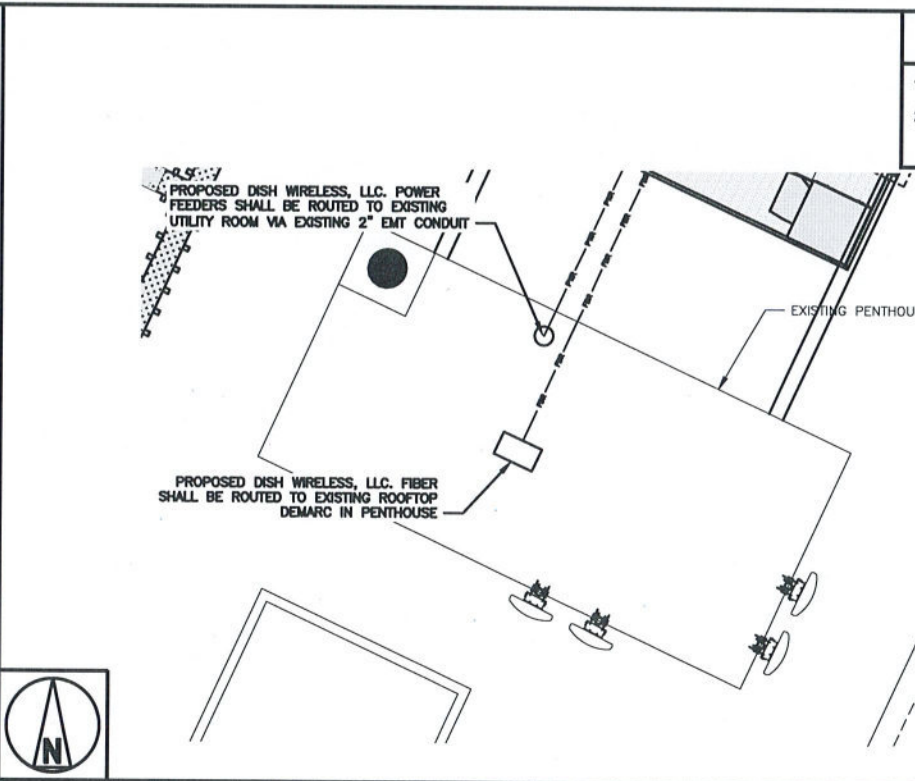
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UTILITY ROUTE ELEVATION



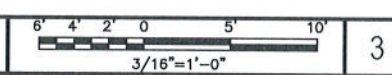
2



POWER/FIBER UTILITY ROOM PLAN

NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
- E-MON D-MON MOUNTED IN THE UTILITY ROOM LOCATED IN THE 1ST FLOOR, WILL NEED BUILDING MAINTENANCE FOR ROOM ACCESS



3

DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #:

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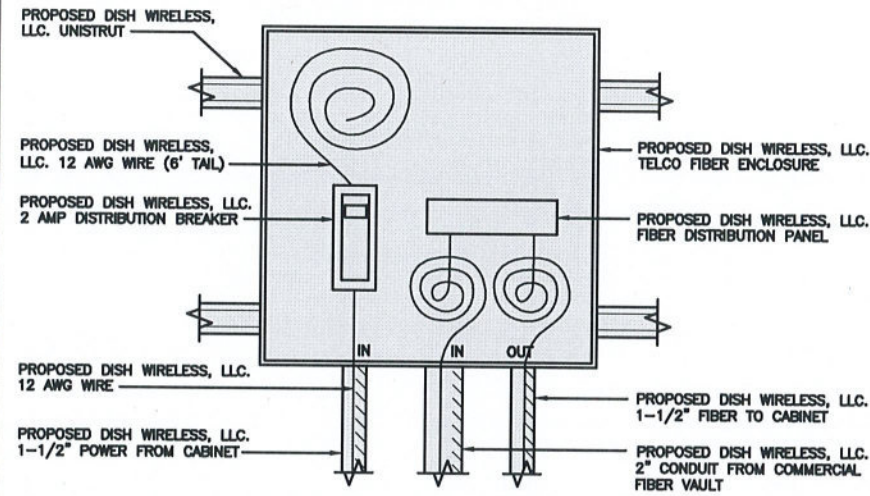
947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
ELECTRICAL/FIBER ROUTE PLAN AND NOTES

SHEET NUMBER
E-1

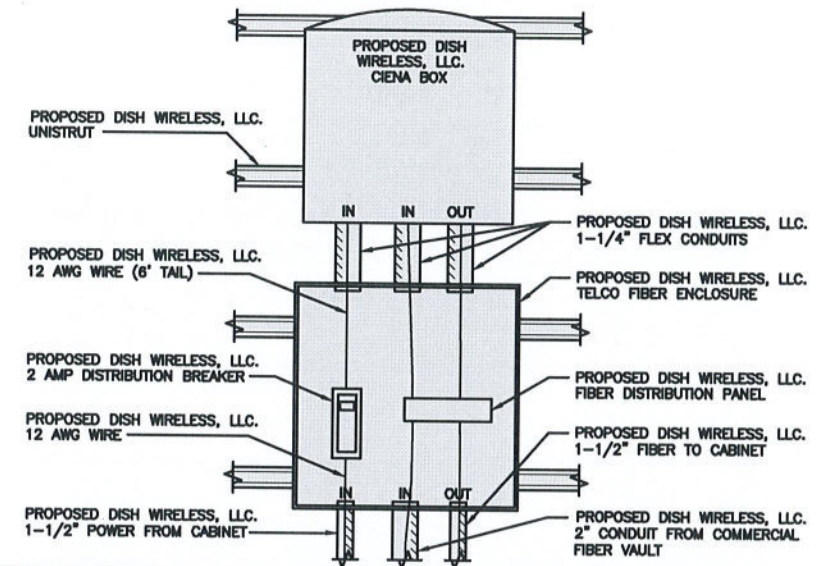
DC POWER WIRING SHALL BE COLOR CODED AT EACH END FOR IDENTIFYING +24V AND -48V CONDUCTORS. RED MARKINGS SHALL IDENTIFY +24V AND BLUE MARKINGS SHALL IDENTIFY -48V.

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.



DARK TELCO BOX - INTERIOR WIRING LAYOUT

NO SCALE 2



LIT TELCO BOX - INTERIOR WIRING LAYOUT (OPTIONAL)

NO SCALE 3

ELECTRICAL NOTES

NO SCALE 1

NOT USED

NO SCALE 4

NOT USED

NO SCALE 5

NOT USED

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

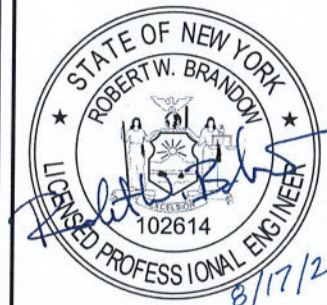
NO SCALE 8



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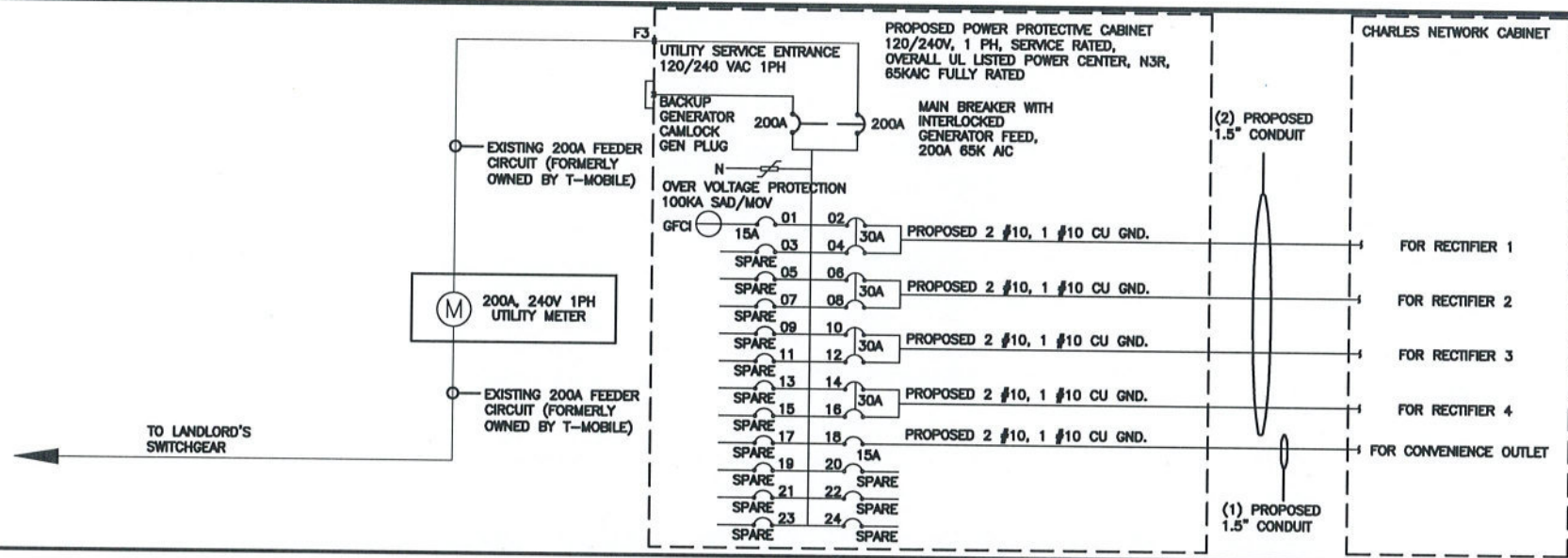
A&E PROJECT NUMBER
SYSYR00328B

DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
**ELECTRICAL
DETAILS**

SHEET NUMBER
E-2



NOTES

THERE ARE A TOTAL OF (10) CURRENT CARRYING CONDUCTORS IN A SINGLE CONDUIT. ADJUSTABLE FACTOR OF 50% PER NEC TABLE 310.15(B)(3)(a) SHALL APPLY.

#10 FOR 15A/1P BREAKER: 0.5 x 40A = 15.0A
 #8 FOR 20A-25A/2P BREAKER: 0.5 x 55A = 27.5A
 #6 FOR 30A-35A/2P BREAKER: 0.5 x 75A = 37.5A
 #4 FOR 40A-45A/2P BREAKER: 0.5 x 95A = 47.5A

CONDUIT SIZING: ASSUME 1.5" EMT AT 40% FILL PER NEC 358, TABLE 4 - 0.814A SQ. IN AREA

WIRES: USING THWN-2, CU. (INCLUDING 3 GROUND WIRES)
 #6 - 0.0507 SQ. IN X 8 = 0.4056 SQ. IN
 #8 - 0.0386 SQ. IN X 2 = 0.0772 SQ. IN
 #10 - 0.0211 SQ. IN X 4 = 0.0844 SQ. IN <GROUND
 #12 - 0.0133 SQ. IN X 1 = 0.0133 SQ. IN <GROUND

TOTAL = 0.5765 SQ. IN

1.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OR (15) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

CONDUIT SIZING: ASSUME 3.0" SCH 40 PVC AT 40% FILL PER NEC 352, TABLE 4 - 1.216A SQ. IN AREA

WIRES: USING THHN, CU. (INCLUDING 2 GROUND WIRES)
 #3/0 - 0.1318 SQ. IN X 3 = 0.3954 SQ. IN
 #2 - 0.0521 SQ. IN X 1 = 0.0521 SQ. IN

TOTAL = 0.4475 SQ. IN

3.0" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OR (3) WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

(CHARLES ABB GE INFINITY) WITH STAND ALONE METER 120V240V 1PH SOURCE

NO SCALE 1

PROPOSED PANEL SCHEDULE

LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
GFCI IN PPC CAB.	1440A		15A	1	A	2	30A	2880	2880	ABB/GE INFINITY RECTIFIER 1
-SPARE-				3	B	4	30A	2880	2880	ABB/GE INFINITY RECTIFIER 2
-SPARE-				5	A	6	30A	2880	2880	ABB/GE INFINITY RECTIFIER 3
-SPARE-				7	B	8	30A	2880	2880	ABB/GE INFINITY RECTIFIER 4
-SPARE-				9	A	10	30A	2880	2880	CHARLES GFCI OUTLET
-SPARE-				11	B	12	30A	2880	2880	-SPARE-
-SPARE-				13	A	14	30A	2880	2880	-SPARE-
-SPARE-				15	B	16	30A	2880	2880	-SPARE-
-SPARE-				17	A	18	15A	1920	1920	-SPARE-
-SPARE-				19	B	20				-SPARE-
-SPARE-				21	A	22				-SPARE-
-SPARE-				23	B	24				-SPARE-
VOLT AMPS	1440							12960A	11520	
200A MCB, 1φ, 3W, 120/240V				L1	L2					
MB RATING: 65,000 AIC				14400	11520			VOLT AMPS		
				120	96			AMPS		
								MAX AMPS		
				120						
				150				MAX 125%		

PANEL SCHEDULE (CHARLES ABB GE INFINITY) WITH STAND ALONE METER 120V240V 1PH SOURCE

NO SCALE 2

NOT USED

NO SCALE 3

NOT USED

NO SCALE 4



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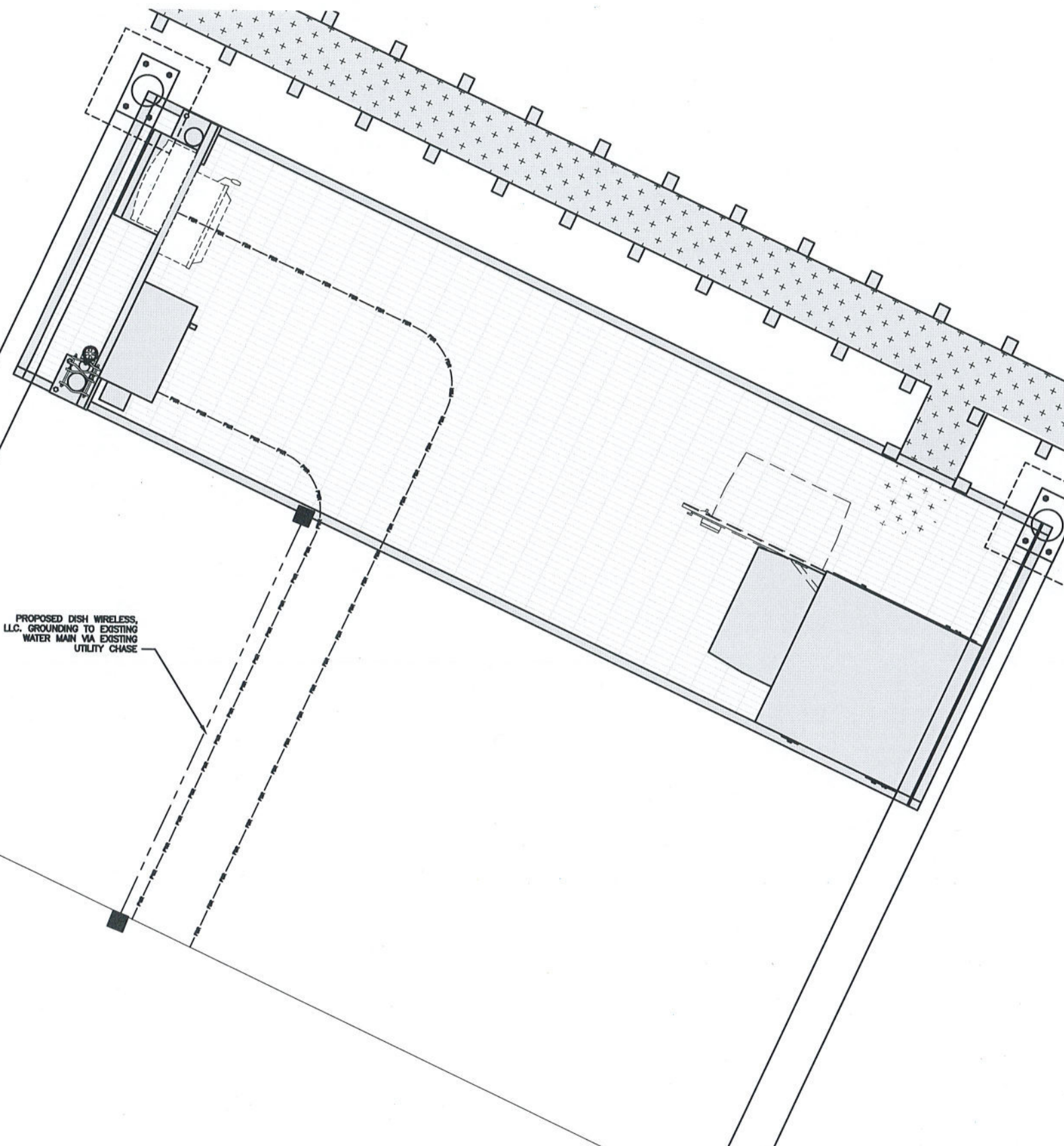
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DISH WIRELESS, LLC.
PROJECT INFORMATION
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947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
ELECTRICAL ONE-LINE, FAULT
CALCS & PANEL SCHEDULE

SHEET NUMBER
E-3



PROPOSED DISH WIRELESS, LLC. GROUNDING TO EXISTING WATER MAIN VIA EXISTING UTILITY CHASE

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND BUS BAR
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE
- #6 AWG STRANDED & INSULATED
- · - · - #2 AWG SOLID COPPER TINNED
- ▲ BUSS BAR INSULATOR

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH WIRELESS, LLC. GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
4. NO EXOTHERMIC WELDING ON ROOFTOP

GROUNDING ROOFTOP KEY NOTES

- (A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- (B) ROOFTOP GROUND SYSTEM: THE GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS.
- (C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- (D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING OR ROOM.
- (E) GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR.
- (F) CELL REFERENCE GROUND BAR (CRGB): POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO COMMON BUILDING GROUND SYSTEM WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- (G) HATCH PLATE GROUND BAR: BOND TO THE COMMON BUILDING GROUND SYSTEM WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- (H) EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE ROOM. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH MECHANICAL CONNECTIONS.
- (J) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR OR EXTERIOR GROUND RING.
- (K) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK.
- (L) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- (M) FENCE AND GATE GROUNDING: METAL FENCES SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS.
- (N) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE COMMON BUILDING GROUND SYSTEM. USING #2 TINNED SOLID COPPER WIRE
- (P) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING.
- (Q) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR
- (R) ROOFTOP COLLECTOR BUSS BAR IS TO BE MECHANICALLY BONDED TO COMMON BUILDING GROUND SYSTEM. REFER TO DISH WIRELESS, LLC. GROUNDING NOTES.



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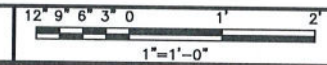
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PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
GROUNDING PLANS
AND NOTES

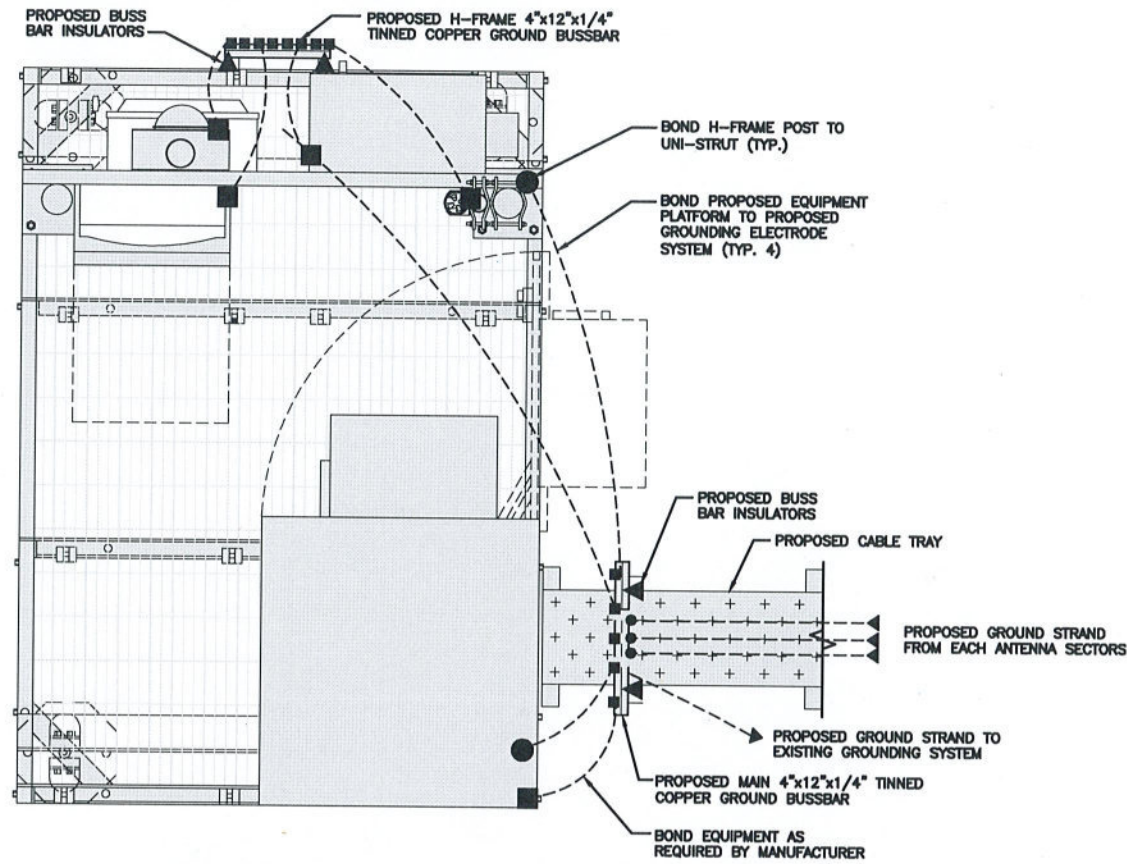
SHEET NUMBER
G-1

GROUNDING PLAN



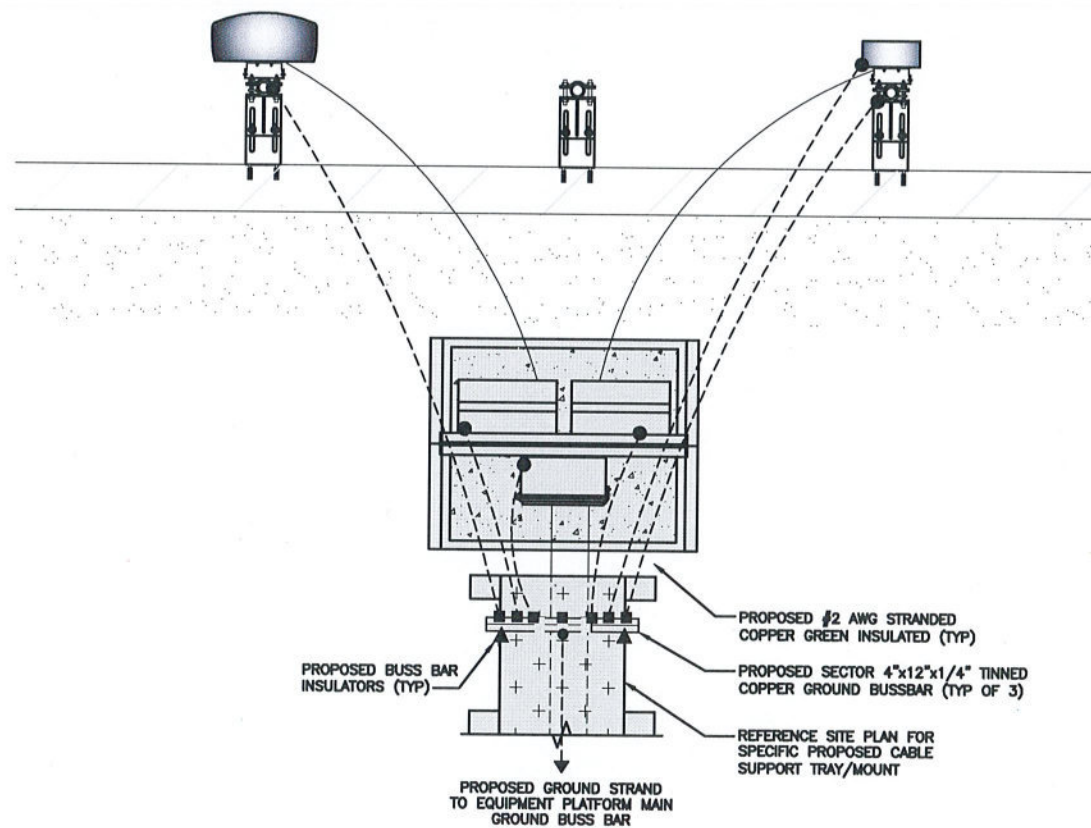
GROUNDING KEY NOTES

NO SCALE 2



TYPICAL ROOFTOP EQUIPMENT GROUNDING PLAN

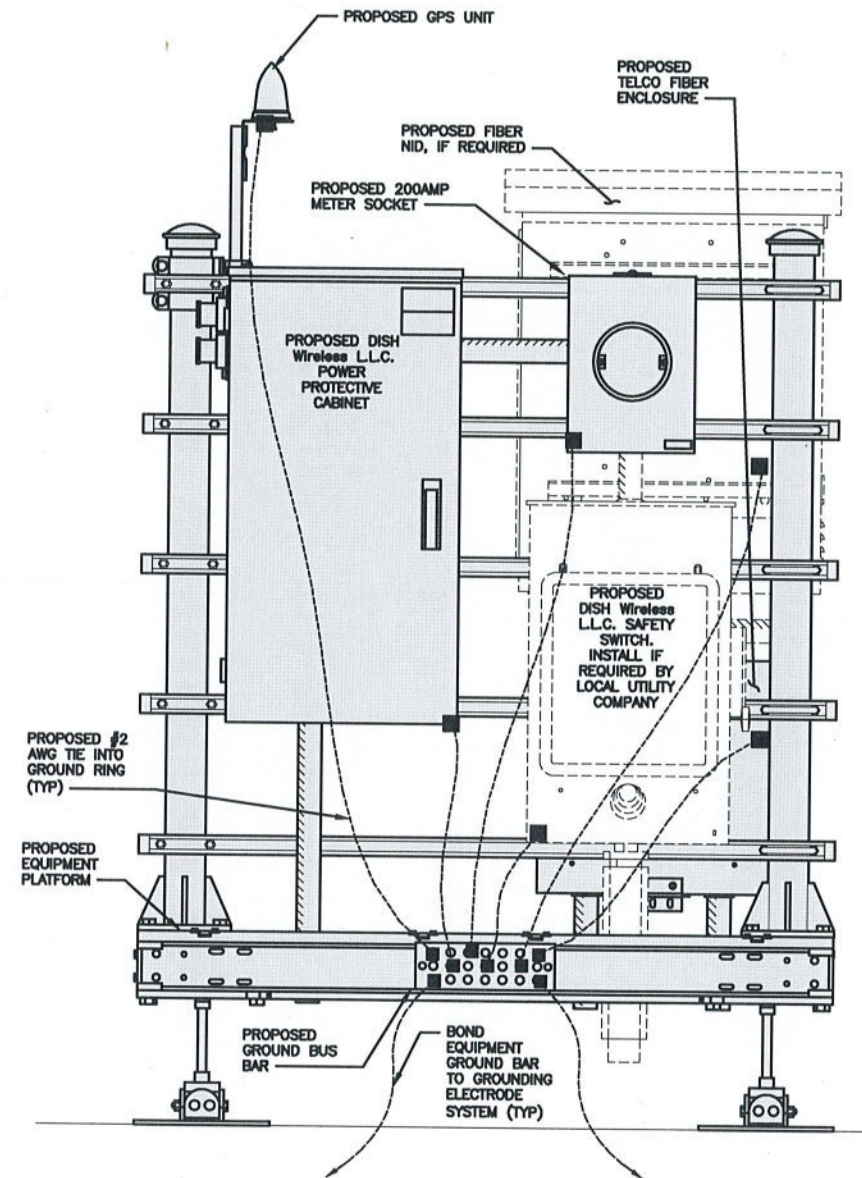
NO SCALE 1



TYPICAL ROOFTOP ANTENNA GROUNDING PLAN

NO SCALE 2

NOTE
EQUIPMENT CABINET OMITTED FOR CLARITY



H-FRAME GROUNDING DETAIL

NO SCALE 3

dish
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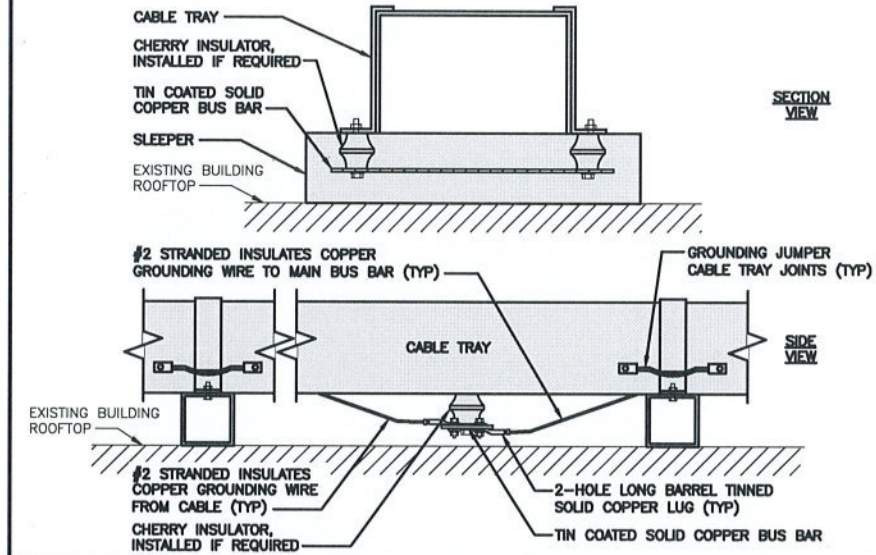
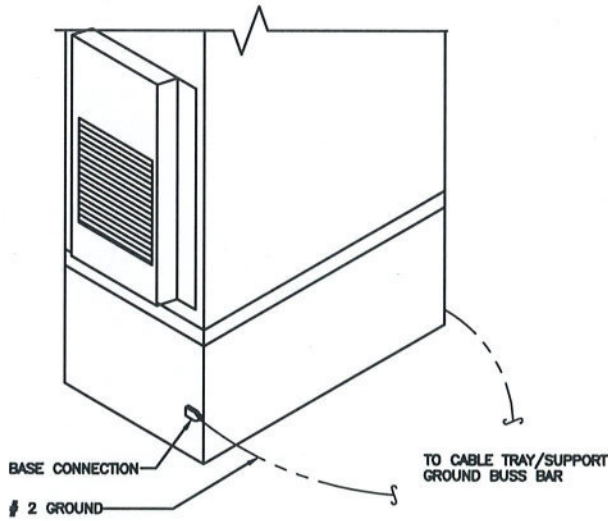
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G-2

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL EXTERIOR GROUNDING HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
3. FOR GROUND BOND TO STEEL ONLY: COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
5. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
6. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



TYPICAL GROUNDING NOTES

NO SCALE

1

OUTDOOR CABINET GROUNDING

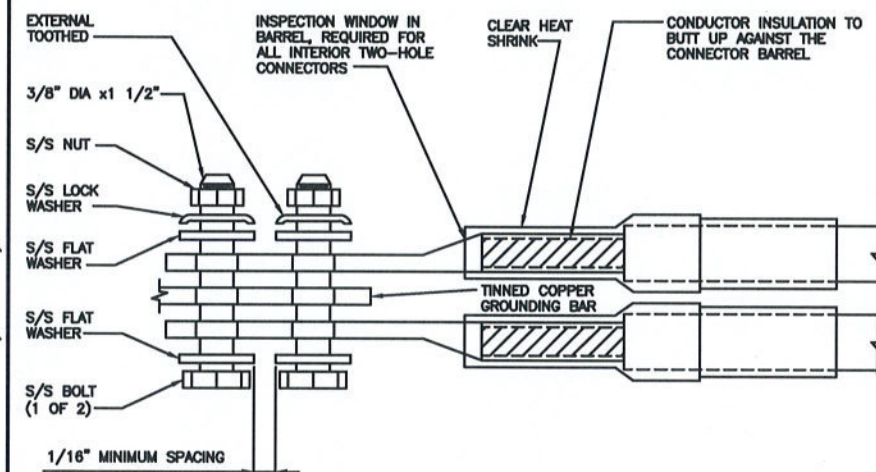
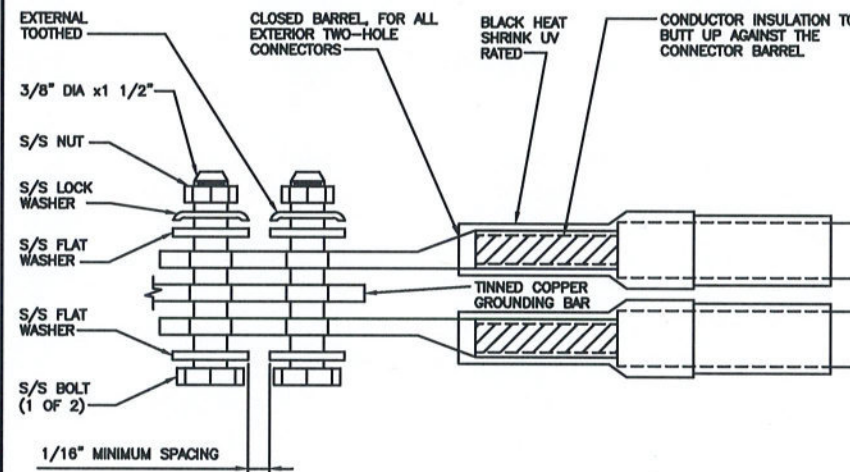
NO SCALE

2

TYPICAL CABLE TRAY GROUND BUSS BAR

NO SCALE

3



NOT USED

NO SCALE

4

TYPICAL EXTERIOR TWO HOLE LUG

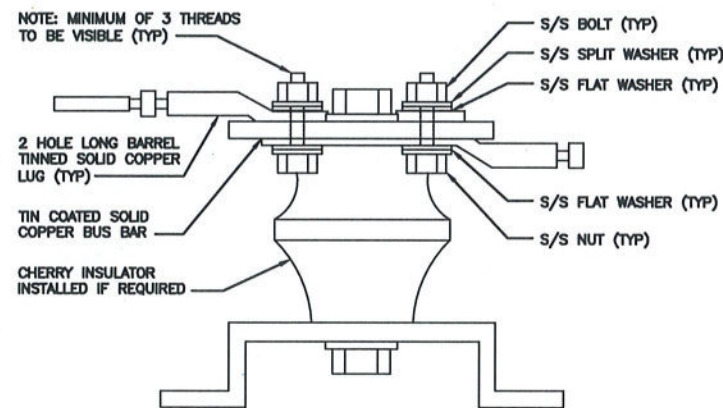
NO SCALE

5

TYPICAL INTERIOR TWO HOLE LUG

NO SCALE

6



LUG DETAIL

NO SCALE

7

NOT USED

NO SCALE

8

NOT USED

NO SCALE

9

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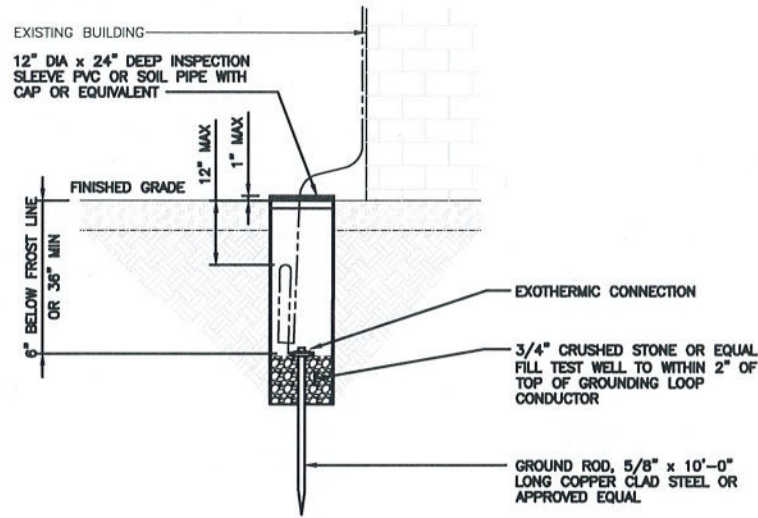
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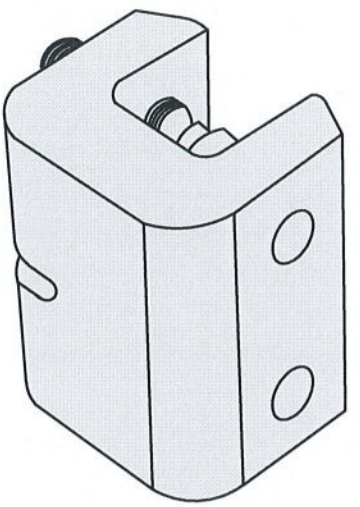
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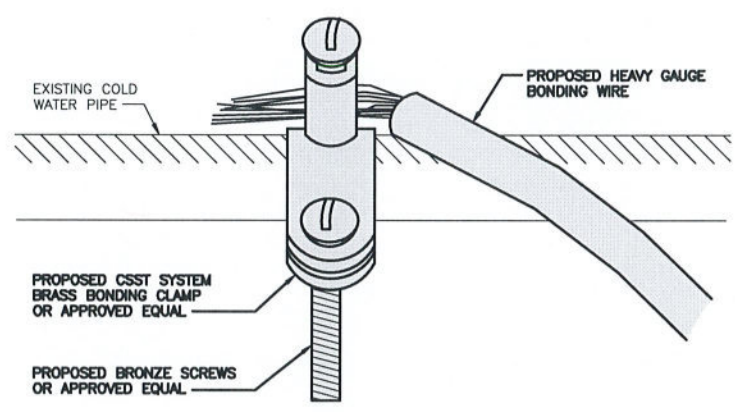
**PANDUIT GUBC500-6
UNIVERSAL BEAM GROUNDING, CLAMP**

COPPER CONDUCTOR SIZE RANGE AWG	#6-500
FLANGE THICKNESS INCHES	0.250-0.675
STUD SIZE INCHES	1/2"
THREAD SIZE	1/2"-13
DIMENSIONS (LxWxH)	3.15"x 2.13"x 2.50"

NOTE:
1. UNIVERSAL, FITS ON A WIDE RANGE OF STANDARD (ANGLED) AND WIDE FLANGE (PARALLEL) STRUCTURAL STEEL BEAMS.
2. UL 467 LISTED FOR GROUNDING AND BONDING ONLY



NOTE
REMOVE ANY PAINT ON PIPE OR FITTING SURFACE UNDER BONDING CLAMP.



TYPICAL GROUND ROD WITH INSPECTION SLEEVE DETAIL

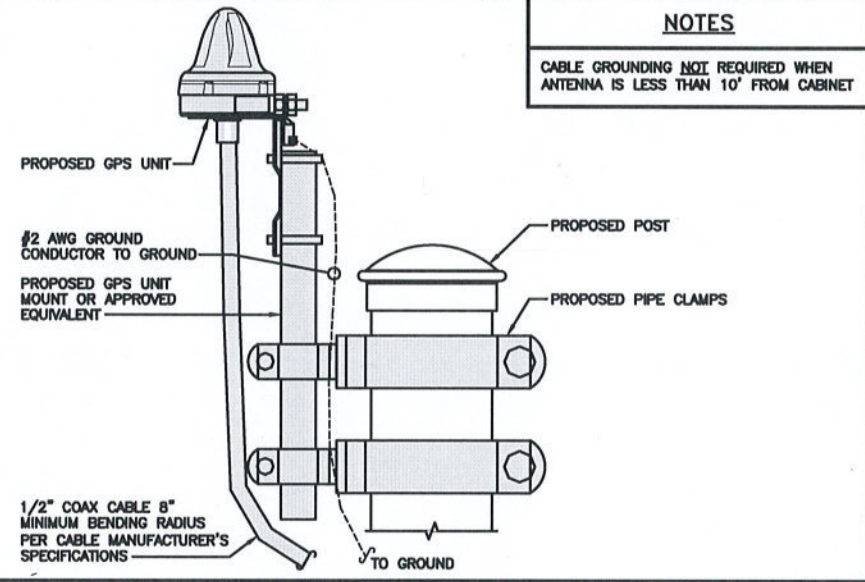
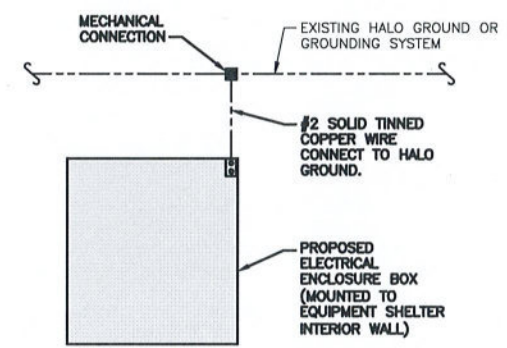
NO SCALE 1

BUILDING STEEL GROUNDING DETAIL

NO SCALE 2

TYPICAL COLD WATER CONDUIT GROUNDING DETAIL

NO SCALE 3



TYPICAL INDOOR ELECTRICAL ENCLOSURE BOX GROUNDING DETAIL

NO SCALE 4

TYPICAL GPS UNIT GROUNDING

NO SCALE 5

NOT USED

NO SCALE 6

NOT USED

NO SCALE 7

NOT USED

NO SCALE 8

NOT USED

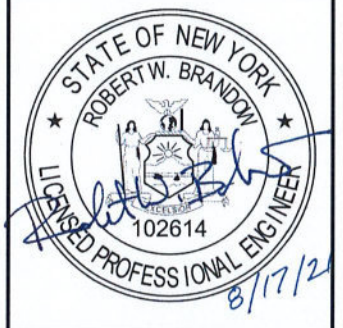
NO SCALE 9

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SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-3

RF JUMPER COLOR CODING

3/4" TAPE WIDTHS WITH 3/4" SPACING

LOW-BAND RRH -
(600MHz N71 BASEBAND) +
(850MHz N26 BAND) +
(700MHz N29 BAND) - OPTIONAL PER MARKET

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)

ALPHA RRH				BETA RRH				GAMMA RRH			
PORT 1 + SLANT	PORT 2 + SLANT	PORT 3 + SLANT	PORT 4 + SLANT	PORT 1 + SLANT	PORT 2 + SLANT	PORT 3 + SLANT	PORT 4 + SLANT	PORT 1 + SLANT	PORT 2 + SLANT	PORT 3 + SLANT	PORT 4 + SLANT
ORANGE	ORANGE	ORANGE	ORANGE	BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
ORANGE	ORANGE	ORANGE	ORANGE	ORANGE	ORANGE	BLUE	BLUE	ORANGE	ORANGE	GREEN	GREEN
	WHITE (1) PORT	ORANGE	ORANGE		WHITE (1) PORT	ORANGE	ORANGE		WHITE (1) PORT	ORANGE	ORANGE
			WHITE (1) PORT				WHITE (1) PORT				WHITE (1) PORT

MID-BAND RRH -
(AWS BANDS N66+N70)

ADD FREQUENCY COLOR TO SECTOR BAND
(CBRS WILL USE YELLOW BANDS)

				BLUE	BLUE	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN
PURPLE	PURPLE			PURPLE	PURPLE	BLUE	BLUE	PURPLE	PURPLE	GREEN	GREEN
	WHITE (1) PORT	PURPLE	PURPLE		WHITE (1) PORT	PURPLE	PURPLE		WHITE (1) PORT	PURPLE	PURPLE
			WHITE (1) PORT				WHITE (1) PORT				WHITE (1) PORT

HYBRID/DISCREET CABLES

INCLUDE SECTOR BANDS BEING SUPPORTED AMONG WITH FREQUENCY BANDS

EXAMPLE 1 - HYBRID, OR DISCREET, SUPPORTS ALL SECTORS, BOTH LOW-BANDS AND MID-BANDS

EXAMPLE 2 - HYBRID, OR DISCREET, SUPPORTS CBRS ONLY, ALL SECTORS

EXAMPLE 1	EXAMPLE 2
ORANGE	ORANGE
BLUE	BLUE
GREEN	GREEN
ORANGE	YELLOW
PURPLE	

HYBRID/DISCREET CABLES

LOW-BAND RRH FIBER CABLES HAVE SECTOR STRIPE ONLY

LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	LOW BAND RRH	LOW BAND RRH	LOW BAND RRH
ORANGE	PURPLE	ORANGE	ORANGE	ORANGE	ORANGE
		BLUE	BLUE	GREEN	GREEN
			PURPLE		PURPLE

POWER CABLES TO RRHs

LOW-BAND RRH POWER CABLES HAVE SECTOR STRIPE ONLY

LOW BAND RRH	HIGH BAND RRH	LOW BAND RRH	LOW BAND RRH	LOW BAND RRH	LOW BAND RRH
ORANGE	PURPLE	ORANGE	ORANGE	ORANGE	ORANGE
		BLUE	BLUE	GREEN	GREEN
			PURPLE		PURPLE

RET MOTORS AT ANTENNAS

PORT 1/ ANTENNA 1 "IN"	PORT 1/ ANTENNA 1 "IN"	PORT 1/ ANTENNA 1 "IN"
ORANGE	ORANGE	ORANGE
	BLUE	GREEN

MICROWAVE RADIO LINKS

LINKS WILL HAVE A 1.5-2 INCH WHITE WRAP WITH THE AZIMUTH COLOR OVERLAPPING IN THE MIDDLE. ADD ADDITIONAL SECTOR COLOR BANDS FOR EACH ADDITIONAL MW RADIO.

MICROWAVE CABINETS WILL REQUIRE P-TOUCH LABELS INSIDE THE CABINET TO IDENTIFY THE LOCAL AND REMOTE SITE ID'S.

PRIMARY	SECONDARY
WHITE	WHITE
RED	RED
WHITE	WHITE
	RED
	WHITE

RF CABLE COLOR CODES

NO SCALE

1

NOT USED

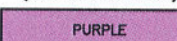
NO SCALE

4

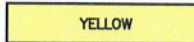
LOW BANDS (N71-N28)
OPTIONAL - (N29)



AWS
(N65+N70+H-BLOCK)



CBRS TECH
(3 GHz)



NEGATIVE SLANT PORT
ON ANTRRH



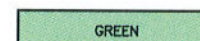
ALPHA SECTOR



BETA SECTOR



GAMMA SECTOR



COLOR IDENTIFIER

NO SCALE

2

NOT USED

NO SCALE

3

dish
wireless, LLC.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

DRAWING
PREPARED BY:
TEMSCO, P.C.
ON BEHALF OF:
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DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #: ---

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B	08/10/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
SYSYR00328B

DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
**RF
CABLE COLOR CODE**

SHEET NUMBER

RF-1

GENERAL:

1. COORDINATE THE STRUCTURAL WORK WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL AND PIPING WORKS.
2. VERIFY ALL DIMENSIONS IN THE FIELD. DURING ERECTION AND CONSTRUCTION PHASES, PROVIDE ADEQUATE SHORING AND TEMPORARY BRACING OF ALL STRUCTURAL COMPONENTS AND ASSEMBLAGES. NOTIFY OEST OF ALL FIELD CHANGES OR DIMENSION DISCREPENCIES PRIOR TO FRABRICATION OR ERECTION.
3. THE STRUCTURAL STEEL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANCHOR BOLT LOCATIONS, ELEVATION OF TOP OF CONCRETE COLUMN AND BEARING PLATES, ALIGNMENT ETC. PRIOR TO THE START OF STEEL ERECTION

CODES:

1. ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE 2020 NEW YORK STATE BUILDING CODE (BASED ON IBC 2018.)
2. ADDITIONAL REFERENCED STANDARDS:
 - A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION – ALLOWABLE STRESS DESIGN 2016, 15TH EDITION
 - B. AMERICAN SOCIETY OF CIVIL ENGINEERS ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
3. ALL APPLICABLE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND THE AMERICANS WITH DISABILITIES ACT (ADA).

STRUCTURAL AND MISCELLANEOUS STEEL:

1. STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AISC – SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS – ALLOWABLE STRESS DESIGN, 2016 (15TH EDITION).
2. HIGH STRENGTH BOLTS SHALL BE IN ACCORDANCE WITH AISC – SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR 490 BOLTS.
3. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USE AWS PREQUALIFIED JOINT DETAILS.
4. STRUCTURAL STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING:
 - A. CONNECTION MATERIAL, EMBEDDED ITEMS, HOT ROLLED STRUCTURAL SHAPES, BASE PLATES AND MIS. STEEL. ASTM A36
 - B. STRUCTURAL TUBES ASTM A500 GRADE B
 - C. STEEL PIPE ASTM A53, GRADE B
 - D. STRUCTURAL BOLTS ASTM A325-W U.N.O.
 - E. ANCHOR BOLTS ASTM A307 OR ASTM A36
 - F. THREADED RODS ASTM A36 OR ASTM A307
 - G. WELDING ELECTRODES E70XX

DESIGN CRITERIA:

1. THE STRUCTURES DETAILED IN THESE DRAWINGS HAVE BEEN DESIGN TO RESIST THE FOLLOWING CODE-REQUIRED MINIMUM GRAVITY AND LATERAL LOADS:

1.1.	RISK CATEGORY	II
1.2.	BASIC WIND SPEED (V)	109 MPH
1.3.	WIND EXPOSURE CATEGORY	B
1.4.	GROUND SNOW LOAD (Pf)	50 PSF
1.5.	SHORT PERIOD ACCELERATION (Ss)	0.141
1.6.	1-SECOND ACCELERATION (S1)	0.051
1.7.	UNIFORM LIVE LOAD	
1.7.1.	ELEVATED PLATFORMS	60 PSF



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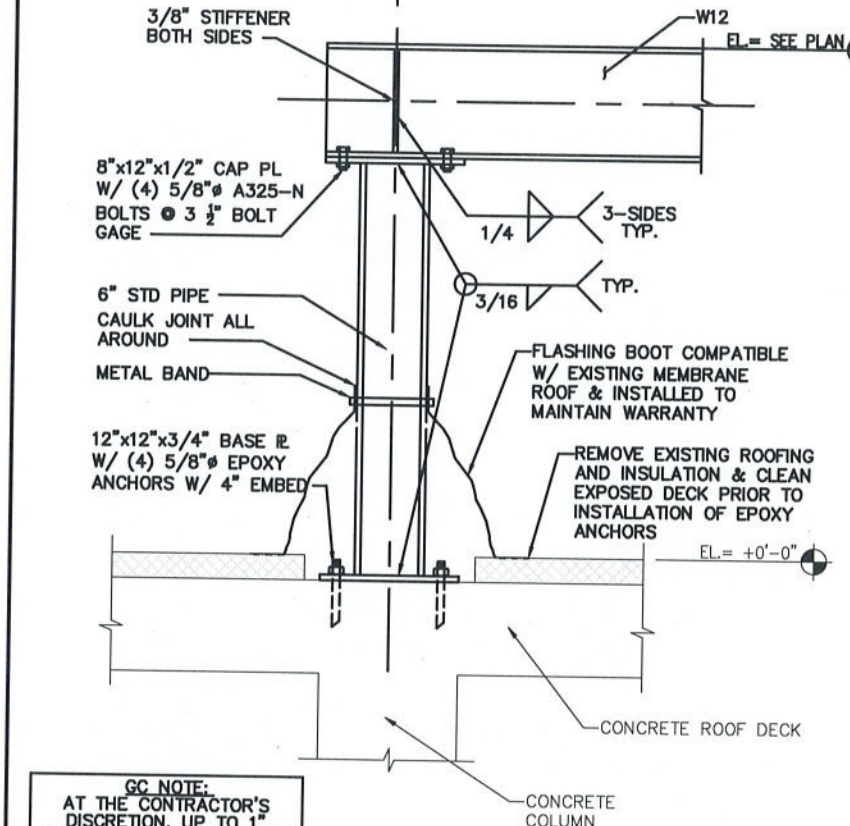
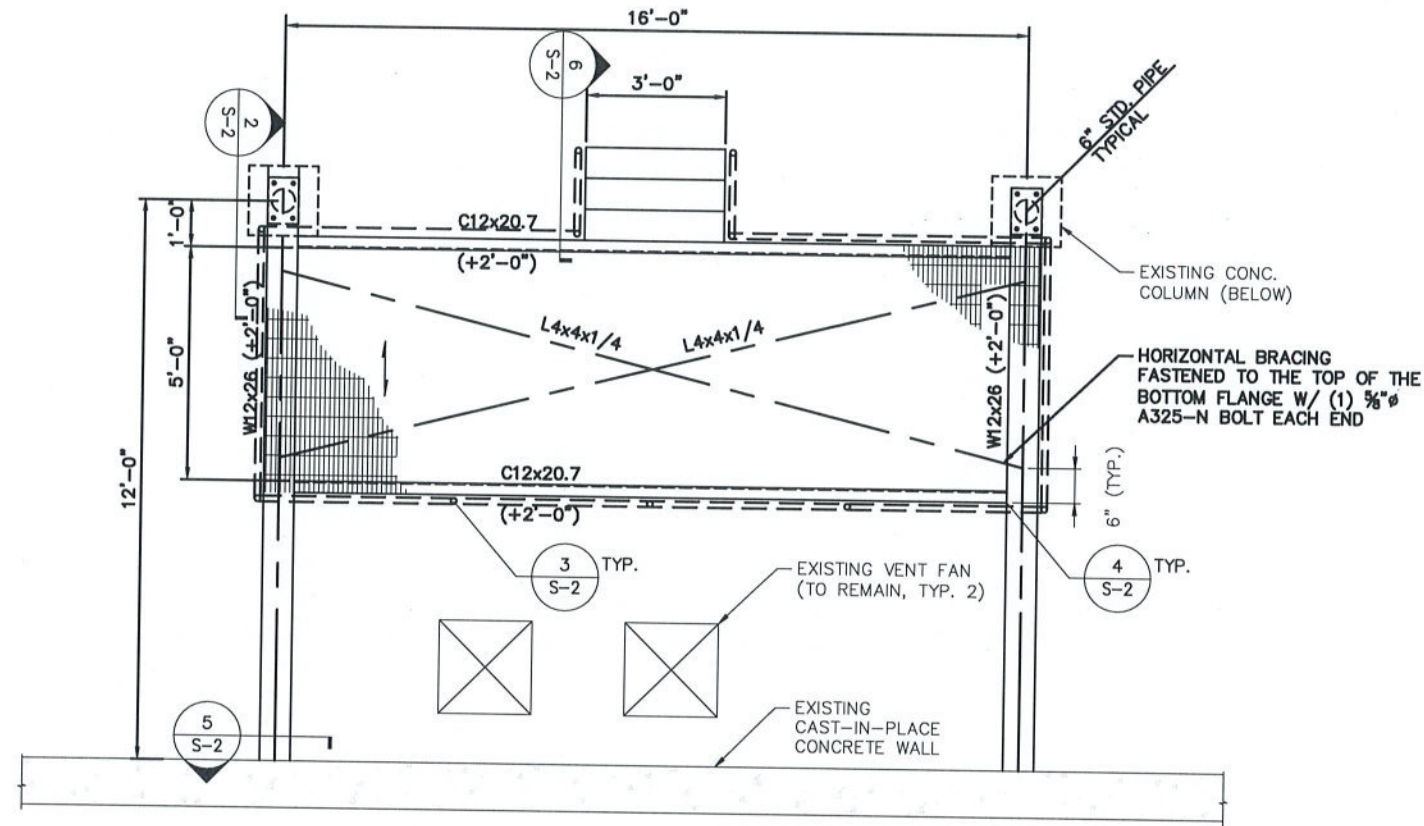
DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
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SHEET TITLE
GENERAL STRUCTURAL NOTES

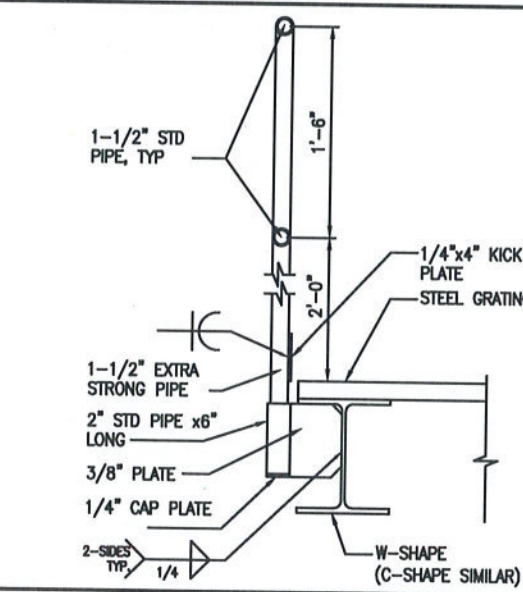
SHEET NUMBER

S-1

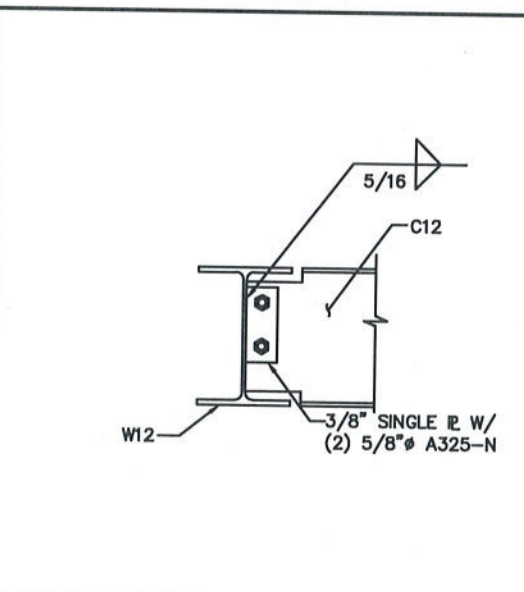


STRUCTURAL FRAMING SUPPORT POST 12' 9" 6" 3" 0 1" 2" 1"=1'-0" 2

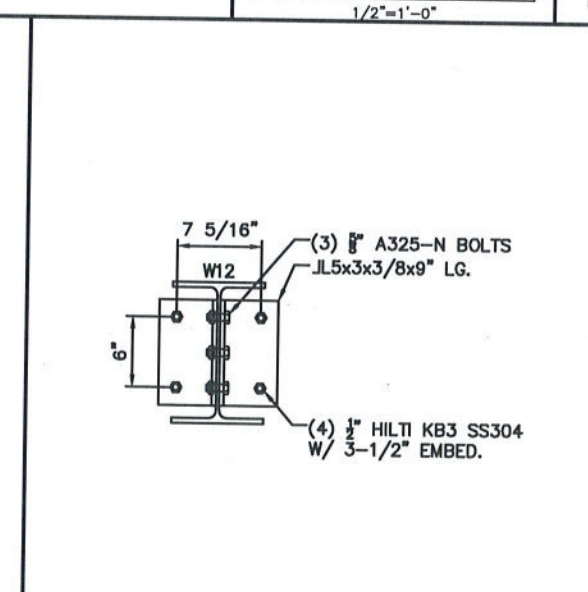
PLATFORM FRAMING PLAN 12' 6" 0 1' 2' 3' 4' 5' 1/2"=1'-0" 1



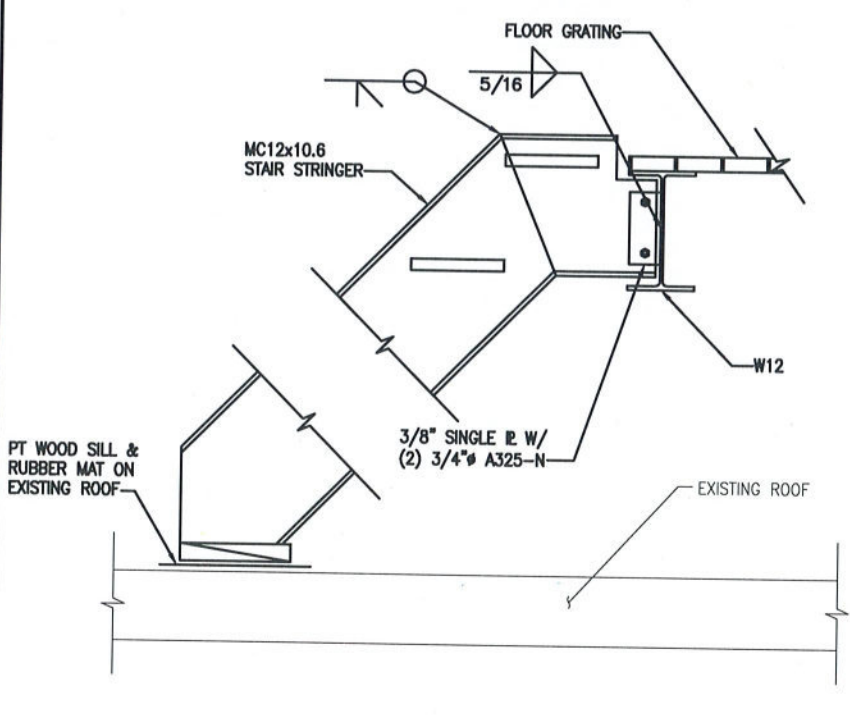
TYPICAL HANDRAIL DETAIL NO SCALE 3



TYPICAL BEAM FRAMING DETAIL NO SCALE 4



CONCRETE ANCHORAGE DETAIL NO SCALE 5



TYPICAL PLATFORM STAIR DETAIL 12' 9" 6" 3" 0 1" 2" 1"=1'-0" 6

dish
wireless, LLC.

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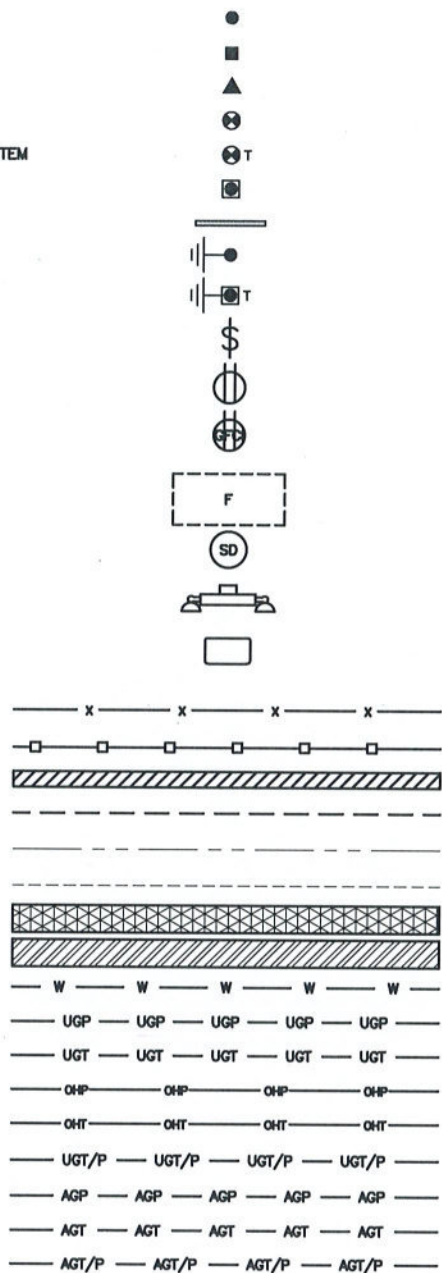
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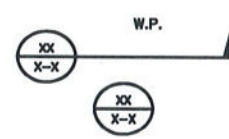
SHEET TITLE
GENERAL STRUCTURAL
PLANS & DETAILS

SHEET NUMBER
S-2

EXOTHERMIC CONNECTION
 MECHANICAL CONNECTION
 BUSS BAR INSULATOR
 CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
 EXOTHERMIC WITH INSPECTION SLEEVE
 GROUNDING BAR
 GROUND ROD
 TEST GROUND ROD WITH INSPECTION SLEEVE
 SINGLE POLE SWITCH
 DUPLEX RECEPTACLE
 DUPLEX GFCI RECEPTACLE
 FLUORESCENT LIGHTING FIXTURE
 (2) TWO LAMPS 48-T8
 SMOKE DETECTION (DC)
 EMERGENCY LIGHTING (DC)
 SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
 DENNIN LITHONIA K-SR4-120-PE-DEBTXD
 WOOD/WROUGHT IRON FENCE
 WALL STRUCTURE
 LEASE AREA
 PROPERTY LINE (PL)
 SETBACKS
 ICE BRIDGE
 CABLE TRAY
 WATER LINE
 UNDERGROUND POWER
 UNDERGROUND TELCO
 OVERHEAD POWER
 OVERHEAD TELCO
 UNDERGROUND TELCO/POWER
 ABOVE GROUND POWER
 ABOVE GROUND TELCO
 ABOVE GROUND TELCO/POWER
 WORKPOINT



SECTION REFERENCE
 DETAIL REFERENCE



LEGEND

AB ANCHOR BOLT	IN INCH
ABV ABOVE	INT INTERIOR
AC ALTERNATING CURRENT	LB(S) POUND(S)
ADDL ADDITIONAL	LF LINEAR FEET
AFF ABOVE FINISHED FLOOR	LTE LONG TERM EVOLUTION
AFG ABOVE FINISHED GRADE	MAS MASONRY
AGL ABOVE GROUND LEVEL	MAX MAXIMUM
AC AMPERAGE INTERRUPTION CAPACITY	MB MACHINE BOLT
ALUM ALUMINUM	MECH MECHANICAL
ALT ALTERNATE	MFR MANUFACTURER
ANT ANTENNA	MGB MASTER GROUND BAR
APPROX APPROXIMATE	MIN MINIMUM
ARCH ARCHITECTURAL	MISC MISCELLANEOUS
ATS AUTOMATIC TRANSFER SWITCH	MTL METAL
AWG AMERICAN WIRE GAUGE	MTS MANUAL TRANSFER SWITCH
BATT BATTERY	MW MICROWAVE
BLDG BUILDING	NEC NATIONAL ELECTRIC CODE
BLK BLOCK	NM NEWTON METERS
BLKG BLOCKING	NO. NUMBER
BM BEAM	# NUMBER
BTC BARE TINNED COPPER CONDUCTOR	NTS NOT TO SCALE
BOF BOTTOM OF FOOTING	OC ON-CENTER
CAB CABINET	OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CANT CANTILEVERED	OPNG OPENING
CHG CHARGING	P/C PRECAST CONCRETE
CLG CEILING	PCS PERSONAL COMMUNICATION SERVICES
CLR CLEAR	PCU PRIMARY CONTROL UNIT
COL COLUMN	PRC PRIMARY RADIO CABINET
COMM COMMON	PP POLARIZING PRESERVING
CONC CONCRETE	PSF POUNDS PER SQUARE FOOT
CONSTR CONSTRUCTION	PSI POUNDS PER SQUARE INCH
DBL DOUBLE	PT PRESSURE TREATED
DC DIRECT CURRENT	PWR POWER CABINET
DEPT DEPARTMENT	QTY QUANTITY
DF DOUGLAS FIR	RAD RADIUS
DIA DIAMETER	RECT RECTIFIER
DIAG DIAGONAL	REF REFERENCE
DIM DIMENSION	REINF REINFORCEMENT
DWG DRAWING	REQ'D REQUIRED
DWL DOWEL	RET REMOTE ELECTRIC TILT
EA EACH	RF RADIO FREQUENCY
EC ELECTRICAL CONDUCTOR	RMC RIGID METALLIC CONDUIT
EL ELEVATION	RRH REMOTE RADIO HEAD
ELEC ELECTRICAL	RRU REMOTE RADIO UNIT
EMT ELECTRICAL METALLIC TUBING	RWY RACEWAY
ENG ENGINEER	SCH SCHEDULE
EQ EQUAL	SHT SHEET
EXP EXPANSION	SIAD SMART INTEGRATED ACCESS DEVICE
EXT EXTERIOR	SIM SIMILAR
EW EACH WAY	SPEC SPECIFICATION
FAB FABRICATION	SQ SQUARE
FF FINISH FLOOR	SS STAINLESS STEEL
FG FINISH GRADE	STD STANDARD
FIF FACILITY INTERFACE FRAME	STL STEEL
FIN FINISH(ED)	TEMP TEMPORARY
FLR FLOOR	THK THICKNESS
FDN FOUNDATION	TMA TOWER MOUNTED AMPLIFIER
FOC FACE OF CONCRETE	TN TOE NAIL
FOM FACE OF MASONRY	TOA TOP OF ANTENNA
FOS FACE OF STUD	TOC TOP OF CURB
FOW FACE OF WALL	TOF TOP OF FOUNDATION
FS FINISH SURFACE	TOP TOP OF PLATE (PARAPET)
FT FOOT	TOS TOP OF STEEL
FTG FOOTING	TOW TOP OF WALL
GA GAUGE	TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
GEN GENERATOR	TYP TYPICAL
GFCI GROUND FAULT CIRCUIT INTERRUPTER	UG UNDERGROUND
GLB GLUE LAMINATED BEAM	UL UNDERWRITERS LABORATORY
GLV GALVANIZED	UNO UNLESS NOTED OTHERWISE
GPS GLOBAL POSITIONING SYSTEM	UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
GND GROUND	UPS UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
GSM GLOBAL SYSTEM FOR MOBILE	VIF VERIFIED IN FIELD
HDG HOT DIPPED GALVANIZED	W WIDE
HDR HEADER	W/ WITH
HGR HANGER	WD WOOD
HVAC HEAT/VENTILATION/AIR CONDITIONING	WP WEATHERPROOF
HT HEIGHT	WT WEIGHT
IGR INTERIOR GROUND RING	

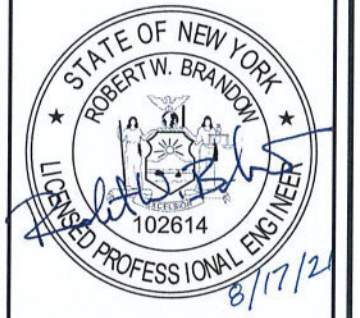
ABBREVIATIONS



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DISH WIRELESS, LLC.
 PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
 SYRACUSE_NY_13208

SHEET TITLE
LEGEND AND ABBREVIATIONS

SHEET NUMBER
GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH WIRELESS, LLC. AND TOWER OWNER NOC & THE DISH WIRELESS, LLC. AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH WIRELESS, LLC. AND TOWER OWNER SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH WIRELESS, LLC. AND DISH WIRELESS, LLC. AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH WIRELESS, LLC. AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH WIRELESS, LLC. AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH WIRELESS, LLC. AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH WIRELESS, LLC. AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH WIRELESS, LLC. AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: DISH WIRELESS, LLC.
TOWER OWNER: TOWER OWNER
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF DISH WIRELESS, LLC. AND TOWER OWNER
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.



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DRAWN BY:	CHECKED BY:	APPROVED BY:
MWM	RWB	RWB

RFDS REV #: _____

CONSTRUCTION DOCUMENTS

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REV	DATE	DESCRIPTION
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B	06/10/2021	ISSUED FOR REVIEW

A&E PROJECT NUMBER
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DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER 40 ksi
#5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - #6 BARS AND LARGER 2"
 - #5 BARS AND SMALLER 1-1/2"
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
 - SLAB AND WALLS 3/4"
 - BEAMS AND COLUMNS 1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH WIRELESS, LLC. AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH WIRELESS, LLC."
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.



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DRAWN BY: MWM CHECKED BY: RWB APPROVED BY: RWB

RFDS REV #: ---

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SYSYR00328B

DISH WIRELESS, LLC.
PROJECT INFORMATION
DW SYSYR00328B

947 POND STREET
SYRACUSE_NY_13208

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.

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wireless, LLC.

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SHEET TITLE
GENERAL NOTES

SHEET NUMBER

GN-4

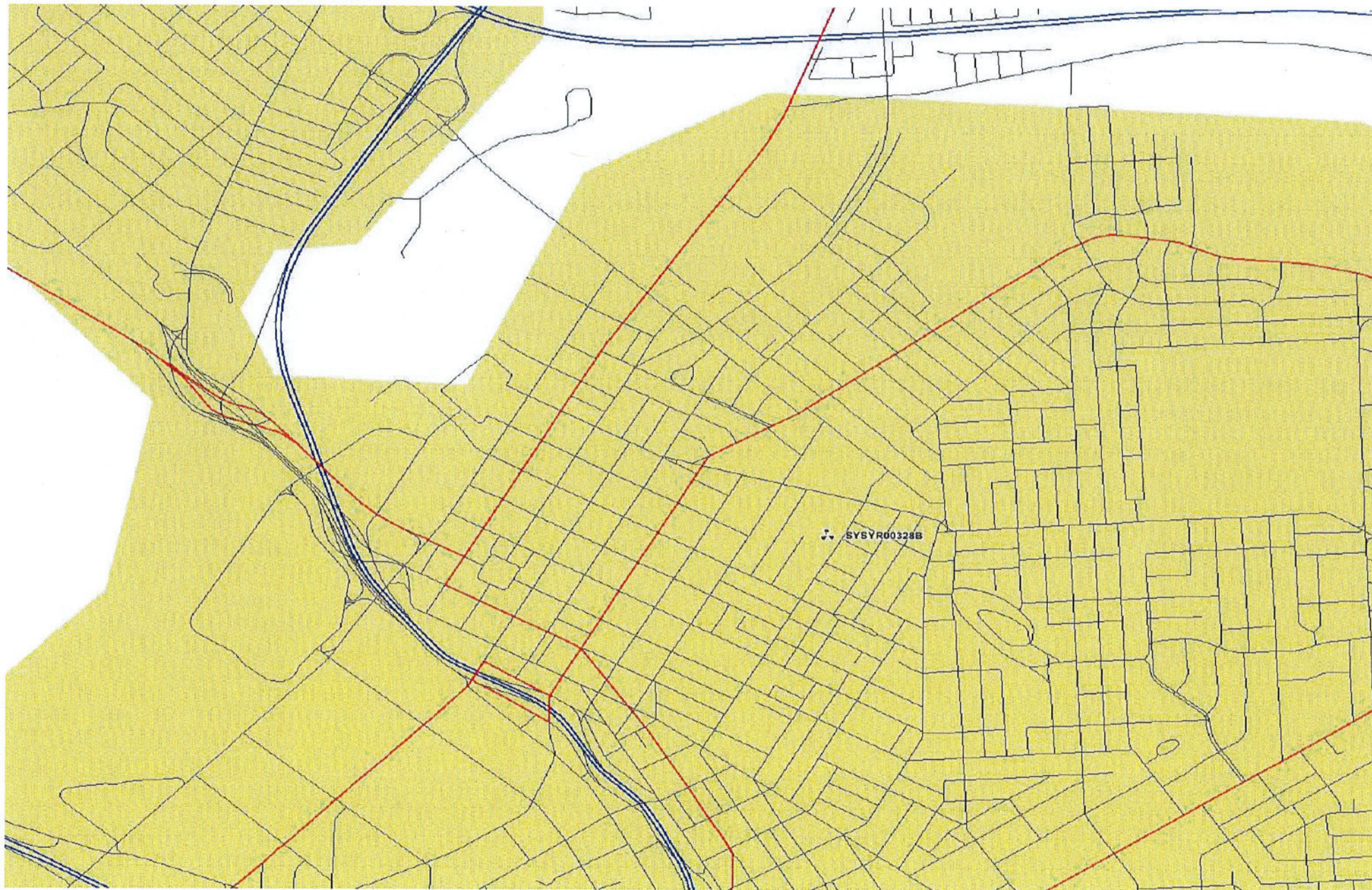
Zoning Coverage Plots SYSYR00328B

07-20-2021

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Zoning Coverage Plots

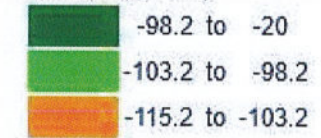


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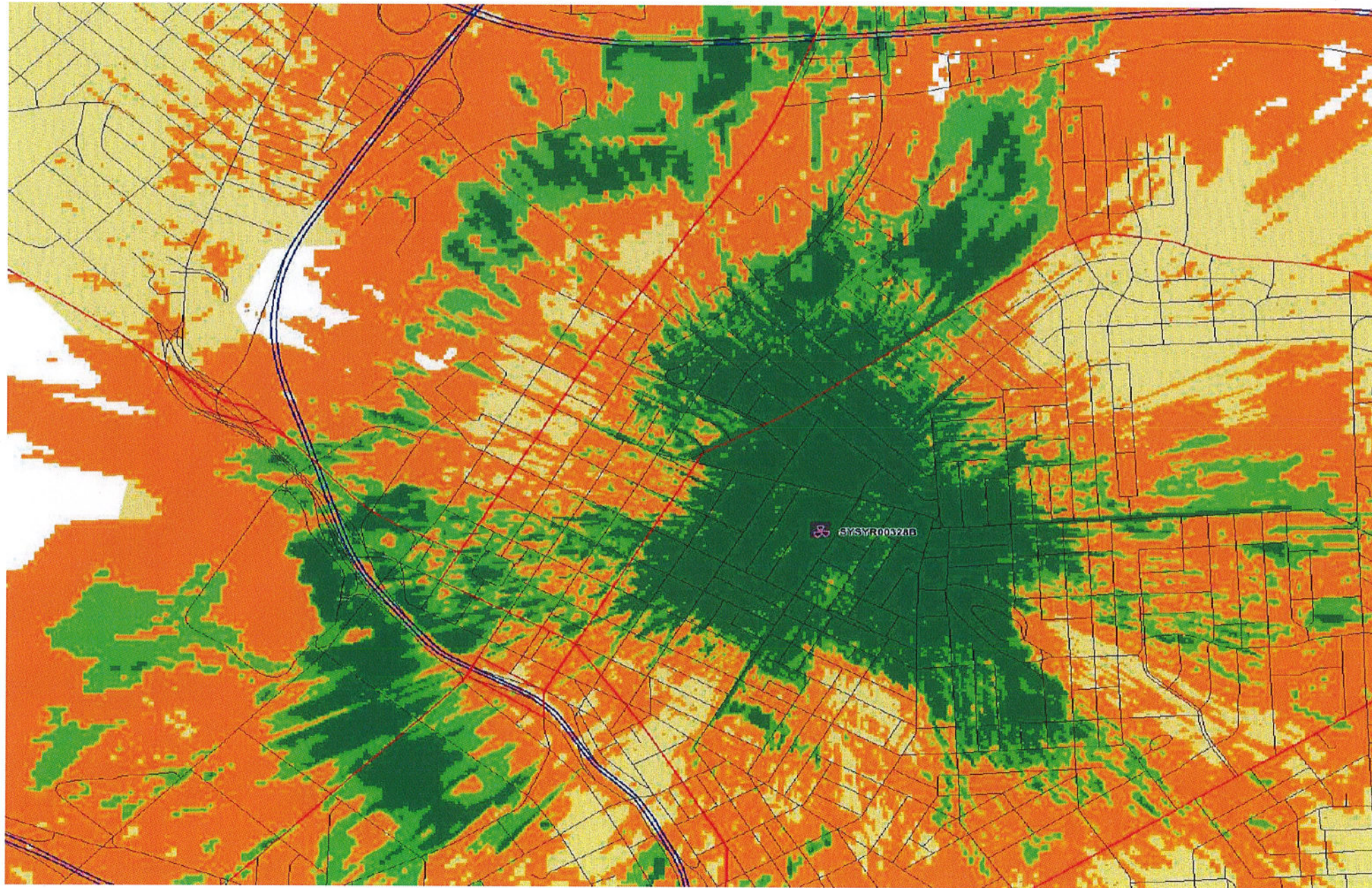
Coverage plot (n66) without
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RSRP (dBm)





Zoning Coverage Plots



Site ID

Date

Coverage plot (n66) with
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RSRP (dBm)

