

Received Date

LANCASTER COUNTY
555 SOUTH 10TH STREET
LINCOLN, NE 68508

L.C.E.D. Utility Permit No.

Application Date

Utility Company Project or WO No.

Application to Construct
Utilities On County property
Only ONE type of Utility per permit.

Lancaster County Contract No.

County Rep.

Application is hereby made to LANCASTER COUNTY ("County") by:

L.C.E.D. Maintenance District #

Name of Utility Owner ("Owner"):

Address:

Owner Phone:

Applicant Name:

Applicant Phone:

Applicant Address:

Applicant E-Mail:

(If Not Same As Owner)

To construct or maintain a utility or utilities on County right-of-way as follows:

Please be as specific in you location as you can. Cross streets, Addresses, Subdivision Name with Lot & Block numbers, Section-Township-Range.

LOCATION OF WORK:

UTILITY TO BE CONSTRUCTED

TYPE

DESCRIPTION

ANNOTATION

PROPOSED UTILITY INSTALLATION

METHOD

SIZE/WIDTH/
DIAMETER

DESCRIPTION

DEPTH/HEIGHT

DESCRIPTION

NAME, ADDRESS, AND CONTACT NUMBER OF CONTRACTOR(S) ("Contractor(s)") PERFORMING THE WORK (if Applicable):

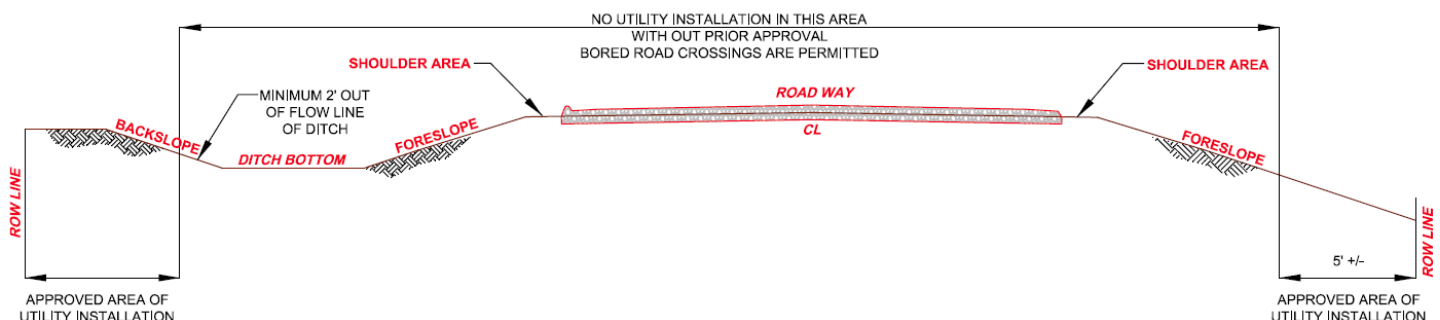
UTILITY PERMIT REQUIREMENTS

NOTE: If Engineer plan sheet project notes conflict with County's Utility Permit Application requirements and the Utility Permit Requirements, the Utility Permit Application Requirements and Utility Permit Requirements shall govern. An approved Utility Permit is required for all work being done in County right-of-way. **See Page 6 for additional requirements upon permit approval.**

1. Unless agreed to by County in writing, Owner/Contractor(s) shall meet the following Minimum Requirements:
 - A. **Location of any and all utility installations parallel to the existing roadway are limited to the backslope area up to the existing road right-of-way line. New utility installations will NOT be allowed in the roadway, roadway shoulder, roadway foreslope and/or roadway ditch areas unless specific special instructions are given by the County and noted on the permit;**
 - B. The depth to the top of the new utility installations shall be a minimum depth of 48 inches below the existing adjacent parallel roadway drainage ditch flowline, unless specific area depth instructions are allowed by County and noted on the permit;
 - C. In roadway fill sections with no backslope area within the road right-of-way area, the minimum depth to top of utility line shall be 48" from existing ground, unless specific special depth instructions are allowed by County and noted on the permit;
 - D. The minimum depth for burial beneath drainage structures, waterways, creek channels, or culverts within 5' of the utility route will be 72", as measured from the flow line of the drainage structure, waterway, or creek channel (whichever is lower), to the top of the utility;
 - E. No utility will be buried directly above a drainage structure, **regardless of the burial depth;**
 - F. All crossings with existing utilities will be separated by a minimum of 24";
 - G. All paved road and paved driveway crossings will be dry-bored;
 - H. All areas disturbed by construction will be restored to their pre-construction condition, including includes backfilling all open-cut crossings with material excavated from trench. No sand or crushed rock backfill will be allowed, and compaction of backfilled areas shall be at a density equal to or greater than the surrounding soil in and around trenches, bore pits, pull boxes, and other utility appurtenances. This section also requires the replacement of roadway and driveway surfacing lost or damaged by construction, and re-seeding of all areas disturbed by the work;
 - I. All trees, bushes, brush, debris piles, resulting from clearing or grubbing operations will become the property of the Owner/Contractor(s) and will be removed from County property at the Owner/Contractor(s) expense.
2. The Owner/Contractor(s) performing the work shall have on-site, a copy of approved Utility Permit allowing permitted work to be done within County Road Right-of-Way.
3. The Owner/Contractor(s) or their representative will mark all existing Lancaster County drainage structures along the proposed utility installation route 24 hours prior to construction at a culvert site. All structures will be marked in a manner so as to allow the Owner's Contractor(s) to identify all "Bore" locations. Owner/Contractor(s) shall furnish As-Built plans and submit area boring logs to document conformance with utility line depths.
4. **The Owner/Contractor(s) will notify Lancaster County Maintenance Superintendent Ron Bohaty at 402-441-7797, a MINIMUM of 48 hours, prior to commencing construction on county right-of way.**
5. Owner/Contractor(s) performing the work shall submit insurance conforming to the "Insurance Clause for Lancaster County Utility Permits," which is incorporated herein by this reference. Please note that "Insurance Clause for Lancaster County Utility Permits" requires, among other items, a certificate of insurance naming Lancaster County as additional insured on commercial general liability and auto policies, as well as a 30 day notice of cancelation, non-renewal or any material reduction of insurance coverage, prior to any activities in the County's right-of-wat. Please refer to the "Insurance Clause for Lancaster County Utility Permits" for full insurance requirements.
6. The Owner/Contractor(s) or their representative, shall contact the local utility companies and request location of any buried utilities. Damage to any utilities, either on County right-of-way or adjacent to County right-of-way, shall be repaired at the expense of the Owner/Contractor(s). In addition to any other indemnification obligations of Owner and Contractor(s), Owner and Contractor(s) by accepting and conducting work pursuant to this Utility Permit agree to indemnify, defend, and hold harmless the County, its elected officials, officers, employees, agents, consultants, and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorney fees, arising out of or resulting from Owner's or Contractor's(s') physical destruction or injury to utilities during Owner's or Contractor's(s') work pursuant to this Utility Permit, but only to the extent caused by the negligent, wrongful, or intentional acts or omissions of the Owner or Contractor(s), a subcontractor, anyone directly or indirectly employed by

them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by the negligence of a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce obligations of indemnity which would otherwise exist as to a party or person described in this paragraph. Nothing herein shall be construed to be a waiver of sovereign immunity by the County.

7. Future road construction work could necessitate relocation of utilities. Those utility relocation costs shall be borne by the Owner, and Owner's heirs, administrators, executors, legal and personal representatives, successors, and assigns.
8. All trenches shall be backfilled the same day trench was excavated except for the portion where the work is to be continued the next day. The portion left open for work continuation shall be protected by barricades with flashing lights at night. No open trenches in the roadway will be allowed overnight, except when such roadway is closed for construction, or except with prior conditional approval to be noted on page #6 of this document.
9. Roads may be closed for a maximum of 12 hours, with prior review and written approval from the County. (See #11 for signage layout)
10. Road closures longer than 12 hours will require prior review and written approval of the County, and a detour plan approved by the County. (See #11 for signage layout)
11. Three Type III barricades w/Type A flashing lights shall be placed on each side of construction site. "Road Closed" {R 1 1-2} signs shall be mounted on the middle barricade on each side of the construction site. At the nearest intersection each way from crossing, a "Road Close _____ Miles ahead -- Local Traffic Only" (R11-3) sign shall be placed.
12. All barricading, flagmen, warning signs, and other traffic control measures implemented pursuant to this Utility Permit shall conform to the current **Manual on Uniform Traffic Control Devices**.
13. No equipment shall be left unattended on public right-of-way. No trenches shall be left open after working hours. No equipment shall block traffic control devices.
14. All pipe and encasements shall conform to State Highway Standards.
15. All Right-of-Way and/or utility line control and staking shall be done by Owner/Contractor(s) and or their agents.
16. Upon completion of construction Owner/Contractor(s) shall provide the County with As-Built plans and submit boring logs to document utility depth and location.
17. **Notification of proposed utility work to adjacent landowners shall be the responsibility of the Owner/Contractor(s).**
18. **A minimum 10 working day review for possible County Board approval, Board approval may add an additional 10-14 working days.**
19. **Owner/Contractor(s) shall be responsible to notify the County upon completion of permitted utility work.**
20. **Failure to comply with the Utility Permit Requirements may result in revocation of this Utility Permit, and denial of future Utility Permits.**



Owner/Contractor(s) agrees to construct the stated utility in accordance with the Utility Permit Requirements as written herein. After final review and approval see "Additional Provisions" or "Special Requirements" as listed on page following signature sheets. Any "Additional Provisions" or "Special Requirements" as listed, will be enforced as a part of this Utility Permit.

By signing this Application below, the individual signing on behalf of the Owner/Applicant hereby agrees and represents that he or she is legally capable to sign this Application and to lawfully bind the Owner to the terms and conditions of this Utility Permit.

Approximate installation start date _____, Approximate installation completion date_____.

OWNER/UTILITY:

DATE:

SIGNED BY
OWNER/APPLICANT:



Digital signatures ARE accepted.
Please email form back to COENG@LANCASTER.NE.GOV

EXECUTION BY LANCASTER COUNTY

The above application is hereby approved subject to the requirements and provisions of the permit.

APPROVED and dated this _____ day of _____ by the Lancaster County
Board of Commissioners.

LANCASTER COUNTY BOARD OF COMMISSIONERS

Chairperson

APPROVED as to form

this _____ day of _____

Deputy County Attorney

REVIEWED this _____ day of _____, _____

Lancaster County Engineering Representative

Owner/Contractor(s) agrees to construct the stated utility in accordance with the Utility Permit Requirements as written herein. After final review and approval see "Additional Provisions" or "Special Requirements" as listed on page following signature sheets. Any "Additional Provisions" or "Special Requirements" as listed, will be enforced as a part of this Utility Permit.

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Date

Lancaster County Representative

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"Additional Provisions" or "Special Requirements" (TO BE FILLED IN BY COUNTY PERSONNEL)

Encasement Requirements:

Barricade, Signing and Flagging Requirements:

Methods of Installation:

Minimum Cover Provided in Road Ditches:

Other Requirements:

Additional Comments:

**INSURANCE CLAUSE
FOR LANCASTER COUNTY ENGINEER UTILITY PERMITS**

1. Insurance; Coverage Information

The Contractor agrees that it shall, prior to beginning work pursuant to this Utility Permit, have, maintain, and provide proof of insurance coverage in a form satisfactory to the County and fulfilling all obligations set forth in this Insurance Clause. The County shall not withhold approval unreasonably. The coverages and minimum levels required by this Utility Permit are set forth herein and shall be in effect at all times that work is being done pursuant to this Utility Permit. No work pursuant to this Utility Permit shall begin until all insurance obligations herein are met to the satisfaction of the County. Self-insurance shall not be permitted unless written consent is given by the County prior to execution of the Utility Permit and may require submission of financial information for analysis. Deductible levels shall be provided in writing from the Contractor's insurer and will be no more than \$25,000.00 per occurrence. Said insurance shall be written on an **OCCURRENCE** basis, and shall be **PRIMARY, with any insurance coverage maintained by the County being secondary or excess.**

2. Certificates

The Contractor shall provide certificates of insurance and endorsements evidencing compliance with these requirements. The Contractor shall provide a Certificate of Insurance demonstrating the coverage required herein and the necessary endorsements and waivers described herein and below before being permitted to begin the work or project pursuant to this Utility Permit. All certificates, endorsements and endorsement forms (where required) must be acceptable to the County. Certificates shall include an endorsement to provide for at least thirty (30) days' firm written notice in the event of cancellation. During the term of the Utility Permit and during the period of any required continuing coverages, the Contractor shall provide, prior to expiration of the policies, certificates and endorsement forms evidencing renewal insurance coverages. The parties agree that the failure of County to object to the form of a certificate and/or additional insured endorsement or endorsement forms provided shall not constitute a waiver of this requirement.

3. Commercial General Liability

The Contractor shall have, maintain, and provide proof of Commercial General Liability Insurance with a minimum limit of not less than \$1,000,000.00 each occurrence and \$2,000,000.00 aggregate. These minimum limits can be met by primary and umbrella liability policies. Coverage shall include: Premises-Operations, Products/ Completed Operations, Contractual, Broad Form Property Damage, and Personal Injury. Such coverage shall be endorsed for the general aggregate to be on a **PER PROJECT** basis. The required insurance must include coverage for all projects and operations of Contractor or similar language that meets the approval of the County, which approval shall not be unreasonably withheld.

3.1 Automobile Liability

The Contractor shall have, maintain, and provide proof of Automobile Liability coverage, which shall include: Owned, Hired and Non-Owned. Bodily Injury and Property Damage Combined Single Limit shall be at least \$1,000,000 Per Accident.

3.2 Additional Insured (Requires an Endorsement Form)

Contractor shall add County as an Additional Insured, and shall provide an Additional Insured Endorsement Form showing the County as Additional Insured, on Contractor's Commercial General Liability policy and Contractor's Automobile policy.

3.3 Intentionally Omitted

3.4. Workers' Compensation; Employers' Liability

The Contractor shall have, maintain, and provide proof of workers' compensation insurance of not less than minimum statutory requirements under the laws of the State of Nebraska and any other applicable State. Employers' Liability coverage with limits of not less than \$500,000.00 each accident or injury shall be included. The Contractor shall provide the County with an endorsement for waiver of subrogation. The contractor shall also be responsible for ensuring that all subcontractors have workers' compensation insurance for their employees before and during the time any work is done pursuant to this Utility Permit.

3.5 Intentionally Omitted

3.5.1 Intentionally Omitted

3.6 Intentionally Omitted

3.7 Intentionally Omitted

3.8 Railroad Contractual Liability Insurance (Required only if appropriate)

If work is to be performed within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road beds, tunnel, underpass or railroad crossing, the Contractor must have, maintain, and provide a copy of an endorsement (ISO® form CG24170193 or newer) that removes or deletes any exception for such work in the Contractor's commercial general liability policy. Any endorsement not described herein shall be subject to the approval of the County.

3.8.1 Railroad Protective Liability (Required only if appropriate)

If work is to be performed within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, road beds, tunnel, underpass or crossing or otherwise required by the Special Provisions or applicable requirements of an affected railroad, the Contractor shall have, maintain, and provide proof of Railroad Protective Liability Insurance naming the affected railroad/s as insured with minimum limits for bodily injury and property damage of \$2,000,000 per occurrence, \$6,000,000 aggregate, or such other limits as required in the Special Provisions or by the affected railroad. The original of the policy shall be furnished to the railroad and a certified copy of the same furnished to the County Engineer prior to any related construction or entry upon railroad premises by the Contractor or for work related to the Utility Permit.

3.9 Intentionally Omitted

4. Risk of Loss

Except to the extent covered by the Contractor's builder's risk insurance, the Contractor shall have the sole responsibility for the proper storage and protection of, and assumes all risk of loss of, any Subcontractor's Work and tools, materials, equipment, supplies, facilities, offices and other property at or off the project site. The Contractor shall be solely responsible for ensuring each subcontractor shall take every reasonable precaution in the protection of all structures, streets, sidewalks, materials and work of other subcontractors. Contractor shall protect its Work from damage by the elements or by other trades working in the area.

5. Umbrella or Excess Liability

The Contractor may use an Umbrella, Excess Liability, or similar coverage to supplement the primary insurance stated above in order to meet or exceed the

minimum coverage levels required by this Utility Permit.

6. Minimum Scope of Insurance

All Liability Insurance policies shall be written on an "Occurrence" basis only. All insurance coverage are to be placed with insurers authorized to do business in the State of Nebraska and must be placed with an insurer that has an A.M. Best's Rating of no less than A:VII unless specific written approval has been granted otherwise.

7. Indemnification

To the fullest extent permitted by law the Contractor shall indemnify, defend, and hold harmless the County, its elected officials, officers, employees, agents, consultants, and employees of any of them from and against any and all claims, damages, losses and expenses, including but not limited to attorney fees, arising out of or resulting from performance under this Utility Permit, including claims, damages, losses and expenses arising out of, but not limited to, claims, damages, losses and expenses for deprivations of civil rights, bodily injury, sickness, disease or death, or to injury to or destruction of tangible or intangible property, but only to the extent caused by the negligent, wrongful, or intentional acts or omissions of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claims, damages, losses or expenses are caused in part by the negligence of a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce obligations of indemnity which would otherwise exist as to a party or person described in this paragraph. Nothing herein shall be construed to be a waiver of sovereign immunity by the County.

8. Reservation of Rights

The County reserves the right to require a higher limit of insurance or additional coverages when the County determines that a higher limit or additional coverage is required to protect the County or the interests of the public.

9. Sovereign Immunity

Nothing contained in this Insurance Clause or any other clauses, provisions, documents, attachments, or other portions of the Utility Permit shall be construed to waive the Sovereign Immunity of the County.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY – OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

The following is added to the **Other Insurance** Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

BUSINESS AUTO ENHANCEMENT – PLATINUM PLUS

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

SUMMARY OF COVERAGE EXTENSIONS

Paragraph No.	Name Of Extension	Limit or Included
A.	Additional Insured by Contract Or Agreement Including Primary and Noncontributory Other Insurance Condition	Included
B.	Airbags - Extended Coverage	Included
C.	Telematics & GPS Equipment Coverage	\$2,500
D.	Electronic Equipment – Increased Coverage	\$2,500
E.	Auto Loan/Lease Gap Coverage	Unlimited
F.	Autos Rented by Employees	Included
G.	Bail Bonds - Extended Coverage	\$5,000
H.	Broad Form Named Insured Including Newly Acquired or Formed Organizations	Included
I.	Custom Signs & Decorations	Included
J.	Employees as Insureds	Included
K.	Family Emergency Travel Reimbursement	\$2,500
L.	Fellow Employee Coverage	Included
M.	Fire Extinguisher Recharge	Included
N.	Glass Repair – No Deductible	Included
O.	Hired Auto Physical Damage and Increased Loss of Use Expenses Loss of use (Per Day / Maximum)	\$100,000 \$500 / \$3,500
P.	Hybrid Auto Payment Coverage (per auto / per loss)	\$2,500/ \$5,000
Q.	Knowledge Of An Accident, Claim, Suit Or Loss	Included
R.	Limited Worldwide Hired & Non Owned Auto Coverage	Included
S.	Loss Of Earnings - Extended Coverage	\$1,000
T.	New Vehicle Replacement Cost	Included
U.	Rental Reimbursement Coverage	
	Maximum Rental Expenses Per Day	\$75
	Maximum Rental Expenses Because Of Loss To Any One Covered "Auto"	\$3,375
	Maximum Rental Expenses Because Of Loss To All Covered "Autos" In Any One Policy Period	\$15,000

V.	Personal Effects Coverage	\$500
W.	Resultant Mental Anguish	Included
X.	Towing And Labor Coverage Extension Private Passenger Type Other than Private Passenger Type	\$200 \$250
Y.	Transportation Expenses - Coverage Extension (Per Day / Maximum)	\$75 / \$2,500
Z.	Unintentional Failure To Disclose Hazards	Included
AA.	Waiver Of Collision Deductible – Attached Autos	Included
BB.	Waiver Of Subrogation By Contract Or Agreement	Included

A. ADDITIONAL INSURED BY CONTRACT OR AGREEMENT INCLUDING PRIMARY AND NONCONTRIBUTORY OTHER INSURANCE CONDITION

The following is added to Paragraph **A.1. Who Is An Insured of Section II – Covered Autos Liability Coverage:**

When you have agreed in a written contract or agreement to include a person or organization as an additional insured, such person or organization is included as an "insured" subject to the following:

1. Such person or organization is an additional insured only to the extent such person or organization is liable for "bodily injury" or "property damage" because of the conduct of an "insured" under Paragraphs **a.** or **b.** under Paragraph **A.1. Who Is An Insured of Section II – Covered Autos Liability Coverage**, caused by an "accident" and resulting from the ownership, maintenance or use of a covered "auto".
2. The written contract or agreement described above must have been executed prior to the "accident" that caused the "bodily injury" or "property damage" and be in effect at the time of such "accident".
3. The insurance afforded to any such additional insured does not apply to any "accident" beyond the period of time required by the written contract or agreement described above.
4. The most we will pay on behalf of such additional insured(s) is the lesser of:
 - a.** The Limits of Insurance specified in the written contract or agreement described above; or
 - b.** The Limits of Insurance shown in the Declarations.

This provision shall not increase the Limit of Insurance shown in the Declarations in this policy or coverage part.

5. The following changes are made to Paragraph **5.** Other Insurance of **B. General Conditions under Section IV – Business Auto Conditions:**

- a.** The following is added to Paragraph **5.a.:**

If required by the written contract or agreement described above, the insurance afforded to the additional insured under this provision will be primary to, and will not seek contribution from, the additional insured's own insurance.

- b.** Paragraph **5.c.** is deleted in its entirety.

6. Paragraph **A.1.c.** under Section **II - Covered Autos Liability Coverage** is deleted in its entirety.

7. The definition of "insured contract" under Section **V – Definitions** is amended to add the following:

An "insured contract" does not include that part of any contract or agreement: That pertains to the ownership, maintenance or use of an "auto" and which indemnifies a person or organization for other than the vicarious liability of such person or organization for "bodily injury" or "property damage" caused by your operation or use of a covered "auto".

However, a person or organization is an additional "insured" under this provision only to the extent such person or organization is not named as an "insured" by separate endorsement to this policy.

B. AIRBAGS- EXTENDED COVERAGE

Section **III – Physical Damage Coverage**, Paragraph **B.3.a.** does not apply to the unintended discharge of an airbag. Coverage is excess over any other collectible insurance or warranty specifically designed to provide coverage.

C. TELEMATICS & GPS EQUIPMENT COVERAGE

Physical Damage Coverage is amended as follows:

1. In Section III – Physical Damage Coverage, Paragraphs B.4.c. and B.4.d. do not apply to:
 - a. Global positioning systems; or
 - b. “Telematics devices”;which are not:
 - (1) Permanently installed in or upon the covered "auto";
 - (2) Removable from a housing unit which is permanently installed in or upon the covered "auto";
 - (3) An integral part of the same unit housing any electronic equipment described in Paragraphs a. and b. above; or;
 - (4) Necessary for the normal operation of the covered "auto" or the monitoring of the covered "auto's" operating system.
2. In the event of a “loss” to a covered “auto”, the most we will pay for “loss” to global positioning systems and “telematics devices” in any one covered “auto” is the lesser of:
 - a. The actual cash value of the damaged or stolen property at the time of loss;
 - b. The cost of repairing or replacing damaged or stolen property with other property of like kind and quality; or
 - c. \$2,500
3. For each covered “loss”, a deductible of \$100 shall apply.

“Telematics Devices” include devices that are not installed by the vehicle manufacturer and that are designed for the collection and dissemination of data for the purpose of monitoring vehicle and/or driver performance. This includes global positioning systems and wireless safety communication devices.

Cellular, mobile and smart phones are not considered global positioning systems or “telematics devices” for purposes of this coverage provision.

D. ELECTRONIC EQUIPMENT – INCREASED COVERAGE

The \$1,000 limit indicated in Paragraph C.1.b. under Section III – Physical Damage Coverage is increased to \$2,500.

E. AUTO LOAN/LEASE GAP COVERAGE

The following is added to Section III – Physical Damage Coverage, Paragraph C.:

In the event of a total "loss" to a covered "auto", we will pay any unpaid amount due on the lease or loan for a covered "auto", less:

The amount paid under the Physical Damage Coverage section of the policy; and any:

1. Overdue lease/loan payments at the time of the "loss";
2. Financial penalties imposed under a lease for excessive use, abnormal wear and tear or high mileage;
3. Security deposits not returned by the lessor;
4. Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease; and
5. Carry-over balances from previous loans or leases.

However, this provision does not apply to the extent loan/lease gap coverage has been provided by separate endorsement to this policy.

F. AUTOS RENTED BY EMPLOYEES

The following is added to Section II – Covered Autos Liability Coverage, Paragraph A.1.:

The following is added to the Who Is An Insured Provision:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business

G. BAIL BONDS - EXTENDED COVERAGE

Section II – Covered Autos Liability Coverage, Paragraph A.2.a.(2) is deleted and replaced by the following:

- (2) Up to \$5,000 for cost of bail bonds (including bonds for related traffic law violations) required because of an “accident” we cover. We do not have to furnish these bonds.

H. BROAD FORM NAMED INSURED INCLUDING NEWLY ACQUIRED OR FORMED ORGANIZATIONS

The following is added to sub paragraph **A1. Who Is An Insured** of **Section II – Covered Autos Liability Coverage**:

For any covered “auto”;

Any organization, other than a partnership, joint venture or limited liability company, over which you maintain ownership or majority interest of more than 50 percent on the effective date of this endorsement and for which you are obligated prior to the loss to provide insurance, unless that organization is an “insured” under any other automobile policy or would be an “insured” under such a policy but for the exhaustion of its Limit of Insurance.

Any organization you newly acquire or form, other than a partnership, joint venture or limited liability company or any organization excluded either by this Coverage Part or by endorsement, and over which you maintain ownership or majority interest of more than 50 percent will qualify as a Named Insured. However:

1. This insurance does not apply to any newly acquired or formed organization that is an “insured” under any other automobile policy or would be an “insured” under such policy but for its termination or the exhaustion of its Limit of Insurance.
2. Coverage under this provision does not apply to “bodily injury”, “property damage”, expense or “loss” that occurred before you acquired or formed the organization.
3. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

I. CUSTOM SIGNS & DECORATIONS

Physical Damage coverage on a covered “auto” extends to “loss” to custom signs and decorations including custom murals, paintings or other decals or graphics.

Our limit of liability for each “loss” to custom signs and decorations shall be the least of:

- (1) Actual cash value of the stolen or damaged property; or
- (2) Amount necessary to repair or replace the property;

This coverage does not apply to Hired Auto Physical Damage Coverage.

J. EMPLOYEES AS INSURED

Section II- Covered Autos Liability Coverage, Paragraph **A.1.b.(2)** is deleted and replaced by the following:

- (2) Any “employee” of yours is an “insured” while using a covered “auto” you don’t own, hire or borrow in your business or your personal affairs.

However, the insurance provided by this provision, **I. EMPLOYEES AS INSURED**, does not apply if separate Employee as Insured coverage (or any similar or equivalent coverage) has been provided by a separate endorsement issued by us and made a part of this policy or coverage part.

K. FAMILY EMERGENCY TRAVEL REIMBURSEMENT

SECTION II - LIABILITY COVERAGE, A. 2. Coverage Extensions is amended to include the following:

In addition to the Limit of Insurance, we will pay reasonable “travel reimbursement expenses” incurred by a “family member” or “designated representatives”, of an “insured” or passenger for travel to visit that “insured” or passenger who was injured in an “accident” involving a covered “auto”, subject to the following conditions:

1. Regardless of the number of traveling “family members” or “designated representatives”, injured “insureds” or passengers, claims made or vehicles involved in the “accident”, the most we will pay for all “travel reimbursement expenses” resulting from any one “accident” is \$ 2,500.
2. Travel must be to visit the injured party at the hospital to which such “insured” has been admitted and has received medical or surgical treatment for a period of 72 hours or more from the time of first admittance to such hospital, or in the event of death, to the location necessary to handle the immediate affairs of the deceased.
3. Subject to the \$2,500 per accident limit, the most we will pay for the combined total of expenses for room accommodations, meals, and parking for each “family member” or “designated representatives” is \$200 per day.
4. We will reimburse ground transportation using a personal vehicle at a rate of 40 cents

per mile for the actual miles driven.

5. All "travel reimbursement expenses" must be supported by written receipts submitted to us no later than 120 days from the date such "travel reimbursement expenses" were incurred.

"Travel reimbursement expenses" include reasonable ground, rail, or air (coach class) transportation, room accommodations, meals, and parking expenses only.

"Designated representative" is an individual identified by the "insured" as a close personal friend or as having decision making authority pertaining to the insured's care in the event of incapacity or death.

"Family member" means a person related to the injured "insured" by blood, marriage, state-recognized civil union, or adoption, including a ward or foster child.

L. FELLOW EMPLOYEE COVERAGE

Exclusion **B. 5.** of **Section II - Covered Autos Liability Coverage** is deleted and replaced with the following:

5. Fellow Employee

- a. "Bodily injury" to any fellow "employee" of an "insured" arising out of and in the course of the fellow "employee's" employment or while performing duties related to the conduct of your business; or
- b. The spouse, child, parent, brother or sister of that fellow "employee" as a consequence of Paragraph a. above.

However, this exclusion does not apply to liability incurred by your "employees" that are "executive officers".

No "employee" is an "insured" for "bodily injury" to a co-employee if such co-employee's exclusive remedy is provided under a workers compensation law or any similar law.

For the purpose of Fellow Employee Coverage only, paragraph **B.5.** of **Business Auto Conditions** is changed as follows:

This **FELLOW EMPLOYEE COVERAGE** is excess over any other collectible insurance.

As used in this provision, "executive officer" means a person holding any of the officer positions created by your charter, constitution, by-laws or any other similar governing document.

M. FIRE EXTINGUISHER RECHARGE

The following is added to Paragraph **A.4. Coverage Extensions** of **Section III – Physical Damage Coverage**:

When fire extinguishers are kept in your covered "auto" and are discharged in an attempt to extinguish a fire, we will pay the lesser of the actual cost of recharging or replacing such fire extinguisher(s).

No deductible applies to this coverage.

N. GLASS REPAIR – NO DEDUCTIBLE

Section III – Physical Damage Coverage, Paragraph **D.** is deleted and replaced by the following:

D. DEDUCTIBLE

For each covered "auto" our obligation to pay for, repair, return or replace damaged or stolen property will be reduced by the applicable deductible shown in the Declarations. Any Comprehensive Coverage deductible shown in the Declarations does not apply to:

1. "Loss" caused by fire or lightning; or
2. "Loss" when you elect to patch or repair glass rather than replace.

O. HIRED AUTO PHYSICAL DAMAGE COVERAGE AND INCREASED LOSS OF USE EXPENSES

Section III – Physical Damage Coverage, A. 4 Coverage Extensions is amended to include the following:

If hired "autos" are covered "autos" for Liability Coverage under this policy and if Physical Damage Comprehensive Coverage, Physical Damage Specified Causes Of Loss Coverage, or Physical Damage Collision Coverage is provided under this policy for any "auto" you own, then such Physical Damage Coverages are extended to apply to "autos" you lease, hire, rent or borrow without a driver, subject to the following provisions:

1. This extension is only available for "autos" you lease, hire, rent or borrow for less than 30 consecutive days.
2. The most we will pay in any one "loss" is the least of \$100,000, the actual cash value of the "auto" or the cost to repair or replace the "auto", except that such amount will be reduced by a deductible to be determined as follows:

- a. The deductible shall be equal to the

amount of the highest deductible shown for any owned "auto" of the same classification for that coverage. In the event there is no owned "auto" of the same classification, the highest deductible for any owned "auto" will apply for that coverage.

- b. No deductible will apply to "loss" caused by fire or lightning.
3. Coverage provided under this extension will be excess over any other collectible insurance you have.

Paragraphs 1 through 3 above do not apply if separate Hired Auto Physical Damage is indicated in the declarations.

4. For "autos" you lease, hire, rent or borrow covered under this Hired Auto Physical Damage Coverage extension or under separate coverage provided in the declarations, the limits in subparagraph **b. Loss Of Use Expenses** under paragraph **4. Coverage Extensions** as found in paragraph **A. Coverage of SECTION III – PHYSICAL DAMAGE COVERAGE**, are increased to \$500 per day, to a maximum of \$3,500.

P. HYBRID AUTO PAYMENT COVERAGE

Section III – Physical Damage Coverage, A. 4 Coverage Extensions is amended to include the following:

1. In the event of a total "loss" to a non-"hybrid auto" for which Comprehensive, Specified Causes of Loss, or Collision coverages are provided under the Business Auto Coverage form, then Physical Damage Coverages are amended as follows:
 - a. If a non-"hybrid auto" is replaced with a "hybrid auto" or "electric auto" we will pay an additional 10% of the non-"hybrid auto's" actual cash value or replacement cost, to a maximum of \$2,500, whichever is less;
 - b. The non-"hybrid autos" must be replaced and a copy of a bill of sale or lease agreement must be received by us within 60 calendar days of the date of "loss"; and
 - c. If more than one non-"hybrid auto" is damaged in any one "loss", the most we will pay under this Coverage for any one "loss" is \$5,000.

2. For the purpose of this coverage provision the following Definitions are added:

- a. "Hybrid auto" is defined as an "auto", including a hybrid "electric auto" that is powered by two sources, an internal combustion engine, and an electric motor.
- b. "Electric auto" is an "auto" that is powered by an electric motor instead of an internal combustion engine. The "electric auto" uses energy stored in its rechargeable batteries, which are recharged by common household electricity.

Q. KNOWLEDGE OF AN ACCIDENT, CLAIM, SUIT OR LOSS

The following is added to **Section IV – Business Auto Conditions, Paragraph A.2.:**

Notice of an "accident" or "loss" will be considered knowledge of yours only if reported to you, if you are an individual, a partner, an executive officer or an employee designated by you to give us such notice.

Notice of an "accident" or "loss" to your Workers' Compensation insurer, for an event which later develops into a claim for which there is coverage under this policy, shall be considered notice to us, but only if we are notified as soon as you know that the claim should be addressed by this policy, rather than your Workers' Compensation policy.

R. LIMITED WORLDWIDE HIRED & NON OWNED AUTO COVERAGE

In **Section IV - Business Auto Conditions, Condition B.7.**, paragraph b.(5) is replaced by the following:

- (5) Anywhere in the world if a covered "auto" is leased, hired, rented or borrowed without a driver for a period of 30 days or less,

S. LOSS OF EARNINGS - EXTENDED COVERAGE

Section II – Covered Autos Liability Coverage, Paragraph A.2.a.(4) is deleted and replaced by the following:

- (4) All reasonable expenses incurred by the "insured" at our request, including actual loss of earnings up to \$1,000 a day because of time off from work.

T. NEW VEHICLE REPLACEMENT COST

The following is added to the Paragraph C. **Limit of Insurance** provision of **Section III – Physical Damage Coverage**:

In the event of a total “loss” to your “new vehicle” to which this coverage applies, we will pay at your option:

- a. The cost to replace the covered “auto” with a new “auto” of like make, model and year; or
- b. An amount equal to the original purchase price you paid to acquire the vehicle, including taxes, but excluding any extended warranties and licensing fees.

This coverage applies only to a covered “auto” of the private passenger, light truck or medium truck type (20,000 lbs. or less gross vehicle weight).

As used in this endorsement, a “new vehicle” means an “auto” of which you are the original owner that has not been previously titled and which you purchased less than 180 days before the date of the “loss”.

U. RENTAL REIMBURSEMENT COVERAGE

- 1. We will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of "loss" to a covered "auto". Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto". No deductible applies to this coverage. This coverage is only available to those covered “autos” involved in a “loss” and Physical Damage is provided to the covered “auto”.
- 2. We will pay only for those expenses incurred during the policy period, beginning 24 hours after the "loss" and ending, regardless of the expiration date of the policy, with the lesser of the following;
 - 1. The number of days reasonably required to repair or replace the covered "auto". If “loss” is caused by theft, this number of days is added to the number of days it takes to locate the covered “auto” and return it to you; or
 - 2. 45 days.
- 3. Our payment is limited to the lesser of the following amounts:
 - 1. Necessary and actual expenses incurred.
 - 2. The maximum rental expenses indicated below:
 - (1) Not more than \$75 per day;

(2) The maximum rental expenses shown below:

- (a) \$3,375 because of "loss" to any one covered "auto";
- (b) \$15,000 because of all "loss" to all covered "autos" in any one policy period.

- 4. We will pay up to an additional \$300 for the reasonable and necessary expenses you incur to remove your materials and equipment from the covered "auto" and replace such materials and equipment on the rental "auto".
- 5. This coverage does not apply while there are spare or reserve "autos" available to you for your operations.
- 6. If "loss" results from the total theft of a covered "auto" of the private passenger type, we will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under the Physical Damage Coverage Extension.

V. PERSONAL EFFECTS COVERAGE

The following is added to **Section III – Physical Damage Coverage**, Paragraph **A.4.**:

Physical Damage Coverage on a covered “auto” is extended to “loss” to your personal property and, if you are an individual, the personal property of a family member, that is in the covered “auto” at the time of “loss”; and caused by an "accident" and resulting from the ownership, maintenance or use of a covered "auto".

The most we will pay for any one "loss" under this coverage extension is \$500. However, our payment for "loss" to personal property will only be for the account of the owner of the property.

Under this provision personal property does not include and we will not pay for "loss" of:

- 1. Currency, coins, securities or
- 2. Property that under federal or state law is
 - a. An illegal controlled substance
 - b. Property in the course of illegal transportation or trade.

No deductible applies to this coverage extension.

W. RESULTANT MENTAL ANGUISH

Section V - Definitions, Paragraph **C.** is deleted and replaced by the following:

C. "Bodily injury" means bodily injury, disability, sickness, or disease sustained by a person, including death resulting from any of these at any time. "Bodily injury" includes mental anguish or other mental injury resulting from "bodily injury".

X. TOWING AND LABOR COVERAGE EXTENSION

The following is added to **Section III – Physical Damage Coverage**, paragraph **A.2.**:

1. We will pay up to:
 - a. \$200 for a covered "auto" of the private passenger type or
 - b. \$250 for a covered "auto" that is not of the private passenger type, for towing and labor costs incurred each time the covered "auto" is disabled. However, the labor must be performed at the place of disablement.
2. This coverage applies only for an "auto" covered on this policy for Comprehensive or Specified Causes of Loss Coverage and Collision Coverages.
3. Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto".

Y. TRANSPORTATION EXPENSES - COVERAGE EXTENSION

Paragraph **A.4.a. Transportation Expenses** of **Section III – Physical Damage Coverage** is amended as follows:

7. The Limits of Insurance are increased to \$75 per day to a maximum of \$2,500.
8. We will also pay reasonable and necessary expenses to facilitate the return of the stolen "auto" to you.

Z. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

The following is added to **Section IV - Business Auto Conditions**, Paragraph **B.2.**:

If you unintentionally fail to disclose any hazards existing at the inception of this policy, such failure will not prejudice the coverage provided to you. However, this provision does not affect our right to collect additional premium or exercise our right of cancellation or nonrenewal.

AA. WAIVER OF COLLISION DEDUCTIBLE – ATTACHED AUTOS

The following is added to paragraph **D.** under **SECTION III - PHYSICAL DAMAGE COVERAGE** of the Business Auto Coverage Form:

If a "trailer" is connected to an "auto" that is not a "trailer" and both "autos":

1. Are covered "autos" for Collision Coverage that applies to that "accident", and
2. Sustain damage in a single "accident".

we will waive the lowest of the applicable Collision deductibles.

BB. WAIVER OF SUBROGATION BY CONTRACT OR AGREEMENT

The following is added to **Section IV - Business Auto Conditions**, Paragraph **A.5.**:

We waive any right of recovery we may have against any "insured" provided coverage under this endorsement under **A. ADDITIONAL INSURED BY CONTRACT OR AGREEMENT INCLUDING PRIMARY AND NONCONTRIBUTORY OTHER INSURANCE CONDITION**, but only as respects "loss" arising out of the operation, maintenance or use of a covered "auto" pursuant to the provisions or conditions of the written contract or agreement.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

1. Specific Waiver

Name of person or organization

- Blanket Waiver

Any person or organization for whom the Named Insured has agreed by written contract to furnish this waiver.

2. Operations:

3. Premium: \$ 0

The premium charge for this endorsement shall be included in the premium developed on payroll in conjunction with work performed for the above person(s) or organization(s) arising out of the operations described.

4. Minimum Premium: \$ 250

Maximum Premium: \$ 0

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 06/29/2019
 Insured T3 Wireless, Inc.

Policy No. AVWCIA2807792019 Endorsement No.
 Premium

Insurance Company
 AMERICAN INTERSTATE INSURANCE COMPANY - 24759

Countersigned by _____

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

TELECOMMUNICATIONS LIABILITY ENHANCEMENT ENDORSEMENT

This endorsement modifies insurance under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Medical Payments

If **Coverage C Medical Payments** is not otherwise excluded from this Coverage Part, the Medical Expense Limit provided by this policy, subject to the terms of **Section III - Limits Of Insurance**, shall be the greater of:

1. \$10,000; or
2. The Medical Expense Limit shown in the Declarations of this Coverage Part.

B. Legal Liability – Damage To Premises Rented To You (Fire, Lightning, Explosion, Smoke And Leakage From Automatic Fire Protective Systems)

If damage by fire to premises rented to you is not otherwise excluded from this policy or coverage part, then the following provisions apply:

1. The last paragraph of **Section I – Coverages – A.2. Exclusions** is deleted and replaced by the following:
Exclusions **c.** through **n.** do not apply to damage by fire, lightning, explosion, or leakage from automatic fire protective systems to premises while rented to you or temporarily occupied by you with the permission of the owner. A separate limit of insurance applies to this coverage as described in **Section III – Limits Of Insurance**.
2. The paragraph immediately after Subparagraph **j.(6)** of Paragraph **2. Exclusions of Section I – Coverage A – Bodily Injury And Property Damage Liability** is deleted and replaced by the following:
Paragraphs **(1)**, **(3)** and **(4)** of this exclusion do not apply to "property damage" (other than damage by fire, lightning, explosion, and leakage from automatic fire protective

systems) to premises, including the contents of such premises, rented to you for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in **Section III – Limits Of Insurance**.

3. Paragraph **6.** of **Section III – Limits Of Insurance** is deleted and replaced by the following:

6. Subject to Paragraph **5.** above, the greater of:

- a. \$300,000; or
- b. The Damage To Premises Rented To You Limit shown in the Declarations;

is the most we will pay under **Coverage A** for damages because of "property damage" to premises while rented to you, or in the case of damage by fire, lightning, explosion, or leakage from automatic fire protective systems, while rented to you or temporarily occupied by you with permission of the owner. This limit will apply to all damage proximately caused by the same event, whether such damage results from fire, lightning, explosion, leakage from automatic fire protective systems, or other covered causes of loss or any combination thereof.

4. Subparagraph **b.(1)(a)(ii)** of Paragraph **4. Other Insurance of Section IV – Commercial General Liability Conditions** is deleted and replaced by the following:

- (b)** That is fire, lightning, explosion, leakage from automatic fire protective systems insurance for premises rented to you or

temporarily occupied by you with permission of the owner;

5. Subparagraph **a.** of definition **9.** "insured contract" of **Section V – Definitions** is deleted and replaced by the following:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire, lightning, explosion, leakage from automatic fire protective systems to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract".

C. Fellow Employee Coverage

Paragraph **2.a.(1)** of **Section II – Who Is An Insured** is deleted and replaced by the following:

(1) "Personal and advertising injury":

(a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), or to a co-"employee" while in the course of his or her employment or performing duties related to the conduct of your business;

(b) To the spouse, child, parent, brother or sister of that co-"employee" as a consequence of Paragraph **(1)(a)** above;

(c) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraphs **(1)(a)** or **(b)** above; or

(d) Arising out of his or her providing or failing to provide professional health care services.

D. Additional Insured – Automatic Status

1. **Section II – Who Is An Insured** is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such

person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

a. Your acts or omissions; or

b. The acts or omissions of those acting on your behalf; in the performance of your ongoing operations for the additional insured.

However:

The insurance afforded to such additional insured only applies to the extent permitted by law; and

If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

2. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

a. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:

(1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or

(2) Supervisory, inspection, architectural or engineering activities.

b. "Bodily injury" or "property damage" occurring after:

(1) All work, including materials, parts or equipment furnished in

connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or

- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

3. Paragraph 4.b. of **Section IV – Commercial General Liability Conditions** is deleted and replaced with the following:

b. Excess Insurance

(1) This insurance is excess over:

- (a) Any of the other insurance, whether primary, excess, contingent or on any other basis that is available to the additional insured unless you and the additional insured have specifically agreed in writing that this insurance be primary. Then we will treat any other insurance maintained by the additional insured for injury or damage covered by provision **A. Miscellaneous Additional Insureds**, except such other insurance as noted in Paragraph **b.(1)(b)** below, as excess to this insurance.

If specifically required by such written contract or written agreement, we will not seek contribution from any other liability insurance available to the additional insured for injury or damage covered by provision **A. Miscellaneous Additional Insureds**, except for such other insurance as noted in Paragraph **b.(1)(b)** below.

- (b) Any other primary liability insurance available to the additional insured for damages arising out of premises or

ongoing operations for which such person or organization has been added as an additional insured by attachment of an endorsement.

- (2) When this insurance is excess, we will have no duty under **Section I – Coverage A – Bodily Injury And Property Damage Liability** or **Coverage B – Personal And Advertising Injury Liability** to defend the insured against any "suit" if any other insurer has a duty to defend the insured against that "suit". If no other insurer defends, we will undertake to do so, but we will be entitled to the insured's rights against all those other insurers.

- (3) When this insurance is excess over other insurance, we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (a) The total amount that all such other insurance would pay for the loss in the absence of this insurance; and

- (b) The total of all deductible and self-insured amounts under all that other insurance.

- (4) We will share the remaining loss, if any, with any other insurance that is not described in this Excess Insurance provision and was not bought specifically to apply in excess of the Limits of Insurance shown in the Declarations of this policy or coverage part.

E. Broadened Named Insured

Paragraph 3. of **Section II - Who Is An Insured** is deleted and replaced by the following:

Any organization, other than a joint venture, over which you maintain ownership or majority interest of more than 50%, will be a Named Insured if there is no other similar insurance available to that organization. However:

- a. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

b. **COVERAGE A** does not apply to "bodily injury" or "property damage" that occurred before you acquired or formed the organization.

c. **COVERAGE B** does not apply to "personal and advertising injury" arising out of an offense committed before you acquired or formed the organization.

F. Aggregate Limits Of Insurance

The General Aggregate Limit under **Section III – Limits Of Insurance** applies separately to each of your:

1. Projects away from premises owned by or rented to you.
2. "Locations" owned by or rented to you.

"Location" means premises involving the same or connecting lots, or premises whose connection is interrupted only by a street, roadway, waterway or right-of-way of a railroad.

G. Waiver Of Transfer Of Rights Of Recovery Against Others

Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Commercial General Liability Conditions** is amended by the addition of the following:

We waive any right of recovery we may have because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract requiring such waiver with that person or organization and included in the "products-completed operations hazard".

However, our rights may only be waived prior to the "occurrence" giving rise to the injury or damage for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce those rights.

H. Mental Anguish

Paragraph 3. of **Section V – Definitions** is deleted and replaced by the following:

3. "Bodily injury" means bodily injury, sickness or disease sustained by a person, including mental anguish or death resulting from any of these at any time.

I. Garagekeepers Coverage

The following is added to Section I – Coverages:

1. Coverage

We will pay all sums you legally must pay as damages for loss to a "customer's auto" or "customer's auto" equipment left in your care while you are attending, servicing, repairing, parking or storing it in your telecommunication utility operations under:

a. Comprehensive Coverage

From any cause except:

- (1) The "customer's auto's" collision with another object; or
- (2) The "customer's auto's" overturn.

b. Collision Coverage

Caused by:

- (1) The "customer's auto's" collision with another object; or the "customer's auto's" overturn.

2. Exclusions

a. This insurance does not apply to any of the following:

(1) Contractual Obligations

Liability resulting from any agreement by which you accept responsibility for direct physical loss of or damage (including any resulting loss of use) to "autos" left in your care.

(2) Theft

Loss or damage due to theft or conversion caused in any way by you or any other insured.

(3) Defective Parts

Defective parts or materials.

(4) Faulty Work

Defective work you performed, including work that someone performed for you.

b. We will not pay for loss to any of the following:

(1) Tape decks or other sound reproducing equipment unless permanently installed in a "customer's auto".

(2) Tapes, records or other sound reproducing devices designed for use with sound reproducing equipment.

(3) Sound receiving equipment designed for use as a citizens' band radio, two-way mobile radio or telephone or scanning monitor receiver, including its antennas and other accessories, unless permanently installed in the dash or console opening normally used by the "customer's auto" manufacturer for the installation of a radio.

(4) Any device designed or used to detect speed measurement equipment such as radar or laser detectors and any jamming apparatus intended to elude or disrupt speed measurement equipment.

3. Limit Of Insurance And Deductible

- a. Regardless of the number of "customer's autos", insureds, premiums paid, claims made or "suits" brought, the most we will pay for each loss at each location is \$50,000 minus the applicable deductible.
- b. A \$500 deductible applies to all loss in any one event caused by all perils, including collision.
- c. Sometimes to settle a claim or "suit", we may pay all or any part of the deductible. If this happens you must reimburse us for the deductible or that portion of the deductible that we paid.

4. Additional Definitions

As used in this endorsement:

"Customer's auto" means a customer's land motor vehicle or trailer or semitrailer. This definition also includes any customer's auto while left with you for service, repair, storage or safekeeping. Customers include your employees, and members of their households who pay for services performed.

J. Telephone Directory Liability Coverage

1. We will pay on behalf of you all sums which you shall become legally obligated to pay as damages because of a misprint, typographical error, or omission of a listing or advertising or part thereof in any telephone directory published by or for you.

2. Limit Of Liability

Regardless of the number of:

- a. Insureds under this policy;
- b. Telephone directory editions printed; and
- c. Claims made or suits brought on account of inquiry; our Limit of Liability for all loss as a result of all occurrences taking place during the policy period shall be, in the aggregate, no more than \$1,000,000.

K. Railroad Easement Agreements

With respect to operations performed for, or affecting, a railroad at your job site, the definition of "insured contract" in the Definitions section is replaced by the following:

9. "Insured Contract" means:

- a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";
- b. A sidetrack agreement;
- c. Any easement or license agreement;
- d. An obligation, as required by ordinance, to indemnify a municipality, except in connection with work for a municipality;
- e. An elevator maintenance agreement;
- f. That part of any other contract or agreement pertaining to your business (including an indemnification of a municipality in connection with work performed for a municipality) under which you assume the tort liability of another party to pay for "bodily injury" or "property damage" to a third person or organization. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

Paragraph f. does not include that part of any contract or agreement:

- (1) That indemnifies an architect, engineer, or surveyor for injury or damage arising out of:
 - (a) Preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage;
- (2) Under which the insured, if an architect, engineer or surveyor, assumes liability for an injury or damage arising out of the insured's rendering or failure to render professional services, including those listed in Paragraph (1) above and supervisory, inspection, architectural or engineering activities.

L. Other Insurance

If this policy includes a Coverage Form or an Endorsement which provides coverage for loss or damage covered by one or more of the Extensions of this endorsement, the limit and the coverage provided by this endorsement are deleted and replaced by the limit and coverage provided by that Coverage Form or Endorsement.

WS-LNCL-RL01

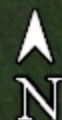
40.915390 / -96.703180

Bluff Road, approximately 663' west of N 14th Street.
Lancaster County, Nebraska

WS-LNCL-RL01

Bluff Rd

N-14th St



WS-LNCL-RL01

1244 BLUFF ROAD
LINCOLN, NE 68531



DRAWN BY:	JRR
DATE:	06/04/2019

REV	DATE	DESCRIPTION	BY
0	06/04/2019	FINAL CD	JRR

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

WS-LNCL-RL01
1244 BLUFF ROAD
LINCOLN, NE 68531
LANCASTER COUNTY

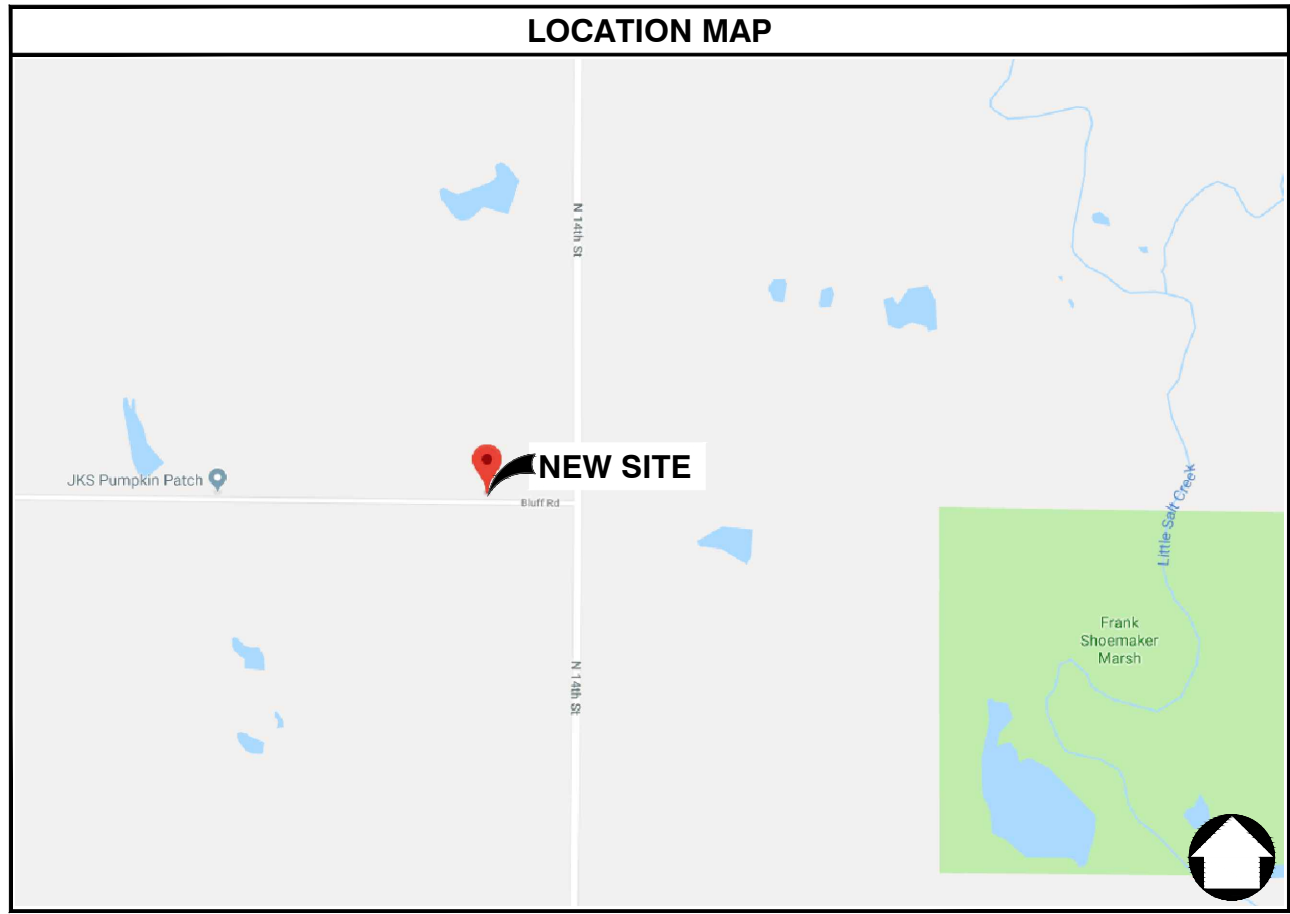
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SHEET NUMBER
T-1

SITE INFORMATION	
SITE ID:	WS-LNCL-RL01
ADDRESS:	1244 BLUFF ROAD LINCOLN, NE 68531
COUNTY:	LANCASTER COUNTY
LATITUDE:	40.9153761°
LONGITUDE:	-96.7034978°
JURISDICTION:	LANCASTER COUNTY

CONTACTS	
PROJECT MANAGER:	WINDSTREAM
PROFESSIONAL ENGINEER:	IRISH TOWER, LLC 4603 BERMUDA DRIVE SUGAR LAND, TEXAS 77479 jacob.goralski@irishtower.com
PROPERTY OWNER:	NA

GENERAL NOTES
THE FACILITY IS 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 NEW. THE SITE LOCATION IS SUBJECT TO MOVING, UP TO 10' FROM PROPOSED LOCATION, AS NEEDED TO KEEP WITHIN PUBLIC ROW, AVOID EXISTING UTILITY LINES, AND AVOID LINE-OF-SIGHT OBSTRUCTIONS WITH BOTH FOOT AND AUTOMOTIVE TRAFFIC. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO ANY CHANGES.



PROJECT DESCRIPTION
THESE DRAWINGS DEPICT AN UTILITY POLE WITH ANTENNA INSTALLATION TO PROVIDE HIGH SPEED INTERNET SERVICE IN RURAL AREAS. THIS INSTALLATION SHALL CONSIST OF THE PLACEMENT OF A NEW POLE, FOUR (4) ANTENNAS, ONE (1) CONCEALMENT CABINET AND ASSOCIATED ELECTRICAL COMPONENTS AND MOUNTING BRACKETS AS REQUIRED

ENGINEERING
ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
2011 NATIONAL ELECTRICAL CODE 2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL BUILDING CODE CITY AND/OR COUNTY ORDINANCES
2012 INTERNATIONAL MECHANICAL CODE LOCAL BUILDING CODE(S)
2012 INTERNATIONAL PLUMBING CODE ANSI EIA/TIA 222-G
2012 LIFE SAFETY CODE (NFPA 101)

DRAWING INDEX	
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E-1	ELECTRICAL & GROUNDING DETAILS

NOTE: DRAWINGS ARE SCALED TO 11X17

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DAMAGED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DAMAGED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN PROPOSED EXCAVATIONS AND MUST MAINTAIN MINIMUM VERTICAL AND HORIZONTAL CLEARANCES AS CALLED FOR BY LOCAL CODES AND/OR ORDINANCES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING STRUCTURES OR LANDSCAPING DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. ANY MANHOLES OR COVERS INSTALLED AS PART OF THIS PROJECT SHALL BE LABELED COMMUNICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF AN EROSION CONTROL PLAN WHICH MEETS ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL AGENCIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL MAINTAIN MATERIALS AND EQUIPMENT ON SITE FOR UNFORESEEN SITUATIONS INCLUDING DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHICH COULD GENERATE FLOWS ABLE TO CAUSE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD OWNER, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO START OF CONSTRUCTION AND THROUGH PROJECT COMPLETION, THE CONTRACTOR SHALL REMAIN IN FULL COMPLIANCE WITH CURRENT FEDERAL, STATE, AND LOCAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AND AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. ALL UTILITIES AND OTHER FACILITIES DEPICTED ON THE PLANS ARE BASED ON A SEARCH OF AVAILABLE RECORDS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION START AND USE EXTREME CARE AND PROTECTIVE MEASURES TO AVOID DAMAGE TO ANY FACILITIES WETHER OR NOT INDICATED ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FACILITIES WITHIN THE LIMITS OF WORK, WHETHER OR NOT DEPICTED ONT THESE PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ANY CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT A MINIMUM TWO DAYS PRIOR TO COMMENCEMENT OF ACTIVITY REQUIRING THEIR INVOLVEMENT.
6. THE EXPIRATION OF THE PERMIT FOR THIS PROJECT SHALL BE SPECIFIED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
7. ALL UNDERGROUND CONDUITS PLACED AS PART OF THIS PROJECT MUST HAVE A MINIMUM COVER OF 48 INCHES UNLESS OTHERWISE APPROVED.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
9. ALL PAVEMENT CUT OR DAMAGED AS PART OF THIS PROJECT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
10. ALL SHRUBS, PLANTS OR TREES DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH REQUIRED LIABILITY INSURANCE FORMS CLEARLY DEMONSTRATING OWNER, OWNER REPRESENTATIVES, ENGINEER, AND CITY, COUNTY OR STATE ARE ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. ALL SUBSURFACE STRUCTURES INCLUDING BUT NOT LIMITED TO VAULTS, PEDESTALS, AND CONDUITS SHALL BE AS SPECIFIED IN THESE PLANS OR AS SPECIFIED BY THE ENGINEER. ANY DEVIATIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO INSTALLATION.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SEWER LATERALS AND WATER SERVICES, BOTH VERTICAL AND HORIZONTAL, PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF EXPLORATION EXCAVATIONS CONDUCTED FOR THE PURPOSE OF LOCATING EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS AS REQUIRED.
15. LOCATIONS OF EXISTING UTILITIES ON THESE PLANS ARE BASED UPON EXISTING RECORDS VERIFIED WHERE POSSIBLE WITH FIELD TIES. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO CONSTRUCTION, SUBSTANTIAL VARIANCES FROM THE PLANS SHALL BE COMMUNICATED TO THE ENGINEER TO FACILITATE CHANGES TO CONSTRUCTION DRAWINGS AS REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE INSTALLED BY CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/ OR WATER POLLUTION CONTROL PLAN (WPCP).
2. A GRAVEL BAG SILT BASIN SHALL BE INSTALLED IMMEDIATELY UPSTREAM OF STORM DRAIN INLETS AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES. THE CONTRACTOR SHALL INSURE WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT AND WORKERS FOR EMERGENCY WORK AT ALL TIMES DURING THE RAINY SEASON. MATERIALS NECESSARY FOR EMERGENCY MEASURES SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY/COUNTY/STATE ENGINEER OR RESIDENT ENGINEER FOLLOWING ANY RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HERON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. UPON COMPLETION OF WORK EACH DAY, GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. GRADING, INCLUDING CLEARING AND GRUBBING SHALL ONLY BE CONDUCTED IN AREAS WHERE THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
 3. THE CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION IS STARTED.
 4. ALL EXISTING LANDSCAPING SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
 5. ALL EQUIPMENT SHALL BE BONDED.
 6. IF A METERING CABINET IS INSTALLED, A MINIMUM 3' CLEARANCE IS REQUIRED AT DOOR OPENING.
 7. IF A METERING CABINET IS INSTALLED, THE CONTRACTOR SHALL CAULK THE CABINET BASE AT THE PAD.
- STANDARD GROUNDING NOTES:**
1. GROUND SHALL BE TESTED AT 25 OHMS OR LESS.
 2. GROUND RODS SHALL BE 5/8"x8'. ATTACHMENT TO GROUND RODS SHALL BE EXOTHERMIC WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
 3. BURIED GROUND AND BONDING WIRE SHALL BE #6 AWG.
 4. MOLDING SHALL BE STAPLED EVERY 1' AND AT EACH END.

STANDARD CONDUIT NOTES:

1. SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND.
2. SCHEDULE 80 CONDUIT SHALL BE USED FOR RISERS.
3. RISERS SHALL BE ATTACHED TO POLE WITH STANDARD U-CLAMPS AND LAG SCREWS.
4. RISER U-CLAMPS TO BE INSTALLED EVERY 5'.
5. FOR U/G POWER INSTALLATIONS, 2" SDR-11 RED CONDUIT SHALL BE UTILIZED.
6. GROUND WIRE MOLDING STAPLES MAY BE BE UTILIZED FOR ATTACHING CONDUIT LESS THAN 1" DIAMETER.
7. ALL CONDUIT SHALL BE PROOFED WITH A MANDREL AND EQUIPPED WITH A PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. A MINIMUM OF 2'-6" OF COVER SHALL BE MAINTAINED OVER ALL ELECTRICAL CONDUITS.
2. A MINIMUM OF 4'-0" OF COVER SHALL BE MAINTAINED OVER ALL COMMUNICATIONS CONDUITS.
3. IN STREETS, SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT, SLURRY TO 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. WARNING TAPE SHALL BE INSTALLED 1'-0" ABOVE ALL CONDUITS. #18 WARNING TAPE SHALL BE INSTALLED ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. BOLT THREADS SHALL NOT PROTRUDE MORE THAN 1-1/2".
2. HOLES LEFT IN POLE DUE TO REARRANGEMENT OF CLIMBERS SHALL BE FILLED.
3. CLIMB STEPS ADJACENT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE SHALL NOT IMPEDE 15" CLEAR SPACE OFF POLE FACE (12:00).
5. 90° SHORT SWEEPS SHALL BE USED UNDER ANTENNA ARM. CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF ARMS. (NO CABLE SHALL BE INSTALLED ON TOP OF ARMS.)
6. CABLE CLAMPS SHALL BE UTILIZED TO SECURE CABLE TO ARMS; 2" CARRIER CABLE ID TAGS SHALL BE PLACED ON BOTH SIDES OF ARMS.
7. UTILIZE A 90° CONNECTOR AT CABLE CONNECTION TO ANTENNA.
8. 1/2" CABLE TO BE UTILIZED UNLESS NOTED OTHERWISE.
9. VOIDS AROUND CABLES AT CONDUIT OPENINGS SHALL BE FILLED WITH FOAM SEALANT TO PREVENT WATER INTRUSION.



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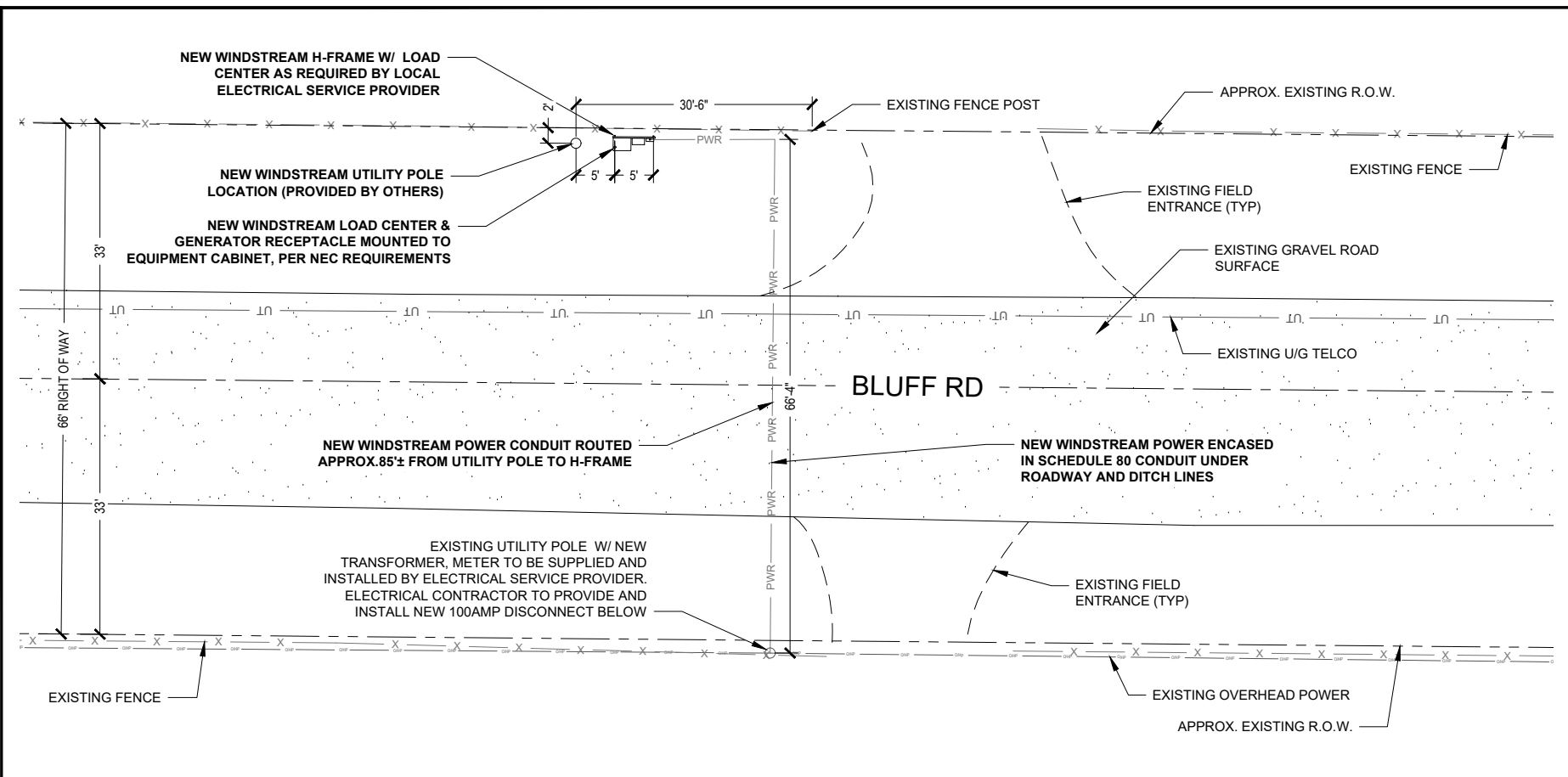
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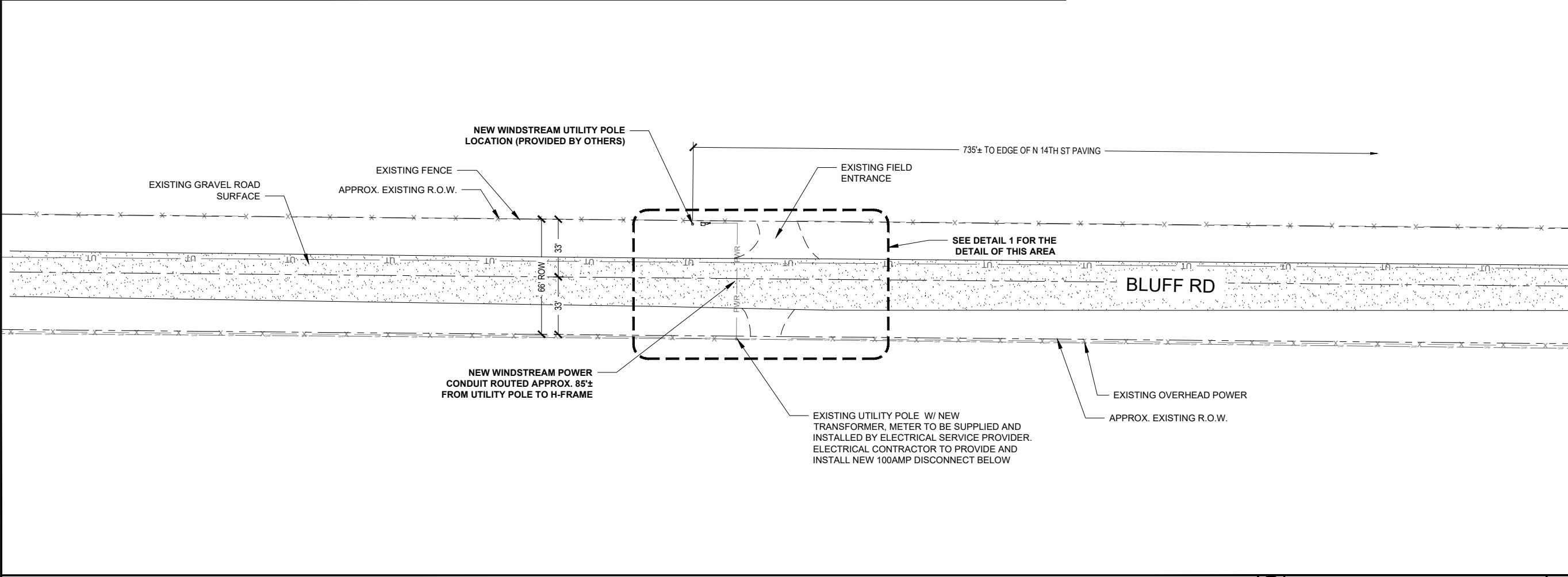
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SHEET TITLE
GENERAL NOTES

SHEET NUMBER
T-2



ENLARGED SITE PLAN 22"x34" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" 1



OVERALL SITE PLAN 22"x34" SCALE: 1" = 30'-0" 11"x17" SCALE: 1" = 60'-0" 2



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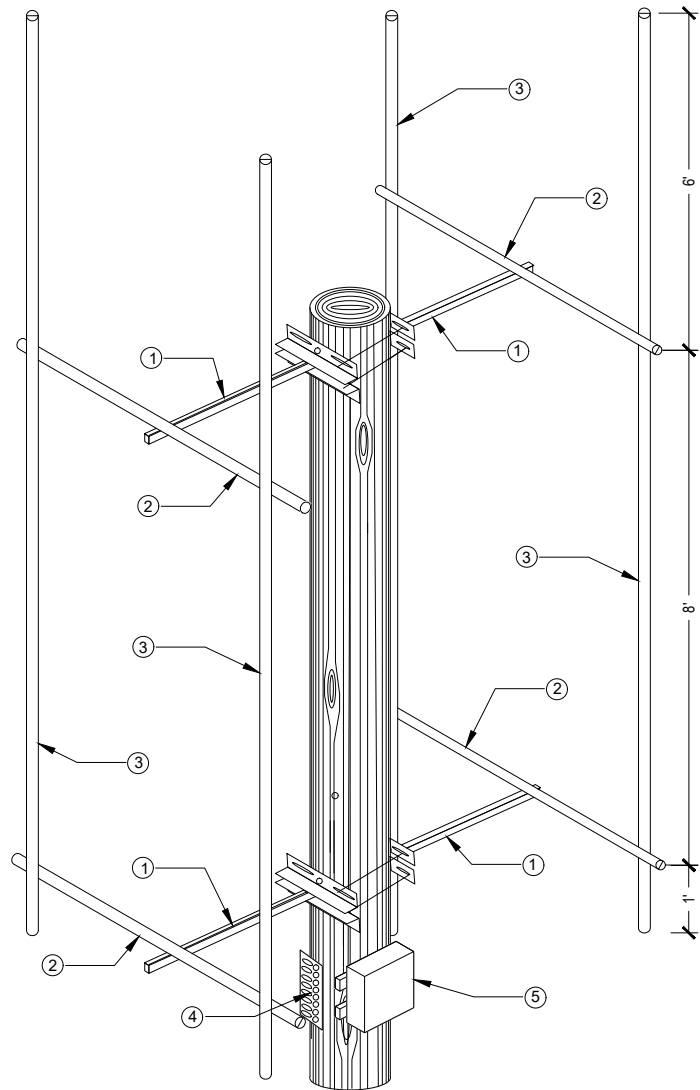
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SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1

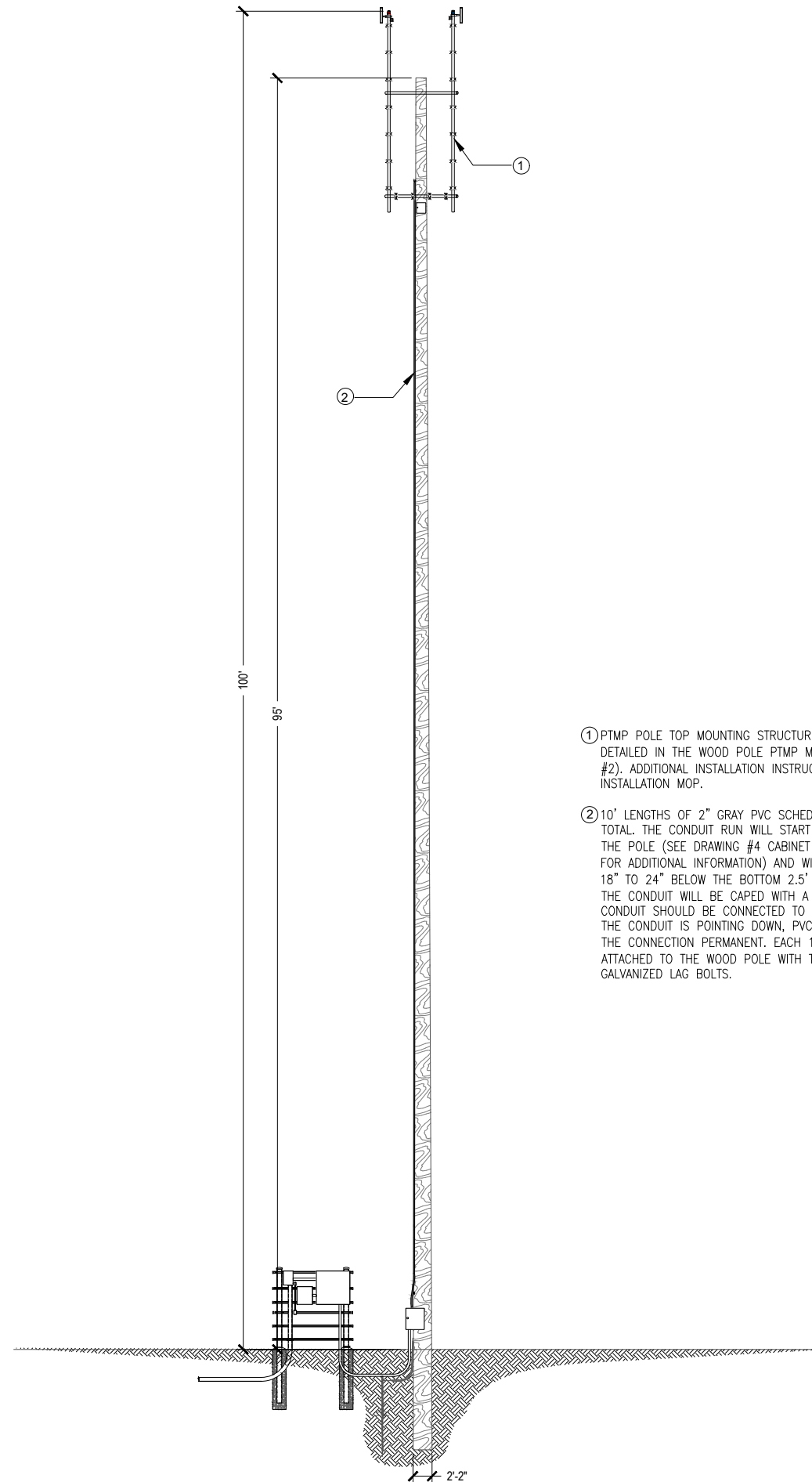


- ① FOUR 2.5' WOOD POLE STAND-OFFS, TWO MOUNTED BACK-TO-BACK AT 99', ONE AT 45° AND ONE AT 225° EACH SECURED TO THE POLE WITH TWO 4" GALVANIZED LAG BOLTS. THE STAND-OFFS WILL BE CONNECT TO EACH OTHER WITH FOUR 5/8" ALL-THREAD AND GALVANIZED HARDWARE. THE OTHER TWO WOOD POLE STAND-OFFS WILL BE MOUNTED AN 91' IN THE SAME MANNER AS THE TOP STAND-OFFS.
- ② HORIZONTAL PIPE: FOUR 1.66" OD X 5' LONG PIPES (MADE BY CUTTING A 10' LENGTHS OF PIPE IN HALF) WILL BE MOUNTED ONE EACH TO EACH OF THE FOUR 2.5' WOOD POLE STAND-OFF MOUNTS INSTALLED IN THE PREVIOUS STEP. THE CENTER OF EACH HORIZONTAL PIPE SHOULD ATTACH TO END OF EACH OF THE STAND-OFF MOUNTS UTILIZING A PIPE CROSSOVER MOUNT (PN-SINCLAMP017) TO MAKE THE CONNECTION.
- ③ VERTICAL PIPES: FOUR VERTICAL 1.66" OD X 15' GALVANIZED PIPES ARE USED TO COMPLETE THE POLE TOP MOUNT. ONE EACH OF THE VERTICAL PIPES WILL ATTACH TO THE ENDS OF THE UPPER AND LOWER HORIZONTAL PIPES. EACH VERTICAL PIPE SHOULD ATTACH 2" IN FROM THE END OF THE HORIZONTAL PIPES WITH ~6' OF PIPE EXTENDING ABOVE THE UPPER HORIZONTAL PIPE AND ~12" OF PIPE EXTENDING BELOW THE LOWER HORIZONTAL PIPE. EACH VERTICAL PIPE WILL BE CONNECTED TO THE HORIZONTAL PIPES WITH TWO PIPE CROSS-OVER MOUNTS (PNSINCLAMP017) ONE ON THE TOP HORIZONTAL PIPE AND ONE ON THE BOTTOM. DURING FINAL ASSEMBLY A LEVEL SHOULD BE USED TO ASSURE THAT THE VERTICAL PIPES ARE INSTALL PLUMB IN EACH DIRECTION.
- ④ PTMP RAD CENTER GROUND BAR SHOULD BE ATTACHED TO THE POLE UTILIZING THE INCLUDED ISOLATION MOUNTS AND HARDWARE, 12" BELOW THE BOTTOM 2.5' STAND-OFF MOUNTS.
- ⑤ PTMP RAD CENTER OUTDOOR ENCLOSURE (PN-AM32P-2625-16RU) SHOULD BE ATTACHED TO THE POLE 1' ABOVE THE BOTTOM MOUNT. A 16" UNISTRUT SHOULD BE SECURED TO THE POLE USING A 4" GALVANIZED LAG BOT. THE ENCLOSURE SHOULD BE MOUNTED TO THE UNISTRUT UTILIZING THE SPRING NUT AND BOLT.

NEW MOUNTING STRUCTURE ELEVATION

1

NEW STRUCTURE ELEVATION



- ① PTMP POLE TOP MOUNTING STRUCTURE, INSTALLATION INSTRUCTION ARE DETAILED IN THE WOOD POLE PTMP MOUNTING STRUCTURE DRAWING (DRAWING #2). ADDITIONAL INSTALLATION INSTRUCTIONS CAN BE FOUND IN THE INSTALLATION MOP.
- ② 10' LENGTHS OF 2" GRAY PVC SCHEDULE 40 CONDUIT, APPROXIMATELY 87' TOTAL. THE CONDUIT RUN WILL START AT THE CABINET AT THE BOTTOM OF THE POLE (SEE DRAWING #4 CABINET INSTALLATION, BOTTOM OF THE POLE FOR ADDITIONAL INFORMATION) AND WILL EXTEND UP THE POLE, ENDING 18" TO 24" BELOW THE BOTTOM 2.5' WOOD POLE STAND-OFF MOUNTS WHERE THE CONDUIT WILL BE CAPED WITH A 2" WEATHER HEAD. EACH SECTION OF CONDUIT SHOULD BE CONNECTED TO THE NEXT ASSURING THAT BELL END OF THE CONDUIT IS POINTING DOWN, PVC CEMENT SHOULD BE USED TO MAKE THE CONNECTION PERMANENT. EACH 10' LENGTH OF CONDUIT SHOULD BE ATTACHED TO THE WOOD POLE WITH TWO 2" CONDUIT STRAPS AND 1/4" GALVANIZED LAG BOLTS.

STRUCTURAL NOTE:
 1. PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A GLOBAL/LOCAL STRUCTURAL ANALYSIS OF EQUIPMENT ANCHORS, SUPPORTS AND DESIGN/DETAILING OF ANY STRUCTURAL MODIFICATIONS/REINFORCEMENT REQUIRED THERETO.
 2. THIS DOCUMENT IS FOR PERMITTING ONLY AND IS NOT INTENDED FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PE STAMPED/SIGNED STRUCTURAL ASSESSMENT/ANALYSIS REPORT AS PROVIDED BY THE PROJECT OWNER.
 NOTE:
 REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.



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SHEET TITLE
**ELEVATION
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C-2

2

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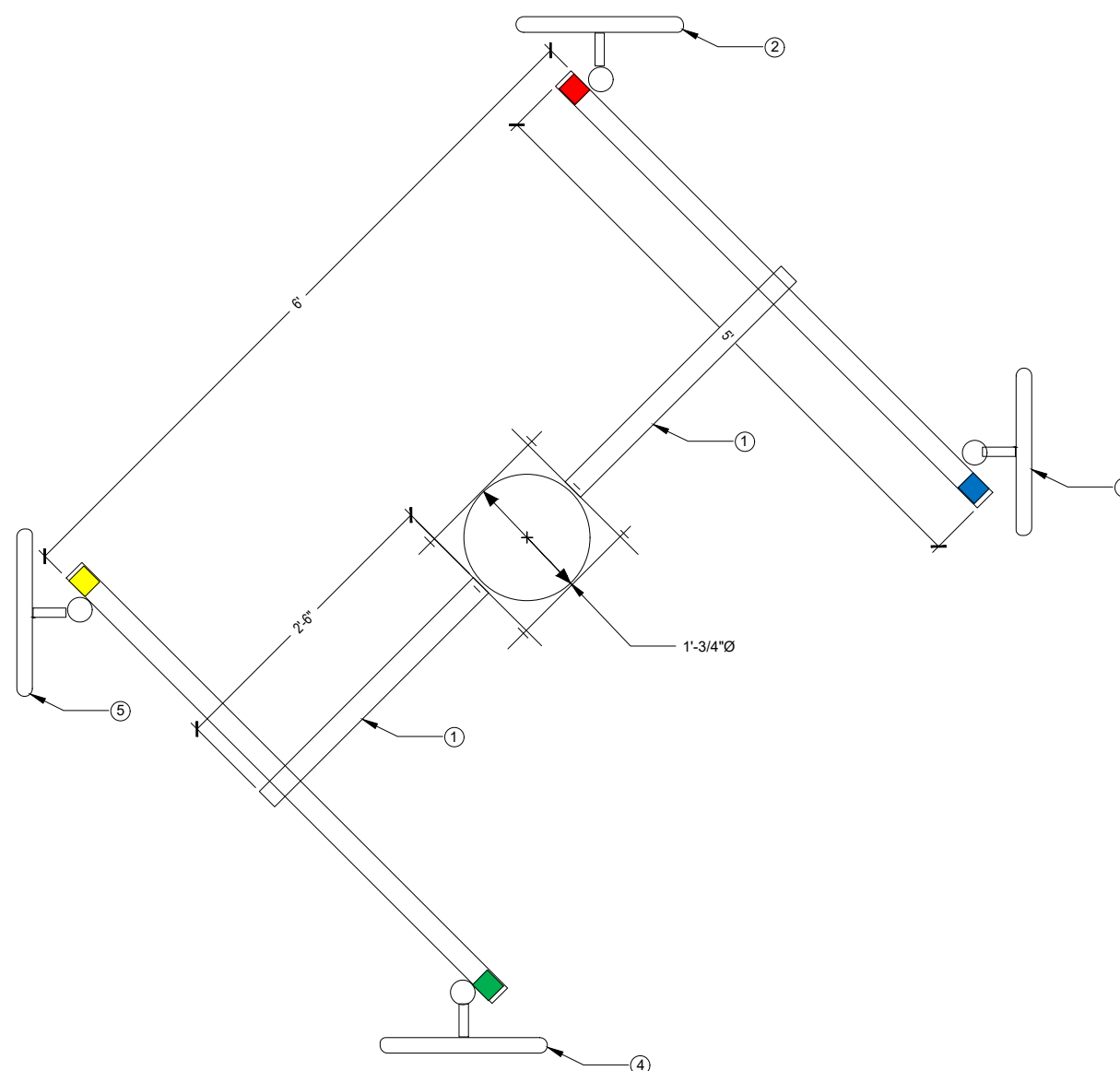
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LANCASTER COUNTY

SHEET TITLE
**ANTENNA LAYOUT
DETAILS**

SHEET NUMBER

C-3



- ① FOUR 2.5' WOOD POLE STAND-OFFS, TWO MOUNTED BACK-TO-BACK AT 99°, ONE AT 45° AND ONE AT 225° EACH SECURED TO THE POLE WITH TWO 4" GALVANIZED LAG BOLTS. THE STAND-OFFS WILL BE CONNECT TO EACH OTHER WITH FOUR 5/8" ALL-THREAD AND GALVANIZED HARDWARE. THE OTHER TWO WOOD POLE STAND-OFFS WILL BE MOUNTED AN 91' IN THE SAME MANNER AS THE TOP STAND-OFFS.
- ② AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 01 (NORTH) IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99°ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 02 (EAST) IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99°ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 03 (SOUTH) IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ⑤ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99°ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 03 (SOUTH) IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.

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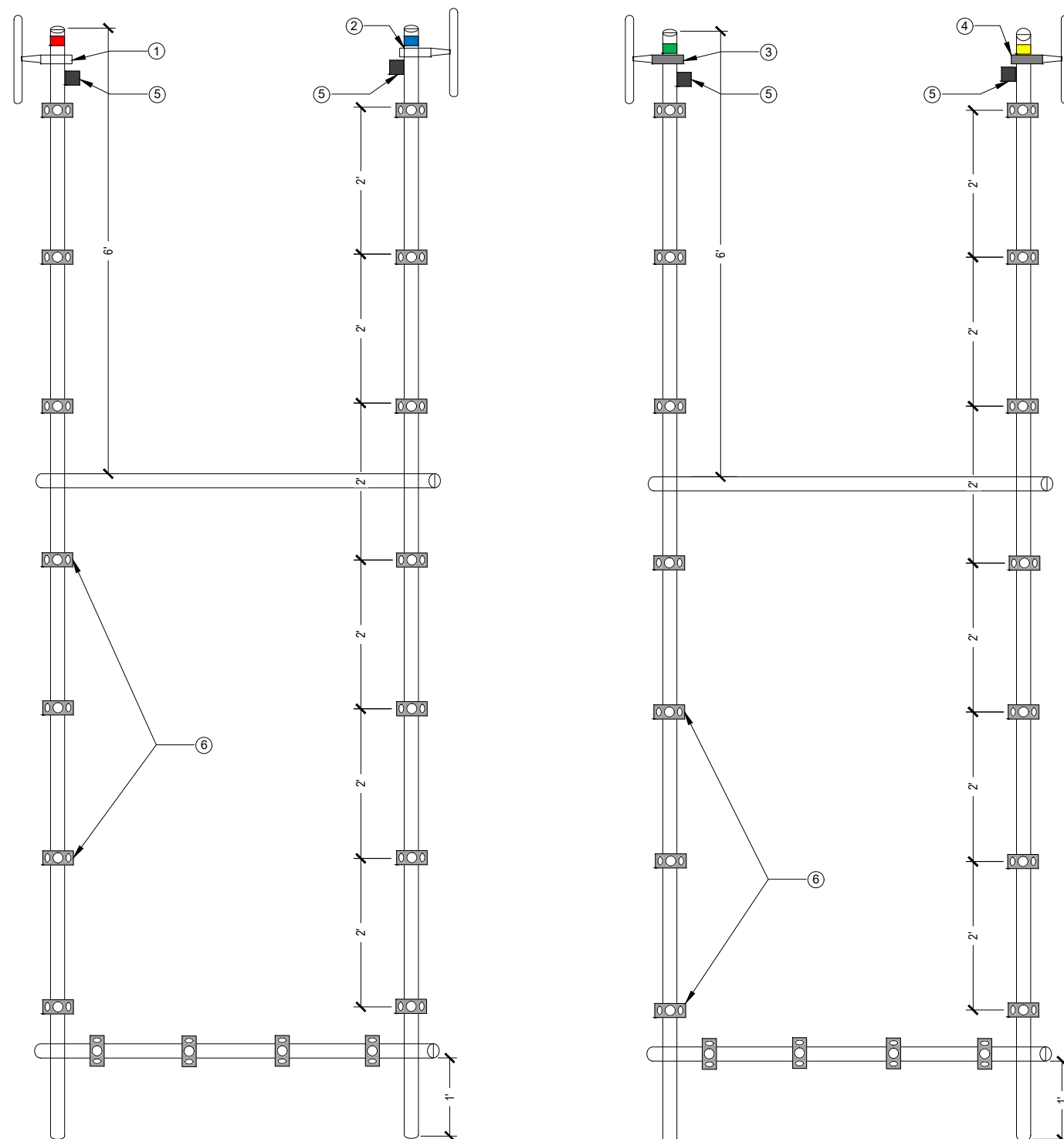
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LINCOLN, NE 68531
LANCASTER COUNTY

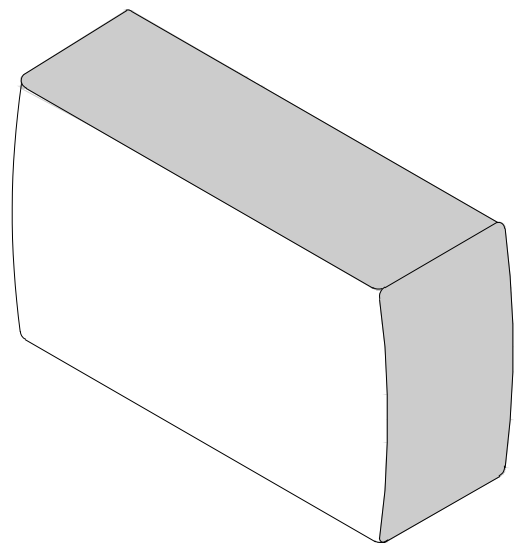
SHEET TITLE
**STRUCTURE
DETAILS**

SHEET NUMBER

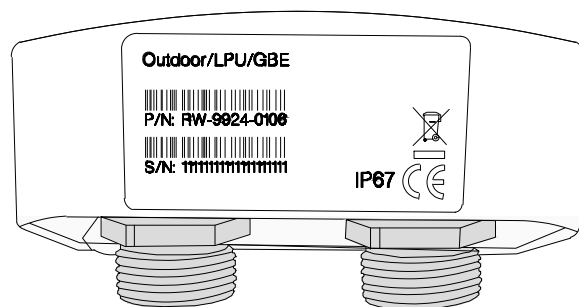
C-4



- ① AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE. AZIMUTH 01 IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ② AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99°ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE. AZIMUTH 02 IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99°ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE. AZIMUTH 03 IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99°ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE. AZIMUTH 04 IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ⑤ POLE TOP LIGHTNING PROTECTION UNITS (LPU): EACH BASE STATION WILL HAVE ONE POLE TOP LPU MOUNTED 2" BELOW THE BS MOUNTING CLAMP 180° OPPOSITE THE BS. FOLLOW THE CABLE INSTALLATION INSTRUCTIONS INCLUDED WITH THE LPU WHEN CABLING THE LPU.
- ⑥ THREE HOLE UNIVERSAL SNAP-IN ADAPTORS SHOULD BE ATTACHED TO EACH OF THE VERTICAL PIPES EVERY 2', AND THE LOWER HORIZONTAL PIPE EVERY 1' TO ACCOMMODATE THE APPROPRIATE SNAP HANGERS AND GROMMETS FOR PROPER CABLE SUPPORT. NOTE: ALTHOUGH SHOWN IN THE PHOTO FOR ILLUSTRATIVE PURPOSES, VERTICAL PIPES WITHOUT BASE STATION SHOULD NOT HAVE UNIVERSAL SNAP-IN ADAPTORS INSTALLED.



BASE STATION	
MANUF:	RADWIN
PART #:	RW-5BG5-0649
HEIGHT:	8.86"
WIDTH:	14.01"
DEPTH:	3.7"
WEIGHT:	7.28 LBS



FRONT VIEW

LIGHTNING PROTECTION	
MANUF:	RADWIN
PART #:	RW-9924-0106
HEIGHT:	2.04"
WIDTH:	3.87"
DEPTH:	1.88"
WEIGHT:	0.49 LBS



CABINET	
MANUF:	WESTELL
PART #:	BXM1019-NHE3
HEIGHT:	22.5"
WIDTH:	25.5"
DEPTH:	27.8"
WEIGHT:	70.00 LBS



DRAWN BY:	JRR
DATE:	06/04/2019

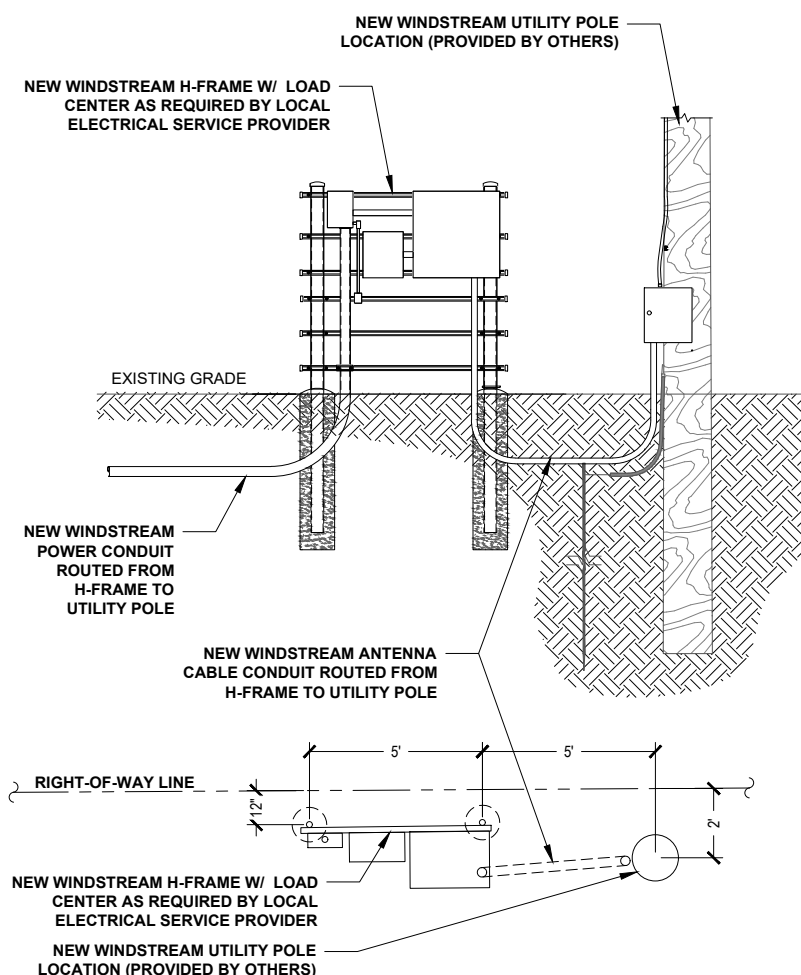
REV	DATE	DESCRIPTION	BY
0	06/04/2019	FINAL CD	JRR

RADWIN BASE STATION

1 LIGHTNING PROTECTOR

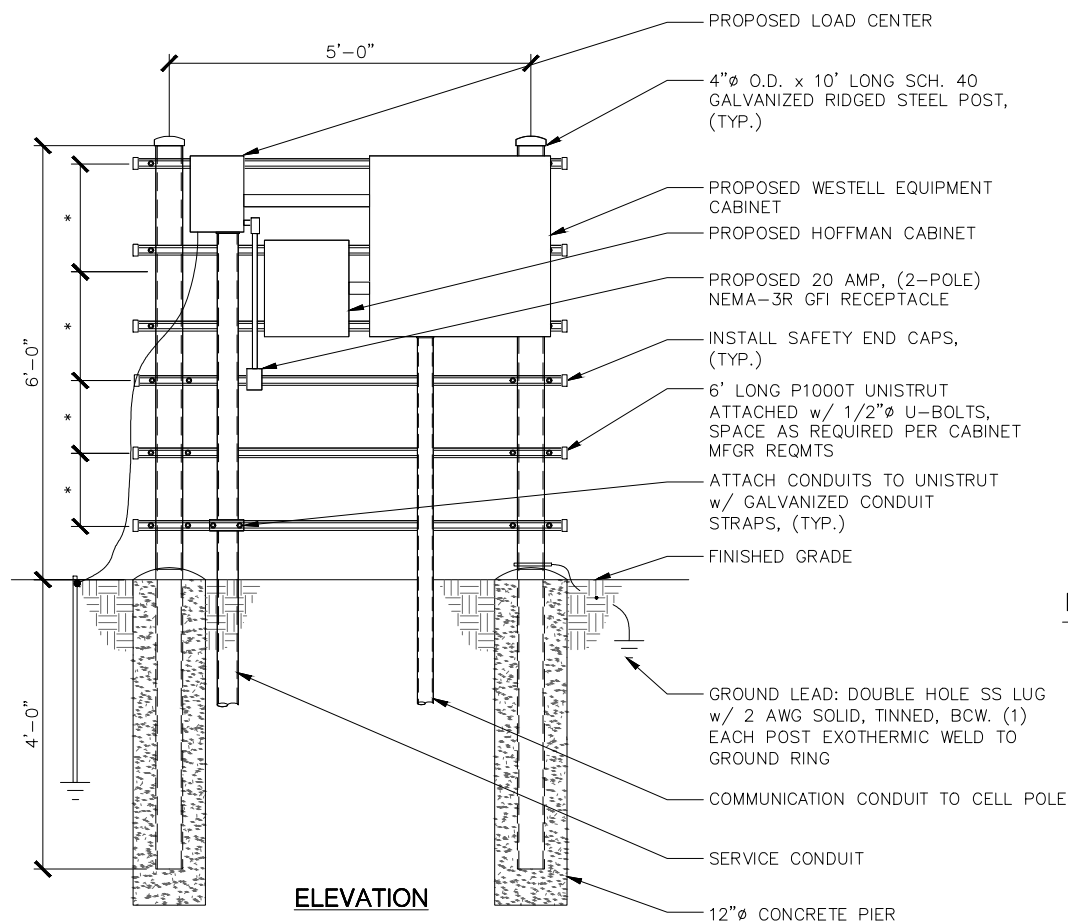
2 WESTELL BOXER OUTDOOR CABINET

3



DETAIL RACK ELEVATION

4 H-FRAME DETAIL



NOTES:

- *- COORDINATE ELEVATIONS WITH EQUIPMENT/MOUNTING HEIGHT.
- STEEL SHALL BE HOT DIP GALVANIZED.
- CABINETS SHALL BE MOUNTED WITH STAINLESS STEEL BOLTS.
- METAL POSTS ARE NOT ALLOWED TO SERVE AS EQUIPMENT GROUNDING CONDUCTOR.
- UNISTRUT SHALL NOT EXTEND BEYOND POST & MUST HAVE SAFETY END CAPS FOR SAFETY REASONS.
- METALLIC PARTS SHALL BE BONDED ACCORDING TO THE NEC.
- GROUNDING SHALL CONFORM TO NEC AND SECTION 436-439.

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WS-LNCL-RL01

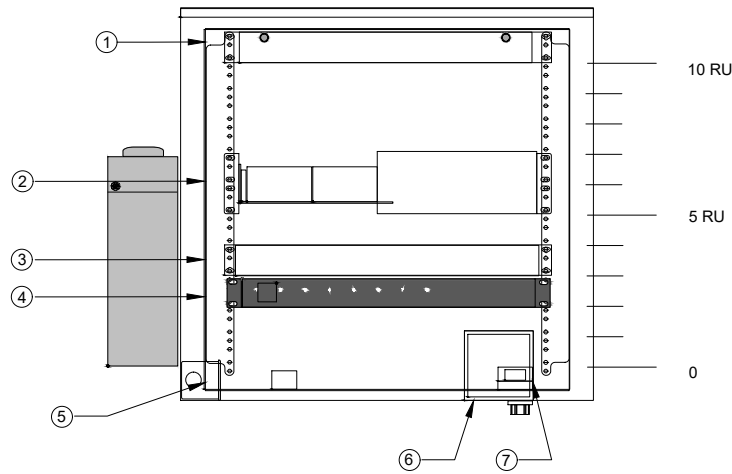
1244 BLUFF ROAD
LINCOLN, NE 68531
LANCASTER COUNTY

**SHEET TITLE
EQUIPMENT
DETAILS**

SHEET NUMBER

D-1

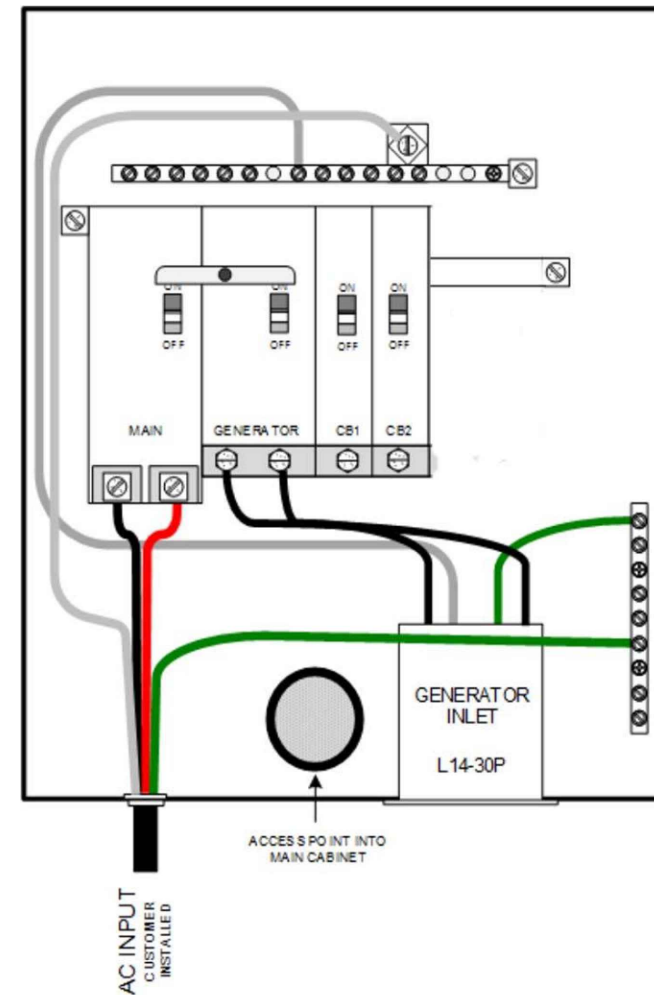
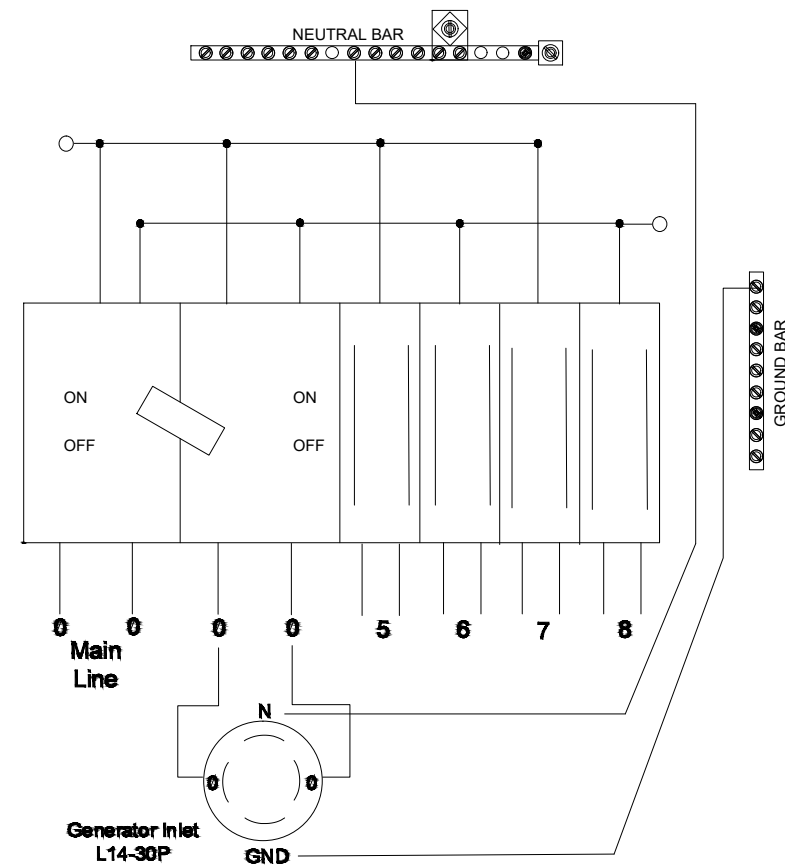
5



- ① LOCATION OF THE CORNING FIBER MANAGEMENT TRAY
- ② LOCATION OF THE ALCATEL-LUCENT OMI SWITCH
- ③ LOCATION OF THE ALPHA CORDEX RECTIFIER
- ④ LOCATION OF THE AC PDU
- ⑤ LOCATION OF THE DUPLEX GFCI OUTLET
- ⑥ LOCATION OF THE 2-GANG ELECTRICAL BOX
- ⑦ LOCATION OF THE DOOR SWITCH ASSEMBLY

CABINET DETAIL

1



DRAWN BY: JRR
DATE: 06/04/2019

REV	DATE	DESCRIPTION	BY
0	06/04/2019	FINAL CD	JRR

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WS-LNCL-RL01
1244 BLUFF ROAD
LINCOLN, NE 68531
LANCASTER COUNTY

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

NOT USED

2 LOAD CENTER

3

WS-LNCL-RL07

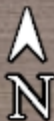
40.817710 / -96.872830

NW112th Street, approximately 861' south of Hwy 80.
Lancaster County, Nebraska



WS-LNCL-RL07

NW 112th St



WS-LNCL-RL07

462 NW 112TH STREET
LINCOLN, NE 68528



DRAWN BY:	JRR
DATE:	06/12/2019

REV	DATE	DESCRIPTION	BY
A	06/06/2019	99% CD	JRR
0	06/12/2019	100% FINAL CD	JHR

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WS-LNCL-RL07
462 NW 112TH STREET
LINCOLN, NE 68528
LANCASTER COUNTY

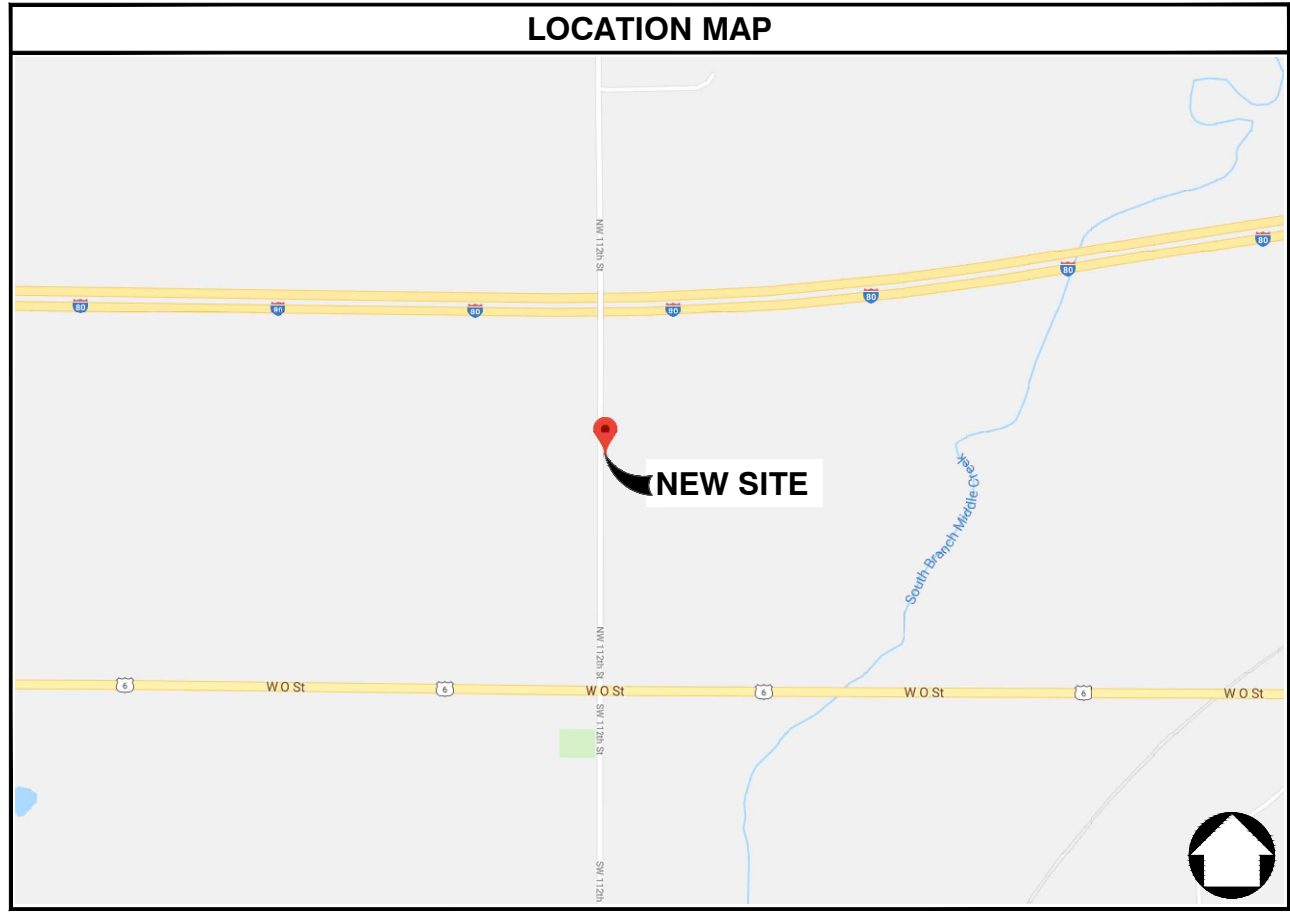
SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE INFORMATION	
SITE ID:	WS-LNCL-RL07
ADDRESS:	462 NW 112TH STREET LINCOLN, NE 68528
COUNTY:	LANCASTER COUNTY
LATITUDE:	40.8177528°
LONGITUDE:	-96.8728464°
JURISDICTION:	LANCASTER COUNTY

CONTACTS	
PROJECT MANAGER:	WINDSTREAM
PROFESSIONAL ENGINEER:	IRISH TOWER, LLC 4603 BERMUDA DRIVE SUGAR LAND, TEXAS 77479 jacob.goralski@irishtower.com
PROPERTY OWNER:	NA

GENERAL NOTES
THE FACILITY IS 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 NEW. THE SITE LOCATION IS SUBJECT TO MOVING, UP TO 10' FROM PROPOSED LOCATION, AS NEEDED TO KEEP WITHIN PUBLIC ROW, AVOID EXISTING UTILITY LINES, AND AVOID LINE-OF-SIGHT OBSTRUCTIONS WITH BOTH FOOT AND AUTOMOTIVE TRAFFIC. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO ANY CHANGES.



PROJECT DESCRIPTION
THESE DRAWINGS DEPICT AN UTILITY POLE WITH ANTENNA INSTALLATION TO PROVIDE HIGH SPEED INTERNET SERVICE IN RURAL AREAS. THIS INSTALLATION SHALL CONSIST OF THE PLACEMENT OF A NEW POLE, FOUR (4) ANTENNAS, ONE (1) MICROWAVE DISH AND RADIO, ONE (1) CONCEALMENT CABINET AND ASSOCIATED ELECTRICAL COMPONENTS AND MOUNTING BRACKETS AS REQUIRED

ENGINEERING
ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
2011 NATIONAL ELECTRICAL CODE 2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL BUILDING CODE CITY AND/OR COUNTY ORDINANCES
2012 INTERNATIONAL MECHANICAL CODE LOCAL BUILDING CODE(S)
2012 INTERNATIONAL PLUMBING CODE ANSI EIA/TIA 222-G
2012 LIFE SAFETY CODE (NFPA 101)

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLANS
C-2	ELEVATION DETAILS
C-3	ANTENNA LAYOUT DETAILS
C-4	STRUCTURE DETAILS
D-1	EQUIPMENT DETAILS
E-1	ELECTRICAL & GROUNDING DETAILS

NOTE: DRAWINGS ARE SCALED TO 11X17

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DAMAGED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DAMAGED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN PROPOSED EXCAVATIONS AND MUST MAINTAIN MINIMUM VERTICAL AND HORIZONTAL CLEARANCES AS CALLED FOR BY LOCAL CODES AND/OR ORDINANCES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING STRUCTURES OR LANDSCAPING DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. ANY MANHOLES OR COVERS INSTALLED AS PART OF THIS PROJECT SHALL BE LABELED COMMUNICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF AN EROSION CONTROL PLAN WHICH MEETS ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL AGENCIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL MAINTAIN MATERIALS AND EQUIPMENT ON SITE FOR UNFORESEEN SITUATIONS INCLUDING DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHICH COULD GENERATE FLOWS ABLE TO CAUSE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD OWNER, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO START OF CONSTRUCTION AND THROUGH PROJECT COMPLETION, THE CONTRACTOR SHALL REMAIN IN FULL COMPLIANCE WITH CURRENT FEDERAL, STATE, AND LOCAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AND AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. ALL UTILITIES AND OTHER FACILITIES DEPICTED ON THE PLANS ARE BASED ON A SEARCH OF AVAILABLE RECORDS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION START AND USE EXTREME CARE AND PROTECTIVE MEASURES TO AVOID DAMAGE TO ANY FACILITIES WETHER OR NOT INDICATED ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FACILITIES WITHIN THE LIMITS OF WORK, WHETHER OR NOT DEPICTED ONT THESE PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ANY CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT A MINIMUM TWO DAYS PRIOR TO COMMENCEMENT OF ACTIVITY REQUIRING THEIR INVOLVEMENT.
6. THE EXPIRATION OF THE PERMIT FOR THIS PROJECT SHALL BE SPECIFIED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
7. ALL UNDERGROUND CONDUITS PLACED AS PART OF THIS PROJECT MUST HAVE A MINIMUM COVER OF 48 INCHES UNLESS OTHERWISE APPROVED.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
9. ALL PAVEMENT CUT OR DAMAGED AS PART OF THIS PROJECT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
10. ALL SHRUBS, PLANTS OR TREES DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH REQUIRED LIABILITY INSURANCE FORMS CLEARLY DEMONSTRATING OWNER, OWNER REPRESENTATIVES, ENGINEER, AND CITY, COUNTY OR STATE ARE ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. ALL SUBSURFACE STRUCTURES INCLUDING BUT NOT LIMITED TO VAULTS, PEDESTALS, AND CONDUITS SHALL BE AS SPECIFIED IN THESE PLANS OR AS SPECIFIED BY THE ENGINEER. ANY DEVIATIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO INSTALLATION.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SEWER LATERALS AND WATER SERVICES, BOTH VERTICAL AND HORIZONTAL, PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF EXPLORATION EXCAVATIONS CONDUCTED FOR THE PURPOSE OF LOCATING EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS AS REQUIRED.
15. LOCATIONS OF EXISTING UTILITIES ON THESE PLANS ARE BASED UPON EXISTING RECORDS VERIFIED WHERE POSSIBLE WITH FIELD TIES. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO CONSTRUCTION, SUBSTANTIAL VARIANCES FROM THE PLANS SHALL BE COMMUNICATED TO THE ENGINEER TO FACILITATE CHANGES TO CONSTRUCTION DRAWINGS AS REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE INSTALLED BY CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/ OR WATER POLLUTION CONTROL PLAN (WPCP).
2. A GRAVEL BAG SILT BASIN SHALL BE INSTALLED IMMEDIATELY UPSTREAM OF STORM DRAIN INLETS AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES. THE CONTRACTOR SHALL INSURE WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT AND WORKERS FOR EMERGENCY WORK AT ALL TIMES DURING THE RAINY SEASON. MATERIALS NECESSARY FOR EMERGENCY MEASURES SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY/COUNTY/STATE ENGINEER OR RESIDENT ENGINEER FOLLOWING ANY RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HERON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. UPON COMPLETION OF WORK EACH DAY, GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. GRADING, INCLUDING CLEARING AND GRUBBING SHALL ONLY BE CONDUCTED IN AREAS WHERE THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
 3. THE CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION IS STARTED.
 4. ALL EXISTING LANDSCAPING SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
 5. ALL EQUIPMENT SHALL BE BONDED.
 6. IF A METERING CABINET IS INSTALLED, A MINIMUM 3' CLEARANCE IS REQUIRED AT DOOR OPENING.
 7. IF A METERING CABINET IS INSTALLED, THE CONTRACTOR SHALL CAULK THE CABINET BASE AT THE PAD.
- STANDARD GROUNDING NOTES:**
1. GROUND SHALL BE TESTED AT 25 OHMS OR LESS.
 2. GROUND RODS SHALL BE 5/8"x8'. ATTACHMENT TO GROUND RODS SHALL BE EXOTHERMIC WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
 3. BURIED GROUND AND BONDING WIRE SHALL BE #6 AWG.
 4. MOLDING SHALL BE STAPLED EVERY 1' AND AT EACH END.

STANDARD CONDUIT NOTES:

1. SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND.
2. SCHEDULE 80 CONDUIT SHALL BE USED FOR RISERS.
3. RISERS SHALL BE ATTACHED TO POLE WITH STANDARD U-CLAMPS AND LAG SCREWS.
4. RISER U-CLAMPS TO BE INSTALLED EVERY 5'.
5. FOR U/G POWER INSTALLATIONS, 2" SDR-11 RED CONDUIT SHALL BE UTILIZED.
6. GROUND WIRE MOLDING STAPLES MAY BE BE UTILIZED FOR ATTACHING CONDUIT LESS THAN 1" DIAMETER.
7. ALL CONDUIT SHALL BE PROOFED WITH A MANDREL AND EQUIPPED WITH A PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. A MINIMUM OF 2'-6" OF COVER SHALL BE MAINTAINED OVER ALL ELECTRICAL CONDUITS.
2. A MINIMUM OF 4'-0" OF COVER SHALL BE MAINTAINED OVER ALL COMMUNICATIONS CONDUITS.
3. IN STREETS, SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT, SLURRY TO 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. WARNING TAPE SHALL BE INSTALLED 1'-0" ABOVE ALL CONDUITS. #18 WARNING TAPE SHALL BE INSTALLED ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. BOLT THREADS SHALL NOT PROTRUDE MORE THAN 1-1/2".
2. HOLES LEFT IN POLE DUE TO REARRANGEMENT OF CLIMBERS SHALL BE FILLED.
3. CLIMB STEPS ADJACENT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE SHALL NOT IMPEDE 15" CLEAR SPACE OFF POLE FACE (12:00).
5. 90° SHORT SWEEPS SHALL BE USED UNDER ANTENNA ARM. CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF ARMS. (NO CABLE SHALL BE INSTALLED ON TOP OF ARMS.)
6. CABLE CLAMPS SHALL BE UTILIZED TO SECURE CABLE TO ARMS; 2" CARRIER CABLE ID TAGS SHALL BE PLACED ON BOTH SIDES OF ARMS.
7. UTILIZE A 90° CONNECTOR AT CABLE CONNECTION TO ANTENNA.
8. 1/2" CABLE TO BE UTILIZED UNLESS NOTED OTHERWISE.
9. VOIDS AROUND CABLES AT CONDUIT OPENINGS SHALL BE FILLED WITH FOAM SEALANT TO PREVENT WATER INTRUSION.



DRAWN BY:	JRR
DATE:	06/12/2019

REV	DATE	DESCRIPTION	BY
A	06/06/2019	99% CD	JRR
0	06/12/2019	100% FINAL CD	JHR

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WS-LNCL-RL07
 462 NW 112TH STREET
 LINCOLN, NE 68528
 LANCASTER COUNTY

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
T-2



DRAWN BY: JRR
DATE: 06/12/2019

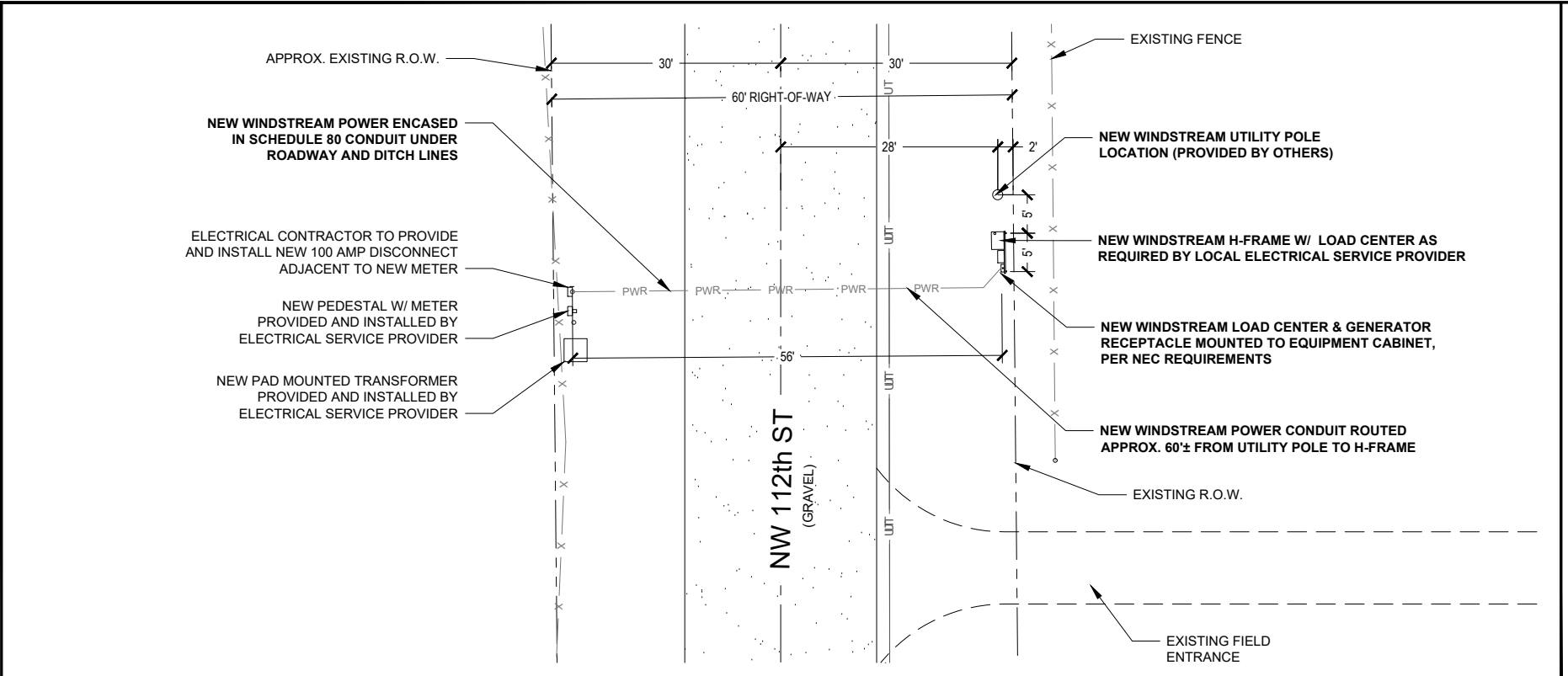
REV	DATE	DESCRIPTION	BY
A	06/06/2019	99% CD	JRR
0	06/12/2019	100% FINAL CD	JHR

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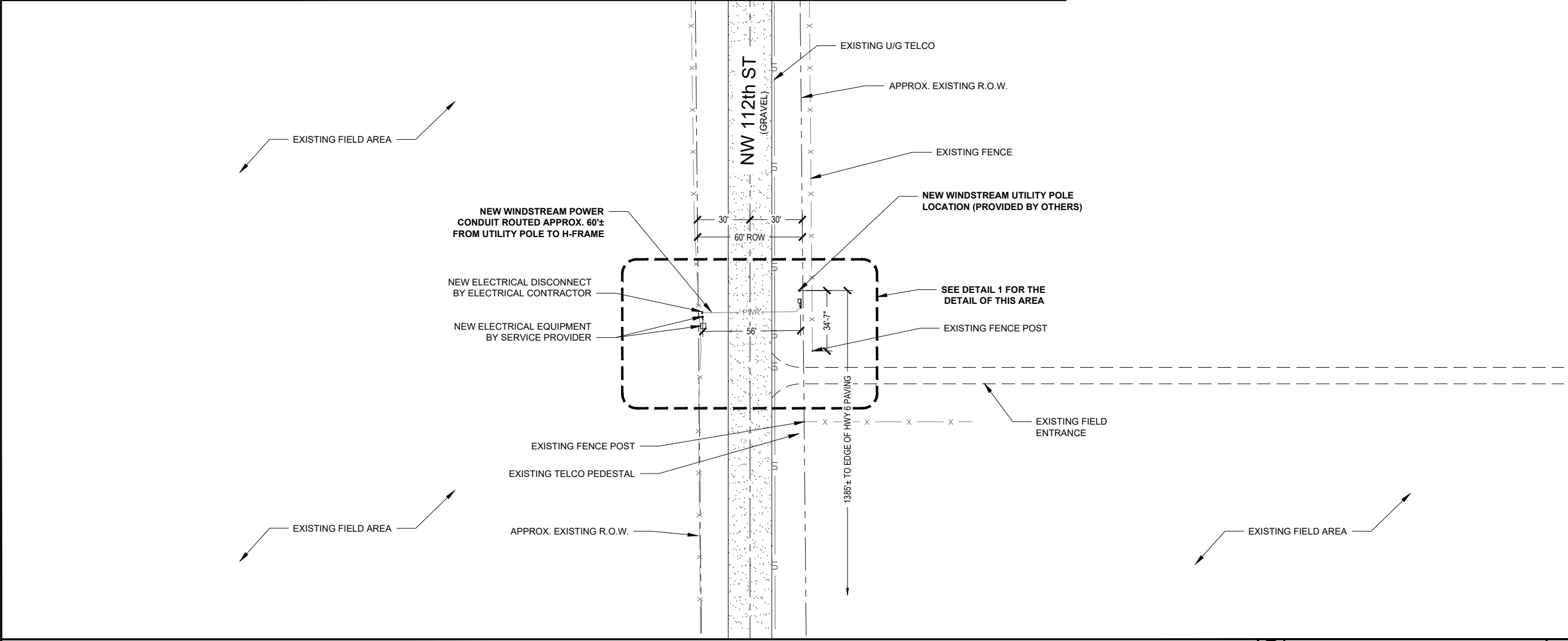
WS-LNCL-RL07
462 NW 112TH STREET
LINCOLN, NE 68528
LANCASTER COUNTY

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1



ENLARGED SITE PLAN 22"x34" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" 10' 5' 0' 10'



OVERALL SITE PLAN 22"x34" SCALE: 1" = 30'-0" 11"x17" SCALE: 1" = 60'-0" 30' 15' 0' 30'



DRAWN BY: JRR
DATE: 06/12/2019

REV	DATE	DESCRIPTION	BY
A	06/06/2019	99% CD	JRR
0	06/12/2019	100% FINAL CD	JHR

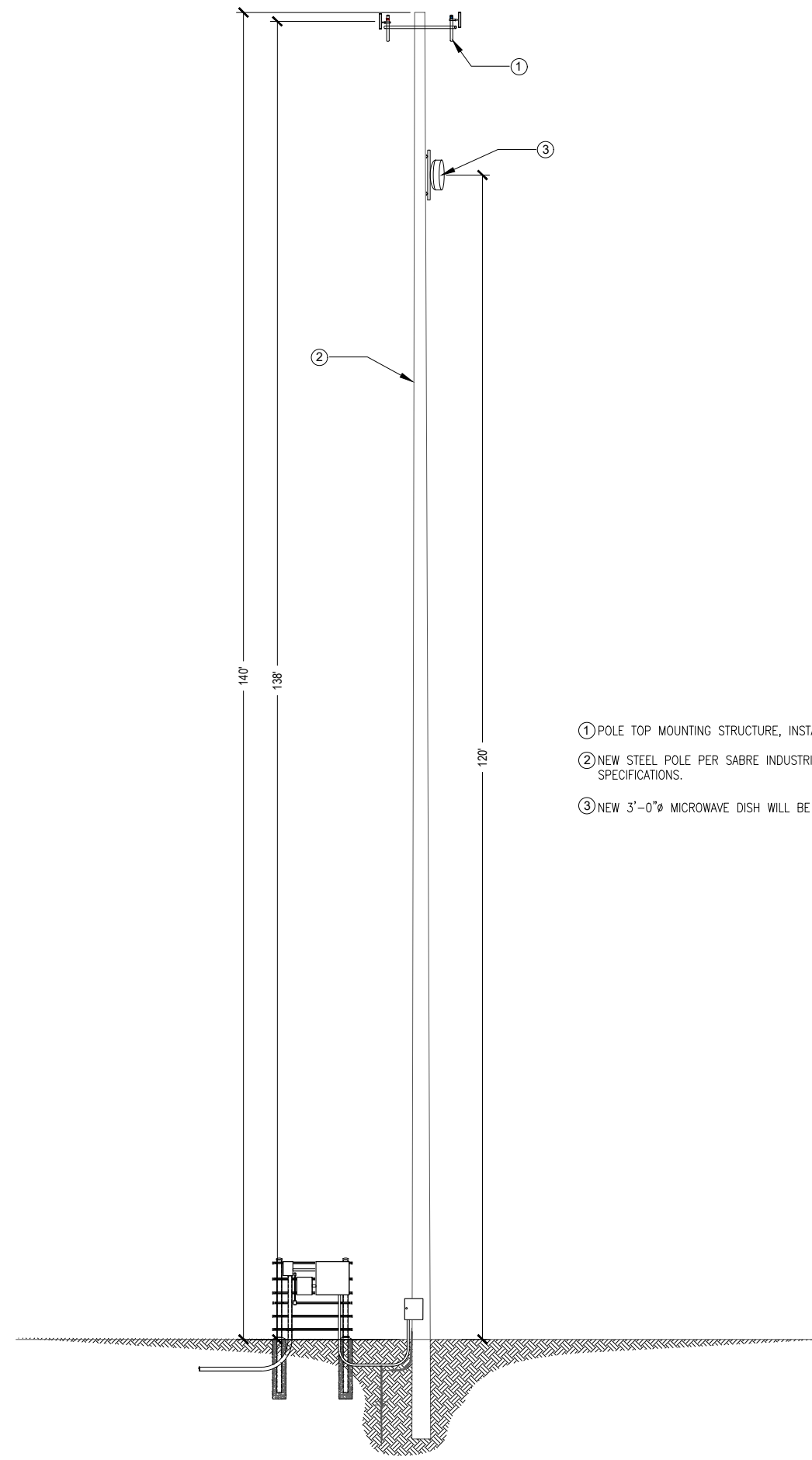
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

WS-LNCL-RL07
462 NW 112TH STREET
LINCOLN, NE 68528
LANCASTER COUNTY

SHEET TITLE
**ELEVATION
DETAILS**

SHEET NUMBER
C-2

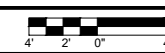
STRUCTURAL NOTE:
1. PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A GLOBAL/LOCAL STRUCTURAL ANALYSIS OF EQUIPMENT ANCHORS, SUPPORTS AND DESIGN/DETAILING OF ANY STRUCTURAL MODIFICATIONS/REINFORCEMENT REQUIRED THERETO.
2. THIS DOCUMENT IS FOR PERMITTING ONLY AND IS NOT INTENDED FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PE STAMPED/SIGNED STRUCTURAL ASSESSMENT/ANALYSIS REPORT AS PROVIDED BY THE PROJECT OWNER.
NOTE:
REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.



NOT USED

1 NEW STRUCTURE ELEVATION

22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"



2



DRAWN BY: JRR
DATE: 06/12/2019

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A	06/06/2019	99% CD	JRR
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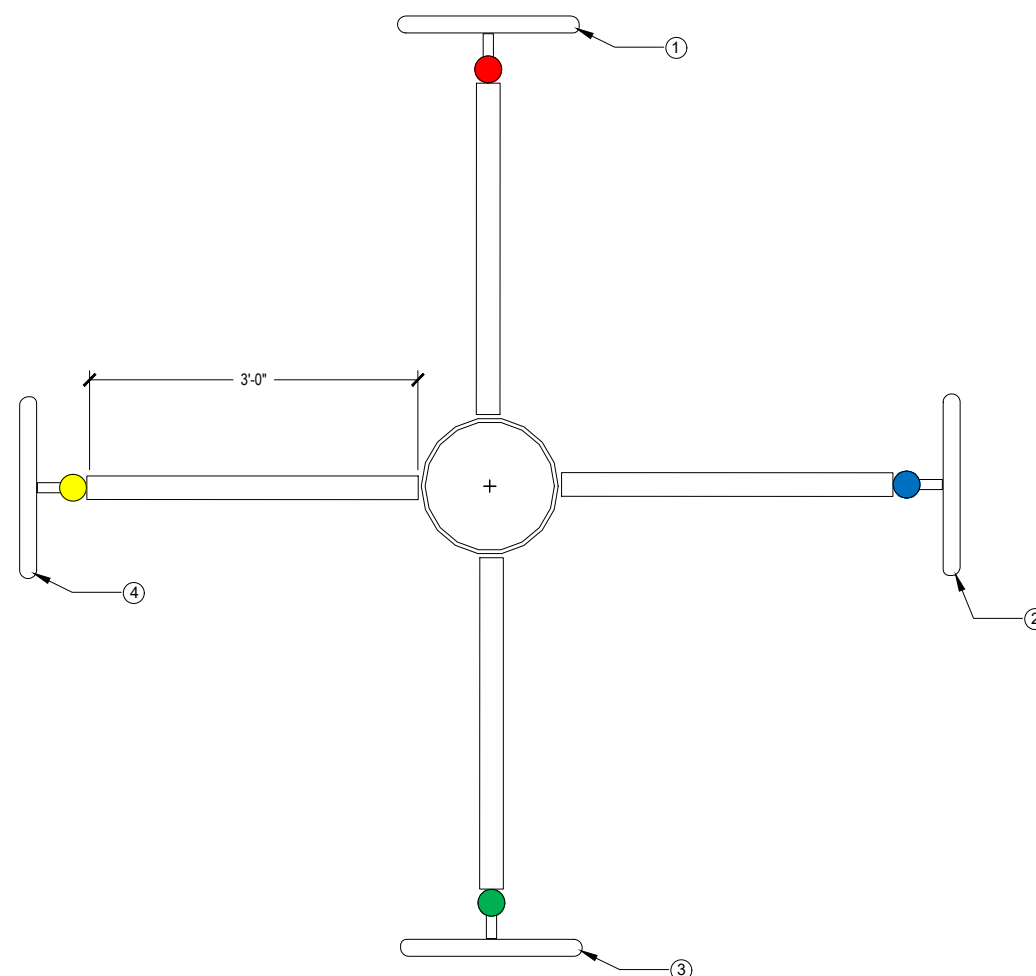
WS-LNCL-RL07

462 NW 112TH STREET
LINCOLN, NE 68528
LANCASTER COUNTY

SHEET TITLE
**ANTENNA LAYOUT
DETAILS**

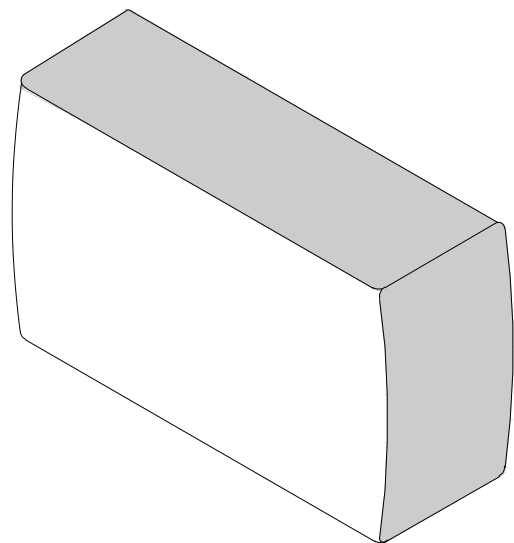
SHEET NUMBER

C-3

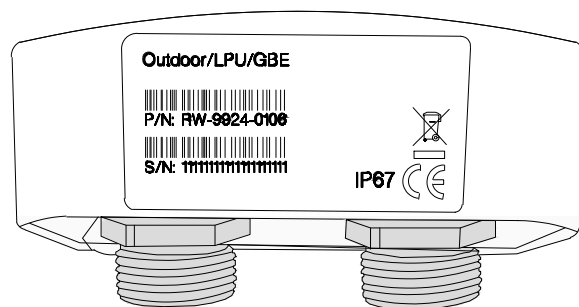


- ① AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 01 (NORTH) IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ② AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99°ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 02 (EAST) IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99°ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99°ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.





BASE STATION	
MANUF:	RADWIN
PART #:	RW-5BG5-0649
HEIGHT:	8.86"
WIDTH:	14.01"
DEPTH:	3.7"
WEIGHT:	7.28 LBS



FRONT VIEW

LIGHTNING PROTECTION	
MANUF:	RADWIN
PART #:	RW-9924-0106
HEIGHT:	2.04"
WIDTH:	3.87"
DEPTH:	1.88"
WEIGHT:	0.49 LBS



CABINET	
MANUF:	WESTELL
PART #:	BXM1019-NHE3
HEIGHT:	22.5"
WIDTH:	25.5"
DEPTH:	27.8"
WEIGHT:	70.00 LBS



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WS-LNCL-RL07

462 NW 112TH STREET
LINCOLN, NE 68528
LANCASTER COUNTY

SHEET TITLE
**EQUIPMENT
DETAILS**

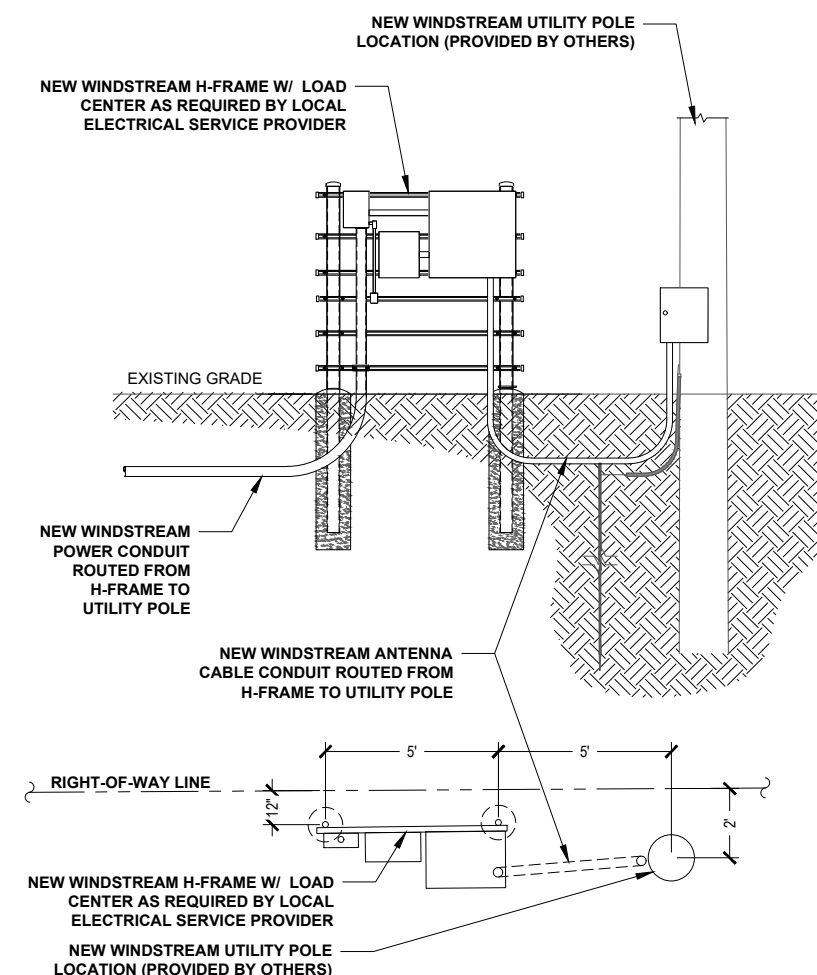
SHEET NUMBER
D-1

RADWIN BASE STATION

1 LIGHTNING PROTECTOR

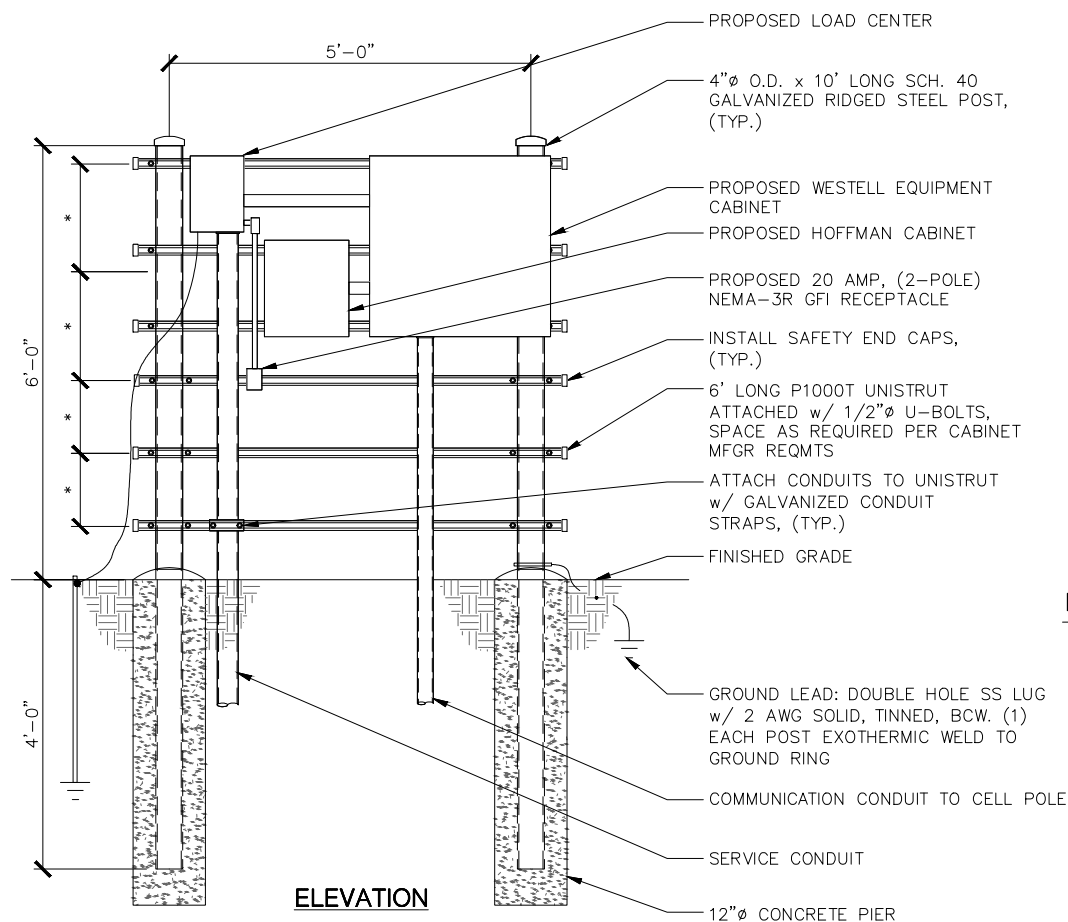
2 WESTELL BOXER OUTDOOR CABINET

3



DETAIL RACK ELEVATION

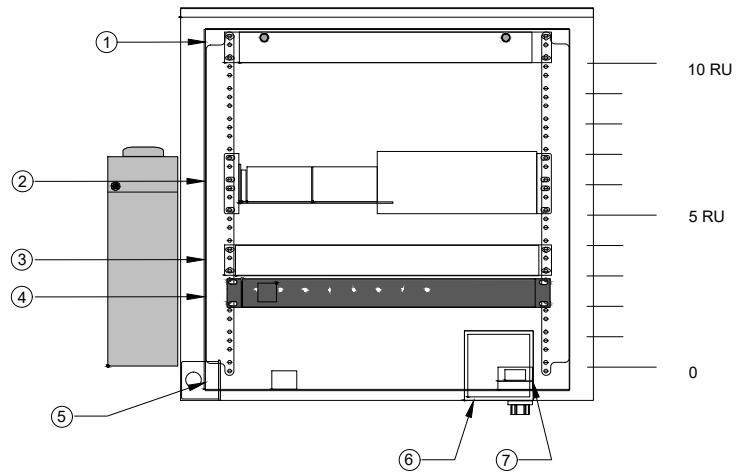
4 H-FRAME DETAIL



NOTES:

- *- COORDINATE ELEVATIONS WITH EQUIPMENT/MOUNTING HEIGHT.
- STEEL SHALL BE HOT DIP GALVANIZED.
- CABINETS SHALL BE MOUNTED WITH STAINLESS STEEL BOLTS.
- METAL POSTS ARE NOT ALLOWED TO SERVE AS EQUIPMENT GROUNDING CONDUCTOR.
- UNISTRUT SHALL NOT EXTEND BEYOND POST & MUST HAVE SAFETY END CAPS FOR SAFETY REASONS.
- METALLIC PARTS SHALL BE BONDED ACCORDING TO THE NEC.
- GROUNDING SHALL CONFORM TO NEC AND SECTION 436-439.

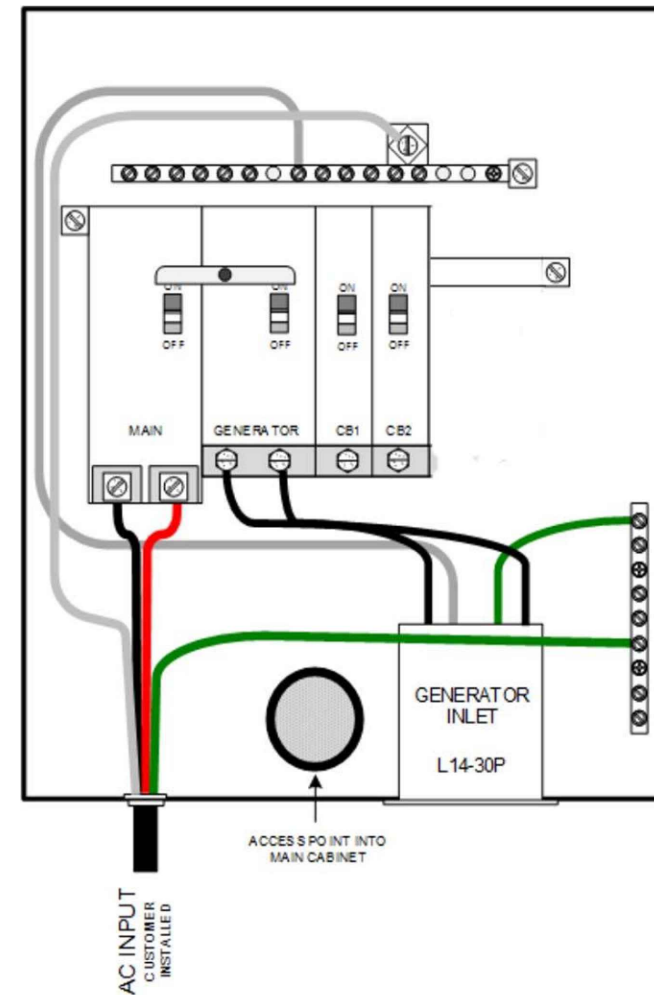
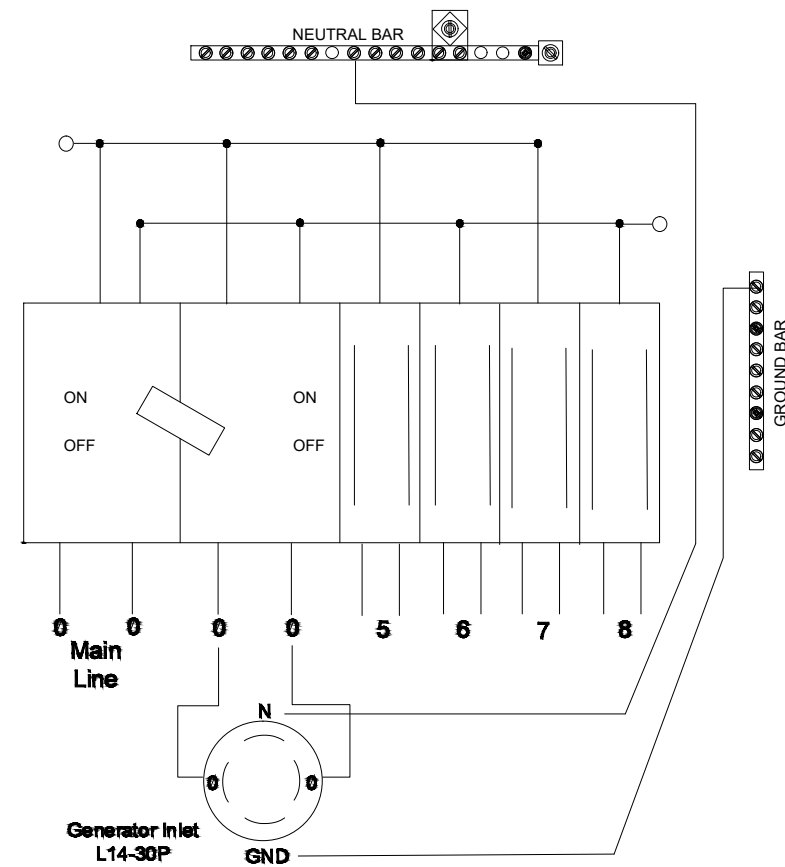
5



- ① LOCATION OF THE CORNING FIBER MANAGEMENT TRAY
- ② LOCATION OF THE ALCATEL-LUCENT OMI SWITCH
- ③ LOCATION OF THE ALPHA CORDEX RECTIFIER
- ④ LOCATION OF THE AC PDU
- ⑤ LOCATION OF THE DUPLEX GFCI OUTLET
- ⑥ LOCATION OF THE 2-GANG ELECTRICAL BOX
- ⑦ LOCATION OF THE DOOR SWITCH ASSEMBLY

CABINET DETAIL

1



DRAWN BY:	JRR
DATE:	06/12/2019

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A	06/06/2019	99% CD	JRR
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WS-LNCL-RL07

462 NW 112TH STREET
LINCOLN, NE 68528
LANCASTER COUNTY

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

NOT USED

2 LOAD CENTER

3

WS-RYMN-RL06

40.930490 / -96.772750

NW 40th Street, 138' approximately 138' north of W Waverly Road.
Lancaster County, Nebraska

WS-RYMN-RL06

W Waverly Rd

NW 33rd St



WS-RYMN-RL06

12013 NW 40TH STREET
RAYMOND, NE 68428



DRAWN BY:	JHR
DATE:	06/14/2019

REV	DATE	DESCRIPTION	BY
A	06/06/2019	90% CD	JHR
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WS-RYMN-RL06
12013 NW 40TH STREET
RAYMOND, NE 68428
LANCASTER COUNTY

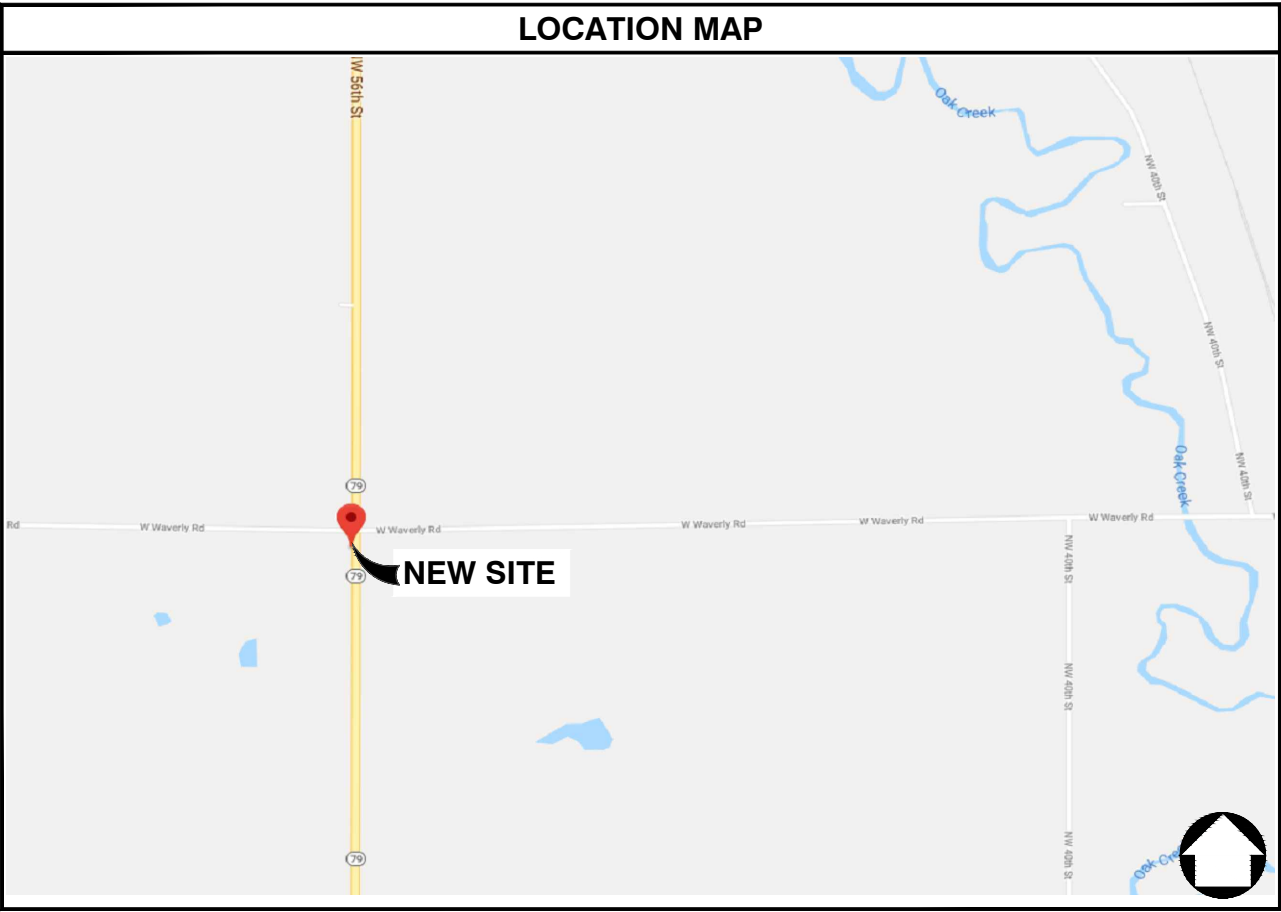
SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE INFORMATION	
SITE ID:	WS-RYMN-RL06
ADDRESS:	12013 NW 40TH STREET RAYMOND, NE 68428
COUNTY:	LANCASTER COUNTY
LATITUDE:	40.9293998°
LONGITUDE:	-96.7958117°
JURISDICTION:	LANCASTER COUNTY

CONTACTS	
PROJECT MANAGER:	WINDSTREAM
PROFESSIONAL ENGINEER:	IRISH TOWER, LLC 4603 BERMUDA DRIVE SUGAR LAND, TEXAS 77479 jacob.goralski@irishtower.com
PROPERTY OWNER:	NA

GENERAL NOTES
THE FACILITY IS 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 NEW. THE SITE LOCATION IS SUBJECT TO MOVING, UP TO 10' FROM PROPOSED LOCATION, AS NEEDED TO KEEP WITHIN PUBLIC ROW, AVOID EXISTING UTILITY LINES, AND AVOID LINE-OF-SIGHT OBSTRUCTIONS WITH BOTH FOOT AND AUTOMOTIVE TRAFFIC. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO ANY CHANGES.



PROJECT DESCRIPTION
THESE DRAWINGS DEPICT AN UTILITY POLE WITH ANTENNA INSTALLATION TO PROVIDE HIGH SPEED INTERNET SERVICE IN RURAL AREAS. THIS INSTALLATION SHALL CONSIST OF THE PLACEMENT OF A NEW POLE, FOUR (4) ANTENNAS, ONE (1) MICROWAVE DISH AND RADIO, ONE (1) CONCEALMENT CABINET AND ASSOCIATED ELECTRICAL COMPONENTS AND MOUNTING BRACKETS AS REQUIRED

ENGINEERING
ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
2011 NATIONAL ELECTRICAL CODE 2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL BUILDING CODE CITY AND/OR COUNTY ORDINANCES
2012 INTERNATIONAL MECHANICAL CODE LOCAL BUILDING CODE(S)
2012 INTERNATIONAL PLUMBING CODE ANSI EIA/TIA 222-G
2012 LIFE SAFETY CODE (NFPA 101)

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLANS
C-2	ELEVATION DETAILS
C-3	ANTENNA LAYOUT DETAILS
D-1	EQUIPMENT DETAILS
E-1	ELECTRICAL & GROUNDING DETAILS

NOTE: DRAWINGS ARE SCALED TO 11X17

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DAMAGED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DAMAGED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN PROPOSED EXCAVATIONS AND MUST MAINTAIN MINIMUM VERTICAL AND HORIZONTAL CLEARANCES AS CALLED FOR BY LOCAL CODES AND/OR ORDINANCES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING STRUCTURES OR LANDSCAPING DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. ANY MANHOLES OR COVERS INSTALLED AS PART OF THIS PROJECT SHALL BE LABELED COMMUNICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF AN EROSION CONTROL PLAN WHICH MEETS ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL AGENCIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL MAINTAIN MATERIALS AND EQUIPMENT ON SITE FOR UNFORESEEN SITUATIONS INCLUDING DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHICH COULD GENERATE FLOWS ABLE TO CAUSE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD OWNER, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO START OF CONSTRUCTION AND THROUGH PROJECT COMPLETION, THE CONTRACTOR SHALL REMAIN IN FULL COMPLIANCE WITH CURRENT FEDERAL, STATE, AND LOCAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AND AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. ALL UTILITIES AND OTHER FACILITIES DEPICTED ON THE PLANS ARE BASED ON A SEARCH OF AVAILABLE RECORDS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION START AND USE EXTREME CARE AND PROTECTIVE MEASURES TO AVOID DAMAGE TO ANY FACILITIES WETHER OR NOT INDICATED ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FACILITIES WITHIN THE LIMITS OF WORK, WHETHER OR NOT DEPICTED ONT THESE PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ANY CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT A MINIMUM TWO DAYS PRIOR TO COMMENCEMENT OF ACTIVITY REQUIRING THEIR INVOLVEMENT.
6. THE EXPIRATION OF THE PERMIT FOR THIS PROJECT SHALL BE SPECIFIED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
7. ALL UNDERGROUND CONDUITS PLACED AS PART OF THIS PROJECT MUST HAVE A MINIMUM COVER OF 48 INCHES UNLESS OTHERWISE APPROVED.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
9. ALL PAVEMENT CUT OR DAMAGED AS PART OF THIS PROJECT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
10. ALL SHRUBS, PLANTS OR TREES DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH REQUIRED LIABILITY INSURANCE FORMS CLEARLY DEMONSTRATING OWNER, OWNER REPRESENTATIVES, ENGINEER, AND CITY, COUNTY OR STATE ARE ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. ALL SUBSURFACE STRUCTURES INCLUDING BUT NOT LIMITED TO VAULTS, PEDESTALS, AND CONDUITS SHALL BE AS SPECIFIED IN THESE PLANS OR AS SPECIFIED BY THE ENGINEER. ANY DEVIATIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO INSTALLATION.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SEWER LATERALS AND WATER SERVICES, BOTH VERTICAL AND HORIZONTAL, PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF EXPLORATION EXCAVATIONS CONDUCTED FOR THE PURPOSE OF LOCATING EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS AS REQUIRED.
15. LOCATIONS OF EXISTING UTILITIES ON THESE PLANS ARE BASED UPON EXISTING RECORDS VERIFIED WHERE POSSIBLE WITH FIELD TIES. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO CONSTRUCTION, SUBSTANTIAL VARIANCES FROM THE PLANS SHALL BE COMMUNICATED TO THE ENGINEER TO FACILITATE CHANGES TO CONSTRUCTION DRAWINGS AS REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE INSTALLED BY CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/ OR WATER POLLUTION CONTROL PLAN (WPCP).
2. A GRAVEL BAG SILT BASIN SHALL BE INSTALLED IMMEDIATELY UPSTREAM OF STORM DRAIN INLETS AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES. THE CONTRACTOR SHALL INSURE WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT AND WORKERS FOR EMERGENCY WORK AT ALL TIMES DURING THE RAINY SEASON. MATERIALS NECESSARY FOR EMERGENCY MEASURES SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY/COUNTY/STATE ENGINEER OR RESIDENT ENGINEER FOLLOWING ANY RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HERON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. UPON COMPLETION OF WORK EACH DAY, GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. GRADING, INCLUDING CLEARING AND GRUBBING SHALL ONLY BE CONDUCTED IN AREAS WHERE THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
2. ALL WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
3. THE CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION IS STARTED.
4. ALL EXISTING LANDSCAPING SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
5. ALL EQUIPMENT SHALL BE BONDED.
6. IF A METERING CABINET IS INSTALLED, A MINIMUM 3' CLEARANCE IS REQUIRED AT DOOR OPENING.
7. IF A METERING CABINET IS INSTALLED, THE CONTRACTOR SHALL CAULK THE CABINET BASE AT THE PAD.

STANDARD GROUNDING NOTES:

1. GROUND SHALL BE TESTED AT 25 OHMS OR LESS.
2. GROUND RODS SHALL BE 5/8"x8'. ATTACHMENT TO GROUND RODS SHALL BE EXOTHERMIC WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
3. BURIED GROUND AND BONDING WIRE SHALL BE #6 AWG.
4. MOLDING SHALL BE STAPLED EVERY 1' AND AT EACH END.

STANDARD CONDUIT NOTES:

1. SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND.
2. SCHEDULE 80 CONDUIT SHALL BE USED FOR RISERS.
3. RISERS SHALL BE ATTACHED TO POLE WITH STANDARD U-CLAMPS AND LAG SCREWS.
4. RISER U-CLAMPS TO BE INSTALLED EVERY 5'.
5. FOR U/G POWER INSTALLATIONS, 2" SDR-11 RED CONDUIT SHALL BE UTILIZED.
6. GROUND WIRE MOLDING STAPLES MAY BE BE UTILIZED FOR ATTACHING CONDUIT LESS THAN 1" DIAMETER.
7. ALL CONDUIT SHALL BE PROOFED WITH A MANDREL AND EQUIPPED WITH A PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. A MINIMUM OF 2'-6" OF COVER SHALL BE MAINTAINED OVER ALL ELECTRICAL CONDUITS.
2. A MINIMUM OF 4'-0" OF COVER SHALL BE MAINTAINED OVER ALL COMMUNICATIONS CONDUITS.
3. IN STREETS, SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT, SLURRY TO 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. WARNING TAPE SHALL BE INSTALLED 1'-0" ABOVE ALL CONDUITS. #18 WARNING TAPE SHALL BE INSTALLED ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. BOLT THREADS SHALL NOT PROTRUDE MORE THAN 1-1/2".
2. HOLES LEFT IN POLE DUE TO REARRANGEMENT OF CLIMBERS SHALL BE FILLED.
3. CLIMB STEPS ADJACENT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE SHALL NOT IMPEDE 15" CLEAR SPACE OFF POLE FACE (12:00).
5. 90° SHORT SWEEPS SHALL BE USED UNDER ANTENNA ARM. CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF ARMS. (NO CABLE SHALL BE INSTALLED ON TOP OF ARMS.)
6. CABLE CLAMPS SHALL BE UTILIZED TO SECURE CABLE TO ARMS; 2" CARRIER CABLE ID TAGS SHALL BE PLACED ON BOTH SIDES OF ARMS.
7. UTILIZE A 90° CONNECTOR AT CABLE CONNECTION TO ANTENNA.
8. 1/2" CABLE TO BE UTILIZED UNLESS NOTED OTHERWISE.
9. VOIDS AROUND CABLES AT CONDUIT OPENINGS SHALL BE FILLED WITH FOAM SEALANT TO PREVENT WATER INTRUSION.



DRAWN BY:	JHR
DATE:	06/14/2019

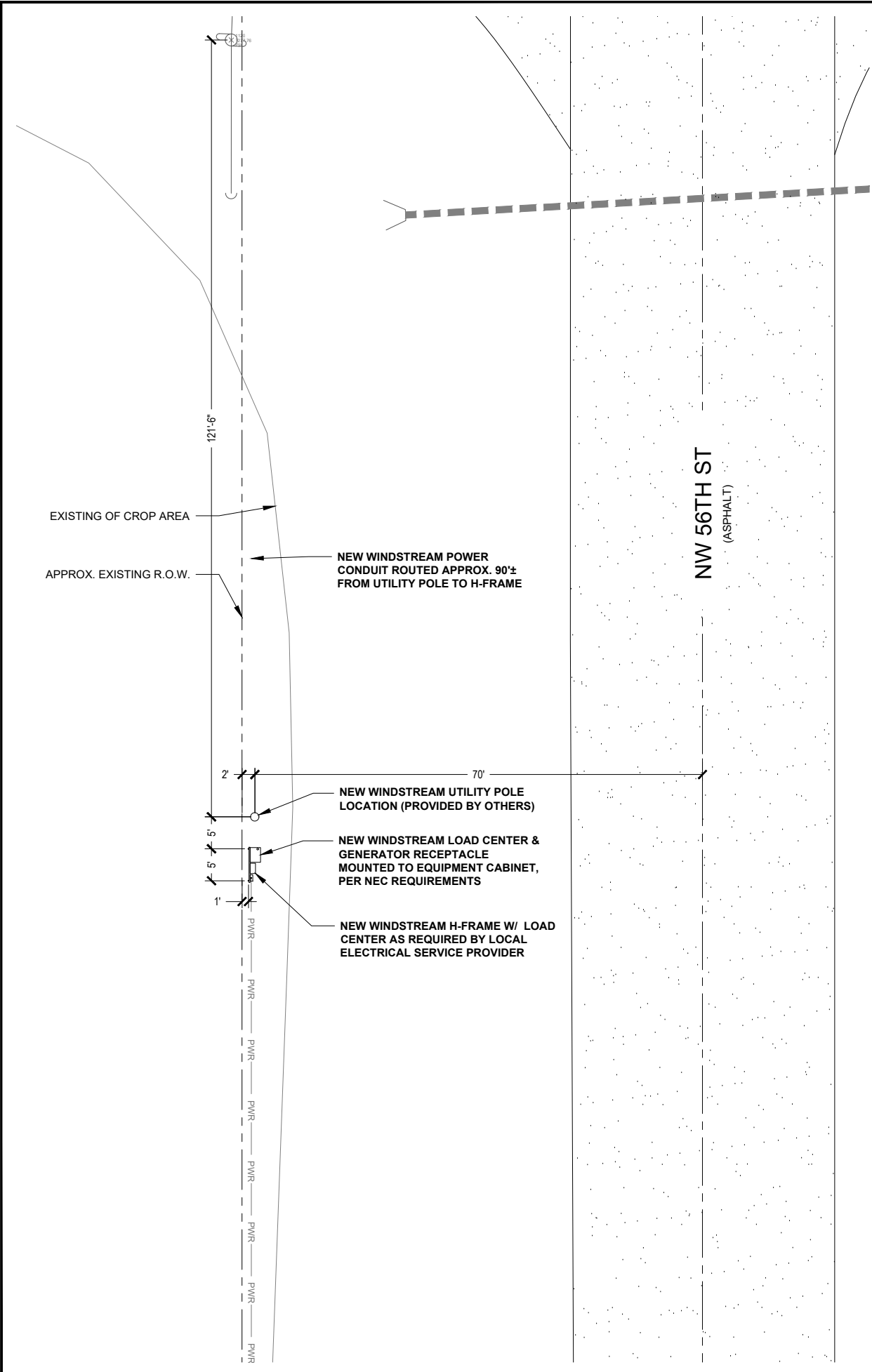
REV	DATE	DESCRIPTION	BY
A	06/06/2019	90% CD	JHR
0	06/14/2019	100% FINAL CD	JHR

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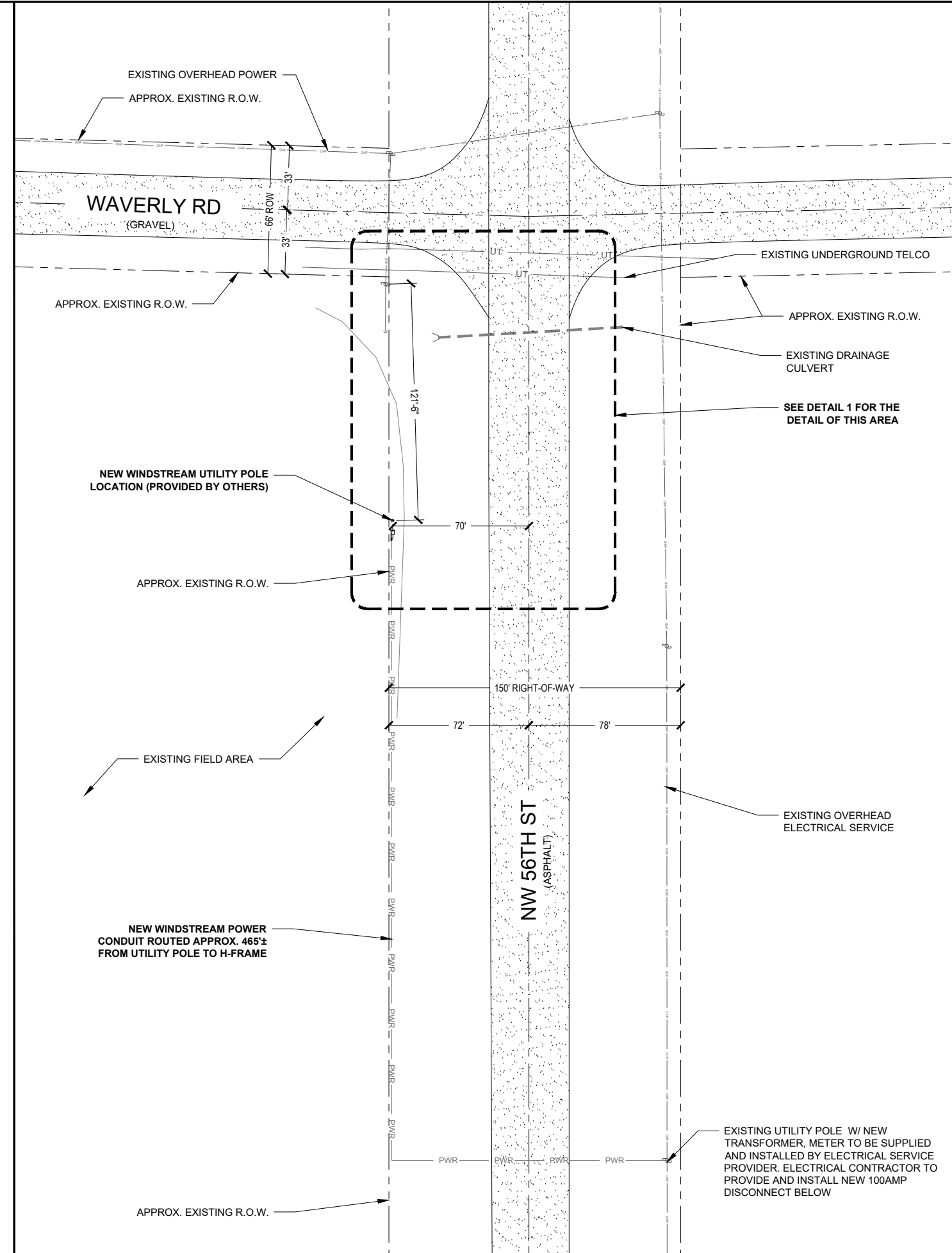
WS-RYMN-RL06
 12013 NW 40TH STREET
 RAYMOND, NE 68428
 LANCASTER COUNTY

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
T-2



ENLARGED SITE PLAN 22"x34" SCALE: 1" = 10'-0" 11"x17" SCALE: 1" = 20'-0" **1**



OVERALL SITE PLAN 22"x34" SCALE: 1" = 30'-0" 11"x17" SCALE: 1" = 60'-0" **2**



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WS-RYMN-RL06
 12013 NW 40TH STREET
 RAYMOND, NE 68428
 LANCASTER COUNTY

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1



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DATE: 06/14/2019

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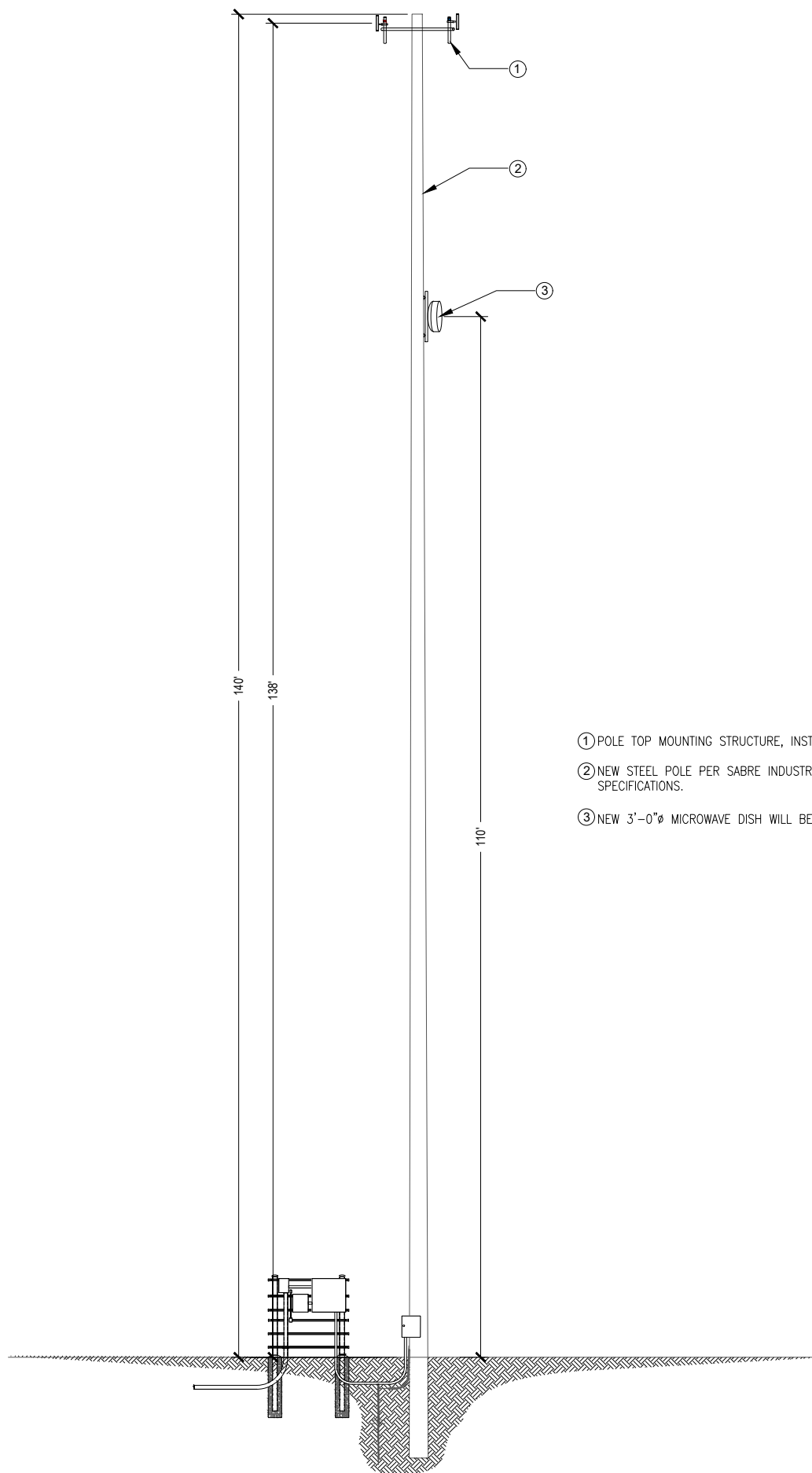
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WS-RYMN-RL06
12013 NW 40TH STREET
RAYMOND, NE 68428
LANCASTER COUNTY

SHEET TITLE
**ELEVATION
DETAILS**

SHEET NUMBER
C-2

STRUCTURAL NOTE:
1. PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A GLOBAL/LOCAL STRUCTURAL ANALYSIS OF EQUIPMENT ANCHORS, SUPPORTS AND DESIGN/DETAILING OF ANY STRUCTURAL MODIFICATIONS/REINFORCEMENT REQUIRED THERETO.
2. THIS DOCUMENT IS FOR PERMITTING ONLY AND IS NOT INTENDED FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PE STAMPED/SIGNED STRUCTURAL ASSESSMENT/ANALYSIS REPORT AS PROVIDED BY THE PROJECT OWNER.
NOTE:
REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.

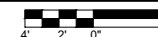


- ① POLE TOP MOUNTING STRUCTURE, INSTALLATION PER POLE MFG SPECIFICATIONS.
- ② NEW STEEL POLE PER SABRE INDUSTRIES TOWER DESIGN. TO BE ERECTED PER MFG SPECIFICATIONS.
- ③ NEW 3'-0"Ø MICROWAVE DISH WILL BE MOUNTED AT SHOWN HEIGHT.

NOT USED

1 NEW STRUCTURE ELEVATION

22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"



2

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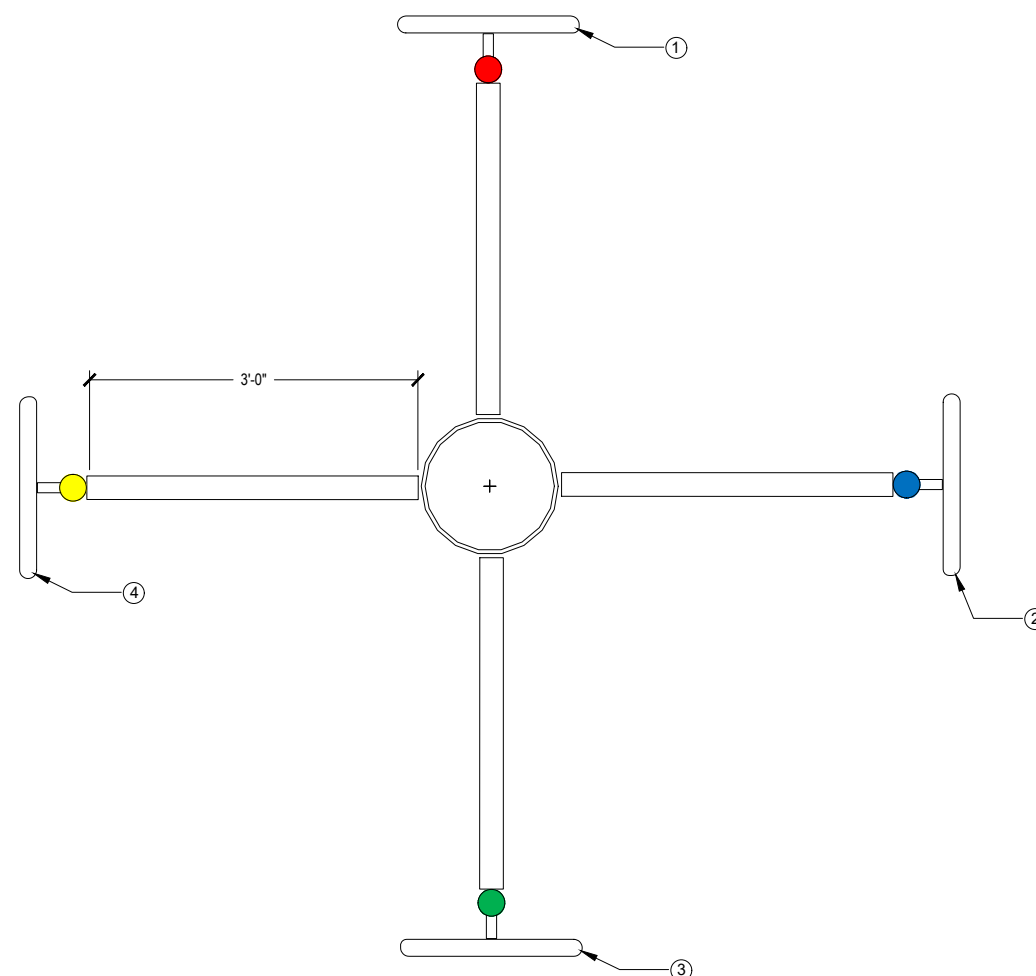
WS-RYMN-RL06

12013 NW 40TH STREET
RAYMOND, NE 68428
LANCASTER COUNTY

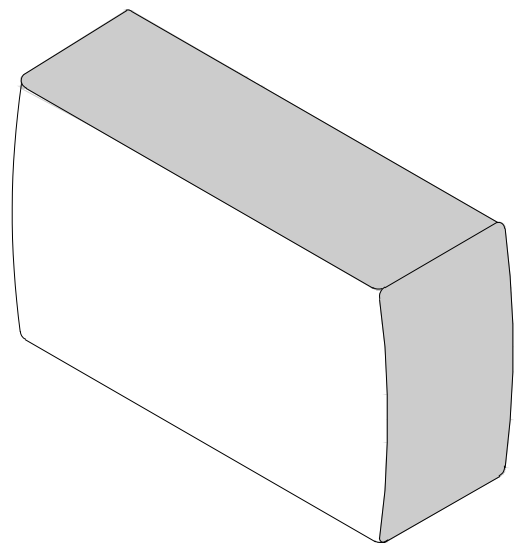
SHEET TITLE
**ANTENNA LAYOUT
DETAILS**

SHEET NUMBER

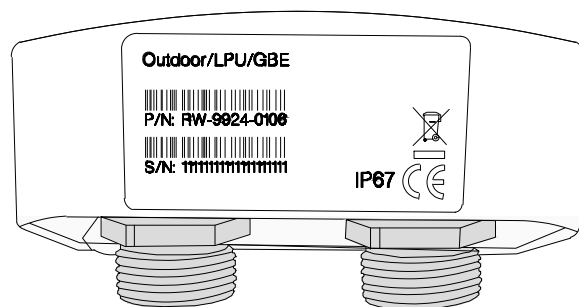
C-3



- ① AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 01 (NORTH) IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ② AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99°ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 02 (EAST) IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99°ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99°ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.



BASE STATION	
MANUF:	RADWIN
PART #:	RW-5BG5-0649
HEIGHT:	8.86"
WIDTH:	14.01"
DEPTH:	3.7"
WEIGHT:	7.28 LBS



FRONT VIEW

LIGHTNING PROTECTION	
MANUF:	RADWIN
PART #:	RW-9924-0106
HEIGHT:	2.04"
WIDTH:	3.87"
DEPTH:	1.88"
WEIGHT:	0.49 LBS



CABINET	
MANUF:	WESTELL
PART #:	BXM1019-NHE3
HEIGHT:	22.5"
WIDTH:	25.5"
DEPTH:	27.8"
WEIGHT:	70.00 LBS



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WS-RYMN-RL06
 12013 NW 40TH STREET
 RAYMOND, NE 68428
 LANCASTER COUNTY

SHEET TITLE
**EQUIPMENT
 DETAILS**

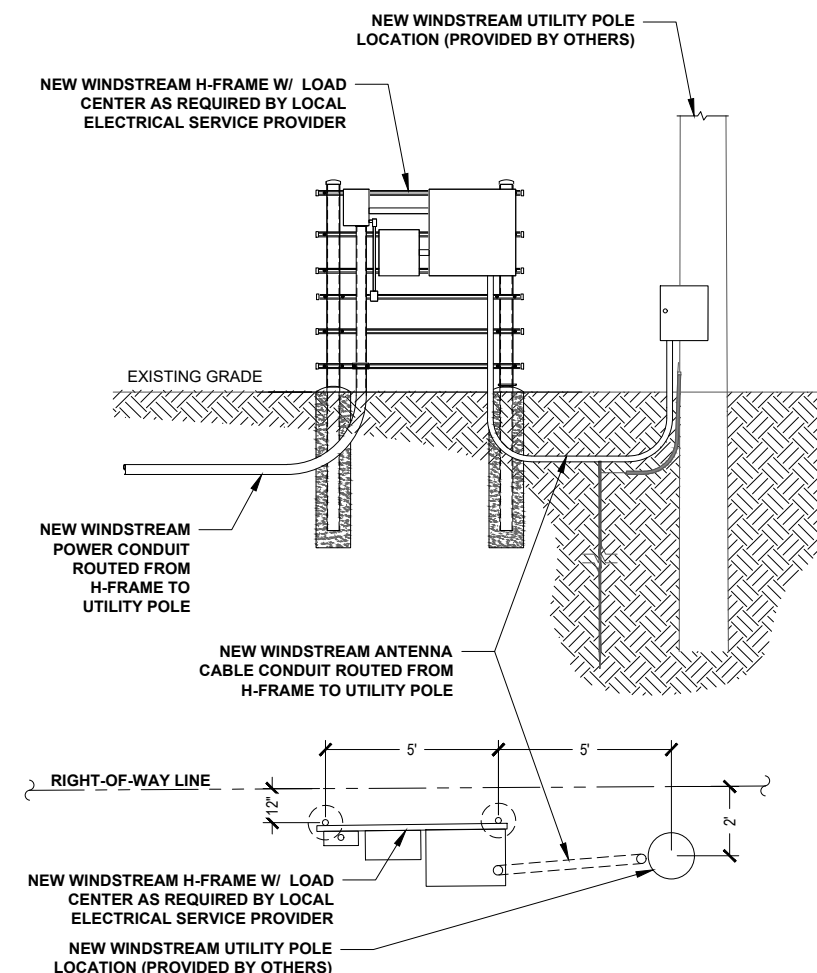
SHEET NUMBER
D-1

RADWIN BASE STATION

1 LIGHTNING PROTECTOR

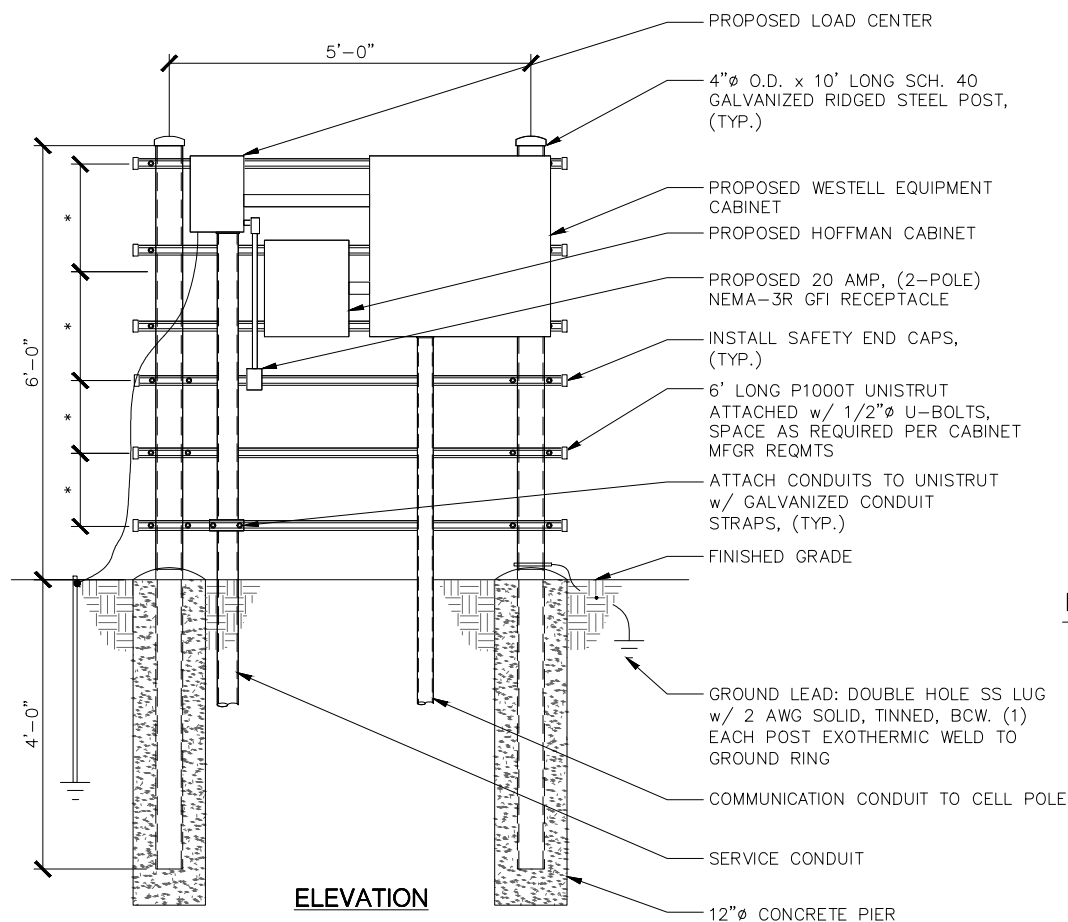
2 WESTELL BOXER OUTDOOR CABINET

3



DETAIL RACK ELEVATION

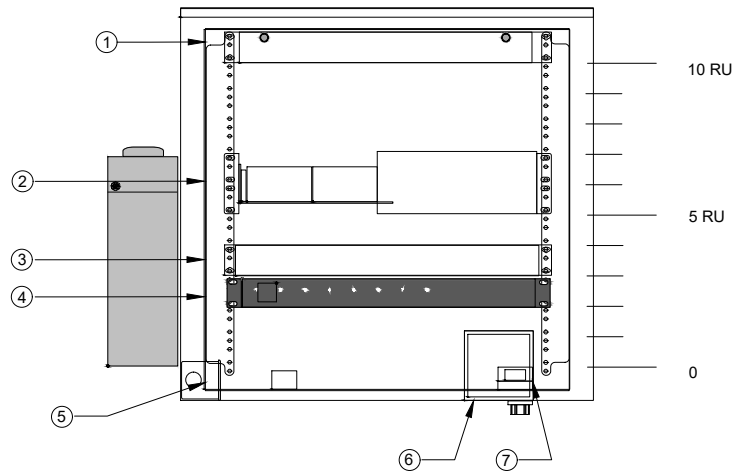
4 H-FRAME DETAIL



NOTES:

- *- COORDINATE ELEVATIONS WITH EQUIPMENT/MOUNTING HEIGHT.
- STEEL SHALL BE HOT DIP GALVANIZED.
- CABINETS SHALL BE MOUNTED WITH STAINLESS STEEL BOLTS.
- METAL POSTS ARE NOT ALLOWED TO SERVE AS EQUIPMENT GROUNDING CONDUCTOR.
- UNISTRUT SHALL NOT EXTEND BEYOND POST & MUST HAVE SAFETY END CAPS FOR SAFETY REASONS.
- METALLIC PARTS SHALL BE BONDED ACCORDING TO THE NEC.
- GROUNDING SHALL CONFORM TO NEC AND SECTION 436-439.

5

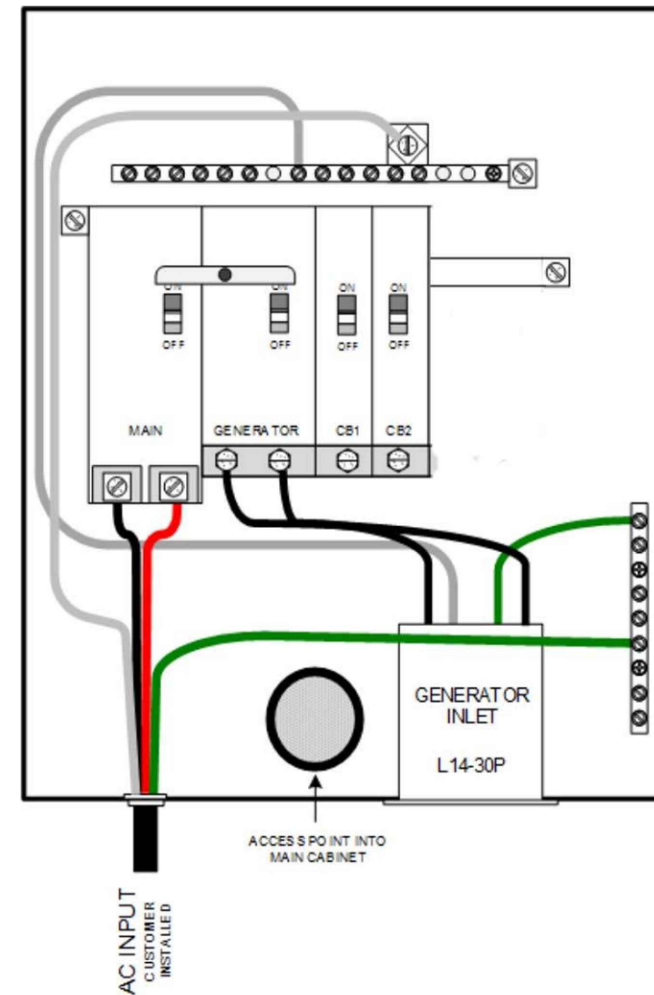
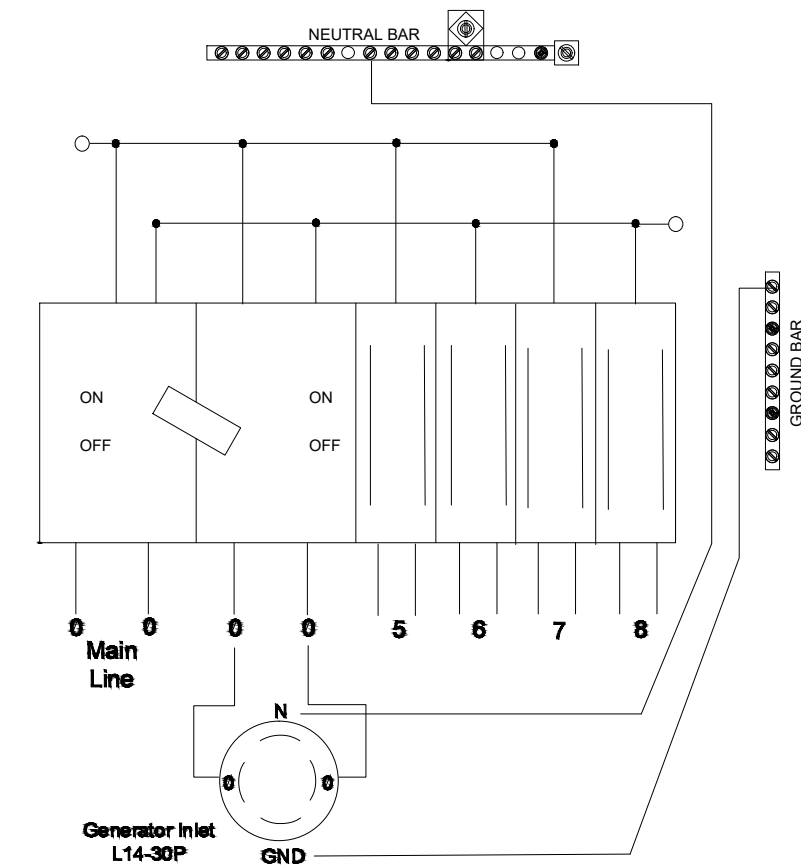


- ① LOCATION OF THE CORNING FIBER MANAGEMENT TRAY
- ② LOCATION OF THE ALCATEL-LUCENT OMI SWITCH
- ③ LOCATION OF THE ALPHA CORDEX RECTIFIER
- ④ LOCATION OF THE AC PDU
- ⑤ LOCATION OF THE DUPLEX GFCI OUTLET
- ⑥ LOCATION OF THE 2-GANG ELECTRICAL BOX
- ⑦ LOCATION OF THE DOOR SWITCH ASSEMBLY

CABINET DETAIL

1

NOT USED



2 LOAD CENTER



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WS-RYMN-RL06
12013 NW 40TH STREET
RAYMOND, NE 68428
LANCASTER COUNTY

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

3

WS-WVRL-RL07

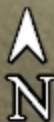
40.972250 / -96.534830

Branched Oak Road, approximately 1111' west of N 141st Street.
Lancaster County, Nebraska

WS-WVRL-RL07

Branched OAK Rd

N 141st St



WS-WVRL-RL07

13803 BRANCHED OAK ROAD
WAVERLY, NE 68462



DRAWN BY:	JRR
DATE:	06/05/2019

REV	DATE	DESCRIPTION	BY
0	06/05/2019	FINAL CD	JRR

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WS-WVRL-RL07
13803 BRANCHED OAK ROAD
WAVERLY, NE 68462
LANCASTER COUNTY

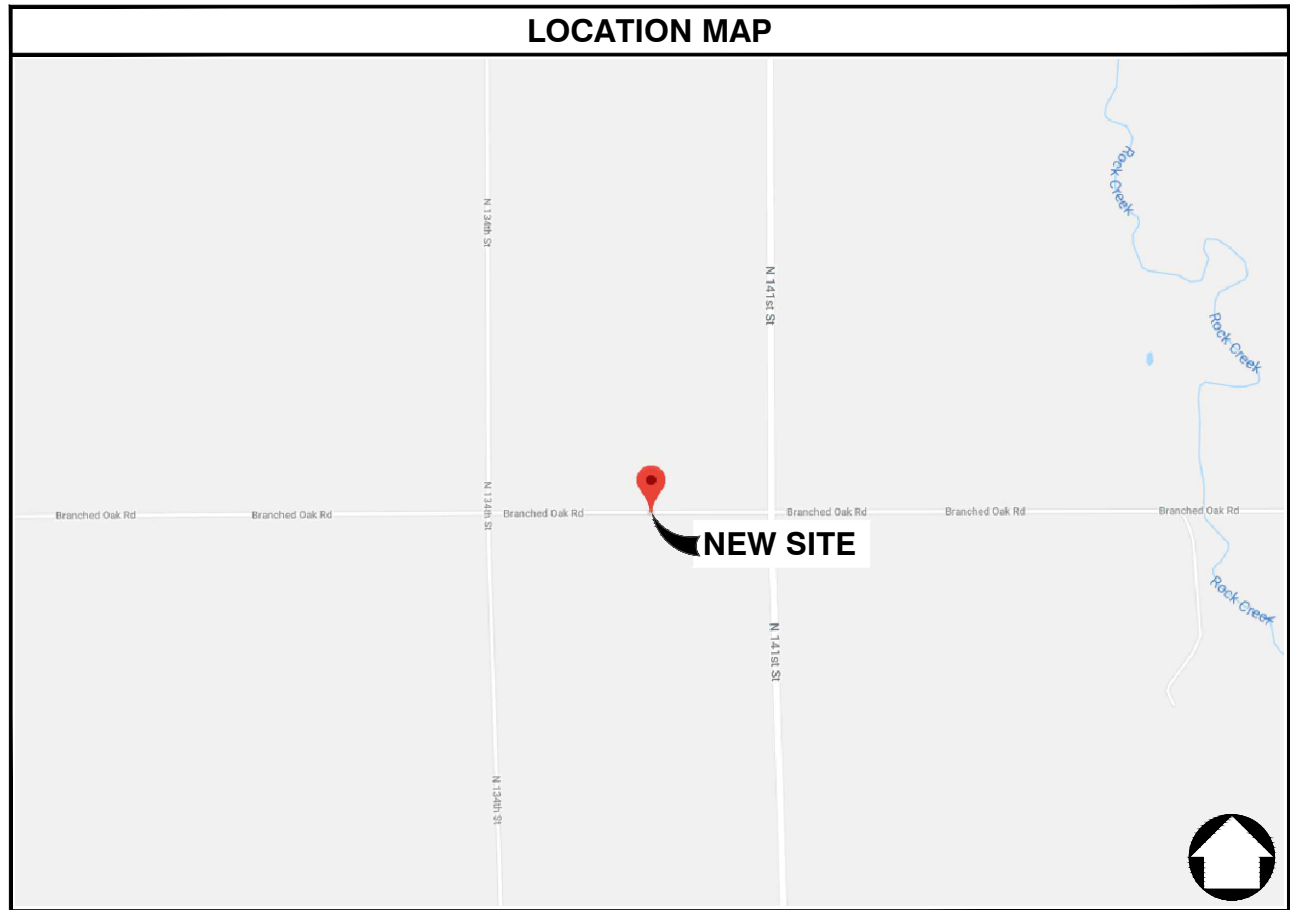
SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE INFORMATION	
SITE ID:	WS-WVRL-RL07
ADDRESS:	13803 BRANCHED OAK ROAD WAVERLY, NE 68462
COUNTY:	LANCASTER COUNTY
LATITUDE:	40.9722578°
LONGITUDE:	-96.5348329°
JURISDICTION:	LANCASTER COUNTY

CONTACTS	
PROJECT MANAGER:	WINDSTREAM
PROFESSIONAL ENGINEER:	IRISH TOWER, LLC 4603 BERMUDA DRIVE SUGAR LAND, TEXAS 77479 jacob.goralski@irishtower.com
PROPERTY OWNER:	NA

GENERAL NOTES
THE FACILITY IS 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 NEW. THE SITE LOCATION IS SUBJECT TO MOVING, UP TO 10' FROM PROPOSED LOCATION, AS NEEDED TO KEEP WITHIN PUBLIC ROW, AVOID EXISTING UTILITY LINES, AND AVOID LINE-OF-SIGHT OBSTRUCTIONS WITH BOTH FOOT AND AUTOMOTIVE TRAFFIC. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO ANY CHANGES.



PROJECT DESCRIPTION
THESE DRAWINGS DEPICT AN UTILITY POLE WITH ANTENNA INSTALLATION TO PROVIDE HIGH SPEED INTERNET SERVICE IN RURAL AREAS. THIS INSTALLATION SHALL CONSIST OF THE PLACEMENT OF A NEW POLE, FOUR (4) ANTENNAS, ONE (1) MICROWAVE DISH, ONE (1) CONCEALMENT CABINET AND ASSOCIATED ELECTRICAL COMPONENTS AND MOUNTING BRACKETS AS REQUIRED

ENGINEERING
ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
2011 NATIONAL ELECTRICAL CODE 2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL BUILDING CODE CITY AND/OR COUNTY ORDINANCES
2012 INTERNATIONAL MECHANICAL CODE LOCAL BUILDING CODE(S)
2012 INTERNATIONAL PLUMBING CODE ANSI EIA/TIA 222-G
2012 LIFE SAFETY CODE (NFPA 101)

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLANS
C-2	ELEVATION DETAILS
C-3	ANTENNA LAYOUT DETAILS
C-4	STRUCTURE DETAILS
D-1	EQUIPMENT DETAILS
E-1	ELECTRICAL & GROUNDING DETAILS

NOTE: DRAWINGS ARE SCALED TO 11X17

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DAMAGED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DAMAGED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN PROPOSED EXCAVATIONS AND MUST MAINTAIN MINIMUM VERTICAL AND HORIZONTAL CLEARANCES AS CALLED FOR BY LOCAL CODES AND/OR ORDINANCES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING STRUCTURES OR LANDSCAPING DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. ANY MANHOLES OR COVERS INSTALLED AS PART OF THIS PROJECT SHALL BE LABELED COMMUNICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF AN EROSION CONTROL PLAN WHICH MEETS ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL AGENCIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL MAINTAIN MATERIALS AND EQUIPMENT ON SITE FOR UNFORESEEN SITUATIONS INCLUDING DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHICH COULD GENERATE FLOWS ABLE TO CAUSE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD OWNER, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO START OF CONSTRUCTION AND THROUGH PROJECT COMPLETION, THE CONTRACTOR SHALL REMAIN IN FULL COMPLIANCE WITH CURRENT FEDERAL, STATE, AND LOCAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AND AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. ALL UTILITIES AND OTHER FACILITIES DEPICTED ON THE PLANS ARE BASED ON A SEARCH OF AVAILABLE RECORDS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION START AND USE EXTREME CARE AND PROTECTIVE MEASURES TO AVOID DAMAGE TO ANY FACILITIES WETHER OR NOT INDICATED ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FACILITIES WITHIN THE LIMITS OF WORK, WHETHER OR NOT DEPICTED ONT THESE PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ANY CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT A MINIMUM TWO DAYS PRIOR TO COMMENCEMENT OF ACTIVITY REQUIRING THEIR INVOLVEMENT.
6. THE EXPIRATION OF THE PERMIT FOR THIS PROJECT SHALL BE SPECIFIED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
7. ALL UNDERGROUND CONDUITS PLACED AS PART OF THIS PROJECT MUST HAVE A MINIMUM COVER OF 48 INCHES UNLESS OTHERWISE APPROVED.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
9. ALL PAVEMENT CUT OR DAMAGED AS PART OF THIS PROJECT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
10. ALL SHRUBS, PLANTS OR TREES DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH REQUIRED LIABILITY INSURANCE FORMS CLEARLY DEMONSTRATING OWNER, OWNER REPRESENTATIVES, ENGINEER, AND CITY, COUNTY OR STATE ARE ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. ALL SUBSURFACE STRUCTURES INCLUDING BUT NOT LIMITED TO VAULTS, PEDESTALS, AND CONDUITS SHALL BE AS SPECIFIED IN THESE PLANS OR AS SPECIFIED BY THE ENGINEER. ANY DEVIATIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO INSTALLATION.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SEWER LATERALS AND WATER SERVICES, BOTH VERTICAL AND HORIZONTAL, PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF EXPLORATION EXCAVATIONS CONDUCTED FOR THE PURPOSE OF LOCATING EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS AS REQUIRED.
15. LOCATIONS OF EXISTING UTILITIES ON THESE PLANS ARE BASED UPON EXISTING RECORDS VERIFIED WHERE POSSIBLE WITH FIELD TIES. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO CONSTRUCTION, SUBSTANTIAL VARIANCES FROM THE PLANS SHALL BE COMMUNICATED TO THE ENGINEER TO FACILITATE CHANGES TO CONSTRUCTION DRAWINGS AS REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE INSTALLED BY CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/ OR WATER POLLUTION CONTROL PLAN (WPCP).
2. A GRAVEL BAG SILT BASIN SHALL BE INSTALLED IMMEDIATELY UPSTREAM OF STORM DRAIN INLETS AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES. THE CONTRACTOR SHALL INSURE WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT AND WORKERS FOR EMERGENCY WORK AT ALL TIMES DURING THE RAINY SEASON. MATERIALS NECESSARY FOR EMERGENCY MEASURES SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY/COUNTY/STATE ENGINEER OR RESIDENT ENGINEER FOLLOWING ANY RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HERON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. UPON COMPLETION OF WORK EACH DAY, GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. GRADING, INCLUDING CLEARING AND GRUBBING SHALL ONLY BE CONDUCTED IN AREAS WHERE THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
 3. THE CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION IS STARTED.
 4. ALL EXISTING LANDSCAPING SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
 5. ALL EQUIPMENT SHALL BE BONDED.
 6. IF A METERING CABINET IS INSTALLED, A MINIMUM 3' CLEARANCE IS REQUIRED AT DOOR OPENING.
 7. IF A METERING CABINET IS INSTALLED, THE CONTRACTOR SHALL CAULK THE CABINET BASE AT THE PAD.
- STANDARD GROUNDING NOTES:**
1. GROUND SHALL BE TESTED AT 25 OHMS OR LESS.
 2. GROUND RODS SHALL BE 5/8"x8'. ATTACHMENT TO GROUND RODS SHALL BE EXOTHERMIC WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
 3. BURIED GROUND AND BONDING WIRE SHALL BE #6 AWG.
 4. MOLDING SHALL BE STAPLED EVERY 1' AND AT EACH END.

STANDARD CONDUIT NOTES:

1. SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND.
2. SCHEDULE 80 CONDUIT SHALL BE USED FOR RISERS.
3. RISERS SHALL BE ATTACHED TO POLE WITH STANDARD U-CLAMPS AND LAG SCREWS.
4. RISER U-CLAMPS TO BE INSTALLED EVERY 5'.
5. FOR U/G POWER INSTALLATIONS, 2" SDR-11 RED CONDUIT SHALL BE UTILIZED.
6. GROUND WIRE MOLDING STAPLES MAY BE BE UTILIZED FOR ATTACHING CONDUIT LESS THAN 1" DIAMETER.
7. ALL CONDUIT SHALL BE PROOFED WITH A MANDREL AND EQUIPPED WITH A PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. A MINIMUM OF 2'-6" OF COVER SHALL BE MAINTAINED OVER ALL ELECTRICAL CONDUITS.
2. A MINIMUM OF 4'-0" OF COVER SHALL BE MAINTAINED OVER ALL COMMUNICATIONS CONDUITS.
3. IN STREETS, SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT, SLURRY TO 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. WARNING TAPE SHALL BE INSTALLED 1'-0" ABOVE ALL CONDUITS. #18 WARNING TAPE SHALL BE INSTALLED ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. BOLT THREADS SHALL NOT PROTRUDE MORE THAN 1-1/2".
2. HOLES LEFT IN POLE DUE TO REARRANGEMENT OF CLIMBERS SHALL BE FILLED.
3. CLIMB STEPS ADJACENT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE SHALL NOT IMPEDE 15" CLEAR SPACE OFF POLE FACE (12:00).
5. 90° SHORT SWEEPS SHALL BE USED UNDER ANTENNA ARM. CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF ARMS. (NO CABLE SHALL BE INSTALLED ON TOP OF ARMS.)
6. CABLE CLAMPS SHALL BE UTILIZED TO SECURE CABLE TO ARMS; 2" CARRIER CABLE ID TAGS SHALL BE PLACED ON BOTH SIDES OF ARMS.
7. UTILIZE A 90° CONNECTOR AT CABLE CONNECTION TO ANTENNA.
8. 1/2" CABLE TO BE UTILIZED UNLESS NOTED OTHERWISE.
9. VOIDS AROUND CABLES AT CONDUIT OPENINGS SHALL BE FILLED WITH FOAM SEALANT TO PREVENT WATER INTRUSION.



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DATE:	06/05/2019

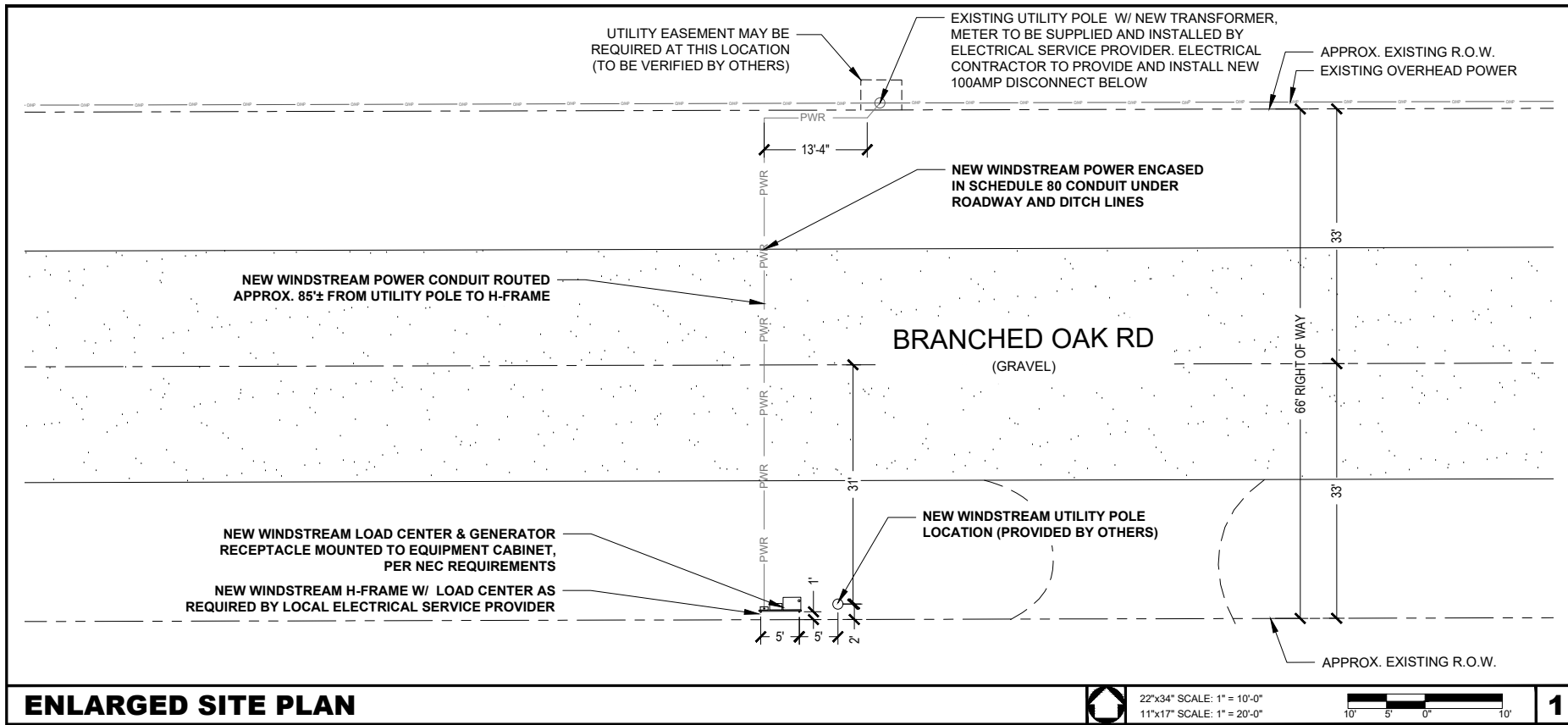
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WS-WVRL-RL07
 13803 BRANCHED OAK ROAD
 WAVERLY, NE 68462
 LANCASTER COUNTY

SHEET TITLE
GENERAL NOTES

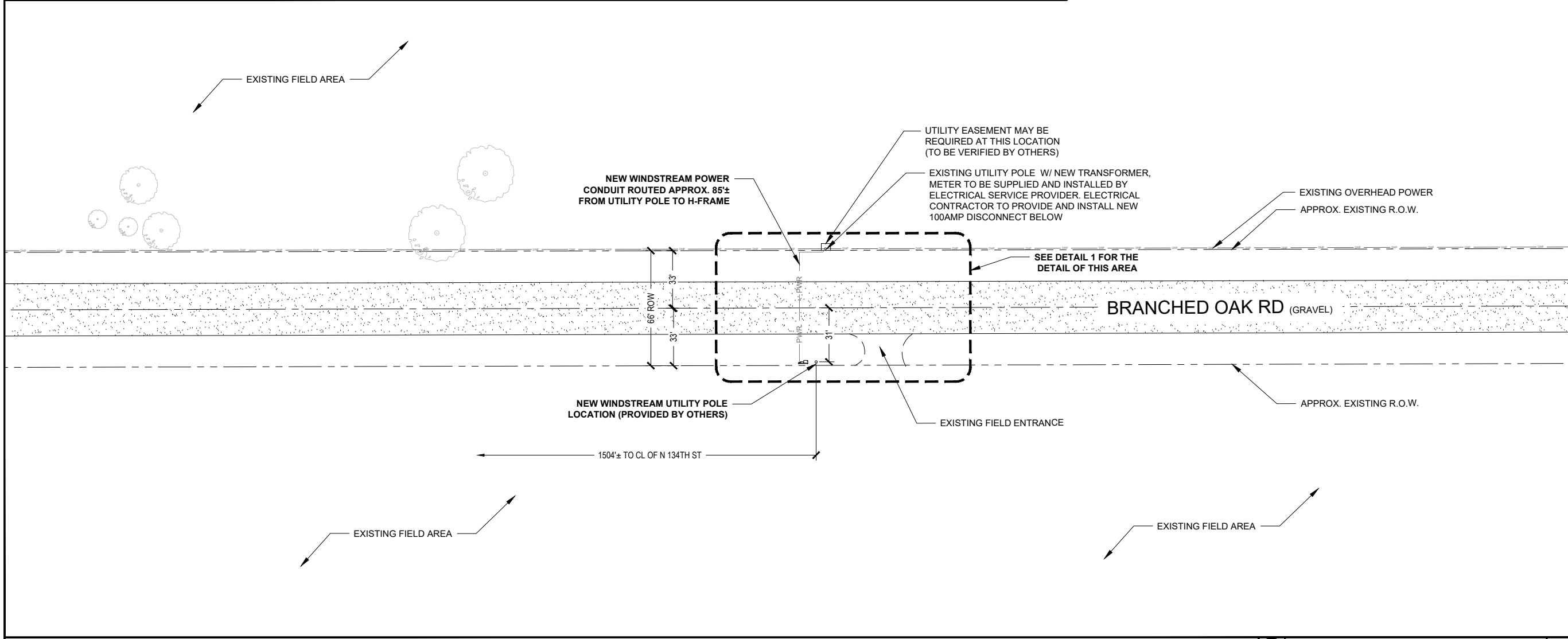
SHEET NUMBER
T-2



ENLARGED SITE PLAN

22"x34" SCALE: 1" = 10'-0"
 11"x17" SCALE: 1" = 20'-0"
 10' 5' 0' 10'

1



OVERALL SITE PLAN

22"x34" SCALE: 1" = 30'-0"
 11"x17" SCALE: 1" = 60'-0"
 30' 15' 0' 30'



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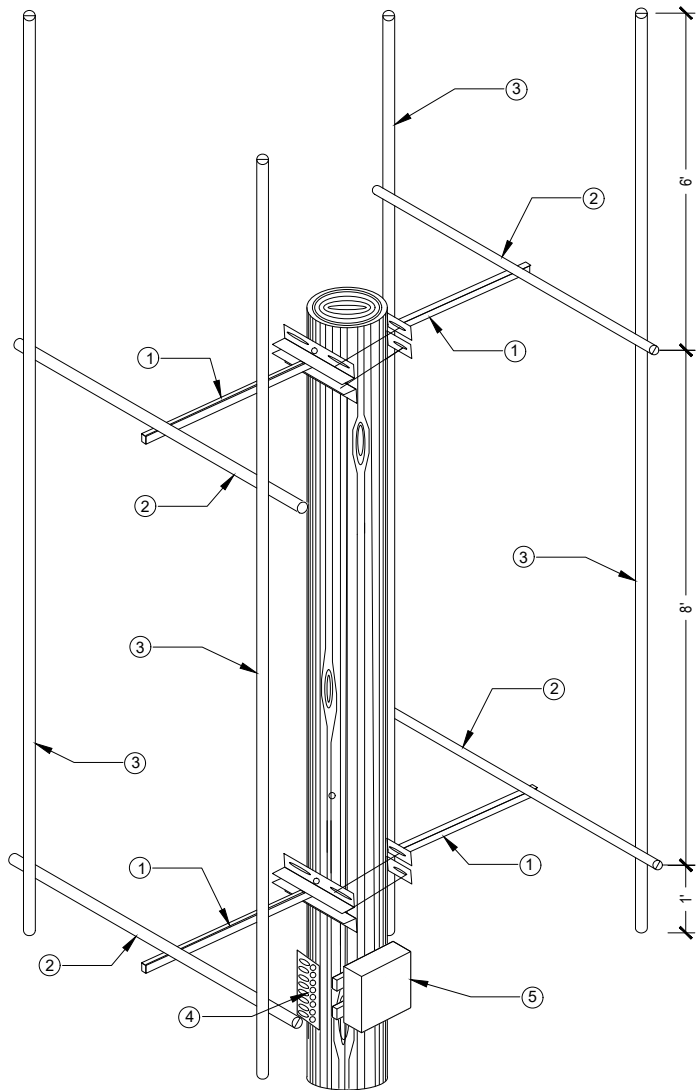
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 LANCASTER COUNTY

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1

2

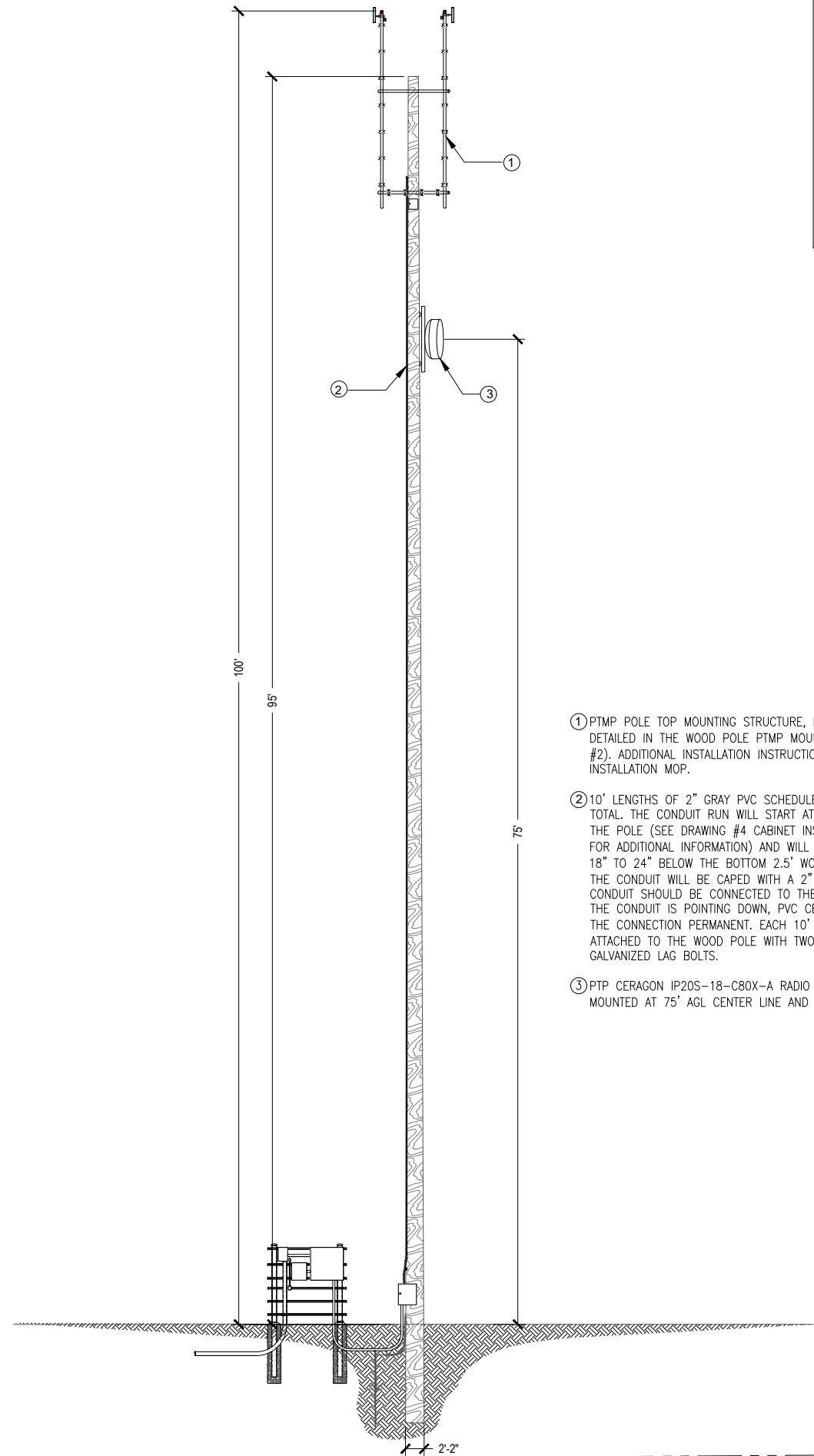


- ① FOUR 2.5' WOOD POLE STAND-OFFS, TWO MOUNTED BACK-TO-BACK AT 99', ONE AT 45° AND ONE AT 225° EACH SECURED TO THE POLE WITH TWO 4" GALVANIZED LAG BOLTS. THE STAND-OFFS WILL BE CONNECT TO EACH OTHER WITH FOUR 5/8" ALL-THREAD AND GALVANIZED HARDWARE. THE OTHER TWO WOOD POLE STAND-OFFS WILL BE MOUNTED AN 91' IN THE SAME MANNER AS THE TOP STAND-OFFS.
- ② HORIZONTAL PIPE: FOUR 1.66" OD X 5' LONG PIPES (MADE BY CUTTING A 10' LENGTHS OF PIPE IN HALF) WILL BE MOUNTED ONE EACH TO EACH OF THE FOUR 2.5' WOOD POLE STAND-OFF MOUNTS INSTALLED IN THE PREVIOUS STEP. THE CENTER OF EACH HORIZONTAL PIPE SHOULD ATTACH TO END OF EACH OF THE STAND-OFF MOUNTS UTILIZING A PIPE CROSSOVER MOUNT (PN-SINCLAMP017) TO MAKE THE CONNECTION.
- ③ VERTICAL PIPES: FOUR VERTICAL 1.66" OD X 15' GALVANIZED PIPES ARE USED TO COMPLETE THE POLE TOP MOUNT. ONE EACH OF THE VERTICAL PIPES WILL ATTACH TO THE ENDS OF THE UPPER AND LOWER HORIZONTAL PIPES. EACH VERTICAL PIPE SHOULD ATTACH 2" IN FROM THE END OF THE HORIZONTAL PIPES WITH ~6' OF PIPE EXTENDING ABOVE THE UPPER HORIZONTAL PIPE AND ~12" OF PIPE EXTENDING BELOW THE LOWER HORIZONTAL PIPE. EACH VERTICAL PIPE WILL BE CONNECTED TO THE HORIZONTAL PIPES WITH TWO PIPE CROSS-OVER MOUNTS (PNSINCLAMP017) ONE ON THE TOP HORIZONTAL PIPE AND ONE ON THE BOTTOM. DURING FINAL ASSEMBLY A LEVEL SHOULD BE USED TO ASSURE THAT THE VERTICAL PIPES ARE INSTALL PLUMB IN EACH DIRECTION.
- ④ PTMP RAD CENTER GROUND BAR SHOULD BE ATTACHED TO THE POLE UTILIZING THE INCLUDED ISOLATION MOUNTS AND HARDWARE, 12" BELOW THE BOTTOM 2.5' STAND-OFF MOUNTS.
- ⑤ PTMP RAD CENTER OUTDOOR ENCLOSURE (PN-AM32P-2625-16RU) SHOULD BE ATTACHED TO THE POLE 1' ABOVE THE BOTTOM MOUNT. A 16" UNISTRUT SHOULD BE SECURED TO THE POLE USING A 4" GALVANIZED LAG BOT. THE ENCLOSURE SHOULD BE MOUNTED TO THE UNISTRUT UTILIZING THE SPRING NUT AND BOLT.

NEW MOUNTING STRUCTURE ELEVATION

1

NEW STRUCTURE ELEVATION



- ① PTMP POLE TOP MOUNTING STRUCTURE, INSTALLATION INSTRUCTION ARE DETAILED IN THE WOOD POLE PTMP MOUNTING STRUCTURE DRAWING (DRAWING #2). ADDITIONAL INSTALLATION INSTRUCTIONS CAN BE FOUND IN THE INSTALLATION MOP.
- ② 10' LENGTHS OF 2" GRAY PVC SCHEDULE 40 CONDUIT, APPROXIMATELY 87' TOTAL. THE CONDUIT RUN WILL START AT THE CABINET AT THE BOTTOM OF THE POLE (SEE DRAWING #4 CABINET INSTALLATION, BOTTOM OF THE POLE FOR ADDITIONAL INFORMATION) AND WILL EXTEND UP THE POLE, ENDING 18" TO 24" BELOW THE BOTTOM 2.5' WOOD POLE STAND-OFF MOUNTS WHERE THE CONDUIT WILL BE CAPED WITH A 2" WEATHER HEAD. EACH SECTION OF CONDUIT SHOULD BE CONNECTED TO THE NEXT ASSURING THAT BELL END OF THE CONDUIT IS POINTING DOWN, PVC CEMENT SHOULD BE USED TO MAKE THE CONNECTION PERMANENT. EACH 10' LENGTH OF CONDUIT SHOULD BE ATTACHED TO THE WOOD POLE WITH TWO 2" CONDUIT STRAPS AND 1/4" GALVANIZED LAG BOLTS.
- ③ PTP CERAGON IP20S-18-C80X-A RADIO WITH A HP2-18 DISH WILL BE MOUNTED AT 75' AGL CENTER LINE AND 246.20° AZIMUTH.

STRUCTURAL NOTE:
 1. PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A GLOBAL/LOCAL STRUCTURAL ANALYSIS OF EQUIPMENT ANCHORS, SUPPORTS AND DESIGN/DETAILING OF ANY STRUCTURAL MODIFICATIONS/REINFORCEMENT REQUIRED THERETO.
 2. THIS DOCUMENT IS FOR PERMITTING ONLY AND IS NOT INTENDED FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PE STAMPED/SIGNED STRUCTURAL ASSESSMENT/ANALYSIS REPORT AS PROVIDED BY THE PROJECT OWNER.
 NOTE:
 REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.



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WS-WVRL-RL07
 13803 BRANCHED OAK ROAD
 WAVERLY, NE 68462
 LANCASTER COUNTY

SHEET TITLE
**ELEVATION
 DETAILS**

SHEET NUMBER
C-2

2

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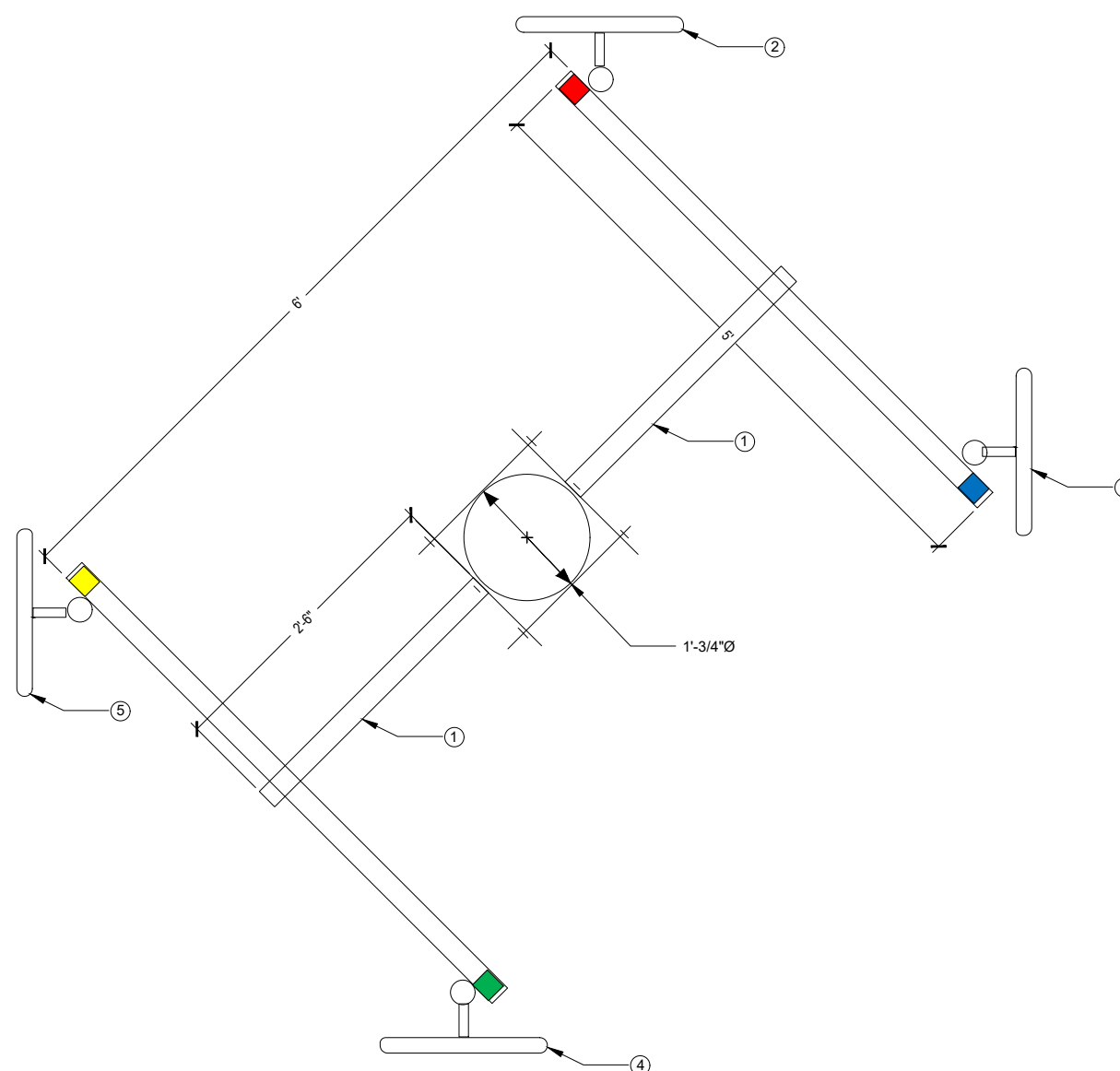
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13803 BRANCHED OAK ROAD
WAVERLY, NE 68462
LANCASTER COUNTY

SHEET TITLE
ANTENNA LAYOUT DETAILS

SHEET NUMBER

C-3



- ① FOUR 2.5' WOOD POLE STAND-OFFS, TWO MOUNTED BACK-TO-BACK AT 99', ONE AT 45' AND ONE AT 225' EACH SECURED TO THE POLE WITH TWO 4" GALVANIZED LAG BOLTS. THE STAND-OFFS WILL BE CONNECT TO EACH OTHER WITH FOUR 5/8" ALL-THREAD AND GALVANIZED HARDWARE. THE OTHER TWO WOOD POLE STAND-OFFS WILL BE MOUNTED AN 91' IN THE SAME MANNER AS THE TOP STAND-OFFS.
- ② AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99'ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 01 (NORTH) IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99'ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 02 (EAST) IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99'ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 03 (SOUTH) IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ⑤ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99'ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.

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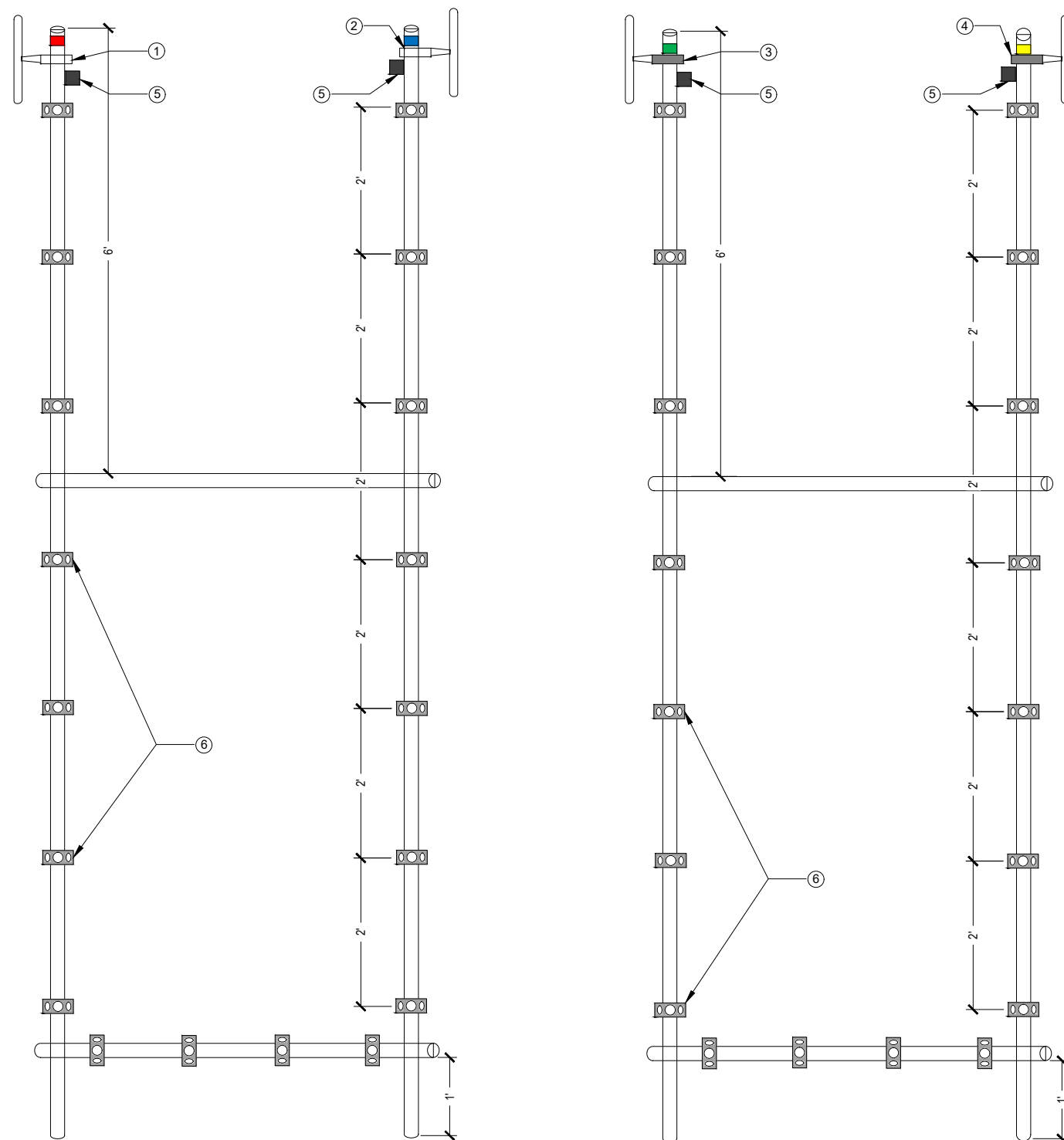
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WAVERLY, NE 68462
LANCASTER COUNTY

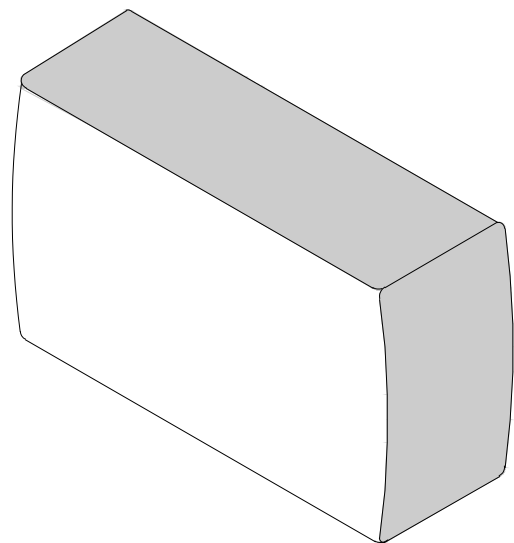
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**STRUCTURE
DETAILS**

SHEET NUMBER

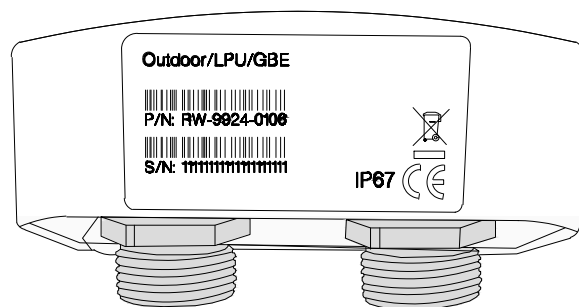
C-4



- ① AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE. AZIMUTH 01 IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
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- ⑤ POLE TOP LIGHTNING PROTECTION UNITS (LPU): EACH BASE STATION WILL HAVE ONE POLE TOP LPU MOUNTED 2" BELOW THE BS MOUNTING CLAMP 180° OPPOSITE THE BS. FOLLOW THE CABLE INSTALLATION INSTRUCTIONS INCLUDED WITH THE LPU WHEN CABLING THE LPU.
- ⑥ THREE HOLE UNIVERSAL SNAP-IN ADAPTORS SHOULD BE ATTACHED TO EACH OF THE VERTICAL PIPES EVERY 2', AND THE LOWER HORIZONTAL PIPE EVERY 1' TO ACCOMMODATE THE APPROPRIATE SNAP HANGERS AND GROMMETS FOR PROPER CABLE SUPPORT. NOTE: ALTHOUGH SHOWN IN THE PHOTO FOR ILLUSTRATIVE PURPOSES, VERTICAL PIPES WITHOUT BASE STATION SHOULD NOT HAVE UNIVERSAL SNAP-IN ADAPTORS INSTALLED.



BASE STATION	
MANUF:	RADWIN
PART #:	RW-5BG5-0649
HEIGHT:	8.86"
WIDTH:	14.01"
DEPTH:	3.7"
WEIGHT:	7.28 LBS



FRONT VIEW

LIGHTNING PROTECTION	
MANUF:	RADWIN
PART #:	RW-9924-0106
HEIGHT:	2.04"
WIDTH:	3.87"
DEPTH:	1.88"
WEIGHT:	0.49 LBS



CABINET	
MANUF:	WESTELL
PART #:	BXM1019-NHE3
HEIGHT:	22.5"
WIDTH:	25.5"
DEPTH:	27.8"
WEIGHT:	70.00 LBS



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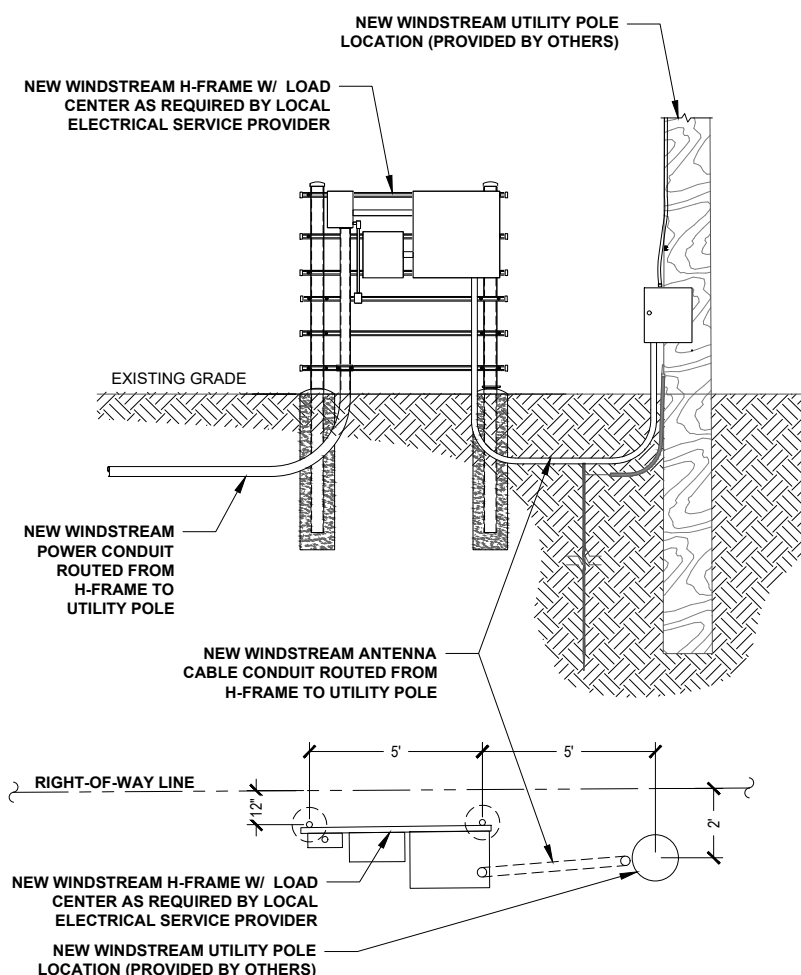
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0	06/05/2019	FINAL CD	JRR

RADWIN BASE STATION

1 LIGHTNING PROTECTOR

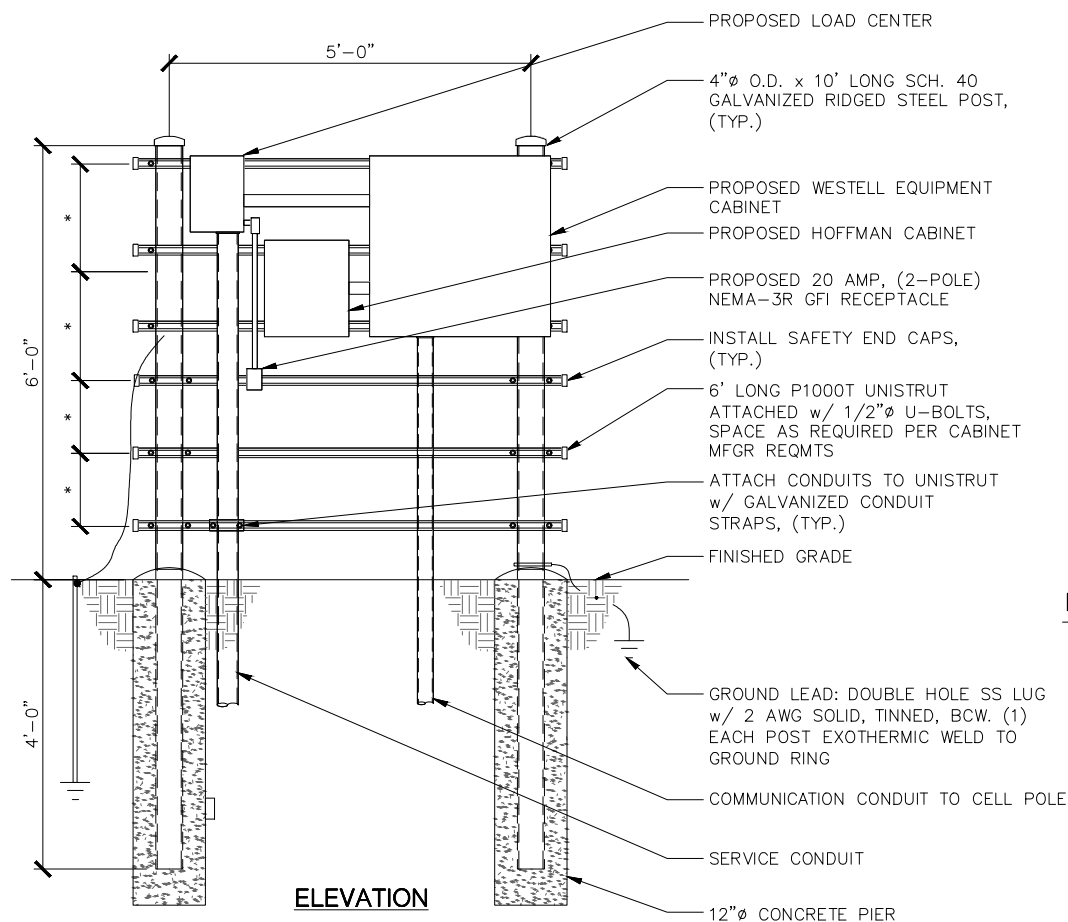
2 WESTELL BOXER OUTDOOR CABINET

3



DETAIL RACK ELEVATION

4 H-FRAME DETAIL



NOTES:

- *- COORDINATE ELEVATIONS WITH EQUIPMENT/MOUNTING HEIGHT.
- STEEL SHALL BE HOT DIP GALVANIZED.
- CABINETS SHALL BE MOUNTED WITH STAINLESS STEEL BOLTS.
- METAL POSTS ARE NOT ALLOWED TO SERVE AS EQUIPMENT GROUNDING CONDUCTOR.
- UNISTRUT SHALL NOT EXTEND BEYOND POST & MUST HAVE SAFETY END CAPS FOR SAFETY REASONS.
- METALLIC PARTS SHALL BE BONDED ACCORDING TO THE NEC.
- GROUNDING SHALL CONFORM TO NEC AND SECTION 436-439.

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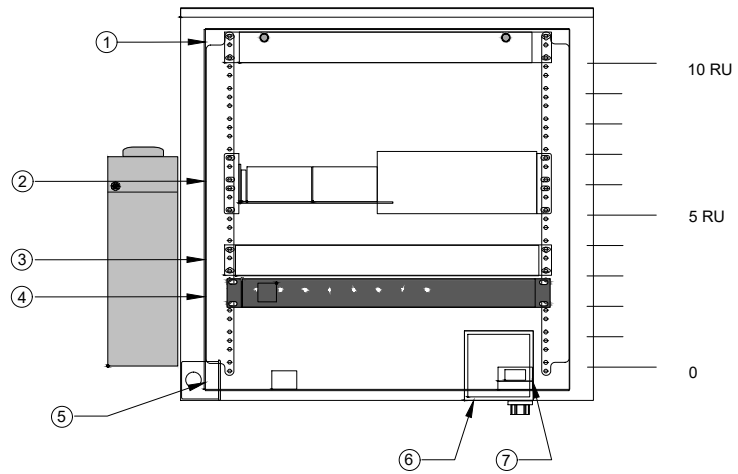
13803 BRANCHED OAK ROAD
WAVERLY, NE 68462
LANCASTER COUNTY

SHEET TITLE
**EQUIPMENT
DETAILS**

SHEET NUMBER

D-1

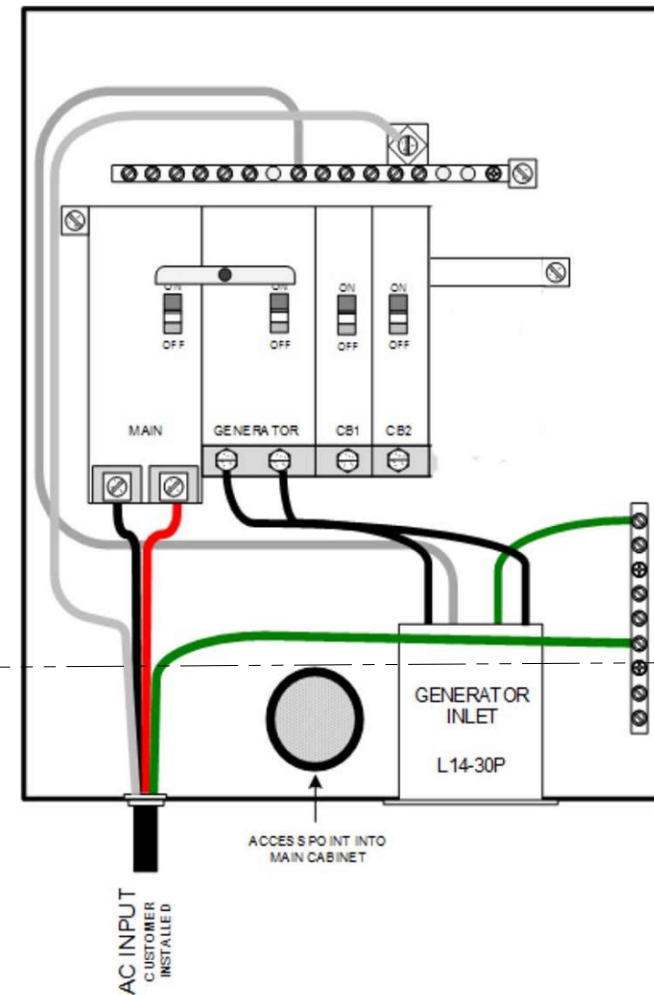
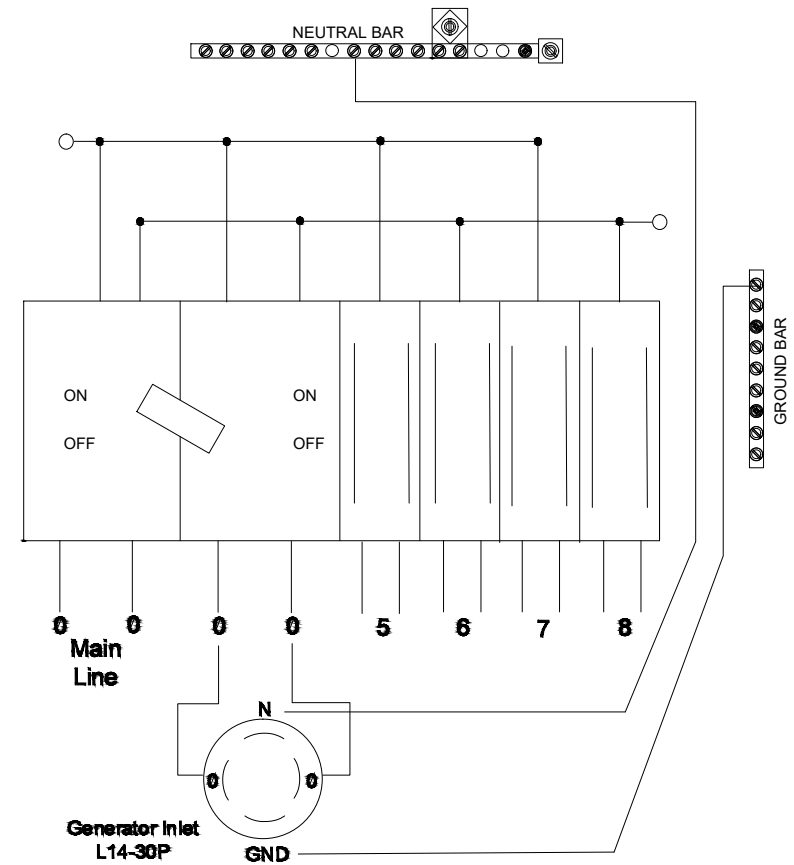
5



- ① LOCATION OF THE CORNING FIBER MANAGEMENT TRAY
- ② LOCATION OF THE ALCATEL-LUCENT OMI SWITCH
- ③ LOCATION OF THE ALPHA CORDEX RECTIFIER
- ④ LOCATION OF THE AC PDU
- ⑤ LOCATION OF THE DUPLEX GFCI OUTLET
- ⑥ LOCATION OF THE 2-GANG ELECTRICAL BOX
- ⑦ LOCATION OF THE DOOR SWITCH ASSEMBLY

CABINET DETAIL

1



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DATE: 06/05/2019

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WS-WVRL-RL07
13803 BRANCHED OAK ROAD
WAVERLY, NE 68462
LANCASTER COUNTY

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

NOT USED

2 LOAD CENTER

3

WS-RYMN-RL02

This is an aerial photograph of a rural landscape. A yellow pushpin is placed on a road labeled 'WS-RYMN-RL02'. The road runs horizontally across the middle of the image. To the right, a vertical road labeled 'NW 40th St' intersects it. Further to the right, another horizontal road labeled 'W Agnew Rd' is visible. The terrain consists of large green fields, some brown plowed fields, and scattered trees. There are also some small buildings and structures scattered throughout the area.

W Agnew Rd

NW 40th St

WS-RYMN-RL02

4412 WEST AGNEW ROAD
VALPARAISO, NE 68065



DRAWN BY:	JRR
DATE:	06/14/2019

REV	DATE	DESCRIPTION	BY
A	06/06/2019	90% CD	JRR
0	06/14/2019	100% FINAL CD	JHR

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WS-RYMN-RL02
4412 WEST AGNEW ROAD
VALPARAISO, NE 68065
LANCASTER COUNTY

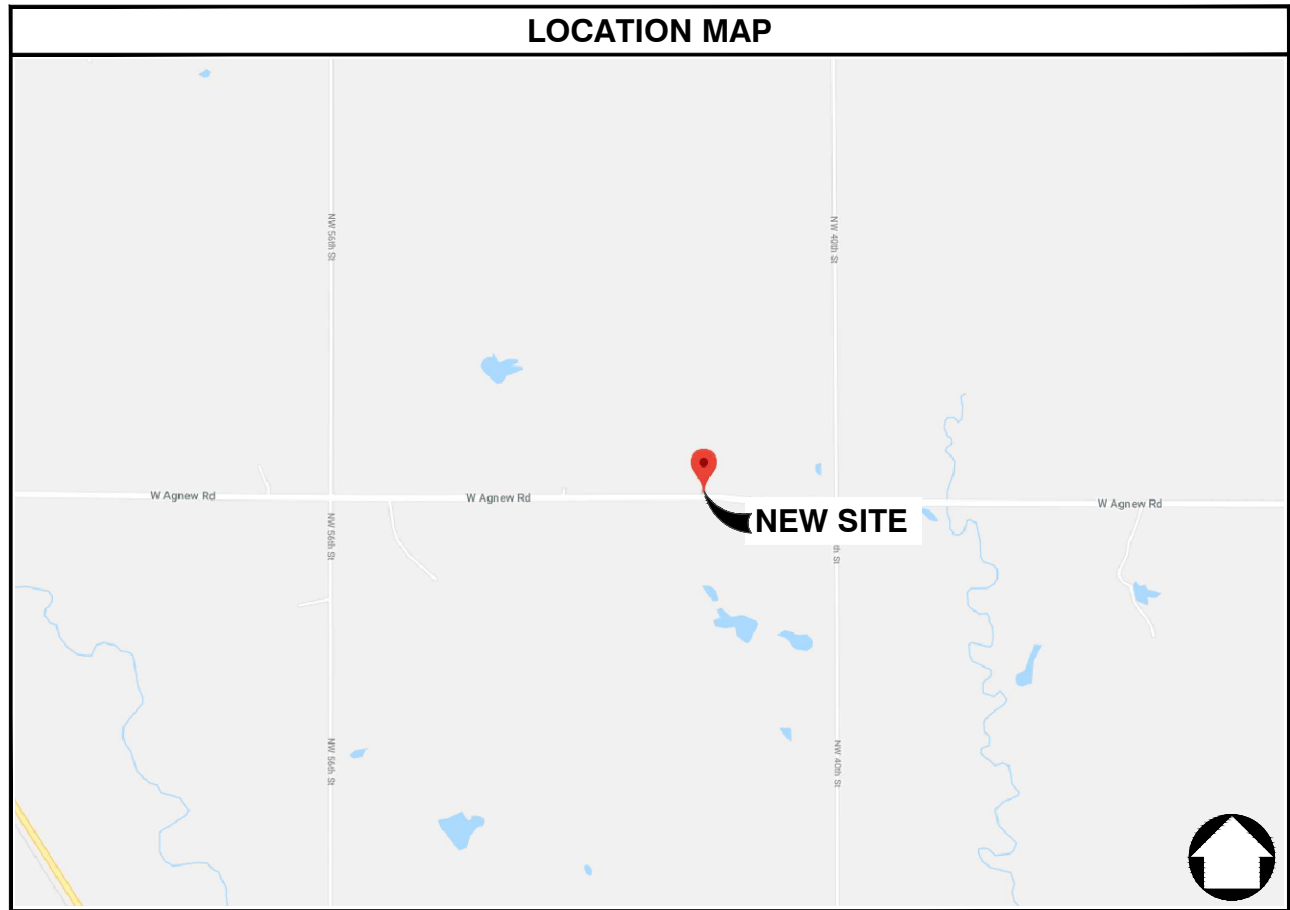
SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE INFORMATION	
SITE ID:	WS-RYMN-RL02
ADDRESS:	4412 WEST AGNEW ROAD VALPARAISO, NE 68065
COUNTY:	LANCASTER COUNTY
LATITUDE:	41.0169752°
LONGITUDE:	-96.7821673°
JURISDICTION:	LANCASTER COUNTY

CONTACTS	
PROJECT MANAGER:	WINDSTREAM
PROFESSIONAL ENGINEER:	IRISH TOWER, LLC 4603 BERMUDA DRIVE SUGAR LAND, TEXAS 77479 jacob.goralski@irishtower.com
PROPERTY OWNER:	NA

GENERAL NOTES
THE FACILITY IS 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 NEW. THE SITE LOCATION IS SUBJECT TO MOVING, UP TO 10' FROM PROPOSED LOCATION, AS NEEDED TO KEEP WITHIN PUBLIC ROW, AVOID EXISTING UTILITY LINES, AND AVOID LINE-OF-SIGHT OBSTRUCTIONS WITH BOTH FOOT AND AUTOMOTIVE TRAFFIC. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO ANY CHANGES.



PROJECT DESCRIPTION
THESE DRAWINGS DEPICT AN UTILITY POLE WITH ANTENNA INSTALLATION TO PROVIDE HIGH SPEED INTERNET SERVICE IN RURAL AREAS. THIS INSTALLATION SHALL CONSIST OF THE PLACEMENT OF A NEW POLE, FOUR (4) ANTENNAS, ONE (1) MICROWAVE DISH AND RADIO, ONE (1) CONCEALMENT CABINET AND ASSOCIATED ELECTRICAL COMPONENTS AND MOUNTING BRACKETS AS REQUIRED

ENGINEERING
ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
2011 NATIONAL ELECTRICAL CODE 2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL BUILDING CODE CITY AND/OR COUNTY ORDINANCES
2012 INTERNATIONAL MECHANICAL CODE LOCAL BUILDING CODE(S)
2012 INTERNATIONAL PLUMBING CODE ANSI EIA/TIA 222-G
2012 LIFE SAFETY CODE (NFPA 101)

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLANS
C-2	ELEVATION DETAILS
C-3	ANTENNA LAYOUT DETAILS
D-1	EQUIPMENT DETAILS
E-1	ELECTRICAL & GROUNDING DETAILS

NOTE: DRAWINGS ARE SCALED TO 11X17

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DAMAGED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DAMAGED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN PROPOSED EXCAVATIONS AND MUST MAINTAIN MINIMUM VERTICAL AND HORIZONTAL CLEARANCES AS CALLED FOR BY LOCAL CODES AND/OR ORDINANCES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING STRUCTURES OR LANDSCAPING DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. ANY MANHOLES OR COVERS INSTALLED AS PART OF THIS PROJECT SHALL BE LABELED COMMUNICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF AN EROSION CONTROL PLAN WHICH MEETS ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL AGENCIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL MAINTAIN MATERIALS AND EQUIPMENT ON SITE FOR UNFORESEEN SITUATIONS INCLUDING DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHICH COULD GENERATE FLOWS ABLE TO CAUSE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD OWNER, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO START OF CONSTRUCTION AND THROUGH PROJECT COMPLETION, THE CONTRACTOR SHALL REMAIN IN FULL COMPLIANCE WITH CURRENT FEDERAL, STATE, AND LOCAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AND AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. ALL UTILITIES AND OTHER FACILITIES DEPICTED ON THE PLANS ARE BASED ON A SEARCH OF AVAILABLE RECORDS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION START AND USE EXTREME CARE AND PROTECTIVE MEASURES TO AVOID DAMAGE TO ANY FACILITIES WETHER OR NOT INDICATED ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FACILITIES WITHIN THE LIMITS OF WORK, WHETHER OR NOT DEPICTED ONT THESE PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ANY CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT A MINIMUM TWO DAYS PRIOR TO COMMENCEMENT OF ACTIVITY REQUIRING THEIR INVOLVEMENT.
6. THE EXPIRATION OF THE PERMIT FOR THIS PROJECT SHALL BE SPECIFIED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
7. ALL UNDERGROUND CONDUITS PLACED AS PART OF THIS PROJECT MUST HAVE A MINIMUM COVER OF 48 INCHES UNLESS OTHERWISE APPROVED.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
9. ALL PAVEMENT CUT OR DAMAGED AS PART OF THIS PROJECT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
10. ALL SHRUBS, PLANTS OR TREES DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH REQUIRED LIABILITY INSURANCE FORMS CLEARLY DEMONSTRATING OWNER, OWNER REPRESENTATIVES, ENGINEER, AND CITY, COUNTY OR STATE ARE ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. ALL SUBSURFACE STRUCTURES INCLUDING BUT NOT LIMITED TO VAULTS, PEDESTALS, AND CONDUITS SHALL BE AS SPECIFIED IN THESE PLANS OR AS SPECIFIED BY THE ENGINEER. ANY DEVIATIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO INSTALLATION.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SEWER LATERALS AND WATER SERVICES, BOTH VERTICAL AND HORIZONTAL, PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF EXPLORATION EXCAVATIONS CONDUCTED FOR THE PURPOSE OF LOCATING EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS AS REQUIRED.
15. LOCATIONS OF EXISTING UTILITIES ON THESE PLANS ARE BASED UPON EXISTING RECORDS VERIFIED WHERE POSSIBLE WITH FIELD TIES. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO CONSTRUCTION, SUBSTANTIAL VARIANCES FROM THE PLANS SHALL BE COMMUNICATED TO THE ENGINEER TO FACILITATE CHANGES TO CONSTRUCTION DRAWINGS AS REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE INSTALLED BY CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/ OR WATER POLLUTION CONTROL PLAN (WPCP).
2. A GRAVEL BAG SILT BASIN SHALL BE INSTALLED IMMEDIATELY UPSTREAM OF STORM DRAIN INLETS AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES. THE CONTRACTOR SHALL INSURE WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT AND WORKERS FOR EMERGENCY WORK AT ALL TIMES DURING THE RAINY SEASON. MATERIALS NECESSARY FOR EMERGENCY MEASURES SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY/COUNTY/STATE ENGINEER OR RESIDENT ENGINEER FOLLOWING ANY RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HERON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. UPON COMPLETION OF WORK EACH DAY, GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. GRADING, INCLUDING CLEARING AND GRUBBING SHALL ONLY BE CONDUCTED IN AREAS WHERE THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
 3. THE CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION IS STARTED.
 4. ALL EXISTING LANDSCAPING SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
 5. ALL EQUIPMENT SHALL BE BONDED.
 6. IF A METERING CABINET IS INSTALLED, A MINIMUM 3' CLEARANCE IS REQUIRED AT DOOR OPENING.
 7. IF A METERING CABINET IS INSTALLED, THE CONTRACTOR SHALL CAULK THE CABINET BASE AT THE PAD.
- STANDARD GROUNDING NOTES:**
1. GROUND SHALL BE TESTED AT 25 OHMS OR LESS.
 2. GROUND RODS SHALL BE 5/8"x8'. ATTACHMENT TO GROUND RODS SHALL BE EXOTHERMIC WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
 3. BURIED GROUND AND BONDING WIRE SHALL BE #6 AWG.
 4. MOLDING SHALL BE STAPLED EVERY 1' AND AT EACH END.

STANDARD CONDUIT NOTES:

1. SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND.
2. SCHEDULE 80 CONDUIT SHALL BE USED FOR RISERS.
3. RISERS SHALL BE ATTACHED TO POLE WITH STANDARD U-CLAMPS AND LAG SCREWS.
4. RISER U-CLAMPS TO BE INSTALLED EVERY 5'.
5. FOR U/G POWER INSTALLATIONS, 2" SDR-11 RED CONDUIT SHALL BE UTILIZED.
6. GROUND WIRE MOLDING STAPLES MAY BE BE UTILIZED FOR ATTACHING CONDUIT LESS THAN 1" DIAMETER.
7. ALL CONDUIT SHALL BE PROOFED WITH A MANDREL AND EQUIPPED WITH A PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. A MINIMUM OF 2'-6" OF COVER SHALL BE MAINTAINED OVER ALL ELECTRICAL CONDUITS.
2. A MINIMUM OF 4'-0" OF COVER SHALL BE MAINTAINED OVER ALL COMMUNICATIONS CONDUITS.
3. IN STREETS, SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT, SLURRY TO 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. WARNING TAPE SHALL BE INSTALLED 1'-0" ABOVE ALL CONDUITS. #18 WARNING TAPE SHALL BE INSTALLED ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. BOLT THREADS SHALL NOT PROTRUDE MORE THAN 1-1/2".
2. HOLES LEFT IN POLE DUE TO REARRANGEMENT OF CLIMBERS SHALL BE FILLED.
3. CLIMB STEPS ADJACENT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE SHALL NOT IMPEDE 15" CLEAR SPACE OFF POLE FACE (12:00).
5. 90° SHORT SWEEPS SHALL BE USED UNDER ANTENNA ARM. CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF ARMS. (NO CABLE SHALL BE INSTALLED ON TOP OF ARMS.)
6. CABLE CLAMPS SHALL BE UTILIZED TO SECURE CABLE TO ARMS; 2" CARRIER CABLE ID TAGS SHALL BE PLACED ON BOTH SIDES OF ARMS.
7. UTILIZE A 90° CONNECTOR AT CABLE CONNECTION TO ANTENNA.
8. 1/2" CABLE TO BE UTILIZED UNLESS NOTED OTHERWISE.
9. VOIDS AROUND CABLES AT CONDUIT OPENINGS SHALL BE FILLED WITH FOAM SEALANT TO PREVENT WATER INTRUSION.



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DATE:	06/14/2019

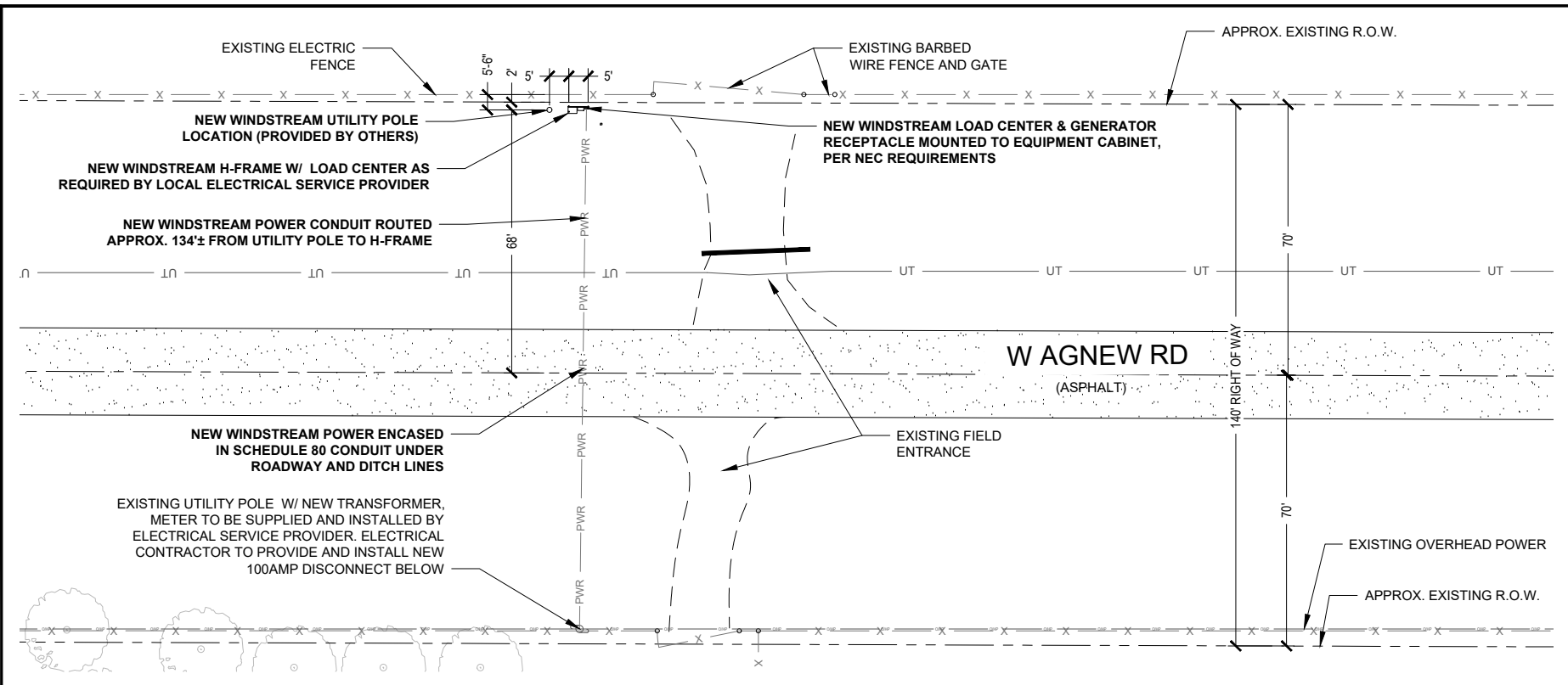
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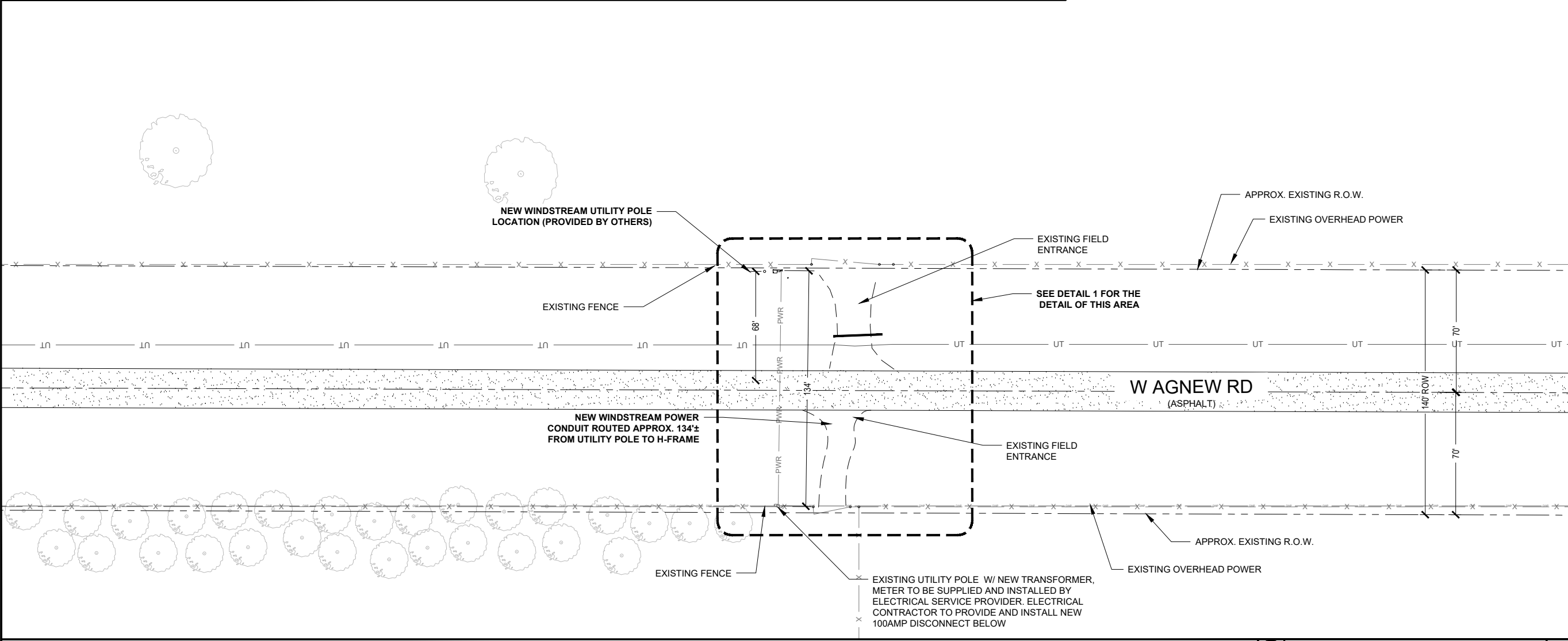
WS-RYMN-RL02
 4412 WEST AGNEW ROAD
 VALPARAISO, NE 68065
 LANCASTER COUNTY

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
T-2



ENLARGED SITE PLAN 22"x34" SCALE: 1" = 20'-0"
11"x17" SCALE: 1" = 40'-0" 1



OVERALL SITE PLAN 22"x34" SCALE: 1" = 30'-0"
11"x17" SCALE: 1" = 60'-0" 2



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LANCASTER COUNTY

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1



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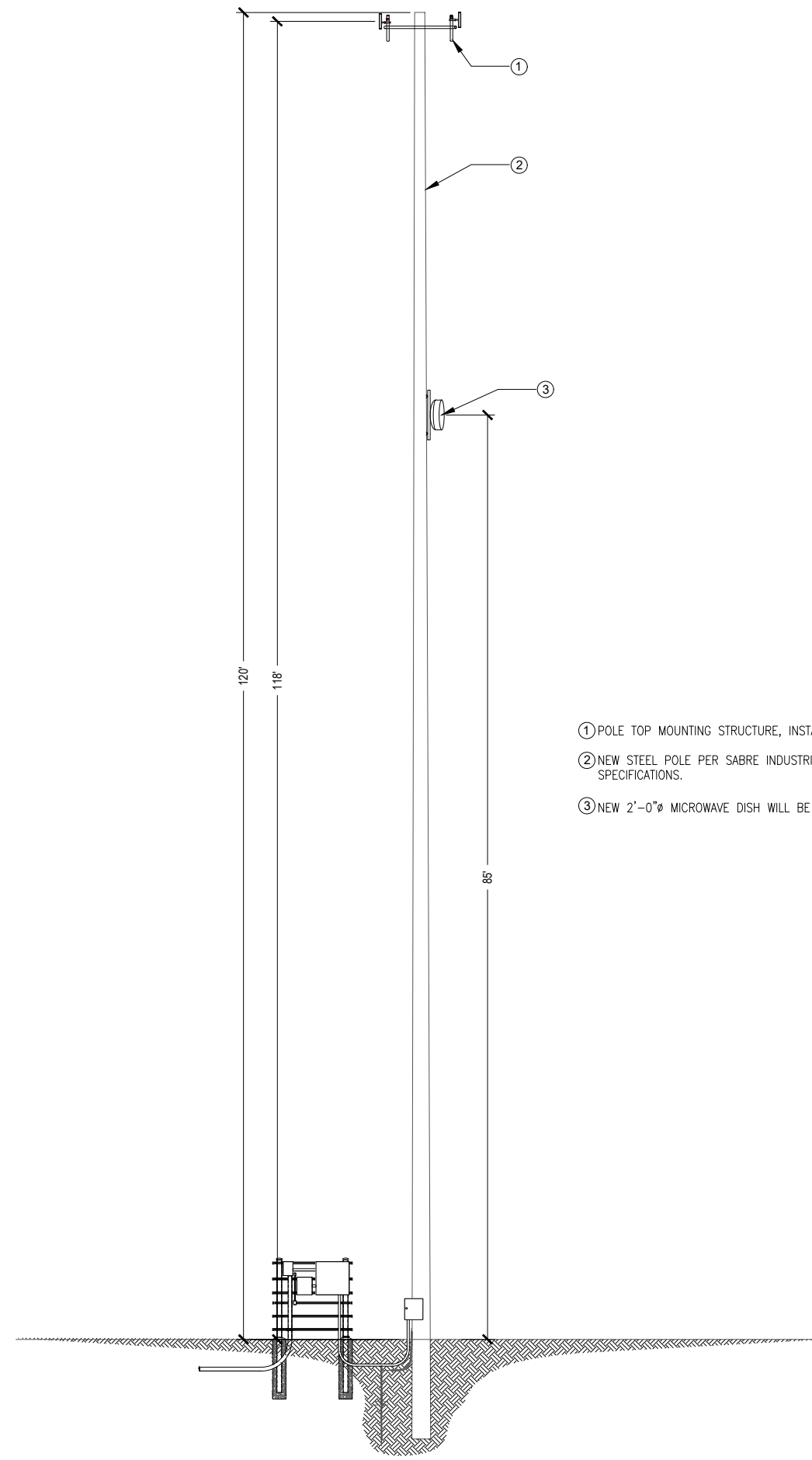
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LANCASTER COUNTY

SHEET TITLE
**ELEVATION
DETAILS**

SHEET NUMBER
C-2

STRUCTURAL NOTE:
1. PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A GLOBAL/LOCAL STRUCTURAL ANALYSIS OF EQUIPMENT ANCHORS, SUPPORTS AND DESIGN/DETAILING OF ANY STRUCTURAL MODIFICATIONS/REINFORCEMENT REQUIRED THERETO.
2. THIS DOCUMENT IS FOR PERMITTING ONLY AND IS NOT INTENDED FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PE STAMPED/SIGNED STRUCTURAL ASSESSMENT/ANALYSIS REPORT AS PROVIDED BY THE PROJECT OWNER.
NOTE:
REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.



- ① POLE TOP MOUNTING STRUCTURE, INSTALLATION PER POLE MFG SPECIFICATIONS.
- ② NEW STEEL POLE PER SABRE INDUSTRIES TOWER DESIGN. TO BE ERECTED PER MFG SPECIFICATIONS.
- ③ NEW 2'-0"Ø MICROWAVE DISH WILL BE MOUNTED AT SHOWN HEIGHT.

NOT USED

1 NEW STRUCTURE ELEVATION

22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"



2

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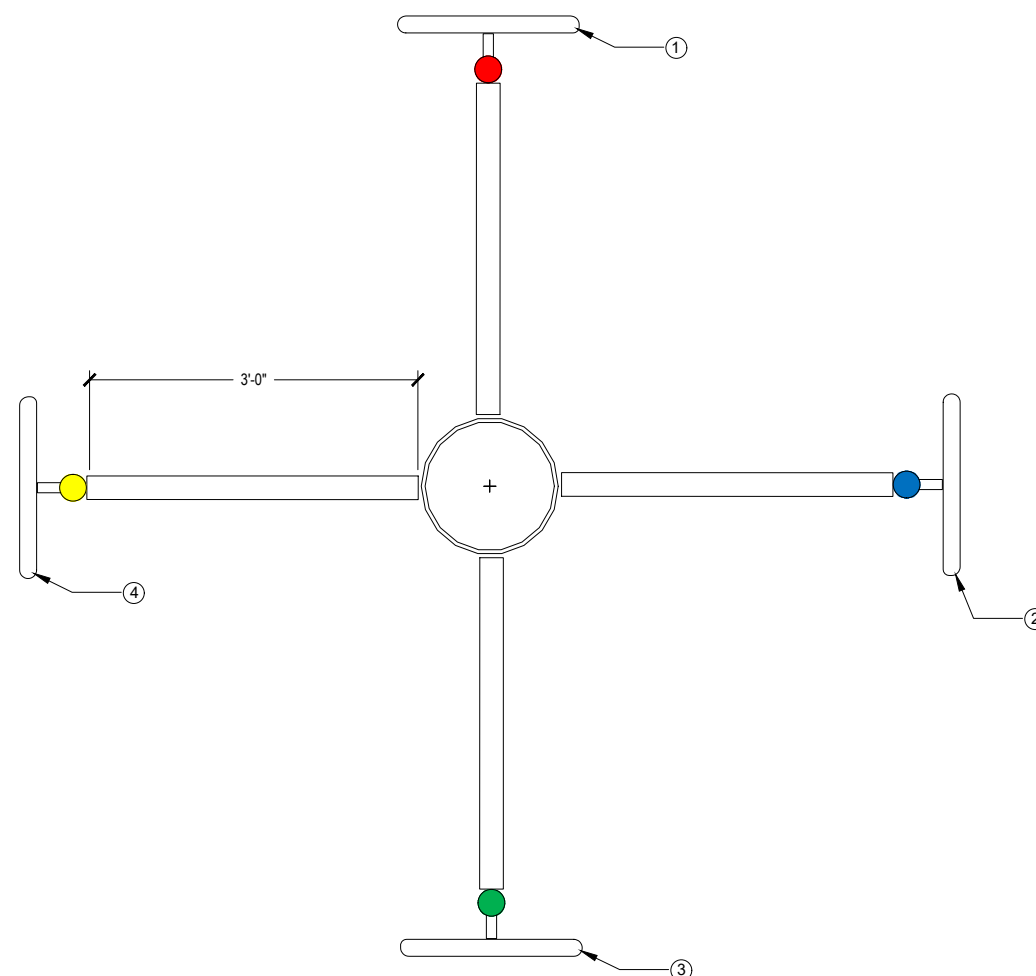
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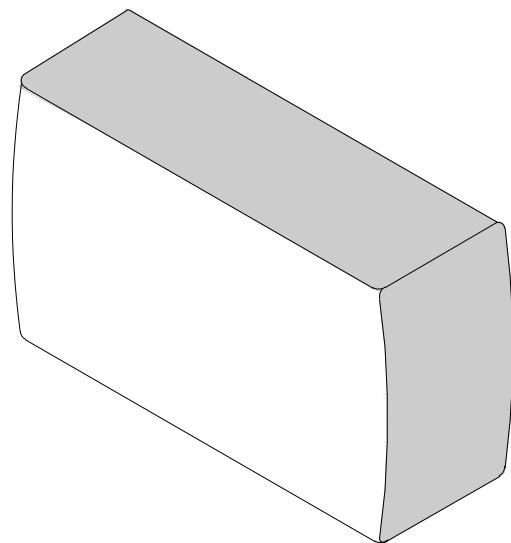
SHEET TITLE
**ANTENNA LAYOUT
DETAILS**

SHEET NUMBER

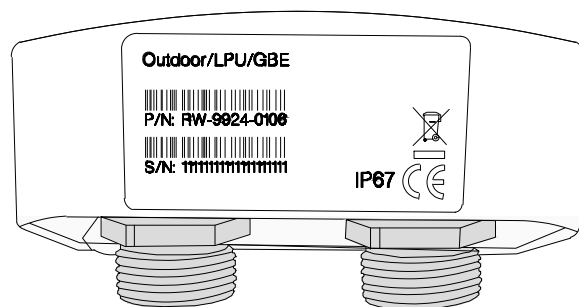
C-3



- ① AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 01 (NORTH) IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ② AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99°ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 02 (EAST) IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99°ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99°ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.



BASE STATION	
MANUF:	RADWIN
PART #:	RW-5BG5-0649
HEIGHT:	8.86"
WIDTH:	14.01"
DEPTH:	3.7"
WEIGHT:	7.28 LBS



FRONT VIEW

LIGHTNING PROTECTION	
MANUF:	RADWIN
PART #:	RW-9924-0106
HEIGHT:	2.04"
WIDTH:	3.87"
DEPTH:	1.88"
WEIGHT:	0.49 LBS



CABINET	
MANUF:	WESTELL
PART #:	BXM1019-NHE3
HEIGHT:	22.5"
WIDTH:	25.5"
DEPTH:	27.8"
WEIGHT:	70.00 LBS



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SHEET TITLE
**EQUIPMENT
 DETAILS**

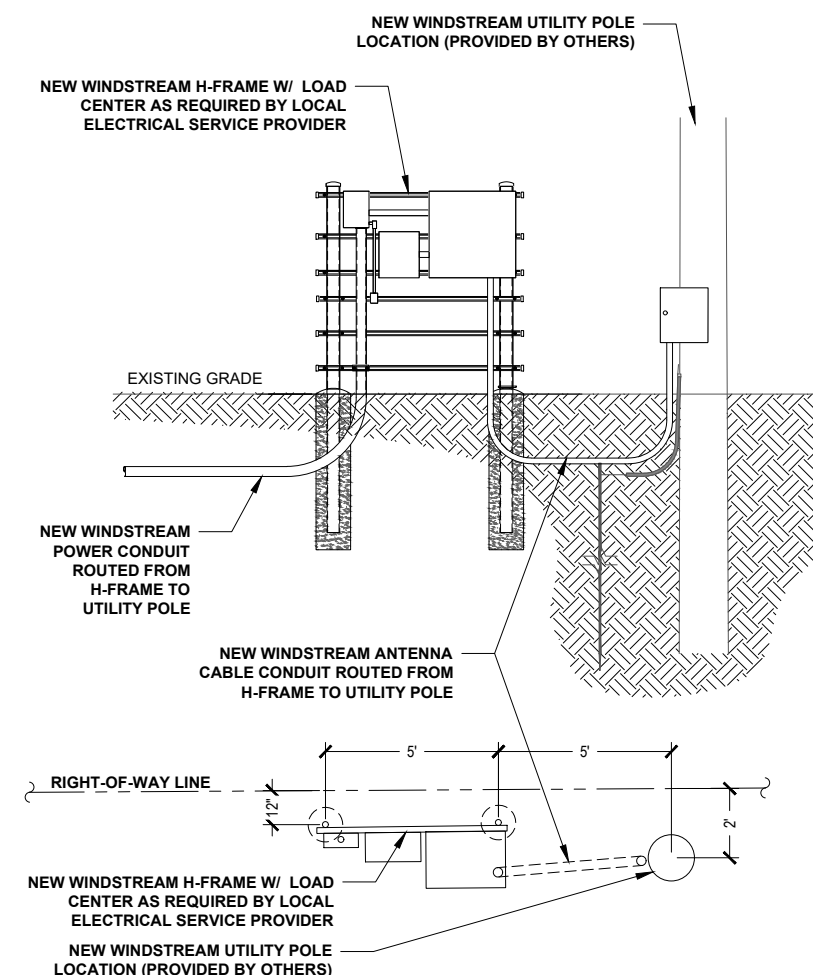
SHEET NUMBER
D-1

RADWIN BASE STATION

1 LIGHTNING PROTECTOR

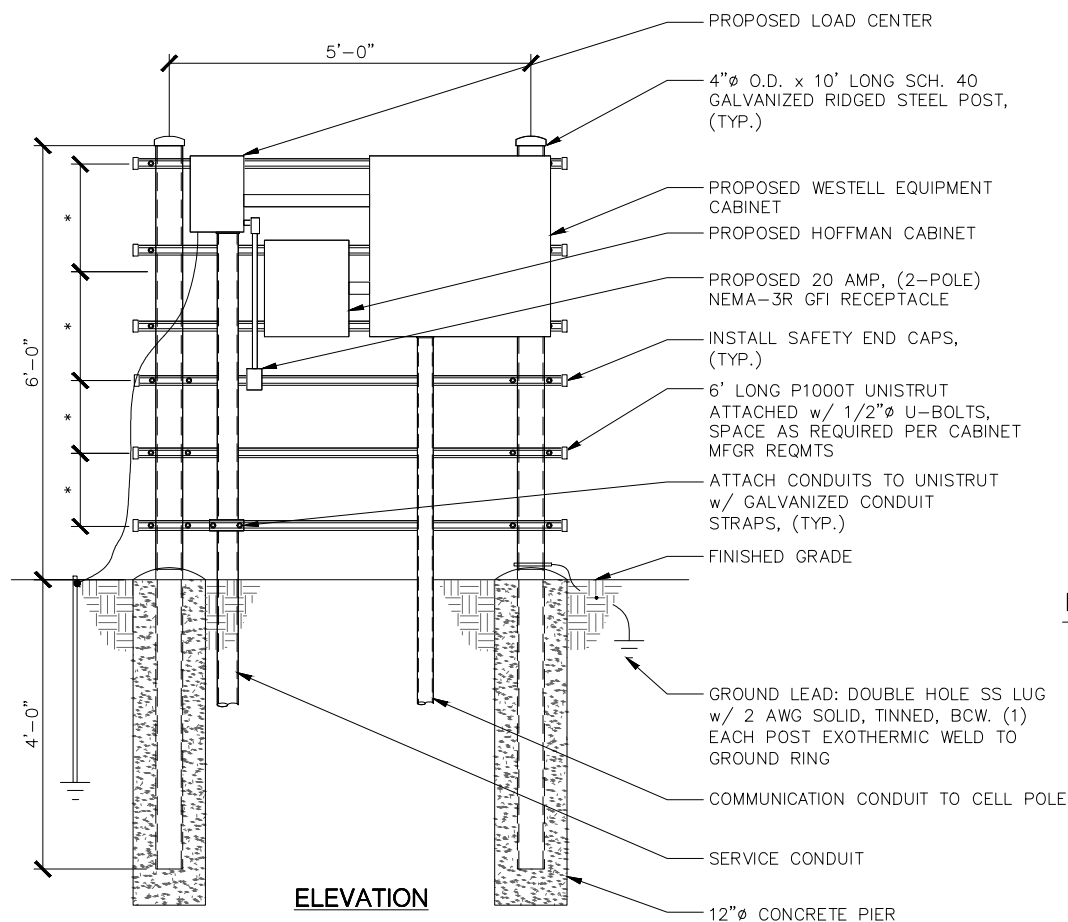
2 WESTELL BOXER OUTDOOR CABINET

3



DETAIL RACK ELEVATION

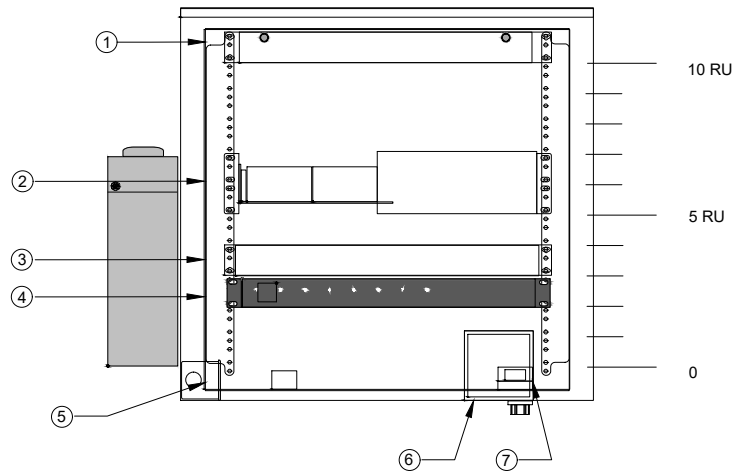
4 H-FRAME DETAIL



NOTES:

- *- COORDINATE ELEVATIONS WITH EQUIPMENT/MOUNTING HEIGHT.
- STEEL SHALL BE HOT DIP GALVANIZED.
- CABINETS SHALL BE MOUNTED WITH STAINLESS STEEL BOLTS.
- METAL POSTS ARE NOT ALLOWED TO SERVE AS EQUIPMENT GROUNDING CONDUCTOR.
- UNISTRUT SHALL NOT EXTEND BEYOND POST & MUST HAVE SAFETY END CAPS FOR SAFETY REASONS.
- METALLIC PARTS SHALL BE BONDED ACCORDING TO THE NEC.
- GROUNDING SHALL CONFORM TO NEC AND SECTION 436-439.

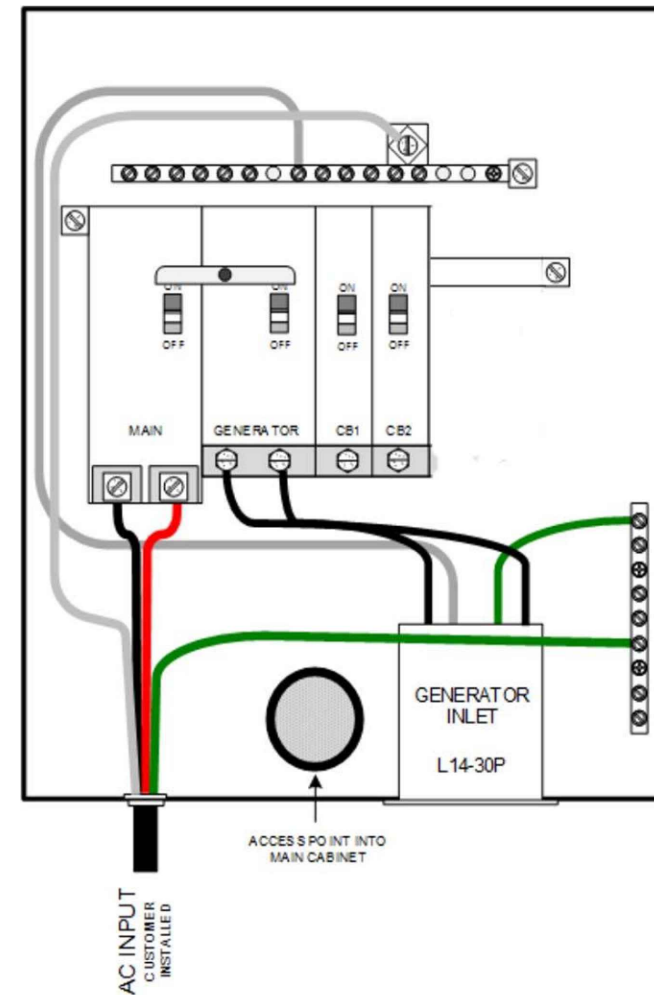
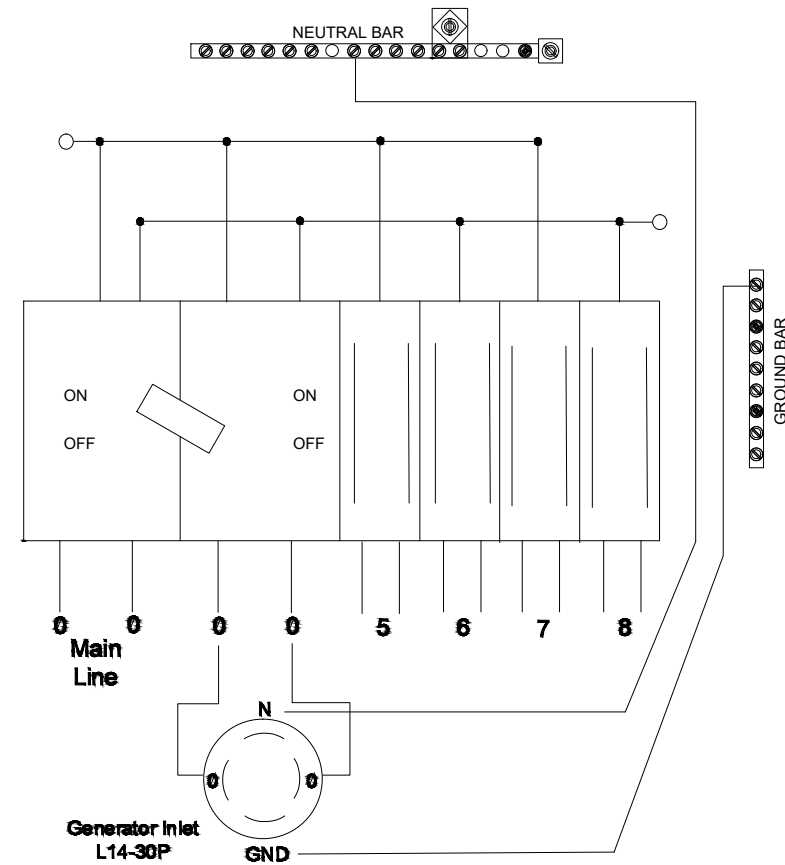
5



- ① LOCATION OF THE CORNING FIBER MANAGEMENT TRAY
- ② LOCATION OF THE ALCATEL-LUCENT OMI SWITCH
- ③ LOCATION OF THE ALPHA CORDEX RECTIFIER
- ④ LOCATION OF THE AC PDU
- ⑤ LOCATION OF THE DUPLEX GFCI OUTLET
- ⑥ LOCATION OF THE 2-GANG ELECTRICAL BOX
- ⑦ LOCATION OF THE DOOR SWITCH ASSEMBLY

CABINET DETAIL

1



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0	06/14/2019	100% FINAL CD	JHR

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

WS-RYMN-RL02
4412 WEST AGNEW ROAD
VALPARAISO, NE 68065
LANCASTER COUNTY

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

NOT USED

2 LOAD CENTER

3

NM 84th St

WS-RYMN-RL03

WS-RYMN-RL03

7812 WEST DAVEY ROAD
RAYMOND, NE 68428



DRAWN BY:	JRR
DATE:	06/05/2019

REV	DATE	DESCRIPTION	BY
0	06/05/2019	FINAL CD	JRR

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WS-RYMN-RL03
7812 WEST DAVEY ROAD
RAYMOND, NE 68428
LANCASTER COUNTY

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

SITE INFORMATION	
SITE ID:	WS-RYMN-RL03
ADDRESS:	7812 WEST DAVEY ROAD RAYMOND, NE 68428
COUNTY:	LANCASTER COUNTY
LATITUDE:	40.9880648°
LONGITUDE:	-96.8259498°
JURISDICTION:	LANCASTER COUNTY

CONTACTS	
PROJECT MANAGER:	WINDSTREAM
PROFESSIONAL ENGINEER:	IRISH TOWER, LLC 4603 BERMUDA DRIVE SUGAR LAND, TEXAS 77479 jacob.goralski@irishtower.com
PROPERTY OWNER:	NA

GENERAL NOTES
THE FACILITY IS 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 NEW. THE SITE LOCATION IS SUBJECT TO MOVING, UP TO 10' FROM PROPOSED LOCATION, AS NEEDED TO KEEP WITHIN PUBLIC ROW, AVOID EXISTING UTILITY LINES, AND AVOID LINE-OF-SIGHT OBSTRUCTIONS WITH BOTH FOOT AND AUTOMOTIVE TRAFFIC. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO ANY CHANGES.



PROJECT DESCRIPTION
THESE DRAWINGS DEPICT AN UTILITY POLE WITH ANTENNA INSTALLATION TO PROVIDE HIGH SPEED INTERNET SERVICE IN RURAL AREAS. THIS INSTALLATION SHALL CONSIST OF THE PLACEMENT OF A NEW POLE, FOUR (4) ANTENNAS, ONE (1) MICROWAVE DISH, ONE (1) CONCEALMENT CABINET AND ASSOCIATED ELECTRICAL COMPONENTS AND MOUNTING BRACKETS AS REQUIRED

ENGINEERING
ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
2011 NATIONAL ELECTRICAL CODE 2012 INTERNATIONAL FIRE CODE
2012 INTERNATIONAL BUILDING CODE CITY AND/OR COUNTY ORDINANCES
2012 INTERNATIONAL MECHANICAL CODE LOCAL BUILDING CODE(S)
2012 INTERNATIONAL PLUMBING CODE ANSI EIA/TIA 222-G
2012 LIFE SAFETY CODE (NFPA 101)

DRAWING INDEX	
SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLANS
C-2	ELEVATION DETAILS
C-3	ANTENNA LAYOUT DETAILS
C-4	STRUCTURE DETAILS
D-1	EQUIPMENT DETAILS
E-1	ELECTRICAL & GROUNDING DETAILS

NOTE: DRAWINGS ARE SCALED TO 11X17

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT OR ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DAMAGED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DAMAGED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTS BY A LAND SURVEYOR. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT.
2. IMPORTANT NOTICE: CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN PROPOSED EXCAVATIONS AND MUST MAINTAIN MINIMUM VERTICAL AND HORIZONTAL CLEARANCES AS CALLED FOR BY LOCAL CODES AND/OR ORDINANCES.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING STRUCTURES OR LANDSCAPING DAMAGED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNAL LOOPS, CONDUIT, AND LANE STRIPING DAMAGED DURING CONSTRUCTION.
6. THIS PROJECT WILL BE INSPECTED BY ENGINEERING AND FIELD ENGINEERING DIVISION.
7. ANY MANHOLES OR COVERS INSTALLED AS PART OF THIS PROJECT SHALL BE LABELED COMMUNICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF AN EROSION CONTROL PLAN WHICH MEETS ALL APPLICABLE REQUIREMENTS OF STATE AND LOCAL AGENCIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL MAINTAIN MATERIALS AND EQUIPMENT ON SITE FOR UNFORESEEN SITUATIONS INCLUDING DAMAGE TO UNDERGROUND WATER, SEWER, AND STORM DRAIN FACILITIES WHICH COULD GENERATE FLOWS ABLE TO CAUSE EROSION AND SEDIMENT POLLUTION.

SPECIAL NOTES

1. INDEMNIFICATION CLAUSE: THE CONTRACTOR AGREES AND SHALL: ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTIES. THESE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONDITIONS. THE CONTRACTOR FURTHER AGREES TO DEFEND INDEMNITY AND HOLD OWNER, REPRESENTATIVES, AND ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT.
2. PRIOR TO START OF CONSTRUCTION AND THROUGH PROJECT COMPLETION, THE CONTRACTOR SHALL REMAIN IN FULL COMPLIANCE WITH CURRENT FEDERAL, STATE, AND LOCAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS.
3. ALL WORK SHALL CONFORM TO THE LATEST STANDARD "SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AS ADOPTED BY THE CITY, COUNTY OR STATE AND AS MODIFIED BY STANDARD PLANS AND ADDENDUMS.
4. ALL UTILITIES AND OTHER FACILITIES DEPICTED ON THE PLANS ARE BASED ON A SEARCH OF AVAILABLE RECORDS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION START AND USE EXTREME CARE AND PROTECTIVE MEASURES TO AVOID DAMAGE TO ANY FACILITIES WETHER OR NOT INDICATED ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FACILITIES WITHIN THE LIMITS OF WORK, WHETHER OR NOT DEPICTED ONT THESE PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ANY CITY, COUNTY OR STATE ENGINEER INSPECTION DEPARTMENT A MINIMUM TWO DAYS PRIOR TO COMMENCEMENT OF ACTIVITY REQUIRING THEIR INVOLVEMENT.
6. THE EXPIRATION OF THE PERMIT FOR THIS PROJECT SHALL BE SPECIFIED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
7. ALL UNDERGROUND CONDUITS PLACED AS PART OF THIS PROJECT MUST HAVE A MINIMUM COVER OF 48 INCHES UNLESS OTHERWISE APPROVED.
8. THE CONTRACTOR SHALL TUNNEL ALL CURB AND GUTTERS AND BORE ALL CONCRETE DRIVEWAYS AND WALKWAYS AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
9. ALL PAVEMENT CUT OR DAMAGED AS PART OF THIS PROJECT SHALL BE REPLACED AT THE DIRECTION OF THE CITY, COUNTY OR STATE ENGINEER HAVING JURISDICTION.
10. ALL SHRUBS, PLANTS OR TREES DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK, SHALL BE REPLANTED AND/OR REPLACED SO AS TO RESTORE THE WORK SITE TO ITS ORIGINAL CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROCESSING OF ALL APPLICANT PERMIT FORMS ALONG WITH REQUIRED LIABILITY INSURANCE FORMS CLEARLY DEMONSTRATING OWNER, OWNER REPRESENTATIVES, ENGINEER, AND CITY, COUNTY OR STATE ARE ALSO INSURED WITH THE REQUIRED LIABILITY INSURANCE FOR THIS CONSTRUCTION PROJECT.
12. ALL SUBSURFACE STRUCTURES INCLUDING BUT NOT LIMITED TO VAULTS, PEDESTALS, AND CONDUITS SHALL BE AS SPECIFIED IN THESE PLANS OR AS SPECIFIED BY THE ENGINEER. ANY DEVIATIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING PRIOR TO INSTALLATION.
13. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO SEWER LATERALS AND WATER SERVICES, BOTH VERTICAL AND HORIZONTAL, PRIOR TO COMMENCING IMPROVEMENT OPERATIONS.
14. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETION OF EXPLORATION EXCAVATIONS CONDUCTED FOR THE PURPOSE OF LOCATING EXISTING FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS AS REQUIRED.
15. LOCATIONS OF EXISTING UTILITIES ON THESE PLANS ARE BASED UPON EXISTING RECORDS VERIFIED WHERE POSSIBLE WITH FIELD TIES. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF LOCATIONS SHOWN, BOTH HORIZONTAL AND VERTICALLY. PRIOR TO CONSTRUCTION, SUBSTANTIAL VARIANCES FROM THE PLANS SHALL BE COMMUNICATED TO THE ENGINEER TO FACILITATE CHANGES TO CONSTRUCTION DRAWINGS AS REQUIRED.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL PRIOR TO COMPLETION OF FINAL IMPROVEMENTS SHALL BE INSTALLED BY CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY, COUNTY AND STATE "STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WATER QUALITY TECHNICAL REPORT (WQTR), AND/ OR WATER POLLUTION CONTROL PLAN (WPCP).
2. A GRAVEL BAG SILT BASIN SHALL BE INSTALLED IMMEDIATELY UPSTREAM OF STORM DRAIN INLETS AS INDICATED ON DETAILS.
3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES. THE CONTRACTOR SHALL INSURE WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.
4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.
6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
7. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT AND WORKERS FOR EMERGENCY WORK AT ALL TIMES DURING THE RAINY SEASON. MATERIALS NECESSARY FOR EMERGENCY MEASURES SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
8. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY/COUNTY/STATE ENGINEER OR RESIDENT ENGINEER FOLLOWING ANY RUN-OFF PRODUCING RAINFALL.
9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HERON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.
12. UPON COMPLETION OF WORK EACH DAY, GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE.
13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
14. GRADING, INCLUDING CLEARING AND GRUBBING SHALL ONLY BE CONDUCTED IN AREAS WHERE THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

ROW GROUND CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL STANDARDS AND REGULATIONS.
 3. THE CONTRACTOR SHALL CALL LOCAL UNDERGROUND LOCATE SERVICE THREE WORKING DAYS BEFORE ANY CONSTRUCTION IS STARTED.
 4. ALL EXISTING LANDSCAPING SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
 5. ALL EQUIPMENT SHALL BE BONDED.
 6. IF A METERING CABINET IS INSTALLED, A MINIMUM 3' CLEARANCE IS REQUIRED AT DOOR OPENING.
 7. IF A METERING CABINET IS INSTALLED, THE CONTRACTOR SHALL CAULK THE CABINET BASE AT THE PAD.
- STANDARD GROUNDING NOTES:**
1. GROUND SHALL BE TESTED AT 25 OHMS OR LESS.
 2. GROUND RODS SHALL BE 5/8"x8'. ATTACHMENT TO GROUND RODS SHALL BE EXOTHERMIC WELD OR UL LISTED DIRECT BURY CLAMP BELOW GRADE.
 3. BURIED GROUND AND BONDING WIRE SHALL BE #6 AWG.
 4. MOLDING SHALL BE STAPLED EVERY 1' AND AT EACH END.

STANDARD CONDUIT NOTES:

1. SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND.
2. SCHEDULE 80 CONDUIT SHALL BE USED FOR RISERS.
3. RISERS SHALL BE ATTACHED TO POLE WITH STANDARD U-CLAMPS AND LAG SCREWS.
4. RISER U-CLAMPS TO BE INSTALLED EVERY 5'.
5. FOR U/G POWER INSTALLATIONS, 2" SDR-11 RED CONDUIT SHALL BE UTILIZED.
6. GROUND WIRE MOLDING STAPLES MAY BE BE UTILIZED FOR ATTACHING CONDUIT LESS THAN 1" DIAMETER.
7. ALL CONDUIT SHALL BE PROOFED WITH A MANDREL AND EQUIPPED WITH A PULL ROPE OR MULE TAPE.

STANDARD TRENCHING NOTES:

1. A MINIMUM OF 2'-6" OF COVER SHALL BE MAINTAINED OVER ALL ELECTRICAL CONDUITS.
2. A MINIMUM OF 4'-0" OF COVER SHALL BE MAINTAINED OVER ALL COMMUNICATIONS CONDUITS.
3. IN STREETS, SLURRY TO GRADE AND MILL DOWN 1-1/2" FOR AC CAP.
4. IN DIRT, SLURRY TO 18" FROM GRADE AND FILL WITH 95% COMPACTION NATIVE SOIL FOR BALANCE.
5. WARNING TAPE SHALL BE INSTALLED 1'-0" ABOVE ALL CONDUITS. #18 WARNING TAPE SHALL BE INSTALLED ABOVE GROUND RING.

ROW UTILITY POLE CONSTRUCTION NOTES:

1. BOLT THREADS SHALL NOT PROTRUDE MORE THAN 1-1/2".
2. HOLES LEFT IN POLE DUE TO REARRANGEMENT OF CLIMBERS SHALL BE FILLED.
3. CLIMB STEPS ADJACENT TO CONDUIT SHALL HAVE EXTENDED STEPS.
4. CABLE SHALL NOT IMPEDE 15" CLEAR SPACE OFF POLE FACE (12:00).
5. 90° SHORT SWEEPS SHALL BE USED UNDER ANTENNA ARM. CABLES MUST TRANSITION ON THE INSIDE OR BOTTOM OF ARMS. (NO CABLE SHALL BE INSTALLED ON TOP OF ARMS.)
6. CABLE CLAMPS SHALL BE UTILIZED TO SECURE CABLE TO ARMS; 2" CARRIER CABLE ID TAGS SHALL BE PLACED ON BOTH SIDES OF ARMS.
7. UTILIZE A 90° CONNECTOR AT CABLE CONNECTION TO ANTENNA.
8. 1/2" CABLE TO BE UTILIZED UNLESS NOTED OTHERWISE.
9. VOIDS AROUND CABLES AT CONDUIT OPENINGS SHALL BE FILLED WITH FOAM SEALANT TO PREVENT WATER INTRUSION.



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DATE:	06/05/2019

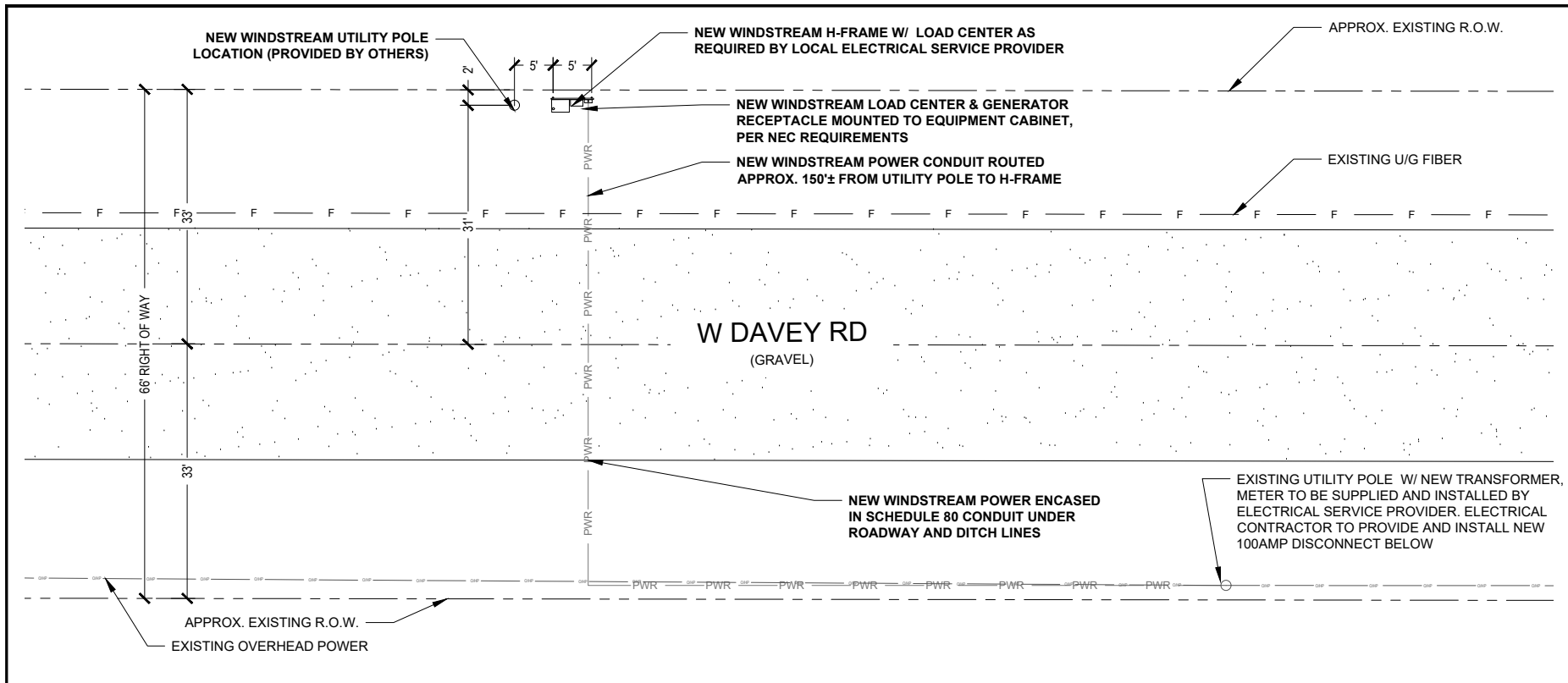
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WS-RYMN-RL03
7812 WEST DAVEY ROAD
RAYMOND, NE 68428
LANCASTER COUNTY

SHEET TITLE
GENERAL NOTES

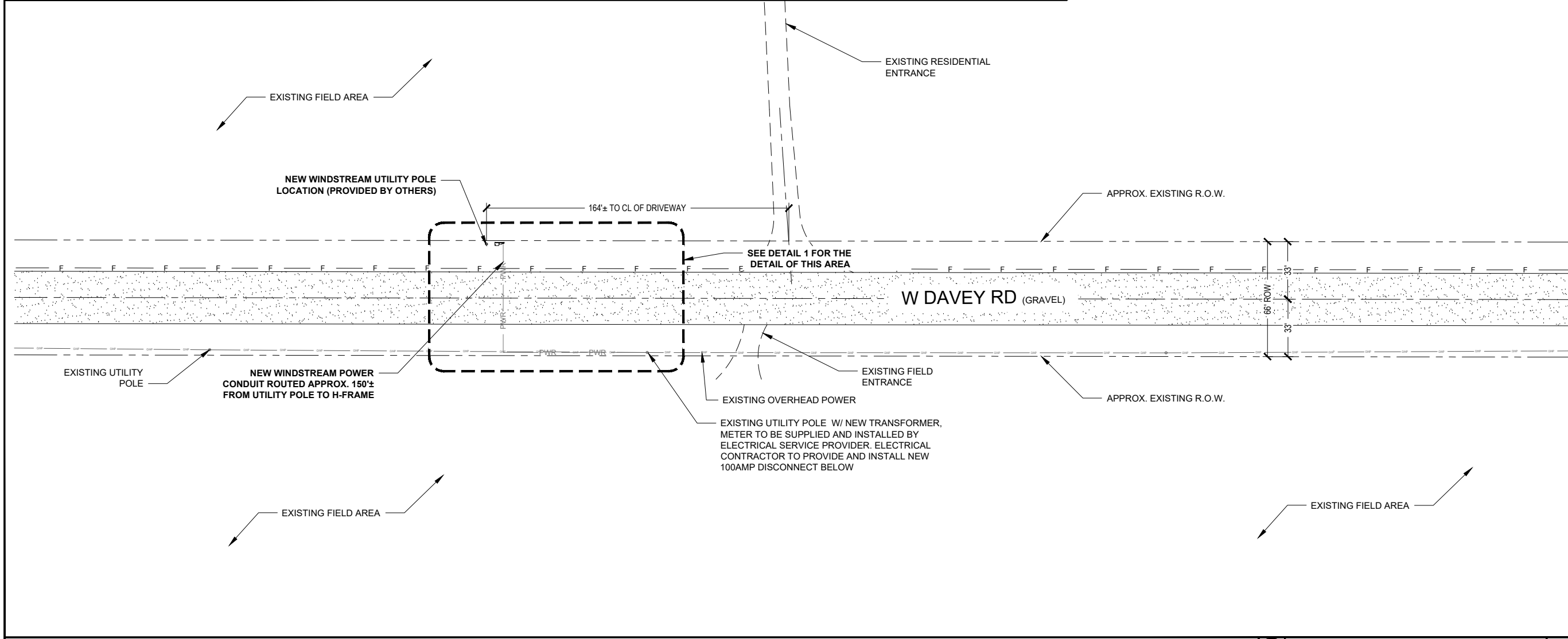
SHEET NUMBER
T-2



ENLARGED SITE PLAN

22"x34" SCALE: 1" = 10'-0"
11"x17" SCALE: 1" = 20'-0"

1



OVERALL SITE PLAN

22"x34" SCALE: 1" = 30'-0"
11"x17" SCALE: 1" = 60'-0"

2



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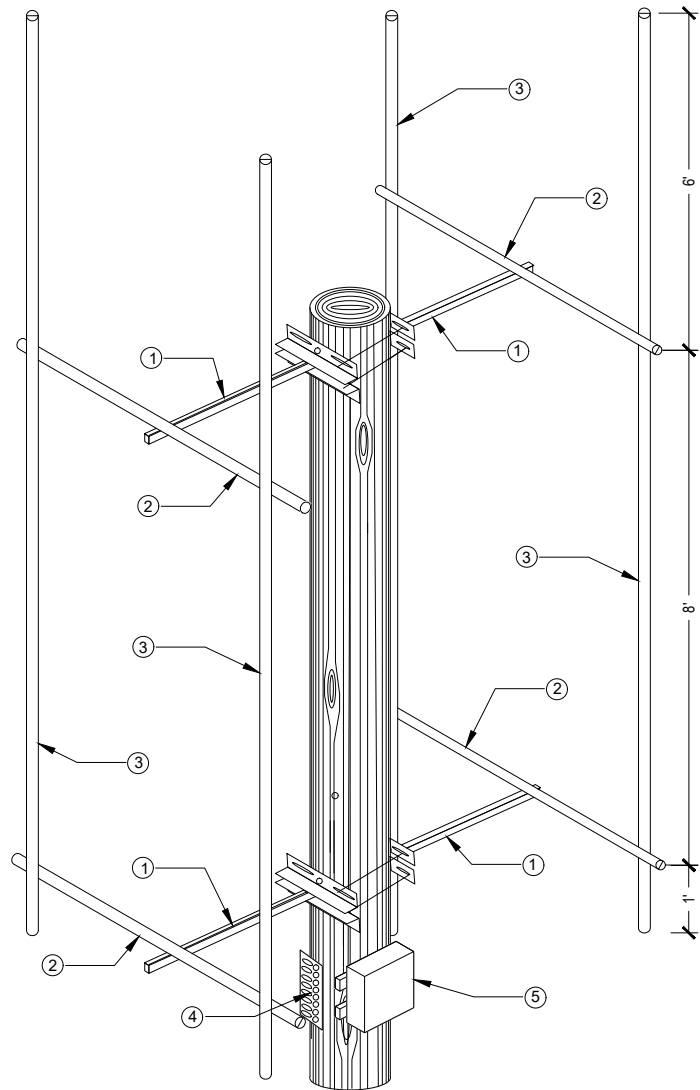
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WS-RYMN-RL03
7812 WEST DAVEY ROAD
RAYMOND, NE 68428
LANCASTER COUNTY

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1

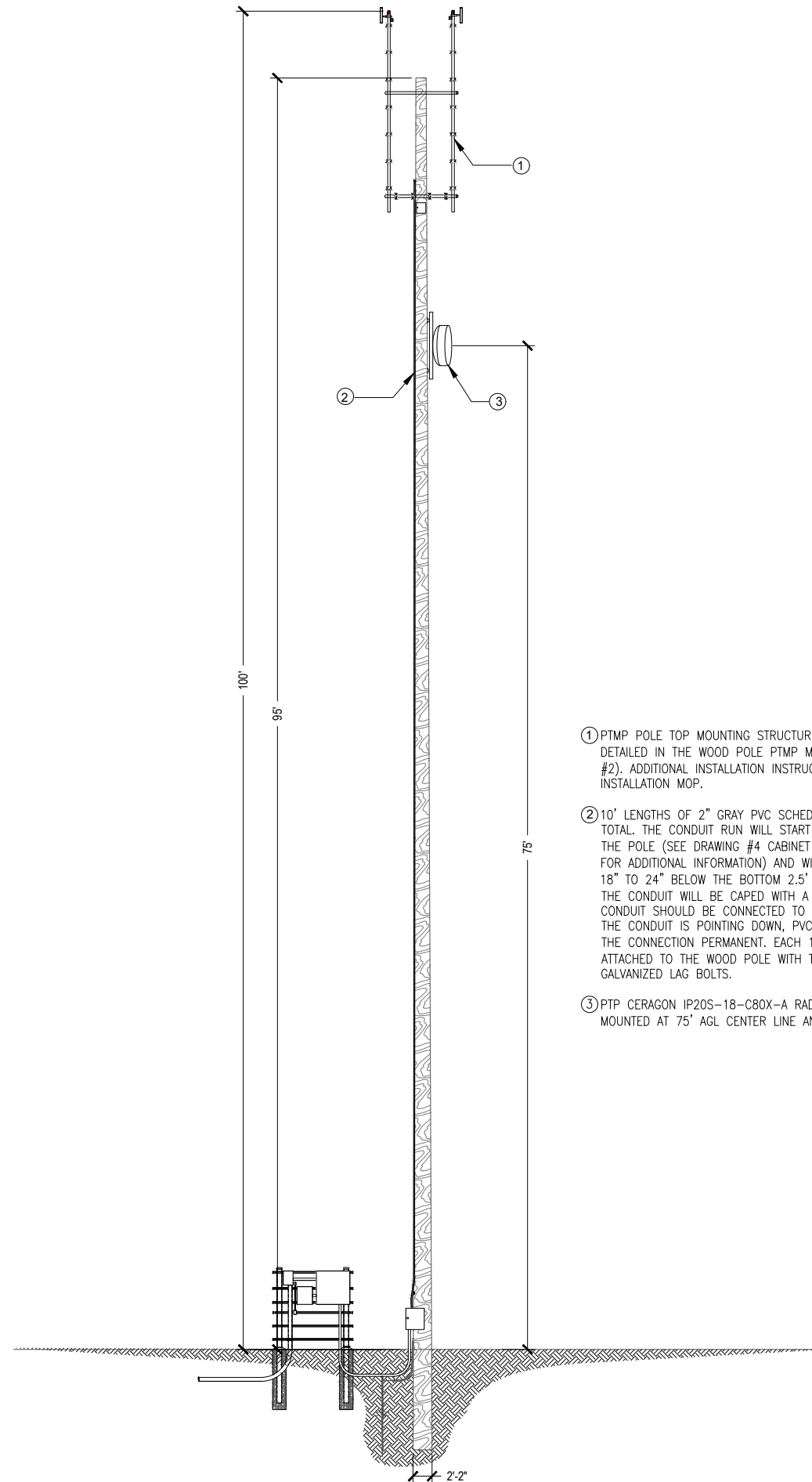


- ① FOUR 2.5' WOOD POLE STAND-OFFS, TWO MOUNTED BACK-TO-BACK AT 99', ONE AT 45° AND ONE AT 225° EACH SECURED TO THE POLE WITH TWO 4" GALVANIZED LAG BOLTS. THE STAND-OFFS WILL BE CONNECT TO EACH OTHER WITH FOUR 5/8" ALL-THREAD AND GALVANIZED HARDWARE. THE OTHER TWO WOOD POLE STAND-OFFS WILL BE MOUNTED AN 91' IN THE SAME MANNER AS THE TOP STAND-OFFS.
- ② HORIZONTAL PIPE: FOUR 1.66" OD X 5' LONG PIPES (MADE BY CUTTING A 10' LENGTHS OF PIPE IN HALF) WILL BE MOUNTED ONE EACH TO EACH OF THE FOUR 2.5' WOOD POLE STAND-OFF MOUNTS INSTALLED IN THE PREVIOUS STEP. THE CENTER OF EACH HORIZONTAL PIPE SHOULD ATTACH TO END OF EACH OF THE STAND-OFF MOUNTS UTILIZING A PIPE CROSSOVER MOUNT (PN-SINCLAMP017) TO MAKE THE CONNECTION.
- ③ VERTICAL PIPES: FOUR VERTICAL 1.66" OD X 15' GALVANIZED PIPES ARE USED TO COMPLETE THE POLE TOP MOUNT. ONE EACH OF THE VERTICAL PIPES WILL ATTACH TO THE ENDS OF THE UPPER AND LOWER HORIZONTAL PIPES. EACH VERTICAL PIPE SHOULD ATTACH 2" IN FROM THE END OF THE HORIZONTAL PIPES WITH ~6' OF PIPE EXTENDING ABOVE THE UPPER HORIZONTAL PIPE AND ~12" OF PIPE EXTENDING BELOW THE LOWER HORIZONTAL PIPE. EACH VERTICAL PIPE WILL BE CONNECTED TO THE HORIZONTAL PIPES WITH TWO PIPE CROSS-OVER MOUNTS (PNSINCLAMP017) ONE ON THE TOP HORIZONTAL PIPE AND ONE ON THE BOTTOM. DURING FINAL ASSEMBLY A LEVEL SHOULD BE USED TO ASSURE THAT THE VERTICAL PIPES ARE INSTALL PLUMB IN EACH DIRECTION.
- ④ PTMP RAD CENTER GROUND BAR SHOULD BE ATTACHED TO THE POLE UTILIZING THE INCLUDED ISOLATION MOUNTS AND HARDWARE, 12" BELOW THE BOTTOM 2.5' STAND-OFF MOUNTS.
- ⑤ PTMP RAD CENTER OUTDOOR ENCLOSURE (PN-AM32P-2625-16RU) SHOULD BE ATTACHED TO THE POLE 1' ABOVE THE BOTTOM MOUNT. A 16" UNISTRUT SHOULD BE SECURED TO THE POLE USING A 4" GALVANIZED LAG BOT. THE ENCLOSURE SHOULD BE MOUNTED TO THE UNISTRUT UTILIZING THE SPRING NUT AND BOLT.

NEW MOUNTING STRUCTURE ELEVATION

1

NEW STRUCTURE ELEVATION



- ① PTMP POLE TOP MOUNTING STRUCTURE, INSTALLATION INSTRUCTION ARE DETAILED IN THE WOOD POLE PTMP MOUNTING STRUCTURE DRAWING (DRAWING #2). ADDITIONAL INSTALLATION INSTRUCTIONS CAN BE FOUND IN THE INSTALLATION MOP.
- ② 10' LENGTHS OF 2" GRAY PVC SCHEDULE 40 CONDUIT, APPROXIMATELY 87' TOTAL. THE CONDUIT RUN WILL START AT THE CABINET AT THE BOTTOM OF THE POLE (SEE DRAWING #4 CABINET INSTALLATION, BOTTOM OF THE POLE FOR ADDITIONAL INFORMATION) AND WILL EXTEND UP THE POLE, ENDING 18" TO 24" BELOW THE BOTTOM 2.5' WOOD POLE STAND-OFF MOUNTS WHERE THE CONDUIT WILL BE CAPED WITH A 2" WEATHER HEAD. EACH SECTION OF CONDUIT SHOULD BE CONNECTED TO THE NEXT ASSURING THAT BELL END OF THE CONDUIT IS POINTING DOWN, PVC CEMENT SHOULD BE USED TO MAKE THE CONNECTION PERMANENT. EACH 10' LENGTH OF CONDUIT SHOULD BE ATTACHED TO THE WOOD POLE WITH TWO 2" CONDUIT STRAPS AND 1/4" GALVANIZED LAG BOLTS.
- ③ PTP CERAGON IP20S-18-C80X-A RADIO WITH A HP2-18 DISH WILL BE MOUNTED AT 75' AGL CENTER LINE AND 48.91° AZIMUTH.

STRUCTURAL NOTE:
 1. PROJECT OWNER IS RESPONSIBLE FOR PROVIDING A GLOBAL/LOCAL STRUCTURAL ANALYSIS OF EQUIPMENT ANCHORS, SUPPORTS AND DESIGN/DETAILING OF ANY STRUCTURAL MODIFICATIONS/REINFORCEMENT REQUIRED THERETO.
 2. THIS DOCUMENT IS FOR PERMITTING ONLY AND IS NOT INTENDED FOR CONSTRUCTION UNLESS ACCOMPANIED BY A PE STAMPED/SIGNED STRUCTURAL ASSESSMENT/ANALYSIS REPORT AS PROVIDED BY THE PROJECT OWNER.
 NOTE:
 REFER TO STRUCTURAL ANALYSIS REPORT (SEPARATE DOCUMENT) FOR ADDITIONAL STRUCTURAL INFORMATION.



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WS-RYMN-RL03
 7812 WEST DAVEY ROAD
 RAYMOND, NE 68428
 LANCASTER COUNTY

SHEET TITLE
**ELEVATION
 DETAILS**

SHEET NUMBER
C-2

2

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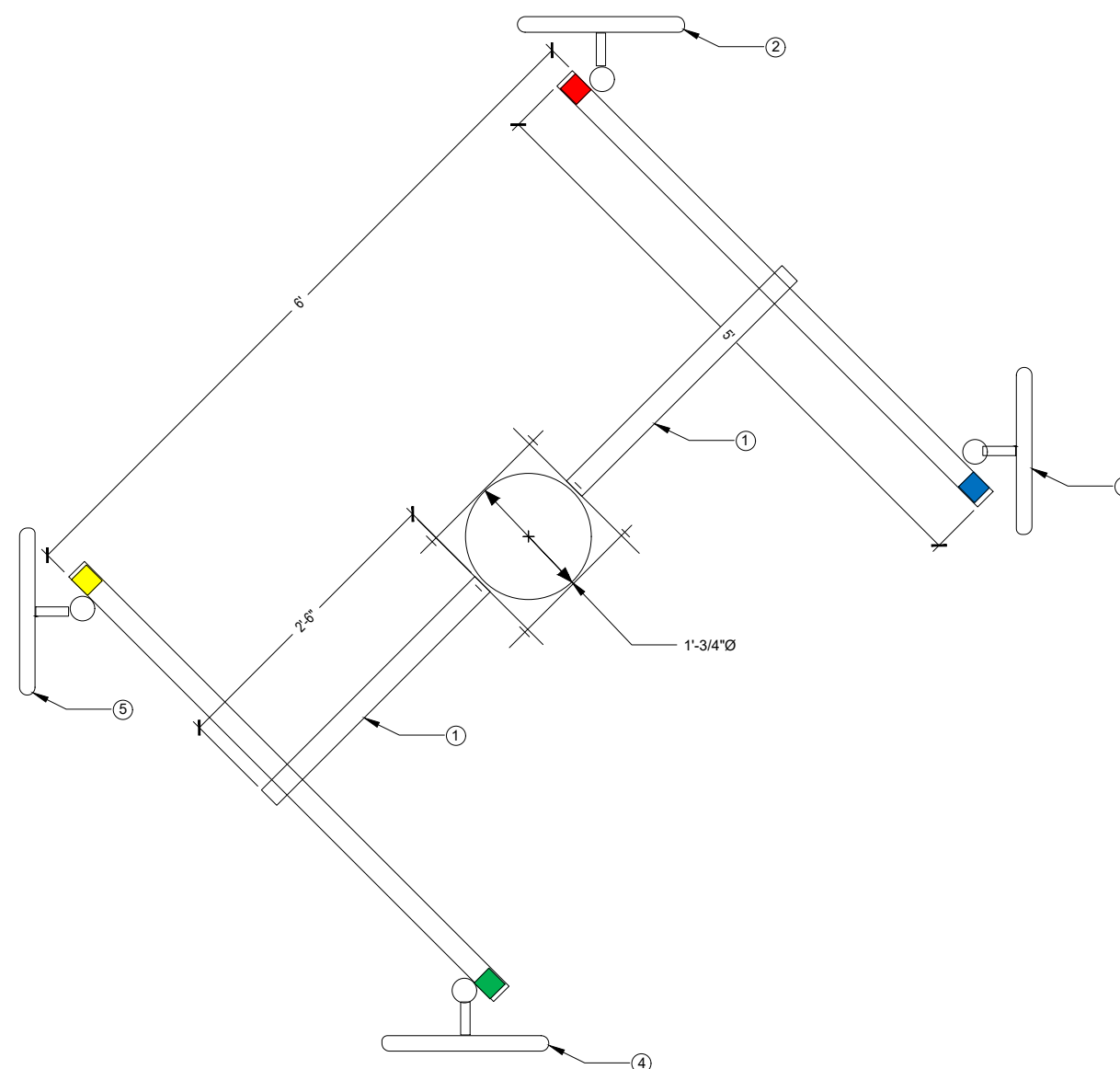
WS-RYMN-RL03

7812 WEST DAVEY ROAD
RAYMOND, NE 68428
LANCASTER COUNTY

SHEET TITLE
**ANTENNA LAYOUT
DETAILS**

SHEET NUMBER

C-3



- ① FOUR 2.5' WOOD POLE STAND-OFFS, TWO MOUNTED BACK-TO-BACK AT 99°, ONE AT 45° AND ONE AT 225° EACH SECURED TO THE POLE WITH TWO 4" GALVANIZED LAG BOLTS. THE STAND-OFFS WILL BE CONNECT TO EACH OTHER WITH FOUR 5/8" ALL-THREAD AND GALVANIZED HARDWARE. THE OTHER TWO WOOD POLE STAND-OFFS WILL BE MOUNTED AN 91' IN THE SAME MANNER AS THE TOP STAND-OFFS.
- ② AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 01 (NORTH) IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ③ AZIMUTH 02 (90° EAST) HAS A SINGLE BS AT 99°ACL, 90° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 02 (EAST) IS LABELED WITH BLUE TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF BLUE TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF BLUE TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ④ AZIMUTH 03 (180° SOUTH) HAS A SINGLE BS AT 99°ACL, 180° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 03 (SOUTH) IS LABELED WITH GREEN TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF GREEN TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF GREEN TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
- ⑤ AZIMUTH 04 (270° WEST) HAS A SINGLE BS AT 99°ACL, 270° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE (SEE RFDS FOR SPECIFIC FREQUENCY. AZIMUTH 04 (WEST) IS LABELED WITH YELLOW TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF YELLOW TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF YELLOW TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.

DRAWN BY: JRR
DATE: 06/05/2019

REV	DATE	DESCRIPTION	BY
0	06/05/2019	FINAL CD	JRR

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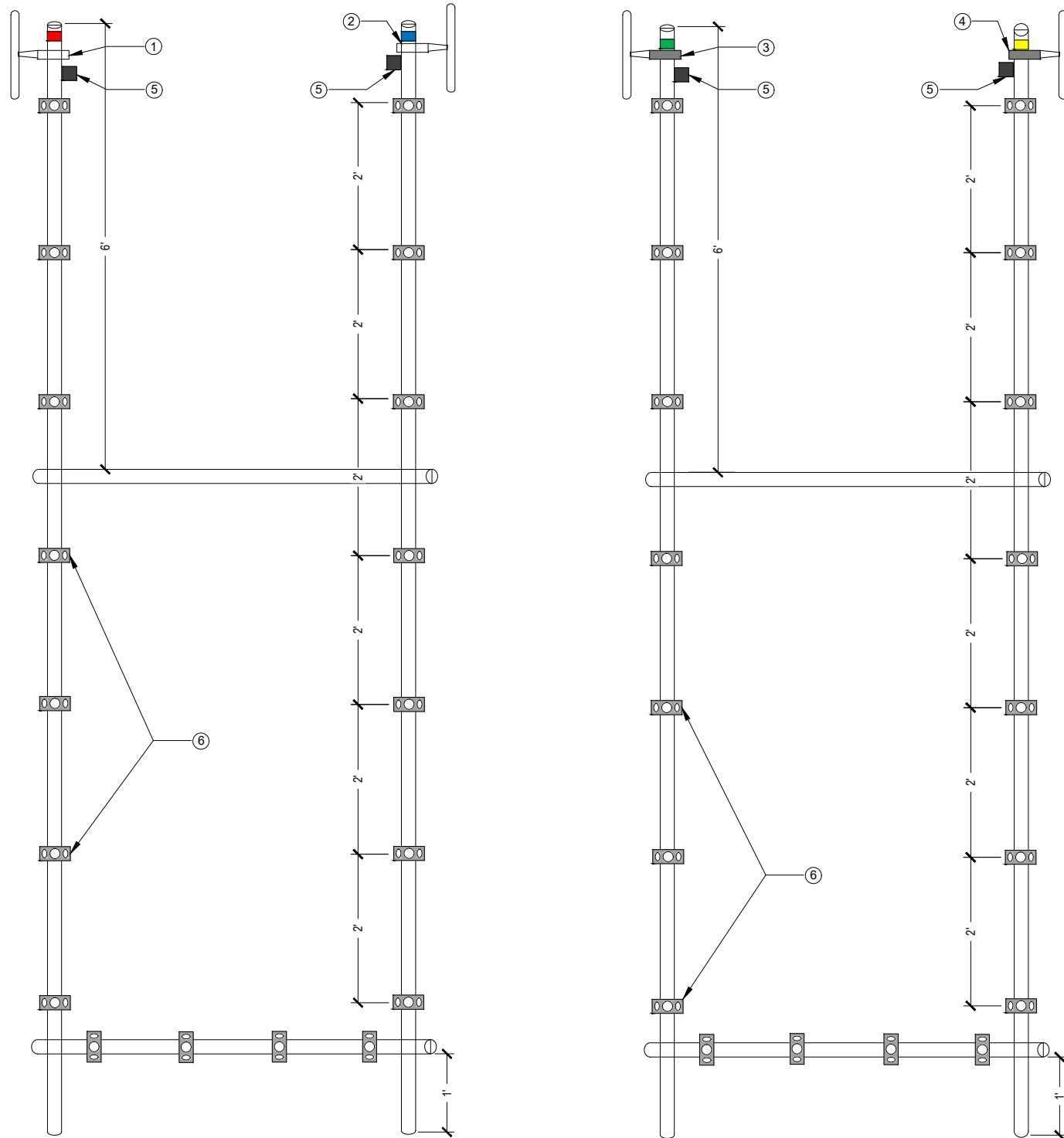
WS-RYMN-RL03

7812 WEST DAVEY ROAD
RAYMOND, NE 68428
LANCASTER COUNTY

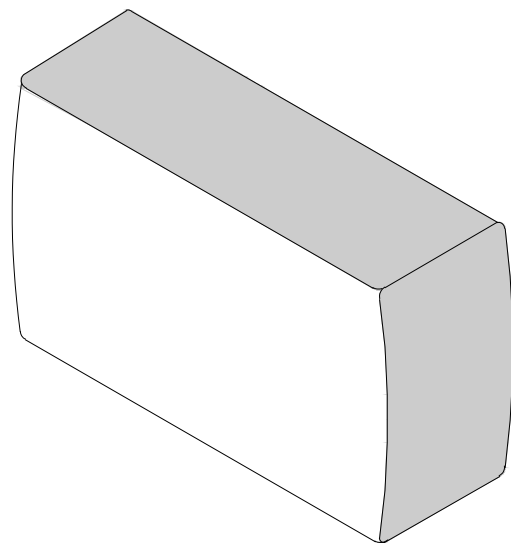
SHEET TITLE
**STRUCTURE
DETAILS**

SHEET NUMBER

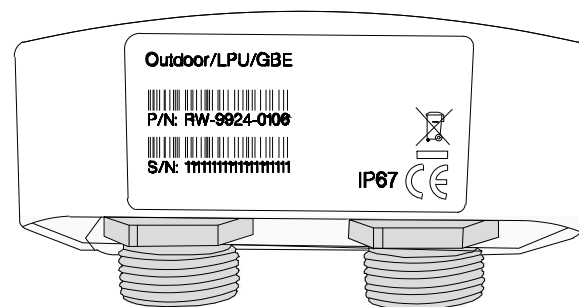
C-4



- ① AZIMUTH 01 (0° NORTH) HAS A SINGLE BS AT 99°ACL, 0° AZIMUTH WITH 0° PHYSICAL DOWN TILT AND PROVISIONED WITH A 40 MHZ WIDE CHANNEL IN THE 5.8 GHZ RANGE. AZIMUTH 01 IS LABELED WITH RED TAPE, THE TOP OF THE PIPE IS MARKED WITH A SINGLE WRAP OF RED TAPE. THE BS SHOULD HAVE A SINGLE WRAP OF RED TAPE ON EACH END OF THE FOLLOWING CABLES; THE JUMPER CABLE BETWEEN THE LPU AND THE BS, THE VERTICAL CABLE RUN BETWEEN THE TOP LPU AND THE BOTTOM LPU AND THE JUMPER BETWEEN THE BOTTOM LPU AND POE SWITCH PORT.
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- ⑤ POLE TOP LIGHTNING PROTECTION UNITS (LPU): EACH BASE STATION WILL HAVE ONE POLE TOP LPU MOUNTED 2" BELOW THE BS MOUNTING CLAMP 180° OPPOSITE THE BS. FOLLOW THE CABLE INSTALLATION INSTRUCTIONS INCLUDED WITH THE LPU WHEN CABLING THE LPU.
- ⑥ THREE HOLE UNIVERSAL SNAP-IN ADAPTORS SHOULD BE ATTACHED TO EACH OF THE VERTICAL PIPES EVERY 2', AND THE LOWER HORIZONTAL PIPE EVERY 1' TO ACCOMMODATE THE APPROPRIATE SNAP HANGERS AND GROMMETS FOR PROPER CABLE SUPPORT. NOTE: ALTHOUGH SHOWN IN THE PHOTO FOR ILLUSTRATIVE PURPOSES, VERTICAL PIPES WITHOUT BASE STATION SHOULD NOT HAVE UNIVERSAL SNAP-IN ADAPTORS INSTALLED.



BASE STATION	
MANUF:	RADWIN
PART #:	RW-5BG5-0649
HEIGHT:	8.86"
WIDTH:	14.01"
DEPTH:	3.7"
WEIGHT:	7.28 LBS



FRONT VIEW

LIGHTNING PROTECTION	
MANUF:	RADWIN
PART #:	RW-9924-0106
HEIGHT:	2.04"
WIDTH:	3.87"
DEPTH:	1.88"
WEIGHT:	0.49 LBS



CABINET	
MANUF:	WESTELL
PART #:	BXM1019-NHE3
HEIGHT:	22.5"
WIDTH:	25.5"
DEPTH:	27.8"
WEIGHT:	70.00 LBS



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LANCASTER COUNTY

SHEET TITLE
**EQUIPMENT
DETAILS**

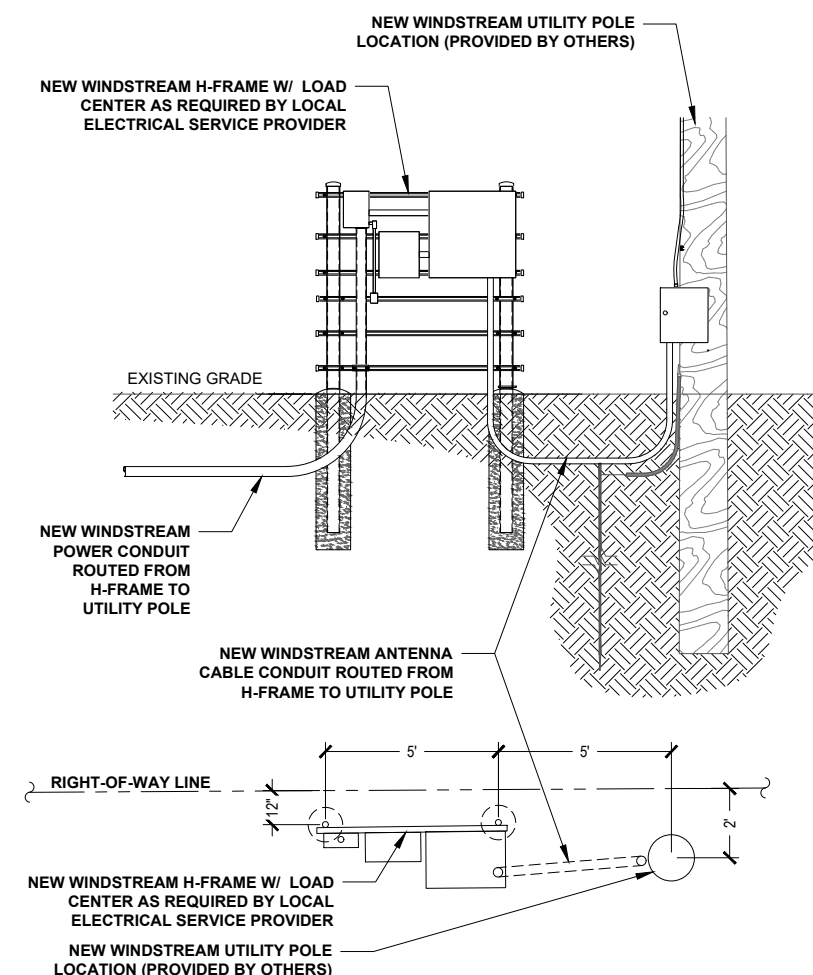
SHEET NUMBER
D-1

RADWIN BASE STATION

1 LIGHTNING PROTECTOR

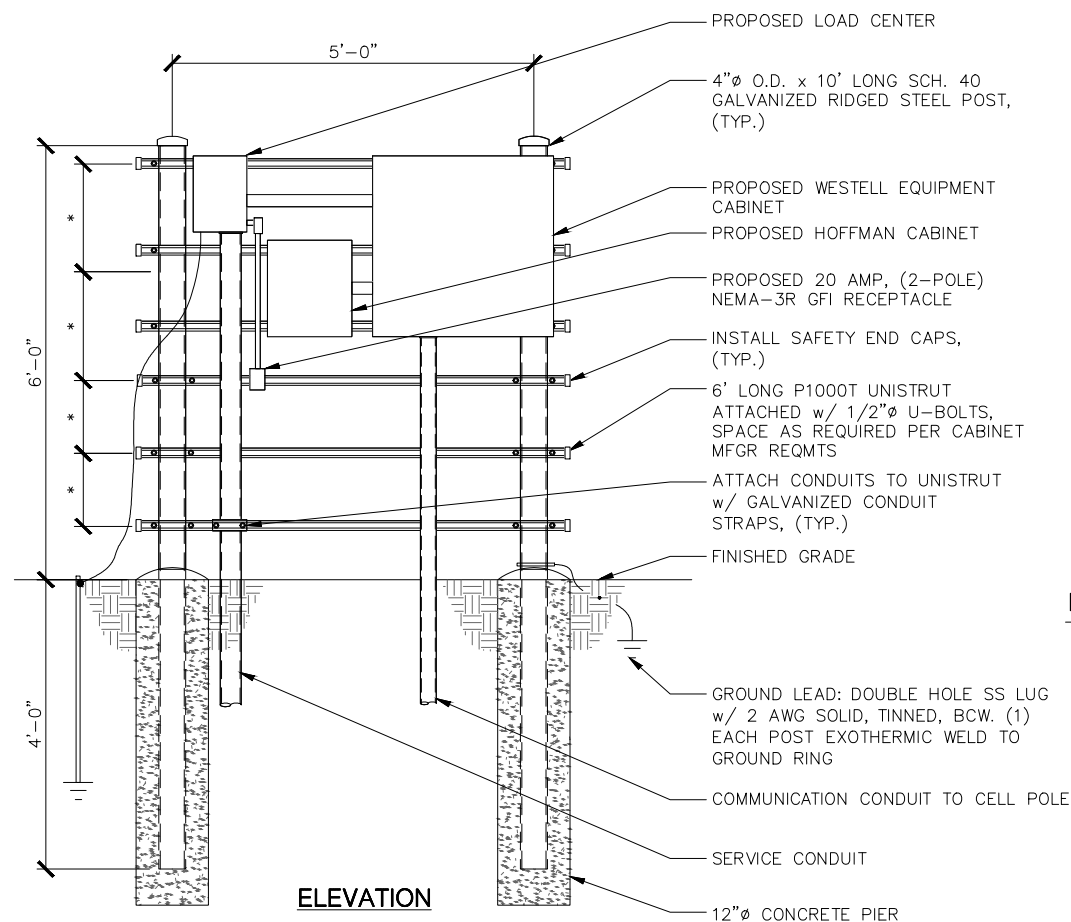
2 WESTELL BOXER OUTDOOR CABINET

3



DETAIL RACK ELEVATION

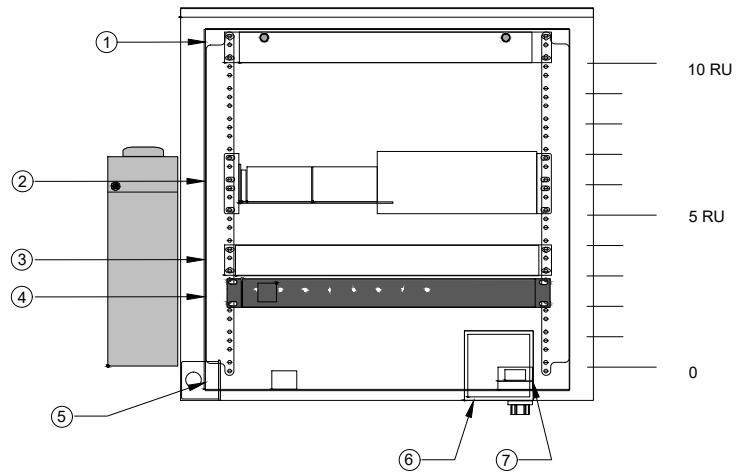
4 H-FRAME DETAIL



NOTES:

- *- COORDINATE ELEVATIONS WITH EQUIPMENT/MOUNTING HEIGHT.
- STEEL SHALL BE HOT DIP GALVANIZED.
- CABINETS SHALL BE MOUNTED WITH STAINLESS STEEL BOLTS.
- METAL POSTS ARE NOT ALLOWED TO SERVE AS EQUIPMENT GROUNDING CONDUCTOR.
- UNISTRUT SHALL NOT EXTEND BEYOND POST & MUST HAVE SAFETY END CAPS FOR SAFETY REASONS.
- METALLIC PARTS SHALL BE BONDED ACCORDING TO THE NEC.
- GROUNDING SHALL CONFORM TO NEC AND SECTION 436-439.

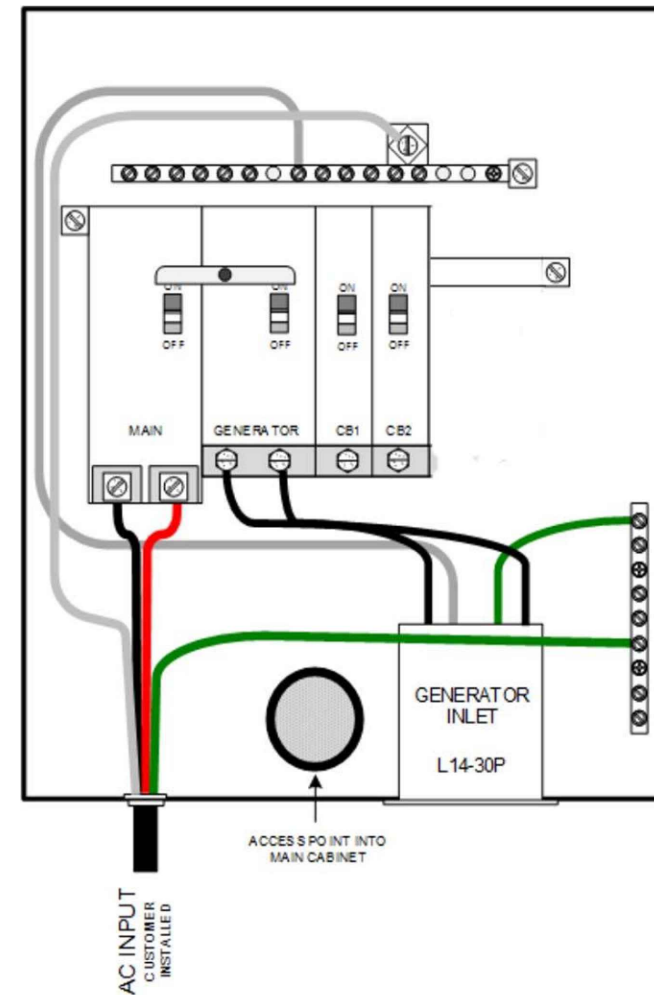
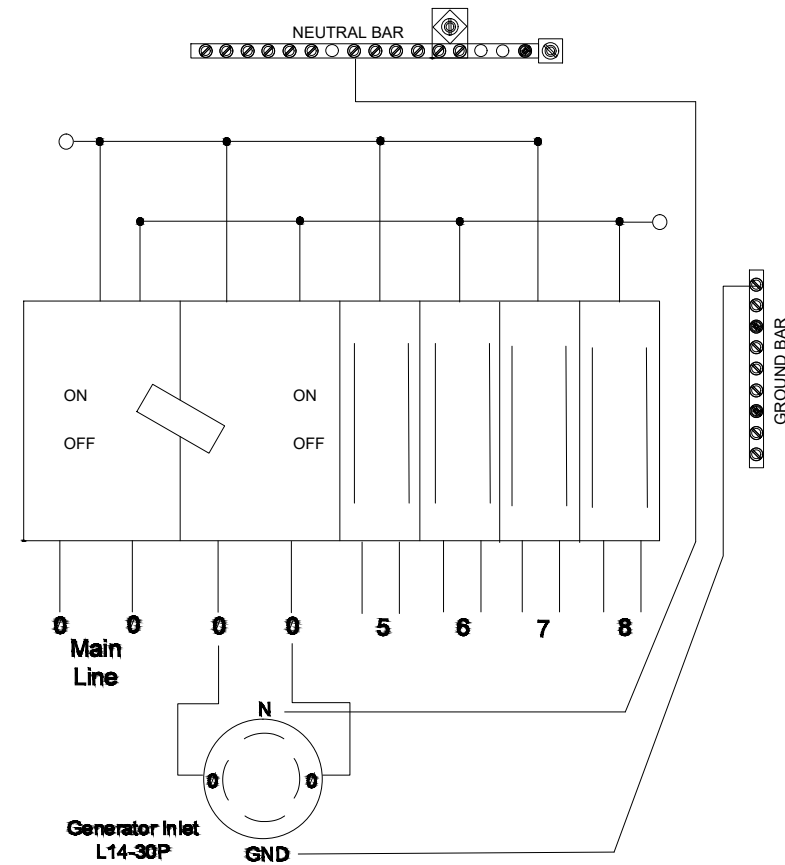
5



- ① LOCATION OF THE CORNING FIBER MANAGEMENT TRAY
- ② LOCATION OF THE ALCATEL-LUCENT OMI SWITCH
- ③ LOCATION OF THE ALPHA CORDEX RECTIFIER
- ④ LOCATION OF THE AC PDU
- ⑤ LOCATION OF THE DUPLEX GFCI OUTLET
- ⑥ LOCATION OF THE 2-GANG ELECTRICAL BOX
- ⑦ LOCATION OF THE DOOR SWITCH ASSEMBLY

CABINET DETAIL

1



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LANCASTER COUNTY

SHEET TITLE
ELECTRICAL & GROUNDING DETAILS

SHEET NUMBER
E-1

NOT USED

2 LOAD CENTER

3