

AGENDA
DODGE COUNTY PLANNING COMMISSION

COPY

Dodge County Planning Commission, Tuesday, February 19, 2019 at 4:30 P.M., Board of Supervisors Room, Courthouse, Fremont, NE.

1. Call to Order at 4:30 P.M. – Roll Call – Declaration of Open Meeting
2. Legality of Meeting – Approval of Agenda
3. Approval of Minutes of January 15, 2019 Meeting
4. **Public Hearing:** Consider request of Jeffrey Mitties of 1753 County Rd. 2, North Bend, NE 68649 to obtain a Conditional Use Permit to install a 250 ft. Self-Support Tower as per Article 25, **Supplemental District Regulations** Section 4. Radio, Television and Wireless Communication Towers and Facilities located in E ½ SW ¼ Section 30, Township 18 North, Range 5 East in Union Township, Zoning District A-1, Intensive Ag.

Testimony:
For:
Against:
Possible Action:

Agenda Item # 196
Date 2-27-2019

5. **Public Hearing:** Consider request of Lee & Pamela Camenzind, Land Owners of 10406 State St. Omaha, NE 68122 to obtain a Conditional Use Permit for a new Livestock Feeding Operation (Poultry) 3,800 Animal Units as per Article 13. **Conditional Uses** 2.19 located in S. ½ NE ¼ Section 15, Township 18 North, Range 8 East in Nickerson Township, Zoning District A-2, General Ag.

Testimony:
For:
Against:
Possible Action:

6. Reorganization of Planning Commission: Election of Officers
7. Other Business brought by the board (by published addendum only)
8. Adjournment

AGENDA POSTED AND KEPT CONTINUALLY CURRENT AT THE DODGE COUNTY COURTHOUSE AND DISTRIBUTED TO THE PLANNING COMMISSION ON FEBRUARY 8, 2019. COPIES AVAILABLE AT THE OFFICE OF THE COUNTY ZONING ADMINISTRATOR AND COUNTY CLERK.

**NOTICE
PUBLIC MEETING AND HEARINGS
DODGE COUNTY PLANNING COMMISSION
AND
DODGE COUNTY BOARD OF SUPERVISORS**

NOTICE IS HEREBY GIVEN, that public hearing of the Dodge County Planning Commission will be held during their regularly scheduled meeting, February 19, 2019 at 4:30 P.M. and with the Dodge County Board of Supervisors during their regularly scheduled meeting on Wednesday, February 27, 2019 at 9:00 A.M. Both meetings will be held in the Dodge County Board of Supervisors Room., 3rd floor of the Courthouse, Fremont, NE for the purpose of hearing testimony of support, opposition, criticism, suggestions or observations for the following item:

1. Consider request of Jeffrey Mitties of 1753 County Rd. 2, North Bend, NE 68649 to obtain a Conditional Use Permit to install a 250 ft. Self-Support Tower as per Article 25, **Supplemental District Regulations** Section 4. Radio, Television and Wireless Communication Towers and Facilities located in E ½ SW ¼ Section 30, Township 18 North, Range 5 East in Union Township, Zoning District A-1, Intensive Ag.
2. Consider request of Lee & Pamela Camenzind, Land Owners of 10406 State St. Omaha, NE 68122 to obtain a Conditional Use Permit for a new Livestock Feeding Operation (Poultry) 3,800 Animal Units as per Article 13. **Conditional Uses** 2.19 located in S. ½ NE ¼ Section 15, Township 18 North, Range 8 East in Nickerson Township, Zoning District A-2, General Ag.

Questions or comments concerning the public hearings and proposed request should be directed to the Zoning Administrator at (402) -727-2724 and the Dodge County Clerk's Office at (402)727-2767. All interested parties may offer oral comments at the public hearings and/or may file written comments with the Zoning Administrator or County Clerk concerning the petition and such comments shall be considered by the Board, provided such written comments are received prior to the public hearing dates.

DODGE COUNTY PLANNING COMMISSION - CONDITIONAL USE PERMIT

Based on the record in this case of the application of Jeffrey Mitties for a conditional use permit, the Dodge County Planning Commission finds as follows (check as many as apply):

DISAPPROVAL - FACTUAL FINDINGS:

- 1. Does not protect the comfort, convenience, appearance, prosperity or general welfare of abutting properties and citizens.
- 2. Location and characteristics of the use will be injurious to the health, safety, morals and general welfare of the area.
- 3. Conditional use does not conform to the intent and purpose of the regulations and the comprehensive plan.
 - a. Use does not conform to regulations of the district in which it is located.
 - b. Ingress and egress are not designed to minimize congestion in the public street, road or highway.
 - c. Use is not in harmony with the character of the area and most appropriate use of the land.
 - d. Use does not conserve and stabilize the value of the property.
 - e. Use does not provide adequate open space for light and air.
 - f. Use adversely affects concentration of population.
 - g. Use congests public streets.
 - h. Use does not promote public safety, health, convenience and comfort.
 - i. Other: _____

APPROVAL - FACTUAL FINDINGS:

- 1. Conditional use protects the comfort, convenience, appearance, prosperity or general welfare of abutting properties and citizens.
- 2. Location and characteristics of the use will not be injurious to the health, safety, morals and general welfare of the area.

- _____ 3. Conditional use conforms to the intent and purpose of the regulations and the comprehensive plan.
- _____ a. Use conforms to regulations of the district in which it is located.
 - _____ b. Ingress and egress are designed to minimize congestion in the public street, road or highway.
 - _____ c. Use is in harmony with the character of the area and most appropriate use of the land.
 - _____ d. Use conserves and stabilizes the value of the property.
 - _____ e. Use provides adequate open space for light and air.
 - _____ f. Use does not adversely affect concentration of population.
 - _____ g. Use does not congest public streets.
 - _____ h. Use promotes public safety, health, convenience and comfort.
 - _____ i. Other: _____

DATED this _____ day of _____, 20_____.

BY: _____

APPLICATION FOR CONDITIONAL USE
Dodge County, Nebraska

Date 2-4-19
Property Owner's Name Jeff Mitties

Address: 1752 Co Rd 2 N Bend, NE 68649

Phone No. 402-720-0965 (Home) _____ (Work)

Pursuant to the Dodge County Zoning Regulations, application is hereby made for the following proposed use of property or structure: Construct 258' wireless Telecom tower

Section 30 Township 18 Range 5 Lot No. _____

Location within Section E 1/2 SW 1/4 Lot Size _____ (Sq.Ft./Acres)

Estimated Cost of Structure/Use \$ _____ Zoning District AG 1

Will use in all other respects conform to the applicable regulations of the district in which it is located?
yes

Will use conform to all other applicable regulations and laws of any governmental jurisdiction? yes

How are Adjoining Properties Used (Actual Use)

North AG South AG
East AG West AG

2019 FEB - 4 PM 3:00
RECEIVED
Dodge Co Highway Dept

Justification

You must justify your request. Questions 1 through 4 must be answered completely.

1. What is the general character of the area? Describe. The entire area extending out to five miles is zoned AG with large tracts of pasture & farm ground with limited housing
2. Can soil conditions support the proposed development? What is the soil classification of the area? Yes, the applicant has computed a soil analysis to determine tower foundation design requirements.
3. Will use have adequate water, sewer and drainage facilities (approved by the Dodge County Board of Health, Dodge County Board of Supervisors, and the State of Nebraska Department of Health)? N/A

4. Will ingress and egress be so designed as to minimize traffic congestion in the public streets/roads?
yes How will the proposed Zoning District affect traffic in the area? Will streets or roads need to be updated for access to the area? If yes, what will the requirements be? Access will be limited to a monthly maintenance vehicle, access will be on private property.

Enclosed:

Site Plan X Soil Suitably Map _____ Easements _____

Conditions and requirements pending approval of application for a proposed operation and waste disposal plan from the DEQ or other applicable State Agency _____

If Exhibits are furnished, please describe and enumerate. (Furnish Plot or Site Plan showing existing and proposed structures, easements, water courses, curb cutbacks, etc.)

Application Fee of \$ 150⁰⁰ is Non-Refundable.

The Zoning Administrator or Building Inspector, who may be accompanied by others, is hereby authorized to enter upon the property during normal working hours for the purpose of becoming familiar with the proposed situation.

In consideration of the issuance of this Certificate, the applicant hereby certifies that the information in this application is true and correct, and hereby certifies that compliance with the zoning, subdivision and floodplain regulations which are in effect have been met.

Applicant's Signature [Signature] Mailing Address 1753 Co Rd. 2
NE Bend, NE 68649

OFFICE USE ONLY

PERMIT NO. 2019-003

Permit when issued is Transferrable/Transferrable Upon Renewal

Date 2/19/19 Approved _____
Approved with Added Conditions _____
Disapproved _____ Chair, Dodge County Planning Comm

Date 2/27/19 Approved _____
Approved with Added Conditions _____
Disapproved _____ Chair, Dodge County Board of Comm

____ See attachment for added conditions.

ATTEST _____
Dodge County Clerk

Dated this 27 day of Febr 2019

**DODGE COUNTY
BUILDING INSPECTION & ZONING DEPARTMENT**

JEAN ANDREWS, Zoning Administrator

Courthouse - 435 N. Park, Room 204
Fremont, Nebraska 68025
Phone: (402) 727-2724

January 8, 2019

Jeffrey Mitties
1753 County Rd. 2
North Bend, NE 68649

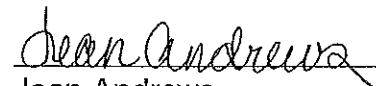
Good Day!

Enclosed please find a copy of the agenda for the Planning Commission meeting to be held February 19, 2019 at 4:30 P.M. on third floor of the Courthouse, Fremont, NE. You or your representative should make an effort to attend this meeting to answer any questions the board may have. Please come to the east door of the Courthouse for admittance and go directly up to third floor.

Your requests will be heard by the Dodge County Board of Supervisors on Wednesday, February 27, 2019 at 9:30 A.M.

If you have any questions, please feel free to contact my office.

Thank you,



Jean Andrews,
Dodge County Zoning Administrator

Enclosure

Cc: Horvath Towers V, LLC
File



From: **Jeffrey Skinner** jeffreyskinner@nevcowireless.com
 Subject: Re: Verizon CUP Application
 Date: January 15, 2019 at 1:54 PM
 To: Jean Andrews zoning@dodgecone.us

Jean: I saved the attached copy as a word document so let me know if this one will print? Jeff Mitties lives locally and his address is noted on the cover (front page) of the tower drawings. I provided Horvaths address in the event you required it to send any documentation.

Jeff Mitties address:

LAND OWNER:
 MITTIES
 CONTACT: JEFFREY MITTIES
 1753 CO RD 2
 NORTH BEND, NE 68649
 PH.: (402) 652-8769

Jeffrey Skinner
 e: 515.299.0736
 f: 515.225.8767

Nevco Wireless

From: Jean Andrews <zoning@dodgecone.us>
 Sent: Tuesday, January 15, 2019 1:40:09 PM
 To: Jeffrey Skinner
 Subject: Re: Verizon CUP Application

Jeff:

I can not print the Conditional Use Permit Application on either of my printers something about the font.

Can you try again with something different?

Thanks

Jean

On Jan 15, 2019, at 1:02 PM, Jeffrey Skinner <jeffreyskinner@nevcowireless.com> wrote:

Hello Jean:

Here are the copies of the Verizon CUP application and supporting documents for the proposed tower site Northeast of Rogers. Dodge Title and Escrow will be forwarding the 300' property list and I am forwarding you a check in the amount of \$100.00 for the CUP application.

Jeffrey Skinner
 e: 515.299.0736
 f: 515.225.8767

Nevco Wireless

<HV1327 Rogers FAA Determination of No Hazard_1.17.18.pdf><FW_HV1327_Rogers_Photosims.zip><Rev 0_NED5 Rogers_10-19-2018.pdf><Survey Final_NED5 Rogers_05-10-2017.pdf><Horvath (Verizon) CUP Application.pdf>



Horvath
 (Verizo...ion.doc)



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2017-ACE-6825-OE

Issued Date: 01/17/2018

Network Regulatory
 Alltel Communications of Nebraska, LLC
 5055 North Point Pkwy
 NP2NE Network Engineering
 Alpharetta, GA 30022

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower NE05 ROGERS - A
 Location: Rogers, NE
 Latitude: 41-29-47.91N NAD 83
 Longitude: 96-54-00.94W
 Heights: 1306 feet site elevation (SE)
 258 feet above ground level (AGL)
 1564 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, a med-dual system - Chapters 4,8(M-Dual),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 07/17/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.

- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2527, or marla.wierman@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ACE-6825-OE.

Signature Control No: 350060439-353192309

Marla Wierman
Technician

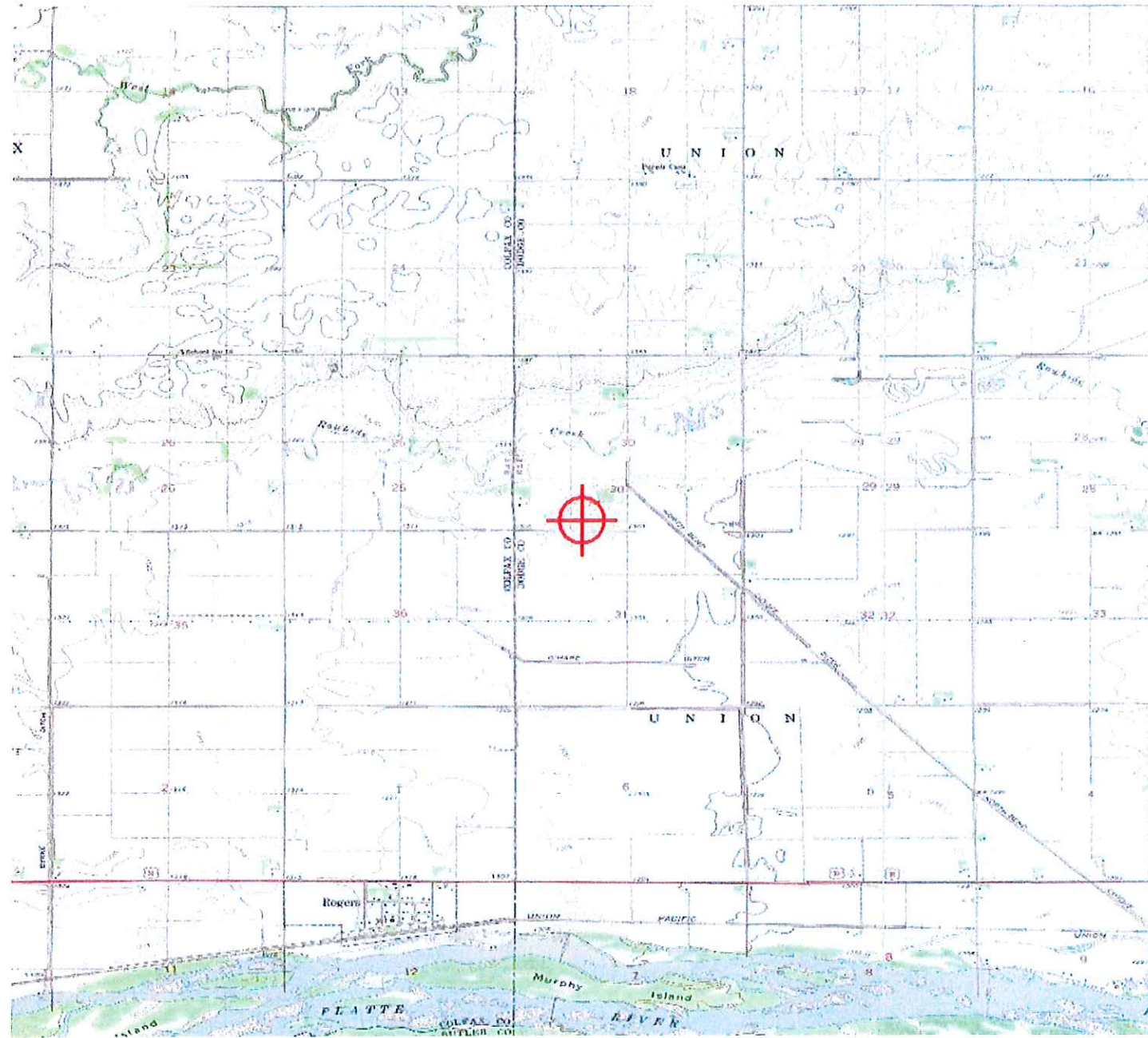
(DNE)

Attachment(s)
Frequency Data
Map(s)

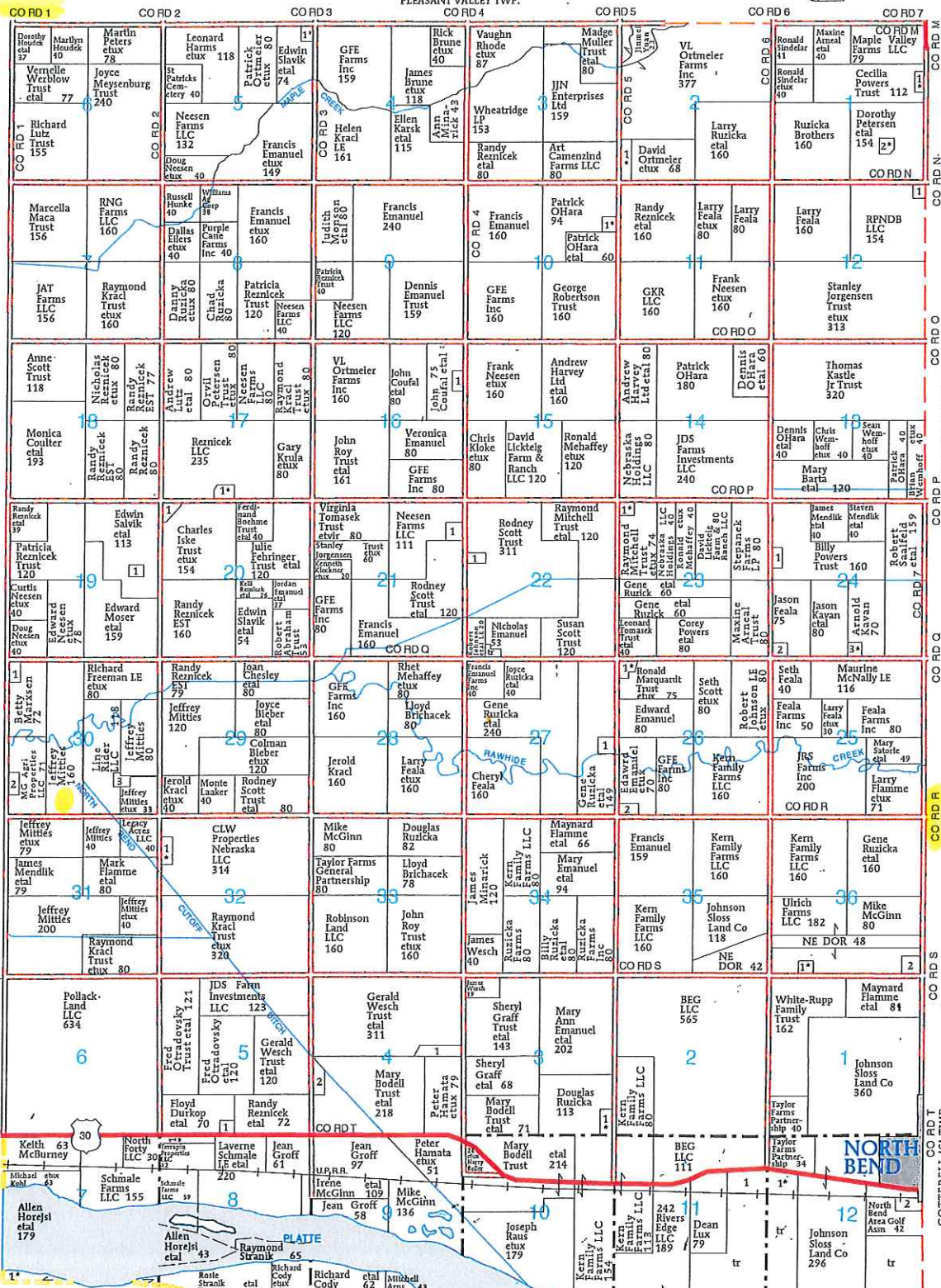
cc: FCC

Frequency Data for ASN 2017-ACE-6825-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W



PLEASANT VALLEY TWP.



- UNION TOWNSHIP**
- SECTION 1N**
 - 1. Emanuel, Thomas etux 8
 - 2. Emanuel, Ronald etux 6
 - SECTION 2N**
 - 1. Bunn, Michael etux 12
 - SECTION 3S**
 - 1. Ladehoff, Harvey etal 7
 - SECTION 4S**
 - 1. Wesch, James 11
 - 2. Vyhildal, Michael 15
 - SECTION 5N**
 - 1. Henson, Cecil etal 6
 - SECTION 5S**
 - 1. Eckstein, Frank 5
 - SECTION 7S**
 - 1. Strank Trust, Rosie etal 26
 - SECTION 8S**
 - 1. Kreikemeier, Mark etux 13
 - SECTION 10N**
 - 1. Pellan, Ronald etux 6
 - SECTION 11S**
 - 1. Taylor Farms 11
 - SECTION 12N**
 - 1. RPNDB LLC 6
 - SECTION 12S**
 - 1. Pospisil, Calvin etux 15
 - 2. Frontier Cooperative Co 18
 - SECTION 14S**
 - 1. T&P Strasser Family Partnership 35
 - 2. McCoy, Timothy etal 33
 - SECTION 16N**
 - 1. Coufal, Roger 5
 - SECTION 17N**
 - 1. Thiesen, Justin etux 5
 - SECTION 17S**
 - 1. Strank Trust, Rosie etal 22
 - SECTION 19**
 - 1. Whitmarsh, Zoe 5
 - SECTION 20**
 - 1. Svatara, Chris 6
- Continued on Page 49

**DODGE COUNTY
BUILDING INSPECTION & ZONING DEPARTMENT**

JEAN ANDREWS, Zoning Administrator

Courthouse - 435 N. Park, Room 204
Fremont, Nebraska 68025
Phone: (402) 727-2724

February 8, 2019

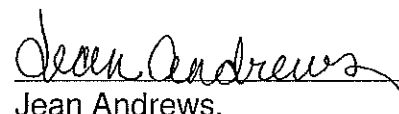
Dear Property Owner:

You are hereby notified that the Dodge County Planning Commission will hold a public hearing on Tuesday, February 19, 2019 at 4:30 P.M. in the Dodge County Board of Supervisors Room, 3rd Floor, Dodge County Courthouse, Fremont, NE 68025 to consider request of Jeffrey Mitties of 1753 County Rd. 2, North Bend, NE 68649 to obtain a Conditional Use Permit to install a 250 ft. Self-Support Tower as per Article 25, **Supplemental District Regulations** Section 4. Radio, Television and Wireless Communication Towers and Facilities located in E ½ SW ¼ Section 30, Township 18 North, Range 5 East in Union Township, Zoning District A-1, Intensive Ag.

The Dodge County Planning Commission will hold a public hearing on this matter at 4:30 P.M., Tuesday, February 19, 2019 in the Board of Supervisors Room, Third Floor of the Courthouse, Fremont, NE. Since your property adjoins the property that is requesting the Conditional Use Permit, it is a requirement that we notify you of such hearing.

If you have any objections or comments of this proposal, please send them in writing to this office or appear at the meeting and express them verbally.

Thank you,



Jean Andrews,
Dodge County Zoning Administrator

DODGE COUNTY TITLE & ESCROW CO., LLC
549 NORTH MAIN STREET,
FREMONT, NE 68025
402-721-5833

2019 JAN 22 PM 2:47
RECEIVED
Dodge Co Highway Dept

NAME AND ADDRESS SEARCH

Request Made By: Nevco Wireless

We, **DODGE COUNTY TITLE & ESCROW CO., L.L.C.**, hereby certify that we have checked the records of the County Assessor of Dodge County, Nebraska, for the purpose of presenting a list to the Zoning Administrator of said County and find the following named persons are the property owners of land adjoining the property described as:

The East Half of the Southwest Quarter, Section 30, Township 18 North, Range 5, North Bend, Nebraska East of the 6th P.M., Dodge County, Nebraska.

The list of names and addresses include all property owners within 300 feet of said property:

M-G Agri Properties LLC Harding & Carbone 3903 Bellaire Blvd Houston, TX 77025-0000	NW1/4SW1/4 & TL 4	30-18-5
Garrett W. Bradford PO Box 1921 Fremont, NE 68026-1921	TL 11	30-18-5
Doug & Beckie Neesen 42368 Vista Rdg Parker, CO 80138-4547	SW/4SW/4	19-18-5
Edward J & Louanna M. Neesen 1270 Road 16 Rogers, NE 68659	E/2SW/4	19-18-5
Edward John Moser ETAL Mary Bodell 2564 CR 12 Fremont, NE 68025	S/2SE/4	19-18-5
Richard Freeman Maureen Freeman-Caddy, TR 1121 Hwy 30 North Bend, NE 68649	N/2NE/4	30-18-5
Line Rider LLC PO Box 130 North Bend, NE 68649-0130	SW/4NE/4 & TL 8	30-18-5


Cottonwood Tree Properties, LLC Karen Bowman 1903 N Somers Fremont, NE 68025	TL 5 & 9	30-18-5
Jerald D & Leona H. Kracl 911 E 22nd St. Schuyler, NE 68661	SW/4SW/4	29-18-5
Legacy Acres LLC David J. Cerny - Member 305 S Chestnut Norfolk, NE 68701	NE/4NE/4	31-18-5
Mark D. Flamme ETAL 1771 HWY 79 North Bend, NE 68649	S/2NE/4	31-18-5
James A. Mendlik, ETAL 4214 N 195th Elkhorn, NE 68022	S/2NW/4	31-18-5
Randy G. Reznicek, Est 1571 CO RD 2 North Bend, NE 68649	NE/4NW/4 & TL1	29-18-5
Joan Chesley & Janet Werner 2011 CO RD 9 North Bend, NE 68649	N/2NE/4	29-18-5
Joyce Mares Bieber, ETAL 6552 Country Links Pl Columbus, NE 68601	S/2NE/4	29-18-5
Colman & Joyce M Bieber 6552 Country Links Pl Columbus, NE 68601	N/2SE/4, NE/4SW/4	29-18-5
Monte Laaker PO Box 940 Fremont, NE 68026-0940	W/2SE/4SW/4	29-18-5
CLW Properties Nebraska, LLC 14301 FNB PKWY STE 115 Omaha, NE 68154	PT NW/4, W/2W/2NE/4	32-18-5
Sucha Family L.P. PO Box 583 Schuyler, NE 68661-0583	E/2SE/4	24-18-4

Debra M. Papa 1551 44th Road Bellwood, NE 68659	N/2NE/4	25-18-4
Richard A. & Nicole L. Glodowski 985 Co Rd 19 Rogers, NE 68659	SE/4NE/4	25-18-4
M-G Agri Properties, LLC US Trust, Bank of America c/o Harding & Carbone 1235 North Loop West, STE 205 Houston, TX 77008	SE/4	25-18-4
M-G Agri Properties, LLC US Trust, Bank of America c/o Harding & Carbone 1235 North Loop West, STE 205 Houston, TX 77008	N/2NE/4 & SW/4NE/4	36-18-4
Evelyn I. Hovenden, ETAL 2307 Phelps Avenue Fremont, NE 68025	SE/4NE/4	36-18-4

The liability of Dodge County Title & Escrow Co. is limited to the information available in the office of the County Assessor and in no way extends to the correctness of the fee simple title to subject property. A certified search of the records or a Title Insurance Policy would be required to assure the fee simple ownership and any existing liens.

Dated: January 14, 2019

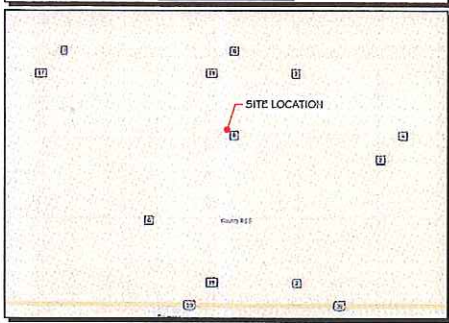
DODGE COUNTY TITLE & ESCROW CO., L.L.C.


 Registered Abstractor
 Certificate No. 147
 Order No. 190058



HV1327 - NEO5 - ROGERS NEW BUILD

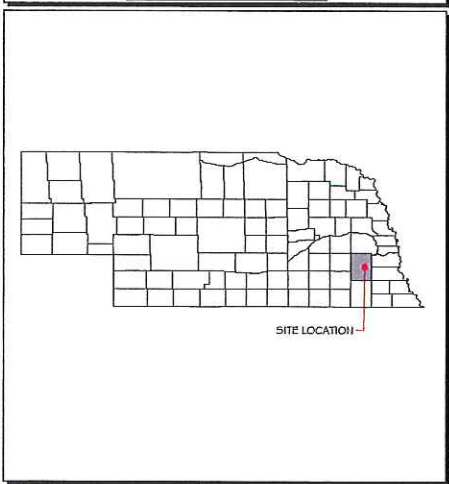
VICINITY MAP



AERIAL VIEW OF SITE



GENERAL LOCATION



DRIVING DIRECTIONS

- FROM OMAHA
1. TAKE DODGE ST. TO US-6 W
 2. TAKE US-275 W TO US 30 W IN PLATTE
 3. CONTINUE ON US-30 W. DRIVE TO CO RD R IN UNION

SHEET INDEX

GENERAL:

T-1 TITLE SHEET

SITE:

- A-1 ELEVATION
- A-2 OVERALL SITE PLAN WITH AERIAL
- A-3 OVERALL SITE PLAN
- A-4 ENLARGED SITE PLAN
- A-5 ANTENNA SCHEDULE
- A-6 ANTENNA LAYOUT
- A-7 SITE PHOTOS

GROUNDDING:

- G-1 GROUNDDING PLAN

UTILITY:

- E-1 UTILITY PLAN
- E-2 UTILITY RACK DETAILS

NOTES:

- SP-1 SPECIFICATIONS
- SP-2 SPECIFICATIONS



TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN NEBRASKA
DIGGERS HOTLINE OF NEBRASKA
811 OR 1-800-331-5666
SECTIONS 76-2301 TO 76-2330 KNOWN AS THE ONE-CALL NOTIFICATION SYSTEM ACT REQUIRES MIN. 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE.

APPROVALS

CONSTRUCTION MANAGER: _____

DESIGN ENGINEER: _____

OPERATIONS MANAGER: _____

IMPLEMENTATION MANAGER: _____

REAL ESTATE MANAGER: _____

PROJECT INFORMATION

SITE DATA:
HORVATH SITE NUMBER: HV1327
VERIZON SITE NAME: NEO5 - ROGERS
ADDRESS: COUNTY ROAD R & COUNTY ROAD 19
NORTH BEND, NE 68649
DODGE COUNTY

POWER PROVIDER:
OMAHA PUBLIC POWER DISTRICT (OPPD)
CONTACT: KEITH SMITH
PH: (402) 552-5832
EMAIL: kpsmith@oppd.com

TELCO PROVIDER:
CENTURYLINK
PH: (800) 244-1111

SITE ACQUISITION:
RIVCO WIRELESS
CONTACT: JEFFREY SKINNER
PH: (515) 289-0736

RF ENGINEER:
VERIZON WIRELESS
CONTACT: RYAN MUELLER
PH: (402) 613-0436

CONSTRUCTION ENGINEER:
HORVATH COMMUNICATIONS
CONTACT: JEFF DELAUER
PH: (517) 294-9462

CONSULTING ENGINEER:
RAMAKER & ASSOCIATES, INC.
CONTACT: STEVE WIDEN
PH: (608) 643-4100
EMAIL: swiden@ramaker.com

LAND OWNER:
MITTIES
CONTACT: JEFFREY MITTIES
1755 CO RD 2
NORTH BEND, NE 68649
PH: (402) 652-0769

TOWER OWNER:
HORVATH COMMUNICATIONS
CONTACT: SHAHUA ADAIR
PH: (574) 237-0464

LESSOR:
VERIZON WIRELESS
10801 BUSH LAKE ROAD
BLOOMINGTON, MN 55438
CONTACT: KATE POSER
PH: (952) 946-4756

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PHONE: (574) 237-0464

verizon
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Calculation & Design
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NO.	REVISION	DATE	ISSUED
1	REV A	10/15/2018	

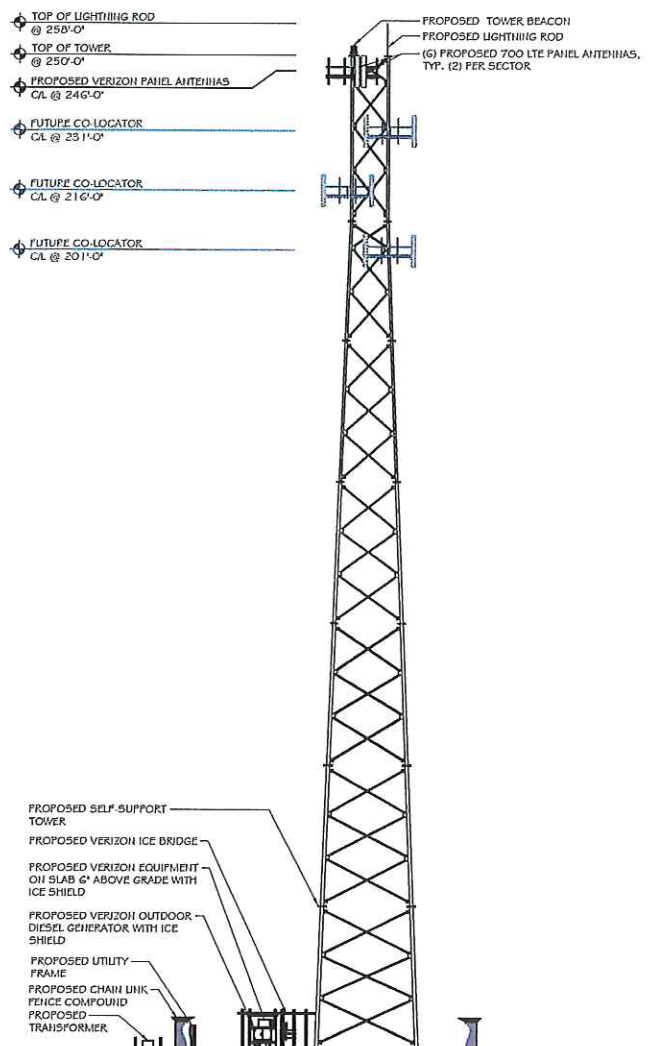
PROJECT TITLE:
HV1327 - NEO5 - ROGERS

PROJECT INFORMATION:
COUNTY ROAD R & COUNTY ROAD 19
NORTH BEND, NE 68649
DODGE COUNTY

SHEET TITLE:
TITLE SHEET

SCALE: NONE

PROJECT NUMBER: 34050
SHEET NUMBER: T-1



ELEVATION
 SCALE: 1" = 30'

PROPOSED DIESEL GENERATOR

- NOTES:
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING FCC REGISTRATION SIGNS ON NEW BUILDS. THERE WILL BE 3 LOCATIONS THEY WILL NEED TO BE INSTALLED: AT THE ROAD GATE, THE COMPOUND GATE, AND THE TOWER LEG NEAREST THE COMPOUND GATE.
1. VINYLPLASTIC COATED METAL (ALUMINIUM) SIGN.
 2. SIGN TO BE 6'-1/2" x 6'-1/2" IN SIZE.
 3. SIGN TO BE MOUNTED ON ALL 4 CORNERS TO THE FENCE FABRIC WITH APPROVED FASTENERS.
 4. LETTERS SHALL MEASURE NO LESS THAN 2" IN HEIGHT ON SIDE WITH FCC TOWER REGISTRATION NUMBER.
 5. WORDING SHALL BE IN A BLOCK TYPE FONT, ALL CAPITAL LETTERS.
 6. WORDING SHALL BE POSTED ON THE SAME IN A PERMANENT MANNER (NO PAPER STICKERS).
 7. CONTRACTOR TO PROVIDE AND INSTALL FCC REGISTRATION SIGN ON TOWER LEG IMMEDIATELY AFTER TOWER REACHES MAXIMUM HEIGHT.

PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT AND PROPOSED STRUCTURE, A STRUCTURAL ANALYSIS SHALL BE PERFORMED BY THE OWNER'S AGENT TO CERTIFY THAT THE PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL PROPOSED ANTENNAS, HYBRID CABLES, AND OTHER APPURTENANCES.

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Continuation Sheet
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1	REV A	10/15/2018	ISSUE

PROJECT TITLE:
 HV 1327 - NE05 - ROGERS

PROJECT INFORMATION:
 COUNTY ROAD R & COUNTY ROAD 19
 NORTH BEND, NE 68649
 DODGE COUNTY

SHEET TITLE:
 ELEVATION

SCALE:
 1" = 30'

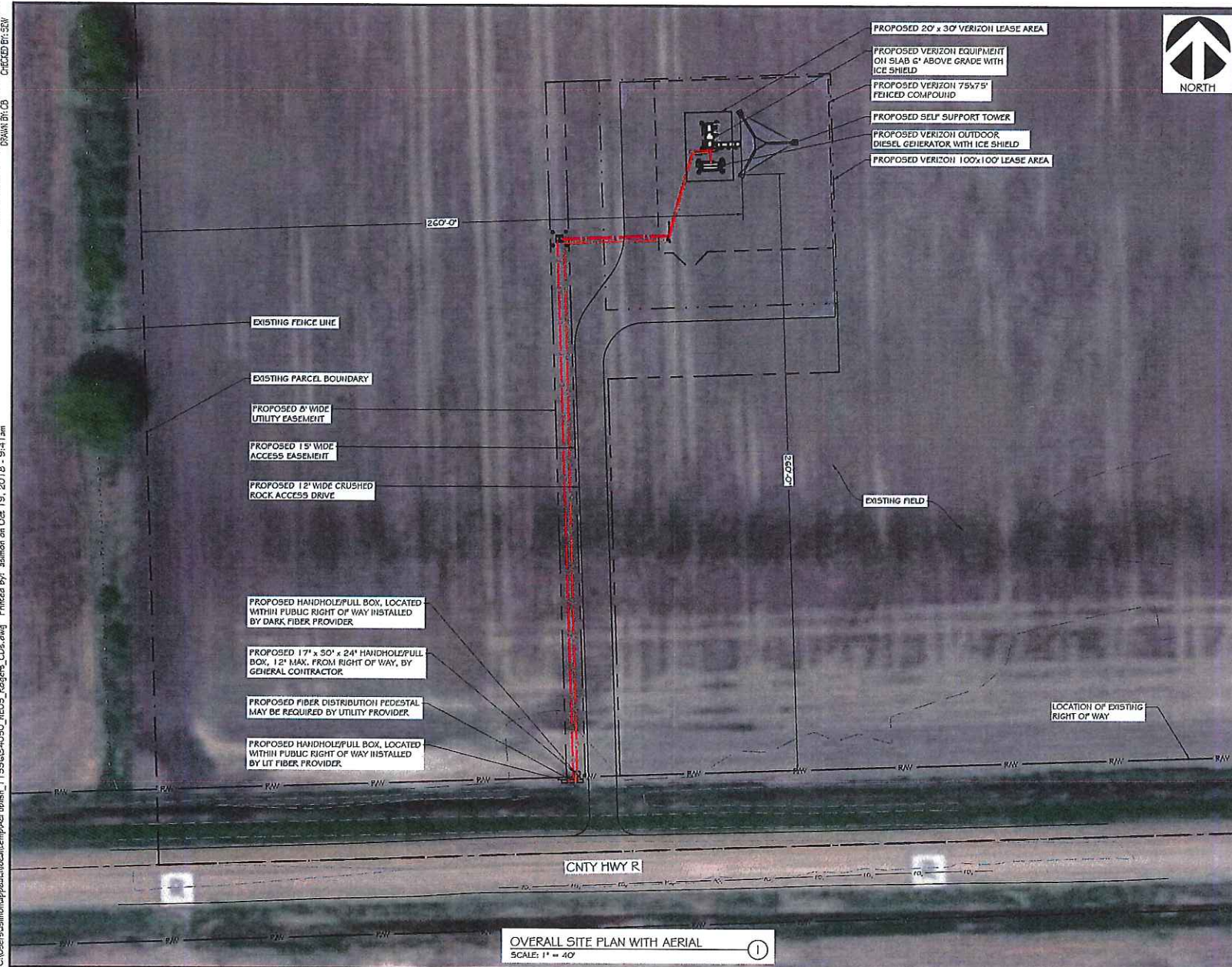
PROJECT NUMBER:
 34050

SHEET NUMBER:
 A-1

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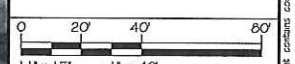


ID	DATE	DESCRIPTION	DATE ISSUED
1	10/15/2018	REV A	10/15/2018

PROJECT TITLE:
HV 1327 - NE05 - ROGERS

PROJECT INFORMATION:
COUNTY ROAD R & COUNTY ROAD 19
NORTH BEND, NE 68649
DODGE COUNTY

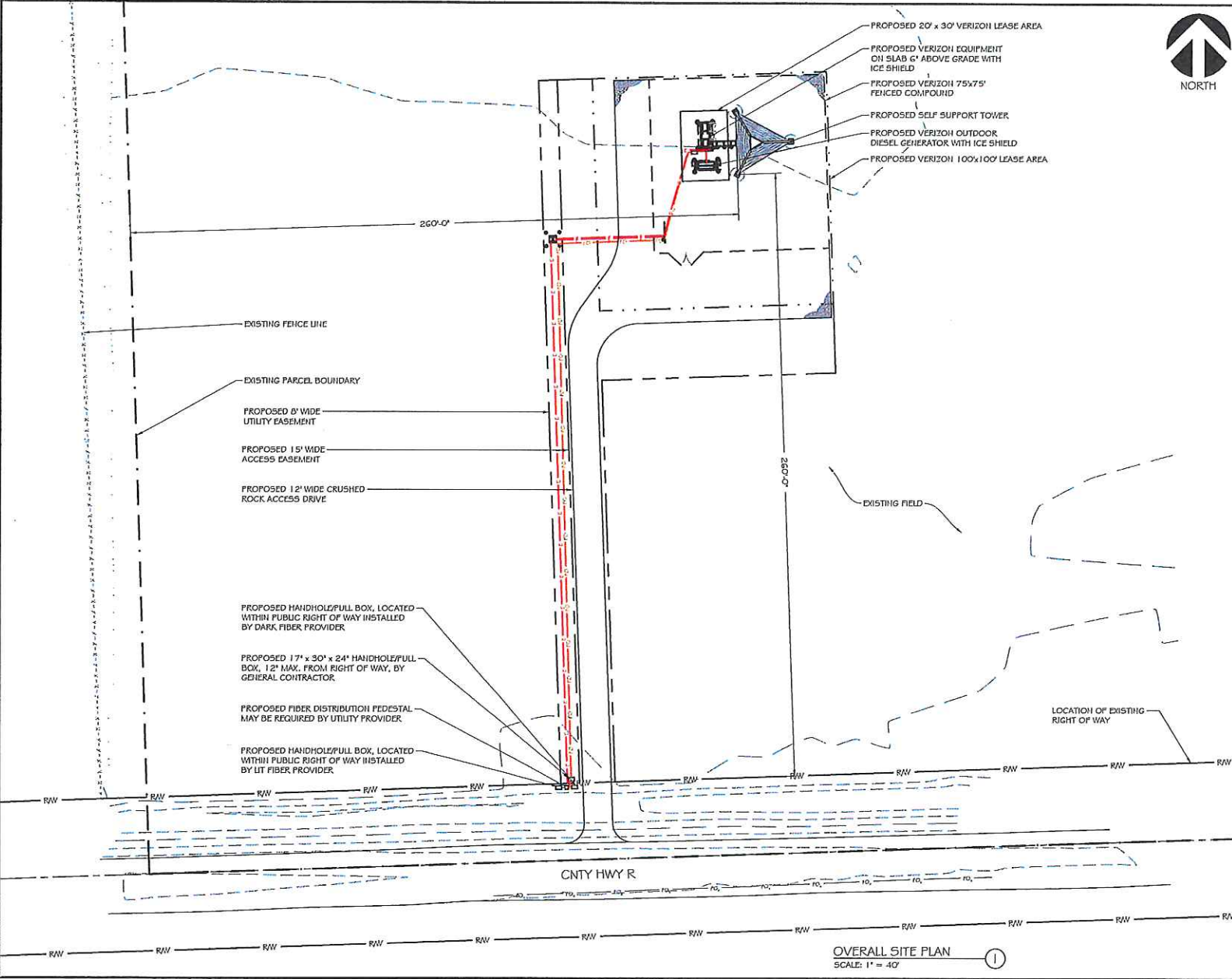
SHEET TITLE:
OVERALL SITE PLAN WITH AERIAL



1" = 17' - 1" = 40'
2 1/2" x 3 1/4" - 1" = 20'

PROJECT NUMBER: 34050
SHEET NUMBER: A-2

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NO.	REVISION	DATE	DESCRIPTION
0	ISSUED	10/15/2018	REV A

PROJECT TITLE:
HV 1327 - NE05 - ROGERS

PROJECT INFORMATION:
 COUNTY ROAD R & COUNTY ROAD 19
 NORTH BEND, NE 68649
 DODGE COUNTY

SHEET TITLE:
OVERALL SITE PLAN

SCALE: 1" = 40'

0 20' 40' 80'

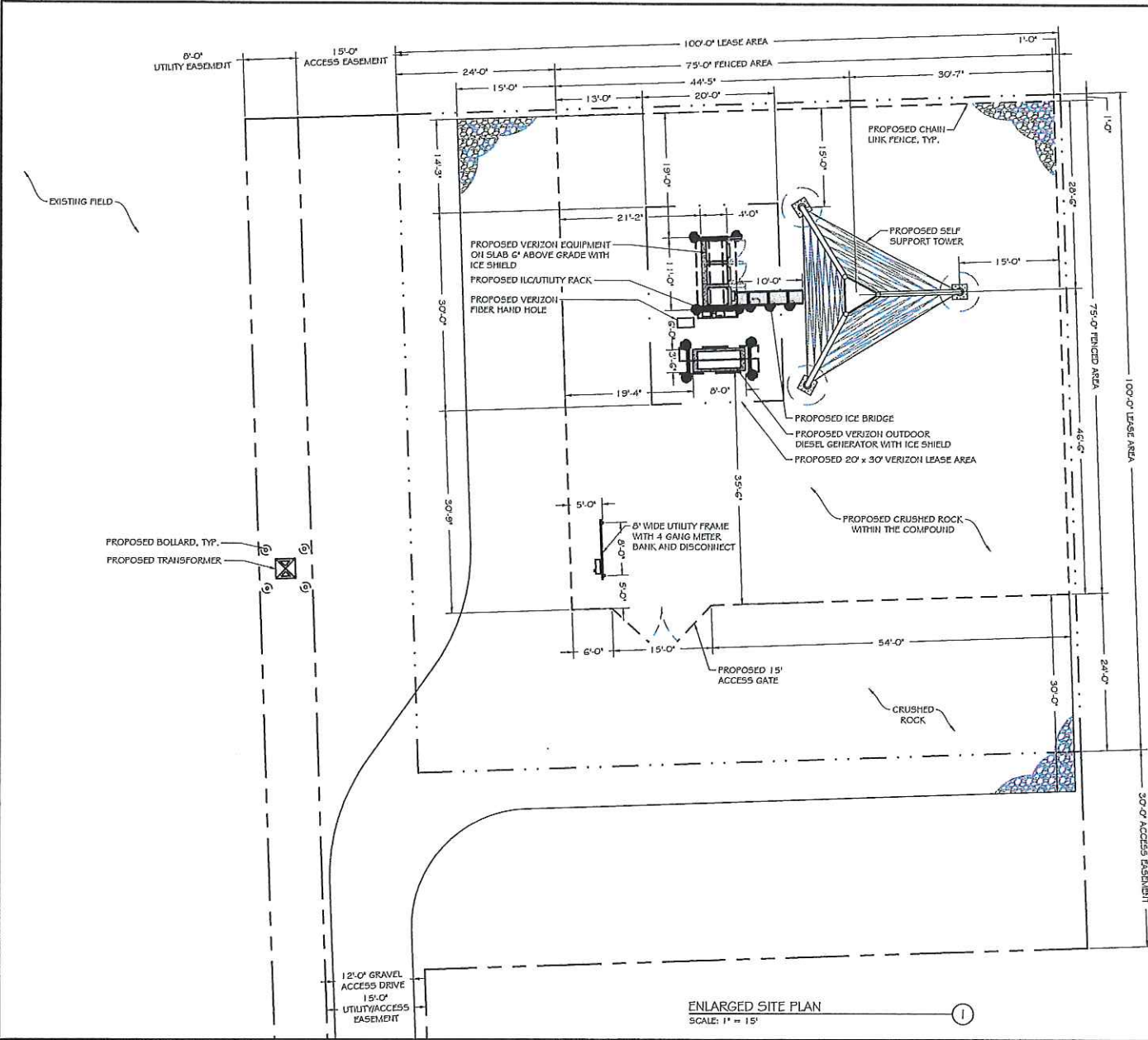
1 1" x 17" - 1" = 40'
 22" x 34" - 1" = 20'

PROJECT NO: 34050
 SHEET NO: A-3

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ENLARGED SITE PLAN
SCALE: 1" = 15'



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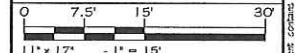


NO.	DATE	DESCRIPTION
1	10/15/2018	ISSUED

HV 1327 - NE05 - ROGERS

PROJECT INFORMATION:
COUNTY ROAD R & COUNTY ROAD 19
NORTH BEND, NE 68649
DODGE COUNTY

SHEET TITLE:
ENLARGED SITE PLAN



PROJECT: 34050
SHEET: A-4

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ANTENNA KEY													COAX/HYBRID KEY						EQUIPMENT KEY						
	AZIMUTH	POSITION	FUNCTION	QTY.	MANUFACTURER	MODEL	MOD. TYPE	ANTENNA LENGTH	ANTENNA TIP	ANTENNA CENTER	ELECTRIC D.T.	MECH. D.T.	STATUS	QTY.	TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIA.	RUN	STATUS	QTY	MAKE	MODEL	STATUS
ALPHA SECTOR	60°	1.1	TWRD	1	COMMSCOPE	NHT412-R2B	700 LITE	0'	250'	240'	TBD	0'	PROPOSED	1	JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	PROPOSED	1	ERICSSON	ERUS 4449	PROPOSED
		1.2	TWRD				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	PROPOSED					
		1.3	SEAL PORT				1							JUMPER	COMMSCOPE	HFT412-452D	HYBRID	0.62"	15'	FUTURE					
		1.4	SEAL PORT				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE					
		1.5	SEAL PORT				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED					
	2.1	TWRD	1	COMMSCOPE	NHT412-R2B	700 LITE	0'	250'	240'	TBD	0'	PROPOSED	2	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED	-	ERICSSON	ERUS 4449	-	
	2.2	TWRD				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE						
	2.3	SEAL PORT				1							JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	FUTURE						
	2.4	SEAL PORT				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE						
	2.5	SEAL PORT				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED						
2.6	SEAL PORT	1	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE																
BETA SECTOR	150°	1.1	TWRD	1	COMMSCOPE	NHT412-R2B	700 LITE	0'	250'	240'	TBD	0'	PROPOSED	1	JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	PROPOSED	1	ERICSSON	ERUS 4449	PROPOSED
		1.2	TWRD				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	PROPOSED					
		1.3	SEAL PORT				1							JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	FUTURE					
		1.4	SEAL PORT				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE					
		1.5	SEAL PORT				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED					
	2.1	TWRD	1	COMMSCOPE	NHT412-R2B	700 LITE	0'	250'	240'	TBD	0'	PROPOSED	2	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED	-	ERICSSON	ERUS 4449	-	
	2.2	TWRD				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE						
	2.3	SEAL PORT				1							JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	FUTURE						
	2.4	SEAL PORT				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE						
	2.5	SEAL PORT				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED						
2.6	SEAL PORT	1	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE																
GAMMA SECTOR	300°	1.1	TWRD	1	COMMSCOPE	NHT412-R2B	700 LITE	0'	250'	240'	TBD	0'	PROPOSED	1	JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	PROPOSED	1	ERICSSON	ERUS 4449	PROPOSED
		1.2	TWRD				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	PROPOSED					
		1.3	SEAL PORT				1							JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	FUTURE					
		1.4	SEAL PORT				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE					
		1.5	SEAL PORT				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED					
	2.1	TWRD	1	COMMSCOPE	NHT412-R2B	700 LITE	0'	250'	240'	TBD	0'	PROPOSED	2	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED	-	ERICSSON	ERUS 4449	-	
	2.2	TWRD				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE						
	2.3	SEAL PORT				1							JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	FUTURE						
	2.4	SEAL PORT				4							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE						
	2.5	SEAL PORT				2							JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED						
2.6	SEAL PORT	1	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	0'	FUTURE																

PROPOSED JUMPER TOTALS									
12	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	PROPOSED		
3	JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	PROPOSED		
24	JUMPER	ANDREW	LDK4-50A	FOAM	1/2"	10'	FUTURE		
3	JUMPER	COMMSCOPE	HFT412-452P	HYBRID	0.62"	15'	FUTURE		

ADDITIONAL:
 (2) RAYCAP RCMDC-6627-PF-4D DISTRIBUTION BOX - (1) ON TOWER & (1) AT EQUIPMENT
 (1) HYBRID CABLE (EQUIPMENT DISTRIBUTION BOX TO TOWER, DISTRIBUTION BOX) COMMSCOPE HFT1206-24549 - 270'
 (3) ERICSSON ERUS 4449
 FUTURE:
 (1) HYBRID CABLE (EQUIPMENT DISTRIBUTION BOX TO TOWER, DISTRIBUTION BOX) COMMSCOPE HFT1206-24549 - 270'
 (3) ERICSSON ERUS 4449

CONTRACTOR IS TO CONTACT RF ENGINEER FOR THE MOST RECENT SUPPLIER FOR FINAL ELECTRICAL AND MECHANICAL DT SETTINGS

ANTENNA SCHEDULE
 SCALE: NTS

1

ESTIMATED MAIN LINE HYBRID LENGTH			
ICE BRIDGE LENGTH (±)	ANTENNA CENTERLINE (±)	EXTRA	TOTAL (±)
10'	246'	14'	270'

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NO.	REVISION	DATE	DESCRIPTION
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HV1327 - NE05 - ROGERS
 COUNTY ROAD R & COUNTY ROAD 19
 NORTH BEND, NE 68649
 DODGE COUNTY

PROJECT TITLE:
 ANTENNA SCHEDULE

SCALE: NONE

PROJECT NUMBER: 34050
 SHEET NUMBER: A-5

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PROPOSED SITE LOCATION
SCALE: NTS ①



SITE LOOKING NORTH
SCALE: NTS ②



SITE LOOKING SOUTH
SCALE: NTS ③



SITE LOOKING WEST
SCALE: NTS ④



SITE LOOKING EAST
SCALE: NTS ⑤



ACCESS ROUTE
SCALE: NTS ⑥



SITE FROM ROAD
SCALE: NTS ⑦



POWER/TELCO ROUTE
SCALE: NTS ⑧

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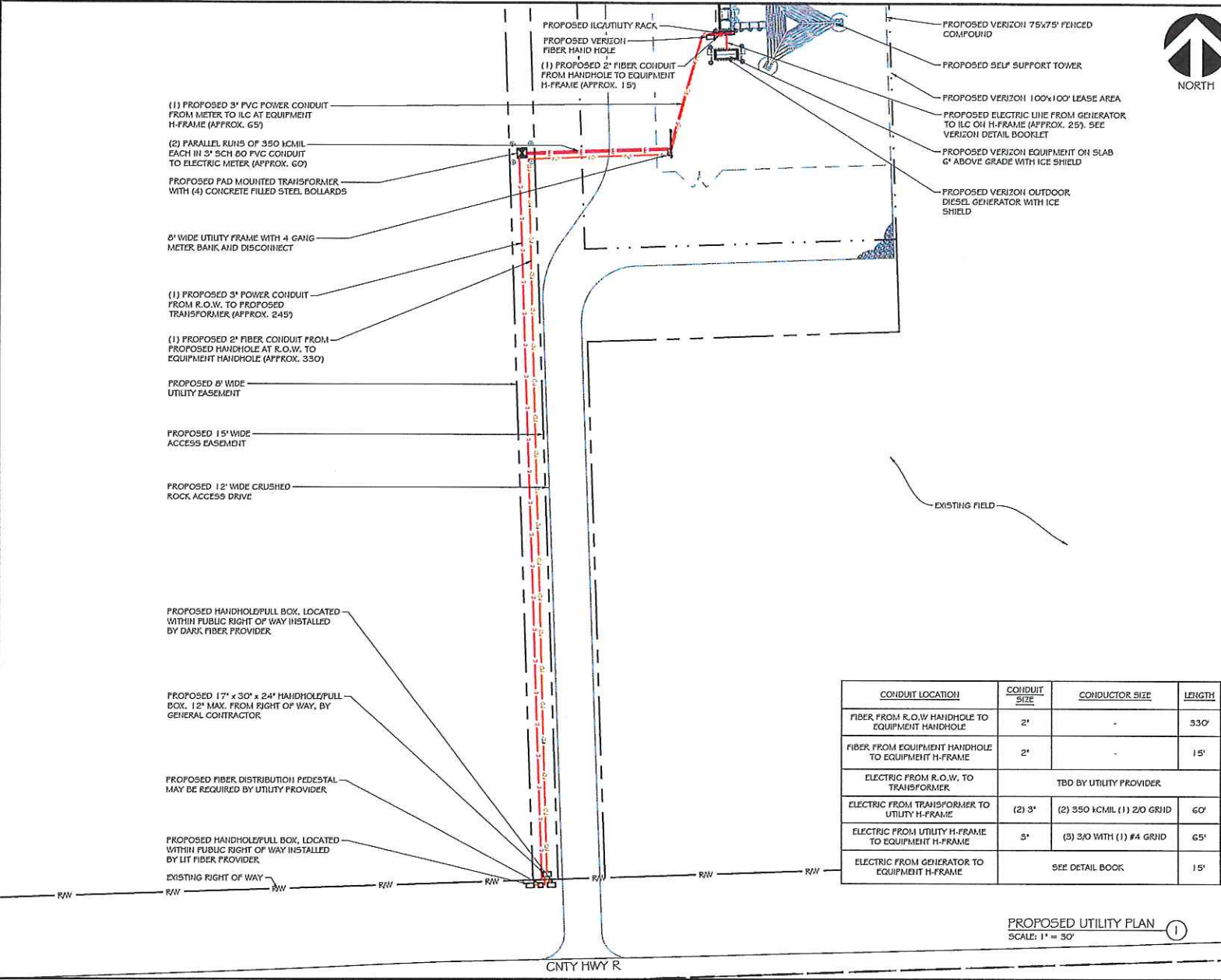
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NO.	REVISION	DATE	DESCRIPTION
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PROJECT TITLE:			
HV1327 - NE05 - ROGERS			
PROJECT INFORMATION:			
COUNTY ROAD R & COUNTY ROAD 19			
NORTH BEND, NE 68649			
DODGE COUNTY			
SHEET TITLE:			
SITE PHOTOS			
SCALE: NONE			
PROJECT NUMBER	34050		
SHEET NUMBER	A-7		

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CONDUIT LOCATION	CONDUIT SIZE	CONDUCTOR SIZE	LENGTH
FIBER FROM R.O.W. HANDHOLE TO EQUIPMENT HANDHOLE	2"	-	330'
FIBER FROM EQUIPMENT HANDHOLE TO EQUIPMENT H-FRAME	2"	-	15'
ELECTRIC FROM R.O.W. TO TRANSFORMER	TBD BY UTILITY PROVIDER		
ELECTRIC FROM TRANSFORMER TO UTILITY H-FRAME	(2) 3"	(2) 350 KCMIL (1) 2/0 GRID	60'
ELECTRIC FROM UTILITY H-FRAME TO EQUIPMENT H-FRAME	3"	(3) 3/0 WITH (1) #4 GRID	65'
ELECTRIC FROM GENERATOR TO EQUIPMENT H-FRAME	SEE DETAIL BOOK		
			15'

PROPOSED UTILITY PLAN
 SCALE: 1" = 30'

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NO.	REVISION	DATE	DESCRIPTION
1	REV A	10/15/2018	

PROJECT TITLE:
 HV 1327 - NEO5 - ROGERS

PROJECT INFORMATION:
 COUNTY ROAD R & COUNTY ROAD 19
 NORTH BEND, NE 68649
 DODGE COUNTY

SHEET TITLE:
 UTILITY PLAN

0 15' 30' 60'

1 1/4" x 17" - 1" = 30'
 22" x 34" - 1" = 15'

PROJECT NO: 34050
 SHEET NO: E-1

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GENERAL NOTES

1. ALL EQUIPMENT FURNISHED AND WORK PERFORMED UNDER THE CONTRACT DOCUMENTS SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS NOTED OTHERWISE. ANY FAILURE OF EQUIPMENT OR WORK DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.
2. ALL WORK, MATERIAL, AND EQUIPMENT SHALL COMPLY WITH ALL REQUIREMENTS OF THE LATEST EDITIONS AND INTERIM AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.), NATIONAL ELECTRICAL SAFETY CODE, OSHA, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES. ALL ELECTRICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL BE NEW (EXCEPT WHERE OTHERWISE NOTED) AND SHALL COMPLY WITH THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES AND BEAR THE U.L. LABEL.
3. VERIZON OR THEIR ARCHITECT/ENGINEER RESERVE THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH IN HIS OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO THE OWNER OR HIS ARCHITECT/ENGINEER.
4. THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED, CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION.
5. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF THE WORK TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITIES. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTORS EXPENSE, AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.
6. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL SAID UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVAL OR ADJUSTING AFFECTED UTILITIES.
7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT MANAGER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.
8. CONTRACTORS SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, DEBRIS, WEEDS, BRUSH OR ANY OTHER DEPOSITS REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
9. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY THE CONTRACTOR WITH LOCAL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.
10. DURING CONSTRUCTION, THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN THE UTILITIES OF THE BUILDINGSITE WITHOUT INTERUPTION. SHOULD IT BE NECESSARY TO INTERRUPT ANY SERVICE OR UTILITY, THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM THE BUILDINGPROPERTY OWNER FOR SUCH INTERUPTION, AT LEAST 72 HOURS IN ADVANCE. ANY INTERUPTION SHALL BE MADE WITH A MINIMUM AMOUNT OF INCONVENIENCE TO THE BUILDINGPROPERTY OWNER AND ANY SUCH SHUTDOWN TIME SHALL BE COORDINATED WITH THE BUILDINGPROPERTY OWNER.
11. CONTRACTOR SHALL SUBMIT AT THE END OF THE PROJECT A COMPLETE SET OF AS BUILT DRAWINGS TO VERIZON PROJECT MANAGER.
12. THIS CONTRACTOR SHALL PROVIDE ALL TEMPORARY WIRING FOR ALL TRADES FOR CONSTRUCTION EQUIPMENT (i.e. HANDTOOLS, WELDERS, PIPE BENDERS, ETC.) 4 CONSTRUCTION LIGHTING PER THE LATEST OSHA STANDARDS. INCLUDE ALL COSTS IN THE BASE BID THIS CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK, COMPLYING WITH THE APPLICABLE PROVISIONS OF ALL CITY, STATE AND FEDERAL SAFETY LAWS (OSHA).
13. THIS CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE PLANS AND SHALL VERIFY EXISTING SITE CONDITIONS AT THE JOB SITE BEFORE SUBMITTING BID. FAILURE TO RECOGNIZE WORK REQUIRED SHALL BE AT THE EXPENSE OF THIS CONTRACTOR. NO CONSIDERATION SHALL BE GIVEN FOR ADDITIONAL COMPENSATION AFTER THE LETTING OF BIDS.
14. ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORKSMAN LIKE MANNER AND SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. THE COMPLETED SYSTEMS SHALL BE FULLY OPERATIONAL; ACCEPTANCE BY THE OWNER SHALL BE A CONDITION OF THE CONTRACT. ALL WORK SHALL BE COORDINATED

15. ALL MATERIALS USED SHALL BE NEW AND BEAR THE U.L. LABEL AND BE OF THE APPROPRIATE NEMA STANDARD.
16. CONTRACTOR SHALL INCLUDE ALL MISCELLANEOUS ITEMS REQUIRED TO COMPLETE THE WORK.
17. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND REQUIRED INSPECTION FEES.
18. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE AND REVIEW THE ELECTRICAL CHARACTERISTICS, AMPACITY AND OTHER REQUIREMENTS OF ALL EQUIPMENT PRIOR TO INSTALLATION.
19. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE THE LOCATIONS OF CONDUIT ROUTING, EQUIPMENT, LIGHTING, ETC. WITH ALL OTHER TRADES IN THE FIELD PRIOR TO INSTALLATION.
20. FOR CLARITY OF ALL PLANS, SOME EQUIPMENT CONDUIT AND WIRE HAS NOT BEEN SHOWN. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO FURNISH AND INSTALL COMPLETE AND OPERATING SYSTEMS INCLUDING ALL CONDUIT AND WIRING.
21. THE CONTRACTOR SHALL MAINTAIN THE FIRE RATED INTEGRITY OF ALL FLOORS, CEILINGS AND WALLS. ALL PENETRATIONS THROUGH FIRE RATED BUILDINGS ELEMENTS SHALL BE EFFECTIVELY SEALED USING APPROVED MATERIALS AND METHODS. ALL LIGHTING FIXTURES MOUNTED IN FIRE RATED CEILINGS SHALL MAINTAIN THE INTEGRITY OF THE FIRE RATING CEILING USING APPROVED MATERIALS AND METHODS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATINGS.
22. THE CONTRACTOR SHALL INSPECT THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS TO DETERMINE HIS ENTIRE SCOPE OF WORK. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND EXTENT OF DEMOLITION AND NEW WORK FOR THE PROJECT PRIOR TO SUBMITTING HIS BID. MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS NOTED OTHERWISE. ANY FAILURE OF EQUIPMENT OR WORK DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.
23. THE ELECTRICAL INSTALLATION IS TO BE IN STRICT ACCORDANCE WITH THE APPLICABLE RULES AND REGULATIONS OF ALL LOCAL, STATE AND FEDERAL ELECTRICAL CODES AND THE LOCAL UTILITY COMPANY REQUIREMENTS OR ANY OTHER AUTHORITIES HAVING LAWFUL JURISDICTION.

SPECIAL CONSTRUCTION/INSTALLATION

1. WORK, INCLUDED:
 - A. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND PROPERTY.
 - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERZON SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
 - D. INSTALL FURNISHED GALVANIZED STEEL AND/OR TOWER WAVEGUIDE.
 - E. INSTALL COAXIAL CABLES AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURERS RECOMMENDATIONS, WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURERS REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - F. ANTENNA AND COAXIAL CABLE GROUNDING:
 1. ALL EXTERIOR RG GREEN GROUND WIRE 'DAISY CHAIN' CONNECTIONS ARE TO BE WEATHER SEALED WITH ANDREWS CONNECTOR/SPICE WEATHERPROOFING KIT #221213 OR EQUAL.
 2. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

QUALITY ASSURANCE

1. ALL CONTRACTORS FURNISHED MATERIALS AND EQUIPMENT SPECIFIED ON THE PROJECT SHALL BE NEW AND UNUSED, OF CURRENT MANUFACTURE AND OF THE HIGHEST GRADE.
2. ALL EQUIPMENT, MATERIAL, AND THE INSTALLATION METHODS SPECIFIED ON THE PROJECT DRAWINGS SHALL BE DESIGNED AND FABRICATED IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS AND APPROPRIATE INDUSTRIAL CONSENSUS STANDARDS AND CODES INCLUDING ANSI, IEEE, NEMA, IFFA, AND UL. ALL AS REVISED AS OF THE DATE OF THIS WORK PACKAGE.
3. ALL ELECTRICAL ITEMS BOTH CONTRACTOR AND OWNER FURNISHED SHALL BE CHECKED FOR AGREEMENT WITH THE PROJECT DRAWINGS AND SPECIFICATIONS AND SHALL BE VISUALLY INSPECTED TO ENSURE THAT EQUIPMENT IS UNDAMAGED AND IS IN PROPER ALIGNMENT. INSTALLED PER MANUFACTURERS INSTRUCTIONS. ELECTRICAL CONNECTIONS ARE TIGHT AND PROPERLY INSULATED WHERE REQUIRED. FUSES ARE OF THE PROPER TYPE AND SIZE AND ELECTRICAL ENCLOSURES ARE OF THE PROPER NEMA TYPE.
4. NOTIFY OWNER IN WRITING OF ALL DISCREPANCIES BETWEEN DRAWINGS/SPECIFICATIONS AND FIELD INSTALLATION, OR IF THE VISUAL INSPECTIONS SHOW DAMAGE OR IMPROPER INSTALLATION.
5. GENERAL: DURING AND UPON COMPLETION OF THE WORK, ARRANGE

- AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT. IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT.
6. INSPECTIONS REQUIRED: AS PER THE LAWS AND REGULATIONS OF THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.
7. INSPECTION AGENCY: APPROVED BY THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.

CABLE TRAYS

1. ALL CABLE TRAYS AND FITTINGS SHALL BE DESIGNED, MANUFACTURED AND TESTED IN CONFORMANCE WITH NEMA VE 1.
2. CABLE TRAYS SHALL BE LADDER TYPE WITH 9-INCH SPACING.
3. CABLE TRAYS SHALL BE CAPABLE OF SUPPORTING 75 LBS/LINEAR FOOT.
4. CABLE TRAYS AND FITTINGS SHALL BE MANUFACTURED OF GALVANIZED STEEL.
5. CABLE TRAYS SHALL BE FURNISHED WITH COVERS WHERE SHOWN ON THE PROJECT DRAWINGS.
6. ALL DISCONTINUOUS SECTIONS OF CABLE TRAY SHALL BE BOICED ACROSS JOINTS.

CONDUCTORS

1. ALL POWER, CONTROL AND COMMUNICATION WIRING SHALL MEET REQUIRED NEMA RATINGS, ASTM, UL, AND NEC STANDARDS FOR MATERIAL AND WORKMANSHIP UNLESS OTHERWISE SPECIFIED.
 - A. SERVICE ENTRANCE CONDUCTORS SHALL BE COPPER, 200 VOLT, SUNLIGHT RESISTANT, SUITABLE FOR WET LOCATIONS, TYPE USE-2, THE GROUNDING NEUTRAL CONDUCTOR SHALL BE IDENTIFIED WITH A WHITE MARKING AT EACH TERMINATION.
 - B. CONDUCTORS FOR FEEDER AND BRANCH CIRCUITS SHALL BE COPPER 200 VOLT, TYPE THHN/THWN WITH A MINIMUM SIZE OF #12 AWG.
2. ALL CONDUCTOR ACCESSORIES INCLUDING CONNECTORS, TERMINATIONS, INSULATING MATERIALS, SUPPORT GRIPS, MARKER AND CABLE TIES SHALL BE FURNISHED AND INSTALLED. SUPPLIERS INSTALLATION INSTRUCTIONS SHALL BE OBTAINED FOR CABLE ACCESSORIES. THESE INSTRUCTIONS SHALL BE IN THE POSSESSION OF THE CRAFTSMAN WHILE PERFORMING THE WORK. SUPPLIERS SHALL BE AVAILABLE TO THE COMPANY FOR REFERENCE.
3. TERMINAL CONNECTORS FOR CONDUCTORS SMALLER THAN 6 AWG SHALL BE COMPRESSION TYPE CONNECTORS SIZED FOR THE CONDUCTOR AND THE TERMINAL. THE CONNECTORS SHALL BE CONSTRUCTED OF FINE GRADE HIGH CONDUCTIVITY COPPER III ACCORDANCE WITH QG-C-576 AND SHALL BE TH-PLATED IN ACCORDANCE WITH MIL-T-10727. THE INTERIOR SURFACE OF THE CONNECTOR WIRE BARREL SHALL BE SMOOTH, AND THE EXTERIOR SURFACE OF THE CONNECTOR WIRE BARREL SHALL BE PROVIDED WITH CRIMP GUIDES.
4. TERMINAL CONNECTORS FOR CONDUCTORS 6 AWG AND LARGER SHALL BE PRESSURE OR BOLTED CLAMP TYPE, DURINDY DURALUM, ARJUG OR ACCEPTABLE EQUAL; OR COMPRESSION TYPE, BURIDY TYPE YAV OFFR YA (LONG BARREL), PANOUTY TYPE LCA OR LCC, OR ACCEPTABLE EQUAL. ACCEPTABLE CONNECTORS INCLUDED WITH COMPANY-FURNISHED EQUIPMENT MAY BE USED.
5. TERMINATION PROVISIONS OF EQUIPMENT FOR CIRCUITS RATED 100 AMPERES OR LESS, OR MARKED FOR NOS. 14 THROUGH 1 CONDUCTORS, SHALL BE USED ONLY FOR CONDUCTORS RATED 60 DEG. C (140 DEG. F). CONDUCTORS WITH HIGHER TEMPERATURE RATINGS SHALL BE PERMITTED, PROVIDED THE AMPACITY OF EACH CONDUCTOR IS DETERMINED BASED ON THE 60 DEG. C (140 DEG. F) AMPACITY OF THE CONDUCTOR SIZE USED.
6. TERMINATION PROVISIONS OF EQUIPMENT FOR CIRCUITS RATED OVER 100 AMPERES, OR MARKED FOR CONDUCTORS LARGER THAN NO. 1, SHALL BE USED ONLY FOR CONDUCTORS RATED 75 DEG. C (167 DEG. F). CONDUCTORS WITH HIGH TEMPERATURE RATINGS SHALL BE PERMITTED, PROVIDED THE AMPACITY OF EACH CONDUCTOR IS DETERMINED BASED ON THE 75 DEG. C (167 DEG. F) AMPACITY OF THE CONDUCTOR SIZE USED.
7. ALL 600 VOLT OR LESS WIRING, WHERE COMPRESSION TYPE CONNECTORS ARE USED, SHALL BE INSULATED WITH AT LEAST ONE TURN OF 'SCOTCHFIL' 200 AMP ELECTRICAL INSULATING PUTTY AND THEN COVERED WITH TWO HALF TURNS OF TAPE SIMILAR TO 3M COMPANY'S 333 PLUS (33+) PLASTIC TAPE OR AS OUTDOOR.
8. THE ELECTRICAL SERVICE TO THE SITE SHALL BE GROUNDED AT THE SERVICE DISCONNECTING MEANS REQUIRED IN ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, IN ACCORDANCE WITH ANY LOCAL CODE.
9. ALL UNDERGROUND (BELOW GRADE) GROUNDING CONNECTIONS SHALL BE MADE BY THE CADWELD PROCESS (MECHANICAL LUG ATTACHMENTS BELOW GRADE ARE NOT ACCEPTABLE). CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE SPICES (RES, Xs, ETC.) ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY CADWELD AND INSTALLED PER MANUFACTURERS RECOMMENDATION AND PROCEDURES.

HANGERS AND SUPPORT

1. MATERIALS: ALL HANGERS, SUPPORTS, FASTENERS, AND HARDWARE SHALL BE ZINC COATED OR OF EQUIVALENT CORROSION RESISTANCE BY TREATMENT OR INHERENT PROPERTY, AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION. PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIP GALVANIZED.
2. TYPES: HANGERS, STRAPS, RISER SUPPORTS, CLAMPS, U-CHANNEL, THREADED RODS, ETC. AS INDICATED OR REQUIRED.
3. INSTALLATION: RIGIDLY SUPPORT AND SECURE ALL MATERIALS,

- RACEWAY AND EQUIPMENT BUILDING STRUCTURE USING HANGERS, SUPPORTS AND FASTENERS SUITABLE FOR THE USE. MATERIALS AND LOADS ENCOUNTERED, PROVIDE ALL NECESSARY HARDWARE, PROVIDE CONDUIT SUPPORTS AT MAXIMUM 5 FT. O.C.
4. OVERHEAD MOUNTING: ATTACH OVERHEAD MOUNTED EQUIPMENT TO STRUCTURAL FRAMEWORK OR SUPPORTING METAL FRAMEWORK.
5. WALL MOUNTING: SUPPORT WALL MOUNTED EQUIPMENT BY MASONRY, CONCRETE BLOCK, METAL FRAMING OR SUB-FRAMING.
6. EXTERIOR WALLS: MOUNT ALL EQUIPMENT LOCATED ON THE INTERIOR OF EXTERIOR BUILDING WALLS AT LEAST ONE INCH AWAY FROM WALL SURFACE, USING SUITABLE SPACERS.
7. STRUCTURAL MEMBERS: DO NOT CUT, DRILL OR WELD ANY STRUCTURAL MEMBER EXCEPT SPECIFICALLY APPROVED BY THE ENGINEER.
8. INDEPENDENT SUPPORT: DO NOT SUPPORT MATERIALS OR EQUIPMENT FROM OTHER EQUIPMENT, PIPING, DUCTWORK OR SUPPORTS FOR SAME.
9. RACEWAY SUPPORTS: RIGIDLY SUPPORT ALL RACEWAY WITH MAXIMUM SPACINGS PER NEC, AND SO AS TO PREVENT DISTORTION OF ALIGNMENT DURING PULLING OPERATION, USE APPROVED HANGERS, CLAMPS AND STRAPS FOR INDIVIDUAL RUNS. DO NOT USE PERFORATED STRAPS OR TIE WIREZ. WHERE MULTIPLE PARALLEL RACEWAYS ARE TO RUN TOGETHER, USE TRAPEZOID TYPE HANGER ARRANGEMENT MADE FROM U-CHANNEL AND ACCESSORIES.
10. MISCELLANEOUS SUPPORTS: PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT STEEL BRACKETS, ANGLES, FASTENERS, AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMENT.
11. ONE HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 3/4 INCH.

HOLES, SLEEVES AND OPENINGS

1. GENERAL: PROVIDE ALL HOLES, SLEEVES, AND OPENINGS REQUIRED FOR THE COMPLETION OF WORK AND RESTORE ALL SURFACES DAMAGED TO MATCH SURROUNDING SURFACES. MAINTAIN INTEGRITY OF ALL FIRE AND SMOKE RATED BARRIERS USING APPROVED FIRE-STOPPING SYSTEMS. WHEN CUTTING HOLES OR OPENINGS, OR INSTALLING SLEEVES, DO NOT CUT, DAMAGE OR DISTURB STRUCTURAL ELEMENTS OR REINFORCING STEEL UNLESS APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.
2. CONDUIT PENETRATIONS: SIZE CORE DRILLING HOLES SO THAT AN ANNUAL SPACE OF NOT LESS THAN 1/4 INCH AND NOT MORE THAN 1 INCH IS LEFT AROUND THE CONDUIT, PIPE, ETC. WHEN OPENINGS ARE CUT IN LEU OF CORE DRILLED, PROVIDE SLEEVE IN ROUGH OPENING. SIZE SLEEVES TO PROVIDE AN ANNUAL SPACE OF NOT LESS THAN 1/4 INCH AND NOT MORE THAN 1 INCH AROUND THE CONDUIT, PIPE, ETC. PATCH AROUND THE SLEEVE TO MATCH SURROUNDING SURFACES.

SITE WORK

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE PROJECT MANAGER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES; CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO:
 - A. FALL PROTECTION
 - B. CONFINED SPACE
 - C. ELECTRICAL SAFETY
 - D. TRENCHING AND EXCAVATION
2. REMOVE FROM SITE/OWNER'S PROPERTY ALL WASTE MATERIALS, UNUSED EXCAVATED MATERIAL, INCLUDING MATERIAL CLASSIFIED UNHEALTHY/POISONOUS, CONTAMINATED OR DANGEROUS TRASH AND DEBRIS, AND DISPOSE OF IN A LEGAL MANNER (AS REQUIRED).
3. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING.
4. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM FLOOR, FERTILIZED, SEEDED, AND COVERED WITH MULCH AS REQUIRED TO RESTORE SITE TO ORIGINAL CONDITION.
5. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL AND 19% BOCA STANDARD GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
6. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT SHELTER OR PLATFORM LAYOUT AND CONSTRUCTION STAKING. CONTRACTOR SHALL ESTABLISH GRADE AND LINE STAKES PRIOR TO CONSTRUCTION.

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Contractor's Seal
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Nebraska.



NO.	REVISION	DATE	DESCRIPTION
0	INITIAL		FINAL CD
1	REV A	10/15/2018	DATE ISSUED

PROJECT TITLE:
HV1327 - NE05 - ROGERS

PROJECT INFORMATION:
COUNTY ROAD R & COUNTY ROAD 19
NORTH BEND, NE 68649
DODGE COUNTY

SHEET TITLE:
SPECIFICATIONS

SCALE: NONE

PROJECT NO.	34050
DRAWING NO.	SP-1

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STRUCTURAL STEEL

- DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE LATEST ASME MANUAL OF STEEL CONSTRUCTION, AWS D1.1 AND THE STRUCTURAL STEEL SHALL BE AS FOLLOWS:
 - ASTM A36, GRADE 36, ROLLED STEEL, RODS, PLATES, U-BOLTS AND ANCHOR BOLTS.
 - ASTM A572, GRADE 50, HEAVY TYPE.
 - ALL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
- ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER.
- TIGHTEN HIGH STRENGTH BOLTS TO A SHUG TIGHT CONDITION WHERE ALL PILES IN A JOINT ARE IN FIRM CONTACT BY EITHER:
 - A FEW IMPACTS OF A IMPACT WRENCH
 - THE FULL EFFORT OF A PERSON USING A SPUD WRENCH
- WELDING
 - ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS; CERTIFICATION DOCUMENTS SHALL BE MADE AVAILABLE FOR ENGINEERS AND/OR OWNERS REVIEW IF REQUESTED.
 - WELDING ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING SHALL CONFORM TO ASTM A-233 E70 SERIES, BARE ELECTRODES AND GRANULAR FLUX USED IN THE SUBMERSED ARC PROCESS SHALL CONFORM TO AISC SPECIFICATION.
 - FIELD WELDING SHALL BE DONE AS PER AWS D1.1 REQUIREMENTS VISUAL INSPECTION IS ACCEPTABLE.
- PROTECTION
 - UPON COMPLETION OF ERECTION INSPECT ALL GALVANIZED STEEL AND PAINT ANY FIELD CUTS, WELDS, OR GALVANIZED BREAKS WITH ZINC BASED PAINT (GALVANOX, DRY GALV OR ZINC IT). COLOR TO MATCH THE GALVANIZING PROCESS.

RACEWAYS

- CONDUIT AND CONDUIT FITTINGS SHALL MEET ANSI AND IEC STANDARDS FOR MATERIAL AND WORKMANSHIP AND SHALL BE UL LISTED.
 - RIGID STEEL CONDUIT (FOR ALL ABOVE GRADE WORK) SHALL CONFORM TO ANSI C60.1 AND THE REQUIREMENTS OF IEC PARAGRAPH 34G AND BE STANDARD WEIGHT, MILD RIGID STEEL, HOT DIP GALVANIZED WITH INSIDE AND OUTSIDE FINISHED WITH A PROTECTIVE ZINC COATING. COUPLING, ELBOWS AND BENDS SHALL MEET THESE SAME REQUIREMENTS. FITTINGS SHALL BE OF THE GALVANIZED IRON OR STEEL THREADED TYPE.
 - PVC CONDUIT (FOR UNDERGROUND WORK) SHALL CONFORM TO UL STANDARD 651-65 AND THE REQUIREMENTS OF IEC PARAGRAPH 347. CONDUIT SHALL BE HEAVY WALL TYPE, SCHEDULE 80, AND SUNLIGHT RESISTANT. FITTINGS SHALL BE OF THE UNTHREADED SOLVENT CEMENT TYPE.
 - EMT CONDUIT (FOR USE BEHIND WALLS OR ABOVE SUSPENDED CEILING ONLY), ELECTRIC METALLIC TUBING SHALL CONFORM TO ANSI C60.3 AND THE REQUIREMENTS OF IEC, PARAGRAPH 34B AND BE PROTECTED ON EXTERIOR WITH A ZINC COATING AND ON INTERIOR SURFACES WITH EITHER A ZINC COATING OR LACQUER ENAMEL. FITTINGS SHALL BE ZINC COATED STEEL.
- MINIMUM CONDUIT SIZE SHALL BE 3/4 INCH, SIZES NOT SHOWN ON DRAWINGS SHALL BE PER IEC.
- ALL SPARE CONDUITS SHALL HAVE A METALLIC OR MULL TAPE
- CONDUIT SUPPORTS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AND IN ACCORDANCE WITH THE IEC.
- UNDERGROUND CONDUITS & ENCLOSURES.
 - INSTALL A WARNING TAPE TWELVE INCHES ABOVE EACH CONDUIT OR SET OF CONDUITS.
 - IDENTIFY EACH CONDUIT AT BOTH ENDS.
 - INSTALL A MINIMUM OF 36 INCHES BELOW THE FINISHED GRADE, OR DEEPER IF NOTED ON PLAN DRAWINGS
 - SLOPE A MINIMUM OF 4 INCHES PER 100 FEET TO DRAIN AWAY FROM BUILDINGS AND EQUIPMENT.
 - USE MANUFACTURED ELECTRICAL PVC ELBOWS AND FITTINGS FOR BELOW GRADE BENDS.
 - MAKE JOINTS AND FITTINGS WATERTIGHT ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
 - INSTALL A COUPLING BEFORE EACH WALL PENETRATION
 - RESTORE SURFACE FEATURES DISTURBED BY EXCAVATION (AND TRENCHING) IN ALL AREAS.
 - ENCLOSURES IN DRY LOCATION SHALL BE NEMA 1
 - ENCLOSURES IN WET LOCATIONS OR OUTDOOR SHALL BE NEMA 5.

TELEPHONE SERVICES

- GENERAL INSTRUCTIONS SHALL BE IN ACCORDANCE WITH TELEPHONE UTILITY COMPANYS RULES AND REGULATIONS.

LIGHTNING PROTECTION

- LIGHTNING PROTECTION MATERIAL SHALL BE FURNISHED BY VERIZON AND INSTALLED BY CONTRACTOR.

CONCRETE

PART 1 - GENERAL

- WORK INCLUDED FORM WORK, REINFORCEMENT, ACCESSORIES, CAST-IN-PLACE CONCRETE, FINISHING, AND CURING.
- INSPECTIONS
 - CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BUILDING DEPARTMENT INSPECTIONS REQUIRED FOR HIS SCOPE OF WORK.
 - ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE CARRIER CONSTRUCTION MANAGER, OR THEIR DESIGNEE, PRIOR TO PLACEMENT OF CONCRETE.
 - THE CARRIER CONSTRUCTION MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS.
- QUALITY ASSURANCE
 - CONSTRUCT AND ERECT CONCRETE FORM WORK, IN ACCORDANCE WITH ACI 301 AND ACI 318.
 - PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ASTM A104.
 - PERFORM CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ACI 117-90.
 - OPEN FOUNDATION TRENCHES SHALL BE INSPECTED BY MES PRIOR TO CONCRETE INSTALLATION.
- SUBMITTALS: SUBMIT CONCRETE MIX AND REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY CARRIER CONSTRUCTION MANAGER/ENGINEER. THE SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF TWO (2) CONCRETE MIX DESIGN INFORMATION SHEETS AND TWO (2) BLUE LINE DRAWINGS FOR REINFORCING STEEL.

PART 2 - PRODUCTS

- REINFORCEMENT MATERIALS
 - REINFORCEMENT STEEL - ASTM A615, 60 ksi YIELD GRADE, DEFORMED BILLET STEEL BARS, PLAIN FINISH.
 - WELDED STEEL WIRE FABRIC ASTM A185 PLAIN TYPE, IN FLAT SHEETS, PLAIN FINISH.
 - CHAINS, BOLTERS, BAR SUPPORTS, SPACERS, SIZED AND SHAPED FOR SUPPORTS OF REINFORCING.
 - FABRICATE CONCRETE REINFORCING IN ACCORDANCE WITH ACI 315, ACI 318, ASTM A104
- CONCRETE MATERIALS
 - CEMENT: ASTM C150, PORTLAND TYPE
 - FINE AND COARSE AGGREGATES: ASTM C35 - MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED ONE (84) INCH SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR ONE-THIRD CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
 - WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE
 - AIR ENTRAINING ADJUSTIVE: ASTM C260
 - BONDING AGENT: LATEX EMULSION FOR BONDING NEW TO OLD CONCRETE AS MANUFACTURED BY DAYTON SUPERIOR.
 - HIGH-SHRIEK GROUT: PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING AGENTS.
- CONCRETE MIX
 - CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
 - MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, A1.5.
 - PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. PROVIDE CONCRETE AS FOLLOWS:
 - COMPRESSIVE STRENGTH: 4000 psi AT 7 DAYS.
 - SUMP: 3 INCHES

PART 3 - EXECUTION

- INSERTS, EMBEDDED COMPONENTS AND OPENINGS
 - THE CONTRACTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE
 - PROVIDE FORMED OPENINGS WHERE REQUIRED FOR WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.
 - COORDINATE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENING, SLOTS, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS, AND OTHER INSERTS.
 - INSTALL CONCRETE ACCESSORIES STRAIGHT, LEVEL AND PLUMB.
- REINFORCEMENT PLACEMENT
 - PLACE REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.
 - ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.

GENERAL UTILITY

ALL ELECTRICAL SITE WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE.

- THE EQUIPMENT AND MATERIAL SHALL BE FURNISHED AND INSTALLED TO OPERATE SAFELY AND CONTINUOUSLY OUTDOORS WITH NO PROTECTION FROM THE WEATHER.

WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.

D. MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.

E. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED 3 INCHES NOR BE LESS THAN 2INCHES.

3. FLAGGING CONCRETE

- VIBRATE ALL CONCRETE.
- ALL CONCRETE WORK SHALL ADHERE TO THE LATEST A.C.I STANDARDS FOR WHITE POURING AND CURING PROCEDURES IF SEASONAL CONDITIONS APPLY

4. CURING

- AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING.
- MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.

5. PROVIDE HAND RUBBED SMOOTH FINISH TO ALL EXPOSED VERTICAL FORMED CONCRETE SURFACES.

6. FIELD QUALITY CONTROL

- SUBMIT THREE (3) CONCRETE TEST CYLINDERS - TAKEN FOR EVERY 15 CUBIC YARD OR LESS. SUBMIT CONCRETE TESTS TO THE PROJECT MANAGER IN ACCORDANCE WITH ASTM, C-31 AND C-39.
- SUBMIT ONE (1) ADDITIONAL TEST CYLINDER - TAKEN DURING COLD WEATHER POURS, AND CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
- SUBMIT ONE (1) SLUMP TEST - TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.

7. DEFECTIVE CONCRETE: MODIFY OR REPLACE CONCRETE NOT CONFORMING TO REQUIRED UNES, DETAILS OR ELEVATIONS AT COST OF GC, AS DIRECTED BY ARCHITECT/ENGINEER.

MATERIALS

MATERIAL LIST	PROVIDED BY	INSTALLED BY
ANTENNAS	VERIZON WIRELESS	CONTRACTOR
COAX AND ELUFICAL WAVEGUIDE	VERIZON WIRELESS	CONTRACTOR
DUPLEXERS, DIPLEXERS, & COMBINERS	VERIZON WIRELESS	CONTRACTOR
AWG HARDWARE	VERIZON WIRELESS	CONTRACTOR
SD	VERIZON WIRELESS	CONTRACTOR
RET & HYBRID CABLE	VERIZON WIRELESS	CONTRACTOR
GPS ANTENNA & GPS SURGE ARRESTOR	VERIZON WIRELESS	CONTRACTOR
TM%, DIAS-T%, & FUD	VERIZON WIRELESS	CONTRACTOR
DISTRIBUTION BOXES & RRU's	VERIZON WIRELESS	CONTRACTOR
ANTENNA MOUNTING PIPES	VERIZON WIRELESS	CONTRACTOR
MICROWAVE ANTENNA MOUNT	VERIZON WIRELESS	CONTRACTOR
ANTENNA MOUNTING PLATFORM	VERIZON WIRELESS	CONTRACTOR
ICE BRIDGE HARDWARE	VERIZON WIRELESS	CONTRACTOR
COAX ATTACHMENT TO TOWER HARDWARE	CONTRACTOR	CONTRACTOR
TOWER BUSH BARS	CONTRACTOR	CONTRACTOR
CONDUIT, CONDUCTORS, & GROUNDING	CONTRACTOR	CONTRACTOR
PFC STYLE CONDUCTORS AND CLOSURES	CONTRACTOR	CONTRACTOR
JUMPERS ON THE TOWER & ON ICE BRIDGE	CONTRACTOR	CONTRACTOR
COAX HANGER KITS/SHOISTING GRPS	CONTRACTOR	CONTRACTOR
GPS COAX & CONDUCTORS	CONTRACTOR	CONTRACTOR
TOWER	VERIZON WIRELESS	CONTRACTOR
CONCRETE & REINFORCING STEEL	CONTRACTOR	CONTRACTOR
EQUIPMENT CABINETS	VERIZON WIRELESS	CONTRACTOR
CULVERTS	CONTRACTOR	CONTRACTOR
CONCRETE FILLED STEEL BOLLARDS	CONTRACTOR	CONTRACTOR
FENCE, GATE, AND LATCH	CONTRACTOR	CONTRACTOR
H-FRAME MATERIALS	CONTRACTOR	CONTRACTOR
CRUSHED ROCK AND GEOFABRIC	CONTRACTOR	CONTRACTOR

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Professional Seal
 I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Nebraska.

NO.	DESCRIPTION	DATE	ISSUED
1	REV A	10/15/2018	

HV1327 - NE05 - ROGERS

PROJECT INFORMATION:
 COUNTY ROAD R & COUNTY ROAD 19
 NORTH BEND, NE 68649
 DODGE COUNTY

SPECIFICATIONS

SCALE: NONE

SHEET NO: 34050
 SHEET NEXT: SP-2

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