

**PLANNING COMMISSION AGENDA  
CITY OF PRAIRIE VILLAGE  
TUESDAY, JANUARY 8, 2019  
7700 MISSION ROAD  
COUNCIL CHAMBERS  
7:00 P.M.**

- I. ROLL CALL
- II. APPROVAL OF PLANNING COMMISSION MINUTES - December 4, 2018
- III. PUBLIC HEARINGS  
None
- IV. NON-PUBLIC HEARINGS
  - PC2019-101 Lot Split Approval  
4001 & 4005 West 85<sup>th</sup> Street  
Zoning: R-1a  
Applicant: Kevin Green
  - PC2019-102 Site Plan Approval - Somerset Plaza  
4601 West 90<sup>th</sup> Street  
Zoning: C-2  
Applicant: Dev Anand with Dev Inc.
  - PC2019-103 Site Plan Approval - Antenna Replacement  
3921 West 63<sup>rd</sup> Street  
Zoning: R-1a  
Applicant: Darryl Cain with Centerline Solutions for T-Mobile
- V. OTHER BUSINESS  
Election of Officers
- VI. ADJOURNMENT

Plans available at City Hall if applicable  
If you cannot be present, comments can be made by e-mail to  
[Cityclerk@Pvkansas.com](mailto:Cityclerk@Pvkansas.com)

**\*Any Commission members having a conflict of interest, shall acknowledge that conflict prior to the hearing of an application, shall not participate in the hearing or discussion, shall not vote on the issue and shall vacate their position at the table until the conclusion of the hearing.**

**PLANNING COMMISSION MINUTES**  
**December 4, 2018**

**ROLL CALL**

The Planning Commission of the City of Prairie Village met in regular session on Tuesday, December 4, 2018 in the Council Chambers at 7700 Mission Road. Chairman Nancy Wallerstein called the meeting to order at 7:05 p.m. with the following members present: Jonathan Birkel, Patrick Lenahan, Gregory Wolf, Melissa Brown, Jeffrey Valentino and James Breneman.

The following persons were present in their advisory capacity to the Planning Commission: Chris Brewster, City Planning Consultant; Jamie Robichaud, Deputy City Administrator; Mitch Dringman, City Building Official and Joyce Hagen Mundy, City Clerk/Planning Commission Secretary.

**APPROVAL OF MINUTES**

James Breneman moved for the approval of the minutes of the November 6, 2018 regular Planning Commission meeting as presented. Gregory Wolf seconded the motion, which passed 5 to 0 with Melissa Brown and Jeffrey Valentino abstaining.

**PUBLIC HEARINGS**

No public hearings were scheduled.

**NON-PUBLIC HEARINGS**

**PC2018-124 Amendment to Site Plan Approval  
4100 Homestead Court**

Dennis Hulsing, 5669 West 68<sup>th</sup> Street, along with Tyler Holloman, general contractor for the project, presented their request for approval of the following site plan changes at 4100 Homestead Court:

1. Reconfiguration of the platform tennis court areas to extend closer to the clubhouse building, and to allow the relocation of a fourth platform tennis court. *[Note: the May approval had the four existing platform tennis courts, and two additional pickle ball courts. The August revised site plan had three platform tennis courts (the removal of the north two, and the relocation of one to the south bank), and six pickle ball courts (four more than originally approved in place of the north bank of platform tennis courts). This proposed revision has the four original platform tennis courts (two on the north bank relocated to the south bank) and six pickle ball courts.]*
2. Proposed covered structure over the six pickle ball courts.
3. Change in building elevations for the enclosed year-round tennis structure.

Mr. Hulsing stated the earlier approved improvements to the clubhouse are progressing well, with the clubhouse expecting to be open in mid-December.

Chris Brewster provided background on this site, which has been operating under a special use permit since 1982. The special use permit has been renewed and amended several times to account for different operations and development activity. Most recently, the special use permit was amended in May of 2018 to allow for the remodeling and addition to the club, and to replace the seasonal tennis enclosure with a permanent structure. This application was then revised in August of 2018 to approve a site plan that reconfigured the platform tennis courts and replaced one of them with six pickleball courts.

The proposed changes are within the parameters of their approved Special Use Permit. However, they are beyond the scope of changes that staff can administratively approve, and require Planning Commission review and approval. Since the changes involve an additional structure and a change in building and elevations previously reviewed in the public process, staff requested the applicant have an additional neighborhood meeting to review the proposed changes. This meeting was held on November 26, 2018 and a summary of that meeting has been provided.

Mr. Brewster reviewed the staff analysis as related to Section 19.32.030 (A), (C) and (F) shown below:

**A. The Site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.**

The site plan has the appropriate layout and design per the previously approved plans. The reconfiguration and addition of the fourth platform tennis courts does not have a significant impact on the previous plans since it is primarily in a central portion of the site and is expanding the footprint of the existing and planned small court area closer to the clubhouse building and interior to the lot. The addition of the cover over the pickleball courts is the most substantial addition to the site plan. It is located between two larger structures - the proposed/approved year-round tennis enclosure and the existing clubhouse. It is located farther from the residences on the closest (south) boundary than either of these structures.

The most significant issues in previous applications associated with the site plan in general, and the outside courts particularly, dealt with the lighting and screening with landscape, as well as drainage concerns. Previous conditions of the special use permit and revised site plan required all new lighting to be state of the art, directional sport court lighting, designed to minimize glare on adjacent areas. Any new lighting on other courts was to be upgraded to this lighting as maintenance and replacement allowed. Further, the landscape plan approved with the previous approvals addresses many of the screening and buffering concerns with regard to this area. Public Works required the applicant to submit a revised drainage study to account for the changes in this revised site plan, and they are satisfied with the results of that study.

Mr. Brewster noted all of the requirements of the previous approvals remain in place and should address the relationship of these facilities to nearby residences, as it is generally within the same vicinity and footprint of previous approvals, and has the same relationship to adjacent properties. All of the buffer area and landscape designed to mitigate and improve this relationship remain unchanged. The addition of one more platform tennis

court results in the site having the same number of platform courts as it currently has, and essentially adding six more pickleball courts (two in the original proposal, and four more with the August revision and this proposal). These courts are not anticipated to generate a significant amount of additional activity with respect to parking or traffic for the area, and the site plan is appropriately designed to handle this activity.

The applicant has not provided specific details on the proposed cover of the court. Prior to approval, parameters on the scale and massing and conceptual plans or specifications should be provided to address the following: (1) the scale of the proposed cover in relation to the existing buildings and the screening of this area provided by the current landscape plan; (2) the compatibility of the materials and structure with other proposed buildings; and (3) any impact on the lighting issues.

**C. The plan provides for adequate management of stormwater runoff.**

Public works has reviewed a revised drainage study based on the proposed changes to the site plan, and the revised study includes resizing of the detention basin. Public works has found this drainage study to be acceptable and will need the contractor's final design details on the detention basin submitted with permits prior to construction inspections.

**F. An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.**

Materials and elevations for the permanent enclosed tennis structure were approved with the May special use permit and site plan. The application included conceptual elevations that proposed three different layers of prefabricated metal panels and a color scheme to match the clubhouse building, including the roof structure. (No material changes were proposed for the main clubhouse structure; only a painting and changes to the roof and canopy profiles, windows and exterior patio areas to achieve a look consistent with the mid-century design aesthetic.) The conceptual elevations broke up the massing of the building with different material panels, different colors on those panels and changes associated with the entrance vestibule, and garage door entries with glazing on the front and rear elevations. The application was approved based on the conceptual elevations, and based on the testimony that permanent enclosed tennis structure would be prefabricated metal panels that matches the exterior of the clubhouse, roof materials would match the clubhouse, and that insulated panels and trapping on the interior would be used to mitigate any potential noise.

The revised elevations for the permanent enclosed tennis structure differ from the previous conceptual elevations in the following manner:

- The prefabricated panels are shown to have a vertical orientation and a consistent pattern across all elevations, as opposed to a horizontal orientation and varied patterns.
- The color scheme is a single color (pearl gray), with dark bronze trim, as opposed to the three-toned scheme associated with the varied panel patterns and different massing elements previously proposed with the conceptual elevations.



- The garage entry on the front and rear elevation are solid material matching the main wall, as opposed to glazing and accent materials proposed with the conceptual elevations.
- The roof is proposed as “regal white,” as opposed to the gray previously proposed with the conceptual elevations (note: a similar roof style and color was shown on the clubhouse buildings).

Mr. Brewster noted the proposed changes impact previous approvals in two ways. First, aesthetically, it does not have the same quality of appearance. Secondly, it does not match the proposed clubhouse renovation and mid-century design aesthetic to the degree of the previous conceptual elevations.

However, the massing and scale of the building remains unchanged and meets all zoning and special use requirements. Further, the building is not a prominent building within the City when considering visibility from streets and public spaces, and the principal concern from adjacent residents through the process has been with regard to drainage and screening. If the Planning Commission determines that the proposed materials and conceptual design are acceptable in light of these considerations, staff recommends that additional vertical landscape elements be planted near the foundation and building perimeter to better screen the building from adjacent property and to help break down the scale and massing of the building when viewed from surrounding areas.

Patrick Lenahan asked for more information on the new material proposed. Tyler Holloman responded the material is *Insulated Metal Panel (IMP) product* that is more maintenance friendly. The surface is not smooth, but similar to that of an orange peel. It will be pearl gray in color with dark bronze trim.

Mr. Lenahan noted the late receipt of the elevations to the Commission and asked if the neighbors saw these elevations at the neighborhood meeting. Mr. Holloman replied they did not see them, but they were discussed as well as their location on the site plan.

Commission members had several questions on the height of the enclosure, noting conflicting numbers on the site plan and in the summary of the neighborhood meeting report. They sought clarification of the ceiling height vs. the roof height

Nancy Wallerstein noted the courts are to be used year-round and asked if heaters would be installed in the ceiling. Mr. Hulsing responded the indoor ceiling height will be fifteen feet as required for play. There are no heaters planned for the building at this time. Mrs. Wallerstein asked the height of the enclosure. Mr. Hulsing replied it would not exceed 30 feet at the highest pitch of the roof.

Mrs. Wallerstein asked the reason for the proposed change from horizontal panels to vertical panels. Mr. Hulsing replied that after a visit to see a similar installation at the University of Kansas, they liked the appearance of the vertical panels better. There are also financial savings that will offset some of the costs of the proposed LED lighting for the courts to address the neighborhood concerns with lighting. Mrs. Wallerstein noted the proposed roof color has been changed to regal white, rather than the darker color similar

to the clubhouse. Mr. Hulsing responded the roofing would not be visible from the ground and added the white color would produce far less heat for the court surface.

Jeffrey Valentino stated he had worked extensively with IMP products over the past few months and is impressed with the product. He noted the previously approved horizontal plan could be done using IMP. He would like to see them explore more options. Mr. Holloman replied they received bids from multiple companies with any vertical installation costing less than horizontal installations. Mr. Valentino felt the applicant went for the cheaper option and it is reflected in the design.

Dennis Hulsing noted the neighborhood concerns are with the lighting and landscaping and they have focused on those areas. With the proposed change they will have funding to offset the additional costs of LED directional lighting, which they plan to install, to address neighborhood concerns.

Mr. Breneman stated he was disappointed with the new building and asked if the color was brown or pearl gray. Mr. Holloman replied it will be pearl gray, the same color as the clubhouse which has not been painted yet and dark brown roof on the clubhouse and dark brown trim and gutters on the tennis building. Tennis building will be painted the same color but with a "regal white" roof and dark brown trim.

Mrs. Wallerstein noted the staff reports indicates the drainage retention has been resized. Mr. Holloman stated the retention is completely underground and not visible to the public. Mrs. Wallerstein questioned if with the new materials, additional landscaping was needed. Chris Brewster responded if they can't break up the mass with material changes, staff recommends additional landscaping added around the foundation to do so.

Patrick Lenahan expressed concern that the neighbors truly understood the revised plan with the proposed change in materials, as they were not shown the new elevations and plans for the building, but were given a verbal conceptual explanation of the change.

Mrs. Wallerstein repeated her concerns with the "regal white" roofing. Mr. Holloman responded that the roofing material is the same as that on the clubhouse but with lighter color to keep the heat on the courts from becoming excessive in the summer.

Commission members confirmed the panels were insulated. Mrs. Brown felt the roofline of the pickleball court needs to be looked at in relation to the clubhouse rather than the tennis courts. She shares Mr. Lenahan's concern with the clarity of the information presented to the neighbors regarding the height and visual changes of the proposed plan.

Dennis Hulsing noted most of the concerns expressed by the Commission were related to the structure over the pickleball courts and asked for the Commission to move forward on the other items seeking approval - the indoor tennis facility and the reconfiguration of the platform tennis court areas.

Chris Brewster advised the Commission that action could be taken on the two items requested with the approval of the structure covering the pickleball court being continued.

Mr. Hulsing replied they are willing to update the plans with more focus on the relation to the clubhouse as requested by Mrs. Brown and hold another neighborhood meeting presenting detailed visual elevations with the exact ceiling height and pitch of the roofline. He stressed it is vital to their membership that they be allowed to continue with the indoor tennis facilities. They will add additional landscaping at the entrance of the tennis building and install the directional LED lighting.

Commission members offered suggestions on addressing some of their concerns with the height and pitch. Mrs. Brown encouraged the application to upgrade the entry doors to the tennis structure with something more in line with the campus feel created by the clubhouse.

Gregory Wolf moved the Planning Commission approve PC2018-124 as it relates to everything but the pickleball structure, subject to the following conditions:

1. All conditions of the previously approved special use permit reviewed by the Planning Commission on May 1, 2018, and approved by the City Council on May 21, 2018 remain in effect.
2. All conditions of the previously approved site plan reviewed and approved by the Planning Commission on August 6, 2018 remain in effect with the exception of the following items specified in the amended site plan:
  - a. The platform tennis court footprint is expanded to the east and closer to the clubhouse to permit the relocation of the fourth platform tennis court.
  - b. The proposed materials, colors, and elevations for the enclosed tennis structure may be acceptable, provided the landscape plan is amended to include vertical landscape elements (evergreen and/or ornamental trees) at least every 20 to 30 feet around the foundation or perimeter of the building to support screening the structure from adjacent property and to help break up the massing of the building when viewed from surrounding areas. All other requirements for interior insulated panels and use of tarps to mitigate sound remain in place.
3. The applicant will be required to submit the contractor's final design of the detention basin, per the revised drainage study, to Public Works for review and approval prior to permits.
4. Entry glazing to be added to the tennis structure.
5. The applicant should take reasonable steps to minimize the reflectiveness of the roof.

The Commission further rejected the pickleball structure as submitted.

The motion was seconded by James Breneman and passed by a vote of 5 to 2 with Mr. Birkel and Mrs. Wallerstein voting in opposition.

## **OTHER BUSINESS**

### **Consider 2019 Meeting and Submittal Schedule**

The 2019 meeting and submittal schedule was reviewed by the Commission members with discussion on possibly changing the July 2<sup>nd</sup> meeting date to July 9<sup>th</sup>.

James Breneman moved the Planning Commission accept the 2019 Meeting and Submittal Schedule as presented and keep the July meeting on July 2. The motion was seconded by Patrick Lenahan and passed unanimously.

**Recognition of Commission Secretary**

Commission Secretary Joyce Hagen Mundy was recognized for her 31 years of service to the Commission and congratulated on her upcoming retirement.

**NEXT MEETING**

The filing deadline for the January 8<sup>th</sup> meeting is Friday, December 7<sup>th</sup>. No applications have been filed to date; however, staff anticipates a tower application and another lot split at Mission Chateau.

**ADJOURNMENT**

With no further business to come before the Commission, Chairman Nancy Wallerstein adjourned the meeting at 8:10 p.m.

Nancy Wallerstein  
Chair

# STAFF REPORT

**TO:** Prairie Village Board of Zoning Appeals  
**FROM:** Chris Brewster, Gould Evans, Planning Consultant  
**DATE:** January 8, 2019

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**Application:** PC 2019-101

**Request:** Lot Split for Separate Ownership of Duplex

**Action:** *A Lot Split requires the Planning Commission to apply the facts of the application to the standards and criteria of the ordinance, and if the criteria are met to approve the application.*

**Property Address:** 4001 & 4005 W. 85<sup>th</sup> Street

**Applicant:** Kevin Green

**Current Zoning and Land Use:** R-1A Single-Family Residential - Single-Family Dwellings

**Surrounding Zoning and Land Use:** North: R-1A/SUP Adult Senior Dwellings  
East: R-1A Single-Family District – Single Family Dwellings (Leawood) R-1 Single-Family Residential – Single Family Dwellings  
South: R-1A Single-Family Residential - Single-Family Dwellings  
West: R-1A Single-Family Residential – Vacant, Under Construction for more similar twin villas

**Legal Description:** LOT 10 MISSION CHATEAU 2<sup>ND</sup> PLAT

**Property Area:** 0.81 acres (35,209.53 s.f)

**Related Case Files:** PC 2016-119 Final Plat for Mission Chateau 2<sup>nd</sup> Plat – Replat of Lot 2  
PC 2015-110 Preliminary and Final Plat, & Final Development Plan  
PC 2015-08 Special Use Permit for Adult Senior Dwellings & Preliminary Development Plan  
PC 2013-127 Preliminary Plat  
PC 2013-126 Site Plan Approval for Adult Senior Dwellings  
PC 2013-11 Special Use Permit for Adult Senior Dwellings  
PC 2013-05 Special Use Permit for Adult Senior Dwellings  
PC 2013-114 Site Plan Approval for Adult Senior Dwellings  
PC 2004 Monument Sign  
PC 1995-104 Site Plan Approval for Expansion of Mission Valley Middle School

**Attachments** Application, certificate of survey

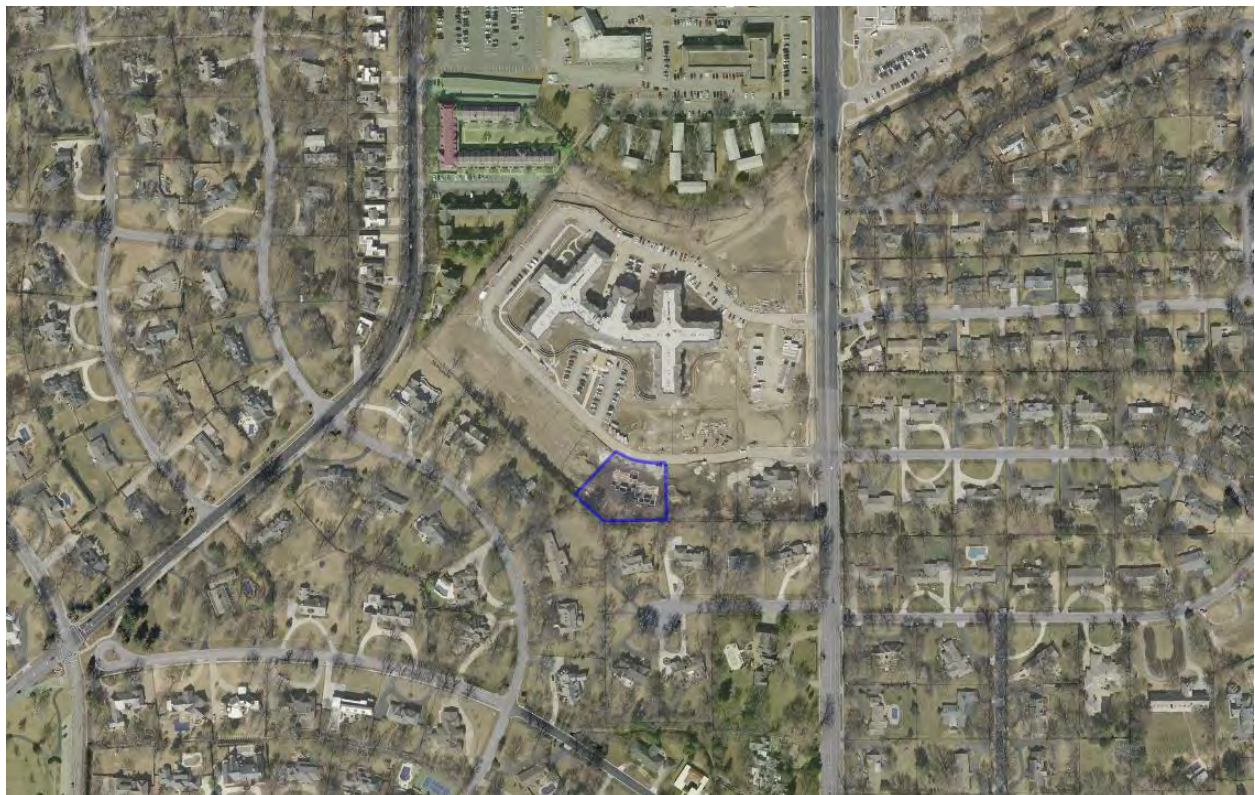
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**General Location Map**



**Aerial Map**





**Aerial Site**



**Birdseye View**



**Street Views**



*Street view looking west on Mission Road at 85<sup>th</sup> Street*



**SUMMARY:**

The applicant is requesting to split an existing lot into two lots to allow the individual ownership of each side of a single duplex building. This property is part of an overall development project for Adult Senior Dwellings that includes a Special Use Permit and Final Development Plan.

The Planning Commission recommended approval of a Special Use Permit, Site Plan approval and a Preliminary Plat at a Special Meeting on July 29, 2015. The City Council approved both recommendations on August 17, 2015 (PC 2015-08).

The Planning Commission approved a preliminary, final plat and final development plan for Mission Chateau at the March 1, 2016 meeting. (PC 2015-110). At this time, it was understood that the large lot to the south would be re-platted at a future date to facilitate the construction and sale of the villas, according to the final development plan. A final plat (Mission Chateau 2<sup>nd</sup> Plat) for Lots 3 through 13 for each of the twin villa lots was approved by the Planning Commission in July 2016 and accepted by the City Council. (PC-2016-119) Each of these lots included a two-unit building.

As part of the Special Use Permit and Final Development Plan, it was understood that the twin villas would be individually owned, and a subsequent administrative step would be necessary to facilitate recording of documents to allow sale and individual ownership of each unit in each of the twin villa buildings. A similar application was filed in November for a split at 3901 and 3905 West 85<sup>th</sup> Street.

**ANALYSIS:**

Section 18.02.010 of the subdivision regulations provides the criteria for approval of a lot split. Essentially the applicant must submit a certificate of survey demonstrating that both lots will meet the zoning ordinance standards and that any existing buildings on a remaining lot are not made nonconforming because of the lot split. The certificate of survey is also required to ensure that there are no issues with utility easements or rights-of-way that are created by the lot split or need to be addressed due to the lot split.

Section 18.02.010 also requires that applicants for a lot split submit a certificate of survey with the following information:

- a. The location of existing buildings on the site.
- b. The dimension and location of the lots, including a metes and bounds description of each lot.
- c. The location and character of all proposed and existing public utility lines, including sewers (storm and sanitary), water, gas, telecommunications, cable TV, power lines, and any existing utility easements.
- d. Any platted building setback lines with dimensions.
- e. Indication of location of proposed or existing streets and driveways providing access to said lots.
- f. Topography (unless specifically waived by the City Planning Commission) with contour intervals not more than five feet, and including the locations of water courses, ravines, and proposed drainage systems. (Staff recommends waiver of topography)
- g. Said certificate of survey shall include the certification by a registered engineer or surveyor that the details contained on the survey are correct.

All of this information is included on the survey certificate submitted by the applicant from R.L Buford & Associates, with a certification date of 12/4/2018. It specifies that LOT 10 be divided into Tract I (4005 W. 85<sup>th</sup> Street) and Tract II (4001 W. 85<sup>th</sup> Street), with the division of the tracts occurring along the party wall of the attached unit.

In this case, the property is zoned R-1A; however, the twin villa lots are permitted as part of an overall project for Adult Senior Dwellings through a Special Use Permit and Final Development Plan. Therefore, the development standards associated with the Special Use Permit and Final Development Plan are used,

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January 8, 2018

rather than the basic R-1A standards. The twin villas are also subject to design plans approved as a condition of the original Final Development Plan and indicated on all plat approvals.

The twin villa constructed on Lot 10 meets all requirements of the Special Use Permit and Final Development Plan (approved in July 2015), and the Final Plat (approved March 2016). The proposed lot split will entail no physical changes to the site or buildings, and is merely a mechanism to facilitate individual ownership of the units as anticipated.

**RECOMMENDATION:**

Staff recommends that the Planning Commission approve the lot split subject to the following conditions:

1. That the applicant record the approved lot split with the register of deeds and provide a copy of the recorded document prior to issuance of an occupancy permit.
2. That each of the resulting lots and the building continue to be subject to all conditions of approval of the Special Use Permit, Preliminary and Final Development Plans, and Final Plat, as well as the covenants recorded with the previous final plat.



**CITY OF PRAIRIE VILLAGE**

*The Star of Kansas*

App# 0018857

Cust # 20452

**Planning Commission Application**

12/6/2018 \$600 cc #08271G

For Office Use Only
Case No.: <u>PC 2019-101</u>
Filing Fee: <u>300</u>
Deposit: <u>1500</u>
Date Advertised:
Date Notices Sent:
Public Hearing Date: <u>1/8/19</u>

Please complete this form and return with Information requested to:

Assistant City Administrator  
City of Prairie Village  
7700 Mission Rd.  
Prairie Village, KS 66208

Applicant: KEVIN GREEN Phone Number: 816-407-7500

Address: 6610 ROYAL ST, PLEASANT VALLEY, Mo 64068 E-Mail Kevin@kevingreenhomes.com

Owner: KEVIN GREEN HOMES Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_ Zip: \_\_\_\_\_

Location of Property: 4001 ; 4005 W 85th ST

Legal Description: LOT 10, MISSION CHATEAU 2nd PLAT

Applicant requests consideration of the following: (Describe proposal/request in detail) LOT SPLIT TO DIVIDE DUPLEX

**AGREEMENT TO PAY EXPENSES**

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for \_\_\_\_\_

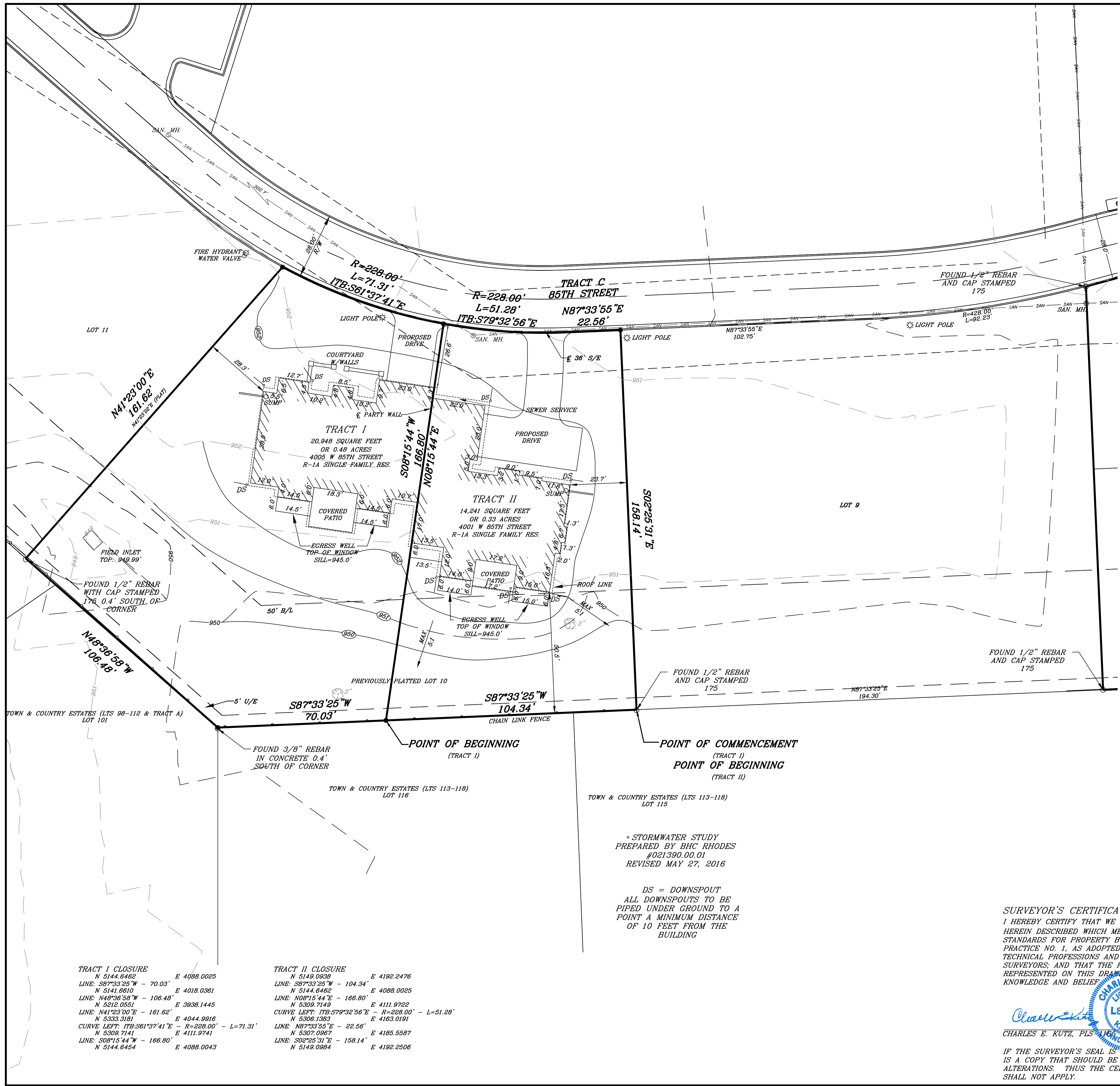
As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application

[Signature]  
Applicant's Signature/Date

[Signature]  
Owner's Signature/Date





**PROPERTY DESCRIPTIONS**

PARENT PARCEL:  
 LOT 10, MISSION CHATEAU 2ND PLAT, A SUBDIVISION IN PRAIRIE VILLAGE, JOHNSON COUNTY, KANSAS

TRACT I  
 CONTAINING 20,948 SQUARE FEET OR 0.48 ACRES

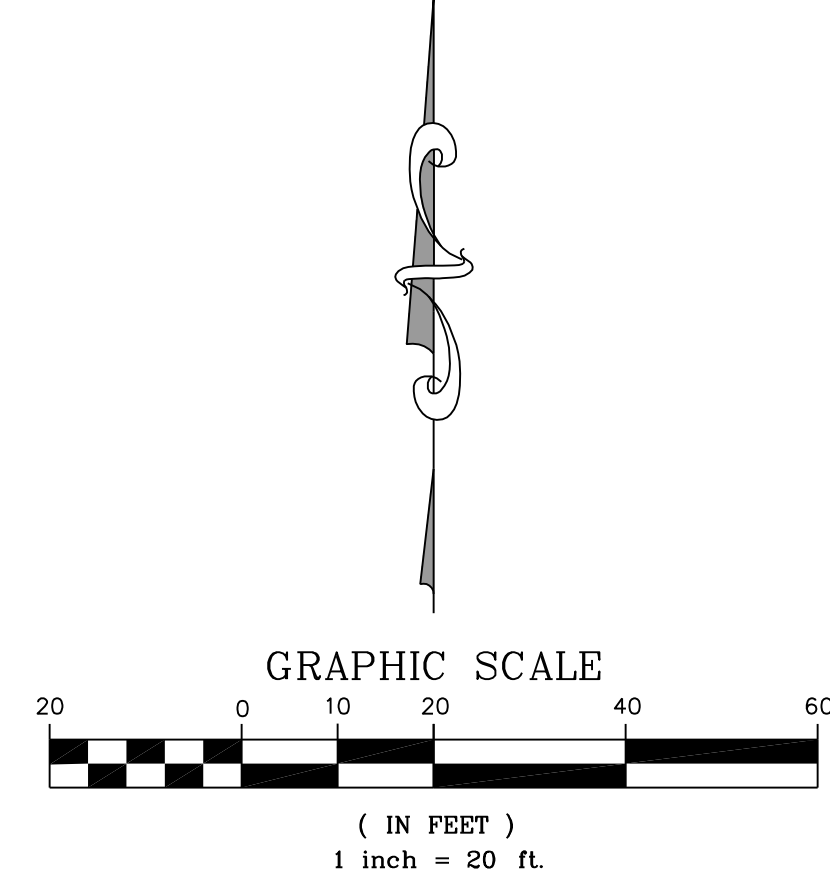
ALL THAT PART OF LOT 10, MISSION CHATEAU 2ND PLAT, A SUBDIVISION IN PRAIRIE VILLAGE, JOHNSON COUNTY, KANSAS, BEING DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID LOT 10; THENCE S87°33'25"W, ALONG THE SOUTH LINE OF SAID LOT 10, A DISTANCE OF 104.34 FEET TO A POINT ON THE SOUTHERLY PROLONGATION OF THE CENTERLINE OF A PARTY WALL SEPARATING 4005 AND 4001 W. 85TH STREET, SAID POINT ALSO BEING THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE S87°33'25"W, CONTINUING ALONG THE SOUTH LINE OF SAID LOT 10, A DISTANCE OF 70.03 FEET TO THE A CORNER ON THE SOUTH LINE OF SAID LOT 10; THENCE N48°36'58"W, ALONG THE SOUTHWESTERLY LINE OF SAID LOT 10, A DISTANCE OF 106.48 FEET TO THE WESTERLY MOST CORNER OF SAID LOT 10, SAID POINT ALSO BEING THE SOUTHEASTERLY CORNER OF LOT 11, SAID MISSION CHATEAU 2ND PLAT; THENCE N41°23'00"E ALONG THE WEST LINE OF SAID LOT 10 AND THE EAST LINE OF SAID LOT 11, A DISTANCE OF 161.62 FEET TO THE NORTHWEST CORNER OF SAID LOT 10; THENCE EASTERLY ALONG THE NORTH LINE OF SAID LOT 10, ALONG A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF S61°37'41"E, A RADIUS OF 228.00 FEET, AN ARC DISTANCE OF 71.31 FEET TO A POINT ON THE NORTHERLY PROLONGATION OF THE CENTERLINE OF SAID PARTY WALL; THENCE S08°15'44"W, ALONG THE CENTERLINE OF SAID PARTY WALL AND ITS NORTHERLY AND SOUTHERLY PROLONGATIONS, A DISTANCE OF 166.80 FEET TO THE POINT OF BEGINNING.

TRACT II  
 CONTAINING 14,241 SQUARE FEET OR 0.33 ACRES

ALL THAT PART OF LOT 10, MISSION CHATEAU 2ND PLAT, A SUBDIVISION IN PRAIRIE VILLAGE, JOHNSON COUNTY, KANSAS, BEING DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT 10; THENCE S87°33'25"W, ALONG THE SOUTH LINE OF SAID LOT 10, A DISTANCE OF 104.34 FEET TO A POINT ON THE SOUTHERLY PROLONGATION OF THE CENTERLINE OF A PARTY WALL SEPARATING 4005 AND 4001 W. 85TH STREET; THENCE N08°15'44"E, ALONG THE CENTERLINE OF SAID PARTY WALL AND ITS SOUTHERLY AND NORTHERLY PROLONGATIONS, A DISTANCE OF 166.80 FEET TO A POINT ON THE NORTH LINE OF SAID LOT 10; THENCE EASTERLY ALONG THE NORTH LINE OF SAID LOT 10, ALONG A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF S79°32'56"E, A RADIUS OF 228.00 FEET, AN ARC DISTANCE OF 51.28 FEET; THENCE N87°33'25"E, CONTINUING ALONG SAID LINE, A DISTANCE OF 22.56 FEET TO THE NORTHEAST CORNER OF SAID LOT 10; THENCE S02°25'31"E, ALONG THE EAST LINE OF SAID LOT 10, A DISTANCE OF 158.14 FEET TO THE POINT OF BEGINNING.

**BOUNDARY SURVEY NOTES:**

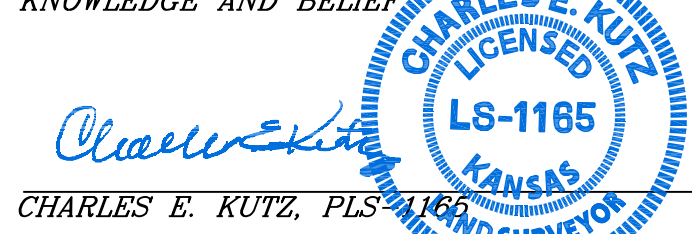
- THE FOLLOWING STANDARD MONUMENTATION HAS BEEN SET AT THE NOTED LOCATION UNLESS INDICATED OTHERWISE ON THIS DRAWING:  
 SEMI-PERMANENT MONUMENTATION:  
 CHISELED CROSS AT ALL CORNERS MARKED " \* "  
 1/2" REBAR WITH PLASTIC CAP STAMPED "LS-1165" SET AT ALL CORNERS MARKED " • "  
 PERMANENT MONUMENTATION:  
 5/8" REBAR WITH ALUMINUM CAP STAMPED "LS-1165" SET AT ALL CORNERS MARKED " ▲ "
- THE POSITION OF EXISTING MONUMENTATION AS INDICATED BY AN " \* ", " • " OR " ▲ ", IF NOT THE TRUE CORNER, IS BY DIFFERENCES IN COORDINATES OR AT RIGHT ANGLES TO THE PROPERTY LINE AT THE NOTED DISTANCE FROM THE NEAREST BOUNDARY CORNER.
- THE SOURCE OF THE DESCRIPTION USED FOR THIS SURVEY WAS DERIVED FROM THE PLAT OF MISSION CHATEAU 2ND PLAT.
- THE BEARINGS SHOWN HEREON ARE BASED UPON THE PLAT OF THE PLAT OF MISSION CHATEAU 2ND PLAT.
- THIS SURVEY IS BASED UPON RECORD DOCUMENTS, LEGAL DESCRIPTIONS, AND OTHER INFORMATION FURNISHED BY THE CLIENT PLUS OTHER INFORMATION KNOWN TO THIS SURVEYOR. THIS SURVEYOR HAS NO KNOWLEDGE OF ANY OTHER RECORD DOCUMENTS WHICH AFFECT THE SUBJECT REAL ESTATE.
- THIS SURVEY MEETS OR EXCEEDS THE ACCURACY STANDARDS AS DEFINED BY THE "MINIMUM STANDARDS FOR BOUNDARY SURVEYS, STANDARDS OF PRACTICE NO. 1, AS ADOPTED BY THE KANSAS STATE BOARD OF TECHNICAL PROFESSIONS AND THE KANSAS SOCIETY OF LAND SURVEYORS.
- ACCORDING TO THE FLOOD INSURANCE RATE MAP OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY, PANEL 39 OF 161, MAP NUMBER 2009IC0039G, REVISED AUGUST 3, 2009, THE SUBJECT PROPERTY IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD.



STORMWATER STUDY  
 PREPARED BY BHC RHODES  
 #021390.00.01  
 REVISED MAY 27, 2016

DS = DOWNSPOUT  
 ALL DOWNSPOUTS TO BE  
 PIPED UNDER GROUND TO A  
 POINT A MINIMUM DISTANCE  
 OF 10 FEET FROM THE  
 BUILDING

**SURVEYOR'S CERTIFICATION:**  
 I HEREBY CERTIFY THAT WE HAVE MADE A SURVEY OF THE PREMISES HEREIN DESCRIBED WHICH MEET OR EXCEED THE CURRENT "MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS, STANDARDS OF PRACTICE NO. 1, AS ADOPTED BY THE KANSAS STATE BOARD OF TECHNICAL PROFESSIONS AND THE KANSAS SOCIETY OF LAND SURVEYORS; AND THAT THE RESULTS OF SAID SURVEY ARE REPRESENTED ON THIS DRAWING AS THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.



CHARLES E. KUTZ, PLS  
 12/04/2018  
 DATE

IF THE SURVEYOR'S SEAL IS NOT SHOWN IN COLOR, THEN THE SURVEY IS A COPY THAT SHOULD BE ASSUMED TO CONTAIN UNAUTHORIZED ALTERATIONS. THUS THE CERTIFICATION CONTAINED ON THIS DOCUMENT SHALL NOT APPLY.

**DEVELOPER:**  
 KEVIN GREEN HOMES  
 6610 ROYAL STREET  
 PLEASANT VALLEY, MO 64068

© COPYRIGHT 2018 R.L. BUFORD & ASSOCIATES, LLC  
 E:\A-JOHNSON COUNTY\JD-18203\dwg\JD-18203 LOT SPLIT.dwg 12/4/2018 11:50:58 AM CST

**R.L. Buford & Associates, LLC**  
 LAND SURVEYING - DEVELOPMENT CONSULTANTS  
 R.L. BUFORD & ASSOCIATES, LLC - KS CERT. OF AUTHORITY CERTIFICATE NO. LS-279

P.O. BOX 14069, PARKVILLE, MO. 64152 (816) 741-6152

FOR	KGH BUILDING GROUP, LLC	SEC.-TWP.-RGE.	JOHNSON	JOB NO.
		28-12-25	JOHNSON	JD-18203
		DATE	FIELD BOOK	PAGE
		12/04/2018	LOOSE	LOOSE
				DRAWN BY R.G.Y.

**CERTIFICATE OF SURVEY/LOT SPLIT**

**TRACT I CLOSURE**  
 N 5144.6462 E 4088.0025  
 LINE: S87°33'25"W - 70.03' E 4018.0361  
 LINE: N48°36'58"W - 106.48' E 3938.1445  
 LINE: N41°23'00"E - 161.62' E 4044.9916  
 N 5333.3191 E 4044.9916  
 CURVE LEFT: ITB:S61°37'41"E - R=228.00' - L=71.31'  
 N 5308.2141 E 4111.9741  
 LINE: S08°15'44"W - 166.80' E 4088.0043  
 N 5144.6454 E 4088.0043

**TRACT II CLOSURE**  
 N 5149.0938 E 4192.2476  
 LINE: S87°33'25"W - 104.34' E 4088.0025  
 N 5144.6462 E 4088.0025  
 LINE: N08°15'44"E - 166.80' E 4111.9722  
 N 5308.7149 E 4111.9722  
 CURVE LEFT: ITB:S79°32'56"E - R=228.00' - L=51.28'  
 N 5306.1383 E 4163.0191  
 LINE: N87°33'25"E - 22.56' E 4185.5597  
 N 5307.0897 E 4185.5597  
 LINE: S02°25'31"E - 158.14' E 4192.2506  
 N 5149.0984 E 4192.2506



# STAFF REPORT

**TO:** Prairie Village Planning Commission  
**FROM:** Chris Brewster, Gould Evans, Planning Consultant  
**DATE:** January 8, 2019, Planning Commission Meeting

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**Application:** PC 2019-102

**Request:** Site Plan Approval – Facade Rehabilitation.

**Action:** *A Site Plan requires the Planning Commission to apply the facts of the application to the standards and criteria of the ordinance, and if the criteria are met to approve the application*

**Property Address:** 4601 W. 90<sup>th</sup> Street

**Applicant:** Dev Anand, Dev Inc. for John Stephenson, Somerset Partners LLC

**Current Zoning and Land Use:** C-2 General Business District

**Surrounding Zoning and Land Use:** North: RP-1A Planned Single Family – Single-family Residential  
East: C-2 General Business District – Retail / Service / Office  
South: C-1 Restricted Business District – Office / Service  
West: C-2 General Business District – Retail / Service

**Legal Description:** SOMERSET ACRES WEST LOT 2 BLK 7 VC-0714 0043

**Property Area:** .91 acres (39,592.95 s.f.)

**Related Case Files:** n/a

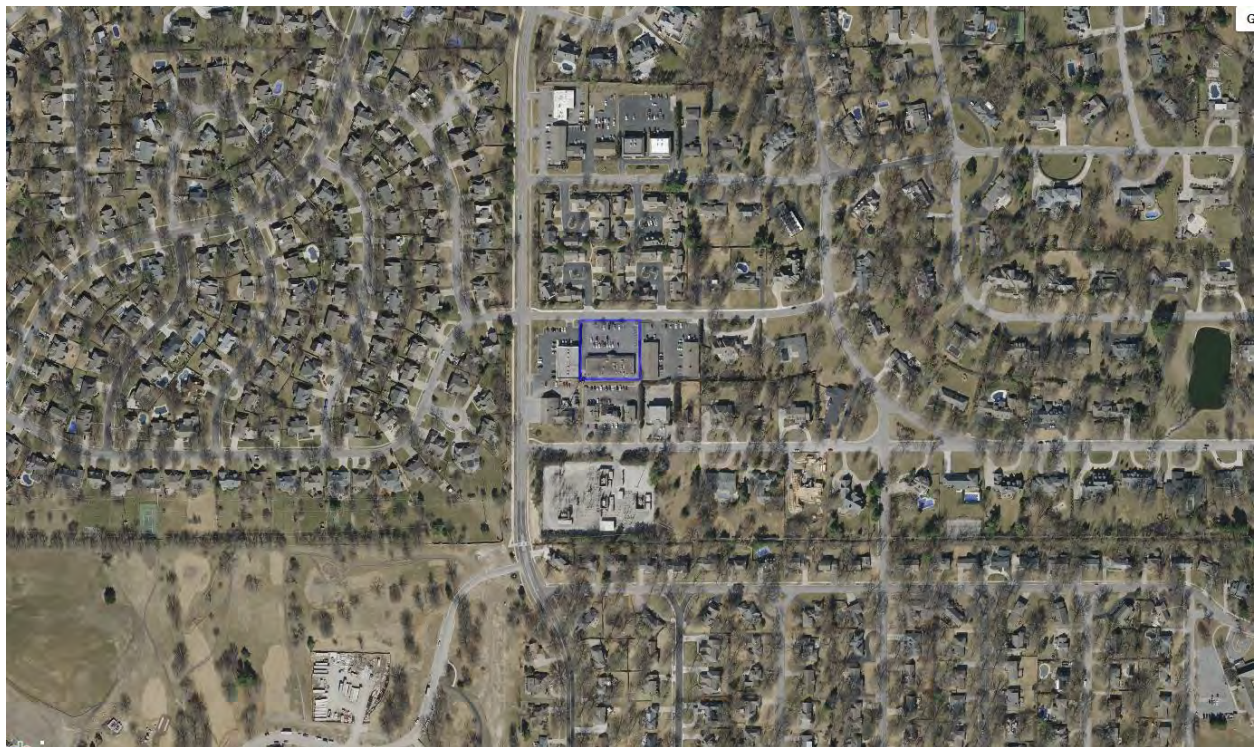
**Attachments:** Application, site plan and conceptual elevations

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**General Location Map**



**Aerial Map**





**Site**



**Street View**



*Street view looking east on 90<sup>th</sup> Street.*





*Street view looking southwest on 90<sup>th</sup> Street*



*Bird's eye view*



**COMMENTS:**

The applicant is requesting site plan approval to renovate the facade of an existing building. No other site changes are planned.

The building is part of a group of buildings that make up a small commercial center between West 90<sup>th</sup> Street and West 90<sup>th</sup> Terrace on the east side of Roe Avenue.

**Zoning Requirements**

The property is zoned C-2, General Business District. The application is a renovation of an existing building, which in general meets all standards of the C-2 District in terms of development standards, uses and parking requirements. The C-2 district has use and performance standards that all future tenants will be required to meet. Since this application proposes a substantial variation in the style and materials of the building, the Building Official may require site plan review and approval of the Planning Commission.

According to Section 19.32.030 of the Prairie Village Zoning Regulations, the Planning Commission shall give consideration to the following criteria in approving or disapproving a site plan.

**A. The Site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.**

The site plan meets the development standards of the C-2 district and adequately accommodates the building, parking and circulation, and open space and landscape. This application is a renovation of an existing building that meets all development standards, and there are no proposed changes to the location or extent of the building. There are no proposed or immediately anticipated changes in use with this application that would affect parking or access, and the requirements for any future changes will be reviewed in association with any business licenses or occupancy permits. The building is approximately 9,600 square feet according to Johnson County AIMS data, which would generally produce a zoning code parking requirement of 38 parking spaces for this site, with additional spaces possibly necessary for specific uses in the tenant make-up. The site currently has approximately 64 spaces.

**B. Utilities are available with adequate capacity to serve the proposed development.**

The proposal is to renovate the facade of an existing building and there have not been any reports of inadequate capacity for any utilities in the area.

**C. The plan provides for adequate management of stormwater runoff.**

The proposal is to renovate the facade of an existing building, and there are no proposed changes to the landscape, impervious surface or building footprints. There have been no reports of inadequate stormwater management in the area.

**D. The plan provides for safe and easy ingress, egress, and internal traffic circulation.**

The proposed changes will not impact any existing vehicle ingress and egress issues.

**E. The plan is consistent with good land planning and good site engineering design principles.**

The only change proposed is a façade renovation, which does not impact any land planning or site engineering design principles.

**F. An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.**

The proposed changes provide a more contemporary look for the building and involve four primary changes:

- (1) Changing the roof structure to remove the front gable and low arcade over the front walkway;
  - (2) Replacing the window banks with more open storefronts consisting of windows and doors with black aluminum framing;
  - (3) Adding building ornamentation and rooftop screening consisting of canvas awnings, wood lattice canopies, rooftop screens, and planter boxes; and
  - (4) Painting the existing brick facade and primary entry columns a light grey tone.
-

A conceptual sign design is also proposed, which includes white aluminum letters on an orange-toned background to compliment the proposed facade changes.

This area does not include any definitive design themes among the various buildings. It is primarily small, single-story buildings that complement the neighborhood scale, but each building or group of buildings has a distinct pallet of materials, colors and design themes.

The proposed changes improve and upgrade the aesthetics of the building and provide a more open feel for the storefronts, improving the visibility from the streetscape. The changes maintain the existing scale of the buildings, which integrates well with surrounding businesses and the neighborhood.

**G. The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.**

Village Vision identifies this area as a Commercial Improvement area in the Conceptual Development Framework, and this site is near the Meadowbrook redevelopment project also identified in the plan and currently under development to the south and west. There are no specific policies, plans or concepts for this shopping center in the plan.

The general policies for Commercial Improvement areas suggest that periodic upgrades are necessary for the City's commercial areas to remain attractive and retain tenants, including façade changes, signage or landscape improvements with particular attention on how they relate to surrounding neighborhoods and property. Specific concepts emphasized in the plan are:

- Ensuring that buildings relate to streets and public spaces with windows, and doors;
- Establishing a healthy mix of dwellings, restaurants, stores, offices and civic uses.
- Promoting smaller, independent businesses,
- Providing public spaces within commercial areas.
- Enhancing accessibility, particularly for walking or biking.
- Promoting pedestrian scale design.

The proposed facade rehabilitation does not present the opportunity to advance the more significant of these policies, which anticipate more substantial building redevelopment. However, in general the proposal reflects some of the principles with respect to the maintaining and improving existing commercial centers.

**RECOMMENDATION:**

It is the recommendation of Staff that the Planning Commission approve the proposed site plan and conceptual facade elevations for 4601 West 90<sup>th</sup> Street subject to the following conditions:

1. The sign designs are approved in concept. All future signs shall require a separate sign permit meeting the general sign dimension and location standards for the City.
2. Any future significant changes to the site, landscape or other non-building portions of the site shall require appropriate permits through typical City processes.



**CITY OF PRAIRIE VILLAGE**  
The Star of Kansas

cust # 20456

**Planning Commission Application**

Application 0018871

\$600 cc #234756 12/7/2018

Case No.: 2019 102
Filing Fee: 100
Deposit: 500
Date Advertised:
Date Notices Sent:
Public Hearing Date:

Please complete this form and return with Information requested to:

Assistant City Administrator  
City of Prairie Village  
7700 Mission Rd.  
Prairie Village, KS 66208

Applicant: Dev Anand, Dev Inc. Phone Number: 913.322.8882

Address: 8807 Monrovia Street, Lenexa, KS 66215 E-Mail dev@dev-inc.com; blake@dev-inc.com

Owner: John Stephenson, Somerset Partners, LLC Phone Number: 913.980.7318

Address: 5327 W 69th Street, Prairie Village, KS Zip: 66208

Location of Property: 4601 W 90th Street, Prairie Village, KS 66208

Legal Description: Somerset Acres West Lot 2 Blk 7 PVC-0714 0043

Applicant requests consideration of the following: (Describe proposal/request in detail) Renovation of exterior frontage of building. Paint, demolition of mansard roof, parapet screen wall constructed to conceal visible roof-top-units, replace existing windows and concrete walk.

**AGREEMENT TO PAY EXPENSES**

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for Somerset Plaza Exterior Renovation

As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Applicant's Signature/Date [Signature] 12/4/18

Owner's Signature/Date [Signature] 12/6/2018



EXISTING CONDITIONS







# TATSU'S RESTAURANT

Tenant Window  
Signage

RENDEZ 02









RENDER 04



# STAFF REPORT

**TO:** Prairie Village Planning Commission  
**FROM:** Chris Brewster, Gould Evans, Planning Consultant  
**DATE:** January 8, 2019, Planning Commission Meeting

---

**Application:** PC 2019-103

**Request:** Revised Site Plan to Add 3 Antenna on Existing Monopole Wireless Telecommunications Installation

**Action:** *A Site Plan requires the Planning Commission to apply the facts of the application to the standards and criteria of the ordinance, and if the criteria are met to approve the application*

**Property Address:** 3921 W. 63<sup>rd</sup> Street, Consolidated Fire District #2

**Applicant:** Darryl Cain, Centerline Solutions on behalf of CFD#2 and Lisa Self of T-mobile

**Current Zoning and Land Use:** R-1A Single-Family District - existing use is a fire station

**Surrounding Zoning and Land Use:** North: R-1B Single-Family District - Church and Single Family  
East: R-1A Single-Family District - Middle School  
South: R-1A Single-Family District - Middle School  
West: R-1A Single-Family District - Middle School

**Legal Description:** Indian Fields, Lot 3, BLK A

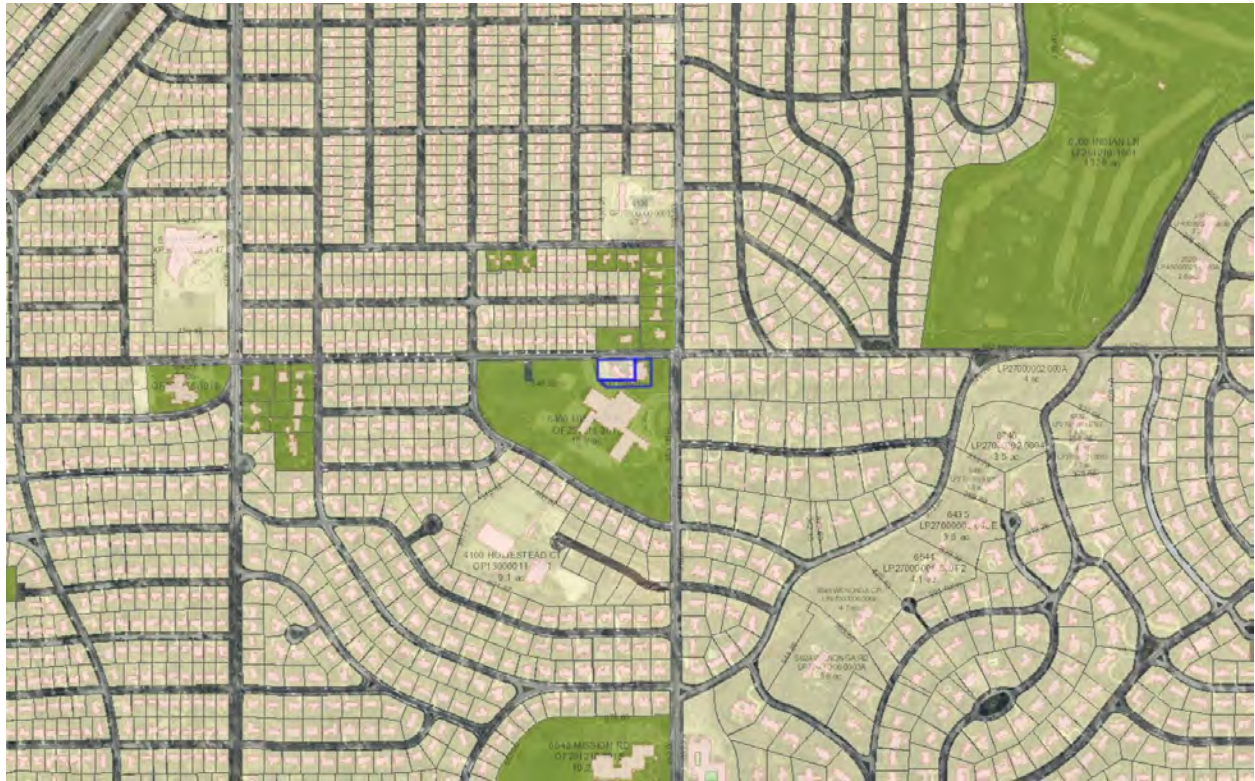
**Property Area:** 1.25 acres

**Related Case Files:** PC 2018-119 Revised Site Plan to Replace 3 Antenna  
PC 2015-10 Renewal of Special Use Permit for Monopole and Equipment Compound  
PC 2015-104 Renewal of Special Use Permit for a Monopole  
PC 2013-108 Site Plan Approval for AT&T  
PC 2011-109 Site Plan Approval for T-Mobile  
PC 2010-115 Site Plan Approval for AT&T  
PC 2010-03 SUP for a Wireless Communications Facility  
PC 97-110 Site Plan Approval for Fire Station

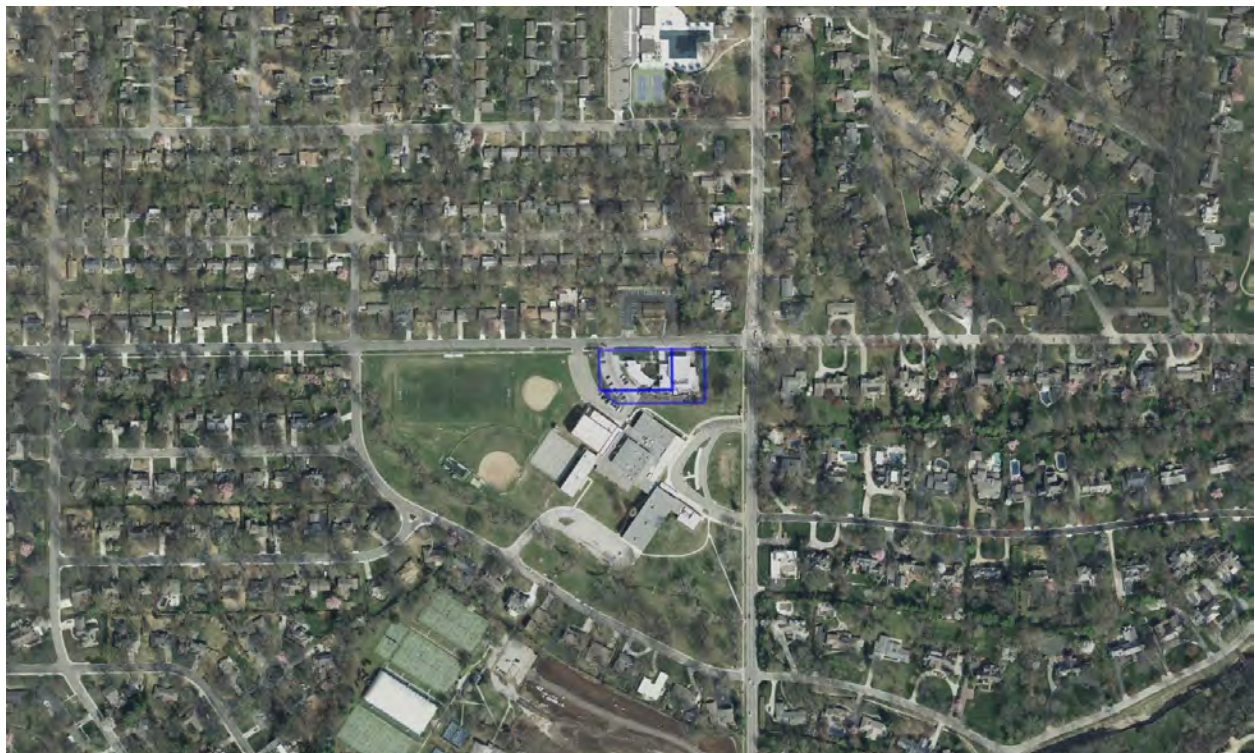
**Attachments:** Application, Proposed Plans, Current Photos

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**General Location – Map**



**General Location – Aerial**





**Site – Aerial**



**Site – Birdseye**







*Street View – Looking east on 63<sup>rd</sup> Street*



*Street View – Looking southwest from intersection of 63<sup>rd</sup> and Mission*

The applicant is requesting approval of a revised site plan to do the following for an existing monopole wireless telecommunications installation owned by the Consolidated Fire District No. 2 of Johnson County:

- Add 6 antenna (sizes are not given but plans specify typical T-mobile antenna and they will be entirely enclosed) - 2 per sector at the 100' elevation inside the existing space of the canister enclosing all antenna mounts.
- Add equipment cabinets (8'x8') and generator (4'x 3.5') in a 10' x 15' area of the existing and enclosed equipment platform
- Install 1 hybrid cable (approximately 1"-2" diameter, from antenna to ground equipment compound behind the screening wall and internal to tower).
- Install accessory utility meters and lines near compound entries.

The property on the south side of 63<sup>rd</sup> Street just west of Mission Road, is zoned R-1A and is used as a fire station as a permitted use in this district. The telecommunications facilities are operating under a valid special use permit. This installation is a monopole wireless telecommunications installation, with the antenna facilities shrouded within a canister. The equipment compound is located in a brick walled area that matches the building and supporting equipment is not detectible, and the cables are internal to the tower structure. The original application was approved in 2010 for Verizon, who transferred ownership of the tower to the Fire District. The special use permit was renewed in 2015 for the construction of a new tower with expanded capacity to handle multiple providers, including Verizon, AT&T, T-Mobile, and Sprint. The special use permit is subject to all of the standard telecommunication facility conditions, several conditions on the location and height of the tower, several conditions related to the capacity and co-location. In addition, the conditions require that all facilities are internal to the shroud and pole structure, and that any change of equipment or new facilities be approved through the City's site plan review process.

It is the opinion of Staff that the request does not substantially change the installation and should be approved. The proposed antenna is a monopole built for multiple providers, with all equipment internal to the pole and shroud structure. This application is consistent with the existing antenna on the tower, and will not visibly increase the intensity of the installation when viewed from the streetscapes or adjacent properties.

The applicant has submitted a structural report dated October 4, 2018 analyzing the existing facilities and effect of the proposal, and found that the existing structures are adequate as proposed. The report summary does state that 3 antenna and 9 remote radio units will be added, however the proposal is for 6 antenna in 3 sectors. Prior to permits the applicant shall confirm that this structural analysis is valid for the latest plan set.

The application must comply with all 23 conditions of the existing special use permit.

The Planning Commission shall give consideration to the following criteria in approving or disapproving a site plan.

**A. The Site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.**

The capacity of the site to accommodate all equipment was addressed in the renewal of the special use permit. The proposed antenna will not increase any impacts that would require a change to that permit or conditions.

**B. Utilities are available with adequate capacity to serve the proposed development.**

This is an existing installation and adequate utilities are available to serve the location.

**C. The plan provides for adequate management of stormwater runoff.**

No additional impervious area will be created, and, therefore, a stormwater management plan is not required.

**D. The plan provides for safe and easy ingress, egress, and internal traffic circulation.**

The site is an existing installation and utilizes the driveway and parking for the building. The ability of the site to accommodate ingress and egress was addressed in the renewal of the special use permit. The proposed antenna will not increase any impacts for ingress and egress to the site.

**E. The plan is consistent with good land planning and good site engineering design principles.**

This is a monopole facility with a shrouded design and internal cable system that minimizes the visual impact of facilities on the abutting property and surrounding community. Additionally, this is the replacement of existing antenna of a comparable or smaller size, so no visible differences should be detected provided the applicant meets all of the shrouding conditions.

**F. An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.**

This is a monopole installation with a shroud designed to screen all facilities or keep them internal to the pole structure. The proposed antenna will be the same as the existing antenna and designed to minimize visibility from the streetscape.

**G. The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.**

This is an existing building and site. While wireless communication facilities are not specifically addressed in Village Vision, this is civic use with an existing telecommunications facility, and the City's wireless communication policies and regulations promote co-location and location of facilities on civic and institutional properties.

**RECOMMENDATION:**

It is the recommendation of Staff that the Planning Commission approve the proposed site plan subject to the following conditions:

1. That the additional antenna be installed as shown on the proposed site plan.
2. That all conditions of the most recent renewal of the special use permit continue to be met, and particularly condition number 13, requiring that all facilities be installed internal to the tower and shroud.
3. Prior to building permits the applicant shall verify that the structural analysis dated October 4, 2018 is valid for the latest plan sets.



**CITY OF PRAIRIE VILLAGE**

*The Star of Kansas*

Cust # 20457  
App # 0018917

12/11/2018  
cc \$100 #027742

**Planning Commission Application**

For Office Use Only
Case No.: <u>PC 2019-103</u>
Filing Fee: <u>7100</u>
Deposit: <u>7500</u>
Date Advertised:
Date Notices Sent:
Public Hearing Date: <u>1/8/19</u>

Please complete this form and return with Information requested to:

Assistant City Administrator  
City of Prairie Village  
7700 Mission Rd.  
Prairie Village, KS 66208

Applicant: Darryl Cain Phone Number: 913-293-8120  
 Address: 7406 Albeveria St., Shawnee, KS E-Mail dcain@centerlinesolutions.com  
 Owner: T-Mobile - Lisa Self Phone Number: 913-986-4703  
 Address: 12980 Foster St., O.P., KS Zip: 66213  
 Location of Property: 3921 W. 63rd St., Prairie Village, KS 66208  
 Legal Description: Consolidated Five Dist. #2 Station

Applicant requests consideration of the following: (Describe proposal/request in detail) Adding cell antennas to existing Monopole and base station equipment.

**AGREEMENT TO PAY EXPENSES**

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for \_\_\_\_\_.

As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Darryl Cain 11/30/18  
Applicant's Signature/Date

Darryl Cain for T-Mobile  
Owner's Signature/Date



APPLICANT SITE NAME:  
**PRAIRIE VILLAGE FD TOWER**

APPLICANT SITE NUMBER:  
**A5D0310A**

DRAWING DESCRIPTION:  
**FOR CONSTRUCTION NEW SITE BUILD**

APPROVAL SIGNATURE BLOCK		
THE FOLLOWING PARTIES HAVE REVIEWED THESE DOCUMENTS:		
<hr/>	<input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	<hr/>
SITE ACQUISITION (PRINT)		DATE
<hr/>	<input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	<hr/>
RF ENGINEER (PRINT)		DATE
<hr/>	<input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	<hr/>
CONSTRUCTION MANAGER (PRINT)		DATE
<hr/>	<input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED	<hr/>
OPERATIONS (PRINT)		DATE
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PROJECT MANAGER (PRINT)		DATE

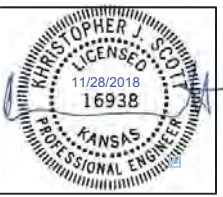




APPLICANT SITE NAME:  
**PRAIRIE VILLAGE FD TOWER**

APPLICANT SITE NUMBER:  
**A5D0310A**

PROJECT: NEW SITE BUILD  
 RFDS CONFIGURATION: CUSTOM  
 RFDS DATE: 09/18/18  
 STRUCTURAL COMPANY: VECTOR ENGINEERS  
 STRUCTURAL REPORT #: U1194-678-18  
 STRUCTURAL DATE: OCTOBER 4, 2018 (PASS)  
 DRAWING DESCRIPTION: FOR CONSTRUCTION



CP PROJECT NO.: TMO-18-0096-29

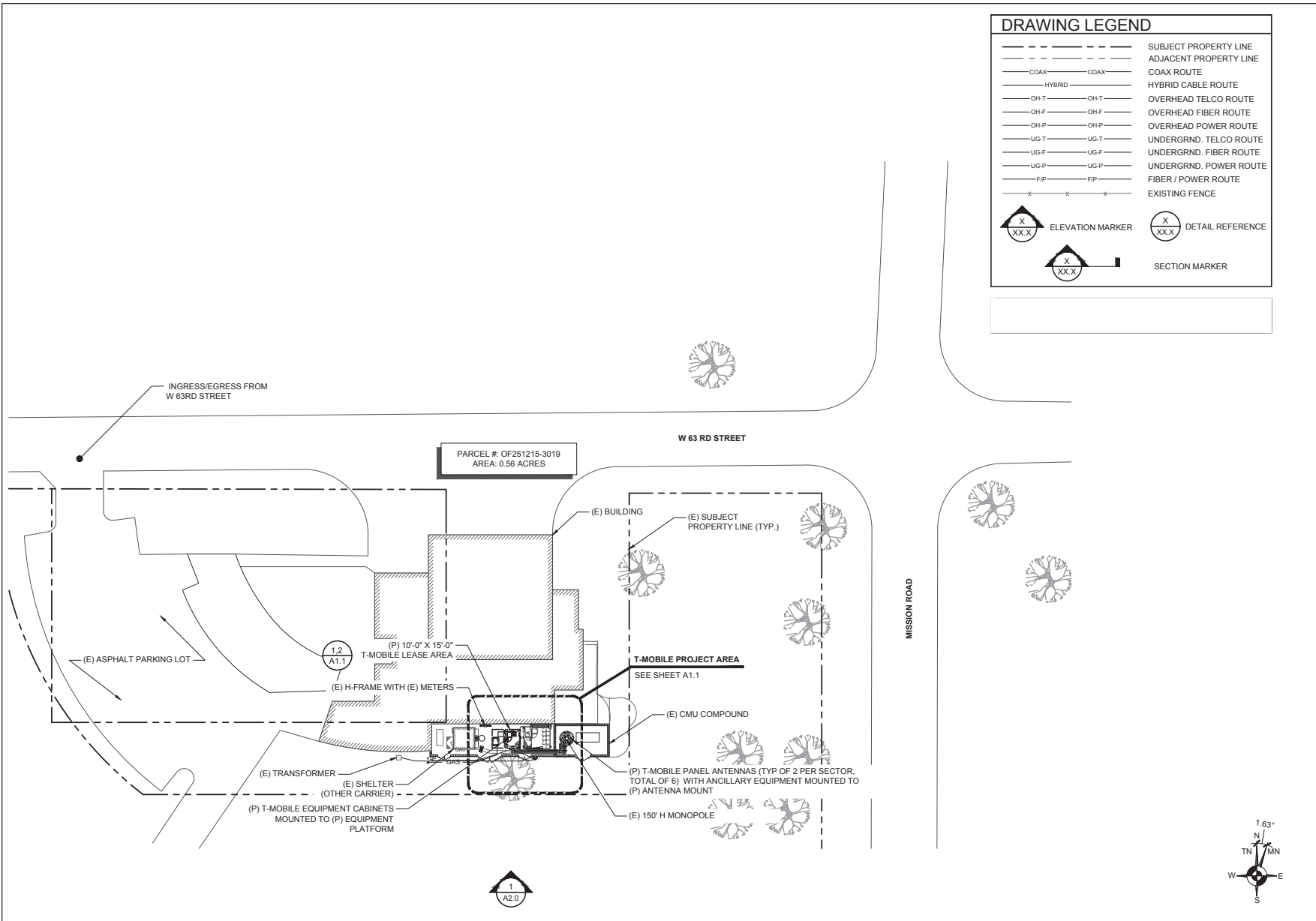
PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT
SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER  
**SITE ID:**  
A5D0310A  
**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
**TITLE SHEET**

**SHEET NO.**  
**T1.0**

AREA MAP	JURISDICTION COMPLIANCE	SITE INFORMATION	DRAWING INDEX																																																						
	<p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:</p> <p>INTERNATIONAL BUILDING CODE (2012 IBC)            INTERNATIONAL MECHANICAL CODE            ANSITIA-222 STRUCTURAL STANDARD            NFPA 780 - LIGHTNING PROTECTION CODE            UNIFORM PLUMBING CODE            NATIONAL ELECTRICAL CODE</p> <p><b>Know what's below. Call before you dig.</b></p>	<p><b>SITE ADDRESS:</b> 3921 W 63RD STREET PRAIRIE VILLAGE, KS 66208</p> <p><b>COUNTY:</b> JOHNSON</p> <p><b>PROPERTY OWNER:</b> PRAIRIE VILLAGE FD TOWER 3921 W 63RD STREET PRAIRIE VILLAGE, KS 66208</p> <p><b>TOWER INFORMATION:</b></p> <p>LATITUDE: 39° 0' 52.74" N (39,01465") (NAD 83)            LONGITUDE: 94° 37' 52.36" W (-94,63121") (NAD 83)            GROUND ELEVATION: 945' AMSL            TOP OF (E) TOWER: 150'-0" AGL            TOWER TYPE: MONOPOLE            APPLICANT CL: 100'-0" AGL</p> <p><b>APPLICANT:</b> T-MOBILE 12980 S FOSTER STREET, SUITE 200 OVERLAND PARK, KS 66213</p> <p><b>POWER:</b> KANSAS CITY POWER &amp; LIGHT (TBC)  <b>TELCO:</b> AT&amp;T (TBC)</p>	<table border="1"> <thead> <tr> <th>SHEET NUMBER</th> <th>SHEET TITLE</th> </tr> </thead> <tbody> <tr><td>T1.0</td><td>TITLE SHEET</td></tr> <tr><td>A1.0</td><td>OVERALL SITE PLAN</td></tr> <tr><td>A1.1</td><td>ENLARGED SITE PLAN</td></tr> <tr><td>A1.2</td><td>T-MOBILE EQUIPMENT PLAN AND ELEVATION</td></tr> <tr><td>A2.0</td><td>ELEVATION AND ANTENNA PLAN</td></tr> <tr><td>A3.0</td><td>ANTENNA CONFIGURATION KEY</td></tr> <tr><td>A3.1</td><td>EQUIPMENT CONFIGURATION KEY</td></tr> <tr><td>RF1</td><td>NSN CONFIGURATION DIAGRAM</td></tr> <tr><td>A4.0</td><td>ANTENNA ONE-LINE DIAGRAM</td></tr> <tr><td>A5.0</td><td>T-MOBILE EQUIPMENT DETAILS</td></tr> <tr><td>A5.1</td><td>T-MOBILE EQUIPMENT DETAILS</td></tr> <tr><td>A5.2</td><td>T-MOBILE EQUIPMENT DETAILS</td></tr> <tr><td>A5.3</td><td>T-MOBILE PLATFORM DETAIL</td></tr> <tr><td>A5.4</td><td>T-MOBILE CABLE BRIDGE DETAIL</td></tr> <tr><td>A5.5</td><td>T-MOBILE EQUIPMENT ELEVATION</td></tr> <tr><td>A6.0</td><td>CONSTRUCTION DETAILS</td></tr> <tr><td>A7.0</td><td>GENERATOR SPECIFICATIONS</td></tr> <tr><td>E1.0</td><td>OVERALL ELECTRICAL SITE PLAN</td></tr> <tr><td>E1.1</td><td>ENLARGED ELECTRICAL PLAN</td></tr> <tr><td>E2.0</td><td>ONE-LINE / CALCS</td></tr> <tr><td>E2.1</td><td>PANEL SCHEDULE</td></tr> <tr><td>E3.0</td><td>UTILITY DETAILS</td></tr> <tr><td>G1.0</td><td>OVERALL GROUNDING PLAN</td></tr> <tr><td>G1.1</td><td>ANTENNA GROUNDING PLAN</td></tr> <tr><td>G2.0</td><td>GROUNDING DETAILS</td></tr> <tr><td>GN1</td><td>GENERAL NOTES</td></tr> </tbody> </table>	SHEET NUMBER	SHEET TITLE	T1.0	TITLE SHEET	A1.0	OVERALL SITE PLAN	A1.1	ENLARGED SITE PLAN	A1.2	T-MOBILE EQUIPMENT PLAN AND ELEVATION	A2.0	ELEVATION AND ANTENNA PLAN	A3.0	ANTENNA CONFIGURATION KEY	A3.1	EQUIPMENT CONFIGURATION KEY	RF1	NSN CONFIGURATION DIAGRAM	A4.0	ANTENNA ONE-LINE DIAGRAM	A5.0	T-MOBILE EQUIPMENT DETAILS	A5.1	T-MOBILE EQUIPMENT DETAILS	A5.2	T-MOBILE EQUIPMENT DETAILS	A5.3	T-MOBILE PLATFORM DETAIL	A5.4	T-MOBILE CABLE BRIDGE DETAIL	A5.5	T-MOBILE EQUIPMENT ELEVATION	A6.0	CONSTRUCTION DETAILS	A7.0	GENERATOR SPECIFICATIONS	E1.0	OVERALL ELECTRICAL SITE PLAN	E1.1	ENLARGED ELECTRICAL PLAN	E2.0	ONE-LINE / CALCS	E2.1	PANEL SCHEDULE	E3.0	UTILITY DETAILS	G1.0	OVERALL GROUNDING PLAN	G1.1	ANTENNA GROUNDING PLAN	G2.0	GROUNDING DETAILS	GN1	GENERAL NOTES
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<p><b>APPROVALS</b></p> <table border="1"> <thead> <tr> <th>CONSULTANT</th> <th>SIGNATURE</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>T-MOBILE CONSTRUCTION MANAGER</td> <td></td> <td></td> </tr> <tr> <td>T-MOBILE OPERATIONS MANAGER</td> <td></td> <td></td> </tr> <tr> <td>T-MOBILE RF ENGINEER</td> <td></td> <td></td> </tr> <tr> <td>LANDLORD</td> <td></td> <td></td> </tr> </tbody> </table>		CONSULTANT	SIGNATURE	DATE	T-MOBILE CONSTRUCTION MANAGER			T-MOBILE OPERATIONS MANAGER			T-MOBILE RF ENGINEER			LANDLORD			<p><b>CONSULTING TEAM</b></p> <p><b>ENGINEERING:</b> CENTERLINE SOLUTIONS 16035 TABLE MOUNTAIN PARKWAY GOLDEN, CO 80403 PH: 303,993,3293</p> <p>LEAD ENGINEER: KRISTOPHER SCOTT, P.E.            LEAD ELECTRICAL: ASEI ENGINEERING</p> <p>PROJECT MANAGER: DARRYL CAIN, P.E.            LEAD DESIGNER: LAURA LASHER</p>																																								
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**DRAWING LEGEND**

---	SUBJECT PROPERTY LINE
- - - -	ADJACENT PROPERTY LINE
— COAX — COAX —	COAX ROUTE
— HYBRID —	HYBRID CABLE ROUTE
— OH-T — OH-T —	OVERHEAD TELCO ROUTE
— OH-F — OH-F —	OVERHEAD FIBER ROUTE
— OH-P — OH-P —	OVERHEAD POWER ROUTE
— UG-T — UG-T —	UNDERGRND. TELCO ROUTE
— UG-F — UG-F —	UNDERGRND. FIBER ROUTE
— UG-P — UG-P —	UNDERGRND. POWER ROUTE
— FIP — FIP —	FIBER / POWER ROUTE
— X — X — X —	EXISTING FENCE

	ELEVATION MARKER		DETAIL REFERENCE
	SECTION MARKER		



CP PROJECT NO.: TMO-18-0096-29

**PRELIMINARY**

NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

**SUBMITTAL**

NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

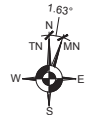
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PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

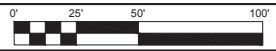
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OVERALL SITE PLAN

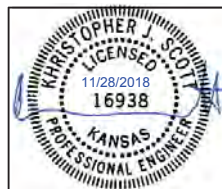
**SHEET NO.**  
A1.0



1 OVERALL SITE PLAN

SCALE: 1" = 50'-0" (11X17)  
SCALE: 1" = 25'-0" (22X34)





CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
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1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

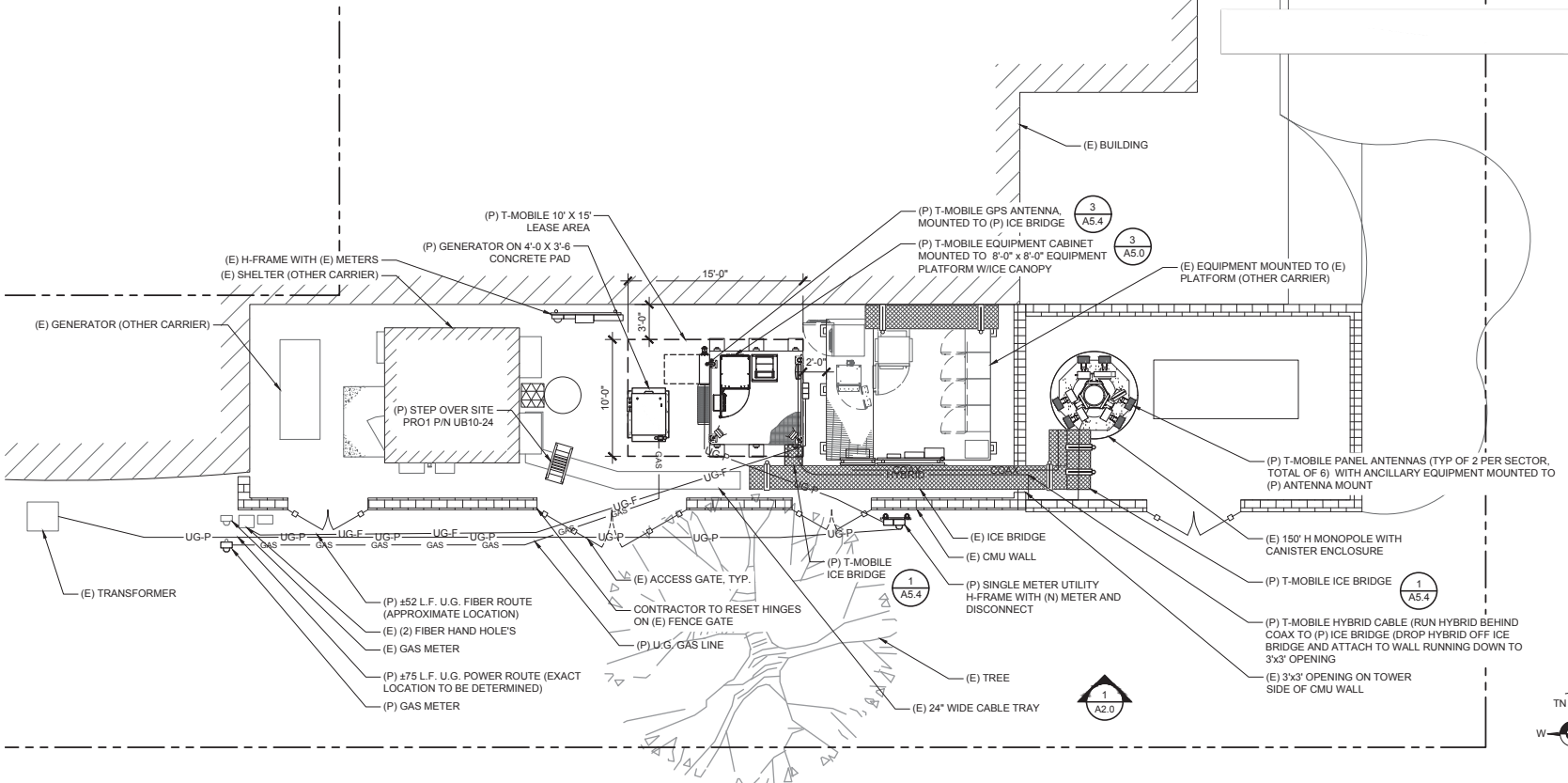
**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**ENLARGED SITE PLAN**

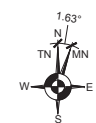
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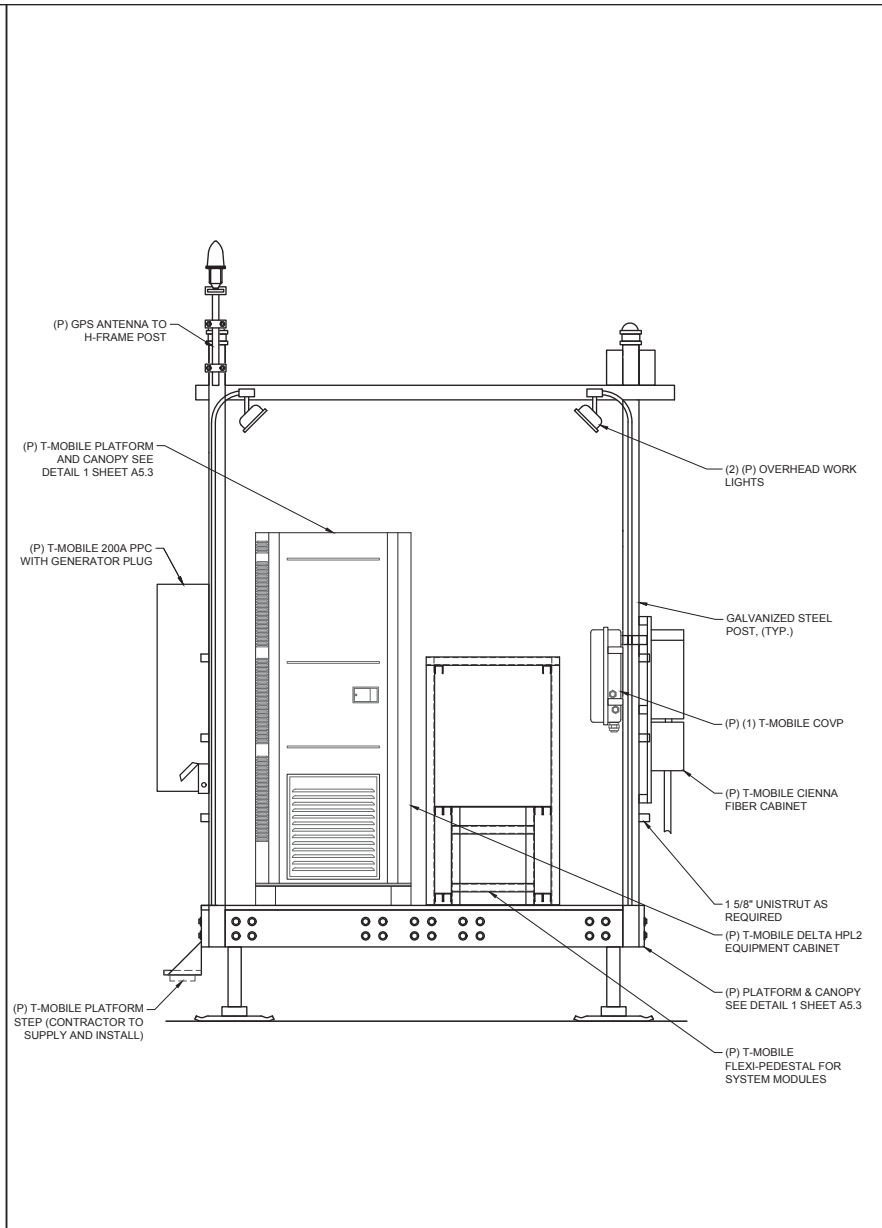
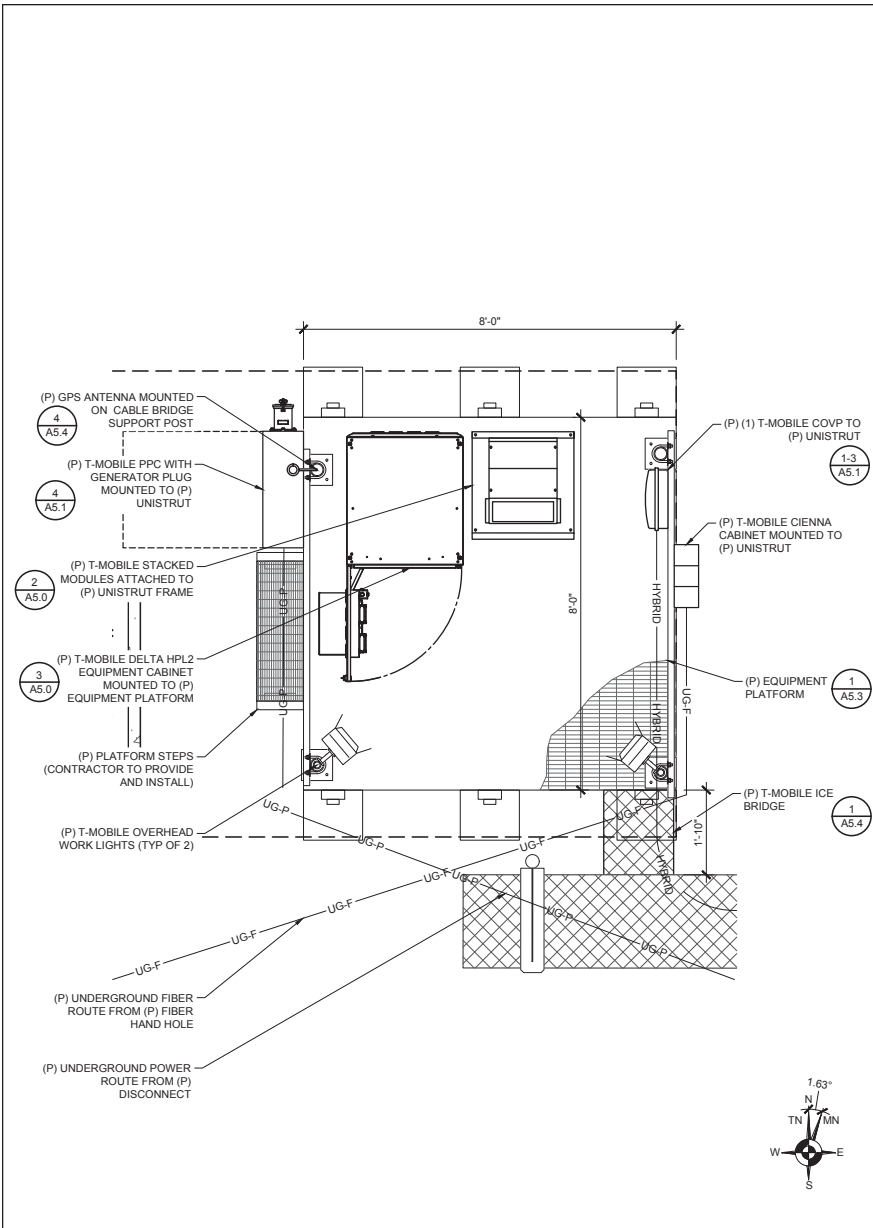
DRAWING LEGEND	
---	SUBJECT PROPERTY LINE
---	ADJACENT PROPERTY LINE
---COAX---	COAX ROUTE
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---UG-P---	UNDERGRND. POWER ROUTE
---FP---	FIBER / POWER ROUTE
---	EXISTING FENCE
	ELEVATION MARKER
	DETAIL REFERENCE
	SECTION MARKER



1 ENLARGED SITE PLAN

SCALE: 1" = 10'-0" (11X17)  
SCALE: 1" = 5'-0" (22X34)





1 (P) T-MOBILE EQUIPMENT PLAN

SCALE: 3/8" = 1'-0" (11X17)

SCALE: 3/4" = 1'-0" (22X34)

0' 1' 3' 5'

2 (P) T-MOBILE EQUIPMENT ELEVATION

SCALE: NTS

SCALE: NTS

**T-Mobile**

**CENTERLINE SOLUTIONS**

**CHRISTOPHER J. SCOTT**  
 LICENSED  
 11/28/2018  
 16938  
 KANSAS  
 PROFESSIONAL ENGINEER

CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
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1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

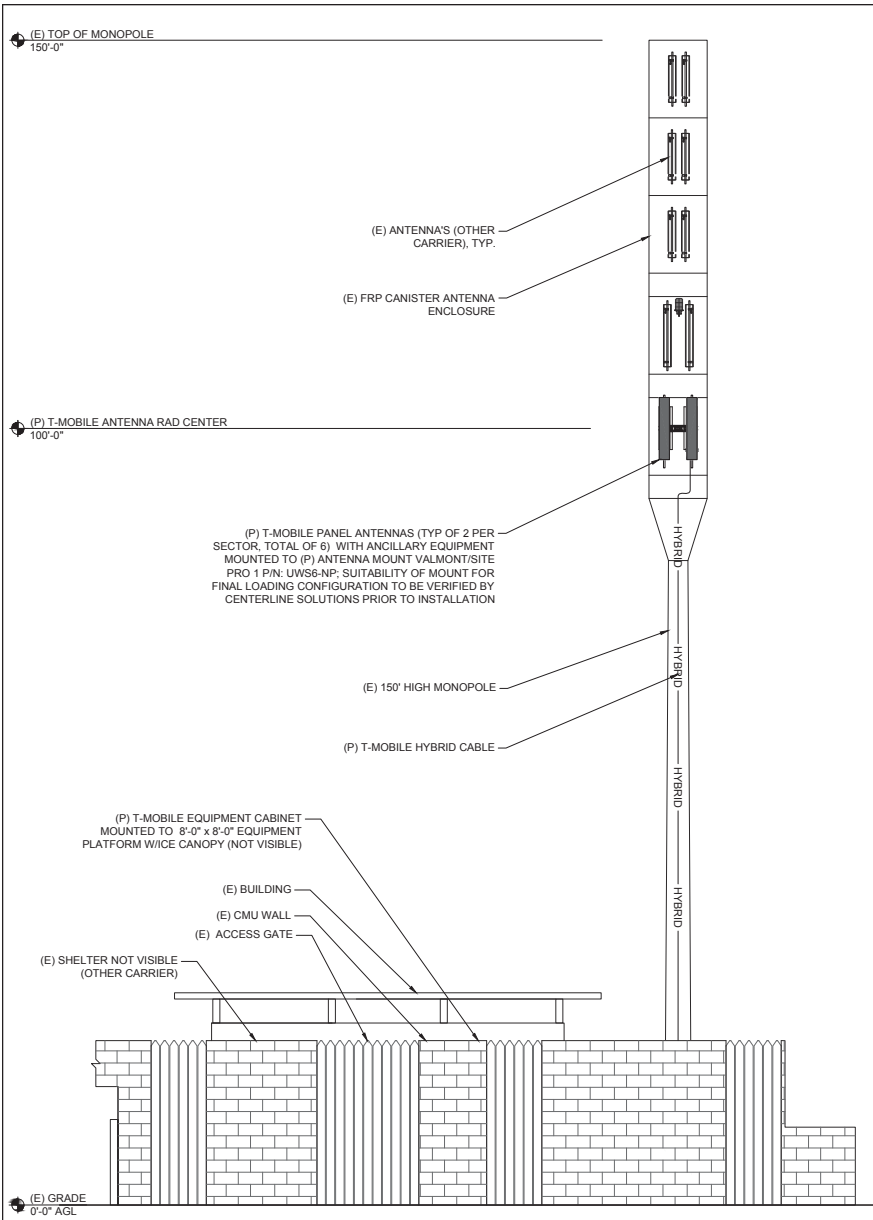
**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
T-MOBILE  
EQUIPMENT PLAN  
AND ELEVATION

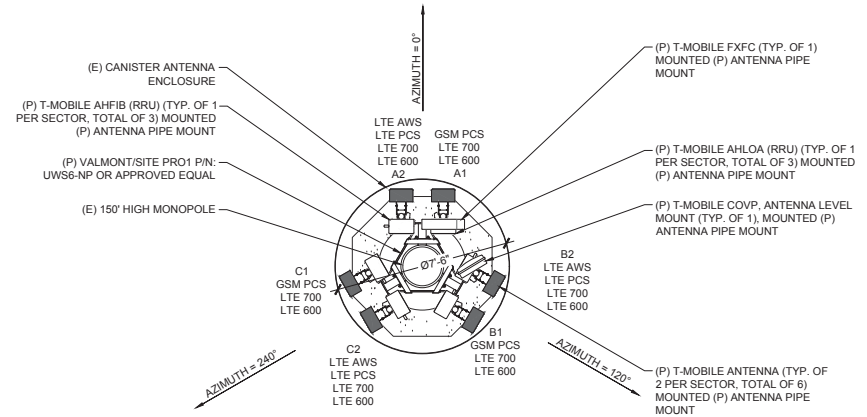
**SHEET NO.**  
A1.2





1 PROPOSED SOUTH ELEVATION SCALE: 1/16" = 1'-0" (11X17) SCALE: 1/8" = 1'-0" (22X34)

- NOTES:**
- IF REQUIRED, PAINT TO MATCH ANTENNAS AND ANCILLARY EQUIPMENT TO MATCH THE EXISTING STRUCTURE WITH NON-REFLECTIVE PAINT AS REQD. CONTRACTOR TO VERIFY COLOR AND FINISH WITH LANDLORD AND/OR JURISDICTION.
  - PRIOR TO MATERIALS PROCUREMENT CONTRACTOR SHALL FIELD VERIFY CONDITION OF STRUCTURE AT PROPOSED MOUNTING LOCATION TO ENSURE EXISTING CONDITIONS ARE SUITABLE AT SPECIFIED ELEVATION.
  - RETURN ALL USED EQUIPMENT AND HARDWARE TO T-MOBILE WAREHOUSE.
  - ALL CLIMBING PATHS ON TOWER/MONOPOLE TO REMAIN FREE & CLEAR OF MOUNTS, EQUIPMENT, ETC.



2 ANTENNA PLAN SCALE: 3/16" = 1'-0" (11X17) SCALE: 3/8" = 1'-0" (22X34)



CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY		
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2	10-23-18	LLJS CLIENT COMMENT

SUBMITTAL		
NO.	DATE	DESCRIPTION
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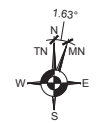
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PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**ELEVATION AND ANTENNA PLAN**

SHEET NO.  
**A2.0**



**ANTENNA NOTES:**

1. ANTENNA CONTRACTOR SHALL INSURE THAT ALL ANTENNA MOUNTING PIPES ARE PLUMB.
2. FEEDLINE LENGTHS INDICATED ARE APPROXIMATE.
3. ANTENNA COAXIAL FEEDERS & ANTENNA JUMPERS SHALL BE COLOR CODED PER T-MOBILE REQUIREMENTS. THE FOLLOWING CHECKER STRIPE SHALL BE ADDED TO EACH ANTENNA FEEDLINE & ANTENNA JUMPER.  
 LTE 600 - SOLID WHITE STRIPE  
 LTE 700 - RED-BLACK CHECKER STRIPE  
 LTE PCS - GREEN-BLACK CHECKER STRIPE  
 LTE AWS - YELLOW-BLACK CHECKER STRIPE  
 UMTS PCS - RED-WHITE CHECKER STRIPE  
 UMTS AWS - GREEN-WHITE CHECKER STRIPE  
 GSM PCS - BLACK-WHITE CHECKER STRIPE
4. IN ADDITION TO THE COLOR CODE THE FOLLOWING ANTENNA SECTOR COLOR STRIPE SHALL BE ADDED TO EACH ANTENNA SECTOR FEEDLINE & JUMPER.  
 ALPHA - RED STRIPE  
 BETA - YELLOW STRIPE  
 GAMMA - BLUE STRIPE  
 DELTA - GREEN STRIPE  
 HYBRID - GRAY STRIPE
5. MULTI PORT ANTENNAS: TERMINATE UNUSED ANTENNA PORTS WITH CONNECTOR CAP & WEATHERPROOF THOROUGHLY. JUMPERS FROM TMA'S MUST TERMINATE TO OPPOSITE POLARIZATIONS IN EACH SECTOR.
6. CONTRACTOR MUST FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS REGARDING THE INSTALLATION OF FEEDLINES, CONNECTORS, AND ANTENNAS.
7. MINIMUM BEND RADIUS:  
 LDF4-50A (1/2" HARD LINE) = 5"  
 FSJ4-50B (1/2" SUPER FLEX) = 1 1/4"  
 AVA5-50A (7/8" HARD LINE) = 10"  
 AVA7-50A (1-5/8" HARD LINE) = 15"  
 LDF7-50A (1-5/8" HARD LINE) = 20"
8. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO T-MOBILE.
9. WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE.
10. ANTENNA CONTRACTOR SHALL PERFORM A "TAPE DROP" MEASUREMENT TO CONFIRM/VALIDATE ANTENNA CENTERLINE (ACL) HEIGHT. CONTRACTOR SHALL SUBMIT A COMPLETED HEIGHT VERIFICATION FORM TO THE CONSTRUCTION MANAGER.
11. ALL FIBER RUNS CONTAINED IN ONE COMMSCOPE HYBRID DC-FIBER CABLE (MODEL# ASU9325TP01) FROM LOWER COVP TO UPPER COVP, HYBRID CABLE SHALL BE COLOR CODED PER T-MOBILE REQUIREMENTS.

ANTENNA KEY													
STATUS	ANTENNA NUMBER / SECTOR TECH.	COLOR CODE (SEE NOTE 3)		BEAM WIDTH	ANTENNA VENDOR	MODEL #	AZIMUTH	ELEC. DOWN/TILT	MECH. DOWN/TILT	ANTENNA CENTERLINE AGL	TECH	HYBRID FEEDER	
		SECTOR COLOR / #	TECH. COLOR(S)									(QTY) SIZE	COLOR CODE
NEW	LTE AWS LTE PCS LTE 700 A2	RED 4 RED 3 RED 2 RED 1	YB+GB YB+GB YB+GB RB RB	65°	COMMSCOPE	FHH-65C-R3	0°	TBD	0°	100'	LTE AWS LTE PCS LTE 700 LTE 600 DARK	(1) (P) HI-CAP (175')	GRAY 1
NEW	GSM PCS LTE 700 A1	RED 4 RED 3 RED 1 RED 2 RED 1	BW BW - RB RB	65°	COMMSCOPE	FHH-65C-R3	0°	TBD	0°	100'	GSM PCS LTE 700 LTE 600 DARK		
NEW	LTE AWS LTE PCS LTE 700 B2	YELLOW 4 YELLOW 3 YELLOW 2 YELLOW 1	YB+GB YB+GB YB+GB RB RB	65°	COMMSCOPE	FHH-65C-R3	120°	TBD	0°	100'	LTE AWS LTE PCS LTE 700 LTE 600 DARK		
NEW	GSM PCS LTE 700 B1	YELLOW 4 YELLOW 3 YELLOW 2 YELLOW 1	BW BW - RB RB	65°	COMMSCOPE	FHH-65C-R3	120°	TBD	0°	100'	GSM PCS LTE 700 LTE 600 DARK		
NEW	LTE AWS LTE PCS LTE 700 C2	BLUE 4 BLUE 3 BLUE 2 BLUE 1	YB+GB YB+GB YB+GB RB RB	65°	COMMSCOPE	FHH-65C-R3	240°	TBD	0°	100'	LTE AWS LTE PCS LTE 700 LTE 600 DARK		
NEW	GSM PCS LTE 700 C1	BLUE 4 BLUE 3 BLUE 2 BLUE 1	BW BW - RB RB	65°	COMMSCOPE	FHH-65C-R3	240°	TBD	0°	100'	GSM PCS LTE 700 LTE 600 DARK		



CP PROJECT NO.: TMO-18-0096-29

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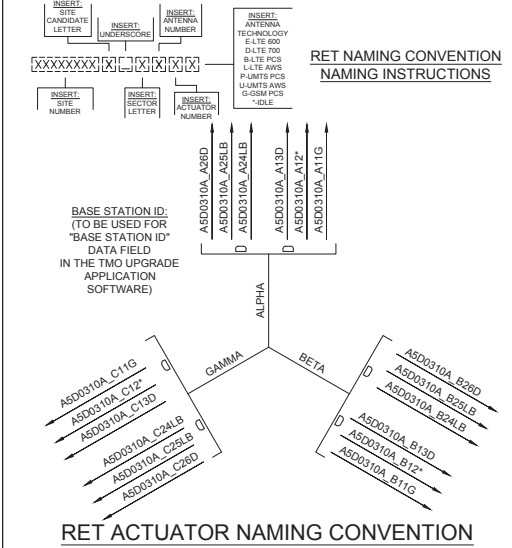
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PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRARIE VILLAGE, KS 66208

SHEET TITLE  
**ANTENNA  
CONFIGURATION  
KEY**

SHEET NO.  
**A3.0**



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3. ANTENNA COAXIAL FEEDERS & ANTENNA JUMPERS SHALL BE COLOR CODED PER T-MOBILE REQUIREMENTS. THE FOLLOWING CHECKER STRIPE SHALL BE ADDED TO EACH ANTENNA FEEDLINE & ANTENNA JUMPER.  
  
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 AVA5-50A (7/8" HARD LINE) = 10"  
 AVA7-50A (1-5/8" HARD LINE) = 15"  
 LDF7-50A (1-5/8" HARD LINE) = 20"
8. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO T-MOBILE.
9. WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE.
10. ANTENNA CONTRACTOR SHALL PERFORM A "TAPE DROP" MEASUREMENT TO CONFIRM/ VALIDATE ANTENNA CENTERLINE (ACL) HEIGHT. CONTRACTOR SHALL SUBMIT A COMPLETED HEIGHT VERIFICATION FORM TO THE CONSTRUCTION MANAGER.
11. ALL FIBER RUNS CONTAINED IN ONE COMMSCOPE HYBRID DC-FIBER CABLE (MODEL# ASU9325TYP01) FROM LOWER COVP TO UPPER COVP, HYBRID CABLE SHALL BE COLOR CODED PER T-MOBILE REQUIREMENTS.

**EQUIPMENT KEY - EQUIPMENT PAD**

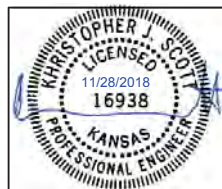
LOCATION	VENDOR	EQUIPMENT	MODEL NUMBER	TECHNOLOGY	QTY.	MODEL #
EQUIPMENT RACK	NOKIA	SYSTEM MODULE	FSMF	GSM PCS	1	PROPOSED
EQUIPMENT RACK	NOKIA	CAPACITY MODULE	ABIA	LTE AWS LTE PCS	2	PROPOSED
EQUIPMENT RACK	NOKIA	CAPACITY MODULE	ABIA	LTE 700 L600 (DARK)	1	PROPOSED
EQUIPMENT RACK	NOKIA	COMMON MODULE	ASIA	-	1	PROPOSED
EQUIPMENT RACK	NOKIA	CAPACITY MODULE	ABIL	N 600 (DARK)	1	PROPOSED
EQUIPMENT RACK	NOKIA	SYSTEM MODULE	ASIK	-	1	PROPOSED
EQUIPMENT RACK	NOKIA	SYSTEM MODULE	AMOB	-	2	PROPOSED
UNI-STRUT	RAYCAP	COVP	RTMDC-5634-PF-48	LTE AWS LTE PCS LTE 700	1	PROPOSED

**EQUIPMENT KEY - SECTOR**

LOCATION	VENDOR	EQUIPMENT	MODEL NUMBER	TECHNOLOGY	QTY.	MODEL #
MULTI SECTOR	NOKIA	RRU	FXFC	GSM PCS	1	PROPOSED
MULTI SECTOR	NOKIA	RRU	AHLOA	LTE 700 LTE 600 (DARK) N 600 (DARK)	3	PROPOSED
MULTI SECTOR	NOKIA	RRU	AHFIB	LTE AWS LTE PCS	3	PROPOSED
MULTI SECTOR	RAYCAP	COVP	RTMDC-5634-PF-48	LTE AWS LTE PCS LTE 700 LTE 600 (DARK)	1	PROPOSED

**EQUIPMENT FEEDLINE KEY**

LOCATION	VENDOR	EQUIPMENT	MODEL NUMBER	LENGTH	QTY.	STATUS
MULTI SECTOR	COMMSCOPE	HYBRID CABLE	HI-CAP ASU9325TYP01	175'	1	PROPOSED



CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

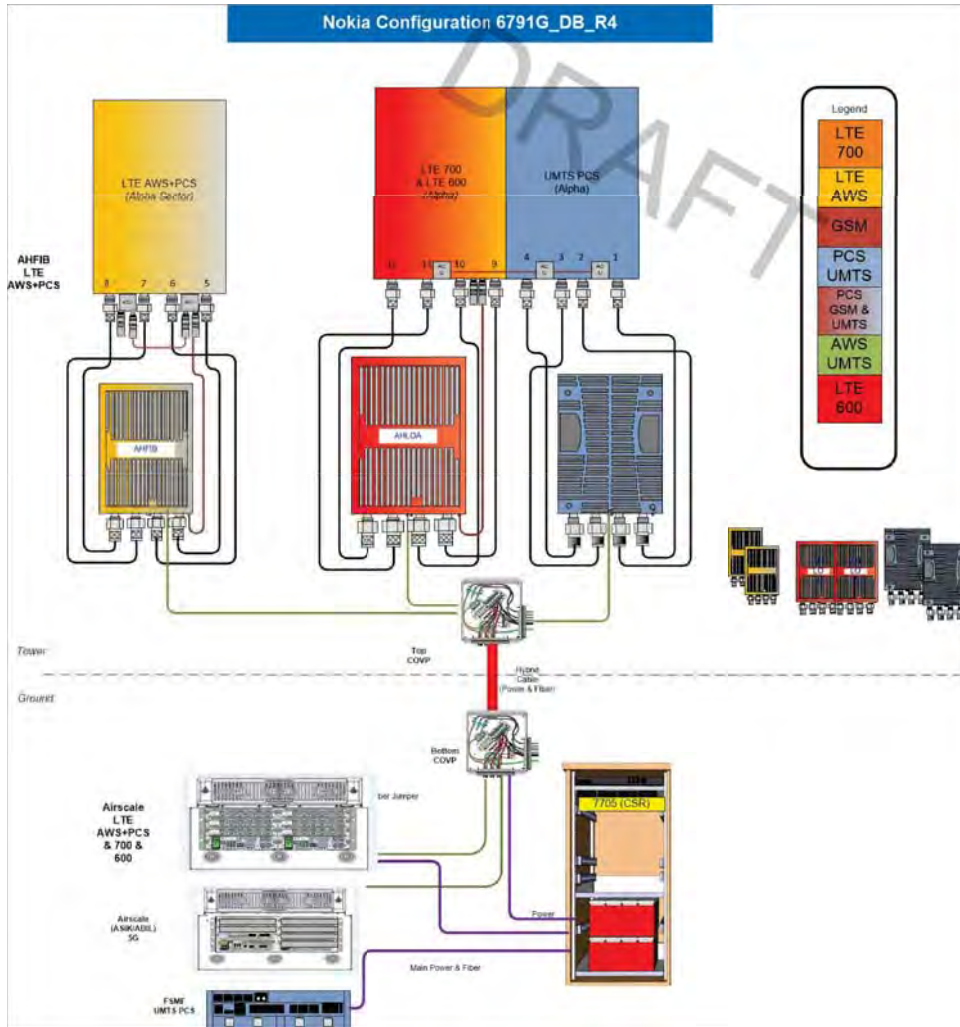
**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRARIE VILLAGE, KS 66208

SHEET TITLE  
**EQUIPMENT  
CONFIGURATION  
KEY**

SHEET NO.  
**A3.1**





**NOTES:**

- ALL COAXIAL CABLE CONNECTIONS TO BE WEATHERPROOFED.
- CONTRACTOR TO DIP CABLES AND JUMPERS WHERE NECESSARY.
- TAGGING:
  - \* ALL COAXIAL CABLES TO BE MARKED WITH COLOR CODED TAPE TO INDICATE THE ANTENNA SECTOR.
  - \* COLORED ELECTRICAL TAPE SHALL MARK EACH END OF CABLE AND EACH END OF JUMPERS AS CLOSE TO EACH END AS POSSIBLE. (NOT TO INTERFERE WITH WATERPROOFING.)
- COAXIAL CABLE SPECIFICATIONS REQUIRE CABLE SUPPORT EVERY 3'0" ON CENTER. CONTRACTOR SHALL SUPPLY SUPPORTS AS REQUIRED TO MEET THIS REQUIREMENT.
- VERTICAL CONNECTIONS SHALL BE TAPED FROM THE BOTTOM UP SO OVERLAP MOVES WATER AWAY FROM CONNECTION (SEE STEP 4).
- PROVIDE HEAT SHRINK IN PLACE OF TAPE FOR QUAD POLES & TMAS.
- ALL ANTENNAS & COAXIAL ANTENNA CABLE TO BE FURNISHED BY T-MOBILE AND INSTALLED BY CONTRACTOR.
- COAX SHALL BE TAGGED WITH COLOR CODING AT (2) PLACES USING 1" WIDE WEATHERPROOF COLORED VINYL TAPE AT THE FOLLOWING LOCATIONS:
  - #1 - AT ANTENNA CONNECTION
  - #2 - AT ENTRY TO EQUIPMENT CABINET
- RUN COAXIAL CABLE WITH MINIMUM 12" SLACK & 12" FROM EDGE OF EQUIPMENT CABINETS, ACROSS WAVE GUIDE BRIDGE (IF APPLICABLE), UP TO TOWER LEG (IF APPLICABLE), AND DISTRIBUTE TO EACH ANTENNA DEVICE. FURNISH AND INSTALL A MINIMUM OF (3) GROUND KITS PER COAXIAL CABLE. VERIFY NUMBER OF ANTENNAS, CABLE, AND CABLE DIAMETER WITH T-MOBILE CONSTRUCTION MANAGER.

RAN SCOPE OF WORK: **NEW SITE BUILD - L600/L700/L1900/L2100/LAWS3/GSM**

CONFIGURATION IS CUSTOM:

USING HEXPORTS DUE TO RESTRICTED ROOM IN STEALTH CANISTER OF FLAG POLE USING (1) FXFC ON SITE FOR ALL SECTORS FOR GSM. NO U1900



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2	10-23-18	LLJS	CLIENT COMMENT
SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
NSN  
CONFIGURATION  
DIAGRAM

**SHEET NO.**  
RF1

**NOTES:**

1. SUPERFLUX JUMPERS CAN BE SUBSTITUTED ONLY WITH THE PERMISSION OF THE T-MOBILE CONSTRUCTION MANAGER.
2. CONTRACTOR SHALL WEATHERPROOF CONNECTIONS AT THE ANTENNAS WITH SELF-AMALGAMATING TAPE.

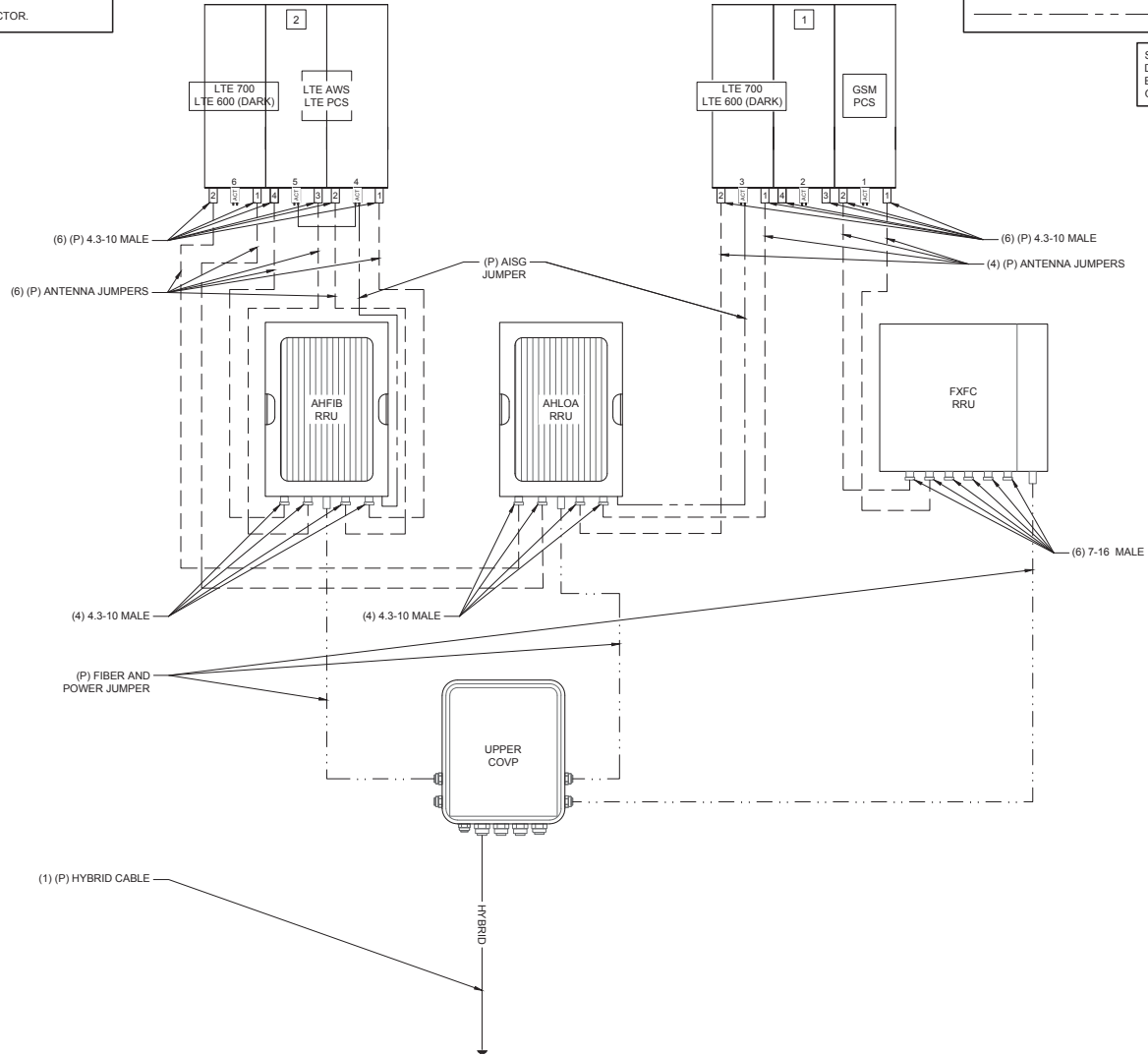
\* FURNISHED AND INSTALLED BY ANTENNA CONTRACTOR.  
 \*\* FURNISHED BY T-MOBILE AND INSTALLED BY ANTENNA CONTRACTOR.

**TYPICAL SECTOR:**  
 (VIEW FROM BACK OF ANTENNA)

**LINETYPE LEGEND:**

— COAX —	COAX (C)
— HYBRID —	HYBRID CABLE (H)
— FIBER AND POWER JUMPER —	FIBER AND POWER JUMPER
— ANTENNA JUMPER —	ANTENNA JUMPER
— AISG ACTUATOR JUMPER —	AISG ACTUATOR JUMPER

SEE PROVIDED MANUFACTURER'S DOCUMENTS FOR PROPOSED EQUIPMENT INSTALLATION AND GROUNDING REQUIREMENTS



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**SUBMITTAL**

NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
 PRAIRIE VILLAGE FD TOWER

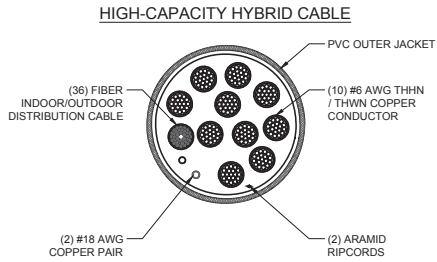
**SITE ID:**  
 A5D0310A

**SITE ADDRESS:**  
 3921 W 63RD STREET  
 PRAIRIE VILLAGE, KS 66208

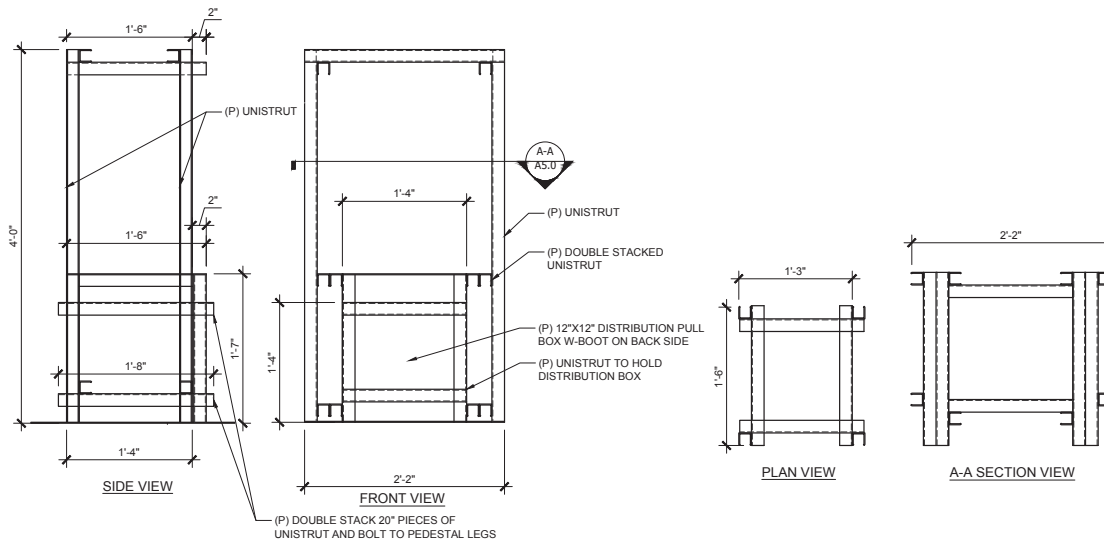
**SHEET TITLE**  
 ANTENNA  
 ONE-LINE DIAGRAM

**SHEET NO.**  
 A4.0



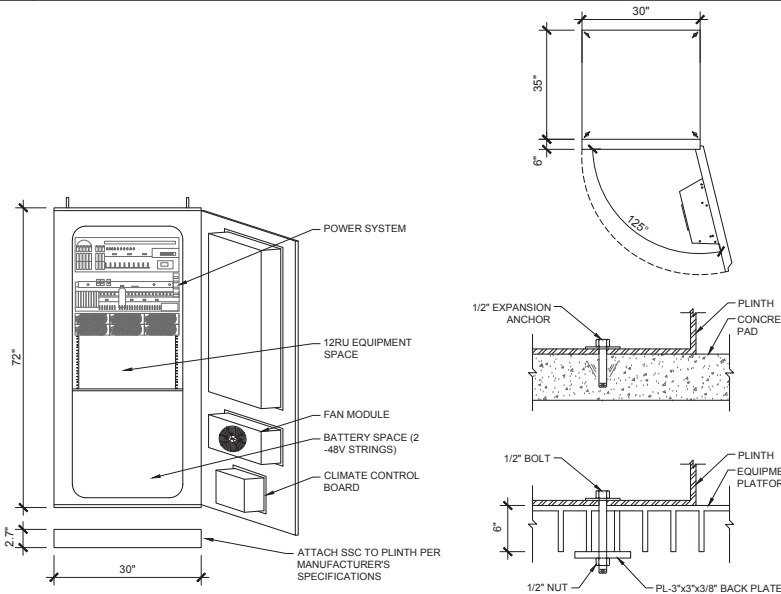


Cable Type	Number, size (Gwg)	10/C #6 + 2/C #18
Voltage		600
Outer Jacket		PVC
Shielding		Corrugated Copper
Max shield resistance (ohm/ft @ 20 c)		0.0035
Drain		n/a
Ripcord		Kevlar
DC conductor material		Copper
DC conductor size (Gwg)		6
Max DC resistance (ohm/1000ft)		0.411 @ 20 deg C
Color Code		Black/Red
Alarm Conductor Material		Copper
Alarm conductor size (Gwg)		18
Max DC resistance (ohm/1000ft)		6.7
Color Code		TBD
Fiber Cables		Yes
Outer Diameter (in) - Nominal		1.584
Weight (lb/ft)		1.614
Minimum Bend Radius (in)		19
Bend Moment (lb/ft)		n/a
Tensile Strength (lb)		340
Crush Resistance, FOTP-41 (N/mm)		22
Strength Member		No
Operating Temperature Range (low)		-40 deg C
Operating Temperature Range (high)		+80 deg C
Fiber Type		Low Water Peak Single Mode Loose Tube
Fiber Standard Compliance		ITU-T Rec. G.652.D, G.657.A2 IEC 60793-2-50 Type B1.3 & Type B.6 A&B
Fiber Coating Diameter (um)		.242 +/- .007 OR .9 +/- .005 mm
Fiber Count		36
Number of fiber subunits		1
Fiber count each units		36
Fiber outer jackets		FR Jacket
Max attenuation, 1310 nm (dB/Km)		Less than equs 0.5
Max attenuation, 1550 nm (dB/Km)		Less than equs 0.5



2 FLEX-PEDESTAL

SCALE: NTS  
SCALE: NTS



**DELTA OUTDOOR HPL2 CABINET:**  
ESO4408-HCU02

**INPUT VOLTAGE:** TWO PHASE, 2W+N+FG 208/240 VAC  
160A (MAX)  
50/60 HZ

**INPUT CURRENT:** 160A (MAX)

**AC INPUT FREQUENCY:** 50/60 HZ

**SYSTEM CAPACITY:** -54Vdc/400A (MAX.)

**RECTIFIER:** ESR-48/50C F (MAX. 8)

**CONTROL & SUPERVISOR UNIT:** ORION TOUCH CONTROLLER ENABLED

**SNMP:** DC POWERED DIRECT AIR COOLING (DAC) FANS (2000W HEAT LOSS WITH AT15°C)

**COOLING:** 10A 1P x3 (4th ALLOCATED TO CABINET CLIMATE CONTROL) 150A 3P x1 45 OPEN POLE POSITIONS 200A 4P x2 LOCATED IN DC POWER SYSTEM 8 OPEN POLE POSITIONS (FOR EXTERNAL -48V BATTERY STRINGS)

**LOAD BREAKER (52P):** 350A ANDERSON SB350

**BATTERY BREAKER:** 40°C TO +50°C (40°F TO +122°F)  
40°C TO +70°C (40°F TO +158°F)  
0-95% RELATIVE HUMIDITY, NON-CONDENSING (MAX.)  
0 TO +3000M  
± 65dBa  
IP 55 (EN 60529)

**DC GENERATOR CONNECTION:** 30"Wx41"Dx72"H

**OPERATING TEMPERATURE:** 30"Wx41"Dx72"H

**STORAGE TEMPERATURE:** 30"Wx41"Dx72"H

**HUMIDITY:** 30"Wx41"Dx72"H

**ALTITUDE:** 30"Wx41"Dx72"H

**ACOUSTIC NOISE:** 30"Wx41"Dx72"H

**PROTECTION CLASS:** 30"Wx41"Dx72"H

**EXTERIOR DIMENSIONS:** 30"Wx41"Dx72"H

**NO PLINTH WEIGHT (WITH RECTIFIERS & BATTERIES):** =545 LBS

3 DELTA HPL2 CABINET DETAIL

SCALE: NTS  
SCALE: NTS



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PRELIMINARY			
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0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT
SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

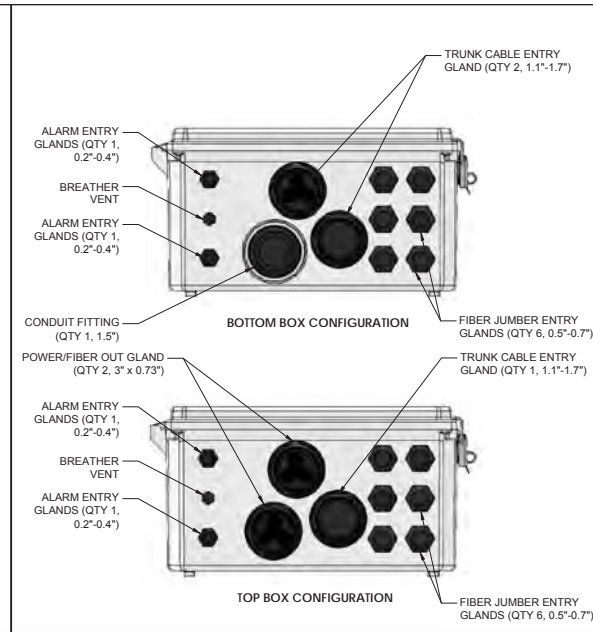
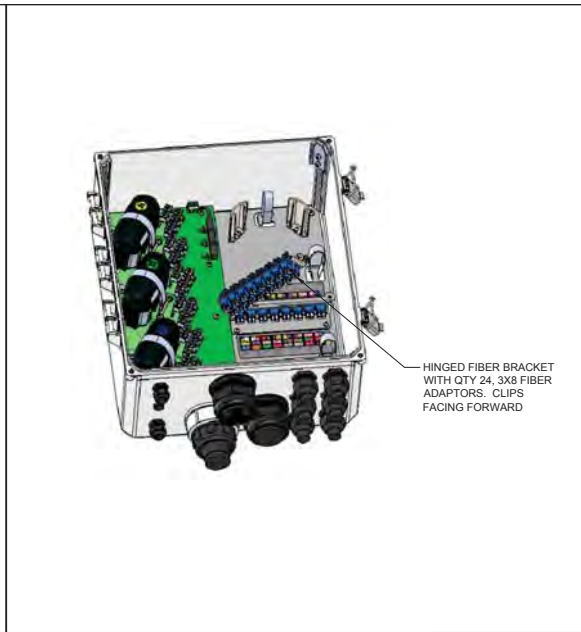
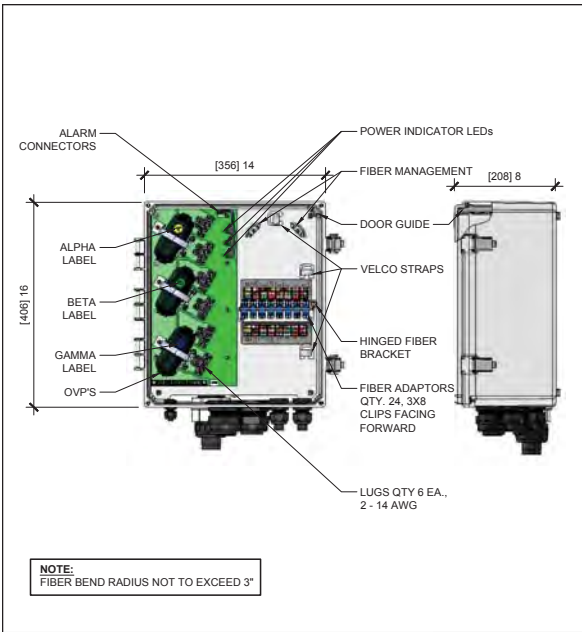
**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**T-MOBILE  
EQUIPMENT  
DETAILS**

SHEET NO.  
**A5.0**

1 FEEDLINE DETAIL

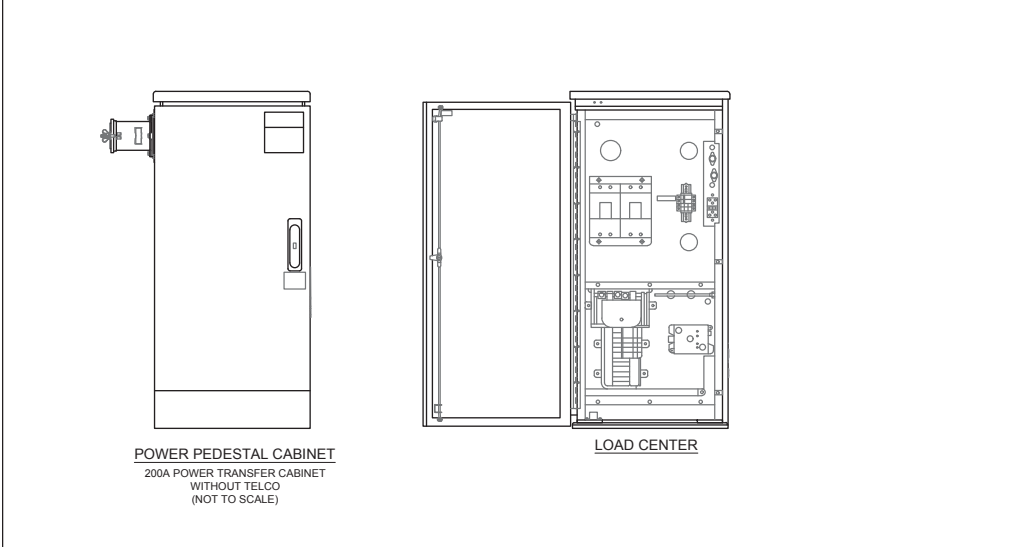
SCALE: NTS  
SCALE: NTS



1 COVP INTERNAL DETAIL SCALE: NTS

2 COVP INTERNAL ISO VIEW SCALE: NTS

3 COVP CONNECTIONS DETAIL SCALE: NTS



POWER PEDESTAL CABINET SPECIFICATIONS	
GENERAL	
CONSTRUCTION:	SINGLE LAYER ALUMINUM ENCLOSURE, TYPE 3R
DIMENSIONS (W X H X D):	20" X 40" X 10" (508 MM X 1016 MM X 254 MM)
WEIGHT:	APPROXIMATELY 75 LBS (WITHOUT PACKAGING)
FINISH:	POLYESTER POWDER PAINT
DOOR LATCH:	3-POINT LATCHING, PAD LOCKABLE
SAFETY:	UL50 (CABINET) UL891 DEAD FRONT SWITCHBOARD LISTED SUITABLE FOR USE AS SERVICE EQUIPMENT (N-G BONDING KIT INCLUDED)
ENVIRONMENT	
OPERATING TEMPERATURE:	-40°F TO 115°F (-40°C TO +45°C)
HUMIDITY (RELATIVE):	95%, NON-CONDENSING (MAX)
PROTECTION CLASS:	TYPE 3R
AC SECTION	
VOLTAGE:	120/240 1φ (3-WIRE + GROUND)
CURRENT:	200A
AIC RATING:	UTILITY 65,000 AMPS
OTHER FEATURES:	GENERATOR INTERFACE: GENERATOR PLUG SERVICE DISCONNECT: SQUARE D 200A MANUAL TRANSFER SWITCH LOAD CENTER: SQUARE D 200A, OO SERIES, 24 POSITIONS SURGE PROTECTION DEVICE (SPD) - 1 EA. AC DATA 2080 SQUARE D 30A, 2P BREAKER FOR SPD GROUND BAR SILKSCREENED DEAD-FRONT CAPTIVE DEAD-FRONT FASTENERS

4 PPC DETAIL SCALE: NTS

**T-Mobile**

**CENTERLINE SOLUTIONS**

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**CHRISTOPHER J. SCOTT**  
LICENSED PROFESSIONAL ENGINEER  
11/28/2018  
16938  
KANSAS

**SUBMITTAL**

NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

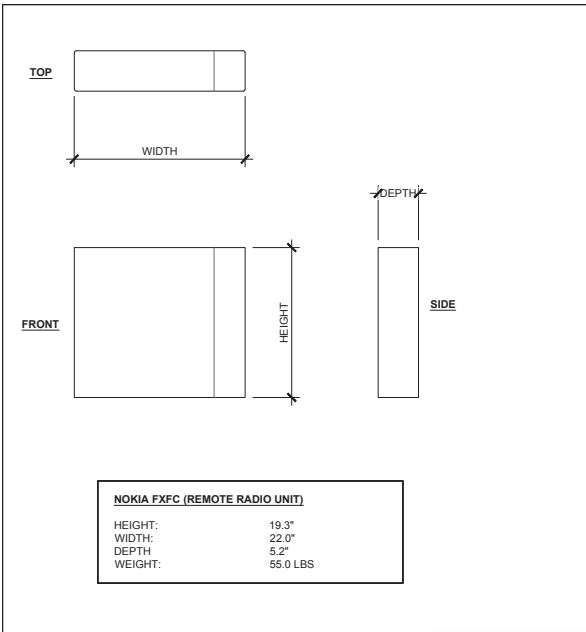
**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

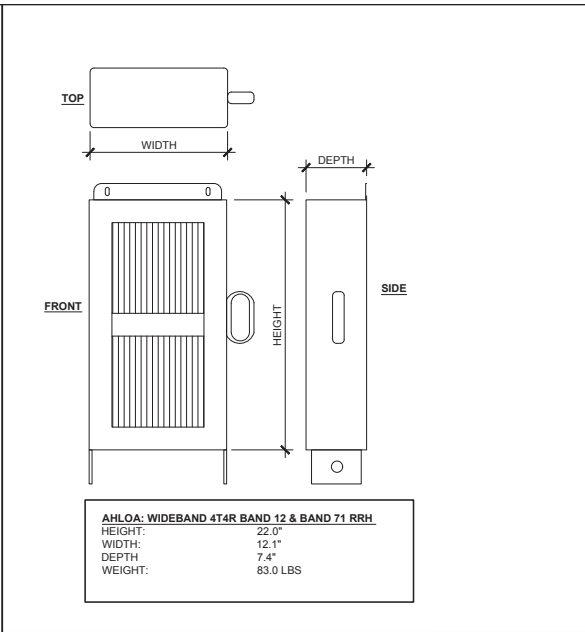
**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
T-MOBILE  
EQUIPMENT  
DETAILS

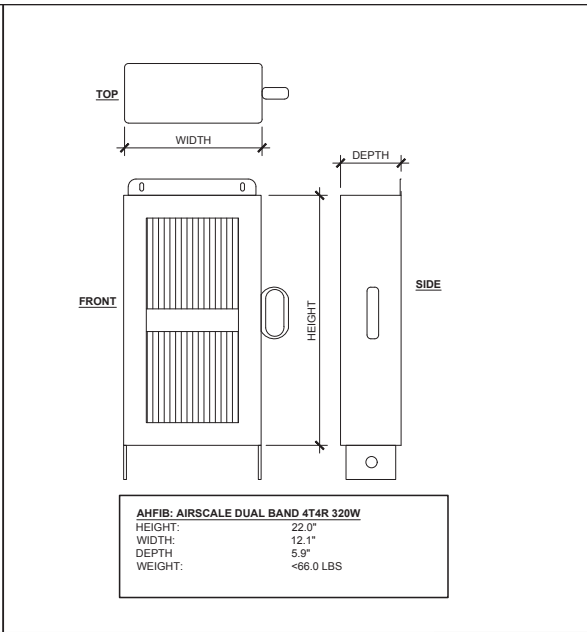
**SHEET NO.**  
A5.1



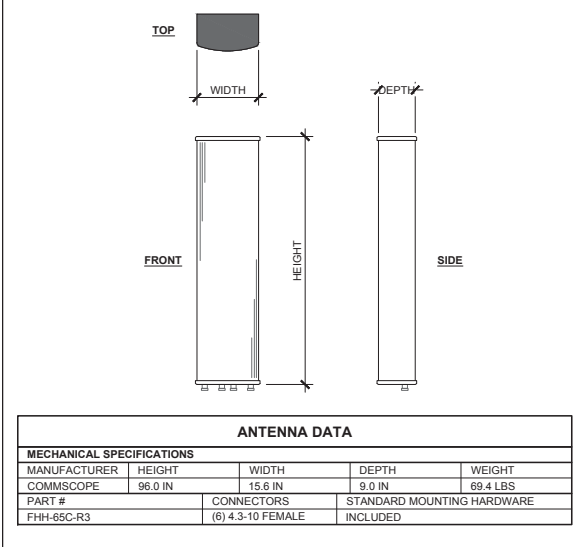
1 FXFC (RRU) DETAIL SCALE: NTS



2 AHLOA (RRU) DETAIL SCALE: NTS



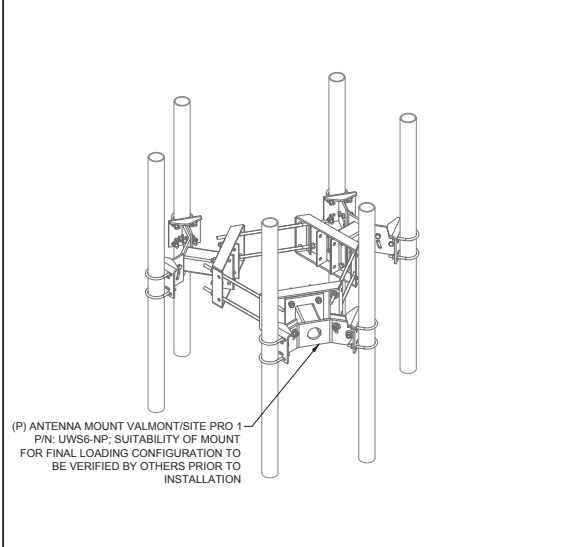
3 AHFIB (RRU) DETAIL SCALE: NTS



4 ANTENNA DETAIL SCALE: NTS



5 NOT USED SCALE: NTS



6 ANTENNA SECTOR FRAME SCALE: NTS

**T-Mobile**

**CENTERLINE SOLUTIONS**

**CHRISTOPHER J. SCOTT**  
 LICENSED PROFESSIONAL ENGINEER  
 11/28/2018  
 16938  
 KANSAS

CP PROJECT NO.: TMO-18-0096-29

**PRELIMINARY**

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**SUBMITTAL**

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**SITE NAME:**  
 PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
 A5D0310A

**SITE ADDRESS:**  
 3921 W 63RD STREET  
 PRAIRIE VILLAGE, KS 66208

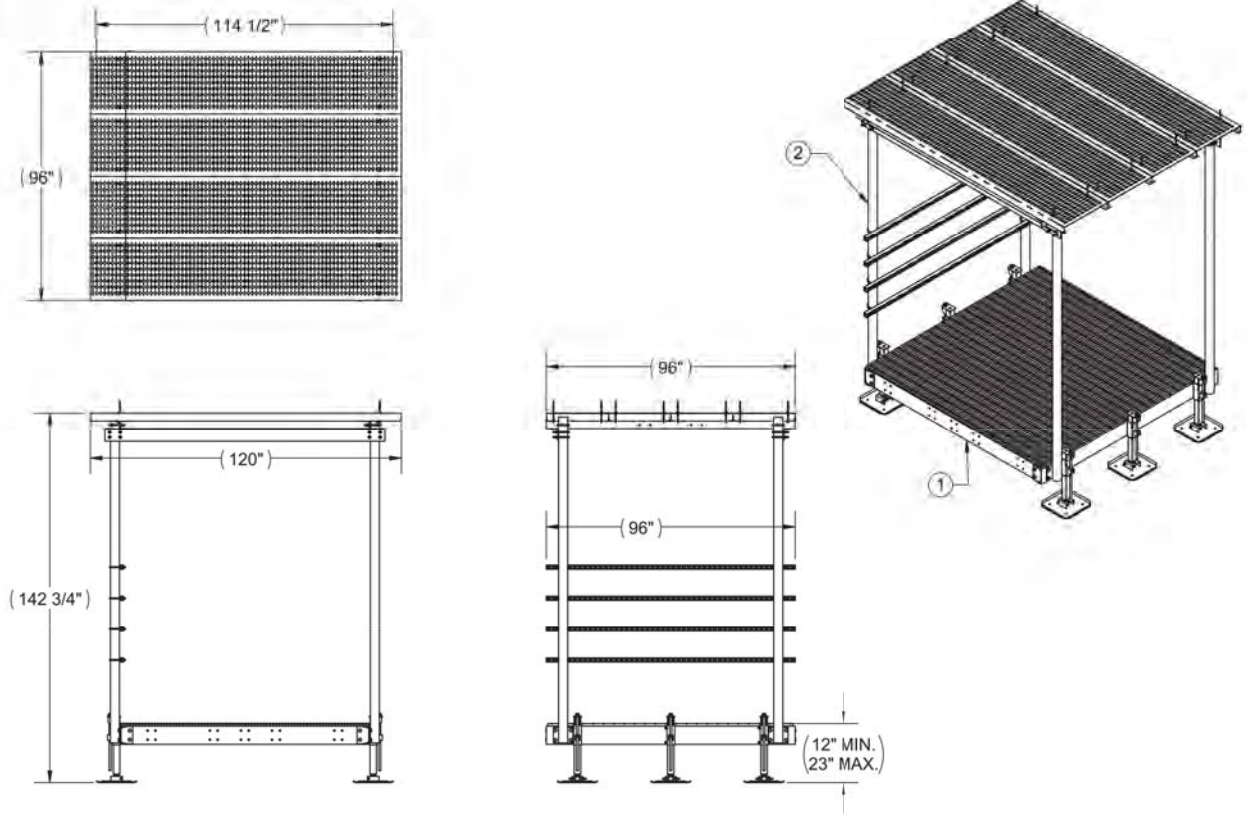
**SHEET TITLE**  
 T-MOBILE  
 EQUIPMENT  
 DETAILS

**SHEET NO.**  
 A5.2



**NOTES:**

1. NO WORK SHALL COMMENCE WITHOUT THE APPROVED STRUCTURAL PLATFORM REPORT (SIGNED AND SEALED) TO BE PROVIDED UNDER SEPARATE COVER.
2. CONTRACTOR PRIOR TO CONSTRUCTION SHALL REVIEW THE APPROVED PLATFORM REPORT SUPPLIED BY T-MOBILE AND MODIFY IF REQUIRED ALL APPLICABLE MEMBERS AS INDICATED IN CERTIFIED STRUCTURAL REPORT PRIOR TO INSTALLATION ON STRUCTURE.



PART NO. 2110JWIC-88-LIER

**NOTE: THIS IS NOT AN ENGINEERED PLATFORM**

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	2110J-88	8' X 8' PLATFORM
2	1	2110JC-88-LIER	CANOPY KIT FOR 8' X 8' PLATFORM

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ALT. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF ALT IS PROHIBITED. 11/15/2017		CAD GENERATED DRAWING. DO NOT MANUALLY EDIT. 800-950-7900 FAX 940-455-2817 www.altfabrication.com sales@altfabrication.com	122 Leesley Lane Argyle, Texas 76209
APPROVALS DRAWS: SF 11/16/16 CHECKED: DMR 11/16/16 ENGINEER ISSUED:	DATE 11/16/16 11/16/16	TITLE 8' X 8' PLATFORM WITH ICE CANOPY DWG. NO. 2110JWIC-88-LIER	REV A
FINISH HDG WEIGHT: 2085	SCALE: NTS DO NOT SCALE DRAWING	SHEET: 1 OF 1	



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SUBMITTAL			
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0	11-09-18	LLJS	FOR CONSTRUCTION
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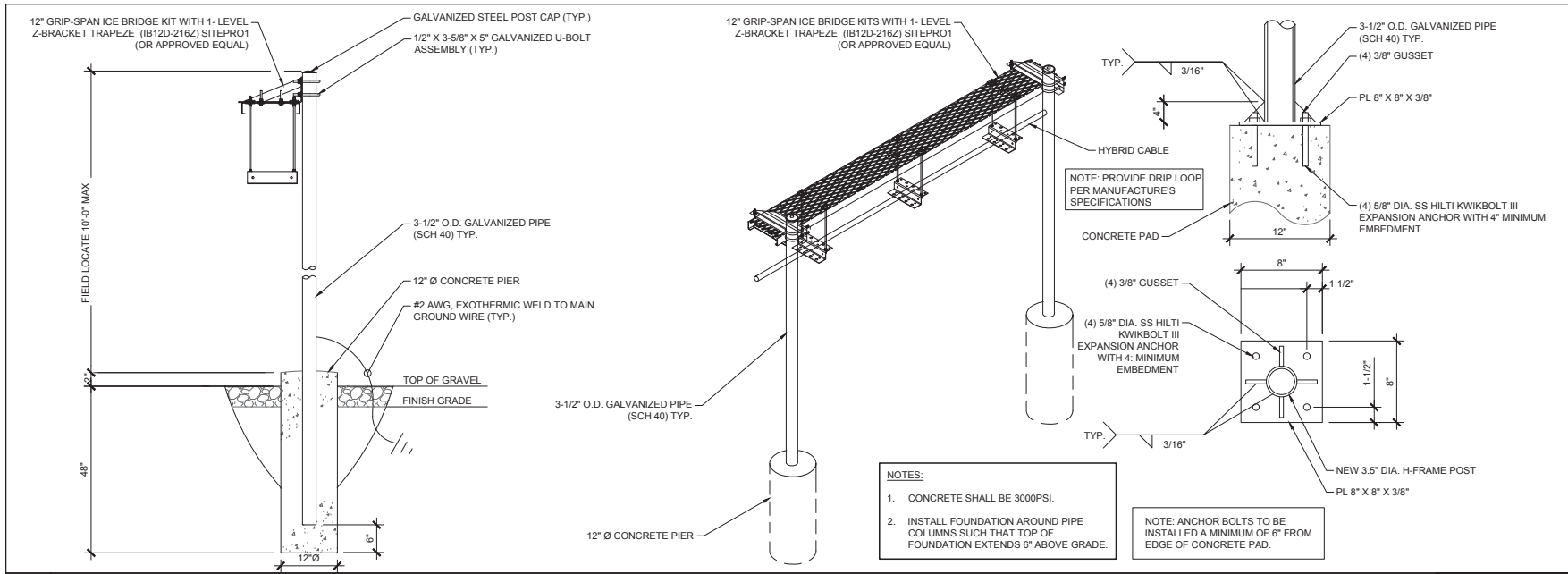
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PRAIRIE VILLAGE FD TOWER

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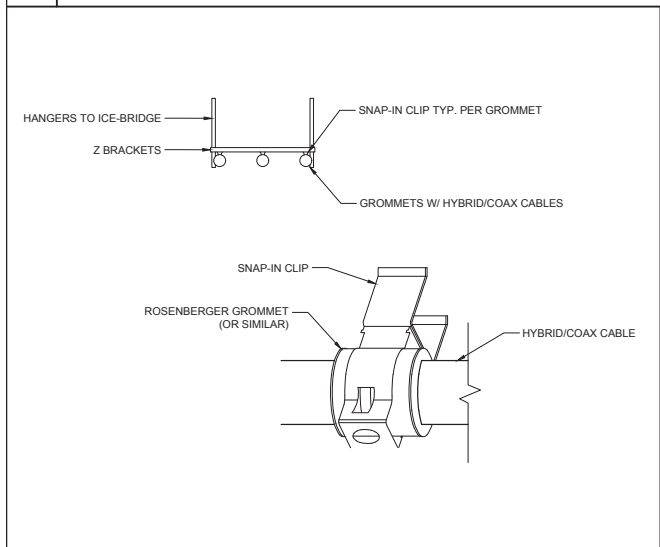
**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**T-MOBILE EQUIPMENT DETAILS**

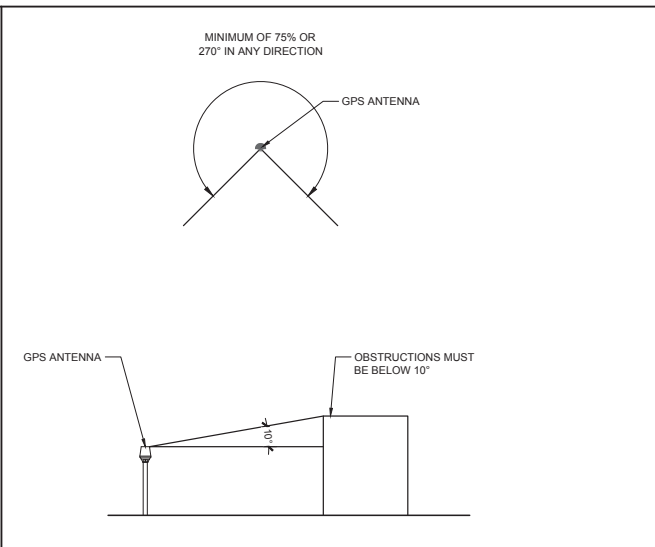
SHEET NO.  
**A5.3**



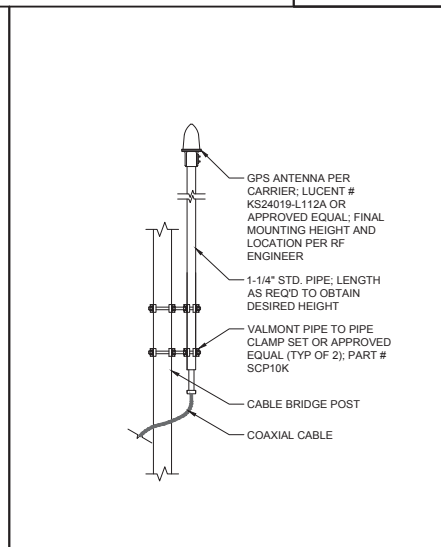
1 CABLE BRIDGE DETAIL (12" ICE BRIDGE TO TOWER) SCALE: NTS



2 ICE BRIDGE GROMMET SCALE: NTS



3 GPS MINIMUM SKY VIEW SCALE: NTS



4 GPS MOUNTING SCALE: NTS

**T-Mobile**

**CENTERLINE SOLUTIONS**

**CHRISTOPHER J. SCOTT**  
 LICENSED PROFESSIONAL ENGINEER  
 11/28/2018  
 16938  
 KANSAS

CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY		
NO.	DATE	DESCRIPTION
0	09-17-18	LLJS 90% CD REVIEW
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2	10-23-18	LLJS CLIENT COMMENT

SUBMITTAL		
NO.	DATE	DESCRIPTION
0	11-09-18	LLJS FOR CONSTRUCTION
1	11-19-18	LLJS CLIENT COMMENTS

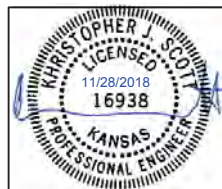
**SITE NAME:**  
 PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
 A5D0310A

**SITE ADDRESS:**  
 3921 W 63RD STREET  
 PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
 CABLE BRIDGE DETAILS

**SHEET NO.**  
 A5.4



CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
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SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

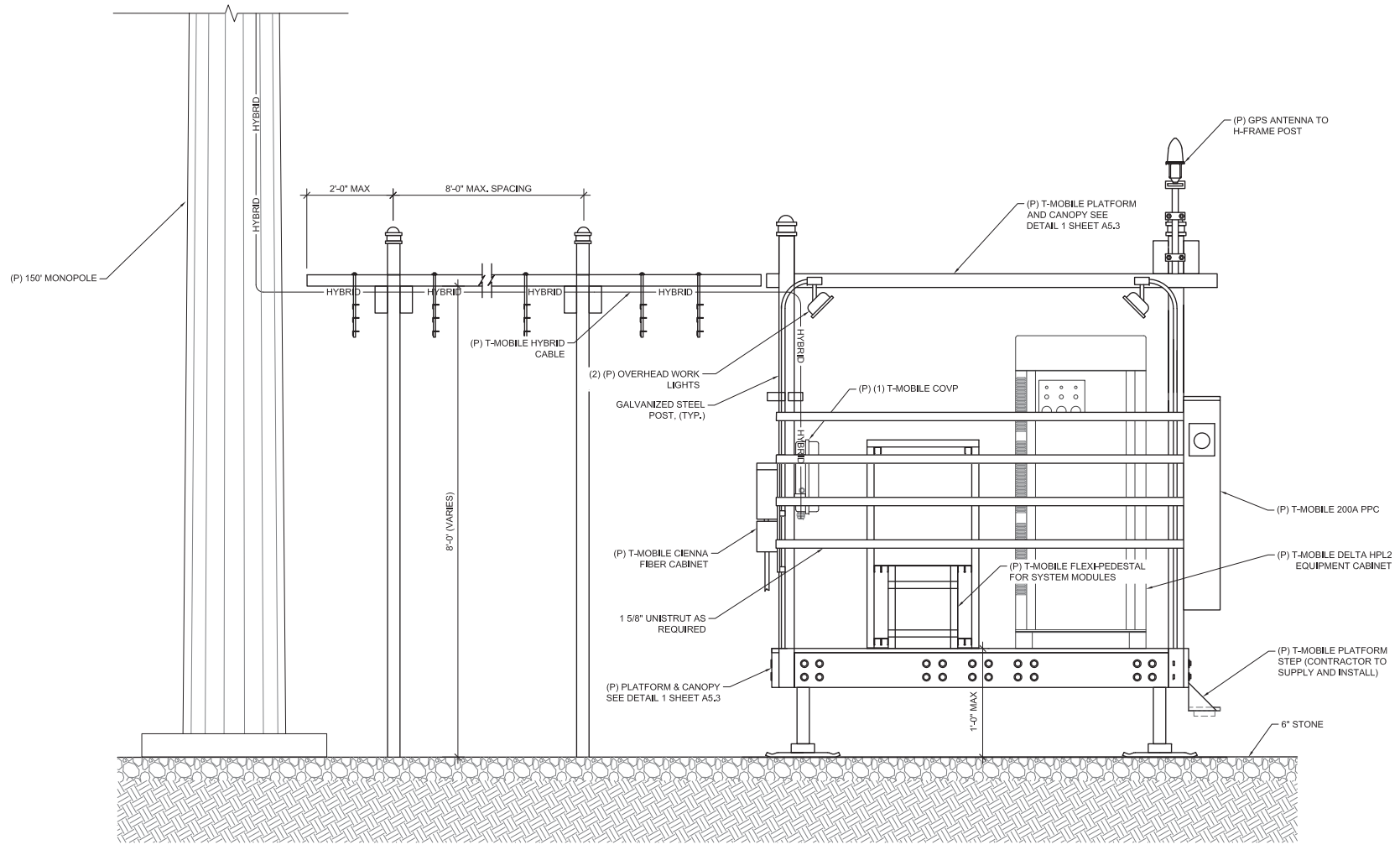
**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**T-MOBILE EQUIP ELEVATION**

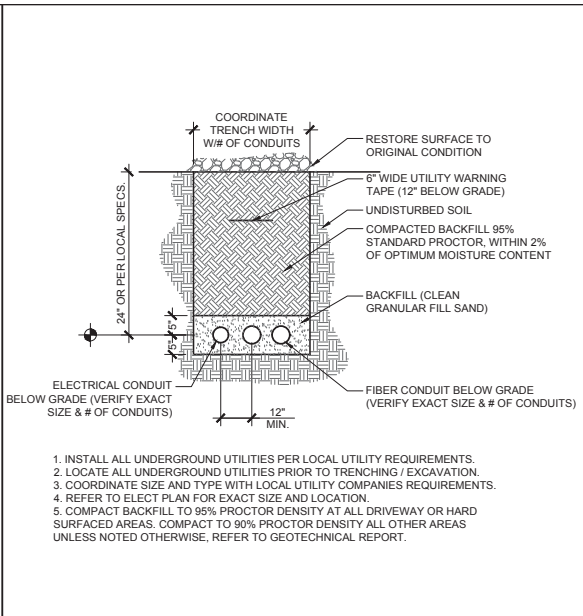
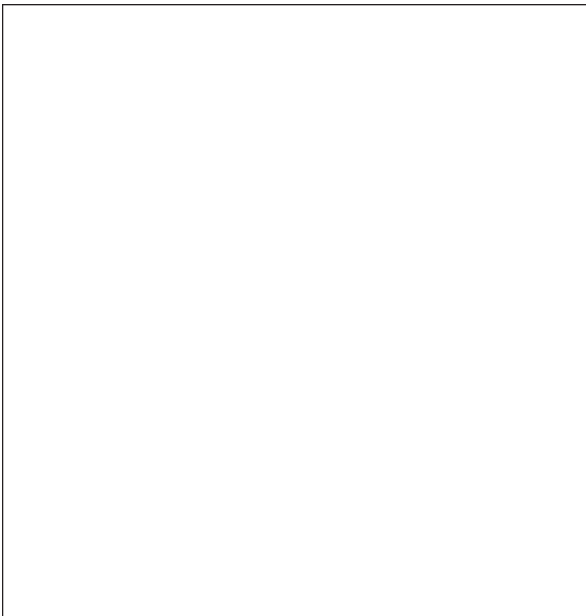
SHEET NO.  
**A5.5**



1 TYPICAL EQUIPMENT (NORTH) ELEVATION

SCALE: NTS  
SCALE: NTS





1. INSTALL ALL UNDERGROUND UTILITIES PER LOCAL UTILITY REQUIREMENTS.
2. LOCATE ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING / EXCAVATION.
3. COORDINATE SIZE AND TYPE WITH LOCAL UTILITY COMPANIES REQUIREMENTS.
4. REFER TO ELECT PLAN FOR EXACT SIZE AND LOCATION.
5. COMPACT BACKFILL TO 95% PROCTOR DENSITY AT ALL DRIVEWAY OR HARD SURFACED AREAS. COMPACT TO 90% PROCTOR DENSITY ALL OTHER AREAS UNLESS NOTED OTHERWISE, REFER TO GEOTECHNICAL REPORT.



CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

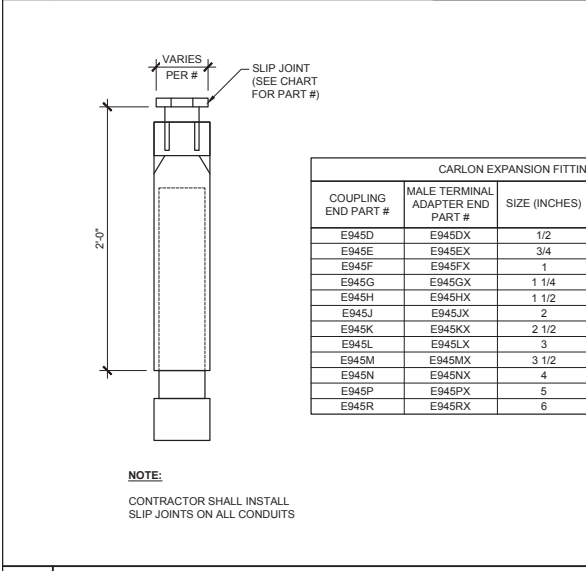
**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**CONSTRUCTION DETAILS**

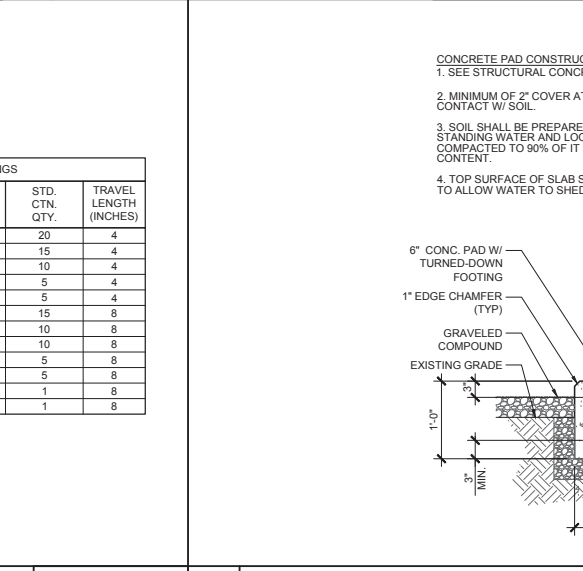
SHEET NO.  
**A6.0**

1 NOT USED



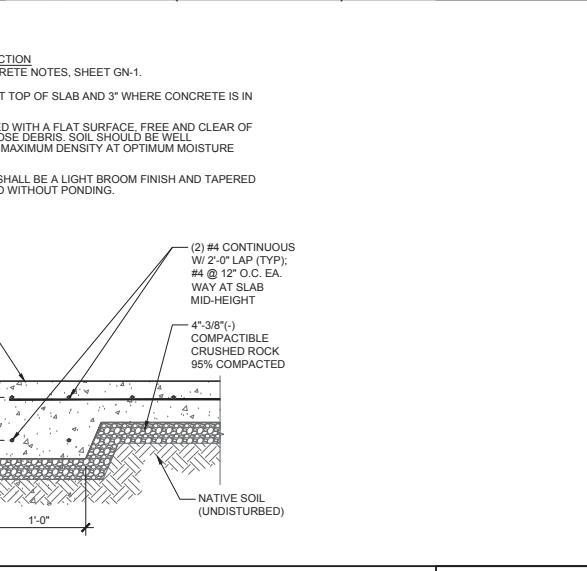
CARLON EXPANSION FITTINGS				
COUPLING END PART #	MALE TERMINAL ADAPTER END PART #	SIZE (INCHES)	STD. CTN. QTY.	TRAVEL LENGTH (INCHES)
E945D	E945DX	1/2	20	4
E945E	E945EX	3/4	15	4
E945F	E945FX	1	10	4
E945G	E945GX	1 1/4	5	4
E945H	E945HX	1 1/2	5	4
E945J	E945JX	2	15	8
E945K	E945KX	2 1/2	10	8
E945L	E945LX	3	10	8
E945M	E945MX	3 1/2	5	8
E945N	E945NX	4	5	8
E945P	E945PX	5	1	8
E945R	E945RX	6	1	8

2 TYP. POWER/TELCO TRENCH DETAIL



5 GENERATOR CONCRETE PAD

3 UNDERGROUND CONDUIT STUB-UP (TELCO/POWER)



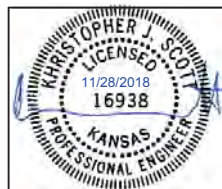
SCALE: NTS

4 CONDUIT SLIP JOINT DETAIL

SCALE: NTS

SCALE: NTS

SCALE: NTS



CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**

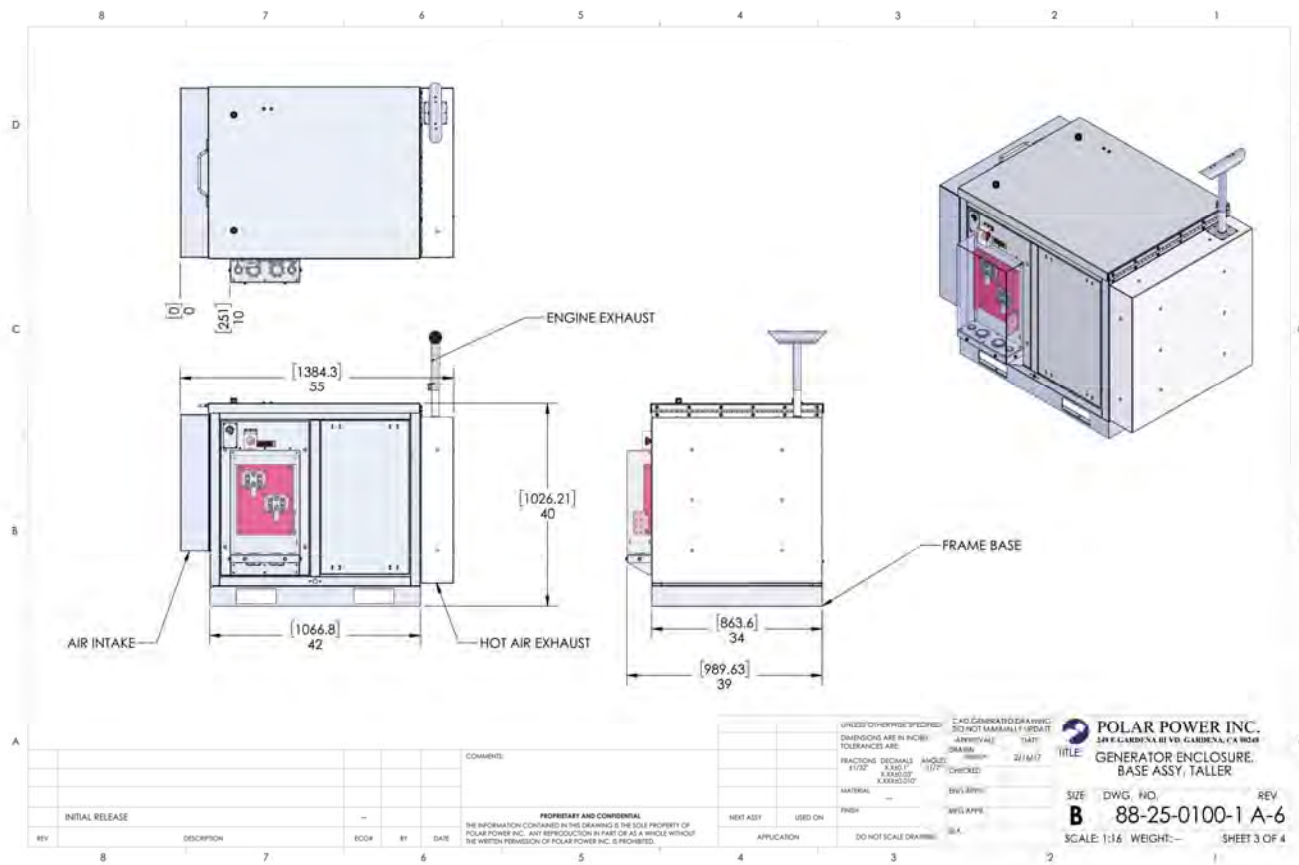
**GENERATOR SPECIFICATIONS**

**SHEET NO.**

**A7.0**

**DRAWING FOR PN 8340-104-LP-15-04**

Rev 5 Aug 2, 2018



**POLAR POWER INC.**  
249 E GARDENA BLVD GARDENA, CA 90249

**TITLE:** GENERATOR ENCLOSURE, BASE ASSY, TALLER

**SIZE:** DWG. NO. 88-25-0100-1 A-6  
**REV:** B

**SCALE:** 1:16 **WEIGHT:** — **SHEET:** 3 OF 4

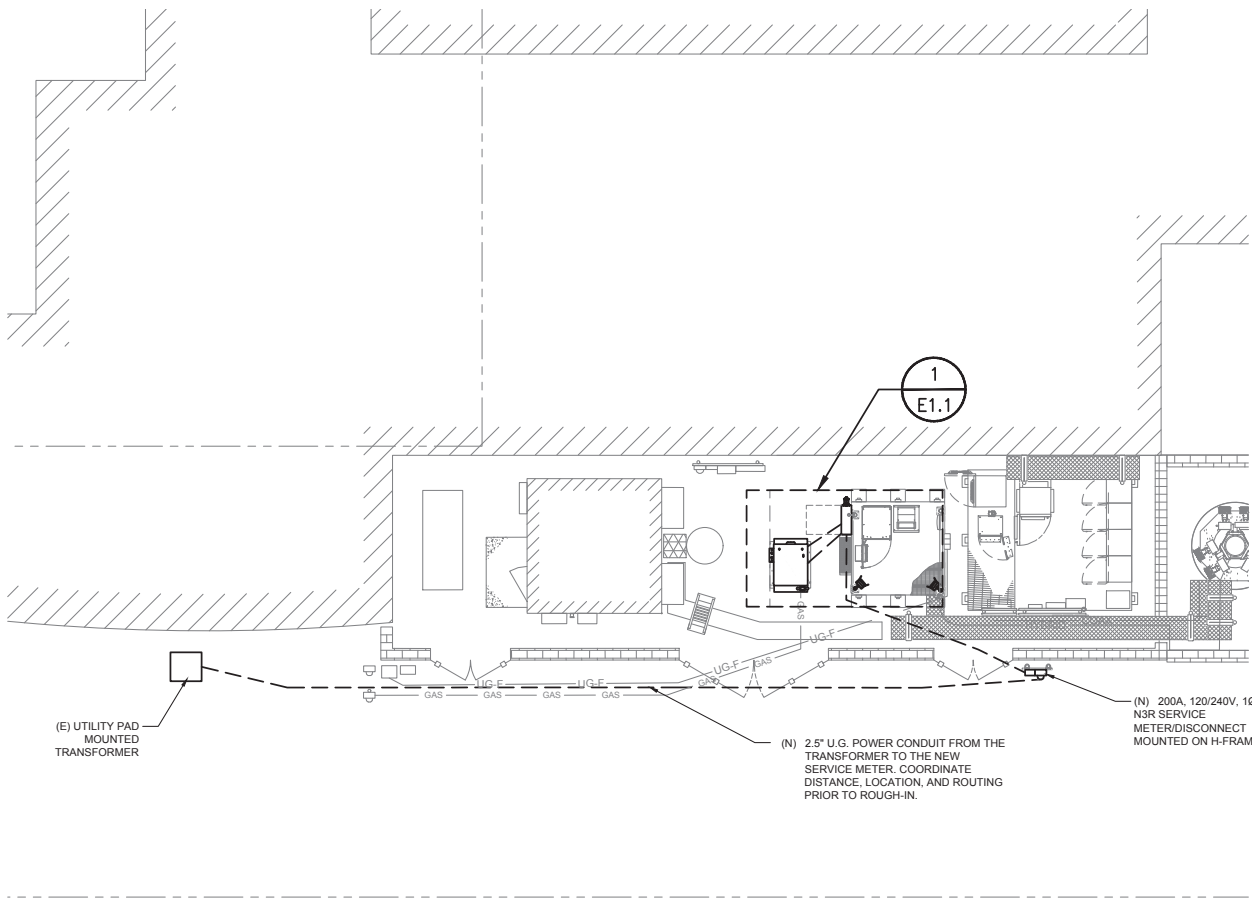
UNLESS OTHERWISE SPECIFIED:	ALL DIMENSIONS ARE IN INCHES:	TOLERANCES ARE:	FINISH:
FRACIONS: DECIMALS	1/16"	0.005"	AS SHOWN
MATERIAL:	XXXXXX	XXXXXX	XXXXXX

**PROPRIETARY AND CONFIDENTIAL**  
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REV	DESCRIPTION	ECCD	BY	DATE

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6 of 8

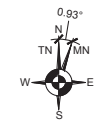


1  
E1.1

(E) UTILITY PAD MOUNTED TRANSFORMER

(N) 2.5" U.G. POWER CONDUIT FROM THE TRANSFORMER TO THE NEW SERVICE METER. COORDINATE DISTANCE, LOCATION, AND ROUTING PRIOR TO ROUGH-IN.

(N) 200A, 120/240V, 1Ø, 3W, N3R SERVICE METER/DISCONNECT MOUNTED ON H-FRAME.



**CODE INFORMATION:**  
2011 NEC, 2012 IECC. ALL SYSTEM SHALL BE IN COMPLIANCE WITH ABOVE CODES AS ADOPTED BY CITY OF KANSAS CITY, MO.

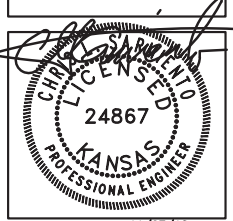
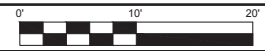
for questions or comments contact number below:  
phone: 602.287.0300  
fax: 602.287.0600

**JOB NO: 2018-347**

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DFT: LL  
DSN: LL  
CHK: CS

SCALE: 3/32" = 1'-0" (11X17)  
SCALE: 3/16" = 1'-0" (22X34)



Date Signed: 11/27/18  
CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY		
NO.	DATE	DESCRIPTION
0	09-17-18	LL/JS 90% CD REVIEW
1	10-03-18	YK/JS NEW RFDS
2	10-23-18	LL/JS CLIENT COMMENT
SUBMITTAL		
NO.	DATE	DESCRIPTION
0	11-09-18	LL/JS FOR CONSTRUCTION
1	11-19-18	LL/JS CLIENT COMMENTS
2	11-27-18	LL CONSTRUCTION

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

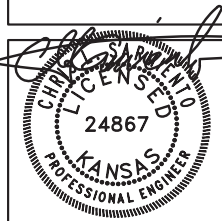
**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**OVERALL ELECTRICAL SITE PLAN**

SHEET NO.  
**E1.0**





Date Signed: 11/27/18  
 CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS
2	11-27-18	LL	CONSTRUCTION

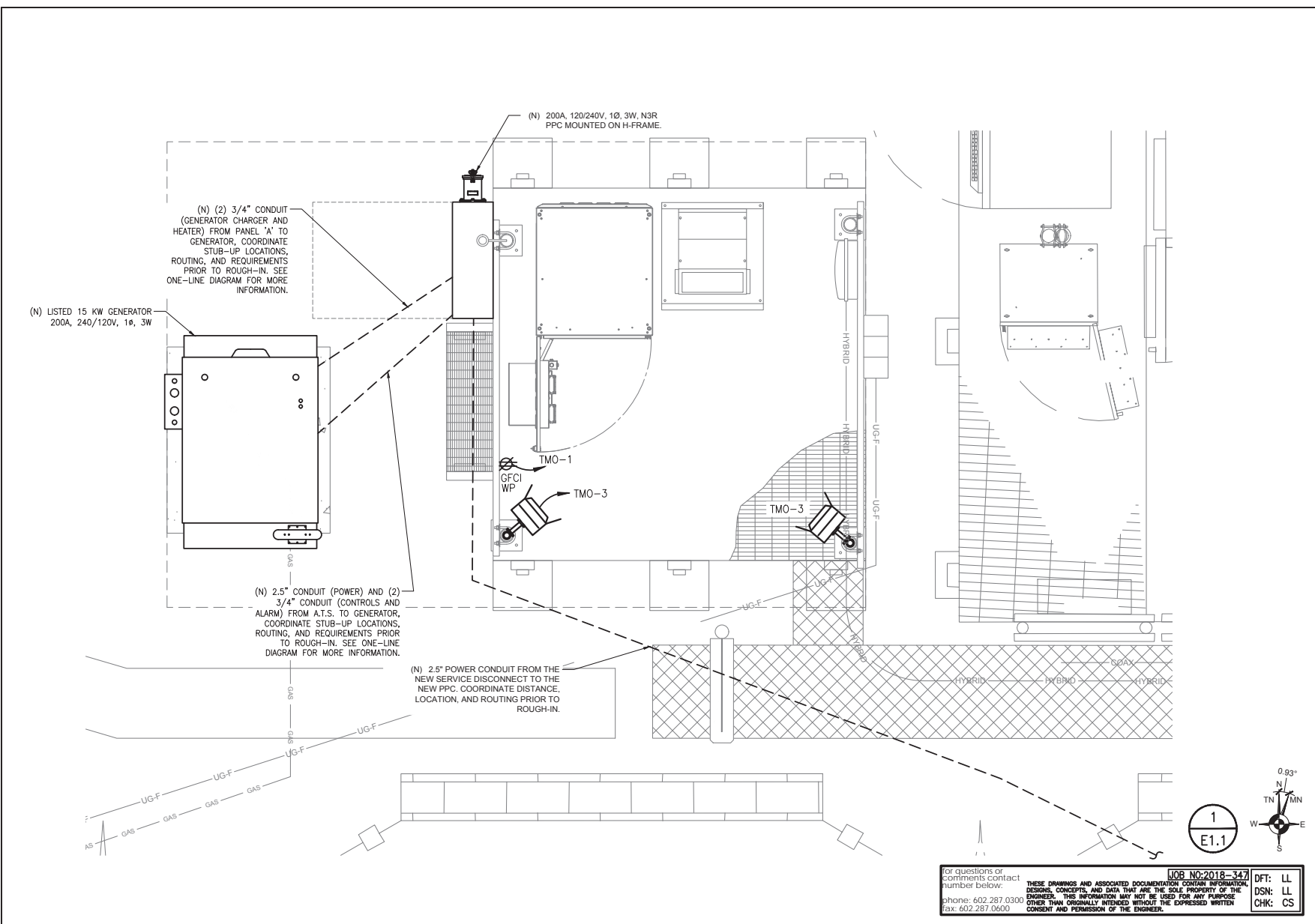
**SITE NAME:**  
 PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
 A5D0310A

**SITE ADDRESS:**  
 3921 W 63RD STREET  
 PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**ENLARGED ELECTRICAL PLAN**

SHEET NO.  
**E1.1**

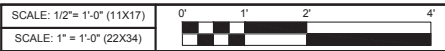


For questions or  
 comments contact  
 number below:  
 phone: 602.287.0300  
 fax: 602.287.0600

**JOB NO: 2018-347**

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 CONSENT AND PERMISSION OF THE ENGINEER.

DFT: LL  
 DSN: LL  
 CHK: CS



1 ENLARGED ELECTRICAL PLAN

**GENERAL NOTES:**

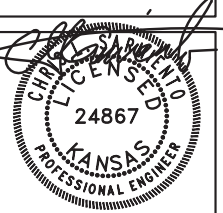
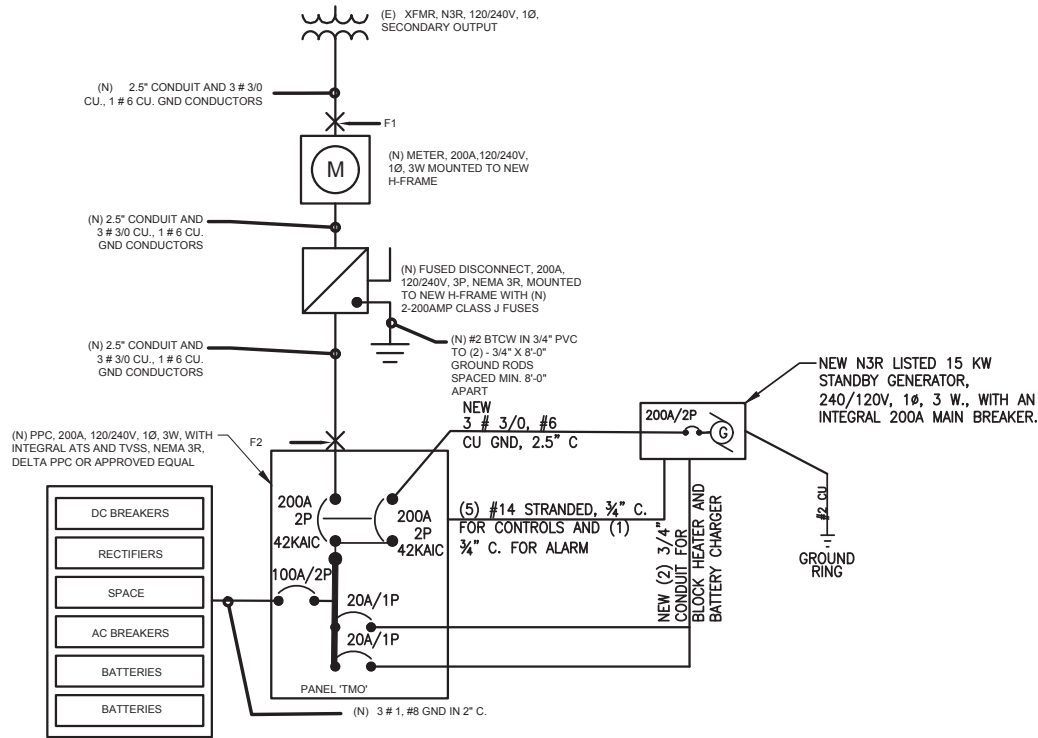
- CONTRACTOR TO VERIFY AVAILABLE FAULT CURRENT FROM POWER COMPANY PRIOR TO ORDERING EQUIPMENT. NOTIFY ENGINEER IF FAULT CURRENT VALUE DIFFERS FROM AS SHOWN.

**1-PHASE, LINE-TO-LINE SHORT CIRCUIT CALCULATIONS BASED ON THE "POINT-BY-POINT" METHOD**

$I_{sca} = I_{sc} \times M$	$M = 1/(1 + f)$	Cable: $f = 2 \times L \times I / C \times E$	Xfmr: $f = I_p \times I_{sc} \times V_p \times \%Z / 100000 \times KVA$
where:		$I_s (sca) = V_p / V_s \times M \times I_s$	
$I_{sc}$ = the available short-circuit current, in amperes, at the beginning of the circuit.	$I_p$ = primary current, in amperes.		
$L$ = the length of circuit to the fault, in feet.	$V_p$ = primary line-to-line voltage of transformer, in volts.		
$C$ = the constant from Table C for the type of conductors and circuit arrangement.	$V_s$ = secondary line-to-line voltage of transformer, in volts.		
For parallel runs, multiply "C" value by the number of conductors per phase.		* Use row "ca" for feeder cables; and row "xf" for transformers.	
$E$ = Line-to-line voltage or Line-to-ground voltage, where applicable.			

Fault Point	Description	Source Isc (amps)	Wire / Cable Size	No. of cond. per phase	Type of conduit	"C" value	E (volts)	L (length) in feet	XFMR. KVA	XFMR. %Z	Vp (volts)	Vs (volts)	f	M	I sca (amps)
F1	oo SERVICE ENTRANCE	54360.00											0.00	1.00	54360.00
	xf (Assumed Infinite Bus)												0.00	1.00	0.00
F2	oo PPC	54360.00	# 3/0 CU	1	MAG	12844	240	11					0.39	0.72	39165.30
	xf												0.00	1.00	0.00

Note: The above calculations neglected motor short-circuit contributions. If significant, motor short-circuit contribution may be added to the transformer secondary short-circuit current value. A practical estimate of motor contribution is to multiply the total motor load in amperes by 4. Lengths are for calculations only. DO NOT USE for cost estimating or take-off purposes.  
 \* Assumed 167KVA, 1-Phase transformer with 1.92% impedance



Date Signed: 11/27/18  
 CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT
SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS
2	11-27-18	LL	CONSTRUCTION

**SITE NAME:**  
 PRAIRIE VILLAGE FD TOWER  
**SITE ID:**  
 A5D0310A  
**SITE ADDRESS:**  
 3921 W 63RD STREET  
 PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
 ONE-LINE / CALCS

**SHEET NO.**  
 E2.0

For questions or comments contact number below:  
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 fax: 602.287.0600  
**JOB NO: 2018-347**  
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 DFT: LL  
 DSN: LL  
 CHK: CS



Date Signed: 11/27/18  
CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LL/JS	90% CD REVIEW
1	10-03-18	YK/JS	NEW RFDS
2	10-23-18	LL/JS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LL/JS	FOR CONSTRUCTION
1	11-19-18	LL/JS	CLIENT COMMENTS
2	11-27-18	LL	CONSTRUCTION

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER  
**SITE ID:**  
A5D0310A  
**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**PANEL SCHEDULE**

SHEET NO.  
**E2.1**

PANEL NAME		TMO		ENCL. TYPE		NEMA 3R	
VOLTAGE RATING	120/240	VAC		MOUNTING TYPE	SURFACE		
CONN. LINE VOLTAGE	240	VAC		LOCKABLE CABINET?	NO		
PHASE	1	WIRE	3	DOOR-IN-DOOR?	NO		
BUS TYPE	MAIN BREAKER			MFR.	DELTA		
BUS RATING	200	AMPS		MODEL	POWER PEDESTAL CAB		
MAIN BREAKER	200	AMPS		CAT. NO.	---		
BREAKER TYPE	PLUG-IN			SERIES OCPD REQUIRED?	YES		
INTERRUPTING RATING	42/10	KAIC SERIES RATED		FUSE TYPE	NA		

LOAD	POS	CB	A	B	CB	POS	LOAD
GFCI RECEPTACLE	1	1P20	180	---	2P30	2	TVSS
LIGHTS	3	1P20	---	216	---	4	
GEN. BLOCK HEATER	5	1P20	1400	---	2P100	6	DELTA SSC
GEN. BATTERY CHARGER	7	1P20	4690	504	---	8	
BLANK	9			4510		10	BLANK
BLANK	11					12	BLANK
BLANK	13					14	BLANK
BLANK	15					16	BLANK
BLANK	17					18	BLANK
BLANK	19					20	BLANK
BLANK	21					22	BLANK
BLANK	23					24	BLANK
			6270	6130			

LOAD TYPE	CONN. LOAD	NEC D.F.	NEC LOAD	TOTAL LOAD
RECEPTACLES < 10 KVA	360	100%	360	9.6 KVA
LIGHTING	216	125%	270	25.0 %
LARGEST MOTOR	---	125%	---	40 AMPS
UNITARY HVAC EQUIPMENT	700	100%	700	
DC RECTIFIERS	8320	100%	8320	
OTHER	---	100%	---	
<b>TOTAL</b>	<b>9596 VA</b>		<b>9650 VA</b>	

(SUBPANEL LOCATED IN SSC)

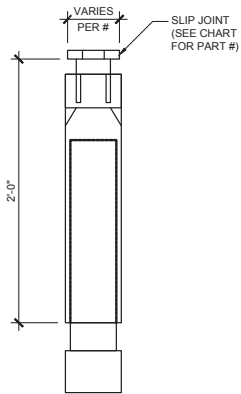
LOAD	POS	CB	A	B
MAIN (BOTTOM)	---	2P100	---	---
RECTIFIER #1 & #3	1	2P50	2080	---
	2			2080
RECTIFIER #2 & #4	3	2P50	2080	---
	4			2080
HEAT EXCHANGER	5	2P10	350	---
	6			350
GFCI RECEPT.	7	1P15	180	---
			4690	4510

**NOTES:**

- CONTRACTOR SHALL MODIFY PANEL SCHEDULE TO SHOW ACTUAL EQUIPMENT LOADS ON REDLINED 'AS BUILT' CONSTRUCTION DRAWINGS.

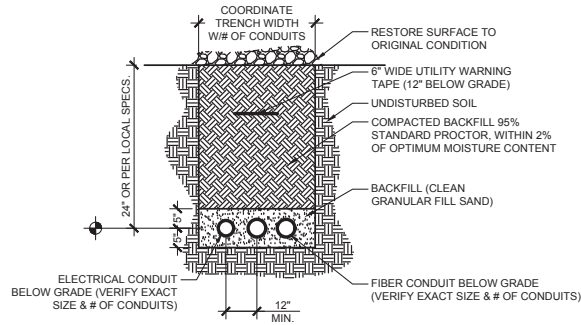
For questions or comments contact number below:  
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JOB NO: 2018-347  
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**NOTE:**  
CONTRACTOR SHALL INSTALL SLIP JOINTS ON ALL CONDUITS

CARLON EXPANSION FITTINGS				
COUPLING END PART #	MALE TERMINAL ADAPTER END PART #	SIZE (INCHES)	STD. CTN. QTY.	TRAVEL LENGTH (INCHES)
E945D	E945DX	1/2	20	4
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E945F	E945FX	1	10	4
E945G	E945GX	1 1/4	5	4
E945H	E945HX	1 1/2	5	4
E945J	E945JX	2	15	8
E945K	E945KX	2 1/2	10	8
E945L	E945LX	3	10	8
E945M	E945MX	3 1/2	5	8
E945N	E945NX	4	5	8
E945P	E945PX	5	1	8
E945R	E945RX	6	1	8

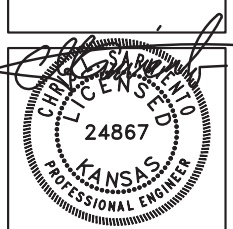


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2. LOCATE ALL UNDERGROUND UTILITIES PRIOR TO TRENCHING / EXCAVATION.
3. COORDINATE SIZE AND TYPE WITH LOCAL UTILITY COMPANIES REQUIREMENTS.
4. REFER TO ELECT PLAN FOR EXACT SIZE AND LOCATION.
5. COMPACT BACKFILL TO 95% PROCTOR DENSITY AT ALL DRIVEWAY OR HARD SURFACED AREAS. COMPACT TO 90% PROCTOR DENSITY ALL OTHER AREAS UNLESS NOTED OTHERWISE, REFER TO GEOTECHNICAL REPORT.

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**JOB NO: 2018-347** DFT: LL  
DSN: LL  
CHK: CS

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Date Signed: 11/27/18  
CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LL/JS	90% CD REVIEW
1	10-03-18	YK/JS	NEW RFDS
2	10-23-18	LL/JS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LL/JS	FOR CONSTRUCTION
1	11-19-18	LL/JS	CLIENT COMMENTS
2	11-27-18	LL	CONSTRUCTION

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**UTILITY DETAILS**

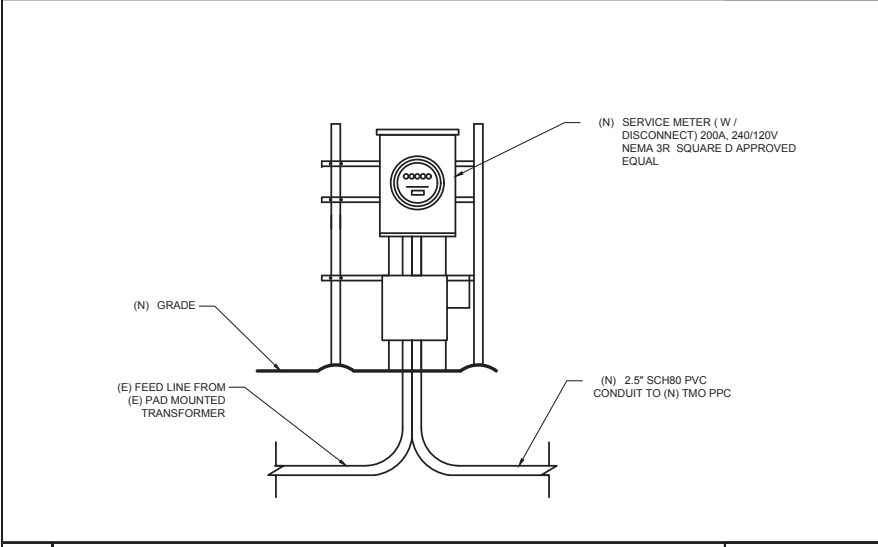
SHEET NO.  
**E3.0**

1 CONDUIT SLIP JOINT DETAIL

SCALE: NTS  
SCALE: NTS

2 TYP. TRENCH DETAIL, AS REQUIRED

SCALE: NTS  
SCALE: NTS



3 UTILITY H-FRAME DETAILS

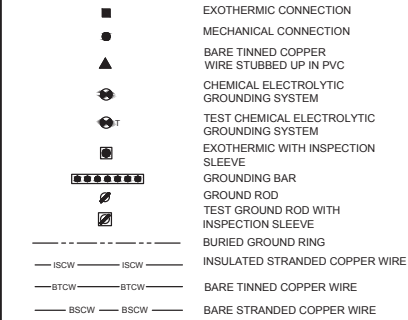
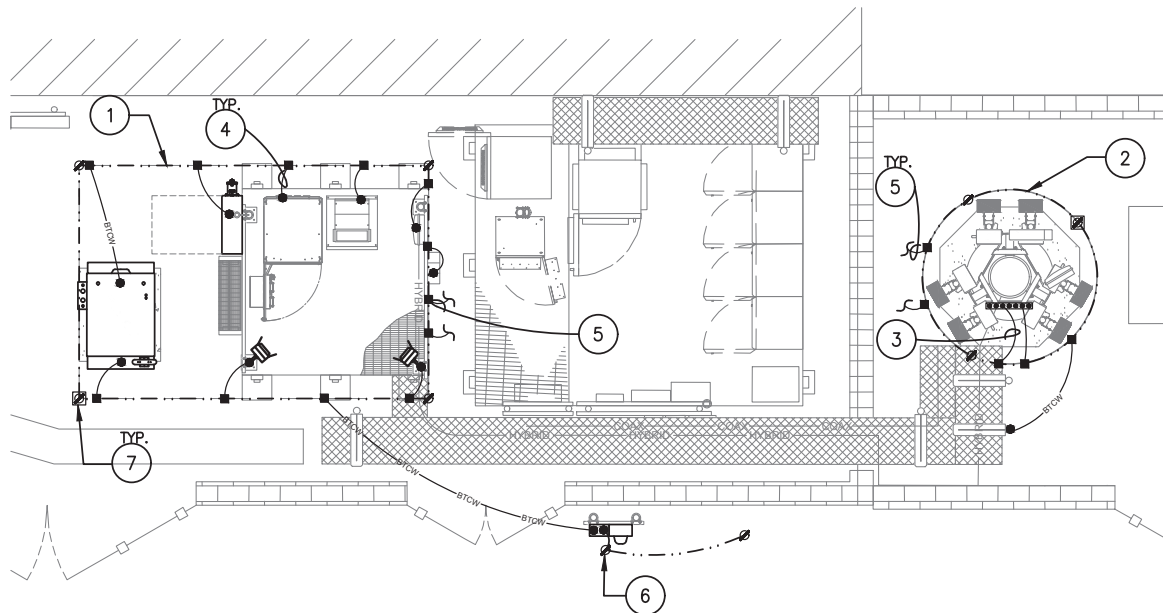
SCALE: NTS  
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4 NOT USED

SCALE: NTS  
SCALE: NTS

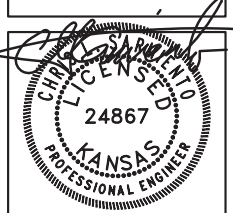
### KEYED NOTES ①

1. EXISTING TOWER AND EQUIPMENT GROUND RING BURIED TO DEPTH OF 30" OR 6" BELOW THE FROST LINE, WHICHEVER IS GREATER. (TYPICAL).
2. EXISTING TOWER GROUNDING RING.
3. BOND EXISTING TOWER TO GROUND BAR TO TOWER GROUND RING. (TYPICAL).
4. BOND NEW PLATFORM TO NEW GROUNDING RING
5. BOND NEW EQUIPMENT TO NEW GROUNDING
6. SERVICE ENTRANCE GROUND ROD, SEE ONE-LINE FOR MORE INFORMATION.
7. GROUND TEST WELL. (TYPICAL).
8. BOND NEW GENERATOR TO THE NEW GROUNDING RING.



### GROUNDING LEGEND

- A. GROUNDING SHALL COMPLY WITH LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- B. ALL GROUNDING SHALL CONFORM TO THE CURRENT T-MOBILE WIRELESS STANDARDS.
- C. MINIMUM BENDING RADIUS FOR GROUND CONDUCTOR IS 8". WHEN BENDING IS NECESSARY, GROUND CONDUCTORS ARE TO BE AS STRAIGHT AS POSSIBLE.
- D. NO SPLICES PERMITTED IN GROUND CONDUCTORS.
- E. ALL GROUNDING CONNECTORS TO BE CLEAN AND FREE OF PAINT AT THEIR MATING SURFACES AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. USE PENETROX OR EQUIVALENT ANTIOXIDANT GREASE.
- F. ALL GROUND BAR CONNECTIONS ARE TO BE 2 HOLE LUG COMPRESSION TYPE. STACKED CONNECTIONS ARE NOT ACCEPTABLE. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BAR WILL BE PERMITTED.
- G. ENSURE ALL MECHANICAL CONNECTORS ARE TORQUED TO THE MANUFACTURER'S SPECIFIED VALUES.
- H. MULTIPLE BONDS ON GROUND RODS TO BE SEPARATED BY AT LEAST 6".
- I. MAXIMUM RESISTANCE OF THE COMPLETED GROUND SYSTEM SHALL NOT EXCEED A RESISTANCE OF 5 OHMS TO EARTH.
- J. GROUND WIRES SHALL NOT BE INSTALLED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS TO PRECLUDE ESTABLISHING A "CHOCK" POINT.
- K. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUND WIRE SHALL NOT BE USED. METAL CLIPS THAT DO NOT COMPLETELY SURROUND THE GROUND WIRE OR PLASTIC CLIPS ARE ACCEPTABLE.
- L. GROUND BARS SHALL NOT BE FIELD MODIFIED.
- M. ALL HORIZONTAL FENCE SECTIONS TO BE GROUNDED WITH 8" SINGLE BARREL GROUND STRAPS.
- N. GROUND RING BURIAL DEPTH SHALL BE 24" AND HAVE A NON-DIRECTIONAL SPLICE.
- O. A CERTIFIED CONTRACTOR WILL MAKE ALL MEASUREMENTS REQUIRED TO TEST THE GROUNDING SYSTEM, USING A MEGGER OR EQUIVALENT. THE ACCEPTABLE RESISTANCE MEASURED FOR THE GROUNDING SYSTEM WILL NOT EXCEED 5 OHMS RESISTANCE. THREE DISTANCES SHALL BE USED: 1 AT 100 FEET, 1 AT 70 FEET, AND 1 AT 35 FEET. THESE DISTANCES ARE SUBJECT TO A SITE BY SITE BASIS. T-MOBILE SHALL BE GIVEN 24 HOURS NOTICE BEFORE TESTING IS TO BE DONE. THE COST ASSOCIATED WITH GROUND TESTING WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- P. PROVIDE #2 TW GREEN JUMPER FROM EACH WAVEGUIDE BRIDGE POST TO WAVEGUIDE BRIDGE CHANNEL.
- Q. ALL OUTDOOR CONNECTIONS TO BE EXOTHERMIC CADWELD, INTERIOR CONNECTIONS CAN BE A PROPERLY APPLIED CRIMP TYPE UNLESS OTHERWISE SPECIFIED.
- R. A THREE POINT SYSTEM RESISTANCE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH VERTICAL BRIDGE SPECIFICATIONS.
- S. PERFORM THREE TESTS AT EACH SITE.
- T. CONTRACTOR SHALL PROVIDE A WRITTEN REPORT CONSISTING OF THE FOLLOWING: SITE NAME, ADDRESS AND IDENTIFICATION NUMBER, DESCRIPTION OF SITE SOIL AND MOISTURE CONDITION, DESCRIPTION OF WEATHER, MODEL NUMBER OF TESTING EQUIPMENT, DATE OF LAST CALIBRATION, SITE SKETCH SHOWING LOCATION OF TEST PROBES AND ALL FIELD DATA COLLECTED (READING, RANGE, TEST, MILLIAMPS, ETC.).
- U. CONTRACTOR SHALL NOTIFY THE CONSTRUCTOR MANAGER IF THERE ARE ANY DIFFICULTIES PERFORMING SYSTEM RESISTANCE TESTS IF MEASUREMENTS ARE ABOVE 5 OHMS. THE CONSTRUCTION MANAGER SHALL PROVIDE INSTRUCTION TO THE CONTRACTOR TO INSTALL ADDITIONAL GROUNDING MEASURES TO MEET THE 5 OHM REQUIREMENT.



Date Signed: 11/27/18  
CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YK/JS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS
2	11-27-18	LL	CONSTRUCTION

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

SHEET TITLE  
**OVERALL  
GROUNDING PLAN**

SHEET NO.  
**G1.0**

for questions or comments contact number below:  
phone: 602.287.0300  
fax: 602.287.0600

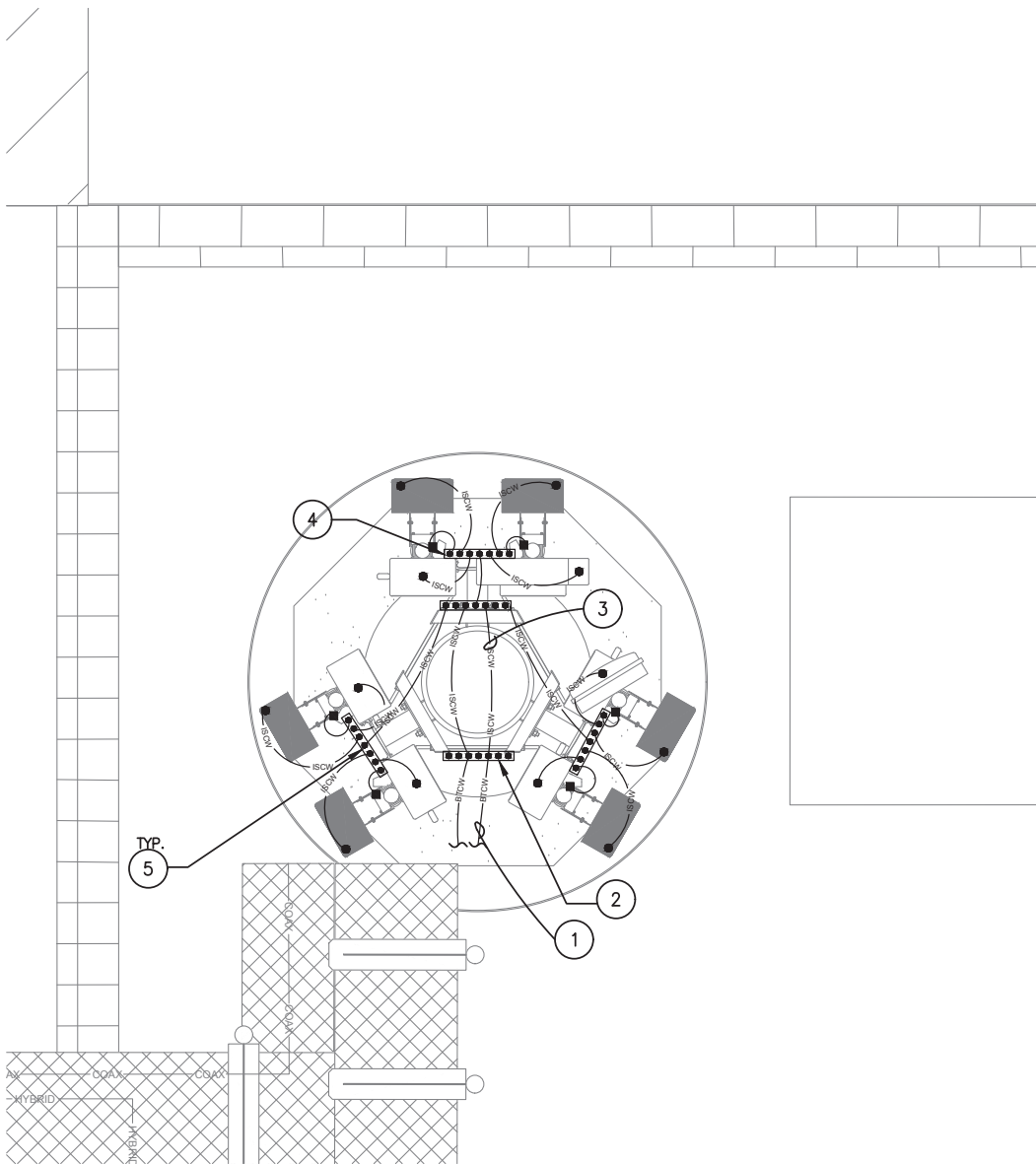
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JOB NO: 2018-347  
DFT: LL  
DSN: LL  
CHK: CS



### GENERAL GROUNDING NOTES

1 OVERALL GROUNDING PLAN



■	EXOTHERMIC CONNECTION
●	MECHANICAL CONNECTION
▲	BARE TINNED COPPER WIRE STUBBED UP IN PVC
⊕	CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
⊕+	TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
⊕	EXOTHERMIC WITH INSPECTION SLEEVE
⊕	GROUNDING BAR
⊕	GROUND ROD
⊕	TEST GROUND ROD WITH INSPECTION SLEEVE
⊕	BURIED GROUND RING
---	ISCW --- ISCW --- INSULATED STRANDED COPPER WIRE
---	--- BTCW --- BTCW --- BARE TINNED COPPER WIRE
---	--- BSCW --- BSCW --- BARE STRANDED COPPER WIRE

**GROUNDING LEGEND**

**KEYED NOTES** ①

1. TO BURIED GROUND RING.
2. MOUNT GROUND BAR NEAR BASE OF TOWER FOR ANTENNA / CABLE GROUNDING.
3. TO CGB AT BASE OF TOWER
4. NEW CGB AT TOP OF TOWER.
5. NEW SECTOR AGB. (TYPICAL).

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**SHEET TITLE**

ANTENNA  
GROUNDING PLAN

**SHEET NO.**

**G1.1**

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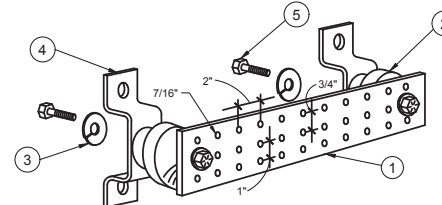
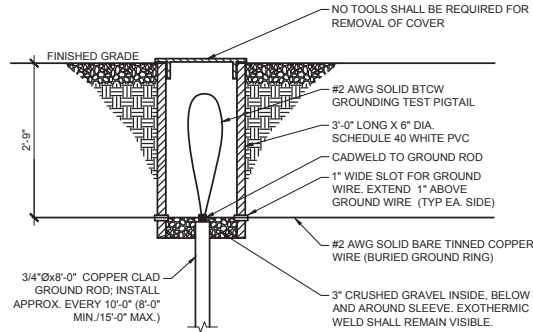
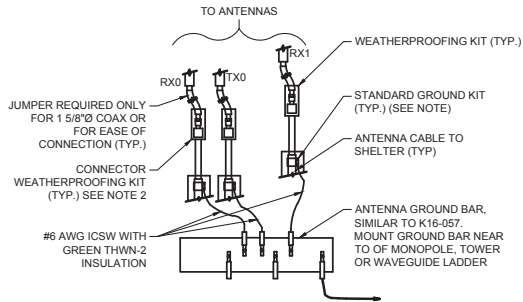
**JOB NO: 2018-347**

DFT: LL  
DSN: LL  
CHK: CS



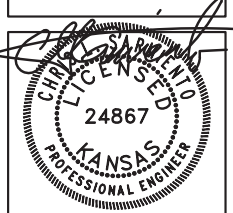
**NOTES:**

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- WEATHER PROOFING SHALL BE ANDREWS. (TYPE & PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.)



**KEY / NOTES:**

- TINNED COPPER GROUND BUSBAR, 1/4" X 4" X 12" OR APPROVED EQUAL HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
- SPACERS AS REQUIRED.
- 5/8" LOCKWASHERS.
- WALL MOUNTING BRACKET.
- 5/8-11 X 1" HHCS BOLTS. GROUND BAR TO BE PURCHASED FROM ROHN.



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**1 SECTOR GROUNDING**

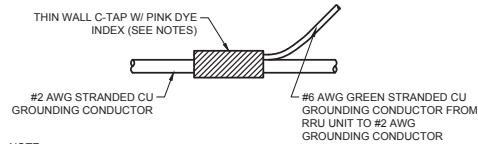
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**2 GROUND TEST WELL DETAIL**

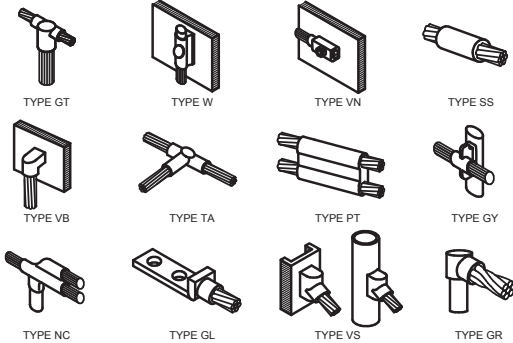
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**3 GROUND BAR DETAIL**

SCALE: NTS  
SCALE: NTS



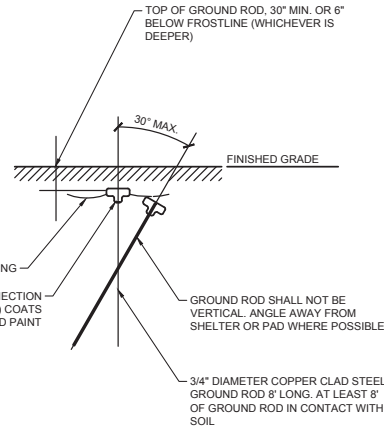
NOTE: CONTRACTOR TO SURROUND COMPLETED CONNECTION W/ WEATHER PROOFING TAPE TO ENSURE WEATHER PROOF CONNECTION.



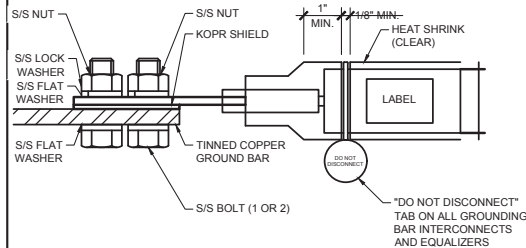
**4 C-TAP AND EXOTHERMIC WELDS**

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**5 GROUNDING ROD DETAIL**



**5 GROUNDING ROD DETAIL**



**NOTES:**

- ALL HARDWARE 1/8" STAINLESS STEEL INCLUDING LOCK WASHER. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MOUNTING.
- FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.
- PROVIDE 'DO NOT DISCONNECT' TAG.

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**4 C-TAP AND EXOTHERMIC WELDS**

SCALE: NTS  
SCALE: NTS

**5 GROUNDING ROD DETAIL**

**6 TWO-HOLE LUG CONNECTION**

SCALE: NTS  
SCALE: NTS

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PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
GROUNDING  
DETAILS

**SHEET NO.**  
G2.0

**GENERAL CONSTRUCTION NOTES**

- THE FACILITY IS AN UNOCCUPIED WIRELESS FACILITY.
- PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTORS SHALL VISIT THE JOB SITE AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION ENGINEER AND ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL RECEIVE, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL CONTACT LOCAL DIGGERS HOTLINE 48 HOURS PRIOR TO PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE BEST SKILLS AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE CONSTRUCTION FIELD ENGINEER AND WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE PLOT OF SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.

**STRUCTURAL NOTES**

- GENERAL CONDITIONS**
- DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO THE APPROVED EDITION OF THE IBC EDITION AND ALL OTHER APPLICABLE STATE CODES, ORDINANCES, AND REGULATIONS. IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS, AND REGULATIONS, SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURER'S REQUIREMENTS, USE THE MOST STRINGENT PROVISION.
  - IT IS THE EXPRESS INTENT OF THE PARTIES INVOLVED IN THIS PROJECT THAT THE CONTRACTOR OR SUBCONTRACTOR OR INDEPENDENT CONTRACTOR OR THEIR RESPECTIVE EMPLOYEES SHALL EXCULPATE THE ARCHITECT, THE ENGINEER, THE CONSTRUCTION MANAGER, THE OWNER, AND THEIR AGENTS, FROM ANY LIABILITY WHATSOEVER AND HOLD THEM HARMLESS AGAINST LOSS, DAMAGES, LIABILITY OR ANY EXPENSE ARISING IN ANY MATTER FROM THE WRONGFUL OR NEGLIGENT ACT, OR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FAILURE TO CONFORM TO THE STATE SCAFFOLDING ACT IN CONNECTION WITH THE WORK.
  - DO NOT SCALE DRAWINGS.
  - VERIFY ALL EQUIPMENT MOUNTING DIMENSIONS PER MANUFACTURER DRAWINGS.
  - SUBMIT ONE SEPIA AND TWO PRINTS OF ALL STRUCTURAL SHOP DRAWINGS. MARKED UP SEPIA SHALL BE RETURNED.
- STRUCTURAL STEEL NOTES:**
- CHANNELS, ANGLES AND PLATES SHALL BE ASTM A36 MATERIAL, UNLESS NOTED OTHERWISE.
  - SQUARE AND RECTANGULAR TUBE STEEL HSS SECTIONS SHALL BE ASTM A500, GRADE B (Fy = 46 ksi) MATERIAL.
  - ROUND PIPE SECTIONS SHALL BE ASTM A53, GRADE B (Fy = 35 ksi) MATERIAL.
  - DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE "AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", WITH COMMENTARY AND THE CODE OF STANDARD PRACTICE.
  - ALL STEEL SHALL HAVE ONE COAT OF SHOP PRIMER. DO NOT PAINT AREAS WITHIN 3" OF BOLTS, WELDS OR HEADED STUDS.
  - BOLTS SHALL BE HIGH STRENGTH BOLTS, A325, CONFORMING TO ASTM SPECIFICATIONS. ALL CONNECTIONS SHALL HAVE A MINIMUM OF 2 BOLTS.
  - WELDING SHALL BE CONDUCTED BY CERTIFIED WELDERS AND SHALL CONFORM TO THE AWS CODES FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION.
  - WELDS SHALL BE MADE USING E70XX ELECTRODES AND SHALL BE 3/16" MINIMUM UNLESS OTHERWISE NOTED.
  - WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDED PROCEDURE SPECIFICATION (WPS) AS PER AWS D1.1, D1.3 AND D1.4.
  - ONLY PRE-QUALIFIED WELDING PROCEDURES SHALL BE USED.
  - UNLESS SPECIFICALLY ADDRESSED IN THE SPECIFICATIONS OR THE DETAILS, ALL STEEL ITEMS PERMANENTLY EXPOSED TO EARTH OR WEATHER SHALL BE CORROSION-RESISTANT BY GALVANIZING OR BY THE USE OF STAINLESS STEEL.
  - ALL FIELD WELDS ON GALVANIZED MATERIAL SHALL BE BRUSH-COATED WITH A ZINC-RICH PAINT.

- FRP NOTES:**
- ALL FRP MATERIAL SHALL BE EXTREN SERIES 500 OR EQUIVALENT, PRODUCED BY THE PULTRUSION METHOD.
  - ALL ADHESIVE RESIN SHALL BE PLEXUS METHACRYLATE OR AN EQUIVALENT ADHESIVE RESIN THAT IS COMPATIBLE WITH THE RESIN MATRIX USED IN THE STRUCTURAL SHAPES.
  - ALL FRP CONNECTIONS SHALL BE FULLY BONDED AT EACH SIDE WITH A 1/4" PLATE AND A MINIMUM OF (2) 3/8" DIAMETER FLATHEAD FRP SCREWS PER MEMBER.

- ISOPLAST NUTS AND BOLTS SHALL BE TIGHTENED TO A SNUG-TIGHT FIT PLUS AN ADDITIONAL 1/2 TURN, PRIOR TO BEING LOCKED WITH EPOXY.
- ALL PANELS / SHEATHING SHALL BE FULLY BONDED WITH 3/8" FLATHEAD FRP SCREWS AT 12" O.C.
- ALL FIELD CUT AND DRILLED EDGES, HOLES AND ABRASIONS SHALL BE SEALED WITH A CATALYZED EPOXY RESIN COMPATIBLE WITH THE MANUFACTURER'S ORIGINAL RESIN.

**STANDARDS FOR ALL CONCRETE WORK**

- ALL CONCRETE WORK SHALL CONFORM WITH ACI 318 OR LATEST. DETAIL REINFORCING IN CONFORMANCE WITH ACI SP66 LATEST.
- NO SPLICES OF REINFORCEMENT SHALL BE MADE EXCEPT AS DETAILED OR AUTHORIZED BY THE STRUCTURAL ENGINEER. LAP SPLICES WHERE PERMITTED SHALL BE A MINIMUM OF 30 BAR DIAMETERS.
- PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING AT POSITIONS SHOW ON DRAWINGS.
- WIRE FABRIC REINFORCEMENT MUST LAP ONE FULL MESH AT SIDE AND END LAPS SHALL BE TIED TOGETHER.
- CURE AFTER FINISHING CONCRETE. KEEP MOIST FOR 7 DAYS AFTER POURING.
- COMPACT STRUCTURAL FILL 95% PROCTOR DENSITY PRIOR TO PLACING CONCRETE UNDER SLABS.
- 1/4" CHAMFER ON ALL CORNERS AND EDGES.
- ALL CONCRETE SHALL BE PORTLAND, TYPE 1 CEMENT WITH A MINIMUM OF 28 DAY STRENGTH OF 3000 PSI, 4" SLUMP AND A MINIMUM AIR ENTRAINMENT OF 4%.
- ALL REINFORCING STEEL SHALL BE GRADE 60. ALL REINFORCING MESH SHALL CONFORM TO ASTM A 185.

**ELECTRICAL NOTES**

- SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.
- THESE PLANS ARE DIAGRAMMATIC ONLY, AND NOT TO BE SCALED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC, FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
- ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
- ELECTRICAL CONTRACTOR SHALL CARRY OUT HIS WORK WITH ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES AND O.S.H.A.
- ELECTRICAL CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS, AND PAY ALL REQUIRED FEES.
- COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB COMPLETION. ANY WORK, MATERIAL, OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.

- ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE, AND TRUE TAPE.
- PROVIDE THE OWNER WITH ONE SET OF COMPLETE DIMENSIONS AND CIRCUITS, WITHIN 10 WORKING DAYS OF PROJECT COMPLETION, ELECTRICAL "AS BUILT" DRAWINGS, SHOWING ACTUAL LOCATION OF CONDUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO PROJECT MANAGER AT JOB COMPLETION.
- USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE. ALL CONDUCTORS SHALL BE COPPER.
- THE EXTERIOR GROUND RING SHALL BE TESTED PER CCI SPECIFICATIONS AND SHALL HAVE A RESISTANCE TO EARTH OF 5 OHMS OR LESS, IF NOT NOTIFY ENGINEER.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
- PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE (WHETHER FOR FASTENING OR ANCHORING PURPOSES OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC.) IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND RE-BARS WILL NOT BE DRILLED INTO, CUT, OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF TENDONS AN RE-BARS ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY, OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING STEEL TENDONS.
- PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE LOCAL BUILDING CODES. USING U.L. RATED MATERIALS.

- ELECTRICAL CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOK-UP COSTS SHALL BE PAID BY THE CONTRACTOR.
- ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND/OR CATALOG CUT-SHEETS ON ALL NON-SPECIFIED ORIGINAL MATERIALS AND EQUIPMENT, TO PROJECT MANAGER PRIOR TO COMMENCEMENT OF THE WORK.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY AND SHORT CIRCUIT, AS WELL AS, GROUNDING TEST. GROUNDING TEST SHALL BE PERFORMED BY INDEPENDENT TESTING AGENCY, WITH WRITTEN REPORT SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL.
- CLEAN PREMISES DAILY OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK PREMISES IN A COMPLETE AND UNDAMAGED CONDITION.
- ALL EXTERIOR WALL PENETRATIONS SHALL BE SEALED WITH POLYSEAM SEALANT.
- ALL #2 TINNED BARE COPPER DOWNLEADS TO BE PROTECTED BY 1/2" P.V.C. PIPE AND SECURED.
- COMPRESSION FITTINGS TO BE USED ON ALL CONDUITS (NO SET SCREWS).
- ALL #6 STRANDED COPPER WITH GREEN INSULATION TO BE ATTACHED WITH CRIMPED DOUBLE LUG, ATTACHED WITH NUTS, BOLTS AND STAR WASHERS TYPICAL AND NO-OX GREASE BETWEEN LUG AND BUS BAR.
- ALL ABOVE GROUND CONDUIT SHALL BE RIGID GALVANIZED CONDUIT WITH WEATHERPROOF FITTINGS.

**GROUNDING**

- ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, T-MOBILE GROUNDING AND BONDING STANDARDS, AND THE NATIONAL ELECTRICAL CODE.
- PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
- ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN
- GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUND RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN #2 AWG COPPER. ROOFTOP GROUND RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).
- TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING. CONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING
- ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE GROUNDING SYSTEM. EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
- APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED.
- A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
- BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.
- DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE THE GREATER OF THE TWO DISTANCES.
- ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
- THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
- DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.
- IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUND BAR AT THE BASE OF THE TOWER, A SECOND GROUND BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS
- CONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.



CP PROJECT NO.: TMO-18-0096-29

PRELIMINARY			
NO.	DATE	D/C	DESCRIPTION
0	09-17-18	LLJS	90% CD REVIEW
1	10-03-18	YKJUS	NEW RFDS
2	10-23-18	LLJS	CLIENT COMMENT

SUBMITTAL			
NO.	DATE	D/C	DESCRIPTION
0	11-09-18	LLJS	FOR CONSTRUCTION
1	11-19-18	LLJS	CLIENT COMMENTS

**SITE NAME:**  
PRAIRIE VILLAGE FD TOWER

**SITE ID:**  
A5D0310A

**SITE ADDRESS:**  
3921 W 63RD STREET  
PRAIRIE VILLAGE, KS 66208

**SHEET TITLE**  
**GENERAL NOTES**

**SHEET NO.**  
**GN1.0**