

TENTATIVE AGENDA
RAYTOWN BOARD OF ALDERMEN
MARCH 22, 2016
REGULAR SESSION NO. 23
RAYTOWN CITY HALL
10000 EAST 59TH STREET
RAYTOWN, MISSOURI 64133

OPENING SESSION
7:00 P.M.

Invocation
Pledge of Allegiance
Roll Call

Public Comments

Communication from the Mayor

Communication from the City Administrator

Committee Reports

LEGISLATIVE SESSION

1. CONSENT AGENDA

All matters listed under the Consent Agenda are considered to be routine by the Board of Aldermen and will be enacted by one motion without separate discussion or debate. The Mayor or a member of the Board of Aldermen may request that any item be removed from the consent agenda. If there is no objection by the remaining members of the board, such item will be removed from the consent agenda and considered separately. If there is an objection, the item may only be removed by a motion and vote of the board.

Approval of the Regular March 1, 2016 Board of Aldermen meeting minutes.

REGULAR AGENDA

2. Public Hearing: A public hearing to approve a conditional use permit for land located at 10312 E. 63rd Street
 - 2a. **SECOND Reading: Bill No. 6406-16, Section XIII. AN ORDINANCE GRANTING A CONDITIONAL USE PERMIT SUBJECT TO CERTAIN CONDITIONS TO ALLOW AN ANIMAL KENNEL FACILITY AS PART OF AN ANIMAL ADOPTION OPERATION AT 10312 E. 63RD STREET IN RAYTOWN, MISSOURI.** Point of Contact: John Benson, Development & Public Affairs Director.
3. **R-2853-16: A RESOLUTION** ACCEPTING A COMMUNITY GRANT FROM WAL-MART IN THE AMOUNT OF \$1,000.00 TO FURTHER THE CITY'S COMMUNITY EDUCATION PROGRAMS THROUGH THE EMERGENCY MEDICAL SERVICES DEPARTMENT AND AMENDING THE FISCAL YEAR 2015-2016 BUDGET TO REFLECT THE INCREASE IN GRANT REVENUES. Point of Contact: Doug Jones, Emergency Medical Services Director.
4. **R-2854-16: A RESOLUTION** AUTHORIZING A PROFESSIONAL SERVICES AGREEMENT WITH GBA FOR THE DOWNTOWN STREETScape PROJECT IN AN AMOUNT NOT TO EXCEED \$95,913.00 AND AMENDING THE FISCAL YEAR 2015-2016 BUDGET. Point of Contact: Kati Horner Gonzalez, Assistant Director Public Works.
5. **R-2855-16: A RESOLUTION** AUTHORIZING A PROFESSIONAL SERVICES AGREEMENT WITH OLSSON ASSOCIATES FOR THE PRELIMINARY DESIGN OF 83RD STREET BRIDGE IN AN AMOUNT NOT TO EXCEED \$57,801.86 AND AMENDING THE FISCAL YEAR 2015-2016 BUDGET. Point of Contact: Kati Horner Gonzalez, Assistant Director Public Works.

6. **R-2856-16: A RESOLUTION** AUTHORIZING AND APPROVING THE EXPENDITURE OF FUNDS WITH CENTRAL STATES SECURITY, LLC IN AN AMOUNT NOT TO EXCEED \$18,960.39 FOR FISCAL YEAR 2015-2016. Point of Contact: Jim Lynch, Police Chief.
7. **R-2857-16: A RESOLUTION** AUTHORIZING AND APPROVING THE ADOPTION OF THE REGIONAL MULTI-HAZARD MITIGATION PLAN. Point of Contact: Jim Lynch, Police Chief.
8. **R-2858-16: A RESOLUTION** APPROVING AN AGREEMENT WITH T-MOBILE CENTRAL LLC TO LEASE AVAILABLE SPACE ON THE TOWER OWNED BY THE CITY OF RAYTOWN. Point of Contact: Jim Lynch, Police Chief.

CLOSED SESSION

Notice is hereby given that the Mayor and Board of Aldermen may conduct a closed session, pursuant to the following statutory provisions:

- 610.021(1) Legal actions, causes of action or litigation involving a public governmental body and any confidential or privileged communications between a public governmental body or its representatives and its attorneys;
- 610.021(3) Hiring, firing, disciplining or promoting of particular employees by a public governmental body when personal information relating to the performance or merit of an individual employee is discussed or recorded; and/or
- 610.021(13) Individually identifiable personnel records, performance ratings or records pertaining to employees or applicants for employment.

ADJOURNMENT

**DRAFT
MINUTES
RAYTOWN BOARD OF ALDERMEN
MARCH 1, 2016
REGULAR SESSION NO. 22
RAYTOWN CITY HALL
10000 EAST 59TH STREET
RAYTOWN, MISSOURI 64133**

**OPENING SESSION
7:00 P.M.**

Mayor Michael McDonough called the March 1, 2016 Board of Aldermen meeting to order at 7:00 p.m. James Fuller of Ivanhoe United Church of Christ provided the invocation and led the pledge of allegiance.

Roll Call

The roll was called by Teresa Henry, City Clerk, and the attendance was as follows:

Present: Alderman Karen Black, Alderman Josh Greene, Alderman Jim Aziere, Alderman Jason Greene, Alderman Janet Emerson, Alderman Mark Moore, Alderman Steve Meyers, Alderman Bill Van Buskirk, Alderman Steve Mock, Alderman Eric Teeman

Public Comments

Pat Jackson spoke regarding the birthday celebration for Queen Mother McFarland on March 19, 2016.

John Wiley spoke regarding Tax Increment Financing.

Communication from the Mayor

Mayor McDonough attended the annual Kansas City Mayors' Prayer Breakfast which was well attended by mayors in the Kansas City metropolitan area.

Communication from the City Administrator

Mahesh Sharma, City Administrator, reported that the City hosted an open meeting at the library last week to discuss the proposed development of the Downtown Streetscape Project.

Mr. Sharma reported the Mayor's State of the City Address was February 26, 2016 and over 160 people were in attendance.

Mr. Sharma reported that there were several bills in the State House of Representatives that could potentially affect municipalities and their ability to purchase vehicles out of state. Mr. Sharma also mentioned that Senate Bill 639 was being considered; which would allow frozen pension plans to be transferred to LAGERS.

Mr. Sharma reported that KCP&L proposed an 8.2% rate increase; this equates to a \$9.00 increase for customers. If passed, the rate increase would happen in 2017.

Mr. Sharma reminded residents that the Presidential Primary Election was scheduled for March 15, 2016. The Board of Aldermen meeting scheduled for this day will be March 22, 2016.

Committee Reports

Alderman Emerson reported that the Human Relations Commission planned to have meetings with the City of Raytown Police Department to discuss what citizens should expect if they are pulled over by an officer.

Alderman Emerson announced that the Raytown Night at the Mavericks was scheduled for March 11, 2016. Residents can pick up tickets at the Raytown Area Chamber of Commerce.

Alderman Emerson reported that the Chamber's "Un-Professionals" Trivia Night was scheduled for March 15, 2016 at Raytown Grand Prix.

Alderman Mock announced that the Egg-Extravaganza was scheduled for March 26, 2016.

Alderman Mock asked for volunteers for the Adopt -a- Street Program. Volunteers will be scheduled to meet in April to collect trash along 59th and Blue Ridge Boulevard to Raytown Trafficway.

Alderman Josh Greene reported that the Finance Committee met to discuss the new Nuisance Abatement Program for the City.

Alderman Jason Greene congratulated Raytown High student, Don Hampton, for winning the State Wrestling Championship in his weight bracket. Alderman Greene also congratulated other Raytown wrestlers who participated at the State Wrestling Tournament.

LEGISLATIVE SESSION

1. **CONSENT AGENDA**

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Approval of the Regular February 16, 2016 Board of Aldermen meeting minutes.

R-2845-16: A RESOLUTION AUTHORIZING AND APPROVING THE APPOINTMENT OF RICHARD KOOP TO THE ELECTED OFFICIALS COMPENSATION REVIEW BOARD. Point of Contact: Teresa Henry, City Clerk.

R-2846-16: A RESOLUTION AUTHORIZING AND APPROVING THE APPOINTMENT OF RALPH MONACO TO THE ELECTED OFFICIALS COMPENSATION REVIEW BOARD. Point of Contact: Teresa Henry, City Clerk.

R-2847-16: A RESOLUTION AUTHORIZING AND APPROVING THE APPOINTMENT OF CLIFFORD SARGEON TO THE ELECTED OFFICIALS COMPENSATION REVIEW BOARD. Point of Contact: Teresa Henry, City Clerk.

R-2848-16: A RESOLUTION AUTHORIZING AND APPROVING THE APPOINTMENT OF DENISE BOZIKIS TO THE COUNCIL ON AGING. Point of Contact: Teresa Henry, City Clerk.

R-2849-16: A RESOLUTION AUTHORIZING AND APPROVING THE APPOINTMENT OF LARRY SCHWIETERMAN TO THE COUNCIL ON AGING. Point of Contact: Teresa Henry, City Clerk.

R-2850-16: A RESOLUTION AUTHORIZING AND APPROVING THE APPOINTMENT OF RUTH SCHWIETERMAN TO THE COUNCIL ON AGING. Point of Contact: Teresa Henry, City Clerk.

Alderman Aziere, seconded by Alderman Moore, made a motion to approve the consent agenda. The motion was approved by a vote of 10-0.

Ayes: Aldermen Aziere, Moore, Teeman, Mock, Van Buskirk, Meyers, Emerson, Jason Greene, Josh Greene, Black

Nays: None

REGULAR AGENDA

Alderman Meyers, seconded by Alderman Emerson made a motion to move item 5 on the Agenda to item 2. The motion was approved by a vote of 10-0.

Ayes: Aldermen Meyers, Emerson, Jason Greene, Van Buskirk, Josh Greene, Aziere, Mock, Black, Moore, Teeman
Nays: None

2. Public Hearing: A public hearing to approve a conditional use permit for land located at 10312 E. 63rd Street

2a. **FIRST Reading: Bill No. 6406-16, Section XIII. AN ORDINANCE GRANTING A CONDITIONAL USE PERMIT SUBJECT TO CERTAIN CONDITIONS TO ALLOW AN ANIMAL KENNEL FACILITY AS PART OF AN ANIMAL ADOPTION OPERATION AT 10312 E. 63RD STREET IN RAYTOWN, MISSOURI.** Point of Contact: John Benson, Development & Public Affairs Director.

The bill was read by title only by Teresa Henry, City Clerk.

Mayor McDonough opened the public hearing and called for any ex parte' discussion(s); none was noted.

John Benson, Development & Public Affairs Director and Erin Morse, Director of Midwest Animal Rescue presented an overview of the Staff Report and remained available for discussion.

Mayor McDonough opened the floor for public comment;

Beverly Metlane addressed the Board in favor of the proposed dog kennel.

Lori Lamb addressed the Board regarding the potential outreach services the kennel would provide the community.

Without further comments; Mayor McDonough closed the floor for public comment.

Discussion included estimated number of animals to be housed at the facility, number of kennel runs, the potential of excessive odor and barking from the property.

Alderman Steve Meyers, seconded by Alderman Moore made a motion to suspend the rules. The motion failed by a vote of 5-5.

Ayes: Aldermen Meyers, Moore, Emerson, Black, Mock
Nays: Aldermen Jason Greene, Josh Greene, Van Buskirk, Aziere, Teeman

Alderman Van Buskirk, seconded by Alderman Teeman made a motion to continue to date certain of March 22, 2016. The motion was approved by a vote of 7-3.

Ayes: Aldermen Van Buskirk, Teeman, Josh Greene, Mock, Jason Greene, Aziere, Emerson
Nays: Aldermen Moore, Black, Meyers

3. **R-2838-16: A RESOLUTION AUTHORIZING AND APPROVING THE EXPENDITURE OF FUNDS WITH SMARTCOVER SYSTEMS IN AN AMOUNT NOT TO EXCEED \$23,045.00 FOR FISCAL YEAR 2015-2016.** Point of Contact: Kati Horner Gonzalez, Assistant Public Works Director.

- Tabled item which will need a Motion to be removed from the Table before consideration.

Alderman Josh Greene, seconded by Alderman Emerson made a motion to remove R-2838-16 from the Table. The motion was approved by a vote of 10-0.

Ayes: Aldermen Josh Greene, Emerson, Meyers, Jason Greene, Van Buskirk, Moore, Aziere, Mock, Black, Teeman
Nays: None

The resolution was read by title only by Teresa Henry, City Clerk.

Jim Melvin, Interim Public Works Director, provided the Staff Report and remained available for discussion.

Discussion included length of time it will take to get accurate data regarding flow of water, thanking the Municipal Committee for reviewing the proposed purchase, whether or not sewage rates charged by Kansas City could be negotiated once accurate data was collected, accuracy of existing meters and if other surrounding cities utilized Smartcovers.

Alderman Jason Greene, seconded by Alderman Mock made a motion to adopt. The motion was approved by a vote of 10-0.

Ayes: Aldermen Jason Greene, Mock, Josh Greene, Moore, Van Buskirk, Teeman, Black, Aziere, Emerson, Meyers

Nays: None

4. **R-2851-16: A RESOLUTION** AUTHORIZING AND APPROVING THE PURCHASE OF PARTS AND SUPPLIES FOR POLICE VEHICLES FROM ED ROEHR SAFETY PRODUCTS OFF THE MISSOURI DEPARTMENT OF TRANSPORTATION PURCHASING CONTRACT IN AN AMOUNT NOT TO EXCEED \$19,965.72 FOR FISCAL YEAR 2015-2016. Point of Contact: Jim Lynch, Police Chief.

The resolution was read by title only by Teresa Henry, City Clerk.

Jim Lynch, Police Chief and Captain Michelle Rogers, provided the Staff Report and remained available for discussion.

There was none.

Alderman Emerson, seconded by Alderman Black made a motion to adopt. The motion was approved by a vote of 10-0.

Ayes: Aldermen Emerson, Black, Aziere, Mock, Jason Greene, Meyers, Teeman, Josh Greene, Van Buskirk, Moore

Nays: None

5. **R-2852-16: A RESOLUTION** ACCEPTING THE RECOMMENDATION OF THE PARKS/STORM WATER SALES TAX COMMITTEE AND DIRECTING STAFF TO MAKE THE NECESSARY CHANGES EFFECTIVE WITH THE 2016-2017 BUDGET YEAR. Point of Contact: Joe Willerth, City Attorney.

The resolution was read by title only by Teresa Henry, City Clerk.

Joe Willerth, City Attorney, provided the Staff Report and remained available for discussion.

Discussion included if the percentage will be an annual distribution until the Sunset Clause or be reviewed every year, clarification of the City's Fiscal Year and how soon money could be distributed to both departments once the resolution was passed.

Alderman Emerson, seconded by Alderman Black made a motion to adopt. The motion was approved by a vote of 7-3.

Ayes: Aldermen Black, Meyers, Jason Greene, Josh Greene, Van Buskirk, Teeman, Mock

Nays: Alderman Emerson, Moore, Aziere

CLOSED SESSION

Alderman Moore, seconded by Alderman Emerson made a motion to move into closed session at 8:30 p.m. The motion was approved by a vote of 10-0.

Ayes: Aldermen Moore, Emerson, Meyers, Jason Greene, Emerson, Josh Greene, Mock, Black, Teeman
Nays: Aldermen Van Buskirk, Aziere

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- 610.021(3) Hiring, firing, disciplining or promoting of particular employees by a public governmental body when personal information relating to the performance or merit of an individual employee is discussed or recorded; and/or
- 610.021(13) Individually identifiable personnel records, performance ratings or records pertaining to employees or applicants for employment.

ADJOURNMENT

Teresa M. Henry, MRCC
City Clerk

CITY OF RAYTOWN
Request for Board Action

Date: March 16, 2016

Bill No. 6406-16

To: Mayor and Board of Aldermen

Section No.: XIII

From: John Benson, Director of Development & Public Affairs

Department Head Approval: _____

Finance Director Approval: _____ (only if funding requested)

City Administrator Approval: _____

Action Requested: Conduct a public hearing to consider a Conditional Use Permit application for an animal kennel facility as part of an animal adoption operation at 10312 E. 63rd Street.

Recommendation: Staff is recommending approval of the application. The recommendation of the Planning & Zoning Commission will be provided at the Board of Aldermen meeting as this application was considered and voted on by the Commission after this report was released.

Analysis: Monopoly Acquisitions, LLC, on behalf of Raytown Animal Hospital and Midwest Animal ResQ, is seeking approval of a conditional use permit application to allow an animal kennel facility as part of an animal adoption operation at 10312 E. 63rd Street. The subject property is zoned Neighborhood Commercial (NC). Monopoly Acquisitions is in the process of purchasing the property from Raytown Animal Hospital. Upon purchase of the property, Monopoly Acquisitions then plans to lease the property to Midwest Animal ResQ, who wants to operate an animal adoption center. The animal adoption center will include the keeping of dogs and cats in kennels, which will be located inside the building. The keeping of animals in kennels, however, requires approval of a Conditional Use Permit application.

Alternatives: Alternatives to the recommendation of the Planning & Zoning Commission would be to:

1. Deny the conditional use permit application; or
2. Refer the application back to the Planning & Zoning Commission for reconsideration or further review.

Budgetary Impact: This application does not require the city to provide any funding.

Additional Reports Attached:

- Conditional Use Permit Application submitted by applicant
- Staff Report on this application for February 25, 2016 Planning & Zoning Commission meeting
- Minutes of the February 25, 2016 Planning Zoning Commission meeting

FACTORS TO BE CONSIDERED:

In considering and making a decision on an application for a conditional use permit, city code stipulates that consideration is required to be given by the city on the potential impact of the proposed use on the health, safety, morals, comfort and general welfare of the inhabitants of the city, including but not limited to, the following factors.

1. The stability and integrity of the various zoning districts.

The property to which the conditional use permit application applies is zoned Neighborhood Commercial (NC). The zoning and uses on surrounding properties are more specifically described below:

East: The driveway to the Plaza Court Apartments, which is located to the northeast (rear) of the subject property, abuts the east side of the applicant's property and is zoned High Density Residential (R-3). Further east is a retail store which is zoned Neighborhood Commercial (NC).

West: The storm water detention facility and private drive to Raytown Landing is located immediately to the west of the subject property. Raytown Landing is zoned High Density Residential (R-3). Further west is commercial property which is zoned Neighborhood Commercial (NC).

South: 63rd Street abuts the south side of the subject property. An office, day care and the Raytown Animal Hospital are located on the opposite side of 63rd Street from the subject property. All of the properties on the opposite side of 63rd Street are zoned Neighborhood Commercial (NC).

North: The Raytown Landing residential development is located immediately to the north (rear) of the subject property. Raytown Landing is zoned High Density Residential (R-3).

2. Conservation of property values.

If approved, the proposed use will allow a building that has been vacant for several years to be occupied, which will help strengthen property values in that area of Raytown.

3. Protection against fire and casualties.

Prior to occupying the building for the proposed residential use, the tenant space will be inspected by the City's Building Inspector and Fire Marshall to ensure compliance with the life safety codes contained in the city's adopted Building and Fire Codes.

4. Observation of general police regulations.

According to the applicant, the building's roof needs to be replaced as it currently lets water into the building. Upon purchase of the building, the applicant has stated that they will replace the roof as this will need to be done regardless of the outcome of this application.

Midwest Animal ResQ has stated that animal kennels will be located inside the building, so noise from barking dogs should be minimal if at all noticeable outside of the building.

Additionally, dogs and cats will be brought outside to the rear area of the building each day, which is enclosed with a six foot privacy fence. When the dogs and cats are outside, they will always be supervised to avoid barking that could be a nuisance to neighboring properties.

The keeping of animals in kennels and the operation of the animal adoption center is required to comply with the regulations specified by State of Missouri Department of Agriculture, which will include inspections by that department. If the keeping of the animals fails to comply with the state's regulations, the state will require it to be brought into compliance or possible closure.

5. Prevention of traffic congestion.

Midwest Animal ResQ has indicated that they anticipate the amount of traffic that will be generated by their animal adoption center will be a low volume of approximately 100 vehicles per week. Due to the projected low traffic volume the applicant requested a waiver to the city's traffic impact analysis submittal requirements. The City's Public Works Department has reviewed their request and approved it as 63rd Street is a four lane arterial street and a pet adoption center operated on the property previously, which did not create any traffic congestion.

6. Promotion of traffic safety and the orderly parking of motor vehicles.

There is an existing parking lot in front of the building which contains parking for approximately 6 vehicles. Because the proposed animal shelter is projected to create a low amount of traffic and will not have a large number of employees working at any given time, the parking lot appears to be of a sufficient size.

7. Promotion of the safety of individuals and property.

As previously stated, prior to the business opening the building and property will be inspected by the City's Building Official and the Fire Marshal from the Raytown Fire Protection District to ensure the building complies with all applicable life safety codes and that the property is in compliance with the city's property maintenance codes.

8. Provision for adequate light and air.

No additions to the existing building are proposed. Therefore, the proposed use will not alter the amount of light or air on or near the property.

9. Prevention of overcrowding and excessive intensity of land uses.

No additions to the existing building are proposed. In addition, as previously described, the kennels in which the dogs and cats will be kept will be located inside the building to prevent or greatly minimize any noise that may be heard outside of the building. In addition, staff is not aware of any complaints from neighboring property owners or residents when the property was previously used as an animal adoption center. Therefore, it does not appear that the proposed use will result in overcrowding or be an excessively intensive land use for the area.

10. Provision for public utilities and schools.

Because there is an existing building on the property, to which no additions are proposed, the proposed use will not have an impact on schools or utilities that serve the property and surrounding area.

11. Invasion by inappropriate uses.

As previously described, the subject property previously contained an existing animal adoption center which included the keeping of animals in kennels. Staff is not aware of any complaints or issues that occurred when the previous animal adoption center was in operation. Therefore, it does not appear that the proposed use will be an invasion of an inappropriate use.

12. Value, type and character of existing or authorized improvements and land uses.

The property on which the proposed use would be located is developed and does not necessitate any exterior site or building improvements. Additionally, as previously described, the proposed use will use the existing building and parking area. Therefore, the proposed use is in keeping with the value, type and character of existing or authorized improvements and land uses.

13. Encouragement of improvements and land uses in keeping with overall planning.

No additions to the existing building or property are proposed except for the new roof that the applicant plans to install after they purchase the property.

14. Provision for orderly and proper renewal, development and growth.

The Future Land Use Map in the City's Comprehensive Plan identifies the property to be an area for commercial land uses, which the proposed use is consistent with. In addition, the proposed use will provide a use for the property, which has been vacant for several years.

Staff Recommendation:

It is the recommendation of staff that the conditional use permit to allow animal kennels as part of an animal adoption center be approved subject to the following conditions:

1. Compliance with all applicable local, state of Missouri and federal regulations and laws.
2. The keeping of animal kennels shall be allowed as long as they are in conjunction with the operation of an animal adoption center.

AN ORDINANCE GRANTING A CONDITIONAL USE PERMIT SUBJECT TO CERTAIN CONDITIONS TO ALLOW AN ANIMAL KENNEL FACILITY AS PART OF AN ANIMAL ADOPTION OPERATION AT 10312 E. 63RD STREET IN RAYTOWN, MISSOURI

WHEREAS, application PZ-2016-003, submitted by Monopoly Acquisitions, LLC, on behalf of Raytown Animal Hospital that seeks to allow an animal kennel facility as part of an animal adoption operation at 10312 East 63rd Street in Raytown, Missouri; and

WHEREAS, pursuant to City Code Chapter 50, Article V of the City of Raytown Code of Ordinances, application no. PZ-2016-003, was referred to the Planning & Zoning Commission to hold a public hearing; and

WHEREAS, after due public notice in the manner prescribed by law, the Planning & Zoning Commission held public hearings on said application on February 25, 2016 and again on February 29, 2016; and

WHEREAS, at the conclusion of said public hearing on February 29, 2016 the Planning & Zoning Commission by a vote of _____ () and _____ () rendered a report to the Board of Aldermen recommending that the Conditional Use Permit Application be approved subject to certain conditions; and

WHEREAS, after due public notice in the manner prescribed by law, the Board of Aldermen held public hearings on said application on March 1, 2016 and March 22, 2016; and

WHEREAS, based on all of the information presented the Board of Aldermen finds it is in the best interest of the citizens of the City of Raytown to approve said Conditional Use Permit subject to certain conditions specified herein.

NOW THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:

SECTION 1 – GRANT OF CONDITIONAL USE PERMIT. That a Conditional Use Permit is hereby granted to allow an animal kennel facility as part of an animal adoption operation on property located at 10312 East 63rd Street in Raytown, Missouri, as legally described in Exhibit “A”, subject to the conditions set forth in Section 2 herein.

SECTION 2 – CONDITIONS OF APPROVAL AND OPERATION. That the following conditions of approval shall apply and be followed during the duration of the use allowed by this Conditional Use Permit.

- A. Compliance with all applicable local, state of Missouri and federal regulations and laws.
- B. The keeping of animal kennels shall be allowed as long as they are in conjunction with the operation of an animal adoption center.

SECTION 3 – FAILURE TO COMPLY. That failure to comply with any of the conditions or provisions contained in this ordinance shall constitute violations of both this ordinance and the City’s Comprehensive Zoning Code and shall be cause for revocation of the Conditional Use Permit granted herein in addition to other penalties contained in the City Code.

SECTION 4 – REPEAL OF ORDINANCES IN CONFLICT. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed.

SECTION 5 – SEVERABILITY CLAUSE. The provisions of this ordinance are severable and if any provision hereof is declared invalid, unconstitutional or unenforceable, such determination shall not affect the validity of the remainder of this ordinance.

SECTION 6 – EFFECTIVE DATE. This ordinance shall be in full force and effect from and after the date of its passage and approval.

BE IT REMEMBERED that the above was read two times by heading only, **PASSED AND ADOPTED** by a majority of the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Jackson County, Missouri, this 22nd day of March, 2016.

Michael McDonough, Mayor

ATTEST:

Teresa M. Henry, City Clerk

Approved as to Form:

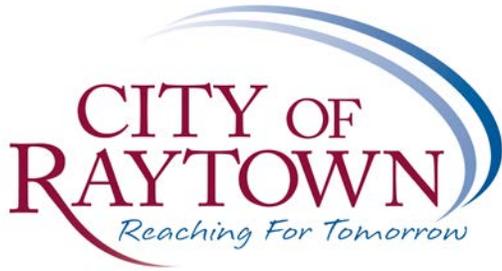
Joe Willerth, City Attorney

BILL NO. 6406-16

ORDINANCE NO. ____-16

SECTION NO. XIII

Exhibit "A"



DEVELOPMENT & PUBLIC AFFAIRS DEPARTMENT

10000 EAST 59TH STREET
RAYTOWN, MISSOURI 64133-3993
PHONE: 816-737-6075 - FAX: 816-737-6164
E-MAIL: JOHN@RAYTOWN.MO.US

MEMORANDUM

To: THE CITY OF RAYTOWN BOARD OF ALDERMEN
From: John Benson, AICP, MPA
Director of Development and Public Affairs
Date: March 22, 2016
Subject: Additional Information Regarding Conditional Use Permit for Animal Kennels

Three of the concerns raised during discussion of the Conditional Use Permit application for animal kennels as part of a proposed animal adoption center at 10312 E. 63rd Street related to: 1) Noise that may be created by barking dogs in the building; 2) odors that may be caused by animal feces outside; and 3) the possible spread of disease from the animals kept at the adoption center. The following provides information on current city code requirements relating to each of these concerns.

1. Noise from Barking Dogs:

Section 6-132 "Excessive Animal Noise" in the City of Raytown Code Ordinances specifies:

"No person shall own or keep any animal that by making excessive noise disturbs a neighborhood. The following definitions and conditions shall be specifically applicable to enforcement of the aforesaid prohibition of this section:"

- (1) *"The term "excessive noise" means and includes any noise produced by an animal that is so loud and continuous or untimely as to disturb the peace and quiet of a neighbor."*
- (2) *"The term "neighbor" means an individual residing in a residence structure which is within 100 yards of the property on which the animal is kept or harbored and who does, in writing by signing a general ordinance summons (GOS), state that he will testify under oath to said animal making excessive noise."*
- (3) *"If a summons is issued charging violation of this section, a subpoena shall also be issued to the disturbed neighbor to testify in the matter."*

Also, Section 6-260 "Operating Standards of Establishment" in the City of Raytown Code Ordinances specifies the following:

"Confinement of animals. If any commercial animal establishment operates within 200 feet of a building used or occupied as a residence, except for the keeper of the kennels, the kennel animals shall be continuously confined within the kennel building and not be allowed to run at large or be in the outdoor enclosures of the kennel."

During discussion on this application at the March 1, 2016 Board of Aldermen meeting the applicant stated the kennels in which the animals will be kept will be located inside the building. As such, the proposed animal kennels and animal adoption center will comply with this requirement. If there is "excessive noise" to a "neighbor" as defined in Section 6-132 of the Raytown City Code, the City's Animal Control will be able to respond and require compliance with city codes.

2. Odors: Section 6-260 "Operating Standards of Establishment" in the City of Raytown Code Ordinances specifies the following requirements relating to the operation of the pet adoption center:

- *The inside and outside areas shall be completely cleaned twice a day.*

During discussion on this application at the March 1, 2016 Board of Aldermen meeting the applicant stated the animals when outside will be supervised and that animal feces will be picked up daily by the adoption center employees as is required by the State of Missouri Department of Agriculture, which also regulates the operation of the facility and also inspects the facility.

3. Spread of Disease:

Section 6-260 "Operating Standards of Establishment" in the City of Raytown Code Ordinances specifies:

"All disease-infected animals shall be segregated and treated or humanely destroyed to prevent the spread of disease."

During discussion on this application at the March 1, 2016 Board of Aldermen meeting the applicant stated animals available for adoption will receive vaccinations which will help prevent the spread of disease. In addition, animals impounded by the City will be in a veterinarian office and under observation in advance of becoming available for adoption.

Based upon the City Code provisions provided above, the areas of concern raised at the March 1, 2016 Board of Aldermen are able to be addressed through current City regulations. In addition, condition number 1 in the proposed ordinance requires compliance with all applicable local, state of Missouri and federal regulations and laws, which encompasses the above City Code requirements. Therefore, no additional condition(s) of approval appear to be needed.

AGENDA
CITY OF RAYTOWN
PLANNING AND ZONING COMMISSION MEETING

February 25, 2016
Raytown City Hall
Board of Aldermen Chambers
10000 East 59th Street
Raytown, Missouri 64133

REGULAR MEETING

7:00 pm

1. Welcome by Chairperson- Mr. Tommy Bettis, Vice Chairman, served as Chairperson for the meeting in Chairman Kevin Wilson's absence.

2. Call meeting to order and Roll Call.

Wilson: Absent

Jimenez: Absent

Stock: Present

Bettis: Present

Robinson: Present

Lightfoot: Present

Hartwell: Absent

Dwight: Present

Meyers: Present

Also Present: John Benson, Director of Development and Public Affairs, Joe Willerth, City Attorney, Ray Haydaripoor, Neighborhood Services Supervisor, June Van Loo, Permit Technician, and Scott Peterson, Permit Technician.

3. Approval of minutes – January 7, 2016 meeting

A. Revisions-

B. Motion- Ms. Stock motioned to approve the minutes for the January 7, 2016 meeting.

C. Second- Mr. Lightfoot seconded Ms. Stock's motion to approve.

D. Additional Board Discussion- None

E. Vote- Motion passed unanimously 6-0.

4. Old Business – None

5. New Business

A. Application: Application for conditional use permit for an animal kennel facility as part of an animal adoption operation at 10312 E. 63rd Street in Raytown, MO.

Case No.: PZ-2016-003

Applicant: Monopoly Acquisitions, LLC on behalf of Raytown Animal Hospital and Midwest Animal ResQ

1. Introduction of Application by Chair: Mr. Bettis introduced application PZ-2016-003 to the board.

2. Open Public Hearing: Mr. Bettis opened the public hearing.

3. Explain Procedure for a Public Hearing and swear-in speakers: Mr. Joe Willerth, City Attorney, swore in those wishing to speak on behalf of the application.

4. Enter Relevant City Exhibits into the Record:

Mr. Bettis introduced the following exhibits into the record:

- a. Conditional Use Permit Application submitted by applicant
- b. Publication of Notice of Public Hearing in Daily Record Newspaper ad.
- c. Public Hearing Notices sent to property owners within 185-feet of subject property
- d. City of Raytown Zoning Ordinance, as amended
- e. City of Raytown Comprehensive Plan

Mr. John Benson introduced the following additional exhibits into the public record:

- f. Letter from Raytown Water Company, signed by President Neal Clevenger, giving support in favor of the application.
- g. Email to John Benson from Scott Peterson detailing a voicemail Mr. Peterson received from Constance Jones, resident of Raytown, giving opposition to the application over concerns of noise and odor.
- h. PowerPoint presentation given by Applicant during the Public Hearing.
- i. Petition from Raytown Landing Homeowners Association in opposition of the application.

5. Explanation of any exparte' communication from Commission members regarding the application: None.

6. Introduction of Application by Staff: Mr. Benson noted that a change of ownership had occurred on the building as of the date of the public hearing on February 25, 2016; Monopoly Acquisitions had officially acquired ownership of the applicant property from Raytown Animal Hospital. Mr. Benson clarified that the animal adoption use of the property did not require a Conditional Use Permit, but it was solely the kennels that triggered the necessity of a Conditional Use Permit.

7. Presentation of Application by Applicant: Erin Morris, 533 NW 1501 Rd., Holden, MO, 64040, gave a presentation to the board. Ms. Morris explained the objectives and operations of Midwest Animal ResQ.

Stacey Payne, 1205 E Gore Rd., Raymore, MO addressed the concerns voiced by members of the public concerning noise and odor on the property. Ms. Payne stated that all droppings will be picked up and the dogs will not be kept outside at night.

Mr. Benson clarified at request from the board that the animals impounded by the City would only be released to Midwest Animal ResQ only after the ten day impoundment period, and only if an owner is not found or the animal is unclaimed.

Ms. Stock asked how many animals the facility would hold at a time. Ms. Morris responded somewhere between 12-20 dogs.

8. Request for Public Comment:

Ralph Hodapp, 6223 Ash Ct, President of the Raytown Landing Homeowners Association, spoke on behalf of a petition of 33 signatures in opposition to the application. Mr. Hodapp stated that the previous animal shelter at the applicant location had issues with noise, waste odor, and stray animals running through neighboring yards in an attempt to get to the dogs in the shelter. As such, the signees of the petition were opposed to the application without those issues being resolved.

Brenda Hager, 5343 Blue Ridge Blvd, spoke in support of the application. Ms. Hager stated that she has experience working with animal shelters, and that Ms. Morris is well respected in the animal adoption community. She also stated it was her belief that since the adoption

center will be run by full-time employees instead of volunteers the concerns brought forth by Mr. Hodapp and others will be addressed.

9. Additional Comment from Applicant, Additional Comment from Applicant, if necessary:

Ms. Morris clarified that the shelter will have strict hours during the day, and animals will not be out at night. Furthermore, all animals will be supervised when they are out during the day, and all waste will be picked up immediately to reduce the odor as well as to protect the animals from communicable disease.

Mr. Haydaripoor stated that impounded animals held for 10 days, any diseases identified by Dr. Rose will be treated at cost to the city if the animal is unclaimed, or to the animal's owner, if claimed. He further stated that 10 day quarantines are only for animals involved in bite cases, and no animals will be sent for adoption that are known to have a bite history.

10. Additional Staff Comments and Recommendation:

Mr. Benson recommended approval of the application subject to the following conditions:

- a. Compliance with all applicable local, State of Missouri, and federal laws, including the Missouri Department of Agriculture.
- b. Keeping of animals shall be allowed as long as they are in conjunction with the operation of an animal adoption center.
- c. All animal kennels shall be located inside the building.
- d. All animals, when outside the building, shall be under the supervision of a person who shall remain outside with the animals.

11. Board Discussion: None

12. Close Public Hearing: Mr. Bettis closed the public hearing.

13. Board Decision to Approve, Conditionally Approve or Deny the Application:

- a. Motion- A motion was made by Mr. Robinson to move the vote to approve or deny the application to Monday, February 29, 2016 at 7:00 pm.
- b. Second- Ms. Stock seconded the motion.
- c. Additional Board Discussion- None
- d. Vote- The motion passed unanimously 6-0.

6. Other Business: None

7. Planning Projects Report: None

8. Set Future Meeting Date – Monday, February 29, 2016 at 7:00 p.m.

9. Adjourn

Scott 6:30 pm

Feb. 25th planners az one

City of Raytown

Development & Public Affairs Department

Case Number _____
Date Received _____
Map Page _____

CITY OF RAYTOWN
APPLICATION FOR CONDITIONAL USE PERMIT

PART I Background Information

1. This request applies to property at the following address:
10312 E. 63rd Street Raytown mo

2. The name(s), address(es), and phone number(s) of the property owners: (As listed on the deed) 64133

Name	Address	Phone
Monopoly Acquisitions, LLC	PO Box 16687 Raytown MO	
64133	Stacey (816) 591-7105	Chris (816) 590-7660

3. We, the property owner(s), do hereby appoint the following person as our agent during consideration of our request:

Name	Address	Phone/Email
Stacey Payne	PO Box 16687	Stacey@monopolypropertieskc.com
Blue Eye Investments LLC		

4. The property is currently being used for the following purposes:

Currently vacant

5. Zoning classification of the property: Commercial

6. Specify the use desired for the property: Animal adoption center w/ little retail

7. Please list all existing structures and their heights located on the property: For the City of Raytown & other dogs & cats

Structure	Height
1 bldg	approx. 2400 sq. ft.

8. We, the undersigned, do hereby authorize the submission of this application and associated documents, and do hereby certify that all the information contained therein is true and correct. (Signatures of property owners)

Stacey Payne 1/27/16

PART II Conditional Use Permit Information

In considering an application for a conditional use permit, the city shall give consideration to the health, safety, morals, comfort and general welfare of the inhabitants of the city, including but not limited to the following factors:

1. The stability and integrity of the various zoning districts;
2. Conservation of property values;
3. Protection against fire and casualties;
4. Observation of general police regulations;
5. Prevention of traffic congestion;
6. Promotion of traffic safety and the orderly parking of motor vehicles;
7. Promotion of the safety of individuals and property;
8. Provision for adequate light and air;
9. Prevention of overcrowding and excessive intensity of land uses;
10. Provision for public utilities and schools;
11. Invasion by inappropriate uses;
12. Value, type and character of existing or authorized improvements and land uses;
13. Encouragement of improvements and land uses in keeping with overall planning; and
14. Provision for orderly and proper renewal, development and growth.

The information provided by the applicant to the following questions is an opportunity to justify approval of a conditional use permit based on the above listed factors.

If the space provided is not adequate, the applicant may attach additional pages. The applicant is also encouraged to submit any other pertinent information, such as photographs, drawings, maps, statistics, legal documents, and letters of support.

A. The proposed conditional use will be in keeping with the character of the neighborhood because:

This building was used for the exact same purpose & remodeled for this a few years ago.

B. The proposed use will be consistent with the uses and zoning on nearby parcels because:

There are 2 vet office in very close proximity & same use that the bldg was used for before. This Adoption Center will be low volume traffic, dogs will be kenneled indoors & supervised when out doors to avoid making noises

C. This property is more suited for the proposed use than its current uses because:

Same use as before

D. The proposed conditional use could have the following detrimental effects on nearby parcels:

All good effects we are going to be making bldg look better & saving lives. This Animal Adoption will be low volume traffic, indoor kennels, and dogs will only be outside for potty breaks and exercise. Dogs outside will be supervised to avoid barking & other noises.

E. Prior to submitting this application, the property has been vacant for:

approx. 2⁻⁴ years

F. If the application is denied, the property owner(s) will face the following hardships:

building was purchased for the purpose to help the City Raytown pets.

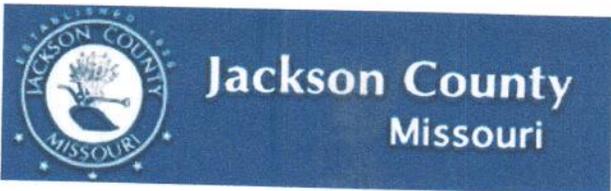
G. Public facilities and utilities are adequate to serve the proposed use as follows:

Animal adoption center

This building has all necessary utilities existing on the property already.

H. Additional comments:

This will be great for the City of Raytown's pets.



Property Account Summary

Parcel Number	45-120-11-60-00-0-00-000	Property Address	10312 E 63RD ST , RAYTOWN, MO 64133
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General Information

Property Description	WEBB'S HOMESITE LOT 4 (EX S 5')
Property Category	Land and Improvements
Status	Active, Host Other Property, Locally Assessed
Tax Code Area	022

Property Characteristics

Property Class	2010
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Parties

Role	Percent	Name	Address
Taxpayer	100	BLUE EYE INVESTMENTS LLC	10312 E 63RD ST, RAYTOWN, MO 64133
Owner	100	BLUE EYE INVESTMENTS LLC	10312 E 63RD ST, RAYTOWN, MO 64133

Property Values

Value Type	Tax Year 2015	Tax Year 2014	Tax Year 2013	Tax Year 2012	Tax Year 2011
Market Value Total	94,000	94,000	94,000	92,800	92,800
Taxable Value Total	30,080	30,080	30,080	29,696	29,696
Assessed Value Total	30,080	30,080	30,080	29,696	29,696

No Charges are currently due.

No Charge Amounts are currently due for this property. If you believe this is incorrect, please contact the Taxpayer Services Unit at (816) 881-3232.

NOTICE: Telephones are staffed during regular business hours (8am to 5pm, Monday through Friday, excluding holidays observed by Jackson County).

Distribution of Current Taxes

District	Amount
BOARD OF DISABLED SERVICES	22.200000
CITY - RAYTOWN	159.270000
FIRE DISTRICT - RAYTOWN	302.730000
JACKSON COUNTY	149.080000
MENTAL HEALTH	36.040000
METRO JUNIOR COLLEGE	70.480000
MID-CONTINENT LIBRARY	94.630000
RAYTOWN SCHOOL C-II	1,901.060000
STATE BLIND PENSION	9.020000
REPLACEMENT TAX	432.250000

Receipts

Date	Receipt No.	Amount Applied	Amount Due	Tendered	Change
12/28/2015 00:00	9499460	3,176.75	3,176.75	3,176.75	0.00
01/02/2015 00:00	9014300	3,199.91	3,199.91	3,199.91	0.00
12/26/2013 00:00	8362595	7,225.50	7,225.50	7,225.50	0.00

1/14/2016

12/30/2011 10:38	7304892	3,155.50	3,155.50	3,155.50	0.00
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REMINDER: Occasionally, the parcel number for a real estate parcel changes, due to a parcel segregation or merge. In such a case, a search of the new parcel number may not reflect tax delinquency or a full tax history concerning that parcel. You may wish to contact us to obtain that information. Or, you may wish to search all relevant parcel numbers of parcels involved in such a segregation or merge. **Click here to begin a search on this website to see if a parcel was involved in a segregation or merge occurring within the past five years and to see a list of parent parcel(s) and child parcel(s) involved. NOTE: Information concerning a segregation or merge occurring more than five years prior to the search is not available on this website.**

ATTENTION: This website will close at 11:00 p.m. on December 31.
Taxes paid online after the website reopens in the New Year will accrue interest, penalties and fees.

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CITY OF RAYTOWN
Request for Board Action

Date: March 15, 2016

Resolution No.: R-2853-16

To: Mayor and Board of Aldermen

From: Doug Jonesi, Emergency Medical Services Director

Department Head Approval: _____

Finance Director Approval: _____ (only if funding requested)

City Administrator Approval: _____



Action Requested: EMS requests the Board of Aldermen to accept a \$1,000.00 grant awarded to Raytown EMS for the purposes of providing educational trainings, materials, and equipment as well as to support our child safety seat program.

Recommendation: Staff recommends accepting the grant funding specifically to be used for our child safety seat program and departmental training, including materials and equipment.

Analysis: The City of Raytown's Department of Emergency Medical Services has become well known in the Kansas City area and outlying communities for our Child Safety Seat program. Parents and caregivers have become familiar with the open availability, the skills, and the professionalism of the certified Child Safety Seat technicians at Raytown EMS. The certified Child Safety Seat technicians of Raytown EMS are passionate about community outreach and education of parents and caregivers regarding the safe transportation of infants and children as well as other safety issues, such as safe sleeping practices. Raytown EMS is also focused on going beyond mandated requirements for transporting infant and children patients in the safest manner possible.

The Department of Emergency Medical Services views education and training a critical component to our mission. These additional funds would allow us to provide education, training, and equipment to further enhance our current educational programs and training.

Alternatives: Not accepting the Wal-Mart grant would prohibit us from utilizing the additional funds to be used for training and educational programs as well as reduce our ability to replace outdated and worn equipment. It would also further restrict our capabilities in operations of our child safety seat program and limit our ability to provide child safety seats for families in need.

A RESOLUTION ACCEPTING A COMMUNITY GRANT FROM WAL-MART IN THE AMOUNT OF \$1,000.00 TO FURTHER THE CITY'S COMMUNITY EDUCATION PROGRAMS THROUGH THE EMERGENCY MEDICAL SERVICES DEPARTMENT AND AMENDING THE FISCAL YEAR 2015-2016 BUDGET TO REFLECT THE INCREASE IN GRANT REVENUES

WHEREAS, the City of Raytown's Emergency Medical Services Department currently operates community education programs, and

WHEREAS, Wal-Mart has made grant funds available for purposes of providing educational training, materials and equipment and has awarded the City of Raytown with a grant in the amount of \$1,000.00; and

WHEREAS, the City desires to accept this grant and amend the fiscal year 2015-2016 budget to reflect the increase in grant revenues;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:

THAT the City of Raytown hereby accepts a Community Grant from Wal-Mart in the amount of \$1,000.00 to be used for the purpose of providing educational training, materials and equipment;

FURTHER THAT the fiscal year 2015-2016 Budget approved by Resolution R-2808-15, is hereby amended to allow for the revenue and expenditures associated with the grant;

FURTHER THAT the City Administrator is hereby authorized to execute all documents necessary to accept the grant and the City Clerk is authorized to attest thereto;

PASSED AND ADOPTED by the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Missouri, the 22nd day of March, 2016.

Michael McDonough, Mayor

ATTEST:

APPROVED AS TO FORM:

Teresa M. Henry, City Clerk

Joe Willerth, City Attorney

IN PAYMENT OF INVOICES TO
Walmart
 702 S.W. 8th St.
 BENTONVILLE, AR 72716

* INCLUDES
 AIDCO
 SAMS CLUB
 BUD'S OUTLET STORES
 OMAKAUSA
 NORTH ARKANSAS WHOLESALE CO., INC.
 BEAVER LAKE AVIATION, INC.
 PHILLIPS COMPANIES INC.
 WALMART PHARMACY OF MICHIGAN, INC.
 WALMART ELECTRIC BCO, INC.

DATE OF CHECK
 12 29 15

PAGE 1

CHECK NUMBER
 0583607

MO	DAY	YR	INVOICE NUMBER	STORE NUMBER	DOCUMENT NUMBER	TYPE CODE*	GROSS AMOUNT	DISCOUNTS/ALLOWANCES	NET AMOUNT
12	23	15	30528475	05-9000	46350405		1,000.00	0.00	1,000.00
340356997/9999999997 Wal-Mart Giving - One Time V							1,000.00	0.00	1,000.00
TOTAL							1,000.00	0.00	1,000.00

VENDOR NO. 340356997/9999999997
 * VENDOR: Deduction codes are described on the reverse side of this statement.

Walmart

Walmart

702 S.W. 8th St. BENTONVILLE, ARKANSAS 72716

WELLS FARGO BANK, N.A.
 CHARLOTTE, NC 28286-0013

66-156
 531

SEQ:02500004

DATE OF CHECK
 12 29 15
 VENDOR NUMBER
 340356997112

CHECK NUMBER
 0583607

0583607

PAY ONE THOUSAND DOLLARS AND NO CENTS

TO THE ORDER OF
 RAYTOWN EMS
 FACILITY 1094
 10020 E 66TH TER
 RAYTOWN MO 64133

WALMART STORES, INC.


EVP and Treasurer

THIS DOCUMENT CONTAINS A COLORED BACKGROUND AND ARTIFICIAL WATERMARK ON BACK. HOLD AT AN ANGLE TO VIEW.
 ⑈0583607⑈ ⑈05310156⑈ ⑈2079900136854⑈

\$
 DOLLARS 1,000.00
 CENTS 00
 NET AMOUNT OF CHECK

CITY OF RAYTOWN
Request for Board Action

Date: March 16, 2016 **Resolution No.:** R-2854-16
To: Mayor and Board of Aldermen
From: Kati Horner Gonzalez, Asst. Director of Public Works

Department Head Approval: _____

Finance Director Approval: _____

City Administrator Approval: _____



Action Requested: Board of Aldermen approval of a Professional Services Agreement with GBA for inspection services for the Downtown Streetscape Project in an amount not to exceed \$95,913.00.

Recommendation: Staff recommends approval of the Professional Services Agreement.

Analysis: The Downtown Streetscape construction project is scheduled to begin construction on March 28, 2016. This is a complex construction project that will require a significant amount of labor-intensive oversight. It is estimated that adequate inspection of this project will require approximately 6 hours per day through the duration of the aggressive 90-day construction schedule.

As a means to provide adequate inspection and testing throughout the project, staff requested a cost proposal from GBA utilizing the MoDOT 2014-2017 LPA Consultant On-Call List. Every three years, MoDOT solicits bids statewide from consultants and testing companies for the Local Public Agency (LPA) Consultant On-Call List. As a means for local agencies to provide the appropriate oversight for LPA projects, which often are over and beyond the inspection capabilities of the agencies, this list is developed and is available for the agencies to select an inspection service to oversee the construction of LPA projects.

Due to the large number of construction projects currently under design or going out to bid as well as the complexity of the Downtown Streetscape Project, it was determined that the use of inspection services will be required to ensure federal and state guideline compliance as well as an acceptable final product in construction and stakeholder communications. The proposal includes the oversight of all construction activities, utility coordination, the upkeep of all required daily inspection notes and forms, communications with City staff and surrounding businesses, bi-weekly progress meetings, coordination of all required testing, and the completion of as-builts.

Alternatives: Significant risk for non-compliance with federal and state inspection & testing standards.

Budgetary Impact:

- Not Applicable
- Budgeted item with available funds
- Non-Budgeted item with available funds through prioritization
- Non-Budgeted item with additional funds requested

Amount: \$95,913.00
From: Transportation Sales Tax Reserves
To: Transportation Sales Tax Fund

Additional Reports Attached: Professional Services Agreement, Scope of Services along with Costs and Expenses tables and the GBA On-Call List Proposal

A RESOLUTION AUTHORIZING A PROFESSIONAL SERVICES AGREEMENT WITH GBA FOR THE DOWNTOWN STREETScape PROJECT IN AN AMOUNT NOT TO EXCEED \$95,913.00 AND AMENDING THE FISCAL YEAR 2015-2016 BUDGET

WHEREAS, the City desires to engage the services of a professional engineering firm to provide Construction Inspection services in connection with the Downtown Streetscape Project; and

WHEREAS, the City utilized the 2014-2017 Local Public Agency On-Call Listing and determined that GBA was best suited to perform such services; and

WHEREAS, the Scope of Basic Services to be provided by GBA as described in the Professional Engineering Services Agreement are set forth in the attached Exhibit "A", and the time periods for the performance of specific services in the contract are stipulated therein; and

WHEREAS, the City Administrator is authorized and empowered by the City to execute contracts providing for professional services for the Public Works Department, upon approval by the Board of Aldermen; and

WHEREAS, the City desires to enter into an agreement with GBA for Construction Inspection Services related to such improvements; and

WHEREAS, the Board of Aldermen find that GBA meet the necessary qualifications to provide such Construction Inspection Services and that funds are available for such purposes by transferring funds and amending Resolution R-2808-15 adopting the budget for Fiscal Year 2015-2016; and

WHEREAS, the Board of Aldermen find that it is in the best interest of the citizens of the City of Raytown that the City enter into an agreement with GBA for such purposes;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:

THAT an Agreement for Construction Inspection Services by and between the City of Raytown, Missouri and GBA in an amount not to exceed \$95,913.00 in substantially the same form as attached hereto as Exhibit "A" and incorporated herein, is hereby approved; and

FURTHER THAT the City Administrator is hereby authorized to execute any and all documents necessary in connection with such agreement and the City Clerk is authorized to attest thereto; and

FURTHER THAT the fiscal year 2015-2016 Budget approved by Resolution R-2808-15 is hereby amended as follows:

From:	To:
Transportation Sales Tax Reserves	Transportation Sales Tax Fund
Amount: \$95,913.00	Amount: \$95,913.00

PASSED AND ADOPTED by the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Missouri, the 22nd day of March, 2016.

Michael McDonough, Mayor

ATTEST:

Teresa M. Henry, City Clerk

Approved as to Form:

Joe Willerth, City Attorney

r

GENERAL ENGINEERING SERVICES CONTRACT
BETWEEN
CITY OF RAYTOWN
AND
GBA

THIS AGREEMENT made and entered into this _____ day of _____, 20____, by and between the City of Raytown, Missouri, hereafter referred to as “CITY”, and **GBA**, hereinafter referred to as “ENGINEER”. For the consideration herein expressed, it is agreed by and between the CITY and ENGINEER as follows:

ARTICLE I – SCOPE OF SERVICES

ENGINEER shall prepare construction plans and associated services for the “*Project Description*”, as further enumerated in Exhibit A (Attached).

Refer to Scope Checklist for items the consultant should include in Exhibit A. If the Scope Checklist is not applicable to the particular project, review the consultant’s proposed scope carefully. Check it against the scope checklist even when that does not apply, but use it as a checklist only. Not all items will apply, but some may even if the project is unusual.

ARTICLE II – COMPENSATION

For services provided under this contract, the CITY shall compensate the ENGINEER as follows:

A. Fee

The ENGINEER will provide the professional service described herein at actual hourly costs per the attached Schedule of Hourly Rates (Exhibit B).

Directly reimbursable fees shall be paid in accordance with the attached Schedule of Reimbursable Fees (Exhibit C).

The total amount paid to the ENGINEER shall be the actual hours expended multiplied by the hourly rate from Exhibit B, plus directly reimbursable fees as computed from Exhibit C, and the total shall not exceed **\$95,913.00**.

B. Method of Payment

Partial payments for work satisfactory completed will be made to the ENGINEER upon receipt of itemized invoices by the CITY. Invoices will be submitted no more frequently than one invoice per month.

ARTICLE III – SCHEDULE

See Exhibit D

Consultant to submit a schedule for the project, with intermediate milestones and a final completion. The schedule shall include a stated number of calendar days as a text item in addition to any diagrammatic submittal.

ARTICLE IV – STANDARDS

Design criteria will be in accordance with City of Raytown Specifications.

ARTICLE V – COVENANT AGAINST CONTINGENT FEES

The ENGINEER warrants that he has not employed or retained any company or person, other than a bona fide employee working for the ENGINEER, to solicit or secure this agreement, and that he has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warranty, the CITY shall have the right to annul this agreement without liability, or in its discretion to deduct from the contract price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee, plus reasonable attorney's fee.

ARTICLE VI – SUBLETTING, ASSIGNMENT OR TRANSFER

No portion of the work covered by this contract, except as provided herein, shall be sublet or transferred without the written consent of the CITY. The subletting of the work shall in no way relieve the ENGINEER of his primary responsibility for the quality and performance of the work.

ARTICLE VII – SUBLETTING, ASSIGNMENT ENDORSEMENT

All plans, specifications and other documents shall be endorsed by the ENGINEER and shall reflect the name and seal of the Registered Professional Engineer endorsing the work.

ARTICLE VIII – RETENTION OF RECORDS

The ENGINEER shall maintain all records, survey notes, design documents, cost and accounting records, construction records and other records pertaining to this contract and to the project covered by this contract, for the period of not less than three years following final payment. Said records shall be made available for inspections by authorized representatives of the CITY, during regular working hours at the ENGINEER place of business.

ARTICLE IX – OWNERSHIP OF DOCUMENTS

Plans, designs, tracings, maps and specifications prepared under this contract shall be delivered

to and become the property of the CITY upon termination or completion of work. Copies of basic survey notes, design computations and other data prepared under this contract shall be made available for use by the CITY. If the CITY incorporates any portion of the work into a project other than that for which it was performed, the CITY shall hold the ENGINEER harmless from any claims and liabilities resulting from such use, to the extent permitted by law.

ARTICLE X – TERMINATION

The CITY may terminate the contract at any time by giving seven (7) days written notice. If the contract is terminated because the project is abandoned or postponed by the CITY, the ENGINEER will be paid for services performed to the date of termination.

If the contract is terminated due to the ENGINEER service being unsatisfactory in the judgment of the CITY based on a reasonable engineering standard, or if the ENGINEER fails to prosecute the work with due diligence, the CITY may procure completions of the work in such a manner as it deems to be in the best interest of the CITY. The ENGINEER will be paid for the services performed to the date of termination.

ARTICLE XI – DECISIONS UNDER THIS CONTRACT

The CITY will determine the acceptability of work performed under this contract based on a reasonable engineering standard, and will decide all questions which may arise concerning the project. In the event of a dispute between Engineer and the CITY, the decision of the Public Work's Director shall be conclusive.

ARTICLE XII – SUCCESSORS AND ASSIGNS

The CITY and the ENGINEER agree that this contract and all contracts entered into under the provisions of this contract shall be binding upon the parties hereto and their successors and assigns.

ARTICLE XIII – COMPLIANCE WITH LAWS

The ENGINEER shall comply with federal, state and local laws, ordinances and regulations applicable to the work, including Title VI of the Civil Rights Act of 1964 and shall procure all licenses and permits necessary for the fulfillment of obligations under this contract.

ARTICLE XIV – RESPONSIBILITY FOR CLAIMS AND LIABILITY

The ENGINEER agrees to hold harmless the CITY from all claims and liabilities due to his negligent acts or the negligent acts of his employees, agents or subcontractors.

ARTICLE XV – NONDISCRIMINATION

The ENGINEER, with regard to the work performed by it after award and prior to the completion of the contract work, will not discriminate on the grounds of race, color or national

origin in the selection and retention of subcontractors. The ENGINEER will comply with Title VI of the Civil Rights Act of 1964, as amended. In all solicitations, either by competitive bidding or negotiation made by the ENGINEER for work to be performed under a subcontract, including procurement of material or equipment, each potential subcontract or supplier shall be notified by the ENGINEER'S obligations under this contract and the regulations relative to nondiscrimination on the grounds of color, race or national origin.

ARTICLE XVI – GENERAL CONSIDERATIONS

- A. The City of Raytown expressly denies responsibility for or ownership of any item purchased until the same is delivered to and accepted by the City.
- B. The ENGINEER agrees to maintain error and/or omission or liability insurance coverage in an amount sufficient to cover the estimated design cost of the project.
- C. Insurance: The ENGINEER shall secure and maintain such insurance as will protect him from claims under the Worker's Compensation Acts, and insurance from claims for bodily injury, death, or property damage which may arise from the performance of his services under this agreement. Such insurance shall include provision to indemnify, hold harmless and defend the CITY from and against any and all liability for loss, damage or expense which the CITY may suffer or for which the CITY may be held liable by reason of any injury (including death) or damage to property arising out of negligence on the part of the ENGINEER or any of its representatives or employees in the execution of the work to be performed.
- D. The ENGINEER must be current with payment to the City of Raytown and/or Jackson County, Missouri regarding Personal Property and Real Estates Tax (if applicable).
- E. The following limitations of responsibility shall apply to the ENGINEER for services provided during construction of the project.
 - 1. Shall not be held responsible for Contractor's construction means, methods, techniques, sequences, procedures, or the safety precautions, or any programs indirect thereto.
 - 2. Shall not be held responsible for the Contractor's failure to perform the work in accordance with the Contract Documents.
 - 3. Shall not be held responsible for acts or omissions of the Contractor or any subcontractor or their agents or employees or any other persons performing any of the work.

Exhibit A

SCOPE OF CONSTRUCTION OBSERVATION SERVICES

Raytown Downtown Streetscape - 63rd Street Federal No. STP-3301(477)

Work under this scope includes the project construction observation, documentation and construction administration of the above-mentioned project. These tasks consist of the following items:

- Pre-construction activities including set up of project documentation.
- Daily construction observation and documentation.
- Daily construction administration and coordination with City of Raytown and affected property owners.
- Post-construction activities.

Part 1 - Pre Construction

- 1.1. Prepare for and attend one (1) pre-construction meeting.
- 1.2. Pre-Construction Engineering
 - 1.2.1. Set up field books for documentation of pay items and daily diaries.
 - 1.2.2. Evaluate potential utility conflicts. Meet with City, contractor and utilities to resolve any identified issues.
 - 1.2.3. Identify potential constructability issues including ADA compliance and building face impacts.

Part 2 - Construction

- 2.1. Provide a lead project inspector who will:
 - 2.1.1. Take responsible charge for the daily administration of the project.
 - 2.1.2. Serve as the main point of contact between the contractor and City of Raytown.
 - 2.1.3. Be on-site when the contractor is working on contract items that require inspection as designated in the contract documents. It is anticipated that this will include work on items for contract pay and any subsidiary item to that line item. It is assumed that 6 hours per day for 5 days per week during the 90 calendar day window will be adequate.
 - 2.1.4. Compile a daily diary that documents the contractor's construction activity, contractor's personnel and equipment on site.
 - 2.1.5. Coordinate necessary materials testing with materials testing subconsultant to address field and laboratory testing per contract specifications. These costs will be billed through GBA's contract as a pass-through cost.
 - 2.1.6. Provide daily oversight of the project traffic control.

- 2.1.7. Prepare change orders and submit to City of Raytown for processing and approval.
- 2.1.8. Meet with contractor personnel monthly to review, prepare and submit monthly pay estimates. It is anticipated that there will be four (4) pay estimates to process.
- 2.1.9. Provide interpretation of the intent of the specifications and plans as requested by the contractor. In the event the contractor does not agree with the interpretation, staff will refer the issue to City for further clarification.
- 2.1.10. Provide field book and/or electronic documentation of contract pay items as they are incorporated into the project.
- 2.1.11. Keep and maintain project files of the contractor's certifications of materials incorporated into the project.
- 2.1.12. Determine whether or not the contractor is generally adhering to the specifications and plan documents, through on-going observations.
- 2.1.13. Attend weekly project progress meetings, record and distribute minutes for each.

Part 3 - Post-Construction

- 3.1. Provide assistance to contractor in preparing one (1) set of As-Built plans for the completed project. These plans will consist of red-line comments on half-size, plain paper plan sheets or electronic pdf plans.
- 3.2. Attend one (1) final walk-through of the project. Compile notes and distribute the punch list to the prime contractor and City of Raytown.
- 3.3. Ascertain that the punch list items are completed. It is anticipated that the observation of the remedial work necessary for the completion of the punch list shall consist of no more than five (5) working days.
- 3.4. Complete and submit to City of Raytown paperwork required by the contract documents.
- 3.5. Attend one (1) final close out meeting with City of Raytown to submit items from tasks 3.1 and 3.4.

Part 4 - General Assumptions

- 4.1. This project will be built according to the specifications outlined in the contract documents.
- 4.2. Utility relocations are assumed to have been completed. Evaluation of potential utility conflicts will be performed prior to the start of construction. If utility coordination is required beyond the hours shown in the proposed fee, they will be outside of the scope of services.
- 4.3. The City of Raytown will provide one (1) full size plan set, (including cross-sections) if required for as-builts, two (2) sets of the project contract and a pdf copy of the contract.

- 4.4. The preconstruction conference will be administered by others.
- 4.5. Review of potential project phase changes proposed by the contractor is not included in this scope.
- 4.6. Review of proposed value engineering submittals by the contractor is not included in this scope.
- 4.7. Design engineering services during construction normally performed by the project design team are not included in this scope.
- 4.8. It is expected that the Notice to proceed will be granted to the prime contractor on March 28, 2016. Construction is expected to be completed within 90 calendar days. Any work requiring observation performed beyond the dates and the hours listed in this contract are not included in this scope.
- 4.9. All materials testing will be performed by others hired by GBA. GBA will coordinate the required testing and include these costs in the monthly invoice. The costs for the materials testing were estimated during a meeting with the City. Should additional testing be required, these costs will be outside of the scope of services and be reimbursed through a supplemental agreement.
- 4.10. Materials testing requires 24 hour advance notice. Contractor shall be notified and expected to provide notifications to GBA 24 hours in advance of the completion of items requiring testing.
- 4.11. It is anticipated that a lead project observer will work on the project an average of 6 hours per day for 65 days during construction plus 16 hours for project meetings. In addition, the lead inspector is anticipated to work for 36 hours on preconstruction activities and 128 hours on post construction activities. Any work required beyond these hours will be considered outside of this scope of services.
- 4.12. No staff inspection time was estimated to oversee any double shifts, night work or weekend work by the contractor(s).
- 4.13. Staff mileage was estimated based upon the statements above. It is estimated that the staff members would average approximately 50 miles per day while engaged on the project. This includes mileage to perform traffic control checks during the course of the day.
- 4.14. City of Raytown will serve as primary contact with MoDOT. GBA will provide required documentation to City and coordinate witnessing of materials testing on site by MoDOT.
- 4.15. Shop drawings reviews are not included in this scope of services.
- 4.16. One hundred-eighty day pavement marking inspection is not included in this scope of services.
- 4.17. Any work performed outside of the scope of services will be reimbursed through a supplemental agreement.

Raytown Downtown Streetscape - 63rd Street

CLASSIFICATION	PRIN	Sr. ASC	DT1	INSP 1	INSP 3	CLI	TOTAL		TOTAL
HOURLY CHARGEOUT RATE	\$265	\$215	\$95	\$105	\$86	\$87	HOURS	Mileage	COST
Construction Inspection									
Pre-construction									
Preconstruction conference		2	4				6	\$27.00	\$837.00
Set up documentation (books & electronic)			8	2		2	12		\$1,144.00
Utility coordination		8	8	16			32	\$54.00	\$4,214.00
Site meetings/constructability		4	16	8			28	\$108.00	\$3,328.00
Construction									
Daily inspection (6 hrs per day for 65 days)		8	390	24	16		438	\$2,430.00	\$45,096.00
Materials testing									\$16,250.00
Post construction									
Punchlist & inspection of remedial work			48	4			52	\$216.00	\$5,196.00
Final paperwork (Books, as-builts, certifications, computations, etc.)			80	8			88	\$108.00	\$8,548.00
Project Management									
Provide General Project Management, Supervision, and Coordination	2	24					26	\$162.00	\$5,852.00
Project coordination meetings (8)		8	16	8			32	\$324.00	\$4,404.00
Project administration						12	12		\$1,044.00
TOTAL	2	54	570	70	16	14	726	\$3,429.00	\$95,913.00

A RESOLUTION AUTHORIZING A PROFESSIONAL SERVICES AGREEMENT WITH OLSSON ASSOCIATES FOR THE PRELIMINARY DESIGN OF 83RD STREET BRIDGE IN AN AMOUNT NOT TO EXCEED \$57,801.86 AND AMENDING THE FISCAL YEAR 2015-2016 BUDGET

WHEREAS, the City desires to engage the services of a professional engineering firm to provide preliminary design services in connection with the 83rd Street Bridge Project; and

WHEREAS, the City solicited proposals and received one proposal to provide such professional engineering services to design such improvements and determined that Olsson Associates were best suited to perform such design services related to construction of such improvements; and

WHEREAS, the Scope of Basic Services to be provided by Olsson Associates as described in the Professional Engineering Services Agreement are set forth in the attached Exhibit "A", and the time periods for the performance of specific services in the contract are stipulated therein; and

WHEREAS, the City Administrator is authorized and empowered by the City to execute contracts providing for professional services for the Public Works Department, upon approval by the Board of Aldermen; and

WHEREAS, the City desires to enter into an agreement with Olsson and Associates related to the development of a preliminary design for such improvements; and

WHEREAS, the Board of Aldermen find that Olsson Associates meet the necessary qualifications to provide such professional engineering services and that funds are available for such purposes by transferring funds and amending Resolution R-2808-15 adopting the budget for Fiscal Year 2015-2016; and

WHEREAS, the Board of Aldermen find that it is in the best interest of the citizens of the City of Raytown that the City enter into an agreement with Olsson Associates for such purposes;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:

THAT an Agreement for Professional Engineering Services by and between the City of Raytown, Missouri and Olsson Associates in an amount not to exceed \$57,801.86 in substantially the same form as attached hereto as Exhibit "A" and incorporated herein, is hereby approved; and

FURTHER THAT the City Administrator is hereby authorized to execute any and all documents necessary in connection with such agreement and the City Clerk is authorized to attest thereto; and

FURTHER THAT the fiscal year 2015-2016 Budget approved by Resolution R-2808-15 is hereby amended as follows:

From:

To:

Unbudgeted Reserves
Amount: \$57,801.86

Transportation Sales Tax Fund
Amount: \$57,801.86

PASSED AND ADOPTED by the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Missouri, the 22nd day of March, 2016.

Michael McDonough, Mayor

ATTEST:

Teresa M. Henry, City Clerk

Approved as to Form:

Joe Willerth, City Attorney

r

EXHIBIT A

Scope of Services

SURVEY, H&H, CONCEPTUAL ROADWAY DESIGN AND BRIDGE TSL STUDY

83rd STREET BRIDGE IN RAYTOWN, MO

This exhibit is hereby attached to and made a part of the General Engineering Services Contract dated March 17, 2016 between the City of Raytown (“Client”) and Olsson Associates (“Olsson”) providing for professional services. Olsson’s Scope of Services for the Agreement is indicated below.

PROJECT DESCRIPTION AND LOCATION

Project will be located at: Raytown, MO

Project Description: The project is the replacement of the 83rd Street Bridge, located approximately ¼ mile east of Raytown Road.

GENERAL

Services included in this proposal include survey, hydraulic and hydrologic (H&H) design, conceptual engineering services for roadway design, and a bridge type, size, and location (TSL) study for the replacement of the 83rd Street Bridge located approximately ¼ mile east of Raytown Road in Raytown, MO. The focus of the study will be to evaluate four bridge improvement and/or replacement solutions, calculate opinions of cost, and prepare a memorandum with findings and a recommendation to the City.

- Alternative #1 – Replace the entire bridge with a similar type structure, but with a sidewalk on one side.
- Alternative #2 – Replace the deck and superstructure, and save as much of the substructure as practical. Add a sidewalk on one side.
- Alternative #3 – Replace the entire bridge with a double concrete arch (large) and an earth fill. Add a sidewalk on one side.
- Alternative #4 - Evaluate a shorter single span bridge with MSE walls on the approaches

It is understood that designs shall be configured to limit the acquisition or impacts to private rights-of-way. The roadway geometrics are to match or nearly match existing alignment and profile in an effort to develop solutions that fit within these right-of-way and anticipated budgetary constraints.

It is assumed that designs shall conform to City of Raytown, APWA, and MoDOT design criteria, where applicable.

TASKS

Task 1: Project Management and Meetings

Provide staff management, monthly invoicing, and progress reporting.

This task includes a pre-design meeting after receiving the Notice-to-Proceed. Olsson will provide monthly progress meetings (3), one review meeting for addressing review comments, and one meeting with formal presentation to the Board of Alderman.

The formal presentation to the Board of Alderman will include a powerpoint presentation summarizing the findings, opinions of cost, and recommendation as determined through the course of this study.

This task includes time to prepare a notice of impact to area utilities, collect initial responses and coordinate for incorporation into the project survey files.

Task 2: Survey (TREKK Design Group)

Topographical survey services and base mapping are included within this scope and fee proposal. A survey text file, fully symbolized Microstation drawings, generated and checked topographic file, and TIN file for use in preparation of the bridge and roadway plans will be created.

Horizontal Control

The consultant shall provide a list of horizontal control points with coordinates, descriptions, station and offset. Coordinate information will be provided as ground (project) coordinates and will be referenced to State Plane Coordinates and tied to known area land survey control monuments.

Vertical Control

Vertical control will be referenced to NAVD 88 datum.

Locate Section Corners

Survey additional section corners needed in order to assemble the geometry to create the right-of-way drawings.

Utility Locate

A utility locate will be performed and drawn from surveying above ground features, including marking utility companies resulting from the locate request through the Missouri One-Call System. Information supplied by utility companies will be used to complete the placement of existing utilities on the plans. Locations from the utility plans will be transferred into the topographic survey. Where available, above-ground features will be used to improve accuracy. The consultant will add a disclaimer to the drawings with respect to the undetermined location of underground utilities. Locations, size, elevations and heights of major overhead transmission lines will be included.

Survey Extents

Stream centerline profile for Min. 500' upstream, and downstream of bridge centerline. Stream cross-section located 500' north of bridge and 500' south of bridge.

Full contour mapping of the area within 100' of centerline roadway north and south, and from 100' west of existing west abutment to 100' east of east abutment. Contour intervals at 1 ft.

Collect low opening and low adjacent grade elevations for the six homes located north of the roadway, and one located south of the roadway.

Hard shot elevations along centerline roadway at 10' stations, starting 200' west of the west abutment, continuing across bridge and for at least 300' east of east abutment.

Location and elevation of site features such as crown, edge of curb, edge of wearing surface, bridge substructure, sidewalks, barriers, fences, driveways, roof tops, power lines, manholes, utility markers, vegetation, fire hydrants, retaining walls (top of wall and ground line at front face).

Rim and flowline elevations at adjacent manholes for known sanitary sewer and water lines running parallel to creek underneath the bridge.

Location and elevation of Geotechnical borings (subsequent site visit in final design)

Supply City with full mapping and centerline profiles as noted above, in Microstation format (Software v8i SS2).

Task 3: Bridge TSL Study

The services and fees associated with this task were prepared with the assumption that four bridge alternatives would be evaluated during conceptual design and a memorandum with recommendations to the City would be provided. Alternative #2, which would require replacement of the deck and superstructure and saving as much substructure as possible, necessitates a bridge inspection to be conducted and is included within this task. The focus of this inspection will be to identify structural deficiencies, extents of the proposed retrofit, and gather measurements for determining the basis of quantifying member rehabilitations.

Bridge Inspection

Make a detailed visual and sounding inspection of the bridge's substructure and approach roadway retaining walls. Access to the columns and bent caps will be accomplished via extension ladder, provided by Olsson. A visual inspection will be conducted for the approach roadway pavement, curbs, and sidewalks for 100' on both ends of the bridge noting any damage that would be rehabilitated by pursuing Alternative #2.

Prepare an inspection report with photo log to be included as an appendix to the final deliverable (recommendations memorandum) for this phase of the project. The inspection report will include annotated photographs documenting the substructure and approach roadway retaining wall's condition and structural deficiencies.

Inspection services not included:

1. Destructive or NDT Testing
2. Subsurface inspection
3. Scaffolding or man lift equipment rental

Bridge Conceptual Design

The following bridge design tasks are anticipated for the preparation of conceptual designs and exhibits for each alternative.

- 1) Review As-Built Drawings, Prior Inspection and Rating Reports
- 2) Prepare Structural Design Criteria
- 3) Determine Type, Size, and Location of the four bridge alternatives
- 4) Alternative # 1 – Layout new, multi-span prestressed girder bridge
 - a. Preliminary 2D Superstructure model
 - b. Size new retaining walls on the approaches
- 5) Alternative #2 – Superstructure Replacement
 - a. Preliminary 2D Superstructure model for new Slab Bridge
 - b. Existing interior bent column and footing evaluation
 - c. Existing end bent and pile evaluation
- 6) Alternative #3 – Double Arch Structure
 - a. Coordinate layout, hydraulic sizing, and configuration with Pre-engineered arch manufacturer
 - b. Preliminary sizing of headwalls and wingwalls
- 7) Alternative #4 – Single span girder structure with MSE walls
 - a. Preliminary 2D Superstructure model
- 8) Prepare Conceptual costs for each alternative (4)
- 9) Prepare & Submit Exhibits for each alternative (4)
- 10) Conduct Quality Control Review

Exhibits shall consist of a one page plan drawing illustrating the Bridge Plan, Elevation, and Bridge typical section. A summary of the hydraulic design parameters will be presented on each alternative.

Task 4: Hydraulic and Hydrologic Design

Hydraulic design criteria for the crossing will be prepared.

It is understood that this waterway falls outside of the mapped area in FEMA's flood insurance study (FIRM Maps), therefore requiring hydrologic and hydraulic modelling to be completed for the bridge crossing. Olsson will utilize the City's existing GIS contours, available aerial photography, gathered topographic mapping, and survey cross-sections to prepare an existing conditions and ultimate conditions hydrologic and hydraulic models. The watershed will be delineated utilizing available City GIS contours. Existing and future land uses will be provided by the City. An analysis will be completed to determine the existing and ultimate stormwater flows for the 2, 10, 25, 50 and 100-year design storms.

A HEC-RAS hydraulic model for the existing bridge will be created. Olsson will update the stream and bridge geometry if merited based on the survey data. Bridge cross-sections will be updated and modelled in HEC-RAS to evaluate the hydraulic design for each of the four replacement alternatives.

Task 5: Roadway Design (Conceptual Design)

The services and fees associated with this task were prepared with the assumption that four bridge alternatives would be evaluated during conceptual design and a memorandum with recommendations to the City would be provided.

The roadway design will evaluate the existing vertical and horizontal alignment of 83rd Street within the immediate vicinity (within 200 feet) of the bridge. The roadway geometrics are to match or nearly match existing alignment and profile in an effort to provide solutions within the existing right-of-way.

This work would include configuration of paving, shoulder reshaping & transitioning, sidewalk locations and transitions, preliminary storm drainage design, excavation/fill, and calculation of preliminary quantities.

The following roadway design tasks are anticipated and included;

- 1) Typical Section on 83rd Street
- 2) Plan & Profile Exhibit
- 3) Preliminary storm drainage analysis
- 4) Retaining wall layouts
- 5) Preliminary quantities and cost estimate

Exhibits shall consist of a limited number of plan drawings to sufficiently illustrate the primary project improvements, impacts, roadway geometrics, and proposed roadway section. The purpose of these exhibits is to illustrate the project improvements for correlation to conceptual construction costs. (Corresponds to 10% drawings)

Task 6: Quality Assurance / Quality Control (QA/QC)

All deliverables prepared as part of this scope of services will be reviewed by qualified Olsson staff (Senior Engineer or Professional Associate) who was not involved in the production of the calculations, exhibits, or specifications. This quality control review will be of sufficient detail and effort to thoroughly review the deliverable to ensure that constructability, design practice, geometry, value, and conformance with client's expectations are met.

Deliverables

Recommendations Memorandum

PDF (on DVD) & (3) Bound, hard copies

Memorandum to include the following;

- Inspection Findings and Photos
- Summary of Bridge Alternatives
- Roadway and Bridge Exhibits
- Cost Opinions
- Recommendation for Preferred Alternative

City Provided Information

The City will supply the following:

- Tenant names (if known)
- Available water and sewer locations, size, and materials
- Copies of available inspection reports and as-built plans (if available)
- Available drainage studies
- Assist Consultant to gain right-of-entry to private property for field investigations
- Available current and future traffic volumes and reports if needed
- City will be responsible for any fees associated with permits

Assumptions and Exclusions

It is understood that the following engineering services are not included in this Scope of Services and Fee Estimate. They are planned to be developed dependent upon the agreed upon bridge alternative and negotiated at the conclusion of the conceptual engineering study;

Project Management, Invoicing from Conceptual through Construction
Public Involvement Meetings (2)
Utility Coordination Meetings (3)
Geotechnical Investigation and Report
60% & 100% Roadway, Bridge, H&H, Utility, and Traffic Design
60% & 100% Plan, Specifications, and Estimates
Environmental & Construction Permitting (Federal, State, Local)
Right-of-way Appraisals/Negotiation Services
Bid Phase Services
Construction Phase Services

**EXHIBIT B
Schedule of Hourly Rates**

Personnel		Total Hr.	2016 \$ Per Hr.	Total Cost
Team Leader	Team Lead	9	\$180.00	\$1,620
Senior Project Engineer	Sen Proj Eng	9	\$155.00	\$1,395
Project Engineer	Proj Eng	117	\$120.00	\$14,040
Associate Engineer	Assoc Eng	144	\$105.00	\$15,120
Senior Technician	SrTech	16	\$100.00	\$1,600
Design Technician	Tech	84	\$82.00	\$6,888
Administrative Assistant	Admin	4	\$60.00	\$240
	-			
	-	383	\$106.80	\$40,903
	-			
	-			
	-			
	-			

Special Services not included in above categories will be provided on a special labor rate schedule. Rates subject to change based upon annual updates to Billing Rates.

EXHIBIT C
Schedule of Reimbursable Fees

SUMMARY

Task No.	Task Description	Fee Estimate
1	Project Meetings & Management	\$4,800.00
2	Survey (TREKK)	\$16,565.86
3	Bridge TSL Study	\$16,168.00
4	Hydraulic and Hydrologic Design	\$6,250.00
5	Roadway Conceptual Design	\$12,440.00
6	Quality Assurance/Quality Control (QA/QC)	\$1,245.00
-	Expenses	\$333.00
TOTAL PROJECT COST		\$57,801.86

EXHIBIT C
Schedule of Reimbursable Fees

Task No.	Description of Work Items / Tasks	Team Lead	Sen Proj Eng	Proj Eng	Assoc Eng	SrTech	Tech	Admin	Total Manhours	Total Labor Fee	Total Fee (A+B+C)
1	Project Meetings & Management										
	Project Management	2		12					14	\$1,800	\$1,800.00
	Invoicing			2				4	6	\$480	\$480.00
	Pre-design Meetings (1)			2					2	\$240	\$240.00
	Progress Meetings (3)			3					3	\$360	\$360.00
	Review Meetings (1)			2					2	\$240	\$240.00
	Presentation to Board of Alderman	4		8					12	\$1,680	\$1,680.00
1	Project Meetings & Management	6	0	29	0	0	0	4	39	\$4,800	\$4,800.00
2	Survey (TREKK)										
	See attached man-hours spreadsheet										
2	Survey (TREKK)	0	0	0	0	0	0	0	0	\$0	\$0.00
3	Bridge TSL Study										
	<i>Bridge Inspection</i>										
	Prepare Structural Evaluation Criteria			2					2	\$240	\$240.00
	Site Visit for Bridge and Retaining Walls			8	8				16	\$1,800	\$1,800.00
	Summarize Field Notes and prepare Photo Log			2	4				6	\$660	\$660.00
	Prepare Inspection Findings (chapter of Memorandum deliverable)			4	8				12	\$1,320	\$1,320.00
	<i>Conceptual Design</i>										
	Review As-Builts, prior inspection reports			2					2	\$240	\$240.00
	Prepare Design Criteria			1					1	\$120	\$120.00
	Alt #1 - TSL for new multi-span prestressed girder bridge			4					4	\$480	\$480.00
	Alt #1 - Preliminary 2D superstructure model			1	4				5	\$540	\$540.00
	Alt #1 - Size new retaining walls on approaches			1	2				3	\$330	\$330.00
	Alt #2 - TSL for superstructure replacement option			2					2	\$240	\$240.00
	Alt #2 - Preliminary 2D superstructure model for new slab bridge			1	4				5	\$540	\$540.00
	Alt #2 - Evaluate existing substructure for re-use			4	8				12	\$1,320	\$1,320.00
	Alt #3 - TSL for Double Arch Structure			4					4	\$480	\$480.00
	Alt #3 - Coordinate with Manufacturer				4				4	\$420	\$420.00
	Alt #3 - Size headwalls & wingwalls			1	2				3	\$330	\$330.00
	Alt #4 - TSL for single span girder structure with MSE walls			4					4	\$480	\$480.00
	Alt #4 - Preliminary 2D Superstructure model			1	4				5	\$540	\$540.00
	Prepare bridge and wall cost estimates (4)			2	4				6	\$660	\$660.00
	Prepare plan exhibits for each alternative (4)			2	8	8	24		42	\$3,848	\$3,848.00
	Prepare and Submit Memorandum		4	8					12	\$1,580	\$1,580.00
3	Bridge TSL Study	0	4	54	60	8	24	0	150	\$16,168	\$16,168.00
4	Hydraulic and Hydrologic Design										
	Prepare Hydraulic Design Criteria			2					2	\$240	\$240.00
	Prepare Existing Conditions Model			8	16				24	\$2,950	\$2,950.00
	Model & provide conceptual design for bridge alternatives (4)		2	8	20				30	\$3,060	\$3,060.00
4	Hydraulic and Hydrologic Design	0	2	18	36	0	0	0	56	\$6,250	\$6,250.00
5	Roadway Conceptual Design										
	Layout approaches, sidewalks, and transitions for Alts (4)			4	12		16		32	\$3,052	\$3,052.00
	Typical Sections				4		4		8	\$748	\$748.00
	Alignment and Profile			2	8				10	\$1,080	\$1,080.00
	Preliminary storm water analysis				4				4	\$420	\$420.00
	Prepare plan exhibits for each alternative (4)			4	12	8	40		64	\$5,820	\$5,820.00
	Prepare quantities & roadway cost estimates (4)			4	8				12	\$1,320	\$1,320.00
5	Roadway Conceptual Design	0	0	14	48	8	60	0	130	\$12,440	\$12,440.00
6	Quality Assurance/Quality Control (QA/QC)										
	Project Management & Programming Reviews	1	1						2	\$335	\$335.00
	QA/QC Plan Exhibit Production	2	2	2					6	\$910	\$910.00
6	Quality Assurance/Quality Control (QA/QC)	3	3	2	0	0	0	0	8	\$1,245	\$1,245.00
	Total Manhours (Olsson)	9	9	117	144	16	84	4	383	\$40,903	\$40,903.00

EXHIBIT C
Schedule of Reimbursable Expenses

Expenses	Amount		\$ Ea.		Cost
Mileage	200	Miles @	0.540		\$108.00
Presentation Boards	3	Each @	50.00		\$150.00
Plotting/Printing	200	Plots @	0.25		\$50.00
Postage & Shipping Charges	1	Each @	25.00		\$25.00
			Total		\$333.00

EXHIBIT D

Project Schedule

SURVEY, H&H, CONCEPTUAL ROADWAY DESIGN AND BRIDGE TSL STUDY

83rd STREET BRIDGE IN RAYTOWN, MO

This exhibit is hereby attached to and made a part of the General Engineering Services Contract dated March 17, 2016 between the City of Raytown (“Client”) and Olsson Associates (“Olsson”) providing for professional services. Olsson’s Project Schedule for the Agreement is indicated below.

PROJECT DESCRIPTION AND LOCATION

Project will be located at: Raytown, MO

Project Description: The project is the replacement of the 83rd Street Bridge, located approximately ¼ mile east of Raytown Road.

Schedule

Notice-to-proceed

March 24, 2016

Deliver Recommendations Memo

June 1, 2016

Presentation to Board of Alderman

June 17, 2016

CITY OF RAYTOWN
Request for Board Action

Date: March 16, 2016
To: Mayor and Board of Aldermen
From: Captain Doug Goode

Resolution No.: R-2856-16

Department Head Approval: _____

Finance Director Approval: _____ (only if funding requested)

City Administrator Approval: _____



Action Requested: Authorize spending in excess of \$15,000.00 with a single vendor per City purchasing policy.

Recommendation: Approve the resolution.

Analysis: Request the purchase and installation of twenty three (23) IP based digital surveillance cameras to upgrade and replace thirteen (13) analogue cameras in City Hall and ten (10) cameras in the Police Department. Several of the existing cameras in City Hall are severely outdated and non-functioning. These cameras will upgrade the entire camera security system for City Hall and the Police Department to a digital platform. Central States Security, LLC is the vendor that initially installed much of the existing system and is familiar with the City and Police Department's surveillance platform. This project was presented to the Special Sales Tax Review Committee on January 19, 2016 and found to meet the intent of the Capital Sales Tax.

Alternatives: Not approve the resolution and continue to utilize outdated equipment and have surveillance gaps in City Hall.

Budgetary Impact:

- Not Applicable
- Budgeted item with available funds
- Non-Budgeted item with available funds through prioritization
- Non-Budgeted item with additional funds requested

Amount Requested: \$18,960.39
Department: Police
Fund: Capital Improvement Sales Tax

Additional Reports Attached: Central States Security, LLC price quote.

A RESOLUTION AUTHORIZING AND APPROVING THE EXPENDITURE OF FUNDS WITH CENTRAL STATES SECURITY, LLC IN AN AMOUNT NOT TO EXCEED \$18,960.39 FOR FISCAL YEAR 2015-2016

WHEREAS, the City of Raytown has a need to upgrade and replace outdated and nonfunctioning surveillance cameras in City Hall; and; and

WHEREAS, the City of Raytown in adoption of its purchasing policy has required Board of Aldermen approval for purchases in which the cumulative value with a single vendor exceeds \$15,000.00 during the fiscal year; and

WHEREAS, the City of Raytown in the adoption of its purchasing policy has further approved the practice of purchasing goods and services from sole-source vendors without competitive bid; and

WHEREAS, the cost of the expenditure of funds with Central States Security, LLC is anticipated to exceed \$15,000.00 in fiscal year 2015-2016; therefore, Board of Aldermen approval is required; and

WHEREAS, funds for such purpose are budgeted from the Capital Improvement Sales Tax and such expenditure has been reviewed and on January 19, 2016 was recommended by the Special Sales Tax Review Committee as being consistent with voter intent; and

WHEREAS, the Board of Aldermen find it is in the best interest of the citizens of the City to authorize and approve the expenditure of funds with Central States Security, LLC for surveillance cameras in City Hall for fiscal year 2015-2016 in an amount not to exceed \$18,960.39;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:

THAT the expenditure of funds with Central States Security, LLC as a sole-source vendor for surveillance cameras in City Hall for fiscal year 2015-2016 in an amount not to exceed \$18,960.39 is hereby authorized and approved; and

FURTHER THAT the City Administrator is authorized to execute all documents necessary to these transactions and the City Clerk is authorized to attest thereto.

PASSED AND ADOPTED by the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Missouri, the 22nd day of March, 2016.

Michael McDonough, Mayor

ATTEST:

Approved as to Form:

Teresa M. Henry, City Clerk

Joe Willerth, City Attorney

**DEPARTMENT OF POLICE
RAYTOWN, MISSOURI**

INTEROFFICE MEMO

TO: Teresa Henry

FROM: Captain Doug Goode

SUBJECT: Sole Source Justification for Central States Security

In FY13 the Police Department began a security camera enhancement project designed to eventually transition the Police Department and the City Administration to a total digital platform replacing existing analogue cameras. Three companies were contacted regarding this project, Digitaltek, Central States Security, and Straightforward Technology. Central States Security is the only vendor that responded. Central States Security was awarded the work on the first phase of the project. Central States Security is familiar with the surveillance platform within the Police Department and City Hall. As a result of the work already done by Central States Security they are the best vendor to complete the project.

DEPT. Police Department SIGNED Captain Doug Goode

Date	Estimate #
2/10/2016	1465

Name / Address
Raytown PD James Bradford 10000 E. 59th St Raytown, MO 64133

P.O. No.	Project
23 Cameras	

Item	Description	Qty	Rate	Total
VANDAL PR...	IP Camera Dome	19	460.02053	8,740.39
Megapixel IP ...	WALL MOUNT 1.3 MEGAPIXEL BULLET CAMERA(S):	4	500.00	2,000.00
SHIELDED C...	SHIELDED 100% COPPER Cat6e	1	800.00	800.00
CONDUIT	CONDUIT (FLEX, PVC, METAL, ETC. TO INCLUDE JUNCTION BOXES AND GROMMETS)	1	300.00	300.00
16 PORT P.O.E	16 PORT P.O.E, WITH 2 SFP GIGABIT COMBO PORTS	2	700.00	1,400.00
SITE WORK	SITE WORK TO SET UP AND INSTALL ALL CAMERA(S), WIRE(S), POWER SUPPLY(S), DVR(S) AND SOFTWARE. TO INCLUDE NETWORKING (INCLUDING REMOTE ACCESS) AND CLIENT TRAINING ON THE SYSTEM. *PLEASE READ THE ATTACHED WARRANTY AND SPECIAL NOTES DOCUMENT(S) REGARDING THIS ITEM.	1	4,950.00	4,950.00
COMPUTER ...	Upgraded Software that the manufacturers charges for as of 12/31/15. *Up to 64 channels of IP/Megapixel recording.	1	770.00	770.00

~~~~~ CHANGE ORDER ~~~~~  
 February 10, 2016  
 > Increased price of SITE WORK from \$4,750.00 to \$4,950.00. (+\$200.00)  
 > Added 1 COMPUTER PARTS. (+\$770.00)  
 Total change to estimate +\$970.00  
 ~~~~~

Subtotal
Sales Tax (0.0%)
Total

Phone #
9132085045

E-mail	Web Site
neal@css-kc.com	www.css-kc.com

Date	Estimate #
2/10/2016	1465

Name / Address
Raytown PD James Bradford 10000 E. 59th St Raytown, MO 64133

P.O. No.	Project
23 Cameras	

Item	Description	Qty	Rate	Total
	~~~~~ CHANGE ORDER ~~~~~ February 17, 2016 > Decreased price of VANDAL PROOF DOME from \$9,499.87 to \$8,740.39. (-\$759.48) Total change to estimate -\$759.48 ~~~~~			
			<b>Subtotal</b>	\$18,960.39
			<b>Sales Tax (0.0%)</b>	\$0.00
			<b>Total</b>	\$18,960.39

Phone #
9132085045

E-mail	Web Site
neal@css-kc.com	www.css-kc.com

**CITY OF RAYTOWN**  
**Request for Board Action**

**Date:** March 16, 2016  
**To:** Mayor and Board of Aldermen  
**From:** Major Frank Stranimier

**Resolution No.:** R-2857-16

**Department Head Approval:** _____

**Finance Director Approval:** _____ (only if funding requested)

**City Administrator Approval:** _____



**Action Requested:** Approve and endorse the submitted Hazard Mitigation Plan.

**Recommendation:** Approve the Resolution.

**Analysis:** In order to qualify for Federal grants regarding hazard mitigation and / or natural disaster damage reimbursement, the Federal Emergency Management Agency (FEMA) requires that jurisdictions have in place an approved Hazard Mitigation Plan (HMP). The Mid-America Regional Council (MARC) coordinated the drafting of an HMP, outlining several strategies for mitigating natural hazards for the MO counties in the region this year. Several public meetings (at least one in each county) soliciting input were held. The resulting plan was submitted to both the MO State Emergency Management Agency, and the Federal Emergency Management Agency. Both agencies have approved the plan.

In order to qualify for the funding opportunities mentioned, each jurisdiction within the MARC region must approve the HMP.

The proposed plan will replace the HMP last passed in 2010.

**Alternatives:** Don't approve, limiting funding opportunities as outlined above.

**Budgetary Impact:**

- Not Applicable
- Budgeted item with available funds
- Non-Budgeted item with available funds through prioritization
- Non-Budgeted item with additional funds requested

**Additional Reports Attached:** FEMA Review Tool – MARC-2015, FEMA MARC Approval Letter, Sample Adoption Resolution.

**RESOLUTION NO.: R-2857-16**

**A RESOLUTION AUTHORIZING AND APPROVING THE ADOPTION OF THE REGIONAL MULTI-HAZARD MITIGATION PLAN**

**WHEREAS**, the City of Raytown's Police Department, with the assistance from the Mid-America Regional Council, has gathered information and prepared the Regional Multi-Hazard Mitigation Plan; and

**WHEREAS**, the Regional Multi-Hazard Mitigation Plan has been prepared in accordance with FEMA requirements at 44 C.F.R. 201.6; and

**WHEREAS**, the City of Raytown's Police Department is a local unit of government that has afforded the citizens an opportunity to comment and provide input in the Plan and the actions in the Plan; and

**WHEREAS**, the Board of Aldermen has reviewed the Plan and affirms that the Plan will be updated no less than every five years;

**NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:**

**THAT** the City of Raytown adopts the Regional Multi-Hazard Mitigation Plan as this jurisdiction's Multi-Hazard Mitigation Plan, and resolve to execute the actions in the Plan.

**PASSED AND ADOPTED** by the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Missouri, the 22nd day of March, 2016.

_____  
Michael McDonough, Mayor

ATTEST:

_____  
Teresa M. Henry, City Clerk

Approved as to Form:

_____  
Joe Willerth, Attorney

<b>Jurisdiction:</b> <b>Kansas City, Missouri Region (Cass, Clay, Jackson, Platte and Ray Counties)</b>	<b>Title of Plan:</b> 2015 Regional Hazard Mitigation Plan	<b>Date of Plan:</b> May 31, 2015
<b>Local Point of Contact:</b> Donna Martin	<b>Address:</b> 600 Broadway, Suite 200 Kansas City, MO 64105	
<b>Title:</b> Senior Planner		
<b>Agency:</b> Mid-America Regional Council		
<b>Phone Number:</b> 816 701-8369	<b>E-Mail:</b> <a href="mailto:dmartin@marc.org">dmartin@marc.org</a>	
<b>Funding Source:</b> FY13 PDMC-EMK-2014-PC-0001		
<b>State Reviewer:</b> Heidi Carver	<b>Title:</b> Planner II/ State Hazard Mitigation Specialist	<b>Date:</b> 7-1-15
<b>FEMA Reviewer:</b> Carol Kanter	<b>Title:</b> Hazard Mitigation Community Planner	<b>Date:</b> August 10, 2015
<b>Date Received in FEMA Region VII</b>	July 9, 2015	
<b>Plan Not Approved</b>		
<b>Plan Approvable Pending Adoption</b>		
<b>Plan Approved</b>	August 14, 2015	

<b>Participating Jurisdiction:</b>	<b>NFIP Status*</b>	
	<b>Y</b>	<b>NP</b>
1. Cass County	Y	
2. Belton	Y	
3. Harrisonville	Y	
4. Lake Winnebago	Y	
5. Peculiar	Y	
6. Pleasant Hill	Y	
7. Raymore	Y	
8. Archie R-V School District	NA	
9. Pleasant Hill R-III School District	NA	
10. Raymore-Peculiar School District	NA	
11. Clay County	Y	
12. Excelsior Springs	Y	
13. Gladstone	Y	
14. Kearney	Y	
15. Liberty	Y	
16. Mosby	Y	
17. North Kansas City	Y	
18. Smithville	Y	
19. Fishing River Fire Protection District	NA	

**HAZARD MITIGATION PLAN REVIEW TOOL**  
**Mid-America Regional Council Regional Plan**

APPROVED

**FEMA Region VII**  
**1st Review**

20. North Kansas City School District	NA	
21. Smithville R-1 School District	NA	
<b>22. Jackson County</b>	Y	
23. Blue Springs	Y	
24. Grandview	Y	
25. Independence	Y	
26. Kansas City, Mo	Y	
27. Lee's Summit	Y	
28. Oak Grove	Y	
29. Raytown	Y	
30. Sni Valley Fire Protection District	NA	
31. Blue Springs School District	NA	
32. Fort Osage R-1 School District	NA	
33. Independence School District	NA	
34. Kansas City School District	NA	
35. Lee's Summit School District	NA	
36. Metropolitan Community Colleges	NA	
<b>37. Platte County</b>	Y	
38. Edgerton	Y	
39. Farley	Y	
40. Ferrelview	Y	
41. Houston Lake	Y	
42. Lake Wakomis	Y	
43. Northmoor	Y	
44. Parkville	Y	
45. Platte City	Y	
46. Platte Woods	Y	
47. Riverside	Y	
48. Weatherby Lake		NP considering it
49. Weston	Y	
50. Northland Regional Ambulance District	NA	
51. West Platte Fire Protection District	NA	
52. North Platte R-1 School District	NA	
53. Park Hill School District	NA	
54. Platte County R-3 School District	NA	
55. West Platte R-II School District	NA	
56. Park University	NA	
<b>57. Ray County</b>	Y	
58. Richmond	Y	

* **Notes:** Y= Participating NP = Not Participating in NFIP S- Sanctioned R- Rescinded

## SECTION 1: REGULATION CHECKLIST

<b>1. REGULATION CHECKLIST</b>		<b>Location in Plan</b> (section and/or page number)	<b>Met</b>	<b>Not Met</b>
<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>				
<b>ELEMENT A. PLANNING PROCESS</b>				
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	Section 1.3 (P 1.4)	X		
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	Section 1.3.1 (P 1.4) Section 1.3.2 (P 1.4) Section 6.1 (P 6.637)	X		
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	Section 1.3.2 (P 1.4) Table 1.1 (P 1.6)	X		
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	Section 1.3.4 (P 1.13) Section 3.2 (P 3.99) Section 6.2 (P 6.641)	X		
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	Section 6.3 (P 6.641)	X		
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	Section 6.1 (P 6.637)	X		
<b><u>ELEMENT A: REQUIRED REVISIONS</u></b>				

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
<b>ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT</b>				
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	Section 4.1; 4.1.2; 4.1.3 (P 4.262 - 4.265) 4.2; (P 4.263) 4.3; 4.3.1 (P 4.265) 4.4; (P 4.274) 4.5; 4.5.2; 4.5.3 (P 4.288 – 4.292) 4.6; 4.6.2; 4.6.3 (P 4.294 – 4.302) 4.7; 4.7.2; 4.7.3 (P 4.309 - 3.320) 4.8; 4.8.2; 4.8.3 (P 4.326 – 4.333) 4.9; 4.9.2; 4.9.3 (P 4.338 – 4.343) 4.10; 4.10.2; 4.10.3 (P 4.352 – 4.360) 4.11; 4.11.2; 4.11.3 (P 4.364 – 4.369) 4.12; 4.12.2; 4.12.3 (P 4.373- 4.382) 4.13; 4.13.2; 4.13.3 (P 4.392 – 4.395) 4.14; 4.14.2; 4.14.3 (P 4.401 - 4.406) 4.15; 4.15.2; 4.15.3 (P 4.412- 4.416) 4.16; 4.16.2; 4.16.3 (P 4.424 – 4.435) 4.17; 4.17.2; 4.17.3 (P 4.438 – 4.446) 4.18; 4.18.2; 4.18.3 (P 4.457 – 4.470) 4.19; 4.19.2; 4.19.3 (P 4.479 – 4.492) 4.20; 4.20.2; 4.20.3 (P 4.523 – 4.532) 4.21; 4.21.2; 4.21.3 (P 4.539 – 4.540)	X		
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	Section 4.1.1; (P 4.262) 4.2.1; (P 4.263) 4.3.1; (P 4.265) 4.4; (P 4.274) 4.6.1; 4.6.4 (P 4.295 -4.303) 4.7.1; 4.7.4 (P 4.312; 4.323) 4.8.1; 4.8.4 (P 4.328; 4.335) 4.9.1; 4.9.4 (P 4.340; 4.346) 4.10.1; 4.10.4 (P 4.357; 4.362) 4.11.1; 4.11.4 (P 4.365; 4.370) 4.12.1; 4.12.4 (P 4.373; 4.386) 4.13.1; 4.13.4 (P 4.394; 4.398) 4.14.1; 4.14.4 (P 4.401; 4.406) 4.15.1; 4.15.4 (P 4.413; 4.418) 4.16.1; 4.16.4 (P 4.432; 4.435) 4.17.1; 4.17.4 (P 4.441; 4.447) 4.18.1; 4.18.4 (P 4.458; 4.471) 4.19.1; 4.19.4 (P 4.484; 4.493) 4.20.1; 4.20.4 (P 4.525; 4.533) 4.21.1; 4.21.4 (P 4.539; 4.540)	X		

**1. REGULATION CHECKLIST**

<b>Regulation (44 CFR 201.6 Local Mitigation Plans)</b>	<b>Location in Plan (section and/or page number)</b>	<b>Met</b>	<b>Not Met</b>
B3. Is there a description of each identified hazard’s impact on the community as well as an overall summary of the community’s vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	Section 4.1 (P 4.262) 4.2 (P 4.262) 4.3; 4.3.1; (P 4.262- 4.273) 4.4.5 (P 4.288) 4.5.5 (P 4.292) 4.6.5 (P 4.304) 4.7.5 (P 4.323) 4.8.5 (P 4.336) 4.9.5 (P 4.346) 4.10.5 (P 4.362) 4.11.5 (P 4.370) 4.12.5 (P 4.388) 4.13.5 (P 4.399) 4.14.5 (P 4.406) 4.15.5 (P 4.419) 4.16.5 (P 4.436) 4.17.5 (P 4.448) 4.18.5 (P 4.472) 4.19.5 (P 4.493) 4.20.5 (P 4.534) 4.21.6 (P 4.540)	X	
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	Section 3.3.6 (P 3.150) Section 5.3.3 (P 5.619) Section 6.1 (P 6.641)	X	
<b><u>ELEMENT B: REQUIRED REVISIONS</u></b>			
<b>ELEMENT C. MITIGATION STRATEGY</b>			
C1. Does the plan document each jurisdiction’s existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	Section 3.2 (P 3.99) Sections 3.3.6 (P 3.145)	X	
C2. Does the Plan address each jurisdiction’s participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	Section 3.3.6 (P 3.151 – 3.155) 5.3 (P 5.618) and Attachment 5.2	X	
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	Section 5 (P 5.614) Attachment 5.1; (P 5.620) Attachment 5.2 (P 5.634)	X	
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	Attachment 5.2 (P 5.634)	X	
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	Section 5.1.1a (P 5.615) Attachment 5.2 (P 5.634)	X	

**1. REGULATION CHECKLIST**

**Regulation (44 CFR 201.6 Local Mitigation Plans)**

**Location in Plan**  
 (section and/or  
 page number)

**Met**

**Not  
 Met**

C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))

Section 3.2 (P 3.99)  
 6.2 (P 6.641)

X

**ELEMENT C: REQUIRED REVISIONS**

1. REGULATION CHECKLIST		Location in Plan (section and/or page number)	Met	Not Met
Regulation (44 CFR 201.6 Local Mitigation Plans)				
<b>ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION</b> (applicable to plan updates only)				
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	Section 2.5.2 (Planning Area Economy ) (P 2.59) Section 2.5.2a (P 2.62) Section 2.5.2b (P 2.65)	X		
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	Section 5.1.1c (P 5.616)	X		
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	Section 5.1.1a (P 5.615)	X		
<b><u>ELEMENT D: REQUIRED REVISIONS</u></b>				
<b>ELEMENT E. PLAN ADOPTION</b>				
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Upcoming			X
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	Upcoming			X
<b><u>ELEMENT E: REQUIRED REVISIONS</u></b>				
<b>Note:</b> If the plan is not adopted by a participating jurisdiction, that jurisdiction would not be eligible for project grants under the following hazard mitigation assistance programs: HMGP, PDM, FMA, and SRL.				

## SECTION 2: PLAN ASSESSMENT (For FEMA)

### A. Plan Strengths and Opportunities for Improvement

#### *Plan Strengths*

- The list of participation requirements was thorough and showed thoughtful analysis of the Guide.
- Tables 1.1 through are especially fine example of best practices.
- Throughout the plan, comparisons between the five participating counties provided an excellent basis for understanding the differences in the areas.
- The plan is full of exceptionally informative and easy to digest tables, charts, figures, and maps.
- Tables 3.2 through 3.9 includes a ton of information that is easily accessible.
- Throughout the plan are excellent narratives of developments in the past five years, as well as explanations of changes in content and format made in the updated plan.

#### *Opportunities for Improvement*

Typo on page 1.4 as the first sentence in Section 1.3.2: Planning Team Kickoff is the sentence: “The 2015 update planning process began in earnest at the September 29, 2015 . . .” The year probably is 2014.

On page 3.145 the significance of the term “CAV” should be explained.

It is recommended that repetitive loss properties be identified by jurisdiction so that variations in risk are easily ascertainable.

## **Element B: Hazard Identification and Risk Assessment**

### ***Plan Strengths***

The risk analysis included numerous examples of good practices. The bullet points below set forth some of them.

- The tornado vulnerability analysis was especially well reasoned and easy to follow.
- Citations to sources and explanations of data limitations are well done.
- The plan does a good job of analyzing hazards like thunderstorms on an area-wide basis, while noting the differences in risk between jurisdictions for hazards such as flooding.
- Data on critical facilities in the floodplains, as well as the dam and levee breach inundation areas, was well-done.
- The addition of problem statements adds much to the plan. However, they are very broadly stated. Perhaps more specific statements that speak to particular issues of jurisdictions could be included at the next update.
- Excellent explanation of the FEMA levee accreditation program.
- The maps beginning on page 4.396 showing concentrations of populations more at risk to heat incidents is a good practice.

### ***Opportunities for Improvement***

On page 4.288 it is stated that “. . . the possibility exists for achieving a greater than 100 percent probability of an event occurring.” Note probability cannot be over 100%. If 30 events occur 10 years, this does not mean that there is a 300% probability of occurrence, it means that there is a 100% probability of occurrence. Percentages cannot go above 100.

The map on page 4.350 includes really useful information. However, it would be more meaningful if presented on a county by county basis, or in some other way as to magnify the information presented. As it is, the scale does not permit comparisons between counties, let alone between participating jurisdictions.

See also the map on page 4.405 – a larger scale map showing the locations of participating jurisdictions would be far more meaningful. However, the tables following this map do give jurisdiction-specific information that shows past damages by jurisdictions.

The significance of the map on page 4.371 is not clear.

Information about RiskMAP projects should be included in future plan updates.

## Element C: Mitigation Strategy

### *Plan Strengths*

Including each community's safe growth audit conveys much useful information and is another example of best practices. The analyses of progress on the 2010 actions was stellar.

## B. Resources for Implementing Your Approved Plan

A variety of mitigation resources are available to communities. SEMA's mitigation website:

[http://sema.dps.mo.gov/programs/mitigation_management.asp](http://sema.dps.mo.gov/programs/mitigation_management.asp) provides planning and project related information as well as details on how major FEMA mitigation programs are implemented in the State.

SEMA's training website provides information on upcoming training opportunities within the State:

<http://training.dps.mo.gov/sematraining.nsf/TrainingSchedule?OpenForm>. A benefit cost analysis (BCA) course is usually offered in August, ahead of the deadlines for submitting applications for yearly mitigation grants. This course is often critical in helping communities achieve effective mitigation projects; it also provides supplemental information on developments within various grant programs, and is typically led by SEMA personnel and FEMA contractor personnel.

Review of the FEMA HMA guidance (FY15 is the most current) is also encouraged as guidance provides information about application and eligibility requirements. This guidance is available from

[http://sema.dps.mo.gov/programs/mitigation_management.asp](http://sema.dps.mo.gov/programs/mitigation_management.asp) or through FEMA's grant applicant resources page at [http://www.fema.gov/government/grant/hma/grant_resources.shtm](http://www.fema.gov/government/grant/hma/grant_resources.shtm).

As noted above, various funding programs are available from several state and federal agencies to assist local jurisdictions in accomplishing their mitigation activities and goals. A detailed listing of programs, information on each program, and contact information is available from the 2013 State Hazard Mitigation Plan on page 4.72/PDF 775. Elizabeth Weyrauch, State Hazard Mitigation Officer, ([Elizabeth.Weyrauch@sema.dps.mo.gov](mailto:Elizabeth.Weyrauch@sema.dps.mo.gov)), Heidi Carver, State Hazard Mitigation Specialist, ([Heidi.Carver@sema.dps.mo.gov](mailto:Heidi.Carver@sema.dps.mo.gov)) or Sam Kemp, State Hazard Mitigation Specialist, ([Sam.Kemp@sema.dps.mo.gov](mailto:Sam.Kemp@sema.dps.mo.gov)) can provide additional contacts for specific programs.

There are several RiskMAP projects that being pursued in the planning area. As a Cooperating Technical Partner (CTP), the NFIP and Floodplain Section at SEMA, has a role in implementing these projects. Jurisdictions that are part of these projects have been contacted directly regarding these efforts and have been asked to participate in one or more RiskMAP/ Discovery meetings. These meetings have been scheduled throughout Missouri to present similar information, and all meetings offer opportunities for questions about the program and process.

Dale Schmutzler, Karen McHugh, or Scott Samuels, (with the NFIP and Floodplain Section at SEMA) can be contacted for additional information on RiskMAP or Discovery meetings through

<http://sema.dps.mo.gov/about/staff.asp>.



**FEMA**

August 14, 2015

Mr. Ron Walker, Director  
State Emergency Management Agency  
P. O. Box 116  
Jefferson City, Missouri 65102

**Subject: Review of the Mid-America Regional Council (MARC) Regional Missouri Hazard Mitigation Plan**

Dear Mr. Walker:

The purpose of this letter is to provide the status of the above referenced Local Hazard Mitigation Plan, pursuant to the requirements of 44 CFR Part 201 - Mitigation Planning and the Local Multi-Hazard Mitigation Planning Guidance. The Local Hazard Mitigation Plan Review Tool documents the Region's review and compliance with all required elements of 44 CFR Part 201.6. It also identifies the jurisdictions participating in the planning process. FEMA's approval will be for a period of five years effective starting with the approval date indicated below.

Prior to the expiration of the plan the community will be required to review and revise their plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval in order to continue to be eligible for mitigation project grant funding.

Plan Name	Date Submitted	Date Approved	Date of Plan Adoption	Date of Plan Expiration	Review Status
MARC	July 9, 2015	August 14, 2015	August 3, 2015	August 14, 2020	Approved

If you have any questions or concerns, please contact Joe Chandler, Planning Team Lead, at (816) 283-7071.

Sincerely,

for  
Michael R. Scott, Director  
Mitigation Division

**CITY OF RAYTOWN**  
**Request for Board Action**

**Date:** March 16, 2016  
**To:** Mayor and Board of Aldermen  
**From:** Major Frank Stranimier

**Resolution No.:** R-2858-16

**Department Head Approval:** _____

**Finance Director Approval:** _____ (only if funding requested)

**City Administrator Approval:** _____



**Action Requested:** Approval of an agreement with T-Mobile Cellular to lease available space on the tower located behind City Hall.

**Recommendation:** Approve agreement.

**Analysis:** T-Mobile Cellular desires to rent tower space on the City's existing tower located behind City Hall. Structural analysis shows the tower is capable of handling the additional equipment. New ground equipment would be located within the existing fenced enclosure. Consultation with the City's radio maintenance provider shows there should be no interference with the City's equipment. The initial lease period would be for five (5) years, with five (5) additional five (5) year terms set to auto-renew. The initial term rental would be at the rate of \$1,500.00 per month, with each successive five-year rental period increasing by 10% for that rental period.

It is requested that revenue from this lease be "earmarked" toward Capital Projects, in keeping with previous discussions regarding tower revenue.

**Alternatives:** Not approve lease.

**Budgetary Impact:**

- Not Applicable
- Budgeted item with available funds
- Non-Budgeted item with available funds through prioritization
- Non-Budgeted item with additional funds requested

**Additional Reports Attached:** Draft lease agreement, Tower structural analysis, PAL documentation, Proposed construction drawings / site diagram

**A RESOLUTION APPROVING AN AGREEMENT WITH T-MOBILE CENTRAL LLC TO LEASE AVAILABLE SPACE ON THE TOWER OWNED BY THE CITY OF RAYTOWN**

**WHEREAS**, T-Mobile Central LLC (T-Mobile) has requested to place telecommunications equipment on the Tower owned by the City of Raytown; and

**WHEREAS**, T-Mobile has agreed that the initial lease period would be for five (5) years with five (5) additional five (5) year terms set to auto-renew;

**WHEREAS**, T-Mobile has agreed that the initial lease will be at a rate of \$1,500.00 per month, with each successive five-year rental period increase by 10% for the rental period.

**WHEREAS**, revenue from this lease will be used for Capital Projects; and

**WHEREAS**, the City desires to enter into a lease agreement with T-Mobile as described in Exhibit "A" attached hereto.

**NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE CITY OF RAYTOWN, MISSOURI, AS FOLLOWS:**

**THAT** a lease agreement by and between the City of Raytown and T-Mobile Central LLC in substantially the same form as attached hereto in Exhibit "A" and incorporated herein, is hereby approved; and

**FURTHER THAT** the City Administrator is hereby authorized to execute any and all documents necessary and to take any and all actions necessary to effectuate the terms of the Agreement.

**PASSED AND ADOPTED** by the Board of Aldermen and **APPROVED** by the Mayor of the City of Raytown, Missouri, the 22nd day of March, 2016.

_____  
Michael McDonough, Mayor

ATTEST:

_____  
Teresa M. Henry, City Clerk

Approved as to Form:

_____  
Joe Willerth, City Attorney

**EXHIBIT A**

## SITE LEASE AGREEMENT

This **SITE LEASE AGREEMENT** (this "**Agreement**") is effective the date of the last signature on this Agreement (the "**Effective Date**") by and between City of Raytown, Missouri, a(n) Municipal Corporation ("**Landlord**") and T-Mobile Central LLC, a Delaware limited liability company ("**Tenant**").

Landlord and Tenant agree to the following:

**1. Property Description.** Landlord is the owner of the real property located at 10000 E. 59th Street, Raytown, MO 64133 as further described on **Exhibit A** (the "**Property**"). The Property includes the premises which is comprised of approximately 200 square feet plus any additional portions of the Property which Tenant may require for the use and operation of its facilities as generally described on **Exhibit B** (the "**Premises**"). Tenant reserves the right to update the description of the Premises on **Exhibit B** to reflect any modifications or changes.

**2. Option.** Landlord grants to Tenant an option to lease the Premises on the terms and conditions described in this Agreement (the "**Option**"). The Option shall commence on the Effective Date and shall continue for a period of one (1) year (the "**Option Period**"). The Option Period will be automatically extend for successive one (1) year period(s), unless Tenant provides written notice to the Landlord of its election not to renew or exercise its Option. For each Option Period, Tenant shall pay Landlord one thousand five hundred and no/100 dollars (\$1,500.00). Upon Tenant's exercise of the Option, this Agreement will constitute a lease of the Premises on the terms and conditions described below (the "**Lease**").

**3. Landlord Cooperation.** During the Option Period and Term (as defined below), Landlord shall cooperate with Tenant's due diligence activities, which shall include, but not be limited to, access to the Property for inspections, testing, permitting related to the Permitted Uses (as defined below). Landlord authorizes Tenant to sign, file, submit and obtain all zoning, land use and other applications for permits, licenses and approvals required for the Permitted Uses from all applicable governmental and quasi-governmental entities (collectively, the "**Governmental Approvals**"), and to the fullest extent necessary, Landlord grants Tenant and its agents power of attorney to take all such actions on behalf of and in the name of Landlord. Landlord's cooperation shall include the prompt execution and delivery of any documents necessary to obtain and maintain Government Approvals or utility services. Additionally, Landlord shall not take any actions which are in conflict with or interfere with Tenant's Governmental Approvals.

**4. Antenna Facilities and Permitted Uses.** Tenant leases the Premises for its equipment, personal property and improvements associated with Tenant's wireless communications business (the "**Antenna Facilities**"). The Premises may be used for the construction, installation, operation, maintenance, repair, addition, upgrading, removal or replacement of any and all Antenna Facilities (the "**Permitted Uses**") for no fee or additional consideration. The Antenna Facilities shall remain the exclusive property of Tenant and shall not be considered fixtures. Tenant, at its expense, may use any and all reasonable means as Tenant deems necessary to control, secure or restrict access to the Antenna Facilities. Landlord hereby waives any and all lien rights it may have concerning the Antenna Facilities. If necessary to maintain service, Tenant shall have the right to locate a cell-on-wheels, or other temporary antenna facility on the Property. Landlord shall cooperate with the placement of the temporary facility at a mutually acceptable location.

## 5. Lease Term.

a) The Initial Term of the Lease shall be five (5) years commencing on the date of Tenant's exercise of the Option (the "**Commencement Date**"), and ending at 11:59 p.m. on the day immediately preceding the fifth (5th) anniversary of the Commencement Date (the "**Initial Term**"). The Initial Term, together with any Renewal Terms and Extended Periods are referred to collectively as the "**Term**."

b) The Initial Term shall automatically renew for five (5) successive renewal terms of five (5) years each (each a "**Renewal Term**"), provided, however, that Tenant may elect not to renew by providing notice prior to the expiration of the then current Term.

c) Upon the expiration of the final Renewal Term, Tenant shall have the right to continue to occupy the Premises and the Term shall automatically extend for successive one (1) year periods (each, an "**Extended Period**"). Landlord may terminate the renewal of any Extended Period by delivery of notice at least six (6) months prior to the end of the then current Extended Period. Tenant may terminate any Extended Period at any time by delivery of notice to Landlord.

## 6. Rent/Other Charges.

a) Upon the Commencement Date, Tenant shall pay Landlord rent in the amount of one thousand five hundred dollars (\$1,500.00) per month (the "**Rent**"). Tenant shall deliver Rent to Landlord at the address specified in Section 15, or by electronic payment. The first Rent payment shall be due within twenty (20) business days after the Commencement Date. Subsequent Rent shall be payable by the fifth day of each month.

b) The Rent for each successive Renewal Term shall be an amount equal to one hundred ten percent (110%) of the Rent for the immediately preceding Term. The Rent shall continue to be paid on a monthly basis. The Rent for each Extended Period shall be an amount equal to one hundred two percent (102%) of the Rent for the immediately preceding Term.

c) Rent for any partial month shall be prorated on a per day basis, based on the number of days in the month in question. Landlord shall cooperate with Tenant regarding the use of any electronic rent payment systems or the provision of any associated documentation. Tenant may condition payment of Rent and any other sums payable under this Agreement upon Tenant's receipt of a duly completed IRS form W-9, or similar governmental form.

d) Any charges payable under this Agreement other than Rent shall be billed by Landlord to Tenant within twelve (12) months from the date the charges were incurred or due; otherwise the charges shall be deemed time-barred and forever waived and released by Landlord.

7. **Interference.** Tenant shall not interfere with the radio frequency communications of Landlord or any of Landlord's existing tenants as of the Effective Date. After the Effective Date, Landlord shall not install, or permit any third party to install, any equipment or structures that interfere with or restrict the operations of Tenant. Any such interference shall be deemed a material breach of this Agreement by Landlord and Landlord shall remove the cause of the interference within forty-eight (48) hours of notice. Tenant shall have the right to exercise all legal and equitable rights and remedies to end the interference.

**8. Utility Services.**

a) Tenant shall have the right to connect to, maintain, repair, upgrade, remove or replace existing utility related equipment and shall have the right to install new utility related equipment to service its Antenna Facilities, or cell-on-wheels on, or serving the Property (collectively, the "**Utility Facilities**").

b) Tenant shall be responsible for all utilities charges for electricity, or any other utility service used by Tenant on the Premises. Tenant may install separate meters for Tenant's utility usage. If Tenant does not install a separate meter, Tenant shall pay Landlord two hundred dollars (\$200.00) per month for its utility usage.

**9. Access and Easements.**

a) Landlord shall furnish, at no additional charge to Tenant, unimpeded and secure access to the Premises on a 24-hours-a-day, 7-days-a-week basis to Tenant and Tenant's employees, agents, contractors and other designees.

b) Landlord grants Tenant, at no additional Rent or charge, easements on, over, under and across the Property for ingress, egress, communications, power and other utilities, construction, demolition and access to the Premises and any Utility Facilities (collectively, the "Easements"). Landlord shall not modify, interrupt or interfere with any communications, electricity, or other utility equipment and easements serving the Property, except with the prior written approval of Tenant.

**10. Termination.** Tenant may terminate this Agreement without further liability, upon thirty (30) days prior written notice to Landlord, for any of the following reasons: (i) changes in local or state laws or regulations which adversely affect Tenant's ability to operate; (ii) a Federal Communications Commission ("**FCC**") ruling or regulation that is beyond the control of Tenant; (iii) technical or economic reasons; or (iv) if Tenant is unable to obtain any Governmental Approval required for the construction or operation of Tenant's Antenna Facilities. Upon ninety (90) days prior written notice to Landlord, Tenant may terminate this Agreement for any or no reason.

**11. Casualty and Condemnation.** If the Premises or Antenna Facilities are damaged or destroyed by wind, fire or other casualty, Tenant shall be entitled to negotiate, compromise, receive and retain all proceeds of Tenant's insurance and other claims and Tenant may terminate the Lease by written notice to Landlord. If the Premises, any Easements or Antenna Facilities are taken or condemned by power of eminent domain or other governmental taking, then: (a) Tenant shall be entitled to negotiate, compromise, receive and retain all awards attributable to (i) the Antenna Facilities, (ii) Tenant's leasehold interest in the Property, (iii) any moving or relocation benefit available to Tenant and (iv) any other award available to Tenant that is not attributable to Landlord's title to or interest in the Property. If the Antenna Facilities are not operational due to casualty or condemnation, Tenant shall have the right to abate the Rent for that period time. In addition, Tenant may terminate the Lease by written notice to Landlord.

**12. Default and Right to Cure.** A party shall be deemed in default under this Agreement if it fails to make any payment, or to perform any obligation required of it within any applicable time period specified and does not commence curing such breach within thirty (30) days after receipt of written notice of such breach from the non-defaulting party ("**Default**"). This Agreement, or Tenant's rights of possession shall not be terminated due to any Tenant Default unless: (a) the Default is material; (b) Landlord shall have given Tenant

not less than thirty (30) days prior written notice, after the expiration of the cure period described above, and Tenant fails to cure or commence the cure of such Default within the second thirty (30) day notice period; and (c) Landlord lacks any other adequate legal or equitable right or remedy.

**13. Taxes.** Landlord shall pay when due all real estate taxes and assessments for the Property, including the Premises. Notwithstanding the foregoing, Tenant shall reimburse Landlord for any personal property tax paid for by Landlord which is solely and directly attributable to the presence or installation of Tenant's Antenna Facilities during the Term. Landlord shall provide prompt and timely notice of any tax or assessment for which Tenant is liable. Tenant shall have the right to challenge any tax or assessment and Landlord shall cooperate with Tenant regarding such challenge.

**14. Insurance and Subrogation and Indemnification.**

a) During the Term, Tenant and Landlord each shall maintain Commercial General Liability Insurance in amounts of One Million and no/100 Dollars (\$1,000,000.00) per occurrence and Two Million and no/100 Dollars (\$2,000,000.00) aggregate. Each party may satisfy this requirement by obtaining the appropriate endorsement to any master insurance policy such party may maintain. Tenant and Landlord shall each maintain "all risk" or "special causes of loss" property insurance on a replacement cost basis for their respectively owned real or personal property.

b) Landlord and Tenant hereby mutually release each other (and their successors or assigns) from liability and waive all right of recovery against the other for any loss or damage covered by their respective first party property insurance policies for all perils insured thereunder. In the event of an insured loss, neither party's insurance company shall have a subrogated claim against the other party.

c) Subject to the property insurance waivers set forth in the preceding subsection (b), Landlord and Tenant each agree to indemnify and hold harmless the other party from and against any and all administrative and judicial actions and rulings, claims, causes of action, demands and liabilities, including reasonable attorneys' fees, to the extent caused by or arising out of: (i) any negligent acts or omissions or willful misconduct in the operations or activities on the Property by the indemnifying party or the employees, agents, contractors, licensees, tenants or subtenants of the indemnifying party, (ii) any spill or other release of any Hazardous Substances (as defined below) on the Property by the indemnifying party or the employees, agents, contractors, licensees, tenants or subtenants of the indemnifying party, or (iii) any breach of any obligation of the indemnifying party under this Agreement. The indemnifying party's obligations under this subsection are contingent upon its receiving prompt written notice of any event giving rise to an obligation to indemnify the other party and the indemnified party's granting it the right to control the defense and settlement of the same.

d) Tenant shall not be responsible or liable to Landlord or any third party for any claims, damages, costs, expenses, including liens, fines, penalties or other enforcement actions, attributable to any pre-existing violations of applicable laws, codes, ordinances or other regulations relating to the Property (collectively, "**Pre-Existing Violations**"). To the extent Tenant is or may be required to cure such Pre-Existing Violations in order to obtain any Governmental Approvals for its Permitted Uses of the Premises, however, Tenant shall have the right, but not the obligation, to cure such Pre-Existing Violations and deduct the curative costs from Rent payable under this Agreement.

e) The provisions of subsections (b) and (c) above shall survive the expiration or termination of this Agreement.

**15. Notices.** All notices, requests, demands and other communications shall be in writing and shall be effective three (3) business days after deposit in the U.S. mail, certified, return receipt requested or upon receipt if personally delivered or sent via a nationally recognized courier to the addresses set forth below. Landlord or Tenant may from time to time designate any other address for this purpose by providing written notice to the other party.

**If to Tenant, to:**

T-Mobile USA, Inc.  
12920 SE 38th Street  
Bellevue, WA 98006  
Attn:  
Management/A5C350A

Property

**If to Landlord, to:**

City of Raytown, Missouri  
10000 E. 59th Street  
Raytown, MO 64133

**And with a copy to:**

**Per the W-9 Form Rent is to be paid to:**

City of Raytown, Missouri  
10000 E. 59th Street  
Raytown, MO 64133

**16. Quiet Enjoyment, Title and Authority.** Landlord covenants and warrants that: (a) Landlord has full right, power and authority to execute and perform this Agreement and to grant Tenant the leasehold interest and Easements contemplated under this Agreement; (b) Landlord has good and unencumbered title to the Property, free and clear of any liens or Mortgages (defined below) which shall interfere with Tenant's Lease or any rights to or use of the Premises; (c) the execution and performance of this Agreement shall not violate any laws, ordinances, covenants, or the provisions of any Mortgage, lease, or other agreement binding on Landlord; (d) Tenant's use and quiet enjoyment of the Premises shall not be disturbed; and (e) Landlord shall be responsible, at its sole cost and expense, for maintaining all portions of the Property in good order and condition and in compliance with all applicable laws, including without limitation, the roof, any support structure owned by Landlord, HVAC, plumbing, elevators, landscaping and common areas.

**17. Environmental Laws.** Landlord and Tenant shall comply with all federal, state and local laws in connection with any substances brought onto the Property that are identified by any law, ordinance or regulation as hazardous, toxic or dangerous (collectively, the "**Hazardous Substances**"). Tenant agrees to be responsible for all losses or damage caused by any Hazardous Substances that it may bring onto the Property and will indemnify Landlord for all such losses or damages. Landlord agrees to be responsible for all losses or damage caused by any Hazardous Substances on or entering the Property, except those brought onto the Property by Tenant, and will indemnify Tenant for all such losses or damages including the cost of any investigation or remediation, or other actions required to comply with applicable law. Landlord represents that it has no knowledge of any Hazardous Substances on the Property.

**18. Assignment.**

a) Tenant shall have the right to assign, sublease or otherwise transfer this Agreement, upon written notice to Landlord. Tenant shall be relieved of all liabilities and obligations and Landlord shall look solely to the transferee for performance under this Agreement. Upon receipt of a written request from Tenant, Landlord shall promptly execute an estoppel certificate.

b) Landlord shall have the right to assign and transfer this Agreement only to a successor owner of the Property. Only upon Tenant's receipt of written verification of a sale, or transfer of the Property shall Landlord be relieved of all liabilities and obligations and Tenant shall look solely to the new landlord for performance under this Agreement. Landlord shall not attempt to assign, or otherwise transfer this Agreement separate from a transfer of ownership of the Property (the "**Severance Transaction**"), without the prior written consent of Tenant, which consent may be withheld or conditioned in Tenant's sole discretion. If Tenant consents to a Severance Transaction, Landlord and its successors and assigns shall remain jointly and severally responsible for the performance of all duties and obligations of the Landlord under this Agreement.

**19. Relocation.** Landlord must provide Tenant at least six (6) months written notice of any repairs, maintenance or other work (the "**Work**") during the Term of the Lease which would require the relocation of the Antenna Facilities. Landlord agrees that the Work will not interfere with or alter the quality of the services provided by the Antenna Facilities. Landlord will reimburse Tenant for all expenses incurred by Tenant required to accommodate the Work.

**20. Marking and Lighting Requirements.** If any tower or other support structure for Tenant's Antenna Facilities is owned by Landlord, Landlord acknowledges that Landlord shall be responsible for compliance with all marking and lighting requirements of the Federal Aviation Administration and the FCC. Landlord shall indemnify and hold Tenant harmless from any fines or other liabilities caused by Landlord's failure to comply with these requirements.

**21. Miscellaneous.**

a) The prevailing party in any litigation or other legal proceedings arising under this Agreement (including any appeals and any insolvency actions) shall be entitled to reimbursement from the non-prevailing party for reasonable attorneys' fees and expenses.

b) This Agreement constitutes the entire agreement and understanding of the parties, and supersedes all offers, negotiations and other agreements with respect to the subject matter and Property. Any amendments to this Agreement must be in writing and executed by both parties.

c) Landlord agrees to cooperate with Tenant in executing any documents which Tenant deems necessary to insure, protect Tenant's rights in, or use of, the Premises. Landlord shall execute and deliver: (i) a Memorandum of Lease in substantially the form attached as Exhibit C; and (ii) if the Property is encumbered by a deed, mortgage or other security interest (each, a "Mortgage"), a subordination, non-disturbance and attornment agreement using Tenant's form.

d) This Agreement shall be construed in accordance with the laws of the state or territory in which the Property is located, without regard to the principles of conflicts of law.

e) If any term of this Agreement is found to be void or invalid, the remaining terms of this Agreement shall continue in full force and effect. Any questions of particular interpretation shall be interpreted as to their fair meaning.

f) Each party hereby represents and warrants to the other that this Agreement has been duly authorized, executed and delivered by it, and that no consent or approval is required by any lender or other person or entity in connection with the execution or performance of this Agreement.

g) If either party is represented by any broker or any other leasing agent, such party is responsible for all commission fee or other payment to such agent.

h) This Agreement and the interests granted herein shall run with the land, and shall be binding upon and inure to the benefit of the parties, their respective successors, personal representatives and assigns.

i) This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute a single instrument. Signed facsimile and electronic copies of this Agreement shall legally bind the Parties to the same extent as original documents.

**LANDLORD:** City of Raytown, Missouri

By: _____

Printed Name: _____

Title: _____

Date: _____

**TENANT:** T-Mobile Central LLC

By: _____

Printed Name: Scott W. DuBuke

Title: Area Director, Network Engineering & Operations

Date: _____

_____  
T-Mobile Legal Approval

**EXHIBIT A**  
**Legal Description**

**The Property is legally described as follows:**

10000 E. 59th Street, Raytown, MO 64133  
Parcel ID – 32-730-17-37-00-0-00-000

LOTS 7 AND 50, RESURVEY OF STERLING HEIGHTS, A SUBDIVISION IN RAYTOWN, JACKSON COUNTY, MISSOURI,  
ALONG WITH VACATED 58TH TERRACE LYING BETWEEN SAID LOTS.

## EXHIBIT B

Subject to the terms and conditions of this Agreement, the location of the Premises is generally described and depicted as shown below or in the immediately following attachment(s).

Site Number: A5C350A

B-1

Site Lease – version 6.26.14

Site Name: City Of Raytown Police Tower

Market: Kansas City

**EXHIBIT C**

**Memorandum  
of  
Lease**

[CONFIRM HEADING/MARGINS/FORMAT CONFORM TO STATE AND LOCAL REQUIREMENTS]

After Recording, Mail To:

APN:

Loan No.

---

---

**MEMORANDUM OF LEASE**

A Site Lease Agreement (the "Agreement") by and between City of Raytown, Missouri, a(n) Municipal Corporation ("Landlord") and T-Mobile Central LLC, a Delaware limited liability company ("Tenant") was made regarding a portion of the following property (as more particularly described in the Agreement, the "Premises"):

See Attached **Exhibit A** incorporated herein for all purposes.

Without limiting the terms and conditions of the Agreement, Landlord and Tenant hereby acknowledge the following:

1. Capitalized terms used, but not otherwise defined herein, shall have the meanings ascribed to such terms in the Agreement.
2. Pursuant to the Agreement Landlord has granted Tenant an option to lease the Premises (the "Option") on the terms and conditions described in this Agreement for an initial term of one (1) year commencing on the Effective Date, which term may be extended by Tenant for additional one (1) year Options.
3. Provided that the Option has been exercised by Tenant, the Agreement shall constitute a lease (the "Lease"), the term of which shall initially be for five (5) years and will commence on the date upon which Tenant exercises its Option (the "Commencement Date").
4. Tenant shall have the right to extend the Lease for five (5) additional and successive five-year terms.
5. This memorandum is not a complete summary of the Lease. It is being executed and recorded solely to give public record notice of the existence of the Option and the Lease with respect to the Premises. Provisions in this memorandum shall not be used in interpreting the Lease provisions and in the event of conflict between this memorandum and the said unrecorded Lease, the unrecorded Lease shall control.
6. This memorandum may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto were upon the same instrument.

**IN WITNESS WHEREOF**, the parties hereto have respectively executed this memorandum effective as of the date of the last party to sign.

**LANDLORD:** City of Raytown, Missouri

By: _____

Printed Name: _____

Title: _____

Date: _____

**TENANT:** T-Mobile Central LLC

By: _____

Printed Name: Scott W. DuBuke_____

Title: Area Director, Network Engineering & Operations_____

Date: _____

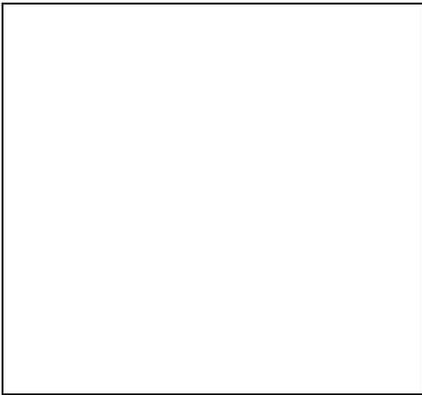
**[Notary block for Landlord]**

**[Landlord Notary block for a Corporation, Partnership, or Limited Liability Company]**

STATE OF _____ )  
 ) ss.  
COUNTY OF _____ )

This instrument was acknowledged before me on _____ by  
_____, [title] _____ of  
_____ a _____ [type of entity], on behalf of said  
_____ [name of entity].

Dated: _____



_____  
Notary Public  
Print Name _____  
My commission expires _____

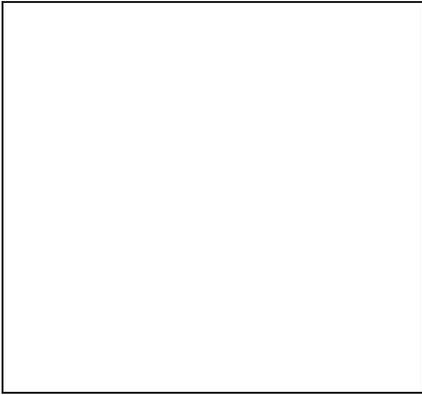
(Use this space for notary stamp/seal)

**[Notary block for Tenant]**

STATE OF COLORADO )  
 ) ss.  
COUNTY OF DENVER )

I certify that I know or have satisfactory evidence that Scott W. DuBuke is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Area Director, Network Engineering & Operations of T-Mobile Central LLC, a Delaware limited liability company, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____



_____  
Notary Public

Print Name _____

My commission expires _____

(Use this space for notary stamp/seal)

**Memorandum of Lease - Exhibit A  
Legal Description**

**The Property is legally described as follows:**

10000 E. 59th Street, Raytown, MO 64133  
Parcel ID – 32-730-17-37-00-0-00-000

LOTS 7 AND 50, RESURVEY OF STERLING HEIGHTS, A SUBDIVISION IN RAYTOWN, JACKSON COUNTY, MISSOURI,  
ALONG WITH VACATED 58TH TERRACE LYING BETWEEN SAID LOTS.

Site Number: A5C350A

C-5

Site Lease – South Version 6.26.14

Site Name: City Of Raytown Police Tower

Market: Kansas City

**Memorandum of Lease - Exhibit A  
Legal Description**

**The Property is legally described as follows:**

1/20/2016

City of Raytown, Missouri  
10000 E 59th St.  
Raytown, MO 64133

RE: Proposed co-location of telecommunications equipment  
T-Mobile Site ID: A5C0350 / City of Raytown Police Tower  
Located at: 10000 E 59th St., Raytown, MO 64133, 39-01-06.18, -94-27-47.31

Dear Frank Stranimier:

T-Mobile Central LLC ("T-Mobile") has requested to place telecommunications equipment on the referenced Tower owned by The City of Raytown, Missouri ("Landlord"). To facilitate such installation in compliance with the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas executed by The Federal Communication Commission, the National Conference of State Historic Preservation Officers and the Advisory Council On Historic Preservation (the "Programmatic Agreement"), Landlord acknowledges the following:

1. The Tower was constructed after March 16, 2001 and completed the Section 106 consultation process.
2. The mounting of the proposed antenna and/or other equipment will not result in substantial increase in the size of the tower as defined in Stipulation 1.C of the Programmatic Agreement.
3. To the best of Landlord's knowledge, the FCC has not determined that the Tower has an effect on one or more historic properties, unless such effect has been found to be not adverse through a conditional no adverse effect determination or resolved through a Memorandum of Agreement, a programmatic agreement, or the tower has been found to be otherwise in compliance with Section 106 and Subpart B of 36 CFR Part 800.
4. To the best of Landlord's knowledge, the Tower is not the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the National Historic Preservation Act.
5. To the best of Landlord's knowledge, Landlord has not received notification that the FCC is in receipt of a complaint from a member of the public, a State Historic Preservation Office, or the Advisory Council on Historic Preservation that the Tower or Collocation has or will have an adverse effect on one or more historic properties.

City of Raytown, Missouri

By:  _____

Title: Mayor _____

Date: 01-26-16 _____



APPLICANT SITE NAME: CITY OF RAYTOWN  
 POLICE TOWER

APPLICANT SITE NUMBER: A5C0350D

PROJECT: NEW SITE BUILD FOR EXISTING CELL SITE

RFDS CONFIGURATION: 702G RUN

RFDS DATE: 12/01/15

STRUCTURAL COMPANY: TBD

STRUCTURAL REPORT #: TBD

STRUCTURAL DATE: TBD

DRAWING DESCRIPTION: PRELIMINARY CD



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
 Overland Park, Kansas 66210  
 Phone: 913-438-7700  
 Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI

STATE CERTIFICATE OF AUTHORIZATION # E-27323

ENGINEER: MLO MICHAEL L. OWENS E-27323 STRUCTURAL/CIVIL SC

PE#: KV KEVIN VANMAELE E-27323 STRUCTURAL/CIVIL SC

REJ ROBERT E. ... 27323 STRUCTURAL/CIVIL SC

TMS ... E-18521 ELECTRICAL E

SDK ... E-27323 ELECTRICAL E

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SUBMITTALS

ISSUED FOR REVIEW	DESCRIPTION	DATE	BY	REV
		02/04/16	ETD	A

SITE NAME: CITY OF RAYTOWN  
 POLICE TOWER

SITE NUMBER: A5C0350D

SITE ADDRESS: 5754 CEDAR AVENUE  
 KANSAS CITY, MISSOURI 64133

SHEET DESCRIPTION: TITLE SHEET

SHEET NUMBER: T-1.0



JURISDICTION COMPLIANCE

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

- INTERNATIONAL BUILDING CODE
- INTERNATIONAL MECHANICAL CODE
- ANSI/TIA-222 STRUCTURAL STANDARD
- NFPA 780 - LIGHTNING PROTECTION CODE
- UNIFORM PLUMBING CODE
- NATIONAL ELECTRICAL CODE

Know what's below.  
 Call before you dig.  
 www.call811.com

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM THE INFORMATION AVAILABLE. THE INFORMATION PROVIDED IS NOT IMPLIED NOR INTENDED TO BE THE COMPLETE INVENTORY OF UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.

SITE INFORMATION

**SITE ADDRESS:** 5754 CEDAR AVENUE  
 KANSAS CITY, MISSOURI 64133

**COUNTY:** JACKSON

**PROPERTY OWNER:** CITY OF RAYTOWN  
 10000 E 59TH STREET  
 RAYTOWN, MISSOURI 64133

**TOWER INFORMATION:** LATITUDE: 39° 01' 06" N (NAD 83)  
 LONGITUDE: 94° 27' 46" W (NAD 83)  
 GROUND ELEV: 969' AMSL  
 TOWER HEIGHT: 180'-0" AGL  
 TOWER TYPE: SELF-SUPPORT TOWER  
 APPLICANT CL: 130'-0" AGL

**APPLICANT:** T-MOBILE  
 12980 S. FOSTER STREET, SUITE 200  
 OVERLAND PARK, KS 66213

NOTICE TO CONTRACTOR

DRAWING INDEX

SHEET NO	SHEET TITLE	REV	ENGINEER
T-1.0	TITLE SHEET	A	SC/E
GN-1.0	GENERAL NOTES	A	SC/E
A-1.0	SITE PLAN	A	SC
A-1.1	T-MOBILE EQUIPMENT LAYOUT	A	SC
A-2.0	EQUIPMENT ELEVATIONS & ANTENNA PLAN	A	SC
A-3.0	ANTENNA & EQUIPMENT CONFIGURATION KEYS	A	SC
A-4.0	NSN CONFIGURATION DIAGRAM	A	SC
A-5.0	ANTENNA ONE-LINE DIAGRAM	A	SC
A-6.0	EQUIPMENT DETAILS (1 OF 5)	A	SC
A-6.1	EQUIPMENT DETAILS (2 OF 5)	A	SC
A-6.2	EQUIPMENT DETAILS (3 OF 5)	A	SC
A-6.3	EQUIPMENT DETAILS (4 OF 5)	A	SC
A-6.4	EQUIPMENT DETAILS (5 OF 5)	A	SC
E-1.0	OVERALL UTILITY PLAN	A	E
E-1.1	ENLARGED UTILITY PLAN	A	E
E-2.0	UTILITY DETAILS (1 OF 2)	A	E
E-2.1	UTILITY DETAILS (2 OF 2)	A	E
G-1.0	GROUNDING PLAN	A	E
G-2.0	GROUNDING DETAILS (1 OF 2)	A	E
G-2.1	GROUNDING DETAILS (2 OF 2)	A	E
SP-1.0	SPECIFICATIONS (1 OF 3)	A	SC
SP-2.0	SPECIFICATIONS (2 OF 3)	A	E
SP-2.1	SPECIFICATIONS (3 OF 3)	A	E

APPROVALS

SIGNER	SIGNATURE	DATE
T-MOBILE CONSTRUCTION MANAGER		
T-MOBILE OPERATIONS MANAGER		
T-MOBILE RF ENGINEER		
LANDLORD		

CONSULTING TEAM

**ENGINEERING:** SSC, INC.  
 9900 WEST 109TH STREET, SUITE 300  
 OVERLAND PARK, KANSAS 66210  
 PHONE: (913) 438-7700  
 FAX: (913) 438-7777

M.L. OWENS - LEAD ENGINEER

S.D. KEISLING - LEAD ELECTRICAL

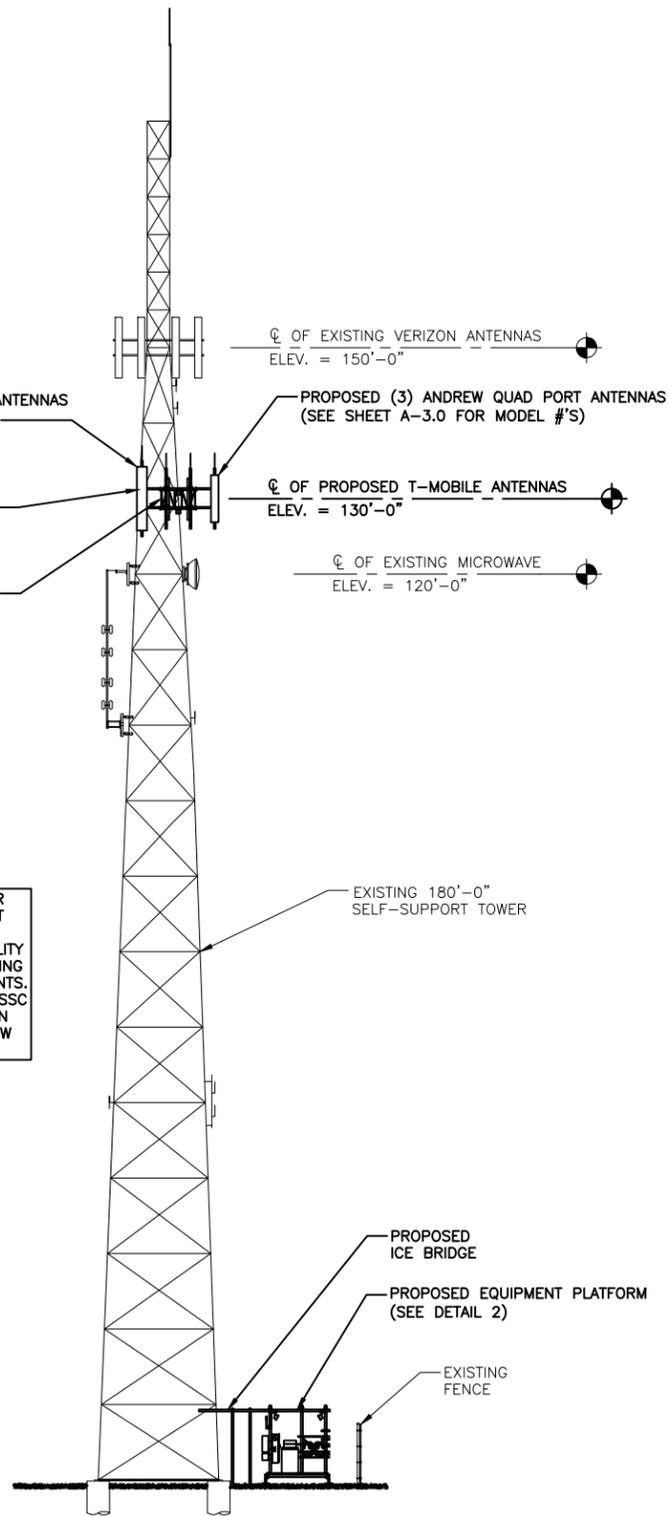
M. THOMAS - PROJECT MANAGER

E.T. DILDAY - LEAD DESIGNER



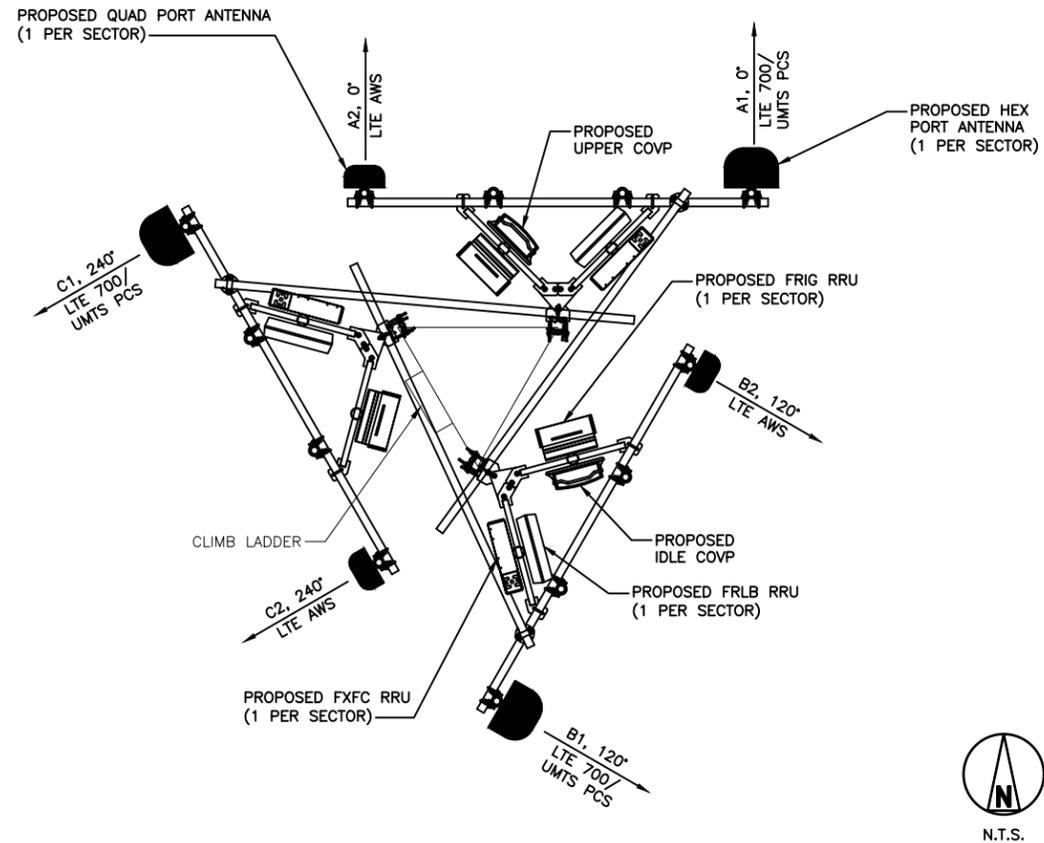






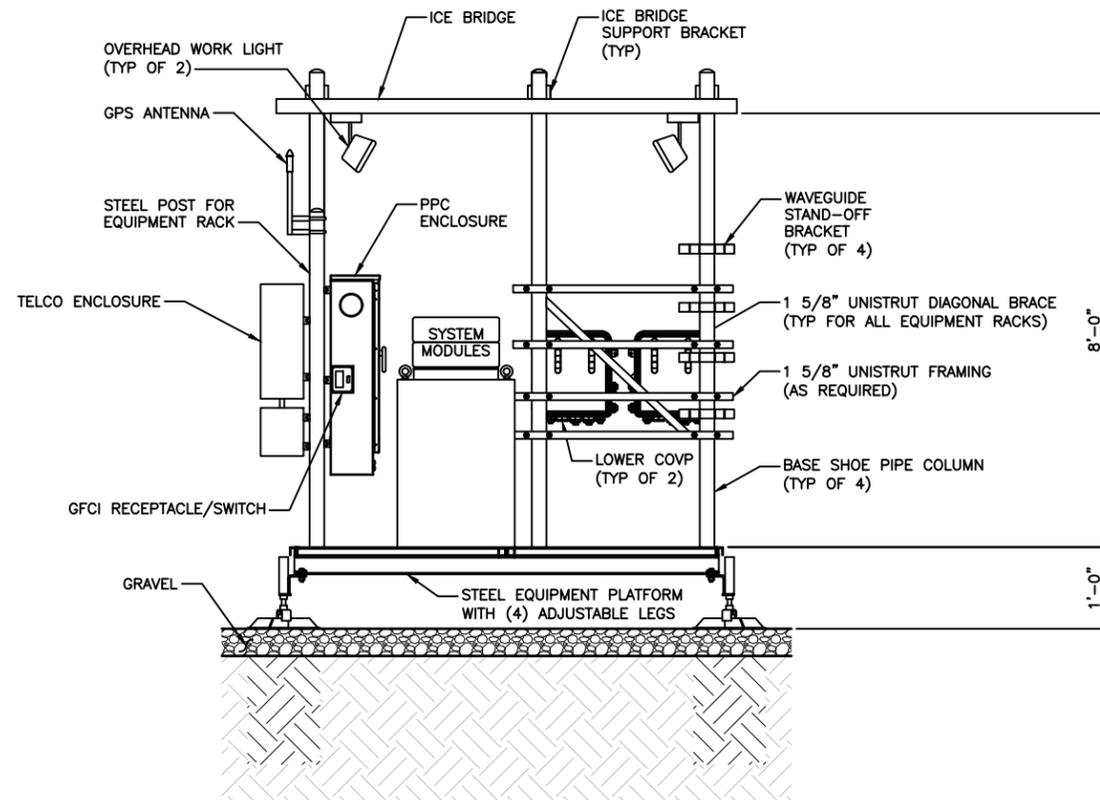
TOWER ELEVATION

3



ANTENNA PLAN

1



EQUIPMENT PLATFORM ELEVATION

2

**TOWER INFORMATION:**

ASR#: UNKNOWN

TOWER MANUFACTURER: ALLSTATE TOWER, INC.

TOWER ID: 40729F

EXISTING TOWER INFORMATION IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SSC HAS NOT PERFORMED TOWER CALCULATIONS FOR THE EXISTING STRUCTURE & TAKES NO RESPONSIBILITY FOR THE STRUCTURAL INTEGRITY OF THE EXISTING TOWER, TOWER FOUNDATION, OR ANTENNA MOUNTS. STRUCTURAL ANALYSES TO BE PERFORMED BY SSC OR BY OTHERS - CONTRACTOR SHALL OBTAIN COPIES OF STRUCTURAL REPORTS AND FOLLOW ALL RECOMMENDATIONS.

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI	STATE CERTIFICATE OF AUTHORIZATION # E-2012-00000000
ENGINEER: MLO MICHAEL L. OWENS	PE#: E-2012-00000000
KV KEVIN VANMAELE	STRUCTURAL/CIVIL SC
REJ ROBERT E. JONES	STRUCTURAL/CIVIL SC
TMS TERRY M. SMITH	ELECTRICAL E
SDK SHELLY D. KEISLING	ELECTRICAL E

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SUBMITTALS

ISSUED FOR REVIEW	DESCRIPTION	DATE	BY	REV
		02/04/16	ETD	A

SITE NAME:  
**CITY OF RAYTOWN  
POLICE TOWER**

SITE NUMBER:  
**A5C0350D**

SITE ADDRESS:  
**5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133**

SHEET DESCRIPTION:  
**EQUIPMENT ELEVATIONS  
& ANTENNA PLAN**

SHEET NUMBER:  
**A-2.0**

**ANTENNA NOTES:**

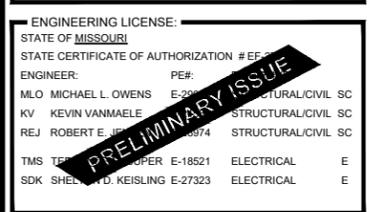
- ANTENNA CONTRACTOR SHALL INSURE THAT ALL ANTENNA MOUNTING PIPES ARE PLUMB.
- FEEDLINE LENGTHS INDICATED ARE APPROXIMATE.
- ANTENNA COAXIAL FEEDERS & ANTENNA JUMPERS SHALL BE COLOR CODED PER T-MOBILE REQUIREMENTS. THE FOLLOWING CHECKER STRIPE SHALL BE ADDED TO EACH ANTENNA FEEDLINE & ANTENNA JUMPER.  
  
 LTE 700 - RED-BLACK CHECKER STRIPE  
 LTE PCS - RED-GREEN 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
- 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  
 EPSILON - WHITE STRIPE  
 ZETA - PURPLE STRIPE  
 HYBRID - GRAY STRIPE
- MULTI PORT ANTENNAS: TERMINATE UNUSED ANTENNA PORTS WITH CONNECTOR CAP & WEATHERPROOF THOROUGHLY. JUMPERS FROM TMA'S MUST TERMINATE TO OPPOSITE POLARIZATIONS IN EACH SECTOR.
- CONTRACTOR MUST FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS REGARDING THE INSTALLATION OF FEEDLINES, CONNECTORS, AND ANTENNAS.
- 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"
- CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO T-MOBILE.
- WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE.
- 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.

ANTENNA KEY																
STATUS	ANTENNA NUMBER	COLOR CODE (SEE NOTE 3)	BEAM WIDTH	ANTENNA VENDOR	MODEL #	AZIMUTH	ELECTRICAL DOWNTILT	MECHANICAL DOWNTILT	ANTENNA @ AGL	TYPE	COAXIAL FEEDER		HYBRID FEEDER			
											(QTY) SIZE	COLOR CODE	QUANTITY	COLOR CODE		
PROPOSED	A-2 LTE AWS	RED 4/YB RED 3/YB RED 2/YB RED 1/YB	65'	ANDREW	TMBXX-6517-A2M	0°	TBD	0°	130'-0"	LTE AWS	-	-	(1) HYBRID CABLE	GRAY 1		
PROPOSED	A-1 LTE 700/ UMTS PCS	RED 2/RB RED 1/RB RED 4/RW RED 3/RW RED 2/RW RED 1/RW	65'	ANDREW	SBNHH-1D65C	0°	TBD	0°	130'-0"	LTE 700 UMTS PCS	-	-				
PROPOSED	B-2 LTE AWS	YELLOW 4/YB YELLOW 3/YB YELLOW 2/YB YELLOW 1/YB	65'	ANDREW	TMBXX-6517-A2M	120°	TBD	0°	130'-0"	LTE AWS	-	-			SHARED WITH ALPHA SECTOR	GRAY 1
PROPOSED	B-1 LTE 700/ UMTS PCS	YELLOW 2/RB YELLOW 1/RB YELLOW 4/RW YELLOW 3/RW YELLOW 2/RW YELLOW 1/RW	65'	ANDREW	SBNHH-1D65C	120°	TBD	0°	130'-0"	LTE 700 UMTS PCS	-	-				
PROPOSED	C-2 LTE AWS	BLUE 2/YB BLUE 1/YB BLUE 2/YB BLUE 1/YB	65'	ANDREW	TMBXX-6517-A2M	240°	TBD	0°	130'-0"	LTE AWS	-	-	SHARED WITH ALPHA SECTOR	GRAY 1		
PROPOSED	C-1 LTE 700/ UMTS PCS	BLUE 2/RB BLUE 1/RB BLUE 4/RW BLUE 3/RW BLUE 2/RW BLUE 1/RW	65'	ANDREW	SBNHH-1D65C	240°	TBD	0°	130'-0"	LTE 700 UMTS PCS	-	-				
															IDLE (1) HYBRID CABLE	GRAY 2

EQUIPMENT KEY - EQUIPMENT PLATFORM					
LOCATION	VENDOR	EQUIPMENT	MODEL NO.	QTY.	STATUS
MOUNTED TO EQUIPMENT CABINET	NOKIA	SYSTEM MODULE	FSMF	1	PROPOSED
MOUNTED TO EQUIPMENT CABINET	NOKIA	SYSTEM MODULE	FSMF+FBBC	1	PROPOSED
H-FRAME	RAYCAP	COVP	RNSNDC-7771-PF-48	1	PROPOSED
H-FRAME	RAYCAP	COVP	RNSNDC-7771-PF-48	1	PROPOSED/ IDLE

EQUIPMENT FEEDLINE KEY						
LOCATION	VENDOR	EQUIPMENT	MODEL NO.	QTY.	LENGTH	STATUS
MULTI SECTOR	COMMSCOPE	HYBRID CABLE	ASU9325TYP01	1	150'-0"	PROPOSED
MULTI SECTOR	COMMSCOPE	HYBRID CABLE	ASU9325TYP01	1	150'-0"	PROPOSED/ IDLE

EQUIPMENT KEY - SECTOR					
LOCATION	VENDOR	EQUIPMENT	MODEL NO.	QTY.	STATUS
MULTI SECTOR	RAYCAP	COVP	RNSNDC-7771-PF-48	1	PROPOSED
MULTI SECTOR	RAYCAP	COVP	RNSNDC-7771-PF-48	1	PROPOSED/ IDLE
1 PER SECTOR	NOKIA	RRU	FXFC	3	PROPOSED
1 PER SECTOR	NOKIA	RRU	FRIG	3	PROPOSED
1 PER SECTOR	NOKIA	RRU	FRLB	3	PROPOSED



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SITE NAME

**CITY OF RAYTOWN  
POLICE TOWER**

SITE NUMBER

**A5C0350D**

SITE ADDRESS:

5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133

SHEET DESCRIPTION:

**ANTENNA & EQUIPMENT  
CONFIGURATION KEYS**

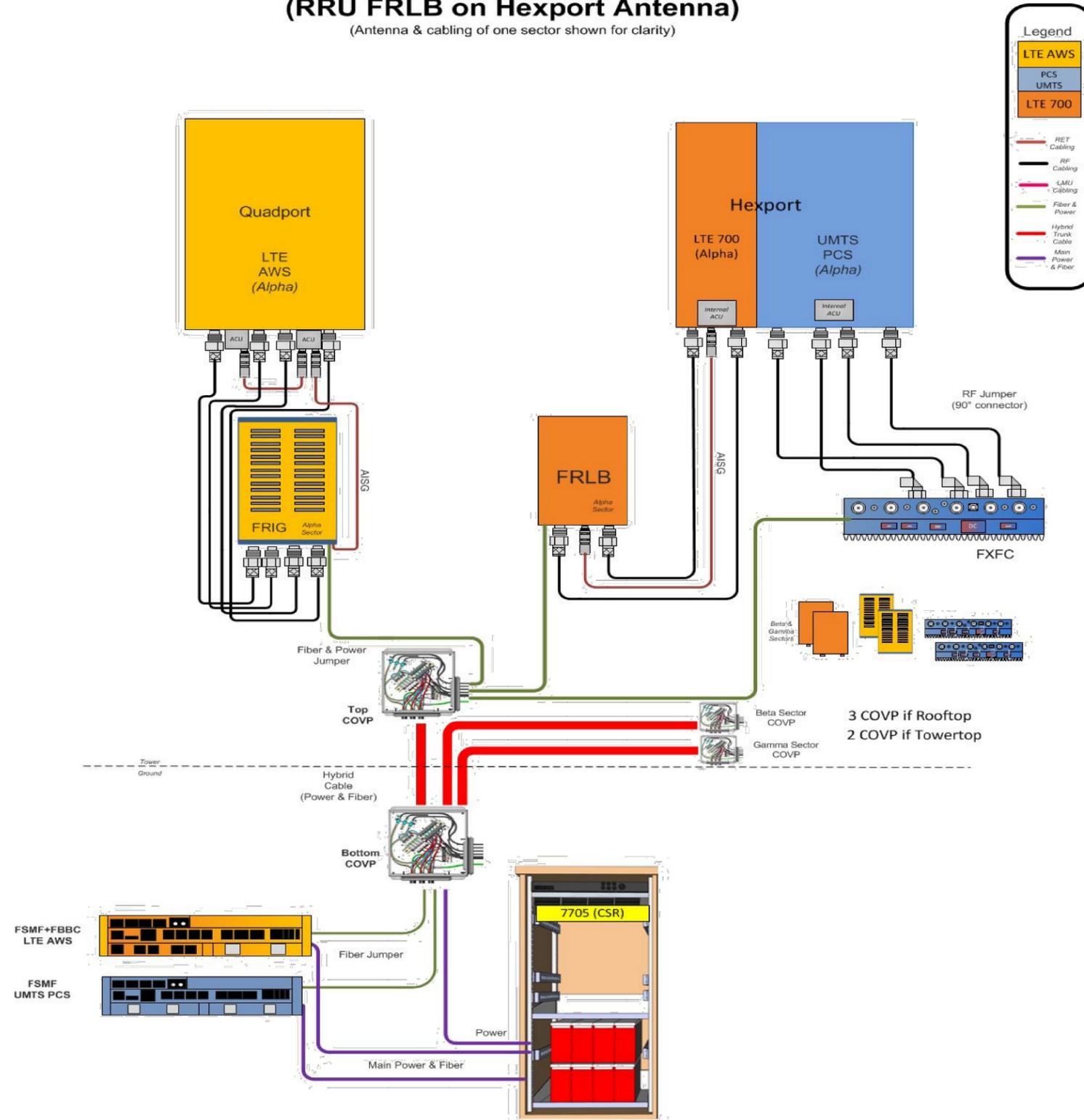
SHEET NUMBER:

**A-3.0**

# Drawing (1) Comments:

## Configuration 702G RUN (RRU FRLB on Hexport Antenna)

(Antenna & cabling of one sector shown for clarity)



**NOTE:**  
 DETAIL PROVIDED BY APPLICANT & REPRODUCED ON THIS SHEET AS REQUESTED BY APPLICANT.

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
 Overland Park, Kansas 66210  
 Phone: 913-438-7700  
 Fax: 913-438-7777

ENGINEERING LICENSE:

**PRELIMINARY ISSUE**

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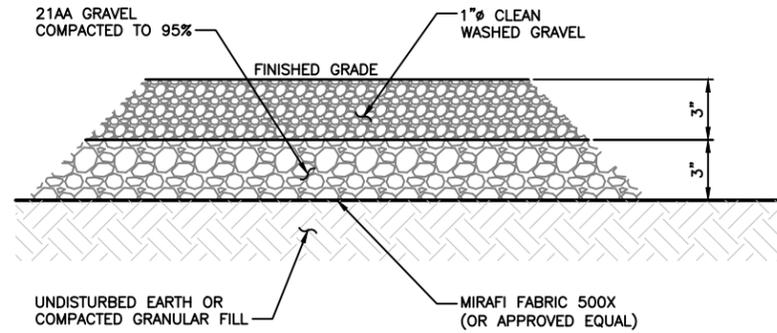
SHEET DESCRIPTION:  
**NSN CONFIGURATION  
 DIAGRAM**

SHEET NUMBER:  
**A-4.0**



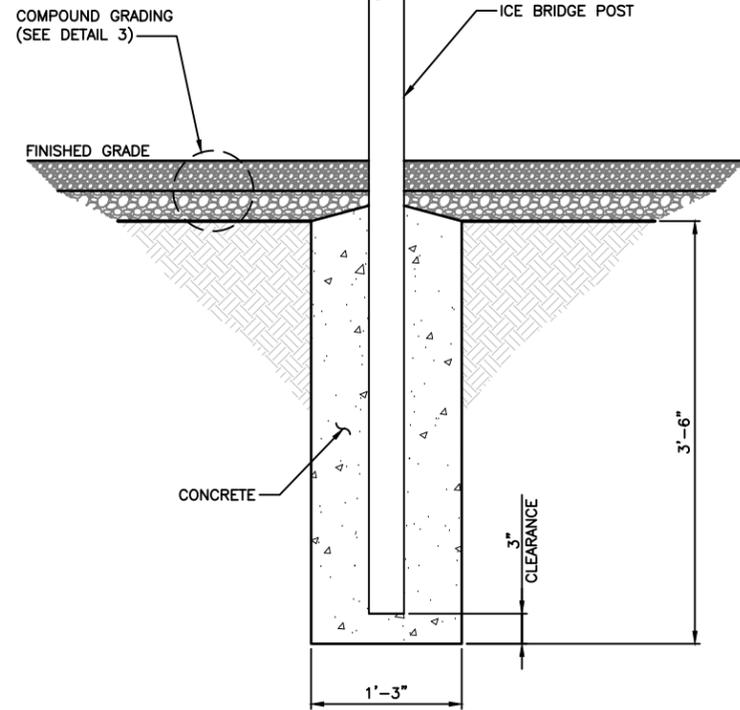
**NOTE:**

REMOVE ALL VEGETATION INCLUDING ROOTS



COMPOUND GRADING DETAIL

5

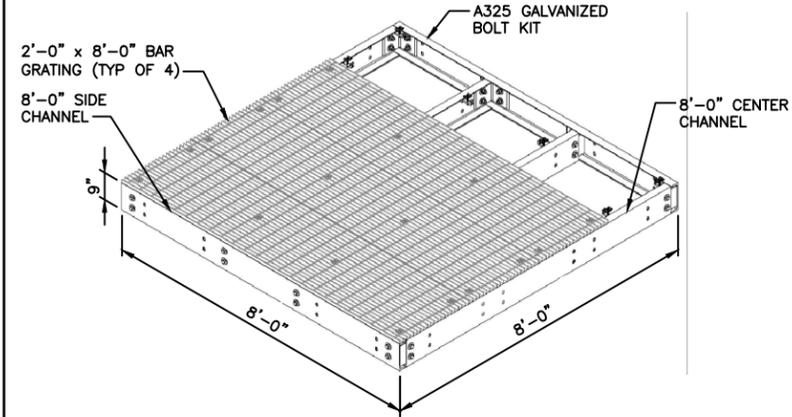


ICE BRIDGE POST FOUNDATION DETAIL

3

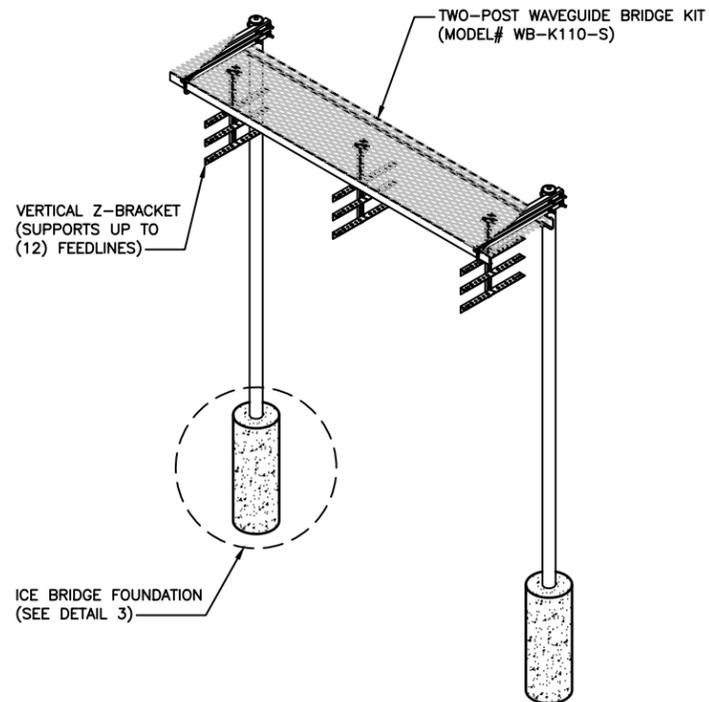
**PLATFORM STRUCTURAL NOTES:**

1. ALL WIDE FLANGE BEAMS, ANGLES, PLATES, AND GRATING SHALL BE ASTM A36.
2. ALL STEEL SHALL BE HOT DIPPED GALVANIZED AS SPECIFIED IN ASTM A123, A153, AND A167. REPAIR GALVANIZING AFTER WELDING.
3. ALL GRATING SHALL BE 1" x 3/16" CLIPPED TO STEEL FRAME (STANDARD FLOWFORGE TYPE 19-4 MANUFACTURED BY FISHER & LUDLOW).
4. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN. PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION, 9TH EDITION". AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED USING COLD GALVANIZER.
5. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM325 3/4" BOLTS AND SHALL HAVE A MINIMUM OF (2) BOLTS UNLESS NOTED OTHERWISE.
6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8"  $\phi$  GALVANIZED A307 BOLTS UNLESS NOTED OTHERWISE.
7. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES WITH CONSTRUCTION DOCUMENTS.



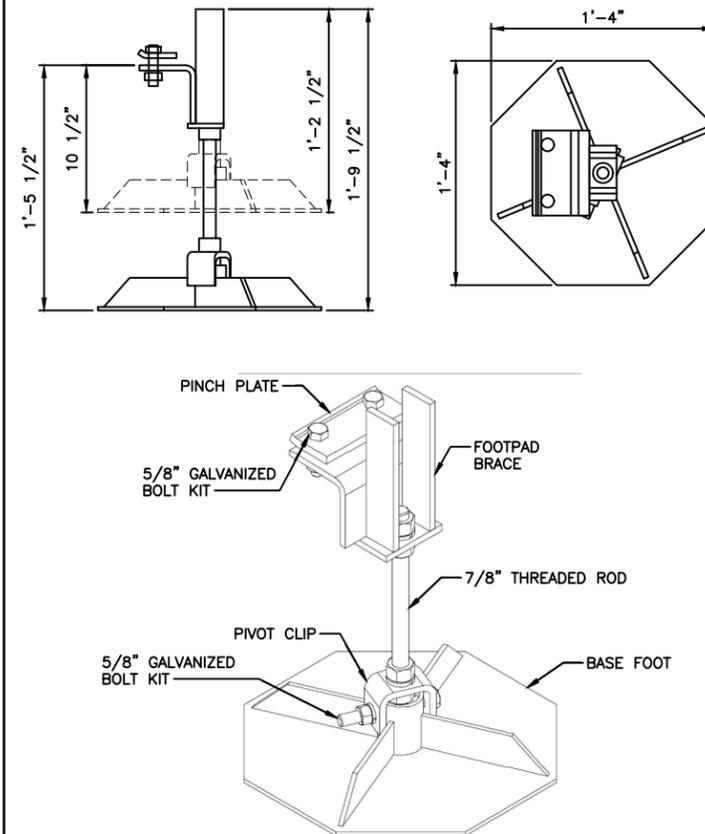
EQUIPMENT PLATFORM DETAIL

1



TWO-POST ICE BRIDGE KIT DETAIL

4



PLATFORM LEG KIT DETAIL

2

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
 Overland Park, Kansas 66210  
 Phone: 913-438-7700  
 Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI  
 STATE CERTIFICATE OF AUTHORIZATION # EE-1000000000  
 ENGINEER: MLO MICHAEL L. OWENS PE# E-2000000000 STRUCTURAL/CIVIL SC  
 KY KEVIN VANMAELE PE# E-2000000000 STRUCTURAL/CIVIL SC  
 REJ ROBERT E. JOHNSON PE# E-2000000000 STRUCTURAL/CIVIL SC  
 TMS TERRY M. SHAPIRO PE# E-18521 ELECTRICAL E  
 SDK SHELLY D. KEISLING PE# E-27323 ELECTRICAL E

**PRELIMINARY ISSUE**

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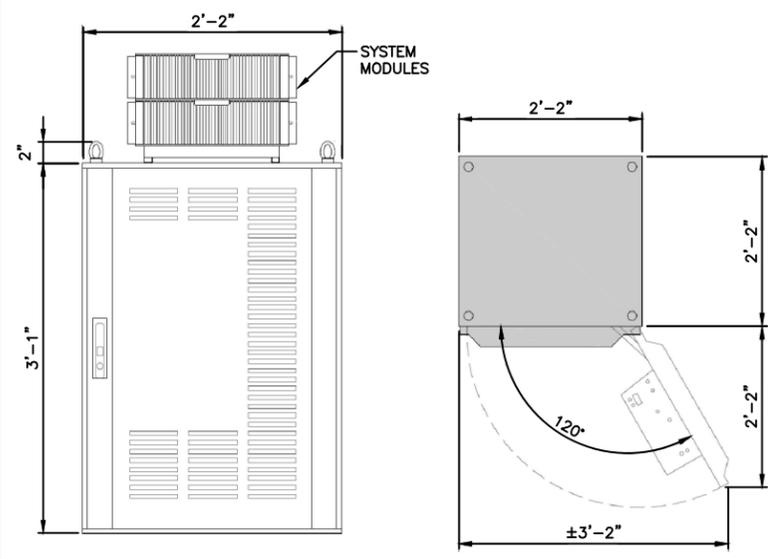
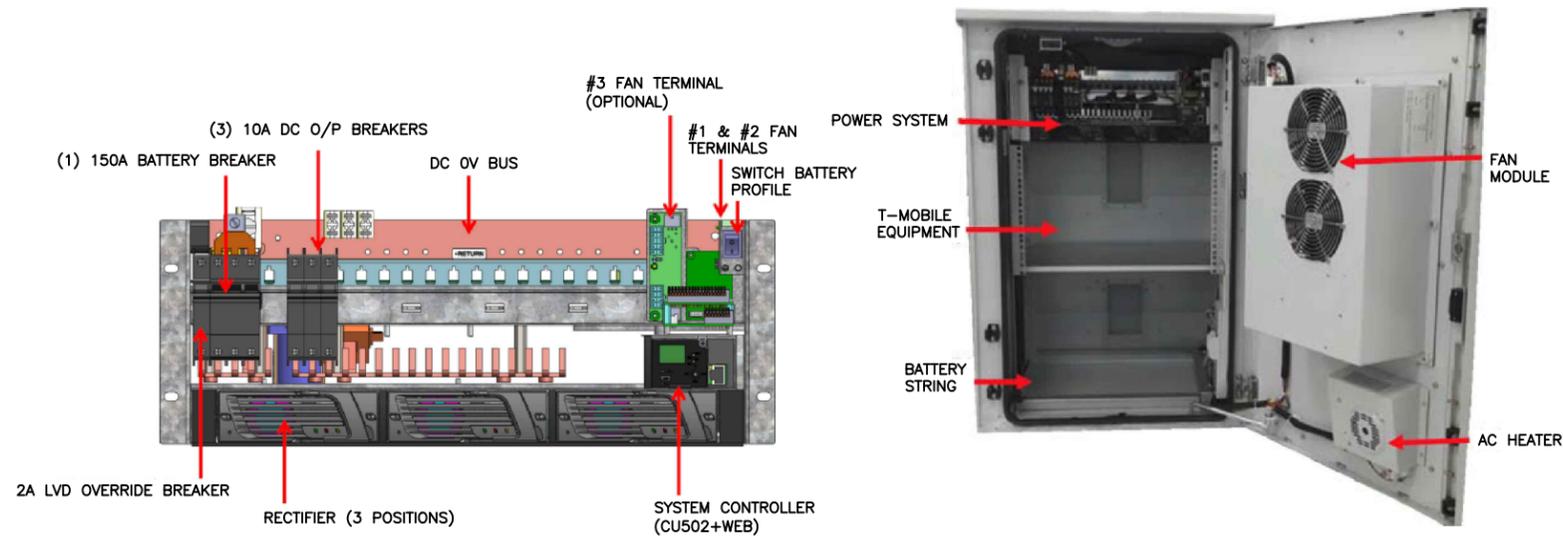
EQUIPMENT DETAILS  
 (1 OF 5)

SHEET NUMBER:

A-6.0

DETAIL NOT USED

6



GENERAL		ELECTRICAL REQUIREMENTS		ENVIRONMENT	
CONSTRUCTION	SINGLE LAYER ALUMINUM ENCLOSURE, TYPE 3R	AC INPUT VOLTAGE	100-120V / 200-240V	OPERATING TEMPERATURE	-40°C TO +50°C (-40°F TO 122°F)
DIMENSIONS (WxHxD)	2'-2"x3'-1"x2'-0" (680x940x660mm)	AC INPUT CURRENT	60A	STORAGE TEMPERATURE	-40°C TO +80°C (-40°F TO 176°F)
WEIGHT	VARIES DEPENDANT UPON EQUIPMENT INSTALLED	DC OUTPUT CURRENT	150A	HUMIDITY (RELATIVE)	95% NON-CONDENSING (MAX)
FINISH	POLYESTER POWDER PAINT	DC OUTPUT VOLTAGE	42-56 DC	ALTITUDE	-100'-0" TO 10,000'-0"
DOOR LATCH	3-POINT LATCHING, PAD LOCKABLE				

SITE SUPPORT CABINET POWER SYSTEM & INTERIOR DETAIL

3

SITE SUPPORT CABINET DETAIL

1

PLANS PREPARED FOR:

PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
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REJ ROBERT E. JOHNSON PE# E-2000000000 STRUCTURAL/CIVIL SC

TMS TERRY M. SHAW PE# E-18521 ELECTRICAL E

SDK SHELLY D. KEISLING PE# E-27323 ELECTRICAL E

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SUBMITTALS

ISSUED FOR REVIEW	DESCRIPTION	DATE	BY	REV
		02/04/16	ETD	A

SITE NAME

CITY OF RAYTOWN  
POLICE TOWER

SITE NUMBER

A5C0350D

SITE ADDRESS:

5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133

SHEET DESCRIPTION:

EQUIPMENT DETAILS  
(2 OF 5)

SHEET NUMBER:

A-6.1



SITE SUPPORT CABINET MOUNTING DETAIL

4

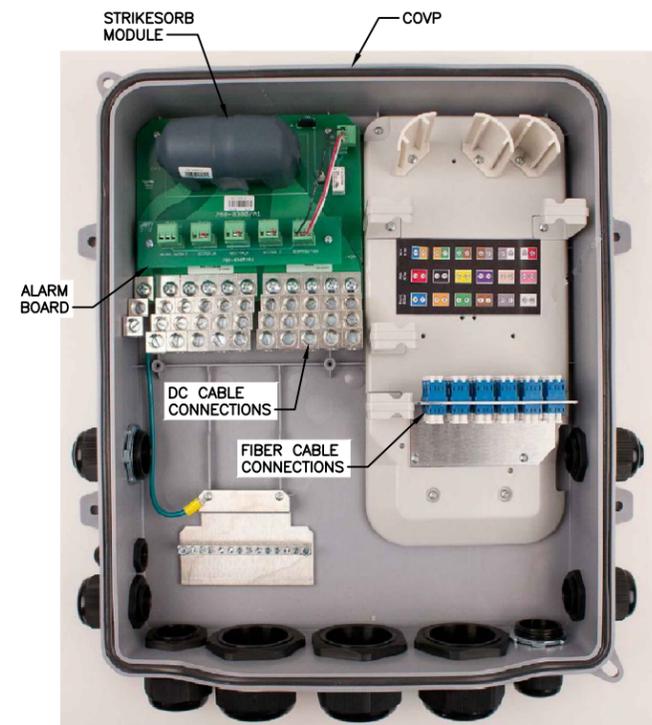


UNISTRUT MOUNTING DETAIL

2

DETAIL NOT USED

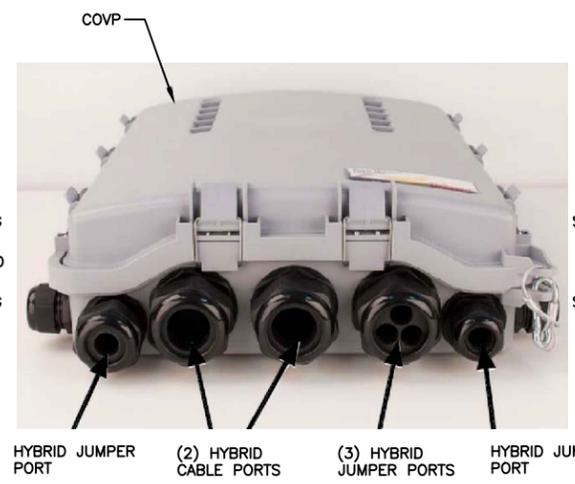
5



**NOTE:**  
FIBER BEND RADIUS NOT TO EXCEED 3"

COVP WIRING DETAIL

4



SEALED PLUG  
MAIN GROUND  
SEALED PLUG

SEALED PLUG  
SEALED PLUG

HYBRID JUMPER PORT  
(2) HYBRID CABLE PORTS  
(3) HYBRID JUMPER PORTS  
HYBRID JUMPER PORT

COVP CABLE CONNECTION DETAIL

3



COVP DETAIL

1



**POWER PEDESTAL CABINET**  
200A POWER TRANSFER CABINET WITHOUT TELCO  
(NOT TO SCALE)



**LOAD CENTER**

PPC DETAIL

2

POWER PEDESTAL CABINET SPECIFICATIONS	
<b>GENERAL</b>	
<b>CONSTRUCTION</b>	SINGLE LAYER ALUMINUM ENCLOSURE, TYPE 3R
<b>DIMENSIONS (WxHxD)</b>	20x40x10" (508x1016x254mm)
<b>WEIGHT</b>	APPROXIMATELY 75lbs (WITHOUT PACKAGING)
<b>FINISH</b>	POLYESTER POWDER PAINT
<b>DOOR LATCH</b>	3-POINT LATCHING, PAD LOCKABLE
<b>SAFETY</b>	UL50 (CABINET) UL891 DEAD FRONT SWITCHBOARD LISTED SUITABLE FOR USE AS SERVICE EQUIPMENT (N-G BONDING KIT INCLUDED)
<b>ENVIRONMENT</b>	
<b>OPERATING TEMPERATURE</b>	-40°F TO 115°F (-40°C TO +46°C)
<b>HUMIDITY (RELATIVE)</b>	95%, NON-CONDENSING (MAX)
<b>PROTECTION CLASS</b>	TYPE 3R
<b>AC SECTION</b>	
<b>VOLTAGE</b>	120/240 1φ (3-WIRE + GROUND)
<b>CURRENT</b>	200A
<b>AIC RATING</b>	UTILITY 65,000 AMPS
<b>OTHER FEATURES</b>	GENERATOR INTERFACE: GENERATOR PLUG SERVICE DISCONNECT: SQUARE D 200A MANUAL TRANSFER SWITCH LOAD CENTER: SQUARE D 200A, QO 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

ENGINEERING LICENSE:  
STATE OF MISSOURI  
STATE CERTIFICATE OF AUTHORIZATION # EE-1000000000  
ENGINEER: PE#:  
MLO MICHAEL L. OWENS E-2000000000 STRUCTURAL/CIVIL SC  
KV KEVIN VANMAELE E-2000000000 STRUCTURAL/CIVIL SC  
REJ ROBERT E. JENSEN E-2000000000 STRUCTURAL/CIVIL SC  
TMS TERRY M. SMITH E-18521 ELECTRICAL E  
SDK SHELLY D. KEISLING E-27323 ELECTRICAL E

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SITE NAME  
**CITY OF RAYTOWN  
POLICE TOWER**

SITE NUMBER  
**A5C0350D**

SITE ADDRESS:  
**5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133**

SHEET DESCRIPTION:  
**EQUIPMENT DETAILS  
(3 OF 5)**

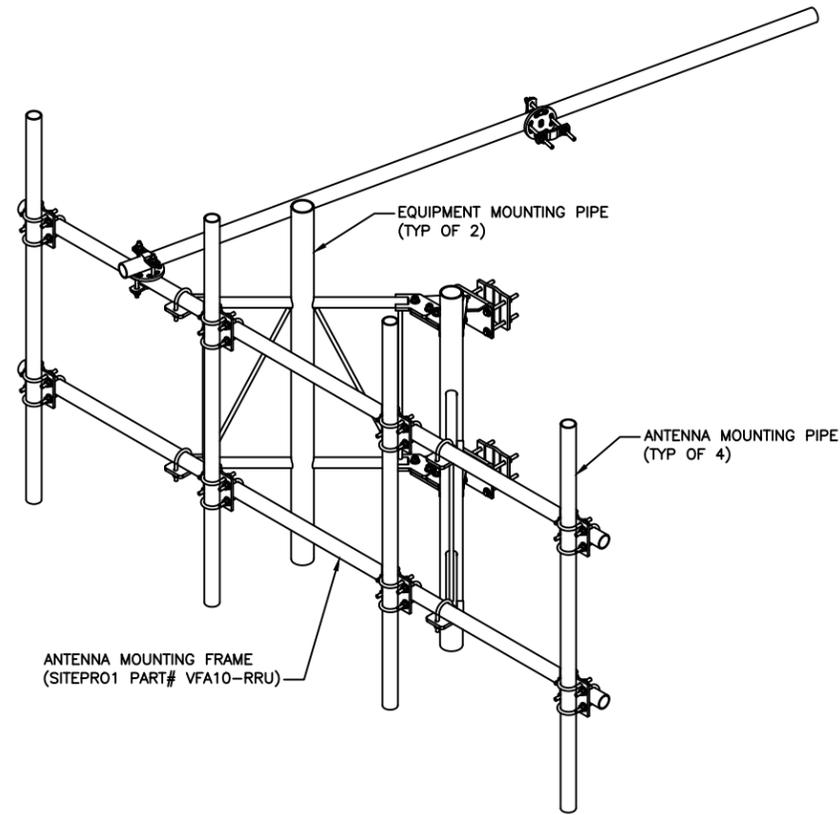
SHEET NUMBER:  
**A-6.2**

PLANS PREPARED FOR:



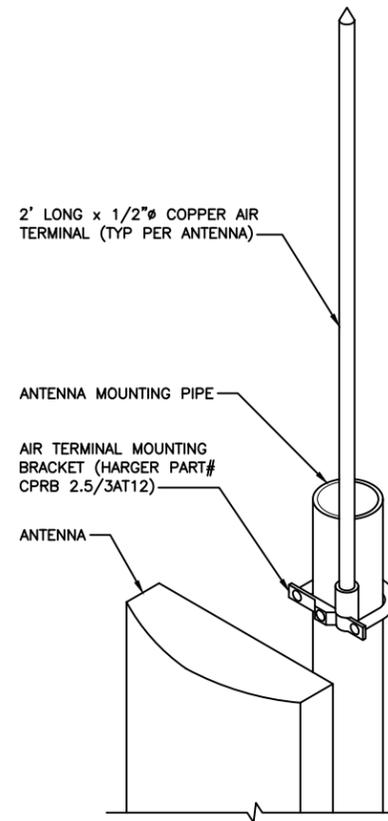
PLANS PREPARED BY:

**SSC**  
9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777



ANTENNA FRAME DETAIL

3

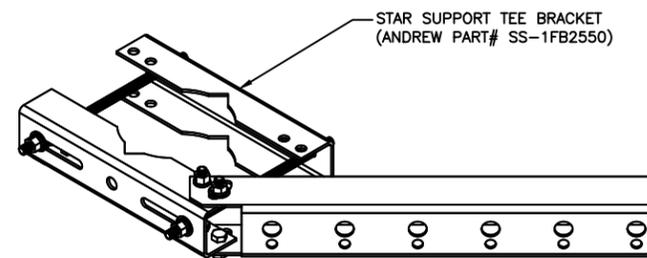


AIR TERMINAL MOUNTING

1

**NOTE:**

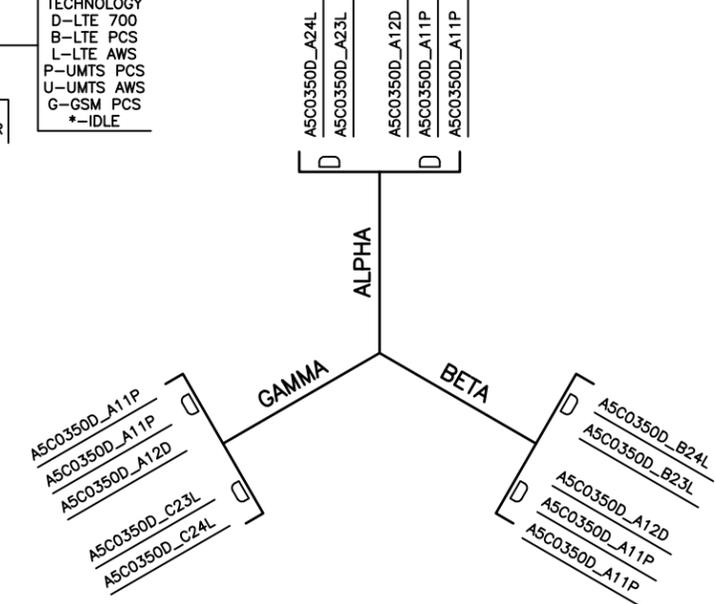
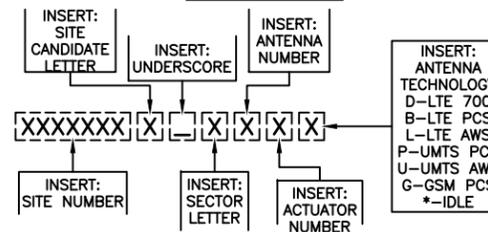
1. 3'-6" (MAX) SPACING BETWEEN TEE BRACKETS.
2. INSTALL AS PARALLEL TO TOWER FACE AS POSSIBLE.
3. DOUBLE STACK FEEDLINES USING SNAP-IN HANGERS.



FEEDLINE MOUNTING DETAIL

4

**INSTRUCTIONS**



**BASE STATION ID**  
 (TO BE USED FOR "BASE STATION ID" DATA FIELD IN THE TMO UPGRADE APPLICATION SOFTWARE)

RET ACTUATOR NAMING DIAGRAM

2

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
 Overland Park, Kansas 66210  
 Phone: 913-438-7700  
 Fax: 913-438-7777

ENGINEERING LICENSE:  
 STATE OF MISSOURI  
 STATE CERTIFICATE OF AUTHORIZATION # EE-000000000  
 ENGINEER: MLO MICHAEL L. OWENS E-20000 STRUCTURAL/CIVIL SC  
 PE# KVV KEVIN VANMAELE E-20000 STRUCTURAL/CIVIL SC  
 REJ ROBERT E. J. E-20000 STRUCTURAL/CIVIL SC  
 TMS TERRY M. SHELTON E-18521 ELECTRICAL E  
 SDK SHELDON D. KEISLING E-27323 ELECTRICAL E

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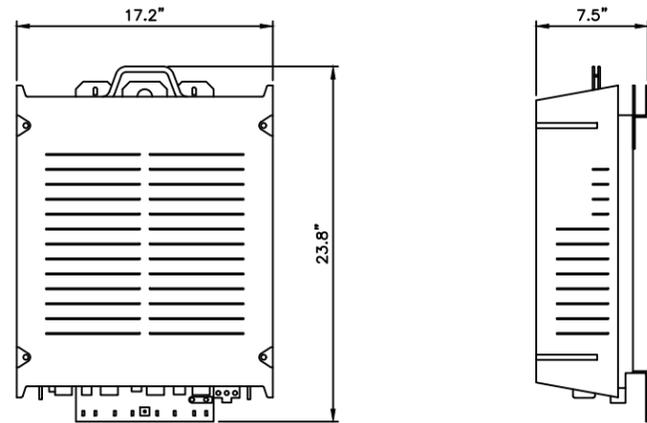
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SHEET DESCRIPTION:  
**EQUIPMENT DETAILS  
 (4 OF 5)**

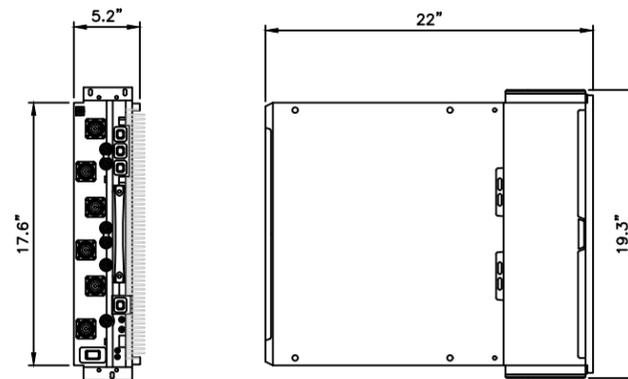
SHEET NUMBER:  
**A-6.3**



**NOTE:**  
FRIG RRU TO BE MOUNTED VERTICALLY

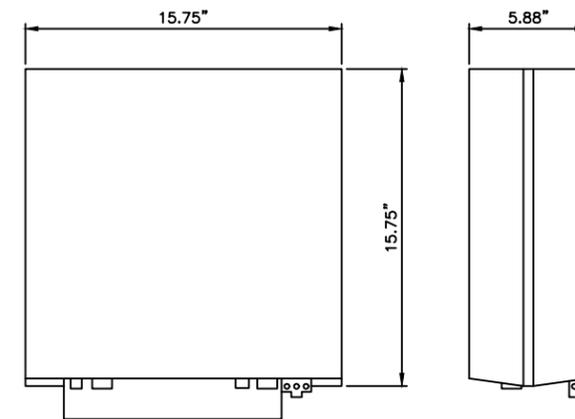
FRIG RRU DETAIL

5



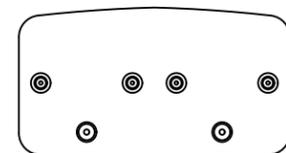
FXFC RRU DETAIL

3



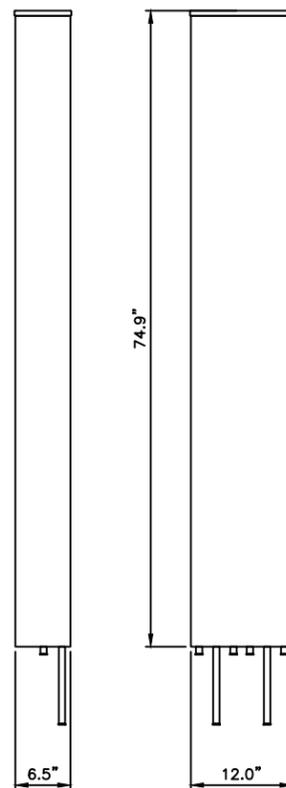
FRLB RRU DETAIL

1



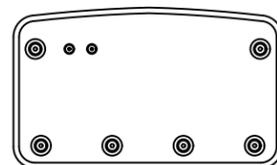
**SPECIFICATIONS:**

MODEL #: TMBXX-6517-A2M  
 DIMENSIONS (HxWxD): 74.9" x 12.0" x 6.5"  
 WEIGHT: 40.8 lbs  
 CONNECTORS: (4) DIN FEMALE



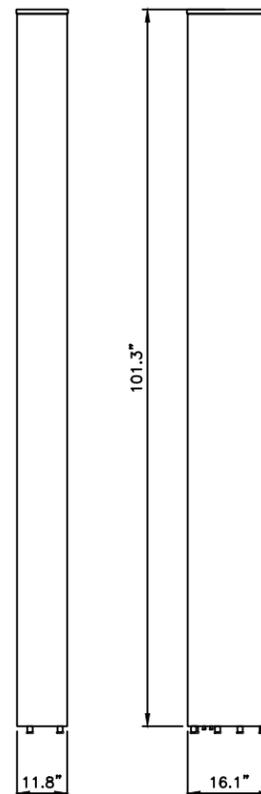
QUAD PORT ANTENNA DETAIL

6



**SPECIFICATIONS:**

MODEL #: SBNHH-1D65C  
 DIMENSIONS (HxWxD): 101.3" x 16.1" x 11.8"  
 WEIGHT: 77.6 lbs  
 CONNECTORS: (6) DIN FEMALE



HEX PORT ANTENNA DETAIL

4

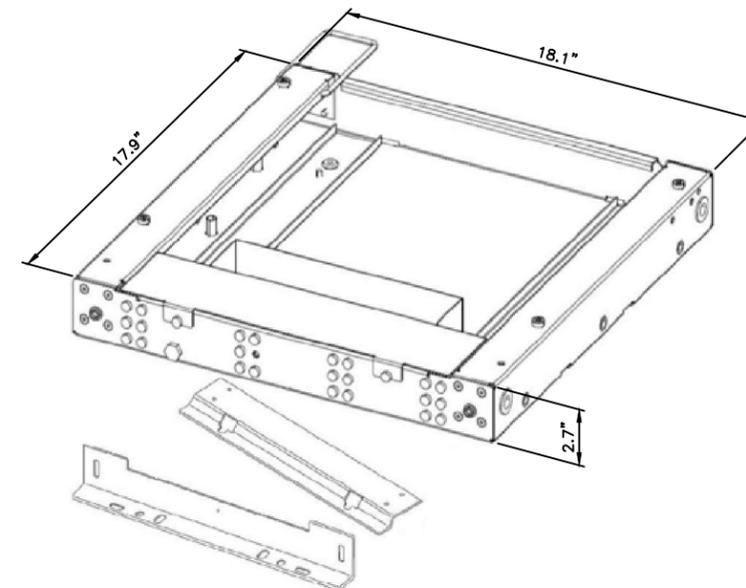
**NOKIA FMFA PLINTH:**

MAX (2) MODULES MOUNTED TO PLINTH FOR POLE/H-FRAME MOUNTING  
 MAX (9) MODULES MOUNTED TO PLINTH FOR HORIZONTAL STACKING

**SPECIFICATIONS:**

HEIGHT: 2.7" (69mm)  
 WIDTH: 17.9" (455mm)  
 DEPTH: 18.1" (459mm)  
 WEIGHT: 15.5lbs (7kg)

PLINTH MATERIAL: 0.6" (1.5mm) SHEET METAL



MOUNTING PLINTH DETAIL

2

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
 Overland Park, Kansas 66210  
 Phone: 913-438-7700  
 Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI	STATE CERTIFICATE OF AUTHORIZATION # EE-000000000
ENGINEER: MLO MICHAEL L. OWENS	PE#: E-200000000
KV KEVIN VANMAELE	E-200000000
REJ ROBERT E. JONES	E-200000000
TMS TERRY M. SMITH	E-18521
SDK SHELLY D. KEISLING	E-27323

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SITE NUMBER:

A5C0350D

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KANSAS CITY, MISSOURI  
64133

SHEET DESCRIPTION:

EQUIPMENT DETAILS  
(5 OF 5)

SHEET NUMBER:

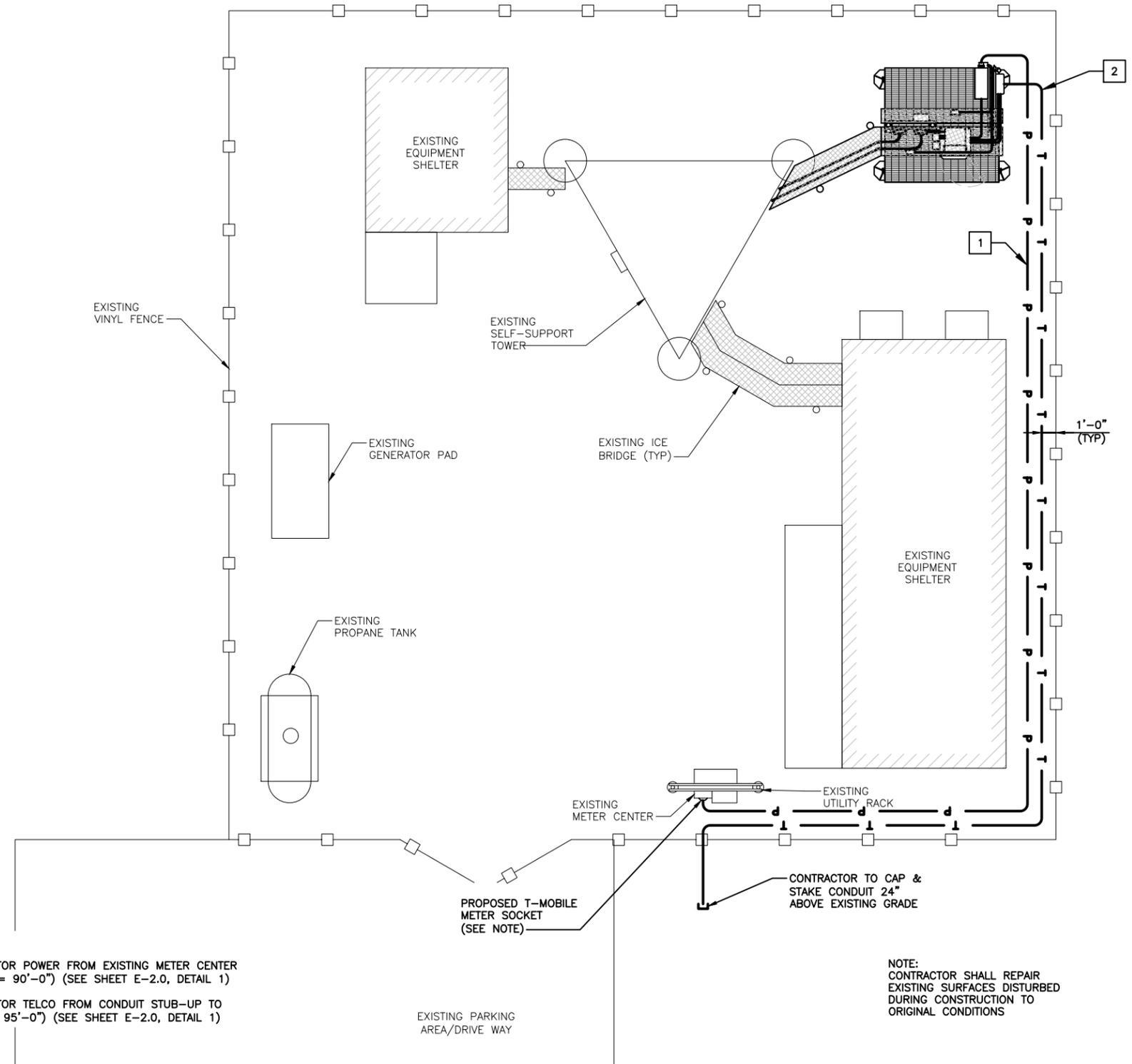
A-6.4

**UTILITY SYMBOL LEGEND**

-  TELCO CONDUIT
-  POWER CONDUIT
-  SCH 80 CONDUIT

**NOTE:**

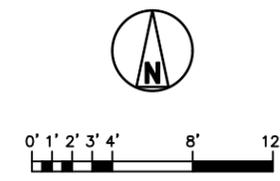
CONTRACTOR TO COORDINATE INSTALLATION OF ELECTRICAL METER WITH UTILITY COMPANY AND VERIFY INSTALLATION WITH T-MOBILE.



**KEYED NOTES:**

- 1 PROPOSED 2" SCH 40 PVC CONDUIT FOR POWER FROM EXISTING METER CENTER TO PPC ENCLOSURE (APPROX LENGTH = 90'-0") (SEE SHEET E-2.0, DETAIL 1)
- 2 PROPOSED 2" SCH 40 PVC CONDUIT FOR TELCO FROM CONDUIT STUB-UP TO TELCO ENCLOSURE (APPROX LENGTH = 95'-0") (SEE SHEET E-2.0, DETAIL 1)

NOTE:  
CONTRACTOR SHALL REPAIR EXISTING SURFACES DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITIONS



**OVERALL UTILITY PLAN**

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI

STATE CERTIFICATE OF AUTHORIZATION #	ENGINEER	PE#	DISCIPLINE
E-20123	MLO MICHAEL L. OWENS		STRUCTURAL/CIVIL SC
E-20124	KV KEVIN VANMAELE		STRUCTURAL/CIVIL SC
E-20125	REJ ROBERT E. JENSEN		STRUCTURAL/CIVIL SC
E-18521	TMS TERRY M. SHAPIRO		ELECTRICAL E
E-27323	SDK SHELLY D. KEISLING		ELECTRICAL E

**PRELIMINARY ISSUE**

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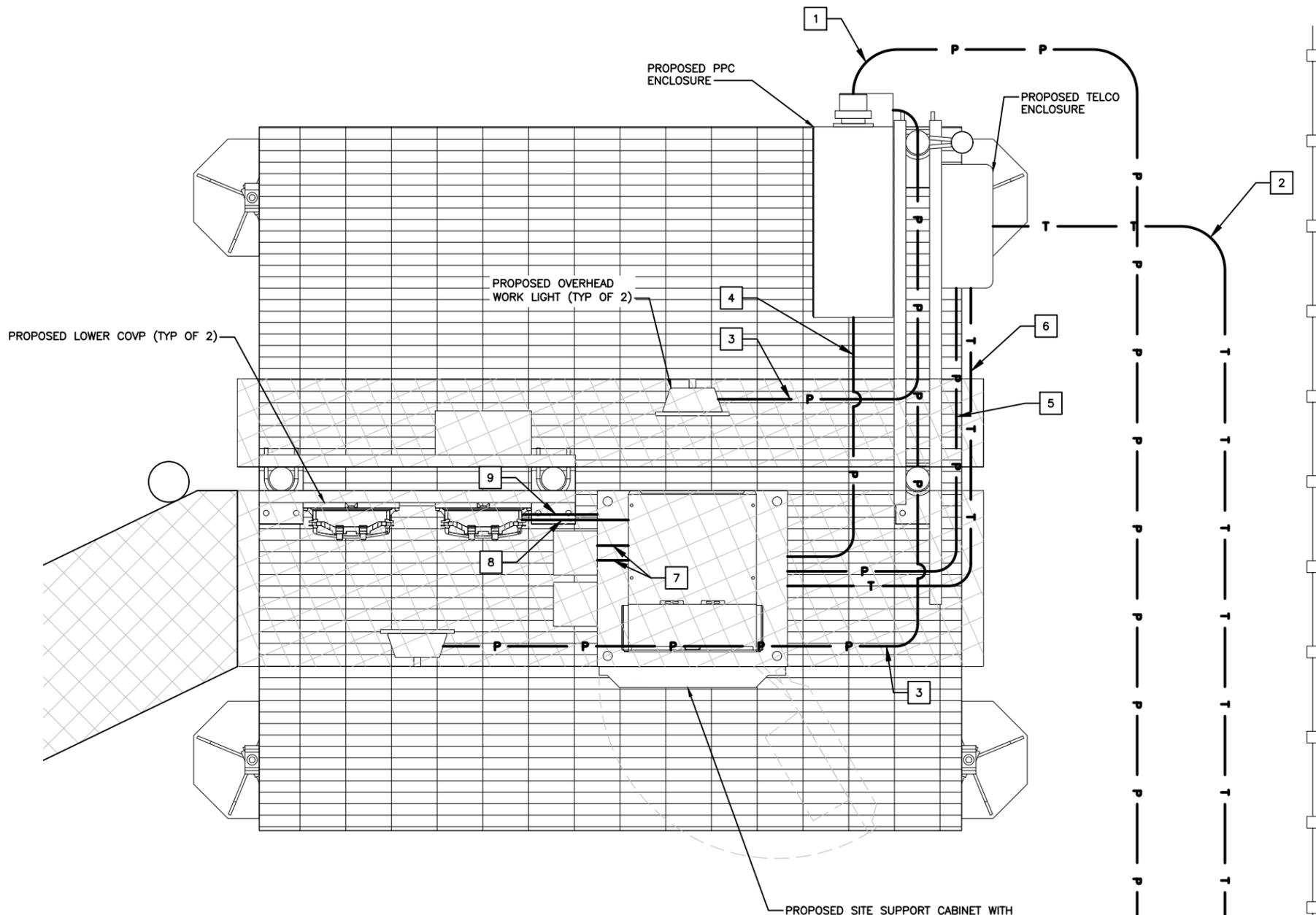
SITE ADDRESS:  
**5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133**

SHEET DESCRIPTION:  
**OVERALL  
UTILITY PLAN**

SHEET NUMBER:  
**E-1.0**

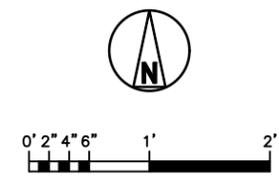
**UTILITY SYMBOL LEGEND**

-  TELCO CONDUIT
-  POWER CONDUIT
-  SCH 80 CONDUIT



**KEYED NOTES:**

- 1 PROPOSED 2" SCH 40 PVC CONDUIT FOR POWER FROM EXISTING METER CENTER TO PPC ENCLOSURE
- 2 PROPOSED 2" SCH 40 PVC CONDUIT FOR TELCO FROM CONDUIT STUB-UP TO TELCO ENCLOSURE
- 3 PROPOSED 1" RIGID METALLIC CONDUIT FROM GFCI RECEPTACLE/SWITCH TO OVERHEAD WORK LIGHT
- 4 PROPOSED 2" LIQUIDMETAL METALLIC CONDUIT WITH PULLSTRING FROM PPC ENCLOSURE PULL BOX TO SITE SUPPORT CABINET FOR POWER
- 5 PROPOSED 2" LIQUIDMETAL METALLIC CONDUIT WITH PULLSTRING FROM TELCO ENCLOSURE PULL BOX TO SITE SUPPORT CABINET FOR POWER
- 6 PROPOSED 2" LIQUIDMETAL METALLIC CONDUIT WITH PULL STRING FROM TELCO ENCLOSURE PULL BOX TO SITE SUPPORT CABINET FOR TELCO
- 7 OUTDOOR RATED POWER CABLE AND FIBER JUMPERS FROM SITE SUPPORT CABINET TO SYSTEM MODULES
- 8 OUTDOOR RATED HYBRID JUMPERS FROM SYSTEM MODULES TO LOWER COVP
- 9 OUTDOOR RATED HYBRID JUMPERS FROM SITE SUPPORT CABINET TO LOWER COVP



SEE SHEET E-1.0 FOR CONTINUATION

**ENLARGED UTILITY PLAN**

PLANS PREPARED FOR:



PLANS PREPARED BY:



9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI

STATE CERTIFICATE OF AUTHORIZATION # E-27323

ENGINEER: MLO MICHAEL L. OWENS PE# E-27323 STRUCTURAL/CIVIL SC

KV KEVIN VANMAELE PE# E-27323 STRUCTURAL/CIVIL SC

REJ ROBERT E. ... PE# E-27323 STRUCTURAL/CIVIL SC

TMS ... PE# E-18521 ELECTRICAL E

SDK SHELDON D. KEISLING PE# E-27323 ELECTRICAL E

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KANSAS CITY, MISSOURI  
64133**

SHEET DESCRIPTION:  
**ENLARGED  
UTILITY PLAN**

SHEET NUMBER:  
**E-1.1**

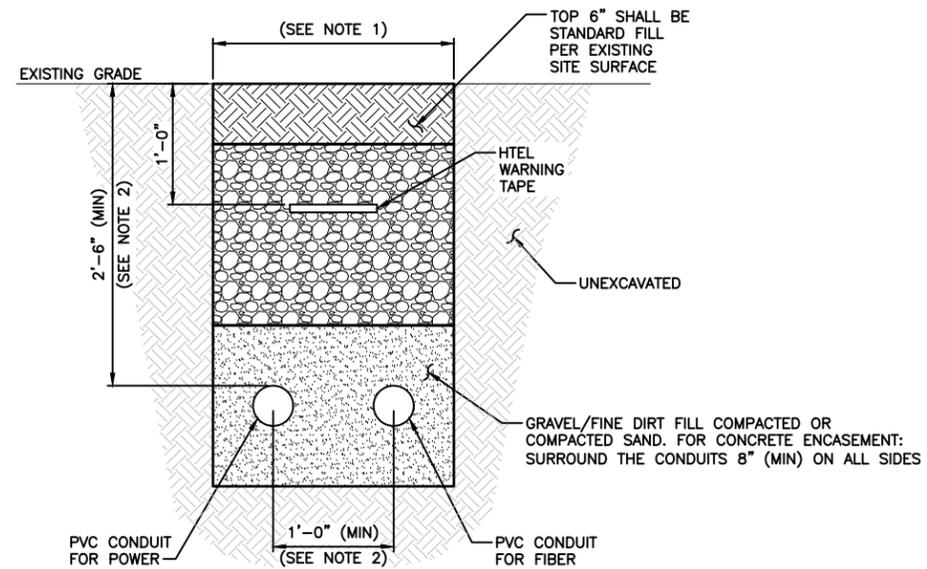


**20A OUTDOOR GFCI RECEPTACLE AND SWITCH:**

MANUFACTURER: GENERAL ELECTRIC  
 MODEL: U010S010GRP  
 HEIGHT: 5.2"  
 DEPTH: 7.1"  
 WEIGHT: 3.02 lbs  
 UL LISTINGS: 1-UL LISTED  
 MAX AMERAGE: 20A  
 VOLTAGE: 120V

**NOTES:**

1. WIDTH OF TRENCH AS REQUIRED BY UTILITY COMPANY OR PER QUANTITY OF CONDUITS AND LOCAL CODE REQUIREMENTS
2. VERIFY DISTANCE PER LOCAL CODE, UTILITY COMPANY, AND CLIENT REQUIREMENTS

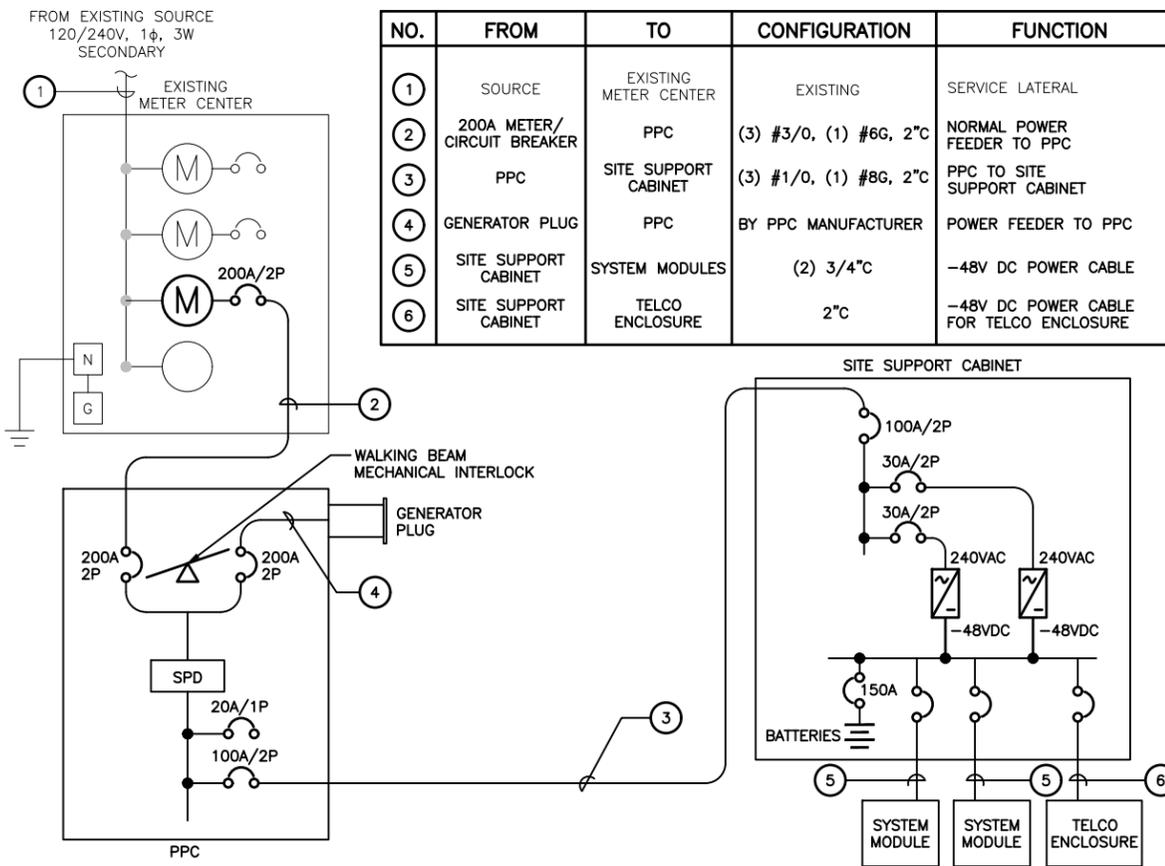


**RECEPTACLE AND SWITCH DETAIL**

3

**CONDUIT TRENCH DETAIL**

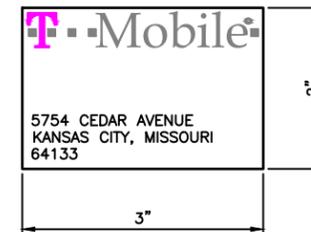
1



**ELECTRICAL ONE-LINE DIAGRAM & CIRCUIT SCHEDULE**

4

**METER LABEL**  
(SHOW SITE ADDRESS ON LABEL)



INSTALL T-MOBILE METER IN VACANT METER SOCKET

**EXISTING METER CENTER DETAIL**

2

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
 Overland Park, Kansas 66210  
 Phone: 913-438-7700  
 Fax: 913-438-7777

ENGINEERING LICENSE:  
 STATE OF MISSOURI  
 STATE CERTIFICATE OF AUTHORIZATION # EE-000000000  
 ENGINEER: MLO MICHAEL L. OWENS E-200000000 STRUCTURAL/CIVIL SC  
 PE#:  
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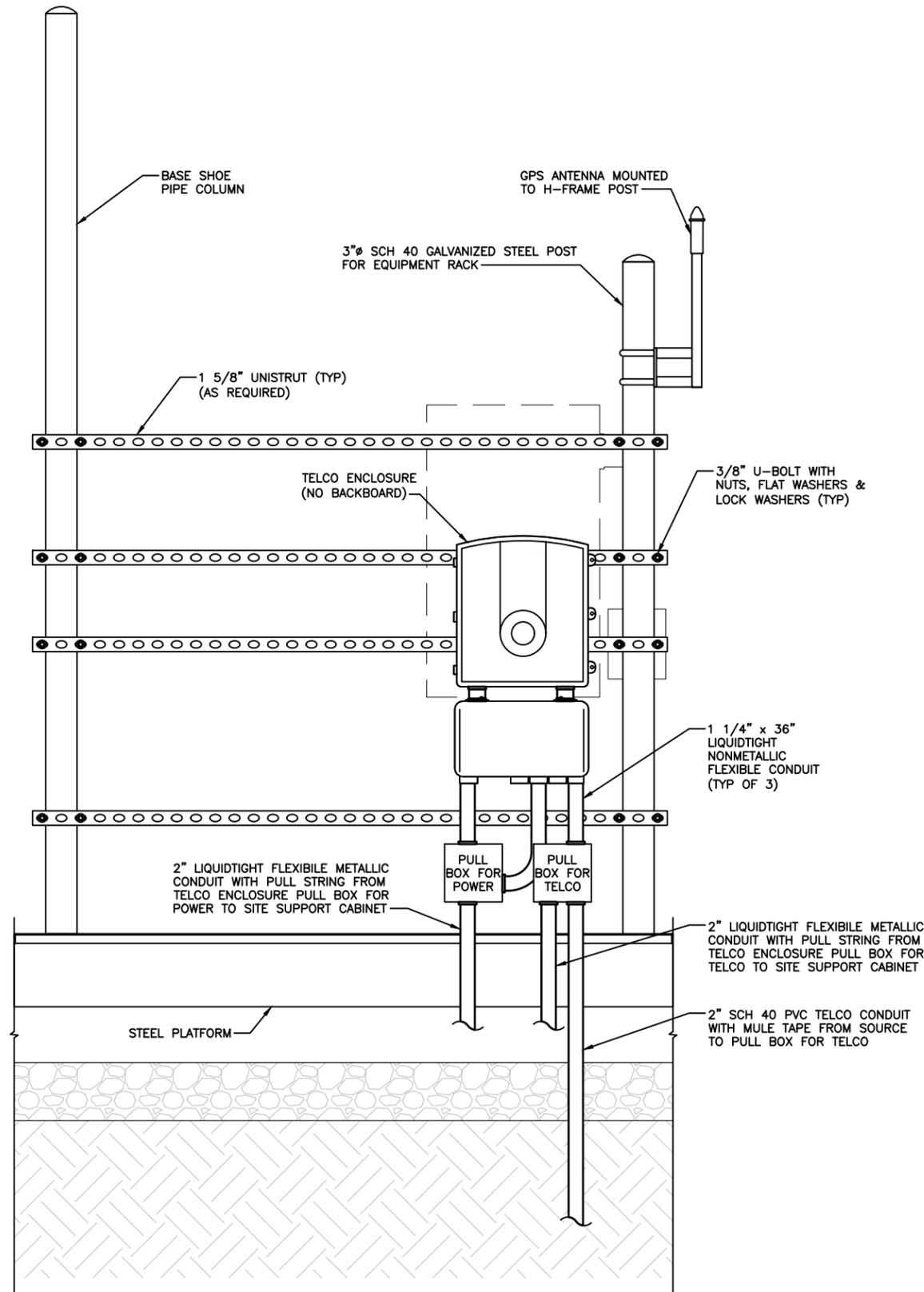
SITE ADDRESS:  
**5754 CEDAR AVENUE  
 KANSAS CITY, MISSOURI  
 64133**

SHEET DESCRIPTION:  
**UTILITY DETAILS  
 (1 OF 2)**

SHEET NUMBER:  
**E-2.0**

**NOTE:**

CONTRACTOR SHALL MOUNT TELCO ENCLOSURE TO T-MOBILE EQUIPMENT RACK PER MANUFACTURER'S INSTRUCTIONS

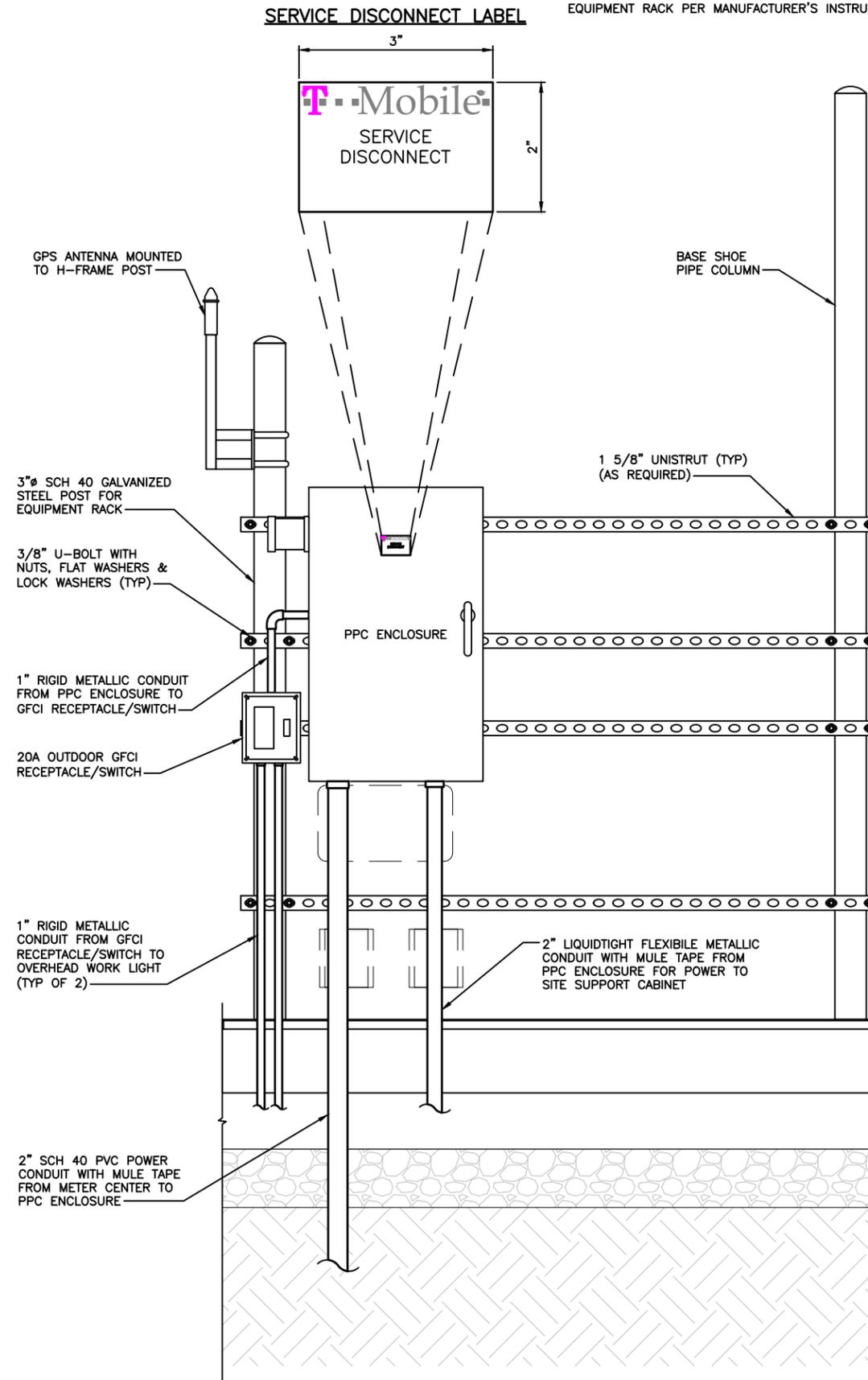


UTILITY RACK DETAIL – TELCO SIDE

2

**NOTE:**

CONTRACTOR SHALL MOUNT PPC ENCLOSURE TO T-MOBILE EQUIPMENT RACK PER MANUFACTURER'S INSTRUCTIONS



UTILITY RACK DETAIL – PPC SIDE

1

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:  
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STATE CERTIFICATE OF AUTHORIZATION # EE-0000000000  
ENGINEER: MLO MICHAEL L. OWENS E-20000 STRUCTURAL/CIVIL SC  
KV KEVIN VANMAELE E-20000 STRUCTURAL/CIVIL SC  
REJ ROBERT E. JENSEN E-20000 STRUCTURAL/CIVIL SC  
TMS TERRY M. SHUPPER E-18521 ELECTRICAL E  
SDK SHELDON D. KEISLING E-27323 ELECTRICAL E

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SUBMITTALS

ISSUED FOR REVIEW	DESCRIPTION	DATE	BY	REV
		02/04/16	ETD	A

SITE NAME:

CITY OF RAYTOWN  
POLICE TOWER

SITE NUMBER:

A5C0350D

SITE ADDRESS:

5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133

SHEET DESCRIPTION:

UTILITY DETAILS  
(2 OF 2)

SHEET NUMBER:

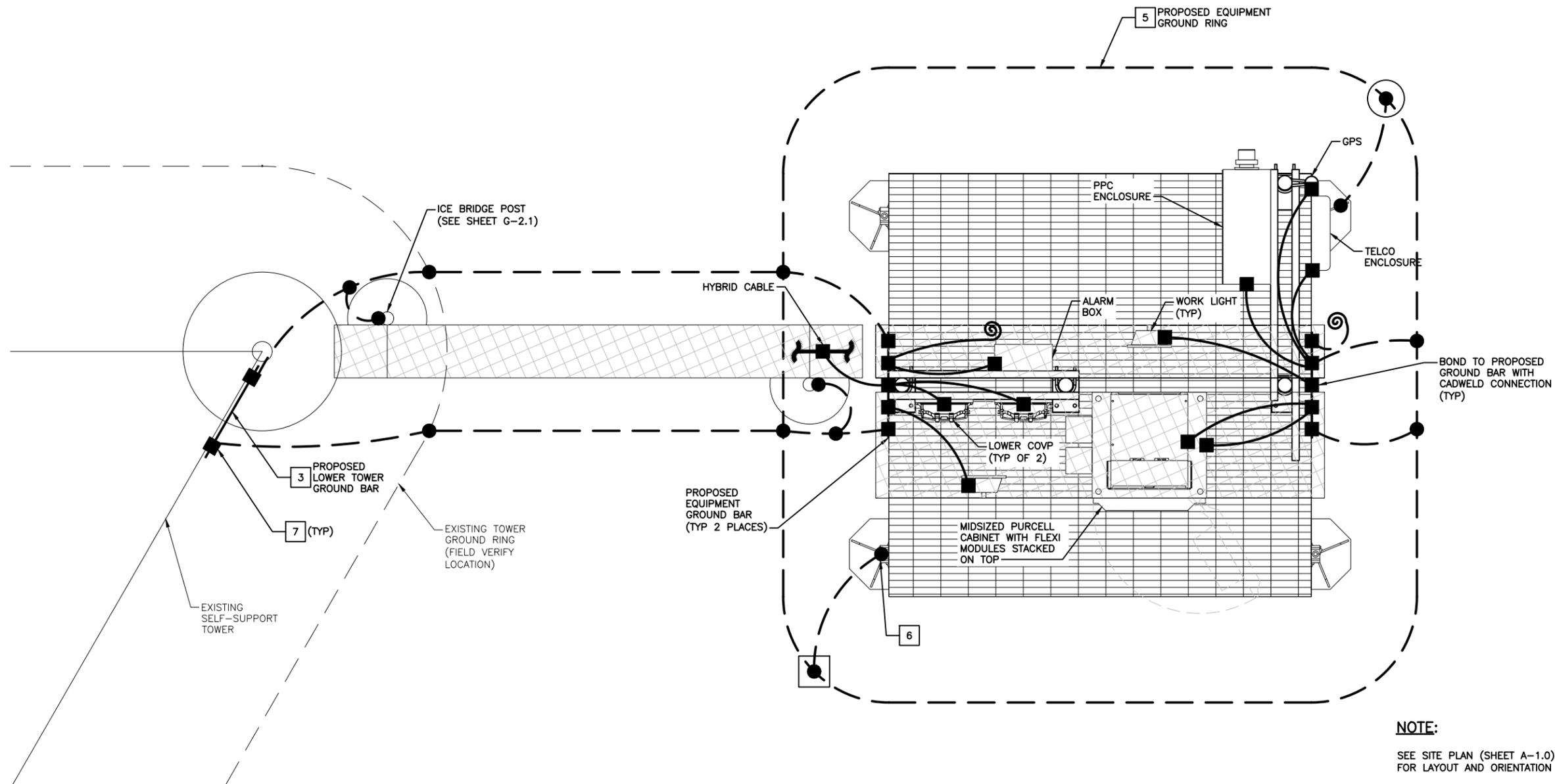
E-2.1

**KEYED NOTES:**

- 1 INSTALL (7) GROUND BARS:
  - (2) GROUND BARS ON THE TOWER (1 UPPER, 1 LOWER)
  - (2) GROUND BARS ON THE EQUIPMENT PLATFORM
  - (3) GROUND BARS ON SECTOR MOUNTS (1 PER SECTOR)
- 2 REMOVE INSULATORS (CHERRIES) FROM THE GROUND BAR AND BOND TO TOWER (SEE NOTE 3)
- 3 NO DRILLING, OR MODIFICATION OF TOWER STRUCTURAL STEEL IS ALLOWED IN ANY FORM OR FASHION. ALL ATTACHMENTS MUST BE MADE MECHANICALLY TO TOWER STEEL. NO EXOTHERMIC CONNECTIONS ALLOWED IN THE AIR AND WILL ONLY BE PERMITTED ON THE GROUND. EXOTHERMIC CONNECTIONS SHALL BE MADE ON THE GROUND AND THEN INSTALLED ON THE TOWER IF MECHANICAL MEANS ARE NOT POSSIBLE.
- 4 PERMITTED EXOTHERMIC CONNECTION TYPES: GR, SV, PH, KA, VS
- 5 PROPOSED EQUIPMENT GROUND RING SHALL BE #2 TINNED SOLID COPPER GROUND WIRE, 6" BELOW FROST LINE OR 2'-6" (MIN) BELOW GRADE
- 6 BOND (2) PLATFORM POSTS TO GROUND RING, DIAGONALLY
- 7 GROUND LEVEL GROUND BARS ARE TO HAVE (2) #2 GROUND LEADS (SEE NOTE 8)
- 8 ALL GROUNDING THAT TRANSITIONS FROM BELOW GRADE TO ABOVE GRADE SHALL BE #2 TINNED SOLID COPPER GROUND WIRE AND WILL BE IN UL LISTED LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF THE CADWELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT IS TO BE SEALED WITH SILICONE CAULK. ALL CADWELDS ON POSTS ARE NOT TO EXCEED 6" ABOVE FINISHED GRADE.
- 9 ALL ABOVE GRADE GROUNDING SHALL BE #2 AWG STRANDED INSULATED COPPER GROUNDING CONDUCTOR
- 10 NO HYBRID CABLES SHALL TOUCH METAL (USE STANDOFF BRACKETS AS REQUIRED)

**GROUNDING SYMBOL LEGEND**

- GROUNDING CONDUCTOR ABOVE GROUND
- - - GROUNDING CONDUCTOR UNDER GROUND
- ⊙ 4'-0" PIGTAIL
- CADWELD CONNECTION
- MECHANICAL CONNECTION
- ⊙ GROUND ROD
- ⊙ GROUND INSPECTION/TEST WELL



**NOTE:**  
SEE SITE PLAN (SHEET A-1.0) FOR LAYOUT AND ORIENTATION

**GROUNDING PLAN**



PLANS PREPARED FOR:

PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF MISSOURI

STATE CERTIFICATE OF AUTHORIZATION # E-2016-0000000000

ENGINEER	PE#	DISCIPLINE
MLO MICHAEL L. OWENS	E-2016-0000000000	STRUCTURAL/CIVIL SC
KV KEVIN VANMAELE	E-2016-0000000000	STRUCTURAL/CIVIL SC
REJ ROBERT E. JONES	E-2016-0000000000	STRUCTURAL/CIVIL SC
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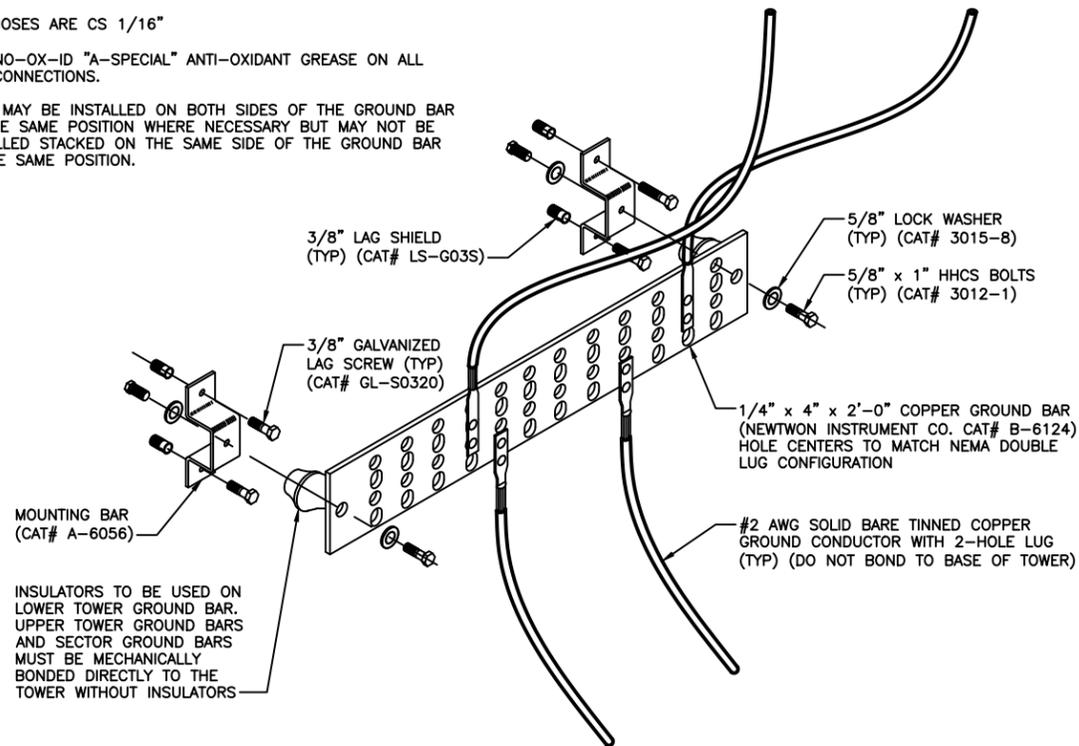
SHEET DESCRIPTION:  
**GROUNDING  
PLAN**

SHEET NUMBER:  
**G-1.0**



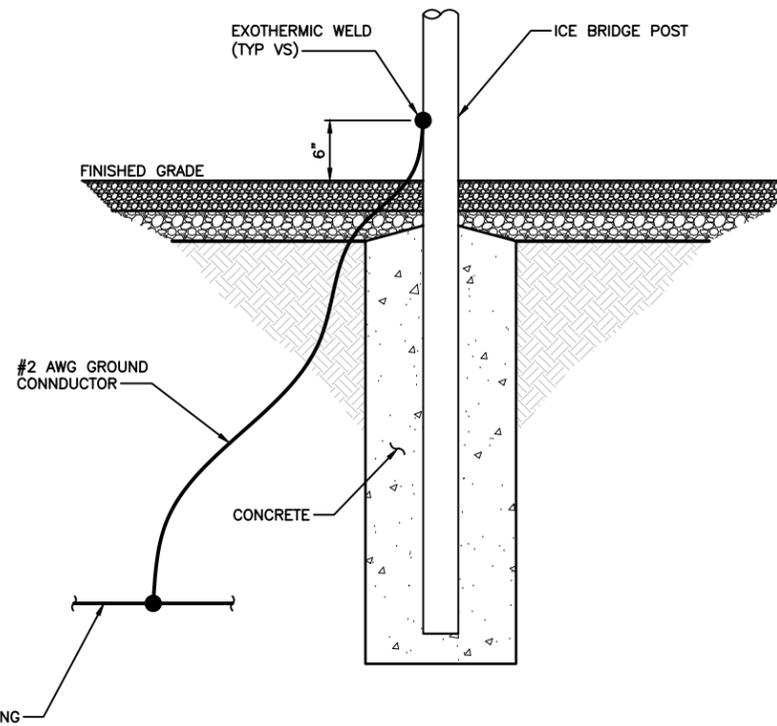
**NOTES:**

1. BOND TO STEEL ONLY; INSERT A TOOTH WASHER BETWEEN LUG & STEEL. COAT ALL SURFACES WITH ANTI-OXIDANT COMPOUND
2. ALL HOSES ARE CS 1/16"
3. USE NO-OX-ID "A-SPECIAL" ANTI-OXIDANT GREASE ON ALL LUG CONNECTIONS.
4. LUGS MAY BE INSTALLED ON BOTH SIDES OF THE GROUND BAR AT THE SAME POSITION WHERE NECESSARY BUT MAY NOT BE INSTALLED STACKED ON THE SAME SIDE OF THE GROUND BAR IN THE SAME POSITION.



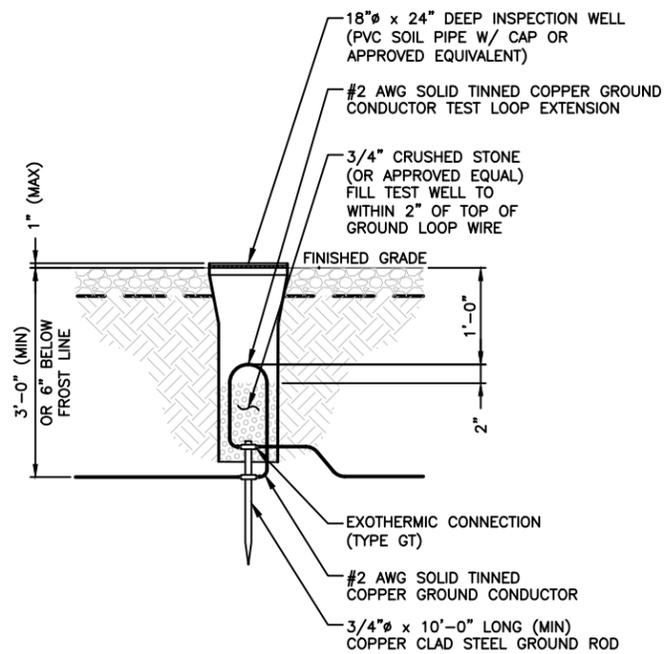
GROUND BAR DETAIL

3



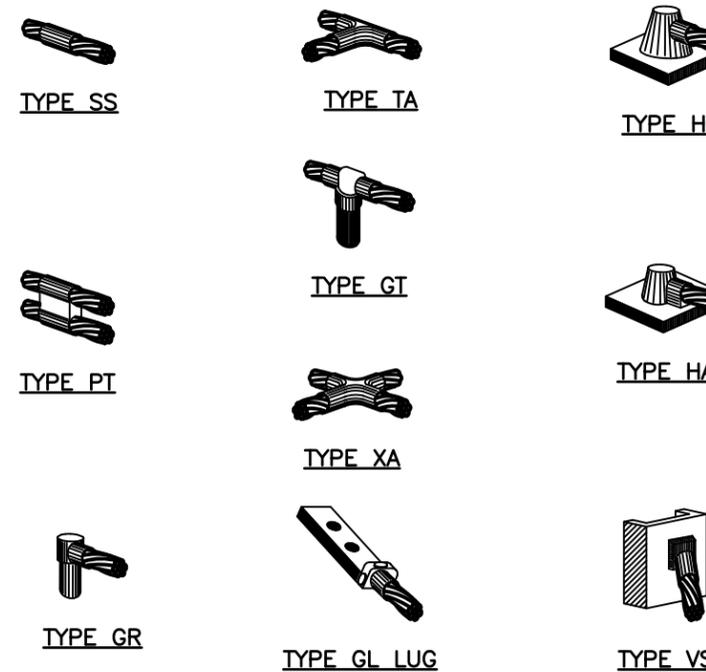
ICE BRIDGE POST GROUNDING DETAIL

1



TEST WELL DETAIL

4



EXOTHERMIC CONNECTION TYPES

2

PLANS PREPARED FOR:



PLANS PREPARED BY:

9900 West 109th Street, Suite 300  
Overland Park, Kansas 66210  
Phone: 913-438-7700  
Fax: 913-438-7777

ENGINEERING LICENSE:  
STATE OF MISSOURI  
STATE CERTIFICATE OF AUTHORIZATION # EE-0000000000  
ENGINEER: MLO MICHAEL L. OWENS PE# E-2000000000 STRUCTURAL/CIVIL SC  
KV KEVIN VANMAELE PE# E-2000000000 STRUCTURAL/CIVIL SC  
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**PRELIMINARY ISSUE**

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(2 OF 2)**

SHEET NUMBER:  
**G-2.1**

**GENERAL REQUIREMENTS**

**SECTION 01 10 00**

**PART 1: GENERAL**

**1.1 INTENT:**

- A. THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION. PLANS ARE NOT TO BE SCALED.
- B. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY, HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
- C. THE INTENTION OF DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
- D. CONFLICTS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING MATERIALS OR DOING ANY WORK. NO COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND THOSE ON THE DOCUMENTS. ANY DISCREPANCY SHALL BE REPORTED TO THE OWNER OR HIS AGENT FOR CONSIDERATION.

**1.2 LICENSING REQUIREMENTS:**

- A. THE CONTRACTOR IS RESPONSIBLE FOR PROCUREMENT AND MAINTAINING ALL APPLICABLE LICENSES AND BONDS.

**1.3 STORAGE:**

- A. ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION THAT DOES NOT OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.

**1.4 CLEAN UP:**

- A. THE CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH AT ALL TIMES.

**1.5 QUALITY ASSURANCE:**

- A. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

**PART 2: PRODUCTS – NOT APPLICABLE TO THIS SECTION**

**PART 3: EXECUTION – NOT APPLICABLE TO THIS SECTION**

**END OF SECTION**

**CAST-IN-PLACE-CONCRETE**

**SECTION 03 30 00**

**PART 1: GENERAL**

**1.1 SUMMARY:**

- A. FURNISH AND INSTALL ALL CAST-IN-PLACE CONCRETE, REINFORCING AND ACCESSORIES, AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.

**1.2 SUBMITTALS:**

- A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.
- B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INDICATING MATERIAL CHARACTERISTICS, DETAILS OF CONSTRUCTION, CONNECTIONS, AND RELATIONSHIP WITH ADJACENT CONSTRUCTION.
  - 1. SHOP DRAWINGS SHALL BE PREPARED AND STAMPED BY A QUALIFIED ENGINEER LICENSED IN THE JURISDICTION OF THE PROJECT.
- C. MIX DESIGN: SUBMIT FOR APPROVAL MIX DESIGN PROPOSED FOR USE.

**1.3 QUALITY ASSURANCE:**

- A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS, WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR A MINIMUM OF THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. TESTING: EMPLOY AN INDEPENDENT TESTING AGENCY ACCEPTABLE TO OWNER TO DESIGN CONCRETE MIXES AND TO PERFORM MATERIAL EVALUATION TESTS. PROVIDE 4 AND 28 DAY CYLINDER TESTS. COMPLY WITH ASTM C 143, C 173, C 31 AND C 39.
- C. STANDARDS
  - 1. ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
  - 2. ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AND CRSI MANUAL OF STANDARD PRACTICE.

**PART 2: PRODUCTS**

**2.1 MATERIALS:**

- A. MATERIALS SHALL CONFORM TO THE RESPECTIVE PUBLICATIONS AND OTHER REQUIREMENTS SPECIFIED HEREIN.
- B. CEMENT: CEMENT SHALL CONFORM TO ASTM C150, TYPE 1. CEMENT MAY BE BAGGED OR BULK. CEMENT SHALL BE USED FROM ONLY ONE MILL THROUGHOUT PROJECT.
- C. FINE AGGREGATE: FINE AGGREGATE SHALL CONFORM TO ASTM C33-08 AND SHALL BE UNIFORMLY GRADED, CLEAN, SHARP, WASHED MATERIAL OR CRUSHED SAND, FREE FROM ORGANIC IMPURITIES.

- D. COURSE AGGREGATE: COURSE AGGREGATE SHALL CONFORM TO ASTM C33-08 AND SHALL BE NATURAL WASHED GRAVEL OR WASHED CRUSHED ROCK HAVING HARD, STRONG, DURABLE PIECES, FREE FORM ADHERENT COATINGS, THE MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4" IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C33-08; GRADATION SIZE NO. 67.

- E. WATER: WATER USED IN THE CONCRETE MIX SHALL BE POTABLE, CLEAN, AND FREE FROM OILS, ACIDS, SALTS, CHLORIDES, ALKALI, SUGAR, VEGETABLE, OR OTHER INJURIOUS SUBSTANCES.

- F. REINFORCING STEEL: ALL BARS ARE TO BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. BENDING DETAILS ARE TO CONFORM TO THE STANDARDS OF ACI 318.

- G. FORMS: THE FORMS SHALL BE TRUE AND RIGID AND CONFORM TO SHAPE, LINE AND DIMENSIONS AS SHOWN ON THE DRAWINGS. ALL FORMS SHALL BE RIGIDLY CONSTRUCTED, BRACED AND TIED TO PREVENT ANY DEFLECTION OR DISPLACEMENT DURING PLACING OF CONCRETE. ALL EXPOSED CORNERS AND EDGES SHALL HAVE 3/4" FILLETS. ALL JOINTS SHALL BE MORTAR TIGHT; OPEN JOINTS SHALL BE SEALED AS REQUIRED.

**H. CONCRETE:**

- 1. PROPORTIONING: CONCRETE SHALL CONFORM TO THE FOLLOWING:
  - a. CEMENT-6 SACKS PER CUBIC YARD, MINIMUM
  - b. WATER SHALL BE KEPT TO AN ABSOLUTE MINIMUM TO MAINTAIN SLUMP AS SPECIFIED
  - c. AGGREGATE; SAND FACTOR SHALL BE AS REQUIRED TO GIVE THE BEST WORKABLE MIX WITHIN THE RANGE OF 46% TO 52% OF TOTAL AGGREGATE.
  - d. STRENGTH-4,000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE
  - e. ALL CONCRETE SHALL CONTAIN A WATER-REDUCING AGENT AND SHALL HAVE THREE (3) TO FIVE (5) PERCENT ENTRAINED AIR.

**2.2 SLUMP:**

- A. THE MAXIMUM SLUMP SHALL NOT EXCEED 3" EXCEPT FOR CONCRETE TO BE PLACED IN FORMS 8" WIDE OR LESS, WHERE THE MAXIMUM SLUMP SHALL BE 4".
- B. THE DETERMINATION OF SLUMP SHALL CONFORM TO ASTM C143.

**2.3 MIXING:**

- A. THE CONTRACTOR SHALL USE READY-MIXED CONCRETE, MIXED AND DELIVERED IN CONFORMANCE WITH ASTM C94.

**2.4 MIXTURES:**

- A. THE CONCRETE SHALL CONTAIN AN AIR-ENTRAINING ADMIXTURE COMPLYING WITH THE REQUIREMENTS OF ASTM C-260 AND ACI 212.1R AND A WATER-REDUCING ADMIXTURE COMPLYING WITH THE REQUIREMENTS OF ASTM C-494 AND ACI 212.1R. ADMIXTURES SHALL BE PURCHASE AND BATCHED IN LIQUID SOLUTION. THE USE OF CALCIUM CHLORIDE OR AN ADMIXTURE CONTAINING CALCIUM CHLORIDE IS PROHIBITED.
- B. ADMIXTURES SHALL BE OF THE SAME MANUFACTURER TO ASSURE COMPATIBILITY.
- C. ACCEPTABLE MANUFACTURERS ARE:
  - 1. W.R. GRACE 3. MASTER BUILDERS
  - 2. SIKA GROUP 4. EUCLID CHEMICAL CO

**2.5 CURING COMPOUNDS:**

- A. CURING COMPOUNDS SHALL CONFORM TO ASTM C309, TYPE 1, ID, CLASS A AND B AND ASTM C171 AS APPLICABLE

**PART 3: EXECUTION**

**3.1 GENERAL:**

- A. CONSTRUCT AND ERECT FORMWORK IN ACCORDANCE WITH ACI 301 ACI 347.
- B. COLD-WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.
- C. HOT-WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305.

**3.2 INSERTS, EMBEDDED COMPONENTS AND OPENINGS:**

- A. CONTRACTOR SHALL CHECK ALL CIVIL, ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS AND OTHER ITEMS TO BE BUILT INTO THE CONCRETE WORK.
- B. COORDINATE THE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENINGS, RECESSES, SLOTS, CHASES, ANCHORS, INSERTS AND OTHER ITEMS TO BE EMBEDDED.
- C. EMBEDDED ITEMS SHALL BE SET ACCURATELY IN LOCATION, ALIGNMENT, ELEVATION, AND PLUMBNESS. LOCATE AND MEASURE FROM ESTABLISHED SURVEYED REFERENCE BENCHMARKS.
- D. EMBEDDED ITEMS SHALL BE ANCHORED INTO PLACE AS REQUIRED TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT AND CONSOLIDATION. COMPONENTS FORMING A PART OF A COMPLETE ASSEMBLY SHALL BE ALIGNED BEFORE ANCHORING. PROVIDE TEMPORARY BRACING, ANCHORAGE, AND TEMPLATES AS REQUIRED TO MAINTAIN THE SETTING AND ALIGNMENT.

**3.3 REINFORCEMENT PLACEMENT:**

- A. REINFORCEMENT SHALL BE PLACED IN ACCORDANCE WITH CHECKED AND RELEASED DRAWINGS AND ACI 301 AND ACI 315; SECURELY WIRE-TIE REINFORCEMENT AT ALL INTERSECTIONS.
- B. ACCURATELY POSITION, SUPPORT AND SECURE REINFORCEMENT AGAINST DISPLACEMENT FROM FORMWORK CONSTRUCTION OR CONCRETE PLACEMENT AND CONSOLIDATION. REINFORCING SHALL BE SUPPORTED ON METAL CHAIRS, RUNNERS, BOLSTERS, SPACERS, AND HANGERS.

- C. SPLICES OF REINFORCING BARS SHALL BE CLASS B UNLESS SHOWN OTHERWISE. SPLICES SHALL BE STAGGERED. FULL DEVELOPMENT LENGTH SHALL BE PROVIDED ACROSS JOINTS.

- D. LOCATE REINFORCING TO PROVIDE CONCRETE COVER AND SPACING SHOWN ON THE DRAWINGS. MINIMUM COVER SHALL BE AS REQUIRED BY ACI 318.

- E. WELDING OF AND TO ANY REINFORCING MATERIALS INCLUDING TACK WELDING OF CROSSING BARS IS STRICTLY PROHIBITED. BARS SHALL BE FREE OF FLAKY OR SCALY RUST AT THE TIME THE CONCRETE IS PLACED.

**3.4 CONCRETE PLACEMENT:**

- A. PRIOR TO PLACING CONCRETE, FORMS AND REINFORCEMENT SHALL BE THOROUGHLY INSPECTED. ALL WOOD CHIPS, DIRT, ETC., AS WELL AS ALL TEMPORARY BRACING, TIES, AND CLEATS REMOVED, AND ALL OPENINGS FOR UTILITIES PROPERLY BOXED, ALL FORMS SHALL BE PROPERLY SECURED IN THEIR CORRECT POSITION AND MADE TIGHT. ALL REINFORCING AND EMBEDDED ITEMS SHALL BE SECURED IN THEIR PROPER LOCATIONS.. ALL OLD AND DRY CONCRETE AND DIRT SHALL BE CLEANED AND ALL STANDING WATER AND OTHER FOREIGN MATTER REMOVED.

- B. PLACING CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301 AND ACI 304 AND SHALL BE CARRIED OUT AT SUCH A RATE THAT THE CONCRETE PREVIOUSLY PLACED IS STILL PLASTIC AND INTEGRATED WITH THE FRESHLY PLACE CONCRETE. CONCRETING, ONCE STARTED, SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL THE SECTION IS COMPLETED. NO COLD JOINTS SHALL BE ALLOWED.

- C. CONSTRUCTION JOINTS: USE KEYWAYS, CONTINUE REINFORCEMENT THROUGH JOINT.

- D. EXPANSION JOINTS: FOR EXTERIOR WORK, LOCATE AT 30'-0" O.C. MAXIMUM, AT APPROVED LOCATIONS. PROVIDE SMOOTH DOWELS ACROSS JOINT WHICH PERMIT 1" HORIZONTAL MOVEMENT AND NO VERTICAL SHEAR MOVEMENT.

- E. ISOLATION JOINTS: PROVIDE BETWEEN SLABS AND VERTICAL ELEMENTS SUCH AS COLUMNS AND STRUCTURAL WALLS.

- F. CONTROL JOINTS: PROVIDE SAWN OR TOOLED JOINTS OR REMOVABLE INSERT STRIPS; DEPTH EQUAL TO 1/4" SLAB THICKNESS. SPACING SHALL BE AS REQUIRED AND APPROVED.

- G. ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED AND COMPACTED BY VIBRATION, SPADING, RODDING, OR FORKING DURING THE OPERATION OF PLACING AND DEPOSITING IN ACCORDANCE WITH ACI 309. THE CONCRETE SHALL BE WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS, AND INTO THE CORNERS OF THE FORMS SO AS TO ELIMINATE ALL AIR AND STONE POCKETS.

**3.5 FINISHING:**

- A. FINISHING OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 302.1; SECTION 7.2 WITH A MINIMUM OF THREE TROWELINGS.
  - 1. INTERIOR SLAB FINISH TOLERANCE AS MEASURED IN ACCORDANCE WITH ASTM E 1155, SHALL HAVE AN OVERALL TEST F NUMBER FOR FLATNESS, FF=20 AND FOR LEVEL, FL=15. THE MINIMUM LOCAL NUMBER FOR FLATNESS, FF=15 AND FOR LEVEL, FL=10.
  - 2. EXTERIOR SLAB FINISH SHALL BE FLAT (FF=20) AND SHALL BE SLOPED A MINIMUM OF 1/8" PER FOOT TO A MAXIMUM OF 1/4" PER FOOT TO PREVENT PONDING WATER.

- B. SURFACES OF SLABS SHALL RECEIVE TWO COATS OF CLEAR SEALER/HARDNER.

- C. ABOVE GRADE WALL SURFACES SHALL HAVE A SMOOTH FORM FINISH AS DEFINED IN CHAPTER 10 OF ACI 301.

**3.6 CURING:**

- A. FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVELY HOT OR COLD TEMPERATURES AND SHALL BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE.

- B. CURING SHALL IMMEDIATELY FOLLOW THE FINISH OPERATION. CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST AT LEAST OVERNIGHT, IMMEDIATELY FOLLOWING THE INITIAL CURING. BEFORE THE CONCRETE HAS DRIED, ADDITIONAL CURING SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING MATERIALS OR METHODS:
  - 1. PONDING OR CONTINUOUS SPRINKLING
  - 2. ABSORPTIVE MAT OR FABRIC KEPT CONTINUOUSLY WET
  - 3. NON-ABSORPTIVE FILM (POLYETHYLENE) OVER A PREVIOUSLY SPRINKLED SURFACE
  - 4. SAND OR OTHER COVERING KEPT CONTINUOUSLY WET
  - 5. CONTINUOUS STEAM (NOT EXCEEDING 150 DEGREES F) OR VAPOR MIST BATH.
  - 6. SPRAYED-ON CURING COMPOUND APPLIED IN TWO COATES, SPRAYED IN PERPENDICULAR DIRECTIONS.

- C. THE FINAL CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OF DAYS OR FRACTION THEREOF, NOT NECESSARILY CONSECUTIVE, DURING WHICH TEMPERATURE OF THE AIR IN CONTACT WITH CONCRETE IS ABOVE 50 DEGREES F HAS TOTALED SEVEN (7) DAYS. CONCRETE SHALL NOT BE PERMITTED TO FREEZE DURING THE CURING PERIOD. RAPID DRYING AT THE END OF THE CURING PERIOD SHALL BE PREVENTED.

**END OF SECTION**



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PLANS PREPARED BY:

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Phone: 913-438-7700  
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ENGINEERING LICENSE:

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SHEET DESCRIPTION:

**SPECIFICATIONS  
(1 OF 3)**

SHEET NUMBER:

**SP-1.0**

**ELECTRICAL**

**SECTION 16000**

**PART 1: GENERAL**

**1.1 GENERAL CONDITIONS:**

- A. THE CONTRACTOR SHALL INSPECT THE SITE WHERE THIS WORK IS TO BE PERFORMED AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS RELATED TO THIS PROJECT.
- B. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES AND SHALL MAKE ALL DEPOSITS AND PAY ALL FEES REQUIRED FOR THE PERFORMANCE OF WORK UNDER THIS SECTION.
- C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.

**1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES:**

- A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.

**1.3 REFERENCES:**

- A. THE PUBLICATIONS LISTED BELOW FORM PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS.
  1. ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)
  2. IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)
  3. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
  4. ICEA (INSULATED CABLE ENGINEERS ASSOCIATION)
  5. NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
  6. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
  7. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
  8. UL (UNDERWRITERS LABORATORIES, INC.)

**1.4 SCOPE OF WORK:**

- A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL AND ASSOCIATED SERVICES REQUIRED TO COMPLETELY CONSTRUCT AND LEAVE READY FOR OPERATION SYSTEMS AS SHOWN ON THE DRAWINGS AND HEREIN DESCRIBED.
- B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE CONTRACTOR.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.
- D. THE CONTRACTOR SHALL FURNISH TO THE OWNER, CERTIFICATES OF FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.

**PART 2: PRODUCTS**

**2.1 GENERAL:**

- A. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE NEW, FREE FROM DEFECTS AND OF THE BEST QUALITY NORMALLY USED FOR THE PURPOSE IN GOOD COMMERCIAL PRACTICE.
- B. ALL MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.
- C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- D. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING RATING EQUAL TO OR GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 10,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT.

**2.2 MATERIALS AND EQUIPMENT:**

- A. CONDUIT:
  1. RIGID GALVANIZED STEEL CONDUIT (RGS) SHALL BE HOT-DIP GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
  2. FLEXIBLE METAL CONDUIT SHALL BE GALVANIZED, ZINC-COATED STEEL, PVC COATED FOR OUTDOOR APPLICATIONS.
  3. CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION TYPE AND WATERTIGHT.
  4. NON-METALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC, HEAVY-WALL RIGID WITH SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.
- B. WIRE AND CABLE:
  1. WIRE AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN, 600 VOLT, SIZES AS INDICATED, #12 AWG MINIMUM.
  2. #10 AWG AND SMALLER CONDUCTORS SHALL BE SOLID AND #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED.

3. SOLDERLESS, PRESSURE-TYPE CONNECTORS CONSTRUCTED OF HIGH-STRENGTH, NON-CORRODIBLE, TIN-PLATED COPPER DESIGNED TO FURNISH HIGH-PULLOUT STRENGTH AND HIGH CONDUCTIVITY JOINTS SHALL BE USED.
  4. SUPPORT GRIPS SHALL BE SINGLE WEAVE, CLOSED MESH, HIGH-GRADE, NON-MAGNETIC, TIN-COATED BRONZE CAPABLE OF SUPPORTING TEN TIMES THE CABLE DEAD WEIGHT, HUBBELL KELLEMS OR APPROVED EQUAL.
- C. DISCONNECT SWITCHES:
    1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCKED WITH COVER IN CLOSED POSITION, RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE D CLASS 3110 OR APPROVED EQUAL.
  - D. SYSTEM GROUNDING:
    1. GROUNDING CONDUCTOR SHALL BE BARE, STRANDED, COPPER, SIZE AS INDICATED, EXCEPT ABOVE GROUND GROUNDING CONDUCTORS SHALL BE INSULATED.
    2. GROUND BUSSES SHALL BE GALVANIZED STEEL BARS OF RECTANGULAR CROSS SECTION.
    3. CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLE COMPRESSION LUGS WITH HEAT SHRINK FOR MECHANICAL CONNECTIONS.
    4. EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
    5. GROUND RODS SHALL BE COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 3/4" x 10'-0".
  - E. OTHER MATERIALS:
    1. THE CONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.



ENGINEERING LICENSE:

STATE OF MISSOURI

STATE CERTIFICATE OF AUTHORIZATION #	ENGINEER	PE#	DISCIPLINE
MLO MICHAEL L. OWENS	E-2000		STRUCTURAL/CIVIL SC
KV KEVIN VANMAELE	E-2000		STRUCTURAL/CIVIL SC
REJ ROBERT E. JONES	E-2000	0974	STRUCTURAL/CIVIL SC
TMS TERRY M. SMITH	E-18521		ELECTRICAL E
SDK SHELDON D. KEISLING	E-27323		ELECTRICAL E

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SUBMITTALS

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	02/04/16	ETD	A

SITE NAME

**CITY OF RAYTOWN  
POLICE TOWER**

SITE NUMBER

**A5C0350D**

SITE ADDRESS:

**5754 CEDAR AVENUE  
KANSAS CITY, MISSOURI  
64133**

SHEET DESCRIPTION:

**SPECIFICATIONS  
(2 OF 3)**

SHEET NUMBER:

**SP-2.0**

**PART 3: EXECUTION**

**3.1 GENERAL:**

- A. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

**3.2 LABOR AND WORKMANSHIP:**

- A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE DONE BY EXPERIENCED MECHANICS OF THE PROPER TRADES.
- B. ALL ELECTRICAL EQUIPMENT FURNISHED SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE CONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- C. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

**3.3 COORDINATION:**

- A. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

**3.4 INSTALLATION:**

**A. CONDUIT:**

1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS HEREIN SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4" NOMINAL SIZE SHALL BE USED.
2. PROVIDE RGS CONDUIT FOR ALL EXPOSED, EXTERIOR CONDUIT.
3. PROVIDE SCHEDULE 40 PVC OR RGS CONDUIT BELOW GRADE, 1" MINIMUM, UNLESS NOTED OTHERWISE. ALL 90 DEGREE BENDS TO ABOVE GRADE SHALL BE RGS. MINIMUM BURIAL DEPTH SHALL BE 24" CLEAR TO TOP OF CONDUIT, UNLESS NOTED OTHERWISE.
4. USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION IS NOT DESIRABLE FOR REASONS OF EQUIPMENT MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUIDTIGHT, PVC COATED FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS.
5. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORTS TO ALLOW FOR EXPANSION AND CONTRACTION.
6. A RUN OF CONDUIT BETWEEN BOXES OR FITTINGS SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER-BENDS INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE BOX OR FITTING. THE RADIUS OF BENDS SHALL NEVER BE SHORTER THAN THAT OF THE CORRESPONDING TRADE ELBOW.
7. WHERE CONDUIT HAS TO BE CUT IN THE FIELD, IT SHALL BE CUT SQUARE WITH A PIPE CUTTER USING CUTTING KNIVES.
8. ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF WIRE OR CABLE. CLEAR ALL BLOCKAGES AND REMOVE BURRS, DIRT, AND DEBRIS.
9. INSTALL PULL STRINGS IN ALL EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END WITH ITS DESTINATION.
10. PROVIDE INSULATED GROUNDING BUSHINGS FOR ALL CONDUITS STUBBED INTO EQUIPMENT ENCLOSURES OR STUBBED OUT FOR FUTURE USE BY OTHERS.
11. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. CONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
12. INSTALL 2" ORANGE DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUIT AND WIRE.
13. CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.

**B. WIRE AND CABLE:**

- 1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	120/240V	208Y/120V	480Y/277V
PHASE A	BLACK	BLACK	BROWN
PHASE B	RED	RED	ORANGE
PHASE C		BLUE	YELLOW
NEUTRAL	WHITE	WHITE	GRAY
GROUND	GREEN	GREEN	GREEN

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAYS WITH PRESSURE-TYPE CONNECTORS.
3. PULLING LUBRICANTS SHALL BE SOAPSTONE POWDER, POWDERED TALC, OR A COMMERCIAL PULLING COMPOUND. NO SOAP SUDS, SOAP FLAKES, OIL, OR GREASE SHALL BE USED, AS THESE MAY BE HARMFUL TO CABLE INSULATION. CONTRACTOR SHALL USE NYLON OR HEMP ROPE FOR PULLING CABLE TO AVOID SCORING THE CONDUIT.
4. CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES, EQUIPMENT, ETC. TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OR TERMINALS, AND SHALL BE PROTECTED FROM MECHANICAL INJURY AND FROM MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS ARE PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

**C. DISCONNECT SWITCHES:**

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUND AS INDICATED.

**D. GROUNDING:**

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEMS INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. 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 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
5. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
6. ALL GROUND CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC-WELDED CONNECTIONS SHALL BE APPROVED BY THE CONSTRUCTION INSPECTOR BEFORE BEING PERMANENTLY CONCEALED.
7. APPLY CORROSION-RESISTANT FINISH TO FIELD CONNECTIONS, AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE COPPER-BASED "NO-OX" OR APPROVED EQUAL.
8. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS
9. BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE #6 AWG GROUNDING CONDUCTOR TO A GROUND BUS OR GROUNDING LUG IN ENCLOSURE.
10. DIRECT BURIED GROUND CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 30" BELOW GRADE, UNLESS NOTED OTHERWISE.
11. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSULATED OR INSTALLED IN PVC CONDUIT.
12. INSTALL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
13. DRIVE GROUND RODS UNTIL TOPS ARE 30" BELOW FINAL GRADE.
14. GROUNDING CONDUCTOR TO EQUIPMENT GROUND LUGS:
  - a. BOLTED TO EQUIPMENT HOUSING WITH STAINLESS STEEL BOLTS AND LOCK WASHERS.
  - b. ALL EQUIPMENT TO BE GROUNDED SHALL BE FREE OF PAINT OR ANY OTHER MATERIAL COVERING BARE METAL AT THE POINT OF CONNECTION.

**3.5 ACCEPTANCE TESTING:**

- A. PROVIDE PERSONNEL AND EQUIPMENT, MAKE REQUIRED TESTS, AND SUBMIT TEST REPORTS UPON COMPLETION OF TESTS.
- B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NONCOMPLYING ITEMS SHALL BE REMOVED FROM THE JOBSITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE OF SUCH NON-COMPLIANCE.

**C. TEST PROCEDURES:**

1. ALL FEEDERS SHALL HAVE THEIR INSULATION TESTED AFTER INSTALLATION, BUT BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. INVESTIGATE ANY VALUES LESS THAN 50 MEGOHMS.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE WIRES AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES.
4. PERFORM GROUND TEST TO MEASURE GROUND RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES & LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.

END OF SECTION

END OF SPECIFICATION



ENGINEERING LICENSE:

STATE OF MISSOURI

STATE CERTIFICATE OF AUTHORIZATION # EES

ENGINEER	PE#	EXPIRES	CATEGORY
MLO MICHAEL L. OWENS	E-201	01/31/2016	STRUCTURAL/CIVIL SC
KV KEVIN VANMAELE	E-201	01/31/2016	STRUCTURAL/CIVIL SC
REJ ROBERT E. JONES	E-201	01/31/2016	STRUCTURAL/CIVIL SC
TMS TERRY M. SMITH	E-18521	01/31/2016	ELECTRICAL E
SDK SHELLY D. KEISLING	E-27323	01/31/2016	ELECTRICAL E

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