



## AGENDA

CHARTER TOWNSHIP OF  
MERIDIAN  
TOWNSHIP BOARD  
STUDY SESSION  
January 24, 2017  
6:00 P.M.



- 
1. CALL MEETING TO ORDER<sup>±</sup>
  2. ROLL CALL
  3. CITIZENS ADDRESS AGENDA ITEMS AND NON-AGENDA ITEMS\*
  4. APPROVAL OF AGENDA
  5. BOARD DISCUSSION ITEMS
    - A. Distributed Antenna System (DAS)
    - B. Open Space Ordinance Amendment
  6. COMMENTS FROM THE PUBLIC\*
  7. OTHER MATTERS AND BOARD MEMBER COMMENTS
  8. ADJOURNMENT

**\*ALL COMMENTS LIMITED TO 3 MINUTES, UNLESS PRIOR APPROVAL FOR ADDITIONAL TIME FOR GOOD CAUSE IS OBTAINED FROM THE SUPERVISOR.**

*Individuals with disabilities requiring auxiliary aids or services should contact the Meridian Township Board by writing or calling the following:  
Township Manager Frank L. Walsh, 5151 Marsh Road, Okemos, MI 48864-1198 (517-853-4258) – Ten Day Notice is Required.*

*Meridian Charter Township Central Fire Station, 5000 Okemos Road, Okemos, MI 48864-1198, (517) 853-4000 Community Room;  
[www.meridian.mi.us](http://www.meridian.mi.us)*

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<sup>±</sup> Appointment of Supervisor Pro Tem and/or Temporary Clerk if necessary

***Meridian Township exists to create a sustainable community through the most effective use of available resources that achieve the highest quality of life.***

## MEMORANDUM

**TO:** Township Board

**FROM:**   
Deborah Guthrie, Communications Director

**DATE:** January 20, 2017

**SUBJECT:** DAS (Distributed Antennae System)

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In 2014, ACD.net filed a Metropolitan Extension Telecommunication Rights-of-Way Permit (METRO permit) with Meridian Township. The application included installing fiber underground and installing Distributed Antenna System (DAS) poles above ground in the Rights-of-Way (ROW). The system improves the coverage area for a carrier seeking to reduce dropped calls, increase the signal strength and improve connectivity speed.

While the METRO Act allows for telecommunication companies to install fiber underground, the act (written in 2002) does not address placement of facilities used to provide wireless communications, such as the DAS nodes. Meridian Township reviewed the request with ACD.net and on October 14, 2014 approved only the underground portion of the request as allowed by the METRO Act.

Since the time of the request, several meetings and discussions have taken place in regards to infrastructural requirements for this type of technology, structural aesthetics, environmental concerns, pole locations and how Meridian Township and ACD.net can come to terms of agreement to address these systems.

A DAS system involves placement of cellular antennas on a supporting structure (the antenna and supporting structure are called nodes). The nodes are then connected by fiber optic lines to a hub – a structure off the ROW - that will contain electronic equipment. *“A DAS is a system of managed hubs and remote antennas that distributes a wireless signal to a series of connected indoor or outdoor multi-band, multi-technology radio heads. At the head-end of the DAS, service providers typically locate base stations to provide the cellular signal. A main hub takes that signal, digitizes it and distributes it to other hubs and radio heads via a high-bandwidth fiber optic network.”* – Electronic Design

The Township Board heard a presentation from the applicant on April 5, 2016 and referred the matter to the Communications Commission (CC) seeking the Commission's recommendation. On June 29, 2016 the CC held a special meeting to hear a presentation from the applicant. The CC subsequently discussed the issues and made a recommendation to staff to move forward towards an amicable solution to allow for DAS technology, while also maintaining the mission of the Township Board including CC creating a DAS Committee.

Since that time, staff, along with the DAS Committee, legal and ACD.net have been addressing policy choice issues, while working with legal on a draft agreement to present before the board.

This packet includes materials the DAS Committee agreed would provide a good overview for the DAS system, issues of concern and ACD.net's request.

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**DAS Issues to Address  
in an Agreement**

## Approach to Wireless Siting:

### BACKGROUND:

While not settled, for purposes of this paper assume that:

- 1) You should distinguish between rules that apply to publicly-owned property like street and traffic lights, buildings and so on. Unless state law requires you to do so, you are under no obligation to allow anyone to have access to those facilities for placement of wireless facilities; you can allow some companies access and not others; and you can charge different amounts for use of the property.
- 2) But for property off the right of way, different standards may apply; and for the right of way, it may be safest to assume that different standards apply. For right of way and private property:
  - a) Approach adopted has to be technology neutral. That is, you cannot adopt a policy for DAS alone; you can adopt a policy approach for wireless siting that distinguishes treatment based on the size of the facilities that are involved, whether the facilities are located on Township-owned property or not, and whether the facilities are on or off the right of way. For example, some communities do not apply land use (zoning) codes to wireless facilities in the rights of way; some do
  - b) Michigan law does not give a provider of wireless services or facilities a right to place antennas and supporting structures in the rights of way, and does not directly require you to grant a franchise or license for use of the rights of way for placement of antennas. Federal law *might, require issuance of a franchise if an entity can show that the effect of denying access to the right of way is to prohibit or effectively prohibit the provision of telecommunications or wireless services.* But a franchise or license for use of the right of way can be required, in addition to any approvals that may be required for placement of wireless facilities at a particular site.
  - c) Once you grant access to the right of way to one provider of wireless facilities, you should be prepared to grant similar rights to others.
    - i) If you allow one new tower/utility pole in an area that is underground, for example, you may be required to allow other companies to also place facilities underground.
    - ii) Wireless companies argue that the use of strand by Comcast to place WiFi facilities in the right of way means that they, too should have the right to use the rights of way.
- 3) The number of antennas required to meet demands for wireless data is expected to increase significantly, and will require placement of more antennas scattered throughout communities...we are familiar with one recent application that proposes to place a wireless antenna every 6-800 feet in a community that is almost entirely residential. Over 150 people showed up at a public hearing on that proposed application.
- 4) Given the change in the number and type of facilities for which we are likely to receive applications; and given the changes in state and federal law, we may need to review and modify our ordinance and procedures to maximize our ability to ensure that wireless requirements of community are met, with minimum intrusion on the public.
- 5) We can affect the placement of the wireless facilities by making it simpler to place facilities in certain locations, and by exempting certain types of wireless facilities

## **POLICY ISSUES**

### **1) USE OF RIGHTS OF WAY**

- a) Do you want to attempt to prohibit, or minimize use of the rights of way for placement of wireless antennas everywhere
  - i) For many companies, use of the rights of way is a critical part of business plan, as it avoids the need to negotiate a license for placement of antennas on structures that may adjoin the right of way; and in residential areas, there may be limited space available outside the right of way (schools, fire stations, parkland, etc.). A blanket ban may face significant legal challenges.
- b) Do you wish to minimize or prohibit use of the rights of way in certain areas, like underground areas, or to prohibit certain types of uses?
  - i) Placement of ground-sited equipment cabinets
  - ii) Placement of towers in the rights of way (facilities just used for wireless support)
  - iii) Placement of new utility poles in the rights of way?
  - iv) Placement of structures above a certain height?
- c) Do you wish to encourage the use of the rights of way in certain or all areas?
- d) Are there certain sizes of wireless equipment that you may be willing to allow in the rights of way?
- e) Do you wish to encourage neutral host facilities (that support more than one antenna, but may be larger); or encourage smaller facilities (which may require more locations); or is the Township neutral?

### **2) USE OF PUBLIC PROPERTY (OTHER THAN RIGHT OF WAY)**

- a) Do you wish to encourage use of publicly-owned facilities or facilities in the rights of way in which the Township may have an interest?
- b) Do you wish to encourage use of publicly-owned land or buildings off the rights of way?

### **3) STEALTH/CONCEALMENT ELEMENTS**

- a) Do you wish to establish stealth or concealment requirements for new wireless facilities
  - i) In the rights of way
  - ii) Outside of the rights of way

### **4) WHO SHOULD BE RESPONSIBLE FOR REGULATING PLACEMENT OF WIRELESS FACILITIES ON AND OFF THE RIGHTS OF WAY?**

- a) Do we want zoning/land use codes to apply to use of facilities within the rights of way
  - i) Alternative: right of way use addressed by public works
  - ii) Alternative: right of way use addressed by both zoning and public works
- b) Do we want zoning/land use to apply to Township-owned facilities?

### **5) POSSIBLE SPECIFIC APPROACHES TO RIGHT OF WAY USE; MAY CHANGE BASED ON POLICY CHOICES**

- a) Generally require
  - i) Any entity that places wireless facilities in the rights of way to obtain a license/franchise from the City, and to pay compensation for that use.

- ii) Any entity that places wireless facilities in the rights of way on Township-owned or controlled property should enter into a separate lease/license with the Township, and pay a rent for use of that facility.
  - iii) Any proposed facility to go through a design review process unless the design is pre-approved in a franchise [for RoW use] or lease/license [for use of Township facilities]; require facilities to be concealed to the extent possible in every location except existing wireless facilities.
  - iv) Any proposed facility is a secondary use of the RoW and must be moved/removed/relocated in the same way other utilities are; if an area becomes underground after the initial placement of a wireless facility, the facility must be removed, and relocated.
- b) Prohibit placement of new towers or utility poles in underground areas except where the wireless structure can be completely concealed within an existing structure permitted in the underground area, like a light post or a traffic light. Prohibit placement in other areas where placement would be inappropriate (historic areas, environmentally sensitive areas).
- c) Prohibit placement of new ground cabinets in places where there are not already existing ground cabinets.
- d) For the antenna and supporting structure:
- i) Existing structures must be used in underground areas. Facilities must be completely concealed within existing structure (or a replacement structure similar in dimensions), unless applicant can show that its proposed design includes concealment elements that result in an installation that is less intrusive;
  - ii) Absent the showing required in (iii), existing structures must be used outside of underground areas and the installation must be concealed to the extent possible.
  - iii) New structures may be placed in the rights of way if, in addition to meeting safety requirements (no blockage of sight lines; no significant hazard to traffic; no blockage of sidewalks, no ADA issues created) applicant can show
    - (1) It is not possible to obtain access to existing structures, or the change required to existing structures results in an installation that is more intrusive than placement of an additional structure; and
    - (2) The pole will be a utility pole subject to regulation under 47 USC 224 and useable for placement of wires and other facilities.
    - (3) [Possible] Absent approval, there would be an effective prohibition in the provision of wireless services.
  - iv) Whether installed pursuant to (ii) or (iii) the maximum height of the supporting structure after installation, measured from ground level to the highest point on the supporting structure will be 45 feet [unless concealed, this effectively allows an installation to grow to 55 feet in height]
  - v) Whether installed pursuant to (ii) or (iii), in order to conceal the facility, antennas need to be flush mounted and not extend more than 12 inches from the support structure; and must be painted and otherwise disguised in a manner required by Township. [Note: this may result in a fairly significant "lump" at the top of a pole]
  - vi) Cabinets on poles must satisfy size limits and concealment specified by Township.

- e) Absent a showing that prohibiting closer placement of facilities in the rights of way would effectively prohibit the provision of wireless services, wireless antennas must be separated by at least 500 feet apart, measured by the shortest street footage from one antenna to another (measuring along and across the street), or one pole per 10th of a mile.

#### 6) IMPLEMENTATION

- a) An applicant for placement of facilities in the rights of way would require a franchise or license
  - i) If a portion of the facility would be owned by a third party – even a small portion, the third party must either have a franchise itself from the Township, or must otherwise agree to conditions that prevent it from asserting any rights with respect to that property (e.g., if the applicant goes out of business, the Township may remove the facility owned by the third party without any consultation with the third party; the third party would be strictly liable for all harm caused by its facilities, but the Township would owe it no duty of care).
  - ii) The franchise could include pre-approved designs, and conditions similar to those above.
  - iii) There would be compensation for use of the rights of way, either in cash, or in the form of other benefits acceptable to the Township (e.g., an permanent IRU for dark fiber).
  - iv) At end of term, facilities must be removed.
- b) A person who wishes to use facilities owned or controlled by Township would enter into a master agreement for use of facilities, with particular attachments governed by addenda to that agreement. There would be separate compensation for this use.

#### 7) POSSIBLE COMPENSATION

- a) Price for each location where an antenna or pole is placed [with the latter being an additional burden, and therefore charged at a higher rate]
- b) Other:
  - Create agreement with ROW license to do business costs
  - Create agreement with fiber strands available between Township buildings if possible during build out process
  - Create agreement with business revitalization component for downtown Haslett and Okemos so the any new businesses in the area can seek ACD for a two year free service contract as a community service for revitalization
  - Pole Requirements
    - The DAS pole can be no more than 45 feet high. The maximum length of the pole is 45 feet high.
    - The pole can be no more than 2 feet, 24 inches in diameter.
    - The pole must be a metal type structure either steel or aluminum or a combination of the two
    - The pole must match the RGB scale of the green LED lights in Downtown Okemos
    - There shall be no separate structure from the pole. All internal components must be housed within the pole. No additional structure is allowed
    - Poles must be located 33 feet from the road within the ROW in conjunction with ROW

#### 1. Licensing Agreement:

- Create agreement with terms above

**CHARTER TOWNSHIP OF MERIDIAN**

**Distributed Antenna  
System (DAS)  
Publication Explaining  
DAS by BICSI**

# **ANSI/BICSI 006-2015**

## ***Distributed Antenna System (DAS) Design and Implementation Best Practices***

**Committee Approval: February 2015**

**First Published: May 2015**



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## **PREFACE**

### **Revision History**

**May 13, 1015** First publication of this standard, titled ANSI/BICSI 006-2015, *Distributed Antenna System (DAS) Design and Implementation Best Practices*

### **Translation Notice**

This standard may have one or more translations available for the convenience of its readers. As translated text may contain inconsistencies when compared to the original text, if differences between the translation and the published English version exist, the English text shall be used as the official and authoritative version.

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# 1 Introduction

## 1.1 Overview

A distributed antenna system (DAS) is a group of antennas spatially separated and distributed over a given geographic area to augment existing wireless (e.g., cellular, radio signal) service. Although useful in any circumstance where a single antenna is insufficient to provide the service levels expected, sophisticated commercial deployments typically take place in:

- Medical facilities
- Educational and industrial campuses
- Hotels
- Casinos
- Airports
- Tunnels
- Subways
- Office complexes
- Shopping malls
- Parking garages

A DAS may also be deployed to provide extra network capacity in venues that are infrequently used but are subject to high demand of wireless services such as stadiums, arenas, and auditoriums.

A DAS may be deployed either indoors or outdoors. It is a system of antennas typically deployed within isolated areas of a building or series of buildings, such as a campus, to increase the ubiquity of coverage within the objective. When a DAS is used to provide wireless service as part of an outdoor application, natural or manmade morphological or environmental factors are essential to consider during a full wireless signal distribution design. When a DAS is used to provide wireless service as part of an indoor application, architectural features, morphologies, and macro environmental impacts are essential to consider.

Some commonly retransmitted services of a DAS include:

- 700 MHz
- Cellular service (850 MHz)
- Global System for Mobile Communications (GSM) (900/1800 MHz)
- Personal communications service (PCS) (1900 MHz)
- Enhanced specialized mobile radio (ESMR) (800/900 MHz)
- Advanced Wireless Services (AWS) (1700-2150 MHz)
- Broadband Radio Services (BRS) (2600 MHz)
- Public safety and business band land mobile radio (LMR) (150-170 MHz, 450-512 MHz)

NOTE: 47CFR90.35 assigns 450-470 MHz to LMR; heavily used for businesses and government.

Uncommonly transmitted services of a DAS include:

- Pocket pagers
- Emergency medical service (EMS) radio
- Industrial, scientific, and medical (ISM) band equipment
- Wireless local loop
- Local unlicensed walkie-talkies

These lists are not intended to be comprehensive; they are used only to illustrate the variety of retransmitted services possible.

## **1.1.1 Trends Affecting DAS**

### **1.1.1.1 Building Design and Construction**

Since the 1990s, there has been an increasing focus of integrating sustainable practices into building design and construction. Defined within Leadership in Energy and Environmental Design (LEED), Energy Star<sup>®</sup>, and other programs are requirements and recommendations that encourage the reuse of existing buildings, which will often block effective RF transmission penetrations through the outer shell, throughout a floor, or between floors within the interior space of a building. A DAS is one means to enable wireless services for new building tenants.

NOTE: Methods to reduce or eliminate thermal radiation through windows are effective at reducing or blocking most types of wireless transmission since microwave and other RF frequency bands fall under the broader spectrum of thermal radiation.

The macro network is becoming less and less able to deliver ubiquitous service as the number of buildings or the height of buildings in a given area increases. Both obstructions and elevated noise levels demand higher levels of signals than can be generated by conventional macro cellular base stations.

### **1.1.1.2 Public Safety and Services**

Legislative developments have seen the creation of requirements for public safety wireless systems in the form of NFPA 1, *Fire Code*, NFPA 72, *National Fire Alarm and Signaling Code*, and the latest edition of the *International Building Code*. Adoption of these codes and their requirements is ongoing, and this is a trend that is expected to increase in the future.

As technology is increasingly integrated into safety and security services, additional capabilities and new functionalities become possible. With these advances in function, communication with a building's surveillance, fire detection/suppression, and access control systems by police, fire, and other personnel are now possible. Near-term objectives include allowing first responders access to information from the site's information systems, as well as allowing systems of differing responders to share information quickly and efficiently. Some authorities having jurisdiction (AHJs) are now creating requirements to ensure continued and effective wireless communication between responders, their equipment, and staff or equipment reporting about the incident on the site itself.

The public safety component for in-building solutions requires consideration of three capabilities. The first capability is being able to alert people in the building that there is danger (indoors or outdoors), and they should either shelter in place or evacuate as the situation dictates. The second is providing the capability for building occupants to both obtain and give "expected" information when an incident occurs in the facility. The third is providing the capability for responders to communicate clearly and effectively with each other, as well as to their dispatchers.

### **1.1.1.3 Underground Installations and Transit Corridors**

As population densities increase within metropolitan areas, building underground has become a solution for providing additional space and transportation options, while minimizing the impact from construction and eventual use, as compared to its equivalent located above ground. However, the ground and the required infrastructure for underground structures are very effective at blocking wireless signals, making it necessary to implement a complete wireless transmission infrastructure for these spaces.

### **1.1.1.4 Data Traffic Explosion**

In addition to the growth that is projected to continue, radio access (e.g., 4G Long-Term Evolution [4G-LTE]) is reaching the limits of spectrum availability. With this limit in sight, another solution must be found to increase overall mobile network capacity. One way to facilitate this objective is by deploying small cell and DAS technologies.

Now in their fifth generation, the most efficient way to use small cells is to position them in locations where significant amounts of data are being generated but where macro cell coverage is lacking or a DAS deployment is impractical for the size of the coverage hole being filled. In larger work places, university campuses, shopping malls, stadiums, public transportation hubs, and the like, one effective deployment method is to use an array of low power small cells to provide RF source signals to a well-engineered DAS.

## **1.2 Purpose**

The purpose of this standard is to afford designers and installers an opportunity to enhance their knowledge of quality DASs, understand the requirements of superior performing systems, and provide requirements and recommendations for the design and installation of standards-compliant, vendor-neutral systems.

## **1.3 Categories of Criteria**

Two categories of criteria are specified—mandatory and advisory:

- Mandatory criteria generally apply to protection, performance, administration and compatibility; they specify the absolute minimum acceptable requirements.
- Advisory or desirable criteria are presented when their attainment will enhance the general performance of the system in all its contemplated applications.

Mandatory requirements are designated by the word *shall*; advisory recommendations are designated by the words *should*, *may*, or *desirable*, which are used interchangeably in this standard. Where possible, requirements and recommendations are separated to aid in clarity.

Notes, cautions, and warnings found in the text, tables, or figures are used for emphasis or for offering informative suggestions.

## **2 Scope**

This standard provides industry and service provider neutral requirements and acceptable best practices for the design and installation of DAS. For brevity, as used in this document, the terms *distributed antenna system* or *DAS* includes other in-building wireless and similar systems, such as radiating cable and small-cell networks, unless these systems are specifically described.

The document will address, at minimum, the following:

- A description of a typical DAS
- Components used within a DAS
- Types of host systems (2-way voice, cellular, LTE, public safety, business band, analog, digital, other)
- Compliance and integration with existing related codes and standards and other legal concerns
- Coordination with the host system owner(s)
- RF system design methods
- Telecommunication infrastructure design
- Installation and commissioning methods
- Electromagnetic compatibility (EMC) and radio frequency interference (RFI) mitigation
- Designer, installer and service personnel qualifications
- Administration, labeling and documentation
- Inspection, testing and maintenance

There are also sections devoted to trouble spot areas where RF coverage is often difficult, such as stairwells and elevators, and to special locations, such as hospitals, parking garages, schools and industrial plants.

While the specific requirements and recommendations of this standard were written for areas within North America, the general principles and recommendations are applicable throughout the world.

### **2.1 Limitations**

Although the principles of this standard are applicable to all signal source technologies, this standard does not specifically address:

- Wi-Fi  
Although some vendors are beginning to include Wi-Fi capability in their DAS product lines, Wi-Fi networks are relatively mature and can often be deployed just as effectively using standard structured cabling methods.
- WiMAX  
At the time of publication, WiMAX technology is not highly used within DAS deployments.

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### **3 Required Standards and Documents**

The following standards and documents contain provisions that constitute requirements listed within this standard. Unless otherwise indicated, all standards and documents listed are the latest published version prior to the initial publication of this standard. Parties to an agreement based on this standard are encouraged to investigate the possibility of applying a more recent version as applicable.

Where equivalent local codes and standards exist, requirements from these local specifications shall apply. Where reference is made to a requirement that exceeds minimum code requirements, the specification requirement shall take precedence over any apparent conflict with applicable codes.

#### *BICSI*

- ANSI/BICSI 003, *Building Information Modeling (BIM) Practices for Information Technology Systems*

#### *European Committee for Electrotechnical Standardization (CENELEC)*

- EN 50173-1, *Information technology – Generic cabling systems – Part 1: General requirements*
- EN 50174-2, *Information technology – Cabling installation – Installation planning and practices inside buildings*

#### *Institute of Electrical and Electronics Engineers (IEEE)*

- IEEE C2, *National Electrical Safety Code*
- IEEE 802.3, *Standard for Ethernet*

#### *International Electrotechnical Commission (IEC)*

- IEC 60364, *Electrical installations of buildings*
- IEC 62305-3, *Protection against lightning - Part 3: Physical damage to structures and life hazard*
- IEC 62305-4, *Protection against lightning - Part 4: Electrical and electronic systems within structures*

#### *International Organization for Standardization (ISO)*

- ISO/IEC 11801, *Information technology – Generic cabling for customer premises*
- ISO/IEC 14763-2, *Information technology – Implementation and operation of customer premises cabling – Part 2: Planning and installation*
- ISO/IEC 30129, *Application of equipotential bonding and earthing in buildings with information technology equipment*

#### *National Electrical Contractors Association (NECA)*

- ANSI/NECA/BICSI 607, *Standard for Telecommunications Bonding and Grounding Planning and Installation Methods for Commercial Buildings*

#### *National Fire Protection Association (NFPA)*

- NFPA 70<sup>®</sup>, *National Electrical Code<sup>®</sup> (NEC<sup>®</sup>)*
- NFPA 72, *National Fire Alarm and Signaling Code*

#### *Telecommunications Industry Association (TIA)*

- ANSI/TIA-568-C.2, *Balanced Twisted-Pair Telecommunications Cabling and Components Standard*
- ANSI/TIA-568-C.3, *Optical Fiber Cabling Components Standard*
- ANSI/TIA-569-D, *Telecommunications Pathways and Spaces*
- ANSI/TIA-606-B, *Administration Standard for Telecommunications Infrastructure*
- ANSI/TIA-607-B, *Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises*

*United States Code of Federal Regulations (CFR)*

- *Federal Communications Commission (FCC)*
  - 47 CFR 1.1310, *Radiofrequency Radiation Exposure Limits*
  - 47 CFR 17, *Construction, Marking, And Lighting Of Antenna Structures*
  - 47 CFR 90.219, *Use of Signal Boosters*

## 4 Definitions, Acronyms, Abbreviations, and Units of Measurement

For the purpose of this standard, the following definitions, acronyms, abbreviations, and units of measurement apply.

### 4.1 Definitions

<b>antenna</b>	A conductive structure which is specifically designed to couple or radiate electromagnetic energy. In radio frequency systems, the antenna may be used to both transmit and receive electromagnetic energy.
<b>attenuation</b>	The decrease in magnitude or the power loss of a signal that propagates between points, expressed in decibels (dB), as the ratio of received signal to transmitted signal level.
<b>array (antenna)</b>	An antenna made up of a number of elements, including an active or driven element, a reflector, and a director. Array antennas may be narrowband or broadband and are used in all frequency bands.
<b>backend equipment</b>	The equipment components of a distributed antenna system that are located in an area of coverage and receives and transmits signals to the headend.
<b>backhaul (wireless)</b>	The portion of a cellular wireless network that connects a cell tower to an Internet service provider.
<b>bandwidth</b>	A measure of the range of frequencies associated with a given signal or communication channel, typically expressed in hertz. It is used to denote the potential transmission capacity of the medium, device, or system.
<b>base station</b>	The fixed part of a mobile radio frequency network through which mobile and portable terminals (or stations) communicate and may be operated by local or remote means. A base station may also be known as a base transceiver station (BTS).
<b>beamwidth (antenna)</b>	The angular separation in which the gain of the antenna decreases by 3 dB (50% of the power) relative to that at the peak of the main beam. Also known as <i>half power beamwidth</i> ,
<b>bidirectional amplifier</b>	See <i>signal booster</i> .
<b>broadband</b>	The transmission of signals through the simultaneous use of multiple communication channels or frequencies, allowing for more information or data to be transmitted in a given period of time. Contrast with <i>narrowband</i> .  NOTE: <i>Broadband</i> is commonly used to describe a high speed digital signal associated with backbone or multiplexed transmissions.
<b>cell</b>	The fixed area in which a wireless base station or access point is configured to operate.
<b>combiner</b>	A device that merges two or more input signals into a single output signal.
<b>coaxial cable</b>	A cable consisting of a central metallic inner conductor separated from an enclosing outer conductor by a dielectric material. This material may be solid, foam, a suitable gas, or dry air. The outer conductor comprises a metallic braid, a foil layer, combination of braid and foil, or a solid metallic sleeve. The cable may be protected by an outer jacket of non-conducting material.
<b>diplexer</b>	A passive three-port frequency-dependent device that allows two transmitters operating at different frequencies (e.g., 150 megahertz [MHz] and 450 MHz) to share a single antenna system.

<b>dipole</b>	An antenna formed by splitting two wires of a two-wire transmission line and bending them back to form a single straight line. The antenna feed is in the middle of the dipole antenna where the split occurs. A dipole antenna is a resonant antenna. The optimal length of a dipole antenna is one half of the wavelength of the signal being received or transmitted by the antenna. A dipole antenna is a narrowband antenna, operating efficiently in only a narrow band of frequencies.
<b>directional antenna</b>	An antenna that radiates greater signal power in one or more specified directions, which yields increased transmission and reception performance with reduced interference from unwanted sources in those directions.
<b>directional coupler</b>	A device typically used in transmission line circuits to isolate the transmitter from the receiver while using a common antenna. Transmitted signals pass easily to the antenna while being blocked from reaching the receiver. Received signals pass to the receiver and are blocked from the transmitter. Unlike with a duplexer, transmission and reception cannot occur simultaneously.
<b>distributed antenna system</b>	A network of spatially separated antenna nodes, connected to transmission equipment by one or more types of transmission media, which provides wireless service(s) within a defined area.
<b>donor signal</b>	The signal from the originating source that is amplified and distributed throughout a facility by a distributed antenna system (DAS). The donor signal may be received by the DAS via either a donor antenna or by direct cable connection to the donor site.
<b>downlink</b>	Signals transmitted from the wireless service provider equipment to a wireless mobile device.
<b>duplexer</b>	A device that allows an antenna to be used to transmit and receive simultaneously by isolating the receiver from the transmitter.
<b>effective isotropic radiated power</b>	The power supplied to an antenna multiplied by the antenna gain in dBi in a given direction. Sometimes called equivalent isotropically radiated power.
<b>effective radiated power</b>	The power supplied to an antenna multiplied by the antenna gain in dBd in a given direction.
<b>electromagnetic interference</b>	Radiated or conducted electromagnetic energy that has an undesirable effect on electronic equipment or signal transmissions.
<b>frequency</b>	The number of cycles or sine waves occurring in a given time. If the unit of time is one second, then the frequency is stated in hertz (Hz); one Hz is equal to one cycle per second.
<b>frequency band</b>	A specified range of frequencies in the radio frequency (RF) spectrum for the operation of different radio communication classes.
<b>frequency converter</b>	An integrated component assembly required for converting signals into lower or higher frequency ranges for further processing.
<b>gain</b>	The increase in output current, voltage, or power relative to input current, voltage, or power, respectively. Gain is usually expressed in dB.
<b>gain (antenna)</b>	The ratio of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength at the same distance. Antenna gain is usually expressed in decibels relative to an isotropic radiator (dBi) (isotropic reference) or half wavelength dipole reference (dBd).
<b>headend equipment</b>	The main active equipment within a DAS that provides the interface between provider services (i.e., those to be retransmitted by the DAS) and the equipment and components distributing radio frequency signals to designated coverage areas.

<b>ingress protection</b>	The capability of an enclosure (e.g., outlet box, connector), equipment or other object to resist ingress of foreign objects and water. Ingress protection of an object is expressed in the form of IP $xy$ where $x$ represents the capability to resist penetration of foreign objects, and $y$ represents resistance to water.
<b>leaky coax</b>	A colloquial term for <i>radiating cable</i> .
<b>loss</b>	The attenuation undergone by an electromagnetic wave in transit between a transmitter and a receiver. It may be caused by many effects such as free-space loss, refraction, reflection, aperture-medium coupling loss, and absorption.
<b>morphology</b>	The differences in the path loss decay between free space and the actual venue conditions. An RF signal's propagation is unique to each venue, being impacted by numerous factors, including the type of venue (arena, stadium, offices, cubicles, tunnel, outdoor open space, etc.); the venue structural materials (concrete, steel, wood, etc.); the signal's frequency and the modulation method. Therefore, a simple calculation, such as free space loss, cannot accurately predict actual RF signal coverage, especially indoors.
<b>N type or N connector</b>	A medium-size threaded coaxial connector, having a center pin that is installed over the cable's center conductor, typically used for radio frequencies up to 18 GHz.
<b>narrowband</b>	A limited (narrow) band of frequencies that carries voice information. Contrast with <i>broadband</i> .  NOTE: Within the United States, it is a specific frequency range set aside for mobile or radio services, including paging systems, from 50 cycles per second (cps) to 64 kilobits per second (Kbps).
<b>null</b>	Area where signal strength has a non-detectable magnitude.
<b>omnidirectional antenna</b>	An antenna that radiates signal power equally in all directions along one plane with signal power decreasing as the angle between the radiated signal and the plane increases.
<b>passive intermodulation</b>	Undesirable mixing of signals by non-linear passive components.
<b>radiating cable</b>	A coaxial cable with a solid copper helical outer conductor and a solid copper inner conductor with a foam dielectric in between. The helical outer conductor has slots that allow ingress and egress of RF signals within a limited range, allowing the cable to function as an omnidirectional antenna. Radiating cable may also be called <i>leaky coax</i> .
<b>radio frequency</b>	An electromagnetic frequency typically between 3 kHz to 300 GHz used in wireless communication.
<b>radio frequency interference</b>	Electromagnetic interference that occurs at frequencies within the radio spectrum.
<b>receiver</b>	An electronic device that detects, demodulates, and amplifies transmitted signals.
<b>repeater</b>	A device (e.g., station, transceiver) that incorporates transmission and reception functions and is used to extend geographical range or coverage ability of wireless systems.
<b>remote unit</b>	Within a DAS, the term given to the distribution cable signal to RF signal converter that is connected to one or more antenna(s).
<b>signal booster</b>	A device at a fixed location that automatically receives, amplifies, and retransmits on a one-way or two-way basis, the signals received from base, fixed, mobile, and portable stations, with no change in frequency or authorized bandwidth. A signal booster may also be termed a <i>bidirectional amplifier</i> or <i>BDA</i> .
<b>simulcast</b>	An identical transmission in time, frequency, and phase between or among a set of emitters in a network.

<b>site survey</b>	A process used to identify the characteristics (e.g., physical, electromagnetic) within a defined area that will impact the installation and operation of a network within that area.
<b>splitter</b>	A device that divides an input signal into two or more output signals.
<b>transceiver</b>	A radio transmitter and receiver combined into a single unit.
<b>wavelength</b>	The length of a wave measured from any point on one wave to the corresponding point on the next wave (e.g., from crest to crest). Wavelength is inversely proportional to frequency.
<b>wireless local area network</b>	A local area network that functions wirelessly between the client and a wireless access point.
<b>wireless service provider</b>	A company or other entity that offers transmission services to users of wireless devices (handheld computers and telephones) through radio frequency (RF) signals. Signals from a wireless service provider are sometimes termed a <i>donor signal</i> .
<b>Yagi antenna</b>	A tree-shaped antenna that uses a reflector element and one of or more director elements to focus the radiated signal in one direction or plane.

## 4.2 Acronyms and Abbreviations

Abbreviations and acronyms, other than in common usage, are defined below.

AC	alternating current	MIMO	multiple input/multiple output (antenna)
AHJ	authority having jurisdiction	PoE	power over Ethernet
BIM	building information modeling	PIM	passive intermodulation
BDA	bidirectional amplifier	PTP	point-to-point
BTS	base transceiver station	RF	radio frequency
CW	continuous wave	RFI	radio frequency interference
DAS	distributed antenna system	TR	telecommunications room
DC	direct current	UMTS	universal mobile telecommunications system
EIRP	effective isotropic radiated power	UTP	unshielded twisted-pair
EMI	electromagnetic interference	UHF	ultra high frequency
ER	equipment room	VHF	very high frequency
ERP	effective radiated power	VSWR	voltage standing wave ratio
ICT	information and communication technology	WAN	wide area network
LMR	land mobile radio	WLAN	wireless local area network
LTE	long term evolution	WSP	wireless service provider
MCU	master control unit		

### **4.3 Units of Measurement**

The units of measurement used in this standard are metric. Approximate conversions from metric to U.S. customary units are provided in parentheses; e.g., 100 millimeters (4 inches).

Units of measurement used in this standard are defined below:

$\Omega$	ohm
BTU	British thermal unit
dB	decibel
dBd	dB (dipole)
dB <sub>i</sub>	dB (isotropic)
ft	foot
ft <sup>2</sup>	square foot
GHz	gigahertz
hr	hour
Hz	hertz
in	inch
kJ	kilojoule
kHz	kilohertz
m	meter
m <sup>2</sup>	square meter
mm	millimeter
MHz	megahertz
V	volt
V <sub>AC</sub>	volt alternating current
V <sub>DC</sub>	volt direct current
W	watt

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## **5 Regulatory and Safety**

### **5.1 Local Code Requirements**

Local code requirements shall be followed. Always review the local code requirements with the local AHJ before proceeding with the installation. This includes reviewing what code and edition is adopted and what, if any, exceptions to the code are adopted by the governing authority. Most of the code requirements for the job should be included in the scope of work documents. The installer should never take this information for granted since the telecommunications contractor is fully responsible for all work done on the project.

If no code has been adopted locally, consult with the fire marshal's office to determine what agency is responsible for that geographic area and what codes are in effect. Do not depend on other installers, contractors, or even site owner personnel in making these determinations.

### **5.2 Local DAS Requirements**

Within NFPA 72, there is inclusion of an annex recommending specific DAS or other in-building wireless system requirements for certain commercial buildings to provide coverage for public safety radio systems. The International Code Council (ICC) has developed a similar initiative.

A growing number of cities and states are adopting this or a similar code, making such coverage mandatory at least for new construction of a certain size. The specifics of these ordinances and codes vary, but most include:

- A minimum signal strength limit
- Application of the limit over a specified percentage of each floor
- A specific level of reliability or confidence in the signal level
- A specified frequency band or bands for public safety coverage
- Testing requirements and procedures
- Provisions for penalties
- Provisions for waivers of the requirements
- Pathway survivability

### **5.3 Personnel Safety Requirements**

A number of jurisdictions have established personnel RF exposure standards for wireless transmission facilities, based on input from the public, academia, scientists, the telecommunications industry and government health and safety agencies. Follow local RF safety requirements. In the United States, the FCC has published OET Bulletin 65, to provide assistance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) fields.

# **CHARTER TOWNSHIP OF MERIDIAN**

## **What is a METRO Permit Application?**

RIGHT-OF-WAY  
TELECOMMUNICATIONS PERMIT

TERMS AND CONDITIONS

1 Definitions

- 1.1 Company shall mean \_\_\_\_\_ [type of entity] organized under the laws of the State of \_\_\_\_\_ whose address is \_\_\_\_\_.
- 1.2 Effective Date shall mean the date set forth in Part 13.
- 1.3 Manager shall mean Municipality's [Mayor/Manager/Supervisor/Village President] or his or her designee.
- 1.4 METRO Act shall mean the Metropolitan Extension Telecommunications Rights-of-Way Oversight Act, Act No. 48 of the Public Acts of 2002, as amended.
- 1.5 Municipality shall mean \_\_\_\_\_, a Michigan municipal corporation.
- 1.6 Permit shall mean this document.
- 1.7 Public Right-of-Way shall mean the area on, below, or above a public roadway, highway, street, alley, easement, or waterway, to the extent Municipality has the ability to grant the rights set forth herein. Public right-of-way does not include a federal, state, or private right-of-way.
- 1.8 Telecommunication Facilities or Facilities shall mean the Company's equipment or personal property, such as copper and fiber cables, lines, wires, switches, conduits, pipes, and sheaths, which are used to or can generate, receive, transmit, carry, amplify, or provide telecommunication services or signals. Telecommunication Facilities or Facilities do not include antennas, supporting structures for antennas, equipment shelters or houses, and any ancillary equipment and miscellaneous hardware used to provide federally licensed commercial mobile service as defined in Section 332(d) of Part I of Title III of the Communications Act of 1934, Chapter 652, 48 Stat. 1064, 47 U.S.C. 332 and further defined as commercial mobile radio service in 47 CFR 20.3, and service provided by any wireless, 2-way communications device.
- 1.9 Term shall have the meaning set forth in Part 7.

2 Grant

- 2.1 Municipality hereby grants a permit under the METRO Act to Company for access to and ongoing use of the Public Right-of-Way to construct, install and maintain Telecommunication Facilities in those portions of the Public Right-of-Way identified on Exhibit A on the terms set forth herein.
- 2.1.1 Exhibit A may be modified by written request by Company and approval by Manager.
- 2.1.2 Manager shall not unreasonably condition or deny any request for a modification of Exhibit A. Any decision of Manager on a request for a modification may be appealed by Company to Municipality's legislative body.
- 2.2 Overlashing. Company shall not allow the wires or any other facilities of a third party to be overlashed to the Telecommunication Facilities without Municipality's prior written consent. Municipality's right to withhold written consent is subject to the authority of the Michigan Public Service Commission under Section 361 of the Michigan Telecommunications Act, MCL § 484.2361.
- 2.3 Nonexclusive. The rights granted by this Permit are nonexclusive. Municipality reserves the right to approve, at any time, additional permits for access to and ongoing usage of the Public Right-of-Way by telecommunications providers and to enter into agreements for use of the Public Right-of-Way with and grant franchises for use of the Public Right-of-Way to telecommunications providers, cable companies, utilities and other providers.

3 Contacts, Maps and Plans

- 3.1 Company Contacts. The names, addresses and the like for engineering and construction related information for Company and its Telecommunication Facilities are as follows:
- 3.1.1 The address, e-mail address, phone number and contact person (title or name) at Company's local office (in or near Municipality) is \_\_\_\_\_.
- 3.1.2 If Company's engineering drawings, as-built plans and related records for the Telecommunication Facilities will not be located at the preceding local office, the location address, phone number and contact person (title or department) for them is \_\_\_\_\_.
- 3.1.3 The name, title, address, e-mail address and telephone numbers of Company's engineering contact person(s) with responsibility for the

design, plans and construction of the Telecommunication Facilities is

3.1.4 The address, phone number and contact person (title or department) at Company's home office/regional office with responsibility for engineering and construction related aspects of the Telecommunication Facilities is

3.1.5 Company shall at all times provide Manager with the phone number at which a live representative of Company (not voice mail) can be reached 24 hours a day, seven (7) days a week, in the event of a public emergency.

3.1.6 The preceding information is accurate as of the Effective Date. Company shall notify Municipality in writing as set forth in Part 12 of any changes in the preceding information.

3.2 Route Maps. Within ninety (90) days after the substantial completion of construction of new Facilities in a Municipality, a provider shall submit route maps showing the location of the Telecommunication Facilities to both the Michigan Public Service Commission and to the Municipality, as required under Section 6(7) of the METRO Act, MCLA 484.3106(7).

3.3 As-Built Records. Company, without expense to Municipality, shall, upon forty-eight (48) hours notice, give Municipality access to all "as-built" maps, records, plans and specifications showing the Telecommunication Facilities or portions thereof in the Public Right-of-Way. Upon request by Municipality, Company shall inform Municipality as soon as reasonably possible of any changes from previously supplied maps, records, or plans and shall mark up maps provided by Municipality so as to show the location of the Telecommunication Facilities.

#### 4 Use of Public Right-of-Way

4.1 No Burden on Public Right-of-Way. Company, its contractors, subcontractors, and the Telecommunication Facilities shall not unduly burden or interfere with the present or future use of any of the Public Right-of-Way. Company's aerial cables and wires shall be suspended so as to not endanger or injure persons or property in or about the Public Right-of-Way. If Municipality reasonably determines that any portion of the Telecommunication Facilities constitutes an undue burden or interference, due to changed circumstances, Company, at its sole expense, shall modify the Telecommunication Facilities or take such other actions as Municipality may determine is in the public interest to remove or alleviate the burden, and Company shall do so within a reasonable time period. Municipality shall attempt to require all occupants of a pole or conduit whose facilities are a burden to remove or alleviate the burden concurrently.

- 4.2 No Priority. This Permit does not establish any priority of use of the Public Right-of-Way by Company over any present or future permittees or parties having agreements with Municipality or franchises for such use. In the event of any dispute as to the priority of use of the Public Right-of-Way, the first priority shall be to the public generally, the second priority to Municipality, the third priority to the State of Michigan and its political subdivisions in the performance of their various functions, and thereafter as between other permit, agreement or franchise holders, as determined by Municipality in the exercise of its powers, including the police power and other powers reserved to and conferred on it by the State of Michigan.
- 4.3 Restoration of Property. Company, its contractors and subcontractors shall immediately (subject to seasonal work restrictions) restore, at Company's sole expense, in a manner approved by Municipality, any portion of the Public Right-of-Way that is in any way disturbed, damaged, or injured by the construction, installation, operation, maintenance or removal of the Telecommunication Facilities to a reasonably equivalent (or, at Company's option, better) condition as that which existed prior to the disturbance. In the event that Company, its contractors or subcontractors fail to make such repair within a reasonable time, Municipality may make the repair and Company shall pay the costs Municipality incurred for such repair.
- 4.4 Marking. Company shall mark the Telecommunication Facilities as follows: Aerial portions of the Telecommunication Facilities shall be marked with a marker on Company's lines on alternate poles which shall state Company's name and provide a toll-free number to call for assistance. Direct buried underground portions of the Telecommunication Facilities shall have (1) a conducting wire placed in the ground at least several inches above Company's cable (if such cable is nonconductive); (2) at least several inches above that, a continuous colored tape with a statement to the effect that there is buried cable beneath; and (3) stakes or other appropriate above ground markers with Company's name and a toll-free number indicating that there is buried telephone cable below. Bored underground portions of the Telecommunication Facilities shall have a conducting wire at the same depth as the cable and shall not be required to provide the continuous colored tape. Portions of the Telecommunication Facilities located in conduit, including conduit of others used by Company, shall be marked at its entrance into and exit from each manhole and handhole with Company's name and a toll-free telephone number.
- 4.5 Tree Trimming. Company may trim trees upon and overhanging the Public Right-of-Way so as to prevent the branches of such trees from coming into contact with the Telecommunication Facilities, consistent with any standards adopted by Municipality. Company shall dispose of all trimmed materials. Company shall minimize the trimming of trees to that essential to maintain the integrity of the Telecommunication Facilities. Except in emergencies, all

trimming of trees in the Public Right-of-Way shall have the advance approval of Manager.

- 4.6 Installation and Maintenance. The construction and installation of the Telecommunication Facilities shall be performed pursuant to plans approved by Municipality. The open cut of any Public Right-of-Way shall be coordinated with the Manager or his designee. Company shall install and maintain the Telecommunication Facilities in a reasonably safe condition. If the existing poles in the Public Right-of-Way are overburdened or unavailable for Company's use, or the facilities of all users of the poles are required to go underground then Company shall, at its expense, place such portion of its Telecommunication Facilities underground, unless Municipality approves an alternate location. Company may perform maintenance on the Telecommunication Facilities without prior approval of Municipality, provided that Company shall obtain any and all permits required by Municipality in the event that any maintenance will disturb or block vehicular traffic or are otherwise required by Municipality.
- 4.7 Pavement Cut Coordination. Company shall coordinate its construction and all other work in the Public Right-of-Way with Municipality's program for street construction and rebuilding (collectively "Street Construction") and its program for street repaving and resurfacing (except seal coating and patching) (collectively, "Street Resurfacing").
- 4.7.1 The goals of such coordination shall be to encourage Company to conduct all work in the Public Right-of-Way in conjunction with or immediately prior to any Street Construction or Street Resurfacing planned by Municipality.
- 4.8 Compliance with Laws. Company shall comply with all laws, statutes, ordinances, rules and regulations regarding the construction, installation, and maintenance of its Telecommunication Facilities, whether federal, state or local, now in force or which hereafter may be promulgated. Before any installation is commenced, Company shall secure all necessary permits, licenses and approvals from Municipality or other governmental entity as may be required by law, including, without limitation, all utility line permits and highway permits. Municipality shall not unreasonably delay or deny issuance of any such permits, licenses or approvals. Company shall comply in all respects with applicable codes and industry standards, including but not limited to the National Electrical Safety Code (latest edition adopted by Michigan Public Service Commission) and the National Electric Code (latest edition). Company shall comply with all zoning and land use ordinances and historic preservation ordinances as may exist or may hereafter be amended. This section does not constitute a waiver of Company's right to challenge laws, statutes, ordinances, rules or regulations now in force or established in the future.

- 4.9 Street Vacation. If Municipality vacates or consents to the vacation of Public Right-of-Way within its jurisdiction, and such vacation necessitates the removal and relocation of Company's Facilities in the vacated Public Right-of-Way, Company shall, as a condition of this Permit, consent to the vacation and remove its Facilities at its sole cost and expense when ordered to do so by Municipality or a court of competent jurisdiction. Company shall relocate its Facilities to such alternate route as Municipality and Company mutually agree, applying reasonable engineering standards.
- 4.10 Relocation. If Municipality requests Company to relocate, protect, support, disconnect, or remove its Facilities because of street or utility work, or other public projects, Company shall relocate, protect, support, disconnect, or remove its Facilities, at its sole cost and expense, including where necessary to such alternate route as Municipality and Company mutually agree, applying reasonable engineering standards. The work shall be completed within a reasonable time period.
- 4.11 Public Emergency. Municipality shall have the right to sever, disrupt, dig-up or otherwise destroy Facilities of Company if such action is necessary because of a public emergency. If reasonable to do so under the circumstances, Municipality shall attempt to provide notice to Company. Public emergency shall be any condition which poses an immediate threat to life, health, or property caused by any natural or man-made disaster, including, but not limited to, storms, floods, fire, accidents, explosions, water main breaks, hazardous material spills, etc. Company shall be responsible for repair at its sole cost and expense of any of its Facilities damaged pursuant to any such action taken by Municipality.
- 4.12 Miss Dig. If eligible to join, Company shall subscribe to and be a member of "MISS DIG," the association of utilities formed pursuant to Act 53 of the Public Acts of 1974, as amended, MCL § 460.701 et seq., and shall conduct its business in conformance with the statutory provisions and regulations promulgated thereunder.
- 4.13 Underground Relocation. If Company has its Facilities on poles of Consumers Energy, Detroit Edison or another electric or telecommunications provider and Consumers Energy, Detroit Edison or such other electric or telecommunications provider relocates its system underground, then Company shall relocate its Facilities underground in the same location at Company's sole cost and expense.
- 4.14 Identification. All personnel of Company and its contractors or subcontractors who have as part of their normal duties contact with the general public shall wear on their clothing a clearly visible identification card bearing Company's name, their name and photograph. Company shall account for all identification cards at all times. Every service vehicle of Company and its contractors or subcontractors

shall be clearly identified as such to the public, such as by a magnetic sign with Company's name and telephone number.

## 5 Indemnification

- 5.1 Indemnity. Company shall defend, indemnify, protect, and hold harmless Municipality, its officers, agents, employees, elected and appointed officials, departments, boards, and commissions from any and all claims, losses, liabilities, causes of action, demands, judgments, decrees, proceedings, and expenses of any nature (collectively "claim" for this Part 5) (including, without limitation, attorneys' fees) arising out of or resulting from the acts or omissions of Company, its officers, agents, employees, contractors, successors, or assigns, but only to the extent such acts or omissions are related to the Company's use of or installation of facilities in the Public Right-of-Way and only to the extent of the fault or responsibility of Company, its officers, agents, employees, contractors, successors and assigns.
- 5.2 Notice, Cooperation. Municipality shall notify Company promptly in writing of any such claim and the method and means proposed by Municipality for defending or satisfying such claim. Municipality shall cooperate with Company in every reasonable way to facilitate the defense of any such claim. Municipality shall consult with Company respecting the defense and satisfaction of such claim, including the selection and direction of legal counsel.
- 5.3 Settlement. Municipality shall not settle any claim subject to indemnification under this Part 5 without the advance written consent of Company, which consent shall not be unreasonably withheld. Company shall have the right to defend or settle, at its own expense, any claim against Municipality for which Company is responsible hereunder.

## 6 Insurance

- 6.1 Coverage Required. Prior to beginning any construction in or installation of the Telecommunication Facilities in the Public Right-of-Way, Company shall obtain insurance as set forth below and file certificates evidencing same with Municipality. Such insurance shall be maintained in full force and effect until the end of the Term. In the alternative, Company may satisfy this requirement through a program of self-insurance, acceptable to Municipality, by providing reasonable evidence of its financial resources to Municipality. Municipality's acceptance of such self-insurance shall not be unreasonably withheld.
- 6.1.1 Commercial general liability insurance, including Completed Operations Liability, Independent Contractors Liability, Contractual Liability coverage, railroad protective coverage and coverage for property damage from perils of explosion, collapse or damage to underground utilities,

commonly known as XCU coverage, in an amount not less than Five Million Dollars (\$5,000,000).

- 6.1.2 Liability insurance for sudden and accidental environmental contamination with minimum limits of Five Hundred Thousand Dollars (\$500,000) and providing coverage for claims discovered within three (3) years after the term of the policy.
  - 6.1.3 Automobile liability insurance in an amount not less than One Million Dollars (\$1,000,000).
  - 6.1.4 Workers' compensation and employer's liability insurance with statutory limits, and any applicable Federal insurance of a similar nature.
  - 6.1.5 The coverage amounts set forth above may be met by a combination of underlying (primary) and umbrella policies so long as in combination the limits equal or exceed those stated. If more than one insurance policy is purchased to provide the coverage amounts set forth above, then all policies providing coverage limits excess to the primary policy shall provide drop down coverage to the first dollar of coverage and other contractual obligations of the primary policy, should the primary policy carrier not be able to perform any of its contractual obligations or not be collectible for any of its coverages for any reason during the Term, or (when longer) for as long as coverage could have been available pursuant to the terms and conditions of the primary policy.
- 6.2 Additional Insured. Municipality shall be named as an additional insured on all policies (other than worker's compensation and employer's liability). All insurance policies shall provide that they shall not be canceled, modified or not renewed unless the insurance carrier provides thirty (30) days prior written notice to Municipality. Company shall annually provide Municipality with a certificate of insurance evidencing such coverage. All insurance policies (other than environmental contamination, workers' compensation and employer's liability insurance) shall be written on an occurrence basis and not on a claims made basis.
- 6.3 Qualified Insurers. All insurance shall be issued by insurance carriers licensed to do business by the State of Michigan or by surplus line carriers on the Michigan Insurance Commission approved list of companies qualified to do business in Michigan. All insurance and surplus line carriers shall be rated A+ or better by A.M. Best Company.
- 6.4 Deductibles. If the insurance policies required by this Part 6 are written with retainages or deductibles in excess of \$50,000, they shall be approved by Manager in advance in writing. Company shall indemnify and save harmless Municipality

from and against the payment of any deductible and from the payment of any premium on any insurance policy required to be furnished hereunder.

- 6.5 Contractors. Company's contractors and subcontractors working in the Public Right-of-Way shall carry in full force and effect commercial general liability, environmental contamination liability, automobile liability and workers' compensation and employer liability insurance which complies with all terms of this Part 6. In the alternative, Company, at its expense, may provide such coverages for any or all its contractors or subcontractors (such as by adding them to Company's policies).
- 6.6 Insurance Primary. Company's insurance coverage shall be primary insurance with respect to Municipality, its officers, agents, employees, elected and appointed officials, departments, boards, and commissions (collectively "them"). Any insurance or self-insurance maintained by any of them shall be in excess of Company's insurance and shall not contribute to it (where "insurance or self-insurance maintained by any of them" includes any contract or agreement providing any type of indemnification or defense obligation provided to, or for the benefit of them, from any source, and includes any self-insurance program or policy, or self-insured retention or deductible by, for or on behalf of them).

## 7 Term

- 7.1 Term. The term ("Term") of this Permit shall be until the earlier of:
- 7.1.1 Fifteen years (15) from the Effective Date; provided, however, that following such initial term there shall be three subsequent renewal terms of five (5) years. Each renewal term shall be automatic unless Municipality notifies Company in writing, at least twelve (12) months prior to the end of any term then in effect, that due to changed circumstances a need exists to negotiate the subsequent renewal with Company. Municipality shall not unreasonably deny a renewal term; or
- 7.1.2 When the Telecommunication Facilities have not been used to provide telecommunications services for a period of one hundred and eighty (180) days by the Company or a successor of an assign of the Company; or
- 7.1.3 When Company, at its election and with or without cause, delivers written notice of termination to Municipality at least one-hundred and eighty (180) days prior to the date of such termination; or
- 7.1.4 Upon either Company or Municipality giving written notice to the other of the occurrence or existence of a default by the other party under Sections 4.8, 6, 8 or 9 of this Permit and such defaulting party failing to cure, or commence good faith efforts to cure, such default within sixty (60) days

(or such shorter period of time provided elsewhere in this Permit) after delivery of such notice; or

7.1.5 Unless Manager grants a written extension, one year from the Effective Date if prior thereto Company has not started the construction and installation of the Telecommunication Facilities within the Public Right-of-Way and two years from the Effective Date if by such time construction and installation of the Telecommunication Facilities is not complete.

8 Performance Bond or Letter of Credit

8.1 Municipal Requirement. Municipality may require Company to post a bond (or letter of credit) as provided in Section 15(3) of the METRO Act, as amended [MCL § 484.3115(3)].

9 Fees

9.1 Establishment; Reservation. The METRO Act shall control the establishment of right-of-way fees. The parties reserve their respective rights regarding the nature and amount of any fees which may be charged by Municipality in connection with the Public Right-of-Way.

10 Removal

10.1 Removal; Underground. As soon as practicable after the Term, Company or its successors and assigns shall remove any underground cable or other portions of the Telecommunication Facilities from the Public Right-of-Way which has been installed in such a manner that it can be removed without trenching or other opening of the Public Right-of-Way. Company shall not remove any underground cable or other portions of the Telecommunication Facilities which requires trenching or other opening of the Public Right-of-Way except with the prior written approval of Manager. All removals shall be at Company's sole cost and expense.

10.1.1 For purposes of this Part 10, "cable" means any wire, coaxial cable, fiber optic cable, feed wire or pull wire.

10.2 Removal; Above Ground. As soon as practicable after the Term, Company, or its successor or assigns at its sole cost and expense, shall, unless waived in writing by Manager, remove from the Public Right-of-Way all above ground elements of its Telecommunication Facilities, including but not limited to poles, pedestal mounted terminal boxes, and lines attached to or suspended from poles.

10.3 Schedule. The schedule and timing of removal shall be subject to approval by Manager. Unless extended by Manager, removal shall be completed not later than

twelve (12) months following the Term. Portions of the Telecommunication Facilities in the Public Right-of-Way which are not removed within such time period shall be deemed abandoned and, at the option of Municipality exercised by written notice to Company as set forth in Part 12, title to the portions described in such notice shall vest in Municipality.

11 Assignment. Company may assign or transfer its rights under this Permit, or the persons or entities controlling Company may change, in whole or in part, voluntarily, involuntarily, or by operation of law, including by merger or consolidation, change in the ownership or control of Company's business, or by other means, subject to the following:

11.1 No such transfer or assignment or change in the control of Company shall be effective under this Permit, without Municipality's prior approval (not to be unreasonably withheld), during the time period from the Effective Date until the completion of the construction of the Telecommunication Facilities in those portions of the Public Right-of-Way identified on Exhibit A.

11.2 After the completion of such construction, Company must provide notice to Municipality of such transfer, assignment or change in control no later than thirty (30) days after such occurrence; provided, however,

11.2.1 Any transferee or assignee of this Permit shall be qualified to perform under its terms and conditions and comply with applicable law; shall be subject to the obligations of this Permit, including responsibility for any defaults which occurred prior to the transfer or assignment; shall supply Municipality with the information required under Section 3.1; and shall comply with any updated insurance and performance bond requirements under Sections 6 and 8 respectively, which Municipality reasonably deems necessary, and

11.2.2 In the event of a change in control, it shall not be to an entity lacking the qualifications to assure Company's ability to perform under the terms and conditions of this Permit and comply with applicable law; and Company shall comply with any updated insurance and performance bond requirements under Sections 6 and 8 respectively, which Municipality reasonably deems necessary.

11.3 Company may grant a security interest in this Permit, its rights thereunder or the Telecommunication Facilities at any time without notifying Municipality.

12 Notices

12.1 Notices. All notices under this Permit shall be given as follows:

12.1.1 If to Municipality, to [address], with a copy to [address].

12.1.2 If to Company, to [address], with a copy to [address].

12.2 Change of Address. Company and Municipality may change its address or personnel for the receipt of notices at any time by giving notice thereof to the other as set forth above.

13 Other items

13.1 No Cable, OVS. This Permit does not authorize Company to provide commercial cable type services to the public, such as “cable service” or the services of an “open video system operator” (as such terms are defined in the Federal Communications Act of 1934 and implementing regulations, currently 47 U.S.C. §§ 522 (6), 573 and 47 CFR § 76.1500).

13.2 Duties. Company shall faithfully perform all duties required by this Permit.

13.3 Effective Date. This Permit shall become effective when issued by Municipality and Company has provided any insurance certificates and bonds required in Parts 6 and 8, and signed the acceptance of the Permit.

13.4 Authority. This Permit satisfies the requirement for a permit under Section 5 of the METRO Act [MCL 484.3105].

13.5 Amendment. Except as set forth in Section 2.1 this Permit may be amended by the written agreement of Municipality and Company.

13.6 Interpretation and Severability. The provisions of this Permit shall be liberally construed to protect and preserve the peace, health, safety and welfare of the public, and should any provision or section of this Permit be held unconstitutional, invalid, overbroad or otherwise unenforceable, such determination/holding shall not be construed as affecting the validity of any of the remaining conditions of this Permit. If any provision in this Permit is found to be partially overbroad, unenforceable, or invalid, Company and Municipality may nevertheless enforce such provision to the extent permitted under applicable law.

13.7 Governing Law. This Permit shall be governed by the laws of the State of Michigan.

[Municipality name]

Attest:

By: \_\_\_\_\_  
Clerk

By: \_\_\_\_\_  
Its: \_\_\_\_\_  
Date: \_\_\_\_\_

“Company accepts the Permit granted by Municipality upon the terms and conditions contained therein.”

[Company Name]

By: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

::ODMA\PCDOCS\GRR\759319\6

Exhibit A

Public Right-of-Way to be Used by Telecommunication Facilities

Exhibit B

Bond

**CHARTER TOWNSHIP OF MERIDIAN**

**METRO Permit  
Application Q & A  
by MPSC**

## Frequently Asked Questions

### METRO ACT

#### **Who should the municipalities notify of permit approvals/denials?**

The municipalities should notify the Michigan Public Service Commission (MPSC) of permit approvals/denials. A letter indicating the following details of the permit should be included:

1. Who the permit is with
2. Date of application
3. Date of approval/denial
4. Whether the permit is unilateral or bilateral
5. Contact person for the municipality with phone number and email address

The letter should be sent to the attention of:

Ms. Robin Ancona, Director  
Telecommunications Division  
Michigan Public Service Commission  
7109 W. Saginaw Hwy.  
P.O. Box 30221  
Lansing, MI 48909

#### **What list does the MPSC suggest the municipalities use to notify providers of a new telecommunication ordinance?**

The Michigan Public Service Commission recommends that the municipalities use two lists that are posted on our website.

The list of regulated local telephone companies licensed in Michigan:

<http://www.dleg.state.mi.us/mpsc/comm/clec/newlocal.pdf>

and, the list of regulated telephone interexchange carriers and competitive access providers:

<http://www.dleg.state.mi.us/mpsc/comm/clec/ixclist.pdf>

#### **Are cable providers covered under this act?**

Sec. 8 (11) states that "Notwithstanding any other provision of this act, a provider possessing a franchise or operating with the consent of a municipality to provide and that is providing cable services within a metropolitan area is subject to an annual maintenance fee of 1 cent per linear foot of public right-of-way occupied by the provider's facilities within the metropolitan area." Cable providers that also provide telecommunication services fall within this provision of the act, however cable providers that only provide cable television service are exempt from this provision.

#### **Is the rate cap designed to apply to the CLECs?**

Act 48 defines an ILEC by incorporating the definition contained in the Federal Telecommunications Act. 47 U.S.C. 251 (h) defines an ILEC as an entity that was providing telephone exchange service on 2/8/96. Consequently, the portion of Sec. 8 (6) of Act 48 that refers to ILECs would be applicable to those entities providing telephone exchange service on 2/8/96. All others would be providers as referenced in Sec. 8 (6) (b), which states that "for all other providers in an exchange, the fee per linear foot for the

provider's facilities located in the public right-of-way in that exchange shall be the same as that of the incumbent local exchange carrier." For purposes of this section, Allband Communications Cooperative is also considered an ILEC.

**How many days does a Municipality have to approve or deny a permit for access to a public right-of-way?**

45 days. (Sec. (15(3))

**Is a permit required for new construction?**

Yes. In addition, a one-time \$500 application fee (Sec. 6(4) must be paid to the Municipality along with a route map to both the Commission and the Municipality within 90 days of the full completion of the construction (Sec. 6(7)).

**How does the permit process work?**

A provider using or seeking to use public rights-of-way in a metropolitan area for its telecommunication facilities shall obtain a permit from the Municipality and pay all fees required under the act. Authorizations or permits previously obtained from a Municipality satisfy the permit requirement of this section (Sec. 5(1))

**What if a township also requires a provider to get approval of the county, how does Act 48 apply?**

P.A. 48 is silent as to the role of the counties; however, providers must also comply with any county requirements for a permit to work within the county road right of way.

**Where and in what format do the municipalities send the route maps as required by the Act under section 6(8)?**

Within 90 days after the substantial completion of construction of new facilities in a municipality, a provider shall submit route maps showing the location of the telecommunication facilities to both the commission and the affected municipalities (Section 6(7) of Act 48).

Route maps shall be submitted in electronic form. If the provider is not able to provide electronic maps, the provider must seek a waiver from the Commission. A request for a waiver shall include all necessary supporting documentation. If a municipality does not have electronic capabilities, the municipality and the provider should work out an acceptable agreement

([http://www.dleg.state.mi.us/mpsc/orders/comm/2003/u-13869\\_11-25-2003.pdf](http://www.dleg.state.mi.us/mpsc/orders/comm/2003/u-13869_11-25-2003.pdf)).

Also see the METRO authority Route Map Minimum Requirement Instructions/Guidelines issued in 2008:

[http://www.michigan.gov/documents/dleg/Route\\_Map\\_Minimum\\_Requirements\\_238792\\_7.pdf](http://www.michigan.gov/documents/dleg/Route_Map_Minimum_Requirements_238792_7.pdf)

**Who must acquire a permit? And where?**

All providers "owning telecommunications facilities located within a public right of way", excluding a federally licensed provider of commercial mobile radio service as defined in the FTA, 47 U.S.C. 332, and service provided by any wireless two way communication device as described on section 2(k) of PA 48 of 2002, must acquire a permit from municipalities where facilities are located.

**Providers who *lease* telecommunication facilities, must they obtain a permit also?**

No, the MPSC has determined that only telecommunications providers that *own* telecommunication facilities must obtain a permit. See Docket U-14878

(<http://efile.mpsc.state.mi.us/efile/viewcase.php?casenum=14878&submit.x=0&submit.y=0>)

**If a provider has a permit issued under the Michigan Telecommunications Act (MTA) prior to Act 48 of 2002, must the provider still file for a METRO permit?**

No, a provider with an active permit under the MTA satisfies the METRO Act's permit requirements.

**What was the deadline for filing a permit for providers with facilities in place at the time of enactment of the METRO Act?**

Providers without permits had until May 1, 2003 to apply for a permit for facilities in place at the time of the enactment of the METRO Act. The METRO Authority extended the deadline to October 27, 2003 for a few providers at their request.

**If a provider fails to file a permit, what are the consequences?**

No access to public right-of-way and subject to fines under section 18(2) of the Act. In addition, the provider may be trespassing and may be subject to civil infraction penalties.

**How will a provider know whether a municipality is in compliance with the act or not?**

"The municipalities shall provide each provider affected by the fee a copy of the resolution or ordinance" as adopted by the municipality in compliance with section 14(1) of PA 48 of 2002. In addition, the Local Community Stabilization Authority (formerly METRO Authority) has a list of all ineligible municipalities under determination number 8 on its website at <http://www.michigan.gov/lcsa>

**If a municipality "opts out," must the provider still file a permit with that municipality?**

Yes, and the provider is still obligated to comply with any other existing rules and regulations.

**Must cable companies providing telecommunications services file a permit?**

A separate provision for cable franchise holders under section 8(11) of PA 48 of 2002 allows for an alternative agreement to satisfy the permit requirements.

**Who is exempt from filing a permit?**

A governmental entity, educational institution or utility, who does not provide telecommunication service to outside third parties for compensation, as specified in section 8(18,19,20) of PA 48 of 2002 is exempt from filing a permit.

**What do providers get in return?**

They will receive relatively uniform treatment among Michigan municipalities including a safe harbor permit to streamline the permit process. If there is no agreement between both parties, the matter is submitted to mediation and, if not resolved in that manner, the Michigan Public Service Commission will decide.

**What's the difference between the unilateral permit and the bilateral permit?**

The bilateral permit is a signed contractual agreement for up to 30 years (initial 15 years with a possibility of another 15 year extension). The unilateral permit is issued by a municipality and is for 5 years or less.

**What are the fees associated with this permit?**

There will be a \$500 one time application fee paid to the municipality by all providers for permits submitted to municipalities after October 27, 2003. (Providers such as AT&T Michigan and Frontier, fka Verizon were grandfathered and exempt from paying the \$500 application fee for the initial phase of this process until October 27, 2003 under Sec. 5(3) of PA 48 of 2002). Also, an annual maintenance fee is paid by providers to the Local Community Stabilization Authority (formerly METRO Authority) who distributes the monies to the various municipalities pursuant to Section 8 of the METRO Act. For further details, please refer to the LCSA's determination number 3 at <http://www.michigan.gov/lcsa>

**What telecommunication facilities are included in the assessment of linear feet?**

PA 48 OF 2002 defines "telecommunication facilities" as "the equipment or personal property, such as copper and fiber cables, lines, wires, switches, conduits, pipes, and sheaths, which are used to or can generate, receive, transmit, carry, amplify, or provide telecommunication services or signals. Telecommunication facilities or facilities do not include antennas, supporting structures for antennas, equipment shelters or houses, and any ancillary equipment and miscellaneous hardware used to provide federally licensed commercial mobile service as defined in section 332(d) of part I of title III of the communications act of 1934, chapter 652, 48 Stat. 1064, 47 U.S.C. 332 and further defined as commercial mobile radio service in 47 C.F.R. 20.3, and service provided by any wireless, 2-way communication device."

**For Telecommunication providers who share facilities, how does the Local Community Stabilization Authority (formerly METRO Authority) assess their fees?**

Providers sharing poles, trenches, etc...may be entitled to a 40% discount of their fees. The discount applies only to new facilities installed on or after November 1, 2002 pursuant to shared use agreements executed after November 1, 2002.

**How and when will the collected fees be distributed to the municipalities?**

100% of the collected funds will be distributed back to the municipalities by May 31 of each year. Cities and villages will receive 75% using section 13 of PA 51 of 1951 formula. Townships will receive 25% based on the total linear feet of right-of-way in the township as specified in section 11 of PA 48 OF 2002.

**When and how must the municipalities "opt in"?**

The municipalities initially had to "opt in" by December 31, 2003. However, if the municipalities wished to receive a payment by May 2003, the METRO Authority strongly encouraged the municipalities to be in compliance by April 29, 2003. The municipalities had to send the METRO Authority as well as the providers (section 13(4) of PA 48 of 2002) a resolution or ordinance stating their decision to comply with the METRO Act. In addition, the municipality had to modify "any fees charged to providers after November 1, 2002 relating to access to and usage of the public rights of way to an amount not exceeding the amount of fees and charges required under this Act." Subsequently, PA 130 of 2008 allowed municipalities which had not previously "opted in" to do so. For further details, please refer to the Local Community Stabilization Authority's (formerly METRO Authority) Determination number 8 at <http://www.michigan.gov/lcsa>

**If a municipality decides to "opt out", what will happen?**

The municipalities that "opt out" will not be eligible to receive any funds from the Local Community Stabilization Authority (formerly METRO Authority). The municipality will then be required to use its existing permit agreements with telecom providers. At such time as the permit expires, it will be unable to charge fees.

**How can a municipality verify they are in compliance with the Local Community Stabilization Authority (formerly METRO Authority)?**

Contact Mr. Melvin Farmer of the LSCA at:

Phone: 517-373-0194

Email: [metroinfo@michigan.gov](mailto:metroinfo@michigan.gov) or [farmerm@michigan.gov](mailto:farmerm@michigan.gov)

Web: <http://www.michigan.gov/lcsa>

**Would MDOT improvements, sidewalks, and management tool software be considered "rights-of-way related purposes"?**

These items can be considered "rights-of-way related purposes" if they comply with section 10(4) of PA 48 of 2002.

**Could insurance be purchased instead of a bond?**

The METRO Act clearly specifies "a municipality may require as a condition of the permit that a bond be posted by the provider, which shall not exceed the reasonable cost to ensure that the public right-of-way is returned to its original condition during and after the provider's access and use." (Sec. 19(2)(c) of PA 48.

**Additional FAQs from the Local Community Stabilization Authority (formerly METRO Authority) can be found on their website:**

<http://www.michigan.gov/lcsa/0,5798,7-333-23730---,00.html>

**CHARTER TOWNSHIP OF MERIDIAN**

**Letter to MPSC  
Regarding ACD.net**



KEPS Technologies, Inc dba ACD.net and ACD Telecom, Inc  
1800 N Grand River Ave.  
Lansing, Michigan 48906

To whom it may concern,

KEPS Technologies, Inc. dba ACD.net and ACD Telecom, Inc. is proposing to install fiber optic cable within the Utility Right of Way as well as ACD owned poles for mounting (DAS) or Distributed Antenna Systems. These (DAS) act as supplement to the large towers to increase capacity in high use high density areas to increase data thru put thus reducing the load on the main wireless towers. This is accomplished by connecting fiber optic cable to the Small Cell or (DAS). All frequencies are licensed with the FCC and follow all required regulations for such. The proposed poles will be class 4 wood 40 ft. These route plans have been constructed using geo referenced data as well referencing to aerial imagery maps. This route may require some directional boring in some areas, please refer to plan maps for further detail. This will also provide infrastructure for our Telecommunication network of unsurpassed High-speed Bandwidth for future growth. Ultimately we will provide this to not only for our customer but will provide access for businesses and eventually residential services. Thank you for your time and consideration and if you have any questions please do not hesitate to contact me directly.

Respectfully,

**Steven Deroshia**

OSP- Engineer

Project Manager

[Deroshia.steve@acd.net](mailto:Deroshia.steve@acd.net)

(517) 999-3205

# CHARTER TOWNSHIP OF MERIDIAN

Elizabeth Ann LeGoff  
Brett Dreyfus  
Julie Brixie  
Frank L. Walsh

Supervisor  
Clerk  
Treasurer  
Manager



Milton L. Scales  
Ronald J. Styka  
John Veenstra  
Angela Wilson

Trustee  
Trustee  
Trustee  
Trustee

June 21, 2016

Attn: Ms. Robin Ancona, Director  
Telecommunications Division  
Michigan Public Service Commission  
7109 W. Saginaw Hwy.  
P.O. Box 30221  
Lansing, MI 48909

RE: Metro Act Application and Permit

We received a Metro Act application including the installation of DAS permit from ACD.net for Meridian Charter Township.

The receipt date of the completed application is August 25, 2014. On September 23, 2014, they were granted a partial METRO Permit for only underground work in the Meridian Township Rights of Way. The above ground work that was approved was for the existing poles only. They were denied construction of any new poles.

ACD.net wants to construct DAS poles in the rights of way to which we denied because it is in violation with the metro authority. Meridian Township continues to have discussions with ACD.net regarding the DAS poles.

Please contact Communications Director, Deborah Guthrie at 517-853-4380 with any questions or inquiries.

Sincerely,

Deborah Guthrie  
Communications Director  
Meridian Township



# **CHARTER TOWNSHIP OF MERIDIAN**

## **Why ACD.net is Applying for DAS**

Q: Why does ACD need to put utility poles in?

A: ACD needs to put utility poles in select locations to support the fiber optic cabling, fiber optic transmission equipment, the DAS system, and ACD owned equipment, and to have a location to deliver power to.

Q: What authority grants ACD ability to place utility poles in the right of way?

A: Telephone companies such as ACD possess statutory authority to lay wires, cables, and poles within public highway rights-of-way. MCL 247.183(1) provides that telephone companies:

“ . . . may enter upon, construct, and maintain . . . telephone . . . lines, pipe lines, wires, cables, poles, conduits, sewers or similar structures upon, over, across, or under any public road, bridge, street, or public place, including, longitudinally within limited access highway rights-of-way, . . . with all necessary erections and fixtures for that purpose.”

Additionally the METRO Authority Determination #1, specifically grants ACD the ability to install new facilities within the right of way.

Q: Can a municipality restrict new infrastructure from being deployed?

A: No. Under the METRO act, the community may only judge whether the installation is safe. The community may not enforce any ordinance that restricts installation of infrastructure other than for legitimate and specific safety rules.

Q: How do new utility poles increase coverage?

A: We want to get the best signal to the customers so that they can get the best speeds, and the most reliable service. The existing high-power distribution lines interfere with wireless transmission to the extent that it impairs the transmission of signals, when DAS systems on a pole where there are high-power lines. Additionally the other metallic objects on a utility pole, such as wires, etc. impair the wireless signal. Additionally there are safety concerns related to the deployment of these systems in the utility right of way on existing poles, due to age, weight and accessing the equipment we need to on the utility poles that have existing wiring.

Q: What is cabinet box on the utility pole?

A: We usually install a metal box that contains batteries and electronics that condition the power. Also in the box is a fiber panel and electronics that convert the signals on the fiber cable for the DAS system. We want to make sure the systems work when there are power outages so that emergency personnel and customer still have access during the storms that occur.

Q: What are the other small boxes?

A: The other small boxes contain on/off switches to depower the site and a backup port for the site. These are used in emergencies, for example if a storm damages the pole we want to be able to shut off

the site. We provide the ability for the power company to power off the site in the event the power company needs to do so if there are storm repairs they need to do.

Q: Who has access to the site?

A: ACD representatives will always be at the site whenever maintenance needs to occur. Additionally contractors, who are with ACD may be there assisting us. The local power company, and the local electrical inspectors and fire department has access to de-power the site as well, just the same as they have access to the power boxes on your home or business to depower them if there are issues.

Q: What are the other devices?

A: The other devices enable the DAS signal to come from a fiber cable. These boxes create the signal that provides 4G LTE service across a couple of frequencies to customer's devices. ACD is also installing its own power systems and fiber optic equipment so that we may be able to install Gigabit Fiber Service to our own customers as well.

# **CHARTER TOWNSHIP OF MERIDIAN**

## **Timeline ACD.net (non-exhaustive)**

## ACD DAS Permit Application Timeline

### Year 2014:

8/6/2014 Filed permit

8/25/2014 Emailed Watza and Ditschman & discussed permit application

26-Aug Left Gary Gould message regarding permit

27-Aug Left Gary Gould message regarding permit

27-Aug Deborah spoke with Gary reg: ACD DAS poles, consumer poles

28-Aug Jay Graham received call from Phil Brown of ACD asking to review proposed work cell # 517-420-1975

27-Aug Gary Gould emailed 3 docs reg: ACD pole insertion requests for DAS

28-Aug Gary Gould emailed docs reg: permit to which Deborah could not open & requested PDFs

29-Aug Received Metro Permit from ACD.net

2-Sep Deborah reviewed metro permit

5-Sep Deborah emailed Gary requesting PDFs of Docs she cannot open that Gary sent

5-Sep Deborah review ROW, twp ordinance, metro

5-Sep Phone conversation with Phil Brown notes:

Notes:

Phil:

Part of Consumers program called Engines. Set up a website using a website engine where their paperwork is located.

Find out pole limitations. Height and whether metal allowed.

NTSC standard that mandates people stay out of safety zone from power attachments on poles.

MPSC labels as a DAS DAS

Cell sites around Lugnut stadium

Deb:

Metro Act excludes antennae's. Can approve fiber underground portions of the permit only at this point. Need Consumer permit

Follow up:

Deborah look at poles at Lugnut Stadium & ACD.net facility

Deborah look through Township ordinance to see if anything allows permitting antennae in ROW. Metro Act excludes it.

Phil ask Kevin about placing on Studio C bldg. and Flagstar bldg.

Phil ask Kevin insight if MPSC stated fails under something other than Metro Act

Phil ask Kevin if he would like to meet at site of pole placements or in office to look at paperwork

Phil provide Consumer paperwork

22-Sep ACD.net sends new exhibit B for METRO application

- 23-Sep Deborah requests separate METRO Permit from ACD for above ground work w/ Steve Deroshia. NEVER received
- 8-Oct Look at pole locations with staff engineers, telecom attorney and Steven Deroshia with ACD.net
- 9-Oct Pole configurations sent to staff by Steven Deroshia
- 13-Oct Steve Deroshia contacted staff requesting status of METRO permit
- 14-Oct Email sent to Steve Deroshia approving below ground work only
- 15-Oct Phone conversation with Steve Schoen regarding amendments to the agreement and pole aesthetics & invite to a board meeting
- 16-Oct Meeting with Kevin looking at pole at his facility
- 3-Nov Attempted to set up a Communications Commission meeting presentation from Kevin
- 3-Dec Attempted to set up a Communications Commission meeting presentation from Kevin

**Year 2015:**

- 9-Jan Email from Watza reg: METRO Act and FCC
- 2-Mar Draft agreement sent to Meridian
- 3-Mar Review application with Kevin Schoen and pole design
- 20-Mar Received email from Kevin wanting to meet about new pole designs
- 24-Mar Deborah sent email needing to reschedule due to furnace issue
- 25-May Deborah email MPSC re: ACD.net not on file
- 8-Aug ACD contacted Jay Graham, did not contact me
- 20-Aug Jay Graham emails Steve Deroshia Keeps calling. Deborah responds no change in status
- 30-Aug Email from Watza stating in discussions with ACD on DAS
- 24-Sep Email from Ashleigh Hall w/ ACD reg: moving ACD permit forward
- 2-Oct Staff review modified DAS license agreement
- 4-Nov Communication Commission requests expansion of rules & responsibilities at CC mtg
- 25-Nov ACD advises litigation over macro tower near the mall
- 25-Nov FCC Pole Attachment order
- 2-Dec Commission motions new objectives and responsibilities

**Year 2016:**

- 22-Jan Derek emails DAS request from ACD back w/ email from Doreen Murphy
- 22-Jan Staff engineers and Planning meet regarding application
- 22-Jan Deborah and Watza review application and modified agreement
- 2-Feb Doreen Murphy emails Derek to confirm presentation in front of TB on 3/1
- 2-Feb Derek emails confirmation for 3/15 presentation
- 2-Feb Deborah forwards Bloomfield DAS complaint to Derek
- 29-Feb Doreen Murphy emails Derek to confirm presentation in front of TB on 3/1

1-Mar Deborah has phone conversation with Doreen Murphy prepping for Board mtg  
1-Mar Township Board Meeting canceled due to snow storm, presentation moved to 4/5  
1-Mar Township Board requests Communication Commission review DAS and make recommendation to board  
1-Apr Confirmed Doreen Murphy and Kevin Meeker to present to TB on 4/1  
5-Apr Staff reviews DAS antennae issues after presentation  
6-Apr Communications Commission discussed DAS, Trustee Styka reported TB looking for rec.  
13-Apr Email correspondence between staff and ACD regarding presentation for 6/1 CC meeting  
27-Apr Staff reviews DAS Tower location map

1-Jun Communications Commission meeting canceled due to lack of quorum  
13-Jun Staff setting up Special Communications Commission meeting  
17-Jun Email sent to CC regarding Special Meeting created for Budget and DAS on 6/29  
22-Jun Email received from Doreen regarding displeasure with the township  
22-Jun Email response from Deborah to Doreen regarding upcoming meeting  
23-Jun Email response from Deborah to Doreen regarding ACD Timeline and staff work on project  
28-Jun Email from Andrea to Deborah with June 29 Presentation Proposal attached  
29-Jun Special Communication Commission Meeting: ACD DAS Presentation

20-Jul Staff requests images of pole designs from ACD to send Commission  
20-Jul Staff sends follow up meeting notes to commission  
22-Jul Images of pole options attached to email from Doreen to staff  
27-Jul Staff forwards pole images to commission

3-Aug ACD.net Presentation to the Communications Commission  
5-Aug Staff meets with MML, MTA, CRAM, and MAC regarding DAS  
12-Aug Staff reviews current township ordinances regarding wireless communication  
25-Aug Staff, Mike Watzka and ACD meet to discuss terms for DAS in Meridian  
25-Aug Staff adds DAS to September 6 Township Board Meeting  
31-Aug Staff meets with ACD and Mike Watzka to finalize draft term rec.'s to TB

6-Sep Staff presentation to Township Board for DAS  
20-Sep Correspondance with Doreen Murphy on DAS before Township Board meeting  
20-Sep Correspondance with Attorneys on Presentation availability

27-Sep Confirm with Doreen Township Board meeting October 4

October Work with legal counsel on DAS checklist items

November Work with legal counsel on DAS placement of wireless in rights of way choices

2-Nov Communications Commission meeting regarding TB needs on DAS

2-Nov Communications Commission approve committee meetings

4-Nov Meeting with Walsh regarding Commission Committee motion

2-Dec Mobility petition review with legal

12-Dec Request and resend of East Lansing and Lansing Pole locations

14-Dec DAS Committee Meeting

14-Dec Meeting Follow ups

22-Dec Message left for Kevin Schoen regarding pole location flexibility

22-Dec Email correspondance to Kevin and Doreen follow up from committee meeting

27-Dec Email correspondance from Kevin and responses sent from staff to Kevin

**Year 2017:**

Jan. 5-9 Staff create & collect Study Session Materials for Committee to review

10-Jan DAS Committee Meeting reg: Study Session Materials

11-Jan Correspondance with legal reg: DAS policy draft

12-Jan Staff request for updated DAS pole location map

13-Jan ACD submit latest DAS pole location map to Meridian

19-Jan Staff work with legal on draft agreement; submit partial draft to ACD

20-Jan Finalize Study Session Materials and Submit

**CHARTER TOWNSHIP OF MERIDIAN**

**Applicant Pole locations  
Map**



# **CHARTER TOWNSHIP OF MERIDIAN**

## **Pole locations East Lansing/Lansing**

**From:** Doreen M. Murphy [<mailto:murphy.doreen@acd.net>]

**Sent:** Thursday, September 01, 2016 4:14 PM

**To:** Deborah Guthrie <[Guthrie@meridian.mi.us](mailto:Guthrie@meridian.mi.us)>

**Cc:** Kevin Schoen <[schoen.kevin@acd.net](mailto:schoen.kevin@acd.net)>

**Subject:** RE: stuff needed

Hi Deborah,

Sorry for the delay.

Here is the list of poles which we have placed in East Lansing and Lansing.

6406 Westland Way	Lansing
5890 Millett Hwy.	Lansing
3387 S. Creyts Rd	Lansing
8111 Millett Hwy.	Lansing
6403 Central Circle	Lansing
8003 5/8 Davis Hwy.	Lansing
5698 Mall Dr. W.	Lansing
5211 Mall Dr. W.	Lansing
499 Mall Dr. S.	Lansing
107 Elmwood Rd.	Lansing
435 Elmwood Rd.	Lansing
203 N Sycamore St	Lansing
203 Seymour St	Lansing
209 Museum Dr	Lansing
613 Park Pl.	Lansing
402 Cherry St.	Lansing
203 S Butler Blvd	Lansing
345 Highland Ave	East Lansing
53 S Harrison Rd	East Lansing
713 Wildwood Dr	East Lansing
812 Oak St	East Lansing
125 Highland Ave	East Lansing
865 Cowley Ave	East Lansing
312 Delta St	East Lansing
1233 Jerome St.	Lansing
104 N. Hosmer St.	Lansing
135 Bingham St.	Lansing
106 S. Pennsylvania Ave. Lansing MI 48912	Lansing
115 Holmes St. Lansing MI 48912	Lansing

953 Alton St	East Lansing
2525 Marfitt Rd	East Lansing
315 Burcham Dr	East Lansing
720 Forest St	East Lansing
108 Whitehills Dr	East Lansing
1502 Abbot Rd	East Lansing
3003 Coolidge Rd	East Lansing
235 N Larch St.	Lansing
214 N Cedar St.	Lansing
1800 N. Grand River Ave.	Lansing
109 N Larch St.	Lansing
407 N Larch St.	Lansing

Thanks!

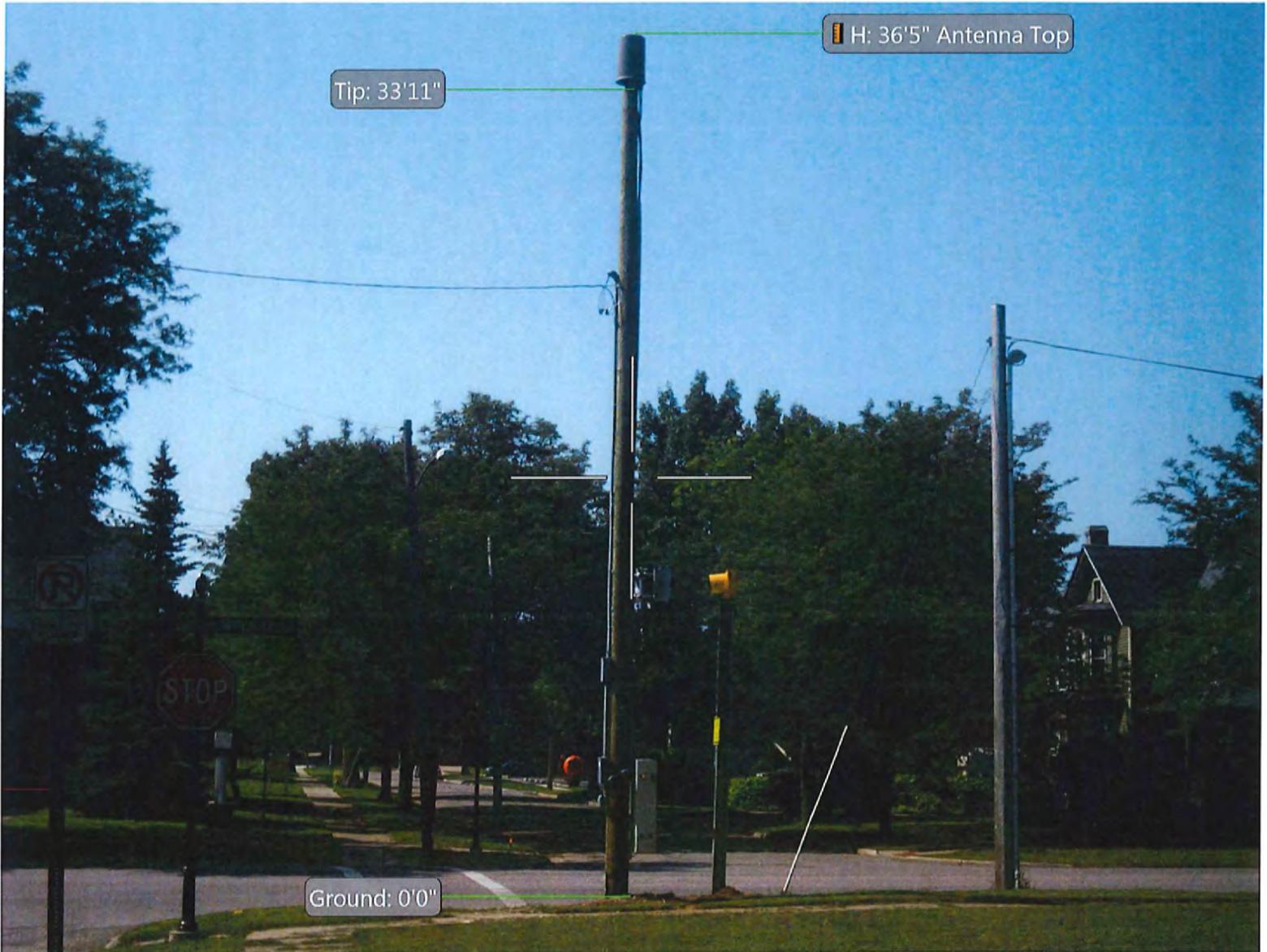
**Doreen M. Murphy**  
**Sr. Project Manager-Midwest Region**  
1800 N. Grand River Ave.  
Lansing, MI 48906  
Office: (517)999-9999 ext. 278  
Mobile: (517)449-1810  
[murphy.doreen@acd.net](mailto:murphy.doreen@acd.net)

**CHARTER TOWNSHIP OF MERIDIAN**

**CABLE COMMUNICATIONS  
COMMISSION**

**DAS Pole Images**

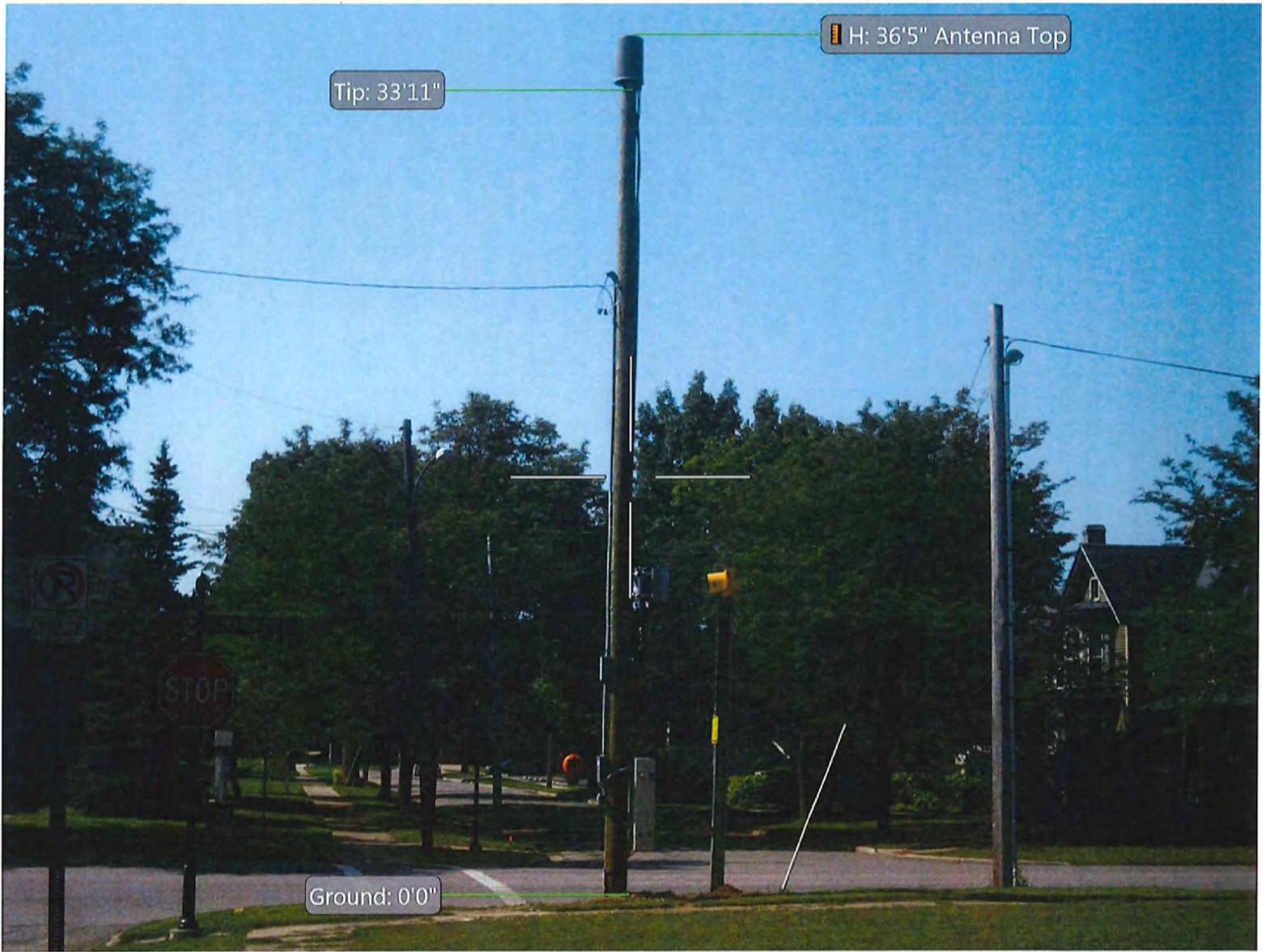




Tip: 33'11"

H: 36'5" Antenna Top

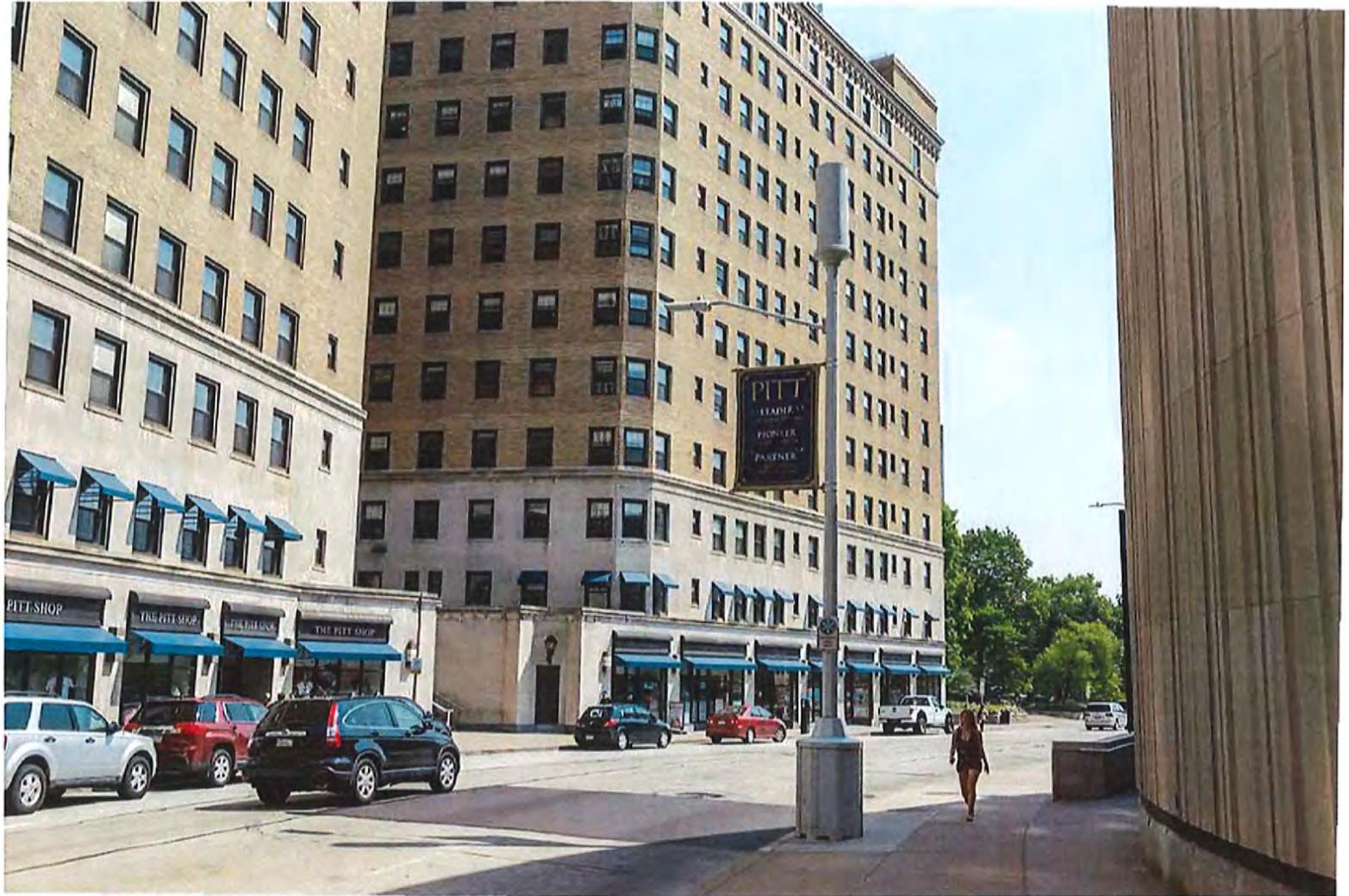
Ground: 0'0"



Tip: 33'11"

H: 36'5" Antenna Top

Ground: 0'0"

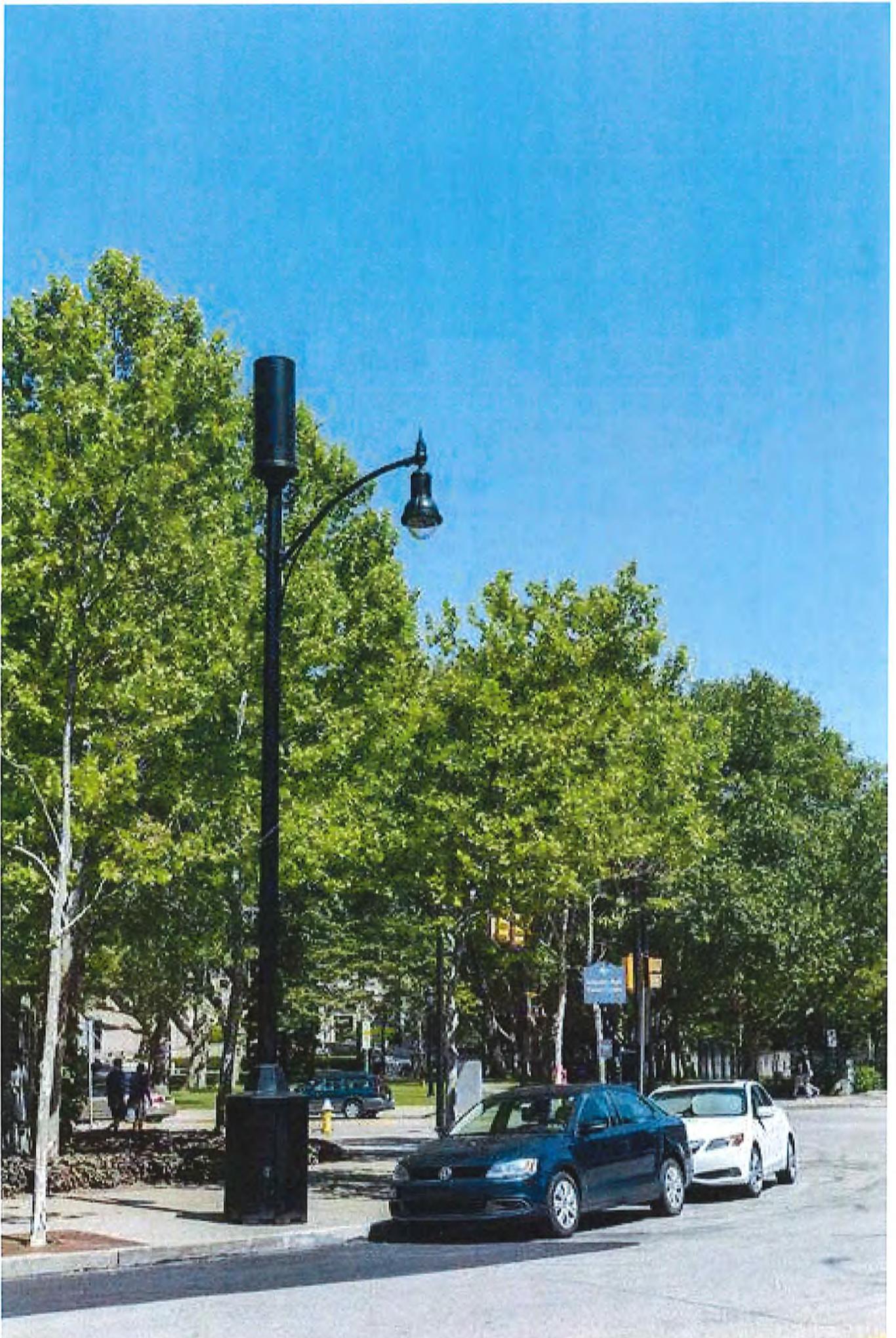












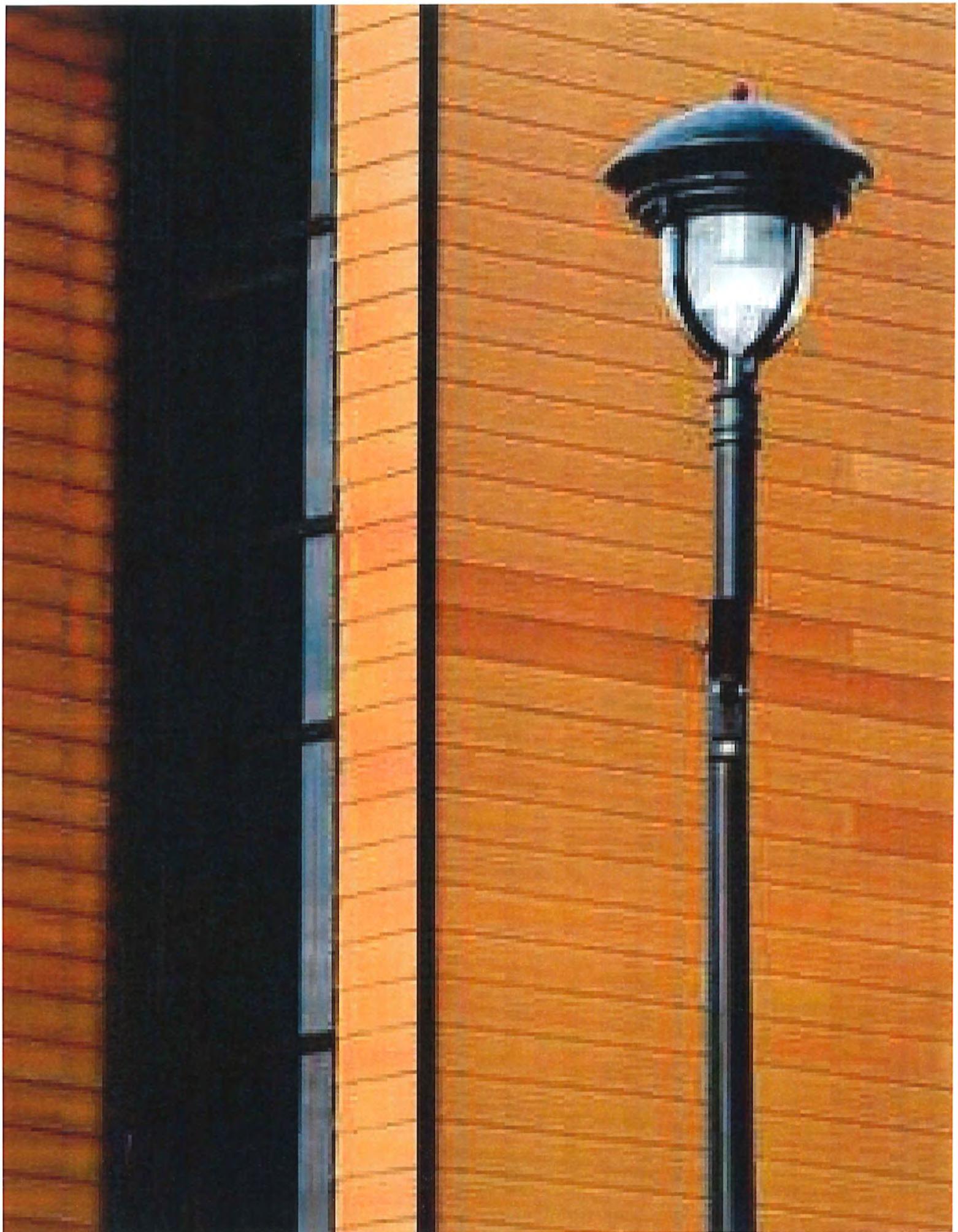
















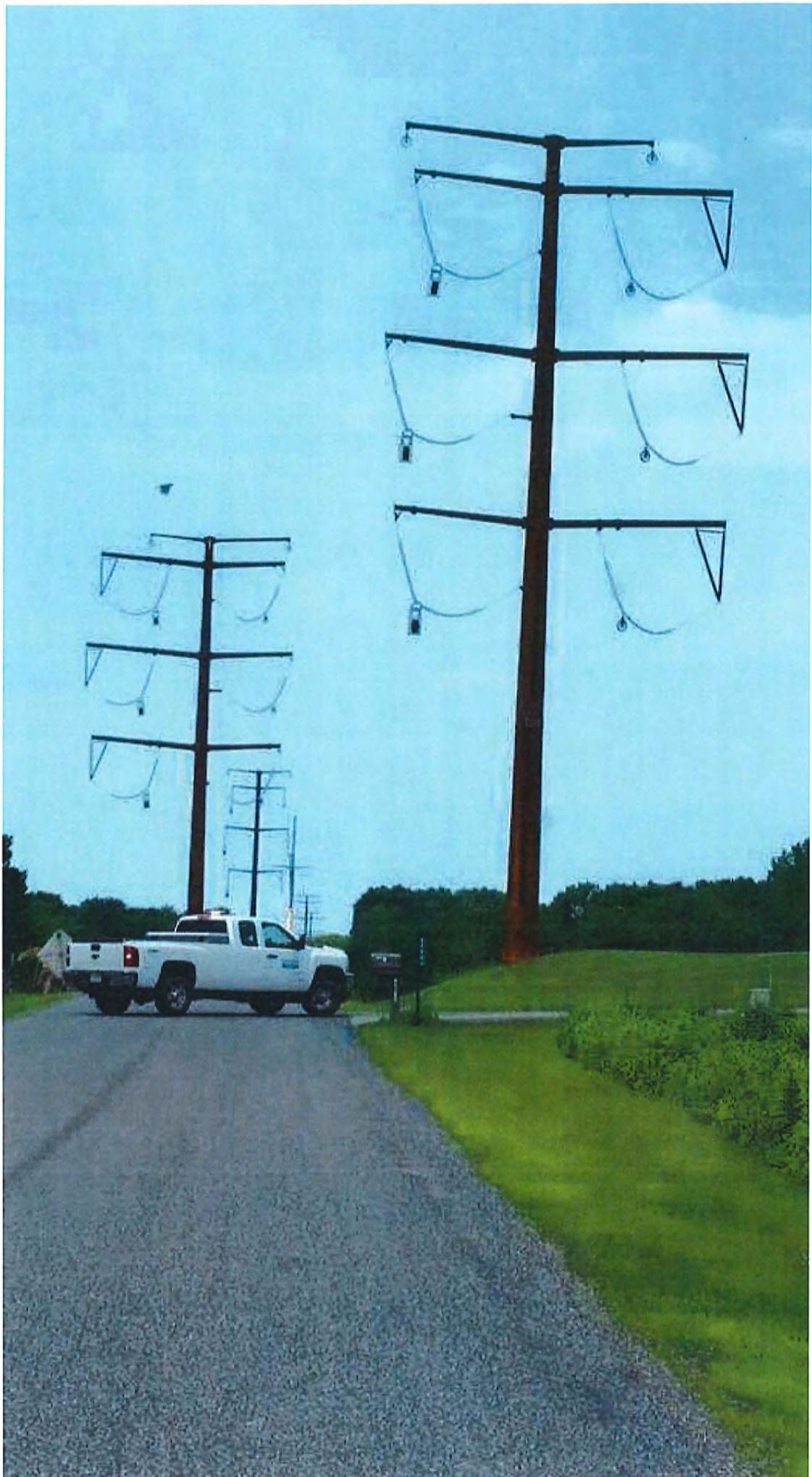
**CHARTER TOWNSHIP OF MERIDIAN**

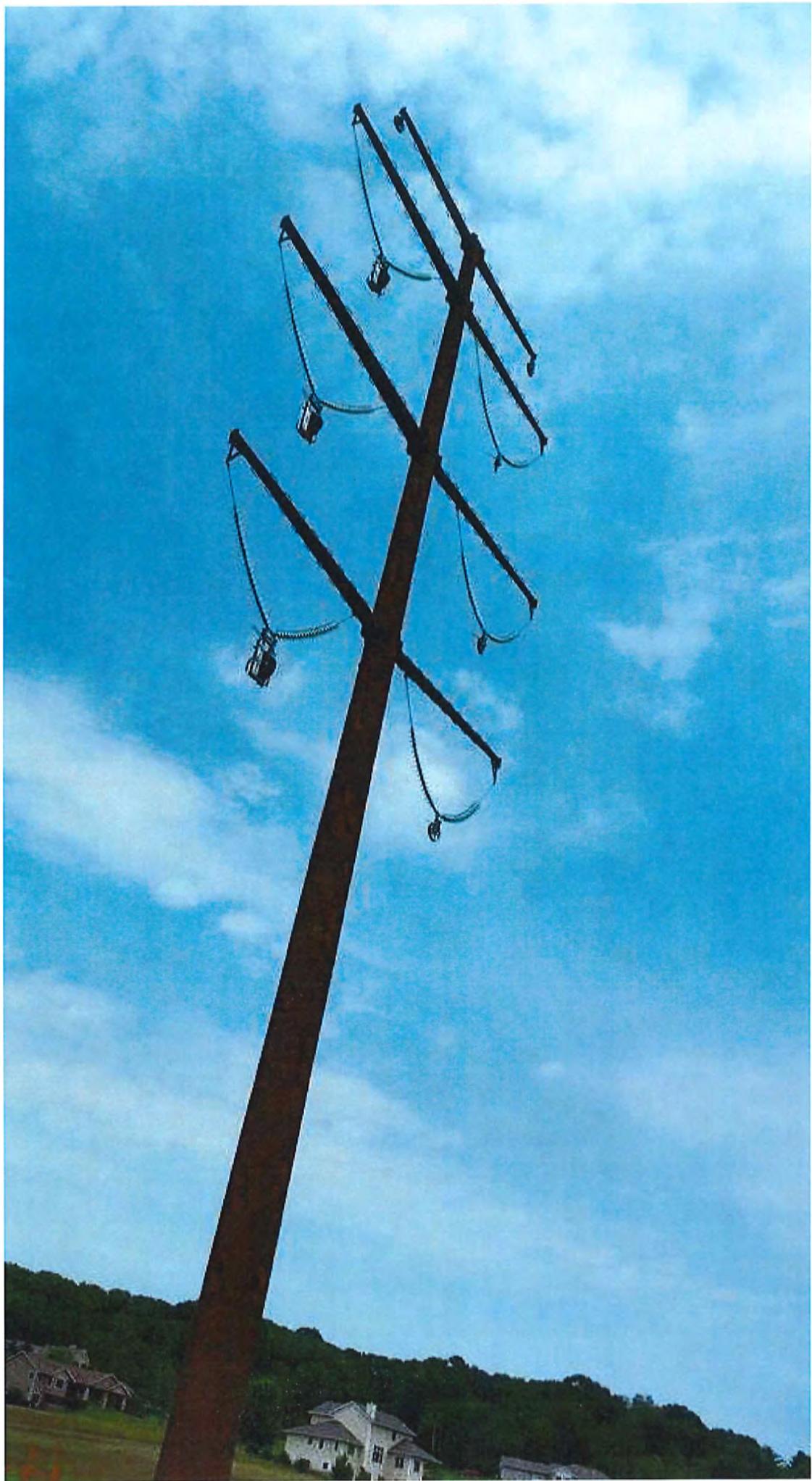
**DAS Collocation Images**











# **CHARTER TOWNSHIP OF MERIDIAN**

## **DAS Agreement Example**

## **DAS/SMALL CELL LICENSE AGREEMENT**

**BETWEEN**

**THE CITY OF BOYNE CITY**

**and**

**KEPS Technologies, Inc. d/b/a "ACD"**

**THIS LICENSE AGREEMENT ("AGREEMENT") DATED AS OF THIS 31st DAY OF AUGUST, 2016, IS ENTERED INTO BY AND BETWEEN THE CITY OF BOYNE CITY, A MUNICIPAL CORPORATION ("CITY"), AND KEPS Technologies, Inc. d/b/a "ACD", A MICHIGAN CORPORATION ("LICENSEE" OR "ACD").**

**WHEREAS**, the City has made significant investments of time and resources in the acquisition and maintenance of the public ways and such investment has enhanced the utility and value of the public ways; and

**WHEREAS**, the public ways within the City are used by and useful to private enterprises including Licensee and others engaged in providing telecommunications services to citizens, institutions, and businesses located in the City; and

**WHEREAS**, the right to access and/or occupy portions of such public ways for limited times, for the business of providing telecommunications services, is a valuable economic privilege; and

**WHEREAS**, beneficial competition between providers of communications services can be furthered by the City's provision of grants of location and rights to use the public ways on non-discriminatory and competitively neutral terms and conditions; and

**WHEREAS**, LICENSEE is a private enterprise engaged in **installing** facilities related to and/or **providing** various telecommunications services within the City by means of fiber connected Distributed Antenna Systems or other Small Cell Facilities (DAS/Small Cells or DAS Small Cell Networks); and

**WHEREAS**, LICENSEE desires to physically install and occupy portions of the public way to install additional utility poles, or to utilize city owned light, traffic signal or other city owned poles for use of it's LICENSED DAS/Small Cells; and

**WHEREAS**, LICENSEE is agreeing to compensate the City for installation and/or operation of all antennas, supporting structures for antennas, equipment shelters, poles or houses associated with DAS/Small Cells in exchange for a grant of location and the right to use and physically occupy portions of the public way for the limited purposes and times set forth below;

**WHEREAS**, the City grants this license pursuant to its authority to manage its public spaces.;

NOW THEREFORE BE IT RESOLVED, in consideration of the terms and conditions contained in this Agreement, the City and LICENSEE do hereby agree:

THIS AGREEMENT IS MADE WITH REFERENCE TO THE FOLLOWING FACTS AND CIRCUMSTANCES:

### **1.0 DEFINITIONS**

Except as otherwise defined herein, the following terms shall, when capitalized, have the meanings given below:

1.1 "Agency" means any governmental agency or quasi-governmental agency other than City, including, but not limited to, the Federal Communications Commission (FCC) and the Michigan Public Service Commission, Metro Authority or Local Community Stabilization Authority .

1.2 "Grant" when used with reference to grant or authorization of the City, means the prior written authorization of the City of BOYNE CITY\_ (and/or its various boards and commissions) unless another person or method for authorization is specified herein or under applicable law. Grant does not mean "Approval" as contemplated in various FCC determinations related to subsequent collocation requests which are expressly not granted by this license.

1.3 "Business Day" means any Day other than a Saturday, Sunday, or Day observed as an official holiday by the City.

1.4 "Day" means any calendar day, unless a Business Day is specified. For the purposes hereof, if the time in which an act is to be performed falls on a Day other than a Business Day, the time for performance shall be extended to the following Business Day. For the purposes hereof, the time in which an act is to be performed shall be computed by excluding the first Day and including the last.

1.5 "FCC" means the Federal Communications Commission.

1.6 "Hazardous Material" means any substance, waste or material which, because of its quantity, concentration or physical or chemical characteristics is in fact or deemed by any federal, state, or local governmental authority to pose a present or potential hazard to human health or safety or to the environment.

1.7 "Law" or "Laws" means any federal, state or local statute, ordinance, resolution, regulation, rule, tariff, administrative order, certificate, order, or other

lawful requirement in effect either at the time of execution of this Agreement or at any time during the period the DAS/Small Cells are located in the Public Rights-of-Ways.

1.8 “DAS/Small Cells” means any and all telecommunication facilities or related equipment installed and/or operated by LICENSEE for the provision of commercial mobile radio service (“CMRS”) carriers and including cables, antennas, brackets, devices, conduits, poles, shelters, houses, cabinets and all other related equipment to be deployed, installed and/or operated by LICENSEE as described in Exhibit A attached hereto.

1.9 “Person” means an individual, a corporation, a partnership, a sole proprietorship, a joint venture, a business trust, or any other form of business association or government agency.

1.10 “Public Ways” or “Public Rights-of-Way” means the areas in, upon, above, along, across, under, and over the public streets, sidewalks, roads, lanes, courts, ways, alleys, boulevards, buildings and any other public places owned by and within the City as the same now or may hereafter exist and which are under the permitting jurisdiction of the City.

1.11 “Release” when used with respect to Hazardous Material means any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into or inside any existing improvements or any improvements constructed hereunder by or on behalf of LICENSEE.

1.12 “Services” means those services provided by or through DAS/Small Cells LICENSEE as specifically identified in the attached detailed plans and specifications See Exh A. If the City grants the provision of any other services by LICENSEE, upon such grant, the definition of “Services” shall automatically be revised to include any such grant of additional services. Unless specifically expressed in this agreement, Service does not mean video service of any kind.

1.13 “Poles” means light poles, wooden power poles, traffic light poles, highway sign poles, utility poles, lighting fixtures or other similar poles located in the Public Way owned by the City or ACD.net or following transfer from the City or other third parties and may refer to such facilities in the singular or plural, as appropriate to the context in which used. The term poles excludes any historically or architecturally significant poles owned by the City located on public ways or, other similar street features.

## **2.0 TERM OF AGREEMENT**

The term of this Agreement shall commence on the date of execution by the City (“The Commencement Date”) and shall end on August 31, 2016.

Upon written application to City delivered no later than one year before the end date of the term of this LICENSE, the LICENSEE may request to amend this LICENSE to extend the end date to a proposed new date. Assuming the licensee has met all conditions of the LICENSE and performed to City's satisfaction in providing the Services in the City, and assuming that City believes extension of the term of this license would be in the public interest, the term end date of this LICENSE may be extended.

### **3.0 DESCRIPTION OF WORK**

**3.1 Installation of DAS/SMALL CELL NETWORKS.** During the term of this Agreement, LICENSEE is authorized, on a non-exclusive basis, to locate and install utility poles, light poles, or to attach to city light pole, traffic signal poles or other city owned poles to house and operate a DAS/Small Cell Network in the utility public right of way or other City owned or controlled property, as more particularly identified in Exhibit A. This agreement does not give any rights to use any poles not owned by the City. Prior to initial installation of the DAS/Small Cell equipment upon any city owned light pole, traffic light pole or other city owned pole or property, LICENSEE shall obtain written City authorization for such installation upon such specific property or pole and shall provide the City with written evidence of such authorization, if received from a 3<sup>rd</sup> party.

**3.1.1. Location of DAS/Small Cell Networks.** The City may grant or deny the location and installation of any DAS/Small Cell equipment on a pole prior to installation, based on reasonable proprietary and or regulatory factors, such as the location of other present or future communications facilities upon which collocation shall be a 1<sup>st</sup> priority, efficient use of scarce physical space to avoid premature exhaustion, potential inference with other communications facilities and services, the public safety of the motoring public and other users of the rights of way and other critical public services; provided, however, that such grant shall not be unreasonably conditioned, withheld, or delayed.

3.1.2 Map and List of DAS/Small Cell equipment. LICENSEE shall maintain in a form acceptable to the City, a current map and list of the location of all Facilities used by LICENSEE for its DAS/Small Cell Network pursuant to this Agreement and located in public ways; LICENSEE shall provide such list to the City within ten (10) Business Days upon receipt of request for same; and LICENSEE shall, whether or not requested by the City, provide an updated list and map promptly after any change is made in regard to the locations of the specific poles specified by LICENSEE in such lists and maps. LICENSEE shall obtain all required permits and grants of the City and any of its departments or agencies, and any other Agency with jurisdiction over the DAS/Small Cells, services or the property on which the DAS/Small Cells are or will be located, prior to performing any work under this Agreement and shall comply with all of the terms and conditions set forth in these permits. LICENSEE shall not mount, construct, install, maintain, locate, operate, place, protect, reconstruct, reinstall, remove, repair, or replace any DAS/Small Cells on any pole, except as expressly authorized by and in strict compliance with this Agreement, and shall not without further and separate authorization, otherwise locate more than one antenna or other related structure on any single pole.

3.1.3 Changes to DAS/Small Cell Networks or Their Location on Poles Located on Public Ways. If LICENSEE proposes to install different but comparable equipment, or if the DAS/Small Cell or its location on the poles located on public Rights-of-Way deviate in any material way from the specifications attached hereto as Exhibit A, then LICENSEE shall first obtain a grant for the use and installation of the comparable equipment or for any such deviation in the DAS/Small Cells Network from the owners of the poles located on Public Rights-of-Way and shall provide the City with written evidence of such authorization. The City may not unreasonably deny use of the different but comparable equipment, or non-material deviation from the specifications set forth in Exhibit A with regard to the placement of the DAS/Small Cell equipment on the poles located on public ways, pursuant to the factors enumerated under Section 3.1.1, and such grant shall not be unreasonably conditioned, withheld, or delayed.

3.2 Provision of Services. The DAS/Small Cell Network installed pursuant to this Agreement shall be used solely for the rendering of telecommunication services including wireless services. If LICENSEE proposes to make a material change to the nature and character of the services not expressly permitted under this Agreement, including, without limitation, video programming services, open video system services, or cable television services, LICENSEE shall notify the City in writing of this intended change not less than one hundred and eighty (180) days prior to the proposed date of change to Service. The City may either (i) accept the proposed change in Service on mutually agreeable terms and conditions or (ii) require that the Services not be changed but rather continue to be provided as contemplated herein.

3.3 Restoration of Work Site Areas. Upon the completion of each task or phase of work to be performed by LICENSEE under this Agreement, LICENSEE shall promptly restore all work site areas to a condition reasonably satisfactory to the City and in accordance with construction standards as specified by the City, ordinary wear and tear not caused by LICENSEE or the DAS/Small Cell Networks excepted. The provisions of this paragraph shall survive the expiration, completion or earlier termination of this Agreement.

3.4 Removal of DAS/Small Cell Network. Upon one hundred and eighty (180) days' written notice by the City pursuant to the expiration or earlier termination of this Agreement for cause, LICENSEE shall promptly, safely and carefully remove the DAS/Small Cell Network from all poles and other places located in Public Rights-of-Way. Such obligation of LICENSEE shall survive the expiration or earlier termination of this Agreement. If LICENSEE fails to complete this removal work on or before the one hundred and eighty (180) days subsequent to the issuance of notice pursuant to this Section 3.4, then the City, upon written notice to LICENSEE, shall have the right at the City's sole election, but not the obligation, to perform this removal work and charge LICENSEE for the actual costs and expenses, including, without limitation, reasonable administrative costs. LICENSEE shall pay to the City the reasonable costs and expenses incurred by the City in performing any removal work and any storage of LICENSEE's property after removal (including any portion of the DAS/Small Cell Networks) within fifteen (15) Business Days of the date of a written demand for this payment from the City. The City may, in its discretion, obtain reimbursement for the above by making a claim under LICENSEE's performance bond. After the City receives the reimbursement payment from LICENSEE for the removal work performed by the City, the City shall promptly return to LICENSEE the property belonging to LICENSEE and removed by the City pursuant to this Section 3.4 at no liability to the City. If the City does not receive the reimbursement payment from LICENSEE within such fifteen (15) Business Days, or if City does not elect to remove such items at the City's cost after LICENSEE's failure to so remove prior to one hundred and eighty (180) days subsequent to the issuance of notice pursuant to this Section 3.4, any items of LICENSEE's property, including without limitation the DAS/Small Cell Networks, remaining on or about the Public Rights-of-Way or stored by the City after the City's removal thereof may, at the City's option, be deemed abandoned and the City may dispose of such property in any manner allowed by Law, and in accordance with any legal rights of persons other than the City who own light poles located in the public way and used by LICENSEE. Alternatively, the City may elect to take title to such abandoned property, whether the City is provided by the LICENSEE, an instrument satisfactory to the City transferring to the City the ownership of such property, or not. The provisions of this paragraph shall survive the expiration or earlier termination of this Agreement.

3.5 Risk of Loss or Damage. LICENSEE acknowledges and agrees that LICENSEE bears all risk of loss or damage of its equipment and materials, including, without limitation, the DAS/Small Cell Networks, installed in the Public Rights-of-Way pursuant to this Agreement from any cause, and the City shall not be liable for any cost of repair to damaged DAS/Small Cell Networks, including, without limitation, damage

caused by the City's removal of DAS/Small Cell Networks, except to the extent that such loss or damage was caused by the willful misconduct of the City, including without limitation, each of its commissions, boards, departments, officers, agents, employees and contractors.

**3.6 Removal or Relocation of DAS/Small Cell Network at City's Request.**

LICENSEE understands and acknowledges that the City, at any time and from time to time, may require LICENSEE to remove or relocate upon a written request from the City on ten (10) Business Days' notice at LICENSEE's sole cost and expense, portions of the DAS/Small Cell Network whenever City reasonably determines that the removal or relocation is needed: (1) to facilitate or accommodate the construction, completion, repair, relocation, or maintenance of a City project, (2) because the DAS/Small Cell Network interferes with or adversely affects proper operation of the light poles, traffic signals, City-owned communications systems or other City facilities, (3) because of a sale or vacation of the public right of way by the City, (4) because there is a change in use of the public right of way by the City provided such use similarly effects similarly LICENSED users in the public right of way, (5) because there is damage to and/or removal of the light pole, or (6) to preserve and protect the public health and safety, in a manner not inconsistent with 47 U.S.C. § 332(c)(7). LICENSEE shall at its own cost and expense remove, relocate and/or adjust the DAS/Small Cell Network, or any part thereof, to such other location or locations in the Public Rights-of-Way, or in such manner, as appropriate, as may be designated or granted, in writing and in advance, by the City. Such removal, relocation, adjustment shall be completed within the time prescribed by the City in its written request and in accordance with the terms of this Agreement. LICENSEE shall not be in default hereunder if it has taken appropriate action as directed by the City to obtain such grant. If LICENSEE fails to remove, relocate, adjust or support any portion of the DAS/Small Cell Network as described by the City within the prescribed time, City may take all reasonable, necessary, and appropriate action, as stated in Section 3.4.

**4.0 PERMIT, LIMITATIONS AND RESTRICTIONS**

**4.1 Limited Authorization.** This Agreement does not authorize the placement of DAS/Small Cell Networks or any other equipment on sites, structures or facilities other than those specifically identified herein . Placement of the DAS/Small Cell Networks shall comply with the terms of the City's conditions of access in effect as of the date of execution hereof and as are applied equally to all Persons using the Public Rights-of-Way under grant by the City. The Agreement does not relieve LICENSEE of its burden of seeking any necessary permission from other governmental agencies which may have jurisdiction regarding LICENSEE's proposed use. LICENSEE further acknowledges that it cannot use any historically or architecturally significant poles located on the public rights-of-way or other street furniture, except as may be otherwise expressly authorized in a specific permit issued by the City.

4.2 No Authorization to Provide Other Services. LICENSEE represents, warrants and covenants that its DAS/Small Cell Networks installed pursuant to this Agreement will be utilized solely for the rendering of telecommunication services, including wireless services, and LICENSEE is not authorized to and shall not use the DAS/Small Cell Networks to offer or provide any other services not specified herein. Failure to abide by this may constitute a breach of this agreement, and the City, after providing LICENSEE with written notice and a meeting concerning the same, may levy fines in an amount not to exceed one thousand dollars (\$1,000.00) per day until the breach is remedied together with all other remedies available at law or equity

4.3 Reservation of Powers. The City reserves any and all powers it may have, now or in the future under applicable local, state, or federal law, to regulate the DAS/Small Cell Networks, their use, or the use of the Public Rights-of-Way or of other City property. LICENSEE shall be subject to all present and future ordinances of the City and its Boards and Commissions. Nothing in this Agreement shall be construed as a waiver of any codes, ordinances or regulations of the City or of the City's right to require LICENSEE to secure the appropriate permits or authorizations for exercising the rights set forth in this Agreement.

4.4 All Permitted Activities Fees at LICENSEE's Sole Expense. Notwithstanding any other provision of this Agreement, the construction, operation, maintenance, removal and replacement of DAS/Small Cell Networks, and all other activities permitted hereunder and all fees or obligations of LICENSEE under this Agreement, shall be LICENSEE's sole responsibility at LICENSEE's sole cost and expense.

4.5 Permit. LICENSEE shall obtain, at its sole expense, all applicable permits as are required by City or any other Agency to perform the work and ongoing use, as described in this Agreement, of poles located on the Public Rights-of-Way, including but not limited to a Metro Act Permit pursuant to 2002 PA 48; MCL 484.3101et seq.

4.6 No Real Property Interest Created. Neither LICENSEE's use of the Public Rights-of-Way, nor anything contained in this Agreement, shall be deemed to grant, convey, create, or vest in LICENSEE a real property interest in any portion of the Public Rights-of-Way or any other City property, including but not limited to, any fee or leasehold interest in any land or easement. LICENSEE, on behalf of itself and any permitted successor, lessee, or assign, recognizes and understands that this Agreement may create an interest subject to taxation and that LICENSEE, its successor, lessee or assign may be subject to the payment of such taxes.

4.7 All Rights Nonexclusive. Notwithstanding any other provision of this Agreement, any and all rights expressly or impliedly granted to LICENSEE under this Agreement shall be non-exclusive, and shall be subject and subordinate to (1) the continuing right of the City to use, and to allow any other Person or Persons to use, any and all parts of the Public Rights-of-Way, exclusively or concurrently with any other Person or Persons, and (2) the public easement for streets and any and all other deeds,

easements, dedications, conditions, covenants, restrictions, encumbrances and claims of title (collectively, "Encumbrances") which may affect the Public Rights-of-Way now or at any time during the term of this Agreement, including without limitation any Encumbrances granted, created or allowed by the City at any time.

4.8 Collocation. This LICENSE does not grant or approve any collocation rights to any person or entity, related or unrelated to the LICENSEE. LICENSEE is authorized to install 1 antenna per site. Additional antennas require new and additional licensure at the City's Sole discretion. The City reserves the right to require all future DAS/Small Cell installers to collocate on Licensee's poles or other support facilities pursuant to its police powers and Licensee agrees to reasonably accommodate such requirements in terms of location on the structure and costs and fees charged to such 3<sup>rd</sup> party applicant.

## **5.0 WAIVERS AND INDEMNIFICATION**

5.1 Non-Liability of City Officials, Employees and Agents. No elective or appointive board, commission, member, officer, employee or other agent of the City shall be personally liable to LICENSEE, its successors and assigns, in the event of any default or breach by the City or for any amount which may become due to LICENSEE, its successors and assigns, or for any obligation of City under this Agreement.

5.2 Obligation to Indemnify the City. LICENSEE, its successors and assigns, shall hold harmless, defend, protect and indemnify the City, including, without limitation, each of its commissions, departments, officers, agents, employees and contractors, from and against any and all actions, losses, liabilities, expenses, claims, demands, injuries, damages, fines, penalties, costs, judgments or suits including, without limitation, reasonable attorneys' fees and costs (collectively, "Claims") of any kind allegedly arising directly or indirectly from: (i) any act by, omission by, or negligence of LICENSEE or its contractors or subcontractors, or the officers, agents, or employees of any of them, while engaged in the performance of the work or conduct of the activities authorized by this Agreement, or while in or about the Public Rights-of-Way or any other City property for any reason connected in any way whatsoever with the performance of the work, conduct of the activities or presence of the DAS/Small Cell Networks authorized by this Agreement, or allegedly resulting directly or indirectly from the presence, construction, installation, maintenance, replacement, removal or repair of the DAS/Small Cell Networks, (ii) any accident, damage, death or injury to any contractor, subcontractor, or any officer, agent, or employee of either of them, while engaged in the performance of the work, conduct of the activities or presence of the DAS/Small Cell Networks authorized by this Agreement, or while in or about the Public Rights-of-Way, for any reason connected with the performance of the work or conduct of the activities authorized by this Agreement, or arising from liens or claims for services rendered or labor or materials furnished in or for the performance of the work authorized by this Agreement, (iii) any accident, damage, death or injury, to real or personal property, good will, and Person(s) in, upon or in any way allegedly connected with the work or activities authorized by this

Agreement or the presence of the DAS/Small Cell Networks from any cause or claims arising at any time including, without limitation, injuries or damages allegedly caused, directly or indirectly, in whole or in part, by radio wave transmission or electromagnetic fields emitted by the DAS/Small Cell Networks, (iv) any Release, or threatened Release, of any Hazardous Material caused in whole or in part by LICENSEE in, under, on or about the property subject to this Agreement or into the environment, or resulting directly or indirectly from the DAS/Small Cell Networks or the work or activities authorized by this Agreement, (v) any violation by LICENSEE of the terms and conditions hereof or any permit or grant issued by Commissioner or any Agency in connection with the DAS/Small Cell Networks or Services or pursuant hereto, or any misrepresentation made herein or in any document given by LICENSEE in connection herewith, and (vi) any direct or indirect interference by LICENSEE or the DAS/Small Cell Networks, except to the extent that such Claims arise from interference with use or placement of facilities in the public way caused by the sole negligence or willful misconduct of the City, including without limitation, each of its commissions, boards, departments, officers, agents, employees and contractors.

5.3 Scope of Indemnity. LICENSEE shall hold harmless, indemnify and defend the City as required in this Section 5, including without limitation, each of its commissions, boards, departments, officers, agents, employees and contractors, except only for claims resulting from the sole negligence or willful misconduct of the City, including without limitation, each of its commissions, departments, officers, agents, employees and contractors. LICENSEE specifically acknowledges and agrees that it has an immediate and independent obligation to defend the City from any claim which actually or potentially falls within this indemnity provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered in writing to LICENSEE by the City and continues at all times thereafter. LICENSEE agrees that the indemnification obligations assumed under this Agreement shall survive expiration or other termination of this Agreement.

5.4 No Liability for Damage, Death or Bodily Injury. Neither City nor any of its commissions, departments, boards, officers, agents or employees shall be liable for any damage to the property of LICENSEE, its officers, agents, employees, contractors or subcontractors, or their employees, or for any bodily injury or death to such persons, resulting or arising from the DAS/Small Cell Networks or activities authorized by this Agreement, the condition of any City property subject to this Agreement or LICENSEE's use of any City property, except as otherwise provided herein.

5.5 Waiver of Claims regarding Fitness of Light Poles or Other Municipal properties or structures Located in Public Ways. LICENSEE acknowledges that the City has made no warranties or representations regarding the fitness, availability or suitability of any of light poles or other Municipal properties or structures for the installation of the DAS/Small Cell Networks, or for any other activities permitted under this Agreement, and that, except as expressly provided herein, any performance of work or costs incurred by LICENSEE or provision of Services contemplated under this Agreement by LICENSEE is at LICENSEE's sole risk. LICENSEE on behalf of itself and its successors

and assigns, waives its right to recover from, and forever releases and discharges, the City and its agents, and their respective heirs, successors, administrators, personal representatives and assigns, from any and all Claims, whether direct or indirect, known or unknown, foreseen and unforeseen, that may arise on account of or in any way be connected with the physical or environmental condition of the light poles located on public ways, other City property affected by this Agreement or any law or regulation applicable thereto.

5.6 Waiver of All Claims. LICENSEE acknowledges that this Agreement is terminable by the City under certain limited circumstances as provided herein, and in view of such fact LICENSEE expressly assumes the risk of making any expenditures in connection with this Agreement, even if such expenditures are substantial, and LICENSEE expressly assumes the risk of selling its Services which may be affected by the termination of this Agreement. Without limiting any indemnification obligations of LICENSEE or other waivers contained in this Agreement and as a material part of the consideration for this Agreement, LICENSEE fully RELEASES, WAIVES AND DISCHARGES forever any and all claims, demands, rights, and causes of action against, and covenants not to sue, City, its departments, commissions, officers, boards, Commissioners and employees, and all persons acting by, through or under each of them, under any present or future Laws, including, but not limited to, any claim for inverse condemnation or the payment of just compensation under the law of eminent domain, or otherwise at equity, in the event that the City exercises its right to terminate this Agreement, as specifically provided herein.

5.7 No Liability for Consequential or Incidental Damages. LICENSEE expressly acknowledges and agrees that the City will not be liable for any consequential or incidental damages, including, but not limited to, lost profits and loss of good will, arising out of termination of this Agreement or disruption to the DAS/Small Cell Networks or LICENSEE's permitted activities hereunder. The City would not be willing to enter into this Agreement in the absence of a waiver of liability for consequential or incidental damages due to the acts or omissions of City or its agents, and LICENSEE expressly assumes the risk with respect thereto. Accordingly, without limiting any indemnification obligations of LICENSEE or other waivers contained in this Agreement and as a material part of the consideration for this Agreement, LICENSEE fully RELEASES, WAIVES AND DISCHARGES forever any and all claims, demands, rights, and causes of action for consequential and incidental damages (including without limitation, lost profits and loss of good will), and covenants not to sue for such damages, City, its departments, boards, commissions, officers, Commissioners and employees, and all persons acting by, through or under each of them, arising out of this Agreement or the work and activities authorized hereunder, including, without limitation, any interference with uses conducted by LICENSEE pursuant to this Agreement, regardless of the cause, and whether or not due to the negligence or gross negligence of City or its agents.

5.8 No Interference. LICENSEE shall not unreasonably interfere in any manner with the existence and operation of any and all public and private facilities existing now or in the future, including but not limited to sanitary sewers, water mains,

storm drains, gas mains, poles, aerial and underground electric and telephone wires, electroliers, cable television, telecommunications facilities, utility, and municipal property without the express grant of the owner or owners of the affected property or properties, except as permitted by applicable Laws or this Agreement. LICENSEE shall be responsible for repair and restoration of any damage caused by such interference, to the extent it is caused by LICENSEE, to facilities belonging to the City. The City agrees to require the inclusion of the same prohibition on interference as that stated above in all similar type agreements City may enter into after the date hereof.

## **6.0 INSURANCE**

**6.1 Amounts and Coverages.** LICENSEE and each of its subcontractors or others working on its behalf, will maintain in force, during the full term of this Agreement, insurance in the following amounts and coverages:

6.1.1 Workers' Compensation, with Employer's Liability limits of not less than One million dollars (\$1,000,000) each accident.

6.1.2 Commercial General Liability Insurance with limits not less than five million dollars (\$5,000,000) each occurrence Combined Single Limit for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Owners and Contractors' Protective, Broadform Property Damage, Products Completed Operations.

6.1.3 Business Automobile Liability Insurance with limits not less than one million dollars (\$1,000,000) each occurrence Combined Single Limit for Bodily Injury and Property Damage, including owned, non-owned and hired auto coverage, as applicable.

**6.2 Required Provisions.** General Liability and Automobile Liability Insurance shall be endorsed to provide for the following:

6.2.1 Name as additional insureds: the City, its officers, agents and employees.

6.2.2 That such policies are primary insurance to any other insurance available to the additional insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

**6.3 Advance Notice of Cancellation.** All policies shall be endorsed to provide: thirty (30) days advance written notice to City of cancellation or intended non-renewal, mailed to the following address:

City Clerk  
City of Boyne City

319 North Lake Street, Boyne City, MI  
 49712  
 Phone: (231)582-6597 • Fax: 231)582-6506  
 Email: Cindy Grice cgrice@boynecity.com

6.4 Claims-Made Policies. Should any of the required insurance be provided under a claims-made form, LICENSEE shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of six (6) years beyond the Agreement expiration, to the effect that, should any occurrences during the Agreement term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

6.5 General Aggregate Limit. Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general aggregate limit shall double the occurrence or claims limits specified above.

6.6 Receipt of Certificates of Insurance. Certificates of insurance, in the form and with insurers reasonably satisfactory to the City, evidencing all coverages above shall be furnished to the City before commencing any operations under this Agreement, with complete copies of policies promptly upon the City's written request.

6.7 Effect of Approval of Insurance. Approval of the insurance by the City shall not relieve or decrease the liability of LICENSEE hereunder.

6.8 Effect of Lapse of Insurance. This Agreement shall terminate immediately, after written notice to LICENSEE and an opportunity to cure of three (3) business days, upon any lapse of required insurance coverage.

## **7.0 LICENSE FEE, RECORD and DEPOSITS**

In connection with the work to be performed and activities to be conducted by LICENSEE under this Agreement:

7.1 Right-of-Way Fees for Installation and operation of DAS/Small Cell related Metro Act exempt facilities including antennas, supporting structures for antennas, poles equipment shelters or houses. Initial Entry Fee: In order to compensate the City for LICENSEE's initial entry upon and deployment of DAS/Small Cell related Metro Act exempt facilities including antennas, supporting structures for antennas, poles equipment shelters or houses within the Public Rights-of-Way, LICENSEE shall pay to the City one or more of the following : \$5,000 one time payment.

For the first year of this Agreement: The Make Ready Investment by Licensee, separate from and in addition to the regular monthly License fee referenced below, shall be \$47,752 in necessary improvement project costs based upon the nature of poles and appurtenant area upgrades and replacements agreed to by the parties. Funds will be used

for improved municipal pole structures to support the DAS, by replacing the two traffic control poles at the intersection of Water and Lake street as negotiated and costed out with the city administrators. These funds are to be used for infrastructure that is reasonably related to and near ACD deployment. A reasonable portion of these funds can be used for City incurred costs, if needed, and as agreed to by the parties.

Monthly Fee Per ACD or city owned pole, with ACD owned Antenna and related structures and equipment: As compensation for the use of any and all structures in the City Rights of Way or public places including light poles or other structures and facilities owned, in whole or in part, whether held in fee or in trust or other form of proprietary interest, by the City ("City Facility"), or by ACD, as LICENSEE, shall pay to the City a monthly fee (the "Monthly Fee") in the amount identified in the schedule set forth immediately below, per site for the use of each such facility or structure, whether City owned or owned by ACD, which location is located in the City Right of Way or public place and upon which a DAS/Small Cell Network antenna, or any supporting structure thereof, has been installed pursuant to the other requirements of this Agreement. The aggregate Monthly Fee with respect to each year of the term shall be an amount equal to the number of sites on City owned rights of way or other property locations or equipment or Facilities on which LICENSEE's equipment was currently existing during the preceding month, multiplied by the Monthly Fee, prorated as appropriate, and shall be due and payable within 30 days of the end of each quarter.

**The parties to this agreement do not intend, and this agreement does not grant, the utilization of any jointly owned or third party owned properties in fulfillment of this agreement subject to collocation priority requirements as referenced in sections 3.1.1 and 4.8.**

This agreement anticipates AND AUTHORIZES ONLY ONE ANTENNA PER POLE OR STRUCTURE AND that every antenna as well as related support structure, installed by ACD in City Rights of Way or public places shall be subject to a license fee as identified in this section. Subject to collocation priority requirements as referenced in Sections 3.1.1 and 4.8

**Schedule of Monthly Fees per antenna or pole or both (Not more than one antenna/pole-See Section 4.8):**

USE OF CITY AND/OR ACD.NET OWNED OR INSTALLED POLES IN RIGHTS OF WAY OR PUBLIC PLACES

\$28.03 for poles in wood poles in wood utility pole districts

\$69.95 for poles outside wood utility pole districts i.e. Where there are concrete light poles, fiberglass poles, metal poles for carrying or lighting only (i.e. non-intersection, non- downtown poles)

\$144.76 for poles in downtown districts, i.e. main intersection poles, in districts where there are buildings > 5 stories, or other large complexes, within a couple of hundred feet of the small cell.

\$153.27 for ornamental poles in downtown districts.

**(It is the intent of the parties that all antennas are to be placed on poles only, as described above.)**

**The parties to this agreement do not intend, and this agreement does not grant, the utilization of any City owned public places, buildings or structures other than certain poles in the City Rights of Way as specifically identified in Exh A.**

7.2 Retention of Records. LICENSEE shall at all times keep and maintain full, true and correct business and financial records associated with this Agreement and provide such records on a quarterly basis in such form as to support the payments made under Sec 7.1 above.

7.3 Late Payment Charge. If LICENSEE fails to pay any amounts payable under this Agreement within ten (10) days following the due date thereof, and after written notice of such non-payment, such unpaid amount shall be subject to a late payment charge equal to eighteen (18%) of the unpaid amount in each instance. The late payment charge has been agreed upon by the City and LICENSEE, after negotiation, as a reasonable estimate of the additional administrative costs and detriment that the City will incur as a result of any such failure by LICENSEE, the actual costs thereof being extremely difficult if not impossible to determine.

7.4 Other Payments and Documentation. In addition to all other fees to be paid to the City hereunder, LICENSEE shall timely pay to the City all applicable deposit fees, permit fees, engineering fees and other fees or amounts, required to be paid by LICENSEE to the City in connection with obtaining permits or performing work under this Agreement, and as required by any federal, state or local law, statute, ordinance, rule or regulation. LICENSEE therefore acknowledges and agrees that this Agreement alone is not sufficient in and of itself authorization from the City for the installation and operation of the DAS/Small Cell Networks and that additional documentation may be required by the City.

7.5 Security Deposit/Bond. Prior to performing any work necessary under this Agreement, LICENSEE will deliver to the City a valid performance bond in the sum of fifty thousand dollars (\$50,000.00), issued by a surety company acceptable to the City's Controller in the form attached hereto as Exhibit B. LICENSEE agrees and acknowledges that it will obtain a bond which allows for the use of the bond to cover all costs associated with the project not covered by any insurance policies including but not limited to: interest, charges by the City to remove DAS/Small Cell Networks and unpaid permit and administrative fees. LICENSEE shall keep such bond, at its expense, in full force and effect (The bond can be renewed from year to year) until the thirtieth (30th) day

after the Expiration Date or other termination hereof, to insure the faithful performance by LICENSEE of all of the covenants, terms and conditions of this Agreement. Such bond shall provide thirty (30) days prior written notice to the city of cancellation or material change thereof. In the event of any non-extension of the bond, LICENSEE shall replace such security with another form permitted hereunder at least ten (10) days prior to expiration and if LICENSEE fails to do so the City shall be entitled to present its written demand for payment of the entire face amount of such bond and to hold the funds so obtained as the Security Deposit required hereunder. Any unused portion of the funds so obtained by the City shall be returned to LICENSEE upon replacement of the bond or deposit of cash security in the full amount required hereunder. Such bond submitted pursuant to the requirements of a related Metro Permit shall satisfy the bond requirements of this agreement.

## **8.0 WORK STANDARDS**

**8.1 Performance of Work.** LICENSEE shall use and exercise due care, caution, skill and expertise in performing all work under this Agreement and shall take all reasonable steps to safeguard and maintain in clean and workmanlike manner, all work site areas, including, without limitation, the light poles located on Public Rights-of-Way and other existing facilities and property. All work to be undertaken by LICENSEE in the Public Rights-of-Ways shall at all times be performed by workers in accordance with generally accepted industry practice.

**8.2 Work Plan.** Prior to performing any work necessary under this Agreement, LICENSEE shall present a map and written proposal describing the work to be performed and the facilities, methods and materials (if any) to be installed (“Work Plan”) to the City for review and will not perform any work until it has received City Authorization of the Work Plan. In addition, prior to conducting any work in the Public Rights-of-Way, LICENSEE shall provide to the City a current emergency response plan identifying staff who have authority to resolve, twenty-four (24) hours a day, seven (7) days a week, problems or complaints resulting, directly or indirectly, from the DAS/Small Cell Network installed pursuant to this Agreement. As soon as is reasonably practical following installation of the DAS/Small Cell Network, LICENSEE shall deliver as-built drawings to City Hall.

**8.3 No Underground Work Without Written Authorization.** LICENSEE hereby represents, warrants and covenants that LICENSEE shall perform no excavation, trenching, coring, boring, or digging into the ground or installation of any equipment or other material into the ground, or any other underground work in connection with the work to be performed or Services to be provided by LICENSEE under this Agreement, except to the extent expressly approved by the city. LICENSEE further represents, warrants and covenants that it shall not otherwise disturb or disrupt the operation or maintenance of any sanitary sewers, storm drains, gas or water mains, or other underground conduits, cables, mains, or facilities.

8.4 Repair or Replacement of Damaged Facilities or Property. Upon written request, LICENSEE agrees to repair or replace to City's reasonable satisfaction any City-owned facilities or City-owned property that the City determines has been damaged, destroyed, defaced or otherwise injured as a result of the work performed or Services provided by LICENSEE under this Agreement. LICENSEE shall perform such work at no expense to the City, except to the extent such damage, destruction, defacement, or injury was caused by the sole negligence or willful misconduct of City.

8.5 Modification of Work Plans. If during the term of this Agreement, the City determines that the public health or safety requires a modification of or a departure from the Work Plan submitted by LICENSEE and granted, the City shall have the authority to identify, specify and delineate the modification or departure required, and LICENSEE shall perform the work allowed under this Agreement in accordance with the City-specified modification or departure at LICENSEE's sole expense. The City shall provide LICENSEE with a written description of the required modification or departure, the public health or safety issue necessitating the modification or departure, and the time within which LICENSEE shall make, complete or maintain the modification or departure required.

## **9.0 TERMINATION**

9.1 Immediate Termination upon Notice in Certain Circumstances. In addition to all other remedies provided by Law or in equity, either party may terminate this Agreement immediately upon written notice to the other party in the event of either of the following:

9.1.1 By City after written notice to LICENSEE and after opportunity to meet with representatives of the City, if the City reasonably determines that LICENSEE's continued use of the Public Rights-of-Way will adversely affect public health or safety;

9.1.2 By either party (the "Non-Defaulting Party") if the other party has failed to perform any of its material obligations under this Agreement; provided, however, that if the Defaulting Party's failure to perform under or comply with this Agreement is capable of being cured, and if a specific notice or cure period or time for performance of such obligation is not otherwise specified in this Agreement, then the Non-Defaulting Party shall provide the Defaulting Party with a notice of the Defaulting Party's failure to perform or comply and provide the Defaulting Party with thirty (30) days from the date of the notice to cure the failure to perform or comply to the Non-Defaulting Party's reasonable satisfaction; provided, further, that upon the occurrence during the term of this Agreement of two (2) defaults of the same obligation by either Party, the Non-Defaulting Party shall not be required to provide any notice regarding the Defaulting Party's failure to perform such obligation, and any subsequent failure by the Defaulting Party after the Defaulting Party has received two such notices shall constitute a default by the Defaulting Party hereunder without any

requirement on the part of the Non-Defaulting Party to give the Defaulting Party notice of such failure or an opportunity to cure.

**9.2 Effect of Termination.** In the event of termination of this Agreement as herein provided, LICENSEE shall immediately cease all work being performed under this Agreement, excepting only that work necessary for LICENSEE to remove all DAS/Small Cell Networks from the Public Rights-of-Way as provided in Section 3.4 above. Termination of this Agreement by the City as herein provided shall constitute the withdrawal of any grant, consent or authorization of the City for LICENSEE to perform any construction or other work under this Agreement in the Public Rights-of-way or on public property excepting only that work necessary for LICENSEE to remove all DAS/Small Cell Networks and leave all work site areas in a clean and safe condition and in accordance with Section 3. Upon any such early termination, the City shall promptly remit to LICENSEE a prorated portion of the annual license fee paid to the City, if any.

## **10.0 NOTICES**

Except as otherwise expressly provided in this Agreement, any notice given hereunder shall be effective only if in writing and given by delivering the notice in person, or by sending it first-class mail or certified mail with a return receipt requested, postage prepaid, or reliable commercial overnight courier, return receipt requested, with postage prepaid, to:

### **CITY**

City Clerk  
 City of Boyne City  
 319 North Lake Street, Boyne City, MI  
 49712  
 Phone: (231)582-6597 •Fax: 231)582-6506  
 Email: Cindy Grice [cgrice@boynecity.com](mailto:cgrice@boynecity.com)

With a copy to counsel:  
 Michael J. Watza  
 Kitch Drutchas  
 1 Woodward 24<sup>th</sup> Fl  
 Detroit, MI 48226  
 Phone: 313.965.7983 Fax: 313.965.7403  
 Email: [mike.watza@kitch.com](mailto:mike.watza@kitch.com)

### **LICENSEE**

Kevin Schoen, CEO  
 KEPS Technologies, Inc. d/b/a ACD.net d/b/a ACD Telecom  
 1800 N Grand River Ave  
 Lansing MI 48906

Phone: 517-999-3250  
Fax: 517-999-3993  
Email: regulatory@acd.net

or to such other address as either CITY or LICENSEE may designate as its new address for such purpose by notice given to the other in accordance with the provisions of this Section at least ten (10) days prior to the effective date of such change.

#### **11.0 COMPLIANCE WITH LAWS**

11.1 LICENSEE shall comply with all present and future Laws.

11.2 All facilities installed pursuant to this Agreement shall be constructed to comply with all lawful federal, state and local construction and applicable telecommunications requirements.

#### **12.0 MISCELLANEOUS**

12.1 Amendments. Neither this Agreement nor any term or provisions hereof may be changed, waived, discharged or terminated, except by a written instrument signed by the parties hereto.

12.2. Representations and Warranties. Each of the persons executing this Agreement on behalf of LICENSEE does hereby covenant, represent and warrant that, to the best of his or her knowledge, (a) LICENSEE is a duly authorized and existing Massachusetts corporation, has and is qualified to do business in the Commonwealth of Massachusetts, and has full right and authority to enter into this Agreement, (b) each and all of the persons signing on behalf of LICENSEE are authorized to do so, (c) all financial statements and reports previously provided to the City by LICENSEE are true and complete in all material respects and accurately reflect the financial condition of LICENSEE as of the date such statements were provided to the City, and LICENSEE's financial condition as of the date it executes this Agreement is not materially worse than that reflected in the most recent of such financial statements and reports, and (d) the DAS/Small Cell Networks installed pursuant to this Agreement shall comply with all applicable FCC standards regarding radio frequencies and electromagnetic field emissions. Upon the City's written request, LICENSEE shall provide the City with evidence reasonably satisfactory to the City confirming the foregoing representations and warranties.

Licensee further warrants all the work performed by it or its subcontractors or anyone acting on behalf of licensee, against workmanship and product defects and any and all related costs, fees and damages to appurtenant or otherwise affected City facilities and property.

12.3 Interpretation of Agreement. This Agreement has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with herein and shall be interpreted to achieve the intents and purposes of the parties, without any presumption against the party responsible for drafting any part of this Agreement. Use of the word "including" or similar words shall not be construed to limit any general term, statement or other matter in this Agreement, whether or not language of non-limitation, such as "without limitation" or similar words, are used.

12.4 Assignment; Successors and Assigns. Neither this Agreement nor any part of LICENSEE's rights hereto may be assigned, pledged or hypothecated, in whole or in part, without the express written consent of the City, which consent shall not be unreasonably withheld, conditioned, or delayed. Notwithstanding the foregoing, the transfer of the rights and obligations of LICENSEE hereunder to a parent, subsidiary, successor, or financially viable affiliate shall not be deemed an assignment for the purposes of this Agreement, provided that LICENSEE deliver to the City the following: (1) Bond issued in the name of transferee; (2) Assignment and Assumption Agreement between City and transferee; (3) Certificate of Insurance naming transferee as insured. In the event LICENSEE files a petition in bankruptcy pursuant to 11 U.S.C. Sections 101, et seq., the assignment of this Agreement shall be governed by the provisions of the Bankruptcy Code. An assignment of this Agreement is only enforceable against the City if LICENSEE or its trustee in bankruptcy complies with the provisions of 11 U.S.C. Section 365, including obtaining the authorization from the Bankruptcy Court. City hereby expressly reserves all of its defenses to any proposed assignment of this Agreement. Any person or entity to which the Bankruptcy Court authorizes the assignment of this Agreement shall be deemed without further act to have assumed all of the obligations of LICENSEE arising under this AGREEMENT on and after the date of such assignment. Any such assignee shall upon demand execute and deliver to City an instrument confirming such assumption. Any monies or other considerations payable or otherwise to be delivered in connection with such assignment shall be paid to City, shall be the exclusive property of City, and shall not constitute property of LICENSEE or of the estate of LICENSEE within the meaning of the Bankruptcy Code

12.5 Severability. If any provision of this Agreement or the application thereof to any person, entity or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each other provision of this Agreement shall be valid and be enforceable to the fullest extent permitted by Law.

12.6 Governing Law. This Agreement shall be construed and enforced in accordance with the Laws of the State of Michigan.

12.7 Entire Agreement. This instrument (including the exhibits hereto, which are made a part of this Agreement) contains the entire agreement between the parties and supersedes all prior written or oral negotiations, discussions, understandings and

agreements. The parties further intend that this Agreement shall constitute the complete and exclusive statement of its terms and that no extrinsic evidence whatsoever (including prior drafts of this Agreement and any changes therefrom) may be introduced in any judicial, administrative or other legal proceeding involving this Agreement.

12.8 Time of Essence. Time is of the essence with respect to all provisions of this Agreement in which a definite time for performance is specified.

12.9 Cumulative Remedies. All rights and remedies of either party hereto set forth in this Agreement shall be cumulative, except as may otherwise be provided herein.

12.10 Relationship of Parties. The City is not, and none of the provisions in this Agreement shall be deemed to render the City, a partner in LICENSEE's business, or joint venturer or member in any joint enterprise with LICENSEE. Neither party shall act as the agent of the other party in any respect hereunder, and neither party shall have any authority to commit or bind the other party without such party's prior written consent as provided herein. This Agreement is not intended nor shall it be construed to create any third party beneficiary rights in any third party, unless otherwise expressly provided.

12.11 Non-Discrimination. LICENSEE agrees and shall require all agents conducting business in Michigan on its behalf to agree not to discriminate on the basis of race, sex, religious creed, national origin, sexual preference, color, disability or age in connection with this agreement.

12.12 Most Favored Jurisdiction. Should LICENSEE, after the date that LICENSEE receives all permits and Authorizations necessary to install and operate the network as contemplated in this Agreement, enter into a DAS/Small Cell LICENSE Agreement with another government body, school, or municipality within the State of Michigan which contains financial benefits for such government body, school, or municipality which, taken as a whole and balanced with the other terms of such agreement, are in the City's reasonable opinion substantially superior to those in this Agreement, City shall have the right to require that LICENSEE modify this Agreement to incorporate the same or substantially similar superior benefits and such other terms and burdens by substitution, *mutatis mutandis*, of such other agreement or otherwise. Any increase in financial benefits in a similar agreement shall be paid to the City retroactive to the date LICENSEE entered into such superior agreement with another entity.

**LICENSEE**  
**KEPS TECHNOLOGIES, INC. d/b/a**  
**ACD.net**  
**a Michigan Public Corporation,**

By: Kurt Sheward  
Title: CFO  
Dated: 8/31/16

**CITY OF BOYNE CITY** \_\_\_\_\_

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Dated: \_\_\_\_\_

**EXHIBITS**

Exhibit A DAS/Small Cell Network Plans and Specs  
Exhibit B Bond

**Exhibit A**

**Public Right-of-Way to be Used by Telecommunication Facilities**

ACD Site #	Lat.	Long.
ACD-MI-13310	45.213587	-85.014918672
ACD-MI-13311	45.211515	-85.01023497
ACD-MI-13312	45.217194	-85.0126701
ACD-MI-13313	45.207378	-85.02290613
ACD-MI-13314	45.208511	-85.00210464

Proposed Ancher Distance from Pole and Direction	Reg Sidewalk	NON Transformer Joint Use Pole	○	Underground Notes	<p><b>ADJUSTED</b></p> <p>1) 1" RADIUS 1/4" HOLE, CONDUIT TO BE BUNDLED TO BE BUNDLED</p> <p>2) CONDUIT TO BE BUNDLED TO BE BUNDLED</p> <p>3) CONDUIT TO BE BUNDLED TO BE BUNDLED</p> <p>4) TYPICAL BORE DRAIN SECTION</p>
Proposed ACD Communications Pole	ACD	Transformer Joint Use Pole	⊗	Unused Pole	○
Proposed ACD NON Communications Pole	⊗	Man Hole Cover	MH	Unused Transformer Pole	⊗
Proposed Bore Pit Location	Bore Pit 3'X2'X36"	Make Ready Symbol with attachment and sag heights	MPS	ACD Proposed Vault	<p>Proposed ACD Vault</p> <p>14'x14'x4'</p> <p>24'x36'x4'</p>
Centerline Marker	⊕	Over Head Guy Marker		Generator with Regen Hut	<p>Generator</p> <p>Regen Hut</p>
Use of Double Dead End	↔	Pole Number Marker	1	Location Address	⌂
Down Ground	↓	Proposed Riser	R <sup>25</sup>	Foliage	<p>Tree</p> <p>Bush</p>
Fiber Count with Segment Number	⊕	TRIS Section Corner	⊗	Rail Road Tracks	
Fiber Route Description	<p>Ground Bored</p> <p>Underground</p> <p>Overhead</p> <p>Vertical</p>	Segment Header describing a segment of a project	SEGMENT HEADER	Proposed Underground Fiber	— — — — —
Fire Hydrant	⊕	Storage Loop, Storage footage and Segment	<p>STORAGE LOOP</p> <p>SHEATH IN SHEATH OUT STORAGE FOOTAGE</p>	Right Of Way Boundry	— — — — —
Six way Splice Case	⊗	Pole Span Length and Segment ID	100'	Side Walk and Drive way	— — — — —
Four way Splice Case	⊗	Storm Drain	SD	Fiber Design Line	— — — — —
Three way Splice Case	⊗	Street Light	☀	Aerial Fiber	— — — — —
Two way Splice Case	⊗	Fiber Termination Point Marker	⊕	Center Line	⊕ — — — — — ⊕
Foreign Pole Indicator	FP	Communications Tower	⊕	Water Boundry	~~~~~
		Tree and Type Description	Tree		



**ACD.net**  
517-999-9999  
1800 Grand River Ave  
Lansing MI 48906

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Project Manager

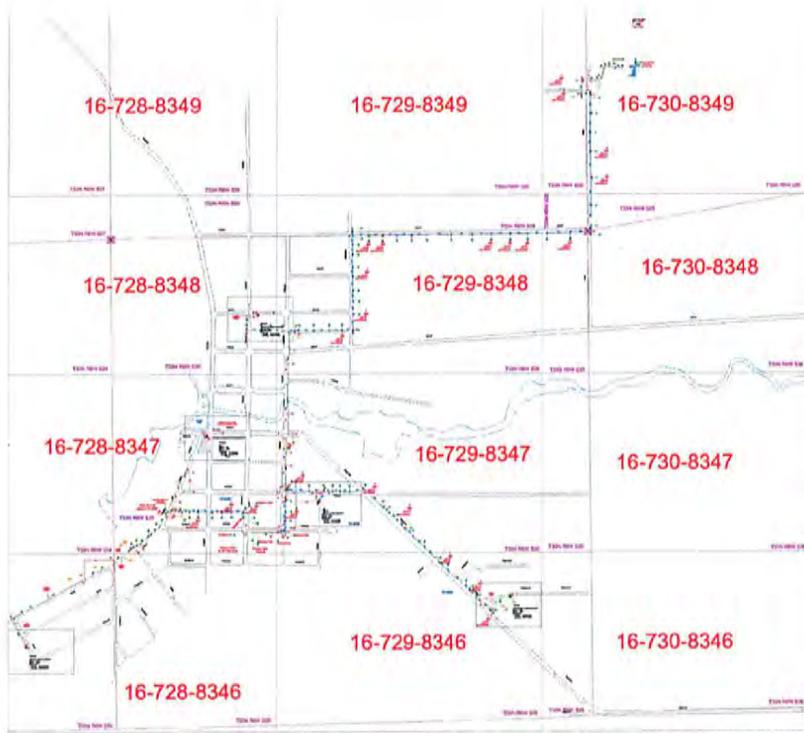
CAD Engineer

Permitting Engineer

Surveyor

**SYMBOL SHEET**

SCALE: 1" = 200'	TRIS:			
COUNTY:	TOWNSHIP:	CITY:	PROJECT:	CUSTOMER NUMBER:



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Project Manager

CAD Engineer

Permitting Engineer

Surveyor

Revisions

REV#	DESCRIPTION	BY	DATE
1	As Noted		6/5/18

**Exhibit: N/A**

Remarks: PEACHTREE ID: BYOB6443

SCALE: 1" = 200'

TRS:

CITY:

PROJECT:

CUSTOMER NUMBER:

COUNTY:

TOWNSHIP:





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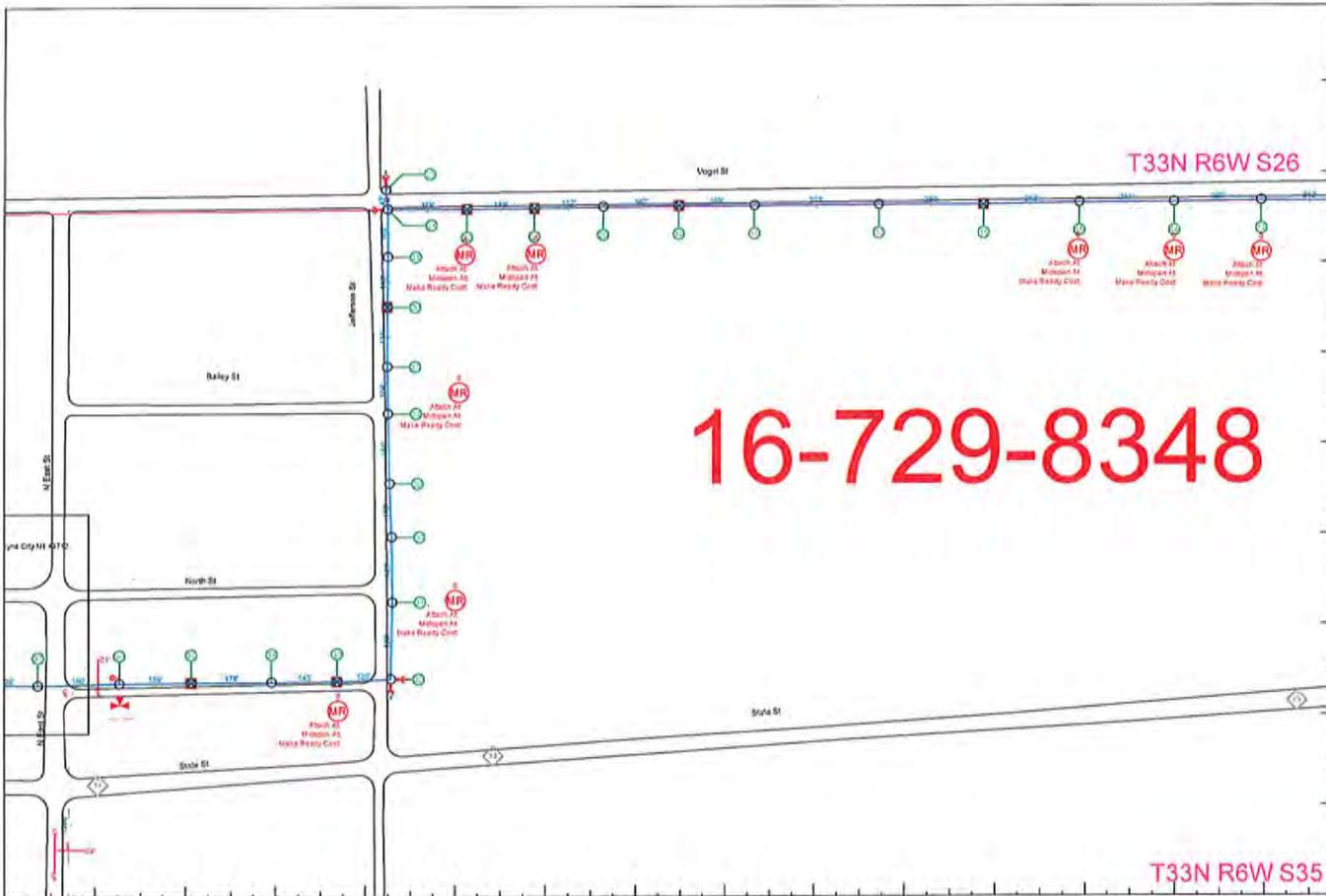
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1-800-482-7171

**Project Manager**  
JAW  
**CAD Engineer**  
BGMc  
**Permitting Engineer**  
GD  
**Surveyor**

Revisions			
REV#	DESCRIPTION	BY	DATE
1	For Issue	EMTS	

<b>Exhibit: N/A</b>	
16-730-8348	16-730-8349
	16-730-8348
	16-730-8347

Remarks: PEACHTREE ID: BYOB6443				
SCALE: 1" = 200'				
COUNTY: Charlevoix	TOWNSHIP: Boyne City	CITY: Boyne City	PROJECT: Boyne City Macro 6737	CUSTOMER NUMBER: 41641



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- Project Manager**  
JAW
- CAD Engineer**  
BGMc
- Permitting Engineer**  
GD
- Surveyor**

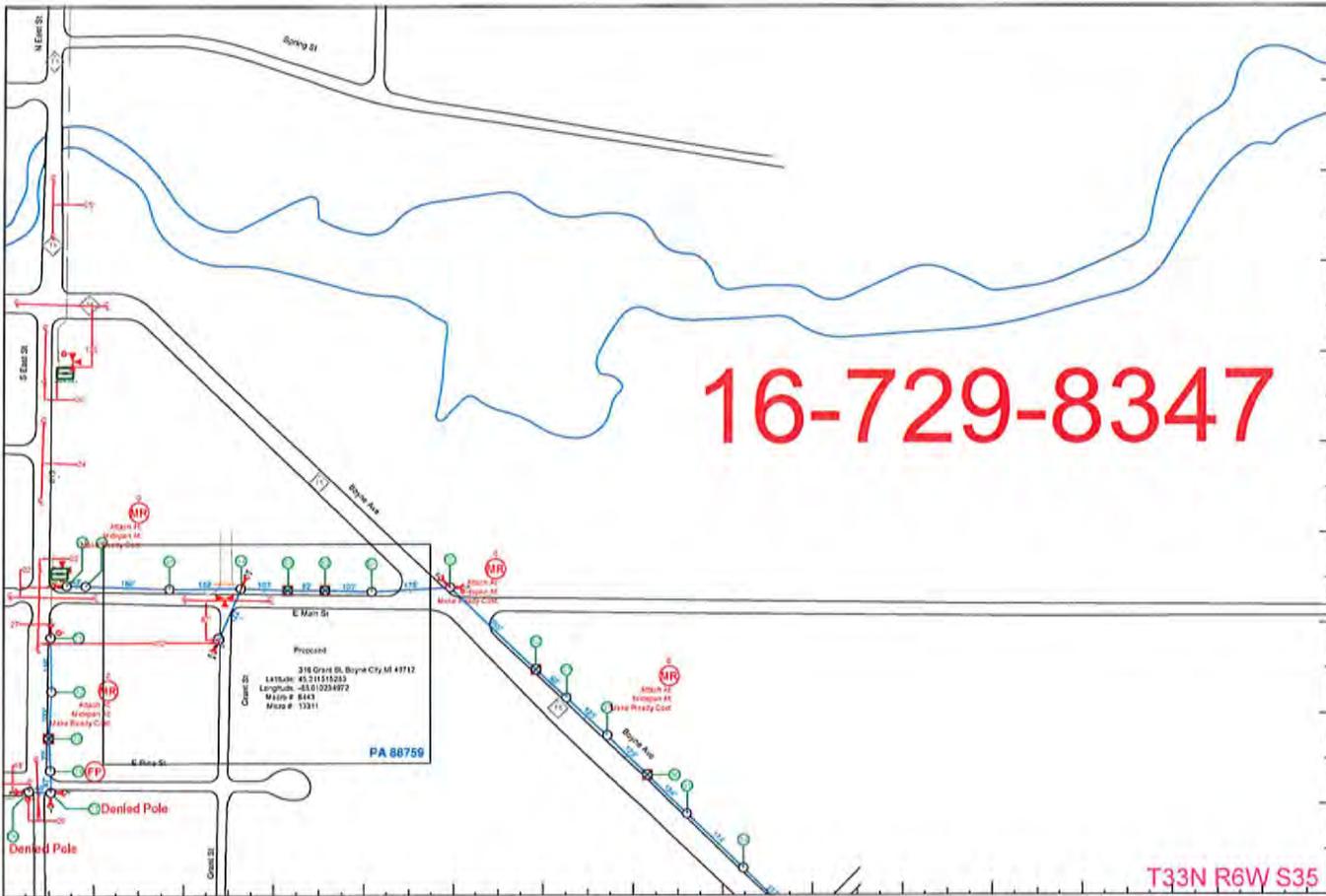
Revisions			
REV#	DESCRIPTION	BY	DATE
1	Issue for Permit	ENR3	

Remarks: PEACHTREE ID: BYOB443			
SCALE: 1" = 200'	TRS:		
COUNTY: Charlevoix	TOWNSHIP: Boyne City	CITY: Boyne City	PROJECT: Boyne City Macro 6737
			CUSTOMER NUMBER: 41641

16-729-8346	Exhibit: N/A
16-729-8349	
16-729-8348	
16-729-8347	







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Lansing MI 48906

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LOCATIONS AT  
MICHIGAN  
MICHIGAN  
1-800-452-7171

**Project Manager**  
**JAW**

**CAD Engineer**  
**Thomas Nilles**

**Permitting Engineer**  
**GD**

**Surveyor**

**Revisions**

REV#	DESCRIPTION	BY	DATE
1	For New Draw		2/24/15

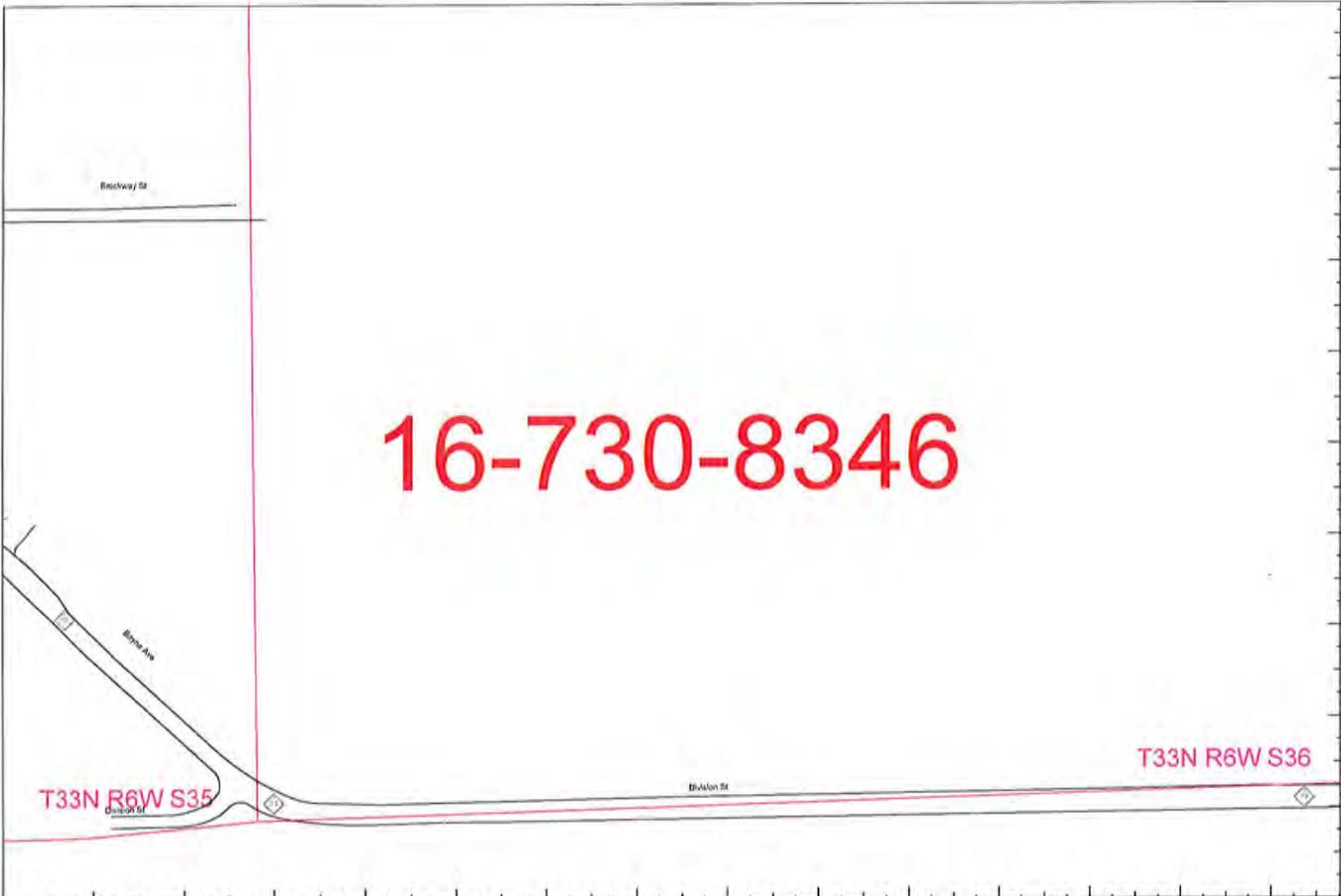
T33N R6W S35 **Exhibit: N/A**

Remarks: PEACHTREE ID: BYOB6443		SCALE: 1" = 200'	TRIS:		
COUNTY: Charlevoix	TOWNSHIP: Boyne City	CITY: Boyne City	PROJECT: Boyne City Macro 6737	CUSTOMER NUMBER: 41641	

15-729-8347	15-729-8346	15-729-8347
	16-729-8347	
	15-729-8346	15-729-8347







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**Project Manager**  
  
**CAD Engineer**  
**Tom**  
**Permitting Engineer**  
  
**Surveyor**

**Revisions**

NO.	DESCRIPTION	BY	DATE
1	ISSUE FOR PERMIT	JW/MS	

**Exhibit: N/A**

16-730-8346	16-730-8347	16-731-8346
	16-730-8346	
	16-730-8345	

Remarks: PEACHTREE ID: BYOB443			
SCALE: 1" = 200'	TRS:		
COUNTY: Charlevoix	TOWNSHIP:	CITY: Boyne City	PROJECT: Boyne City MC
			CUSTOMER NUMBER: 41641

# 16-729-8349



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517-999-9999

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Lansing MI 48906

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Contact our Land Use Call Agency at 517-999-9999  
LOCATIONS AT  
MCS 002  
1-800-410-7111

**Project Manager**

**CAD Engineer**

**Tom**

**Permitting Engineer**

**Surveyor**

**Revisions**

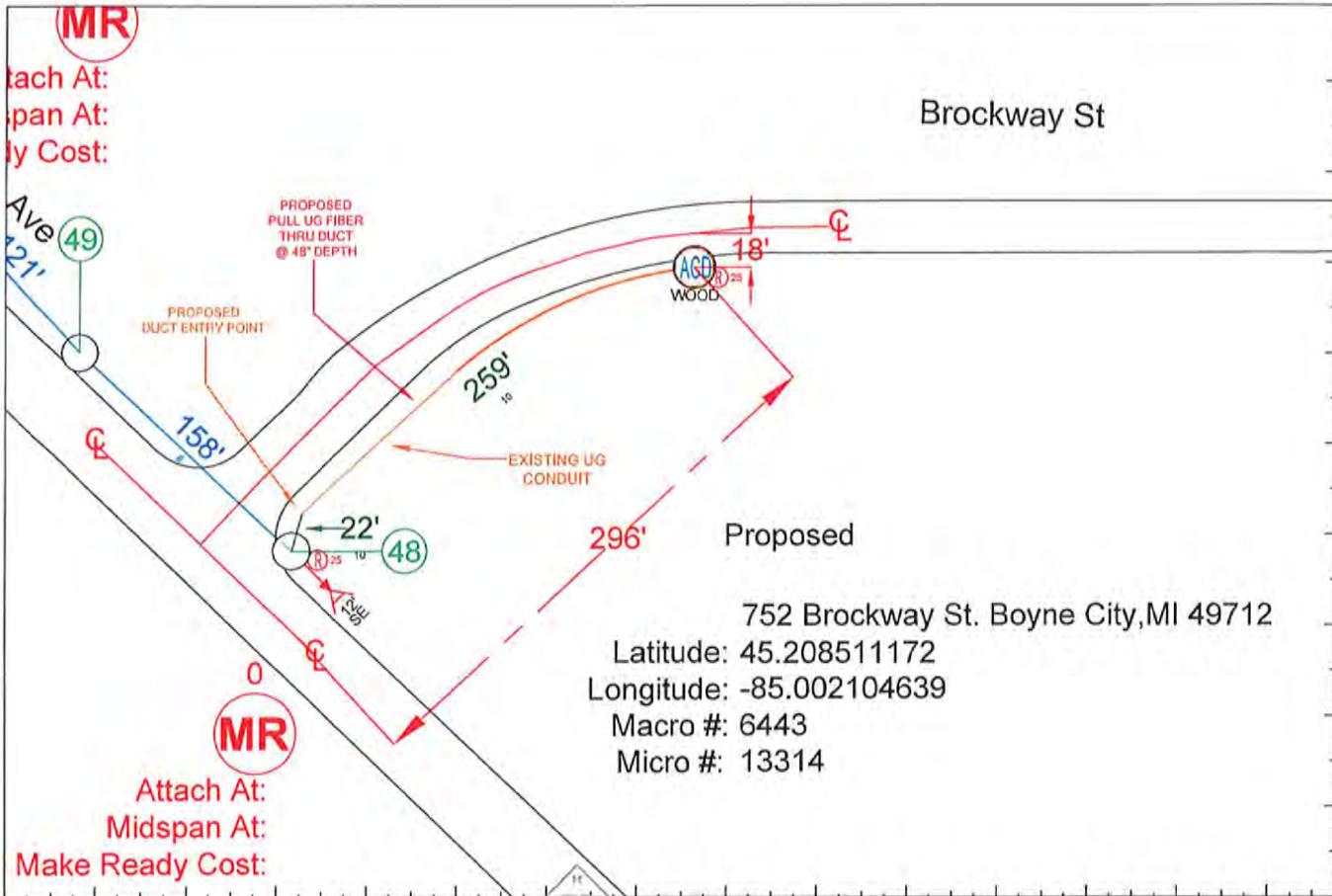
REV#	DESCRIPTION	BY	DATE
1	Original Issue		04/15

T33N R6W S26

Remarks: PEACHTREE ID: BYOB5443			
SCALE: 1" = 200'	TRS:		
COUNTY: Charlevoix	TOWNSHIP:	CITY: Boyne City	PROJECT: Boyne City MC
			CUSTOMER NUMBER: 41641

16-729-8349	Exhibit: N/A	16-729-8349
	16-729-8350	
	16-729-8349	
	16-729-8348	





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**Project Manager**  
T. Benoit  
**CAD Engineer**  
A. Penrose  
**Permitting Engineer**  
  
**Surveyor**

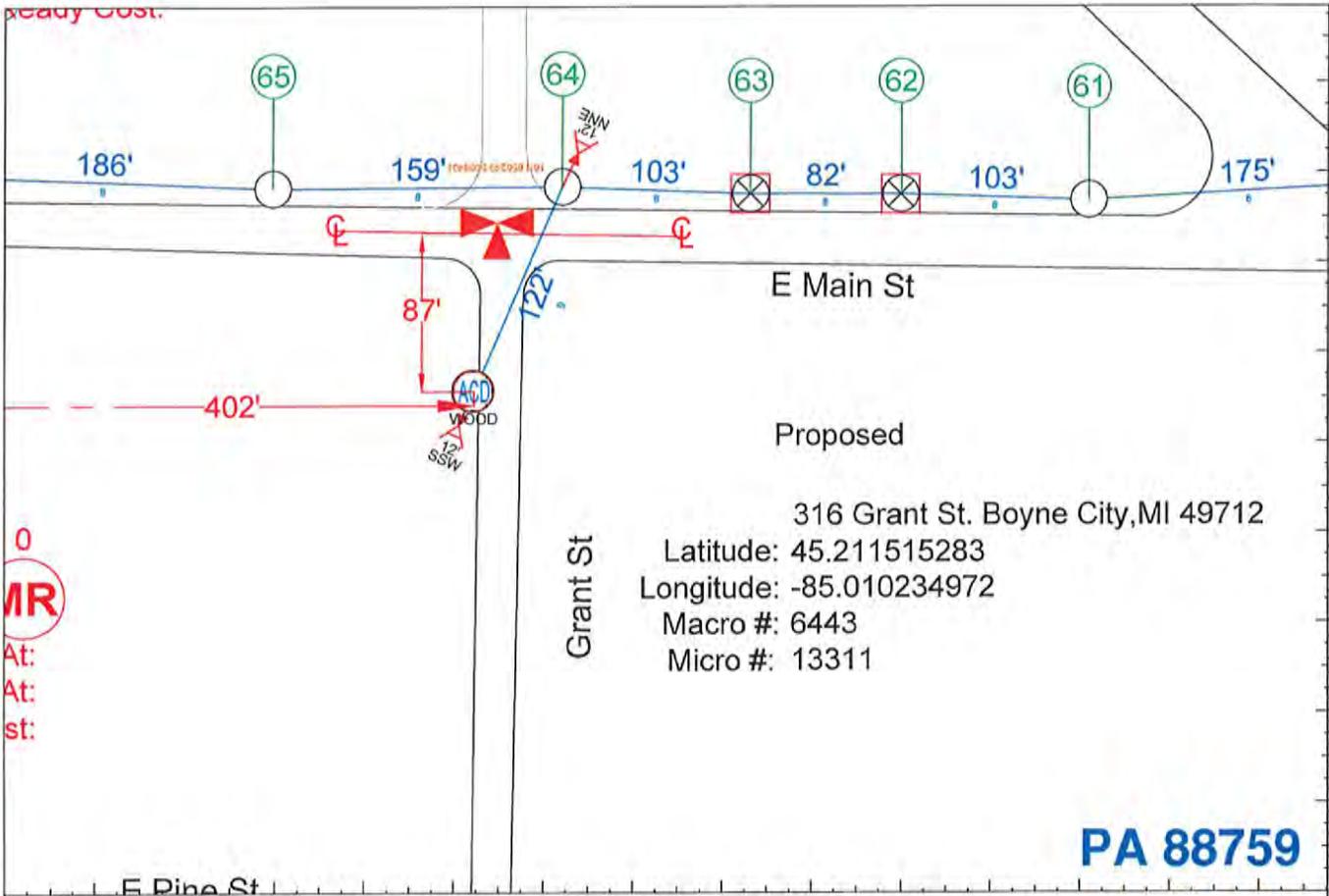
**Revisions**

REV #	DESCRIPTION	BY	DATE
1	Final Issue		04/10

**Exhibit: N/A**

Remarks: PEACHTREE ID: BYOB6443		TRIS: T33N R6W S35		
SCALE: 1" = 200'	COUNTY: Charlevoix County	TOWNSHIP:	CITY: Boyne City, MI	PROJECT: VB006443fo18217
				CUSTOMER NUMBER: 41641





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**Project Manager**  
T. Bencil  
**CAD Engineer**  
A. Penrose  
**Permitting Engineer**  
  
**Surveyor**

**Revisions**

REV#	DESCRIPTION	BY	DATE
1	ISSUED FOR PERMITTING		2/17/12

0  
MR  
At:  
At:  
st:

**Proposed**  
316 Grant St. Boyne City, MI 49712  
Latitude: 45.211515283  
Longitude: -85.010234972  
Macro #: 6443  
Micro #: 13311

**PA 88759**

**Exhibit: N/A**

Remarks: PEACHTREE ID: BYOB6443			
SCALE: 1" = 200'	TRS: T33NR6WS35		
COUNTY: Charlevoix County	TOWNSHIP:	CITY: Boyne City, MI	PROJECT: VB006443to18217
			CUSTOMER NUMBER: 41641



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**Project Manager**  
T. Benoit  
**CAD Engineer**  
A. Penrose  
**Permitting Engineer**  
  
**Surveyor**

NO.	DESCRIPTION	BY	DATE
1	ISSUED FOR PERMIT	ENR	08/20/17

**Exhibit: N/A**

Remarks: PEACHTREE ID: BYOB6443			
SCALE: 1" = 200'	TRS: T33N R6W S34		
COUNTY: Charlevoix County	TOWNSHIP:	CITY: Boyne City, MI	PROJECT: VB006443/018217
			CUSTOMER NUMBER: 41641

**Exhibit B**

**Bond**



**Right of Way Performance and Completion Bond - Single Job  
Definite Term**

Bond No. 106572411

KNOW ALL MEN BY THESE PRESENTS:

THAT WE KEPS TECHNOLOGIES INC. as Principal, and Travelers Casualty and Surety Company of America, a corporation duly incorporated under the laws of the State of Connecticut and authorized to do business in the State of MICHIGAN, as Surety, are held and firmly bound unto CITY OF BOYNE CITY, as Obligee, in the penal sum of Fifty Thousand (\$50,000.00) Dollars, for the payment of which we hereby bind ourselves, our heirs, executors and administrators, jointly and severally, firmly by these presents.

WHEREAS, the Principal has obtained or is about to obtain a permit for purposes of performing the following work in the public right of way:

Metro Act

(the "Permitted Work"); and

WHEREAS, the Principal is required to maintain a performance and completion bond guaranteeing that either the Permitted Work will be completed in its entirety or the public right of way will be restored to its condition prior to the commencement of the Permitted Work if the Principal fails to complete the Permitted Work to the satisfaction of the Obligee.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that if the Principal shall faithfully comply with all applicable laws, statutes, ordinances, rules or regulations pertaining to the Permitted Work, and shall either complete the Permitted Work in its entirety or restore the public right of way to its condition prior to the commencement of the Permitted Work, then this obligation shall be null and void; otherwise to remain in full force and effect.

This bond is for a definite term beginning August 31, 2016, and ending August 31, 2017, and may be continued at the option of the Surety by Continuation Certificate.

PROVIDED, that regardless of the number of years this bond is in force, the Surety shall not be liable hereunder for a larger amount, in the aggregate, than the penal sum listed above.

SIGNED, SEALED AND DATED this 8/31/16.

KEPS TECHNOLOGIES INC.

KWR Shewchuk

Principal

Travelers Casualty and Surety Company of America

By: [Signature] Attorney-in-fact



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 226782

Certificate No. 005791889

KNOW ALL MEN BY THESE PRESENTS: That Farmington Casualty Company, St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company are corporations duly organized under the laws of the State of Connecticut, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Michael G. Sheets, Kathleen J. Satterlee, David A. Drayton, and Sarah Barber

of the City of Lansing, State of Michigan, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of February, 2014

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
Robert L. Raney, Senior Vice President

On this the 10th day of February, 2014, before me personally appeared Robert L. Raney, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.



[Signature: Marie C. Tetreault]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

**RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

**FURTHER RESOLVED**, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

**FURTHER RESOLVED**, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

**FURTHER RESOLVED**, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kevin E. Hughes, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 31<sup>st</sup> day of August, 2016

  
Kevin E. Hughes, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at [www.travelersbond.com](http://www.travelersbond.com). Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.



## MEMORANDUM

**TO:** Township Board

**FROM:** Mark Kieselbach  
Mark Kieselbach, Director Community Planning & Development

**DATE:** January 20, 2017

**RE:** Amendment to Open Space Requirements

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In the Planned Residential Development (PRD) and the Planned Unit Development (PUD) ordinances there are requirements that a certain amount of land area in the development be kept as open space. The PRD requires a minimum of 20 percent of the development remain as open space. The areas within the development such as residential lots, street right-of-ways, driveways and parking areas, buffer areas, floodplains, wetlands, water bodies and waterways and easements cannot be counted towards the minimum open space requirement. Open space in a PRD is also required to be preserved in perpetuity. The PUD requires a minimum of 50 percent of the project area allowed for density determination, excluding wetlands and floodplains, be provided as open space. In the PUD open space is referred to as "common open space" as an area of land or an area of water or a combination of land and water designed and intended for the use or enjoyment of the residents of the PUD or the general public. Areas excluded as common open space are streets, right-of-way, parking areas, commercial areas and golf courses.

Attached is a proposal from Trustee Opsommer to amend the PRD and PUD ordinances to allow a golf course to be considered open space and counted toward the open space requirement.

**Attachment:**

1. Proposed amendment

## Mark Kieselbach

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**From:** Dan Opsommer  
**Sent:** Thursday, January 19, 2017 5:59 PM  
**To:** Mark Kieselbach  
**Cc:** Frank Walsh  
**Subject:** FINAL DRAFT: Proposed amendments to the PUD and PRD sections of the Township's zoning ordinance

Hi Mark,

As we discussed, here is my final draft (the only changes were a few typos and breaking up some long paragraphs):

**AMENDMENT I Planned Unit Development (PUD):** I am proposing that we consider amending our zoning ordinance to permit golf courses to be counted toward the 50 percent open space requirement for a planned unit development (PUD).

Under our zoning ordinance, golf courses meet the definition of open space, which is simply defined as "An unoccupied space open to the sky on the same lot with a building." However, our zoning ordinance does not permit golf courses to be counted toward the 50 percent open space requirement for a PUD.

This issue came to my attention while I served on the Planning Commission as a result of the public hearings for the Walnut Hills rezoning request, which got me thinking about what should constitute open space for a PUD.

This amendment would give us more flexibility in finding secondary uses that are harmonious with adjacent uses for existing golf courses (in many instances residents choose to live next to golf courses and want them to be preserved, this would help achieve that desired end).

This amendment would also serve as a way to create more meaningful open space for future developments as the open space requirement will not be satisfied with narrow disconnected segments that serve no useful purposes other than to provide a narrow buffer between uses or neighborhoods, but with a seamless and contiguous open space that is necessary to create/preserve a golf course.

This amendment would also help ensure that developments do not encroach on important landscape features and amenities of longterm value as these landscape features and amenities can be preserved as part of a golf course.

These are the primary objectives of the open space requirements for a PUD, as expressed in our zoning ordinance:

**Section 86-439 Planned Unit Development (B) (10) All applications shall provide for active and/or passive recreation on the site in harmony with the character of the open space.**

**Section 86-439 Planned Unit Development (B) (10)** A minimum of 50% of the project area allowed for density determination, excluding wetlands and floodplains, shall be provided as open space. **Deliberate efforts must**

be made to preserve important landscape features and amenities of longterm value and use these features as key components of design. Open space shall consist of large blocks of land, wherever possible.

Specifically, I am proposing the following amendments, which would help us better achieve the previously stated objectives:

**Section 86-439 Planned Unit Development (C) (8) Open spaces.** "Common open space" is defined as a parcel or parcels of land or an area of water or a combination of land and water designed and intended for the use or enjoyment of the residents of the PUD or of the general public. Preservation of attractive site features and diversity of features is encouraged. Common open space does not include proposed streets, rights-of-way, open parking areas, ~~AND-or~~ commercial areas, ~~and golf courses~~. Common open space may include a recreational trail, picnic area, children's play area, greenway, ~~or~~ linear park, **OR GOLF COURSES**.

**AMENDMENT II Planned Residential Development (PRD) Overlay District:** Under a planned residential development (PRD), golf courses can be counted toward the 20 percent open space requirement; however, there are two issues that prevent this from occurring.

First, this section does not allow floodways, floodplains, wetlands, or other water bodies or waterways to be counted toward the 20 percent open space requirement. They should count toward the open space requirement if they are part of a golf course.

Second, this section only allows for 50 percent of the open space to be used for active recreational amenities, such as golf courses. This is not enough land to create/preserve a golf course. If the recreational facility plan includes a golf course, this maximum limit should be increased to 75% to provide for enough land to create/preserve a golf course.

Specifically, I am proposing the following amendments:

**Section 86-378 Planned Residential Development (PRD) Overlay District (D) (5)**

Open space preservation:

- a. A minimum of 20% of the development parcel shall remain as open space.
- b. The following areas shall not be counted toward the minimum open space requirements:
  - 1. Residential lots.
  - 2. Public or private rights-of-way.
  - 3. Driveways and parking areas.
  - 4.

Buffer areas required by this section, unless contiguous and integrated with other preserved open space.

5.

Floodways, floodplains, wetlands, or other water bodies or waterways, **UNLESS THEY ARE PART OF A GOLF COURSE.**

6.

Public or private easements.

c.

The required amount of open space shall be preserved in perpetuity. The preserved open space shall be deeded to the development's homeowners' association, a land conservancy, the public or otherwise protected in a manner acceptable to the Township. The form of all preservation instruments shall be approved by the Township Attorney. The preserved open space shall be shown and appropriately labeled on the plat approved by the Township and recorded with the county register of deeds.

d.

**A** **EXCEPT AS OTHERWISE PROVIDED, A** maximum of 50% of preserved open space may be used for the provision of active recreational amenities for the development's residents or public use, if designed to limit adverse impacts on important natural features preserved in conformance with the purposes of this district. **IF THE RECREATIONAL FACILITY PLAN INCLUDES A GOLF COURSE, A MAXIMUM OF 75% OF PRESERVED OPEN SPACE MAY BE USED FOR THE PROVISION OF ACTIVE RECREATIONAL AMENITIES FOR THE DEVELOPMENT'S RESIDENTS OR PUBLIC USE, IF DESIGNED TO LIMIT ADVERSE IMPACTS ON IMPORTANT NATURAL FEATURES PRESERVED IN CONFORMANCE WITH THE PURPOSES OF THIS DISTRICT.** Any recreational facility plan shall be approved as part of the PRD application.

Dan Opsommer  
Meridian Township Trustee  
Cell: 517.281.6034



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