



CITY OF BRYAN
The Good Life, Texas Style.

Design Manual for Right-of-Way Installations

TABLE OF CONTENTS

I.	Introduction	1
A.	Purpose	1
B.	Source of Authority.....	1
C.	Definitions.....	1
II.	Registration.....	6
A.	Requirement to Register.....	6
B.	Current Users of the Public Rights-of-Way.....	6
C.	Registration information.....	7
D.	Employee safety certification	7
E.	Reporting obligations.....	7
III.	Right-of-Way Work Permits.....	8
A.	Permit Required	8
B.	Scope of Permit.....	8
C.	Additional Requirements	8
D.	Activities Requiring Permit	8
E.	Permit Fees Apply.	9
F.	Exemption	9
G.	Application	9
H.	Commencement of Construction Under Permitt; Extensions	9
I.	Non-compliance.....	9
IV.	Emergency Permits	10
A.	Permit Required	10
B.	Notice of Emergency Condition.....	10
C.	Application	10
D.	Inspection.....	10
V.	Notification to the Public.....	10

A.	Vehicle Markings.....	10
B.	Lane Closure; Signage	11
C.	Additional Requirements	11
D.	Extended Construction	11
VI.	Existing Facility Locates.....	11
VII.	Application for Right-of-Way Work Permit	11
A.	Summary of Requirements for All Projects	11
B.	Plans.....	12
VIII.	Inspection.....	14
A.	Continuing Requirements	14
B.	Kick-Off Meeting	15
C.	Periodic Inspections.....	15
D.	Modifications to Procedures.	15
IX.	Construction Requirements.....	15
A.	Driveways.....	15
B.	Underground Facilities.....	15
C.	Boring of Existing Streets	17
D.	Street cuts and Excavation.....	17
E.	Landscape Protection Requirements.....	18
F.	Backfill	18
X.	Damage / Restoration Requirements	19
A.	Responsibility for Damages.....	19
B.	Notification of Damage.....	19
C.	Restoration.....	20
D.	Graffiti Abatement.....	22
XI.	Aerial Communication Facilities	22
A.	General Aerial Facilities Design Policy	22
B.	Underground Facilities.....	25
C.	Clear Zones and Breakaway Poles..	25
D.	Height Restrictions.....	26
E.	Requirements for Easements.....	26

XII.	Wireless Installations	26
A.	Specific Application Requirements.....	26
B.	Network Node Size and Construction Limitations.....	28
C.	General Construction Requirements.....	31
D.	Limitations on Placement of Poles and Network Nodes.....	31
E.	Construction and Activation Schedules.....	34
F.	Poles and Related Information; Materials.....	34
G.	Non-Interference With City Systems.....	34
H.	Non-City-Owned Rights-of-Way and Infrastructure.....	34
I.	Location of Underground Facilities.....	35
J.	Electrical Service.....	35
K.	Installations.....	35
L.	Exceptions to Size Limitations; Good Cause.....	36
M.	Inspections.....	37
N.	Inventory and As-Built Drawings.....	37
O.	Coordination of Traffic Signal Maintenance Activities and Emergency Response.....	37
P.	Signal Interference with City's Communications Infrastructure Prohibited.....	38
Q.	Abandonment, Relocation and Removal.....	39
R.	Relocation and Removal at Applicant's Expense.....	39
S.	Discretionary Removal or Relocation.....	40
T.	Applicant Repair and Restoration.....	40
U.	Reservation of Rights.....	41
V.	Attachment and Right-of-Way Use Agreements.....	41

I. Introduction

A. Purpose

On behalf of its citizens, the City of Bryan owns and maintains a large amount of right-of-way and easement areas. Because the use of the City's Public Rights-of-Way for the installation of facilities is increasing, the City has adopted Chapter 106, City Code, and other Code provisions, manuals, and guides that are applicable to utility and public service providers, including without limitation "Network Providers," as defined by Chapter 284, Local Government Code, and other wireless service providers (collectively, "Wireless Applicants"), who install, maintain, repair, or access their facilities located in whole or in part in Public Rights-of-Way within the City. The standards and procedures provided in this Design Manual for Right-of-Way Installations ("Design Manual") are adopted to protect the health, safety, and welfare of the public by reducing impacts to public safety within the City's Public Rights-of-Way; to minimize and reduce impacts to the City, its residents, and visitors; and for the general health and welfare of the public.

To accomplish these purposes, this manual establishes certain minimum criteria for the use of the Public Rights-of-Way in the City's jurisdiction. It is intended to provide technical criteria and details necessary to implement the provisions of Chapter 106, Bryan City Code, and other provisions affecting the use and occupation of the Public Rights-of-Way within the City. The City Code authorizes the City Manager or his designee to administer and enforce the provisions of the Code, and to promulgate regulations including, but not limited to, engineering, technical, and other criteria and standards. Unusual circumstances or special designs requiring exception from the standards in this manual must be approved by the City Engineer or his designee.

B. Source of Authority

This operational policy and procedure document was prepared and made effective under the administrative and rule-making authority granted by Sections 2-673 and 106-176 of the Bryan City Code.

C. Definitions

Aerial Facilities – means any equipment, wires, or attachments to Poles.

Antenna means communications equipment that transmits or receives electromagnetic radio frequency signals used in the provision of Wireless Services.

Applicable Codes means:

(1) Uniform building, fire, electrical, plumbing, or mechanical codes adopted by a recognized national code organization, including without limitation the National Electric Code and the National Electric Safety Code; and

(2) Local amendments to those codes to the extent not inconsistent with this chapter.

Applicant is the person or entity applying for a Right-of-Way Work Permit from the City, including without limitation a Network Provider, and shall also mean the *Permittee*, where the Applicant has been granted a Right-of-Way Work Permit.

Bryan Texas Utilities or *BTU* shall mean the entity otherwise known as the municipally owned electric utility of the City of Bryan, Texas.

Chapter 284 refers to Chapter 284, Local Government Code.

City or *Bryan* shall mean the City of Bryan, Texas.

City Park means an area that is zoned or otherwise designated by City Code or regulation as a public park for the purpose of recreational activity, otherwise known as a *Municipal Park*.

Collocate and *Collocation* mean the placement, installation, mounting, maintenance, modification, operation, or replacement of Network Nodes in the Public Rights-of-Way.

Commercial Message shall mean a message placed or caused to be placed before the public by a person or business enterprise directly involved in the manufacture or sale of the products, property, accommodations, services, attractions, or activities or possibly those things which are the subject of the message and that:

(1) Refers to the offer for sale or existence for sale of products, property, accommodations, services, attractions, or activities; or

(2) Attracts attention to a business or to products, property, accommodations, services, attractions, or activities that are offered or exist for sale or for hire.

Concealment Elements means a physical design or treatment that minimizes adverse aesthetic and visual impacts on the view from land, property, buildings, and other facilities adjacent to, surrounding, and in generally the same area as the requested location of a Wireless Service facility, including without limitation a Wireless Telecommunications Facility, a Network Node, or a Node Support Pole, which shall mean the least visually and physically intrusive facility, so as to make it substantially invisible, and that is not technologically or commercially impracticable under the facts and circumstances.

Decorative Pole means a streetlight pole specially designed and placed for aesthetic purposes and on which no appurtenances or attachments, other than specially designed informational or directional signage or temporary holiday or special event attachments, have been placed or are permitted to be placed according to City Code.

Design District or *Overlay Design District* means an area that is zoned, or otherwise designated by City Code, and for which the City maintains and enforces unique design and aesthetic standards, such as an overlay district, on a uniform and nondiscriminatory basis.

Flag shall mean a piece of fabric that contains colors, patterns, symbols, or words that convey a noncommercial message.

Franchise Fee refers to the fees paid by cable or video service providers as holders of state-issued certificates of franchise authority pursuant to Chapter 66, Utilities Code.

Government Signs shall mean a sign placed at the direction of a duly authorized officer, employee, department or agency of the government of the United States, the state, or a political subdivision of the state, including but not limited to, directional, traffic safety and public information, or school zone sign.

Handheld Sign shall mean a sign that is held by a person in such a manner that neither the sign nor any object that provide support of the sign touches the ground.

Historic District means an area that is zoned or otherwise designated as a historic district under municipal, state, or federal law.

Inspector means those individuals employed by the City to perform the health, safety, and public welfare duties described herein.

Law means common law or a federal, state, or local law, statute, code, rule, regulation, order, or ordinance.

Macro Tower means a guyed or self-supported pole or monopole greater than the height parameters prescribed by Section 284.103, Local Government Code, and that supports or is capable of supporting antennas.

Micro Network Node means a Network Node that is not larger in dimension than 24 inches in length, 15 inches in width, and 12 inches in height, and that has an exterior antenna, if any, not longer than 11 inches.

Municipal Fee refers to the fees paid by certificated telecommunications providers, as defined in and provided by Chapter 283, Local Government Code.

Municipally Owned Utility Pole means a utility pole owned or operated by BTU.

Network Node means equipment at a fixed location that enables wireless communications between user equipment and a communications network. The term:

- (1) includes:
 - (a) equipment associated with wireless communications;
 - (b) a radio transceiver, an Antenna, a battery-only backup power supply, and comparable equipment, regardless of technological configuration; and
 - (c) coaxial or fiber-optic cable that is immediately adjacent to and directly associated with a particular collocation; and
- (2) does not include:
 - (a) an electric generator;
 - (b) a Pole; or
 - (c) a Macro Tower.

Network Provider means:

- (1) a Wireless Service Provider; or
- (2) a person that does not provide Wireless Service and that is not an electric utility but builds or installs on behalf of a Wireless Service Provider:
 - (a) Network Nodes; or

(b) Node Support Poles or any other structure that supports or is capable of supporting a Network Node.

Node Support Pole means a Pole installed by a Network Provider for the primary purpose of supporting a Network Node.

Noncommercial Message shall mean any message that is not a commercial message.

Non-decorative Streetlight Pole shall mean a BTU-owned streetlight pole that is not a Decorative Pole.

Permit means a written authorization required from the City for the use of or activities within the Public Rights-of-Way, including without limitation collocation on a Service Pole, Municipally Owned Utility Pole, Non-decorative Streetlight Pole, or Node Support Pole, before an Applicant may perform an action or initiate, continue, or complete a project over which the City has police power authority.

Permitted Event shall mean a street closing event as defined in this section.

Pole means a Service Pole, Municipally Owned Utility Pole, Non-Decorative Streetlight Pole, or Node Support Pole.

Pole-Loading Analysis means a structural analysis of an existing Pole with a proposed Network Node or other attachment in accordance with the *AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 3rd Edition, 1994* or other authorities the City may approve.

Projecting Sign shall mean a sign, other than a flat wall sign, which is attached to and projects from a building wall or other structure not specifically designed to support the sign.

Public Property shall mean property owned or leased by the federal government, the state, or any political subdivision of the state, including the City.

Public Right-of-Way or Public Rights-of-Way means the area or areas on, below, or above a public roadway, highway, street, public sidewalk, alley, waterway, or utility easement in which the City has an interest. The term does not include:

- (1) A private easement; or
- (2) The airwaves above a Public Right-of-Way with regard to Wireless Services.

Public Right-of-Way Management Ordinance means an ordinance that complies with Subchapter C, Chapter 284, Utilities Code, and specifically, Chapter 106, Bryan City Code.

Public Right-of-Way Rate means an annual rental charge paid by a Network Provider to the City related to the construction, maintenance, or operation of Network Nodes within the Public Rights-of-Way in the City.

Public Right-of-Way User means a person who has completed the registration process provided in this Design Manual for work in, use of, or occupation of the Public Rights-of-Way within the City.

Public Service Provider means (i) a Certificated Telecommunications Provider under Chapter 283, Local Government Code; (ii) a Network Provider under Chapter 284, Local Government Code; (iii) a holder of a state-issued certificate of franchise authority under Chapter 66, Utilities Code; or (iv) a party to a franchise agreement with the City.

Rubbish means garbage, trash, debris, uncultivated brush, and litter.

Service Pole means a Pole, other than a Municipally Owned Utility Pole, owned or operated by the City and located in a Public Right-of-Way, including:

- (1) A Pole that supports traffic control functions;
- (2) A structure for signage;
- (3) A Pole that supports lighting, other than a decorative pole; and
- (4) A Pole or similar structure owned or operated by the City and supporting only Network Nodes.

Sign shall mean any device, display, flag, plaque, poster, design, painting, drawing or graphic that is intended or used to convey a message.

Special Event shall mean an event to be held within the City, that is of limited duration, and is likely to attract 100 or more visitors which has been permitted pursuant to section 106-191 and shall include, without limitation, exhibitions, automobile races, sporting events, festival, air show, carnivals, circuses, revivals, tent sales, concerts, parades, runs, walks, races or motorcades.

State Maintained Highway shall mean a road or highway built, maintained, or repaired by the State of Texas, including without limitation. Highway 6 (Earl Rudder Freeway) and frontage road, Highway 21 (San Jacinto), Farm to Market Road 158 (William Joel Bryan), Spur 308 (South College from Sulphur Springs to College Station City limits), Highway 6 Business (Texas Avenue), Farm to Market 974 (Tabor Road from Wilkes Street east to City limits), Farm to Market 1179 (Villa Maria from Briarcrest to west City limits and Briarcrest to east City limits), Highway 47 (from south City limits to Highway 21), Farm to Market 1687 (Sandy Point Road), Farm to Market 1688 (Leonard Road from Farm to Market 2818 to Highway 47, and Farm to Market 2818 (Harvey Mitchell Parkway from south City limits to Highway 6).

Street Closing Event shall mean any activity, including but not limited to special events which requires the closing of all traffic lanes of any public street, and which requires rerouting of normal or usual traffic flow and which has been permitted pursuant to section 106-191 of the Bryan City Code.

Street Tree shall mean any tree located within a Public Right-of-Way.

Subdivision Development Wayfinding Signs shall mean off-site directional signs placed in the Public Rights-of-Way along arterial and major collector roadways within a planned development type residential subdivision and used to guide the public to amenities and/or facilities located within the subdivision, and which signs are installed and maintained by the developer and/or Home Owners Association and which require a special use license.

Temporary Sign shall mean any sign constructed of cloth, canvas, light fabric, cardboard, wallboard, plastic, metal or other light materials, not to exceed six square feet in size and not intended for long-term use.

Transport Facility or Transport Facilities means each transmission path physically within a Public Right-of-Way, extending with a physical line from a Network Node directly to the network, for the purpose of providing backhaul for Network Nodes.

Utility Pole means a Pole that provides:

- (1) Electric distribution with a voltage rating of not more than 34.5 kilovolts; or
- (2) Services of a telecommunications provider, as defined by Section 51.002, Utilities Code.

Weeds and Grass shall mean weeds and/or grass, or other uncultivated plants on any premises or right-of-way, which grown in such rank profusion as to harbor reptiles or rodents, or create a fire hazard; and weeds and/or grass or, other uncultivated plants on any premises which are permitted to, or do, attain a height greater than 12 inches on the average.

Wireless Installation License Agreement means an agreement between the City and a Network Provider providing the terms and conditions of access to the Public Rights-of-Way and to City Service Poles.

Wireless Service means any service, using licensed or unlicensed wireless spectrum, including the use of Wi-Fi, whether at a fixed location or mobile, provided to the public using a Network Node.

Wireless Service Provider means a person that provides Wireless Service to the public.

II. Registration

A. Requirement to Register. All persons intending to perform work within the Public Rights-of-Way within the City shall register with the Public Works Department. Registration may be performed on a one-time basis and shall be completed prior to commencement of any work. Insurance, Performance/Assurance Bond and Sureties must be approved and on file with the Risk Management Department, Public Works Department, and Finance Department upon registration. A certification shall be provided to each applicant that successfully completes the registration process. Annual registration updates shall be performed on the anniversary of the initial registration certification.

B. Current Users of the Public Rights-of-Way. All persons with facilities occupying the Public Rights-of-Way within the City or who are currently performing work within the Public Rights-of-Way must register with the City within thirty (30) days of the effective date of this Design Manual. All Public Rights-of-Way Users shall report all changes in its registration information within thirty (30) days of such change. No Public Rights-of-Way User shall be authorized to utilize the Public Rights-of-Way in any capacity or manner without registering and obtaining the necessary Right-of-Way Work Permit from the city.

C. Registration information. The information required for registration includes the following:

1. Identity and legal status of the Public Rights-of-Way User and names of all operators of any facilities in the Public Rights-of-Way.
2. Name, address, telephone number, fax number, and email address of an officer, agent or employee responsible for the accuracy of the registration information.
3. Name, address, telephone number, fax number and email address of the local representative of the Public Rights-of-Way User available at all times to act on behalf of the Public Rights-of-Way User in the event of an emergency.
4. If applicable, certificate number issued by the Public Utility Commission of Texas (“PUC”) or other certifying state agency.
5. General description of services to be provided.
6. Insurance and bonding information.
7. Employee safety certification information.

D. Employee Safety Certification. The Public Rights-of-Way User operating facilities or constructing facilities in any Public Rights-of-Way within the City is responsible for the safe movement of pedestrian and vehicular traffic through the construction area. The Public Rights-of-Way User shall obtain certification through a City-approved training organization for a sufficient number of employees working within the Public Rights-of-Way such that a certified employee is present at the job site during construction activities. The Public Rights-of-Way User shall meet all requirements for barricading and traffic control as specified in the Texas Manual on Uniform Traffic Control Devices (“TMUTCD”). Alternative training programs may be submitted to the Public Works Director for City certification. Only those individuals who are qualified by means of adequate training in safe traffic control practices and have a basic understanding of the principles established by applicable standards and regulations, including those in TMUTCD, as evidenced by certification, shall place and maintain the traffic control devices in the construction area. Employee certificates shall be maintained current by Public Rights-of-Way User at all times. An employee shall produce, upon request of an inspector or police officer, proof of a valid training certificate.

E. Reporting Obligations. All Public Rights-of-Way Users shall provide on demand, proof of any necessary permit, license, certification, grant, registration, franchise agreement or any other authorization required by any governmental entity, including, but not limited to, the city, State or Federal Government, including a description of the Public Rights-of-Way User's intended use of the Public Rights-of Way, information sufficient to determine whether the Public Rights-of-Way User is subject to franchising or licensing by the City, and information to determine whether the Public Rights-of-Way User has applied for and received any certificate of authority required by the PUC. The information provided shall be sufficient to determine that the Public Rights-of-Way User has applied for and received any permit or other approvals required by the

FCC. Public Rights-of-Way Users shall provide all such other information as may be reasonably required by the City to complete the registration statement.

III. Right-of-Way Work Permits

A. Permit Required. No person, franchised utility, City-licensed facility operator, special utility district, or other non-City-owned utility shall perform work affecting the Public Rights-of-Way without first obtaining the appropriate permits required by the City.¹

B. Scope of Permit. As used herein, "work affecting the Public Rights-of-Way" includes, but is not limited to, installation, or construction of any structure, pipe, pole, conduit, culvert, or facility, including a telecommunications, cable service, or video service facility, in or on a public way, and any construction, reconstruction, grading, oiling, repair, maintenance, opening or excavation of a Public Right-of-Way for any purpose, but does not include the construction of public improvements performed by City employees.

C. Additional Requirements. Issuance of a permit for work within the Public Right-of-Way does not relieve the Permittee from the responsibility to obtain other necessary permits and to conform to other regulatory requirements. In certain areas of the Public Right-of-Way, location restrictions, setbacks, natural resource preservation, wetland, or other local, state, or federal regulations may apply. For example, a separate TxDOT permit may be required, in addition to a Right-of-Way Work Permit, for work performed in the Public Right-of-Way.

D. Activities Requiring Permit. An individual Right-of-Way Work Permit is required for an activity which affects the Public Rights-of-Way and meets any of the following conditions:

- The activity involves the removal, modification, or replacement of any City-owned facilities (e.g., street pavement, trees, concrete curbs, sidewalks, or bike path).
- The activity involves removal, replacement, modification or new installation of a residential or commercial driveway.
- The activity involves the relocation or modification of the existing facility (e.g., changing the foot line or elevation of underground facilities or moving existing poles or guy lines to a new location).
- The activity involves the cutting of any root 2 inches in diameter or greater of a street tree, or the cutting of a branch 2 inches in diameter or greater of any street tree.
- The activity involves installing pipe, conduit, or cable.
- The activity includes closing a lane of traffic on any street.

¹ Including, without limitation, City permits formerly known as "driveway permits," "culvert permits," or "utility permits," which are now authorized under and subsumed within the requirements of this Design Manual for Right-of-Way Installations as Right-of-Way Work Permits.

- The activity includes excavation of existing material or placement of fill materials or aggregate in the Public Rights-of-Way.
- The activity includes installation of underground utilities.
- The activity includes installation of facilities above or below ground for the purpose of expansion or upgrade, including without limitation the installation of a Pole or Network Node.
- The activity involves installing facilities, cable, wire, or lines in an existing conduit installed by another utility or entity.
- The activity includes installation of any type of groundwater monitoring well or any other facility to be located within the Public Right of Way.

E. Permit Fees Apply. Permit fees shall be charged for all permits issued for work within the Public Rights-of-Way unless otherwise noted herein. The amount of the fee shall be sufficient to recover the City's costs related to processing the permit and inspection activities during and after the work. Contractors performing work on behalf of the City of Bryan are exempt from fees for such work.

F. Exemption. The City of Bryan and BTU are exempt from the requirements of Right-of-Way Work Permits if the work is being performed by the City or BTU employees or their contractors.

G. Application. The Applicant is required to complete the Right-of-Way Work Permit Application. A copy of the application may be filled out on the City's website at www.bryantx.gov under the Departments tab/Engineering/Permits or one can be picked up at the City of Bryan main office located at 300 S. Texas Ave. Applicant to submit permit to rowpermit@bryantx.gov.

H. Commencement of Construction Under Permit; Extensions. A Permittee shall commence construction under its Permit not less than three months after approval and shall diligently pursue completion of the permitted project and testing, where required, within the three months after approval of the permit. A Permittee shall also provide the City Engineer with not less than 48-hours notice that it will first enter the Public Rights-of-Way to begin work on the permitted project. Permits that are under construction and have not expired at the time of a request for extension of time may qualify for a single 180-day extension. Requests for permit extensions must be in writing and received by the Engineering Department prior to the permit expiration date, otherwise the applicant will need to submit a new Right-of-Way Work Permit Application with corresponding application fees. Written extension requests must include the reason for the request. An extension request will be reviewed and approved, approved with conditions, or denied by the Engineering Department.

I. Non-compliance. Work commenced prior to obtaining an approved permit or performed after an approved permit has expired may result in workers being removed from the Public Rights-of-Way and a stop work order being issued to the responsible party to prevent any further work in the Public Rights-of-Way until an approved permit is obtained and application fees are paid in full. Failure to comply with permit conditions may result in workers being removed from the Public Rights-of-Way and a stop work order being issued to the responsible

party to prevent any further work until a resolution acceptable to the City is reached. Non-compliance with permit conditions may also result in cancellation of existing permits and/or suspension of processing of future permit applications until a resolution acceptable to the City is reached. Failure to pay required fees may result in cancellation of existing permits and/or suspension of processing of future permit applications until payment is received.

IV. Emergency Permits

A. Permit Required. A Right-of-Way Work Permit is required for all work within the Public Rights-of-Way. However, when emergency repairs of an existing facility are necessary, work may commence prior to the application for a permit, provided all conditions of Emergency Permits are met.

B. Notice of Emergency Condition. If a condition occurs requiring emergency repairs of an existing installation during the normal working hours of the Engineering Department, immediate verbal notice to the Inspector or City Engineer is required. Where emergency repairs are necessary outside the normal business hours of the Engineering Department, the City of Bryan Police Department should be notified if the work is within a street or alley and will necessitate a lane closure. If a representative of the Public Works Department is needed, upon request of the Permittee, the City of Bryan Police Department will notify the "on-call" supervisor of the Public Works Department.

C. Application. Application for an emergency permit shall be submitted no later than the next working day following the emergency repairs. This application must clearly describe the nature of the emergency and the action the Permittee has taken to date.

D. Inspection. The site of any emergency work will be inspected at the Inspector's first opportunity. The Inspector will ensure that the permit process is followed, the work was acceptably performed, that no City facilities were damaged, and that the site was returned to a condition as good as, or better than, that prior to the work being performed.

E. Costs. A Permittee shall reimburse the City for all costs or expenses it incurs in responding to the emergency within ten (10) days of receipt of an invoice for such costs.

V. Notification to the Public

The following notification procedures apply if work is to be performed in the street or within a Public Right-of-Way:

A. Vehicle Markings. For all construction within the Public Right-of-Way in front or rear of property, the person performing the work on behalf of the public service provider shall conspicuously mark their vehicle with the company name and telephone number.

B. On-Site Copy of Permit. Personnel present during construction or other activities within the Public Rights-of-Way shall have a copy of the relevant permit on-site.

C. Contractor Identification; Personal Protective Gear. All personnel present during construction shall wear all required personal protective gear with visible contractor-identifying information, including without limitation a Class 2 safety vest.

D. Lane Closure; Signage. Any closure of a traffic lane or blocking of a sidewalk or alley lasting longer than one day must be identified by a 3-foot by 3-foot sign that is clearly legible to the traveling public. The sign must be posted at or in close proximity to the work site and must contain:

1. The name of the owner and Permittee;
2. The name of the person performing the construction on behalf of the public service provider, if any; and
3. A local 24 hour contact number that can be used in case of an emergency.

E. Additional Requirements. The requirements above are in addition to any signs, barricades, or warning devices required by law, Ordinance, or approved traffic control plan. The sign information listed above may be included on barricades or warning devices.

F. Extended Construction; Weekend, Holiday, or Late Hours. When permitted construction is anticipated to last longer than two weeks or to occur on weekends, holidays, or outside normal working hours, Monday through Friday, 7:30 a.m. to 5:00 p.m., the Permittee will give written notification to all adjacent property occupants by conspicuously posting the notification on each adjacent property at least 72 hours before commencement of construction, unless the director or representative determines that an emergency exists.

VI. Existing Facility Locates

Prior to construction, a permittee or its contractor shall obtain utility locates by contacting the Texas 811, 1-800-344-8377, or online at <http://www.texas811.org/>. The following departments within the City of Bryan are not members of the Texas One Call System.

- Information Technology
- Water Distribution
- Wastewater Collection
- Signal Lights/Warning Flashers
- Stormwater Facilities

Prior to construction, a permittee or its contractor shall obtain city utility locates by contacting the Public Works Call Center at 979-209-5900, Monday through Friday, 7:30 a.m. to 5:00 p.m..

VII. Application for Right-of-Way Work Permit

A. Summary of Requirements for All Projects. Subject to the further requirements of this Design Manual pertaining to specific types of projects, the Applicant shall submit the following information with all Right-of-Way Work Permit applications:

1. Fees. The application shall be submitted with the required fee.
2. Plans. Detailed construction plans, prepared in accordance with the Texas Engineering Practice Act, containing all information necessary to review, construct, and inspect the improvements. Plans shall be clear and legible and shall typically flow left to right and top to bottom. Drawings should be

to standard engineering scales showing dimensions to proposed improvements off of known visible existing points (such as manholes, back of curb, buildings, etc).

3. Site specific detailed traffic control plan. More complex traffic control plans requiring detours or affecting multiple lanes of traffic will require traffic control plans sealed by an engineer.
4. Storm Water Pollution Prevention Plan (project limits).
5. Contractor's and Permittee's certificates of insurance.

B. Plans.

1. Construction Plans. The construction plans shall be submitted digitally in Portable Document Format ("PDF") and are required to show:
 - a. Whether a facility is overhead or underground.
 - b. The full limits of the proposed work. The minimum plan size is 11"x17" and minimum scale is 1"=100', unless otherwise approved. Provide graphic scale.
 - c. The location of all existing and proposed public facilities, including City water lines, storm drainage facilities, and sanitary sewer lines in relation to all proposed utilities, if there is a potential for conflict. Construction drawings for existing and proposed public facilities may be requested from the City of Bryan Engineering Dept. The elevation of the existing and proposed public facilities should be noted, or a profile shown, in relation to the proposed utility line, if there is a potential for conflict. The plans shall indicate how potential conflicts will be avoided.
 - d. Detail of proposed facility installation, i.e., pipe size, depth and dimensions of occupied space. If utility structure is proposed, dimensions, type, and location shall be indicated on the plans.
 - e. Planned pavement removal and replacement limits for street cuts, if allowed.
 - i. Pavement cuts, if allowed, will be done in accordance to provided City standards.
 - ii. All concrete driveways and streets shall be bored rather than open cut. The length of the bore must be sufficient for meeting the fully improved (ultimate) roadway width as specified in the City of Bryan's Future Thoroughfare Development Plan.
 - f. Detailed drawings of any bores, trenches, hand holes, manholes, vaults, switch gears, transformers and pedestals, including height,

width and depth. Utility structures need a dimensional drawing and the placement site pre-approved by the City of Bryan.

2. Storm Water Pollution Prevention Plan

- a. Stream Crossings. Permittee shall submit two sets of a Storm Water Pollution Prevention Plan to the Engineering Department in cases where stream/creek crossings are open cut. A four-foot vertical clearance below the bottom of the proposed stream bed or drainage facility is required. The Permittee shall contact the Engineering Department for future improvements to the stream/creek, which may impact the proposed alignment.
- b. All Other Projects. In all other cases, the Permittee is required to implement erosion control measures for construction activities in accordance with the City's Storm Water Pollution Control Ordinance, as amended and other City ordinances, state laws, and federal regulations.
- c. Measures to be Used. The following pollution prevention measures shall be used where applicable:
 - i. Avoid placing pollution prevention structural controls in the floodway.
 - ii. Trap/contain boring "mud" or waste material to prevent flow in the street and/or storm drain system through the use of a vacuum excavator, or equivalent method.
 - iii. Remove construction debris and trash daily.
 - iv. Place erosion control matting, seeding or sod on bare ground as soon as possible, but no later than 14 days after completion of construction work.
 - v. Clean sediment from streets and other paved surfaces. Sediment shall be removed by sweeping and not by washing into the storm drain system.

3. Traffic Control Plan

- a. General. Any work that may impact traffic flow or result in lane closures in streets will require a site specific traffic control plan sealed by a licensed professional engineer and the closures shall comply with the most current edition of *The Texas Manual on Uniform Traffic Control Devices* ("TMUTCD") as adopted by Ordinance, as amended. The Permittee shall indicate on the permit application if a lane closure is required. It is the Permittee's responsibility to submit and obtain approval of a site specific traffic control plan from the Engineering Department.

- b. City Requirements. In addition to the general requirements of the TMUTCD:
 - i. Unless permission is expressly granted by the City Engineer or his designee, a Permittee shall not cause or allow interference with traffic flow on any street during the hours of 6:00 a.m. through 9:00 a.m. and 4:00 p.m. through 6:00 p.m. Monday through Friday. If within or adjacent to a school the no interference of traffic flow will be allowed during the hours of 3:00 p.m. and 5:00 p.m. If construction on a partially closed street stops for the day, all lanes must be reopened to traffic, unless an extended time of closure is expressly granted by the City Engineer or his designee.
 - ii. The City Engineer or designee may review the Permittee's placement of these barriers and warning devices. When, in the judgment of the Inspector, additional barricades or warning devices are necessary, he/she shall so inform the Permittee and the Permittee shall take prompt action to comply.
 - iii. All personnel working in or near lane closures must have been certified in a Work Zone Safety and/or Flagger Safety course and be able to provide proof of certification.
 - iv. The Permittee must notify the Engineering Department in writing 48 hours prior to any work requiring a permit that is proposed for a weekend.
 - v. Except in the case of an emergency, no work shall be permitted between the hours of 10:00 p.m. and 6:00 a.m. unless authorized in writing by the City Engineer or his designee.
 - vi. The City Engineer or designee may require that the work occur overnight when necessary to expedite construction or minimize disruption to traffic.

VIII. Inspection

A. Continuing Requirements. Work under the permit is subject to City inspection before, during, and after completion of the work. A copy of the approved permit and plans or drawings must be on the work site at all times. Inspections of the Permittee's work by the Inspector shall in no way relieve the Permittee from the obligation of performing all work within the Public Rights-of-Way in strict accordance with the requirements of the City of Bryan Standard Specifications, provisions of this manual, the Bryan City Code, recognized national standards, related administrative rules, and specific permit conditions. Nor shall this inspection relieve the

Permittee of the Permittee's responsibility to perform any required corrections in case the work is later found deficient.

The Inspector shall be responsible for inspection of work performed under Right-of-Way Work Permits for work within the Public Rights-of-Way.

B. Kick-Off Meeting. Upon receiving the notice of intent to commence the work, the Inspector will endeavor to meet with the Permittee or its contractor representative in charge of the construction at or before the commencement of the work covered by the permit. At this time, the methods and planned sequence of the operations should be discussed, unanswered questions resolved, and agreement obtained on preexisting damage to facilities in place.

C. Periodic Inspections. The Inspector will periodically monitor operations performed by the contractor to see that work is performed according to the permit conditions. The work must strictly conform to the approved plans. Any changes in the proposed facility from that shown on the approved permit must have the prior consent of the Inspector. If a field change is approved by the Inspector, the Permittee shall submit modified permit drawings which document the change. The Inspector may require the Permittee to apply for a new permit if the requested change cannot be resolved by a field decision.

D. Modifications to Procedures. The Inspector may require changes in construction technique or workmanship if hazardous conditions are present and may halt construction if it does not conform to the approved permit and plans or drawings.

IX. Construction Requirements

A. Driveways

1. Design Requirements. Driveway design shall comply with the latest revisions of applicable sections from the City of Bryan Code of Ordinances as well as the B/CS Unified Construction Details. Materials shall also conform to the B/CS Unified Technical Specifications.
 - a. Driveways without existing adjacent sidewalks shall be required to provide an accessible route crossing the driveway.
 - b. Detectable warning surfaces for sidewalks at driveway crossings shall only be required if the driveway has stop or yield control by signage and/or pavement marking.

B. Underground Facilities. Underground facilities shall conform to the following requirements:

1. Conduits Required. Underground cable or wire facilities shall be installed in conduits when located in right of way or easements.
2. Bury Depth. Underground facilities shall have a minimum bury depth of 36 inches. Depths of underground electric facilities shall be as mandated by BTU.

3. Locating and Warning. Contractors shall install one or more of the following devices for warning of the existence of underground facilities:
 - a. Metal Detector Tape;
 - b. Colored Backfill;
 - c. Conductive Trace Wire;
 - d. Conduit colors; or
 - e. Warning Tape.

If metal detector tape, warning tape, or colored backfill are used, then white or gray PVC conduits are allowed. If metal detector tape, warning tape, or colored backfill are not used, then conduit colors shall conform to the American Public Works Association (“APWA”) Uniform Color Code (e.g., Red for electric, Orange for communications, etc.).

4. Horizontal Offset from Existing Utilities. For proposed underground facilities the horizontal offset between the exterior of existing and proposed utilities shall conform to the following table:

Existing Utility Type	Existing Utility Size (inches)	Horizontal Offset (feet)
Water or Sewer	≤ 12”	5’
Water or Sewer	> 12”	Contact Water Services
Storm Sewer	Any	5’
Buried Electric	Any	Contact BTU
Overhead Electric Poles	Any	Contact BTU

5. Crossing Facilities. All facilities that cross existing drainage facilities, sanitary sewer, or water mains shall be buried under the existing pipes with a two foot minimum vertical clearance at the underside of the existing pipes. Should any existing or proposed City facility be deeper than 12 feet, utility will be allowed to place their facility above the existing pipes with a two foot vertical clearance at the top of the existing pipe. In either case, the proposed facility must be a minimum of 48 inches under top of pavement. The location and elevation of all crossed existing utilities must be potholed prior to installation of new facility.
6. Parallel Facilities. All facilities that run parallel to an existing or proposed drainage facility, sanitary sewer, or water main shall have a five foot minimum horizontal clearance from the exterior face of the pipes or manholes, unless otherwise authorized. Please note that the elevation of

the individual lateral services of these pipes may vary. All conduits must be two feet below all lateral service pipes.

C. Boring under Existing Streets

1. Dry Boring Only Permitted. Only dry boring techniques may be used in the Public Right-of-Way in the City. Further, dry bores under any existing City street shall be cased. Jetting types of boring equipment are not allowed.
2. Directional Boring. Up to 4" diameter directional bores will be permitted under City streets with functional classifications of Local or Collector (defined as a roadway with 3 or fewer travel lanes). Directional bores under Arterial streets will only be allowed by permission from the City Engineer or his designee. All directional boring shall have the locator place bore marks and depths while the bore is in progress. Locator shall place a mark at each stem with a paint dot and indicate the depth at every other stem. The contractor shall be able to locate the bore head at all times in accordance with the latest technologies and provide the location of the bore to the director upon request.
3. Boring Pit Locations. The location of the boring pits shall be a minimum of five feet from the roadway to prevent undermining of the curb, gutter, or shoulder section. The pits or trenches excavated to facilitate this operation shall be backfilled and compacted immediately after work is completed.
4. Depth. All facilities installed under pavement shall be buried to a minimum depth of 48 inches under top of pavement for the fully improved ultimate roadway width. This measurement shall be made from the existing or proposed top of pavement, whichever is lower. For this section, proposed improvements are defined as any facility with a designated location and elevation as shown on available construction plans. These stipulations are with the condition that additional depth may be necessary due to other constraints or utilities. Upon written request, an exception may be granted by the City Engineer.

D. Street Cuts and Excavation

1. Saw Cuts. The removal of portions of existing pavement, drives, slabs, and sidewalks shall require full depth saw cut by the use of a power driven saw. Where concrete removal is approved by the director or representative, locations of the removal shown on the plans are indicative only of the need for a saw cut; removal shall be to existing joints. Where a saw cut is made in a drive approach the entire drive approach will be replaced.
2. Temporary Coverings. In the event that it is necessary to place a temporary surface on any cut opening, the temporary surface shall be

composed of hot mix asphalt or approved materials. Gravel or flexbase surface material shall not be used as a temporary surface on any cut. Temporary surfaces shall be adequately compacted to prevent deterioration of repair during the temporary period. If a pavement cut is to be covered, the Permittee shall use steel plates, or equivalent plates, of sufficient strength and thickness to support all traffic. Plates must be sufficiently secured in place so as not to become dislodged or in any way cause a hazard to traffic. Plates must be marked with the name of the Permittee and contractor performing the construction and with a local 24 hour contact number that can be used in case of an emergency, unless a sign identifying the contractor is posted at or in close proximity to the work site. Asphalt transitions may need to be placed as required to provide a smooth riding surface. Any temporary surface that fails to provide a non-deteriorating riding surface or fails to meet the requirements of these specifications shall be removed and replaced at the direction of the City Engineer or his designee and at the Permittee's expense.

E. Landscape Protection Requirements. The proposed facility route should be designed to minimize damage to trees and/or landscaping.

1. All trees within street medians must be bored 48 inches under the root system. Boring shall begin 24 inches outside of the drip line and exit 24 inches outside the drip line on the other side of the tree. The drip line is an imaginary line that extends from the tree's outer branches and leaves, directly to the ground.
2. Manholes shall be placed outside the drip line of the tree.
3. Should work need to be performed near a tree, a temporary construction fence shall be erected 12 inches outside the drip line of the tree.
4. Permittee shall be responsible for any damage to public or private landscaping and sprinkler systems.

F. Backfill. Backfill of all trenches and bore pits shall begin immediately following installation of the new facility in accordance with the following requirements:

1. All loose concrete, rocks, roots, trash and other debris shall be removed from the excavation prior to any backfill being placed.
2. Backfill material shall consist of the native material obtained from the street excavation unless, in the opinion of the City Engineer or his designee, this material is unsuitable for use.
3. All backfill material shall be compacted in lifts of loose depth not exceeding 8 inches and compacted to at least 95% of Standard Proctor Density at optimum moisture content, two percentage points, as determined by ASTM D698.

4. Permittee may elect to backfill with flowable backfill material. In addition, the City Engineer or his designee shall have the authority to require any Permittee to use flowable fill to backfill an excavation in the Public Right-of-Way in the interest of preserving the public convenience or safety.
5. Flowable type backfill shall have a compressive strength of 1500 PSI.
6. The City may request material test on compaction. The Permittee shall notify the city inspector 24 hours prior to completion of backfill.
7. If the tests on the backfill do not meet the above requirements, the backfill shall be considered unacceptable and shall be removed and replaced. The Permittee shall bear the cost of all corrections and subsequent testing if the backfill is deemed unacceptable.

X. Damage / Restoration Requirements

A. Responsibility for Damages

1. Applicant Responsible. Applicant shall be responsible and liable for the acts and omissions of Applicant's employees, temporary employees, officers, directors, consultants, agents, Affiliates, subsidiaries, sub-lessees, and subcontractors in connection with the performance of activities within the Public Rights-of-Way, as if such acts or omissions were Applicant's acts or omissions.
2. City Not Liable. The City shall not be liable to Applicant for any damage caused by other entities sharing the same City service pole or for failure of Applicant's Network Nodes for whatever reason, including damage resulting from vehicular collisions, weather related events, or malicious attacks. Further, the City shall not be liable to Applicant by reason of inconvenience, annoyance, or injury to the Network Nodes or Node Support Poles or activities conducted by Applicant therefrom, arising from the necessity of repairing any portion of the Public Rights-of-Way, or from the making of any necessary alteration or improvements, in, or to, any portion of the rights-of-way, or in, or to, City's fixtures, appurtenances, or equipment. The City will use reasonable efforts not to cause material interference to Applicant's operation of its Network Nodes or Node Support Poles.

B. Notification of Damage

1. Damage to Private Facilities. The City Inspector and the owner of any damaged private facility must be immediately notified of damage to private facilities caused or found by the Permittee. When private wastewater or stormwater lines are damaged the Permittee shall immediately notify the owner and the City Engineer or his designee. Required repairs shall meet the current adopted City of Bryan Codes and be inspected by the Building Inspector.

2. Damage to City Facilities. When a City facility is damaged the Permittee shall immediately notify the Inspector and the Public Works Call Center at (979) 209-5900. The Inspector will coordinate with appropriate city departments responsible for infrastructure that was damaged to determine repair strategy. The City shall have the option of providing repair consultation to the Applicant responsible for the damage, directing the repair performed by the person(s) responsible for the damage, or having the repair performed by City crews at the expense of the Applicant responsible for the damage. In all cases whether repairs are made by applicant or by the City, the applicant is responsible for the cost.

If a Permittee contests responsibility for the damage to a City facility discovered within the Permittee's work zone, the Permittee shall still be held responsible for effecting immediate repairs to the damaged facility. The Permittee should then be directed to submit a billing to the City's Risk Management Department showing the exact time and materials expended to effect the repairs. Also, the Permittee should include, in narrative form, an explanation as to the cause of the damage, the reasons the Permittee should not be held responsible, and justification for the billing.

C. Restoration

1. Repair of Public Rights-of-Way and Third-Party Property. Applicant shall repair any damage to the Public Rights-of-Way and the property of any third party resulting from Applicant's removal or relocation activities (or any other of Applicant's activities hereunder) within ten (10) days following the date of such removal or relocation, at Applicant's sole cost and expense, including restoration of the Public Rights-of-Way and such property to substantially the same or better condition as it was immediately before the date Applicant was granted a Permit for the applicable location.
2. Restoration Work. Restoration work must be performed to the satisfaction of the City Engineer or his designee and must include, but is not limited to, the following:
 - a. Vegetation restoration shall include restoration or replacement of any damaged trees, shrubs or other vegetation. Sod shall be used for turf replacement and shall match existing adjacent type.
 - b. Ruts shall be removed and the topsoil shall be prepared to provide a smooth surface free of rock and gravel. Irrigation systems shall be repaired to preconstruction condition and extent.
 - c. Installation or reinstallation of all manholes and hand holes, as required by the City Engineer or his designee.

- d. Backfilling and compaction of all completed bore pits, potholes, trenches, or other holes must be performed on a daily basis, or provide proper protection according to the Occupational Safety and Health Administration standards.
 - e. All sub-grade, streets, sidewalks and alleys shall be restored in accordance with City of Bryan Standards.
 - f. All trenches and disturbed areas shall be leveled.
 - g. Damaged traffic control devices, including but not limited to, imbedded loop detectors, pavement markings, underground conduits and signs shall be restored or repaired.
 - h. All location flags must be removed during the clean-up process at the completion of the work.
 - i. Special street, sidewalk, or drive approach surfaces shall be restored to match the color, texture, and pattern of the surrounding special surfaces.
 - j. Restoration must be made in a timely manner. If restoration is unsatisfactory or not performed in a timely manner, then all of the Permittee's work on the project in question will be halted, and no additional permit will be issued to Permittee until the restoration is completed to the satisfaction of the City Engineer or his designee. Any hold on the Permittee's work will include work previously permitted but not completed.
 - k. The City Engineer or his designee must approve any exceptions to these provisions.
3. Notice of Completion. Applicant shall provide notice that it has completed restoration under this subsection within 10 days of completion.
 4. City Approval. Approval repair, restoration and replacement shall be subject to the sole, reasonable discretion of the City.
 5. Applicant Failure to Restore. If Applicant does not repair such property or perform such work as described in this subsection, then the City shall have the option, upon 15 days' prior written notice to Applicant, or immediately if there is an imminent danger to the public, to perform or cause to be performed such reasonable and necessary work on behalf of Applicant and to charge Applicant for the actual costs incurred by the City. Applicant shall reimburse the City for the costs within 15 days of being presented with an invoice summarizing the work and its cost.

D. Graffiti Abatement. As soon as practical, but not later than fourteen (14) days from the date Applicant receives notice thereof, Applicant shall remove all graffiti on any of its poles, equipment and related supporting equipment located in the Public Rights-of-Way.

XI. Aerial Communication Facilities

Sections I thru X above are applicable to these facilities in addition to the requirements listed below.

A. General Aerial Facilities Design Policy

1. Collocation Where Feasible. A provider of wireline or wireless communications services seeking to install Aerial Facilities shall collocate its facilities on existing available Poles whenever feasible. Except as provided in Chapter 284, Local Government Code, or Chapter 106, City Code, communications service and electric power cables shall be attached to BTU Municipally Owned Utility Poles or the Poles of another communications service provider pursuant to their respective requirements. No attachment of aerial facilities to City Service Poles shall be permitted, except as provided in Chapter 106, City Code, and this Design Manual for Right-of-Way Installations.
2. Pole Attachment Agreement. An Applicant seeking to attach Aerial Facilities to a BTU or other Pole owner's Poles shall obtain the agreement of the Pole owner to such attachment before making application to the City for a Right-of-Way Work Permit.
3. Application Requirements. A person seeking to install aerial facilities in the Public Rights-of-Way shall complete and submit a Right-of-Way Work Permit Application. To constitute a complete Application, the submission shall include:
 - a. Fee. Applicant shall submit the prescribed permit fee with the complete Application.
 - b. Maps. Applicant shall submit maps showing the location of the existing Pole to which the Attachment is proposed to be made or the location for the new Pole, including a street-view image.
 - c. Existing Pole or Pole Location or New Pole.
 - i. If an existing Pole is proposed for use, Applicant shall submit plans and drawings prepared by a professional engineer licensed in the State of Texas who has performed a Pole-Loading Analysis in which he or she has evaluated the existing Pole or infrastructure for structural stability to carry the proposed Attachment and determined that it can bear the wind load without Pole modification or whether the installation will require Pole replacement or reinforcement.

- ii. If Pole replacement or reinforcement is necessary, Applicant shall provide engineering design and specification drawings for the proposed replacement of or alteration to the existing Pole. Any Pole replacement or reinforcement shall be at Applicant's sole cost, unless otherwise agreed with the Pole owner. All replacement or reinforced poles shall match the character of the pre-existing Pole in order to blend into the surrounding environment and be visually unobtrusive. City reserves the right to deny any proposed replacement or reinforced Pole due to its failure to be consistent with surrounding infrastructure.
- iii. If a new Pole is proposed for installation, Applicant shall provide engineering design and specification drawings for the proposed new Pole. Any new Pole shall be installed at Applicant's sole cost. All new poles shall match the character of pre-existing Poles within a 500-foot radius in order to blend into the surrounding environment and be visually unobtrusive. City reserves the right to deny any proposed new Pole due to its failure to be consistent with surrounding infrastructure.
- iv. Plans. In addition to the Application requirements set forth in Section VI hereof, Applicant must submit electronic scale drawings in Portable Document Format ("PDF") showing:
 - [a] The dimensions of the proposed Attachment as it is intended to be attached to existing Poles or structures or a new Pole;
 - [b] The dimensions of any proposed new Pole;
 - [c] All other equipment associated with the proposal; and
 - [d] A previous similar installation in another location or, if of a design that has not previously been deployed, images showing a typical installation of similar design.
 - [e] images and pictures for illustration as needed

For each element of the plans, Applicant's scale drawings or pictures shall indicate the spacing of such facilities from existing curbs, driveways, sidewalks, ground boxes, manholes, valves, Service Poles, Municipally Owned Utility Poles, Streetlight Poles, and any other Poles or appurtenances. Applicant shall include a before-and-after

image or drawing of the Pole, its proposed attachments, and associated equipment.

- d. Plans of Installation Relative to Surrounding Facilities. Applicant shall submit scale construction plans depicting the current extent of the Public Rights-of-Way in relation to:
 - i. The proposed Attachment, Pole, and related equipment;
 - ii. Any proposed underground conduit or underground or above-ground equipment; and
 - iii. The spacing of each such appurtenance from existing utility facilities.

The drawings shall also show a sectional profile of the relevant Public Rights-of-Way and identify all existing utilities and existing utility conflicts.

- e. Conformity to Codes. All scale drawings in the Application shall demonstrate that the proposed installation conforms to the requirements of this Design Manual, City Code, all other applicable national, state, or local manuals or codes.
- f. Electric Service. Where required for the functioning of the Attachment, Applicant shall provide City with evidence that it has applied for or obtained electric service from Bryan Texas Utilities and shall provide sealed engineered drawings for conduit size, circuit size, calculations for amperage, distances running, and related electrical service information, including the location of the electric meter relative to the pole and Network Node.

- 4. Additional Requirements. A person seeking to install Aerial Facilities in the Public Rights-of Way of the City shall conform its installation to the following requirements:

- a. The Applicant shall obtain prior written permission to access the relevant real property, including where applicable: (i) an agreement to attach, a permit, or other form required by the pole owner; (ii) a relevant form of permission from private property owners and governmental entities for occupation or use of private property or Public Rights-of-Way.
- b. The Applicant shall ensure that all Aerial Facilities and related equipment are installed in accordance with the National Electrical Safety Code (NESC), National Electric Code (NEC), and all other applicable state and federal laws, rules, City Code and regulations.
- c. The Applicant shall determine the load and sag of each cable to ensure compliance with NESC requirements and the Pole owner's

standards. No Aerial Facility may sag lower than 18' at mid-span under fully loaded conditions.

- d. The Applicant shall install its Aerial Facilities without the use of extension arms, standoff brackets, or similar hardware, unless otherwise approved in advance by the City Engineer or his designee for each proposed Pole.
- e. The Applicant shall mark its cables and risers at each Pole location with an identifying tag that shall include a contact name and emergency phone number.
- f. The Applicant shall conform its installation to the technical requirements imposed by the Pole owner.
- g. No cable/wire shall be attached to a City of Bryan Traffic Signal Pole or Traffic Signal Mast Arm, except via underground extension.

B. Underground Facilities. Per City of Bryan Code (Chapter 110 – Subdivision Ordinance) electrical distribution lines in new subdivisions must be underground. As such, facilities that would normally attach to electrical distribution poles must also locate underground in new subdivisions.

C. Clear Zones and Breakaway Poles. Whenever possible, standalone Poles should be located outside the desirable Clear Zone Width as defined in the latest edition of the TxDOT Roadway Design Manual (table provided for convenience below). Any Pole located between the minimum and desirable Clear Zone Widths shall have a breakaway design meeting the requirements set forth in TxDOT standards, unless a barrier or guard rail system approved by the City or other governing jurisdiction is provided. In any case, no Pole shall be constructed less than the minimum Clear Zone Width.

Location	Functional Classification	Design Speed (mph)	Avg. Daily Traffic	Clear Zone Width (ft) ^{3,4,5}	
				Minimum	Desirable
-	-	-	-	Minimum	Desirable
Rural	Freeways	All	All	30 (16 for ramps)	
Rural	Arterial	All	0 - 750	10	16
			750 - 1500	16	30
			>1500	30	--
Rural	Collector	≥ 50	All	Use above rural arterial criteria.	
Rural	Collector	≤ 45	All	10	--
Rural	Local	All	All	10	--
Suburban	All	All	<8,000	10 ⁶	10 ⁶
Suburban	All	All	8,000 - 12,000	10 ⁶	20 ⁶
Suburban	All	All	12,000 - 16,000	10 ⁶	25 ⁶
Suburban	All	All	>16,000	20 ⁶	30 ⁶
Urban	Freeways	All	All	30 (16 for ramps)	
Urban	All (Curbed)	≥ 50	All	Use above suburban criteria insofar as available border width permits.	
Urban	All (Curbed)	≤ 45	All	4 from curb face	6
Urban	All (Uncurbed)	≥ 50	All	Use above suburban criteria.	
Urban	All (Uncurbed)	≤ 45	All	10	--

¹ Because of the need for specific placement to assist traffic operations, devices such as traffic signal supports, railroad signal/warning device supports, and controller cabinets are excluded from clear zone requirements. However, these devices should be located as far from the travel lanes as practical. Other non-breakaway devices should be located outside the prescribed clear zone or these devices should be protected with barrier.

² Average ADT over project life, i.e., 0.5 (present ADT plus future ADT). Use total ADT on two-way roadways and directional ADT on one-way roadways.

³ Without barrier or other safety treatment of appurtenances.

⁴ Measured from edge of travel lane for all cut sections and for all fill sections where side slopes are 1V:4H or flatter. Where fill slopes are steeper than 1V:4H it is desirable to provide a 10 ft area free of obstacles beyond the toe of slope.

⁵ Desirable, rather than minimum, values should be used where feasible.

⁶ Purchase of 5 ft or less of additional right-of-way strictly for satisfying clear zone provisions is not required.

D. Height Restrictions. No new Pole shall exceed 55 feet in height.

E. Requirements for Easements. Poles, enclosures, or other equipment are not permitted in easements dedicated for the sole purpose of water, sanitary sewer, drainage, or pedestrian access.

XII. Wireless Installations

Sections I thru X above are applicable to these facilities in addition to the requirements listed below.

A. Specific Application Requirements. A Network Provider seeking to install or modify a Network Node or Node Support Pole (in context, an “Applicant”) in a Public Right-of-Way within the City shall complete and submit a Right-of-Way Work Permit Application (“Application”) to the City. To constitute a complete Application, the package must include the following:

1. Fee. Applicant shall submit the prescribed permit fee with the complete Application.
2. Maps. Applicant shall submit maps showing the location of the existing Pole to which the Network Node is proposed to be attached or the proposed location for the new Node Support Pole, including a street-view image.
3. Network Node on or Relying Upon Existing Pole or Pole Location or New Node Support Pole.

- a. If an existing Pole is proposed for use, Applicant shall submit plans and drawings prepared by a professional engineer licensed in the State of Texas who has performed a Pole-Loading Analysis in which he or she has evaluated the existing Pole or infrastructure for structural stability to carry proposed Network Nodes and determined that it can bear the wind load without Pole modification or whether the installation will require Pole replacement or reinforcement.
 - b. If Pole replacement or reinforcement is necessary, Applicant shall provide engineering design and specification drawings for the proposed replacement of or alteration to the existing Pole. Any Pole replacement or reinforcement shall be at Applicant's sole cost. All replacement or reinforced Poles shall match the character of the pre-existing Pole in order to blend into the surrounding environment and be visually unobtrusive. City reserves the right to deny any proposed replacement or reinforced Pole due to its failure to be consistent with surrounding infrastructure.
 - c. If a new Node Support Pole is proposed for installation, Applicant shall provide engineering design and specification drawings for the proposed Node Support Pole. Any new Node Support Pole shall be at Applicant's sole cost. All Node Support Poles shall match the character of pre-existing poles within a 500-foot radius in order to blend into the surrounding environment and be visually unobtrusive. City reserves the right to deny any proposed Node Support Pole due to its failure to be consistent with surrounding infrastructure.
4. Plans. In addition to the Application requirements set forth in Section IV above, Applicant must submit electronic scale drawings in Portable Document Format ("PDF") showing:
- a. The dimensions of the proposed Network Node as it is intended to be attached to existing poles or structures or a new Node Support Pole;
 - b. The proposed Node Support Pole, if any;
 - c. All other equipment associated with the proposal;
 - d. A previous similar installation in another location or, if of a design that has not previously been deployed, images showing a typical installation of similar design; and
 - e. Images and pictures for illustration as needed.

For each element of the plans, Applicant's scale drawings or pictures shall indicate the spacing of such facilities from existing curbs, driveways, sidewalks, ground boxes, manholes, valves, Service Poles, Municipally Owned Utility Poles, Streetlight Poles, and any other Poles or appurtenances. Applicant shall include a before-and-after image or drawing of the Pole, its proposed attachments, and associated equipment.

5. Plans of Installation Relative to Surrounding Facilities. Applicant shall submit scale construction plans depicting the current extent of the Public Rights-of-Way in relation to:
 - a. The proposed Pole, Network Node, and related equipment;
 - b. Any proposed underground conduit or underground or above-ground equipment; and
 - c. The spacing of each such appurtenance from existing utility facilities.

The drawings shall also show a sectional profile of the relevant Public Rights-of-Way and identify all existing utilities and existing utility conflicts.

6. Conformity to Codes. All scale drawings in the Application shall demonstrate that the proposed installation conforms to the requirements of this Design Manual, City Code, all other applicable national, state, or local manuals or codes, and Chapter 284, Local Government Code.
7. Electric Service. Applicant shall provide City with evidence that it has applied for or obtained electric service from Bryan Texas Utilities and shall provide sealed engineered drawings for conduit size, circuit size, calculations for amperage, distances running, and related electrical service information, including the location of the electric meter relative to the pole and Network Node.

B. Network Node Size and Construction Limitations. Except as provided by applicable law, a Network Node to which this Design Manual applies must conform to the following conditions:

1. Enclosure Dimensions (Enclosed Antenna). Each antenna that does not have exposed elements and is attached to an existing structure or Pole:
 - a. Must be located inside an enclosure of not more than six cubic feet in volume;
 - b. May not exceed a height of three feet above the existing structure or Pole; and

- c. May not protrude from the outer circumference of the existing structure or Pole by more than two feet;
- 2. Enclosure Dimensions (Exposed Antenna Elements). If an antenna has exposed elements and is attached to an existing structure or Pole, the antenna and all of the antenna's exposed elements:
 - a. Must fit within an imaginary enclosure of not more than six cubic feet;
 - b. May not exceed a height of three feet above the existing structure or pole; and
 - c. May not protrude from the outer circumference of the existing structure or Pole by more than two feet;
- 3. Maximum Cumulative Size. The cumulative size of other wireless equipment associated with the Network Node attached to an existing structure or pole may not:
 - a. Be more than 28 cubic feet in volume; or
 - b. Protrude from the outer circumference of the existing structure or Pole by more than two feet;
- 4. Ground Enclosures. Ground-based enclosures, separate from the Pole, may not be higher than three feet six inches from grade, not wider than three feet six inches, and not deeper than three feet six inches.
- 5. Pole-Mounted Enclosures. Pole-mounted enclosures may not be taller than five feet.
- 6. Excluded Ancillary Equipment. The following types of associated ancillary equipment are not included in the calculation of equipment volume under this Subsection (2):
 - a. Electric meters;
 - b. Concealment elements;
 - c. Telecommunications demarcation boxes;
 - d. Grounding equipment;
 - e. Power transfer switches;
 - f. Cut-off switches; and
 - g. Vertical cable runs for the connection of power and other services.
- 7. Node Support Pole Protrusions. Equipment attached to Node Support Poles may not protrude from the outer edge of the Node Support Pole by more than two feet.

8. Location Above Mast-Arm. Where feasible, a Network Node shall be placed above the mast arm or arms of a Pole and may not be attached to a mast arm of a Pole.
9. Off-Pole Equipment. Any facilities located off Pole must remain in cabinetry or enclosed structure underground, except for the electric meter pedestal. Facilities on Pole shall be concealed or enclosed as much as possible in an equipment box, cabinet, or other unit that may include ventilation openings. There shall be no external cables or electric wires on Pole or structures or aerial wires or cables extending from the Pole or structure.
10. Electric Meter. The electric service meter shall not be mounted on City's metal Poles or structures. Applicant shall use the voltage of service used in the existing City facility, including 120/240V single phase service when connecting to any City infrastructure. A separate, ground-mounted meter pedestal shall be installed according to Bryan Texas Utilities specifications, after consultation with Bryan Texas Utilities, unless otherwise approved by Bryan Texas Utilities. The meter installation shall be mounted to provide 24/7 access by Bryan Texas Utilities and shall not be enclosed. Meter pedestals shall be installed in locations approved by the City and Bryan Texas Utilities prior to installation by a licensed electrician. The Meter pedestal will remain the property of the Applicant with neither the City nor Bryan Texas Utilities having any responsibility for maintenance or upkeep of the pedestal.
11. Internal Wiring Where Feasible. Whenever technically feasible, wires or cables for any Network Node installed on a City Service Pole shall be internal to the existing Pole or any replacement and contained within a clearly marked, small-diameter PVC conduit. External conduits, if necessary, must be specifically approved by the City Engineer or his designee.
12. No Obstructions. All attachments to a Pole that are projecting from the Pole, and any equipment or appurtenance mounted or housed on the ground, shall comply with Texas Accessibility Standards and the Americans with Disabilities Act and shall not obstruct an existing or planned sidewalk or walkway, create a sight-distance issue at an intersection, or block any existing roadway signage.
13. Vertical Clearances. All proposed projecting attachments of equipment to the pole shall provide a minimum vertical clearance of eight (8) feet above grade and two (2) feet clear of any mast arm, pedestrian signals, vehicle signals, or other existing attachments or appurtenances to the Pole. If any attachments are projecting towards the street side, Applicant shall provide a minimum vertical clearance of 16 feet.

14. Network Node Color or Style. Network nodes shall match the existing Pole color such that the Network Nodes blend with the color of the Pole to the extent possible. City reserves the right to deny a style or color of node to the extent that its color differs from that of the Pole to which it is attached or appurtenant.
15. Signage.
 - a. Applicant shall post its name, location identifying information, and emergency telephone number in an area on the cabinet of the Node Support Poles and Network Nodes composed of UV-resistant materials that is visible to the public. Signage required under this section shall not exceed 4" x 6", unless otherwise required by applicable law (e.g. radio frequency emissions ground notification signs) or City Code or regulation.
 - b. Except as required by applicable law or by the pole owner, Applicant shall not post any other signage or advertising on the Node Support Poles and Network Nodes, or Municipally Owned Utility Pole.

C. General Construction Requirements. Subject to and in accordance with the further requirements of this Design Manual for Right-of-Way Installations and the further provisions of the City Code, a Network Provider shall construct and maintain Network Nodes and Node Support Poles deployed in the Public Rights-of-Way of the City in a manner that does not:

1. Obstruct, impede, or hinder the usual travel or public safety on a Public Right-of-Way;
2. Obstruct the legal use of a Public Right-of-Way by other utility providers;
3. Violate nondiscriminatory applicable codes or regulation, including without limitation the National Electrical Safety Code, National Electric Code, International Electric Code, or the Municipally Owned Utility Pole owner's standards;
4. Violate or conflict with City public right-of-way design specifications; or
5. Violate Texas Accessibility Standards or federal Americans with Disabilities Act of 1990 (42 U.S.C. § 12101, *et seq.*).

D. Limitations on Placement of Poles and Network Nodes.

1. General. A Network Provider shall ensure that each new, modified, or replacement Pole or Node Support Pole installed in a Public Right-of-Way in relation to which the Network Provider received approval of a permit application:
 - a. Does not exceed the lesser of:

- i. 10 feet in height above the tallest existing Municipally Owned Utility Pole located within 500 linear feet of the new Pole in the same Public Right-of-Way; or
- ii. 55 feet above ground level; and
- b. Is not nearer than 300 feet to an existing Network Node or Node Support Pole or Network Node or Node Support Pole for which a Right-of-Way Work Permit Application has been submitted and is pending review and approval; and
- c. Is not within three hundred feet (300') of any BTU substation's outer fence; and
- d. Is located outside the minimum Clear Zone Width as defined by TxDOT Roadway Design Manual ("TxDOT Standards").

Any Pole located between the minimum and desirable Clear Zone Widths shall have a breakaway design meeting the requirements set forth in TxDOT Standards, unless a barrier or guard rail system approved by the City or other governing jurisdiction is provided.

2. Installation in City Parks and Residential Areas. A Network Provider may not install a new Node Support Pole in a Public Right-of-Way without the City's written consent if the Public Right-of-Way is in a City park, as defined in Chapter 86, Article I, Section 86-1, or is adjacent to a street or thoroughfare that is:
 - a. Not more than 50 feet wide; and
 - b. Adjacent to single-family residential lots or other multifamily residences or undeveloped land that is designated for residential use by zoning or deed restrictions.
3. Additional Restrictions.
 - a. No more than one Network Node or Antenna shall be permitted on a Pole. Antenna clusters (more than one antenna in the same general attachment space) are prohibited.
 - b. In addition to the requirements prescribed by this section, a Network Provider installing a Network Node or Node Support Pole in a Public Right-of-Way shall comply with private deed restrictions and other private restrictions in the area that apply to those facilities.
 - c. A Network Node may not create a sound level that exceeds the ambient noise level by more than 3dB between the hours of 7:00 p.m. and 7:00 a.m. and by more than 5dB between the hours of 7:00 a.m. and 7:00 p.m.. Noise levels should be measured at the property line or Public Right-of-Way line.

4. Required Order of Installation Locations.
 - a. Collocation Requirement; Obligation to Avoid New Poles Where Reasonable. In submitting an Application for installation of a new Network Node, Applicant shall request authority to collocate the proposed Network Node on an existing BTU-owned Non-decorative Streetlight Pole, a City Service Pole, or a BTU/Municipally Owned Utility Pole, or other existing utility pole, unless Applicant demonstrates to the City's satisfaction that it cannot provide reasonably comparable service using an existing Pole to that which would be offered using a contemplated new Node Support Pole.
 - b. Required Order of Existing Pole Use for Network Nodes. In applying to install a new Network Node, Applicant shall make Application to install its Network Node or nodes on one or more existing Poles in the following order of preference:
 - i. Other existing utility pole (not City or BTU owned)
 - ii. BTU-owned, Non-decorative Streetlight Pole;
 - iii. City-owned Service Pole;
 - iv. BTU-owned/Municipally Owned Utility Pole.
 - c. Lower-Preference Pole Only Where Applicant Cannot Provide Reasonably Comparable Service. The Applicant may apply to install a Network Node on a Pole of lower preference only if Applicant demonstrates to the City's satisfaction in the Application that it cannot provide reasonably comparable service using an existing Pole of higher preference.
 - d. New Node Support Pole Only Where Applicant Cannot Provide Reasonably Comparable Service Using an Existing Pole. The Applicant may obtain a Permit to install a new Node Support Pole in the Public Rights-of-Way within the City only if Applicant demonstrates to the City's satisfaction in the Application that its proposed Network Node cannot provide reasonably comparable service using an existing Pole to that which would be provided using a new Node Support Pole.
5. Public Utility Easements. Network Nodes and Node Support Poles may not be placed within easements dedicated specifically for water, sanitary sewer, drainage, and/or pedestrian access.

E. Construction and Activation Schedules. Applicant shall submit its proposed construction schedule, including the proposed date for the commencement of construction and the proposed date of activation of the Network Node.

F. Poles and Related Information; Materials.

1. Pole-Identifying Information. If an existing Pole is proposed for use, Applicant shall provide relevant City or Utility Pole-identifying information.
2. New Node Support Pole Locations. If a new Node Support Pole is proposed, Applicant must provide an analysis showing that the proposed new Node Support Pole is to be placed at least three hundred (300) linear feet from an existing pole that is capable of supporting Network Nodes in lieu of the proposed location, unless otherwise approved by the City in writing.
3. Node Support Pole Materials. Applicant may not propose or install a wooden Node Support Pole. All new Node Support Poles must be break-away and black powder-coated. All new Node Support Poles shall match the existing poles in the surrounding block or district in which the network support pole is located in order to blend into the surrounding environment and be visually unobtrusive. City reserves the right to deny a Node Support Pole to the extent that it differs materially from those deployed in the surrounding environment.

G. Non-Interference With City Systems. Applicant shall submit information sufficient to show that the proposed Network Node will not cause any interference with the City public safety radio system, traffic signal light system, or other communications components. Applicant shall evaluate, prior to making the application for the permit, the compatibility between the existing City infrastructure and the Applicant's proposed infrastructure. A Network Node shall not be installed in a location that causes any interference. Network nodes shall not be allowed on City's public safety radio infrastructure.

H. Non-City-Owned Rights-of-Way and Infrastructure. If approved, the City-issued Right-of-Way Work Permit will authorize use of City Public Rights-of-Way or Service Poles. When an Applicant proposes to use non-City-owned or administered Public Rights-of-Way for an installation, an Applicant is, therefore, responsible for demonstrating in the Application that it has obtained permission to use non-City-owned or administered Public Rights-of-Way or infrastructure as a condition to obtaining a Right-of-Way Work Permit. If the project lies within the State-managed Public Rights-of-Way, including without limitation, State Maintained Highway, Applicant must provide evidence of a permit application to the State. Applicant will provide the City with a copy of the executed State permit prior to commencement of construction.

I. Location of Underground Facilities. Upon approval of a Right-of-Way Work permit and consistent with Applicant's disclosed construction schedule, Applicant shall call for locates via both 811 and City of Bryan, (979) 209-5900.

J. Electrical Service. Applicant shall obtain any required electrical power service to the Network Nodes and Node Support Poles or structures. Applicant's electrical supply shall be separately metered from any service provided to the City and must match City infrastructure voltage.

K. Installations.

1. General. Upon receiving a Permit, Applicant shall, at its own cost and expense, install Network Nodes and Node Support Poles in a good and workmanlike manner and in accordance with the requirements promulgated in this Right-of-Way Installation Design Manual, City Pole Attachment Standards, and all other applicable laws, ordinances, codes, rules and regulations of the City, the state, and the United States ("Laws"), as such may be amended from time to time. Applicant's work shall be subject to the regulation, control, and direction of the City. All work done in connection with the installation, operation, maintenance, repair, modification, and/or replacement of the Network Nodes and Node Support Poles shall be in compliance with all applicable Laws.
2. Installation in a Historic Preservation or Design Overlay District.
 - a. Decorative Poles. In addition to the design limitations imposed under the City Code, a Network Provider must obtain advance written approval from the City Engineer or his designee before making application to collocate new Network Nodes or installing new Node Support Poles in an area zoned or otherwise designated as a Historic District or as an Overlay Design District if the district has Decorative Poles. As a condition for approval of new Network Nodes or new Node Support Poles in a Historic District or an Overlay Design District with Decorative Poles, the Network Provider shall use the design or concealment measures required for the district for the new Network Nodes or new Node Support Poles.
 - b. Design and Aesthetic Standards; Camouflage. A Network Provider seeking to install new Network Nodes or new Node Support Poles in a Historic District or Overlay Design District shall comply with the design and aesthetic standards of the Historic District or Overlay Design District in which installation is sought and shall use camouflage measures to improve the aesthetics of the new Network Nodes, new Node Support Poles, or related ground equipment, or any portion of the nodes, poles, or equipment, and minimize the impact to the aesthetics in the Historic District or the Overlay Design District's Decorative Poles.

- c. No Limitations on Authority. This subsection (2) may not be construed to limit the City's authority to enforce historic preservation zoning regulations consistent with the preservation of local zoning authority under 47 U.S.C. § 332(c)(7), the requirements for facility modifications under 47 U.S.C. § 1455(a), or the National Historic Preservation Act of 1966 (54 U.S.C. § 300101, *et seq.*), and the Code provisions and regulations adopted to implement those laws.

3. Compliance with Undergrounding Requirements.

- a. Undergrounding Requirements. A Network Provider shall, in relation to installation for which the City has approved a permit application, comply with nondiscriminatory undergrounding requirements, including the City Code, zoning regulations, state law, private deed restrictions, and other public or private restrictions that prohibit installing above-ground structures in a Public Rights-of-Way without first obtaining zoning or land use approval.
- b. Replacement Structures. A requirement or restriction described by Subsection (3)(a) may not be interpreted to prohibit a Network Provider from replacing an existing structure.

4. Generators Prohibited. Applicant shall not request, allow, or install generators or back-up generators in the Public Rights-of-Way. Generators placed in the City of Bryan may not create a sound level that exceeds the ambient noise level by more than 3dB during the night time and by more than 5dB during the day time. Noise levels should be measured at the property line or right of way line.

5. Post-Installation Duties of Network Provider. Upon completion of the installation, Licensee shall notify the City Engineer or his designee in writing and provide: (a) an inventory of equipment installed, together with technical information describing the functionality and output power of the Network Node; (b) the GIS coordinates of the installation; (c) the date installation was completed; (d) the date the Network Node was or is to be activated; and (e) an image of the installation. Failure to provide above information may result in delay of processing future permits.

L. Exceptions to Size Limitations; Good Cause. Subject to Section 106-170, City Code, pertaining to the application for, issuance of, and terms of permits for the installation of wireless Network Nodes and related facilities, a Network Provider may construct, modify, or maintain in a public right-of-way a Network Node or Node Support Pole that exceeds the height or distance limitations prescribed by this chapter only if the City approves the construction,

modification, or maintenance subject to all applicable zoning or land use regulations and applicable codes after showing of good cause.

M. Inspections.

1. General. The City may perform visual inspections of any Network Nodes and Node Support Poles located in the Right-of-Way as the City deems appropriate without notice. If the inspection requires physical contact with the Network Nodes or Node Support Poles, the City shall provide written notice to the Applicant not less than five business days prior to the planned inspection. Applicant may have a representative present during such inspection. Failure of Applicant's representative to be present onsite during inspection shall not prevent City from taking whatever means deemed necessary to conduct the inspection.
2. Emergencies. In the event of an emergency situation, the City may, but is not required to, notify Applicant of an inspection. The City may take action necessary to remediate the emergency situation and the City shall notify Applicant as soon as practically possible after remediation is complete.

N. Inventory and As-Built Drawings.

1. Maintenance of Inventory. Applicant shall maintain a list of its Network Nodes and Node Support Poles and provide City an inventory of locations, together with as-built drawings sealed by a professional engineer, within ten (10) days of installation. The Inventory of Network Nodes and Node Support Poles shall include GIS coordinates, date of installation, City or Utility Pole identification number (if applicable), type of Pole used for installation, Pole owner, and description/type of installation for each Network Node and Node Support Pole installation.
2. Inventory Upon Request. Upon City's written request, Applicant shall provide a cumulative Inventory within thirty (30) days of City's request. Concerning Network Nodes and Node Support Poles that become inactive, the Inventory shall include the same information as active installations in addition to the date the Network Node and/or Node Support Pole was deactivated and the date the Network Node and/or Node Support Pole was removed from the Public Rights-of-Way. City may compare the Inventory to its records to identify any discrepancies.
3. Inventory. On or before October 1 of each year, Applicant shall provide the City with an inventory of all Network Nodes and Node Support Poles installed or in service as of that date.

O. Coordination of Traffic Signal Maintenance Activities and Emergency Response.

1. Meter Box Key; Power Shut-Off. Applicant shall provide City a key to the meter box for each Network Node and Node Support Pole at the time of

inspection. Applicant shall also have the ability to temporarily cut-off electricity to its facilities for the safety of maintenance personnel.

2. Emergencies. In the event of failure of components of the traffic signal system for whatever reason, including but not limited to damage resulting from vehicular collisions, weather related events, or malicious attacks, City will respond to restore traffic signal operations as a matter of public safety. Should the events that result in damage or failure of the traffic signal system also affect Applicant's Network Nodes, Applicant shall have the sole responsibility to repair or replace its Network Nodes and shall coordinate its own emergency efforts with the City.

P. Signal Interference with City's Communications Infrastructure Prohibited.

1. No interference. In the event that Applicant's Network Nodes interferes with the City's traffic signal system, public safety radio system, or other City or BTU communications infrastructure operating on spectrum where the City or BTU is legally authorized to operate (including any unlicensed frequencies), Applicant shall promptly cease operation of the Network Nodes causing said interference upon receiving notice from the City and refrain from operating. Applicant shall respond to the City's request to address the source of the interference within one (1) hour and abate interference no later than twenty-four (24) hours of receiving notice.
2. Protocol for Responding to Event of Interference. The protocol for responding to events of interference will require Applicant to provide the City within in fifteen (15) days an Interference Remediation Report that includes the following items:
 - a. Remediation Plan. Devise a remediation plan to stop the event of inference;
 - b. Time Frame for Execution. Provide the expected time frame for execution of the remediation plan; and
 - c. Additional Information. Include any additional information relevant to the execution of the remediation plan.
3. Failure to Eliminate Interference. In the event that interference with City facilities cannot be eliminated, Applicant shall shut down the Network Nodes and remove or relocate the Network Node that is the source of the interference as soon as possible to a suitable alternative location made available by City.
4. Testing. Following installation or modification of a Network Node, the City may require Applicant to test the Network Node's radio frequency and other functions to confirm it does not interfere with the City's Operations.

Q. Abandonment, Relocation and Removal.

1. Abandonment of Obsolete Network Nodes and Node Support Poles.

- a. Removal of Abandoned Facilities. Applicant shall remove Network Nodes and Node Support Poles when such facilities are abandoned regardless of whether or not the City provides notice of an obligation to remove. A facility is “abandoned,” for purposes of this section, if the Network Node or Node Support Pole is nonfunctioning for any reason for a period of more than 60 consecutive days.
- b. Time for Removal. Unless the City sends notice that removal must be completed immediately to ensure public health, safety, and welfare, the removal must be completed within the earlier of 180 days of the Network Nodes and Node Support Poles being abandoned or within 90 days of receipt of written notice from the City.
- c. Notice of Completion. When Applicant removes permanent structures in the Public Right-of-Way, whether for the convenience of Applicant or pursuant to the requirements of this subsection (Q), Applicant shall notify the City in writing of such removal or abandonment and shall file with the City the location and description of each Network Node or Node Support Pole removed or abandoned.
- d. Additional Remedial Measures. The City may require Applicant to complete additional remedial measures necessary for public safety and the integrity of the Public Right-of-Way.

R. Relocation and Removal at Applicant’s Expense.

1. Duty to Remove or Relocate. Applicant shall remove and relocate its Network Nodes and Node Support Poles at its own expense to an alternative location not later than one hundred twenty (120) days after receiving written notice that removal, relocation, and/or alteration of the Network Nodes or Node Support Poles is necessary if any of the following circumstances arise:
 - a. The City engages in construction, repair, widening, relocation, or maintenance in the Public Rights-of-Way for any City construction, maintenance, or repair project or other public improvement project;
 - b. The City engages in maintenance, upgrade, expansion, replacement, removal, or relocation of the City’s Pole or structure upon which Applicant’s Network Node is attached;

- c. The Network Node or Node Support Pole, or portion thereof, Applicant has installed is adversely affecting proper operation of traffic signals, streetlights, or other City systems or property;
 - d. A street is closed or the City property or rights-of-way are sold;
 - e. The City undertakes a project or program to protect or preserve the public health or safety;
 - f. The City undertakes activities to eliminate a public nuisance;
 - g. Applicant fails to obtain all applicable licenses, permits, or certifications required by applicable law for its Network Nodes or Node Support Poles; or
 - h. A duty otherwise arising from applicable law requires removal or relocation.
2. No Contingencies. Applicant's duty to remove and relocate its Network Nodes and Node Support Poles at its expense is not contingent on the availability of an alternative location acceptable for relocation. City will make reasonable efforts to provide an alternative location within the Public Rights-of-Way for relocation, Applicant shall comply with the notice to remove its Network Nodes and Node Support Poles as instructed regardless of whether an alternative site for relocation is available.
3. City May Remove. The City may remove the Network Node or Node Support Pole if the Network Provider does not remove the facility within one hundred twenty (120) days of written notice to remove or relocate. If City removes the Network Node or Node Support Pole, Applicant shall reimburse City for the City's actual cost of removal within 30 days of receiving an invoice from the City.
- S. Discretionary Removal or Relocation.
- 1. Notice. If the Applicant removes or relocates at its own discretion, it shall notify the City in writing not less than 10 business days prior to removal or relocation. Applicant shall obtain all Permits required for relocation or removal of its Network Nodes and Node Support Poles prior to relocation or removal.
 - 2. No Refunds. The City shall not issue any refunds for any amounts paid by Applicant for Network Nodes and Node Support Poles that have been removed.
- T. Applicant Repair and Restoration. Whenever the installation, placement, attachment, repair, modification, removal, operation, use, or relocation of the Node Support Poles, Network Nodes, or any portion thereof, is required and such installation, placement, attachment, repair, modification, removal, operation, use, or relocation causes any property of the City to be damaged or to have been altered in such a manner

as to make it unusable, unsafe, or in violation of applicable law, Applicant, at its sole cost and expense, shall promptly repair and return such property to its original or better condition.

U. Reservation of Rights.

1. Right to Install; No Liability. The City reserves the right to install, and to permit others to install, utility facilities in the Public Rights-of-Way. In permitting such work to be done by others, the City shall not be liable to Applicant for any damage caused by those persons or entities.
2. Right to Locate, Operate, and Maintain. The City reserves the right to locate, operate, maintain, and remove City Service Poles located in the Public Rights-of-Way in the manner that best enables the operation of its systems and the protection of public safety.

V. Attachment and Right-of-Way Use Agreements.

1. City Agreement. An Applicant shall execute a Standard Wireless Installation License Agreement with the City before submitting an Application or otherwise taking action to occupy or use right-of way within the City, City-owned Service Poles, or BTU-owned Non-decorative Streetlight Poles or Municipally Owned Utility Poles.
2. BTU Pole License Agreement. An Applicant shall execute a Standard BTU Pole License Agreement and receive a BTU Notice to Proceed to the extent that it may use or need to use BTU Municipally Owned Utility Poles or Non-decorative Streetlight Poles before submitting an Application or otherwise taking action to occupy or use Public Rights-of-Way within the City or BTU-owned Non-decorative Streetlight Poles or Municipally Owned Utility Poles.