STATE OF ILLINOIS)
) SS
COUNTY OF DU PAGE)

I, Lynn Curiale, City Clerk of Wood Dale, Illinois DO HEREBY CERTIFY that as such City Clerk and keeper of the records, that the foregoing is a true and correct copy of Ordinance **#O-20-037 AN ORDINANCE AMENDING THE CITY OF WOOD DALE'S SMALL WIRELESS TELECOMMUNICATION FACILITY REGULATIONS IN CHAPTER 16 OF THE MUNICIPAL CODE OF THE CITY OF WOOD DALE**
Passed by The City Of Wood Dale, Du Page County, Illinois, IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the seal of the City of Wood Dale, this 17th day of December, 2020

SEAL

Lynn Curiale, City Clerk

Ordinance #O-20-037

AN ORDINANCE AMENDING THE CITY OF WOOD DALE'S SMALL WIRELESS TELECOMMUNICATION FACILITY REGULATIONS IN CHAPTER 16 OF THE MUNICIPAL CODE OF THE CITY OF WOOD DALE

Passed:	December 17, 2020
Published in Pamphlet Form:	December 18, 2020

I, Lynn Curiale, as the City Clerk for the City of Wood Dale, hereby certify that the attached Ordinance is a true and correct copy of **#O-20-037**

AN ORDINANCE AMENDING THE CITY OF WOOD DALE'S SMALL WIRELESS TELECOMMUNICATION FACILITY REGULATIONS IN CHAPTER 16 OF THE MUNICIPAL CODE OF THE CITY OF WOOD DALE

Passed and approved by the City Council of the City of Wood Dale on December 17, 2020 and hereby published in pamphlet on December 18, 2020

CITY OF WOOD DALE CORPORATE SEAL ILLINOIS

SEAL

Lynn Curiale

Lynn Curiale, City Clerk

ORDINANCE NO. O-20-037

AN ORDINANCE AMENDING THE CITY OF WOOD DALE'S SMALL WIRELESS TELECOMMUNICATION FACILITY REGULATIONS IN CHAPTER 16 OF THE MUNICIPAL CODE OF THE CITY OF WOOD DALE

WHEREAS, the City of Wood Dale (hereinafter referred to as the "City") is a body politic and corporate, organized and existing pursuant to the Illinois Municipal Code, 65 ILCS 5/1-1-1 *et seq.*; and

WHEREAS, the City possesses the authority, pursuant to the Illinois Municipal Code, 65 ILCS 5/1-1-1 *et seq.*, to adopt ordinances pertaining to public health, safety and welfare; and

WHEREAS, the City Code currently regulates the location and design of small wireless telecommunication facilities located in the City in order to protect the public health, safety and welfare of the Citizens of the City; and

WHEREAS, upon review of the City's current regulations, the City's Engineer has recommended certain updates to the City's small wireless telecommunications facility regulations so as to keep pace with the advancements in technology, while protecting the public health, safety and welfare of the citizens of the City; and

WHEREAS, the Mayor and the City Council have reviewed said updated regulations recommended by the City's Engineer and have determined that said updated regulations are in the best interests of the City and will preserve the public health, safety and welfare of the Citizens of the City; and

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Wood Dale, DuPage County, Illinois, at a special meeting duly assembled, as follows:

SECTION ONE: That the recitals set forth above are incorporated herein and made a part hereof.

SECTION TWO: That Chapter 16, Article VI of the City Code (Small Wireless Facilities) is hereby amended by adding the underlined language and deleting the stricken language as set forth in **Exhibit A** attached hereto and incorporated by reference herein.

SECTION THREE: That Section 16.324 (Colocation of City Infrastructure) shall be added to Chapter 16, Article III as set forth in **Exhibit B** attached hereto and incorporated herein by reference herein.

SECTION FOUR: That the "Small Wireless Facilities Design Standards Manuel" ("Design Manuel"), which Design Manuel is attached hereto and incorporated herein by reference as **Exhibit C** and is further referenced in the updated Section 16.608 E. of the City Code is hereby adopted.

SECTION FIVE: That the City Manager, City Staff and/or City Attorney shall take all steps necessary or authorized to implement said provisions.

SECTION SIX: That the City Clerk of the City of Wood Dale is hereby directed to publish this Ordinance in pamphlet form, pursuant to the statutes of the State of Illinois.

SECTION SEVEN: That this Ordinance shall be in full force and effect from and after its passage, approval, and publication in the manner provided by law.

PASSED this 17 day of December, 2020

AYES: 6

NAYS: 0

ABSENT: R. Wesley, Sorentino

APPROVED this 17 day of December, 2020

SIGNED: Annunziato Pulice
Annunziato Pulice, Mayor

ATTEST: Lynn Curiale
Lynn Curiale, City Clerk

Published in pamphlet form December 18, 2020

EXHIBIT A

Amendments to Chapter 16, Article VI of the City Code (Small Wireless Facilities)

ARTICLE VI

SMALL WIRELESS FACILITIES

SECTION:

Sec. 16.601. Purpose And Scope.

A. Purpose: The purpose of this article is to establish regulations, standards and procedures for the siting and collocation of small wireless facilities on rights-of-way within the City's jurisdiction, or outside the rights-of-way on property zoned by the City exclusively for commercial or industrial use, in a manner that is consistent with the Small Wireless Facilities Deployment Act, FCC Order, and other applicable federal or state laws or regulations.

B. Conflicts ~~With~~with State And Federal Laws: In the event that applicable Federal or State laws or regulations conflict with the requirements of this article, the wireless provider shall comply with the requirements of this article to the maximum extent possible without violating Federal or State laws or regulations. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.602. Definitions.

For the purposes of this article, the following terms shall have the following meanings:

ANTENNA: Communications equipment that transmits or receives electromagnetic radio frequency signals used in the provision of wireless services.

APPLICABLE CODES: Codes as adopted and amended by the City in chapter 12, articles III and IV of this Code, and including the National Electric Safety Code.

APPLICANT: Any person who submits an application and is a wireless provider.

APPLICATION: A request submitted by an applicant to the City for a permit to collocate small wireless facilities, and a request that includes the installation of a new utility pole for such collocation, as well as any applicable fee for the review of such application.

AUTHORITY: The City of Wood Dale that has jurisdiction and control for use of public rights-of way as provided by the Illinois Highway Code for placements within public rights-of-way or has zoning or land use control for placements not within public rights-of-way.

COLLOCATE OR COLLOCATION: To install, mount, maintain, modify, operate, or replace wireless facilities on or adjacent to a wireless support structure or utility pole.

COMMUNICATIONS SERVICE: Cable service, as defined in 47 USC 522(6), as amended; information service, as defined in 47 USC 153(24), as amended; telecommunications service, as defined in 47 USC 153(53), as amended; mobile service, as defined in 47 USC 153(53), as amended; or wireless service other than mobile service.

COMMUNICATIONS SERVICE PROVIDER: A cable operator, as defined in 47 USC 522(5), as amended; a provider of information service, as defined in 47 USC 153(24), as amended; a telecommunications carrier, as defined in 47 USC 153(51), as amended; or a wireless provider.

FCC: The Federal Communications Commission of the United States.

FCC ORDER: The FCC's Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC-18-133, released September 27, 2018, which is incorporated herein by this reference.

FEE: A one-time charge.

HISTORIC DISTRICT OR HISTORIC LANDMARK: A building, property, or site, or group of buildings, properties, or sites that are either: a) listed in the National Register of Historic Places or formally determined eligible for listing by the Keeper of the National Register, the individual who has been delegated the authority by the Federal agency to list properties and determine their eligibility for the National Register, in accordance with section VI.D.1.a.i through section VI.D.1.a.v of the Nationwide Programmatic Agreement codified at 47 CFR part 1, appendix C; or b) designated as a locally landmarked building, property, site, or historic district by an ordinance adopted by the City pursuant to a preservation program that meets the requirements of the Certified Local Government Program of the Illinois State Historic Preservation Office or where such certification of the preservation program by the Illinois State Historic Preservation Office is pending.

IDOT: The Illinois Department of Transportation

LAW: A Federal or State Statute, common law, code, rule, regulation, order, or local ordinance or resolution.

MICRO WIRELESS FACILITY: A small wireless facility that is not larger in dimension than twenty-four inches (24") in length, fifteen inches (15") in width, and twelve inches (12") in height and that has an exterior antenna, if any, no longer than eleven inches (11").

MONOPOLE: A standing antenna support structure with no guy wires placed directly on the ground to support one or more small wireless facilities.

MUNICIPAL UTILITY POLE: A utility pole owned or operated by the City in public rights-of-way.

PERMIT: A written authorization required by the City to perform an action or initiate, continue, or complete a project.

PERSON: An individual, corporation, limited liability company, partnership, association, trust, or other entity or organization.

PUBLIC ACT 100-0585 or ACT: The State of Illinois, Small Wireless Facilities Deployment Act, which is incorporated herein by this reference.

PUBLIC SAFETY AGENCY: The functional division of the Federal government, the State, a unit of local government, or a special purpose district located in whole or in part within this State, that provides or has authority to provide firefighting, police, ambulance, medical, or other emergency services to respond to and manage emergency incidents.

RATE: A recurring charge.

RIGHT-OF-WAY: The area on, below, or above a public roadway, highway, street, public sidewalk, alley, or utility easement dedicated for compatible use. Right-of-way does not include City-owned aerial lines.

ROUTINE MAINTENANCE: The repair or replacement of existing equipment of the same size and type for which no changes in wiring are made.

Commented [PK1]: Definition retrieved on June 1, 2020 from https://www.lawinsider.com/dictionary/routine-maintenance

SMALL WIRELESS FACILITY: A wireless facility that meets both of the following qualifications: a) each antenna is located inside an enclosure of no more than six (6) cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an imaginary enclosure of no more than six (6) cubic feet; and b) all other wireless equipment attached directly to a utility pole associated with the facility is cumulatively no more than twenty five (25) cubic feet in volume. The following types of associated ancillary equipment are not included in the calculation of equipment volume: electric meter, concealment elements, telecommunications demarcation box, ground-based enclosures, grounding equipment, power transfer switch, cut-off switch, and vertical cable runs for the connection of power and other services.

Commented [PK2]: This language is from the Act. The FCC Order in some parts of its definition of a SWF seems t be more restrictive than the Act and less restrictive in other parts of the definition. The FCC Order defines "Small Wireless Facilities," *as: Each antenna associated with the deployment, excluding associated antenna equipment (as defined in the definition of antenna in section 1.1320(d)), is no more than three cubic feet in volume; All other wireles equipment associated with the structure, including the wireless equipment associated with the antenna and any pr existing associated equipment on the structure, is no more than 28 cubic feet in volume.*

UNACCEPTABLE INTERFERENCE: Any level of radio frequency (RF) interference from a source outside of the City's public safety communications network that has the effect of partially or completely impeding aural and/or visual signals received or transmitted by City personnel. Any RF interference from a wireless provider as defined by this Ordinance and state law, shall be measured, corrected, and eliminated in accordance with the requirements of Section 15(d)(6)(A) of Public Act 100-0585.

UTILITY POLE: A pole or similar structure that is used in whole or in part by a communications service provider or for electric distribution, lighting, traffic control, or a similar function.

WIRELESS FACILITY: Equipment at a fixed location that enables wireless communications between user equipment and a communications network, including: a) equipment associated with wireless communications; and b) radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration. Wireless facility includes small wireless facilities. Wireless facility does not include: a) the structure or improvements on, under, or within which the equipment is collocated; or b) wireline backhaul facilities, coaxial or fiber optic cable that is between wireless support structures or utility poles or coaxial, or fiber optic cable that is otherwise not immediately adjacent to or directly associated with an antenna.

WIRELESS INFRASTRUCTURE PROVIDER: Any person authorized to provide telecommunications service in the State that builds or installs wireless communication transmission equipment, wireless facilities, wireless support structures, or utility poles and that is not a wireless services provider but is acting as an agent or a contractor for a wireless services provider for the application submitted to the City.

WIRELESS PROVIDER: A wireless infrastructure provider or a wireless services provider.

WIRELESS SERVICES: Any services provided to the general public, including a particular class of customers, and made available on a nondiscriminatory basis using licensed or unlicensed spectrum, whether at a fixed location or mobile, provided using wireless facilities.

WIRELESS SERVICES PROVIDER: A person who provides wireless services.

WIRELESS SUPPORT STRUCTURE: A freestanding structure, such as a monopole; tower, either guyed or self-supporting; billboard; or other existing or proposed structure designed to support or capable of supporting wireless facilities. Wireless support structure does not include a utility pole. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.603. Zoning.

Small wireless facilities shall be classified as permitted uses and shall not be subject to zoning review, if collocated in rights-of-way in any zoning district. Small wireless facilities shall be permitted outside rights-of-way in the following zoning districts: C-1, C-2 and C-3, TCB and I-1 and I-2, as those districts are defined in chapter 17 of this Code, the City's unified development ordinance (UDO). In all other zoning districts, if the

small wireless facility is located outside the right-of-way, the City's usual zoning approvals, processes and restrictions shall apply, if zoning approval, processes or restrictions are required by chapter 17, article IV of this Code. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.604. Permit, Application Process.

A. Permit Required: An applicant shall obtain one or more permits from the City to collocate a small wireless facility.

B. Permit Not Required: The City shall not require an application, approval or permit, or require any fees or other charges, from a communications service provider authorized to occupy the rights-of-way, for:

1. Routine maintenance;

2. The replacement of wireless facilities with wireless facilities that are substantially similar, the same size, or smaller if the wireless provider notifies the City in writing at least ten (10) days prior to the planned replacement and includes equipment specifications for the replacement of equipment, including: a) equipment type and model numbers, for the replacement of equipment consistent with the equipment specifications information required on a permit application for original installation; and b) information sufficient to establish that the replacement is substantially similar. The City has the sole right and responsibility to determine if a proposed small wireless facility is substantially similar to the existing wireless facility; or

3. The installation, placement, maintenance, operation or replacement of micro wireless facilities suspended on cables that are strung between existing utility poles in compliance with applicable Safety Codes.

C. Application Information: An application shall be received and processed, and permits issued shall be subject to the wireless provider providing the following information to the City, together with the City's Small Cell Facilities Permit Application:

1. Site specific structural integrity and, for a Municipal utility pole, make-ready analysis prepared by a structural engineer, as that term is defined in section 4 of the Structural Engineering Practice Act of 1989;

2. The location where each proposed small wireless facility or utility pole would be installed and photographs of the location and its immediate surroundings depicting the utility poles or structures on which each proposed small wireless facility would be mounted or location where utility poles or structures would be installed. This should include a depiction of the completed facility;

3. Specifications and drawings prepared by a structural engineer, as that term is defined in section 4 of the Structural Engineering Practice Act of 1989, for each proposed small wireless facility covered by the application as it is proposed to be installed;

4. The equipment type and model numbers for the antennas and all other wireless equipment associated with the small wireless facility;

5. A proposed schedule for the installation and completion of each small wireless facility covered by the application, if approved;

~~5.~~6. Certification of compliance with applicable FCC regulations. This includes the submission of a site specific non-ionizing electromagnetic radiation (NIER) report for the small wireless facility equipment type and model endorsed by a radiofrequency engineer licensed in the State of Illinois, including a certification that the network node complies with all radiation and electromagnetic standards. The report shall specify approach distances to the general public and occupational workers at the ground and antenna centerline levels. The report shall include instructions regarding powering off the equipment or contact information for a person who can power off the equipment. No significant changes to the power, location, RF emission patterns and/or emitting frequencies may be made without prior notification and approval. However, non-substantive changes, for example,

in-kind replacements of transmitters of the same frequency, radiation patterns and power are permitted. The City retains the right to independently verify the RF patterns as installed;

~~6.~~7. Certification that the collocation complies with the collocation requirements and conditions contained herein, to the best of the applicant's knowledge;

~~7.~~8. In the event that the proposed small wireless facility is to be attached to an existing pole owned by an entity other than the City, the wireless provider shall provide legally competent evidence of the consent of the owner of such pole to the proposed collocation; and

9. Application fee(s) as set forth in section 16.605 of this article.

~~8.~~10. The City retains the right to require an applicant to pay the fees and costs of any consultant engaged by the City to assist in the review of plans, applications, reports, inspections, and/or testing.

D. Application Process: The City shall process applications as follows:

1. The first completed application shall have priority over applications received by different applicants for collocation on the same utility pole or wireless support structure. For all new pole installations, the City retains the right to require a second applicant for the same general space to install a new pole capable of collocating both applicants internally in the pole, where technically feasible and financially reasonable. The first applicant is required to allow the subsequent applicant to replace the pole with a multi-cell pole. The original pole shall be made available to the installing applicant to salvage. If not retrieved in 30 days the pole shall be declared abandoned and disposed. ~~The first completed application shall have priority over applications received by different applicants for collocation on the same utility pole or wireless support structure.~~

2. An application to collocate a small wireless facility on an existing utility pole or wireless support structure, or replacement of an existing utility pole or wireless support structure shall be processed on a nondiscriminatory basis ~~by and shall be deemed approved if~~ the City ~~fails to approve or deny the application~~ within ~~ninety~~ sixty (~~6~~90) days after the submission of a completed application.

   ~~However, if an applicant intends to proceed with the permitted activity on a deemed approved basis, the applicant shall notify the City in writing of its intention to invoke the deemed approved remedy no sooner than seventy-five (75) days after the submission of a completed application.~~

   ~~The permit shall be deemed approved on the latter of the ninetieth (90th) day after submission of the complete application or the tenth (10th) day after the receipt of the deemed approved notice by the City. The receipt of the deemed approved notice shall not preclude the City's denial of the permit request within the time limits as provided under this article.~~

3. An application to collocate a small wireless facility that includes the installation of a new utility pole shall be processed on a nondiscriminatory basis ~~and deemed approved if~~by the City ~~fails to approve or deny the application~~ within ~~one hundred twenty~~ninety (~~912~~0) days after the submission of a completed application.

   ~~However, if an applicant intends to proceed with the permitted activity on a deemed approved basis, the applicant shall notify the City in writing of its intention to invoke the deemed approved remedy no sooner than one hundred five (105) days after the submission of a completed application.~~

   ~~The permit shall be deemed approved on the latter of the one hundred twentieth (120th) day after submission of the complete application or the tenth (10th) day after the receipt of the deemed approved notice by the City. The receipt of the deemed approved notice shall not preclude the City's denial of the permit request within the time limits as provided under this article.~~

4. The City shall deny an application which does not meet the requirements of this article.

   If the City determines that applicable codes, ordinances or regulations that concern public safety, or the collocation requirements and conditions contained herein require that the utility pole or wireless support structure be replaced before the requested collocation, approval shall be conditioned on the replacement of the utility pole or wireless support structure at the cost of the provider.

Commented [PK3]: This language was added to allow the City to ask the applicant to verify that the small wireless facility complies with the FCC maximum exposure limits (MPE) regarding RF emissions by submitting a NIER as part of the application process. This is a pre-installation requirement.

Commented [PK4]: This section is intended to encourage the collocation of small wireless facilities from two or more providers on the same pole, where technically feasible and financially reasonable.

Commented [PK5]: The shot clock language in the FCC Order and the Act vary when it comes to the number of days for approval and the remedy for shot clock violations. The FCC Order seems to be more restrictive than the Act when it comes to shot clocks, so these recommended shot clock regulations are from the FCC Order. Unlike the Act, the FCC Order specifically states that the remedy for a shot clock violation excludes a "deemed approved" remedy, so it is recommended that the "deemed approved" language be removed.

Commented [PK6]: The shot clock language in the FCC Order and the Act vary when it comes to the number of days for approval and the remedy for shot clock violations. The FCC Order seems to be more restrictive than the Act when it comes to shot clocks, so these recommended shot clock regulations are from the FCC Order. Unlike the Act, the FCC Order specifically states that the remedy for a shot clock violation excludes a "deemed approved" remedy, so it is recommended that the "deemed approved" language be removed.

The City shall document the basis for a denial, including the specific code provisions or application conditions on which the denial is based, and send the documentation to the applicant.

The applicant may cure the deficiencies identified by the City and resubmit the revised application once within thirty (30) days after notice of denial is sent to the applicant without paying an additional application fee. The City shall approve or deny the revised application within thirty (30) days after the applicant resubmits the application ~~or it is deemed approved~~. Failure to resubmit the revised application within thirty (30) days of denial shall require the applicant to submit a new application with applicable fees, and recommencement of the City's review period.

~~The applicant must notify the City in writing of its intention to proceed with the permitted activity on a deemed approved basis, which may be submitted with the revised application.~~

Any review of a revised application shall be limited to the deficiencies cited in the denial. However, this revised application does not apply if the cure requires the review of a new location, new or different structure to be collocated upon, new antennas, or other wireless equipment associated with the small wireless facility.

E. Completeness Of Application: Within ~~thirty~~ ten (1~~3~~0) days after receiving an application, the City shall determine whether the application is complete and notify the applicant. If an application is incomplete, the City must specifically identify the missing information. ~~An application shall be deemed complete if the City fails to provide notification to the applicant within thirty (30) days after all documents, information and fees specifically enumerated in the City's permit application form are submitted by the applicant to the City.~~

~~Processing deadlines are tolled from the time the City sends the notice of incompleteness to the time the applicant provides the missing information.~~

F. Tolling: Small wireless facility shot clocks are reset, not just tolled, if the City notifies the applicant within 10 days after submission that the application is incomplete. For subsequent determinations of incompleteness, the shot clock would toll—not reset—if the City provides written notice within 10 days that the supplemental submission did not provide the requested information. The time period for applications may be further tolled by: ~~The time period for applications may be further tolled by:~~

1. An express written agreement by both the applicant and the City; or
2. A local, State or Federal disaster declaration or similar emergency that causes the delay.

G. Consolidated Applications: An applicant seeking to collocate small wireless facilities within the jurisdiction of the City shall be allowed, at the applicant's discretion, to file a consolidated application and receive a single permit for the collocation of up to ~~twenty-five~~twenty-five (25) small wireless facilities if the collocations each involve substantially the same type of small wireless facility and substantially the same type of structure.

If an application includes multiple small wireless facilities, the City may remove small wireless facility collocations from the application and treat separately small wireless facility collocations for which incomplete information has been provided or that do not qualify for consolidated treatment or that are denied. The City may issue separate permits for each collocation that is approved in a consolidated application.

H. Duration Of Permits: The duration of a permit shall be for a period of not less than five (5) years, and the permit shall be renewed for equivalent durations unless the City makes a finding that the small wireless facilities or the new or modified utility pole do not comply with the applicable City codes or any provision, condition or requirement contained in this article.

If the Act, FCC Order, or other applicable federal or state laws or regulations are repealed~~If the Act is repealed as provided in section 90 therein~~, renewals of permits shall be subject to the applicable City code provisions or regulations in effect at the time of renewal.

I. Means Of Submitting Applications: Applicants shall submit applications, supporting information and notices to the City by personal delivery to the City Clerk, at City Hall, 404 N. Wood Dale Road, Wood Dale,

Commented [PK7]: The shot clock language in the FCC Order and the Act vary when it comes to the number of days for approval and the remedy for shot clock violations. Unlik the Act, the FCC Order specifically states that the remedy fo a shot clock violation excludes a "deemed approved" remedy, so it is recommended that the "deemed approved" language be removed.

Commented [PK8]: The shot clock language in the FCC Order and the Act vary when it comes to the number of days for approval and the remedy for shot clock violations. Unlik the Act, the FCC Order specifically states that the remedy fo a shot clock violation excludes a "deemed approved" remedy, so it is recommended that the "deemed approved" language be removed.

Commented [PK9]: The shot clock language in the FCC Order and the Act vary when it comes to the number of days for approval and the remedy for shot clock violations. The FCC Order seems to be more restrictive than the Act when it comes to shot clocks, so these recommended shot clock regulations are from the FCC Order.

IL 60190, or as otherwise allowed by the City. Two (2) copies of all required documents shall be provided, with all drawings to be submitted in a size no larger than 11 x 17. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.605. Application Fees, Bond.

Application fee(s) for small wireless facility applications are as specified below. ~~,~~ ~~b~~Bond and insurance requirements are as specified in the City's master fee schedule.

A. The application fee for an application to collocate a small wireless facility that includes the installation of a new utility pole shall be: (i) not less than $1,000 one-time fee for each Small Wireless Facility addressed in an application that includes a new utility pole; or (ii) established by the City by resolution as a reasonable, non-discriminatory approximation of the City's costs; or (iii) agreed upon by the City and a permittee in a Master Pole Attachment Agreement.

~~A.~~B. The application fee for an application to collocate a small wireless facility on an existing utility pole or wireless support structure, or replacement of an existing utility pole or wireless support structure shall be (i) not less than $500 one-time fee for a single up-front application that includes up to five Small Wireless Facilities, with an additional $100 for each Small Wireless Facility beyond five; or (ii) established by the City by resolution as a reasonable, non-discriminatory approximation of the City's costs; or (iii) agreed upon by the City and a permittee in a Master Pole Attachment Agreement.

~~B.~~C. Notwithstanding any contrary provision of State law or local ordinance, application fees to be paid shall be non-refundable.

~~C.~~D. A bond in the amount as specified in the City's master fee schedule is required for each small wireless facility for the duration of each permit. A cash bond is preferred, but a performance or surety bond is acceptable. A letter of credit will not be accepted to meet this requirement. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Commented [PK10]: The language in the FCC Order and the Act vary when it comes to fees. The FCC Order seems t be more restrictive than the Act when it comes to fees for th **installation of a new utility pole**, so these recommended "safe harbor" fees are based on the FCC Order.

Commented [PK11]: The language in the FCC Order and the Act vary when it comes to fees. The FCC Order seems t be more restrictive than the Act when it comes to fees to **collocate a small wireless facility on an existing utility pole or wireless support structure, or replacement of an existing utility pole or wireless support structure**, so thes recommended "safe harbor" fees are based on the FCC Order.

Sec. 16.606. Annual License Fee.

A wireless provider shall pay to the City an annual recurring license fee: ~~,~~ (i) not less than $270 per small wireless facility on a City utility pole located in a right-of-way; or (ii) established by the City by resolution as a reasonable, non-discriminatory approximation of the City's costs; or (iii) agreed upon by the City and a permittee in a Master Pole Attachment Agreement.

~~as specified in the master fee schedule to collocate a small wireless facility on a City utility pole located in a right-of-way.~~ The fee shall be payable on the first day after the first annual anniversary of the issuance of the permit or notice of intent to collocate, and on each annual anniversary date thereafter. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Commented [PK12]: The language in the FCC Order and the Act vary when it comes to fees. The FCC Order seems t be more restrictive than the Act when it comes to the **annua recurring license fee**, so these recommended "safe harbor" fees are based on the FCC Order.

Sec. 16.607. Pole Attachment Agreement.

In addition to providing a permit, to collocate a small wireless facility on a Municipal utility pole, the City, by and through the City Council, and the applicant shall enter into a Master Pole Attachment Agreement, provided by the City for the initial collocation. A copy of said Agreement is on file in the City and incorporated herein by reference as exhibit A. For subsequent approved permits to collocate on a small wireless facility on a Municipal utility pole, the City, by and through the City Manager, or his designee, and the applicant shall enter into a License Supplement of the Master Pole Attachment Agreement in a form approved by the City Manager for such purpose. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.608. Collocation Requirements And Conditions.

A. Public Safety Space Reservation: The City may reserve space on Municipal utility poles for future public safety uses, for the City's electric utility uses, or both, but a reservation of space may not preclude the

collocation of a small wireless facility unless the City reasonably determines that the Municipal utility pole cannot accommodate both uses.

B. Installation And Maintenance: The wireless provider shall install, maintain, repair and modify its small wireless facilities in safe condition and good repair and in compliance with the requirements and conditions of this article. The wireless provider shall ensure that its employees, agents or contracts that perform work in connection with its small wireless facilities are adequately trained and skilled in accordance with all applicable industry and governmental standards and regulations.

C. No Interference With Public Safety Communication Frequencies: The wireless provider's operation of the small wireless facilities shall not interfere with the frequencies used by a public safety agency for public safety communications.

A wireless provider shall install small wireless facilities of the type and frequency that will not cause unacceptable interference with a public safety agency's communications equipment.

Unacceptable interference will be determined by and measured in accordance with industry standards and the FCC's regulations addressing unacceptable interference to public safety spectrum or any other spectrum licensed by a public safety agency.

If a small wireless facility causes such interference, and the wireless provider has been given written notice of the interference by the public safety agency, the wireless provider, at its own expense, shall remedy the interference in a manner consistent with the abatement and resolution procedures for interference with public safety spectrum established by the FCC including 47 CFR 22.970 through 47 CFR 22.973 and 47 CFR 90.672 through 47 CFR 90.675.

The City may terminate a permit for a small wireless facility based on such interference if the wireless provider is not in compliance with the Code of Federal Regulations cited in the previous paragraph. Failure to remedy the interference as required herein shall constitute a public nuisance.

D. Electric Distribution Or Transmission System: The wireless provider shall not collocate small wireless facilities on City utility poles that are part of an electric distribution or transmission system within the communication worker safety zone of the pole or the electric supply zone of the pole.

However, the antenna and support equipment of the small wireless facility may be located in the communications space on the City utility pole and on the top of the pole, if not otherwise unavailable, if the wireless provider complies with applicable codes for work involving the top of the pole.

For purposes of this subparagraph, the terms "communications space", "communication worker safety zone", and "electric supply zone" have the meanings given to those terms in the National Electric Safety Code as published by the Institute of Electrical and Electronics Engineers.

E. Code Compliance: The wireless provider shall comply with all applicable codes and local code provisions or regulations that concern public safety. Small wireless facilities must not result in human exposure to radio frequency radiation in excess of applicable safety standards specified in 47 CFR Rule 1.1307(b). After transmitter and antenna system optimization, but prior to unattended operations of the facility, the wireless provider or its representative must conduct on-site post-installation RF emissions testing to demonstrate actual compliance with the FCC OET Bulletin 65 RF emissions safety rules for general population/uncontrolled RF exposure in all sectors. For this testing, the transmitter shall be operating at maximum operating power, and the testing shall occur outwards to a distance where the RF emissions no longer exceed the uncontrolled/general population limit. The wireless provider shall submit documentation of this testing within ninety (90) days after installation of the facility. RF emissions testing shall be conducted annually and the wireless provider shall submit documentation of this testing to the City within ninety (90) days after the testing is completed.

F. Design Standards: The wireless provider shall comply with written design standards that are generally applicable for decorative utility poles, or reasonable stealth, concealment and aesthetic requirements that are set forth in ~~a~~ the City's *Small Wireless Facilities Design Standards* manual, a City ordinance, written policy adopted by the City, a comprehensive plan or other written design plan that applies to other occupiers of the rights-of-way, including on a historic landmark or in a historic district.

Commented [PK13]: This language was added to allow the City to ask the applicant to verify that the small wireles facility complies with the FCC maximum exposure limits (MPE) regarding RF emissions by performing post-installation field testing, as well as annual testing. It is wort noting that other cities, with the assistance of the applicant, have decided to do the testing themselves or hire a consulta to do the testing.

G. Alternate Placements: Except as provided in this section, a wireless provider shall not be required to collocate small wireless facilities on any specific utility pole, or category of utility poles, or be required to collocate multiple antenna systems on a single utility pole. However, with respect to an application for the collocation of a small wireless facility associated with a new utility pole, the City may propose that the small wireless facility be collocated on an existing utility pole or existing wireless support structure within one hundred feet (100') of the proposed collocation, which the applicant shall accept if it has the right to use the alternate structure on reasonable terms and conditions, and the alternate location and structure does not impose technical limits or additional material costs as determined by the applicant.

If the applicant refuses a collocation proposed by the City, the applicant shall provide written certification describing the property rights, technical limits or material cost reasons the alternate location does not satisfy the criteria in this paragraph.

H. Height Limitations: The maximum height of a small wireless facility shall be no more than ten feet (10') above the utility pole or wireless support structure on which the small wireless facility is collocated.

New or replacement utility poles or wireless support structures on which small wireless facilities are collocated may not exceed the higher of:

1. Ten feet (10') in height above the tallest existing utility pole, other than a utility pole supporting only wireless facilities, that is in place on the date the application is submitted to the City, that is located within three hundred feet (300') of the new or replacement utility pole or wireless support structure and that is in the same right-of-way within the jurisdictional boundary of the City, provided the City may designate which intersecting right-of-way within three hundred feet (300') of the proposed utility pole or wireless support structures shall control the height limitation for such facility; or

2. ~~Forty-five~~Fifty feet (5045') above ground level.

I. Height Exceptions Or Variances: If an applicant proposes a height for a new or replacement pole in excess of the above height limitations on which the small wireless facility is proposed for collocation, the applicant shall apply for a variance to the requirements set forth herein pursuant to the provisions set forth in section 16.321 of this chapter.

J. Contractual Design Requirements: The wireless provider shall comply with requirements that are imposed by an agreement between the City and a private property owner that concern design or construction standards applicable to utility poles and ground-mounted equipment located in the right-of-way.

K. Ground-Mounted Equipment Spacing: The wireless provider shall comply with applicable spacing requirements in applicable codes and ordinances concerning the location of ground-mounted equipment located in the right-of-way if the requirements include a waiver, zoning or other process that addresses wireless provider requests for exception or variance and do not prohibit granting of such exceptions or variances.

L. Undergrounding Regulations: The wireless provider shall comply with local code provisions or regulations concerning undergrounding requirements that prohibit the installation of new or the modification of existing utility poles in a right-of-way without prior approval if the requirements include a waiver, zoning or other process that addresses requests to install such new utility poles or modify such existing utility poles and do not prohibit the replacement of utility poles.

M. Collocation Completion Deadline: Collocation for which a permit is granted shall be completed within one hundred eighty (180) days after issuance of the permit, unless the City and the wireless provider agree to extend this period or a delay is caused by make-ready work for a Municipal utility pole or by the lack of commercial power or backhaul availability at the site, provided the wireless provider has made a timely request within sixty (60) days after the issuance of the permit for commercial power or backhaul services, and the additional time to complete installation does not exceed three hundred sixty (360) days after issuance of the permit. Otherwise, the permit shall be void unless the City grants an extension in writing to the applicant. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.609. Pre-Existing Agreements.

Commented [PK14]: The language in the FCC Order and the Act vary when it comes to height limitations. Forty-five feet (45') is from the Act. The FCC Order seems to be more restrictive than the Act when it comes to the maximum height of a SWF. The FCC Order defines a "Small Wireless Facilities," *as facilities that meet the following conditions: (1) The facilities— (i) **are mounted on structures 50 feet or less in height including their antennas** as defined in section 1.1320(d), or (ii) are mounted on structures no more than 10 percent taller than other adjacent structures, or (iii) do not extend existing structures on which they are located to a height of more than 50 feet or by more than 10 percent, whichever is greater.*

Existing agreements between the City and wireless providers that relate to the collocation of small wireless facilities in the right-of-way, including the collocation of small wireless facilities on City utility poles, that are in effect on June 1, 2018, remain in effect for all small wireless facilities collocated on the City's utility poles pursuant to applications submitted to the City before June 1, 2018, subject to applicable termination provisions contained therein. Agreements entered into after June 1, 2018, shall comply with this article.

A wireless provider that has an existing agreement with the City on the effective date of the Act may accept the rates, fees and terms that the City makes available under this article for the collocation of small wireless facilities or the installation of new utility poles for the collocation of small wireless facilities that are the subject of an application submitted two (2) or more years after the effective date of the Act by notifying the City that it opts to accept such rates, fees and terms. The existing agreement remains in effect, subject to applicable termination provisions, for the small wireless facilities the wireless provider has collocated on the City's utility poles pursuant to applications submitted to the City before the wireless provider provides such notice and exercises its option under this paragraph. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.610. Abandonment.

A small wireless facility that is not operated for a continuous period of twelve (12) months shall be considered abandoned. The owner of the facility shall remove the small wireless facility within ninety (90) days after receipt of written notice from the City notifying the wireless provider of the abandonment.

The notice shall be sent by certified or registered mail, return receipt requested, by the City to the owner at the last known address of the wireless provider. If the small wireless facility is not removed within ninety (90) days of such notice, the City may remove or cause the removal of such facility pursuant to the terms of its pole attachment agreement for Municipal utility poles or through whatever actions are provided for abatement of nuisances or by other law for removal and cost recovery.

A wireless provider shall provide written notice to the City if it sells or transfers small wireless facilities within the jurisdiction of the City. Such notice shall include the name and contact information of the new wireless provider. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.611. Dispute Resolution.

The Circuit Court of the Eighteenth Judicial Circuit, Wheaton, Illinois, shall have exclusive jurisdiction to resolve all disputes arising under the Small Wireless Facilities Deployment Act. Pending resolution of a dispute concerning rates for collocation of small wireless facilities on Municipal utility poles within the right-of-way, the City shall allow the collocating person to collocate on its poles at annual rates as specified in ~~the master fee schedule~~section 16.606 of this article, with rates to be determined upon final resolution of the dispute. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.612. Indemnification.

A wireless provider shall indemnify and hold the City harmless against any and all liability or loss from personal injury or property damage resulting from or arising out of, in whole or in part, the use or occupancy of the City improvements or right-of- way associated with such improvements by the wireless provider or its employees, agents, or contractors arising out of the rights and privileges granted under this article and the Act. A wireless provider has no obligation to indemnify or hold harmless against any liabilities and losses as may be due to or caused by the sole negligence of the City or its employees or agents. A wireless provider shall further waive any claims that they may have against the City with respect to consequential, incidental, or special damages, however caused, based on the theory of liability. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.613. Insurance.

The wireless provider shall carry, at the wireless provider's own cost and expense, the following insurance in amounts consistent with those set forth in section 16.308 of this chapter, unless altered by the terms of its agreement with the City:

A. Property insurance for its property's replacement cost against all risks;

B. Workers' compensation insurance, as required by law; or

C. Commercial general liability insurance with respect to its activities on the City improvements or rights-of-way to afford minimum protection limits.

The wireless provider shall include the City as an additional insured on the commercial general liability policy and provide certification and documentation of inclusion of the City in a commercial general liability policy prior to the collocation of any wireless facility.

A wireless provider may self-insure all or a portion of the insurance coverage and limit requirement required by the City. A wireless provider that self-insures is not required, to the extent of the self-insurance, to comply with the requirement for the name of additional insureds under this section. A wireless provider that elects to self-insure shall provide to the City evidence sufficient to demonstrate its financial ability to self-insure the insurance coverage limits required by the City. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.614. Maintenance.

A wireless provider shall maintain all small wireless facilities in the City in a condition that maintains the safety, integrity and aesthetics of such facilities. In the event of failure to maintain such facilities, the City shall notify the wireless provider, in writing, addressed to the individual set forth in the application for permit, of the identified maintenance issue. Except in the event of an emergency affecting the public health and safety which requires an immediate response, the wireless provider shall have thirty (30) days from the date of notice to cure the condition complained of, or to secure additional time for performance of said work, if needed. Failure to cure the condition to the satisfaction of the City in the time set forth in any notice may result in revocation of the permit. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.615. Permit Suspension And Revocation.

The City retains the right to suspend or revoke any permit issued under this article for one or more of the following reasons:

A. Fraudulent, false, misrepresenting, or materially incomplete statements in the permit application;

B. Noncompliance with this article;

C. Permittee's physical presence or presence of permittee's facilities over, on, above, along, upon, under, across, or within the rights-of-way presents a direct or imminent threat to the public health, safety and welfare; or

D. Permittee's failure to construct the facilities substantially in compliance with the permit and approved plans. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.616. Exceptions To Applicability.

Nothing in this article authorizes a person to collocate small wireless facilities on:

A. Property owned by a private party or property owned or controlled by the City or another unit of local government that is not located within rights-of-way, or a privately owned utility pole or wireless support structure without the consent of the property owner;

B. Property owned, leased, or controlled by a park district, forest preserve district, or conservation district for public park, recreation or conservation purposes without the consent of the affected district, excluding the placement of facilities on rights-of-way located in an affected district that are under the

jurisdiction and control of a different unit of local government as provided by the Illinois Highway Code; or

C. Property owned by a rail carrier registered under section 18c-7201 of the Illinois Vehicle Code, Metra Commuter Rail or any other public commuter rail service, or an electric utility as defined in section 16-102 of the Public Utilities Act, without the consent of the rail carrier, public commuter rail service, or electric utility. The provisions of this article do not apply to an electric or gas public utility or such utility's wireless facilities if the facilities are being used, developed and maintained consistent with the provisions of subsection (i) of section 16-108.5 of the Public Utilities Act.

For the purposes of this subsection, "public utility" has the meaning given to that term in section 3-105 of the Public Utilities Act. Nothing in this article shall be construed to relieve any person from any requirement: 1) to obtain a franchise or a State-issued authorization to offer cable service or video service or 2) to obtain any required permission to install, place, maintain, or operate communications facilities, other than small wireless facilities subject to this article. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

Sec. 16.617. Severability.

If any provision of this article or application thereof to any person or circumstances is ruled unconstitutional or otherwise invalid, such invalidity shall not affect other provisions or applications of this article that can be given effect without the invalid application or provision, and each invalid provision or invalid application of this article is severable. (Ord. O-18-029, 8-16-2018, eff. retroactive to 8-1-2018)

EXHIBIT B

New Section 16.324 (Colocation of City Infrastructure) added to Chapter 16, Article III

Article III

Construction of Utility Facilities in Rights-Of-Way

SECTION:

Sec. 16.324. Colocation of City Infrastructure.

The City recognizes that it is within its police power to preserve the physical integrity of its streets and highways, control the orderly flow of vehicles and pedestrians, and efficiently manage the gas, electric, water, cable, broadband, telephone, and other facilities that crisscross its streets and public rights-of-way. It is the City's policy to efficiently use public rights-of- way for a variety of infrastructure and utilities in order to provide public services; increase the opportunities for access to traffic control, communication, and broadband services; limit the frequency of street closures and cutting of public streets; and reduce road degradation caused by repeated boring and trenching of public rights-of-way. To this end, the City requires any individual or company (Permit Holder) seeking to install a utility system, including but not limited to fiber optic cables or other private similar systems, that involves directional boring or open trenching within a public right-of-way that extends for more than 500 feet in length to collocate and install City conduit simultaneously with any individual or company's installation of a utility system in compliance with the following:

A. Applications to install a utility system that involves directional boring or open trenching within a public right-of-way associated with the same improvement shall not be divided into multiple applications for the purpose of evading obligations for colocation of City conduit.

B. The City shall not be restricted in its use of City conduit installed through a colocation pursuant to this Section.

C. The City will review all permit applications in a competitively neutral manner and make all permit decisions based on substantial evidence.

D. The City may, upon initial review of the permit application, determine that the proposed installation of a utility system that involves directional boring or open trenching within a public right-of-way does not demonstrate a need for colocation of City infrastructure.

E. For any installation of a utility system that involves directional boring or open trenching within a public right-of-way that requires colocation of City conduit, the City shall, as a condition of the issuance of the Permit or continued validity of a Permit, require the Entity/Permit Holder to install City conduit with tracer wire and associated infrastructure, as identified by the City, concurrent with the installation of the Permit Holder's infrastructure. The requirement for the Entity/Permit Holder to install City conduit with tracer wire and the associated infrastructure shall be completed after the City has reviewed and approved all estimated costs associated with the co-location of the City conduit. The Permit Holder shall install the City conduit with tracer wire adjacent to the Permit Holder's infrastructure and within the same bore or trench alignment.

F. The City will bear all costs associated with the colocation, including the City conduit, pull boxes, and all other materials and infrastructure to be installed, including the incremental labor and equipment cost incurred by the Permit Holder (or its contractor or subcontractor) that are reasonably (true industry costs) and directly attributable to the required colocation of City conduit, materials and infrastructure.

G. A completion inspection with the City's designated representative is required. When a colocation of City conduit is required, this completion inspection shall include physical verification of the installed City conduit.

H. Upon the City's request, the Permit Holder shall submit to the City signed as-built documentation of the City's conduit and provide the City with a City-approved bill-of-sale or similar document evidencing City conduit ownership following the colocation. The as-built documentation should also be delivered in the form of 3D GIS data, to within a few inches' accuracy, that can be imported into the City's GIS system.

I. The City may waive Application Fees set forth in the master fee Schedule for any individual or company seeking to install a utility system that involves directional boring or open trenching within a public right-of-way associated with a City colocation project.

J. All applicable fees to restore and/or repair pavement, as establish by the City or as set forth in the City's master fee schedule, shall apply unless and until a written waiver is obtained from the City.

K. A Permit Holder may appeal a colocation condition imposed by the City in accordance with the appeals procedure set forth in Section 16.321 of this Code.

L. The Colocation of City Infrastructure with the installation of a utility system, including but not limited to fiber optic cables or other private similar systems, that involves directional boring or open trenching within a public right-of-way shall comply with all the requirements of: chapter 6, article XI, "Streets, Sidewalks and Public Ways", of this Code; chapter 6, article XII, "Excavations of Public Rights-of-Way", of this Code; and chapter 16, article III, "Construction of Utility Facilities in Rights-of-Way", of this Code.

EXHIBIT C

Small Cell Design Standards

CITY OF
WOOD DALE

SMALL WIRELESS FACILITIES DESIGN STANDARDS

November 2020

Table of Contents

1. Executive Summary

1.1 Background

The City of Wood Dale, as with communities across the country and around the world, is facing the next wave of communications technology. While the economic benefits are immense, it has the potential to impact the safety, aesthetic values, and enjoyment of our community in a manner and to a degree that is far more extensive than cellular phones and other types of recent technology.

Small wireless communications, also known as 5G technology, utilizes higher frequencies with the capability to accommodate significantly higher data needs than current 4G/LTE technologies. The physical limits of the higher frequencies require that the transmitters be installed at the spacing of street lights or fire hydrants rather than 2+/- miles or greater distances that 4G/LTE technologies accommodate. The result of this physical need is that the public rights-of-way are the optimal location to install the required equipment.

In September of 2018, the Federal Communications Commission (FCC) adopted the Declaratory Ruling and Third Report and Order, known as FCC 18-133. The Order outlines the extent to which local agencies may or may not regulate the installation of small wireless facilities within the public rights-of-way and the use of existing public infrastructure.

A few months prior to the adoption of the FCC Order, in June of 2018, Public Act 100-0585, the State of Illinois, Small Wireless Facilities Deployment Act (the Act), previously known as Senate Bill 1451, became effective. In general, the Act specifies how local authorities throughout Illinois, may regulate the attachment of small wireless facilities.

Similar to the advent of the telephone which required extensive wires, switch boxes, poles and other structures to provide these services, small wireless communications technology will require a structure to mount a transmitter approximately every 300 to 500 feet with fiber and power connections to each one.

Absent the adoption of standards to assure that installations are context sensitive, service providers would be free to install equipment with no concern for the visual impact that they create. This document seeks to accommodate the implementation of the new technology while assuring that the new infrastructure is installed using context sensitive solutions.

In addition, the equipment needs to be located where it will not interfere with visibility for drivers or use of sidewalks, or other common amenities found in public rights-of-way.

Other issues such as safety, noise and accommodating multiple providers at each location are also addressed within these standards.

1.2 Regulatory Matters

On September 27, 2018, the Federal Communications Commissions (FCC) adopted the *Order*. Among other things, the *Order* limits the amount and types of fees that local governments can charge for the use of the ROW; constrains their ability to impose aesthetic, undergrounding, minimum-spacing, and other requirements; imposes timelines – "shot clocks" – for reviewing applications for siting wireless facilities; and regulates various other matters related to the control and management of the public ROW and publicly-owned facilities.

Under the *Order*, local government aesthetic requirements (a.k.a. Design Standards) for small wireless facilities are subject to preemption unless they are (1) reasonable; (2) no more burdensome than those applied to other types of infrastructure deployments; (3) objective; and (4) published in advance.

The *Act*, 50 ILCS 840, became effective June 1, 2018. In a similar manner to the FCC *Order*, the *Act* establishes fees, "shot clocks," and provides limits on local governments' control of small wireless infrastructure. Also, similar to the *Order*, under the *Act*, local government aesthetic requirements (a.k.a. Design Standards) must be: (1) written; (2) generally applicable for decorative utility poles, or reasonable stealth, concealment, and aesthetic requirements; and (3) applicable to other occupiers of the rights-of-way.

Various provisions of the Illinois and FCC actions provide similar but sometimes conflicting direction on issues such as fees, shot clocks, aesthetics and other considerations. One foundational principle that is similar under both the *Order* and the *Act*, is that aesthetic design requirements must be reasonable and non-discriminatory vis-à-vis other users of the ROW (not just other wireless providers). The City has demonstrated its sensitivity to this principle throughout this document.

The City has established the governing structures in Article IV of Chapter 16 of its City Code, and all references to these items are governed by (a) Article IV of Chapter 16 of the City Code and subsequently (b) by definition in this Design Standards manual.

1.3 Goal Statement

The City of Wood Dale Small Wireless Facilities Design Standards are hereby established with the goal of accommodating the installation of small wireless (4G, LTE, 5G, and other systems currently under development) technology within City of Wood Dale public rights-of-way provided that the installations are completed in the most context sensitive manner through the establishment of minimum standards for:

- Aesthetics
- Location
- Accommodation of two providers at each location
- Safety
- Noise

2. General Information

2.1 Introduction and Purpose

These Small Wireless Facilities Design Standards provide objective, technically feasible criteria applied in a non-discriminatory manner that reasonably match the aesthetics and character of the immediate area regarding all of the following, which the City shall consider in reviewing an application.

(a) The location of any small wireless facilities including their relationship to other existing or planned small wireless sites

(b) The location of a small wireless facility on a wireless support structure

(c) The appearance and concealment of small wireless facilities, including those relating to materials used for arranging, screening, and landscaping

(d) The design and appearance of a wireless support structure including any height requirements adopted in accordance with this document.

It is the goal of the City to allow the installation of a small wireless infrastructure with a minimum foot print. The City's strong preference is that this be accomplished by small wireless siting and the use of multi-cell poles that can accommodate multiple applicants, where technically feasible and financially reasonable.

It is also a goal of the City to demonstrate its sensitivity to the principle that the aesthetic design standards throughout this document are reasonable and non-discriminatory vis-à-vis other users of its right-of-way (not just other wireless providers).

The provisions of these Standards shall not limit or prohibit the City's discretion to promulgate and make publicly available other information, materials or requirements in addition to, and separate from these Small Wireless Facilities Design Standards that do not conflict with state or federal law.

2.2 Definitions

The following words, terms and phrases, when used in this document, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

AASHTO *means the American Association of State Highway and Transportation Officials, which is a standards setting body that publishes specifications, test protocols, and guidelines that are used in highway design and construction throughout the United States.*

Administrative review means ministerial review of an Application by the City relating to the review and issuance of a Permit, including review by the City Manager or designee, if desired, to determine whether the issuance of a Permit is in conformity with the applicable provisions of these Design Standards and all City Codes.

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

Applicable codes means Codes as adopted and amended by the City in Chapter 12, Articles III and IV of the City Code, and including the National Electric Safety Code.

Applicant means any person who submits an application and is a wireless provider.

Application means a request submitted by an applicant to the City for a permit to collocate small wireless facilities, and a request that includes the installation of a new utility pole for such collocation, as well as any applicable fee for the review of such application.

Authority means the City of Wood Dale that has jurisdiction and control for use of public rights-of way as provided by the Illinois Highway Code for placements within public rights-of-way or has zoning or land use control for placements not within public rights-of-way.

City means the City of Wood Dale.

City cost means all costs borne by the City for the administration of this document.

City Council means the Wood Dale City Council that consist of the Mayor, City Clerk, City Treasurer, and eight Alderman.

City Manager means the Wood Dale City Manager or designee.

City-Owned infrastructure means infrastructure within the boundaries of the City, including, but not limited to, street lights, traffic signals, towers, structures, or buildings owned, operated or maintained by the City.

Code means the Wood Dale City Code.

Collocate or collocation means to install, mount, maintain, modify, operate, or replace wireless facilities on or adjacent to a wireless support structure or utility pole.

Communications service means a Cable service, as defined in 47 USC 522(6), as amended; information service, as defined in 47 USC 153(24), as amended; telecommunications service, as defined in 47 USC 153(53), as amended; mobile service, as defined in 47 USC 153(53), as amended; or wireless service other than mobile service.

Communications service provider means a cable operator, as defined in 47 USC 522(5), as amended; a provider of information service, as defined in 47 USC 153(24), as amended; a telecommunications carrier, as defined in 47 USC 153(51), as amended; or a wireless provider.

Consolidated applications means the submission of multiple siting applications at one time. Consolidated applications shall not exceed 25 individual Small Wireless Facilities if the collocations each involve substantially the same type of small wireless facility and substantially the same type of structure.

Contractor means a person, partnership, corporation, or other legal entity who undertakes to construct, install, alter, move, remove, trim, demolish, repair, replace, excavate, or add to any improvements or public improvements covered by this document, that requires work to be undertaken and workers, and/or equipment to be in the ROW in the process of performing the above-named operations. Contractor, as the term is defined herein, should include any and all types of general contractor and subcontractor and successors or assigns of said contractor.

Development Code means Chapter 17, Unified Development Code of City Code, as amended.

Director means the Community Development Director for the City or designee.

Distributed Antenna System (DAS) means a type of small wireless facility consisting of a network of spatially separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area. Generally, serves multiple carriers.

Effectively screen means aesthetically pleasing construction meant to conceal small wireless facility equipment. Shall be required where needed to improve the aesthetics of the local environment.

Equipment concealed means whenever technically feasible, antennas, cabling, and equipment shall be fully concealed within a Pole, or otherwise camouflaged to appear to be an integrated part of a Pole.

Excavation or Excavate means any opening and/or tunneling in or under the surface of any public place or public rights-of-way in the City. The exception is an opening into a lawful structure below the surface of a public place or public right-of-way (e.g., a manhole), the top of which is flush with the adjoining surface and so constructed as to allow frequent openings without injury or damage to the public place or public rights-of-way.

Facility(ies) means a pipe, sewer, pipeline, tube, main, service, trap, vent, vault, manhole, meter, gauge, regulator, valve, conduit, wire, tower, pole, pole line, anchor, cable, fiber optic, public irrigation system, junction box, transformer or any other material, structure, sign, traffic control device, or object of any kind or character, whether enumerated herein or not, which is or may be lawfully constructed, left, placed or maintained in, upon, along, across, under or over any public place or public right-of-way. Facilities shall include, as the context dictates, small wireless facilities, as defined herein.

FCC means the Federal Communications Commission of the United States.

FCC Order means the FCC's Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC-18-133, released September 27, 2018, which is incorporated herein by this reference.

Fee means a one-time charge.

Franchise means an authorization granted by the City to a person to construct, maintain, or emplace facilities generally upon, across, beneath and over a public place or the public right-of-way in the City.

Franchise agreement means a contract entered into between the City and a franchisee that sets forth the terms and conditions under which the franchise may be exercised.

Height means maximum height of the small wireless facility, including antenna, above established grade measured at the base of the structure

Indemnification means that any provider who owns or operates Small Wireless Facilities or Wireless Support Structures in the ROW shall indemnify, protect, defend, and hold the City and its elected officials, officers, employees, agents, and volunteers harmless against any and all claims, lawsuits, judgments, costs, liens, losses, expenses, fees to include reasonable attorney fees and costs of defense, proceedings, actions, demands, causes of action, liability and suits of any kind and nature, including personal or bodily injury or death, property damage or other harm for which recovery of damages is sought, to the extent that it is caused by the negligence of the Operator who owns or operates Small Wireless Facilities and wireless service in the ROW, any agent, officer, director, representative, employee, affiliate, or subcontractor of the Operator, or their respective officers, agents, employees, directors, or representatives while installing, repairing, or maintaining facilities in the Rights-of-Way.

Landscape means any combination of living plant material, such as trees, shrubs, vines, ground covers, flowers, vegetables, turf or grass; natural features, such as land and water forms; and structural features, including but not limited to landscaped pedestrian plazas, fountains, reflecting pools, screening, walls, fences and benches.

Landscape screening means the installation at grade of plantings, shrubbery, bushes or other foliage intended to screen the base of a small wireless facility from public view.

Lattice tower means an antenna support tower that is self-supporting with multiple legs and cross-bracing of structural steel.

Law means a federal or State statute, common law, code, rule, regulation, order, or City ordinance or resolution.

Macro telecommunication facility(ies) or macrocell means telecommunication towers, poles or similar structures greater than 50 feet in height, including accessory equipment such as transmitters, repeaters, microwave dishes, horns, and other types of equipment for the transmission or receipt of such signals, as well as support structures, equipment buildings and parking areas.

Micro wireless facility means a small wireless facility 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, no longer than 11 inches.

Minimum height means the lowest vertical distance at which the structure can still operate at an efficient level of service. An efficient level of service is deemed to be 95% or greater of possible service levels.

Modification means the collocation, removal, or replacement of an antenna or any other transmission equipment associated with the supporting structure.

Monopole means a standing antenna support structure with no guy wires placed directly on the ground to support one or more small wireless facilities.

Municipal utility pole means a utility pole owned or operated by the City in public rights-of-way.

Ordinance means Article VI, Chapter 16, Small Wireless Facilities of the Wood Dale City Code as amended, which is incorporated herein by this reference.

Ordinary maintenance and repair means inspections, testing and/or repair that maintain functional capacity, aesthetic and structural integrity of a wireless facility and/or the associated support structure, pole or tower, that does not require blocking, damaging or disturbing any portion of the ROW.

Permit means a written authorization required by the City to perform an action or initiate, continue, or complete a project.

Person means an individual, corporation, limited liability company, partnership, association, trust, or other entity or organization.

Public Act 100-0585 or Act means the State of Illinois, Small Wireless Facilities Deployment Act, which is incorporated herein by this reference.

Public improvements means any item placed or constructed in public rights-of-way intended for public use including, but not limited to: roadways, streets, alleys, sidewalks, curbs, gutters, trails, crosswalk or other traffic markings or traffic structures, utilities (water, sanitary sewer, or storm sewer) either owned by or dedicated to the City, or over which the City has or there is recorded a public easement, any private access either owned or dedicated to the City, parking lots, or landscaping, whether privately or publicly owned or maintained, unless otherwise specifically exempted within this document.

Public place means property owned or controlled by the City and dedicated to public use, including but not limited to any park, square or plaza.

Publicly owned property means property that is owned by a government entity, such as a park district, library district, school district or a municipality.

Rate means a recurring charge.

Replacement means exchanging of transmission equipment; not to include the structure on which the equipment is located.

Responsible party means any person or entity who owns facilities or structures located or to be located in the City rights-of-way and/or who is liable, whether financially or otherwise, for any installation, repair, or maintenance of facilities, or public improvements, either public or private, placed on or to be placed in the City rights-of-way.

Right-of-way or ROW means the area on, below, or above a public roadway, highway, street, public sidewalk, alley, or utility easement dedicated for compatible use. "Right-of-way" does not include City-owned aerial lines.

Sidewalk means a paved walkway or pathway for the purpose of pedestrian traffic abutting or running parallel or adjacent to a street.

Signage means that on all small wireless facilities and wireless support structures signage is prohibited, including stickers, logos, and other non-essential graphics and information unless required by the FCC, except for a small placard identifying the service provider and contact information, which shall be placed at 6-feet above grade, facing away from the public rights-of-way or as otherwise directed by the City.

Small wireless facility means a wireless facility that meets both of the following qualifications: a) each antenna is located inside an enclosure of no more than six (6) cubic feet in volume or, in the case of an antenna that has exposed elements, the antenna and all of its exposed elements could fit within an imaginary enclosure of no more than six (6) cubic feet; and b) all other wireless equipment attached directly to a utility pole associated with the facility is cumulatively no more than twenty five (25) cubic feet in volume. The following types of associated ancillary equipment are not included in the calculation of equipment volume: electric meter, concealment elements, telecommunications demarcation box, ground-based enclosures, grounding equipment, power transfer switch, cut-off switch, and vertical cable runs for the connection of power and other services.

Small wireless facility installation means all equipment required for the operation and maintenance of so-called "small cell" wireless communications systems that transmit and/or receive signals but are not "Macro Telecommunications Facilities," including antennas, microwave dishes, power supplies, transformers, electronics, and other types of equipment required for the transmission or receipt of such signals.

Stealth facility means any commercial wireless communications facility that is designed to blend into the surrounding environment by means of screening, concealment, or camouflage. The antenna and supporting antenna equipment are either not readily visible beyond the property on which they are located, or, if visible, appear to be part of the existing landscape or environment rather than identifiable as a wireless communications facility. Stealth facilities may be installed, but such installation methods are not limited to, undergrounding, partially undergrounding and landscaping.

Street, highway or roadway means the entire width between the boundary lines of every ROW or easement publicly or privately maintained and open to the use of the public for the purposes of vehicular travel.

Substructure means any pipe, conduit, duct, tunnel, manhole, vault, buried cable or wire, or any other similar structure located below the surface of any public place or public right-of way.

Structure means anything constructed or erected with a fixed location below, on, or above grade, including, without limitation, service cabinets, junction boxes, foundations, fences, retaining walls, awnings, balconies, and canopies.

Structure height means the vertical distance measured from the base of the antenna support structure at grade to the highest point of the structure. If the support structure is on a sloped grade, then the average between the highest and lowest grades of the cell site shall be used in calculating the height.

Telecommunications means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

Telecommunication system means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used. A system that provides both cable and telecommunications or information services may be considered both as a cable system and a telecommunications system pursuant to this Code.

Tower means any structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including self-supporting lattice towers, guy towers, or monopole towers, and that is

not a utility pole, an alternative antenna structure, or a City-owned infrastructure. Except as otherwise provided for by this document, the requirements for a tower and associated antenna facilities shall be those required in this document.

Unacceptable interference means any level of radio frequency (RF) interference from a source outside of the City's public safety communications network that has the effect of partially or completely impeding aural and/or visual signals received or transmitted by City personnel. Any RF interference from a wireless provider as defined by this Ordinance and state law, shall be measured, corrected, and eliminated in accordance with the requirements of Section 15(d)(6)(A) of Public Act 100-0585.

Utility pole means a pole or similar structure that is used in whole or in part by a communications service provider or for electric distribution, lighting, traffic control, or a similar function.

Wi-Fi antenna means an antenna used to support Wi-Fi broadband Internet access service based on the IEEE 802.11 standard that typically uses unlicensed spectrum to enable communication between devices.

Wireless facility(ies) means equipment at a fixed location that enables wireless communications between user equipment and a communications network, including: a) equipment associated with wireless communications; and b) radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supplies, and comparable equipment, regardless of technological configuration. Wireless facility includes small wireless facilities. Wireless facility does not include: a) the structure or improvements on, under, or within which the equipment is collocated; or b) wireline backhaul facilities, coaxial or fiber optic cable that is between wireless support structures or utility poles or coaxial, or fiber optic cable that is otherwise not immediately adjacent to or directly associated with an antenna.

Wireless infrastructure provider means any person authorized to provide telecommunications service in the State that builds or installs wireless communication transmission equipment, wireless facilities, wireless support structures, or utility poles and that is not a wireless services provider but is acting as an agent or a contractor for a wireless services provider for the application submitted to the City.

Wireless provider means a wireless infrastructure provider or a wireless services provider.

Wireless services means any services provided to the general public, including a particular class of customers, and made available on a nondiscriminatory basis using licensed or unlicensed spectrum, whether at a fixed location or mobile, provided using wireless facilities.

Wireless services provider means a person who provides wireless services.

Wireless support structure means a freestanding structure, such as a monopole; tower, either guyed or self-supporting; billboard; or other existing or proposed structure designed to support or capable of supporting wireless facilities. "Wireless support structure" does not include a utility pole.

2.3 Permit, Application Process.

The complete application process can be found in Section 16.604, Article IV, Chapter 16, *Small Wireless Facilities* of the City of Wood Dale Code as amended.

3. Pole Design Standards

3.1 General Pole Design Standards

Where technically feasible and financially reasonable, the City strongly prefers that every small wireless facility collocation shall comply with the following standards:

1. Antennas shall be mounted at heights that shall not exceed the heights as authorized by Section 16.608, Article IV, Chapter 16 of the City Code.
2. Antennas shall be designed and installed to appear hidden within the utility pole or to appear like an original part of the utility pole or wireless support structure.
3. Antennas not hidden within a utility pole shall be located entirely within a shroud enclosure not more than six (6) cubic feet in volume that is capable of accepting paint to match the approved color of the small wireless facility.
4. Top-mounted antennas and their enclosures are the preferred deployment alternative. Such deployments should not increase the diameter of the utility pole or wireless support structure at the level of the antenna attachment more than necessary to accommodate provider equipment and any shrouds or camouflaging deployed.
5. If top-mounted antennas are not feasible or financially reasonable, side-mounted small wireless facility antennas may be deployed within a shroud enclosure. Side-mounted deployments shall be flush mounted to the utility pole or wireless support structure at the level of the attachment. Metal flaps or "wings" may be utilized to extend from the enclosure to the utility pole or wireless support structure to conceal any gap between the small wireless facility and the utility pole or wireless support structure. The design of the flaps should be integrated with the design of the small wireless facility.
6. Small wireless facilities located on street light poles or traffic control structures shall not block light emanating from the street light fixture or otherwise interfere with the purpose of the street light fixture or traffic control structure.
7. Small wireless facilities shall be attached to the utility pole or wireless support structure using rigid steel clamping mounts or stainless-steel banding to the exterior of any metal pole. All mounts and banding shall be of the same color as the utility pole or wireless support structure, except as otherwise approved by the City. Care should be taken to integrate the mounting elements into the small wireless facility design. Through-bolting or use of lag bolts on City-owned utility poles is prohibited.
8. For attachments to existing utility poles, wires serving the small wireless facility shall be concealed within the hollow interior of the utility pole, or if concealment is not technically feasible, flush mounted to an existing utility pole in an enclosed wire chase on which the facilities are collocated. For new utility poles or wireless support structures, wires serving the small wireless facility shall be concealed within the hollow interior of the utility pole or wireless support structure.
9. All small wireless facilities shall be installed in accordance with all applicable City codes. No wiring or cabling shall interfere with any existing wiring or cabling installed by the City, a utility or a wireless services provider.
10. No guy or other support wires will be used in connection with a small wireless facility unless the small wireless facility is to be attached to an existing utility pole or wireless support structure that incorporates guy wires prior to the date the applicant has applied for a permit.
11. The small wireless facility, including the antenna, and all related equipment when attached to an

existing or new utility pole or wireless support structure, must be designed to withstand a wind force and ice loads in accordance with the applicable standards established in Chapter 25 of the National Electric Safety Code for utility poles, Rule 250-B and 250-C standards governing wind, ice, and loading forces on utility poles, in the American National Standards Institute (ANSI) in TIA/EIA Section 222-G established by the Telecommunications Industry Association (TIA) and the Electronics Industry Association (EIA) for steel wireless support structures and the applicable industry standard for other existing structures. For any small wireless facility attached to a pole or wireless support structure, the operator of the small wireless facility must provide the City with a structural evaluation of each specific location containing a recommendation that the proposed installation passes the standards described above. The evaluation must be prepared by a professional structural engineer licensed in the State of Illinois.

12. The City will not authorize any attachments of small wireless facilities to a City-owned utility pole that negatively impacts the structural integrity of the pole. The City may conditionally approve of the collocation on replacement or modification of the City-owned utility pole if necessary, to meet City standards.

13. Ground mounted enclosures, including backup power supply, and electric meters must be concealed within the pole, in existing above-ground cabinets, or placed in a flush-to-grade underground equipment vault. The wireless provider shall comply with local code provisions or regulations concerning undergrounding requirements that prohibit the installation of new or the modification of existing utility poles in a right-of-way without prior approval if the requirements include a waiver, zoning or other process that addresses requests to install such new utility poles or modify such existing utility poles and do not prohibit the replacement of utility poles (see Section 16.608, Article IV, Chapter 16 of City Code). The City recognizes that existing infrastructure, etc. may make undergrounding ground equipment infeasible. When these situations arise, ground equipment must be placed in new, landscaped above ground pedestals or enclosures. When a new above-ground cabinet is required, the applicant is required to ensure that ground equipment meets the design criteria described in section *4.3 Related Ground Equipment* in this document to minimize the aesthetic and safety impacts of supporting equipment on the public.

14. Small wireless facilities shall be located in a manner that meets Americans with Disabilities Act (ADA) requirements and does not obstruct, impede or hinder the usual pedestrian or vehicular path of travel.

15. Small wireless facilities collocated on City-owned utility poles may not use the same power or communication source providing power and/or communication for the existing infrastructure. The wireless provider shall coordinate, establish, maintain and pay for all power and communication connections with private utilities.

16. Signage is prohibited on all small wireless facilities and wireless support structures, except for a four (4) inch by six (6) inch plate with the wireless provider's name, location identifying information, and emergency telephone number shall be permanently fixed to the small wireless facility equipment enclosure or shroud. The provider is required to update this information whenever it changes.

3.2 City-Owned Street Light Poles

Where technically feasible and financially reasonable, the City strongly prefers that the following standards be applied when replacing an existing city-owned street light pole with a combination small wireless facility and street light pole. Such replacements should only be located where an existing city-owned street light pole can be removed and replaced, or at a new location where it has been identified that a city-owned street light is necessary. A map of the existing city-owned street light poles can be

found in **Appendix B** of this document, pictures of the current street lights can be found in **Appendix C** of this document, and the current City street light design and construction specifications can be found **Appendix D** of this document. Where technically feasible and financially reasonable, the City strongly prefers that all such replacements shall meet the following standards:

1. All replacement street light poles shall be a similar design, material, and color as the replaced existing city-owned street light pole and other poles within the immediate area.
2. All replacement street light poles and pole foundations shall conform to the City's standards and specifications for city-owned street light design and construction.
3. Replacement street light poles shall be an equal distance from other street light poles, regardless of who owns the street light, based upon the average distance between existing street light poles within the designated area.
4. Street light poles shall be designed and engineered to support a luminaire and mast arm of length equal to that of the existing city-owned pole to be replaced, as well as future planned or reserved banners/street sign loads, or of a length approved by the City based upon the location of the replacement street light pole.
5. All luminaires and mast arms shall match the arc and style of the original luminaire and mast arm, unless otherwise approved by the City.
6. The replacement luminaire and mast arm shall be at the same height above the ground as the existing luminaire and mast arm.
7. All replacement street light poles shall have new light emitting diode (LED) light fixtures of the same manufacturer, model and light output as the removed fixture and nearby light fixtures, or as otherwise approved by the City.
8. Replacement street light poles shall have a five (5) year manufacturer's replacement warranty.
9. Replacement street light poles shall meet AASHTO structural guidelines for roadway applications and the American National Standards Institute requirements for vibrations.
10. Street light pole height shall be measured from the ground to the top of the street light pole.
11. All replacement street light pole heights shall be consistent with those of existing city-owned street lights.
12. The small wireless facility components shall be sized appropriately to the scale of the street light pole.
13. Where required by district, the replacement pole shall include internally integrated wireless components. A decorative transition shall be installed over the equipment enclosure upper bolts, or a decorative base cover shall be installed to match the equipment enclosure size. All hardware connections shall be hidden from view. Each street light pole component shall be architecturally compatible to create a cohesive aesthetic.
14. Replacement street light poles shall continue to be owned by the City.

3.3 ComEd-Owned Street Light Poles

ComEd allows 3rd party attachments to their street light poles. ComEd reviews each request to determine if it is possible to accommodate each attachment. A map of the existing ComEd-owned street light poles can be found in **Appendix B** of this document and pictures of the current street lights can be found in **Appendix C** of this document.

ComEd's process includes:

1. Submission of an application that includes drawings, and specific equipment type and model numbers for the antennas and all other wireless equipment associated with the small wireless facility.
2. Applications will be reviewed and processed by both the ComEd New Business Department and the ComEd Real Estate Department.
3. Re-work may be required to accommodate requests, where a replacement pole may be needed. If a replacement pole is required than the applicant shall be responsible for all costs related to the replacement of an existing pole. The application cannot move forward until the applicant agrees to fund the replacement of the existing pole.
4. A City permit is required if the wireless support structure is going to be located in the City's ROW.
5. To initiate this process, applicants should call 866-NEW-ELEC.

3.4 County-Owned Street Light Poles

Effective June 26, 2018, DuPage County's Division of Transportation (DOT) adopted a new ordinance, "Wireless Telecommunications Facilities Ordinance" #DT-O-0037-18. This ordinance allows for the installation of Wireless Telecommunication Facilities on existing, new, privately or publicly-owned structures within the County Highway right-of-way. The ordinance was developed in accordance with the Small Wireless Facilities Deployment Act, PA 100-0585.

Applications must be submitted using the County's application form. A completed checklist is required with each application which lists the requirements for all applications. Please note that incomplete applications will be denied. If an application is deemed to be incomplete, DOT staff will notify the applicant within 10 days including a list of any items missing from the application. A map of the existing County-owned street light poles can be found in **Appendix B** of this document.

3.5 Installation of New Poles

Where technically feasible and financially reasonable, the City strongly prefers that every new wireless support structures shall comply with the following standards:

1. If a replacement pole design is not possible, then a new wireless support structure shall be designed to minimize the visual and aesthetic impact of the new vertical element and associated small wireless facilities upon the surrounding area and shall blend in with the surrounding streetscape with minimal visual impact. New wireless support structures shall be constructed of a specific material that will enhance the stealth and concealment of the structure. New poles shall be designed as Monopoles, consistent with the pole design concepts detailed in **Appendix A** of this document.
2. All New wireless support structures are required to be breakaway, as long as the breakaway pole(s) requested is under 992lbs as described in Section 12-6 of the current edition of AASHTO's *LRFD Structural Supports for Highway Signs, Luminaires, and Traffic Signal* manual.
3. New wireless support structures shall match the design, type, material and color of existing utility poles, including street light poles, within the immediate area, except as otherwise approved by the City.
4. New wireless support structures be equal distance from other utility poles based upon the average distance between existing utility poles within the designated area. If a new wireless support structure cannot be located the average distance from other utility poles, a new wireless

support structure may be approved if such wireless support structure is designed as a stealth pole.

5. The centerline of a new wireless support structure shall be in alignment with existing utility poles where present, or with street or parkway trees along the same side of the right-of-way.
6. New wireless support structures shall not obscure vision from driveways and entryways.
7. New wireless support structures shall be located 10-15 feet away from trees to keep the structures outside of the canopy line and prevent disturbance within the critical root zone.
8. The outside diameter of any new wireless support structure shall not exceed the diameter of existing utility poles located within 300 feet of the location of the new wireless support structure. The City recognizes that larger poles may be required to allow for the internal integration of equipment as discussed in this document and Article IV, Chapter 16 of the City Code.
9. New wireless support structures shall not exceed the heights as authorized by Section 16.608, Article IV, Chapter 16 of the City Code.
10. New wireless support structures shall be round in shape with a smooth pole shaft unless otherwise directed by the City.
11. New wireless support structures incorporating small wireless facilities in an equipment enclosure within a base may utilize poles tapered in diameter or poles having a consistent outside diameter.
12. All new wireless support structures must be supported with a reinforced concrete foundation designed, stamped, sealed and signed by a professional structural engineer licensed in the State of Illinois, and subject to the City's approval.
13. All anchor bolts must be concealed from public view, with an appropriate pole boot or cover powder-coated to match the wireless support structure color.
14. For all new pole installations, the City strongly prefers that a second applicant for the same general space be allowed by the first applicant to install a new pole capable of collocating both applicants internally in the pole. Additionally, the first applicant allows the subsequent applicant to replace the pole with a multi-cell pole. The original pole shall be made available to the first applicant to salvage. If not retrieved in 30 days, the pole shall be declared abandoned and disposed.

4. Pole Siting Requirements

4.1 Location

The City reserves the right to approve all proposed pole locations, and to recommend modifications to those locations as necessary for future City needs as defined in state code. If the City recommends a modification to the location, it will work with the applicant to find a location that is suitable for the City, and that is technically feasible and financially reasonable for the applicant.

Wireless communication facilities shall not be located on historically or architecturally significant structures unless visually and architecturally integrated with the structure and shall not interfere with prominent vistas or significant public view corridors. Where technically feasible and financially reasonable, the City strongly prefers that new small wireless poles not be located closer than 300 feet to other poles containing a small wireless facility from the same provider without City approval.

Where technically feasible and financially reasonable, the City strongly prefers that small wireless facilities be placed on city-owned street light poles.

Poles shall be located where ever possible on property lines and not in sidewalks, and shall not obscure vision from driveways and entryways. Wherever possible the poles shall be located to take advantage of existing screening.

All equipment located within the public ROW shall be located such that it meets ADA requirements and does not obstruct, impede, or hinder usual pedestrian or vehicular travel.

The City understands that small wireless facilities are classified as permitted uses and shall not be subject to zoning review, if collocated in rights-of-way in any zoning district. However, where technically feasible and financially reasonable, the City strongly prefers that in general, Small Wireless Facilities be located in zoning districts, which are defined in Section 17.501, Article V, Chapter 17 of City Code, as follows (Most Preferred to Least Preferred):

1. Industrial Districts including I-1 and I-2, if not adjacent to a public park or residential area.
2. Commercial Districts including C-1, C-2, and C-3, if not adjacent to a public park or residential area.
3. Town Center Business District (TCB), if not adjacent to a public park or residential area.
4. Residential Districts and Parks including R-1, R-2, R-3, R-4, and R-G.

4.1.1 Industrial Districts

Small Wireless Facilities are permitted to be placed on property within Industrial Districts, including but not limited to I-1 and I-2 districts. Small Wireless Facilities in these zoning districts are subject to compliance with the Public Act 100-0585, the FCC Order, and to administrative staff review for each site to ensure compliance with the City's Small Wireless Facilities Ordinance and the general design standards in this manual, as well as the following additional zone-specific design standards:

1. Where technically feasible and financially reasonable, the City strongly prefers that the Wireless Provider shall comply with design standards approved as part of the development of the property and provide reasonable stealth concealment.
2. External attachments, including antennas, are allowed in Industrial Districts as long as all other requirements are met. Where possible, the City encourages the use of stealth technology to create improved aesthetics.
3. Where technically feasible and financially reasonable, the City strongly prefers that ground

mounted enclosures, including backup power supply, and electric meters must be concealed within the pole, in existing above-ground cabinets, or placed in a flush-to-grade underground equipment vault. The City recognizes that existing infrastructure, etc. may make undergrounding ground equipment infeasible. When these situations arise, ground equipment must be placed in new, landscaped above ground pedestals or enclosures. When a new above-ground cabinet is required, the applicant is required to ensure that ground equipment meets the design criteria described in section *4.3 Related Ground Equipment* in this document to minimize the aesthetic and safety impacts of supporting equipment on the public.

4. In order to prevent visual obstruction, small cell sites shall obtain power from underground lines buried in conduits. Fiber connections shall also be provided from underground sources. No power and fiber cables servicing Small Wireless Facilities shall be provided from above ground sources.

5. Photographic "before and after" simulations of the proposed location of the Small Wireless Facility shall be provided to the City as part of the permit application.

4.1.2 Commercial Districts

Small Wireless Facilities are permitted to be placed on property within Commercial Districts, including but not limited to C-1, C-2, and C-3 districts. Small Wireless Facilities in these zoning districts are subject to compliance with the Public Act 100-0585, the FCC Order, and to administrative staff review for each site to ensure compliance with the City's Small Wireless Facilities Ordinance and the general design standards in this manual, as well as the following additional zone-specific design standards:

1. Where technically feasible and financially reasonable, the City strongly prefers that Small Wireless Facilities be collocated on an existing utility pole, building or structure. Where technically feasible and financially reasonable, the City strongly prefers that the Wireless Provider shall comply with design standards approved as part of the development of the property and provide reasonable stealth concealment.

2. Small Wireless Facilities located in Commercial Districts must include concealment or stealth efforts, as follows:

   a. Concealment efforts should use fiberglass, plastic or other synthetic materials, and replacement of street lights with modular combinations street light and antenna units. Exposed small cells on utility poles or galvanized steel macrocell sites are not allowed.

   b. Where technically feasible and financially reasonable, the City strongly prefers that ground mounted enclosures, including backup power supply, and electric meters must be concealed within the pole, in existing above-ground cabinets, or placed in a flush-to-grade underground equipment vault. The City recognizes that existing infrastructure, etc. may make undergrounding ground equipment infeasible. When these situations arise, ground equipment must be placed in new, landscaped above ground pedestals or enclosures. When a new above-ground cabinet is required, the applicant is required to ensure that ground equipment meets the design criteria described in section *4.3 Related Ground Equipment* in this document to minimize the aesthetic and safety impacts of supporting equipment on the public.

   c. In order to prevent visual obstruction, small cell sites shall obtain power from underground lines buried in conduits. Fiber connections shall also be provided from underground sources. No power and fiber cables servicing Small Wireless Facilities shall be provided from above ground sources.

d. Photographic "before and after" simulations of the proposed location of the Small Wireless Facility demonstrating concealment efforts shall be provided to the City as part of the permit application, and shall be modified according to reasonable requests from the City to better blend with the surrounding area.

4.1.3 Town Center Business District

Small Wireless Facilities are permitted to be placed on property within the Town Center Business District (TCB). Small Wireless Facilities in this zoning district are subject to compliance with the Public Act 100-0585, the FCC Order, and to administrative staff review for each site to ensure compliance with the City's Small Wireless Facilities Ordinance and the general design standards in this manual, as well as the following additional zone-specific design standards:

1. Where technically feasible and financially reasonable, the City strongly prefers that Small Wireless Facilities be collocated on an existing utility pole, building or structure. Where technically feasible and financially reasonable, the City strongly prefers that the Wireless Provider shall comply with design standards approved as part of the development of the property and provide reasonable stealth concealment.

2. Small Wireless Facilities located in Town Center Business District must include concealment or stealth efforts, as follows:

   a. Concealment efforts should use fiberglass, plastic or other synthetic materials, and replacement of street lights with modular combinations street light and antenna units. Exposed small cells on utility poles or galvanized steel macrocell sites are not allowed.

   b. Where technically feasible and financially reasonable, the City strongly prefers that ground mounted enclosures, including backup power supply, and electric meters must be concealed within the pole, in existing above-ground cabinets, or placed in a flush-to-grade underground equipment vault. The City recognizes that existing infrastructure, etc. may make undergrounding ground equipment infeasible. When these situations arise, ground equipment must be placed in new, landscaped above ground pedestals or enclosures. When a new above-ground cabinet is required, the applicant is required to ensure that ground equipment meets the design criteria described in section *4.3 Related Ground Equipment* in this document to minimize the aesthetic and safety impacts of supporting equipment on the public.

   c. In order to prevent visual obstruction, small cell sites shall obtain power from underground lines buried in conduits. Fiber connections shall also be provided from underground sources. No power and fiber cables servicing Small Wireless Facilities shall be provided from above ground sources.

   d. Photographic "before and after" simulations of the proposed location of the Small Wireless Facility demonstrating concealment efforts shall be provided to the City as part of the permit application, and shall be modified according to reasonable requests from the City to better blend with the surrounding area.

4.1.4 Residential Zoning Districts

Small Wireless Facilities are permitted to be placed on property within Residential Districts, including but not limited to R-1, R-2, R-3, R-4, and R-G districts. Small Wireless Facilities in these zoning districts are subject to compliance with the Public Act 100-0585, the FCC Order, and to administrative staff review for each site to ensure compliance with the City's Small Wireless Facilities Ordinance and the general design standards in this manual, as well as the following additional zone-specific design standards:

1. Where technically feasible and financially reasonable, the City strongly prefers that within residentially zoned areas, new wireless support structure installations shall be located where the shared property line between two residential parcels intersect the right-of-way whenever possible, unless an unsafe condition, cluttered appearance, or other violation of these standards will result.

2. Modification of existing street lights is preferred, if the street lights can be modified to accommodate one or more small cells. Where technically feasible and financially reasonable, the City strongly prefers Wireless Providers place the Small Wireless Facilities on new poles or to collocate on an existing street light pole.

3. Small Wireless Facilities located in the Right-of-Way in Residential Districts must include concealment or stealth efforts, as follows:

    a. Concealment efforts should use fiberglass, plastic or other synthetic materials, and replacement of street lights with modular combination street light and antenna units. Exposed small cells on utility poles or galvanized steel macrocell sites are not allowed.

    b. Where technically feasible and financially reasonable, the City strongly prefers that ground mounted enclosures, including backup power supply, and electric meters must be concealed within the pole, in existing above-ground cabinets, or placed in a flush-to-grade underground equipment vault. The City recognizes that existing infrastructure, etc. may make undergrounding ground equipment infeasible. When these situations arise, ground equipment must be placed in new, landscaped above ground pedestals or enclosures. When a new above-ground cabinet is required, the applicant is required to ensure that ground equipment meets the design criteria described in section *4.3 Related Ground Equipment* in this document to minimize the aesthetic and safety impacts of supporting equipment on the public.

    c. In order to prevent visual obstruction, small cell sites shall obtain power from underground lines buried in conduits. Fiber connections shall also be provided from underground sources. No power and fiber cables servicing Small Wireless Facilities shall be provided from aboveground sources.

    d. Photographic "before and after" simulations of the proposed location of the Small Wireless Facility demonstrating concealment efforts shall be provided to the City as part of the permit application, and shall be modified according to reasonable requests from the City to better blend with the surrounding area.

4.2 Noise

The maximum allowable noise emitted by the Small Wireless Facility shall comply with the rules and regulations of the State of Illinois as set forth in Title 35, Subtitle H: Noise, Chapter I Pollution Control Board, as amended from time to time. The City reserves the right to take action if the Small Wireless Facility is making more noise than is permissible under these rules and regulations.

4.3 Related Ground Equipment

In certain circumstances, the City recognizes that existing infrastructure, etc. may make undergrounding ground equipment infeasible. When these situations arise, the applicant is required to ensure that ground equipment meets the following design criteria to minimize the aesthetic and safety impacts of supporting equipment on the public.

1. Ground equipment near street corners and intersections: Ground equipment should be minimal and the least intrusive. To minimize any obstruction, impediment, or hindrance to the usual travel or public safety on a ROW the maximum line of sight required to add to safe travel of vehicular

and pedestrian traffic and in order to maximize that line of sight at street corners and intersections and to minimize hazards at those locations, ground equipment may not be installed within the visibility triangle or as prohibited by sight distance calculations set out in other applicable law.

2. Ground equipment near public parks. For the safety of public park patrons, particularly small children, and to allow full line of sights near public park property, the wireless service provider shall not install ground equipment in a ROW that is within a public park or within 250 feet of the boundary line of a public park, unless approved by the City in writing.

3. Minimize ground equipment density: To enhance the public safety requirements of line of sight of pedestrians, particularly small children, the City's designee may deny a request for a proposed location if the telecommunication service provider installs Small Wireless Facility ground equipment where existing ground equipment within 100 feet radius already occupies a footprint of a total of 25 sq. ft. or more. The aggregate measurement shall include any foundation pads, vaults, or other utility appurtenances. Additional landscaping and fencing is required to help mitigate the visual effects of the installation of any ground-mounted equipment.

4.4 Landscape Standards

Wireless providers shall comply with the landscape standards that are set forth below:

1. Plan Requirements:

   The following shall establish the standards for the preparation and submission of plans for landscape screening around small cell installations.

   Contents of Plan. All landscape plans shall include the following information:

   - North arrow, scale, date of plan, and any subsequent revisions.
   - The landscape plan shall be drawn at a scale not smaller than one inch equals 10 feet.
   - The location of all existing and proposed structures, parking lots, roadways and rights-of-way, sidewalks, ground signs, freestanding electrical equipment, light fixtures, fire hydrants, surface utility structures, existing adjacent landscaping, and other freestanding structural features as necessary to determine proper placement of landscape screening.
   - Limits of sight-line triangles. Ensure proposed plant material does not impede sight-lines and abides by requirements set forth.
   - The location, quantity, size, and both scientific and common names of all proposed plant material.
   - Installation detail for perennial plant installation indicating typical spacing, soil amendments and mulch application.
   - Symbols representing proposed plant material shall be drawn to a scale showing two-thirds mature size and labeled as to quantity and type.

2. Required Landscaping:

   The following shall establish standards for the landscape improvements required to be installed as part of small cell installations.

   - A minimum planting area of three feet extending from the perimeter of the small cell cabinet concrete pad shall be provided. In the event a three-foot-wide planting bed is not possible along a portion of the cabinet perimeter due to obstructions the area shall be compensated for in an area less restrictive immediately surrounding the small cell cabinet. Every effort shall be made to effectively screen the cabinet from all viewing angles.
   - A variety of ornamental grasses shall be used to effectively screen the small cell cabinet,

without obstructing sight-lines at intersections.
- Shrubs and Trees shall not be utilized for screening.
- All surrounding landscaping and turf areas shall be restored to original condition.

3. Standards for Plant Materials and Planting Guidelines:

   The following guidelines shall be considered in reviewing design and implementation of landscape plans.

   - The quality and size of plant materials selected shall comply with the latest edition of the American Standards of Nursery Stock, published by the American Association of Nurserymen.
   - Plant material shall be healthy, free of insects and diseases.
   - The use of stone, rock or gravel shall not be used as ground cover within any landscaped area.
   - Minimum sizes for plant materials at time of installation for landscape area shall be equal to a #1 container.
   - A spade cut edge to the depth of three inches shall be provided around the perimeter of the planting bed.
   - A three-inch layer of compost shall be applied to the plant bed area and rototilled to a minimum depth of eight inches until soil is in a loose and friable state. All rocks and debris shall be removed and disposed of prior to plant installation.
   - A three-inch layer of shredded hardwood mulch shall be applied to planting bed after plant installation.
   - All plant material shall have a one year guarantee from the time of planting and shall be replaced by the contractor should it die within that period.

4.5 Stealth and Concealment Requirements

Wireless providers shall comply with the design and construction standards that are generally applicable to utility installations in the public right-of-way, as set forth in Article III of Chapter 16 of the City Code , as well as these standards, any other written design standards for decorative utility poles, or reasonable stealth, concealment, and aesthetic requirements that are otherwise identified by the City in an ordinance, written policy adopted by the City Council, in the City's comprehensive plan, or in another written design plan that applies to other occupiers of the rights-of-way. In addition to the design requirements found in Section 4.1 of this Manual, where technically feasible and financially reasonable, the City strongly prefers that providers shall follow the criteria for stealth found below as a minimum requirement:

1. The use of stealth technology in the location and construction of small wireless facilities is required. Stealth technology means using the least visually and physically intrusive design and equipment that is not technologically or commercially impractical under the facts and circumstances, to employ methods that blend into surroundings and not be visible; and to minimize adverse aesthetic and visual impacts on the right-of-way, property, building and/or other facilities adjacent to, surrounding and in generally the same area as the requested location of such small wireless facilities.

2. Small wireless facilities, including but not limited to antennas, equipment enclosures, mounting brackets and hardware, mounting posts, cables, and shrouds, shall be of a color that is identical to the utility pole or of a neutral color compatible with the color of the utility pole and any surrounding elements so as to camouflage or conceal their appearance, create consistency among right-of-way infrastructure, and to make such small wireless facilities as unobtrusive as possible. The City may approve compatible color schemes for antennas and small wireless facilities.

3. Mechanical equipment and devices shall be concealed underground or mounted within a concealment box designed as a decorative pole base except as noted and allowed for in section *4.3 Related Ground Equipment* in this document.
4. Small wireless facilities must be located and oriented in such a way as to minimize view blockage.
5. The wireless provider shall use the smallest suitable wireless facilities currently in industry use, regardless of location, for the particular application.
6. Small wireless facilities shall not be artificially lighted or marked, except as required by law.
7. Small wireless facilities, other than top-mounted antennas, shall be mounted on the side of the utility pole or wireless support structure opposite the direction of vehicular traffic along the same side of the right-of-way or as otherwise directed by the City.
8. Alternative measures for concealment may be proposed by the wireless provider and approved by the City, if the City determines that the optional measures will be at least as effective in concealing the small wireless facilities as the measures required above.

5. Safety Requirements

Prevention of failures and accidents. Any Person who owns a Small Wireless Facility and/or Wireless Support Structure sited in the ROW shall at all times employ ordinary and reasonable care and install and maintain in use industry standard technology for preventing failures and accidents which are likely to cause damage, injury, or nuisance to the public.

Compliance with fire safety regulations. Small Wireless Facilities, wires, cables, fixtures, and other equipment shall be installed and maintained in substantial compliance with the requirements of the National Electric Code, state, and local regulations, and in such manner that will not interfere with the use of other property.

Compliance with FCC regulations. Small wireless facilities must not result in human exposure to radio frequency radiation in excess of applicable safety standards specified in 47 CFR Rule 1.1307(b). As specified in Section 16.604, Article IV, Chapter 16 of City Code, permit requests shall include a complete site-specific Non-Ionizing Electromagnetic Radiation (NIER) Report certified by a licensed Professional Engineer in the State of Illinois. In addition, as specified in Section 16.608, Article IV, Chapter 16 of City Code, after transmitter and antenna system optimization, but prior to unattended operations of the facility, the wireless provider or its representative must conduct on-site post-installation RF emissions testing to demonstrate actual compliance with the FCC OET Bulletin 65 RF emissions safety rules for general population/uncontrolled RF exposure in all sectors. This testing shall also occur annually.

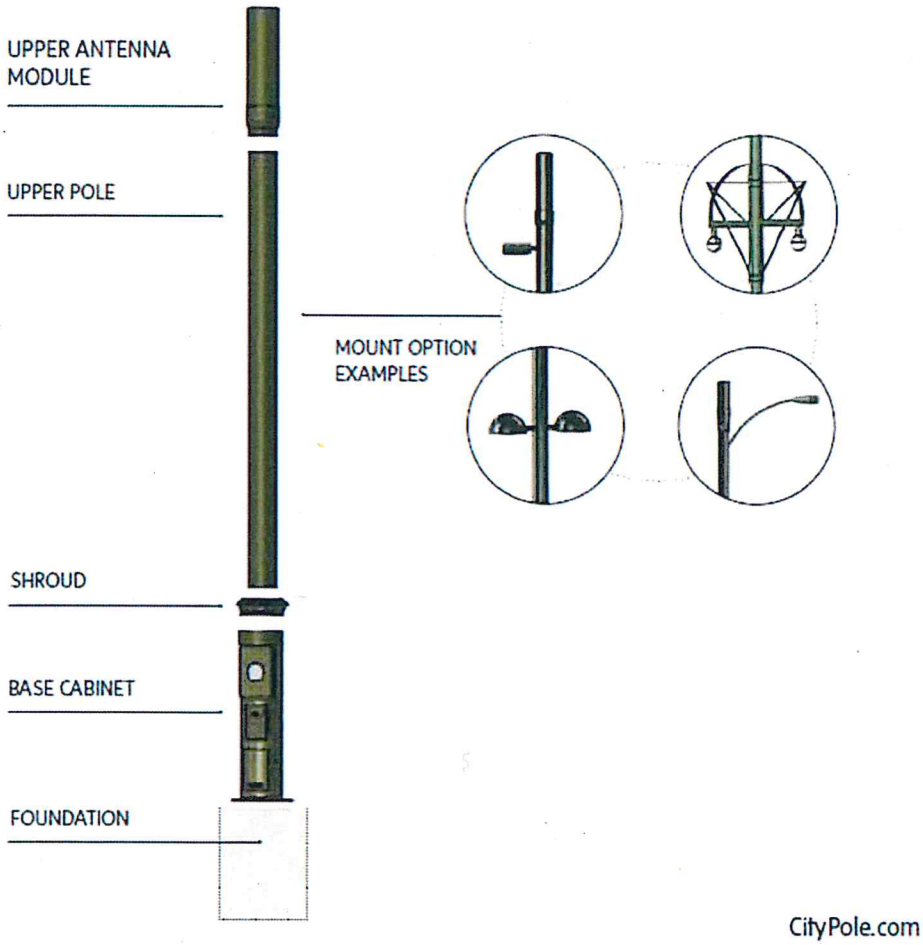
Changes in state or federal standards and regulations. If state or federal standards and regulations are amended, the owners of the Small Wireless Facilities and/or Wireless Support Structures governed by this document shall bring any facilities and/or structures into compliance with the revised standards and regulations within six months of the effective date of the standards and regulations, unless a different compliance schedule is mandated by the regulating agency. Failure to bring Small Wireless Facilities and/or Wireless Support Structures into compliance with any revised standards and regulations shall constitute grounds for removal at the owner's expense.

Compliance with engineering and safety codes and standards. All permitting decisions exercised by the City are subject to all applicable engineering and safety codes and standards.

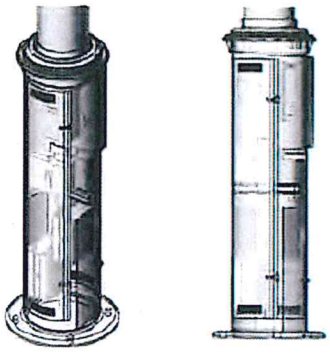
Appendix A: Design Concepts

The following diagrams and information were provided by, and used with the permission of, Comptek Technologies/CityPole®. The inclusion of this information in no way indicates that the City endorses CityPole or its products. Self-contained poles from other manufacturers will be considered as long as the structure meets the other standards outlined in the Small Wireless Facilities Ordinance and this document.

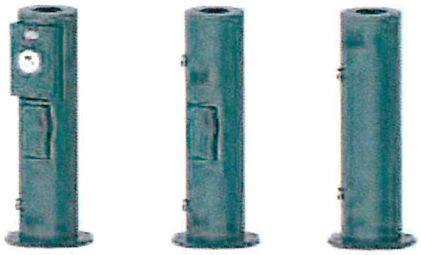
A.1 Small Wireless Facility Pole



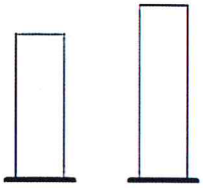
A.2 Base Cabinet



Integrated wireless equipment in base cabinet.

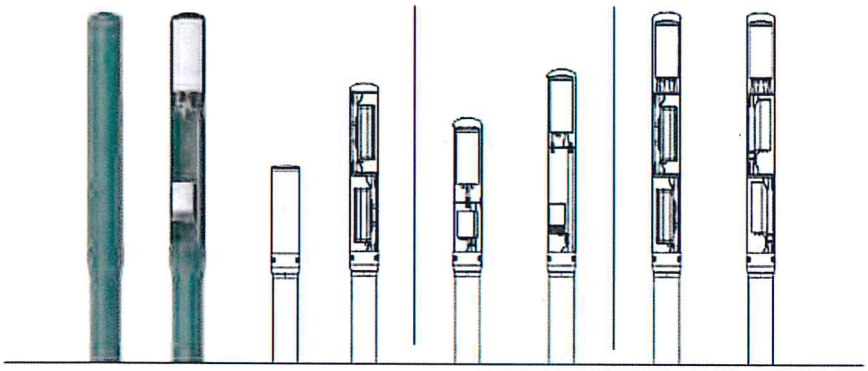


The base cabinet can be configured with a wide range of electrical disconnects to meet local building codes and preferences.



The base cabinet height can be chosen to house future equipment and complement local cityscapes.

A.3 Upper Antenna Module



The upper antenna module can be easily reconfigured for a number of technology generations. These includes multiple configurations of cellular technology, various backhaul and low power options such as WiFi, Bluetooth, or Zigbee, and as many as three different technology generations.

A.4 Foundation Selection

CityPole® pre-cast foundation speeds work in the Right of Way.

Caisson and custom designs are available.

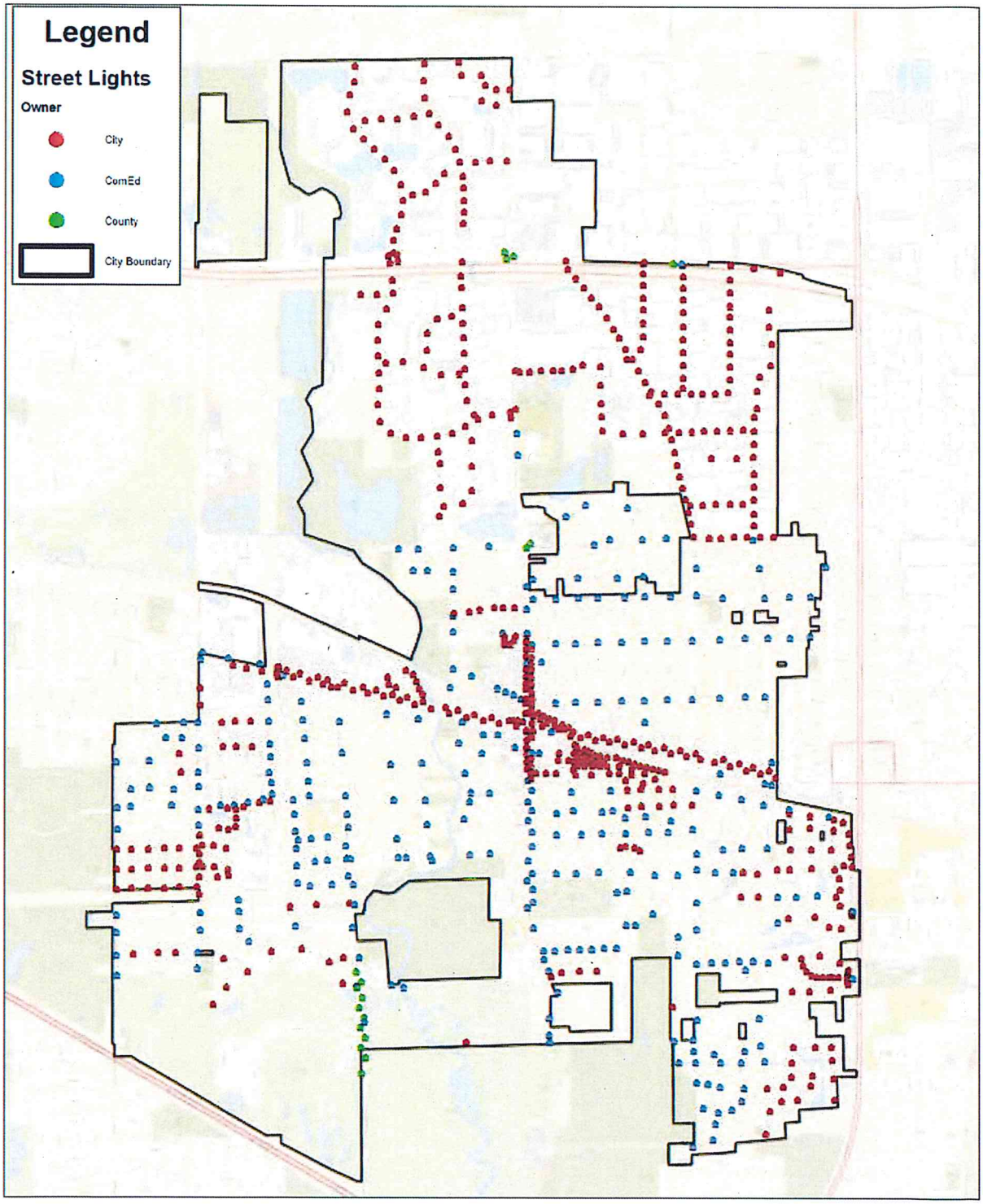
Cast in place foundations are acceptable, as long as the foundation meets accepted guidelines for structural integrity required by the attached equipment.

A.5 Lighting Accessories

A.6 Product Selection Matrix

		Standard CityPole® System Offering	Custom Options
Overall Pole Height		25', 30', 35', and 40' Above Ground Level (AGL)	Available
Color Choices		9 Color Choices are Standard (Custom colors are available.)	
Base Cabinet	Technology Types	1, 2, or 3 Different Technologies can be Accommodated	
	Dimension	Ground Diameter: 18", 20", 24" | Height: 60", Optional 72"	
	Flexible Mount System	FlexMount™ system to reconfigure internals for future equipment sizes.	
	Electrical Options	No Disconnect, Disconnect Only, or Meter and Disconnect.	
	Universal Meter Bay	Accommodates power meter and meter screen requirements as determined by local utility provider; fits meter boxes of all sizes.	
Upper Pole Antenna Module	Rad Center Location	Variable and Based on Pole Height and Other Options	
	Technology Types	1, 2, or 3 Different Technologies can be Accommodated	
	Auxiliary Bay Options	Low Power RF, Backhaul, and Wifi Options can be Accommodated. Multiple and reconfigurable 12¾ inch modules with FlexRail™ universal equipment track system optional.	
	Antenna Mount and Shroud Options	Separate and Secure Bays with RF Transparent Materials to accomodate 4G/5G Equipment. Omni and Panel Types available.	
Accessory Selection	Lighting	Pole can be ordered without lighting or with 1,2,3, or 4 lights.	
	Light Mounts	Standard Plate or Offset Arms depending on light selection	
	Lighting	Shoebox, Cobrahead, Cylindrical, Dome and Acorn	
	Other Technology	Gun Shot Sensors, Video, Weather, Traffic Mgmt	
	Lower Shroud Details	Multiple Options are Available	
	Base Plate Details	Multiple Options are Available	
	Foundation Options	Pre-cast, or Cast-in-Place	
Environmental Control	Thermal Management	All Equipment and Antenna Bays Monitored for Temperature. Passive and Forced Air Standard; Heat Pipe and Thermoelectrical Optional	
	Security	External and Internal Locking Features. CityPole® FlexSmart™ Control and Connectivity Optional.	
	Monitoring and Control	Industrial Controller with 24 Digital and 12 Analog Inputs with FlexSmart™	

Appendix B: Street Light Map

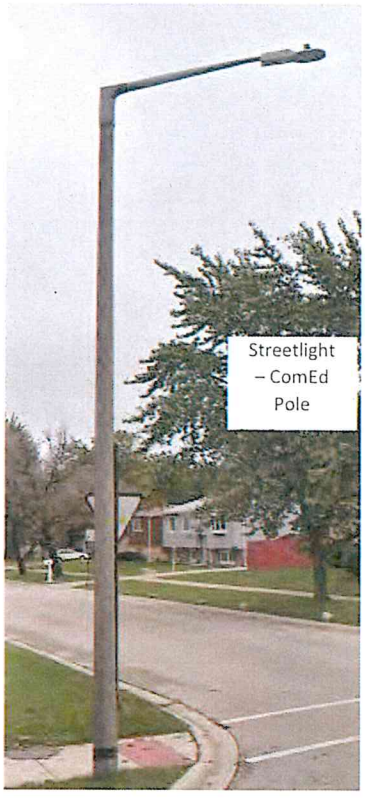


Appendix C: Street Light Pictures

Streetlight - Irving

Streetlight - Irving w Prairie Light

Streetlight – LED Head

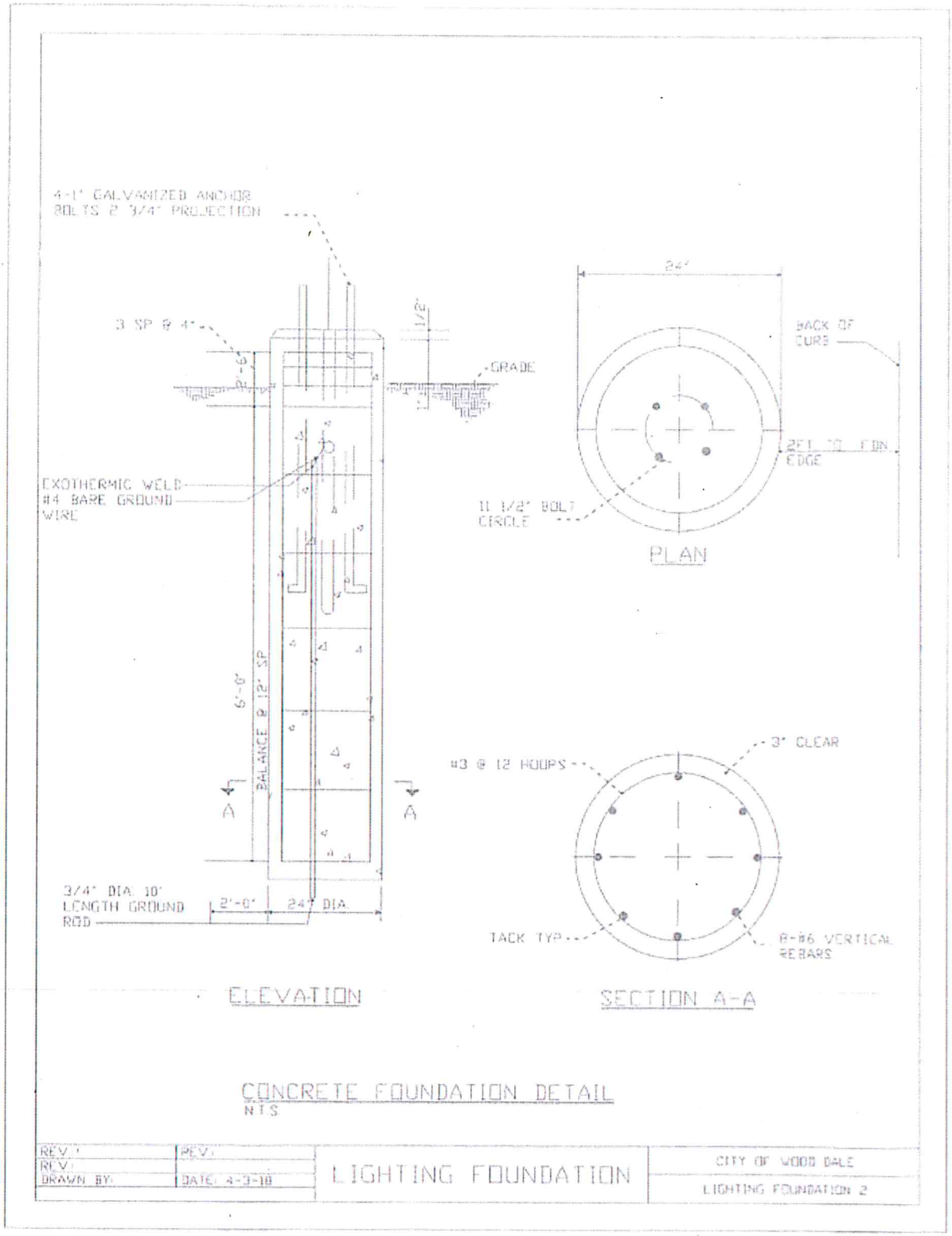


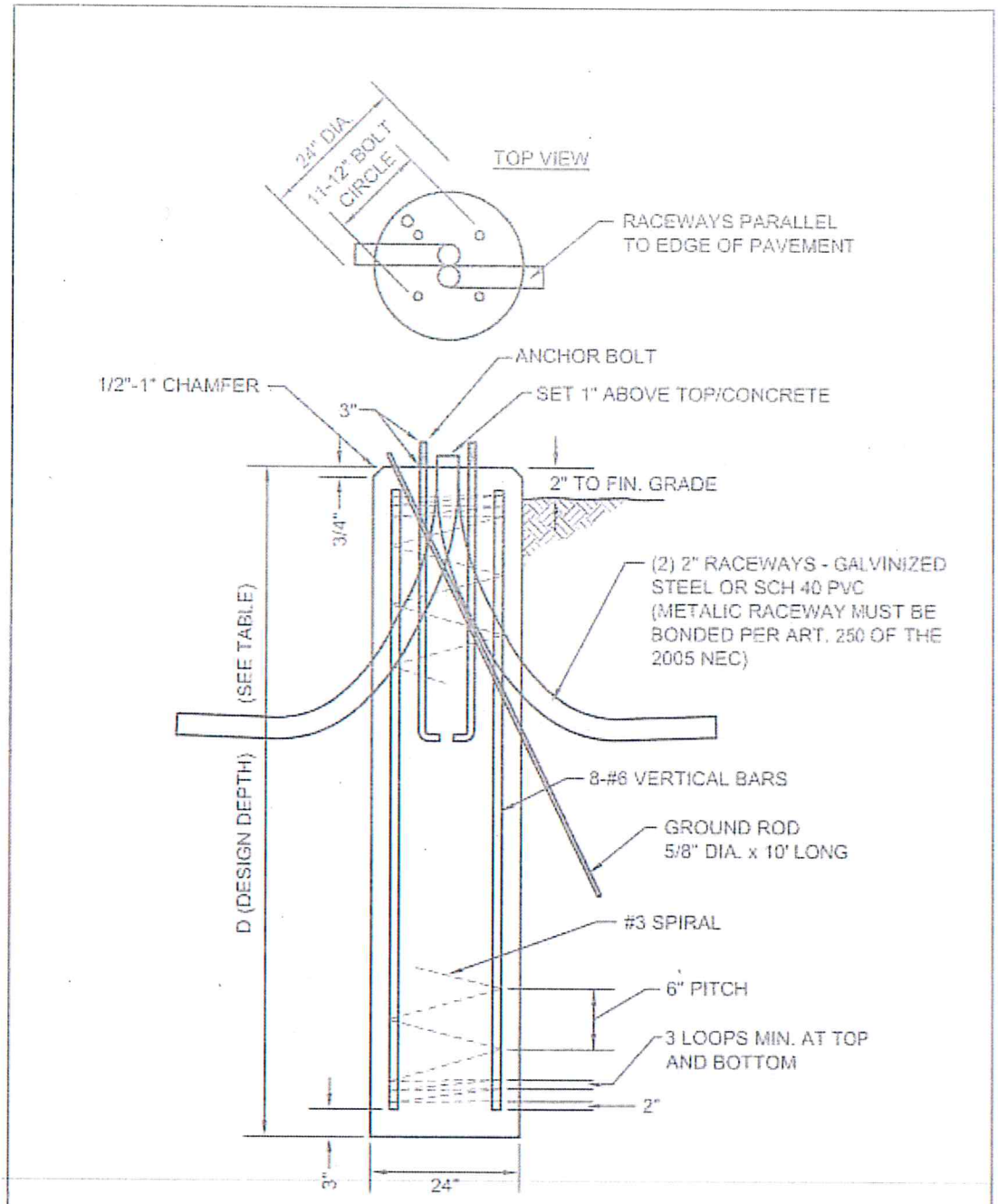
Streetlight – ComEd Pole

Streetlight - Irving – Wood Dale Road

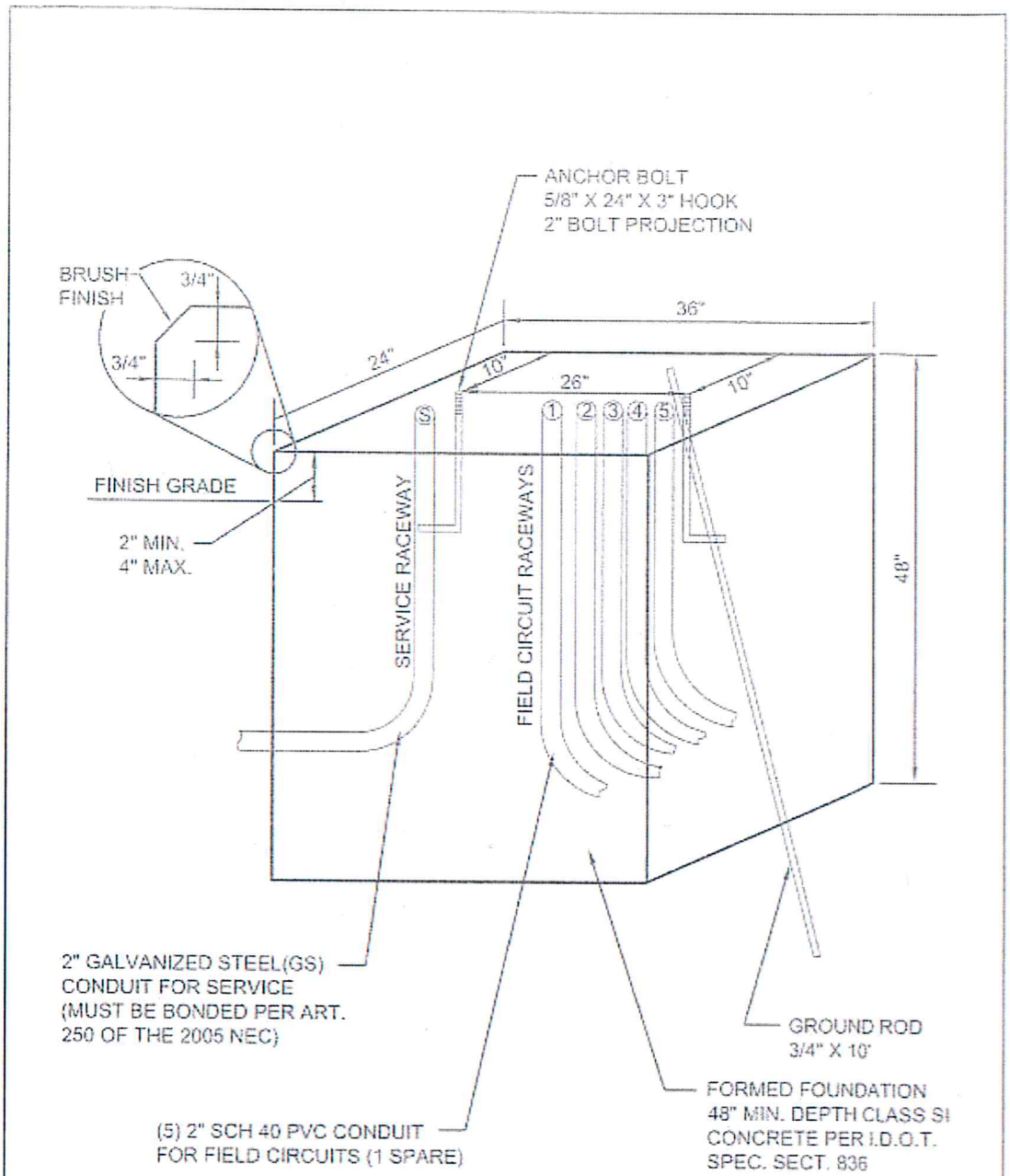
Streetlight – Prairie Style

Appendix D: Street Light Design and Construction Specifications

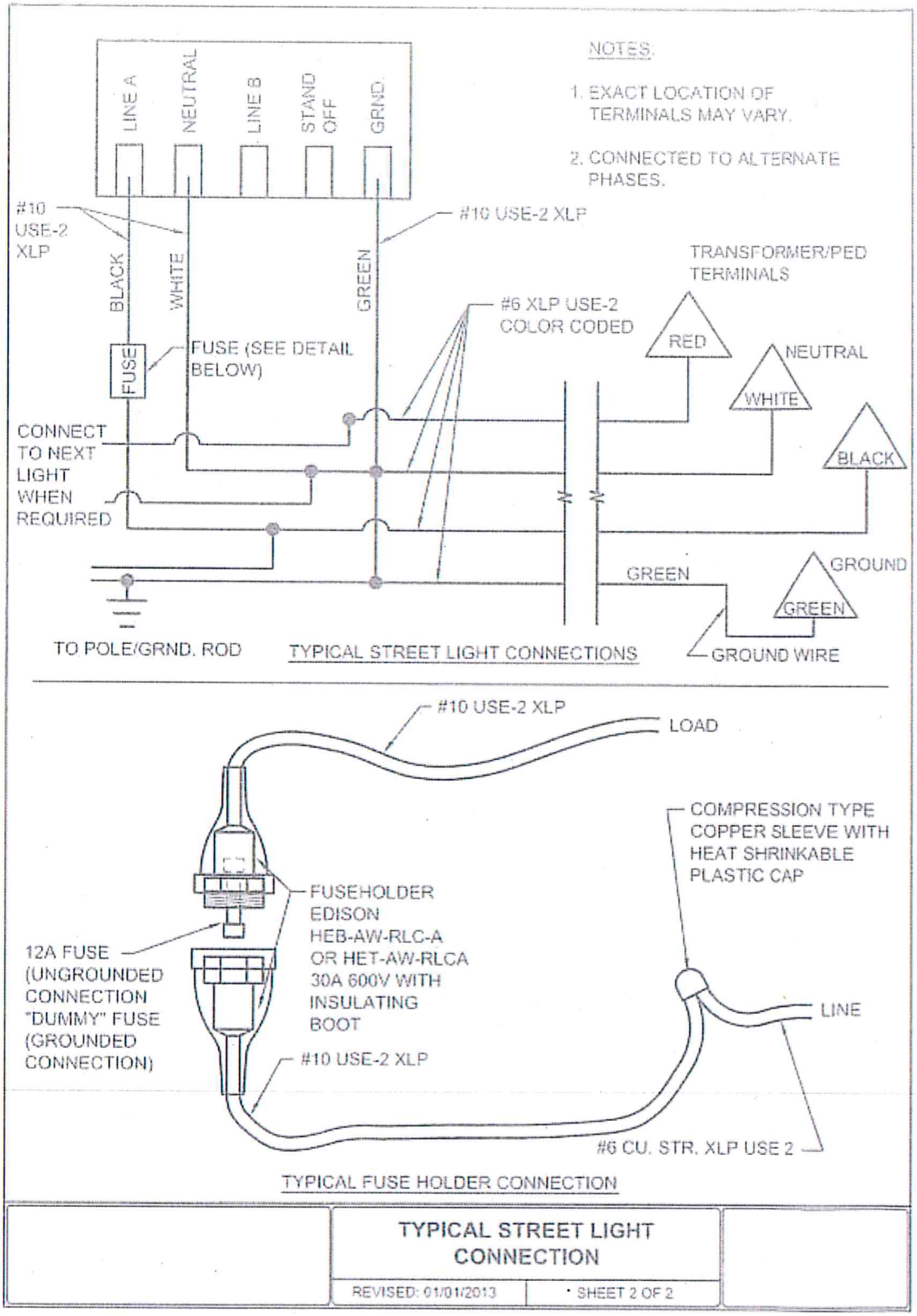


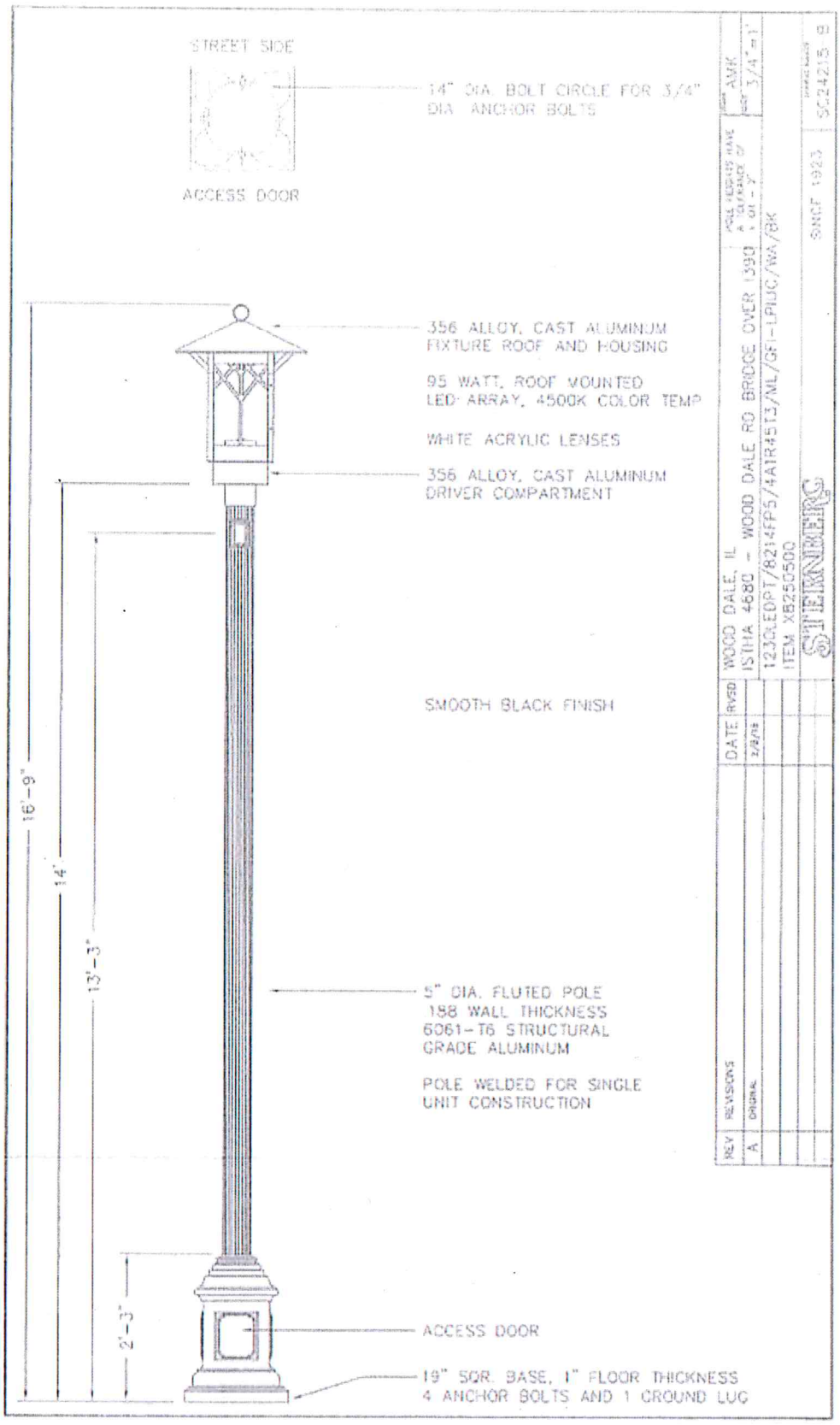


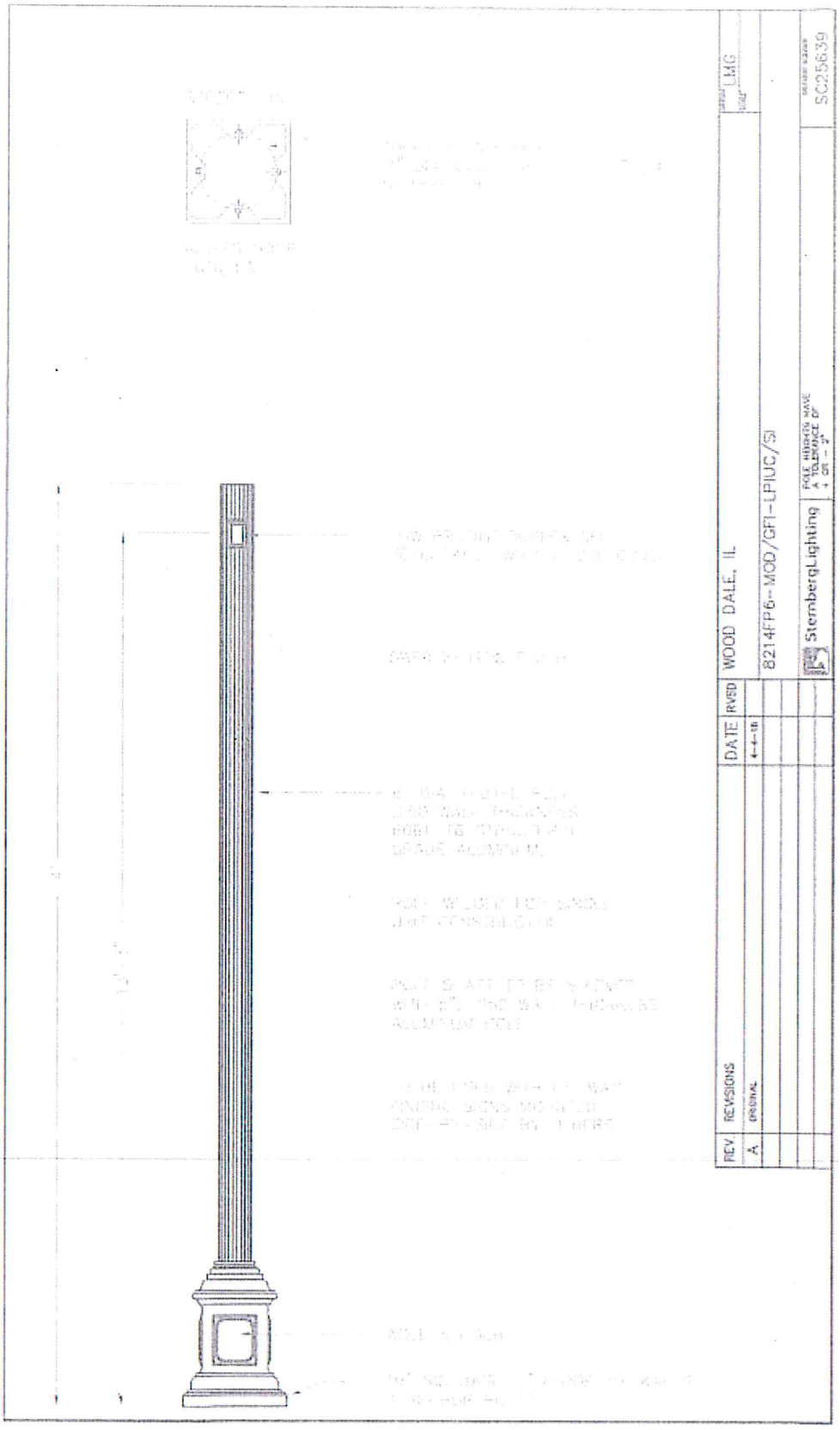
	CONCRETE POLE FOUNDATION DETAIL	
	REVISED: 01/01/2013 | SHEET 1 OF 2	

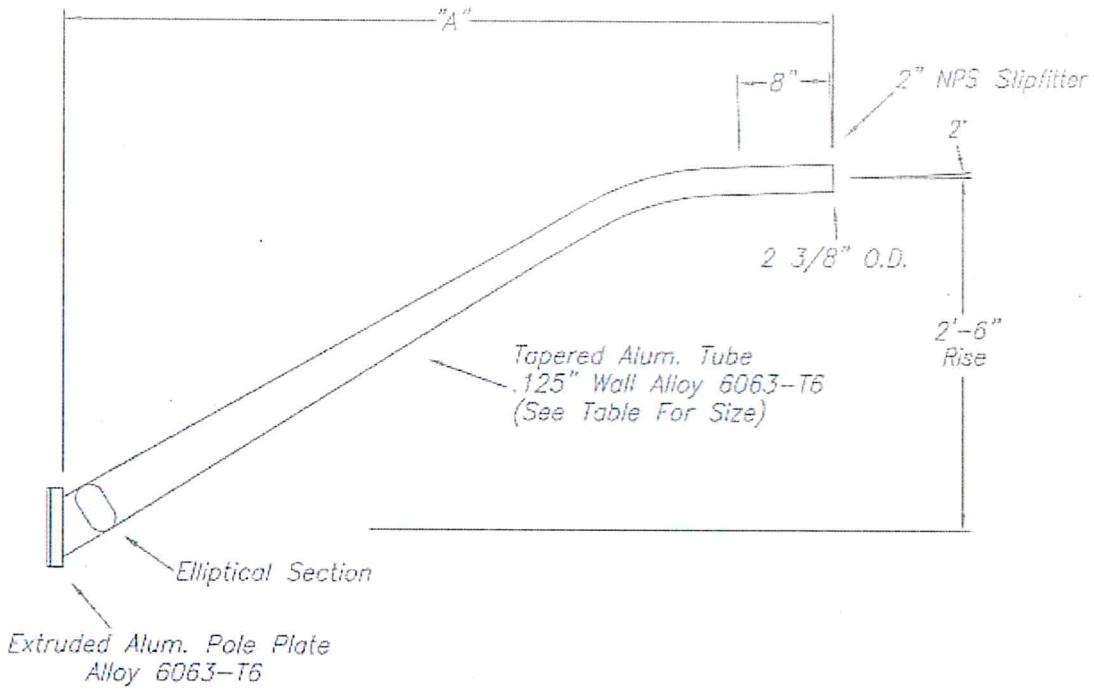


	I.D.O.T. TYPE III STREET LIGHTING CONTROL CABINET FOUNDATION	
	REVISED: 01/01/2013	SHEET 1 OF 1


NOTES:
1. EXACT LOCATION OF TERMINALS MAY VARY.
2. CONNECTED TO ALTERNATE PHASES.
LINE A
NEUTRAL
LINE B
STAND OFF
GRND.
#10 USE-2 XLP
#10 USE-2 XLP
BLACK
WHITE
GREEN
FUSE
FUSE (SEE DETAIL BELOW)
TRANSFORMER/PED TERMINALS
#6 XLP USE-2 COLOR CODED
RED
NEUTRAL
WHITE
BLACK
CONNECT TO NEXT LIGHT WHEN REQUIRED
GREEN
GROUND
GREEN
TO POLE/GRND. ROD
TYPICAL STREET LIGHT CONNECTIONS
GROUND WIRE
#10 USE-2 XLP
LOAD
COMPRESSION TYPE COPPER SLEEVE WITH HEAT SHRINKABLE PLASTIC CAP
FUSEHOLDER EDISON HEB-AW-RLC-A OR HET-AW-RLCA 30A 600V WITH INSULATING BOOT
12A FUSE (UNGROUNDED CONNECTION "DUMMY" FUSE (GROUNDED CONNECTION)
LINE
#10 USE-2 XLP
#6 CU. STR. XLP USE 2
TYPICAL FUSE HOLDER CONNECTION
TYPICAL STREET LIGHT CONNECTION
REVISED: 01/01/2013
SHEET 2 OF 2


STREET SIDE
14" DIA. BOLT CIRCLE FOR 3/4" DIA. ANCHOR BOLTS
ACCESS DOOR
356 ALLOY, CAST ALUMINUM FIXTURE ROOF AND HOUSING
95 WATT, ROOF MOUNTED LED ARRAY, 4500K COLOR TEMP
WHITE ACRYLIC LENSES
356 ALLOY, CAST ALUMINUM DRIVER COMPARTMENT
SMOOTH BLACK FINISH
5" DIA. FLUTED POLE .188 WALL THICKNESS 6061-T6 STRUCTURAL GRADE ALUMINUM
POLE WELDED FOR SINGLE UNIT CONSTRUCTION
ACCESS DOOR
19" SQR. BASE, 1" FLOOR THICKNESS 4 ANCHOR BOLTS AND 1 GROUND LUG
16'-9"
14'
13'-3"
2'-3"
WOOD DALE, IL
IST#A 4680 - WOOD DALE RD BRIDGE OVER I390
123GLEDPT/82154FPS/4AIR4ST3/ML/GFI-LPIUC/WA/BK
ITEM XB250500
SINCE 1923
SC24215 B
REVISIONS
ORIGINAL
DATE
2/8/18


REV
REVISIONS
DATE
RVSD
A
ORIGINAL
4-4-18
WOOD DALE, IL
8214FP6--MOD/GFI-LPIUC/SI
SternbergLighting
SC256-39
LMG



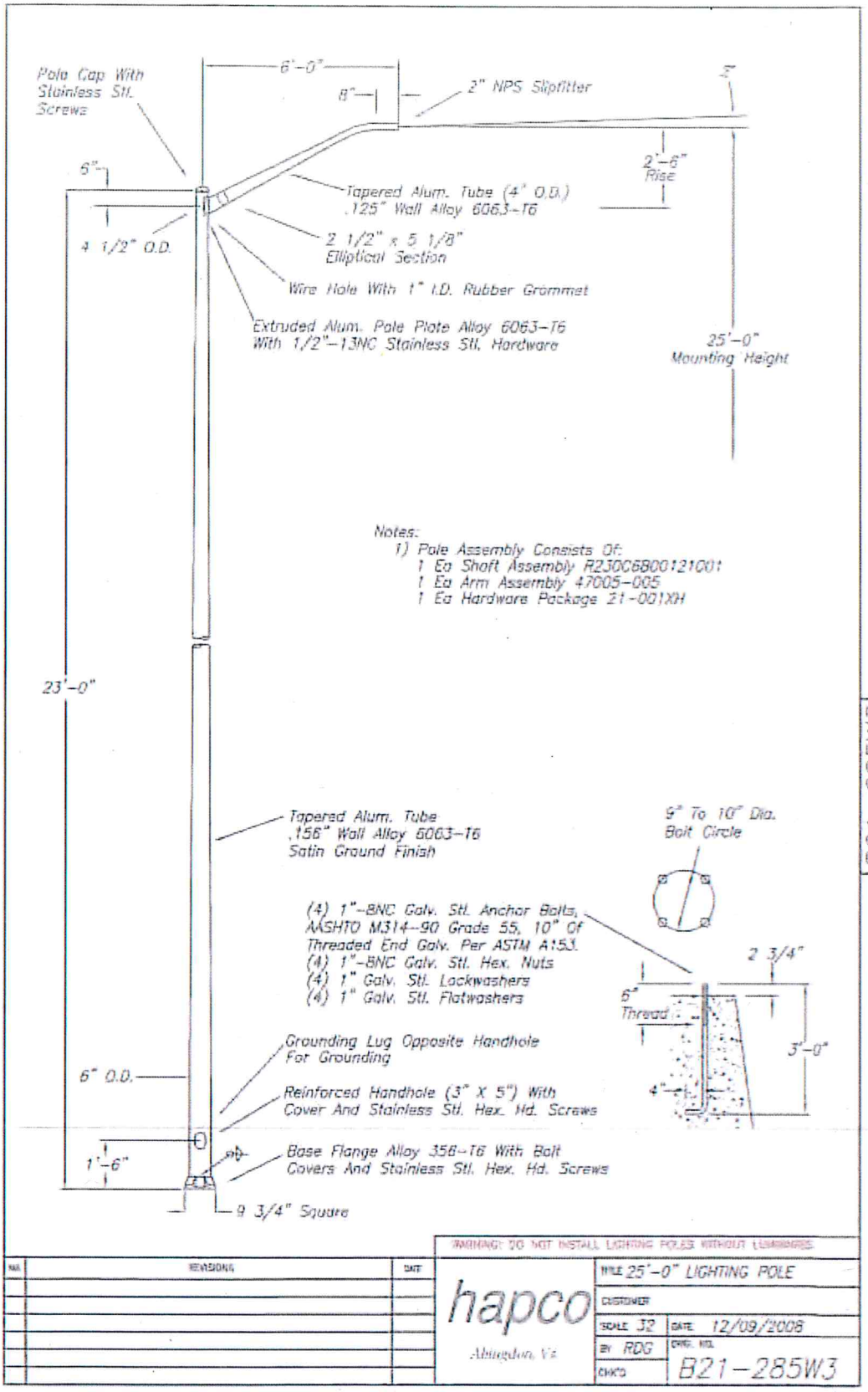
Item No.	A	Tube Size	Max. Lum. Wt. @ Cg=Length+1 Ft.
50004-001	3'-6"	3 1/2" O.D.	75#
50004-002	5'-6"	4" O.D.	71#
→ 50004-003	7'-6"	4" O.D.	52#
50004-004	9'-6"	5" O.D.	55#

Furnish The Following Stainless Steel Hardware With Each Arm:
(4) 1/2"-13NC x 1 1/2" Long Hex. Hd. Bolts
(4) 1/2"-13NC Hex. Nuts
(4) 1/2" Lockwashers
(1) 1" I.D. Rubber Grommet

NO.	REVISIONS	DATE
5	Redrawn LW	01/02

hapco
Abingdon, Va.

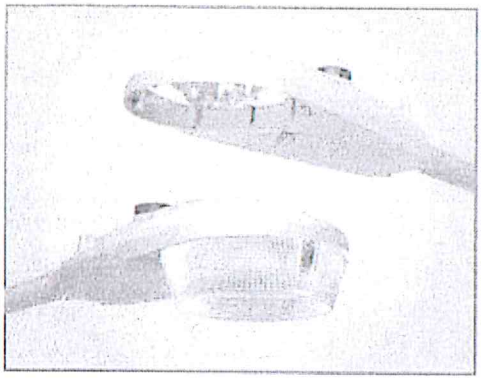
TITLE: TAPERED ARMS (4.5" O.D. Pole)
CUSTOMER:
SCALE: NTS
DATE: 10/11/66
BY: LW
CHK'D:
DWG. NO.: A50004


Pole Cap With Stainless Stl. Screws
6'-0"
8"
2" NPS Slipfitter
5"
2'-6" Rise
Tapered Alum. Tube (4" O.D.) .125" Wall Alloy 6063-T6
2 1/2" x 5 1/8" Elliptical Section
4 1/2" O.D.
Wire Hole With 1" I.D. Rubber Grommet
Extruded Alum. Pole Plate Alloy 6063-T6 With 1/2"-13NC Stainless Stl. Hardware
25'-0" Mounting Height
Notes:
1) Pole Assembly Consists Of:
1 Ea Shaft Assembly R230C6800121001
1 Ea Arm Assembly 47005-005
1 Ea Hardware Package 21-001XH
23'-0"
Tapered Alum. Tube .156" Wall Alloy 6063-T6 Satin Ground Finish
9" To 10" Dia. Bolt Circle
(4) 1"-8NC Galv. Stl. Anchor Bolts, AASHTO M314-90 Grade 55, 10" Of Threaded End Galv. Per ASTM A153.
(4) 1"-8NC Galv. Stl. Hex. Nuts
(4) 1" Galv. Stl. Lockwashers
(4) 1" Galv. Stl. Flatwashers
2 3/4"
6" Thread
3'-0"
4"
Grounding Lug Opposite Handhole For Grounding
6" O.D.
Reinforced Handhole (3" X 5") With Cover And Stainless Stl. Hex. Hd. Screws
1'-6"
Base Flange Alloy 356-T6 With Bolt Covers And Stainless Stl. Hex. Hd. Screws
9 3/4" Square
B21-285W3
WARNING: DO NOT INSTALL LIGHTING POLES WITHOUT LUMINAIRES
NO. REVISIONS DATE
hapco
Abingdon, Va
TITLE 25'-0" LIGHTING POLE
CUSTOMER
SCALE 3/2 DATE 12/09/2008
BY RDG CHK'D
DWG. NO. B21-285W3

Autobahn Series ATBS

Roadway & Security Lighting

PRODUCT OVERVIEW



Applications:

Residential streets
Parking lots
General security lighting

Features:

OPTICAL

Same Light: Performance is comparable to 50W – 150W HPS and up to 175W Mercury Vapor roadway and security lighting luminaires.

White Light: Correlated color temperature - standard 4000K, 70 CRI minimum or optional 5000K, 70 CRI minimum.

IP66 rated borosilicate glass optics ensure longevity and maximize dirt depreciation. Unique IP66 rated LED light engines provide 0% uplight and restrict backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing.

Available distributions are Type II, III, and V roadway distributions. When used with the optional acrylic refractor the unit provides approximately 10% uplight and increased vertical foot-candles.

ELECTRICAL

Expected Life: LED light engines are rated >100,000 hours at 25°C, L70. Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected 40-60% over comparable HID luminaires.

Robust Surge Protection: Three different surge protection options provide a minimum of IEEE/ANSI C62.41 Category C (10kV/5kA) protection.

MECHANICAL

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easy leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. The 2 - bolt clamping mechanism provides 3G vibration rating per ANSI C136.

The Wildlife shield is cast into the housing (not a separate piece).

CONTROLS

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 5 pin and 7 pin receptacles optionally available.

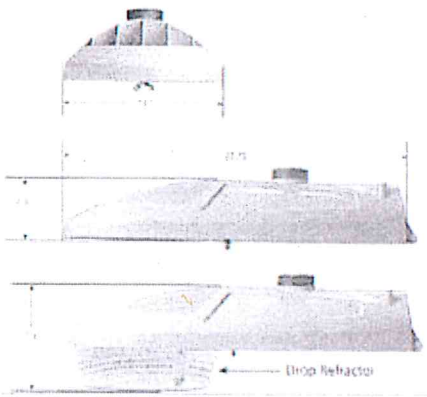
Premium solid state locking-style photocontrol – PCSS (10 year rated life)
Extreme long life solid state locking-style photocontrol – PCLL (20 year rated life)

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

STANDARDS

Rated for -40°C to 40°C ambient
CSA Certified to U.S. and Canadian standards
Complies with ANSI: C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

DIMENSIONS



Effective Projected Area (EPA): The EPA for the ATBS is 0.3 sq. ft.
Approx. Wt. = 12 lbs. (5 kg)

Note: Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.

American Electric Lighting

Autobahn Series ATBS

Roadway & Security Lighting

PERFORMANCE PACKAGE

Performance Package	Distribution	Lumens	LPW	Input Watts
A	R2	1,761	98	18
	R3	1,755	98	
	R5	1,838	102	
	D2	1,685	94	
	D3	1,658	92	
	D5	1,767	98	
B	R2	2,302	96	24
	R3	2,309	96	
	R5	2,411	100	
	D2	2,203	92	
	D3	2,182	91	
	D5	2,318	97	
E	R2	3,962	102	39
	R3	3,979	102	
	R5	4,246	109	
	D2	3,791	97	
	D3	3,760	96	
	D5	4,089	105	
F	R2	4,563	93	49
	R3	4,477	91	
	R5	4,795	98	
	D2	4,366	89	
	D3	4,231	86	
	D5	4,612	94	
G	R2	5,629	88	64
	R3	6,030	85	
	R5	5,837	91	
	D2	5,386	84	
	D3	5,118	80	
	D5	5,590	87	
H	R2	6,248	87	72
	R3	6,321	88	
	R5	6,739	94	
	D2	5,979	83	
	D3	5,973	83	
	D5	6,436	89	

Note: Information shown above is based on nominal system data. Individual fixture performance may vary. Specifications subject to change without notice.

American Electric Lighting

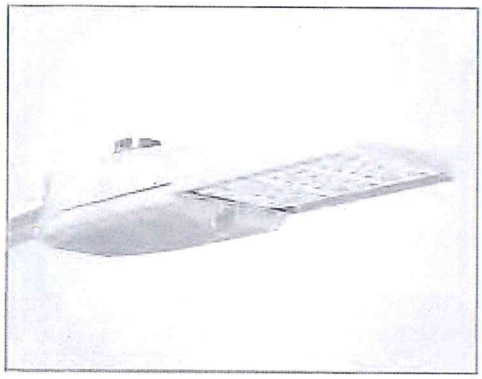
AEL Headquarters, 3029 Columbus Road, Granville, OH 43023
www.americanelectriclighting.com

Warranty five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.asp
Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions @ 25 °C.
Specifications subject to change without notice.

Please contact your sales representative for the latest product information.

Autobahn Series ATB0
Roadway Lighting

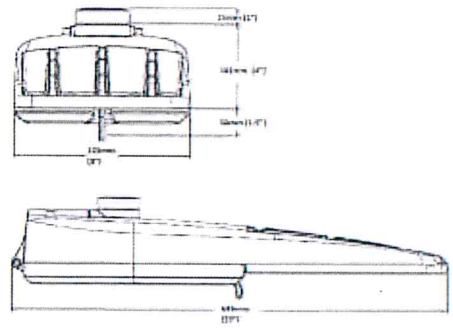
PRODUCT OVERVIEW



Applications:

- Roadways
- Off ramps
- Residential streets
- Parking lots

DIMENSIONS



Effective Projected Area (EPA): The EPA for the ATB0 is 0.76 sq. ft.
Approx. Wt. = 14 lbs.

Features:

OPTICAL

Same Light: Performance is comparable to 70-250W HPS roadway luminaires.

White Light: Correlated color temperature - 4000K, 70 CRI minimum, 3000K, 70 CRI minimum or optional 5000K, 70 CRI minimum.

Unique IP66 rated LED light engines provided 0% uplight and restrict backlight to control sidewalk depth, providing optimal application coverage and optimal pole spacing. Available in Type II, III, IV, and V roadway distributions.

ELECTRICAL

Expected Life: LED light engines are rated >100,000 hours at 25°C, L70. Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected of 40-60% over comparable HID luminaires.

Robust Surge Protection: Three different surge protection options provide a minimum of ANSI C136.2 10kV/5kA protection. 20kV/10kA protection is also available.

MECHANICAL

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easily leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 7 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. Provides a 3G vibration rating per ANSI C136.31.

Wildlife shield is cast into the housing (not a separate piece).

CONTROLS

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 7 pin receptacle optionally available.

Premium solid state locking style photocontrol - PCSS (10 year rated life) Extreme long life solid state locking style photocontrol - PCSL (20 year rated life).

Multi-level dimming available to provide scheduled dimming as specified by the customer.

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

STANDARDS

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [illegible] to confirm which versions are qualified.

Color temperatures of ≤ 3000K must be specified for International Dark-Sky Association certification.

Rated for -40°C to 40°C ambient
CSA Certified to U.S. and Canadian standards
Complies with ANSI: C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

Note: Specifications subject to change without notice. Actual performance may differ as a result of end user environment and application.

AEL American Electric Lighting

Autobahn Series ATB0
Roadway Lighting

PERFORMANCE PACKAGE

Performance Package	Drive Current (mA)	Input Watts	Optic	4000K CRT		LED @ 25°C		
				Delivered Lumens	Efficacy (LPW)	50k Hours	75k Hours	100k Hours
10B	700	35	R2	2994	120	0.98	0.98	0.97
	1000	37		4293	116	0.98	0.98	0.97
	1500	54		5668	105	0.97	0.97	0.96
	700	25	R3	3009	120	0.98	0.98	0.97
	1000	37		4313	117	0.98	0.98	0.97
	1500	54		5742	106	0.97	0.97	0.96
	700	25	R4	2992	120	0.98	0.98	0.97
	1000	37		4232	114	0.98	0.98	0.97
	1500	54		5653	105	0.97	0.97	0.96
	700	25	R5	3065	123	0.98	0.98	0.97
	1000	37		4422	120	0.98	0.98	0.97
	1500	54		5844	108	0.97	0.97	0.96
20B	525	36	R2	4638	129	0.98	0.98	0.97
	700	48		5956	124	0.98	0.98	0.97
	1000	71		8506	120	0.98	0.98	0.97
	1300	87		9922	114	0.96	0.94	0.92
	1500	99		11038	111	0.95	0.92	0.90
	525	36	R3	4704	131	0.98	0.98	0.97
	700	48		6114	127	0.98	0.98	0.97
	1000	71		8606	121	0.98	0.98	0.97
	1300	87		10065	116	0.96	0.94	0.92
	1500	99		11181	113	0.95	0.92	0.90
	525	36	R4	4676	130	0.98	0.98	0.97
	700	48		6022	125	0.98	0.98	0.97
	1000	72		8569	119	0.98	0.98	0.97
	1300	87		10053	116	0.96	0.94	0.93
	1500	99		11160	113	0.95	0.92	0.90
	525	36	R5	4869	135	0.98	0.98	0.97
	700	48		6287	131	0.98	0.98	0.97
	1000	71		8888	125	0.98	0.98	0.97
	1300	87		10397	120	0.96	0.94	0.92
	1500	99		11593	117	0.95	0.92	0.90
30B	700	70	R2	9174	131	0.98	0.98	0.97
	850	83		10457	126	0.98	0.98	0.97
	1000	105		12414	118	0.96	0.96	0.95
	1300	126		14964	119	0.96	0.94	0.92
	1500	145		16251	112	0.94	0.91	0.89
	700	70	R3	9893	127	0.98	0.98	0.97
	850	83		10825	130	0.98	0.98	0.97
	1000	105		12648	121	0.96	0.96	0.94
	1300	126		14850	118	0.96	0.94	0.92
	1500	145		16193	112	0.94	0.91	0.89
	700	70	R4	8971	128	0.98	0.98	0.97
	850	83		10589	128	0.98	0.98	0.97
	1000	105		12782	122	0.96	0.96	0.95
	1300	126		14889	118	0.96	0.94	0.92
	1500	145		16463	114	0.94	0.91	0.89
	700	70	R5	9329	133	0.98	0.98	0.97
	850	83		11209	135	0.98	0.98	0.97
	1000	105		13295	127	0.96	0.95	0.94
	1300	126		15254	121	0.96	0.94	0.92
	1500	145		16871	116	0.94	0.91	0.89

Note: Information shown above is based on 4000K nominal system data. Individual fixture performance may vary. To calculate 3000K lumen values, multiply the 4000K lumens by .93. Specifications subject to change without notice.

ATB0 LED Multiplier	15°C	20°C	25°C	30°C	35°C	40°C
	1.02	1.01	1	0.98	0.97	0.95

To calculate the LED for a temperature other than 25°C, multiply the LED @ 25°C (shown in the performance package table) by the LED multiplier for the selected temperature.

American Electric Lighting

AEL Headquarters, 3825 Columbus Road, Granville, OH 43023
www.americanelectriclighting.com

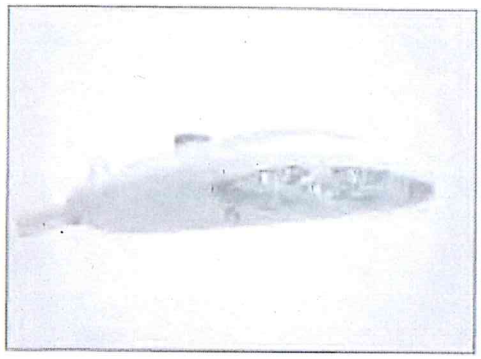
Warranty Five-year limited warranty. Complete warranty terms located at [illegible]

Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Please contact your sales representative for the latest product information.

Autobahn Series ATBM
Roadway

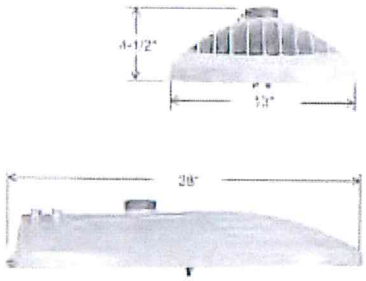
PRODUCT OVERVIEW



Applications:

Residential streets
Parking lots
High speed roadways

DIMENSIONS



Effective Projected Area (EPA)
The EPA for the ATBM is 0.3 sq. ft.
Approx. Wt. = 21 lbs. (9.5 kg)

Features:

OPTICAL

Same Light: Performance is comparable to 150W – 250W HPS

White Light: Correlated color temperature – 4000K, 70 CRI minimum, 3000K, 70 CRI minimum or optional 5000K, 70 CRI minimum

IP66 rated borosilicate glass optics ensure longevity and minimize dirt depreciation. Unique IP66 rated LED light engines provide 0% uplight and restrict backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing.

Available distributions are Type II, III, IV, & V roadway distributions.

ELECTRICAL

Expected Life: LED light engines are rated > 100,000 hours at 25°C, L70
Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected 40-60% over comparable HID luminaires.

Robust Surge Protection: Three different surge protection options provide a minimum of ANSI C136.2 10kV/5kA protection. 20kV/10kA surge protection is also available.

MECHANICAL

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easy leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. The 2 – bolt and optional 4 bolt clamping mechanism provide 3G vibration rating per ANSI C136.

The Wildlife shield is cast into the housing (not a separate piece).

CONTROLS

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 5 pin and 7 pin receptacles optionally available.

Premium solid state locking-style photocontrol – PCSS (10 year rated life) Extreme long life solid state locking-style photocontrol – PCLT (20 year rated life).

Extreme long life solid state locking-style photocontrol with on demand remote on/off control - PCCC (15 year rated life)

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

STANDARDS

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Color temperatures of ≤ 3000K must be specified for International Dark-Sky Association certification.

Rated for -40°C to 40°C ambient
CSA Certified to U.S. and Canadian standards
Complies with ANSI C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

Roadway Lighting ATBM

Note: Specifications subject to change without notice.

American Electric Lighting

Autobahn Series ATBM

Roadway

PERFORMANCE PACKAGE

Performance Package	Distribution	4000 K CCT			LLD @ 25°C		
		Lumens	Input Watts	LPW	50K Hours	75K Hours	100K Hours
A	R2	7,114	60	118	89	84	80
	R3	7,024		117			
	R4	6,958		116			
	R5	7,469		124			
B	R2	8,090	70	115	89	84	80
	R3	8,016		114			
	R4	7,924		113			
	R5	8528		121			
C	R2	9031	81	112	89	84	80
	R3	8,942		111			
	R4	8,827		110			
	R5	9,517		118			
D	R2	11,769	95	124	90	87	84
	R3	11,690		123			
	R4	11,534		121			
	R5	12,388		130			
E	R2	13,601	115	118	90	87	84
	R3	13,416		117			
	R4	13,323		116			
	R5	14,263		124			
F	R2	15,932	133	120	90	86	83
	R3	15,741		118			
	R4	15,476		116			
	R5	16,691		125			
G	R2	17,102	150	114	90	86	83
	R3	16,974		113			
	R4	16,635		111			
	R5	17,938		119			
H	R2	18,095	164	111	90	86	83
	R3	17,929		110			
	R4	17,439		107			
	R5	18,966		116			

Note: Information shown above is based on 4000K nominal system data. Individual fixture performance may vary. Specifications subject to change without notice.

AEL American Electric Lighting
AEL Headquarters, 3825 Columbus Road, Granville, OH 43023
www.americanelectriclighting.com

Warranty Five-year limited warranty. Complete warranty terms located at [illegible]. Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Please contact your sales representative for the latest product information.

ATBM

CITY OF WOODDALE GY3 (Reference=L59667-2)

Optical System: 0% uplight and U0 per IESNA TM-15.

Driver: High power factor of 90% minimum. Electronic driver, operating range 50/60 Hz. Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral. Class I, THD of 20% max. **Driver comes with dimming compatible 0-10 volts.**

The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

Driver Options: (DMG) Integrated Feature. Dimming compatible 0-10 volts. For applicable warranty, certification and operation guide see Philips Lumec dimmable luminaire specification document for unapproved device installed by other. To get document, click on this link: Specification document or go on web site on this address: http://www.lumec.com/Lumec3DV2/PdfWebLink/Philips Lumec dimmable luminaire specification document for unapproved device installed by other.pdf

Surge Protector: Integrated Feature. Surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid-State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA.

Luminaire Options: (RCD) Integrated Feature. Receptacle with 5 pins enabling dimming, can be used with a twist-lock control device or photoelectric cell or a shorting cap. Use of photocell or shorting cap is required to ensure proper illumination.

Luminaire Useful Life: Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in-situ thermal testing in accordance with UL1598 and UL8750, Philips System Reliability Tool, Philips Advance data LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C. Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion.

CITY OF WOODDALE GY3 (Reference=L59667-2)

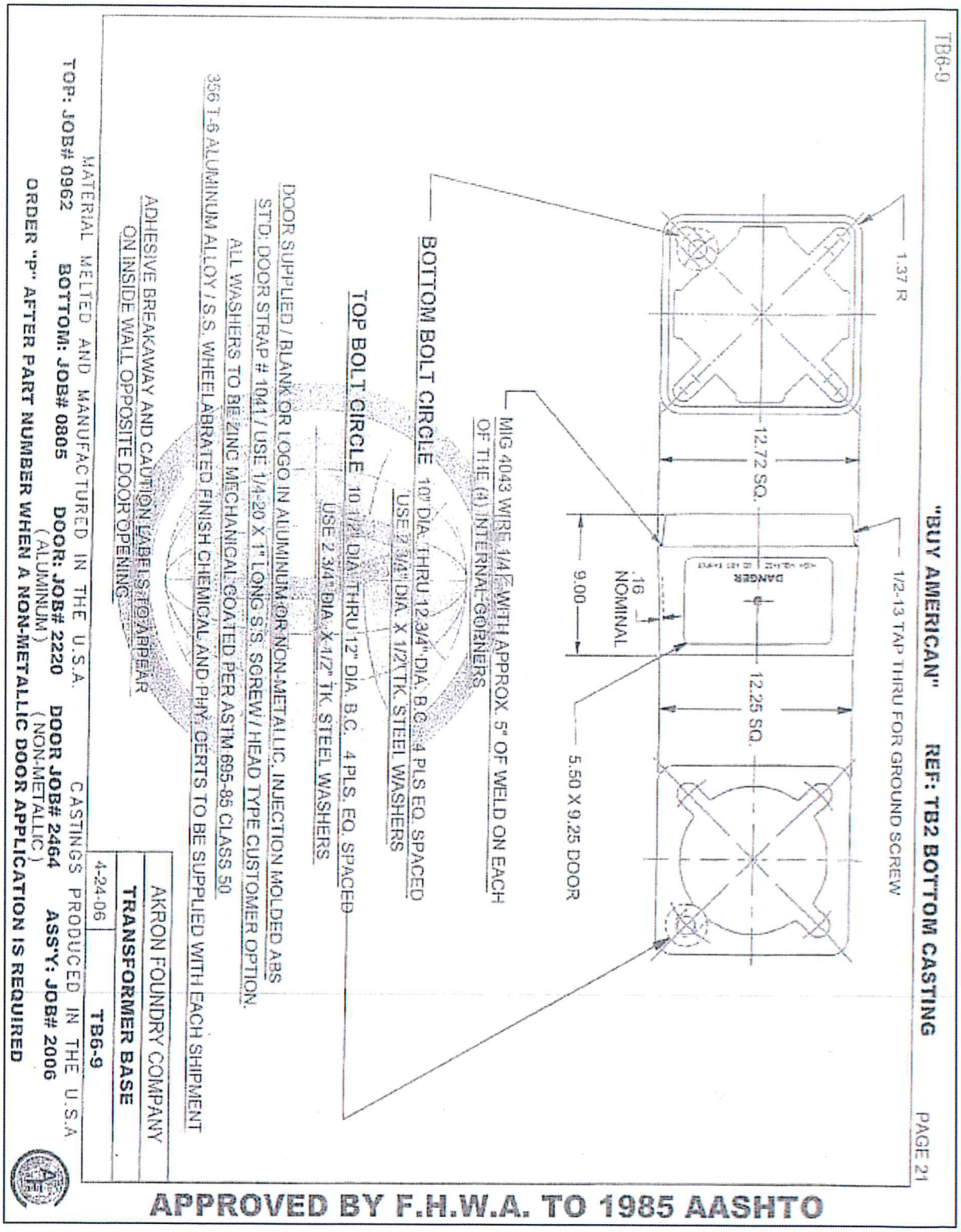
				Type R2S			Type R2M			Type R3S			Type R3M		
Ordering Code	Total LEDs	LED Current (mA)	Average system watts (W)	delivered lumens	Efficacy (LPW)	BUG rating	delivered lumens	Efficacy (LPW)	BUG rating	delivered lumens	Efficacy (LPW)	BUG rating	delivered lumens	Efficacy (LPW)	BUG rating
RFL-145W64LED3K-G2	64	700	137	16813	122.7	B3-U0-G2	16458	120.1	B3-U0-G2	16181	118.1	B2-U0-G2	16127	117.7	B3-U0-G3
RFL-90W80LED3K-G2	80	350	83	11541	134.5	B2-U0-G2	11287	131.6	B2-U0-G2	11107	129.5	B2-U0-G2	11076	129.1	B2-U0-G2
RFL-135W80LED3K-G2	80	550	130	16501	121.7	B3-U0-G2	16251	119.9	B3-U0-G3	15977	117.9	B2-U0-G3	15924	117.5	B3-U0-G3
RFL-180W80LED3K-G2	80	700	174	21016	120.8	B3-U0-G2	20572	118.2	B3-U0-G3	20226	116.2	B2-U0-G3	20156	115.8	B3-U0-G3
RFL-160W96LED3K-G2	96	550	161	19631	121.9	B3-U0-G2	19301	119.8	B3-U0-G3	19170	119.0	B2-U0-G3	19109	118.6	B3-U0-G3
RFL-215W96LED3K-G2	96	700	207	25219	121.8	B3-U0-G3	24827	119.9	B3-U0-G3	24271	117.3	B2-U0-G4	24180	116.9	B3-U0-G3
RFL-335W96LED3K-G2	96	1050	323	35094	108.7	B4-U0-G4	34554	106.9	B4-U0-G4	33775	104.5	B3-U0-G4	33663	104.1	B4-U0-G4
RFL-190W112LED3K-G2	112	550	188	23241	123.9	B3-U0-G2	22751	121.3	B3-U0-G3	22368	119.3	B2-U0-G4	22284	118.9	B3-U0-G3
RFL-241W112LED3K-G2	112	700	243	29422	121.1	B3-U0-G3	28801	118.5	B3-U0-G3	28316	116.5	B3-U0-G4	28222	116.1	B3-U0-G4
RFL-350W112LED3K-G2	112	950	340	37791	111.1	B4-U0-G4	36985	108.8	B4-U0-G4	36313	107.0	B3-U0-G5	36195	106.6	B4-U0-G4

				Type 4			Type 5		
Ordering Code	Total LEDs	LED Current (mA)	Average system watts (W)	delivered lumens	Efficacy (LPW)	BUG rating	delivered lumens	Efficacy (LPW)	BUG rating
RFL-145W64LED3K-G2	64	700	137	16210	118.3	B3-U0-G3	16351	126.0	B4-U0-G2
RFL-90W80LED3K-G2	80	450	93	11127	120.0	B2-U0-G2	11557	124.8	B4-U0-G2
RFL-135W80LED3K-G2	80	550	156	16006	117.3	B2-U0-G3	16639	121.9	B4-U0-G2
RFL-180W80LED3K-G2	80	700	174	20263	116.5	B3-U0-G4	21004	111.1	B5-U0-G3
RFL-160W96LED3K-G2	96	550	161	19207	119.5	B3-U0-G4	19997	124.2	B5-U0-G3
RFL-215W96LED3K-G2	96	700	207	24335	117.5	B3-U0-G4	25227	122.1	B5-U0-G3
RFL-335W96LED3K-G2	96	1050	323	33836	104.8	B3-U0-G5	35175	108.9	B5-U0-G4
RFL-190W112LED3K-G2	112	550	188	22408	119.5	B3-U0-G4	23196	124.2	B5-U0-G3
RFL-241W112LED3K-G2	112	700	243	28368	116.7	B3-U0-G4	29389	121.4	B5-U0-G4
RFL-350W112LED3K-G2	112	950	340	36579	107.2	B3-U0-G5	37818	111.4	B5-U0-G4

1	0.98	0.97
2	0.95	0.92
3	0.93	0.89
4	0.91	0.87
5	0.89	0.85
6	0.87	0.83
7	0.85	0.81
8	0.83	0.80
9	0.81	0.78
10	0.80	0.77

Note: Typical value for reference only

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact Applications: outdoorlighting.applications@philips.com
Note: Some data may be scaled based on tests of similar, but not identical luminaires


TB6-9
"BUY AMERICAN" REF: TB2 BOTTOM CASTING
PAGE 21
1.37 R
1/2-13 TAP THRU FOR GROUND SCREW
12.72 SQ.
12.25 SQ.
.16 NOMINAL
9.00
5.50 X 9.25 DOOR
DANGER
MIG 4043 WIRE 1/4" WITH APPROX. 5" OF WELD ON EACH OF THE (4) INTERNAL CORNERS
BOTTOM BOLT CIRCLE 10" DIA. THRU 12 3/4" DIA. B.C. 4 PLS EQ. SPACED USE 2 3/4" DIA. X 1/2" TK. STEEL WASHERS
TOP BOLT CIRCLE 10 1/2" DIA. THRU 12" DIA. B.C. 4 PLS. EQ. SPACED USE 2 3/4" DIA. X 1/2" TK. STEEL WASHERS
DOOR SUPPLIED / BLANK OR LOGO IN ALUMINUM OR NON-METALLIC, INJECTION MOLDED ABS
STD: DOOR STRAP # 1041 / USE 1/4-20 X 1" LONG S.S. SCREW / HEAD TYPE CUSTOMER OPTION.
ALL WASHERS TO BE ZINC MECHANICAL COATED PER ASTM 695-85 CLASS 50
356 T-6 ALUMINUM ALLOY / S.S. WHEELABRATED FINISH CHEMICAL AND PHY. CERTS TO BE SUPPLIED WITH EACH SHIPMENT
ADHESIVE BREAKAWAY AND CAUTION LABELS TO APPEAR ON INSIDE WALL OPPOSITE DOOR OPENING
MATERIAL MELTED AND MANUFACTURED IN THE U.S.A. CASTINGS PRODUCED IN THE U.S.A
TOP: JOB# 0962 BOTTOM: JOB# 0805 DOOR: JOB# 2220 DOOR JOB# 2464 ASS'Y: JOB# 2006
(ALUMINUM) (NON-METALLIC) (ALUMINUM)
ORDER "P" AFTER PART NUMBER WHEN A NON-METALLIC DOOR APPLICATION IS REQUIRED
AKRON FOUNDRY COMPANY
TRANSFORMER BASE
4-24-06
TB6-9
APPROVED BY F.H.W.A. TO 1985 AASHTO