

## **DETAILED DESIGN GUIDELINES FOR WIRELESS COMMUNICATIONS FACILITIES IN THE RIGHT-OF-WAY**

### **Part I      General Overview**

#### **Section 1.    Initial Notes**

- A. This document is to be read in conjunction with Chapter 719, “Wireless Communications Facilities in the Right of Way,” of the City of Cincinnati Municipal Code (“CMC Chapter 719”).
- B. The City of Cincinnati’s Department of Transportation and Engineering is the responsible agency for administering the receipt and processing of applications for wireless communications facilities in the City’s right-of-way.
- C. All references hereafter to the “Department” or to “DOTE” refer to the Department of Transportation and Engineering.

#### **Section 2.    General Requirements**

- A. All Public Right-of-Way work shall be furnished and placed in compliance with the following general standards for construction in the public right-of-way:
  - a. State of Ohio Department of Transportation, (ODOT), Construction and Material Specifications, (CMS); latest edition.
  - b. ODOT CMS City of Cincinnati Supplement; (latest edition).
  - c. City of Cincinnati DOTE Sidewalk Regulations Book; (latest edition).
  - d. City of Cincinnati DOTE Street Restoration Manual; (latest edition).
  - e. City of Cincinnati, DOTE Standard Drawings; (latest edition).
  - f. City of Cincinnati, DOTE Traffic Engineering Division, Standard Traffic Signals & Street Lighting Construction Drawings; (latest edition).
  - g. City of Cincinnati, DOTE CURB RAMPS Design Guidelines and Policy, Standard Drawings and Specifications; (latest edition).
  - h. American Association of State Highway and Transportation Officials; (AASHTO), Standards and Guidelines; (latest editions).
  - i. National Fire Protection Association 70 National Electric Code; (NFPA-70 NEC); (latest edition).
  - j. Americans with Disabilities Act and implementing regulations, including, without limitation, currently proposed Americans with Disabilities Act Accessibility Guidelines (ADAAG) promulgated by the United State Access Board.
  - k. All applicable local, state, and federal codes and regulations.

- B. Copies of Items a. through k. listed above are available at:  
City of Cincinnati,  
Department of Transportation and Engineering  
Division of Engineering,  
Right-Of-Way Management Section  
City Hall, Room 428  
801 Plum Street, Cincinnati, Ohio 45202-1980  
Tel: (513) 352-3463

### **Section 3. Existing Infrastructure Restoration Requirements**

- A. **Streets and Alleys:** Upon installation of the new work, the contractor shall restore the street and/or alley pavement as required in full and complete compliance with the approved DOTE Right-Of-Way Permit and Wireless Communications Facility Permit, for use of the public Right-of-Way and the requirements of the City of Cincinnati Sidewalk Standards and Street Restoration Book.
- B. **Sidewalks:**
- a. Upon installation of the new work, the contractor shall restore all concrete walks, driveway aprons, and “collector strips” as required in full and complete compliance with the requirements of the following adopted at the time of such work:
    1. The approved DOTE Right-Of-Way Permit.
    2. The approved DOTE Wireless Facility Right-of-Way Occupancy Permit.
    3. City of Cincinnati Sidewalk Standards and Street Restoration Book.
    4. DOTE Central Business District (CBD), Streetscape Standards (as applicable).
    5. DOTE Special Improvement District (SID), Streetscape Standards (as applicable).
    6. DOTE Neighborhood Business District (NBD), Streetscape Standards (as applicable).
  - b. Upon installation of the new work, the contractor shall restore all tree lawns and/or sod strips with topsoil and sod in compliance with ODOT CMS standards.

## **Part II Permit Applications and Procedures**

### **Section 1. Permit Application Requirements**

This section describes necessary requirements for a permit application. The Department may from time-to-time develop and publish new or additional permit application forms, checklists, informational handouts and other related materials. To avoid unnecessary delay in application processing, applicants are

strongly encouraged to ***contact the Department before submittal*** to ensure that it has consulted all the most up-to-date requirements.

- A. **Application Fee.** The applicant must provide the applicable permit application fee in the amount currently required by DOTE and listed in its permit fee schedule.
- B. **RF Compliance Affidavit.** Applicants must submit a sworn affidavit prepared and signed by an RF engineer with knowledge about the proposed project that affirms the proposed project will be compliant with all applicable governmental regulations in connection with human exposure to radiofrequency emissions. The affidavit must include (1) all frequencies on which the equipment will operate; (2) how many channels will be used on each frequency; (3) the effective radiated power (“ERP”) output level in measured watts; and (4) the height above ground for the lowest point on the lowest transmitter. The required disclosures above must be included for all transmitters on the support structure, which includes without limitation existing collocated antennas and antennas used for wireless backhaul (such as microwave dish antenna or U/E relay).
- C. **Regulatory Authorization.** To the extent that the applicant claims any regulatory authorization or other right to use the public right-of-way, the applicant must provide a true and correct copy of the certificate, license, notice to proceed or other regulatory authorization that supports the applicant’s claim.
- D. **Owner’s Authorization.** Applicants must submit evidence sufficient to show that either (1) the applicant owns the proposed support structure or (2) the applicant has obtained the owner’s authorization to file the application.
- E. **Site Plans and Structural Calculations.** The applicant must submit fully dimensioned site plans, elevation drawings and structural calculations prepared, sealed, stamped and signed by a Professional Engineer licensed and registered by the State of Ohio. Drawings must depict any existing wireless facilities with all existing transmission equipment and other improvements, the proposed facility with all proposed transmission equipment and other improvements and the legal boundaries of the leased or owned area surrounding the proposed facility and any associated access or utility easements.
  - a. **Photo Simulations.** For all applications other than a Type I application for a collocation or modification to an existing facility with no concealment, the applicant must provide photo simulations from at least two reasonable line-of-site locations in the vicinity of the proposed project site. Photo simulations must be included in the site plans on a separate sheet.

- b. **Equipment Specifications.** For all equipment depicted on the plans, the applicant must include (1) the manufacturer's name and model number; (2) physical dimensions, including without limitation height, width, depth and weight with mounts and other necessary hardware; and (2) the ambient noise level generated from the equipment, if any.
- F. **Justification Statement.** For all Type II and Type III applications, the applicant must submit a written justification statement that includes (1) a short, plain statement to explain the applicant's technical objective and how the proposed facility will suit that technical objective; (2) color signal propagation maps with objective signal measurements in dBm (RSSI or RSRP), if the technical objective involves a gap in the applicant's service coverage; (3) forward data volume and average eligible scheduled user data for the affected macrosite, if the technical objective is to offload traffic from an existing facility; and (4) evidence that the applicant engaged in a reasonably diligent investigation as to whether any other potential locations would reasonably achieve the applicant's technical objective, including the physical address for each location and meaningful comparative analysis with the reasons why the applicant ruled out each alternative location. The Department shall not require a justification statement when the applicant proposes a Type I application or a standard configuration facility subject to minor review, as defined in these Guidelines.
- G. **Eligible Facilities Request Worksheet.** For all Type I applications, the applicant must submit a completed Eligible Facilities Request Worksheet.
- H. **Deposit Necessary to Cover Cost of Consultant.** Notice to the applicant that the Department has elected to retain a consultant for services under Section 719-5(c) of CMC Chapter 719 should include an estimated deposit required to cover the Department's costs to retain the consultant. The estimate shall not be binding on the Department and the Department may require further deposits.

## Section 2. Pre-Submittal Conference with the Department

- A. **Purpose.** The Department offers pre-submittal conferences to meet with potential applicants and discuss possible projects on a conceptual level. The conference is intended to identify the correct application type and content requirements for any given project, and also to create an informal forum in which applicants and the Department can discuss any aesthetic, historic preservation or other concerns that should be addressed as soon as possible to avoid any unnecessary delays in the processing of an application and deployment of wireless facilities in the City.

- B. **Appointment Required.** An appointment is required for all pre-submittal conferences. Department staff may establish regular hours in which appointments are available. Department staff will endeavor to provide applicants with an appointment within approximately five (5) business days after receipt of a written or email request. Each conference is generally limited to discussion of a single potential project, but applicants may request to discuss multiple projects provided that the additional time required does not prejudice other applicants' ability to obtain an appointment.
- C. **Optional Pre-Submittal Conferences.** Pre-submittal conferences are strongly encouraged but not required for (1) all Type I applications and (2) Type III applications for a standard configuration facility subject to minor review.
- D. **Mandatory Pre-Submittal Conferences.** Pre-submittal conferences are required for all projects subject to standard review, including without limitation all Type II applications and all Type III for a non-standard configuration facility.
- E. **Limited Waiver from Application Requirements.** The Department may grant a limited, written waiver from the obligation to submit a justification statement and/or photo simulations when the Department finds that strict compliance with the requirement would create an unnecessary or unreasonable burden. For example, the Director might waive the justification statement for a standard configuration facility in a location that requires standard review because the Department finds that the specific proposed location for the facility raises no aesthetic concerns. The applicant's request for a waiver must describe the proposed site location and design with sufficient particularity to allow the Department to ascertain whether a later-submitted application is the same proposal for which the waiver was granted.

### **Section 3. Application Submittal Procedures**

All applications must be submitted in person to the Department with the applicable application fee to be considered duly filed. The Department may establish regular hours in which applications may be submitted, but will generally receive applications on working days between 8:00 a.m. and 3:30 p.m. Applications submitted by any other means, including without limitation by mail, electronic mail or facsimile, or outside the established submittal times, if any, will not be considered duly filed.

## **Part III Minor Modifications (Type I Applications)**

### **Section 1. Overview.**

Minor modifications are additions or changes to previously approved facilities by the City and covered under 47 U.S.C. § 1455(a), which mandates approval for certain applications that do not propose a substantial change to the underlying facility. Federal regulations provide specific definitions and criteria for approval or denial. The provisions in this Part III are intended to assist applicants and the Department to determine whether an application qualifies for approval as a minor modification.

### **Section 2. Definitions.**

The definitions in CMC Chapter 719, Section 719-4, “Definitions Applicable to Type I Applications for Minor Modifications,” shall apply to Type I applications for a minor modification.

### **Section 3. Approvals and Denials.**

- A. **Criteria for Approval.** The Department may approve or conditionally approve a Type I application for a minor modification when it finds that the proposed project:
- a. involves collocation, removal or replacement of transmission equipment on an existing wireless tower or base station; and
  - b. does not substantially change the physical dimensions of the existing wireless tower or base station.
- B. **Criteria for Denial.** Notwithstanding any other provisions in these Guidelines, and consistent with all applicable federal laws and regulations, the Department may deny a Type I application for a minor modification when it finds that the proposed project:
- a. does not satisfy the criteria for approval;
  - b. violates any legally enforceable standard or permit condition reasonably related to public health and safety; or
  - c. involves the replacement of the entire support structure.
- C. **Written Decision.** Within five (5) working days after the Department renders a decision, the Department shall send written notice to the applicant. In the event that the Department determines that a Type I application does not qualify for approval, the Department will send written notice to the applicant that includes the reasons to support the Department’s decision.

## **Part IV Major Modifications and New Facilities (Type II and Type III Applications)**

### **Section 1. General Design and Construction Standards**

The Department desires to promote cleanly organized and streamlined facilities using the smallest and least intrusive means available to provide wireless services to the community. All wireless facilities in the public right-of-way must comply with all applicable provisions in this section. In the event that any other law, regulation or code requires any more restrictive structural design and/or construction requirements, the most restrictive requirement will control.

- A. **Collocation.** The Department desires and encourages collocations between two separate wireless service providers on the same support structure whenever feasible and safe.
- B. **Antennas.** The antenna(s) associated with the first installation must be top-mounted and concealed within a radome that also conceals the cable connections, antenna mount and other hardware. The Department may approve a side-mounted antenna with the initial installation if, in the Department's discretion, the side-mounted antenna would be more appropriate given the built environment, neighborhood character, overall site appearance and would promote the purposes in these Guidelines. GPS antennas must be placed within the radome or directly above the radome not to exceed six inches.
- C. **Pole-Mounted Equipment Cages.** When pole-mounted equipment is either permitted or required, all equipment other than the antenna(s), electric meter and disconnect switch must be concealed within an equipment cage not to exceed 21 cubic feet in total volume. Equipment cages may not extend more than 10 inches beyond the pole centerline on either side. The equipment cage must be non-reflective and painted, wrapped or otherwise colored to match the existing pole. The City prefers and strongly encourages equipment cages to be mounted flush to the pole. All pole-mounted equipment must be installed as flush to the pole as possible. Any standoff mount for the equipment cage may not exceed 4 inches and the must include metal flaps (or "wings") to conceal the space between the cage and the pole.
- D. **Undergrounded Equipment Vaults.** The Department generally permits pole-mounted equipment in self-contained cages, but for applications subject to standard review, the Department may require placement of the equipment in an environmentally controlled underground vault.
- E. **Ground-Mounted Equipment.** The Department will not approve any new ground-mounted equipment unless the applicant (1) proposes the ground-mounted equipment in connection with a tapered metal pole and (2) shows clear and convincing evidence that the equipment cannot be feasibly installed as a pole-mounted installation, in an environmentally controlled underground vault, or within an existing street feature (such as

a bus stop shelter) for a valid technical reason. Increased costs alone shall be presumed to be insufficient. Ground-mounted equipment shall not be permitted in connection with a wood pole. In the event that the Department approves ground-mounted equipment, the applicant must conform to the following requirements:

- a. **Self-Contained Cabinet or Shroud.** The equipment shroud or cabinet must contain all the equipment associated with the facility other than the antenna. All cables and conduits associated with the equipment must be concealed from view, routed directly through the tapered metal pole and undergrounded between the pole and the ground-mounted cabinet.
  - b. **Concealment.** The Department may require the applicant to incorporate concealment elements into the proposed design. Concealment may include, but shall not be limited to, public art displayed on the cabinet, strategic placement in less obtrusive locations and placement within existing or replacement street furniture.
  - c. **Ambient Noise Suppression.** The Department may require the applicant to incorporate ambient noise suppression measures and/or require the applicant to place the equipment in locations less likely to impact adjacent residences or businesses to ensure compliance with all applicable noise regulations.
- F. **Utility Lines.** Service lines must be undergrounded whenever feasible to avoid additional overhead lines. For metal poles, undergrounded cables and wires must transition directly into the pole base without any external junction box.
- G. **Electric Meter.** Multiple operators on a shared pole shall share a single electric meter. Site operators shall use the smallest and least intrusive electric meter available. The Department strongly encourages site operators to use flat-rate electric service when it would eliminate the need for a meter. Whenever permitted by the electric service provider, the electric meter should be painted to match the pole.
- H. **Telephone/Fiber Optic Utilities.** Cabinets for telephone and/or fiber optic utilities may not extend more than 10 inches beyond the pole centerline on either side, and must be painted, wrapped or otherwise colored to match the pole. Microwave or other wireless backhaul is discouraged when it would involve a separate and unconcealed antenna.
- I. **Spools and Coils.** To reduce clutter and deter vandalism, excess fiber optic or coaxial cables shall not be spooled, coiled or otherwise stored on the pole except within the approved enclosure such as a cage or cabinet.

- J. **Underground Conduit.** All underground conduit placed behind the curb face and underneath the sidewalk must be SCH 40 PVC encased in concrete. All underground conduit must be SCH 40 PVC encased in rigid metal material when placed: (1) underneath driveway aprons, (2) within tree wells or (3) in front of the curb face and beneath the street. See City Supplement Item No. 1321.
- K. **Above-Ground Conduit.** On wood poles, all above-ground wires, cables and connections shall be encased in the smallest section or smallest diameter PVC channel, conduit, u-guard, or shroud feasible, with a maximum dimension of 4" diameter, and painted to match the pole.
- L. **Ground Rods.** All ground rods shall be 1 inch in diameter and 10 feet in length made from copper-clad steel (high strength) as required in ASTM A325 and in compliance with ODOT CMS City Supplement Item No. 1320.
- M. **Lights.** Unless otherwise required for compliance with FAA or FCC regulations, the facility shall not include any permanently installed lights. Any lights associated with the electronic equipment shall be appropriately shielded from public view. The provisions in this subsection shall not be interpreted to prohibit installations on streetlights or the installation of luminaires on new poles when required by the Department.
- N. **Generally Applicable Health and Safety Regulations.** All facilities shall be designed, constructed, operated and maintained in compliance with all generally applicable health and safety regulations, including without limitation all applicable regulations for human exposure to RF emissions.

## Section 2. General Location Criteria

- A. **Collocation Preference.** Whenever an applicant proposes to place a new wireless facility within 300 feet from an existing wireless facility, whether on a new pole or an existing potential support structure, the applicant must either collocate with the existing facility or demonstrate with clear and convincing evidence that a collocation is either not technically feasible or space on the existing facility is not potentially available.
- B. **General Limitation on New Poles.** The Department strongly discourages more than one (1) wireless facility on a new pole per block and will not approve more than one per block on each side of the street unless the applicant qualifies for a limited exception pursuant to Section 719-9(h) of CMC Chapter 719.

- C. **Alignment with Other Poles.** The centerline of any new pole must be aligned with the centerlines of existing poles on the same sidewalk segment (typically two feet from the back of the curb). After the Department approves a proposed new pole location, but before the permittee commences construction, the permittee must verify the correct pole alignment in the field.
- D. **Setbacks for Visibility and Access.** Any new pole and/or equipment and other improvements associated with a new pole or an existing pole must be setback from intersections, alleyways and driveways and placed in locations where it will not obstruct motorists' sightlines or pedestrian access. In general, the Department will presume that no obstruction will occur when a new pole and/or equipment is setback at least (i) 50 feet from any intersection; (ii) six (6) feet from any driveway cut or alleyway entrance or exit; and (iii) six (6) feet from any permanent object or existing lawfully-permitted encroachment in the public right-of-way, including without limitation bicycle racks, traffic signs and signals, street trees, open tree wells, benches or other street furniture, streetlights, door swings, gate swings or sidewalk café enclosures. The Department may, in its discretion, require an additional setback for a specific pole when it determines that the presumptively acceptable setback would nevertheless obstruct motorists' sightlines or pedestrian access.
- E. **Obstructions.** Any new pole and/or equipment and other improvements associated with a new pole or an existing pole must not obstruct any: (i) worker access to any above-ground or underground infrastructure for traffic control, streetlight or public transportation, including without limitation any curb control sign, parking meter, vehicular traffic sign or signal, pedestrian traffic sign or signal, barricade reflectors; (ii) access to any public transportation vehicles, shelters, street furniture or other improvements at any public transportation stop (including, without limitation, bus stops, streetcar stops, and bike share stations); (iii) worker access to above-ground or underground infrastructure owned or operated by any public or private utility agency; (iv) fire hydrant access; (v) access to any doors, gates, sidewalk doors, passage doors, stoops or other ingress and egress points to any building appurtenant to the right-of-way; or (vi) access to any fire escape.
- F. **Historic or Architecturally Significant Structures.** Any new pole and/or equipment and other improvements associated with a new pole or an existing pole may not be placed directly in front of any historic or architecturally significant structures in prominent or highly visible locations.

### Section 3. New and Replacement Poles

- A. **General Restrictions on New Wood Poles.** In all locations, the Department reserves the right to require a metal pole rather than a wood pole based on the built and/or natural environmental character of the proposed site location. The Department shall not approve any new wood poles in the following districts:
- a. Downtown Development District;
  - b. Riverfront Residential / Recreation Districts;
  - c. Historic Overlay Districts (including area adjacent to historic landmarks);
  - d. Underground Utility Districts (including areas where all utilities are primarily underground even if not established as formal district); and
  - e. Park and Recreation Districts primarily designed as more urban and active (in contrast to Park and Recreation Districts primarily designed as more suburban and passive with heavily wooded backdrop).
- B. **Overall Height.** Any pole greater than 36 feet above ground level shall be subject to standard review and approval by the Department. The Department shall consider other poles in vicinity, the built environment, the neighborhood character, the overall site appearance and the purposes in these Guidelines. The zoning district height limit shall not be determinative.
- C. **Pole Diameter.** Any wood pole with a diameter greater than 12 to 14 inches or any tapered metal pole with a diameter at base greater than 10 to 12 inches shall be subject to standard review and approval by the Department. The Department shall consider other poles in vicinity, the built environment, the neighborhood character, the overall site appearance and the purposes in these Guidelines.
- D. **Wood Pole Footings and Foundations.** All new wood poles must be direct buried to a depth determined, stamped, sealed and signed by a professional engineer licensed and registered by the State of Ohio, and subject to the Department's review and approval.
- E. **Tapered Metal Pole Footings and Foundations.** All new tapered metal poles must be supported with a reinforced concrete pier designed, stamped, sealed and signed by a professional engineer licensed and registered by the State of Ohio, and subject to the Department's review and approval. Footings and anchor bolts must be constructed from steel (high strength) per ATSM A36, threaded (J-type / L-type), hot-dip galvanized per ODOT CMS Item No. 711.02 and in a length and diameter determined, stamped, sealed and signed by a professional engineer licensed and registered by the State of Ohio, and subject to the Department's review and approval. All anchor bolts must be concealed

from public view with an appropriate pole boot or cover subject to the Department's prior approval.

- F. **Tapered Metal Pole Material.** All tapered metal poles must be constructed from hot-dip galvanized steel or other corrosion-resistant material approved by the Department and finished in accordance with these Guidelines to avoid rust stains on adjacent sidewalks, buildings or other improvements.
- G. **Metal Pole Finish.** Metal poles must be painted black (Federal Color No. 27038). The applicant may select a paint or powder coat system in compliance with ATSM standards.
- H. **Lighting; Banners.** The Department may require the applicant to install functional streetlights and/or banners when technically feasible and the Department determines that such additions will enhance the overall appearance and usefulness of the proposed facility.

#### **Section 4. Installations on Existing Poles and Other Potential Support Structures**

- A. **General.** The Department encourages applicants to consider existing poles and other potential support structures prior to any new pole to reduce congestion in the public right-of-way. The Department will consider all generally applicable design, construction and location standards when reviewing applications for new facilities installed on existing poles or other potential support structures in the public right-of-way.
- B. **Privately-Owned Structures.** For a privately-owned structure in the public right-of-way onto which an applicant proposes to attach a wireless communications facility, if the owner of the structure requires a restrictive standards than those contained in these Guidelines, the more restrictive standards shall control. If any portion of a privately-owned structure is on private property, the applicant must first obtain all applicable zoning and building permits prior to submittal of an application to the Department.
- C. **City-Owned Structures.** The City, in its proprietary capacity, retains sole and absolute discretion over whether and on what terms it may allow wireless facilities on its poles and other facilities in the public right-of-way notwithstanding conflicting design provisions set forth in these Guidelines. Applicants may not submit any applications in connection with City-owned poles or other facilities without a valid and fully executed agreement to use the specific pole or other facility. The City shall not authorize any attachments to City-owned infrastructure that negatively impacts the structural integrity of the support structure.

- a. **Standard CBD MOLT System Pole with Luminaire.** Refer to Appendix A for detailed design specifications for installations on Standard CBD MOLT System Poles. To the extent that any generally applicable standards in these Guidelines conflict with the design or specifications in Appendix A, the specifications in Appendix A will control.
- b. **Standard Tapered Metal Pole with Mast Arm and Luminaire.** Refer to Appendix B for detailed design specifications for installations on Standard Tapered Metal Pole with Mast Arm and Luminaire. To the extent that any generally applicable standards in these Guidelines conflict with the design or specifications in Appendix B, the specifications in Appendix B will control.
- c. **Independent Power Source.** A Wireless Communications Facility on a city-owned Potential Support Structure may not use the same power source that provides power for the original purpose of the Potential Support Structure.
- d. **City-Owned Traffic Control Signal Poles.** The City prohibits wireless facilities (and all other non-traffic control facilities) on City-owned traffic control signal poles.

## **Section 5. Additional Design and Construction Standards for Major Modifications**

In addition to all applicable General Design and Construction Standards, the Department requires all major modifications to eligible facilities (Type II application) to comply with the following requirements:

- A. **Coordination with Original Facility Design.** The applicant must design the proposed installation in a manner that mimics the design and any concealment elements of the existing facility. To the extent feasible, new facilities should utilize capacity in existing equipment cages or cabinets and existing conduits or risers. The Department may, in its discretion, authorize the applicant to replace an existing equipment enclosure with a larger one when the Department determines that a larger enclosure is more visually appropriate than a second enclosure on the same support structure.
- B. **Antennas.** Any additional antenna(s) installed to the support structure must be side-mounted and parallel to the roadway. The Department prohibits side-mounted antennas that overhang the roadway, but may permit side-mounted antennas that overhang the sidewalk provided that the antenna complies with all applicable setbacks requirements in these Guidelines and the CMC.

- C. **Structural Integrity.** Any additional equipment must not negatively impact the structural integrity of the support structure and must comply with all applicable local, state and federal codes and regulations.

**Section 6. Standard Configuration Facilities**

- A. **Definition.** The Department defines a “standard configuration facility” as a pole-mounted wireless communication facility less than or equal to 36 feet above ground level in overall height, with pole-mounted or undergrounded equipment and compliant with all applicable general design standards and all the general location standards. Proposed facilities with ground-mounted equipment shall not be eligible for review as a standard configuration facility. Appendix C to these Design Guidelines illustrates a standard configuration facility. To the extent that any generally applicable standards in these Guidelines conflict with the design or specifications in Appendix C, the specifications in Appendix C will control.
- B. **Applicable Standard of Review.** To encourage standard configuration facilities in appropriate locations, the Department generally applies minor review. Applications for standard configuration facilities may require standard review in certain locations where, for example, historic resources or the City’s investment in the public right-of-way necessitates a closer examination or a design more tailored to the specific location and context. Table 1 below delineates when the Department applies minor or standard review. Applications for standard configuration facilities on wood poles in “RESTRICTED” locations shall not be approved. Applications for standard configuration facilities in area not listed in Table 1 shall be subject to standard review.

**Table 1: Applicable Standard of Review for Standard Configuration Poles by Proposed Location**

<b>Location</b>	<b>Standard Wood Pole Configuration</b>	<b>Standard Metal Pole Configuration</b>
Downtown Development District	RESTRICTED	MINOR REVIEW
Riverfront Residential / Recreation Districts;	RESTRICTED	MINOR REVIEW
Historic Overlay Districts (including area adjacent to historic landmarks)	RESTRICTED	STANDARD REVIEW
Park and Recreation Districts (primarily designed as more urban and active)	RESTRICTED	MINOR REVIEW
All Underground Utility Districts	RESTRICTED	MINOR REVIEW
Planned Development Districts	STANDARD REVIEW	STANDARD REVIEW
Interim Development Control Overlay Districts	STANDARD REVIEW	STANDARD REVIEW

Urban Design Overlay Districts	STANDARD REVIEW	STANDARD REVIEW
Single-Family Residential Districts (including all T3 transects and T4N.SF Transect)	MINOR REVIEW	MINOR REVIEW
Residential Mixed and Multi-Family Districts (including all T4 transects except T4N.SF and T4N.MF-O)	MINOR REVIEW	MINOR REVIEW
Office Districts (including T4N.MF-O)	MINOR REVIEW	MINOR REVIEW
Institutional-Residential Districts	MINOR REVIEW	MINOR REVIEW
Commercial Districts (including all T5 transects)	MINOR REVIEW	MINOR REVIEW
Urban Mixed Districts	MINOR REVIEW	MINOR REVIEW
Manufacturing Districts	MINOR REVIEW	MINOR REVIEW
Riverfront Commercial Districts	MINOR REVIEW	MINOR REVIEW
Riverfront Manufacturing Districts	MINOR REVIEW	MINOR REVIEW
Park and Recreation Districts (primarily designed as more suburban and passive with heavily wooded backdrop)	MINOR REVIEW	MINOR REVIEW
Neighborhood Business Districts	STANDARD REVIEW	MINOR REVIEW

- C. Standard Configuration Facilities on Existing Poles.** In accordance with the Department's general preference for wireless facilities on existing potential support structures, a proposed standard configuration facility on an existing pole will be eligible for minor review provided that the proposed facility on the existing pole does not exceed 36 feet above ground level and the finished project complies with all applicable design, construction and location standards.

## **Part V Approvals and Denials**

### **Section 1. Required Findings for Approvals.**

- A. Standard Review.** The Department may approve or conditionally approve an application subject to standard review only when it finds that:
- a. the proposed wireless facility, its support structure, equipment and all associated improvements, have been designed and sited in a manner that is sympathetic to the particular architectural character of the buildings and compatible with the streetscape in the vicinity of the proposed project site;
  - b. design elements of the proposed wireless facility, its support structure, equipment and all associated improvements, have been sensitively selected to reflect the detailing and materials associated with the buildings and streetscape in the vicinity of the proposed project site;

- c. the proposed wireless facility, its support structure, equipment and all associated improvements, have been designed and sited in a manner that does not adversely impact right-of-way circulation, accessibility, or obstruct existing or planned-future uses of the right-of-way; and
  - d. the proposed wireless facility complies with all applicable design, construction and location provisions in the Guidelines.
- B. **Minor Review.** The Department may approve or conditionally approve an application for a standard configuration facility subject to minor review only when it finds the following:
- a. the proposed project complies with all applicable design and construction standards for a standard configuration facility;
  - b. the proposed project complies with all applicable location standards; and
  - c. the project is proposed in a location identified appropriate for minor review in Table 1, found in Part IV of these Guidelines, above.

## Section 2. Minor Technical Exceptions.

- A. **Purpose.** The Department recognizes that in some circumstances strict compliance with these Guidelines may result in undesirable aesthetic outcomes, and that minor deviations should be granted when the need for such deviation arises from circumstances outside the applicant's control. For example, if an applicant proposes to construct a standard configuration facility in an office district, but required a pole with a slightly wider base due to a poor foundation conditions, the Department would consider granting a technical exception rather than subjecting an otherwise preferred design to a standard review. In contrast, if an applicant proposed a 50-foot tall standard configuration facility in an office district because it desired additional service area, the Department would apply standard review because the need for additional height arises from the applicant's preferences. This section describes the required findings for a minor technical exception.
- B. **Required Findings.** The Department may, in its sole discretion, grant a minor technical exception from strict compliance with the design and location guidelines when the Department finds that:
- a. the applicant has requested an exception in writing;
  - b. the proposed facility would normally qualify for minor review but for the need for a minor technical exception;
  - c. the need for the exception arises from an external factor outside the applicant's control that impact public health, safety or welfare, including without limitation soil compaction, existing congestion or

- clutter within the right-of-way or other location-specific phenomenon;
- d. the proposed deviation from the applicable requirement is less than 10% larger than the generally applicable standard; and
- e. the granting of a minor technical exception would not create any obvious hazard or unreasonable obstruction in the public right-of-way.

**Section 3. Written Decision.**

Within five (5) working days after the Department renders a decision, the Department shall send written notice to the applicant. Any denial shall include the reasons for the denial, and information about how and when to file an appeal.

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NOTES:

1. STRUCTURAL REQUIREMENTS:

- A. THE APPLICANT SHALL SUBMIT STRUCTURAL, WIND LOAD, AND POLE PENETRATION DESIGN CALCULATIONS AND PLANS IN COMPLIANCE WITH AASHTO STANDARDS SIGNED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF OHIO.
- B. EXCAVATION, CONSTRUCTION, AND/OR INSTALLATION OF THE REQUIRED NEW ADJACENT UNDERGROUND PULLBOX SHALL NOT NEGATIVELY IMPACT OR UNDERMINE THE EXISTING LIGHT POLE FOOTING / FOUNDATION PIER OR ANY OTHER NEARBY STRUCTURE

2. WIRING & CABLE MANAGEMENT:

- A. ALL WIRING AND/OR CABLING AND THEIR CONNECTIONS SHALL BE CONCEALED FROM VIEW.

3. EQUIPMENT DESIGN:

- A. THE DESIGN OF POLE MOUNTED SYSTEM EQUIPMENT AND SHROUDS MAY VARY AS REQUIRED PER MANUFACTURER PER REVIEW AND APPROVAL OF COMPLIANCE WITH THE MAXIMUM DIMENSIONAL LIMITS NOTED .
- B. THE DESIGN INTENT FOR ALL EQUIPMENT AND SHROUDS IS TO INSTALL THE SMALLEST, LEAST PHYSICALLY AND VISUALLY INTRUSIVE EQUIPMENT AND SHROUDS POSSIBLE.

4. FINISHES:

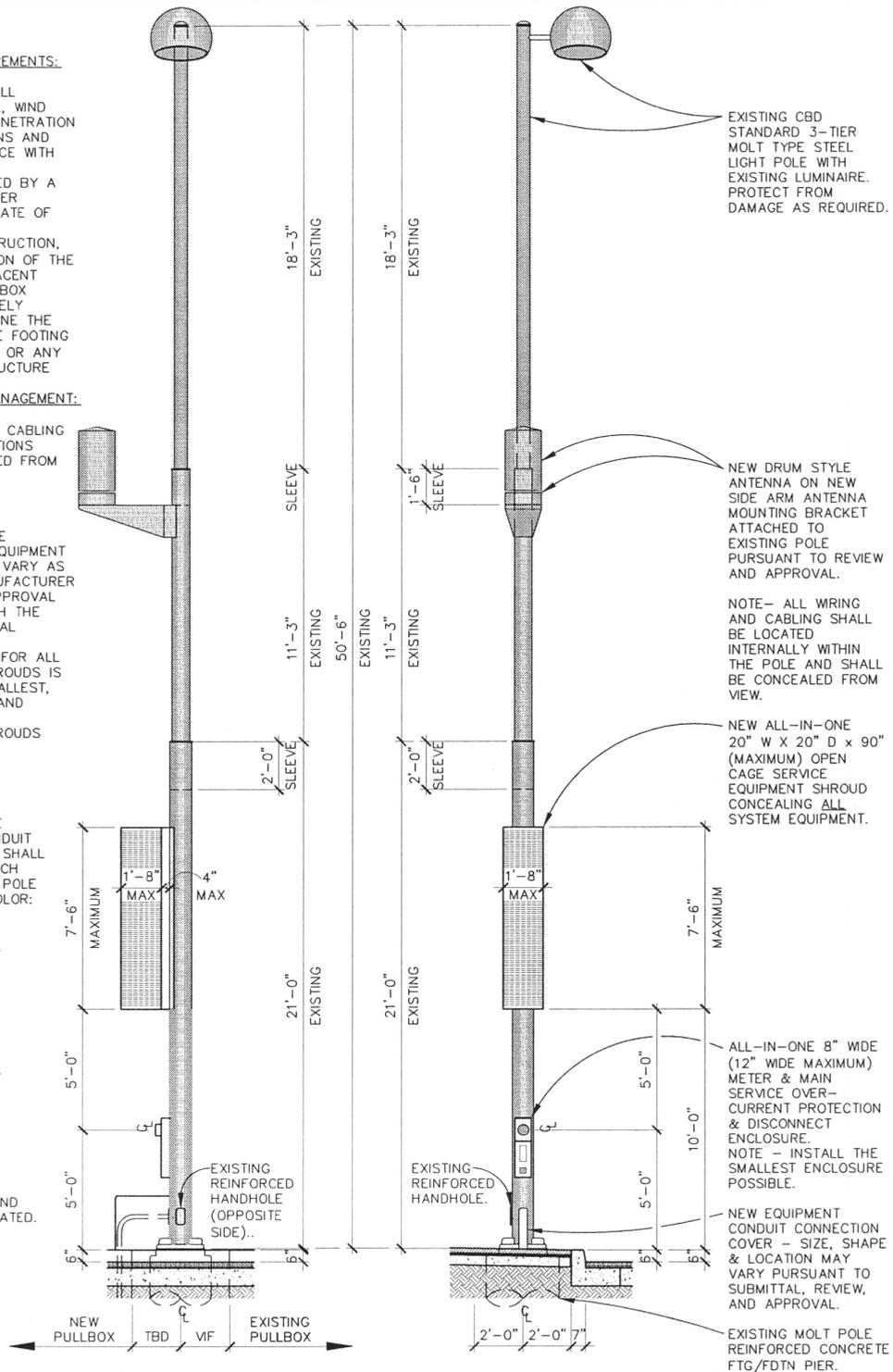
- A. ALL POLE MOUNTED EQUIPMENT AND THE ABOVE GROUND CONDUIT CONNECTION COVER SHALL BE PAINTED TO MATCH THE EXISTING LIGHT POLE APPROVED PAINT COLOR: FEDERAL STANDARD COLOR # 27038 - BLACK(SEMI-GLOSS).

5. EQUIPMENT NOISE:

- A. NOISE GENERATING EQUIPMENT SHALL NOT BE INSTALLED.

6. EQUIPMENT SIGNING:

- A. ALL EQUIPMENT IDENTIFICATION, COMPLIANCE, AND WARNING STICKERS SHALL BE THE SMALLEST SIZE AND FEWEST NUMBER ALLOWED BY LAW AND SYMMETRICALLY LOCATED.



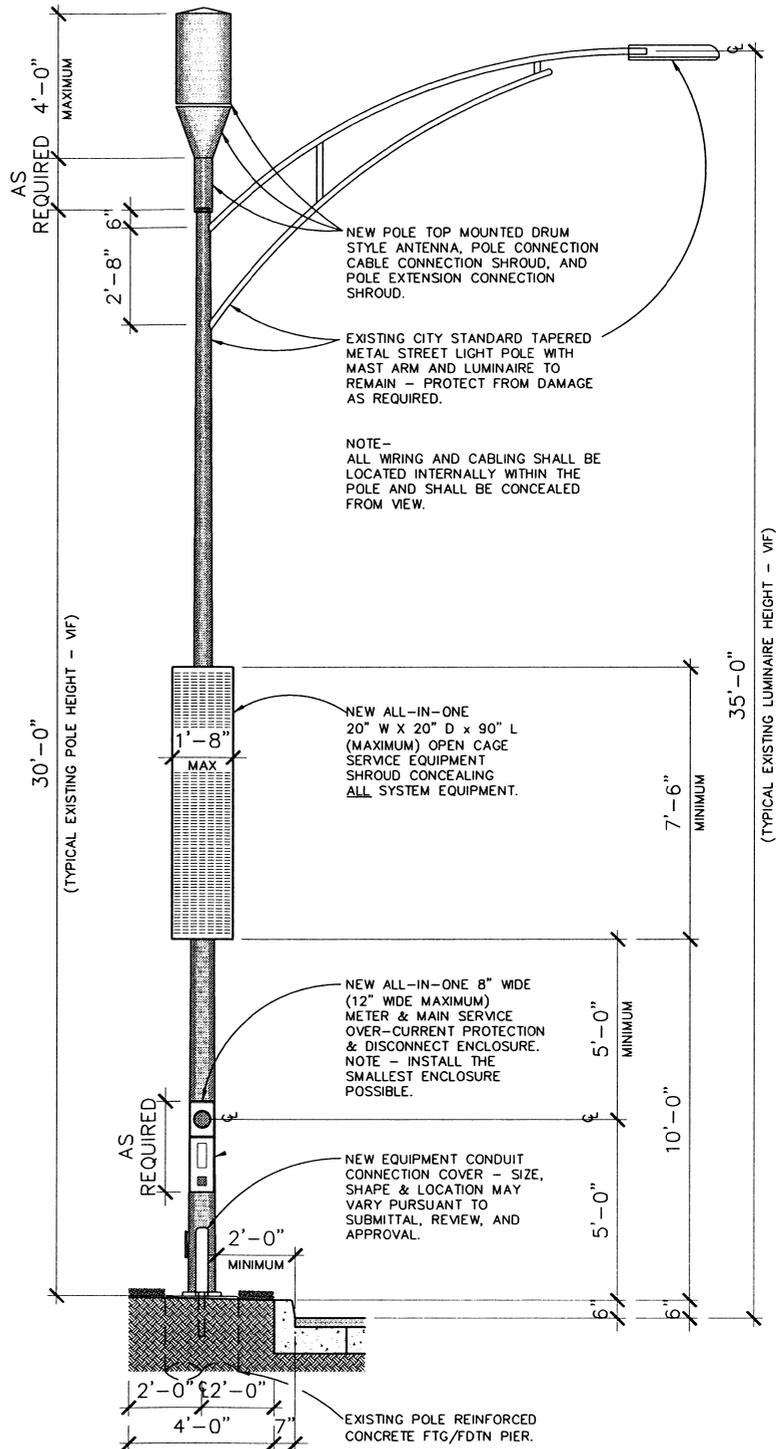
Appendix-A:  
 Standard Configuration - Existing CBD MOLT Pole with Pole Mounted System A

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NOTES:

1. STRUCTURAL REQUIREMENTS:
  - A. THE APPLICANT SHALL SUBMIT STRUCTURAL, WIND LOAD, AND POLE PENETRATION DESIGN CALCULATIONS AND PLANS IN COMPLIANCE WITH AASHTO STANDARDS SIGNED AND STAMPED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF OHIO.
  - B. EXCAVATION, CONSTRUCTION, AND/OR INSTALLATION OF THE REQUIRED NEW ADJACENT UNDERGROUND PULLBOX SHALL NOT NEGATIVELY IMPACT OR UNDERMINE THE EXISTING LIGHT POLE FOOTING / FOUNDATION PIER OR ANY OTHER NEARBY STRUCTURE
2. WIRING & CABLE MANAGEMENT:
  - A. ALL WIRING AND/OR CABLING AND THEIR CONNECTIONS SHALL BE CONCEALED FROM VIEW.
3. EQUIPMENT DESIGN:
  - A. THE DESIGN OF POLE MOUNTED SYSTEM EQUIPMENT AND SHROUDS MAY VARY AS REQUIRED PER MANUFACTURER PER REVIEW AND APPROVAL OF COMPLIANCE WITH THE MAXIMUM DIMENSIONAL LIMITS NOTED .
  - B. THE DESIGN INTENT FOR ALL EQUIPMENT AND SHROUDS IS TO INSTALL THE SMALLEST, LEAST PHYSICALLY AND VISUALLY INTRUSIVE EQUIPMENT AND SHROUDS POSSIBLE.
4. FINISHES:
  - A. ALL POLE MOUNTED EQUIPMENT AND THE ABOVE GROUND CONDUIT CONNECTION COVER SHALL BE PAINTED MATTE SILVER TO MATCH THE EXISTING STREET LIGHT POLE
5. EQUIPMENT NOISE:
  - A. NOISE GENERATING EQUIPMENT SHALL NOT BE INSTALLED.
6. EQUIPMENT SIGNING:
  - A. ALL EQUIPMENT IDENTIFICATION, COMPLIANCE, AND WARNING STICKERS SHALL BE THE SMALLEST SIZE AND FEWEST NUMBER ALLOWED BY LAW AND SYMMETRICALLY LOCATED.



Appendix-B:  
 Standard Configuration - Existing Street Light Pole with Pole Mounted System

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NOTES:

1. NEW WOOD POLE INSTALLATIONS:

- A. ALL WOOD POLES SHALL BE INSTALLED AND MAINTAINED VERTICAL AND PLUMB.
- B. ALL WOOD POLES SHALL HAVE A BURY DEPTH AS REQUIRED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF OHIO.
- C. ALL WOOD POLE INSTALLATIONS SHALL HAVE A 36'-0" MAXIMUM HEIGHT ABOVE GRADE.

2. POLE ATTACHMENT:

- A. ALL EQUIPMENT CABINETS AND/OR SHROUDS SHALL BE ATTACHED, ANCHORED, AND/OR STRAPPED TIGHTLY TO THE POLE A WITH A 4" MAXIMUM OFFSET.
- B. ALL CONDUIT SHROUDS SHALL BE STRAPPED TIGHTLY TO THE POLE AND SHALL NOT BE OFFSET FROM THE POLE.
- C. ALL POLE ATTACHMENT, ANCHORING, AND STRAPPING HARDWARE SHALL BE HOT-DIPPED GALVANIZED STEEL.

3. WIRING & CABLE MANAGEMENT:

- A. ALL WIRING AND/OR CABLING AND THEIR CONNECTIONS SHALL BE CONCEALED FROM VIEW, SHALL NOT BE LOOSELY INSTALLED, LOOPED, OR CONNECTED EXTERNAL OF SHROUDING.
- B. ALL SHROUDING SHALL BE ANCHORED AT EQUALLY SPACED INTERVALS TO KEEP THE CONDUIT STRAIGHT AND TAUT AGAINST THE POLE.
- C. OPEN WIRING AND/OR CABLING ENCLOSURES SHALL NOT BE PERMITTED OR INSTALLED.

4. EQUIPMENT DESIGN:

- A. THE DESIGN OF THE ANTENNA, ANTENNA POLE ATTACHMENT SHROUD, ALL-IN-ONE OPEN-CAGE SERVICE EQUIPMENT SHROUD, AND ALL-IN-ONE METER ENCLOSURE MAY VARY AS REQUIRED PER MANUFACTURER IN COMPLIANCE WITH THE MAXIMUM DIMENSIONAL LIMITS NOTED.

5. FINISHES:

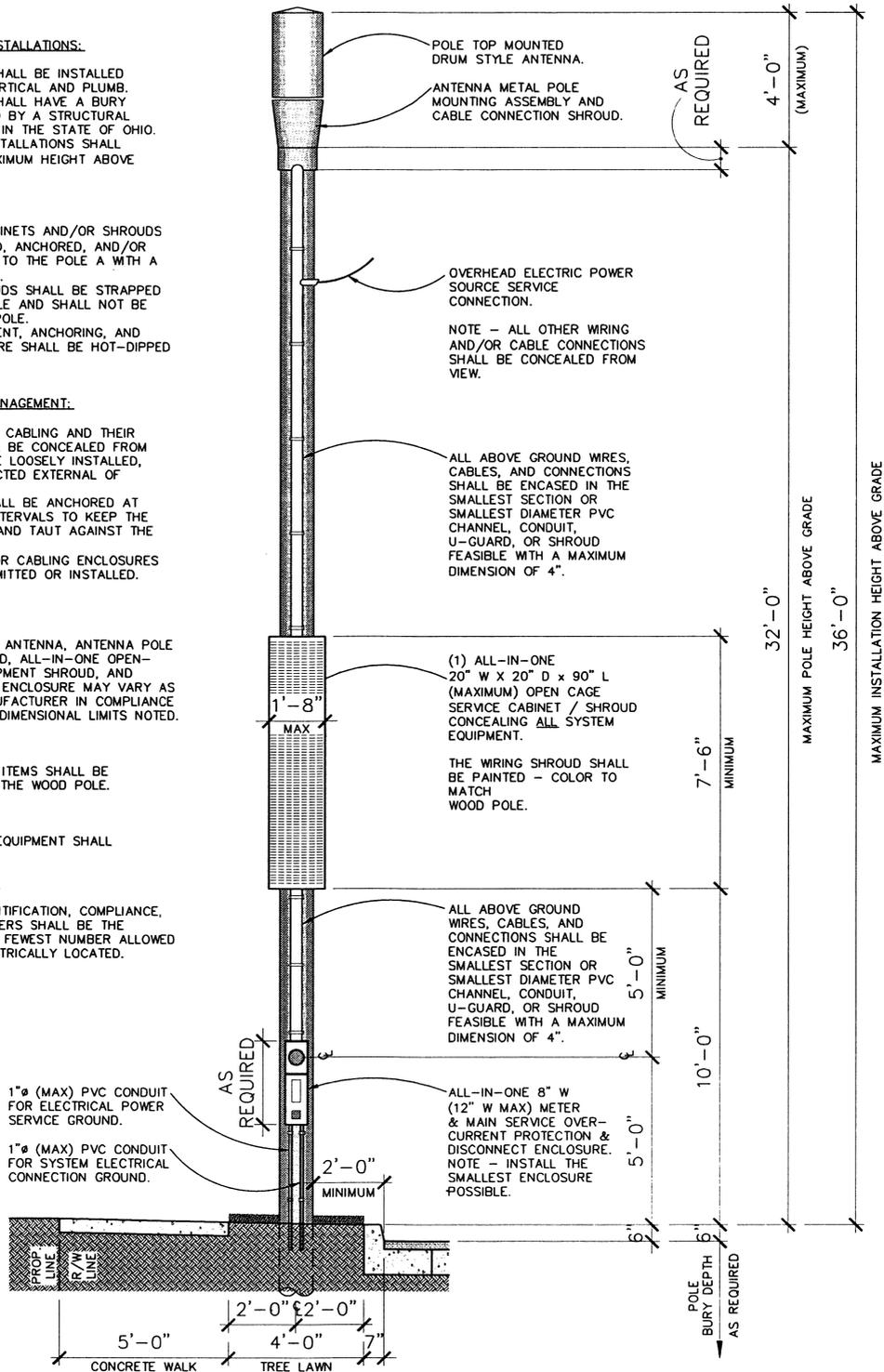
- A. ALL POLE MOUNTED ITEMS SHALL BE PAINTED TO MATCH THE WOOD POLE.

6. EQUIPMENT NOISE:

- A. NOISE GENERATING EQUIPMENT SHALL NOT BE INSTALLED.

7. EQUIPMENT SIGNING:

- A. ALL EQUIPMENT IDENTIFICATION, COMPLIANCE, AND WARNING STICKERS SHALL BE THE SMALLEST SIZE AND FEWEST NUMBER ALLOWED BY LAW AND SYMMETRICALLY LOCATED.



Appendix-C:  
 Standard Configuration - New Wood Pole w/ New Pole Mounted System

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NOTES:

1. NEW TAPERED METAL POLE INSTALLATIONS:
  - A. ALL TAPERED METAL POLES SHALL BE INSTALLED AND MAINTAINED VERTICAL AND PLUMB.
  - B. ALL TAPERED METAL POLES SHALL BE ANCHORED ONTO A REINFORCED CONCRETE FOOTING / FOUNDATION PIER AS REQUIRED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF OHIO.
  - C. ALL TAPERED METAL POLE INSTALLATIONS SHALL HAVE A 36'-0" MAXIMUM HEIGHT ABOVE GRADE.
2. POLE ATTACHMENT:
  - A. ALL EQUIPMENT CABINETS AND/OR SHROUDS SHALL BE ATTACHED, ANCHORED AND/OR STRAPPED TIGHTLY TO THE POLE.
  - B. ALL POLE ATTACHMENT, ANCHORING, AND STRAPPING HARDWARE SHALL BE HOT-DIPPED GALVANIZED STEEL.
3. WIRING & CABLE MANAGEMENT:
  - A. ALL WIRING AND/OR CABLING AND THEIR CONNECTIONS SHALL BE LOCATED INTERNALLY WITHIN THE POLE AND CONCEALED FROM VIEW.
4. EQUIPMENT DESIGN:
  - A. THE DESIGN OF THE ANTENNA, ANTENNA POLE ATTACHMENT SHROUD, ALL-IN-ONE OPEN-CAGE SERVICE EQUIPMENT SHROUD, AND ALL-IN-ONE METER ENCLOSURE MAY VARY AS REQUIRED PER MANUFACTURER IN COMPLIANCE WITH THE MAXIMUM DIMENSIONAL LIMITS NOTED.
5. FINISHES:
  - A. ALL POLE MOUNTED ITEMS SHALL BE PAINTED IN COMPLIANCE WITH THE GUIDELINES.
6. EQUIPMENT NOISE:
  - A. NOISE GENERATING EQUIPMENT SHALL NOT BE INSTALLED.
7. EQUIPMENT SIGNING:
  - A. ALL EQUIPMENT IDENTIFICATION, COMPLIANCE, AND WARNING STICKERS SHALL BE THE SMALLEST SIZE AND FEWEST NUMBER ALLOWED BY LAW AND SYMMETRICALLY LOCATED.

