

# ARTICLE 16. BROADBAND REQUIREMENTS AND CRITERIA

## [Rule 1.](#)

## Broadband Requirements and Criteria

### Rule 1. Broadband Requirements and Criteria

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#### 105 IAC 16-1-1 Purpose of rule

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 1. The department is authorized to determine and establish such rules and regulations known as a dig once program for the installation of fiber optic conduit within the limited access highways during specified work conditions. Dig once policies provide ready-made, buried conduits, enabling future providers a more cost effective and efficient method to install fiber by threading it through existing conduits. Installing empty conduit, which is relatively inexpensive during construction projects, supports future expansion by substantially lowering the expense of digging for providers. It allows for fiber optic and conduit placement during significant construction projects. (*Indiana Department of Transportation; 105 IAC 16-1-1; emergency rule filed Dec 16, 2021, 12:43 p.m.: 20211222-IR-105210537ERA, eff Jan 1, 2022*)

#### 105 IAC 16-1-2 Definitions

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-1-32.5-3](#); [IC 8-23-1-19](#); [IC 8-23-1-28](#); [IC 8-23-2-1](#); [IC 8-23-5-10](#)

Sec. 2. The following definitions apply throughout this rule:

(1) "Access control" means the regulation of public access to and from properties abutting the highway facilities.

(2) "Applicant" means a person or entity applying for a permit to install:

(A) broadband; or

(B) broadband facilities;

or both.

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- (3) "As-built plans" means a revised set of drawings submitted by the permittee upon completion of the broadband installation showing the exact location of the installed handholes or other facilities.
- (4) "ASCII" refers to American Standard Code for Information Interchange.
- (5) "ASTM" refers to American Society for Testing and Materials.
- (6) "Backfill" means the replacement of excavation with suitable material compacted as specified.
- (7) "Bore pits" means an excavation of specific size to house a boring machine and tracks.
- (8) "Broadband" means the transmission or communication through Internet Protocol enabled retail services by a person or an entity that:
  - (A) transmits communications through Internet Protocol enabled retail services, including: voice, data, video, or any combination of voice, data, and video communications; or
  - (B) provides the necessary software, hardware, transmission service, or transmission path for communications described in subdivision (1);
- is not a public utility solely by reason of engaging in any activity described in subdivisions (1) through (2) at speeds that meet or exceed the Federal Communications Commission definition of high speed.
- (9) "Broadband access permit" means the right granted to install improvements on, below, or above state-owned or controlled property for the purposes of fiber optic data transmission.
- (10) "Clear zone" means the portion of the roadside within state-owned or controlled right-of-way that is free of non-traversable hazards and fixed objects.
- (11) "Conduit" means a rigid pipe or tubing usually of high-density polyethylene that is placed underground to protect fiber optic cable or communications infrastructure.
- (12) "Conduit bank" means a system of more than one conduit bundled together to protect and consolidate communications infrastructure.
- (13) "Department" refers to the Indiana department of transportation established by [IC 8-23-2-1](#).
- (14) "Depth of cover" means the distance between the top of an underground facility including conduit to the surface of the ground or pavement.
- (15) "Dig once" means a policy and practices that provide efficient access to conduit and limits the number and scale of excavations when installing telecommunication infrastructure in a highway right-of-way.
- (16) "Electronic permitting system" means the electronic online system used to record activity related to a department permit including plan submittals, correspondence, and payment activity.
- (17) "ESRI" refers to Environmental System Research Institute.
- (18) "Facility" means any privately, municipally, publicly, or cooperatively owned systems for supplying broadband services, directly or indirectly, to the public.
- (19) "Handhole" means an underground enclosure in which conduit enters the enclosure and includes an access point to either a conduit or fiber optic cable.
- (20) "HDPE" means high density polyethylene.
- (21) "HMWPE" means high molecular weight and high-density polyethylene.
- (22) "ITS" means the intelligent traffic systems and the infrastructure and equipment maintained by the department, including advanced traffic management systems.
- (23) "Limited access highway" has the meaning set forth in [IC 8-23-5-10\(a\)\(4\)](#).
- (24) "Longitudinal installation" means any broadband facility that is installed parallel to the centerline of the roadway.
- (25) "Manhole" means an opening in an underground system where a worker or workers may enter for the purpose of working on the facilities.
- (26) "Median" means the portion of a divided highway separating the traveled way for traffic in opposite directions.
- (27) "Occupancy" means the presence of broadband facilities within the right-of-way.
- (28) "Operator" means any broadband service provider, contractor, subcontractor, consultant or any party affiliated with who is constructing, operating, providing or installing fiber optic cable.
- (29) "Permit" means a legal document in which the department gives written permission to an applicant to perform work on the highway right-of-way.
- (30) "Relocation" means any activity involving a facility that is needed for a roadway improvement project including, abandoning, altering, deactivating, installing, maintaining, modifying, moving, removing, or supporting.

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(31) "Right-of-way" means state-owned or controlled land, property, or interest acquired for or devoted to transportation purposes.

(32) "Site" means those portions of INDOT's real property on, over, and under which operator may install improvements.

(33) "Splice" means a permanent junction between two fiber or HDPE conduit ends.

(34) "Tracer wire" means a continuous wire placed into each run of conduit with all fiber optic cable to locate underground conduit or pipe.

(35) "Vault" means an underground enclosure in which conduit enters into the enclosure to serve as an access point for intercepting, placing, extending, or repairing a conduit or fiber optic cable, fiber optic splice case or a fiber optic slack loop.

*(Indiana Department of Transportation; 105 IAC 16-1-2; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)*

**105 IAC 16-1-3 Conduit installation; when allowed**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 3. (a) A conduit bank may be installed in the right-of-way while the department is performing certain types of work. Unless otherwise determined by the department, *[sic, the]* following are instances of when conduit may be installed in the right-of-way:

(1) Any work performed alters the limits of the right-of-way, such as added travel lanes and construction or reconstruction of interchanges, bridges or overpasses.

(2) Work necessitates the relocation of sanitary sewer or storm drainage.

(3) Addition of travel lanes, ramp systems or other significant traffic pattern changes to the existing systems occurs.

(4) Reconstruction includes excavation or other alterations to the sub grade layer.

(5) Construction projects identified by ITS as a need for installation of facilities for state use.

(6) Installation shall be a minimum of fifty (50) feet from existing bridges, overpasses, walls, small pipes, lights, ITS or any other department structure.

(7) Costs for installation would be primarily state funds.

(8) Private entities bid the work as part of the normal contracting process for the road work to be performed.

(9) Any ITS project placing conduit for performance upgrade will include additional conduits.

(b) Conduit may not be installed in the department's right-of-way under the following conditions:

(1) At locations that may have a high potential to conflict with proposed construction, highway maintenance, roadway operations, highway safety or future highway improvements. Examples include:

(A) Deep highway cut sections.

(B) Near footings of bridges or other highway structures.

(C) Diagonally across intersections.

(D) Cross-drains where flow of water, drift or stream bed may be obstructed.

(E) Longitudinally in or under a ditch.

(F) Wet or rocky terrain where minimum depth of cover would be difficult to attain.

(G) Soft soils subject to excess settlement.

(H) Median installations.

(I) Slip liner installation.

(J) Culvert replacement.

(K) Spot paving or strip paving.

*(Indiana Department of Transportation; 105 IAC 16-1-3; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)*

**105 IAC 16-1-4 Types of installations**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

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Sec. 4. (a) An operator may install conduit if during the department's construction project, there is space available in the trench to install additional conduit. Any conduit installed by the operator must be purple or terracotta in color.

(b) If no space is available in the trench for additional conduit, the operator shall install its own conduit a minimum of two (2) feet from the right-of-way fence and not within the department's roadway.

(c) An operator has conduit in the trench that pre-existed the department's conduit and operator desires to upgrade its conduit during the department's construction project.

(d) An operator may install fiber optic cable in the department's designated conduit if there is space available within the conduit following completion of the department's construction project. The determination will be made solely by the department. (*Indiana Department of Transportation; 105 IAC 16-1-4; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-5 Content of applications; incomplete applications; approval or denial of permits**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 5. (a) A separate application for a permit shall be made for each type of broadband through the department's electronic permitting system. The application must be verified and include, at a minimum, the following information:

(1) The complete name, title, address, electronic mail address and phone number of the applicant. If a subcontractor will be conducting the installation of the broadband, the subcontractor's information is required to be provided in the electronic permitting system, along with a signed copy of the Additional Disclosure Form SF 23237.

(2) The proposed location of the broadband, which includes identification of the location on the GIS map on the starting point of the proposed installation and the beginning and ending points via the route reference points in the electronic permitting system.

(3) The estimated start date and end date of the work to be performed.

(4) A detailed description, including the linear footage, type of each installation and the total amount of each type of broadband being installed.

(5) The project purpose.

(6) Plans of sufficient detail. The following documentation must be included in the plans:

(A) plan sheets, which are detailed and scaled to show the proposed location of the broadband and facility installation relative to the right-of-way congestion;

(B) maps, including all roadways that are to be included in the permit and the surrounding area of the work;

(C) a north directional arrow must be shown on each page of the plans and on the map;

(D) legend showing the symbols used on the plans and the color coding used to mark the plans;

(E) typical section view showing the proposed types of installations, including the height and depth, right-of-way lines, edge of pavement, centerline, driveways, bridges, culverts, traffic signals, existing utilities, drain inlets and drain outlets;

(F) traffic signal equipment, including the loop detectors and the distance from the equipment;

(G) all streets, including cross streets, must be labeled with the street name and route number on each page of the plans; and

(H) indicate match lines between the pages of the plans.

(7) Any other information or documentation reasonably related to the application that is required by the department. The application shall be completed accurately by the applicant, or by a representative duly authorized in writing to act for the applicant.

(b) An incomplete application will not be considered by the department, but minor deficiencies may be cured promptly after the department requires the applicant to provide additional information or documentation. Otherwise, all documents included with an incomplete application shall be returned to the applicant (but not sooner than fifteen (15) days after the date upon which it was submitted) without being processed, along with a written explanation of the reason for its return, shall be returned by the department. If an application is withdrawn or returned for any reason, and the applicant chooses to resubmit the application, the subsequently filed application shall be processed as a new application as of the date it is received by the department with a new application number.

(c) The department shall review each application on the basis of its qualifications as of the date received by the department.

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If the permit is approved by the department, written notice of this fact via the electronic permitting system shall be sent to the applicant. Any denial of a permit by the department shall be in writing, accompanied by an explanation of the rationale for the denial, and shall be sent through the electronic permitting system.

(d) The department shall have authority, thirty (30) days after notice in writing to the permittee, to revoke any permit issued under this rule where the application for the permit contains false or misleading information or where the permittee has violated any provision of this rule. (*Indiana Department of Transportation; 105 IAC 16-1-5; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

### **105 IAC 16-1-6 Broadband access agreement**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 6. A broadband access agreement must be fully executed by the operator and the department and approved by the state approving agencies prior to the issuance of a permit. The operator is not allowed to perform any work within the department's right-of-way without a valid permit and fully executed agreement. (*Indiana Department of Transportation; 105 IAC 16-1-6; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

### **105 IAC 16-1-7 Bond requirements**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 7. (a) A bond must be obtained by the operator prior to the issuance of a permit. The following requirements must be met:

(1) A surety must be in place in the name of the company that owns the broadband. If the name of the company changes for any reason, the surety must be updated to the new name of the company.

(2) For a performance bond, the amount of *[sic]* is determined based upon the amount of conduit, fiber optic cable, or facilities to be installed, with a minimum of ten thousand dollars (\$10,000) for up to five thousand (5,000) feet or ten thousand dollars (\$10,000) per mile or the total project costs for installation within the department's right-of-way, whichever is greater.

(b) For a blanket bond, the minimum required amount is five hundred thousand dollars (\$500,000). Bond recipients are responsible for increasing the blanket bond value to cover the sum of the cost of all open permits. If the cost exceeds the blanket bond amount at any time, no new permits will be issued until the surety amount is increased or some of the permits are closed. (*Indiana Department of Transportation; 105 IAC 16-1-7; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

### **105 IAC 16-1-8 Requirements for installation of conduit**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 8. (a) All conduits must have a minimum depth of cover of four (4) feet, including under ditches. All lines must be a minimum of two (2) feet below any buried drainage structure or improvement. All conduits shall be stubbed out a minimum of two (2) inches into each handhole.

(b) All conduits shall be installed pursuant to the approved permit plans and specifications.

(c) Conduit shall be installed underground by means of trenching or directional drilling.

(d) Warning tape shall be furnished and installed in all the trenches containing conduit, as shown on the approved permit plans.

(e) Conduit shall be placed two (2) feet from the department's right-of-way fence line and within the right-of-way. (*Indiana Department of Transportation; 105 IAC 16-1-8; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-9 Trenching**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 9. (a) In a common open trench, the ITS conduit, colored orange, blue and green, shall be placed first at the bottom of the trench. The limited access highway conduit shall be colored red, black, white, and grey and shall be placed above the ITS conduit. If there is space available in the trench, an operator may place conduit in the trench and the conduit shall be terracotta or purple colored.

(b) Conduit may be trenched or plowed at the operator's discretion and as allowed by the site conditions.

(c) All flexible roadside delineators disturbed during trenching operations shall be restored or replaced at no additional cost to the department.

(d) The conduit type, number and size shall be shown on the permit plans.

(e) Hand trenching is in areas where sensitive existing crossing utilities or broadband have been identified and will likely require positive identification of the existing utility or broadband prior to trenching above or below the existing utility line or where surface features such as riprap would inhibit trenching. The method of positive identification of the existing utility line shall be at the discretion of the operator and shall be accomplished with no additional compensation. Any material that is removed to accomplish hand trenching shall be restored or replaced in kind by the operator without additional compensation.

(f) Conduit may be installed by directional drilling at locations specified as hand trenched or offset trench on the permit plans with no additional compensation.

(g) Offset trench is in areas where the trench is located behind obstructions. This type of trenching shall utilize a long reach hydraulic driven trenching machine to reach over and beyond the obstruction to complete the trench.

(h) Trenches, bedding and backfill shall be in accordance with the INDOT Specifications as outlined in this subdivision [subsection]:

(1) Trenches will be cut with vertical faces where soil and depth conditions allow. The width of a trench will be the minimum necessary to accomplish the installation. Shoring shall be used when necessary, in accordance with Occupation Safety and Health Administration requirements.

(2) Bedding will be provided to a depth of six (6) inches or fifty percent (50%) of the nominal diameter of the pipe, duct, or duct bank, whichever is less. Bedding shall not be required for pipes, ducts or duct banks encased in concrete or flowable fill. The bottom of the trench shall be prepared to provide the pipe, duct or duct bank with uniform bedding support throughout the length of the installation.

(3) Backfill shall be provided in accordance with the INDOT Standard Specifications, Section 715.09\* as effective September 1, 2019.

\*INDOT 2020 Standard Specifications are hereby incorporated by reference. Copies of the 2020 Standard Specifications can be found at <https://www.in.gov/dot> or may be obtained at the Indiana Department of Transportation, 100 North Senate Avenue, Room N730, Indianapolis, Indiana 46204. (*Indiana Department of Transportation; 105 IAC 16-1-9; emergency rule filed Dec 16, 2021, 12:43 p.m.: 20211222-IR-105210537ERA, eff Jan 1, 2022*)

**105 IAC 16-1-10 Directional drilling**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 10. (a) All utility locations near the path of the proposed drill, including the depth of each utility, shall be identified prior to any drilling. All utilities and underground fiber shall be exposed prior to any drilling.

(b) The diameter of the drilled hole shall conform to the outside diameter of the conduit or conduits as closely as practical. The operator shall pressure grout to fill any voids which develop during the installation operation.

(c) The operator shall be responsible to remove and replace any conduit damaged in the directional drilling operations at no additional cost to the department.

(d) The use of water and other fluids in connection with the drilling operation will be allowed only to the extent necessary to lubricate cuttings. Jetting shall not be allowed, and the use of water alone as a drilling fluid shall not be used. The operator shall use a drilling fluid or slurry consisting of at least ten percent (10%) high grade, processed bentonite to consolidate excavated material,

seal the walls of the hole, and furnish lubrication for the subsequent removal of material and immediate installation of the conduit.

(e) The operator shall use a means of collecting and containing drilling fluid or slurry that returns to the surface, such as a slurry pit. The following procedures shall be utilized:

- (1) Provide measures to prevent drilling fluids from entering storm sewer systems.
- (2) Prevent drilling fluid or slurry from accumulating on or flowing onto sidewalks, other pedestrian walkways, driveways, or streets.
- (3) Immediately remove any slurry that is inadvertently deposited on pedestrian walkways.
- (4) Transport waste drilling slurry from the site and dispose of it.
- (5) Protect wetlands from slurry using appropriate soil erosion control measures, as no slurry shall be allowed to enter wetlands.

(f) A digital walkover locating system shall be used to track the drill head during the bore. At minimum, the locating system shall be capable of determining the pitch, roll, heading, depth, and horizontal position of the drill head at any point along the bore. During each drilling operation, the drill head shall be located every ten (10) feet along the bore and prior to crossing any underground utility or structure. Upon completion of the drilling operation and conduit installation, the operator shall furnish an as-built profile drawing and plan drawing for the drilled conduit, showing the horizontal and vertical locations of the installed conduit.

(g) The following actions on bridges or its structures shall not be allowed:

- (1) Attachments to any bridge or structure that reduces the under-bridge clearance for vehicles or vessels passing under the bridge or structure.
- (2) Drilling or welding of the steel girders.
- (3) Attaching conduit or hangers to the bridge barrier wall or bridge railing.

*(Indiana Department of Transportation; 105 IAC 16-1-10; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)*

#### **105 IAC 16-1-11 Conduit splicing**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 11. All HDPE conduit splices shall be done mechanically or be fusion spliced. *(Indiana Department of Transportation; 105 IAC 16-1-11; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)*

#### **105 IAC 16-1-12 Requirements for installation of fiber optic cable**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 12. (a) If space exists in the limited access highway conduit and operator has not previously installed its own conduit, the operator shall install fiber optic cable in the limited access highway conduit. An operator may populate no more than two (2) limited access highway conduits. If more than two (2) limited access highway conduits are needed, the operator must petition the department for an exception. The limited access highway conduit must be populated in its entirety by the operator or its subsidiary within ninety (90) days from the date of the full execution of the broadband access agreement.

(b) Fiber optic cable shall not be installed in a ditch line.

(c) Fiber optic cable must be located as to not interfere with the department's traffic signals and related equipment. The crossing must be a minimum of ten (10) feet away from the loop detectors on the backside of the loops.

(d) Fiber optic cable shall be labeled on the plan sheets as follows:

- (1) The length and type of fiber optic cable proposed for installation on each page.
- (2) The edge of pavement and/or curb and gutter.
- (3) The department's right-of-way line, depicting the total width of available right-of-way along the roadway route.
- (4) The distance of proposed fiber optic cable from the roadway.
- (5) The proposed fiber optic cable installation method on each plan sheet, such as hand, machine trenching, directional bore or plowing.

(e) Identification signs, no larger than two hundred (200) square inches, identifying the operator's name, telephone number

and the type of buried improvement must be placed within twelve (12) inches of the right-of-way fence, at the line of sight, along the entire occupancy route. Double signs must be used at all manhole or handhole locations, one sign at each end. (*Indiana Department of Transportation; 105 IAC 16-1-12; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-13 Requirements for installation of handholes**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 13. (a) Handholes shall be installed in accordance with the approved permit plans and specifications. Handhole covers shall be bolted into place with stainless steel bolts and washers. The cover frame shall be installed in the handhole with a butyl rubber sealant in tape/coil form for a proper seal between the handhole and frame to prevent it from moving out of place. The sealant shall comply with ASTM C990 for butyl rubber sealants.

(b) The cover for the handhole shall be marked with logo imprints of, "INDOT F/O Conduit Bank" horizontally across the cover.

(c) Handholes shall be located outside of sidewalks, trails, roadways, and shoulders.

(d) The handholes shall provide sufficient strength to withstand external design pressures including super imposed loads of soil, roadway, traffic and construction equipment.

(e) A readily identifiable and suitable marker shall be placed immediately above any underground communication lines where it crosses the right-of-way line.

(f) Handholes shall be located a minimum of three (3) feet off the edge of right-of-way [*sic, the right-of-way*] unless the handhole is to be installed in the utility strip along a curb and gutter roadway. If the handhole is in such a way as to permit a vehicle or piece of maintenance equipment to drive over the lid, it must be traffic rated.

(g) Handholes shall not be in the ditch line or under sidewalks, trails or pavement areas.

(h) Handholes may be buried in the department's right-of-way provided a programmable electronic marker system which includes the company name, date of installation, elevation and depth.

(i) All construction and maintenance operations shall be planned to minimize closure of intersecting streets, road approaches, traffic lanes, or other access points. No construction operations, which interfere with traffic, shall be allowed during periods of peak traffic flow. In accordance with the INDOT Design Manual, Chapter 503\* as effective January 1, 2013, a traffic control plan must be prepared and submitted with the permit application.

(j) The work site must be secure against any safety hazard to the public at all times until all work is completed. All pipe, conduit, wire, poles, cross arms or other materials located within the right-of-way prior to installation shall be placed outside of any ditches and at least thirty (30) feet beyond the edge of the traveled way or behind existing guard rails. The department may require construction or maintenance operations on the department's right-of-way to be discontinued during periods of inclement weather or when soil conditions are such that the work would result in extensive damage to the right-of-way or create an unsafe traveling condition.

(k) The operator must make every effort to minimize the areas disturbed by the work conducted. The operator must restore in a timely manner those areas disturbed to its original or better condition prior to the work conducted. Restoration of disturbed areas shall be in accordance with the requirements of the approved work plan and the terms and conditions of the permit.

(l) The operator must maintain existing drainage patterns during the installation, maintenance or removal of their facilities. Trenches and bore pits for underground facility installations shall be backfilled. Outlets or under drains shall be installed as needed to avoid entrapped water.

(m) The operator must contact the Indiana Underground Plant Protection Service two (2) days prior to any excavation or survey so that underground utilities may be located and marked.

(n) All facilities shall be maintained in good repair both structurally and aesthetically.

(o) A permit is required for the trimming, cutting, spraying or removal of trees, shrubs or other vegetation located within the right-of-way and such activities shall not occur without the specific written permission of the department. Tree removal includes removing the stump and backfilling the hole. All debris, refuse and waste shall be removed from the right-of-way.

(1) The work shall consist of clearing, grubbing, removal and disposal of all vegetation and debris within the construction limits as shown on the plans, except objects that are designated to remain or are to be removed. If no construction limits



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are shown, the right-of-way and easement areas will be the construction limits. Work shall include the preservation from injury or defacement of all vegetation and objects designated to remain.

(2) Trees, shrubs, plants, seeded or sodded shoulders, slopes or other items to remain shall be designated and preserved. All areas outside the construction limits shall remain in their original condition. All damage to natural terrain, vegetation, objects designated to remain, or areas outside the construction limits which have subsequently eroded or been damaged shall be repaired to its original or better condition or shall be replaced.

(p) The applicant shall obtain all required environmental permits to support the installation or relocation of its facilities. The applicant must implement erosion control, sediment control, and storm water management measures in accordance with the Indiana Storm Water Management Field Guide\* as effective January 1, 2018, and the Indiana Design Manual Chapter 205\* as effective January 1, 2013. Such measures shall be implemented both during and after work operations until replacement vegetation is established or until the area is disturbed by another party.

(q) In the event of an emergency which requires access to the site not covered under an issued permit, notice shall be given telephonically to the department at 1-855-463-6848 within one (1) hour of accessing the site. If a live departmental employee is not available, a telephonic or voicemail message will be sufficient notice. Within five (5) business days of the emergency, operator shall submit a permit application for the work performed and for any work yet to be completed within the site. The operator shall ensure all proper maintenance of traffic controls are followed.

(r) Prior to entering the site, the operator shall apply for a broadband access permit each time it enters the site, including routine maintenance, construction and repair activities.

\*These documents are hereby incorporated by reference. Copies of the Design Manual can be found at <https://www.in.gov/dot>. Copies of the Design Manual and the Indiana Storm Water Management Field Guide or [sic] may be obtained at the Indiana Department of Transportation, 100 North Senate Avenue, Room N730, Indianapolis, Indiana 46204. (*Indiana Department of Transportation; 105 IAC 16-1-13; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

#### **105 IAC 16-1-14 Requirements for installation of vaults**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 14. (a) Vault materials shall be in accordance with INDOT Standard Specification 807.03\* as effective September 1, 2019.

(b) Vaults shall be installed in accordance with the approved permit plans and specifications. All vault covers are required to be bolted into place to prevent accidental removal by mowing crews or other unintentional means. The cover frame shall be installed in the vault with a butyl rubber sealant in tape or coil form for a proper seal and to prevent the frame from moving out of place. The sealant shall comply with ASTM C990 for butyl rubber sealants.

(c) The vault rings and covers shall be as shown on the plans and in accordance with INDOT Standard Specifications 807.09\* as effective September 1, 2019, except the message displayed on the lid shall read "INDOT F/O Conduit Bank". Fabrication of these vault covers shall not commence until working drawings that the contractor shall have submitted have been approved by the engineer.

(d) Vaults shall be installed at all planned and potential future fiber optic cable splicing locations and at additional locations as shown on the plans.

(e) Material surrounding the buried conduit splices and the vaults shall be tamped and added in such a manner so that there are no voids or depressions formed. Conduit entrance and exit points in the new vaults shall be sealed watertight.

(f) The vaults shall be precast. The top of the vault shall be flat and level with the surrounding ground. The vault shall be placed such that final grading will provide a minimum of four (4) inches of soil over the concrete box.

(g) Upon completion of installation, all disturbed portions of the construction area shall be cleaned, and any excess excavation or other materials shall be properly disposed of immediately.

\*INDOT 2020 Standard Specifications are hereby incorporated by reference. Copies of the 2020 Standard Specifications can be found at <https://www.in.gov/dot> or may be obtained at the Indiana Department of Transportation, 100 North Senate Avenue, Room N730, Indianapolis, Indiana 46204. (*Indiana Department of Transportation; 105 IAC 16-1-14; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-15 Requirements for installation of tracer wire**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 15. (a) Tracer wire shall be installed in accordance with the permit plans and specifications to assist with conduit locates.

(b) Tracer wire shall be a single conductor, high strength copper clad steel, orange color jacket, HMWPE, insulation, #12 American wire gauge wire. The HMWPE jacket shall be a minimum of thirty (30) millimeters in thickness. The wire shall have a minimum break load of four hundred twenty-five (425) pounds and made of fully annealed, high carbon 1055 grade steel. Tracer wires shall be rated for use at thirty (30) volts. Wire connectors shall be waterproof.

(c) New continuous tracer wire shall be placed into each run of conduit to a handhole and shall be provide *[sic, provided]* in the same conduit with all fiber optic cables. A minimum of three (3) feet of tracer wire shall be securely tied off inside of a terminating handhole.

(d) The tracer wire shall be securely fastened inside of the handhole or vault. A waterproof wire nut or direct burial connector shall be connected to each end of the tracer wire to prevent corrosion. At vaults with splice enclosures, the tracer wire shall be connected to the enclosure and connected to the wire lead for the fiber optic locator post.

(e) Tracer wire is not required to be installed in above-ground conduits and empty conduits that are part of a duct bank that contains a non-dielectric, conductive cable. When multiple cables are to be installed in a conduit, all cables shall be pulled simultaneously to prevent friction damage to the cable insulation. Spare and empty conduits shall not be utilized to install the tracer wire. (*Indiana Department of Transportation; 105 IAC 16-1-15; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-16 Requirements for installation of cable duct markers**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 16. (a) Cable duct markers shall be installed in accordance with the permit plans and specifications.

(b) Concrete cable duct markers shall be marked "INDOT F/O Conduit Bank" with field-cut arrows identifying the direction of the underground conduits.

(c) Flexible cable duct markers shall be manufactured of an integrally colored orange, single piece, two-sided, UV resistant, fiberglass reinforced composite, constructed of adequate strength and rigidity to enable installation into compacted soil. Markers shall be capable of returning to vertical and remaining functional after being subjected to a head-on vehicle impact. At a minimum, markers shall be three and seventy-five hundredths (3.75) inches wide by sixty-six (66) inches long with raised and reinforced ribs along each side to protect the decal.

(d) Decals shall be provided on both sides of the markers. Decals shall consist of a standard fiber optic warning message, visible from a distance, such as "Warning Fiber Optic Cable and Conduit". The decal shall also include the message "Call INDOT Before Digging 855-463-6848".

(e) All markers and decals shall be from a single manufacturer.

(f) Markers shall be installed in accordance with the manufacturer's recommendations, or to a depth suitable to resist the impact of wind or an errant vehicle without pulling free. Locations of marker installations shall be as shown on the plans or as determined by the department. (*Indiana Department of Transportation; 105 IAC 16-1-16; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-17 Fiber optic locator post**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 17. (a) Fiber optic locator post shall be installed in accordance with the permit plans and specifications.

(b) The fiber optic locator post shall be made of a non-conductive, high-density polymer, and shall be integrally white in color with an orange cap with black graphic and lettering on two sides. All colors shall be stabilized against ultraviolet light such

that they will not fade under continuous exposure to direct sunlight. The marker shall retain dimensional stability in temperatures ranging between negative forty (40) [*sic, -40*] degrees Fahrenheit and one hundred seventy-five (175) degrees Fahrenheit. Each post shall be able to withstand a single vehicle impact at forty-five (45) miles per hour and return to within ten (10) degrees of vertical within sixty (60) seconds.

(c) A locator post shall be installed at each fiber optic splice location. At splice points, the posts shall be connected to the fiber splice cases and the armored cable with a #12 tracer wire in innerduct as shown on the plans.

(d) Locator posts shall be installed at the same time, or immediately after the installation of the underground conduits and vaults for identification of underground infrastructure. (*Indiana Department of Transportation; 105 IAC 16-1-17; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

#### **105 IAC 16-1-18 As-built documentation**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 18. (a) As-built plans must show the exact location and elevation and actual depth from the recorded elevation, commonly known as X, Y, Z coordinates, on both plans and profile.

(b) As-built plans shall be submitted both in hard copies and in an electronic format compatible with INDOT GIS standards. As-built plans must be submitted within ninety (90) calendar days of completion of construction.

(c) The operator shall provide GPS coordinates accurate within less than two (2) feet of all handhole and vault locations, and shall be no more than six (6) inches for conduit. Measurements shall be made approximately every fifty (50) feet. The coordinates shall be noted on the plans and in a single comma separated value file provided to the department. The file shall be supplied on a compact disk to the department, which includes the latitude and longitude of all handhole and vault locations in decimal degree format. Each record shall include the type of object, latitude, longitude, road name, direction of roadway travel, and nearest mile marker to the nearest tenth of a mile.

(d) Failure to provide as-builts in accordance with this section may result in no additional permits being issued until as-builts are provided to the department. (*Indiana Department of Transportation; 105 IAC 16-1-18; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

#### **105 IAC 16-1-19 Relocation**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 19. (a) This section applies if the operator's conduit pre-existed the department's transportation project and the operator's conduit or broadband facilities conflicts with the project and needs to be relocated.

(b) An existing broadband facility which conflicts with a proposed highway improvement project shall be relocated at the operator's expense. If the operator fails to relocate its broadband facility, any damage to the broadband facility as part of the highway improvement project shall be the sole responsibility of the operator. The department shall not be held liable for damage to a broadband facility which conflicts with a highway improvement project wherein the operator of the broadband facility was required to move the broadband facility and failed to relocate.

(c) Any interruptions in service resulting from the department's transportation project shall be the sole responsibility of the operator.

(d) Notwithstanding an emergency, INDOT shall exercise this right by giving operator no less than eighteen (18) months prior written notice to relocate.

(e) An existing broadband facility may remain in place provided it does not conflict with the highway improvement project and complies with the following:

- (1) The broadband facility can be maintained without violating access control.
- (2) The broadband facility will not interfere with the department's proposed highway improvement project.
- (3) The broadband facility is of sufficient strength and durability to withstand the changed conditions and have adequate remaining service life to prevent maintenance, repair, or replacement.
- (4) Service access points are adjusted to be flush with the surface to accommodate any changes in grade and changes in

traffic patterns and are not located near intersections.

(Indiana Department of Transportation; 105 IAC 16-1-19; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)

#### **105 IAC 16-1-20 Fees**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 20. (a) This section applies to installation of conduit and fiber optic cable in the department's limited access highways. Pursuant to 23 CFR 710.403(e)\* effective as of August 23, 2016, fair market value must be charged for use of the right-of-way.

(b) The fees for longitudinal installation of fiber optic cable or conduit and fiber optic cable in the limited access highways, excluding Interstate 465, is five hundred dollars (\$500) per mile on an annual basis.

(c) The fees for longitudinal installation of fiber optic cable or conduit and fiber optic cable on Interstate 465, is five hundred eighty-one [*sic, dollars*] (\$581) per mile on an annual basis.

(d) No broadband access permit fee for installation of fiber optic cable or conduit and fiber optic cable is required in the limited access highways.

(e) A permit fee in the amount of fifty-five dollars (\$55) is required for all maintenance or repairs to the facilities.

\*These documents are incorporated by reference and refer to the regulations effective as of August 23, 2016. Copies may be obtained from the Government Publishing Office, [www.govinfo.gov](http://www.govinfo.gov), or are available for review at the Indiana Department of Transportation, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Seventh Floor, Indianapolis, Indiana 46204. (Indiana Department of Transportation; 105 IAC 16-1-20; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)

#### **105 IAC 16-1-21 Inspections**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 21. INDOT may inspect all broadband installations within the department's right-of-way. If any violations or deficiencies are observed, the department shall provide notice of such violations or deficiencies to the operator. The operator must establish a plan of corrective action with the department no more than fourteen (14) calendar days from when violation or deficiency occurred. The cost of subsequent inspections may be charged to the operator. Failure to correct the violation or deficiency as directed may result in revocation of the permit and may impact pending permit applications until violation or deficiency is resolved. (Indiana Department of Transportation; 105 IAC 16-1-21; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)

#### **105 IAC 16-1-22 Permit denial criteria**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 8-23-5-10](#)

Sec. 22. No permit may be issued for the installation of broadband as follows:

(1) No available space exists in the department's roadway for additional conduit.

(2) No available space exists in the department's limited access highway conduit for fiber optic cable.

(3) The proposed plans do not meet the department's requirements for installation of broadband or its facilities.

(Indiana Department of Transportation; 105 IAC 16-1-22; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022)

#### **105 IAC 16-1-23 Revocation of permit; appeal of revocation**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 4-21.5](#); [IC 8-23-5-10](#)

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BROADBAND REQUIREMENTS AND CRITERIA

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Sec. 23. (a) A broadband access permit may be revoked for the following:

- (1) Pursuant to this rule.
- (2) Failure to install, maintain or repair the broadband or its facilities in accordance with the broadband access permit.
- (3) Misrepresentation of material facts made by the permit holder and on which the issuing authority was found to have relied upon in approving the broadband access permit application.
- (4) The broadband or facilities conflict with the department's transportation project and the operator refuses to relocate the broadband or its facilities.
- (5) Failure to complete installation within three hundred sixty-five (365) days from the date of issuance of the broadband access permit, unless an extension for the permit has been filed prior to the termination of the three hundred sixty-five (365) days.
- (6) A determination upon initial inspection of broadband or its facilities that fails to comply with the department's broadband access permit terms and conditions.
- (7) Unlawful destruction or cutting of trees, shrubs, or other vegetation located on the right-of-way.
- (8) Installation within the clear zone or environmentally restricted areas.
- (9) Failure to obtain and maintain all required permits from a federal, state, or local agency.
- (10) If inconsistent with other federal law or state law.

(b) If revocation of the broadband access permit is appropriate, the department shall issue a written notice of revocation, accompanied by an explanation of the rationale for the revocation, which shall be sent to the operator by U.S. certified mail. The operator may appeal this revocation by delivering a written notice of the appeal to the department and is received by the department in accordance with the applicable time period set forth in [IC 4-21.5](#). If the appellant's appeal letter is timely received by the department and complies with the requirements in section 24(c) of this rule, the operator appealing shall be afforded the opportunity for a hearing under [IC 4-21.5](#).

(c) All broadband or facilities that were installed, repaired, maintained, or exist in violation of any provision of federal law or state law (including this rule) are illegal. The broadband access permit for any illegal broadband or facilities may be revoked at any time by the department in accordance with this rule and state law.

(d) If the broadband access permit for any broadband or facilities is revoked by the department, that broadband or facilities shall thereafter be removed in accordance with this rule and state law without payment of any compensation to the operator or any other party. (*Indiana Department of Transportation; 105 IAC 16-1-23; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

### **105 IAC 16-1-24 Appeal procedures**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-10](#)

Affected: [IC 4-21.5-3-1](#); [IC 8-23-5-10](#)

Sec. 24. (a) An operator who is sent notice by the department that the broadband access permit is being revoked may appeal that determination in accordance with the provisions of [IC 4-21.5](#), as well as subsection (c).

(b) Whenever the department is sending a notice of a broadband access permit revocation to the operator, service of that notice shall be deemed sufficient if sent to such operator by U.S. certified mail at the last known address in the records of the department.

(c) Each request for an appeal shall be submitted to the department within the period provided by [IC 4-21.5](#), shall be in writing, and shall contain the following:

- (1) The appellant's address and phone number.
- (2) The broadband access permit number.
- (3) The location of the broadband or its facilities.
- (4) A statement outlining the specific basis for the appeal. Service of that appeal request shall be deemed sufficient if served on the department by personal service or by U.S. mail at the address specified in the department's notice, as required by [IC 4-21.5-3-1\(c\)](#).

(d) Hearings will be held in Indianapolis at the department's offices or other nearby location. The failure of an operator who has appealed to appear at the time and place of the hearing shall be deemed a withdrawal of the appeal, and the written revocation notice shall constitute a final order of the commissioner and shall not be subject to further administrative review.

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BROADBAND REQUIREMENTS AND CRITERIA

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(e) Action or inaction of the department with respect to a broadband access permit, and any other action or inaction of the department of any kind or nature relating to broadband or its facilities shall be solely in furtherance of the department's public policy responsibilities and shall not be grounds for a cause of action against the department based in tort or based in any other manner on negligent permitting. (*Indiana Department of Transportation; 105 IAC 16-1-24; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

**105 IAC 16-1-25 Severability**

Authority: [IC 8-23-2-6](#); [IC 8-23-5-1](#)

Affected: [IC 8-23-5-10](#)

Sec. 25. The terms of this rule are declared to be separable. Should any word, phrase, sentence or section be declared unconstitutional or otherwise invalid, the remainder of this rule shall not thereby be affected, but shall remain in full force and effect. (*Indiana Department of Transportation; 105 IAC 16-1-25; emergency rule filed Dec 16, 2021, 12:43 p.m.: [20211222-IR-105210537ERA](#), eff Jan 1, 2022*)

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