FDOT
Utility Accommodation Manual

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1 General

1.1 Purpose

The purpose of the Utility Accommodation Manual (***UAM***) is to establish the utility installation or adjustment requirements for utilities within FDOT's jurisdiction and is incorporated by reference into the Florida Department of Transportation's (FDOT) ***Rule 14-46.001 F.A.C.*** for utilities.

1.2 Terms and Acronyms

The following definitions of terms and acronyms apply only as used in the ***UAM***:

Auxiliary Lane: The designated widths of roadway pavement marked to separate speed change, turning, passing and climbing maneuvers from through traffic. They occasionally provide short capacity segments.

Business Day: Any Monday, Tuesday, Wednesday, Thursday, or Friday that does not fall on a State Holiday.

CFR: Code of Federal Regulations.

Casing: A pipe surrounding a carrier pipe and designed to resist potential impacts and carry imposed loads.

Conduit: An enclosure for protecting a utility (e.g., wires and cables).

Contractor: A legal entity (1) properly licensed in the State of Florida by the state, county or city, and (2) contracting with FDOT or a UAO to work or furnish materials.

F.A.C.: Florida Administrative Code

FDEP: The Florida Department of Environmental Protection

FDOT: The Florida Department of Transportation:

FDOT District: One of the 7 geographical areas or the Turnpike Enterprise. FDOT District Map and Turnpike information are available at: *http://www.dot.state.fl.us/specificationsoffice/utilities/*

FDOT Structure: Features owned by FDOT such as, but not limited to, bridges, retaining walls, culverts, pipes, and structural supports for signs, lighting, toll gantries, buildings, and traffic signals.

FERC: Federal Energy Regulatory Commission

F.S.: Florida Statutes.

Highway: A right of way corridor which contains or is to contain a roadway. Generally the highway is R/W line to R/W line.

LA R/W: Limited Access Right of Way.

Local Maintenance Engineer: The engineer in charge of the local maintenance or operation centers throughout the State.

Manhole: An opening in an underground system, providing access for installations, inspections, repairs, connections and tests.

Median: The portion of a divided highway or street that separates the traveled-ways for traffic moving in opposite directions.

Pull Box: An opening in an underground system, providing access for installations, inspections, repairs, connections and tests.

R/W: Right of way

Roadway: The portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

TCP: Traffic Control Plans.

Service lines: Lines used by the UAO to carry services from a main line to individual recipients.

Traffic Control Plans: Plans showing the methods of controlling and maintaining a safe flow of traffic through construction or maintenance work areas.

Traveled-Way: Also called traffic lane, is the designated widths of roadway pavement (exclusive of shoulders and marked bicycle lanes) marked to separate opposing traffic or vehicles traveling in the same direction. These lanes include through travel lanes, auxiliary lanes, turn lanes, weaving lanes, passing lanes and climbing lanes. They provide space for licensed motor vehicles and, in some cases, bicycles.

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Travel Lane: The designated widths of roadway pavement marked to carry through traffic and to separate it from opposing traffic or traffic occupying other traffic lanes. Generally, traveled-ways or traffic lanes equate to the basic number of lanes for a facility.

UAO: Utility Agency/Owner. The entity that owns the utility.

UAM: This Utility Accommodation Manual

Utility: All active, deactivated or out-of-service electric transmission lines, telephone lines, telegraph lines, other communication services lines, pole lines, ditches, sewers, water mains, heat mains, gas mains, pipelines, gasoline tanks and pumps owned by the UAO.

Utility Appurtenances: Features or parts that are part of a utility, whether primary or secondary to its function.

1.3 References

References to sections internal to this manual are indicated in bold italics starting with "UAM". For example, these instructions are in ***UAM Section 1.3***. References to external documents are indicated by the generally used term for the document highlighted in bold italic text, For example, the "Design Standards for Design, Construction, Maintenance and Utility Operations On the State Highways System English Units -2014" is referenced as the ***FDOT 2014 Design Standards***. The published title and date for these external references are listed in ***UAM Section 6***. When a ***UAM*** section is referenced, it is intended that all subsections and all other references contained within the referenced section are included.

1.4 Delegation of Authority

Any authority or responsibility specifically attributed in the ***UAM*** to any FDOT employee implicitly extends to anyone that employee has explicitly delegated it to. In addition, the State Chief Engineer has authority to exercise any authority or responsibility attributed in the ***UAM*** to any FDOT employee.

1.5 Application of FDOT Drawings and Specifications

When an agreement exists between the UAO and FDOT, the UAO's work shall conform to the requirements of the agreement. Otherwise, if a utility is subject to ***337.403 F.S***, the UAO's work shall comply with the requirements of the ***UAM*** and the drawings and specifications listed in ***UAM Section 1.5.1*** and ***UAM Section 1.5.2***, or the UAO may elect to use the most current version of these standard drawings and specifications.

1.5.1 FDOT Drawings

The UAO shall use any drawings necessary to restore the FDOT R/W to the condition existing prior to the utility work. While working within the FDOT R/W, the UAO shall also comply with Indexes 201, 307 for new installations and Index 600 of the ***FDOT 2014 Design Standards*** for all Traffic Control Plans (TCP)**.**

When the UAO does not obtain Florida storm water or environmental resource permits from the Florida Department of Environmental Protection or the Water Management Districts, the UAO shall comply with Index 102 and 103 of the ***FDOT 2010 Design Standards*** where applicable.

1.5.2 FDOT Specifications

The UAO shall use any specification necessary to restore the FDOT R/W to the condition existing prior to the utility work. While working within the FDOT R/W, the UAO's work shall also comply with the sections of the ***FDOT 2014 Standard Specifications*** as listed below:

When working on FDOT projects the UAO and FDOT contractor shall coordinate their activities in accordance with all of the following sections:

4-3.8
7-11.5

When constructing and maintaining detours, the UAO shall provide pavement markings in accordance with the following sections:

102-1
102-2.1
102-5.9
102-7
102-8
102-9.1 (Paragraphs 1, 2, & 5 only)
102-9.2

For other various types of work, the UAO shall comply with the following sections:

121-1 through 121-6

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125-6 through 125-8
160-1 through 160-4
522-1 through 522-8
555-1
555-3.3 through 555-3.4
555-4.1
555-5
556-1
556-3.2 through 556-3.3
556-4 through 556-5.2
556-6
700-1.2.4

When performing vibratory plowing, the UAO's work shall also comply with the sections of the ***FDOT 2013 Standard Specifications*** listed below:
557-1
557-2.1
557-3 through 557-4

1.6 Other Agency Rules

If another agency's rule is applicable, the UAO is responsible for complying with those rules. When a FDOT rule is more stringent than those of other agencies, the UAO shall comply with the FDOT rule.

1.7 Other FDOT Permits

1.7.1 Overweight and Over-Dimensional Vehicle Permits

The UAO shall obtain permits for overweight and over-dimensional vehicles in accordance with ***Rule 14-26, F.A.C.***

1.7.2 Storm Water and Drainage Permits

For the installation of drainage pipes or structures that convey storm water along or across the FDOT R/W and do not discharge any storm water onto the FDOT R/W or into an FDOT storm water system, the UAO shall obtain a utility permit in accordance with ***UAM Section 2*** in lieu of a drainage connection permit.

For the installation of drainage pipes or structures that do discharge storm water onto the FDOT R/W or into an FDOT storm water system, the drainage facility owner shall obtain a drainage connection permit in accordance with ***Rule 14-86, F.A.C.*** in lieu of a utility permit.

Obtaining an FDOT drainage connection permit or utility permit does not relieve the owner of their responsibility to comply with the Florida Department of Environmental Protection's (DEP) National Pollutant Discharge Elimination System (NPDES) permitting requirements pursuant to ***Chapter 373, F.S. Part IV*** and ***Rule 62-25, F.A.C.*** or any other authority's permitting requirements.

1.8 UAM Dispute Review

If the UAO desires to resolve a dispute with an FDOT District or the Turnpike Enterprise, the UAO shall request a review by the FDOT State Utilities Engineer.

1.9 Sunshine 811 Notification

The UAO shall notify the Sunshine State One-Call System (811) prior to any excavation or demolition activities in accordance with ***Chapter 556, F.S.*** This shall not relieve the UAO from their obligation to notify FDOT as required by the permit or by the ***UAM***. FDOT contact information is provided on the utility permit.

1.10 Acquiring Existing Utilities

When a UAO acquires an existing utility that is within FDOT R/W, the UAO shall provide FDOT with an affidavit that (1) states the ownership transfer, (2) describes the boundaries and (3) acknowledges that the new UAO shall comply with the conditions and requirements of the original permit. A copy of the operative conveyance document shall be attached to the affidavit.

1.11 Utility Liaison

The State Utilities Engineer develops revisions and additions to the ***UAM*** in accordance with ***Chapter 120, F.S.*** and through periodic ***UAM*** reviews with the utility industry and others. The State Utilities Engineer is the chief liaison on

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utility accommodation. UAM users may submit to the State Utilities Engineer written suggestions to the address or URL below:

State Utilities Engineer
Florida Department of Transportation
605 Suwannee Street
Mail Station 75
Tallahassee, FL 32399-0450

The State Utilities Engineer publishes information about issues of interest to the utility industry at:
http://www.dot.state.fl.us/specificationsoffice/utilities/

1.12 Distribution

FDOT provides the ***UAM*** at no cost from the following website at:

http://www.dot.state.fl.us/specificationsoffice/utilities/

Hardcopies of the ***UAM*** may be purchased from:

The Florida Department of Transportation
Maps and Publications Sales
605 Suwannee Street, Mail Station 12
Tallahassee, Florida 32399-0450
Phone: (850) 414-4050

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2 Utility Permits

2.1 General UAO Responsibilities

1) Unless otherwise specified in ***UAM Section 2.2*** or ***UAM Section 2.3***, the UAO shall obtain a utility permit before working within FDOT R/W by using the One-Stop Permitting website, however when the UAO does not have access to the permitting website, the UAO shall use the hardcopy utility permit in ***UAM Section 7***. Access to the online One-Stop Permitting website is available at: *http://www.dot.state.fl.us/specificationsoffice/utilities/*
2) To expedite construction of FDOT projects, FDOT may determine an approved utility work schedule requiring the UAO to meet all requirements of ***Rule 14-46.001 F.A.C.*** and the ***UAM***, and which has a corresponding relocation agreement is equivalent to a utility permit.
3) Others may prepare and process permit applications for the UAO, however the UAO shall, in all cases, be the permit applicant before the permit is approved. Once the permit is approved the UAO is the permittee and shall not deviate from the approved permit without approval from the Local Maintenance Engineer. The UAO shall have a complete copy of the approved permit at the jobsite when crews are present.
4) City or county utility owners, who do not have contractual control over the builder of their facilities, may elect to have the builder become a joint utility permit applicant with the city or county. In these cases, the utility builder and the city or county shall be severally liable such that the utility builder shall be required to comply with all the permit requirements applicable to the construction of the city or county utility facilities and the city or county shall be required to comply with permit requirements post construction, including, but not limited to those applicable to operation and maintenance. When an FDOT contractor does utility work under an FDOT agreement, the FDOT contractor shall not be a joint utility permit applicant. The post construction obligations of the city or county shall commence upon completion of final inspection by FDOT. FDOT shall provide the city or county with written notice of such date. The city or county shall be entitled to observe FDOT's final inspection and shall inform FDOT of any apparent failure to comply with the terms of the permit by the utility builder; provided, the final determination of compliance by the utility builder shall be made by FDOT.
5) The UAO shall notify the FDOT Representative identified on the permit a minimum of two (2) business days prior to starting work and again immediately upon completion of work. All work, materials, and equipment shall be subject to inspection and approval by FDOT.
6) The UAO shall not interfere with the property and rights of a prior permittee.
7) It is expressly stipulated that the utility permit is a license for permissive use only and that the placing of utilities within FDOT R/W pursuant to the permit shall not create or vest any property right in the UAO.
8) Pursuant to ***Section 337.403, F.S.***, any utility placed upon, under, over, or along any public road or publicly owned rail corridor that is found by FDOT to be unreasonably interfering in any way with the convenient, safe, or continuous use, or maintenance, improvement, extension, or expansion, of such public road or publicly owned

rail corridor shall, upon thirty (30) days written notice to the UAO or its agent by FDOT, initiate the work necessary to alleviate the interference at its own expense except as provided in ***Section 337.403, F.S.***, and except for reimbursement rights as expressly set forth in any other previously executed agreements with FDOT.

9) For any excavation, construction, maintenance, or support activities performed by or on behalf of FDOT, within its R/W, the UAO may be required by FDOT or its agents to perform the following activities with respect to a UAO's facilities: physically expose or direct exposure of underground utilities, provide any necessary support to facilities and/or cover, de-energize or alter aerial utilities as deemed necessary for protection and safety, and take any action FDOT may require in order to facilitate the work in a safe and efficient manner.
10) When the utility work is within an FDOT project, the UAO must obtain a utility work schedule prior to commencing work within the project limits.
11) In the case of non-compliance with FDOT's requirements in effect as of the date the permit is approved, the permit is void and the facility will have to be brought into compliance or removed from the R/W at no cost to FDOT, except for reimbursement rights set forth in previously executed subordination agreements or railroad utility agreements. This provision shall not limit the authority of FDOT pursuant to ***Section 337.403, F.S.***
12) The privileges granted the UAO by the utility permit are only to the extent of the State's right, title and interest in the land to be entered upon and used by the UAO. The UAO shall indemnify, defend, and save harmless the State of Florida and FDOT from and against any and all loss, damage, cost or expense arising in any manner on account of the exercise or attempted exercises by the UAO the privileges granted by the utility permit. This obligation to indemnify and defend FDOT includes, but is not limited to, any cost or expense to FDOT due to delay caused by the UAO to an FDOT contractor. However, said indemnification as applied to the UAO of city and county utilities is limited to that allowed by law.
13) The UAO shall ensure individuals responsible for placement, or maintenance of traffic control schemes and devices in work zones on the FDOT R/W have proper training. While on the jobsite, the UAO's employee responsible for traffic control shall carry either an FDOT maintenance of traffic training certificate, from an FDOT maintenance of traffic training provider, or a pocket size card with the UAO's letterhead certifying the following:

    "[Employee's Name] has been properly trained to control traffic in accordance the UAM's traffic control requirements."

14) Where practical, the UAO shall expeditiously allow passage of over-dimensional vehicles permitted by FDOT. When the UAO becomes aware of deficiencies in the Traffic Control Plan that affect traffic safety, the UAO shall take appropriate corrective actions. When notified by FDOT that immediate corrective actions are needed, the UAO shall immediately comply with FDOT's instructions.
15) The UAO shall comply with requirements for the inspection and copying of records and photographing public records in accordance with ***Section 119.07, F.S.***

2.2 Permit Applications for Emergency Work

Advance permit application approvals or notifications are not required for emergency repairs performed in accordance with ***UAM Section 3.1***. If the type of work would normally require a permit, the UAO shall submit a completed permit application and as-built plans within five (5) business days after the repairs are completed; however, a TCP does not need to be submitted.

2.3 Work Not Requiring New Permits

2.3.1 Work Types

The UAO may perform work on the UAO's previously permitted utilities without applying for a new permit for only the work types listed below and when the work constraints in ***UAM Section 2.3.2*** are followed:

1) Placement of mid-span poles, replacement of existing poles, removal of existing poles or placement of service poles in compliance with ***UAM Section 3.14.2***.
2) Placement of underground service lines in compliance with ***UAM Section 3.16.7*** provided they are perpendicular to the roadway.
3) Temporary utility work approved by the FDOT Resident/Project Engineer during FDOT construction projects.
4) Maintenance, replacement, alterations or additions of aerial components on existing pole lines.
5) Maintenance, alterations, but not the replacement, of existing underground facilities.
6) Placing and/or removing facilities within existing conduits, provided no additional pull-boxes or other utility appurtenances are installed.

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7) Installation of antennae for remote communication or switching devices to operate the permitted utility provided no excavation is performed.
8) Vegetation control in compliance with ***UAM Section 3.18***.
9) Potholing for physical exposure of underground utilities in accordance with ***UAM Section 2.1(9)*** and ***UAM Section 5.1(6)***.

2.3.2 Work Constraints

To perform the work in ***UAM Section 2.3.1***, the UAO shall comply with all of the following conditions; otherwise, a new permit is required:

1) The UAO shall notify the appropriate maintenance engineer of the location, general scope and timeframe of the work. The UAO may immediately commence work after notification when the work is anticipated to take two (2) hours or less to complete. The UAO shall not commence work earlier than two (2) business days after notification when the work is anticipated to take more than (2) hours.
2) The UAO shall restore FDOT R/W to the condition prior to the work within 72 hours of completion of the work.
3) The UAO shall be responsible under the original permit for any added lines or other utility modifications for which a new permit was not required.
4) UAO shall maintain vehicular and pedestrian traffic using the ***FDOT 2014 Design Standards*** indexes listed below:

Index	Title
600	General Information for Traffic Control Through Work Zones
601	Two-Lane, Two-Way, Work Outside Shoulder
602	Two-Lane, Two-Way, Work On Shoulder
603	Two-Lane, Two-Way, Work Within the Travel Lane
604	Two-Lane, Two-Way, Work In Intersection
605	Two-Lane, Two-Way, Work Near Intersection
611	Multilane, Work Outside Shoulder
612	Multilane, Work On Shoulder
613	Multilane, Work Within the Travel Lane - Median or Outside Lane
615	Multilane, Work In Intersections
616	Multilane, Work Near Intersection - Median or Outside Lane
625	Temporary Road Closure 5 Minutes or Less
635	Work In Vicinity of Rail Crossings
660	Pedestrian Control for Closure of Sidewalk

5) The UAO shall not cut any roadway pavement.
6) The UAO shall not cut or otherwise damage more than ten (10) linear feet of sidewalk.
7) The UAO shall not commence work that conflicts with any FDOT construction project, scheduled local events and activities, other scheduled permitted activities, or FDOT District lane closure restrictions.
8) The UAO shall not excavate more than eighty (80) cubic feet.
9) The UAO shall not work on FDOT limited access R/W or a FDOT rail corridor.
10) The UAO shall not add third party facilities.

2.4 Permit Application Package

2.4.1 General Documentation

In addition to the information required for the One-Stop Permitting website and the utility permit in ***UAM Section 7***, the UAO shall attach and incorporate as part of the utility permit application the following:

1) When not using the One-Stop Permitting website, the UAO shall provide a key map showing the proposed installation's location and the approximate distance and direction from the proposed work area to the nearest town, major road intersection, bridge, or railroad crossing.
2) Plan view drawings (preferably to scale) showing all of the following:
   a) The R/W Lines, limited access lines, and the UAO's easement lines.
   b) The proposed utility and proposed utility appurtenances (except for utility appurtenances mounted at least fifteen (15) feet above the ground and less than eight (8) cubic feet).
   c) The horizontal distance from the proposed utility to a well-defined feature of the transportation facility (such as the edge of travel lane).
   d) When work is within a FDOT project, tie to project stationing, otherwise a tie to roadway milepost.
   e) The limits of the work area (including staging areas, access points, or other areas to be used).

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f) For trenchless installations, the proposed method of installation, materials, function, type, size of proposed installation and largest reamer when used.
g) Maximum allowable operating pressures of proposed gas mains and the locations of proposed shut-off valves.
h) Aboveground features such as existing utility poles within the work area.
i) Underground facilities such as utilities, drainage pipes, or ITS lines within the proposed work area as can reasonably be obtained by a review of existing records and a topographical survey of above ground features.
j) Significant physical features such as vegetation, wetlands or bodies of water.

3) When installing underground, the UAO shall provide profile view drawings showing all of the following:
   a) The location and elevations of the proposed utility and proposed appurtenances larger than eight (8) cubic feet.
   b) Benchmark information.
   c) Horizontal and vertical location of all existing underground facilities such as utilities, drainage pipes, or ITS lines within the proposed work area as can reasonably be obtained by a review of existing records and a topographical survey of above ground features.
   d) The proposed utility's minimum vertical clearance below the top of the pavement or existing unpaved ground.
   e) Top of water table or confining layer when required per ***UAM Section 3.16.10.1***.
4) Cross-sectional view showing one or more typical cross sections to adequately reflect the proposed installation's location.
5) Manufacturer's certifications of proposed underground appurtenance manufactured offsite such as manholes, splice boxes or vaults that are greater than eighty (80) cubic feet in accordance with ***UAM Section 3.16.3.1***.
6) Signed and sealed plans and specifications for proposed attachments to structures, including bridge load rating analyses where attachments affects the bridge's carrying capacity.
7) Not more than six photographs documenting work area conditions prior to the utility work as requested by the Local Maintenance Engineer. The Local Maintenance Engineer shall waive the requirement for photographs when unnecessary.
8) Justification and drawings showing proper replacement of the roadway for any open trenching, pavement cuts, or water supply line conflicts.
9) For aboveground crossings of an operational LA R/W between interchanges, a list of any other anticipated crossings.
10) A completed standard railroad application package when within FDOT rail corridors.
11) A tree replacement or mitigation plan in accordance with ***UAM Section 3.17.2***.
12) Any required approvals, waivers, or variances necessary for the permit to be approved.
13) FERC or FDEP Certification document in accordance with ***UAM Section 2.5***.
14) Any known provisions of the UAM or the utility permit that are modified, or made unenforceable by existing easements, subordination agreements, or other legal requirements.

2.4.2 Traffic Control Plan (TCP) Submittals

The UAO shall use a TCP that complies with all requirements of the appropriate traffic control standards and typical applications in ***FDOT 2014 Design Standards*** or the latest edition, or shall submit a TCP signed and sealed by a qualified, licensed Florida professional engineer with an FDOT Advanced Maintenance of Traffic Certification. All Traffic Control Plans shall comply with Index 600 of the ***FDOT 2014 Design Standards***.

2.4.3 Other Engineering Documents

For all engineering documents other than those listed in ***UAM Section 2.4.2***, that the UAO has determined to be exempt from the signing and sealing requirements of ***Chapter 471, F.S.***, the UAO shall submit these documents under the UAO's letterhead or on plan sheets with the UAO's title block.

2.5 Certification from FERC or FDEP

When the UAO obtains a certification from the Federal Energy Regulatory Commission (FERC) or the Florida Department of Environmental Protection (FDEP) to install or adjust their facilities within the FDOT R/W, the UAO shall attach FDOT's condition for the certification to the utility permit application. FDOT shall issue a utility permit after verifying the utility work is in compliance with the conditions for certification.

2.6 Permit Application Review Process

FDOT shall process all permit applications in accordance with ***Section 120.60, F.S.*** FDOT shall review the proposed work for all of the following:

1) Compliance with the ***UAM***,

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2) Impacts to all of the following:
   a) Public safety
   b) The ***FDOT Five-Year Work Program***
   c) Safety improvement projects
   d) FDOT maintenance activities
   e) Scenic enhancement projects
   f) Landscape projects
   g) Local events and activities
   h) Easements and agreements
   i) Placement of future utilities.
   j) Over-dimensional vehicle permits
3) The Chief Engineer shall review the proposed work for impacts to all plans and programs adopted pursuant to ***Chapter 339, F.S.*** and all other plans developed by FDOT where the permit application is for the placement of a utility within FDOT R/W, and either:
   a) The abandonment of the utility is subject to the permission and approval of the Federal Energy Regulatory Commission, or
   b) The construction or extension of the utility is subject to the authorization of the Federal Energy Regulatory Commission.

2.7 Special Instructions

1) FDOT shall indicate on the utility permit all special instructions necessary to address site specific or transaction specific conditions not addressed in ***Rule 14-46.001 F.A.C.*** or the ***UAM***.
2) When FDOT requires an FDOT representative to be present at the worksite prior to commencement of work, FDOT shall indicate this requirement on the permit and provide information to contact the FDOT representative.
3) FDOT may attach any drawings not listed in ***UAM Section 1.5.1*** deemed necessary for restoration of the FDOT R/W to the condition prior to the UAO's work.
4) FDOT may attach any specifications not listed in ***UAM Section 1.5.2*** deemed necessary for restoration of the FDOT R/W to the condition prior to the UAO's work.

2.8 UAO Notification to Other Facility Owners

The UAO shall deliver written notification to all owners of other facilities within the work areas known to be involved or potentially impacted by the proposed work. The UAO shall inform these owners of the location and scope of the work, and shall also inform these owners they have ten (10) days, from the time of receipt of the notification, to provide the Local Maintenance Engineer specific written objections to the issuance of the permit.

2.9 Commencement of Work

The UAO shall not begin work until the required FDOT representative as indicated on the utility permit is on site. The UAO may begin work after the required notification when the permit does not indicate an FDOT representative is required. By the UAO's commencement of permitted utility work, the UAO shall be bound by all requirements of the utility permit.

2.10 Final Inspection of Work

Upon completion, the UAO shall provide FDOT all material certifications, test results, bore logs, approved plans changes, as-built plans or other documentation required as a condition of permit approval.

3 Utility Accommodation

This section contains requirements for accommodating utilities within limited access and non-limited access FDOT R/W. ***UAM Section 4*** contains additional requirements particular to limited access R/W.

3.1 Emergency Work

For situations of a serious nature, developing suddenly and unexpectedly, and demanding immediate action that will affect public safety, disruption of utility service, or damage to the FDOT R/W the UAO shall proceed immediately with all

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necessary actions. The UAO shall be responsible for safe and efficient traffic control and shall notify the Local Maintenance Engineer of all necessary actions being taken as soon as practical, but no later than the next scheduled FDOT working day. If the type of work would normally require a permit, the UAO shall submit a permit application in accordance with ***UAM Section 2.2***. The UAO shall bear the expense of restoring the R/W to the condition prior to the emergency. When making emergency repairs to attachments to FDOT structures, the UAO shall obtain verbal approval from the FDOT District Maintenance Engineer prior to making the repairs.

3.2 Discovery of Archaeological or Historical Remains

If work operations encounter remains of an archaeological or historic nature, the UAO shall (1) temporarily discontinue all earth disturbing activity in the remains' immediate vicinity and (2) notify the Local Maintenance Engineer. FDOT shall determine the remains' disposition. The UAO shall not resume affected work until authorized by the Local Maintenance Engineer.

3.3 Utilities in Historic Sites and Other Scenic Areas

Scenic areas include scenic strips, overlooks, rest areas, recreation areas and FDOT R/W within the limits of public parks and historic sites. In such areas, the UAO shall not install utilities that do either of the following:

1) Require extensive removal or alteration of trees or other natural features visible to the transportation facility user.
2) Impair the visual quality of the lands being traversed.

3.4 Pedestrian Pathway Clearances

For new above ground installations within pedestrian pathways, the UAO shall provide minimum clear pathway widths of thirty-six (36) inches where practical. However, for distances of twenty-four (24) inches or less, where it is not practical to provide the thirty-six (36) inches clear pathway width, the UAO may reduce the width to thirty two (32) inches. For guy wires traversing across a pedestrian pathway, the UAO shall maintain a minimum vertical clearance of seven (7) feet over the pathway.

3.5 Erosion & Sediment Controls

The UAO shall install any required erosion and sediment controls in compliance with local, state and federal requirements before beginning any utility work.

3.6 Relocation of FDOT Signs or Reflectors

To prevent signs and reflectors from conflicting with the UAO's work, the UAO shall be responsible for relocating or replacing all conflicting signs and reflectors as directed by FDOT.

3.7 Preservation of Sight Windows

The UAO shall not install new or replacement utilities that significantly reduce the field of vision within the limits of clear sight as described in ***FDOT 2014 Design Standard*** - Index 546.

3.8 Open Cutting

Unless FDOT determines it is impractical, the UAO shall not cut pavement less than five (5) years old.

When open cutting driveways, the UAO shall do all of the following:

1) Notify owners seven (7) days in advance using door-hanger type notices or on-site signs as appropriate and approved by FDOT.
2) Maintain users' access to the property.
3) Restore the driveways to at least an equivalent condition and types of material to what existed prior to cutting.

3.9 Fuel Tanks

The UAO shall not install any new utility structure or cabinet containing any flammable fuel within the FDOT R/W.

3.10 Longitudinal Placement of Utilities

When underground and aerial utilities occupy the same roadside, the aerial utility should be placed outside the underground utility and in accordance with ***UAM Section 3.14***. The underground utility should not be placed within three (3) feet of the R/W line to allow space for future aerial utilities.

3.11 Utilities Near Airports

When placing utilities on FDOT R/W and near airports, the UAO shall not create a hazard as defined by ***Section 333.01(3), F.S.***

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3.12 Contaminated Soil

Where contaminated soil is encountered within the UAO's work area, the UAO shall immediately cease work and notify FDOT. FDOT shall notify the UAO of any suspension or revocation of the utility permit. Said suspension or revocation shall remain in effect until otherwise notified by FDOT.

3.13 Damage to FDOT

Pursuant to ***Section 337.402, F.S***., when any public road or publicly owned rail corridor is damaged or impaired in any way because of the installation, inspection, or repair of a utility located on such road or publicly owned rail corridor, the UAO shall, at their own expense, restore the road or publicly owned rail corridor to its original condition before such damage. If the UAO fails to make such restoration, FDOT is authorized to do so and charge the cost thereof against the UAO under the provisions of ***Section 337.404, F.S***.

Pursuant to ***Section 337.401(2), F.S***, the UAO is responsible for damage resulting from the issuance of the permit. FDOT may initiate injunctive proceedings as provided in ***Section 120.69, F.S.*** to enforce provisions of this subsection or any rule or order issued or entered into pursuant thereto.

3.14 Aboveground Utility Installations, Relocations, and Adjustments

Utilities are considered aboveground when the utility facility or appurtenance (such as strain poles, guy wires, telephone load pedestals, temporary supports, etc.) is more than four (4) inches above the grade. The UAO shall not install aboveground utilities within the median. The UAO shall not install a pole line in the roadside where an existing pole line is on the opposite roadside unless one of the pole lines is made available for joint use.

3.14.1 New Aboveground Utility Installations

The UAO shall install new aboveground utilities outside the aboveground utility offsets in ***UAM Section 3.14.4*** and as close to the R/W line as practical with regard to the aboveground utility practical considerations in ***UAM Section 3.14.5***, however, these requirements do not apply to:

1) Mid-span poles addressed in ***UAM Section 3.14.2***.
2) Existing aboveground utilities within FDOT projects addressed in ***UAM Section 3.14.3***.

3.14.2 Mid-Span Pole Installation Requirements

This section applies to the installation of mid-span poles which are new poles that are installed within the existing spans of the UAO's existing pole line. The UAO shall install mid-span poles within the existing alignment as part of the existing pole line.

Where mid-span poles are placed within the R/W of an intersecting FDOT roadway, the UAO shall install these mid-span poles outside the aboveground utility offsets in ***UAM Section 3.14.4***. Where this is not practical or would create an unreasonable hardship for the UAO, the UAO may request approval of an alternate design. To request such approval the UAO shall submit a signed request to the State Utilities Engineer, stating the reasons the UAO believes the UAO's alternate design should be approved. The request shall be granted when the information supplied by the UAO clearly shows either:

1) Compliance with these requirements is not practical or would create an unreasonable hardship for the UAO, and that the UAO's alternative would not unreasonably interfere with the safety, operation, maintenance, future improvement, or expansion of the transportation facility, or
2) The alternate design provides a benefit to the safety, operation, maintenance, future improvement, or expansion of the transportation facility, or other benefit to FDOT.

The fact that UAO's alternate design is less costly will not necessarily be determinative of whether the alternate design is approved.

3.14.3 Aboveground Utility Relocation, and Adjustment Requirements

FDOT may request the relocation or adjustment of existing aboveground utilities in order to construct projects. When requested, the UAO shall comply with the following:

1) On projects intended to correct specific safety issues and not intended to bring all conditions within the R/W to FDOT's standards, the UAO shall relocate or adjust the existing aboveground utilities that interfere with the correction of the specific safety issue.
2) On projects designed to resurface the roadway, the UAO shall relocate the aboveground utilities to as close to the R/W line as practical with regards to the aboveground utility practical considerations in ***UAM Section 3.14.5*** when the aboveground utility meets either of the following conditions:
   a) The aboveground utility has been hit 3 or more times in the latest 5 year period,

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b) The aboveground utility is located where the edge of travel lane is being moved closer to the aboveground utility than prescribed in ***UAM Section 3.14.4***.

3) On FDOT projects other than projects described in 1) and 2) above, the UAO shall relocate or adjust the existing aboveground utilities to meet all the following conditions:
   a) Where practical, behind existing barriers (such as guardrail, or concrete barriers), and not within the barrier's deflection area.
   b) Not within the median.
   c) Outside the aboveground utility offsets in ***UAM Section 3.14.4*** and
   d) As close to the R/W line as practical with regard to the aboveground utility practical considerations in ***UAM Section 3.14.5.***

Where compliance with FDOT's request is not practical or would create an unreasonable hardship for the UAO, the UAO may request approval of an alternate design. To request such approval the UAO shall submit a signed request to the State Utilities Engineer, stating the reasons the UAO believes the UAO's alternate design should be approved. The request shall be granted when the information supplied by the UAO clearly shows either:

1) Compliance with these requirements is not practical or would create an unreasonable hardship for the UAO, and that the UAO's alternative would not unreasonably interfere with the safety, operation, maintenance, future improvement, or expansion of the transportation facility, or
2) The alternate design provides a benefit to the safety, operation, maintenance, future improvement, expansion of the transportation facility, or other benefit to FDOT.

The fact that UAO's alternate design is less costly will not necessarily be determinative of whether the alternate design is approved.

3.14.4 Aboveground Utility Offsets

Aboveground utility offsets are dependent upon the roadside being restricted or non-restricted. Restricted roadsides are roadsides along predominantly curbed urban roadways with design speeds of 45 mph or less and narrower than the offsets in ***UAM Table 3.14.4***. Non-Restricted Roadsides are all other roadsides. The aboveground utility offset for restricted roadsides is four (4) feet from the face of curb. Where sections of curbs are missing, it is five and one-half (5.5) feet from the edge of the lane. The aboveground utility offsets within non-restricted roadsides is the distance obtained from the ***UAM Table 3.14.4***. This offset is measured, perpendicular to the edge of lane, away from the roadway, and along slopes no steeper than 1v:4h.

Table 3.14.4 Aboveground Utility Offsets for Non-Restricted Roadsides (feet)

	Design Speed (mph)				
	<45	**45**	**50**	**55**	**>55**
Travel Lanes or Multiple-Lane Ramps with Traffic Volumes ≥ 1500 AADT	18	24	24	30	36
Travel Lanes or Multiple-Lane Ramps with Traffic Volumes < 1500 AADT	16	20	20	24	30
Auxiliary Lanes or Single Lane Ramps with Traffic Volumes ≥ 1500 AADT	10	14	14	18	24
Auxiliary Lanes or Single Lane Ramps with Traffic Volumes < 1500 AADT	10	14	14	14	18

To determine the appropriate aboveground utility offset, select the distance from the ***UAM Table 3.14.4*** based on the lane type, traffic volume, and design speed. When FDOT cannot provide, the design speed or traffic volume, the posted speed or a traffic volume > 1500 AADT shall be used respectively. When applying these distances in the field, slopes steeper than 1v:4h are sometimes present within a portion of the aboveground utility offset. In those cases, the remaining portion of the aboveground utility offset, or ten (10) feet whichever is greater, is extended beyond the toe of the steeper than 1v:4h slopes. In no case does the aboveground utility offset extend beyond the R/W line.

3.14.5 Aboveground Utility Practical Considerations

When determining whether any aboveground utility is as close to the R/W line as practical, FDOT shall consider factors such as:

1) Aboveground encroachments onto private property.
2) National Electrical Safety Code (***NESC***),
3) ***UAM Section 3.4***, or other State or Federal codes/regulations.

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4) Conflicts with other existing overhead or underground facilities.
5) Trees on adjacent private property (where adequate future trimming would require encroachment on private property).
6) Guy wire requirements.
7) Alignment of existing pole line.

3.14.6 Vertical Clearances

The UAO shall maintain sixteen (16) feet minimum vertical clearance. However, when the aboveground utility is above any roadway, the UAO shall maintain eighteen (18) feet minimum vertical clearance. Where provided by law, other governmental agencies, rail facilities and state, local and federal codes may require a greater clearance. The greater clearance required prevails as the rule. For vertical clearances for limited access R/W see ***UAM Section 4.2***.

3.15 Lift Pumps or Power Generating Stations

The UAO shall not install any new utility lift pumps, or power generating stations within FDOT R/W.

3.16 Underground and At-Grade Utility Installations

A utility is considered underground when it is below the ground. A utility is considered at-grade when it is not below the ground and not more than 4 inches above grade.

3.16.1 Excavation Near Pavement

Unless FDOT determines it is impractical, the UAO shall not excavate closer than eight (8) feet from the edge of roadway pavement.

3.16.2 Electronic Detection of Underground Utilities

The UAO shall make all new or replaced underground utilities within the R/W electronically detectable using techniques available to the industry.

3.16.3 Design Requirements

The UAO shall only install underground utilities and at-grade appurtenances that meet or exceed all of the following:

1) The industry standard requirement for the intended use.
2) Static and dynamic loads of construction projects within the ***FDOT Five-Year Work Program***.
3) The post construction loads in ***UAM 3.16.3.1***.

3.16.3.1 Post Construction Loads

When within thirty (30) feet of the edge of pavement of a flush shoulder roadway or between the curbs of a curbed roadway, new and relocated underground and/or at-grade utilities shall support the greater of the following conditions for a design truck in accordance with the ***AASHTO LRFD Specifications***:

1) One wheel load of sixteen-thousand (16,000) pounds.
2) One axle load of thirty-two-thousand (32,000) pounds.
3) Two axle loads of twenty-four-thousand (24,000) pounds each, spaced four (4) feet apart.

New and relocated underground and/or at-grade utilities outside the above areas shall support FDOT maintenance equipment. FDOT does not guarantee the UAO's facilities will not be subject to greater loads.

3.16.4 Min. Depth Requirements for Open Trench or Trenchless Methods

The UAO shall install underground utilities to minimize adverse effects on pavement, base, other transportation facilities, or other permitted underground utilities (whether longitudinal or crossing). The UAO shall install these underground utilities with at least the following minimum coverage, as measured to the top of the utility:

1) Below the top of the roadway pavement: thirty-six (36) inches minimum.
2) Below existing unpaved ground and pavement other than roadway pavement: thirty (30) inches minimum (including designed ditch grade which as verified from existing pipe inverts).

Directional drilling requirements in ***UAM Section 3.16.10.1*** may require greater coverage.

3.16.5 Longitudinal Placement

When installing underground utilities longitudinally, the UAO should maintain a clearance, from any existing vitrified clay sanitary pipe line or existing gas lines, of at least three and one half (3.5) times the existing pipe's diameter. The UAO shall place their underground and/or at-grade utilities to not interfere with the operation and maintenance of the existing highway or any expansion of the highway within the ***FDOT Five-Year Work Program***.

3.16.6 Casing Requirements

The UAO shall provide casing for carrier pipes (whether longitudinal or crossing) within toes of the front slopes when any the following conditions exist:

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1) The underground utility does not meet the requirements in ***UAM Section 3.16.3*** or ***UAM Section 3.16.4***.
2) The underground utility contains flammable gases or fluids and does not meet the requirements of ***49 CFR, Part 192***, or ***49 CFR, Part 195***.

When venting is necessary, the UAO shall vent the casing at or outside the R/W line.

3.16.7 Service Connection Points

To accommodate FDOT work, or provide new services, the UAO shall place underground and/or at-grade utility service connection points at or beyond the R/W line to prevent the UAO's customers from having to enter FDOT R/W to make a connection. The UAO may provide underground and/or at-grade utilities service connection points to other facilities within the FDOT R/W owned by permitted service providers, FDOT, or other governmental agencies.

3.16.9 Underground Utility Access

When pulling multiple conduits to construct new duct systems, the UAO shall only place access points, such as manholes or pull boxes, over the duct and shall minimize obstruction of the R/W use by others. The UAO shall install its multiple access points on a duct system at least fifty (50) feet apart to minimize overall R/W infrastructure impact. FDOT shall not require sharing of manholes between power and non-power users.

The UAO shall place manholes, splice boxes and valve boxes outside the travel way and bike lanes, to the greatest extent practical. When installing manholes, pull boxes, splice boxes, valve boxes, or vaults that are greater than eighty (80) cubic feet, the UAO shall supply a manufacturer's certification that they meet or exceed the design loads specified in the ***UAM Section 3.16.3.1***.

3.16.10 Methods of Installation

For all installations the UAO shall use trenchless methods where feasible.

3.16.10.1 Directional Bore Installations Under Roadway Pavement with Reamer Sizes of Eight Inches (8") or More.

When using directional boring methods to install underground utilities under roadway pavement with reamer sizes of eight inches (8") or more without establishing the depth of the water table or confining layer, the UAO shall maintain a depth equal to ten (10) times the reamer diameter measured from the top of pavement to the top of the reamer. However, the UAO may obtain soils data to establish the depth of the water table (anticipated at time of installation) or the confining layer (the confining layer being a two (2) feet thick layer of earth that resists thirty (30) blows per foot of a ***Standard Penetration Test***. If either the depth of the water table or the confining layer is established, the minimum depth should be either two (2) feet below the top of the confining layer to the top of the reamer, or two (2) feet below the water table to the top of the reamer.

3.16.10.2 Other Installation Methods.

When using installation methods not addressed in ***UAM Section 3.16.10.1***, the UAO shall maintain the required depths in ***UAM Section 3.16.4***.

3.16.11 Out-of-Service and Deactivated Underground Utilities

The UAO may place it underground utilities out-of-service without removing them from the FDOT R/W. The UAO shall be responsible for and shall maintain ownership of these underground utilities commensurate with these facilities being in-service. However, the UAO shall not leave an out-of-service or deactivated underground utility in place that does any of the following:

1) Compromises the safety of any transportation facility user during construction or maintenance operations.
2) Prevents other utilities from being placed in the area when alternatives are unavailable.
3) Creates a maintenance condition that would be disruptive to the transportation facility.
4) Adds costs to FDOT improvements which are not paid for by the UAO.
5) Is in non-compliance with underground gas line deactivation. See ***49 CFR, Part 192.727*** and the rules of the Public Service Commission.

3.17 Restoration

3.17.1 Restoration of Pavement

When restoring pavement, the UAO shall do all of the following:

1) Maintain temporary patches providing a smooth, all weather surface at all times until all other installation work is complete.
2) Notify the Local Maintenance Engineer at least two (2) business days prior to application of the permanent patches.
3) Install permanent patches as soon as all other installation work is completed.
4) Maintain the permanent patches for a period of two (2) years from the date of installation.

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To reduce the time traffic is taken off of an existing facility, FDOT may approve the use of flowable fill.

3.17.2 Replacement and/or Mitigation of Trees

The UAO may designate, in the permit application, the boundaries where the UAO's facilities need to be free of trees in order to facilitate the installation, maintenance, and operation of the utility.. The UAO shall maintain the area within these tree free boundaries. The UAO shall provide a replacement and/or mitigation plan for large trees within these boundaries before installation. For this section, large trees are trees with trunks greater than twelve (12) inches in circumference measured four and one half (4.5) feet above the ground. The UAO may elect to mitigate all large trees in lieu of replacing them. The UAO shall attach and incorporate the replacement and/or mitigation as part of their utility permit application. Once the UAO has performed the replacement and/or mitigation in accordance with the approved permit, no future replacement and/or mitigation will be required within the identified tree free boundaries.

For a replacement plan, the UAO shall do all of the following:

1) Supply a map of the tree free boundary.
2) Obtain a cumulative cross-sectional area, measured four and one half (4.5) feet above the ground, of each species graded Florida #1 as described in the ***DPI Grades and Standards*** for all large trees within the boundary.
3) Obtain approved replanting locations from the Local Maintenance Engineer.
4) Replant an equal cross-sectional area, measured six (6) inches above the ground of each species of trees in the approved replanting locations.
5) Maintain the replanted trees for a period of one year to Florida #1 as described in the ***DPI Grades and Standards***.
6) When the replanting locations are insufficient to allow replanting an equal cross-sectional area of trees, the UAO shall mitigate the remaining area.

For a mitigation plan, the UAO shall do all of the following:

1) Supply a map of the tree free boundary.
2) Have an appraisal prepared by an appraiser possessing one of the following qualifications:
   a) Certification from the International Society of Arboriculture (ISA) as a Certified Arborist with advanced training in roadside vegetation or equivalent credentials from another nationally recognized arboricultural organization,
   b) Registration as a Landscape Architect pursuant to ***Chapter 481, Part II, F.S.***
   c) Approval from both FDOT and the UAO as an individual qualified to perform the tree mitigation appraisal.
3) Have the appraiser appraise the value of the trees within the boundary based upon the known, or estimated, condition of the trees prior to being removed. The UAO's appraiser shall follow the guidance as appropriate in the following documents:
   a) ***Determining the Mitigation Value of Roadside Vegetation,***
   b) ***Grades and Standards for Nursery Plants.***

3.17.3 Restoration of Turf

Immediately after the utility work is completed, the UAO shall begin sodding, or seeding and mulching operations on the front or back slopes. The UAO shall begin sodding, or seeding and mulching on all other areas within one (1) week after the utility work is completed. The UAO shall restore the R/W to the condition existing prior to the utility work. The UAO shall maintain that portion of the R/W affected by the utility work until vegetation is established.

3.18 Vegetation Control

3.18.1 General

Vegetation control includes any method intended to alter or regulate normal plant growth. The UAO may cut vegetation manually or mechanically on a routine or periodic basis provided the work does not exceed limits necessary for the proper utility maintenance. To the greatest extent practical, the UAO shall use vegetation maintenance that does not detract from the natural beauty of the roadside or cause an abrupt change in roadside vegetation conditions.

Where vegetation interferes with the safe utility maintenance and operation, the UAO shall do all the following:

1) Remove or cut flush with the ground tree that are not considered as large trees as defined in ***UAM Section 3.17.2.***
2) Remove brush cuttings or debris discharged into routinely maintained area.
3) Stockpile debris outside the mowing limits and clear zone for later disposal.
4) Leave in place all undergrowth.

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3.18.2 Tree Trimming

The UAO shall remove, not trim, trees within the tree free boundaries established in ***UAM Section 3.17.2***. Outside of theses boundaries, the UAO shall trim trees to ensure and maintain the safe operation of utilities. Such trimming shall employ recognized and approved methods of modern vegetation control, with emphasis on tree health. When trimming does irreparable damage to large trees, the UAO shall replace these trees as described in the ***UAM Section 3.17.2***, however, replacing or mitigating these damaged trees does not expand or otherwise modify any existing tree free boundaries. The UAO may use mechanical tree trimming machines for routine maintenance. The UAO shall remove all waste and debris associated with the trimming from R/W unless FDOT specifies otherwise in writing.

3.18.3 Mowing

Where the UAO mows or cuts grass, the UAO shall mow or cut the grass (a) to a height of not less than five (5) inches and (b) in such a manner as to promote low growing ground cover species. The UAO shall equip and operate mowing equipment in a manner to preclude throwing debris that would create a safety hazard.

3.18.4 Chemical Control of Vegetation

When using chemical vegetation control, the UAO shall comply with all of the following:

1) Obtain written authorization from the Local Maintenance Engineer before applying vegetation control chemicals.
2) Give the Local Maintenance Engineer at least two (2) business days advance notice.

To obtain written authorization, the UAO shall submit a written proposal for chemical control of vegetation which includes all of the following:

1) The extent of the intended work.
2) The type of herbicides or plant (tree) growth regulators to be used (and shall include labels and material safety data sheets for the intended use).
3) The intended timing and techniques of application.
4) Documentation that the UAO's herbicide applicator (whether a utility employee or contractor) is certified to apply herbicides.
5) Identify each plant type to be chemically controlled.

The UAO shall apply chemical control of vegetation either a) in the first growing season after mowing, or b) before it has reached a height of six (6) feet. The UAO shall not apply chemical control on vegetation greater than six (6) feet in height if such application will either a) create an undesirable appearance, or b) cause undesired browning or color change. The UAO may request special consideration when manmade obstructions preclude or prevent reducing vegetation to the six (6) feet height. The Local Maintenance Engineer may authorize applications at a height greater than six (6) feet either in areas with rapid plant growth or in the control of invasive exotic vegetation. If FDOT grants such permission, the UAO shall remove, chip or mulch dead plant material following successful performance of the herbicides. The UAO shall not use any herbicide containing the active ingredient sulfonyl urea, or containing any chemical of the sulfonyl urea family, or labeled as restricted use. The UAO shall not apply any non-selective or residual herbicides to roadside turf grasses. The UAO shall not apply any chemical of any type or rate that causes permanent injury to desirable vegetation or could result in bare ground. To control invasive vegetation, the FDOT District Maintenance Engineer may suspend these restrictions. The UAO may use individual stem and solid stream treatments that result in spot or narrow band control. The UAO shall protect specific selected and preserved plants from damage by herbicides. The UAO shall comply with all environmental considerations and associated regulations when applying herbicides. The UAO shall maintain and provide upon request complete records detailing the dates, location, materials, rates, weather, and other data relevant to herbicide application, as required by federal and state law. FDOT may deny any UAO future permission to use chemicals for vegetation control because of misuse, unsatisfactory performance results, or failure to comply with these provisions. The UAO shall allow only persons with all the following qualifications to apply chemicals:

1) Training, experience and competence in their work.
2) Licenses according to applicable federal and state law.
3) Understanding of herbicide application and the technical complexities in this field of expertise.

3.19 Utilities on or near FDOT Structures

The UAO shall not install, operate or maintain any utility on or near an FDOT structure that does any of the following:

1) Creates a hazard to the public.
2) Affects the FDOT structure's integrity.
3) Unreasonably hinders inspection and maintenance operations of the FDOT structure.

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4) Adversely affects the aesthetics of FDOT structures placed in aesthetically sensitive environments.
5) Damages any FDOT structure's reinforcement or stressing ducts or strands.
6) Attaches to FDOT bridge girders.
7) Resides inside an FDOT box girder.
8) Lowers the FDOT structure's vertical clearance.
9) Restricts the FDOT structure's ability to expand and contract.

3.19.1 Attaching to FDOT Structures

The UAO shall be responsible for the design, safety, inspection, and maintenance of utilities and supporting hardware it attaches to FDOT structures. The UAO's engineer shall be responsible for performing the analysis for determining if the structure will support the utility in addition to other loads in a safe manner while not significantly reducing the FDOT structure's live load capacity. The UAO shall use materials and methods for utility conduit, pipe coatings and concrete repairs that are a) approved by FDOT's State Materials Office, and b) are in accordance with the FDOT District Structures Design Engineer's site specific requirements.

When attaching utilities to FDOT bridges, the UAO shall comply with all of the following:

1) Utilities shall be placed under the cantilever portion of the deck overhang.
2) Utility cables or conductors shall be encased in conduit.
3) All electrical cables two (2) kilovolts and above shall be shielded cable with a concentric neutral, grounded at both ends of the bridge.
4) All pressure lines shall have shut-off systems so that pipe segments at bridges can be isolated.

When FDOT determines that an FDOT bridge is in an extremely aggressive environment, the UAO shall incorporate the following in the design:

1) 316 stainless steel for all attachment hardware such as hangers and bolts, or equivalent material as determined by the State Corrosion Engineer.
2) Conduits fabricated from non-metallic materials or equivalent material as determined by the State Corrosion Engineer.

The UAO shall make metallic pipes and conduits a) electrically insulated from the structure by redundant insulators, and b) supported by insulating pipe rollers constructed from dielectric material. If loads would permanently strain the roller material beyond the elastic limit, the UAO shall use elastomeric bearings or specifically designed sliding supports. The UAO shall isolate and insulate all utilities from the FDOT bridge to ensure that corrosion cells do not develop because of the attachment of the utility. The UAO shall use only welded or flange joint steel pipe conforming to ***API Standard 1104*** for carrying hazardous material (flammable, toxic or corrosive). The UAO shall design all pipes carrying hazardous material for class four locations in compliance with ***49 CFR, Part 192*** and ***49 CFR, Part 195***.

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4 Utilities Accommodation on FDOT Limited Access Right of Way

When placing utilities on Limited Access Right of Way (LA R/W), the UAO shall comply with this section in addition to all other sections of the ***UAM***.

4.1 Longitudinal Utilities

The UAO may install FDOT service lines longitudinally on LA R/W. The UAO shall not install any longitudinal utilities, other than FDOT service lines on LA R/W. Where compliance with FDOT's request is not practicable or would create an unreasonable hardship for the UAO, the UAO may request approval of an alternate design. To request such approval the

UAO shall submit a signed request to the State Utilities Engineer, stating the reasons the UAO believes the UAO's alternate design should be approved. The request shall be granted when the information supplied by the UAO clearly shows either:

1) Compliance with these requirements is not practicable or would create an unreasonable hardship for the UAO, and that the UAO's alternative would not unreasonably interfere with the safety, operation, maintenance, future improvement, or expansion of the transportation facility, or
2) The alternate design provide a benefit to the safety, operation, maintenance, future improvement, expansion of the transportation facility, or other benefit to FDOT.

The fact that UAO's alternate design is less costly will not necessarily be determinative of whether the alternate design is approved.

4.2 Vertical Clearance

The UAO shall provide at least twenty-four (24) feet vertical clearance for aboveground utility above any limited access roadway.

4.3 Crossings

4.3.1 New Crossings

In expanding areas adjacent to LA R/W, the UAO shall design and install utilities to minimize the need for crossing LA R/W. The UAO shall not cross LA R/W when other options are available within reasonable distances.

4.3.2 Existing Utilities and Limited Access Construction

When relocating or adjusting existing utilities in conjunction with construction of a LA R/W, the UAO shall a) provide for known and planned expansion of the utility, and b) plan future installations or new lines to not impede traffic.

4.3.3 Underground Crossings

The UAO shall provide at least forty-eight (48) inches coverage measured from the pavement surface to the top of the underground utility. The UAO shall not open cut pavement. The UAO shall not place high-pressure gas or volatile fuel lines near or under FDOT bridges or MSE walls.

The UAO shall, where practical, perform all construction and maintenance outside the LA R/W fence line. The UAO shall place temporary fencing to enclose work areas within the LA R/W. The UAO shall not extend this fencing closer to the roadway than to the toe of the back slope.

The UAO shall not place utilities at interchanges that cannot be serviced or patrolled in accordance with ***UAM Section 4.7***.

4.5 FDOT Railroad Corridors

All rail corridors are to be treated as LA R/W for utility accommodation purposes. When placing utilities on non-operating railroad corridors, the UAO shall comply with the ***UAM*** and the applicable corridor management plan.

When placing utilities on operating railroad corridors, the UAO shall also comply with all requirements in the standard railroad application package for the railroad(s) operating in the corridor.

The UAO may obtain the standard railroad application package from the FDOT District Rail Coordinator or the FDOT District Corridor Rail Manager, where one exists. The UAO shall adhere to minimum horizontal offset or highest vertical clearance dimensions found in the following:

1) ***UAM*** for all LA R/W
2) ***Rule 14-57, F.A.C.*** for rail corridors.
3) ***FDOT South Florida Rail Policy*** for the South Florida Rail Corridors.

4.6 Utilities in R/W being Re-designated as LA R/W

The UAO may leave existing permitted utilities within R/W being re-designated as LA R/W; however, the UAO shall only leave utilities that do not unreasonably interfere with the safety, design, construction, operation, maintenance, or stability of the proposed LA R/W. The UAO shall service, maintain, and operate the utility without interfering with traffic on through lanes or ramps.

4.7 Access for Servicing or Patrolling Utilities

Where practicable, the UAO shall access utilities only from nearby frontage roads, public roads, or trails leading outside of the LA R/W. For utilities placed along non-limited access overpasses or underpasses the UAO shall, where practicable, service these utilities from the non-limited access R/W and not impact traffic on the LA R/W.

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4.8 Attachments to FDOT Bridges

The UAO, shall not attach utilities to FDOT bridges..

5 Project Coordination

This section covers the responsibilities of both FDOT and the UAO prior to construction activities of projects.

5.1 FDOT Coordination

Project coordination is a cooperative effort between FDOT and the UAOs. FDOT shall make arrangements to ensure all of the following is done:

1) Advance planning of highway projects is coordinated with affected UAOs no later than the project being placed in ***FDOT Five-Year Work Program***.
2) Hardcopies of project drawings, or project CADD files are provided to the UAO for markup in an agreeable format.
3) Conflicts with the UAO's utilities are identified to the UAO.
4) Reasonable lead-time is provided for the UAO to relocation or adjust their utilities.
5) Reasonable lead-time is provided for the UAO to physically expose their utilities when the UAO elects to do this work.

5.2 UAO Coordination

The UAO shall do all the following:

1) Provide project work schedules to resolve all conflicts between the FDOT project and the UAO's utilities.
2) Obtain permits for utility work in compliance with all applicable laws and the ***UAM***.
3) Identify to the designer utilities and utility service connections the UAO has determined to be in conflict that were not previously identified.
4) Mark the project drawings or project CADD files utility locations and elevations, existing and proposed, with ties to the project's survey points, as can reasonably be obtained by a review of existing records, topographic surveys and detection devices without physically exposing the utility. The UAO shall use the following color code:
   Red: Existing utilities that are:
   (a) To be removed or relocated horizontally or
   (b) To be placed out-of-service (deactivated) but left in place
   Green: Existing utilities to remain in place with no adjustment.
   Brown: Utilities that are:
   (a) Existing and are to be adjusted vertically, but are to remain in the same horizontal alignment, or
   (b) New utilities to be installed.

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6 References

6.1 Incorporated References

The following references are incorporated into this manual by reference and are requirements of this manual, but are limited to the scope of application specifically referenced on the ***UAM*** sections listed and are available at: http://www.dot.state.fl.us/specificationsoffice/utilities/

AASHTO LRFD Specifications - UAM Section 3.16.3.1
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION (2010) as incorporated in Rule 14-15 F.A.C.
Published by the American Association of State Highway Officials

API Standard 1104 - UAM Section 3.19.1
API STD 1104 (API 1104) - Welding of Pipelines and Related Facilities
20th edition, October 2005. Published by the American Petroleum Institute

DPI Grades and Standards- UAM Section 3.17.2
Florida Department of Agriculture and Consumer Services, Division of Plant Industry, GRADES AND STANDARDS FOR NURSERY PLANTS, 1998.

FDOT 2010 Design Standards - UAM Section 1.5.1
DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM 2010, ENGLISH UNITS

FDOT 2014 Design Standards - UAM Sections 1.3, 1.5.1, 2.3.2, 2.4.2
DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM 2014, ENGLISH UNITS

FDOT South Florida Rail Policy - UAM Section 4.5
SOUTH FLORIDA RAIL CORRIDOR CLEARANCE
Policy No. 000-725-003, Effective date 9/20/2007

FDOT 2013 Standard Specifications - UAM Section 1.5.2
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2013

FDOT 2014 Standard Specifications - UAM Section 1.5.2
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2014

Standard Penetration Test - UAM Section 3.16.10.1
ASTM D1586 - 11 Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils, published by the American Society for Testing and Materials (ASTM), November 1, 2011.

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6.2 Informational References

his manual contains references to Florida Statutes, Federal Codes, national codes and other documents. These are to assist the user with additional information pertinent to the topic being discussed in the body of this manual. These references are for informational purposes only. However, the UAO may be bound by the requirements in these references through other means.

Chapter 120, F.S. - UAM Section 1.11
Florida Statute - 120, ADMINISTRATIVE PROCEDURE ACT

Section 120.60, F.S. - UAM Section 2.6
Florida Statute - 120.60 Licensing.

Rule 14-26, F.A.C. - UAM Section 1.7.1
Florida Administrative Code, Chapter 14-26, SAFETY REGULATIONS AND PERMIT FEES FOR OVERWEIGHT AND OVERDIMENSIONAL VEHICLES

Rule 14-46.001, F.A.C. - UAM Sections 1.1, 2.1, 2.7, 7
Florida Administrative Code, Chapter 14-46.001, UTILITIES INSTALLATION OR ADJUSTMENT

Rule 14-57, F.A.C. - UAM Section 4.5
Florida Administrative Code, Chapter 14-57, RAILROAD SAFETY AND CLEARANCE STANDARDS, AND PUBLIC RAILROAD-HIGHWAY GRADE CROSSINGS

Rule 14-86, F.A.C. - UAM Section 1.7.2
Florida Administrative Code, Chapter 14-86, DRAINAGE CONNECTIONS

Section 333.01(3), F.S. - UAM Section 3.11
Florida Statute - 333.01(3) "Airport hazard"

Chapter 373, F.S. Part IV - UAM Section 1.7.2
Florida Statute - 373 MANAGEMENT AND STORAGE OF SURFACE WATERS

Chapter 471, F.S. - UAM Section 2.4.3
Florida Statute - 471 - Engineering.

49 CFR, Part 192 - UAM Sections 3.16.7, 3.16.12, 3.19.1
Code of Federal Regulation, Title 49: Transportation part 192, TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS, Revised October 1, 2007

49 CFR, Part 195 - UAM Sections 3.16.7, 3.19.1
Code of Federal Regulation, Title 49--Transportation, part 195, TRANSPORTATION OF HAZARDOUS LIQUIDS BY PIPELINE, Revised October 1, 2007

Chapter 556, F.S. - UAM Section 1.9
Florida Statute - 556, UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY

Rule 62-25, F.A.C. - UAM Section 1.7.2
Florida Administrative Code, REGULATIONS OF STORMWATER DISCHARGE

FDOT Five-Year Work Program - UAM Sections 3.16.4, 3.16.6, 5.1
FDOT Five-Year Work Program, Pursuant to Section 339.135(5), Florida Statues

NESC - UAM Section 3.14.5
National Electrical Safety Code

Section 337.401(2), F.S., ***Section 337.402, F.S.***, ***Section 337.403, F.S.***, ***Section 337.404, F.S.*** - UAM Sections 2.1, 3.13
Florida Statute - 337.401 Use of right-of-way for utilities subject to regulation; permit; fees
Florida Statute - 337.402 Damage to public road caused by utility
Florida Statute - 337.403 Relocation of utility; expenses
Florida Statute - 337.404 Removal or relocation of utility facilities; notice and order; court review.

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7 Utility Permit Exhibit

This section contains a blank utility permit in hardcopy format. Pursuant to ***UAM Section 2.1 (1)***, the UAO shall obtain a utility permit before working within FDOT R/W by using the One-Stop Permitting website, However when the UAO does not have access to the permitting website, the UAO shall use the hardcopy utility permit in ***UAM Section 7***. Access to the online One-Stop Permitting website is available at: *http://www.dot.state.fl.us/specificationsoffice/utilities/*

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State Department of Transportation

UTILITY PERMIT

PERMIT NO:_____

STATE ROAD INFORMATION

County:	Section:	State Road No:	Beginning Mile Post:	Ending Mile Post:

APPLICANT INFORMATION

The Utility Agency Owner (UAO) shall be identified in this Applicant Information Box. When the UAO is a City or County and desires to have the Utility Builder made a joint permit applicant as prescribed in Section 2.1(4) of the Utility Accommodation Manual Revision August 26, 2014 (UAM), the Utility Builder shall also be identified in this Applicant Information Box. A Utility Builder alone cannot apply for a utility permit without the City or County adding them as a joint applicant.

Utility Agency/Owner (UAO)

Name: _____
Contact Person: _____
Address: _____
City: _____
Sate: _____
Zip: _____
Telephone: (____) _____-_____ ext. _____
Email: _____

Utility Builder (only applicable when the UAO is a City of County)

Name: _____
Contact Person: _____
Address: _____
City: _____
Sate: _____
Zip: _____
Telephone: (____) _____-_____ ext. _____
Email: _____

WORK DESCRIPTION

The Applicant(s) requests permission from the Florida Department of Transportation (FDOT) to construct, operate and maintain the utilities as described below and as depicted in the incorporated documentation.

_____
_____
_____
_____
_____
_____
_____

Utility Work No: _____

Additional sheets are attached and are incorporated into this permit Yes ☐ No ☐

For FERC or FDEP certification, the FDOT agency report is attached in accordance with UAM Section 2.4.1 (13) Yes ☐ No ☐

TRAFFIC CONTROL (TCP)

Pursuant to UAM Section 2.4.2, the UAO and/or Utility Builder shall use a TCP that complies with all requirements of the appropriate traffic control standards and typical applications in FDOT 2014 Design Standards or the latest edition, or shall submit a TCP signed and sealed by a qualified, licensed Florida professional engineer with an FDOT Advanced Maintenance of Traffic Certification. All Traffic Control Plans shall comply with Index 600 of the FDOT 2014 Design Standards.

☐ The TCP will comply with the following 600 series index(es) _____

☐ A signed and seal TCP has been attached in incorporated into this permit application.

MOT Technician's contact information (may be supplied at the 2 business day notification to FDOT):

Name: _____ Telephone (____) _____-_____ Email: _____

COMMENCEMENT OF WORK

The UAO and/or Utility Builder shall commence actual construction in good faith within sixty (60) calendar days after approval of the permit application. If the beginning date is more than sixty (60) calendar days from the date of approval, the UAO and/or Utility Builder must review the permit with the FDOT Approving Engineer listed to make sure no changes have occurred to the transportation facility that would affect the permit's continued approval. The UAO and/or Utility Builder shall make good faith efforts to expedite the work and complete the work within the calendar days indicated.

Anticipated Start Date: _____/ _____/ _____

Calendar days needed to completed: _____

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State Department of Transportation

UTILITY PERMIT

PERMIT NO:_____

APPLICANT SIGNATURE

By the below signature(s) the UAO and/or Utility Builder agree(s) to construct, operate, and maintain the work as; noted in the above Work Description, shown in plans and incorporated documents, in compliance with the UAM, and all instructions noted in the FDOT Special Instructions Box, and special instructions incorporated into this permit. The UAO and/or Utility Builder declares, the location of all existing utilities that it owns or has an interest in, both aerial and underground, are accurately shown on the plans of the work areas. In accordance with UAM Section 2.8, The UAO and/or Utility Builder further declares that a letter of notification was delivered to the owners of other facilities within the work areas and that those listed below are the only facility owners known to be involved or potentially impacted by the proposed work.

Date Notified:	Name of other facility owners (attach additional sheets if necessary).
____/____/____	_____
____/___/_____	_____
____/___/_____	_____
____/___/_____	_____
____/_____/___	_____

Utility Agency/Owner	Utility Builder (when applicable)
Signature: _____ Date _____/_____/_____	Signature:_____ Date ____/_____/_____
Name (printed): _____	Name (printed): _____
Title: _____	Title: _____

FDOT PROJECT INFORMATION

Pursuant to UAM Section 2.1(10), the utility work is within FDOT projects listed below and must have a Utility Work Schedule for each project approved prior to commencement of work within the FDOT project limits:

_____
_____
_____
_____
_____
_____

FDOT SPECIAL INSTRUCTIONS

In accordance with UAM Section 2.7, FDOT incorporates the below and attached special instructions into this permit.

_____
_____
_____
_____
_____
_____

Additional FDOT Special Instructions are attached and incorporated into this permit. Yes ☐ No ☐

PERMIT APPROVAL

By signature below FDOT gives permission to the UAO and /or Utility Builder to construct operate and maintain the utilities indicated in this Utility Permit in compliance with the UAM, all incorporated documents, and special instructions. Any changes to the approved work must be approved by the FDOT's Approving Engineer and attached and incorporated into this permit in accordance with UAM Section 2.10.

Approving Engineer: _____ Date ____/ ____/ _____

Name: _____

Title:_____

An FDOT Representative is required to be present on the worksite prior to commencement of work. Yes ☐ No ☐

Rep. Name: _____ Telephone (____) _____-_____ Email: _____

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State Department of Transportation

UTILITY PERMIT

PERMIT NO:_____

CERTIFICATION

I the undersigned UAO and/or Utility Builder hereby CERTIFY that the utilities were constructed and inspected in compliance with the UAM, all incorporated documents, and special instructions. Pursuant to UAM Section 2.10, all changes have been approved by the FDOT's Approving Engineer and incorporated into this permit along with all other material certifications, test results, bore logs, approved plans changes, as-built plans or other required documentation.

I also CERTIFY that work began on _____/_____/_____ and was completed on _____/_____/_____ and that the area was left in as good or better condition than when the work began.

Utility Agency/Owner	Utility Builder (when applicable)
Signature: _____ Date _____/_____/_____	Signature:_____ Date ____/_____/_____
Name (printed) _____	Name (printed) _____
Title _____	Title _____

FINAL INSPECTION OF WORK

☐ The work was inspected and found to be in non-compliance as noted below:

_____
_____
_____
_____
_____
_____

☐ All issues non-compliance listed above have been brought into compliance and/or FDOT has no outstanding issues that need to be addressed by the UAO and/or Utility Builder. However, this final inspection does not release the UAO and/or Utility Builder of their continuing responsibilities pursuant to Rule 14-46.001, the UAM, all incorporated documents, and special instructions.

FDOT Inspector: _____ Date ____/ ____/ _____

Name: _____

Title:_____

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