

PART 2, CHAPTER 10

UTILITIES AND RAILROADS

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PART 2, CHAPTER 10

UTILITIES AND RAILROADS

10.1 OVERVIEW

The purpose of this chapter is to provide guidance to the District Project Development and Environment (PD&E) Project Managers (PM), the District Utility Offices (DUO), and the District Railroad Coordinators (DRC) for identifying and documenting utility and/or railroad conflicts during the PD&E phase. A utility, as defined in the Florida Department of Transportation's (FDOT) [Utility Accommodation Manual \(UAM\), Topic No. 710-020-001](#), is lines such as pipes, wires, pole lines, and appurtenances used to transport or transmit electricity, steam, gas, water, waste, voice or data communication, radio signals, or stormwater not discharged onto the FDOT Right of Way (ROW). The PM should coordinate with the DUO and the DRC early in the PD&E phase to identify potential conflicts between the proposed project, along with its associated improvements (e.g., drainage, landscaping, mitigation), and existing or future utilities and rail lines.

Conflicts with utilities as well as railroad crossings affect both cost and schedule of a project, and also have the ability to influence the selection of the alternative. FDOT must consider the potential for encountering utilities and rail lines within the limits of every project, including associated pond sites and other off-site improvements. Coordination between the District, the Railroads and/or the Utility Agency/Owner (UAO) should begin early and continue throughout the project development process to plan for the expense and time required for utility conflict resolution and/or relocations and railroad crossings.

For projects that do not have a PD&E phase, the coordination with UAOs will be done by the DUO and the District's Design PM in accordance with the [Plans Preparation Manual \(PPM\), Topic No. 625-000-007](#) and the [Utility Accommodation Manual \(UAM\), Topic No. 710-020-001](#).

10.1.1 Legislative Authority

Table 10-1 provides a summary of the major legislation, rules, and policies that govern railroad crossings and utilities in FDOT ROW.

TABLE 10-1	
Legislation and Policies Related to Railroad Crossings and Utilities on Transportation Right of Way	
Title and Citation	Relevance in PD&E
Federal Legislation	
<i>Utility Relocations Adjustments and Reimbursement [23 Code of Federal Regulations (CFR) § 645 (a)]</i>	Prescribes the policies, procedures, and reimbursement provisions for the adjustment and relocation of utility facilities on federal-aid and direct federal projects.
<i>Accommodation of Utilities [23 CFR § 645 (b)]</i>	Prescribes the policies and procedures for accommodating utility facilities and private lines on the right of way of federal-aid or direct federal highway projects.
<i>Railroad - Highway Projects [23 CFR § 646 (b)]</i>	Prescribes the policies and procedures for federal-aid projects involving railroad facilities, including projects for the elimination of hazards of railroad-highway crossings, and other projects which use railroad properties or which involve adjustments required by highway construction to either railroad facilities or facilities that are jointly owned or used by railroad and utility companies.
State Legislation	
<i>Use of right of way for utilities, Section 337.401, Florida Statutes (F.S.)</i>	Authorizes the FDOT and local governmental entities, to prescribe and enforce reasonable rules or regulations with reference to the placing and maintaining within the right of way limits of, across, or on any road or publicly owned rail corridors under their respective jurisdictions any utility.
<i>Relocation of Utilities, Section 337.403, F.S.</i>	Regulates the timeline and who is required to pay for the expense of removing or relocating a utility that is found to be unreasonably interfering in any way with the convenient, safe, or continuous use, or the maintenance, improvement, extension, or expansion of a facility.
<i>Regulation of Public Railroad-Highway Grade Crossings, Section 335.141, F.S.</i>	Provides FDOT regulatory authority over all public railroad-highway grade crossings in the state.

TABLE 10-1	
Legislation and Policies Related to Railroad Crossings and Utilities on Transportation Right of Way	
Title and Citation	Relevance in PD&E
<i>Chapter 14-46, Florida Administrative Code (F.A.C.), and the incorporated Utility Accommodation Manual</i>	Establishes requirements for accommodation of new and existing utilities across, on, or under transportation facilities within FDOT's right of way.
<i>Railroad Safety and Clearance Standards, and Public Railroad-Highway Grade Crossings Rule, Chapter 14-57, F.A.C.</i>	Governs the clearances at grade crossing as well as required warning signs, gates and lights
FDOT Policies/Agreements	
<i>FDOT Procedure No. 710-010-050, Utility Work Agreements and Certification Process</i>	Establishes a uniform procedure for the coordination of utilities on projects administered by FDOT. This includes the negotiation, execution, and submission of Utility agreements and supplements thereto, the processing and filing of critical documents, consultant services, the development of a Utility Work Schedule, and the processing and distribution of agreement packages.
<i>FDOT, Utility Agreements, Resolutions and Certificate of Incumbency</i>	A listing and copies of agreements between FDOT and utility companies.

10.2 PROCEDURE

Coordination, cooperation, and communication to eliminate, minimize, or mitigate utility or railroad related issues should be practiced throughout the PD&E phase. The District, through the PM, the DRC and the DUO, should coordinate often with the UAO and Railroads and provide project information as early as possible.

Identification of Utilities and Railroads in a project area should begin prior to the PD&E phase. During planning or corridor development, a Sunshine One Call 811 can help locate existing utilities. This information can be used to avoid major utility or railroad conflicts in choosing corridors or alternatives to carry forward to the PD&E phase. It will also be used in preparing the PD&E Scope of Service.

During the development of alternatives, the DUO and PM should hold informational meetings with UAOs to discuss the PD&E Study as it relates to their existing and any proposed facilities. This early coordination will assist with the development of concept plans with the goal of avoiding conflicts with major utility facilities in the next phase of

project development. All stakeholders benefit from early coordination and opportunities to reduce utility impacts, as well as impacts to future project scheduling and budgeting. Similarly, early coordination with the DRC and any Railroads impacted by PD&E projects is also required.

UAOs and Railroads are project stakeholders and should be invited to public meetings and hearings, which will help them to receive direct feedback from customers on potential issues. Attendance of UAO and Railroads at public meetings also helps them to identify and resolve issues related to their facilities early in the process when adjustments to the project are more easily facilitated.

10.2.1 Utility Procedure

The process to address utilities during the PD&E phase is presented in four stages: PD&E Project Scoping; PD&E Request Package; UAO Coordination; and preparation of a **Utility Assessment Package**.

10.2.1.1 PD&E Project Scoping

The PM needs to coordinate with the DUO in preparing the Scope of Services for the PD&E Study. Information needed to prepare the scope is the anticipated number of UAOs that may be within the PD&E Study limits and the anticipated complexity of coordination with each UAO for the **Utility Assessment Package**. The UAOs in the project area may be identified using the Sunshine One Call, 811. When preparing the Scope of Services, requirements for UAO coordination and documentation in the **Utility Assessment Package** and Environmental Document will be determined. The **Utility Assessment Package** (See **Section 10.2.1.4**) is prepared either in-house by the DUO, or by the PD&E Consultant during the PD&E phase. Regardless of who prepares the **Utility Assessment Package**, the DUO is responsible for and must review and approve the Consultant's product.

PD&E projects with advanced preliminary design or final design in the PD&E phase, following the Statewide Acceleration and Transformation process in [Part 1, Chapter 4, Project Development Process](#), will require a higher level of coordination with the UAOs than projects with a standard PD&E Study. While it is important to know the location of all utility facilities within the PD&E Study limits, the PD&E team should focus their efforts on utilities that could affect the preferred alternative, entail long duration coordination efforts, may be cost prohibitive to relocate, or for other reason rise beyond the level of ordinary utility coordination. These utility facilities may include substations and electrical transmission lines for power companies, large "hubs" for telecommunication lines, large gas or oil transmission mains, military communication lines and other underground lines. Some utilities have special agreements with FDOT (e.g., the Florida Gas Transmission (FGT) Global Agreement), some are fragile (e.g., large clay pipes, pipes that have been underground for decades) and some devices are misrepresented as utilities (e.g., wireless communication devices). Therefore, the level of engineering detail required for

the PD&E Study should be discussed in depth with the DUO during scoping. In special cases, projects with significant utility concerns or, accelerated schedules may require detailed locations of utilities and in these cases, the DUO may request the PD&E Study to include additional survey work and possibly the need for Subsurface Utility Engineering (SUE) work.

10.2.1.2 PD&E Request Package

The PM is responsible for developing and submitting a PD&E Request Package (see **Section 10.2.1.3**) to the DUO early in the PD&E Study, after the proposed alternatives are developed. The PD&E Request Package should consist of the project typical section(s) and concept plans for each alternative under consideration. The typical section data provided should include roadway and shoulder width, median and border widths and respective treatments.

The concept plans will show the location of all viable proposed alternatives for the project on an aerial photograph. The concept plans must contain the following information at a minimum:

1. All paved areas;
2. Bridges;
3. Existing drainage structures;
4. ROW lines and width;
5. Access control lines;
6. Horizontal alignment stationing; and,
7. Special landscaping or mitigation areas.

10.2.1.3 Utility Coordination

Once the PD&E Request Package has been developed and submitted to the DUO, the DUO will notify the UAOs within the project area by forwarding them the PD&E Request Package. The transmittal to the UAOs should request existing and planned utility information for above ground and below ground utilities along or within the PD&E project area, as well as any existing easements or other property interests that may be affected by the project. The UAOs contacted by the DUO should review the concept plans and typical section(s) to identify this information, including at a minimum all major facilities, buildings, and other obstructions or encroachments of UAOs within or adjacent to the project corridor. Generally, the UAOs will respond in writing as well as by “marking” their

facilities on the concept plans, in accordance with **Chapter 14-46, F.A.C.** and incorporated in the UAM.

A meeting to discuss utility impacts related to the alternatives should be held with each of the respective UAOs approximately 30 days after sending the PD&E Request Package. Each UAO should identify both existing and planned utility corridors and installations within the project alignments. If applicable discuss alternatives that may minimize or avoid conflicts, evaluate and consider recommended mitigation/avoidance strategies, discuss timelines for new installations or relocations that are anticipated to be unavoidable, as well as possible order of magnitude relocation costs and schedule impacts for those relocations. The DUO may also need to discuss property interests and possible encroachments/subordinations. However, no compensability determinations should be made. The DUO shall take any compensability requests to the Office of General Counsel for guidance. The possibility of a UAO entering into a [Utility Work by Highway Contractor Agreement \(UWHCA\), Topic No. 710-010-21](#), should also be addressed.

In addition, the DUO may need to meet individually with certain UAOs that need additional attention as described in **Section 10.2** to better understand possible conflicts and discuss alternatives.

If applicable, the PM, in conjunction with the District ROW Office, should consider the feasibility of joint ROW acquisition to minimize utility ROW replacement cost if feasible. This approach should be discussed in the Utilities and Railroads section of the Environmental Document and referenced in the Relocation Potential section in accordance with **Section 10.3**. In addition, if FGT is anticipated to require ROW per the **Agreement and Global Settlement (August 21, 2013)**, this should be discussed with the Office of General Counsel and documented in the Environmental Document in the same fashion as joint ROW acquisitions.

A listing of Agreements made between FDOT and UAOs, including the **August 21, 2013 Florida Gas Transmission Agreement and Global Settlement**, can be found on the FDOT Utility Office website on the [Utility Agreements, Resolutions and Certificate of Incumbency](#) Table.

10.2.1.4 Utility Assessment Package

The information provided by the UAOs through coordination shall be used by the DUO in preparing the **Utility Assessment Package**. For each of the proposed alternatives, the Utility Assessment Package will include:

1. Names of all identified UAOs;
2. One set of aerials denoting the location of major existing and planned utilities. Aerials should be developed in such a way that information regarding the major utility facilities is easily discernable. For example, in order for the PM to

understand the total impacts to the affected utilities, aerials may need to show multiple UAO facilities instead of each UAO being depicted on separate sets of aerials;

3. A description of all existing and planned utilities;
4. A discussion of mitigation/avoidance recommendations to reduce utility conflicts;
5. A cost estimate and anticipated time frames for relocation of major facilities where conflicts are anticipated to be unavoidable;
6. A discussion of joint ROW acquisition;
7. A discussion of ROW needs for FGT, if applicable;
8. A discussion of which UAOs are likely to enter into a **UWHCA**, including whether existing facilities are affected by the project or are proposed installations. Include cost and schedule impacts;
9. A description of existing or proposed subordinations and encroachments; and,
10. If it is determined that a UAO will not be affected by the proposed project, information concerning the UAO disposition shall be documented in the **Utility Assessment Package**.

Any discussion in the **Utility Assessment Package** regarding conversations with UAO concerning compensation or legal determinations should be reviewed and approved by the District Office of General Counsel before being included.

The **Utility Assessment Package** shall be provided to the PM for consideration in comparing alternatives and selecting a preferred alignment. The Environmental Document will include a summary of this package.

If it is determined that a utility will not be affected by the proposed project, information concerning the disposition shall be included by the PM in the appropriate Environmental Document according to **Section 10.3**.

Should there be an opportunity for FDOT to enter into a formal agreement with a UAO during the PD&E phase, the DUO and PM must be informed. Together the DUO and the PM will coordinate with the Office of General Counsel as appropriate to negotiate and execute the agreement with the UAO. Agreements reached during the PD&E phase will be documented with the Office of General Counsel and the PM, and will be included in the **Utility Assessment Package** maintained by the DUO. These agreements could include ROW acquisition, utility easements or preliminary engineering.

Commitments will be documented in the Commitments Section of the Environmental Document as well as the [Project Commitment Record, Form No. 700-011-35](#). For more information on commitments, refer to [Part 2, Chapter 32, Commitments](#).

10.2.2 Railroad Procedure

For projects that include a railroad crossing, it is the responsibility of the PM to initiate coordination with the DRC, who will provide information concerning present and future use of the rail line and existing or proposed protection devices at the crossing. In addition, the DRC can provide information about rail crossings such as: crossing status (active or inactive), condition of the crossing, crash incidents, number of tracks, crossing purpose, railroad schedules, owner.

Coordination with Railroads and local governments is required for any project that requires construction or reconstruction of a highway-rail grade crossing, in accordance with **Section 337.11, F.S.**, see also **Chapter 14-57, F.A.C.** The DRC is responsible for this coordination. For projects that require closing or constructing a new grade crossing, [Railroad Grade Crossing Application, Form No. 725-090-66](#) must be completed. Some of the information required for this form include:

1. A safety analysis of the grade crossing,
2. Discussion of land use and traffic generators served by the crossing,
3. Existing and projected traffic,
4. Effect on rail operations, and
5. Effect on emergency vehicles access.

See [Railroad Grade Crossing Application, Form No. 725-090-66](#) for complete instructions.

For design requirements, including vertical and horizontal clearances, for grade separated crossings and at grade crossings refer to Part 1, Chapter 6 "Railroad Crossing" of [Plans Preparation Manual, Topic No. 625-000-007](#) and **Chapter 14-57, F.A.C.** The PM should also coordinate with the DRC to determine if there are any special requirements.

The PM and the DRC need to work closely together and be cognizant of the project schedule. The level of coordination will vary depending on the level of engineering detail required for the PD&E phase. For standard PD&E projects followed by a traditional design-bid-build, it may be sufficient to simply begin coordination with the railroad to ensure both FDOT and the railroad company understand the impacts of each alternative when choosing the FDOT Recommended Alternative. For a project following the

Statewide Acceleration and Transformation process (see [Part 1 Chapter 4, Project Development Process](#)) with advanced preliminary design or final design in the PD&E phase, or a project with the PD&E phase followed by a design-build contract, the coordination may require more detail such as deciding who will fund the at grade improvements, scheduling the work, determining if the railroad company will perform the construction. The DRC is responsible for this coordination. For more information see the [Rail Handbook, Topic No. 725-080-002](#).

Documentation of the coordination with the railroads must be included in the project files. The Environmental Document and **Preliminary Engineering Report** will discuss this coordination and involvement with a rail facility(ies) to the appropriate level of detail required to address any issues identified.

10.3 ENVIRONMENTAL DOCUMENT

Coordination with the Utilities and Railroads and related information from such coordination should be summarized in the appropriate sections of the Environmental Document. See [Part 1, Chapter 2, Federal Highway Administration Class of Action Determination](#) for a discussion of the different Classes of Action.

10.3.1 Type 2 Categorical Exclusions

Projects which are categorical exclusions (CEs) may have involvement with utilities and railroads as long as the involvement is determined not to be significant. The determination of significance should be agreed upon by the DUO, DRC, District Environmental Administrator, and the PM following the guidance in [Part 1, Chapter 2, Federal Highway Administration Class of Action Determination](#).

1. For a Type 2 Categorical Exclusion, Section D.7. of the [Type 2 Categorical Exclusion Determination Form, Form No. 650-050-11](#) should be checked.
2. If “NOINV” is marked for utilities and railroads, then there are no utilities or railroads on the recommended alternative;
3. If “NONE” is marked for utilities and railroads, then they may be located within the recommended alternative but not be impacted by the project;
4. If “NotSig” is marked, then it is anticipated that there is a need for utility relocation or revision to railroad crossing, but the relocation or revision will not result in significant disruption of utility or rail services to the public. The supporting documentation for utilities should summarize the information contained in the **Utilities Assessment Package**. For railroads, the supporting documentation should discuss the involvement with the railroad and address any issues identified during the coordination.

10.3.2 Environmental Assessments and Environmental Impact Statements

For Environmental Assessments (EA) and Environmental Impact Statements (EIS), it is the PM's responsibility to document project-related utility or railroad impacts. The documentation should include a summary of the information in the **Utilities Assessment Package** and a discussion of any issues identified with railroads in the Impacts section of the EA or the Environmental Consequences sections of the EIS.

10.3.3 State-Funded Projects

For State Environmental Impact Reports (SEIRs), the PM should include the results of the coordination in the Environmental Analysis section of the SEIR by placing an "X" in the appropriate column indicating the level of impact:

1. If there are no utilities or railroads within the project area, mark the column indicating "NOINV."
2. If the project will benefit the utilities and railroads or public use of such, mark the column indicating "ENHANCE."
3. If there are utilities or railroads in the area but there is no impact, mark the column indicating "NO."
4. If there is a potential impact, mark the column "YES."

The PM should include justification for the decision in the Basis for Decision column and supplement with attachments as necessary to support the impact determination. The supporting documentation for utilities should summarize the information in the **Utilities Assessment Package**. For railroads, the supporting documentation should discuss the involvement with the railroad and address any issues identified during coordination.

10.4 REEVALUATION OF UTILITY AND RAIL IMPACTS

Prior to proceeding to each phase of project development, or if there have been changes to the design, there must be a project Reevaluation consistent with [Part 1, Chapter 13, Reevaluations](#). The District Utilities staff and the DRC must be consulted during the reevaluation process to ensure that there are no changes to the anticipated impacts.

10.5 REFERENCES

American Association of State Highway and Transportation Officials, 2006. Tracking Compliance with Environmental Commitments/Use of Environmental Monitors. <http://www.environment.transportation.org/pdf/programs/PG04.pdf>.

Title 23 Code of Federal Regulations (CFR) §645(a); Utility Relocations Adjustments and Reimbursement.

23 CFR §645(b); Accommodation of Utilities.

23 CFR §646(b); Railroad-Highway Projects.

Rule 14-57, F.A.C. (Railroad Safety and Clearance Standards, and Public Railroad-Highway Grade Crossings Rule). Accessed at <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=14-57>.

Florida Department of Transportation (FDOT), 2010. Utility Accommodation Manual. <http://www.dot.state.fl.us/programmanagement/utilities/UAM.shtm>.

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FDOT, 2012. Project Commitment Record Form. <http://www2.dot.state.fl.us/proceduraldocuments/forms/informs/70001135.pdf>.

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FDOT, 2014. Utility Work for Local Government Utilities. <http://fdotwp1.dot.state.fl.us/ProceduresInformationManagementSystemInternet/FormsAndProcedures/ViewDocument?topicNum=710-030-005>.

FDOT, 2015. Local Agency Program Manual. http://www.dot.state.fl.us/programmanagement/LAP/LAP_TOC.shtm.

FDOT, 2016. Plans Preparation Manual. <http://www.dot.state.fl.us/rddesign/PPMManual/2016PPM.shtm>.

FDOT, 2015. Standard Specifications for Road and Bridge Construction, Florida Department of Transportation. <http://www.dot.state.fl.us/SpecificationsOffice/Implemented/SpecBooks/>.

FDOT, Current Revision. Construction Project Administration Manual, Topic No. 700-000-000. <http://www.dot.state.fl.us/construction/manuals/cpam/CPAMManual.shtm>.

Chapter 335, Florida Statutes (F.S.) (State Highway System). <http://www.leg.state.fl.us/Statutes/>.

Chapter 337, F.S. (Contracting; Acquisition, Disposal, and Use of Property). <http://www.leg.state.fl.us/Statutes/>.

10.6 HISTORY

11/14/2003