



City of Cincinnati Department of Transportation and Engineering (DoTE) Project Management Manual

Welcome to the online Project Management Manual (PMM) for the City of Cincinnati Department of Transportation and Engineering. The vision of this manual is to provide a collection of best practices, policies, and tools that can be used as a resource for project managers. The PMM is a simple, practical, and easily accessible reference when managing projects and training project managers. It documents the best of what the department's project managers are doing to effectively manage projects and is a reference for the project management practices currently in place.

In the table of contents below, click a section title to view its contents. Each section contains helpful project management resources, including links to sample documents, checklists, and other useful tools for efficiently managing projects. The glossary defines terms and acronyms used throughout the manual.

If you have questions or comments, please contact [Tim Jamison](#).

Introduction

- [1. Basics](#)
- [2. Project Management Roles and Responsibilities](#)
- [3. Project Life Cycle](#)
- [4. Document Management](#)

Initiation

- [5. Project Initiation](#)

Planning

- [6. Project Planning \(scope, costs, and schedules\)](#)
- [7. Coordination with Inside and Outside Agencies](#)
- [8. Consultant Management](#)
- [9. Risk Management](#)
- [10. Communication](#)
- [11. Preliminary Design](#)

Execution and Control

- [12. Utility Coordination](#)
- [13. Right-of-Way \(ROW\)/Real Estate Acquisition](#)

14. Detailed Design (design development and construction documents)

15. Procurement (bidding and award)

16. Construction Administration

Closeout

17. Project Closeout

Glossary

Glossary (definitions, terminology, and acronyms)

1. Introduction: Basics

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define project management for the City of Cincinnati Department of Transportation and Engineering (DoTE).

- [1. Define project](#)
- [2. Define program](#)
- [3. Define when a project becomes a project](#)
- [4. Define project management](#)
- [5. Purpose of project management](#)
- [6. Project management process](#)
- [7. Tools and techniques](#)
- [8. Project management plan](#)

[Links](#)

Outline

1. Define project

- 1.1. A project is a temporary endeavor undertaken to produce a unique outcome. A DoTE capital project produces a unique physical improvement to the transportation system in Cincinnati. Most of our projects fall into one of two categories, **asset preservation or improvement**. Preservation projects, such as street rehabilitation or deck overlay, are prioritized by asset condition and sometimes policy. Improvement projects, such as street widening or bridge replacement, are driven by a demonstrated need, such as improved safety, capacity, and/or economic development.

[Back to top](#)

2. Define program

- 2.1. A group of related projects and activities managed in a coordinated way to obtain benefits not available from managing them individually.

[Back to top](#)

3. Define when a project becomes a project (project initiation)

- 3.1. An asset preservation project is considered a project when a program manager has assigned it to a project manager; partial funding has been identified; and the scope, timeframe, and budget estimate of cost have been presented to the DoTE Policy Board. This presentation is typically made by the program manager to the Policy Board at the beginning of each year.
- 3.2. An improvement project is considered a project when a project manager is identified; partial funding has been identified; and the scope, timeframe, and budget estimate of cost have been presented to the DoTE Policy Board. This presentation is ideally made at the beginning of the year, but could occur throughout the year.

[Back to top](#)

4. Define project management

- 4.1. Project management is the application of knowledge, skills, tools, and techniques to project activities in order to meet sponsors' needs and expectations from a project. Project management balances competing demands (scope, time, cost, quality, requirements, etc.) throughout the project lifecycle and involves the interaction of three elements:
 - 4.1.1. People—People perform the work and determine the success or failure of a project.
 - 4.1.2. Processes—Processes specify products or deliverables required for the project and

identify who will perform the work and when.

4.1.3. Tools—People use predefined tools and techniques to manage the project.

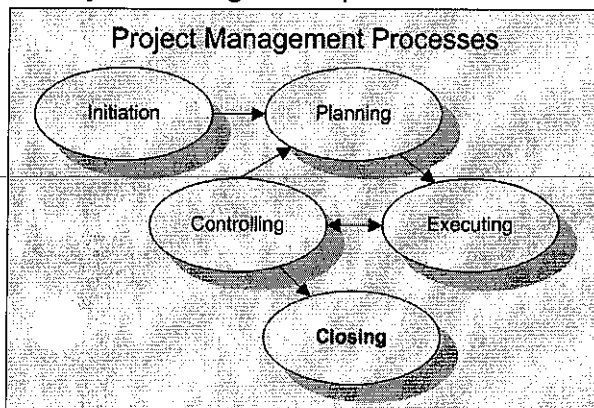
[Back to top](#)

5. Purpose of project management

1. Deliver projects that satisfy customer needs and expectations.
- 5.2. Manage and maintain the quality, scope, schedule, and cost of the project.
- 5.3. Do the right things correctly at the proper time.
- 5.4. Anticipate and respond to issues before they become problems.
- 5.5. Identify, communicate with, and manage the following:
 - 5.5.1. Project team members
 - 5.5.2. Sponsors and clients
 - 5.5.3. Stakeholders
 - 5.5.4. Consensus decision making
- 5.6. Manage changes to scope, schedule, resources, and cost.
- 5.7. Manage risk that could adversely affect the project outcome.
- 5.8. Clearly assign responsibility for project success.

[Back to top](#)

6. Project management processes



6.1. Project management activities fall into five generally accepted process groups:

- 6.1.1. **Initiating Processes** involve recognizing that a project should begin and authorizing the project manager to proceed.
- 6.1.2. **Planning Processes** involve devising and maintaining a workable scheme to achieve the desired result of the project.
- 6.1.3. **Executing Processes** involve coordinating people and other resources to carry out the project plan.
- 6.1.4. **Controlling Processes** monitor and measure progress to ensure that project objectives are being met. If necessary, the project manager may have to take corrective actions to get the project back on track.
- 6.1.5. **Closing Processes** formalize the conclusion of the project. This process group involves the core processes of contract closeout and administrative closure.

[Back to top](#)

7. Tools and Techniques

- 7.1. DoTE project managers can use various tools (reference documents, templates, computer applications, etc.) and techniques (skills, defined methods, procedures, etc.) to perform the tasks in each process group (initiation, planning, executing, controlling, and closing). These tools and techniques can be divided into nine areas—integration management, scope management, time management, cost management, quality management, human resource management, communications management, risk management, and procurement management.
- 7.2. Many of the tools and techniques used by DoTE project managers are individually developed

or acquired. Documentation and department-wide adoption of the most effective tools and development of better tools is one of the goals of this manual.

[Back to top](#)

8. Project management plan

1. A project management plan is a group of documents used to guide project execution and control throughout the project lifecycle. The project manager is the single point of contact for the project management plan, ensuring that only one set of documents is created and maintained. The plan addresses the project's problem and need (why), goals and objectives (what), schedule (when), and roles (who). The project management plan may include, but is not limited to, the following:

8.1.1. Project charter and project initiation form (addressed in [Section 5](#))

- A project charter is an agreement between the project manager and the client on the key elements of a project. These include the purpose and need, deliverables, known constraints, assumptions, and risks. It helps the project manager guide the project team efficiently and effectively through the project lifecycle. It is also used to identify and meet customer satisfaction requirements.
- A project initiation form is an agreement between the project manager and the sponsor on the key elements of the project. These include the purpose and need, deliverables, known constraints, assumptions, and risks. It helps the project manager guide the project team efficiently and effectively through the project lifecycle. It is also used to identify and meet customer satisfaction requirements.
- Capital projects can suffer from rework (due to scope changes), which leads to schedule and cost overruns. The charter/initiation form process helps to manage project scope and reduce rework by preventing unnecessary scope changes.
- The project manager creates a charter/initiation form during the initiation of the project. At each phase of the project, the project manager reviews and revises the project charter if necessary.

8.1.2. Project work plan (addressed in [Section 6](#))

- An agreement between the project manager and the project team members dealing with the key elements of the project, including scope, cost, and schedule.

8.1.3. Quality management plan (addressed throughout this manual)

8.1.4. Risk management plan (addressed in [Section 9](#))

8.1.5. Communication plan (addressed in [Section 10](#))

[Back to top](#)

Links

- [Letter from DoTE Director introducing PMM](#)

2. Introduction: Project Management Roles and Responsibilities

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the roles and responsibilities of project team members (from project initiation to closeout).

1. [Project Manager](#)
2. [Task Manager](#)
3. [Project Team](#)
4. [Stakeholders](#)
5. [Customers](#)
6. [Sponsors/Clients](#)
7. [DoTE Policy Board](#)
8. [City of Cincinnati Review Entities](#)

[Project management tools](#)

[Links](#)

Outline

1. **Project Manager** —The person who leads the project team and is responsible for the management of the project for its entire lifecycle. The project manager's primary mission is to make sure the project meets or exceeds the customers' and sponsor's/client's expectations. Project managers for DoTE projects generally are senior, supervising, or principal engineers and architects. Project manager responsibilities include the following:
 - 1.1. Understands the needs and expectations of the project sponsors and clients.
 - 1.2. Leads the project team in the development of a project management plan that defines the project scope, schedule, cost, resource needs, risk, and communication needs.
 - 1.3. Sees that the project management plan includes all the work required, and only the work required, to produce the product.
 - 1.4. With approval of program managers and section heads, assembles project team from city staff and consultants.
 - 1.5. Modifies work plans to account for the use of project-specific consultant contracts.
 - 1.6. Coordinates and facilitates the work performed throughout the project lifecycle.
 - 1.7. Monitors project performance and takes corrective action if necessary.
 - 1.8. Communicates red flag issues and project progress to upper management, the sponsors and clients, and the project team.
 - 1.9. Provides input into the performance of project team members, and recommends changes to the project team membership when necessary.
 - 1.10. Serves as the single point of contact on matters involving overall project scope, cost, or schedule.
 - 1.11. Resolves problems that affect project scope, cost, or schedule.
 - 1.12. Monitors and resolves problems with city programs applicable to capital projects, such as a small business enterprise (SBE) program, prevailing wage, environmental guidelines, Environmental Justice process, and other applicable city programs and policies.
 - 1.13. Controls change to the project scope, cost, or schedule throughout the project lifecycle.
 - 1.14. Manages the interaction between task managers, ensuring that they know who will receive

and use their products.

1.15. Coordinates the efforts of the overall team.

1.16. Chairs project team meetings.

1.17. Controls the project budget (both support and capital).

1.18. Sees that the final product meets the needs of the project customers.

1.19. Discusses the final product with sponsors and clients to gauge their level of satisfaction.

1.20. During the construction process, attends construction progress meetings and participates in final walk-through and one-year warranty inspection.

1.21. Prepares a close-out report with the project team.

1.22. Gathers all project files for storage (all final documents—maintenance manuals, accounting files, etc.).

1.23. Ultimately responsible for the success of the project.

[Back to top](#)

2. Task Manager —Task managers are responsible for a component of the project. The task manager common to most projects is the construction engineer. Other task managers may be responsible for architectural design, structural design, traffic design, etc. Task managers may have the following roles in the project:

2.1. Reports to the project manager.

2.2. Participates in the development of the project management plan.

2.3. Provides expert knowledge and analysis for the preparation of the project scope, schedule, and resource estimates.

2.4. Commits to scope, schedule, resource estimates, and delivery of his/her project work plan.

2.5. Leads task team members in the delivery of products within the timeframe agreed in the project management plan.

2.6. Provides activity status information to the project manager (e.g. start date, remaining duration, finish date, percent complete, and hours at completion).

2.7. Communicates red flag issues, conflicts, or changes to the project manager and program manager.

2.8. Resolves technical problems, issues, or conflicts raised by staff so that the overall project scope, cost, schedule, and product quality are not compromised.

2.9. Provides feedback to staff, program manager, and the project manager on lessons learned.

2.10. Works with the project manager to provide products on time and within budget.

2.11. Sees that products meet all applicable standards, regulations, and policies.

2.12. Monitors task performance and cost, and takes corrective action if necessary.

[Back to top](#)

3. Project Team — Every project has a project team led by a project manager. The project team consists of every person who works on a project, including city employees, consultants, contractors, utility companies, and resource agencies. Project team members are responsible for delivering products with the quality promised, in a timely and cost effective manner. Each team member both receives and provides deliverables to other team members.

3.1. Project teams may be formally or informally organized, depending on the complexity of the project. More complex projects may include task and program managers. Individual team members may be active or inactive as a project progresses through the project lifecycle. Team members are responsible for the following:

3.1.1. Provide input into the development of the project management plan.

3.1.2. Deliver products within the timeframe agreed upon in the project management plan.

3.1.3. Work together in a team environment.

3.1.4. Monitor production and progress of their deliverables.

3.1.5. Communicate red flag issues and project progress to all other members of the project team.

3.1.6. Provide feedback to program managers and/or section heads on how work can be done more effectively and efficiently.

[Back to top](#)

4. **Stakeholders** — A stakeholder is anyone outside of the DoTE who has a vested interest in the project. Stakeholders include other city departments, community councils, homeowner associations, environmental advocacy groups, landowners, and others.

[Back to top](#)

5. **Customers** — The potential users of the project. Understanding the customer is key to determining the true requirements of a project.

[Back to top](#)

6. **Sponsors/Clients** — Project sponsors and clients are individuals or groups that provide funding for a project or group of projects. They may be internal or external to DoTE.

6.1. Sponsors include the City Manager (as authorized by City Council), DoTE Director, division heads, section heads, and program managers. Responsibilities include the following:

6.1.1. Identifies and prioritizes projects for which he/she is the sponsor.

6.1.2. Sets goals for the project and works toward agreement on the Project Initiation Form (PIF).

6.1.3. Serves as advocate for his/her projects and solicits funding from the various funding programs (980, SCIP, LTIP, etc.).

6.1.4. Arranges funding for projects.

6.1.5. Establishes performance measures for evaluating the quality of capital improvements.

6.1.6. Coordinates and integrates if possible with other linked or related projects.

6.2. Clients include other city agencies such as Parks, Community Development and Planning (CD&P), and other government agencies such as SORTA, ODOT, and Hamilton County. Responsibilities include the following:

6.2.1. Identifies and prioritizes projects for which he/she is the sponsor.

6.2.2. Sets goals for the project and works toward agreement on the project charter.

6.2.3. Serves as advocate for his/her projects and solicits funding from the various funding programs (980, SCIP, LTIP, etc.).

6.2.4. Arranges funding for projects.

6.2.5. Establishes performance measures for evaluating the quality of capital improvements.

6.2.6. Coordinates and integrates if possible with other linked or related projects.

[Back to top](#)

7. **DoTE Policy Board** — A group of four people: Director, City Engineer, City Architect, and City Traffic Engineer. This group reviews projects and provides approval on projects and policies. Asset preservation projects may be presented for an entire program once a year during the program summary. Improvement projects and selected preservation projects may require more frequent policy board reviews based on the project milestones. The appropriate level of policy board review should be identified during project initiation.

[Back to top](#)

8. **City of Cincinnati Review Entities, if applicable**

8.1. Urban Design Review Board (UDRB) — Reviews major downtown public projects of the City, such as the Convention Center, relative to the Cincinnati 2000 Plan.

8.2. Historic Conservation Board (HCB) — Reviews projects that involve an environmental change, alteration or demolition of a historic structure within a Historic District.

8.3. Public Works Accessibility Committee (PWAC) — Makes recommendations to the City

Manager concerning future Public Works projects in regard to making, as much as practicable, public rights-of-way accessible and usable by people with disabilities.

8.4. City Planning Commission—Reviews and approves new street locations or property appropriations.

8.5. City Urban Design Team – Reviews capital improvement projects to ensure design sensitivity and compatibility with the City's environment. See AR No. 40.

[Back to top](#)

Project Management Tools

- [City organization charts](#)

[Back to top](#)

Links

- [City Planning Commission](#)
- [District 2 Public Works Integrating Committee](#)
- [Hamilton County Transportation Improvement District](#)
- [Lunken Airport Oversight Advisory Board](#)
- [OKI](#)
- [Historic Conservation Board \(HCB\)](#)
- [Public Works Accessibility Committee](#)
- [Sidewalk Board of Appeals](#)
- [SORTA](#)
- [Urban Design Review Board \(UDRB\)](#)
- [Urban Design Review \(AR. No. 40\)](#)

[Back to top](#)

3. Introduction: Project Life Cycle

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the project life cycle for a DoTE project.

1. Project life cycle

1.1 Initiation

1.2 Preliminary design, engineering, and studies

1.3 ROW/Real estate

1.4 Utility coordination

1.5 Detailed design (plans, specifications, and estimate)

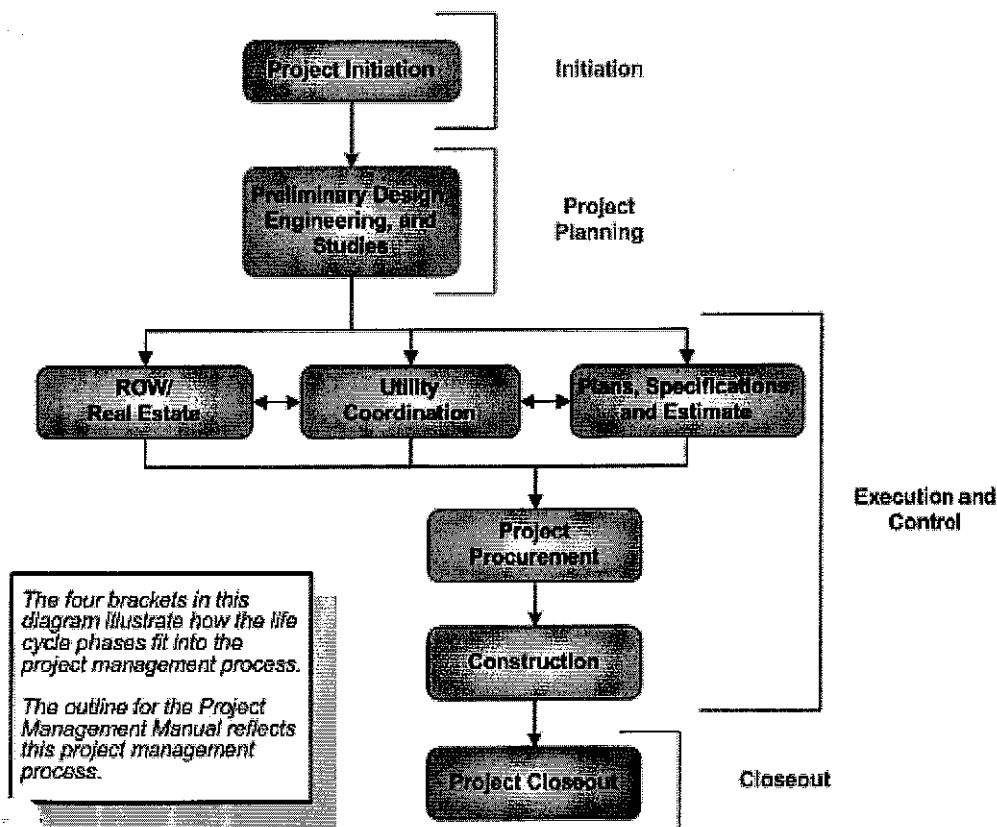
1.6 Project procurement

1.7 Construction

1.8 Project closeout

Outline

1. **Project life cycle**—A generally sequential arrangement of the project phases. Each of the life cycle phases involves the five project management process groups—initiation, planning, execution, control, and closeout. When all phases are complete, the project is complete. The DoTE divides each project into phases, each with its own outcomes, or “deliverables.” Together, the project phases make up the project life cycle, shown below.



[Back to top](#)

1.1. Initiation—DoTE capital projects start with a problem that needs to be solved. Before a project starts, the program managers, section heads, and division heads generate lists of potential projects, each with a “purpose and need” statement. Site visits are critical to developing purpose and need statements. Any work on the project, throughout the project’s life cycle, must relate back to the original purpose and need statement. The main deliverables for the initiation phase may include the following:

- 1.1.1. Project manager and preliminary project team
- 1.1.2. Purpose and need statement
- 1.1.3. Preliminary project scope
- 1.1.4. Preliminary budget statement
- 1.1.5. Project communication plan, including a list of stakeholders
- 1.1.6. List of potential funding options for overall project
- 1.1.7. Funding for preliminary design
- 1.1.8. Signed Project Initiation Form (PIF) (internal) or Service Authorization Form (external)

[Back to top](#)

1.2. Preliminary design, engineering, and studies—Design alternatives are developed and impacts are studied during this phase. Alternatives are presented to the stakeholders and the appropriate design review boards to develop the preferred alternate. A scope and cost estimate may be developed for each alternative solution. The main deliverables for this phase may include the following:

- 1.2.1. Preliminary survey and site plan
- 1.2.2. Environmental and geotechnical investigation reports
- 1.2.3. Scope statement for alternatives
- 1.2.4. Cost estimate statement for alternatives
- 1.2.5. Project work plan that addresses resources, schedule, budget, and project constraints
- 1.2.6. Potential funding plan
- 1.2.7. Value engineering review (if required)
- 1.2.8. Authorization to proceed on selected project alternative

[Back to top](#)

1.3. ROW/Real estate—DoTE is required to obtain property rights for the construction and maintenance of many of its transportation projects. The ROW phase involves preparing maps and legal documents, preparing appraisals, obtaining legal and physical possession of property, relocating occupants, and clearing all physical obstructions. The main deliverables for the ROW/Real Estate phase may include the following:

- 1.3.1. Legal descriptions and surveys for permanent takes
- 1.3.2. Legal descriptions and surveys for permanent and temporary easements
- 1.3.3. ODOT ROW authorization, if applicable
- 1.3.4. Approved environmental site assessment
- 1.3.5. Appropriation legislation (fully executed and approved by City Council)
- 1.3.6. Access, maintenance, relocation, construction, and operations agreements, including agreements with railroads
- 1.3.7. Real estate disposition list (summary of real estate status—ROW, easements, etc.)
- 1.3.8. ODOT ROW certification, if applicable

[Back to top](#)

1.4. Utility coordination—Accurate locations of all utilities within the project limits are critical to project success. Nearly every project requires temporary and/or permanent relocation of utilities in the right-of-way. Utility coordination is a high-risk phase of every project since unsafe work conditions, time delays, increased cost, and angry customers result if this phase is compromised before or during construction. The main deliverables for the utility

coordination phase may include the following:

- 1.4.1. Utility plans, permits, and agreements
- 1.4.2. Return letters from each utility
- 1.4.3. Cleared and/or relocated utilities
- 1.4.4. Utility relocation plan (who, what, when, and where)—commonly known as an ODOT 4a Note—detailing the disposition of all utilities within the construction limits

[Back to top](#)

1.5. Detailed design (plans, specifications, and estimate)—The plans, specifications, and estimate (PS&E) created in this phase provide construction contractors with the information they need to develop an accurate bid. When the PS&E package is complete, the project should be biddable and buildable. The main deliverables for the PS&E phase may include the following:

- 1.5.1. Engineer/Architect stamped designs/plans for the project
- 1.5.2. Detailed project specifications (including materials to use, contract guidelines, permits needed)
- 1.5.3. Estimated quantities for materials and services needed
- 1.5.4. Engineer's estimate in a format that facilitates bid tabulation during the procurement phase. (Estimates are confidential until the project is awarded.)
- 1.5.5. Overall project budget check, including project contract costs, testing, construction management, or other costs
- 1.5.6. Signed title sheet representing authorization to proceed to next phase
- 1.5.7. Final utility, ROW, property, and maintenance agreements

[Back to top](#)

1.6. Project procurement—Transportation projects are bid and awarded several ways. The main deliverables for the project procurement phase may include the following:

- 1.6.1. Documents to initiate the bid process including requisition forms, prevailing wage request forms
- 1.6.2. Bids
- 1.6.3. Contract award recommendations
- 1.6.4. Signed contract

[Back to top](#)

1.7. Construction—After the construction contract for a DoTE capital project has been awarded, construction can begin. The main deliverables for the construction phase may include the following:

- 1.7.1. Constructed physical improvement
- 1.7.2. Documentation of construction progress and partial payments
- 1.7.3. Documentation of changes to project scope, time, and cost
- 1.7.4. Final statement of cost including the final quantity and cost of the work for which the contractor has been paid
- 1.7.5. As-built plans reflect what was actually built, including any plan changes made during construction
- 1.7.6. Operation and warranty manuals

[Back to top](#)

1.8. Project closeout—This phase includes both contract completion activities and project completion activities. The main deliverables for the project closeout phase may include the following:

- 1.8.1. Contract closeout documents
- 1.8.2. Operation and maintenance notification (final completion letter)
- 1.8.3. Project evaluation report, including lessons learned
- 1.8.4. Consolidated/archived project (contract, accounting, and project manager) files

1.8.5. Consolidated/archived design and as-built files

[Back to top](#)

4. Introduction: Project Document Management

Last modified: July 2, 2007

[Back to PMM Homepage](#)

Purpose

To define project document management for DoTE projects.

1. [Define project document management](#)
 2. [Project files](#)
 3. [Asset record files](#)
 4. [Operation, maintenance, and warranty files](#)
 5. [Archiving, retention, and retrieval](#)
- [Project management tools](#)

Outline

1. Define project document management
 - 1.1. A critical aspect of project management is producing, maintaining, and archiving project records. This Project Management Manual identifies many documents required throughout the life cycle of a project. Compiling, saving, and retrieving these project documents is essential to overall success and accountability of the project. Every public project is subject to public scrutiny and audits for which retaining the project records is essential. The project manager is responsible for collecting and archiving the project records.

[Back to top](#)
2. Project files
 - 2.1. Standard filing system—To provide uniformity throughout the DoTE, a Standard File Index has been developed. The standard file index has been developed around this manual's table of contents. The index has been developed to provide maximum flexibility within the standard procedure. Any file can be subdivided as the need arises. For simplicity, a wholly numerical system uses standard numerals.
 - 2.1.1. File # 0-99 Project Initiation
 - 2.1.2. File # 100-199 Project Planning
 - 2.1.3. File # 200-299 Coordination with Outside and Inside agencies
 - 2.1.4. File # 300-399 Risk Management
 - 2.1.5. File # 400-499 Communication
 - 2.1.6. File # 500-599 Preliminary/Conceptual Design
 - 2.1.7. File # 600-699 Utility Coordination
 - 2.1.8. File # 700-799 ROW/Real Estate
 - 2.1.9. File # 800-899 Detailed Design
 - 2.1.10. File # 900-999 Construction Administration
 - 2.1.11. File # 1000-1099 Construction Cost Estimating
 - 2.1.12. File # 1100-1199 Procurement (Bidding and Award)
 - 2.1.13. File # 1200-1299 Project Administration
 - 2.1.14. File # 1300-1399 Project Reporting
 - 2.1.15. File # 1400-1499 Quality Assurance and Control
 - 2.1.16. File # 1500-1599 Project Closeout
 2. The project files should be set up during the project initiation phase after the project number has been assigned.
 - 2.3. The structure of the electronic files should model the paper file system.

2.4. The final project files include construction engineer's files, accounting files, and project manager's files.

[Back to top](#)

3. Project record files

3.1. The contract drawings and specifications represent the graphical and textual information defining the work to be constructed. It is essential that this graphical and textual information be carefully controlled and distributed. This will ensure that all contributors to the construction are using the latest and most accurate information. This will also establish a formal procedure for clarifying, expanding, or amending that information. These include the following:

3.1.1. Preliminary surveys

3.1.2. Existing conditions base map (survey, utilities, traffic pattern, pavement markings, photos, etc.)

3.1.3. Design calculations (site standards, etc.)

3.1.4. Contract drawings

3.1.5. Amendment and revision drawings

3.1.6. Shop drawings and submittals

3.1.7. Final as-built/record contract drawings

[Back to top](#)

4. Operation, maintenance, and warranty files

4.1. The technical specifications of a project normally stipulate operation, maintenance, and warranty requirements. The project manager should prepare a list of such, to be given to the construction engineer, including format and periods of warranties. Upon project completion, the project manager should request this information from the construction engineer. One copy should be forwarded to the maintaining agency and one copy archived per department policy. A file copy of the maintenance agreement should be forwarded to the finance department.

These include the following:

4.1.1. Traffic operation materials (include pavement markings, signal locations plans, etc.)

4.1.2. Project-specific warranties

4.1.3. Operation manuals (includes list of special materials used on project)

4.1.4. Maintenance agreements

4.1.5. Spare parts list and record of where they were dispersed

4.1.6. Project asset list and maintaining agency responsibility (final completion letter)

[Back to top](#)

5. Archiving, retention, and retrieval

5.1. DoTE archiving procedures

5.2. DoTE retention policy—project files will likely have a different retention than asset files

[Back to top](#)

Project Management Tools

- [Standard file checklist](#)
- [File folder template](#)
- [Project Records Management Guidelines](#)
- [Retention policy](#)
- [Operations, maintenance, and warranty checklist](#)
- [Request for information](#)
- [Sample Submittal and RFI logs](#)

Project File Checklist (Sample)

Project Name: _____

Folder Number	Folder Name	File Type
000	Project Initiation	Project
100	Project Planning	Project
200	Coordination with Other Agencies	Project
300	Consultant Management	Project
400	Risk Management	Project
500	Communications	Project
600	Preliminary and Conceptual Design	Project
700	Utility Coordination	Project
800	Right-of-Way and Real Estate Acquisition	Design
900	Detailed Design Documents and Drawings	Design
1000	As-Built Drawings	Design
1100	Special Provisions	Project
1200	Contract Estimate	Project
1300	Procurement (purchasing documents)	Project
1400	Contract Administration (copies)	Project
1500	Quality Assurance	Project
1600	Project Closeout	Project

Notes:

1. Add subfolders as needed
2. Purge drafts, copies, and duplicates after project close out
3. Separate the design and project files before archiving

5. Initiation: Project Initiation

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the project initiation process for the DoTE.

1. Project Initiation

Project management tools

Outline

1. Project Initiation —The program managers, section heads, and division heads review candidate projects from a pool of projects. Once a project is selected and potential funding is identified, then the project manager's role begins. The project initiation process includes the following:
 - 1.1. Establish a project manager.
 - 1.2. Develop a purpose and need statement that documents the project expectations.
 - 1.2.1. Conduct a site visit.
 - 1.3. Create a preliminary project scope, budget statement, and schedule.
 - 1.4. Identify the disciplines involved to address the project scope.
 - 1.5. Identify the Communities and other city agencies impacted.
 - 1.6. Produce a list of potential funding options for overall project.
 - 1.7. Develop a list of constraints, assumptions, and red flags.
 - 1.8. Secure funding for planning and/or preliminary design.
 - 1.9. Request JON and project ID number.
 - 1.10. Complete Project Initiation Form (PIF) (internal) or Service Authorization Form (external). One of these forms is required for every project.
 - 1.11. Start project file.

[Back to top](#)

Project Management Tools

- [Project Initiation Matrix](#)
- [Project Initiation Form \(internal projects\)](#)
- [Service Authorization Form \(external projects\)](#)
- [Potential Stakeholders Checklist](#)
- [Standard project file checklist](#)
- [Job Order Number \(JON\) Request Form](#)
- [Purpose and need statement guidelines](#)
- [DoTE Business Plan](#)
- [Service Estimate Example](#)

[Back to top](#)



City of Cincinnati
Department of Transportation and Engineering
City Hall, Room 450, 801 Plum St.
Cincinnati, Ohio 45202-1980

Project Initiation and Authorization to Proceed

PROJECT IDENTIFICATION

Name	
Location and Limits	
I. D. Number	
Job Order Number	
Accounting Number	

PROJECT DETAILS

Purpose and Need	
Preliminary Scope	
Required Final and/or Interim Features or Functions	
Preliminary Budget	
Potential Funding Sources	
Constraints, Assumptions and Red Flag Issues	
Implementation Timeframes	

PROJECT PEOPLE

Project Manager	
Sponsor Agency	
Sponsor Contact	
Project Team Disciplines	
Agencies Impacted	
Communities Impacted	

PROJECT APPROVAL TO PROCEED

Approved for	
Date	

Approved by

Date

PROJECT MANAGEMENT MANUAL
POTENTIAL PROJECT TEAM/CLIENTS/STAKEHOLDERS CHECKLIST

June 8, 2005; Revised September 6, 2005

DoTE

- Director's Office
- Director's Office – Accounting
- Engineering – Transportation Design
- Engineering – Structures
- Engineering – General Engineering
- Engineering – Right of Way
- Engineering – Construction Management
- City Engineer's Office
- Traffic Engineering – Electrical Design
- Traffic Engineering – Traffic Control
- City Traffic Engineer's Office
- Transportation Planning and Urban Design – Transportation Planning
- Transportation Planning and Urban Design – Architecture and Urban Design
- City Architect's Office

Park Board

- Planning And Design
- Operations – Urban Forestry

Public Services

- Traffic and Road Operations
- Neighborhood Operations

Community Development & Planning

- Development & Housing Officers
- Development Planning Staff
- Office of Contract Compliance
- Planning Commission
- Historic Conservation Board

Economic Development

- Economic Development Staff
- Parking Services

Finance

- Budget and Evaluation
- Purchasing
- Risk Management

Law & Real Estate

- Solicitor's Office
- Real Estate Staff

Recreation

City Manager's Office

- Public Information Office

Police**Fire****Mayor and Members of Council****Infrastructure Coordinating Committee****Public Works Accessibility Committee****BikePAC****Public Utilities**

- Greater Cincinnati Water Works
- Metropolitan Sewer District
- Stormwater Management Utility
- Cincinnati Bell
- Cinergy Electric
- Cinergy Gas
- Trigen/Cinergy Solutions
- Time Warner Cable
- Other Telecommunications Companies (see utility notification list)

Consultants/Consultant Team**Community Council(s)**

- Community Council Subcommittees
- Community Redevelopment Corporations
- Neighborhood Business Associations (may not be affiliated with the Community Council)
- Downtown Residents' Council
- Adjacent Community's Councils and Business Associations

Adjacent Property Owners

- Adjacent Property Owners
- Nearby Property Owners and Tenants affected by Maintenance of Traffic, Street Closures, Detours, and/or Construction Operations (noise, dust, etc.)

Adjacent Communities and Municipalities**Hamilton County**

- County Commissioners
- County Engineer's Office
- Regional Planning Office/Commission
- Transportation Improvement District (TID)
- County Administrative Services

OKI

ODOT

- District 8 Office
 - Planning
 - Production
 - LPA Coordinator
 - Permits
 - Real Estate
- Central Office

Other State Agencies

- Department of Natural Resources
- Department of Development
- State Historic Preservation Office (SHPO)

Adjacent State Municipalities and Agencies

- Kentucky Transportation Cabinet
- Covington, Newport, Bellevue, Ludlow, Dayton, KY
- Southbank Development Corporation

FAA**Federal Highway Administration****Other Federal Agencies**

- Department of Housing and Urban Development
- Department of Commerce (Economic Development Administration)
- Department of the Interior (Environmental/Historic Policy)
- Department of Transportation
 - Federal Transit Administration

Railroads**SORTA****Cincinnati Public Schools****Downtown Cincinnati Inc. (DCI)****Cincinnati Center City Development Corporation (3CDC)****Port of Greater Cincinnati Development Authority****Cincinnati USA Regional Chamber of Commerce****Greater Cincinnati Convention and Visitors Bureau****Building Owners and Managers Association (Downtown)**



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Job Order Number (JON) Request

Date requested: _____

Requested By: _____

Phone: _____

Division/Section _____

Fund/Account _____

Services Needed

This JON is required for:		Comments
Engineering Services	<input type="checkbox"/>	
Property Purchase	<input type="checkbox"/>	
Contract	<input type="checkbox"/>	
Other Agency Services*	<input type="checkbox"/>	
*List Agencies in Comments		

Project Information

Project Name	
Preliminary Scope	

For Use by Accounting

Job Order Number(s) Assigned	
Accounting Number Assigned	
Effective Pay Period Date	



City of Cincinnati
 Department of Transportation and Engineering
 City Hall, Room 450, 801 Plum Street
 Cincinnati, OH 45202-5704

Service Estimate & Authorization to Proceed

To: **Ethel Cogen**
Community Development and Planning

Date: **04/07/2007**
 Project Name: **CITIRAMA 2007**
Brodbeck Subdivision Phase 2

From: **James Smith, Project Manager**
 Phone: **352-5287**
 Email: **jim.smith@cincinnati-oh.gov**

Copies To: **Michael Cervay, Director, DCD&P**
Eileen Enabnit, Director, DOTE
Don Gindling, DOTE
Joe Koopman, DOTE

Project Description: To construct approximate 740 linear feet of subdivision streets with underground utilities, including clearing and grubbing, excavating and constructing embankment; constructing storm sewers, manholes, laterals, and inlets; constructing sanitary sewers, manholes, and laterals; constructing water main, valve chambers, fire hydrants, and laterals; place compacted roadway base, concrete pavement, curbs, curb ramps, and asphalt leveling course. Sidewalks, asphalt surface course, and underground utilities including gas, electric, telephone, and cable TV, to be constructed by others.

Scope of Services: Transportation and Engineering personnel will:

1. Provide project management services throughout design, construction, and warranty phases of project;
2. Coordinate and review remaining plan preparation with developer's engineer;
3. Review dedication plat and work with Law to prepare and submit acceptance ordinance;
4. Prepare Special Provisions, Bid Form, and Engineer's Estimate for advertising and bidding the project;
5. Work with Department of Community Development and Planning and Purchasing staff to advertise and award contract;
6. Administer all phases of construction contract, including construction engineering, inspection, and accounting;
7. Coordinate installation of underground gas, electric, telephone, and cable TV;
8. Monitor, review, and recommend contract payments to be approved by DCDP;
9. Perform surveying services as needed construction;
10. Arrange for Geotechnical and Material Testing Services by private consultant; and
11. Perform warranty inspection.

Project Milestones:	Milestone	Estimated Date
	Complete Contract Documents	03/16/2007
	Submit to Purchasing	03/23/2007
	Begin Construction	05/11/2007
	Complete Construction	07/27/2007

Service Estimate (Actual charges will vary with changes in project scope or schedule)

Transportation and Engineering Personnel Services Estimate:

Service	Estimate
Project Management	\$10,000
Construction Surveying	\$20,000
Construction Management/Contract Administration	\$56,000



City of Cincinnati
Department of Transportation and Engineering
City Hall, Room 450, 801 Plum Street
Cincinnati, OH 45202-5704

Service Estimate & Authorization to Proceed

Total:	\$86,000
---------------	-----------------

Consultant Services Estimates:

Service	Firm	Contract	Estimate
Materials Testing and Inspection	Thelen Associates Inc	233/65X6732	\$10,000

If accepted, client must certify funds to the appropriate contract.	Total:	\$10,000
--	---------------	-----------------

Client Authorization:

Complete information below, sign, and return to authorize services.

- Bill Personnel Services by Labor Distribution. Job Order Number:
- Bill Personnel Services by Interdepartmental Billing. We will promptly review and process payments.

AUTHORIZED:

Client Signature

Date

6. Planning: Project Planning

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the project planning process for DOTE projects and to discuss the details of a project work plan (scope, schedule, resources, and costs).

- 1. [Project management plan](#)
 - 2. [Project planning process](#)
 - 3. [Project work plan](#)
- [Project management tools](#)

Outline

1. Project management plan

1.1. A project management plan is a group of documents used to guide project execution and control throughout the project lifecycle. The project manager is the single point of contact for the project management plan, ensuring that only one set of documents is created and maintained. The plan addresses the project's problem and need (why), goals and objectives (what), schedule (when), and roles (who). The project management plan may include, but is not limited to, the following:

- 1.1.1. Project initiation documents (addressed in [Section 5](#))
- 1.1.2. Project work plan (addressed below)
- 1.1.3. Quality management plan (addressed throughout this manual)
- 1.1.4. Risk management plan (addressed in [Section 9](#))
- 1.1.5. Communication plan (addressed in [Section 10](#))

2. Project planning process—After a project is authorized, the project manager evaluates the project initiation documents and begins to develop a project plan for the successful completion of the project. The project planning processes may include the following:

- 2.1. Identify the project team members to include all disciplines appropriate for the project.
- 2.2. Determine if the project will follow the ODOT Project Development Process (PDP).
- 2.3. Refine the scope for the project concept with input from the project team.
- 2.4. Refine the preliminary project budget.
- 2.5. Define all factors relevant to the project budget.
- 2.6. Request the Preliminary Survey and Site Plan of existing conditions.
- 2.7. Determine level of environmental site assessments (ESA)—DoTE, ODOT.
- 2.8. Determine Environmental Justice (EJ) requirements
- 2.9. Initiate request for proposal(s) (RFP) for applicable environmental, historical, or geotechnical investigation reports and any studies that are necessary.
- 2.10. Identify potential alternatives.
- 2.11. Develop the project work plan (scope of work, cost estimates, resources, and schedules).

[Back to top](#)

3. Project work plan

- 3.1. Helps the project manager develop a roadmap to efficiently and effectively guide the project team through the project life cycle.
- 3.2. A living document that is periodically updated, revised, and refined.

3.3. The project work plan details the following:

- #### 3.3.1. Scope of work—ensure that the scope of work includes all the work required, and only the work required, to complete the project.
- Review “purpose and need” statement (developed in [Section 5](#))
 - Define extent and limits of the project
 - Identify stakeholders’ expectations and satisfaction requirements
 - Review and refine assumptions and constraints
 - Identify design standards to be used and the associated requirements (City, State, and Federal)
 - Develop project tasks
 - Preliminary design (refer to [Section 11](#))
 - Utility coordination (refer to [Section 12](#))
 - Right-of-way (ROW) issues and real estate acquisition (refer to [Section 13](#))
 - Detailed design (refer to [Section 14](#))
 - Procurement (bidding and award) (refer to [Section 15](#))
 - Construction administration (refer to [Section 16](#))
 - Identify project closeout requirements (refer to [Section 17](#))
 - Determine deliverables needed (by task and/or by discipline)
- #### 3.3.2. Resource planning
- Determine resources required (people and their roles)
 - Determine the level of effort for each resource (time/hours)
 - Check availability of city staff to work on the project
 - If consultants are needed, refer to [Section 8](#)
- #### 3.3.3. Cost planning
- Identify funding issues
 - Sources
 - Cycles
 - Who pays for it
 - Who secures it
 - Limitations
 - Requirements
 - Legislation requirements
 - Develop preliminary cost estimate that includes:
 - Design costs
 - Construction costs
 - Property costs (ROW and acquisitions)
 - Utility costs
 - City administration costs
 - Contingency costs
 - Review project alternatives from a cost basis
 - Compare costs versus funding
 - Consider value engineering
- #### 3.3.4. Schedules
- Develop preliminary schedule
 - Identify deadlines based on funding sources
 - Consider review and/or approval time of inside and outside agencies and utilities
 - Establish start and finish dates
 - Establish milestone dates

- Determine task sequence and duration
- Determine critical path
- Identify sequential and parallel tasks
- Identify task interdependencies (predecessors and successors)
- Acquire agreements on schedule requirements
 - Highlight involvement by others
- Examples of scheduling types and tools
 - Types of schedules
 - Bar (Gantt) charts
 - Wall schedules
 - CPM
 - PERT
 - Types of tools
 - Outlook
 - Microsoft Project
 - ProLog
 - Microsoft Excel
 - Primavera

[Back to top](#)

Project Management Tools

- [Surveying service request form \(SSRF\)](#)
- [Project work plan template](#)
- [Checklist of potential stakeholders](#)
- [Sample cost estimates](#)
- [Preliminary cost estimating tool](#)
- [Resource Planning Tool](#)
- [Time and Cost Estimating Tool](#)
- [Time and Cost Baseline Tool](#)
- [Funding Opportunities for Transportation Projects](#)
- [Funding sources](#)
- [Future projects funding matrix](#)
- [ODOT LPA Schedules](#)
- [Sample work plans](#)
 - [Construction Management and Procurement Plan—Fort Washington Way project](#)
 - [Program Management Plan—Convention Center Expansion and Renovation project](#)
- [Sample environmental documents](#)
 - [Level 4 Documentation—River Road project](#)
 - [Level 4 Approval—River Road project](#)
 - [Environmental Assessment Phase I—Dixmyth Avenue Relocation](#)

[Back to top](#)

Funding Sources and Application Deadlines

Funding Type	Application Deadline	Funding Cycle	Funding Year	Source of Funds
2004 Appropriation	March	Annual	Following	Federal Funds
County MRF	August	Annual	Following	Motor Vehicle License Fee
ODOT Municipal Bridge Program	July	As funds are available	Following year after July 1	Federal Funds
ODOT Municipal Bridge Program	January	As funds are available	In 3 years	Federal Funds
OKI Enhancement	April	As funds are available	3 to 4 years	Federal Funds
OKI STP	April	Biennial	3 to 4 years	Federal Funds
SAFETEA Appropriation	March	Every 6 years	Over 6 year period	Federal Funds
SCIP/LTIP	September	Annual	State FY 2005	Bonds/Gas Tax
TCSP	On-going	On-going	2 to 3 years	Federal Funds
TRAC	May	Annual	3 to 5 years	Federal Funds

7. Planning: Coordination with Inside and Outside Agencies

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To develop an awareness of other projects and their relationships to your project.
To integrate other agencies' projects, resources (people, equipment, materials, and funding), and schedules with your project. Effective coordination communicates early and often and documents key decisions throughout project life cycle.

1. [Coordination with outside agencies](#)
 2. [Coordination with inside agencies](#)
 3. [Coordination with multiple agencies](#)
 4. [Develop coordination plan \(protocol\) for each agency](#)
- [Project management tools](#)

Outline

1. [Coordination with outside agencies](#)
 - 1.1. Federal (FAA, FHWA, FTA, and others)
 - 1.2. State (ODOT, OEPA, KyTC, and others)
 - 1.2.1. Quarterly meetings with ODOT
 3. OKI
 - 1.3.1. Quarterly meetings with OKI Reconstruction Coordinating Committee
 - 1.4. Hamilton County
 - 1.4.1. As needed, meetings with Hamilton County Transportation Improvement District
 - 1.5. Other adjoining cities
 - 1.6. Railroads
 - 1.7. Utilities (refer to Section 12)
 - 1.8. Southwest Ohio Regional Transit Authority (SORTA)
 - 1.9. Transit Authority of Northern Kentucky (TANK)
- [Back to top](#)
2. [Coordination with inside agencies](#)
 - 2.1. City departments
 - 2.1.1. Bi-monthly meetings with Real Estate
 - 2.1.2. Quarterly meetings with GCWW
 - 2.1.3. Bi-weekly meetings with Economic Development and Community Development and Planning
 - 2.1.4. Monthly meetings with Public Services
 - 2.2. DoTE divisions and sections
 - 2.2.1. Quarterly meetings with Traffic, Transportation Planning and Urban Design (TPUD), and Transportation Design
 - 2.3. City boards and commissions
 - 2.3.1. Cincinnati Park Board
 - 2.3.2. Cincinnati Recreation Commission
 - 2.3.3. Cincinnati Planning Commission
 - 2.3.4. Lunken Airport Oversight and Advisory Board (LAOAB)
- [Back to top](#)

3. Coordination with multiple agencies

3.1. Infrastructure Coordinating Committee (ICC)

3.1.1. Public and private utilities and City agencies working in the right-of-way (ROW)—refer to Section 12: Utility Coordination for details.

3.1.2. Quarterly meetings—review the latest meeting notes for current projects.

[Back to top](#)

4. Develop coordination plan (protocol) for the project

4.1. Detail the coordination plan

4.1.1. Identify agency involvement

4.1.2. Create a list of agencies, milestones, and due dates for each project

4.2. Specific needs and activities for each agency

4.2.1. Contact person(s)

4.2.2. Information needs for agency

4.2.3. Review process and schedule

4.2.4. Acceptable standards (design, construction, etc.)

4.2.5. Deliverables anticipated from agency

4.2.6. Communication plan

4.2.7. Typical review and approval timeframes

4.2.8. Project due dates

4.2.9. Project-specific agency coordination milestone dates

4.3. Coordination of multiple projects

[Back to top](#)

Project Management Tools

- Checklist for each agency
- Standard form for each agency
- Recent Meeting Minutes:
 - [GCWW Coordination Meetings](#)
 - [ICC Quarterly Meeting Notes](#)
 - [ODOT Quarterly Meetings](#)
 - [Real Estate Review Meetings](#)
 - [Traffic, TPUD, Transportation](#)

[Back to top](#)

8. Planning: Consultant Management

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the process established for procuring and managing professional services.

1. [Project Manager's role](#)
 2. [Stakeholders when using professional services contracts](#)
 3. [Use of consultants is generally regulated by the contract amount](#)
 4. [Procurement Procedures document](#)
 5. [Compliance with rule and policies](#)
 6. [Deliverables](#)
- [Project management tools](#)

[Links](#)

Outline

1. Project manager's role when using consultants for design, construction, testing, and review.
 - 1.1. Although the DoTE consultant program manager takes responsibility for the oversight and procurement of the contingency contracts, the project manager plays an important support role. The project manager must monitor the status of the contract and proposal processes to ensure the contract/proposal goals are achieved. For more complex contracts, the project manager needs to develop the consultant contract. The role of the project manager is more clearly defined below.
 - 1.2. Consultant management is an active, participatory process with the consultant that includes monitoring the progress and quality of the project, communicating that progress to the team, and assisting and directing the consultants in the execution of their task.

[Back to top](#)

2. Stakeholders when using professional services contracts
 - 2.1. Consultants
 - 2.2. City of Cincinnati Purchasing Agent (PA)
 - 2.3. City of Cincinnati Contract Compliance Officer (CCO)
 - 2.4. City of Cincinnati City Manager
 - 2.5. City of Cincinnati City Engineer
 - 2.6. City of Cincinnati City Traffic Engineer
 - 2.7. City of Cincinnati City Architect
 - 2.8. City of Cincinnati DoTE Director
 - 2.9. City of Cincinnati Finance Department
 - 2.10. City of Cincinnati Law Department
 - 2.11. City of Cincinnati DoTE Accounting Section

[Back to top](#)

3. Use of consultants is generally regulated by the contract amount.
 - 3.1. Contingency contract—preferred method. Projects with fees that fall under \$400,000 per occurrence per discipline (as needed services contracts). Qualifications-based selection has been performed by the DoTE consultant program manager. Tasks to be performed by the project manager include the following:
 - 3.1.1. Read the fully executed contingency contract.

- 3.1.2. Develop draft scope and requirements, budget estimate for services, and preliminary schedule for the project or task.
- 3.1.3. If the PM requests a proposal from one consultant based on draft scope and requirements, fee is included.
- 3.1.4. If the PM requests proposals from multiple consultants based on draft scope and requirements, fee is excluded.
- 3.1.5. Evaluate responses, make a selection, and negotiate final project requirements, including total fee.
- 3.1.6. Recommend final proposal and get approval from division head.
- 3.1.7. Prepare certification requests, including approved proposal and cover memo.
- 3.1.8. Issue notice to proceed upon confirmation, including certification of funds form.
- 3.1.9. Manage the consultant, including monitoring the progress and holding regular project meetings. Document all directions, decisions, and progress.
- 3.1.10. Process payment vouchers, including Form 37. Adhere to DoTE Prompt Payment Policy.
- 3.1.11. Changes in scope and/or additional services
 - Request proposal for revisions in scope.
 - Repeat the procurement process above, as appropriate.
- 3.1.12. Process the final payment after all project requirements have been met, and request the decertification of remaining funds.
- 3.1.13. Complete consultant evaluation and feedback forms.

[Back to top](#)

- 3.2. Projects with fees greater than \$400,000 per occurrence or projects that do not fit into the contingency contracts. Qualifications-based selection is required. Tasks to be performed by the project manager include the following:
 - 3.2.1. Read Administrative Regulation 23, Purchasing document, Cincinnati Municipal Code 321 and 323, Ohio House Bill 231, Ohio Revised Code 153, and DoTE Project Consultant Selection and Assignment Policy.
 - 3.2.2. Develop a request for qualifications (RFQ), including scope, schedule, and project requirements, but not including cost.
 - 3.2.3. Develop legal notice for advertising and send to City of Cincinnati Law Department and Contract Compliance Officer for approval.
 - 3.2.4. Request a Requisition (RXQ) for authorization to advertise a project for bidding from DoTE Director's Office.
 - 3.2.5. Transmit a memo to City PA requesting advertising.
 - 3.2.6. Support the Purchasing Agent in answering the consultant's questions.
 - All questions from the consultant need to be in writing to the Purchasing Agent.
 - The project manager sends the written answers to the Purchasing Agent for distribution to the consultant.
 - Any answer that would materially change the condition in the contract documents needs to be in writing and made part of a correction.
 - Written questions can be received up to seven days before the bid opening, and the Purchasing Agent will distribute the answers to all consultant five days before bid opening. This could be in the form of an addendum.
 - 3.2.7. Purchasing receives the project-specific statements of qualifications (SOQ).
 - 3.2.8. Form a consultant selection team. The selection team should be primary project team and an ancillary individual.
 - 3.2.9. With the project team, create the selection criteria.
 - 3.2.10. Evaluate and numerically rank the statements of qualifications.
 - 3.2.11. Have the department head approve the ranked list.
 - 3.2.12. Send the approved rank list back to Purchasing Agent.

3.2.13. Contact the consultants.

3.2.14. Request proposal from preferred consultant, which includes scope, schedule, and fee.

3.2.15. Evaluate proposal and negotiate final project agreement, including fee schedule.

- If an agreement cannot be reached, the project manager notifies the consultant in writing that negotiations are over.
- Project manager conducts negotiations with the next ranked firm on the list.

3.2.16. Get agreement number and certify money.

3.2.17. With Law Department and Contract Compliance Officer, develop and execute a contract.

3.2.18. Send consultant the written notice to proceed, executed contract, and certification of funds.

3.2.19. Manage the consultant, including monitoring progress and holding regular project meetings. Document all directions, decisions, and progress.

3.2.20. Process payment vouchers, including Form 37. Adhere to DoTE prompt payment policy.

3.2.21. Change in scope/additional services

- Request proposal for revisions in scope.
- Repeat the procurement process above, as appropriate.

3.2.22. Process the final payment after all project requirements have been met, and request the decertification of remaining funds.

3.2.23. Complete consultant evaluation and feedback forms.

[Back to top](#)

3.3. Projects with an estimated fee of less than \$25,000 or an emergency—for projects with specialties not covered in contingency contracts. Qualifications-based selection is not required.

[Back to top](#)

4. Procedures for Procurement of Professional Engineering and Technical Services (Contingency Contracts)—refer to that document for more details of the contract methods and processes.

[Back to top](#)

5. Compliance with rule and policies

5.1. Cincinnati Municipal Code, Sections 321 and 323

5.2. Ohio Revised Code Section 153

5.3. Ohio House Bill 231 (Ohio mini Brooks Act)

5.4. City of Cincinnati Administrative Regulation 23

5.5. Department of Finance Purchasing document

5.6. DoTE Project Consultant Selection and Assignment Policy

5.7. DoTE Prompt Payment Policy

[Back to top](#)

6. Deliverables

6.1. Certification of Funds Request form

6.2. Certification of Funds Authorization form

6.3. Authorization to Proceed letter

6.4. Executed contract for non-contingency related projects

[Back to top](#)

Project Management Tools

- [Sample Advertisements](#)
- Sample Letter of Authorization for Emergency Bidding Process

8. Using Consultants

- [Sample Recommendation to Award](#)
- [Sample EEO/SBE Recommendation](#)
- [Sample Contract Documents](#)
- [Sample of funds certification letter](#)
- [Sample Voucher 37—payment voucher](#)
- [Sample selection criteria matrix](#)
- [Request for Qualifications template](#)
- [Scope of services checklist template](#)
- [Consultant process flowchart](#)
- [Consultant evaluation form](#)
- [Insurance Certification Approval Memo](#)
- [Manager approval memo](#)
- [Sample RFQ – Bulletin](#)
- [Sample RFQ – Full document](#)
- [Sample signature memo for Law Department](#)
- [Sample team request letter](#)

[Back to top](#)

Links

- [DoTE Project Consultant Selection and Assignment Policy](#)
- [Prompt Payment Information](#)
 - [Prompt Payment System—CMC Chapter 319](#)
 - [Prompt Pay and You](#)
 - [Prompt Payment Instructions](#)
- [Procedures for Procurement of Specific Professional Engineering and Technical Services document](#)
- [Cincinnati Municipal Code, Section 321](#)
- [Cincinnati Municipal Code, Section 323](#)
- [Ohio Revised Code Section 153](#)
- [Ohio House Bill 231 \(City of Cincinnati mini Brooks Act\)](#)
- [City of Cincinnati Administrative Regulation 23](#)
- [Purchasing document](#)
- [CMSA Map](#)

[Back to top](#)

9. Planning: Risk Management

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the risk management process for DoTE projects.

- [1. Defining risk](#)
 - [2. Defining risk management](#)
 - [3. Potential sources of risk](#)
 - [4. Risk management plan](#)
- [Project management tools](#)

Outline

1. For this document, risk refers to the uncertainties that may delay or add additional costs to a project. [Back to top](#)
2. Define risk management
 - 2.1. Identify what sources of risk and which risk events may be reasonably expected to affect the project.
 - 2.2. Develop a plan to minimize and avoid risk. [Back to top](#)
3. Potential sources of risk
 - 3.1. Type of project
 - Rehabilitation vs. new construction
 - Traditional design-bid vs. design-build
 - Development agreement
 - 3.2. Political environment and public reaction
 - 3.3. Community and social issues
 - 3.4. Funding issues and criteria
 - 3.5. Scope creep
 - 3.6. Real estate needs
 - 3.7. Existing conditions
 - Subsurface soils
 - Environmental concerns and issues
 - Encroachments
 - Historical sites
 - Archeological sites
 - Ecological issues (endangered species)
 - 3.8. Coordination with inside and outside agencies
 - 3.9. Utility relocation
 - 3.10. Railroad coordination
 - 3.11. Procurement process
 - 3.12. Construction industry influences
 - 3.13. Capabilities and experience of contractors
 - 3.14. Weather [Back to top](#)

4. Risk Management Plan

- 4.1. Identify risks and potential impacts to the project
- 4.2. Obtain input from project team and stakeholders
- 4.3. Evaluate costs of potential risks
- 4.4. Develop a plan for addressing uncertainties should they occur
- 4.5. Communicate this plan to the sponsor and other stakeholders
- 4.6. Determine project-specific documentation needs

[Back to top](#)

Project Management Tools

- [Risk Management Plan Template](#)

[Back to top](#)

10. Planning: Communication Management

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the communication management process for DoTE projects.

- [1. Define communication management](#)
 - [2. Project Manager's Role](#)
 - [3. Communication Policies](#)
 - [4. Develop Communications Plan](#)
 - [5. Project Reporting Requirements](#)
 - [6. Communication Methods](#)
- [Project management tools](#)

Outline

1. Definition of communication management—the use of tools and techniques to ensure the timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information.
[Back to top](#)
2. Project manager's role—effective communication is a key role for the project manager.
[Back to top](#)
3. Communications policies (see DoTE Policy)
 - 3.1. Every project requires some form of communication plan—complex projects will require a much more detailed communication plan than simple preservation projects.
 - 3.2. All public, media, and council requests for project information must go through the director's office.
 - 3.3. Typically all project documents (emails, memos, reports) other than confidential architect/engineers estimates can be shared with the public.
[Back to top](#)
4. Develop communication plan based on stakeholders and sponsors needs
 - 4.1. Public and community communications
 - 4.1.1. Identify public stakeholders (see checklist in [Section 6: Project Planning](#))
 - 4.1.2. Purpose of communications with public
 - Inform about project status (may require periodic updates)
 - Obtain feedback and input into project development
 - Obtain endorsement
 - 4.1.3. Type and frequency of communication with the public—frequency is driven by the project type and schedule
 - Public meetings/open houses (at project start, at end of preliminary design, and at plan's completion)
 - Steering committee meetings, if applicable (make sure all stakeholder groups are represented)
 - Press releases (identify when we make press releases)
 - Response to requests for information or services

- Response to public records requests (see DoTE Policy)
- Targeted mass mailings (for example, construction notices)
- Project signs
- Brochures
- Website postings

4.1.4. Needed resources

- Outside assistance (PR firms)
- Public Information Officer (PIO) for the City
- Department communications policy
- Communications Planning Matrix

[Back to top](#)

4.2. City Council communications

4.2.1. Purpose of communications

- Inform about project status (may require periodic updates)
- Respond to formal council requests and motions
- Execute ordinances or resolutions (to appropriate property, to obtain funding, agreements, consent legislation, preliminary and final legislation)

4.2.2. Type and frequency of communication with City Council

- FYI Memos to council (for major projects to convey project status, bid awards, start of construction, ribbon-cutting & dedication ceremonies, public involvement meeting, red-flag issues)
- Resolutions by council state intent to do something such as intent to appropriate property or intent to apply for a grant.
- Ordinances convey formal authorization by council (to apply for and accept outside funding, payment to outside entities such as ODOT, preliminary and final ODOT legislation, consent legislation, execute LPA and maintenance agreements and appropriate property)
- Reports respond to specific formal council requests and motions for project information and may or may not require council approval

4.2.3. Needed resources

- Law Department
- City Manager's office/Budget and Evaluation
- Communications Planning Matrix
- City PIO

[Back to top](#)

4.3. Policy Review Board communications

4.3.1. Purpose of communications

- Introduce and initiate project
- Seek direction and/or authorization on project
- Inform Board of project status

4.3.2. Type and frequency of communication

- Presentation for preservation projects (to initiate project and to share lessons learned)
- Presentation for improvement and major projects (to introduce and initiate, to seek scope approval and approval of major scope changes, to seek approval of preferred alternate, to inform of project progress and status, to share lessons learned)

4.3.3. Needed resources

- IT staff for computer/network based presentations

- Director's staff to schedule project presentations
- Communications Planning Matrix

[Back to top](#)

4.4. Section, Division, and Department Head communications

4.4.1. Purpose of communications

- Share information on project status, progress, red-flags
- Inform of council or media requests for project information
- Seek direction or guidance
- Seek assistance in acquiring project resources

4.4.2. Type and frequency of communication

- Informal (as needed by project manager or as required by section, division, or department head)
- Reports (as required by section, division, or department heads or DoTE Policy)

4.4.3. Needed resources

- Communications Planning Matrix
- Promise (or current project reporting system)
- Conquer (or current contracts database system)
- City PIO

[Back to top](#)

4.5. Sponsor communications

4.5.1. Purpose of communications

- Share information on project status, progress, red-flags
- Inform of council or media interest in the project
- Seek authorization for necessary scope changes
- Seek assistance for acquiring project resources or removing project obstacles

4.5.2. Type and frequency of communication

- Written, formal (for authorizations)
- Informal or formal (for information sharing as required by sponsor)

4.5.3. Needed resources

- Communications Planning Matrix
- Promise (or current project reporting system)
- Conquer (or current contracts database system)
- Other project tracking systems as required by sponsor

[Back to top](#)

4.6. Project team communications

4.6.1. Purpose of communications

- Document planning, estimating, risk assessment, and other team activities
- Gather information on project phase and task status, progress, risks, issues
- Share information on project phase and task status, progress, red flags, expectations
- Control and document consultant management activities
- Control and document construction contract administration activities

4.6.2. Type and frequency of communication

- Written, formal for consultant management activities (see [Section 8: Consultant Management](#) for communication requirements)
- Written, formal for construction contract administration activities (see [Construction Management Manual](#))

- Informal or formal (for information sharing as agreed by team)
- Team meeting (frequency is a function of the project complexity, level of risk, and project value)
- Meeting minutes (every meeting to document key decisions and action items, agree to meeting content, and share information with absentees)

4.6.3. Needed resources

- Section 8: Consultant Management
- Construction Management Manual
- Promise (or current project reporting system)
- Conquer (or current contracts database system)
- CFS (CARS system or Department accounting staff)
- Other project tracking systems as needed by Project Manager
- Communications Planning Matrix

[Back to top](#)

5. Project reporting requirements—identify and analyze stakeholders and sponsor reporting needs and plan accordingly

[Back to top](#)

6. Communication methods

6.1. Correspondence

6.1.1. Letters/postcards

6.1.2. Memos

6.1.3. Standard forms

6.1.4. Faxes

6.1.5. Periodic update reports

6.1.6. Meeting minutes

6.1.7. Project signs

6.1.8. Press releases

6.1.9. Brochures

6.1.10. Communications/public information data sheets (tools)

- Project description (refer to PIF)
- Fact sheet (refer to PIF)
- Project contact list

6.2. Emails

6.3. Telephone calls

6.4. Voice mail

6.5. FTP sites

6.6. Internet

6.7. Public presentations/open houses

6.8. Meetings

[Back to top](#)**Project Management Tools**

- [Communications Planning and Project Contact List](#)
- [Sample meeting minutes](#)
- [Media training](#)
- [Public information handouts](#)
- Memo from the Law department about public information

- [DoTE Communications Manual](#)
- [Project Initiation Form](#)

[Back to top](#)

11. Planning: Preliminary Design

Last modified: June 4, 2007

[Back to PMM Homepage](#)

Purpose

To define the preliminary design process for DoTE projects.

1. [Review the PIF or Project Service Authorization Form, and the Project Management Plan](#)
2. [Define preliminary design process](#)
3. [Preliminary design process](#)
4. [Preliminary design communications, reviews, and approvals](#)
5. [Modify Project Initiation Form or the Project Service Authorization Form, and the Project Management Plan](#)

[Project management tools](#)

Outline

1. Review the Project Initiation Form or the Project Service Authorization Form, and the Project Management Plan.
 - 1.1. Modify these documents as necessary based upon the current situation.
 - 1.2. Modify the project team, if necessary.
 - 1.3. Begin the preliminary design process.

[Back to top](#)

2. Definition of the preliminary design process: The phase of a project between the project planning and detailed design processes. The project planning process concludes with a Project Management Plan (scope of work, cost estimates, and schedules) for the project. During the preliminary design process, pertinent information for the project is gathered and analyzed. After the information is synthesized, design concepts or alternatives are developed that will address the stated "purpose and need" of the project. The alternatives, and the preferred alternative recommendation, are presented by the project team to the DoTE Policy Review Board. A scope and cost estimate may be developed for each alternative solution, or just for the preferred alternative. The Policy Review Board or sponsor determines the selected alternative. Once the selected alternative is determined, the project moves into the detailed design process.
 - 2.1. For the engineering community, this is generally referred to as preliminary engineering.
 - 2.2. For the architectural community, this is generally referred to as schematic design.

[Back to top](#)

3. Preliminary design process
 - 3.1. Continue involvement with inside and outside agencies, stakeholders, and sponsors from the previous phases.
 - 3.2. Funding
 - 3.2.1. Review current funding scenarios.
 - 3.2.2. Begin preliminary design process with understanding of funding requirements and limitations.
 - 3.2.3. Modify or finalize funding plan, as appropriate.
 - 3.3. Existing documentation
 - 3.3.1. Collect and review pertinent existing reports.
 - 3.3.2. Field check as-built information prior to use.
 - 3.3.3. Review previous documentation developed for this project.

3.4. Additional information requirements

3.4.1. Identify information needs.

3.4.2. Develop and implement plan to generate the additional information.

3.4.3. Review additional collected data.

3.4.4. Information could be needed for the following:

- Surveying
- Storm Water Pollution Prevention Plan (SWP3) (for projects where disturbed areas are one acre or greater, including pavement)
- Environmental (for preparing environmental impact statements [EIS], environmental site assessments [ESA], and Categorical Exclusions [CE])
- Historical
- Archeological
- Ecological
- Geotechnical
- Real estate
- Utilities
- Traffic
- Maintenance of traffic and pedestrian access requirements

3.5. Refine the specific project needs and concerns based on all available information.

3.6. Develop design criteria and evaluation criteria for alternatives.

3.7. Determine use of applicable standards and details.

3.7.1. Refer to List of Project Standards and Procedures

3.7.2. City urban design guidelines

3.7.3. ODOT Project Development Process (PDP)

3.7.4. American with Disabilities Act Accessibility Guidelines (ADAAG)

3.7.5. Develop project-specific standards, as necessary

3.7.6. City streetlight standard fixtures list

3.7.7. Bicycle and pedestrian guidelines

3.8. Perform preliminary design studies.

3.9. Develop preliminary design plans for alternatives.

3.9.1. Field check preliminary design plans

3.10. Develop preliminary costs for alternatives.

3.11. Value engineering and constructability review

3.11.1. Involve DoTE construction manager

3.11.2. Compare costs vs. budget

3.12. Evaluate alternatives

3.12.1. Review alternatives with the identified stakeholders and sponsors, and obtain feedback.

3.12.2. Review alternatives and provide recommendation of preferred alternative to the DoTE Policy Board for improvement projects.

3.12.3. Inform identified stakeholders and sponsors of the selected alternative.

3.13. Prepare deliverables for selected alternative

3.13.1. Deliverables could include:

- Updated funding plan
- Environmental, historical, ecological, geotechnical investigation reports, and SWP3 evaluation
- Preliminary design reports and studies with recommendations
- Preliminary sketches/drawings of alternatives
- Value engineering report
- Scope of work and cost estimate statement for selected alternative
- Updates to Project Management Plan (both at beginning and end of preliminary

design process)

- Authorization to proceed on selected project alternative (consistent with the Project Management Plan)
- Summary of the alternatives reviewed and the input received from all stakeholders
- Summary of potential permits required

3.14. Submit deliverables to the project team for review and comment

3.15. Receive preliminary approvals from outside agencies.

3.16. Begin initial steps of potential critical path tasks, such as:

3.16.1. Submit applications for permits, as appropriate.

3.16.2. Begin initial real estate steps for ROW acquisition (refer to [Section 13](#)).

3.16.3. Begin conversations on maintenance and operational agreements.

3.16.4. Begin utility coordination process (refer to [Section 12](#)).

[Back to top](#)

4. Preliminary design communications—continue to execute communication plan

4.1. Public and community

4.2. City Council

4.3. Policy Review Board

4.4. Section, Division, and Department Heads

4.5. Sponsors

4.6. Project team

[Back to top](#)

5. Modify Project Initiation Form or the Project Service Authorization Form, and the Project Management Plan

[Back to top](#)

Project Management Tools

- List of Project Standards and Procedures
- Checklist for Preliminary Design Process (possibly by discipline)
- [Storm water permit topics](#)
- City urban design guidelines
- Checklist of possible permits

[Back to top](#)

12. Planning: Utility Coordination

Last modified: July 2, 2007

[Back to PMM Homepage](#)

Purpose

To define the utility coordination process for DoTE projects.

1. [Importance of utility coordination](#)
2. [Coordinate with other utility projects in your project area](#)
3. [Project-specific Ohio Revised Code 153.64 requirements](#)
4. [Project-specific utility coordination process](#)
5. [Deliverables](#)

[Project management tools](#)

[Links to source documents](#)

Outline

1. Importance of utility coordination

- 1.1. Nearly every DoTE project requires temporary and/or permanent relocation of utilities in the right-of-way. Therefore, utility coordination is an essential part of every DoTE project. The coordination begins during project initiation and continues through construction. Utility coordination is a high-risk component of every project since unsafe work conditions, time delays, increased cost, and dissatisfied customers result if this process is compromised before or during construction. Involvement of each utility that has infrastructure within or near the project site is extremely important during the preliminary and detailed design processes.

[Back to top](#)

2. Coordinate with other utility projects in your project area

- 2.1. Review the [Infrastructure Coordinating Committee \(ICC\) list](#) to identify other potential utility projects in the area and inform ICC of your project.
- 2.2. Identify and coordinate with project manager for each utility project in the area. Schedules and priorities are different for each utility project.
- 2.3. If you are informed of a new utility project, notify ROW management.
- 2.4. Establish a project-specific coordination meeting with each utility project early in the preliminary design process.

[Back to top](#)

3. [Project-specific Ohio Revised Code 153.64 requirements](#)

[Back to top](#)

4. Project-specific utility coordination process

- 4.1. Send Utility Notification letter (first letter) to current list of utility record contacts and copy Ohio Utility Protection Service (OUPS). This letter is to request existence and location records from each utility in the project area.
- 4.2. Plot utility locations on preliminary plans.
- 4.3. Identify constraints and conflicts as early as possible.
- 4.4. Contact OUPS to request that utility locations are marked in the field, if conflicts exist, or to verify information. State that the request is for preliminary design and test holes will be made.
- 4.5. Send Utility Verification and Coordination letter (second letter) to each utility.
 - 4.5.1. Include preliminary design with utilities plotted on it.

12. Utility Coordination

- 4.5.2. Identify any conflicts.
- 4.5.3. Request utility review and identify any other conflicts.
- 4.5.4. Request future utility plans in the project limits.
- 4.5.5. Include street restrictions following construction.
- 4.5.6. Set up a project-specific meeting (field/office meeting) to resolve conflicts or coordinate future work.
- 4.6. Resolve conflict(s) and document resolution(s) with each affected utility.
- 4.7. Develop a relocation plan for each affected utility (similar to the ODOT 4a note) for the construction contract documents. A 4a Note is ODOT's utility relocation plan note, which describes the status and commitment of each utility's project-specific relocation. The 4a note is included in the contract documents.
- 4.8. Send Utility Confirmation letter (third letter) to each utility.
 - 4.8.1. Include final plans.
 - 4.8.2. Specify financial obligation requirements.
 - 4.8.3. Outline each utility's relocation commitment and time frame and request confirmation that the utility is in agreement.
 - 4.8.4. Include anticipated construction start date.
 - 4.8.5. Inform utility of street restrictions following construction.
 - 4.8.6. Direct utility to note the project name on permits.
- 4.9. Set up a project-specific final meeting.
- 4.10. Coordinate utility permit work with the ROW section.
- 4.11. Provide all utility contacts to the DoTE construction engineer to coordinate field locations. Construction engineer will copy all utilities on the Notice to Proceed to inform them of construction start date (fourth letter).
- 4.12. Project managers need to monitor overall utility commitments.
- 4.13. Document all responses from each utility in logs throughout project life cycle.

[Back to top](#)

5. Deliverables

- 5.1. Utility Notification letter (first letter)
- 5.2. Return letters or emails from each utility on Utilities Notification List
- 5.3. Utility relocation plan (ODOT 4a Note) for each affected utility
- 5.4. Utility Verification and Coordination letter (second letter)
- 5.5. Utility Confirmation letter (third letter)
- 5.6. Meeting documentation (minutes, attendance, etc.)
- 5.7. Detailed utility plans
- 5.8. Cleared and/or relocated utilities
- 5.9. Utility response logs
- 5.10. Notice to Proceed (fourth letter)
- 5.11. List of project-specific utility contacts

[Back to top](#)

Project Management Tools

- [Utilities Notification List \(records\)](#)
- [ICC Project List](#)
- Standard log for responses from each utility
- [Templates for the utility letters](#)
- [Sample ODOT 4a Note](#)

[Back to top](#)

Links to Source Documents

- [Link to Ohio Revised Code 153.64 Requirements](#)

[Back to top](#)

13. Planning: Right-of-Way/Real Estate Acquisition

Last modified: June 5, 2007

[Back to PMM Homepage](#)

Purpose

To define the right-of way (ROW) and real estate acquisition process for DoTE projects.

- [1. Importance of ROW and real estate acquisition process](#)
 - [2. Stakeholders in the ROW and real estate acquisition process](#)
 - [3. ROW and real estate acquisition process](#)
 - [4. Deliverables](#)
- [Project management tools](#)
[Links to source documents](#)

Outline

1. Importance of right-of-way and real estate acquisition process
 - 1.1. DoTE is required to obtain property rights for the construction and maintenance of many of its transportation projects. Therefore, right-of-way and real estate acquisition are essential parts of DoTE projects. The coordination begins during project initiation and continues through construction. This process involves preparing maps and legal documents, securing appraisals, obtaining legal and physical possession of property, relocating occupants, and clearing all physical obstructions. Right-of-way and real estate acquisition are high-risk components of projects since time delays, increased cost, and dissatisfied customers result if this process is compromised before or during construction. Ongoing coordination of the right-of-way and real estate acquisition process with law Real Estate division during the preliminary and detailed design processes is essential for a successful project.

[Back to top](#)
2. Stakeholders in the right-of-way and real estate acquisition process
 - 2.1. Property owners
 - 2.2. City of Cincinnati DoTE/Accounts and Records Section
 - 2.3. City of Cincinnati City Council
 - 2.4. City of Cincinnati Finance Department/Environmental Compliance Section
 - 2.5. City of Cincinnati Law Department/Solicitors
 - 2.6. City of Cincinnati Law Department/Real Estate Division
 - 2.7. City of Cincinnati Law Department/Real Estate Division/Property Management Section
 - 2.8. Ohio Department of Transportation (ODOT)
 - 2.9. Federal Highway Administration (FHWA)
 - 2.10. Specialized consultants for asbestos and hazardous material inspection, abatement, and removal
 - 2.11. Surveyors (city or consultants)
 - 2.12. Utilities for easements

[Back to top](#)
3. Right-of-way and real estate acquisition process
 - 3.1. Identify project real estate needs using the selected alternative (alignment and cross-sections limits) and add information to preliminary design plan.

- 3.1.1. Temporary construction easements
- 3.1.2. Permanent easements
- 3.1.3. Limited access rights
- 3.1.4. Property acquisition (full takes or partial takes, including structures)
- 3.1.5. Railroad agreements or easements
- 3.1.6. Access, maintenance, and operational needs
- 3.1.7. Relocation of occupants and businesses
- 3.2. Review the real estate requirements and their impacts from initiation through construction.
 - 3.2.1. Schedule constraints and critical path tasks for property needs.
 - 3.2.2. Monitor property costs throughout the project in consultation with the Real Estate division.
 - Compare costs to current budget authorization.
 - 3.2.3. Evaluate risks resulting from property acquisition.
- 3.3. Add the project to the Real Estate Division/DoTE Coordinating List.
- 3.4. Prepare legal descriptions, data summary sheets, and plans for required property after final alignment is determined.
- 3.5. Perform environmental site assessment (ESA) on required property.
- 3.6. Submit ESA to Environmental Compliance Section for approval.
- 3.7. Obtain authorization from ODOT, if required.
- 3.8. Project manager meets with accounting section to ensure all outside funding for real estate acquisition is in place and that funding sources are shown on the 980 reports.
- 3.9. Send *Request for Legal Services (RLS)* to the Real Estate Division to acquire properties.
- 3.10. Assist Real Estate negotiator assigned to the project.
- 3.11. Send *Intent to Appropriate Property Resolution* to Law department for approval.
- 3.12. Send *Intent to Appropriate Property Resolution* to City Council for approval.
- 3.13. Inform Law department when resolution passes so they can serve notice on property owners and submit *Return of Service* to City Council. Return of Service is when Clerk of Council notifies City Council that they have received receipts that all property owners have been served with notice of the City's intent to appropriate.
- 3.14. Request that Law department prepare appropriation ordinance on required property.
- 3.15. Submit appropriation ordinance to City Council.
- 3.16. Meet with Real Estate division and property owners, as requested.
- 3.17. Work with the DoTE Accounts and Records Section to prepare right-of-way expense report, and certification to ODOT, if applicable.
- 3.18. Work with Property Management Section on buildings or lots to be maintained, if required.
- 3.19. Hire consultant to inspect for asbestos and hazardous material, if required.
- 3.20. Abate asbestos and remove hazardous material, if required.
- 3.21. Prepare and bid building demolition contract, if required.
- 3.22. Request surveyors to prepare dedication plat for property being acquired.
- 3.23. Send RLS to Law department to prepare dedication ordinance.
- 3.24. Send dedication ordinance to City Council.
- 3.25. Send dedication plat to Law department for recording at the Hamilton County Courthouse.
- 3.26. The required property becomes City of Cincinnati property.
 - 3.26.1. On temporary basis (during construction)
 - 3.26.2. On permanent basis
- 3.27. Work with the Law department to submit certification of right-of-way availability to ODOT, if applicable.
- 3.28. Initiate property tax exemptions.

[Back to top](#)

4. Deliverables

- 4.1. Legal descriptions
- 4.2. Data summary sheets

- 4.3. Plans
- 4.4. Environmental site assessments (ESA)
- 4.5. Authorization from ODOT
- 4.6. Request for Legal Services (RLS)
- 4.7. Intent to Appropriate Property Resolution
- 4.8. Return of Service
- 4.9. Appropriation ordinance
- 4.10. Right-of-way expense report
- 4.11. ODOT certification
- 4.12. Dedication plat
- 4.13. Dedication ordinance
- 4.14. Acquired temporary easements, permanent easements, and properties
- 4.15. Certification of right-of-way availability to ODOT
- 4.16. Property tax exemptions
- 4.17. Access, maintenance, relocation, construction, and operations agreements, including agreements with railroads
- 4.18. Real estate disposition list (summary of real estate status—ROW, easements, etc.)

[Back to top](#)

Project Management Tools

- [Sample environmental site assessment](#)
- [Sample legal description](#)
- [Sample data summary sheet](#)
- [Sample Request for Legal Services \(RLS\)](#)
- [Sample Real Estate Disposition List – Sample 1](#)
- [Sample Real Estate Disposition List – Sample 2](#)
- [Sample Agreements](#)
 - [Sample Permission to Enter](#)
 - [Sample Maintenance Agreement](#)
 - [Sample Memorandum of Agreement \(MOA\) between FHA and Ohio SHPO](#)
 - [Sample Construction Easement](#)
 - [Sample Waiver of Compensation for Easements](#)
 - [Sample Grant of Temporary Condo Easement](#)
- [ODOT Real Estate Object Codes](#)
- [Current Real Estate/DoTE Coordination List](#)
- [Sample ODOT Real Estate Agreement](#)
- [Sample ODOT ROW Acquisition Authorization](#)
- [Sample ODOT Certification](#)
- [Sample Property Ordinance](#)
- [Sample Return of Service](#)
- [Sample transmittal to City Council \(Return of Service\)](#)
- [Sample transmittal to City Council \(Intent to Appropriate Property Resolution\)](#)
- [Sample ROW Expense Report](#)
- [Sample Certified Tabulation of ROW Expenses](#)
- [Sample demolition tracking sheet](#)
- [Sample ROW Certification](#)
- [Sample ROW review meeting minutes](#)
- [Sample Tax Exemption](#)

- [Standard checklist](#)

[Back to top](#)

Links to Source Documentation

- [ODOT Real Estate Manual](#)
- [City Real Estate Planning and Acquisition Training Slides](#)
- [Environmental Compliance Web Site](#)

[Back to top](#)

14. Execution and Control: Detailed Design

Last modified: June 5, 2007

[Back to PMM Homepage](#)

Purpose

To define the detailed design (design development and construction documents) process for DoTE projects.

1. [Review the PIF or Service Authorization Form and the Project Work Plan](#)
 2. [Definition of the detailed design process](#)
 3. [Detailed design and review process](#)
 4. [Detailed design communications](#)
 5. [Modify the PIF or the Project Charter and the Project Work Plan](#)
- [Project management tools](#)

Outline

1. Review the Project Initiation Form or the Service Authorization Form, and the Project Work Plan.
 - 1.1. Modify these documents as necessary based upon the current situation.
 - 1.2. Modify the project team, if necessary.
 - 1.3. Begin the detailed design (design development and construction documents) process.
 - 1.4. Confirm all timeframes and project resources are available to proceed into detailed design-
revise the project work plan as necessary.

[Back to top](#)

2. Definition of the detailed design process: The phase of a project between the preliminary design and the procurement process. The preliminary design process concludes with a selected design alternative. Once the selected alternative is determined, the project moves into the detailed design process. The detailed design process consists of the design development of the selected alternative and generation of construction documents (plans, specifications, and estimate [PS&E]). The conclusion of the process is when the construction documents, and all of the other coordination aspects for the project needed for construction to begin, have been completed. The PS&E provide construction contractors with the information they need to develop an accurate bid. When the PS&E package is complete, the project should be biddable and buildable. At this point, the procurement process begins.

[Back to top](#)

3. Detailed design and review process
 - 3.1. Continue involvement with inside and outside agencies, stakeholders, and sponsors from the previous processes, in accordance with the following:
 - 3.1.1. Communication Plan
 - 3.1.2. Consultant Management Plan
 - 3.1.3. Utilities Coordination Plan
 - 3.1.4. Real Estate Coordination Plan
 - 3.2. Evaluate project funding
 - 3.2.1. Review current funding plan.
 - 3.2.2. Compare funding to current estimates.
 - 3.2.3. Begin detailed design process with understanding of funding requirements and limitations.
 - 3.3. Assemble existing documentation for selected alternative

- 3.3.1. Collect and review pertinent existing reports.
- 3.3.2. Field-check as-built information prior to use.
- 3.3.3. Review previous documentation developed for this project.

3.4. Consider additional information requirements

- 3.4.1. Identify information needs necessary for detailed design and to resolve issues and concerns that arose during the preliminary design process.
- 3.4.2. Develop and implement a plan to generate the additional information.
- 3.4.3. Review additional collected data.
- 3.4.4. Information could be needed for the following:
 - Surveying
 - Environmental (continued development of environmental impact statements [EIS], environmental site assessments [ESA], and categorical exclusions [CE])
 - Historical
 - Archeological
 - Ecological
 - Geotechnical
 - Real estate
 - Utilities
 - Traffic
 - Maintenance of traffic and pedestrian access requirements

3.5. Prepare detailed design documents.

- 3.5.1. Designs/plans
- 3.5.2. Line grade and typical sections (LG&T)
- 3.5.3. Type, size, and location (TS&L)
- 3.5.4. Maintenance of traffic and pedestrian access
- 3.5.5. Special provisions/specifications
- 3.5.6. Detailed cost estimate
- 3.5.7. List of bid items
- 3.5.8. Real estate plan sheets

3.6. 50% design milestone.

- 3.6.1. Deliverables at 50% are:
 - Design calculations are 90% complete
 - LG&T and/or TS&L are 100% complete
 - All typical section, plan (including existing utility information), and profile sheets are included and are at least 75% complete
 - Discipline-specific sheets and details are 50% complete
 - Real estate plan sheets are 50% complete
 - Draft of maintenance of traffic and pedestrian access notes
 - Draft of special provisions/specifications
 - List of all known bid items, quantities, and unit prices
 - List of concerns, resolutions, and a complete record of decisions
- 3.6.2. Review applicable standards and details determined during the preliminary design process.
- 3.6.3. Submit 50% design documents to entire project team and the appropriate DoTE staff for review and comment. Set realistic dates for the review and ensure the 50% design documents are reviewed by all appropriate parties.
- 3.6.4. Request OUPS to mark all utilities in the field.
- 3.6.5. Field-check design plans and check for encroachments, utility and real estate conflicts.
- 3.6.6. Resolve and document issues and concerns identified during the project lifecycle to

date.

3.6.7. Perform constructability reviews and design document review, and involve DoTE construction management.

3.6.8. Compare costs vs. budget.

3.6.9. Schedule interim review by DoTE Policy Board, if applicable.

3.6.10. Submit to ODOT for Stage 2 review, if applicable.

3.7. Continue to develop design documents based on 50% review.

3.8. 90% design milestone.

3.8.1. Deliverables at 90% are:

- Design calculations are 100% complete
- All typical section, plan (including existing utility information), and profile sheets are included and are at least 100% complete
- All discipline-specific sheets and details are 90% complete
- Entire plan set 90% complete
- Real estate plan sheets are 100% complete
- Final draft of all maintenance agreements and assessment petitions
- Utility relocation plan is 100% complete
- Final draft of maintenance of traffic and pedestrian access notes and plan sheets
- Final draft of special provisions/specifications
- Final draft of bid forms and estimates
- List of concerns, resolutions, and a complete record of decisions

3.8.2. Compare costs vs. budget.

3.8.3. Submit 90% design phase deliverables to entire project team, utilities (Letter 3), and selected stakeholders for review and comment.

3.8.4. Schedule review and comment meeting and document all comments and concerns.

3.8.5. Final review by DoTE Policy Board, if applicable.

3.8.6. Submit to ODOT for Stage 3 review, if applicable.

3.9. Finalize design documents based on 90% review.

3.10. 100% design milestone.

3.10.1. Deliverables at 100% are:

- Entire plan set 100% complete
- Special provisions/specifications are 100% complete
- Bid forms and engineer's estimate 100% complete. *This estimate is confidential until the project is awarded.*
- List of concerns, resolutions, and a complete record of decisions
- Signed title sheet on final plans (this is required, and represents the City's authorization to proceed to procurement)
- Maintenance agreements and assessment petitions are in final form
- Finalize ROW agreements.

3.10.2. Submit PSE package to ODOT for authorization to bid, if applicable.

3.10.3. Circulate title sheet for signatures with complete set of bid documents and list of concerns, resolutions, and a complete record of decisions.

3.10.4. Receive final approvals from outside agencies.

[Back to top](#)

4. Detailed design communications—continue to execute communication plan

4.1. Public and community

4.2. City Council

4.3. Policy Review Board

4.4. Section, Division, and Department Heads

4.5. Sponsors

4.6. Project team

[Back to top](#)

5. Modify the Project Initiation Form or the Service Authorization Form, and the Project Work Plan.

[Back to top](#)

Project Management Tools

- Checklist for Detailed Design (possibly by discipline)
- Standard bid form
- Issue/resolution form
- ODOT PS&E submittal letters
- Cost estimating database (COBRA)

[Back to top](#)

15. Execution and Control: Procurement (Bidding and Award)

Last modified: June 5, 2007

[Back to PMM Homepage](#)

Purpose

To define the normal and emergency procurement (bidding and awarding) processes for DoTE projects.

- [1. Project manager's role in the procurement processes](#)
- [2. Stakeholders in the procurement processes](#)
- [3. Typical bid process](#)
- [4. Typical award process](#)
- [5. Emergency bid process](#)
- [6. Emergency award process](#)
- [7. Purchase order process](#)
- [8. Purchase order award process](#)
- [9. Deliverables](#)
- [Project management tools](#)

Outline

1. Project manager's role in the procurement (bidding and awarding) processes
 - 1.1 Although the City of Cincinnati purchasing agent takes responsibility for bidding and awarding contracts per the Cincinnati Municipal Code 321, the project manager plays an important support role. All communication to potential bidders should go through the purchasing agent. The project manager must monitor the status of the contract bidding and awarding processes to ensure the anticipated start date is achieved. However, the project manager controls the emergency bidding process. The purchasing agent still controls the awarding process for emergency bids. The role of the project manager is more clearly defined below.

[Back to top](#)

2. Stakeholders in the procurement (bidding and awarding) processes
 - 2.1. Bidders
 - 2.2. City of Cincinnati Purchasing Agent (PA)
 - 2.3. City of Cincinnati Contract Compliance Officer (CCO)
 - 2.4. City of Cincinnati City Manager
 - 2.5. City of Cincinnati City Engineer
 - 2.6. City of Cincinnati City Architect
 - 2.7. City of Cincinnati DoTE Director
 - 2.8. City of Cincinnati Board of Control
 - 2.9. City of Cincinnati Reproduction Department
 - 2.10. City of Cincinnati Finance Department
 - 2.11. City of Cincinnati Law Department
 - 2.12. City of Cincinnati DoTE Accounting Section
 - 2.13. City of Cincinnati Construction Engineer (CE)

[Back to top](#)

3. Typical bid process (5-7 weeks)

15. Procurement (Bidding and Award)

- 3.1. Project manager meets with accounting section to ensure all outside funding certification is in place and that funding sources are shown on the 980 reports.
- 3.2. Project manager sends a Form 217 (Request for Prevailing Wage Determination) to the contract compliance officer two weeks before sending information to the purchasing agent. An electronic form is on the City intranet.
- 3.3. Project manager requests a Requisition (RXQ) for authorization to advertise a project for bidding from DoTE Director's office one week before sending information to the purchasing agent.
- 3.4. Project manager sends original contract documents to the Reproduction department for copies.
- 3.5. Project manager sends the following to the purchasing agent one week before the anticipated advertising of the contract for bid:
 - 3.5.1. Instructions to Bidders Form 22S
 - 3.5.2. Electronic Requisition (RXQ)
 - 3.5.3. Bid form including any alternates and assigned items (Microsoft Excel spreadsheet)
 - 3.5.4. Confidential Architect/Engineer's estimate (City Administrative Regulation forbids any estimate to be revealed before a contract is awarded)
 - 3.5.5. Sufficient (typically 20) copies of plans for bidders and one set of specifications
- 3.6. Purchasing agent advertises the contract in the City Bulletin for a minimum of two weeks before the bid opening date (three weeks for federally-funded highway projects). When required (some ODOT jobs), the contract also needs to be advertised in the local newspaper. The project manager would need to request that the purchasing agent advertise in the local newspaper.
- 3.7. The purchasing agent and project manager hold a pre-bid conference, if necessary, a minimum of seven days before bid.
- 3.8. The purchasing agent, with input from the project manager, issues corrections to the bid documents as necessary.
 - 3.8.1. Corrections to the bid documents (addendum) must be issued at least five business days before the bid opening.
 - 3.8.2. For bid cancellations or specific line item deletions, less than five days may be permitted.
- 3.9. The project manager supports the purchasing agent in answering the bidders' questions.
 - 3.9.1. All questions from bidders need to be in writing to the purchasing agent.
 - 3.9.2. The project manager sends the written answers to the purchasing agent for distribution to the bidders.
 - 3.9.3. Any answer that would materially change the condition in the contract documents needs to be in writing and made part of a correction.
 - 3.9.4. Written questions should be received up to seven days prior to the bid opening, and the purchasing agent will distribute the answers to all bidders five days prior to bid opening. This could be in the form of an addendum. If time is of the essence, specify in the contract that questions will not be received seven days prior to the bid opening. If a significant issue arises prior to the bid opening, the bid date may be pushed back by the purchasing department.

[Back to top](#)

4. Typical award process (4-8 weeks)

- 4.1. Bid closes and bids are publicly read by the purchasing agent. Project managers are encouraged to attend the bid reading.
- 4.2. The project manager needs to request the return of extra plans and contracts from the purchasing agent.
- 4.3. Bid tab is generated by the purchasing agent.
- 4.4. Purchasing agent sends the bid tab to the project manager.
- 4.5. Contract compliance officer makes a determination of eligibility of award based on compliance with EEO/SBE requirements to the purchasing agent.
- 4.6. The project manager evaluates bids compared to the engineer's estimate and consults with construction management, if needed. The project manager reviews the contract compliance

officer's determination and recommends award or rejection to city engineer/city architect.

- 4.7. City engineer/city architect sends a letter to the purchasing agent either recommending award, including any alternates, or rejecting all bids.
- 4.8. Purchasing agent prepares/types the contract.
- 4.9. Contract is sent to Board of Controls for signature.
- 4.10. Purchasing agent sends contract to the Reproduction department for copies.
- 4.11. Purchasing agent sends contract to the Finance department for certification.
- 4.12. Purchasing agent sends contract to selected contractor (bidder) for execution.
- 4.13. Bidder returns the signed contract to the purchasing agent, including bidder's bond and insurance certificates.
- 4.14. Purchasing agent sends the contract documents to the Law department for authorization.
- 4.15. Contract is sent to the purchasing agent for signature. At this point, the contract is fully executed.
- 4.16. Purchasing agent sends a copy of the contract to the contractor (successful bidder) and project manager.
- 4.17. Project manager sends a copy of the contract to the DoTE Accounting section and the construction engineer, as well as sufficient copies of the contract plans to the construction engineer.
- 4.18. Project manager enters the contract design information into the construction database.
 - 4.18.1. Refer to the Construction Database Users Manual.

[Back to top](#)

5. Emergency bid process (2-3 weeks)

- 5.1. On occasion, and as approved by the City Manager, there may be the need to use the City of Cincinnati Emergency Bid Procedures. The process is as follows:
 - 5.1.1. The project manager drafts a memo (from the Director) requesting authorization to proceed with the emergency bid to be approved by the Law department and the City Manager.
 - 5.1.2. The project manager prepares and sends bid documents to a minimum of three bidders.
 - 5.1.3. The project manager receives bids from the bidders. A public bid opening or bid bond is not required.
 - 5.1.4. The project manager evaluates the bids and sends the bids, the confidential architect/engineer's estimate, electronic requisition (RXQ), and Recommendation to Award to the purchasing agent.

[Back to top](#)

6. Emergency award process (1-3 weeks)

- 6.1. Purchasing agent reviews bids and bid documents.
- 6.2. Purchasing agent sends Notice of Award to contract compliance officer.
 - 6.2.1. Note: Per Administration Regulation Number 24, no EEO pre-approval is required to award the contract.
- 6.3. Purchasing agent gets the funds certified from the Finance department.
- 6.4. Purchasing agent receives confirmation from contract compliance officer.
- 6.5. Purchasing agent sends contract documents to the Board of Controls.
- 6.6. Purchasing agent sends contract documents to contractor (bidder), after receiving authorization from the Board of Controls.
- 6.7. Bidder returns the contract documents along with bond and insurance certificates.
- 6.8. Purchasing agent sends Notice to Proceed (NTP) to the contractor (bidder).
 - 6.8.1. For an emergency where imminent danger exists, as soon as the purchasing agent receives the bond and the insurance certificates from the contractor (successful bidder) and the money is certified by the Finance Department.
- 6.9. Purchasing agent sends the contract to the Law department for authorization.
- 6.10. Purchasing agent signs contract—at this point the contract is fully executed.

- 6.11. Purchasing agent sends a copy of the contract to the contractor and project manager.
- 6.12. Project manager sends a copy of the contract to the DoTE Accounting section and the construction engineer as well as sufficient copies of the contract plans to the construction engineer.
- 6. Project manager enters the contract design information into the construction database.
 - 6.13.1. Refer to the Construction Database Users Manual.

[Back to top](#)

- 7. Purchase order process (for awards of \$5,000 to \$25,000) (1-2 weeks)
 - 7.1. The project manager requests a quote from a minimum of three vendors.
 - 7.2. The project manager receives quotes from the vendors. A public bid opening or bid bond is not required.
 - 7.3. The project manager evaluates the quotes and sends the quotes, the confidential architect/engineer's estimate, electronic requisition (RXQ), and Recommendation to Award to the purchasing agent.

[Back to top](#)

- 8. Purchase order award process (1-2 weeks)
 - 8.1. Purchasing agent reviews recommended vendor and all quotes. Purchasing agent will require a performance bond for all demolition projects.
 - 8.2. Purchasing agent generates a purchase order.
 - 8.3. Purchasing agent sends purchase order to contractor (vendor).
 - 8.4. Purchasing agent sends a copy of the purchase order to the DoTE Accounting section.
 - 8.5. Project manager requests a copy of the purchase order from the DoTE Accounting section and provides a copy to the construction engineer.
 - 8.6. Project manager enters the purchase order information into the construction database.
 - 8.6.1. Refer to the Construction Database Users Manual.

[Back to top](#)

- 9. Deliverables
 - 9.1. Form 217
 - 9.2. Instruction to Bidders From 22S
 - 9.3. Requisition (RXQ)
 - 9.4. Bid Form
 - 9.5. Confidential Architect/Engineer's Estimate
 - 9.6. Advertisements
 - 9.7. Addendums
 - 9.8. Letter of Authorization for Emergency Bidding Process
 - 9.9. Bid Tab (Purchasing Agent responsibility)
 - 9.10. EEO/SBE Determination
 - 9.11. City Engineer Recommendation Letter
 - 9.12. Executed contract or purchase order
 - 9.13. Design information entered into contracts database

[Back to top](#)

Project Management Tools

- [Request for Project Wage Determination - Form 217](#)
- [Form 22S Instructions to Bidders \(pdf\)](#)
- [Form 22S Instructions to Bidders \(doc\)](#)
- [Sample Requisition RXQ](#)
- [Sample Bid Form](#)

15. Procurement (Bidding and Award)

- Sample Engineer's Estimate
- Sample Advertisements
- Sample Addendum
- Sample Letter of Authorization for Emergency Bidding Process
- Sample Bid Tab
- Sample EEO/SBE Determination
- Sample City Engineer Recommendation Letter
- Sample Contract Documents
- Sample Notice of Award
- Administrative Regulation No. 24
- Construction Database User's Manual
- Purchasing Manual
- Request for Proposal (RFP) & Contract Development Manual
- Other Purchasing Manuals and Documents
- OPWC Request to Proceed
- Sample award letter

[Back to top](#)

16. Execution and Control: Construction Administration

Last modified: June 5, 2007

[Back to PMM Homepage](#)

Purpose

To define the project manager's role during the construction process of DoTE projects.

- [1. Project manager's role during the construction process](#)
 - [2. Project manager's role during construction startup and preconstruction](#)
 - [3. Project manager's role in communication control](#)
 - [4. Project manager's role in drawing control](#)
 - [5. Project manager's role in schedule control](#)
 - [6. Project manager's role in cost control](#)
 - [7. Project manager's role in quality assurance](#)
 - [8. Project manager's role in construction contract closeout](#)
 - [9. Deliverables](#)
- [Project management tools](#)

Outline

1. Project manager's role during the construction process for DoTE projects
 - 1.1. The project manager is still responsible for the project during the construction process. This includes active involvement and monitoring of project progress during construction. Communication with the DoTE construction engineer is critical. The construction engineer is another project team member working for the project manager. While the construction engineer is directly responsible for the administration of the construction contract and is the direct communication link with the contractor, the project manager is still responsible for the success of the overall project.
 - 1.2. For the details of the contract administration process, see the Construction Management Manual.
2. Project manager's role during construction startup and the preconstruction phase
 - 2.1. Enter design and contract information in the construction database.
 - 2.2. Give the DoTE Accounting section a copy of the executed contract.
 - 2.3. Give the DoTE Construction management section a copy of the executed contract and a sufficient number of drawings and specifications.
 - 2.4. Meet with the construction engineer to go over the project and any unique conditions that may apply including:
 - 2.4.1. Properties
 - 2.4.2. Utilities
 - 2.4.3. Community issues
 - 2.4.4. Political issues
 - 2.4.5. Special items
 - 2.4.6. Schedule requirements
 - 2.4.7. Permits
 - 2.4.8. Milestones
 - 2.5. Forward a project contact list to the construction engineer.

[Back to top](#)

- 2.6. Forward a list of quantity take-offs to the construction engineer.
- 2.7. Get an estimate for the cost of services from the construction engineer, which includes an estimate for testing services.
- 2.8. Certify testing funds through an existing consultant agreement.
- 2.9. Give the construction engineer a Job Order Number (JON) for charging time.
- 2.10. Attend the preconstruction meeting.
- 2.11. Review the press release to start work.

[Back to top](#)

3. Project manager's role in communication control

- 3.1. Communicate directly with the construction engineer.
 - 3.1.1. Good communication with the construction engineer is essential so the goals and requirements of the project are thoroughly understood.
 - 3.1.2. The construction engineer is the primary contact with the contractor. **The project manager should not contact the contractor directly.**
- 3.2. Respond to and log Requests for Information (RFI).
- 3.3. Review monthly construction reports.
- 3.4. Attend progress meetings.
- 3.5. Review meeting minutes from progress meetings.
- 3.6. Project manager should notify the appropriate managers of red flag issues.

[Back to top](#)

4. Project manager's role in drawing control

- 4.1. Contract drawing distribution and revisions—The project manager will provide the construction engineer with the requested number of copies of the contract drawings and specifications, including all addenda issued prior to the contract. Copies of plans and specifications may be required by other entities such as governmental agencies, public utilities, railroads, inspection agencies, and other contractors interfacing with the contract work. All revisions to the contract drawings must be marked as such and formally submitted by the project manager to the construction engineer so they can be incorporated into the contract.
- 4.2. Highlight, date, and submit any changes to the contract drawings to the construction engineer with directions to incorporate changes into the contract documents.
- 4.3. Develop a list of shop drawings, samples, and catalog cuts required for the project, and review with the construction engineer.
- 4.4. Shop drawings, working drawings, and sample submittals—Shop drawings are provided by the contractor to expand, verify, or complete the information provided by the designer on the plans or in the specifications. These may include catalog cuts, manufacturer's standard drawings and details, fabricators' detailing, equipment performance characteristics, etc.
 - 4.4.1. The contractor provides working drawings to indicate means and methods of construction, design, and description of temporary works including sheeting, shoring, underpinning, cofferdams, temporary construction loads, etc.
 - 4.4.2. The contractor provides samples to indicate conformance with descriptions of finishes or to provide a selection for final choice by the designer.
 - 4.4.3. The contract documents will indicate the shop and working drawings and sample submittals required of the contractor. Where submittals are normally required but are not indicated in the contract documents, the contractor should clarify with the designer whether submittals are required. If so, the contractor should provide this information to the designer.
 - 4.4.4. The project manager is responsible for establishing a submittal process and a list of required submittals. The project manager is also responsible for establishing a process to ensure that all submittals are logged.
 - 4.4.5. The project manager or designer shall review each submittal to confirm that the submittal

is in accordance with contract requirements. If not, the submittal will be returned to the contractor with a letter of transmittal indicating the deficiencies in the submittal. If the submittal is satisfactory, it should be forwarded to the reviewer (usually the designer) as quickly as possible. The reviewer will indicate one of the following on the submittal—“Reviewed, No Resubmittal Required”; “Reviewed, Exceptions Noted, No Resubmittal Required”; “Reviewed, Exceptions Noted, Resubmittal Required”; or “Rejected, Resubmittal Required”. The construction engineer is responsible for tracking and expediting the submittal review process and to notify relevant parties when the review process is exceeding, or is likely to exceed, the scheduled, stipulated, or reasonable review period. Submittal progress should always be an agenda item at progress meetings to keep all parties informed.

4.4.6. On completion of the work, a copy of all submittals will be included in the contract records.

4.5. Requests for information (RFI)/clarification—From time to time, the contractor may request information in addition to the information provided in the contract documents or for further clarification.

4.5.1. Project managers need to respond to the RFI form in a timely manner.

4.6. As-built information—It is an exceptional project that does not experience minor field changes. These minor field changes will not warrant the formal issue of revisions to drawings or specifications but do need to be officially recorded for operations and maintenance purposes and for possible future expansion or renovation of the facility. The construction engineer will record all as-built information and submit it to the project manager. The project manager is responsible for incorporating this as-built information in a permanent and final completed set of drawings. The as-builts need to be archived as a PDF or electronic version. An electronic drawing archiving system needs further development.

[Back to top](#)

5. Project manager's role in schedule control

5.1. Communicate any milestone dates, critical dates, or interim completion requirements with the construction engineer.

5.2. Review and provide input to the construction engineer on the contractor's schedule.

5.3. Monitor overall completion of the contract.

5.4. Discuss options with construction engineer if the schedule begins to slip.

[Back to top](#)

6. Project manager's role in cost control

6.1. Periodically review cost reports. The construction database contains up-to-date as-built cost information.

6.2. Periodically review payroll charges.

6.3. Approve contract contingency allocations.

6.4. Initiate change orders, when needed.

6.5. Approve change orders.

6.6. Assist the construction engineer in responding to the contractor's claims.

6.7. Review and sign off on final contract quantities.

[Back to top](#)

7. Project manager's role in quality assurance

7.1. Review quality assurance requirements with the construction engineer.

7.2. Make periodic site visits to ensure the objectives of the contract are being achieved.

7.3. Review test reports.

[Back to top](#)

8. Project manager's role in construction contract closeout
 - 8.1. Attend the final inspection walkthrough.
 - 8.2. Sign off on final quantities and final change order.
 - 8.3. Sign off on final acceptance letter.
 - 8.4. Obtain and archive a copy of as-built information.
 - 8.5. Obtain and archive a copy of warranty and start-up information.
 - 8.6. Obtain the Construction Management section files.
 - 8.7. Attend the one-year warranty inspection.

[Back to top](#)

9. Deliverables

- 9.1. Notice to proceed letter, substantial completion letter, and final completion letter
- 9.2. Press release
- 9.3. Constructed physical improvement
- 9.4. List of required shop drawings, samples, and catalog cuts
- 9.5. Log of submittals of shop drawings, samples, and catalog cuts
- 9.6. RFI log
- 9.7. Monthly construction reports
- 9.8. Minutes from progress meetings
- 9.9. Documentation of the construction progress and partial payments
- 9.10. Documentation of changes to contract documents, drawings and specifications, schedule, and costs
- 9.11. Final statement of cost including the final quantities and cost of the work for which the contractor has been paid
- 9.12. As-built plans that reflect what was actually built, including any plan changes made during construction
- 9.13. Operation and warranty manuals
- 9.14. Project files from the Construction Management section

[Back to top](#)

Project Management Tools

- [Project Payroll and CFS Data](#)
- [Contracts Data Base](#)
- [Construction Management Manual \(September 2006\)](#)
- Checklist of what project manager needs to hand off to the construction engineer prior to construction startup
- [Sample RFI log](#)
- [Request for Information template](#)
- [Sample construction monthly report](#)
- [Sample minutes from progress meeting](#)
- List/log of shop drawings, samples, and catalog cuts required for the project
- [Construction Database Users Manual](#)
- [Sample submittal logs](#)

[Back to top](#)

17. Project Closeout

Last modified: June 5, 2007

[Return to PMM Homepage](#)

Purpose

To define the closeout processes for DoTE projects.

1. [Project manager's role in the closeout processes](#)
2. [Project management activities at contract completion](#)
3. [Project management activities at project completion](#)
4. [Project management activities at end of warranty](#)
5. [Deliverables](#)

[Project management tools](#)

[Links](#)

Outline

1. Project manager's role in the closeout processes
 - 1.1. Although the construction engineer is responsible for contract closeout processes, the project manager is responsible for the *Project Closeout* processes. The project manager must work closely with the construction engineer to develop the closeout plan and procedures at the beginning of the project and see that the plans and procedures are followed.
 - 1.2. The project manager is responsible for documenting feedback from customers, lessons learned from the project team, and reporting project outcomes to sponsors in an effort to continuously improve DoTE projects.
 - 1.3. The project manager must see to the assembly, storage, and distribution of all critical project documents, including as-built drawings, maintenance agreements, and operating and maintenance manuals to the appropriate entities.
- [Back to top](#)
2. Project management activities at contract completion
 - 2.1. Review punch list prepared by construction engineer.
 - 2.2. Following completion of punch list, participate in final walkthrough inspection.
 - 2.3. Sign off on final completion letter.
 - 2.4. Work with sponsors to determine appropriate level of project opening ranging from press release to ribbon cutting.
 - 2.5. Assemble record, as-built, and shop drawings (hard copy and electronic format) for short-term storage.
 - 2.6. Assemble project records and design documents for integration with contract records for short-term storage.
 - 2.7. Work with construction engineer to deliver warranties, guarantees, maintenance procedures, spare parts and materials, and operating manuals to the appropriate entities.
 - 2.8. Confirm with construction engineer that all change orders and claims have been resolved. Project manager must sign off on final quantity statement.
 - 2.9. Review project documents and work with the construction engineer to ensure that all contract requirements have been met.
 - 2.10. Inform maintaining agencies that their responsibility starts.
 - 2.11. Verify that final measurements have been scheduled, made, and the GIS updated.

[Back to top](#)

3. Project management activities at project completion

3.1. Perform post-construction evaluation.

3.1.1. Follow DoTE Policy for Post-Construction Project Evaluation.

3.1.2. Consider conducting post-construction meeting as described in ODOT PDP and CMS Item 108.11.

3.1.3. Consider performing a contractor evaluation similar to the ODOT C95 Evaluation Contractor Feedback Form.

3.1.4. Consider seeking community feedback to document concerns and to minimize neighborhood disruption for future projects.

3.2. Review project outcome with sponsors.

3.2.1. Schedule presentation at DoTE Policy Board if lessons learned or other project aspects are significant to most of the project and program managers.

3.2.2. Prepare a closeout summary document for presentation to the DoTE Policy Board or annual report.

3.3. Review with DoTE Accounting department to make sure all accounts were properly charged and all ID bills were sent and paid.

[Back to top](#)

4. Project management activities at end of warranty

4.1. Participate in end-of-warranty inspection with designers and construction engineer. The construction engineer will work with the contractor to correct deficiencies.

4.2. Confirm that all project records (accounting, construction, project management, and design) are assembled and ready for long-term storage (hard copy and electronic format).

4.3. Review with DoTE Accounting department to ensure all remaining funding is decertified.

4.4. Review and approve DoTE Accounting department's final statement of cost.

[Back to top](#)

5. Deliverables

5.1. Punch List (construction engineer responsibility)

5.2. "Substantial Completion Date" letter (construction engineer responsibility)

5.3. Final Completion Letter (project manager and construction engineer responsibility)

5.4. Post-Construction Project Evaluation Report (project manager responsibility)

5.5. As-Built and Record Drawings (contractor responsibility)

5.6. Maintenance Agreements (project manager responsibility)

5.7. Warrantees and Guarantees (contractor responsibility)

5.8. Start-up and/or Operating and Maintenance manuals (contractor responsibility)

5.9. Final Payment Document (change order summary—construction engineer responsibility)

5.10. Final statement of cost (accounting responsibility)

5.11. Final Measurements (construction engineer responsibility)

5.12. Closeout Checklist (construction engineer responsibility)

5.13. One-year Inspection Warranty Report (construction engineer responsibility)

5.14. Indexed Project Records (project manager responsibility)

5.15. Project Summary Document (project manager responsibility)

[Back to top](#)

Project Management Tools

- [Final Completion Letter template](#)
- [Substantial Completion letter with punch list](#)
- [Sample Post Construction Evaluation report \(with lessons learned\)](#)
- [Sample final cost letter](#)
- [Sample maintenance agreement](#)

- [Sample final contract quantities spreadsheet](#)
- [Sample press release for project completion](#)
- [Project closeout checklist](#)

[Back to top](#)

Links

- [Post Construction Evaluation Policy](#)
- [ODOT CMS](#)
- [ODOT PDP](#)

[Back to top](#)

Glossary

Last Modified: June 5, 2007

[Back to PMM Homepage](#)

The table below lists terms and acronyms used in the Project Management Manual.

Term	Definition
4a Note	A 4a Note is ODOT's utility relocation plan note, which describes the status and commitment of each utility's project-specific relocation and is included in the contract documents.
AASHTO	American Association of State Highway and Transportation Officials
ADAAG	Americans with Disabilities Act Accessibility Guidelines
Asset Preservation Project	Projects such as street rehabilitation or a bridge deck overlay; they are prioritized by asset condition and sometimes policy.
CCO	City of Cincinnati Contract Compliance Officer
CD&P	City of Cincinnati Community Development and Planning Department
CE Document	Categorical exclusion document for ODOT preliminary engineering.
CE	City of Cincinnati DoTE Construction Engineer
CFS	Cincinnati Financial System
Client	Individuals or groups that provide funding for a project or group of projects. Clients include other city agencies such as Parks, Community Development and Planning (CD&P), and other government agencies such as SORTA, ODOT, and Hamilton County.
CMS	ODOT Construction Materials Specification
Communications Management	The processes that ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information.
Consensus	Although consensus is commonly used to mean complete or unanimous agreement, its precise meaning is general agreement. Consensus is reached, therefore, when all members of a group are willing to accept a decision. Even though a decision may not necessarily be an individual's first choice, he or she considers it a workable approach and in the best interest of the group. Consensus is reached when each member of the group feels at least 70% comfortable with the group's decision and each member of the group is willing to support the decision.
Cost Management	The processes that ensure that the project team completes the project within the approved budget.
CPM	Critical Path Method—a scheduling tool.
Customers	Potential users of the project.
DoTE	City of Cincinnati Department of Transportation and Engineering
Design Review Team	Created under AR No. 40, Urban Design Review. Design review team, chaired by the City Architect, is to review capital improvement projects to ensure design sensitivity and compatibility with the City's environment.
DoTE Policy Board	The Director, City Engineer, City Architect, and City Traffic Engineer—this group reviews projects and provides approval on projects and policies.
EEO	Equal Employment Opportunity
EIS	Environmental impact statement
EJ	Environmental Justice
ESA	Environmental site assessment
FAA	Federal Aviation Administration
FHA	Federal Housing Administration
FHWA	Federal Highway Administration
Form 217	Request for Prevailing Wage Determination form
FTA	Federal Transit Administration
GCWW	Greater Cincinnati Water Works
HCB	City of Cincinnati Historic Conservation Board
Human Resource Management	The processes that acquire, develop, and reward the project team. They ensure that people with the needed skills are available at the right time to execute the product-oriented processes.
ICC	Infrastructure Coordinating Committee—a committee of public and private utilities, and city

	agencies, who all work within the right-of-way. The committee meets quarterly to review current projects and inform the other committee members of upcoming projects.
Improvement Project	Projects such as street widening or bridge replacement; they are driven by a demonstrated need, such as improved safety, capacity, and/or economic development.
Information Management	The processes that ensure the proper coordination of the various elements of the project.
JC	Job Order Number
KyTC	Kentucky Transportation Cabinet
LAOAB	Lunken Airport Oversight and Advisory Board
LG&T	Line, grade, and typical section
LPA	Local public agency
MOA	Memorandum of Agreement
MSD	Metropolitan Sewer District of Greater Cincinnati
NTP	Notice to Proceed
ODOT	Ohio Department of Transportation
OEPA	Ohio Environmental Protection Agency
OKI	Ohio-Kentucky-Indiana Regional Council of Governments
OUPS	Ohio Utilities Protection Service
PA	City of Cincinnati Purchasing Agent
PDP	ODOT's Project Development Process
PERT	Project Evaluation Review Technique—a scheduling tool.
PIF	Project Initiation Form. A project initiation form is an agreement between the project manager and the sponsor on the key elements of the project. These include the purpose and need, deliverables, known constraints, assumptions, and risks. It helps the project manager guide the project team efficiently and effectively through the project lifecycle. It is also used to identify and meet customer satisfaction requirements.
PIO	City of Cincinnati Public Information Officer
PM	Project Manager
PMM	City of Cincinnati DoTE Project Management Manual
Procurement Management	Processes that are used to acquire goods and services through City of Cincinnati purchasing division.
Program Management	The coordinated management of projects and activities to obtain benefits not available from managing the projects and activities individually.
Program Manager	A Program Manager is most often a supervising engineer or architect who is responsible for budget, programming, and management of a major infrastructure workgroup such as bridges or street rehab.
Project	A project is a temporary endeavor undertaken to produce a unique outcome. A DoTE capital project produces a unique physical improvement to the transportation system in Cincinnati. Most of our projects fall into one of two categories, asset preservation or improvement.
Project Life Cycle	A generally sequential arrangement of the project phases. Each of the life cycle phases involves the five project management process groups—initiation, planning, execution, control, and closeout. When all phases are complete, the project is complete. The DoTE divides each project into phases, each with its own outcomes, or “deliverables.” Together, the project phases make up the project life cycle.
Project Management	Project management is the application of knowledge, skills, tools, and techniques to project activities in order to meet sponsors' needs and expectations from a project. Project management balances competing demands (scope, time, cost, quality, requirements, etc.) throughout the project lifecycle and involves the interaction of three elements: <ul style="list-style-type: none"> • People—People perform the work and determine the success or failure of a project. • Processes—Processes specify products or deliverables required for the project and identify who will perform the work and when. • Tools—People use predefined tools and techniques to manage the project.
Project Management Plan	A project management plan is a group of documents used to guide project execution and control throughout the project lifecycle. The project manager is the single point of contact for the project management plan, ensuring that only one set of documents is created and maintained. The plan addresses the project's problem and need (why), goals and objectives (what), schedule (when), and roles (who).
Project Manager	The person who leads the project team and is responsible for the management of the project for its entire lifecycle. The project manager's primary mission is to make sure that all the project objectives are met.
Project Team	Every project has a project team led by a project manager. The project team consists of every person who works on a project, including city employees, consultants, contractors, utility companies, and resource agencies. Project team members are responsible for

	delivering products with the quality promised, in a timely and cost effective manner. Each team member both receives and provides deliverables to other team members.
Project Work Plan	An agreement between the project manager and the project team members dealing with the key elements of the project, including scope, cost, and schedule.
Plans	The final set of Plans, Specifications, and Estimate.
Procurement Order	A contract procurement procedure for projects with a fee of less than \$25,000. Typical project-related activities generally include aerial photography, building demolition, and environmental abatement.
PWAC	City of Cincinnati Public Works Accessibility Committee
PWP	Project Work Plan
Quality Management	Processes that ensure that the project will satisfy the needs for which it was undertaken.
RCC	OKI's Reconstruction Coordinating Committee
Return of Service	Clerk of Council notifies City Council that they have received receipts that all property owners have been served with notice of the City's intent to appropriate.
RFI	Request for Information
RFP	Request for Proposals
RFQ	Request for Qualifications
Risk	An uncertain condition that, if it occurs, has a positive or negative effect on a project's objectives.
Risk Event	An uncertain event that, if it occurs, has a positive or negative effect on a project's objectives.
Risk Impact	The probable effect on a project's objectives should a particular risk event or condition occur.
Risk Management	Processes that are used to identify, analyze, and respond to project risk.
Risk Source	One method of classifying risk. Classifications could include Schedule risk, Cost risk, Quality risk, Performance or Scope risk, Resources risk, and Stakeholder satisfaction risk.
RLS	Request for Legal Services
ROW	Right-of-Way
RXQ	Requisition for Materials, Supplies, and Services
SBE	Small Business Enterprise
SCIP/LTIP	State Capital Improvement Program/Local Transportation Improvement Program (Ohio Public Works Commission programs)
Scope Management	Processes that ensure that the project includes all the work required, and only the work required, to complete the project.
Service Authorization Form	A service authorization form is an agreement between the project manager and the client on the key elements of a project. These include the purpose and need, deliverables, known constraints, assumptions, and risks. It helps the project manager guide the project team efficiently and effectively through the project lifecycle. It is also used to identify and meet customer satisfaction requirements.
SHPO	State Historic Preservation Office
SOQ	Statement of Qualifications
SORTA	Southwest Ohio Regional Transit Authority
Sponsor	Project sponsors are individuals or groups that provide funding for a project or group of projects. They may be internal or external to DoTE. Sponsors include the City Manager (as authorized by City Council), DoTE Director, division heads, section heads, and program managers.
SSRF	Surveying Service Request Form
Stakeholder	Anyone outside of the DoTE who has a vested interest in the project. Stakeholders include other city departments, community councils, homeowner associations, environmental advocacy groups, landowners, and others.
SWMU	City of Cincinnati Storm Water Management Utility
SWP3	Storm Water Pollution Prevention Plan
TANK	Transit Authority of Northern Kentucky
Task Manager	Task managers are responsible for a component of the project. The task manager common to most projects is the Construction Engineer. Other task managers may be responsible for architectural design, structural design, traffic design, etc.
Time Management	Processes that ensure timely completion of the project.
TPUD	City of Cincinnati Transportation Planning and Urban Design
TRAC	Transportation Review Advisory Committee (ODOT Committee)
TS&L	Type, Size, and Location
ULDRB	City of Cincinnati Urban Design Review Board

[Back to top](#)