



 Presented by the 

# AN OVERVIEW OF PROJECT MANAGEMENT AT CTDOT

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## PURPOSE AND LEARNING OBJECTIVES

**Purpose:** To build a shared understanding of the project life cycle, clarify the roles of various units involved, and emphasize the importance of time management, leadership, and collaboration for successful project delivery.

- Understand the purpose and value of project management
- Define what constitutes a project at CTDOT
- Understand the CTDOT Project life cycle
- Be clear on high-level unit roles and responsibilities
- Understand the importance of time management
- Recognize the role of leadership and team collaboration

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This slide features a dark blue background with a photograph of two women in business attire on the right. The woman in the foreground is looking towards the left. On the left side, there is a quote in white text: "It is what we know already that often prevents us from learning." Below the quote, the name "Claude Bernard" is written in white, flanked by two horizontal lines. The CTDOT logo is in the bottom left corner, and the title "AN OVERVIEW OF PROJECT MANAGEMENT AT CTDOT" is at the bottom center.

“It is what we know already that often prevents us from learning.”

Claude Bernard

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This slide has an aerial view of a highway interchange and surrounding area as the background. A dark blue rectangular box with a white border is centered on the slide, containing the title "Why an Overview of Project Management at CTDOT?" in white text. The CTDOT logo is in the bottom left corner, and the title "AN OVERVIEW OF PROJECT MANAGEMENT AT CTDOT" is at the bottom center.

Why an Overview of Project Management at CTDOT?

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**WHY EMI?**

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**INTRODUCTIONS**

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# EMI INSTRUCTORS

				
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**WHAT IS A PROJECT?**

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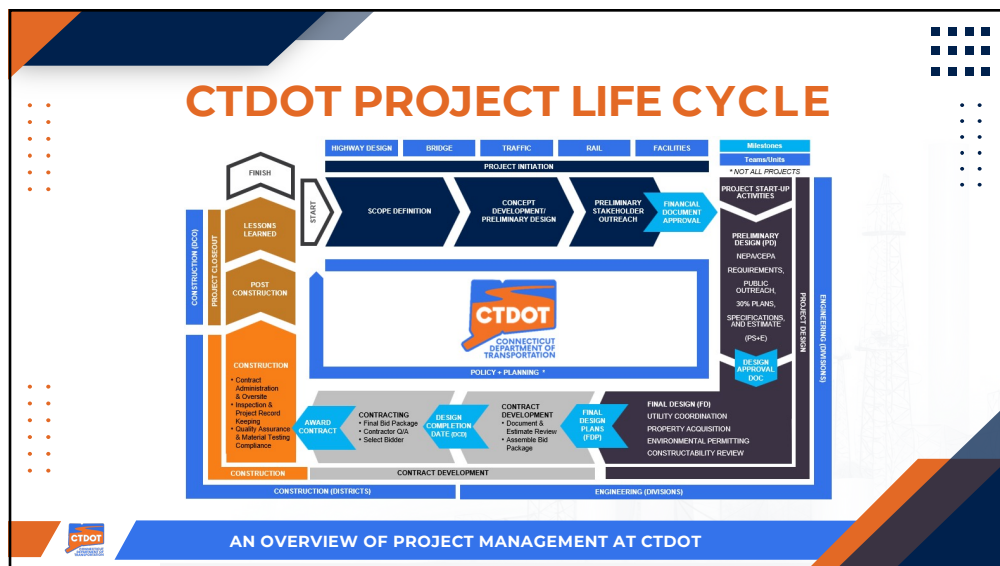
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# WHAT IS A PROJECT?

A **temporary** endeavor undertaken to create a **unique** product, service, or result.

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**SCOPE DEFINITION**

Led by: PDU, Bridge Management Group, Traffic, Rail, and Facilities Teams

- Conduct conceptual engineering work
- Develop initial budget estimates
- Perform initial outreach with stakeholders and the public
- Begin early environmental resource screening
- Funding is identified
- Draft a preliminary project schedule
- Develop Proposed Project Information (PPI) form
- Request for Project Memorandum (RPM) completed

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## CONCEPT DEVELOPMENT

- Transition ideas from planning studies or design units into defined project concepts
- Align project scope with stakeholder needs and planning goals (could be in initiation or design)
- Start conceptual design efforts
- Collaborate with design teams to estimate costs and define preliminary project schedules
- Begin outreach to municipalities, utilities and other key stakeholders

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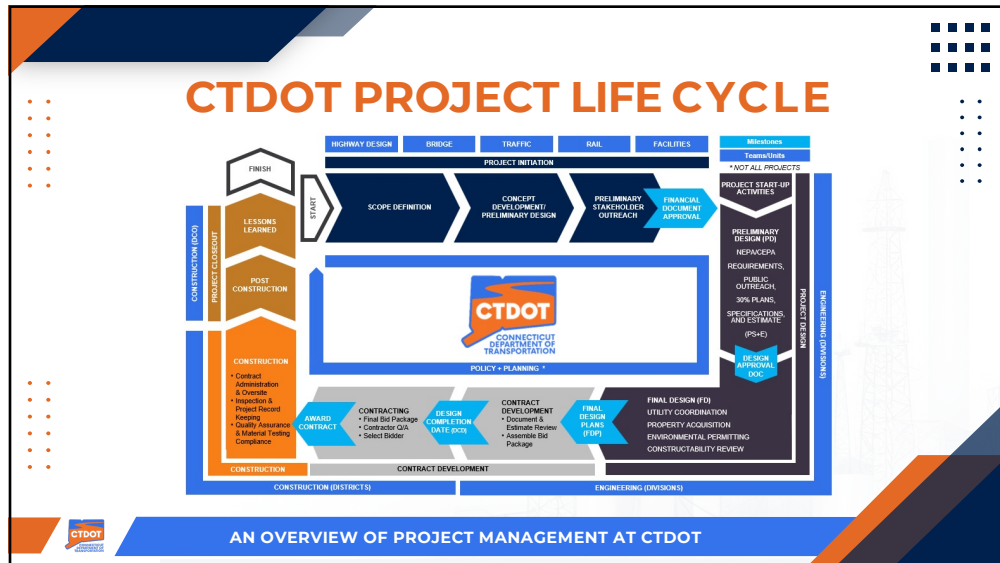
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## PRELIMINARY STAKEHOLDER OUTREACH

- Engage municipalities, Councils of Government (COGs), utilities, and regional planning partners
- Initiate community outreach to inform and gather feedback on initial project concepts
- Begin early consultation with environmental resource screening

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## Project Startup Activities

- Initial Project Correspondence**
  - Town Notification
  - Environmental Review Request
  - Permit Need Determination Form (PNDF)
  - Hydraulics Request
  - Geotechnical Investigation Request
  - Survey Request
- Structure Scope Determination**
  - Complete Streets
  - Early utility coordination
  - Alternatives presentation
  - Final report

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## Project Startup Activities

- Schedule Validation and Milestone Planning**
  - Confirm or adjust project timeline and milestone dates (30%, 60%, 90%, FDP)
  - QA/QC reviews at each milestone
  - Plan Town Roads Meeting
  - Plan public info meetings
  - Sync outreach schedule with design development timeline
- Identify Project Risks**

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**Preliminary Design (PD) Phase**

**Advance Design from Conceptual to Preliminary**

- Identify controlling design criteria
- Incorporate structure scope determination
- Develop horizontal and vertical alignments
- Develop design model (3D)
- Identify potential property and utility impacts
- Develop construction cost estimate

**Right-of-Way (ROW) Coordination**

- Title search
- ROW cost estimate

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**Preliminary Design (PD) Phase**

**Design Exceptions**

**Preliminary Design Review (30%)**

**Town Roads Meeting**

**Public Informational Meeting**

**Categorical Exclusion Checklist**

- Automatic or Programmatic
- FHWA Concurrence on Individual

**Design Approval**

- Confirms project commitment
- Initiates FD funds

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## Final Design Phase

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- **Advance Design to Full Detail**
  - Complete technical design elements: drainage, grading, signage, traffic control, utilities, lighting, pavement design, etc
- **Plan Review Milestones**
  - Conduct formal milestone submissions and reviews:
    - Plans-In-Hand Field Reviews (Constructability Review)
    - 60% (Semi-Final Design)
    - 90% (Final Design)
    - Final Design Plans (FDP) Submission
- Integrate internal and external feedback at each stage

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## Final Design Phase

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- **Environmental Permitting**
  - Submit permit applications (e.g., wetlands, stormwater) and secure approvals
  - Ensure compliance with environmental commitments and mitigation measures
- **Right-of-Way (ROW) Acquisition**
  - Development of property maps
  - Complete property acquisitions and easements
  - Resolve any eminent domain or compensation issues in coordination with the ROW office

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## Final Design Phase

- Utility and Railroad Coordination**
  - Finalize relocation plans for impacted utilities
  - Secure agreements and scheduling for utility and railroad work
  - Railroad coordination is often a critical path item — initiated early and followed through here
- Design Reviews**
  - Conduct in-depth QA/QC reviews at every milestone submission
  - Use discipline-specific checklists and verify conformance to standards

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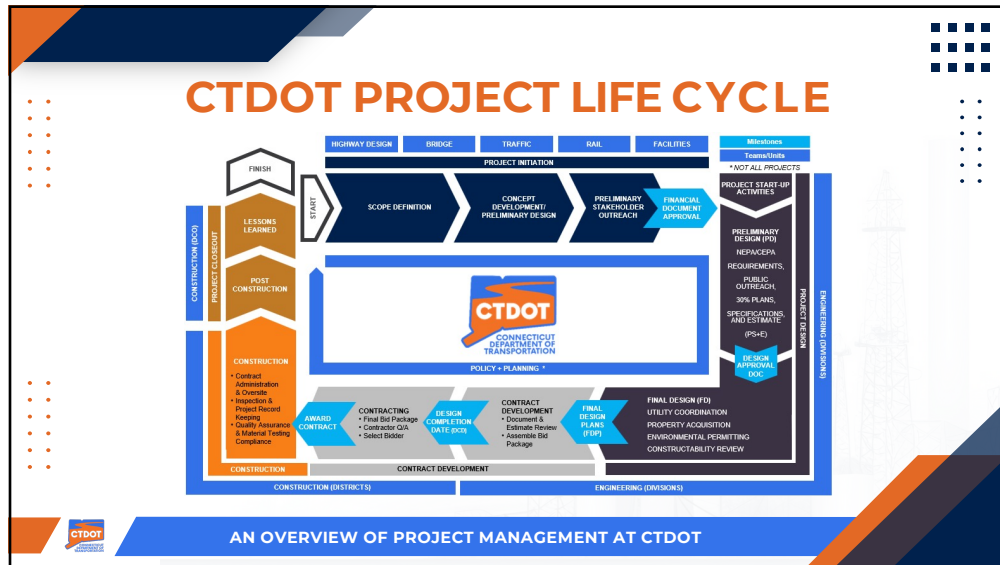
## Final Design Phase

- Perform final constructability review with construction and district personnel
- Confirm staging, access, and traffic control plans are practical and safe

End Phase with **Final Design Plans (FDP)**

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## Contract Development

**Final Design Package Review**  
 Conduct a quality control review of all design documents (focus on completeness and bid-readiness, not redesign)

**Engineer's Estimate Finalization**

- Prepare the final engineer's estimate using current pricing and quantity takeoffs
- Estimate is developed independently from the design team for objectivity

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## Contract Development

**Bid Package Assembly**  
 Compile all contract documents, including:

- Final Design Plans (FDP)
- Special provisions and specifications
- Contract boilerplate and legal forms
- Engineer's estimate and item lists

**Coordination with Key Units**  
 Coordinate through the Project Engineer in Contract Development, who works with the lead design team and ensures items are uploaded to the designated FDP folder.

Also work with: Estimating Unit (cost validation), Agreements Unit (contract structure and funding agreements), ROW, Utilities, and Environmental Units (status checks on critical path items).

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## Contract Development

- Verify project complies with NEPA, CEPA, ROW certificate, permits, and other pre-advertisement requirements **(verified by design PM)**
- Meet the **Design Completion Date (DCD) deadline – 42 days from FDP**



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## Contracts Administration

(Bureau of Finance and Administration)

**Bid Advertisement**

- Officially advertise the project for construction bids
- Post package on CTDOT bid system and notify prequalified contractors

**Contractor Q&A and Addenda Management**

- Answer questions submitted by contractors during the advertising period (design team) – **before bid opening**
- Issue addenda for any necessary clarifications, revisions, or corrections

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## Contracts Administration

(Bureau of Finance and Administration)

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**Bid Opening and Evaluation**

- Monitor contractor bids
- Open and publicly record contractor bids
- Evaluate for responsiveness, responsibility, and lowest qualified bidder

**Contract Award**

Award the project and coordinate execution of contract documents and bonding

**Preparation for Construction Start-Up**

Notify Construction District Office and prepare Pre-Construction Coordination


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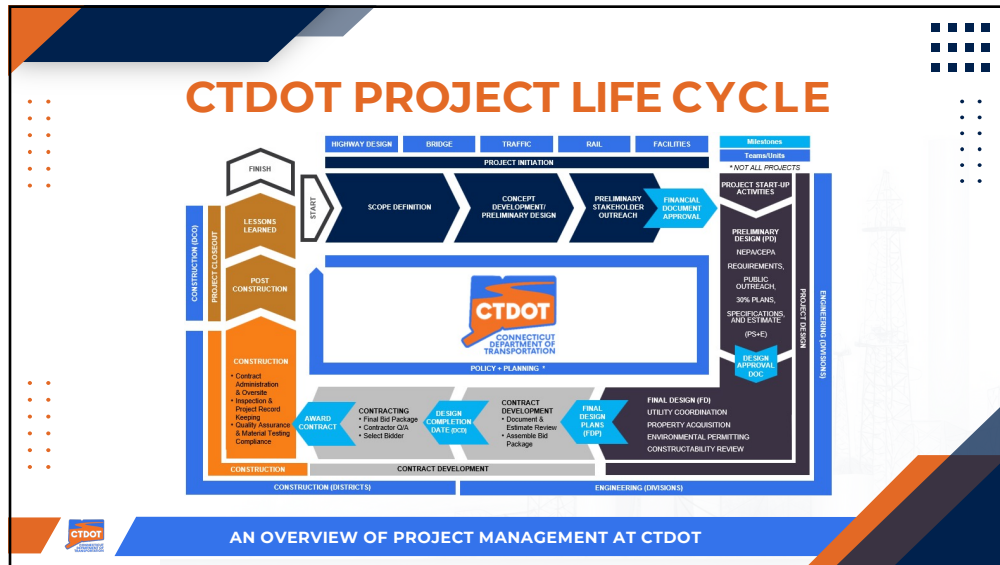


# CONSTRUCTION




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### Construction Phase

(Led by Construction District Office)

#### Construction Start-Up

- Begins with Pre-Construction Meeting with all key parties (contractor, district staff, design team, utilities, environmental reps, municipalities, and key stakeholders)
- Contract commences with shovel-in-ground upon **Notice to Proceed** which commences the calendar day time
- Contractor mobilizes on site and begins staging, setup, and initial work tasks
- Field inspection staff are assigned and oriented to the project

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## Construction Phase

(Led by Construction District Office)

**Project Oversight and Field Management**

- Daily Inspection & Documentation
  - Project managers and inspectors track contractor activities, materials, and conformance with plans/specs
- Monthly/Biweekly Progress Meetings
  - Led by CTDOT to review budget, schedule, safety, DBE/SBE compliance, and overall performance (QA/QC)
  - Standardized templates are used for consistency and accountability
- Measurement & Payment Tracking: Quantities verified against contract items to support contractor payments utilizing Construction Management System (CMS)



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## Construction Phase

(Led by Construction District Office, supported by Design Team as needed)

**Design Team Support**

- Respond to Requests for Information (RFIs) and Request for Change (RFCs) from the contractor
- Review and approve shop drawings, review drawings, submittals, and change proposals (RFCs)
- Issue field design clarifications or adjustments as needed (non-substantial changes)



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**Construction Phase**  
(Led by Construction District Office)

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**Issue Resolution and Coordination**

- Dispute Management: CTDOT PMs and inspectors manage issues via informal resolution or escalation protocols. Claims may be negotiated or elevated based on severity
- Stakeholder Coordination: Maintain communication with towns, utilities, railroads, and emergency services including events that generate major traffic generation. Adjust work zones and schedules to minimize community impact

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**Construction Phase**  
(Led by Construction District Office)

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**Environmental and Permit Compliance**

- Monitor and document compliance with NEPA commitments, stormwater permits, and mitigation measures, including preparation of weekly environmental compliance reports
- Ensure erosion/sediment controls, wetlands protections, and sensitive resource protections are followed

**Schedule and Risk Monitoring**

- Review two-week look-aheads and monthly baseline schedules
- Adjust schedules based on weather delays, change orders, or unforeseen conditions
- Identify critical path risks (e.g., utility relocation delays) and adjust plans as needed

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**Construction Phase**  
(Led by Construction District Office)

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**Ongoing Deliverables**

- Daily field reports, diaries, report of meetings, payment estimates, change orders, Commercial Useful Function (CUF) reviews, material testing, monitoring of DBE/SBE performance, payroll/labor wage check review
- Continuous communication with CTDOT leadership on risks, delays, and budget issues

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# PROJECT CLOSEOUT

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## Contract Completion

Led by: Construction District Staff  
Supported by various departments involved in the project

### Semi-Final Inspection and Punch List Development

- Conduct a comprehensive final walkthrough with CTDOT, the contractor, and key stakeholders
- Identify any remaining items to be completed, corrected, or repaired
- Prepare and track a punch list of outstanding work and set deadlines for resolution
- **Final Inspection conducted by project administrators – determines punch list has been completed, and the contractor is ready for relief responsibility**

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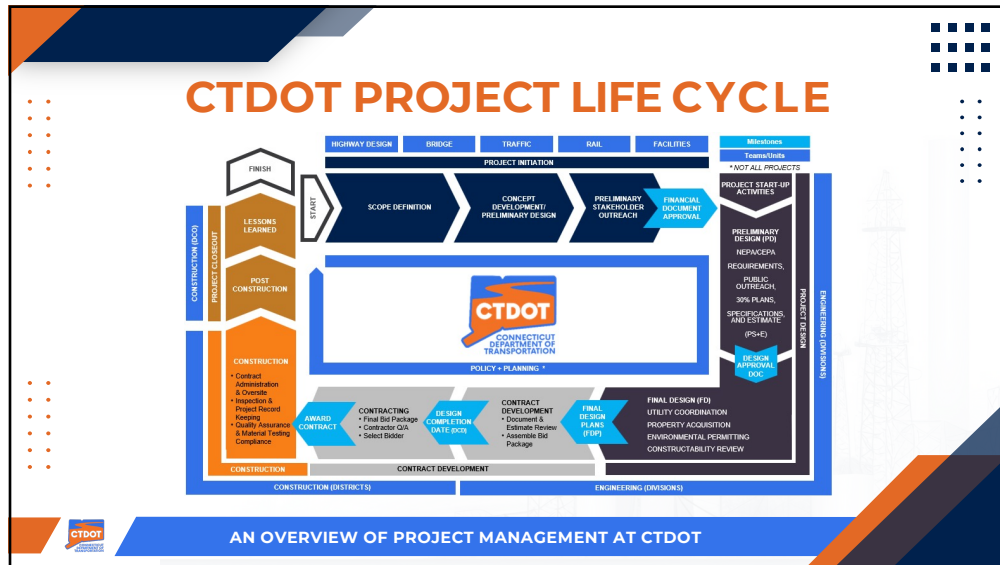
## Contract Completion

Led by: Construction District Staff  
Supported by various departments involved in the project

- HQ final review (audit of project documentation)
- Post-construction review (feedback from construction on quality of design and constructability)
- Contractor evaluations
- Final material certification
- Final change orders for quantity balance of items
- Verification of DBE/SBE goals
- Preparation of as-built documentation
- Addressing any pending claims, if applicable
- Ensuring final contractor payments are released, following proper procedures
- Obtaining the contractor's release of responsibility
- Conducting a lessons-learned session and transferring knowledge back to other team members at CTDOT

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## Time as a Core Resource

Time is one of the "Triple Constraints"	Irrecoverable Resource	Tied to Commitments & Accountability	Affects Funding Windows	Influences Public Perception
<p>Alongside scope and cost, time defines a project's success — any change to one affects the others.</p>	<p>Unlike budget or scope, once time is lost, it can't be recovered. Delays compound downstream impacts (e.g., permitting, funding cycles, seasonal work).</p>	<p>Project schedules drive agency commitments to stakeholders, municipalities, and federal partners.</p>	<p>Many CTDOT projects rely on specific fiscal year budgets, grant timelines, or capital programming windows.</p>	<p>Delays affect trust, traffic disruptions, and public confidence in CTDOT efficiency.</p>

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- Early delays often escalate to budget overruns and scope compression
- Proactive scheduling helps manage resource allocation, utility conflicts, and contractor availability

## Avoiding delays and scope creep


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# TYPE IN CHAT

How do you think **projects** can be improved?



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# WHAT'S **NEXT** FOR CTDOT?

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# WHAT'S NEXT FOR CTDOT

Fall 2025	An Overview of Project Management at CTDOT
Fall 2025	Design and Delivery of Construction Project Management Development Program Level I
Fall 2025	Design and Delivery of Engineering Project Management Development Program Level I
Fall 2025	Design of Construction and Engineering Project Management Development Programs Level II
2026	Delivery of Construction and Engineering Project Management Development Programs Level II

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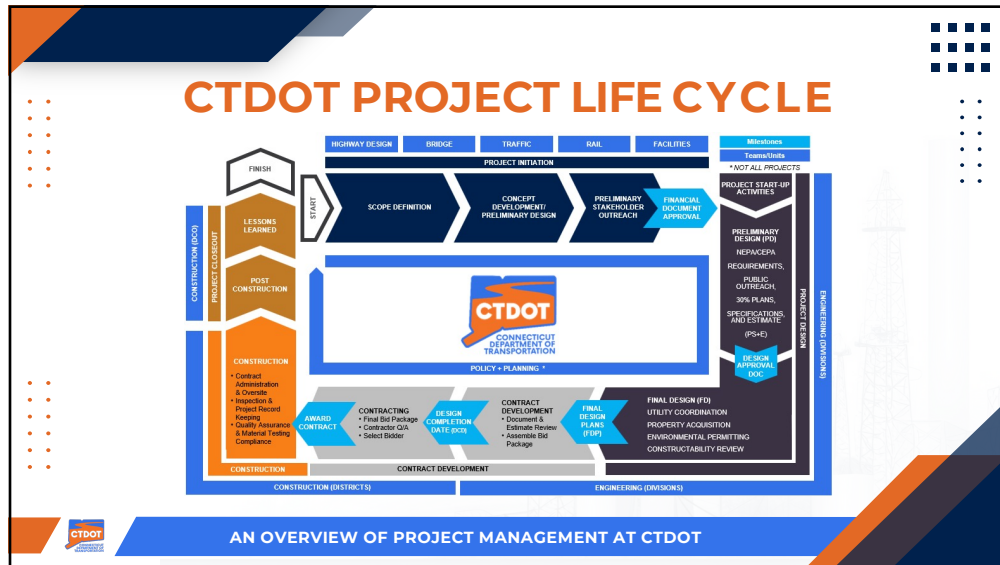
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“The P in PM is as much about *people management* as it is about *project management*.”

— Cornelius Fichtner —

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# QUESTIONS



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