



# **2016 CONSTRUCTION ACADEMY Errors and Omissions**

**Siddhartha Kamath, PE  
FDOT**



# Topics

**Error / Omission**

**Statute**

**Procedure**

**PSEE-RTM**





# Glossary

<b>E&amp;O</b>	<b>Error / Omission</b>
<b>CEI</b>	<b>Construction Engineering &amp; Inspection</b>
<b>CCEI</b>	<b>Consultant CEI</b>
<b>CPM</b>	<b>Construction Project Manager</b>
<b>CCTS</b>	<b>Construction Change Tracking System</b>
<b>DPM</b>	<b>Design Project Manager</b>
<b>EOR</b>	<b>Engineer of Record (Designer)</b>
<b>PSEE</b>	<b>Project Suite Enterprise Edition</b>
<b>RTM</b>	<b>Resolution Tracking Module of PSEE</b>

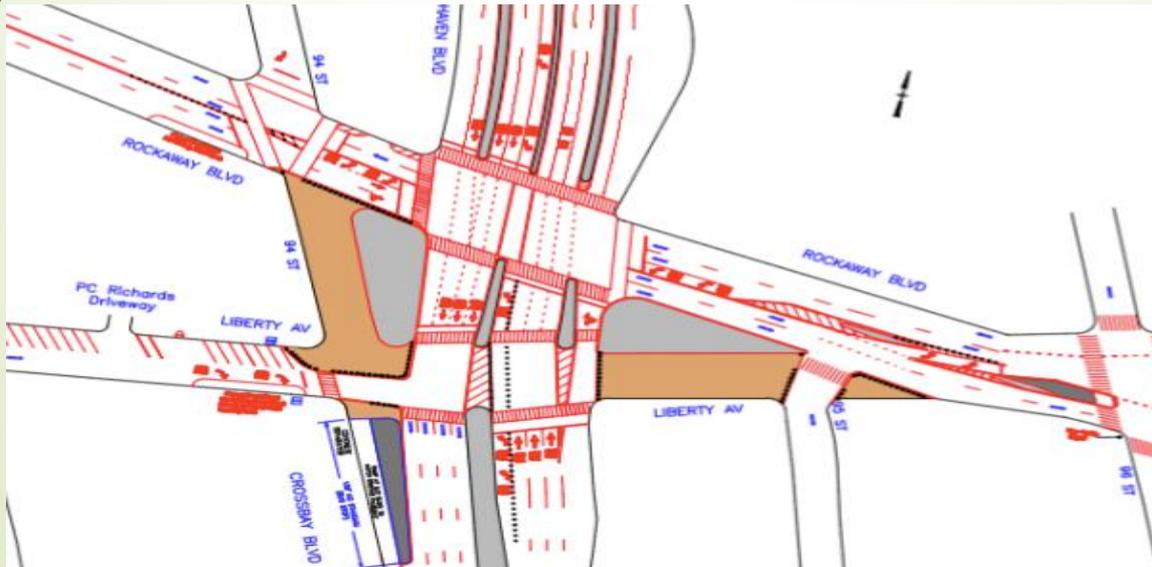


## **Error / Omission**

**The department employs professional consulting engineers to provide engineering services. While consultants are accountable for the technical accuracy and quality of their work, mistakes may occur that result in substandard work products, resulting in a claim against the consultant.**

# Design Error / Omission

Consultant-prepared construction plans and contract documents may contain errors or omissions which may result in cost and time overruns on a construction project.





# Design E&O

Consultant delivers constructible construction plans.

Plans may contain design E&O which may result in cost and time overruns on a construction project.

**They cannot become E&O issues until Construction or Contractor discovers them.**



# **Design E&O - CCEI Role**

**Consultant CEI (CCEI) must be timely in reporting a construction problem.**

**Failure of CCEI to do so may result in CCEI being held partially liable for Design Issue E&O Premium Cost.**



# CCEI E&O

**A breach of a CCEI contract on a construction project may result in Cost and time overruns.**





# Why is E&O important?

- **Statutory requirement**
  - **FHWA requires FDOT to pursue recovery of E&O-caused premium costs.**
  - **Lessons learned for FDOT**
- 



# Statutes

**337.015(3)...department shall vigorously pursue claims...**

- Design / Engineer of Record Consultant (EOR)**
- Construction Engineering and Inspection Consultant (CCEI)**



# Statutes of Limitations

## 95.11

Two subsections regarding statute of limitation periods may be applicable to claims for premium costs against a designer for professional malpractice, negligence, or breach of contract. Each section provides that the statute of limitations period “shall run from the time the cause of action/defect is discovered or should have been discovered with the exercise of due diligence”:

- (3)(a)(c) four years
- (4)(a) two years



# Procedure 375-020-010

## E&O Damages

➤ EOR

➤ CCEI



# Avoidable

- ▶ **Avoidable-1, EOR E&O**
  - ▶ Contractor notifies CEI
  - ▶ CEI initially assesses and advises CPM
  - ▶ CPM advises DPM
  - ▶ DPM with EOR input confirms E&O
  - ▶ DPM resolves
- ▶ **Avoidable-3, CEI E&O**
  - ▶ CPM with CCEI input confirms E&O
  - ▶ CPM resolves

# Premium Cost (CPAM)

Non-value adding

- (1) **Work delays or inefficiencies** - In this situation, the premium costs are the total delay/inefficiency damages paid to the Contractor.
- (2) **Rework** - The premium costs are the dollar amount of the original items of work that have to be removed and the costs to remove these items.
- (3) **Extra Work** - In this situation, the premium costs are computed as the net difference between the final agreed prices paid to the Contractor and what the cost would have been had the extra work been included in the original bid at letting.



# Work Delays or Inefficiencies

- **Delay**: Contractor discovers bust in drainage plans. Construction is delayed while waiting for design revision.
- **Inefficiency**: Designer prepares plans depicting drainage work, which contractor bids. Designer updates plans showing same work, but modified to accommodate an unforeseen condition. Contractor has to modify initial work for change.



# Rework

Work depicted in plans must be removed and reinstalled:

- ▶ While current construction is underway
- ▶ After construction completion



# Extra Work

- ▶ Plans depicted installing 1000 feet of new guardrail, but failed to show existing subsurface conditions sufficiently for contractor to anticipate coordination. Contractor incurred extra cost to adjust installation.

# E&O process (Design E&O)

Design E&O DOES NOT BEGIN UNTIL:

- Contractor reports problem to CEI (CCEI).
- CEI reports problem to CPM.
- CPM reports problem to DPM.
- DPM reports problem to EOR, seeking participation.
- **NOTE: CCEI's untimely reporting to CPM may justify CCEI sharing liability for Design E&O.**



# E&O process (CCEI E&O)

CCEI E&O begins when CPM discovers it.

- CPM must manage resolution.
- CPM must work with District E&O Liaison to track resolution in Resolution Tracking system.

# “Typical” Construction Day

- Contractor’s superintendent reports a “situation” uncovered in the field.
- Superintendent reports situation to CCEI, saying “the designer \_\_\_\_\_’d up.”
- CCEI confers with CPM and agrees with contractor, and begins Change Order (CO) process.
- Contractor and CCEI assess Premium Cost.
- CCEI processes CO into CCTS as “Avoidable 1 (Design Consultant)”

# “Typical” Construction Day

What is missing?

- DPM involvement
- EOR involvement

**WORK MUST CONTINUE.....**

- **DEPARTMENT WILL NOT EXPECT CONTRACTOR TO WAIT FOR DIRECTION.**
- **DPM and EOR must be apprised of issues and be involved in E&O assessment.**



# Communication

CPM/DPM communication for E&O is CRITICAL.

- Case 1: Construction Contract with only one Project – One DPM.
- Case 2: Construction Contract with multiple Projects: Possibly multiple DPMs



# PSEE-RTM ???

- RTM - Overview
  - RTM - Purpose
- 



# RTM - Overview

- **Module of PSEE**
  - **Current Resolution Tracking system**
- 



# RTM - Purpose

Track resolution of E&O Issues

- Avoidable 1 (EOR)
- Avoidable 3 (CCEI)
- Premium Cost > \$0.00



# What can improve process?

## Design E&O

- DPM and CPM must establish communication as early as possible.
- Per the procedure, upon discovery, DPM must be promptly advised.



# Recap

**Error / Omission**

**Statute**

**Procedure**

**PSEE-RTM**





# Questions?

Siddhartha Kamath, P.E.

Telephone: (850) 414-4343

Email: [siddhartha.kamath@dot.state.fl.us](mailto:siddhartha.kamath@dot.state.fl.us)

