



Presentation Outline



- ✓ Errors & Omissions Procedure
- √ Timeline of Events
- ✓ Examples from D6 and D4
- ✓ Best Practices

TRANSPORTATION SYMPOSIUM

2

What is Errors and Omissions?



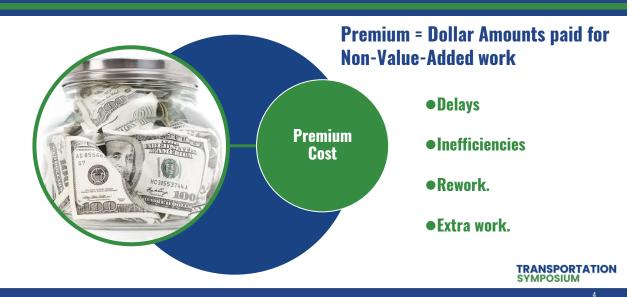
Errors and Omissions (E&O):

Acts of negligence committed by the EOR in the performance of engineering design service or creative work, and acts of negligence committed by CEI in the performance of construction engineering & inspection services.

TRANSPORTATION SYMPOSIUM

3

What is Premium Costs?



Л

Timeline of Events Discovery of Issue Develop and Implement **Payment Focus on** Solution Settlement processed in **Send Errors** finding **Assessment of** Agreement **Financial Services** and Omissions **Solutions** Responsibility Executed Letter to EOR **Consultants** to track **EOR hours Responds to** separately **Issue** is **FDOT** Closed **FDOT Receives Determination of** Final **Early Notification Payment Premium Cost Determination Email (Within 48 hrs.)** TRANSPORTATION SYMPOSIUM

5





Errors and Omission Codes

- ✓ 0 = Unavoidable
- ✓ 1 = Consult EOR
- ✓ 2 = FDOT EOR
- √ 3 = Consult CEI
- ✓ 4 = FDOT CEI
- ✓ 5 = 3rd Party

For each SA and WO, the **CPM** must determine the premium costs associated with resolving the project issue and perform an Entitlement Analysis **with DCE input**.

TRANSPORTATION SYMPOSIUM

8

Develop / Implement a Solution



- CEI, EOR, Design PM and Construction PM must work together to find a solution to the issue
- CEI negotiates additional time and cost required to implement solution
- CEI develops work order / supplemental agreement
 - ✓ Entitlement analysis is performed by CEI

TRANSPORTATION SYMPOSIUM

9

Error and Omission Letter to Consultant



If there is premium cost:

- ✓ Design Project Manager does an in-depth analysis to determine degree of responsibility / liability of the Consultant
- ✓ If the issue appears to be caused by an E&O, Design Project Manager submits an official Error and Omission Notification Letter to consultant

TRANSPORTATION SYMPOSIUM

10

Determination of Responsibility

The EOR must respond to the E&O Notification Letter stating their position

Provide supporting documentation

CEI, Construction PM, Design PM and EOR should meet to gain a better understanding of their respective position



Design PM determines degree of responsibility

If determined that error was not caused by EOR, Design PM sends EOR a Closeout Letter

TRANSPORTATION SYMPOSIUM

11

11

Settlement Agreement and Recovery

If EOR accepts responsibility, negotiations between the Department and EOR begin.

Settlement Agreement is prepared

Premium costs are recovered via payment or services in kind



TRANSPORTATION SYMPOSIUM

12

Difference between Service in Kind and Payment

Payment



Check is received for the amount described in the settlement agreement

Service in Kind



Services provided by a consultant, in lieu of money, as restitution for the premium costs resulting from an errors or omission issue

TRANSPORTATION SYMPOSIUM

13

13

District 6 examples

TRANSPORTATION SYMPOSIUM

Case 1 – Rework with Premium Cost



Rework with premium cost

Work required to readjust proposed Light Pole, Service disconnect pole and Traffic controller cabinet. (2 weeks)

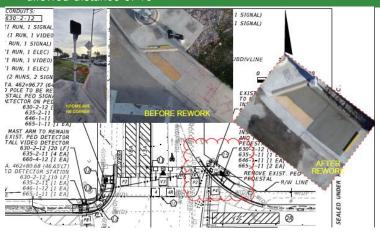
TRANSPORTATION SYMPOSIUM

15

15

Case 2 - Rework with no premium cost

Curb ramp re-work was required to adjust recently installed pedestrian push buttons to meet the maximum allowed distance of 10"



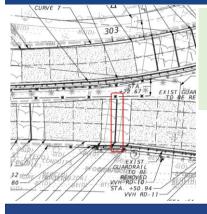




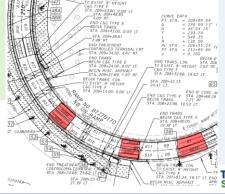
16

Case 3 - Rework

Description: The slabs shown on the right side were poured without a transversal joint which resulted in transversal cracks at approximately 10 LF (middle point)



EOR 1. Existing concrete slabs with a total length of 20 LF were divided in two new slabs with a new transversal joint.



EOR 2. Proposed a new slab of concrete pavement with a length of 20 LF and no transversal joint shown.

Joints are required every 10ft as per standards

TRANSPORTATION SYMPOSIUM

17

17

Case 3 - Rework

Description: The slabs shown on the left side were poured without a transversal joint which resulted in transversal cracks at approximately 10 LF (middle point)





18

Lessons Learned

Use of steel plate at the joints in high speed facility – hazardous condition if not properly installed.

In high-speed facilities, a specialty engineer should design the temporary plates. The design plans need to add a note, requiring the contractor to have a specialty engineer to design the plates.

- ✓ Solution: Addition of Notes
- ✓ Solution: Special Design for the temp plates





TRANSPORTATION SYMPOSIUM

19

D4 Good Practice

- ✓ Discuss E&O Procedure At Consultant Management PM Monthly meeting and Operation PA monthly Meeting
- ✓ Assign Deborah Ihsan, Ass. District Construction Engineer, as District Construction E&O Liaison who help us tremendously to determine if the premium cost is E&O premium cost
- ✓ Make E&O Procedure as one item discuss at every Design/Construction Handoff meeting
- ✓ Discuss with DPM before enter the code 1 to Contract Information and Monitoring System (CIMS)

TRANSPORTATION SYMPOSIUM

20

District 4 examples

TRANSPORTATION SYMPOSIUM

21

21

Case 1

No Premium Cost Error and Omission

Initial Field Observation:

EOR was notified immediately.

While the contractor was excavating and installing pipe between two drainage structures, several unidentified utilities conflicts with the proposed pipe run. 6" water line and 2" water line that run perpendicular to the proposed drainage pipe.



TRANSPORTATION SYMPOSIUM

2

No Premium Cost Error and Omission



Resolution:

- ✓ Design team proposed lowering the pipe inverts in conflict to bypass the water service line obstruction. No premium cost associated with this E&O.
- ✓ EOR should not bill FDOT Post Design Services for the revision.

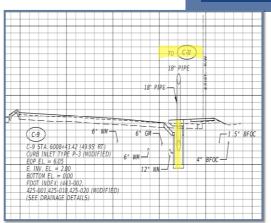
TRANSPORTATION SYMPOSIUM

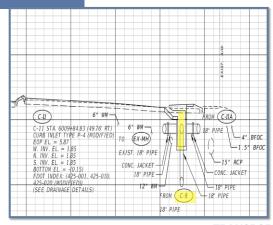
00

23

Case 1

Original Design

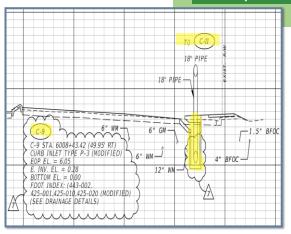


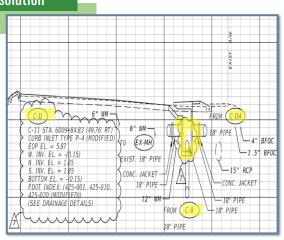


TRANSPORTATION SYMPOSIUM

24







TRANSPORTATION SYMPOSIUM

20

25

Case 2

Error and Omission caused by The Third Party

Design Phase:

During the design phase the project scope called for two (2) new Tri-Rail pylon signs to be installed at two (2) different locations. Coordination between the design team and SFRTA was initiated and both parties agreed that the pylon was going to be solar/battery powered (railroad entity did not approve the use of any proprietary product). Design team did their due diligence with several manufacturers, and a design was finalized with all the specs provided by the manufacturer.

TRANSPORTATION SYMPOSIUM

26

Error and Omission caused by The Third Party

During Construction:

It was noted that the hardware available would not be able to power the pylon as originally intended.

Resolution:

Coordination between the design team, SFRTA, the pylon manufacturer and the contractor was initiated which resulted in the use of a metered service instead of the use of a solar assembly system. The new provided meter would power the pylons as part of this project and SFRTA will pay the monthly power costs.

TRANSPORTATION SYMPOSIUM

-

27

Case 2

Original Design



Proposed Resolution



TRANSPORTATION SYMPOSIUM

Multiple Error and Omission in One Project

The construction time of the project was about four years. There are total 15 E&O issues identified in the project. Twelve issues were settled with one Settlement Agreement and the rest issues are in litigation status. Tolling Agreement was used on this project.

When the construction time is long each E&O issue should be settled as soon as possible to meeting the 2 year statute requirement (DPM was changed 3 times).

TRANSPORTATION SYMPOSIUM

29

Case 3

Multiple Error and Omission in One Project

Lesson #1 License Agreement Right of Way (ROW) parcels:

100s Fee Simple Parcels

700s Temporary Construction Easement

800s Perpetual Easement

900s License Agreement

ROW issued ROW Certificate which did not mean all 900 parcel are completed.

License agreement can be voided at anytime by the property owner even they signed it already.

TRANSPORTATION SYMPOSIUM

30

Multiple Error and Omission in One Project

EOR should verify all License Agreement before biddability submittal and revised the plans accordingly if license agreement is not approved by the property owner.

There were 36 license agreements in this project.

The plans were revised during construction to avoid conflict with private properties.

These revisions created additional work and delays for construction.

TRANSPORTATION SYMPOSIUM

31

Case 3

Multiple Error and Omission in One Project

Lesson #2 Pond #1 constructed did not meet permit requirement

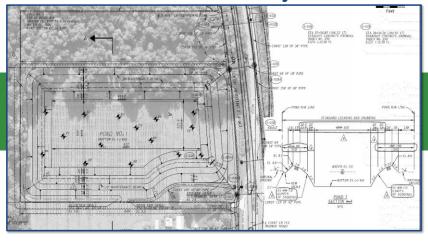
There are 6 ponds constructed within project limits. Pond 3&4 combined as one pond. Total 5 ponds were constructed.

CEI discover the problem after pond #1 was construct which avoid mistakes on the other 4 ponds.

TRANSPORTATION SYMPOSIUM

32

Multiple Error and Omission in One Project



TRANSPORTATION SYMPOSIUM

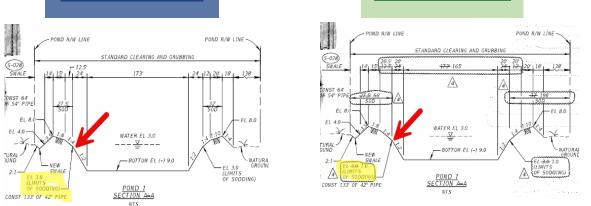
33

33

Case

Original Design

Proposed Resolution



Elevation should be 2' below water elevation

TRANSPORTATION SYMPOSIUM

Multiple Error and Omission in One Project

Lesson #3 Constructability Issue

No Access to pond 3&4 Overall view of the pond location in relation to the project.



TRANSPORTATION

3

35

Case 3

Multiple Error and Omission in One Project

Magnolia Ave. as the only adjacent County owned roadway to access the pond site which was not feasible. And the street view looking north towards the pond site.



TRANSPORTATION

3

Multiple Error and Omission in One Project



TRANSPORTATION SYMPOSIUM

37

37

Case 3

Multiple Error and Omission in One Project

Contractor leased property to provide access to the pond site.



TRANSPORTATION SYMPOSIUM

3

Contact Us



Ivette Funtanellas, P.E.



305-470-5270



ivette.funtanellas@dot.state.fl.us

Bing Wang, P.E.



954-777-4193



bing.wang@dot.state.fl.us

TRANSPORTATION SYMPOSIUM

39





Transportation Symposium

