TSMO Plan Improvement and Future Needs

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Reminder of what TSMO is…

- Traffic Operations Signal Work plus
- Intelligent Transportation Systems
- Includes following
  - Signal Timing
  - Communication
  - Devices – CCTV, DMS, etc
  - Connected Vehicle

Current Issues we are seeing

- Big upswing in number of fiber hits
- Signal Communications not being maintained on major corridors
- Plans being developed based on as-builts

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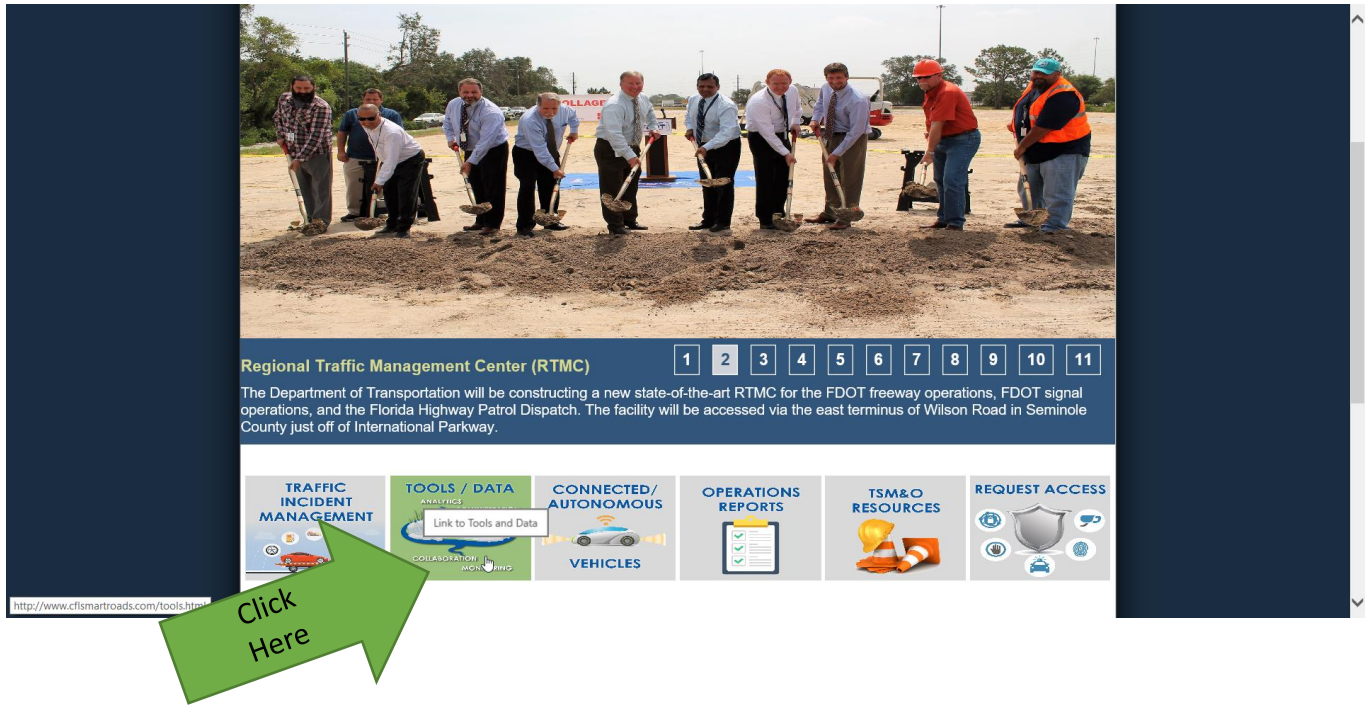
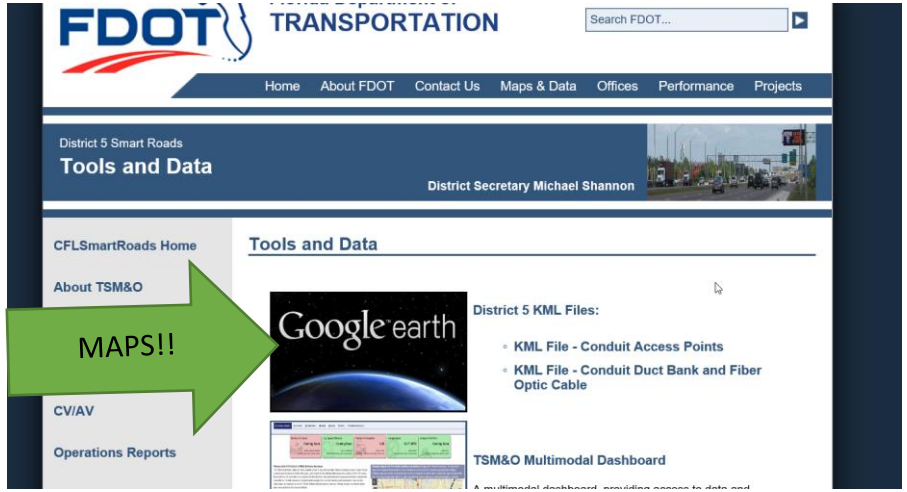
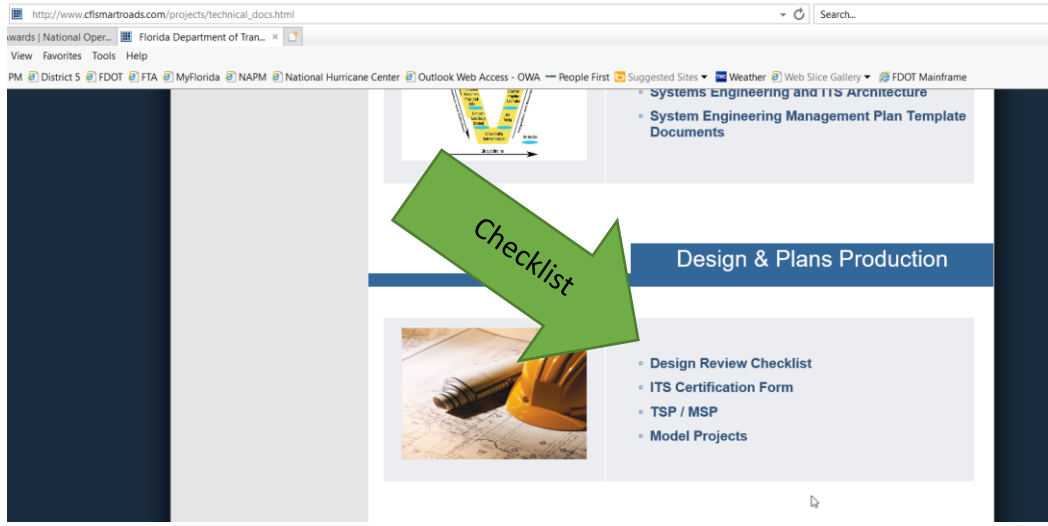
Please use the tools!!

- CFLSmartRoads.com
  - TSMO Checklist
  - Fiber Location







Needs associated with Fiber

- We are asking you all to certify
- Check the KML file
- If you have underground work, especially trenching, soft digs may be needed
- ***Cap downtime*** – This is not in spec and is project specific

CONSULTANT LETTERHEAD

DATE: _____

TO: **FDOT Project Manager**

FROM: _____, Engineer of Record

COPY TO: District Construction Scheduling Specialist
Intelligent Transportation System (ITS) Manager

SUBJECT: Verification of Communication and/or ITS Cables
Financial Project ID: _____
Federal ID Number: _____
County: _____
SR. No.: _____
Project Limits: _____

Verification of Communication Cables, Wireless Communication, and ITS Devices:

I certify that I coordinated with the following personnel/agency to develop a plan of action to handle communication cables, wireless communication, or ITS devices as part of the project.

1.
2.
3.

Action Plan:

_____ No communication cables, wireless communication, or ITS devices were identified within the limits of the projects.

_____ Communication cables, wireless communication, or ITS devices were identified within the limits of the project. They will be handled as follows:

1.
2.
3.

Submitted by:

_____
Signature, Engineer of Record

_____
Print Name of Engineer of Record

_____
Print Name of Consultant Firm

Concurred by:

_____
District Traffic Operations Engineer

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Signals on major corridors

- Communication is needed continuously on all major corridors
- Timings during construction require changes
- Need monitoring and ATMS access
- ***<u>Cap downtime</u>*** – This is not in spec and is project specific

Networking Needs

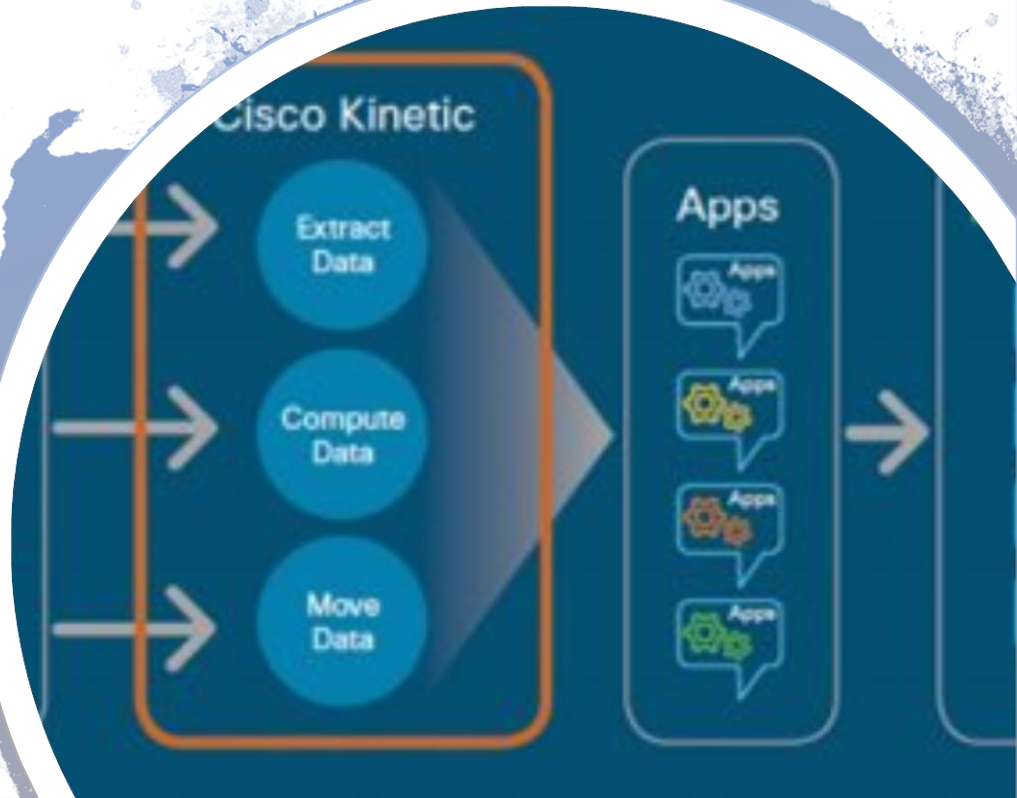
- ***<u>DO NOT TRUST AS-BUILTS</u>***
- Splicing changes continuously
- Need field verification of communication path
- *<u>Coordination with FDOT Network Staff</u>*
  - Provides an understanding of logical not physical connections
  - This does not replace engineering

Preview of future needs

- A world of acronyms
  - ATSPM – Automated Traffic Signal Performance Metrics
  - CV – Connected Vehicle
  - IMC – Intersection Movement Counts
- Traffic Signals are getting more complex
  - Standard wiring to support ATSPM
  - Data Gathering enhancing 611-2 requirements to support ATSPM
  - Stop bar detection specifications that supports IMC
  - Configuration of stop bar detection to support IMC
  - Smart Signals = ATSPM + IMC

Connected Vehicle Implementation

- RSU – Roadside Unit
- Hardened Field Server – Processing Unit
- LiDAR, WiFi, and other IOT devices
- Specifications for application
- Interoperability issues
- Software issues



When, why, and how

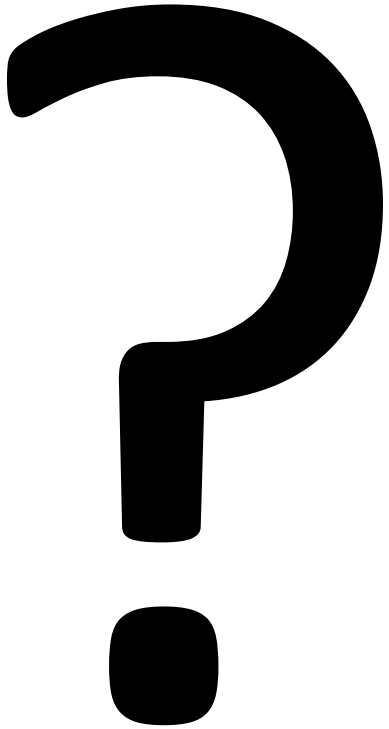
When

- In scopes starting 2019 in D5
- Statewide plan is 2020

Why

- 70+% reduction in crashes
- Improved data for investments

How

- Via most construction projects, coming to a RRR and widening near you

Questions?