



TxDOT ROW UTILITY WEEK

THE POWER OF YOU - Delivering Right-Of-Way Solutions to Texas

Digital Delivery Program

Update

Day 3 – 10:40am-11:10am

12/14/2023





Jacob is the Director of Digital Delivery for TxDOT. His transportation career began in 2004 in the San Angelo Area Office and has taken him through the private sector, TxDOT's Right of Way Division and Austin District Central Design to his current position in Digital Delivery. Jacob is currently leading TxDOT's Digital Delivery initiative as TxDOT moves towards using 3D models in construction. He has been engaged in several national studies and strategic initiatives to help advance Digital Delivery in Texas including work with the Transportation Research Board, AASHTO's Joint Technical Committee on Electronic Engineering Standards, FHWA Pooled Funds, and serving on the Board of Directors for the Highway Engineering Exchange Program. Jacob has a bachelor's in Applied Physics from Angelo State University and a master's in Engineering Management from The George Washington University.



HELP #EndTheStreakTX

End the streak of daily deaths on Texas roadways.

TxDOT.gov (Keyword: #EndTheStreakTX)



#EndTheStreakTX Toolkit



Table of contents



1	Digital Delivery Program Overview	4
2	Digital Delivery Program Roadmap	5 - 6
3	Pilot Project Update	7 - 9
4	Communication Initiatives	10
5	Q&A	11



Replacing Traditional Plans with Digital Design Models

Benefits

- ✓ Designing every square inch
- ✓ Model-based quantities
- ✓ Ability to tie bid items to features
- ✓ Less change orders and RFIs
- ✓ Extraction of assets





START: Geopak Utilization

2018: OpenRoads Utilization

2019: Posting XS

2022: OpenRoads Rollout

Formation of DDP Working Groups

Ongoing Change Management

2024:

- Models for Letting
- Model Development Standards
- Implementation Plan
- Digital Construction Exploration
- Workforce Transition Strategy

SPRING 2024:

- 1st Fully Digital Pilot Project



2023:

- Software Investigation
- Model Review SOP
- Asset Management Digital Twin Exploration
- Strategic Plan

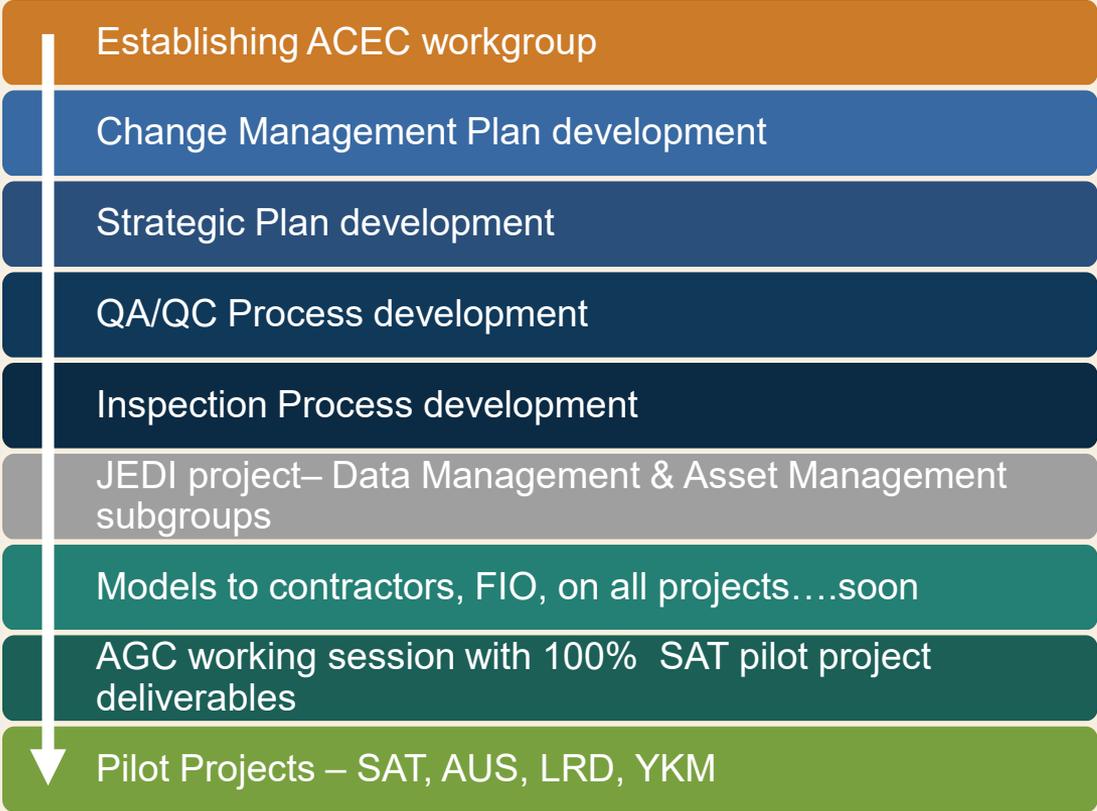


Additional Pilot Projects



Statewide Policy for Digital Delivery of Applicable Projects

Ongoing Change Management





San Antonio District

- FM 1977 @ border of SAT & AUS
- Approx. 0.30 mile
- Full depth reconstruction, adding shoulders
- Schedule to let 3/24
- Model will be the legal document
- All estimate quantities pulled from model
- Will be piloting processes for design, letting, inspection, operations, as-built, etc.

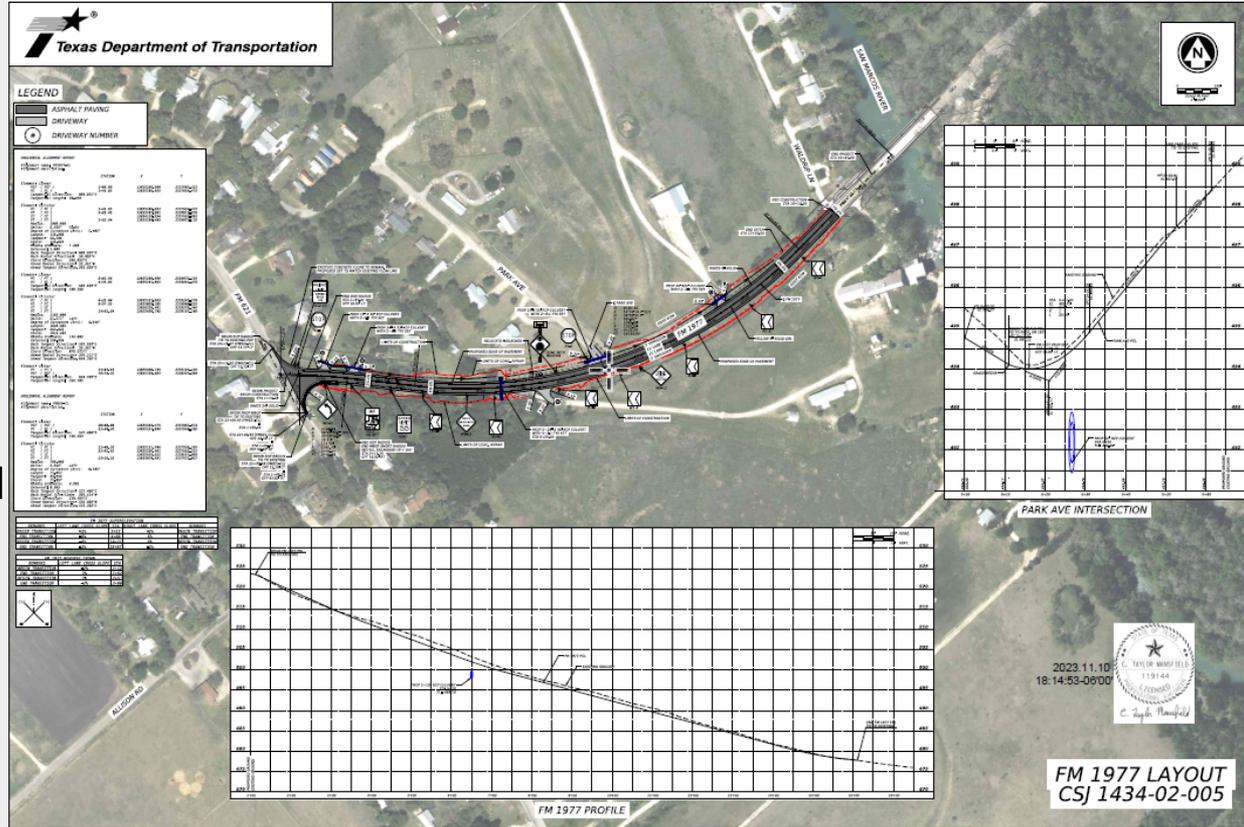


100% Deliverables – FM 1977 Pilot Project

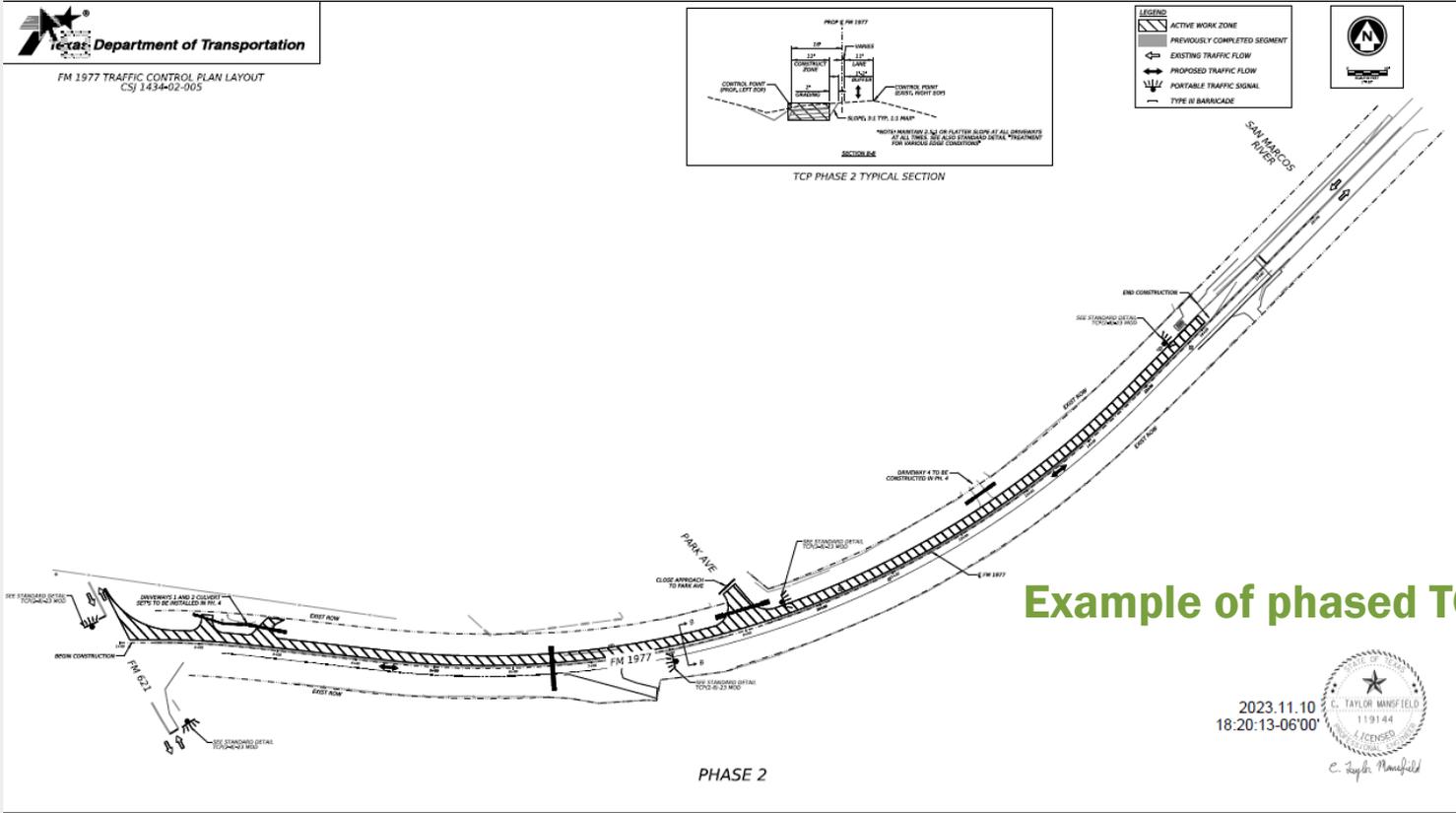


Project Deliverables

- Traditional sheets (Title Sheet, Index of Sheets, Typical Sections, Drainage, etc.)
- Roll Plots (P&P, Phased TCP, Removal, SW3P)
- Surfaces (subgrade, top of surface) in dgn, LandXML, and ifc formats
- All dgn and dgn inventory list



100% Deliverables – FM 1977 Pilot Project



Example of phased TCP roll plot



Communication Initiatives



TxDOT Digital Delivery Website

- Roadmap
- FAQs & Glossary of Terms
- General Training Material
- Contact

Digital Delivery Roadshow

- Annual Program Updates
- Face-to-Face Presentations

Newsletter

- Pilot Project Updates
- Event Announcements

Conferences & Trainings





Questions?



Thank You!