DRIVING THE CIVIL ENGINEERING INDUSTRY FORWARD WITH GIS

GI Council Meeting – October 2, 2020

MaKyla Tipken, Kyndra Spencer,
& Craig Moody

Poe & Associates, Inc.
Consulting Engineers

Poe & Associates, Inc.

- Professional Engineering Services since 1967
  - Oklahoma City & Tulsa
  - 70 Employees Company-Wide
- Services
  - Transportation
  - Public Utilities
  - Program Management
  - Construction Management
  - Survey
  - GIS & Mapping

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Poe & Associates, Inc.

- Craig Moody
  - 31 Years of Experience
    - Transportation Planning
    - Roadway Design
    - Public Involvement
  - GI Council (2013-2016)

- Makyla Tipken, GISP, CFM
  - 18 Years of Experience
    - Transportation
    - GIS

- Kyndra Spencer
  - FAA Part 107 Certified Drone Pilot
  - GIS

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Driving Forward – Program Overview

- Announced October 29, 2015 by Governor Fallin
- Six Corridors
  - Improve Safety
  - Modernize Roadways & Facilities
  - Relieve Congestion on ODOT's System
- Construction Began in 2016 & is Expected to be Completed by the End of 2021
- Program Manager: Poe & Associates, Inc.
  - Contracted with 23 sub-consultants to Deliver the Program

DRIVING FORWARD
INVESTING IN OKLAHOMA'S FUTURE

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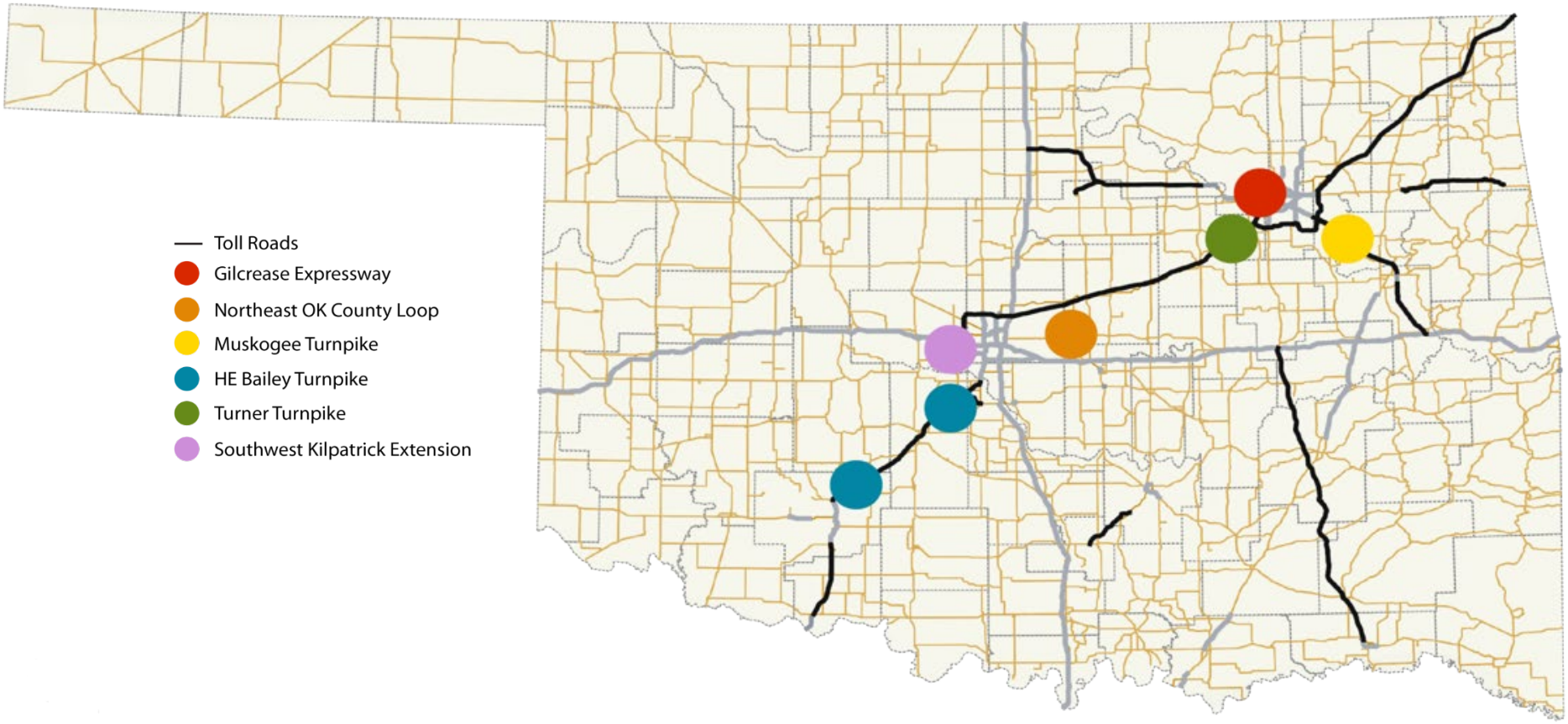
Driving Forward – Program Overview



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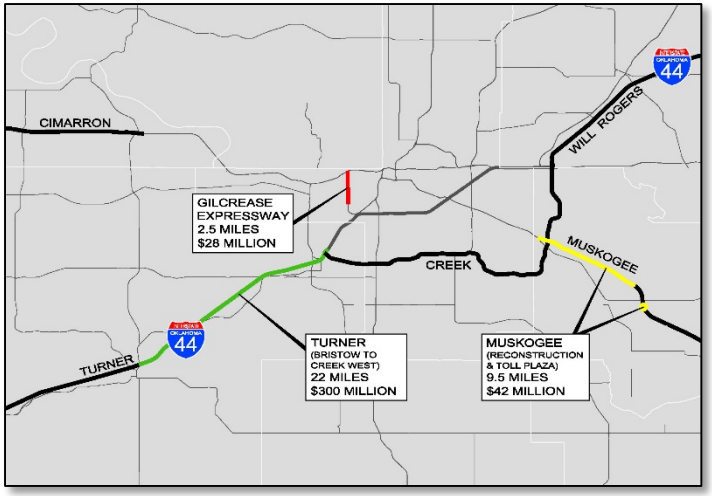
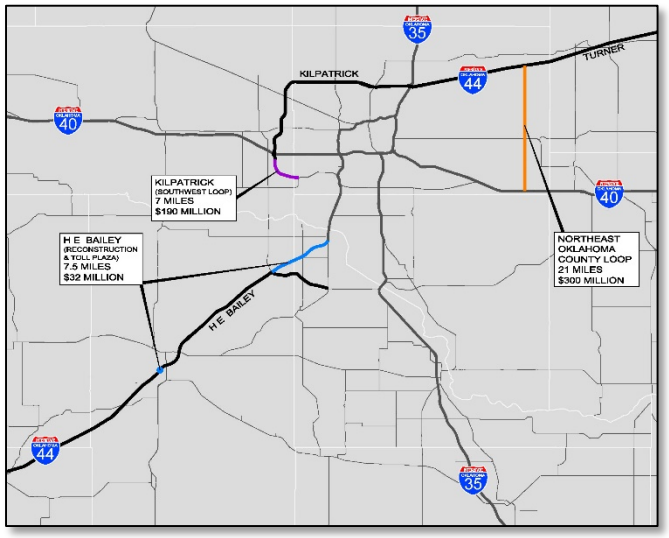
Driving Forward – GIS Background

- Four Corridor Focus
  - Kickapoo Turnpike
  - SW John Kilpatrick Turnpike
  - Turner Turnpike
  - Gilcrease Expressway



- Concurrent Timelines
  - Design
  - Right-of-Way Acquisition
  - Utility Relocations
  - Construction



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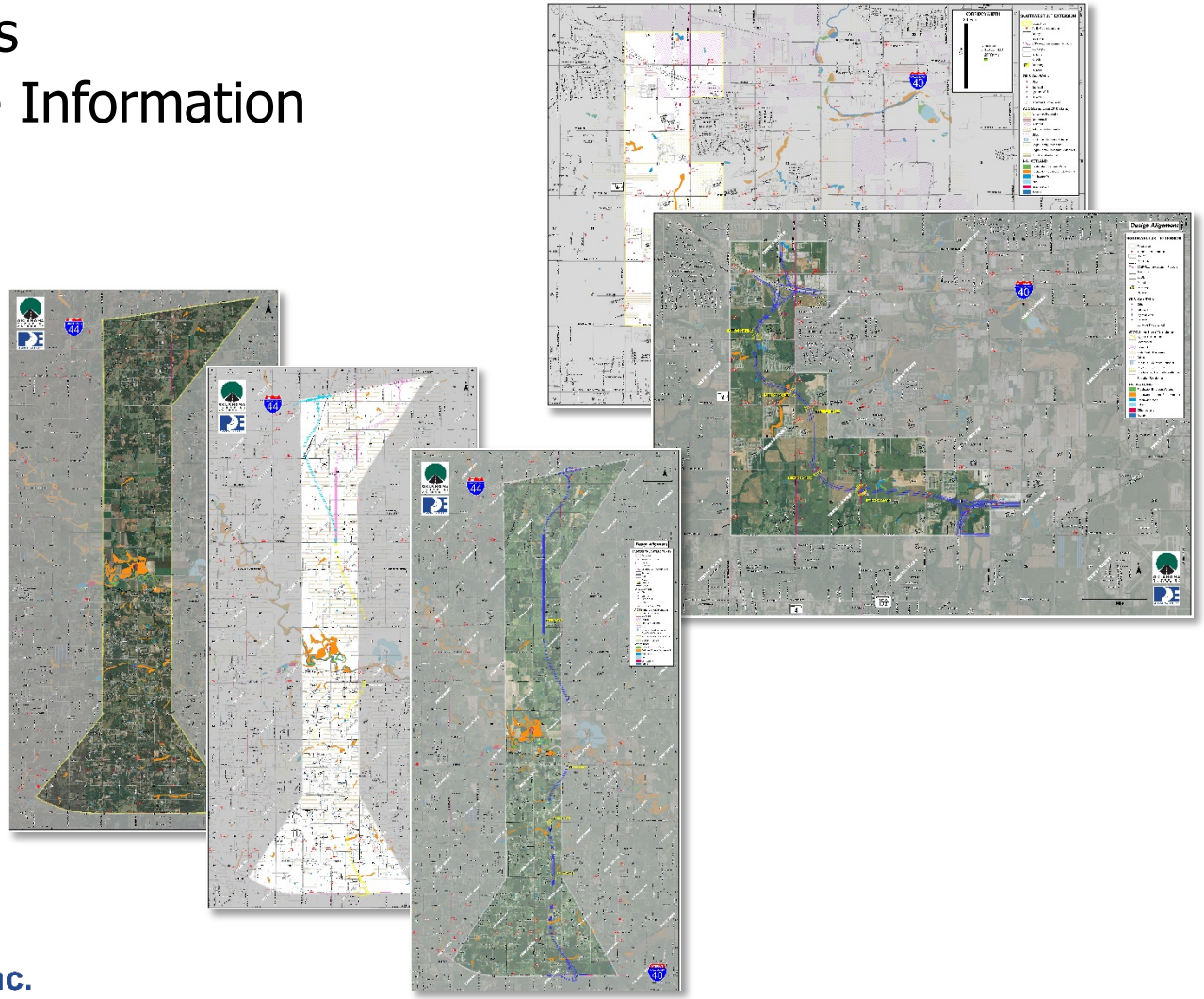
Driving Forward – GIS Beginnings

- Design Meetings
- Reconnaissance Information
  - Sections
  - Counties
  - Cities
  - Highways
  - Roads
  - Railroads
  - Tribal Lands
  - Wetlands
  - Soils
  - AADT
  - Collison



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Driving Forward – GIS Beginnings

- Public Meetings
  - Exhibits
  - Roll-outs
  - KMZ files

girl scouts western oklahoma

HOBBY LOBBY

- Stakeholder Coordination
  - Local & Regional Entities
  - Neighborhood Associations
  - Key Businesses

OG&E

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Right-of-Way Acquisition

- Provided with…
  - Assessor Information
  - Design Information
- Tasked with…
  - Developing Acquisition Tracking Process
  - Providing Timely Deliverables

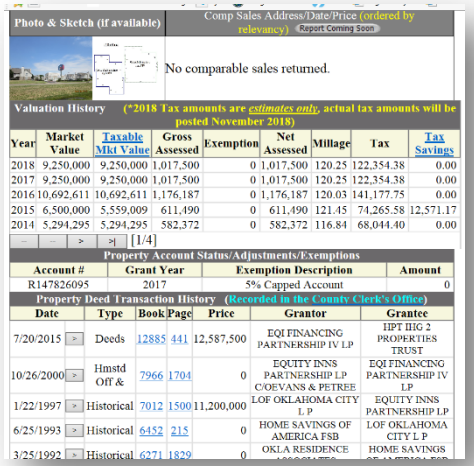


Photo & Sketch (if available)	Comp Sales Address/Date/Price (ordered by relevancy) Report Coming Soon
	No comparable sales returned.

Valuation History (*2018 Tax amounts are estimates only, actual tax amounts will be posted November 2018)

Year	Market Value	Taxable Mkt Value	Gross Assessed	Exemption	Net Assessed	Millage	Tax	Tax Savings
2018	9,250,000	9,250,000	1,017,500	0	1,017,500	120.25	122,354.38	0.00
2017	9,250,000	9,250,000	1,017,500	0	1,017,500	120.25	122,354.38	0.00
2016	10,692,611	10,692,611	1,176,187	0	1,176,187	120.03	141,177.75	0.00
2015	6,500,000	5,559,009	611,490	0	611,490	121.45	74,265.58	12,571.17
2014	5,294,295	5,294,295	582,372	0	582,372	116.84	68,044.40	0.00

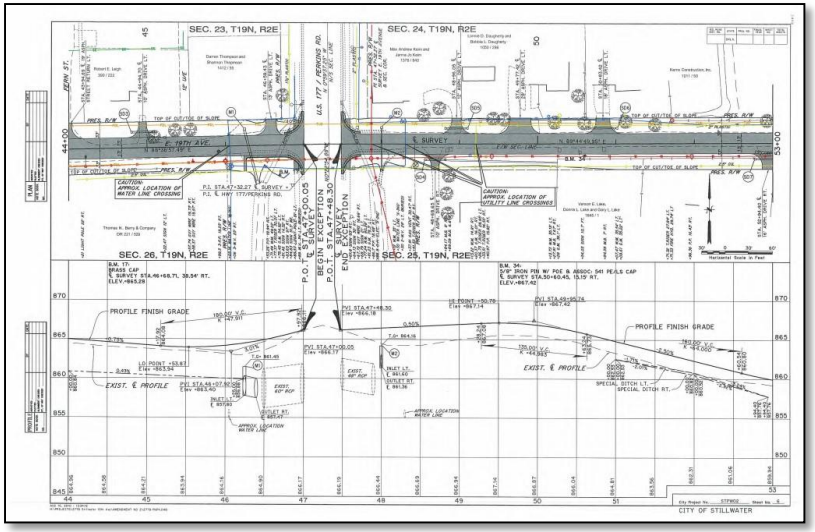
[1/4]

Property Account Status/Adjustments/Exemptions

Account #	Grant Year	Exemption Description	Amount
R147826095	2017	5% Capped Account	0

Property Deed Transaction History (Recorded in the County Clerk's Office)

Date	Type	Book	Page	Price	Grantor	Grantee
7/20/2015	Deeds	12885	441	12,587,500	EQI FINANCING PARTNERSHIP IV LP	IIPT IHG 2 PROPERTIES TRUST
10/26/2000	Hmstd Off &	7966	1704	0	EQUITY INNS PARTNERSHIP LP C/OEVANS & PETREE	EQI FINANCING PARTNERSHIP IV LP
1/22/1997	Historical	7012	1500	11,200,000	LOF OKLAHOMA CITY L P	EQUITY INNS PARTNERSHIP LP
6/25/1993	Historical	6452	215	0	HOME SAVINGS OF AMERICA FSB	LOF OKLAHOMA CITY L P
3/25/1992	Historical	6271	1829	0	OKLA RESIDENCE	HOME SAVINGS



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Right-of-Way Acquisition

- Spreadsheets
- Shapefiles
- Maps
- KMZ files

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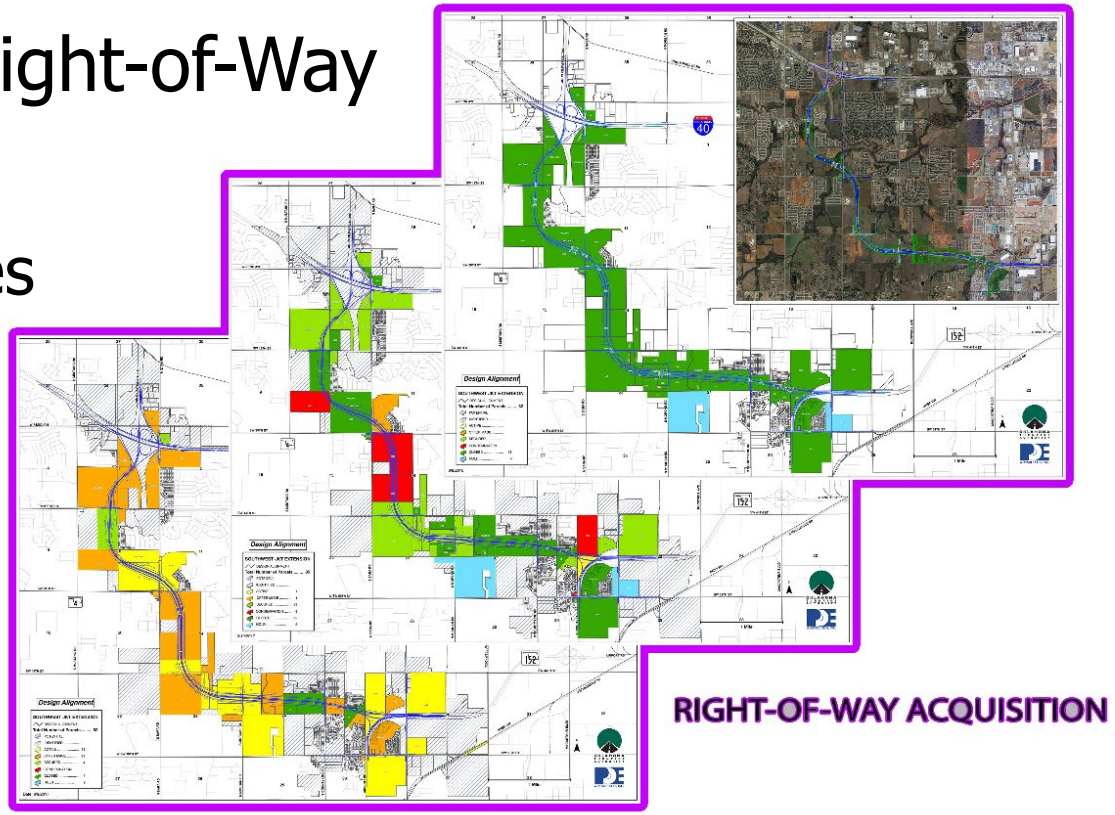
Right-of-Way Acquisition

- 4 Corridors
- 5 Acquisition Teams
- 1,000+ Parcels of Right-of-Way
- Bi-weekly Updates
  - Weekly Cost Updates



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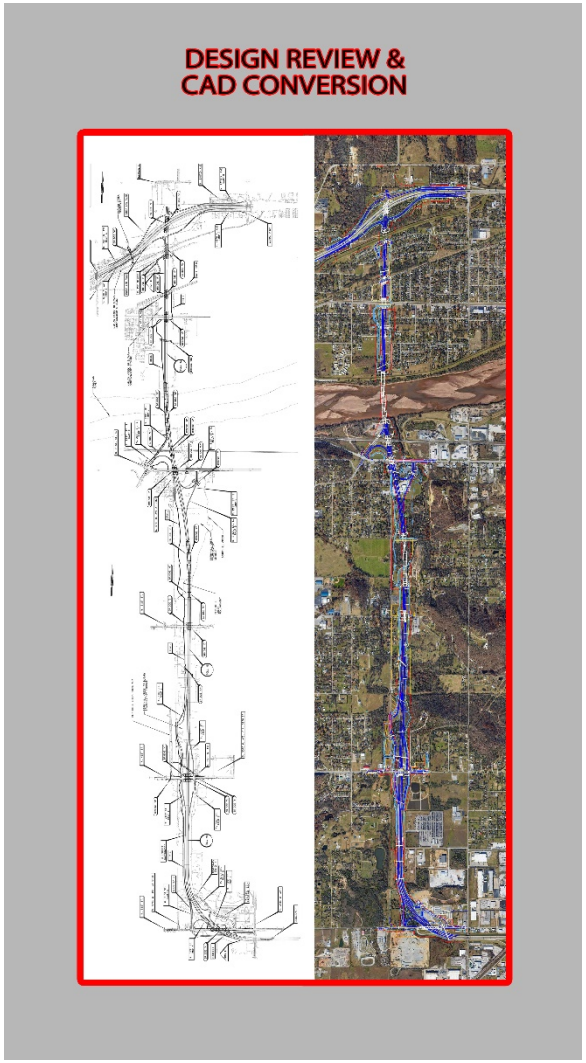
Design Conversion

- 12 Different Design Firms
  - Over 30 Design Projects
- All Using Unique CAD Standards
  - DGN & DWG formats
- 5 Coordinate Systems
  - State Plane North
  - Modified State Plane

- Converted All Projects to GIS
  - Uniform Layering/Organization
  - Standard Coordinate System
  - Design Submission Intervals



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Utility Coordination

- One Utility Coordinator
  - Singular Point of Contact
  - Utilities per Corridor
- Coordinate Right-of-Entry
  - Acquisition
  - Relocations
  - Demo

let order					2-May-18							EOC Utility Update											
10/11/17	1	Olsson	I5	oge	cox					atl			Kindermorgan		CREC	enable	sprint/t-m	New Dominion	15-Oct	Tetra Tech	partial work order issued		
12/14/17	2	EST	B1	oge						atl			Kinder morgan			enable			13-Sep	Tetra Tech	full work order issued		
1/11/18	3	EST	G1							atl					CREC				13-Sep	Tetra Tech	in OTA		
1/11/18	3	Olsson	G3	oge								DCPN/SL	Kinder morgan	Pains	CREC	enable			13-Sep	Tetra Tech	special		
2/1/18	4	VAC/EC	B6	oge															NA	Benchmark	In progress by Utility Coordinator		
2/8/18	5	CEC	B5	oge	cox	dobson		CEC											13-Sep	Benchmark	Work started		
3/1/18	6	VAC	G2	oge			ong				onwk/ngl		Kinder morgan			enable		Hannah Gathering	5-Nov	Garver	Utility clear		
3/1/18	6	EST	G2	oge									Kinder morgan			enable			5-Nov	Garver			
4/5/18	7	CEC	G1		cox	dobson													28-Nov	Benchmark			
4/5/18	7	VAC/EC	G1	oge	cox	dobson					onwk/ngl						smartfin	onwk/ngl	28-Nov	Benchmark			
4/5/18	7	VAC	G1	oge															28-Nov	Benchmark			
4/12/18	8	Olsson	B4	oge						atl		DCPN/SL		Pains	CREC	enable			31-Mar-19	Tetra Tech			
5/3/18	9	EST	B6												CREC				15-Jan-19	Tetra Tech			
5/1/18	10	VAC	I2	oge	cox		ong			atl								Hannah Water		CEC			
6/7/18	11	CEC	I1	oge	cox	dobson		CEC						Pains			t	OGAN		Benchmark			
7/12/18	12	VAC/EC	B2	oge	cox	dobson	ong			atl	onwk/ngl							new wind		CEC			
7/17/18	13	VAC	B3	oge	cox					atl			Kinder morgan			enable		Chester Oxy		Garver			
8/2/18	14	VAC	B7	oge						atl										CEC			

Onwk-ngl Waiting on ROE for 2403.

Energy Transfer 2441 Work Order pending. Affects I1

ROE good. Will stay in exst easement.

CREC 2445 OTA approved/PWO issued. Affects I3, G3.
AT&T 2404 OTA approved/WO pending. Affects B1.
AT&T 2402 OTA approved/WO pending. Affects B2.

Need 522 and 511 on G3.
Need 425, for B1.
Need 228, 236, 237, 240, 241, 232

ONG 2403 OTA approved/WO pending. Affects I2, G2.

Need 65, 334, 336 on I2. Need 340 on G2.

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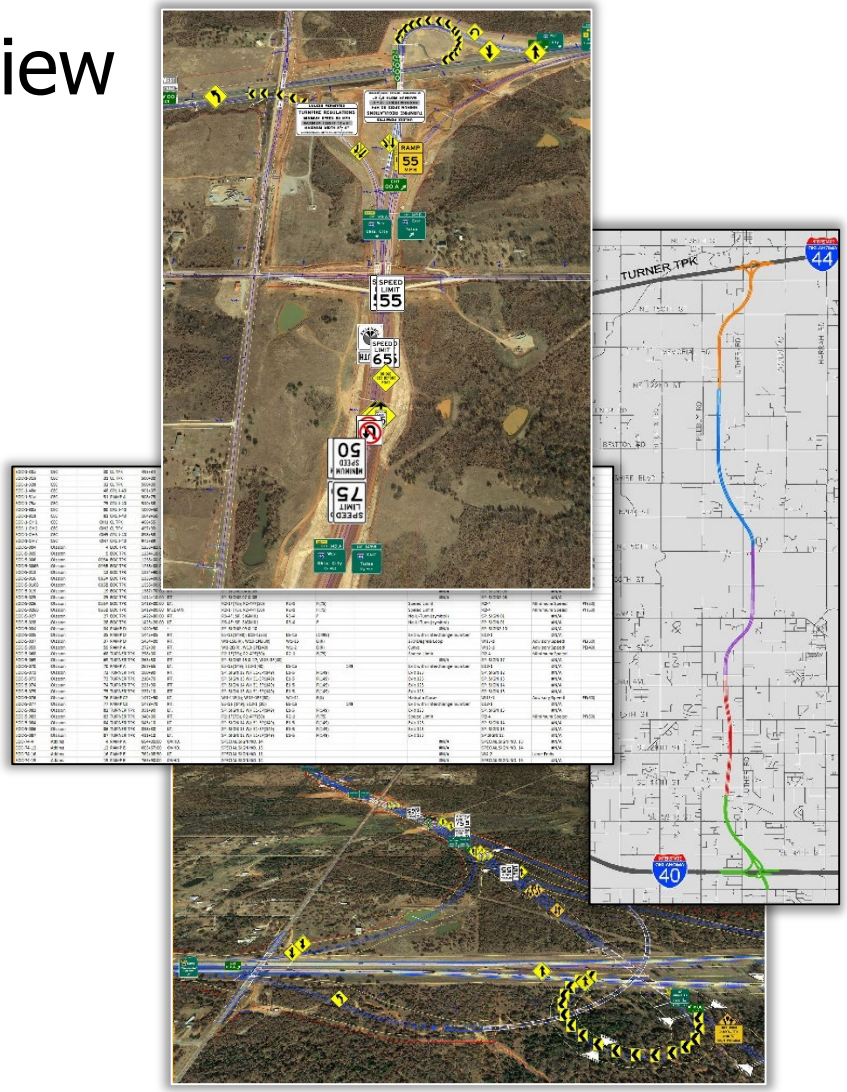
Asset Management

- Evolved from design review
  - 5 Roadway designers
  - 3 Interchange designs
  - Tolling
  - Turnpike entrance roads



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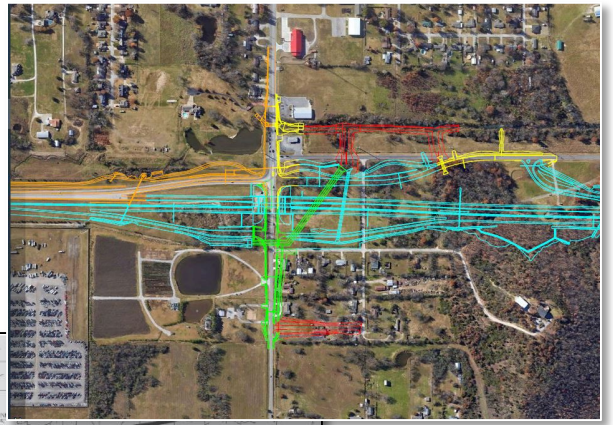
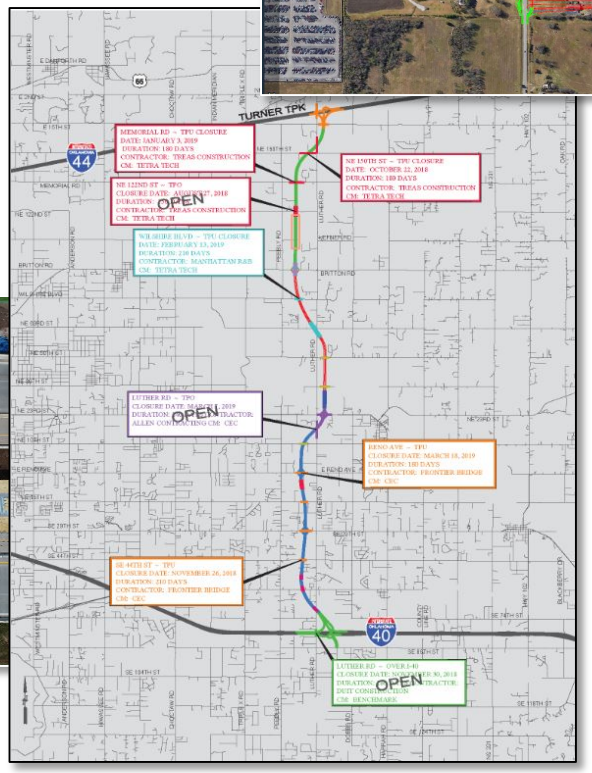
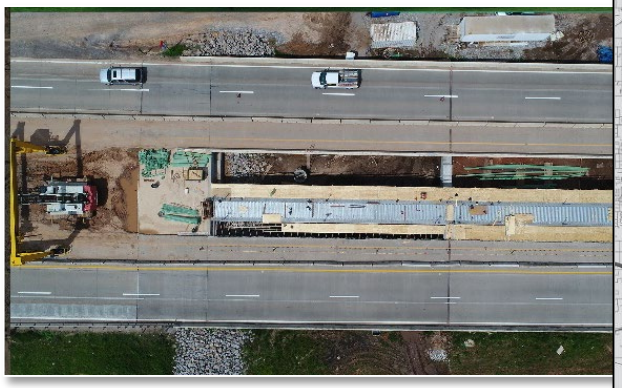
Construction Management

- Construction Phasing
- Utilizing kmz files
- Road closure updates
- Construction monitoring
  - Drones







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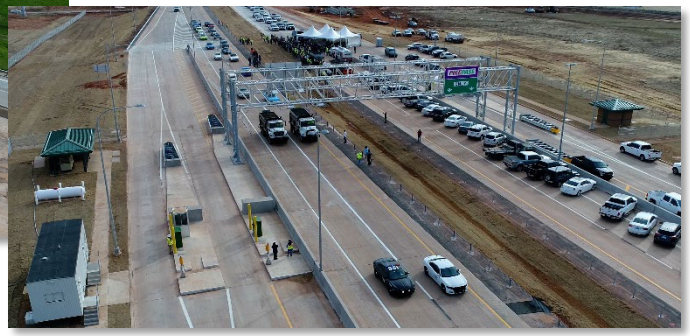
Drones

- Began as construction monitoring
- Marketing
  - Public Meetings
  - Announcements
  - Opening Ceremonies



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Public Involvement

- Present Program Information
  - Through Construction Completion
- Providing Support for OTA Presentations
- On-sight Interviews and Footage
- Direct Communication with Local Officials
- Public Facing Information
  - Websites
  - Meetings
  - Public Forums

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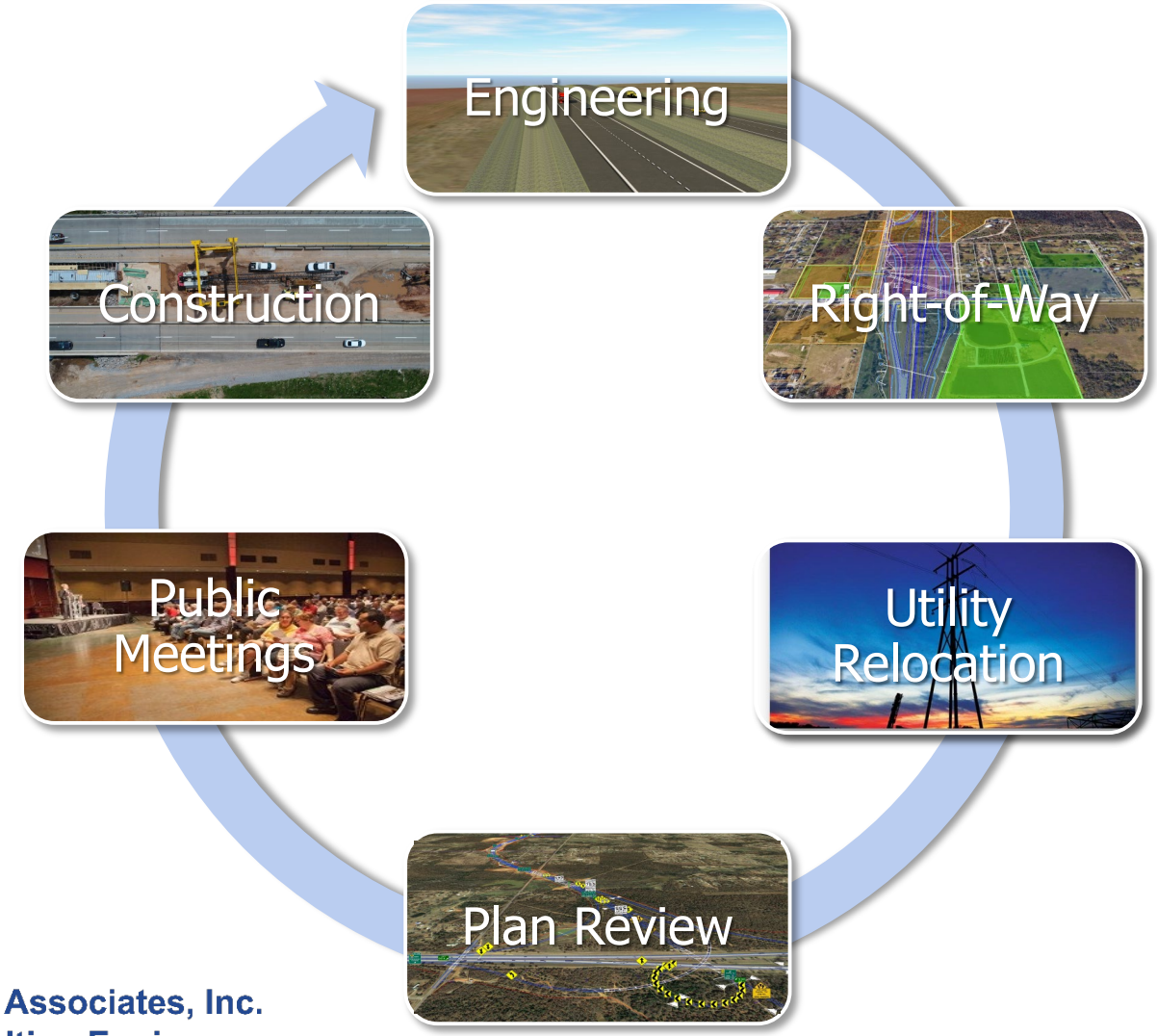
Facilitate Planning and Design Decisions Using GIS



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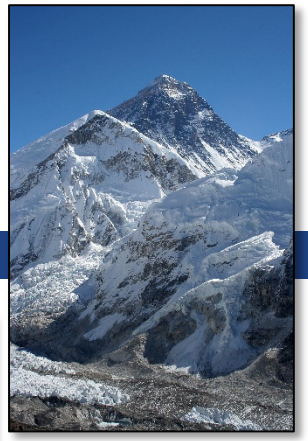
BIG DEAL!!!



- Beams – 245,219’
  - 8.5 times as tall as Mount Everest
- Excavation – 15.35 million CY
  - Fill AT&T Stadium 4 times
- Asphalt – 1.01 million tons
  - 40 times as heavy as the Statute of Liberty
- Concrete – 1.89 million CY
  - Fill 24.6 million beer kegs
- 340 Lane Miles
  - 6 times the length of the Panama Canal

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QUESTIONS?

OTA's Driving Forward Website – drivingforwardok.com

Poe & Associates, Inc. – poeandassociates.com

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DRIVING FORWARD
INVESTING IN OKLAHOMA'S FUTURE

OKLAHOMA Turnpike Authority

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