



a comparative analysis to guide the future
design and construction

MERIDIAN ROAD

at Riggs, Combs, Rittenhouse, UPRR



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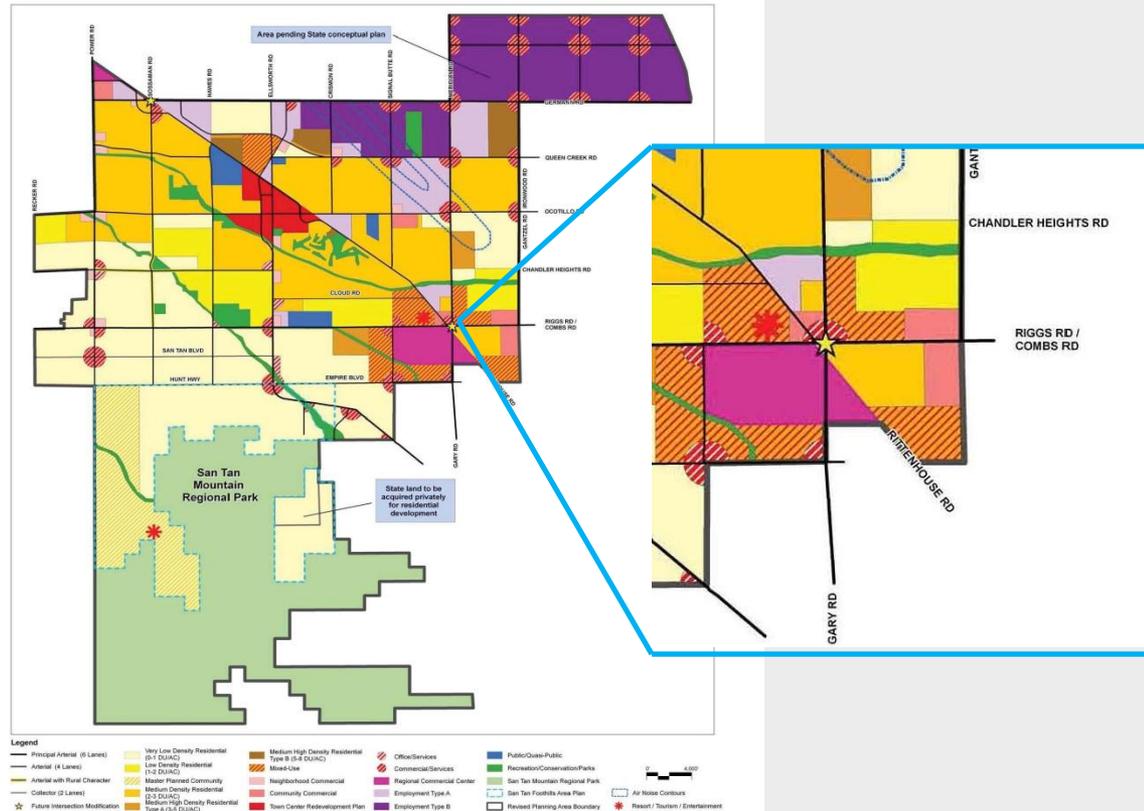
Purpose and Need

TOQC FUTURE LAND USE PLAN:

AT MERIDIAN/RITTENHOUSE/RIGGS INTERSECTION:

- Regional Commercial Center @ SW Corner (Meridian Crossing – Westcor)
- Commercial Services @ NE & NW Corner
- Mixed-Use NW & NE Corners (Schnepf Farms & Olive Mill)
- Employment Centers North of Intersection
- High Density Residential @ SE Corner (Parks Development)
- Nearby Regional Medical Center (Combs Road/Ironwood Drive)

Town of Queen Creek General Plan Update



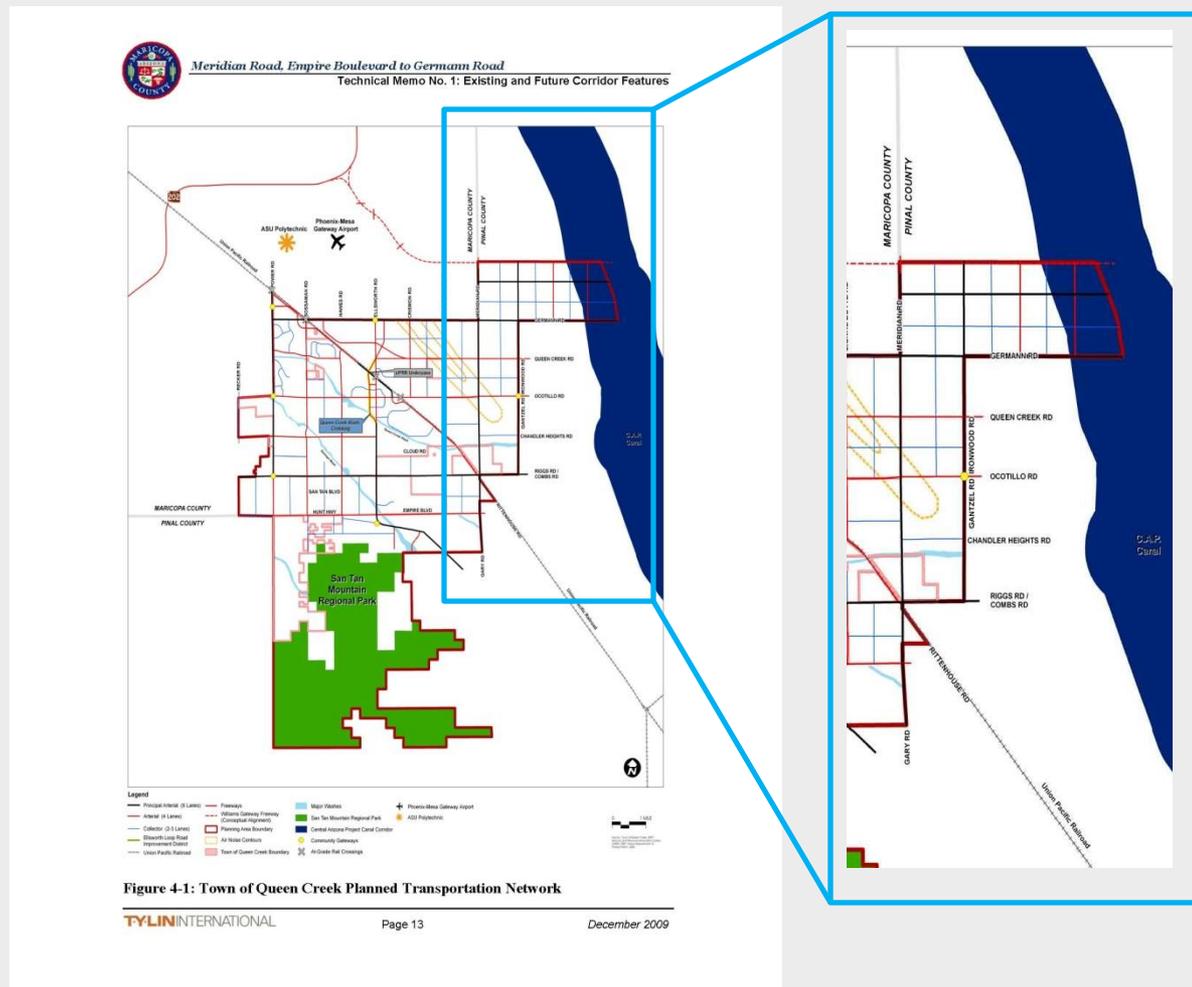
Purpose and Need

TOQC PLANNED TRANSPORTATION NETWORK: Adjacent Network Components (TOQC Designations):

- Meridian Road (6-lane Principal Arterial)
- Riggs Road (6-lane Principal Arterial)
- Rittenhouse Road (4-lane Arterial)
- Union Pacific Railroad (Future Additional Tracks)

Major Network Components:

- Williams Gateway Freeway (SR 24) – Traffic Interchange with Meridian Road
- Williams Gateway Airport
- US 60



Project Goals

- Document Existing Environment Throughout Corridor and Potential Areas of Concern
- Develop & Evaluate Feasible Alternatives for 5-Point Intersection
- Develop & Evaluate Feasible Drainage Solutions Associated with Alternatives for 5-Point Intersection
- Identify Utility Conflicts and Recommend Resolutions to Conflicts
- Develop Recommended Right-of-Way “Setbacks” for Project Corridor, Including 5-Point Intersection

**GOOD
ACCESS**



**ECONOMIC
DEVELOPMENT**



**SUSTAINABLE
GROWTH**



Additional Details

REASON FOR TODAY'S PRESENTATION

Coordinate with MCDOT, TOQC and Pinal County to promote awareness and BUILD CONSENSUS for a recommended geometric configuration for the Meridian Road 5-point intersection.

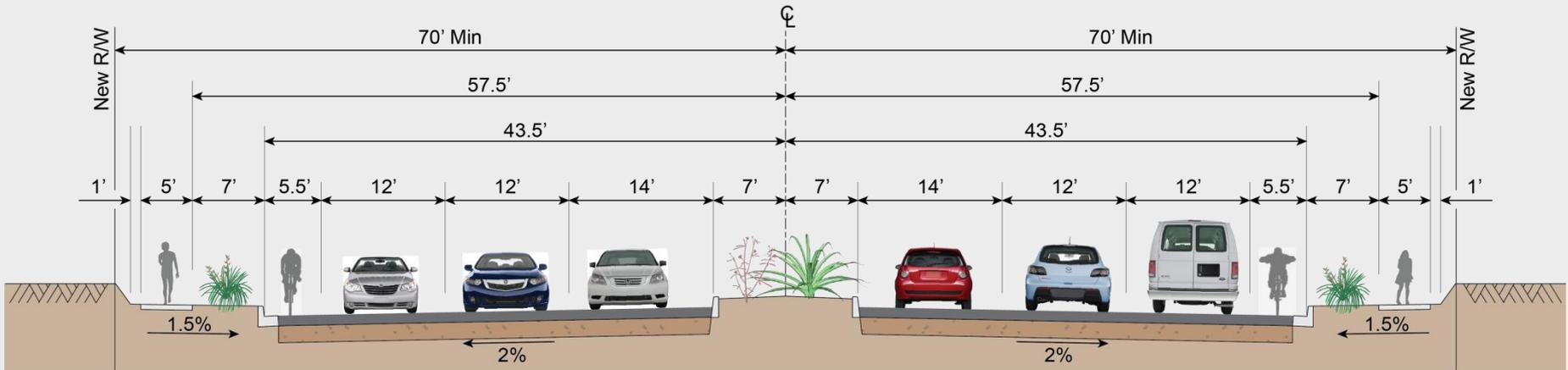
REMINDER:

- **NO FUNDING IDENTIFIED FOR FINAL DESIGN OR CONSTRUCTION IN 5-YEAR PROGRAM**
- **DCR WILL PRIMARILY SERVE AS A RIGHT-OF-WAY PROTECTION DOCUMENT BETWEEN NOW AND START OF CONSTRUCTION FOR NEW DEVELOPMENT IN QUEEN CREEK/PINAL COUNTY**

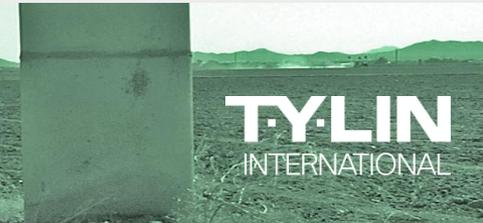


Design Features

Basis of Design - Urban Principal Arterial Typical Section



* Total R/W Acquisition for Preferred Alternative \approx 70 Acres



Alternative 6 (June 2010)

Pros:

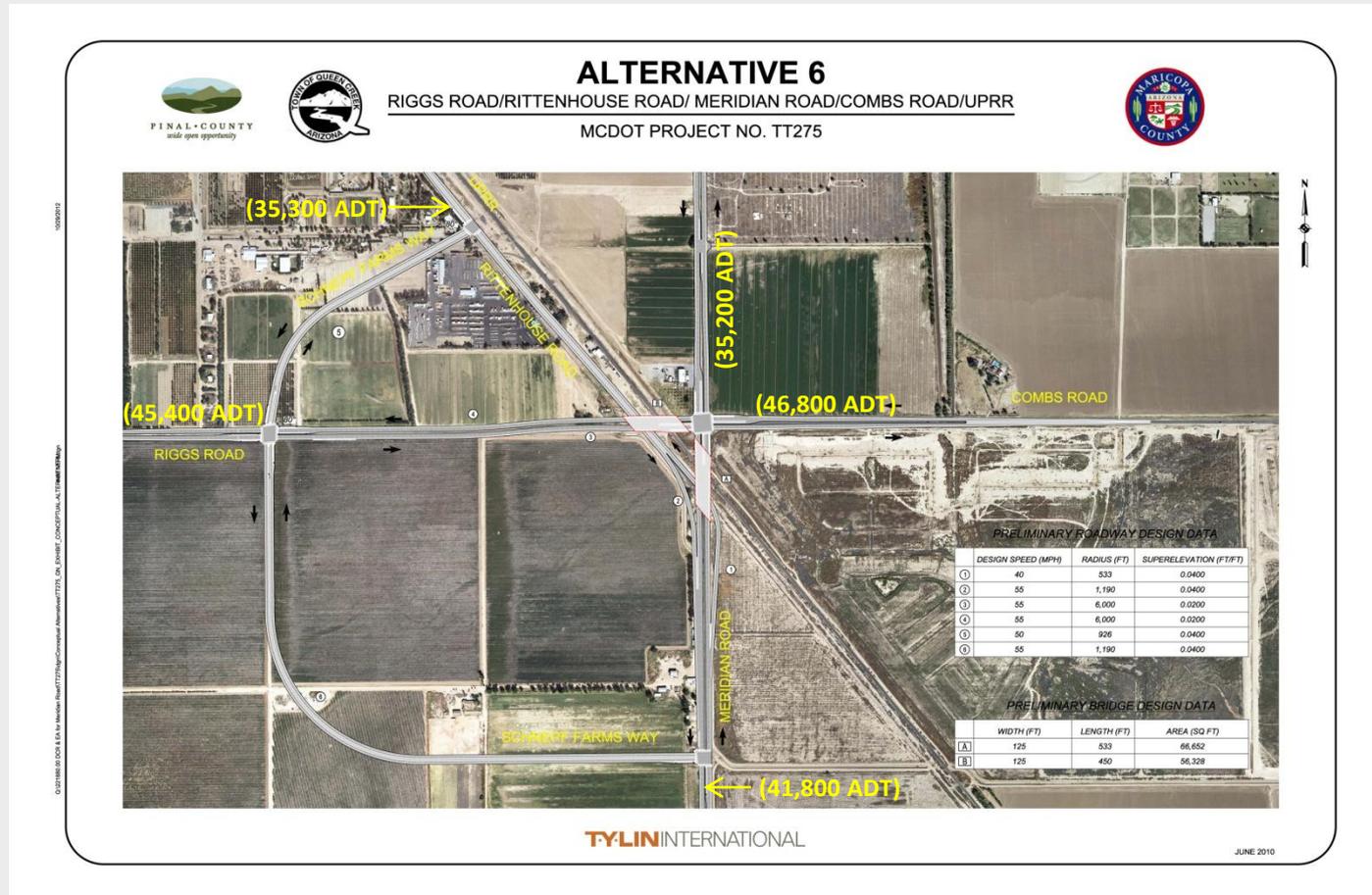
- All major turning movements provided
- Maintains Roadway Alignments
- Acceptable intersection operations
- Consistent with long range planning (Meridian & Riggs/Combs remain on section line)

Cons:

- Elevated intersection (due to UPRR crossing)
- Restricted access near 5-point intersection

Intersection Project Costs

\$78,606,564





ALTERNATIVE 6 RENDERING



Alternative 6A (April 2011)

Pros:

- Relatively “at-grade” intersections
- “Easier” alternatives for future access
- Accommodates both regional and developmental traffic
- Creates a “destination” for this area of Queen Creek
- Balances competing interests (commuter/commercial/residential)

Cons:

- Still expensive

Intersection Project Costs

\$76,177,679





ALTERNATIVE 6A RENDERING

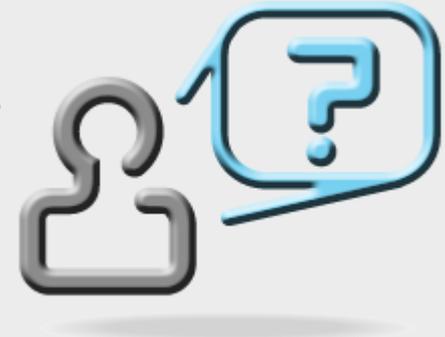


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Since then...

August 2011

- Alternative 6A was modified slightly to give connection from Riggs/Combs to Rittenhouse
- New rendition of 6A was shown to nearby property owners to get their feedback



November 2011 – March 2012

- Nearby property owners feedback:
 - Queen Creek Olive Mill would accept the modified alternative
 - Schnepf Farms would not accept the modified alternative (or any alternative significantly impacting Schnepf Farms)
 - Westcor revised their development plans within the project area – no longer planning a Regional Commercial Center

March 2012- Present

- The design team explored new alternatives maintaining same principals as 6 & 6A, but with property owner feedback taken into consideration
- Three (3) new alternatives were created, maintaining one at-grade railroad crossing - which is an existing condition

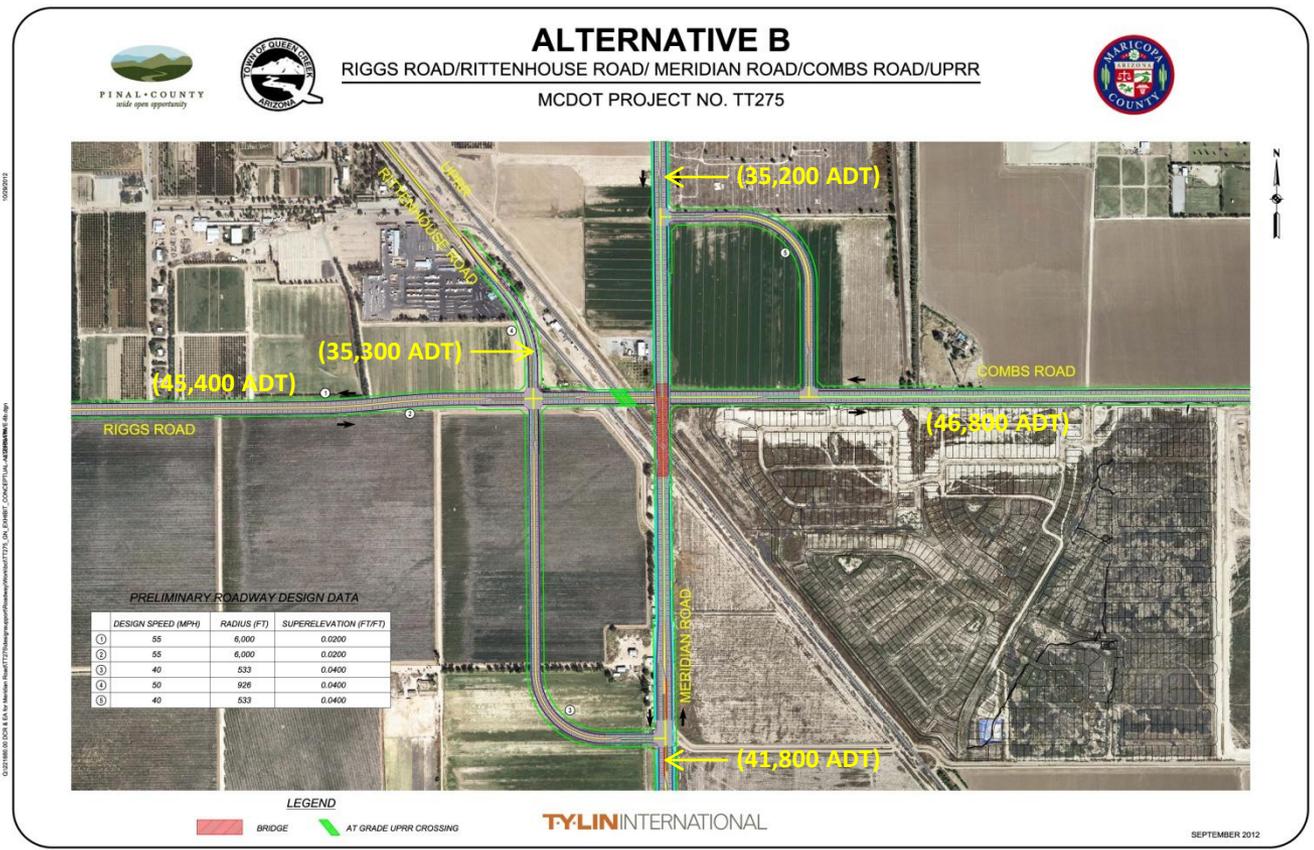


Alternative B

- Meridian Road bridge
- Existing UPRR “at-grade” crossing on Riggs/Combs widened
- Connections between Riggs Road and Meridian Road north and south of intersection

Intersection Project Costs

- \$51,831,427



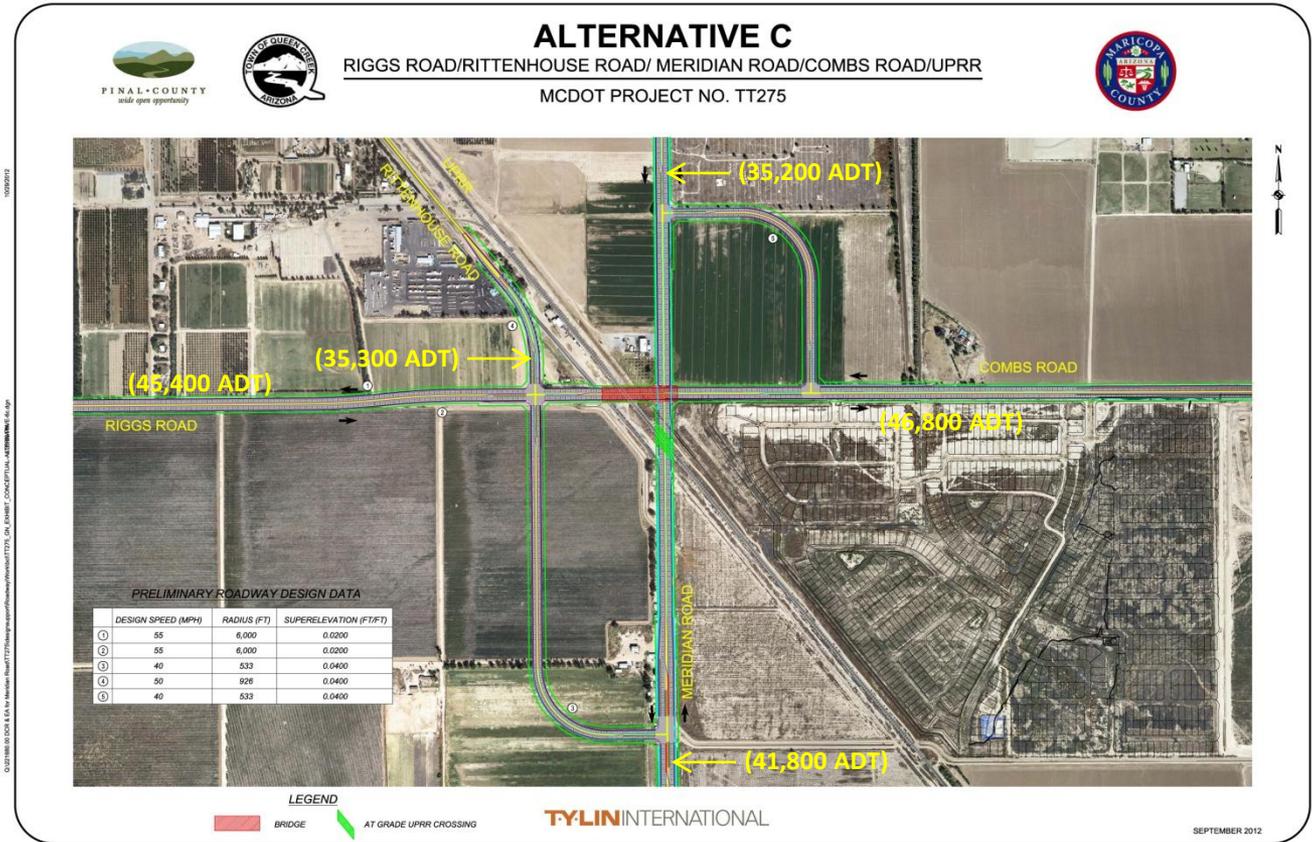
Alternative C

- Riggs/Combs Road bridge
- “At-grade” UPRR crossing moved to Meridian Road
- Connections between Riggs Road and Meridian Road north and south of intersection

Intersection Project

Costs

- \$47,847,373



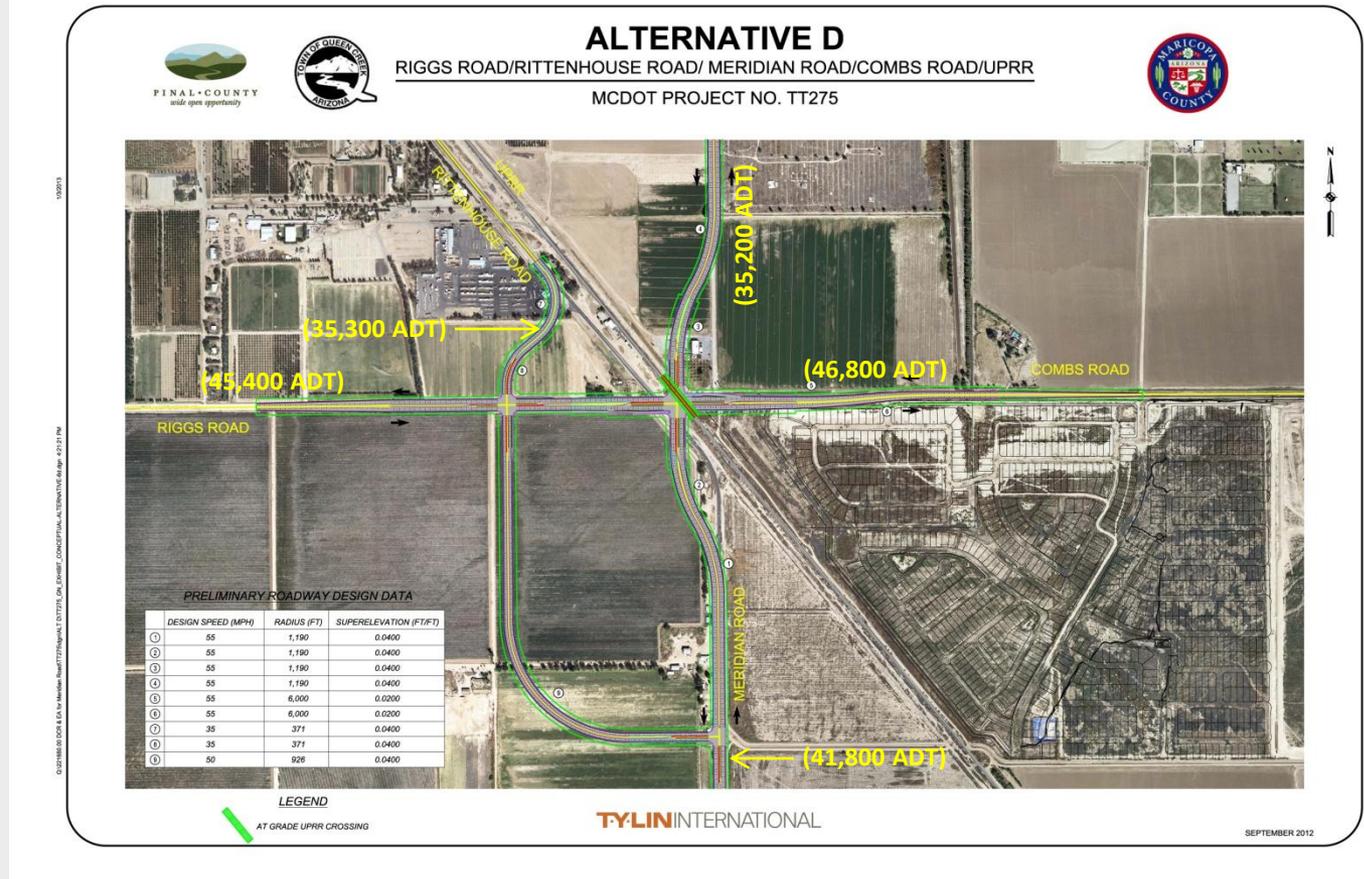
Alternative D

- No bridges
- Meridian realigned to existing “at-grade” UPRR crossing
- Similar to recently improved Power/Pecos intersection with UPRR
- NE/SW corners: by-pass right turns
- Minimal impacts to adjacent properties – potential “land swap” opportunity

Intersection Project

Costs

- \$27,704,598



Recommended Alternative

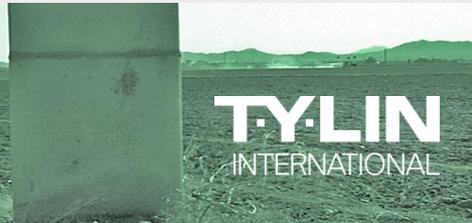
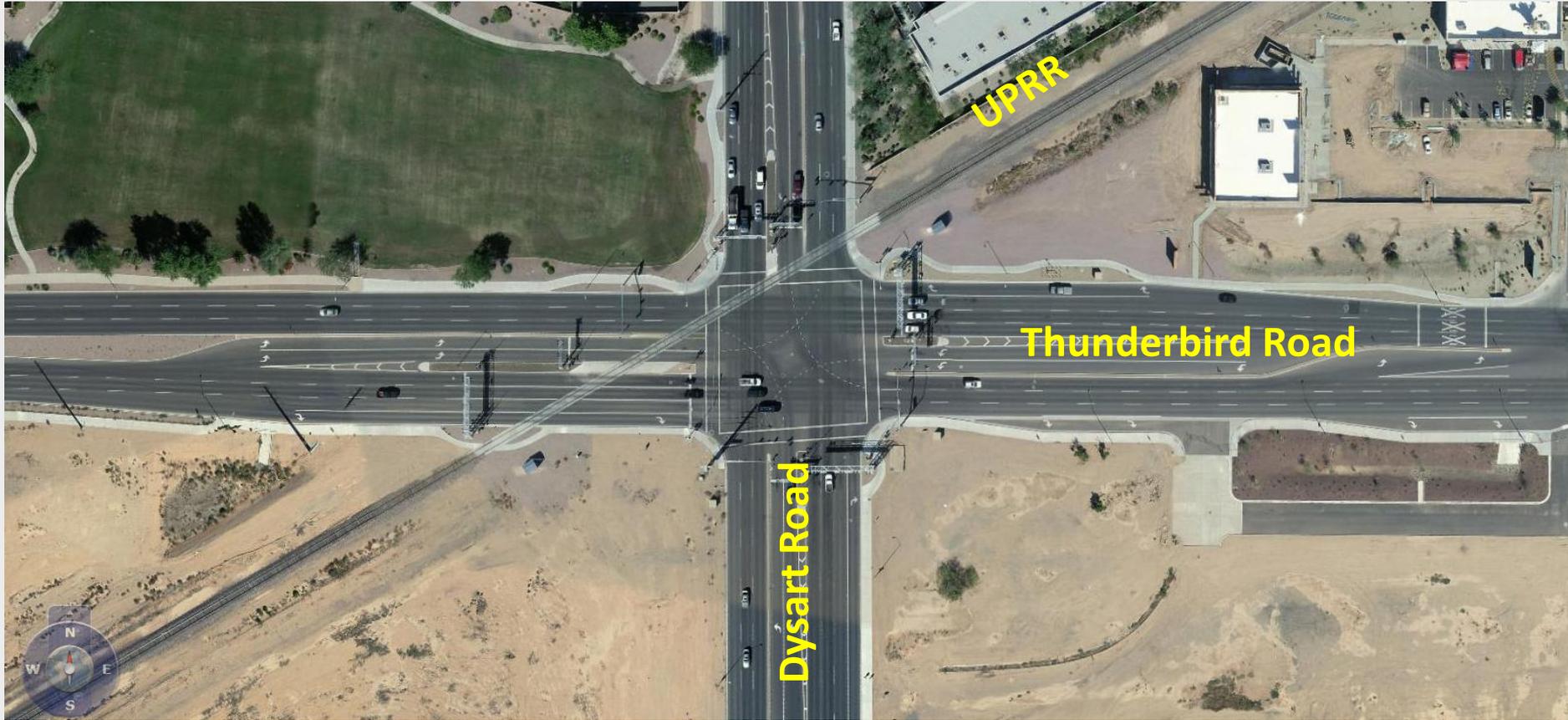
- Change in planned development adjacent to intersection made more viable
- Precedents for diagonal UPRR crossings of major arterial intersections throughout valley
- Anticipated to be favorably supported by property owners all 4 corners of intersection
- With no bridges, allows for very good access for future development
- Minimal construction costs



Power/Pecos Comparison



Dysart/Thunderbird Comparison



Traffic Considerations

Levels of Service for Each Alternative

- LOS D or better for all project intersections (LOS D for PM periods only at Meridian/Riggs and Riggs/Rittenhouse intersections)

Queues due to Train Traffic

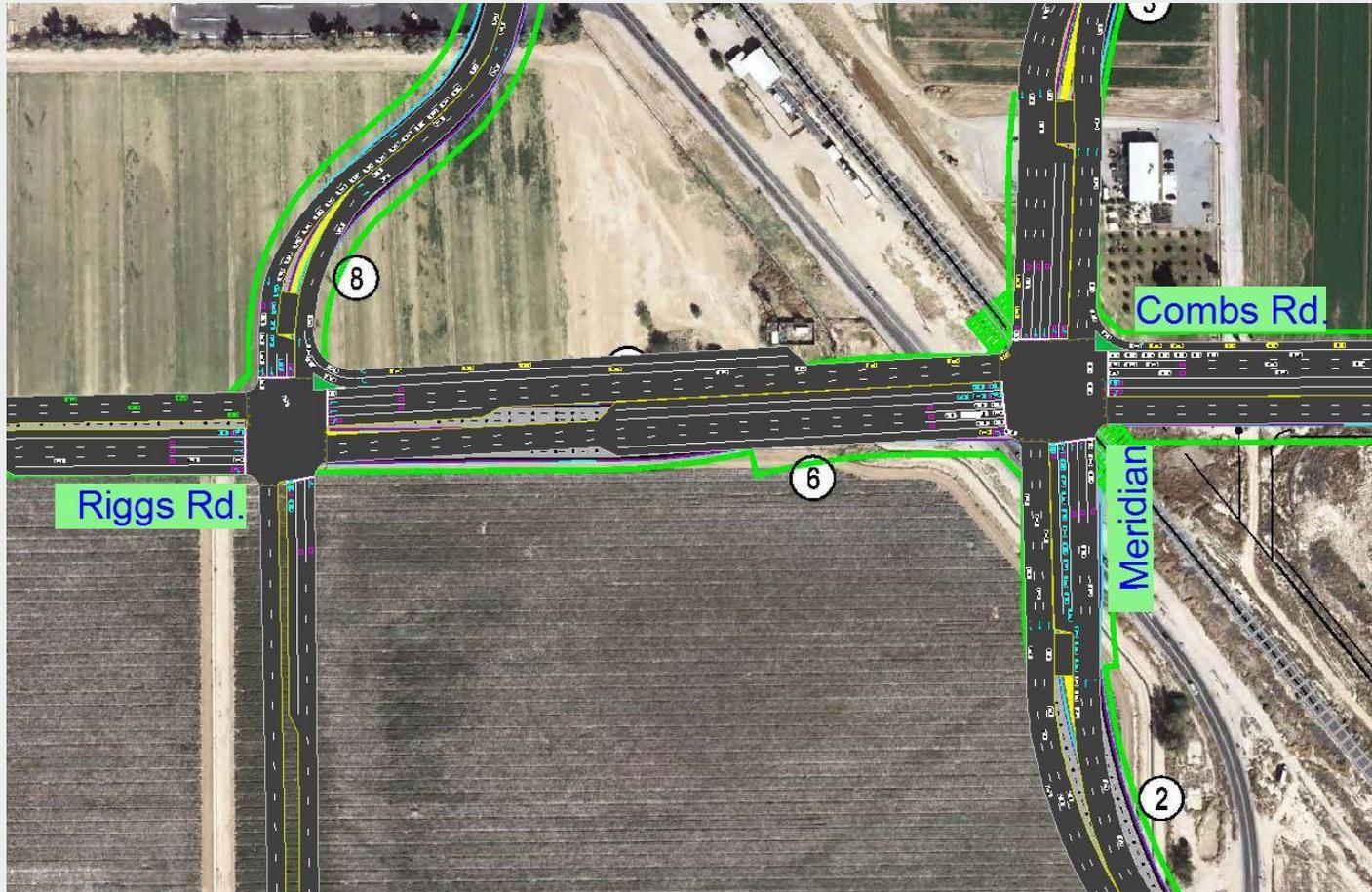
- Approximately 1,000 Ft Long due to waiting for train based on 5 minute gate time
- 5-7 trains per 24-hour period

Comparisons with Power Road/Pecos Road/UPRR “At-Grade” Intersection

- Traffic projections at Power/Pecos: 46,000 to 50,000 ADT
- Traffic projections at Meridian/Riggs/Combs: 34,500 to 45,400 ADT



Traffic Simulation



Going Forward

- APPROVED BY THE MCDOT MGM'T COMMITTEE – (11/8/2012)
- UPRR HAS ACCEPTED THE PROPOSED ALTERNATIVE – (12/7/2012)
- APPROVED BY QUEEN CREEK TAC – (01/10/13)
- APPROVED BY PINAL COUNTY – (01/15/13)
- APPROVAL FROM THE LOCAL RESIDENTS AND BUSINESSES – (VARIOUS DATES)
- APPROVED BY ACC – (03/13/13)
- PRESENTATION/APPROVAL TO TOQC TOWN COUNCIL – (06/05/13)
- FINALIZE DCR DOCUMENTS WITH PREFERRED ALTERNATIVE



Questions/Discussion

