

ADOT Project Management Academy

Module 6: Construction and Maintenance

Maintenance Considerations in Urban Districts

Presentation by Raul Amavisca, PE
December 14, 2022 in Phoenix, AZ

Central District Overview

- Serves two counties
- 26 incorporated communities
- Resident population 4,216,000
- It has 9 of 10 largest cities of Arizona
- 2,016 maintenance lane miles
- 11 construction and 15 maintenance units



Central District Maintenance Concerns

- Maintaining the roadway, roadside, structures & drainage systems
- Right of Way - Ownership, use and clarity
- Reacting to inclement weather
- Planning/Staging for large scale events such as:
NCAA Final Four, Super Bowl
- Reacting to civil disturbances

Maintaining roadway - WB I-10 near Gila River



Maintaining roadway - NB I-17 north of Jomax Rd



Maintaining roadway - NB I-17 north of Jomax Rd



Maintaining roadway - NB I-17 @ Dunlap



Maintaining roadway - WB L101 Pima at 15th Ave



Maintaining roadway - WB L101 Pima at 15th Ave



Maintaining roadway - WB L202 at I-10



Maintaining roadsides - EB I-10 at Warner



Maintaining Structures @ I-10 Deck Park



Maintaining Structures - I-10 Deck Park



Maintaining Structures - NB 16th St on I-17



Maintaining Structures - NB 7th Ave & I-17



Maintaining Structures - NB 7th Ave & I-17



Maintaining Structures - NB 7th Ave & I-17



Maintaining Structures - NB 7th Ave & I-17





Reacting to inclement weather - SR 88



Reacting to inclement weather - SR 88



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Reacting to inclement weather - SR 88



Riprap (a concrete and sand mixture) was used to make repairs to SR 88.

1 / 4

Reacting to inclement weather - L303



Reacting to civil disturbances



Thousands protest in downtown Phoenix for 4th straight night, people being detained

For the fourth straight night, thousands of people hit the streets of downtown Phoenix to protest on Sunday, and some of those participating got violent.

Reacting
to
civil
disturbances

Phoenix Protest Organizer Jarrett Maupin Blames Other Groups for Thursday's Damage

RAY STERN | MAY 29, 2020 | 7:59PM



Jarrett Maupin speaks with an Arizona Department of Public Safety Officer at Thursday's protest. / [Screenshot from YouTube/Arizona Auditor](#)

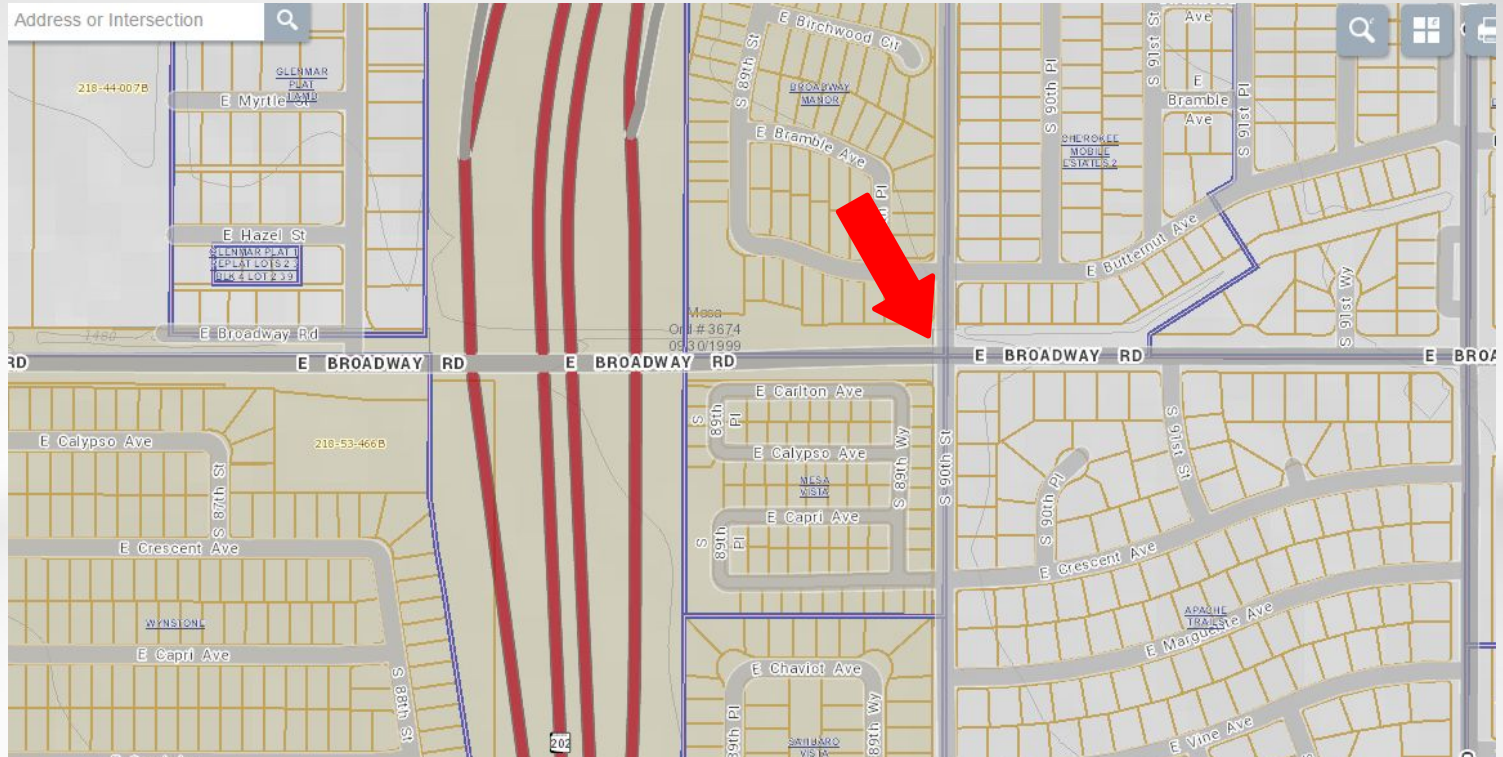
Reacting to civil disturbances



Reacting to civil disturbances



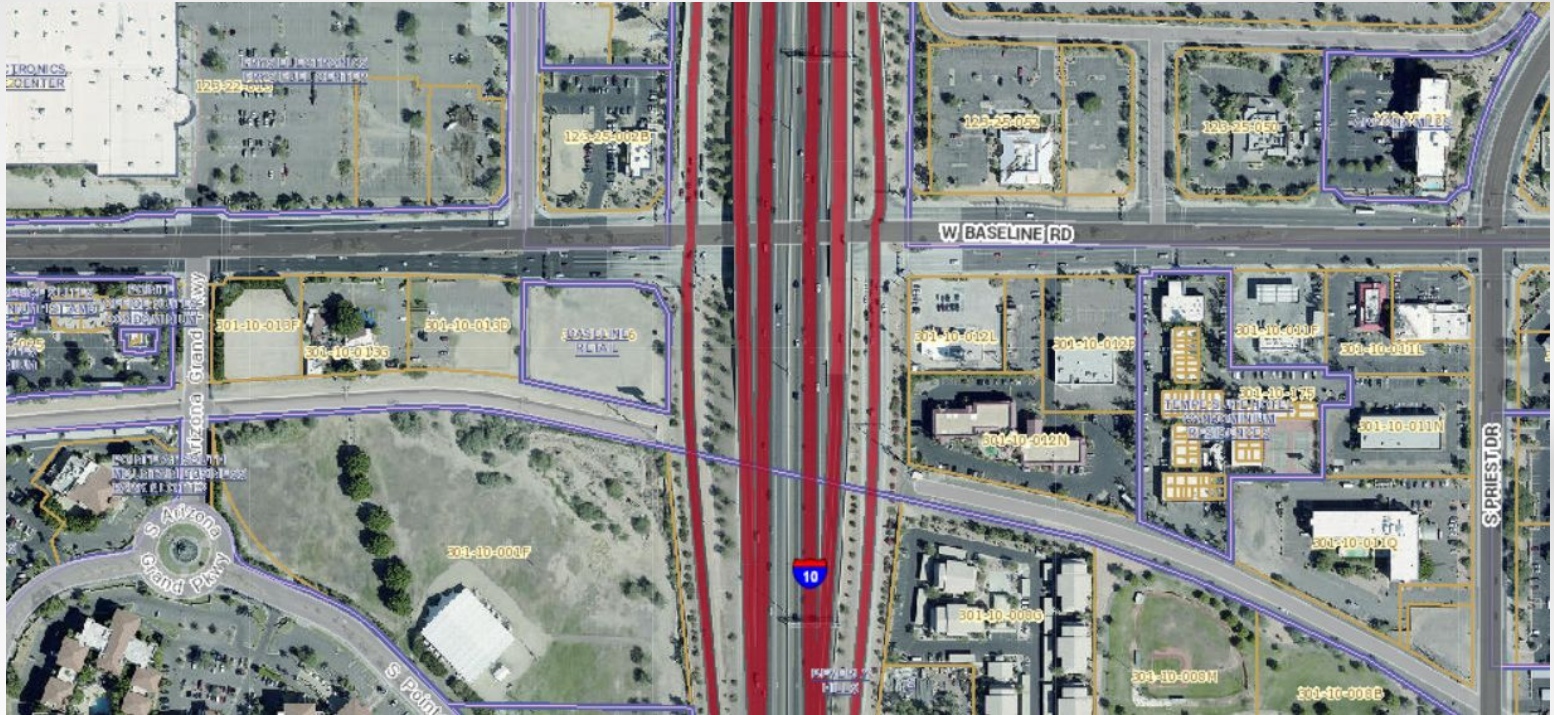
Liability & Right of Way



Design for the end in mind - including traffic



Reallocate Right of Way after construction (use TCE)



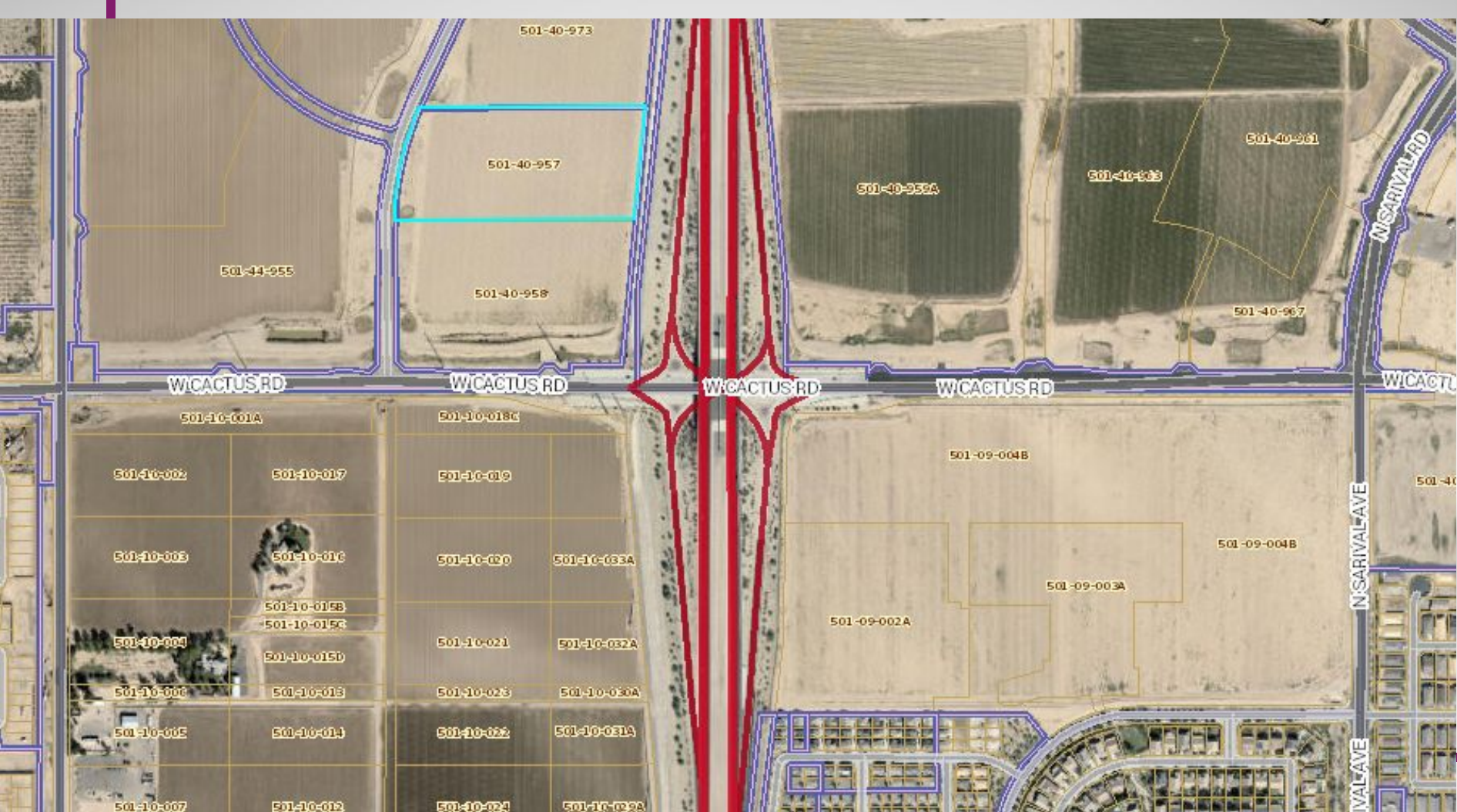
Roadway Design Guidelines

Access control is important for safety and flow of traffic

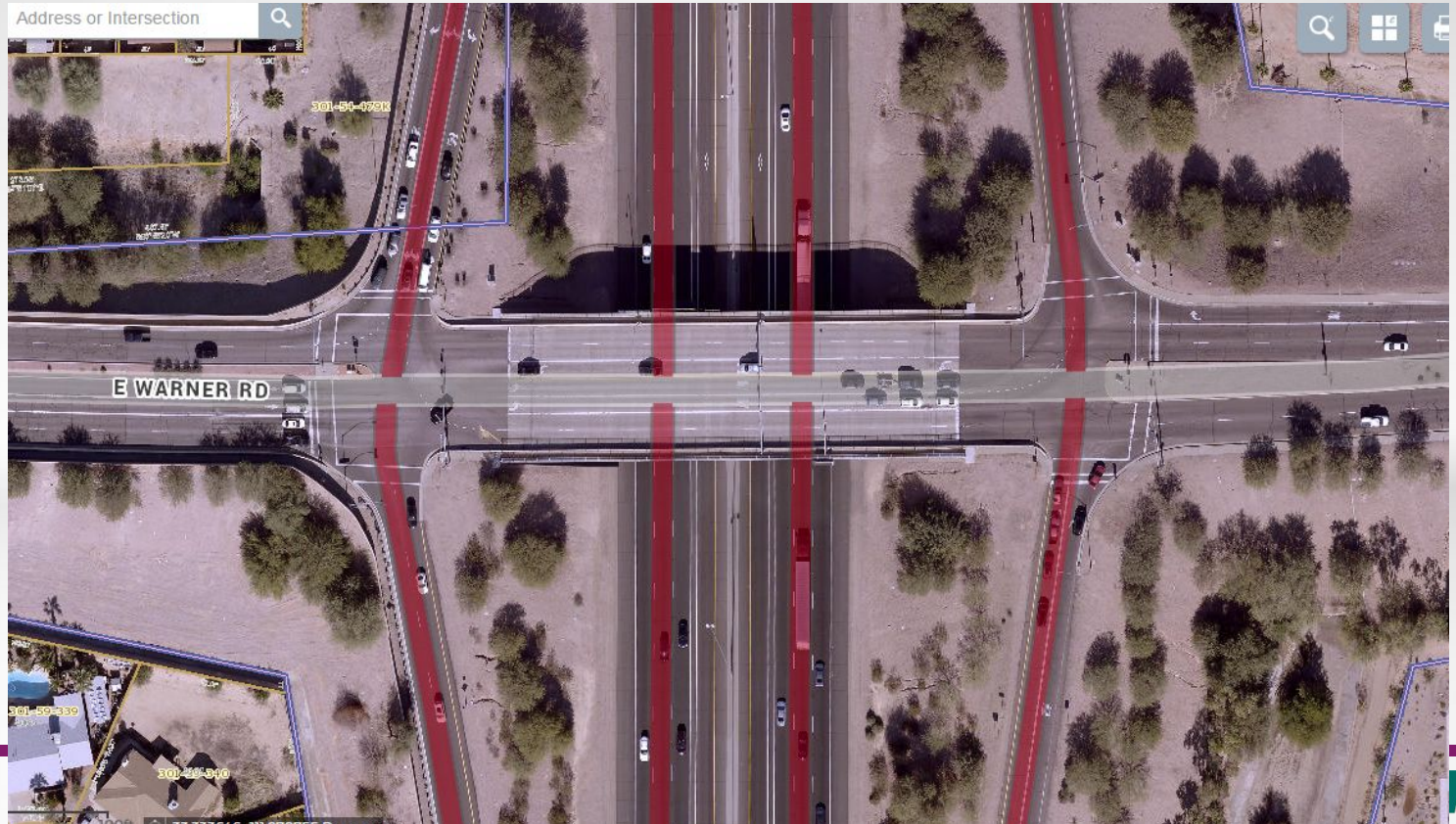
Min 330 feet from on ramp

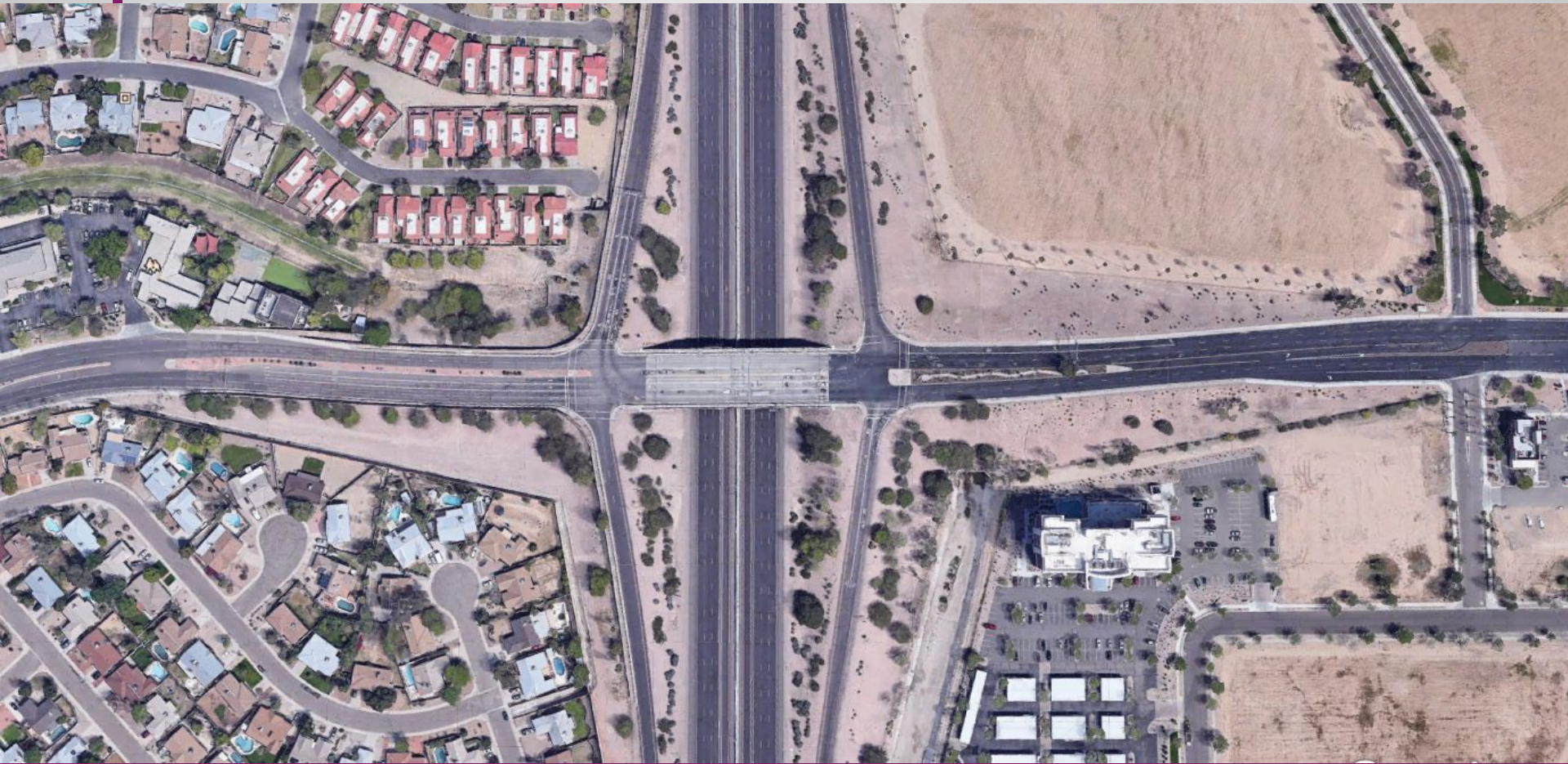
Min 660 feet from the off ramp

Min 2640 feet to nearest signal



Design for the end in mind

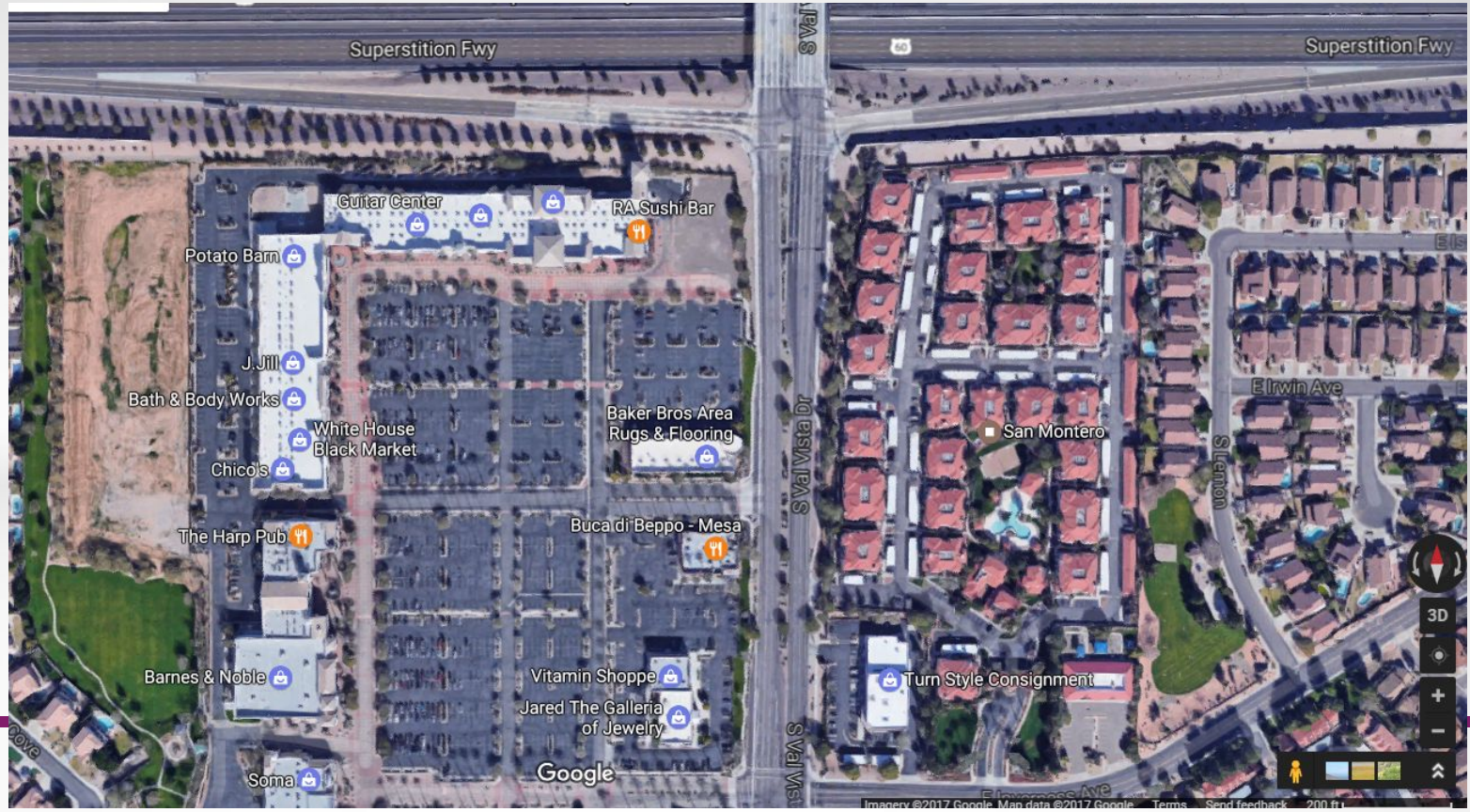




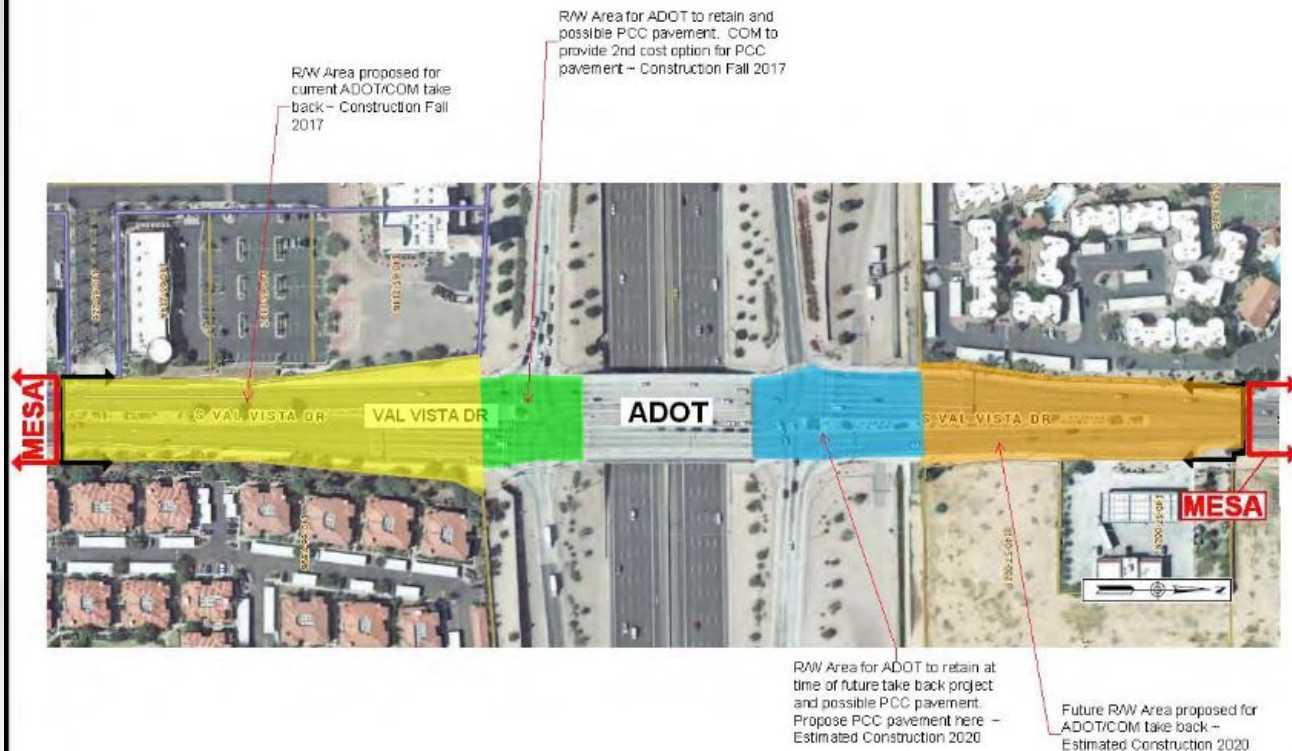
Where do you draw the line?



Design for the end in mind



CP0105 - Val Vista Drive Baseline to US60 R/W Take back Options & Construction Sequencing



DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION	PRELIMINARY
DRAWN	DLO		INTERMODAL TRANSPORTATION DIVISION	NOT FOR CONSTRUCTION
CHECKED			CITY OF MESA	OR RECORDING
TEAM LEADER			MASTER ROADWAY MAINTENANCE EXHIBIT A	
ROUTE: US 60	LOCATION: VAL VISTA DR / SUPERSTITION FWY			SHEET 42 OF 42
JPA NO:				

I-17 Ped Bridge at Maryland



Please

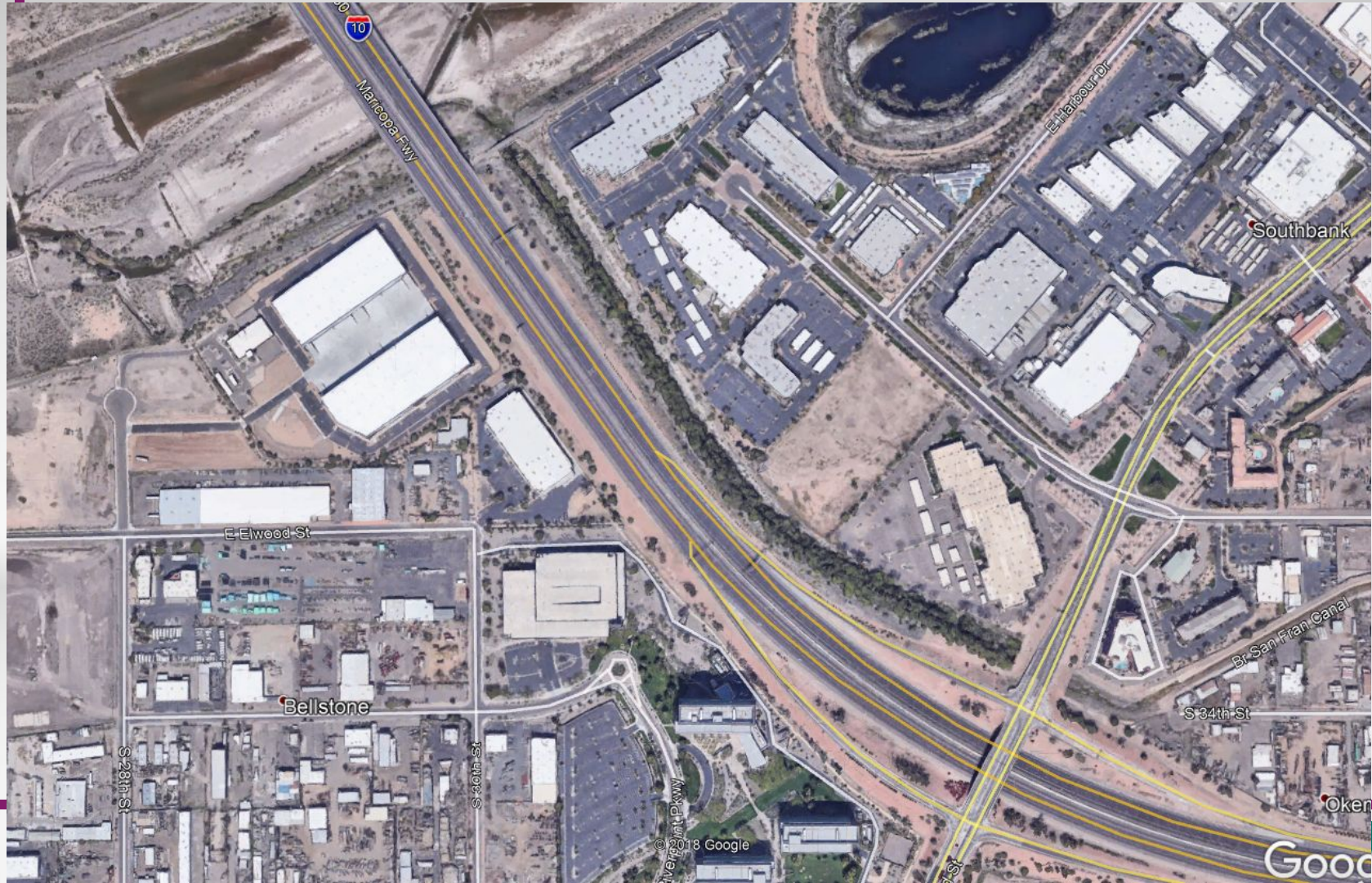
- If you can, extend the PCCP to the final Right of Way line at new or redesigned intersections so it's clear.
 - If not, go straight across on the concrete on either side of the roadway.
- Or USE angle irons to define R/W.

Please

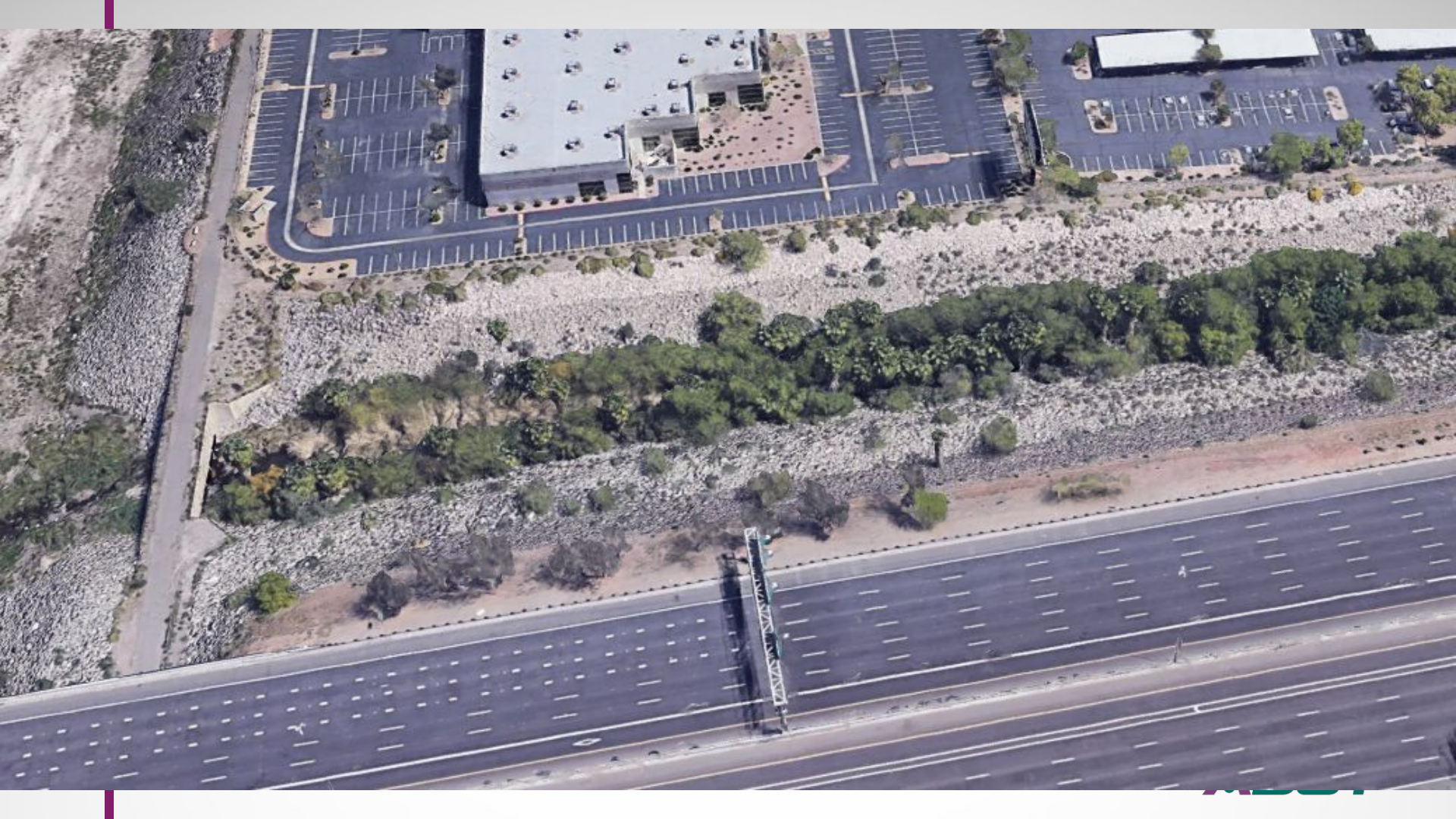
- Ensure the IGA clearly indicates where the final Right of Way will be after project completion.
- Ensure it is clear who maintains what.
- Invite Central District Development Engineer to initial meetings.

Please

- Ensure that drainage can be accessed to maintain it.













Just outside my wheelhouse

- Build TI's where off ramps can turn right on red.
- One example where it doesn't happen

Most TI's on US 60 Superstition Freeway

Tempe, Arizona

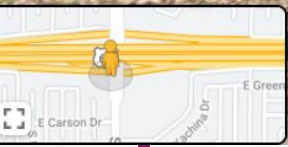


Google



Street View - Mar 2020





Please

- At overcrossings, don't put in homeless shelters.
- Make it easy to safely maintain the TI's.







East Street Ave

W Glendale Ave

W Glendale Ave

ONLY ONLY ONLY







Please

- Engage the District when Right of Way will be exchanged after the project.
- Give MicroStation plans to Patrick Whiteford of MPD and Michael Mayes of R/W when the project is finalized.

Questions?