

# **ADOT Project Management Academy**

## **Module 6: Construction and Maintenance**

### **Maintenance Considerations in Urban Districts**

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Engineering Administrator - Central District  
December 10, 2025

# Central District Overview

- Serves two counties
- 27 incorporated communities
- Resident population @ 4.8 million
- It has 9 of 10 largest cities of Arizona
- 2,016 maintenance lane miles
- 11 construction & 15 maintenance units - @ 250 people



# Central District Maintenance Concerns

- Maintaining the roadway, roadside, structures & drainage systems
- Reacting to inclement weather
- Reacting to civil disturbances
- Right of Way - Ownership, use and clarity
- Planning/Staging for large scale events such as: NCAA Final Four, Super Bowl, Football (US & Int'l)
- Permitting for encroachments or events

# 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 L202 at I-10



# Maintaining roadsides - EB I-10 at Warner





# Typical Bridge Design



# Maintaining I-17 Black Canyon Hwy



# Maintaining Structures - SB 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







# Typical Bridge Design - Upgraded





# Typical Bridge Design - Levelled up





# Playground on I-10 Deck Park Tunnel





# Splash pad on the I-10 Deck Park Tunnel







# Reacting to inclement weather - SR 88



# Reacting to inclement weather - SR 88





# Reacting to inclement weather - SR 88





# 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

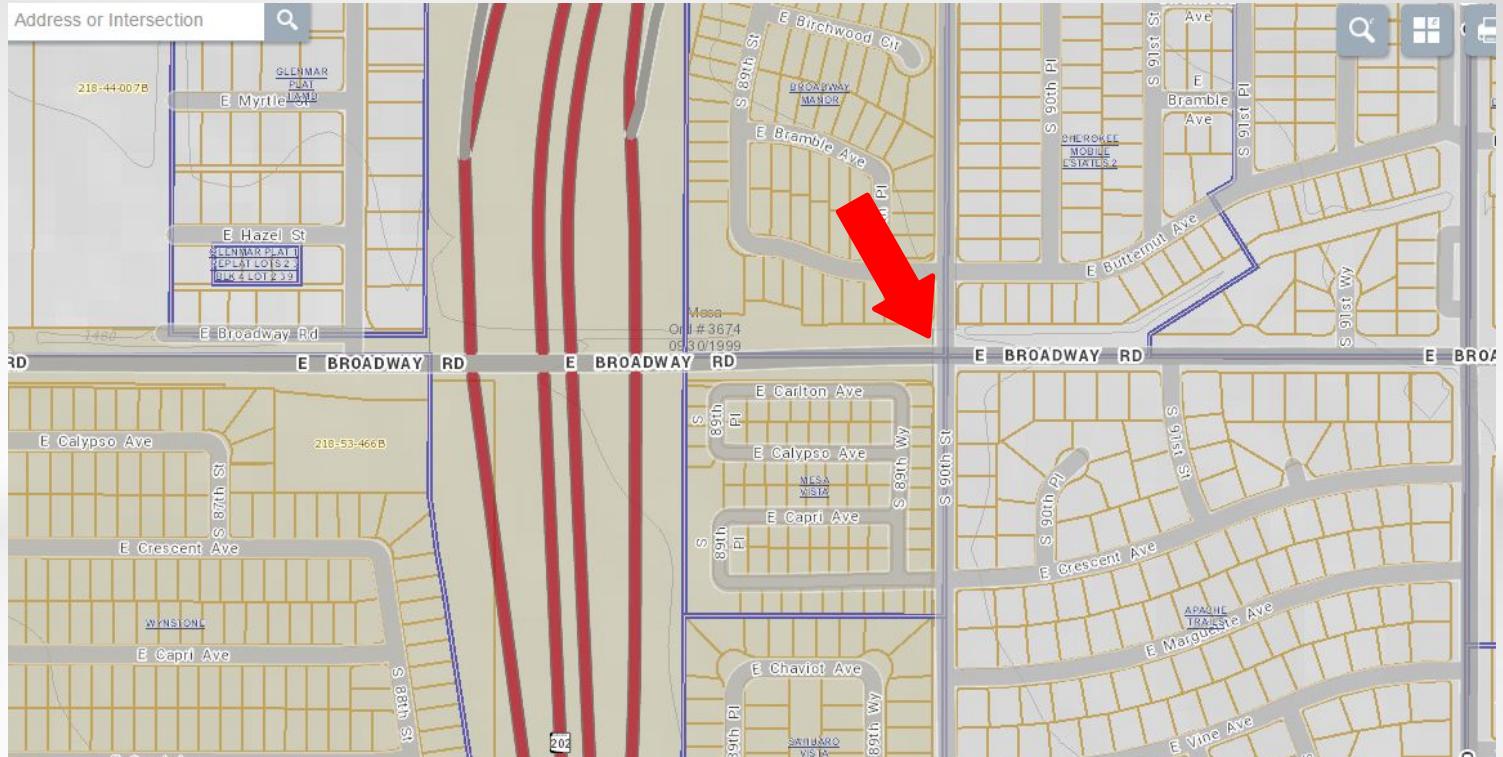


# Reacting to civil disturbances or other events





# Liability & Right of Way

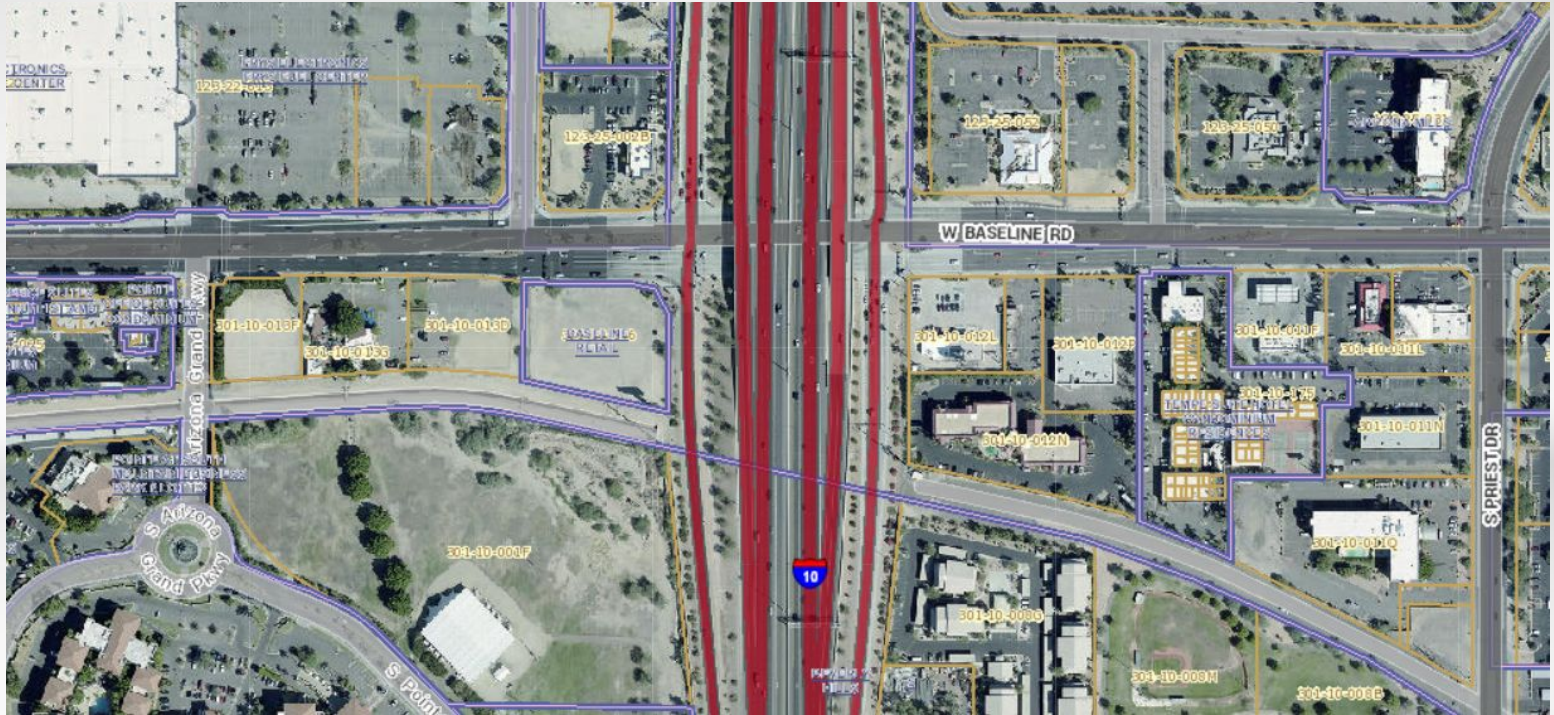


# Design for the end in mind - including traffic





# Reallocate Right of Way after construction (use TCE)



# Roadway Design Guidelines

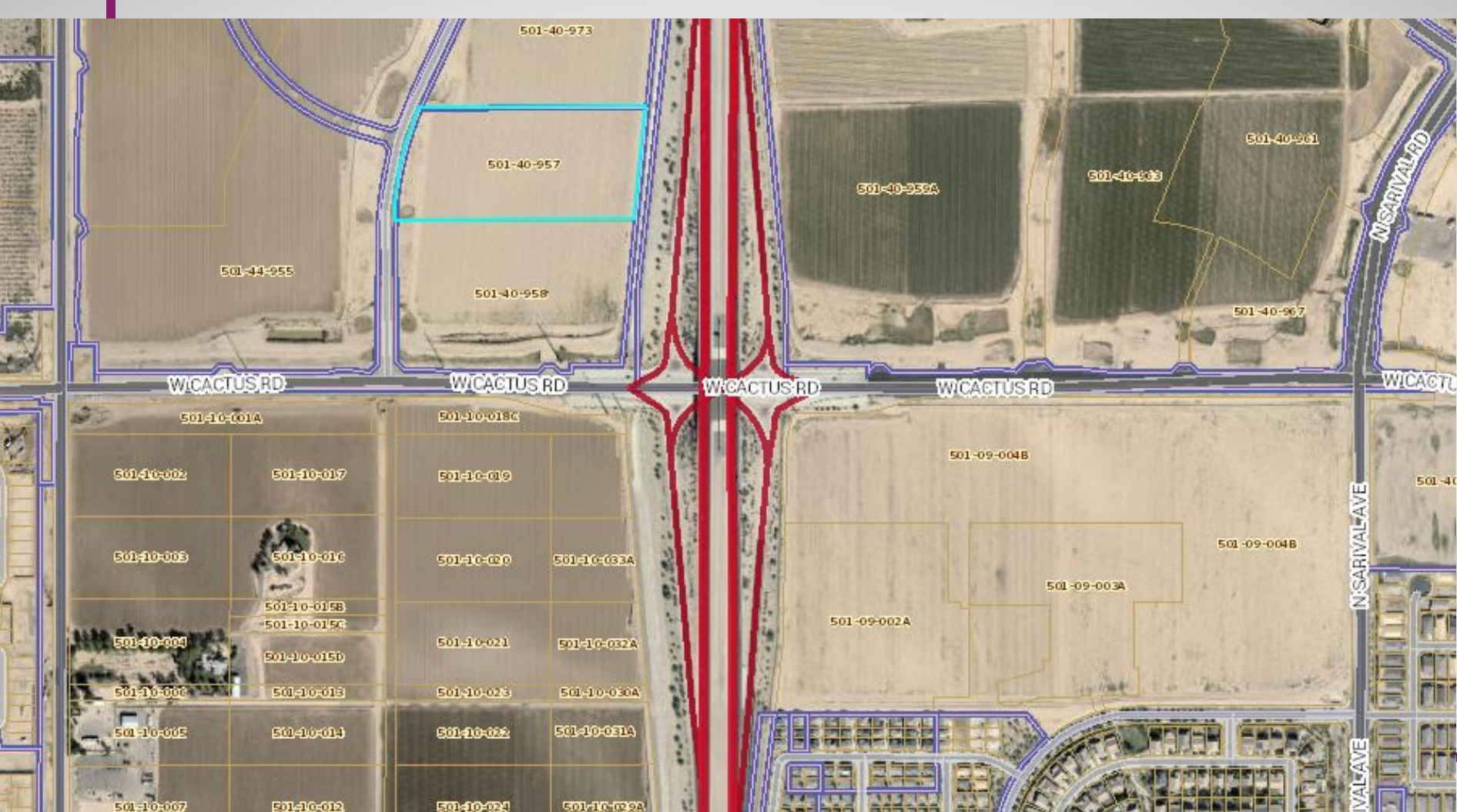
Access control is important for safety and flow of traffic

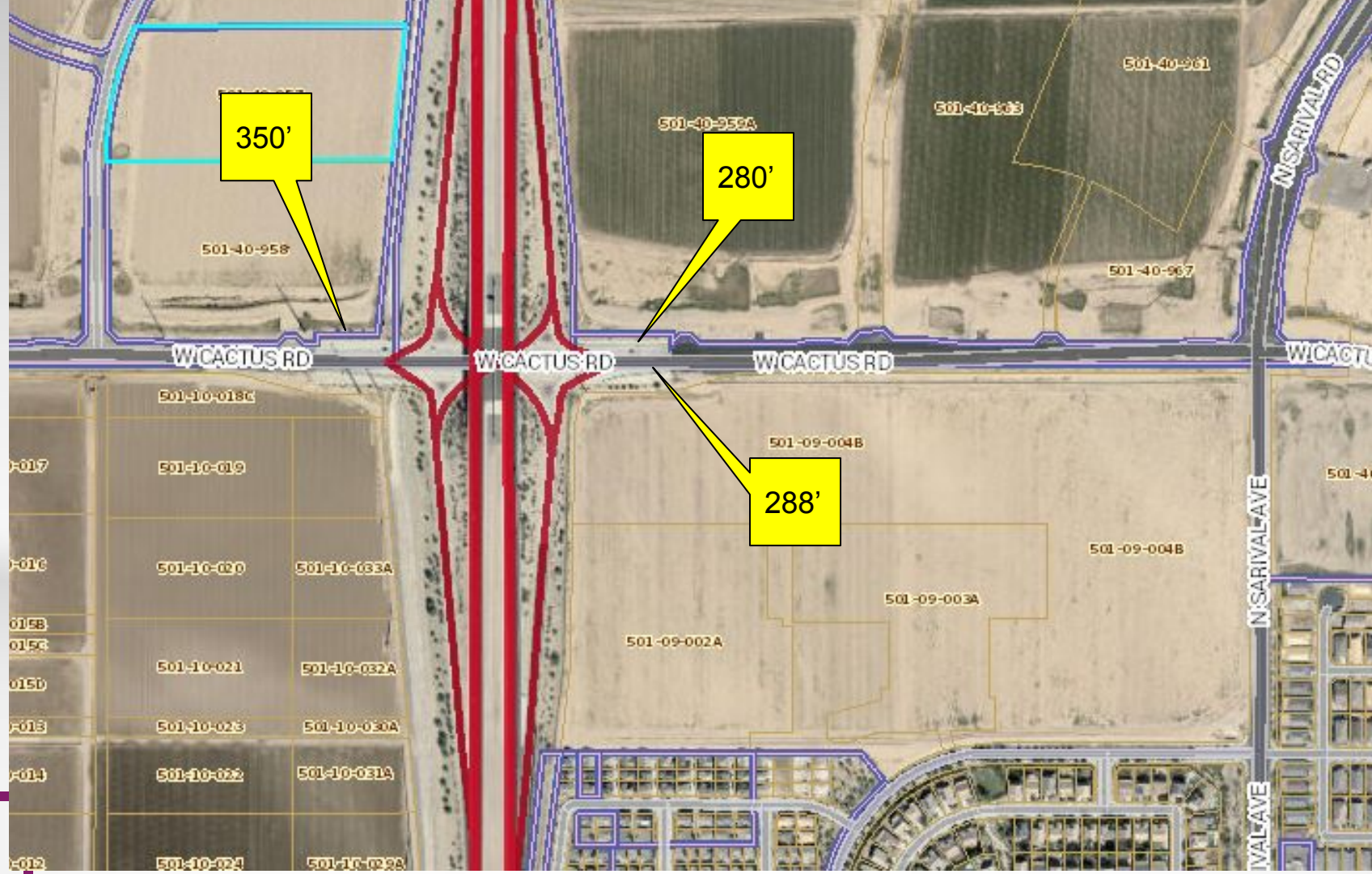
Min 330' from ON ramp

Min 660' > 2 lanes or 990' w/3 or more from OFF ramp

Min 2640 feet to nearest signal

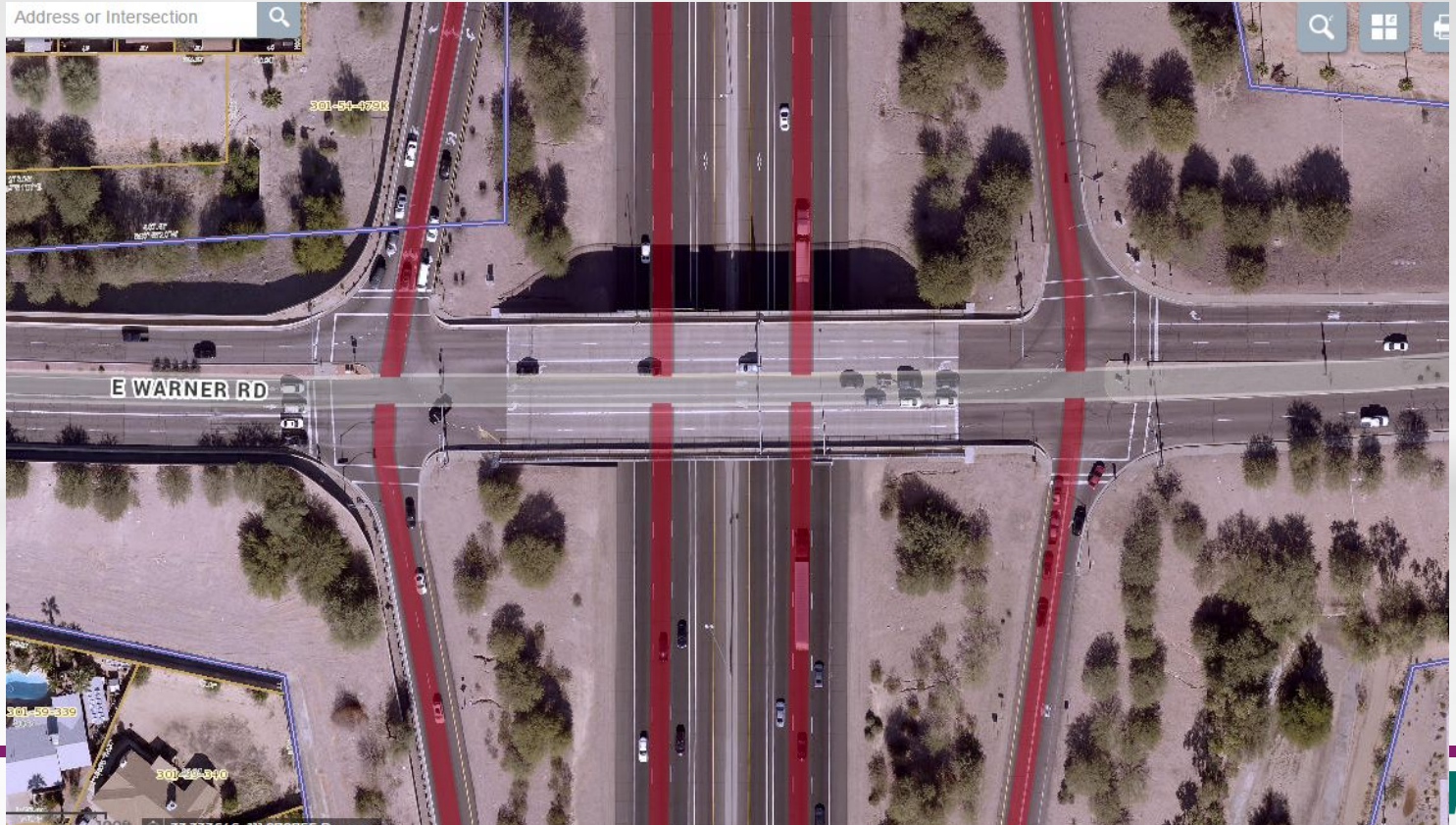




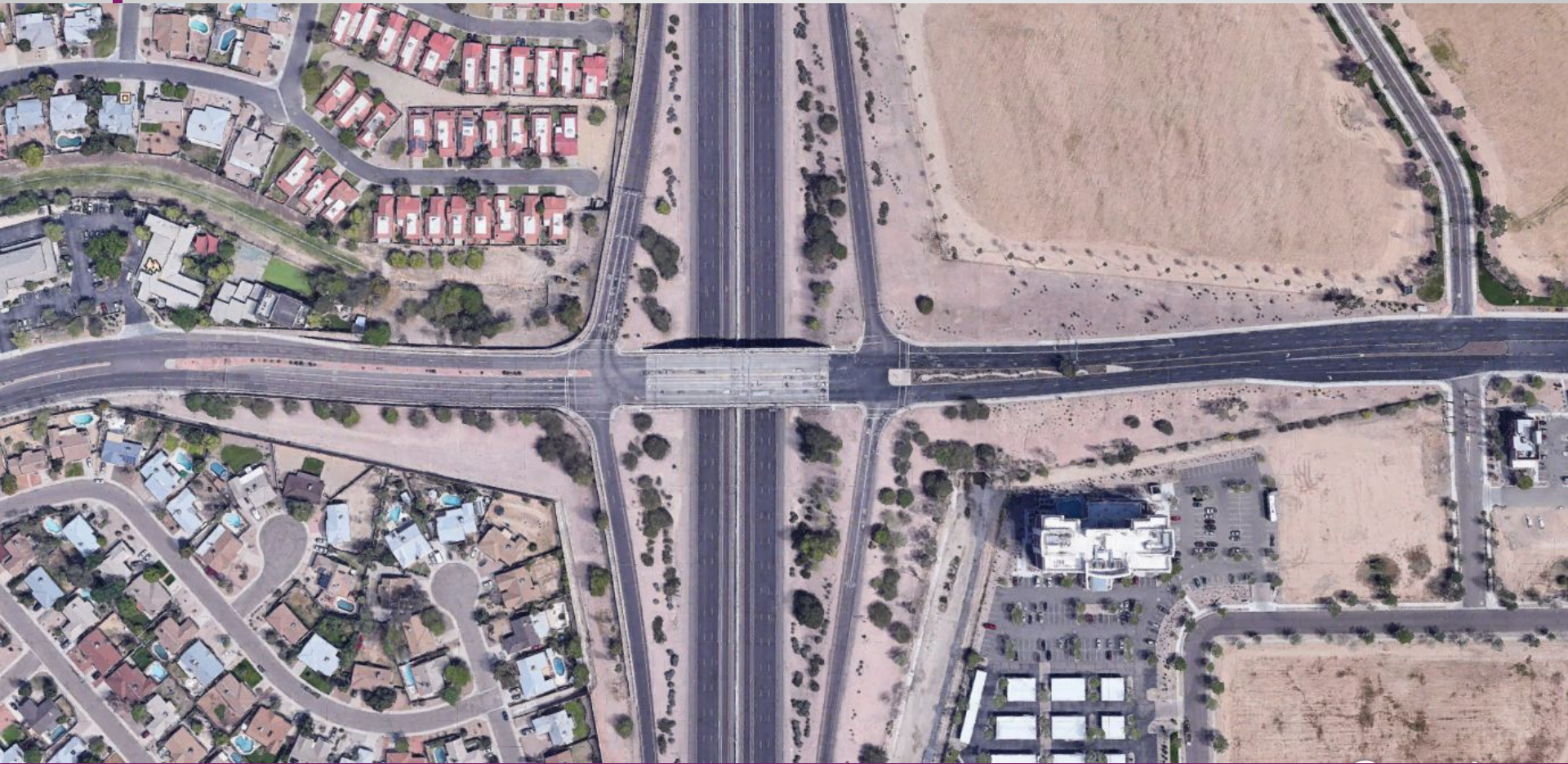




# Planning & Execution in Project Development

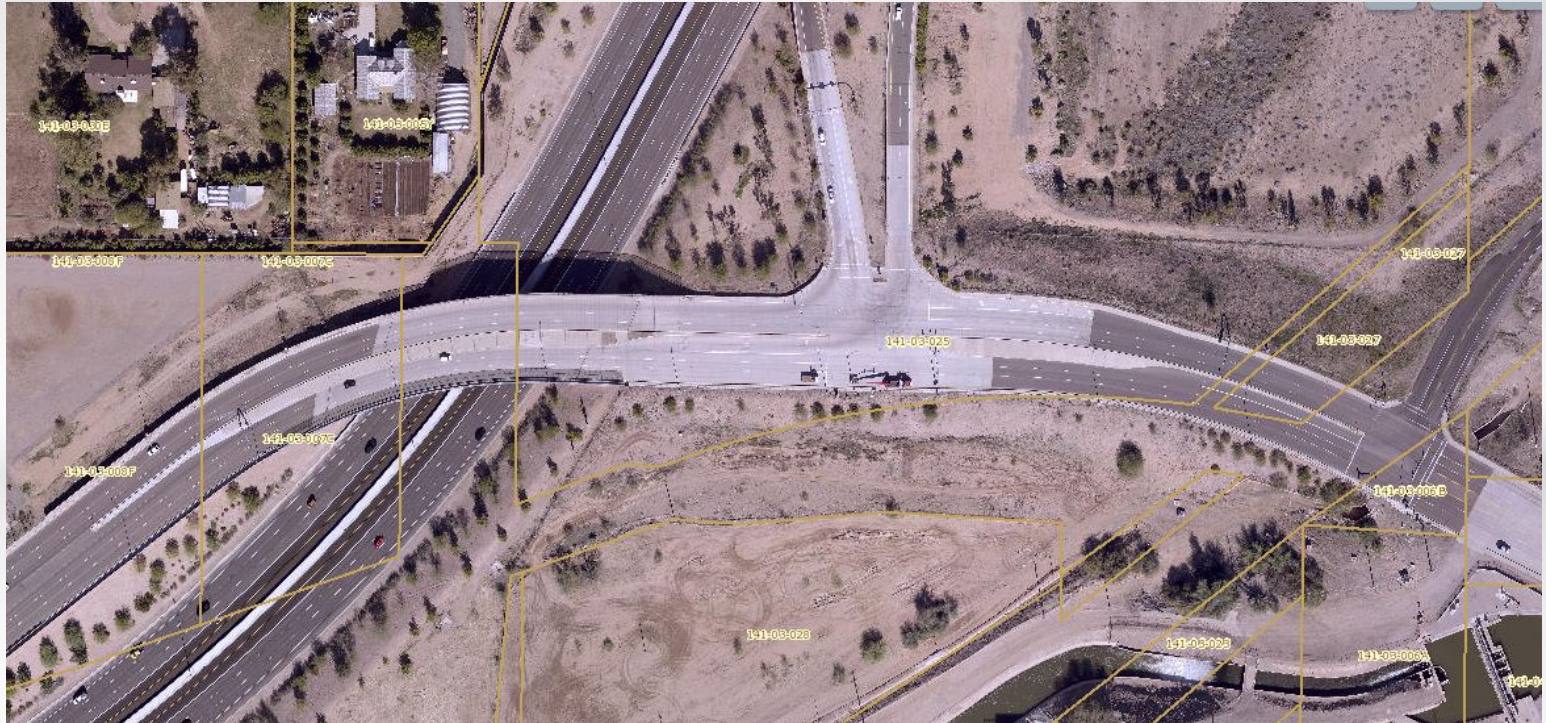








# Where do you draw the line?





This aerial map shows the intersection of Highway 141 and Highway 142. A red line highlights the proposed improvement along the east side of Highway 141, extending from the intersection to the east. The map includes labels for various parcels and road segments, such as 141-03-025, 141-03-026, 141-03-027, 141-03-028, 141-03-029, 141-03-030, 141-03-031, 141-03-032, 141-03-033, 141-03-034, 141-03-035, 141-03-036, 141-03-037, 141-03-038, 141-03-039, 141-03-040, 141-03-041, 141-03-042, 141-03-043, 141-03-044, 141-03-045, 141-03-046, 141-03-047, 141-03-048, 141-03-049, 141-03-050, 141-03-051, 141-03-052, 141-03-053, 141-03-054, 141-03-055, 141-03-056, 141-03-057, 141-03-058, 141-03-059, 141-03-060, 141-03-061, 141-03-062, 141-03-063, 141-03-064, 141-03-065, 141-03-066, 141-03-067, 141-03-068, 141-03-069, 141-03-070, 141-03-071, 141-03-072, 141-03-073, 141-03-074, 141-03-075, 141-03-076, 141-03-077, 141-03-078, 141-03-079, 141-03-080, 141-03-081, 141-03-082, 141-03-083, 141-03-084, 141-03-085, 141-03-086, 141-03-087, 141-03-088, 141-03-089, 141-03-090, 141-03-091, 141-03-092, 141-03-093, 141-03-094, 141-03-095, 141-03-096, 141-03-097, 141-03-098, 141-03-099, 141-03-100, 141-03-101, 141-03-102, 141-03-103, 141-03-104, 141-03-105, 141-03-106, 141-03-107, 141-03-108, 141-03-109, 141-03-110, 141-03-111, 141-03-112, 141-03-113, 141-03-114, 141-03-115, 141-03-116, 141-03-117, 141-03-118, 141-03-119, 141-03-120, 141-03-121, 141-03-122, 141-03-123, 141-03-124, 141-03-125, 141-03-126, 141-03-127, 141-03-128, 141-03-129, 141-03-130, 141-03-131, 141-03-132, 141-03-133, 141-03-134, 141-03-135, 141-03-136, 141-03-137, 141-03-138, 141-03-139, 141-03-140, 141-03-141, 141-03-142, 141-03-143, 141-03-144, 141-03-145, 141-03-146, 141-03-147, 141-03-148, 141-03-149, 141-03-150, 141-03-151, 141-03-152, 141-03-153, 141-03-154, 141-03-155, 141-03-156, 141-03-157, 141-03-158, 141-03-159, 141-03-160, 141-03-161, 141-03-162, 141-03-163, 141-03-164, 141-03-165, 141-03-166, 141-03-167, 141-03-168, 141-03-169, 141-03-170, 141-03-171, 141-03-172, 141-03-173, 141-03-174, 141-03-175, 141-03-176, 141-03-177, 141-03-178, 141-03-179, 141-03-180, 141-03-181, 141-03-182, 141-03-183, 141-03-184, 141-03-185, 141-03-186, 141-03-187, 141-03-188, 141-03-189, 141-03-190, 141-03-191, 141-03-192, 141-03-193, 141-03-194, 141-03-195, 141-03-196, 141-03-197, 141-03-198, 141-03-199, 141-03-200, 141-03-201, 141-03-202, 141-03-203, 141-03-204, 141-03-205, 141-03-206, 141-03-207, 141-03-208, 141-03-209, 141-03-210, 141-03-211, 141-03-212, 141-03-213, 141-03-214, 141-03-215, 141-03-216, 141-03-217, 141-03-218, 141-03-219, 141-03-220, 141-03-221, 141-03-222, 141-03-223, 141-03-224, 141-03-225, 141-03-226, 141-03-227, 141-03-228, 141-03-229, 141-03-230, 141-03-231, 141-03-232, 141-03-233, 141-03-234, 141-03-235, 141-03-236, 141-03-237, 141-03-238, 141-03-239, 141-03-240, 141-03-241, 141-03-242, 141-03-243, 141-03-244, 141-03-245, 141-03-246, 141-03-247, 141-03-248, 141-03-249, 141-03-250, 141-03-251, 141-03-252, 141-03-253, 141-03-254, 141-03-255, 141-03-256, 141-03-257, 141-03-258, 141-03-259, 141-03-260, 141-03-261, 141-03-262, 141-03-263, 141-03-264, 141-03-265, 141-03-266, 141-03-267, 141-03-268, 141-03-269, 141-03-270, 141-03-271, 141-03-272, 141-03-273, 141-03-274, 141-03-275, 141-03-276, 141-03-277, 141-03-278, 141-03-279, 141-03-280, 141-03-281, 141-03-282, 141-03-283, 141-03-284, 141-03-285, 141-03-286, 141-03-287, 141-03-288, 141-03-289, 141-03-290, 141-03-291, 141-03-292, 141-03-293, 141-03-294, 141-03-295, 141-03-296, 141-03-297, 141-03-298, 141-03-299, 141-03-300, 141-03-301, 141-03-302, 141-03-303, 141-03-304, 141-03-305, 141-03-306, 141-03-307, 141-03-308, 141-03-309, 141-03-310, 141-03-311, 141-03-312, 141-03-313, 141-03-314, 141-03-315, 141-03-316, 141-03-317, 141-03-318, 141-03-319, 141-03-320, 141-03-321, 141-03-322, 141-03-323, 141-03-324, 141-03-325, 141-03-326, 141-03-327, 141-03-328, 141-03-329, 141-03-330, 141-03-331, 141-03-332, 141-03-333, 141-03-334, 141-03-335, 141-03-336, 141-03-337, 141-03-338, 141-03-339, 141-03-340, 141-03-341, 141-03-342, 141-03-343, 141-03-344, 141-03-345, 141-03-346, 141-03-347, 141-03-348, 141-03-349, 141-03-350, 141-03-351, 141-03-352, 141-03-353, 141-03-354, 141-03-355



# 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.

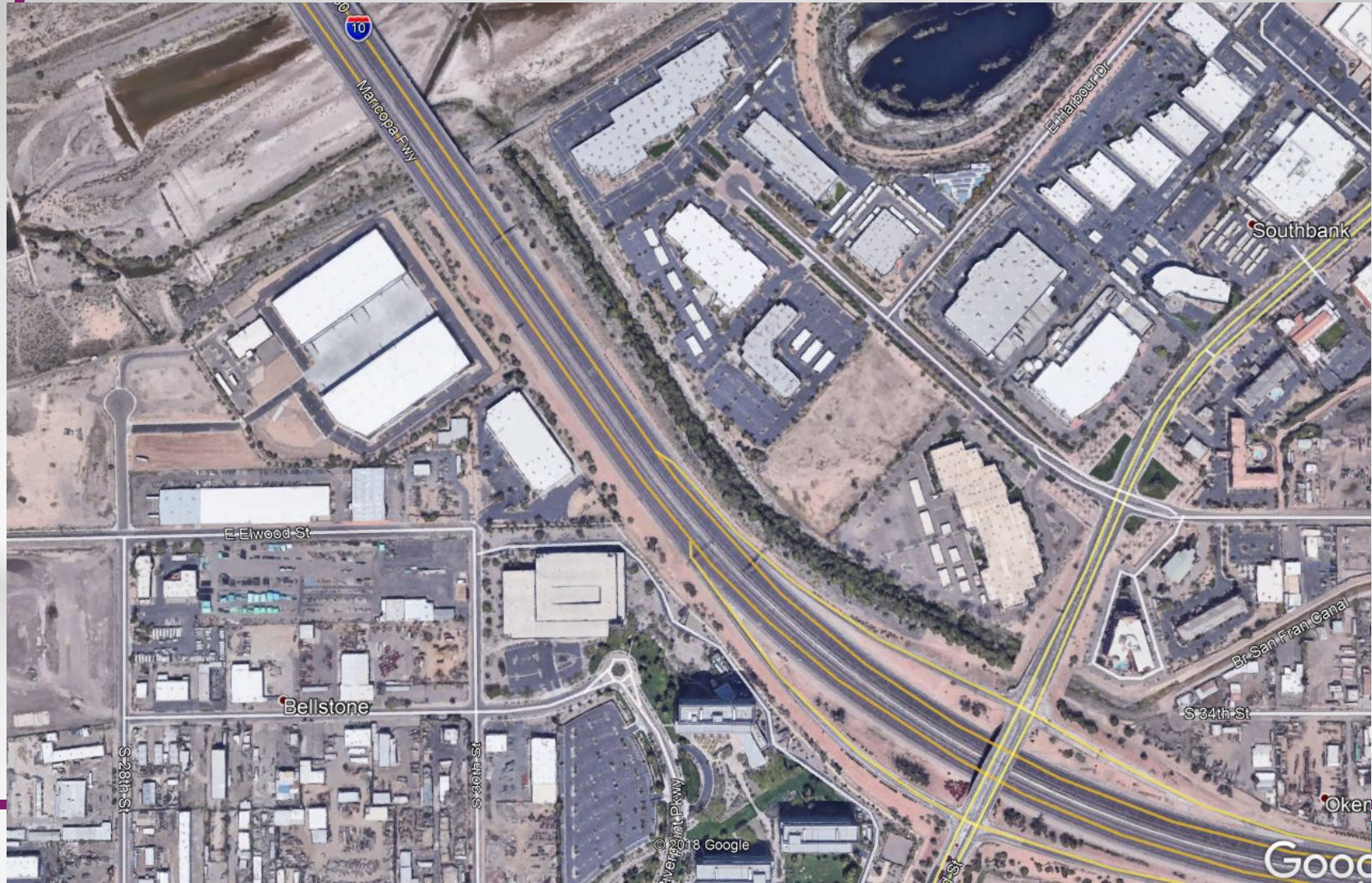
# Please

- 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.

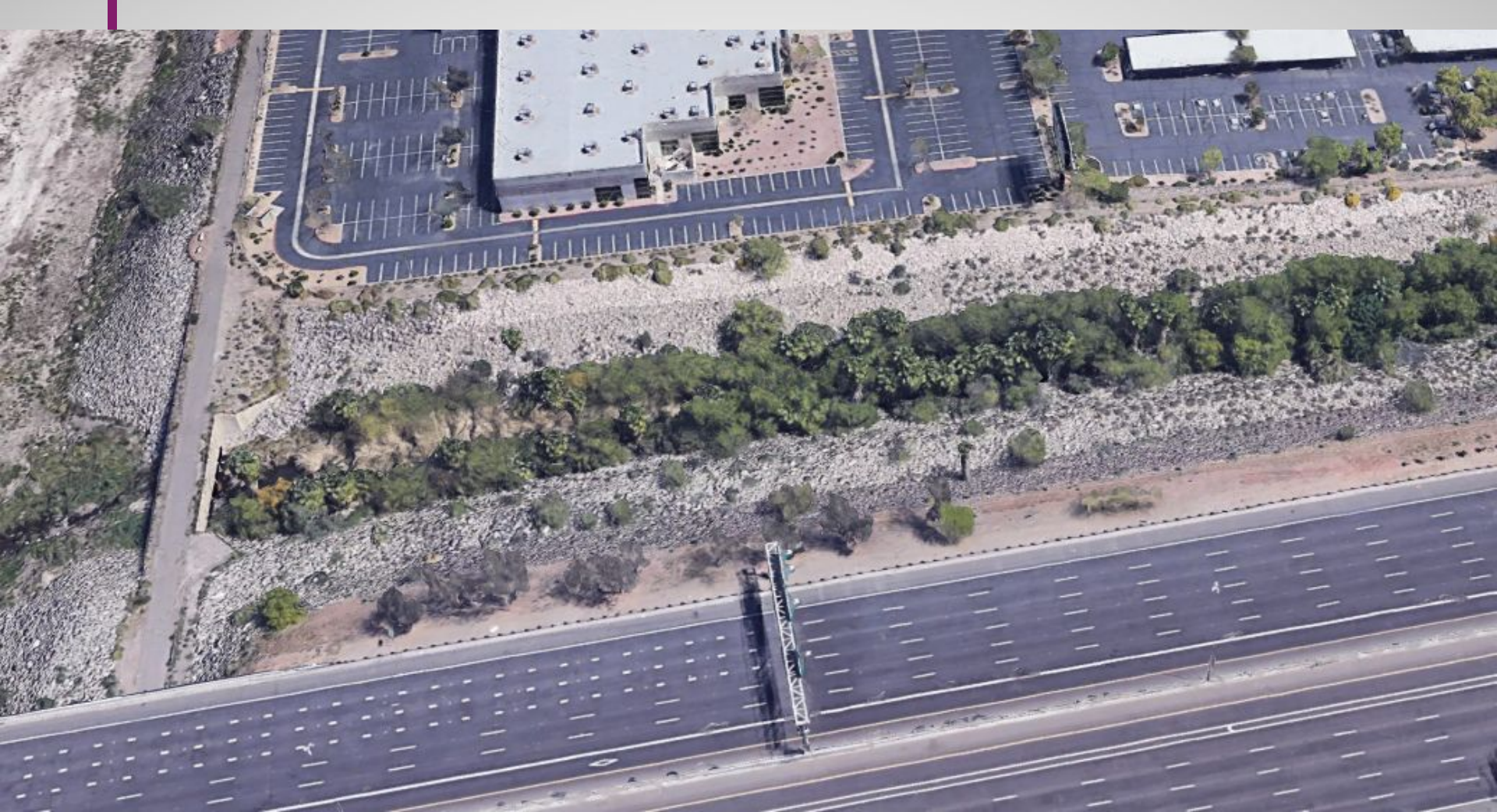


































# Just outside my wheelhouse

- 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

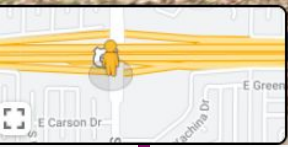


Google



Street View - Mar 2020







# Please

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













WILSON BLVD  
EXIT 101

W Glendale Ave

W 10th St

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.

# Permits

- Central Districts average over 900 permits a year, but are well over this year.
- New freeways = new developments and resulting new utilities.
- Events can be challenges - even annual ones like the various Ironman's, golf, auctions & the like in Scottsdale, Renn Fest, LPGA, etc





# Questions?