LA Metro Highway Programs

Emcee: Edgar Zelaya Associate Vice President KKCS

Speaker: Abdollah Ansari Managing Executive Officer, Highway Program LA Metro

August 18, 2021



PLATINUM SPONSOR



GOLD SPONSOR



Construction Management Inspection Services Materials Testing

Metro Highway Program





CMAA AUGUST 2021

What's the Problem?

Problems:

- Short Supply of Roads
- Incomplete Highway System
- Economic Prosperity
- More jobs
- Growing population
- Housing Allocations
- Homeownership affordability
- Sprawl
- Growing distances between homes and jobs

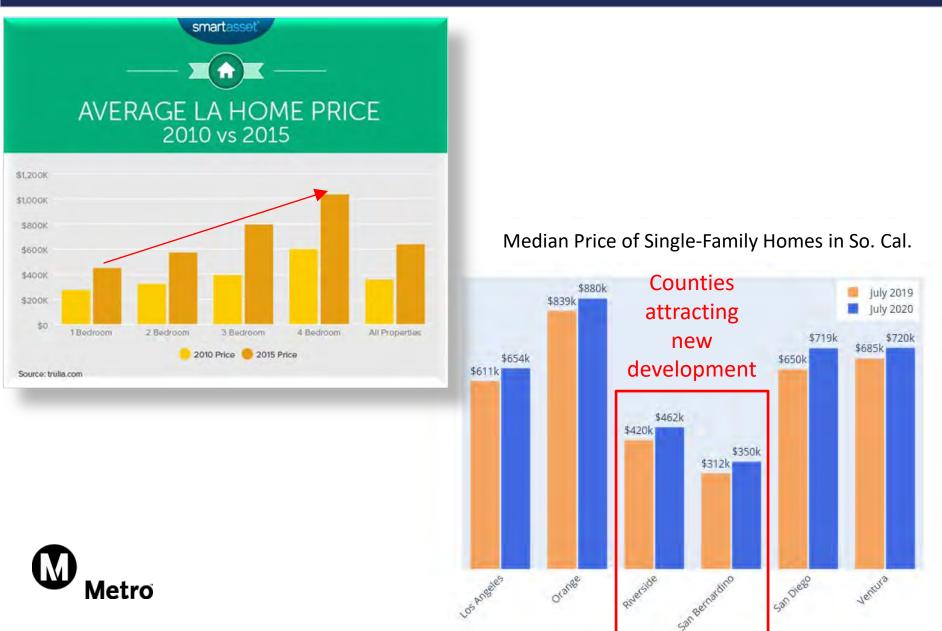
= Scattered O & D of trips



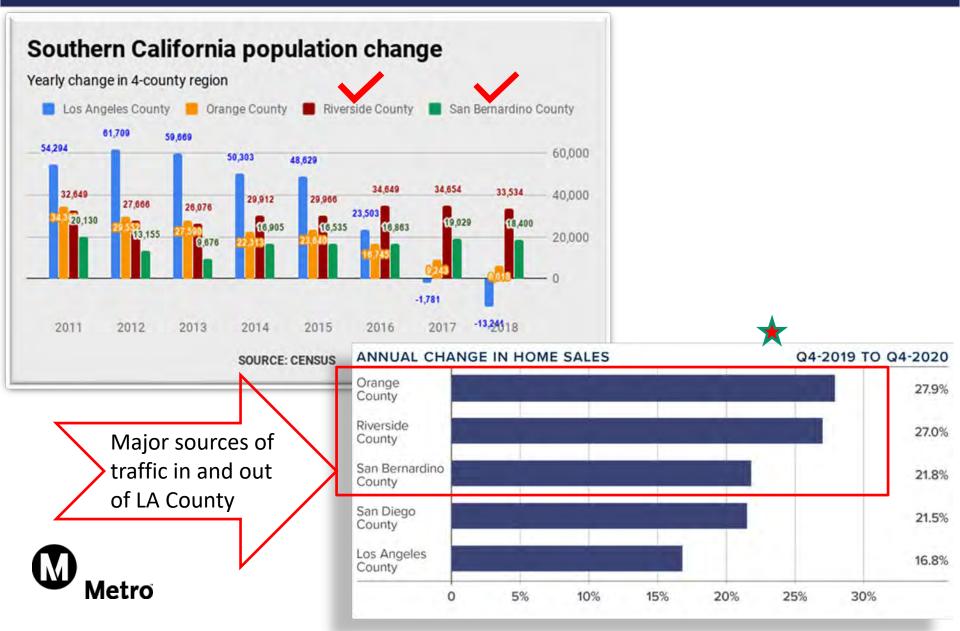
Considerations/Actions Needed:

- Understanding of the problem and the factors continuing its growth
- Connected and informed decision-making
- Coordinated planning
- Realistic and unbiased decisions/actions
- Validation of what is needed and what works

What's the Problem?



What's the Problem?



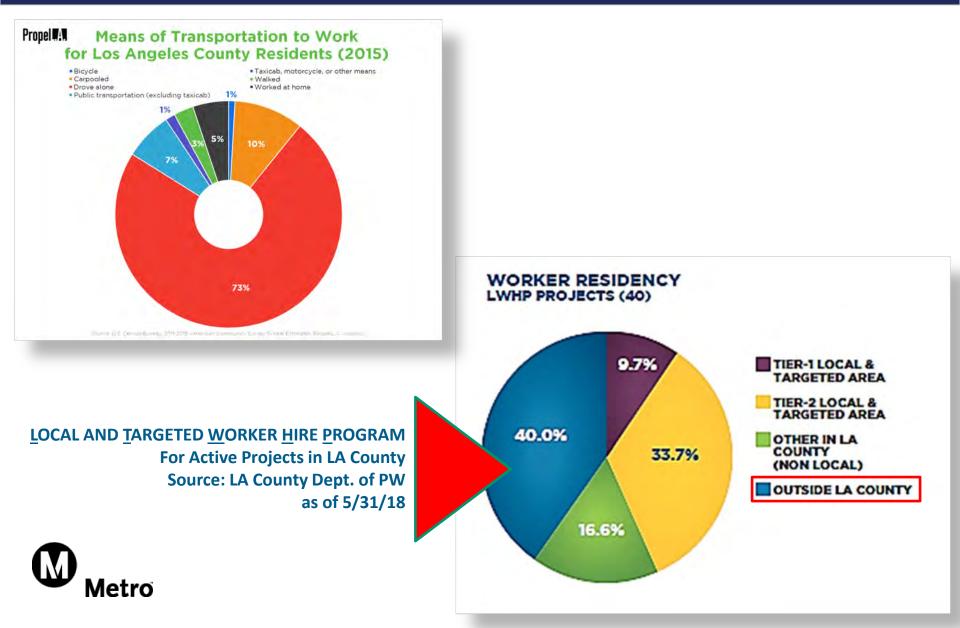
2005-2017 Means of Transportation to Work LA County





1990-2017 Growth in U.S. Market Demand for Vehicles





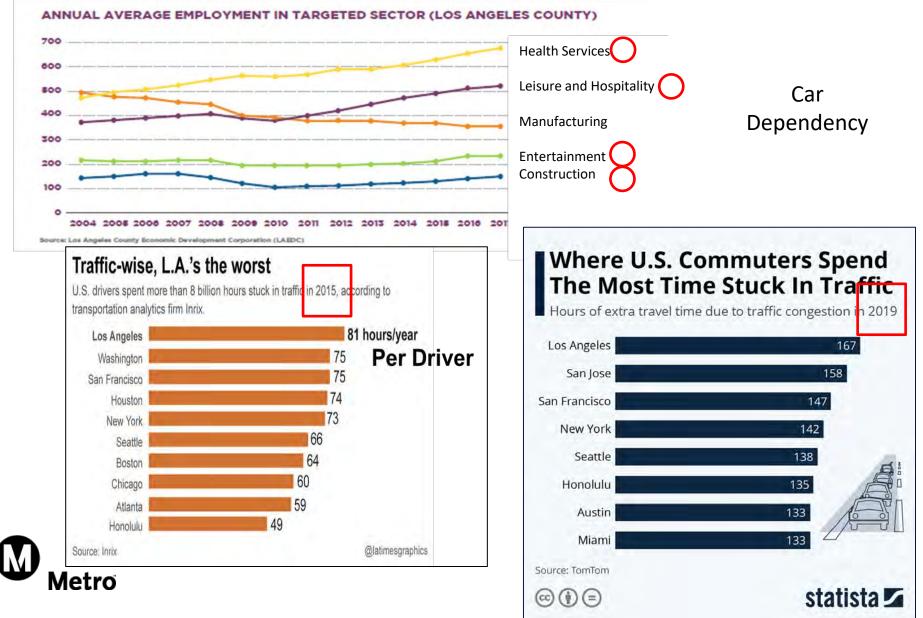
2017 Top U.S. Cities with the Longest Commutes

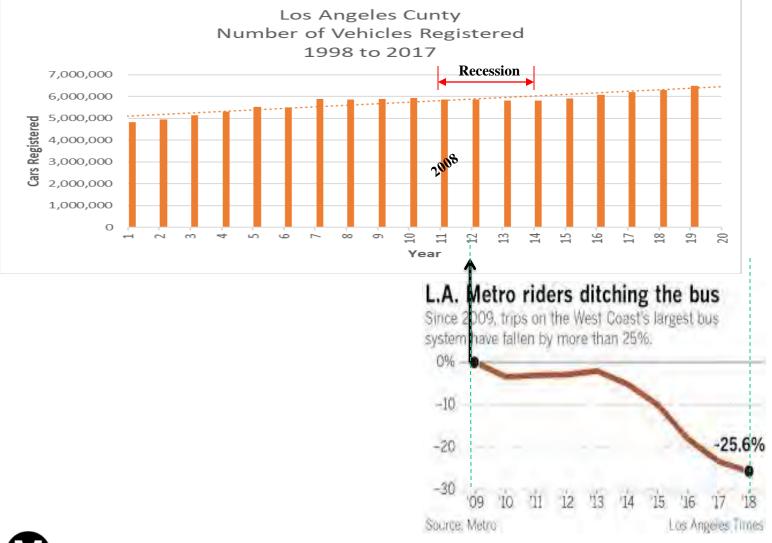
Rank	City	Avg. Round Trip Commute (min.)	% Population commuting 2+ hrs round-trip per day	Car %	Public Transit %	Walk %	Bike %
1	Palmdale	85.4	35	91.4	2	0.8	0.2
4	Corona	73.4	23.6	90.7	1.6	1.2	0.1
6	Santa Clarita	69.8	19.7	87.9	3	1.2	0.5
8	Moreno Valley	68.6	17.1%	92.7	1.5	0.7	0.3
L							

- Housing Affordability
- Growing Rural Communities
- Better living environment

- Long Commute
- Higher VMT
 - Heavy Congestion
 - Lack of Options









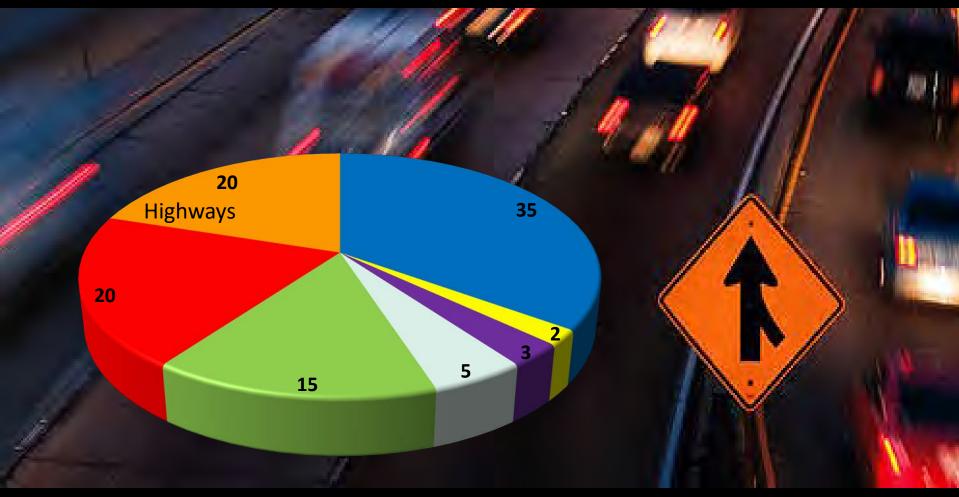
To build or not to build...

THAT IS THE QUESTION

William Shakespeare, 2021



MEA\$URER



2008 ~\$8

~\$8 bil. For Highways

Measure R Highway Projects



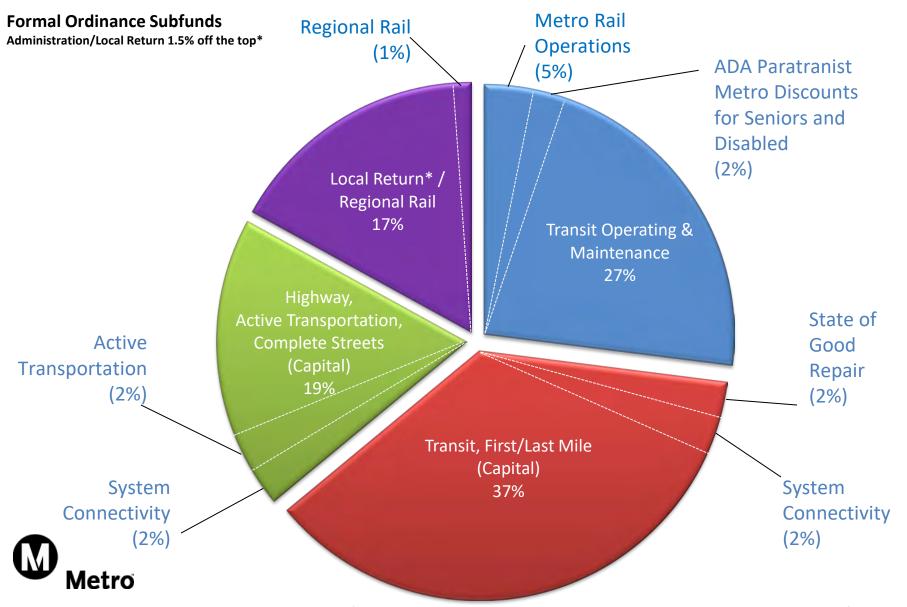


MEASURE M



2016 ~\$21 bil. For Highways

Measure M Funding Categories by subfund through 2039



* 1% Administration to supplement Local Return, increasing the Local Return-Base to 17% of net revenues.

16

Measure M Projects



Measures M Major Highway Projects – By Metro

Countywide Highway Projects

Ā			Available		*	Local, State,		Most Recent	Code	
Reference Only	Project		Ground-		Subregion*	Federal,	Measure Funding	Cost		
erend	(Final Project to be Defined by the Environmental Process)	s	breaking	Expected Opening Date	bre	Other	2015\$	Estimate	Modal	
Refe		Notes	Start Date [‡]	(3 year range)	Su	Funding	20100	2015\$**	Ň	
For		z	Start Date			2015\$				
	Expenditure Plan Major Projects			1 st yr of Range				0501000	-	
1	Airport Metro Connect 96th St. Station/Green Line Ext LAX ®		FY 2018	CY 2021	SC	\$233,984	\$347,016	\$581,000	Т	
2	Westside Purple Line Extension Section 3 ®	b	FY 2018	FY 2024	w	\$986,139	\$994.251		Т	
3	High Desert Multi-Purpose Corridor (HDMC)®	q	FY 2019	FY 2021	nc	\$100,000	\$170,000	\$270,000	н	
4	I-5 N Cap. Enhancements (SR-14 to Lake Hughes Rd) ®		FY 2019	FY 2023	nc	\$544,080	\$240,000	\$784,080	н	
5	Gold Line Foothill Extension to Claremont ®	С	FY 2019	FY 2025	sg	\$78,000	\$1,019,000	\$1,097,000	1	
6	Orange Line BRT Improvements	n	FY 2019	FY 2025	sf	\$0	\$286,000	\$286,000	Т	
7	BRT Connector Orange/Red Line to Gold Line	0	FY 2020	FY 2022	av	\$0	\$240,300	\$240,300	Т	
8	BRT Connector Orange/Red Line to Gold Line	0	FY 2020	FY 2022	sf	\$0	\$26,700	\$26,700	Т	
9	East SF Valley Transit Corridor Project ®	d	FY 2021	FY 2027	sf	\$520,500	\$810,500	\$1,331,000	Т	
10	West Santa Ana Transit Corridor LRT ®	b,c	FY 2022	FY 2028	gc	\$500,000	\$535,000	\$1,035,000	Т	
11	Crenshaw/LAX Track Enhancement Project	e.r	FY 2022	FY 2026	SC	\$0	\$49.599	\$49.599		
12	SR-71 Gap from I-10 to Rio Rancho Rd.		FY 2022	FY 2026	sg	\$26,443	\$248,557	\$275,000	н	
13	LA River Waterway & System Bikepath		FY 2023	FY 2025	CC	\$0	\$365,000	\$365,000	н	
14	Complete LA River Bikepath		FY 2023	FY 2025	sf	\$0	\$60,000	\$60,000	н	
15	Sepulveda Pass Transit Corridor (Ph 1)®	b,f	FY 2024	FY 2026	sf	\$0	\$130,000	\$130,000	н	
16	Sepulveda Pass Transit Corridor (Ph 1) ®	b,f	FY 2024	FY 2026	w	\$0	\$130,000	\$130,000	н	
17	Vermont Transit Corridor	0	FY 2024	FY 2028	cc	\$400,000	\$25,000	\$425,000	T	
18	SR-57/SR-60 Interchange Improvements	d	FY 2025	FY 2031	sg	\$565,000	\$205,000	\$770,000		
	· · ·	d,c			SD					
	I-710 South Corridor Project (Ph 1)®	d,h		FY 2032	gc	\$150,000	\$250,000	\$400,000		
	I-105 Express Lane from I-405 to I-605	i p			SC		\$175,000			
22	Sepulveda Pass Transit Corridor (Ph 2) ®	: Þ	FY 2024	FY 2033	sf	\$1,567,000				
23	Sepulveda Pass Transit Corridor (Ph 2) ®	b	FY 2024	FY 2033	w	\$1,567,000	\$1,270,000	\$2,837,000	T	
23	Gold Line Eastside Extension (One Alignment) ®	d	FY 2029	FY 2035	gc	\$957,000	\$543,000	\$1,500,000	Ť	
24	Gold Line Eastside Extension (One Alignment)®	d	FY 2029	FY 2035	-	\$957,000	\$543,000	\$1,500,000	Ť	
25	West Santa Ana Transit Corridor LRT ®	r	FY 2023	FY 2035	sg cc	\$1,082,500	\$400,000	\$1,482,500	Ť	
20	West Santa Ana Transit Corridor LRT ®	11	FY 2022	FY 2041	ac	\$982,500	\$500.000			
						\$658,500	\$250,000	\$908,500	н	
28	I-710 South Corridor Project (Ph 2) ®		FY 2032	FY 2041	gc					
29	I-5 Corridor Improvements (I-605 to I-710)		FY 2036	FY 2042	gc	\$46,060	\$1,059,000	\$1,105,060	H	
30	Crenshaw Northern Extension		FY 2041	FY 2047	сс	\$495,000	\$1,185,000	\$1,680,000		
31	Crenshaw Northern Extension	- 1	FY 2041	FY 2047	w	\$0	\$560,000	\$560,000		
32	I-405/I-110 Int. HOV Connect Ramps & Intrchng Improv ®		FY 2042	FY 2044	sb	\$0	\$250,000	\$250,000		
33	I-605/I-10 Interchange		FY 2043	FY 2047	sg	\$472,400	\$126,000	\$598,400	н	
34	SR 60/I-605 Interchange HOV Direct Connectors		FY 2043	FY 2047	sg	\$360,600	\$130,000	\$490,600		
		l.o		FY 2047	w					
	The Express Lane Ext obdit to 1-405/1-110 Interchande		FY 2044		sb		\$51.500			
			FY 2045		sb			and the second	Concession of the local division of the loca	
38	Green Line Eastern Extension (Norwalk)	р	FY 2046	FY 2052	SC	\$570,000	\$200,000	\$770,000		
39	SF Valley Transportation Improvements	m	FY 2048	FY 2050	sf	\$0	\$106,800	\$106,800		
40	Sepulveda Pass Westwood to LAX (Ph 3)	р	FY 2048	FY 2057	SC	\$3,800,000	\$65,000	\$3,865,000	т	
41	Orange Line Conversion to Light Rail		FY 2051	FY 2057	sf	\$1,067,000	\$362,000	\$1,429,000	Т	
42	City of San Fernando Bike Master Plan		FY 2052	FY 2054	sf	\$0	\$5,000	\$5,000		
43	Historic Downtown Streetcar		FY 2053	FY 2057	cc	\$0	\$200,000	\$200,000	т	
44	Gold Line Eastside Ext. Second Alignment	р	FY 2053	FY 2057	SC	\$110,000	\$2,890,000	\$3,000,000	Т	
45	High Desert Multi-Purpose Corridor - LA County Segment	р	FY 2063	FY 2067	SC	\$32,982	\$1,845,718	\$1,878,700	Н	
46	Expenditure Plan Major Projects Subtotal					\$19,581,027	\$20,989,941	\$40,570,969		
					-					

2016 - 2067

Schedule of Funds



Measures M Highway Projects - Subregional

yIn			Available		5	Local, State,	Measure	Most Recent	Cod
For Reference Only	Project		Ground-	Expected	Subregion	Federal,	Funding	Cost	ŭ
eren	(Final Project to be Defined by the Environmental Process)	S	breaking	Opening Date	bre	Other	2015\$	Estimate	da
Ref		Notes	Start Date*	(3 year range)	Su	Funding		2015\$**	Modal
For		z	Start Date			2015\$			
	Multi-Year Subregional Programs			1 st yr of Range					
47	Metro Active Transport, Transit 1st/Last Mile Program	р	FY 2018	FY 2057	sc	\$0	\$857,500	\$857,500	н
48	Visionary Project Seed Funding	р	FY 2018	FY 2057	sc	\$0	\$20,000	\$20,000	T
49	Street Car and Circulator Projects	k,p	FY 2018	FY 2022	sc	\$0	\$35,000	\$35,000	Т
50	Transportation System and Mobility Improve. Program		FY 2018	FY 2032	sb	\$0	\$293,500	\$293,500	н
51	Active Transportation 1st/Last Mile Connections Prog.		FY 2018	FY 2057	w	\$0	\$361,000	\$361,000	н
52	Active Transportation Program		FY 2018	FY 2057	nc	\$0	\$264,000	\$264,000	н
53	Active Transportation Program		FY 2018	FY 2057	gc	\$0	TBD	TBD	н
54	Active Transportation Program (Including Greenway Proj.)		FY 2018	FY 2057	sg	\$0	\$231,000	\$231,000	н
55	Active Transportation, 1st/Last Mile, & Mobility Hubs		FY 2018	FY 2057	cc	\$0	\$215,000	\$215,000	H
56	Active Transportation, Transit, and Tech. Program		FY 2018	FY 2032	lvm		\$32,000	\$32,000	Т
57	Highway Efficiency Program		FY 2018	FY 2032	lvm		\$133,000	\$133,000	н
58 59	Bus System Improvement Program First/Last Mile and Complete Streets		FY 2018 FY 2018	FY 2057 FY 2057	sg sa	\$0 \$0	\$55,000 \$198,000	\$55,000 \$198,000	
60	Highway Demand Based Prog. (HOV Ext. & Connect.)		FY 2018	FY 2057	sg	\$0	\$231,000	\$231,000	H
61	I-605 Corridor "Hot Spot" Interchange Improvements ®		FY 2018	FY 2057	gc	\$240,000	\$1,000,000	\$1,240,000	н
	Modal Connectivity and Complete Streets Projects		EV 2018	EV 2057	gu				
	South Bay Highway Operational Improvements		FY 2018	FY 2057	sb	\$600,000	\$500,000	\$1,100,000	н
64	Transit Program		FY 2018	FY 2057	nc	\$500,000	\$88,000	\$588,000	т
00	Transit Projecta		FY 2010	FY 2057	av	50	\$257,100	\$257,100	-
	Transportation System and Mobility Improve. Program		FY 2018	FY 2057	sb	\$0	\$350,000	\$350,000	н
67	North San Fernando Valley Bus Rapid Transit Improvements	p.s	FY 2019	FY 2023	sc	\$0	\$180,000	\$180,000	T
68	Subregional Equity Program	p,s	FY 2018	FY 2057	sc	TBD	TBD		T/H
69	Countywide BRT Projects Ph 1 (All Subregions)	l,p	FY 2020	FY 2022	sc	\$0	\$50,000	\$50,000	Т
70	Countywide BRT Projects Ph 2 (All Subregions)	l,p	FY 2030	FY 2032	sc	\$0	\$50,000	\$50,000	Т
71	Active Transportation Projects		FY 2033	FY 2057	av	\$0	\$136,500	\$136,500	н
72	Los Angeles Safe Routes to School Initiative		FY 2033	FY 2057	cc	\$0	\$250.000	\$250.000	н
73	Multimodal Connectivity Program		FY 2033	FY 2057	nc	\$0	\$239,000	\$239,000	н
	Countywide BRT Projects Ph 3 (All Subregions)	l.p	FY 2040	FY 2042	sc	\$0	\$50.000	\$50.000	
	Arterial Program		FY 2048	FY 2057	nc	\$0	\$726,130	\$726,130	н
	BRT and 1st/Last Mile Solutions e.g. DASH		FY 2048	FY 2057	cc			\$250,000	
	Freeway Interchange and Operational Improvements		FY 2048	FY 2057	cc	\$0	\$195,000	\$195,000	н
	Goods Movement (Improvements & RR Xing Elim.)		FY 2048	FY 2057	sg		\$33,000	\$33,000	
79	Goods Movement Program		FY 2048	FY 2057	nc	\$0	\$104,000	\$104,000	T
	Goods Movement Projects		FY 2048	FY 2057	av	\$0	\$81,700	\$81,700	Т
	Highway Efficiency Program		FY 2048	FY 2057	nc	\$0 \$0	\$128,870	\$128,870	
82	Highway Efficiency Program		FY 2048	FY 2057	sg	\$0	\$534,000	\$534,000	н
83	Highway Efficiency, Noise Mitig. and Arterial Projects		FY 2048 FY 2048	FY 2057	av	\$0 \$0	\$602,800	\$602,800	H H
84	ITS/Technology Program (Advanced Signal Tech.)		FY 2048	FY 2057	sa	50	\$66.000	\$66.000	
86	Modal Connectivity Program		FY 2048		lvm	\$0	\$68,000	\$68,000	н
	Public Transit State of Good Repair Program		FY 2048 FY 2048	FY 2057 FY 2057	cc	\$0	\$402,000	\$402,000	
88	Traffic Congestion Relief and Improvement Program		FY 2048	FY 2057	lvm	\$0	\$63,000	\$63,000	н
89	Traffic Congestion Relief/Signal Synchronization		FY 2048	FY 2057	cc	\$0 \$0	\$50,000	\$50,000	н
90	Arroyo Verdugo Projects to be Determined		FY 2048	FY 2057	av	\$0 \$0	\$110,600	\$110,600	н
91	Countywide BRT Projects Ph 4 (All Subregions)	р	FY 2050	FY 2052	sc	\$90,000	\$10,000	\$100,000	T
92	Countywide BRT Projects Ph 5 (All Subregions)	p	FY 2060	FY 2062	sc	\$0	\$100,000	\$100,000	Ť
93	Multi-Year Subregional Programs Subtotal					\$1,430,000	\$10,253,700	\$12,879,700	
94	GRAND TOTAL					\$21,011,027	\$31,243,641	\$53,450,669	
54						W21,011,021	\$01,240,041	\$00,400,000	



Recent Considerations in Developing Projects

- More flexibility in the use of highway funds (active transportation, complete streets)
- Stopping/slowing major highway corridor improvement considerations until options with lesser impacts are explored and accepted (I-710, I-605)
- Inclusion of equity and race impact assessment in major highway investments
- Expanded public participation in project development



I-5 North HOV and Truck Lanes

- 14 miles of HOV lanes in both directions
- 2 miles of truck climbing lanes at the south end
- 7 bridge modifications at:





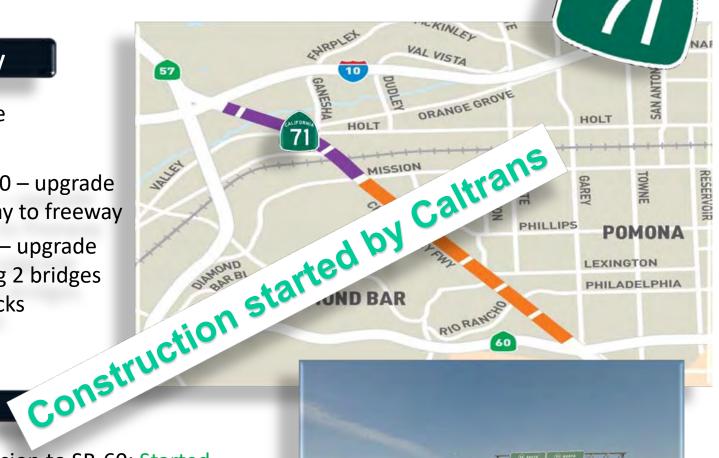


SR-57/SR-60 Interchange Metro Measure M Project ALIFORN ALIFORN Metro Call For Projects – In Progress Metro Call For Projects – In Progress **Future Project** Industry Business 60 **Center Development** HOV to HOV 57 City of Industry B AUX Lane/Off-Ram WB Off-Ramp Rynasi B On-Ram EB Off-Ramp EB On-Ramp Bypass Grand Ave OC Springs Drive 60 Diamond Bar Grand/GSD **Inder Desig** Substantial grant funds secured Construction: 2022 Metro

SR-71

Project Summary

- In Final Design phase
- 2 segments:
 - Mission to SR-60 upgrade from expressway to freeway
 - Mission to I-10 upgrade including raising 2 bridges over the RR tracks



IFORNIA

Status Update

- Construction of Mission to SR-60: Started
- Construction of Mission to I-10: Summer 2023



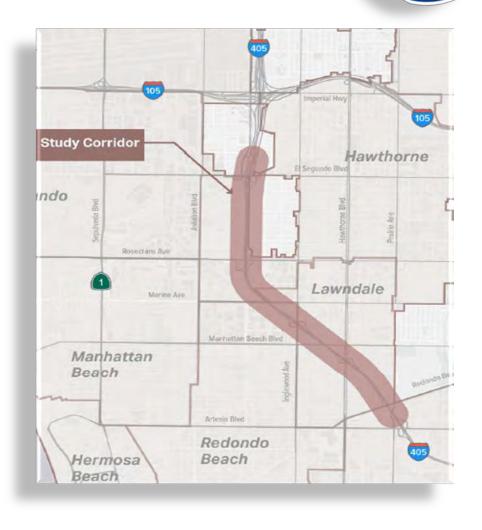
I-405

Project Summary

 Add auxiliary lanes NB & SB from I-105/I-405 to Artesia Blvd offramp

Status Update

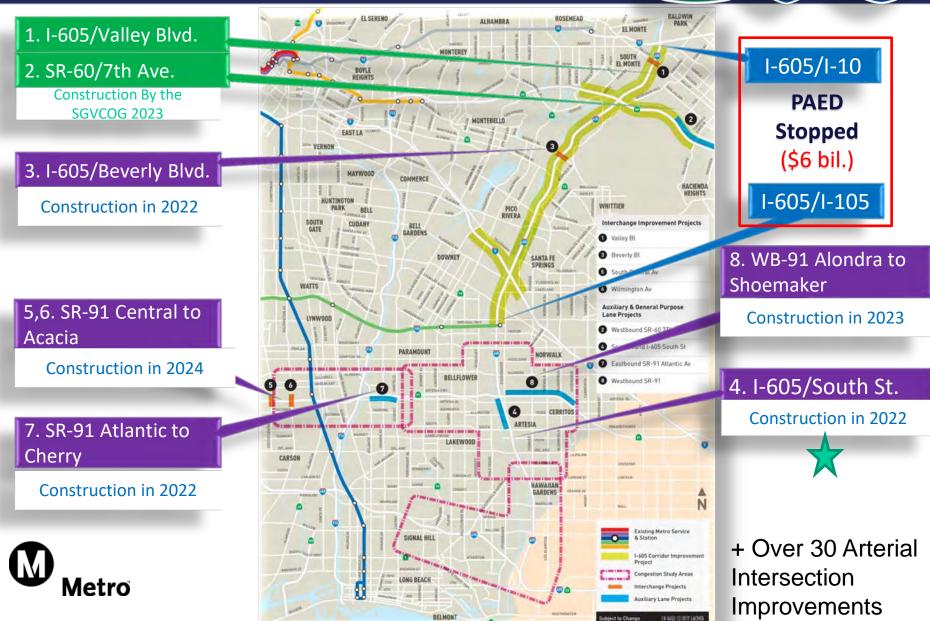
- PSR completed Nov. 2018
- PAED completed in 2020
- Starting Design
- Construction in 2023



INTERSTATE



"Hot Spots" Program



INTERSTATE

ALIFORNI

INTERSTATE

CALIFORNIA

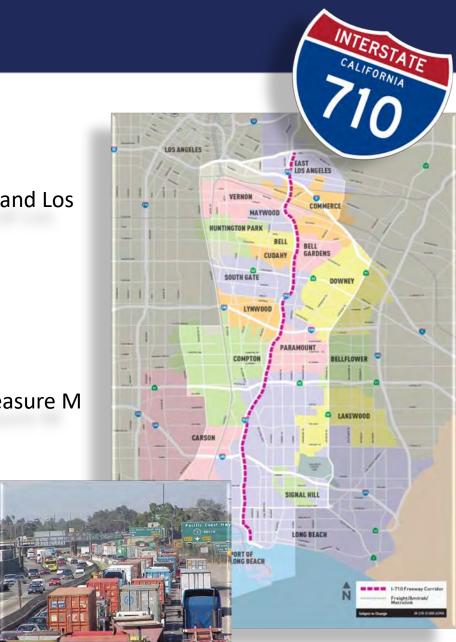
I-710

Project Summary

- In PAED phase
- 18 miles between the Ports of Long Beach and Los Angeles and the SR-60
- Locally-Preferred Alternative Selected:
 - 5C: One lane + upgrading
- Estimated Cost: \$6-\$11 billion
- Includes "Early Action" Projects
- \$420 mil in Measure R and \$500 mil. in Measure M

Status Update

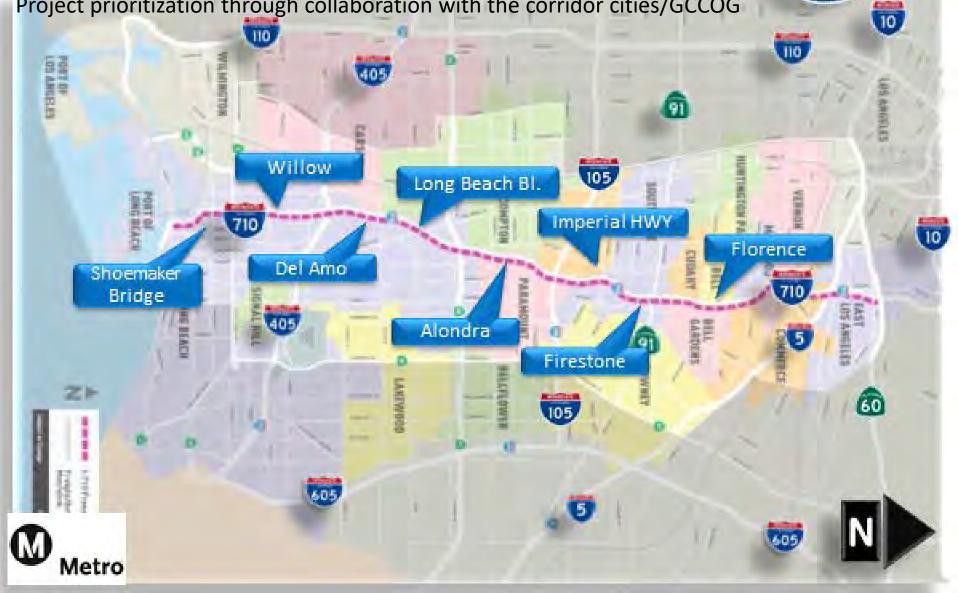
- Final Corridor EIR/EIS: Stopped
- Early Action projects: TBD





Early Action Projects

Project prioritization through collaboration with the corridor cities/GCCOG



I-710 Integrated Corridor Management

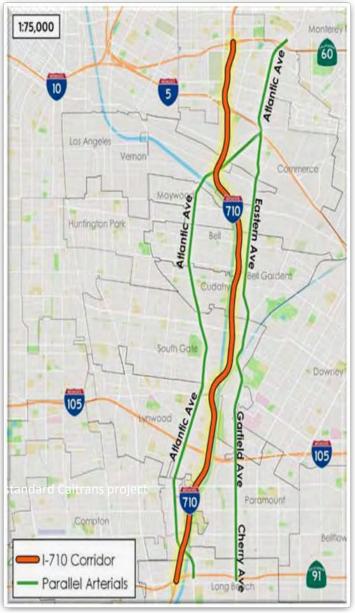
Project Summary

- Parallel to 12 miles of the I-710 between SR-91 to SR-60.
- In the cities of Bell, Bell Gardens, Commerce, Compton, Cudahy, Downey, Long Beach, Lynwood, Maywood, Paramount, South Gate, Vernon, and unincorporated LA County.
- Communication and signal upgrades, ramp metering, detection systems, cameras, lane closure and travel time systems to more effectively manage congestion.
- Will integrate all systems from each agency to effectively manage incidents and other non-recurrent events.
- No new right-of-way acquisition is expected.

Status Update

- Project Charter signed by all stakeholders
- Concept of Operations circulated for review June 2021
- Functional Requirements and High-Level Design Phases to be initiated August 2021
- PS&E target completion December 2022
- Funds for Construction to be identified

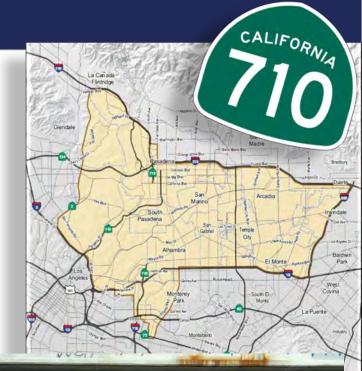
Metro



State Route 710 (North)

Project Summary

- \$780M in Measure R funds
- \$300+M in other funds
- PAED Completed
- Preferred Alternative selected: TSM/TDM
- Mobility improvement projects (MIP) identified for funding and implementation



Status Update

- Programming of approved TSM/TDM and MIPs in 2019 and after
- Working with the San Gabriel Valley cities and the City and County of LA to implement projects





M.R. SR-14/138 Projects

			(38/4
	Project	Construction Date (Estimate)	
	SR-138/SR-14 Avenue K Interchange	Sep. 2022	
er	SR-138/SR-14 Avenue G Interchange	Mar. 2022	Redman
-ancaster	SR-138/SR-14 Avenue J Interchange (2 phases)	Jan. and Dec. 2021	
Lan	SR-138/SR-14 Avenue L Interchange	Jan. 2023	Lancaster
	SR-138/SR-14 Avenue M Interchange	Oct. 2022	Palmdele Palmdele Rei onal Aliport
	SR-138/Palmdale Blvd., 5th to 10th Street East	Jul. 2024	
Palmdale	SR-138/Palmdale Blvd., SB SR-14 Ramps	Jan. 2022	Palmdal (1) Antelope Center
	SR-138, 10th Street West Interchange	Dec. 2023	Ritter
	SR-138 Widening, Rancho Vista Blvd. to Palmdale Blvd.	Completed	Pe
	SR-138, Avenue N Overcrossing	Jan. 2022	Ravenna
	I Valle	Hungbreys Santa Clarita	Google

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Construction contracts by Palmdale and Lancaster

Project Summary

- 63 miles Highway, Expressway, Tollway, High Speed Rail, Bikeway, and energy production/transmission corridor concepts
- Connecting North Los Angeles County and San Bernardino County (Victorville)
- Transit connection between the CHSR and the XpressWest
- In Measure M for ROW and related services in 2019
- More funds in later years
- Final EIR/EIS completed in 2016

Status Update

- Passenger rail feasibility study in progress
- Highway alignment alternative PSR on 138 and 18 started in 2021

Metro



CALIFORNIA

Additional Engagements

Additional Regional Projects

- Soundwall Package 10
- I-710 Soundwalls

Supporting Other Metro Projects/Programs

- Next Gen Bus
- I-210 Safety Barrier
- Regional Planning
- ExpressLanes

Assisting in Development of Local

Projects

- Local Intersections
 - City of Whittier
 - City of San Gabriel
 - City of South Gate
 - City of Compton
 - City of Lawndale
 - ... More to come
- Freight Advanced Traveler Information System Implementation
- SR-710 Mobility Improvement Projects
- I-710 Early Action Projects (Roadway/Interchanges)

Study/Technology

Var. Phases TBD



Transportation Technology/Op. Improvements



Progress

COMPLETED

• SR-138 Widening, Rancho Vista Blvd. to Palmdale Blvd.

CONSTRUCTION

- I-5 HOV Lanes; SR-14 to Parker Road
- I-605/South Street Interchange Improvements
- SR-138 Segment 6
- SR 14/SR-138 at Avenue K
- I-710 Soundwall Package 2
- I-710 Soundwall Package 3

ENVIRONMENTAL

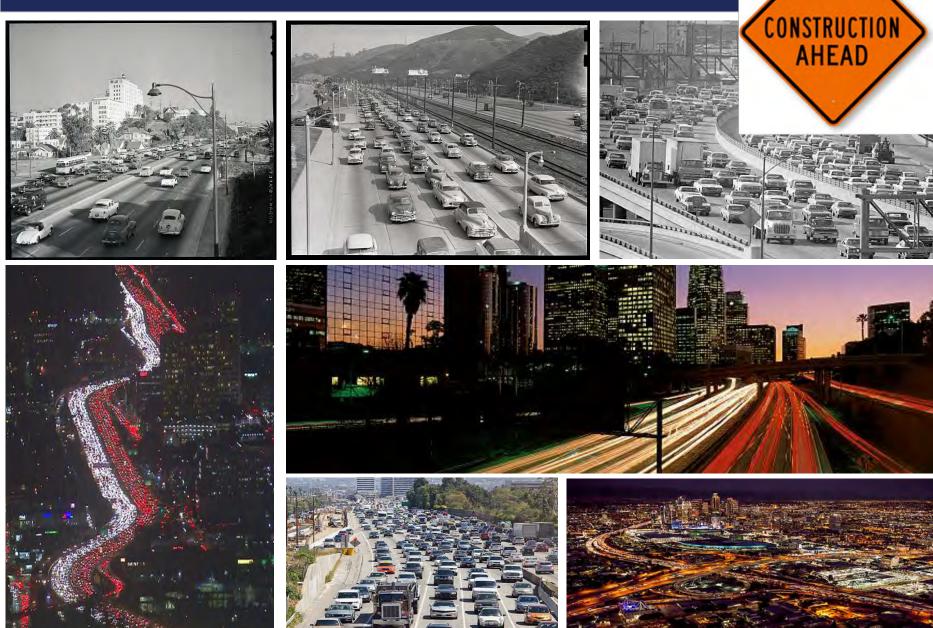
- I-405 Improvements NB/SB, I-110 to Wilmington
- I-605 Corridor Improvements, I-105 to I-10
- I-710 Corridor Improvements
- I-710 Integrated Corridor Management (ICM)
- I-105 ICM
- Imperial Hwy Corridor Capacity Enhancements-Lynwood
- SR-138/SR-14 Avenue G Interchange
- SR-138/SR-14 Avenue L Interchange

FINAL DESIGN

- Soundwall Pkg. 10
- SR-57/SR-60 Interchange Improvements
- SR-60/7th Avenue Interchange Improvements (PAED?)
- SR-72 (Whittier Blvd.) @Painter and S.F. Springs Rd.
- SR-91 WB Improvements, Shoemaker to I-605/Alondra
- SR-91 EB Improvements, Atlantic to Cherry
- SR-91 Improvements, Central Avenue to Acacia
- SR-138 (Palmdale Blvd.), 5th St. to 10th Street East
- SR-138/SR-14 SB Ramps at Palmdale Blvd.
- SR-138/SR-14 10th Street West Interchange
- SR-138/SR-14 Avenue J Interchange
- SR-138/SR-14 Avenue K Interchange
- SR-138/SR-14 Avenue M Interchange
- SR-138/SR-14 Avenue N Overcrossing
- I-405 NB and SB Imp., I-105 to Artesia Blvd.
- I-605/Beverly Blvd. Interchange Improvements
- I-605/Valley Blvd. Interchange Improvements
- SR-710 San Gabriel Intersections
- *I-710 Early Action Projects (Soundwalls)*
- I-710/Shoemaker Bridge Replacement



Discussions





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Yesnia Campos receives a \$5,000 SafeworkCM Diversity Scholarship from Rebecca Jones of SafeworkCM

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SCAN ME

SCHOLARSHIPS

53 scholarships have been awarded to a diverse group of students from institutions across the SoCal Region.

INTERNSHIPS

Thanks to our Industry partners <u>77 internships</u> were offered to deserving interns interested in the professional practice of CM.