

SHOPPIng for Assets

Presented by:

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California Department of Transportation
District 11 – San Diego

TRANSPORTATION RESEARCH BOARD

12th National Conference on Transportation Asset Management

San Diego, CA

2018

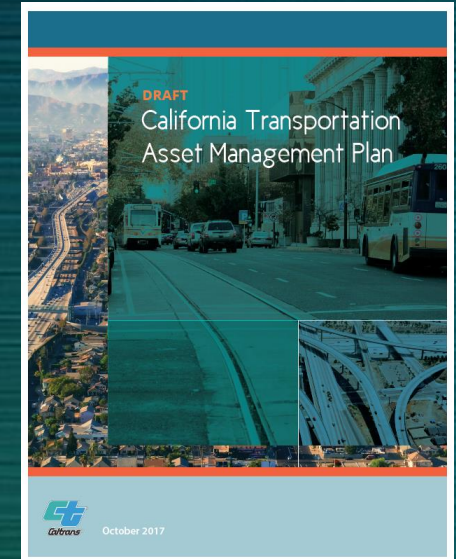
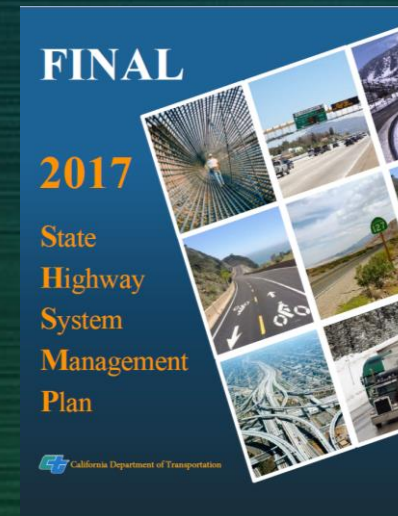
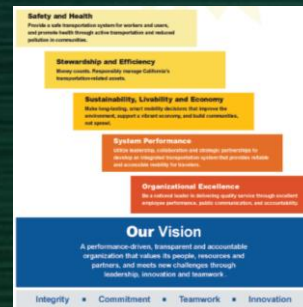
An Overview...

- Caltrans, the SHOPP, Asset Management, Strategic Management Plan
- Dealing with Change and Moving Targets
- New Roles/Responsibilities and Changing Faces, The Learning Curve
- Coordinating with Others
- Learning Asset/Data Management
- What has worked well and Room for Improvement
- Changes to the Plan and the need to be Flexible

District 11: Starting Points/References



SB1 Performance Plan - District 11											
Category	Item	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Safety and Health	1.1.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.1.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.1.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1.1.4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Stewardship and Efficiency	2.1.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	2.1.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	2.1.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	2.1.4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Sustainability, Livability and Economy	3.1.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	3.1.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	3.1.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	3.1.4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
System Performance	4.1.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	4.1.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	4.1.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	4.1.4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Organizational Excellence	5.1.1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	5.1.2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	5.1.3	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	5.1.4	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%



D-11 SHOPPing List

34 Objectives

\$2.05
Billion
Budget

SHOPP Performance Plan - District 11																					
Objectives	Unit	Current Inventory / Need	Current Condition			SHOPP Investment Plan									Projected Condition 2027			Poor % 2027			
			Good	Fair	Poor	Pipelined Projects			Remaining Performance			Sum			Good	Fair	Poor	District	State		
						Fair	Poor	New	Fair	Poor	New	Fair	Poor	New							
Safety																					
Bridge Rail Replacement and Upgrade	Linear Feet	945,635	606,372	324,340	14,923	7,168	7,311	-	0	837	-	7,168	8,148	-	621,688	317,172	6,775	0.7%	4.7%		
Collision Severity Reduction	Injuries	4,827	-	-	4,827	-	47	-	-	349	-	-	396	-	396	-	4,431	91.8%	91.4%		
Roadside Safety Improvements	Locations	2,263	-	-	2,263	-	433	-	-	609	-	-	1,042	-	1,042	-	1,221	54.0%	49.3%		
Safety Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Stewardship																					
Bridge Health	SF	25,492,125	19,180,734	5,466,834	844,557	1,292,863	559,368	-	477,143	312,820	-	1,770,006	872,188	-	20,959,795	4,149,948	382,382	1.5%	1.5%		
Drainage Pump Plants	Locations	5	4	1	0	0	0	-	0	0	-	0	0	-	3	2	0	0.0%	9.3%		
Drainage System Restoration	Linear Feet	1,541,632	1,156,849	273,583	111,200	170	12,008	-	0	76,665	-	170	88,673	-	1,739,281	893,084	303,013	10.3%	10.6%		
Lighting Rehabilitation	Each	6,574	3,476	2,852	246	0	0	-	0	437	-	0	437	-	3,291	1,974	1,309	19.9%	39.9%		
Major Damage (Emergency Opening)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Major Damage (Permanent Restoration)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Office Buildings	SF	0	0	0	0	0	0	-	0	0	-	0	0	-	0	0	0	0.0%	25.9%		
Overhead Sign Structures Rehabilitation	Each	2,228	1,719	483	26	0	0	-	0	70	-	0	70	-	1,481	537	210	9.4%	11.4%		
Pavement Class I	Lane Miles	2,741	557	2,138	46	576	16	-	626	171	-	1,202	187	-	1,553	1,161	27	1.0%	1.0%		
Pavement Class II	Lane Miles	1,041	242	767	32	82	5	-	133	247	-	215	252	-	493	527	21	2.0%	2.0%		
Pavement Class III	Lane Miles	375	154	213	8	0	0	-	18	35	-	18	35	-	75	292	8	2.1%	2.0%		
Relinquishments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Roadway Protective Betterments	Locations	0	-	-	0	-	0	-	-	0	-	-	0	-	0	-	0	0.0%	71.4%		
Safety Roadside Rest Area (SRRA) Rehabilitation	Locations	6	4	2	0	0	0	0	0	0	0	0	0	0	1	3	2	33.3%	51.2%		
Transportation Related Facilities	SF	216,712	0	159,669	57,043	0	0	0	0	7,255	-	0	7,255	0	7,255	79,834	129,623	59.8%	65.1%		
Water and Wastewater Treatment at SRRAs	Locations	1	1	0	0	0	0	-	0	0	-	0	0	-	0	1	0	0.0%	11.1%		
Sustainability																					
ADA Pedestrian Infrastructure	Locations	12,567	-	-	12,567	-	463	-	-	257	-	-	720	-	720	-	11,847	94.3%	92.7%		
Advance Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Bridge Scour Mitigation	SF	1,798	-	-	1,798	-	1,798	-	-	0	-	-	1,798	-	1,798	-	18,883	91.3%	51.1%		
Bridge Seismic Restoration	SF	319,268	-	-	319,268	-	96,391	-	-	18,828	-	-	115,219	-	115,219	-	365,692	76.0%	73.1%		
Hazardous Waste Mitigation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Roadside Rehabilitation	Acre	4,407	881	1,322	2,204	0	0	-	0	106	-	0	106	-	632	879	2,985	66.4%	59.4%		
Storm Water Mitigation	Acre	1,760	-	-	1,760	-	111	-	-	336	-	-	447	-	447	-	1,313	74.6%	71.0%		
Zero Emission Vehicle Infrastructure	Locations	2	-	-	2	-	0	-	-	2	-	-	2	-	2	-	0	0.0%	0.0%		
Performance																					
Commercial Vehicle Enforcement Facilities	Stations	7	0	7	0	0	0	-	0	1	-	0	1	-	1	3	3	42.9%	31.5%		
Operational Improvements	DVHD	90,000	-	-	90,000	-	612	-	-	1,258	-	-	1,870	-	1,870	-	88,130	97.9%	97.6%		
Sign Panel Replacement	Each	6,878	0	0	6,878	0	1,963	-	0	885	-	0	2,848	-	2,848	0	4,030	58.6%	74.6%		
Transportation Management Systems	Each	1,578	946	0	632	0	80	20	0	836	30	0	916	50	1,465	0	163	10.0%	10.0%		
Bridge Goods Movement Upgrades	SF	25,492,126	22,438,945	1,365,864	1,687,317	0	0	-	0	0	-	0	0	-	22,438,945	1,365,864	1,687,317	6.6%	12.2%		
Weigh-In-Motion Scales	Stations	21	0	21	0	1	0	0	0	4	0	1	4	0	5	9	7	33.3%	31.8%		
Investment Plan Target*									\$2,054,125,745												
(*) The Investment Plan Target includes the estimated SHOPP cost of the Remaining Performance AND additional funding for project-level cost anomalies, Complete Streets elements, etc.																					

District Performance Plan Rules and Key Takeaways

- New Terminology: Performance Management
- New Terminology: Targets, Anchors, Satellites
- Balanced Performance: \$/Year
- Balanced Performance: Across objectives
- Other Considerations: Complete Streets/GHG reduction



References and Estimates...

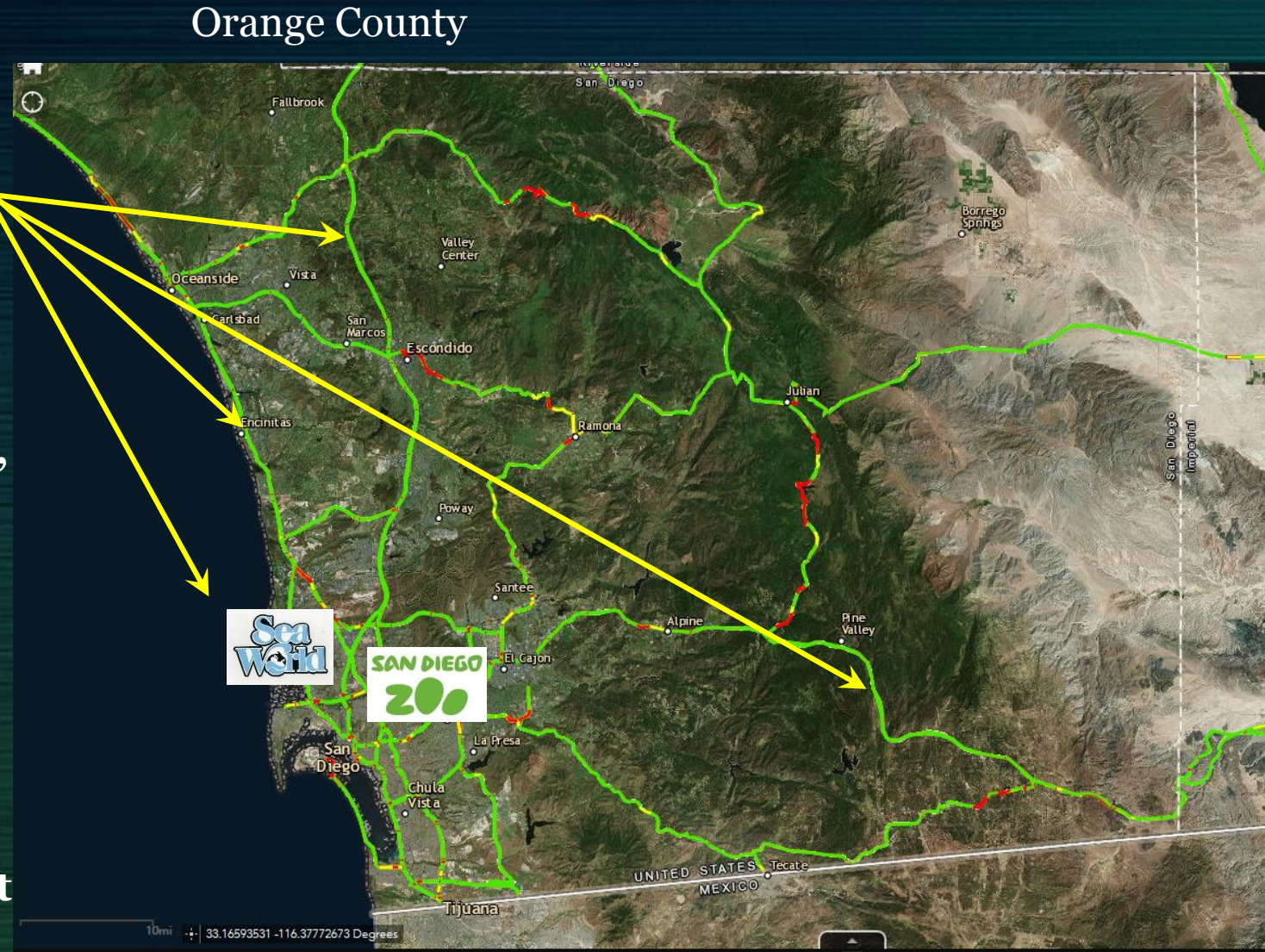
Pavement Class I									
Current Inventory					Projected Inventory (in 2027)				
26,014 Lane Miles					26,014 Lane Miles				
Effective Annual Deterioration Rate					Projected Condition (in 2027) - Do Nothing Scenario				
Into Fair 2.10 % per Year					Good 9,268 35.61%				
Into Poor 0.90 % per Year					Fair 14,428 55.46%				
Current Condition					Target Condition (in 2027) - Goal				
Good 11,724 45.06%					Good 22,112 85.00%				
Fair 13,148 50.54%					Fair 3,642 14.00%				
Poor 1,142 4.38%					Poor 260 1.00%				
Pipelined Projects (in any SHOPP or 2018 PD Workplan)					Average Unit Cost				
Fix Fair to Good 5,853 22.51%					Fix Fair to Good \$250,000 27.00%				
Fix Poor to Good 689 2.57%					Fix Poor to Good \$815,000 32.00%				
Add New 0 0.00%					Add New \$835,000 32.00%				
Performance Gap for the Last 5 Years					Support Ratio				
Fix Fair to Good 4,091 18.96%					Fix Fair to Good \$250,000 27.00%				
Fix Poor to Good 1,394 5.36%					Fix Poor to Good \$815,000 32.00%				
Add New 0 0.00%					Add New \$835,000 32.00%				
Pipelined Maintenance Projects \$0					Elimination Costs				
Pipelined SHOPP Projects \$3,080,110.45					Maintenance Performance Gap \$6,420,704				
					Total \$6,420,704				
					\$6,080,719.39				
District Breakdown									
District	Projected Quantity	Replacement Total Unit Cost	Estimated Value	New Gap	"Add New" Total Unit Cost	Fair Gap	"Fix Fair" Total Unit Cost	Poor Gap	"Fix Poor" Total Unit Cost
D1	1,063	\$1,102,200	\$1,172,598,600	0	\$1,102,200	352	\$317,500	63	\$1,102,200
D2	934	\$1,102,200	\$1,097,454,800	0	\$1,102,200	195	\$317,500	20	\$1,102,200
D3	1,792	\$1,102,200	\$1,851,342,400	0	\$1,102,200	947	\$317,500	45	\$1,102,200
D4	3,470	\$1,102,200	\$3,818,143,000	0	\$1,102,200	574	\$317,500	195	\$1,102,200
D5	1,170	\$1,102,200	\$1,289,709,000	0	\$1,102,200	231	\$317,500	39	\$1,102,200
D6	2,300	\$1,102,200	\$2,534,620,000	0	\$1,102,200	387	\$317,500	99	\$1,102,200
D7	4,434	\$1,102,200	\$4,876,132,800	0	\$1,102,200	900	\$317,500	418	\$1,102,200
D8	4,212	\$1,102,200	\$4,642,888,000	0	\$1,102,200	240	\$317,500	117	\$1,102,200
D9	1,435	\$1,102,200	\$1,581,657,000	0	\$1,102,200	301	\$317,500	29	\$1,102,200
D10	1,301	\$1,102,200	\$1,436,166,000	0	\$1,102,200	270	\$317,500	54	\$1,102,200
D11	2,741	\$1,102,200	\$3,021,180,200	0	\$1,102,200	1,108	\$317,500	295	\$1,102,200
D12	1,170	\$1,102,200	\$1,300,014,000	0	\$1,102,200	564	\$317,500	120	\$1,102,200
HQ	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statewide Totals	26,014	NA	\$28,672,430,800	0	NA	4,935	NA	1,394	NA
Division Chief Signature									

District 11 - Performance "Shopping List"

OBJECTIVE	SMP Goal	PROGRAM	QTY	UNIT	UNIT PRICE	TOTAL	COMMENT
Bridge Rail Replacement and Upgrade	SAFETY	Bridge	837	LF	\$1,925	\$1,611,225	Was 0 LF
Collision Severity Reduction (Poor)	SAFETY	Safety	349	Injuries	\$155,400	\$54,234,600	Was 327
Roadside Safety Improvements (Poor)	SAFETY	Roadside	609	Locations	\$68,870	\$41,941,830	
Safety Improvements	SAFETY	Safety	-		\$0	\$0	
Bridge Health (Fair)	STEWARDSHIP	Bridge	477,143	SF	\$344	\$164,137,192	Was ~67K
Bridge Health (Poor)	STEWARDSHIP	Bridge	312,820	SF	\$483	\$151,092,060	Was ~41K
Drainage Pump Plants	STEWARDSHIP	Drainage/Culverts	-	Locations	\$870,000	\$0	
Drainage System Restoration (Poor)	STEWARDSHIP	Drainage/Culverts	76,665	Linear Feet	\$2,000	\$153,330,000	Was ~20K
Lighting Rehabilitation	STEWARDSHIP	Safety	437	Each	\$12,600	\$5,506,200	Was 70
Major Damage (Emergency Opening)	STEWARDSHIP	Major Damage	-		\$0	\$0	
Major Damage (Permanent Restoration)	STEWARDSHIP	Major Damage	-		\$0	\$0	
Office Buildings	STEWARDSHIP	Facilities	-	SF	\$652	\$0	
Overhead Sign Structures Rehabilitation	STEWARDSHIP	Safety	70	Each	\$192,000	\$13,440,000	Was 0, 14 ea
Pavement Class I (Fair)	STEWARDSHIP	Pavement	626	Lane Miles	\$684,704	\$428,624,704	Was 95 / 149 LM
Pavement Class I (Poor)	STEWARDSHIP	Pavement	171	Lane Miles	\$1,758,000	\$300,618,000	Was 68 / 42 LM
Pavement Class II (Fair)	STEWARDSHIP	Pavement	133	Lane Miles	\$289,202	\$38,463,866	Was 7/43 LM
Pavement Class II (Poor)	STEWARDSHIP	Pavement	247	Lane Miles	\$711,600	\$175,765,200	Was 25 / 58 LM
Pavement Class III (Fair)	STEWARDSHIP	Pavement	18	Lane Miles	\$124,850	\$2,247,300	Was 4 / 28 LM
Pavement Class III (Poor)	STEWARDSHIP	Pavement	35	Lane Miles	\$480,000	\$16,800,000	Was 11 / 8 LM
Relinquishments	STEWARDSHIP	Pavement	-		\$0	\$0	
Roadway Protective Betterments	STEWARDSHIP	Major Damage	-	Locations	\$4,980,000	\$0	
Safety Roadside Rest Area (SRRA) Reha	STEWARDSHIP	Roadside	-	Locations	\$16,000,000	\$0	
Transportation Related Facilities (Poor)	STEWARDSHIP	Facilities	7,255	SF	\$801	\$5,811,255	Was 2738
Water & Wastewater Treatment at SRF	STEWARDSHIP	Roadside	-	Locations	\$2,922,416	\$0	

District 11: San Diego County

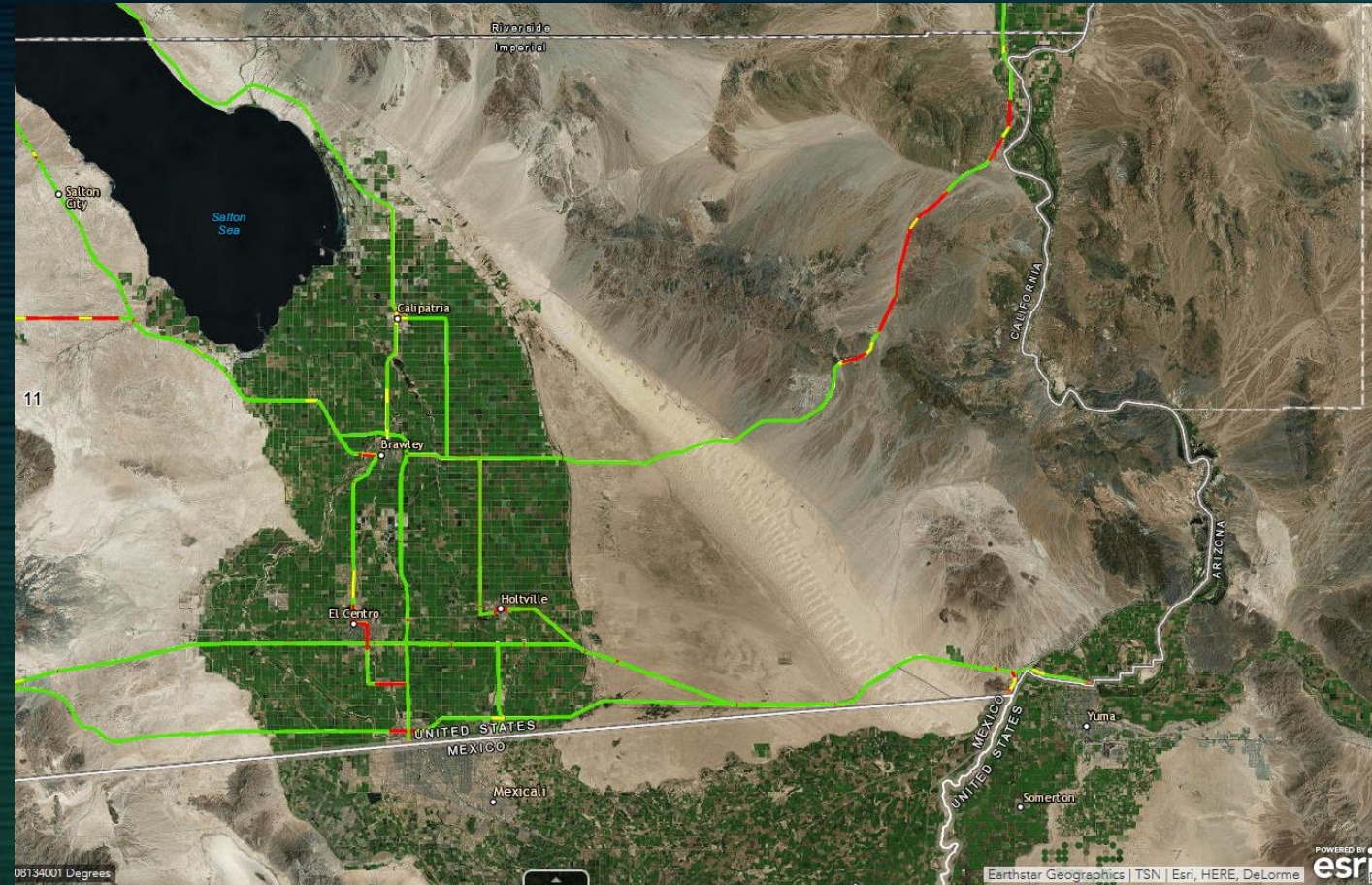
- Mexico, Orange County/Riverside County/Military bases
- Economy (Tourism, Trade, Military, Freight)
- Environment (Storm intensity/durations, GHG reductions, Sea level rise)
- Active Transportation (Sandag, GHG Goals)
- ITS (Autonomous vehicles, Transportation Systems Management Organization – TSMO)



Border Crossings

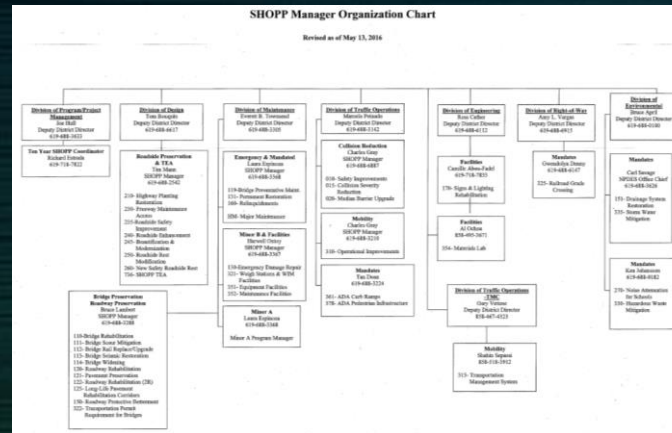
District 11: Imperial County

- **Borders with Arizona/Mexico**
- **Agriculture, trade, freight**
- **Environment (Extreme Heat, air quality/GHG reduction, vulnerable population)**
- **Active Transportation (Ivag resources, facilities near border, traffic calming opportunities, vulnerable population)**



D-11 SHOPP Organization and the need to change...

- No more codes
- From 40+ Programs to 34 Objectives
- New Roles and Responsibilities
- Buy in from Management
- Culture change



Current D-11 SHOPP Program Managers			New HQ SHOPP Program Grouping	HQ SHOPP Prog Mgr
Tim Mann	210 Hwy Planting Restoration		Safety (010,015)	Thomas Schreiber
	230 Fwy Mtc Access		Mjr Damage Restoration (130, 131, 150)	Kuo-Wei Lee
	235 Roadside Safety Improvement		Bridge (110, 111, 112, 113, 119, 322)	John Gillis
	240 Roadside Enhancement		Pavement (120, 121, 122)	Zhogren Wang
	245 Beautification & Modernization		Pmnt Relinquishmnts (160)	Donna Berry
	250 Roadside Rest Modification		Drainage (151)	Pervy Lashai
	260 New Safety Roadside Rest		Facilities (351, 352, 354)	?
	738 SHOPP TEA		Facilities (353)	Cecilia Gutierrez
Bruce Lambert	110 Bridge Rehab		Mobility (310, 315, 321)	Thomas Schreiber
	111 Bridge Scour Mitig		Mobility (361)	Elizabeth Dooher
	112 Br Rail Replacement/Uppr		Mobility (160)	Donna Berry
	113 Br Seismic Restoration		Roadside (210, 235, 250)	Kelth Robinson
	114 Bridge Widening		Streets (999)	Ann Mahaney
	120 Roadway Rehabilitation		Sustain. / Climate Change (335)	Jagjwan Grewel
	121 Pavement Preservation		Sustain. / Climate Change (999)	Brouall
	122 Roadway Rehabilitation (2R)		Advanced Mitigation	Phil Stolarsky
	125 Long Life Pmnt Rehab Corridors			
	150 Roadway Protective Bettsment			
	322 Tranap Prmt Rqurment for Bridges		Notes	
Laura Espinoza	119 Br Preventative Mtg		7 - New SHOPP Program / Description which is not currently managed by D-11 or there is no coding	
	131 Permanent Restoration		XXX - Current D-11 Program is no longer identified in the new HQ Programming Organization / Grouping	
	160 Relinquishments			
	HM Major Maintenance			
	Minor A			
Harwell Ontoy	130 Emergency Damage Repair		999 - Placeholder for possible coding of new SHOPP Program	
	321 Weigh Stations & WIM Facilities			
	351 Equipment Facilities			
	352 Maintenance Facilities			
Joae Robles	010 Safety Improvements			
	015 Collision Severity Reduction			
	020 Median Barrier Upgrade			
Camille Abou-Fadel	310 Operational Improvements			
Tan Doan	361 ADA Curb Ramps			
	378 ADA Pedestrian Infrastructure			
Tim Brownson	170 Signs & Lighting Rehabilitation			
Al Ochoa	354 Materials Lab			
Shahin Sepassi	315 Tranap Mgmt System			
Gwendolyn Denny	325 Railroad Grade Crossing			
Carl Savage	151 Drainage System Restoration			
	335 Storm Water Mitigation			
Ken Johansson	270 Noise Attenuation for Schools			
	330 Hazardous Waste Mitigation			
?	353 Office Buildings			
?	999 Streets			
?	335 Sustainability / Climate Change			
?	999 Sustainability / Climate Change			
?	? Advance Mitigation			

The SHOPP Nomination Team.....and New members

D-11 Program Advisor	Performance Objectives
Safety	
Bruce Lambert / Emi Ito	Bridge Rail Replacement and Upgrade (201.112 - Linear Feet)
Jose Robles	Collision Severity Reduction (201.015 - Injuries)
Tim Mann	Roadside Safety Improvements (201.235 - Locations)
Jose Robles	Safety Improvements (201.010)
Stewardship	
Bruce Lambert / Emi Ito	Bridge Health (201.110/119 - SF)
Harwell Ontoy	Drainage Pump Plants (201.151 - Locations)
Carl Savage	Drainage System Restoration (201.151 - Linear Feet)
Jose Robles	Lighting Rehabilitation (201.170 - Each)
Harwell Ontoy	Major Damage (Emergency Opening) (201.130)
Harwell Ontoy	Major Damage (Permanent Restoration) (201.131)
Harwell Ontoy / Alex Garcia	Office Buildings (201.351 - SF)
Jose Robles	Overhead Sign Structures Rehabilitation (201.170 - Each)
Bruce Lambert / Emi Ito	Pavement Class I (120/121/122 - Lane Miles)
Bruce Lambert / Emi Ito	Pavement Class II (120/121/122 - Lane Miles)
Bruce Lambert / Emi Ito	Pavement Class III (201.121 - Lane Miles)
Bruce Lambert / Emi Ito	Relinquishments (201.160 - Center Line Miles)
Harwell Ontoy	Roadway Protective Betterments (201.150 - Locations)
Tim Mann	Safety Roadside Rest Area (SRRAs) Rehabilitation (201.250 - Locations)
Harwell Ontoy / Alex Garcia	Transportation Related Facilities (252/253/254 - SF)
Tim Mann	Water and Wastewater Treatment at SRRAs (- Locations)
Sustainability	
Tan Doan / Jason Janis	ADA Pedestrian Infrastructure (201.361/378 - Locations)
Kim Smith (??)	Advance Mitigation (201.240)
Bruce Lambert / Emi Ito	Bridge Scour Mitigation (201.111 - SF)
Bruce Lambert / Emi Ito	Bridge Seismic Restoration (201.113 - SF)
Ken Johansson	Hazardous Waste Mitigation (201.330)
Tim Mann	Roadside Rehabilitation (201.235 - Acre)
Carl Savage	Storm Water Mitigation (201.335 - Acre)
Paul Hsu	Zero Emission Vehicle Infrastructure (- Locations)
Performance	
Harwell Ontoy / Alex Garcia	Commercial Vehicle Enforcement Facilities (201.321 - Stations)
Shanaz Alvi / Sam Amen	Operational Improvements (201.310 - DVHD)
Jose Robles	Sign Panel Replacement (201.170 - Each)
Sam Amen	Transportation Management Systems (201.315 - Each)
Bruce Lambert / Emi Ito	Bridge Goods Movement Upgrades ()
Harwell Ontoy / Alex Garcia	Weigh-In-Motion Scales (201.321 - Stations)

- Corridor Managers
- Construction
- Planning
- Bike/Ped Coordinator
- ADA Coordinator
- Environmental
- RW

D-11 SHOPP Reorganization

- Establishes new District Business Practices
- 3 Key Changes
 - ✓ Program Managers to Asset Manager Roles
 - ✓ PID development to Corridor Managers
 - ✓ SHOPP Steering Committee

Project Delivery Business Practice

Number: DD-03-18
Refer to:
Director's Policy: DP-35
Refer to:
Effective Date: April 2, 2018
Supersedes: NEW

TITLE District 11 Asset Management Reorganization

BACKGROUND

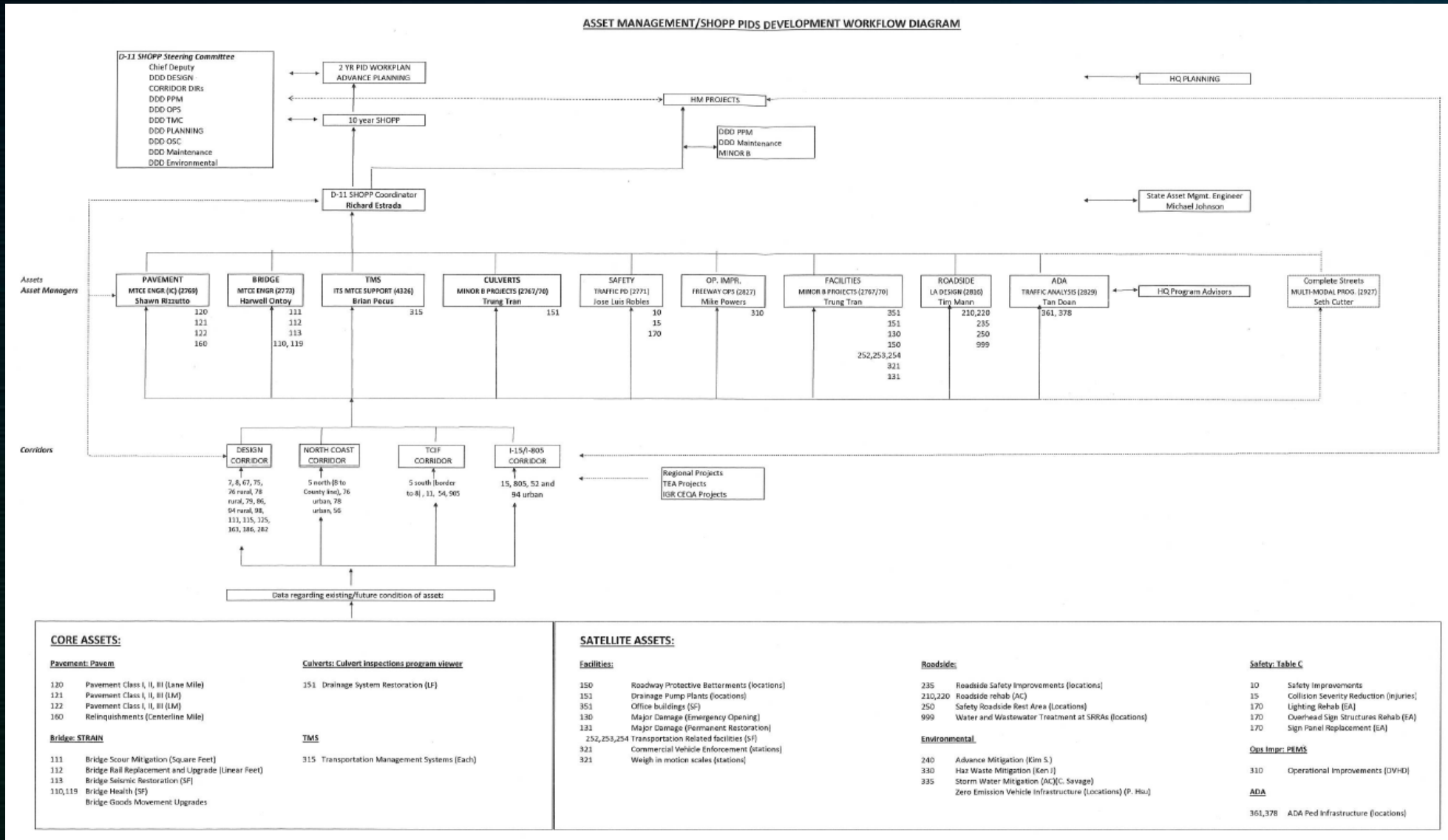
Senate Bill 486 (SB 486) requires that Caltrans invest State Highway Operation and Protection Program (SHOPP) funds in accordance with the approved Transportation Asset Management Plan (TAMP). As a result, the SHOPP has transitioned to performance driven asset management. In 2016, the California Transportation Commission (CTC) approved four primary asset classes (also referred to as core or anchor assets) for the first phase of this transition period: pavement, bridge, culverts and transportation management systems (TMS) for the development of the SHOPP.

The core asset classes of pavement, bridge, culvert and TMS have the following specific ten-year performance targets established in Senate Bill-1 and the TAMP to ensure accountability for the use of SHOPP funding.

- Pavement – Not less than 98 percent of pavement to be in good or fair condition by 2027
- Pavement – Achieve a pavement pothole and cracking Level of Service of 90 percent or higher by 2027
- Bridges – Not less than 98.5 percent of bridge area to be in good or fair condition by 2027
- Bridges – Fix not less than an additional 500 bridges by 2027
- Culverts – Not less than 90 percent of culvert length to be in good or fair condition by 2027
- TMS Elements – Not less than 90 percent of TMS element to be in good condition by 2027

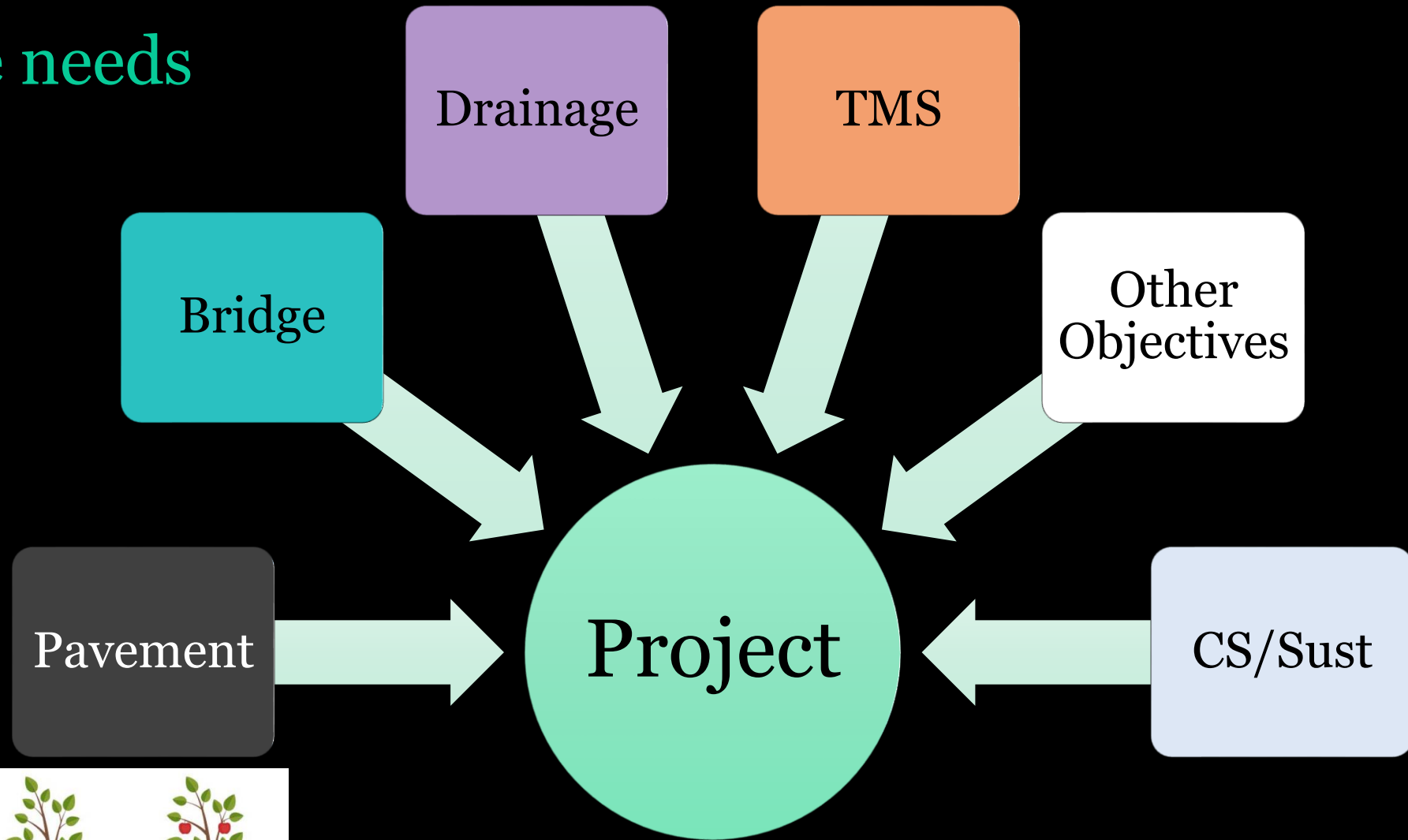
The funding allocation methodology has changed from the past to provide greater flexibility to combine various assets into a single project, effectively breaking down the historic silo-based funding approach. This funding change facilitates multi-objective corridor type projects that are expected to be more efficient to deliver and less disruptive to the traveling public.

D-11 SHOPP Reorganization Workflow Diagram



Nominating the needs

- Started with Anchor needs
- Satellite Objectives
- Complete Streets, Sustainability
- Pruning the tree



D-11 Project List (Excel vs. Access?)

[illegible]

SHOPP Asset Management Tool

[Home](#) | [SHOPP Contacts](#) | [Map](#) | [SHOPP Tool Instructions](#) | [Tool Team Presentations](#) | [Q&A](#) | [Login](#)

TEN YEAR PLAN PROJECT NOMINATION (Pre-PID)

Project Book: ☒ Q3 2018 ☐ 06/27/18

[View Activity Detail/Performance Report](#)

District Priority	<input type="text" value="1"/>	ID	<input type="text" value="19044"/>	EA	<input type="text" value="43023"/>	EFIS Project ID	<input type="text" value="1118000029"/>	PPNO	<input type="text" value="1311"/>	TYP	<input type="text" value="2017"/>
District	<input type="text" value="11"/>	County	<input type="text" value="SD"/>	Route	<input type="text" value="805"/>	BackPM	<input type="text" value="0.149"/>	AheadPM	<input type="text" value="14.6"/>	<input type="checkbox"/> Additional Locations	
Activity Category	<input type="text" value="Pavement"/>		Activity/Project Location		<input type="text" value="In San Diego County, in San Diego, Chula Vista, and National City, from 0.3 mile south of Route 805/5 Separation to Route 805/15 Separation."/>					<input type="checkbox"/> Long Lead	
Projected RTL FY	<input type="text" value="2022/23"/>		HQ Program Manager Concurrence TYP								<input type="text"/>

TEN YEAR PLAN COST

R/W Cap (\$K)	<input type="text" value="500.0"/>	Const Cap (\$K)	<input type="text" value="142000.0"/>	Support Cost (\$K)	<input type="text" value="45000.0"/>	Total Cost (\$K)	<input type="text" value="187500.0"/>
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PID WORKPLAN INFORMATION (Pre-PID)

EA	<input type="text" value="43023"/>	ProjID	<input type="text" value="1118000029"/>	PID Cycle	<input type="text" value="2020"/>	PID Type	<input type="text" value="PIR"/>	Projected SHOPP Cycle	<input type="text" value="2020"/>
Resourced PID Workplan	<input type="text" value="10/11/17"/>	PID Start Date	<input type="text" value="09/05/17"/>	PID Finish Date	<input type="text" value="06/29/18"/>	Project Manager	<input type="text" value="Ramon Martinez"/>		
Comments	<input type="text"/>								

PROGRAMMING NOMINATION (Post-PID)

Update - Accom/Perf	<input type="text"/>	HQ Program Manager Concurrence Prg	<input type="text"/>						
County	<input type="text" value="SD"/>	Route	<input type="text" value="805"/>	BackPM	<input type="text" value="0.149"/>	AheadPM	<input type="text" value="14.6"/>	Dist Dir Appr	<input type="text"/>
		SHOPP Amendment Date							<input type="text"/>
Activity/Project Location	<input type="text" value="In San Diego County, in San Diego, Chula Vista, and National City, from 0.3 mile south of Route 805/5 Separation to Route 805/15 Separation."/>								
Requested SHOPP Cycle	<input type="text"/>	PPNO	<input type="text" value="1311"/>	Requested RTL Fiscal Year		<input type="text"/>			
PA&D Cost (\$K)	<input type="text"/>	PS&E Cost (\$K)	<input type="text"/>	R/W Cost (\$K)	<input type="text"/>	CONS Cost (\$K)	<input type="text"/>		
Total Support Cost (\$K)	<input type="text"/>	R/W Cap (\$K)	<input type="text"/>	Const Cap (\$K)	<input type="text"/>	Total Cost (\$K)	<input type="text" value="0.0"/>		

POST PROGRAMMING (PCR)

SHOPP Tool ID	<input type="text" value="19044"/>	EA	<input type="text" value="43023"/>	EFIS Project ID	<input type="text" value="1118000029"/>	PPNO	<input type="text" value="1311"/>	SHOPP Amendment Date	<input type="text"/>
Update - Accom/Perf	<input type="text"/>	Exec PCR Approval Date	<input type="text"/>	Split/Combine	<input type="text"/>	Cross Ref EFIS ID#	<input type="text"/>		
PCR SHOPP Cycle	<input type="text"/>	County	<input type="text" value="SD"/>	Route	<input type="text" value="805"/>	BackPM	<input type="text" value="0.149"/>	AheadPM	<input type="text" value="14.6"/>
PCR RTL	<input type="text" value="2022/23"/>	Activity/Project	<input type="text" value="In San Diego County, in San Diego, Chula Vista, and National City, from 0.3 mile south of Route 805/5 Separation to Route 805/15 Separation."/>						

SHOPP Project - Accomplishment - Performance Measures - Benefits

District: 11

Tool ID: 19044

Project ID: 1118000029

EA: 43023

Co-Rte-PM: SD-805-0.149/14.6 (Primary Location)

View/Print PIR (Performance) Report

Res In PID WP: 10/11/17

Project Manager: Ramon Martinez

HQ PM Conc PID: 10/10/17

Bridge

Pavement

Drainage

Facilities

Safety

Mobility

Roadside

Complete Streets

Sustainability /Climate Change


Advance Mitigation

Other

Major Damage

Green-house Gases

Performance & Accomplishments (PRG)

	Activity Detail	Performance Objective	Unit of Measurement	Quantity	Assets in Good Cond	Assets in Fair Cond	Assets in Poor Cond	New Asset Added	Comment
1	Mainline existing Concrete Pavement Rehabilitation (e.g. Lane Replace, Conc overlay, CSOL, etc...) (201.122, 120)	Pavement Class I	lane-miles	132.6	5.4	123.6	3.6		FY23 SE=31.0, RE=21.2
2	Replace/Install Culverts (201.151)	Drainage System Restoration	EA 	41.0					
3	Replace Install/Culverts (201.151)	Drainage System Restoration	LF	5726.0			5726.0		
4	Overhead Sign Structures Rehabilitation (201.170)	Overhead Sign Structures Rehabilitation	EA	15.0			15.0		Unit of measure = ea
5	Sign Panel replacement	Sign Panel Replacement	EA	56.0			56.0		
6	Vehicle detection (201.315)	Transportation Management Systems	EA	119.0			119.0		
7	ADA - Repair/upgrade curb ramp (201.361)	ADA Pedestrian Infrastructure	EA	50.0			50.0		
8	DVHD Reduced (201.310)	Operational Improvements	DVHD	321.0			321.0		
9	Planting (Irrigated) (201.210, .220)	Roadside Rehabilitation	Acres	19.0			19.0		
10	Worker Safety - Miscellaneous Facilities and Equipment (201.235)	Roadside Safety Improvements	Location	60.0			60.0		
11	Bus Bay / turnout / Pull out*** (201.999)	No Performance Objective in the SHSMP	EA	4.0					
12	Class I Bike Paths (201.999)	No Performance Objective in the SHSMP	Linear Miles	4.0					
13	Class II Bike Lane (201.999)	No Performance Objective in the SHSMP	Linear Miles	2.0					
14	Class III Bike Routes (201.999)	No Performance Objective in the SHSMP	Linear Miles	1.0					
15	Conflict zone green paint (201.999)	No Performance Objective in the SHSMP	EA	4.0					
16	Crosswalks (201.999)	No Performance Objective in the SHSMP	EA	10.0					
17	Overpass/Underpass - Pedestrian & Bike (201.999)	No Performance Objective in the SHSMP	EA	1.0					
18	Park and Ride Lots (201.999)	No Performance Objective in the SHSMP	EA	1.0					
19	Install Shade for Pedestrian access (201.999)	No Performance Objective in the SHSMP	EA	10.0					
20	Transit Stop Improvements (201.999)	No Performance Objective in the SHSMP	EA	10.0					
21	Is any location within the project limits Ped/Bike accessible?	No Performance Objective in the SHSMP	Yes/No						Yes
22	Install solar shade panel (not counted above) (201.999)	No Performance Objective in the SHSMP	EA	2.0			2.0		
23	Install LED Lighting (not counted above) (201.999)	No Performance Objective in the SHSMP	EA	10.0			10.0		
24	Use of locally available building materials	No Performance Objective in the SHSMP	Linear Miles	0.5			0.5		

SHOPP Tool: Performance Objective Report

GIS: Pavement

D11 ASSET MANAGEMENT

Find address or place

Layer List

- Operational layers
 - ☒ Route Shields (White)
 - ☐ Route Shields (Color)
 - ☐ Postmiles
 - ☐ Pavement MAP21 Update
 - ☒ Pavement
 - ☐ ITS
 - ☐ Bridges
 - ☐ Culverts
 - ☐ Culverts - Waterway Issues
 - ☐ Culverts - Structural Issues
 - ☐ Right of Way
 - ☐ Projects
 - ☐ Construction Projects
 - ☐ Utilities
 - ☐ Irrigation Assets
 - ☐ Local Roads With Labels
 - ☐ County Assessor Parcels
 - ☐ City Boundaries
 - ☐ Hydrography
 - ☐ CalWater Watershed Boundaries

APCS Pavement Caltrans Condition: Fair

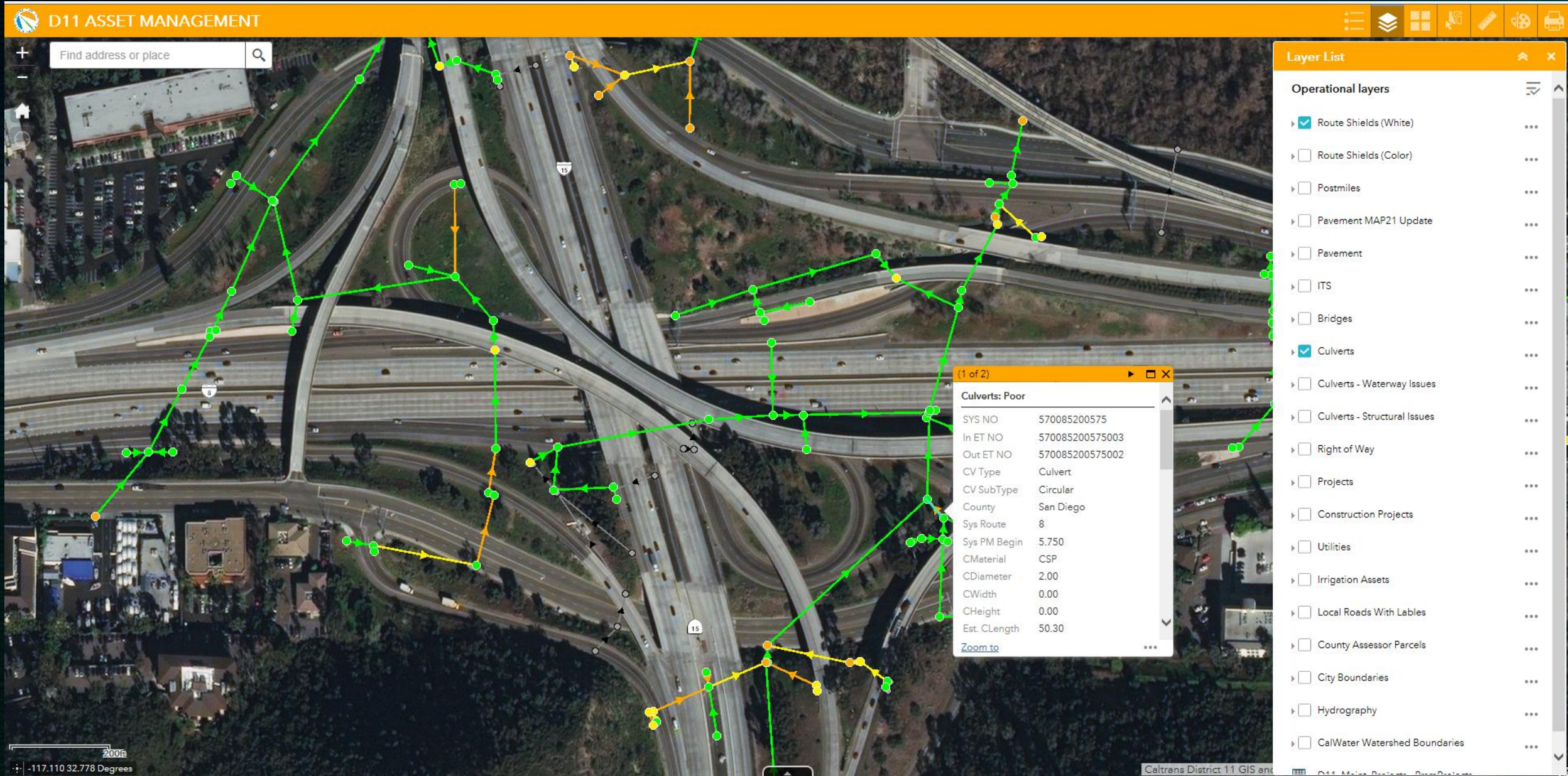
PaveCond	Fair
ProjType	Maintenance
Reason	Medium_Cracking_Only
Date	20160202
County	SD
Route	008
BegPMPre	
BeginPM	5.768
BegPMSuff	
EndPMPre	
EndPM	5.667
EndPMSuff	
Carriagewy	L

[Zoom to](#)

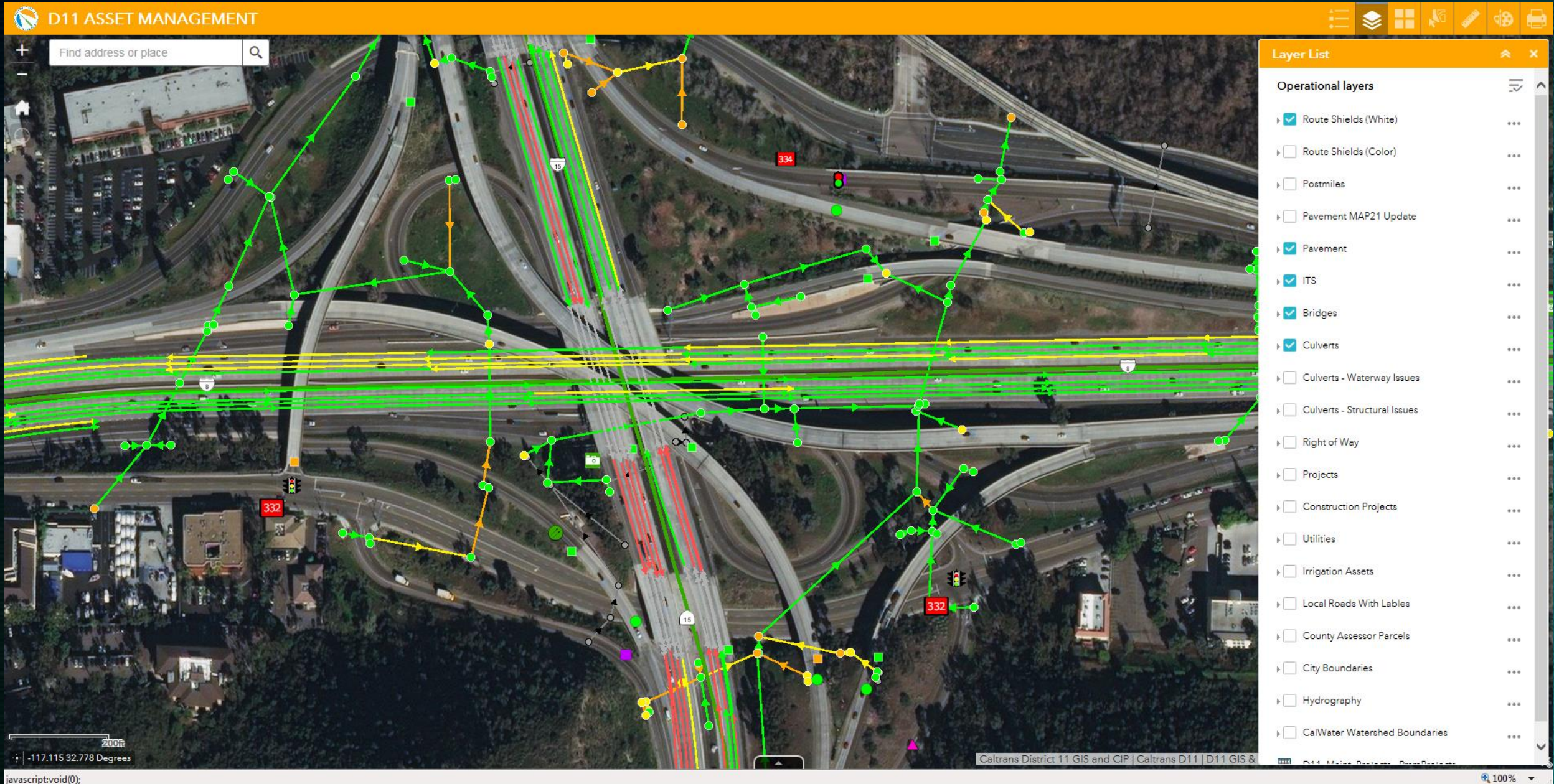
200ft

-117.110 32.777 Degrees

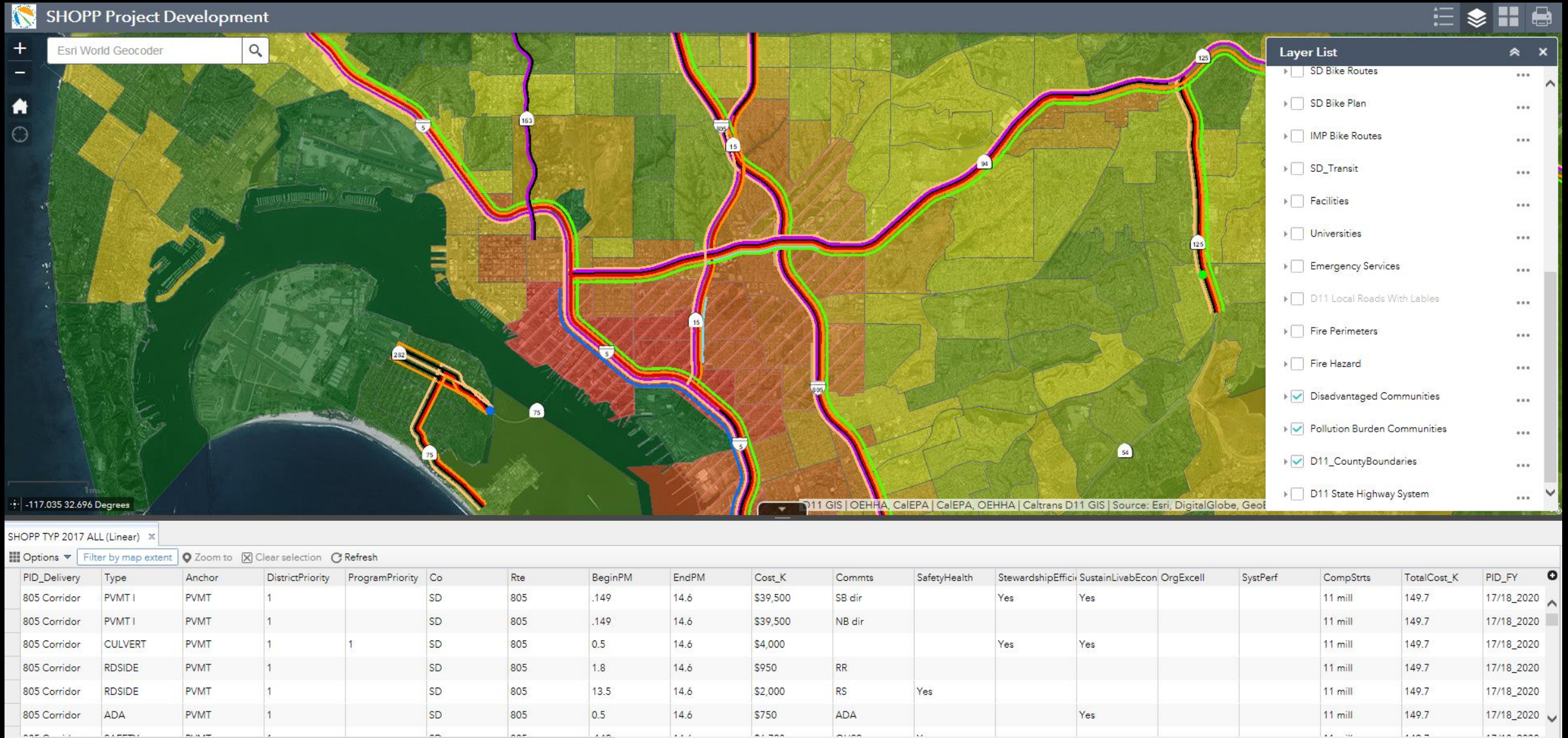
GIS: Culverts-Drainage



Identifying project scope/limits



Disadvantaged, Pollution Burdened Communities, Fires, others



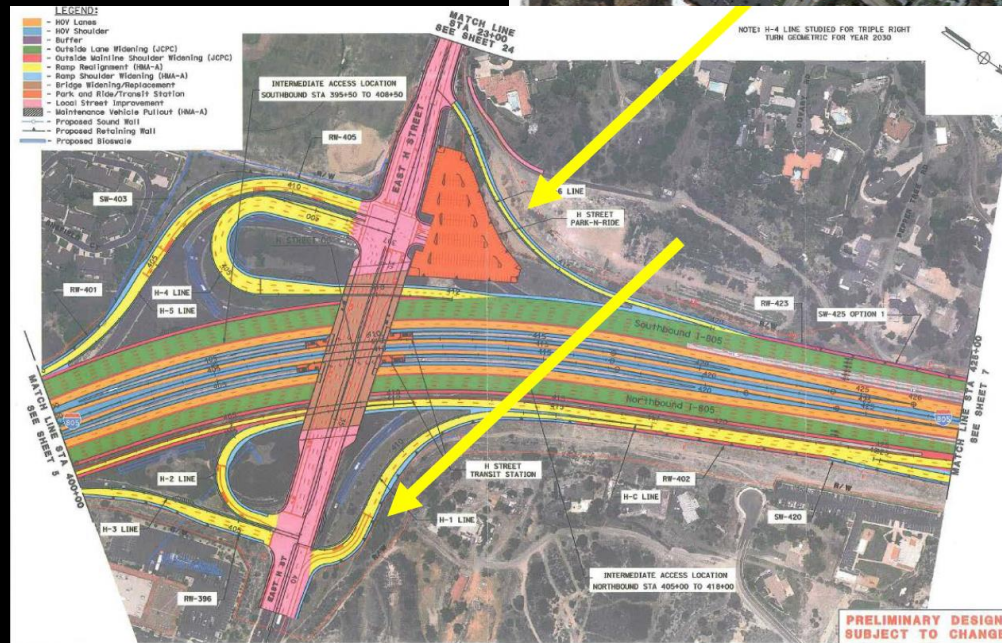
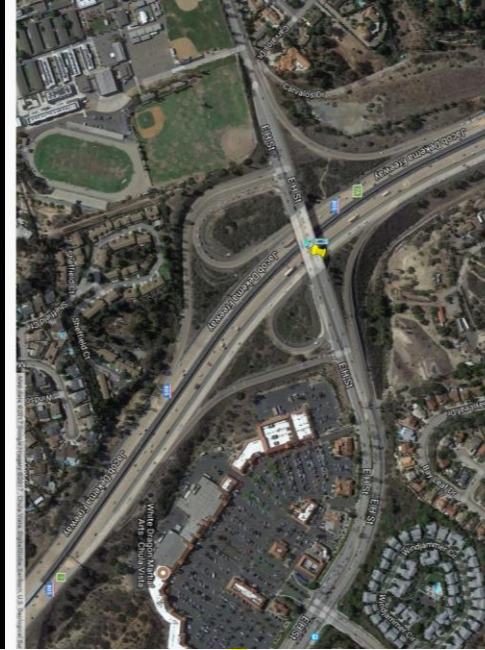
Coordination with Locals

California Office
of Traffic Safety
Grant

Traffic
Engineer/Traffic
Enforcement
Expert

Only
recommendations

Provides: Short-
Mid-
Long Term



UNIVERSITY OF CALIFORNIA, BERKELEY • INSTITUTE OF TRANSPORTATION STUDIES • TECHNOLOGY TRANSFER PROGRAM

ITSBerkeley  TECH TRANSFER | PS1724

CITY OF CHULA VISTA COMPLETE STREETS SAFETY ASSESSMENT



Assessment Team:
Engineering: Nazir Lalani, P.E.
Enforcement: Dennis Smith

August 2017

This report was produced in cooperation with the City of Chula Vista. Funding for this program was provided by a grant from the California Office of Traffic Safety, through the National Highway Traffic Safety Administration. Opinions, findings, and conclusions are those of the authors and not necessarily those of the University of California and/or the agencies supporting or contributing to this report.

**SAVE
THE DATE**

CALTRANS
District 11 San Diego



SB1 PARTNERSHIP FORUM

REBUILDING CALIFORNIA

September 11, 2017, 10:30 A.M. - 3 P.M.

Caltrans District 11, 4050 Taylor Street, San Diego, CA 92110

Discuss the key challenges in delivering transportation improvements
and how to work together to address issues such as:

- Workforce
- Project coordination
- Permits and resource agencies
- Suppliers and materials
- Utility coordination

Through discussion and breakout sessions we will examine these and other common issues and begin to develop approaches to enable effective delivery of transportation improvements.

RSVP by September 7 via email to michael.hank@dot.ca.gov
(please limit to two persons per agency attending)
Contact: Michael Hank (619) 682-7234



Caltrans District 11 SHOPP Ten Year Plan - 2017

State Highway Operation and Protection Program (SHOPP)

State Highway Operation and Protection Program (SHOPP) is the State's "fix-it-first" program that funds the repair and preservation of the State Highway System (SHS), safety improvements, and some highway operational improvements.

By continuously repairing and modernizing the SHS, the SHOPP protects the enormous investment that has been made over many decades to create and manage the approximately 50,000 lane-mile SHS. The SHS includes State owned roadways, highways and bridges (including associated bicycle and pedestrian infrastructure) and their supporting infrastructure such as culverts, Intelligent Transportation Systems (ITS), roadside safety rest areas, and maintenance stations.

The SHOPP also funds mandated project categories such as retrofitting existing SHS facilities to comply with the Americans with Disabilities Act (ADA) and storm water control requirements.

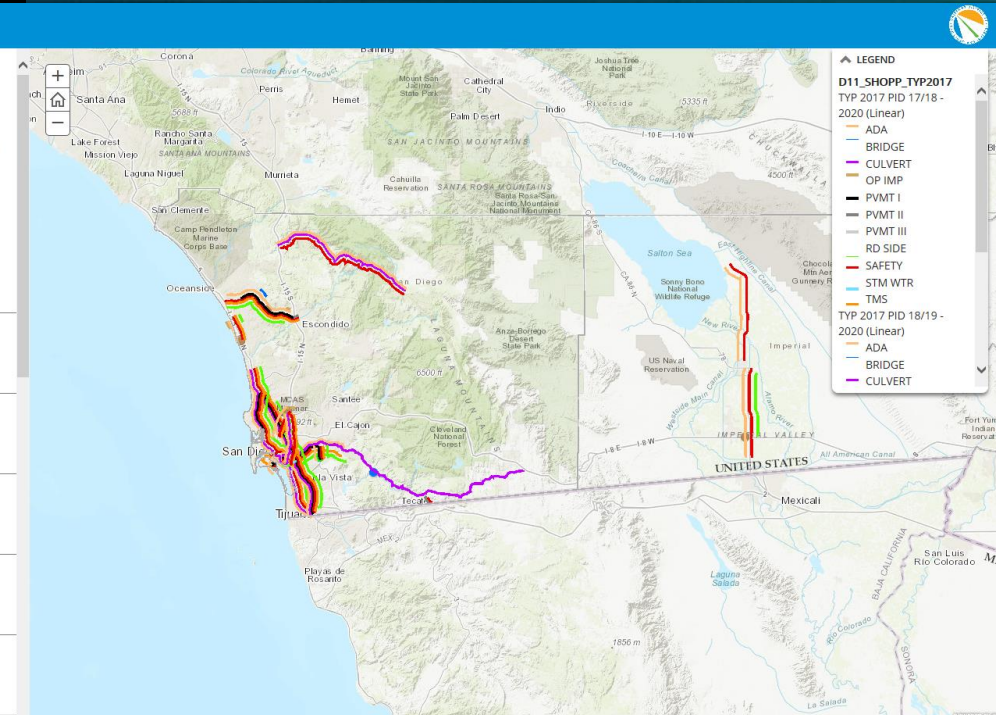
Project I-805 PM .1-14.6

Project SR-78 PM 0-N17.6

Project I-15 PM 0-R10.6 and SR 94 PM 3.1-4.6

Project SR-125 PM 10-13

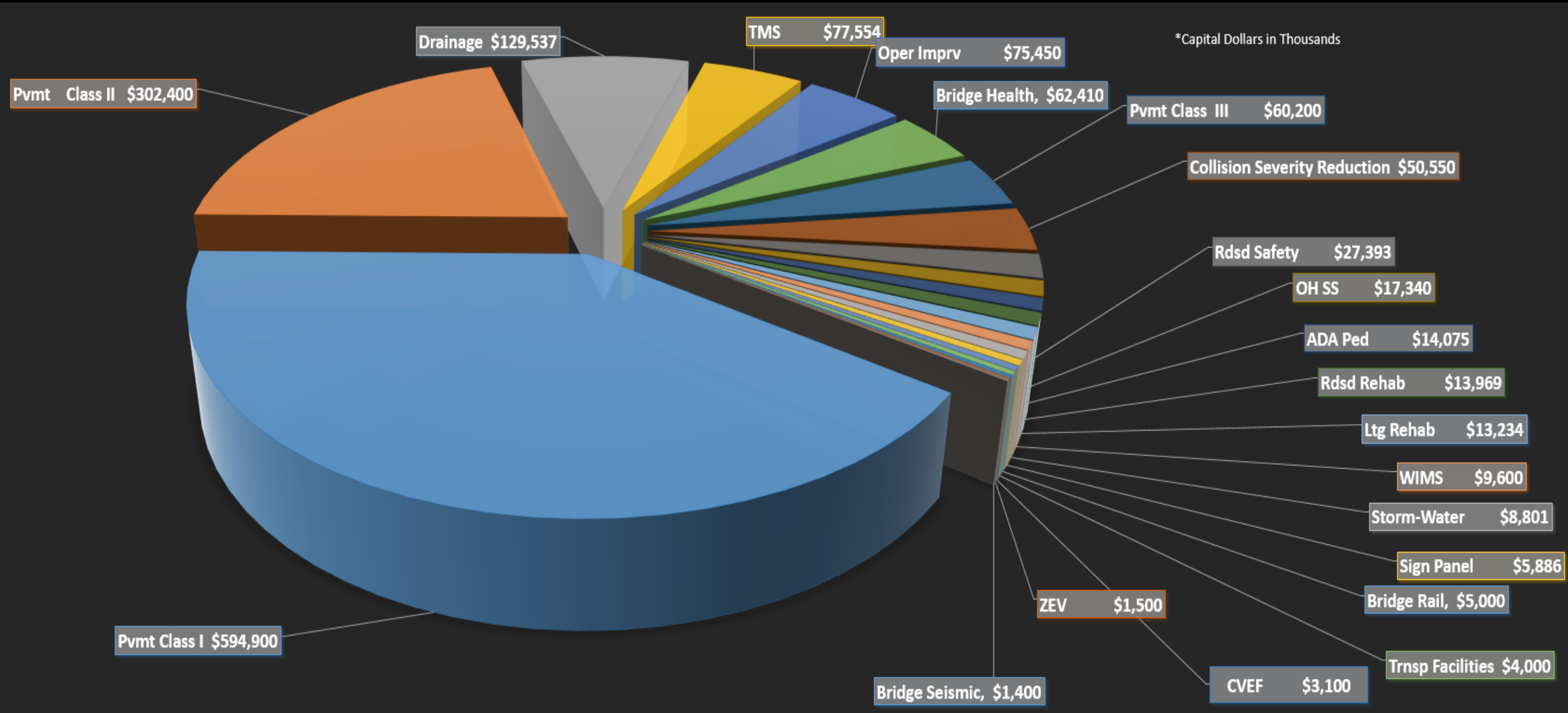
Project SR-75 PM 17.6-R20.5 and SR-282 PM 0-.697



District 11 - Performance Objective Report

1	Performance Objectives			
2		Totals		
3	Target Funding Allocation (\$K)	\$2,054,126		
4	District 2017 TYP Submitted Project Cost (\$K)	<u>\$2,051,640</u>		
5	Target Funding Balance (\$K)	\$2,486		
6	HQ Concurrence - 2017 TYP Submitted Project Cost (\$K)	<u>\$1,038,810</u>		
7	Project Cost Submitted - No Concurrence (\$K)	<u>\$1,012,830</u>		

District Performance Plan \$2.05 Billion



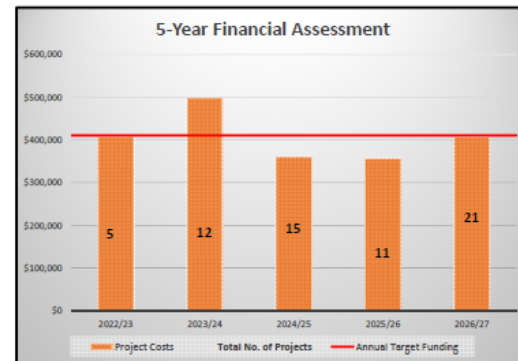
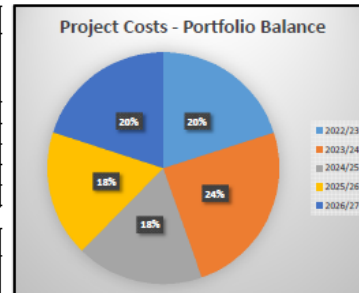
Asset Management Financial Fact Sheet

Attachment A - District 11 Asset Management Financial Fact Sheet - 2018 Qtr.3

5 Year Financial Assessment - Portfolio Balance

5-Year Financial Assessment - Balanced Annual Budget (\$K)					
Fiscal Year	Ten-Year Target Funding	Annual Target Funding	Project Costs	Within 20% (+/-5%) Annual Target Funding?	Balance
2022/23	\$2,054,126	\$410,825	\$407,000	YES	\$3,825
2023/24	\$2,054,126	\$410,825	\$498,422	YES	-\$87,597
2024/25	\$2,054,126	\$410,825	\$360,420	YES	\$50,405
2025/26	\$2,054,126	\$410,825	\$357,183	YES	\$53,642
2026/27	\$2,054,126	\$410,825	\$406,300	YES	\$4,525

5-Year Financial Assessment - Total 5-Year Budget (\$K)					
All Years	\$2,054,126	\$410,825	\$2,029,325	YES	\$24,801



10 Year Funding and Performance Criteria

	Years 1-5 (Programmed)	Years 6-10 (Planned)
Funding Constraint	Sum of project costs to date, including PCRs, for projects with RTL in years 1-5 from the 2016 and 2018 SHOPP	5 Year Investment Plan Target from the 2017 District Performance Plan
Performance Constraint	Maintain the performance originally put forth in the 2016 and 2018 SHOPP.	2017 SHSMP Target Objectives, reflected in the Performance Objectives Report (POR) in the SHOPP Tool

Funding and Performance Criteria - Last Five Years

Funding Criteria	
5 Year Funding Constraint	Total funding for the District's proposed project portfolio must not exceed the Target Funding, representing the last 5 years of the 10 Year Plan as reported in the POR. Project change requests will not be considered further until this constraint is met.
Annual Funding Constraint	The annual funding constraint is set as 20% of the District's total 5 year Target Funding with year-by-year variation of +/-5%. The net change in funding due to requested changes in projects in a given year shall not exceed the 25% upper limit for the projects planned within that year.
Performance Criteria	
5 Year Performance Target Constraint	Districts must meet or exceed all performance targets over the last 5 year period as reported in the POR. Project change requests will not be considered further until this constraint is met. This constraint must be met with real project accomplishments.

Asset Management Performance Fact Sheet

Attachment B - District 11 Asset Management Performance Fact Sheet - 2018 Qtr.3

District 11 2017 Ten-Year Book		Meeting Performance?			Performance Gap			Performance Gap (%)		
Performance objective	Unit of Measurement	New	Fair	Poor	New	Fair	Poor	New	Fair	Poor
Primary Asset Classes										
Pavement Class I	LM	Yes	Yes		0	-91		-	-	-15%
Pavement Class II	LM	Yes	Yes		0	-68		-	-	-51%
Pavement Class III	LM	Yes	Yes		0	-15		-	-	-84%
Bridge Health	SF	Yes	Yes	No	0	-306,926	79,954	-	-64%	26%
Transportation Management Systems	EA	Yes	Yes	Yes	-10	0	-149	-33%	-	-18%
Drainage System Restoration	LF	Yes	Yes	Yes	0	-1,381	-24	-	-	0%
Supplementary Asset Classes										
Drainage Pump Plants	EA	Yes	Yes	Yes	0	0	0	-	-	-
Lighting Rehabilitation	EA	Yes	Yes	Yes	0	0	-526	-	-	-120%
Office Buildings	SF	Yes	Yes	Yes	0	0	0	-	-	-
Overhead Sign Structures Rehabilitation	EA	Yes	Yes	Yes	0	0	0	-	-	0%
Roadside Safety Improvements	Location	Yes	Yes	Yes	0	0	-22	-	-	-4%
ADA Pedestrian Infrastructure	EA	Yes	Yes	Yes	0	0	-364	-	-	-142%
Transportation Related Facilities	SF	Yes	Yes	Yes	0	0	-40	-	-	-1%
Weigh-In-Motion Scales	EA	Yes	Yes	Yes	0	0	0	-	-	0%
Other SHSMP Objectives										
Bridge Scour Mitigation	SF	Yes	Yes	Yes	0	0	0	-	-	-
Bridge Seismic Restoration	SF	Yes	Yes	Yes	0	0	-116	-	-	-1%
Bridge Rail Replacement and Upgrade	LF	Yes	Yes	Yes	0	0	-4,559	-	-	-545%
Bridge Goods Movement Upgrades	SF	Yes	Yes	Yes	0	0	0	-	-	-
Collision Severity Reduction	Injuries	Yes	Yes	Yes	0	0	-42	-	-	-12%
Safety Improvements	# of Projects	Yes	Yes	Yes	0	-1	0	-	-	-
Safety Roadside Rest Area (SRRAs) Rehabilitation	Location	Yes	Yes	Yes	0	0	0	-	-	-
Major Damage (Emergency Opening)	Location	Yes	Yes	Yes	0	0	0	-	-	-
Major Damage (Permanent Restoration)	Location	Yes	Yes	Yes	0	0	0	-	-	-
Relinquishments	Centerline Miles	Yes	Yes	Yes	0	-3	-11	-	-	-
Roadway Protective Betterments	Location	Yes	Yes	Yes	0	0	0	-	-	-
Water and Wastewater Treatment at SRRAs	Location	Yes	Yes	Yes	0	0	0	-	-	-
Advance Mitigation	Credits	Yes	Yes	Yes	0	0	0	-	-	-
Hazardous Waste Mitigation	Location	Yes	Yes	Yes	0	0	0	-	-	-
Roadside Rehabilitation	Acres	Yes	Yes	Yes	0	0	-71	-	-	-67%
Storm Water Mitigation	Acres Treated	Yes	Yes	Yes	0	0	-140	-	-	-42%
Zero Emission Vehicle Infrastructure	Location	Yes	Yes	Yes	0	0	0	-	-	0%
Commercial Vehicle Enforcement Facilities	EA	Yes	Yes	Yes	0	0	0	-	-	0%
Operational Improvements	DVHD	Yes	Yes	Yes	0	0	-201	-	-	-16%
Sign Panel Replacement	EA	Yes	Yes	Yes	0	0	0	-	-	0%

The Book

Published Quarterly

SHOPP ID	District	County	Route	Begin Mile	End Mile	Activity	Advertised Year	Project Cost (\$K)
19308	11	Imperial	8	R68.8	R96.55	Bridge	2020/21	\$5,500
13842	11	Imperial	8	R32.4	R46.1	Roadside	2021/22	\$3,611
20251	11	Imperial	8	R96.81	R96.81	Bridge	2021/22	\$13,600
20230	11	Imperial	8	R35.47	R35.47	Bridge	2025/26	\$1,860
14129	11	Imperial	78	62.3	73.8	Drainage	2019/20	\$1,474
20474	11	Imperial	78	5.5	75.4	Pavement	2026/27	\$13,300
20220	11	Imperial	86	R0.0	8.8	Pavement	2024/25	\$42,500
20222	11	Imperial	86	R26.4	57.3	Pavement	2024/25	\$60,300
20224	11	Imperial	86	18	21.8	Pavement	2024/25	\$14,400
17936	11	Imperial	98	32.1	32.5	Mobility	2021/22	\$3,621
20295	11	Imperial	98	30.8	39.7	Pavement	2026/27	\$22,400
19299	11	Imperial	111	3.5	45	fety - Collision Reducti	2023/24	\$24,300
20170	11	Imperial	111	R0.0	R1.2	Pavement	2024/25	\$10,200
20217	11	Imperial	111	R0.0	65.4	fety - Collision Reducti	2024/25	\$17,030
20296	11	Imperial	111	23.4	36.1	Pavement	2026/27	\$16,600
16327	11	Imperial	115	L10.4	19.8	Drainage	2019/20	\$1,143
20231	11	Imperial	115	R9.5	11.4	Pavement	2025/26	\$4,600
17379	11	Imperial	Var			Safety - SI	2021/22	\$2,984
16141	11	San Diego	5	R25.9	R26.8	Mobility	2017/18	\$9,701
16707	11	San Diego	5	R37.7	R48.9	Drainage	2017/18	\$12,035
17346	11	San Diego	5			Safety - SI	2017/18	\$4,152
21050	11	San Diego	5	R28.6	R29.3	Mobility	2018/19	\$6,750
9340	11	San Diego	5	R34.6	R35.1	tainability/Climate Cha	2019/20	\$3,344
16038	11	San Diego	5	0.4	72.4	Safety - SI	2019/20	\$2,642
16868	11	San Diego	5	R13.5	R14.4	Safety - SI	2019/20	\$6,000
18628	11	San Diego	5	R19.5	R55.4	Mobility	2019/20	\$24,238
16057	11	San Diego	5	3.4	5	Roadside	2020/21	\$2,722
16960	11	San Diego	5	R31.8	R32.2	tainability/Climate Cha	2020/21	\$3,340
17546	11	San Diego	5	R30.2	R34.2	Other	2020/21	\$6,317
17782	11	San Diego	5	R0.3	R5.0	Roadside	2020/21	\$13,701
17856	11	San Diego	5	R0.3	R15.2	Mobility	2020/21	\$27,207
18422	11	San Diego	5	R55.6	R70.0	fety - Collision Reducti	2020/21	\$8,493
18917	11	San Diego	5	R47.0	R48.0	Mobility	2021/22	\$8,026
19165	11	San Diego	5	R.3	R36	Pavement	2023/24	\$73,900
19301	11	San Diego	5	R42.2	R47.1	Mobility	2023/24	\$23,300
20218	11	San Diego	5	R0.3	R72.3	fety - Collision Reducti	2024/25	\$15,650
20228	11	San Diego	5	R67.4	R67.4	Mobility	2024/25	\$4,200
20457	11	San Diego	5	R0.3	R12.2	Pavement	2026/27	\$23,600
20465	11	San Diego	5	R30.7	R39.8	Pavement	2026/27	\$27,000
20468	11	San Diego	5	R50.2	R70.2	Pavement	2026/27	\$12,300

What's next.....

Tools for data collection (Bad Elf vs surveys?), HQ effort, TRB...

Room for Improvement (Excel vs. other AM tools, TRB)

Tracking completed Performance?

Be flexible for changes to the Plan and the future (El Cajon Bridge, Striping, Barriers, Autonomous vehicles)

Districts to manage their own Portfolios

Ongoing changes or challenges (People, updated widget counting...)



Thank You