State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Tab 28

M e m o r a n d u m

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: August 27, 2015

Reference No.: 4.12
Action Item

From: NORMA ORTEGA
Chief Financial Officer

Prepared by: Glenn A. Yee, Chief
Division of Business,
Facilities and Security

Subject: **2016 FACILITIES INFRASTRUCTURE PLAN (FIVE YEAR CAPITAL PLAN)**

SUMMARY:

Chapter 606, Statutes of 1999 (Assembly Bill 1473/Hertzberg), requires the Governor to annually submit a Five-Year Capital Outlay Infrastructure Plan in conjunction with the Governor's Budget. The California Department of Transportation's (Department) Draft 2016 Facilities Infrastructure Plan (Facilities Infrastructure Plan) will be transmitted to the California Transportation Commission prior to their August 27, 2015 meeting.

BACKGROUND:

The California Department of Finance issues an annual Budget Letter that specifies requirements and instructions to State departments for submittal of their plans. Only the Department's office facilities are required as part of the Budget Letter process.

In addition to office facilities, the workforce for the Department conducts business in a wide array of other buildings and structures (facilities). These transportation-related facilities include equipment shops, maintenance stations, materials laboratories, and transportation management centers.

The Facilities Infrastructure Plan includes the office facilities reporting requirements for the Five-Year Capital Outlay Infrastructure Plan. The Facilities Infrastructure Plan also provides information pertaining to the Department's transportation-related facilities.

IF YOU ARE VIEWING THIS DOCUMENT ELECTRONICALLY, THE PLAN IS ATTACHED.

OTHERWISE, TO VIEW THE DRAFT 2016 FACILITIES INFRASTRUCTURE PLAN, PLEASE GO TO:
www.catc.ca.gov/meetings/agenda/2015Agenda/2015_08/28_4.12.pdf

DRAFT 6.5

Fiscal Years 2016-17 through 2020-21

Office Buildings, Equipment Shops, Maintenance Facilities, Materials Laboratories, & Transportation Management Centers

CALIFORNIA DEPARTMENT OF TRANSPORTATION

2016 Facilities Infrastructure Plan

District 4, San Francisco/Oakland Bay Bridge Maintenance Complex, Phase I Maintenance Building
Oakland, California

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June 2015

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

Introduction

Chapter 606, Statutes of 1999 (Assembly Bill 1473/Hertzberg), requires the Governor to submit an annual Five-Year Capital Outlay Infrastructure Plan in conjunction with the Governor's Budget. The California Department of Finance (DOF) issues an annual Budget Letter that specifies requirements and instructions to state departments for submittal of their plans. The California Department of Transportation (Caltrans) is required to provide information for office facilities to the DOF.

In addition to office facilities, the Caltrans workforce conducts business in a wide array of other buildings and structures (facilities). These transportation-related facilities include equipment shops, maintenance facilities, materials laboratories, and transportation management centers.

The Caltrans 2016 Facilities Infrastructure Plan (FIP) includes the office facilities reporting requirements for the Five-Year Capital Outlay Infrastructure Plan. It also provides information pertaining to the Caltrans transportation-related facilities.

Facilities Infrastructure Planning and Reporting

In conjunction with the annual DOF reporting requirement, Caltrans is required to present plans and needs for rehabilitation and improvement of office and transportation-related facilities via the State Highway Operations and Protection Program (SHOPP) process.

State Highway Operation and Protection Program

Government Code Section 14526.5 requires Caltrans to prepare a four-year "State Highway Operation and Protection Program for the expenditure of transportation funds for major capital improvements that are necessary to preserve and protect the state highway system". The Caltrans SHOPP fulfills this requirement. Office facilities projects and transportation-related facilities projects are included in the SHOPP.

Caltrans is required to submit the SHOPP to the California Transportation Commission (CTC) each even-numbered year. The Commission's review of the SHOPP includes an assessment of the impacts on the State Transportation Improvement Program. The 2014 SHOPP is the most recent four-year program

approved by the CTC. The SHOPP must be transmitted to the Legislature and the Governor.

State Highway Operation and Protection Program Plan

Streets and Highways Code Section 164.6 requires Caltrans to prepare a "10-year plan for the rehabilitation and reconstruction … of all state highways and bridges owned by the state". Caltrans fulfills this requirement through development of the Ten-Year SHOPP Plan. Office facilities projects and transportation-related facilities projects are included in this 10-year plan.

Caltrans is required to submit this plan to the CTC each odd-numbered year. The most recent submittal was the 2015 Ten-Year SHOPP Plan. Both the SHOPP and the Ten-Year SHOPP Plan must be transmitted to the Legislature and the Governor.

Comparison of Facilities Infrastructure Plan and SHOPP

The chart below shows the chronology and fiscal year relationships of one complete cycle for the SHOPP and the FIP.

Chronology and Fiscal Year Relationships: Facilities Infrastructure Plan and SHOPP

		Fiscal Years											
	Approximate Due Date	*2014-15*	*2015-16*	*2016-17*	*2017-18*	*2018-19*	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*2023-24*	*2024-25*	*2025-26*
2014 Four-Year SHOPP	Jan 2014		4-Year Plan										
2015 Facilities Infrastructure Plan	Sept 2014			5-Year Plan									
2015 Ten-Year SHOPP Plan	Jan 2015						10-Year Plan						
2016 Facilities Infrastructure Plan	Sept 2015				5-Year Plan								

Facilities Infrastructure Plan Summary

The Facilities Infrastructure Plan (FIP) is comprised of four chapters. The first two chapters meet the DOF requirements for the state's Five-Year Capital Outlay Infrastructure Plan. Caltrans presents additional information in Chapters 3 and 4 that are not part of the DOF reporting requirements. Chapter 3 of the FIP focuses on transportation-related facilities that the CTC approves through the SHOPP. Chapter 4 provides an overview of Caltrans' facility resource conservation efforts.

The FIP identifies $257.3 million in construction cost during the five-year plan period, with a $0.3 million land acquisition cost for unprogrammed needs. Associated capital outlay support costs (e.g., engineering and right of way acquisition staff) for these projects are $82.4 million. The total estimated cost for the projects included in the FIP as unprogrammed needs are $340.0 million. A summary of these costs is presented in the chart below.

Projected Facilities Infrasructure Needs Construction, Land, Capital, and Support

Fiscal Years 2016-17 through 2020-21

PROGRAMMED IN 2014 SHOPP	2014 SHOPP Fiscal Years		2016 Facilities Infrastructure Plan Fiscal Years					
Location/Descriptions	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
Office Buildings	$0	$0	$0	$0	$0	$0	$0	**$0**
Equipment Shops	$0	$3,069,000	$0	$0	$0	$0	$0	**$0**
Maintenance Facilities	$12,100,000	$1,800,000	$0	$0	$0	$0	$0	**$0**
Materials Laboratories	$0	$0	$0	$0	$0	$0	$0	**$0**
Transportation Management Center	$0	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	**$12,100,000**	**$4,869,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Land	$370,000	$19,000	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$12,470,000	$4,888,000	$0	$0	$0	$0	$0	**$0**
Support *	$6,941,000	$2,135,000	$0	$0	$0	$0	$0	**$0**
	$0							
Grand Total	$19,411,000	$7,023,000	$0	$0	$0	$0	$0	$0

UNPROGRAMMED NEEDS								
Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
Office Buildings	$0	$0	$0	$0	$0	$0	$0	**$0**
Equipment Shops	$0	$0	$24,500,000	$5,000,000	$25,463,000	$60,000,000	$7,200,000	$122,163,000
Maintenance Facilities	$0	$0	$43,500,000	$29,100,000	$20,500,000	$33,000,000	$9,000,000	$135,100,000
Materials Laboratories	$0	$0	$0	$0	$0	$0	$0	**$0**
Transportation Maintenance Center	$0	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	$0	$0	**$68,000,000**	**$34,100,000**	**$45,963,000**	**$93,000,000**	**$16,200,000**	**$257,263,000**
Land	$0	$0	$0	$0	$300,000	$0	$0	**$300,000**
Sub-total (Capital)	$0	$0	$68,000,000	$34,100,000	$46,263,000	$93,000,000	$16,200,000	**$257,563,000**
Support *	$0	$0	$21,760,000	$10,912,000	$14,804,160	$29,760,000	$5,184,000	**$82,420,160**
Grand Total	$0	$0	$89,760,000	$45,012,000	$61,067,160	$122,760,000	$21,384,000	$339,983,160

Notes:

* Support is estimated at 32% of capital costs for projects not programmed in the 2014 SHOPP.

The first two years of the 2016 FIP coincide with the last two years of the 2014 Four-Year SHOPP (refer to the chart on page vi). The 2014 Four-Year SHOPP includes an average annual cost (construction cost) of $4.3 million and the 2016 FIP includes no average annual (construction cost) for programmed projects. The chart below presents a comparison by facility type of the average annual construction cost for the 2014 Four-Year SHOPP and 2016 FIP. Transportation Management Centers (TMCs) are not included in the Facilities Improvement Category of the SHOPP; those projects are included with the Mobility Program. Commencing in the last two years of the 2016 SHOPP (FY 2018-19 and 2019-20) and as noted in SHOPP Decision Document 2015-1, the SHOPP will allocate an average of $10 million to transportation-related facilities on an annual basis[1]; The allocation will be reflected in the 2017 FIP cycle.

Average Annual Construction Cost Comparison
2016 Facilities Infrastructure Plan and 2014 SHOPP

(Dollars in millions)

Facility Type	2014 SHOPP	2016 FIP
Office Facilities	0.0	0.0
Equipment Facilities	0.8	0.0
Maintenance Facilities	3.5	0.0
Materials Laboratories	0.0	0.0
Totals:	**4.3**	**0.0**

Notes:
1) The "Annual Averages" do not include land acquisition or support cost.
2) The "Totals" do not include Transportation Management Centers.

[1] SHOPP allocation amount of $10 million is comprised of capital and support costs. The Transportation-Related Facilities includes TMCs.

CHAPTER 1

DEPARTMENT OVERVIEW

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INTRODUCTION

This chapter provides a summary of the California Department of Transportation (Caltrans). It illustrates Caltrans structure, including its hierarchy within the state government and its district organization. It provides general budget and program information as well as the facilities of Caltrans workforce.

Structure

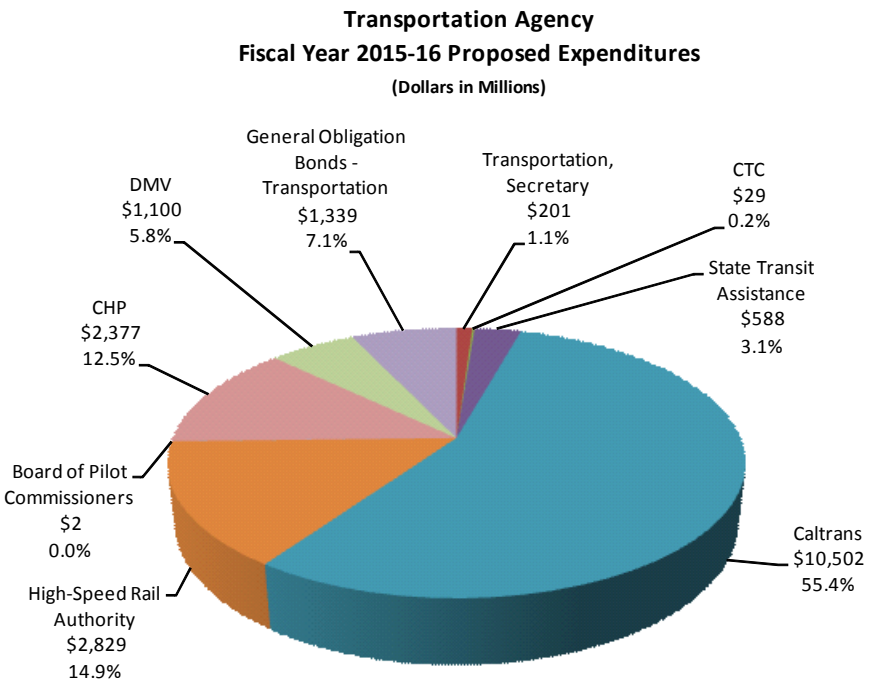
Transportation Agency

The Transportation Agency, established as part of the Governor's 2012 Reorganization Plan, became effective on July 1, 2013. The mission of the Transportation Agency is to develop and coordinate the policies and programs of the state's transportation entities to achieve the state's mobility, safety and air quality objectives from its transportation system. The Agency oversees and coordinates the activities of the Departments of the California Highway Patrol (CHP), Motor Vehicles (DMV), and Caltrans; and the following boards and commissions: the High-Speed Rail Authority, the California Transportation Commission (CTC), and the Board of Pilot Commissioners. The Office of Traffic Safety is a program within the Office of the Secretary of Transportation.

The Governor's Proposed Budget for Fiscal Year 2015-16 allocates approximately 55% of the Transportation Agency budget to Caltrans, as shown in the table below and figure on the following page.

Transportation Agency
Fiscal Year 2015-16 Proposed Expenditures
(Dollars in Millions)

Department	Proposed Expenditures	Percent of Total
Transportation, Secretary	$ 201	1.1%
California Transportation Commission (CTC)	$ 29	0.2%
State Transit Assistance	$ 588	3.1%
Caltrans	$ 10,502	55.4%
High-Speed Rail Authority	$ 2,829	14.9%
Board of Pilot Commissioners	$ 2	0.0%
California Highway Patrol (CHP)	$ 2,377	12.5%
Department of Motor Vehicles (DMV)	$ 1,100	5.8%
General Obligation Bonds - Transportation	$ 1,339	7.1%
Total	**$ 18,968**	**100%**



California Department of Transportation

Caltrans has almost 20,000 employees and a budget of $10.5 billion. Caltrans designs and oversees the construction of state highways, operates and maintains the highway system, funds three intercity passenger rail routes, and provides funding for local transportation projects. Caltrans maintains approximately 50,000 road and highway lane miles and approximately 13,000 bridges and other structures, providing transportation access to every region of the State. The largest sources of funding for transportation projects are excise taxes paid on fuel consumption, federal funds also derived from fuel taxes, and weight fees on trucks.

Program Descriptions[1]

Caltrans identifies six programs that relate to staff. The programs are: Aeronautics, Highway Transportation, Mass Transportation, Transportation Planning, Administration, and Equipment. The table below identifies the programs, their respective code, and number of proposed positions for Fiscal Year 2015-2016. The following is a description of each of the programs listed numerically, by their program code.

Governor's Proposed Budget
Fiscal Year 2015-16

Code	Program	FY 2015-16 Positions
10	Aeronautics	24.0
20	Highway Transportation	16,398.6
30	Mass Transportation	106.4
40	Transportation Planning	698.4
50	Administration	1,574.5
60	Equipment	634.6
	Total Proposed Positions:	**19,436.5**

[1] Source: Citation taken from the California Department of Finance, Proposed Governor's Budget for Fiscal Year 2015-16.

10 AERONAUTICS

The Division of Aeronautics supports California's aviation activities by promoting safe and effective use of existing airports and heliports. This program ensures that airports and heliports comply with safety regulations, provides engineering and financial assistance for safety and infrastructure improvements. Financial assistance is provided through state-matching funds for the federal aviation grant program. In addition, the division maintains California's Aviation System Plan to reflect changes in aviation network, provides guidance for land use compatibility in areas around airports, administers airport noise standards regulations, enhances goods movement to and from airports through improved ground access, and promotes and maintains aviation safety.

20 HIGHWAY TRANSPORTATION

The Highway Transportation Program operates, maintains, and continues development of California's state highways. Development and delivery of capital projects make up the largest portion of these efforts. The program also meets its objectives through: (1) coordination and control required by federal and state law for implementing transportation projects, (2) furnishing assistance to city and county transportation programs, and (3) management of traffic through a system of monitoring, analysis, and control. In addition, this program strives to improve highway travel, safety, and the environment through testing, research, and technology development.

30 MASS TRANSPORTATION

The objective of the Mass Transportation Program is to support the state's transportation system by providing leadership in the implementation of safe, effective public transportation, improved air quality, and environmental protection. The program achieves its objective through: (1) the administration of intercity rail service in California, including capital projects and rail car management, (2) management of state and federal capital and operations grant programs, (3) planning, support, and coordination of mass transportation services, and (4) administering the Public Transportation Modernization, Improvement and Service Enhancement Account (PTMISEA) of the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Bond Act). Additionally, the Mass Transportation Program serves to: (1) improve intercity bus passenger service through enhanced services and facilities, (2) improve public transportation needs for all persons, including the elderly, the disabled, and the economically-disadvantaged, (3) improve urban/commuter rail services, and (4) enhance mobility in congested corridors.

40 TRANSPORTATION PLANNING

The Transportation Planning Program implements statewide transportation policy through coordination at the local and regional levels and develops transportation plans and projects. Caltrans prepares the long-range state transportation plan required by state and federal law and provides long-range transportation system planning and transportation planning studies as input to the regional transportation plans, the State Transportation Improvement Program (STIP), and departmental policies and programs such as Goods Movement, Climate Action, and Regional Blueprint Planning. Caltrans also prepares the Interregional Transportation Strategic Plan, which guides investment of the Interregional Improvement Program funds in the STIP.

50 ADMINISTRATION

The Administration Program provides the functions required to support the programmatic responsibilities of the Department. Major activities include accounting, budgeting, auditing, office facility operations and management, information technology, and a wide range of administrative services including human resources, procurement and contracting, training, workforce planning, and labor relations.

60 EQUIPMENT

The Equipment Program provides mobile fleet equipment and services to other departmental programs through: (1) purchasing new vehicles, (2) receiving, servicing, and equipping new units, (3) assembling equipment components into completed units, (4) managing the fleet, (5) repairing and maintaining the fleet, including payments for fuel and insurance, and (6) disposing of used vehicles.

Caltrans Districts

Caltrans is comprised of 12 districts, each under the leadership of a District Director. The district boundaries and a listing of the counties within each district are shown below. District headquarters offices are located in the cities of Eureka, Redding, Marysville, Oakland, San Luis Obispo, Fresno, Los Angeles, San Bernardino, Bishop, Stockton, San Diego and Irvine. The Caltrans Headquarters office is located in Sacramento.

DISTRICT 1
1656 Union Street
Eureka
Del Norte
Humboldt
Lake
Mendocino

DISTRICT 2
1657 Riverside Drive
Redding
Lassen
Modoc
Plumas
Shasta
Siskiyou
Tehama
Trinity

DISTRICT 3
703 B Street
Marysville
Butte
Colusa
El Dorado
Glenn
Nevada
Placer
Sacramento
Sierra
Sutter
Yolo
Yuba

DISTRICT 4
111 Grand Avenue
Oakland
Alameda
Contra Costa
Marin
Napa
San Francisco
San Mateo
Santa Clara
Solano
Sonoma

DISTRICT 5
50 Higuera Street
San Luis Obispo
Monterey
San Benito
San Luis Obispo
Santa Barbara
Santa Cruz

DISTRICT 6
1352 West Olive Avenue
Fresno
Fresno
Kern
Kings
Madera
Tulare

DISTRICT 7
100 South Main Street
Los Angeles
Los Angeles
Ventura

DISTRICT 8
464 West Fourth Street
San Bernardino
Riverside
San Bernardino

DISTRICT 9
500 South Main Street
Bishop
Inyo
Mono

DISTRICT 10
1976 East Dr. Martin Luther King Jr. Blvd.
Stockton
Alpine
Amador
Calaveras
Mariposa
Merced
San Joaquin
Stanislaus
Tuolumne

DISTRICT 11
4050 Taylor Street
San Diego
Imperial
San Diego

DISTRICT 12
3337 – 3347 Michelson Drive
Irvine
Orange

Future Space Needs

Future space needs are driven, in part, by population. Population generates traffic that creates the need for highways and their associated planning, operations, and maintenance, which produces the need to house staff performing those respective activities. Caltrans houses employees in a wide array of facilities: maintenance stations, equipment shops, office buildings, material laboratories, and transportation management centers. Determining where the need exists for future facilities depends in part on those areas of the state with the greatest projected population increase. The California counties with the greatest population increases are located within Caltrans districts of Oakland, San Bernardino, Fresno, and Los Angeles. This is based on projected statewide population increases provided by the California Department of Finance (DOF) report on State and County Population Projections. The table below ranks Caltrans' districts by the greatest population increases through year 2060.

District Population Projections
Years 2010 through 2060

District Number and Name		District Population Year 2010	District Population Year 2060	Numeric Increase [1/]	Percentage Increase [1/]
1	Eureka	318,024	358,518	11	10
2	Redding	365,140	428,460	10	8
3	Marysville	2,694,731	4,059,999	5	4
4	Oakland	7,167,034	10,178,649	1	5
5	San Luis Obispo	1,429,531	1,811,448	9	7
6	Fresno	2,528,766	4,725,127	3	1
7	Los Angeles	10,649,387	12,493,197	4	9
8	San Bernardino	4,233,973	6,869,005	2	3
9	Bishop	33,161	36,363	12	12
10	Stockton	1,618,750	2,831,298	6	2
11	San Diego	3,288,485	4,407,333	7	6
12	Irvine	3,014,996	3,464,374	8	10
	California	**37,341,978**	**51,663,771** [2/]		

[1/] Data Source: California Department of Finance's Bienniel Report on State & County population, December 2014

[2/] Minor Variation Due to Rounding

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CHAPTER 2

OFFICE FACILITIES

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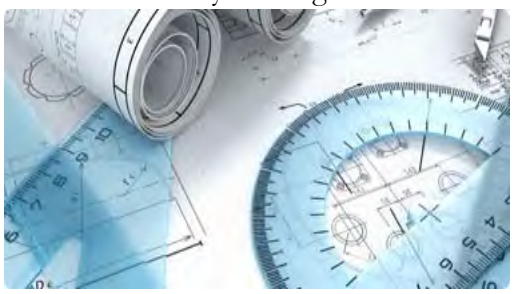
INTRODUCTION

Chapter 606, Statutes of 1999 (Assembly Bill 1473/Hertzberg), requires the Governor to annually submit a Five-Year Capital Outlay Infrastructure Plan in conjunction with the Governor's Budget beginning in January 2002. The Statute requires state departments to submit a Five-Year Capital Outlay Infrastructure Plan (Plan), Capital Outlay Budget Change Proposals (COBCPs), and Capital Outlay Concept Papers (COCPs) for major capital outlay projects proposed for inclusion in the Governor's Budget. The Plan must include all COBCPs and COCPs for the five-year planning horizon from Fiscal Years 2016-17 through 2020-21. Only the California Department of Transportation's (Caltrans) office facilities require COBCPs or COCPs and therefore, are required as part of the process.

REQUIREMENTS

The California Department of Finance (DOF) issues an annual Budget Letter requiring Caltrans to identify existing office facilities infrastructure, including their deficiencies, and the net need for the infrastructure. The general DOF Budget Letter requirements are found in this chapter. Those reporting requirements include a description of Caltrans' office building infrastructure, the projects needed to correct office building deficiencies, a linkage to the prior year's plan, and a summary of office building projects currently in progress.



INFRASTRUCTURE DESCRIPTION

Caltrans occupies 13 office buildings, 12 state-owned and one leased. Five of Caltrans' 12 state-owned buildings are less than 25 years of age. Their location and the year of their construction completion are as follows: Oakland, 1991; San Bernardino, 1997; Los Angeles, 2004; San Diego, 2006; and Marysville, 2010.

There are seven state-owned office facilities that are at least 50 years of age. Caltrans worked with the California Department of General Services (DGS) to obtain facility and infrastructure studies that evaluated the condition of the existing building(s) and if necessary, the feasibiltiy of replacing the structure(s). A list of facility studies that identifies specific inadequacies of Caltrans' office building inventory may be found in the Appendix, Exhibit 2.

District 7 Headquarters Office Building
Los Angeles, California

State and District Headquarters Office Buildings

	District	Address	Year Built
1	Eureka	1656 Union Street	1953
2	Redding	1657 Riverside Drive	1953
3	Marysville	703 B Street	2010
4	Oakland	111 Grand Avenue	1991
5	San Luis Obispo	50 Higuera Street	1955
6	Fresno	1352 West Olive Street	1958
7	Los Angeles	100 Main Street	2004
8	San Bernardino	464 West 4th Street	1997
9	Bishop	500 South Main Street	1954
10	Stockton	1976 East Dr. Martin Luther King Jr. Blvd.	1955
11	San Diego	4050 Taylor Street	2006
12	Irvine	3337-3347 Michelson Drive [1/]	NA
HQ	Sacramento	1120 N Street	1936

[1/] The District 12 office building is a leased facility.

In general, the studies found that many of the buildings are functionally obsolete, energy inefficient, expensive to maintain. Mechanical systems, elevators and ventilation, heating and air conditioning; electrical; and plumbing carry relatively high on-going maintenance and upgrade cost. The buildings' space is inefficient because they contain numerous columns, wide corridors, and offices that may be reconfigured as cubical space. The table to the left lists Caltrans' office buildings and the respective year of construction.

Caltrans occupies approximately 3.0 million net square feet of office space among its districts and Headquarters (Sacramento). The amount of office space in each district is depicted in the table below. A listing of Caltrans' office space inventory is shown in the Appendix, Exhibit 3.

Caltrans continues to take steps to improve facility management of its state-owned facilities. In an effort to optimize the use and occupancy of existing state-owned facilities and leased office space, Caltrans evaluates office space needs and consolidates staff from leased facilities into state-owned building and/or reduces leased office space, whenever possible. The District 4 Oakland Headquarters office building was restacked to maximize state owned office space that resulted in a decrease of leased space in early 2015 for the District. In addition, the District 12 Irvine Headquarters is to be re-stacked and staff consolidated to reduce leased office space.

Leased and Owned Office Space

Department Summary by District

District		Owned (Gross SF)	Owned (Net SF)	Leased	Total (Net + Leased)
1	Eureka	91,456	63,789	0	63,789
2	Redding	47,851	32,666	47,027	79,693
3	Marysville	230,000	160,444	6,260	166,704
4	Oakland	764,742	525,119	0	525,119
5	San Luis Obispo	41,700	27,690	52,683	80,373
6	Fresno	78,000	56,935	149,348	206,283
7	Los Angeles	716,200	355,854	487	356,341
8	San Bernardino	336,000	167,347	0	167,347
9	Bishop	37,496	25,847	0	25,847
10	Stockton	90,174	61,460	0	61,460
11	San Diego	301,000	221,447	0	221,447
12	Irvine	0	0	151,453	151,453
RO	Regional Offices	0	0	8,950	8,950
HQ	State Headquarters	506,735	392,002	501,445	893,447
	Statewide Total:	**3,241,354**	**2,090,600**	**917,653**	**3,008,253**

PROJECT

There are no office building projects proposed for the 2016 Facilities Infrastructure Plan (FIP).

LINKAGE WITH PREVIOUS PLAN

In the 2015 FIP, both the Eureka District Office Building (District 1) Critical Infrastructure Deficiencies Project and the Oakland District Office Building (District 4) Replace Fire Alarm System were reported. The 2016 FIP reports both of these projects still in progress.

SUMMARY OF PROJECTS IN PROGRESS

Caltrans has two office facility projects currently in progress. The project description, status, estimated completion date, and funding levels for the two office facility projects are shown below.

Project:
Eureka District Office Building (District 1) Critical Infrastructure Deficiencies

Description:
Fire, Life Safety corrections and infrastructure upgrade to an 80,800 gsf office building.

Original Budget: $ 10,098,000 [1/]
Current Overage: $ 1,876,195

Status:
Planning phase completed.
Working drawings phase completed.
Construction phase underway.

Estimated Completion Date:
Fiscal Year 2015-16

Funding:

Cost	Phase
$ 695,000	Preliminary Planning
$ 678,000	Working Drawings
$ 8,716,000	Construction
$ 432,873	First Augmentation[2/]
$ 443,322	Second Augmentation
$ 195,000	Third Augmentation[3/]
$ 534,000	Fourth Augmentation
$ 271,000	Fifth Augmentation[4/]
$11,965,195	Total

District 1 Headquarters
1656 Union Street, Eureka

Notes:

1. Based on Budget Year 2011-12 COBCP for Eureka (District 1) Fire, Life Safety and Infrastructure Repairs
2. The Eureka District Office Building began the construction phase in October 2012. The first augmentation occurred in August 2012 and was necessary due to the construction costs being higher than orignally estimated by the California Department of General Services (DGS). The second augmentation occurred in December 2013. Per DGS, the augmentation was necessary due to unforseen conditions and to maintain an adequate contingency. Also, according to the DGS the estimated completion date has been delayed from Fiscal Year 2013-14 to 2014-15.

3. The third and fourth augmentations occurred in August 2014 and September 2014 respectively. Per DGS, these augmentations were required due to additional increases in unforeseen conditions, State Fire Marshal (SFM) deficiency notices and delays in the project schedule.
4. The fifth augmentation provides necessary funding to address further correction notices issued by the SFM, as well as unforeseen support costs incurred in the final stages of the project. These cost drivers have also generated an increased demand for DGS Inspectors, design services, SFM review, DGS project management services and have extended the project schedule. Resulting in increased costs to both the general contractor and associated project overhead costs. DGS anticipates the project will be completed in Fiscal Year (2015/16).

Project:
District 4 – Replace Fire Alarm System

Description:
Fire, Life Safety corrections to a 525,000 gsf office building.

Status:
This is an emergency project to correct Fire, Life Safety deficiencies in the District 4 Headquarters Office Building. Construction phase near completion.

Estimated Completion Date:
Fiscal Year 2015-16

Funding:

Cost	*Phase*
$ 0	Phase 1 – Plans, Specification and Estimates
$ 0	Phase 2 – Right-Of-Way Support
$ 700,000	Phase 3 – Construction Support
$ 6,700,000	Phase 4 – Construction Capital
$ 7,400,000	Total

District 4 Headquarters
111 Grand Avenue, Oakland

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CHAPTER 3

TRANSPORTATION-RELATED FACILITIES

- Equipment Shops
- Maintenance Facilities
- Materials Laboratories
- Transportation Management Centers

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INTRODUCTION

This chapter provides transportation-related facility information for the 2016 Facilities Infrastructure Plan (FIP). These projects are approved by the California Transportation Commission (CTC) as part of the State Highway Operations and Protection Program (SHOPP) and funded through enactment of the annual state budget.

The SHOPP is a four-year program of projects that have a purpose of collision reduction, bridge preservation, roadway preservation, roadside preservation, mobility enhancement, and preservation of other transportation facilities related to the state highway system. All facility-related infrastructure projects are programmed in the SHOPP with the exception of the construction phase of major office facility projects that are typically financed with bonds and not programmed in the SHOPP.

The 2014 SHOPP spans Fiscal Years 2014-15 through 2017-18. The facility projects included in the final two years of the 2014 SHOPP (i.e., 2016-17 and 2017-18) are also included in the 2016 FIP. The table below illustrates the chronology and fiscal year relationships of one complete cycle for the FIP and the SHOPP.

Chronology and Fiscal Year Relationships: Facilities Infrastructure Plan and SHOPP

		Fiscal Years											
	Approximate Due Date	*2014-15*	*2015-16*	*2016-17*	*2017-18*	*2018-19*	*2019-20*	*2020-21*	*2021-22*	*2022-23*	*2023-24*	*2024-25*	*2025-26*
2014 Four-Year SHOPP	Jan 2014		4-Year Plan										
2015 Facilities Infrastructure Plan	Sept 2014			5-Year Plan									
2015 Ten-Year SHOPP	Jan 2015						10-Year Plan						
2016 Facilities Infrastructure Plan	Sept 2015				5-Year Plan								

Infrastructure Description

The California Department of Transportation (Caltrans) transportation-related facilities include approximately 441 sites consisting of approximately 4,000,000 square feet of equipment shops, maintenance facilities, materials laboratories, and transportation management centers, as displayed below.

Summary
Transportation-Related Facilities

Facility Type	Square Feet	Number of Sites
Equipment Shops	666,561	26
Maintenance Facilities	2,742,000	391
Materials Laboratories [1/]	312,093	11
Transportation Management Centers	265,685	13
Total	**3,986,339**	**441**

[1/] Chart only reflects Category I (Program Laboratories) and Category II (Main District Materials Engineering Testing Laboratories). The Field Construction Laboratories (113 sites) are not included in the figures in the table.

SHOPP Decision Document - 'Single Point of Contact for Transportation-Related Facilities'

In May 2015 an important step was taken to improve Caltrans' facility management and address the magnitude of facility needs. SHOPP Decision Document 2015-1 'Single Point of Contact for Transportation-Related Facilities' was approved, identifying a single point of contact for transportation-related facilities in the SHOPP and setting aside an average allocation of $10 million annually[1] for transportation-related facilities. The Decision Document will help streamline communication in the SHOPP organizational structure and fund facility needs.

[1] The funding to commence in the last two years of the 2016 SHOPP, Fiscal Years 2018-19 and 2019-20.

Projects

The 2016 FIP includes no transportation-related facility projects programmed in the 2014 SHOPP for Fiscal Years 2016-17 and 2017-18, and $257.3 million in construction costs and $0.3 million in land acquisition costs for "unprogrammed" needs, which represent candidate projects for future SHOPP funding. Associated capital outlay support costs for these projects are $82.4 million. The total estimated cost for Transportation-Related Facilities are $340.0 million. Specific project funding for transportation-related facilities are presented on the following pages.

Projected Facilities Infrasructure Needs Construction, Land, Capital, and Support

Fiscal Years 2016-17 through 2020-21

	2014 SHOPP Fiscal Years		2016 Facilities Infrastructure Plan Fiscal Years					
PROGRAMMED IN 2014 SHOPP								
Location/Descriptions	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2016 FIP Total**
Equipment Shops	$0	$3,069,000	$0	$0	$0	$0	$0	**$0**
Maintenance Facilities	$12,100,000	$1,800,000	$0	$0	$0	$0	$0	**$0**
Materials Laboratories	$0	$0	$0	$0	$0	$0	$0	**$0**
Transportation Management Center	$0	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	**$12,100,000**	**$4,869,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Land	$370,000	$19,000	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$12,470,000	$4,888,000	$0	$0	$0	$0	$0	**$0**
Support *	$6,941,000	$2,135,000	$0	$0	$0	$0	$0	**$0**
	$0							
Grand Total	$19,411,000	$7,023,000	$0	$0	$0	$0	$0	$0

UNPROGRAMMED NEEDS								
Location/Description	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2016 FIP Total**
Office Buildings	$0	$0	$0	$0	$0	$0	$0	**$0**
Equipment Shops **	$0	$0	$24,500,000	$5,000,000	$25,463,000	$60,000,000	$7,200,000	$122,163,000
Maintenance Facilities	$0	$0	$43,500,000	$29,100,000	$20,500,000	$33,000,000	$9,000,000	$135,100,000
Materials Laboratories	$0	$0	$0	$0	$0	$0	$0	**$0**
Transportation Maintenance Center	$0	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	$0	$0	**$68,000,000**	**$34,100,000**	**$45,963,000**	**$93,000,000**	**$16,200,000**	**$257,263,000**
Land	$0	$0	$0	$0	$300,000	$0	$0	**$300,000**
Sub-total (Capital)	$0	$0	$68,000,000	$34,100,000	$46,263,000	$93,000,000	$16,200,000	**$257,563,000**
Support *	$0	$0	$21,760,000	$10,912,000	$14,804,160	$29,760,000	$5,184,000	**$82,420,160**
Grand Total	$0	$0	$89,760,000	$45,012,000	$61,067,160	$122,760,000	$21,384,000	$339,983,160

Notes:

* Support is estimated at 32% of capital costs for projects not programmed in the 2014 SHOPP.

EQUIPMENT SHOPS

Introduction

The Division of Equipment (DOE) is responsible for Caltrans' fleet of light vehicles and heavy construction equipment consisting of approximately 12,000 vehicles. Light vehicles include automobiles, pickup trucks, and utility vehicles. Heavy construction equipment consists of road graders, loaders, dump trucks, snow blowers, drilling equipment, and other construction-related machineries. Both light vehicles and heavy construction equipment are serviced and repaired by approximately 400 professional equipment mechanics of the DOE.

Headquarters Shop

Inside Equipment Shop Headquarters, Sacramento

Equipment shops provide space to store tools and materials for mechanics to repair and sustain Caltrans' fleet of vehicles that are used to operate and maintain the state highway system. An equipment shop complex may include structures such as office, shop, warehouse, storage, and other improvements.

Infrastructure Description

DOE maintains 13 shops and 13 sub-shops totaling 26 shops and 666,561 square feet statewide as displayed in the table below.

In addition to the 26 equipment shops/sub-shops, there are 123 resident mechanic facilities and 86 traveling mechanic facilities that are located within 209 of the maintenance facilities, which are under the Division of Maintenance, but are used/occupied by the DOE staff for the repair and maintenance of Caltrans' fleet.

Transportation-Related Facilities
Equipment Shops Inventory

District		Address	City and Shop/Sub-Shop Number	Square Feet
1	Eureka	1650 Albee Street	Eureka Shop (2101)	30,982
1	Eureka	3290 North State Street	Ukiah Sub-Shop (2102)	28,560
2	Redding	1430 George Drive	Redding Shop (2201)	35,532
2	Redding	471-800 Diane Drive	Susanville Sub-Shop (2202)	5,091
3	Marysville	981 North Beale Road	Marysville Shop (2301)	49,043
3	Marysville	10152 Keiser Avenue	Truckee Sub-Shop (2302)	9,089
3	Marysville	2243 Carnelian Drive	Meyers Sub-Shop (2303)	6,460
4	Oakland	1993 Mariana Boulevard	San Leandro Shop (2401)	48,040
4	Oakland	Bay Bridge Toll Plaza	Oakland Sub-Shop (2402)	17,360
4	Oakland	120 Rickard Street	San Francisco Sub-Shop (2403)	3,568
4	Oakland	6010 Monterey, Building "B"	San Jose Sub-Shop (2404)	30,745
4	Oakland	2019 West Texas	Fairfield Sub-Shop (2405)	5,394
5	San Luis Obispo	66 Madonna Road	San Luis Obispo Shop (2501)	25,433
6	Fresno	1385 North West Avenue	Fresno Shop (2601)	33,352
6	Fresno	1200 Olive Avenue	Bakersfield Sub-Shop (2602)	15,700
7	Los Angeles	13204 Golden State Road	Sylmar Shop (2701)	70,681
7	Los Angeles	7301 East Slauson Avenue	Commerce Sub-Shop (2702)	14,600
7	Los Angeles	100 South Main Street	Los Angeles Sub-Shop (2703)	18,865
8	San Bernardino	320 South Sierra Way	San Bernardino Shop (2801)	34,912
8	San Bernardino	1800 Dill Road	Barstow Sub-Shop (2802)	8,400
9	Bishop	11 Jay Street	Bishop Shop (2603)	23,829
10	Stockton	1603 South B Street	Stockton Shop (3001)	24,396
11	San Diego	7179 Opportunity Road	San Diego Shop (3101)	31,800
11	San Diego	1607 Adams Avenue	El Centro Sub-Shop (3102)	4,202
12	Irvine	691 South Tustin Street	Orange Shop (2704)	5,500
HQ	Sacramento	34th Street & Stockton Blvd	Sacramento HQ Shop (3201)	85,027
			Total:	**666,561**

Projects

The 2016 FIP identifies no equipment shop projects that are programmed in the 2014 SHOPP[2] for Fiscal Years 2016-17 and 2017-18 and ten projects, identified as unprogrammed needs, which are candidate projects for future SHOPP funding. Project descriptions are provided on the following page.

EQUIPMENT SHOPS

PROGRAMMED IN 2014 SHOPP	2014 SHOPP Fiscal Years		2016 Facilities Infrastructure Plan Fiscal Years					
Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
El Centro Sub-Shop Facility	$0	$3,069,000	$0	$0	$0	$0	$0	$0
Construction Totals	$0	$3,069,000	$0	$0	$0	$0	$0	$0
Land	$0	$0	$0	$0	$0	$0	$0	$0
Sub-total (Capital)	$0	$3,069,000	$0	$0	$0	$0	$0	$0
Support	$0	$1,077,000	$0	$0	$0	$0	$0	$0
Grand Total	$0	$4,146,000	$0	$0	$0	$0	$0	$0

UNPROGRAMMED NEEDS

Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
D1 Clearlake Oaks Resident Mechanic Facility Replacement	$0	$0	$0	$0	$0	$0	$1,800,000	$1,800,000
D1 Garberville Resident Mechanic Facility Replacement	$0	$0	$0	$0	$0	$0	$1,900,000	$1,900,000
D1 Ukiah Sub-Shop Retrofit	$0	$0	$0	$2,500,000	$0	$0	$0	$2,500,000
D3 South Lake Tahoe Sub-Shop Facility Expansion	$0	$0	$3,000,000	$0	$0	$0	$0	$3,000,000
D4 Fairfield Sub-Shop Facility Relocation	$0	$0	$6,500,000	$0	$0	$0	$0	$6,500,000
D4 San Leandro Equipment Shop C Facility Renovation	$0	$0	$0	$0	$0	$0	$3,500,000	$3,500,000
D6 Fresno Equipment Shop	$0	$0	$0	$0	$25,463,000	$0	$0	$25,463,000
D7 Southern Regional Equipment Repair Shop	$0	$0	$15,000,000	$0	$0	$0	$0	$15,000,000
D8 Indio Resident Mechanics Facility	$0	$0	$0	$2,500,000	$0	$0	$0	$2,500,000
HQ Division of Equipment HQ Facility	$0	$0	$0	$0	$0	$60,000,000	$0	$60,000,000
Construction Totals	$0	$0	$24,500,000	$5,000,000	$25,463,000	$60,000,000	$7,200,000	$122,163,000
Land	$0	$0	$0	$0	$0	$0	$0	$0
Sub-total (Capital)	$0	$0	$24,500,000	$5,000,000	$25,463,000	$60,000,000	$7,200,000	$122,163,000
Support[1]	$0	$0	$7,840,000	$1,600,000	$8,148,160	$19,200,000	$2,304,000	$39,092,160
Grand Total	$0	$0	$32,340,000	$6,600,000	$33,611,160	$79,200,000	$9,504,000	$161,255,160

Note:

1. Support is estimated at 32% of capital costs for projects not programmed in the 2014 SHOPP.

[2] The Facilities Infrastructure Plan overlaps with the last two years of the 2014 SHOPP, Fiscal Years 2016-17 and 2017-18.

Project Description

Programmed Projects

District 11, El Centro Sub-Shop Facility – Construction Cost Estimate: $3,069,000
The District proposes to replace the existing sub-shop in the city of El Centro with an upgraded sub-shop. The proposed facility will comply with new building codes, such as ADA, and standards set forth by the DOE. The proposed facility will provide a safe work environment for its personnel and help better serve the needs of the customers in the region.

The existing sub-shop repair facility was originally built in the 1950s and has critical infrastructure deficiencies and is functionally obsolete. The current facility does not comply with DOE standards; as the work bays are short and not wide enough to meet the current equipment standards for large vehicles. It is inadequate in size and antiquated in design. Servicing Caltrans' fleet is both difficult and inefficient and must take place outdoors which is in violation of environmental regulations. The current facility, which was originally located in the outer limits of the city, is now currently adjacent to residential neighborhoods.

Unprogrammed Projects

District 1, Clearlake Oaks Resident Mechanic Facility – Construction Cost Estimate: $1,800,000
The District proposes to replace the existing one-bay resident mechanic facility with a 2 ½-bay facility. The proposed bay replacement will accommodate an efficient work environment for the shop personnel.

The existing one-bay resident mechanic facility is inadequate and antiquated in design. Servicing the customers in the region is difficult and inefficient with the existing facility.

District 1, Garberville Resident Mechanic Facility – Construction Cost Estimate: $1,900,000
The District proposes to replace the existing facility with an upgraded facility. The proposed facility will have 2 ½ bays to better serve the needs of the customers in the region. The upgraded facility will provide a safe and efficient work environment for its personnel.

The existing facility is inadequate and inefficient making it difficult to service its customer. The facility does not comply with new building codes or new standards established for DOE.

District 1, Ukiah Sub-Shop – Construction Cost Estimate: $2,500,000
The District proposes to retrofit the entire sub-shop located in Ukiah to comply with all applicable codes and regulations for seismic and other current building codes. The proposed retrofit will include doors that meet the door heights and width standards established for DOE and will better accommodate the work being performed at the facility. The retrofit will provide a current and an efficient working environmental for its personnel.

The current sub-shop facility was built over 50 years ago. It does not meet the new standards established for DOE. Furthermore, the design is antiquated, inadequate, and inefficient for the work taking place at the facility. The asphalt on the sub-shop grounds is in poor condition and needs to be repaved.

District 3, South Lake Tahoe Sub-Shop Facility Expansion – Construction Cost Estimate: $3,000,000
The District proposes to add a new 2 ½ mechanic bay, crew room, and parts department, on the side of the existing sub-shop at the South Lake Tahoe maintenance facility. The proposed building will comply with the new building codes, American with Disabilities Act (ADA), California Department of Industrial Relations – Division of Occupational Safety and Health (CalOSHA) and standards set forth by the DOE. The proposed facility will provide a safe work environment for its personnel and better serve the needs of the customers in the region.

The existing sub-shop was built in the 1960s and does not comply with current DOE standards. There is no crew room or parts department and the bays are undersized to fit any large equipment. The current facility is inadequate in size and antiquated in design for the work taking place. Servicing Caltrans' fleet must take place outdoors which is in violation of environmental regulations.

District 4, Fairfield Sub-Shop Facility Relocation – Construction Cost Estimate: $6,500,000
The District proposes to relocate the existing Fairfield sub-shop to the existing Tri-Bridge maintenance facility in the city of Benicia. The new facility will have six bays, comply with the new building codes, ADA and standards set forth by the DOE. The proposed facility will provide a safer work environment for its personnel and help better serve the needs of the customers in the region.

The existing sub-shop in the city of Fairfield was built in the 1950s. It consists of several small, undersized maintenance bays and does not meet the current functional and safety standards set forth by DOE. The current facility is inadequate in size and antiquated in

design for the work taking place. Serving Caltrans' fleet is both difficult and inefficient and must take place outdoors – in violation of environmental regulations.

District 4, San Leandro Equipment Shop C Facility Renovation – Construction Cost Estimate: $3,500,000
The District proposes to renovate a portion of the equipment shop, build larger bays to accommodate larger equipment, build a new wash rack, and comply with standards set forth by DOE. The proposed facility will provide a safe work environment for its personnel and help better serve the needs of the customers in the region.

The existing Shop C facility was built in the 1960s and does not meet the current operational, functional and safety standards set forth by DOE. Additionally, the facility frequently floods when it rains. The current Shop C is inadequate in size and antiquated in design for the work taking place. Servicing Caltrans fleet must take place outdoors which is in violation of environmental regulations.

District 6, Fresno Equipment Shop – Construction Cost Estimate: $25,463,000
The District proposes to replace the existing equipment facility located at 1385 North West Avenue in Fresno with a 47,500 square foot equipment and office facility. The proposed structure will have ceiling clearance minimum of 22 feet and 15 feet high roll-up overhead doors. The new design will allow drive through bays to accommodate an efficient repair service system. The design also allows sufficient vertical and horizontal clearance to use portable cranes. These larger spaces with larger doors provide a safe and efficient working environment for shop personnel.

The original shop was built in the early 1960s. The current facility is inadequate in size and antiquated in design. Servicing Caltrans' fleet must take place outdoors which is in violation of environmental regulations. The facility does not meet DOE's operational, functional, and safety standards. Lead and asbestos have been found in the construction materials of this facility, the office building has a leaky roof, and the facility has limited space for training events and meetings. There is insufficient space for the crew break room and filing and use of equipment.

District 7, Southern Regional Equipment Repair Shop – Construction Cost Estimate: $15,000,000
The District proposes to replace and consolidate the existing Shop 12 (closed due safety and operational concerns) and existing Commerce Sub-Shop with a Southern Regional Equipment Repair Shop at Caltrans-owned property located at 14044 Freeway Drive, Santa Fe Springs. The proposed facility will comply with new building codes, ADA, and standards set forth by DOE. The proposed facility will provide a safe working environment for its personnel and help better serve the needs of the customers in the Southern California region.

The two existing facilities that are being replaced by the proposed project were built in 1960s and 1970s with material containing asbestos and/or lead paint and are functionally obsolete. There is insufficient space available for equipment and vehicle storage and the shop portion of the yard does not allow for efficient operations due to space limitation. These facilities do not comply with current DOE standards. The equipment repair bays are not wide or high enough for efficient operations and the height limitations of the bays result in repairs of large equipment needing to be performed outdoors which presents storm water violations.

District 8, Indio Resident Mechanics Facility – Construction Cost Estimate: $2,500,000

The District proposes to replace the existing resident mechanics facility with a new 2 ½-bay facility. The proposed facility will be replaced to comply with new building codes, such as ADA, and comply with standards set forth by DOE. The proposed facility will provide a safe work environment for its personnel and help better serve the needs of the customers in the region.

The existing facility was built in the 1960s with material containing asbestos and/or lead paint, and does not meet the current DOE operational, functional and safety standards and gets flooded due to rain storms.

Headquarters, Division of Equipment Headquarter Facility – Construction Cost Estimate: $60,000,000

The Division of Equipment proposes to replace the existing Headquarters (HQ) Shop/Administration facility with a new facility in a more industrial setting. The proposed building will comply with the new building codes, ADA, CalOSHA, and standards set forth by DOE. The proposed facility will provide a safe work environment for its personnel and help better serve the needs of our customers for the entire state.

The existing HQ DOE facility was originally built in 1918 making it almost a century old. It has many critical infrastructure deficiencies and is functionally obsolete. Portions of the existing facility are considered historically protected and cannot be altered or rebuilt. The current facility is inadequate in size, antiquated in design, and very small for daily operation. Servicing Caltrans' fleet must take place outdoors which is in violation of environmental regulations. The facility does not meet the current seismic, electrical, mechanical and DOE standards. Lead and asbestos have been found in the construction materials of this facility. The existing facility, which at one time was in the industrial region of the county, is currently bordering residential neighborhoods.

MAINTENANCE FACILITIES

Introduction

The Division of Maintenance is responsible for maintenance of the state highway system in a manner consistent with Caltrans mission of providing a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. This includes ensuring public and employee safety, preserving the highway infrastructure, and providing services that contribute to mobility and promote a clean and healthy environment. The Division of Maintenance consists of approximately 5,800 employees who work in partnership with other state agencies, local agencies, and private contractors to maintain the state highway system.

Together, the Division of Maintenance and its partners maintain approximately 50,000 lane miles of highway, more than 13,000 bridges, 250,000 roadside acres, 25,000 acres of landscaping, 87 rest areas, as well as commercial vehicle enforcement facilities, and countless other items that make up the state highway system inventory. Maintenance facilities are required to house staff, store equipment, and stockpile materials used in the maintenance and repair of the state highway system. These facilities have building features such as: crew office space, equipment storage bays, equipment service bays, dormitories, employee housing, wash racks, material storage bins, bulk fuel, and hazmat storage.

Infrastructure Description

The total Maintenance Facilities operation space is approximately 2.7 million square feet. Maintenance facilities are of various types and are categorized as follows:

- Highway Maintenance Crew Stations
- Landscape Maintenance Crew Stations
- Special Crew Stations
- Stand-Alone Salt/Sand Storage Sheds
- Satellite Stations

Transportation-Related Facilities Maintenance Facilities Inventory

District		Square Feet
1	Eureka	137,000
2	Redding	317,000
3	Marysville	376,000
4	Oakland	363,000
5	San Luis Obispo	143,000
6	Fresno	227,000
7	Los Angeles	338,000
8	San Bernardino	208,000
9	Bishop	130,000
10	Stockton	214,000
11	San Diego	126,000
12	Irvine	163,000
	Total:	**2,742,000**

District 7, Torrance Maintenance Station

Projects

The 2016 FIP identifies no maintenance station projects that are programmed in the 2014 SHOPP[3] for Fiscal Years 2016-17 and 2017-18 and twenty-two projects identified as unprogrammed needs, which are candidate projects for future SHOPP funding. Project descriptions are provided on the following page.

MAINTENANCE STATIONS	2014 SHOPP Fiscal Years							
PROGRAMMED IN 2014 SHOPP			2016 Facilities Infrastructure Plan Fiscal Years					
Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
D3 Floriston Sandhouse Replacement	$0	$1,800,000	$0	$0	$0	$0	$0	**$0**
D4 San Francisco/Oakland Bay Bridge (SFOBB) Maintenance Complex Replacement	$12,100,000	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	$12,100,000	$1,800,000	$0	$0	$0	$0	$0	**$0**
Land	$370,000	$19,000	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$12,470,000	$1,819,000	$0	$0	$0	$0	$0	**$0**
Support	$6,941,000	$1,058,000	$0	$0	$0	$0	$0	**$0**
Grand Total	$19,411,000	$2,877,000	$0	$0	$0	$0	$0	$0

UNPROGRAMMED NEEDS								
Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
D1 Idlewild Maintenance Facility Replacement	$0	$0	$0	$3,000,000	$0	$0	$0	**$3,000,000**
D2 Adin Maintenance Facility Replacement	$0	$0	$4,000,000	$0	$0	$0	$0	**$4,000,000**
D3 Tahoe City Maintenance Facility Replacement	$0	$0	$0	$0	$2,500,000	$0	$0	**$2,500,000**
D3 Auburn Maintenance Facility Replacment	$0	$0	$0	$0	$0	$3,000,000	$0	**$3,000,000**
D3 Roseville Maintenance Facility Replacement	$0	$0	$0	$0	$0	$0	$3,000,000	**$3,000,000**
D4 Queens Street Maintenance Facility Rehabilitation	$0	$0	$0	$0	$0	$3,000,000	$0	**$3,000,000**
D4 Santa Rosa Maintenance Facility Replacement	$0	$0	$0	$0	$4,000,000	$0	$0	**$4,000,000**
D4 Specialty Region Maintenance Facility Rehabilitation	$0	$0	$0	$0	$0	$0	$4,000,000	**$4,000,000**
D5 Hollister Maintenance Facility Relocation	$0	$0	$0	$4,100,000	$0	$0	$0	**$4,100,000**
D5 San Luis Obispo Maintenance Facility Relocation	$0	$0	$0	$0	$0	$27,000,000	$0	**$27,000,000**
D7 Doran Maintenance New Facility	$0	$0	$0	$0	$4,400,000	$0	$0	**$4,400,000**
D7 Florence Maintenance Facility Replacement	$0	$0	$0	$0	$1,600,000	$0	$0	**$1,600,000**
D8 Blythe Maintenance Facility Replacement	$0	$0	$0	$4,000,000	$0	$0	$0	**$4,000,000**
D8 Dry Creek Maintenance Facility Replacement	$0	$0	$0	$0	$4,000,000	$0	$0	**$4,000,000**
D8 Fontana Maintenance Facility	$0	$0	$17,000,000	$0	$0	$0	$0	**$17,000,000**
D8 Mountain Pass Maintenance Facility Replacement	$0	$0	$0	$0	$4,000,000	$0	$0	**$4,000,000**
D8 Riverside Maintenance Facility Replacement	$0	$0	$0	$15,000,000	$0	$0	$0	**$15,000,000**
D8 San Bernardino Maintenance Facility Replacement	$0	$0	$10,500,000	$0	$0	$0	$0	**$10,500,000**
D11 Boulevard Maintenance Facility Rehabilitation	$0	$0	$0	$3,000,000	$0	$0	$0	**$3,000,000**
D11 Lake Henshaw Maintenance Facility Rehabilitation	$0	$0	$0	$0	$0	$0	$2,000,000	**$2,000,000**
D12 Stanton Maintenance Facility Replacement	$0	$0	$12,000,000	$0	$0	$0	$0	**$12,000,000**
Construction Totals	$0	$0	$43,500,000	$29,100,000	$20,500,000	$33,000,000	$9,000,000	**$135,100,000**
Land	$0	$0	$0	$0	$300,000	$0	$0	**$300,000**
Sub-total (Capital)	$0	$0	$43,500,000	$29,100,000	$20,800,000	$33,000,000	$9,000,000	**$135,400,000**
Support	$0	$0	$13,920,000	$9,312,000	$6,656,000	$10,560,000	$2,880,000	**$43,328,000**
Grand Total	$0	$0	$57,420,000	$38,412,000	$27,456,000	$43,560,000	$11,880,000	$178,728,000

Note:
Support is estimated at 32% of capital costs for projects not programmed in the 2014 SHOPP.

3/ The Facilities Infrastructure Plan overlaps with the last two years of the 2014 SHOPP, Fiscal Years 2016-17 and 2017-18.

Project Description

Programmed Projects

District 3, Floriston Sand/Salt Storage Facility – Construction Cost Estimate: $1,800,000
The project proposes to construct a salt and sand storage facility on Interstate 80 in the vicinity of the California Highway Patrol Donner Pass Inspection Facility and the California Department of Food and Agriculture Truckee Border Protection Station. The new facility will replace the salt and storage facilities at Floriston. The existing Floriston facility is operationally deficient, has exceeded its service life, is in deteriorating condition, and may have negative environmental impacts on the Truckee River. Servicing Interstate 80, State Route 89 and State Route 267 during the winter months are impacted by closing the existing Floriston facility.

District 4, San Francisco Oakland Bay Bridge (SFOBB) Maintenance Complex, Phase 3 Maintenance Training Facility – Construction Cost Estimate: $12,100,000
This project proposes to build a new SFOBB Maintenance Training Facility as part of the San Francisco-Oakland Bay Bridge (SFOBB) Maintenance Complex project. The project is located just south of the SFOBB Toll Plaza area at the SFOBB maintenance yard and includes redevelopment of an existing open area to add a new District 4 Maintenance Training Facility building with adjacent parking lot improvements. The new training facility is needed to consolidate all District 4 Maintenance training needs to one location centrally located within the District and address deficiencies such as operations and site requirements.

Unprogrammed Projects

District 1, Idlewild Maintenance Facility Replacement – Construction Cost Estimate: $3,000,000
The proposed project would replace the equipment service bay building, backup generator, and water supply pipe. The existing building complex was built in 1971 and has exceeded its service life and is operationally deficient. The equipment service bay building has a small office, undersize crew room and a small men's restroom. There is no women's restroom, janitor's room or shower room. This station is in a high elevation area where 24-hour shifts are normal during the winter season.

District 2, Adin Maintenance Facility Replacement – Construction Cost Estimate: $4,000,000
The proposed project replaces the office/crew building, equipment storage bay, covered storage canopy, salt storage building, and detention basin. The maintenance yard also needs to be repaved. The existing facility, built in the 1960s, has exceeded its service life, has inadequate work space, and is operationally deficient. Furthermore, the National Pollutant Discharge Elimination System(NPDES) requirements for stormwater runoff need to be addressed.

District 3, Tahoe City Maintenance Facility Replacement – Construction Cost Estimate: $2,500,000
The proposed project replaces a 1,016 square foot dilapidated 1953 building that contains 3 bedrooms, 1 bath employee house and an office. The existing facility has exceeded its service life, has inadequate work space, and is operationally deficient. The proposed building will be a two-story, 7,000 square foot building with break room, office and crew dormitory.

District 3, Auburn Maintenance Facility Replacement – Construction Cost Estimate: $3,000,000
The proposed project consolidates, replaces, and enlarges the equipment barn, crew rooms, restrooms, and offices within one building. Although the existing facility, built in 1957, had some remodeling completed in 2006, it has exceeded its service life, has inadequate work space, and is operationally deficient. It also was surveyed and found to have lead paint and asbestos within the building. Because of the age and design of the building, it requires major structural changes and seismic resisting systems in order to meet current seismic codes and ADA requirements.

District 3, Roseville Maintenance Facility Replacement – Construction Cost Estimate: $3,000,000
The proposed project consolidates, replaces, and enlarges the equipment barn, crew rooms, restrooms, and offices within one building. The service performed at the facility has outgrown the existing office and equipment barn structure. The existing facility, built in 1931, lacks insulation, energy saving upgrades, has critical infrastructure deficiencies and does not meet current building codes or ADA codes. Safety issues may include lead paint and asbestos exposure within the building.

District 4, Queens Street Maintenance Facility Rehabilitation – Construction Cost Estimate: $3,000,000
The proposed facility project proposes to replace the office/admin building, equipment service bay, and equipment storage bay. The existing facility, built in 1956, has exceeded its service life, has inadequate work space, and is operationally deficient. The electrical supply

to the facility is inadequate to meet the facility needs. The facility has frequent power overload issues that cause interruptions to the operation of the facility.

District 4, Santa Rosa Maintenance Facility Replacement – Construction Cost Estimate: $4,000,000
The proposed project is to relocate the existing Santa Rosa Maintenance Station with a new facility located approximately five miles northwest of Santa Rosa in an industrial park adjacent to the Sonoma County airport. The existing 1960s facility has exceeded its service life, has inadequate work space, is operationally deficient and precludes future expansion. The site is currently located in a residential neighborhood. There is only one entrance to the facility. The facility supports the landscape crew and a tree maintenance crew.

District 4, Specialty Region Maintenance Facility Rehabilitation – Construction Cost Estimate: $4,000,000
The proposed project is to replace the 1968 office/administrative building, 1968 electrical shop, 1975 electrical warehouse, correct a drainage issue and repave the yard. The existing facility has exceeded its service life, has inadequate work space, and is operationally deficient. The pavement at the facility has deteriorated and does not address NPDES requirements for stormwater runoff. Furthermore, flooding is an issue due to poor drainage at this facility.

District 5, Hollister Maintenance Facility Rehabilitation – Construction Cost Estimate: $4,100,000
The proposed project relocates the existing maintenance facility on an acquired 2.4-acre lot in an industrial business park in Hollister. The purpose of the project is to locate the facility in a more appropriately zoned area instead of the residential zoning at the current location. The noise, dust and storage of fuel at the facility will become more of an issue as additional homes are built in the area. The facility is 60 years old. The facility has exceeded its service life, has inadequate work space, and is operationally deficient.

District 5, San Luis Obispo Maintenance Facility Relocation– Construction Cost Estimate: $27,000,000
The proposed project relocates the existing maintenance facility on an acquired 56-acre parcel in San Luis Obispo. The facility to be relocated includes road, landscaping, electrical, tree, sign, and bridge crews. The purpose of the project is to mitigate issues with overcrowding at the facility that is shared with the District 5 San Luis Obispo main office complex. There are safety concerns regarding heavy equipment from the maintenance facility being operated in close proximity to pedestrians from the offices and difficulty in accessing the highway due to increased traffic on adjacent streets. In addition, the site has flooded numerous times from the nearby creek and a majority of the maintenance

buildings were built in 1955 and are in disrepair. The facility has exceeded its service life, has inadequate work space, and is operationally deficient.

District 7, Doran Maintenance New Facility – Construction Cost Estimate: $4,400,000
The proposed project would replace an existing workshop/office trailer and administration/office building built in 1970. It currently accommodates one special crew and is inadequate in size for additional staff and storage space. The facility has exceeded its service life, has inadequate work space, and is operationally deficient.

District 7, Florence Maintenance Facility Replacement – Construction Cost Estimate: $1,600,000
The proposed project replaces the existing maintenance building. The existing complex was built in 1967. The facility has exceeded its service life, has inadequate work space, and is operationally deficient. It was constructed for one crew and is currently being used by two crews. It lacks adequate space for the number of crews and supervisor offices.

District 8, Blythe Maintenance Facility Replacement – Construction Cost Estimate: $4,000,000
The proposed project replaces the equipment barn, materials warehouse, supervisor's office, and crew building. The Blythe facility, built in 1959, has exceeded its service life, has inadequate work space, and is operationally deficient. The existing buildings has inadequate space for equipment and material storage; non-compliance with stormwater NPDES requirements, and outdated HVAC, electrical, and plumbing systems.

District 8, Dry Creek Maintenance Facility Replacement – Construction Cost Estimate: $4,000,000
The proposed project replaces the mechanic's office and equipment barn, supervisor and the superintendent offices and crew building. The Dry Creek facility, built in 1960, has exceeded its service life, has inadequate work space, and is operationally deficient. The existing buildings have insufficient space for the crew and mechanic, inadequate size for equipment and material storage, non-compliance with stormwater NPDES requirements, and outdated HVAC, electrical, and plumbing systems.

District 8, Fontana Maintenance Facility – Construction Cost Estimate: $17,000,000
The proposed new maintenance facility will reduce response time to the recently constructed State Route 210. State Route 210 increased the District's inventory for lane miles, electrical, and landscape workload. The nearest maintenance station to the State Route 210 is Magana-Ortega Maintenance Station. The emergency response time for the crew at the Magana-Ortega Maintenance Station can be as much as 50 minutes. Additionally, the construction of the Fontana Maintenance Facility will be located

adjacent to the Southern Regional Lab and Traffic Management Center/Emergency Operations Center. Along with the existing emergency facilities, the Fontana Maintenance Facility is a critical asset of the Southern California Regional Disaster Coordination Center (SCRDCCT) for Transportation for State Emergency Function 1 (EF1).

District 8, Mountain Pass Maintenance Facility Replacement – Construction Cost Estimate: $4,000,000

The proposed project replaces the equipment barn, warehouse, offices, and crew building. The Mountain Pass facility, built in 1960, has exceeded its service life, has inadequate work space, and is operationally deficient. The existing buildings has inadequate water supply and filtration system, inadequate size for equipment and material storage, non-compliance with stormwater NPDES requirements, and outdated HVAC, electrical, and plumbing systems.

District 8, Riverside Maintenance Facility Relocation – Construction Cost Estimate: $15,000,000

The proposed project replaces the equipment barn, crew building, warehouse, superintendent, manager, and region offices. The Riverside facility, built in 1966, has exceeded its service life, has inadequate work space, and is operationally deficient. The existing buildings have insufficient space for the crew and supervisor offices, inadequate size for equipment and material storage, non-compliance with stormwater NPDES requirements, and outdated HVAC, electrical, and plumbing systems. The present location is incompatible with the surrounding community and has become inappropriately situated in a retail/commercial area.

District 8, San Bernardino Maintenance Facility Replacement – Construction Cost Estimate: $10,500,000

The facility project proposes to reconstruct the San Bernardino Maintenance Station. Reconstruction will include replacement of three of the existing office buildings and one of the warehouses that were built in 1954. The purpose of the project is to correct deficiencies and expand the capabilities of the maintenance station as the North Regional Manager Headquarters and alternative Emergency Operations Center. The current office staff is working out of three different locations. The facility has exceeded its service life, has inadequate work space, and is operationally deficient for current facility needs.

District 11, Boulevard Maintenance Facility Rehabilitation – Construction Cost Estimate: $3,000,000

The proposed project upgrades the existing office and crew building and includes installation of a wash rack. The existing facility, built in 1961, has exceeded its service life, has inadequate work space, and is operationally deficient. Furthermore, the NPDES requirements for stormwater runoff need to be addressed. The pavement has deteriorated and needs to be repaved.

District 11, Lake Henshaw Maintenance Facility Rehabilitation – Construction Cost Estimate: $2,000,000
The facility project proposes major rehabilitation to the maintenance building, which includes modifications and expansion to the existing office/crew building and adding a storage building. The existing building, built in 1977, has exceeded its service life, has inadequate work space, and is operationally deficient.

District 12, Stanton Maintenance Facility Replacement – Construction Cost Estimate: $12,000,000
The proposed facility project replaces the existing maintenance building. The existing maintenance station was built in 1949. The facility has exceeded its service life, has inadequate work space, and is operationally deficient to properly service the area. Lead paint and asbestos are present at the maintenance building. Furthermore, the NPDES requirements for stormwater runoff need to be addressed.

MATERIALS LABORATORIES

Introduction

Caltrans currently operates approximately 124 materials testing facilities, ranging in size from large complex laboratories to small field construction testing facilities. District Materials Engineering (DME) and Independent Assurance Laboratories are currently located in each District and the Caltrans Transportation Laboratory (TransLab) is located in Sacramento. Additionally, Caltrans' new Southern Regional Laboratory in San Bernardino County was completed in Fiscal Year 2010-11. Each of these laboratories provides support for all phases of the project development process and is required to perform federal- and state-mandated quality assurance testing.

State Headquarters
Materials and Testing Laboratory, Sacramento
(Sacramento TransLab)

Staff routinely perform field and laboratory testing of highway materials in the construction phase and are responsible for providing materials information during the planning and design phases, including the Project Materials Report. District laboratories perform routine testing on soils, aggregate, asphalt concrete, and Portland cement concrete. This effort includes the coordination of skid testing, roadway and bridge profilographing, nuclear gauge administration, preliminary testing, calibration of equipment, and pavement coring.

The TransLab and DME laboratories are over 45 years of age, resulting in facilities that are not in compliance with current codes or lack electrical/mechanical capacity to run testing equipment efficiently. These facilities require infrastructure assessments be performed to determine actual facility safety conditions and electrical/mechanical conditions, repair costs, operational issues, and facility code deficiencies.

Infrastructure Description

The materials testing facilities are divided into the following three category types:

- Category I – Program Laboratories (2)
  - Sacramento TransLab
  - Southern Regional Laboratory
- Category II – Main District Materials Engineering Testing Laboratories (9)
- Category III – Field Construction Laboratories (113)
  - Fixed Sites – 42
  - Mobile Sites 71

The facility inventory for Caltrans' Materials Laboratories (Category I and II) total 312,093 square feet as displayed in the table below.

Transportation-Related Facilities
Materials Laboratories Inventory [1/]

District		Address	City	Square Feet
1	Eureka	1726 Albee Street	Eureka	4,000
2	Redding	1657 Riverside Drive	Redding	5,841
3	Marysville	5330 Arboga Road	Olivehurst	13,000
4	Oakland	325 San Bruno Avenue	San Francisco	7,600
5	San Luis Obispo	50 Higuera Street	San Luis Obispo	3,330
6	Fresno	1352 West Olive	Fresno	5,600
8	San Bernardino	13970 Victoria Street [2/]	Fontana	81,000
9	Bishop	500 South Main	Bishop	2,200
10	Stockton	1976 East Dr. Martin Luther King Jr. Blvd	Stockton	5,617
11	San Diego	7177 Opportunity Road	San Diego	12,710
HQ	Sacramento	5900 Folsom Boulevard	Sacramento	171,195
			Total	**312,093**

[1/] Table only reflects Category I (Program Laboratories) and Category II (Main District Materials Engineering Testing Laboratories).
[2/] The Southern Regional Laboratory in District 8 San Bernardino supports Districts 7, 8, and 12.

Projects

The 2016 FIP includes no Materials Laboratories projects that are programmed in the 2014 SHOPP[4] and no projects identified as an unprogrammed need, which are a candidate project for future SHOPP funding. Caltrans recently approved Decision Document 2015-1, centralizing the efforts of Transportation-Related Facilities under a single point of contact, as a result it is anticipated that future SHOPP projects will be developed for Material Laboratories.

MATERIAL LABORATORIES

PROGRAMMED IN 2014 SHOPP	2014 SHOPP Fiscal Years		2016 Facilities Infrastructure Plan Fiscal Years					
Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
	$0	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	$0	$0	$0	$0	$0	$0	$0	**$0**
Land	$0	$0	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$0	$0	$0	$0	$0	$0	$0	**$0**
Support	$0	$0	$0					**$0**
Grand Total	$0	$0	$0	$0	$0	$0	$0	$0

UNPROGRAMMED NEEDS

Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
	$0	$0	$0	$0	$0	$0	$0	**$0**
Construction Totals	$0	$0	$0	$0	$0	$0	$0	**$0**
Land	$0	$0	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$0	$0	$0	$0	$0	$0	$0	**$0**
Support	$0	$0	$0	$0	$0	$0	$0	**$0**
Grand Total	$0	$0	$0	$0	$0	$0	$0	$0

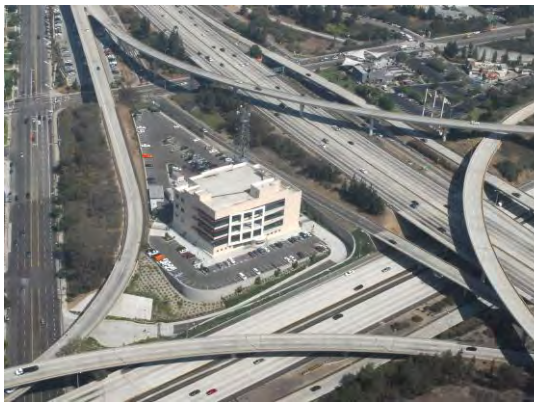
Note:
Support is estimated at 32% of capital costs for projects not programmed in the 2014 SHOPP.

[3/] The Facilities Infrastructure Plan overlaps with the last two years of the 2014 SHOPP, Fiscal Years 2016-17 and 2017-18.

TRANSPORTATION MANAGEMENT CENTERS

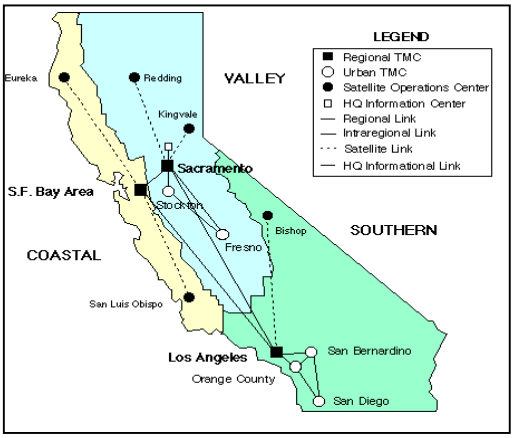
Introduction

A Transportation Management Center (TMC) Master Plan was written in 1997 to develop the framework for standardized statewide strategies for TMCs. Based on geography and population centers, California was divided into three transportation regions that are managed by three regional TMCs located in Districts 3, 4 and 7; five urban TMCs located in Districts 6, 8, 10, 11 and 12; and five smaller TMCs/Satellite Operations Centers (SOCs) located in Districts 1, 2, 3, 5 and 9.



District 7 – Los Angeles Regional Transportation Management

TMCs coordinate with each other and with neighboring states to optimize the efficiency of the transportation system, minimize traveler delays, and increase the safety of the traveling public and the highway workers that maintain the system. The TMCs conduct daily transportation management activities to smooth the flow of traffic, coordinate traffic incident management response in order to limit non-recurring congestion, and provide traveler information to the public to help them make informed travel decisions. The three urban TMCs designated as regional TMCs provide traffic operations services beyond their urban area as needed.



Transportation Management Center Locations

Since the California Highway Patrol (CHP) conducts incident scene management and other public safety services (e.g., pacing traffic in fog and snow) on the state highways, communication and coordination between Caltrans' Traffic Operations staff and CHP staff is critical. In some cases, CHP staffs (officers, dispatchers, and public information officers) are co-located within the TMCs. Additionally, in some locations, a local or regional Emergency Operations Center may be operated within the TMC due to the coordination and media capabilities they possess.

Infrastructure Description

Caltrans maintains 265,685 square feet of TMC operating space, as shown in the table below. Typical TMCs may include security, communication, and dispatch areas; press coverage and briefing rooms; staff offices; restrooms; and locker areas.

Transportation-Related Facilities
Transportation Management Centers (TMCs) Inventory

District		Address	City	Year Built	Square Feet
1	Eureka	1656 Union Street	Eureka	1953	230
2	Redding	1657 Riverside Drive	Redding	1953	830
3	Marysville	3165 Gold Valley Drive	Rancho Cordova	1999	34,200
3	Marysville	51121 Donner Pass Road [1/]	Kingvale	N/A	1,760
4	Oakland	111 Grand Avenue	Oakland	1992	10,200
5	San Luis Obispo	50 Higuera Street	San Luis Obispo	1955	1,500
6	Fresno	1352 West Olive	Fresno	1958	3,065
7	Los Angeles	2901 West Broadway	Los Angeles	2008	82,300
8	San Bernardino	13970 Victoria Street	Fontana	2011	43,000
9	Bishop	500 South Main Street	Bishop	1954	400
10	Stockton	1976 East Dr. Martin Luther King Jr. Blvd.	Stockton	1957	2,200
11	San Diego	7183 Opportunity Road	San Diego	1996	42,000
12	Irvine	6681 Marine Way	Irvine	2001	44,000
				Total	**265,685**

[1/] Winter operation at the Kingvale Maintenance Station

District 12 – TMC Video Wall

District 3 – Changeable Message Sign/Ramp Meter

Projects

The 2016 FIP identifies no TMC projects that are programmed in the 2014 SHOPP[5] and no projects identified as unprogrammed needs, which are candidate projects for future SHOPP funding.

TRANSPORTATION MANAGEMENT CENTERS	2014 SHOPP Fiscal Years							
PROGRAMMED IN 2014 SHOPP			2016 Facilities Infrastructure Plan Fiscal Years					
Location/Description	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
	$0	$0	$0	$0	$0	$0	$0	$0
Construction Totals	$0	$0	$0	$0	$0	$0	$0	**$0**
Land	$0	$0	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$0	$0	$0	$0	$0	$0	$0	**$0**
Support	$0	$0	$0	$0	$0	$0	$0	**$0**
Grand Total	$0	$0	$0	$0	$0	$0	$0	$0

UNPROGRAMMED NEEDS	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2016 FIP Total
Location/Description	$0	$0	$0	$0	$0	$0	$0	$0
Construction Totals	$0	$0	$0	$0	$0	$0	$0	**$0**
Land	$0	$0	$0	$0	$0	$0	$0	**$0**
Sub-total (Capital)	$0	$0	$0	$0	$0	$0	$0	**$0**
Support	$0	$0	$0	$0	$0	$0	$0	**$0**
Grand Total	$0	$0	$0	$0	$0	$0	$0	$0

Note:
Support is estimated at 32% of capital costs for projects not programmed in the 2014 SHOPP.

5/ The Facilities Infrastructure Plan overlaps with last two years of the 2014 SHOPP, Fiscal Years 2016-17 and 2017-18.

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CHAPTER 4

RESOURCE CONSERVATION

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RESOURCE CONSERVATION EFFORTS

The California Department of Transportation's (Caltrans) resource conservation policies, practices, and planning efforts are consistent with Governor Edmund G. Brown Jr.'s Drought State of Emergency, proclaimed on January 17, 2014; the Executive Order B-16-12, signed on March 23, 2012; the Executive Order B-18-12, signed on April 25, 2012 and the Executive Order B-29-15, signed on April 1, 2015.

Policy

Drought State of Emergency

On January 17, 2014, Governor Edmund G. Brown Jr. proclaimed a drought State of Emergency and directed state officials to take all necessary actions to prepare for California's drought conditions. Furthermore, the Governor directed State agencies to use less water and initiate a greatly expanded water conservation public awareness campaign. In his declaration, the Governor called for a 20 percent statewide water usage reduction.

Executive Order B-16-12

The Executive Order B-16-12 moves the state toward the integration of zero-emission vehicles (ZEVs) into the mainstream. It directs the state toward establishing an infrastructure that can support increased public and private ZEVs. Per the Executive Order, state agencies are to increase the number of its ZEVs through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020.

Executive Order B-18-12

The Executive Order B-18-12 directs agencies and departments to take steps to green the state's buildings, reduce greenhouse gas emissions, and improve energy efficiency. Per the Executive Order, state agencies and departments are to:

- Achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) "Silver" certification or higher and to incorporate clean, on-site power generation (such as photovoltaic, solar thermal, wind power generation, and clean back-up power supplies) for new or renovated state buildings larger than 10,000 square feet;

- Set a target of zero net energy consumption for 50 percent of new and renovated state-owned buildings by 2025 and zero net energy consumption from all new or renovated state buildings design after 2025;
- Reduce their grid-based energy purchases and other non-building grid-based retail energy purchases by 20 percent by 2018; as compared to a 2003 baseline;
- Reduce overall water use by 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline; and
- Reduce greenhouse gas emissions by 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline.

Executive Order B-29-15

The Executive Order B-29-15 directs the state to save water, increase enforcement to prevent wasteful water use, streamline the state's drought response and invest in new technologies that will make California more drought resilient. The Governor directed the State Water Resources Control Board to implement mandatory drought reductions in cities and towns across California to achieve a statewide 25 percent reduction in potable urban water usage through February 28, 2016 compared to a 2013 baseline.

Caltrans continues to work towards reaching the goals articulated in Executive Order B-29-15, Drought State of Emergency Proclamation, and the Executive Order B-16-12. Additionally, Caltrans takes measures to follow Executive Order B-18-12 to support the state's renewable power statutes, "green power" electric grid demand, energy and water conservation, LEED, climate change mandates, and the zero-emission vehicles mandates.

Practice and Planning

Water Efficiency and Conservation

Caltrans continues to build on existing efforts to conserve water, address fundamental changes in its approach to water resource management, and prepare for the changes the future holds. Caltrans water conservation measures include:

<u>Office Facilities</u>

- Continue to work toward reducing water usage by 25 percent.
- Continue to survey all facilities to expedite water efficiency retrofits of interior water fixtures, landscape irrigation and planting, and other water-using equipment of facilities.

- Installed low flow water faucet aerators to reduce interior water usage.
- Checked automatic sensors on faucets, toilets, and urinals to ensure they are operating properly and avoid unnecessary water use.
- Plumbing fixtures that must be replaced, are being replaced with low-volume models, if feasible.
- The water supply to equipment and areas that are not utilized has been shut off.
- Ceased building interior and exterior window washing.
- Ceased power washing unless required for health or safety issues.
- "Reduce Water Use" signage has been posted.
- Implemented energy-efficiency measures to reduce the need for building and equipment cooling and heating, which will reduce the amount of water required by these systems.
- Ceased watering turf or annuals.
- Ceased the use of water features (i.e., fountains, etc.)
- Ceased state vehicle washing unless for health and safety reasons.
- Continue to design water-smart landscapes.

Maintenance and Construction

- Ceased landscape irrigation and highway planting work in severe water shortage areas as defined by the California Department of Public Health.
- Ceased irrigation of turf grasses and lawns at all maintenance facilities and roadsides (i.e., State Roadside Rest Areas, Truck Weight Inspection Facilities, etc.).
- Continue to replace inefficient irrigation and plumbing components with water-efficient components.
- Continue to apply mulch and reduce pruning of trees and shrubs (except when addressing safety issues) to reduce water loss through evaporation from the soil.
- Ceased washing state vehicles unless for health and safety reasons.

Clean Renewable Energy Bonds

Caltrans requested budget authority in Fiscal Year 2008-09 to spend $20 million from the sale of Clean Renewable Energy Bonds (CREBs) to install roof-mounted solar panels at 70 transportation facilities. The goal is for the 70 sites to generate over 2.4 megawatts (MW) of energy. The funding for the debt service payments will come from the utilities savings in the State Highway Account (SHA) that result from the installation of the photovoltaic systems.

In 2009, the bonds were sold and the design of the 70 projects started. As of mid-January 2013, all 70 projects were completed and generating electricity. The 2.4 megawatts of solar power that Caltrans' 70 sites are expected to produce can power approximately 500 homes per year.

Leadership in Energy and Environmental Design (LEED)

In the past nine years, Caltrans has constructed three new office buildings in Districts 3, 7, and 11 that are sustainable and have obtained an United States Green Building Council LEED Green Building Rating of Silver or better. The District 7 Headquarters office building was originally certified as LEED Green Building Rating of Silver, but it achieved LEED Green Building Rating of Gold in 2011 after a series of additional changes. The changes included adjusting the thermostat to further reduce heating and cooling loads, committing to the purchase of recycled products, and adopting more sustainable custodial practices. In 2010, a leased office building tenant improvement project in District 12 achieved an United States Green Building Council LEED for Commercial Interiors rating of Gold. Incorporated in these buildings and office space are energy-efficient lighting, window systems, and HVAC (heating, ventilation, and air conditioning) systems.

In 2011, the construction of the Inland Empire Transportation Management Center, located in Fontana, was completed and a LEED Green Building Rating of Gold was achieved, which is the first essential services facility in the nation to achieve this certification.

In fall 2012, the construction of the Phillip S. Raine Rest Area on Highway 99 near Tipton in Tulare County (District 6) that features solar panels, recycled materials, pervious paving, low-flow plumbing, drought-tolerant plants, and an efficient

irrigation system was completed and a LEED Platinum certification, (the highest rating available) was achieved. It is the first LEED-certified rest area in California.

The San Francisco – Oakland Bay Bridge Maintenance Complex project is designed to meet or exceed the Governor's Executive Order B-18-12, which requires buildings over 10,000 square feet to be designed as LEED – New Construction Silver certification.

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Other Resource Conservation Projects

- In the fall of 2012, the Division of Maintenance purchased energy-efficient Light-Emitting Diode (LED) luminaries for many of the maintenance stations statewide. This ongoing effort will replace the maintenance yard exterior lights, specifically the cobra head street lighting and wall pack light fixtures that have inefficient lighting units. The anticipated savings in energy costs will be approximately 35%-40% from the current energy usage cost.
- The Sacramento Headquarters Division of Equipment (DOE) office building was recently retrofitted with a modern HVAC (heating, ventilation, and air conditioning) system.
- The District 8 Transportation Management Center and the Southern Regional Lab campus is installing a 19-acre solar farm under a Public Private Partnership to provide lower cost electricity to these facilities.
- Caltrans plans to install 26 electric vehicle (EV) charging stations at state and district headquarters office buildings statewide. Of these, 6 are single chargers and 20 are dual chargers, for a total of 46 charging heads.
- In Fiscal Year 2012-13, the DOE purchased one battery-electric vehicle and 35 plug-in hybrid electric vehicles. The DOE developed a 3-year plan for zero-emission vehicle purchases to meet the short-term requirement of Executive Order B-16-12. Furthermore, the DOE anticipates replacing 495 light-duty vehicles (subject to available funding and vehicle replacement priorities) to meet the mandates of Executive Order B-16-12.
- In 2014, approximately 9,000 Light-Emitting Diode (LED) luminaries were installed at the Sacramento Headquarters office building in December 2014. This will result in a savings of 50% lighting electrical costs over T-8 and T-12 fluorescent lights. Furthermore, the longer useful life reduces replacement costs.
- Additionally in 2015, Caltrans' statewide District Offices plan on installing over 50,000 Light Emitting Diode (LED) luminaries in their district headquarters buildings. These LED tubes will have a longer operational life span, are 40%-50%

more energy efficient, and are more ecologically friendly than fluorescent lights presently used because they do not contain mercury.

- Americans with Disability Act (ADA) compliant drinking fountains were installed at the Sacramento Headquarters office building and the Royal Oaks warehouse to comply with ADA code requirements. The drinking fountains include a water bottle filler station with an electronic counter tracking the number of plastic water bottles saved. In 2014, over 60,000 plastic water bottles were not needed because employees and visitors utilized the reusable containers.
- In 2014, aerators were installed onto sink faucets in the Sacramento area office facilities. The aerators are rated at 0.5 gallons per minute (GPM) and save 2-3 GPM of water per sink.
- The District 1, Eureka Fire Life Safety Modernization Project currently in process at the office building includes the installation of modern T-5 fluorescent lights saving electricity and a heating and ventilation system that is designed for energy efficiency.

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Reconciliation to Previous Facilities Infrastructure Plan

(2016 FIP reconcile to 2015 FIP)

Programmed in 2014 SHOPP (Fiscal Years 2016-17 and 2017-18)

District	Facility	Project	Reconciliation	2015 FIP	2016 FIP
		There are No Facility Projects Programmed in the 2014 SHOPP for Fiscal Years 16/17 and 17/18		$0	$0
				$0	$0

Unprogrammed Projects

District	Facility	Project	Reconciliation	2015 FIP	2016 FIP
1	Equipment	Clearlake Oaks Resident Mechanic Facility Replacement	Revised Year (FY 2020-21)	$1,800,000	$1,800,000
1	Equipment	Garberville Resident Mechanic Facility Replacement	Revised Year (FY 2020-21)	$1,900,000	$1,900,000
1	Equipment	Ukiah Sub-Shop Retrofit	Revised Year (FY 2017-18)	$2,500,000	$2,500,000
3	Equipment	South Lake Tahoe Sub-Shop Facility Expansion	No Changes	$3,000,000	$3,000,000
4	Equipment	Fairfield Sub-Shop Facility Relocation	No Changes	$6,500,000	$6,500,000
4	Equipment	San Leandro Equipment Shop C Facility Renovation	Revised Year (FY 2020-21)	$3,500,000	$3,500,000
6	Equipment	Fresno Equipment Shop Replacement	Revised Year (FY 2018-19)	$25,463,000	$25,463,000
7	Equipment	Commerce Sub-Shop Replacement	Dropped Off 2016 FIP	$10,000,000	$0
7	Equipment	Southern Regional Equipment Repair Shop	New Proposed Need (FY 2016-17)	$0	$15,000,000
8	Equipment	Indio Resident Mechanics Facility Replacement	Revised Year (FY 2017-18)	$2,500,000	$2,500,000
11	Equipment	El Centro Sub-Shop Renovation	Ammended to 2014 SHOPP (FY 2015-16)	$5,000,000	$0
12	Equipment	Irvine Equipment Facility Replacement	Dropped Off 2016 FIP	$21,000,000	$0
HQ	Equipment	Division of Equipment HQ Facility Replacement	New Proposed Need (FY 2019-20)	$60,000,000	$60,000,000
1	Maintenance	Idlewild Maintenance Facility Replacement	Revised Estimate and Year (FY 2017-18)	$1,500,000	$3,000,000
2	Maintenance	Adin Maintenance Facility - Major Rehabilitation	Revised Year (FY 2016-17)	$3,600,000	$4,000,000
3	Maintenance	Auburn Maintenance Facility - Major Rehabilitation	Revised Estimate and Year (FY 2019-20)	$2,000,000	$3,000,000
3	Maintenance	Roseville Maintenance Facility - Major Rehabilitation	Revised Estimate and Year (FY 2020-21)	$1,500,000	$3,000,000
3	Maintenance	Tahoe City Maintenance Facility Replacement	New Proposed Need (FY 2018-19)	$0	$2,500,000
4	Maintenance	Petaluma Maintenance Facility - Major Rehabilitation	Dropped Off 2016 FIP	$1,500,000	$0
4	Maintenance	Queens Street Maintenance Facility - Major Rehabilitation	Revised Estimate and Year (FY 2019-20)	$1,800,000	$3,000,000
4	Maintenance	Santa Rosa Maintenance Facility Replacement	New Proposed Need (FY 2018-19)	$0	$4,000,000
4	Maintenance	Specialty Region Maintenance Facility Rehabilitation	New Proposed Need (FY 2020-21)	$0	$4,000,000
5	Maintenance	Hollister Maintenance Facility Relocation	New Proposed Need (FY 2017-18)	$0	$4,100,000
5	Maintenance	San Luis Obispo Maintenance Facility Relocation	Revised Estimate	$26,900,000	$27,000,000
7	Maintenance	Camarillo Maintenance Facility Replacement	Dropped Off 2016 FIP	$6,000,000	$0
7	Maintenance	Doran New Maintenance Facility	Revised Year (FY 2018-19)	$4,400,000	$4,400,000
7	Maintenance	Florence Maintenance Facility Replacement	Revised Year (FY 2018-19)	$1,600,000	$1,600,000
8	Maintenance	Blythe Maintenance Facility Replacement	Revised Estimate and Year (FY 2017-18)	$2,300,000	$4,000,000
8	Maintenance	Dry Creek Maintenance Facility Replacement	Revised Estimate and Year (FY 2016-17)	$2,500,000	$4,000,000
8	Maintenance	Fontana Maintenance Faciity	New Proposed Need (FY 2016-17)	$0	$17,000,000
8	Maintenance	Mountain Pass Maintenance Facility Replacement	Revised Estimate and Year (FY 2018-19)	$2,500,000	$4,000,000
8	Maintenance	Riverside Maintenance Facility Replacement	Revised Year (FY 2017-18)	$15,000,000	$15,000,000
8	Maintenance	San Bernardino Maintenance Facility Replacement	New Proposed Need (FY 2016-17)	$0	$10,500,000
11	Maintenance	Boulevard Maintenance Facility - Major Rehabilitation	Revised Estimate and Year (FY 2017-18)	$2,800,000	$3,000,000
11	Maintenance	Lake Henshaw Maintenance Facility - Major Rehabilitation	Revised Year (FY 2020-21)	$2,000,000	$2,000,000
12	Maintenance	Stanton Maintenance Facility Relocation	Revised Year (FY 2016-17)	$12,000,000	$12,000,000
				$233,063,000	$257,263,000
			Total Construction Costs:	$233,063,000	$257,263,000
				(pg vii 2015 FIP)	(pg vii 2016 FIP)

Appendix

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Infrastructure Functional and Physical Inadequacies

The California Department of Finance requests departments to provide documentation of the "infrastructure functional and physical inadequacies". The reports documenting these inadequacies are too extensive to include within this report; however, a list of documentation is provided in the table below. These documents are available upon request from Caltrans.

Facility Studies

Dist	Study	Date
1	DGS Economic Analysis	August 2007
	DGS Infrastructure Study Update	June 2006
2	DGS Facility Study and Economic Analysis	March 2007
	DGS Infrastructure Study	February 2003
	Seismic Study (Risk Level 5)	October 1997
3	Seismic Study, (Risk Level 5), Rutherford & Chekene	January 1998
	DGS Economic Analysis	September 1999
	DGS Facility Study	1994
4	Seismic Report, Degenkolb Engineer/Crosby Group	May 2004
	Physical & Numerical Performance Evaluation of Steel Monument Frames	December 2002
	DGS Seismic Assessment	1990
5	DGS Facility Study and Economic Analysis	March 2007
	DGS Infrastructure Study	February 2003
	Seismic Study (Risk Level 5), Rutherford & Chekene	January 1999
6	DGS Infrastructure Study	Cancelled
	DGS Economic Analysis	September 2000
	DGS Infrastructure Study	November 1990
8	Seismic Assessment, Wong Hobach and Lau	1998
	Seismic Study (Risk Level 4), Rutherford & Chekene	March 1998
9	DGS Feasibility Study Report, Shah Kawasaki Architects	March 2008
	DGS Feasibility Study Report	October 2007
	DGS Infrastructure Study	October 2003
10	DGS Infrastructure Study	July 2009
	Seismic Study (Risk Level 3), State Architect	September 1997
HQ	Equipment Shop, DGS Study	Cancelled
	Caltrans Headquarters, DGS Infrastructure Study	July 2006
	Caltrans Headquarters, DGS Infrastructure Study - Update	April 2007
	Long-Term Headquarters Consolidation Master Plan – Phase One	April 2010

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Calculation of "Net Need"

Caltrans projects a "net need" for office space totaling approximately 68,000 square feet (less than 3% of the statewide total).

A significant amount of Caltrans state-owned office space inventory will exceed 50 years of age during the 2016 Facilities Infrastructure Plan time-period. These facilities will require renovation or replacement. Additionally, in some geographic areas a significant[1] number of Caltrans' employees are housed in leased office space.

STATEWIDE SUMMARY OFFICE FACILITIES "NET NEED"					
	Facilities Infrastructure Plan Years				
	Year 1 FY 2016-17	Year 2 FY 2017-18	Year 3 FY 2018-19	Year 4 FY 2019-20	Year 5 FY 2020-21
New Office Building Construction[1] (location of new office building)	-	-	-	-	-
Number of Buildings Vacated[2] (due to new office building construction)	-	-	-	-	-
Number of Leases Eliminated[3] (due to new office building construction)	-	-	-	-	-
Office Space "Supply"[4] (net square feet of owned and leased space)	3,008,253	3,008,253	3,008,253	3,008,253	3,008,253
Office Space "Demand"[5] (220 net square feet per person)	3,076,260	3,076,260	3,076,260	3,076,260	3,076,260
Office Space "Net Need"[6] (supply less demand - in square feet)	*(68,007)*	*(68,007)*	*(68,007)*	*(68,007)*	*(68,007)*
Office Space "Net Need"[7] (supply less demand - as a percentage)	*(2.26)%*	*(2.26)%*	*(2.26)%*	*(2.26)%*	*(2.26)%*

Chart Footnotes:
1) Actual and proposed construction of office facilities by location and fiscal year.
2) The number of office buildings vacated due to the actual or proposed new office facilities.
3) The number of leases terminated due to the actual or proposed new facilities.
4) The amount of office space statewide, stated in net square feet (nsf), based upon the actual inventory of space.
5) The amount of office space needed statewide, stated in net square feet (nsf), based upon 220 nsf per staff person and that office-related positions statewide are assumed stable at 13,983.
6) The surplus or shortage of office space statewide, stated in net square feet (nsf), based upon the actual inventory and the amount needed.
7) The surplus or shortage of office space statewide, stated as a percentage.

[1]Executive Order W-18-91 states that, "The State shall, where possible and feasible, own those real estate facilities necessary for State operations, where the need for the facility is long-term and ownership is economically advantageous over the life of the facility."

Office Facilities "Net Need"

Fiscal Years 2016-17 through 2020-21

District	Address		Owned (O) Leased (L)	Owned Gross	Owned Net	Leased	District Total "gross space" *(Owned Gross & Leased)*	District Total "net space" *(Owned Net & Leased)*	*Other*
District Office Facilities									
D 1	1656 Union Street	Eureka	O	80,800	56,560				
	TMC, 1656 Union Street	Eureka	O		*(230)*				
	1656 Union Street (Modular)	Eureka	O	4,176	2,923				
	1835 6th Street (Modular)	Eureka	O	6,480	4,536				
	District Totals:			**91,456**	**63,789**	**0**	**91,456**	**63,789**	***0***
D 2	1657 Riverside Drive	Redding	O	47,851	33,496				
	TMC, 1657 Riverside Drive	Redding	O		*(830)*				
	1031 Butte Street	Redding	L			47,027			
	District Totals:			**47,851**	**32,666**	**47,027**	**94,878**	**79,693**	***0***
D 3	703 B Street	Marysville	O	230,000	160,444				
	2379 Gateway Oaks Drive	Sacramento	L			6,260			
	District Totals:			**230,000**	**160,444**	**6,260**	**236,260**	**166,704**	***0***
D 4	111 Grand Avenue	Oakland	O	750,000	525,000				
	TMC, 111 Grand Avenue	Oakland	O		*(10,200)*				
	1007 Knox Avenue	San Jose		14,742	10,319				
	District Totals:			**764,742**	**525,119**	**0**	**764,742**	**525,119**	**-**
D 5	50 Higuera Street	San Luis Obispo	O	41,700	29,190				
	TMC, 50 Higuera Street	San Luis Obispo	O		*(1,500)*				
	20 Higuera Street (Vacant)	San Luis Obispo	O						*7,500*
	1150 Laurel Lane (Or equivalent)	San Luis Obispo	L			44,459			
	3232 S. Higuera Street	San Luis Obispo	L			8,224			
	District Totals:			**41,700**	**27,690**	**52,683**	**94,383**	**80,373**	***7,500***
D 6	1352 W. Olive Street	Fresno	O	78,000	60,000				
	TMC, 1352 W. Olive Street	Fresno	O		*(3,065)*				
	2015 E. Shields Avenue	Fresno	L			98,575			
	855 M Street	Fresno	L			50,773			
	District Totals:			**78,000**	**56,935**	**149,348**	**227,348**	**206,283**	***0***
D 7	100 S. Main Street	Los Angeles	O	716,200	501,340				
	Space adjustment: 100 S. Main Street 11th floor	Los Angeles	O		*(47,000)*				
	Space adjustment: 100 S. Main Street LADOT	Los Angeles	O		*(98,486)*				
	950 County Square Drive	Ventura	L			487			
	District Totals:			**716,200**	**355,854**	**487**	**716,687**	**356,341**	***0***
D 8	464 W. 4th Street	San Bernardino	O	336,000	282,125				
	Space adjustment: 464 W. 4th DGS Space Assignments	San Bernardino	O		(114,778)				
	District Totals:			**336,000**	**167,347**	**0**	**336,000**	**167,347**	***0***
D 9	500 S. Main Street	Bishop	O	20,250	14,175				
	TMC, 500 S. Main Street	Bishop	O		*(400)*				
	500 S. Main Street (Modular Traffic Ops.)	Bishop	O	4,986	3,490				
	500 S. Main Street (Modular Design)	Bishop	O	5,040	3,528				
	500 S. Main Street (Modular IT)	Bishop	O	2,894	2,026				
	500 S. Main Street (Modular Mtce. Engineering)	Bishop	O	4,326	3,028				
	District Totals:			**37,496**	**25,847**	**0**	**37,496**	**25,847**	***0***

Office Facilities "Net Need"

Fiscal Years 2016-17 through 2020-21

District	Address		Owned (O) Leased (L)	Owned Gross	Owned Net	Leased	District Total "gross space" *(Owned Gross & Leased)*	District Total "net space" *(Owned Net & Leased)*	*Other*
District Office Facilities (continued)									
D 10	1976 E. Dr. Martin Luther King Jr. Blvd.	Stockton	O	64,574	45,202				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. R/W)	Stockton	O	5,760	4,032				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Plan/LA)	Stockton	O	5,760	4,032				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Permits)	Stockton	O	2,880	2,016				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Safety)	Stockton	O	960	672				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Admin)	Stockton	O	3,520	3,002				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. TMC)	Stockton	O		*(2,200)*				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Surveys I)	Stockton	O	2,880	2,016				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Surveys II)	Stockton	O	2,880	2,016				
	1976 E. Dr. Martin Luther King Jr. Blvd. (Mod. Video Conf.)	Stockton	O	960	672				
	District Totals:			**90,174**	**61,460**	**0**	**90,174**	**61,460**	***0***
D 11	4050 Taylor Street	San Diego	O	301,000	221,447				*15,428*
	4024 Taylor Street (Vacant Arch. Build.)	San Diego	O						*2,345*
	District Totals:			**301,000**	**221,447**	**0**	**301,000**	**221,447**	***17,773***
D 12	3337-3347 Michelson Drive	Irvine	L			151,453			
	District Totals:			**0**	**0**	**151,453**	**151,453**	**151,453**	***0***
	Geographical District Totals:			**2,734,619**	**1,698,598**	**407,258**	**3,141,877**	**2,105,856**	***25,273***
Regional Office Facilities									
D8	21073 Pathfinder Road Suite 200 (Lab)	Diamond Bar	L			8,950		8,950	
	Regional Totals:			**0**	**0**	**8,950**	**8,950**	**8,950**	***0***
State Headquarters Facilities									
HQ	1120 N Street	Sacramento	O	462,392	365,590				
	1120 N Street (CTC leased space)	Sacramento	O		*(4,628)*				
	5900 Folsom Boulevard (Lab)	Sacramento	O	15,146	10,602				
	5900 Folsom Boulevard (Lab; quad I)	Sacramento	O	6,480	4,536				
	5900 Folsom Boulevard (Lab; quad II)	Sacramento	O	6,480	4,536				
	5900 Folsom Boulevard (Lab; quad III)	Sacramento	O	6,480	4,536				
	1900 Royal Oaks Drive (Office space only)	Sacramento	O	9,757	6,830				
	1801 30th Street (FM1)	Sacramento	L			160,900			
	1727 30th Street (FM3)	Sacramento	L			123,736			
	1820 Alhambra Boulevard (FM2)	Sacramento	L			87,423			*1,463*
	1823 14th Street (Backfill)	Sacramento	L			28,181			
	1500 5th Street (Backfill 2415-001)	Sacramento	L			25,248			
	1500 5th Street (2nd floor 2415-003)	Sacramento	L			5,631			
	1500 5th Street (2nd floor 2415-004)	Sacramento	L			3,804			
	1304 O Street	Sacramento	L			18,695			
	1616 29th Street	Sacramento	L			18,101			
	1227 O Street	Sacramento	L			17,000			
	1515 River Park Drive Suite 210	Sacramento	L			6,642			
	3390 Lanatt Street	Sacramento	L			3,769			*26,146*
	1115 P Street	Sacramento	L			2,315			
	State Headquarters Totals:			**506,735**	**392,002**	**501,445**	**1,008,180**	**893,447**	***27,609***
	Grand Totals:			**3,241,354**	**2,090,600**	**917,653**	**4,159,007**	**3,008,253**	***52,882***

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Categories for Existing Infrastructure

1. Critical Infrastructure Deficiencies. Condition of existing facilities impairs program delivery or results in an unsafe environment. Such projects would correct conditions that significantly limit the efficiency and effectiveness of program delivery. Also included are projects that correct code deficiencies that pose a hazard to employees, client populations, or the public, such as compliance with Fire Marshal regulations, flood control projects, seismic projects, and health related issues such as asbestos abatement and lead removal.

2. Facility/Infrastructure Modernization. Building is structurally sound but modernization of facility will result in an upgrade or betterment that will enable or enhance program delivery. Such projects could include lighting, HVAC, utilities (sewer, water, electrical) and remodeling of interior space to increase efficiency.

3. Workload Space Deficiencies. Additional space required to serve existing programs because of increased workload (not Enrollment/Caseload/Population (E/C/P) based). Within this category departments could divide the category into specified types of space such as offices, storage, laboratories, classrooms, field offices, etc.

4. Enrollment/Caseload/Population (E/C/P). Changes to E/C/P estimates resulting in a reduction or increase in the amount of existing space needed or a change in the use of existing space.

5. Environmental Restoration. Land restoration or modification for environmental purposes. Examples include wetlands restoration for habitat purposes.

6. Program Delivery Changes. Modifications to existing facilities necessitated by authorized changes to existing programs or newly required programs.

Categories for New Infrastructure

7. Workload Space Deficiencies. Additional space required to serve existing programs because of increased workload (not E/C/P based). Within this category departments could divide the category into specified types of space such as offices, storage, laboratories, classrooms, field offices, etc.

8. Environmental Acquisitions and Restoration. Land acquisitions and restoration of newly acquired land for the improvement or protection of wildlife habitat.

9. Public Access and Recreation. Acquisitions or projects to facilitate, or allow public access to state resources and landholdings such as coastal and park acquisitions as well as development of access points to beaches for recreation or for open space preservation.

10. Enrollment/Caseload/Population (E/C/P). Changes to E/C/P estimates resulting in the need for additional space.

11. Program Delivery Changes. New facility needs resulting from authorized changes to the existing program delivery systems.

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Critical Infrastructure Deficiencies

Fire and Life Safety applies "minimum standards for the prevention of fire and for the protection of life and property against fire, explosion, and panic"[3].

Seismic Deficiency takes into account both seismic rating of the facility (Seismic Risk Level) along with the geographic tendency (Seismic Zone) to a seismic event.

- Seismic Risk Level identifies the risk level (I through VII) as defined by the California Department of General Services.
- Seismic Zone identifies Type "A", "B", or "C" Faults as defined in the Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada, to be used with the 1997 Uniform Building Code, published by International Conference of Building Officials, February, 1998.

Building Deficiencies evaluates on a "cost to cure" basis Building Systems and Tenant Improvements.

- Building Systems include infrastructure such as heating, ventilation, and air conditioning (HVAC); electrical wiring; plumbing; security; fire alarm; and elevators.
- Tenant Improvements include any tenant-added infrastructure in/on the property.

Code Deficiencies examines … "non-critical Fire and Life Safety issues, and all other code deficiencies except Americans with Disabilities Act requirements"[4].

Facility/Infrastructure Modernization

Operational Deficiencies examines the functional utility, or efficient use, of the existing space of the infrastructure.

American With Disabilities Act (ADA) Compliance considers how the existing facility fulfills ADA requirements.

Energy Inefficiencies considers inefficient energy-related systems, such as windows, heating, air-conditioning, gas lines, and water supply.

Security Deficiencies assesses employee and community exposure to criminal activity and other outside threats.

Effective Age evaluates the overall condition of infrastructure taking into account its actual age. Well-maintained infrastructure will have a lower effective age than poorly maintained infrastructure.

[2] DOF and Caltrans staff met February 23, 2005 to review Caltrans' drivers. The result of that and previous meetings is the agreement that Caltrans' drivers are appropriate for the Existing Infrastructure classification.
[3] Source: State Fire Marshal, Title 19. Public Safety, Division 1, Chapter 1, Subchapter 1, Article 1.
[4] Source: State Administrative Manual; Section 6839.

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ALTERNATIVES TO UTILIZING THE CAPITAL OUTLAY PROCESS

State departments are required to explore non-capital outlay alternatives that can be utilized to address net needs. The California Department of Transportation (Caltrans) office space needs are currently met by a combination of state-owned and leased office space. Alternatives that may be considered in lieu of the capital outlay process include: leasing office space, changing program/project delivery methods, alternative work schedules, and public-private partnerships.

Lease Office Space

Utilizing short and/or long-term leased office space may result in increased support costs and may not be cost effective over the long term. Additionally, Executive Order W-18-91 states that, "The State shall, where possible and feasible, own those real estate facilities necessary for State operations, where the need for the facility is long-term and ownership is economically advantageous over the life of the facility."

Change Program/Project Delivery Methods

This alternative would encompass changes that would reduce staffing levels and the corresponding level of office space needs. This alternative may not be cost effective or efficient and could result in a negative impact on Caltrans' project delivery efforts.

Alternate Work Schedules/Telework/Hoteling

Caltrans will consider, when appropriate, the use of Telework as a viable management tool (where work performance can be measured) to improve the effectiveness and productivity of employees, optimize facility utilization, and improve asset management without jeopardizing safety, internal controls, Caltrans' needs, or services to the public.

Caltrans may use the Telework option, when viable, as one of the strategies to improve safety, mobility, delivery, stewardship, and service by reducing traffic congestion, improving air quality, or effectively resuming business as part of a disaster recovery or emergency. This policy recognizes the business, societal, and personal benefits made available through a carefully planned and well-managed Telework Program.

Public-Private Partnerships

Caltrans will seek public-private partnerships as authorized by the California Legislature.

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BUDGET LETTER

NUMBER: 14-20	
SUBJECT: CAPITAL OUTLAY FIVE-YEAR INFRASTRUCTURE PLANBUDGET SUBMISSION FOR 2015-16, AND IMPLEMENTATION OF FINANCIAL INFORMATION SYSTEM FOR CALIFORNIA (FI$CAL)	DATE ISSUED: August 22, 2014
REFERENCES: STATE ADMINISTRATIVE MANUAL SEC 6821, ET. SEQ. AND AB 1473 (CHAPTER 606, STATUTES OF 1999)	SUPERSEDES: BL 11-09

TO: Agency Secretaries
Department Directors
Department Budget and Accounting Officers
Department of Finance Budget and Accounting Staff

FROM: DEPARTMENT OF FINANCE

NOTE: Budget Officers are requested to forward a copy of this Budget Letter to the Department's Facilities Manager as well as program personnel with capital outlay infrastructure needs.

Deadlines and Deliverables	
September 2, 2014	**Five-Year Infrastructure Plans, including all required supporting documentation, due to your Department of Finance budget analyst.**
October 1, 2014	**Deferred Maintenance Information.**
	FI$CAL Capital Outlay Instructions

This Budget Letter (BL) provides detailed instructions and due dates for submitting Major and Minor Capital Outlay Budget Change Proposals (COBCPs), Five-Year Infrastructure Plans, and deferred maintenance information. This BL also provides information regarding FI$Cal that affects all departments with capital outlay programs.

Major COBCPs; detailed Minor COBCPs and a summary Minor COBCP, if applicable; and Five-Year Infrastructure Plans are due by **September 2, 2014**, as indicated in BL 14-05. Deferred maintenance information is due by **October 1, 2014.** Any state agency with capital outlay needs in 2015-16 through 2019-20 must submit a Five-Year Infrastructure Plan, including the necessary COBCPs and/or Capital Outlay Concept Papers (COCPs) as detailed in this BL.

1. Submittal of the 2015 Five-Year Infrastructure Plans, COBCPs, and COCPs.

A. FIVE-YEAR INFRASTRUCTURE PLANS

The Governor is required to annually submit a Five-Year Infrastructure Plan in conjunction with the Governor's Budget. The 2014 Infrastructure Plan evaluated the state's infrastructure needs in the overall context of available funding sources, what the state could afford, and how the state could grow in the most sustainable way possible. The 2014 Infrastructure Plan focused the limited available resources on core state responsibilities. The 2015 Infrastructure Plan will update the 2014 Infrastructure Plan keeping the same principles in mind. The 2014 Infrastructure Plan can be

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found at the following link: http://www.dof.ca.gov/capital_outlay/reports/documents/2014-Infrastructure-Plan_WEB.pdf. As stated in the 2015-16 Budget Policy Letter (BL 14-12), in order to maintain a structurally balanced budget, departments' ability to submit COBCPs for the 2015-16 Budget remains limited, regardless of funding source. COBCPs should only be submitted for the 2015-16 Budget that are either for (a) existing or ongoing capital outlay projects, or (b) new capital outlay projects, if critical, such as fire/life safety, or court ordered projects.

In addition to the required COBCPs and COCPs described in more detail below, departments are reminded they also need to submit, as part of their plans, the following narrative information to their Finance budget analyst if they have a capital outlay need:

- Department's mission and program responsibilities
- Description of the department's existing facilities
- Summary of the department's drivers of infrastructure need
- Summary of the department's proposal, and
- Description of how their plan is consistent with AB 857 (Chapter 1016, Statutes of 2002) Planning Guidelines.

Departments included in the 2014 Infrastructure Plan are not required to submit a revised narrative for mission and program responsibilities, description of its existing facilities, and drivers of need if there are no changes or required updates from what was included in the 2014 Infrastructure Plan.

Departments not included in the 2014 Infrastructure Plan should use the 2014 Infrastructure Plan as a guideline when developing their narrative sections. The narrative document should be emailed to their capital outlay Finance budget analyst by September 2, 2014.

AB 857 Planning Guidelines: All Five-Year Infrastructure Plans must consider the state planning priorities, as required by Government Code section 65041.1, including, but not limited to the following:

- Promote infill development by rehabilitating existing infrastructure.
- Protect environmental and agricultural resources by protecting and preserving the state's most valuable natural resources.
- Encourage efficient development patterns by ensuring that infrastructure associated with development, other than infill, support efficient use of land and is appropriately planned for growth.

All state entities are required to provide a narrative explanation of how these planning priorities have been incorporated into their five-year infrastructure plan on a statewide basis as it relates to programmatic drivers and infrastructure needs as reported in the Five-Year Infrastructure Plans. If your department has policy documents, guidance, or processes for assessing consistency with California's Planning Priorities that are useful in designing and selecting projects to implement your infrastructure plan requests, list these instruments and web links in the narrative section of your infrastructure plan.

Because these planning priorities are most relevant at the project level, **the COBCP includes a section to describe how each project is or is not consistent with these statewide planning priorities.** Additional justification must be provided for projects that are not consistent with these statewide planning priorities to be considered for funding.

B. MAJOR CAPITAL OUTLAY

All COBCPs and COCPs for all *major* capital outlay projects proposed for the 2015-16 Governor's Budget and the 2015 Five-Year Infrastructure Plan must be submitted to Finance no later than **September 2, 2014**.

Reminder—State agencies requesting new or expanded facilities must clearly demonstrate how existing facilities do not meet programmatic needs and keep in mind the Administration's desire to fund critical core state infrastructure within limited available resources.

- **Documents Required to Request Capital Outlay Funds:**
  - ✓ For budget year and project specific out-year proposals included in the Five-Year Infrastructure Plan: COBCP(s) as described in Attachment 1 and Fiscal Impact Worksheet (FIW) as described in Attachment 4.
  - ✓ For conceptual proposals: COCP(s) as described in Attachment 3 and FIW as described in Attachment 4.
  - ✓ For **ALL** proposals: COBCPs, COCPs, and FIWs **must be submitted electronically as Word documents or Excel spreadsheets to the appropriate Finance capital outlay budget analyst**.
  - ✓ All documents submitted to Finance must also be provided in hard copy.
- **When to Prepare a COBCP:** Complete COBCPs are required for all new projects or capitalized leases (See Attachment 1) proposed for inclusion in the 2015-16 Governor's Budget. For continuing phases of previously funded projects, departments must submit a complete COBCP and FIW; *any* changes to the cost or scope of the project must be clearly identified and justified.
- **Requesting Budget Packages:** Budget packages are used to verify feasibility, scope, and costs of projects. Finance may utilize infrastructure planning funds for budget packages when Finance determines a budget package is required for a specific project and funding is not otherwise available. Departments may submit requests to Finance to fund specific budget packages or utilize departmental support funds to contract with the Department of General Services (DGS), Real Estate Services Division, prior to submission of COBCPs. However, use of support funds does not guarantee future funding of a project, so departments are advised to check with Finance prior to initiating their own budget package.
- **Agency Review and Distribution:** Five-Year Plans, including COBCPs and COCPs must be approved by the Agency Secretary, as applicable, *prior to* submission to Finance. After agency approval, submit:
  - ✓ Three copies to: Department of Finance, Capital Outlay Unit, 915 L Street, Ninth Floor. (Submit *four* copies to the Capital Outlay Unit for projects based on enrollment/caseload/population changes, program workload adjustments, or program policy changes [the additional copy will be given to the Finance support analyst]).

These copies are in addition to any copies that the Agency Secretary may require.

- **Major Capital Outlay Budget Reminders:**
  - ✓ A capital outlay appropriation is required for the acquisition of real property or any lesser interest in real property (includes, but not limited to, capitalized leases, easements, purchase options, and rights-of-way), except as otherwise authorized.
  - ✓ All major capital outlay projects are subject to the administrative oversight of the State Public Works Board (PWB) unless specifically exempted. Departments must follow PWB and

Finance administrative requirements when implementing projects. Questions on these requirements should be directed to the Finance Capital Outlay Unit at (916) 445-9694.

- ✓ Augmentations to capital outlay appropriations may be made by the PWB in accordance with GC section 13332.11, through the Budget Act, or through special legislation.
- ✓ Project scope may ***not*** be altered except in conformance with GC section 13332.11. Finance determines which project changes are classified as scope changes. Project managers and departments must review potential scope changes with the Finance Capital Outlay Unit. **Unapproved scope changes may result in project termination.** To avoid project termination, it is recommended that departments exercise caution and discuss any potential scope changes with Finance **before** proceeding with those changes.
- ✓ Funds may not be transferred between major capital outlay projects, unless specifically authorized in the Budget Act or by other statute.
- ✓ Capital outlay appropriations and reappropriations are generally available for three years. However, appropriations for preliminary plans and working drawings are only available for encumbrance for one year. Construction appropriations are available for encumbrance for up to three years, but revert at the end of the first year of appropriation if Finance has not allocated the funding through fund transfer or approval to proceed to bid (see Section 1.80 of the 2014 Budget Act for current availability periods for all project phases).

C. MINOR CAPITAL OUTLAY

Minor capital outlay is any project under **$634,000** which has been specifically budgeted as a minor project and which a department has been authorized to implement directly pursuant to Public Contract Code section 10108. Resources Agency capital outlay projects up to $872,000 may be budgeted as minor projects with the concurrence of Finance. Departments may not circumvent the budget process by "piecemealing" larger projects through several minor projects.

- **Deadlines and Distribution**: Minor capital outlay projects are included in the five-year program as a lump sum for each of the five years. A single summary COBCP is also required for minor projects. Send two copies to Finance and two copies to DGS.
  - ✓ **Augmentations**: A minor capital outlay project is not subject to PWB oversight, and by practice the PWB does not augment projects not subject to its approval. However, Finance may authorize increases to the amount approved for a minor project by redirection within the department's minor program within the same fiscal year if the increase does not result in a project that exceeds the minor capital outlay limit as set forth in Public Contract Code section 10108.

2. DEFERRED MAINTENANCE

For the first time, the 2014 Infrastructure Plan highlighted the state's deferred maintenance need that is traditionally funded as part of a department's operations budget. The 2014 Infrastructure Plan estimated the statewide deferred maintenance need to be $64.6 billion. The 2015 Infrastructure Plan will update this estimate.

Departments are required to provide a detailed list of their identified deferred maintenance need, if one exists, to their capital outlay Finance budget analyst by **October 1, 2014**. The list should include the following information: department name, project location, project title/description, and estimated project cost. To the extent possible, the projects should be in priority order. This information should be submitted in an Excel format consistent with the template provided in Attachment 5. This template can be emailed to each department upon request. Please note that the identified deferred maintenance

needs of each department should be reviewed and approved by their respective agencies prior to submittal to Finance.

While Finance is collecting this information for the 2015 Infrastructure Plan, it is not known at this time if any additional funding will be available in the 2015-16 Governor's Budget to address these needs. Regardless, departments must submit their estimated deferred maintenance needs to their capital outlay Finance budget analyst, recognizing that these needs will be considered along with other Administration priorities during the budget development process.

3. FI$CAL Capital Outlay Update Instructions

As noted in BL 14-07, Wave 1 departments are not anticipated to have capital outlay projects. All other departments (non-Wave 1) with a capital outlay request are required to submit signed hard copies and electronic copies of their COBCPs, COCPs, and FIWs. The electronic and hardcopies will be used by Finance staff to enter the project data into FI$Cal.

Departments can submit their requests on the existing COBCP, COCP and FIW forms available prior to this BL or the slightly modified forms provided with this BL and available on Finance's website. Any COBCPs included in the 2015 Infrastructure Plan will need to be on the new forms prior to January 5, 2015. Program, Project, and Subfund information can be found at the following link: http://www.dof.ca.gov/FISCal_Resources/view.php.

If you have any questions, please contact your Finance capital outlay budget analyst at (916) 445-9694.

/s/ Karen Finn

Karen Finn
Program Budget Manager

Attachments

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EQUIPMENT SERVICE CENTER FACILITY DESIGN GUIDELINES[1]

The Equipment Service Center (EqSC), after discussions with Office of Structures Design, Headquarters Maintenance Program, and Transportation Programming have reached concurrence that the attached Equipment Shop facilities design guidelines shall be made integral to the Maintenance Station Design Manual and implemented by the Districts during the project scoping process. These guidelines shall be recognized as minimal standards when designing facilities for EqSC use.

It is also recognized that the EqSC's long-term "Master Plan" for siting of facilities, such as Resident Mechanic facilities, SubShops, and Main Shops, is reactive to the needs and actions of its various service group customers. No significant changes of numbers or locations of facilities are currently projected other than those addressed in the 1997 Equipment Service Facilities Location Assessment. Replacement of existing facilities that reach service life expectancy will be addressed as appropriates.

Shop Functions

HEADQUARTERS FACILITY

The function of the Headquarters' Facility is the management, research, development, specifications, procurement, component fabrication, assembly, repair and disposal of fleet equipment.

DISTRICT SHOP FACILITIES

The function of the District Shop is to fully support fleet equipment within the shop's area of responsibility. The district shop supports field personal and may support one or more Subshops. District Shop personnel include superintendent, clerical staff, supervisors, parts personnel, and repair personnel. District Shops are divided into three "grades". According to the size of the fleet they support:

A Grade 1 shop supports from 450 to 750 units.
A Grade 2 shop supports from 850 to 1,000 units.
A Grade 3 shop supports from 1,300 to 3,000+ units.

SUBSHOP FACILITIES

Subshops support concentrations of equipment in areas that cannot be conveniently serviced by the District Shop Subshop personnel include parts personnel; supervisor(s) and three to ten repair personnel.

FIELD MECHANIC FACILITY

Field mechanics provide support wherever needed to most fully support fleet equipment. The goal of field mechanics facilities is to improve service, reduce travel and reduce downtime. They are staffed by one to three Heavy Equipment Mechanics. Neither parts personnel nor supervisors are stationed at field mechanic facilities.

DISTRICT EQUIPMENT SHOPS and SUB-SHOPS

[1] In concurrence: A.D. Wells, Director Equipment Service Center; Randell H. Iwasaki, Program Manager, Maintenance Program; John L. Allison, Deputy Director , Engineering Service Center; Structures, Jim Nicholas, Program Manager, Transportation Programming.

Standard Features and Options

Communications Closet

All District Shops and Subshops shall have a communications closet to house telecommunications and computer equipment, i/e., servers, junction boxes, hubs, etc.

Compressed Air

Compressed air outlets will be provided at the end of each stall and wherever else convenient to the repair and welding bays. Outlets will also be provided in the machine shop area. The shop shall be equipped with air compressor(s) and plumbing capable of providing 25 CFM to each repair bay at no less than 120 PSI at the outlets. Outlets shall be provided near doorways, for outside use.

Cranes

Shops will be equipped with powered, three ton, two-speed 4 directional, raise/lower bridge cranes. A five-ton bridge crane may be substituted for one of the three-ton bridge cranes with adequate justification. Cranes for use by field mechanics need to be justified, and will be considered case by case.

Crew Room/Customer Waiting Area/Meeting Room

A crew room will be provided for a break area for the crew members. Size will be determined by the number of personnel assigned at the location, and appropriate field staff. This area should be equipped with a sink, counter, and area for a refrigerator. When sized appropriately, this area can satisfy need for EqSC customer waiting area.

Electrical

A 480V, 3-phase outlet should be supplied to alternate ends of each repair bay. Welding bays shall have 480V, 3-phase outlets at each end of the bay and one in the middle of the bay. A 120V, 1-phase outlet should be available at each end of every bay and wherever else they can be included in the shop design, to include overhead, between bays and outside. Other outlets shall be provided as identified at time of design. Adequate cabling for phone lines, PC modem and fax/data transmission to be included, both in the shop and in the Supervisors offices.

Emergency Shower/Eyewash

Emergency shower(s) and eyewash(s) shall be located inside repair and welding bays.

Heating

Shop heaters shall be blower type to provide maximum warmth at floor level. Heated floors will be acceptable in snow regions. Coolers shall be provided as appropriate.

In-Floor-Tie-Downs

One set of in-floor-tie-downs will be provided in the welding bay. If the shop does not have a welding bay, the tie-downs will be located in a repair bay.

Lighting

Interior lighting should be adequate for routine night operation of equipment repair. Lights should be mounted as low as possible to light the undercarriage of vehicles. Adequate exterior lighting will be provided to allow equipment to be repaired on the apron at night. Security lighting will be provided throughout the yard.

Locker Room/Rest Rooms

A crew room will be provided for a break area for the crew members. Size will be determined by the number of personnel assigned at the location, and appropriate field staff.

Standard Features and Options - continued

This area should be equipped with a sink, counter, and area for a refrigerator. When sized appropriately, this area can satisfy need for EqSC customer waiting area.

Lubrication Equipment
Lube reels will be provided in service bays designated for vehicle lifts. Additional lubrication equipment will require justification.

Machine Shop & Component Repair Area
Machine shop and component repair area will be provided in main shops and larger subshops only. Any area will be provided between the supervisor's office and the Parts Department for a machine shop, tool storage and component rebuild. This area will vary based on justification and needs, but may require movable benches, and extra lighting.

Overhead Doors
All repair and welding bays will be equipped with 15' high overhead doors with electric operators. A 15' vertical clearance shall be maintained throughout the bay.

Parts Department
Grade 1 Shops:
The Parts Department will be located at one end of the shop across from the Supervisor's office.

Grade 2 and 3 Shops:
The Parts Department will be located in the center of the shop across from the Supervisor's office.

The Parts Department will be comprised of a parts storage area, parts counter, parts office and, a 150 sq. ft. office for the parts manager. The office will be adjacent and visible to the parts counter. A separate, non-conditioned area or building will be provided for the storage of tires, wear parts, lubricants, stock steel, etc. Size of these areas varies and will be determined by the fleet makeup and the amount of these items stocked. A powered overhead door to the parts storage area will require a number of computer terminals, a FAX and a copier as well as records storage area and parts manual storage area.

Repair Bays
Where ever possible, drive-through type bays should be used.

Type of Facility	Type of Bay	Length	Width
Resident Mechanic (counts as two bays configured end-to-end)	Drive-through	80'	25'
Resident Mechanic	Drive-in	55'	25'
Shop/Subshop	Drive-through	80'	25'
Shop/Subshop	Drive-in	60'	25'

Number of bays shall be determined by using the formula:

$$B = \frac{2 \times M}{3}$$

Where:
B = number of 80' long repair bays and
M = number of mechanics assigned to the shop

Sealed concrete should be used for bay floors, with slab joints at the sides of the bay rather than in the middle of the bays. Floors shall be smooth and level. All bays will be equipped with a vehicle exhaust evacuation system for both diesel and gasoline powered vehicles. Overhead design is preferred. Additional repair bays require adequate justification.

Shop Supervisors Office
Resident Mechanic: Provide 240 sq. ft. of office/parts storage area.
Traveling Mechanics: Provide 120 sq. ft. parts storage area.
Grade 1 Shops: Provide a supervisor's office at one end of the shop for two people.
Grade 2 Shops: Provide a supervisor's office located in the middle of the shop for three people.

Space allocation will be 150 sq. ft. for the first supervisor and 120 sq. ft. for each additional supervisor/LHEM. Offices will be of sufficient size to accommodate computer terminals, FAX, copier, radio base station, file cabinets and reference library. (A field supervisor may be located with the shop supervisors.)

Superintendent's Office
The Superintendent's office area can be either attached to the shop building or separate. The size and make-up of the area will be determined at the time the fact sheet is drawn up and the staffing within the office is identified. Areas will need to be provided for clerical staff and offices as needed. A conference room may be included with adequate justification. Security gates or doors at lobby, should be included as appropriate.

Vehicle Lifts
One standard, 60,000 lbs, four-column electro mechanical vehicle lift will be provided, per facility. Additional lift(s) require adequate justification.

Welding Bays
Welding bays are the same size as repair bays. One end of welding bay will be equipped with in-floor be-downs. Welding bays should be isolated from work bays by a full floor to ceiling wall of required fire rating. A self-closing walk through door and an overhead door shall be provided for the movement of personnel and parts between the welding and the repair bays. Each Grade 1 District Shop will have one full welding bay. All Grade 2 and 3 District Shops will have two full-welding bays. Subshops will not have a separate welding bay unless justified. Resident Mechanic facilities will not have dedicated welding bays. Additional welding bays require adequate justification.

Work Benches
Work benches mill be provided at each bay. Bench tops shall be heavy gauge steel.

DISTRICT EQUIPMENT SHOPS and SUB-SHOPS

Standard Features and Options

A. APPURTENANT STRUCTURES

Antifreeze Storage
Each shop will be provided an outside covered area adjacent to the shop with a 200-gallon double containment type tank for fresh antifreeze mix. A 200-gallon double containment type tank will also be included in this area for antifreeze.

Fencing/Security
Yard shall be completely security fence. Building will be protected with adequate motion sensing alarm system.

Hazardous Materials Storage Area
Each shop and subshop will be provided an area for hazardous materials storage. The area should be fenced and covered and the floor sealed concrete with a berm to contain any spillage. Usable area should be a minimum of 15' x 20'. An all metal building with a containment type floor system, specifically designed for hazardous waste storage may be utilized, when provided with forklift access ramp.

Outside Parts Storage Areas
Secure outside storage areas will be provided as required by the needs of the particular shop. Some of area may need to be covered to protect parts from the environment.

Paint Booth
A down-draft style pain booth shall be an option at District Shop facilities which have sufficient justification and providing that required permits can be obtained. Paint booths will also require a flammable paint storage locker.

Parking Areas
Visitors parking will be located so as to reduce or eliminate visitor access to the rest of the shop yard. The amount of employee parking required will be determined by standard design guidelines for the staffing level of the shop. Parking area equivalent to 5 percent of the fleet will be provided for parking equipment awaiting repairs, assignment and delivery. Appropriate signage will be located through out the facility for all buildings.

Radio Tower and Pad
Available as designed by telecommunications.

Surveyed Vehicle Storage Area
Each shop shall have reasonable access to a secure fenced parking area for the storage of surveyed vehicles awaiting sale. Parking area shall be equivalent to 10 percent of the assigned fleet.

Used Oil Storage
Each shop will be provided a covered, minimum 300-gallon double containment type used oil storage tank. Adequate weather protection to be provided. A pump(s) and plumbing shall be provided to deliver the used oil to the tank from a collection point(s) within the shop. Approved, mobile, interior tanks may be considered for substitution.

Vehicle Wash Rack
Each shop shall have convenient access to a vehicle wash rack. On-site wash racks shall be equipped with a high pressure, hot water cleaner and a waste water treatment system. All shops shall have a
single bay wash rack, not less than 60' x 25' minimal height. Additional bays may be included at a Grade 3 shop with adequate justification.

DESIGN STANDARDS

Subshop Standard Design

Larger subshops (i.e., five mechanics or more) will be constructed similar to a Grade 1 shop, except without the Superintendent's office. Smaller Subshops will be designed to the requirements of the areas.

RESIDENT MECHANIC FACILITY STANDARD DESIGN
A building to house one to three resident mechanics will be constructed similar to the design of the Mt. Shasta mechanics' building. Justification and sizing of the building will be in accordance with the June 8, 1992 Memorandum from John Allison to all District Directors addressing the "Process for Determining Needs for Dedicated Field Equipment Repair Facilities". Minor changes may be made at time conceptual report is written up if they are justified.

UTILIZING THE EQUIPMENT SERVICE CENTER "STAFFING MODEL" TO JUSTIFY LAND AND BUILDING NEEDS

The Equipment Service Center "Staffing Model" may be utilized when justifying facilities. The model is used by inputting the mobile equipment compliment of the area involved.

DISTRICT SHOP FACILITY

Input into the model all equipment in the shop's fleet.

Repair Bays

Total Average Repair Hours + Other Paid Time Hours = Total PYs Expended
1984 Hrs/PY

Total PYs Expended – Subshop Mechanics – PYs Expended in Field = District Shop PYs.

District Shop PYs x 2 = Number of 80' Drive-Through Bays Needed

Supervisor Personnel

Sup. Needed Hours – Subshop Supervisors = District Shop Supervisors
1984 Hrs/PY

This may include both shop supervisors and field supervisor(s); does not include Superintendent.

Parts Personnel

Parts Staff Needed Hours = Total Parts Personnel for all Shop Facilities
1984 Hrs/PY

Total Parts Personnel – Subshop Parts Personnel = Number of Parts Personnel Assigned to District Shop

Staff Personnel

Office, Staff Needed Hours
1984 Hrs/PY = Total Office Personnel Assigned to District Shop Includes Superintendent.

Subshop Facilities

Input all units assigned to the subshops service area, include EqSC units that are stationed in the area and any transient vehicles that are in the area on a regular basis. Transient vehicles are added at a percentage of their time as shown under Resident Mechanic Facilities.

Repair Bays

Total Average Repair Hours + Other Paid Time Hours
1984 Hrs/PY = Total PYs Expected

Total PYs Expended – Field Assigned Mechanics = Subshop Mechanic

Subshop Mechanics x 2
3 = Number of 80' Drive-Through Bays Needed

Supervisory Personnel

Sup. Needed Hours
1984 Hrs/PY = Number of Supervisor Assigned to Sub-shop.

This may include both shop super visors and field supervisors.

Parts Personnel

Parts Staff Needed Hours
1984 Hrs/PY = Number of Parts Personnel Assigned to Subshop

Resident Mechanic's Facility

Input into the model all mobile equipment within the assigned area under consideration; be sure to include any EqSC assigned units kept within that area. Transient units which are in the area on a regular basis, i.e., construction vehicles and special crews units are inputted into the model separately, and the result added in as a percent representing the time the units actually spend in the area, i.e., if the units are in the area 60 percent of the time, then multiply transient unit hour by 60 percent.

Total Average Repair Hours + Other Paid Time Hours
1984 Hrs/PY = Total PYs Expected

Total PYs Expended = PYs Expended at field Location
2

Use the "PYs Expended at Field Location" in Phases I & II of the evaluation process.