Attachment A

METROLINK

Southern California Regional Rail Authority

April 17, 2015

TO: Anne Mayer**,** *Executive Director, RCTC*
Darrell Johnson, *Chief Executive Officer, OCTA*
Darren Kettle, *Executive Director, VCTC*
Dr. Raymond Wolfe, *Executive Director, SANBAG*
Stephanie Wiggins*, Interim DeputyChief Executive Officer, Metro*

FROM: Sam Joumblat
Interim Chief Executive Officer, SCRRA

SUBJECT: SCRRA Preliminary FY2016 Budget

The SCRRA Board of Directors acted on April 10, 2015, to authorize the transmittal to our Member Agencies the Preliminary FY2015-16 (FY16) SCRRA Budget. After Member Agency Boards have acted on the Preliminary Budget, staff will go back to the SCRRA Board in June for adoption of the final FY16 Budget.

The first draft of the Preliminary FY16 budget was presented to the Board on January 23, 2015. An earlier version of the Budget had already been discussed first with members of the Technical Advisory Committee (TAC) at a meeting held on January 6, 2015. Subsequent additional budget discussion were held with the TAC on January 27, February 10, March 4, March 24, April 1, and April 7. The FY16 Budget was also discussed at CEO meetings held on January 16, March 20, and today. Over the course of these meetings, the budget was revised, adjusted, updated, and reworked in accordance with requests and comments from all participants. The resultant Preliminary FY16 Budget was presented to the Board on April 10, 2015.

Preliminary FY16 Budget

The Preliminary FY16 Budget, as authorized for transmittal to Member Agencies by the Board at a meeting on April 10, 2015, is requesting a total budget authority of $360.7 million, consisting of $228.7 million in Operating Budget authority, $75.0 million in Rehabilitation Projects authority and $57.0 million in New Capital Projects authority. Operating Revenue for FY16 is estimated at $101.8 million. Member Agency Operating Subsidies are budgeted at $126.9 million.

(Attachment A provides a summary of the proposed Preliminary FY16 Budget.)

SCRRA Budget Priorities for FY16

1. Continue the emphasis on safety improvements, with Positive Train Control (PTC) as the centerpiece of our efforts. Full approval by the Federal Railroad Administration is expected near the end of 2015.
2. Replace aging ticket vending machines and expand ticketing options with the implementation of mobile/online ticketing.
3. Continue to improve reliability, on-time performance, and the customer experience by enhancing the rehabilitation program to reduce major failures and retrofit aging locomotives and cars.
4. Provide budget predictability and reduce diesel fuel cost through hedging of fuel purchases.
5. Open the Perris Valley extension of the 91 Line which will connect Perris Valley and Riverside, extending the Metrolink route miles by 24 miles.

Budget Assumptions

Budget development always rests upon key assumptions. For the Preliminary FY16 Budget, these assumptions included no increase of current service ridership-based fare revenues and no fare increase. The 'Big Four' major vendors (train operations, track maintenance, signal maintenance, and equipment maintenance) were held overall to zero increase over FY15 for current service. This resulted in budget savings of $3.7 million. The budget includes only two new positions which were Board approved at its February 13, 2015 meeting for the Fare Collection Services Department. As a direct result of the February 2015 Oxnard incident, an increase of $3.0 million has been included in Insurance Claims/Self-Insurance (SI), and our anticipated insurance premiums have been increased from our initial projections by $0.7 million.

Train Operations, Maintenance-of-Way (MOW), Administration, and Insurance

The Train Operations component of the budget consists of those costs necessary to provide Metrolink commuter rail services across the six-county service area, including the direct costs of railroad operations, equipment maintenance, required support costs, and other administrative and operating costs. Ordinary MOW expenditures are those costs necessary to perform the inspections and repairs needed to assure the reliable, safe operation of trains and safety of the public. The FY16 budgeted amount for Train Operations is $135.4 million, MOW is $42.8 million, Administration & Services is $32.4 million, and Insurance/Claims is $18.1 million. Attachment A provides a summary of the Operating Expenses, Revenues, and Subsidy Allocations. Attachments B & C provides a report of the details by Cost Components by Year, and by Member Agency respectively.

Operating Expense Drivers

Overall, the total budgeted expenses have increased by only 3.2%. This change is the result of:

a) increases in total Train Operations and Services, driven primarily by the new Perris Valley Service ($2.1M), increased TVM ticket stock and credit card service costs (1.0M), and Transfers to Other Operators ($1.5M), partially offset by fuel cost reductions ($2.2M);

b) an increase in Maintenance of Way ($2.9M) primarily the result of the new Perris Valley route addition;

c) total Insurance expense higher by $1.2M, including $3.0M budgeted to cover Oxnard related costs offset by an insurance premium reduction of $1.7M.

In total, the budget increase is $7.2M, or 3.2%, over FY15. Attachment D presents the amounts and Member Agency effects of the new services, routes and other changes included in the FY16 Budget. Attachment D presents the amounts and Memver Agency effects of the new services, routes and other changes. Attachment E compares the Net Local Subsidies for FY15 vs FY16 and provides an analysis of the changes for FY16.

Operating Revenues

Operating revenues include Farebox, Dispatching revenues, Maintenance of Way revenues, interest income and other minor miscellaneous revenues, and are currently estimated to equal $101.7 million. Details of these are as shown on Attachments B & C.

Fare revenues, the largest operating revenue of the budget, are estimated at $84.7 million. This is a decrease of 6.7 million from the Fy15 Budget. The amount is consistent with our current forecast for actuals in 2015.

Dispatch and Maintenance of Way revenues from the freight railroads and Amtrak are budgeted at $17.0 million.

Capital Budget

Capital Rehabilitation projects replace assets with like or improved assets and thus preserve and extend the useful life of these capital assets.

New Rehabilitation authorization requests for FY16 were identified as necessary for efficient and safe rail operations. These projects total $75.0 million.

The FY16 Rehabilitation program includes:

- Track and Structures upgrades totaling $14.0 million;
- Locomotive and Rolling Stock upgrades of $51.6 million;
- Signal system improvements of $7.5 million;
- Fleet and Facility projects of $1.2 milion:
- Communications and Signage improvements of $0.7 million

New Capital authorization requests for FY16 were identified as necessary for efficient and safe rail operations. These projects total $57.0 million.

The FY16 New Capital program includes the following:

- Replacement Ticket Vending Machines totaling $30.7 million;
- Sealed Corridor Grade Crossings for $16.7 million;
- Cameras to monitor TVM's at stations $5.8 million;
- Tunnel Intrusion Detection totaling $3.0 million;
- Project development fund totaling $.7 million.

Attachments H through K detail all relevant information with respect to the Capital Budget.

Cash Flow projections for FY16, FY17 & FY18 are also included to provide a clearer picture of spending vs authorizations. Attachment P presents the cash flows.

Operating and Capital Budget Projections for FY17 and FY18

FY17 and FY18 projected budgets are included in this report for informational purposes only. These will be further refined through analyses and discussions in the future. Operating Budget projections are outlined in attachments F and G, and Capital Budget Projections are shown in Attachments L thru O.

Next Steps

As in the past, our respective staffs will continue to work together throughout the adoption process to ensure all concerns you may have are addressed in anticipation of adoption of the budget by the SCRRA Board of Directors in June, 2015. Also, as we agreed today, we will schedule a workshop with you to discuss the budget in more detail.

In the meantime, if you have any questions, comments or concerns, please do not hesitate to contact me directly at (213) 452-0285, or have your staff contact Christine Wilson, Manager, Budget and Financial Analysis at (213) 452-0297.

Sincerely,

Sam Joumblat
Interim Chief Executive Officer

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY **Attachment A**
FISCAL YEAR 16 PROPOSED BUDGET
OPERATING FUNDING ALLOCATION BY MEMBER AGENCY

($000s)

	Total FY16	Metro	OCTA	RCTC	SANBAG	VCTC
Expenses						
Train Operations & Services	135,434	69,323	31,654	13,675	14,892	5,891
Maintenance-of-Way	42,774	23,784	8,507	2,654	5,128	2,701
Administration & Services	32,380	15,644	5,700	4,680	3,268	3,087
Insurance	18,079	9,627	4,257	1,343	2,152	700
Total Expenses Including MoW	**228,667**	**118,378**	**50,118**	**22,352**	**25,440**	**12,378**
Revenues						
Farebox Revenue	84,738	42,879	20,737	7,311	11,312	2,499
Dispatching	2,663	1,355	905	11	57	335
Other Revenues						
MOW Revenues	14,348	9,301	2,644	625	1,255	524
Member Agency Revenues	108,839	55,216	21,574	13,062	10,664	8,322
Total Revenues	**210,588**	**108,752**	**45,861**	**21,009**	**23,288**	**11,679**
Total County Allocation	**126,917**	**64,843**	**25,832**	**14,405**	**12,816**	**9,021**
FY15 Budget	**111,735**	**59,683**	**22,267**	**9,817**	**11,805**	**8,163**
(Over)/Under	**-15,182**	**-5,160**	**-3,565**	**-4,588**	**-1,011**	**-858**
Percentage Change	**13.6%**	**8.6%**	**16.0%**	**46.7%**	**8.6%**	**10.5%**

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

Attachment B

FISCAL YEAR 2015-16 PROPOSED BUDGET

Annual Operating Budget Distribution by Cost Component

($000s)

	Adopted FY14 Budget	Adopted FY15 Budget	Proposed FY16 Budget	FY16 Budget Vs. FY15 Budget	
				Increase	%
EXPENSES	**211,166**	**221,496**	**228,667**	**7,171**	**3.2%**
REVENUES	**110,363**	**110,363**	**101,749**	**(8,614)**	**(7.8%)**
NET LOCAL SUBSIDY	**100,803**	**111,132**	**126,917**	**15,785**	**14.2%**
As Approved by Member Agencies		**111,735**		**15,182**	**13.6%**
OPERATIONS					
Revenues					
Farebox Revenue	93,203	91,396	84,738	(6,658)	(7.3%)
Dispatching	2,699	3,596	2,663	(933)	(25.9%)
Other Revenues	595	398		(398)	(100.0%)
MOW Revenues	13,867	14,974	14,348	(625)	(4.2%)
Member Agency Revenues	83,501	94,274	109,464	15,190	16.1%
Total Revenues	**193,864**	**204,637**	**211,213**	**6,576**	**3.2%**
Operations & Services					
Train Operations	41,081	42,242	43,414	1,172	2.8%
Equipment Maintenance	25,023	28,897	29,455	557	1.9%
Contingency (Train Ops)	-	-			N/A
Fuel	25,857	25,265	23,076	(2,188)	(8.7%)
Non-Scheduled Rolling Stock Repairs	50	252	232	(20)	(7.9%)
Operating Facilities Maintenance	1,063	1,361	1,182	(179)	(13.2%)
Other Operating Train Services	641	540	567	27	5.0%
Rolling Stock Lease	-	541	640	99	18.2%
Security - Sheriff	4,466	5,272	5,591	318	6.0%
Security - Guards	1,870	2,010	2,010		0.0%
Supplemental Additional Security	699	685	690	5	0.7%
Public Safety Program	270	275	260	(15)	(5.4%)
Passenger Relations	1,620	1,643	1,885	242	14.7%
Holiday Trains	-	-			N/A
TVM Maintenance/Revenue Collection	4,947	5,464	6,703	1,239	22.7%
Marketing	954	1,024	1,020	(5)	(0.4%)
Media & External Communications	620	424	426	2	0.5%
Utilities/Leases	2,677	2,780	2,677	(103)	(3.7%)
Transfers to Other Operators	7,269	5,900	7,411	1,512	25.6%
Amtrak Transfers	1,367	1,400	1,400		0.0%
Station Maintenance	1,307	1,512	1,464	(48)	(3.2%)
Rail Agreements	5,494	5,823	4,831	(993)	(17.0%)
Subtotal Operations & Services	**127,275**	**133,310**	**134,933**	**1,623**	**1.2%**
Maintenance-of-Way					
MoW - Line Segments	35,258	38,896	41,546	2,650	6.8%
MoW - Extraordinary Maintenance	999	949	1,228	279	29.4%
Subtotal Maintenance-of-Way	**36,257**	**39,845**	**42,774**	**2,930**	**7.4%**
Administration & Services					
Staff					
Salaries & Fringe Benefits	10,696	11,511	11,328	(183)	(1.6%)
Non-Labor Expenses	5,436	4,795	4,760	(34)	(0.7%)
Indirect Administrative Expenses	12,398	13,231	13,621	390	3.0%
Professional Services	1,301	1,445	2,670	1,225	84.8%
Subtotal Administration & Services	**29,832**	**30,981**	**32,380**	**1,398**	**4.5%**
Contingency (Non-Train Ops)	**500**	**501**	**501**		**0.0%**
Total Expenses Including MoW	**193,864**	**204,637**	**210,588**	**5,951**	**2.9%**
RISK MANAGEMENT					
Revenues					
Member Agency Revenues	17,302	16,858	18,079	1,221	7.2%
PL/PD Revenues					
Total Revenues	**17,302**	**16,858**	**18,079**	**1,221**	**7.2%**
Insurance					
Liability/Property/Auto	14,590	14,577	12,880	(1,697)	(11.6%)
Claims	1,000	1,000	4,000	3,000	300.0%
Claims Administration	1,712	1,281	1,198	(83)	(6.5%)
Subtotal Insurance	**17,302**	**16,858**	**18,079**	**1,221**	**7.2%**
Total Expenses	**17,302**	**16,858**	**18,079**	**1,221**	**7.2%**

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY
FISCAL YEAR 2015-16 PROPOSED BUDGET
Annual Operating Budget Distribution by Cost Component
($000s)

Attachment C

	FY 15-16	Metro	OCTA	RCTC	SANBAG	VCTC
EXPENSES	**228,667**	**118,378**	**50,118**	**22,352**	**25,440**	**12,378**
REVENUES	**101,749**	**53,535**	**24,286**	**7,947**	**12,624**	**3,357**
NET LOCAL SUBSIDY	**126,917**	**64,843**	**25,832**	**14,405**	**12,816**	**9,021**
OPERATIONS						
Revenues						
Farebox Revenue	84,738	42,879	20,737	7,311	11,312	2,499
Dispatching	2,663	1,355	905	11	57	335
Other Revenues						
MOW Revenues	14,348	9,301	2,644	625	1,255	524
Operation Revenue Subtotal	101,749	53,535	24,286	7,947	12,624	3,357
Member Agency Revenues	108,839	55,216	21,574	13,062	10,664	8,322
Total Revenues	**210,588**	**108,752**	**45,861**	**21,009**	**23,288**	**11,679**
Operations & Services						
Train Operations	43,414	23,481	9,890	3,841	4,613	1,589
Equipment Maintenance	29,455	14,832	6,812	2,944	3,443	1,424
Contingency (Train Ops)						
Fuel	23,076	11,934	5,803	2,160	2,437	743
Non-Scheduled Rolling Stock Repairs	232	124	55	17	28	9
Operating Facilities Maintenance	1,182	629	278	88	141	46
Other Operating Train Services	567	271	98	85	57	57
Rolling Stock Lease	640	304	127	71	92	46
Security - Sheriff	5,591	3,102	1,205	535	594	155
Security - Guards	2,010	961	347	300	201	201
Supplemental Additional Security	690	349	169	60	92	20
Public Safety Program	260	124	45	39	26	26
Passenger Relations	1,885	964	456	153	257	55
Holiday Trains						
TVM Maintenance/Revenue Collection	6,703	2,769	1,506	1,069	971	389
Marketing	1,020	535	232	81	142	30
Media & External Communications	426	204	74	64	43	43
Utilities/Leases	2,677	1,279	463	399	267	268
Transfers to Other Operators	7,411	4,126	1,633	474	918	261
Amtrak Transfers	1,400	446	885			69
Station Maintenance	1,464	866	210	132	187	70
Rail Agreements	4,831	1,784	1,280	1,090	335	341
Subtotal Operations & Services	**134,933**	**69,084**	**31,567**	**13,600**	**14,842**	**5,841**
Maintenance-of-Way						
MoW - Line Segments	41,546	23,077	8,209	2,641	4,997	2,622
MoW - Extraordinary Maintenance	1,228	707	298	13	131	79
Subtotal Maintenance-of-Way	**42,774**	**23,784**	**8,507**	**2,654**	**5,128**	**2,701**
Administration & Services						
Staff						
Ops Salaries & Fringe Benefits	11,328	5,414	1,967	1,684	1,133	1,130
Ops Non-Labor Expenses	4,760	2,445	917	565	508	326
Indirect Administrative Expenses	13,621	6,510	2,354	2,032	1,361	1,364
Ops Professional Services	2,670	1,276	461	398	267	267
Subtotal Administration & Services	**32,380**	**15,644**	**5,700**	**4,680**	**3,268**	**3,087**
Contingency (Non-Train Ops)	**501**	**239**	**87**	**75**	**50**	**50**
Total Expenses Including MoW	**210,588**	**108,752**	**45,861**	**21,009**	**23,288**	**11,679**
RISK MANAGEMENT						
Revenues						
Member Agency Revenues	18,079	9,627	4,257	1,343	2,152	700
PL/PD Revenues						
Total Revenues	**18,079**	**9,627**	**4,257**	**1,343**	**2,152**	**700**
Insurance						
Liability/Property/Auto	12,880	6,859	3,033	956	1,533	498
Claims / SI	4,000	2,130	942	297	476	155
Claims Administration	1,198	638	282	89	143	46
Subtotal Insurance	**18,079**	**9,627**	**4,257**	**1,343**	**2,152**	**700**
Total Expenses	**18,079**	**9,627**	**4,257**	**1,343**	**2,152**	**700**

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY
FISCAL YEAR 2015-16 PROPOSED BUDGET
New Service Elements for FY16 Budget

Attachment D

($000s)

	Total FY 15-16	Metro Share	OCTA Share	RCTC Share	SANBAG Share	VCTC Share
Increase in Train Service						
Perris Valley Extentions	$2,080	$558	$226	$1,132	$120	$44
Total Train Service Increase	$2,080	$558	$226	$1,132	$120	$44
New Routes						
Perris Valley - MOW Direct only	$1,389	$360	$338	$688	$3	
Rialto Sub	$97				$97	
8 TVM's	$180				$180	
Other Changes						
Addition to Insurance Claim	$3,000	$1,598	$706	$222	$357	$116
Add'l Qtr of EMF	$386	$207	$92	$33	$42	$12
Mobile Ticketing	$200	$107	$48	$17	$22	$6
TVM Ticket Stock & CC chrge	$1,050	$434	$236	$167	$152	$61
2 Board Approved TVM positions	$192	$84	$46	$32	$18	$12
New train maintenance services	$800	$431	$167	$82	$89	$32
Total all New	**$9,374**	**$3,779**	**$1,859**	**$2,373**	**$1,080**	**$283**

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY **Attachment E**
FISCAL YEAR 16 PROPOSED BUDGET
Comparison of Net Local Subsidy
FY14-FY16
($000s)

	Net Local Subsidy	Metro	OCTA	RCTC	SANBAG	VCTC
FY14 BUDGET	$ 100,803	$ 52,602	$ 20,527	$ 8,609	$ 11,461	$ 7,604
FY15 BUDGET	$ 111,735	$ 59,683	$ 22,267	$ 9,817	$ 11,805	$ 8,163
FY16 BUDGET	$ 126,917	$ 64,843	$ 25,832	$ 14,405	$ 12,816	$ 9,021

Year over Year Change		Net Local Subsidy	Metro	OCTA	RCTC	SANBAG	VCTC
FY14 vs. FY15	**$ Increase**	$ 10,932	$ 7,081	$ 1,740	$ 1,208	$ 344	$ 559
	% Increase	10.8%	13.5%	8.5%	14.0%	3.0%	7.4%
FY15 vs. FY16	**$ Increase**	$ 15,182	$ 5,160	$ 3,565	$ 4,588	$ 1,011	$ 858
	% Increase	13.6%	8.6%	16.0%	46.7%	8.6%	10.5%

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Elements Comprising the $15,182 Increase:

	Adopted FY14-15 Budget	Proposed FY 15-16 Budget	Increase	%
EXPENSES	$ 221,496	$ 228,667	$ 7,171	**3.2%**
REVENUES	$ 110,363	$ 101,749	$ (8,614)	**-7.8%**
NET LOCAL SUBSIDY (1)	$ 111,735	$ 126,917	$ 15,182	**13.6%**

(1) As approved by member agencies

Analysis

Of the 13.6%

7.7%	**Amount related to Reduction of Revenue Projection vs FY15 Budget**	**$ 8,614**	**=**	**56.7%**	**of the variance**
3.3%	**Amount related to Oxnard Incident =**	**$ 3,700**	**=**	**24.4%**	**of the variance**
1.2%	**Added Perris Valley Route =**	**$ 1,390**	**=**	**9.2%**	**of the variance**
1.9%	**Added Perris Valley Train Service =**	**$ 2,080**	**=**	**13.7%**	**of the variance**
0.9%	**TVM Adjustments**	**$ 1,048**	**=**	**6.9%**	**of the variance**
0.2%	**Add back of Rialto & 8 TVMs for SANBAG**	**$ 277**	**=**	**1.8%**	**of the variance**
0.7%	**Outside Service for Rolling Stock maintenance**	**$ 800**	**=**	**5.3%**	**of the variance**
-2.0%	**Fuel Savings (Hedge Purchases)**	**$ (2,188)**	**=**	**-14.4%**	**of the variance**
-0.5%	**Other**	**$ (539)**	**=**	**-3.5%**	**of the variance**
13.6%	**Total Variance =**	**$ 15,182**		**100%**	

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

Attachment F

FISCAL YEAR 2016-17 PROJECTED BUDGET

Annual Operating Budget Distribution by Cost Component

($000s)

	Proposed FY 16-17 Budget	Metro	OCTA	RCTC	SANBAG	VCTC
EXPENSES	**236,243**	**121,826**	**50,738**	**24,384**	**26,532**	**12,762**
REVENUES	**104,650**	**54,980**	**24,883**	**8,227**	**13,107**	**3,453**
NET LOCAL SUBSIDY	**131,593**	**66,846**	**25,855**	**16,157**	**13,426**	**9,310**

OPERATIONS

Revenues						
Farebox Revenue	87,338	44,130	21,282	7,576	11,769	2,581
Dispatching	2,698	1,373	915	13	58	339
Other Revenues						
MOW Revenues	14,614	9,477	2,687	638	1,279	533
Operation Revenue Sub	104,650	54,980	24,883	8,227	13,107	3,453
Member Agency Revenues	113,293	56,683	22,043	14,725	11,282	8,560
Total Revenues	**217,943**	**111,663**	**46,926**	**22,952**	**24,389**	**12,013**
Operations & Services						
Train Operations	45,087	23,806	10,283	4,653	4,735	1,610
Equipment Maintenance	29,811	15,206	6,600	3,094	3,451	1,460
Contingency (Train Ops)						
Fuel	23,833	12,029	6,074	2,481	2,499	750
Non-Scheduled Rolling Stock	232	129	48	18	27	9
Operating Facilities Maintena	1,321	733	275	103	155	54
Other Operating Train Service	595	284	103	89	59	60
Rolling Stock Lease	250	119	50	28	36	18
Security - Sheriff	5,758	3,394	1,172	385	629	179
Security - Guards	2,070	989	358	309	207	207
Supplemental Additional Secu	690	349	168	60	93	20
Public Safety Program	254	121	44	38	25	25
Passenger Relations	1,844	914	483	151	239	57
Holiday Trains						
TVM Maintenance/Revenue C	7,043	2,909	1,582	1,123	1,021	408
Marketing	944	477	235	78	124	31
Media & External Communica	426	204	74	64	43	43
Utilities/Leases	2,766	1,322	478	413	276	277
Transfers to Other Operators	7,782	4,304	1,688	553	963	274
Amtrak Transfers	1,700	540	1,081			79
Station Maintenance	2,006	1,159	276	239	246	87
Rail Agreements	4,998	1,776	1,277	1,249	350	345
Subtotal Operations & Services	**139,410**	**70,764**	**32,348**	**15,126**	**15,177**	**5,993**
Maintenance-of-Way						
MoW - Line Segments	43,426	23,845	8,323	2,876	5,665	2,717
MoW - Extraordinary Mainten	1,281	737	311	14	137	82
Subtotal Maintenance-of-Way	**44,707**	**24,582**	**8,634**	**2,890**	**5,802**	**2,799**
Administration & Services						
Staff						
Ops Salaries & Frin	11,687	5,585	2,029	1,738	1,169	1,166
Ops Non-Labor Exp	4,940	2,512	942	631	522	333
Indirect Administrat	13,936	6,660	2,409	2,079	1,392	1,396
Ops Professional S	2,747	1,313	475	410	274	275
Subtotal Administration & Services	**33,310**	**16,070**	**5,855**	**4,858**	**3,357**	**3,169**
Contingency (Non-Train Ops)	**516**	**247**	**89**	**77**	**52**	**52**
Total Expenses Including MoW	**217,943**	**111,663**	**46,926**	**22,952**	**24,389**	**12,013**

RISK MANAGEMENT

Revenues						
Member Agency Revenues	18,300	10,162	3,812	1,432	2,144	749
PL/PD Revenues						
Total Revenues	**18,300**	**10,162**	**3,812**	**1,432**	**2,144**	**749**
Insurance						
Liability/Property/Auto	13,524	7,511	2,817	1,059	1,584	554
Claims / SI	3,500	1,944	729	274	410	143
Claims Administration	1,275	708	266	100	149	52
Subtotal Insurance	**18,300**	**10,162**	**3,812**	**1,432**	**2,144**	**749**
Total Expenses	**18,300**	**10,162**	**3,812**	**1,432**	**2,144**	**749**

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

Attachment G

FISCAL YEAR 2017-18 PROJECTED BUDGET

Annual Operating Budget Distribution by Cost Component

($000s)

	Proposed FY 17-18 Budget	Metro	OCTA	RCTC	SANBAG	VCTC
EXPENSES	**243,841**	**124,353**	**52,670**	**26,673**	**27,112**	**13,032**
REVENUES	**106,121**	**56,035**	**25,002**	**8,282**	**13,355**	**3,447**
NET LOCAL SUBSIDY	**137,720**	**68,319**	**27,668**	**18,391**	**13,758**	**9,585**

OPERATIONS

Revenues						
Farebox Revenue	88,591	45,054	21,349	7,629	11,992	2,567
Dispatching	2,725	1,385	924	15	59	342
Other Revenues						
MOW Revenues	14,805	9,595	2,729	638	1,304	538
Operation Revenue Sub	106,121	56,035	25,002	8,282	13,355	3,447
Member Agency Revenues	119,711	58,620	23,931	16,544	11,751	8,864
Total Revenues	**225,832**	**114,655**	**48,933**	**24,826**	**25,106**	**12,312**
Operations & Services						
Train Operations	48,068	25,283	10,988	5,056	5,037	1,704
Equipment Maintenance	30,816	15,121	6,973	3,861	3,412	1,448
Contingency (Train Ops)						
Fuel	24,125	12,021	6,244	2,596	2,520	745
Non-Scheduled Rolling Stock	232	125	48	24	26	9
Operating Facilities Maintenar	1,330	716	276	136	148	53
Other Operating Train Service	634	303	110	95	63	63
Rolling Stock Lease	250	119	50	28	36	18
Security - Sheriff	5,931	3,414	1,204	509	623	181
Security - Guards	2,132	1,019	369	318	213	214
Supplemental Additional Secu	700	356	169	60	95	20
Public Safety Program	254	121	44	38	25	25
Passenger Relations	1,846	931	459	155	243	58
Holiday Trains						
TVM Maintenance/Revenue C	7,363	3,041	1,654	1,174	1,067	427
Marketing	944	485	221	80	126	31
Media & External Communica	426	204	74	64	43	43
Utilities/Leases	2,872	1,373	496	429	287	288
Transfers to Other Operators	8,171	4,519	1,772	581	1,011	288
Amtrak Transfers	2,000	635	1,272			93
Station Maintenance	2,012	1,164	279	238	244	87
Rail Agreements	5,202	1,820	1,357	1,311	366	349
Subtotal Operations & Services	**145,306**	**72,770**	**34,056**	**16,751**	**15,585**	**6,143**
Maintenance-of-Way						
MoW - Line Segments	44,686	24,475	8,491	3,024	5,901	2,795
MoW - Extraordinary Maintena	1,323	762	321	14	141	85
Subtotal Maintenance-of-Way	**46,009**	**25,236**	**8,812**	**3,038**	**6,043**	**2,880**
Administration & Services						
Staff						
Ops Salaries & Frin	11,975	5,723	2,079	1,781	1,198	1,195
Ops Non-Labor Exp	4,985	2,535	951	636	527	335
Indirect Administrati	14,245	6,808	2,462	2,125	1,423	1,427
Ops Professional S	2,780	1,329	480	415	278	278
Subtotal Administration & Services	**33,985**	**16,395**	**5,973**	**4,957**	**3,425**	**3,235**
Contingency (Non-Train Ops)	**532**	**254**	**92**	**79**	**53**	**53**
Total Expenses Including MoW	**225,832**	**114,655**	**48,933**	**24,826**	**25,106**	**12,312**

RISK MANAGEMENT

Revenues						
Member Agency Revenues	18,009	9,698	3,737	1,847	2,006	720
PL/PD Revenues						
Total Revenues	**18,009**	**9,698**	**3,737**	**1,847**	**2,006**	**720**
Insurance						
Liability/Property/Auto	14,201	7,647	2,947	1,456	1,582	568
Claims / SI	2,500	1,346	519	256	279	100
Claims Administration	1,308	704	271	134	146	52
Subtotal Insurance	**18,009**	**9,698**	**3,737**	**1,847**	**2,006**	**720**
Total Expenses	**18,009**	**9,698**	**3,737**	**1,847**	**2,006**	**720**

FY 2015-16 Rehabilitation New Authority Projects **Attachment H**
($ Thousands)

Subdivision	Project Type	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Olive	Communication	**$75**		$75				
Olive	Signal	**$175**		$175				
Olive	Track	**$318**		$318				
Orange	Communication	**$150**		$150				
Orange	Signal	**$1,710**		$1,710				
Orange	Structures	**$2,725**		$2,725				
Orange	Track	**$2,138**		$2,138				
Orange/ Olive	Communication	**$75**		$75				
Industry Spur	Communication	**$125**			$125			
Industry Spur	Signal	**$790**			$790			
River	Communication	**$100**	$48	$20	$11	$14	$7	
River	Signal	**$580**	$276	$115	$64	$84	$42	
River	Track	**$221**	$84	$35	$20	$26	$13	$43
San Gabriel	Communication	**$175**	$105			$70		
San Gabriel	Signal	**$990**	$594			$396		
San Gabriel	Structures	**$280**	$168			$112		
San Gabriel	Track	**$2,946**	$1,305			$1,640		
Systemwide	Facilies/Fleet	**$662**	$314	$131	$73	$95	$48	
Systemwide	Facilities	**$360**	$171	$71	$40	$52	$26	
Systemwide	Rolling Stock	**$51,624**	$11,373	$4,741	$2,658	$3,448	$1,724	$27,681
Systemwide	Signal	**$2,860**	$1,359	$566	$317	$412	$206	
Systemwide	Station	**$140**	$67	$28	$16	$20	$10	
Systemwide	Track	**$500**	$238	$99	$56	$72	$36	
Valley	Signal	**$200**	$200					
Valley	Structures	**$1,800**	$1,800					
Valley	Track	**$1,900**	$1,900					
Ventura - VC	Signal	**$245**					$245	
Ventura - VC	Structures	**$629**					$629	
Ventura - VC	Track	**$515**					$515	
CURRENT PROPOSED FY 2015-16 REHAB BUDGET		**$75,006**	**$20,000**	**$13,172**	**$4,170**	**$6,441**	**$3,500**	**$27,724**
ROTEM SETTLEMENT AMOUNTS (YEAR 4)		**$0**	**$5,806**	**-$7,613**	**$457**	**$1,000**	**$350**	
TOTAL PROPOSED FY 2015-16 REHAB BUDGET		**$75,006**	**$25,806**	**$5,559**	**$4,627**	**$7,441**	**$3,850**	**$27,724**
PRIOR YEAR CARRYOVERS		**$59,889**	**$10,759**	**$12,315**	**$3,061**	**$7,717**	**$17,390**	**$8,647**
TOTAL FY 15-16 AUTHORITY INCLUDING CARRYOVERS		**$134,895**	**$36,564**	**$17,874**	**$7,688**	**$15,157**	**$21,240**	**$36,371**

ATTACHMENT "I"
FY 2015-16 NEW CAPITAL AUTHORITY PROJECTS
($ Thousands)

PROJECT DESCRIPTION	SUBDIVISION	TOTAL BUDGET	LACMTA	OCTA	RCTC	SANBAG	VCTC	Other
Ticket Vending Machines	Systemwide	$30,700	$13,074	$6,905	$4,856	$4,052	$1,813	
Install cameras at current and new stations to monitor TVM activity	All	$5,800	$	$	$	$	$	$5,800
Funds to be used for preparing Project Study Reports	TBD	$745	$475	$198			$72	
Installation of intrusion detection systems at Tunnels 18 and 19	Valley	$2,000						$2,000
Installation of intrusion detection systems at Tunnel 28	Ventura	$1,000						$1,000
Crossing improvements using Sealed Corridor standards and speed increases on CP Soledad.	San Gabriel (three crossings) and Valley (Soledad)	$16,708	$8,000					$8,708
TOTAL FY 2015-16 AUTHORITY FOR NEW FUNDING		**$56,953**	**$21,549**	**$7,103**	**$4,856**	**$4,052**	**$1,885**	**$17,508**
PRIOR YEAR CARRYOVERS		**$141,983**	**$11,849**	**$1,648**	**$25**	**$32**	**$97**	**$128,332**
TOTAL FY 2015-16 AUTHORITY INCLUDING CARRYOVERS		**$198,936**	**$33,398**	**$8,750**	**$4,881**	**$4,085**	**$1,982**	**$145,840**

ATTACHMENT "J'
FY 2015-16 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS - BY SUBDIVISION ($THOUSANDS)

Subdivision	Project Type	REHABILITATION PROJECT DESCRIPTION	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Olive	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 5 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 10 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$75**		$75				
Olive	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. Top 10 parts encountering premature failure nearing the end of their life cycle will be identified and replaced. 10 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	**$75**		$75				
Olive	Signal	Perform annual design, engineering, or special studies to determine condition of wayside signal, communication, and grade crossing systems or revise standards and as builts to keep current. Comply with Config. Mgmt.	**$100**		$100				
Olive	Track	Grind 1 track miles of rail	**$18**		$18				
Olive	Track	Replace track panels	**$300**		$300				
Orange	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 15 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$75**		$75				
Orange	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	**$75**		$75				
Orange	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries or corrosion near at beach parts). Top 30 parts encountering premature failure nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	**$150**		$150				
Orange	Signal	Rehab Electrologic with VHLC:, $180,000 each 2 locations per year . Recurring multi-year program.	**$360**		$360				
Orange	Signal	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	**$120**		$120				
Orange	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	**$250**		$250				
Orange	Signal	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	**$110**		$110				
Orange	Signal	Selectively Replace wayside signal and grade crossing deteriorated equipment in multi-year program along beach front (CP Serra to MP 206.5) due to corrosion from salt spray.	**$265**		$265				
Orange	Signal	Perform annual design, engineering, or special studies to determine condition of wayside signal and grade crossing systems or revise standards and as builts to keep current. Comply with Config. Mgmt.	**$150**		$150				
Orange	Signal	Replace rehab deteriorating underground cables at wayside signals and grade crossings. Two sites per year @ 100,000 per site. Recurring mult-year program.	**$200**		$200				
Orange	Signal	Connect crossings into SCRRA's network LAN system (10 @ $35K per location). Connect 3 crossings per year .Recurring multi-year program.	**$105**		$105				
Orange	Structures	ROW grading/ditching.	**$200**		$200				
Orange	Structures	Install handrail and ballast retainer at end of 8' x 8' reinforced concrete box on the Orange Subdivision at MP 206.33	**$25**		$25				

ATTACHMENT "J'
FY 2015-16 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS - BY SUBDIVISION ($THOUSANDS)

Subdivision	Project Type	REHABILITATION PROJECT DESCRIPTION	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Orange	Structures	Design/analysis for the San Juan Creek bridge, to achieve 100% design for rehabilitation of the bridge.	**$2,500**		$2,500				
Orange	Track	Grind 12 track miles of rail	**$214**		$214				
Orange	Track	Rehabilitation project to replace 115 lb rail on the Orange Sub with 136 lb rail. It will replace approximatley 14,000' of Rail per year over three years.	**$1,624**		$1,624				
Orange	Track	Replace track panels	**$300**		$300				
Orange/ Olive	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 10 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$75**		$75				
Pasadena	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	**$**	$					
Pasadena	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	**$**	$					
Pasadena	Signal	Replace Signal System back-up battery banks and chargers at 5 highest priority locations per year. $5,000 per location. Recurring multi-year program.	**$**	$					
Pasadena	Signal	Replace and rehab deteriorating wayside Pole Line. Replace with underground cable at annual rate of 4 miles per year and $200,000 per mile. Recurring mult-year program.	**$**	$					
Pasadena	Structures	Replace 2 - 2' x 18" wooden culvert with reinforced concrete pipe on the Pasadena Subdivision at MP 106.2.	**$**	$					
Pasadena	Structures	Replace 2 - 24" x 18" wooden culvert with reinforced concrete pipe on the Pasadena Subdivision at MP 112.4.	**$**	$					
Pasadena	Structures	Replace 36" x 18" wooden culvert with reinforced concrete pipe on the Pasadena Subdivision at MP 114.398.	**$**	$					
Pasadena	Structures	Replace 24" brea pipe with reinforced concrete pipe on the Pasadena Subdivision at MP 115.5.	**$**	$					
PVL /former San Jacinto Industry Spur	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 10 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$50**			$50			
PVL /former San Jacinto Industry Spur	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top systems or revise standards and as built to keep current or were not included in the new construction. Comply with Config. Mgmt. Recurring multi-year program.	**$75**			$75			
PVL /former San Jacinto Industry Spur	Signal	Perform annual design, engineering, or special studies to determine condition of wayside signal and grade crossing systems or revise standards and as built to keep current. Comply with Config. Mgmt. Recurring multi-year program.	**$100**			$100			
PVL /former San Jacinto Industry Spur	Signal	Acquire replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. Top 20 high priority parts will be identified that are nearing the end of their life cycle or are reaching functional obsolescence or left out, not installed or prematurely failed from the new construction. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$100**			$100			
PVL /former San Jacinto Industry Spur	Signal	Install active warning equipment at one grade crossing per year that was not rebuilt in the PVL Program starting with Villa Street grade crossing MP 0.4, then Harvill, then Mapes	**$590**			$590			

ATTACHMENT "J'
FY 2015-16 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS - BY SUBDIVISION ($THOUSANDS)

Subdivision	Project Type	REHABILITATION PROJECT DESCRIPTION	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
San Gabriel	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$100**	$60			$40		
San Gabriel	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	**$75**	$45			$30		
San Gabriel	Signal	Rehab Electrologic with VHLC:, $180,000 each 2 locations per year . Recurring multi-year program.	**$360**	$216			$144		
San Gabriel	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Also includes new locks and keys. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	**$150**	$90			$60		
San Gabriel	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	**$250**	$150			$100		
San Gabriel	Signal	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	**$110**	$66			$44		
San Gabriel	Signal	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	**$120**	$72			$48		
San Gabriel	Structures	Replace 24" reinforced concrete pipe with reinforced concrete pipe on the San Gabriel Subdivision at MP 28.23.	**$200**	$120			$80		
San Gabriel	Structures	ROW grading/ditching.	**$80**	$48			$32		
San Gabriel	Track	Grind 11 track miles of rail	**$200**	$120			$80		
San Gabriel	Track	Rehabilitate 5,000 Crossties on the San Gabriel Subdivision	**$1,250**	$750			$500		
San Gabriel	Track	Rehabilitate 1 turnout on the San Gabriel subdivision	**$375**	$225			$150		
San Gabriel	Track	Replace track panels Grand ~~and Azusa~~	**$300**	$180			$120		
San Gabriel	**Track**	Install new rail on the San Gabriel sub in San Bernardino County. This is for installation of new rail issued to San Bernardino ROW that was previously purchased.	**$770**				$770		
San Gabriel	Track	Replace pedestrian crossing panels at El Monte and Pomona-North Stations	**$51**	$31			$20		
Valley	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	**$200**	$200					
Valley	Structures	Construction of bridge replacement of an 18' span rail top bridge on the Valley Subdivision at MP 35.75.	**$1,200**	$1,200					
Valley	Structures	Design and construction of bridge replacement of a 6' span rail top bridge on the Valley Subdivision at MP 50.46.	**$600**	$600					
Valley	Track	Rehabilitate approximately ~~20,400~~ 9,000 crossties on the Valley Subdivision between MP 66 and MP 76.	**$1,900**	$1,900					
Ventura - VC	Signal	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	**$120**					$120	
Ventura - VC	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	**$125**					$125	
Ventura - VC	Structures	Design and construction of bridge replacement of an 8' span ballast deck timber bridge on the Ventura Subdivision at MP 433.57	**$604**					$604	
Ventura - VC	Structures	Construct handrail at end of a 24" cast iron pipe on the Ventura Subdivision at MP 428.44.	**$25**					$25	

ATTACHMENT "J'
FY 2015-16 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS - BY SUBDIVISION ($THOUSANDS)

Subdivision	Project Type	REHABILITATION PROJECT DESCRIPTION	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Ventura - VC	Track	Grind 4.5 track miles of rail	**$86**					$86	
Ventura - VC	Track	Rehabilitation project to replace worn rail on the Ventura Sub. It will replace approximatley 3,700' of Rail.	**$429**					$429	
River	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	**$100**	$48	$20	$11	$14	$7	$
River	Signal	Rehab Electrologic with VHLC:, $180,000 each 1 location per year . Recurring multi-year program.	**$180**	$86	$36	$20	$26	$13	$
River	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (1 crossings @ $125K ea) per year. Recurring multi-year program.	**$125**	$59	$25	$14	$18	$9	$
River	Signal	Replace Signal System back-up battery banks and chargers and improve, add capacity and quick connects to three backup generators sites at one site per year at $75,000 per site plus 5 battery plants per year @ $5,000 per site . Multi-year program.	**$125**	$59	$25	$14	$18	$9	$
River	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	**$150**	$71	$30	$17	$22	$11	$
River	Track	Grind 3 track miles of rail - River sub East Bank. 3,675 ft (23.2%) Zone 1, 10,410 (65.7%) Zone 2, 1,755 (11.1%) Zone 3.	**$57**	$7	$3	$2	$2	$1	$43
River	Track	Grind 7 track miles of rail	**$128**	$61	$25	$14	$18	$9	$
River	Track	Grind 2 track miles of rail - River sub West Bank	**$36**	$17	$7	$4	$5	$3	$
Systemwide	Facilities/Fleet	Replace 3 hy-rail and 2 MOW specialty Vehicles.	**$662**	$314	$131	$73	$95	$48	$
Systemwide	Facilities	Replace 2 forklifts and 2 Taylor Dunn yard carts.	**$360**	$171	$71	$40	$52	$26	$
Systemwide	Rolling Stock	Overhaul EMD PH locomotives and upgrade to next highest tier. This is the remaining funding increment needed to complete the locomotive overhaul project budgeted in FY 2014-15. (10 @ $2.3M/unit). This budget assumes restoration of FY 2015 funding by Metro and other counties.	**$7,366**	$3,499	$1,458	$818	$1,061	$530	$
Systemwide	Rolling Stock	Complete overhaul of Gen 1 rail cars, including CEM components, and interior components for longer-distance trips. (30 cars @ $1.35M/car)	**$40,500**	$6,089	$2,538	$1,423	$1,846	$923	$27,681
Systemwide	Rolling Stock	Restore to service 15 rail cars. The scope includes cab to coach conversions, lighting updates, wheels and rotors, HVAC retrofit, seat foam and fabric, batteries and COT&S.	**$2,700**	$1,283	$535	$300	$389	$194	$
Systemwide	Rolling Stock	Rail Car HVAC Overhaul	**$715**	$340	$142	$79	$103	$51	$
Systemwide	Rolling Stock	Rail Car Window Gasket Replacement	**$343**	$163	$68	$38	$49	$25	$
Systemwide	Signal	Acquire and install PTC on board replacement parts and perform software versions changes to stay current with industry interoperable standards and regulations. 57 cab cars and 52 locomotives. Correct defects not otherwise covered by warranty. Remove ATS. Average estimated cost if $10,000 per unit x 110 units. Multiyear recurring program.	**$1,100**	$523	$218	$122	$158	$79	$
Systemwide	Signal	Install new train control software versions as required by industry standards or to keep compliant with regulations. Replace hardware that is defective or becoming obsolescent and not otherwise covered by warranty. Keep test lab current and productive. Keep support systems - batteries, air conditioning, alarms in state of good repair. Includes all back office train control, communication systems in the TCOSF, MOC or Melbourne facilities.	**$1,090**	$518	$216	$121	$157	$78	$
Systemwide	Signal	Replace or upgrade signal and communication system test tools and equipment including laptops, on board PTC Hi- Rails equipment, Melbourne Signal/Comm/CIS Test Lab.	**$195**	$93	$39	$22	$28	$14	$

ATTACHMENT "J'
FY 2015-16 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS - BY SUBDIVISION ($THOUSANDS)

Subdivision	Project Type	REHABILITATION PROJECT DESCRIPTION	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Systemwide	Signal	Perform engineering, design, special studies relative to overall Signal, Comm. PTC/Back office Systems - standards, drawings, data bases, track charts, on a System Level current . Comply with Config. Mgmt.	**$290**	$138	$57	$32	$42	$21	$
Systemwide	Signal	Install new CIS software versions as required to keep current. Replace hardware that is defective or becoming obsolescent and not otherwise covered by warranty. Keep test lab current and productive. Includes all back office CIS control, systems in the TCOSF, MOC or Melbourne facilities. Recurring Program.	**$185**	$88	$37	$21	$27	$13	$
Systemwide	Station	Replace damaged passenger information signage and displays at stations throughout system	**$140**	$67	$28	$16	$20	$10	$
Systemwide	Track	System wide track measurement for Machine Vision Tie Inspection, Mobile Lidar Ballast Scanning, and Ground Penetrating Radar	**$500**	$238	$99	$56	$72	$36	$
		CURRENT PROPOSED FY 2015-16 REHAB BUDGET	**$75,006**	**$20,000**	**$13,172**	**$4,170**	**$6,441**	**$3,500**	**$27,724**
		ROTEM SETTLEMENT AMOUNTS (YEAR 4)	**$**	**$5,806**	**-$7,613**	**$457**	**$1,000**	**$350**	**$**
		TOTAL PROPOSED FY 2015-16 REHAB BUDGET	**$75,006**	**$25,806**	**$5,559**	**$4,627**	**$7,441**	**$3,850**	**$27,724**
		PRIOR YEAR CARRYOVERS	**$59,889**	**$10,759**	**$12,315**	**$3,061**	**$7,717**	**$17,390**	**$8,647**
		TOTAL FY 15-16 AUTHORITY INCLUDING CARRYOVERS	**$134,895**	**$36,564**	**$17,874**	**$7,688**	**$15,157**	**$21,240**	**$36,371**

ATTACHMENT "K"
FY 2015-16 NEW CAPITAL PROJECTS
($ Thousands)

PROJECT DESCRIPTION	SUBDIVISION	TOTAL BUDGET	LACMTA	OCTA	RCTC	SANBAG	VCTC	Other
Procure and install 144 ticket vending machines and back office software system support for revenue tracking. This includes 58 for LA County; 31 for OCTA; 22 for RCTC; 18 for SANBAG; 8 for VCTC and 4 systemwide ticket office machines and 3 systemwide test machines.	Systemwide	$30,700	$13,074	$6,905	$4,856	$4,052	$1,813	
Procure and install cameras at current and new stations to monitor TVM activity and prevent break-ins.	All	$5,800	$	$	$	$	$	$5,800
Funds to be used for preparing Project Study Reports and initial design for enhancement and expansion (i.e. non-good state of good repair projects)	TBD	$745	$475	$198			$72	
Provide improvements to the existing Metrolink's Moorpark layover facility in the Ventura Subdivision.	Ventura	$					$	
Installation of intrusion detection systems at Tunnels 18 and 19 on the Antelope Valley Line and the intrusion detection systems include CCTV at the mouth of each tunnel entrance with analytics that will detect intrusion into the work space of the tunnels.	Valley	$2,000						$2,000
Installation of intrusion detection systems at Tunnel 28 on the Ventura County Line and the intrusion detection systems include CCTV at the mouth of the tunnel entrance with analytics that will detect intrusion into the work space of the tunnel.	Ventura	$1,000						$1,000
Crossing improvements using Sealed Corridor standards and speed increases on CP Soledad.	San Gabriel (three crossings) and Valley (Soledad)	$16,708	$8,000					$8,708
TOTAL FY 2015-16 AUTHORITY FOR NEW FUNDING		**$56,953**	**$21,549**	**$7,103**	**$4,856**	**$4,052**	**$1,885**	**$17,508**
PRIOR YEAR CARRYOVERS		**$141,983**	**$11,849**	**$1,648**	**$25**	**$32**	**$97**	**$128,332**
TOTAL FY 2015-16 AUTHORITY INCLUDING CARRYOVERS		**$198,936**	**$33,398**	**$8,750**	**$4,881**	**$4,085**	**$1,982**	**$145,840**

ATTACHMENT "L"
FY 2016-17 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Subdivision	Project Type	PROPOSED REHABILITATION PROJECTS	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Olive	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 5 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 10 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$75		$75				
Olive	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. Top 10 parts encountering premature failure nearing the end of their life cycle will be identified and replaced. 10 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	$75		$75				
Olive	Signal/Com	Perform annual design, engineering, or special studies to determine condition of wayside signal, communication, and grade crossing systems or revise standards and as builts to keep current. Comply with Config. Mgmt.	$100		$100				
Olive	Track	Grind 1 track miles of rail	$18		$18				
Olive	Track	Replace track panels	$300		$300				
Orange	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 15 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$75		$75				
Orange	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	$75		$75				
Orange	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries or corrosion near at beach parts). Top 30 parts encountering premature failure nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	$150		$150				
Orange	Signal	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	$180		$180				
Orange	Signal	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	$120		$120				
Orange	Signal	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	$250		$250				
Orange	Signal	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	$110		$110				

ATTACHMENT "L"
FY 2016-17 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Subdivision	Project Type	PROPOSED REHABILITATION PROJECTS	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Orange	Signal	Selectively Replace wayside signal and grade crossing deteriorated equipment in multi-year program along beach front (CP Serra to MP 206.5) due to corrosion from salt spray.	$265		$265				
Orange	Signal	Perform annual design, engineering, or special studies to determine condition of wayside signal and grade crossing systems or revise standards and as builts to keep current. Comply with Config. Mgmt.	$150		$150				
Orange	Signal	Replace rehab deteriorating underground cables at wayside signals and grade crossings. Two sites per year @ 100,000 per site. Recurring mult-year program.	$200		$200				
Orange	Signal	Connect crossings into SCRRA's network LAN system (10 @ $35K per location). Connect 3 crossings per year .Recurring multi-year program.	$105		$105				
Orange	Structures	ROW grading/ditching.	$100		$100				
Orange	Structures	Replace 36" reinforced concrete pipe with new reinforced concrete pipe on the Orange Subdivision at MP 201.4.	$275		$275				
Orange	Track	Grind 12 track miles of rail	$214		$214				
Orange	Track	Rehabilitation project to replace 115 lb rail on the Orange Sub with 136 lb rail. It will replace approximatley 14,000' of Rail per year over three years.	$1,624		$1,624				
Orange	Track	Replace track panels	$300		$300				
Orange/ Olive	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 10 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$75		$75				
PVL /former San Jacinto Industry Spur	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 10 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$50			$50			
PVL /former San Jacinto Industry Spur	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top systems or revise standards and as built to keep current. Comply with Config. Mgmt. Recurring multi-year program.	$75			$75			
PVL /former San Jacinto Industry Spur	Signal	Perform annual design, engineering, or special studies to determine condition of wayside signal and grade crossing systems or revise standards and as built to keep current. Comply with Config. Mgmt. Recurring multi-year program.	$150			$150			

ATTACHMENT "L"
FY 2016-17 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Subdivision	Project Type	PROPOSED REHABILITATION PROJECTS	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
PVL /former San Jacinto Industry Spur	Signal	Acquire replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis or were left out, not installed or prematurely failed. Top 20 high priority parts will be identified that are nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$100			$100			
PVL /former San Jacinto Industry Spur	Signal	Install active warning equipment at one grade crossing per year that was not rebuilt in the PVL Program starting with Villa Street grade crossing MP 0.4, then Harvill in F 2017, then Mapes	$590			$590			
San Gabriel	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Also includes new locks and keys. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	$150	$90			$60		
San Gabriel	Signal	Rehab Electrologic with VHLC:, $180,000 each 2 locations per year . Recurring multi-year program.	$360	$216			$144		
San Gabriel	Track	Grind 11 track miles of rail	$200	$120			$80		
Valley	Track	Grind 32 track miles of rail	$582	$582					
Valley	Track	Rehabilitate 7,480 Crossties on the Valley Subdivision.	$1,784	$1,784					
Ventura - LA	Signal	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	$176	$176					
Ventura - LA	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	$55	$55					
Ventura - LA	Signal	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	$60	$60					
Ventura - LA	Structures	Design and construction of bridge replacement of a 15' span ballast deck trestle bridge on the Ventura Subdivision at MP 458.71.	$1,400	$1,400					
Ventura - LA	Track	Grind 4.5 track miles of rail - LA County	$171	$171					
Ventura - LA	Track	Rehab 9 grade crossings that will be lengthened as a result of the Raymer to Bernson double-track project.	$3,740	$3,740					

ATTACHMENT "L"
FY 2016-17 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Subdivision	Project Type	PROPOSED REHABILITATION PROJECTS	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Ventura - LA	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$50	$50					
Ventura - LA	Communication	Rehab field signage with Daktronic and PA at 1 station per year for next three years. $150,000 per station. Recurring multi-year program.	$150	$150					
Ventura - LA	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	$79	$79					
Ventura - VC	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	$38					$38	
Ventura - VC	Signal	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	$180					$180	
Ventura - VC	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	$75					$75	
Ventura - VC	Signal	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	$49					$49	
Ventura - VC	Track	Grind 4.5 track miles of rail -Ventura County	$174					$174	
River	Communication	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	$100	$48	$20	$11	$14	$7	
River	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	$75	$36	$15	$8	$11	$5	
River	Communication	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	$45	$21	$9	$5	$6	$3	$

ATTACHMENT "L"
FY 2016-17 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Subdivision	Project Type	PROPOSED REHABILITATION PROJECTS	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
River	Signal	Rehab Electrologic with VHLC:, $180,000 each 1 location per year . Recurring multi-year program.	$180	$86	$36	$20	$26	$13	
River	Track	Grind 3 track miles of rail - River sub East Bank	$57	$27	$11	$6	$8	$4	
River	Track	Grind 2 track miles of rail - River sub West Bank	$36	$17	$7	$4	$5	$3	
River	Track	Rehabilitation project to replace worn rail and upgrade aged rail to 136 lb rail on the River Sub. It will replace approximatley 10,000' of Rail per year over three years.	$	$	$	$	$	$	
River	Track	Replace track panels	$	$	$	$	$	$	
River	Track	Rehabilitation project to replace worn rail and upgrade aged rail to 136 lb rail on the River Sub. It will replace approximatley 10,000' of Rail per year over three years.	$	$	$	$	$	$	$
River	Track	Rehabilitate 8,900 Crossties on the River Subdivision (5300 River East Bank and 3600 River West Bank)	$	$	$	$	$	$	$
River	Track	Rehabilitate 4 turnouts on the river subdivision	$1,500	$713	$297	$167	$216	$108	$
River	Track	Replace track panels	$	$	$	$	$	$	$
River	Track	Grind 7 track miles of rail	$128	$61	$25	$14	$18	$9	
zSystemwide	Engineering	Planning for State of Good Repair projects to progress projects from concept to 5-20% design.	$	$	$	$	$	$	$
zSystemwide	Engineering	Planning for State of Good Repair projects to progress projects from concept to 5-20% design.	$	$	$	$	$	$	
Systemwide	Facilities	Replace hy-rail (1) and standard boom lift (1)	$440	$209	$87	$49	$63	$32	
Systemwide	Rolling Stock	Complete overhaul of Gen 1 rail cars, including CEM components, and interior components for longer-distance trips. (15 cars @ $1.35M/car. $2.0M from other sources)	$20,250	$8,669	$3,614	$2,026	$2,628	$1,314	$2,000
Systemwide	Rolling Stock	Door Motor Overhaul	$178	$85	$35	$20	$26	$13	
Systemwide	Signal	Acquire and install PTC on board replacement parts and perform software versions changes to stay current with industry interoperable standards and regulations. 57 cab cars and 52 locomotives. Correct defects not otherwise covered by warranty. Remove ATS. Average estimated cost if $10,000 per unit x 110 units. Multiyear recurring program.	$1,100	$523	$218	$122	$158	$79	
Systemwide	Signal	Install new software versions as required by industry standards or to keep compliant with regulations. Replace hardware that is defective or becoming obsolescent and not otherwise covered by warranty. Keep test lab current and productive. Keep support systems - batteries, air conditioning, alarms in state of good repair. Includes all back office train control, communication systems in the TCOSF, MOC or Melbourne facilities.	$1,090	$518	$216	$121	$157	$78	

ATTACHMENT "L"
FY 2016-17 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Subdivision	Project Type	PROPOSED REHABILITATION PROJECTS	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
Systemwide	Signal	Perform engineering, design, special studies relative to overall Signal, Comm. PTC/Back office Systems - standards, drawings, data bases, track charts, on a System Level current . Comply with Config. Mgmt.	$290	$138	$57	$32	$42	$21	
Systemwide	Signal	Replace or upgrade signal and communication system test tools and equipment including laptops, on board PTC Hi- Rails equipment, Melbourne Signal/Comm/CIS Test Lab.	$195	$93	$39	$22	$28	$14	
Systemwide	Signal	Install new software versions as required to keep current . Replace hardware that is defective or becoming obsolescent and not otherwise covered by warranty. Keep test lab current and productive. Includes all back office CIS control, systems in the TCOSF, MOC or Melbourne facilities. Recurring Program.	$185	$88	$37	$21	$27	$13	
		PROPOSED FY 2016-17 REHAB BUDGET WITHOUT PH-R LOCOMOTIVIE REHAB - CONSTRAINED	**$41,121**	**$20,000**	**$9,558**	**$3,612**	**$3,718**	**$2,233**	**$2,000**
Systemwide	Rolling Stock	Overhaul the first 4 of 7 EMD PH locomotives that were previously upgraded to Tier-2 in 2008, and upgrade to Tier-4. ($4.4M/unit, with $1.3M/unit from other sources in FY18). Measure R funding will be used by LACMTA.	$17,600	$8,360	$3,485	$1,954	$2,534	$1,267	$
		TOTAL PROPOSED FY 2016-17 REHAB BUDGET - CONSTRAINED	**$58,721**	**$28,360**	**$13,043**	**$5,566**	**$6,252**	**$3,500**	**$2,000**

ATTACHMENT "M"
FY 2016-17 NEW CAPITAL PROJECTS
($ Thousands)

PROJECT DESCRIPTION	SUBDIVISION	TOTAL BUDGET	Metro	OCTA	RCTC	SANBAG	VCTC	Other
Funds to be used for preparing Project Study Reports and initial design for enhancement and expansion (ie non-good state of good repair projects)	TBD	$745	$475	$198			$72	
Provide improvements to the existing Metrolink's Moorpark layover facility in the Ventura Subdivision.	Ventura	$3,000					$3,000	
Installation of intrusion detection systems at Tunnels 18 and 19 on the Antelope Valley Line and the intrusion detection systems include CCTV at the mouth of each tunnel entrance with analytics that will detect intrusion into the work space of the tunnels.	Valley	$3,800						$3,800
Installation of intrusion detection systems at Tunnel 28 on the Ventura County Line and the intrusion detection systems include CCTV at the mouth of the tunnel entrance with analytics that will detect intrusion into the work space of the tunnel.	Ventura	$1,800						$1,800
TOTAL FY 2016-17 AUTHORITY FOR NEW FUNDING		**$9,345**	**$475**	**$198**	**$**	**$**	**$3,072**	**$5,600**

FY 2017-18 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Line	Project Title	PROPOSED REHABILITATION PROJECTS	PROJECT JUSTIFICATION	Subdivision	Project Type	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER	TOTAL
1	Wayside Communication System Replacment Parts - Olive .	Acquire replacement parts including software for wayside and mountain-top communication system . Top 5 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 10 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Determine rehabilitation needs, budgets, schedule for future years. Maintain records and CM.	Olive	Communication		$75					$75
2	Wayside Signal and Grade Crossing Rehab - Replacement Parts and Software - Olive	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. Top 10 parts encountering premature failure nearing the end of their life cycle will be identified and replaced. 10 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	Olive	Signal		$75					$75
3	State of Good Repair Design Engineering Special Studies- Olive	Perform annual design, engineering, or special studies to determine condition of wayside signal, communication, and grade crossing systems or revise standards and as builts to keep current. Comply with Config. Mgmt.	Determine rehabilitation needs, budgets, schedule for future years. Maintain records and CM.	Olive	Signal/Com		$100					$100
4	Olive Rail Grinding	Grind 1 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Olive	Track		$18					$18
5	Highway-Rail Xing	Replace track panels	Based on a review of the inspection reports for Grade Crossings and data from the FRA	Olive	Track		$300					$300
6	Wayside Communication System Replacement Parts - Orange	Acquire replacement parts including software for wayside and mountain-top communication system . Top 15 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	Orange	Communication		$75					$75
7	Wayside Communication System Design, slot planning, interference mitigation - Orange	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	Orange	Communication		$125					$125
8	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software - Orange	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries or corrosion near at beach parts). Top 30 parts encountering premature failure nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Orange	Signal		$150					$150
9	Wayside Signals EL1-A Replacement- - Orange	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Orange	Signal		$180					$180
10	Wayside Signal- Power Switch Machine Rehab-Orange	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Orange	Signal		$120					$120

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Line	Project Title	PROPOSED REHABILITATION PROJECTS	PROJECT JUSTIFICATION	Subdivision	Project Type	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER	TOTAL
11	Wayside Signal -Grade Crossing Rehab - Orange	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	Orange	Signal		$250					$250
12	Wayside Signal System Rehab - Batteries and Chargers Orange	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Orange	Signal		$110					$110
13	Wayside Signals Equipment Replacement due to Sea Salt Corrosion- Orange	Selectively Replace wayside signal and grade crossing deteriorated equipment in multi-year program along beach front (CP Serra to MP 206.5) due to corrosion from salt spray.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Orange	Signal		$265					$265
14	State of Good Repair Design, Engineering, or Special Studies - Orange	Perform annual design, engineering, or special studies to determine condition of wayside signal and grade crossing systems or revise standards and as builts to keep current. Comply with Config. Mgmt.	Determine rehabilitation needs, budgets, schedule for future years. Maintain records and CM.	Orange	Signal		$150					$150
15	Wayside Signals and Grade Crossings Selective Cable Replacement - Orange	Replace rehab deteriorating underground cables at wayside signals and grade crossings. Two sites per year @ 100,000 per site. Recurring mult-year program.	Replaces underground cable that has deteriorated or been affected by new construction or third party work and damage to cable was not detected. Required for signals to govern train movement. Recurring mult-year program.	Orange	Signal		$200					$200
16	Wayside Signal Crossing Remote Connectivity- Orange	Connect crossings into SCRRA's network LAN system (10 @ $35K per location). Connect 3 crossings per year .Recurring multi-year program.	Connectivity will provide real time health monitoring, and then detailed downloads for replays. Reduce maintenance costs, improve response	Orange	Signal		$105					$105
19	Orange Sub Bridge Replacement - Design & Construction	Construction of bridge replacement of a 300' span thru-plate girder bridge on the Orange Subdivision at MP 197.9 (San Juan Creek).	This bridge is a 300' span thru-plate girder bridge built in 1918 and is 96 years old. The deck is in poor condition and the rating for the bridge is below expected demands. The bridge requires frequent maintenance due to age, fatigue, and deterioration.	Orange	Structures		$28,500					$28,500
18	Orange Sub Culvert Replacement- Construction	Replace 36" x 22" corrugated metal pipe with reinforced concrete pipe on the Orange Subdivision at MP 201.84.	36" x 22" pipe was constructed in 1918. The outlet end is higher than the inlet end. Needs to be adjusted to convey positive drainage.	Orange	Structures		$225					$225
19	Orange Sub ROW Maintenance	ROW grading/ditching.	Track bed and ROW needs to be maintained to provide a base for ties and rail to sit on. Drainage must be properly conveyed away from tracks.	Orange	Structures		$150					$150
20	Orange Sub Culvert Replacement - Construction	Replace 36" reinforced concrete pipe with new reinforced concrete pipe on the Orange Subdivision at MP 204.27.	36" pipe was constructed in 1923. The headwall and wingwall is damaged and pipe is separating at the joints.	Orange	Structures		$275					$275
21	Orange Sub Culvert - Construction	Extend 30" pipe on the Orange Subdivision at MP 203.05.	There is ballast loss due to unstable slope. Extend pipe by 10 ft, construct headwall, and grade slope.	Orange	Structures		$175					$175
22	Orange Sub Culvert - Construction	Extend 24" pipe on the Orange Subdivision at MP 203.09.	There is ballast loss due to unstable slope. Extend pipe by 10 ft, construct headwall, and grade slope.	Orange	Structures		$175					$175
23	Orange Sub Culvert - Construction	Replace headwall and wingwall at one end of 30" reinforced concrete pipe on the Orange Subdivision at MP 204.15.	30" pipe was constructed in 1941. The headwall is damaged and the ballast retainer above headwall is pushing out.	Orange	Structures		$125					$125
24	Orange Sub Culvert - Construction	Construct headwall at end of reinforced concrete pipe on the Orange Subdivision at MP 204.18.	Pipe was constructed in 1918. Headwall is separating from pipe.	Orange	Structures		$125					$125

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25	Orange Sub Culvert - Construction	Replace headwall and wingwall at one end of 36" reinforced concrete pipe on the Orange Subdivision at MP 206.805.	36" pipe was constructed in 1931. The headwall is damaged and pipe is separating from headwall	Orange	Structures		$125					$125
26	Orange Rail Grinding	Grind 12 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Orange	Track		$214					$214
27	Orange Track Rehab	Rehabilitation project to replace 115 lb rail on the Orange Sub with 136 lb rail. It will replace approximatley 14,000' of Rail per year over three years.	Data projected through the use of RangeCam Track Analyst Software. Data is projected based on the quarterly scan data, which has been collected for several years.	Orange	Track		$1,624					$1,624
28	Olive/Orange Crosstie Rehabilitation	Rehabilitate 10,000 Crossties on the Ventura Subdivision (Olive 1,000 and Orange 9,000)	Based on a review of the last crosstie work completed on subdivision. In the future, crosstie work will be determined using Machine Vision Tie inspection.	Orange	Track		$2,496					$2,496
29	Olive/Orange Turnout Rehabilitation	Reabilitation 2 Turnouts on the Orange Subdivision and 1 Turnout on the Olive Subdivision	Based on a review of the most recent inspection reports for turnouts.	Orange	Track		$1,125					$1,125
30	Highway-Rail Xing	Replace track panels	Based on a review of the inspection reports for Grade Crossings and data from the FRA	Orange	Track		$300					$300
31	Wayside Communication System Replacement Parts - Orange Olive	Acquire replacement parts including software for wayside and mountain-top communication system . Top 10 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	Orange/ Olive	Communication		$75					$75
32	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software -Pasadena	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Pasadena	Signal	$150						$150
27	Wayside Signal -Grade Crossing Rehab - Pasadena	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	Pasadena	Signal	$250						$250
28	Wayside Signal System Rehab - Batteries and Chargers - Pasadena	Replace Signal System back-up battery banks and chargers at 5 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Pasadena	Signal	$23						$23
36	Wayside Communication System Replacement Parts - PVL	Acquire replacement parts including software for wayside and mountain-top communication system . Top 10 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 1 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	PVL /former San Jacinto Industry Spur	Communication			$50				$50

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37	Wayside Communication System Design, slot planning, interference mitigation - PVL	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top systems or revise standards and as built to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	PVL /former San Jacinto Industry Spur	Communication			$75				$75
38	Wayside Signal and Grade Crossing Rehab - Design, Engineering, or Special Studies -PVL	Perform annual design, engineering, or special studies to determine condition of wayside signal and grade crossing systems or revise standards and as built to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Determine rehabilitation needs, budgets, schedule for future years. Maintain necessary records and CM.	PVL /former San Jacinto Industry Spur	Signal			$100				$100
39	Wayside Signal and Grade Crossing Replacement Parts - PVL	Acquire replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis or were not provided for in the new construction. Top 20 high priority parts will be identified that are nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	PVL /former San Jacinto Industry Spur	Signal			$100				$100
40	Major Grade Crossing Rehab- PVL	Install active warning equipment at one grade crossing per year that was not rebuilt in the PVL Program starting with Villa Street grade crossing MP 0.4, then Harvill, then Mapes in FY 2018.	SCRRA will assume maintenance of this grade crossing when the PVL project is completed. The current active warning system is one bell that works marginally and is prone to vandalism. We need to reduce the risk associated with this crossing by installing a modern active warning system.	PVL /former San Jacinto Industry Spur	Signal			$590				$590
41	Wayside Communication System Replacement Parts - San Gabriel	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	San Gabriel	Communication	$60			$40			$100
36	Wayside Communication System Replacement Parts - San Gabriel	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	San Gabriel	Communication	$60			$40			$100
42	Wayside Communication System Design, slot planning, interference mitigation - San Gabriel	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	San Gabriel	Communication	$45			$30			$75
37	Wayside Communication System Design, slot planning, interference mitigation - San Gabriel	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	San Gabriel	Communication	$45			$30			$75
43	Wayside Signals EL1-A Replacement- San Gabriel/Shortway	Rehab Electrologic with VHLC:, $180,000 each 2 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	San Gabriel	Signal	$216			$144			$360

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44	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software - San Gabriel/Shortway	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Also includes new locks and keys. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	San Gabriel	Signal	$90			$60			$150
40	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software - San Gabriel/Shortway	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Also includes new locks and keys. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	San Gabriel	Signal	$90			$60			$150
45	Wayside Signal -Grade Crossing Rehab - San Gabriel/Shortway	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	San Gabriel	Signal	$150			$100			$250
41	Wayside Signal -Grade Crossing Rehab - San Gabriel/Shortway	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	San Gabriel	Signal	$150			$100			$250
47	Wayside Signal- Power Switch Machine Rehab-San Gabriel/Shortway	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	San Gabriel	Signal	$72			$48			$120
43	Wayside Signal- Power Switch Machine Rehab-San Gabriel/Shortway	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	San Gabriel	Signal	$72			$48			$120
46	Wayside Signal System Rehab - Batteries and Chargers San Gabriel/Shortway	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	San Gabriel	Signal	$66			$44			$110
42	Wayside Signal System Rehab - Batteries and Chargers San Gabriel/Shortway	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	San Gabriel	Signal	$66			$44			$110
55	San Gabriel Rail Grinding	Grind 11 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	San Gabriel	Track	$120			$80			$200
56	San Gabriel Track Rehab	Rehabilitation project to replace worn rail on the San Gabriel Sub. It will replace approximatley 12,500' of Rail.	Data projected through the use of RangeCam Track Analyst Software. Data is projected based on the quarterly scan data, which has been collected for several years.	San Gabriel	Track	$870			$580			$1,450
57	San Gabriel Cross Tie Rehabilitation	Rehabilitate 7,000 Crossties on the San Gabriel Subdivision	Based on a review of the last crosstie work completed on subdivision. In the future, crosstie work will be determined using Machine Vision Tie inspection.	San Gabriel	Track	$1,048			$699			$1,747

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51	San Gabriel Track Rehab	Rehabilitation project to replace worn rail on the San Gabriel Sub. It will replace approximatley 12,500' of Rail.	Data projected through the use of RangeCam Track Analyst Software. Data is projected based on the quarterly scan data, which has been collected for several years.	San Gabriel	Track	$870			$580			$1,450
52	San Gabriel sub Highway-Rail Xing	Replace track panels at Cataract, and Lark Ellen	Based on a review of the inspection reports for Grade Crossings and data from the FRA	San Gabriel	Track	$454			$302			$756
62	Wayside Signals EL1-A Replacement- Valley	Rehab Electrologic with VHLC:, $180,000 each 2 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Valley	Signal	$360						$360
63	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software - Valley	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Valley	Signal	$168						$168
59	Wayside Signal -Grade Crossing Rehab - -Valley	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	Valley	Signal	$250						$250
66	Wayside Signal- Power Switch Machine Rehab- -Valley	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Valley	Signal	$120						$120
61	Wayside Signal- Power Switch Machine Rehab- -Valley	Rehab M23A Power Switch machines - $60,000 / switch.1 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Valley	Signal	$60						$60
60	Wayside Signal System Rehab - Batteries and Chargers -Valley	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Valley	Signal	$103						$103
86	Valley Rail Grinding	Grind 32 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Valley	Track	$582						$582
244	Valley sub rail grinding	Grind 32 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Valley	Track	$582						$582
92	Wayside Signals EL1-A Replacement-Ventura	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Ventura - LA	Signal	$180						$180
93	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software -Ventura	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Ventura - LA	Signal	$75						$75

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92	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software -Ventura-LA	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Ventura - LA	Signal	$20						$20
96	Wayside Signal- Power Switch Machine Rehab-Ventura	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Ventura - LA	Signal	$60						$60
95	Wayside Signal- Power Switch Machine Rehab-Ventura -LA	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Ventura - LA	Signal	$60						$60
102	Ventura Rail Grinding - LA County	Grind 4.5 track miles of rail - LA County	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Ventura - LA	Track	$86						$86
251	Ventura sub - LA rail grinding	Grind 4.5 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Ventura - LA	Track	$86						$86
259	Ventura sub - LA electrologic rehab	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Ventura - LA	Signal	$180						$180
260	Ventura sub - LA signal replacement parts	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Ventura - LA	Signal	$75						$75
261	Ventura sub - LA crossing signal rehab	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	Ventura - LA	Signal	$125						$125
263	Ventura sub - LA power swich machine rehab	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Ventura - LA	Signal	$60						$60
262	Ventura sub - LA battery rehab	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Ventura - LA	Signal	$55						$55
106	Rehab Update CIS at Stations - Ventura	Rehab field signage with Daktronic and PA at 1 station per year for next three years. $150,000 per station. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	Ventura - VC	Communication					$150		$150
109	Rehab Update CIS at Stations - Ventura -VC	Rehab field signage with Daktronic and PA at 1 station per year for next three years. $150,000 per station. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	Ventura - VC	Communication					$150		$150

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105	Wayside Communication System Replacement Parts - Ventura	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	Ventura - VC	Communication					$50		$50
108	Wayside Communication System Replacement Parts - Ventura-VC	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	Ventura - VC	Communication					$50		$50
268	Ventura sub - VC Comm system	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	Ventura - VC	Communication					$50		$50
269	Ventura sub - VC Comm System Standards	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	Ventura - VC	Communication					$38		$38
108	Wayside Signals EL1-A Replacement-Ventura	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Ventura - VC	Signal					$180		$180
109	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software -Ventura	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Ventura - VC	Signal					$75		$75
270	Ventura sub - VC electrologic rehab	Rehab Electrologic with VHLC:, $180,000 each 1 locations per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	Ventura - VC	Signal					$180		$180
271	Ventura sub - VC signal replacement parts	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	Ventura - VC	Signal					$26		$26
110	Wayside Signal -Grade Crossing Rehab - Ventura	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc. crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (2 crossings @ $125K ea.) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	Ventura - VC	Signal					$125		$125

FY 2017-18 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Line	Project Title	PROPOSED REHABILITATION PROJECTS	PROJECT JUSTIFICATION	Subdivision	Project Type	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER	TOTAL
115	Wayside Signal- Power Switch Machine Rehab-Ventura-VC	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Ventura - VC	Signal					$60		$60
273	Ventura sub - VC power swich machine rehab	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	Ventura - VC	Signal					$60		$60
111	Wayside Signal System Rehab - Batteries and Chargers - Ventura	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Ventura - VC	Signal					$60		$60
114	Wayside Signal System Rehab - Batteries and Chargers - Ventura-VC	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Ventura - VC	Signal					$55		$55
272	Ventura sub - VC battery rehab	Replace Signal System back-up battery banks and chargers at 15 highest priority locations per year. $5,000 per location. Recurring multi-year program.	Batteries and Chargers required for Grade crossings, CP's and Intermediate Signals to function reliably and safely.	Ventura - VC	Signal					$31		$31
118	Ventura Rail Grinding - Ven County	Grind 4.5 track miles of rail - Ven County	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	Ventura - VC	Track					$86		$86
121	Wayside Communication System Replacement Parts - River	Acquire replacement parts including software for wayside and mountain-top communication system . Top 20 high priority parts will be identified that are encountering premature failure, nearing the end of their life cycle or are reaching functional obsolescence. 20 parts at an average unit cost of $5,000, Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required. Recurring multi-year program.	Replace communication units before failure. Identifies the top 10 - 30 replaceable signal units.	zRiver	Communication	$48	$20	$11	$14	$7		$100
122	Wayside Communication System Design, slot planning, interference mitigation - River	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	zRiver	Communication	$36	$15	$8	$11	$5		$75
283	River sub Comm System Standards	Perform annual design, engineering, or special studies to determine condition of wayside and mountain-top communication systems or revise standards and as builts to keep current. Comply with Config. Mgmt. Recurring multi-year program.	Replace signal units before failure. Identifies the top 10 - 30 replaceable signal units.	zRiver	Communication	$14	$6	$3	$4	$2	$	$30
123	Wayside Signals EL1-A Replacement- - River	Rehab Electrologic with VHLC:, $180,000 each 1 location per year . Recurring multi-year program.	Replaces older (15+ years) versions of coded track circuit before failure or obsolescence is reached. Required for signals to govern train movement.	zRiver	Signal	$86	$36	$20	$26	$13		$180
124	Wayside Signal -Grade Crossing Rehab - River	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (1 crossings @ $125K ea) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	zRiver	Signal	$59	$25	$14	$18	$9		$125
125	Wayside Signal System Rehab - Batteries and Chargers - River	Replace Signal System back-up battery banks and chargers and improve, add capacity and quick connects to three backup generators sites at one site per year at $75,000 per site plus 5 battery plants per year @ $5,000 per site . Multi-year program.	Batteries, Chargers, Backup Generators required for CP's and Intermediate Signals to function reliably and safely.	zRiver	Signal	$59	$25	$14	$18	$9		$125

FY 2017-18 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Line	Project Title	PROPOSED REHABILITATION PROJECTS	PROJECT JUSTIFICATION	Subdivision	Project Type	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER	TOTAL
129	Wayside Signal -Grade Crossing Rehab - River	Add crossing Gate Savers, rehab entrance gates, rehab predictor units, batteries, and rehab other misc crossing equipment. Modify and improve signing, striping, fencing, traffic interconnects. (1 crossings @ $125K ea) per year. Recurring multi-year program.	Maintains necessary functionality and reliability of grade crossings	zRiver	Signal	$59	$25	$14	$18	$9		$125
130	Wayside Signal System Rehab - Batteries and Chargers - River	Replace Signal System back-up battery banks and chargers and improve, add capacity and quick connects to three backup generators sites at one site per year at $75,000 per site plus 5 battery plants per year @ $5,000 per site . Multi-year program.	Batteries, Chargers, Backup Generators required for CP's and Intermediate Signals to function reliably and safely.	zRiver	Signal	$59	$25	$14	$18	$9		$125
127	Wayside Signal- Power Switch Machine Rehab- River	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	zRiver	Signal	$57	$24	$13	$17	$9		$120
132	Wayside Signal- Power Switch Machine Rehab- River	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	zRiver	Signal	$57	$24	$13	$17	$9		$120
284	River sub power swich machine rehab	Rehab M23A Power Switch machines - $60,000 / switch. 2 switches per year. Recurring multi-year program.	Replace before failure. Required for sidings, and crossover to function reliably.	zRiver	Signal	$57	$24	$13	$17	$9	$	$120
126	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software - - River	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	zRiver	Signal	$71	$30	$17	$22	$11		$150
131	Wayside Signal and Grade Crossing Rehab Replacement Parts and Software - - River	Acquire and install signal replacement parts including software for wayside signals, control points and grade crossing on a preventive maintenance basis. (Does not include batteries) Top 30 parts encountering premature failure or nearing the end of their life cycle will be identified and replaced. 30 parts at an average unit cost of $5,000. Install with maintenance forces. Also includes new locks and keys. No Design, Professional Services, Agency Staff required.	Replace signal units before failure. Identifies the highest priority 30 -60 replaceable signal units.	zRiver	Signal	$71	$30	$17	$22	$11		$150
291	River sub tie replacement	Rehabilitate 2,100 Crossties on the River Subdivision (1400 River East Bank and 700 River West Bank)	Based on a review of the last crosstie work completed on subdivision. In the future, crosstie work will be determined using Machine Vision Tie inspection.	zRiver	Track	$249	$104	$58	$76	$38	$	$525
134	Highway-Rail Xing	Replace track panels	Based on a review of the inspection reports for Grade Crossings and data from the FRA	zRiver	Track	$143	$59	$33	$43	$22		$300
144	River sub Highway-Rail Xing	Replace track panels	Based on a review of the inspection reports for Grade Crossings and data from the FRA	zRiver	Track	$143	$59	$33	$43	$22		$300
136	River Rail Grinding	Grind 7 track miles of rail	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	zRiver	Track	$61	$25	$14	$18	$9		$128
135	River East Bank Rail Grinding	Grind 3 track miles of rail - River sub East Bank	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	zRiver	Track	$27	$11	$6	$8	$4		$57

FY 2017-18 NEW AUTHORITY REHABILITATION PROJECTS
PROJECTS BY SUBDIVISION ($Thousands)

Line	Project Title	PROPOSED REHABILITATION PROJECTS	PROJECT JUSTIFICATION	Subdivision	Project Type	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER	TOTAL
137	River West Bank Rail Grinding	Grind 2 track miles of rail - River sub West Bank	Grinding of rail head to remove imperfections and discontinuities that develop under traffic loads increases the life of the rail, decreases the probability of rail breaks, and decreases rail replacement intervals	zRiver	Track	$17	$7	$4	$5	$3		$36
154	Gen 1 Rail Car Overhaul	Complete overhaul of Gen 1 rail cars, including CEM components, and interior components for longer-distance trips. (15 ~~30~~ cars @ $1.35M/car. $24.0M from other sources)	Gen 1 rail cars went into service in 1992-1993 and have not had a midlife overhaul. There are 88 Gen 1 cars in the fleet.	zSystemwide	Rolling Stock	$8,669	$3,614	$2,026	$2,628	$1,314	$2,000	$20,250
142	Rotem Upgrade	Door Motor Overhaul	End of lifecycle	zSystemwide	Rolling Stock	$85	$35	$20	$26	$13		$178
147	PTC On-Board Software updates, hardware repairs PTC on-board equipment Systems on 57 cab cars and 52 locomotives.	Acquire and install PTC on board replacement parts and perform software versions changes to stay current with industry interoperable standards and regulations. 57 cab cars and 52 locomotives. Correct defects not otherwise covered by warranty. Remove ATS. Average estimated cost if $10,000 per unit x 110 units. Multiyear recurring program.	Keep locomotive and cab car fleet reliable, interoperable and in regulatory compliance. Replace PTC hardware and software before failure.	zSystemwide	Signal	$523	$218	$122	$158	$79		$1,100
148	TCOSF, MOC, Melbourne Train Control Systems - PTC, CAD, NMS, etc. train control/communication software version updates and hardware repairs .	Install new software versions as required by industry standards or to keep compliant with regulations. Replace hardware that is defective or becoming obsolescent and not otherwise covered by warranty. Keep test lab current and productive. Keep support systems - batteries, air conditioning, alarms in state of good repair. Includes all back office train control, communication systems in the TCOSF, MOC or Melbourne facilities.	Maintain reliability, state of good repair, safety, regulatory compliance, interoperability.	zSystemwide	Signal	$518	$216	$121	$157	$78		$1,090
149	Signal ,Communication Back Office Train Control System Design, Condition Studies, Engineering - Keep Drawings, Track Charts, Standards Current.	Perform engineering, design, special studies relative to overall Signal, Comm. PTC/Back office Systems - standards, drawings, data bases, track charts, on a System Level current . Comply with Config. Mgmt.	Keep System Level standards and as-builts current. Comply with configuration management.	zSystemwide	Signal	$138	$57	$32	$42	$21		$290
150	TCOSF, MOC, Melbourne- CIS Systems - software version updates and hardware repairs .	Install new software versions as required to keep current . Replace hardware that is defective or becoming obsolescent and not otherwise covered by warranty. Keep test lab current and productive. Includes all back office CIS control, systems in the TCOSF, MOC or Melbourne facilities. Recurring Program.	Maintain reliability, state of good repair safety, ADA regulatory compliance.	zSystemwide	Signal	$88	$37	$21	$27	$13		$185
151	Replace or Upgrade System Signal Test Tools and Equipment	Replace or upgrade signal and communication system test tools and equipment including laptops, on board PTC Hi- Rails equipment, Melbourne Signal/Comm/CIS Test Lab.	Replace or supplement special signal tools, test equipment, hi-rail equipment on system basis	zSystemwide	Signal	$93	$39	$22	$28	$14		$195
152	Track Measurement	System wide track measurement for Machine Vision Tie Inspection, Mobile Lidar Ballast Scanning, and Ground Penetrating Radar	Data obtained using these track measuring systems gives Metrolink an accurate picture of future rehabilitation needs.	zSystemwide	Track	$262	$109	$61	$79	$40		$551
		PROPOSED FY 2016-17 REHAB BUDGET WITHOUT PH-R LOCOMOTIVIE REHAB - CONSTRAINED				**$20,000**	**$42,903**	**$3,660**	**$6,590**	**$3,205**	**$2,000**	**$78,358**
200	Locomotive Overhaul/ Upgrade	Overhaul the remaining 3 of 7 EMD F-59-Repowered locomotives that were previously upgraded to Tier-2 in 2008, and upgrade to Tier-4. ($4.4M/unit, with $1.3M/unit from other sources for all 7 units). Mearsure R LACMTA Funding.	This will be required if the Board elects to overhaul existing units instead of purchase new.	zSystemwide	Rolling Stock	$1,948	$812	$455	$590	$295	$9,100	$13,200
		PROPOSED FY 2017-18 REHAB BUDGET WITH F59 PH-R LOCOMOTIVES REHABILITATED			**Grand Total**	**$21,947**	**$43,715**	**$4,115**	**$7,181**	**$3,500**	**$11,100**	**$91,558**

ATTACHMENT "O"
FY 2017-18 NEW CAPITAL PROJECTS
($ Thousands)

PROJECT DESCRIPTION	SUBDIVISION	TOTAL BUDGET	Metro	OCTA	RCTC	SANBAG	VCTC	Other
Funds to be used for preparing Project Study Reports and initial design for enhancement and expansion (ie non-good state of good repair projects)	TBD	$745	$475	$198			$72	
TOTAL FY 2016-17 AUTHORITY FOR NEW FUNDING		**$745**	**$475**	**$198**	**$**	**$**	**$72**	**$**

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
ALL AGENCIES

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16	$75,006	$74,353	$149,359
2016/17[1]	$58,721	$9,345	$68,066
2017/18[1]	$91,558	$745	$92,303
TOTALS	**$225,285**	**$84,443**	**$309,728**

1. Rehabilitation Includes $30.8M for 7 - F59-R Locomotives upgraded to Tier 4. Net cost to Agencies $21.7M.

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
CONSOLIDATED CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	TOTAL
2015/16							
REHABILITATION	$12,524	$34,616	$27,465	$402	$	$	$75,006
NEW CAPITAL	$35,470	$35,682	$3,200	$	$	$	$74,353
SUBTOTAL	**$47,994**	**$70,298**	**$30,665**	**$402**	**$**	**$**	**$149,359**
2016/2017							
REHABILITATION		$5,524	$35,584	$17,494	$119	$	$58,721
NEW CAPITAL		$654	$5,771	$2,470	$450	$	$9,345
SUBTOTAL		**$6,178**	**$41,355**	**$19,964**	**$569**		**$68,066**
2017/2018							
REHABILITATION			$8,244	$69,146	$13,936	$232	$91,558
NEW CAPITAL			$186	$559	$	$	$745
SUBTOTAL			**$8,430**	**$69,705**	**$13,936**	**$232**	**$92,303**
TOTALS							
REHABILITATION	$12,524	$40,140	$71,293	$87,042	$14,055	$232	$225,285
NEW CAPITAL	$35,470	$36,336	$9,157	$3,029	$450	$	$84,443
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR	**$47,994**	**$76,476**	**$80,450**	**$90,070**	**$14,505**	**$232**	**$309,728**
PROJECT BUDGETS BY FISCAL YEAR	$136,537	$68,066	$92,303				

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
LACMTA

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16	$20,000		
ROTEM SETTLEMENT	$5,806		
VCTC SWAP	-$5,674		
TOTAL 2015/16	**$20,132**	**$30,749**	**$50,881**
2016/17	**$28,360**	**$475**	**$28,835**
2017/18	**$21,947**	**$475**	**$22,422**
TOTALS	**$70,440**	**$31,699**	**$102,139**

- 16/17 AND 17/18 REHAB BUDGETS EXCLUDE ROTEM SETTLEMENT AND VCTC SWAP

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
LACMTA CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	TOTAL
2015/16							
REHABILITATION	$4,744	$10,115	$4,967	$173			$20,000
ROTEM SETTLEMENT	$1,802	$2,233	$1,703	$68			$5,806
VCTC SWAP	-$284	-$1,796	-$3,594	$			-$5,674
NEW CAPITAL	$16,236	$14,513	$				$30,749
SUBTOTAL	**$22,499**	**$25,065**	**$3,076**	**$241**	**$**		**$50,881**
2016/2017							
REHABILITATION		$2,670	$17,620	$8,017	$53		$28,360
NEW CAPITAL		$119	$356				$475
SUBTOTAL		**$2,789**	**$17,977**	**$8,017**	**$53**		**$28,835**
2017/2018							
REHABILITATION			$2,240	$14,032	$5,601	$75	$21,947
NEW CAPITAL			$119	$356			$475
SUBTOTAL			**$2,359**	**$14,388**	**$5,601**	**$75**	**$22,422**
TOTALS							
REHABILITATION NET OF ROTEM AND SWAP	$6,262	$13,223	$22,937	$22,290	$5,654	$75	$70,440
NEW CAPITAL	$16,236	$14,632	$475	$356	$	$	$31,699
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR[1]	**$22,499**	**$27,854**	**$23,412**	**$22,646**	**$5,654**	**$75**	**$102,139**
PROJECT BUDGETS BY FISCAL YEAR	**$50,881**	**$28,835**	**$22,422**				

1. EXCLUDES ROTEM SETTLEMENT AND VCTC SWAP FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
OCTA

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16	$		
ROTEM SETTLEMENT LACMTA	$		
ROTEM SETTLEMENT RCTC	-$5,806		
ROTEM SETTLEMENT SANBAG	-$457		
ROTEM SETTLEMENT VCTC	-$1,000		
TOTAL 15/16	**-$7,263**	**$7,103**	**-$160**
2016/17	**$13,043**	**$198**	**$13,241**
2017/18	**$43,715**	**$198**	**$43,913**
TOTALS	**$49,495**	**$7,499**	**$56,994**

1. EXCLUDES ROTEM SETTLEMENT FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
OCTA CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	TOTAL
2015/16							
REHABILITATION	$2,953	$8,315	$1,802	$102	$		$13,172
ROTEM SETTLEMENT LACMTA	-$1,802	-$2,233	-$1,703	-$68	$		-$5,806
ROTEM SETTLEMENT RCTC	-$12	-$445	$	$	$		-$457
ROTEM SETTLEMENT SANBAG	-$30	-$970	$	$	$		-$1,000
ROTEM SETTLEMENT VCTC	-$11	-$340	$	$	$		-$350
NEW CAPITAL	$5,228	$1,875	$				$7,103
SUBTOTAL	**$6,327**	**$6,202**	**$99**	**$34**	**$**		**$12,661**
2016/2017							
REHABILITATION		$1,215	$8,651	$3,133	$43		$13,043
NEW CAPITAL		$50	$149	$			$198
SUBTOTAL		**$1,265**	**$8,799**	**$3,133**	**$43**		**$13,241**
2017/2018							
REHABILITATION			$1,956	$38,577	$3,139	$43	$43,715
NEW CAPITAL			$50	$149	$		$198
SUBTOTAL			**$2,005**	**$38,726**	**$3,139**	**$43**	**$43,913**
TOTALS							
REHABILITATION NET OF ROTEM	$1,099	$5,542	$10,706	$41,744	$3,182	$43	$62,317
NEW CAPITAL	$5,228	$1,924	$198	$149	$	$	$7,499
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR	**$6,327**	**$7,466**	**$10,904**	**$41,892**	**$3,182**	**$43**	**$69,815**
PROJECT BUDGETS BY FISCAL YEAR	-$160	$13,241	$43,913				

1. EXCLUDES ROTEM SETTLEMENT FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
RCTC

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16	$4,170		
ROTEM SETTLEMENT	$457		
TOTAL 15/16	**$4,627**	**$4,856**	**$9,483**
2016/17	**$5,566**	**$**	**$5,566**
2017/18	**$4,115**	**$**	**$4,115**
TOTALS	**$14,308**	**$4,856**	**$19,164**

1. EXCLUDES ROTEM SETTLEMENT FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
RCTC CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**2020/21**	**TOTAL**
2015/16							
REHABILITATION	$1,220	$1,940	$965	$46			$4,170
ROTEM SETTLEMENT	$12	$445	$	$			$457
NEW CAPITAL	$3,642	$1,214					$4,856
SUBTOTAL	**$4,873**	**$3,599**	**$965**	**$46**	**$**		**$9,483**
2016/2017							
REHABILITATION		$624	$3,199	$1,730	$13		$5,566
NEW CAPITAL		$	$	$			$
SUBTOTAL		**$624**	**$3,199**	**$1,730**	**$13**		**$5,566**
2017/2018							
REHABILITATION			$549	$2,251	$1,303	$13	$4,115
NEW CAPITAL			$	$			$
SUBTOTAL			**$549**	**$2,251**	**$1,303**	**$13**	**$4,115**
TOTALS							
REHABILITATION NET OF ROTEM	$1,231	$3,009	$4,713	$4,027	$1,316	$13	$14,308
NEW CAPITAL	$3,642	$1,214	$	$	$	$	$4,856
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR	**$4,873**	**$4,223**	**$4,713**	**$4,027**	**$1,316**	**$13**	**$19,164**
PROJECT BUDGETS BY FISCAL YEAR	$9,483	$5,566	$4,115				

1. EXCLUDES ROTEM SETTLEMENT FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
SANBAG

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16	$6,441		
ROTEM SETTLEMENT	$1,000		
TOTAL 15/16	**$7,441**	**$4,052**	**$11,493**
2016/17	**$6,252**	**$**	**$6,252**
2017/18	**$7,181**	**$**	**$7,181**
TOTALS	**$20,874**	**$4,052**	**$24,926**

1. EXCLUDES ROTEM SETTLEMENT FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
SANBAG CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	TOTAL
2015/16							
REHABILITATION	$1,465	$3,622	$1,298	$56			$6,441
ROTEM SETTLEMENT	$30	$970	$				$1,000
NEW CAPITAL	$3,039	$1,013					$4,052
SUBTOTAL	**$4,534**	**$5,605**	**$1,298**	**$56**	**$**		**$11,493**
2016/2017							
REHABILITATION		$561	$3,453	$2,231	$7		$6,252
NEW CAPITAL		$	$		$		$
SUBTOTAL		**$561**	**$3,453**	**$2,231**	**$7**		**$6,252**
2017/2018							
REHABILITATION			$681	$4,788	$1,693	$19	$7,181
NEW CAPITAL			$	$			$
SUBTOTAL			**$681**	**$4,788**	**$1,693**	**$19**	**$7,181**
TOTALS							
REHABILITATION NET OF ROTEM	$1,495	$5,153	$5,432	$7,075	$1,700	$19	$20,874
NEW CAPITAL	$3,039	$1,013	$	$	$	$	$4,052
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR	**$4,534**	**$6,166**	**$5,432**	**$7,075**	**$1,700**	**$19**	**$24,926**
PROJECT BUDGETS BY FISCAL YEAR	$11,493	$6,252	$7,181				

1. EXCLUDES ROTEM SETTLEMENT FOR FY 16/17 AND 17/18

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
VCTC SUMMARY

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16	$3,500		
ROTEM SETTLEMENT	$350		
VCTC SWAP	$5,674		
TOTAL 15/16	**$9,524**	**$1,885**	**$11,409**
2016/17	**$3,500**	**$3,072**	**$6,572**
2017/18	**$3,500**	**$72**	**$3,572**
TOTALS	**$16,524**	**$5,029**	**$21,553**

- 16/17 AND 17/18 REHAB BUDGETS EXCLUDE ROTEM SETTLEMENT AND VCTC SWAP

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
VCTC CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	TOTAL
2015/16							
REHABILITATION	$758	$1,818	$899	$25			$3,500
ROTEM SETTLEMENT	$11	$340					$350
LACMTA SWAP	$284	$1,796	$3,594	$			$5,674
NEW CAPITAL	$1,378	$507					$1,885
SUBTOTAL	**$2,430**	**$4,461**	**$4,493**	**$25**			**$11,409**
2016/2017							
REHABILITATION		$353	$2,028	$1,116	$3		$3,500
NEW CAPITAL		$318	$954	$1,350	$450		$3,072
SUBTOTAL		**$671**	**$2,982**	**$2,466**	**$453**		**$6,572**
2017/2018							
REHABILITATION			$444	$2,040	$934	$82	$3,500
NEW CAPITAL			$18	$54			$72
SUBTOTAL			**$462**	**$2,094**	**$934**	**$82**	**$3,572**
TOTALS							
REHABILITATION NET OF ROTEM	$1,052	$4,307	$6,964	$3,181	$937	$82	$16,524
NEW CAPITAL	$1,378	$825	$972	$1,404	$450	$	$5,029
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR	**$2,430**	**$5,132**	**$7,936**	**$4,585**	**$1,387**	**$82**	**$21,553**
PROJECT BUDGETS BY FISCAL YEAR	$11,409	$6,572	$3,572				

- 16/17 AND 17/18 REHAB BUDGETS EXCLUDE ROTEM SETTLEMENT AND VCTC SWAP

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
OTHER SUMMARY

($ Thousands)

FISCAL YEAR	REHABILITATION PROJECTS	NEW CAPITAL PROJECTS	TOTAL
2015/16 CONSTRAINED	$27,724	$25,708	$53,432
2016/17	$2,000	$5,600	$7,600
2017/18	$11,100	$	$11,100
TOTALS	$40,824	$31,308	$72,132

ATTACHMENT "P"
CAPITAL BUDGET SUMMARY
OTHER CASH FLOW BY FISCAL YEAR

($ Thousands)

BUDGET FISCAL YEAR	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**	**TOTAL**
2015/16						
REHABILITATION	$1,385	$8,806	$17,533			$27,724
NEW CAPITAL	$5,947	$16,560	$3,200			$25,708
SUBTOTAL	**$7,332**	**$25,367**	**$20,733**			**$53,432**
2016/2017						
REHABILITATION		$100	$633	$1,267	$	$2,000
NEW CAPITAL		$168	$4,312	$1,120		$5,600
SUBTOTAL		**$268**	**$4,945**	**$2,387**	**$**	**$7,600**
2017/2018						
REHABILITATION			$2,375	$7,458	$1,267	$11,100
NEW CAPITAL						$
SUBTOTAL			**$2,375**	**$7,458**	**$1,267**	**$11,100**
TOTALS						
REHABILITATION	$1,385	$8,906	$20,541	$8,725	$1,267	$40,824
NEW CAPITAL	$5,947	$16,728	$7,512	$1,120	$	$31,308
TOTAL PROJECTED CASH FLOW BY FISCAL YEAR	**$7,332**	**$25,635**	**$28,053**	**$9,845**	**$1,267**	**$72,132**
PROJECT BUDGETS BY FISCAL YEAR	$53,432	$7,600	$11,100			