

August 20, 2015

Mr. Phillip A. Washington
Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority (Metro)
One Gateway Plaza
Los Angeles, CA 90012

Dear Phil:

Your letter dated July 8, 2015 requests a set of information from the Southern California Regional Rail Authority (Metrolink), pursuant to the Los Angeles County Metropolitan Transportation Authority's (Metro) June 25, 2015 Board Agenda Item 6 and Motion 6.1. Specifically, you requested that we address two main items – (1) Operating and Maintenance expenses over the next five fiscal years and (2) a full accounting of Metrolink Capital and State of Good Repair needs.

Our analysis indicates several important findings:

- Operating and Maintenance Expenses – With Metro requests for forecasted additional service (on the Antelope Valley and Ventura County Lines), the Metro local operating subsidy is expected to increase from \$65.5 million in FY 2016 to \$77.8 million in FY 2020 – an average increase of 3.8% per year (Attachment 1).
- Current Inventory and Status of All New Capital, Capital Rehabilitation/State of Good Repair Of the \$60.5 million LACMTA portion of the rehabilitation budget for the period, about 45% has been expended, leaving \$35.6 million remaining to be billed. Of the \$39.6 million budgeted for new capital, 65% has been expended. The remainder, \$17.7 million is encumbered against existing and active projects, including Positive Train Control (PTC) and Vincent Siding and 2nd Platform.

Funds for projects programmed FY13 and before are largely committed and are anticipated to be drawn down significantly within FY16 with trailing expenses in FY17. FY14 and FY15 projects do still have large unspent budget amounts. However, significant orders of materials and parts and advancement of contracts is leading to secure commitments to draw down funds in the Capital Rehabilitation and the New Capital Categories according to the schedule presented (Attachment 2, Item A1). Project level detail is also included (Attachment 2, Item 2A).



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Letter to Phil Washington

Some of the delay is due to normal project schedule timing. Also, the PTC, which is our highest safety priority project, has required project management resources for a longer period of time than originally anticipated, slowing the implementation of other projects. Finally, there was a significant delay in the receipt of FY15 funds.

It is important to note that we are already in the process of reprogramming funds for the projects which have now been identified as no longer moving forward.

- Metrolink Capital and State of Good Repair Needs: There are significant Capital Rehabilitation/State of Good Repair needs which represent SCRRA's highest priority projects. The expected new project list for rehabilitation is significant and is necessary to limit the growth of the backlog of state of good repair projects. Nonetheless, if limited by the anticipated contribution levels in the range of \$20 - \$30 million per year (as presented in Attachment 2, Item B1), the backlog of projects will continue to grow.
- Metrolink New Capital Projects. Requests for new service by member agencies would require investment in new capital projects to add capacity to our largely single-track system and to grow the fleet, which has reached its limits (Attachment 2, Item B2).
- Inventory of Currently Unfunded State of Good Repair and Safety Improvements: To meet State of Good Repair requirements, investment for rail infrastructure in Los Angeles County is estimated to exceed \$50 million per year. This anticipated need is substantially higher than current funding levels, and may necessitate an expanded approach to funding Metrolink state of good repair projects. (Attachment 2, Items C1-C3). Needs for safety-specific projects such as grade crossing treatments (as vetted with federal and state safety and security authorities) are similarly widespread and significant, totaling \$1.3 billion (Attachment 2, Item C4).

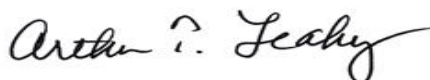
These inputs have all been developed in collaboration and with input from your staff. The Finance and Regional Rail departments have been especially helpful and we look forward to reviewing the the material provided here with your staff. On a go forward basis, Metrolink staff will continue to work closely with Metro staff on identifying the potential for reprogramming the balance of unspent and uncommitted Metro funds to the highest priority projects in Los Angeles County, including the purchase of new locomotives. Discussions with Metro staff will also need to address funding constraints that your staff has brought to our attention.



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I understand that there have been issues regarding project delays and the use of programmed funding. We look forward to working with you to resolve such issues. If you have any questions, please contact Roderick Diaz, Director, Planning and Development at diazr@scrra.net or 213-452-0455.

Sincerely,



Arthur T. Leahy
Chief Executive Officer

cc: Nalini Ahuja, Metro
Don Sepulveda, Metro

SUMMARY OF ATTACHMENTS:

- *Attachment 1, The Operational Income Statement Summary*
- *Attachment 1A, Projected Operational and Maintenance Expenses*
- *Attachment 1B, Projected Operational and Maintenance Expenses With and Without New Service*
- *Attachment 2, Item A1 – Status of Current Capital Rehabilitation and New Capital Projects*
- *Attachment 2, Item A2 – Backup Project Level Data for Active Capital Rehabilitation and New Capital Projects*
- *Attachment 2, Item B1 – Summary of Expected 5-Year Projects for Capital Rehabilitation/State of Good Repair*
- *Attachment 2, Item B2 – Summary of Expected 5-Year New Capital Projects*
- *Attachment 2, Items C1 through C3 – State of Good Repair Needs Summary*
 - *Item C1 – Metrolink Backlog of State of Good Repair Needs_* – a list of all overdue rehabilitation needs is currently estimated at \$149M
 - *Item C2 – Metrolink 5-Year Rehabilitation Forecast - Constrained by Safety Priority* -- a list constrained (at \$20M/year as recommended by LACMTA staff) by safety priority
 - *Item C3 -- Metrolink 5-Year Rehabilitation Forecast - Unconstrained* – a list based of forecasted needs based on the condition of the assets (Item C3).
- *Attachment 2, Item C4 – Safety Needs Summary*



ATTACHMENT 1

**Projected Operating and Maintenance Expenses FY16-FY20
Adopted and Forecasted Metrolink Budget Requests from METRO
By Major Cost Component**

(\$000s)

	FY15-16 Adopted Budget	FY16-17 Forecast Budget	FY17-18 Forecast Budget	FY18-19 Forecast Budget	FY19-20 Forecast Budget
EXPENSES	119,017	122,063	124,560	132,858	138,845
REVENUES	53,535	55,034	56,108	58,851	61,023
NET LOCAL SUBSIDY	65,482	67,029	68,452	74,006	77,822

OPERATIONS

Revenues					
Farebox Revenue	42,879	44,184	45,127	47,651	49,599
Dispatching	1,355	1,373	1,385	1,413	1,441
Other Revenues	-				
MOW Revenues	9,301	9,477	9,595	9,787	9,983
Operation Revenue Subtotal	53,535	55,034	56,108	58,851	61,023
Member Agency Revenues	55,855	56,867	58,754	64,017	67,533
Total Revenues	109,390	111,901	114,862	122,868	128,556
Operations & Services					
Train Operations	23,949	24,046	25,569	27,984	29,335
Equipment Maintenance	14,805	15,076	14,994	17,160	18,358
Contingency (Train Ops)	-				
Fuel	11,934	12,102	12,070	13,364	14,203
Non-Scheduled Rolling Stock Repairs	124	129	125	129	133
Operating Facilities Maintenance	629	733	716	738	760
Other Operating Train Services	271	284	303	312	321
Rolling Stock Lease	304	119	119	122	126
Security - Sheriff	3,073	3,250	3,275	3,373	3,474
Security - Guards	961	989	1,019	1,050	1,081
Supplemental Additional Security	350	348	356	366	377
Public Safety Program	124	121	121	125	129
Passenger Relations	964	914	931	959	987
Holiday Trains	-				
TVM Maintenance/Revenue Collection	2,769	2,909	3,041	3,132	3,226
Marketing	535	477	485	500	515
Media & External Communications	204	204	204	210	216
Utilities/Leases	1,279	1,322	1,373	1,414	1,456
Transfers to Other Operators	4,132	4,325	4,542	4,678	4,818
Amtrak Transfers	446	540	635	654	674
Station Maintenance	872	1,196	1,165	1,199	1,235
Rail Agreements	1,797	1,852	1,870	2,191	2,625
Subtotal Operations & Services	69,523	70,938	72,911	79,659	84,051
Maintenance-of-Way					
MoW - Line Segments	23,054	23,886	24,517	25,252	26,010
MoW - Extraordinary Maintenance	707	737	762	785	808
Subtotal Maintenance-of-Way	23,760	24,623	25,278	26,037	26,818
Administration & Services					
Staff					
Ops Salaries & Fringe Benefits	5,537	5,585	5,723	5,895	6,072
Ops Non-Labor Expenses	2,449	2,535	2,559	2,635	2,714
Indirect Administrative Expenses	6,510	6,660	6,808	7,012	7,222
Ops Professional Services	1,372	1,313	1,329	1,368	1,409
Subtotal Administration & Services	15,868	16,093	16,418	16,910	17,418
Contingency (Non-Train Ops)	239	247	254	262	269
Total Expenses Including MoW	109,390	111,901	114,862	122,868	128,556

RISK MANAGEMENT

Revenues					
Member Agency Revenues	9,627	10,162	9,698	9,989	10,289
PL/PD Revenues					
Total Revenues	9,627	10,162	9,698	9,989	10,289
Insurance					
Liability/Property/Auto	6,859	7,511	7,647	7,877	8,113
Claims / SI	2,130	1,944	1,346	1,387	1,428
Claims Administration	638	708	704	726	747
Subtotal Insurance	9,627	10,162	9,698	9,989	10,289
Total Insurance / SIR Expenses	9,627	10,162	9,698	9,989	10,289

ATTACHMENT 1A

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ATTACHMENT 1B

Adopted Budget FY16 Comparison of Forecasted Budgets FY17 through FY20 With NewTrain Service and Without New Train Service

Metro

FY15-16 Adopted Budget		65,482
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FY16-17 with new Service		67,029
FY16-17 without new Service		66,152
Increase (Decrease) in Subsidy without new service		(876)

FY17-18 with new Service		68,452
FY17-18 without new Service		67,888
Increase (Decrease) in Subsidy without new service		(564)

FY18-19 with new Service		74,006
FY18-19 without new Service		70,485
Increase (Decrease) in Subsidy without new service		(3,522)

FY19-20 with new Service		77,822
FY19-20 without new Service		73,171
Increase (Decrease) in Subsidy without new service		(4,651)

FY17 - FY20 Cumulative change in Subsidy without new Service (9,614)

**ATTACHMENT 2, ITEM A1
LACMTA FY 2011 to FY 2015 CASH FLOW PROJECTION
ESTIMATED BILLINGS BY FISCAL YEAR**

CURRENT APPROVED BUDGET	Budget	Expended	Already Billed	Total Remaining Billings	Estimated Remaining Billings FY14-15	FY 15-16	FY 16-17	FY 17-18	Budget Under-Run/ (Over-Run)
Prior Projects (Project 508090, Project 509092)	594,577	747,718	-	776,936	-	776,936	-	-	(182,359)
FY 2011 Budget	8,000,000	7,876,332	6,972,544	1,008,129	-	1,008,129	-	-	19,326
FY 2012 Budget	7,891,893	4,874,032	5,909,683	520,430	-	491,980	28,451	-	626,873
FY 2013 Budget	11,612,304	9,256,399	8,767,116	3,493,905	605,361	1,651,641	1,236,902	-	186,189
FY 2014 Budget	16,006,500	4,774,280	2,584,544	13,420,387	531,827	9,610,384	3,278,176	-	1,568
FY 2015 Budget:									
Measure R	8,375,000	6,450	-	8,375,000	683	3,925,069	4,148,258	300,990	-
Prop C-10%	6,300,000		-	6,300,000	11,000	1,626,332	1,982,282	2,680,386	-
PTMISEA	1,700,000		-	1,700,000	-	524,172	1,175,828	-	-
TOTAL	16,375,000	6,450	-	16,375,000	11,683	6,075,573	7,306,368	2,981,376	-
Total Rehab. Projects	60,480,274	27,535,211	24,233,888	35,594,788	1,148,871	19,614,644	11,849,897	2,981,376	651,598
Rotem Settlement	12,600,000	2,240,103	910,857	11,677,859	482,121	3,099,350	4,321,275	3,775,113	11,284
New Capital	39,571,550	25,409,774	21,877,936	17,693,614	-	16,640,930	552,584	500,100	-

Footnotes:

1) Total Rehab. Projects: Additional \$4.7 million has been committed against the total remaining billings of \$33.4 million. To redirect \$28.7 million, it would affect systemwide projects and potentially impact other members' funding availability. 50% of the FY 2015 budgeted funds were approved at the end of the fiscal year.

2) Rotem Settlement: These funds are for OCTA's share of Systemwide rehab projects and are approved in MOU MRROTEMSET. \$7.5M is allocated to projects through FY 15. \$5.8M is planned for FY 16, \$5.1M is planned for FY 17, and \$1.5M is planned for FY 18. Total Rotem Settlement is \$19.9M. Redirecting settlement funds would affect systemwide projects and potentially impact other members' funding availability.

3) New Capital: \$17.7 million is encumbered against existing and active projects, which are PTC (\$7.7M), Vincent Siding (\$8.2M), and 3rd party projects including Branford (\$0.3M) & LACMTA I-5N Enhancement (\$1.5M)

**Southern California Regional Rail Authority
Active Rehabilitation Project Status Report
Only Active Projects, Reflects Total Project Value (Includes All Member Contributions)
Thru Jun-2015 (\$K)**

**Attachment 2, Item A2
Backup Project Level Data**

A	B = H / I	C	D = G / I	E	F	G	H	I	J = I - H	K = F - I	L	M	N	O	P	Q	R	S
Project Number	Expended % Complete	Estimated Incurred % Complete	Committed % Complete	Available Funds	Current Budget	Committed To Date	Expended To Date	Current EAC	ETC	Budget/EAC Variance	Subdivision	Current Start	Current Finish	VCTC Swap	Project Manager	Project Description	Reprogram	Reason for Delay
506085	95.60%	100.00%	99.22%	3,433	3,432	3,406	3,281	3,433	151	(0)	Systemwide	04/11/2011	12/05/2014	Y	Hurst, Jerone	CIS (Customer Information System)		Project in closeout pending PBR.
508090/Signage	91.83%	99.00%	95.88%	1,829	1,829	1,754	1,680	1,829	150	(0)	Systemwide	04/11/2011	10/05/2014	Y	Maxe, Darrell	Passenger Signage Rehab Program		Change in CIS vendor, funds being transferred
512013	61.47%	95.00%	96.10%	269	269	259	166	270	104	(1)	Ventura (LA Co)	03/28/2014	07/31/2015	Y	Mullins, Ken	Ventura Sub Signal Rehab (LA)		Delayed due to fabrication and delivery delays.
512014	69.36%	60.00%	78.24%	508	508	397	352	508	156	-	Ventura (LA Co)	02/24/2013	04/30/2015		Quirk, David	Ventura Sub Comm Rehab (LA)		Not complete; funding is expired - therefore undergoing
512083	67.69%	80.00%	67.79%	176	176	119	119	176	57	-	Systemwide	11/05/2012	10/27/2015		Hurst, Jerone	U/G NAS Monitor System & Transitn to MPLS		Delayed two months due to PTC resource depletion.
5	90.07%	95.65%	95.50%	6,214	6,214	5,936	5,598	6,215	617	(1)								
513010	38.85%	75.00%	98.13%	543	543	533	211	543	332	-	Ventura (LA Co)	01/17/2013	03/16/2015	Y	Harris, Tim	Woodman, Bernson & Raymer Turnouts		Turnout installations will be completed August 2015
513012	62.78%	80.00%	76.62%	593	593	454	372	593	221	-	Ventura (LA Co)	01/20/2014	02/15/2016	Y	Soghomonian, Stev	Cable Renewal, Swtch Machine Conversn/Renewl		1- Initial CTOs Materials delay
513013	14.84%	80.00%	16.72%	400	400	67	59	400	341	(1)	Ventura (LA Co)	01/06/2014	12/25/2015	Y	Hurst, Jerone	Wayside Comm & Remote Monitors - VN Sub (LA)	X	Recommend Reprogram
513016	63.51%	65.00%	84.62%	693	693	586	440	693	253	-	Valley	03/25/2014	07/22/2015	Y	Soghomonian, Stev	Rehab 4 M23A switches at CP Taylor.		1- Two parts--a) replacement in kind four dual control switch
513017	79.09%	100.00%	88.34%	497	497	439	393	497	104	-	San Gabriel	02/01/2013	08/18/2015	Y	Harris, Tim	Transition Rails & Insulated Joints.		On Schedule.
513018	84.97%	70.00%	97.98%	1,252	1,252	1,227	1,064	1,252	188	-	San Gabriel	01/20/2014	09/30/2015		Mullins, Ken	Electrologic CP Marengo & CP Vista		On Schedule.
513019	49.38%	90.00%	97.20%	776	776	754	383	776	393	-	San Gabriel	04/28/2014	05/09/2016	Y	Hurst, Jerone	SG Sub Comm Equip & Wayside Comm Sites		On Schedule.
513027	76.45%	100.00%	81.25%	351	350	285	268	351	83	(1)	River	01/17/2013	05/03/2014	Y	Harris, Tim	Transition Rails & Insulated Jnts. Rehab Trnouts		On Schedule.
513028	52.25%	100.00%	79.85%	155	155	124	81	156	74	(0)	River	03/01/2013	03/09/2015	Y	Chuck, Stuart	Bridge/Culvert Ratngs, ROW Gradng		Final invoice has been received and paid.
513030	29.33%	30.00%	61.25%	455	455	279	134	455	322	-	River	02/10/2014	12/18/2015	Y	Conley, DeAndre	Comm Path Diversity at CP Locations		Trouble obtaining material; working on procuring, once
513031	36.79%	40.00%	80.77%	1,507	1,507	1,165	531	1,442	911	65	Systemwide	06/25/2013	09/30/2015	Y	Harrington, Greg	Upgrade Grnd Pwr & Fuel Mgmt System at CMF		Unforeseen site conditions. Work complete Sept 2015.
513033	1.17%	-	1.17%	90	90	1	1	90	89	-	Systemwide	07/01/2013		Y	Chakladar, Arun	Customer Relations Mgmt System	X	Recommend Reprogram
513034	0.07%	-	64.92%	583	583	378	0	583	582	-	Systemwide			Y	Chakladar, Arun	Data Warehouse Phase 2	X	Recommend Reprogram
513036	92.58%	100.00%	92.58%	621	621	575	575	621	46	-	Systemwide	06/09/2014	06/30/2015	Y	Chakladar, Arun	Disaster Recovery system		Work Complete
513039	78.19%	90.00%	83.87%	311	310	255	238	304	66	6	Systemwide	04/01/2013	06/30/2015		Soghomonian, Stev	F550 Hyrail Bucket Trcks, Brush Truck Generatrs		1- design and ordering custom parts to the two brush trucks.
513042	89.81%	100.00%	95.03%	550	550	523	494	550	56	-	Systemwide	11/15/2013	05/21/2015		Mullins, Ken	Install Signal Heads & Signal Equip		On Schedule.
513045	90.40%	100.00%	95.68%	764	764	731	691	764	73	(1)	Systemwide	07/25/2014	06/30/2015	7	Case, Russell	TVM Upgrades		On Schedule.
513048	23.31%	95.00%	95.42%	142	142	135	33	142	109	-	Systemwide	10/30/2014	03/15/2015		Cook, Mike	SCRRA Fleet Plan		Project to be completed by Sept 2015
17	58.45%	71.36%	83.36%	10,283	10,280	8,512	5,968	10,212	4,243	69								
514001	56.05%	100.00%	86.52%	397	397	343	222	396	174	0	Systemwide	03/21/2014	06/10/2015		Campbell, John	Montebello & Norwalk CMS/PA. Integ w/ BO Svr		On Schedule.
514012	1.12%	40.00%	2.36%	746	746	18	8	746	737	-	Pasadena	11/15/2014	01/12/2016		Azevedo, Aaron	Pasadena Sub: Repl Timber Crossties		Tie JOC sent to Contracts in February. Currently out to bid.
514013	0.23%	-	0.23%	500	500	1	1	500	499	-	San Gabriel	01/00/1900			Hurst, Jerone	Comm SG Sub, Incl DOC & MOC Paths	X	Going to Board 9/11/15. Recommend Reprogram
514014	49.72%	60.00%	67.73%	65	65	44	32	65	33	-	San Gabriel	06/06/2014	02/18/2016		Harris, Tim	Fncng Fntana-Beech; ROW Grdng/Dtchnng/Fncng		On Schedule. Awaiting new fence JOC (expect Jan 2016)
514015	54.41%	50.00%	72.18%	729	720	520	392	720	328	-	San Gabriel	03/21/2014	04/14/2015		Campbell, John	CMS & PA @ 4 Stns on SG Sub. Integ w/ BO		On Schedule.
514016	9.76%	10.00%	43.89%	888	887	389	87	887	800	-	San Gabriel	12/01/2014	06/01/2016		Mullins, Ken	FY14 San Gabriel Sub Signal Rehab		On schedule CTO's prpared and submitted.
514017	4.61%	40.00%	54.52%	1,200	1,200	654	55	1,200	1,145	-	San Gabriel	09/01/2015	04/05/2016	Y	Azevedo, Aaron	Curves on the San Gabriel Sub		Rail prouement started in Fall. Rail delivery expected late August.
514018	25.04%	25.00%	28.30%	700	700	198	175	700	525	-	Valley	10/20/2014	03/22/2016	Y	Meza, Jose	Comm Systms Valley Sub, Incl DOC & MOC Paths	X	Recommend Reprogram
514019	-	-	-	300	300	-	-	300	300	-	Valley				Jackson, Fred	Improve Pedestrian Crossing at the Burbank Station		Recommend Reprogram-Not enough funds to do project
514020	10.43%	70.00%	74.22%	200	200	148	21	200	179	-	Valley	06/04/2014	03/22/2016	Y	Harris, Tim	Fncng Install; Vacum Trnls, ROW Grdng/Dtchnng/Fncng		Awaiting new fence JOC (expect Jan 2016)
514021	21.01%	35.00%	95.11%	678	628	597	132	628	496	-	Valley	03/21/2014	05/01/2015	Y	Campbell, John	CMS/PA AV Line. Integ w/ BO Svr.		Complete by 8/28/15. Sign protocol issues.
514022	27.58%	33.00%	77.63%	297	297	231	82	297	215	-	Valley	12/01/2014	08/12/2015	Y	Soghomonian, Stev	Valley Sub Signal Rehab: 1 Electrologic Location and Other Xing Work		Delays in receiving 100% of materials then start construction
514023	35.52%	80.00%	78.30%	350	350	274	124	350	226	-	Valley	08/18/2014	09/07/2015	Y	Lun, Elizabeth	Culvrt/Brdge Des Anlysis/Hydrlygy Stdy/Plns for Brdge Rpl		On Schedule. Finalizing design. To be constructed Sept 2015
514024	5.69%	40.00%	54.68%	1,225	1,225	670	70	1,225	1,155	-	Valley	08/03/2015	06/19/2015	Y	Azevedo, Aaron	Rail Replace & Rehab Curves on Valley Sub		Rail prouement started in Fall. Rail delivery expected late August.
514025	13.92%	14.00%	17.47%	400	400	70	56	400	344	-	Ventura (LA Co)	12/01/2014	03/30/2015	Y	Rivera, Ferdinand	Rehab Comm VN Sub, Incl DOC & MOC Pathways	X	Recommend Reprogram - MEC waiting for parts from their vendors and material acquisition to continue with the project. 1- Delays in receiving 100% of materials then start construction. 2- Additional funding availability; generating new CTO's for Design, Support, and Construction
514027	28.88%	30.00%	53.68%	531	531	285	153	531	378	-	Ventura (LA Co)	10/27/2014	08/15/2015	Y	Soghomonian, Stev	VN Sub Sgnl Rehab (LA) & Replacmnt of 8 Xings		Awaiting new fence JOC (expect Jan 2016)
514028	10.17%	25.00%	43.87%	60	60	26	6	60	54	-	Ventura (LA Co)	06/06/2014	04/22/2016	Y	Harris, Tim	ROW Grdng/Dtchnng/Fncng Install VN Sub (LA)		On Schedule.
514029	9.85%	50.00%	9.85%	19	19	2	2	19	17	-	Ventura (LA Co)	11/15/2014	04/05/2016		Azevedo, Aaron	Insulated Joints VN Sub (LA)		Constructed w/ Rail projects due to budget constraints. Rail prouement started in Fall. Rail delivery expected late August.
514030	6.05%	40.00%	55.18%	100	100	55	6	100	93	1	Ventura (LA Co)	11/15/2014	04/05/2016	Y	Azevedo, Aaron	Repl Rail on Curve 130, (MT 2) on VN Sub (LA)		Recommend Reprogram
514037	1.14%	-	1.14%	400	400	5	5	400	395	-	River			Y	Conley, DeAndre	Renew Comm Systms Along Rivr Sub Incl DOC, MOC & LAUS	X	Awaiting new fence JOC (expect Jan 2016)
514038	20.00%	20.00%	20.00%	125	125	25	25	125	100	-	River	05/12/2014	05/25/2016		Harris, Tim	Fncng near 9th St on Rivr Sub; ROW Grdng/Dtchnng/Fncng		On schedule charter approved and CTO written.
514039	7.41%	25.00%	64.60%	430	430	278	32	430	398	-	River	12/05/2014	12/31/2015		Mullins, Ken	River Sub Signal Rehab		PTC Critical upgrades
514040	2.26%	10.00%	86.18%	300	300	259	7	300	293	-	Systemwide	11/01/2014	12/31/2015		Peterson, Jay	Renew/Replace Support Systems at MOC & DOC		PTC Critical upgrades
514041	9.94%	10.00%	32.56%	1,500	1,500	488	149	1,500	1,351	-	Systemwide	11/01/2014	12/31/2015		Peterson, Jay	Comm Systems Upgrade at DOC and MOC.		One contract awarded, the other in progress (expect Oct award)
514042	2.99%	5.00%	2.99%	947	947	28	28	947	919	-	Systemwide	08/25/2014	06/30/2016		Harrington, Greg	Drop Table and Wheel True Machine		

Southern California Regional Rail Authority
Active Rehabilitation Project Status Report
Only Active Projects, Reflects Total Project Value (Includes All Member Contributions)
Thru Jun-2015 (\$K)

Attachment 2, Item A2
Backup Project Level Data

A	B=H/I	C	D=G/I	E	F	G	H	I	J=I-H	K=F-I	L	M	N	O	P	Q	R	S
Project Number	Expended % Complete	Estimated Incurred % Complete	Committed % Complete	Available Funds	Current Budget	Committed To Date	Expended To Date	Current EAC	ETC	Budget/EAC Variance	Subdivision	Current Start	Current Finish	VCTC Swap	Project Manager	Project Description	Reprogram	Reason for Delay
514043	0.20%	40.00%	0.20%	150	150	0	0	150	150	-	Systemwide	05/26/2015	12/23/2015		Harrington, Greg	Fuel Tanker Truck Repairs		Awaiting PBR. Previously scoped for repairs.
514044	2.03%	-	2.03%	120	120	2	2	120	118	-	Systemwide	04/06/2015	06/30/2016		Harrington, Greg	Fueling System Improvement		Advertising IFB.
514046	0.11%	50.00%	68.86%	1,600	1,600	1,102	2	1,600	1,598	-	Systemwide	09/01/2014	09/30/2015		Case, Russell	Electronic Ticketing System		Implementation in process.
514047	65.77%	66.00%	88.30%	150	150	132	99	150	51	-	Systemwide	12/15/2015	09/31/2015		Chakladar, Arun	Data Warehouse		On Schedule.
514048	11.98%	40.00%	79.17%	381	381	301	46	381	335	-	Systemwide	06/09/2014	03/31/2016		Sakoda, Karen	TAM Plan & System for FTA MAP-21 Compliance		On Schedule.
514049	-	-	-	200	200	-	-	200	200	-	Systemwide	-	-		Case, Russell	Design/Analysis for Repl of Current TVM's	X	Recommend Reprogram
514050	100.00%	100.00%	100.00%	500	500	500	500	500	-	-	Systemwide	07/18/2014	05/27/2016		Chakladar, Arun	FIS Phase 2		Work Complete
514055	29.90%	30.00%	38.24%	375	375	143	112	375	263	-	Systemwide	10/15/2014	10/30/2015		Mullins, Ken	Dwarf Sgnl Hds; Remote Card Readers; Vid Cameras		Delayed due to material lead time.
514057	79.57%	100.00%	90.04%	720	720	648	573	720	147	-	Systemwide	08/15/2015	08/15/2015		Harris, Tim	System Rail Grndng & Ultrasonic Rail Testng		On Schedule.
514058	23.17%	95.00%	78.66%	75	75	59	17	75	58	0	Systemwide	11/14/2014	08/26/2015		Harrington, Greg	Rubber Tire Vehicle (Non-Fed) - 3 Pool Veh		3rd vehicle ordered. Remaining funds to be PBR'd.
514061	2.16%	40.00%	2.16%	100	100	2	2	100	98	-	San Gabriel	11/15/2014	06/30/2016	Y	Azevedo, Aaron	Transition Rails & Insulated Joints on SG Sub		Constructed w/ Rail projects due to budget constraints.
514062	34.55%	100.00%	96.15%	450	450	432	155	450	294	-	River	05/01/2015	06/15/2015		Azevedo, Aaron	Insulated Jnts and Repl Turnout on the River Sub		Project Complete. Waiting invoicing.
514065	17.88%	-	17.88%	595	595	106	106	595	489	-	Systemwide	02/03/2015	01/07/2016		Doran, William	FY14 Track Measurement Systems		Work planned in November 2015
37	18.90%	36.38%	49.01%	18,501	18,441	9,037	3,485	18,440	14,955	1								
515001	46.65%	100.00%	46.65%	21	21	9	9	19	10	2	Valley	12/22/2014	01/30/2015		Chan, Kim	Broadway/Brazil Pedestrian Flasher		On Schedule.
515109	-	-	-	100	100	-	-	100	100	-	Pasadena	-	-		Chapelaine, James	Pasadena Sub Signal Rehab		On Schedule.
515112	-	30.00%	-	375	375	-	-	375	375	-	Pasadena	06/25/2015	09/30/2016		Azevedo, Aaron	Pasadena Sub Grade Xing Rehab		On Schedule.
515114	-	-	-	238	238	-	-	238	238	-	San Gabriel	-	-		Maxey, Darrell	San Gabriel Sub Comm System Rehab		Refining Scope and Charter. Assigning PM. On Schedule.
515115	-	2.00%	-	2,000	2,000	-	-	2,000	2,000	-	San Gabriel	01/00/1900	01/00/1900		Mullins, Ken	San Gabriel Sub Signal Rehab		On Schedule.
515116	-	15.00%	-	80	80	-	-	80	80	-	San Gabriel	06/25/2015	12/31/2016		Azevedo, Aaron	San Gabriel Sub ROW Maintenance		On Schedule.
515117	0.09%	-	0.09%	65	65	0	0	65	65	-	San Gabriel	01/12/2015	01/07/2016		Doran, William	San Gabriel Sub Ground Penetrating Radar		Work planned in November 2015
515118	-	30.00%	-	883	883	-	-	883	883	-	San Gabriel	06/25/2015	05/30/2016		Azevedo, Aaron	San Gabriel Sub Track Rehab		On Schedule.
515121	0.02%	-	0.02%	200	200	0	0	200	200	-	Valley	-	-		Maxey, Darrell	Valley Sub Comm System Rehab		Refining Scope and Charter. Assigning PM. On Schedule.
515122	-	-	-	100	100	-	-	100	100	-	Valley	-	-		Soghomonian, Stev	Valley Sub Signal Rehab		On Schedule.
515123	-	1.00%	-	1,558	1,558	-	-	1,558	1,558	-	Valley	08/18/2014	09/07/2015		Lun, Elizabeth	Valley Sub Bridge & Culvert Repl-Design & Const		On Schedule. Contractor providing estimates. To be constructed Sept 2015
515124	-	15.00%	-	80	80	-	-	80	80	-	Valley	06/25/2015	12/31/2016		Azevedo, Aaron	Valley Sub ROW Maintenance		On Schedule.
515126	0.07%	-	0.07%	82	82	0	0	82	82	-	Valley	01/12/2015	01/07/2016		Doran, William	Valley Sub Ground Penetrating Radar		Work planned in November 2015
515127	-	-	-	187	187	-	-	187	187	-	Ventura (LA Co)	-	-		Maxey, Darrell	VN Sub (LA Co) Comm System Rehab		Refining Scope and Charter. Assigning PM. On Schedule.
515128	-	-	-	400	400	-	-	400	400	-	Ventura (LA Co)	-	-		Soghomonian, Stev	VN Sub (LA Co) Signal Rehab		On Schedule.
515129	-	1.00%	-	417	417	-	-	417	417	-	Ventura (LA Co)	07/28/2015	12/27/2015		Lun, Elizabeth	VN Sub (LA Co) Bridge Repair - Design & Const		On Schedule. RFP has been issued to designer.
515131	-	15.00%	-	81	81	-	-	81	81	-	Ventura (LA Co)	06/25/2015	12/31/2016		Azevedo, Aaron	VN Sub (LA Co) ROW Maintenance		On Schedule.
515132	0.23%	-	0.23%	26	26	0	0	26	26	-	Ventura (LA Co)	01/12/2015	01/07/2016		Doran, William	VN Sub (LA) Ground Penetrating Radar		Work planned in November 2015
515138	-	-	-	200	200	-	-	200	200	-	River	-	-		Maxey, Darrell	River Sub Comm System Rehab		Refining Scope and Charter. Assigning PM. On Schedule.
515139	-	5.00%	-	100	100	-	-	100	100	-	River	01/01/2016	03/30/2016		Mullins, Ken	River Sub Cable Replacement		On Schedule.
515141	-	15.00%	-	77	77	-	-	77	77	-	River	06/25/2015	12/31/2016		Azevedo, Aaron	River Sub ROW Maintenance		On Schedule.
515142	0.79%	-	0.79%	40	68	1	1	68	68	-	River	01/12/2015	01/07/2016	Y	Doran, William	River Sub Ground Penetrating Radar		Work planned in November 2015
515143	-	30.00%	-	174	174	-	-	174	174	-	River	06/25/2015	09/30/2016		Azevedo, Aaron	River Sub Rail Replacement		On Schedule.
515144	-	5.00%	-	3,409	3,409	-	-	3,409	3,409	-	River East Bank	-	-		Azevedo, Aaron	Rehab Rail & Ties on River Sub East Bank		On Schedule. Requires UPRR agreement for 2/3 funding.
515145	-	-	-	2,200	2,200	-	-	2,200	2,200	-	Systemwide	05/29/2015	10/09/2015		Harrington, Greg	Upgrade Sanding System at CMF		On Schedule.
515146	-	-	-	1,035	1,035	-	-	1,035	1,035	-	Systemwide	-	-		Chakladar, Arun	FIS - Phase 2	X	Recommend Reprogram
515147	0.09%	-	0.75%	15,951	15,951	120	14	15,951	15,937	-	Systemwide	-	-		Kakaris, Telis	PH/PHI Locomotive Overhaul	X	Recommend Reprogram to Locomotive Procurement
515148	-	-	-	572	572	-	-	572	572	-	Systemwide	-	-		Kakaris, Telis	Battery Change Out (Gen 3 and Rotem Cars)		On Schedule.
515150	-	-	-	1,800	1,800	-	-	1,800	1,800	-	Systemwide	-	-		Thompson, Gary	Locomotive Component PM		On Schedule.
515151	-	-	-	1,202	1,202	-	-	1,202	1,202	-	Systemwide	-	-		Kakaris, Telis	Gen 1 Rail Car Overhaul		On Schedule.
515152	-	-	-	1,100	1,100	-	-	1,100	1,100	-	Systemwide	-	-	Y	Maxey, Darrell	PTC Comm and Signal Systemwide Rehab	X	Recommend Reprogram - Required PTC Software and Hardware to Maintain Interoperability.
515153	-	-	-	500	500	-	-	500	500	-	Systemwide	-	-		Jackson, Fred	Procure Lex-Ray System	X	Recommend Reprogram
515154	0.04%	-	0.04%	300	300	0	0	300	300	-	Systemwide	01/12/2015	01/07/2016	Y	Doran, William	Track Measurement & Testing		On Schedule.
515155	-	20.00%	-	500	500	-	-	500	500	-	Systemwide	06/25/2015	12/31/2015		Azevedo, Aaron	Systemwide Rail Grinding		On Schedule.
33	0.07%	2.30%	0.36%	36,053	36,081	130	23	36,078	36,055	2								
92	21.25%	29.28%	33.28%	71,051	71,016	23,614	15,075	70,945	55,870	71								
Total Recommend Reprogram Projects																		
13	1.40%	2.49%	3.79%	22,159	22,158	840	311	22,158	21,847	(1)							X	Recommend Reprogram

**Southern California Regional Rail Authority
New Capital Project Status Report**

**Only Active Projects, Reflects Total Project Value (Includes All Member Contributions)
Thru Jun-2015 (\$K)**

A	B = H / I	C	D = G / I	E	F	G	H	I	J = I - H	K = F - I	L	M	N	O	P	Q	R
Project Number	Expended % Complete	Estimated Incurred % Complete	Committed % Complete	Available Funds	Current Budget	Committed To Date	Expended To Date	Current EAC	ETC	Budget/EAC Variance	Subdivision	Current Start	Current Finish	VCTC Swap	Project Manager	Project Description	Reason for Delay
604001/RotemProd	96.70%	100.00%	100.18%	217,745	238,370	238,798	230,499	238,370	7,871	-	Systemwide	04/13/2006	04/30/2012		Tripoli, Richard	Hyundai-Rotem Rail Car Procurement	Complete
608003	52.17%	75.00%	78.08%	2,500	2,500	1,952	1,304	2,500	1,196	-	Systemwide	01/00/1900	06/30/2012		Thompson, Gary	Purchase Rolling Stock Spare Parts	0
608004/RotemProd	97.69%	100.00%	90.47%	5,500	5,500	4,976	5,373	5,500	127	-	Systemwide	04/13/2006	04/30/2012		Tripoli, Richard	Hyundai-Rotem Rail Car Procurement (SANBAG)	Complete
409004/PTC	98.81%	99.00%	97.10%	59,319	59,319	57,619	58,635	59,342	707	(23)	Systemwide	01/00/1900	08/21/2015		Maxey, Darrell	PTC - Systemwide Indirect	PTC more complex & difficult than originally envisioned in 2009. Industry delays. Major PTC System-wide milestone payment in-process, on-going efforts for spectrum, documentation, warranty, upgrades, close-out
409006	59.49%	48.00%	75.65%	22,498	21,881	16,552	13,018	21,881	8,863	-	Valley	10/01/2008	10/31/2016		Althorp, Andrew	Empire Avenue - I-5 HOV Lanes	Caltrans suspended Contractor for 14 months and issued CCOs to add a further 8 months to schedule. SCRRA and supporting CM Team have continued to provide support throughout delay period, increasing expenditure v original budget
610001/RotemProd	-	100.00%	-	-	-	-	-	-	-	-	Systemwide	04/13/2006	04/30/2012		Tripoli, Richard	Rotem Option 3	Complete
611001/RotemProd	103.11%	100.00%	101.63%	35,333	31,671	31,256	31,710	30,754	(956)	917	Systemwide	05/13/2006	02/01/2013		Tripoli, Richard	Rotem Option 4	Complete
7	95.03%	96.48%	97.99%	342,895	359,241	351,153	340,540	358,347	17,808	894							
613001/EMD_F125	13.92%	14.00%	29.87%	10,474	10,474	3,128	1,458	10,474	9,016	(0)	Systemwide	12/01/2011	05/30/2017		Cook, Mike	Loco Tier 4 - Staff Oversight and Prof Svcs	On Schedule
613002/EMD_F125	100.00%	23.25%	100.00%	12,307	12,307	12,307	12,307	12,307	-	-	Systemwide	04/02/2012	05/17/2017		Cook, Mike	Loco Tier 4 - EMD Design/Construct Diesel Engine	On Schedule.
613003/EMD_F125	4.03%	4.00%	4.03%	12,404	12,404	500	500	12,404	11,904	-	Systemwide	05/01/2012	05/17/2017		Cook, Mike	Locomotive Tier 4 - EMD System Support	On Schedule
613005/EMD_F125	14.93%	23.25%	14.93%	113,593	113,593	16,965	16,965	113,593	96,628	-	Systemwide	04/02/2012	05/17/2017		Cook, Mike	Loco Tier 4 - EMD Design/Construct Diesel Engine	On Schedule.
613006	9.28%	25.00%	12.49%	1,606	1,606	201	149	1,606	1,457	-	Systemwide	07/01/2014	07/15/2016		Patel, Naresh	Locomotive Tier 4 - Urea Dispensing System	Delayed -the process to obtain DBE goal from the Consultant took a few weeks more than expected. This project was also combined with Sanding Facility at CMF and required three additional weeks. Currently design 100% complete, IFB is out.
5	20.87%	21.04%	22.01%	150,384	150,384	33,101	31,379	150,384	119,005	(0)							
414002	0.29%	1.00%	3.05%	17,227	17,227	526	50	17,227	17,178	(0)	Valley	02/02/2015	09/29/2016		Lun, Elizabeth	Vincnt Siding & Vincnt/Acton Stn 2nd Platfrm Const	On Schedule. Construction NTP to be issued end of July 2015.
1	0.29%	1.00%	3.05%	17,227	17,227	526	50	17,227	17,178	(0)							
450010/PTC	89.59%	95.00%	91.47%	1,182	1,182	1,081	1,059	1,182	123	-	Systemwide	08/18/2009	10/30/2013		Maxey, Darrell	Signal Relocations	Signal work associated with PTC is substantially complete.
450015/PTC	102.27%	100.00%	102.47%	1,518	1,518	1,555	1,552	1,518	(34)	-	Systemwide	07/31/2009	12/31/2012		Maxey, Darrell	WIU's, Track Systems & Other Signal Mods	On Schedule.
450020/PTC	37.75%	40.00%	45.43%	11,508	11,508	5,228	4,344	11,508	7,164	-	Systemwide	05/28/2010	01/31/2014		Maxey, Darrell	Comm Backhaul - Systemwide	Communications backhaul portion complete, utilizing a portion of this funding for on-going PTC consultant efforts and awaiting FCC action on spectrum acquisition for balance of budget
450040/PTC	50.22%	50.00%	50.22%	10	10	5	5	10	5	(0)	Systemwide	01/04/2010	09/26/2013		Maxey, Darrell	RR's & Other Outside Agency Work Orders	Minor buget item held for interoperability costs with freights, Amtrak
450050/PTC	101.43%	100.00%	100.08%	14,731	14,731	14,686	14,883	14,673	(209)	57	Systemwide	06/10/2009	10/31/2014		Maxey, Darrell	Construct DOC & MOC Mods	On Schedule.
450051/PTC	33.83%	50.00%	33.83%	398	398	135	135	398	264	-	Systemwide				Maxey, Darrell	DOC Data Center	Data center-related work at new PTC Dispatch Facility (DOC) expenditures in-process
450090/PTC	90.52%	90.00%	99.82%	120,488	120,488	120,265	109,065	120,488	11,422	-	Systemwide	01/00/1900	08/21/2015		Maxey, Darrell	PTC Vendor/Integrator	Major PTC System-wide milestone payment in-process, on-going efforts for interoperable testing, documentation, warranty, upgrades, close-out
450095/PTC	83.94%	83.00%	85.84%	5,153	5,153	4,423	4,325	5,153	828	-	Systemwide	10/16/2010	08/21/2015		Maxey, Darrell	Wabtec TMDS CAD/BOS for PTC	Major PTC System-wide milestone payment in-process, on-going efforts for industry-driven IC3 component, upgrades & close-out
450096/PTC	23.31%	50.00%	99.96%	2,180	2,180	2,179	508	2,180	1,671	-	Systemwide	10/16/2010	08/21/2015		Maxey, Darrell	Wabtec TMDS CAD/BOS for PTC	Major PTC System-wide milestone payment in-process, on-going efforts for industry-driven IC3 component, upgrades & close-out
450097/PTC	53.01%	25.00%	75.27%	382	382	287	202	382	179	-	Systemwide				Maxey, Darrell	Customer Information System (CIS)	New CIS deployment underway
450098/PTC	65.56%	60.00%	99.17%	5,453	4,096	4,062	2,686	4,096	1,411	-	Systemwide				Maxey, Darrell	PTC - Systemwide	PTC on-going staff and consultant support for spectrum, documentation, warranty, upgrades, close-out; delayed by industry.
11	85.88%	85.70%	95.25%	163,001	161,644	153,906	138,764	161,587	22,823	57							
24	74.28%	75.06%	78.35%	673,508	688,497	538,686	510,732	687,546	176,814	951							

METROLINK EXPECTED 5-YEAR PROJECTS for REHABILITATION
CONSTRAINED to \$30M PER YEAR
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)

Attachment 2
Item B.1

Project Type	REHABILITATION PROJECT DESCRIPTION	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	TOTAL
		(Yr-1 Budget)	(Yr-2)	(Yr-3)	(Yr-4)	(Yr-5)	5-Years
Communications	Comm system rehab SG, Valley, Ven-LA and River sub (Constrained)	\$153	\$504	\$504	\$504	\$811	\$2,476
Facilities	Facilities maintenance (Partially constrained)	\$171	\$2,320	\$913	\$919	\$688	\$5,011
Vehicles	MOW & field vehicle replacement (Constrained - Metro share only)	\$314	\$190	\$190	\$190	\$190	\$1,074
Rolling Stock - Locomotives	Member share of locomotives in FY 16 & 18, and Lifecycle OH of F125s (Metro share only)	\$3,499	\$570	\$3,117	\$2,072	\$2,380	\$11,638
Rolling Stock - Rail Cars	Overhaul 30 Gen-1 Rail Cars in FY 16, and routine rail car rehab.	\$7,874	\$1,654	\$1,654	\$1,654	\$1,462	\$14,298
Train Control signal	Wayside signal maint, PTC system upgrades, including Pasadena sub cables, and cable & electrologic rehab on Valley, Ventura, SG and River subs. (Partially constrained).	\$2,428	\$4,198	\$4,428	\$4,198	\$5,081	\$20,333
Stations	Station signage rehab in FY 16	\$67	\$67	\$67	\$67	\$67	\$335
Structures	Valley, SG ,Ventura-LA, River and Pasadena sub bridges/culverts. Constrained by year.	\$1,968	\$10,427	\$6,826	\$7,712	\$7,259	\$34,192
Track	Rail grinding, rail/ties/crossings, tunnel 25 rehab. Restore partial track rehab on Valley, Ven-LA, and River subs. (Partially constrained).	\$3,527	\$10,448	\$10,413	\$11,287	\$10,579	\$46,253
	TOTAL	\$20,000	\$30,378	\$28,113	\$28,603	\$28,516	\$135,610

Note:

1) Under this scenario, the backlog of unmet State of Good Repair needs continues to grow.

**METROLINK EXPECTED 5-YEAR NEW CAPITAL PROJECTS
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)**

Attachment 2

Item B.2

47.5%

Item #	Project Type	Subdivision	NEW CAPITAL PROJECT DESCRIPTION	FY 2016 (Yr-1 Budget)	FY 2017 (Yr-2)	FY 2018 (Yr-3)	FY 2019 (Yr-4)	FY 2020 (Yr-5)	TOTAL
1	Studies	Ventura Sub, Valley, San Gabriel, East and West Bank	New Capital Project Studies	\$475	\$475	\$475	\$475	\$475	\$2,375
2	Rolling Stock	Valley, Ventura and Systemwide	Up to Three Expansion Locomotives	\$2,151					\$2,151
3	Track	AV Line	San Bernardino Line Grade Xing Improvements Ramona (Baldwin Pk) and Citrus (Covina) and Speed Increases at CP Soledad	\$8,000					\$8,000
4		Valley, Ventura, SB and Systemwide	Procure and install 58 ticket vending machines in LA County	\$12,984					\$12,984
5	Track	Valley Sub	Santa Clarita to Newhall Double Track, 4.2 miles		\$10,050	\$10,050	\$10,050	\$10,050	\$40,200
6	Track	Valley Sub	Track Modifications (Tunnels 18&19), MP 45.9-456.9 Track Shift 1750 ft and MP 46.9-47.1, 1000 ft track shift		\$180	\$180	\$180	\$180	\$720
7	Maintenance & Layover Facility	Valley Sub	New layover facility in Palmdale - build out 5 tracks, fuel, lighting, sewer connections, safety features, and potable water		\$60	\$60	\$60	\$60	\$238
8	Track	San Gab Sub - LA Share Only 47.5% Shown Here	EMF Additional Storage Tracks		\$470	\$470	\$470	\$470	\$1,880
9	Track	San Gab Sub - LA Share Only 47.5% Shown Here	EMF SKI Tracks- add 2 SKI tracks at EMF, install dump stations and potable water		\$705	\$705	\$705	\$705	\$2,820
10	Track	Valley Sub	Palmdale Passing Siding between MP 69.3 and MP 69.9		\$1,750	\$1,750	\$1,750	\$1,750	\$7,000
11	Track	Ventura	Burbank Junction Track Realignment- realignment and hi-speed switches at juntio used by Metrolink, Surfliner and Amtrak long distance trains		\$2,250	\$2,250	\$2,250	\$2,250	\$9,000
12	Track	Valley Sub	Glendale Slide relocation - relocated existing UPRR storage. Slide relocation to support HSR.		\$825	\$825	\$825	\$825	\$3,300

**METROLINK EXPECTED 5-YEAR NEW CAPITAL PROJECTS
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)**

Attachment 2

Item B.2

47.5%

Item #	Project Type	Subdivision	NEW CAPITAL PROJECT DESCRIPTION	FY 2016 (Yr-1 Budget)	FY 2017 (Yr-2)	FY 2018 (Yr-3)	FY 2019 (Yr-4)	FY 2020 (Yr-5)	TOTAL
13	Track	San Gab Sub - LA Share Only 47.5% Shown Here	Lone Hill to CP White Double Track - MP 26.54 to MP 30.3		\$17,000	\$17,000	\$17,000	\$17,000	\$68,000
14	Grade Crossings	San Gab Sub - LA Share Only 47.5% Shown Here	Station Signage and Ped Gates, including El Monte and Covina		\$1,215	\$1,215	\$1,215	\$1,215	\$4,860
			TOTAL	\$23,610	\$34,980	\$34,980	\$34,980	\$34,980	\$163,528

Cameras at Stations in LA County Not Included as funds are SCRRA Prop 1B CTS GP. Total cost is estimated to be \$2.8 million

**METROLINK BACKLOG of STATE OF GOOD REPAIR NEEDS
ESTIMATED BACKLOG (\$K)**

**Attachment 2
Item C.1**

Line	Project Type	Subdivision	Rehabilitation Project Description	Action	Cost Estimate
1	Signal	Pasadena	Install direct buried cable to replace dilapidated pole line. Pole line is being vandalized to the point of disrepair. Upgrade grade crossing predictor units, coded track and AC meter services at selected locations.	Delete undergrounding project. Repair as needed in maintenance budget. Future incremental rehab in 10-yr forecast.	\$6,471
2	Signal	Pasadena	Install signal replacement h/w and s/w for wayside signals, CPs and crossings, gate savers, and backup battery banks.	Partially funded in FY 13 and 15. Balance is backlog. Future years in 10-yr forecast.	\$850
3	Structures	Pasadena	Replace rail top bridge at 108.92 and steel through girder at 112.5	Bridges are in 10-yr forecast in FY17 & 18.	\$2,620
4	Structures	Pasadena	Replace wood box and brea pipe culverts.	Culverts are in 10-yr forecast in FY17 and future.	\$1,250
5	Track	Pasadena	Replace timber crossties - 6,000 ties (3,000 per year). Defer 3,000 ties to FY 14-15	50% of project moved to FY 15, then not funded and carried as backlog. Annual tie replacement included in 10-yr forecast.	\$750
6	Comm	San Gabriel	Comm system h/w and s/w to keep wayside and mountain-top systems in a state of good repair, including design and engineering.	Funded in FY 16. Comm system Included in 10-yr forecast. Daktronic/PA in 10-yr unconstrained fcst.	\$315
7	Signal	San Gabriel	Install signal replacement h/w and s/w for wayside signals, CPs and crossings, gate savers, and backup battery banks.	Partially funded in FY 15 and 16. Balance is backlog. Future years in 10-yr forecast.	\$1,230
8	Structures	San Gabriel	Replace high-priority bridge on the San Gabriel sub in LA County at MP 20.096. Focus in on aging rail-top bridges.	Bridge not funded in prior years. Included in 10-yr forecast in FY19.	\$770
9	Track	San Gabriel	Rehab rail on curves 7 (2.45-2.7), 12 (4.05-4.15), 15 (6.0-6.25), 16 (6.3-6.4), 23 (11.75-11.95) in 15/16. Annual replacement of rail, ties, turnouts, crossings, and rail grinding in backlog.	\$883K of curve repl funded in FY 15. Rail rehab partially funded in FY16. Future annual rail replacement included in 10-yr forecast.	\$2,239
10	Comm	Valley	Comm system h/w and s/w to keep wayside and mountain-top systems in a state of good repair, including design and engineering. Rehab Daktronic and PA at 1 station/yr.	Funded in FY 16. Comm system Included in 10-yr forecast. Daktronic/PA in 10-yr unconstrained fcst.	\$1,200

**METROLINK BACKLOG of STATE OF GOOD REPAIR NEEDS
ESTIMATED BACKLOG (\$K)**

**Attachment 2
Item C.1**

Line	Project Type	Subdivision	Rehabilitation Project Description	Action	Cost Estimate
11	Signal	Valley	Rehab HB/HW/DE/combo AEI wayside detectors. Install comm link to MOC dispatch. Install signal replacement h/w and s/w for wayside signals, CPs and crossings. Rehab gate savers, and backup battery banks.	Partially funded in FY13 through 16. Balance is backlog. Future years Included in 10-year forecast.	\$4,117
12	Structures	Valley	Replace high-priority bridges on the Valley sub at MP 10.63, 25.71, 48.21, 50.51, 50.64, 47.03, 50.77, 47.33, 48.08, 44.38, 54.05, 8.41, 52.66, 47.45, 55.19, 46.91, 8.12, 47.83. Focus is on aging rail-top bridges.	Bridge 26.42 funded FY 15, 35.75 & 50.46 funded in FY 16. Remaining bridges in 10-Yr forecast in FY17 thru 20.	\$15,630
13	Structures	Valley	Replace high-priority culverts on the Valley sub, with a focus on replacement of aging wood box, corrugated pipe and cast iron pipe.	3 culverts in FY 14, 2 in FY 15. Remaining culverts in 10-Yr rehab forecast in FY 17 thru 20	\$6,620
14	Track	Valley	MoW Replace 17 miles aged rail and rehab ties (MPs 2.1-4.9, 6.2-10.7, 24.7-26.3, 33.4-34.7, 35-35.7, 36.2-36.5, 40.6-41.4, 41.7-43.5, 49.7-52.5), plus curves 135 (58.55-58.85) and 150 (63.8-64.4).	Rail & tie replacement to be funded in annual increments as funds are available. Track rehab included in 10-yr forecast.	\$21,000
15	Track	Valley	Rehab crossings @ Sierra Hwy, Astoria, Drayton, & Brand.	Originally requested in FY 14. Deferred to future FYs, then not funded. Crossing rehab included in 10-yr forecast.	\$1,200
16	Track	Valley	Tunnel 25: install new ties, new drainage, new ballast, major drainage modifications and additional rock bolts.	Tunnel trackbed has been maintained by vacuuming every other year . Trackwork and drainage mods in 10-yr forecast in FY17.	\$3,500
17	Comm	Ventura LA	Comm system h/w and s/w to keep wayside and mountain-top systems in a state of good repair, including design and engineering. Rehab Daktronic and PA at 1 station/yr.	Funded in FY 16. Comm system Included in 10-yr forecast. Daktronic/PA in 10-yr unconstrained fcst.	\$713
18	Signal	Ventura LA	Rehab existsting wayside detectors. Install comm link to MOC/dispatch. Install signal replacement h/w and s/w for wayside signals, CPs and crossings. Rehab gate savers and backup battery banks.	Partially funded in FY13 through 16. Balance is backlog. Future years Included in 10-year forecast.	\$2,927
19	Structures	Ventura LA	Replace high-priority bridges on the Ventura sub in LA County at 452.1, 458.71, 457.6, 458.57.	Bridges are in 10-yr rehab forecast in FY17 & 19.	\$4,520
20	Structures	Ventura LA	Replace culvert 443.77 .	Culvert is in 10-yr rehab forecast in FY19.	\$490

**METROLINK BACKLOG of STATE OF GOOD REPAIR NEEDS
ESTIMATED BACKLOG (\$K)**

**Attachment 2
Item C.1**

Line	Project Type	Subdivision	Rehabilitation Project Description	Action	Cost Estimate
21	Track	Ventura LA	Replace crossties - (LA County)	No tie work funded FY 12-13 through FY 15-16. Rail/ties included in 10-yr forecast.	\$2,051
22	Track	Ventura LA	Replace rail on curves 130 & 221,222,223 - (LA County). Replace turnouts @ Woodman, Bernson, Raymer (FY 15)	Curve 130 budgeted FY 14. Other rail rehab not funded. Included in 10-yr forecast.	\$875
23	Comm	zRiver	Comm system h/w and s/w to keep wayside and mountain-top systems in a state of good repair, including design and engineering. (Metro's share only).	Funded in FY 16. Comm system Included in 10-yr forecast.	\$88
24	Signal	zRiver	Rehab CP First St, and upgrade electrocode (13-14). Selectively rehab Electrologic w/ VHLC, Battery Replacement, Cable renewal, Gate Savers, EC4 to EC5, rehab M23A switches, and gate rehabilitation. (Metro's share only).	Partially funded in FY13 through 16. Balance is backlog. Future years Included in 10-year forecast.	\$1,810
25	Structures	zRiver	Paint thru truss bridge at 0.81, and repair bridge at 480.82. (Funding is Metro's share only).	Bridges are in 10-yr rehab forecast in FY19 & 20..	\$903
26	Track	zRiver	Rehab turnouts @ E. Bank, Capitol, Ormiston. Annual replacement of rail, ties, turnouts, crossings and rail grinding in backlog (Metro's share only).	Turnout rehab E.Bank, Capitol, Ormiston not funded. Future annual rail replacement included in 10-yr forecast.	\$1,739
27	Track	zRiver	East Bank - Relay worn rail & crossties (delta between original ask and FY 15 budget, Metro's share only).	Original request \$6.3M. Funded \$3.4M in FY 15. Rehab included in 10-yr forecast.	\$618
28	Vehicles	zSystemwide	Replace high-mileage MOW and field vehicles (Metro share only).	FY13 partially funded, FY 14 funded. FY 15 and 16 not funded and carried in backlog.	\$472
29	Vehicles	zSystemwide	Replace hyrail and boom lift, replace (2) manlifts (Metro share only).	In 10-yr forecast FY17 and FY18.	\$329
30	Facilities	zSystemwide	Replace CMF compressed air system, rehab CMF elevator, rehab MOW building HVAC, replace CMF 25 ton car jacks, upgrade welfare facilities at CMF, rehab control center systems at DOC, MOC & Melbourne (Metro share only)	In 10-yr forecast FY17 and FY18.	\$884

**METROLINK BACKLOG of STATE OF GOOD REPAIR NEEDS
ESTIMATED BACKLOG (\$K)**

**Attachment 2
Item C.1**

Line	Project Type	Subdivision	Rehabilitation Project Description	Action	Cost Estimate
31	Rolling Stock - Locomotives	zSystemwide	Overhaul 7 EMD F59 PHR units (3 in 17, 4 in 18) and upgrade to Tier-4. (\$4.4M/unit). Top deck, wheel/axel, traction motor, and other rehab starts in 2020. TO BE APPLIED TO NEW LOCOMOTIVE PURCHASE (Metro's share only)	Budgeted in FY 16, remaining balance in 10-yr forecast FY18.	\$1,045
32	Rolling Stock - Rail Cars	zSystemwide	Complete overhaul of Gen 1 rail cars, including CEM components, and interior components for longer-distance trips. (88 cars @ \$1.35M/car). (Metro share only).	Overhaul of 30 cars budgeted in FY 16. Remaining 58 cars in 10-yr forecast FY 17 & 18.	\$37,193
33	Rolling Stock - Rail Cars	zSystemwide	Complete Overhaul of 7 Gen-2 Bombardier rail cars (7 cars @ \$1.35M/car). (Metro share only).	In 10-yr forecast FY19.	\$4,489
34	Rolling Stock - Rail Cars	zSystemwide	Complete Overhaul of 26 Gen-3 Bombardier rail cars (26 cars @ \$1.35M/car). (Metro share only).	In 10-yr forecast FYs 20 & 21..	\$16,673
35	Rolling Stock - Rail Cars	zSystemwide	Overhaul Bombardier car door motors, batteries, trucks, HVAC, and window gaskets. (Metro share only).	In 10-yr forecast FYs 17, 18, 19.	\$1,654
36	Track	zSystemwide	Rehabilitate ped crossings at 52 stations. (Metro share only).	In 10-yr forecast FY 17.	\$120
			TOTAL ESTIMATED BACKLOG - LA		\$149,351

Notes:

- 1) This Backlog estimate represents currently unfunded rehabilitation work needed to maintain assets in at State of Good Repair.
- 2) The Backlog estimate contains rehabilitation work in Los Angeles County, and LACMTA's share of Systemwide projects.
- 3) Projects on the Backlog list also appear on the Metrolink Unconstrained 5-Year Rehabilitation Forecast. In many cases, these projects will also appear on the Metrolink Financially Constrained 5-Year Rehabilitation Forecast.
- 4) This Backlog estimate assumes LACMTA funds the FY 2016 Rehabilitation budget @ \$20M.

METROLINK 5-YEAR REHABILITATION FORECAST
CONSTRAINED by SAFETY PRIORITY
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)

Attachment 2
 Item C.2

Project Type	REHABILITATION PROJECT DESCRIPTION	FY 2016 (Yr-1 Budget)	FY 2017 (Yr-2)	FY 2018 (Yr-3)	FY 2019 (Yr-4)	FY 2020 (Yr-5)	TOTAL 5-Years
Communications	Comm system rehab SG, Valley, Ven-LA and River sub	\$153	\$504	\$504	\$504	\$811	\$2,476
Facilities	Facilities maint (mimumum level)	\$171	\$318	\$318	\$214	\$214	\$1,235
Vehicles	MOW & field vehicle replacement	\$314	\$190	\$190	\$190	\$190	\$1,074
Rolling Stock - Locomotives	Member share of locomotives in FY 16 & 18, and minimal annual maintenance	\$3,499	\$570	\$1,615	\$570	\$570	\$6,824
Rolling Stock - Rail Cars	Overhaul 30 Gen-1 rail cars - FY 16	\$7,874	\$0	\$0	\$0	\$0	\$7,874
Train Control Signal	Wayside signal rehab & PTC upgrades	\$2,428	\$1,717	\$1,947	\$1,717	\$2,600	\$10,409
Stations	Station signage rehab - FY 16	\$67	\$0	\$0	\$0	\$0	\$67
Structures	Valley, San Gabriel, Ventura-LA, River sub bridges/culvert rehab	\$1,968	\$9,077	\$6,726	\$6,847	\$7,159	\$31,777
Track	Rail grinding, rail/ties/crossings, tunnel 25 rehab	\$3,527	\$7,624	\$8,771	\$10,012	\$8,456	\$38,389
	TOTAL FINANCIALLY CONSTRAINED	\$20,000	\$20,000	\$20,072	\$20,053	\$20,000	\$100,125

	UNCONSTRAINED BALANCE	\$0	\$39,346	\$33,377	\$34,170	\$34,763	\$141,655
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	GRAND TOTAL (CONSTRAINED + UNCONSTRAINED)	\$20,000	\$59,346	\$53,448	\$54,223	\$54,763	\$241,780
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Notes:

- 1) Highest project priority: Locomotives and structure (bridges & culverts), followed by track and signal, constrained at \$20M/year.
- 2) For this forecast, Metro's share of Systemwide projects is based on the existing All-Share formula (47.5%). Metro's percentage will likely decline when the All-Share formula is revised to include PVL.
- 3) This forecast includes estimated requirements for Metro funding. Funding from other Member Agencies, and other grantors is not included.

METROLINK 5-YEAR REHABILITATION FORECAST - UNCONSTRAINED
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)

Attachment 2
 Item C.3

Project Type	REHABILITATION PROJECT DESCRIPTION	FY 2016 (Yr-1 Budget)	FY 2017 (Yr-2)	FY 2018 (Yr-3)	FY 2019 (Yr-4)	FY 2020 (Yr-5)	TOTAL 5-Years
Communications	Comm system rehab SG, Valley, Ven-LA and River sub	\$153	\$804	\$804	\$804	\$1,111	\$3,676
Engineering	Planning SOGR projects from concept to 5-20% design.	\$0	\$238	\$238	\$238	\$238	\$950
Vehicles	MOW & Field vehicles, MOW on-track equipment	\$314	\$836	\$836	\$421	\$516	\$2,924
Facilities	Facilities and equipment rehab and replacement	\$171	\$5,354	\$3,763	\$919	\$668	\$10,875
Fare Collection	Fare Collection system upgrades to maintain system reliability & SOGR.	\$0	\$100	\$100	\$100	\$100	\$399
Information Tech	Transit Asset system upgrades, Oracle upgrades	\$0	\$998	\$523	\$48	\$48	\$1,615
Rolling Stock - Locomotives	LA Share of new locomotives & ongoing locomotive rehab	\$3,499	\$570	\$3,118	\$3,576	\$3,883	\$14,646
Rolling Stock - Rail Cars	Overhaul all Gen-1, Gen-2 & Gen-3 rail cars, & ongoing rehab car rehab	\$7,874	\$11,273	\$13,005	\$17,570	\$20,484	\$70,206
Safety	Rehab ped crossings at stations, replace "No Trespassing" signs	\$0	\$191	\$71	\$71	\$71	\$405
Train Control Signal	Wayside signal maint & PTC system upgrades	\$2,428	\$7,101	\$9,612	\$7,101	\$5,458	\$31,700
Stations	Station signage repair	\$67	\$67	\$67	\$67	\$67	\$333
Structures	Valley, San Gabriel, Ventura-LA, River & Pasadena sub bridges/culvert rehab	\$1,968	\$10,427	\$6,826	\$7,712	\$7,259	\$34,192
Track	Rail grinding, rail/ties/crossings, tunnel 25 rehab	\$3,527	\$21,388	\$14,487	\$15,597	\$14,862	\$69,861
	TOTAL UNCONSTRAINED	\$20,000	\$59,346	\$53,448	\$54,223	\$54,763	\$241,780

METROLINK 5-YEAR SAFETY NEEDS SUMMARY
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)

Attachment 2

Item C.4

Item #	Project Type	Subdivision	SAFETY PROJECT DESCRIPTION	FY 2016 (Yr-1 Budget)	FY 2017 (Yr-2)	FY 2018 (Yr-3)	FY 2019 (Yr-4)	FY 2020 (Yr-5)	TOTAL
1	Hard Fencing	Ventura Sub (LA Co only)	8.61 miles of welded wire mesh right-of-way fencing		\$575	\$575	\$575	\$575	\$2,300
2	Hard Fencing	Valley Sub	36.12 miles of welded wire mesh right-of-way fencing		\$2,325	\$2,325	\$2,325	\$2,325	\$9,300
3	Hard Fencing	San Gabriel - (LA Co only)	2.45 miles of welded wire mesh right-of-way fencing		\$188	\$188	\$188	\$188	\$750
4	Hard Fencing	East and West Banks (LA Share - 47.5% shown here)	1.25 miles of welded wire mesh right-of-way fencing		\$60	\$60	\$60	\$60	\$238
5	Virtual Fencing	Ventura Sub (LA Co only)	2.87 miles of intrusion detection equipment for right-of way		\$1,500	\$1,500	\$1,500	\$1,500	\$6,000
6	Virtual Fencing	Valley Sub	12.04 miles of intrusion detection equipment for right-of way		\$6,250	\$6,250	\$6,250	\$6,250	\$25,000
7	Virtual Fencing	San Gabriel - LA (60%)	0.82 miles of intrusion detection equipment for right-of way		\$425	\$425	\$425	\$425	\$1,700
8	Virtual Fencing	East and West Banks (LA Share - 47.5% shown here)	0.42 miles of intrusion detection equipment for right-of way		\$119	\$119	\$119	\$119	\$475
9	Cameras in Passenger Cars	Systemwide (LA Share 47.5% shown here)	Cameras in passenger cars: four cameras per passenger car, all current 224 passenger cars outfitted		\$3,086	\$3,086	\$3,086	\$3,086	\$12,342
10	Grade Crossings	Ventura Sub (LA Co only)	29 Sealed Corridor grade xing improvements and cameras and license plate readers and 7 grade separations with cameras		\$123,750	\$123,750	\$123,750	\$123,750	\$495,000
11	Grade Crossings	Valley Sub	26 Sealed Corridor grade xing improvements and cameras and license plate readers and 4 grade separations with cameras		\$82,500	\$82,500	\$82,500	\$82,500	\$330,000
12	Grade Crossings	San Gabriel - (LA Share only)	44 Sealed Corridor grade xing improvements and cameras and license plate readers and 3 grade separation with cameras		\$92,500	\$92,500	\$92,500	\$92,500	\$370,000
13	Layover Facility	Valley Sub	Lang Layover facility enhancements including automated driveway gate with access controls, video camera monitoring system, lighting improvements and perimeter enclosure		\$225	\$225	\$225	\$225	\$900
14	Layover Facility	San Gabriel - LA Share -Only - All Share - 47.5% shown here	Garey Street Track Maintenance facility enhancements including automated driveway gate with access controls, video camera monitoring system, lighting improvements and perimeter enclosure		\$238	\$238	\$238	\$238	\$950

METROLINK 5-YEAR SAFETY NEEDS SUMMARY
LA METRO SHARE in CONSTANT 2015 DOLLARS (\$K)

Attachment 2
 Item C.4

Item #	Project Type	Subdivision	SAFETY PROJECT DESCRIPTION	FY 2016 (Yr-1 Budget)	FY 2017 (Yr-2)	FY 2018 (Yr-3)	FY 2019 (Yr-4)	FY 2020 (Yr-5)	TOTAL
15	Maintenace & Layover Facility	SB Shortway - LA Share Only - All Share 47.5% shown here	EMF enhancements including automated driveway gate with access controls, video camera monitoring system, lighting improvements and perimeter enclosure		\$188	\$188	\$188	\$188	\$750
16	Maintenace & Layover Facility	East and West Banks LA Only - All Share - 47.5% shown here	CMF, Keller and Day Yard Facilities enhancements including automated driveway gate with access controls, video camera monitoring system, lighting improvements and perimeter enclosure		\$327	\$327	\$327	\$327	\$1,306
17	Tunnels	Ventura Sub (LA Co only)	Video camera monitoring system for each end of Tunnels 18&19		\$8	\$8	\$8	\$8	\$30
18	Tunnels	Valley Sub	Video camera monitoring system for each end of Tunnels 28		\$150	\$150	\$150	\$150	\$600
			TOTAL		\$314,410	\$314,410	\$314,410	\$314,410	\$1,257,641