

CC #7



REVISED

CONSTRUCTION COMMITTEE OF:  
JANUARY 21, 1998

Los Angeles County  
Metropolitan  
Transportation  
Authority

**PROJECT: METRO RED LINE, VERMONT/  
HOLLYWOOD CORRIDOR PROJECT  
(SEGMENT 2)**

**ACTION: PROJECT BUDGET INCREASE**

One Gateway Plaza  
Los Angeles, CA  
90012

**RECOMMENDATION**

213,922.6000

Approve:

Mailing Address:  
P.O. Box 194  
Los Angeles, CA 90053

- a) an increase in the Project Budget Construction Line Item in the amount of \$13,722,954 (See Attachment 1 for detail);
- b) an increase in the Project Budget Agency and Professional Services Line Items in the amount of \$39,751,347 (See Attachment 1 for detail);
- c) an increase in the Project Budget Contingency Line Item in the amount of \$7,890,297 (See Attachment 1 for detail) for Project Contingency;
- d) the establishment of a Claims Contingency Line Item in the amount of 19,699,000 (See Attachment 1 for detail), with drawdown subject to all applicable Office of Procurement policies and procedures;
- e) miscellaneous other minor adjustments in budget line items aggregating a credit of \$1,099,598 (See Attachment 1 for detail) which, when taken together with a) through d) above, will increase the Project Budget a total of \$79,964,000 from \$1,640,781,000 to \$1,720,745,000; and
- f) a request to the Federal Transit Administration to modify the Full Funding Grant Agreement (FFGA) Revenue Operations Date from December 31, 1998 to February 20, 1999.

**MERIT**

The recommended action will support the completion of the Project, provide funding for agency overhead charges to the Project, Construction and Professional Services costs, address anticipated successful contractor claims, and achieve the lowest cost, acceptable risk Revenue Operations Date. At this time, there is inadequate unallocated Project Contingency available to complete the work and there are no funds in the Project Reserve Account.

## BACKGROUND

The current Project Budget was approved by the Board of Directors in February 1996 in the amount of \$1,640,781,000. In early 1997, the Project team became concerned that insufficient funds remained in that project budget to complete construction and settle outstanding and anticipated claims. Thus, in March 1997, an item entitled "Project Cost Forecast" was entered into the Management Issues section of the Monthly Project Status and Rail Program Status Executive Reports. This item warned of Project Management's concern that the project budget might be inadequate and stated that each contract and cost center was being evaluated for cost to complete. In May, a second item was added which discussed Project Management's concern with the Agency overhead charges which were being assessed to the project. This item is discussed further below. Project staff continued to assess the costs to complete, including such items as the impacts of a revised insurance program, the new contract with the Engineering Management Consultant, and various changes to the MTA organization.

In June 1997, Project Management began forecasting elements of an overrun to the Project Budget in the reports listed above. In the subsequent three months, as additional information became available, the forecast was more fully developed. In October, the Chief Executive Officer (CEO) was given a detailed briefing of the expected cost to complete, but not informed that the Board had no knowledge of the actual amount. As a result, at the December Construction Committee meeting, the CEO advised the Committee that an overrun would occur and indicated detailed information would be provided subsequently.

The FFGA budget with the Federal Transportation Authority (FTA) is for \$1,446,432,000. This agreement was approved in April 1990. In 1992, the former LACTC Board added \$71,225,770 to the project in order to comply with the new Americans With Disabilities Act (ADA), to develop station entrance enhancements, and add entrances at L.A. City College and Kaiser Hospital. That action raised the approved budget to \$1,517,657,770. In February 1996, the Project Budget was increased by \$123,100,000 in order to fund costs associated with the termination of the B251 Tunnel Contractor and increase in hazardous materiel disposal, construction costs and professional services costs. That action revised the approved budget to \$1,640,781,000.

The costs described within this report can be divided into five general categories:

### Construction and Related Items - Lines 01 Through 10 and 21, 23, 25 and 26 of Attachment 1

There are several items which contribute to the \$13.7 million increase in Construction costs (Lines 01 through 10, Attachment 1). Among these are increases to station contracts, hazardous materials, system electrification, and systemswide equipment. Staff contemplated a reduction in the Metro ART budget (Line 26, Attachment 1), however, Board policy directs that .5% of the construction budget be allocated to fund project Metro ART. Management intends to review the impact of this policy. Any costs over the budget in the pending Contract B263 Kaiser

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Entrance construction contract will be brought to the Board in the future, after evaluation by the Chief Executive Officer. Currently, the budget includes, among other costs, \$6.8 million for construction of the Kaiser entrance and \$1.2 million for entrance engineering and engineering support during construction. Based upon the apparent low bid for this work, the construction budget for the entrance may require an increase of \$3.0 million. The contract award is still in the MTA's pre-qualification process.

Agency Cost Growth - Line 19 of Attachment 1

The original Agency budget (Line 19, Attachment 1), established in the FFGA, was established at 4% of the Project's total budget. This budget included the direct labor, fringe benefits and overhead. The direct construction division staffing levels projected at that time have remained accurate. There has been an increase in non-construction support staff, partially as a result of legislative requirements, which has resulted in increased audit, legal and procurement staff. More significantly, the agency overhead rate assessed to the project has been substantially higher than that planned for in the original budget. The increase was not included in previous cost projections because of the Construction Division's efforts to have the assessments lowered. These efforts were not successful. The result is an increase of \$23.8 million in the Agency forecast.

Professional Services Cost Growth - Lines 11 Through 13 of Attachment 1

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There are three components in the Professional Services budget: Design Engineering (Line 11, Attachment 1), Construction Management (Line 12, Attachment 1), and Other Professional Services (Line 13, Attachment 1). The Design Engineering budget will be increased \$5.8 million from \$171.4 to \$177.2 million. New Contract Work Orders have been negotiated and this appears to be an achievable figure. The Construction Management contract with Parsons-Dillingham is projected to increase by \$7.8 million to \$171.2 million, principally as a result of increased durations for various construction contracts, continuing high levels of effort on Requests for Information and Change Order processing requirements, and significant numbers of contractor claims. The Other Professional Services budget contains a large number of fairly small contracts. Among the larger contracts are those for Legal Services. Due to ongoing and expected litigation, an additional \$2.5 million has been allocated for outside counsel, after discussion with the Legal Department. This is partially offset by deductions in other contracts. In addition, an increase of \$1.1 million has been made for Configuration Management, related to the number of changes experienced by the Project. The result is an increase of \$2.4 million. Depending upon the success of negotiations versus litigation, the allowance for legal services may or may not be sufficient.

Contingency - Line 24 of Attachment 1

A contingency of \$8.0 million (five percent of remaining budget) has been added to the existing small remaining unallocated contingency to provide for unknown future costs.

### Claims Contingency - Line 24A of Attachment 1

The funds requested represents an allowance above the amounts already included in individual contracts' forecasts. This amount is composed of an allowance of \$22 million for contractors' claims, offset by anticipated liquidated damages imposed by MTA on contractors due to missed schedule milestones, for a total of \$19.7 million. Through November, a total of \$6.8 million in Liquidated Damages have been assessed against three Contractors. The \$19.7 million is an allowance, based on a historical percentage of claim amount versus actual settlement. Should this allowance be insufficient, the Board will be requested to increase the individual contract budgets at the time the Board is presented with the Board Report regarding the claim settlement.

Attachment 1 provides a detailed comparison of current budget to the proposed Estimate at Completion budget by project element.

Finally, in order to avoid costs associated with acceleration of contractor performance, a revised Revenue Operations Date of February 20, 1999, has been recommended which represents the least cost acceptable risk solution.

### **BUDGET IMPACT**

For the request contained herein, a funding plan has been developed that will support the schedule and provide adequate funding on an annual basis to meet the Project requirements.

Staff has analyzed the cash requirements on an annual basis and determined that Proposition A 35% Rail Capital will be the funding source to meet the additional requirements. Adequate Proposition A 35% rail bond capacity is available to provide the additional cash as required. A Project Expenditure Plan, by funding source, is shown in Attachment 2.

### **ALTERNATIVES CONSIDERED**

The Board has the option to disapprove the recommendation, which will result in having insufficient funds to complete the Project. The Full Funding Grant Agreement (FFGA) with the federal government and other funding partners requires prompt notification regarding any delay or modification to the Project.

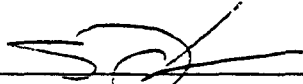
### **RISK**

Baring the unforeseen, the forecast values for the completion of the work appear to be achievable. The major risk is that the funding set aside for claims settlement, adverse judgements, and outside legal support in litigation may be insufficient.

ATTACHMENTS

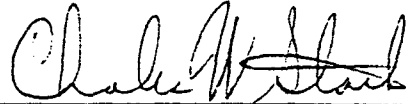
1. Estimate At Completion Comparisons
2. Project Expenditure Schedule

Prepared by:



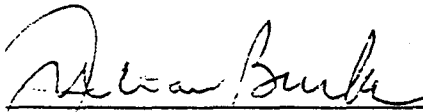
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STEPHEN J. POLECHRONIS  
Deputy Executive Officer, Construction  
Metro Red Line, Wilshire and Vermont/  
Hollywood Corridors



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CHARLES W. STARK  
Executive Officer, Construction



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ALLAN LIPSKY  
Office of the Chief Executive Officer

1/21/98

METRO RED LINE SEGMENT 2  
 COST GROWTH ANALYSIS  
 TOTAL GROWTH SCENARIO

Attachment 1

	CURRENT BUDGET  (A)	% TIC	ESTIMATE AT COMPLETION (B)	% TIC	DIFFERENCE: REV'D EAC vs. CURR.BDGT (C)=(B)-(A)	REMARKS
<b>"T" CONSTRUCTION</b>						
01 GUIDEWAYS/STRUCTURES	780,885,000		784,536,000		3,651,000	Increases to B241,B252, B261, B290; decreases to B241T,B281T, B271,B 201
02 MAINTENANCE FACILITIES	2,203,000		2,003,000		(200,000)	Anticipated cost
03 HAZARDOUS MATERIALS	25,348,000		28,136,000		2,788,000	EN025 Anticipated monitoring, contaminated materials disposal
04 UTILITY RELOCATION	650,000		650,000		0	Within budget
05 RAIL PASSENGER VEHICLES	58,057,000		57,690,000		(367,000)	Contract value; no changes anticipated.
06 ELECTRIFICATION	18,267,000		19,667,000		1,400,000	UPS and Traction Power increases
07 SYSTEMWIDE EQUIPMENT	87,255,500		93,818,000		6,562,500	Primarily ATC, radio and SCADA increases
08 TRACKWORK	30,675,000		30,564,000		(111,000)	Anticipated final cost
09 TESTING AND OPERATIONS	7,500,000		7,500,000		0	Within budget
10 OWNER'S INSURANCE	90,277,546		90,277,000		(546)	Current budget valid
<b>TOTAL ELEMENT "T"</b>	<b>1,101,118,046</b>	<b>67.1%</b>	<b>1,114,841,000</b>	<b>64.8%</b>	<b>13,722,954</b>	
<b>"S" PROFESSIONAL SERVICES</b>						
11 DESIGN ENGINEERING	171,400,402	10.4%	177,151,000	10.3%	5,750,598	Based on negotiated CWO
12 CONSTRUCTION MANAGMENT	163,403,000	10.0%	171,170,000	9.9%	7,767,000	Incurred to date plus anticipated costs to comp'n.
13 OTHER PROF'L SERVICES	22,059,251	1.3%	24,497,000	1.4%	2,437,749	Primarily Increased legal and Config Mgt costs
19 AGENCY COSTS	55,012,000	3.4%	78,808,000	4.6%	23,796,000	Increased overhead and support staff
<b>TOTAL ELEMENT "S"</b>	<b>411,874,653</b>	<b>25.1%</b>	<b>451,626,000</b>	<b>26.2%</b>	<b>39,751,347</b>	
<b>"R" REAL ESTATE</b>						
20 PROGRAM SERVICES	781,075		781,075		0	Within budget
21 ACQUISITIONS	87,016,925		87,004,925		(12,000)	Within budget
22 RELOCATIONS	290,000		290,000		0	Within budget
<b>TOTAL ELEMENT "R"</b>	<b>88,088,000</b>	<b>N/R</b>	<b>88,076,000</b>	<b>N/R</b>	<b>(12,000)</b>	
<b>"I" 23 UTILITY/THIRD PARTY</b>						
"D" 26 ART-IN-TRANSIT	2,500,000	0.2%	2,500,000	0.1%	0	Within budget
"C" 24 CONTINGENCY	4,760,703	0.3%	12,651,000	0.7%	7,890,297	5% on to-go costs (\$8M)
"C" 24A CLAIMS CONTINGENCY	0	0.0%	19,699,000	1.1%	19,699,000	Claims and L.D. allowance (\$20M);
"A" 25 PROJECT REVENUE	0	0.0%	(1,243,000)	-0.1%	(1,243,000)	
<b>GRAND TOTAL</b>	<b>1,640,781,000</b>	<b>100.0%</b>	<b>1,720,745,000</b>	<b>100.0%</b>	<b>79,964,000</b>	

1/21/98

ATTACHMENT 2

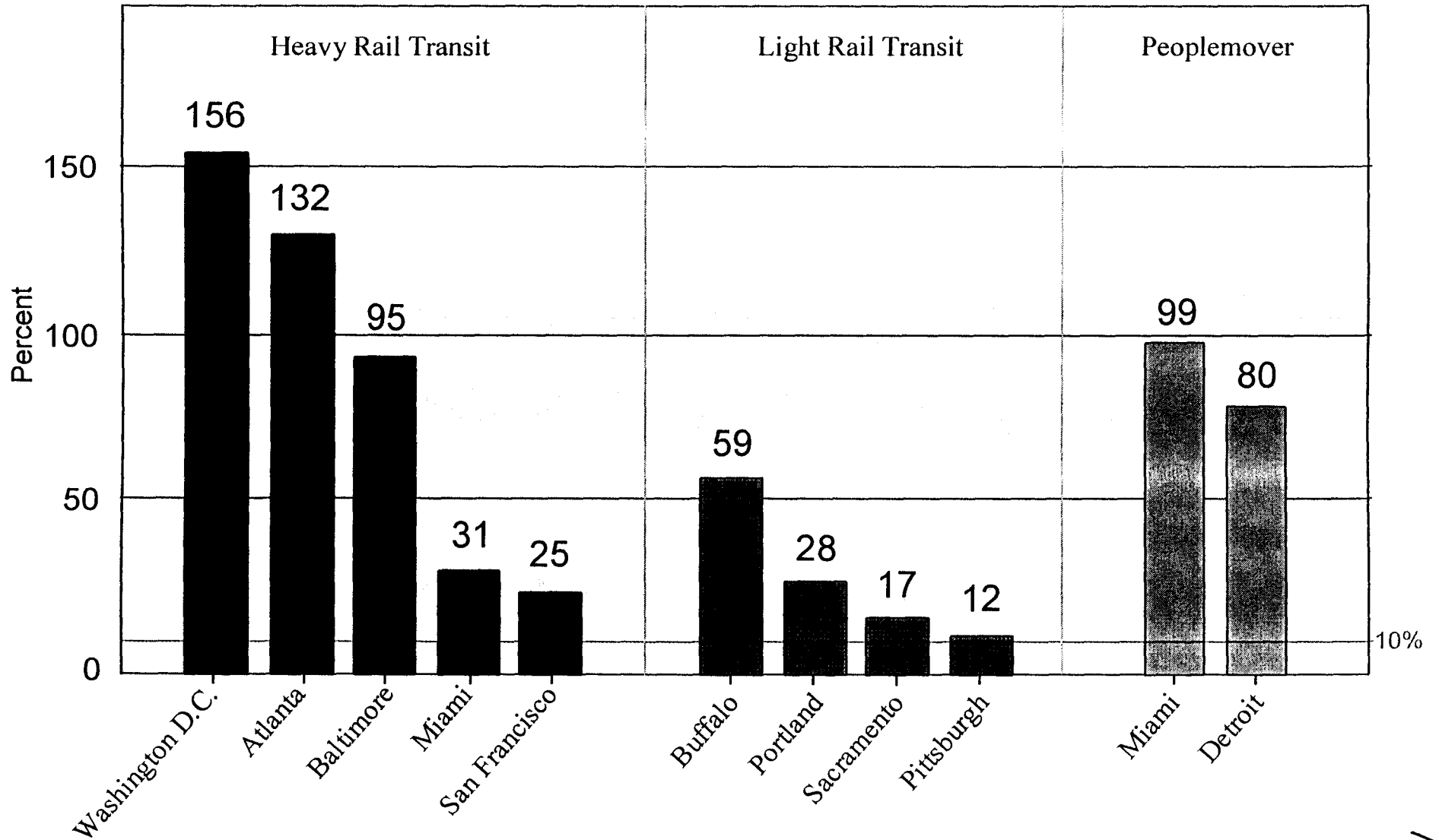
RED LINE SEGMENT II PROJECT EXPENDITURE PLANS  
(\$000)

FUNDING SOURCES	PRIOR YEARS	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	TOTAL
<b>RED LINE SEGMENT 2 - 800081</b>									
FIA SECTION 3	467,558	54,838							522,396
FIA DEFERRED LOCAL SHARE	126,325	18,279							144,604
STATE ARTICLE XIX	133,029								133,029
BOND FUNDS PROP A 35% RAIL CAPITAL	281,065	126,735	151,624	61,476	65,275	28,774	20,598	(25,400)	710,147
BOND FUNDS PROP C 40% DISCRETIONARY	29,595	4,946							34,541
CITY OF LA	77,584	9,903	4,400	1,900	2,213				96,000
B.A.D.	0							25,400	25,400
FEDERAL SURFACE TRANSPORTATION PROGRAM	52,100								52,100
FEDERAL REGIONAL SURFACE TRANSPORTATION PROGRAM	0		2,528						2,528
<b>TOTAL</b>	<b>1,167,256</b>	<b>214,701</b>	<b>158,552</b>	<b>63,376</b>	<b>67,488</b>	<b>28,774</b>	<b>20,598</b>	<b>0</b>	<b>1,720,745</b>

# Cost Growth on Major Capital Projects

## TRANSIT PROJECTS

### PERCENT INCREASE FROM ORIGINAL FORECAST



Source: "Urban Rail Transit Projects: Forecast vs. Actual Ridership and Costs" by Transportation Systems Center, Oct 89

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METRO RED LINE SEGMENT 2  
COST GROWTH ANALYSIS  
TOTAL GROWTH SCENARIO

1/13  
Attachment 1

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04 UTILITY RELOCATION	650,000		650,000		0	Within budget
05 RAIL PASSENGER VEHICLES	58,057,000		58,700,000		643,000	Pending changes
06 ELECTRIFICATION	18,267,000		19,667,000		1,400,000	UPS and Traction Power increases
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09 TESTING AND OPERATIONS	7,500,000		7,500,000		0	Within budget
10 OWNER'S INSURANCE	90,277,546		90,277,000		(546)	Current budget valid
<b>TOTAL ELEMENT "T"</b>	<b>1,101,118,046</b>	<b>67.1%</b>	<b>1,115,851,000</b>	<b>64.8%</b>	<b>14,732,954</b>	
<b>"S" PROFESSIONAL SERVICES</b>						
11 DESIGN ENGINEERING	171,400,402	10.4%	177,151,000	10.3%	5,750,598	Based on negotiated CWO
12 CONSTRUCTION MANAGMENT	163,403,000	10.0%	171,170,000	9.9%	7,767,000	Incurred to date plus anticipated costs to comp'n.
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<b>TOTAL ELEMENT "R"</b>	<b>88,088,000</b>	<b>N/R</b>	<b>88,076,000</b>	<b>N/R</b>	<b>(12,000)</b>	
<b>"F" 23 UTILITY/THIRD PARTY</b>	<b>32,439,598</b>	<b>2.0%</b>	<b>32,595,000</b>	<b>1.9%</b>	<b>155,402</b>	<b>DWP increases offset by LA City betterments</b>
<b>"D" 26 ART-IN-TRANSIT</b>	<b>2,500,000</b>	<b>0.2%</b>	<b>1,700,000</b>	<b>0.1%</b>	<b>(800,000)</b>	<b>No further scope</b>
<b>"C" 24 CONTINGENCY</b>	<b>4,760,703</b>	<b>0.3%</b>	<b>12,651,000</b>	<b>0.7%</b>	<b>7,890,297</b>	<b>5% on to-go costs (\$8M)</b>
<b>"C" 24A CLAIMS CONTINGENCY</b>	<b>0</b>	<b>0.0%</b>	<b>19,699,000</b>	<b>1.1%</b>	<b>19,699,000</b>	<b>Claims and L.D. allowance (\$20M);</b>
<b>"A" 25 PROJECT REVENUE</b>	<b>0</b>	<b>0.0%</b>	<b>(1,243,000)</b>	<b>-0.1%</b>	<b>(1,243,000)</b>	
<b>GRAND TOTAL</b>	<b>1,640,781,000</b>	<b>100.0%</b>	<b>1,720,955,000</b>	<b>100.0%</b>	<b>80,174,000</b>	

CE #7 Attachment

## ATTACHMENT 2

### RED LINE SEGMENT II PROJECT EXPENDITURE PLANS (\$000)

FUNDING SOURCES	PRIOR YEARS	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	TOTAL
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FTA SECTION 3	467,558	54,838							522,396
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B.A.D.	0							25,400	25,400
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<b>TOTAL</b>	<b>1,167,256</b>	<b>214,701</b>	<b>158,552</b>	<b>63,376</b>	<b>67,488</b>	<b>28,774</b>	<b>20,808</b>	<b>0</b>	<b>1,720,955</b>