



Metro

**EXECUTIVE MANAGEMENT AND
AUDIT COMMITTEE
OPERATIONS COMMITTEE
FEBRUARY 17, 2005**

SUBJECT: METRO ORANGE LINE MAINTENANCE AND OPERATIONS

ACTION: RECEIVE AND FILE

RECOMMENDATION

Receive and file the following report regarding operations and maintenance alternatives for the Metro Orange Line.

ISSUE

At the January 2005 Board meeting, staff was requested to report back to the February 2005 Operations Committee on the cost of providing certain Orange Line services in-house versus the cost of contracting them out.

DISCUSSION

Staff has identified several functions that may be contracted to private vendors. If contracted, one vendor may be able to provide several of these functions within one contract. This would allow for greater flexibility and cost savings. These are the functions that may be contracted:

- Vehicle Operations
- Vehicle Maintenance
- Station & Parking Lot Maintenance
- Station & ROW Security
- ROW & Landscape Maintenance
- TVM Revenue Servicing
- Signal System Maintenance

BRT Contracting Survey

Staff conducted a survey of three international contract service providers to determine their experience in operating similar services to the Orange Line. The companies had varying levels of experience in the types of services needed for this project and they operate some of the more high-profile BRT systems in the world. These companies also expressed interest in operating the Orange Line. The results of this survey are shown in Attachment A.

Cost Analysis

The largest cost function for the Orange Line will be the maintenance and operation of the revenue vehicles. The potential cost savings between the marginal MTA operating cost and the contracted cost is shown in Figure 1 on the next page.

Figure 1: FY 06 Maintenance & Operations Cost Analysis

	RSH Rate	FY 06 RSH	FY 06 Cost
MTA Marginal Operating Cost (Full-Time)*	\$93.34	63,353	\$5,913,396
MTA Marginal Operating Cost (BDOF)*	\$61.73	63,353	\$3,910,498
Contracted Operating Cost**	\$53.00	63,353	\$3,357,709

* OMB Orange Line Marginal Cost Analysis

** Projected Hourly Rate Based on Current MTA Contracted Service Rates Contracted Operating Cost

The MTA Marginal Operating Cost does not include certain overhead items that will not increase with the extra service hours for the Orange Line (see Attachment B). The Contracted Operating Cost is based on the RSH rate paid for the current contracted services. This \$53.00 figure could be potentially higher based on the articulated vehicles that will be used to provide the service. Detailed contracted cost information can only be determined through the solicitation of proposals.

Service Quality

Comments made by the public during the January 2005 Board meeting indicated that a contract service provider might not be able to provide an equal quality of service compared to a Metro Bus Division. Figure 2 shows a comparison of the Key Performance Indicators for the first six months of FY05 from Division 15 and First Transit- Sylmar which both provide Metro Bus service in the eastern San Fernando Valley.

Figure 2: Key Performance Indicator Comparison (FY05 YTD)

	Div 15	FTI- Sylmar	FY 05 Target
Mean Miles Between Chargeable Mechanical Failures	9,313	9,760	8,000
In-Service On-time Performance	69.15%	N/A	70%
Bus Traffic Accidents Per 100,000 Miles	2.78	3.53	3.0
Complaints per 100,000 Boardings	4.59	7.28	4.5
Bus Cleanliness	7.5	8.25	-

As shown in Figure 2, the contracted operation provides both better and worse service in different areas when compared to Division 15. The higher complaint figure for contracted services is attributable to the longer headways and lower passenger loads on the contracted lines. When compared with Division 15 on the Operator Performance category of complaints, the contracted services provide a better than average level of service (see Attachment C).

NEXT STEPS

To determine the actual cost of the contracted services, staff needs to request formal proposals from interested vendors. Based on the proposals received, the Board could then assess whether the cost and operating plan of the recommended vendor(s) is the

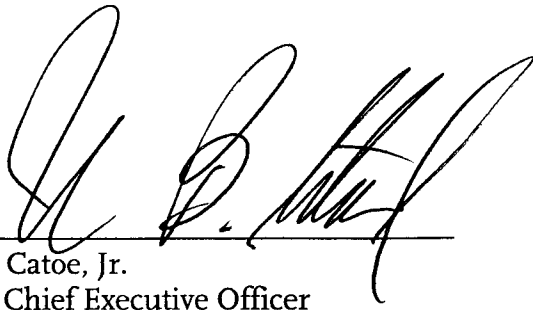
preferred option. Below is a proposed schedule should the Board direct staff to solicit proposals.

- Issue RFP Mar 05
- Receive Proposal Apr 05
- Board Accepts/Rejects Proposals Jun 05
- Orange Line Opening Date Sep 05

ATTACHMENTS

- A. BRT Contracting Survey Results
- B. OMB Orange Line Marginal Cost Analysis
- C. Customer Input- Operator Performance Categories (December 2004)

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BRT Contracting Survey Results

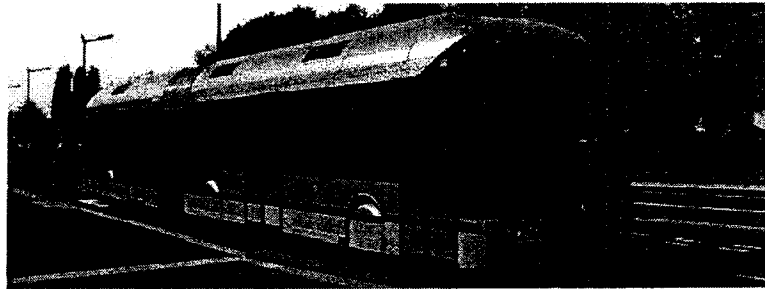
CGEA Connex

BRT Experience

- **Teor BRT System (Rouen, France)**

www.tcar.fr

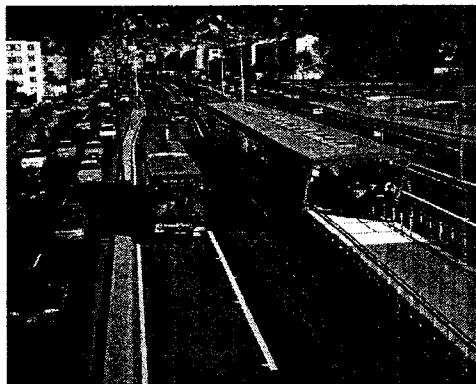
- Three lines operate on dedicated ROW with 41 station stops. TEOR replaced existing fixed-route services.
- Operated with 38 Irisbus Agora articulated buses and 2 Irisbus Civis buses with optical guidance system



- **Transmilenio (Bogota, Columbia)**

www.transmilenio.gov.co

- Connex was one of four private contractors chosen to acquire, maintain, and operate vehicles on this line.
- System consists of three routes with exclusive bus lanes.



- **Dulles Corridor Rapid Transit Project (Fairfax County, US)**

www.dullestransit.com

- Operates along the Dulles Airport corridor equipped with bus-only slip ramps.
- Route will eventually become Metrorail extension

Articulated Bus Operation & Maintenance (more than 20 buses)

- Bordeaux, France- 180 buses
- Stockholm, Sweden- 75 buses
- Nancy, France- 60 buses
- Rouen, France- 48 buses
- Nice, France- 45 buses
- Le Havre, France- 39 buses
- Saint-Etienne, France- 32 buses
- Toulon, France- 25 buses
- North Moravia, Czech Republik- 25 buses

CNG Bus Maintenance (more than 20 buses)

- Nancy, France- 80 buses
- Nice, France- 74 buses

Other Services

- Columbia, SC- Daily operation, maintenance, and management of the Transit Center, Transfer Centers, and Park-n-Ride Lots. This includes security and landscaping services at these locations.
- Saint-Etienne, France- Manage Transit Center
- Nancy, France- Manage Multi-Modal Terminal
- Bordeaux, France- Manage Multi-Modal Terminal
- Rouen, France- Manage Multi-Modal Terminal
- Melun, France- Manage Multi-Modal Terminal

BRT Experience

- **Superbus & Quality Bus (United Kingdom)**
www.firstgroup.com/corpfirst/company/guidedbus.php
 - Operate four guided busways in UK:
 - Ipswich, Kesgrave (1995)
 - Leeds, Scott Hall Road - opened in (1995)
 - Leeds, A64 York Road and A63 Selby Road (2001)
 - Bradford, A641 Manchester Road (2001)
 - Routes operate using single and double-deck buses
 - Company worked with local jurisdictions to help design and construct signal priority and other amenities



First Group- continued

Articulated Bus Operation & Maintenance (more than 20 buses)

- Everett, WA- 77 New Flyers
- Houston, TX- 60 Neoplans

CNG Bus Maintenance (more than 20 buses)

- Los Angeles, CA- 110 Orions
- Woodland, CA- 37 (mostly Orions)
- Laredo, TX- 32 (mostly Nova RTS)
- Quad City, IL- 21 EZ Rider II

Other Services

- Reno, NV- Transit Center Security
- Memphis, TN- Transit Center Security

BRT Experience

- **MAX (Las Vegas, NV)**

www.rtcsonthernnevada.com/max

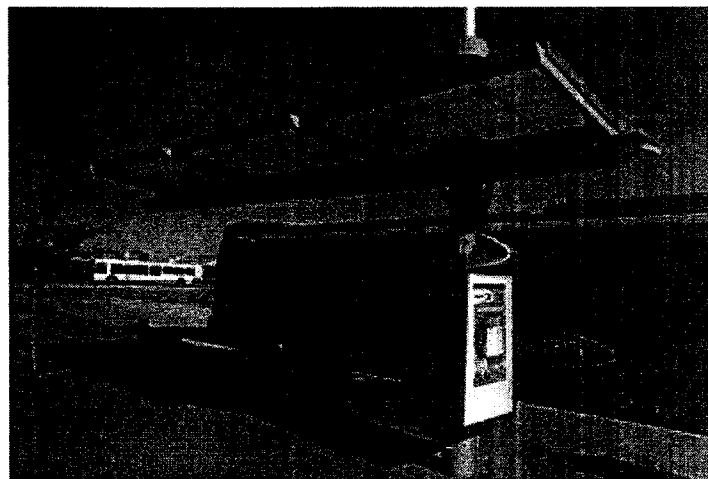
- Manage, operate, and maintain 10 Civic Bus Rapid Transit vehicles (hybrid diesel-electric) in daily BRT service.
- System has many state-of-the-art BRT features:
 - Optical Guidance System
 - Dedicated Vehicle Lane
 - Off-board Fare Collection and Multiple Door Loading
 - Traffic Signal Priority



- **Valley Metro Rapid (Phoenix, AZ)**

www.ci.phoenix.az.us/publictransit/rapid.html

- Operate 60' New Flyer and 45' NABI buses on five routes.



National Express Group- continued

Articulated Bus Operation & Maintenance (more than 20 buses)

- Phoenix, AZ- 20 New Flyers
- Las Vegas, NV:
 - 45 NABI
 - 19 New Flyers
 - 10 Civis
 - 6 Neoplans

CNG Bus Maintenance (more than 20 buses)

- Phoenix, AZ- 287 LNG buses
- San Diego, CA- 106 CNG buses
- Tempe, AZ- 98 LNG buses
- Mesa, AZ- 46 CNG buses
- Phoenix, AZ- 42 LNG buses
- Chico, CA- 26 CNG buses
- Chula Vista, CA- 26 CNG buses

Other Services

- San Diego, CA- Bus Stop Maintenance
- Cobb County, GA- Bus Stop, Shelter, and Transit Center Maintenance

**Orange Line Marginal Cost Analysis
FY06 (10 months) MTA Bus Operations Cost**

	BDOF ONLY (NO OT)		FT ONLY (NO OT)	
	\$/RSH	Dollars	\$/RSH	Dollars
1 <u>Transportation</u>				
2 Wages	\$12.40	\$785,784	\$27.98	\$1,772,354
3 Benefits	2.92	185,244	18.97	1,201,491
4 Training	0.70	44,118	0.70	44,118
5 Scheduling and Planning	0.50	31,960	0.50	31,960
6 <u>Sub-Total</u>	16.53	1,047,105	48.14	3,049,923
7				
8 <u>Division Maintenance</u>				
9 Wages & Benefits	16.28	1,031,172	16.28	1,031,172
10 Fuel	6.49	411,352	6.49	411,352
11 Tires	0.96	61,127	0.96	61,127
12 Materials & Supplies	7.06	447,481	7.06	447,481
13 <u>Sub-Total</u>	30.80	1,951,131	30.80	1,951,131
14				
15 <u>RRC Regular Maintenance</u>				
16 Wages & Benefits	0.69	43,681	0.69	43,681
17 Materials & Supplies	0.50	31,488	0.50	31,488
18 <u>Sub-Total</u>	1.19	75,169	1.19	75,169
19				
20 <u>RRC Preventative Maintenance</u>				
21 Accident Repair	0.33	20,831	0.33	20,831
22 Windows	0.00	218	0.00	218
23 <u>Sub - Total</u>	0.33	21,050	0.33	21,050
24				
25 <u>Other Operating Costs</u>				
26 Casualty & Liability	5.12	324,155	5.12	324,155
27 Workers' Comp	7.76	491,888	7.76	491,888
28 <u>Sub-Total</u>	12.88	816,043	12.88	816,043
29				
30 <u>Gross Total MTA Operated Cost</u>	\$61.73	\$3,910,498	\$93.34	\$5,913,316

Operator Performance Categories

Per 100 Operators

Sector/Division Comparison - December 2004

