

Metro

*Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
3rd Floor Board Room*



Agenda - Final

Thursday, July 20, 2017

10:15 AM

**One Gateway Plaza, Los Angeles, CA 90012,
3rd Floor, Metro Board Room**

System Safety, Security and Operations Committee

John Fasana, Chair

Robert Garcia, Vice Chair

Paul Krekorian

Mark Ridley-Thomas

Hilda Solis

Carrie Bowen, non-voting member

Phillip A. Washington, Chief Executive Officer

METROPOLITAN TRANSPORTATION AUTHORITY BOARD RULES
(ALSO APPLIES TO BOARD COMMITTEES)

PUBLIC INPUT

A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board should be submitted in person at the meeting to the Board Secretary. Individuals requesting to speak on more than three (3) agenda items will be allowed to speak up to a maximum of three (3) minutes per meeting. For individuals requiring translation service, time allowed will be doubled.

Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

The public may also address the Board on non-agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for up to three (3) minutes per meeting and may speak no more than once during the Public Comment period. Speakers will be called according to the order in which the speaker request forms are received. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

CONDUCT IN THE BOARD ROOM - The following rules pertain to conduct at Metropolitan Transportation Authority meetings:

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- a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
- b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with the due and orderly course of said meeting.

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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER**ROLL CALL****APPROVE Consent Calendar Items: 28 and 29.**

Consent Calendar items are approved by one motion unless held by a Director for discussion and/or separate action.

CONSENT CALENDAR

28 SUBJECT: SHOP TOWELS [2017-0441](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a 24-month, indefinite delivery/indefinite quantity Contract no. MA38768002 to JWL Supplies, the lowest responsive and responsible bidder, for shop towels for a total contract amount of \$1,158,984; subject to resolution of protest(s), if any. The award is for a base year amount of \$579,492, inclusive of sales tax, and a one-year option amount of \$579,492, inclusive of sales tax.

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)

29 SUBJECT: MEMBERSHIP ON METRO SERVICE COUNCILS [2017-0273](#)

RECOMMENDATION

APPROVE nominees for membership on Metro's Service Councils.

Attachments: [Attachment A - Listing of Qualifications 7-27-2017](#)
[Attachment B - Appointing Authority Nomination Letter 7-27-2017](#)

NON-CONSENT

30 SUBJECT: OPERATIONS EMPLOYEE OF THE MONTH [2017-0379](#)

RECOMMENDATION

Operations Employee of the Month

- 31 **SUBJECT: ORAL REPORT ON SYSTEM SAFETY, SECURITY AND OPERATIONS** [2017-0401](#)

RECOMMENDATION

RECEIVE oral report on System Safety, Security and Operations.

- 32 **SUBJECT: METRO BLUE LINE SHORT AND LONG TERM IMPROVEMENTS** [2017-0407](#)

RECOMMENDATION

RECEIVE AND FILE response to Motion 37 (February 2017) on Blue Line Improvements.

Attachments: [Attachment A - MBL Motion 37](#)
[Attachment B - Long Term Imp Summ](#)

- 33 **SUBJECT: STAFFING REQUEST FOR CRENSHAW LINE** [2017-0404](#)

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to amend the FY18 Budget to add 59 positions, as shown below:
1. Add 8 (eight) non-contract positions to manage and plan for integrated testing, system readiness drills, asset inspection and acceptance, turnover coordination, opening a new Rail Maintenance Facility and pre-revenue service testing of the Crenshaw Line rail project.
 2. Add 51 contract positions to support training and certification, asset inspection and acceptance, turnover coordination, integrated testing, system readiness drills, the opening of a Rail Maintenance Facility, pre-revenue service testing and the opening of the Crenshaw Line to the public.
- B. RECEIVING AND FILING staff analysis of a comprehensive rail expansion staffing plan to add up to a total of 130 positions in FY19 and FY20. The staffing plan assumes a time-phased, milestone-based hiring construct using the best available current scope of work estimates. These FTE requirements will be brought forward for board consideration during the respective FY19 and FY20 budget development cycles.

Attachments: [Attachment A- Crenshaw FTE Summary](#)
[Attachment B - Crenshaw FTE Staffing Timeline](#)

34 SUBJECT: UNLEADED GASOLINE [2017-0417](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a 60 month, Indefinite Delivery/Indefinite Quantity Contract No. FY34649 for unleaded gasoline to Pinnacle Petroleum, Inc., the lowest responsive and responsible bidder, for a two year base, inclusive of sales tax, for a not-to-exceed amount of \$3,886,980, and three one-year options for a not-to-exceed amount of \$5,830,470, for a total not-to-exceed contract amount of \$9,717,450, subject to resolution of protest(s), if any.

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)

42 SUBJECT: SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT [2017-0304](#)

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to award a firm fixed-price contract, Contract No. OP28367-002, Group C, to BYD Coach & Bus, LLC (BYD) for the manufacture and delivery of sixty 40' zero emission (ZE) transit buses, in the amount of \$44,967,874 for the base contract, including spare parts, charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$2,806,849 for Optional Vehicle Features, and Training Aids for a total combined contract amount not-to-exceed \$47,774,723.
- C. ESTABLISHING a life-of-project budget of \$65,900,000 for the purchase of sixty 40' zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under Capital Project no. 201077.

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)
[Attachment C - Funding and Expenditure Plan](#)

**43 SUBJECT: THIRTY-FIVE 60' ARTICULATED ZERO EMISSION
TRANSIT BUS CONTRACT**[2017-0303](#)**RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to award a firm fixed-price contract, Contract OP28367-001, Part D, to New Flyer of America for the manufacture and delivery of thirty-five 60' zero emission transit buses, in the amount of \$51,211,033 for the base contract, including charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$8,839,064 for Optional Vehicle Features, Spare Parts, and Training Aids for a total combined contract amount not-to-exceed \$60,050,097.
- C. ESTABLISHING a life-of-project budget of \$72,101,419 for the purchase of thirty five zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under CP 201073.
- D. FINDING that the award to New Flyer of America is made to the Proposer that provides the agency with the best value and is most advantageous to Metro. The recommended price addresses all contract requirements and represents the best overall value when all RFP evaluation factor are considered.
- E. RECEIVING AND FILING the presentation on the Strategic Planning for Metro's Transition to 100% Zero Emission Bus Fleet by 2030 (Attachment C).

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)
[Attachment C - Update on Metros ZEB Bus Plans](#)
[Attachment D - ZEB Bus Funding-Expenditure](#)

**44 SUBJECT: SIXTY FIVE 60' ARTICULATED CNG TRANSIT
BUS CONTRACT**[2017-0466](#)**RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to negotiate and award a firm fixed-price Contract no. OP28367-003, Group B, to New Flyer of America (St. Cloud, MN), for the manufacture and delivery of sixty five 60' CNG transit buses, in a not to exceed amount of \$64,428,454, for the base contract, inclusive of taxes and delivery, exclusive of contract options.
- B. AUTHORIZING the Chief Executive Officer to negotiate and award an additional not to exceed amount of \$3,260,156 for spare parts, optional vehicle features, and training aids for a total combined contract amount not to exceed of \$67,688,610.
- C. ESTABLISHING a life-of-project budget of \$72,200,000, for the sixty five 60' CNG buses under Capital Project no. 201076.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)
 [Attachment C- Funding and Expenditure Plan](#)

45 SUBJECT: NEAR ZERO NATURAL GAS FUELED ENGINES[2017-0399](#)**RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a three year, indefinite delivery/indefinite quantity Contract No. MA39865000 for Near Zero Emission Natural Gas Fueled Heavy Duty Engines to Cummins Pacific, LLC for a not-to-exceed amount of \$8,160,523, inclusive of sales tax, for the base year; a not-to-exceed amount of \$11,296,774, inclusive of sales tax, for the first one year option; and a not-to-exceed amount of \$7,064,518, inclusive of sales tax, for the second one year option, for a total Contract amount of \$26,521,815.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)

Adjournment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

**Board Report**

File #: 2017-0441, **File Type:** Contract**Agenda Number:** 28

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: SHOP TOWELS****ACTION: AWARD CONTRACT FOR SHOP TOWELS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a 24-month, indefinite delivery/indefinite quantity Contract no. MA38768002 to JWL Supplies, the lowest responsive and responsible bidder, for shop towels for a total contract amount of \$1,158,984; subject to resolution of protest(s), if any. The award is for a base year amount of \$579,492, inclusive of sales tax, and a one-year option amount of \$579,492, inclusive of sales tax.

ISSUE

Shop towels are required throughout the Agency by Metro staff on a day-to-day basis for operations to clean and maintain facilities, equipment, rolling stock, and for general purposes.

DISCUSSION

The shop towels purchased under this procurement will be maintained in inventory and managed by Materiel Management. The paper products are used throughout the Agency's Operating Divisions, building and work sites to maintain cleanliness and safety for our employees.

Metro purchases a variety of towels based on the functional requirements of the various user groups. The cellulose paper products are used primarily by mechanics, Bus and Rail Divisions, service attendants and custodians at the CMF, and rail/bus stations because of the product's absorbency qualities and cloth like characteristics needed to clean surfaces, and to pick up oil and grease. The windshield towels are used by the services attendants at the operating division to clean the bus and rail car windshields. Other towels are used by janitorial staff to stock bathrooms, facilities daily cleaning, and for general purpose and cleaning functions based on their individual consumption requirements.

The Contract to be awarded is a "requirements type" agreement in which Metro commits to order up to the specified quantity for a specific duration of time, but there is no obligation or commitment for Metro to order any or all of the shop towels that may be anticipated. The bid quantities are estimates only, with deliveries to be ordered and released as required.

Paper products will be purchased, maintained in inventory and managed by Materiel Management. As the paper products are issued, the appropriate budget project numbers and accounts will be charged.

DETERMINATION OF SAFETY IMPACT

Award of contracts will ensure that all operating divisions have adequate inventory to maintain the bus and rail fleets, equipment, and general purposes according to Metro Maintenance and facility standards, and OSHA standards.

FINANCIAL IMPACT

The funding of \$663,940 for shop towels is included in the FY18 budget in various cost centers for Administration and Bus and Rail Operations. The paper products will be funded from each cost center's Material and Supplies budget line item number 50431 under multiple operating projects.

Since this is potentially a multi-year Contract, the Cost Center Managers and respective SBU Chief will be accountable for budgeting the cost in future fiscal years.

Impact to Budget

The source of funds for this procurement will come from Federal, State and local funding sources including sales tax and fares that are eligible for Bus and Rail Operating Projects. These funding sources will maximize the use of funds for these activities given established funding guidelines.

ALTERNATIVES CONSIDERED

The alternative is to not award the Contract and procure shop towels on the open market at a lower cost. However, this would be contrary to the Board's directives regarding the Set-Aside program.

NEXT STEPS

Metro's requirements for shop towels will be fulfilled under the provisions of the contracts.


ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Nathan Jones III, Director of Contract Administration, (213)922-6101
Lena Babayan, Sr. Director Facilities Maintenance, (213)922-6765

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 922-4424
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SHOP TOWELS / MA38768002

1.	Contract Number: MA38768000 (Line 2), MA38768001 (Line 3), MA38768002 (Line 4)	
2.	Recommended Vendor:	
	<ul style="list-style-type: none"> • Ammmm, Inc. 28364 S. Western, Rancho Palos Verde, CA 90275 • Gorilla Stationers 15165 Triton Lane, Huntington Beach, CA 92649 • JWL Supplies, 4569 Don Diego Dr., Los Angeles, CA 90008 	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 2/24/17	
	B. Advertised/Publicized: 2/24/17	
	C. Pre-proposal/Pre-Bid Conference: N/A	
	D. Proposals/Bids Due: 4/13/17	
	E. Pre-Qualification Completed: 5/16/17	
	F. Conflict of Interest Form Submitted to Ethics: 06/19/17	
	G. Protest Period End Date: : July 20, 2017	
5.	Solicitations Picked up/Downloaded: 24	Bids/Proposals Received: 5
6.	Contract Administrator: Tanya Allen	Telephone Number: 213/922-1018
7.	Project Manager: Lena Babayan	Telephone Number: 213/922-5860

A. Procurement Background

This Board Action is to approve multiple Contracts No. MA38768002 to be issued in support of Shop Towels to be used agency-wide. Board approval of contract awards are subject to resolution of any properly submitted protest.

IFB No. MA38768 was issued in accordance with Metro’s Acquisition Policy and the contract type is Indefinite Delivery, Indefinite Quantity (IDIQ).

No amendments to the IFB were issued. A total of five bids were received on April 13, 2017.

B. Evaluation of Bids

This procurement was conducted in accordance, and complies with LACMTA’s Acquisition Policy for a competitive sealed bid. Four bidders were deemed fully responsive and compliant with the requirements of the IFB; Ammmm Incorporated, Gorilla Stationers, RC Consolidated Services and JWL Supplies. Los Angeles Chemical Company’s formal bid was deemed non-responsive to the bid requirements and was not considered in the bid evaluation process.

Metro's IFB No. MA38768 gave the agency the right to choose the lowest bid price from each line item and to award multiple contracts based on the lowest responsive responsible bidder for each bid line item. Firms being recommended for award are Ammmm Incorporated for bid line item 2; Gorilla Stationers for line item 3, and JWL Supplies for line item 4.

Staff will award contracts to bid line items 1, 2 and 3 under its own delegation of authority, and is only presenting bid line item 4 to the Board for award recommendation and approval.

The award of bid line item 1 is not being recommended for award at this time. The apparent low bidder for that bid line item has offered a product that requires further evaluation as an approved equal. Staff has decided to proceed with the award of bid line items 2, 3 and 4 at this time. The estimated price of bid line item 1 is less than \$60,000 and will not require Metro Board approval.

No.	Lowest Responsive Responsible Bidder Name	Bid Amount
1.	TBD	TBD
2.	Ammmm Inc.	\$19,561.00
3.	Gorilla Stationers	\$126,350.00
4.	JWL Supplies	\$1,158,985.00

C. Price Analysis

The recommended bid prices, to be awarded on a line item basis for items 2, 3, and 4 have been determined to be fair and reasonable based upon adequate price competition.

Line item 3, Ammmm Inc., was initially the apparent low bidder but was deemed non-responsive to the technical requirements on line #3 upon completion of Metro full evaluation. Ammmm Inc. was deemed responsive and responsible for Line #2.

Line Item No.	Low Bidder Name	Low Bid Amount	Second Low Bidder Name	Bid Amount	Metro ICE
1	*Item to be awarded separately at a later date under separate authorization.	TBD	TBD	TBD	\$60,000
2	Ammmm Inc.	\$19,561	RC Consolidated Services, Inc.	\$46,013	\$118,688
3	Gorilla Stationers	\$126,350	RC Consolidated Services, Inc.	\$174,524	\$237,375
4	JWL: Supplies	\$1,158,985	RC Consolidated Services, Inc.	\$1,429,947	\$1,136,869

*The product item presented by the apparent low bidder (Ammmm) is being technically evaluated as an approved equal product. The approved equal technical evaluation process will be completed within 60 days.

D. Background on Recommended Contractors

Ammmm, Inc. (MA38768000)

The recommended firm for line item no. 2, Ammmm, Inc., is located in Rancho Palos Verdes, CA and has been in business for nine years. Ammmm, Inc. has provided shop towels and various related products to other agencies including Department of Veteran Affairs – State of California, California State Parks, and California Department of State Hospitals. In the past, Ammmm, Inc. has provided satisfactory products and services to Metro.

Gorilla Stationers (MA38768001)

The recommended firm for line item no. 3, Gorilla Stationers, is located in Huntington Beach, CA and has been in business for five years. In the past, Gorilla Stationers has provided satisfactory products and services to Metro.

JWL Supplies (MA38768002)

The recommended firm for line item no. 4, JWL Supplies is located in Los Angeles, CA and has been in business for 18 years. JWL Supplies has provided safety and various related products to other agencies including UCLA, CBS Television, Pomona Unified School District, and Compton Unified School District. In the past, JWL Supplies has provided satisfactory products and services to Metro.

DEOD SUMMARY

**SHOP TOWELS
CONTRACT NO. MA38768**

A. Small Business Participation

Pursuant to Metro’s Board-approved policy, competitive acquisitions with three or more Small Business Enterprise (SBE) certified firms within the specified North American Industry Classification System (NAICS) as identified for the project scope shall constitute a Small Business Set-Aside procurement. Accordingly, the Contract Administrator advanced the solicitation, including posting the solicitation on Metro’s website, advertising, and notifying certified small businesses as identified by NAICS code(s) that this solicitation was open to **SBE Certified Small Businesses Only**.

All three recommended bidders are SBE Prime Suppliers, each with a 60% SBE commitment. While the SBE Prime Suppliers are performing 100% of the work with their own workforces, only 60% of the cost of materials and supplies can be credited toward its commitment.

	SBE Prime Contractor	SBE % Committed
1.	JWL Supplies (SBE Prime)	60%
	Total Commitment	60%
2.	Ammmm, Inc. (SBE Prime)	60%
	Total Commitment	60%
3.	Gorilla Stationers (SBE Prime)	60%
	Total Commitment	60%

B. Living/Prevailing Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wages is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.



Board Report

File #: 2017-0273, **File Type:** Appointment

Agenda Number: 29

**SYSTEMS SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017**

SUBJECT: MEMBERSHIP ON METRO SERVICE COUNCILS

ACTION: APPROVE NOMINEES FOR APPOINTMENT TO METRO SERVICE COUNCILS

RECOMMENDATION

APPROVE nominees for membership on Metro’s Service Councils.

ISSUE

Each Metro Service Council is comprised of nine Representatives that serve a term of three years; terms are staggered so that the terms of three of each Council’s nine members expire annually on June 30. Incumbent Representatives can serve additional terms if re-nominated by the nominating authority and confirmed by the Metro Board.

DISCUSSION

Metro seeks to appoint Service Council members reflective of the demographics of each respective region. The 2010 Census demographics of each of the Service Council regions are as follows:

% Sector Total	Hispanic	White	Asian	Black	Other	Total Pop
San Gabriel Valley	50.0%	19.9%	24.9%	3.3%	2.0%	100.0%
San Fernando Valley	41.0%	42.0%	10.7%	3.4%	2.9%	100.0%
South Bay	42.5%	23.8%	12.0%	18.3%	3.4%	100.0%
Westside/Central	43.5%	30.7%	13.0%	10.0%	2.8%	100.0%
Gateway Cities	63.9%	16.7%	8.5%	8.6%	2.3%	100.0%
Service Area Total	48.5%	26.8%	14.0%	8.2%	2.6%	100.0%

The individuals listed below have been nominated to serve by the Councils’ appointing authorities. If approved by the Board, these appointments will serve a three-year term or the remainder of the seat’s three-year term as indicated. A brief listing of qualifications for the new nominees is provided along with the nomination letters from the nominating authorities:

San Gabriel Valley

The demographic makeup of the San Gabriel Valley Service Council with the appointment of these nominees will consist of four (4) White members, three (3) Hispanic members, one (1) Native American member, and one (1) Asian member as self-identified by the members in terms of

racial/ethnic identity. The gender breakdown of the Council will be eight (8) men and one (1) woman.

- A. Alex Gonzalez, San Gabriel Valley Service Council, Re-Appointment
Nominated by: San Gabriel Valley Council of Governments
Term Ending: June 30, 2020
- B. Tim Sandoval, San Gabriel Valley Service Council, New Appointment
Nominated by: San Gabriel Valley Council of Governments
Term Ending: June 30, 2019

DETERMINATION OF SAFETY IMPACT

Maintaining the full complement of representatives on each Service Council to represent each service area is important. As each representative is to be a regular user of public transit, and each Council is composed of people from diverse areas and backgrounds, this enables each Council to better understand the needs of transit consumers including the need for safe operation of transit service and safe location of bus stops.

FINANCIAL IMPACT

There is no financial impact imparted by approving the recommended action.

ALTERNATIVES CONSIDERED

The alternative to approving this appointment would be for these nominees to not be approved for appointment. To do so would result in reduced effectiveness of the Service Council, as it would increase the difficulty of obtaining the quorum necessary to allow the Service Council to formulate and submit their recommendations to the Board. It would also result in the Service Council having less diverse representation of their service area.

NEXT STEPS

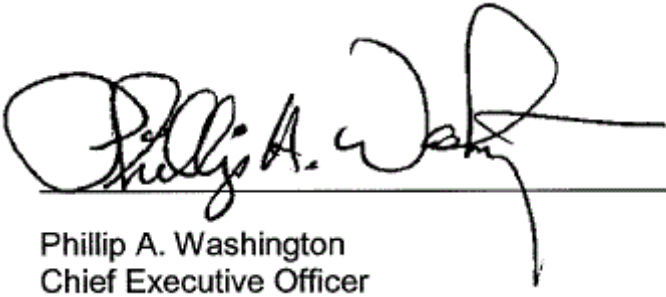
Staff will continue to monitor the major contributors to the quality of bus service from the customer's perspective, and share that information with the Service Councils for use in their work to plan, implement, and improve bus service in their areas and the customer experience using our bus service.

ATTACHMENTS

- Attachment A - New Appointee Biography and Listing of Qualifications
- Attachment B - Appointing Authority Nomination Letter

Prepared by: Conan Cheung, Executive Officer of Transit Operations, (213) 418-3034

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108



Phillip A. Washington
Chief Executive Officer

NEW APPOINTEE BIOGRAPHY AND QUALIFICATIONS

TIM SANDOVAL

Nominee for San Gabriel Valley Service Council



A 35 year Pomona resident, Mayor Tim Sandoval received his Bachelor's degree from University of California, Riverside. After graduating, Tim returned to Pomona to lead Pomona Valley Community Development Center's youth programs, then taught English at a nearby school. In 2001, Tim became a founding member of Bright Prospect, a mentoring organization that has helped more than two thousand at-risk youth become part of the first generation of their family to complete their Bachelor's degrees. Mr. Sandoval serves as chairperson for the Waste and Recycling Moratorium Task Force, and he is a board member of Clean & Green Pomona, the dA Center for the Arts, and the Pomona Public Library Foundation.



June 19, 2017

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Vacant
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Vacant

Mr. Gary Spivack
 Deputy Executive Officer, Metro Service Councils
 1 Gateway Plaza, MS 99-7-2
 Los Angeles, CA 90012

RE: Metro’s San Gabriel Valley Service Council Representatives

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- Covina*
- Diamond Bar*
- Duarte*
- El Monte*
- Glendora*
- Industry*
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- Pasadena*
- Pomona*
- Rosemead*
- San Dimas*
- San Gabriel*
- San Marino*
- Sierra Madre*
- South El Monte*
- South Pasadena*
- Temple City*
- Walnut*
- West Covina*
- First District, LA County*
Unincorporated Communities
- Fourth District, LA County*
Unincorporated Communities
- Fifth District, LA County*
Unincorporated Communities
- SGV Water Districts*

Dear Mr. Spivack:

At their June 15, 2017 meeting, the San Gabriel Valley Council of Governments’ Governing Board appointed Tim Sandoval (Pomona) as representative for the San Gabriel Valley Metro Service Sector elected official position and Alex Gonzalez (Industry) to continue to serve as the non-elected position. The effective term for Mayor Sandoval July 1, 2017 – June 30, 2019. The effective term for Mr. Gonzalez is July 1, 2017 – June 30, 2020.

Should you have any questions, please feel free to contact me at (626) 457-1800.

Sincerely,

Philip A Hawkey
 Executive Director
 San Gabriel Valley Council of Governments

cc: Tim Sandoval, City of Pomona
 Alex Gonzalez, City of Industry



Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Board Report

File #: 2017-0379, **File Type:** Oral Report / Presentation

Agenda Number: 30

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017**

SUBJECT: OPERATIONS EMPLOYEE OF THE MONTH

RECOMMENDATION

Operations Employee of the Month

July Operations Employees of the Month



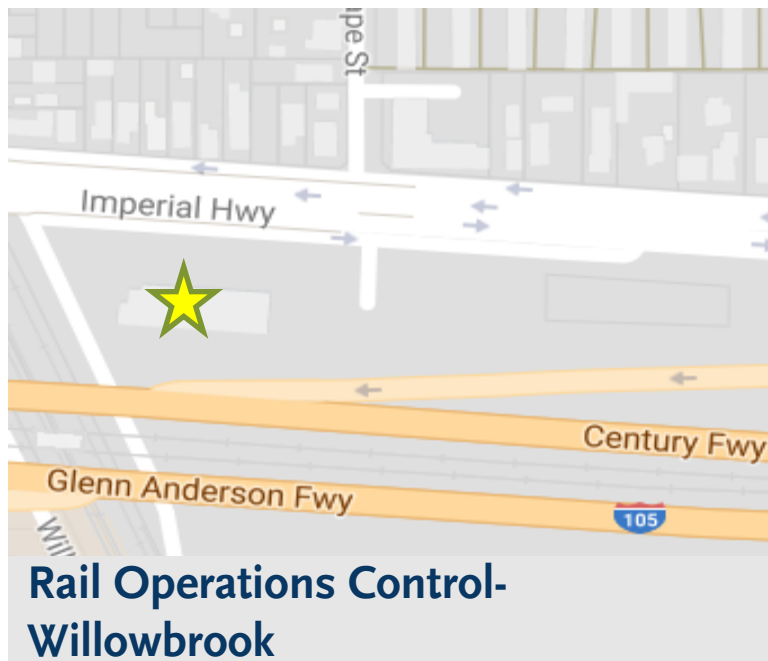
Operations Employees of the Month



Transportation

Rail Transportation Ops. Supervisor

Wilfredo De Los Angeles



Rail Operations Control-
Willowbrook

Maintenance

Service Attendant

Karla Mercado



Division 3 – Los Angeles



File #: 2017-0401, File Type: Oral Report / Presentation

Agenda Number: 31

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017**

**SUBJECT: ORAL REPORT ON SYSTEM SAFETY, SECURITY
AND OPERATIONS**

RECOMMENDATION

RECEIVE oral report on System Safety, Security and Operations.

Metro Emergency Management

Emergency Management's Role & Improvement Measures

- ❑ Introduction of new Sr. Director of Emergency Management – Joe Mendez
- ❑ Metro's Emergency Management Department's role is to enhance Metro's emergency response and improve continuity of operations by:
 - Emergency planning
 - Training and exercises
 - Outreach and informational programs
- ❑ Important Emergency Management initiatives over the last 24 months include:
 - Training & Exercise Program
 - Earthquake Early Warning & ShakeCast System
 - Post Earthquake Safety/Damage Assessment
 - Planning Activities
 - Emergency Supplies
 - Employee Preparedness & Outreach



Training & Exercise Program

- ❑ Purpose: Provide training regarding real life emergencies, identify gaps in Metro's current plans and provide effective remedial measures.
- ❑ California Public Utilities Commission (CPUC) requires 1 exercise per rail line annually.
- ❑ Metro exercises have increased since 2015 with the inclusion of Bus Operations and the expansion of rail lines.
 - 2015 – 12 Total Bus and Rail Exercises
 - 2016 – 19 Total Bus and Rail Exercises
 - 2017 – 21 Total Bus and Rail Exercises

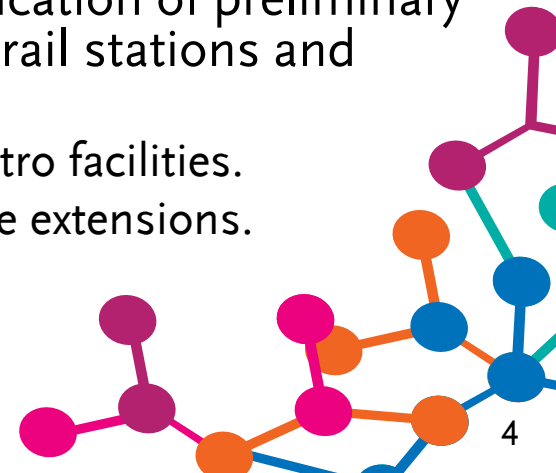


Earthquake Early Warning & ShakeCast Systems

An earthquake is potentially the most catastrophic event over the LA region

- ❑ **Earthquake Early Warning System (EWS)** – A pilot program from the US Geological Survey which provides a pre-early warning of seismic activity.
 - In August 2012 – USGS approached Metro to be a beta test user of Shake Alert; installed at the Rail Operations Control Center.
 - In September 2016 – Enhanced Early Warning System to provide an alert over the Rail Operations Control Center’s communication system which alerts controllers to notify Operators when a 5.3 magnitude or above earthquake occurs.

- ❑ **USGS ShakeCast/ShakeMap System** – Automatic notification of preliminary damage assessments of 121 critical buildings, specific rail stations and bridges.
 - In February 2015 – Increased to include all significant Metro facilities.
 - In August 2016 – Added structures for the Expo/Gold Line extensions.



Metro Emergency Management Testing – ShakeCast

ShakeCast Event: Magnitude 7.1

METRO Emergency Mgmt IS TESTING ONLY !! REPEAT TESTING ONLY -- ShakeCast Event: Magnitude 7.1

Event Location: Puente Hills

Event Time: 2012-10-10 12:00:00

Generated at 2013-12-18 20:30:43

Reported by: Server ID = 1000, DNS = localhost -->

[METRO Shakecast server map of event - with facilities](#)

Damage Summary

Number of Facilities Reported: 121

Max Value: MMI: 8.88; Acceleration: 50.27

Number of Reports of Likely Damage: [NULL]

Number of Reports of Possible Damage: 47

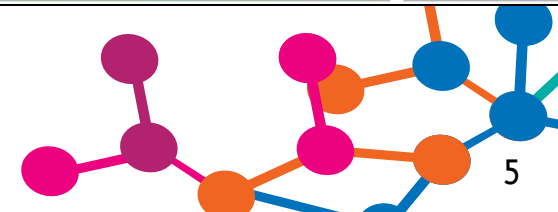
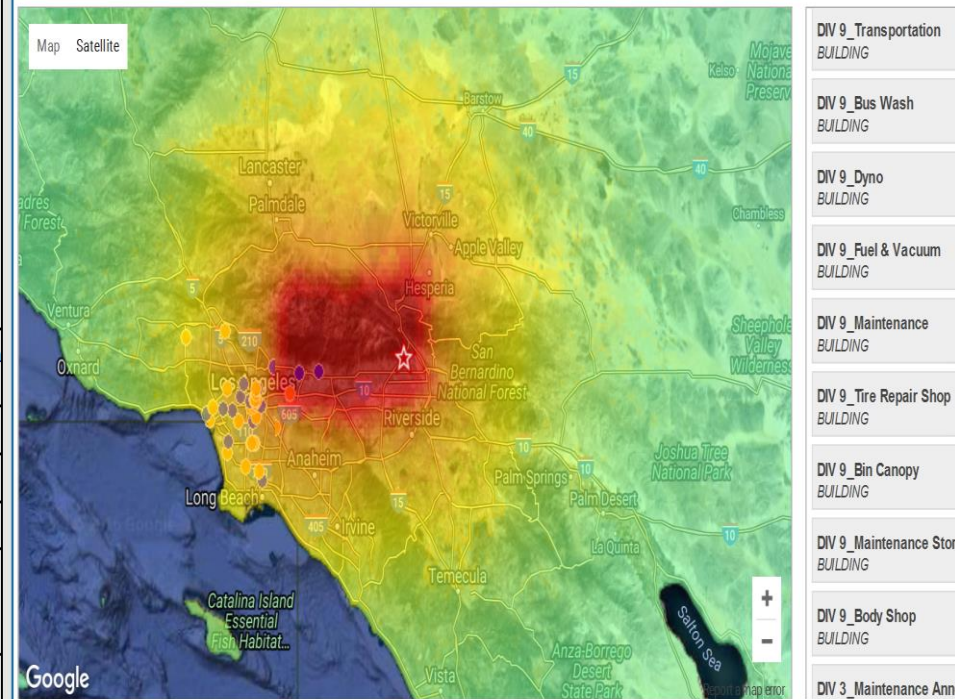
Facility Damage Estimates from ShakeMap

Facility	Description	Damage Level	Metric	Value	Exceedan Ratio
DIV 9_Bus Wash	Bus Wash	Moderate/Heavy	PGA	50.27	0.052
DIV 9_Fuel & Vacuum	Fuel & Vacuum	Moderate/Heavy	PGA	50.27	0.076
DIV 9_Maintenance	Maintenance	Moderate/Heavy	PGA	50.27	0.076
UNION STATION 1_Ticketing, waiting and concourse	Ticketing, waiting and concourse	Moderate/Heavy	PGA	50.27	0.881
UNION STATION 2_Amtrak building and historic clock tower	Amtrak building and historic clock tower	Moderate/Heavy	PGA	50.27	0.549
GOLD-PASADENA	Chinatown-SWMuseum Ref Point: HERITAGE SQUARE	Moderate/Heavy	MMI	8.88	0.940

ShakeCast 2.0 System Index

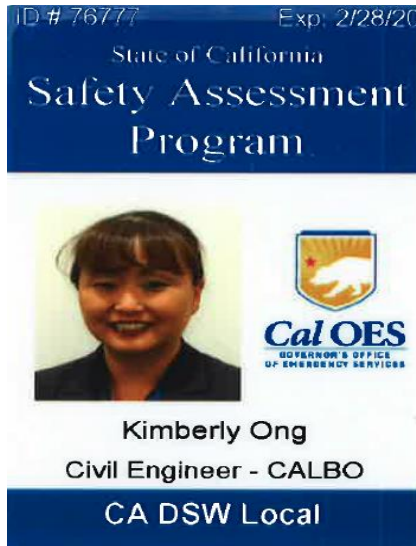
Google Maps for ShakeMap scshakeout2_as2_se_scte

ShakeCast System Facilities All  STA1  BUILDING



Post Earthquake Safety/Damage Assessment Team

- ❑ In 2002 California Office of Emergency Services developed training for local licensed professionals to quickly evaluate post-earthquake structural integrity.
- ❑ In June 2015 Metro rolled out and completed the California Office of Emergency Services training.
 - Increased Metro's ability to quickly assess structural damage post-earthquake.

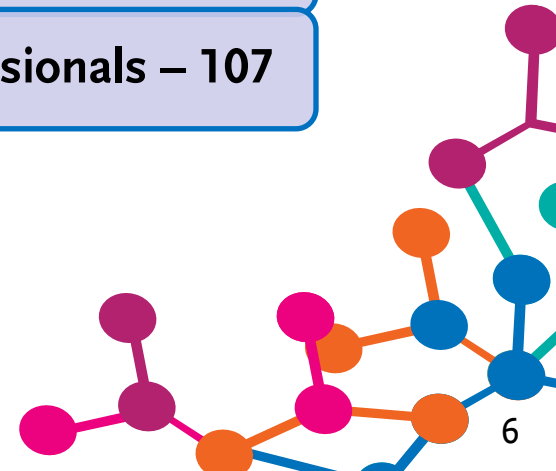


Safety Assessment Teams

- Licensed Professionals – 32
- Non Licensed Professionals – 107



Metro

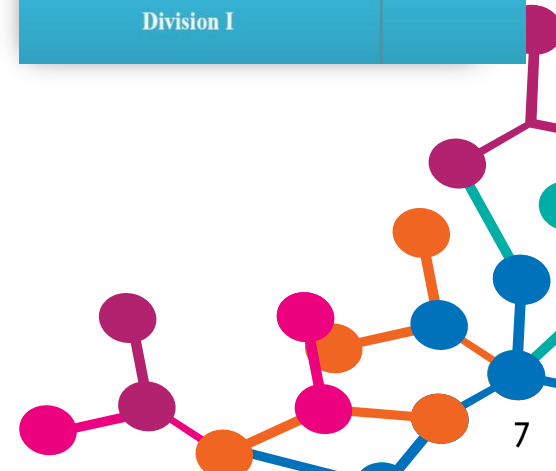
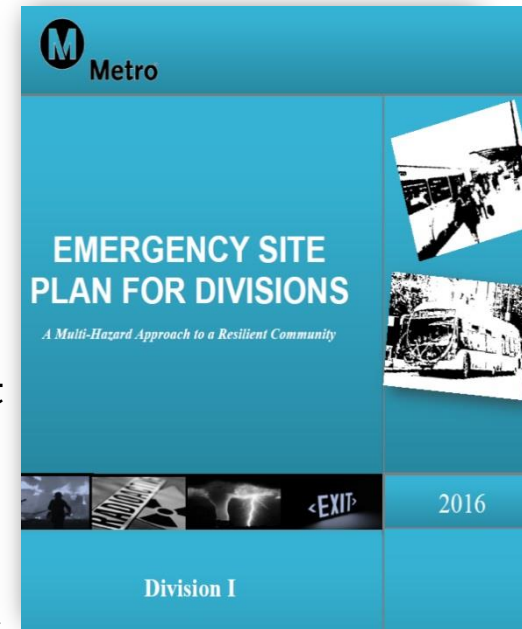


Updated Plans and Procedures

- ❑ **Continuity of Operations Plan (COOP) training components**
 - November 2016 – Began development of departmental COOPs
 - June 2017 – Completed 19 departmental COOPs
 - Workshops identified key functions, interdepartmental dependencies, and recovery strategies in the event of a disaster
 - June 2017 – Completed enterprise-wide COOP

- ❑ **Division Disaster /FEMA Assistance Program**
 - January 2017 – Prepared FEMA Disaster Assistance Guidance Sheet
 - Presented findings to Grant Planning Units

- ❑ **Preparedness Plan Development Activities**
 - March 2017 – Completed 22 Division Emergency Site Specific Plans (ESPs)
 - Established guidance fact sheets to all ESPs



Emergency Supplies

Point of Dispensing (POD) site is an Emergency supply bin instituted best practice model designed to provide commodities, emergency first aid supplies, or emergency equipment.

- The goal of a POD is to quickly provide these items to a large number of people in a short period of time.
- In March 2017 Metro PODS were completed.

PODS Locations

- All Bus and Rail Divisions
- All non Division Locations
- Gateway/Union Station

Emergency Supplies

- Medical: First Aid Kits
- Consumables: Food & Water
- Emergency Equipment: Generators, Lights, etc.



Employee Preparedness and Outreach

September 2016 – Active Shooter Campaign

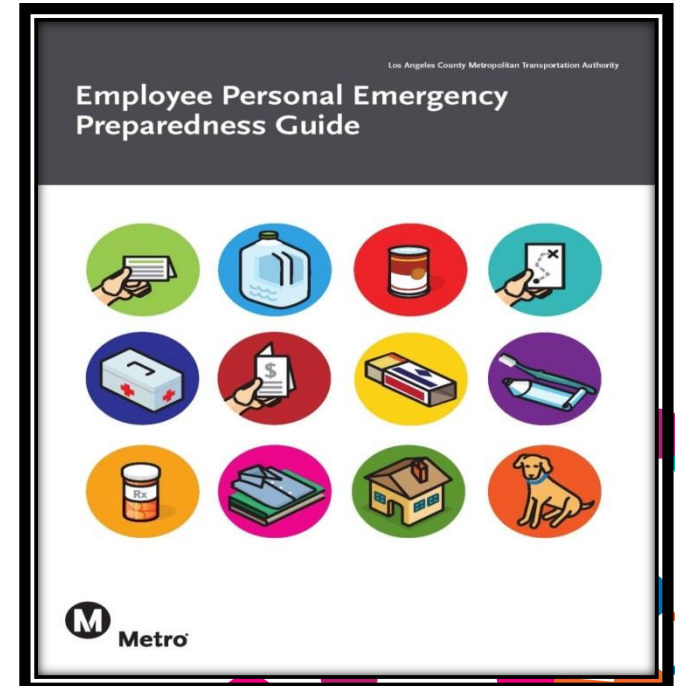
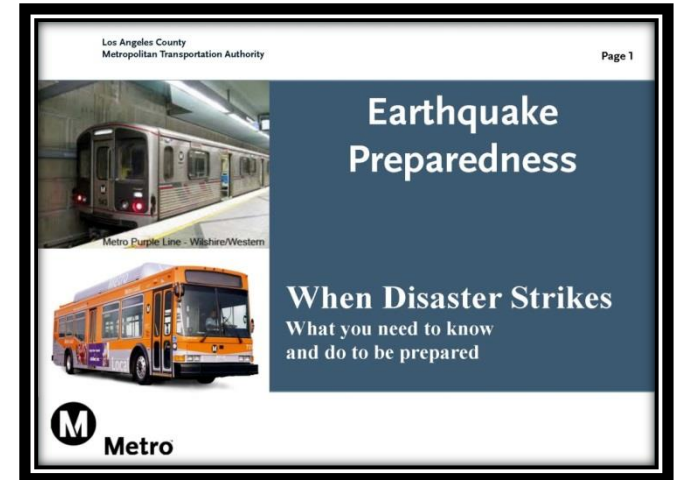
October 2016 – Major revision to the Employee Personal Emergency Preparedness Guide to illustrate how employees can cover costs of losses and damages

November 2016 – Disaster Service Worker campaign

February 2017 – Emergency Fast Guide campaign

March 2017 – Updated the Employee 72 Hour Emergency Home/Travel Preparedness Checklist

April 2017 – Updated the Employee Standard Response Protocol





Board Report

File #: 2017-0407, File Type: Informational Report

Agenda Number: 32

SYSTEM SAFETY, SECURITY & OPERATIONS COMMITTEE JULY 20, 2017

**SUBJECT: METRO BLUE LINE SHORT AND LONG
TERM IMPROVEMENTS**

ACTION: RECEIVE AND FILE MOTION RESPONSE

RECOMMENDATION

RECEIVE AND FILE response to Motion 37 (February 2017) on Blue Line Improvements.

ISSUE

At the February 2017 Planning and Programming and Construction Committee Meetings, Metro's CEO was asked to provide an update in July 2017 in response to Motion 37 regarding the evaluation of short-term and long-term Metro Blue Line (MBL) improvements, graffiti deterrence program, last MBL stop re-imagination efforts, and the MBL Express concept.

DISCUSSION

Improving the speed and reliability of the Blue Line requires a multi-pronged approach. Currently, travel time through the Flower Street and Washington Boulevard corridors are governed by traffic signals at intersections that are synchronized to allow trains to operate non-stop between stations. However, this is only achievable if the trains can maintain the design speeds along each corridor and an even spacing based on the scheduled headway (6 minute on both the Blue and Expo Lines). At the Washington/Flower junction (Wye), the Blue Line speed is also restricted by the tight curvature of the track which limits operating to no more than 10 miles/hour southbound and 5 miles/hour northbound. In addition, with a combined headway of 3 minutes between the Blue and Expo Lines, the terminal operations at 7th/Metro Center requires that arriving trains alight customers, reposition to the departing track, load passengers, and depart within three minutes of the preceding train.

In an ideal operating environment, trains would consistently run at the maximum designed speed, evenly spaced, without delay. However, operating issues (e.g. operational delays and vehicle reliability), and at-grade street issues (e.g. illegal left turns by motorists in front of trains and pedestrians violating traffic signals across tracks in downtown Los Angeles and Long Beach), all contribute to a real life scenario where any one of these issues can cause a delay. One delayed train causes a domino effect on all subsequent trains, resulting in inconsistent service along the entire line.

A. Evaluate and Implement Short-term Blue Line and Expo Line Improvements

To address the operating issues impacting speed and reliability on the Blue and Expo Lines, staff has implemented a series of short range operational improvements, including:

- Ensure On-Time Train Arrivals/Departures at Terminals - Rail Operations and Security staff have been assigned to the Blue and Expo Line platforms at 7th/Metro Center to ensure that trains arrive and depart within the 3 minute combined headways. Task Force responsibilities include monitoring train movements, managing personnel, expediting passenger boarding and alighting, providing customer announcements, and restoring service when a delay occurs.
- Install Safety Gate at 18th St On-Ramp to I-10 - Vehicles accessing eastbound I-10 freeway at 18th St from southbound Flower St. must make a left turn across the Metro rail tracks. Although this movement is protected by a dedicated left turn lane with signals and active 'train approaching' warning signs, there have been several incidences where vehicles cross the tracks illegally in front of oncoming trains. To avoid collisions, Operators are required to make a safety stop prior to the on-ramp before proceeding. This delay results in trains missing the green signal to proceed through the Washington/Flower junction. To address this safety concern, a gate arm is currently being installed, as part of a pilot project, at the vehicular left turn pocket lane to prevent illegal left turns. Should this improvement prove successful in reducing accidents, the positive (safety) stop order will be lifted allowing trains to operate through the junction without delay.
- Qualify All Blue and Expo Line Operators to Work Both Lines - Previously, Blue and Expo Line operators were only trained to work the line they were assigned to. This practice does not allow the flexibility to re-route a train to either line to restore service when trains arrived at 7th /Metro Center out of sequence. As of June 2017, all Blue and Expo Line operators have been qualified to work both lines providing the opportunity to dynamically re-route trains to either destination when needed.
- Deploy Blue Line Security Surge - Starting March 20, 2017, additional Security staff was assigned to patrol Blue Line trains and Blue Line stations. This "security surge" is focused on monitoring and reducing several common customer conduct issues, including harassment, loud music, and vendors. The added security presence has been well received, and is currently being deployed throughout the rest of the rail network.
- New Cars on Blue Line - As of June 1, 2017, 9 Kinkisharyo P3010 rail cars have been assigned to the Blue Line. As more of these new cars are in service along the line, fleet reliability, one of the major causes of delay, is expected to improve Blue Line service as well as the customer experience. Vehicle maintenance issues currently account for about 35% of lost revenue service hours on the Blue Line.

After implementing these operational improvements, Blue Line train speeds and travel time have improved between Washington Station and 7th/Metro Center. From January to April 2017, average peak hour speeds increased as much as 11%, depending on the time of day and direction of travel, which results in an actual travel time savings of up to 1.7 min along the segment.

In order to achieve greater improvements in speed and reliability along the entire Blue Line, staff has engaged with the cities of Los Angeles and Long Beach to evaluate and implement short term signal, street, and intersection improvements along at-grade street running segments. Metro and Los Angeles Department of Transportation (LADOT) staff met in early May 2017 to discuss opportunities to increase speeds and reduce delays along Washington Bl., Flower St., and through the Washington/Flower junction by considering various short, mid and long term signal and street improvements. For the short term, both agencies agreed to develop and evaluate scenarios for signal timing, priority and pre-emption, select street closures, restrict left turns at selected intersections that improve rail operations and minimize impacts to vehicular and pedestrian circulation and delays. These scenarios will also consider access to and from new developments along Flower St. and future rail operating scenarios post-Regional Connector implementation.

Metro is also coordinating with the City of Long Beach on its Traffic Signal Synchronization Project (TSSP) which is scheduled to begin construction in fall 2017 and will be completed by the end of the calendar year. When completed, the TSSP is anticipated to reduce travel time and delay along Long Beach Bl. through downtown Long Beach.

B. Study Long-Term Blue Line Improvements, including but not limited to:

1. Creating Blue Line Express Service during peak hours
 - a. Current Freight Usage along the ROW
 - b. Preliminary Estimate on Upgrading the ROW to Light Rail Transit Standards
 - c. Operations Plan to Accommodate Express Service
 - d. Quantify Travel Time Savings for Peak Hour Trains

In May 2017, Metro staff met with Union Pacific (UP) to assess the feasibility of running express service between DTLA and Long Beach. It was determined that running light rail express service along the UP tracks would require access to the Right of Way (ROW) when UP trains are not running, substantial upgrades and costs to the ROW as well as light rail vehicles to adhere to Federal Railroad Administration (FRA) safety regulations and Metro design standards. The following are the requirements needed to establish safe and efficient Blue Line Express service:

- A formal agreement between Metro and UP would be required for Metro to utilize UP tracks
- A waiver from the FRA would be required to share the corridor between light rail trains and freight trains, as the location of this service is under the FRA's jurisdiction
- Significant and costly redesign and/or upgrades of the existing infrastructure for track work, train control, TPSS, and OCS would be required to ensure the reliability of the Metro Blue Line Express service including, but not limited to:
 - Trackwork - Trackwork will need to be upgraded to Metro safety standards and to serve intermittent stations such as Willowbrook/Rosa Parks
 - Train Control - Metro LRT vehicles and UP signals will require modifications to ensure LRVs can operate safely under both UP Positive Train Control (PTC) and Metro's Automatic Train Protection (ATP) systems.
 - Traction Power - Power systems along the Blue Line will require upgrades to ensure sufficient power is available to operate both local and express trains through

- the corridor.
- Overhead catenary System (OCS) - UP standards require structures and facilities to be located at least 23 feet above the rail, which is at the maximum height of the LRV pantograph (23 feet 6 inches), resulting in reliability issues. Bridges and structures will also need to be rebuilt to accommodate the OCS.

Further evaluation of the cost/benefit of the rail improvements including those identified above, along with improvements to at grade street crossings and intermittent station platforms will be required before express operating scenarios and travel time benefits can be developed.

2. Optimize the Washington Blvd. Wye by grade separating the Blue Line on Washington Blvd. and the Expo Line on Flower Street, including a full grade separation of Pico Station.

Metro Engineering developed conceptual grade separation layouts for the Washington/Flower junction and Pico Station. Staff considered seven alternatives for the Wye and identified three for further evaluation:

- W1 - Aerial separate northbound Expo track
- W4 - Underground both northbound and southbound Expo tracks
- W7 - Fully grade separate both Blue and Expo Lines by undergrounding both southbound tracks and aerial separating both northbound tracks

Two of three alternatives for grade separating Pico Station were identified for further consideration, including:

- P1 - Aerial separate both northbound and southbound platforms
- P3 - Underground southbound platform

The Wye and Pico Station alternatives were combined into three concepts described below and summarized in Attachment B. Consultant support will be used for preliminary engineering (PE) and cost estimates for these alternatives; however no funding has been identified for construction.

Alternative WP1: Aerial Northbound Expo Track and Pico Station

This alternative combines W1 and P1 which elevates the Expo northbound track and both platforms at Pico Station. By widening the platforms and constructing two sidings around the platforms it also increases station capacity and eliminates at-grade tracks and street crossing for access to the station platforms. Should the impacts of these aerial structures not be acceptable to the businesses and communities, the same concept can be designed by undergrounding instead of elevating the Expo northbound track and Pico Station.

Alternative WP2: Underground Expo and Stacked Platform at Pico Station

This alternative combines W4 and P3 with both northbound and southbound Expo trains running underground along Flower St. between 7th/Metro Center and 23rd St. Expo trains would serve an underground Pico Station while Blue Line trains would continue to operate on

existing at-grade tracks and serve an expanded at-grade Pico Station. This alternative eliminates the conflict between Blue and Expo trains, and expands the Pico Station platforms to accommodate larger crowds during special events.

Alternative WP3: Double Level Fully Grade Separated Junction and Stacked Platform at Pico Station

This alternative combines WP7 and P3 which fully grade separates the Blue and Expo Lines, eliminating all conflicts at the Wye. Northbound service would be elevated through the Wye and touch down south of I-10 to serve the existing at-grade Pico Station. Southbound trains would run underground between 7th/Metro Center and 23rd St. and serve an underground station at Pico. Northbound and southbound Pico Station platforms would be widened to accommodate larger crowds during special events.

3. Explore the feasibility for a full grade separation and/or station relocation including additional parking at Wardlow Station

In May 2017, Metro issued a Task Order to AECOM through an RFP that was issued to all members of an existing Countywide Planning Bench Contract, to conduct a safety and traffic analysis for the Wardlow intersection and to recommend any needed improvements. AECOM's task also includes using Metro's adopted grade crossing policy to prioritize each of the 27 gated crossings for grade separation including providing a detailed report identifying the methodology, assumptions, and data that supports the prioritization. These three tasks responded to a May 2016 Board motion, and are scheduled to be completed by the end of August 2017. It should be noted, however, that AECOM's current scope does not include any studies for additional parking at Wardlow station.

Parking at Wardlow Station Update

Between August 2016 and May 2017, Metro staff held on site meetings and communicated with both the City of Long Beach and Long Beach Transit, to discuss a comprehensive approach to managing parking at the Wardlow Station. In addition, through the development of the Supportive Transit Parking Plan (STPP) and a more robust parking demand model, the Parking Management Unit is able to determine and manage parking demand at high-demand stations. The Wardlow station currently offers 119 parking spaces and experiences excess parking demand that results in spillover parking into the adjacent neighborhoods. With the implementation of the Parking Guidance System this past year, Metro is working to redirect some of this parking demand to the neighboring Willow station, which has at least 100 parking spaces available daily. Over the next 6 months, with the completion of the STPP, staff will recommend to the Board implementing the Parking Management Pilot Program at the Wardlow Station. Assuming a daily parking rate of \$3.00, the demand for parking is estimated at 209 spaces. As a result, there will be a 90 space shortage, which can be addressed in two ways: (1) using the Parking Guidance System (signage and app) to direct parking traffic to Willow Station, which has at least 100 available spaces daily and (2) through ongoing work with the City of Long Beach in their efforts to pursue an upgrade to the transit plaza that would include a re-striping plan that will install on-street metered parking that will both mitigate traffic speeds and increase the on-street parking inventory. The additional on-

street meters will allow for both transit commuter parking as well as time limits to allow for more local/transient use.

4. Study of additional grade separations along the entire Blue Line alignment that would improve service reliability and schedule adherence

In February 2017, a second Board motion was approved that directed the CEO, among other issues, to study grade separations on the entire MBL, including all the non-gated rail intersections and the junction of the MBL and Expo lines (Wye) as a long term enhancement. This latest motion also directed evaluations be undertaken of short-term improvements described above that both Metro and LADOT staff agreed to pursue. In order to provide a level-playing field and from a cost advantage perspective, staff decided to initiate an expedited procurement for a new contract for the additional tasks & discipline through the same planning bench to encourage competition. Staff anticipates issuing a Task Order for the additional work by October 2017.

C. Motion Amendments

1. MBL Graffiti Deterrence Program

The February 2017 graffiti deterrence pilot program included the installation of artificial ivy at the Metro Gold Line Lincoln Cypress Station. In April 2017, the pilot program was expanded to Slauson Station along the Blue Line where artificial ivy was installed, partially wrapping a column that supports the platform. Product effectiveness and cost benefit analysis are being evaluated for the Gold Line and Blue Line stations that are a part of the pilot program.

2. Reimagine the last stop on the MBL and consider adding a second stop closer to the water

Downtown Long Beach is currently served by three Blue Line stations. The southernmost station ("Downtown Long Beach Station") is located on West 1st Street between Pine Ave and Pacific Ave, two blocks north of the Long Beach Convention Center and approximately 1/3 mile north of Shoreline Dr, which is the primary roadway servicing waterfront uses including the Aquarium of the Pacific and Shoreline Village. Because the distance from the Downtown Long Beach Station to the uses along Shoreline is less than one mile, Metro staff will meet with City of Long Beach staff to better understand the connectivity issues related to providing better transit connections to these uses. Part of this work will involve First/Last Mile Connectivity options, in conjunction with First/Last Mile Planning activities described below:

Blue Line First/Last Mile Planning

Through an effort funded by a Cycle I ATP Grant, Metro is currently preparing plans for all 22 Blue Line Stations. These plans will consist of recommendations for access, safety and other improvements for each station, with an emphasis on creating better linkages to key destinations within the stations areas. The project also includes innovative community engagement, testing a variety of techniques to gather input from community residents and stakeholders outside of the context of standard public meetings.

3. Ensure that the Eco-Rapid Transit Line project studies incorporates the MBL Express concept;

so the MBL could ultimately run directly to Union Station

Environmental studies for the West Santa Ana Branch Rail Transit Project are being initiated with Scoping Meetings scheduled in June 2017. These studies will include travel demand modeling for that project in the context of the Measure M transit network. Because two options for the West Santa Ana Branch Northern Alignment would run adjacent to the Metro Blue Line between Slauson and Washington Stations, interlining Blue Line trains onto West Santa Ana Branch tracks might be possible. As a part of the West Santa Ana Branch Travel Demand Forecasting, such an operating plan will be modeled and evaluated.

DETERMINATION OF SAFETY IMPACT

Approval of this receive and file item on Metro Blue Line improvements will have a positive impact on the safety of our customers and employees.

FINANCIAL IMPACT

There is no financial impact imparted by approving the recommended action.

NEXT STEPS

With regards to the short-term Blue and Expo Line improvements, Metro staff will continue to engage the Cities of Los Angeles and Long Beach to identify and evaluate signal and intersection modifications to improve travel times and reduce delays. Operational improvements will continue to be monitored and adjusted to improve the reliability of train service along the line. With regard to the Washington/Flower junction (Wye) and Pico Station grade separation alternatives, Metro's Program Management department will continue to advance engineering and develop cost estimates for preferred alternatives, considering Right of Way (ROW) issues, street traffic impacts including street closures, and permanent acquisition of traffic lanes. As mentioned previously, a study of grade separations on the entire MBL, will be completed via an expedited procurement of a task order through the Countywide Planning bench. While at this point, there is no impact to the budget, depending on the final negotiated amount for the additional tasks that will be included in the RFP through the Countywide Planning Bench, staff may have to return to the Board for authorization. In terms of parking at Wardlow station, Metro's Parking Management Unit will coordinate with other Metro departments and consultants regarding potential reconfiguration or relocation of stations to ensure that parking needs are met and managed appropriately. Also, Blue Line First/Last Mile Planning is scheduled to be completed by the end of 2017, and staff will provide a full briefing to the Board on results at that time.

Staff will return to the Board upon conclusion of the many ongoing assessments of MBL short, medium and long term capital and operational betterments. Staff will prioritize these betterments based on the safety, reliability, traffic impacts and end-to-end speed improvements along the MBL per dollar of ROM cost for each.

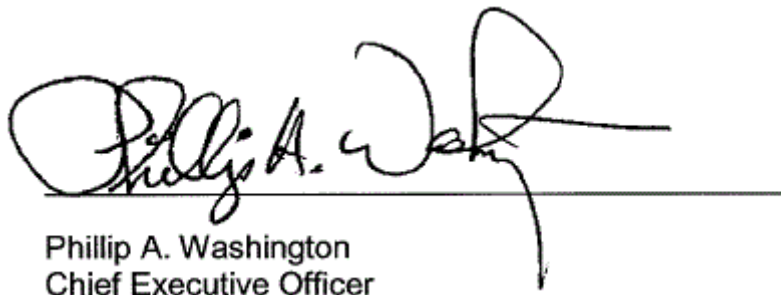
ATTACHMENTS

Attachment A - Board Motion February 2017

Attachment B - MBL Long Term Alternatives Summary Matrix

Prepared by: Conan Cheung, Senior Executive Officer, Operations, (213) 418-3034
Androush Danielians, Interim DEO Project Management, (213) 922-7598
Vijay Khawani, Executive Officer, Corporate Safety, (213) 922-4035
Nancy Saravia, Sr. Manager, Transportation Planning, (213) 922-1217

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 922-4424
Richard Clarke, Chief Program Management Officer, (213) 922-7557
Therese McMillan, Chief Planning Officer, (213) 922-7077
Greg Kildare, Chief Risk, Safety & Asset Management Officer,
(213) 922-4971



Phillip A. Washington
Chief Executive Officer

Metro



Board Report

File #:2017-0091, File Type:Motion / Motion
Response

Agenda Number:37.

REVISED
PLANNING AND PROGRAMMING COMMITTEE
FEBRUARY 15, 2017
CONSTRUCTION COMMITTEE
FEBRUARY 16, 2017

Motion by:

**MAYOR ERIC GARCETTI, SUPERVISOR JANICE HAHN, MAYOR ROBERT
GARCIA, AND DIRECTOR JACQUELYN DUPONT-WALKER**

Item 37: Blue Line Improvements

With 80,000 average weekday boardings, the Blue Line is MTA's highest ridership light rail line and is the highest ridership modern light rail line in the United States. During 2016, the Blue Line saw nearly 25 million total boardings and over 186 million total passenger miles.

Currently, the Blue Line is undergoing a \$1.2 billion state-of-good repair overhaul, including over \$860 million in new and refurbished light rail vehicles. This project seeks to restore the Blue Line to a like-new state of operation.

However, a more comprehensive evaluation of improving service and reliability on the Blue Line is required. Customer satisfaction on the Blue Line has fallen nearly ten percent since 2013, while the Blue Line complaint rate has nearly doubled over the same time period.

There are many opportunities for improvement throughout the length of the Blue Line.

In Downtown Los Angeles, for example, a bottleneck exists at Washington Boulevard, where the Blue Line and Expo Line join in a wye. Recently, MTA increased the frequency of Expo Line trains to every six minutes during peak hours, matching the frequency of Blue Line trains. As a result, a total of 40 trains per hour are passing through the wye, approaching the limits of the wye's capacity.

Both Blue Line and Expo Line depend on this single track segment, any collision or mechanical failure within the segment could significantly delay both rail lines. Grade separating this portion of the Blue and Expo Lines could dramatically improve service

reliability, increase capacity, provide better schedule adherence, and facilitate other opportunities, such as undergrounding Pico Station.

Additionally, an opportunity exists to create Blue Line Express service between Long Beach and Downtown Los Angeles. Roughly between the I-710 freeway and Washington Boulevard, extra right-of-way exists which could be used to construct a third track required for express operation.

APPROVE Motion by Garcetti, Hahn, Garcia and Dupont-Walker that the MTA Board direct the CEO to:

- A. evaluate and implement short-term Blue Line and Expo Line improvements, especially service reliability and schedule adherence improvements on at-grade sections of Washington Boulevard, Flower Street, and the downtown wye, including but not limited to signal optimization, signal priority, signal preemption, and consideration of street closures;
- B. study long-term Blue Line improvements, including but not limited to:
 - 1. creating Blue Line Express service between Long Beach and Downtown Los Angeles during peak hours, including:
 - a. provide information on current freight usage along the right-of-way,
 - b. provide a preliminary estimate on upgrading the right-of-way to light rail transit standards,
 - c. provide an operations plan to accommodate express service,
 - d. quantify travel time savings for peak hour trains;
 - 2. optimizing the Washington Boulevard wye by grade separating the Blue Line on Washington Boulevard and the Expo Line on Flower Street, including a full grade separation of Pico Station;
 - 3. explore the feasibility for a full grade separation and/or station relocation including additional parking at Wardlow Station;
 - 4. study of additional grade separations along the entire Blue Line alignment that would improve service reliability and schedule adherence; and
- C. report back on all the above to the Construction Committee during the July 2017 Board

cycle.

DUPONT-WALKER AMENDMENT: to extend to the Blue Line the graffiti deterrence program currently in effect on the Gold Line.

GARCIA AMENDMENT: to work with the City of Long Beach to reimagine the last stop on the Blue Line.

GARCETTI AMENDMENT: that the Eco-Rapid Transit Line Project studies incorporate the Blue Line Express concept, so the Blue Line could ultimately run directly to Union Station.

Metro Blue Line Long Term Improvements Summary Matrix

Washington Wye Grade Separation Alternatives

Layout Alternative			Key Features				Construction Cost 2017 (\$M)
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	
W1	NB Expo aerial	<p>ALT W1: NB EXPO AERIAL</p>	Yes	No	n/a	n/a	90
W2	NB Expo underground	<p>ALT W2: NB EXPO UNDERGROUND</p>	Yes	No	n/a	n/a	Not done
W3	Washington Blvd aerial	<p>ALT W3: WASHINGTON BLVD AERIAL</p>	No	Yes	n/a	n/a	Not done

ATTACHMENT B

Layout Alternative			Key Features				
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	Construction Cost 2017 (\$M)
W4	Expo underground		No	Yes (for Expo only)	n/a	n/a	680
W5	Flat aerial junction		No	Yes	n/a	n/a	Not done
W6	Flat underground junction		No	Yes	n/a	n/a	Not done
W7	Full grade separation - aerial and underground		Yes	Yes	n/a	n/a	460

Pico Station Alternatives

Layout Alternative			Key Features				Cost
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	
P1	Aerial with two platforms and four tracks	<p>ALT P1: STATION WIDENED AND AERIAL</p>	n/a	n/a	Yes	Yes	240
P2	Underground with two platforms and four tracks	<p>ALT P2: STATION WIDENED AND UNDERGROUND</p>	n/a	n/a	Yes	Yes	360
P3	Stacked platforms – at-grade for SB and underground for NB	<p>ALT P3: STACKED PLATFORMS SB UNDERGROUND, NB AT GRADE</p>	n/a	n/a	Yes	Yes	290

Combined Washington Wye and Pico Station Alternatives

Layout Alternative			Key Features				Cost
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	
WP1 (W1+P1)	Aerial NB Expo and Pico Station	<p>ALT WP1: COMBINED P1 AND W1 PICO STATION AND NB EXPO AERIAL</p>	Yes	No	Yes	Yes	330
WP2 (WP4+P3)	Underground Expo and stacked platform Pico Station	<p>ALT WP2: COMBINED P3 AND W4 EXPO TRACKS UNDERGROUND PICO STATION WITH STACKED PLATFORMS BLUE LINE AT-GRADE, EXPO UNDERGROUND</p>	No	Yes (for Expo only)	Yes	Yes	680
WP3 (WP7+P3)	Double level fully grade separated junction and stacked platform Pico Station	<p>ALT WP3: COMBINED P3 AND W7 SB UNDERGROUND NB AT GRADE NORTH OF FREEWAY NB AERIAL SOUTH OF FREEWAY</p>	Yes	Yes	Yes	Yes	840



Board Report

File #: 2017-0404, **File Type:** Plan

Agenda Number: 33

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017**

SUBJECT: STAFFING REQUEST FOR CRENSHAW LINE

ACTION: APPROVE FULL TIME EQUIVALENT (FTE) POSITION INCREASE

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to amend the FY18 Budget to add 59 positions, as shown below:
 - 1. Add 8 (eight) non-contract positions to manage and plan for integrated testing, system readiness drills, asset inspection and acceptance, turnover coordination, opening a new Rail Maintenance Facility and pre-revenue service testing of the Crenshaw Line rail project.
 - 2. Add 51 contract positions to support training and certification, asset inspection and acceptance, turnover coordination, integrated testing, system readiness drills, the opening of a Rail Maintenance Facility, pre-revenue service testing and the opening of the Crenshaw Line to the public.
- B. RECEIVING AND FILING staff analysis of a comprehensive rail expansion staffing plan to add up to a total of 130 positions in FY19 and FY20. The staffing plan assumes a time-phased, milestone-based hiring construct using the best available current scope of work estimates. These FTE requirements will be brought forward for board consideration during the respective FY19 and FY20 budget development cycles.

ISSUE

The overall effort to prepare Metro for this new rail line, new maintenance facility, and light-rail vehicles for revenue service beginning no later than October 2019 will require a substantial amount of technical and support staff across several departments. For technical operations staff, Metro must begin recruitment well in advance of actual need in order to ensure adequate training and qualification requirements can be met. These positions will be phased in throughout FY18, FY19 and FY20 and recruitment will be aligned with system safety, critical path activities, systems testing and project milestones.

DISCUSSION

The Crenshaw Line Rail Project is currently under construction and scheduled to commence revenue service in October 2019. Upon completion, Metro will receive one (1) new light-rail Maintenance Facility (Division 16), 8.5 new route miles for passenger service, eight (8) new stations, and employ 29 light-rail vehicles, all of which must be fully-integrated into the existing Metro Rail network prior to the start of revenue service to ensure the new system meets Metro's safety standards.

The Crenshaw line is unique in comparison to existing rail lines within our current system with the Right-Of-Way having a combination of below grade, at grade and aerial sections. 2.9 miles of the line will be below grade, supported by three (3) stations. One (1) station will support the 1.4 miles of aerial Right-Of-Way and the final four (4) stations will support the 4.2 miles of at-grade track. The signaling systems are more complex with an 84 mainline and yard switch machines and 100 mainline and yard signals being added to the infrastructure to support the revenue service and the tie into Metro's Green Line. There will be 17 fully gated crossings to support our new standards and will require a higher level of maintenance compared to the previous design standards.

This project will increase Metro's light-rail system route miles by almost nine (9) percent and stations along the entire Metro Rail network by seven-and-a-half (7.5) percent. Additionally, the new light-rail Maintenance Facility will increase Metro's total light-rail maintenance capacity by 20 percent.

As the full-time "owners" of the line, shop and systems, Operations personnel are required to provide day-to-day decisions and support of the construction and outfitting of the line, yard and shop including systems testing, inspections, development of punch list items and other start-up activities. Pre-revenue service testing of the rail line is scheduled for August 2019. Given Metro's intention to operate full revenue service no later than October 2019, there is an immediate need to recruit, hire and train the staff needed to perform these critical path activities, prevent project delays and eventually deliver daily revenue service.

This agency-wide request for increased staffing in FY18, FY19 and FY20 supports personnel needs for the start-up and operation and maintenance of the Crenshaw Line as well as adjunct departments and considers the time frame needed for recruitment and training of new personnel in conjunction to project deliverables. The comprehensive staffing plan with related rationale is presented in Attachment B: Crenshaw Staffing Timeline. To develop this staffing request, staff considered several factors including revenue service, rail car and infrastructure state of good repair, system complexity, current labor ratios and lessons learned from the recent Gold Line and Expo Line extension start up.

The initial authorization to add positions will allow Metro to hire, provide training and manage critical path activities to prevent project delays and to provide and sustain proper staffing levels to operate and maintain our current rail service. Metro will continue conducting a comprehensive review of budgeted FTEs for Rail Facilities Maintenance, Rail Fleet Services, Rail Transportation, and Wayside. Metro will report back to the Board as part of the FY19 and FY20 Budget process detailing ongoing staffing needs and non-labor expenses for full light rail network integration of the Crenshaw Line.

DETERMINATION OF SAFETY IMPACT

The authorization to add positions will have a positive impact on safety. This authorization will add the staff needed to plan, manage, and implement start-up activities.

Metro staff will monitor and inspect third-party construction, installations and systems testing. For example, Metro personnel will work closely with constructors during integration testing to check all systems for the ability to operate trains safely through stations, switches, ventilation zones, at-grade crossings or other systems. This testing will also include operating and testing multiple train scenarios to examine the integrity, reliability and redundancy of safety systems. This authorization will allow Metro to maintain existing staffing levels for revenue service on the existing rail network and achieve Crenshaw Project milestones in parallel.

FINANCIAL IMPACT

The projected hiring plan and milestones support a Revenue Operations Date (ROD) of October 2019. New staff will begin to arrive during the first three months of FY18. The FY18 annual budget impact is estimated to be \$12,000,000.

Funding for the recruitment and training of the added positions will be supported by Operating projects within respective cost centers. Funding for Systems Integration and Pre-ROD testing estimated at \$8.2 million is included in the Capital Life of Project (LOP) budget for the Crenshaw Line.

Since this is a multi-year effort, the cost center managers, project managers, and Executive Directors will ensure that planned resources are budgeted in future fiscal years. In FY19 and FY20, it is anticipated that additional funds must be identified to complete and sustain the staffing plan. Staff will identify the funding and continuing Operations support requirements for Board consideration during the FY19 and FY20 budget process.

Impact to Budget

Funding for this effort is Measure R Transit Capital New Rail 35%. These funds are eligible for new rail system integration and pre-revenue activities. No other funds were considered for these Measure R Transit Capital projects.

ALTERNATIVES CONSIDERED

Authorization to amend the FY18 Budget to add 59 positions will support Metro's mission for the continuous improvement of an efficient and effective transportation system for Los Angeles County. Delaying the recruitment, hiring, and training of personnel needed to plan, manage, and implement start-up activities could delay the project.

One alternative would be to reassign existing Metro personnel from current duties to support the project. This approach is not recommended because it would have a negative impact on Metro's ability to adequately maintain the current level of staffing to meet required regulatory inspections, maintenance and would significantly increase response times to incidents affecting service on our current rail network .

The impacts of not staffing the Crenshaw Project at suitable levels include, but are not limited to, the following risks: lack of Metro oversight and inspection; foregone opportunities to evaluate safety,

design, and construction activities; third-party reliance for completion of systems to acceptable standards; failure to satisfy acceptance and delivery schedules; insufficient time to hire, recruit and train staff; and delays to project milestones including revenue operations.

NEXT STEPS

If approved, Metro will proceed with the recruitment, hiring and training of personnel. Additionally, Metro will advance start-up planning and activities to ensure timely delivery of the Crenshaw Line.

FY19 and FY20 positions will be requested and added through the FY19 and FY20 Budget process and will be based upon revenue service projections. Metro will continue ongoing efforts to finalize plans for Public Safety, Communications, Marketing, Rail Activation, Fleet Management and Operations for the Crenshaw Line project. These plans document Metro’s strategy including roles and responsibilities for directing and managing work through project closure and beyond.

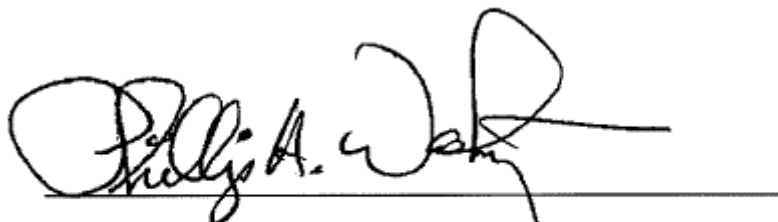
ATTACHMENTS

Attachment A - Agency-Wide Staffing Summary by Department and Union

Attachment B - Crenshaw Staffing Timeline

Prepared by: Carolyn Kreslake, Senior Manager, Transportation Planning, (213)922-7420
Diane Corral-Lopez, Executive Officer, Operations Administration, (213)922-7676

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer, (213)418-3051
Pauletta Tonilas, Chief Communications Officer, (213)922-3777
Greg Kildare, Chief Risk, Safety & Asset Management Officer, (213)922-4971
Joanne Peterson, Chief Human Capital & Development Officer, (213)418-3088
Dave Edwards, Chief Information Officer, (213)922-5510
Alex Wiggins, Chief Systems Security & Law Enforcement Officer (213)922-4433
Nalini Ahuja, Chief Financial Officer, (213)922-3088
James T. Gallagher, Chief Operations Officer, (213)418-3108
Stephanie Wiggins, Deputy Chief Executive Officer, (213) 922-1023



Phillip A. Washington
Chief Executive Officer

AGENCY-WIDE STAFFING SUMMARY BY DEPARTMENT & UNION

OPERATIONS		Total # of FTEs	FY18 Budget Amendment	FY19	FY20
1	MAINTENANCE OF WAY	20	17	2	1
2	FACILITIES MAINTENANCE	17	1	16	0
3	CENTRAL MAINTENANCE	1	0	1	0
4	TRANSPORTATION	50	16	33	1
5	RAIL FLEET SERVICES	54	21	31	2
6	VEHICLE ENGINEERING & ACQUISITION	4	2	3	0
7	SERVICE PLANNING & SCHEDULING	3	1	2	0
8	Subtotal	149	58	88	4
SUPPORT		Total # of FTEs	FY18 Budget Amendment	FY19	FY20
9	COMMUNICATIONS	3	0	3	0
10	RISK, SAFETY & ASSET MANAGEMENT	3	0	3	0
11	HUMAN CAPITAL & DEVELOPMENT	2	1	1	0
12	INFORMATION TECHNOLOGY SERVICES	6	0	6	0
13	VENDOR/CONTRACT MANAGEMENT	12	0	5	7
14	FINANCE & BUDGET	7	0	7	0
15	SYSTEM SECURITY & LAW ENFORCEMENT	6	0	0	6
16	Subtotal	39	1	25	13
17	Total	188	59	113	17
18					
19					
20					
BY UNION		Total # of FTEs	FY18 Budget Amendment	FY19	FY20
21	SMART	26	0	26	0
22	ATU	66	32	34	0
23	TCU	28	0	17	11
24	AFSCME	32	19	13	0
25	TEAMSTERS	6	0	0	6
26	NON-CONTRACT	30	8	23	0
27	Total	188	59	113	17
28					

CRENSHAW STAFFING TIMELINE

Fiscal Year	FY2018												FY2019												FY2020											
	2017						2018						2019						2020																	
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D						
													Sys. Int. Test 1																							
													Yard Substantial Completion																							
													Mainline Substantial Completion																							
													Sys. Int. Test 2																							
																									Recruitment											

OPERATIONS DEPARTMENT			Total # of FTEs	FY18	FY19	FY20
MAINTENANCE OF WAY						
<i>Signals</i>						
ATU	764	SIGNAL INSPECTOR	4	4		
ATU	757	SIGNAL INSPECTOR LDR	1	1		
AFSCME	4609	RAIL SIGNAL SUPERVISOR	1	1		
NC	7210	MGR, WAYSIDE SYS	1	1		
TCU	891	GENERAL CLERK III	1			1
<i>Track</i>						
ATU	765	TRACK INSPECTOR	2	2		
ATU	756	TRACK INSPECTOR LDR	1	1		
<i>Power</i>						
ATU	766	TRACTION POWER INSPECTOR	5	5		
ATU	755	TRACTION POWER INSPECTOR LDR	1	1		
AFSCME	4610	RAIL TRACTION SUPERVISOR	1	1		
<i>Rail Communications</i>						
ATU	763	RAIL ELECTRO COMM INSP	2		2	
FACILITIES MAINTENANCE						
ATU	789	FACILITIES SYS TECH	2		2	
ATU	790	FACILITIES SYS TECH LDR	1		1	
TCU	898	CUSTODIAN	8		8	
TCU	896	LEAD CUSTODIAN	2		2	
AFSCME	4606	FACILITIES MAINTENANCE SUPV	3		3	
NC	4602	DIR, FACILITIES MAINTENANCE	1	1		

Pre-Revenue Service Simulation

ROD - 10-30-2019

CRENSHAW STAFFING TIMELINE

Fiscal Year	FY2018												FY2019												FY2020											
	2017						2018						2019						2020																	
	Month	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
													Sys. Int. Test 1																							
													Yard Substantial Completion																							
													Mainline Substantial Completion																							
													Sys. Int. Test 2																							
																									Recruitment											
24	OPERATIONS DEPARTMENT			Total # of FTEs	FY18	FY19	FY20																													
25	CENTRAL MAINTENANCE																																			
26	ATU	775	NON-REV RL EQUIP MECH	1		1																						Recruitment								
27	TRANSPORTATION																																			
28	<i>Division 16</i>																																			
29	TCU	733	TRANSPORTATION CLERK	1			1																					Recruitment								
30	SMART	859	TRAIN OPERATOR	24		24																						Recruitment								
31	NC	7204	MGR, RAIL DIV TRANSP	1		1																						Recruitment								
32	NC	7203	DIR, RAIL TRANS	1	1			Recruitment		Training																										
33	<i>Field Operations</i>																																			
34	AFSCME	7205	RAIL TRANSIT OPS SUPV	6	3	3		Recruitment		Training																										
35	<i>ROC</i>																																			
36	TCU	950	CCTV OBSERVER/TCU	3		3																						Recruitment								
37	AFSCME	7205	RAIL TRANSIT OPS SUPV	5	5			Recruitment		Training																										
38	AFSCME	7205	RAIL TRANSIT OPS SUPV (YARD)	5	5			Recruitment		Training																										
39	NC	9597	MGR, OPERATIONS CONTROL	1		1		Recruitment		Training																										
40	NC	7203	DIR, RAIL TRANS	1		1		Recruitment		Training																										
41	<i>Instruction</i>																																			
42	AFSCME	7205	RAIL TRANSIT OPS SUPV	2	2			Recruitment		Training																										
43	RAIL FLEET SERVICES																																			
44	<i>Division 16</i>																																			
45	TCU	891	GENERAL CLERK III	1			1																					Recruitment								
46	ATU	829	SERVICE ATTENDANT	13		13																						Recruitment								
47	ATU	827	SERVICE ATTENDANT LDR	1		1																						Recruitment								
48	TCU	907	EQUIPMENT RECORDS SPECIALIST	1			1																					Recruitment								
49	ATU	762	MAINTENANCE SPECIALIST (phase 1)	15	15			Recruitment		Training																										
50	ATU	762	MAINTENANCE SPECIALIST (phase 2)	11		11		Recruitment		Training																										
51	ATU	769	MAINTENANCE SPECIALIST LDR	3	3			Recruitment		Training																										
52	AFSCME	7007	RAIL EQUIP MAINT INSTRUCTOR	1	1			Recruitment		Training																										
53	AFSCME	7005	RAIL EQUIP MAINT SUPV	6	1	5		Recruitment		Training		Recruitment		Training																						
54	NC	7211	MGR, RAIL FLEET SERVICES	1		1		Recruitment		Training																										
55	NC	7002	DIR, RAIL FLEET SERVICES	1	1			Recruitment		Training																										
56	VEHICLE ENGINEERING & ACQUISITION																																			
57	ATU	743	RAIL WRNTY EQUIP SPCLST	1		1																						Recruitment								
58	AFSCME	7005	RAIL EQUIP MAINT SUPV	1		1																						Recruitment								
59	NC	3806	SR ENGINEER	1	1			Recruitment		Training																										
60	NC	3807	ENGINEER	1		1																						Recruitment								

CRENSHAW STAFFING TIMELINE

			Total # of FTEs	FY18	FY19	FY20
OPERATIONS DEPARTMENT						
SERVICE PLANNING & SCHEDULING						
NC	7008	SR MGR, DIVISION PERFORMANCE SUPPORT	1	1		
SMART	327	SCHEDULE MAKER II	1		1	
SMART	853	SCHEDULE CHECKER	1		1	
SUPPORT DEPARTMENTS						
COMMUNICATIONS						
NC	4169	PROJECT MANAGER, TRANSIT ASSET MANAGEMEN	1		1	
NC	5030	MANAGER, COMMUNITY RELATIONS	1		1	
NC	5031	SR COMMUNITY RELATIONS OFFICER	1		1	
RISK, SAFETY & ASSET MANAGEMENT						
NC	8012	SR. WKR COMP ANALYST & PL/PD ANALYST	1		1	
NC	8019	SR SAFETY SPECIALIST	2		2	
HUMAN CAPITAL & DEVELOPMENT						
NC	5227	PRINCIPAL HR ANALYST	1	1		
NC	5235	PRINCIPAL DISABILITY COMPLIANCE ADMINISTRAT	1		1	
INFORMATION TECHNOLOGY SERVICES						
ATU	701	MASTER SYS COM TECHNICIAN	2		2	
NC	3804	SUPERVISING ENGINEER	3		3	
NC	5413	SR DIRECTOR, INFORMATION SYSTEMS	1		1	
VENDOR/CONTRACT MANAGEMENT						
AFSCME	6211	MATERIEL SUPERVISOR	1		1	
TCU	963	STOREKEEPER	2			2
TCU	931	TRUCK DRIVER/CLERK	1			1
TCU	947	STOCK CLERK	4			4
NC	6221	MATERIEL PLANNER	1		1	
NC	2403	PRINCIPAL CONTRACT ADMINISTRATOR	1		1	
NC	6225	PRINCIPAL INVENTORY CONTROL ANALYST (Rail)	1		1	
NC	6212	SR BUYER	1		1	
FINANCE & BUDGET						
TCU	903	CASH CLERK	4		4	
NC	3807	ENGINEER	1		1	
NC	5450	SR DEPTMENTAL SYSTEMS ANALYST	1		1	
NC	5404	SR MANAGER, SYSTEMS PROJECTS	1		1	
SYSTEM SECURITY & LAW ENFORCEMENT						
TEAMSTERS	363	TRANSIT SECURITY OFFICER II	2			2
TEAMSTERS	363	TRANSIT SECURITY OFFICER I	4			4

Fiscal Year	FY2018												FY2019												FY2020											
	2017						2018						2018						2019																	
	Month	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
													Sys. Int. Test 1																							
													Yard Substantial Completion																							
																									Mainline Substantial Completion											
																									Sys. Int. Test 2											
	Recruitment Training																																			
													Recruitment Training																							
													Recruitment Training																							
																									Sys. Int. Test 2											



Board Report

File #: 2017-0417, File Type: Contract

Agenda Number: 34

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE JULY 20, 2017

SUBJECT: UNLEADED GASOLINE

ACTION: AWARD CONTRACT FOR UNLEADED GASOLINE

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award a 60 month, Indefinite Delivery/Indefinite Quantity Contract No. FY34649 for unleaded gasoline to Pinnacle Petroleum, Inc., the lowest responsive and responsible bidder, for a two year base, inclusive of sales tax, for a not-to-exceed amount of \$3,886,980, and three one-year options for a not-to-exceed amount of \$5,830,470, for a total not-to-exceed contract amount of \$9,717,450, subject to resolution of protest(s), if any.

ISSUE

Under this Contract, the recommended contractor is required to provide unleaded gasoline for Metro's non-revenue vehicles (automobiles, trucks, and vans). The use of an Indefinite Delivery/Indefinite Quantity Contract provides Metro with fuel on an as-needed basis. In an environment where future non-revenue vehicles may come in the form of electric automobiles it is prudent to establish maximum flexibility for fuel demand and delivery. Due to the fluctuation and variability in fuel prices the total not-to-exceed price is subject to change but will be in compliance with the prevailing Oil Price Information Service (OPIS) fee per gallon for the Los Angeles Region.

DISCUSSION

This Contract will provide up to approximately five million gallons of unleaded gasoline for 60 months at prevailing Oil Price Information Service (OPIS) pricing. OPIS is a widely accepted fuel price index that is published daily to reflect current market prices in the Los Angeles area for petroleum products. OPIS is a private, independent company with no stake in fuel transactions and is not funded by the oil industry.

Since this is a requirements contract, the bid quantities are estimates only, with deliveries to be ordered and released as required. There is no obligation or commitment on the part of Metro to order any or all of the unleaded gasoline that is anticipated.

DETERMINATION OF SAFETY IMPACT

There is no impact on safety standards for Metro.

FINANCIAL IMPACT

The funding of \$2,872,392 for this service is included in the FY18 budget in multiple bus and rail cost centers under operating projects 306002 (Ops. Maintenance), 306001 (Ops. Transportation), 300040 (Rail Ops. Administration), 300044 (Rail Ops. Red Line) and 450003 (Sustainability Environment) in line item 50405 Fuel Non-Rev. Equipment.

Since this is a multi-year Contract, the cost center manager and Chief Operations Officer will be responsible for budgeting the cost in future years, including any option exercised.

Impact to Budget

The FY18 source of funds for this procurement is from Enterprise operating funds. The source of funds will be Federal, State, and Local funds including sales tax and fares that are eligible for bus and rail operations. These funding sources will maximize the use of funds for these activities.

ALTERNATIVES CONSIDERED

The alternative is to not award the contract and to instead, purchase gasoline on the spot market. This approach is not recommended since it does not provide for a fixed discount on price or a commitment from the supplier to ensure availability and delivery on a timely basis.

NEXT STEPS

Upon approval, staff will execute Contract No. FY34649 to Pinnacle Petroleum, Inc., effective August 1, 2017, to provide unleaded gasoline for Metro's fleet.

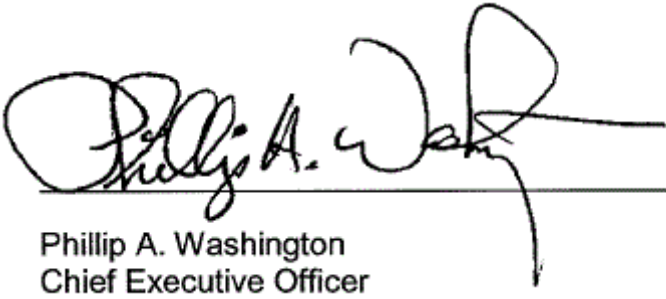
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Nathan Jones III, Director of Contract Administration, (213) 922-6101
Helen Cosner, Chief Admin Analyst, (213) 922-5934

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer,
(213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

UNLEADED GASOLINE/ FY34649

1.	Contract Number: FY34649	
2.	Recommended Vendor(s): Pinnacle Petroleum, Inc.	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 12/21/16	
	B. Advertised/Publicized: 12/26/16	
	C. Pre-proposal/Pre-Bid Conference: 1/13/17	
	D. Proposals/Bids Due: 3/10/17	
	E. Pre-Qualification Completed: 5/31/17	
	F. Conflict of Interest Form Submitted to Ethics: 5/23/17	
	G. Protest Period End Date: 7/20/17	
5.	Solicitations Picked up/Downloaded: 11	Bids/Proposals Received: 5
6.	Contract Administrator: Juelene Close	Telephone Number: 213-922-1066
7.	Project Manager: Helen Cosner	Telephone Number: 213-922-7634

A. Procurement Background

This Board Action is to approve Contract No. FY34649 for the procurement of unleaded gasoline in support of Metro's non-revenue fleet vehicles. Contract award is subject to resolution to any properly submitted protest.

The IFB was issued in accordance with Metro's Acquisition Policy and the contract type is an Indefinite Delivery, Indefinite Quantity (IDIQ).

Three amendments were issued during the solicitation phase of this IFB:

- Amendment No. 1, issued on December 29, 2016, to establish the pre-bid conference date and to update other IFB critical dates;
- Amendment No. 2, issued on February 1, 2017, to update Metro's standard terms and conditions, and to revised the bid price form;
- Amendment No. 3, issued on February 7, 2017, to revise one of Metro's standard terms and conditions.

A total of six bids were received on March 10, 2017. One bid was deemed non-responsive.

B. Evaluation of Bids

This procurement was conducted in accordance, and complies with Metro's Acquisition Policy for a competitive sealed bid. The five bids received are listed below in alphabetical order:

NO.	Bidder Name	Bid Amount
1.	Falcon Fuels	\$10,000,300.00
2.	Mansfield Oil Company	\$9,912,400.00
3.	Merrimac Energy	\$9,812,208.00
4.	Pinnacle Petroleum, Incorporated	\$9,717,450.00
5.	SC Fuels	\$10,015,453.00

The firm recommended for award, Pinnacle Petroleum, Inc. was found to be technically acceptable and in full compliance with the IFB requirements.

C. Price Analysis

The recommended bid price from Pinnacle Petroleum, Inc. has been determined to be fair and reasonable based upon adequate price competition and the selection of the lowest responsive and responsible bid.

Bidder Name	Bid Amount	Metro ICE
Pinnacle Petroleum, Inc.	\$9,717,450.00	\$11,440,462.00

D. Background on Recommended Contractor

Pinnacle Petroleum, Inc. is located in Huntington Beach, California, and has been in the petroleum business since 1995. Their major areas of business are petroleum and alternative fuels. Pinnacle provides and has fuel contracts with the State of California and the Hertz Corporation in Park Ridge, NJ. Pinnacle Petroleum Inc. has supplied over 400 petroleum products to over 15 different state agencies. Pinnacle Petroleum, Inc. is Metro's current supplier of unleaded gasoline and their performance has been satisfactory.

DEOD SUMMARY

UNLEADED GASOLINE/FY34649

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise (SBE) goal for this solicitation due to a lack of subcontracting opportunities. As confirmed by the Project Manager, this project involves providing and delivering unleaded gasoline to the underground storage tanks located at the bus divisions. Pinnacle Petroleum, Inc. did not make an SBE commitment.

B. Living/Prevailing Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing Wage is not applicable to this Contract.

Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.



Board Report

File #: 2017-0304, File Type: Contract

Agenda Number: 42

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017
SUBJECT: SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT**ACTION: AWARD CONTRACT FOR REPLACEMENT OF 40' TRANSIT BUSES****RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to award a firm fixed-price contract, Contract No. OP28367-002, Group C, to BYD Coach & Bus, LLC (BYD) for the manufacture and delivery of sixty 40' zero emission (ZE) transit buses, in the amount of \$44,967,874 for the base contract, including spare parts, charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$2,806,849 for Optional Vehicle Features, and Training Aids for a total combined contract amount not-to-exceed \$47,774,723.
- C. ESTABLISHING a life-of-project budget of \$65,900,000 for the purchase of sixty 40' zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under Capital Project no. 201077.

ISSUE

In October 2016, staff was directed to initiate plans to operate only Zero Emission (ZE) Buses on Metro's Silver Line (MSL) by approximately 2021. Further, between FY18-FY22, Metro will require up to 600 40' buses to replace existing 40' CNG buses reaching the end of their useful life.

This action authorizes the award of a contract for sixty 40' ZE buses to BYD for the replacement of retirement eligible CNG buses, and for the deployment of related charging equipment on the MSL right-of-way, Metro Division 9 in El Monte and Metro Division 18 in Carson.

DISCUSSION

In April 2016, Metro's Board of Directors authorized staff to initiate RFP 28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP 28367, issued in July 2016, consists of four

parts, one for the procurement of each vehicle type:

- Group A, 40' CNG buses (base order of 295, awarded in June 2017, pending resolution of protest)
- Group B, 60' CNG buses (base order of 65, award targeted for July 2017)
- Group C, 40' ZE buses (base order of 60, award targeted for July 2017)
- Group D, 60' ZE buses (base order of 35, award targeted for July 2017)

This recommended Board action pertains solely to Part C, 40' Zero Emission buses.

This procurement supports both Metro's bus fleet management and replacement plans for FY18-22 and Metro's goal to transition to a 100% zero emission fleet by 2030.

To achieve these objectives, Metro's electrification plan consists of near and long term elements. The near term elements are those that may be applied now with limited risk to service while providing Metro with the needed opportunity to evaluate and initiate mitigations for real and possible impacts to service and operations. Metro's plan to transition to a 100% Zero Emission Fleet considers:

- Current status of electric bus technology
- Production
- Impact to Service
- Impact to Facilities and Infrastructure
- Impact to Operating Practices and Operating Environment
- Impact to Operator and Maintainer Training
- Service contracts with energy utilities
- Costs

In brief, it is currently not possible to immediately transition to 100% zero emission operation without significant risks to service and operation:

- Current ZE bus technologies do not permit a 1:1 replacement of CNG buses with ZE buses due to differences in costs and performance. In particular, this includes issues with ZE buses that include operating range and vehicle weight.
- Facilities and infrastructure modifications will be required to support ZE bus operation and maintenance; this will take time and money.
- There are additional unknowns about potential operating impacts related to maturity of ZE technologies, such as ZE technology maturity and battery life durability (i.e. by how much will a ZE bus's operating range degrade over time?).

- Mitigation plans need to be developed for ZE specific situations (i.e., currently there are no mitigation plans in place should a power outage occur and prevent buses from charging overnight or through-out the day).

Near term elements of Metro's ZE bus plans consist of:

1. Electrification of the Metro Orange Line by 2020 (45 ZE buses required)
 - Procurement of five 60' ZE buses from BYD (Not addressed in this Board action)
 - Procurement of 35 60' ZE buses from New Flyer (Not addressed in this Board action)
 - Procurement of five additional 60' ZE buses from New Flyer through a Lo-No Emission Grant (Not addressed in this Board action)
 - Negotiation and establishment of service contracts with energy utilities and PUC
 - Electrification of facilities, operating lines, and infrastructure
2. Electrification of Metro Silver Line by approximately 2021 (60 40' ZE buses required)
 - Procurement of 60 40' ZE buses from BYD through this Board action
 - Coordinate with Foothill Transit for Bus Bay Charging Stations
 - Identify other candidate locations along ROW for installation of opportunity chargers (potentially Harbor Gateway Transit Center in South Bay)
 - Negotiate and establish service contracts with energy utilities
 - Electrify facilities, operating lines, and infrastructure

Long term elements of Metro's ZE bus plans consist of:

- Return to the Board during FY18-FY19 timeframe, and periodically thereafter, to present plans to further expand electrification of Metro's bus transit system;
- Challenge the bus manufacturing and battery industries to develop ZEB designs that exceed Metro's goals for operating range, weight and cost;
- Develop a working group with local utilities (i.e. DWP and SCE) to ensure their support with expanding the bus charging networks at Metro operating locations; negotiate with PUC and local utilities to refine rate structures that are optimized to electric bus charging and operations;
- Work with engineering/design firms to refine optimal procedures for installing and operating bus "Depot" and en-route charging systems;
- Seek funding support for Metro's ZEB program from federal, state and local sources;
- Evaluate alternate options for procuring battery electric bus technologies, such as using

commercial leases to help mitigate operational risks associated with batteries and/or propulsion system technologies.

Procurement Process

Staff prioritized the review of Group C of the solicitation as these 40' zero emission buses are needed to replace 40' CNG buses that have reached the end of their service life and to ensure the electrification of the Metro Silver Line by approximately 2021.

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered such factors as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics
- Scoring incentive for local (CA) job creation

For this solicitation, Metro provided an additional scoring incentive for proposers who committed to local job creation. The Local Employment Program (LEP) is a voluntary FTA approved pilot for Metro's Rolling Stock procurements. The LEP provides proposers with incentive points for creating new jobs in California and for geographical preferences to be applied as part of Metro's evaluation scoring. BYD, the recommended awardee, committed to creating 68 new FTEs with wages, benefits, and facility improvements totaling \$4.56 million for the Base award, and \$8.41 million for the Base and Option quantities.

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). BYD is currently on FTA's list of eligible TVMs, and is certified at a 7.0% DBE goal level. In compliance with 49 CFR Part 26.49, TVMs report direct to FTA.

DETERMINATION OF SAFETY IMPACT

There will be anticipated safety improvements for operating these new battery electric buses in Metro's bus fleet. These buses will also incorporate the latest safety features and designs, including

improved ADA amenities and boarding ramps. The batteries and high voltage powertrain equipment on these buses includes special safety provisions, and “Locks out” employee access while they are energized. New buses also will provide a safer, cleaner environment for Metro patrons and employees.

FINANCIAL IMPACT

Total LOP funding of \$65,900,000 will be included in Cost Center 3320 - Vehicle Technology, in project 201077. For FY18, \$18,873,000 is programmed to cover expenses for purchasing these buses. Because this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

Impact to Budget

The current source of funds for this action is Prop C 40% Bonds, which are eligible for this project. This funding source is currently sufficient to award the contract base of this recommendation. Staff is pursuing additional Federal, State and Local funding sources such as Cap and Trade and similar sources as they become available.

ALTERNATIVES CONSIDERED

In addition to this Board action, staff considered awarding 45 additional ZE 60' buses, as included in Group D, to cover Metro's Silver Line BRT service but due to roadway concerns and Caltrans resurfacing of the HOT lanes on the 110 freeway in the next few years, the additional ZE buses will be awarded under a separate Board action.

Staff considered purchasing CNG replacement buses to cover this service, or continue using existing 45' CNG buses. In both cases, these options are not recommended as they would not comply with Metro Board's directives to operate zero emission buses on the Metro's Silver Line corridor.

NEXT STEPS

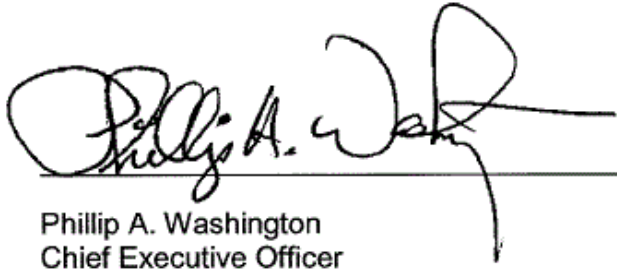
Upon Board approval, staff will execute the contract with BYD and issue a Notice to Proceed.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Funding/Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285
Jesus Montes, Sr. Executive Officer, Vehicle Acquisition (213) 922-3838

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SIXTY 40-FOOT ZERO EMISSION TRANSIT BUS CONTRACT /
OP28367-002 (Group C)

1.	Contract Number: OP28367-002	
2.	Recommended Vendor: BYD Coach & Bus, LLC (BYD)	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 07.29.16	
	B. Advertised/Publicized: 08.04.16; 08.08.16; 08.12.16; 08.15.16	
	C. Pre-Proposal Conference: 08.30.16	
	D. Proposals Due: 02.10.17	
	E. Pre-Qualification Completed: July 12, 2017	
	F. Conflict of Interest Form Submitted to Ethics: 07.03.17	
	G. Protest Period End Date: 07.28.17	
5.	Solicitations Picked up/Downloaded: 63	Bids/Proposals Received: 3
6.	Contract Administrator: Elizabeth Hernandez	Telephone Number: (213) 922-7334
7.	Project Manager: John Drayton	Telephone Number: (213) 617-6285

A. Procurement Background

This Board Action is to approve Contract No. OP28367-002 issued in support of Metro's bus fleet replacement plan to procure new 40' Zero Emission (ZE) buses for the replacement of retirement eligible CNG buses, and for the initial deployment of related charging equipment on the Metro Silver Line (MSL) right-of-way, Metro Division 9 in El Monte and Metro Division 18 in Carson. The RFP solicitation Group C – 40' ZE bus Base Buy consists of 60 base buy ZE buses, with option orders of up to 40 additional buses for a total of 100 40' ZE buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Thirty amendments (30) were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and technical specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical

specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms;
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited BAFO from Group A proposers;
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers;
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers;
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposer;
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers;
- Amendment No. 27, issued 05.11.17, edited due date for submittal for Group B proposer;

- Amendment No. 28, issued 06.02.17, edited documents for Group C proposers;
- Amendment No. 29, issued 06.07.17, solicited BAFO from Group C proposers;
- Amendment No. 30, issued 06.13.17, edited documents for BAFO from Group C proposers.

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were performed on October 4, 5, and 6, 2016. A total of three proposals were received for Group C on February 10, 2017.

Questions received throughout the solicitation process and Metro’s responses to those questions were made accessible to the RFP plan holders by posting them at Metro’s project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group C 40’ ZE buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of December 2, 2016 to February 10, 2017.

The proposal evaluation period, from February 13, 2017 through July, 2017, included reviews of the written proposals, clarifications requests and responses, oral presentations, proposers’ manufacturing and engineering site visits, face-to-face and conference call discussions, and transit agency reference checks. These series of evaluation processes were necessary to assess and determine the proposers’ strengths and weaknesses in their respective technical and price proposals.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro’s Vehicle Technology and Acquisition, Maintenance, and Operations was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

• Technical Compliance	400 points
• Price	300 points
• Project Management Experience	100 points
• Experience and Past Performance	100 points
• Life Cycle Costs	<u>100 points</u>
Sub-Total	1,000 points
• Voluntary Local Employment Program (Incentive Points)	<u>50 points</u>
Total Available Points	1,050 points

The evaluation criteria are appropriate and consistent with criteria developed for other, similar bus procurements. Several factors were considered when developing these weights, giving the greatest importance to the technical compliance of the proposed bus.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with incentive points for creating jobs in California. Participation in the voluntary program is not a condition for award.

Proposers are listed below in alphabetical order:

1. BYD Coach & Bus, LLC (BYD)
2. New Flyer of America Inc. (NFA)
3. Proterra Inc. (Proterra)

The PET began its review of the written technical proposals submitted by the three proposers on February 13, 2017. On or about March 13, 2017, based on the PET's initial review, clarification request letters were issued to proposers regarding the proposal submittals. In addition, 167 clarifications on technical submittals for Group C were sent to the proposers and the appropriate responses were received and reviewed accordingly.

As part of the evaluation process the PET conducted site visits of all three proposers in April and May 2017. The agenda for the site visits included facility/plant/site manufacturing process tour. All three proposers provided in depth presentations and discussions by the Proposer's management, engineering and project key personnel on the following topics:

1. Technical Proposal – Detailed presentations of the proposed vehicle systems and sub-systems vis-à-vis Metro's technical specifications;
2. Project Management;
3. Experience and Past Performance;
4. Consolidated comments and discussions of the strengths, weaknesses, deficiencies, and risks in the technical Proposals as noted by the PET in the individual evaluations.

The PET was supported by Consultant Technical Advisors (TAs) with subject matter expertise relative to the review, evaluation, assessments, and recommendations for the Life Cycle Costs (LCC) and Local Employment Program (LEP) submittals. The TAs comments and findings on the strengths, weaknesses, and deficiencies in the proposed Local Employment Plan were discussed with the respective Proposers. All three proposers presented Local Employment Plans.

A total of 88 Requests for Deviations were submitted by the Proposers for Metro's review and consideration. The deviations were discussed individually with the Proposers during negotiation discussions conducted in May and June 2017.

The PET determined all Proposers to be in the competitive range and the invitation to submit their best and final offer was issued on June 7, 2017. Resolution of acceptable and unacceptable deviations necessitated that Best and Final Offers be submitted by the Proposers.

Best and Final Offer (BAFO)

Best and Final Offer (BAFO) submittals were received on June 21, 2017, and were reviewed and evaluated by the PET. The PET reviewed the BAFOs and prepared a recommendation for award memorandum on July 10, 2017.

Qualifications Summary of Firms within the Competitive Range:

BYD Coach & Bus, LLC

BYD Coach & Bus, LLC is a bus and coach manufacturing division under BYD Heavy Industries which has been open at its current location in Lancaster, California since 2013. BYD proposes to build LACMTA bus orders at the Lancaster facility. The U.S. parent company is BYD Motors, Inc. with corporate offices located in downtown Los Angeles. BYD has globally supplied fully electric and plug in hybrid vehicles. BYD has delivered ZE buses to various transit agencies that include Albuquerque, IndyGo, LANE Transit, Tri-Delta, AVTA, Long Beach, Sunline, Soltrans, G-Trans, and LACMTA.

BYD's proposal ranked second in technical compliance and life cycle costs, and third in project management, and experience and past performance. BYD is ranked first in price and ranked first in dollar value for jobs creation and facility capital investment for the Local Employment Plan. BYD was ranked first overall among the Proposers.

New Flyer of America Inc. (NFA)

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposes to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California plant houses production, service and aftermarket parts. NFA's transit agency clients include several cities in Canada and the United States that include WMATA, San Francisco Muni, Maryland Transit, OCTA, MBTA, NYCTA, Foothill Transit and LACMTA.

NFA scored third in technical compliance, second in project management, and first in experience and past performance. NFA is ranked second in price and first in life cycle costs. NFA did not receive any incentive points for its Local Employment Plan due to a deficient Local Employment Plan submittal that was deemed non-responsive. NFA was ranked third overall among the Proposers.

Proterra Inc. (Proterra)

Proterra is a privately held corporation founded in 2004. Proterra currently operates out of three facilities:

1. Burlingame, California - corporate headquarter and Advanced Battery Research and Design Center and Battery Manufacturing facility;
2. City of Industry, Los Angeles, California - West Coast manufacturing facility; and
3. Greenville, South Carolina - East Coast manufacturing facility, vehicle engineering headquarters, and on route charging equipment manufacturing facility.

Proterra builds and manufactures electric buses only. Its transit agency clients include SEPTA, Foothill Transit, RTC Washoe County (Reno), Tri Delta Transit, King County Metro, Santa Clara Valley Transportation Authority, Dallas Area Rapid Transit, San Antonio VIA Metropolitan Transit, and New York City MTA.

Proterra was ranked first in Technical Compliance and Project Management criteria. It ranked second in Experience and Past Performance. Proterra scored third in price and life cycle cost. Proterra did not receive any incentive points for its Local Employment Plan due to a deficient Local Employment Plan that was deemed non-responsive. Proterra was ranked second overall among the Proposers.

1	Firm	Average Score*	Factor Weight	Weighted Average Score	Rank
2	Firm 1 - BYD				
3	Technical Compliance	68.45	400	273.81	
4	Price	100.00	300	300.00	
5	Project Management	61.69	100	61.69	
6	Experience and Past Performance	50.88	100	50.88	
7	Life Cycle Costs	95.62	100	95.62	
8	Local Employment Plan	100.00	50	50.00	
9	Total		1050	832.00	1
10	Firm 2 - NFA				
11	Technical Compliance	68.33	400	273.32	
12	Price	83.85	300	251.55	
13	Project Management	76.75	100	76.75	
14	Experience and Past Performance	71.81	100	71.81	
15	Life Cycle Costs	100.00	100	100.00	
16	Local Employment Plan	0.00	50	0.00	
17	Total		1050	773.43	3
18	Firm 3 - Proterra				
19	Technical Compliance	84.53	400	338.12	
20	Price	78.92	300	236.76	
21	Project Management	76.88	100	76.88	
22	Experience and Past Performance	70.38	100	70.38	
23	Life Cycle Costs	87.26	100	87.26	
24	Local Employment Plan	0.00	50	0.00	
25	Total		1050	809.40	2

* Average score rounded to the nearest the 1/100th.

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate price competition, an Independent Cost Estimate (ICE), technical evaluation, fact finding, and negotiations. The Base and Option vehicles are based on Firm Fixed Unit Rate prices. The Optional Vehicle Features are also based on Firm Fixed Unit Prices for total Base Buy and Option Buy quantities. There is no obligation to purchase any Option buses. Option vehicles may be ordered in minimum increments of 10 buses.

	Proposer Name	Initial Proposal Amount**	Base Buy (60)**	Option Buy (40)**	Optional Features***	Negotiated or NTE amount (BAFO)
	Metro ICE*	N/A	\$45,000,000.00	\$30,000,000.00	N/A	\$75,000,000.00
1.	BYD	\$79,371,550.21	\$44,967,873.91	\$30,052,078.53	\$2,806,849.10	\$77,826,801.54
2.	NFA	\$84,453,143.66	\$53,230,780.79	\$33,294,572.42	\$6,289,375.14	\$92,814,728.35
3	Proterra	\$80,612,800.00	\$57,331,254.65	\$37,919,918.10	\$3,361,697.04	\$98,612,869.79

*Note: Metro's estimate for unit pricing of \$750,000 per bus did not include pricing for Optional Features or enroute/opportunity and shop chargers.

** Initial solicitation was for 5 base buy and up to 95 option buses. BAFO solicited for 60 base buy and 40 option buses.

*** Pricing Form for Optional Vehicle Configuration included items for alternative ADA securements, APC, enhanced camera systems, USB, wireless stops, spares, special tools, DTE, training aids, etc.

The PET determined that BYD's proposal provides the Best Value and is most advantageous to Metro. Price analysis shows that BYD's price is \$21 million lower than the second highest overall rated firm, Proterra, and 15 million lower than the third overall rated firm, NFA. BYD's proposal, from a Best Value perspective, offers Metro advantages in Price and local job creation over Proterra and NFA.

Local Employment Program

All three firms submitted proposals for Metro's voluntary Local Employment Program (LEP). This participation is intended to provide incentive points based on total proposed wages, benefits and training of new employees hired in California and also provides points for facility improvements made to facilities in California.

BYD was awarded the full 50 incentive points based on its total commitment of \$8,412,530 in proposed wages, benefits and training of new employees hired in California and facility improvements in its facility in Lancaster, California. The LEP submitted by NFA and Proterra were found to be non-responsive and were not awarded any incentive points.

The table below describes the commitment level for all BYD for new local jobs and facility improvements.

Proposer:	BYD
Total Local Employment, Facility and Training Investment	\$8,412,530

D. Background on Recommended Contractor

The recommended firm, BYD Coach & Bus, LLC (BYD), is a bus manufacturing division under BYD Heavy Industries. BYD opened its North American electric bus manufacturing facility in Lancaster, California in May 2013. BYD proposes to build the LACMTA buses under this Contract at the Lancaster location. BYD is currently conducting a three phase planned major expansion of its manufacturing facility in

Lancaster to increase production capability of the plant. BYD provided five 40' zero emission buses to LACMTA in a prior contract. BYD proposes a bus powered with its self-developed lithium iron phosphate battery.

DEOD SUMMARY

SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT / OP28367-002 (Group C)

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). BYD Motors submitted an FY17 TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing Wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

**Funding and Expenditure Plan
Sixty 40' Zero Emission (ZE) Transit Buses (Part C)**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Uses of Funds					
Vehicles	\$4,500,000	\$36,000,000	\$4,467,874	\$44,967,874	68.2%
Chargers - en route	\$1,050,000	\$0	\$0	\$1,050,000	1.6%
En-route Charger Infrastructure Upgrades *	\$7,808,000	\$0	\$0	\$7,808,000	11.8%
Optional Vehicle Features	\$0	\$2,806,849	\$0	\$2,806,849	4.3%
Depot Charger Infrastructure Upgrade*	\$5,000,000	\$0	\$0	\$5,000,000	7.6%
Labor	\$500,000	\$900,000	\$807,277	\$2,207,277	3.3%
Travel/Administration	\$15,000	\$30,000	\$15,000	\$60,000	0.1%
Contingency	\$0	\$0	\$2,000,000	\$2,000,000	3.0%
Total Project Costs	\$18,873,000	\$39,736,849	\$7,290,151	\$ 65,900,000	100.0%

*Estimates Until Contractors are Identified

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Sources of Funds					
PC40 Bonds	\$ 18,873,000	\$ 39,736,849	\$ 7,290,151	\$ 65,900,000	100.0%
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
Total Project Funding	\$ 18,873,000	\$ 39,736,849	\$ 7,290,151	\$ 65,900,000	100.0%

Current source of funds for this action is PC40 Bonds, which are eligible for this project.

The funding sources under this project are currently sufficient to award the contract base of this recommendation.

Staff is pursuing additional State and Local funding sources such as Cap and Trade and Similar sources as they become available



Board Report

File #: 2017-0303, File Type: Contract

Agenda Number: 43

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017**

**SUBJECT: THIRTY-FIVE 60' ARTICULATED ZERO EMISSION
TRANSIT BUS CONTRACT**

ACTION: AWARD CONTRACT FOR REPLACEMENT OF 60' TRANSIT BUSES

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to award a firm fixed-price contract, Contract OP28367-001, Part D, to New Flyer of America for the manufacture and delivery of thirty-five 60' zero emission transit buses, in the amount of \$51,211,033 for the base contract, including charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$8,839,064 for Optional Vehicle Features, Spare Parts, and Training Aids for a total combined contract amount not-to-exceed \$60,050,097.
- C. ESTABLISHING a life-of-project budget of \$72,101,419 for the purchase of thirty five zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under CP 201073.
- D. FINDING that the award to New Flyer of America is made to the Proposer that provides the agency with the best value and is most advantageous to Metro. The recommended price addresses all contract requirements and represents the best overall value when all RFP evaluation factor are considered.
- E. RECEIVING AND FILING the presentation on the Strategic Planning for Metro's Transition to 100% Zero Emission Bus Fleet by 2030 (Attachment C).

ISSUE

Between FY18-FY22, Metro is scheduled to retire and replace two-hundred sixty (260) 60' CNG buses that will reach the end of their useful life. Recently, staff was also directed to initiate plans to

operate only Zero Emission Buses on Metro's Orange Line by 2020.

This action authorizes the award of a contract for thirty five 60' buses to New Flyer for the replacement of retirement eligible CNG buses currently operating on the Orange Line, and for the initial deployment of related charging equipment on the MOL right-of-way, and at Metro Division 8 in Chatsworth.

DISCUSSION

In April 2016, Metro's Board of Directors authorized staff to initiate RFP OP28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP OP28367, issued in July 2016, consists of four parts, one separately evaluated procurement of each vehicle type:

- Part A, 40' CNG buses (base order of 295, award targeted for June 2017)
- Part B, 60' CNG buses (base order of 65, award targeted for July 2017),
- Part C, 40' ZE buses (base order of 60, award targeted for July 2017),
- Part D, 60' ZE buses (base order of 35, award targeted for June 2017).

This recommended Board action pertains solely to Part D, 60' Zero Emission buses.

Staff will return later this year with recommendations for the remaining two parts of this solicitation. Staff prioritized the solicitation review of Part D as these 60' zero emission buses are needed as soon as possible to replace 60' CNG buses that have reached the end of their service life and ensure the electrification of the Metro Orange Line by 2020.

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered such factors as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Scoring preference for participation in Metro's Local Employment Program
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics

Utilization of a "Best Value" solicitation process for this procurement identified the 60' ZEB bus most suited to Metro's operating needs by permitting discussions with proposers to evaluate performance and reliability of the proposed components, warranty, cost data and delivery schedule.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with incentive points for creating new jobs in California. The proposed awardee New Flyer of America was unable to participate in this voluntary program for this contract due to the low production volume of only 35 buses.

PLAN TO TRANSITION TO 100% ZEB FLEET BY 2030

This procurement supports both Metro's bus fleet management and replacement plans for FY18 - 22 and supports transition to a 100% zero emission fleet by 2030 (Attachment C).

To achieve these objectives, Metro's electrification plan consists of near and long term elements. The near term elements are those that may be applied now with limited risk to service while providing Metro with the needed opportunity to evaluate and initiate mitigations for real and possible impacts to service and operations. Metro's plan to transition to a 100% Zero Emission Fleet considers:

- Current status of electric bus technology,
- Production,
- Impact to Service,
- Impact to Facilities & Infrastructure,
- Impact to Operating Practices and Operating Environment,
- Impact to Operator and Maintainer Training,
- Service contracts with energy utilities, and
- Costs

In brief, it is currently not possible to immediately transition to 100% zero emission operation without significant risks to service and operation:

- Current ZE bus technologies do not permit a 1:1 replacement of CNG buses with ZE buses due to differences in costs and performance. In particular, this includes issues with ZE buses that include operating range and vehicle weight;
 - Facilities and infrastructure modifications will be required to support ZE bus operation & maintenance; this will take time and money.
 - There are additional unknowns about potential operating impacts related to maturity of ZE technologies, such as ZE technology maturity and battery life durability (i.e. will a ZE buses operating range degrade over time).
- Currently, there are no mitigation plans in place should a power outage occur preventing buses from charging overnight or through-out the day.

Near term elements of Metro's ZEB plans consist of:

1. Electrification of the Metro Orange Line by 2020 (45 ZE buses required)
 - Procurement of 5 60' ZE buses from BYD (Contract awarded)
 - Procurement of 35 60' ZE buses from New Flyer under this request for Contract Award
 - Procurement of 5 additional 60' ZE buses from New Flyer through a Lo-No Emission Grant
 - Negotiation and establishment of service contracts with third-party energy utilities and PUC
 - Electrification of facilities, operating lines, and infrastructure under separate public works procurements

2. Electrification of Metro Silver Line by approximately 2021 (~ 60 ZE buses required)
 - Coordinate with Foothill Transit for Bus Bay Charging Stations
 - Identify other candidate locations along ROW for installation of opportunity chargers (potentially Harbor Gateway Transit Center in South Bay)
 - Negotiate and establish service contracts with third-party energy utilities
 - Electrify facilities, operating lines, and infrastructure under separate public works procurements
 - In approximately FY2019, exercise option for additional ZE buses

Long term elements of Metro's ZEB plans consist of:

- Return to the Board in the FY18-FY19 timeframe, and periodically thereafter, to present plans for further expand electrification of Metro's bus transit system;
- Challenge the bus manufacturing and battery industries to develop ZEB designs that exceed Metro's goals for operating range, weight and cost;
- Develop a working group with local utilities (i.e. DWP and SCE) to ensure their support expanding the bus charging networks at Metro operating locations; negotiate with PUC and local utilities to refine rate structures that are optimized to electric bus charging and operations;
- Work with engineering/design firms to refine optimal procedures for installing and operating bus "Depot" and en-route charging systems;
- Seek funding support for Metro's ZEB program from federal, state and local sources;
- Evaluate alternate options for procuring battery electric bus technologies, such as using

commercial leases to help mitigate operational risks associated with batteries and/or propulsion system technologies.

DETERMINATION OF SAFETY IMPACT

There will be anticipated safety improvements for operating these new battery electric buses in Metro's bus fleet. These buses will also incorporate the latest safety features and designs, including improved ADA amenities and boarding ramps. The batteries and high voltage powertrain equipment on these buses includes special safety provisions, and "Locks out" employee access while they are energized. New buses also will provide a safer, cleaner environment for Metro patrons and employees.

FINANCIAL IMPACT

Total LOP funding of \$72,101,419 is included in Cost Center 3320 - Vehicle Technology, in project 201073. For FY18, there is \$20,993,816 million programmed to cover expenses for purchasing these buses. Because this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

Impact to Budget

Future funding for this procurement may come from various eligible available Federal, State and local funding sources including financing options and grants that are eligible for Bus Capital Projects. Staff will pursue all sources of funding maximizing their use for these activities.

ALTERNATIVES CONSIDERED

Staff considered awarding an additional 45 ZE 60' buses as part of the initial base award recommendation to cover Metro's Silver Line BRT service. Staff determined that 40' ZE Buses are more suitable for operating on this corridor.

Staff considered purchasing CNG 60' replacement buses to cover this service, or continuing operation of 60' CNG buses. In both cases, these options are not recommended and would not comply with Metro Board's directives to operate zero emission buses on the Metro's Orange Line corridor. New 60 CNG buses would cost about \$42 million, \$20 million less than zero emission electric buses. Extending the service life of existing CNG buses would require an extensive overhaul, including a retrofit of the fuel system Retrofitting a new "Low NOx" CNG engine and transmission PPA package would add another cost. Even with these investments, Metro's older CNG buses do not come close to providing the reliability, passenger & operator comfort, cost effectiveness, and value as new buses do for Metro and our riders.

NEXT STEPS

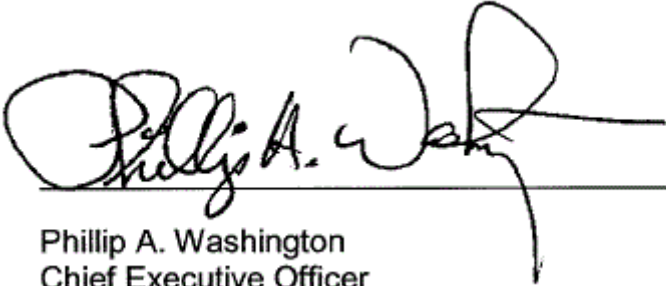
Upon Board approval, staff will execute the Contract with New Flyer and issue a Notice to Proceed. Staff will also report back annually on the status of the Plan to transition to a 100% ZEB fleet.

ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - Metro's Zero Emission Bus Plans
- Attachment D - Funding and Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285
Jesus Montes, Sr. Executive Officer, Vehicle Acquisition (213) 922-3838

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**THIRTY-FIVE 60 FOOT ZERO EMISSION TRANSIT BUS CONTRACT
/OP28367-001 (Group D)**

1.	Contract Number: OP28367-001	
2.	Recommended Vendor: New Flyer of America, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 07.29.16	
	B. Advertised/Publicized: 08.04.16; 08.08.16; 08.12.16; 08.15.16	
	C. Pre-Proposal Conference: 08.30.16	
	D. Proposals Due: 02.10.17	
	E. Pre-Qualification Completed: 06.05.17	
	F. Conflict of Interest Form Submitted to Ethics: 05.26.17	
	G. Protest Period End Date: 06.16.17	
5.	Solicitations Picked up/Downloaded: 63	Bids/Proposals Received: 2
6.	Contract Administrator: Elizabeth Hernandez	Telephone Number: (213) 922-7334
7.	Project Manager: John Drayton	Telephone Number: (213) 617-6285

A. Procurement Background

This Board Action is to approve Contract No. OP28367-001 issued in support of Metro's bus fleet replacement plan to procure new 60' Zero Emission (ZE) buses for the replacement of retirement-eligible 60' CNG buses currently operating on the Orange Line. The RFP solicitation Group D – 60' ZE bus Base Buy consists of 35 ZE buses, with Option orders of up to 65 additional buses for a total of 100 60' ZE buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Twenty six amendments (26) were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and technical specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical

specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms;
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited BAFO from Group A proposers.
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers.
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers.
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposers.
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers.

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were performed on October 4, 5, and 6, 2016. A total of two proposals were received on February 10, 2017.

Questions received throughout the solicitation process and Metro's responses to those questions were made accessible to the RFP plan holders by posting them at Metro's project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group D 60' ZE buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of December 2, 2016 to February 10, 2017.

The proposal evaluation period, from February 13, 2017 through May 26, 2017, included reviews of the written proposals, clarifications requests and responses, oral presentations, proposers' manufacturing and engineering site visits, face-to-face and conference call discussions, and transit agency reference checks. These series of evaluation processes were necessary to assess and determine the proposers' strengths and weaknesses in their respective technical and price proposals.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro's Vehicle Technology and Acquisition, Maintenance, and Operations was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

• Technical Compliance	400 points
• Price	300 points
• Project Management Experience	100 points
• Experience and Past Performance	100 points
• Life Cycle Costs	<u>100 points</u>
Sub-Total	1,000 points
• Voluntary Local Employment Program (Incentive Points)	<u>50 points</u>
Total Available Points	1,050 points

The evaluation criteria are appropriate and consistent with criteria developed for other, similar bus procurements. Several factors were considered when developing these weights, giving the greatest importance to the technical compliance of the proposed bus.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with

incentive points for creating jobs in California. The voluntary LEP may not be used as a basis for award.

Both Proposers are listed below in alphabetical order:

1. BYD Coach & Bus, LLC (BYD)
2. New Flyer of America Inc. (NFA)

The PET began its review of the written technical proposals submitted by the two proposers on February 13, 2016. Based on the PET's initial review, 164 written requests for clarification were sent to the two proposers and the appropriate responses were received and reviewed accordingly.

In April 2017, the PET scheduled site visits to each of the proposers' manufacturing and engineering facilities. The agenda for the site visits included facility/plant/site manufacturing process tour, in depth presentations and discussions by the Proposer's management, engineering and project key personnel on the following topics:

1. Technical Proposal – Detailed presentations of the proposed vehicle systems and sub-systems vis-à-vis Metro's technical specifications;
2. Project Management;
3. Experience and Past Performance;
4. Consolidated comments and discussions of the strengths, weaknesses, deficiencies, and risks in the technical Proposals as noted by the PET in the individual evaluations.

The PET was supported by Consultant Technical Advisors (TAs) with subject matter expertise relative to the review, evaluation, assessments, and recommendations for the Life Cycle Costs (LCC) and Local Employment Program (LEP) submittals. The TAs comments and findings on the strengths, weaknesses, and deficiencies in the proposed Local Employment Plan were discussed with the respective Proposers. BYD voluntarily participated in the LEP by committing to hire new local residents to support this contract and capital investment in facility upgrades and expansion and received the maximum preferential scoring points. For this bus type (Group D 60' ZE), NFA elected not to submit a Local Employment Plan and received no preferential scoring points. NFA has the existing workforce and facility capabilities in place to manufacture this quantity of buses without any expansion to its local workforce in Ontario, CA.

A total of 93 Requests for Deviations were submitted by the Proposers for Metro's review and consideration. The deviations were discussed individually with the Proposers during negotiation discussions conducted through the third week of April.

The PET determined both Proposers to be in the competitive range and the invitation to submit their best and final offer was issued on May 5, 2017. Resolution

of acceptable and unacceptable deviations necessitated that Best and Final Offers be submitted by the Proposers.

Best and Final Offer (BAFO)

Best and Final Offer (BAFO) submittals were received on May 17, 2017, and were reviewed and evaluated by the PET. The PET reviewed the BAFOs and prepared a recommendation for award memorandum on May 24, 2017.

Qualifications Summary of Firms within the Competitive Range:

BYD Coach & Bus, LLC

BYD Coach & Bus, LLC is a bus and coaches manufacturing division under BYD Heavy Industries which has been open at its current location in Lancaster, California since 2013 and proposes to build LACMTA bus orders at this facility. The parent company is BYD Motors, Inc. with corporate offices located in downtown Los Angeles. BYD has globally supplied fully electric and plug in hybrid vehicles. BYD has been awarded contracts to provide 60' ZE vehicles by the City of Albuquerque, IndyGo and LACMTA.

BYD's proposal ranked second in technical compliance, project management, and experience and past performance, and first in price, and life cycle costs. BYD's Local Employment Plan ranked first in dollar value for jobs creation and facility capital investment.

New Flyer of America Inc. (NFA)

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposes to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California facility houses production, service and aftermarket parts. NFA's transit agency clients include Boston, Orange County, San Francisco, Dallas and Washington.

NFA scored first in technical compliance, project management, and experience and past performance, second in price and life cycle costs. NFA did not offer to participate in the voluntary Local Employment Program for the 60' ZE bus Group D due to the low production quantity and received no preferential scoring points.

NFA was ranked first overall between the two Proposers primarily on the strength of its superior technical proposal in the areas of Technical Compliance, Project Management and Experience and Past Performance.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	Firm 1 – BYD				
3	Technical Compliance	60.66	400	242.63	
4	Price	100.00	300	300.00	
5	Project Management	61.50	100	61.50	
6	Experience and Past Performance	44.25	100	44.25	
7	Life Cycle Costs	100.00	100	100.00	
8	Local Employment Plan	100.00	50	50.00	
9	Total		1050	798.38	2
10	Firm 2 – NFA				
11	Technical Compliance	76.20	400	304.81	
12	Price	93.5	300	280.50	
13	Project Management	79.90	100	79.90	
14	Experience and Past Performance	74.63	100	74.63	
15	Life Cycle Costs	93.60	100	95.80	
16	Local Employment Plan	0.00	50	0.00	
17	Total		1050	835.64	1

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate price competition, an independent cost estimate (ICE), technical evaluation, fact finding, and negotiations. The Base and Option vehicles are based on Firm Fixed Unit Rate prices. The Optional Vehicle Features are also based on Firm Fixed Prices for total Base Buy and Option Buy quantities. There is no obligation to purchase any Option buses. Option vehicles may be ordered in minimum increments of 10 buses.

	Proposer Name	Initial Proposal Amount ***	Base Buy (35)	Option Buy (65)	Optional Features (Base & Option)	Negotiated or NTE amount (BAFO)
	Metro ICE*		\$42,000,000.00	\$78,000,000.00	N/A	\$120,000,000
1.	BYD	\$122,912,239	\$48,967,928	\$89,491,292	\$11,826,827**	\$150,286,047

2.	NFA	\$125,413,592	\$51,211,033	\$94,726,013	\$14,707,828**	\$160,644,874
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*Note: Metro's estimate did not include pricing for Optional Features or enroute/opportunity and shop chargers.

** Pricing Form for Optional Vehicle Configuration included items for alternative ADA securements, APC, enhanced camera systems, USB, wireless stops, spares, special tools, DTE, training aids, etc. The recommended value for the Base Optional Features is \$8,839,064.

*** Initial pricing did not include all necessary charging equipment.

The PET determined that when considering price and non-price factors, NFA's proposal provides the Best Value and is most advantageous to Metro. Price analysis shows that the negotiated amount for the recommended firm, NFA, is \$10 million higher than the price negotiated with BYD. NFA's higher priced proposal, from a Best Value perspective, offers advantages in the areas of technical compliance, project management, and experience and past performance evaluation categories. NFA's higher proposed price is offset by offering a more service-proven bus design, structure, door system, and powerplant, in addition to its proven project management experience and past performance exhibited on the latest Metro bus contract successfully completed in 2016.

Local Employment Program

BYD participated in Metro's **voluntary** Local Employment Program (LEP). This participation resulted in maximum incentive points based on total proposed wages, benefits and training of new employees hired in California. The LEP also provides points for facility improvements made to facilities in California. The table below describes the commitment levels for BYD for new local jobs and facility improvements. BYD received the maximum 50 incentive points for new local jobs, training and facility improvements.

NFA chose not to participate in Metro's voluntary LEP, proposing to fulfill this Group D requirement with existing workers in St. Cloud, MN and Ontario, CA, and received no preferential scoring points.

Proposers:	BYD
Total Local Employment, Facility and Training Investment	\$13,716,747

D. Background on Recommended Contractor

The recommended firm, New Flyer of America Inc. (NFA), is a corporation organized in North Dakota, and is a wholly owned subsidiary of Transit Holdings. NFA is the US operating company in the New Flyer group of companies, and manufactures and sells New Flyer transit buses to U.S. customers.

NFA proposes to support the Metro project with existing workforce in production, manufacturing, engineering, quality assurance and warranty services from its locations in Winnipeg, Canada, St. Cloud, Minnesota and Ontario, California. NFA will build Metro buses from the St. Cloud and Ontario facilities. The 380,000 square foot St. Cloud facility opened in 1999 and has two production lines for full production

and finishing processes. The 100,000 square foot service center Ontario facility will include a production team for finishing and delivery of the buses, field service support for warranty and retrofit activities, and a team for aftermarket parts and materials. NFA recently completed delivery of the 900 40'CNG bus buy to Metro.

NFA's proposed a dedicated Customer Project Manager and primary point of contact for this project who previously worked with Metro staff for the 900 bus buy. NFA's proposed project team has combined extensive years of experience in the transit/bus industry for engineering, manufacturing, quality control, production, testing, systems integration, and field/warranty support delivering buses to major transit agencies such as Boston, New York, Washington, D.C. and Dallas.

DEOD SUMMARY

THRITY-FIVE 60 FOOT ZERO EMISSION TRANSIT BUS CONTRACT/
OP28367-000 (Group D)

A. Small Business Participation

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). New Flyer of America submitted a TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.



Strategic Planning for Metro's Transition to Zero Emission Buses

July 20, 2017

Requirements and Guidelines/Guiding Principles

- Continue to replace aging bus fleet (~200 Buses per Year)
- Upgrade current CNG buses to “Near Zero” Low NOx engines
- Maintain existing bus fleet in a “State of Good Repair”
- Improve Service Quality and Reliability
- Transition Metro Orange Line (MOL) to Zero Emission by 2020
- Transition Metro Silver Line (MSL) to Zero Emission by ~ 2021
- Goal of 100% Zero Emission Bus Fleet by 2030

Challenges to Transitioning to 100% Zero Emissions

1. ZEB Service Requirements: Long term, Metro will need ZE buses that meet/exceed Metro service and operating requirements:
 1. 250+ miles range in CBD duty cycle with 1.4 passenger load factor
 2. Less than 31,000 lbs. curb weight for 40' ZEB
 3. 250+ miles range throughout the 12 year vehicle life
 4. 65mph top speed; ability to sustain 10% grade
2. Facilities and Infrastructure: ZEB program will require up front investment in ZEB charging equipment and related infrastructure.
3. Technology: Known and unknown technology risks with ZEB operation, particularly with battery and propulsion system technologies.
4. Funding: Additional funding needs to be identified for 100% ZEB program.

Impacts to other capital and operating costs, deployment schedule and/or service levels and reliability. May require replacement on greater than 1:1 ratio.

Strategic Approach – Two Phase Plan

Phase 1:

- Award ZEB contracts for MOL and MSL based on service proven products, with a high-probability of success, and minimal impact to service.
- Upgrade to Near Zero CNG engines and RCNG
- Evaluate and mitigate issues that could potentially impact service & operation.
- Develop ZEB Master Plan, including technology assessment, for fleet-wide operation

Key Milestone: ZEB Technology Assessment (2019-2020)

- “Go/No-Go” decision milestone on expanding use of ZEB fleet-wide at Metro in 2019-2020 (i.e. determine whether to move into Phase 2).



Phase 2:

- Continue assessment of ZEB technologies.
- Take measured steps toward full implementation of 100% zero emission bus fleet for use throughout Metro’s operating region.

Current Bus Contracts

Top Level Procurement Schedule (Bus Only)																												
Current Bus Contracts	FY17				FY18				FY19				FY20				FY21				FY22				FY23			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
ZEB Implementation Phase:	Phase 1 (MOL & MSL Electrification) & ZEB Technology Assessment												Phase 2 - ZEB Re-Assessment and Expansion of ZEB Program to Rapid and Local Lines															
CNG 40' Procurement (Group A)	<i>Awarded June 2017</i>				Design, engineering, material sourcing				Delivery 295 Buses				Options (Up to 305 Buses)															
CNG 60' Procurement (Group B)	Solicitation and Award				Design, engineering, material sourcing				Delivery 65 Buses				Options (Up to 335 Buses)															
ZEB 40' Bus Procurement (Group C, MSL)	Solicitation and Award				Design, engineering, material sourcing				Delivery 60 Buses				Options (Up to 40 Buses)															
ZEB 60' Bus Procurement (Group D, MOL)	Solicitation and Award				Design, engineering, material sourcing				Delivery 60' ZEB's 35 Buses				Remaining 60' ZEB Options (Up to 65 Buses)															
New Flyer Low-No Grant (MOL) Five 60' ZEB Contract	Solicitation and Award								Delivery (5 Buses)				<i>Award targeted for Fall 2017</i>															
BYD Five 60' ZEB Contract (MOL) Five 60' ZEB Contract	Solicitation and Award								Delivery (5 Buses)				<i>Awarded March 2017</i>															

ZEB – Phase 1 – Key Program Elements

- Phase 1 ZEB (2017-2020)

- Upgrade CNG fleet to Low NOx engines and RCNG
- Continue to operate and maintain CNG fleet in “State of Good Repair”
- Start MOL and MSL operation using limited range ZE battery electric buses and “En-Route” charging
 - Install opportunity charging on the ROW of BRT Lines (901, 910, 950)
 - Continuous daily operation (no breaks for midday charging)
 - Maximize use of mature ZEB technologies that are commercially available, “Off-the-shelf” hardware
- By 2020, Open Metro Orange Line BRT (45 x 60’ ZE buses)
- By ~ 2021, Open Metro Silver Line BRT (60 x 40’ ZE buses)
- Develop “Master Plan” for fleet-wide ZEB implementation, and establish ZEB investment priorities and goals for Local and Rapid Lines (160+ lines, 2300 buses)

ZEB Phase 1 - ZEB Master Planning

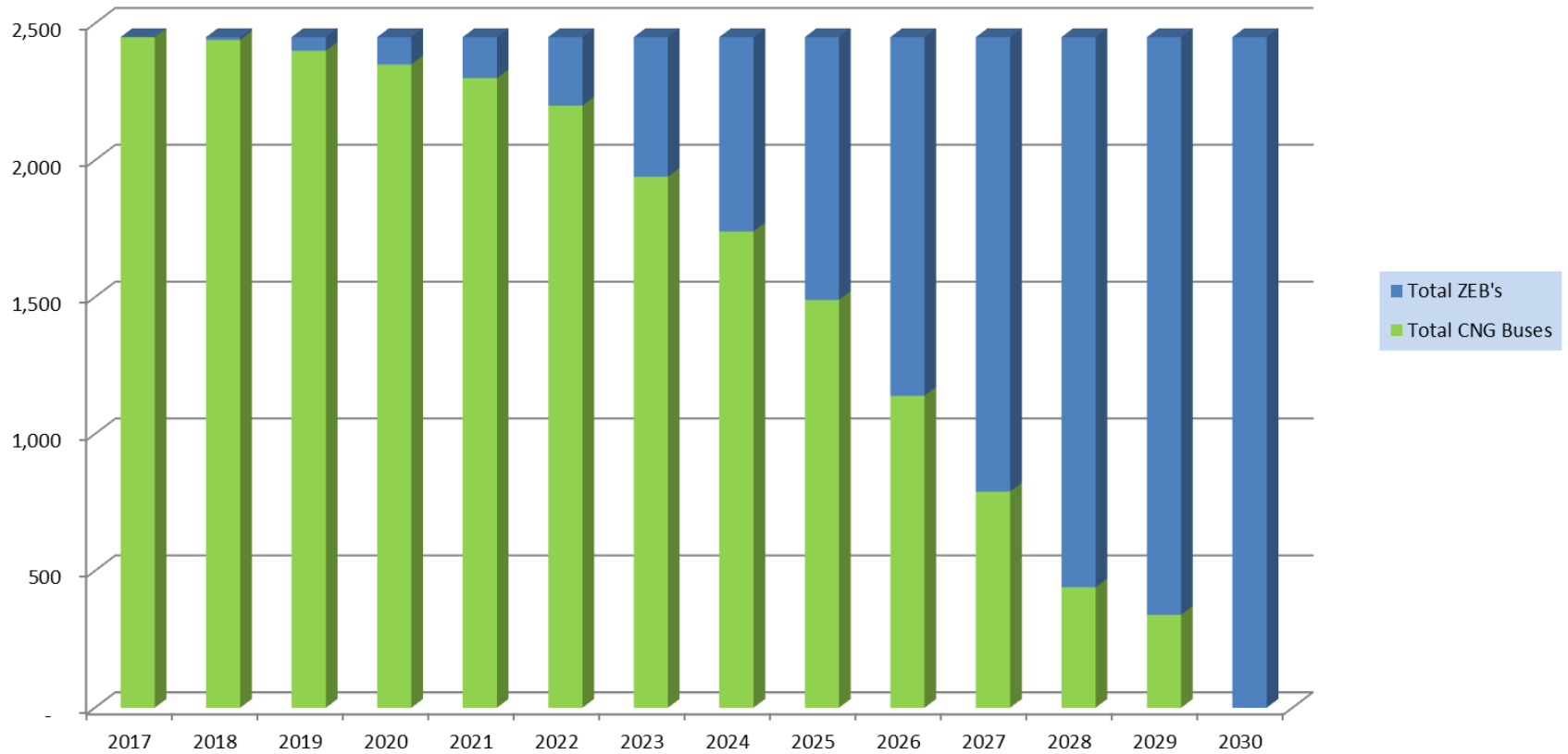
Develop comprehensive plans for deploying ZEB's on Metro Local and Rapid bus routes (i.e. Phase 2 of Metro's ZEB program).

Master plan elements include:

- Life-Cycle and Technology Configurations, Costs
- Utilities and Infrastructure Requirements
- Operating Considerations
- Material Sourcing Strategies and End of Life Recycling/Reuse
- ZEB Program Funding

Metro's Transition to 100% ZEB

Metro Bus Fleet Transition to Zero Emission Buses (ZEB's)



CARB's goal is that by 2040 only ZEB's are in service.
LA Metro's 2030 ZEB plan would be ten years ahead of CARB goals.

ZEB – Phase 2 – Key Program Elements

- **Phase 2 - ZEB Program (2020-2030)**
 - **Infrastructure:** Solicit engineering and design services for installing electric charging infrastructure at all Metro bus operating locations.
 - **Utilities:** Coordinate with PUC, SCE and DWP to ensure support for ZEB programs and new power drops. Negotiate ZEB rate structures.
 - **Range:** Phase 2 will require new longer range 40' and 60' ZE buses that are capable of delivering at least 250 miles in Metro service, and meet seating, axle weight and other operating requirements.
 - **Charging:** Optimize operating assignments around overnight depot charging with minimal breaks for midday or opportunity charging.
 - **Procurement:** Strategies and alternate lease structures to help Metro reduce transition costs and mitigate technology and operating risks (e.g. battery leases).
 - **Funding:** Funding source evaluation and trade-offs



**35 ZEB BUS CONTRACT
FUNDING/EXPENDITURE PLAN**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Uses of Funds					
Bus Acquisition	12,010	36,030		48,040	67%
Bus Charging System Installation, Power Drops, Site prep	7,808			7,808	11%
Professional Services	200	100	100	400	1%
Labor	876	876	437	2,189	3%
Travel/Admin	100	200	200	500	1%
Spare Parts, Training, Service Manuals, Charging Equip		6,005	6,005	12,010	17%
Contingency			1,154	1,154	2%
Total Project Cost	20,994	43,211	7,896	72,101	100%

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Sources of Funds					
Federal					
FTA LoNo Grant	4,275			4,275	6%
Local					
TDA 4/PC40	16,719	43,211		59,930	83%
Measure R 35			7,896	7,896	11%
Total Project Funding	20,994	43,211	7,896	72,101	100%

**Board Report**

File #: 2017-0466, **File Type:** Contract**Agenda Number:** 44

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: SIXTY FIVE 60' ARTICULATED CNG TRANSIT
BUS CONTRACT****ACTION: AWARD CONTRACT FOR REPLACEMENT OF 60' TRANSIT BUSES****RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to negotiate and award a firm fixed-price Contract no. OP28367-003, Group B, to New Flyer of America (St. Cloud, MN), for the manufacture and delivery of sixty five 60' CNG transit buses, in a not to exceed amount of \$64,428,454, for the base contract, inclusive of taxes and delivery, exclusive of contract options.
- B. AUTHORIZING the Chief Executive Officer to negotiate and award an additional not to exceed amount of \$3,260,156 for spare parts, optional vehicle features, and training aids for a total combined contract amount not to exceed of \$67,688,610.
- C. ESTABLISHING a life-of-project budget of \$72,200,000, for the sixty five 60' CNG buses under Capital Project no. 201076.

ISSUE

Between FY18-FY22, Metro is scheduled to retire and replace two-hundred sixty (260) 60' buses that will reach the end of their useful life. This action authorizes the award of a base contract for sixty five 60' replacement CNG buses to New Flyer.

DISCUSSION

In April 2016, Metro's Board of Directors authorized staff to initiate RFP OP28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP OP28367, issued in July 2016, consists of four groups, one separately evaluated procurement of each vehicle type:

- Group A, 40' CNG buses (base order of 295, awarded June 2017, pending successful resolution of protest)
- Group B, 60' CNG buses (base order of 65, award targeted for July 2017),

- Group C, 40' ZE buses (base order of 60, award targeted for July 2017),
- Group D, 60' ZE buses (base order of 35, award targeted for July 2017).

This recommended Board action pertains solely to Group B, 60' CNG buses.

This bus procurement is part of Metro's bus fleet replacement plans for FY18 - 22. During this period, Metro will be replacing 60' buses that were purchased between 2004 and 2008 that have reached the end of their service life.

Separately, staff will be presenting to the Board award recommendations for groups C & D of this solicitation.

Procurement Process

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered factors such as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics
- Scoring incentive for local (CA) job creationcontent

Metro provided an additional scoring incentive for proposers who committed to local job creation. The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurement. The LEP allows for geographical preferences to be applied as part of the evaluation scoring. The voluntary program provides proposers with incentive points for creating new jobs in California. The recommended awardee, New Flyer, has proposed to create \$3.1 million in wages and benefits for an additional 17 new FTEs.

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). New Flyer of America is currently on FTA's list of eligible TVMs, and is certified at a 4.10% DBE goal level. In compliance with 49 CFR Part 26.49, TVMs report direct to FTA.

DETERMINATION OF SAFETY IMPACT

There will be anticipated safety improvements for operating these new CNG buses in Metro's bus fleet. These buses will incorporate the latest safety features and designs, including improved ADA amenities and boarding ramps. New buses will provide a safer, cleaner operating environment for Metro's passengers and employees.

FINANCIAL IMPACT

Total LOP funding of \$72,200,000 will be included in Cost Center 3320 - Vehicle Technology, in project 201073 For FY18, there is \$533,658 programmed to cover expenses for purchasing these buses. Since, this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

In addition to the direct contract award, \$3,260,155 in funding has been included in the contract award recommendation amount to cover costs for spare parts, training aids, optional equipment, including upgraded passenger counters, stop request buttons and USB passenger charging ports.

Impact to Budget

The current source of funds for this action is Prop C 40% Bonds, which are eligible for this project. This funding source is currently sufficient to award the contract base of this recommendation. Staff is pursuing additional State and Local funding sources such as Cap and Trade and similar sources as they become available.

ALTERNATIVES CONSIDERED

Staff considered purchasing exclusively 60' Zero Emission Buses (ZEB's). This is not recommended at this time as a service-proven ZEB program has not been identified that can effectively cover the broad scope of Metro's operational needs without impacting service and operations. Due to vehicle charging requirements and range limitations, battery electric ZEB's are not currently capable of replacing CNG buses on a 1:1 basis. Additionally, significant electrification work would be required to build up the charging infrastructure for Metro's operating lines and facilities to support daily operations of an electric bus fleet.

Staff considered recommending replacement of all 260 60' CNG buses that are scheduled for replacement between 2018-2022. This is not recommended because funding is not available to fully replace all of these buses in 2018-2019. Additionally, staff wants to develop operational experience with ZEB buses to help determine if there will be viable ZEB alternatives to CNG buses after 2020.

Staff also considered replacing CNG fuel tanks on buses that are slated for retirement to extend their service life. This is not recommended as operating CNG buses that are past the end of their useful life will result in degraded quality of service, reduced fleet reliability, and increased operating and maintenance costs. The costs to return retirement eligible CNG buses back to "Service Ready" condition is significant, often \$150-\$200,000 per bus.

NEXT STEPS

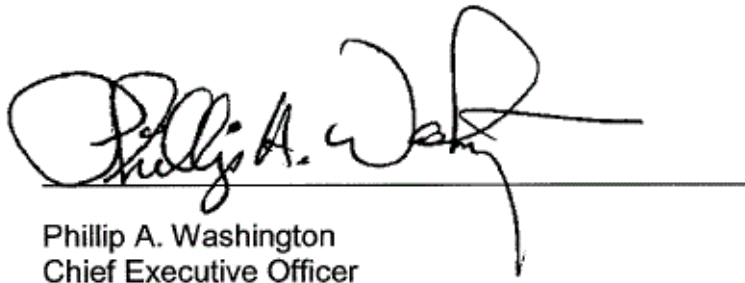
Upon Board approval, staff will finalize negotiations and execute the contract with New Flyer, and issue a Notice to Proceed.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Funding and Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285
Jesus Montes, Sr. Executive Officer, Vehicle Acquisition (213) 922-3838

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY
SIXTY FIVE 60' ARTICULATED CNG TRANSIT BUS / OP28367-003 (Group B)

1.	Contract Number: OP28367-003	
2.	Recommended Vendor: New Flyer of America, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 07/29/16	
	B. Advertised/Publicized: 08/04/16; 08/08/16; 08/12/16; 08/15/16	
	C. Pre-Proposal Conference: 08/30/16	
	D. Proposals Due: 05/19/17	
	E. Pre-Qualification Completed: 06/05/17	
	F. Conflict of Interest Form Submitted to Ethics: 07/14/17	
	G. Protest Period End Date: 07/28/17	
5.	Solicitations Picked up/Downloaded: 63	Bids/Proposals Received: 1
6.	Contract Administrator: Elizabeth Hernandez	Telephone Number: (213) 922-7334
7.	Project Manager: John Drayton	Telephone Number: (213) 617-6285

A. Procurement Background

This Board Action is to approve Contract No. OP28367-003 issued in support of Metro's bus fleet replacement plan to procure new buses for replacement of 60' CNG buses that will reach the end of their useful life. Group B – 60' CNG bus buy base order consists of 65 buses, and option orders of up to 335 additional buses for a total of 400 Sixty Foot CNG buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Twenty seven (27) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and Technical Specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms.
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers;
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers;
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposers;
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers;
- Amendment No. 27, issued on 05.11.17, extended the due date for Group B proposals;

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were scheduled on October 4, 5 and 6, 2016. One proposal was received on November 28, 2016.

Questions received throughout the solicitation process and Metro's responses to those questions were made accessible to the RFP plan holders by posting them on Metro's project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group A and Group B, 40' and 60' CNG buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of September 30, 2016 to November 28, 2016.

The technical evaluation of the single proposal was completed on May 4, 2017, and included review of the written proposal, clarification requests and responses, and conference call discussions. This level of technical evaluation was necessary to assess and determine the proposers' compliance with the technical specifications at an acceptable price.

B. Evaluation of Proposals

In the absence of competition, the proposal was evaluated for technical compliance to Metro's requirements. A technical evaluation of the proposal was conducted by the Project Manager who utilized the Proposal Evaluation Team (PET) members as technical advisors, to determine technical acceptance. The RFP evaluation criteria were used as the basis for this technical evaluation in the areas of Technical Compliance, Project Management Experience, and Experience and Past Performance.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. For this Group B, the single proposer elected to participate in the voluntary LEP.

The initial proposal required clarifications resulting from the technical evaluation. Through discussions, satisfactory responses were obtained and a conformed specification and commercial terms were developed. On May 9, 2017, a conforming offer was requested, and on May 19, 2017, the offer was received. The Project Manager conducted a final technical evaluation and confirmed that the proposal met all technical requirements.

Qualifications Summary of the Firm:

New Flyer of America, Inc. (NFA)

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposed to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California facility houses production, service and aftermarket parts.

NFA has delivered 60' CNG buses to transit agencies such as Orange County Transportation Authority (OCTA), New York MTA, and Omnitrans.

C. Cost/Price Analysis

A cost analysis is currently underway utilizing an audit completed by Metro’s MASD on June 30, 2017. The audit findings are being used as the basis for negotiations to arrive at a fair and reasonable price. In addition to the audit performed by MASD, Metro’s negotiation with the proposed Contractor will factor in a Technical Evaluation performed by Metro’s project management team and Metro’s Independent Cost estimate (ICE). The recommended Contractor’s proposed price of \$408,580,279 will be used as the not-to-exceed cap for these negotiations. The final negotiated Contract for Base and Option vehicles will be based on Firm Fixed Unit Rate prices. The Optional Vehicle Features will also be based on Firm Fixed Prices for total Base Buy and Option Buy quantities.

Proposer Name	Proposal Amount	Base Buy (65)	Option Buy (335)	Optional Features for Base and Options Buys	Negotiated or NTE amount
Metro ICE*		\$58,582,745	\$301,926,455		Not Applicable
NFA	\$408,580,279	\$64,428,454	\$331,132,073	\$13,019,752**	TBD

*Note: Metro’s estimated per unit cost of the vehicle is based upon a bus configuration that did not include the design requirement for electronically driven accessories. Metro is the first transit agency to require electronically driven accessories in a CNG bus configuration. **The recommended value for the Base Optional Features is \$3,260,156.

Local Employment Program

NFA has elected to participate in Metro’s voluntary Local Employment Program (LEP). In the absence of competition, this participation did not result in distribution of any incentive points to NFA based on their proposed wages, benefits, and training of new employees hired in California. The table below describes the commitment level for NFA for new local jobs. This value is currently under negotiations.

Proposers:	NFA
Total Local Employment, Facility and Training Investment	\$3,100,668

D. Background on Recommended Contractor

The recommended firm, New Flyer of America Inc. (NFA), is a corporation organized in North Dakota, and is a wholly owned subsidiary of Transit Holdings. NFA is the US operating company in the New Flyer group of companies, and manufactures and sells New Flyer transit buses to U.S. customers.

NFA proposes to support the Metro project with new and existing workforce in production, manufacturing, engineering, quality assurance and warranty services from its locations in Winnipeg, Canada, St. Cloud, Minnesota and Ontario, California. NFA will build Metro buses from the St. Cloud and Ontario facilities. The 380,000 square foot St. Cloud facility opened in 1999 and has two production lines for full production and finishing processes. The 100,000 square foot service center Ontario facility will include a production team for finishing and delivery of the buses, field service support for warranty and retrofit activities, and a team for aftermarket parts and materials. NFA recently completed delivery of the 900 40' CNG bus buy to Metro.

NFA's proposed a dedicated Customer Project Manager and primary point of contact for this project who previously worked with Metro staff for the 900 bus buy. NFA's proposed project team has combined extensive years of experience in the transit/bus industry for engineering, manufacturing, quality control, production, testing, systems integration, and field/warranty support delivering buses to major transit agencies such as Boston, New York, Washington, D.C. and Dallas.

DEOD SUMMARY

SIXTY FIVE 60' ARTICULATED CNG TRANSIT BUS CONTRACT / OP28367-003
(Group B)

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVMs), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). New Flyer of America submitted an FY17 TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

**Funding and Expenditure Plan
Sixty Five 60' CNG Transit Buses (Part B)**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Uses of Funds					
Vehicles	\$1,060,438	\$59,126,265	\$4,241,751	\$64,428,454	89.2%
Spare parts, optional features, training aids	\$0	\$3,260,156	\$0	\$3,260,156	4.5%
Labor	\$500,000	\$761,390	\$250,000	\$1,511,390	2.1%
Travel/Administration	\$150,000	\$250,000	\$100,000	\$500,000	0.7%
Contingency	\$0	\$0	\$2,500,000	\$2,500,000	3.5%
Total Project Costs	\$1,710,438	\$63,397,811	\$7,091,751	\$72,200,000	100.0%

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Sources of Funds				\$ -	
PC40 Bonds	\$ 1,710,438	\$ 63,397,811	\$ 7,091,751	\$ 72,200,000	100.0%
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
Total Project Funding	\$ 1,710,438	\$ 63,397,811	\$ 7,091,751	\$ 72,200,000	100.0%

Current source of funds for this action is PC40 Bonds, which are eligible for this project.
 The funding sources under this project are currently sufficient to award the contract base of this recommendation.
 Staff is pursuing additional State and Local funding sources such as Cap and Trade and Similar sources as they become available

**Board Report**

File #: 2017-0399, **File Type:** Contract**Agenda Number:** 45

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: NEAR ZERO NATURAL GAS FUELED ENGINES****ACTION: APPROVE CONTRACT AWARD****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a three year, indefinite delivery/indefinite quantity Contract No. MA39865000 for Near Zero Emission Natural Gas Fueled Heavy Duty Engines to Cummins Pacific, LLC for a not-to-exceed amount of \$8,160,523, inclusive of sales tax, for the base year; a not-to-exceed amount of \$11,296,774, inclusive of sales tax, for the first one year option; and a not-to-exceed amount of \$7,064,518, inclusive of sales tax, for the second one year option, for a total Contract amount of \$26,521,815.

ISSUE

The Cummins ISL G 280 horse power (hp) engines, currently installed in our NABI 45-foot series composite buses, will be replaced with new "Near zero" emission engines that will operate here on Renewable Compressed Natural Gas (RCNG). The Central Maintenance Facility (CMF) engine replacement program is coordinated with Metro's strategic plans for transitioning to Zero Emission Buses. This procurement is required to ensure the current engine replacement program continues without delays and with no impact on revenue service.

DISCUSSION

CMF staff has identified a requirement to purchase up to 395 natural gas fueled heavy duty engines to replace currently installed Cummins ISL G 280 hp engines during the period FY18 through FY20. The Cummins ISL G Near Zero Emission engines delivered under this procurement will be installed as part of the engine replacement program.

The ISL G Near Zero natural gas engine reduces NOx by 90 percent and greenhouse gases by nine percent compared to the standard ISL-G CNG-powered engine. Currently, the Cummins the ISL G Near Zero Emission is the only CNG mid-range engine to receive emissions certifications from the Federal Environmental Protection Agency (EPA) and California Air Resources Board (CARB) for meeting the 0.02 g/bhp-hr optional Near Zero NOx emissions standard. These engines are designed to be operated on either pipeline CNG or bio-gas/RCNG.

The Cummins ISL G Near Zero fueled heavy-duty engines are warranted to be free from defects in design and materials for two-years with unlimited mileage with full parts and labor on all warrantable failures.

DETERMINATION OF SAFETY IMPACT

The award of this Contract will result in a positive impact on safety. Installation of these new engines will ensure that buses are maintained in accordance with Metro Maintenance standards and improve on-road performance and reliability, with beneficial impact on system safety.

FINANCIAL IMPACT

The total contract value is not-to-exceed \$26,521,815. The funding of \$8,160,523 for these engines is included in the FY18 budget in cost center 3366, under project 203036, Bus Midlife Program and line item 50441, Parts- Revenue Vehicle. Since this is a multi-year Contract, the project manager, cost center manager and Chief Operations Officer will be accountable for budgeting the cost in future fiscal years, including any options exercised.

A grant for \$1.875 million was awarded to Metro by the Mobile Source Air Pollution Reduction Committee (MSRC) to offset the cost of installation of the Near Zero engine in 125 buses.

Impact to Budget

The source of funds for this procurement will come from Federal formula funds, State MSRC and local Proposition C 40%. These sources are eligible for Bus Operating or Capital projects. Use of these funding sources maximizes established funding provisions and guidelines.

ALTERNATIVES CONSIDERED

The alternative is not to award this master agreement Contract and procure natural gas fueled heavy-duty engines on an as-needed basis, using the traditional "min/max" replenishment system method. The "min/max" replenishment system method calculates minimum and maximum inventory levels. This strategy is not recommended since it does not provide for a commitment from the supplier to ensure availability, timely delivery, continued supply and a guaranteed fixed price for natural gas fueled heavy-duty engines.

NEXT STEPS

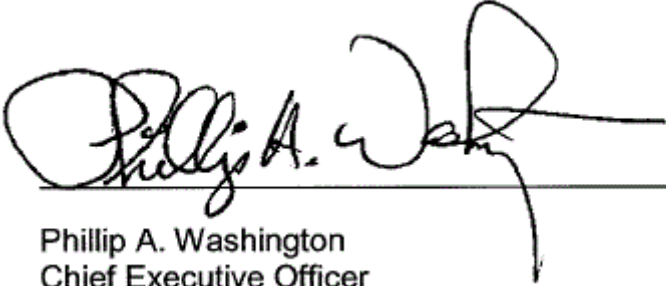
Refurbishment of the NABI bus fleet will continue in accordance with Operations Support Services bus mid-life program and engine replacement program. The engine replacement program utilizing the engines is scheduled to be completed by the end of the second quarter, FY20.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

Prepared by: Amy Romero, Sr. Director of CMS, (213) 922-5709

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer, (213)418-3051
James T. Gallagher, Chief Operations Officer, (213)418-3108



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

NEAR-ZERO NATURAL GAS FUELED ENGINES/MA39865000

1.	Contract Number: MA39865000	
2.	Recommended Vendor: Cummins Pacific, LLC	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> FB <input type="checkbox"/> RFP <input type="checkbox"/> RFP.A&E Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 3/17/17	
	B. Advertised/Publicized: 3/17/17	
	C. Pre-Bid Conference: 3/24/17	
	D. Bids Due: 4/17/17	
	E. Pre-Qualification Completed: 4/26/17	
	F. Conflict of Interest Form Submitted to Ethics: 4/21/17	
	G. Protest Period End Date: 6/26/17	
5.	Solicitations Picked Up/Downloaded: 3	Bids Received: 1
6.	Contract Administrator: Edmund Gonzales	Telephone Number: 213/418-3073
7.	Project Manager: Amy Romero	Telephone Number: 213/922-5709

A. Procurement Background

This Board Action is to approve Contract No. MA39865000 in support of Metro's Natural Gas Fueled Bus Fleet to procure Near-Zero Emissions Bus Engines for bus maintenance and operations.

The IFB was issued in accordance with Metro's Acquisition Policy and the contract type is an Unit Firm Fixed Price Indefinite Delivery/Indefinite Quantity (ID/IQ).

One amendment was issued during the solicitation phase of the IFB:

- Amendment No. 1, issued on April 7, 2017, changed a fuel requirement of the IFB technical specification.

A total of one bid was received on April 17, 2017.

A market survey was conducted shortly thereafter inquiring as to why members on the Planholder's list elected not to participate in the solicitation. Information was collected for the other two Planholder's. One Planholder downloads and redistributes solicitations as their business model and does not respond to solicitations. The other Planholder did not respond, however, their website list the company as a provider of software systems.

B. Evaluation of Bids

This procurement was conducted in accordance, and complies with LACMTA's Acquisition Policy for a competitive sealed bid. The firm recommended for award, Cummins Pacific, LLC, was found to be in full compliance with the bid and technical requirements.

Bidder Name	Bid Amount
Cummins Pacific LLC	\$26,521,814.70

C. Price Analysis

The recommended total price has been deemed fair and reasonable based on Metro's staff conducting an open competition and market research. Staff obtained recent engine pricing data from Orange County Transportation Authority and Santa Monica Municipal Bus Lines and found the total bid price was comparable based on market research data. Although Metro only received one bid, the procurement was an open competition that included formal advertising, a pre-bid conference, and reach out to qualified engine manufacturers.

Bidder Name	Bid Amount	Metro ICE
Cummins Pacific LLC	\$26,521,814.70	\$28,254,000.00

D. Background on Recommended Contractor:

Cummins Pacific LLC, located in Irvine, CA, has been in business for 25 years, is a leader in the field of manufacturing engines and is an aftermarket distributor of bus parts. Cummins Pacific has provided similar products to other transit agencies including Orange County Transportation Authority (OCTA), Santa Monica Municipal Bus Lines (Big Blue Bus), San Diego Metropolitan Transit System, Torrance Transit, and other agencies. To date, Cummins Pacific, LLC has provided satisfactory products and services to Metro on previous purchases.

DEOD SUMMARY

NEAR ZERO NATURAL GAS FUELED ENGINES / MA39865000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small Business Enterprise (SBE) goal for this solicitation due to lack of subcontracting opportunities. Metro's Project Manager confirmed that Cummins Pacific, LLC manufactures engines in-house. Cummins Pacific, LLC did not make an SBE commitment.

B. Living/Prevailing Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.