Washington Metropolitan Area Transit Authority

SAME DC POST in association with ACEC / MW

Joint Conference on Regional Program Initiatives and Look Ahead

June 17, 2015
OVERVIEW of WMATA INFRASTRUCTURE:

- The Washington Metropolitan Area Transit Authority (Metro) was created by an interstate compact in 1967 to plan, develop, build, finance, and operate a balanced regional transportation system in the national capital area.

- Metro began building its rail system in 1969, began operating the first phase of Metrorail in 1976. Today, Metrorail serves 86 stations and has 106 miles of track, with 1,136 rail cars and multiple support facilities.

- Metro acquired four regional bus systems in 1973. Metrobus runs 24 hours a day, seven days a week with 1,500 buses, Metrobus operates multiple support facilities.

- The current escalated value of the system is $22+ billion.

- The Silver Line phases I and II will increase the system by 11 stations, 23.1 miles, and $5.49 billion.
Joint Development & Adjacent Construction (J DAC) - Mission

J DAC reviews, approves and coordinates projects adjacent to Metrorail and Metrobus property, facilities, and operations in order to:

- Protect WMATA operations, ensure passenger safety from adjacent work and safeguard WMATA infrastructure
- Provide coordination of design, safety, operations, constructability and compliance with WMATA criteria and standards; and
- Coordinate and accept on-site installations and facilities

J DAC acts similar to the development review and permitting offices of the jurisdictions

J DAC provides coordination, approvals and oversight for Joint Development and Jurisdictional Reimbursable projects
Joint Development Projects: Construction projects located over, under, contiguous or adjacent to WMATA's facilities or on land in which WMATA has a financial interest. A joint development agreement provides conditions under which a Developer constructs facilities for WMATA’s acceptance. All designs and construction must meet WMATA design criteria and standards. JDAC provides oversight and coordination during planning, design, construction and commissioning.

Adjacent Construction Projects: These are projects that, Owners, Developers or Contractors (and Jurisdictional Partners) are constructing which may or may not benefit WMATA but are within the WMATA zone of influence and might pose an impact to the WMATA operating system, infrastructure, customer or employee safety. JDAC provides oversight and coordination during planning, design, and construction to assure compliance with WMATA's Adjacent Construction Project Manual, WMATA Design Criteria and Standards.

Reimbursable Projects: Similar to joint development projects except performed by jurisdictional partners or others to be accepted into the WMATA Adopted Regional System. A reimbursable agreement provides conditions under which the facilities will be constructed for WMATA acceptance. All designs and construction must meet WMATA Design Criteria and Standards. JDAC provides oversight and coordination during planning, design, construction and commissioning.
JDAC Resources


- Adjacent Construction Project Manual (ACPM).

- Project Flow Chart

- Email: JDACInquiries@wmata.com
Adjacent Construction

Proximity of Adjacent Construction Projects to WMATA Infrastructure

111 K Street Adjacent Construction

NY Avenue Bridge Replacement Adjacent Construction

VDOT Telegraph Road Bridge Extension – PCN250442 - Pier 3

Proposed caissons are approximately 60’ deep
Adjacent Construction

Key Steps For new JDAC Adjacent Construction Projects

- Introduction of Project to WMATA to JDACInquiries@wmata.com
- Evaluation of Impacts & Involvement
- Property Rights, Submittals, Insurance Assessment
- Background Checks & Right of Way Training
- Scheduling of Track Rights And Access
- Permits not released until appropriate approvals are in place
Flow Chart - Early Actions

• ODC project introduction to WMATA.
• JDAC determination of level of support, project duration, and JDAC fees based on Board approved fee schedule
• JDAC letter agreement and invoice to ODC
• ODC execution of agreement and payment.
• Joint identification of project needs:
  ▪ As-built drawings via Document Request Form
  ▪ Right-of-way access
  ▪ Any interim facilities
  ▪ Any impacts to WMATA property or operations
Flow Chart – Access

WMATA APPROVALS FOR ACCESS

- Release of Information Form
- Certification of Eligibility for ID Card
- Roadway Worker Protection Safety Training
- Rail Support Request Form
- Application for Real Estate Permit with minimum permit fee of $3,500 and insurance certificates/policies
- Site Specific Work Plan
- Escorts and Flagman - ODC payment of costs in advance
- Real Estate Permit
- JDAC Certification
- Arrangement of Track Rights
Right-of-Way Safety Training

- Roadway Worker Protection Program
- Metrorail has safety as its foremost priority.
- Metrorail third rail is high voltage – 750V DC.
- Metrorail is active during during non-revenue hours.
- Safety training forms are available on the JDAC Web page.
  - Certification of Eligibility / Training Request / ID Card
  - Training Procedures
Facility and Roadway Access

- ODC requests are coordinated through JDAC.
  - Operations emergencies and maintenance have priority.

- JDAC assists ODC in completing:
  - Site Specific Work Plan (SSWP) 60 days.
  - Rail Support Request.

- General Orders and Track Rights ‘GOTRS’ system.
- JDAC often arranges piggyback track rights.
- Shutdown schedule is developed 1 year in advance.
- ODC must pay in advance for escort/flagman support.
- Track rights process is 30 days (90 days w/ SSWP).
Joint Development and Transit Oriented Development Projects

- **Office of Real Estate and Station Planning (LAND)**
    - [http://www wmata com/pdfs/business/Guidelines%20Revision11-20-08.pdf](http://www.wmata.com/pdfs/business/Guidelines%20Revision11-20-08.pdf)
  - Real estate permit application and sample permit.
  - Sector Plan and Zoning Amendments.
  - Station Visioning and Station Access Studies.
  - JD Conceptual Plans, Public Hearings, Agreements, Real Estate Permits.
  - Non-WMATA and Non-Adjacent private and public TOD projects.

- **Office of Joint Development and Adjacent Construction (JDAC)**
  - Engineering, Construction and Acceptance of joint development projects.
  - Facilities built for WMATA to comply with WMATA Criteria & Standards.
  - WMATA approval required prior to submission to local jurisdictions.
WMATA Criteria & Standards

• Manual of Design Criteria
• Standard Drawings
• Design Drawings
• Technical Specifications
• ADA Guidelines • AASHTO Green Book
• WMATA CADD Manual
• Station Site and Access Planning Manual
• ACPM presents all requirements and thresholds. Here are some examples:
  - Geotechnical Criteria, Structural Loadings and Zone of Influence, Appendix 3
    - Examples of different cases used to determine the Zone of Influence
• examples continued:
  - Structural Loading, Earth Pressure Criteria
    Determination of Vertical Pressure Distribution Plate A-4
  - Limitations on Construction, Section 3, the following construction activities are not permitted *.
    *See manual for exceptions
    1. Excavation under WMATA structures, except for underpinning
    2. Tunneling under WMATA structures/facilities and tracks
    3. Excavation within 10 feet of existing facilities
    4. Installation of pre-augured piles within 5 feet of bored tunnels
    5. Pile driving within 25 feet of WMATA structure, and tracks
    6. Blasting shall not occur within 100 feet of WMATA structures without prior approval
  - Demolition and Blasting Criteria, Section 3.
Real Estate Permit

- Permit required for temporary & permanent use of property. Plans must define/label WMATA’s property to be used & property lines in relation to ODC’s property.

- Permit process is a minimum of 30 days from receipt of JDAC certification. Additional time is necessary, if an appraisal is required due to long term and/or permanent use request.

- For temporary use Permits, ODC must request sufficient term to cover project timetable to avoid delays.

http://www.wmata.com/business/joint_development_opportunities/real_estate.cfm
## Insurance Requirements

<table>
<thead>
<tr>
<th>COVERAGE TYPE</th>
<th>Developer / Permittee</th>
<th>General Contractor</th>
<th>Subcontractor</th>
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<tr>
<td>Worker’s Compensation</td>
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<tr>
<td>Commercial General Liability (CGL)</td>
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<td>Commercial Automobile Liability</td>
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<td>Excess/Umbrella Liability (if necessary)</td>
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<tr>
<td>Professional Liability</td>
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<tr>
<td>Contractor’s Pollution Legal Liability</td>
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<tr>
<td>Railroad Protective Liability (RRPL)*</td>
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<tr>
<td>Builders Risk</td>
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<tr>
<td>WMATA must be named Additional Insured</td>
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</tr>
<tr>
<td>WMATA listed as the certificate holder</td>
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</tbody>
</table>

Policy limits listed in permits/agreements are the required minimum. Limits may vary depending on scope of work.

**Must Submit** 1) RRPL Insurance Policy and 2) Certificate(s) of Insurance for approval.

Contact Information: Carmen Pelham, 202.962.1236 or cpelham@wmata.com
Railroad Protective Liability Policy (RRPL)

This is a requirement for ALL work activities which occur within 50 feet of WMATA railroad tracks (all tracks, including yards) and within WMATA rail stations. It may be required beyond 50 feet if use of a crane could foul the ROW. It covers WMATA’s Liability for Bodily Injury and Property Damage claims which result from the designated contractor’s work activities. The most common type of claim is for injury to Employees of contractors and subcontractors.

WMATA must be the ‘Named Insured’ and the General Contractor should be the “Designated Contractor” on the policy.

When RRPL is required, the CGL policy should be endorsed to delete the railroad exclusion from the contractual liability coverage.

WMATA’s Blanket RRPL Insurance Program is available to contractors if project falls within certain parameters.

The Description of Work on the policy and all certificates must include the WMATA project number and location(s).

* RRPL is usually provided by the general contractor. The policy automatically covers loss arising from the activities of all subcontractors.
Construction Phase

- Issuance of Real Estate Permit.
- Monitoring Plan Implementation & Reports.
- Pre-Construction Survey.
- Pre-Construction Meeting.
- JDAC Construction Inspection Facilitators.
- Project Close-Out.
  - As-built drawings.
  - Payment of outstanding costs.
CAPITAL IMPROVEMENT PROGRAM FUNDING:

- Annual Jurisdictional Capital subsidy allocation;
- Special Federal Transit Administration Grants; and
- System Infrastructure Rehabilitation Program
- Capital Funding Programs “Fast Track and Metro Matters”
- Momentum Funding Program

- FY 2016 Total CIP Budget $1.31B
- FY 2016 to FY 2021 CIP Budget $6.99B
- CIP includes bus, rail, metro access and service vehicles, track, yard and shop equipment replacement, infrastructure rehabilitation, Systems upgrades and rehabilitation, etc.
Significant investments planned for FY2016 include, but are not limited to:

- Continued investment in projects that address NTSB findings including the examination and replacement of track circuits and the replacement power cables
- Approximately 190 new 7000 Series railcars will be delivered to begin the replacement of the 1000 Series railcars
- Continued rail line segment rehabilitation on the Red Line and Orange/Blue Lines
- Aggressive rehabilitation of track and structures
- Continue rehabilitation of Alexandria, Brentwood, and New Carrollton rail yards
- Full rehabilitation of 12 Metro stations and partial rehabilitation of another 12
- Replacement of 14 escalators and rehabilitation of 37 more
- Rehabilitation of 16 elevators
- Continue development of New Electronics Payment Program
- Replacement of approximately 130 Metro buses and the rehabilitation of 100 more
- Advance the replacement of Southern Avenue bus garage and continue rehabilitations at Western, Northern, Landover, and Bladensburg bus facilities
- Replacement of 150 MetroAccess vehicles and purchase of 25 additional vehicles
CAPITAL IMPROVEMENT PROGRAM
Project Procurement

http://www.wmata.com/business/procurement_and_contracting/solicitations/
INFRASTRUCTURE DELIVERY METHODS TYPICAL TO WMATA:

- Design Bid Build
- Design Build

WMATA PROCUREMENT METHODS:

- IFB
- RFP
- RFQ/RFP, Best Value
- JOC
- Hybrid RFQ/RFP Best Value, with JOC allowance
CAPITAL IMPROVEMENT PROGRAM
Infrastructure Project Delivery

• RAIL SYSTEM INFRASTRUCTURE REHABILITATION PROGRAM
• MAINTENANCE FACILITIES— Includes Rail Yards, S&I Shops, Bus Garages and other
• SUPPORT FACILITIES SYSTEM AND TECHNOLOGY
• TRACK AND STRUCTURES
• PASSENGER FACILITIES
• MAJOR CAPITAL PROJECTS
• JURISDICTIONAL REIMBURSABLE PROJECTS
• JOINT DEVELOPMENT PROJECTS
• FORCE ACCOUNT
CAPITAL IMPROVEMENT PROGRAM
Rail System Infrastructure Rehabilitation Program

- One contract: to address all Infrastructure rehab work in a specific length instead of multiple rehab contracts
- One contractor minimizes disruption and increase productivity
- Reduce overlapping track rights requests: Coordinate and work in same area on maintenance projects with Metro internal staff.
- Optimize use of escort, inspection, and safety personnel: Single tracking during the week as early as 8:00 pm, Sunday night through Thursday night, where allowed per Track Rights Guidelines.
- FY 2016 budget $97.4M, 6 year budget $313.9B
CAPITAL IMPROVEMENT PROGRAM
Rail System Infrastructure Rehabilitation Program

- Major sections of one or combination of Metrorail Line(s)
- Three Phases are determined based on age and need
- Once extent of Phases is determined rehabilitation occurs sequentially
- Each Phase includes all required rehabilitation
- Design Build – Best Value with Job Order Contracts (JOC) allowance
CAPITAL IMPROVEMENT PROGRAM
Maintenance Facilities – Includes Rail Yards, S&I Shops and Bus Garages

• There are eight Rail Yards and one Major Repair and Overhaul facility
• There are 13 Bus facilities based on age and need including ten bus garages, two heavy overhaul and one service vehicle maintenance facility
• Three Phases are determined for each of the nine based on age and need
• Once Phases are determined rehabilitation continues sequentially
• Design Build – Best Value with JOC allowance
CAPITAL IMPROVEMENT PROGRAM
Systems and Technology, Track and Structures, Passenger Facilities, Rehabilitation and Replacement Program

- Phases are determined for each of multiple facilities or systems based on age and need including HVAC, Drainage Pump Stations, Traction Power, Communications, Automatic Train Control facilities, Automatic Fare Collection Equipment and Vertical Transportation (Elevators and Escalators)
- Includes all required rehabilitation or replacement cost including design
MAJOR CAPITAL PROJECTS
Large Infrastructure Projects

- Typically **New** facilities including Parking Structures, Bus Maintenance or Rail Yard Facilities
- New Projects within Metrorail system station or facility improvements
- Project budget includes management, environmental, real estate, permits, work equipment, design, construction and commissioning
- Includes all required lifts, shop equipment, mobile equipment and/or automatic fare collection equipment
- Design Build – Best Value
JURISDICTIONAL REIMBURSABLE PROJECTS

Major New Starts Projects

- Dulles Corridor Metrorail Project (SILVER LINE)
- Per Board Resolution in 2000 Extensions will be funded by the Jurisdiction in which the extension is located.
- WMATA is reimbursed for cost associated with reviews, oversight and procurement of rail cars, AFC equipment and other specialized equipment.
JURISDICTIONAL REIMBURSABLE PROJECTS
Reimbursable Projects

- Jurisdictions plan, fund, design, construct and commission projects to accommodate additional ridership from new developments
- Examples include: Silver Spring Transit Center, Rosslyn Station Access Improvements, MD 355 Crossing (BRAC) (Medical Center New Entrance), etc.
- WMATA is reimbursed for cost associated with reviews, oversight and procurement of AFC equipment and other specialized equipment
Future Reimbursable Projects

PCN 250912 Bethesda New Entrance: Construction of a new access shaft with 6 elevators; 2 elevators from the street to the proposed Purple Line entrance and 4 high speed elevators from the Street to the WMATA Redline.

PCN 251218 MD 355 Crossing (BRAC) – (Medical Center New Entrance): Installation of new shaft with high speed elevators underground passageway to Red Line mezzanine; Underground passageway will cross beneath 355.
Future Reimbursable Projects


PCN 251516 I-66 Corridor Improvements Project (Widening Outside the Beltway): Widening with Express lanes will require relocation of a Traction Power Substation and 2 Tiebreaker Stations, relocation of bridges and new bridges at the beltway as well as other station facilities.

I-66 Widening Inside the Beltway: Widening with potential for Express lanes will require relocation of WMATA facilities.

Purple Line: Installation of new shaft with six high speed elevators passageway and new mezzanine at Bethesda, Purple Line Stations adjacent to metro Stations at Silver Spring, College Park and New Carrollton Stations.

Arlington County Station Entrance Improvements: Proposed concept for new or improved station entrances Ballston, Courthouse and Clarendon.
JOINT DEVELOPMENT PROJECTS

- Solicited or Unsolicited
- Most involve real estate sale or transfer of property rights and/or a share in the proceeds; some involve a new facility for WMATA
- Joint Development Agreement defines property rights, assignment of lease proceeds, design/construction of WMATA or shared facilities, maintenance and reimbursed for cost associated with reviews, oversight and acceptance
Future Joint Development Projects

New Carrollton Metrorail Station Joint Development: Joint Development Partners Selected
Greenbelt Metrorail Station Joint Development: Site discussed for future FBI Headquarters
College Park Metrorail Station: Potential Residential development in negotiations

Future Joint Development Solicitation: Eleven properties in Maryland, the District of Columbia and Virginia have been made available with proposals on several

Silver Line Phase 1 and 2: are stimulating a considerable amount of new office and housing development
Takoma Station Station: Residential development
Tenleytown Chiller Plant: Joint Development
Congress Heights Station: Residential development
Fort Totten Station: Potential Residential development in negotiations
Capitol Heights Station: Residential development
Anacostia Station: Joint Development and Station Access Study
West Hyattsville Station: Joint development

Ballston Multi-Modal Center Project: Transportation Center
Potential Second Entrance at McClain Station (Silver Line):