ARLINGTON COUNTY, VIRGINIA

County Board Agenda Item
Meeting of February 23, 2008

SUPPLEMENTAL REPORT

DATE: February 19, 2008

SUBJECT: Approval of an Agreement between the Washington Metropolitan Area Transit Authority and the County Board for Phase Two of the Rosslyn Station Access Improvement Project (Final Design); Approval of Phases One and Two Budgets, Project management Plan, and Funds Reallocation; Appropriation of Funds for Phase Two; and Appropriation of Federal Secondary for Future Construction.

DISCUSSION: Attachments to the Project Management Plan (Attachment 2 of the initial February 8, 2008 Board Report) were inadvertently omitted and are here submitted for review:

Attachment A: Scope of Services
Attachment B: Design Schedule
Attachment C: Project Schedule (Subject to Change)
Attachment D: Expenditure Forecast of WMATA Costs by Month

Additionally, a revised Table 1 of the initial Board Report is attached and shows a correction to County Contingency of the Total Design Costs (Projected Expenditures). This amount was previously stated as $187,869; the amended amount is $189,869.

County Manager: RCmm

County Attorney: BAHC/ SAM

Staff: Bee Buergler and Bea Hicks – DES, Transportation Division, Transit Bureau

21.

ATTACHMENT A

Rosslyn Station Access Improvements Project
Scope of Services

Scope of services consists of preparing Invitation For Bid (IFB) documents and appropriate design and construction cost estimates for the addition of three high speed, high capacity elevators and related improvements to the Rosslyn Station Metro. On behalf of Arlington, WMATA seeks to prepare final design drawings and construction bid documents for access improvements to the Rosslyn Station Metro described as Alternative No. 1 concept plan in WMATA's Rosslyn New Entrance Study dated March 2007. The purpose of these modifications is to improve access to the Rosslyn Station and support the anticipated increase in rail ridership that will result from new high density mixed land use developments adjacent to the Station, including Rosslyn Central Place.

The modifications and work scope of the IFB generally consist of:

1. Three high-speed, high-capacity elevators.
2. Emergency exit stairway and mechanical shaft(s)
3. Underground station mezzanine with manager's kiosk, fare collection system, passageway connection, all equipment and architectural finishes.
4. All related appurtenant facilities and systems including but not limited to electrical, communications, fare collection and mechanical equipment, and integration as necessary into existing WMATA system.
5. Commissioning and turnover of installations and asbuilt preparation including updates to existing; specially formatted asbuilts.

A Design-Bid-Build contract is planned for construction of the above modifications.

When instructed by the Contracting Officer Representative (COR), P2D will provide the services described in this document.

Deliver IFB documents package incorporating Arlington County Division 1 for a Design-Bid-Build Contract to WMATA as described below in Rosslyn Station Metro (RSM)-1.

Expenditures for services provided under this task shall not exceed 80% of the NTP amount without notification by P2D to the Contracting Officer and designated WMATA Project Manager, and with a mutual understanding concerning the additional expense required and the penalty to other scheduled tasks.

RSM-1 GENERAL

RSM-1.1 Management and coordination

A. General:

1. In-house coordination between the P2D's design disciplines to ensure compatibility and consistency in the design documents.
2. Coordination with WMATA offices, associated consultants and Arlington County, the Central Place developer, JBG, and JBG's consultants.
3. Manpower and budget/schedule control.
4. Preparation and distribution of correspondence, telephone memos, meeting minutes, and related materials.
5. Preparation and transmittal of document submittals.
6. Response to questions and requests by WMATA and Arlington County .
7. Resolution of design review comments.
8. Provide drawings to WMATA for its coordination with approving agencies and affected entities.
9. Review and adoption of applicable criteria , codes, regulations including but not limited to NFPA and ADA, standards, directives and information provided as basis of design. Also include the aforementioned items as reference material in the IFB package.
10. Preparation of the IFB design documents providing adequate information for a design-bid-build contract, describing and delineating all equipment, materials and supplies and all work to be performed by the contractor. All applicable standard and directive drawings provided by WMATA in AutoCAD format and will be modified or formatted to be project specific. New drawings will be prepared in AutoCAD format.
11. The new station entrance facilities will be subject to further analysis for impacts to the existing station in regards to local jurisdictional codes and NFPA requirements for emergency exiting. Any conclusions developed from this study shall be in agreement with Arlington County Fire Code Officials.
12. The P2D will incorporate all safety requirements shown and stated in the latest standard and directive drawings and in the design criteria, within the documents for a design-bid-build contract.
13. During the design-bid-build contract procurement period, the P2D will participate in a pre-proposal conference. The P2D will assist to prepare a graphic presentation of the scope, design features, contractor access and any special considerations for the conference.

B. Progress Reporting:

Report on work performed will be provided during regularly scheduled progress review meetings with WMATA, Arlington County, JBG and their consultants. The frequency of the meetings will be agreed upon between WMATA and the P2D, but are anticipated to occur bi-weekly during most of the task order.

C. Documentation:

Hard copy of all documents will be submitted along with electronic media (CD-ROM).

D. Design Review Meetings:

The P2D and sub-consultants will participate in Design Review Meetings with Arlington County, Rosslyn Central Place (RCP) project representatives, and WMATA to discuss the design and review comments generated.

RSM - 1.2 DATA COLLECTION

Collect from WMATA and applicable jurisdiction agencies the following:

- Existing Station and Site as-built drawings, Plats and Geotechnical Report.
- WMATA Standard Drawings, which will include, but not limited to:
  - Informational Signage Standard and Directive Drawings.
  - Systems Design Standard and Directive Drawings.
  - Structural Standard and Directive Drawings.
  - All Standard and Directive Drawings and Details Sheets.
  - WMATA example of Capital Cost Estimate.
- WMATA Design Criteria, Project Manual, Boiler Plate Template, and systems requirements. These files will be provided in a hard copy format and in electronic files (if available). Unless revised, similar documents, previously provided for similar projects could be used for the same purpose.

All drawings identified by the P2D and made available by WMATA will be supplied in hard copy and where possible AutoCAD format. When drawings of existing conditions and structures and as-built drawings are not available in Electronic Files, full size reproduction prints will be supplied (if applicable) for the use of the P2D. This work shall be coordinated with RCP developer, designer and contractor(s).

RSM - 2 **SITE ISSUES, UTILITIES, STORMWATER MANAGEMENT ETC.**

Identify location(s) for construction contractor's work and storage area that do not require temporary takings from private property owners. Study and assess impact on the current utilities and assess the needs for stormwater management measures during construction. This work should be coordinated with the Rosslyn Central Place construction project.

RSM - 3 **CIVIL**

RSM - 3.1 SITE SURVEY

Perform site survey for Site Plan preparation. The Site Plan of the existing conditions should also show all existing utilities at the project location. The survey shall be on WMATA vertical and horizontal datum. The survey should locate all above ground structures and include approximate location of underground structures depicted on all available records. The survey should also provide property boundary description and locations. Verify and identify all major utilities that may interfere and/or need relocation. P2D will make sure that all utilities in the project area are located and shown on the site utility plan.

RSM - 3.2 SITE ANALYSES

Contact local authorities and agencies to identify submittal process, required presentations, permit applications, and all other steps to be taken at this phase of the project to be in compliance with Zoning, Civil, Landscape and streetscape requirements.

RSM - 3.3 SITE PLAN

Prepare necessary documents to show the footprint of the new structure and the related changes to the site conditions including grading, drainage and utilities specific to the proposed Rosslyn Station Entrance improvements.

RSM - 3.4 SPECIFICATIONS

Using latest WMATA standard specifications issue all sections of the Technical Specifications that apply to this project. Any missing specification section required for the work of this project that is not included in WMATA's Manual shall be duly noted by the P2D. Incorporate WMATA provided Division 0 and coordinate and incorporate Division 1 to make complete Project Specifications.

RSM-3.5 DRAWINGS

Provide coordinated and detailed drawings for construction in accordance with WMATA criteria.

RSM - 4 GEOTECHNICAL

RSM - 4.1 SOILS INVESTIGATION
Review the geotechnical information from the original station contract to determine if it contains adequate information for a design/builder to prepare the necessary designs for the Station Access Improvements. As necessary acquire additional geotechnical information necessary to complete the design. Prepare a report from the findings of the investigation and include recommendations for foundation design.

RSM - 5 ARCHITECTURAL

RSM - 5.1 KIOSK
Prepare design for station manager kiosk.

RSM - 5.2 SIGNAGE
Prepare design for required signage for the new station entrance facilities: mezzanine, elevators, passageway connections and pylon. Supplemental signage in the existing station required to guide and inform customers about this new entrance. Signage to conform to WMATA's Manual of Graphic Standards and to be coordinated with WMATA's architectural staff.

RSM - 5.3 EMERGENCY STAIRWAY, ELEVATORS, SHAFT, UNDERGROUND MEZZANINE & PASSAGEWAY CONNECTION
Prepare design for the architectural features of the items listed in this task including but not limited to handrail, lighting, cladding and glazing. Coordinate finishes and appearance with RCP developer design team.

RSM-5.4 Prepare ADA compliance report.

RSM-5.5 Provide coordinated and detailed drawings for construction in accordance with WMATA criteria.

RSM - 6 STRUCTURAL

RSM - 6.1 STRUCTURAL SYSTEM
Prepare design drawings for the structural system(s) required for the modifications for adding elevators, emergency stair and shaft, underground station mezzanine and passageway connection. Coordinate requirements for the new entrance facilities with JBG's consultants design for the Central Place structural foundation systems. The new structure shall be located at least thirty (30) feet from the outer boundary of the station vault in plan and twenty (20) feet from the outer boundary of the escalator structure and passageway

except at the connection to the passageway.

RSM-6.2 Provide detailed set of drawings and specifications for construction.

RSM - 7 MECHANICAL

RSM - 7.1 ELEVATORS

Prepare design for the new elevators and requirements for underground mezzanine and emergency exit stair and shaft.

RSM 7.2 STATION HVAC

Conduct an analysis of the requirements for the new HVAC system and the mezzanine pressurization. Prepare a report on the findings of the analysis.

RSM-7.3 Prepare NFPA -130 exit analysis assessment report.

The Consultant shall prepare and submit a report with detailed analysis of egress requirements for the existing station and proposed new elevator entrance and concourse at the Rosslyn Station. The egress study shall be based, among other things, on peak hour volumes for boarding and exiting, an analysis of emergency evacuation capacity based on the egress criteria of NFPA 130 and NFPA 101, and the flow rates for stairs and escalators under normal passenger circulation conditions.

Consultant shall assume that some of the people exiting the station during an emergency evacuation would be diverted to the new concourse due to potentially long queuing lines in front of the exiting escalators. The proposed concourse shall be designed as a point of safety as defined by the NFPA 130 where people who are not able to use the escalators or climb stairs could safely wait during an emergency. The Consultant shall estimate the number of people that would tend to evacuate the station via the proposed concourse and would determine the minimum requirements for the emergency exit stairs.

Complete an exit analysis in accordance with NFPA 130, 2007. Passenger loading in stations and on trains will be provided by the Authority.

- Based on the results of the exit analysis, identify the number of passengers that the planned refuge area will need to accommodate and determine the resulting floor area. In cases where NFPA 130 is silent, identify suitable factors (e.g. square foot allowance per person) contained in recognized building codes.

- Perform a multi disciplinary review of NFPA 130 requirements in reference to the new entrance structure. This review will be limited to the new elevator lobby and the associated ancillary areas. This review will not address the existing station,

however integration into existing WMATA system will be addressed. The disciplines involved will include Architectural, Structural, Mechanical and Electrical/Communications.

- Prepare a NFPA 130 compliance report addressing the issues identified above.
- Coordinate the findings and attend meetings with the Authority and Arlington County as necessary to resolve all comments and issues.

RSM-7.4 Provide coordination and detailed drawings for construction in accordance with WMATA Criteria.

RSM - 8 COMMUNICATION

Prepare design for the communication requirements for the new elevators, kiosk, mezzanine, and related improvements. Also include communication functions for a new kiosk from the design in RSM - 5.1. Passenger Information Display System (PIDS) unit in the mezzanine area visible from both the free and paid areas to be included in the design. Prepare drawings and specifications.

RSM - 9 ELECTRICAL

Prepare design for the lighting and power requirements. Provide coordination and detailed drawings for construction in accordance with WMATA Criteria.

RSM - 10 GENERAL SYSTEMS

Conduct an analysis of the existing Closed Circuit Television (CCTV) and Fire Intrusion Alarm (FIA) systems to determine their adequacy for the reconfigured entrance. Prepare necessary design if revisions to either or both of these systems are required.

RSM - 11 FARE COLLECTION

Prepare design for the additional fare gates, fare vending machines, and related equipment and systems. Prepare necessary drawings and specifications.

RSM - 12 CONSTRUCTION DETAILS

Prepare details not readily discernable from criteria and/or conceptual drawings for the required work.

RSM - 13 PRESENTATION MATERIALS

Be prepared to create presentation materials (renderings) required as requested.

RSM - 14 COST ESTIMATES

1. Design Cost Estimate (RSM 16.1)
2. Preliminary construction cost estimate. (RSM 16.2, 30% Submittal)
3. Final construction cost estimate. (RSM 16.4, Final Submittal)

Estimates shall include deliverable with price and quantity breakdown by work category/discipline.

Coordinate with WMATA's Estimating Branch on methods and format for preparing these estimates.

RSM-15 CONSTRUCTION SCHEDULE

Provide cost and resource loaded bar chart schedule indicating but not limited to activities for procurement, mobilization, submittals, equipment fabrication and delivery, construction, testing, acceptance certification, and closeout documentation. Include as appropriate, specific milestones for elevator construction as well as those required for coordination with the RCP project.

RSM - 16 DELIVERABLES AND SCHEDULED DUE DATES

RSM - 16.1 NFPA 130 EXIT ANALYSES (ref. RSM 7.3) and DESIGN COST ESTIMATE

Deliverables consist of the following: The Consultant shall submit the qualifications or certification of the professional(s) who is preparing the analysis of the NFPA 130 requirements for station capacity and egress. The Consultant shall prepare and submit four copies of the Pre-Final Report for the capacity study with one electronic copy of the report. After receipt and resolution of review comments, the Consultant shall submit fifteen (15) copies of the Final Report with one electronic copy of the report. The study shall contain sufficient tables, charts, graphs, figures, and photographs as necessary to clearly convey and support its findings, conclusions, and recommendations. The professional responsible for the final report shall sign the study: substitute signatures are not acceptable.

Schedule:

Credentials - NTP + 10 days credentials
Draft Report - NTP + 30 days Pre Final Draft Report
& Design Cost Estimate
Final Report - NTP + 60 days Final Report

RSM - 16.2 PRELIMINARY (30%) SUBMITTAL

The Preliminary submittal is required no later than Task NTP+ 90 days.

Consultant shall prepare an initial design scope of work, and schedules for design and construction of the access improvements. Additionally the Consultant is requested to perform necessary preliminary engineering tasks to develop design and documents to approximately 30% effort.

Complete preliminary construction cost estimate.

Twenty (20) half-size sets of drawings, criteria & specifications, two (2) sets of CD's with the electronic (CADD) files of drawings and Specifications and six (6) copies of the reports (if any) are to be submitted to WMATA.

P2D is required to prepare and submit (Electronic copy and 25 sets of hard copies), a Master Log of all WMATA comments with P2D response to each comment at least one day prior to Design Review Comments Meeting.

RSM - 16.3 INTERMEDIATE (60%) SUBMITTAL

The Intermediate submittal is required no later than Task NTP+ 150 days, and will incorporate responses to 30% design review comments.

Twenty (20) half-size sets of drawings, criteria & specifications, two (2) sets of CD's with the electronic (CADD) files of drawings and Specifications and six (6) copies of the reports (if any) are to be submitted to WMATA.

P2D is required to prepare and submit (Electronic copy and 25 sets of hard copies), a Master Log of all WMATA comments with P2D response to each comment at least one day prior to Design Review Comments Meeting.

RSM -16.4 FINAL SUBMITTAL

The final 100% design submittal, which will be the IFB documents, is required no later than Task NTP+ 210 days, and will incorporate responses to 60% design review comments.

Twenty (20) half-size sets of drawings & specifications (Project Manual Book one & two including Program Criteria), two (2) sets of CD's with the electronic (CADD) files of IFB drawings and Specifications and six (6) copies of the reports (if any) are to be submitted to WMATA.

P2D is required to prepare and submit (Electronic copy and 25 sets of hard

copies) a Master Log of all WMATA comments with P2D response to each comment at least one day prior to Design Review Comments Meetings.

RSM - 17 TECHNICAL SUPPORT DURING PROCUREMENT

Technical support during procurement is to be provided and includes the following items:

- Clarifications and interpretations of specifications and Drawings
- Evaluation of bidders and their selection process
- Any support necessary for Procurement
- Participation in Pre-Bid conference

RSM - 18 Engineering Services during Construction, Shop Drawings Review and Contractor 's Submittals review (Optional)

This task (RSM-18) is to be priced separately form tasks numbered 1 through 17 above. Arlington County will elect, at an as yet determined date, whether or not to execute this option. Optional services to include:

- Shop Drawings review
- RFI's
- Change Orders - evaluations
- Design Changes during construction
- Construction Inspection to resolve field problems
- Engineering support as necessary during construction

RSM-19 PROCUREMENT OF CONSTRUCTION SERVICES AND SUPPORT (Optional)

This task (RSM -19) is to be priced separately form Tasks numbered 1 through 18 above. Arlington County will elect, at an as yet determined date, whether or not to execute this option. Period of performance for this work is expected to commence approximately September 2008 with duration through project completion. Please note, depending on progress of RCP project, support may not be on a continuous basis for the Rosslyn Station Access Improvement project.

Prepare necessary documents to solicit and procure construction engineering support services to act under the general direction of Arlington County during procurement of construction contract, construction, commissioning and closeout for the Rosslyn Station Access Improvements project.

Requirements of the service and support requested are generally described as below:

- Staff to be under direction of designated onsite project lead who shall be an experienced registered Professional Engineer acceptable to Arlington County. Project lead will be required to certify in writing that

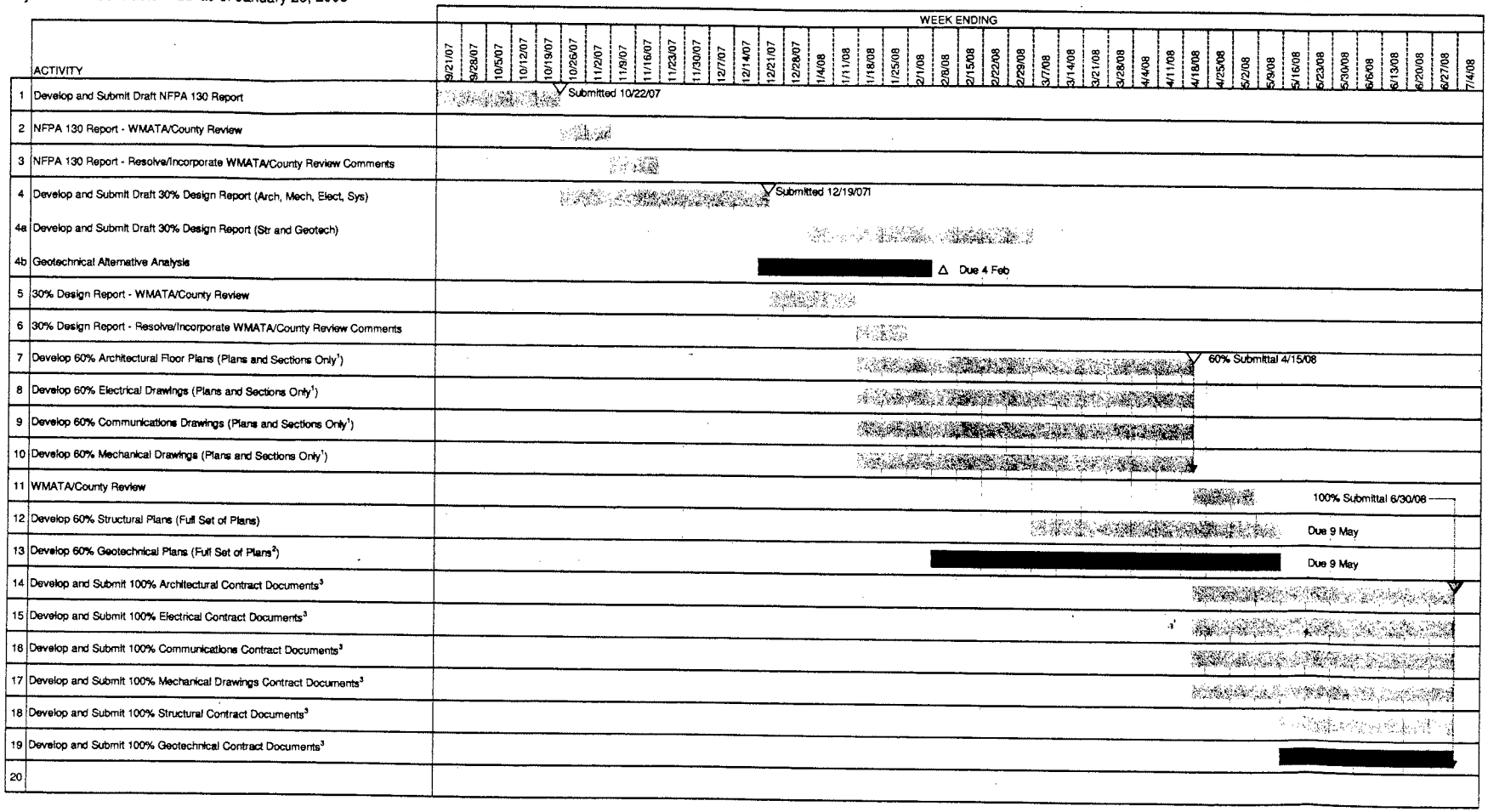
all work, materials and installations conform to plans, specifications, and design.

- Quality Assurance and quality control oversight of construction contract.
- Coordinate with design consultant, utilities, governing agencies and jurisdictions, WMATA, and RCP with respect to all aspects of the project such as site access, design elements and construction activities, monitoring exiting installations, periodic inspections, and scheduling.
- Process and review (as necessary) shop drawings, working drawings, material certifications, and testing reports.
- Design document assessment and review.
- Scheduling and planning of project with RCP.
- Process, review and provide solutions to Requests for Information (RFI)
- Schedule and attend site meetings such as Pre-Construction Meetings, Coordination Meeting, Progress Meetings, etc. As necessary, act as representative for Arlington County .
- Inspection services for the construction such as initial, follow-up, completion, equipment and systems tests, off-site factory, pre-final acceptance, final acceptance, and other investigations, surveying and monitoring.
- Maintain daily diary of project activities and agreements. Monitor status of project and in advance notify Arlington County of potential need to supplement or extend terms of construction or services contract.
- Value Engineering

Rosslyn Station Access Improvement Project

Attachment B - Design Schedule

By WMATA Contractor P2D as of January 28, 2008



NOTES: 1 Plans and sections only, no equipment schedules or details. 2 Completed Plans. 3 Plans, specifications and cost estimate.

Rosslyn Station Access Improvement Project

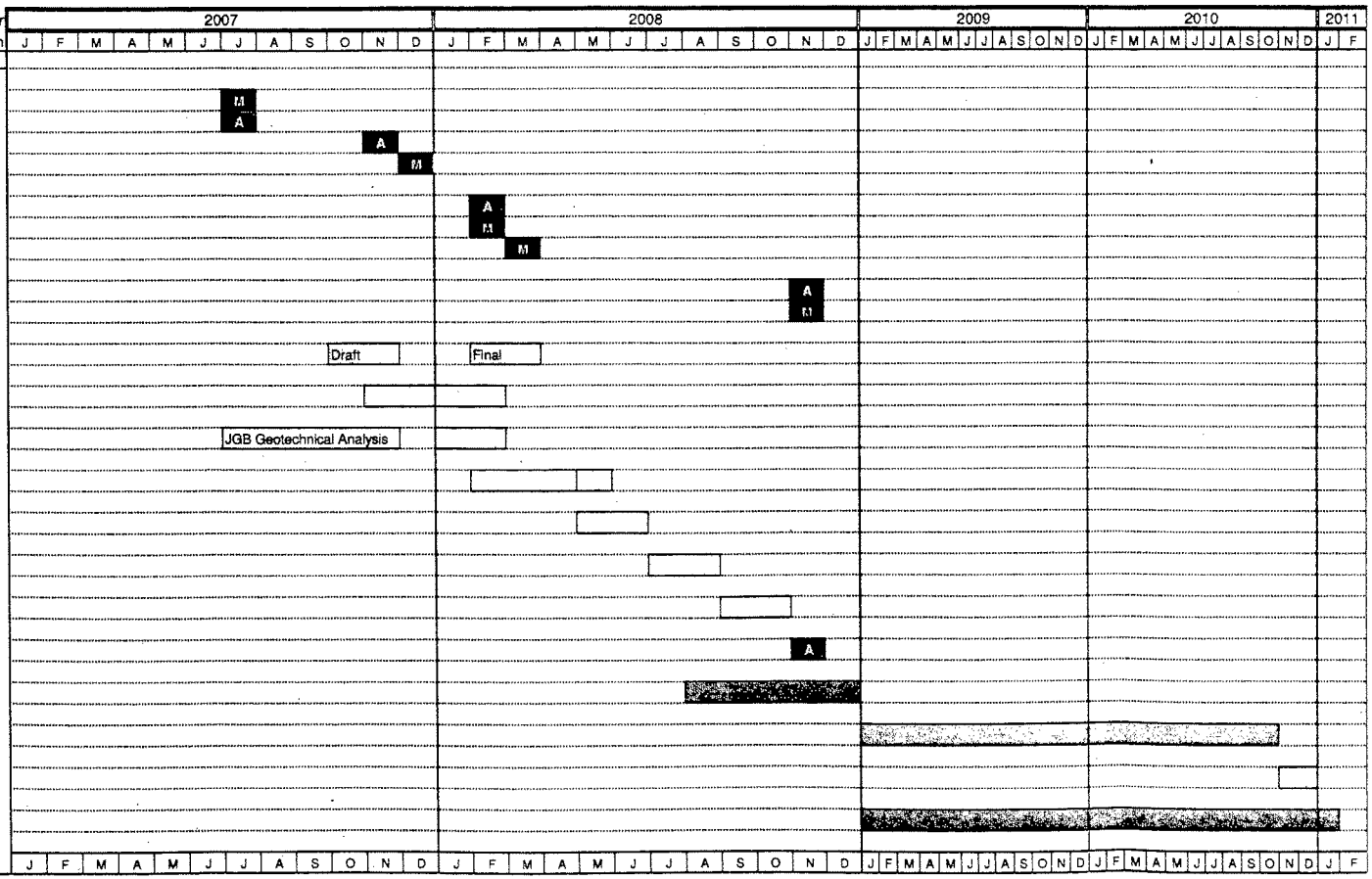
Attachment C - Project Schedule (Subject to Change)

By WMATA JDAC as of January 31, 2008

A Arlington County Board Action

M WMATA Board Action

LEAD	ACTIVITIES
County	Phase 1 Agreement and Budget
WMATA	Phase 1 Agreement and Budget
County	Budget Increase
WMATA	Budget Increase
County	Phase 2 Agreement and Budget
WMATA	Budget Increase
WMATA	Phase 2 Agreement and Budget
County	Phase 3 Agreement and Budget
WMATA	Phase 3 Agreement and Budget
WMATA	NFPA 130 Report
WMATA	Preliminary Submittal (30% Design)
WMATA	Geotechnical Analysis & Recommendations
WMATA	Intermediate Submittal (60% Design)
WMATA	Final Submittal (100% Design) for IFB
County	Advertisement of Invitation for Bids
County	Bid Evaluation
County	Contract Award
JBG	Excavation of Phase 1 Rosslyn Central Place
County	Construction of Access Improvements
WMATA	Start-Up and Testing
JBG	Construction of Phase 1 Rosslyn Central Place



Rosslyn Station Access Improvement Project

Attachment D - Expenditure Forecast of WMATA Costs by Month

By WMATA JDAC JMD as of January 31, 2008

	Fiscal Year	FY2008												
	Month	J	A	S	O	N	D	J	F	M	A	M	J	
Cost Category	Quarter		Q1			Q2			Q3			Q4		
				Actual	Actual	Actual	Actual	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	
WMATA Staff Costs	263,000.00			0.00	0.00	7,059.19	1,961.49	20,000.00	40,000.00	60,000.00	54,000.00	45,000.00	35,000.00	263,020.68
					Invoiced	Invoiced	Invoiced	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated	
WMATA Consultant Costs	2,750,000.00				62,652.59	68,623.47	116,153.77	403,000.00	425,000.00	425,000.00	425,000.00	425,000.00	399,569.49	2,749,999.32
Total - Monthly	3,013,000.00	0.00	0.00	0.00	62,652.59	75,682.66	118,115.26	423,000.00	465,000.00	485,000.00	479,000.00	470,000.00	434,569.49	
Total - Quarterly				0.00			256,450.51			1,373,000.00			1,383,569.49	3,013,020.00

Funds Forecast

By WMATA JDAC JMD as of January 31, 2008

	Fiscal Year	FY2008												
	Month	J	A	S	O	N	D	J	F	M	A	M	J	
Funds Category	Quarter		Q1			Q2			Q3			Q4		
TIIF Ballston Station Reallocation	1,572,000.00	350,000.00					450,000.00		772,000.00					1,572,000.00
TIIF Unallocated	455,940.00									455,940.00				
County Funds	985,080.00										985,080.00			985,080.00
Total - Monthly	3,013,020.00	350,000.00	0.00	0.00	0.00	0.00	450,000.00	0.00	772,000.00	455,940.00	985,080.00	0.00	0.00	3,013,020.00
Funds Available after Monthly Expenditures		350,000.00	350,000.00	350,000.00	287,347.41	211,664.75	543,549.49	120,549.49	427,549.49	398,489.49	904,569.49	434,569.49	0.00	

Table 1

Rosslyn Station Access Improvement Project
Proposed Budget for Phase One and Phase Two

Projected Expenses

Expense Line Item	Expense Line Item Amount
Phase One – Preliminary Engineering	
WMATA	$800,000
Arlington County	$200,000
Subtotal Phase One	**$1,000,000**
Phase Two – Final Design	
WMATA	$2,213,000
Arlington County	$415,000
Subtotal Phase Two	**$2,628,000**
County Contingency	~~$187,869~~ $189,869
Total Design Costs*	**$3,817,869**

* WMATA's cost proposal is under negotiations.

Proposed Funding

Source	Funds Available	Comments
Phase One – Preliminary Engineering		
Transit Infrastructure Investment Fund (TIIF) – unused Ballston Project Funds	$800,000	$800,000 of the $1.572 million previously authorized by County Board 11-7-07
2007 State Capital Grant Reimbursement	$200,000	Received from NVTC and requesting appropriation for this Project
Subtotal Phase One	**$1,000,000**	
Phase Two – Final Design		
TIIF – unused Ballston Project Funds	$772,000	Remaining $772,000 of the $1.572 million allocated to Project to be authorized for the Project
2007 TIIF	$455,940	Unallocated TIIF Balance at WMATA (To be authorized for this Project)
2007 Ballston Escalator Wellway Repayment	$689,929	Payment from developer to reimburse TIIF loan; transfer to be authorized for the Project
2007 State Capital Grant Reimbursement	$900,000	Received from NVTC and requesting appropriation for this Project
Subtotal Phase Two	**$2,817,869**	
Total Funds Available for Design	**$3,817,869**	