

PORt AUTHORITY OF ALLEGHENY COUNTY

NORTH SHORE CONNECTOR

NSC TRAIN SYSTEMS (SYSTEM WIDE)

CONTRACT NO. NSC-009

**Terms & Conditions
Volume 1**

FTA PROJECT NO. PA-03-0315

April 28, 2008

Port Authority of Allegheny County
Heinz 57 Center
345 Sixth Avenue
Pittsburgh PA 15222-2527

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**Port Authority of Allegheny County
NSC-009 NSC Train Systems (System Wide)**

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ARTICLE 1 – ADVERTISEMENT

PORT AUTHORITY OF ALLEGHENY COUNTY

ADVERTISEMENT

Separate sealed Bids for the Work as listed hereinafter will be received at the Purchasing and Materials Management Department of Port Authority of Allegheny County, Heinz 57 Center, 345 Sixth Avenue, Third Floor, Pittsburgh, Pennsylvania, 15222-2527 until 1:30 p.m. on August 27, 2008 and will be publicly opened and read immediately thereafter at the same address.

**NORTH SHORE CONNECTOR
NSC TRAIN SYSTEMS (SYSTEM WIDE)
CONTRACT NO. NSC-009**

The Work of this project includes, but is not limited to, the furnishing of all labor, materials, tools, equipment, and incidentals necessary for the construction of the North Shore Connector train systems for the entire length of the light rail system extension. The Work will also include trackwork; high voltage electrical service; signal systems; prefabricated-type outdoor traction power substation and site amenities; overhead contact systems; communications systems; modifications and additions to Authority's Operations Control Center and Pitt Tower facilities; tunnel fire/life safety systems; tunnel ventilation; tunnel emergency walkway facilities; tunnel lighting; and system testing and certification prior to revenue service. In addition, the Work includes the decommissioning of the existing Gateway Station and installation of a double crossover at Wood Street Station.

Bid Documents will be available for public inspection and may be obtained on or after June 27, 2008 at the Port Authority office at the following address:

Port Authority of Allegheny County
Purchasing and Materials Management Department
Heinz 57 Center
345 Sixth Avenue, Third Floor
Pittsburgh, Pennsylvania 15222-2527

Bid Documents are available for purchase as follows: Bid Documents in hard copy form, with half size drawings, upon payment of \$600 per set; and Bid Documents in electronic form on compact disk upon payment of \$15 per set. Payments shall be by Check or Money Order (NO CASH), payable to Port Authority of Allegheny County. Documents will be mailed upon receipt of payment in full. No refunds of payment will be made. Should the purchaser wish to have the Bid Documents delivered via special delivery, such as UPS or FedEx, the purchaser shall provide appropriate account numbers for such special delivery methods.

This Project is subject to financial assistance contracts between Port Authority of Allegheny County and County of Allegheny, Commonwealth of Pennsylvania and the Federal Transit Administration (FTA) of the U. S. Department of Transportation (DOT).

Port Authority, in compliance with 49 C.F.R., Part 26, as amended, implements positive affirmative action procedures to ensure that all Disadvantaged Business

Enterprises have the maximum opportunity to participate in the performance of contracts and subcontracts financed, in whole or in part, with federal funds provided for this Project. In this regard, all Bidders shall take all necessary and reasonable steps in accordance with 49 C.F.R., Part 26, to ensure that DBEs have the maximum opportunity to compete for and perform contracts. Bidders shall not discriminate on the basis of race, color, national origin or sex in the award and performance of DOT-assisted contracts. It is a condition of this Contract that all Bidders shall follow the DBE required procedures as set forth in the Bid Documents. If aid is required to involve DBEs in the Work, Bidders are to contact the Port Authority DBE Representative, Edward Greene at (412) 566-5257.

The Bidder's attention is directed to the following contacts for Bidder's questions:

Procedural Questions Regarding Bidding:

Toni Matessa - Port Authority
(412) 566-5148

All other questions relating to the Bid Documents must be submitted by mail or facsimile to:

Port Authority of Allegheny County
Heinz 57 Center
345 Sixth Avenue, Third Floor
Pittsburgh, PA 15222-2527
Attn: Toni Matessa
Fax: (412) 566-5359

In addition, the Bidder's attention is directed to the following schedule of activities for preparation of its Bid:

9:00 a.m. July 15, 2008	Pre-Bid Conference Port Authority of Allegheny County Heinz 57 Center Fifth Floor, Board Room 345 Sixth Avenue Pittsburgh, PA 15222-2527 (Attendance is not mandatory, but strongly recommended)
10:45 a.m.-4:00 p.m. July 15, 2008	Pre-Bid Site Tour of Pitt Tower Facility (10:45 a.m. – 12:00 p.m.) & South Hills Village Operations Control Center (12:45 p.m. – 4:00 p.m.) [immediately following the Pre-Bid Conference] Participants should wear a safety vest Transportation to each facility will be provided by Authority Details available at Pre-Bid Conference
1:30 a.m. to 4:00 a.m. July 16, 2008	Authority Stage I Tunnel (Gateway and Wood Street Stations and Gateway Tunnel Loop) Site Tour. NOTE: <u>This is a night-time tour.</u> Meeting Place: Gateway Station entrance located on the corner of Liberty Ave. and Stanwix Street, Pittsburgh, PA Participants should wear a Hard Hat and Safety Vest and bring a flashlight
August 14, 2008	Bidders shall submit Potential Areas of Subcontracting (Form GV) to Port Authority.
1:30 p.m. August 27, 2008	Bids Due Purchasing and Materials Management Department

The Board of Port Authority of Allegheny County reserves the right to reject any or all Bids

ARTICLE 2 – PRE-BID CONFERENCE

A Pre-Bid Conference may be held with prospective Bidders to review the Bid Documents and generally discuss the Project. The time and place will be specified in the Advertisement. All Bidders are encouraged to submit their questions in writing to the respective individuals listed in the Advertisement prior to the time specified in the Advertisement for the Pre-Bid Conference. A response may be provided during the Pre-Bid Conference or by Addendum thereafter.

ARTICLE 3 – PRE-BID TOUR

If a site tour is to be conducted covering the area(s) of the Work, it will be held at the date and time indicated in the Advertisement.

ARTICLE 4 – PUBLIC OPENING OF BIDS

Bids will be publicly opened and announced at the advertised time and place set for such Bid opening.

END OF SECTION

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ARTICLE 1 - SCOPE OF WORK AND DEFINITIONS

1.1 Scope

The Contractor shall furnish all materials, tools, equipment, transportation and supervision and perform all labor and services necessary and incidental to the satisfactory completion of the Work in a proper workmanlike manner and within the time limits set forth in the Contract Documents.

A. The Work includes, but is not limited to, the following activities:

1. Design, construction and testing of direct fixation track type I without strap guard rail, type II with single strap guard rail, type III with dual strap guard rail, and type IV with dual emergency guard rail and no strap guard rail, reinforced concrete plinths, track bed embedments and associated track appurtenances.
2. Design, construction and testing of special track work including reinforced concrete plinths, track bed embedments, DF fasteners, joints, frogs, switch rods, rail braces, and appurtenances.
 - a). Phased Demolition of existing single crossover and installation of double crossover located at Wood Street Station. Double crossover has been previously procured by Authority.
3. Design, construction and tested of a fully operational signal system modification including system interlocking and wayside signal system for Allegheny Station interlocking and terminal relay room; North Side Station relay room; Gateway Station relay room; and existing Wood Street Station interlocking relay room.
 - a). Modifications to the existing signaling system including existing relay-based interlockings, provision of new wayside ground equipment including, but not limited to wayside signals, automatic train stops, and electric switch machines, non-vital interlocking software modifications, control center modifications, any ancillary systems, and all equipment, hardware and software necessary to provide a complete, and working system.
 - b) Modifications to the existing relay room at Wood Street Interlocking to convert it from an existing single crossover arrangement to a double crossover (scissors) arrangement., the provisioning of newly wired relay racks within the existing relay room, installation of new relays within exiting relay racks, site preparations, and all permits necessary to install the signal system equipment.

4. Design, construction and testing of a new prefabricated-type outdoor traction power substation located on the North Shore including feeder circuits substation grounding grid, concrete pad foundations, transformer pads, Duquesne Light switch pads, and site amenities.
5. Design, construction and testing of the overhead contact system (OCS).
6. Design, construction and testing of the communications systems and equipment including the fiber optic and copper inside and outside cable plant, carrier transmission system, VMS/PA system, UPS and DC power systems and SCADA equipment for Allegheny Station communications room, North Side Station communications room, and Gateway Station new and existing communications rooms.
7. Design, construction and testing of Authority radio system which shall be expanded to cover the North Shore area.
8. Design, construction and testing of a new telephone system which includes work at the Operation Control Center, the three new stations and installation of emergency phones at the right-of-way.
9. Installation of a digital video system which includes work at the Gateway, North Side, and Allegheny stations, the Operations Control Center and Pitt Tower.
10. Design construction, and testing of modifications and additions to the existing Authority Operations Control Center (OCC) to support the facilities and equipment added as part of the Work. Work includes but is not limited to the following:
 - a) Design, construction, delivery, installation, testing, placing into revenue operations, and warranty for the upgraded OCC system;
 - b) OCC site survey;
 - c) Update of OCC system overview display including design of graphical depiction of NSC track layout and SCADA monitor/control points, modification of overview display screen layout to create space for the NSC portion of the track diagram, and updating OCC system configuration data to implement the necessary overview display modifications;
 - d) Update of the OCC system console user display including design of graphical depiction of NSC track layout and SCADA monitor/control points and updating OCC system configuration data to implement the necessary console display modifications; and

- e) Update of OCC system external interfaces including installation of cable to provide additional RS-232C physical connections between the OCC system and CTS to support the new code system interfaces to NSC field units, updating OCC system configuration data to implement the new code system interfaces, and testing the new code system interfaces.
- 11. Design and construction for the extension of the tunnel emergency walkway facility including grade crossings for pedestrians.
- 12. Design, manufacture, installation, testing and commissioning of the tunnel and station ventilation/fire life safety systems, including jet fans, dampers, ductwork, noise attenuators, control actuators, motor control centers, and other materials necessary for tunnel ventilation system.
- 13. Design, manufacture, installation, testing and commissioning of the tunnel standpipe/fire protection systems and the tunnel mechanical drainage systems including pipework, sump pumps, hydrant valves, fire extinguishers as part of the tunnel standpipe/fire protection system.
- 14. Design, manufacture, installation, testing and commissioning of the tunnel emergency lighting systems.
- 15. Decommissioning portions of Authority's existing Wood Street and Gateway Station and Gateway Loop, including relocation and/or dismantling of designated LRT facilities including, but not limited to, the relocation of 23kv feeder power to Gateway Station transformers and power and control to existing Authority Emergency Ventilation fans Em-9 and Em-10. Installation of a temporary closure wall and temporary emergency passages, lighting and signage to isolate the construction from the tunnel to remain.
- 16. Stadium Authority of the City of Pittsburgh Work to be performed as part of the Work includes, but is not limited to, replacement of the existing parking lot pavement structure and parking Lot 1 access drive, parking lot pavement markings, and parking lot lighting and appurtenances.

1.2 Abbreviations And Definitions

A. General

Whenever in the Contract Documents the following abbreviations and terms, or pronouns in place of them, are used, the intent and meaning shall be interpreted as set forth below.

B. Abbreviations

AA	Aluminum Association
AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ACCD	Allegheny County Conservation District
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AFI	American Filter Institute
AGC	Associated General Contractors of America
AGMA	American Gear Manufacturers Association
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ALCOSAN	Allegheny County Sanitary Authority
ALSC	American Lumber Standards Committee
AMCA	Air Moving and Conditioning Association
AMRL	AASHTO Materials Reference Laboratory
ANSI	American National Standards Institute
APA	American Plywood Association
API	American Petroleum Institute
APTA	American Public Transit Association
ARA	American Railroad Association
AREMA	American Railway Engineering and Maintenance-of-Way Association
ARI	American Refrigeration Institute
ASBI	American Segmental Bridge Institute
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
ATSSA	American Traffic Safety Services Association

AWG	American Wire Gage
AWPA	American Wood-Preservers' Association
AWPI	American Wood-Preservers' Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHP	Bureau for Historic Preservation
BOCA International, Inc.	Building Officials & Code Administrators
CCRL	Cement and Concrete Reference Laboratory (ASTM)
CDW	Concrete Diaphragm Wall
CEQA	Construction Engineering Quality Assurance
CFR	Code of Federal Regulations
CIP	Cast In Place
C/P	City of Pittsburgh
CISPI	Cast Iron Soil Pipe Institute
CPM	Critical Path Method
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
DBE	Disadvantaged Business Enterprise
DFT	Dry Film Thickness
DOL	United States Department of Labor
DOT	United States Department of Transportation
EDPM	Ethylene Propylene – Diene Monomer
EEI	Edison Electric Institute
EEO	Equal Employment Opportunity
EIA	Electronic Industries Association
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IA	The Irrigation Association
IACS	International Annealed Copper Standard
ICC	Interstate Commerce Commission
IEC	International Electrotechnical Committee

IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IFI	Industrial Fasteners Institute
IMIAC	International Masonry Industry All Weather Council
IMSA	International Municipal Signal Association2
IPCEA	Insulated Power Cable Engineers Association
ITE	Institute of Transportation Engineers
JIC	Joint Industrial Council
LRT	Light Rail Transit
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
MUTCD	Manual of Uniform Traffic Control Devices
NAAM	National Association of Architectural Manufacturers
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBC	National Building Code
NBFU	National Board of Fire Underwriters
NBS	National Bureau of Standards
NCHRP	National Cooperative Highway Research Program
NCSA	National Crushed Stone Association
NEC	National Electrical Code
NEIS	National Electrical Installation Standards
NEMA	National Electrical Manufacturers' Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NIOSH	National Institute of Safety and Health
NIST	National Institute of Standards and Technology
NLGA	National Lumber Grades Authority
NLMA	National Lumber Manufacturers' Association
NPCA	National Precast Concrete Association
NPDES	National Pollutant Discharge Elimination System
NSF	National Sanitation Foundation
OCC	Operations Control Center
OSHA	Occupational Safety and Health Administration, U.S. Department of Labor

PAAC	Port Authority of Allegheny County
PACT	Pittsburgh Allegheny County Thermal
PaDEP	Pennsylvania Department of Environmental Protection (formerly PaDER)
PCA	Portland Cement Association
PCI	Precast/Prestressed Concrete Institute
PDA	Pre-Determined Amount
PEI	Porcelain Enamel Institute
PENNDOT	Pennsylvania Department of Transportation
PPC	Preparedness, Prevention and Contingency Plan
PTI	Post Tensioning Institute
PTM	Pennsylvania Testing Method
PUC	Public Utility Commission
PWSA	Pittsburgh Water and Sewer Authority
RCRA	Resource Conservation and Recovery Act
RFI	Request for Information
RMA	Rubber Manufacturer's Association
SAE	Society of Automotive Engineers
SDR	Standard Dimension Ratio
SHPO	State Historic Preservation Officer
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SPC	Southwestern Pennsylvania Commission
SPI	Society of the Plastics Industry
SSPC	Steel Structures Painting Council
TCP	Traffic Control Plan
TIA	Telecommunications Industry Association
TSC	Transportation Systems Center, DOT
TSCA	Toxic Substances Control Act
UBC	Uniform Building Code of the International Conference of Building Officials
UL	Underwriters Laboratories, Inc.
URA	Urban Redevelopment Authority of the City of Pittsburgh
USAS	United States of America Standard
USBM	United States Bureau of Mines

USC	United States Code
USCG	United States Coast Guard
USGAO	United States General Accounting Office
USSG	United States Standard Gage
USSWG	United States Steel Wire Gage
WCLA	West Coast Lumbermen's Association
WWPA	Western Wood Products Association

C. Definitions

Acceptance Certificate

Certificate to be issued by Authority certifying acceptance of the Work.

Addenda

Written interpretations, clarifications, and revisions to any of the Bid Documents issued by Authority or its authorized representative before the bid opening.

Advertisement

The public announcement, as required by law, inviting Bids for work to be performed, material to be furnished, or both.

Agreement

The instrument executed by Authority and the Contractor in conformance with the Contract Documents for the performance of the Work.

Approved

The written approval, endorsement or authorization by Authority, or the Engineer, of a proposal, plan, procedure, action, document, report, specification, design, or any parts thereof, undertaken, promulgated, or developed by the Contractor in accordance with the indicated requirements of the Contract Documents.

AREMA (Chapter No.)

American Railway Engineering and Maintenance-of-Way Association, Manual for Railway Engineering, Chapter No., e.g. AREMA 15.1.1.

AASHTO Division (No.) (Article No.)

AASHTO Standard Specifications for Highway Bridges Division I Design or Division II Construction and Article Number, e.g., AASHTO Division II 11.6.4.

Authority (PAAC)

Port Authority of Allegheny County, acting by and through its officers, employees, agents or authorized representatives, designated by Authority.

Award

The acceptance by Authority of the lowest responsive Bid from a responsible Bidder as evidenced by the written Notice of Award to the Bidder.

Bid

The Bid from the Bidder for the Work, submitted on the prescribed Form of Bid properly signed, dated and guaranteed, including the Unit Price Schedule, if applicable, and all other required Bid submittals.

Bidder

An individual, firm, partnership, corporation, joint venture or combination thereof, submitting a Bid for the Work as a single business entity and acting directly or through a duly authorized representative.

Bid Documents

Documents provided by Authority for the purpose of soliciting Bids for the Work, including the Terms and Conditions, Technical Provisions, Appendices, Contract Drawings, and Addenda.

Bid Guaranty

Cashier's check, certified check or Bid Bond accompanying the Bid submitted by the Bidder as a guaranty that the Bidder will enter into a Contract with Authority for the performance of the Work indicated and file acceptable bonds and insurance if the Contract is awarded to it.

Bid Item (See Contract Item)

Building Owner

An individual, firm, partnership, corporation, company, association, joint stock association, or governmental or other entity having ownership, or duly authorized to act on behalf of those having ownership, of a building adjacent to or on the Worksite, or a building in which portions of the Work shall be performed.

Busway

A limited access roadway operated by Authority and designed for exclusive use of buses and other vehicles authorized by Authority.

Calendar Day

Each and every day shown on the calendar.

Certificate of Acceptance of Final Inspection

Certificate issued by Authority certifying acceptance of the Work with the exception of contractual administrative demobilization work.

Certificate of Compliance

Certificate issued and notarized by the manufacturer certifying that material or equipment furnished is in compliance with the Contract Documents.

Change Order

A written order issued by Authority to the Contractor, delineating changes in the Contract Documents and establishing the basis of payment and time adjustments for the portion of the Work affected by the changes.

Complete in Place

The completion of all work on a Contract Item, in place, for which payment will include all material, equipment, tools, labor, and work incidental thereto, unless otherwise specified.

Conditional Acceptance

Authority's written acknowledgement of the acceptance of a portion of the Work. Such Conditional Acceptance shall not waive or relinquish any rights of Authority under the Contract Documents.

Contract (See Contract Documents)

Contract Documents (Contract)

The Bid Documents, the Contractor's Bid, the executed Contract Forms, the Notice to Proceed, Change Orders and Field Orders.

Contract Drawings

The official plans, profiles, typical cross sections, general cross sections, elevations and details in the Contract Documents which show the locations, character, dimensions and details of the Work.

Contract Fixed Price Item

A specifically described item of work which is pre-priced in the Bid Documents.

Contract Forms

A set of documents issued by Authority for the Work, which includes, but is not limited to, the Advertisement, Form of Bid, Certification of Bidder, Buy America Requirements, Disadvantaged Business Enterprise Forms, Certification Regarding Lobbying, Disclosure Form to Report Lobbying, Bid Bond, Agreement, Waiver of Right to File Mechanic's Lien, Performance Bond, Labor and Materialman's Bond, and Maintenance Bond(s).

Contract Item (Pay Item)

An item of work for which a price is provided in the Contract Documents.

Contract Specifications (Specifications)

The directions, provisions, and requirements contained, or referenced, in the Contract Documents prescribing the requirements for performing the Work, or to the quantities and qualities of materials to be furnished or incorporated into the Work.

Contract Sum

The total dollar amount of the Contract, as it may be adjusted, from time to time, in accordance with the Contract Documents.

Contract Time (See Time of Completion)

Contracting Officer

The Contracting Officer for this Contract is the Authority's Assistant General Manager of Engineering and Construction, unless otherwise identified by Authority in writing, or his or her designee.

Contractor

The individual, firm, partnership, corporation, joint venture or any combination thereof, who, as an independent contractor, has entered into the Agreement with Authority.

Data

Written information, including but not limited to, calculations and catalog cuts, prepared by the Contractor, its Subcontractors, or Suppliers in response to requirements set forth in the Contract Documents.

Day(s)

Day(s) mean Calendar Day(s), unless otherwise designated.

Engineer

The duly authorized representative of Authority, identified in the Contract Documents, acting within the scope of the particular duties assigned to it.

The Engineer is the firm of:

Tri-Gold

Three Gateway Center, 15th Floor, East Wing
Pittsburgh, PA 15222

Erection Drawings

Working Drawings and calculations that Contractor, its Subcontractors, or Suppliers prepare which illustrate proposed method of erection.

Execution of the Agreement

The signing of the Agreement by the authorized representative of Authority and the authorized representative of the Contractor.

Extra Work

An item of work not provided for in the Contract Documents but found essential to the acceptable completion of the Project and requiring a Change Order.

Failure

Any detected inability of a material or equipment, or any portion thereof, to function or perform in accordance with the Contract Documents.

Field Order

A written notice issued to the Contractor by the Engineer specifying an action required of the Contractor.

Final Inspection

The inspection conducted by Authority, the Engineer, or both, verifying that the Work, with the exception of required contractual administrative demobilization work, has been satisfactorily completed in accordance with the Contract Documents.

Government

The Government of the United States of America.

Inspector

The Engineer's authorized representative assigned to make inspections of the Work.

Joint Venture

A legal association of entities formed for the purpose of bidding and executing the Contract as a single business entity.

Labor and Materialman's Bond

The approved form of security furnished by the Contractor and its Surety as a guaranty to pay promptly, or cause to be paid promptly, in full, such sums as may be due for all material furnished, labor supplied or performed, rental of equipment used, and services rendered in connection with the Work.

Maintenance Bond(s)

The approved form of security furnished by the Contractor and its Surety as a guaranty to remedy, without cost to Authority, any defects in the Work which may develop during the period(s) specified in the Contract Documents.

Notice of Award

A written notification from Authority to Bidder stating Authority has selected it as the responsible Bidder with the lowest responsive Bid.

Notice to Proceed

A written notice from Authority to the Contractor directing the Contractor to proceed with the Work.

NSC-004

For the purpose of this Contract, NSC-004 shall mean NSC-004 R

Others

Individuals, partnerships, governmental bodies, corporate entities or agencies whose activities, services, facilities or equipment interfaces with or are impacted by the Work.

Pay Item (See Contract Item)

Performance Bond

The approved form of security furnished by the Contractor and its Surety as a guaranty to execute the Work in accordance with the Contract Documents.

Pre-Final Inspection(s)

All inspection(s), prior to the Final Inspection, conducted by Authority, the Engineer, or both, to determine if the Work, or any portion thereof, declared by the Contractor to be complete, has been satisfactorily completed in accordance with the Contract Documents, with the exception of contractual administrative demobilization work.

Procurement

The furnishing of all the items, material, equipment, data, design, services, management, labor, and incidentals, in the performance of the Work.

Product Data

Illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.

Professional Engineer (P.E.)

An engineer having a current Professional Engineer's license in the Commonwealth of Pennsylvania.

Professional Land Surveyor (P.L.S.)

A surveyor having a current Professional Land Surveyor's license in the Commonwealth of Pennsylvania.

Project (See Work)

Project Record Documents

A copy of the Contract Documents, approved Shop Drawings, Working Drawings, Data, Samples, As-Built Drawings and Data, and other documents required to be maintained by the Contractor during the Work.

Project Schedule

The schedule for the Work as prepared, submitted and maintained by the Contractor in accordance with the Contract Documents.

Provided

Provided shall mean furnished, installed and completed by the Contractor in accordance with the Contract Documents.

Reference Drawings

Drawings provided for informational purposes only which (1) indicate conditions which may exist in the field (i.e., Authority As-Built or Design Drawings from other projects) and/or (2) provide information as used by other outside agencies (i.e., selected PENNDOT Standard Drawings). The information included on such drawings shall not be construed as accurate and must be confirmed in the field by the Contractor.

Reliability

The probability that an item of work will perform its intended functions without failure and within design parameters under specified operating conditions for which it is designed and for a specific period of time.

Responsible Authority

Any person or agency empowered to protect the health, safety and well being of the community.

Road Maintenance Bond

The approved form of security furnished by the Contractor and its Surety as a guarantee on the part of the Contractor to remedy, without cost to Authority, any damage to an identified municipality's streets in connection with the Work by the Contractor or its Subcontractors which may occur during the period of construction from the date of the Notice to Proceed to the date of Certificate of Acceptance of Final Inspection.

Samples

Physical examples which illustrate material, equipment or workmanship and establish standards by which the Work will be judged.

Shop Drawings

Drawings prepared by the Contractor, its Subcontractors or Suppliers to supplement or detail the Contract Documents, and which are required by the Contract Documents or prepared by the Contractor to detail work not shown on the Contract Documents which will be incorporated in and become an integral part of the Work.

Specifications (See Contract Specifications)

Standard Drawings

Drawings, showing standard details, produced to be used repeatedly on projects.

Stadium Authority of the City of Pittsburgh Work

All portions of the Work that have been so identified in the Bid Documents and which will become the property of Stadium Authority of the City of Pittsburgh upon completion of said portions of the Work.

State

The Commonwealth of Pennsylvania

Subcontractor

Any individual, partnership, firm, corporation, joint venture or any combination thereof, who performs or installs, totally or partially, any portion of the Work for the Contractor as required to fulfill the Work, by virtue of an agreement with the Contractor.

Substantial Completion

For the purposes of this Contract, substantial completion shall mean the date of the issuance of the Certificate of Acceptance of Final Inspection.

Supplier

Any individual, partnership, firm, corporation, joint venture or any combination thereof, who provides material, products, equipment or systems, but not labor or services, to the Contractor by virtue of an agreement with the Contractor.

Surety

The corporate body which is bound with and for the Bidder/Contractor for the Bidder to enter into a contract, the satisfactory and timely performance of the Work by the Contractor, and the prompt payment in full for materials, labor, equipment, rentals, and services, as provided in the bonds required by the Bid Documents.

Technical Provisions

Specific requirements setting forth the descriptions of elements of the Work to be performed, the quality of required labor, material and equipment and the method of measurement and payment for the

identified elements of the Work as set forth in Sections 01701 and above.

Temporary Work

Work provided by the Contractor for use during the performance of the Work, but which is to be removed prior to Final Inspection.

Terms and Conditions

Sections 00100 through 01700 inclusive.

Time of Completion (Contract Time)

The number of Calendar Days set forth in the Contract Documents for completion of the Work.

Total Bid

The total monetary amount of the Bid in dollars for performance of the Work calculated in accordance with the Bid Documents.

U. S. Department of Transportation (DOT)

The Secretary of the United States Department of Transportation, and other persons who may at the time be acting in the capacity of the Secretary or as an authorized representative of the Secretary or other persons otherwise authorized to perform the functions to be performed by DOT, including representatives of the Federal Transportation Administration (FTA).

Work (Project)

All operations, materials, equipment and labor required to furnish or provide a completed improvement as specified, shown, or indicated in the Contract Documents, including all alterations, amendments or extensions thereto made by Change Order, and all necessary and required administrative activities.

Working Day

Each and every day Monday through Friday, excluding Government holidays.

Working Drawings

Drawings and calculations prepared by the Contractor, its Subcontractors, or Suppliers, which illustrate work required for the construction of, but which will not become an integral part of, the Work, including, but are not limited to, drawings showing Contractor's plans for Temporary Work such as: decking, temporary bulkheads, support of excavation, support of utilities, groundwater control systems, forming and falsework, erection plans and underpinning.

Worksite

The area indicated in the Contract Documents in which the Contractor is to perform the Work. It shall also include areas obtained or used by the Contractor in connection with the Work, and any Authority property authorized for use by the Contractor in the performance of the Work.

D. Additional Definitions

1. Wherever in the Contract Documents the words "directed", "required", "ordered", "designated", "prescribed", or similar words are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription" of Authority is intended and similarly the words "approved", "acceptable", "satisfactory", or similar words, shall mean "approved by", "acceptable to", or "satisfactory to" Authority unless otherwise expressly stated.
2. Where "as shown", "as indicated", "as detailed", or similar words are used, it shall be understood that the reference is made to the Contract Documents unless stated otherwise.

1.3 Referenced Standards

- A. All materials, equipment and workmanship, specified by the number, symbol, or title of a referenced standard shall comply with the latest edition or revision thereof and all amendments and supplements thereto in effect on the date of the Advertisement, except where otherwise expressly stated. In case of a conflict between a referenced standards and the Contract Documents, the Contract Documents shall govern.
- B. Unless the Contract Documents indicate otherwise, any reference within a referenced standard to another part or section of the reference shall apply to the Work. Any reference to a standard includes amendments to the standard appearing in the Contract Documents.

ARTICLE 2 – BID REQUIREMENTS

2.1 Obtaining Bid Documents

- A. Bid Documents shall be obtained from the offices of Authority, at the address indicated in the Advertisement.

2.2 Federal Grant Requirements

- A. The Work may be financed in part through an FTA Capital Grant Contract between Authority and the Government; and is subject to the requirements of various federal authorities such as the United States DOL and the United States DOT. Any action taken or required by Authority in compliance with such requirements shall not be cause for any claim against Authority or the Government by the Contractor.

2.3 Commonwealth of Pennsylvania, Department of Transportation

- A. The Work may be financed in part through a grant to Authority from PENNDOT, and is subject to the requirements of PENNDOT and other State authorities. Any action taken or required by Authority in compliance with such requirements shall not be cause for any claim against Authority or the State by the Contractor.

2.4 Bidder's Certification

- A. Each Bidder shall submit the "Certification Of Bidder Regarding Debarment, Suspension and Other Responsibility Matters" (Form C-1) for Bids totaling over \$25,000 or the "Certification Of Bidder Regarding Debarment, Suspension and Other Ineligibility and Voluntary Exclusion" (Form C-2) for Bids totaling \$25,000 or less, whichever is appropriate, with its Bid.
- B. The Certification in this clause is a material representation of fact by the Bidder upon which reliance will be placed by Authority. If it is later determined that the Bidder knowingly rendered an erroneous certification, in addition to other remedies available to the Government or the State, Authority may pursue available remedies, including suspension and/or debarment.
- C. The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "persons", "principal", "proposal", and "voluntarily excluded", as used in this Article 2.4, have the meanings set out in the Definitions and Coverage section of rules implementing Executive Order 12549, 49 CFR Part 29.
- D. Bidder agrees by submitting its Bid that, should it enter into the Contract with Authority, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in the Contract, unless authorized in writing by Authority.
- E. The Bidder further agrees by submitting its Bid that it shall include the provisions of this Article, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- F. The Bidder may rely upon a certification of a prospective participant in a lower tier covered transaction, unless it knows that the certification is erroneous. The Bidder may decide the method and frequency by which it determines the eligibility of its principals. Each Bidder may, but is not required to, check the Non-Procurement List issued by U.S. General Service Administration.
- G. Nothing contained in the foregoing shall be construed to require establishment of systems of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- H. Except for transactions authorized in this Article 2.4, if a Bidder or the Contractor knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in the Contract, in addition to all remedies available to the Government and the State, Authority may pursue available remedies including suspension and/or debarment.

2.5 Bid Form Quantities

- A. The quantities stipulated as "Estimated Quantities" in the Unit Price Schedule are approximate and are given only as a basis for the

comparison of Bids. Authority does not expressly, or by implication, represent that the actual amount of the quantities placed will correspond to the Estimated Quantities stipulated in the Unit Price Schedule.

2.6 Examination Of Bid Documents, Worksite And Reference Material

- A.
 1. The Bidder shall carefully examine the Bid Documents, the Worksite and any conditions which may affect the Work. By submitting a Bid, the Bidder acknowledges that it has carefully examined the Bid Documents and the Worksite and satisfied itself as to the conditions potentially affecting the Work, including but not limited to, transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, utilities, water stages or similar physical conditions at the Worksite, and the character of equipment and facilities needed prior to and/or during execution of the Work. The Bidder further acknowledges that it has investigated and satisfied itself as to the character, quality and quantity of surface and reasonably ascertainable subsurface conditions, geology, materials or obstacles to be encountered during, or potentially impacting, the Work by inspecting the Worksite and by reviewing all exploratory work done by Authority, as well as from information presented in the Bid Documents. Any failure by the Bidder to carefully and completely review the Bid Documents, the Worksite and any conditions potentially affecting the Work or to acquaint itself with all available information shall not relieve it from responsibility for estimating properly the difficulty or cost of successfully performing the Work nor relieve it from the responsibility for successfully performing the Work without additional expense to Authority if the Bidder becomes the Contractor for this Contract.
 2. The Bidder assumes all responsibility for any opinions and conclusions made by the Bidder of any written or oral representations made, or information provided by, Authority, the Engineer or any of the Authority's officers, employees or agents prior to or contemporaneous with the execution of the Contract. Such information or data, other than as set forth in the Bid Documents, is included only for the convenience of the Bidders.
- B. Explanations desired by a Bidder regarding the Bid Documents shall be submitted in writing to Authority. Such requests shall state the Contract number and name of the Project. No response will be made by Authority to inquiries received less than ten (10) days prior to the date that Bids are due. Any response that Authority may choose to make will be in writing. Authority will not be bound by any explanation, clarification or interpretation, oral or written, by whomsoever made, that is not incorporated into an Addendum to the Bid Documents. Copies of all such Addenda will be mailed to all listed holders of Bid Documents.

- C. Drawings and specifications for related Authority contracts, if any, are identified in the Contract Documents and are available for inspection in the office of Authority. Drawings and specifications pertaining to such related work may be inspected by Bidders upon request to Authority. The Bidder must familiarize itself with these documents and must determine and take into account matters which may affect the Work.
- D. The reference materials listed in Section 00200, Article 2.6.E are not included with the purchase of the Bid Documents, but are available for review or purchase by potential Bidders. The purchase price of each document has been established and is available through the contact provided below. Should the potential Bidder request special delivery such as UPS or FedEx, the potential Bidder will be required to provide a billing account number for special mailings. Reproduction and mailing will not begin until receipt of payment in full. The Bidder must allow five (5) working days for reproduction of these materials after providing a written request and payment. Potential Bidders that desire to review and/or purchase the following material must contact Jonna Balco (412) 497-6250 to schedule each review. This material will be available for review, by appointment only, between the hours of 8:00am and 3:30 pm, Monday through Friday, during the bid period, at Tri-Gold, Three Gateway Center, 15th Floor, East Wing, Pittsburgh, PA 15222.
- E. The following reference materials are provided for information purposes only.
 - 1. FTA Project and Construction Management Guidelines. (*May be purchased from the National Technology Technical Information Service, Springfield, VA 22161.*) (*Purchase Price \$10.00*)
 - 2. FTA Quality Assurance and Quality Control Guidelines (FTA-IT-90-5001-02.1) (*May be purchased from the National Technology Technical Information Service, Springfield, VA 22161.*) (*Purchase Price \$9.00*)
 - 3. PAAC – CAD and Drawing Standards Manual (*Purchase Price \$10.00*)
 - 4 through 39 [NOT USED]
 - 40. PAAC Stage I Light Rail Transit System, Liberty Avenue Subway and Gateway Center Shell, Construction Contract No. CA-450, Dated 2-7-83 (*Purchase Price \$36.00*)
 - 41. [NOT USED]
 - 42. Port Authority of Allegheny County North Shore Connector Project Safety and Security Certification Plan, Dated June 30, 2004. (*Not Available for Purchase*)
 - 43. Port Authority of Allegheny County North Shore Connector Project System Safety Program Plan, Dated July 9, 2004. (*Not Available for Purchase*)

- 43A. Port Authority of Allegheny County North Shore Connector Project Safety and Security Management Plan, Dated April 20, 2007 (*Not Available for Purchase*)
44. Port Authority of Allegheny County System Safety Program Plan, Dated March 2005. (*Not Available for Purchase*)
45. PAAC ADU Operation Training – TWC Equipment Operation, Instruction Guide, Dated August 2006, (*Purchase Price \$5.00*)
46. PAAC ULS Application, FCC Application acceptance for call sign WPZK225, (*Purchase Price \$5.00*)
47. Allegheny River Tunnel N.P.D.E.S. Permit # PAG-2-00-02-04-108, January 13, 2005 (*Purchase Price \$138.00*)
- 48 through 68. [NOT USED]
69. PAAC – North Shore Connector Manual of Design Criteria, Dated October 8, 2004. (*Purchase Price \$35.00*)
- 70 through 77. [NOT USED]
78. PAAC North Shore Connector, North Side Tunnels & Station Shell, Contract No. NSC-003/006 Terms and Conditions, Volume 1, Dated November 2, 2005 (*Purchase Price \$25.00*)
79. PAAC North Shore Connector, North Side Tunnels & Station Shell, Contract No. NSC-003/006 Technical Provisions, Volume 2, Allegheny River Tunnel Launch Pit to Receiving Pit (NSC-003), Dated November 2, 2005 (*Purchase Price \$30.00*)
80. PAAC North Shore Connector, North Side Tunnels and Station Shell Contract No. NSC-003/006 Technical Provisions Volume 3, North Side Station and Cut & Cover Tunnel West (NSC-006), dated November 2, 2005 (*Purchase Price \$30.00*)
81. PAAC North Shore Connector, North Side Tunnels & Station Shell Contract No. NSC-003/006, Contract Drawings, Volume 1: Allegheny River Tunnel Launch Pit to Receiving Pit (NSC-003), Dated November 2, 2005 (*Purchase Price \$100.00*)
82. PAAC North Shore Connector, North Side Tunnels and Station Shell Contract NSC-003/006, Contract Drawings, Volume 2, North Side Station and Cut & Cover Tunnel West (NSC-006), Dated November 2, 2005 (*Purchase Price \$100.00*)
83. [NOT USED]
84. PAAC Track Entry Training Program, Dated April 2005 (*Purchase Price \$2.00*).
85. PAAC Stage I Light Rail Transit System, Gateway Center Station Finishes, Construction Contract No. CA-456G, CA-456-H, CA-456-P, CA-456-E, Dated July 8, 2003 (*Purchase Price \$10.00*)
86. PAAC Stage I Light Rail Transit System, Centenary Installation Central Business District, Installation Contract cy-815, dated May 5, 1983 (*Purchase Price \$10.00*)
87. [NOT USED]

88. PAAC Stage I LRT Manual of Design Criteria, Revision 2, Dated March 1987 (*Purchase Price \$50.00*)
89. PAAC Early Procurement of Gateway Double Crossover, Contract No. 3002, FTA Project PA 03 0315 (*Purchase Price \$50.00*)
90. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012 Terms and Conditions, Volume 1, Dated May 20, 2008 (*Purchase Price \$20.00*)
100. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012 Technical Provisions, Volume 2A, Gateway Station Finishes (NSC-010) General Construction Contract No. NSC-010G. Dated April 4, 2008, (*Purchase Price \$40.00*)
101. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012 Technical Provisions, Volume 2B, Gateway Station Finishes (NSC-010) Heating and Ventilation Construction Contract No. NSC-010H, Plumbing Construction Contract No. NSC-010P, and Electrical Construction Contract No. NSC-010E Dated April 4, 2008 (*Purchase Price \$40.00*)
102. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012, Technical Provisions, Volume 3A, North Side Station Finishes (NSC-011) General Construction Contract No. NSC-011G, Dated April 3, 2008 (*Purchase Price \$40.00*)
103. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012, Technical Provisions, Volume 3B, North Side Station Finishes (NSC-011) Heating and Ventilation Construction Contract No. NSC -011H, Plumbing Construction Contract No. NSC-011P, and Electrical Construction Contract No. NSC -011E, Dated April 3, 2008 (*Purchase Price \$40.00*)
104. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012 Technical Provisions, Volume 4A, Allegheny Station finishes (NSC-012) General Construction Contract No. NSC-012G. Dated April 4, 2008, (*Purchase Price \$40.00*)
105. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012, Technical Provisions, Volume 4B, Allegheny Station Finishes (NSC-012) Heating and Ventilation Construction Contract No. NSC -012H, Plumbing Construction Contract No. NSC-012P, and Electrical Construction Contract No. NSC -012E, Dated April 4, 2008 (*Purchase Price \$40.00*)
106. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012, Contract Drawings, Volume 1, Gateway Station Finishes (NSC-010), Dated April 4, 2008, (*Purchase Price \$100.00*)

107. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012, Contract Drawings, Volume 2, North Side Station Finishes (NSC-011), Dated April 3, 2008, (*Purchase Price \$100.00*)
108. PAAC North Shore Connector, North Shore Connector Station Finishes, Contract No. NSC-010/011/012, Contract Drawings, Volume 3, Allegheny Station Finishes (NSC-012), Dated April 4, 2008, (*Purchase Price \$100.00*)
109. PAAC North Shore Connector, Gateway Station Shell, Contract No. NSC-004 R Terms & Conditions, Volume 1, Dated February 1, 2008, (*Purchase Price \$40.00*)
110. PAAC North Shore Connector, Gateway Station Shell, Contract No. NSC-004 R Technical Provisions, Volume 2, Dated February 1, 2008, (*Purchase Price \$30.00*)
111. PAAC North Shore Connector, Gateway Station Shell, Contract No. NSC-004 R, Contract Drawings, Volume 1, Dated February 1, 2008, (*Purchase Price \$120.00*)
112. PAAC North Shore Connector, Aerial Structure, Retained Fill, Demolition of Miller Printing, NSC-007 Terms & Conditions, Volume 1, Dated March 10, 2008, (*Purchase Price \$30.00*)
113. PAAC North Shore Connector, Aerial Structure, Retained Fill, Demolition of Miller Printing, NSC-007 Technical Provisions, Volume 2, Dated March 10, 2008, (*Purchase Price \$40.00*)
114. PAAC North Shore Connector, Aerial Structure, Retained Fill, Demolition of Miller Printing, NSC-007, Contract Drawings, Volume 1, Dated March 10, 2008, (*Purchase Price \$120.00*)
115. PAAC North Shore Connector, Elevators and Escalators, Contract No. NSC-015, Contract Drawings, Volume 1, Dated March 4, 2008, (*Purchase Price \$20.00*)
116. PAAC North Shore Connector, Elevators and Escalators, Contract No. NSC-015, Terms & Conditions & Technical Provisions, Volume 1, Dated March 4, 2008, (*Purchase Price \$30.00*)
117. PAAC Stage I Light Rail Transit System CBD: Sixth Avenue Subway and Wood Street Shell, Construction Contract CA-440, Dated August 7, 1981, (*Purchase Price \$80.00*)
118. PAAC Stage I Light Rail Transit System, Wood Street Station Finishes, Construction Contract No. CA-446-G, CA-446-H, CA-446-P, and CA-446-E, Dated July 15, 1983, (*Purchase Price \$40.00*)
119. PAAC Wood Street Station Entrance Enclosures, Construction Contract CA-502, Dated August 14, 1986, (*Purchase Price \$4.00*)
120. PAAC Rail and Facilities Standard Operating Procedures Manual, Dated March 16, 2007, (*Not Available for Purchase*)
121. PAAC The Rail Operations Rule Book, (*Not Available for Purchase*)

122. PAAC North Shore Connector, Geotechnical Data Report, Allegheny County, Pennsylvania, (2 Volumes), Dated May 2005, Revised November 2005, (*Purchase Price \$150.00*)
123. PAAC, Pittsburgh North Shore Connector Gateway Station Emergency Ventilation Design-Assessment of Modified Station Geometry, Dated October 8, 2007, (*Purchase Price \$10.00*)
124. PAAC, Pittsburgh North Shore Connector North Side Station Emergency Ventilation Design-Assessment of Station Geometry, Dated October 8, 2007, (*Purchase Price \$10.00*)
125. PAAC, North Shore Connector-NSC Radiating Coaxial Cable Study, Dated October 16, 2007 (*Purchase Price \$5.00*)
126. PAAC, Operations Control Center System, Contract Forms and General Provisions, Volume 1, Contract No. LRS-98-05-R, FTA No. PA-03-0261, Dated May 12, 1999, Conformed January 29, 2002 (*Purchase Price \$10.00*)
127. PAAC, Operations Control Center System, Technical Provisions, Volume 1, Contract No. LRS-98-05-R, FTA No. PA-03-0261, Dated May 12, 1999, Conformed January 29, 2002 (*Purchase Price \$30.00*)
128. PAAC, Stage II Light Rail Transit System OCC Systems, Contract No. LRS-98-05-R, FTA No. PA-03-0261, Dated May 12, 1999, Conformed January 29, 2002 (*Purchase Price \$50.00*)
129. PAAC, Traction Power Study, Dated December 2001, (*Purchase Price \$10.00*)
130. PAAC, Stage II Light Rail Transit Program, Special Catenary Study Report, Dated August 1, 1997 (*Purchase Price \$20.00*)
131. PAAC, Engineering, Furnishing and Integration of a Communication System for a Stage II LRT System, Contract No. LRT-006, As-Built, Dated November 6, 2002 (*Purchase Price \$50.00*)
132. PAAC, Hanning & Kahl Operating Instructions, Hanning Communication System (HCS-R), Routing Equipment Edition 24.01.2002, Revision E, (*Purchase Price \$ 5.00*)
133. PAAC, Gateway Station Enclosure Study, CBD Subway System, Subway Environmental Simulation (SES) Executive Summary and Feasibility Air Flow Test Report, Dated May 22, 1989, Revised July 18, 1989, Revised January 3, 1997, (*Purchase Price \$30.00*).
134. PAAC, North Shore Connector, NSC Radio Coverage Study, 100% Submittal, Dated April 28, 2008, (*Purchase Price \$10.00*).
135. PAAC, North Shore Connector, NSC Radiating Coaxial Cable Study, Dated March 21, 2008, (*Purchase Price \$10.00*).
136. PAAC Stage II Light Rail Transit System, System Design (Fiber Optic) by Node Locations Plan, Dated January 26, 2004, (*Purchase Price \$1.00*).

137. PAAC Stage II Light Rail Transit System, Contract No. LRT-006, Electro-Magnetic Interface ICDD (EMI ICDD), Dated August 2, 2001, (*Purchase Price \$ 5.00*).

2.7 Preparation And Submission Of Bid

- A. Bids shall be completed in ink on the Form of Bid (Form B) and must be manually signed. Evidence of the authority of the person signing the Form of Bid will be required with the Bid. If erasures or other changes appear on the Bid, each erasure or change must be initialed by the person signing the Bid. The Bidder shall submit, with the Form of Bid, the Certification of Bidder (Form C), along with the required Bid Guaranty. In addition, for a Bid totaling over \$100,000, the Bidder shall submit the Buy America Certificate (Form D), Certification Regarding Lobbying (Form E), and the Disclosure of Lobbying Activities (Form F), if required pursuant to Bidder's completion of Form E. Bidder should also complete and submit, with its Bid, the Bidder/Subcontractor Data Form (Form G-VI).
- B. Prices shall be provided for each item set forth on the Form of Bid.
- C. Written modification of a Bid already submitted will be considered if received by Authority at the specified location before the time set for receipt of Bids. The modification shall be duly executed by the Bidder or its authorized representative, shall be clearly labeled as a modification of a Bid, and if an increase, shall be accompanied by an increase in the Bid Guaranty. Modifications received after the time stipulated for receipt of Bids will not be considered. Telegraphic or faxed modifications will not be considered.
- D. Bidders must execute Bids as follows:
 1. Sole Proprietor
If the Bidder is an individual or sole proprietor, the Bid must be executed with a handwritten signature by the owner. In the event that the Bid is signed by a person other than the owner, then the Bid must contain supporting documentation, satisfactory as to form and substance to Authority, authorizing said person to bind the Bidder in contractual matters (such as a properly executed Power of Attorney).
 2. Partnership
If the Bidder is a general, limited or other partnership, the Bid must be executed with a handwritten signature by a general partner of that partnership. In the event that the Bid is signed by a person other than a general partner, then the Bid must contain supporting documentation, satisfactory as to form and substance to Authority, authorizing said person to bind the partnership in contractual matters.

c) Joint Venture

If the Bidder is a joint venture, the Bid must be executed with a handwritten signature by each member or, in lieu thereof, by a member of the joint venture expressly designated as the authorized signatory on behalf of all the joint venturers as evidenced by supporting documentation submitted with the Bid and satisfactory as to form and substance to Authority.

Any sole proprietor, partnership, or corporation that is a member of the joint venture and is signing the Bid either for the joint venture or for itself, must adhere to the above requirements of sub-paragraphs 1, 2 and 4 of this Article 2.7.D.

4. Corporation

If the Bidder is a corporation or business trust, the Bid must be executed with a handwritten signature by either the president, vice president, secretary, assistant secretary, treasurer, or assistant treasurer of the corporation or business trust. In the event that the Bid is signed by a person other than the aforementioned officers, then the Bid must contain supporting documentation, satisfactory as to form and substance to Authority, authorizing said person to bind the corporation or business trust in contractual matters (such as a copy of the resolution adopted by the Board of Directors and certified to by the secretary or assistant secretary of the corporation or business trust).

5. Other

If any general partner or joint venturer executing the Bid is a corporation or business trust, the Bid must be signed on behalf of such general partner or joint venturer by a duly authorized officer, trustee, director or other representative of such general partner or joint venturer and must be accompanied by supporting documentation evidencing such authorization and satisfactory as to form and substance to Authority.

- E. Bids and modifications of Bids shall be submitted in a sealed envelope, clearly marked with the Contract name and number, date, time for receipt of Bids and name of Bidder. Failure to comply with this requirement may result in a premature opening of, or failure to open, such Bid.
- F. Bids shall not include any of the following: alterations of form; additions not called for; a conditional Bid; an incomplete Bid; irregularities which make the Bid incomplete, indefinite or ambiguous; improper markings or identification or obviously unbalanced prices.
- G. The Bidder may be required to submit DBE Participation Letter(s) of Intent; DBE Certificate of Compliance or Request For Waiver; Potential Areas of Subcontracting form and other applicable DBE forms. The Bidder shall submit this information to Authority within the time frame designated in Section 00200, Article 3.

- H. The Contractor shall provide immediate written notice to Authority if at any time the Contractor learns that any of the certifications provided as part of its Bid was erroneous when submitted or has become erroneous by reason of changed circumstances.
- I. Failure by a Bidder to comply with the requirements of this Article 2.7 shall be sufficient ground for Authority to declare the Bid to be non-responsive and therefore ineligible for Award. Authority shall be the sole and final judge of what constitutes a non-responsive Bid.

2.8 Acknowledgement Of Receipt Of Addenda

- A. Bidders shall acknowledge receipt of all Addenda on the Form of Bid in the space provided. Failure to acknowledge receipt of all Addenda may cause the Bid to be non-responsive.

2.9 Competency Of Bidders

- A. The Bidder may be required to submit statements of experience and qualifications, current financial statements and other information required by Authority to establish competency. The statements of experience must include all work the Bidder has under contract, both private and public, at the time of submission of its Bid, including the contract value and completion status. The financial statement must be certified and must reflect the Bidder's actual financial condition at the time of Bid. Also, the Bidder may be requested to submit a copy of the Bidder's OSHA Form 300A, Annual Accident Report for the previous year and a copy of the Bidder's EEO Policy and Program. The Bidder shall return the information required in this Article 2.9 to Authority within three (3) working days after being requested to do so by Authority.
- B. The Bidder shall be considered to be non-responsible if, for example, Authority determines that the Bidder:
 - 1. Does not have appropriate financial, material, equipment or personnel resources or expertise, or lacks the ability to obtain them;
 - 2. Does not have a satisfactory record of performance;
 - 3. Does not have a satisfactory record of integrity;
 - 4. Does not have a satisfactory record of quality;
 - 5. Does not have a satisfactory record of safety; or
 - 6. Has not provided, in a timely manner, all necessary information in connection with Authority's inquiry concerning competency.
- C. Bidder shall submit evidence that:
 - 1. Bidder is a business entity with a minimum of ten (10) years continuous business experience current to the present date.

2. Bidder has a minimum of five (5) years experience within the last ten (10) years implementing railroad or transit signaling, communications, and traction power systems.
3. Bidder has a minimum of two (2) key field supervisory level personnel who it shall assign to the Contract. The following shall be minimum experience requirements for those individuals:
 - a) Full Time Project Manager shall have a minimum of ten (10) years experience as a Project Manager in constructing railroad or transit signaling, communications and traction power systems design and installation, which experience shall include two (2) projects of similar size and complexity of this Project.
 - b) A full-time Field Superintendent shall have a minimum of ten (10) years experience as a Field Superintendent in constructing railroad or transit signaling, communications and traction power systems design and installation, which experience shall include two (2) projects of similar size and complexity of this Project.
4. Bidder has a record of bonding ability, continuous for five (5) years prior to the submission of the bid. If a joint venture, all parties must comply.
5. Bidder has a Drug and Alcohol Program to meet the requirements of Section 00700, Article 14.

2.10 Bid Guaranty

- A. Bids shall be accompanied by one or more of the following forms of Bid Guaranty: a cashier's check, a certified check or the Bid Bond (Form H), executed by a surety or sureties licensed to transact business in the Commonwealth of Pennsylvania and named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as currently authorized under 31 CFR, Part 223 as possessing a Certificate of Authority as described thereunder, made payable to Port Authority of Allegheny County.
- B. The amount of the Bid Guaranty shall equal at least ten (10) percent of the Total Bid. A Bid shall be considered by Port Authority to be non-responsive unless such a Bid Guaranty is included with the Bid.

2.11 Withdrawal Of Bids

- A. Bids may be withdrawn at any time prior to the time specified for the receipt of Bids by filing a written request for withdrawal with Authority, duly executed by the Bidder or its authorized representative. The withdrawal of a Bid, prior to the time specified for the receipt of Bids, does not prejudice the right of the Bidder to file a new Bid.
- B. A request for withdrawal by a Bidder of its Bid received by Authority after the time specified for the receipt of Bids shall not be permitted except as provided under the 73 P.S. Section 1601 et seq., entitled "Public Contracts – Bids – Withdrawal".

2.12 Disqualification of Bidders

- A. Submission of more than one Bid from an individual, firm, partnership, joint venture, corporation or combination thereof, under the same or different names, shall be cause for disqualification of the Bids submitted by such entities. Reasonable grounds for believing that any individual, firm, partnership, joint venture, corporation or combination thereof is interested as a principal in more than one Bid for the Work may cause the rejection of all Bids submitted by such individual, firm, partnership, joint venture, corporation or combination thereof.

2.13 Buy America Requirements

- A. The Work is subject to the provisions of Section 165 of the Surface Transportation Assistance Act of 1982 and 49 CFR Part 661. Further, the Work is subject to the requirements of the Surface Transportation and Uniform Relocation Assistance Act of 1987 and any implementing regulations issued thereunder. These requirements extend to Subcontractors and Suppliers at all tiers and shall be included in all subcontracts.
- B. The Buy America Certificate (Form D) must be completed by the Bidder and submitted with the Proposal only if the total amount of the Proposal is greater than \$100,000.
- C. If the Bidder fails to satisfy the requirements of Buy America, the Bidder will not be awarded the Contract.

2.14 Bid Protest Procedures

Any actual or prospective Bidder who believes it is aggrieved in connection with the solicitation or award of the Contract may file a protest with Authority. The procedures for submitting such protests are available at Authority's website at www.portauthority.org by following the links "Company Info", "Procurement", "Purchasing Info", "Bid Protest Procedures."

2.15 Federal, State and Local Taxes

- A. The Contract Sum shall include all applicable federal, state and local taxes, fees and duties, and the Contractor shall be solely responsible for payment thereof.
- B. Authority shall, when appropriate, furnish to the Contractor appropriate evidence to establish exemption from any taxes, fees or duties which may be applicable to the Contract. Except as otherwise provided in the Contract Documents, appropriate evidence to establish exemption from taxes, fees or duties will be furnished only at the discretion of Authority.
- C. In accordance with the provisions of the Pennsylvania Sales and Use Tax Act, the Pennsylvania Intergovernmental Authority Act for Cities of the First Class and § 3150-B through 3157-B of the Second Class Code, all materials, with the exception of portions of the Work

specifically identified in Article 2.15.C.5 below, that the Contractor shall permanently install, including property, machinery, equipment or parts as identified in the Contract Documents, in or for the Work (hereinafter referred to in Article 2.15.C as "material" or "materials"), have been determined to be exempt from Pennsylvania Sales and Use Tax and the local sales and use tax imposed by the City of Philadelphia and Allegheny County (collectively "Sales and Use Tax").

1. The Contractor shall advise the Engineer in writing of the specific materials the Contractor or its Subcontractor or Suppliers will procure for the Work. Specifically, the Contractor shall provide the following written information to the Engineer:
 - a) The name and address of the purchaser of each material;
 - b) The name and address of the seller from which the material is to be purchased.
 - c) The specific nature and quantity of the material and how the material will be used for the Work;
 - d) Identify if the purchaser holds a Sales and Use Tax license; and
 - e) Any other information reasonably requested by the Engineer.
2. After receipt of all such information, Authority will provide the Contractor with the following:
 - a) The appropriate "Certification", a copy of which the Contractor or its Subcontractor or Supplier shall tender to the seller of the materials if the Contractor or its Subcontractor or Supplier does not hold a Sales and Use Tax license; or
 - b) A Blanket Exemption Certificate for said materials if the Contractor or Subcontractor or Supplier holds a Sales and Use Tax license.
3. The Contractor, its Subcontractor, and its Supplier shall abide by the procedures set forth in the Pennsylvania Sales and Use Tax Regulations § 31.11 through 31.13 in securing the Sales and Use Tax exemption for these items.
4. In the event that the Pennsylvania Department of Revenue asserts that any materials identified as tax-exempt by Authority, pursuant to this provision or otherwise, and purchased by the Contractor, its Subcontractor and/or Suppliers of any tier (the "Purchaser") as part of this Contract are taxable, then the Contractor shall promptly and completely follow the procedures set forth below in order to secure any reimbursement of such asserted Sales and Use Tax under this Contract, otherwise the Contractor waives any right to seek

recovery from Authority for the payment of any such asserted Sales and Use Tax:

- a) Within five (5) business days of the issuance by the Department of Revenue of a written audit report, or other form of written notification asserting Sales or Use Tax against the Purchaser by the Department of Revenue relating to materials identified as exempt in the Contract, the Contractor shall provide a copy of such written notification to the Engineer identifying the Contract and specific materials to which the asserted Sales or Use Tax relates.
 - b) In addition, within five (5) business days of the date of issuance by the Department of Revenue of a Notice of Assessment relating to materials identified as exempt in the Contract, the Contractor shall provide a copy of the Notice of Assessment to the Engineer, identifying the Contract and specific materials to which the asserted Sales and Use Tax relates.
 - c) The Purchaser shall not settle, compromise, nor allow to expire any relevant period for review or appeals if an adverse determination is made or otherwise dispose of any asserted Sales or Use Tax claim made by the Department of Revenue without the prior written consent of Authority. Also, the Contractor shall provide Authority with a written power-of-attorney, in a form satisfactory to Authority, to allow Authority the right to control and/or participate in, at the sole expense of Authority, any negotiation, settlement, compromise or other disposition of any such asserted Sales or Use Tax claim and/or prosecute or defend any appeal or litigation which results therefrom.
5. Authority is not claiming exemption from Sales and Use Tax with respect to the materials required for the following portions of the Work:
 - a) All work and materials necessary for the construction of roadways, curbs, driveways, roadway drainage and sidewalks above the Subgrade level associated with the Stadium Authority of the City of Pittsburgh Work. This work is contained in Technical provisions Sections 01791, 02627, 02721, 02740, 02741, 02761, 02781, 02785, 02840 and 02843
 - b) All work and materials associated with roadway traffic control and traffic signing associated with the Stadium Authority of the City of Pittsburgh Work. This work is contained in Technical Provision Sections 02891.
 6. In the event that Authority later determines that any of the materials required to complete the portion of Work described in Article 2.15.C.5 above are exempt from Sales and Use Tax:

- a) If such determination is made by Authority prior to final payment pursuant to Section 01200, Article 5, a change order will be issued to reflect an equitable adjustment (decrease) in the Contract Sum to reflect such exemption; or
 - b) If such determination is made by Authority after final payment is made pursuant to Section 01200, Article 5.
 - 1) The Contractor shall, pursuant to documents satisfactory to Authority, promptly assign and transfer to Authority all of the Contractor's rights to any refund of Sales and Use Tax paid by the Contractor with respect to said material, including the right to file a petition for refund of Sales and Use Tax and to appeal any adverse determination or decisions by any administrative agency or court of law with respect to such Sales and Use Tax; or
 - 2) Alternatively, at the sole discretion of Authority, the Contractor shall obtain a refund of Sales and Use Tax from the Department of Revenue and promptly remit to Authority the refunded Sales and Use Tax and any interest thereon paid by the Department of Revenue less the Contractor's reasonable administrative expenses actually incurred in obtaining the refund.
 - c) The Contractor shall, at all times, provide Authority with such assistance as may be requested by Authority in connection with Authority's efforts to secure any refund of Sales and Use Tax, including unrestricted access to any records or other information which may be relevant to such refund. Without limiting the generality of the foregoing, the Contractor shall retain, and shall cause its Subcontractors and Suppliers of any tier to retain, until the applicable statutes of limitations (including any extensions) have expired, all records or information which may be relevant to the payment of Sales and Use Tax for all materials described in Article 2.15.C.5 above and/or any refund thereof for all tax periods or portions thereof ending before or including the date of the issuance of the Acceptance Certificate and shall not destroy or otherwise dispose of any such records without first providing Authority with a reasonable opportunity to review, copy and/or take possession of the same.
7. The Contractor shall include, or have included, the requirements of this Article 2.15 in all contracts with its Subcontractors and Suppliers of any tier.

ARTICLE 3 – DISADVANTAGED BUSINESS ENTERPRISES UTILIZATION REQUIREMENTS

3.1 DBE Program Policy

- A. The Contractor and its Subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The Contractor and its Subcontractors shall carry out the applicable requirements of 49 C.F.R., Part 26 in the performance of this Contract. Failure by the Contractor or its Subcontractor to carry out these requirements is a breach of the Contract, which may result in the termination of this Contract or such other remedy as Authority deems appropriate.
- B. Authority, in conjunction with others, will implement procedures to assure that disadvantaged business enterprise contractors, suppliers and brokers will have an equal opportunity to effectively participate in Authority's bidding and procurement for required materials, goods, and services. Authority further desires to assist in the improvement of the economic level of all disadvantaged business enterprises in the Greater Pittsburgh Area by establishing the Disadvantaged Business Enterprise Program.
- C. While Authority's intent is to maximize the utilization of all disadvantaged business enterprises through the Disadvantaged Business Enterprise Program, it is recognized that a specific measurable and attainable goal for this Contract is necessary as a standard of measurement. In this regard, Authority has identified a specific measurable and attainable goal for this Contract for Disadvantaged Business Enterprise participation. This goal is set forth in Article 3.2 below.
- D. Definitions – As used in this Article 3 and the Disadvantaged Business Enterprise Program, the following terms shall have the following meanings:
 - 1. Affirmative Action – Taking specific steps to eliminate discrimination and its effects, to ensure nondiscriminatory results and practices in the future and to involve disadvantaged business enterprises fully in this Contract.
 - 2. Authority DBE Representative – The person designated by the Liaison Officer to coordinate the day-to-day activities of the DBE Program.
 - 3. Broker – A business enterprise which sells goods or materials which it neither manufactures or otherwise owns.
 - 4. Compliance – The condition existing when the Bidder or Contractor has met and implemented the requirements of this Article 3.
 - 5. Contract – A mutually binding legal relationship or any modification thereof obligating the seller to furnish supplies or services, including construction, and the buyer to pay for them. For purposes of this Article 3, a lease is a contract.
 - 6. Contract Price – The total bid price of the successful bidder to whom this Contract is awarded.

7. Contractor Representative – The person designated by the Bidder or Contractor to coordinate the day-to-day activities of the DBE Program.
8. Department or DOT – The U.S. Department of Transportation including its operating elements.
9. Disadvantaged Business Enterprise or DBE – A for-profit small business concern:
 - a) that is at least 51 percent owned by one or more individuals who are socially or economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and
 - b) whose management and daily business operations are controlled by one or more such individuals.
10. Disadvantaged Business Enterprise (DBE) Directory – A listing of certified DBE's maintained by the PA UCP Program. Certification of an entity as a DBE by any of the PA UCP Agencies means that the entity is certified as a DBE for any of the PA UCP Agencies. The DBE Directory can be found at the PA UCP website at www.PAUCP.com.
11. Executive Director – The Chief Executive Officer of Authority.
12. Good Faith Efforts – Efforts to achieve a DBE goal or other requirements of this Article 3 which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the requirements of this Article.
13. Joint Venture – An association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the Contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.
14. Letter of Intent – A letter to the DBE signed by the Bidder and the DBE with respect to certain work under the Contract.
15. Liaison Officer – Authority's designated representative responsible for the DBE Plan of Authority.
16. Noncompliance – The condition existing when the Bidder or Contractor has failed to implement the requirements of this Article 3.
17. PA UCP Program – Pennsylvania Unified Certification Program, a cooperative effort of the following agencies, collectively referred to as the PA UCP Agencies, which provides, among other benefits, a consolidated DBE Directory of firms approved as DBEs for contracts implemented by such agencies:

- a) Pennsylvania Department of Transportation
Bureau of Equal Opportunity
Disadvantaged Business Enterprise Division
5th Floor, Commonwealth Keystone Building
400 North Street
Harrisburg, Pennsylvania 17120
1-800-468-4201
 - b) Allegheny County Office of
Minority/Women/Disadvantaged Business Enterprise
204 County Office Building
542 Forbes Avenue
Pittsburgh, Pennsylvania 15219
412-350-4309
 - c) City of Philadelphia Minority Business Enterprise Council
(MBEC)
1401 JFK Boulevard, Suite 330
Philadelphia, Pennsylvania 19102-1666
215-686-3876
 - d) Port Authority of Allegheny County
Office of Equal Opportunity
345 Sixth Avenue, 3rd Floor
Pittsburgh, Pennsylvania 15222-2527
412-566-5257
 - e) SEPTA Small Business Development Utilization Office
1234 Market Street, 3rd Floor
Philadelphia, Pennsylvania 19107-3780
215-580-7359
18. Secretary – The Secretary of Transportation or his/her designee.
19. Socially and Economically Disadvantaged Individuals – An individual who is a citizen of the United States (or lawfully admitted permanent resident), and who is:
- a) Determined to be, on a case by case basis, socially and economically disadvantaged; and
 - b) In the following groups, members of which groups are rebuttably presumed to be socially and economically disadvantaged:
 - (1) "Black Americans" which includes persons having origins in any of the Black racial groups of Africa;
 - (2) "Hispanic Americans" which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) "Native Americans" which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

- (4) "Asian-Pacific Americans" which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia or Hong Kong;
- (5) "Subcontinent Asian Americans" which includes person whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
- (6) Women; or
- (7) Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration.

3.2 DBE Utilization Goal

- A. Authority's specific measurable and attainable goal for this Contract for DBE participation is as follows, with the provision that Bidders may file supportive documentation to justify any request for a waiver and necessary information to demonstrate all DBE bidding and procurement requirements have been met.
 1. The DBE utilization goal for this Contract is 15 % of the Contract Sum.
- B. The Bidder should note that the goal for DBE participation in each contract is not the end result. Qualifiers such as "at least" and "no more than" are not part of this policy statement by design as it remains Authority's goal to encourage DBE participation in all contracts to the greatest extent possible.

3.3 Bidder/Contractor Requirements

- A. Bidder DBE Commitment – It is the policy of Authority that Disadvantaged Business Enterprises shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Consequently, the DBE requirements of 49 CFR Part 26 apply to this Contract. In accordance with Executive Order 11625, 49 CFR Part 26 and the provisions of the Grant Contract between the FTA and Authority, the Bidder agrees:
 1. To be bound by the terms of this DBE Affirmative Action Plan included herein.
 2. To ensure that Disadvantaged Business Enterprises have the maximum opportunity to participate in the performance of the Contract which is financed in whole or in part with federal funds. In this regard, the Bidder shall take all necessary and

reasonable steps in accordance with 49 CFR Part 26 to ensure that Disadvantaged Business Enterprises have the maximum opportunity to compete for and perform work for the Contract. The Bidder shall not discriminate on the basis of race, color, religion, sex, age or national origin in the award and performance of subcontracts under the Contract.

3. To use good faith efforts to achieve the specific measurable Disadvantaged Business Enterprise goal for the Contract for DBE utilization with the provision that the Bidder may file the required supportive documentation to justify a request for a waiver in accordance with this Article 3.
 4. Failure of the Bidder to carry out the above requirements shall cause the Bidder to be non-responsive and ineligible for award. Following the award of the Contract, if the Contractor fails to carry out the above requirements, the Contractor shall be in breach of the Contract which may result in termination of the Contract by Authority or such other remedy as Authority deems appropriate.
- B. Counting DBE Participation Toward Meeting DBE Goals – DBE participation shall be counted toward meeting the DBE utilization goal set by Authority in accordance with 49 CFR Part 26 as follows:
1. Once a firm is determined to be an eligible DBE for the Contract, the total dollar value of the subcontract awarded to the DBE is counted toward the applicable DBE goals.
 2. The Bidder may count toward its DBE goals a portion of the total dollar value of a subcontract with a joint venture equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces.
 3. a) The Bidder may count toward its DBE goals only expenditures to DBE's that perform a commercially useful function in the performance of a contract. A DBE is considered to perform a commercially useful function when it is responsible for execution of a distinct element of the work of a contract and carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on a contract, for negotiating price, determining quality and quantity, ordering the materials and installing (where applicable) and paying for the materials itself. To determine whether a DBE is performing a commercially useful function, the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under a contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors shall be evaluated.

- b) A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract or project to which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, similar transactions, particularly those in which DBEs do not participate, shall be examined.
 - c) If a DBE does not perform or exercise responsibility for at least thirty (30) percent of the total cost of a contract with its own workforce, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practices, the DBE shall be presumed not to be performing a commercially useful function. The DBE may present evidence to rebut this presumption to Authority. Authority's decision on the rebuttal of this presumption is subject to review by the Department.
4. The Bidder may count toward its DBE goal expenditures for materials and supplies obtained from DBE suppliers and manufacturers, provided that the DBE assumes the actual and contractual responsibility for the provision of the materials and supplies, as follows:
- a) The Bidder may count its entire expenditure to a DBE manufacturer (i.e., a supplier that produces goods from raw materials or substantially alters them before resale);
 - b) The Bidder may count sixty percent (60%) of its expenditures to a DBE supplier that is not a manufacturer, provided that the DBE supplier performs a commercially useful function in the supply process; or
 - c) The Bidder may count only the commission earned on a sale by a DBE broker.
- C. Bidder/Contractor Required Procedure – The Bidder shall perform within the time frames indicated the following:
1. If a DBE is proposed to be utilized by the Bidder as a DBE subcontractor, and the DBE is not certified as a DBE under the PA UCP Program, the work to be performed by such DBE will not be considered as DBE work for the purpose of achieving the DBE goal of the Contract. The Bidder shall promptly inform such DBE that its work will only be able to be considered as DBE work if it successfully secures an appropriate PA UCP DBE Certification. The Bidder shall direct the DBE to the Disadvantaged Business Enterprise – Uniform Certification Application to initiate the certification review process. The purpose of this document is to insure the legitimacy of the business entity as a DBE firm in compliance with applicable FTA regulations and Authority procedures. The Uniform Certification application can be found on the internet at <HTTP://www.PAUCP.com>. Certification of a firm as

- a DBE will be accomplished by Authority in accordance with 49 CFR Part 26, Subparts D and E.
2. When the Bidder intends to utilize a joint venture, it must submit, prior to the bid opening date, an affidavit clearly identifying and explaining the extent of DBE business participation. The sample affidavit is included in the Bid Forms, Form GI. All joint ventures involving DBE's must be certified for legitimacy in accordance with 49 CFR Part 26, Subparts D and E and the provisions of this Contract.
3. The Bidder shall designate a representative (the Contractor's Representative) to administer the Bidder's/Contractor's DBE plan, to contact the Authority DBE Representative, to work with DBE Subcontractors, and to attend all meetings pertaining to DBE utilization.
4. To maximize the utilization of DBE's, the Bidder shall submit to Authority a list of Bidder's potential areas of subcontracting by the date specified in the bid advertisement. The sample Potential Areas of Subcontracting form is included in the Bid Forms (Form GV). If, through no fault of the Bidder, it is unable to meet the submission date specified in the bid advertisement, the list should be submitted prior to the bid opening date. The Bidder shall select work to be subcontracted which will increase the likelihood of meeting the DBE goal.
5. To the extent necessary to reach the DBE goal, the Bidder shall contact the Authority DBE Representative in an effort to get work for DBE's, and shall contact by registered mail DBE's identified in the DBE Directory to perform work to be subcontracted.
6. The Bidder shall review proposals from DBE's and determine work to be subcontracted to DBE's to reach or surpass the DBE goal for the Contract. After review of such proposals is complete, to the extent necessary to reach or exceed the DBE goal, the Bidder shall negotiate in good faith with interested DBE's submitting proposals. Agreements between the Bidder and a DBE in which the DBE promises not to provide quotations to other bidders are prohibited.
7. In order to demonstrate that good faith efforts were made by the Bidder to secure DBE participation, the Bidder shall be prepared to submit the following information to Authority:
 - a) The names, addresses and telephone numbers of DBE's that were contacted;
 - b) A description of the information provided to DBE's regarding the plans and specifications for portions of the Work to be performed; and
 - c) A statement of why additional agreements with DBE's were not reached.

8. The Bidder will make a maximum effort to assist the DBE's contacted that need assistance in obtaining required bonding, lines of credit, and insurance.
 9. The Bidder shall submit its bid to Authority in accordance with the Bid Documents.
 10. Upon being requested to do so by Authority, the Bidder shall, within three working days from receipt of such request, sign and submit to Authority the following:
 - a) Letter(s) of Intent to award subcontract(s) to selected DBE's. A sample Letter of Intent is include in the Bid Forms, Form GII; and
 - b) DBE Certificate of Compliance (Form GIII) or Request for Waiver (Form GIV), whichever is applicable.
 11. The Bidder/Contractor shall make a good faith effort to replace a DBE subcontractor that is unable to successfully perform the subcontracted work with another DBE. The good faith effort shall be directed at finding another DBE to perform, at least, the same amount of work for the Contract as the DBE that was terminated. Substitution of DBE's for other DBE's after bid opening may occur for cause. The Bidder/Contractor shall notify the Authority DBE Representative immediately if a substitution is to be made, and the Bidder/Contractor must show cause and Authority must approve any such substitutions.
 12. The Contractor shall make a good faith effort to provide DBE subcontractors the opportunity to perform work added to the Contract through a Change Order.
 13. The Contractor shall be required to make a good faith effort to identify additional opportunities for DBE participation if work, which the Contractor originally intended to have performed by a DBE, is reduced or eliminated as a result of a Change Order.
- D. DBE Review Meeting – After Letters of Intent are submitted to Authority, the Bidder shall meet with Authority at Authority's request to discuss the DBE plan. The purpose of the meeting is to consider whether the DBE commitment of the Bidder is in compliance with the Bid Documents. At the meeting, the Bidder will have an opportunity to present information pertinent to its compliance with the applicable requirements. Upon request of Authority, the Bidder shall produce documentation of the required steps (1) through (4) of Article 3.3.C above.
- E. Required Procedures to Demonstrate Good Faith Efforts – A Bidder failing to reach or exceed the DBE goals must in accordance with 49 CFR Part 26 demonstrate good faith efforts to meet the DBE goals before a waiver will be granted. Upon request by Authority, the Bidder shall provide documentation which will demonstrate the steps it has taken to obtain DBE participation, including, but not limited to, the following:
1. Steps 2-7 and 10 of Article 3.3.C;

2. Advertise in general circulation media, trade association publications and minority focus media prior to the bid opening date; and
 3. If the Bidder is unable to reach the DBE goal, it should either during or after negotiations referred to in Article 3.3.C.6, contact the Authority DBE Representative for assistance in reaching the appropriate goals of DBE participation.
- F. Waiver Procedure – If after good faith effort the Bidder has not reached the DBE goal, the Bidder shall submit a Request for Waiver in accordance with this Article 3. The Bidder shall be prepared to meet with the Waiver Committee of Authority within three working days after submitting the Request for Waiver. The Bidder shall be notified by Authority of the date, time and location of the Waiver Committee meeting.
- G. Waiver Committee Meetings
1. If the Bidder submitted a Request for Waiver, the Waiver Committee will meet to review the submittal. Waiver Committee meetings will be conducted in a manner to facilitate the presentation of all relevant information necessary to arrive at a decision including, but not limited to, required documentation of efforts by the Bidder as outlined in the Bid Documents. Testimony will be recorded by Public Stenographer provided by Authority with a transcript being provided to Authority, with copies made available to the Bidder.
 2. The decision of a Waiver Committee will be made available to the Bidder and the Executive Director of Authority. If the Bidder is in agreement with the decision of the Waiver Committee, Bidder shall so notify Authority in writing.
 3. If the Bidder is in disagreement with the decision of the Waiver Committee, the Bidder shall so notify Authority in writing and thereafter appropriate meetings will be held to review the differences. Such meetings will be held as soon as possible but no later than five working days after the decision is received by the Bidder. At the end of the five working day period, the decision of the Waiver Committee, the position of the Bidder and recommendations of the Authority DBE Representative shall be forwarded to the Executive Director of Authority for a final and binding decision, which shall be rendered within five working days thereafter.
 4. If the Bidder is granted a waiver, the Bidder will be deemed to be in compliance with the DBE requirements.
- H. Eligibility for Award of Contract – If the Bidder both fails to meet the DBE goal and fails to demonstrate good faith efforts to do so, it shall not be eligible for award of the Contract.
- I. Contractor Records and Reports
1. To ensure that all obligations under contracts awarded to DBE's are met, Authority shall review the Contractor's DBE

involvement efforts during the performance of the Contract which may include, among other things, evidence of payments made to the DBE. The Contractor, as part of its pay estimate submittals, shall report on the status of the DBE involvement on the Contract using the DBE Utilization Report form provided by the Engineer. Also, the Contractor shall immediately bring to the attention of Authority any situation in which regularly scheduled progress payments are not made to DBE Subcontractors.

2. The development of a comprehensive monitoring system enables Authority to assess progress in achieving DBE goals, determine the priorities for allocating DBE staff time, and identify problem areas in a timely fashion. In order to carry out this monitoring, a record-keeping system should be developed which will identify and assess the Contractor's progress in achieving DBE subcontract goals. This data will facilitate monitoring for internal management purposes, as necessary for FTA compliance reviews and uniform reporting requirements. Specifically, the Contractor shall maintain records showing:
 - a) Procedures which have been adopted to comply with the requirements of the DBE Program, including but not limited to:
 - (1) Affirmative action techniques;
 - (2) Technical assistance efforts and referrals;
 - (3) Communication programs; and
 - (4) Copies of all relevant correspondence, minutes of meetings, and lists of attendees at conferences and workshops.
 - b) Awards to DBE firms, including at a minimum:
 - (1) Names of DBE subcontractors;
 - (2) Nature of work; and
 - (3) Total value of the subcontract.
 - c) Specific efforts to identify and award contracts to DBE's, including but not limited to:
 - (1) Number and identity of DBE's contacted and invited to quote/bid by contract; and
 - (2) Number and identity of DBE's responding by contract.
 - d) When the DBE goal is not reached, a statement detailing the reasons for non-utilization of DBE's submitting proposals but not selected for this Contract shall be required.

J. Appeals of Denials of Certification as DBE

1. Filing – Any firm which believes that it has been wrongly denied certification as a DBE or joint venture under 49 CFR Part 26, Subparts D and E by the Department or Authority may file an appeal in writing with the Department. The appeal shall be filed no later than 180 days after the date of denial of certification. The Secretary may extend the time for filing or waive the time limit in the interest of justice, specifying in writing the reasons for so doing. Third parties who have reason to believe that another firm has been wrongly denied or granted certification as a DBE or joint venture may advise the Secretary. This information is not considered an appeal pursuant to this Article 3.3.J.
 2. Decision to Investigate – The Secretary ensures that a prompt investigation is made pursuant to prescribed DOT Title VI investigation procedures.
 3. Status of Certification During the Investigation – The Secretary may at his/her discretion, deny the DBE or joint venture in question eligibility to participate as a DBE in any direct or DOT-assigned contracts let during the pendency of the investigation, after providing the DBE or joint venture in question an opportunity to show cause by written statement to the Secretary why this should not occur.
 4. Cooperation in Investigation – All parties shall cooperate fully with the investigation. Failure or refusal to furnish requested information or other failure to cooperate is a violation of 49 CFR Part 26.
 5. Determinations – The Secretary makes one of the following determinations and informs the DBE or joint venture in writing of the reasons for the determination:
 - a) The DBE or joint venture is certified; or
 - b) The DBE or joint venture is not eligible to be certified and is denied eligibility to participate as a DBE in any direct or DOT – assisted contract until a new application for certification is approved by the recipient.
- K. Willful Provision of Incorrect Information – If, at any time, the Department or Authority has reason to believe that any person or firm has willfully and knowingly provided incorrect information or made false statements, it shall refer the matter to the General Counsel of the Department. He/she may initiate debarment procedures in accordance with 41 CFR 1-1.604 and 12-1.602 and/or refer the matter to the Department of Justice under 18 U.S.C. 1001, as he/she deems appropriate.
- L. Penalties
1. Failure by the Contractor to carry out the requirements of 49 CFR Part 26 and of this Article 3 shall constitute a breach of contract and may result in termination of the Contract by Authority or such remedy as Authority deems appropriate.

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2. During the performance of the Contract and for a period of up to three (3) years following completion of the Work, Authority may conduct reviews for compliance with the requirements of the DBE Program. Such reviews may include the evaluation of the Contractor's reports, desk audits and site visitations. Where the Contractor is found to be in non-compliance with the requirements of the DBE Program during performance of the Contract, it will be required to take corrective action. If corrective action is not promptly taken by the Contractor, the following sanctions may be instituted (singularly, in any combination and in addition to any other remedies provided by law):
 - a) Authority may withhold further payments under the Contract;
 - b) The Contractor may be ordered to stop work without Authority being responsible for any resulting damages, costs or delays;
 - c) The Contract may be terminated;
 - d) Suspension or debarment proceedings may be commenced; and
 - e) The relevant performance bonds may be enforced.

END OF SECTION

Section 00300 – Information Available to Bidders

Table of Articles

Article 1 – Subsurface Conditions Data

- 1.1 Existing Geotechnical Information
- 1.2 Bidders Subsurface Investigation

ARTICLE 1 – SUBSURFACE CONDITIONS DATA

1.1 Existing Geotechnical Information

- A. Where investigations of subsurface conditions in those areas where a portion of the Work is to be performed have been made for, or by, Authority, Bidders may, upon request, inspect the records of such investigations in the office of Authority or at other locations as indicated in the Bid Documents.
- B. Investigations of subsurface materials or conditions conducted for, or by, Authority and the data generated therefrom are solely for study and design purposes only. Bidders shall form their own opinions and conclusions from the data available and from such other information as they deem necessary to obtain. Authority and the Engineer make no representation, warranty, nor guarantee, either expressly or by implication, that the materials or conditions indicated by such subsurface investigations are representative of those existing throughout the Project area or between the borings, that unforeseen developments may not occur, that materials or conditions other than those indicated may not be present or that materials or conditions may not be present in proportions different from those indicated. All responsibility and risks of error and loss in relying on and in interpreting such records or data, and any damages or costs arising therefrom, are assumed solely by the Bidder and the Contractor.
- C. When a test boring log showing a record of the data obtained by the investigations of subsurface conditions is provided in the Bid Documents, said log represents only the opinion of the soils engineer as to the character of the materials encountered during the test borings. Such data is included only for the convenience of the Bidders.
- D. Information derived from an inspection of the records of subsurface investigations or from the maps, specifications, profiles or other drawings by the Bidder shall not relieve the Bidder from the responsibility of making its own evaluations, inspections and determinations in regard to the existing subsurface conditions at the Worksite.

1.2 Bidders Subsurface Investigation

Bidders may make their own subsurface investigations to establish the quantities, types and characteristics of materials to be encountered during the performance of the Work. Any such investigation shall be conducted at the Bidder's sole expense.

If the Bidder requires additional time to conduct its investigation beyond the advertised date for receipt of Bids, the Bidder may submit a written request to Authority stating the additional time necessary to complete its investigation. Authority may consider the request and, at its sole discretion, may adjust the date for receipt of Bids by issuing an addendum to the Bid Documents.

END OF SECTION

Section 00400 – Bid/Award Forms

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Article 1 – Bid/Award Forms

- Form of Bid (Form B)
- Certification of Bidder (Form C)
- Buy America Requirements (Form D)
- Certification Regarding Lobbying (Form E)
- Disclosure of Lobbying Activities (Form F)
- DBE Joint Venture Identification Affidavit (Form GI)
- DBE Letter of Intent (Form GII)
- DBE Certificate of Compliance (Form GIII)
- DBE Request for Waiver (Form GIV)
- Potential Areas of Subcontracting (Form GV)
- Bidder/Subcontractor Data Form (Form GVI)
- Bid Bond (Form H)
- Agreement (Form I)
- Waiver of Right to File Mechanics Lien (Form J)

ARTICLE 1 – BID/AWARD FORMS

FORM B

FORM OF BID

NORTH SHORE CONNECTOR
NSC TRAIN SYSTEMS (SYSTEM WIDE)
CONTRACT NO. NSC-009

FROM:

TO: Port Authority of Allegheny County
Heinz 57 Center
345 Sixth Avenue, Third Floor
Pittsburgh, Pennsylvania 15222-2527
Attn: Purchasing and Materials Management Department

Having carefully examined the conditions affecting the cost of the Work and the Bid Documents entitled NORTH SHORE CONNECTOR, NSC TRAIN SYSTEMS (SYSTEM WIDE), CONTRACT NO. NSC-009, Port Authority of Allegheny County (Authority), the undersigned agrees to all the terms and conditions set forth in the Bid Documents.

Total Bid [Written Amount]:

_____ DOLLARS \$ _____

Security in the sum of _____ DOLLARS (\$ _____) (minimum
10% of the Total Bid) in the form of _____ is submitted herewith as Bid
Guaranty.

The undersigned hereby acknowledges receipt of the following Addenda:

No. _____
No. _____
No. _____

Dated: _____
Dated: _____
Dated: _____

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
00771.001	INSURANCE DEDUCTIBLE FUND ALLOWANCE	PDA	1	\$50,000.00	\$50,000.00
01100.001	PARTNERING	PDA	1	\$50,000.00	\$50,000.00
01755.001	MOBILIZATION	LS	1		
01777.001	SYSTEMS INTEGRATION TESTING	LS	1		
01780.001	PARKING LOT NO. 1 ACCESS FOR PNC PARK EVENTS (OVER 30,000 ATTENDANCE)	EA	48		
01780.002	PARKING LOT NO. 1 ACCESS FOR HEINZ FIELD EVENTS	EA	48		
01784.001	TEMPORARY PEDESTRIAN ACCOMMODATIONS	LS	1		
01791.008	RE-INSTALL PARKING LOT SPECIAL SIGNAGE	EA	1		
01791.013	PERMANENT RELOCATION OF EXISTING PARKING LOT BOOTHS	LS	1		
01800.001	EROSION AND SEDIMENTATION CONTROL	LS	1		
01810.001	CITY OF PITTSBURGH OFF-DUTY UNIFORMED POLICE OFFICER	PDA	1	\$50,000.00	\$50,000.00
01900.001	TRAIN CLEARANCE TESTING PROGRAM	LS	1		
02020.001	CONTAMINATED MATERIALS HANDLING	PDA	1	\$50,000.00	\$50,000.00
02220.001	DEMOLITION OF EXISTING GATEWAY STATION LOOP FACILITIES	LS	1		
02220.002	UNFORESEEN FACILITY DEMOLITION	PDA	1	\$50,000.00	\$50,000.00
02220.003	DEMOLITION OF TEMPORARY TUNNEL CLOSURE WALL	LS	1		
02316.001	CLASS 1 EXCAVATION	CY	945		
02320.002	AASHTO NO. 57 COURSE AGGREGATE	CY	50		
02452.001	DIRECT FIXATION TRACK, TYPE I	LF	7,324		
02452.002	DIRECT FIXATION TRACK, TYPE II	LF	191		
02452.003	DIRECT FIXATION TRACK, TYPE III	LF	1,095		
02452.004	DIRECT FIXATION TRACK, TYPE IV	LF	3,423		
02453.001	NO. 4 SPECIAL CONSTRUCTION CROSSOVER AT ALLEGHENY	LS	1		

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
02453.002	NO. 6 DOUBLE CROSSOVER AT WOOD STREET	LS	1		
02453.003	NO. 8 SPECIAL CONSTRUCTION DOUBLE CROSSOVER AT ALLEGHENY	LS	1		
02456.001	INSULATED FIXED RAIL ANCHOR ASSEMBLIES	EA	24		
02456.002	SPECIAL HYDRAULIC BUMPING POSTS	EA	2		
02456.004	SLIDING BUMPING POST	EA	2		
02581.001	DUQUENSE LIGHT COMPANY SWITCH PADS	LS	1		
02627.009	6" PAVEMENT BASE DRAIN, MODIFIED	LF	214		
02721.003	SUBBASE, 6" DEPTH (No. 2A)	SY	2,821		
02740.001	BITUMINOUS BINDER COURSE, ID-2, 2" DEPTH	SY	1,255		
02740.002	BITUMINOUS WEARING COURSE, ID-2, 1-1/2" DEPTH, SRL-L	SY	4,471		
02740.005	BITUMINOUS CONCRETE BASE COURSE, 4" DEPTH	SY	1,255		
02740.006	BITUMINOUS CONCRETE BASE COURSE, 2-1/2" DEPTH	SY	1,566		
02740.007	MILLING OF BITUMINOUS PAVEMENT SURFACE, 1-1/2" DEPTH	SY	1,650		
02741.001	BITUMINOUS TACK COAT	SY	1,650		
02751.001	CONCRETE DRIVEWAY	SY	59		
02761.002	EPOXY RESIN PAINT, 4" WHITE EDGE LINE	LF	1,212		
02761.008	EPOXY RESIN PAINT, 6" BROKEN WHITE SKIP LINE	LF	210		
02781.002	CITY OF PITTSBURGH CONCRETE CURB	LF	247		
02785.002	REINFORCED CONCRETE SIDEWALK, 6" DEPTH	SY	37		
02825.004	SECURITY FENCE, 10' HEIGHT	LF	275		
02825.005	SECURITY GATE, 10' HEIGHT, 12' WIDTH	EA	1		
02825.006	SECURITY GATE, 10' HEIGHT, 16' WIDTH	EA	1		
02840.001	TYPE 2-S GUIDE RAIL	LF	336		
02840.002	TERMINAL SECTION	EA	3		

PORT AUTHORITY OF ALLEGHENY COUNTY
 NORTH SHORE CONNECTOR
 NSC TRAIN SYSTEM (SYSTEM WIDE)
 CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	ESTIMATED UNITS	QUANTITY	UNIT PRICE	TOTAL PRICE
02840.005	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)	LF	1,100		
02843.001	BOLLARDS	EA	5		
02891.002	POST MOUNTED SIGNS, TYPE B MODIFIED	SF	50		
02891.020	OVERHEAD CLEARANCE BAR	EA	6		
03305.001	TRACTION POWER SUBSTATION PAD AND TRANSFORMER PADS	LS	1		
03630.001	PLINTH ANCHORAGE	TF	12,750		
04200.001	TEMPORARY TUNNEL CLOSURE WALL	LS	1		
04200.002	CONCRETE GROUND FACE BLOCK WALL, 10" CMU	SF	435		
04200.003	CONCRETE BLOCK WALL, 10" CMU	SF	340		
05520.001	MISCELLANEOUS FABRICATED STEEL ITEMS	LB	1,000		
05520.002	GRATING	SF	182		
05520.007	EMERGENCY WALKWAYS	LF	6,510		
05520.008	EMERGENCY WALKWAY CROSSOVERS	LF	685		
05520.009	LADDERS	EA	68		
05520.010	STAIRS	EA	18		
05520.011	12 FOOT CROSSOVER PLATFORM	SF	420		
05520.012	EMERGENCY STAND ALONE WALKWAYS	LF	114		
09900.003	PENETRATING SEALER	SY	4,000		
13570.001	ALLEGHENY AVENUE STATION INTERLOCKING AND THE ASSOCIATED AUTOMATIC BLOCK SIGNAL SYSTEM	LS	1		
13570.002	NORTH SIDE STATION AUTOMATIC BLOCK SIGNAL SYSTEM	LS	1		
13570.003	MODIFIED GATEWAY INTERLOCKING AND THE ASSOCIATED AUTOMATIC BLOCK SIGNAL SYSTEM	LS	1		
13570.004	MODIFIED WOOD STREET INTERLOCKING	LS	1		

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
13579.001	CONCEPTUAL DESIGN REVIEW	LS	1	1	
13579.002	PRELIMINARY DESIGN REVIEW	LS	1	1	
13579.003	FINAL DESIGN REVIEW	LS	1	1	
13579.004	SOFTWARE DOCUMENTATION AND SUPPORT	LS	1	1	
13582.001	SAFETY AND SYSTEMS ASSURANCE, DESIGN PHASE	LS	1	1	
13582.002	SAFETY AND SYSTEMS ASSURANCE, TEST PHASE	LS	1	1	
13595.001	SIGNAL SYSTEM TEST AND INSPECTION	LS	1	1	
15445.001	TUNNEL MECHANICAL DRAINAGE SYSTEMS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15445.002	SPARE TUNNEL MECHANICAL DRAINAGE EQUIPMENT	LS	1	1	
15446.001	TPSS SUMP PUMPS	LS	1	1	
15884.001	TUNNEL FIRE EXTINGUISHERS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15884.002	TUNNEL FIRE EXTINGUISHER CABINETS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15884.003	SPARE TUNNEL FIRE EXTINGUISHER AND CABINET	LS	1	1	
15885.001	TUNNEL DRY STANDPIPE SYSTEM AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15885.002	SPARE TUNNEL DRY STANDPIPE VALVES	LS	1	1	
15887.001	TUNNEL VENTILATION DAMPERS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15887.002	BALANCING DAMPERS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15887.003	SPARE TUNNEL VENTILATION DAMPERS, BALANCING DAMPERS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15888.001	NOISE ATTENUATORS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15888.002	SPARE NOISE ATTENUATORS	LS	1	1	
15889.001	TUNNEL VENTILATION FANS AND ALL ASSOCIATED EQUIPMENT	LS	1	1	
15889.002	EVASES AND ALL ASSOCIATED EQUIPMENT	LS	1	1	

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
15839.003	SPARE TUNNEL VENTILATION FANS AND ALL ASSOCIATED EQUIPMENT	1	LS	1	
15839.004	HIGH TEMPERATURE TESTING OF TUNNEL VENTILATION FANS AND ALL ASSOCIATED EQUIPMENT	1	LS	1	
15890.001	TUNNEL VENTILATION JET FANS AND ALL ASSOCIATED EQUIPMENT	1	LS	1	
15890.002	SPARE TUNNEL VENTILATION JET FANS AND ALL ASSOCIATED EQUIPMENT	1	LS	1	
15890.003	HIGH TEMPERATURE TESTING OF TUNNEL VENTILATION JET FANS AND ALL ASSOCIATED EQUIPMENT	1	LS	1	
15891.001	MECHANICAL TESTING AND COMMISSIONING FOR TUNNEL SERVICES	1	LS	1	
16060.001	GROUNDING AND BONDING	1	LS	1	
16111.001	1" DIRECT BURIAL CONDUIT	375	LF	375	
16111.003	2" DIRECT BURIAL CONDUIT	375	LF	375	
16111.004	3" DIRECT BURIAL CONDUIT	375	LF	375	
16120.001	LOW VOLTAGE CABLES AND ALL ASSOCIATED EQUIPMENT FOR FIRE/LIFE SAFETY SYSTEMS	1	LS	1	
16120.003	AWG NO 10 DIRECT BURIAL COPPER CABLE, 1 CONDUCTOR	1,170	LF	1,170	
16123.001	MV TRANSFORMER	4	EA	4	
16124.001	25 KV CABLE FROM HANDHOLE TO STATION TRANSFORMER AT GATEWAY STATION	2,000	LF	2,000	
16124.002	25 KV CABLE FROM NORTH SIDE SUBSTATION TO TRANSFORMER AT NORTH SIDE STATION	1,400	LF	1,400	
16125.001	BUS DUCT	160	LF	160	
16135.001	INTRUSION DETECTOR	1	LS	1	
16205.001	GATEWAY TIE-BREAKER STATION	1	LS	1	

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
16205.002	ALLEGHENY CIRCUIT BREAKER ROOM	LS	1	LS	1
16220.001	TRACTION POWER SUBSTATION 27 KV AC SWITCHGEAR	LS	1	LS	1
16221.001	TRACTION POWER SUBSTATION 27 KV INTERRUPTOR SWITCHES	EA	5	EA	5
16230.001	TRACTION POWER SUBSTATION TRANSFORMER - RECTIFIER UNITS	EA	2	EA	2
16235.001	TRACTION POWER SUBSTATION AUXILIARY POWER SYSTEM	LS	1	LS	1
16240.001	TRACTION POWER SUBSTATION METAL-ENCLOSED DC SWITCHGEAR	LS	1	LS	1
16250.001	TRACTION POWER SUBSTATION DRAINAGE AND NEGATIVE RETURN SWITCHBOARD	LS	1	LS	1
16270.001	TRACTION POWER SUBSTATION 125 VDC BATTERY SYSTEM	LS	1	LS	1
16280.001	TRACTION POWER SUBSTATION ENCLOSURE	LS	1	LS	1
16295.001	TRACTION POWER SUBSTATION WIRE AND CABLE	LF	2,100	LF	2,100
16300.001	TRACTION POWER SUBSTATION BUSWAYS	LS	1	LS	1
16310.001	TRACTION POWER SUBSTATION LOCAL ANNUNCIATOR PANEL	LS	1	LS	1
16340.001	MEDIUM VOLTAGE METAL-ENCLOSED LOAD INTERRUPTER SWITCHGEAR	EA	4	EA	4
16360.001	FIELD TESTING OF TRACTION POWER SUBSTATION TESTING	LS	1	LS	1
16360.002	ACCEPTANCE TESTING OF TRACTION POWER SUBSTATION TESTING	EA	2	EA	2
16430.001	LOW VOLTAGE CIRCUIT BREAKER SWITCHGEAR	EA	33	EA	33
16602.001	OCS POLE	EA	1	EA	1
16602.002	OCS PORTAL	EA	51	EA	51
16602.003	OCS CANTILEVER	LF	14,202	LF	14,202
16602.004	OCS WIRING	EA	5	EA	5
16602.005	BALANCE WEIGHT ANCHOR ASSEMBLY	EA	13	EA	13
16602.006	TERMINATION ASSEMBLY				

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
16602.007	DOWN GUY ANCHOR	EA	6		
16602.008	SECTION INSULATOR	EA	15		
16602.009	DISCONNECT SWITCH	EA	13		
16602.010	SURGE ARRESTER	EA	2		
16602.011	TUNNEL SUPPORT	EA	150		
16602.012	HEADSPAN	EA	1		
16602.013	DEAD END BRACKET	EA	10		
16602.014	SIGNAGE	LS	1		
16602.015	OCS GROUNDING	LS	1		
16602.016	OCS ELECTRICAL TESTING, ACCEPTANCE AND REVENUE SUPPORT	LS	1		
16602.017	CONTACT WIRE HEATER SYSTEM	LS	1		
16701.001	FIBER OPTIC OUTSIDE PLANT	LS	1		
16702.001	COPPER OUTSIDE PLANT	LS	1		
16703.001	CARRIER TRANSMISSION SYSTEM	LS	1		
16705.001	COMMUNICATIONS SYSTEM POWER SUPPLY	LS	1		
16721.001	TELEPHONE SYSTEM	LS	1		
16722.001	OPERATIONS AND CONTROL CENTER UPGRADE	LS	1		
16722.002	ALLEGHENY STATION	LS	1		
16722.003	NORTH SIDE STATION	LS	1		
16722.004	GATEWAY STATION	LF	1		
16722.005	RADIATING CABLE 7/8"	LF	10,000		
16722.006	RADIATING CABLE 1-5/8"	LF	10,000		
16741.001	VARIABLE MESSAGE SIGN/PAS SYSTEM	LS	1		
16742.001	SCADA SYSTEM	LS	1		

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
16742.002	ALARM / INDICATION WIRING	LS	1		
16750.001	DIGITAL VIDEO SYSTEM	LS	1		
16889.001	TUNNEL SERVICES ELECTRICAL TESTING AND COMMISSIONING	LS	1		
16891.001	GATEWAY STATION LOW VOLTAGE SWITCHBOARDS AND MOTOR CONTROL CENTERS	LS	1		
16891.002	NORTH SIDE STATION LOW VOLTAGE SWITCHBOARDS AND MOTOR CONTROL CENTERS	LS	1		
16891.003	GATEWAY STATION PLC/RTU SYSTEM FOR TUNNEL SERVICES EQUIPMENT	LS	1		
16891.004	NORTH SIDE STATION PLC/RTU SYSTEM FOR TUNNEL SERVICES EQUIPMENT	LS	1		
16892.001	MCC CONTROL SUPPLY DISTRIBUTION UNINTERRUPTIBLE POWER SUPPLY UNIT	LS	1		
16892.002	TUNNEL CENTRALIZED EMERGENCY LIGHTING SUPPLY UNINTERRUPTIBLE POWER SUPPLY UNIT	LS	1		
16893.001	TUNNEL SERVICES POWER FACTOR CORRECTION	EA	5		
16894.001	RAIL TUNNEL LIGHTING SYSTEM	LS	1		
16894.002	RAIL TUNNEL LIGHTING RECEPTACLES	LS	1		
16895.001	GATEWAY STATION LOW VOLTAGE AC VARIABLE SPEED DRIVE	LS	1		
16895.002	NORTH SIDE STATION LOW VOLTAGE AC VARIABLE SPEED DRIVE	LS	1		
16950.001	OCC SITE SURVEY WORK	LS	1		
16950.002	UPGRADE OF THE OCC SYSTEM	LS	1		

PORT AUTHORITY OF ALLEGHENY COUNTY
NORTH SHORE CONNECTOR
NSC TRAIN SYSTEM (SYSTEM WIDE)
CONTRACT NO. NSC-009

UNIT PRICE SCHEDULE

BID ITEM	DESCRIPTION	UNITS	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
16950.003	UPGRADE OF THE VCS	LS	1		
16950.004	UPGRADE OF THE CCTV VIDEO MANAGEMENT SYSTEM	LS	1		
16950.005	UPGRADE OF THE VMS/PA SYSTEM	LS	1		
16950.006	DESIGN, PROCUREMENT, INSTALLATION, AND TESTING OF ADDITIONAL HARDWARE AND NECESSARY HARDWARE UPGRADES TO OCCS SERVERS	PDA	1	\$370,000.00	\$370,000.00

Total Bid Amount:

The Bidder herewith acknowledges that, in preparation of its Bid, it has not included any costs for the insurance to be provided by Authority under the Owner Controlled Insurance Program.

Alterations and/or changes in any part of this Bid or failure to furnish a complete Bid and all information required for the Bid will be reason for rejection.

**NO BID PRICE WILL BE CONSIDERED UNLESS THE BID
PRICE IS FIRM AND WITHOUT QUALIFICATIONS**

Executed this _____ day of _____, 20____

(Name of Company)

(Telephone Number)

(Mailing Address)

(e-mail Address)

(Fax Number)

(IF A SOLE PROPRIETOR)

If the executing signature is provided by someone other than the Owner, appropriate additional information MUST BE SUBMITTED WITH THE BID to prove that the Owner is bound by the person signing the Bid. (See Section 00200, Article 2.7.D.1 the Bid Documents).

(Name of Company)

(Handwritten Signature of Owner)

(IF A PARTNERSHIP)

If the executing signature is provided by someone other than a General Partner, appropriate additional information MUST BE SUBMITTED WITH THE BID to prove that the partnership is bound by the person signing the Bid. (See Section 00200, Article 2.7.D.2 of the Bid Documents).

(Name of Owner - TYPED)

(Name of Company)

(Handwritten Signature of Owner)

(IF A CORPORATION)

If ANY title is used other than the one listed below, appropriate additional information MUST BE SUBMITTED WITH THE BID to prove that the corporation is bound by the person signing the Bid. (See Section 00200, Article 2.7.D.4 of the Bid Documents).

(Name of General Partner - TYPED)

*President -- Vice President
Secretary -- Assistant Secretary
Treasurer -- Assistant Treasurer*

(Name of Corporation)

(Handwritten Signature)

(Name and Title - TYPED)

(IF A JOINT VENTURE)

If the Bid is not signed by every member of the joint venture, appropriate additional information MUST BE SUBMITTED WITH THE BID to prove that the joint venture is bound by the person(s) signing the Bid.

Each member that signs the Bid must adhere to the signature requirements for sole proprietors, partnerships or corporations as appropriate. (See Section 00200, Article 2.7.D.3 of the Bid Documents).

If there are more than two joint venturers signing the Bid, the additional signatures must be provided on an additional page.

(Name of Joint Venture)

(Name of First Party of Joint Venture)

(Handwritten Signature)

(Name and Title - TYPED)

(Name of Second Party of Joint Venture)

(Handwritten Signature)

(Name and Title - TYPED)

REMINDERS:

THE BID

- Did you fill in the necessary blanks on all of the pages?
- Did you quote Unit Prices where applicable?
- Did you acknowledge receipt of Addenda, if any?
- VERY IMPORTANT! Did you provide an appropriate signature (with title) for execution of the Bid (and include appropriate documentation supporting a claim of authorization to bind the company, if required)? [Refer to Section 00200, Article 2.7.D for specific requirements.]
- Did you complete and submit the "Certification of Bidder Regarding Debarment, Suspension and Other Ineligibility and Voluntary Exclusion (for Bids totaling \$25,000 or less *only*)" form? (You may skip to the "Other Requirements" section, below.)
- Did you complete and submit the "Certification of Bidder Regarding Debarment, Suspension and Other Responsibility Matters (for Bids totaling over \$25,000 *only*)" form?
- Did you complete and submit the "Buy America Certificate (for Bids totaling over \$100,000 *only*)" form?
- Did you complete and submit the "Certification Regarding Lobbying (for Bids totaling over \$100,000) form? And, the "Disclosure of Lobbying Activities" form, *if required*?

OTHER REQUIREMENTS

- Did you return your bid in the pre-addressed envelope supplied by Port Authority and clearly identify the bid number and your company's name on the envelope?

FORM C

CERTIFICATION OF BIDDER
REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS
(for Bids totaling over \$25,000)

(Bidder) _____ certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transaction by any Federal department or agency;
2. Have not within a three year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three year period preceding this bid had one or more public transactions (Federal, State or local) terminated for cause or default.

If the Bidder is unable to certify to any of the statements in this certification, the Bidder shall attach an explanation to this certification.

(Bidder) _____, CERTIFIED OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 ET. SEQ. ARE APPLICABLE THERETO.

Signature and Title of Authorized Official

FORM C

CERTIFICATION OF BIDDER
REGARDING DEBARMENT, SUSPENSION AND OTHER
INELIGIBILITY AND VOLUNTARY EXCLUSION
(for Bids totaling \$25,000 or less)

(Bidder) _____ certifies, by submission of this bid, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible for voluntarily excluded from participation in this transaction by any Federal department or agency.

If the Bidder is unable to certify to any of the statements in this certification, the Bidder shall attach an explanation to this certification.

(Bidder) _____, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 ET. SEQ. ARE APPLICABLE THERETO.

Signature and Title of Authorized Official

FORM D

BUY AMERICA REQUIREMENTS
(For Bids totaling over \$100,000 only)

The Bidder shall complete and sign the appropriate certificate below.

CERTIFICATE OF COMPLIANCE

(Bidder)

hereby certifies that it will comply with the requirements of Section 165(a) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations in 49 C.F.R., Part 661.

Date _____ Signature of Authorized Representative

OR

CERTIFICATE FOR NON-COMPLIANCE

(Bidder)

hereby certifies that it cannot comply with the requirements of Section 165(a) of the Surface Transportation Assistance Act of 1982, as amended, but it may qualify for an exception to the requirement pursuant to Section 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act and regulations in 49 C.F.R., Part 661.7.

Date _____ Signature of Authorized Representative

FORM E

CERTIFICATION REGARDING LOBBYING
(for Bids totaling over \$100,000)

I, _____, hereby certify
(Name and Title of Authorized Official)

on behalf of _____ that:
(Bidder)

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C., Section 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature and Title of Authorized Official

FORM F

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application b. initial award c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Congressional District, if known:	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Congressional District, if known:	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, if applicable: _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI): (attach Continuation Sheet(s) SF-LLL-A, if necessary)	b. Individuals Performing Services (including address if different from No. 10a; last name, first name, MI):	
11. Amount of Payment (check all that apply): \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment (check all that apply): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____	
12. Form of Payment (check all that apply): <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____		
14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11: (attach Continuation Sheet(s) SF-LLL-A, if necessary)		
15. Continuation Sheet(s) SF-LLL-A attached: <input type="checkbox"/> Yes <input type="checkbox"/> No		
16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each failure.	Signature: <hr/> Print Name: <hr/> Title: <hr/> Telephone No.: _____ Date: _____	
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL

FORM F

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or a subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
16. The certifying individual shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

FORM F
DISCLOSURE OF LOBBYING ACTIVITIES
Approved by OMB

0348-0046

CONTINUATION SHEET

Reporting Entity: _____ Page _____ of _____

Authorized for Local Reproduction
Standard Form - LLL-A

FORM GI
PORt AUTHORITY OF ALLEGHENY COUNTY
DISADVANTAGED BUSINESS ENTERPRISE JOINT VENTURE
IDENTIFICATION AFFIDAVIT

(This form need not be filled in if all Joint Venture firms are minority owned.)

1. Name of Joint Venture _____
2. Address of Joint Venture _____
3. Phone number of Joint Venture _____
4. Identify the firms which comprise the Joint Venture. (The DBE partner must be certified by a Pennsylvania Unified Certification Program agency).

- (a) Describe the role of the DBE firm in the Joint Venture.

- (b) Describe very briefly the experience and business qualifications of each non-DBE Joint Venturer:

5. Nature of the Joint Venture's business.

6. Provide a copy of the Joint Venture agreement.

7. Claimed percentage of DBE ownership? _____

8. Ownership of Joint Venture: (This need not be filled in if described in the Joint Venture agreement provided by Question 6.)

(a) Profit and loss sharing _____

(b) Capital-contributions, including equipment _____

(c) Other applicable ownership interests _____

9. Control of and participation in this contract. Identify by name, race, sex and firm those individuals (and their titles) who are responsible for day-to-day management and policy decision making, including, but not limited to those with prime responsibility for:

(a) Financial decisions:

Name _____ Race _____

Sex _____ Title _____

Firm _____

(b) Management decisions, such as:

(1) Estimating:

Name _____ Race _____

Sex _____ Title _____

Firm _____

(2) Marketing and sales:

Name _____ Race _____

Sex _____ Title _____

Firm _____

(3) Hiring and firing of management personnel:

Name _____ Race _____

Sex _____ Title _____

Firm _____

(4) Purchasing of major items or supplies:

Name _____ Race _____

Sex _____ Title _____

Firm _____

(c) Supervision of field operations:

Name _____ Race _____

Sex _____ Title _____

Firm _____

Disadvantaged Business Enterprise Joint Venture shall supply a separate signed page GI-4 for each member firm of the Joint Venture.

AFFIDAVIT:

The undersigned swears that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operation of our Joint Venture and the intended participation by each Joint Venturer in the undertaking. The undersigned Joint Venture agrees to provide to Port Authority current, complete and accurate information regarding actual Joint Venture work and the payment therefore and any proposed changes in any of the Joint Venture arrangements and to permit the audit and examination of the books, records and files of the Joint Venture or those of each Joint Venturer relevant to the Joint Venture, by authorized representatives of Port Authority or the Federal Government. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under federal or state laws concerning false statements.

Further, if after filing this Section and before the completion of the Joint Venture's work on the Project there is any significant change in the information submitted, the Joint Venture agrees to inform Port Authority, either directly or through the prime contractor, if the Joint Venture is a subcontractor.

Name or Joint Venture

Signature of Authorized Representative

Name and Title

Date

On this _____ day of _____, 20____, before me appeared

_____, to me personally known, who, being duly sworn, did
(Name)

execute the foregoing affidavit, and did state that he or she was properly authorized by

_____ to execute the affidavit and did so as his or her free act and deed.
(Name of Firm)

Notary Public

Commission Expires

FORM GII
PORT AUTHORITY OF ALLEGHENY COUNTY
DISADVANTAGED BUSINESS ENTERPRISE
LETTER OF INTENT

CONTRACT NO. NSC-009

TO:

DBE Firm Name
Contact Person
Street Address
City/State/Zip Code
Telephone Number
Fax Number
E-Mail Address

DBE Operating as: (Check appropriate boxes)	
Minority <input checked="" type="checkbox"/>	Individual <input type="checkbox"/>
Female <input checked="" type="checkbox"/>	Partnership <input type="checkbox"/>
	Corporation <input type="checkbox"/>
	Joint Venture <input type="checkbox"/>
DBE Certification Expiration Date: _____ <i>(Attach a copy of the DBE Certification)</i>	

The undersigned representative of the Bidder hereby certifies as to the commitment of the Bidder to enter into an agreement with, and use, the above named DBE firm to perform the following described work in connection with the above identified Contract, conditioned upon Port Authority executing an Agreement with the Bidder for said Contract.

Description of the work to be performed by the DBE Firm (specify in detail items or parts to be performed)	Dollar Amount of Work

It is understood by the Bidder that, pursuant to 49 CFR Part 26.55, any portion of the work subcontracted by the DBE Firm to a non-DBE Firm does not count toward DBE Goals.

<u>Bidder</u>
Bidder Name
Authorized Signature/Date

<u>Confirmation by DBE Firm</u>
DBE Firm Name
Authorized Signature/Date

FORM GIII

PORt AUTHORITY OF ALLEGHENY COUNTY
DISADVANTAGED BUSINESS ENTERPRISE
CERTIFICATE OF COMPLIANCE

CONTRACT NO. NSC-009

The undersigned hereby certifies that the Bidder, as identified below, has complied with the requirements of Section 00200, Article 3.3, Bidder/Contractor Requirements, and has reached a DBE utilization of _____ percent of the Total Bid.

Date

Bidder

Signature of Authorized Representative

FORM GIV

**PORt AUTHORITY OF ALLEGHENY COUNTY
DISADVANTAGED BUSINESS ENTERPRISE
REQUEST FOR WAIVER**

CONTRACT NO. NSC-009

Having diligently and conscientiously attempted to utilize Disadvantaged Business Enterprises in performing the Work, the undersigned hereby certifies that the Bidder, as identified below, was unable to obtain the DBE utilization goal established for this Contract. In accordance with the Contract Documents, the Bidder hereby requests a waiver from the DBE utilization goal to _____ percent.

Consistent with the Contract Documents pertaining to Disadvantaged Business Enterprise utilization, adequate documentation and justification exist and will be made available to Port Authority within three (3) working days after requesting a waiver.

Date

Bidder

Signature of Authorized Representative

FORM GV

POTENTIAL AREAS OF SUBCONTRACTING

NORTH SHORE CONNECTOR
NSC TRAIN SYSTEMS (SYSTEM WIDE)
CONTRACT NO. NSC-009

Demolition - _____

Hauling - _____

Sitework Improvements - _____

Electrical - _____

Scheduling - _____

Training- _____

Others - _____

Bidder _____

Signature _____

Title _____

Phone _____

Date _____

The Bidder shall identify its Potential Areas of Subcontracting above and return this form to PORT AUTHORITY OF ALLEGHENY COUNTY, Purchasing and Materials Management Department, Heinz 57 Center, 345 Sixth Avenue, Third Floor, Pittsburgh, PA 15222-2527 or fax to (412) 566-5359 to the attention of Toni Matessa, Assistant Contract Administrator.

FORM GVI

BIDDER/SUBCONTRACTOR DATA FORM

NORTH SHORE CONNECTOR
NSC TRAIN SYSTEMS (SYSTEM WIDE)
CONTRACT NO. NSC-009

Pursuant to 49 CFR §26.11(c), the following information is being provided by the Bidder for itself and all parties that have indicated an interest to be a Subcontractor to perform the Work:

Bidder Name: _____
Address: _____

Phone Number: _____
DBE Status: Port Authority Certified Yes (_____) No (_____)
Year Business Entity was established: _____
Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____
Address: _____

Phone Number: _____
DBE Status: Port Authority Certified Yes (_____) No (_____)
Year Business Entity was established: _____
Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____
Address: _____

Phone Number: _____
DBE Status: Port Authority Certified Yes (_____) No (_____)
Year Business Entity was established: _____
Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____
Address: _____

Phone Number: _____
DBE Status: Port Authority Certified Yes (_____) No (_____)
Year Business Entity was established: _____
Annual Gross Receipts of the Business Entity: _____

BIDDER/SUBCONTRACTOR DATA FORM (Continued)

(Add additional pages as necessary)

Subcontractor Name: _____

Address: _____

Phone Number: _____

DBE Status: Port Authority Certified Yes () No ()

Year Business Entity was established: _____

Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____

Address: _____

Phone Number: _____

DBE Status: Port Authority Certified Yes () No ()

Year Business Entity was established: _____

Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____

Address: _____

Phone Number: _____

DBE Status: Port Authority Certified Yes () No ()

Year Business Entity was established: _____

Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____

Address: _____

Phone Number: _____

DBE Status: Port Authority Certified Yes () No ()

Year Business Entity was established: _____

Annual Gross Receipts of the Business Entity: _____

Subcontractor Name: _____

Address: _____

Phone Number: _____

DBE Status: Port Authority Certified Yes () No ()

Year Business Entity was established: _____

Annual Gross Receipts of the Business Entity: _____

FORM H

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That _____

_____ (Bidder) as PRINCIPAL,
and _____ as SURETY, are held and firmly bound unto Port Authority of
Allegheny County, hereinafter called Authority, in the penal sum of:

_____ DOLLARS,

(\$ _____) lawful money of the United States, for the payment of which sum well
and truly to be made, we bind ourselves, our heirs, executors, administrators and successors,
jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the PRINCIPAL has
submitted the accompanying Bid dated _____ 20_____, for NORTH SHORE
CONNECTOR NSC TRAIN SYSTEMS (SYSTEM WIDE) CONTRACT NO. NSC-009

NOW, THEREFORE, if the Principal shall not withdraw said Bid within either the
appropriate sixty (60) day or one-hundred twenty (120) day period after said opening, or as
otherwise provided in 73 P.S. Section 1602, and shall within the period specified therefore, or if
no period be specified, within ten (10) days after the prescribed forms are presented to it for
signature, enter into a written Contract with Authority in accordance with the Bid accepted, and
execute and deliver to Authority all bonds and other instruments required to be executed and
delivered by the Principal in accordance with the Bid Documents, or in the event of the
withdrawal of said Bid within the period specified or the failure to enter into said Contract and to
execute and deliver to Authority all bonds and other instruments required to be executed and
delivered by the Principal in accordance with the Bid Documents within the time specified, or if
no time is specified, within ten (10) days after the prescribed forms are presented to it for
signature, if the Principal shall pay Authority the difference between the amount specified in said
Bid and the amount for which Authority may procure the required work, equipment or supplies, if
the latter amount be in excess of the former, together with all other loss, damage or expense

suffered by Authority thereby, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

Said Surety, for value received, hereby stipulates and agrees that the obligations of said Surety under this Bond shall in no way be impaired or affected by an extension of the time within which said bid may be accepted and said Surety does hereby waive notice of any such extension.

Said Surety agrees that its liability hereunder shall be absolute regardless of any liability of the Principal hereunder whether by reason of any irregular or unauthorized execution of or failure to execute this Bond or otherwise.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their several seals this _____ day of _____ 20_____, the name and corporate seal of each corporate party being hereto affixed and duly signed by its authorized representatives, pursuant to authority of its governing body.

IN PRESENCE OF:

PRINCIPAL

(IF SOLE PROPRIETOR):

Witness

Signature of Proprietor

Business Name and Address

(IF A PARTNERSHIP):

Witness

Signature of General Partner

Business Name and Address

(IF A CORPORATION OR JOINT VENTURE):

ATTEST:

Signature of Authorized Representative
(Affix Corporate Seal, If a corporation)

Name and Title

Business Name and Address

SURETY

ATTEST:

Signature of Authorized Representative
(Affix Corporate Seal)

Name and Title

Business Name and Address

FORM I

POR T AUTHORITY OF ALLEGHENY COUNTY

NORTH SHORE CONNECTOR
NSC TRAIN SYSTEMS (SYSTEM WIDE)
CONTRACT NO. NSC-009

AGREEMENT

This Agreement made as of the _____ day of _____ 20_____, by and between PORT AUTHORITY OF ALLEGHENY COUNTY, a body corporate and politic organized and existing under the provisions of the Second Class Port Authority Act, as amended, and having its principal office at 345 Sixth Avenue, Third Floor, Pittsburgh, PA 15222-2527, (hereinafter called "Authority") and (---CONTRACTOR NAME & ADDRESS---) (hereinafter called the "Contractor").

This Agreement is subject to a Financial Assistance Contract between Authority and the United States Department of Transportation.

WITNESSETH, that Authority and the Contractor, for the consideration hereinafter named, and intending to be legally bound, agree as follows:

ARTICLE I – DEFINITION OF TERMS

Whenever terms or abbreviations are used in this Agreement, they shall have the meaning set forth herein. Otherwise they shall have the meaning set forth in the Bid Documents for NORTH SHORE CONNECTOR, NSC TRAIN SYSTEMS (SYSTEM WIDE), Contract No. NSC-009.

ARTICLE II - SCOPE OF WORK

The Contractor agrees to furnish all materials, equipment, transportation, labor and supervision and perform all labor and services necessary and incidental for the proper, timely and satisfactory completion of the Work as set forth, and provided for, in the Contract Documents and to do all other acts and tasks required by the Contract Documents.

ARTICLE III - THE CONTRACT SUM

In consideration of the Contractor's proper, timely and satisfactory completion of the Work, and the performance of all acts and tasks required by the Contract Documents, Authority agrees to pay to the Contractor and the Contractor agrees to accept from Authority, as full payment for the Work and as a complete discharge of Authority's liability to make payment to the Contractor for the Contractor's performance of the Work and this Agreement, the sum of:

(\$ _____), (hereinafter referred to as the "Contract Sum"), subject to additions and deductions as provided in the Contract Documents.

ARTICLE IV - CONTRACT DOCUMENTS

In the event that any provision of the Contract Documents conflicts with another provision of the Contract Documents, the provision in that Contract Document first listed below shall govern, except as otherwise specifically stated:

- A. The executed Agreement and any Change Orders thereto
- B. Addenda to Bid Documents
- C. Technical Provisions
- D. Contract Drawings
- E. Terms and Conditions
- F. Bonds
 - 1. Performance Bond
 - 2. Labor and Materialman's Bond
 - 3. Bid Guaranty
- G. Form of Bid
- H. Other Documents

ARTICLE V - ACCEPTANCE OF FINAL PAYMENT CONSTITUTES RELEASE

The acceptance by the Contractor of final payment shall be, and shall operate as, a release to Authority of all claims of, and liability to, the Contractor for the Work or arising under this Agreement and for every act, omission or neglect of Authority, the Engineer or other person relating to or arising out of the Work. No payment, however, final or otherwise, shall operate to release the Contractor or its Sureties from any obligations under this Agreement, shall be evidence of the proper performance of the Agreement, in whole or in part, by the Contractor or shall be construed to be acceptance by Authority of defective or improper work, materials or equipment or the failure by the Contractor to comply with the requirements of the Contract Documents.

ARTICLE VI - APPROVAL AND CONCURRENCE BY DOT

This Agreement may be subject to prior written approval and concurrence of the Federal Transit Administration, United States Department of Transportation and others.

ARTICLE VII - SUCCESSORS AND ASSIGNS

This Agreement and all of the covenants hereof shall inure to the benefit of and be binding upon Authority and the Contractor respectively and their successors, assigns and legal representatives.

ARTICLE VIII - GOVERNING LAW

This Agreement and the other Contract Documents shall be interpreted, endorsed and governed in accordance with the laws of the Commonwealth of Pennsylvania, excluding its Choice of Law Provisions.

ARTICLE IX – ENTIRE AGREEMENT

This Agreement and the other Contract Documents set forth the entire Agreement between the parties with respect to the subject matter thereof, and they supercede all prior or contemporaneous discussions, agreements, and understandings, both written and oral, among the parties with respect thereto.

IN WITNESS WHEREOF, the above bounden parties have executed this Agreement as of the day and year first above written, the name and corporate seal of each corporate party being

hereto affixed and duly signed by its authorized representatives, pursuant to authority of its governing body.

IN PRESENCE OF:

ATTEST: PORT AUTHORITY OF ALLEGHENY COUNTY

(Seal) Signature of Authorized Representative

(IF SOLE PROPRIETOR):

Witness Signature of Proprietor

Business Name and Address

(IF A PARTNERSHIP):

Witness Signature of General Partner

Business Name and Address

(IF A CORPORATION OR JOINT VENTURE):

ATTEST:

Signature of Authorized Representative
(Affix Corporate Seal, if a Corporation)

(Seal) Name and Title

Business Name and Address

FORM J

WAIVER OF RIGHT TO FILE MECHANIC'S LIEN

On the _____ day of _____, 20____, PORT AUTHORITY OF ALLEGHENY COUNTY ("Owner"), of the County of Allegheny and Commonwealth of Pennsylvania, and _____ ("Contractor"), entered into a written Contract by which the Contractor agreed to perform the services of Contract No. NSC-009 (the "Contract") for the Owner in the following Ward(s): 1st, 2nd, 21st and 22nd of the City of Pittsburgh as indicated on the attached site plan consisting of all construction work described as NORTH SHORE CONNECTOR, NSC TRAIN SYSTEMS (SYSYEM WIDE), Contract No. NSC-009, which work is for a public purpose, (the "Improvements") located within the Central Business District and North Shore of the City of Pittsburgh in the County of Allegheny and Commonwealth of Pennsylvania (the "Property"), and pursuant to the Contract and for good and valuable consideration including, but not limited to, for payment(s) made and/or to be made by the Owner to the Contractor for the work, services, materials and/or equipment provided pursuant to the Contract, and as a bond guaranteeing payment for labor and materials for the work for the Contract has and/or will be posted by the Contractor, the Owner and Contractor agree as follows:

1. The Contractor, for itself and anyone else acting or claiming through or under the Contractor, including, but not limited to all subcontractors, suppliers, materialmen and laborers, for and in consideration of the Contract and payments made and/or to be made thereunder, and intending to be legally bound hereby, and to the fullest extent permitted by law, does hereby waive and relinquish all right to file a mechanic's lien, claim or notice of intention to file any lien or claim, and does hereby covenant, promise and agree that no mechanic's lien or claim or other lien or claim of any kind whatsoever shall be filed or maintained, against the Improvements or the estate or title of the Owner of the Property or the curtilage or curtilages appurtenant thereto, by or in the name of the Contractor or

any subcontractor, supplier, materialmen or laborers for work done, labor performed or materials furnished under the Contract or by any other party acting through or under them or any of them for and about the Improvements or the Property. The Contractor does hereby further covenant, promise and agree that, to the fullest extent permitted by law, any and all subcontractors, suppliers, materialmen and laborers on or for the work performed pursuant to or for the Contract shall look to and hold the Contractor personally liable for all subcontracts, materials furnished and work and labor performed, so that there shall not be any legal or lawful claims of any kind whatsoever against the Owner for any work done or labor or materials furnished under or for the Contract for and about the erection, construction or completion of the Improvements, supplemental thereto, or otherwise.

2. This Agreement waiving the right of lien shall be an independent covenant and shall operate and be effective as well with respect to work done, labor performed and/or material furnished under any supplemental contract for extra work in the erection, construction and completion of the Improvements and also, as any work and labor done and materials furnished under the Contract.
3. In the event the Contractor consists of more than one person, firm or corporation, the undertaking hereunder of each such persons, firms or corporations shall be joint and several, and the word "Contractor" shall mean all or some or any of them. For purposes of this Agreement, the singular shall be deemed to include the plural, and the neuter shall be deemed to include the masculine and feminine, as the context may require.

4. The Owner and the Contractor hereby covenant and agree that if any term, covenant or condition of this Waiver shall be held to be invalid, illegal, against public policy, unlawful or void in any respect, this Agreement shall be construed without such provision.
5. This Agreement is executed by the Owner and the Contractor with the intention that it be filed with the Prothonotary of the Court of Common Pleas of Allegheny County within ten (10) days of the execution hereof, in accordance with 49 P.S. §1402.

IN WITNESS WHEREOF, we have this _____ day of _____, 20____,
affixed hereto our hands and seals.

ATTEST: PORT AUTHORITY OF ALLEGHENY COUNTY

(Seal)

Signature of Authorized Representative

ATTEST:

Contractor

(Seal)

Signature of Authorized Representative

Section 00500 – Agreement

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ARTICLE 1 – AWARD AND EXECUTION OF CONTRACT

1.1 Award of Contract

- A. Authority, in its sole discretion, reserves the right to reject any and all Bids and to waive informalities and minor irregularities in any Bid, other provisions in the Contract Documents notwithstanding.
- B. For contracts which contain a Unit Price Schedule, Bids will be compared on the basis of the total amount bid for the Work as determined by the sum of all the lump sum bid prices and the sum of the estimated quantities multiplied by the unit bid prices. For contracts which do not contain a Unit Price Schedule, if there is a discrepancy between the written amount and the numerical amount for the Total Bid, the written amount will control.
- C. The Contract, if it is awarded, will be awarded to the responsible Bidder who submits the lowest responsive Bid. Any such Award will be made within sixty (60) days after the opening of Bids, provided, however, the period of Award herein specified may be extended to one hundred twenty (120) days, in accordance with 62 PA C.S.A. §3911 of the Commonwealth Procurement Code. If necessary, thirty (30) day extensions of the date for the Award may be made by mutual written consent of Authority and the lowest responsible Bidder or Bidders concerned.

1.2 Cancellation of Award

- A. Authority reserves the right to cancel the Award of any Contract before execution of all Contract Forms when Authority deems such cancellation to be in its best interests. In no event shall Authority or the Engineer be liable, in any way, for the cancellation of the Award or any expenses, costs, attorney's fees, lost profits or damages resulting therefrom. The Bidder assumes sole risk and responsibility for any expenses or costs incurred by it prior to the execution of all Contract Forms and shall not commence the Work until receipt of the Notice to Proceed.

1.3 Execution of Contract

- A. Within ten (10) days of receipt of the Notice of Award, the Bidder to whom the Contract is awarded shall deliver the following executed forms to Authority: Agreement; Waiver of Right to File Mechanic's Lien; Performance Bond; Labor and Materialman's Bond; and proofs of insurance. Authority will execute all copies of the Agreement and Waiver of Right to File Mechanic's Lien and will give one original of all executed forms to the Contractor. The Waiver of Right to File Mechanic's Lien will be recorded in the Prothonotary's Office in Allegheny County, Pennsylvania by Authority, and shall be binding upon the Contractor, all Subcontractors, all Suppliers and any other persons furnishing labor or materials, including equipment, to the Contractor for the Work.

1.4 Failure To Execute Contract

- A. Failure of a Bidder to whom the Contract is awarded to execute the Contract, to file bonds or to file proofs of insurance, as required herein, shall be just cause for the cancellation of the Award and the forfeiture of such Bidder's Bid Guaranty.
- B. Further, to the extent the defaulting Bidder's Bid Guaranty is inadequate to fully compensate Authority for all costs, expenses and damages arising from

the default of the Bidder, then the Bidder shall reimburse Authority the difference between the Bid Guaranty and Authority's total costs, expenses, including attorney's fees, and damages.

1.5 Return of Bid Guaranty

- A. Within ten (10) days after issuance of the Notice of Award of the Contract to the lowest responsible Bidder, Authority will return the Bid Guarantees, other than the Bid Bonds and those which have been forfeited, to those Bidders whose Bids will not be considered further in making the Award. Retained Bid Guarantees will be held until the Contract has been executed, after which time all Bid Guarantees which have not been forfeited will be returned.

1.6 Notice To Proceed

- A. A written Notice to Proceed will be delivered to the Contractor as soon as practicable after execution of the Contract and the Waiver of Right to File Mechanic's Lien, and approval of any bonds and insurance certificates or policies, by Authority. The Contractor shall commence work within fourteen (14) days after receiving the Notice to Proceed and shall thereafter diligently prosecute the Work to completion.

1.7 Assignment

- A. Neither the Contract, nor any part thereof, may be assigned, sold, transferred or disposed of in any manner, except upon the written consent by Authority. The performance of the Contract may not be assigned, sold, transferred or disposed of in any manner, except upon the written consent by Authority.
- B. Monies owed, or which become owed, to the Contractor under the Contract may only be assigned to a bank, trust company, or other financing institution, including any federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Written notice of such an assignment or reassignment must be provided, however, to Authority by certified mail within ten (10) days of the assignment or reassignment. Any such assignment or reassignment shall cover all amounts payable under the Contract but not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing.

1.8 Officials Not To Benefit

- A. No member of or delegate to the Congress of the United States shall be given any share or part of the Contract or any benefit arising therefrom.
- B. No member, officer, or employee of Authority or of a local public body during his or her tenure or for one year thereafter shall have any interest, direct or indirect, in the Contract or the proceeds thereof.

1.9 Gratuities

- A. Authority may, by written notice to the Contractor, terminate the right of the Contractor to proceed under the Contract if Authority finds, after notice and hearing, that gratuities (in the form of cash, entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any director, officer, agent or employee of Authority with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performance of, the Contract. Such a decision by Authority to terminate

the right of the Contractor to proceed under the Contract shall be a full and final decision and shall be binding upon the Contractor.

- B. In the event the Contract is terminated as provided in Article 1.9.A above, Authority shall be entitled to:
 - 1. Pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor; and
 - 2. As a penalty in addition to any other damages to which it may be entitled by law, exemplary damages in an amount (as determined by Authority) which shall not be less than three nor more than ten times the costs incurred by the Contractor in providing any such gratuities to any such director, officer, agent or employee.
- C. The rights and remedies of Authority, as set forth in this Article 1.9, shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

1.10 Agent To Accept Service

- A. The Contractor shall maintain, within the County of Allegheny, Pennsylvania, an agent to accept, on its behalf, notice or service of any legal process, and shall keep Authority advised of such agent's name and address, during the Work and for a period of four (4) years after the date of the Certificate of Acceptance of Final Inspection. The Contractor shall identify in writing, to the Engineer, the name of said agent within fourteen (14) days of the Notice of Award and shall confirm the identity of said agent prior to final payment.

1.11 Access, Retention And Inspection Of Documents

- A. The Contractor shall maintain all books, records, accounts and reports required under this Contract during the performance of the Work and for a period of not less than four (4) years after the date of the issuance of the Certificate of Acceptance of Final Inspection or the termination of this Contract, except in the event of litigation or settlement of claims regarding or arising from the performance of this Contract, or the Work, in which case the Contractor shall maintain all such documents until Authority, FTA, the Comptroller General, the Commonwealth of Pennsylvania, the County of Allegheny, or any of their duly authorized representatives, have disposed of all such litigation, or settlement of claims have been fully completed and all appeals or exceptions exhausted. Furthermore, after termination of this period, the Contractor shall not destroy any such documents without first offering them, free of charge, to Authority.
- B. During the above referenced period, the Contractor shall provide Authority, FTA, the Comptroller General of the United States, the Commonwealth of Pennsylvania, the County of Allegheny, or any of their authorized representatives access to any books, documents, papers and records of the Contractor which pertain or relate to this Contract or the Work for the purposes of making audits, examinations, excerpts, transcripts, reproductions or copies. The Contractor also agrees, pursuant to 49 CFR Part 633.17, to provide FTA or its authorized representatives, including any Project Management Oversight contractor, access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving Federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

- C. The Contractor shall permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

1.12 Program Fraud

- A. The applicable provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 *et seq.* and U.S. DOT regulations, "Program Fraud Civil Remedies", 49 CFR Part 31, shall apply to the Contract. By executing the Contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the Contract. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Government deems appropriate.
- B. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under the Contract, the Federal Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307 (n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

1.13 Designation Of Subcontractors

- A. Within fourteen (14) days after the Notice of Award, or anytime thereafter within fourteen (14) days after the award of a subcontract, the Contractor shall deliver to the Engineer a statement setting forth the name and address of each Subcontractor and a summary description of the portion of the Work subcontracted. The Contractor shall furnish a Bidder Certification form signed by each Subcontractor and a statement signed by each Subcontractor acknowledging the specific inclusion in its subcontract of the provisions required by the Contract Documents as set forth below.
- B. The provisions required by the Contract Documents which shall be included in each subcontract, at any tier, include but are not limited to the following:
1. Section 00200, Article 2.4, Bidders Certification;
 2. Section 00200, Article 2.15, Federal, State and Local Taxes;
 3. Section 00200, Article 3, Disadvantaged Business Enterprise Utilization Requirements;
 4. Section 00500, Article 1.8, Officials Not to Benefit;
 5. Section 00500, Article 1.9, Gratuities;
 6. Section 00500, Article 1.11, Access, Retention and Inspection of Documents;
 7. Section 00500, Article 1.12, Program Fraud;
 8. Section 00500, Article 1.13, Designation of Subcontractors;
 9. Section 00500, Article 2.2.B.13, Project Schedule Certification;
 10. Section 00500, Article 4, Termination for Default;
 11. Section 00500, Article 5, Termination for Convenience of Authority;

12. Section 00700, Article 13.1, Safety and First Aid Requirements;
 13. Section 00700, Article 14, Drug and Alcohol;
 14. Section 00700, Article 18, Laws to be Observed;
 15. Section 00700, Article 25, Affirmation Action Requirements – Equal Employment Opportunity;
 16. Section 00700, Article 26, Non-Discrimination / Equal Opportunity Clause;
 17. Section 00700, Article 28, FTA Labor Provisions;
 18. Section 00700, Article 29, Patents;
 19. Section 00700, Article 30, Technical Data and Copyrighted Materials;
 20. Section 00700, Article 31, Americans with Disabilities Act;
 21. Section 00700, Article 32, Security Sensitive Work Requirements;
 22. Section 00900, Article 3.15, Government Not Party to Contract;
 23. Section 01400, Article 2.7, Steel Products Procurement Act;
 24. Section 01400, Article 2.8, United States Flag Commercial Vessels; and
 25. Section 01400, Article 2.9, International Air Transportation.
- C. If the amount of the subcontract exceeds \$100,000.00, the Contractor shall also submit:
1. A Certificate Regarding Lobbying, and a Disclosure Form to Report Lobbying if required, signed by each such Subcontractor; and
 2. A statement signed by each Subcontractor acknowledging the specific inclusion in its subcontract of the following Articles:
 - a) Section 00200, Article 2.13, Buy American Requirements;
 - b) Section 01500, Article 1.6.A, Water Pollution Control; and
 - c) Section 01500, Article 1.6.B, Air Pollution Control.

1.14 Subcontractors/Suppliers

- A. Nothing contained in the Contract shall create, or be construed as creating, any contractual relationship between any Subcontractor or any Supplier and Authority.
- B. The titles, structure and format of the Contract Documents are not intended to control the Contractor in dividing the Work among Subcontractors or to limit any portion of the Work performed by any trade.
- C. The Contractor shall be responsible to and shall indemnify Authority for all acts and omissions of Contractor's employees and agents, and for all acts and omissions of any Subcontractors and Suppliers and their employees or agents. The Contractor shall also be responsible for the coordination of the work of all the trades, Subcontractors and Suppliers.
- D. When a portion of the Work which has been subcontracted by the Contractor is not prosecuted in accordance with the Contract Documents, the

Subcontractor shall be immediately replaced upon request of, and at no cost to, Authority and shall not again be employed on the Work.

- E. Neither Authority nor the Engineer shall be responsible for settling any differences between the Contractor and its Subcontractors or Suppliers.

1.15 Work To Be Performed By Contractor

- A. The Contractor shall perform with its own forces work amounting to at least fifty percent (50%) of the Contract Sum, which amount shall not include items that may be designated as "Specialty Items" within this Article 1.15. Where an entire Contract Item is subcontracted, the value of the work subcontracted shall be based on the Contract Item price. Where a portion of a Contract Item is subcontracted, the value of the work subcontracted shall be based on the estimated cost of such portion of the Contract Item, determined from information submitted by the Contractor, subject to review and approval of the Engineer.
- B. Specialty Items for this Contract are as follows:
1. Work in accordance with Section 16950, "Operation Control Center (OCC) System Upgrade."

1.16 Escrow Bid Preparation Documents

- A. Subsequent to the opening of the Bids, but prior to award, if any, of the Contract, the apparent lowest responsive, responsible Bidder shall, within three (3) working days after being requested to do so by Authority, deliver to Authority one (1) complete set of all documents and material utilized by the Bidder to prepare and estimate its Bid(s). The documents and materials to be submitted shall include, but not limited to, the following:
1. Detailed labor, equipment and material cost estimating;
 2. Equipment rate costs;
 3. Labor rate formulation;
 4. Material quotes;
 5. Productivity analysis;
 6. Equipment and plant depreciation;
 7. Price and overhead/profit distribution;
 8. Overhead and profit estimates;
 9. Plant estimates;
 10. Subcontractor and Supplier quotes;
 11. Geological and geotechnical reports, logs, charts, profiles, test results, data and any other information used to prepare the Bid;
 12. Any pre-bid investigation performed by the Bidder;
 13. Reports, analysis, and information on any preliminary design;
 14. Notes and any other documentation that shows how the Bid was prepared;
 15. All work sheets, quotations, calculations, pricing data, estimates, take-offs and correspondence relating to the Bid; and
 16. All schedules prepared or utilized in preparing the Bid.
- B. Failure of the Bidder to submit all the documents and material set forth in Article 1.16.A above to Authority within said time requirement will be just cause for Authority to declare the Bidder to be non-responsible and for Authority not to award the Contract to the Bidder. Upon receipt of said documents and material from the Bidder, Authority will store, and shall be

permitted to use, the documents and material (the "Escrowed Bid Preparation Documents") as set forth below.

- C. The Bidder does not need to submit originals of the Escrowed Bid Preparation Documents but can submit copies, provided that color copies are submitted for those documents where a color copy is needed to understand the document or where colors are used to describe information.
- D. The Bidder shall inventory the Escrowed Bid Preparation Documents prior to their delivery to Authority and shall include a consolidated listing of the inventory as part of the Bidder's submittal. The complete set of the Escrowed Bid Preparation Documents shall be delivered in a box or series of boxes which shall also be properly inventoried and labeled. A representative of Authority and the Bidder shall review and confirm the accuracy of the consolidated listing through a joint review of the delivered materials, which list shall be thereafter executed by the Bidder and Authority. Thereafter, the Bidder and Authority shall jointly place the Escrowed Bid Preparation Documents in a sealed container(s). Authority will then deliver the Escrowed Bid Preparation Documents to a third party, who shall be selected by Authority, for secure and proper storage. The cost and expense of storage of the Escrow Bid Preparation Documents shall be borne by Authority.
- E.
 - 1. Authority, its counsel and its authorized representative(s) may review the Escrowed Bid Preparation Documents, as necessary, to negotiate, resolve, prosecute or defend any claim or dispute (as set forth in Section 00900, Article 3), arbitration, action or court proceeding for, arising under or relating to the Contract. Authority will provide to the Contractor prior written notice if it intends to review the Escrowed Bid Preparation Documents and also, upon request, will provide a copy of the Escrowed Bid Preparation Documents provided by the Contractor to the Contractor.
 - 2. The Escrowed Bid Preparation Documents will not, however, be released to a third party without the written consent of the Contractor, except Authority may do so, at its discretion and after Authority has provided written notice to the Contractor, that Authority plans to use the Escrowed Bid Preparation Documents for a particular arbitration, action or court proceeding for, arising under or relating to the Contract.
 - 3. Except as set forth above or upon order of court, Authority will seek to protect the Escrowed Bid Preparation Documents from disclosure to third parties to the extent permitted by law.
- F. The Escrowed Bid Preparation Documents will be retained and stored by Authority until final payment is made for the Contract or until all claims, disputes, arbitration and court proceedings for, arising under and relating to the Contract have been fully resolved, including any applicable appeal, whichever is later. Thereafter the Escrowed Bid Preparation Documents will be returned to the Bidder.

ARTICLE 2 – SCHEDULING REQUIREMENTS

2.1 Conditions Affecting The Work

- A. The Contractor shall follow the sequence of operations set forth in the Contract Documents.

- B. The Contractor shall keep the Engineer informed of the Contractor's planned work shifts at all times. The Contractor shall inform the Engineer at least forty-eight (48) hours prior to any changes in the planned work shifts including, but not limited to, increasing the work shifts or scheduling multiple shifts, overtime, or weekend activities.
- C. The Contractor's attention is directed to the fact that its Work may be performed above, adjacent to and within the area of transit operations. Refer to Section 00700, Article 13.14 for procedures to be followed for work to be performed adjacent to or on track or busway facilities. The Contractor shall ensure that Authority's operations within the Worksite and entering and exiting the Worksite are not stopped, rerouted, interrupted, delayed or otherwise disrupted. The Contractor shall ensure that there is no interruption or delay of transit service including LRT, bus, small transit vehicles and other authorized users of the transit facilities as well as maintenance and operation support vehicles at the Worksite except as specifically indicated in the Contract Documents. All instructions for Authority vehicle operations are to be given to Authority's operators and drivers by Authority's Operations Supervisors. The Contractor is not permitted to direct the actions of Authority's operators or drivers.
 - 1. Liquidated Damages for Contractor unapproved disruptions to Authority Operations are described in Article 2.8 of this Section.
- D. The Contractor shall notify affected authorities, agencies, businesses and residents by letter thirty (30) days prior to the start of construction and at least 72 hours in advance of the interruption of utility service or the interruption of access. The Contractor shall submit a copy of the proposed notice to the Engineer for review and approval prior to issuing such notice. The Contractor shall provide a copy of each notice to the Engineer.
- E. Electrical power to all public facility and street lighting must be maintained at all times during construction. In areas where electrical lines are removed during construction, the Contractor shall provide temporary power connections to all lights to remain in service.
- F. Some utility companies have seasonal and weather restrictions as to when service disruptions can occur due to demand and safety concerns. The Contractor shall coordinate with each utility company to determine exact restrictions as part of scheduling its Work. The following list includes, but is not limited to, known seasonal restrictions:
 - 1) Gas is restricted in extreme cold weather;
 - 2) Steam is restricted in extreme cold weather;
 - 3) Electric is restricted in extremely hot weather;
 - 4) Electric is restricted during rain or snow;
 - 5) Telecommunications is restricted during high usage periods such as holidays
- G. Access to all commercial establishments (parking lots and garages) located adjacent to the work areas along Stanwix Street, Fort Duquesne Boulevard, Penn Avenue, Liberty Avenue, Forbes Avenue, Mazeroski Way, West General Robinson Street, Reedsdale Street and Allegheny Avenue, Tony Dorsett Drive, Sroat Way shall be maintained during performance of the Work.

- H. The Contractor shall coordinate any roadway closures, restrictions, or detours associated with its Work with the appropriate agencies and local jurisdictions as follows:
- 1) All locations will be coordinated with the C/P and Authority.
 - 2) Impacts affecting the following locations will also be coordinated with PENNDOT: Stanwix Street, Liberty Avenue, Penn Avenue, and Ft. Duquesne Boulevard.
- I. Authority anticipates that the following portions of Work will be available no sooner than the "Early Date of Availability" and no later than the "Late Date of Availability" as set forth in Table 00500-1. Until released by the Engineer in writing, the Contractor shall restrict its construction to the area outside the indicated areas described in Table 00500-1.

Table 00500-1

Description	Station to Station Track Alignment	Early Date of Availability	Late Date of Availability
NSC-003 Left Bored Tunnel and Left Half of Cut and Cover Tunnel	Sta. L 6014+50 (Receiving Pit headwall) to Sta. L 6039+55 (Interface with NSC-006)	269 calendar days from NTP	330 calendar days from NTP
NSC-003 Right Bored Tunnel and Right Half of Cut and Cover Tunnel	Sta. R 6014+50 (Receiving Pit Headwall) to Sta. L 6039+55 (Interface with NSC-006)	386 calendar days from NTP	447 calendar days from NTP
NSC-006 Cut and Cover Tunnel and Station Shell, Laydown Area No. 2, Traction Power Substation Site, and Station Power Feeder Duct Banks. Station Shell availability excludes Ancillary Rooms	Sta. L 6039+55 (Interface with NSC-003) to Sta. L 6051+94 (Interface with NSC-007)	186 calendar days from NTP	247 calendar days from NTP
NSC-004 R Gateway Station Shell, excluding Station Shell and Existing Gateway Loop new Ancillary Rooms, Receiving Pit Cut and Cover Tunnel and Station Shell, and Penn Ave. Emergency Egress	Sta. R 6010+16 to Sta. R 6014+00 (Interface with Receiving Pit South Wall)	655 calendar days from NTP	716 calendar days from NTP
NSC-004 R Gateway Station Shell within the Receiving Pit and Penn Ave. Emergency Egress.	Receiving Pit (Sta. R1014+00 to Sta. R1014+46 and Sta. L6014+03 to Sta. L6014+50)	800 calendar days from NTP	830 calendar days from NTP

NSC-007 Aerial Structure Retained fill to Pier 3 and Laydown Area no. 1	Sta. R 6051+94 (interface with NSC- 006) to Sta. R 6074+47	331 calendar days from NTP	392 calendar days from NTP
NSC-007 Aerial Structure Pier 3 to Pier 14	Sta. R 6074+47 to Sta. R 6079+73	483 calendar days from NTP	544 calendar days from NTP
NSC-010/011/012 North Shore Station Finishes Gateway Station (NSC-010) New Ancillary Rooms located within Existing Gateway Loop and New Gateway Station	Sta. 1004+50 to Sta. 1009+00 (Stage I Stationing within Existing Loop) and Sta. L 6010+00 to Sta. L 6011+75 (New Gateway Station Ancillary Rooms)	717 calendar days from NTP	747 calendar days from NTP
NSC-010/011/012 North Shore Station Finishes Gateway Station (NSC-010) Facilities Including Elevators and Escalators	Sta. R 6010+16 to Sta. 6014+50	830 calendar days from NTP	860 calendar days from NTP
NSC-010/011/012 North Shore Station Finishes North Side Station (NSC-011) Ancillary Rooms	Sta. R 6040+00 to Sta. R 6044+03	405 calendar days from NTP	466 calendar days from NTP
NSC-010/011/012 North Shore Station Finishes North Side Station (NSC-011) including Elevators and Escalators, Station Concourse, and Headhouses	Sta. R 6040+00 to Sta. R 6044+03	705 calendar days from NTP	766 calendar days from NTP
NSC-010/011/012 North Shore Station Finishes Allegheny Station (NSC-012) Ancillary Rooms and Station Power	Sta. L 6082+60 to Sta. L 6083+92 (Allegheny Station Building Area)	681 calendar days from NTP	742 calendar days from NTP
NSC-010/011/012 North Shore Station Finishes Allegheny Station (NSC-012) including Elevators and Escalators	Sta. L 6080+64 to Sta. L 6083+92 (Allegheny Station Building and Platform Areas)	803 calendar days from NTP	834 calendar days from NTP
Existing Stage I Tunnel from Wood Street Station to Gateway Station and Loop	R 1025+81 (Wood Street Station) to Existing Gateway Loop	83 calendar days from NTP	113 calendar days from NTP
Wood Street #6 Direct Fixation Double Crossover and switch machine materials. (Contract #3002)	R 1025+06 to R 1025+81 (Stage I Tunnel Between Wood Street and Steel Plaza Stations)	83 calendar days from NTP	113 calendar days from NTP

- J. Authority anticipates that the following portions of work described in Section 01787, "Transfer of Temporary Facilities." will be available to the Contractor no sooner than the "Early Date of Availability" and no later than the "Late Date of Availability" as set forth in Table 00500-2. Until released by the Engineer in writing, the Contractor shall coordinate its work within these areas with the adjacent contractors in accordance with the requirements of the Contract Documents. Coordination shall occur through the Engineer.

Table 00500-2

Description	Station to Station Track Alignment	Early Date of Availability	Late Date of Availability
NSC-003 Left Bored Tunnel and Left Half of the Cut and Cover Tunnel and Station Shell Temporary Facilities	Sta. L 6014+50 (Receiving Pit Headwall) to Sta. L 6039+55 (Interface with NSC-006)	269 calendar days from NTP	330 calendar days from NTP
NSC-003 Right Bored Tunnel and Right Half of the Cut and Cover Tunnel and Station Shell Temporary Facilities	Sta. L 6014+50 (Receiving Pit Headwall) to Sta. L 6039+55 (interface with NSC-006)	386 calendar days from NTP	447 calendar days from NTP
NSC-006 Cut and Cover Tunnel and Station Shell Temporary Facilities	Sta. L 6039+55 (Interface with NSC-003) to Sta. L 6051+94 (Interface with NSC-007)	186 calendar days from NTP	247 calendar days from NTP
NSC-004 R Cut and Cover Tunnel and Station Shell Temporary Facilities	Sta. R 6010+16 to Sta. R 6014+00 (excludes Receiving Pit)	800 calendar days from NTP	830 calendar days from NTP
NSC-007 Temporary Facilities	Sta. L 6051+94 (Interface with NSC-006) to Sta. L 6072+10 (Art Rooney Avenue located within Parking Lot No. 1)	331 calendar days from NTP	392 calendar days from NTP

- K. If any of the referenced parcels, easements, or portions of work become available sooner than the Early Date of Availability set forth above, the Engineer will, as appropriate and at the sole discretion of Authority, release said parcel, easement, or portions of work and so advise the Contractor in writing.
- L. During the performance of the work associated with the installation of the Wood Street Double Crossover and portions of the existing Gateway Station Loop Demolition, weekend shutdowns of Authority Revenue Service will be required. In addition, additional shutdowns, may be necessary. All shutdowns shall be requested by the Contractor to perform the Work. If a weekend shutdown is approved by the Engineer and Authority, the shutdown shall occur between the hours of 1:30 a.m., Saturday and 4:30 a.m. Monday

morning. If a weekday (Monday thru Friday) shutdown is requested and approved, the shutdown shall occur between the hours of 1:30 am and 4:30 am of the day requested. The Contractor shall account for all time and perform all procedures and testing required by Authority to reopen the LRT operations within the time allotted for the shutdown. All shutdowns must be coordinated far in advance of the actual shutdown date through the Engineer.

- M. Contractor can propose changes to the sequencing of work items as long as the Authority's Gateway Revenue operations and adjacent contractors sequence of work is not altered. Deviations to the suggested sequence of construction shall be submitted with sufficient supporting detail including plans, details, and schedules to allow the Engineer to provide a comprehensive review of the proposal. All modifications will be reviewed to determine their compliance with the governing criteria and Contract requirements. No changes to the sequence of construction shall be performed until approved in writing by the Engineer.
- N. Contract NSC-003/006 North Side Tunnels and Station Shell, NSC-004 R Gateway Station Shell, NSC-007 Aerial Structure, Retained Fill, Demolition of Miller Printing and Contract #3002 Advanced Rail System Procurement – Gateway Double Crossover are under construction and as a result certain changes to the NSC-003/006, NSC-004 R, NSC-007 and Contract #3002 Contract Documents have occurred. Known changes include, but are not limited to, utilities, temporary facilities, support of excavation, maintenance and protection of traffic and detours and double crossover. The Contractor shall coordinate with the NSC-003/006, NSC-004 R, NSC-007 and Contract #3002 contractors and the Engineer to obtain current information before Contractor begins its work which could be affected by the NSC-003/006, NSC-004 R, NSC-007 and Contract #3002 construction activities. See Appendix C for a list of changes to the NSC-003/006 (NSC-004 R), NSC-007 and Contract #3002, Contract Documents including a list of submittals which document major changes and/or contract interfaces.
 - 1) Table C-1 provides a list of North Shore Connector, North Side Tunnels & Station Shell (NSC-003/006), Gateway Station Shell (NSC-004 R) Aerial Structure, Retained Fill, Demolition of Miller Printing (NSC-007) and Advanced Rail Systems Procurement – Gateway Double Crossover (Contract #3002) Construction Submittals. Submittals and/or portions of Submittals reflecting NSC-003/006, NSC-004 R, NSC-007 and Contract #3002 contractor design elements having impact on the NSC-009 Bid are bold and attached as part of Appendix C. Further information on the progress of the NSC-003/006, NSC-004 R, NSC-007, and Contract #3002 construction is contained in Table C-1 and available for purchase in accordance with Section 00200, Article 2.6.
- O. During the Work, the Contractor may wish to engage its construction equipment, including high rail vehicles, for the execution of its Work. The Contractor shall coordinate all access requests through Authority's Way & Facilities Department - John Green (412) 488-3052. The Contractor shall attend the Authority's Monday morning track allocation meeting fourteen (14) days prior to the date of the Contractor's work which Contractor access is requested. The Contractor will be escorted by Authority personnel and shall follow Authority procedures described in the "Track Entry Training Program" manual and Section 00700, Article 13.14. Seven (7) days prior to the Monday morning track allocation meeting, Contractor shall submit a work

plan including, but not limited to, work location map, description of the work, and schedule of work to John Green and to the Engineer for review prior to the allocation meeting.

1. Any items of the work to be transported into or out of the existing LRV tunnel will be transported by the Contractor to/from any of the following locations: 1st Ave Station or Penn Park. The Contractor shall designate intended location and shall arrange for any additional access approvals if required. Contractor shall handle all materials to be transported. Contractor shall not direct Authority personnel or operate Authority equipment. Coordination will occur through the Engineer.
 2. Authority services will be tracked by Authority by use of Authority's Force Account tracking procedure and shall be based on actual billings from Authority personnel costs. Authority will require at a minimum an Authority supervisor costing approximately \$56.00 per hour respectively. If the Contractor requests access for any of its construction vehicles which requires special access to the LRV system, two additional Authority personnel will be required to facilitate the special access on and off the LRV system. Authority Force Account cost tracking begins when Authority mobilizes to the work area and ends when demobilization is complete. Force Account will also include all administrative time to track the Force Account information.
 3. In addition, should the Contractor fail to properly cancel, in a timely manner, any Authority assistance previously requested, the Contractor shall reimburse Authority for the cost of all Authority personnel that report, or are scheduled to provide services.
 4. Contractor shall pay the Authority's Force Account costs, at its own cost and expense, and shall not receive reimbursement from Authority for work provided by Authority personnel. As payment, the Force Account costs will be deducted from the Contractor's next successive pay estimate. The Contractor shall receive a copy of all Authority Force Account documentation for its records.
 5. The Contractor shall be responsible for any damages to Authority facilities which may occur due to the Contractor's access or operation within the structures.
- P. Full, regular scheduled transit revenue operations will continue during performance of the Work within the existing Gateway Station Loop and existing Wood Street Station until LRT Revenue Service is converted to a dual turnback operation terminating LRV Service at the Wood Street Station. The minimum daily volume of Authority vehicles trips are in the order of magnitude of 200 vehicles per day, servicing approximately 5500 patron trips daily.
- Q. Revenue Service Suspensions, Operation Restrictions and Delays.

There will be no suspension, restriction or delay of scheduled LRT operations except as listed in the Contract Documents or approved by the Engineer and Authority. Service restrictions and suspensions shall be carefully coordinated in accordance with Section 01781, "Maintenance and Protection of Traffic" and Section 00700, Article 13.14. Service suspensions and restrictions will not be permitted between November 15 and January 1, of any calendar years during which Contractor performs its Work or during scheduled public events

that result in increased transit patronage, including but not limited to all Steeler home games, major sporting events, St. Patrick's Day, First Night, Light-up Night, Three-Rivers Arts Festival, Independence Day and Three-Rivers Regatta. Approval of Service Suspensions and Restrictions will also be contingent on other Port Authority Service Requirements and suspensions and restrictions requested from other Authority contactors.

R. Non Revenue Periods

- 1) All Work which requires de-energizing the Overhead Contact System (OCS), access to the operating LRT trackway, or disruption to in-service signal and communication circuits must be performed in conjunction with the Service Suspensions and restrictions described in Article 2.1 Q of this Section or during non-revenue periods, defined as 1:30 am to 4:30 am daily. Any requests to de-energize the OCS, to occupy the trackway during non-revenue periods, or disrupt signal and communication circuits must be made two weeks in advance to the Engineer in accordance with the provisions of Article 2.1 Q of this Section and approved and scheduled at Authority's weekly Track Allocation meeting.
- 2) Contractor may request that the OCS be de-energized during non-revenue periods. Contractor shall be aware that the OCS is an uninsulated 650 volt DC electric line that is energized at all times, including non-revenue periods. Contractor shall also be aware that a 2400 volts AC uninsulated signal power line is part of this system and is also energized at all times.

S. The Contractor shall have access to the existing Gateway transformer room from the surface through the NSC-010/011/012 laydown area at Gateway Station to allow for the removal of the existing transformers and installation of the new transformers. The NSC-010/011/012 contractor shall provide adequate space for the Contractor to stage equipment for the execution of this work. The Contractor shall coordinate its requirements and schedule for the work through the Engineer and the request shall be made twenty-one (21) days prior to the requested access. Provide a plan showing requested access areas, equipment staging requirements, and schedule of the work with the request.

T. The Contractor shall install the temporary closure wall between the existing Gateway and Wood Street Stations prior to decommissioning of any emergency ventilation facilities located in existing Gateway Station and Loop and after the Wood Street Station turnback operation has been implemented.

U. Access to Authority OCC shall be closely coordinated through the Engineer and Authority staff. The Contractor shall be permitted access to the OCC facilities and systems to perform its work as scheduled through, and approved by Authority and the Engineer. Any Contractor operations which impact Revenue Services shall be preformed during Non-Revenue Service Periods and shall be closely coordinated and planned with the managers of the OCC and Engineer so no Revenue Service interruptions occur. Some Contractor operations may be accommodated by OCC during Non-Peak Revenue Service time frames if Authority's ability to route trains is not

impacted. Any such operations shall be closely coordinated with Authority OCC managers and the Engineer to facilitate the work. The Contractor will be permitted to perform work at the OCC training facility if Authority does not have training scheduled concurrently. Access to the training facilities shall be closely coordinated with Authority OCC managers and the Engineer.

- V. Access to Authority's Pitt Tower facilities will be by way of the Martin Luther King, Jr. Busway. The Contractor shall attend Authority Busway training prior to accessing the Martin Luther King, Jr. Busway with Contractor vehicles. Schedule Pitt Tower work and busway training through the Engineer. Fourteen (14) days prior to work at Pitt Tower, the Contractor shall submit a work plan including, but not limited to, description of the work and schedule of work to the Engineer and Authority for review and approval.
- W. The Contractor shall demolish the existing single crossover, install the Authority procured double crossover, modify train systems, modify OCC systems, install temporary patron signage, modify Wood Street Station, perform system and clearance testing, and implement measures to perform dual Authority LRV turnback operations at the Wood Street Station before beginning demolition and / or decommissioning work at Gateway Station and Loop, including installation of temporary closure wall and supporting facilities between Gateway and Wood Street Stations. The Contractor will be permitted to remove the suspended ceiling within existing Gateway Station to facilitate the installation of the relocated 23 kV feeders, Fans EM-9 and EM-10 power and control feeders on the existing tunnel/station ceiling, outside of the NSC-004 R demolition zone. The 23 kV and emergency ventilation fan (EM-9 and EM-10) power and controls shall not be activated until the existing Gateway Station is abandoned of patron service and Revenue Service is diverted to Wood Street Station.
- X. The Contractor shall provide two hundred (200') foot of dead car LRV storage behind (toward Gateway Station) Wood Street Station. The OCS shall be sectionalized to form the terminus of the Authority operations.
- Y. The Gateway Station Transformers shall be switched out during non-revenue service timeframes. Removal of existing transformers, installation of new transformers, system restart and testing shall be complete within the non-revenue outage provided by the Authority. The transformers serve the Emergency Ventilation Fans EM-9 and EM-10 which need to remain functional for Revenue Service to Operate.
- Z. Disconnection / Reconnection / Relocation and Testing of existing 23kV power feeders, from the existing duct bank to the existing transformer room shall be performed during non-revenue service shutdowns. The 23kV power feed services vital Authority facilities and must remain active and operational during revenue service, including during the shutdown of Gateway Station due to its service to existing Emergency Ventilation Fans EM9 and EM10 located in the fan room between Wood Street and Gateway Stations.
- AA. Disconnect / Reconnection / Relocation and Testing of the existing power and control cables for Emergency Ventilation Fans EM9 and EM10 shall be performed during non-revenue service shutdowns. Emergency Ventilation

Fans EM9 and EM10 must remain operational during Revenue Service, including during the shut down of Gateway Station. The fans are vital to smoke evacuation for the Wood Street Station and tunnel to remain in service.

- BB. The Contractor shall attend a pre-assembly inspection of the Advanced Rail System Procurement – Gateway Double Crossover – Contract #3002 contractor's assembly. Inspection will occur at manufacturer's facility. The Contractor will be required to inspect and approve the complete assembly. The manufacturing contractor shall notify the Contractor twenty one (21) days prior to the pre-assembly inspection date. All communications with the manufacturing contractor shall be through the Engineer. Delivery of the Advanced Rail System Procurement – Gateway Double Crossover – Contract #3002 is described in Section 01400, Article 4.5.
- CC. All Contractor equipment shall be fitted with exhaust scrubbers while operating within the cut-and-cover and bored tunnels, including existing Stage I tunnel.
- DD. Authority and the Engineer shall witness any/all Contractor connections to existing Authority equipment. Authority personnel will be provided at no cost to the Contractor at the time scheduled. Should the Contractor fail to properly cancel, in a timely manner, any Authority assistance previously requested, the Contractor shall reimburse Authority for the cost of all Authority personnel that report, or are scheduled to provide services in accordance with the requirements of Article O of this Section.
- EE. Existing Station and Tunnel ancillary rooms will be locked at all times during the Work. Should the Contractor require access to a room to perform work, the Contractor shall coordinate with Authority personnel to gain access to said room(s) to perform its work. Coordination with Authority personnel shall be through the Engineer. Once the Contractor's shift is complete, Authority shall secure the ancillary room until access is again requested by the Contractor. Should the Contractor fail to properly cancel, in a timely manner, any Authority assistance previously requested, the Contractor shall reimburse Authority for the cost of all Authority personnel that report, or are scheduled to provide services in accordance with the requirements of Article O of this Section.
- FF. The System Integration Testing will require participation of Authority staff and equipment. Authority personnel and equipment for System Integration Testing will be provided at no cost to the Contractor at the time(s) scheduled. The Contractor shall coordinate with Authority to perform the System Integration Testing work. Coordination with Authority personnel shall be through the Engineer. The Contractor shall attend the Authority's Monday morning track allocation meeting fourteen (14) days prior to the date of the Contractor's work which Authority assistance is requested. The Contractor shall follow Authority procedures described in the "Track Entry Training Program" manual and Section 00700, Article 13.14. Should the Contractor fail to properly cancel, in a timely manner, any Authority assistance previously requested, the Contractor shall reimburse Authority for the cost of all Authority personnel and equipment that report, or are scheduled to provide services in accordance with the requirements of Article O of this Section.

- GG. System Integration Testing involving Authority personnel and equipment will not occur during Peak Revenue Service (Working Days: 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m.) and Special Events as prescribed in Article Q of this Section.
- HH. Authority will be performing Pre-Revenue Operations at the completion of milestone work associated with System Integration Testing as described in Article 2.6.A.1.b).4) of this Section. Any additional work associated with the Project will be subject to Authority LRV testing traffic and restrictions associated with an active LRV system. Contractor's remaining work shall be closely coordinated with Authority Pre-Revenue Operations schedules. Coordination shall occur through the Engineer and will be in accordance with Section 01781, "Maintenance and Protection of Traffic" and Section 00700, Article 13.14.
- II. Should situations arise with Authority's Operations which require Authority's immediate attention to maintain Operations, Authority reserves the rights to cancel Contractor's scheduled work within the existing system, OCC and/or Pitt Tower, in order to facilitate Authority requirements to support Operations.

2.2 Project Schedule

A. Preliminary Project Schedule

- 1. The Contractor shall develop and submit for review and approval by the Engineer a preliminary Project Schedule in bar chart format, within fifteen (15) days after receipt of the Notice of Award.
- 2. This preliminary Project Schedule shall show the Contractor's planned operations for the first ninety (90) days including dates for construction operations, submittals and acquiring permits. The Contractor shall also include a preliminary schedule logic narrative stating the general basis of schedule logic and the Contractor's general approach to the remainder of the Work.

B. Project Schedule

- 1. The Contractor shall submit for review and approval by the Engineer a Project Schedule and a logic narrative, for the entire duration of the Work, within thirty (30) days after receipt of the Notice to Proceed. The approved preliminary Project Schedule shall be incorporated into the Project Schedule in its entirety.
- 2. The Project Schedule, and any updates thereto, shall show a logical and coordinated sequence of construction activities. The Project Schedule shall incorporate and identify the following:
 - a) Required completion dates and intermediate required completion dates;

- b) Logic ties coordinating the Work with the work of others, including, but not limited to, other contractors, utilities, railroads, Subcontractors, and Suppliers;
 - c) Construction restrictions;
 - d) Sequence of construction;
 - e) Access constraints, including securing of permits;
 - f) Critical activities necessary to complete the Contract by the Time of Completion;
 - g) If the Project Schedule indicates a projected completion date before the Time of Completion the Contractor shall identify the time between those two dates as Project Float. Any Project Float will be available for use by both Authority and the Contractor.
 - h) Potential for, and actual occurrence of, impacts due to seasonal weather conditions and the influence of high or low ambient temperatures on the completion of the Work;
 - i) Pre-Final and Final Inspections, punch list activities for each inspection, and contractual administrative demobilization work; and
 - j) Procurement of special or long lead materials, equipment or services;
 - k) Any other requirements of the Contract Documents.
3. The Contractor shall also submit, with the Project Schedule, a complete and detailed listing of submittals that it anticipates will be required during the course of the Contract. The listing shall identify the subject matter of each submittal, the anticipated submittal date and required approval date for the identified submittals. Submittals that may affect the critical path of the Project Schedule shall be designated as critical submittals.
 4. The Contractor shall submit the Project Schedule and any updates thereto to the Engineer for approval with a written certification stating that the Project Schedule is in accordance with the Contract Documents. The Project Schedule and any updates shall be submitted on sheets not larger than twenty-two inches (22") by thirty-four inches (34").
 5. The Engineer will review the Project Schedule and any updates and establish a meeting with the Contractor to review its contents. The Engineer may schedule the timing of such meetings to coincide with actual submittals by the Contractor and/or following the submittals at the discretion of the Engineer. If a review of the Project Schedule indicates a work plan which will not complete the Work or portions of the Work within the Time of Completion requirements as identified in the Contract Documents, or if the logic ties, sequence of work, or planned activities are determined to be inappropriate, the Contractor shall revise the Project Schedule and resubmit it until it is acceptable.
 6. If, as part of the Engineer's review of the Contractor's Project Schedule submission, the Engineer identifies any noncompliance with the

requirements of the Contract Documents, and so informs the Contractor in writing, the Contractor shall revise its Project Schedule to correct any such noncompliance without additional cost to Authority. The Contractor shall provide the Engineer with a revised Project Schedule within five (5) days of receipt of the Engineer's identification of noncompliance, incorporating the Engineer's review comments with a written explanation for any review comments which it has not incorporated into the Project Schedule. The Contractor shall submit additional written schedule information to the Engineer as the Engineer may deem necessary. When all noncompliance issues have been satisfactorily addressed, in the opinion of the Engineer, the Engineer will approve the Project Schedule.

7. Failure of the Contractor to submit a satisfactory Project Schedule, or updates thereto, within the time limits specified shall be sufficient cause for Authority to withhold the Contractor's progress payments, or any portion thereof, until such delinquent submittal is made.
8. Approval of the Project Schedule or any update by the Engineer shall in no way waive any requirements of the Contract Documents, excuse the Contractor of any obligations under the Contract Documents, nor extend the times specified in the Contract Documents. Upon approval of the Engineer, the approved Project Schedule shall then be the schedule to be used by the Contractor for planning, organizing and directing the Work and reporting progress of the Work.
9. Approval of the Project Schedule shall not constitute a representation by the Engineer or Authority that the Work as planned to be implemented by the Contractor can be completed as shown on the Project Schedule. The responsibility for the ways, means, methods and techniques to ensure completion of the Work in accordance with the Contract Documents remains solely the responsibility of the Contractor despite any approval of the Project Schedule.
10. If any float shown on the Project Schedule or any update thereto is used for any reason, to complete the Work, or any portion thereof, the Contractor shall not be entitled to any change to the Time of Completion or any milestone nor any compensation for the use of such float.
11. In the event that any Project Schedule submittal shows that the progress of the Work performed is behind schedule, or any future work will be completed behind schedule such that the Contractor will fail to meet the Time of Completion requirements of the Contract, the Contractor shall include, with said submittal, a Recovery Plan for approval by the Engineer.
12. Failure of the Contractor to submit any schedule required by the Contract Documents may, at the discretion of Authority, constitute a waiver by the Contractor of any claims for changes in the Time of Completion from conflicts in scheduling the performance of its work as a result of conflicts in scheduling with others.
13. Subcontractor(s) whose contract values equal or exceed five (5) percent of the Contract Sum shall certify that it is in agreement with the scheduling information shown on the Project Schedule; as such information pertains to the work for which it has been contracted to

- perform. Said certification shall be required for each Project Schedule submission until the work of the Subcontractor has been completed.
14. The Contractor shall develop and submit a time impact analysis with each request for a change to the Contract Documents, Value Engineering proposal and claim or dispute. The time impact analysis shall have sufficient detail to show all new and existing activities affected by the subject issue which have a predecessor and a successor activity on the Project Schedule. The time impact analysis shall contain the specific activities relating to the subject issue, the logic concerning the activities, and the duration of each for integration into the Project Schedule and recalculation of the Time of Completion. The logic and duration, for both the before and after scenarios, shall be shown, along with a narrative describing the impacts due to the subject issue.
 15. CPM Project Schedule
 - a) The Project Schedule, and any updates thereto, shall be in the form of a critical path method (CPM). The Contractor shall use the Primavera Project Planner (P3) for Windows version 3.1 or later network schedule precedence diagram and cost control system by Primavera Systems, Inc. The Contractor's Project Schedule, and any updates thereto, are to be developed with the ability to be merged with the Engineer's overall North Shore Connector Program master schedule. The Engineer has furnished the Contractor all relevant master schedule coding for its activity codes, resources codes, calendars, activity ID numbers, alias codes, etc. in Appendix E. All activity ID numbers in the Contractor's Project Schedule must begin with the same two characters. The Engineer has assigned these first two ID numbers for the NSC-009 Contract in Appendix E. The Contractor is required to coordinate with the Engineer to establish Project Schedule code fields prior to any Project Schedule development and submission.
 - b) The Contractor shall submit three (3) hard copies and one (1) electronic copy of the CPM network diagrams, tabular reports and narrative to the Engineer for each required Project Schedule submittal.
 - c) This Project Schedule shall be resource loaded with at least labor man-hours, equipment hours, cost and revenue. The final resource loading requirements will be established during the initial Project Schedule review meeting with the Engineer.
 - d) The Project Schedule shall clearly identify the float, i.e., the difference between the early and late completion dates, for each activity on the Project Schedule for the various activities, as well as the float associated with any milestone dates and any other Time of Completion requirements on a computer-produced printout and any other schedule reports requested by the Engineer.
 - e) The Contractor shall prepare its schedule in accordance with "The Use of CPM in Construction Management" copyrighted 1999 as published by McGraw-Hill, Inc.

- f) Construction activities shall have a duration of not less than one nor more than twenty-one work days. The maximum revenue value of each activity shall not exceed \$200,000 unless otherwise approved by the Engineer.
- g) Contractor shall include and maintain with the Project Schedule a monitoring and reporting system for the duration of the Contract to identify and measure factors affecting the Project Schedule. Contractor shall include the following information in all Project Schedule submittals on an activity - by - activity basis:
 - 1) Activity number, as well as preceding and following activity numbers;
 - 2) Activity description;
 - 3) Duration of activity, in working days;
 - 4) Personnel requirements, number of shifts and hours per shift for each activity;
 - 5) Major equipment and corresponding hours for each activity;
 - 6) Total cost of each activity;
 - 7) Remaining duration in working days, and the percentage of completion for each activity;
 - 8) Earliest start date;
 - 9) Earliest finish date;
 - 10) Actual start date;
 - 11) Actual finish date;
 - 12) Latest start date;
 - 13) Latest finish date;
 - 14) Total float; and
 - 15) Free float, per activity.

C. Project Schedule Updates

- 1. The Contractor shall submit, for approval by the Engineer, an updated Project Schedule by the tenth day of each month during the progress of the Work. The submittal shall indicate progress during the preceding month, including actual start and finish dates for each activity. Each update will be based on the most recently approved Project Schedule.
 - 2. As part of the updated Project Schedule submittal, the Contractor shall provide a concise narrative of any changes in the logic from the most recently approved Project Schedule, along with a logic diagram analysis to demonstrate that the requirements of the Contract Documents will still be met.
- D. The Contractor shall designate a representative, to be approved by the Engineer, to serve as the Contractor's Project Scheduler whose primary duties and first priority under this Contract shall be to coordinate, monitor and

report on the status of all Project Schedule activities for the duration of the Contract. The Contractor shall provide at least three (3) references and an outline of the proposed designee's qualifications and experience relating to the use of a CPM schedule in scheduling and management of construction projects and the individual's experience in construction project control and scheduling on construction projects similar to this Project. The Contractor shall not delegate the Project Scheduler's duties to another individual unless it submits appropriate qualification information for, and the Engineer approves, another designee.

2.3 Project Schedule Meetings

- A. The Contractor shall attend a Scheduling Conference with the Engineer within five (5) days of the Notice of Award. The purpose of the Scheduling Conference is to review the Project Schedule requirements of the Contract. The Contractor shall be prepared beforehand to discuss the types of schedule activities, concepts and logic in sequencing work activities that the Contractor plans to use for the development of the Project Schedule.
- B. As the Engineer directs it, and whenever a revision to the logic diagram is required, the Contractor and the Engineer shall meet to review the Project Schedule and any updates to the Project Schedule in a meeting preceding the Contractor's submittal. In the event that the revision may impact the work of others, representatives from such affected parties may be required to attend.
- C. A monthly schedule update meeting will be held by the fifteenth day of the month to review the updated schedule which is to be submitted by the tenth day of the following month. The Project Schedule meeting will be chaired by the Engineer and attended by at least the Contractor. Subcontractors and/or Suppliers may be required to attend.
- D. The Contractor shall present at the schedule update meetings:
 1. Actual start and finish dates for activities completed during the month;
 2. Actual start dates for activities that were started but not completed during the month;
 3. Delays incurred during the month with an explanation for the cause of delay and its duration;
 4. Logic or sequence changes implemented during the month;
 5. Critical submittal approvals required for the upcoming month;
 6. Problems on the Project;
 7. New activities added or activities deleted from the Project Schedule;
 8. A list of changes on the Project and the status of those changes; and
 9. A list of materials to be provided by Authority that is required within the next four (4) months.

2.4 Progress/Look Ahead Schedule

- A. The Contractor shall prepare a bar chart schedule of activities for each progress meeting. The bar chart schedule shall identify any planned revisions to the Project Schedule logic. The bar chart schedule shall include

the previous week's activities and planned activities, or longer period if required by the Engineer, and planned Project Schedule activities for the next four (4) weeks. The bar chart schedule shall indicate which activities are critical over the period covered by the bar chart schedule. The Contractor shall prepare the bar chart schedule consistent with the most recently approved Project Schedule. Any variance from the Project Schedule shall be clearly identified along with the reason for such variance.

2.5 Project Schedule Revisions Due to Change Orders

- A. For changes to the Contract which could influence the order of all or portions of the Work, restraints between various activities, or duration time estimated for activities on the Project Schedule, a determination of the impact of such changes on any interim milestone dates or the Time of Completion shall be made in accordance with the Contract Documents.
- B. If a Change Order is issued, the Project Schedule shall be changed, if necessary, to reflect the requirements of the Change Order. Changes to the Project Schedule shall be made no later than the next Project Schedule update after the issuance of the Change Order.
- C. When changes in the Work are made prior to settlement of price or time, or both, to avoid delay and additional expense, the network logic or duration time estimates, or both, of all activities affected by the change shall be revised on the next succeeding Project Schedule update after the date of change.
- D. If the Contractor fails or refuses to submit or include the foregoing revisions within thirty (30) days after the date of the change in the Work, the Engineer will furnish to the Contractor, at the Contractor's expense, the logic, duration time changes, or both, to be entered into the Project Schedule and used in subsequent updating of reports until such time that the change has been settled or until actual dates supersede the estimated dates. Inclusion in the Project Schedule and use of revised logic or duration time, or both, whether furnished by the Contractor or by the Engineer, will not be construed as an approved extension of the Time of Completion requirements in the Contract Documents.

2.6 Time Of Completion

- A. The Contractor shall complete all or any designated portion of the Work within the number of days set forth in the Contract Documents. Time shall be computed starting with the first day after receipt of the Notice to Proceed and ending with the last day of the Work and any such designated portion of the Work.

1. The Time of Completion requirements for the Work are as follows:

- a) The Contractor shall complete all the Work, with exception of the contractual administrative demobilization work set forth in Section 01700, Article 5, within nine hundred eighty eight (988) calendar days after the effective date of the NTP.
- b) The Contractor shall also complete the following portions of the Work by the milestone dates set forth below:

- 1) Completion of the Wood Street Station double crossover installation, execution of dual turnback operations at Wood Street Station with final powered signals and fully automated TWC, and all demolition, decommissioning, and/or relocation work associated within the existing Authority Stage I tunnel and Gateway Station and Loop including, but not limited to: relocation of 23kV high voltage power feeders, Emergency Ventilation Fans EM9 and EM10 power and control facilities and installation of temporary tunnel closure wall including temporary support facilities, emergency cross passages, lighting, and signing within two hundred forty six (246) calendar days after the effective date of the NTP.
 - 2) Completion of the Gateway Station high voltage power supply system including, but not limited to, removal of existing transformers (2), installation of new transformers (2), relocation and connection of 23kV feeders to new transformers, installation of new electrical switch gear, installation of electrical bus duct connections to transformers and switchgear and system testing. The new Gateway Station high voltage power supply system shall be ready for the NSC-010 contractor to access and perform station facility electrical connections and testing within eight hundred twenty (820) calendar days after the effective date of the NTP.
 - 3) Completion of the North Side Station high voltage power supply including, but not limited to, installation and testing of traction power substation (TPSS), 23kV feeder cable installation from the TPSS to North Side Station transformer room, installation of new transformers (2), installation of new electrical switch gear, installation of electrical bus duct connections to transformers and switch gear, and system testing. The North Side Station high voltage power supply system shall be ready for the NSC-011 contractor to access and perform station facility electrical connections and testing within six hundred sixteen (616) calendar days after the effective date of the NTP.
 - 4) Completion of the train system installation and North Shore Connector system integration testing, excluding Pre-Revenue Operations Testing. The train systems installation and North Shore Connector system integration testing work shall be completed within eight hundred ninety eight (898) calendar days after the effected date of NTP.
- B. Adjustments in the Time of Completion shall only be allowed as set forth in Section 00900, Article 1.11.
- C. Subject to Article 2.6.B above, the Contractor shall only be granted an adjustment in the Time of Completion for a delay in the completion of the Work:
 1. Due to a Change Order issued pursuant to Section 00900, Article 1;

2. Due to unforeseen causes beyond the control and without the fault or negligence of the Contractor such as those caused by act of God or of a public enemy, fire, floods, unusually severe weather, epidemics, quarantine restrictions, strikes and other work stoppage caused by a labor dispute, shortage of materials and freight embargoes, and such that the unforeseen cause actually prevents the performance of the Work, provided that the Contractor has taken reasonable precautions to prevent delays due to such causes.
 - a) Unusually severe weather is defined as adverse occurrences beyond the weather norms substantiated by the U.S. Department of Commerce in their Local Climatological Data as published by the National Oceanic and Atmospheric Administration - Environmental Data Service, in their periodic reports and annual summary. Occurrence of unusually severe weather shall be recorded on the Project Schedule only after a finding of merit by Authority and the issuance of a Change Order by Authority to reflect any required Time of Completion and/or cost adjustments resulting from such unusually severe weather.
 - b) An adjustment in the Time of Completion shall not be granted for a delay caused by a shortage of materials, except Authority-furnished materials, unless the Contractor furnishes to the Engineer documentary proof that the Contractor has diligently made every effort to obtain such materials from all known and reasonable sources. The Contractor shall also submit proof, in the form of a time impact analysis, as required by Article 2.2 of this Section, showing that the inability to obtain such materials when originally planned did in fact cause a delay in the Time of Completion which delay could not be eliminated or reduced by revising the sequence of the Contractor's operations. Only the physical shortage of material shall be considered under this Article as a cause for an adjustment in the Time of Completion. No consideration shall be given to any claim that material could not be obtained at a reasonable, practical or economic cost. Further, no consideration shall be given to any claim resulting from the Contractor's failure to timely secure a contract for the purchase and delivery of any material.
- D. As an express condition precedent for the Contractor to receive a change in the Time of Completion, or any milestone identified as part of the Time of Completion, the Contractor shall promptly notify the Engineer in writing that a delay is occurring. The Contractor shall notify the Engineer in writing of the alleged causes for delay within fifteen (15) days from the beginning of any such delay. Failure by the Contractor to provide such notices shall justify the denial of the Contractor's request for an adjustment in the Time of Completion or any milestone.
- E. Within thirty (30) days after the end of an alleged delay, the Contractor shall furnish the Engineer with detailed written information, satisfactory to the Engineer, concerning the circumstances of the alleged delay, the number of days actually delayed, the appropriate Contract Document references providing entitlement for the delay, the measures taken to prevent or minimize the alleged delay, all activities impacted by the delay and the resequencing required to overcome the delay. Failure by the Contractor to

submit such information shall be sufficient cause for Authority to deny the Contractor's request for an adjustment in the Time of Completion. After receipt of such information from the Contractor, Authority will decide the length of the adjustment in the Time of Completion, if any, to be granted to the Contractor.

- F. If the prosecution of a portion of the Work is delayed, other portions of the Work unaffected by the delay shall be diligently prosecuted either to completion or until the prosecution of the delayed portion of the Work can be resumed.

2.7 Additional Shift Work

- A. The times specified in the Contract Documents for the completion of all or any portion of the Work may be insufficient to permit the Contractor to work a normal number of hours per day or week on a single shift basis. Where additional shifts, overtime work or weekend work are necessary to ensure that the Work is completed within the time specified in the Contract Documents, the Contractor shall utilize such additional shifts, overtime work and weekend work and any resulting additional costs shall be considered to be already included in the Contract Sum and no additional compensation shall be allowed to the Contractor.
- B. 1. If, in the opinion of the Engineer, the Contractor at any time falls behind the Project Schedule, the Contractor shall, without any additional cost to Authority, take any and all steps necessary to improve its progress to ensure compliance with the Time of Completion requirements of the Contract.
2. The Contractor shall submit, within seven (7) days of a request from the Engineer for approval by the Engineer, a revised Project Schedule detailing the specific operational changes to be instituted to complete the Work in accordance with the Time of Completion requirements of the Contract Documents.

2.8 Damages

- A. 1. In the event the Work or a designated portion of the Work is not completed within the time specified in the Contract Documents, as may be subsequently revised by Change Order, damage will be sustained by Authority.
2. For certain of said damages, including for additional construction management costs for the Engineer, increased inspection costs, increased costs for Authority's administration, increased design services and submittal review costs, impacts to Authority's ongoing transit operations, and increased insurance costs, the ability to ascertain the actual amount for said damages is and will be impracticable or extremely difficult.
3. In light of the impracticability or difficulty of estimating the specific categories of damages identified above in Article 2.8.A.2, the Contractor, solely as compensation for such damages, shall pay to Authority the amount or amounts set forth herein as liquidated damages per day for every day, or fraction of a day, of delay in finishing the Work or any designated portion thereof, which amount(s) the Contractor agrees and acknowledges is a proper measure of liquidated damages.

The liquidated damages are not to be construed, in any sense, as a penalty.

4. Liquidated Damages that have been established for this Contract are as follows:
 - a) Liquidated damages shall be \$3,838 per day for each day, or fraction of a day, the Contractor fails to complete all the Work, with the exception of the contractual administrative demobilization work, as set forth in Section 00500, Article 2.6.A.1.a);
 - b) Liquidated damages shall be \$9,974 per day for each day, or fraction of a day, the Contractor fails to complete the portion of the Work as set forth in Section 00500, Article 2.6.A.1.b)1);
 - c) Liquidated damages shall be \$6,006 per day for each day, or fraction of a day, the Contractor fails to complete the portion of the Work as set forth in Section 00500, Article 2.6.A.1.b) 2);
 - d) Liquidated damages shall be \$6,006 per day for each day, or fraction of a day, the Contractor fails to complete the portion of the Work as set forth in Section 00500, Article 2.6.A.1.b) 3);
 - e) Liquidated damages shall be \$9,974 per day for each day, or fraction of a day, the Contractor fails to complete the portion of the Work as set forth in Section 00500, Article 2.6.A.1.b) 4)
5. Liquidated Damages for unauthorized disruptions to Authority Operations:
 - a) Because of the significant, but undetermined, costs that are incurred by Authority when there is any disruption in transit service and because of the significant inconvenience to the public with resulting cost impacts caused by transit service disruption, the Contractor will be assessed liquidated damages for any unspecified delay to revenue service. Liquidated damages shall be at a rate of \$540.00 per hour minimum, for any unspecified delay to revenue service on weekdays between 6:00 am to 9:00 am and 3:00 pm to 6:00 pm of more than 5 minutes for any one delay, and for any unspecified delay of more than 10 minutes at other times. The length of delay shall start at the beginning of the delay as determined by the Engineer and Authority to the time transit services are resumed. This provision shall apply to all forms of transit service, including LRT, bus, small transit vehicles and ACCESS operations, as well as any Authority maintenance and operations support vehicles.
 - b) The Contractor shall not anticipate any authorized service delays or disruptions beyond those as identified in the Contract Documents in preparing its Bid. Should the Engineer determine that a planned transit service delay or disruption is a benefit to Authority; the Engineer will discuss the delay or disruption with Authority. If Authority approves a delay or disruption, the Engineer will notify the Contractor in writing of such approval.

Should the Engineer determine transit service delays or disruptions are being caused through the Contractor's negligence or lack of management or supervision of the Work, the Engineer can direct the stoppage of the Work, or a portion of the Work, and the immediate removal of the Contractor's equipment and personnel from the area until a corrective plan of action is established, approved by the Engineer, and implemented. The stoppage of the Work, or a portion of the Work, the implementation of the corrective plan of action, the restart of the Work, or portions of the Work will be at no additional expense to Authority.

- B. Authority will deduct liquidated damages from any monies due or that become due the Contractor under the Contract, or under any other contract with Authority, or if such monies are insufficient, the Contractor or its Surety or Sureties shall pay to Authority any deficiencies in such monies within thirty (30) days of written notice by Authority.
- C. The Engineer will notify the Contractor in writing, prior to assessing liquidated damages, of the date that the assessment of the liquidated damages will commence. The Liquidated Damages will be deducted from the next Contractor's progress payment following the issuance of the Engineer's notification letter and shall continue to be deducted until the Work or the designated portion of the Work is completed.
- D. Liquidated Damages are not a change to the Contract but are an agreed upon reduction from the amount to be paid to the Contractor under the Contract.
- E. The remedies provided herein are not exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

2.9 Early Completion Incentive

- A. Article Reserved.

ARTICLE 3 – SUSPENSION OF WORK

- 3.1 Authority may, at any time, without cause, order the Contractor in writing to suspend or interrupt all or any part of the Work for such period of time as Authority may determine to be appropriate.
- 3.2 If the performance of all or any part of the Work is, for an unreasonable period of time, suspended or interrupted per the written request of Authority and such suspension or interruption impacts the Project Schedule, the Contractor's sole and exclusive remedy shall be an extension of time as determined in accordance with the Contract Documents and/or an adjustment in the Contract Sum. Any increase or decrease in the Contract Sum shall not include any additional profit and shall be limited to the Contractor's actual increase or decrease in cost of the performance of any part of the Work, which increase or decrease arises solely from the suspension or interruption of the Work.
- 3.3 No adjustment in the Time of Completion or the Contract Sum shall be allowed for any such suspension or interruption if:

- A. The performance would have been so suspended or interrupted by any other cause, including the fault or negligence of the Contractor; or
 - B. An adjustment in the Time of Completion or the Contract Sum is provided for or excluded under any other provision of the Contract Documents.
- 3.4 Furthermore, this Article 3 applies only to written suspension or interruption orders from Authority and does not apply to any other delays or interruptions under the Contract Documents including, but not limited to: Section 00900, Article 3.13; Section 00500, Article 4; and Section 00500, Article 5.
- 3.5 No request for an adjustment in the Time of Completion or the Contract Sum shall be allowed under this Article 3 unless the request is submitted in writing to the Engineer within twenty (20) days after the termination of such suspension or interruption, but not later than the date of the Certificate of Acceptance of Final Inspection.

ARTICLE 4 – TERMINATION FOR DEFAULT

- 4.1 Wherever in this Article 4 the word "Contractor" appears, it shall also be construed to mean the Surety in case of default and completion of the Contract by the Surety.
- 4.2 The Contractor may be determined to be in default of the Contract and the Contract may be terminated for default if the Contractor:
- A. Fails to begin Work within the time specified in the Notice to Proceed;
 - B. Fails, solely in the opinion of Authority, to perform the Work with sufficient workers, equipment or materials to ensure the completion of said Work in accordance with the Contract Documents;
 - C. Performs the Work unsatisfactorily in the opinion of Authority;
 - D. Neglects or refuses to remove materials or perform anew any portion of the Work rejected as defective or unsatisfactory;
 - E. Discontinues the prosecution of the Work without approval of Authority;
 - F. Fails to resume work which has been discontinued or suspended within ten (10) days after notice to do so;
 - G. Becomes insolvent, is declared bankrupt or commits any act of bankruptcy or insolvency;
 - H. Allows any final judgment to stand against it unsatisfied for a period of forty-eight (48) hours;
 - I. Makes an assignment for the benefit of creditors;
 - J. Fails or refuses, within ten (10) days after written notice by Authority, to make payment or show cause why payment should not be made of any amounts due for materials furnished, labor supplied or performed, equipment rentals, and utility services rendered as covered by the Labor and Materialman's Bond;
 - K. Fails to protect, repair or make good any damage or injury to property;
 - L. For any cause whatsoever, does not, solely in the opinion of Authority, carry on the Work in an acceptable manner; or
 - M. Fails to perform any provision of the Contract Documents.

- 4.3 Authority, after having given seven (7) days written notice to the Contractor and its Surety of any of the above identified delays, neglects, or defaults on the part of the Contractor, shall be entitled, without invalidating the Contract, to: declare the Contractor in default; take the prosecution of the Work out of the hands of the Contractor; appropriate or use the Contractor's materials and equipment and enter into a contract or contracts for the completion of the Work or any portion of the Work; or may use such other methods as in Authority's opinion will be expedient for the completion of the Work.
- 4.4 If Authority, pursuant to Article 4.3 above, elects to take the prosecution of the Work, or any portion of the Work, out of the hands of the Contractor, Authority may, at its option:
 - A. Notify and require the Surety to complete the Work in accordance with the Contract Documents; or
 - B. Take all right, title and interest in and to the equipment and materials owned by the Contractor and assembled for use in the execution of the Work, and may use them for completion of the Work.
- 4.5 If the completion of the Work by any of the methods specified above results in financial loss to Authority, it may:
 - A. Dispose of, in the manner it determines to be in its best interest, any of the equipment or materials it acquired pursuant to this Article 4, without further legal process. Equipment or materials not required for completion of the Work or for the recoupment of loss or legal charges or any balance remaining from the disposition of any materials or equipment after the deduction by Authority of losses, costs and any legal charges, including attorney's fees, shall be turned over to the party legally or equitably entitled thereto;
 - B. Deduct from monies due or to become due to the Contractor under the Contract or any other contract with Authority all costs and legal charges incurred by Authority, and Authority will credit the Contractor with the balance remaining from any disposal of the equipment or materials; or
 - C. In the event the costs and legal charges, including attorney's fees, incurred by Authority, less the credits provided for, exceeds the sum which would have been payable under the Contract for the completed Work, hold the Contractor or its Surety liable to Authority for the amount of said excess.
- 4.6 In addition to the recovery of Authority's excess costs pursuant to this Article 4, the Contractor shall still be liable for damages incurred by Authority as set forth in Section 00500, Article 2.8.
- 4.7 If, after the Contractor is terminated under this Article 4, a determination is made that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued pursuant to Section 00500, Article 5.
- 4.8 The rights and remedies of Authority provided in this Article 4 are in addition to any other rights and remedies provided by law or under the Contract Documents.

ARTICLE 5 – TERMINATION FOR CONVENIENCE OF AUTHORITY

- 5.1 The Contract may be terminated by Authority pursuant to this Article 5, in whole or in part, whenever Authority determines that such termination is in its best interests. Any such determination shall be effected by delivery to the Contractor of a Notice

of Termination specifying the extent to which the Contract is terminated and the date upon which such termination becomes effective.

- 5.2 After receipt of a Notice of Termination and except as otherwise directed by Authority, the Contractor shall:
- A. Stop work under the Contract on the date and to the extent specified in the Notice of Termination;
 - B. Place no further orders or subcontracts for materials, services or equipment, except as may be necessary for completion of such portion of the Work not terminated;
 - C. Terminate all orders and subcontracts to the extent that they relate to the terminated portion of the Contract;
 - D. Assign to Authority, in the manner, at the time, and to the extent directed by Authority, all of the rights, title and interest of the Contractor under the orders and subcontracts so terminated. Authority shall have the right, in its sole discretion, to settle or pay any claims arising out of the termination of such orders and subcontracts;
 - E. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval of Authority, which approval shall be final for all the purposes of this Article 5;
 - F. Transfer title and deliver to Authority the following in the manner, at the time, and to the extent directed by Authority:
 1. The fabricated or unfabricated parts, work in process, completed work, and supplies and other materials or equipment procured as a part of, or acquired in connection with, the performance of the portion of the Contract terminated; and
 2. The completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been required to be furnished to Authority.
 - G. Use its best efforts to sell, in the manner, at the time, to the extent, and at the price or prices directed or authorized by Authority, any property of the types referred to in Article 5.2.F above, provided that:
 1. The Contractor will not be required to extend credit to any purchasers;
 2. The Contractor may acquire any property under the conditions prescribed by and at a price or prices approved by Authority; and
 3. The proceeds of any such transfer or disposition shall be applied as a reduction of any payments to be made by Authority to the Contractor under the Contract or shall otherwise be credited to the price or cost of the Work or paid in such manner as Authority may direct.
 - H. Complete the portion of the Contract that was not terminated by the Notice of Termination; and
 - I. Take any action, as may be necessary, or as Authority may direct, for the protection and preservation of the property related to this Contract, which is in the possession of the Contractor and in which Authority has or may acquire an interest, until the effective date of termination.

- 5.3 After receipt of a Notice of Termination, the Contractor shall submit to Authority its termination claim, if any, in the form and with the certification prescribed by Authority. Such claim shall be submitted promptly but in no event later than three (3) months from the effective date of termination. The failure of the Contractor to submit its termination claim within the time specified shall preclude the recovery of any costs or damages incurred by the Contractor as a result of the total or partial termination of the Contract pursuant to this Article 5.
- 5.4 Subject to the provisions of this Article 5, the Contractor and Authority may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of the Contract pursuant to this Article 5, which amount or amounts may include a reasonable allowance for profit on the portion of the Contract performed; provided, that such agreed amount or amounts shall not exceed the Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the portion of the Contract not performed or terminated. No claims for loss of anticipated profits will be allowed for the terminated portion of the Contract.
- 5.5 If an agreement is reached by the Contractor and Authority on the amount to be paid to the Contractor pursuant to this Article 5, the Contract shall be amended accordingly by a Change Order. Nothing in Article 5.6 below shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed to be paid to the Contractor pursuant to this Article 5.
- 5.6 In the event of the submission of a timely termination claim by the Contractor and the failure of the Contractor and Authority to agree upon the whole amount to be paid to the Contractor by reason of the termination pursuant to this Article 5, Authority shall determine, based on the information available to Authority, the amount, if any, due the Contractor by reason of such termination and shall pay the Contractor for the following:
- A. All work performed on the terminated portion of the Contract prior to the effective date of the Notice of Termination (without duplication of any items):
 1. The cost of acceptable work in place, and materials delivered;
 2. The cost of settling and paying claims arising out of the termination of work under subcontracts or orders, as provided in Article 5.2 above; and
 3. Reasonable profit for the portion of the Contract performed but no lost or anticipated profit on the portion of the Contract not performed.
 - B. The reasonable cost of the preservation and protection of property incurred, pursuant to Article 5.2.I above.
- 5.7 The total amount to be paid to the Contractor, pursuant to Article 5.6.A above, shall not exceed the Contract Sum as reduced by the amount of payments otherwise made to the Contractor and as further reduced by the value of that portion of the Contract not terminated. The fair value, as determined by Authority, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to Authority, or to a prospective buyer pursuant to Article 5.2.G above, accounting for normal spoilage and except to the extent that Authority shall have otherwise expressly assumed the risk of loss in writing, shall be excluded from the amounts payable to the Contractor under Article 5.6.A.
- 5.8 In arriving at the amount due the Contractor pursuant to this Article 5, the following shall be deducted:

- A. All previous payments made to the Contractor by Authority applicable to terminated portion of the Contract;
- B. Any claim which Authority may have against the Contractor in connection with the Contract; and
- C. The agreed price of any materials, supplies, or other items acquired by the Contractor or sold pursuant to this Article 5 and not otherwise recovered by or credited to Authority.

ARTICLE 6 – GUARANTEES AND WARRANTIES

- 6.1 Unless otherwise provided in the Contract Documents, the Contractor guarantees and warrants the Work to be in accordance with the requirements of the Contract Documents, to be fit for its intended purpose and to be free from defective and inferior materials, equipment and workmanship.
- 6.2
 - A. If, during any applicable guarantee or warranty period or within one year from the date of the Certificate of Acceptance of Final Inspection, whichever is later, Authority determines that the Work is defective, not fit for its intended purpose, or not in accordance with the requirements of the Contract Documents, Authority will inform the Contractor in writing and the Contractor shall repair or replace such work to the satisfaction of Authority and any collateral damage resulting from the defective work within a time specified by Authority, without additional expense to Authority.
 - B. In the event of a termination for default, pursuant to Section 00500, Article 4, the one-year period set forth in Article 6.2.A above shall commence on the date the Work is completed by others and accepted by Authority.
 - C. In the event of a termination for convenience of Authority, pursuant to Section 00500, Article 5, the one-year period set forth in Article 6.2.A above shall commence on the date of completion of the Work pursuant to the notice of termination.
 - D. All repairs or replacements shall be guaranteed and warranted, as required by Article 6.2.A above, or for a period of one year from the date of the acceptance by Authority of the repairs or replacements, whichever is later.
 - E. Should the Contractor fail to proceed within the time specified by Authority or in accordance with the guarantee or warranty, Authority may have such work performed by others and the costs of such work may be deducted from monies due, or to become due, the Contractor under the Contract or any other contract with Authority. In the event that final payment under the Contract has been made, the Contractor shall, within thirty (30) days of notification from Authority, reimburse Authority for such costs.
- 6.3 Any additional guarantee or warranty that may be required from the Contractor under the Contract Documents shall be subject to this Article 6 insofar as it does not conflict with the provisions of such additional guarantee or warranty.
- 6.4 The rights and remedies of Authority under this Article 6 are not intended to be exclusive and do not preclude the exercise of any other rights or remedies provided by the Contract Documents or by law with respect to unsatisfactory work performed by the Contractor.
- 6.5 Prior to the Contractor's submittal of the final pay estimate, the Contractor shall have all warranties and guarantees assigned to Authority including those from

Subcontractors, manufacturers and Suppliers. As deemed necessary by Authority, these warranties and guarantees shall be promptly enforced by this Contractor for Authority's benefit.

- 6.6 If the maker of any such warranties or guarantees fails to fulfill its obligation thereunder, the Contractor shall promptly fulfill such obligation of the maker or reimburse Authority for any costs incurred by Authority in replacing defective or inferior materials and correcting defective, unsound or improper work covered by any such warranties or guarantees.
- 6.7 Should the Contractor fail to proceed as provided in Article 6.6 above, on behalf of the maker, within the time specified by Authority or in accordance with the guarantee or warranty, Authority may have such work performed by others and the costs of such work may be deducted from monies due or to become due the Contractor under the Contract or any other contract with Authority. In the event that final payment under the Contract has been made, the Contractor shall, within thirty (30) days of notification from Authority, reimburse Authority for such costs.
- 6.8 Authority shall have the right to perform normal and routine maintenance and periodic inspections of the Work without voiding any warranty or guaranty provided or required pursuant to the Contract Documents or otherwise provided by the Contractor, Subcontractor, Manufacturer or Supplier.
- 6.9 If any warranties or guaranties expire prior to one year from the date of the Certificate of Acceptance of Final Inspection, or the termination of the Contract, the Contractor shall warrant such portions of the Work in accordance with Article 6.1 above.
- 6.10
 - A. For each of the following portions of the Work, the one-year period set forth in Article 6.2 and Article 6.9 above shall not apply, but instead, for said portions of Work, the applicable period shall be for one year and shall commence on the date of Authority's Conditional Acceptance of said portions of the Work.
 1. Work which will be Conditionally Accepted by Authority include, but are not limited to, the following:
 - a) Wood Street Station dual turn back operations and demolition and/or decommissioning of the Gateway Station and Loop as described in Section 00500, Article 2.6.A.1.b.1);
 - b) Gateway Station high voltage power supply as described in Section 00500, Article 2.6.A.1.b.2);
 - c) North Side Station high voltage power supply as described in Section 00500, Article 2.6.A.1.b.3); and
 - d) Train system installation and North Shore Connector system integration testing as described in Section 00500, Article 2.6.A.1.b.4).
 - B. For each of the following portions of the Work, the one-year period set forth in Articles 6.2 and 6.9 above shall not apply, but instead, for said portions of the Work, the applicable period shall be for two years and shall commence on the date of the issuance of the Certificate of Acceptance of Final Inspection:
 1. The Overhead Catenary System, its components, cables conductors and insulators.

- C. For all remaining portions of the Work, Articles 6.2 and 6.9 shall apply thereto.
- 6.11 Portions of the Work will, upon completion thereof, become the property and/or the responsibility of parties other than Authority ("Other Parties"). Such Other Parties shall be deemed to be third party beneficiaries to this Contract solely in regard to such portions of the Work, including any and all guarantees and warranties related to such portions of the Work, and said Other Parties shall have the right to enforce the guarantees and warranties directly with the Contractor. The Other Parties and portions of the Work that are subject to this Article 6.11 are as follows:
- A. Stadium Authority of the City of Pittsburgh Work.

END OF SECTION

Section 00600 – Contract Bonds

Table of Articles

Article 1 – Bonds and Certificates

Article 2 – Bond Forms

- Performance Bond (Form K)
- Labor and Materialman's Bond (Form L)
- Maintenance Bond – Third Party Modified (Form M)

ARTICLE 1 – BOND AND CERTIFICATES

- 1.1 The Bidder to whom the Contract is awarded shall furnish and maintain, through the duration of the Contract, the following Contract Bonds at its own expense:
 - A. Performance Bond - In an amount not less than one hundred (100) percent of the Contract Sum; and
 - B. Labor and Materialman's Bond - In an amount not less than one hundred (100) percent of the Contract Sum.
- 1.2 The Contractor shall furnish to Authority, at the time so indicated, the following Maintenance Bond(s). Each Maintenance Bond shall continue in full force and effect for the period specified, however, this shall not limit the Contractor's responsibilities for costs greater than the amount covered by each Maintenance Bond.
 - A. The Contractor shall furnish to Authority a Maintenance Bond in the amount of ten (10) percent of the Contract Sum. The Maintenance Bond shall also recognize and include portions of the Work performed for third party beneficiaries for the identified amounts as follows:
 - 1) in an amount totaling ten (10) percent of the Contract value of the completed Stadium Authority of the City of Pittsburgh Work.
- 1.3 Contract Bonds shall be on forms provided by Authority and shall be executed by a Surety or Sureties acceptable to Authority, licensed to transact business in the Commonwealth of Pennsylvania and named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as currently authorized under 31 CFR, Part 223 as possessing a Certificate of Authority as described thereunder. A copy of the required bonds are attached in Article 2.
- 1.4 Provisions of the foregoing Contract Bonds shall not limit, in any manner, any liability of the Contractor to Authority.
- 1.5 All alterations, extensions of time, extra and additional work, and other changes to the Contract may be made without securing the consent of the Surety or Sureties on the Contract Bonds. Such changes shall not, however, alter the Surety's or Sureties' responsibility relating to the Contract Bonds.
- 1.6 The Contract Bond shall not be modified, altered, amended or canceled by the Contractor or the Surety or Sureties without prior written consent of Authority.
- 1.7 If any Surety upon any bond furnished in connection with this Contract becomes unacceptable to Authority, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of Authority and of persons or firms supplying labor or materials in the prosecution of the Work.

ARTICLE 2 – BOND FORMS

FORM K

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, That _____ (–Contractor--) as PRINCIPAL, AND _____ as SURETY, are held firmly bound unto Port Authority of Allegheny County, hereinafter called Authority, in the sum of 100% of the Contract Sum, as it may change from time to time in accordance with the Contract Documents, for the payment of which sum well and truly be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the PRINCIPAL entered into a certain Contract, hereto attached, with Authority, dated the _____ day of _____, 20____, for North Shore Connector (NSC TRAIN SYSTEMS (SYSTEM WIDE), Contract No. NSC-009)

NOW, THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract, and any extensions thereof that may be granted by Authority, with or without notice to the Surety, and during the life of any guaranty or warranty required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, including changes which result in increases or decreases in the original Contract Sum with or without notice to the Surety, then this obligation to be void, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the above bounden parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and duly signed by its authorized representatives, pursuant to authority of its governing body.

IN PRESENCE OF:

PRINCIPAL

(IF SOLE PROPRIETOR):

Witness	Signature of Proprietor
---------	-------------------------

Business Name and Address

(IF A PARTNERSHIP):

Witness	Signature of General Partner
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Business Name and Address

(IF A CORPORATION OR JOINT VENTURE):

ATTEST:	Signature of Authorized Representative (Affix Corporate Seal, If a Corporation)
---------	--

(Seal)	Name and Title
--------	----------------

Business Name and Address

SURETY

ATTEST:	Signature of Authorized Representative (Affix Corporate Seal)
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Name and Title

Business Name and Address

FORM L

LABOR AND MATERIALMAN'S BOND

KNOW ALL MEN BY THESE PRESENTS, That (----Contractor ----) as PRINCIPAL, and

_____ as SURETY, are held firmly bound unto Port

Authority of Allegheny County, hereinafter called Authority, in the sum of 100% of the Contract Sum, as it may change from time to time in accordance with the Contract Documents, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into a certain Contract with Authority dated the _____ day of _____, 20____, for North Shore Connector, (NSC TRAIN SYSTEMS (SYSTEM WIDE) , Contract No. NSC-009)

NOW, THEREFORE, if the Principal shall promptly make payment to all persons supplying labor, equipment and material in the prosecution of the Work provided for in said Contract, and any duly authorized modifications of said Contract that may hereafter be made, including changes which result in increases or decreases in the original Contract Sum, with or without notice to the Surety, then this obligation to be void, otherwise to remain in full force and virtue.

IT IS FURTHER PROVIDED that every person, partnership, association or corporation who, whether as subcontractor or otherwise, has furnished material or equipment or supplied or performed labor in the prosecution of the Work, and who has not been paid therefore, may, in its own name, sue the surety in assumpsit on this bond and prosecute the same to final judgment for such sum or sums as may be justly due it, and have execution thereon, as provided by applicable law.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the above bounden parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and duly signed by its authorized representatives, pursuant to authority of its governing body.

IN PRESENCE OF:

PRINCIPAL

(IF SOLE PROPRIETOR):

Witness

Signature of Proprietor

(IF A PARTNERSHIP):

Witness

Business Name and Address

(IF A CORPORATION OR JOINT VENTURE):

ATTEST:

Signature of General Partner

Business Name and Address

Signature of Authorized Representative
(Affix Corporate Seal, if a Corporation)

Name and Title

Business Name and Address

SURETY

ATTEST:

Signature of Authorized Representative
(Affix Corporate Seal)

Name and Title

Business Name and Address

FORM M

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that (----Contractor----) as PRINCIPAL,
and _____ as SURETY, are held firmly bound unto Port
Authority of Allegheny County, (hereinafter called "Authority") in the sum of:

_____ DOLLARS (\$ _____), 10% of
the Contract Sum, as it may have been changed from time to time in accordance with the
Contract Documents and are held firmly bound unto Stadium Authority of the City of
Pittsburgh in the sum of 10% of the Contract value, as it may have been changed from
time to time in accordance with the Contract Documents, for the payment of which sum
well and truly to be made, we bind ourselves, our heirs, executors, administrators and
successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal
entered into a certain Contract with Authority dated the _____ day of _____,
20____, for North Shore Connector (NSC TRAIN SYSTEMS (SYSTEM WIDE) Contract No.
NSC-009)

NOW, THEREFORE, if the Principal shall remedy without cost to Authority and
Stadium Authority of the City of Pittsburgh any defects which, in the judgement of
Authority and Stadium Authority of the City of Pittsburgh, are caused by defective or
inferior materials or workmanship, and provided such defects develop during a period of
twelve (12) months from the date of the Certificate of Acceptance of Final Inspection, then
this obligation shall be void, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the above bounden parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and duly signed by its authorized representatives, pursuant to authority of its governing body.

IN PRESENCE OF:

PRINCIPAL

(IF SOLE PROPRIETOR):

Witness

Signature of Proprietor

Business Name and Address

(IF A PARTNERSHIP):

Witness

Signature of General Partner

Business Name and Address

(IF A CORPORATION OR JOINT VENTURE):

ATTEST:

Signature of Authorized Representative
(Affix Corporate Seal, if a Corporation)

Seal

Name and Title

Business Name and Address

SURETY

ATTEST:

Signature of Authorized Representative
(Affix Corporate Seal)

Name and Title

Business Name and Address

Section 00700 – General Conditions

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Article 2 – Intent of Contract Documents

Article 3 – Responsibility of the Engineer

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Article 16 – Use of Explosives

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Article 33 – Project Signs

ARTICLE 1 – INDEPENDENT CONTRACTOR

- 1.1 The Contractor shall be deemed at all times to be an independent contractor and shall be wholly responsible for the manner in which it performs the Work required under the terms of the Contract Documents. The Contractor shall be liable for its own acts and omissions as well as those of its employees and agents. Nothing contained herein shall be construed as creating an employment or agency relationship between Authority and the Contractor.
- 1.2 Terms in the Contract Documents referring to direction from Authority shall be construed as providing for direction as to policy and the result of the Work only, and not as to means by which such result is obtained.

ARTICLE 2 – INTENT OF CONTRACT DOCUMENTS

- 2.1 The Contract Documents describe the Work. Where the Contract Documents describe portions of the Work in general terms, but not in complete detail, generally accepted industry practice shall be followed and only new materials and workmanship of the highest quality shall be used in the Work.
- 2.2 The Contract Documents do not segregate work to be performed by any trade or subcontract. The assignment of work to the various trades or crafts shall be solely the responsibility of the Contractor.
- 2.3 The Contractor shall keep a copy of the Contract Documents at the Worksite and shall at all times give the Engineer and Authority access to them. Anything mentioned in the Contract Specifications and not shown on the Contract Drawings, or shown on the Contract Drawings and not mentioned in the Contract Specifications, shall be treated as if shown or mentioned in both.
 - A. Omissions from the Contract Documents of details of work which are necessary to carry out the intent of the Contract Documents, or which are customarily performed, shall not relieve the Contractor from performing such omitted details of work, but such details shall be performed as if set forth in the Contract Documents.
 - B. The Contractor shall promptly review all Contract Documents furnished to it upon receipt and shall therefore promptly notify the Engineer of any noted discrepancies. Figures marked on the Contract Drawings shall be followed in preference to scale measurements. The Contract Drawings showing the greatest detail shall govern. Before the layout or performance of the Work, the Contractor shall verify the actual conditions, dimensions, distances and locations of all facilities, utilities, structures and pavements which may be affected by the Work, and shall also compare with the Contract Drawings and the figures thereon. The Contractor shall be responsible for errors which would have been avoided by such verification. In case of a discrepancy in the figures mentioned in either the Contract Drawings, Contract Documents, or the actual locations, the Contractor shall promptly submit the matter to the Engineer, who will provide a written decision to the Contractor to resolve the discrepancy.
 - C. In the event there is a discrepancy within the Contract Documents or between the Contract Documents and a standard, regulation, or governmental requirement, the more stringent requirement shall apply.

- D. The Contractor shall submit requests for information and interpretation of the Contract Documents to the Engineer only on the Engineer provided form for Request for Information (RFI).
- 2.4 Portions of the Work require the Contractor to perform system design. The Contractor shall include all engineering, labor, tools and materials necessary to accomplish a complete system in all respects, except those specifically identified to be done by others. There will be no extra charges allowed for any work whether exactly described in the Bid Documents or not as long as such work, labor and materials are required in order to obtain the specified end product.
- A. Any drawings or measurements included with the Bid Documents shall be for the convenience of the Bidders only. Complete responsibility for detailed operating parameters and verification of all dimensions lies with the Contractor. The Contractor shall verify all operating parameters and dimensions related to its design responsibilities.
 - B. The Contractor shall be responsible for designing and furnishing all materials for an operational system, in accordance with all applicable codes, standards and specifications.
 - C. The Contractor shall comply with the applicable sections of the codes and standards used and recognized in the industry and specifications for the type of equipment provided.
 - D. The Bid Documents have provided the salient characteristics and performance requirements for an acceptable system. If a component part which is important to the operation of the system or subsystem is not identified, or if a modification to the existing structure necessary to ensure a proper and complete installation is not detailed or identified, it is the responsibility of the Bidder to identify the required components or modifications and include the cost of providing and installing same as part of its Bid. Such component parts or modifications not identified in the Bid Documents but found to be necessary to complete the Contractor design portions of Work shall be provided and installed by the Contractor at no additional cost to Authority.

ARTICLE 3 – RESPONSIBILITY OF THE ENGINEER

- 3.1 The Engineer will be Authority's representative for the Work and will act on behalf of Authority to the extent provided in the Contract Documents. All instructions issued by the Engineer shall have the same force as if issued by Authority.
- 3.2 The Engineer will determine whether the Contractor's performance of the Work is in conformance with the Contract Documents. The Engineer will, when required by the progress of the Work or at the request of Authority, render interpretation as necessary for the proper execution of the Work. No provision of this Article 3 shall be found to be in conflict with the procedures for settling disputes set forth in Section 00900, Article 3. Section 00900, Article 3 shall govern.
- 3.3 The Engineer has the authority to issue a Stop Work Order to stop a specific work activity if, in the Engineer's opinion, the work activity is not being executed by the Contractor in accordance with the Contract Documents. Any costs incurred by the Contractor as a result of the issuance of a Stop Work Order shall be the

responsibility of the Contractor. Should the Contractor disagree with the issuance of the Stop Work Order, it shall follow the procedures set forth in Section 00900, Article 3.

- 3.4 Notwithstanding any provision of the Contract Documents, no contractual relationship exists between the Contractor and the Engineer.

ARTICLE 4 –SUPERVISION OF CONSTRUCTION

- 4.1 The Contractor shall supervise and direct the Work and shall be solely responsible for all means, methods, techniques, sequences and procedures required to properly and safely complete the Work within the schedule requirements of the Contract and for coordination of all portions of the Work.
- 4.2 Before starting the Work, the Contractor shall provide, in writing to the Engineer, the name, qualifications, and experience of its proposed representative and alternate. Upon approval by the Engineer, the proposed representative and alternate shall have complete authority to represent and act on behalf of the Contractor. This authorized representative or alternate shall be present at the Worksite at all times while the Work is in progress.
- 4.3 The Contractor shall request, in writing, approval from the Engineer, when it desires to change its representative or alternate and shall provide all information requested by the Engineer regarding the new representative or alternate. The Engineer will, within five (5) working days after receipt of such request, reply to such request from the Contractor.
- 4.4 If the Engineer determines that a member of the Contractor's management and/or supervisory staff is not effective in executing his or her duties, the Engineer may direct, in writing, with specific reasons for doing so, the Contractor to replace the current member of its management and/or supervisory staff with a new qualified member. The Contractor shall reply to such notice from the Engineer within three (3) working days of receipt of such notice and shall provide necessary information to the Engineer regarding its new staff member for approval.

ARTICLE 5 – IDENTIFICATION OF EMPLOYEES

- 5.1 The Contractor, Subcontractors and Suppliers shall provide all personnel with distinctive identification showing the employer's name and employee's name and number. Such identification must be displayed in a prominent manner on each person while engaged on the Work. Access to the Worksite will be granted only to properly identified representatives of the Contractor, Subcontractors and Suppliers.

ARTICLE 6 – COMMUNITY RELATIONS

- 6.1 The Contractor shall be responsible for maintaining a continuing liaison with the public and local municipalities, including but not limited to, persons occupying property or doing business in the immediate area of the Worksite, for the purpose of minimizing inconveniences resulting from construction. The Contractor shall contact, as necessary, residents, businesses, or agencies the Contractor's activities may affect and explain to them the means by which they can contact a representative expeditiously. The Contractor shall assign this responsibility to an employee, who shall be the Contractor's Community Relations Representative, with authority to act on requests or complaints. The Contractor shall submit to the

Engineer at the Pre-Construction Conference, for the Engineer's approval, its Community Relations Representative's resume and telephone number. The Contractor shall promptly report in writing to the Engineer any such requests or complaints, in advance of any action being taken by the Contractor for resolution of the issues. The Contractor shall make no statement to the news media relative to the Contract without prior written authorization from Authority's Project Representative who will coordinate with Authority's Media Relations Department. The Contractor's Community Relations Representative shall attend community meetings with Authority, when so requested.

ARTICLE 7 – INSURANCE

7.1 Insurance Provided by OCIP

Except as otherwise provided in the Contract, Authority will maintain an Owner Controlled Insurance Program ("OCIP"), with Authority, the Contractor, the covered Subcontractors, as described in this Article, and such other persons and entities as Authority may designate, as Insured Parties, with limits not less than those specified below for each coverage. For the purpose of this Article 7, the term "Project Site" shall be understood to mean the area where the Work is to be performed as shown on the Contract Drawings.

The OCIP coverage shall not apply to: Suppliers, vendors, truckers, material dealers, guard service, janitorial service, or others who are solely engaged in the stocking, testing, transporting, picking up, delivering or carrying materials, parts, equipment or any other items or persons to or from the Project Site; Suppliers and others who furnish material in accordance with the Contract Documents but who perform no operations at the Project Site; or employees who are temporarily at the Project Site for meetings, deliveries or similar activities. Asbestos abatement and hazardous remediation work are not covered by the OCIP.

OCIP coverage for the Contractor, as well as any covered Subcontractor, requires the completion of an OCIP Form 1 Enrollment application, as described more fully below, and a determination on enrollment into the OCIP by Authority, both of which must occur before the performance of any portion of the Work at the Project Site and/or at a pre-approved temporary off-site storage or staging location, as described more fully below. Authority may, in its sole discretion, and at any time prior to or during the performance of any portion of the Work, elect not to enroll or cease the enrollment of the Contractor or any Subcontractor.

The following is a description of the OCIP:

- A. The OCIP will provide the following insurance coverages for the Contractor and covered Subcontractors:
 1. Workers' Compensation and Employers Liability Insurance

Workers' Compensation Insurance for Statutory Benefits as provided by state statute and Employer's Liability Limits:

- (a) \$1,000,000 Bodily Injury with Accident – Each Accident;
- (b) \$1,000,000 Bodily Injury with Disease – Policy Limit; and
- (c) \$1,000,000 Bodily Injury with Disease – Each Employee.

Such insurance will be endorsed to include Longshore and Harbor Workers Compensation Act Coverage, if applicable. The policy will be endorsed to include "Other States Coverage."

Coverage under the policy will apply only to the portion of the Work performed at the Project Site and/or at a pre-approved temporary off-site storage or staging location. Coverage is not provided for employees subject to Workers' Compensation laws or similar regulations outside the United States.

2. Commercial General Liability Insurance (excluding aircraft, watercraft, trucks and automobiles) written on a 2001 Occurrence Form, or equivalent, with the following annual limits:

\$2,000,000 Bodily Injury and Property Damage – Per Occurrence;
\$2,000,000 Personal Injury / Advertising Liability;
\$4,000,000 Products / Completed Operations Aggregate; and
\$4,000,000 General Aggregate – for the entire North Shore Connector Project (the "NSC Project").

Coverage under this policy includes, but is not limited to, the following:

Personal injury liability;
Blanket Contractual Liability covering contractual liability assumed under the Contract;
Employees included as Additional Insureds;
Broad Form Property Damage Liability;
Cross Liability and Severability of Interest;
Incidental Medical Malpractice Coverage;
Explosion, Collapse and Underground Hazard; and
Completed operations coverage with provision for an additional five (5) years extension for each portion of the NSC Project after said portion of the NSC Project is utilized for its intended use by the owner of said portion of the NSC Project or the policy is allowed to expire or is cancelled, whichever occurs first.

Coverage exclusions include, but are not limited to, the following:

Any loss insurable by the Builders' Risk Insurance policy;
War and Nuclear Energy Liability;
Pollution and Asbestos Liability;
Aircraft, Helicopter, Watercraft, Automobile and Truck Liability;
Professional (Errors & Omissions) Liability;
Intentional Acts;
Products Recall;
Mold; and

EFIS.

The Commercial General Liability Insurance will provide protection during performance of the Work from claims for damage or injury to persons, including wrongful death, and for damage to property which may arise from the performance of the Work at the Project Site and/or at a pre-approved temporary off-site storage or staging location, whether such portion of the Work be performed by the Contractor or any covered Subcontractors or by anyone directly or indirectly employed by either the Contractor or such Subcontractors. The General Liability Policy will name Authority, its directors, officers, agents and employees, the Engineer, the Contractor, any covered Subcontractor, other Authority contractors and such other persons and entities as Authority may designate as additional insureds.

This coverage will not apply to claims arising out of the use of aircraft or watercraft.

Such insurance will not include coverage for products liability for any insured party, Subcontractor, vendor, Supplier, material dealer or others for any product(s) manufactured, assembled or otherwise worked upon away from the Project Site.

Coverage under the policy will not apply with respect to employees of Contractors or any Subcontractors engaged in hauling activities from or to the Project Site.

3. Excess Liability

Excess Umbrella Liability insurance of \$50,000,000 each occurrence and an aggregate annual limit of \$50,000,000 for the entire NSC Project, which shall be in excess of the underlying Commercial General Liability and Employer's Liability Insurance covering the performance of the Work at the Project Site and/or at pre-approved temporary off-site storage or staging locations. This policy will contain the following extension:

Five-year completed operations extension for each portion of the NSC Project after said portion of the NSC Project is utilized for its intended use by the owner of said portion of the NSC Project or the policy is allowed to expire or is cancelled, whichever occurs first.

4. Builder's Risk

Builder's Risk insurance on an "all-risk" basis to cover replacement cost of the portion of the Work performed or in progress up to a limit of \$100 million per occurrence. This "all-risk" replacement cost coverage will be for the length of the Contract and will include coverage for all equipment, materials and supplies which are destined to become a permanent part of the Work and will include coverage at the Project Site during storage and/or installation, while at temporary off-site storage locations and while in transit within the continental United

States of America and within the District of Columbia to the Project Site or the approved off-site storage locations.

Coverage for temporary works including all scaffolding, form work, fences, shoring, hoarding, falsework and temporary buildings that are incidental to the project will also be included in the "all-risk" Builders Risk insurance if the value for these temporary works have been included in the Total Contract Value. In the event of a loss under the Builder's Risk insurance, Contractor shall be responsible for payment of ten percent (10%) of all deductibles associated with any such loss or claim.

The per occurrence deductible for this policy will be as follows:

- (a) Basic Deductible (for all losses except those designated below): \$50,000;
- (b) Physical loss of or damage to the NSC Train Systems - \$250,000
- (c) Any loss caused by water damage, windstorm or earthquake - \$250,000;
- (d) Any loss caused by flood: 5% of values at risk, subject to a minimum of \$1,000,000; and
- (e) Testing, except Hot Testing - \$100,000

Exclusions from this Builder's Risk insurance may include, but are not limited to the following:

- (a) loss or damage resulting from mysterious disappearance;
- (b) loss or damage caused by wrongful removal of any property of a Named Insured or any Additional Insured by any employee(s) of such Named Insured or Additional Insured;
- (c) loss or damage to the Contractor's or any Subcontractors' owned, leased or rented property or construction-type tools, equipment, machinery or supplies used for construction but not intended to be permanently incorporated in the Work, including but not limited to, the tunnel boring machine;
- (d) loss or damage covered by a manufacturer's warranty or guarantee; and
- (e) loss or damage to defective property or material however, resultant damage occurring from an insured peril is covered.
- (f) loss or damage during Hot Testing
- (g) loss or damage to light rail vehicles

B. General Provisions Relating to Insurance Provided by OCIP

1. All insurance premiums for OCIP policies and coverages will be paid by Authority on behalf of all insureds and all refunds will be paid to Authority. The Contractor shall not, and hereby affirmatively represents that it has not, included insurance costs for these coverages in its Bid except allowance for such amounts as may be required for Contractor's payment of deductible expenses pursuant to Sections 7.1 (A), 7.1 (B)(2)(b), and 7.1 (B) (2) (c).

2. All deductibles for the OCIP policies will be paid by Authority except as noted otherwise below:
 - (a) Contractor shall be responsible for a deductible applicable to each occurrence with respect to General Liability damages caused by the Contractor or its Subcontractor. The deductible amount will be deducted from monies due the Contractor by Authority in an amount not to exceed \$5,000 each occurrence.
 - (b) An Insurance Deductible Fund Allowance has been established in the Unit Price Schedule of the Form of Proposal to provide a reserve fund for insurance deductibles for General Liability damage claims under the OCIP. During the performance of the construction portion of the Contract, the Contractor shall not be entitled to payment of any of the Insurance Deductible Fund Allowance. If the total of the deductibles, which are the responsibility of the Contractor, are less than the allowance set forth in the Unit Price Schedule, Contractor shall receive the balance of the allowance as part of its final payment under the Contract. If at any time the total sum of the deductibles for all claims resulting from actions or inactions by the Contractor or its Subcontractor in the performance of the Work exceeds the Insurance Deductible Fund Allowance, damages will be incurred by Authority. In such an event, Authority will deduct, from monies due or to become due the Contractor under the Contract or any other contract with Authority, amounts sufficient to cover the incurred damages. If such monies are insufficient, the Contractor or its Surety shall pay to Authority any deficiencies within 45 days of written notice by Authority.
 - (c) Contractor shall be responsible for ten percent (10%) of the amount of any deductible applicable to the Builder's Risk insurance policy for each loss or claim which arises from or is caused by the failure of the Contractor to perform in accordance with the requirements of the Contract Documents. Any deductible amount which is the responsibility of the Contractor will be deducted from any monies due, or that become due, to the Contractor under the Contract or under any other contract with Authority, or if such monies are insufficient, the Contractor shall pay to Authority any deficiencies in such monies within forty-five (45) days of a written demand by Authority. Authority's decision as to whether any such loss or claim is caused by the Contractor shall be accepted by the Contractor as final and binding.
3. Each Bidder shall exclude all Workers' Compensation, General Liability, Excess Liability, and Builders Risk costs for the portion of the Work performed at the Project Site and/or at pre-approved temporary off-site storage or staging locations from its Bid. Each Bidder shall affirmatively warrant, as part of its Bid, that such insurance costs for the coverages listed in Article 7.1 are excluded from its Bid and no such coverage is duplicated by the Bidder. Except as noted in B.1 above.
4. The Contractor and its Subcontractors shall complete and submit an OCIP Form 1 Enrollment Application in accordance with the most

current version of the OCIP Manual, which form will be provided by Authority to the Contractor. The Contractor shall complete and submit the OCIP Form 1 Enrollment Application, including the supporting documents (copies of policy declaration pages and policy rate pages) to Authority within ten (10) days of the issuance of the Notice of Award and receive a determination on enrollment into the OCIP prior to the performance of any portion of the Work at the Project Site and/or at any pre-approved temporary off-site storage or staging location.

Further, the Contractor shall ensure that each Subcontractor also completes an OCIP Form 1 Enrollment Application and a determination on enrollment into the OCIP is made by Authority prior to the Subcontractor performing any portion of the Work.

The Contractor hereby warrants the accuracy of the information in its and any Subcontractor's OCIP Form 1 Enrollment Application and agrees that Authority or its representative may audit the Contractor's and any Subcontractor's records to confirm its accuracy. The Contractor shall also provide complete copies of its current insurance policy declaration page and rate pages, if requested by Authority to verify the accuracy of the information to be provided upon request.

5. After the receipt of a properly completed Enrollment Application, the OCIP Administrator, as identified below, will furnish separate workers' compensation policies to the Contractor and each approved Subcontractor. A Certificate of Insurance evidencing Commercial General Liability, Excess Liability and Builder's Risk coverage will also be provided to each program participant. Policies relating thereto shall be placed on file with the OCIP Administrator and will be available for review by the Contractor and approved Subcontractor and/or their designee during normal working hours. Also evidence of the renewal of such policies expiring during the term of the Contract will be provided to the insured parties thirty (30) days prior to the renewal date of the policy.
6. Authority will endeavor to maintain the OCIP throughout the performance of the Work, but no warranty or representation is made by Authority, that, due to insurance market conditions, cost, loss record or other factors, changes to the OCIP will not be made at a later date and Authority hereby expressly reserves the right to change and/or cancel the OCIP as it, in its sole discretion, may determine to be appropriate. In the event that Authority exercises its right to cancel the OCIP, the Contractor shall then supply insurance as set forth in Article 7.1.A above. The Contractor shall not, however, bind or place such insurance unless instructed by Authority in writing. The actual costs incurred by the Contractor to purchase any such insurance will be reimbursed, through a change order, to cover the actual costs incurred by the Contractor for such insurance except that the Contractor shall not be entitled to any markup for overhead or profit; provided, however, that if changes to the OCIP are made and/or the OCIP is cancelled as the result of the Contractor's failure to perform in accordance with the requirements of the Contract Documents, then the Contractor shall be

solely responsible for the payment of any such costs without reimbursement from Authority.

7. The Contractor and all Subcontractors shall permit Authority and/or its representatives to audit the payroll records used in determining the OCIP premium costs and shall assign (and execute any document required) any and all dividends or refunds to Authority which may occur under the OCIP insurance policies. The Contractor and Subcontractors shall provide and/or make available for audit any and all records reasonably needed by Authority and/or its insurer(s) to calculate the premium that is to be paid by Authority. The Contractor and the Subcontractors shall keep and maintain, in a professional manner, sufficient records as may be needed to properly calculate insurance premiums for all insurance that Authority's provides through the OCIP.
8. The OCIP will apply only to claims or occurrences arising from the performance of any portion of the Work at the Project Site and/or at any pre-approved temporary off-site storage or staging locations. For a temporary off-site storage or staging location to be covered by OCIP, the site must be used exclusively for the performance of the Work, must be located reasonably adjacent to the Project Site and must have been pre-approved, in writing, by the Engineer. The OCIP shall not apply to operations in regularly established main or branch offices, factories, shops, warehouses, or similar places. In addition, any employees of the Contractor, any Subcontractors or Suppliers, which are materialmen or suppliers, and others who merely make deliveries or pick-ups to or from the Project Site or to any temporary off-site storage or staging location are not covered under the OCIP. Portions of the Work, if any, related to asbestos abatement and hazardous remediation are not covered by the OCIP. The OCIP will not provide Workers' Compensation to operators of vehicles (truckers) not permanently assigned to the Project Site and/or a pre-approved temporary off-site storage or staging location.
9. The Contractor and Subcontractors shall assist in every manner possible in the reporting and investigation of any accident. Upon request, the Contractor and/or Subcontractor shall cooperate with Authority and its insurer(s) in the handling of any claim by securing and giving evidence and obtaining the attendance of witnesses.
10. To the extent that a loss is covered by the OCIP, and recovery is made for such loss, the Contractor and any covered Subcontractor, and their respective directors, officers, employees and agents, hereby mutually release all insureds from liability and waive any rights of recovery against all such insureds for any loss insured under the OCIP to the extent permitted by law, no matter how caused. The Contractor shall expressly require all Subcontractors to so expressly waive their rights of subrogation in each of their respective agreements with respect to the Work.
11. The OCIP coverages, procedures and responsibilities of the Contractor and all covered Subcontractors shall be more completely described

and defined in the OCIP Manual. Authority reserves the right to revise the OCIP Manual at its sole discretion, at any time. The Contractor shall fully comply with, and shall require the Subcontractors to fully comply with, the procedures of the OCIP Manual, including but not limited to, completion of necessary applications for coverage and claim reporting procedures. The OCIP Manual will be provided to the Contractor after the issuance of the Notice of Award.

12. The carrying of the insurance by Authority through the OCIP shall in no way relieve the Contractor of any liability, responsibility or obligations under the Contract.
13. The Contractor shall require each Subcontractor to comply with these insurance conditions and incorporate the conditions of this Article 7 in any agreement with its respective Subcontractors.
14. The Contractor and each Subcontractor must provide a completed payroll report form, on the forms provided, to the Engineer, with each pay estimate submitted for the Work. The payroll report form will be provided to the Contractor in the OCIP Manual.
15. The Contractor and the Subcontractors shall furnish Authority and its insurer(s) with any information necessary to administer this OCIP, including the following:
 - Furnish information required to issue the insurance policies by completing the OCIP Enrollment Application and providing copies of the declarations and rating pages from their current Workers' Compensation and General Liability policies;
 - Maintain payroll records for the Work and have such records available upon request;
 - Maintain separate "regular" and "overtime" payrolls in accordance with Authority's insurer's normal audit procedures;
 - Maintain payroll information on file for a period of not less than four (4) years beyond the issuance of the Acceptance Certificate;
 - Assist in the reporting and investigation of any accident and, upon request, cooperate with Authority and its insurer in the handling of any claim by securing and giving evidence and obtaining the cooperation of witnesses as required for any claim or suit;
 - Sign a dividend release form authorizing the OCIP insurance companies to pay any dividends, refund or retrospective returns directly to Authority;
 - Allow Authority, its representatives and/or the OCIP insurer to perform periodic audits of payroll records;
 - Notify its insurance brokers, agents and insurers of the insurance coverage provided under the OCIP and instruct them to exclude such coverage from the Contractor's or Subcontractor's other policies. Copies of such letter shall be sent to Authority; and
 - Include the conditions of this Article in its subcontracts and require each Subcontractor at any tier to do likewise.
16. At the request of Authority, the Contractor and Subcontractors shall attend meetings held to explain and discuss the OCIP.

17. The Contractors and Subcontractors shall not attempt to exercise any right to cancel any of the policies without the express written consent of Authority and any attempted cancellation without said express written consent shall be null and void.
18. The Contractor and Subcontractors shall not duplicate coverages provided under this OCIP. If the Contractor and/or any Subcontractors choose to have their policy endorsed to include the OCIP during the construction period, coverage should be Excess and/or Difference in Conditions of the OCIP. The inclusion of the OCIP on such insurance policies shall not replace the OCIP coverage or otherwise affect the cost of insurance identified on the OCIP Enrollment Application. The cost of any other type of insurance, or any increase in the limits of liability above those provided by the OCIP which the Contractor or any Subcontractor has procured for their own protection or on account of any statute shall be the sole responsibility of the Contractor.
19. The Contractor shall attend insurance claims review meetings, when and if requested by Authority. Attendance required at such meetings shall include, at a minimum, the Contractor's risk manager and/or Safety Supervisor(s) and the Contractor's Project Manager. The Agenda from such meetings may include, but not be limited to, the following:
 - (a) Review of Workers' Compensation and General Liability Claims;
 - (b) Review of field observations and issues;
 - (c) Review of Safety Program; and
 - (d) Planning of a course of action to reduce losses.
20. Notwithstanding anything herein to the contrary, the insurance policies and/or coverages provided by Authority through the OCIP shall apply to occurrences within the coverage of the policies and that occur on or after the date of commencement of the Work and before, for each portion of the NSC Project, said portion of the NSC Project is utilized for its intended use by the owner of said portion of the NSC Project or the policy is allowed to expire or is cancelled, whichever occurs first. For each portion of the NSC Project, completed operations coverage will continue for five (5) years beyond the above noted event.
21. All covered Subcontractors shall complete and provide a Notice of Work Completion Form as provided in the OCIP Manual within 10 days of the last day of performance of their respective portions of the Work at the Project Site and/or at any pre-approved temporary off-site storage or staging location.
22. Participation in the OCIP is required for the Contractor and Subcontractors performing any portion of the Work at the Project Site and/or at any pre-approved temporary off-site storage or staging locations with the following exceptions:
 - (a) The performance of any portion of the Work which involves asbestos abatement, lead abatement, or any other environmental remediation; and

- (b) Except as expressly set forth in the article to the contrary, the OCIP is not intended to cover Suppliers, vendors, material dealers, or visitors.
- 23. If the Contractor or any of its Subcontractors elect to purchase insurance to reimburse for contractually obligated deductibles/self-insured retentions contained herein, such insurance must specify that it will only apply to the reimbursement obligations contained in the Contract. The insurance shall recognize that the OCIP coverage will be primary.
- 24. Losses of each participant in the OCIP will be filed with the appropriate rating bureau. Experience Modifiers of the OCIP participant could be affected, either positively or negatively, by their loss experience while performing the Work.
- 25. OCIP coverage will cease for any employee when he or she leaves the Project Site either to perform other work not covered by the Contract or by OCIP or for employee personal time.

7.2 Insurance to be Provided by the Contractor

In addition to the insurance coverage provided by the OCIP, the Contractor shall procure, within ten (10) days of receipt of the Notice of Award, and maintain, at its own cost and expense, during the entire period of the performance of the Work for the time period designated below, the following types of insurance with limits not less than those shown:

- A. Automobile Liability - Automobile Bodily Injury and Property Damage Liability Insurance covering all automobiles, whether owned, non-owned, leased or hired, with minimum limits of \$1,000,000 Each Accident, Combined Single Limit. The policy will have the following requirements:
 - 1. The policy shall cover the use of all owned, non-owned, leased and hired vehicles;
 - 2. The policy shall include a 30-day notice of cancellation to Authority; and
 - 3. Waiver of subrogation endorsement in favor of Authority.
- B. Equipment Floater (Optional) - The Builders Risk Insurance provided by the OCIP will not cover tools and equipment which are not incorporated into the Work. The Contractor, as such, will need to, at its option, insure against loss to its own equipment, tools, etc.

For all property of the Contractor which is insured under a Contractor's Equipment policy, the Contractor waives the right of its insurers to subrogate against Authority, and any liability policy which is paid for by Authority, and shall provide documentation to demonstrate that its insurers have consented to such waiver.

- C. Workers' Compensation and Employer's Liability (For the portion of the Work performed outside the Project Site, any temporary off-site storage or staging location not included in OCIP and/or any other portion of the Work not covered by OCIP):

Workers' Compensation Insurance for Statutory Benefits as provided by state statute and Employer's Liability Limits:

\$500,000 Bodily Injury with Accident – Each Accident;
\$500,000 Bodily Injury with Disease – Policy Limit; and
\$500,000 Bodily Injury with Disease – Each Employee.

The policy shall have the following requirements:

1. The policy shall include a 30-day notice of cancellation to Authority;
 2. Voluntary compensation endorsement; and
 3. Waiver of subrogation endorsement in favor of Authority to the extent permitted by law.
- D. Commercial General Liability (For the portion of the Work performed outside the Project Site, any temporary off-site storage or staging location not included in OCIP and/or any other portion of the Work not covered by OCIP):

For Contractors, the following limits shall be required:

\$2,000,000 Bodily Injury and Property Damage – Per Occurrence;
\$2,000,000 Personal Injury / Advertising Liability;
\$4,000,000 Products / Completed Operations Aggregate; and
\$4,000,000 General Aggregate.

For Sub-contractors, the following limits shall be required:

\$1,000,000 Bodily Injury and Property Damage – Per Occurrence;
\$1,000,000 Personal Injury / Advertising Liability;
\$2,000,000 Products / Completed Operations Aggregate; and
\$2,000,000 General Aggregate.

The policy shall not be provided under a "Claims-Made" or "Modified Occurrence" policy without the prior, express written consent of Authority. Such policy shall also: be no less comprehensive and no more restrictive than the coverage provided on a 2001 Occurrence form; include by its terms appropriate endorsements Bodily Injury, Property Damage, Personal Injury, Blanket Contractual, Independent Contractors, and Products and Completed Operations coverages; and include Products Liability coverage for any products manufactured, assembled or otherwise worked on away from the Project Site. The policy shall also set the following requirements:

1. The policy shall include a 30-day notice of cancellation to Authority;
2. Blanket Contractual Liability covering contractual liability assumed under the Contract;
3. Waiver of subrogation endorsement in favor of Authority;
4. Completed operations extended for three years;
5. Broad Form Property Damage Liability;
6. Fellow employee coverage; and
7. Modified Other Insurance Clause.

- E. Excess Liability Insurance (For the portion of the Work performed outside the Project Site, any temporary off-site storage or staging location not included in OCIP and/or any other portion of the Work not covered by OCIP):

Limits of Liability

\$5,000,000 any one occurrence and General Aggregate annually, including Products/Completed Operations.

- F. Marine Liability – If any portion of the Work will be performed using owned or non-owned watercraft, the Contractor shall provide a minimum of \$25 million limits for all marine liabilities including, but not limited to, Protection & Indemnity, including Crew, Collision and Towers Liability, Marine Pollution Liability, Wharfingers Liability (if applicable), and Harbor Workers and Longshoremen's Liability.
- G. Pollution Liability Insurance. The Contractor shall purchase and maintain during the performance of the Work, Pollution Liability insurance as follows:

Minimum Limits of Liability:

\$5,000,000 per occurrence; and
\$5,000,000 annual aggregate.

Coverages:

Punitive damages coverage, where not prohibited by law;
Retroactive date prior to the Work;
Extended reporting period of 36 months; and
No exclusions for asbestos, underground storage tanks and radioactive.

- H. Ocean Marine Cargo Insurance/International Transit – The Contractor shall provide Ocean Marine Cargo Insurance on all equipment/material while in transit to the Project Site by any means of conveyance or by international air transportation and/or connecting conveyances with a limit not less than the largest single shipment. Coverage shall commence prior to shipment and continue until accepted at the Project Site.
- I. Professional Liability Insurance – The Contractor shall provide Professional Liability Insurance if the Contractor (or any Subcontractor or Supplier) performs or retains others to perform professional services in connection with the Work, including engineering, architectural, medical, testing, environmental assessment or remediation, or design-build services, with a minimum limit of One Million Dollars (\$1,000,000) Per Wrongful Act, Error, or Omission, and a minimum Two Million Dollars (\$2,000,000) Annual Aggregate Limit.
- J. General Provisions relating to the insurance provided by the Contractor.

1. Liability limits may be arranged under single policies for the full limits required or by a combination of underlying policies with the balance provided by an Umbrella Liability or Excess Liability policy.
2. The Contractor may acquire, at its own expense, any other additional insurance coverages or increased limits it deems necessary for the performance of the Work.
3. Within ten (10) days after receiving Notice of Award, the Contractor shall furnish Insurance Certificates satisfactory to Authority outlining required coverages. Such insurance will contain the following provisions:

- a) At a minimum, thirty (30) days prior written notice to Authority of cancellation or change; and
- b) Inclusion of Authority, the Engineer, the Sports and Exhibition Authority of the City of Pittsburgh and Allegheny County, Stadium Authority of the City of Pittsburgh, Pittsburgh Steelers Sports, Inc.(PSSI), PSSI Stadium Corp., North Shore Developers L.P., Continental, Continental/North Shore Manager, LLC, Alco, Employee Real Estate Construction Trust Fund (ERECT), Strategic Investment Fund Partners (SIF), Commonwealth of Pennsylvania, Pittsburgh Baseball Partnership, Pittsburgh Baseball, Inc., Grand Slam Development, L.P., Home Run Development, LLC, North Shore General, LLC, and Gridiron Development Co. L.P as Additional Insureds under Form CG2010 dated 11/85 or its equivalent for the Contractor's full limits of coverage, on a primary basis, but in no case less than the limits specified herein, with respect to the Work for all liability policies, (except professional liability policy).

Certificate Holder to be listed as:
Port Authority of Allegheny County
Heinz 57 Center
345 Sixth Avenue, Third Floor
Pittsburgh, PA 15222-2527
Attention: Cathy Frye

- c) Each insurance policy will be endorsed to state that the policy is primary and not contributory to or excess of any other insurance which may be in force for any Additional Insured.
- 4. No certificate will be accepted which exculpates the insurer or reduces any right conferred on Authority by the above certificates, nor will they be accepted unless the certificates bear the signature of a direct representative of an insurance company authorized to do business in the Commonwealth of Pennsylvania.
- 5. All such policies shall be placed with insurers, and in form acceptable to, Authority.
- 6. If requested by Authority, the Contractor shall furnish certified copies of the required insurance policies to Authority within ten (10) days of such request.
- 7. The Contractor shall furnish Certificates of Insurance for the renewal of such policies expiring during the term of the Contract forty-five (45) calendar days prior to the renewal date of the policies.
- 8. The Contractor's compliance with these requirements for insurance shall not relieve or decrease the liability of the Contractor, in any way, under the Contract.
- 9. If the Contractor fails to furnish to Authority a Certificate of Insurance for each policy required to be obtained herein or, if after furnishing such Certificate of Insurance, the policy lapses, is canceled, or is materially altered, then in every such case Authority may obtain and maintain such insurance in the name of the Contractor. The cost thereof shall be payable by the Contractor to Authority immediately on demand, and Authority, may at its election, deduct

- the cost thereof from any monies which are due or may become due to the Contractor under the Contract or any other contract with Authority.
- 10. The Contractor shall be responsible that all Subcontractors, Suppliers, vendors, material dealers and visitors are insured in accordance with Article 7.2.

7.3 General Provisions Relating to Insurance

- A. To the extent that Authority provides insurance in accordance with this Contract, any claim involving third parties or Workers' Compensation shall be immediately reported to the Engineer and in accordance with the OCIP Manual procedures and the applicable insurance agreement or policy.
- B. In addition to any other requirements of this Article, the Contractor shall notify the Engineer and the OCIP Administrator, Marsh USA Inc., Six PPG Place, Suite 300, Pittsburgh, PA 15222-5499, Attention: Gary Meinen, Telephone: (412) 552-5289, Fax: (412) 552-5999, of the award or issuance of all subcontracts at least five (5) days prior to a Subcontractor performing any portion of the Work at the Project Site or at any pre-approved temporary off-site storage or staging location.
- C. Failure by the Contractor to comply with the insurance requirements in this Article or with the OCIP Manual procedural requirements, including, but not limited to, enrollment, completion of OCIP Enrollment Application, payroll reporting and claim administration, may result in payment being withheld from the Contractor.
- D. Authority shall not be required to make final payment to the Contractor, nor shall the Contractor release/make final payment to any Subcontractor, unless the required payroll audits have been submitted as required by this Article.
- E. If an employee of the Contractor or any Subcontractor, enrolled in the OCIP, has multiple workers' compensation claims, the employee will be required to participate in appropriate safety training, to be provided by his or her employer, in order to avoid additional injuries. It will also be necessary to comply with insurance carrier recommendations, if any.
- F. All of the insurance provided by the Contractor and Authority pursuant to the Contract shall provide primary coverage with respect to the Work, unless noted otherwise herein. Any other insurance maintained by the Contractor or any Subcontractor shall be in excess of such insurance and shall not contribute to it.

ARTICLE 8 – INDEMNIFICATION

- 8.1 The Contractor shall defend any and all suits, actions or claims brought against Authority, the Engineer, the Government and other agencies and entities as identified in the Contract Documents, and their respective officers, directors, agents and employees for or on account of any injuries or damages alleged to have been caused by, through, or in connection with, the performance of the Work, whether due to the use of defective materials or defective workmanship or on account of any act, omission, or negligence of the Contractor, its employees, its Subcontractors or its Suppliers; and shall indemnify and hold harmless Authority, the Engineer, the Government and other agencies and entities as identified in the

Contract Documents from and against all loss, cost, damage and expense (including reasonable attorney's fees) caused by, or in any manner arising from, any act, omission or negligence of the Contractor, its employees, its Subcontractors or its Suppliers, in the performance of the Work and/or the Contract; and shall pay, liquidate and discharge any and all valid claims and demands for injuries to persons and damage to property caused by, or in any manner arising out of, the performance of the Work or the Contract.

- 8.2 For the purpose of Article 8.1 above, the term "other agencies and entities" shall include the Sports and Exhibition Authority of the City of Pittsburgh and Allegheny County, Stadium Authority of the City of Pittsburgh, Pittsburgh Steelers Sports, Inc. (PSSI), PSSI Stadium Corp., North Shore Developers, L.P., Continental, Continental/North Shore Manager, LLC, Alco, Employee Real Estate Construction Trust Fund (ERECT), Strategic Investment Fund Partners (SIF), Commonwealth of Pennsylvania, Pittsburgh Baseball Partnership, Pittsburgh Baseball, Inc., Grand Slam Development, L.P., Home Run Development, LLC, North Shore General, LLC, and Gridiron Development Co. L.P.

ARTICLE 9 – USE AND POSSESSION PRIOR TO COMPLETION

- 9.1 Authority has the right to take possession of or use any completed portion or partially completed portion of the Work. Such possession or use shall not be deemed as Acceptance of the Work or any portion thereof. While Authority is in possession of such portion of the Work, the Contractor, notwithstanding the provisions of Section 01500, Article 1.4, shall be relieved of the responsibility for loss or damage to only that portion of the Work, except for loss or damage resulting from the Contractor's, Subcontractor's or Supplier's fault or negligence. Prior to taking over a portion or partially completed portion of the Work, an inspection of such portion of the Work will be conducted by the Engineer with the Contractor. The Engineer will document the conditions encountered and maintain the document as part of the Project Record Documents. The Contractor shall, however, remain responsible for completion of such portion of the Work in accordance with Contract Documents.
- 9.2 Notwithstanding the use and possession by Authority of any completed portion or partially completed portion of the Work, the applicable time period for the Contractor's guaranty and Maintenance Bond shall not commence until the times set forth in Section 00500, Article 6.
- 9.3 Work performed by other contractors pursuant to Section 00700, Article 10 on a completed portion or partially completed portion of the Work shall not be deemed use and possession of such portion of the Work by Authority.

ARTICLE 10 – OTHER CONTRACTS

- 10.1 A. Authority may undertake or award contracts to other contractors, public utilities or others for work on or near the Work, and the Contractor shall fully cooperate with such other contractors, public utilities, the Engineer, Authority and others in the performance and scheduling of such work. The Contractor shall not interfere with, hinder or delay the performance of work by other contractors, public utilities, the Engineer, Authority or others. The Contractor shall coordinate with, and cooperate with, such other contractors, public

utilities, the Engineer, Authority and others. Cooperation shall be specifically required in the area of scheduling of the Contractor's work to avoid possible interference with or impacts to, and to facilitate, the work of others. Where designated, the Contractor shall provide for proper interfaces to future construction by others.

- B. The Contractor agrees and understands that for all claims, damages and costs which, in whole or in part, arise out of or relate to any act or omission of any other contractor having a contract with Authority, including such contractor's subcontractors and suppliers, a public utility or any other person or entity, the Contractor shall have no claim or cause of action against Authority or the Engineer for such a claim, damage or costs, but instead, the Contractor shall only have the right to recover for such a claim, damages or costs from such other contractor, subcontractor, supplier, public utility, person or entity. Furthermore, the Contractor hereby agrees, acknowledges and understands that should it cause any damage or cost, through any act or omission, to any other contractor having a contract with Authority, any public utility or any other person or entity, that said other contractor, such public utility or any other person or entity may bring an action directly against the Contractor for such damages and costs. The Contractor fully understands and agrees that the intent of this paragraph is to benefit such other contractors, public utilities, persons and entities and raises such other contractors, public utilities, persons and entities to the status of third party beneficiaries only as to the terms and conditions of this paragraph.

- 10.2 When any contractor performing work under or pursuant to another Authority contract is employed on work that interfaces with any portion of the Work, the Contractor shall provide to the Engineer all drawings, dimensions, data and other information necessary to ensure the complete, integrated and proper design, manufacture, installation and operation of interfacing and connecting parts and systems. The exchange of information will be coordinated by the Engineer and copies of all the Contractor's data, drawings and correspondence relating to the above shall be furnished to the Engineer in numbers as requested by the Engineer.
- 10.3 The Contractor shall also conduct its work in a manner that will prevent materials, soils, water, silt, dust, fumes and trash from leaving the work area and entering an adjacent contractor's work area.
- 10.4 The following table depicts other currently known or scheduled Authority or public or private agency contracts in the same area, adjacent to, or in the vicinity of the Worksite, and their anticipated start dates.

Other Contracts and Coordinated Contract Work	Anticipated Start / (Completion) Date
NSC-003/006 North Side Tunnel & Station Shell; NSC-003 Allegheny River Tunnel Launch Pit to Receiving Pit, and NSC-006 North Side Station and Cut & Cover Tunnel West	Ongoing (04/10)
NSC-004 R Gateway Station Shell	06/08 (10/10)
NSC-007 Aerial Structure, Retained Fill & Demo	05/08 (05/10)

NSC-010 Gateway Station Finishes	05/09 (11/10)
NSC-011 North Side Station Finishes	02/09 (08/10)
NSC-012 Allegheny Station Finishes	05/09 (12/10)
NSC-015 Elevators & Escalators	08/08 (12/10)
PNC Building 3	Ongoing/(Fall 09)
Carnegie Science Center	T.B.D.
North Shore Amphitheater	T.B.D.
North Side Riverfront Park Expansion	T.B.D.
Hyatt Place Hotel (North Shore Drive/Tony Dorsett Drive)	July 08/(Sept 09)
Marriott Residence Inn (Mazeroski Way/West General Robinson Street)	Ongoing/(Oct 09)
The Majestic Star Casino on the North Shore	Ongoing
PENNDOT West End Bridge	Ongoing

10.5 Coordinate construction activities and access to the Work:

- A. Along the entire cut-and-cover tunnel and station shell and existing Gateway Station Loop, the Contract interfaces with the NSC-004R and NSC-003/006 contractors. The NSC-004 R and NSC 003/006 contractors will provide access to the Work for the Contractor to measure, plan, and execute its work along the entire Cut-and-Cover Tunnel and Station Shell, and existing Gateway Station Loop. The Contractor shall coordinate the locations of the 23 kv feeder and Emergency Ventilation Fans EM-9 and EM-10 cabling rerouting locations with the NSC-004 R contractor prior to beginning this relocation work in order to coordinate placement in concert with the NSC-004 R contractor's temporary bracing design to be utilized during the NSC-004 R Gateway Station and loop demolition.
- B. At the new Gateway Station Shell and existing Gateway Station Loop, the Contract interfaces with the NSC-010 contractors. Provide access to the Work for the NSC-010 contractors to measure, plan, and execute their work within the new Gateway Station Shell, and existing Gateway Station Loop. Construction of the NSC-009 Work shall be coordinated with the NSC-010 contractors so that the NSC-010 contractors can maintain access through the work area.
- C. At the new Gateway Station, North Side Station and Allegheny Station, the Contract interfaces with the NSC-015 contractor. Provide access to the Work for the NSC-015 contractor to measure, plan, and execute its work for installing equipment including station finishes associated with the escalators and elevators for the new Stations. Construction of the NSC-009 Work shall be coordinated with the NSC-015 contractor so that the NSC-015 contractor can maintain access through the work area.
- D. Along the entire retained fill and aerial structure, the Contract interfaces with the NSC-007 contractor. The NSC-007 Contractor will provide access to the Work for the Contractor to measure, plan and execute its Work along the entire retained fill and aerial structure.

- E. At the North Side Station, the contract interfaces with the NSC-011 contractors. Provide access to the Work for the NSC-011 contractors to measure, plans, and execute their work within the North Shore Side Station. Construction of the NSC-009 Work shall be coordinated with the NSC-011 contractors so that the NSC-011 contractors can maintain access through the work area.
- F. At the Allegheny Station, the contract interfaces with the NSC-012 contractors. Provide access to the Work for the NSC-012 contractors to measure, plans, and execute their work within the Allegheny Station. Construction of the NSC-009 Work shall be coordinated with the NSC-012 contractors so that the NSC-012 contractors can maintain access through the work area.
- G. All NSC-009 access requirements to the cut and cover and bored tunnels, and aerial structure shall be submitted to the NSC-004R, NSC-003/006 and/or NSC-007 contractors and Engineer thirty (30) days prior to intended use.
- H. The Contractor shall interface with the Advanced Rail Systems Procurement Gateway Double Crossover (Contract 3002) contractor. Coordinate through the Engineer and attend the Contract #3002 preassembly Inspection at the manufacture's facility.
- I. The Contractor shall interface with Authority facilities including, but not limited to, the existing Stage I Tunnel, Gateway Station, Wood Street Station, Authority OCC facilities, and Pitt Tower facilities. Contractor shall follow all Authority access procedures and shall coordinate access and work within these facilities far in advance of the intended access and/or work. Authority is a functioning transit operation and will continue to operate its facilities throughout the Work. Contractor shall plan its work with the Engineer and Authority staff so as not to cause delays or interruptions to the normal workings of the Authority service, unless previously approved by the Engineer and Authority.

ARTICLE 11 – DIFFERING SITE CONDITIONS

- 11.1 The Contractor shall promptly, upon the discovery of the following conditions, and before the conditions are disturbed, notify the Engineer in writing of:
 - A. Subsurface or latent physical conditions at the Worksite materially differing from those indicated in the Contract Documents or any such conditions known by the Contractor prior to the submission of the Contractor's Bid; or
 - B. Unknown physical conditions at the Worksite, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in this type of work.
- 11.2 The Engineer will promptly investigate the conditions, and determine if the actual conditions do differ materially.
- 11.3 If conditions are encountered that are materially different from those represented, detailed or defined, as set forth above, or those inherent in the type of work in question, and cause a compensable increase or decrease in the Contractor's cost for performing the Work, or the time required for the performance of the Work, the conditions will constitute a differing site condition and the Contractor may, subject

- to the requirements of Section 00900, Article 1, submit in writing to the Engineer a proposed change to the Work. No request by the Contractor for an equitable adjustment, or claim by the Contractor, arising from an alleged differing site condition, shall be considered timely unless the Contractor has given the required notice.
- 11.4 Nothing contained in this Article 11 shall limit or waive the responsibilities of the Contractor as set forth in Section 00300, Article 1.

ARTICLE 12 – HISTORICAL AND SCIENTIFIC SPECIMENS

- 12.1 Items of historical, archaeological or scientific value, including but not limited to, coins, fossils, and articles of antiquity which may be uncovered by the Contractor during the progress of the Work shall become the property of Authority. Such findings shall be reported immediately to the Engineer who shall determine the method of removal and the final disposition thereof.
- 12.2 Upon uncovering any items of historical, archaeological or scientific value, the Contractor shall immediately suspend any work that would disturb the area where such items were found until such time that the Engineer authorizes the continuation of work in the affected area. The Contractor shall protect the affected area from potential disturbance as directed by the Engineer.
- 12.3 If the Engineer determines that the affected area, pursuant to applicable laws and/or regulations, requires any activities by others to document and/or recover the items, the Contractor shall coordinate its activities to facilitate the performance of any such other activities pursuant to instructions provided by the Engineer.

ARTICLE 13 – SAFETY AND FIRST AID REQUIREMENTS

- 13.1 Pursuant to Section 107 of the Contract Work Hours and Safety Standards Act and DOL Regulations set forth in 29 C.F.R. Part 1926, the Contractor agrees that such provisions are a condition of, and incorporated into, the Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Contractor and any Subcontractor shall not require any laborer or mechanic employed in performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his or her health and safety, as determined under the applicable construction health and safety standards promulgated by the Secretary of Labor or the State.
- 13.2 The Contractor shall promptly and fully comply with, execute and enforce, without separate charge therefore to Authority, the safety and health requirements stated herein and those that may be prescribed by any official or representative charged with the enforcement thereof, and shall take such other measures as may be necessary to assure that the Work shall be done in a safe manner and the safety and health of the employees and the general public are safe-guarded. The Contractor shall be responsible for its Subcontractors' compliance with these provisions.
- 13.3 Copies of all reports submitted to OSHA by the Contractor or any Subcontractor, and also copies of OSHA citations and recommendations, shall be submitted to the Engineer within five (5) days of submission or receipt.
- 13.4 The Contractor shall:
- A. The Contractor shall submit five (5) copies of a Safety Program in writing to the Engineer, for review and approval for conformance with the requirements

- of the Contract Documents, within ten (10) days after receipt of the Notice of Award.
- B. The Contractor's Safety Program shall incorporate such programs and activities as may be necessary to comply with OSHA and other applicable federal, state, county and municipal laws and regulations and Authority's rules, policies and procedures in the performance of the Work. As part of this item, the Contractor shall develop and institute, for the duration of the Contract, procedures in the event of fire, injury, accident or other emergency conditions. This portion of the Safety Program is to be maintained on public display at the Contractor's field office;
- C. Designate, at the Pre-Construction Conference, a Safety Supervisor whose duties shall be to implement and enforce the Safety Program; and
- D. Conduct weekly Worksite safety meetings. Included at these meetings will be instructions for each employee on the recognition and avoidance of unsafe conditions and the regulations applicable to his or her work environment to control or eliminate any hazards or other exposures to illness or injury. Such meetings shall be administered by the Contractor's Safety Supervisor. Notice of the time and place of such safety meetings shall be given to the Engineer at least three (3) days in advance of each such meeting. A copy of the safety meeting minutes shall be provided to the Engineer within three (3) days after each safety meeting. The Engineer or Authority shall be invited to, and at their discretion, may attend these meetings.
- 13.5 As an integral part of the Contractor's Safety Program, the Contractor shall prepare and maintain a directory, listing the company name and contact person, business telephone number and emergency telephone number, including a mobile number (i.e. cellular, pager, etc.) as available, for the following, which shall be maintained and updated as required for the duration of the Contract, and shall be provided to Authority and the Engineer and posted at each of the Contractor's telephones and at a prominent place at the Worksite:
- A. Contractor's Main Office, including a 24-hour contact for non-business hours;
 - B. Contractor's Project Manager;
 - C. Contractor's Field Superintendent, Safety Supervisor(s) and any other Contractor's personnel as required by the Engineer;
 - D. Each Subcontractor;
 - E. Each Authority contractor working adjacent to or on the Worksite;
 - F. Engineer's Field Office, including a 24-hour contact for non-business hours;
 - G. Engineer's Main Office;
 - H. Testing laboratories and batch plants;
 - I. Emergency telephone numbers including, but not limited to, physicians, emergency hospitals, ambulance, police and fire department;
 - J. Emergency telephone numbers for utility owners who have facilities on or adjacent to the Worksite;
 - K. Authority's 24 hour emergency numbers:
 1. For bus incident - Bus Traffic at (412) 851-4900
 2. For rail incident - Operations Control Center at (412) 851-4700

- 3. Authority Police at (412) 255-1385
 - L. Railroads and other affected agencies and/or authorities;
 - M. Authority's Project Engineer; and
 - N. Pennsylvania Department of Environmental Protection.
- 13.6 Failure of the Contractor to comply with any of the requirements of this Article 13 may be cause for Authority to disqualify the Contractor from bidding on any other Authority contracts.
- 13.7 Should a Responsible Authority, determine that the Contractor's failure to comply with this Article 13 creates a hazard to life, limb or property, the Responsible Authority may stop any operation of the Contractor affected by the failure until such failure is remedied. Any time lost due to any such stoppage of the Work shall not be made the subject of any claim for money or time by the Contractor. The Contractor shall not make any claim for extension of time or for additional compensation or for damages by reason of or in connection with work stoppages directed by any Responsible Authority, by reason of or involving operations which create an imminent danger (as defined by OSHA) to employees, to the public or to property.
- 13.8 The Contractor shall submit to the Engineer and Authority a copy of all accident occurrence reports within 24 hours of occurrence.
- 13.9 The Contractor shall submit one copy of the OSHA Form 300A including all injuries and illnesses that occurred to the Contractor or appropriate Subcontractor employees to the Engineer, no later than the third day of each month. The Contractor shall indicate, in the upper left corner, the total man-hours worked by the Contractor and its Subcontractors during the previous month.
- 13.10 The Contractor shall be solely responsible for initiating, maintaining and supervising safety precautions and programs in connection with the Work.
- A. The Contractor shall take reasonable precautions for the safety of, and provide reasonable protection to prevent damage, injury or loss to:
 1. The materials and equipment for incorporation in the Work whether in storage on or off the site under the care, custody or control of the Contractor or others;
 2. Other property at the site or adjacent to it, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not for removal, relocation or replacement in the course of construction.
 3. Vehicle and pedestrian traffic traveling through, under, or around the construction area and construction access areas.
 - B. The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.
 - C. The Contractor shall ensure employees, visitors, Subcontractor's employees, and Suppliers' employees, while on the Worksite, comply with the approved Contractor's Safety Program and with the provisions of the Williams Steiger Occupational Safety and Health Act of 1970 and any changes thereto.

- D. In the event of a conflict and/or ambiguity between various safety statutes or requirements, the interpretation by Engineer as to which provision(s) applies or what a given provision(s) implies will be final.
- 13.11 Safety Program - The Safety Program shall provide guidelines to implement an accident prevention program on the Project, and fully describe the Contractor's commitments for meeting its obligations to provide safe and healthful working conditions for its employees. After Notice of Award, and prior to the start of Work, the Engineer will schedule a meeting with the Contractor to review the Safety Program. The Contractor shall conduct a similar meeting with each Subcontractor at any tier prior to start of the Subcontractor's work, and shall ensure that each Subcontractor complies with the Safety Program. Both meetings will require the attendance of the Contractor's Project Manager and approved Safety Supervisor(s). Other attendees at the meeting may include representatives from the Engineer and Authority. The intent of the review is to: clarify any issues regarding regulatory compliance or contract requirements; enhance planning for both safety and productivity; and reduce the potential for accidents. The Engineer will review the Safety Program to verify that it complies with the Contract Documents. The Contractor shall not begin the Work until the Engineer approves the Contractor's Safety Program as compliant with the requirements of the Contract Documents.
- A. The Contractor shall, at the Pre-Construction Conference, submit to the Engineer for approval, the qualifications of its proposed Safety Supervisor. Qualifications shall include at a minimum, ten (10) years experience in railroad or transit signaling, communications and traction power systems construction, with five (5) years devoted to safety. Safety Supervisor shall have current OSHA 40 hour Construction Outreach Program training. No Work shall commence until the Engineer has approved the Safety Supervisor.
- B. The Contractor's Safety Supervisor shall:
1. Make daily safety inspections of job sites and take necessary immediate corrective action to eliminate unsafe acts and conditions;
 2. Assure that the OSHA 300A Form Accident Report is properly completed and submitted to the Engineer;
 3. Review accident and incident reports and initiate immediate corrective action;
 4. Provide job foremen with appropriate material for use in conducting weekly "tool box" safety meetings;
 5. Attend foremen "tool box" safety meetings and evaluate their effectiveness;
 6. Assist in the preparation of the accident investigation and reporting procedures;
 7. Implement training programs for supervisors and employees as they apply to their specific responsibilities and ensure compliance by them of all safety requirements in performing their specific responsibilities;
 8. Encourage programs for recognition of individual employee's safety efforts and their contribution toward improved work methods;

9. Be responsible for the control and availability of all necessary, properly operating and maintained safety equipment, including employee's personal protective equipment;
 10. Coordinate activities with those of the other contractors and the Engineer;
 11. Submit a written weekly report summarizing:
 - a) Daily inspection results;
 - b) Tool box meetings;
 - c) Accident investigations; and
 - d) Planning activities for upcoming operation.
 12. Maintain a current copy of OSHA 29 CFR 1926/1910 Standards on site; and
 13. Maintain a record of the installation and maintenance of roadway and LRV traffic control including highway and LRV closure signs, signals, barricades, and devices. The record shall include a written log of roadway and LRV daily maintenance and photographs of installations.
- C. If the Engineer determines that the Safety Supervisor is not effective in executing his or her duties, the Engineer may direct the Contractor, in writing, to replace the current Safety Supervisor with a new Safety Supervisor.
- D. If or when it should be necessary to replace the Safety Supervisor, the Contractor shall notify the Engineer, within 72 hours in writing, and submit to the Engineer the name, experience and qualifications of the proposed replacement Safety Supervisor for approval. The replacement Safety Supervisor shall be approved and on site prior to replacing the current Safety Supervisor.
- 13.12 Imminent Danger - The Contractor shall not make any claim for extension of time or for additional compensation, or for damages by reason of or in connection with stoppages of the Work that Authority, the Engineer or their authorized representative directs by reason of or involving operations creating an imminent danger (as defined by OSHA) to employees, to the public or to property. Imminent danger, according to OSHA, "is any condition where there is reasonable certainty that a danger exists that can be expected to cause death or serious physical harm immediately, or before the danger can be eliminated through normal enforcement procedures".
- 13.13 Safety Program - The Safety Program shall provide guidelines to implement an accident prevention program on the Project, and fully describe the Contractor's commitments for meeting its obligations to provide safe and healthful working conditions for its employees. After Notice of Award, and prior to the start of Work, the Engineer will schedule a meeting with the Contractor to review the Safety Program. The Contractor shall conduct a similar meeting with each Subcontractor at any tier prior to start of the Subcontractor's work, and shall ensure that each Subcontractor complies with the Safety Program. Both meetings will require the attendance of the Contractor's Project Manager and approved Safety Supervisor. Other attendees at the meeting may include representatives from the Engineer and Authority. The intent of the review is to: clarify any issues regarding regulatory compliance or contract requirements; enhance planning for both safety and

productivity; and reduce the potential for accidents. The Engineer will review the Safety Program to verify that it complies with the Contract Documents. The Contractor shall not begin the Work until the Engineer approves the Contractor's Safety Program as compliant with the requirements of the Contract Documents.

A. Safety Program Content

1. Accident Investigation and Procedures – The Contractor shall describe the accident/incident reporting procedures for the Project. The Contractor shall submit to the Engineer a copy of accident/incident reports within 24 hours of occurrence of the following:
 - a) Personal injury to a member of a crew, subcontractor, general public traveling in vehicles or pedestrians, and Authority personnel;
 - b) Equipment or property damage;
 - c) Near misses having a potential for serious injury, death or property damage; and
 - d) Requests of the Engineer.
2. Employee Sanctions – Explain disciplinary action for any employee who jeopardizes his or her health or safety, or the health or safety of others.
3. Emergency Procedures – Describe the procedures to familiarize employees with Emergency Procedures for the Project. At a minimum, the procedure shall cover injuries, fires, evacuations, and similar situations, Worksite medical facilities including number and location of stretchers and first aid kits and the location of the First Aid Station.
4. Fire Protection and Prevention – Explain the Project fire protection and prevention program in detail and how the Contractor shall implement it.
5. First Aid – Explain the role of supervision and employees in reporting accidents and injuries, however minor. Provide at least two (2) persons at the Worksite with a valid certificate in First Aid/CPR Training. The Contractor shall provide documentation of this training to the Engineer.
6. Hazard Communications – The Contractor shall provide a written hazard communication program which describes how the Contractor will comply with the requirements of 29 CFR 1926.59 "Hazard Communication".
7. Medical Surveillance – Explain how it will meet the requirements of 29 CFR 1926.33 "Access to Employee Exposure and Medical Records."
8. Occupational Health Programs – Provide required, specific occupational health programs to protect employees working on the Project, i.e., air monitoring, sampling, special protective clothing or equipment, particular hazards monitoring including, but not limited to, silica, asbestos and lead, and a Project - wide noise survey.
9. Personal Protective Equipment – Describe personal protective equipment to be utilized on this Project. Include parameters for its use. Parameters shall include orange or yellow-green (or fluorescent versions of these colors) vest, shirt or jacket in work zones adjacent to traffic.
10. Safe Work Practices – Explain requirements placed on supervision when making Work assignments. List site specific requirements here and give

responsibility for enforcement. Provide competent designated signalmen for crane work. Submit annual crane inspection certificate prior to use of any crane.

11. Safety Orientation of New Hires including Supervisory and Administrative Personnel – Describe how each new hire or transferee shall receive a thorough safety and hazard communication orientation which imparts basic information about the Project safety and health program, federal and local regulations, and other safety rules and regulations necessary to perform tasks safely. The Contractor shall verify its new hire orientation for each employee. It shall do so in writing with the employee's signature on the letter to attest to its validity within 24 hours of the employee's orientation. The Contractor shall submit verification of employees rights and duties as required by Section 306 (f.1) of PA Workers Compensation Act. Future safety instructions may be necessary if the Contractor performs hazardous work and/or unfamiliar tasks. Based upon the nature of the work, orientation may include, but not be limited to, the following:
 - a) Confined spaces;
 - b) Cranes, rigging and material handling;
 - c) Electrical safety;
 - d) Emergency procedures;
 - e) Evacuation;
 - f) Eye protection;
 - g) Fall protection;
 - h) Fire protection;
 - i) First aid facilities and emergency procedures;
 - j) Foot protection;
 - k) Hazard communications;
 - l) Head protection;
 - m) Hearing protection;
 - n) Housekeeping;
 - o) Medical surveillance;
 - p) Perimeter guarding;
 - q) Respiratory protection;
 - r) Safe work practices on Authority property;
 - s) Safety harnesses and lifelines;
 - t) Safety meetings;
 - u) Scaffolding and ladders;
 - v) Special Project requirements and procedures;
 - w) Temporary shoring;
 - x) Trenching and excavations;

- y) Work in/over water (as required); and
 - z) Work near Railroads.
12. Safety Orientation For Supervisors – The Contractor shall describe supervisor safety orientation upon hire or promotion. List safety duties and responsibilities in daily work activities.
 13. Tool Box Safety Meetings – The Contractor shall describe its weekly Toolbox Safety Meetings for its employees and an equivalent requirement that its Subcontractors conduct similar meetings. The meetings shall address material relevant to employees' activities e.g. hazard communications, pre-job orientation and changing jobs or conditions.
 14. Task Safety Analysis and Training – The Contractor shall describe its pre-task planning and safety analysis of different phases of the Project. The Contractor shall describe the procedures to train employees in the exposures they will face and the job they are to perform. This is to be done during the pre-job and hazardous communications orientation. Other situations may arise during the course of the Project requiring additional training. The Contractor shall describe how it shall accomplish this.
 15. Worksite Safety Inspection – The Contractor shall document to the Engineer its daily Worksite safety inspections.
 16. Confined Spaces – Identify potential areas constituting confined spaces. Describe plans for ventilation, atmosphere monitoring, access and egress, personal protective equipment requirements. Describe in detail emergency procedures and equipment. Describe the specific training programs to conduct prior to confined space entry.
 17. Jobsite Security – Identify proactive measures for security of the Worksite.
 18. Railroad Safety – Obtain from Authority current railroad safety procedures. Explain and abide by the procedures while working within the railroad right-of-way.
- B. 100% Fall Protection.
1. The Contractor shall develop and submit to Engineer a plan detailing specific actions it shall take to ensure that no employees are exposed to an elevated fall hazard in excess of six (6) feet. The Contractor shall utilize full body harnesses for personal fall protection. At no time shall the Contractor and its Subcontractors use body belts as part of a personal fall arrest system.
 2. The Contractor shall train personnel in proper fall protection methods and requirements, and give additional training concerning full body harnesses, lanyards, and lifelines. Training shall cover proper use of such equipment, including wearing, securing, and inspection procedures. The Contractor shall maintain documentation of such training on the Project. The Contractor shall institute measures to verify the effectiveness of the training.

13.14 Transit Corridor/Property Safety Conditions

- A. The Worksite may consist of an operating railway and/or busway route. The Contractor's attention is directed to the fact that the Work may, of necessity, be performed at times near high voltage feeder cables, signal cables and other trolley wires which may be energized. The Contractor shall always assume that such wires and cables are energized. The Contractor shall take all precautions necessary to avoid contacting or damaging, in any way, any of these wires, cables or their insulators and supporting structures; shall be responsible for the protection of its and any Subcontractor's workers and for the protection of the general public from injury due to contact of any equipment or materials with such wires and cables; and shall be responsible for the costs incurred in repairing facilities damaged as a result of the performance of the Work.
- B. LRT and Busway Right-of-Way Access – Any time the Contractor will be working within the LRT or Busway Rights-of-Way, the Contractor shall complete Authority's Right-of-Way Allocation Request, which form shall be provided to the Contractor by Authority, and submit this form to the Engineer for processing by Authority a minimum of two (2) weeks prior to the commencement of any activities within the Right-of-Way.
 - 1. The Contractor shall attend the weekly scheduled Right-of-Way Allocation meeting prior to the start of the related work. During the performance of the related work, the Contractor shall attend the Right-of-Way Allocation meetings weekly to provide an update of its progress and activities.
 - 2. The Contractor shall not begin any related work within the LRT or Busway Rights-of-Way prior to the Contractor and its Subcontractors attending Authority's Track Access Training Course (duration four (4) hours) or Authority's Busway Certification Program (duration one (1) hour). Attendance by the Contractor's and its Subcontractor's personnel shall be coordinated with the Engineer a minimum of four (4) weeks prior to the commencement of related work.
 - 3. The Contractor must obtain a permit from Authority for access onto Busway Rights-of-Way and placards which must be displayed on all vehicles accessing the Busway. Access is limited to only those vehicles, areas, times and days specified in the permit.
 - 4. The Contractor shall ensure that its personnel, and the personnel of Subcontractor and Suppliers, comply with all required procedures identified in the noted training course, certification program, and permits.

13.15 Safety Incentive Program

- A. The Contractor shall implement programs for recognition for individual employee's safety efforts and their contribution toward improved work methods.

13.16 Spotters. Whenever any portion of the Work is being performed within 10 feet of the centerline of active track, the Contractor shall provide a "spotter" or "spotters" equipped with a sufficiently audible alarm device, to alert all personnel of any approaching Authority traffic. The spotter shall be stationed in a position to see any approaching Authority vehicles in sufficient time to alert such personnel. As

vehicles approach, the spotter shall sound the alarm, and shout "hot rail" so all personnel can hear and move out of the pathway of the oncoming vehicle. With oncoming traffic, the Contractor shall remove any equipment as well. The personnel shall not resume their activities until after the vehicle has passed. The spotter shall have no other duties other than that described above whenever any portion of the Work is being performed within 10 feet of the centerline of track

ARTICLE 14 – DRUG AND ALCOHOL

14.1 14.1 Safety Sensitive Requirements

- A. The Contractor shall establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 655 (the Regulations). The Contractor shall produce any documentation necessary to establish its compliance with the Regulations, and permit any authorized representative of the United States Department of Transportation or its operating administration, the State Oversight Agency of Pennsylvania, or Authority, to inspect the facilities and records associated with implementation of the drug and alcohol testing program as required under the Regulations and review the testing process. The Bidder shall submit to Authority, within three (3) days of being requested to do so by Authority during the bid review process, its drug and alcohol policy and program to demonstrate its compliance with the Regulations. The Contractor shall further certify annually its compliance with the Regulations before January 30 of each year and submit the Management Information System (MIS) reports, as required by the Regulations, before March 1 of each year, or within one month after the completion of all Safety-Sensitive functions by the Contractor, whichever is earlier, to the Manager, Drug and Alcohol Compliance, Port Authority of Allegheny County, 345 Sixth Avenue, Third Floor, Pittsburgh, PA 15222-2527. A copy of the transmittal only shall be given to the Engineer to document that this submission has been made. To certify compliance, the Contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.
- B. The Contractor shall require each Subcontractor to comply with this Article 14 on any subcontract with its respective Subcontractors.
- C. [NOT USED]
- D. Safety-Sensitive functions as defined by the Regulations for this Contract include, but are not to be limited to, the following:
 1. Directing and/or controlling movement of revenue service vehicles;
 2. Activities of the spotter(s) as defined by the Contractor's Safety Program; or
 3. Maintaining (including repairs, overhaul and rebuilding a revenue service vehicle or equipment used in revenue service.

- 14.2 To seek to accomplish the goals of a safe workplace and in relation to the Owner Controlled Insurance Program, as defined in Section 00700, Article 7, and the Safety Program, as defined in Section 00700, Article 13, the Contractor shall establish and implement a Drug and Alcohol Abuse Program (hereafter for purposes of this Article, the "Program"), for the Work. The Contractor shall develop the Program in conformance with the Regulations. A sample policy "Zero Tolerance Controlled Substance Use and Alcohol Misuse Policy" has been provided in Appendix A for Contractor's information as a sample during its development and implementing of the Program. Also, in developing and implementing the Program, the Contractor shall comply with all applicable federal, state and local laws and regulations and with any applicable collective bargaining agreements.
- 14.3 The Contractor shall submit three copies of its proposed Program, in writing, to the Engineer for review and approval within ten (10) days after receipt of the Notice of Award. The Program shall fully describe the Contractor's commitment and specific actions proposed to be taken for the Program and drug and alcohol testing. The Program shall be customized for the Work and shall also address any potential interaction with Authority's operating transit systems. The Contractor shall not begin any portion of the Work until the Engineer approves the Contractor's Program.
- 14.4 The cost associated with developing and implementing the Program shall be the responsibility of the Contractor.
- 14.5 The Contractor shall require each Subcontractor, at any tier, to comply with the provisions of this Article.
- 14.6 The Contractor shall submit to the Engineer a monthly report certifying that it and its Subcontractors are maintaining the approved Program.
- 14.7 The Contractor shall defend any and all suits, actions or claims brought against Authority or the Engineer and their respective officers, agents or employees for or on account of any injuries or damages alleged to have been caused by, through or in connection with, the violation of any applicable law or regulation in regard to the implementation or enforcement of the Program or in regard to breach of any confidentiality in implementing or enforcing the Program and shall indemnify and hold harmless Authority and the Engineer from and against all lawsuits, costs, damage and expense including, but not limited to reasonable attorneys' fees, caused by or in any manner growing out of the implementation or enforcement of the Program and/or the breach of any confidentiality in regard thereto.

ARTICLE 15 – SANITARY PROVISIONS

- 15.1 The Contractor shall conform to all applicable OSHA and other federal, state, county and municipal laws and regulations pertaining to sanitary provisions.

ARTICLE 16 – USE OF EXPLOSIVES

- 16.1 The use of explosives shall not be permitted under this Contract, unless approved in writing by Authority.

ARTICLE 17 – DISPOSAL OF MATERIAL OUTSIDE THE WORKSITE

- 17.1 Unless otherwise expressly specified in the Contract Documents, the Contractor shall be responsible for selecting an appropriate location for the proper and lawful disposal of, and properly and lawfully disposing of, outside of the Worksite, all waste, hazardous substances, or hazardous waste and excess materials.
- 17.2 When any material is to be disposed outside the Worksite, the Contractor shall notify the appropriate Regional Office of the EPA and the PaDEP, or other appropriate local agencies, and request approval of the proposed disposal site. The Contractor shall also obtain a written release from the property owner on whose property the disposal is to be made by utilizing the standard Borrow and/or Waste Agreement provided in Appendix B. Disposal operations shall not begin until the above approvals and releases have been obtained by the Contractor and written evidence of same has been furnished to the Engineer.
- 17.3 The Contractor, in disposing of waste, hazardous substances, or hazardous waste and excess material, shall comply with all federal, state and local governmental laws and regulations concerning such disposal of waste and excess materials.
- 17.4 The Contractor shall indemnify, hold harmless and defend Authority, its directors, officers, employees, agents and authorized representatives and the Engineer from and against all claims, suits or actions of any nature whatsoever, including, but not limited to, those under the Comprehensive Environmental Response Compensation and Liability Act, as amended, (CERCLA), 42 U.S.C. §§ 9601 et seq., brought for or on account of any decision or action for which the Contractor is responsible under this Article 17 and/or Section 01500, Article 1.6 (Environmental Control).
- 17.5 The Contractor shall remove and properly dispose of all construction debris as fast as it accumulates, keeping the Worksite clean during the progress of the Work and leaving the Worksite at completion of the Work in a condition satisfactory to the Engineer.

ARTICLE 18 – LAWS TO BE OBSERVED

- 18.1 The Contractor shall be responsible for keeping itself fully informed of, and shall comply with, all requirements of law, including, but not limited to, all federal, state and local laws, codes, rules and regulations, as well as any changes to these requirements which may become effective during the period of this Contract, which in any manner affect persons engaged or employed in the Work, affect the materials used in the Work, or affect, in any way, the conduct of the Work, and all orders and decrees of bodies or tribunals having jurisdiction or authority over the same. The Contractor and its agents, employees, Subcontractors and Suppliers shall indemnify and hold harmless Authority and the Engineer, and all of their respective officers, agents and employees against all claims and liabilities arising from or based upon the violation of any such requirements whether by the Contractor or its employees, agents, Subcontractors or Suppliers. If any discrepancy or inconsistency is discovered in the Contract Documents in relation to any requirements of law, the Contractor shall immediately report the same to Authority and the Engineer in writing.
- 18.2 The Contractor shall include this requirement in each subcontract.

ARTICLE 19 – PA ONE-CALL

- 19.1 The Contractor shall comply with 73 P.S. §180, prior to any excavation, drilling, or demolition work.

"BEFORE YOU DIG" Call Pennsylvania One Call
1-800-242-1776.

ARTICLE 20 –THIRD PARTY COORDINATION

- 20.1 The Contractor shall notify the local municipality, police and fire departments, railroads, private and public agencies, and utilities the Work affects.
- 20.2 The Contractor shall coordinate requirements and provide for the protection, placement, replacement, relocation, adjustments or reconstruction of utilities with the utility owner prior to starting related portions of the Work. The Contractor shall conduct its operations in a manner that ensures that the utilities will not be disturbed or endangered and shall assume full responsibility for any damage to utilities during construction. Authority will not assume responsibility for reimbursement, participation in design and/or revisions or liability for accuracy of type, size and location of any utility. Unless specified otherwise, the affected utility will, if/as necessary, relocate or adjust its utilities or utility appurtenances within the limits of the Work.
- 20.3 Relocation or adjustment of affected utilities and utility appurtenances, if any, within the limit of Work shall be in accordance with the Contract Documents.
- 20.4 If construction activities cause an unanticipated interruption to any utility service, the Contractor shall take the following actions immediately:
- A. Notify fire and police services in the local jurisdiction if the nature of the utility service interruption is safety related;
 - B. Contact the affected utility company and confirm when repairs will begin;
 - C. Inform the Engineer; and
 - D. Contact affected local residences or businesses. Inform them as to when repairs will begin and be completed.
- 20.5 All costs incurred by a utility to permit a disruption of utility service shall be the responsibility of the Contractor. Further, should the Contractor elect to coordinate any temporary and permanent relocations by a utility to facilitate its operations, the Contractor shall be responsible for all costs resulting therefrom.
- 20.6 The utilities have restrictive time periods during which utility services may be interrupted to accommodate work near or adjacent to the utility facilities. The Contractor shall contact each utility and coordinate its work schedule with each such utility. The Contractor shall submit to the Engineer a work schedule for utility related work including time periods when utility services will be disrupted.
- 20.7 The Project may include utility related construction. Such anticipated construction, if any, is addressed in the Contract Documents.
- A. The following Utility Companies will require coordination with respect to the Work:
 1. Duquesne Light Company
2825 New Beaver Ave
Bldg 6
Mail Drop N6-CS

Pittsburgh, PA 15233-1003

Attention: Mr. Jim Runatz
Telephone Number (412) 393-7813

2. Equitable Gas Company
200 Allegheny Center Mall
Pittsburgh, PA 15212-5352

Attention: Mr. George Pozzuto
Telephone Number (412) 395-3127

B. Anticipated utility related construction activities are set forth below in the following table:

UTILITY OWNER	CONSTRUCTION STATIONS	PRELIMINARY TYPE OF WORK PRELIMINARY DESCRIPTION OF WORK
Duquesne Light	Reedsdale St. 211+00 Left	COORDINATED Contractor shall coordinate with Duquesne Light to provide power to the traction power substation.
Authority	1012+70 Right to Existing Transformer Room	INCORPORATED Contractor shall coordinate with Authority to provide relocation of 23 kv power feed to existing Gateway Loop Transformer room.
Authority	Electrical Room and Communications Room to Emergency Ventilation Fan Room 123	INCORPORATED Contractor shall coordinate with Authority to provide relocation power and control cabling to fans Em-9 and Em-10
Equitable Gas	Disconnect of existing emergency generator service	INCORPORATED Contractor shall coordinate with Equitable Gas to shut off gas service to the emergency generator. Contractor to remove service line from generator to street service level. Cap service line just inside headhouse. The NSC-004 R contractor will remove the remaining portion of the gas line in the street

Legend:	<u>Prior</u>	Relocation of utility will be completed before Authority issues the Notice-to-Proceed.
	<u>Restrictive</u>	Relocation of the utility must be completed before the Contractor can operate without restriction.
	<u>Concurrent</u>	Relocation of the utility will be conducted simultaneously with but not restricting the Contractor's operations.
	<u>Coordinated</u>	Construction of the utility will have to be phased specifically with the Contractor's operations. Contractor shall coordinate with the utility to implement required activities.
	<u>Not Affected</u>	No utility relocation necessary.
	<u>Incorporated</u>	Contractor shall complete this work per the Contract Documents in coordination with other work.

- 20.8 Portions of the Work will need to be closely coordinated with designated representatives from effected property owners and government agencies in accordance with Section 00500, Article 2.1.D. Any and all temporary or permanent access requests, building operation impacts, utility shutdowns, or any other construction activity which would directly or indirectly affect the normal operation conditions of the property and any affected tenants of such property will need to be coordinated through the designated representative before said portions of the Work shall commence. Notify the Engineer of each correspondence. Current designated representatives are as follows:
- A. Sports and Exhibition Authority of Pittsburgh and Allegheny County (SEA)
Previously know as:
Stadium Authority of the City of Pittsburgh
Regional Enterprise Tower
425 Sixth Avenue, Suite 2750
Pittsburgh, PA 15222

Attention: Mr. Doug Straley
Telephone Number (412) 393 0207
 - B. City of Pittsburgh
Department of Engineering & Construction
Room 301 City County Building
510 Grant Street
Pittsburgh, PA 15219

Attention: Mr. Fred Fischer
Telephone Number (412) 255-2472
 - C. PSSI Stadium Corp.
Heinz Field 900 Art Rooney Ave.
Pittsburgh, PA 15212-5575

Attention: Mr. Brian Opacic
Telephone Number (412) 697-7138
 - D. Carnegie Science Center
One Allegheny Avenue
Pittsburgh, PA 15212-5850

Telephone Number (412) 237-3400
 - E. Allegheny County Conservation District
Lexington Technical Park
Building 1, Suite 102
400 North Lexington Ave.
Pittsburgh, PA 15208

Attention: Ms. Donna Simmons
Telephone Number (412) 241-7645

F. Deputy Director
City of Pittsburgh
Office of Emergency Management and
Homeland Security
JP Robins Civic Building, Fifth Floor
200 Ross Street
Pittsburgh PA 15219

Contact: Raymond V. DeMichie
Telephone Number (412) 255-2633

- 20.9 The Contractor shall notify, in writing, all designated property owner representatives and appropriate government agencies provided in Section 20.8 the following advanced notices including, but not limited to:
- A. Beginning of Work activities thirty (30) days prior.
 - B. Major changes in Work activities fourteen (14) days prior. Major changes shall include, but are not limited to, revised vehicular traffic patterns, closures and detours, changes in Work areas, changes in Work execution, such as pile driving, which might increase awareness of the construction, or changes to working hours.

ARTICLE 21 – PERMITS

- 21.1 The Contractor shall, without additional expense to Authority, be responsible for obtaining any and all licenses, permits and approvals necessary for the prosecution of the Work and for complying with any and all applicable federal, state and local laws, codes, rules and regulations in connection with the prosecution of the Work.
- 21.2 The Contractor shall provide required engineering documents to obtain all permits/approvals. Authority will co-sign for permits with the Contractor as required by the permitting agency. The Contractor shall pay the required fees associated with the permit process when such fees are required by the permitting agency. The Contractor shall comply with permits/approvals and be responsible for fines, penalties or assessments for non-compliance.
- 21.3 The Contractor shall provide to the Engineer, copies of all permits and notifications to and from the permitting agencies prior to the start of any related work.
- 21.4 Required permits for this Contract include, but are not limited to the following:
- A. Allegheny County Conservation District: NPDES Permit for Stormwater Activities During Construction. The Contractor shall complete and submit "Transferee/Co-Permittee Application for Coverage Under the Pennsylvania General NPDES Permit for Discharges of Storm Water for Construction" to the Engineer for its approval and then to the Allegheny County Conservation District with copies to the Engineer. The Contractor shall comply with all requirements of NPDES Permit. The Contractor shall complete and maintain at the Worksite a Preparedness, Prevention, and Contingency Plan (PPC) for NPDES compliance. The Contractor shall obtain from PaDEP current guidelines for developing PPC Plans for

operations that discharge stormwater from construction activities. The Contractor shall prepare a PPC Plan and make it available to PaDEP on request. The Contractor shall submit the PPC to the Engineer for review and approval prior to submitting it to PaDEP. The Contractor shall modify the PPC if/as necessary to correct the PPC should any incident occur, the Engineer review require, and/or PaDEP review indicate the need to do so. This may include monitoring and disposal of excavated materials;

- 21.5 Contractor shall be responsible for obtaining the following, but not limited to, permits and license agreement. The Contractor shall be responsible for all costs necessary to comply with such permits and shall be responsible for any fines, penalties or assessments for non-compliance with such permits.
- A. Allegheny County Conservation District: Erosion and Sedimentation Control Plan addenda, if/as necessary for the Work or waste areas;
 - B. Allegheny County Conservation District: NPDES Permit for discharge of stormwater during construction addenda, if/as necessary for the Work;
 - C. C/P: Land Operations Permit;
 - D. C/P: Building Permit, Street Obstruction Permit(s), Curb Cut Permit, HVAC - Commercial Permit, Fire Protection Permit, and Electrical Permit, Occupancy Permit and Sidewalk Construction Permit as necessary. Also see Section 01781, "Maintenance and Protection of Traffic".
 - E. PWSA temporary water and sewer service tap permits;
 - F. PENNDOT, C/P, Allegheny County, and others as applicable: Special Hauling Permits.
 - G. C/P: HVAC Contractor's License, General Contractor License, Electrical Contractor License, Power Engineer License
 - H. Allegheny County Health Department: Master Plumber License and Plumbing Permit (Sump Pump).

ARTICLE 22 – RAILWAY PROVISIONS

- 22.1 When any portion of the Work is performed within, or adjacent to, the right-of-way or trackage belonging to, or upon which operates, a common carrier, the Contractor shall conform to all applicable rules and regulations and provide to the Engineer written evidence of approval from the common carrier for such work. Strict adherence to the rules and regulations of the common carrier must be observed relating to the work, safety, and movement of all trains, public and personal liability insurance, and any other matters pertaining thereto.

ARTICLE 23 –NAVIGABLE WATERWAYS

- 23.1 Work on, above or adjacent to navigable waters shall be conducted so that free navigation of the waterways shall not be interfered with and that existing navigable depths shall not be impaired unless all applicable permits are secured prior to the start of such work.

23.2 The Contractor shall not disturb, pollute, obstruct or change the bottom of the riverbed unless specifically required by the Contract Documents or directed by the Engineer.

ARTICLE 24 –SEISMIC SAFETY

24.1 If the Work under this Contract includes the construction of any new building or addition to an existing building, the Contractor agrees that such new building or addition to an existing building shall be constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 C.F.R. Part 41 and shall certify to compliance to the extent required by the regulation. The Contractor shall also ensure that all work performed under the Contract, including work performed by a Subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the above referenced certification of compliance.

ARTICLE 25 – AFFIRMATIVE ACTION REQUIREMENTS – EQUAL EMPLOYMENT OPPORTUNITY

25.1 The Contractor shall comply with the following in performing the Work:

A. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246):

1. For the purposes of this Article 25, the following definitions shall apply:
 - a) "Covered Area" means the geographical area described in the Advertisement;
 - b) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c) "Employer Identification Number" means the Federal Social Security number used on an Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941; and
 - d) "Minority" includes, but is not limited to:
 - (1) Blacks (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanics (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);
 - (3) Asians and Pacific Islanders (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indians or Alaskan Natives (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of this

Article 25 and the notice which contains the applicable goals for minority and female participation which is set forth in the Advertisement.

3. If the Contractor is participating (pursuant to 41 C.F.R. § 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the Covered Area, either individually or through an association, its Affirmative Action obligations for all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any of the Contractor's or any Subcontractor's failure to make good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific Affirmative Action standards provided in Article 25.1.B.2.a. The goals set forth in the Advertisement are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the Covered Area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or Federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance Programs office or from Federal Procurement Contracting Officers. The Contractor is expected to make substantially uniform progress toward its goal in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under the Contract Documents, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific Affirmative Actions to ensure Equal Employment Opportunity. The evaluation of the Contractor's compliance with these Specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement Affirmative Action steps at least as extensive as the following:

- a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- d) Provide immediate written notification to the Director, with a copy to the Engineer, when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these program sources compiled by the Contractor under Article 25.1.A.7.b.
- f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g) Review, at least annually, the company's EEO policy and Affirmative Action obligations under the Contract with all employees having responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any jobsite. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of the Contractor's work force.
- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 C.F.R. Part 60-3
- l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under the Contract are being carried out.
- n) Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between sexes.
- o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors

- and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and Affirmative Action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their Affirmative Action obligations set forth in Article 25.1.A.7. The efforts of a contractor association, joint contractor-union, contractor community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under Article 25.1.A.7, provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide Equal Employment Opportunity and to take Affirmative Action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goal for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under-utilized).
10. The Contractor shall not use the goals and timetables or Affirmative Action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any subcontract with any person or firm debarred from government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of this provision and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Program. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under this provision, shall implement specific Affirmative Action steps, at least as extensive as those standards prescribed in Article 25.1.A.7, so as to achieve

maximum results from its efforts to ensure Equal Employment Opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or this provision, the Director shall proceed in accordance with 41 C.F.R. § 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (*e.g.*, mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.
 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (*e.g.*, those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
- B. Notice of requirement for Affirmative Action to ensure Equal Employment Opportunity (Executive Order 11246):
1. The Bidder's attention is called to the "Equal Opportunity Clause" set forth in this Article 25 and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth in Article 25.1.A.
 2. a) The goals and the timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the Covered Area, are as follows:

Timetables

Goals For Minority	Goals For Female
Participation In Each Trade	Participation In Each Trade
6.3%	6.9%

- b) These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the Covered Area. If the Contractor performs construction work in a geographical area located outside of the Covered Area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

- c) The Contractor's compliance with the Executive Order and the regulations in 41 C.F.R. Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific Affirmative Action obligations required by the specifications set forth in 41 C.F.R. § 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 C.F.R. Part 60-4. Compliance with the goals will be measured against the total work hours performed.
- 3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs, with a copy to the Engineer, within ten (10) working days of award of any construction subcontract in excess of \$10,000 at any tier for the performance of any portion of the Work. The notification shall list the name, address and telephone number of the Subcontractor; Employer Identification Number of the Subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
- 4. As used in the Contract, the "Covered Area" is Allegheny County, Pennsylvania.
- 5. Contractor shall include this Article 25 in all subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director, Office of Federal Contract Compliance Programs of the Department of Labor at 41 C.F.R. §§ 60-4.2 and 60-4.3.

ARTICLE 26 – NON-DISCRIMINATION / EQUAL OPPORTUNITY CLAUSE

- 26.1 The Contractor shall comply with the following in performing the Work:
 - A. The Contractor shall not discriminate against any employee or applicant for employment, independent contractor or any other person because of race, color, creed, sex, disability, age or national origin. The Contractor shall take Affirmative Action to ensure that applicants are employed, and that employees or agents are treated during employment without regard to their race, color, creed, sex, disability, age or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
 - B. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, creed, sex, disability, age or national origin.

- C. 1. The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. Similar notice shall be sent to every other source of recruitment regularly utilized by the Contractor.
 - 2. It shall be no defense to a finding of noncompliance with this nondiscrimination clause that the Contractor had delegated some of its employment practices to any union, training program or other source of recruitment which prevents it from meeting its obligations. However, if evidence indicates that the Contractor was not on notice of the third party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.
 - 3. Where the practices of a union or of any training program or other source of recruitment will result in the exclusion of minority group persons, so that the Contractor will be unable to meet its obligations under this nondiscrimination clause, the Contractor shall then employ and fill vacancies through other nondiscriminatory employment procedures.
- D. The Contractor shall comply with all provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity", 42 U.S.C. § 2000e, and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in future affect construction activities undertaken in the course of the Work.
 - E. 1. The Contractor shall furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and shall permit access to its books, records, and accounts by FTA and by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
 - 2. The Contractor shall furnish all necessary employment documents and records to, and permit access to its books, records and accounts by Authority and the Commonwealth of Pennsylvania Office of Administration, Bureau of Affirmative Action, for purposes of investigation to ascertain compliance with this Article 26.1.E. If the Contractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by Authority or the Bureau of Affirmative Action.
- F. In the event of the Contractor's noncompliance with the nondiscrimination clauses of the Contract or with any of the applicable rules, regulations or orders, the Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further state or federal government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of

- September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The Contractor shall comply and shall assure the compliance by its Subcontractors with all the requirements of Title VI of the Civil Rights Act of 1964 (49 USC 2000d) and the regulations of the DOT set forth in 49 C.F.R. Part 21, and the Commonwealth of Pennsylvania Nondiscrimination Clause.
 - H. In accordance with Section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. §§ 623, 49 U.S.C. § 5332, and any implementing regulations issued by FTA, the Contractor shall refrain from discrimination against present and prospective employees for reason of age.
 - I. In accordance with Section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, and any implementing regulations issued by FTA, the Contractor shall comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act", 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities.
 - J. The Contractor shall include a citation to 41 C.F.R. § 60-1.4(b)(1) and § 60-1.4(c) and the provisions of Article 26.1.A through Article 26.1.J in every subcontract or purchase order for the Work unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions shall be binding upon each Subcontractor or Supplier. The Contractor shall take such action with respect to any subcontract or purchase order as FTA may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or Supplier as a result of such direction by FTA, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

ARTICLE 27 – WAGE RATES

- 27.1 Minimum wages to be paid on the Work for each classification of worker have been established by the U.S. Department of Labor. The Contractor shall prominently post at the Worksite said wage rates. In addition, Contractor shall post with the wage rates Department of Labor Form WH-1321, Notice to Employees Working on Federally Financed Construction Projects, which will be furnished to the Contractor by Authority. The name, address and telephone number of the Engineer shall be contained in the poster to inform workers to whom they may submit complaints or raise questions concerning labor standards.

ARTICLE 28 – FTA LABOR PROVISIONS

- 28.1 The Contractor shall comply with the following in performing the Work:
- A. Minimum Wages
 - 1. All laborers and mechanics employed or working at the Worksite shall be paid by the Contractor unconditionally and not less often than once a week, and without subsequent reduction or rebate on any account except such payroll deductions as are permitted by

regulation issued by the Secretary of Labor under the Copeland Act (29 C.F.R. Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at any time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Article 28.1.A.4 below; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 C.F.R. §5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under 29 C.F.R. §5.5(a)(1)(ii) and the Davis-Bacon posters (WH-1321)) shall be posted at all times by the Contractor and its Subcontractors at the Worksite in a prominent and accessible place where it can be easily seen by the workers.

2. a) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. Authority shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (1) Except with respect to helpers as defined in 29 C.F.R. § 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - (4) With respect to helpers as defined in 29 C.F.R. § 5.2(n)(4), such a classification prevails in the area in which the work is performed.

- b) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and Authority agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by Authority to the Administrator of The Wage and Hour Division, Employment Standards Administration, U. S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise Authority or will notify Authority within the 30-day period that additional time is necessary.
 - c) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and Authority do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), Authority shall refer the questions including the views of all interested parties and the recommendation of Authority, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise Authority or will notify Authority within the 30-day period that additional time is necessary.
 - d) The wage rate (including fringe benefits where appropriate) determined pursuant to Article 28.1.A.2.(b) or Article 28.1.A.2.(c), shall be paid to all workers performing work in the classification under the Contract from the first day on which work is performed in the classification.
- 3. Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
 - 4. If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

B. Withholding

Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold, or cause to be withheld, from the Contractor, under the Contract or under any other federal contract with the Contractor, or any other federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers,

employed by the Contractor or any Subcontractor, the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, helper, employed or working on the Worksite, all or part of the wages required by the Contract, Authority may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment until such violations have ceased.

C. Payrolls and Basic Records

1. Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the Work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the Worksite. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 C.F.R. § 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits are enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
2.
 - a) The Contractor shall submit weekly for each week in which any Work is performed a copy of all payrolls to Authority. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 C.F.R. § 5.5 (a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock No. 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The Contractor is responsible for the submission of copies of payrolls by all Subcontractors.
 - b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or Subcontractor or the agent of the Contractor or Subcontractor who pays or supervises the payment of the persons employed under the Contract and shall certify the following:
 - (1) That the payroll for the payroll period contains the information required to be maintained under 29 C.F.R. § 5.5.(a)(3)(i) and that such information is correct and complete;

- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Work during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth at 29 C.F.R. Part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.
 - c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by 29 C.F.R. § 5.5(a)(3)(ii)(B).
 - d) The falsification of any of the above certifications may subject the Contractor or Subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.
3. The Contractor or Subcontractor shall make the records required under 29 C.F.R. § 5.5(a)(3)(i) available for inspection, copying, or transcription by authorized representatives of Authority or the Department of Labor. The Contractor or Subcontractor shall permit Authority to interview employees during working hours on the job. If the Contractor or Subcontractor fails to submit the required records or make them available, Authority may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or make such records available may be grounds for debarment action pursuant to 29 C.F.R. § 5.12.

D. Apprentices and Trainees

1. Apprentices - Apprentices will be permitted to work at less than the pre-determined rate for the work they performed when they are employed pursuant to, and individually registered in, a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the Worksite in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In

addition, any apprentice performing work on the Worksite in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where the Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or Subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed in a percentage of the journeyman's hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor shall no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the Work until an acceptable program is approved.

2. Trainees - Except as provided in 29 C.F.R. § 5.16, trainees will not be permitted to work at less than the predetermined rate for the Work unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the Worksite shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman's hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing at the Worksite in excess of the ratio permitted under the registered program shall be paid not less the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor shall no longer be permitted to utilize

- trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
3. Equal Employment Opportunity - The utilization of apprentices, trainees and journeymen under this provision shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 C.F.R. Part 30.
- E. Compliance With Copeland Act Requirements - The Contractor shall comply with the requirements of 29 C.F.R. Part 3, which are incorporated herein by reference.
- F. Contract Termination: Debarment - A breach of the requirements of this Article 28 may be grounds for termination of the Contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. §5.12.
- G. Compliance with Davis-Bacon and Related Acts Requirements - All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 C.F.R. Parts 1, 3, and 5 are incorporated herein by reference.
- H. Disputes Concerning Labor Standards
1. Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes provisions of this Contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor set forth in 29 C.F.R. Parts 5, 6 and 7. Disputes within the meaning of this Article 28.1.H shall include disputes between the Contractor (or any of its Subcontractors) and Authority, the U.S. Department of Labor, or the employees or their representatives.
 2. Disputes concerning the payment of prevailing wage rates or classification shall be promptly reported to Authority for its referral to the Department of Labor for a decision. The decision of the Department of Labor shall be final.
 3. All questions relating to the application or interpretation of the Copeland Act, the Contract Work Hours and Safety Standards Act and the Davis-Bacon Act, shall be sent to the Department of Labor for a ruling or interpretation and such ruling or interpretation shall be final.
- I. Certification of Eligibility
1. By entering into the Contract, the Contractor certifies that neither it nor any person or firm who has an interest in the Contractor is a person or firm ineligible to be awarded government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 C.F.R. § 5.12(a)(1).
 2. No part of the Contract shall be subcontracted to any person or firm ineligible for award of a government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 C.F.R. § 5.12(a)(1). Furthermore, each Subcontractor shall certify to Authority that it is not ineligible under the Davis-Bacon Act or 29 C.F.R. § 5.12(a)(1) to perform the Work or a portion thereof.
 3. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. § 1001.
- J. Contract Work Hours and Safety Standards Act. - The following shall apply to any contract subject to the Contract Work Hours and Safety Standards Act.

As used in this Article 28.1.J, the terms "laborers" and "mechanics" include watchmen and guards.

1. Overtime Requirements - The Contractor and any Subcontractor shall not require or permit any laborer or mechanic in any workweek in which the individual is employed on the Work to work in excess of forty hours in the workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
 2. Violation; Liability for Unpaid Wages; Liquidated Damages - In the event of any violation of the requirements of Article 28.1.J.1, the Contractor and any Subcontractor responsible therefore shall be liable for the unpaid wages. In addition, the Contractor and such Subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of Article 28.1.J.1 in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by Article 28.1.J.1.
 3. Withholding for Unpaid Wages and Liquidated Damages - Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or any Subcontractor under the Contract or under any other federal contract with the Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the Contractor, such sums as may be determined to be necessary to satisfy any liabilities of the Contractor or such Subcontractor for unpaid wages and liquidated damages as provided in the clause set forth at 29 C.F.R. § 5.5(b)(2).
- K. 1. The Contractor and each Subcontractor shall maintain payrolls and basic payroll records during the course of the Work and shall preserve them for a period of three (3) years from the completion of the Contract for all laborers and mechanics working on the Work. Such records shall contain the name and addresses of each such employee, Social Security Number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions in actual wages paid.
2. The records required to be maintained under Article 28.1.K.1 shall be made available by the Contractor and each Subcontractor for inspection, copying or transcription by authorized representatives of Authority or the Department of Labor. Further, the Contractor or Subcontractor shall permit such representatives to interview employees during regular working hours.
- L. Upon completion of the Work, the Contractor shall submit to Authority with the invoice for final payment a certificate confirming that all laborers, mechanics, apprentices and trainees employed on the Work by the Contractor or any Subcontractor have been paid wages at the rates not less than those required by the Contract Documents.

- M. 1. If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of the Contract, the Contractor shall immediately give written notice thereof, including all relevant information with respect thereto, to Authority.
2. The Contractor shall require each Subcontractor to notify the Contractor if said Subcontractor or any lower tier subcontractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of the Contract or the work of said Subcontractor or any of its lower tier subcontractors.
- N. In connection with the performance of the Work, the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by 18 U.S.C. § 4082(c)(2) and Executive Order 11755, December 29, 1973.
- O. Subcontracts
 - 1. The Contractor shall insert in all construction subcontracts the clauses set forth in Article 28.1.A through Article 28.1.N so that all such provisions, and such other clauses as the Government or Authority may, by appropriate instructions, require, shall be inserted in all construction subcontracts of any tier. The Contractor shall be responsible for compliance by any Subcontractor or lower tier subcontractor with all such provisions.
 - 2. Within fourteen (14) days after the Award, the Contractor shall deliver to Authority a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the Subcontractor's signed and dated acknowledgment that clauses set forth in Article 28.1.O.1 have been included in the subcontract.
 - 3. Within fourteen (14) days after the award of any subsequently awarded subcontract, the Contractor shall deliver to Authority an updated completed SF 1413 for such additional subcontract.
- P. The Contractor shall furnish Authority a certified copy of each weekly payroll within seven days after the regular payroll date. Such submittal shall include a certified copy of each Subcontractor's payrolls. The certified payrolls submitted shall completely and accurately set forth all of the information required to be maintained by Section 5.5(a)(3)(i) of 29 C.F.R. Part 5. The Contractor may use the Department of Labor Form WH-347, "Optional Payroll Form," which provides for all the necessary payroll information and certifications. This DOL form may be purchased at nominal cost from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Contractor may, however, use its own payroll form provided it includes the same information and certifications as the Department of Labor Form WH-348, "Statement of Compliance."

ARTICLE 29 – PATENTS

- 29.1 The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes, not furnished by Authority, used on or incorporated in the Work and shall indemnify and hold harmless Authority, the

Engineer, FTA, and their duly authorized representatives, from all suits at law, or actions of every nature for, or on account of, the use of any patented materials, equipment, devices or processes.

- 29.2 If such materials, equipment, devices or processes are held to constitute an infringement and their use enjoined, the Contractor, at its expense, shall:
- A. Secure for Authority the right to continue using such materials, equipment, devices or processes by suspension of the injunction or by procuring a license or licenses;
 - B. Replace such materials, equipment, devices or processes; or
 - C. Modify such materials, equipment, devices or processes so that they become non-infringing or remove the enjoined materials, equipment, devices or processes and refund the sums paid therefor without prejudice to any other rights of Authority or the Engineer.
- 29.3 If any invention, improvement or discovery of the Contractor, any Subcontractor or any Supplier is conceived or first actually reduced to practice during the course of the Contract, which invention, improvement or discovery may be patentable under the laws of the United States or any foreign country, the Contractor shall immediately notify Authority and provide a detailed written report to Authority. Authority will advise FTA accordingly. The rights and responsibilities of the Contractor, any Subcontractor, any Supplier, Authority and FTA, with respect to such invention, improvement or discovery, will be determined in accordance with all applicable federal laws, regulations, policies and any waiver thereof.
- 29.4 Nothing contained in this Article 29 shall imply a license to Authority or FTA under any patent or be construed as affecting the scope of any license or other right otherwise granted to Authority or FTA under any patent.

ARTICLE 30 – TECHNICAL DATA AND COPYRIGHTED MATERIALS

- 30.1 Authority shall have the right to use, duplicate, or disclose Technical Data, as defined in Article 30.5 below, in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so.
- 30.2 With respect to data which is specified to be delivered under the Contract and which is data other than that listed in Article 30.5, the Contractor may seek to protect such data as Limited Rights Data, as defined in Article 30.6 below. In order to do so, the Contractor, prior to disclosure, shall identify to Authority, in writing, all such data being proposed by it to be Limited Rights Data, along with sufficient evidence to support such proposal. Authority will, within twenty (20) days of receipt of the Contractor's proposal, inform the Contractor, in writing, of the identified data which Authority agrees to designate as Limited Rights Data. As to designated Limited Rights Data, Authority shall have the right to use, duplicate or disclose Limited Rights Data, in whole or in part, with the express limitation that such Limited Rights Data shall not, without the written permission of the party furnishing such data:
- A. Be released or disclosed, in whole or in part, outside Authority; or
 - B. Be used by a party other than Authority except for emergency repair, overhaul work or safety purposes; provided that such party shall not further use, release or disclose such Limited Rights Data. Authority shall not, however, be liable to the Contractor or others for any action, claim or injury

arising out of, or as a result of, a third party's use, release or disclosure of Limited Rights Data disclosed to Authority by the Contractor or others.

- 30.3 As to the data which is approved by Authority as Limited Rights Data, the Contractor shall mark all such data with a legend which suitably recites the limitations set forth in Article 30.2. To the extent the Contractor does not designate data as Limited Rights Data, or does not provide the restrictive markings on the data, then Authority may treat the data as unrestricted data pursuant to Article 30.1. Nothing herein, however, shall impair the right of Authority to use data similar or identical to any Limited Rights Data, which data is acquired from other sources or which is generally available in the public domain.
- 30.4 The Contractor shall notify Authority of all devices or processes covered by Technical Data or otherwise disclosed or used by or for Authority pursuant to the Contract which are the subject of patents owned by the Contractor, any Subcontractor or any Supplier and all appropriate patent markings shall be included on such devices or on relevant Technical Data.
- 30.5 The term "Technical Data" shall mean all "Subject Data" as defined in Article 30.8 below. Examples of Technical Data shall include, but not be limited to, the following:
- A. Any manuals, instructional materials prepared for installation, operation, maintenance, or training purposes related to the Work;
 - B. Materials pertaining to end items, components, or processes which were prepared for the purpose of identifying sources, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements;
 - C. Other materials which have been, or are, normally furnished without restriction by the Contractor, Subcontractor or Supplier; and
 - D. Other specifically described materials which the parties have agreed will be furnished without restriction.
- 30.6 The term "Limited Rights Data" shall mean data that embodies trade secrets or constitutes confidential or privileged commercial or financial information, to the extent that such data pertains to items, components, or processes developed at private expense.
- 30.7
- A. The Contractor agrees to and does hereby grant to Authority, and its directors, officers, agents, and employees acting within the scope of their official duties, a royalty-free, nonexclusive and irrevocable license throughout the world for Authority to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others to do so, all Technical Data now or hereafter covered by copyright.
 - B. Such copyrighted matter shall not be included in Technical Data furnished hereunder without the written permission of the copyright owner for Authority to use such copyrighted matter in the manner above described.
 - C. The Contractor shall notify Authority in writing of each notice or claim of copyright infringement or infringement of other intellectual property rights received by the Contractor with respect to any Technical Data delivered hereunder.
- 30.8
- A. The term "Subject Data" as used herein means recorded information, whether or not copyrighted, that is delivered or specified to be delivered

pursuant to the Contract Documents. The term includes graphic or pictorial delineation's in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape or computer memory printouts or other types of electronic media; and information retained in computer memory. Examples include but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications and related information. The term does not include financial reports, costs analyses and similar information incidental to contract administration.

- B. The following restrictions apply to all Subject Data first produced in the performance of the Contract:
 - 1. Except for its own internal use, the Contractor may not publish or reproduce such data, in whole or in part, or in any manner or form, nor may the Contractor authorize others to do so, without the written consent of Authority, until such time as Authority may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to agreements with academic institutions.
 - 2. As authorized by 49 C.F.R., Part 18.34, FTA reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Government purposes:
 - a) Any work developed under a grant, cooperative agreement, sub-grant, sub-agreement or third party contract, irrespective of whether or not a copyright has been obtained; and
 - b) Any rights of copyright to which Authority, the Contractor, any Subcontractor or Supplier purchases ownership with Government assistance.
 - C. When FTA provides assistance for a contract involving planning, research, development or a demonstration, FTA's intent is to increase the body of mass transportation knowledge, rather than to limit the benefits of the project to those parties that have participated therein. Therefore, the Contractor understands and agrees that, in addition to the rights set forth in Article 30.8.B.2, FTA may make available to any FTA recipient, sub-grantee, sub-recipient, contractor, third party contractor or third party subcontractor, either FTA's license in the copyright to the Subject Data derived under the Contract or a copy of the Subject Data first produced under the Contract.
 - D. Articles 30.8.A, B, and C, above, are not applicable to material furnished to the Contractor by Authority or FTA and incorporated into the Work, provided that such incorporated material is identified by the Contractor at the time of the performance of the portion of the Work in question.
 - E. In the event that the Work is not completed, for any reason whatsoever, all data developed under the Contract shall become Subject Data and shall be delivered as Authority may direct.
- 30.9 The Contractor shall indemnify, save and hold harmless, Authority, FTA and their respective directors, officers, agents and employees against any liability, including costs, expenses, and attorneys' fees resulting from any willful or intentional

violation by the Contractor or its Subcontractors or Suppliers of proprietary rights, copyrights or right of privacy, arising out of the publication, translation, reproduction, delivery, use or disposition of any data or materials furnished under the Contract.

ARTICLE 31 – AMERICANS WITH DISABILITIES ACT

- 31.1 The Contractor shall comply with, and assure that the Work complies with, all applicable requirements of the Americans with Disabilities Act of 1990(ADA), 42 USC §§ 12101 *et seq.* and 49 USC § 322; Section 504 of the Rehabilitation Act of 1973, as amended, 29 USC § 794; and Section 16 of the Federal Transit Act, as amended, 49 USC App. § 1612.

ARTICLE 32 – SECURITY REQUIREMENTS

- 32.1 For purposes of this Article, the term "Project Site" shall be the area where the Work is to be performed as shown on the Contract Drawings.
- 32.2 The Contractor shall be solely responsible for initiating, maintaining and supervising security precautions and programs for and in connection with the Work and the Project Site including:
 - A. The Contractor shall take all necessary and reasonable precautions for security for the Work and Project Site and to seek to avoid and/or minimize danger to life and property, vandalism, theft, other criminal activities and terrorist threats; and
 - B. The Contractor shall comply with all applicable federal, state and local laws, ordinances, rules, regulations and orders regarding security and terrorist threats.
- 32.3 The Contractor shall employ and assign to the Work a "Security Representative(s)" whose responsibility shall be security for the Contract and the Project Site. Should the Contractor implement shift or off-hour work, the Contractor shall have a Security Representative(s) present at the Project Site during the performance of all such work.
 - A. The Contractor shall submit, for review and approval by the Engineer, the qualifications of its proposed Security Representative(s). The qualifications shall include, but not be limited to: security experience; working with and near a construction site; knowledge of laws, rules and regulations associated with security and terrorist threats; and other experiences acceptable to the Engineer. The Contractor shall not begin any portion of the Work to be performed at the Project Site until the Engineer approves the Contractor's Security Representative(s).
 - B. The Contractor's Security Representative(s) shall:
 1. Be responsible for the control and implementation of the Contractor's security program;

2. Make periodic security inspections of the Project Site and take necessary actions to eliminate or mitigate security threats;
 3. Review security incident reports and initiate immediate corrective action;
 4. Assist in the preparation of security investigation and reporting procedures, including the prosecution of offenders;
 5. Implement security awareness training programs;
 6. Coordinate security activities with those of other Authority contractors and the Engineer;
 7. Submit a weekly security report;
 8. Schedule and oversee periodic security meetings; and
 9. Monitor worldwide security threats and national security warnings and alerts and adjust the Project Site security as appropriate.
- C. If the Engineer determines that a Security Representative is not effective in executing his or her duties, the Engineer may direct, in writing, the Contractor to replace the Security Representative with a new Security Representative.
- D. If a Security Representative is to be replaced, the Contractor, at least four business days prior thereto, shall so notify the Engineer in writing and shall submit the name, experience and qualifications of the proposed replacement Security Representative for approval. The replacement Security Representative must be approved by the Engineer and at the Project Site prior to replacing the then current Security Representative.
- 32.4 The Contractor shall submit three copies of a "Security Program", in writing, to the Engineer for review and approval within ten (10) days after receipt of the Notice of Award. The Security Program shall provide guidelines to implement security procedures for the Contract and fully describe the Contractor's commitments and the specific actions proposed to be taken to provide a secure Project Site. The Security Program should be customized for the Work and shall also address any interaction with Authority's operating transit systems. The Contractor shall not begin any portion of the Work until the Engineer approves the Contractor's Security Program. The Security Program shall include, but not be limited to:
- A. A procedure for implementing and regularly inspecting perimeter security for the Project Site, which may include, but not be limited to, signage, site fencing and access gates, barriers, screening, security guard(s) and other measures deemed necessary to secure the Project Site and related construction, storage and/or lay down areas;
 - B. A procedure for limiting/restricting access to the Project Site;

- C. A procedure for restricting who may visit the Project Site and recording who visits the Project Site. Access to the Project Site should be limited to employees, agents and representatives of Authority and the Engineer, those employees, agents and representatives of the Contractor, the Subcontractors and the Suppliers necessary to perform the Work and to other individuals who may be necessary for the performance of the Work;
- D. A procedure for performing background checks, including the type/level of background checks proposed to be performed, for: all Contractor's and Subcontractor's employees, agents and representatives proposed to perform any portion of the Work at the Project Site and all Suppliers' employees, agents and representatives proposed to perform any portion of the Work at the Project Site other than solely making deliveries to the Project Site. Background checks shall not be required for employees, agents or representatives of Authority or the Engineer or for employees of Suppliers or others solely making deliveries to the Project Site. The procedure shall include a criteria for determining who, based upon the background check, may be barred or disqualified from performing work at, and/or visiting, the Project Site. No individual, except as stated herein, may perform any portion of the Work at, or otherwise visit, the Project Site until a complete background check has been performed on said individual and the individual passes the requirements of a background check. In performing background checks, the Contractor shall familiarize itself with, and fully comply with, all applicable federal, state and local laws, ordinances, rules, regulations and orders pertaining to background checks and privacy;
- E. A procedure for overseeing and ensuring the security of the Project Site in regard to deliveries made by Suppliers or others to the Project Site and for other permitted short term visitors to the Project Site who are not performing any portion of the Work at the Project Site, including providing temporary "visitor" badges to and escorting, as appropriate, such individuals;
- F. Identification badges, including permanent, temporary and visitor, shall be issued for the Project Site by the Engineer to the Contractor. The Security Program shall include a procedure for the display, control and return of all such identification badges which shall include:
 - 1. A procedure for ensuring that all badges are prominently displayed by each individual while on the Project Site. The absence of a valid badge may be grounds for removal from the Project Site;
 - 2. A proposed procedure for controlling, safeguarding and returning all badges;
 - 3. A procedure for reporting lost or stolen badges;
 - 4. A procedure for returning a badge to the Engineer if an employee or other individual is terminated or no longer will be performing work at the Project Site. Also, if, at any time, an employee or other individual is not scheduled to be performing work at the Project Site within the subsequent two-week period, the badge issued to said

employee and/or individual shall be returned to the Contractor and properly secured. Furthermore, if an employee or individual has not performed any work at the Project Site for a consecutive three-month period, then the Contractor shall perform an additional background check on said employee or individual, pursuant to the approved procedure for performing background checks, prior to the employee or individual returning to perform any additional portion of the Work at the Project Site; and

5. A procedure for permanently revoking a badge for misuse thereof which shall include, but not be limited to:

- a. Allowing a badge to be used by an unauthorized person;
- b. Using a badge to gain access to the Project Site to create disturbances, nuisances or otherwise interfering with the normal operations of the Project Site; and
- c. Using a badge to gain access to the Project Site for the purpose of committing a crime or terrorist activity;

- G. A procedure and plan for conducting periodic security meetings for the Work;
- H. A procedure for monitoring world-wide security threats and national security warnings and alerts and adjusting the security for the Project Site as appropriate;
- I. Emergency Security Procedure. A procedure to familiarize employees and others at the Project Site with emergency security procedures for the Work and the Project Site, including, as appropriate, periodic refreshers on the procedure. At a minimum the procedure shall cover evacuations and other procedures for dealing with emergency security issues, terrorist threats and guidance from the Office of Homeland Security and the Federal Transit Administration;
- J. A procedure for conducting periodic security inspections;
- K. A procedure for issuing weekly security reports which shall include, but not be limited to:
 1. Identification badges which have been issued;
 2. Security measures which have been implemented;
 3. Security inspections conducted; and
 4. Security issues which have arisen and the resolution thereof.

The weekly security reports shall be sent to the Engineer with a copy to Authority's Chief of Police;

- L. A procedure for reporting security incidents and taking appropriate and immediate corrective action. Any security incidents should be immediately reported to the Engineer and Authority's Police and, as appropriate, local police or emergency response personnel;
- M. A procedure for preparing and issuing security incident reports;

- N. A procedure for conducting a security training program for all Contractor and Subcontractor employees, supervisors, agents and representatives performing any portion of the Work at the Project Site including, as appropriate, periodic refreshers on the program; and
 - O. A procedure for coordinating security programs with Authority's Police and other Authority contractors.
- 32.5
- A. All identification badges, including permanent, temporary and visitor badges, for the Project Site will be issued to the Contractor by the Engineer.
 - B. For any Contractor, Subcontractor or Supplier employee, agent or representative who is to perform any portion of the Work at the Project Site or for any other person for which a background check is required to be performed pursuant to Article 32.4.D above, the Contractor shall request, in writing, using a form acceptable to the Engineer, that the Engineer issue an appropriate, permanent badge for such individual. All such requests shall be made, in writing, to the Engineer at a minimum of one business day before said individual is to be performing any work or otherwise at the Project Site. In making such request to the Engineer, the Contractor shall certify, in writing, that, to the extent required by Article 32.4.D above, a background check has been properly performed for said individual and based thereon, the Engineer may issue the badge for said individual. No badge shall be issued for an individual if a written request has not been appropriately and timely made by the Contractor for the issuance of a badge or the Contractor has failed to provide the required certification regarding the background check.
 - C. The permanent badges which will be issued for the Project Site will:
 1. Contain, at a minimum, the individual's name, photograph, identification number and signature, and an expiration date and current validation sticker;
 2. The badges will be tamper proof; and
 3. The badges will differentiate employees, agents and representatives of the Contractor, Subcontractors, Suppliers and others permitted to visit the Project Site.
 - D. For any Supplier employee, agent or representative or other individual solely making deliveries to the Project Site, and other permitted short-term visitors to the Project Site, the Engineer will provide the Contractor, as needed, with a limited number of visitor badges, which will be numbered, and which can be used by the Contractor for visits to the Project Site by such individuals. The Contractor shall be responsible for controlling, safeguarding and maintaining such visitor badges and for escorting, as appropriate, such individuals while at the Project Site in accordance with the requirements of the approved Security Program

ARTICLE 33 – PROJECT SIGNS

Article Reserved.

END OF SECTION

Section 00800 – Prevailing Wage Rates

Table of Articles

Article 1 – Applicable Prevailing Wage Rates

ARTICLE 1 – APPLICABLE PREVAILING WAGE RATES

- 1.1 The applicable prevailing wage rates for this Contract are contained in the following pages.

GENERAL DECISION: PA20080004 06/20/2008 PA4

Date: June 20, 2008

General Decision Number: PA20080004 06/20/2008

Superseded General Decision Number: PA20070004

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Lawrence, McKean, Mercer, Mifflin, Potter, Somerset, Venango, Warren, Washington and Westmoreland Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (excluding sewer grouting projects and excluding sewage and water treatment plant projects)

Modification Number	Publication Date
0	02/08/2008
1	02/22/2008
2	03/07/2008
3	03/21/2008
4	04/11/2008
5	05/30/2008
6	06/20/2008

BOIL0013-005 09/30/2007

CENTRE, FRANKLIN, POTTER, CLINTON, FULTON, HUNTINGDON AND MIFFLIN COUNTIES

	Rates	Fringes
BOILERMAKER.....	\$ 36.86	23.81

* BOIL0154-004 06/01/2008

ALLEGHENY, ARMSTRONG, BEAVER, BEDFORD, BLAIR, BUTLER, CAMBRIA, CAMERON, CLARION, CLEARFIELD, CRAWFORD, ELK, FAYETTE, FOREST, GREENE, INDIANA, JEFFERSON, LAWRENCE, MCKEAN, MERCER, SOMERSET, VENANGO, WARREN, WASHINGTON AND WESTMORELAND COUNTIES

	Rates	Fringes
BOILERMAKER.....	\$ 33.90	22.07

BOIL0744-003 01/01/2004

ERIE COUNTY

	Rates	Fringes
BOILERMAKER.....	\$ 29.14	16.17

BRPA0009-023 06/01/2007

BEAVER COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 25.00	12.90

BRPA0009-024 06/01/2007

WASHINGTON (Cross Creek, Hanover, Jefferson, Mt Pleasant, Nottingham, Peters, Robinson, Smith, Union Twps) COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 26.93	12.52

BRPA0009-025 06/01/2007

BUTLER, LAWRENCE, AND MERCER COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 25.00	12.78

BRPA0009-032 06/01/2007

FAYETTE (Jefferson & Washington Twps), GREENE (Except Cumberland, Dunkirk, Greene, Monongahelia Twps), INDIANA, AND WESTMORELAND (Rostraver Twp) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 25.85	12.94

BRPA0009-033 06/01/2007

ARMSTRONG, CLARION (Brady, Madison, Perry, Tobe, Porter, Redbank Twps), FAYETTE (Except Jefferson & Washington Twps), GREENE (Cumberland, Dunkirk, Greene, Monongahelia Twps), INDIANA, AND WESTMORELAND (Except Rostraver Twp) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 26.02	12.77

BRPA0009-034 05/01/2008

ERIE COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 24.85	12.76

CARP2235-005 01/01/2008

	Rates	Fringes
PILEDRIVERMAN Piledriverman (welder).....	\$ 28.15	11.50

Piledriverman.....	\$ 27.85	11.50
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CARP2235-006 01/01/2007

	Rates	Fringes
Diver.....	\$ 40.40	10.77
Tender.....	\$ 26.93	10.77

CARP2274-001 01/01/2008

	Rates	Fringes
CARPENTER (ALLEGHENY, ARMSTRONG, BEAVER, BUTLER, ERIE, FAYETTE, GREENE, LAWRENCE, MERCER, WASHINGTON, AND WESTMORELAND COUNTIES)		
Carpenter (Welders).....	\$ 27.37	11.52
Carpenters.....	\$ 26.67	11.52
CARPENTER (BEDFORD, BLAIR, CAMBRIA, CAMERON, CENTRE, CLARION, CLINTON, CLEARFIELD, CRAWFORD, ELK, FOREST, FRANKLIN, FULTON, HUNTINGDON, INDIANA, JEFFERSON, MCKEAN, MIFFLIN, POTTER, SOMERSET, VENANGO, AND WARREN COUNTIES)		
Carpenters (Welders).....	\$ 27.13	11.52
Carpenters.....	\$ 26.42	11.52

ELEC0005-006 12/21/2007

ALLEGHENY, ARMSTRONG, BEDFORD, BLAIR, BUTLER, CAMBRIA, CAMERON,
CENTRE (Remainder), CLARION, CLEARFIELD, ELK, FAYETTE, FULTON,
GREENE, HUNTINGDON, INDIANA, JEFFERSON, MCKEAN, SOMERSET,
VENANGO, WASHINGTON, AND WESTMORELAND COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 29.38	17.59

ELEC0056-004 06/01/2006

ERIE, FOREST AND WARREN COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 23.90	15.09

ELEC0126-005 06/03/2007

ALLEGHENY, ARMSTRONG, BEAVER, BEDFORD, BLAIR, CAMBRIA, CENTRE,
CLARION, CLEARFIELD, FAYETTE, FULTON, GREENE, HUNTINGDON,
INDIANA, JEFFERSON, SOMERSET, WASHINGTON AND WESTMORELAND

	Rates	Fringes
Line Construction:		
Groundman.....	\$ 21.27	14.05

Lineman.....	\$ 35.46	14.05
Truck Driver.....	\$ 23.05	14.05
Winch Truck Operator.....	\$ 24.82	14.05

ELEC0126-007 06/03/2007

FRANKLIN AND MIFFLIN COUNTIES

	Rates	Fringes
Line Construction:		
Groundman.....	\$ 19.28	13.26
Lineman.....	\$ 32.14	13.26
Truck Driver.....	\$ 20.89	13.26
Winch Truck Operator.....	\$ 22.50	13.26

ELEC0143-007 06/01/2007

FRANKLIN and MIFFLIN COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 26.50	12.72

ELEC0712-003 12/24/2007

CRAWFORD, BEAVER, LAWRENCE AND MERCER COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 28.45	17.67

ELEC0812-008 06/01/2007

CLINTON COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 24.34	14.58

ELEC0812-009 06/01/2007

POTTER COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 25.35	14.61

ELEC0812-011 06/01/2007

CENTRE COUNTY (Burnside, Curtin, Liberty, Howard, Marion,
Walker, Miles, Haines Townships)

	Rates	Fringes
ELECTRICIAN.....	\$ 25.35	14.61

ELEC1319-004 08/29/2005

BUTLER, CAMERON, CLINTON, CRAWFORD, ELK, ERIE, FOREST,

LAWRENCE, MCKEAN, MERCER, VENANGO, WARREN AND POTTER COUNTIES

	Rates	Fringes
Line Construction:		
Groundman.....	\$ 21.35	11.99
Lineman, Dynamite Man,		
Heavy Equipment Operator....	\$ 34.44	12.90
Truck Drivers.....	\$ 22.39	12.06
Winch Truck Operators.....	\$ 23.07	12.11

ENGI0066-016 01/31/2008

	Rates	Fringes
Power equipment operators:		
(ALLEGHENY, ARMSTRONG,		
BEAVER, BLAIR, BUTLER,		
CAMBRIA, CENTRE, CLARION,		
CLEARFIELD, CRAWFORD, ERIE,		
ELK, FAYETTE, GREENE,		
INDIANA, JEFFERSON, LAWRENCE,		
MCKEAN, MERCER, SOMERSET,		
VENANGO, WARREN, WASHINGTON,		
AND WESTMORELAND COUNTIES)		
GROUP 1.....	\$ 25.58	13.74
GROUP 2.....	\$ 25.32	13.74
GROUP 3.....	\$ 21.67	13.74
GROUP 4.....	\$ 21.21	13.74
GROUP 5.....	\$ 20.96	13.74
Power equipment operators:		
(BEDFORD, CAMERON, CLINTON,		
FOREST, FRANKLIN, FULTON,		
HUNTINGDON, MIFFLIN, AND		
POTTER COUNTIES)		
GROUP 1.....	\$ 25.29	13.74
GROUP 2.....	\$ 25.01	13.74
GROUP 3.....	\$ 21.37	13.74
GROUP 4.....	\$ 20.88	13.74
GROUP 5.....	\$ 20.67	13.74

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 - Asphalt Paving Machine (Spreader), Autograde (C.M.I. and similar); Backfiller, Compactor with Blade, Backhoe - 360 and 180 degree Swing; Cableway; Caisson Drill (similar to Hugh Williams), Central Mix Plant; Cooling Plant; Concrete Paving Mixer, Concrete Pump (self-propelled); Cranes; Cranes (boom or mast over 101ft. \$.50 per each additional 50 feet inclusive of jib), Cranes (Tower Stationary- Climbing Tower Crane); Derrick; Derrick Boat; Dozer(greater than 25,000 lbs.); Dragline; Dredge; Dredge Hydraulic; Elevating Grader; Franki Pile Machine; Gradall (remote control or otherwise), Grader (power-fine grade); Hlift (4 cy. and over); Hoist 2 Drums or more (in one unit); Hydraulic Boom Truck with pivotal cab (single motor-Pitman or similar), (Boom and Mast over 101 feet will be paid an additional 50 feet inclusive of jib if used); Kocal; Mechanic, Locomotive (std. Gauge); Metro-chip Harvester or similar; Milling Machine (Roto Mill or

similar); Mix Mobile; Mix Mobile (with Self Loading Attachment), Mucking Machine (tunnel); Pile Driver Machine; Pipe Extrusion Machine; Prespliter Drill (self contained); Refrigeration Plant (soil Stabilization) Rough Terrain Crane (25 ton over) (Boom and Mast over 101 feet will be paid an additional 50 feet inclusive of jib if used); Rough Terrain Crane (under 25 ton), Scrapers; Shovel-Power; Slip form Paver (C.M.I. and similar); Trenching Machine (30,000 lbs. and over), Trenching Machine (under 30,000 lb.), Tunnell Machine (Mark XXI Jarva or similar), Vermeer Saw, Whirley, Mechanic, Pipe bursting machine, Slip Lining machine

GROUP 2: Asphalt plant operator; auger (tractor mtd.); auger (truck mtd.); belt loader (euclid or similar); boring machine; cable placer or layer; compactor with blade, concrete batch plant (electronically synchronized); concrete belt placer (C.M.I. and similar); concrete finishing machine and spreader, concrete mixer (over 1 cy.) concrete pump (stationary); core drill (truck or skid mtd. - similar to penn drill), dozer (25,000 lbs or less); Ditch Witch Saw, force feedloader; fork lift (lull or similar); grader - power; grease unit opertor (head); guard rail post driver (truck mounted) guard rail post driver (skid type); hilift (under 4 cy.); skid steer loader; hydraulic boom truck (non-pivotal cab); job work boat (powered), jumbo operator; locomotive (narrow guage); minor equipment operator (accumulative four units); mucking machine; multi-head saw (groover); overhead crane; roller -power-asphalt; ross carrier; side boom or tractor mounted boom; shuttle buggy (asphalt), stone crusher (screening-washing plants); stone spreader (self propelled) truck mounted drill (davey or similar); welder and repairman; well point pump operator.

GROUP 3: Broom Finisher (C.M.I. or similar); Compactors/Rollers (static or vibratory (Self-propelled) on dirt or stone; Curb Builder; Minor Equipment Opertor (two or three units); Multi-head Tie Tamper; Pavement Breaker (self-propelled or ridden); Soil Stabilizer Machine; Tire Repairman; Tractor (snaking and hauling); Well Driller and Horizontal: Winch or "A" Frame Truck (when hoisting and lowering).

GROUP 4: Ballast Regulator; Compressor; Concrete Mixer (1 cy. & under with skip); Concrete Saw (Ridden or self-propelled); Conveyor; Elevator (Material hauling only); Fork-lift (Ridden or self-propelled); Form Line Machine; Generator; Groute Pump; Heater (Machinical); Hoist (single Drum); Ladavator, Light Plant; Mulching Machine; Personnel Boat (Powered), Pulverizer, Pumps, Seeding Machine, spray Cure Machine (powered Driven); Subgrader; Tie Puller; Tugger; Welding Machine (Gas or Diesel).

GROUP 5: Deck Hand; Farm Tractor; Fireman on Boiler; Oiler; Power Broom; Side Delivery Shoulder Spreader (attachment).

* IRON0003-001 06/01/2008

ALLEGHENY, FAYETTE, WESTMORELAND, CAMBRIA, INDIANA, ARMSTRONG, BUTLER, BEAVER, CLARION, AND WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 29.43	19.45

IRON0207-002 06/01/2007

LAWRENCE, MERCER, AND VENANGO COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 25.81	15.38

* IRON0348-002 06/01/2008

CRAWFORD, ERIE, FOREST, AND WARREN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 25.33	18.55

IRON0404-008 07/01/2007

FRANKLIN (Remainder), HUNTINGDON (Remainder), AND MIFFLIN COUNTIES

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 24.92	20.45

IRON0549-002 07/01/2006

GREENE COUNTY

	Rates	Fringes
IRONWORKER.....	\$ 24.07	10%+14.94

IRON0568-004 05/01/2008

BEDFORD, FRANKLIN (Southwest 1/3), FULTON, HUNTINGDON (Western 2/3), AND SOMERSET COUNTIES

	Rates	Fringes
Ironworkers:		
Sheeter, Bucker-Up.....	\$ 26.08	11.60
Structural, Ornamental,		
Reinforcing, Machinery		
Mover, Rigger & Machinery		
Erector, Welder, Fence		
Erector.....	\$ 25.83	11.60

* IRON0772-001 06/01/2008

BLAIR, CAMERON, CENTRE, CLEARFIELD, CLINTON, ELK, JEFFERSON, MCKEAN AND POTTER COUNTIES

	Rates	Fringes
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IRONWORKER.....	\$ 24.53	18.55
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A. HOLIDAYS

The following holidays shall be observed: New Years Day, Goodfriday, Memorial Day, Fourth of July, Labor Day, Veterans Day (Observed the day after Thanksgiving), Thanksgiving Day, Christmas Day.

Any holiday which occurs on Sunday shall be observed the following Monday.

LABO1058-001 01/01/2008

Rates	Fringes
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LABORER (BEDFORD, CAMERON,
CENTRE, CLINTON, CRAWFORD,
FOREST, FRANKLIN, FULTON,
HUNTINGDON, JEFFERSON,
MIFFLIN, AND POTTER COUNTIES)

GROUP 1.....	\$ 22.50	11.85
GROUP 2.....	\$ 22.66	11.85
GROUP 3.....	\$ 23.15	11.85
GROUP 4.....	\$ 23.60	11.85
GROUP 5.....	\$ 24.01	11.85
GROUP 6.....	\$ 19.05	11.85
GROUP 7.....	\$ 20.85	11.85
GROUP 8.....	\$ 23.50	11.85
GROUP 9.....	\$ 25.00	11.85

Laborers: (ALLEGHENY,
ARMSTRONG, BEAVER, BLAIR,
BUTLER, CAMBRIA, CLARION,
CLEARFIELD, ELK, ERIE,
FAYETTE, GREENE, INDIANA,
LAWRENCE, MCKEAN, MERCER,
SOMERSET, VENANGO, WARREN,
WASHINGTON, AND WESTMORELAND
COUNTIES)

GROUP 1.....	\$ 22.60	11.85
GROUP 2.....	\$ 22.76	11.85
GROUP 3.....	\$ 23.15	11.85
GROUP 4.....	\$ 23.60	11.85
GROUP 5.....	\$ 24.01	11.85
GROUP 6.....	\$ 19.05	11.85
GROUP 7.....	\$ 20.85	11.85
GROUP 8.....	\$ 23.60	11.85
GROUP 9.....	\$ 25.10	11.85

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt curb sealer; Asphalt tamper; Batcherma
(weigh) Blaster, Boatman, Brakeman, Change house attendant,
Coffer dam, Concrete curing pitman, Puddler, Drill Runner's
helper (Includes Drill Mounted on Truck, Track, or similar
and Davey Drill Spots, Clean up, helps to maintain),
Electric Brush and or Grinder, Fence Construction
(Including Fence Machine Operator) Form stripper and Mover,
Gabion (Erectors and Placers) Hydro jet blaster nozzleman;
Landscape laborer, Manually moved emulsion sprayer, Radio

actuated traffic control operator Rip rap work, scaffolds and Runways, Sheeters and Shorers (includes lagging) structural concrete Top Surfacer, Walk Behind Street Sweeper, and Wood Chipper

GROUP 2: Air tool operator (all types); Asphalt, batch & concrete plant operator (manually operated) Burner, Caisson; men (open air); Carryable pumps; Chain saw operator including attachments, Cribbing, (concrete or steel); Curb machine operator (asphalt or concrete walk behind); Diamond head Core Driller, Drill runner's helper (tunnel) Fork Lift, (walk behind), Form Setter (Road Forms Line man) Highway Slab reinforcement placers (including joint and Basket Setters) Hydraulic pipe pusher; Liner plates (Tile or Vitrified Clay) Mechanical compacting equipment operators, Mechanical joint sealer, Dope pot and Tar Kettle, Mortar mixer (hand or machine) Muckers, Brakemen & all other Labor, (Includes installation of utility lines) Pipe Layers /Fusion /Heating Iron (Regardless of materials) Portable Single Unit Conveyor, Post Hole Auger, (2 or 4 cycle hand operated) Power wheelbarrows and buggies, Rail porter or similar; Sand blaster; Signal Man, Vibrator operator, Crown Screed Adjuster, All RAILROAD TRACK WORK TO INCLUDE THE FOLLOWING: adzing machine, ballast Router, Bolting Machine, Power Jacks, Rail Drills, Railroad Brakeman, Rail Saws, Spike Drivers (Manually or hand held tool) Spike Pullers Tamping Machine, Thermitweld

GROUP 3: Asphalt Luteman/Raker, Blacksmith, Blaster, Brick, stone and block pavers and block cutters (wood, belgian and asphalt); Cement mortar lining car pusher; Cement mortar mixer (pipe relining); Cement mortar pipe reliners; concrete saw operator (walk behind); Curb cutters and setters; Elevated roadway drainage construction; erector of overhead signs, Form setter (road forms-lead man); Grout machine operator; Gunite or dry pack gun (nozzle and machine man); Manhole or catch basin builder (Brick block concrete or any prefabrication) Miners and drillers (including lining, supporting and form workmen, setting of shields, miscellaneous equipment and jumbos); Multi-plate pipe (aligning and securing); Placing wire mesh on gunite projects; Wagon drill operators (air track or similar); Walk behind ditching machine (trencher or similar)

GROUP 4: Reinforcing Steel Placer (Bending, aligning, and securing, Cadweld)

GROUP 5: High Burner, (Any burning not done from deck), Welder (Pipeline)

GROUP 6: Flagperson

GROUP 7: Certified Flag-person

Group 8: Toxic/Hazardous Waste Removal Laborer Levels C & D

GROUP 9: Toxic/Hazardous Waste Removal Laborer Levels A & B

* PAIN0021-019 05/01/2008

CLINTON COUNTY

	Rates	Fringes
Painters:		
Bridge.....	\$ 24.85	11.45
Brush & Roller.....	\$ 23.90	11.45
Spray.....	\$ 24.90	11.45

* PAIN0021-024 05/01/2008

FRANKLIN COUNTY

	Rates	Fringes
PAINTER		
Brush.....	\$ 23.65	8.30

PAIN0057-014 06/01/2007

ALLEGHENY, FAYETTE, GREEN, WASHINGTON COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 28.15	11.53
Brush & Roller.....	\$ 25.73	11.53
Spray.....	\$ 26.23	11.53

PAIN0057-015 06/01/2007

ARMSTRONG, BEAVER, BEDFORD, BLAIR, BUTLER, CAMBRIA, CENTRE,
CLARION, CLEARFIELD, ELK, FULTON, HUNTINGTON, INDIANA,
JEFFERSON, LAWRENCE, MERCER, MIFFLIN, SOMERSET, VENANGO AND
WESTMORELAND COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 27.80	11.88
Brush and Roller.....	\$ 25.83	11.88
Spray.....	\$ 25.88	11.88

PAIN0057-022 05/01/2008

	Rates	Fringes
Painters: (ERIE, McKEAN, AND WARREN (Including Columbus and Freehold twps) COUNTIES)		
Bridges, Stacks, Towers.....	\$ 22.52	10.60
Brush and Roller.....	\$ 20.52	10.60
Spray and Sandblasting.....	\$ 21.27	10.60

PAIN0057-027 06/01/2007

CAMERON, CRAWFORD, POTTER, WARREN, (Excluding Columbus and
Freehold twps)

	Rates	Fringes
PAINTER		
Brush and Roller.....\$ 20.66		11.03

PLAS0526-002 01/01/2008

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...\$ 25.72		12.47

PLUM0027-001 06/01/2007

ALLEGHENY, ARMSTRONG, GREENE (Except extreme Eastern portion)
AND WASHINGTON (Except extreme Eastern portion) COUNTIES

	Rates	Fringes
Plumbers and Pipefitters (Bridge Drain Pipe).....\$ 31.35		14.52

PLUM0047-005 05/01/2005

BEAVER, BUTLER, MCKEAN, MERCER, VENANGO, CLARION, LAWRENCE,
FOREST, WARREN, CRAWFORD, AND ERIE COUNTIES

	Rates	Fringes
Plumbers and Pipefitters (Bridge Drain Pipe).....\$ 27.72		13.06

PLUM0354-005 07/01/2007

BEDFORD, BLAIR, CAMBRIA, CAMERON, CLEARFIELD, ELK, FAYETTE,
GREENE (Extreme Eastern portion), HUNTINGDON, INDIANA,
JEFFERSON, SOMERSE, WASHINGTON (Extreme Eastern portion), AND
WESTMORELAND COUNTIES

	Rates	Fringes
Plumbers and Pipefitters (Bridge Drain Pipe).....\$ 30.84		17.36

TEAM0040-001 01/01/2008

	Rates	Fringes
TRUCK DRIVER (ALLEGHENY, ARMSTRONG, BEAVER, BLAIR, BUTLER, CAMBRIA, CENTRE, CLARFIELD, CRAWFORD, ERIE, FAYETTE, GREENE, INDIANA, JEFFERSON, LAWRENCE, MCKEAN, MERCER, SOMERSET, VENANGO, WARREN, WASHINGTON, AND WESTMORELAND)		
GROUP 1.....\$ 23.53		10.64+ A+B
GROUP 2.....\$ 23.68		10.71+ A+B
GROUP 3.....\$ 24.21		10.95+ A+B
Truck drivers: (BEDFORD,		

CAMERON, CLAIRON, CLINTON,
ELK, FOREST, FRANKLIN,
FULTON, HUNTINGDON, MIFFLIN,
AND POTTER COUNTIES)

GROUP 1.....	\$ 23.34	10.56+ A+B
GROUP 2.....	\$ 23.53	10.64+ A+B
GROUP 3.....	\$ 24.05	10.88+ A+B

FOOTNOTES: A. Hazardous/toxic waste material/work level A & B receive additional \$2.50 per hour above classification rate

B. Hazardous/toxic waste materials/Work level C & D receive \$1.00 per hour above classification

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Single Axle (2 axles including steering axle);
Includes partsman and warehoueman

GROUP 2 - Tandem - Tri-Axle - Semi-Tractor Trailer
(combination) (3 axles or more including steering axle)

GROUP 3 - Specialty Vehicles; Heavy equipment whose capacity exceeds that for which state licenses are issued specifically refers to units in excess of eight (8) feet width (such as Euclids, Atley Wagon, Payloader, Tournawagons, and similar equipment when not self loaded); Tar and Asphalt Distributors Trucks, Heavy Duty Trailer, such as Low Boy, High Boy

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

Section 00900 – Contract Modifications

Table of Articles

Article 1 – Changes

Article 2– Value Engineering

Article 3 – Claims and Disputes

ARTICLE 1 - CHANGES

- 1.1 Authority reserves and shall have the right to, at any time, without invalidating the Contract and without notice to the Sureties, by a Change Order, unilaterally, or by agreement, order modifications in the Work, including changes, additions or deletions thereto, and/or in the Time of Completion.
- 1.2 Adjustments in the Contract Sum, if any, resulting from a change, modification, addition or deletion in the Work will be determined by Authority by one or more of the following methods as set forth in this Article 1.
 - A. By a negotiated amount, subsequent to receipt of the Contractor's submission described in Article 1.7;
 - B. By unit price adjustment, as described in Article 1.10;
 - C. By force account payment as described in Section 01200, Article 4; and/or
 - D. Where agreement has not been reached with the Contractor, Authority may issue a Change Order based on the Engineer's estimate of any increase or decrease in the Contract Sum. This is a unilateral adjustment as determined by Authority, which may be timely disputed by the Contractor pursuant to the requirements of Article 1.12.B below. A disagreement with the provisions of any Change Order shall not, however, relieve the Contractor from performing the Work, but instead, the Contractor shall continue to prosecute the Work while disputing any Change Order.
- 1.3 A change in the Work, the Contract Sum or the Time of Completion may be accomplished only through a written Change Order. Except as herein provided, no order, statement or conduct of Authority or the Engineer shall be treated as a Change Order or entitle the Contractor to an adjustment to the Contract. No course of conduct or dealing, nor express or implied acceptance of alterations or additions to the Work, shall be the basis of any claim to increase any amounts due under the Contract, or any change to the Time of Completion. This provision cannot be waived, and no oral amendment of the Contract shall be effective.
- 1.4 If a change, set forth in a Change Order, causes a compensable increase or decrease in the Contractor's cost of, or, as set forth in Article 1.11, the time required for, the performance of any part of the Work, an adjustment, through the Change Order, will be made to the Contract.
- 1.5 The Contractor may, at any time, submit in writing to the Engineer a proposed change to the Work. The Engineer will review such proposal and recommend the approval or denial of such proposed change to Authority. Authority, at its sole discretion, may either approve or deny such proposed change. Upon acceptance by Authority of the Contractor's proposed change, Authority will execute and issue a Change Order. The denial of the Contractor's proposed change by Authority shall neither provide the Contractor with any basis for a claim for damages or an adjustment of the Time of Completion. Furthermore, such denial shall not release the Contractor from its contractual responsibilities under the Contract Documents.
- 1.6 The Contractor may also submit, in writing to the Engineer, a request for an adjustment to the Contract Sum and/or Time of Completion. As an express condition precedent to seeking such an adjustment, the Contractor shall give notice, in writing to the Engineer, immediately upon the commencement of an event or the receipt of a direction from the Engineer or Authority, which the Contractor believes will or may give rise to a request for such an adjustment.

Within five (5) days of the conclusion of an event or an action that the Contractor believes gives rise to such an adjustment, the Contractor, also as an express condition precedent to seeking such an adjustment, shall submit, in writing to the Engineer, a request for a Change Order.

1.7 Within fifteen (15) days of receiving a request from the Engineer or with any submission of a request for a Change Order, the Contractor shall submit, for each change, modification, addition or deletion, involving a claimed increase or decrease in the cost of performing the Work, an itemized breakdown of all such costs, covering any Subcontractor's and/or Supplier's work as well as its own which shall be supported by sufficient substantiating data to permit a complete evaluation by Authority and the Engineer. The Contractor shall also indicate and substantiate any claimed increase or decrease in the Time of Completion as a result of the proposed change, modification, addition or deletion. For any claimed adjustments in the Contract Sum which are based on other than the unit price method set forth in Article 1.10, the Contractor's itemized breakdown and submission shall include the following and the Contractor agrees to accept as payment for any such change the total of the following amounts:

- A. Material quantities and unit prices;
- B. Labor costs (identified with the specific item of material placed or operation performed) including the actual, audited costs of workers' compensation insurance;
- C. Construction equipment costs, based upon actual cost or blue book rate whichever is less;
- D. Employment taxes under the Federal Insurance Contributions Act, Federal Unemployment Tax Act, and State Unemployment Tax Act;
- E. Overhead (home and field office) and profit (combined) - shall not exceed 20% of the sum of items above in Articles 1.7.A through 1.7.D, or the actual cost and/or amount thereof, whichever is less. The overhead and profit (combined) mark-up shall include, but is not limited to: all administration costs; general superintendence; other overhead; bonds; insurance; taxes; field supervisors and assistants above the level of foreman; office personnel and warehousemen; use of small tools; incidental job burdens, including those for warehouse and safety costs; general field and home office expenses; and profit;
- F. For the portion of the Change Order work to be performed by a Subcontractor or Supplier, except as set forth in Article 1.7.G, the Contractor shall be compensated for the actual cost to be incurred by the Subcontractor or Supplier that actually performs the work, which shall be computed in accordance with Articles 1.7.A through 1.7.E, plus up to 5% to cover the combined total of both the Contractor's and any other Subcontractor's or Supplier's actual overhead (home and field office) and profit (combined) as described in Article 1.7.E;
- G. For the portion of the Change Order work consisting of a service such as maintenance and protection of traffic signage and equipment, engineering services, or other specialized services, that will be performed by a Subcontractor or Supplier, the Contractor shall be compensated for the actual cost to be incurred by the Subcontractor or Supplier that actually performs such services, plus up to 2% to cover the combined total of both the

- Contractor's and any other Subcontractor's or Supplier's actual overhead (home and field office) and profit (combined) as described in Article 1.7.E; and
- H. As part of its submission, the Contractor shall also include a schedule, in detail and in hard copy format and in an electronic format, if the Project Schedule is required to be in an electronic format, in a format acceptable to the Engineer, including a complete breakdown of all of the activities required to complete the proposed Change Order and the alleged impact of the proposed Change Order on the Project Schedule.
- 1.8 No allowance shall be made, or recovery be allowed, to the Contractor, and Authority shall have no obligation to pay, for the loss by the Contractor of anticipated profit, incidental or consequential damages or overhead (home and field office) recovery as a result of a portion of the Work not being performed or deleted by reason of the issuance of a Change Order.
- 1.9 For any adjustment in the Contract Sum, which is requested or sought by the Contractor, whether through a Change Order, claim or otherwise, and which is based on other than the unit price method as set forth in Article 1.10 below, the Contractor agrees to request and accept as payment for its overhead (home and field office) and profit (combined), no more than the percentages set forth in Article 1.7.E., F and G, as applicable, or the actual cost thereof, whichever is less.
- 1.10 For a Contract Item paid for on a unit price basis, increases or decreases in the quantity of such Contract Item shall be solely determined by the Engineer by comparing the actual quantity required for the Work with the estimated quantity as set forth in the Unit Price Schedule and a Change Order established pursuant to this Article for a change in quantity. If, during the performance of the Work, the Engineer determines that the actual quantity of such a Contract Item has increased in excess of 125% or decreased below 75% of the estimated quantity set forth on the Unit Price Schedule, then either Authority or the Contractor may request that the Contract Sum be adjusted by means of a Change Order pursuant to the requirements of this Article. Such an adjustment shall be based upon any increase or decrease in actual costs solely for that portion of the actual quantity that is in excess of 125% of the estimated quantity shown on the Unit Price Schedule or in the case of a decrease, solely for that portion of the actual quantity that is below 75% of the estimated quantity shown on the Unit Price Schedule. Any such adjustment in the Contract Sum shall exclude recovery by the Contractor of the loss of any anticipated profit and/or overhead (home and field office) recovery. No additional adjustment or payment whatsoever shall be allowed, to the Contractor or Authority, for any increase or decrease in costs due to a variation in the estimated quantity of a Contract Item.
- 1.11 Adjustments in the Time of Completion, and in any milestone dates as specified in the Contract Documents, shall only be allowed if the Work included in the Change Order impacts the critical path of the Project Schedule, at the time of delay, so as to extend the Time of Completion or any milestone date. The critical path will be determined from the Contractor's Project Schedule.
- 1.12 A. The Contractor's written acceptance of a Change Order shall constitute the Contractor's final and binding agreement to the provisions thereof and a waiver by the Contractor of any claims, whether direct or consequential in nature, resulting therefrom, including for an increase in the Contract Sum or an adjustment in the Time of Completion.

- B. Disagreement with a Change Order shall in no way excuse the Contractor from complying with, and prosecuting, work set forth in the Change Order or the Work. Should the Contractor disagree with the adjustment to the Contract Sum, or the Time of Completion, as set forth in the Change Order, or any other portion of the Change Order, it shall, within thirty (30) days after receipt of the Change Order, submit a claim pursuant to Article 3 of this Section; provided, however, that no such claim by the Contractor shall be considered timely if such claim is asserted after final payment under the Contract has been made. Failure of the Contractor to submit a claim pursuant to Article 3 of this Section within thirty (30) days of receipt of a Change Order shall result in the Change Order being final and binding upon the Contractor and shall preclude the bringing of a claim by the Contractor pursuant to Article 3 of this Section or otherwise.

ARTICLE 2 – VALUE ENGINEERING

2.1 Value Engineering is defined as cost reduction proposals initiated and developed by the Contractor for changing the materials or other requirements of the Contract Documents. This provision does not apply to any such proposal unless the proposal is specifically identified by the Contractor, at the time of submission to the Engineer, as a proposal submitted for Value Engineering. The cost reduction proposals contemplated are those that:

- A. Would result in less costly items than those specified herein without impairing any of their essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance, and necessary standardized features; and
- B. Would require a Change Order to the Contract.

2.2 Cost reduction proposals, as defined herein, will be processed in the same manner as prescribed for any other proposal which would likewise necessitate issuance of a Change Order. At a minimum, the following information shall be submitted by the Contractor with each such proposal:

- A. A description of the difference between the Contract Documents and the proposed change, and the comparative advantages and disadvantages of each;
- B. An itemization of the requirements of the Contract Documents which must be changed if the proposal is adopted and suggested wording for revisions required;
- C. An estimate of the reduction in costs that will result from adoption of the proposal taking into account the costs of implementation by the Contractor, and the basis for the estimate;
- D. An estimate of any effects the proposed change would have on other costs to Authority such as Authority-furnished property costs, costs of related items, and costs of maintenance and operation; and
- E. A statement of the time by which a Change Order adopting the proposal must be issued so as to obtain the maximum cost reduction during the remainder of the Contract, noting any effect on maintaining the Project Schedule.

2.3 Authority shall not be liable for any delays in acting upon, or for any failure to act upon, any proposal submitted pursuant to this Article 2. The decision of Authority

as to the acceptance or rejection of any such proposal shall be final and binding upon the Contractor and shall not be the basis for a claim pursuant to Article 3 of this Section. Unless and until a Change Order adding such proposal to the Contract is issued, the Contractor shall remain obligated to perform the Work in accordance with the Contract Documents. Authority, at its sole discretion, may accept or reject, in whole or in part, any cost reduction proposal submitted pursuant to this Article 2 by issuing a Change Order which will identify the cost reduction on which it is based.

- 2.4 If a cost reduction proposal submitted pursuant to this Article 2, or any part thereof, is accepted as a value engineering change under the Contract, an equitable adjustment in the Contract Sum and in any other affected provisions of the Contract Documents shall be made pursuant to Article 1 of this Section. If the equitable adjustment involves a reduction in the Contract Sum, it shall be established by determining the amount of the total estimated decrease in the Contractor's cost of performance resulting from the adoption of the cost reduction proposal, less any additional costs to be incurred in implementing the change by both the Contractor and Authority. The Contract Sum shall be reduced by fifty percent (50%) of the net decrease.

ARTICLE 3 – CLAIMS AND DISPUTES

- 3.1 Upon the written demand of either party, all claims and disputes arising out of, under, or in connection with, the Contract or for a breach thereof, except as provided in Section 00900, Article 1.12 (written acceptance of or disagreement with a Change Order), Articles 3.7 and 3.8 (limitation on commencement), Article 3.9 (matters relating to artistic effect) and Article 3.10 (ninety (90) day period), and in Section 01200, Article 5 (waiver by final payment), shall be decided by arbitration in Pittsburgh, Pennsylvania, in accordance with the then current Construction Industry Arbitration Rules of the American Arbitration Association, only if, at any time during the arbitration, the total amount of all claims and disputes, either known or which should have been known, arising out of, under, or in connection with the Contract, whether raised by the Contractor or Authority, does not exceed \$1,000,000, exclusive of interest. In the event the total amount of all such claims and disputes, either known, or which should have been known, arising out of, under, or in connection with the Contract, whether raised by the Contractor or Authority, does exceed \$1,000,000, exclusive of interest, then all such claims and disputes shall be raised in an action in any court of competent jurisdiction in Pittsburgh, Pennsylvania.
- 3.2 For any arbitration where the amount of the arbitration award exceeds \$50,000, exclusive of interest, such an award shall be subject to the provisions of the Pennsylvania Arbitration Act of April 25, 1927, P.L. 381, No. 248. If the amount of an arbitration award is \$50,000 or less, exclusive of interest, such an award shall be final and binding on both the Contractor and Authority.
- 3.3 Notice of a demand for arbitration shall be filed in writing with the other party, the American Arbitration Association and the Engineer. The demand for arbitration shall be made within the time limits specified in Articles 3.7, 3.8 and 3.10 of this Section and Section 01200, Article 5, but in no event, shall the demand for arbitration be made after the date when the institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

- 3.4 A. For any claim or dispute which is arbitrable as set forth in Article 3.1 of this Section and the total amount in controversy is \$100,000 or less, exclusive of interest, the panel for the arbitration shall consist of one arbitrator. For any claim or dispute which is arbitrable as set forth in Article 3.1 of this Section and the amount in controversy is more than \$100,000 but no greater than \$1,000,000, exclusive of interest, the panel for the arbitration shall consist of three arbitrators.
- B. For any arbitration, the arbitrator, in case of a one-arbitrator panel, and the chairman, in the case of a three-arbitrator panel, shall be a lawyer with at least five (5) years of experience in litigating actions or disputes arising from construction contracts and projects. For any arbitration for which the panel is to consist of three arbitrators, the two remaining arbitrators shall be individuals with at least five (5) years of experience in constructing, designing or managing work or projects similar to the Work.
- C. For any arbitration, the arbitrator or arbitrators shall have no interest in the Contract or the subject matter of the arbitration and no past or present relationship, business, personal or otherwise, with the parties or their counsel.
- D. Notwithstanding any other provision in this Contract or any provision of the Construction Industry Arbitration Rules of the American Arbitration Association, each party to any arbitration shall be permitted to serve, on the other party(ies) and non-parties, written discovery requests, including, but not limited to, requests for production of documents and interrogatories, and to conduct depositions, pursuant to the Pennsylvania Rules of Civil Procedure.
- E. The parties to an arbitration shall share equally the costs of the arbitration, excluding any fees paid to the American Arbitration Association, but including fees and expenses of the arbitrator or arbitrators.
- 3.5 Unless otherwise agreed in writing, the Contractor shall carry on and maintain the progress of the Work during any claim, dispute, arbitration or court proceeding.
- 3.6 A. As an express condition precedent to the Contractor's right to file a demand for arbitration or to commence a court proceeding, as set forth in Article 3.1, the Contractor shall:
1. Provide to the Engineer:
 - a) A written claim which shall set forth, in detail, the amount of additional compensation or time claimed, the basis for the claim and the amount claimed, and evidence regarding liability, causation and damages, sufficient, subject to the sole discretion of Authority, to enable Authority to render a decision with respect to such claim;
 - b) All materials supporting the claim;
 - c) All materials utilized by the Contractor in preparation of the portion of its Bid which is involved in the claim, including, but not limited to, all worksheets, quotations, calculations, pricing data, estimates and correspondence relating thereto; and
 - d) Such other information as Authority or the Engineer may request; and

2. Provide such claim and supporting information and evidence to the Engineer within thirty (30) days of the Contractor's first knowledge of the beginning of the event giving rise to such claim. Failure to so provide all such information and evidence will be just cause for Authority denying the claim and shall preclude the Contractor from subsequently pursuing any such claim in an arbitration, court proceeding or any other forum. Within ninety (90) days of receiving all such information and evidence, Authority will render a written decision with respect to the claim.
- 3.7 No demand for arbitration or the commencement of any court proceeding arising from any such claim, dispute, or other matter shall be made by the Contractor until the earlier of either:
- A. The date on which Authority has rendered its written decision provided for in Article 3.6; or
 - B. The ninetieth (90th) day after the Contractor has provided to Authority all the materials and evidence required by Article 3.6 if Authority has not rendered its written decision by that date.
- 3.8 If a decision of Authority is made in writing and states that it is final but subject to appeal, no demand for the arbitration of, or the commencement of any court proceeding arising from, a claim, dispute or other matter covered by such decision shall be made later than thirty (30) days after the Contractor receives Authority's written decision. The failure by the Contractor to demand arbitration or commence a court proceeding within said thirty (30) day period shall result in Authority's decision becoming final and binding upon the Contractor and shall preclude the Contractor from pursuing such claim, dispute or other matter in an arbitration or court proceeding.
- 3.9 Authority's decisions in matters relating to the artistic effect of the Work shall be final and binding upon Authority and the Contractor.
- 3.10 No arbitration or court proceeding may be commenced by the Contractor later than ninety (90) days following the issuance by Authority of the Certificate of Acceptance of Final Inspection.
- 3.11
- A. Any arbitration or court proceeding held in accordance with this Article 3 shall be conducted in accordance with, and governed by, the laws of the Commonwealth of Pennsylvania.
 - B. Any action or court proceeding held in accordance with this Article 3 may be commenced only in a court of competent jurisdiction in Pittsburgh, Pennsylvania and the Contractor hereby consents and submits to the jurisdiction of such courts for said actions and proceedings, as well as any action or proceeding commenced by an other contractor, person or entity pursuant to Section 00700, Article 10 of this Contract.
- 3.12 In the event of the commencement of an arbitration or court proceeding under this Article 3, the party commencing such an action shall pay to the opposing party the portion of the defense costs, including, but not limited to, attorney's fees, court costs and/or fees of the American Arbitration Association and any other defense costs which may be incurred, which bears the same ratio to the total defense costs as the dollar amount of the part of the claim or dispute which was not sustained or

granted bears to the total amount of the claim or dispute as submitted to the court or the panel of arbitrators.

- 3.13 Neither Authority nor the Engineer shall be obligated or liable to the Contractor for, and the Contractor hereby expressly waives, any damage claim or suit against Authority and/or the Engineer on account of any indirect or direct damages, costs or expenses of any kind or nature, including attorney's fees, lost profits, interest or home or field office overhead (hereinafter collectively referred to as "damages"), which shall include, but not be limited to, any damages allegedly arising from the failure to achieve any early completion dates, any early completion incentive payments not earned under the Contract, and any damages allegedly arising from the completion of all or any portion of the Work prior to the Time of Completion or any applicable milestone, which the Contractor, any Subcontractor, any Supplier or any other person may incur as a result of any delays, interference, hindrances, disruptions, loss of productivity, changes in sequence or the like, which are either foreseeable or unforeseeable, arising from or out of any act or omission of Authority, its agents, employees, consultants, independent contractors, and/or any other representative of Authority or the Engineer. The Contractor's sole and exclusive remedy in any such event shall be, as appropriate, an extension of the Time of Completion or applicable milestone as determined in accordance with the applicable provisions of the Contract Documents.
- 3.14 Should the Contractor sustain any damage, claim or costs through any act, delay, interference, hindrance, disruption or omission of any other contractor having a contract with Authority, a subcontractor or supplier of such a contractor, a public utility or any other person or entity, the Contractor shall have no claim or cause of action against Authority or the Engineer for such damage, claim or costs. Instead, the Contractor only shall have the right to recover such damage, claim or costs from such other contractor, subcontractor, supplier, public utility, person or entity.
- 3.15 The Contractor and Authority acknowledge and agree that, notwithstanding any concurrence by the Government, the State, or the County of Allegheny in or approval of the solicitation or award of the Contract, absent the express written consent by the Government, the State, or the County of Allegheny, none of these entities is a party to this Contract and shall not be subject to any obligations or liabilities to the Contractor or any other party (whether or not a party to the Contract) pertaining to any matter resulting from the Contract. The Contractor shall include this Article 3.15 in each subcontract for this Contract, which provisions shall not be modified, except to identify the Subcontractor who will be subject thereto.
- 3.16 Notwithstanding any other provision of the Contract Documents, in no event shall Authority be liable, in contract, tort or otherwise, to the Contractor for incidental or consequential damages arising out of or relating to the Contract, any claimed breach thereof or the Work, including, but not limited to, interest or carrying charges on any investment, lost opportunity costs, expenses arising from costs of capital, loss of profits on any portion of the Work not performed or for loss of use or of underutilization of labor, equipment or facilities of the Contractor.
- 3.17 Except as otherwise expressly set forth in the Contract Documents, each party to any arbitration or court proceeding shall be responsible for their own attorneys' fees and related costs.

END OF SECTION

Section 01100 – Supplementary Conditions

Table of Articles

Article 1 – Partnering

Article 2 – Dispute Review Board (DRB)

ARTICLE 1 – PARTNERING

- 1.1 Covenant of Good Faith and Fair Dealing – The Contract, in its performance and enforcement, imposes an obligation of good faith and fair dealing on the Contractor and Authority. The Contractor and Authority, with a positive commitment to honesty and integrity, agree to the following mutual duties:
- A. To function within the laws and statutes applicable to their duties and responsibilities;
 - B. To assist in the other's performance;
 - C. To avoid hindering the other's performance;
 - D. To proceed to fulfill obligations diligently; and
 - E. To cooperate in the common endeavor of the Contract.
- 1.2 Voluntary Partnering – Authority intends to encourage the formation of a cohesive partnership with the Contractor and its principal Subcontractors and Suppliers. Authority and the Contractor will structure this partnership to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient Contract performance and completion of the Work within budget, on schedule and in accordance with the Contract Documents.
- This partnership will be bilateral in makeup, and participation will be totally voluntary. If the Contractor agrees to participate, both parties will agree to and equally share any cost associated with implementing this partnering. A PDA is included on the Unit Price Schedule of the Form of Bid to compensate the Contractor for Authority's share of the direct costs to implement the Partnering.
- 1.3 Participation is not a requirement of the Contract and, therefore, the Bidder is not to include the costs associated with partnering in its Bid.
- 1.4 To implement this partnering initiative, the Contractor's management personnel and Authority's Program Manager are to organize a Partnering Seminar and Team Building Workshop as soon as possible after Award of the Contract.
- 1.5 The process of partnering will include the following activities:
- A. Pre-workshop activities – The Contractor's management personnel, the Engineer, and Authority's Program Manager will meet to discuss the advantages of partnering and commitment to the success of the process of partnering. During this meeting the Engineer will propose and obtain approval from Authority and the Contractor for a facilitator to conduct the workshop for the stakeholders. The facilitator should understand the work processes covered by the Project and be able to facilitate team building activities.
The Contractor's management personnel, the Engineer and Authority's Program Manager will also prepare a tentative agenda, date, time and a list of attendees for the Partnering Seminar and Team Building Workshop.
 - B. Project Seminar and Team Building Workshop
 1. Agenda - Workshop agenda is to consist of at least the following topics:
 - a) Discussion of partnering principles;

- b) Team Building activities;
 - c) Development of a partnership charter with defined goals and objectives;
 - d) Identify potential Project related problems; and
 - e) Define problem solving procedures and evaluation processes.
2. Approximately one third of the workshop should be devoted to team building and problem solving techniques with the remainder of the time being devoted to defining Project goals, objectives, and resolution of issues.
 3. Attendees - Authority and the Contractor will require the following persons to be in attendance: Authority's designated key personnel, the Contractor's on-site Project Manager and Superintendent and key project supervisory personnel for both the Contractor and its principal Subcontractors and Suppliers; and the Engineer's Program Manager and key personnel. Authority and the Contractor shall also invite the project design engineers, key technical and specialty personnel, key local and state government personnel, and utility management personnel as necessary. Authority and the Contractor may choose to have higher level managers in attendance.
 4. Duration - Workshop duration will be two days, but Authority and the Contractor may by mutual consent modify the duration due to Project related variables such as cost, complexity, number of stakeholders, Project personnel partnering experience, number of potential issues, and other Project related factors.
 5. Date and Time - Authority and the Contractor will hold the workshop prior to the commencement of the Work.
 6. Location - Authority and the Contractor will locate the workshop at a "neutral site" in close proximity to the Project site.
- C. Post-Workshop activities – Authority and the Contractor will hold joint performance evaluation sessions periodically throughout the duration of the Contract and participate in follow-up (refresher) workshops, if necessary, as agreed to by the Contractor and Authority.
 - D. The establishment of a partnership charter on this Project will not change the legal relationship of the parties to the Contract, nor relieve either party of its respective responsibilities for any of the terms of the Contract.

ARTICLE 2 – DISPUTE REVIEW BOARD (DRB)

2.1 Article Reserved.

END OF SECTION

Section 01200 – Price and Payment Procedures

Table of Articles

Article 1 – Measurement of Quantities

Article 2 – Scope of Payment

Article 3 – Progress Payments

Article 4 – Force Account Payment

Article 5 – Final Payment

ARTICLE 1 – MEASUREMENT OF QUANTITIES

- 1.1 Work and material, the payment for which is based on a unit price, shall be measured or weighed according to United States standards of weights and measures as recognized by the United States Bureau of Standards.
- 1.2 Expenses involved in conforming to the requirements for measuring and weighing shall be considered as included in the unit prices paid for the work and material being measured or weighed and no additional compensation shall be allowed to the Contractor for such expenses.
- 1.3 The method of measurement and computations to be used in the determination of quantities of material furnished and of work performed under the Contract shall be those methods set forth in the Contract Documents or as specified in writing by the Engineer.
- 1.4 Unless otherwise specified, measurements for area computations will be made on the surface. Pay measurements for area computations shall not exceed the neat lines indicated in the Contract Documents.
- 1.5 Items which are measured for payment by the linear foot or linear meter, such as pipe culverts, guide rails, fences, under drains, and the like shall be measured parallel to the item as placed, and to the point of centerline intersections of "Y", and other branches and within manholes and/or inlets, unless otherwise designated in the Contract Documents.
- 1.6 Material which is measured or proportioned by weight shall be weighed on accurate, certified scales by competent, qualified personnel at locations designated by the Contractor and approved in writing by the Engineer. Certified copies of weight tickets will be provided to the Engineer.
- 1.7 Material to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type approved in writing by the Engineer. Vehicles shall be loaded to at least their water level capacity and when reasonably possible, all loads shall be leveled when the vehicle arrives at the point of delivery.
- 1.8 When approved by the Engineer in writing, material specified to be measured by volume may be weighed and such weights converted to the applicable measure of volume for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Engineer and shall be agreed to in writing by the Contractor before such change in the method of measurement of pay quantities is approved for use.
- 1.9 Each hauling vehicle used to transport material being paid for by weight shall be weighed empty, on a daily basis, full of fuel oil and greases, and at such other times as the Engineer directs in writing, this weight and also the gross weight shall be recorded on certified weight tickets provided to the Engineer. Each vehicle shall bear a plainly legible identification number.
 - A. The Engineer may, from time to time, instruct the Contractor to have weights of material to be paid for verified by having the vehicle weighed empty and loaded on such other scales as the Engineer may specify in writing.
 - B. If the weights determined by such verification weighing reveals the weight of the material to be within one-half of one percent of those determined by the initial weighing, Authority will pay for the cost of making such

- verification weighing through an appropriate Change Order for such costs.
- C. In the event that the weights determined by such verification weighing reveals the weight of the material to differ by more than one-half of one percent from weights determined by the initial weighing, all quantities measured on that vehicle shall be adjusted for payment as directed by the Engineer and all costs incurred in making the verification shall be borne by the Contractor.
 - D. Scale tickets shall show the weights of the vehicle loaded and empty, identify the material loaded therein, state the vehicle's identification number and include a signed statement of certification by the weighmaster attesting to the accuracy of the scale ticket.
- 1.10 Payment to the Contractor shall not be made for:
- A. Quantities of material wasted or disposed of in a manner not specified in the Contract Documents;
 - B. Rejected material, including material rejected after it has been placed;
 - C. Material not unloaded from the hauling vehicle;
 - D. Material placed outside the neat lines indicated in the Contract Documents or neat lines established by the Engineer; and
 - E. Material remaining on hand after completion of, or not incorporated into, the Work unless otherwise specified in the Contract Documents.

ARTICLE 2 – SCOPE OF PAYMENT

- 2.1 The Contractor shall be paid in accordance with the Contract Documents, which payment shall be full compensation for all costs incurred by the Contractor for furnishing the material and equipment incorporated into the Work, the management, labor and equipment used in performing the Work in a complete and acceptable manner, for all overhead and profit arising out of, or relating to, the Work, and for all risk, loss, damage and expense, of any character, arising out of, or occurred in, performing the Work.
- 2.2 If any portion of the Contract Documents relating to any unit price in the Unit Price Schedule requires that the said unit price be considered compensation for certain work, material or equipment essential to the Contract Item, that work, material or equipment shall not also be paid for under any other Contract Item which may appear elsewhere in the Contract Documents.
- 2.3 Full compensation for conforming to all the requirements of the Contract Documents shall be considered to be included in the sums paid for the various Contract Items and no additional compensation shall be allowed to the Contractor.

ARTICLE 3 – PROGRESS PAYMENTS

- 3.1 Authority will make progress payments to the Contractor as the Work proceeds based on pay estimates submitted by the Contractor to the Engineer on forms supplied by Authority and after approval of the pay estimate by Authority. The pay estimate shall certify that the portion of the Work invoiced has been done in conformance with the requirements of the Contract Documents and shall provide written evidence that the title for any yet to be installed invoiced material or

- equipment for which the Contractor is seeking payment has been properly transferred to Authority.
- 3.2 The complete pay estimate submittal made by the Contractor shall contain the following:
- A. Pay estimate, one (1) original and one (1) copy;
 - B. Form 300A, OSHA Occupational Injuries and Diseases;
 - C. All outstanding payrolls and certifications;
 - D. Disadvantaged Business Enterprise (DBE) Utilization Report (Authority "Form B"); and
 - E. Updated Project Schedule
- 3.3 No progress pay estimate will be approved by the Engineer, and forwarded to Authority for its approval, until the above submittal is received and verified by the Engineer to be in accordance with the Contract Documents and all work covered in the pay estimate has been performed in accordance with the Contract Documents.
- 3.4 The Contractor shall furnish to the Engineer for approval, prior to the Pre-Construction Conference, a cost breakdown for all lump sum Contract Items in such detail, and in a format, as required by the Engineer, to provide a basis for determining progress payments. The summation of the cost breakdown for each lump sum Contract Item shall equal the lump sum price bid for such lump sum Contract Item. The cost breakdown for the lump sum Contract Items shall accurately reflect the labor, material and other costs for the various items of work as indicated in the Contract Documents. Cost of related items shall be proportional and there shall be no unbalance in the distribution of the proposed partial payments of the lump sum price in the breakdown.
- 3.5 All material, equipment and work covered by a progress payment shall become the sole property of Authority, either at the time, as required by the Contract Documents, or at the time of submission of a pay estimate therefore by the Contractor, whichever comes first, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material, equipment and work upon which payments have been made, for maintenance and protection of the Work, and for restoration of any damaged work, or as waiving the right of Authority to require the fulfillment of all of the requirements of the Contract Documents. Title for all material, equipment and work passed to Authority by the Contractor shall be free of all liens and encumbrances.
- 3.6 Subject to approval by Authority of the pay estimate, each Contractor's pay estimate will be paid by Authority within forty-five (45) days of Authority's receipt of an approvable pay estimate from the Engineer. No pay estimate approved by the Engineer or Authority, nor the payment of such pay estimate, shall be construed to be an acceptance by Authority of any defective work or improper materials, or work otherwise not adhering to the requirements of the Contract Documents, nor shall it relieve the Contractor from its responsibility to fulfill all of the requirements of the Contract Documents, including for maintenance and protection of the Work.
- 3.7 Authority may withhold payment of any pay estimate otherwise due the Contractor until Authority has confirmed that the Contractor has performed all administrative tasks to be completed prior to the end of the subject pay period as required by the Contract Documents. If technical data, samples, Project

Schedule or updates thereto, Project Record Documents, submittals, or other documents required by the Contract Documents, or any part thereof, are not delivered within the time specified by the Contract Documents, or are deficient upon delivery, or if the Project Record Documents are not being maintained as required by the Contract Documents, Authority may, until such date, samples, Project Schedule or updates thereto, Project Record Documents, submittals or other documents are delivered or deficiencies are corrected, withhold any monies due or that may become due to the Contractor. The withholding of any amount or subsequent payment thereof to the Contractor shall not be construed as a waiver of any rights accruing to Authority under the Contract Documents, or otherwise according to law.

- 3.8 Authority shall not be required to pay, for any reason whatsoever, any penalty, pursuant to 62 Pa. C.S.A. § 3935, as may be amended from time to time, or otherwise, or any interest, pursuant to 62 Pa. C.S.A. § 3932, as may be amended from time to time, or otherwise, on any payments, amounts or sums due, or claimed or requested by, the Contractor arising out of, or relating to, the Contract, the Work or otherwise.
- 3.9 Authority, solely at its discretion, may authorize payment for material delivered to the site or stored at other locations approved by the Engineer. The Contractor shall provide evidence of ownership of such material, including, but not limited to, documentation demonstrating that payment for the material has been made in full and the material is free and clear of debts, claims, liens, mortgages, taxes and encumbrances and shall transfer title for such material to Authority on Priority Lien Forms provided by Authority.
 - A. Material must be delivered to the Worksite, or delivered to the Contractor and promptly stored by it in bonded storage within Allegheny County or other location as approved by the Engineer. If such materials are stored outside Allegheny County, the Contractor shall accept responsibility for and pay all personal and property taxes that may be levied against Authority by any state or subdivision thereof on account of the storage of such material. Authority will permit the Contractor, at Contractor's own expense, to, in good faith, contest the validity of any such tax levied against Authority in appropriate proceedings and in the event of any judgment or decree of a court, the Contractor agrees to pay same, together with any penalty or other costs relating thereto.
 - B. The Contractor at its own expense shall conspicuously mark such material as the property of Authority, shall not permit such materials to become commingled with non-Authority-owned property and shall take other steps, if any, as the Engineer may require or regard as necessary to ensure that the title to the such material remains free and clear of debts, claims, liens, mortgages, taxes and encumbrances. If the measures being used by the Contractor are determined, in the opinion of the Engineer, to be inadequate, the Engineer will advise the Contractor accordingly in writing and the Contractor shall promptly implement any corrective measures as deemed necessary by the Engineer.

- C. If the material included in a pay estimate should subsequently become lost, damaged, encumbered, or unsatisfactory, the cost of the material shall be deducted from the next succeeding pay estimate.
 - D. Notwithstanding the passage of title, as set forth above, the Contractor shall continue to be liable and responsible to Authority for any damage to or loss of such material until such material is actually delivered to the Worksite and incorporated into the Work.
 - E. Prior to the inclusion of stored materials in any pay estimate pursuant to this Article 3.9, the Contractor shall submit documentation of paid invoices for such materials to the Engineer. The Engineer may allow only such portion of the amount represented on this documentation as, in the Engineer's opinion, is consistent with the reasonable cost of such materials and which shall continue to leave, as unpaid, an appropriate value, for the pay item or items relating to the stored materials, sufficient to cover the cost of the completion of such pay item or items. The Engineer will inform the Contractor of the dollar value that the Contractor may use in the pay estimate for such stored materials based upon these factors.
- 3.10 In making progress payments, five percent (5%) of each monthly estimated amount shall be retained by Authority until fifty percent (50%) of the Contract value has been reached. After fifty percent (50%) of the Contract value has been reached, three percent (3%) of each subsequent monthly estimated amount shall be retained by Authority for the remaining duration of the Contract. In addition, Authority may retain or withhold additional monies from the Contractor as set forth below:
- A. In the event that a dispute arises between Authority and any other contractor, public utility, person or entity, which dispute is based upon increased costs claimed by such contractor, public utility, person or entity as a result of delays or other actions or omissions of the Contractor, Authority may retain and/or withhold an amount equal to the sum of one and one-half times the amount of any possible liability until such time as a final resolution is agreed to by all parties directly or indirectly involved, unless the Contractor furnishes a bond satisfactory to Authority to indemnify and hold harmless Authority against the dispute and the cost claimed therein.
 - B. If the Engineer determines that the Contractor will likely not complete a designated portion, or portions, of the Work within the number of days set forth in the Contract Documents, Authority may retain and/or withhold an amount equal to the sum of one and one-half times the amount of any possible damages which may be sustained by Authority.
 - C. In the event that the Engineer determines that the Contractor has failed to complete or has improperly completed the Work or an item or items of work in accordance with the Contract Documents, the Engineer will identify, in detail, the Work or such item of work and determine a reasonable cost of completion, replacement or repair. Authority may retain and/or withhold an amount equal to the sum of one and one-half times the cost of completing, replacing or repairing said Work or items of work.

- D. In the event that Authority is otherwise damaged as a result of the Contractor's failure to comply with the terms of the Contract Documents and/or as a result of a breach of the Contract, Authority may retain and/or withhold an amount equal to the sum of one and one-half times the amount of any such damage which may be sustained by Authority.
 - E. If any monies are to be retained or withheld pursuant to Article 3.7 and/or Article 3.10 above, Authority will so notify the Contractor within 60 days of Authority's receipt of an approvable pay estimate from the Engineer.
- 3.11 A. The Contractor shall pay each Subcontractor and Supplier for satisfactory performance of the portion of the Work completed by the Subcontractor or Supplier by no later than fourteen (14) days from the receipt of each payment which the Contractor receives from Authority for any pay estimate that includes work performed by the Subcontractor or Supplier.
- The Contractor shall also pay each Subcontractor and Supplier all retainage, if retainage has been withheld from the Subcontractor or Supplier by the Contractor, within twenty (20) days after the Subcontractor's or Supplier's work is satisfactorily completed in its entirety, regardless of whether retainage is still being held by Authority from the Contractor. Payment shall be made by the Contractor under this Article except for the value of deficiency items as set forth below in Article 3.11.B.
- B. Notwithstanding the provisions of Article 3.11.A, the Contractor may withhold payment from a Subcontractor or Supplier for any deficient work performed by the Subcontractor or Supplier. If the Contractor withholds payment from a Subcontractor or Supplier for a deficiency item, it shall notify the Subcontractor or Supplier, and the Engineer, of the reason for such withholding of payment within 15 days after receipt of the notice of a deficiency item from the Engineer or Authority.
 - C. Contractor's failure to comply with the requirements of Article 3.11 shall constitute a default under the Contract.

ARTICLE 4 – FORCE ACCOUNT PAYMENT

- 4.1 When any work is to be paid for on a force account basis, the material and equipment incorporated into such force account work and the labor and construction equipment used in the performance of such work shall be subject to the written approval of the Engineer. Payment for force account work shall be made according to the following:
- A. Labor - The charges for labor shall include all classifications up to foremen and shall include foremen when authorized in writing by the Engineer and when such foremen are engaged in the actual and direct performance of the force account work. Charges for labor shall not include superintendents, project managers, assistant superintendents, office personnel, timekeepers, warehousemen, or anyone else not involved in the direct performance of the force account work, unless authorized in writing by the Engineer in advance of the start of such work. The actual reimbursable cost of labor used in performing force account

work, whether employed by the Contractor or a Subcontractor, shall be the sum of the following:

1. Actual wages paid to workers, which will include any payments to or on behalf of workers for health and welfare, pensions, vacations and similar fringe benefits;
2. Payments to or on behalf of workers, other than actual wages as defined above, which are required by state and federal laws, and the actual, audited costs of workers' compensation insurance; and
3. Subsistence and travel allowances paid to workers under collective bargaining agreements, or as a regular practice of the employer.

B. Materials and Equipment - The actual reimbursable cost of material and equipment incorporated into force account work shall be the invoice price paid by the purchaser, whether the Contractor or a Subcontractor, to the supplier, subject to the following conditions:

1. The cost of Authority-furnished material and equipment shall not be included in the payment for force account work;
2. Available cash or trade discounts will be deducted from the price paid for material or equipment, whether or not taken by the purchaser;
3. If the purchaser procures material or equipment by any method other than a direct purchase from the original supplier, the actual reimbursable cost thereof shall be the invoice price paid to the original supplier by the secondary supplier, as determined by the Engineer, with no mark-up except for the actual necessary cost of handling such material or equipment;
4. The actual reimbursable cost of material or equipment procured from any source owned wholly or in part by the purchaser shall not exceed the lowest current wholesale price for such material or equipment in the quantity required, in the same area;
5. If the price paid for material or equipment is determined to be excessive by the Engineer, or is not substantiated by the Contractor as required in Article 4.1.E, the actual cost thereof will be the lowest current wholesale price for such material or equipment in the quantity required, in the geographical area of such work, less any deductions for cash or trade discounts, as required to be made under Article 4.1.B.2 above; and
6. The cost of surplus material and equipment, if any, will be deducted.

C. Construction Equipment - The actual reimbursable costs of construction equipment used in performing force account work, regardless of ownership, shall be paid for at the rental rates established in accordance with this Article 4.1.C or as mutually agreed, in writing, between the Contractor and the Engineer, subject to the following conditions:

1. Unless otherwise specified, manufacturer's ratings and manufacturer-approved modifications shall be used to classify equipment for the determination of applicable rental rates.

- Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer;
2. Individual pieces of equipment or tools having a new value of \$500 or less, whether or not consumed by use, shall be considered to be small tools and no payment shall be made therefore;
 3. The rental time to be paid for equipment shall be the time the equipment is in actual operation on the force account work being performed;
 4. Rental time shall not be allowed while equipment is inoperable;
 5. In computing the rental time of equipment, less than thirty (30) minutes shall be considered one-half hour;
 6. For the use of equipment already at the Worksite, rental time shall include the time required to move the equipment to the location of the force account work and return it to its original location, except that moving time shall not be paid for if the equipment is being used, or is planned to be used, at the site of the force account work on other than such force account work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is being used, or is planned to be used, at the site of the force account work on other than such force account work. No idle time charges shall be allowed, unless approved by the Engineer in advance of the idle time being incurred;
 7. For the use of equipment brought to the Worksite and used exclusively for work paid for on a force account basis, the Contractor shall be paid for the cost of transporting the equipment to and from the Worksite, in accordance with the following provisions:
 - a) The original location of the equipment to be hauled to the Worksite shall be agreed to by the Engineer, in writing, in advance;
 - b) The Contractor shall be paid the actual costs of loading and unloading such equipment;
 - c) The actual cost of transporting the equipment from the original location to the Worksite and its return shall not exceed the hourly rates charged by haulers in the same area;
 - d) The actual cost of transporting equipment shall not exceed the applicable minimum established rates of the PUC;
 - e) Should the Contractor desire the return of the equipment to a location other than its original location, Authority shall only pay the cost of transportation back to the original location in accordance with this Article 4.1.C.7, provided such payment shall not exceed the cost of moving the equipment to the Worksite; and

- f) Payment for transporting, loading and unloading equipment in accordance with this Article 4.1.C.7 shall not be made if the equipment is being used or is planned to be used on the Worksite in any way other than upon force account work.
- 8. For equipment used to perform the force account work, the rental rates shall be computed as follows:
 - a) The hourly rental rate for straight time hours (40 hours per week) shall be the monthly rental rates taken from the current edition (including any update supplements that exist as of the date of use of said equipment) of the Rental Rate Blue Book for Construction Equipment divided by 176. An allowance will be made for operating costs for every hour the equipment is operating, in accordance with rates listed in the Rental Rate Blue Book. The above rates may be adjusted by the predominate area adjustment percentage for the state as shown on the area adjustment map contained in the Rental Rate Blue Book for Construction Equipment. Overtime hourly rental rates shall be equal to fifty percent (50%) of the straight time hourly rental rate; or
 - b) For any equipment not referred to in the Rental Rate Blue Book for Construction Equipment, a monthly rate shall be six percent (6%) of the manufacturer's list price for the sale (new) of such equipment. The straight time hourly rate shall be determined by dividing the monthly rate by 176. Overtime hourly rental rates shall be equal to fifty percent (50%) of the straight-time hourly rental rates.
 - c) For equipment not owned by the Contractor such reimbursement shall be actual invoice costs, not to exceed Blue Book Rental costs.

D. Mark Up Percentages

- 1. The following percentages will be added to completely and totally reimburse the Contractor, and its Subcontractors and Suppliers, for their overhead (home and field office) and profit (combined), including, but not limited to: all administration costs; general superintendence; bonds; insurance; taxes; field supervisors and assistants above the level of foreman; office personnel; warehousemen; use of small tools; incidental job burdens, including those for warehouse and safety costs; general field and home office expenses and overhead; other overhead and profit.
 - a) For force account work performed by the Contractor, the Contractor shall be provided a mark-up for overhead (home and field office) and profit (combined) of the actual cost or amount thereof or up to thirty percent (30%) of the cost of the labor (Article 4.1.A) used in performing the force account work; up to twenty percent (20%) of the cost of material and equipment incorporated into the force account work (Article 4.1.B); and up to five percent (5%) of the cost of the

construction equipment utilized for the force account work (Article 4.1.C), whichever is less.

- b) For force account work performed by a Subcontractor or Supplier, except as set forth in Article 4.1.D.1.c, the Contractor shall be compensated for the cost incurred by the Subcontractor or Supplier that actually performed the work, which shall be computed as set forth above, plus up to 5% to cover the combined total of both the Contractor's and any other Subcontractor's or Supplier's actual overhead (home and field office) and profit (combined).
- c) For force account work for any service such as maintenance and protection of traffic signage and equipment, engineering services, or other specialized services performed by a Subcontractor or Supplier, the Contractor shall be compensated for the actual cost for such services as billed by the Subcontractor or Supplier that actually performed such services, plus up to 2% to cover the combined total of both the Contractor's and any other Subcontractor's or Supplier's actual overhead (home and field office) and profit (combined).

E. Force Account Records

- 1. The Contractor shall maintain its records in such a manner as to provide a clear distinction between the direct costs of work paid for on a force account basis and the costs of other work. Work performed, and costs to be paid, on a force account basis shall be established in accordance with the following procedures:
 - a) At the end of each work shift, the Contractor and the Engineer shall review the force account work performed during that work shift and agree upon the hours worked by the individuals performing the force account work, the hours that construction equipment was being utilized to perform the force account work, including the types of equipment used for such work, the hours that any such construction equipment was idle solely due to the force account work, and the type and quantity of materials and equipment incorporated into the force account work during that shift.
 - b) On the next work day following each work day that force account work has been performed, the Contractor shall furnish to the Engineer daily report sheets for the force account work performed the preceding work day based upon the information agreed to on the preceding day by the Engineer and the Contractor. The daily report sheets shall be in a form satisfactory to the Engineer and shall provide names or identifications and classifications of the workmen; the hours worked; the size, type and identification number of construction equipment used; and the type and quantity of material and equipment incorporated into the force account work. The daily report sheets shall be signed by the Contractor.

- c) The Engineer will compare its records with the daily report sheets supplied by the Contractor and identify any discrepancies with the information previously agreed to between the Contractor and the Engineer. The Engineer will inform the Contractor of any such discrepancies and the Contractor shall correct the daily report sheets accordingly and resubmit the daily report sheets to the Engineer. Daily report sheets that are consistent with the information agreed to by the Engineer and the Contractor will be approved by the Engineer.
- d) At the completion of force account work, or portions of the force account work, the Contractor shall compile the costs of such work to be paid for on a force account basis, based solely upon the Engineer approved daily report sheets and the provisions of this Article 4. The compiled costs are thereafter subject to the written approval of the Engineer, and shall become the basis of payment for the force account work performed, but shall not preclude subsequent adjustment based upon a later audit by Authority or FTA.
- e) Charges from material and equipment used or incorporated into the force account work shall be substantiated by valid copies of Supplier's invoices. Such invoices shall be submitted with the compiled costs.
- f) In the event that the Contractor and the Engineer are not able to agree upon any of the items identified in (a) above; or if the daily report sheets submitted by the Contractor are not consistent with the information agreed to pursuant to (a) above or any other records of the Engineer pertaining to such work; and the Contractor does not agree to revise the daily report sheets accordingly per the direction of the Engineer; then the Engineer will inform the Contractor, in writing, of the hours worked by individuals, hours of use of construction equipment, hours of construction equipment idle time, and type and quantity of materials and equipment that will be eligible for compensation for the force account work and which will then be the basis from the compilation of costs pursuant to (d) and (e) above.

ARTICLE 5 – FINAL PAYMENT

- 5.1 Within thirty (30) days after issuance of the Certificate of Acceptance of Final Inspection pursuant to Section 01700, Article 4, the Contractor shall submit a proposed final pay estimate in writing to the Engineer pursuant to Section 01200, Article 3. Prior pay estimates and payments shall be subject to correction on the proposed final pay estimate.
- 5.2 The Engineer will review the Contractor's proposed final pay estimate and will submit any changes or corrections found necessary to the Contractor for revision. Within ten (10) days of receipt of the Engineer's comments, the

- Contractor shall submit a final pay estimate to the Engineer. Upon Authority's review and approval of this final pay estimate, this estimate will become the approved final pay estimate.
- 5.3 If a proposed final pay estimate is not submitted by the Contractor to the Engineer within sixty (60) days after the issuance of the Certificate of Acceptance of Final Inspection, Authority may elect to make payment of any sums which are not in dispute, without prejudice to the rights of either Authority or the Contractor in connection with such sums which are in dispute.
 - 5.4 Authority will make final payment to the Contractor within thirty (30) days after issuance of the Acceptance Certificate as issued pursuant to Section 01700, Article 6. Such final payment shall be conclusive and binding upon the Contractor on all questions and claims relating to the amount of work done and the compensation payable therefore.
 - 5.5 Authority shall not be required to pay, for any reason whatsoever, any penalty, pursuant to 62 Pa. C.S.A. § 3935, as may be amended from time to time, or otherwise, or interest, pursuant to 62 Pa. C.S.A. § 3932, as may be amended from time to time, or otherwise, for or in regard to the final payment or any other payments, amounts or sums due, or claimed or requested by, the Contractor arising out of, or relating to, the Contract, the Work or otherwise.

END OF SECTION

Section 01300 – Administrative Requirements

Table of Articles

Article 1 – Shop Drawings, Working Drawings and Data

Article 2 – Meetings

- 2.1 Pre-Construction Conference
- 2.2 Progress Meetings
- 2.3 Other Worksite Meetings
- 2.4 Meeting Attendees
- 2.5 Meeting Agenda/Minutes

ARTICLE 1 – SHOP DRAWINGS, WORKING DRAWINGS AND DATA

- 1.1 For the purposes of this Article, only, the term "drawings" shall mean Shop Drawings and Working Drawings.
- 1.2 The Contractor shall submit to the Engineer for review and approval five (5) copies of drawings and/or data, where required by the Contract Documents. All such drawings and data shall be complete and detailed. The drawings or data shall be submitted using the standard transmittal forms in accordance with the instructions furnished by the Engineer, or as otherwise agreed to by the Engineer. When and as required by 63 P.S. §§131, et. al. and 63 P.S. §§34 et. al., the drawings and data shall be issued and/or prepared by a "Professional Engineer" or an "Architect," as said terms are defined by the referenced statutes, who is licensed and registered under the laws of the State, and shall be stamped with the engineer's or architect's seal. One (1) copy will be returned to the Contractor.
- 1.3 Within thirty (30) days of Notice to Proceed, the Contractor shall submit to the Engineer a complete itemized submittal log and schedule indicating proposed submittal dates for all drawings, data, samples and other submittals required by the Contract Documents. The submittal log and schedule shall be consistent with the Project Schedule. In the event that the Project Schedule should change, and such change affects the submittal log and schedule, the Contractor shall promptly provide a revised submittal log and schedule to the Engineer.
 - A. A sample Submittal Log format containing a Partial Summary of Submittals is shown in Table 01300-1. This Partial Summary is intended as a guide and may not contain all of the Submittals required by the Contract Documents. The omission of a required submittal on the Partial Summary will not relieve the Contractor from the responsibility to comply with the Contract Documents.
- 1.4 The Contractor shall submit the drawings or data to the Engineer no less than twenty-one (21) days prior to the scheduled start of the related work. If the Engineer anticipates that the review of any submittal identified on the submittal log may require more than twenty-one (21) days, the Engineer will notify the Contractor of such and the Contractor shall allow sufficient time for such review prior to the scheduled start of the related work.
- 1.5 The review and approval of the drawings or data by the Engineer shall not:
 - A. permit any departure by the Contractor from the requirements of the Contract Documents;
 - B. relieve the Contractor of the responsibility for any errors or omissions, including details, dimensions, and materials;
 - C. relieve the Contractor of any obligation or liability under the Contract; or
 - D. permit any departures from details furnished by the Engineer, except as otherwise provided herein.
- 1.6 Prior to submitting drawings or data to the Engineer the Contractor shall verify the accuracy of such drawings or data and coordinate related work with all trades, subcontractors and other affected parties. The Contractor shall provide written confirmation of such verification with each submittal of any drawings or data. In addition, the Contractor shall certify that the submittal complies with, includes, and has verified the following:
 - A. Date of submittal;
 - B. Field measurements verified and clearly identified;

- C. Compatibility of the indicated work with that of other work and special constraints;
 - D. Relationship to adjacent or other critical features of the Work;
 - E. A check for compliance with the requirements of the Contract Documents;
 - F. Any necessary information and requirements of other owners, public utilities, agencies and adjacent property owners;
 - G. All drawings and data shall be written in English and shall utilize U. S. customary units of measurement or metric units as required by the Contract Documents; and
 - H. Applicable identified standards (such as ASTM, ANSI, Federal Specifications, etc.)
- 1.7 The Contractor shall make details clear and uncluttered. Drawings shall be accompanied by calculations and other information sufficient to completely explain the portion of the Work and its intended use. The Contractor shall show, as applicable, the relationship to adjacent structures or materials, complete details, field dimensions, material, camber diagrams, welding details and sequences, and applicable standards.
- 1.8 The Contractor shall mark each copy of manufacturer's standard or schematic drawings to identify applicable products, models, options, and other data. The Contractor shall modify manufacturer's standard diagrams, schedules, performance charts, illustrations, calculations, and other descriptive data to delete information which is not applicable to the Contract and shall indicate dimensions, clearances, performance characteristics, capacities, and any other diagrams, as applicable. The Contractor shall modify erection, application, and placing instructions to delete information which is not applicable to the Contract.
- A. Elementary Diagram Standards
- 1. The elementary (schematics) diagrams shall show all circuits and the device elements of equipment with associated apparatus, or any clearly defined functional portion thereof, on a single sheet or on consecutive sheets of the diagram series. In particular, a specific associated power and control diagrams. When power and control circuits are shown on the same sheet, the power lines shall be discernible darker or heavier. Systems with similar circuit shall have individual schematics for each circuit, not typical drawings. Such a diagram shall emphasize the devices or device elements of a circuit system. The elementary diagrams shall be the key drawing to the entire system, shall show how the system works, and shall be the basis of all other diagrams.
 - 2. Device lists, device ratings, and panel locations shall be on their associated sheets of the schematics. Operating notes shall be in proximity to the associated circuits or consolidated in final sheets of the elementary diagram. For complex, complete-progress control, general notes and tune-up information shall be the final sheets of the diagram. Also, an explanation of the cross-reference and wire numbering system and an alphabetical device and/or logic symbol and application list shall be included on the final sheets. An index sheet shall be provided and shall constitute the first sheet of the schematics.
 - 3. Each sheet of the elementary diagrams shall be provided with equally spaced line identities for the entire sheet length even though the sheet is not initially fully utilized for diagramming.

4. Input and output wires entering or leaving elementary sheets shall be cross-referenced by a bracketed number showing the remote sheet and line location of the signal.
 5. Individual device ratings and setting shall be included on the elementary diagrams for all types of components where such information shall be adjacent to the symbol, listed in a separate tabulation on the same sheet.
 6. As specified in the Contract Documents.
- 1.9 Product data shall be clearly marked to identify pertinent products or models, performance characteristics and capabilities, and required dimensions and clearances.
- 1.10 Each of the drawings (maximum size of sheet, 22 inches by 34 inches) shall have a blank area, 3-1/2 inches by 3-1/2 inches, located adjacent to the title block in the lower right hand corner. The title block shall display the following:
- A. Number and title of the drawing;
 - B. Date of drawing or revision;
 - C. Contract name and number;
 - D. Name of Contractor and Subcontractor or Supplier submitting the drawing;
 - E. Clear identification of contents and location of the work; and
 - F. Specification title and number.
- 1.11 Data shall be on 8-1/2 inch by 11 inch sheets and suitable for xerographic reproduction. Fold-out sheets up to 11 inches by 17 inches may be used for figures and sketches. The pages shall be bound in a fashion which is readily disassembled and reassembled.
- 1.12 The transmittal form for submittal of drawings or data shall include the information listed in Articles 1.6, 1.9 and 1.10. If the Contractor's transmittal does not have this information, the Engineer will return the submittal and transmittal form without review.
- A. The Contractor shall submit the drawings and data, to the Engineer, in electronic format utilizing pdf files, for review and acceptance. The pdf files may be either transmitted via e-mail, in zipped or un-zipped files, or copied to CD-ROM's and mailed.
- The Engineer will print out and review the drawings and data. The Engineer will mark up all comments on the print outs, stamp the print outs and sign. The print outs will then be scanned, by the Engineer, into pdf files and transmitted back to the Contractor. The final Approved, or Approved as Noted, pdf file shall be considered the record drawing.
- 1.13 Changes made on the drawings and data by the Contractor at the direction of the Engineer shall be clearly identified by appropriate revision marks at the location on the drawings and data where changes were made and by appropriate notation on the drawings and data.
- 1.14 If the drawings or data show variations from the requirements of the Contract Documents because of standard shop practice or for other reasons, the Contractor shall describe such variations in its letter of transmittal. Any such variations shall be subject to the written approval of the Engineer and an appropriate adjustment to the Contract Sum. In the execution of any approved variation, the Contractor shall not be relieved of the responsibility for completing the remainder of the Work in accordance with the Contract Documents.

- 1.15 If approved by the Engineer, the drawings or data will be stamped "Approved" or "Approved as Noted" and one (1) copy will be returned to the Contractor. The Contractor shall perform the subject portion of the Work in accordance with the drawings or data stamped "Approved as Noted," without resubmitting them, and all noted changes indicated on such drawings or data shall be incorporated in the Project Record Documents.
- 1.16 Once the drawings or data have been approved, the Contractor shall carry out the related work in accordance therewith and shall not make any further changes unless directed in writing by the Engineer.
- 1.17 One (1) copy of drawings or data stamped "Not Approved" will be returned to the Contractor with required corrections for resubmittal. Resubmittals shall be handled in the same manner as the initial submittal and shall be prepared at the sole expense of the Contractor. If the Contractor considers any correction indicated on the drawings or data to constitute a change to the Contract, notice shall be given to the Engineer as required under Section 00900, Article 1.5.
- 1.18 The Contractor shall be responsible for and bear all cost or damages which may result from ordering any material or proceeding with any portion of the Work related to the drawings or data prior to approval of the drawings or data.

ARTICLE 2 – MEETINGS

- 2.1 Pre-Construction Conference - The Engineer will schedule the Pre-Construction Conference approximately two (2) weeks after Authority issues the Notice of Award and prior to the commencement of the Work for the purpose of discussing with the Contractor important elements of the Contract, preparation for start of work and the successful execution of the Work.
- 2.2 Progress Meetings - The Engineer will schedule and conduct progress meetings at intervals as it deems necessary throughout the progress of the Work to review progress and quality of the Work, administrative items, problems, Project Schedule, near future look ahead schedule, safety and other work coordination items.
- 2.3 Other Worksite Meetings - At any time throughout the progress of the Work, the Engineer or Contractor may schedule a meeting to coordinate and discuss the manner in which work will be performed.
- 2.4 Meeting Attendees - Meetings shall be attended by the Contractor's representative for the Work and any other person or entity whose attendance is requested by the Engineer. Failure of the Contractor to attend Engineer scheduled meetings, or prepare the near future look ahead schedules required in Section 00500, Article 2.4 shall constitute a waiver by the Contractor of any claims from changes in scheduling the performance of its work as a result of conflicts in scheduling with others.
- 2.5 Meeting Agenda/Minutes – The Engineer will establish the Agenda for all meetings and will record minutes for the meeting, and provide copies of the minutes to attendees and other affected parties.

TABLE 01300-1
NSC-009 TRAIN SYSTEMS (SYSTEM WIDE)
SUMMARY OF SUBMITTALS

REFERENCED	ITEM	SUBMITTAL												
		1 PRODUCT DATA	2 CALCULATIONS / SURVEYS	3 WORKING DRAWINGS / PROCEDURES	4 SHOP DRAWINGS	5 CERTIFICATIONS	6 SAMPLES	7 WARRANTY	8 TECHNICAL DATA	9 TESTING	10 PERMITS	11 TRAINING	12 SCHEDULE	13 OPERATIONS, MAINTENANCE AND REPAIR DATA
Terms and Conditions														
00500	Agreement		X											
00600	Contract Bonds			X	X									X
00700	General Conditions				X									
01200	Price and Payment Procedures					X		X						X
01300	Administrative Requirements													X
01400	Quality and Product Requirements					X		X		X				X
01500	Temporary Facilities and Controls						X		X					
01700	Execution Requirements		X	X			X		X					X
Technical Provisions														
01738	Lock Out/ Tag Out						X							
01739	Quality and Configuration Management						X		X					X
01755	Mobilization						X		X					X
01775	Testing Laboratory Services							X						
01777	Construction Certification Program							X	X					
01780	Maintenance and Protection of Traffic							X	X					
01781	Maintenance and Protection of Authority Traffic							X	X					X
01783	Temporary Facilities							X	X					X
01784	Temporary Pedestrian Accommodations, Fence, and Barricade							X	X					X
01785	Construction Surveying													X
01787	Transfer of Temporary Facilities								X					X
01791	Remove, Store, and Re-erect Existing Components								X					X
01800	Erosion and Sedimentation Control								X	X				X
01810	Off-Duty Uniformed Police Officer									X				X
01815	Construction Dust Control													X
01840	Spare Parts and Test Equipment								X	X				X
01850	Construction Monitoring Program								X	X				X
01900	Train Clearance Testing								X	X				X

TABLE 01300-1
NSC-009 TRAIN SYSTEMS (SYSTEM WIDE)
SUMMARY OF SUBMITTALS

REFERENCED	ITEM	PRODUCT DATA												
		1 PRODUCT DATA	2 CALCULATIONS / SURVEYS	3 WORKING DRAWINGS / PROCEDURES	4 SHOP DRAWINGS	5 CERTIFICATIONS	6 SAMPLES	7 WARRANTY	8 TECHNICAL DATA	9 TESTING	10 PERMITS	11 TRAINING	12 SCHEDULE	13 OPERATIONS, MAINTENANCE AND REPAIR DATA
01910	Operations Maintenance and Repair Data	X	X	X								X	X	X
01911	Operations Maintenance and Information Database						X							X
01920	Cutting and Patching				X	X								X
02020	Handling of Unforeseen Hazardous and Contaminated Building Materials				X	X						X		X
02220	Demolition				X	X						X		X
02316	Excavation				X							X		X
02320	Backfill				X							X		X
02340	Subgrade						X					X		X
02353	Geotextiles							X						
02450	General Track Construction			X		X								X
02452	Direct Fixation Track Construction				X	X	X							
02453	Special Trackwork Construction					X								
02456	Track Appurtenances and Other Track Material					X		X						X
02462	Direct Fixation Rail Fasteners					X		X						X
02464	Special Trackwork					X		X						X
02466	Steel Rail						X							X
02468	Rail Welding						X							X
02471	Track-to-Earth Resistance Testing						X							X
02581	Duquesne Light Company Switch Pads													X
02627	Pipe Underdrain, Pavement Base Drain and Subsurface Drain Outlets	X												
02721	Subbase													
02740	Bituminous Pavement and Sidewalk	X		X										X
02741	Bituminous Tack Coat						X							X
02751	Driveways							X						X
02761	Painting Traffic Lines and Markings			X		X						X		
02781	Concrete Curb					X		X				X		
02785	Concrete Sidewalk and Stairs						X							X
02835	Security Fence			X		X						X		
02840	Guide Rail				X	X	X							
02843	Bollards				X	X								

TABLE 01300-1
NSC-009 TRAIN SYSTEMS (SYSTEM WIDE)
SUMMARY OF SUBMITTALS

REFERENCED	ITEM	SUBMITTAL REQUIREMENTS												
		1 PRODUCT DATA	2 CALCULATIONS / SURVEYS	3 WORKING DRAWINGS / PROCEDURES	4 SHOP DRAWINGS	5 CERTIFICATIONS	6 SAMPLES	7 WARRANTY	8 TECHNICAL DATA	9 TESTING	10 PERMITS	11 TRAINING	12 SCHEDULE	13 OPERATIONS, MAINTENANCE AND REPAIR DATA
02891	Traffic Signing							X	X					X
03211	Reinforcement Bars and Dowels							X	X	X				
03305	Cast-in-Place Concrete and Cement Concrete Structures							X	X	X	X			
03630	Plinth Anchoring System							X	X	X	X			X
04200	Unit Masonry							X	X	X	X			
05120	Structural Steel							X	X	X	X			X
05505	Mental OCS Poles							X	X	X	X			
05510	Warning Signs							X	X	X	X			
05520	Miscellaneous Metalwork							X	X	X	X			X
07842	Fire Stops and Barrier Systems							X	X	X	X			X
08110	Steel Doors and Frames							X	X	X	X			X
08710	Finish Hardware							X	X	X	X			
09900	Protective Coating for Concrete Surfaces							X	X	X	X			
09902	Painting							X	X	X	X			
09910	Painting OCS Poles							X	X	X	X			
13510	Signal System Requirements							X	X	X	X			X
13574	Wayside Signal Equipment							X	X	X	X			
13576	Circuit Requirements							X	X	X	X			
13577	Solid-State Equipment							X	X	X	X			
13579	Design Requirements							X	X	X	X			X
13580	Train-to-Wayside Communications							X	X	X	X			
13581	Local Control Panels							X	X	X	X			
13582	Safety and Systems Assurance							X	X	X	X			
13585	Installation Requirements							X	X	X	X			
13587	Wire and Cable							X	X	X	X			
13588	Relays and Plugboards							X	X	X	X			
13589	Electrical and Electronic Components							X	X	X	X			
13590	Housings and Housing Equipment							X	X	X	X			
13591	Tags, Locks and Keys							X	X	X	X			
13593	Signal Power Distribution							X	X	X	X			

TABLE 01300-1
NSC-009 TRAIN SYSTEMS (SYSTEM WIDE)
SUMMARY OF SUBMITTALS

REFERENCED	ITEM	PRODUCT DATA												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		CALCULATIONS / SURVEYS	WORKING DRAWINGS / PROCEDURES	SHOP DRAWINGS	CERTIFICATIONS	SAMPLES	WARRANTY	TECHNICAL DATA	TESTING	PERMITS	TRAINING	SCHEDULE	OPERATIONS, MAINTENANCE AND REPAIR DATA	
13595	Signal System Test and Inspection						X					X		X
15400	Tunnel Services Scope of Work						X	X	X	X	X	X		X
15445	Tunnel Mechanical Drainage System						X	X	X	X	X	X		X
15446	TPSS Sump Pumps						X	X	X	X	X	X		X
15884	Tunnel Fire Extinguisher and Cabinets						X	X	X	X	X	X		X
15885	Tunnel Dry Stand Pipe System						X	X	X	X	X	X		X
15887	Tunnel Ventilation and Balancing Dampers						X	X	X	X	X	X		X
15888	Tunnel Ventilation Noise Attenuators						X	X	X	X	X	X		X
15889	Tunnel Ventilation Fans						X	X	X	X	X	X		X
15890	Tunnel Ventilation Jet Fans						X	X	X	X	X	X		X
15891	Tunnel Service Mechanical Testing and Commissioning													X
16050	Basic Electric Requirements						X	X	X	X	X	X		X
16060	Grounding and Bonding						X	X	X	X	X	X		X
16081	Electrical Testing AC Systems							X	X					X
16111	Conduit							X	X					
16120	Low Voltage Power Cables							X	X					
16123	MV Transformer, Liquid Filled							X	X					
16124	Medium Voltage Cables, 25kV							X	X					
16125	Low Voltage Bus Duct							X	X					
16130	Raceways and Boxes							X	X					
16135	Intrusion Detectors							X	X					
16200	Traction Power Substation General Requirements													X
16205	Circuit Breaker Room and Tie Breaker Station General Requirements								X					
16210	Traction Power Substation Basic Electrical Materials and Methods								X					X
16220	Traction Power Substation 27KV AC Switchgear								X	X				X
16221	Traction Power Substation 27KV Fusible Load Interrupter								X	X				X
16230	Traction Power Substation Transformer - Rectifier Unit								X	X				X
16235	Traction Power Substation Auxiliary Power System								X	X				X
16240	Traction Power Substation Metal Enclosed DC Switchgear								X	X				X
16250	Traction Power Substation Drainage and Negative Return Switchboard								X	X				X

TABLE 01300-1
NSC-009 TRAIN SYSTEMS (SYSTEM WIDE)
SUMMARY OF SUBMITTALS

REFERENCED	ITEM	SUBMITTAL												
		1 PRODUCT DATA	2 CALCULATIONS / SURVEYS	3 WORKING DRAWINGS / PROCEDURES	4 SHOP DRAWINGS	5 CERTIFICATIONS	6 SAMPLES	7 WARRANTY	8 TECHNICAL DATA	9 TESTING	10 PERMITS	11 TRAINING	12 SCHEDULE	13 OPERATIONS, MAINTENANCE AND REPAIR DATA
16270	Traction Power Substation 125 VDC Battery System	X	X	X	X	X	X							
16280	Traction Power Substation Enclosed													
16295	Traction Power Substation Wire and Cable													
16300	Traction Power Substation Busways													X
16305	Traction Power Substation SCADA System													
16310	Traction Power Substation Local Annudicator Panel													
16330	Traction Power Substation Testing													
16602	General Requirements Overhead Contact System													
16619	Surge Arrestors													X
16620	Uninsulated Conductors and Cables													X
16622	Insulators													X
16625	Section Insulators													X
16626	Galvanized Steel Wire and Wire Rope													X
16627	Stainless Steel Wire Rope, Strand, Rod, and Strip													X
16629	Balance Weight Anchor Assembly													X
16640	OCS Fittings and Hardware													X
16650	OCS Basic Electrical Materials and Methods													X
16700	Communications													X
16701	Fiber Optic Outside Plant													X
16702	Copper Outside Plant													X
16703	Carrier Transmission System (CTS)													X
16705	Communications System Power Supply													X
16706	Disconnect Switches													X
16712	Contact Wire Heater System													X
16721	Telephone System													X
16722	Radio System Expansion													X
16741	Variable Message Sign/PA System													X
16742	SCADA System													X
16750	Digital Video System													X
16761	OCS Supporting Devices													X

TABLE 01300-1
NSC-009 TRAIN SYSTEMS (SYSTEM WIDE)
SUMMARY OF SUBMITTALS

REFERENCED	ITEM	SUBMITTAL NUMBER												
		1	2	3	4	5	6	7	8	9	10	11	12	13
16800	Overhead Contact System Installation		X											
16805	Interface Requirements for OCS		X											X
16810	Stagger and Height Gauge			X										
16820	OCS Special Tools				X									
16830	Overhead Contact System Test and Inspection					X								
16889	Tunnel Services Electrical Testing and Commissioning						X							X
16890	Tunnel Services Electrical Requirements of Mechanical Equipment						X	X			X	X		
16891	Tunnel Services Low Voltage Switchboard and Motor Control Center						X	X		X	X			X
16892	Tunnel Services Uninterruptible Power Supply						X	X		X	X			X
16893	Tunnel Services Power Factor Correction						X	X		X	X			X
16894	Tunnel Services Tunnel Emergency Rail Lighting and Lighting Receptacles						X	X		X	X			X
16895	Tunnel Services Low Voltage AC Variable Speed Drive						X	X		X	X			
16901	Communications System Inspection and Test						X					X		
16950	Operations Control Center (OCC) System Upgrade						X	X	X			X		

END OF SECTION

Section 01400 – Quality and Product Reference

Table of Articles

Article 1 – Quality Assurance

Article 2 – Source of Supply and Quality of Materials

Article 3 – Use of Brand Name or Equal

Article 4 – Authority Furnished Materials

Article 5 – Inspection

- 5.1 Inspection of the Work
- 5.2 Plant Inspection

Article 6 – Defective Materials

Article 7 – Plants and Equipment

Article 8 – Removal of Rejected and Unauthorized Work

Article 9 – Samples

Article 10 – Certificate of Compliance

Article 11 – Testing

Article 12 – Photographs and Videos

ARTICLE 1 – QUALITY ASSURANCE

- 1.1 The Contractor shall establish and maintain a Quality Assurance Program. For Contractors who do not have an established Quality Assurance Program or require guidance in its preparation, Authority will provide the Contractor with Authority's "Guidelines for the Preparation of Contractor's Quality Plan" at the request of the Contractor.
 - A. The Quality Assurance Program shall include but not be limited to each of the fifteen elements of FTA's Quality Assurance and Quality Control Guidelines (FTA-IT-90-5001-02.1) as follows:
 1. Management responsibility
 2. Documented quality system
 3. Design control
 4. Document control
 5. Purchasing
 6. Product identification and traceability
 7. Process control
 8. Inspection and testing
 9. Inspection, measuring and test equipment
 10. Inspection and test status
 11. Nonconformance
 12. Corrective action
 13. Quality records
 14. Quality audits
 15. Training
 - B. The Quality Assurance Plan shall also include the following:
 1. Organization Chart – Identify the individual responsible for quality assurance by name, showing that this position is outside the production staff with clear lines of authority for validation of quality control; show personnel responsible for quality control by area of responsibility.
 - a) Contractor shall employ and assign to the Work a Quality Assurance Supervisor whose sole responsibility shall be Quality Control for this Contract.
 - b) The Contractor shall, within fifteen (15) days after Notice of Award, submit to the Engineer for approval, the qualifications of its proposed Quality Assurance Supervisor. Qualifications shall include at a minimum, ten (10) years experience in railroad or transit signaling, communications and traction power systems design and installation with five (5) years devoted to

quality. No work shall commence until the Engineer has approved the Quality Assurance Supervisor.

2. Source Quality Control
 - a) Raw Material – List the proposed source of material along with methods of documentation and testing to assure the material quality.
 - b) Production Control – List required lot size and samples; include sample selection, labeling and test procedure; and manufacturing phase.
 - c) Product Testing – List proposed type and frequency of tests and method of documenting and reporting test results. List proposed and required test equipment and calibration procedure, including frequency of calibration. List procedure for retesting or rejecting items failing the tests. List the disposal methods and location for tests samples and rejected lots.
 - d) Packaging and Shipping – List method of identifying, storing, loading, transporting and unloading to assure safe delivery of acceptable material and products.
 - e) Documentation – List the proposed procedures for documentation and certification.
3. Field Quality Control – The Contractor shall provide a plan for the development of the detailed field inspection and test procedures in accordance with the Contract Documents.
4. Sufficient control shall be maintained over construction and fabrication processes to prevent defectiveness and variability of materials and to assure their conformance with the requirements of the Contract Documents, which can be verified only at the time and point of construction and fabrication.
5. Written quality control, test and inspection procedures shall be used for all pertinent construction and fabrication operations.
6. Design information for materials incorporated into the Work shall be maintained to ensure that items are fabricated, constructed, inspected and tested in accordance with the latest applicable requirements.
7. All changes to design information or task definition shall be processed in a manner that will ensure accomplishment of the Work. A record of all changes shall be maintained.
8. Evaluations and controls shall be established and maintained at appropriately located points in the construction and fabrication process to assure continuous quality control.

9. Adequate methods and facilities shall be established for controlling the identification, handling and storage of all materials. The identification shall indicate the inspection status of the materials. These controls shall be maintained from the time the materials are received in order to protect the materials from damage, deterioration, loss or substitution.
 10. Adequate methods and facilities shall be provided to assure conformance with requirements for special process specifications, such as: welding, plating, anodizing, nondestructive testing, heat-treating, soldering, brazing and any other testing of materials. Personnel performing such activities, including special processes or inspection/test tasks, shall have the experience, training, and certification commensurate with the scope, complexity, or nature of the activity. The following personnel information shall be maintained:
 - a) Requirements for qualifications;
 - b) Orientation;
 - c) Evaluation; and
 - d) Certification credential.
- C. Records (reports) of sampling, inspection and test activities are quality records. The Contractor shall maintain them in a manner providing integrity of item identification, acceptability, and traceability. Reports shall identify the following:
1. Project title and contract number;
 2. Testing laboratory name, address, and telephone number;
 3. Name of inspected/tested/sampled products and specification section;
 4. Quantity of items;
 5. Inspection/sampling/testing procedure reference;
 6. Date and time of work;
 7. Name of inspector/tester;
 8. Observations/comments;
 9. Specified requirements;
 10. Record of temperature and weather/environmental conditions;
 11. Acceptability;
 12. Deviations/nonconformances;
 13. Corrective action;
 14. Evaluation of results; and

15. Signature of authorized evaluator.
- D. The Contractor's Quality Assurance Program shall ensure compliance with the requirements of the Contract Documents within the Contractor's organization, including compliance by any Subcontractor's or Supplier's organization.
- E. Five (5) copies of the Contractor's Quality Assurance Program shall be submitted to the Engineer for review and approval within five (5) days of the Award of the Contract. Within five (5) days of the Engineer's receipt of the Quality Assurance Program, the Contractor and the Engineer shall meet to review the submittal. The Engineer will inform the Contractor whether the Quality Assurance Program is approved, approved with comment or rejected. If approved with comment or rejected, a revised Quality Assurance Program shall be submitted to the Engineer within five (5) days of the review meeting. Work undertaken by the Contractor prior to the Engineer's written approval of the Contractor's Quality Assurance Program shall be at the Contractor's risk and expense.
- F. The Contractor's Quality Assurance Program shall not be changed without the prior written approval of the Engineer. Work undertaken by the Contractor prior to receipt of written approval from the Engineer concerning such changes to the Contractor's Quality Assurance Program shall be at the Contractor's risk and expense.
- G. The Contractor's Quality Assurance Program shall be subject to the Engineer's verification at all times. Verification shall include, but will not be limited to: audit of the Quality Assurance Program; surveillance of the operations to determine that practices, methods and procedures of the program are being properly implemented; and inspection to verify the quality of items offered for acceptance.
- H. Failure by the Contractor to promptly correct deficiencies discovered by the Contractor, or of which the Contractor is notified by the Engineer, may be cause for suspension of the Work. Said suspension will continue until corrective action has been taken or until the conformance of the items to prescribed criteria has been demonstrated to, and approved by, the Engineer. Such suspension of the Work shall be at no cost to Authority.
- I. The Contractor shall audit its Quality Assurance Program and related procedures to confirm compliance with the Contract Documents. The Contractor shall maintain audit records as quality records and make them available to the Engineer upon request. The Engineer may perform audits of the Contractor's activities to verify compliance with the Contract Documents. The Contractor shall perform audits on a systematic basis in accordance with the most current update of the FTA Project and

ARTICLE 2 – SOURCE OF SUPPLY AND QUALITY OF MATERIALS

- 2.1 For the purposes of Section 01400, only, the term "materials" shall mean all materials, equipment, commodities and products furnished for incorporation into the Work.
- 2.2 Notwithstanding prior inspection or approval by Authority or the Engineer, only materials conforming to the requirements of the Contract Documents shall be incorporated into the Work.
- 2.3 The materials furnished by the Contractor shall be new unless otherwise specified in the Contract Documents.
- 2.4 The Contractor shall submit to the Engineer a list of its sources of materials.
 - A. The list shall be on a form satisfactory to the Engineer and shall be submitted no less than thirty (30) days prior to the scheduled start of the related portion of the Work so as to insure necessary coordination of the inspection and testing of materials.
 - B. The list shall indicate the specified use by Section(s) in the Contract Documents and, for PENNDOT pre-approved sources, the properly referenced parts of the appropriate reference e.g. PENNDOT Bulletin(s), if any. When material is not from a PENNDOT pre-approved source Contractor shall also submit a quality control plan for such material, and samples of specified kind and quality.
- 2.5 All materials shall be subject to inspection and testing by the Engineer at the place of production or manufacture, at the shipping point, at the destination, and at the Worksite, whether installed or not. Inspection and testing, or lack thereof, of materials by the Engineer does not relieve the Contractor from responsibility for any defect therein or other failure to meet the requirements of the Contract Documents and shall not be considered as a guarantee of acceptance of any materials furnished by the Contractor.
- 2.6 The Contractor shall manage the delivery of its materials as follows:
 - A. Transport and handle materials in accordance with manufacturer's instructions.
 - B. Schedule delivery to reduce long-term on-site storage prior to installation and/or operation. Under no circumstances shall material be delivered to the site more than one month prior to installation without written authorization from the Engineer.
 - C. Coordinate delivery with installation to ensure minimum holding time for materials that are hazardous, flammable, easily damaged or sensitive to deterioration.

- D. Deliver materials to the site in manufacturer's original sealed containers or other packing systems, complete with instructions for handling, storing, unpacking, protecting and installing.
 - E. Unload and place all materials delivered to the site in a manner which will not hamper Authority's operations, Contractor's normal construction operation or those of Subcontractors and other contractors and will not interfere with the flow of Authority traffic.
 - F. Provide equipment and personnel to unload all materials delivered to the site.
 - G. Promptly inspect shipment to assure that materials comply with requirements, quantities are correct, and materials are undamaged.
- 2.7 The Contractor shall comply with the Pennsylvania "Steel Products Procurement Act No. 1978-3". Accordingly, the Contractor shall use or supply and certify that only "steel products" as defined in Section 6 of the Steel Products Procurement Act are used in the performance of the Contract or subcontracts to the Contract, unless there is a written determination by Authority that no manufacturer in the United States produces such "steel products" in sufficient quantities to meet the requirements of the Contract.
- 2.8 The Contractor shall comply with the following:
- A. Use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to the Contract, to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels.
 - B. Furnish within twenty (20) working days following the date of loading for shipments originating within the United States, or within 30 working days following the date of loading for shipment originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in Article 2.8.A above to Authority (through the Contractor in the case of a Subcontractor or Supplier bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590, marked with appropriate identification of the Project.
 - C. Insert the substance of Article 2.8.A and 2.8.B above in all subcontracts issued pursuant to the Contract.
- 2.9 International air transportation of any persons involved in, or materials acquired for, the Contract shall be provided by U.S.-flag air carriers to the extent service by these carriers is available, as required by the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. § 40118, in accordance with U. S. GAO regulations, "Uniform Standards and Procedures for Transportation Transactions", 4

C.F.R. Part 152, and U. S. GAO Guidelines for Implementation of the "Fly America Act", B-138942, 1981 U. S. Comp. Gen. LEXIS 2166, March 31, 1981.

ARTICLE 3 – USE OF BRAND NAME OR EQUAL

- 3.1 Certain materials to be incorporated in the Work may be designated in the Contract Documents by their salient characteristics and brand names or the names of manufacturers and their catalog information. The use of an alternative material which the Contractor represents to be of at least equal quality, and to have the required characteristics for the purpose intended, (hereinafter referred to as Or Equal Material), may be permitted to be utilized by the Contractor, if approved by the Engineer, subject to the following:
 - A. The burden of proof as to the quality and suitability of Or Equal Material shall be upon the Contractor.
 - B. Any costs incurred by the Engineer and/or Authority associated with the review of any request for an Or Equal Material and/or the utilization of an Or Equal Material shall be borne by the Contractor. Acceptance of any Or Equal Material shall be at no additional cost to Authority.
 - C. If the Contractor intends to seek approval of Or Equal Materials in lieu of specified materials, it shall notify the Engineer, in writing, of its intent to do so as follows:
 1. If the portion of the Work that relates to the Or Equal Material, including the ordering of materials, is scheduled to occur within ninety (90) days of receipt of the Notice to Proceed, the Contractor shall submit its intention to seek approval of such Or Equal Material to the Engineer within seven (7) days of receipt of the Notice to Proceed.
 2. If the portion of the Work that relates to the Or Equal Material is scheduled to occur later than ninety (90) days after the receipt of the Notice to Proceed, the Contractor shall submit its intention to seek approval of such Or Equal Material no less than sixty (60) days before the scheduled start of such related portions of the Work.
 - D. The Contractor, within fourteen (14) days of its notice to the Engineer, shall submit to the Engineer all information required by the Engineer to review the quality and suitability of the proposed Or Equal Material. The information shall be sufficient to describe the proposed Or Equal Material in every way including size, utility requirements, compatibility with other Project products and procedures, performance characteristics, maintenance requirements, description of warranty, independent test results, time and schedule impacts and any other information that the Engineer may request in order to determine the acceptability of the proposed Or Equal Material.

- E. No review of a request for approval of an Or Equal Material will occur until the request has been made in accordance with Article 3.1.C and 3.1.D above.
- F. The Engineer shall have a minimum of twenty-one (21) days following the receipt of the information required in Article 3.1.D above to review and respond to a request for use of Or Equal Material from the Contractor.
- G. The Engineer shall be the sole judge as to the quality and suitability of Or Equal Material and the Engineer's decision shall be final and binding upon the Contractor.
- H. Or Equal Material shall not be used where the materials are designated to match others in use by Authority in a particular improvement either completed or in progress.
- I. If the use of Or Equal Material involves redesign of, or changes to, other portions of the Work, the cost and time required to effect such redesign or changes will be considered, among other things, in evaluating the suitability of the Or Equal Material.
- J. The Contract Documents may require that materials be classified, rated, or certified by an organization recognized for establishing standards in the industry, such as UL, NEMA and the like. Proposals for Or Equal Material shall be accompanied by reports from the listed or equivalent independent testing laboratory indicating such proposed Or Equal Material does comply with the requirements of the Contract Documents. If independent testing laboratories are used, they shall be subject to prior written approval of the Engineer.
- K. Approval of Or Equal Material shall only be for the characteristics or use named in such approval and shall not be used to change or modify any requirement of the Contract Documents. Further, each approval shall be limited to the portion of the Work for which it is given.
- L. The Contractor shall be responsible for and bear all costs or damages which result from ordering any material or proceeding with any work related to proposed Or Equal Material prior to approval of such proposed Or Equal Material.

ARTICLE 4 – AUTHORITY FURNISHED MATERIALS

- 4.1 Authority furnished materials, if any, will be listed or described in the Contract Documents. Such materials will be available at locations designated in the Contract Documents, or if not designated therein, will be delivered to the Worksite by Authority.
- 4.2 Work such as unloading, transporting from the designated availability locations, handling, storing, protecting, re-handling and installing such Authority furnished materials shall be performed by the Contractor at its expense, unless specifically identified herein. The Contractor shall give the Engineer thirty (30) days written notice in advance of the desired

- delivery date, except where delivery schedules are established in the Contract Documents, or the Contractor's schedule.
- 4.3 The Contractor shall pay all demurrage and storage charges which may be incurred on any Authority furnished materials. The Contractor shall inspect such materials upon receipt and shall immediately notify the Engineer in writing of any damaged or defective materials.
- 4.4 The Contractor shall be responsible for any Authority furnished materials received by it and if any Authority-furnished materials are lost, or damaged from any cause, after receipt by the Contractor, the Contractor shall be liable to Authority for the cost of either, at Authority's option, replacing or repairing such Authority-furnished materials and these costs may be deducted from monies due, or to become due, the Contractor under the Contract or any other contract with Authority.
- 4.5 A. Authority shall supply the No. 6 Direct Fixation Double Crossover, procured by Authority in Contract No. 3002 – Advanced Rail Systems, Procurement – Gateway Double Crossover to the Contractor. The Double Crossover is to be installed at Wood Street Station, not Gateway as the contract title indicates. The Contractor shall notify Ken Lockaton of the Authority by written advanced notice thirty (30) days prior, followed by a 48 hour telephone confirmation (412-488-2059) prior to pick-up date. Pick-up will be at Authority's South Hills Junction Maintenance Yard, 611 West Warrington Avenue, Building #5, Pittsburgh, PA 15226. All materials and equipment shall be fully inspected by the Contractor and accepted for use at the Wood Street installation work area before pick-up can occur. Contractor shall load the Double Crossover and Switch Machines onto its delivery vehicles. Material and equipment pick-up will occur no sooner than 8:30 am with pick-up fully completed by 2:00 pm, Monday through Friday, except Holidays.
1. The Contractor shall inspect the completely assembled Double Crossover including all switch machines and rods at the fabricators plant prior to delivery to Authority. The Contractor shall be notified of this inspection by the track fabricator (21) calendar days prior to the inspection. The Contractor shall inspect and approve the complete assembly on site at the track fabricators plant and shall take responsibility for the completed assembly and all components after it is match marked, disassembled, and shipped by the manufacturer.
- B. Authority shall supply three thousand one hundred fifty (3150) linear feet of Strap Guard Assembly. The Contractor shall notify Ken Lockaton of the Authority by written advanced notice thirty (30) days prior, followed by a 48 hour telephone confirmation (412-488-2059) prior to pick-up date. Pick-up will be at Authority's South Hills Junction Maintenance Yard, 611 West Warrington Ave., Building #5, Pittsburgh, PA 15226. All material shall be fully inspected by the Contractor and accepted for use in the NSC-009

Work. Contractor shall load the Strap Guard Assembly onto the Contractor's delivery vehicles. Material pick-up will occur no sooner than 8:30 am with pick-up fully completed by 2:00 pm, Monday thru Friday, except Holidays.

ARTICLE 5 - INSPECTION

5.1 Inspection of the Work

- A. Authority and the Engineer shall at all times have access to the Work and the Contractor shall furnish every reasonable facility for ascertaining that the Work is performed in accordance with the requirements of the Contract Documents. Any portion of Work shall be subject to the Engineer's inspection and approval at any time. When any portion of the Work is to be performed during hours other than the Contractor's designated working hours, the Contractor shall advise the Engineer no less than twenty-four (24) hours in advance of such occurrences.
- B. The Government shall have access to and shall have the right to inspect the Work. State and local officials shall have the right to inspect those portions of the Work that are subject to their jurisdiction. The Contractor shall cooperate with these federal, state and local representatives in the same manner as any Authority representative.
- C. Inspection and re-inspection of any portion of the Work may be ordered by the Engineer, at any time, before Acceptance of the Work. Work determined by the Engineer, at any time, not to meet the requirements of the Contract Documents shall be made acceptable to the Engineer. Any portion of the Work may be rejected by the Engineer if found not to meet the requirements of the Contract Documents, notwithstanding payment therefor.
- D. If the Engineer deems it necessary to inspect any portion of the Work that is not visible or accessible, the portion of the Work in question shall be uncovered by the Contractor. If such portion of the Work is found to be in accordance with the Contract Documents, Authority will pay all costs incurred to perform this inspection. If such portion of the Work is not in accordance with the Contract Documents, Contractor shall pay all costs incurred to perform this inspection.
- E. Inspection or approval of any portion of the Work by Authority or the Engineer shall not relieve the Contractor of its obligations to fulfill the requirements of the Contract Documents including, but not limited to, the Contractor's warranty and guaranty obligations.

5.2 Plant Inspection

- A. Authority, the Engineer, or their authorized representatives, may inspect, at the Contractor's plant or facility, any materials procured or manufactured at said plant or facility, as well as, may inspect, at the source of supply or manufacture, any materials procured

and/or manufactured by a Subcontractor, Supplier or any other person or entity other than the Contractor. Authority, the Engineer, or their authorized representatives, shall have free entry at all times, during normal business hours, to such parts of the plant that pertain to the manufacture or production of the materials. Adequate facilities to make the necessary inspection shall be furnished at no cost to Authority. Authority assumes no obligation to inspect materials at the source of supply, manufacture or production. The responsibility for providing satisfactory materials for incorporation into the Work rests entirely with the Contractor, notwithstanding any prior inspections or tests by Authority or the Engineer.

- B. If Contractor uses PENNDOT approved sources and the Contract Documents specify PENNDOT approved material, Authority will consider a PENNDOT certification per applicable PENNDOT certification requirements and PENNDOT plant inspection adequate to satisfy these provisions.

ARTICLE 6 – DEFECTIVE MATERIALS

- 6.1 Contractor-furnished materials not conforming to the requirements of the Contract Documents, as determined by the Engineer, will be rejected, whether in place or not. If so directed by the Engineer, the Contractor shall promptly repair or remove and replace, in a manner acceptable to the Engineer, such materials. No compensation shall be allowed to the Contractor for such repair or removal and replacement.
- 6.2 Rejected materials, the defects in which have been subsequently corrected, shall not be used in the Work unless approved, in writing, by the Engineer.
- 6.3 Upon failure of the Contractor to repair, remove or replace defective or non-conforming materials, or to repair materials, after notice in writing from the Engineer, Authority may cause the defective or non-conforming materials to be repaired, removed or replaced by others. Any costs incurred by Authority in having defective or non-conforming materials repaired or removed and replaced shall be borne by the Contractor and such costs may be deducted from any monies due, or which become due, the Contractor under the Contract or any other contract with Authority.
- 6.4 The determination as to whether the materials do not conform to the requirements of the Contract Document is the sole discretion of the Engineer.
- 6.5 If materials, which the Engineer has determined not to be in conformance with the requirements of the Contract Documents, are permitted by the Engineer to be left in place, a credit shall be due Authority for the difference between the value of the materials required by the Contract Documents and the value of the materials placed by the Contractor, as well as any other costs to be incurred by Authority as a result of permitting the non-conforming work to remain in place, and deducted

from any monies due, or which become due, the Contractor under the Contract or any other contract with Authority.

ARTICLE 7 – PLANTS AND EQUIPMENT

- 7.1 Only plants and equipment suitable to produce the quality of work and materials required by the Contract Documents shall be used or permitted to be used by the Contractor. Such plants and equipment shall conform with industry standards and shall be of sufficient capacity to ensure the production of materials needed to complete the Work in accordance with the Project Schedule. Design and construction of any plants and equipment to implement the Work shall be in accordance with industry practice.
- 7.2 When ordered by a Responsible Authority or the Engineer, the Contractor, at the Contractor's sole expense, shall remove unsafe or unsuitable equipment or materials from the Worksite and discontinue operation of unsafe or unsatisfactory plants.
- 7.3 If at any time during the progress of the Work, plants, tools or equipment used by the Contractor are determined by the Engineer to be unable to achieve the quality of work required at the proper rate of progress, the Engineer may order the Contractor to take any steps the Engineer deems necessary to achieve the quality of work required at the proper rate of progress. The failure of the Engineer to demand such action, however, shall not relieve the Contractor of its obligation to achieve the quality of work required and the proper rate of progress necessary to complete the Work within the time required by the Contract.

ARTICLE 8 – REMOVAL OF REJECTED AND UNAUTHORIZED WORK

- 8.1 Work not conforming to the requirements of the Contract Documents, as determined by the Engineer, will be rejected, whether in place or not. If so directed by the Engineer, the Contractor shall promptly remedy, or remove and replace, such work in a manner acceptable to the Engineer. No compensation shall be allowed to the Contractor for such removal, replacement or remedial work.
- 8.2 Work done beyond the lines and grades shown on the Contract Documents or established by Authority or the Engineer, and any work not required by the Contract Documents nor authorized in writing by the Engineer, shall be considered to be unauthorized work and no compensation therefor shall be allowed to the Contractor. Upon order of the Engineer, unauthorized work shall be remedied, removed or replaced by the Contractor at Contractor's expense.
- 8.3 Upon failure of the Contractor to remedy, remove or replace rejected or unauthorized work, or to comply promptly with any order of the Engineer to do so, Authority may cause such rejected or unauthorized work to be remedied, removed or replaced by others. Any costs incurred by Authority in having rejected or unauthorized work remedied, removed or replaced shall be borne by the Contractor and these costs may be

- deducted from any monies due, or which become due, the Contractor under the Contract or any other contract with Authority.
- 8.4 If any work, which the Engineer has determined not to be in conformance with the requirements of the Contract Documents, is permitted by the Engineer to be left in place, a credit shall be due Authority, the value of such credit to be established by Authority and a Change Order will be issued by Authority to deduct the credit from any monies due, or which become due, the Contractor under the Contract or any other contract with Authority.

ARTICLE 9 - SAMPLES

- 9.1 The Contractor shall review, approve and submit to the Engineer samples required by the Contract Documents or requested by the Engineer. Samples shall be submitted without charge to Authority and with shipping charges prepaid. Materials, for which samples are required or requested, shall not be used in the Work until approved in writing by the Engineer.
- 9.2 By approving and submitting samples, the Contractor represents that it has determined and verified all materials, field measurements and all other criteria related thereto and that it has checked and coordinated the data submitted with such samples with the requirements of the Contract Documents.
- 9.3 Before submitting samples, the Contractor shall verify that the materials will be available in the quantities required for the Work. Unless otherwise directed, samples as specified in the Contract Documents, along with a letter with pertinent product information, shall be submitted to the Engineer for review and approval no less than thirty (30) days prior to the scheduled start of related work and shall be identified with a label, where practical, listing the following data:
- A. Name, number and location of Project;
 - B. Name of Contractor;
 - C. Material represented and its location in the Work;
 - D. Name of producer, brand or trade name, if applicable, and place of origin; and
 - E. Date of submittal.
- 9.4 When requested by the Engineer, samples of materials from local sources shall be taken in the presence of the Engineer.
- 9.5 The Engineer will review the sample and notify the Contractor that the sample is "Approved", "Approved as Noted", or "Rejected", with the reasons for rejection of the sample. Rejected samples shall be corrected and resubmitted to the Engineer in the same manner as the first submittal of samples, at no cost to Authority. Rejection of any sample will be sufficient cause for refusal to consider any further samples of the same brand, make or source.

- 9.6 Approval of a sample shall be only for the characteristics and use named in the submittal and shall not be construed to change or modify the requirements of the Contract Documents or relieve the Contractor of its responsibilities to adhere to the requirements of the Contract Documents.
- 9.7 No change or substitution will be permitted after a sample has been approved unless written approval to change or substitute has been given to the Contractor by the Engineer.

ARTICLE 10 – CERTIFICATE OF COMPLIANCE

- 10.1 A Certificate of Compliance shall be furnished by the Contractor to the Engineer for each lot of materials delivered to the Worksite and the Certificate shall clearly identify the materials. The Contractor shall not incorporate any material in the Work until it has provided, and the Engineer has approved, a complete and acceptable Certificate of Compliance for the material.
- 10.2 The Certificate of Compliance shall be in a form acceptable to the Engineer and shall include:
 - A. A certified copy of test results pertaining to the material;
 - B. The submittal date;
 - C. The Contractor's name and address;
 - D. Contract title and number;
 - E. The represented material and its location;
 - F. Manufacturer's, producer's or fabricator's name;
 - G. Material trade name and catalog number;
 - H. Place of material origin;
 - I. Lot number;
 - J. Lot test date;
 - K. Testing organization's name and address;
 - L. Quantity of the material to be furnished;
 - M. Related Contract Drawing and Section numbers;
 - N. Signature of a representative of the manufacturer, producer or fabricator of the materials; and
 - O. A statement by the Contractor that the materials involved comply with the requirements of the Contract Documents.
- 10.3 The Engineer may permit the use of certain materials prior to sampling (Article 9) and testing (Article 11) if accompanied by a Certificate of Compliance. Materials may be rejected based upon the review of the Certificate of Compliance from the Contractor.
- 10.4 Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that materials are used on the

basis of such Certificate of Compliance shall not relieve the Contractor of the sampling and testing requirements of the Contract or its responsibility for incorporating materials in the Work which conform to the requirements of the Contract Documents. Materials not conforming to such requirements will be subject to rejection whether in place or not.

ARTICLE 11 - TESTING

- 11.1 Materials shall be tested in accordance with the requirements of the Contract Documents.
- 11.2 The Contractor shall inform the Engineer at the Pre-Construction Conference of the testing laboratory it proposes to use and obtain the Engineer's written approval of the laboratory prior to conducting tests. Any testing laboratory proposed by the Contractor shall be accredited by applicable states, agencies and/or associations for the material to be tested, such as AMRL and CCRL.
- 11.3 The Contractor shall notify the Engineer of the date and time arranged for all testing no less than forty-eight (48) hours in advance of each event so that the Engineer may be present to observe the testing.
- 11.4 For manufacture of material and performance of Work at a location other than the Worksite, the Contractor shall notify the Engineer in writing of the location, date and time for the testing a minimum of fourteen (14) days prior to the event. The Contractor shall reconfirm 72 hours prior by telephone, so the Engineer can be present to observe the testing should the Engineer deem it necessary.
- 11.5 When specified in the Contract Documents, the Contractor shall require material suppliers or manufacturers to provide qualified representative(s) to observe conditions and methods of installation, quality of workmanship, start-up of equipment, testing, adjusting, and balancing of equipment as applicable, and to provide field instructions when necessary. The Contractor shall submit qualifications of such representative to the Engineer thirty (30) days in advance of the required observations for the Engineer's approval. The Contractor shall report observations and site decisions or instructions given to applicators or installers by such representative which are supplemental or contrary to manufacturers' written instructions in writing to the Engineer. The Contractor shall submit to the Engineer for approval, within thirty (30) days of such observation, five (5) copies of the manufacturer's report as to adequacy of installation, and the manufacturers' certification that the installation was in accordance with the manufacturer's/supplier's requirements.
- 11.6 The Contractor shall immediately notify the Engineer of non-conforming test results. The Contractor shall immediately record conforming and non-conforming test results on forms or charts acceptable to the Engineer.
- 11.7 When the Engineer deems it necessary, the Engineer will select sample locations for testing of material and related work on a random basis in accordance with applicable testing requirements. The Contractor shall

obtain samples and transport them from the sampling point to the testing site at the direction of and in the presence of the Engineer. The Contractor's approved testing firm will conduct all the specified tests in accordance with the Contract Documents. The Engineer may witness testing by the Contractor's approved testing firm. The Contractor's testing firm shall submit test reports directly to the Engineer no later than three (3) working days after conducting the test. The test report shall indicate observations, results and compliance or non-compliance with the Contract Documents.

- 11.8 The Contractor shall bear all costs for tests, other than those conducted by Authority or the Engineer, unless otherwise agreed to by Authority.
- 11.9 If the Engineer determines that any materials and related work require additional testing, the Engineer will instruct the Contractor in writing to order the additional tests to be performed.
 - A. If the additional tests reveal that the materials or related work meet the requirements of the Contract Documents, a Change Order authorizing the reimbursement of costs for the tests will be issued to the Contractor by Authority; or
 - B. If the additional tests reveal that the materials or related work do not meet the requirements of the Contract Documents, the costs incurred for tests and the costs incurred by the Engineer in observing such tests shall be the responsibility of the Contractor.
- 11.10 The Contractor shall ensure that five (5) copies of all certificates of testing or approval, as well as the test results and reports, are furnished directly by the testing firm to the Engineer concurrently with the Contractor's receipt. The Contractor shall keep these records complete and available for inspection at all times during the performance of the Work. Records of test activities shall be maintained in a manner that provides integrity of item identification, acceptability, and traceability, and shall identify the following:
 - A. Name of item(s) tested;
 - B. Quantity of items;
 - C. Test procedure reference;
 - D. Date of test;
 - E. Name of tester;
 - F. Observations/comments;
 - G. Specified requirements;
 - H. Acceptability;
 - I. Deviations/nonconformances;
 - J. Corrective action;
 - K. Evaluation of results; and
 - L. Signature of authorized evaluator.

11.11 The Contractor shall provide or have others provide and maintain measuring and testing devices to assure that materials conform to Contract Documents. In order to assure continued accuracy, the Contractor shall calibrate, adjust, and maintain devices at prescribed intervals prior to use, based upon equipment stability and other conditions affecting measurement. The Contractor shall provide complete documentation of all calibration, adjustment and maintenance of these devices. The Contractor shall make provisions for the proper handling and storage of equipment. The Contractor shall ensure that its devices are calibrated to conform with the National Bureau of Standards. The Contractor shall show the current status, date of last calibration, and the due date for the next calibration for every calibrated measuring and test device. The Contractor shall maintain calibration records as quality records and make such records available for inspection. When required, the Contractor shall make the measuring and testing equipment available to the Engineer for use in determining conformance of material, products, or completed construction with the Contract Documents. In addition, the Contractor shall make personnel available for the operation of such devices and for verification of the accuracy and condition of the devices. The Contractor shall have calibration results available at all times. The Engineer will, at its sole discretion, conduct periodic inspections of the measuring and testing devices to confirm both calibration and condition of operation. The Contractor shall notify the Engineer at least one (1) week in advance of Contractor initiated calibration, in order that the Engineer may be present. The Contractor shall submit, upon request of the Engineer, calibration data to the Engineer for review.

ARTICLE 12 – PHOTOGRAPHS AND VIDEOS

- 12.1 The Contractor shall, on the working day nearest the end of each month during the performance of the Work, take digital photographs which will show progress made during the month and shall submit the digital photographs to the Engineer by the tenth day of the next month. Scope of photographs shall be sufficient in number and coverage to allow the Engineer to assess progress of the Work.
- 12.2 Each photograph shall show as much detail of the Work progress as possible in the interests of keeping the total number of photographs to a minimum.
- 12.3 The Contractor shall provide a listing of the photographs which shall include the photograph file name, date of photograph, description of item photographed and name of individual who took the photograph.
- 12.4 In addition to the photographs to be taken at the end of each month, views shall be taken of the Worksite before any construction has commenced.

END OF SECTION

Section 01500– Temporary Facilities and Controls

Table of Articles

Article 1 – Temporary Facilities and Controls

- 1.1 Public Convenience
- 1.2 Public Safety
- 1.3 Preservation of Property
- 1.4 Maintenance and Protection of the Work
- 1.5 Operations and Storage Areas
- 1.6 Environmental Control
- 1.7 Temporary Utilities

ARTICLE 1 – TEMPORARY FACILITIES AND CONTROLS

1.1 Public Convenience

- A. All public traffic shall be permitted to pass through the Work with as little inconvenience and delay as possible. The Contractor shall obtain approval of its plans for the routing and control of traffic from the appropriate state, county or local agency having jurisdiction therefore. Where the temporary rerouting or closing to traffic of any public street or highway is necessary, the Contractor shall make all necessary arrangements with the appropriate state, county or local agency.
- B. The Contractor shall use only established roadways or construct and use such temporary roadways as may be authorized by Authority. Where materials are transported in the prosecution of the Work, vehicles shall not exceed the loading capacity recommended by the manufacturer of the vehicle or any roadway restrictions prescribed by any federal, state, county or local law or regulation.
- C. The Contractor shall ensure that mud, dirt and debris are cleaned from the wheels and exterior surfaces of all vehicles leaving the Worksite. All trucks entering or leaving the Worksite with any materials or debris shall be loaded in a manner which shall prevent spillage of the materials or debris. Spillage resulting from the Contractor's hauling operations shall be removed immediately by the Contractor at the Contractor's expense.
- D. Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to owners of abutting property. Convenient access to all property, roads and highways shall be maintained, and temporary approaches to roads or highways shall be provided and kept in good condition.

1.2 Public Safety

- A. The Contractor shall provide appropriate signs, lights, flares, barricades and other facilities for the guidance of public traffic to expedite the safe passage of public traffic through and around the Worksite. All such signs, lights, flares, barricades and other facilities shall be in accordance with the laws and regulations of OSHA and all applicable federal, state, county and municipal agencies and shall be approved by the Engineer prior to installation or use.
- B. The Contractor shall provide and station persons to direct the movement of public traffic through and around the Worksite. Flagpersons, when used, shall be provided with the necessary equipment in accordance with the current laws and regulations of OSHA, and all applicable federal, state, county and municipal agencies. The equipment shall be furnished, and kept clean and in good repair, by the Contractor.
- C. Materials and construction equipment shall be stored where it will not interfere with the free and safe passage of public traffic.
- D. Materials and construction equipment shall not be left within fifteen (15) feet in any direction of any fire hydrant, and fire hydrants shall be readily accessible at all times.
- E. The Contractor shall, at all times, anticipate accidental and deliberate intrusion onto the construction site by the general public, including

children. The Contractor shall erect barriers as necessary and in accordance with current regulatory requirements or as directed by the Engineer to protect intruders from dangerous contact with work areas and excavations.

- F. The Contractor shall take precautions, as necessary, to protect intruders to the Worksite during non-working hours. Precautions shall include, but not be limited to, securing mobile equipment, covering openings and removing ladders.

1.3 Preservation of Property

- A. Due care shall be exercised by the Contractor during performance of the Work to protect and preserve all property that is not to be removed, including but not limited, to facilities, vegetation, improvements and utilities, under or above ground. All such property that is within or adjacent to the Worksite shall be provided with suitable safeguards to protect the items from damage.
- B. Access to the Worksite may require travel on the sidewalks and pavement. Contractor shall protect and preserve these facilities that Contractor affects by its operations including, but not limited to, the following:
1. Protect edges of paving and curbs where construction equipment will cross with temporary concrete or bituminous material or other Engineer approved methods.
 2. Keep all streets free of construction debris and contamination.
 3. Use only rubber-tired vehicles on adjoining pavements and sidewalks, unless otherwise approved by the Engineer. Conduct an inspection of the facilities at the Worksite with Engineer to establish the baseline conditions prior to start of Work.
- C. Any damage to existing facilities, or other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement caused by the Contractor or its Subcontractors, at all tiers, shall be repaired, replaced or restored to a condition as good as or better than existed prior to the damage by the Contractor at its sole cost and expense. Damage to existing facilities will include, and not be limited to, any surface the Contractor has impregnated, stained, or disfigured. Approval of a corrective action by the Engineer shall not relieve the Contractor of its obligation to repair the damage should the approved corrective action fail to properly and completely repair the damage. If the Contractor fails or refuses to repair or replace such items promptly to the satisfaction of the Engineer, Authority may deduct the cost of performing the necessary work from monies due, or to become due, the Contractor under the Contract or any other contract with Authority.
- D. If the owner of the damaged facilities elects to repair the damaged facilities with its own forces, the Contractor shall be responsible for, and reimburse the owner of the damaged facilities for, incurred costs to repair the damage.
- E. The fact that any item, as described in this Article 1.3, is not shown on the Contract Drawings shall not relieve the Contractor of its responsibility for

preservation of such property. The Contractor shall be responsible to ascertain the existence of all facilities, vegetation, improvements and utilities which could be damaged by its operations.

- F. The Contractor shall notify the owner of any item damaged as described in this Article 1.3 at least three (3) working days in advance of doing any repair, replacement or restoration work to such item.
- G. The Contractor shall not repair or attempt to repair utilities damaged during, or by, the performance of the Work, but shall immediately contact the utility owner. The cost of the necessary repairs to damaged utilities shall be borne by the Contractor and may be deducted from monies due, or to become due, the Contractor under the Contract or any other contract with Authority.

1.4 Maintenance and Protection of the Work

- A. Until issuance of the Certificate of Acceptance of Final Inspection, the Contractor shall be responsible for the maintenance and protection of the Work, including but not limited to, the storage of materials and equipment, erection of temporary structures, and proper drainage, as necessary to protect the Work from damage.
- B. The Contractor is responsible for any damage to or loss of the Work, including materials or equipment, resulting from any cause whatsoever, irrespective of fault or negligence, except for damage or loss that is caused solely by the negligence or willful misconduct of Authority.
- C. Any portion of the Work that is damaged shall be repaired or replaced by the Contractor. If the damage is to Authority-furnished equipment, Authority may choose to have repairs made or replacement performed by the equipment manufacturer, and all cost shall be borne by the Contractor or such costs maybe deducted from any monies due, or to become due, the Contractor under the Contract or any other contract with Authority. The Contractor shall indemnify, hold harmless and defend Authority, its directors, officers, employees, agents and authorized representatives and the Engineer from all claims, suits or actions of any nature brought for, or on account of, any damage for which the Contractor is responsible.

1.5 Operations and Storage Areas

- A. All materials shall be stored by the Contractor in a manner which will facilitate inspection and ensure preservation of their quality and fitness for the Work.
- B. All operations of the Contractor, including storage of materials and equipment, shall be confined to areas authorized or approved by the Engineer prior to the use of the areas.
- C. Temporary buildings, storage sheds, shops, offices and the like, may be provided by the Contractor with the prior written approval of the Engineer and at no expense to Authority. The facilities shall remain the property of the Contractor and shall be removed at the Contractor's expense prior to the Final Inspection or within fifteen (15) days of receipt of notice from the Engineer. If requested by the Engineer, the Contractor shall submit a scaled drawing to the Engineer for review and approval of the staging area location and planned use of the staging area prior to occupying the site.

- D. Parking facilities for the Contractor's and any Subcontractor's personnel shall be the Contractor's responsibility. The Contractor shall submit a plan for employee parking to the Engineer for approval within ten (10) days of receipt of Notice of Award.
- E. All storage areas, both on-site and at off-site locations procured by the Contractor, Subcontractors and Suppliers, shall be approved by the Engineer. No storage of material or equipment will be permitted on streets or sidewalks outside the designated work area.
- F. The light rail system is an operating transit facility carrying high volumes of people. Disruptions to operations will delay and may compromise the safety of the public. Except as approved by the Engineer, the Contractor shall not cause any transit vehicle to be stopped or rerouted.
- G. All instructions for Authority vehicle operations are to be given to Authority operators and drivers by Authority supervisors. The Contractor is not permitted to instruct operators and drivers.

1.6 Environmental Control

A. Water Pollution Control

- 1. The Contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Water Pollution Control Act, as amended, 33 U.S.C. § 1251 *et seq.*, and any other applicable federal, state, county and local laws and regulations regarding activities impacting or affecting waters of the State or the United States. Before engaging in any activity which may impact any such water, the Contractor shall provide the Engineer with written notice ten (10) days prior thereto.
- 2. The Contractor shall report, in writing, each violation to the Engineer within 24 hours of its' occurrence. The Engineer will notify the Authority who will, in turn, report each violation as required to assure notification to the FTA and the appropriate EPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000.

B. Air Pollution Control

- 1. The Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 *et seq.*, and any other applicable federal, state, county or local laws and regulations regarding emission of regulated air pollutants or any other regulated activity concerning air pollution prevention, control or abatement.
- 2. The Contractor shall report, in writing, each violation to the Engineer within 24 hours of its' occurrence. The Engineer will notify Authority who will, in turn, report each violation as required to assure notification to the FTA and the appropriate EPA Regional Office. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000.
- 3. The Contractor shall take all necessary precautions and shall conduct its operations in such a manner so as to minimize the release of particulate matter or dust into the air in and around the

Worksite. Suitable means of insuring adequate particulate matter or dust control shall be available at all times when there is a possibility of the emission of particulate matter or creating dust and at such other times as may be directed by the Engineer. Such control shall not be limited to the immediate areas where construction operations are in progress but shall extend to, and include, all areas covered by the Work.

4. The Contractor shall be responsible for obtaining any and all permits or other required authorizations prior to engaging in any activities involving the open burning of materials, and the Contractor shall be responsible for complying with such permits and/or authorizations.
5. The Contractor shall provide the Engineer with written notice ten (10) days prior to engaging in any activity described above.
6. The Contractor shall develop a plan to control dust during construction operations and shall submit two (2) legible copies of the plan to the Engineer for review and approval at the Pre-Construction Conference. The Work may be conducted near numerous active businesses, stores, office buildings, residences, and transit stops. The Contractor shall control the spread of debris, dust and other forms of contamination into these areas. The Contractor shall promptly clean any accidental contamination of the adjacent properties and Authority property caused by the performance of the Work and shall revise its construction operations to eliminate future occurrences.

C. Hazardous Substances

1. The Contractor shall bear sole responsibility for the proper and lawful removal, transportation, treatment, storage and disposal of "hazardous substances", "hazardous waste", and "contaminants" as these terms are defined by the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. §§ 9601 et seq., petroleum and petroleum products. Also, the Contractor shall bear responsibility for the selection of the treatment, and/or the storage or disposal facility, utilized therefor.
2. The Contractor shall fully comply with CERCLA and all state, county or local counterparts to CERCLA. Before providing any notice required under CERCLA, or under any state, county or local counterpart to CERCLA, however, the Contractor shall immediately provide notice to the Engineer in writing.

D. Solid and Hazardous Waste

1. The Contractor shall comply with the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. §§ 6901, et seq., and any other applicable federal, state, county or local laws and regulations regarding any activities involving or associated with hazardous or solid wastes.
2. The Contractor shall be responsible for, and pay all costs for, any necessary testing or analysis of actual or potential solid or

hazardous wastes. The Contractor shall provide notice in writing to the Engineer of any necessary testing or analysis prior to performing the testing or analysis.

E. Mineral Lands and Mining

1. The Contractor shall comply with any applicable requirements of the Surface Mining Control and Reclamation Act, as amended, 30 U.S.C. §§ 1201, et seq., and any other applicable federal, state, county or local laws and regulations pertaining to the surface mining of coal or other mineral or natural resources.

F. Wildlife

1. The Contractor shall comply with the Endangered Species Act of 1973, as amended, 16 U.S.C. §§ 1531, et seq., and any other applicable federal, state, county or local laws and regulations relating to the protection of plants, animals, fish or other wildlife.

G. Noise Control

1. The Contractor shall comply with OSHA, state, county and local laws and regulations regarding the prevention, control and abatement of noise.
2. The Contractor shall develop a plan to control noise during construction and submit two (2) legible copies of the plan to the Engineer at the Pre-Construction Conference for review and approval. At a minimum, the plan shall address the following items:
 - a) Noise control to provide for the health and safety of the workers;
 - b) Acceptable noise levels;
 - c) Source control;
 - d) Site control;
 - e) Planning of operations;
 - f) Sequence of operations; and
 - g) Community awareness.
3. The Contractor shall not schedule the demolition or other noise intensive activities which will affect local residences adjacent to the Worksite between the hours of 10:00 p.m. and 6:00 a.m. unless provided for in the Contract Documents. All demolition or noise intensive activities shall not begin unless provided for in the Contract Documents without prior approval of the Engineer.

H. Energy Conservation

1. The Contractor shall comply with all applicable standards and policies relating to energy efficiency which are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act, 42 U.S.C. §§ 6321 et seq.

I. Recycled Products

1. The Contractor shall comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. § 6962, including but not limited to the regulatory provisions of 40 C.F.R. Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 C.F.R. Part 247. The Contractor shall also comply with the provisions of Section 1505 of the Pennsylvania Municipal Waste Planning Recycling and Waste Reduction Act.

K. Rodent and Pest Control

1. Provide methods, means, and facilities to control rodents, pests, and insects i.e. vectors at the Worksite or from vermin leaving the Worksite and invading adjacent properties.
2. The Contractor shall submit a Vector/Vermin Control Plan to specify rodent, pest, and insect control methods and measures for employment throughout the duration of the Project for the Engineer's review and approval. The Contractor shall obtain the Engineer's approval of the Vector/Vermin Control Plan prior to starting Work.
3. The Vector/Vermin Control Plan shall minimize environmental hazards/poisons and exposure to them by people and non-targeted animals while maximizing efficiency and effectiveness.
4. Where site conditions indicate, the Plan shall include pre-baiting, monitoring, and finally any necessary baiting for rodent control.
5. Employ materials necessary to affect approved Plan including, but not limited to:
 - a) Eradication, pre-baiting, and baiting materials.
 - b) Temporary cover consisting of a minimum of six (6) inches of soil excluding vegetative soil material, or new or used synthetic materials adequate for the intended purpose of Vector/Vermin Control as a substitute for soil as the temporary cover.
 - c) Other materials as required by the Vector/Vermin Control Plan
6. The Engineer will determine the need for Vector/Vermin Control. Problems that would require Vector/Vermin Control include (but are not limited to): work in existing sewer systems, exposure of existing construction or material which harbors or attracts vermin, strong odors, or blowing debris.
7. The Engineer will review the Contractor's activities in controlling Vector/Vermin and if any deficiencies are noted will advise the Contractor accordingly. The Contractor shall immediately remedy any Vector/Vermin Control deficiencies.

8. Provide Vector/Vermin Control for exposed areas, including but not limited to: demolition sites, cleared and grubbed areas, excavation areas, embankment areas, haul roads, and waste areas, as needed to provide adequate Vector/Vermin Control.
9. Have on hand at all times an adequate supply of materials for Vector/Vermin Control.
10. Be continually aware of the need for Vector/Vermin Control and implement measures to limit the potential for vector/vermin.
11. Apply appropriate eradication and/or cover materials or other accepted control methods, or measures at the direction of the Engineer in the most expeditious manner.
12. Supply appropriately sized equipment and provide sufficient personnel for the expeditious application of the Vector/Vermin Control methods and measures.
13. Apply, at the direction of the Engineer, temporary eradication material and/or cover to any disturbed area of the Worksite that will not be utilized for Work activities for an extended period of time.

1.7 Temporary Utilities

- A. The Contractor shall determine the need for and amount of temporary utility services required by it and shall make all arrangements to secure such services. Temporary utility lines shall be furnished, installed, connected, and maintained by the Contractor in a workmanlike manner, according to the applicable codes, and as specified in the Contract Documents.
- B. All temporary utilities shall be removed by the Contractor prior to the Final Inspection, including temporary facilities transferred in Section 01787, "Transfer of Temporary Facilities."
- C. All costs incurred for temporary utility services shall be at the sole expense of the Contractor.
- D. The Contractor shall coordinate with Duquesne Light Company for the electrical service for the North Side Traction Power Substation (TPSS). The Contractor shall pay for the service to the TPSS throughout the Work, until the completion of the train system installation and North Shore Connector system integration testing as prescribed in Section 00500, Article 2.6.A.1.b.4). At the conclusion of the milestone, the Contractor shall transfer ownership of the electrical service to Authority. Transfer shall include proof of final payment of all outstanding fees for service to Duquesne Light Company. Should the service turnover occur between monthly payments, the Contractor shall reimburse Authority for any future fees owed to Duquesne Light Company during its ownership of the service. Contractor's portion of the fee payment will be deducted from Contractor's next progress payment. Authority will supply payment records to the Contractor for its records.

END OF SECTION

Section 01600– Product Requirements

Supplementary Conditions

Table of Articles

Article 1 – PENNDOT Standards

ARTICLE 1 – PENNDOT STANDARDS

- 1.1 The Bid Documents may include reference to PENNDOT 408 specifications. Any such reference shall be understood to be referring to the Commonwealth of Pennsylvania, Department of Transportation SPECIFICATIONS, Publication 408, as it may exist on the PENNDOT website (www.dot.state.pa.us) as of the date specified in the advertisement for availability of Bid Documents for this contract, unless specifically noted otherwise in the Bid Documents.
- 1.2 Unless the Bid Documents indicate otherwise, the parties shall interpret the following terms in PENNDOT 408 with supplements as follows:
 - A. Commonwealth means Authority, unless it denotes authorship of a publication or publications.
 - B. The Department or its employees means Authority or its employees.
 - C. With the exception of Sections 106.03(b)3, 108.05(c) 3.a, 3.b, 3.c or 4; 110.10; and 106.03(a)3, Sections 100 through 112 of PENNDOT 408 mean the related part(s) and requirement(s), of/in the Contract Documents only. Otherwise, provisions or requirements in Sections 100 through 112 do not apply to the Contract.
 - D. Inspector, District Engineer mean Engineer.
 - E. Deputy Secretary of Highway Administration, Secretary, Central Office, Chief Bridge Engineer, Chief Engineer, Highway Administration "MTD", Structural Materials Engineer, Structural Steel Engineers, Structural Materials Section, Chief Council, the General Council or the Attorney General, Office of Inspector General, State Treasurer, Director, Bureau of Construction and Materials, District Materials Engineer, and District Traffic Engineer mean Authority.
 - F. Quality Control Plan or Quality Control Program means Quality Assurance Program.
 - G. Any material or field testing designated to be performed by PENNDOT shall be performed by the Contractor at its expense. Testing shall be performed by an Engineer approved independent laboratory.
- 1.3 Preface the word "Form" e.g. Form CS-4171, the word "Standard", and the word "Bulletin" where they appear in the PENNDOT 408 by the abbreviation: "PENNDOT" unless specified otherwise.
- 1.4 The following revisions to PENNDOT 408 shall apply to the Contract Documents:
 - A. PENNDOT 110.010(b). 5th bullet: Replace "acceptance" with "quality control."
 - B. PENNDOT 110.10(b), 8th bullet: Revise the phrases "Schedule of Prices" and "Component Item Schedule" to read "Unit Price

- Schedule" and "Cost Breakdown for Lump Sum Contract Items", respectively.
- C. PENNDOT 110.10(c), Replace the word "acceptance" with "quality control".
 - D. PENNDOT 110.10(c), 1st sentence: Delete the words ", and the 28 days Quality Control Test result is greater than or equal to F¹(c)."
 - E. PENNDOT 110.10(d), 4th paragraph, 2nd sentence: Replace "will" with "shall".
 - F. PENNDOT 110.10(d), 5th paragraph: Revise to read as follows:
"Prepare cores for testing per PTM No. 606 and conduct compressive strength test per PTM No. 604."

END OF SECTION

Section 01700– Execution Requirements

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Article 1 – Contract Documents

Article 2 – Project Record Documents

Article 3 – Layout of the Work

Article 4 – Inspection, Acceptance of Final Inspection and Clean-Up

Article 5 – Demobilization

Article 6 – Acceptance Certificate

ARTICLE 1 – CONTRACT DOCUMENTS

- 1.1 After award and execution of the Contract, Authority will furnish the Contractor, for its use, the following:
 - A. One original copy of the executed Contract Forms; and
 - B. Three (3) sets of Bid Documents.
 - C. One copy of the following additional Documents:
 1. Port Authority of Allegheny County North Shore Connector Project Safety and Security Certification Plan.
 2. Port Authority of Allegheny County North Shore Connector Project System Safety Program Plan.
 3. Port Authority of Allegheny County North Shore Connector Project System Safety Management Plan.
 4. Port Authority of Allegheny County System Safety Program Plan
 5. FTA – Transit Noise and Vibration Impact Assessment
 6. PAAC – North Shore Connector Manual of Design Criteria
 7. All Permit Documents listed in Section 00700, Article 21.4, Permits acquired by Authority.
 8. As-built signal circuit drawings in electronic image files (.tiff) format for Gateway Interlocking
 9. As-built circuit drawings in electronic image files (.tiff) format for Wood Street Interlocking
 10. As-built circuit drawings in electronic image files (.tiff) format for Midtown Interlocking
 11. PAAC, Hanning & Kahl Operating Instructions, Hanning Communication System (HCS-R), Routing Equipment Edition 24.01.2002, Revision E.
 12. PAAC ADU Operation Training – TWC Equipment Operation, Instruction Guide, Dated August 2006.
 13. Approved Train Clearance Waiver Requests
 14. Authority's CCTV IP Addressing Scheme for North Shore Connector.
- 1.2 The Contractor shall maintain one set of the Contract Documents at the Worksite during the performance of the Work.

ARTICLE 2 – PROJECT RECORD DOCUMENTS

- 2.1 The Contractor shall maintain, and update on a weekly basis, the Project Record Documents throughout the course of the Work. The Contractor shall timely make updates on the appropriate document(s) to show:
 - A. Changes made during the performance of the Work, including updates to the as-built drawings as the Work progresses;

- B. Any details not shown on the Contract Documents but incorporated into the Work;
 - C. Existing features which differ from the information shown on the Contract Documents;
 - D. Actual items installed, including manufacturer's name and type of item installed;
 - E. Measured distances to utilities and other underground appurtenances;
 - F. Changes in dimensions and details; and
 - G. Any other details not shown in the Contract Documents but necessary to complete the Work.
- 2.2 Each of the Project Record Documents shall be clearly marked "Project Record Copy", shall be maintained in good condition, and shall be available at all times for inspection by the Engineer or Authority.
- 2.3 The Contractor shall meet with the Engineer periodically, at times as designated by the Engineer, for the purpose of verifying the correctness of the record information and the manner in which it is recorded.
- 2.4 The Contractor shall not permanently conceal or cover over any work until the required information on that work has been collected by the Contractor for incorporation on the Project Record Documents.
- 2.5 The Project Record Documents shall include one (1) full size set of black line prints of the Contract Drawings, Shop Drawings, Working Drawings and Standard Drawings annotated in red ink to show the information and data required in Article 2.1 above.
- 2.6 All non-drawing Project Record Documents shall be presented in a 3 ring binder format for 8 ½ inch by 11 inch and 11 inch by 17 inch foldout materials. The binder containing such materials shall be labeled Non-Drawing Record Documents and organized in Construction Specification Institute (CSI) format with tabbed divisions.
- A. Should the Contractor use a Computer Aided Drafting and Design (CADD) system for the layout and design of the Work, a copy of the "as-built" electronic files shall be submitted to the Engineer as a part of the Project. Electronic Record Documents shall be in accordance with Article 2.7 below. The computer program used by the Contractor shall be compatible with the version of AutoCAD and/or Microstation as directed by Authority, and all work shall be in accordance with Authority's "CAD and Drawing Standard Manual."
- 2.7 The Project Record Documents shall be submitted to the Engineer, in a satisfactory condition, within thirty (30) days after Final Inspection. The Engineer will notify the Contractor, in writing, of approval of the Project Record Documents. If the documents furnished are not in a satisfactory condition, as determined by the Engineer, the submittal will be rejected and returned to the Contractor for any required corrective action. The Contractor shall resubmit properly prepared Project Record Documents at the Contractor's sole expense.

ARTICLE 3 – LAYOUT OF THE WORK

- 3.1 The primary control lines, monuments and benchmarks necessary to establish the lines and grades required for the Work are identified in the Contract Documents. The Contractor shall protect and preserve such primary control lines, monuments and benchmarks.
- 3.2 The Contractor shall lay out the Work utilizing the established primary control lines, monuments and benchmarks and shall be responsible for all other measurements. In the event such primary control lines, monuments, or benchmarks are destroyed or damaged by reason of the Contractor or its Subcontractor's operations or any other event at the Worksite, they will be re-established by the Engineer at the Contractor's expense. The Contractor shall temporarily suspend work at the specific locations required to permit the Engineer to replace or restore primary control lines, monuments and benchmarks. The Contractor shall not be entitled to any additional compensation or adjustment in the Time of Completion for such suspensions.
- 3.3 The Contractor shall provide competent engineering services under the direction of a professional engineer or surveyor registered in the Commonwealth of Pennsylvania to lay out the Work and verify its accuracy throughout construction.
- 3.4 The Contractor shall verify the figures and dimensions shown in the Contract Documents, Shop Drawings, data and any other related material not less than fifteen (15) days before the start of related portions of the Work. If a discrepancy is noted between the figures shown in the Contract Documents, any other identified material, and the Contractor's own verification, the discrepancy shall be promptly brought to the attention of the Engineer in accordance with Section 00700, Article 2.
- 3.5 The Contractor shall verify with all utility companies and providers the exact location of all utility facilities and lines within the Worksite and shall clearly identify and properly protect such facilities at Contractor's sole expense.

ARTICLE 4 – INSPECTION, ACCEPTANCE OF FINAL INSPECTION AND CLEAN-UP

- 4.1 When the Contractor determines that the Project is complete, it shall notify the Engineer accordingly in writing and request that the Engineer schedule a Pre-Final Inspection with the Engineer, Authority and other required attendees such as municipalities, railroads, utilities or other agencies. During the Pre-Final Inspection, the Engineer will compile a punchlist of work or conditions to be completed or corrected by the Contractor and shall provide the punchlist to the Contractor. When the Contractor determines that the punchlist work is completed, it shall notify the Engineer accordingly in writing. A verification that punchlist items have been completed and no other work or conditions are identified for completion or correction shall be performed by the Engineer. After the verification of the completion of the punchlist by the Engineer, the Engineer will schedule a Final Inspection with the Contractor, the Engineer, Authority, and any other required attendees.
- 4.2 Prior to Final Inspection, Contractor shall remove all construction equipment and surplus materials from the Worksite and shall leave the Worksite in a broom-clean condition.
- 4.3 When, in the judgment of the Engineer, all of the Work has been completed in compliance with the Contract Documents, with the exception of the contractual

administrative demobilization work set forth in Article 5 of this Section, the Engineer will recommend to Authority that the Final Inspection be accepted. Upon approval of the Engineer's recommendation, Authority will issue a Certificate of Acceptance of Final Inspection to the Contractor.

- A. The interim milestones as defined in Section 00500, Article 2.6.A.1 will be subject to Conditional Acceptance.

ARTICLE 5 – DEMOBILIZATION

- 5.1 The following list of items collectively constitute the contractual administrative demobilization work:
 - A. General release;
 - B. Surety concurrence in final payment (both labor and material);
 - C. Release of all claims and liens against Authority and the Engineer, and Stadium Authority of the City of Pittsburgh arising by virtue of the Contract;
 - D. Project Record Documents;
 - E. Catalogs and brochures;
 - F. Operations and Maintenance Manuals, including instruction data;
 - G. Spare parts catalogs and/or lists;
 - H. Manufacturer's and Supplier's warranties and guarantees;
 - I. Maintenance Bond;
 - J. Wage rate certification;
 - K. Resolution of final quantities;
 - L. Identification of agent to accept service;
 - M. Final Pay Estimate;
 - N. Third Party Maintenance Bonds; and
 - O. Updated Maintenance Logs.
- 5.2 Unless explicitly identified otherwise, the Contractor shall complete and submit to Authority the above listed items within thirty (30) days of the issuance of the Certificate of Acceptance of Final Inspection. Demobilization shall not be considered complete until all of the above items which comprise the contractual administrative demobilization work are completed to the satisfaction of Authority.

ARTICLE 6 – ACCEPTANCE CERTIFICATE

- 6.1 Upon approval of a final pay estimate, pursuant to Section 01200, Article 5, and after satisfactory completion of all of the contractual administrative demobilization work, pursuant to Section 01700, Article 5, Authority will issue an Acceptance Certificate. The Acceptance Certificate shall certify that all work on the Contract has been completed as of the date of the Acceptance Certificate, subject to any guaranty or warranty, expressed or implied, provided by the Contractor or pursuant to the Contract Documents. The issuance by Authority of the Acceptance Certificate shall not be construed to be acceptance by Authority of

any defective work, improper materials or work not otherwise in conformance with Contract Documents. Authority will transmit copies of the Acceptance Certificate to the Contractor, Surety and other appropriate parties.

END OF SECTION

North Shore Connector

Port Authority of Allegheny County

North Shore Connector
NSC-009 Train Systems (System Wide)

Appendix A

Zero Tolerance Controlled Substance Use
and Alcohol Misuse Policy
(SAMPLE)

Company
Street
City, State, Zip

**ZERO TOLERANCE
CONTROLLED SUBSTANCES USE
AND ALCOHOL MISUSE
POLICY**

**49 CFR (DOT/FTA)
Part 40 and Part 655**

Revised 6/06

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1. SCOPE

It is the intent of Company to implement a zero tolerance drug and alcohol-testing program in compliance with the United States Department of Transportation, Federal Transit Administration Regulations. This program is designed to help prevent accidents, injuries, and fatalities resulting from the misuse of alcohol and the use of prohibited drugs by employees or covered employees who perform safety-sensitive functions.

The Omnibus Transportation Employee Testing Act of 1991 mandated testing procedural requirements for each operating administration of the Department of Transportation. The US DOT implemented those testing procedures by developing regulations under 49 CFR, Part 40, "Procedures for Transportation Workplace Drug and Alcohol Testing Programs." In addition, the Federal Transit Administration (FTA) created its own regulations under 49 CFR, Part 655, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations." Part 655 requires employers, and contractors of those employers, receiving financial assistance from the FTA, or through a regulated FTA recipient, to implement a drug and alcohol-testing program.

As used in this policy, any further reference to "employer" or "company" shall mean Company. Each reference to an "applicant", "employee", or "contractor" shall mean an employee of, or independent contractor for Company.

Participation in this drug and alcohol-testing program is a required condition of employment. This program also requires an employee to release, and the company to obtain, all mandatory information regarding prior employment information, and drug and alcohol program participation and testing results for the prior three years.

NOTE: If the employee has not violated the company's drug or alcohol prohibitions, but would like more information or assistance related to drug or alcohol issues, he/she may contact the company Designated Employer Representative.

2. APPLICABILITY

The FTA Regulations, Part 655 applies to covered employees of each recipient and sub-recipient, or covered employees of any contractor of a recipient or sub-recipient receiving Federal Assistance under 49 USC and 23 USC.

A covered employee is a person, including an applicant, transferee, and certain volunteers who perform or will perform a safety-sensitive function, as defined in Part 655 and this policy for an entity subject to Part 655.

Safety-sensitive functions performed by covered employees include:

- ◆ Operating a revenue service vehicle, including when not in revenue service;
- ◆ Operating a non-revenue service vehicle, when required to be operated by a holder of a Commercial Driver's License;
- ◆ Controlling dispatch or movement of a revenue service vehicle;
- ◆ Maintaining (including repairs, overhaul and rebuilding) a revenue service vehicle or equipment used in revenue service; or
- ◆ Carrying a firearm for security purposes.

3. DEFINITIONS/ABBREVIATIONS

The following definitions and/or abbreviations are taken from 49 CFR, Parts 40, 382, 383 and 655.

Adulterated Specimen

A specimen that contains a substance that is not expected to be present in human urine, or contains a substance expected to be present but is at a concentration so high that it is not consistent with human urine.

Accident

Means an occurrence associated with the operation of a vehicle, if as a result:

- ◆ an individual dies; or
- ◆ an individual suffers bodily injury and immediately receives medical treatment away from the scene of the accident; or
- ◆ with respect to an occurrence in which the mass transit vehicle involved is a bus, electric bus, van, or automobile, one or more vehicle (including non-FTA funded vehicles) incurs disabling damage as a result of the occurrence and such vehicle or vehicles are transported away from the scene by a tow truck or other vehicle; or
- ◆ with respect to an occurrence in which the mass transit vehicle involved is a rail car, trolley car, trolley bus, or vessel, the mass transit vehicle is removed from operation.

Air Blank

In evidential breath testing devices (EBTs) using gas chromatography technology, a reading of the device's internal standard. In all other EBTs, a reading of ambient air containing no alcohol.

Alcohol

Intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohols including methyl and isopropyl alcohol.

Alcohol Concentration

Alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath) as indicated by a breath test under this part.

Alcohol Confirmation Test

A subsequent test using an EBT, following a screening test with a result of 0.02 or greater, that provides quantitative data about the alcohol concentration.

Alcohol Screening Device (ASD)

Is a breath or saliva device, other than an EBT, that is approved by the National Highway Traffic Safety Administration (NHTSA) and placed on a conforming products list (CPL) for such devices.

Alcohol Screening Test

An analytic procedure to determine whether an employee may have a prohibited concentration of alcohol in a breath or saliva specimen.

Alcohol Use

The drinking or swallowing of any beverage, liquid mixture, or preparation, (including any medication), containing alcohol.

Breath Alcohol Technician (BAT)

A person who instructs and assists individuals in the alcohol testing process and operates an evidential breath-testing device (EBT).

Cancelled Test

A drug or alcohol test that has a problem identified that cannot be or has not been corrected, or which Part 40 otherwise requires to be cancelled. A cancelled test is neither a positive nor a negative test.

CDL

A Commercial Driver's License as defined in 49 CFR, Part 383, Federal Motor Carrier Safety Regulations.

Chain of Custody

The procedure used to document the handling of the urine specimen from the time the employee gives the specimen to the collector until the specimen is destroyed. The procedure uses the Federal Drug Testing Custody and Control Form (CCF).

CMV

A Commercial Motor Vehicle as defined in 49 CFR, §383.5 Federal Motor Carrier Safety Regulations including:

- ◆ Has a gross vehicle weight rating or combination gross vehicle weight rating of 26,001 lbs., or more; or
- ◆ Is designed to transport 16, or more passengers, including the driver; or
- ◆ Is of any size and is used in the transportation of hazardous materials, identified under the Hazardous Materials Transportation Act and which requires the vehicle to be placarded under the Hazardous Materials Regulations (49 CFR, Part 172, Subpart F).

Confirmation Drug Test

A second analytical procedure performed on a urine specimen to identify and quantify the presence of a specific drug or drug metabolite.

Confirmation Validity Test

A second test performed on a urine specimen to further support a validity test result.

Contractor

Means a person or organization that provides a safety-sensitive service for a recipient, sub-recipient, employer or operator consistent with a specific understanding or arrangement. The understanding can be a written contract or an informal arrangement that reflects an ongoing relationship between the parties.

Covered Employee

Means a person, including an applicant or transferee, who performs or will perform a safety-sensitive function for an entity subject to Part 655. A volunteer is a covered employee if:

- ◆ The volunteer is required to hold a commercial driver's license to operate the vehicle; or
- ◆ The volunteer performs a safety-sensitive function for an entity subject to Part 655 and receives remuneration in excess of his or her actual expenses incurred while engaged in the volunteer activity.

Designated Employer Representative (DER)

An employee authorized by the employer to take immediate action (s) to remove employees from safety-sensitive duties or cause employees to be removed from these covered duties and to make required decisions in the testing and evaluation processes. The DER also receives test results and other communications for the employer, consistent with the requirements of Part 40. Service agents cannot act as DERs.

Dilute specimen

A specimen with creatinine and specific gravity values that is lower than expected for human urine.

Disabling Damage

Means damage that precludes departure of a motor vehicle from the scene of an accident in its usual manner in daylight after simple repairs.

DOT

United States Department of Transportation including the operating administration Federal Transit Administration (FTA)

Driver

Any person who operates a CMV requiring a CDL including:

- ◆ Full time, regularly employed drivers
- ◆ Casual, intermittent or occasional drivers
- ◆ Leased drivers, independent, owner-operator contractors who are either directly employed by or under lease to an employer or who operates a CMV at the direction of or with the consent of an employer.

Drugs

In the regulation, the term "drugs" and "controlled substances" are interchangeable and have the same meaning. The company-testing program will test all DOT specimens for the following drugs:

- ◆ Amphetamines
- ◆ Cocaine
- ◆ Marijuana
- ◆ Opiates
- ◆ Phencyclidine (PCP)

Employee

Any person who is designated in a DOT agency regulation as subject to drug testing and/or alcohol testing. The term includes individuals currently performing safety-sensitive functions designated in DOT agency regulations and applicants for employment subject to pre-employment testing. For purposes of drug testing under Part 40, the term "employee" has the same meaning as the term "donor" as found on CCF and related guidance materials produced by the Department of Health and Human Services.

Employer

Means a recipient or other entity that provides mass transportation service or which performs a safety-sensitive function for such recipient or other entity. This term includes sub-recipients, operators and contractors.

Evidential Breath Testing Device (EBT)

A device approved by National Highway Traffic Safety Administration (NHTSA) for the evidential testing of breath at the 0.02 and 0.04 alcohol concentrations, placed on NHTSA's Conforming Products List (CPL) for "Evidential Breath Measurement Devices" and identified on the CPL as conforming with the model specifications available from NHTSA's Traffic Safety Program.

Initial Drug Test

The test used to differentiate a negative specimen from one that requires further testing for drugs or drug metabolites.

Initial Validity Test

The first test used to determine if a specimen is adulterated, diluted, or substituted.

Invalid Drug Test

The result of a drug test for a urine specimen that contains an unidentified adulterant or an unidentified interfering substance, has abnormal physical characteristics, or has an endogenous substance at an abnormal concentration that prevents the laboratory from completing or obtaining a valid drug test result.

HHS

Is the Department of Health and Human Services or any designee of the Secretary, Department of Health and Human Services

Medical Review Officer (MRO)

A person who is a licensed physician (medical doctor or doctor of osteopathy) and who is responsible for receiving and reviewing laboratory results generated by an employer's drug testing program and evaluating medical explanations for certain drug test results.

Screening Test Technician (STT)

A person who instructs and assists individuals in the alcohol testing process and operates an alcohol screening device (ASD).

Substance Abuse Professional (SAP)

A person who evaluates employees who have violated a DOT drug and alcohol regulation and makes recommendations concerning education, treatment, follow-up testing, and aftercare.

Substitute Specimen

Is a specimen with creatinine and specific gravity values that are so diminished that they are not consistent with human urine.

Verified Test

Is a drug test or validity testing result from a HHS-certified laboratory that has undergone review and final determination by the MRO

4. TYPES OF TESTING

A. Pre-employment Testing

Prior to the first time a covered employee performs safety-sensitive functions for the company, the employee shall submit to a pre-employment test for controlled substances. Any offer of a safety-sensitive position is contingent upon the driver submitting to this test and achieving a verified negative result.

An applicant or employee transferring into a safety-sensitive function must be aware that if he/she has any result other than a verified "negative" for a pre-employment drug test, the individual is subject to all of the return-to-duty requirements of 49 CFR, Part 40. The individual will not be able to perform safety-sensitive functions for the company until those requirements have been met.

When a covered employee or applicant has not performed a safety-sensitive function for 90 consecutive calendar days regardless of the reason, and the employee has not been in the company's random selection pool during that time, the company shall ensure that the employee takes a pre-employment drug test with a verified negative result.

B. Post-Accident Testing

Fatal Accidents –

All surviving covered employees operating the mass transit vehicle at the time of the accident will be drug and alcohol tested. If the operator were tested under the fatal accident testing requirements of the Federal Motor Carrier Safety Administration (FMCSA), 49 CFR, §382.303, testing under Part 655 would not be required. If it is determined any other covered employee's performance could have contributed to the accident that covered employee may be drug and alcohol tested also.

Nonfatal Accidents –

All covered employees operating the mass transit vehicle at the time of the accident will be drug and alcohol tested unless the employer determines the employee's performance can be discounted as a contributing factor to the accident. If it is determined any other covered employee's performance could have contributed to the accident that covered employee may be drug and alcohol tested also.

Every reasonable attempt will be made to conduct testing as soon as practicable following an accident. If an alcohol test is not administered within the first two hours following the accident the company will prepare and maintain a record stating the reasons the alcohol test was not promptly administered. If alcohol testing is not administered within 8 hours and drug testing is not administered within 32 hours following the accident, all attempts at testing will be curtailed.

If a covered employee fails to remain readily available or leaves the scene of the accident, prior to required testing without notifying the employer or the employer representative of his or her location, the employee may be deemed to have refused to submit to testing. Required testing shall not delay the administration of necessary medical attention, or seeking of necessary medical attention for injuries following an accident.

C. Random Testing

Random testing will be conducted on an unannounced and unpredictable basis throughout the year. The random sampling will be conducted using an approved random number system based upon a unique identification number (social security number or employee ID number) assigned to each safety-sensitive employee. The random testing rates for controlled substance will be at least 50% of safety-sensitive positions per annum. The random testing rates for alcohol will be at least 10% of safety-sensitive positions per annum.

The minimum number of random tests for controlled substances and alcohol, per selection period, will be calculated as follows: Multiply the number of safety-sensitive employees per selection period by the annual random percentage rates, and divide by the number of selection periods. All fractions of numbers shall be rounded up. Only completed tests can be used to meet annual random rates.

Each randomly selected employee shall proceed to the test site immediately upon notification. Failure to appear at the collection/testing site within a reasonable period of time given the distance traveled may be deemed as failure to cooperate with the testing process and the collection/test being declared as a "refusal to test." If the randomly selected donor is delayed while reporting to the collection/testing site for any reason, he/she shall immediately advise his/her supervisor or the company designated DER.

Random alcohol testing will only be performed while the covered employee is performing safety-sensitive functions; just before the employee is to perform safety-sensitive functions; or just after the employee has ceased performing such functions. Random drug testing may be performed anytime the employee is on duty.

The random rates for testing are re-evaluated each year by the Administrator of the FTA and may be subject to change.

D. Reasonable Suspicion Testing

The company shall require an employee to submit to a controlled substance and/or alcohol test when the employer has reasonable suspicion to believe the employee has violated the prohibitions of 49 CFR, Part 655, Subparts C & D, and/or the prohibited conduct identified in Section 7 of this policy. The company's determination that reasonable suspicion exists to require an employee to undergo testing must be based upon specific, contemporaneous, articulable observations concerning the appearance, behavior, and speech or body odors of the employee. The observations may include indications of the chronic and withdrawal effects of controlled substances.

The observations, required for reasonable suspicion testing, shall be made by a supervisor or company official who is trained in accordance with 49 CFR, §655.14. The person who makes the determination that reasonable suspicion exists for alcohol testing shall not conduct the test. Alcohol testing is authorized only if the observations are made during, just proceeding, or just after the period the driver is performing safety-sensitive functions. The alcohol test should be administered within 2 (two) hours following the reasonable suspicion determination and in no event later than 8 (eight) hours.

The company shall prepare a written record of the observations leading to a controlled substance and/or alcohol reasonable suspicion test. The record shall be signed by the supervisor or company

official who made the observations, within 24 hours of the observed behavior or before the results of the controlled substance test are released, whichever is earlier.

E. Return-to-Duty Testing

Before the company can consider accepting an application from any person who has tested positive for drug (s) or alcohol, that person must first provide written proof he/she has completed the referral, evaluation and treatment process of 49 CFR, Part 40, Subpart O and has satisfactorily completed return-to-duty testing. The results of the return-to-duty testing must be an MRO-verified negative drug test and a confirmed alcohol test with an alcohol concentration of less than 0.02 AC.

F. Follow-up Testing

Before the company can consider accepting an application from any person who has tested positive for drug (s) or alcohol, that person must first provide written proof he/she has completed the referral, evaluation and treatment process of 49 CFR, Part 40, Subpart O and has completed the return-to-duty testing process as noted in Section 4-E of this policy.

In addition, the person must provide written proof that he/she has successfully completed all follow-up testing required by the SAP. The number and frequency of follow-up tests will be at the direction of the SAP, but will consist of at least 6 (six) tests in the first 12 (twelve) months following the person's return-to-duty testing. Follow-up testing shall not exceed 60 (sixty) months from the date of the person's return-to-duty testing.

5. TESTING PROCEDURE INTEGRITY

A. Controlled Substance

The employer, and any service agents utilized in connection with controlled substances testing, will comply with all DOT regulations intended to ensure the privacy, as well as the fair and respectful treatment, of the individuals being tested, the security of the specimens, and the accuracy and confidentiality of the test results.

All individuals submitting to required testing must be identified via photo identification or by an authorized employer representative to ensure that the individual being tested is the correct person. A donor's social security number or employee identification number will be used to track the specimen through the testing process.

DOT approved procedures, including the Federal Custody and Control Form and split-specimen method of collection, have been established to safeguard the integrity of the collection and testing process. Donors shall be in direct visual contact with their urine specimen container/bottles until the collection process is complete. Tamper-evident seals on the specimen bottles, initialed and dated by the donor, along with the appropriate chain of custody paperwork provide additional security in the collection/testing procedure.

The controlled substances test analysis will be conducted only at laboratories that are certified by the Department of Health and Human Service (HHS).

A copy of the Federal Custody and Control Form (CCF) will be provided to the donor.

B. Alcohol

Only trained individuals, using equipment listed on NHTSA's conforming products list, shall conduct alcohol testing. An initial alcohol-screening test, conducted on an approved screening device, measures the alcoholic content (AC) of the employee. This result will be printed directly on the alcohol testing form (ATF), or affixed to the ATF using tamper-evident tape.

If the screening test result is 0.02 AC or greater, a second or confirmation test is performed by a BAT using an approved EBT device and the results of the confirmation test becomes the result of record. The confirmation test must be completed after 15 minutes, but within 30 minutes of the screening test. The BAT must conduct an air-blank test to assure the EBT is not negatively affected by surrounding air conditions. This result will be printed directly on the alcohol testing form (ATF), or affixed to the ATF using tamper-evident tape. The results of the confirmation test will become the test of record.

A copy of the Alcohol Testing Form (ATF) will be provided to the donor.

6. RELEASE OF CONFIDENTIAL INFORMATION

All controlled substances and alcohol testing results as well as related medical records and information must be kept confidential. Each employee has a right to have a copy of his/her test results and associated reports upon written request. Employers, upon signed release by the donor, may release drug and alcohol testing information to prospective employers.

Employers may release information pertaining to an employee's drug and alcohol test results without the employee's consent to local, state, federal authorities conducting official investigations or in certain legal proceedings. These proceedings include a criminal or civil action resulting from an employee's performance of safety-sensitive duties, in which a court of competent jurisdiction determines that the drug or alcohol test information sought is relevant to the case.

When an employee speaks to the MRO during the verification process, it is important to know he/she must cooperate with the MRO during the confidential interview. The employee is to provide any information helpful to the MRO in the verification process when he/she discusses a confirmed positive, adulterated, substituted or invalid test.

The MRO is required to release any confidential drug test information as well as medical information affecting the employee's performance of safety-sensitive functions to third parties, including the employer. This information can be released without the consent of the employee.

Before any employee or applicant can perform safety-sensitive functions, the employer, after obtaining the employee/applicant's written consent, will first check and verify the employee/applicant's participation in any DOT-regulated drug and alcohol program during the preceding three years. The employer will verify the information identified in 49 CFR, §40.25(b). Failure of any employee/applicant to provide written consent to release the identified information will prohibit that person from performing safety-sensitive work.

7. PROHIBITED CONDUCT

No employer having actual knowledge that an employee has violated these prohibitions shall permit the employee to perform or continue to perform safety-sensitive functions.

A. On Duty Use

No employee shall use alcohol while performing safety-sensitive functions. If an employer has actual knowledge that an employee is using alcohol while performing safety-sensitive functions, the employee shall be removed from safety-sensitive functions immediately.

B. Pre-Duty Use

No employee shall perform safety-sensitive functions within four hours after using alcohol. If an employer has actual knowledge that an employee has used alcohol within 4 hours of performing safety-sensitive functions, the employee shall be removed from safety-sensitive functions immediately.

On-call employees are prohibited from consuming alcohol during that time they are on-call. If the on-call employee is called to report for duty, he/she will be given the opportunity to acknowledge the use of alcohol and is unable to perform safety-sensitive functions.

If the on-call employee acknowledges the use of alcohol but claims ability to safely perform safety-sensitive functions, he/she will be alcohol tested and must have a confirmed test result of < 0.02%.

C. Use Following an Accident

No employee required to take a post-accident alcohol test shall use alcohol for eight hours following the accident, or until he/she undergoes a post-accident alcohol test, whichever occurs first.

D. Refusal to Submit to Required Testing

No employee shall refuse to submit to alcohol or controlled substances testing required under program and described under sections 8-A and 8-B of this policy. If an employer has actual knowledge that an employee has refused to submit to required testing, the employee shall be removed from safety-sensitive functions immediately.

E. Controlled Substances Use

No employee shall report for duty or remain on duty requiring the performance of safety-sensitive functions when the employee uses any controlled substance, except when the use is pursuant to the instructions of a licensed medical practitioner who has advised the employee that the prescribed substance or drug will not adversely affect the employee's ability to perform safety-sensitive functions. If an employer has actual knowledge that an employee has used illegal drugs, the employee shall be removed from safety-sensitive functions immediately.

An employer may require an employee to inform the employer of any therapeutic drug use.

F. Other Alcohol Related Conduct

An employee having an alcohol concentration of $\geq 0.02\%$, but $< 0.04\%$, will be removed immediately from safety-sensitive functions until the start of the employee's next scheduled shift, which will be no less than 8 hours following the test.

No further action will be taken under Part 655 against any employee based solely on DOT test results showing an alcohol concentration less than 0.04%.

8. REFUSAL-TO-SUBMIT TO TESTING

It is important that an employee knows and understands what constitutes a refusal-to-submit since he/she could inadvertently put himself/herself in a position that is deemed a refusal-to-submit.

An individual with a refusal-to-submit is subject to the same consequences as an individual who tests positive for drugs. The individual cannot perform safety-sensitive functions for the employer or any other employer until the requirements of the return-to-duty process have been met.

The definition of a refusal-to-submit means a specific action taken by an employee to interfere with the controlled substances and/or alcohol testing process required under Parts 655 and 40. The following criteria constitute a refusal to submit to testing under these regulations.

A. Controlled Substances Testing

When the employee:

- ◆ Fails to appear for any test (except pre-employment test) within a reasonable time, as determined by the employer, consistent with applicable DOT regulations, after being directed to do so by the employer. This includes the failure of an employee to appear for a test when called by a C/TPA.
- ◆ Fails to remain at the testing site until the testing process is complete. Exception: An applicant who leaves the testing site before the testing process commences for a pre-employment test is not deemed to have refused to test.
- ◆ Fails to provide a urine specimen for any drug test required by Part 655 or DOT regulations. Exception: An applicant who does not provide a urine specimen because he/she left the testing site before the testing process began for a pre-employment test is not deemed to have refused to test.
- ◆ In the case of a directly observed or monitored collection for a drug test, fails to permit the observation or monitoring of the employee's provision of a specimen.
- ◆ Fails to provide a sufficient quantity of urine within the time limit under then-current regulations and it has been determined, through a required medical evaluation that there was no adequate medical explanation for the failure.
- ◆ Fails or declines to take an additional drug test the employer, or collector has directed the employee to take.
- ◆ Fails to undergo a medical examination or evaluation, as directed by the MRO as part of the verification process, or as directed by the DAPM/DER as part of the "shy bladder" procedures. **NOTE:** In the case of a pre-employment drug test, the employee is deemed to have refused to test on this basis only if the pre-employment test is conducted following a contingent offer of employment.
- ◆ Fails to cooperate with any part of the testing process (e.g. refuses to display the content of his/her pockets when so directed by the collector, behaves in a confrontational way that disrupts the collection process, etc.).
- ◆ Fails to remain readily available for post-accident testing or fails to report, without valid reason, that he/she was in a post-accident situation that required testing.
- ◆ If the MRO reports to the employee that he/she has a verified adulterated or substituted test result.

B. Alcohol Testing

When the employee:

- ◆ Fails to appear for any test (except pre-employment test) within a reasonable time, as determined by the employer, consistent with applicable DOT regulations, after being directed to do so by the employer. This includes the failure of an employee to appear for a test when called by a C/TPA.
- ◆ Fails to remain at the testing site until the testing process is complete. Exception: An applicant who leaves the testing site before the testing process commences for a pre-employment test is not deemed to have refused to test.
- ◆ Fails to provide an adequate amount of saliva or breath specimen as required by Part 655 or DOT regulations. Exception: An applicant who does not provide a saliva or breath specimen because he/she left the testing site before the testing process began for a pre-employment test is not deemed to have refused to test.
- ◆ Fails to provide a sufficient breath specimen and a physician has determined through a required medical evaluation that there was no adequate medical explanation for the failure.
- ◆ Fails to undergo a medical examination or evaluation, as directed by the employer as part of the insufficient breath procedures.
- ◆ Fails to sign the certification at Step 2 of the alcohol testing form (ATF).
- ◆ Fail to cooperate with any part of the testing process.

C. Shy Bladder and/or Shy Lung

If the employee is unable to provide a sufficient amount of urine (45 mL) within three hours of the first unsuccessful attempt to provide the specimen, the company DER shall direct the employee to obtain an evaluation from a licensed physician as per §40.193. If it is determined there is no valid medical explanation for the "shy bladder" condition, it shall be declared a refusal to test.

If the employee is unable to provide a sufficient amount of saliva to activate the testing device and refuses to make additional attempts, it shall be declared a refusal to test.

If the employee is unable to provide a sufficient amount of breath to permit a valid breath test, the company DER shall direct the employee to obtain an evaluation from a licensed physician as per §40.265. If it is determined there is no valid medical explanation for the "shy-lung" condition, it shall be declared a refusal to test.

D. Dilute and Substitute specimens

A urine specimen may be considered dilute when the testing lab reports, and is verified by the MRO, the creatinine concentration is ≥ 2 mg/dL but < 20 mg/dL.

A urine specimen may be considered substitute when the testing lab reports, and is verified by the MRO, the creatinine concentration is < 2 mg/dL and the specific gravity is ≤ 1.0010 or ≥ 1.0200 .

If the MRO reports that a positive drug test was dilute or the test results were substitute or adulterated, it will be declared a verified positive test with consequences noted in Section 9 of this policy. If the MRO reports that a negative test was dilute, the employer shall:

- ◆ At the direction of the MRO require the employee to undergo an immediate recollection under direct observation if the creatinine concentration is ≥ 2 mg/dL but ≤ 5 mg/dL. The result of the test under immediate recollection shall be the test of record.

If the MRO reports that a negative test was dilute with a creatinine concentration > 5 mg/dL the employer may direct the employee to take another test immediately. Such collection will not be under direct observation, unless warranted by 49 CFR, §40.67 (b) & (c).

If the laboratory has reported the creatinine concentration for a substitute specimen as less than 2 mg/dL or "creatinine not detected," the MRO shall follow verification process in §40.145 and report the results accordingly. If the MRO reports the test as adulterated or substituted, the test will be treated as a refusal to test.

9. DOT/FTA CONSEQUENCES

There are specific consequences for violating the prohibitions of 49 CFR, Parts 40 and 655 or the alcohol or controlled substances rules of another DOT agency. The following listing includes required components of the return-to-duty process as required under 49 CFR, Part 40, Subpart O.

Once an individual has a verified positive controlled substance test, a confirmed alcohol test of ≥ 0.04 AC, or violated any drug and alcohol testing prohibition the safety-sensitive employee or applicant will be immediately removed from safety-sensitive duties. The employee/applicant will be provided with a list of names, addresses and telephone numbers of Substance Abuse Professionals and counseling and treatment programs readily available to the employee/applicant.

Before the employee/applicant can perform safety-sensitive again, he/she must complete the evaluation, treatment and return-to-duty process of 49 CFR, Part 40, Subpart O.

10. EMPLOYER DISCIPLINARY ACTION

A. First Violation

An employee who tests positive for drugs and/or positive ($\geq 0.04\%$) for alcohol, or otherwise violates a drug and alcohol prohibition will be subject to disciplinary action up to and including termination. The employee/applicant will be provided the necessary information identified in Section 9 of this policy.

B. Other Company Requirements

An employee required to take a reasonable suspicion controlled substances test, or any alcohol test with a result of 0.02 AC or greater, will be required to accept company-arranged transportation, or arrange for independent transportation home, whichever is acceptable to the company. Refusal to accept independent transportation will result in disciplinary actions, up to and including immediate termination.

An employee is required to fully cooperate with the MRO. Failure to cooperate fully will result in disciplinary actions up to and including termination.

An employee who has been convicted of a felony involving the possession of, or a transaction in, illegal controlled substances (regardless of where the unlawful activities took place) is subject to disciplinary action, up to and including, termination.

The company requires any employee who has had an occurrence of any felony conviction for possession of, or a transaction in, illegal controlled substances to notify employer of such occurrence within 24 hours.

All employees using any legally prescribed drug, pursuant to the instructions of a licensed medical practitioner, or over-the-counter medication shall disclose the identity of any such drug or OTC medication and the nature of its use prior to performing safety-sensitive functions for the first time following initial use. The company shall reserve the right to prohibit any employee using such drug(s) from performing safety-sensitive functions until treatment is complete.

11. EMPLOYER/EMPLOYEE FINANCIAL RESPONSIBILITIES

Listed are services that if availed by the employee, he/she may be responsible for the associated fees incurred. The employee would also be financially affected if he/she were on an unpaid leave of absence.

A. Cost of Medical Examination for "Shy Bladder" or Shy Lung"

Employee responsible for cost – If an employee is required to have a medical examination for a shy bladder or shy lung situation, this is at his/her expense. The employee is to pay the licensed medical practitioner directly, if it is not otherwise covered by employee's health care coverage.

If the medical examination provides a valid medical explanation for the shy bladder or shy lung, the employee will not be charged for this test fee and/or will be reimbursed back pay if he/she was on an unpaid leave of absence.

B. Cost of Split Specimen Test

Employer responsible for cost – The employer is responsible for bearing the cost of all drug and alcohol testing. If an employee, reported to have a verified positive controlled substances test result, or a refusal-to-test due to adulteration or substitution of a specimen, requests the split specimen to be conducted, the company will bear the initial expense of the split specimen testing.

The company may also, at its discretion require the employee to reimburse the company for any fees associated with this test (s).

If the split specimen test does not reconfirm the original positive test result, the adulterant was not found within the criteria, or the specimen was not consistent with the substitution criteria, the employee will not be charged for this test fee and/or will be reimbursed back pay if he/she was on an unpaid leave of absence.

12. SELF DECLARATION OF ALCOHOL MISUSE OR DRUG USE

Employees who admit to alcohol misuse or controlled substance use will not be subject to the referral, evaluation and treatment requirements of Part 40, provided that the admission is self-identified and made voluntarily under the following conditions:

- ◆ The employee cannot self-declare in order to avoid required testing.
- ◆ The employee must make the admission prior to performing any safety-sensitive function.
- ◆ The employee cannot perform safety-sensitive functions again until the employer is satisfied he/she has successfully completed education or treatment requirements set forth by an approved substance abuse professional.

If the employee self-identifies in accordance with the above provisions the employer must:

- ◆ Not take any adverse action against the employee within the parameters of the DOT/FTA testing program or this policy;
- ◆ Provide the employee sufficient opportunity to seek evaluation, education or treatment for the drug and/or alcohol problem;
- ◆ Permit the employee to return to a safety-sensitive function upon the successfully completion of education or treatment requirements set forth by a designated substance abuse professional.
- ◆ Require the employee to undergo a return to duty alcohol test indicating a result of < 0.02 and/or;
- ◆ Require the employee to undergo a return to duty drug test indicating a verified negative result; and
- ◆ May incorporate employee monitoring and include non-DOT follow-up testing.

APPENDIX A

DRUG AND ALCOHOL PROGRAM PERSONNEL

A. Drug and Alcohol Program Manager (DAPM)

Name:

Address

Telephone No.

B. Designated Employer Representative (DER)

Name:

Address

Telephone No.

C. Drug Testing Laboratory

Name:

Address

Telephone No.

D. Collection Site

Name:

Address

Telephone No.

E. Medical Review Officer (MRO)

Name:

Address

Telephone No.

F. Substance Abuse Professional

Name:

Address

Telephone number

APPENDIX B

EFFECTS OF DRUGS AND ALCOHOL ON THE BODY

PRESCRIBED AND OTC MEDICATIONS

Drivers may not be on-duty within 4 (four) hours of the use of any prescribed or non-prescription, medication containing alcohol. Drivers also may not be on-duty while taking any prescribed narcotic medication unless the prescribing physician has advised the driver that the substance will not affect the driver's ability to safely operate a commercial motor vehicle.

MARIJUANA

Also known as grass, pot, weed, gold, joint, hemp, reefer. Active chemical – THC

Marijuana is one of the most misunderstood and underestimated drugs of abuse. It is used for its mildly tranquilizing, mood and perception altering effects. It alters the brain's interpretation of incoming messages but does not depress the reactions of the central nervous system. It alters a person's sense of time and reduces the ability to perform tasks requiring concentration, swift reflexes, and coordination. The drug has a significant effect on a user's judgement, caution, and sensory/motor abilities.

Signs and Symptoms of Use:

- ◆ Reddened eyes
- ◆ Slowed speech
- ◆ Distinctive, pungent odor on clothing (aroma of alfalfa combined with incense)
- ◆ Lackadaisical "I don't care" attitude
- ◆ Chronic fatigue and lack of motivation
- ◆ Irritating cough
- ◆ Chronic sore throat

Other Effects:

- ◆ Restlessness
- ◆ Inability to concentrate
- ◆ Increase pulse rate and blood pressure
- ◆ Rapidly changing emotions and erratic behavior
- ◆ Impaired memory and attention
- ◆ Hallucinations, fantasies and paranoia
- ◆ Decrease in/temporary loss of fertility
- ◆ Distorted perception of time
- ◆ Apathy
- ◆ Delayed decision making
- ◆ Aggressive urges
- ◆ Anxiety
- ◆ Confusion

Health Effects:

- ◆ Emphysema-like conditions
- ◆ Cancer
- ◆ Heart conditions
- ◆ Respiratory tract and sinus infections caused by the fungus Aspergillus
- ◆ Lowered immune system response
- ◆ Aggravation of ulcers
- ◆ Brain damage

How Marijuana Impairs Functions Needed for Driving:

Marijuana impairs driving ability for at least 4-6 hours after smoking one "joint" (cigarette); it impairs signal detection (ability to detect a brief flash of light); it impairs tracking (ability to follow moving objects with the eyes); it impairs visual distance measurements; and it chemically alters the brain and gross motor functioning of the body, having a direct impact on the complex system of critical thinking skills and reflexes that allow people to drive safely and conscientiously.

Facts:

- ◆ Marijuana remains in the body for 28 days. This is in contrast to alcohol, which dissipates in a matter of hours.
- ◆ A 500% to 800% increase in THC potency in the past several years makes smoking three to five joints (cigarettes) per week today the equivalent of 15-40 joints per week in 1978.
- ◆ Combining marijuana with alcohol or other depressant drugs can produce a multiplied effect, increasing the impairment caused by all substances.

COCAINE

A stimulant drug also known as coke or blow when it is inhaled (snorted), ingested or injected. Freebase cocaine, known as crack or rock, is smoked.

Cocaine is used medically as a local anesthetic. It is abused for its powerful physical and mental stimulant properties. The entire central nervous system is energized by cocaine. Heart rate and blood pressure are elevated. Muscles become more tense and the body burns more energy. The brain experiences and exhilaration caused by a large release of neurohormones associated with mood elevation.

Crack or rock cocaine gets its name from the popping sound heard when it is heated. The most dangerous effects of crack are that it can cause vomiting, rapid heartbeat, tremors, and convulsive movements. All of this muscle activity increases the demand for oxygen, which can result in a cocaine-induced heart attack. Since the heat-regulating center in the brain is also disrupted, dangerously high body temperatures can occur. With high doses, brain functioning, breathing and heartbeat are depressed – leading to death.

Signs and Symptoms of Use:

- ◆ Fatigue
- ◆ Anxiety
- ◆ Agitation
- ◆ Runny or irritated nose
- ◆ Difficulty in concentration
- ◆ Dilated pupils and visual impairment
- ◆ High blood pressure
- ◆ Heart palpitations and irregular heart rhythm
- ◆ Insomnia
- ◆ Profuse sweating and dry mouth

Other Effects:

- ◆ Impaired driving ability
- ◆ Hallucinations
- ◆ Talkativeness
- ◆ Restless, aggressive behavior
- ◆ Wide mood swings
- ◆ Increased physical activity
- ◆ Heightened, but momentary, feeling of confidence, strength and endurance
- ◆ Paranoia (can trigger mental disorders in users prone to mental instability)
- ◆ Repeated sniffing and snorting causes nasal membrane irritation & nosebleeds
- ◆ Compulsive behavior such as teeth grinding or repeated hand washing
- ◆ Craving for more cocaine

Health Effects:

- ◆ Accelerated pulse, blood pressure and respiration. May cause spasms of blood vessels in the brain and heart, leading to ruptured vessels that lead to heart attack and stroke.
- ◆ Regular use may upset the chemical balance of the brain, which may speed up the aging process by causing irreparable damage to critical nerve cells.
- ◆ Mental dependency on crack cocaine occurs within days (within several months when coke is snorted).
- ◆ Cocaine is extremely dangerous when taken with depressant drugs. Death due to overdose is rapid and the fatal effects of an overdose are usually not reversible by medical intervention.

How Cocaine Impairs Functions Needed for Driving:

Cocaine chemically alters the brain and gross motor functioning of the body, having a direct impact on the complex system of critical thinking skills and reflexes that allow people to drive safely and conscientiously.

Facts:

- ◆ The number of cocaine overdose deaths has tripled in the last four years.
- ◆ Treatment success rates are lower for cocaine than any other chemical dependencies.
- ◆ Cocaine causes the strongest mental dependency of any known drug. Strong psychological dependency can occur with one "hit" of crack.
- ◆ Many people think that because crack is smoked, it is safer than other forms of cocaine use. It is not. Crack cocaine is one of the most addictive substances known today. The crack "high" is reached in 4-6 seconds and lasts about 15 minutes.

AMPHETAMINES AND METHAMPHETAMINES

Stimulant drugs. Some common street names for amphetamines are speed, uppers, black beauties, bennies, wake-ups, and dexies.

Some common street names for methamphetamines are ice, crank, crystal, meth, 64 glass, cristy, go fast, zip, and in smokeable form "LA" (as in the city of Los Angeles).

Amphetamines and methamphetamines are drugs that stimulate the central nervous system and promote a feeling of alertness and an increase in speech and general physical activity. While amphetamines are usually sold in tablet form, methamphetamines are available as powder, and may be swallowed, snorted or injected.

Although they were widely prescribed at one time for weight reduction and mood elevation, the legal use of amphetamines is now limited to a very narrow range of medical conditions. In action, methamphetamines are nearly identical to amphetamines. It is abused for the physical sense of energy at lower doses and the mental exhilaration of higher doses. Even small, infrequent doses can produce toxic effects in some people.

Signs and Symptoms of Use:

- ◆ Hyper-excitability, restlessness, anxiety
- ◆ Dilated pupils
- ◆ Profuse sweating
- ◆ Rapid respiration
- ◆ Difficulty in focusing eyes
- ◆ Exaggerated reflexes, body tremors

Other Effects:

- ◆ Impaired driving ability
- ◆ Hallucinations
- ◆ Talkativeness
- ◆ Headaches/dizziness
- ◆ Confusion
- ◆ Panic
- ◆ Inability to concentrate
- ◆ Short-term insomnia
- ◆ Paranoid thoughts

Health Effects:

- ◆ Heartbeat disturbances or heart damage caused by severe constriction of capillary blood vessels
- ◆ Increased blood pressure
- ◆ Convulsions, coma
- ◆ Brain damage resulting in speech disturbances
- ◆ High doses may cause toxic psychosis resembling schizophrenia
- ◆ Long-term users often have acne-resembling measles, trouble with teeth, gums and nails, and dry dull hair.

How Amphetamines and Methamphetamines Impair Functions Needed for Driving:

They chemically alter the brain and gross motor functioning of the body, having a direct impact on the complex system of critical thinking skills and reflexes that allow people to drive safely and conscientiously.

Facts:

- ◆ People with a history of sustained low-dose use quite often become dependent and believe they need to take the drug to "get by." These users frequently taking amphetamines to avoid the "down" mood they experience when the "high" wears off.

OPiates

Narcotics, including heroin, morphine, codeine, and many synthetic drugs used to alleviate pain, depress body functions and reactions. In large doses, opiates cause a strong euphoric feeling.

Some common street names are: horse, morpho, China, M, brown sugar, Harry and dope.

Sometimes narcotics found in medicines are abused. This includes pain relievers containing opium and cough syrups containing codeine. Heroin is illegal and cannot even be obtained with a physician's prescription. Most medical problems associated with the use of opiates are caused by uncertain dosages, use of unsterile needles, contamination of the drug, or from combining a narcotic with other drugs.

Signs and Symptoms of Use:

- ◆ Mood changes
- ◆ Impaired mental function and alertness
- ◆ Impaired vision
- ◆ Constricted pupils
- ◆ Impaired coordination

Other Effects:

- ◆ Impaired driving ability
- ◆ Drowsiness followed by sleep
- ◆ Decreased physical activity
- ◆ Sleeplessness and drug craving
- ◆ Depression and apathy
- ◆ Constipation
- ◆ Nausea and vomiting

Health Effects:

- ◆ IV needle users have a high risk for contracting hepatitis and HIV due to the sharing of needles.
- ◆ Narcotics increase pain tolerance. As a result, people could more severely injure themselves and fail to seek medical attention due to a lack of pain sensitivity.
- ◆ The effects of narcotics are multiplied when used in combination with alcohol and other depressant drugs, causing an increased risk for overdose.

How Opiates Impair Functions Needed for Driving:

They chemically alter the brain and gross motor functioning of the body, having a direct impact on the complex system of critical thinking skills and reflexes that allow people to drive safely and conscientiously.

Facts:

- ◆ Heroin, also called "junk" or "smack," accounts for 90% of the narcotic abuse in the United States.

PHENCYCLIDINE (PCP)

PCP acts as both a depressant and a hallucinogen and sometimes as a stimulant.

Also called angel dust, rocket fuel, embalming fluid and killer weed.

PCP was developed as a surgical anesthetic in the late 1950s. Later, due to its unusual side effects in humans, it was restricted to use as a veterinary anesthetic and tranquilizer. Today it has no lawful use and is no longer legally manufactured. It is abused largely for its variety of mood-altering effects.

PCP scrambles the brain's internal stimuli and alters how users see and deal with their environment. Routine activities like driving and walking become very difficult.

A low dose produces sedation and euphoric mood changes. The mood can change rapidly from sedation to excitation and agitation. Increased doses produce an excited, confused state including any one of the following: muscle rigidity, loss of concentration and memory, visual disturbances, delirium, feelings of isolation, and convulsions.

Signs and Symptoms of Use:

- ◆ Impaired driving ability
- ◆ Impaired coordination
- ◆ Thick, slurred speech
- ◆ Severe confusion and agitation
- ◆ Muscle rigidity
- ◆ Profuse sweating

Other Effects:

- ◆ Loss of concentration and memory
- ◆ Extreme mood shift
- ◆ Nystagmus (jerky, involuntary eye movement)
- ◆ Rapid heart beat
- ◆ Dizziness
- ◆ Convulsions
- ◆ Memory loss

Health Effects:

- ◆ The potential for accidents and overdose emergencies is high due to the extreme mental effects combined with the anesthetic effect on the body.
- ◆ PCP becomes more potent in combination with other depressant drugs, including alcohol, increasing the likelihood of an overdose reaction.

How PCP Impairs Functions Needed for Driving:

PCP chemically alters the brain and gross motor functioning of the body, having a direct impact on the complex system of critical thinking skills and reflexes that allow people to drive safely and conscientiously. PCP also causes severe disorientation.

Facts:

- ◆ PCP abuse is less common today than in the past.
- ◆ There are four phases to PCP use: toxicity (which may be accompanied by convulsions, combativeness, catatonia and even coma), toxic psychosis (including visual delusions and paranoia), schizophrenia and depression.

ALCOHOL

A central nervous system depressant found in beer, wine, and hard liquor and in some over-the-counter medications (for example: some allergy and cold medications).

Alcohol is widely abused primarily due to its social acceptance and availability. It is considered a recreational beverage when consumed in moderation for enjoyment and relaxation during social gatherings. "Abuse" occurs when it is used primarily for its physical and mood-altering effects. About half of all auto accident fatalities in the United States are related to alcohol abuse.

Signs and Symptoms of Use:

- ◆ Dulled mental processes
- ◆ Lack of coordination
- ◆ Slurred speech
- ◆ Odor of alcohol on breath
- ◆ Pupils may be constricted
- ◆ Sleepy or stuporous condition
- ◆ Slowed reactions

Other Effects:

- ◆ Greatly impaired driving ability
- ◆ Reduced coordination and reflex actions
- ◆ Impaired vision and judgement
- ◆ Inability to divide attention
- ◆ Lowering of inhibitions
- ◆ Headaches, nausea, dehydration, unclear thinking, unsettled digestion and aching muscles are associated with overindulgence (hangover)

How does it work on the Body?

Alcohol first acts on the parts of the brain that affect self-control and other learned behaviors. Diminishing self-control often leads to aggressive behavior. In large doses, alcohol dulls sensations and impairs muscular coordination, memory, and judgement. Taken in large quantities over a long period of time, alcohol can damage the liver and heart, and may cause permanent brain damage. On average, heavy drinkers shorten their life span by about ten years.

After ingestion, alcohol is absorbed through the stomach and intestine into the bloodstream. Here it passes through the liver, where it is metabolized in several steps. Metabolism helps prevent alcohol from accumulating in the body and destroying cells and organs. The liver cannot metabolize alcohol as quickly as the body can absorb it. This is the point of intoxication. Any concentration of alcohol that remains unmetabolized can be detected and measured during a blood alcohol concentration test.

Many factors contribute to levels of alcohol absorption, rates of metabolism, and intoxication. Among them are: body size and weight, food ingested, gender, physical condition, and other drugs or medications in the body. Impairment begins with one drink.

Health Effects:

Over time, chronic consumption (average of three servings per day of 12 ounces of beer, 1 ounce of whiskey or 6 ounces of wines) of alcohol may result in the following health hazards:

- ◆ Liver damage
- ◆ Inflammation of esophagus
- ◆ Aggravation of peptic ulcers
- ◆ Acute and chronic pancreatitis
- ◆ Malabsorption of food nutrients that may lead to malnutrition
- ◆ Heart attack
- ◆ Hypertension
- ◆ Stroke
- ◆ Immune system depression (makes body more susceptible to infection)
- ◆ Cancers of the liver, esophagus, nasopharynx or larynx
- ◆ Brain damage (dementia, blackouts, seizures, hallucinations, and peripheral neuropathy).

How Alcohol Impairs Functions Needed for Driving:

The subtlety and complexity of the skills required to operate a motor vehicle safely make people susceptible to impairment from even low doses of alcohol. The evidence linking alcohol and transportation accidents is supported by experimental studies conducted by the National Institute on Alcohol Abuse and Alcoholism, relating the effect of alcohol on specific driving-related skills. Impairment is related to alcohol in terms of its concentration in the bloodstream. For example, a blood alcohol concentration (BAC) of 0.04% might be achieved by a 150-pound man consuming two drinks in one hour.

In driving, the eyes must focus briefly on important objects in the visual field and track them as they move (along with the vehicle). Low to moderate BACs (0.03% to 0.05%) interferes with voluntary eye movements, impairing the eye's ability to rapidly track a moving target.

Steering is a complex psychomotor task. A delay in the body's eye-to-hand reaction time is compounded by the visual effects described above, causing significant impairment in steering ability at about 0.035% BAC.

Alcohol impairs nearly every aspect of the brain's information processing. Alcohol impaired drivers require more time to read street signs or respond to traffic signals than unimpaired drivers. As a result, impaired drivers tend to look at fewer sources of information. A narrowing field of attention begins as about 0.04% BAC.

Drivers must divide their attention among many skills in order to keep a vehicle in the proper lane while monitoring the environment for vital safety information, such as other vehicles, traffic signals, and pedestrians. Results of numerous studies show that a deficit in the ability to divide attention may occur at 0.02% BAC.

Facts:

- ◆ About two in every five Americans will be involved in an alcohol-related vehicle accident in their lifetime.
- ◆ The risk of a traffic fatality per mile driven is at least eight times higher for a drunk driver than a sober one.
- ◆ A 12-ounce can of beer, a 6-ounce glass of wine and a 1 ½-ounce shot of hard liquor all contain the same amount of alcohol.
- ◆ Each 1 ½-ounce of alcohol takes the average body about one hour to process and eliminate.
- ◆ Coffee, cold showers, and exercise do not quicken sobriety.

North Shore Connector

Port Authority of Allegheny County

North Shore Connector
NSC-009 Train Systems (System Wide)

Appendix B

Borrow and/or Waste Agreement

**BORROW AND/OR WASTE
AGREEMENT**

COUNTY	PROJECT	LOCATION OF BORROW AND/OR WASTE
NAME(S) OF PROPERTY OWNER(S)		ADDRESS(ES)

THIS AGREEMENT, made this _____ day of _____, 20_____
by and between _____
hereinafter called "Contractor" and _____

hereinafter called "Property Owner", who agree as follows:

1. That Property Owner is the owner of a certain parcel or tract of land situate

(LOCATION AND DESCRIPTION OF LAND)

2. That for and in consideration of the payment of the sum of one (\$1.00) dollar, the receipt of which is hereby acknowledged and for other good and valuable considerations, the Property Owner does hereby license and permit the Contractor, its agents, representative, and employees to enter upon, use and occupy the above mentioned parcel or tract of land for the purpose of excavating borrow therefrom and/or depositing waste materials thereon in connection with Contractor's above indicated construction project, and further agrees to the condition of the land as provided for in Item 3 below.

3. Contractor agrees, upon completion of the said construction project, to do the following work in a manner satisfactory to the property owner and the Port Authority of Allegheny County's Engineer or his duly authorized representative: (a) the borrow and/or waste area covered by this agreement shall be cleaned of debris and left in a well-graded and drained condition (b) the borrow and/or waste area covered by this agreement shall be reasonably contoured, prepared, limed, fertilized, seeded and mulched with formula and at rates typical for the project for appearance and slope stabilization and (c) the borrow and/or waste area covered by the agreement shall be free of all surplus and objectionable materials.

4. Upon completion of the work to be performed by Contractor, the Property Owner hereby releases and forever discharges the Port Authority of Allegheny County, their agents, representatives and employees and, the above named Contractor, their agents, representatives and employees, from any and all claims for damages arising or incurred by virtue of said Contractor's entry, use and occupancy of the above mentioned parcel or tract of land, pursuant to the terms of this agreement.

IN WITNESS WHEREOF, these presents have been executed, attested and sealed by the parties hereto and/or their proper officials, pursuant to due and legal action authorizing the same to be done, the day and year first above written.

WITNESS:

PROPERTY OWNER(S)

By _____ (SEAL)

By _____ (SEAL)

By _____ (SEAL)

ATTEST:

(NAME OF CONTRACTOR)

By _____
(TITLE)

(SEAL)

Port Authority of Allegheny County

North Shore Connector
NSC-009 Train Systems (System Wide)

Appendix C

North Shore Connector, North Side Tunnels & Station Shell (NSC-003/006), Gateway Station Shell (NSC-004 R), Aerial Structure; Retained Fill and Demolition of Miller Printing (NSC-007) and Advanced Rail System Procurement Gateway Double Crossover (Contract No. 3002) Construction Update

North Shore Connector

North Shore Connector, North Side Tunnels & Station Shell (NSC-003/006), Gateway Station Shell (NSC-004 R), Aerial Structure, Retained Fill, and Demolition of Miller Printing (NSC-007), and Advanced Rail Systems Procurement – Gateway Double Crossover (Contract No. 3002) Construction Update, as of April 28, 2008

Contract NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 are currently under construction and will interface with the NSC-009 Work. As a result of the NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 construction activities, changes to the NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 Contract Documents have occurred. Known changes include, but are not limited to, utility installations, temporary facility design and installation, cut and cover and bored tunnel design and construction, maintenance and protection of traffic and detour installation and phasing, and Double Crossover Shop Drawings and submittals. The Contractor shall coordinate with the NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 contractors and the Engineer to obtain current information before Contractor begins work which could be affected by the NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 construction activities.

Table C-1 provides a list of North Shore Connector, North Side Tunnels & Station Shell (NSC-003/006), Gateway Station Shell (NSC-004 R), Aerial Structure, Retained Fill, and Demolition of Miller Printing (NSC-007), and Advanced Rail Systems Procurement – Gateway Double Crossover (Contract No. 3002) Construction Submittals. Submittals and/or portions of Submittals reflecting NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 contractor design elements having impact on the NSC-009 Bid are bold and attached as part of Appendix C. Further information on the progress of the NSC-003/006, NSC-004 R, NSC-007, and Contract No. 3002 construction is contained in Table C-1 and available for purchase in accordance with Section 00200, Article 2.6.

Table C-1

Submittal Number	Description	Contract
S-001	Early Procurement Contract IJ Location Drawings	Contract No. 3002

North Shore Connector

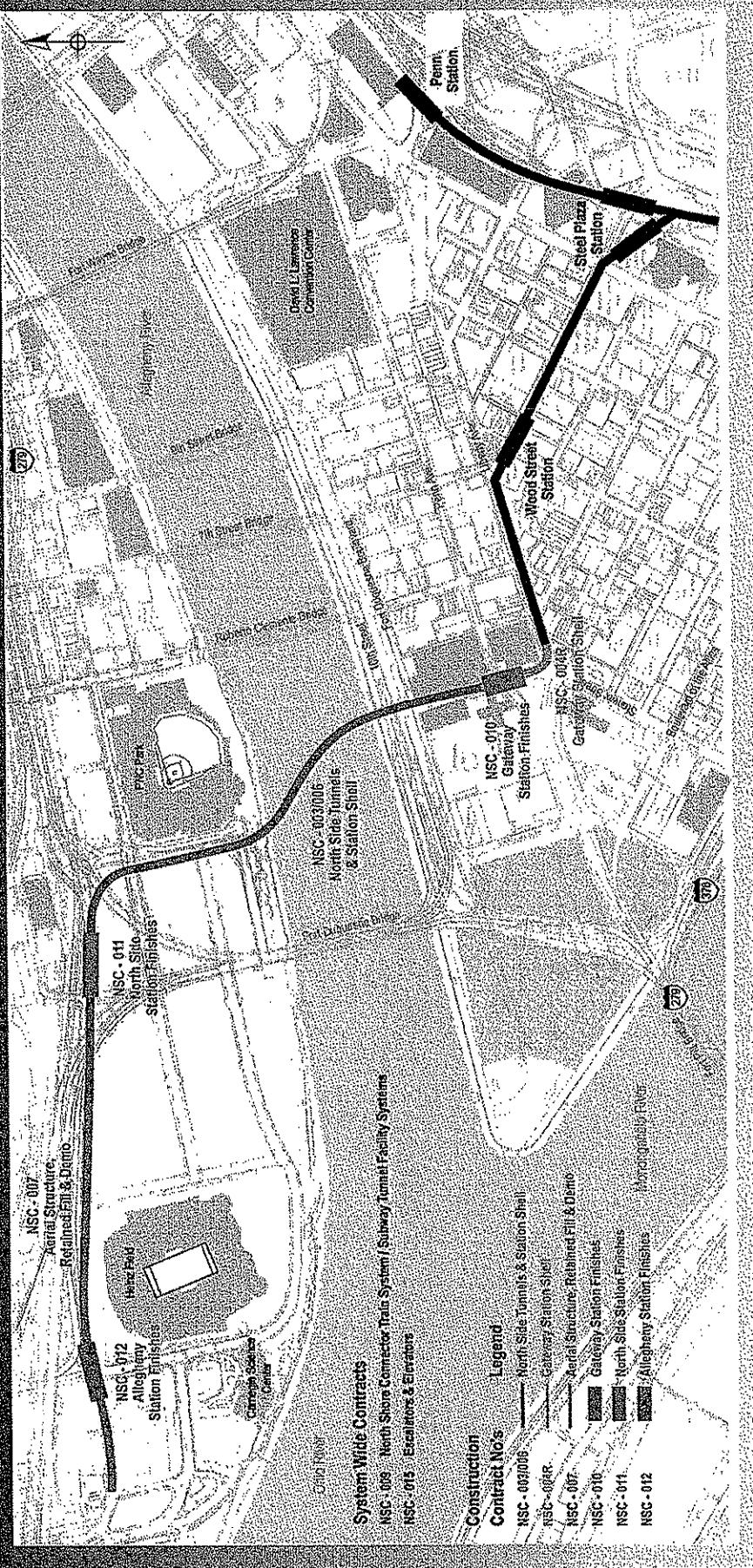
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North Shore Connector
NSC-009 Train Systems (System Wide)

Appendix D

North Shore Connector Project Map by Contract

Project Map



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North Shore Connector

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North Shore Connector
NSC-009 Train Systems (System Wide)

Appendix E

Master Schedule Coding

**North Shore Connector
Contract NSC-009
Master Schedule Coding Requirements**

A. General

Decimals= 0

Planning Unit= "Day"

All Activity ID#'s must begin with the first two characters= "TS"

Schedule Logic Options applied= "Retained Logic"

B. Activity Codes

**The Contractor's Schedule Must include the following Activity Code Fields
Field Lengths Must be exactly as shown below:**

	Name	Field Length	Description
1	SPCN	9	Spec Section #
2	RTYP	2	Revenue Type
3	SUB#	8	SubSchedule ID#
4	AREA	6	Area Code
5	CONP	5	Construction Phase
6	PACK	2	Contract Package
7	PHASE	1	Program Phase
8	LVL1	1	Level 1 Group
9	SORT	3	Sort
10	RESP	3	Responsibility

C. Calendars

**Contractor's Schedule Must Include the
following Calendar ID's :**

- 1 5d wk w/holiday
- 2 7d wk no holiday
- 3 6d wk w/holiday
- 4 Weekend Only
- 5 Weekend Except Events
- 6 5-24hr wk w/holiday
- 7 Board Dates
- 8 Board Committee
- 9 SR65 Underpinning

