



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 GSD116461

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 KRISTA FERRELL
 304-558-2596

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

DEPARTMENT OF ADMINISTRATION
 VARIOUS LOCALES AS INDICATED
 BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
06/17/2011				

BID OPENING DATE: 07/13/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 2						
THIS ADDENDUM IS ISSUED TO:						
1.) PROVIDED A REVISED PROPOSAL FORM						
2.) PROVIDE TECHNICAL BULLETIN NO. 1						
3.) PROVIDE REVISED SPECIFICATIONS SECTIONS						
CLARKSBURG SECTIONS: 012200, 015000, AND 024116						
FAIRMONG SECTIONS: 024116 AND 0329200 AND FIGURES						
1: PAVEMENT REPLACEMENT AND FIGURE 2 SIDEWALK REPLACEMENT						
4.) AND PROVIDE 34 REVISED DRAWINGS, DRAWING A2,A4 DENOTING ASBESTOS IN FAIRMONT BUILDING, AND PLOT PLAN, BOUNDARY, & DEMOLITION FIGURE FOR THE FAIRMONT BUILDING						
5.) EXTEND THE DEADLINE FOR TECHNICAL QUESTIONS TO: 06/29/2011.						
BID OPENING DATE REMAINS: 07/13/2011						
BID OPENING TIME REMAINS: 1:30 PM						
NOTE: DRAWINGS WILL BE MAILED SEPARATELY TO KNOWN PLAN HOLDERS OR MAY BE REQUESTED BY CALLING LYNN WHITE IN THE GENERAL SERVICES DIVISION AT 304-957-7155.						
***** END ADDENDUM NO. 2 *****						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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BID OPENING DATE: 07/13/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		968-32		
DEMOLITION OF TWO (2) STATE OFFICE BUILDINGS						
***** THIS IS THE END OF RFQ GSD116461 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE		TELEPHONE		DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE		

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

Proposal Form

State of West Virginia – General Services Division
Demolition of Clarksburg / Fairmont
State Office Buildings
Project No. GSD 116461

Name of Bidder: _____

The undersigned, hereinafter called Bidder, being familiar with and understanding the Bidding Documents and also having examined the site and being familiar with all local conditions affecting the project hereby proposes to furnish all labor, material, equipment, supplies and transportation and to perform all Work in accordance with the Bidding Documents within the time set forth for the sum of:

Clarksburg State Office Building Demolition Base Bid:

_____ (\$ _____)
(Show amount in both words and numbers)

Fairmont State Office Building Demolition Base Bid:

_____ (\$ _____)
(Show amount in both words and numbers)

Total Base Bid (Sum of Clarksburg and Fairmont):

_____ (\$ _____)
(Show amount in both words and numbers)

(In the event of a difference between the written amount and the number amount, the written amount shall govern.)

Clarksburg Unit Prices (to be used for Clarksburg Project only):

UNIT PRICE #1: UNIT PRICES – CLARKSBURG BUILDING ONLY

Unit Price No. C001:	Additional abatement and disposal of 9"x9" asbestos containing floor tile that exceeds quantities specified by 10%.	\$ _____	Per Square Foot.
Unit Price No. C002:	Additional abatement and disposal of asbestos containing window glazing that exceeds quantities specified by 10%.	\$ _____	Per Lineal Foot.
Unit Price No. C003:	Additional abatement and disposal of asbestos containing ceiling texture that exceeds quantities specified by 10%.	\$ _____	Per Square Foot.
Unit Price No. C004:	Additional abatement and disposal of lead paint.	\$ _____	Per Square Foot.

Fairmont Unit Prices (to be used for Fairmont Project only):

UNIT PRICE #1: UNIT PRICES – FAIRMONT BUILDING ONLY

Unit Price No. 1:	Additional abatement and disposal of asbestos containing floor tile other than materials indicated on drawings	\$ _____	Per Square Foot.
Unit Price No. 2:	Additional abatement and disposal of asbestos containing mastic other than materials indicated on drawings	\$ _____	Per Square Foot.
Unit Price No. 3:	Additional abatement and disposal of asbestos containing transite	\$ _____	Per Square Foot.
Unit Price No. 4:	Additional abatement and disposal of asbestos containing pipe insulation	\$ _____	Per Linear Foot.
Unit Price No. 5:	Additional abatement and disposal of asbestos containing duct wrap	\$ _____	Per Square Foot.
Unit Price No. 6:	Additional abatement and disposal of asbestos containing plaster	\$ _____	Per Square Foot.
Unit Price No. 7:	Additional abatement and disposal of asbestos containing roofing material	\$ _____	Per Square Foot.

A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the bidding documents. Unit prices shall be used solely for the formulation of any unforeseen change orders subsequently requested for the awarded project.

The Bidder, if successful and awarded the contract, agrees that all work is to be complete within the specified time period following issuance of the OWNER'S written notice to proceed. For each calendar day of delay in achieving completion, the Contractor shall be liable for, and shall pay the OWNER liquidated damages in the amount specified in the Contract Documents.

No work shall be performed prior to issuance of a signed Purchase Order and Notice to Proceed issued by the Owner. Any materials contracted for prior to the issuance of the OWNER'S written Notice to Proceed shall be at the Bidder's risk.

Signature of Bidder:

Name of Firm: _____

Address: _____

City/ State/ Zip _____

Phone No. () _____

Fax No. () _____

By: _____

Signature: _____
(In colored Ink)

Signed and Sealed this _____ day of _____, 201__

Addenda:

The undersigned acknowledges receipt of the following Addenda covering revisions to the Drawings, Specification and Bidding Documents. The cost, if any, of such revisions is included in the prices quoted.

- Addendum No. _____, Dated _____
- Addendum No. _____, Dated _____
- Addendum No. _____, Dated _____
- Addendum No. _____, Dated _____
- Addendum No. _____, Dated _____
- Addendum No. _____, Dated _____

Contractor's License:

West Virginia Contractor's License No. _____

References:

Reference #1 Name: _____

Position: _____

Address: _____

Telephone Number: _____

Project Name: _____

Project Description: _____

Reference #2 Name: _____

Position: _____

Address: _____

Telephone Number: _____

Project Name: _____

Project Description: _____

Reference #3 Name: _____

Position: _____

Address: _____

Telephone Number: _____

Project Name: _____

Project Description: _____

Reference #4 Name: _____

Position: _____

Address: _____

Telephone Number: _____

Project Name: _____

Project Description: _____

Reference #5 Name: _____

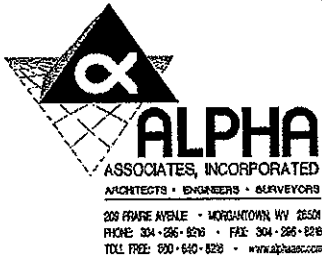
Position: _____

Address: _____

Telephone Number: _____

Project Name: _____

Project Description: _____



RFQ GSD 116461 Technical Bulletin No.1
Clarksburg State Office Building
Demolition RE-BID

Demolition of Clarksburg, Bldg. #24, 153 W. Main Street

RFQ No. GSD 116461
AAI PROJECT NO. 0810123.00
May 23, 2011

TO ALL BIDDERS:

Alpha Associates, Inc. is the architect/engineer of record for the demolition of the Clarksburg State Office Building located at 153 West Main Street, Clarksburg, WV. An outdated set of review drawings dated February, 15, 2010 were initially sent from the State Purchasing Office with the RFQ. To further clarify this matter the Drawing Sheets of the Clarksburg State Office Building Demolition have been reissued with appropriate stamps and seals, and dated July 23, 2010. See itemized list below of complete modifications.

Alpha Associates, Inc. has no responsibility for design documents relating to the Fairmont State Office Building that is appended to this RFQ.

1.0 GENERAL NOTES:

- 1.01 This Addendum is part of the Contract Documents for the Project.
- 1.02 Acknowledge receipt of this Addendum on the Form of Proposal in the space provided. Failure to do so may be cause for rejection of bid.

2.0 CORRECTIONS/ADDITIONS TO THE PROJECT MANUAL DATED May 5, 2011

- 2.01 **Table of Contents-Clarksburg Technical Specifications**
ADD: 012200-Unit Prices
OMIT: 024213-Reclamation of Acoustic Ceiling Panels

- 2.02 **ADD:** 012200-Unit Prices as attached.

OMIT: Section 015000-Temporary Facilities and Controls as bound in Project Manual.



Technical Bulletin No. 1
 May 23, 2011
 Page 2 of 3

ADD: Revised Section 015000-Temporary Facilities and Controls as attached.

OMIT: Section 024116-Structure Demolition as bound in Project Manual.

ADD: Revised Section 024116-Structure Demolition as attached.

OMIT: Section 024213 Reclamation of Acoustical Ceiling Panels

NOTE: Acoustical Ceiling tile reclamation shall not be part of this project.

3.0 CORRECTIONS/ADDITIONS TO THE DRAWINGS DATED February 15, 2010

3.01 Bound Drawing Set

OMIT: Sheet G000, G001, C-1.0, C-1.1, C-1.2, C-1.3, S001, S101, S102, S201, S501, A101, A102, A103, A104, A105, A107, A301, A302 as bound in the set, dated February 15, 2010 and received with the RFQ.

ADD: Sheet G000, with new stamps and seals affixed within the clouded portion of the drawing identified as Revision 1 dated 5/17/2011 on Sheet G000 dated July 23, 2010. Please find attached to these addenda.

ADD: Sheet G001, C-1.0, C-1.1, C-1.2, C-1.3, S001, S101, S102, S201, S501, A101, A102, A103, A104, A105, A107, A301, A302 dated July 23, 2010. Please find attached to these addenda.

Note: The Bound set of drawings as assembled by State Purchasing, received with this RFQ, as part of the Bid Documents had both The Clarksburg State Office Building Demolition plans as well as drawings relating to the existing structure in Fairmont, (aka Arch A. Moore, Jr. Office Complex) bound together with one cover sheet.

CLARIFICATION: The following Sheet Numbers dated July 23, 2010 represent the drawings that are documents for the Clarksburg State Office Building Demolition:

G000, G001, C-1.0, C-1.1, C-1.2, C-1.3, S001, S101, S102, S201, S501, A101, A102, A103, A104, A105, A107, A301, A302.



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May 23, 2011
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CLARIFICATION: The following Sheet Numbers **ARE NOT** related in any way to the Clarksburg State Office Building Demolition:
A-1r, A-2, A-5, A-8, A-9, A-10, A-11, A-13, P-1, SP-1, S-2, M-1, MP-1r, MP-2r, M-1-5.

Issued May 23, 2011
Alpha Associates, Incorporated

Rebecca Jean Key, AIA
Rebecca Jean Key, AIA

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for unit prices.
- B. Related Requirements:
 - 1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

- A. Unit Price No. 001 – Abatement and Disposal of 9 x 9 floor tile:
1. Description: Abatement and Disposal of 9 x 9 floor tile that exceeds quantity specification by 10% as listed in Report.
 2. Unit of Measurement: Square Foot.
- B. Unit Price No. 002 – Abatement and Disposal of Window glazing:
1. Description: Abatement and Disposal of Window Glazing that exceeds quantity specification by 10% as listed in Report.
 2. Unit of Measurement: Linear Foot.
- C. Unit Price No. 003 – Abatement and Disposal of Ceiling Texture:
1. Description: Abatement and Disposal of Ceiling Texture that exceeds quantity specification by 10% as listed in Report.
 2. Unit of Measurement: Square Foot.
- D. Unit Price No. 004 – Abatement and Disposal of Lead Paint:
1. Description: Abatement and Disposal of Lead Paint if discovered to be present.
 2. Unit of Measurement: Square Foot.

END OF SECTION 012200

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.
- B. Sewer Service: Pay sewer-service use charges for sewer usage by all entities for construction operations.
- C. Water Service: Pay water-service use charges for water used by all entities for construction operations.
- D. Electric Power Service: ~~Pay electric power service use charges for electricity used by all entities for construction operations.~~ The owner will allow the temporary use of electric service that is currently operational by the successful bidder, at no charge. Once owner turns building over to the contractor, the existing utility maintenance is the responsibility of the contractor, any upgrades to the service that are needed for operation of contractor's equipment is the responsibility of the contractor. (Rev: 8/23/2010)

1.4 INFORMATIONAL SUBMITTALS

- A. Site Plan: Show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.
- B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

- D. Dust- Control Plan: Submit coordination drawing and narrative that indicates the dust- control measures proposed for use, proposed locations, and proposed time frame for their operation. Identify further options if proposed measures are later determined to be inadequate. Include the following:
1. Locations of dust-control partitions at each phase of work.
 2. Location of proposed air-filtration system discharge.
 3. Waste handling procedures.
 4. Other dust-control measures.

1.5 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.
- B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:
1. Furniture required for Project-site documents ~~including file cabinets, plan tables, plan racks, and bookcases.~~ (Rev. 08/24/2010)
 2. Conference room of sufficient size to accommodate meetings of 10 individuals. ~~Provide electrical power service and 120 V ac duplex receptacles, with no fewer than one receptacle on each wall. Furnish room with conference table, chairs, and 4 foot (1.2 m) square tack and marker boards.~~(Rev. 08/24/2010)
 3. ~~Drinking water and private toilet.~~(Rev. 08/24/2010)
 4. ~~Coffee machine and supplies.~~(Rev. 08/24/2010)
 5. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F (20 to 22 deg C).
 6. Lighting fixtures capable of maintaining average illumination of 20 fc (215 lx) at desk height.
- C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
1. Store combustible materials apart from building.

2.3 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
 - 1. Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully. (If required)
 - 1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- E. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations.
 - 1. Install electric power service overhead unless otherwise indicated.
- F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- G. Telephone Service: ~~Provide temporary telephone service in common use facilities for use by all construction personnel. Install one telephone line(s) for each field office. Provide telephone service~~

that enables the owner, architect and contractor's home office to contact the field superintendant on site. Provide emergency telephone service for personnel on site, through cellular service or other means. (Rev. 08/24/2010)

1. At each ~~telephone~~ Field Office, post a list of important telephone numbers.
 - a. Police and fire departments.
 - b. Ambulance service.
 - c. Contractor's home office.
 - d. Contractor's emergency after-hours telephone number.
 - e. Architect's office.
 - f. Owner's office.
 - g. Principal subcontractors' field and home offices.
2. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 1. Comply with work restrictions specified in Division 01 Section "Summary."
- C. Temporary Erosion and Sedimentation Control: Comply with requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Division 31 Section "Site Clearing."
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.
 1. Extent of Fence: As indicated on Drawings.
 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- F. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.
- G. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

- H. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
1. Prohibit smoking in construction areas.
 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
 4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.4 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, ~~when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion.~~ Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. ~~Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired. (Rev. 08/23/2010)~~
1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 2. ~~At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures." (Rev. 08/23/2010)~~

END OF SECTION 015000

SECTION 024116 - STRUCTURE DEMOLITION**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY**A. Section Includes:**

1. Demolition and removal of buildings.
2. Abandoning in-place and removing below-grade construction.
3. Disconnecting, capping or sealing, abandoning in-place and removing site utilities.
4. Salvaging items for reuse by Owner.

B. Related Sections:

1. Division 01 Section "Summary" for use of the premises and phasing requirements.
2. Division 01 Section "Construction Progress Documentation" for preconstruction photographs taken before building demolition.
3. Division 01 Section "Unit Prices"
4. Division 31 Section "Site Clearing" for site clearing and removal of above- and below-grade site improvements not part of building demolition.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or recycled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage.
- C. Recycle: Recovery of demolition waste for subsequent processing in preparation for reuse.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 SUBMITTALS

- A. Qualification Data: For qualified refrigerant recovery technician.

-
- B. Proposed Protection Measures: Submit informational report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and for noise control. Indicate proposed locations and construction of barriers.
1. Adjacent Buildings: Detail special measures proposed to protect adjacent buildings to remain.
- C. Schedule of Building Demolition Activities: Indicate the following:
1. Detailed sequence of demolition work, with starting and ending dates for each activity.
 2. Temporary interruption of utility services.
 3. Shutoff and capping of utility services.
- D. Inventory: Submit a list of items to be removed and salvaged prior to start of demolition.
- E. Pre-demolition photographs or video: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by demolition operations. Provide copies of these photographs or videos to the Architect prior to beginning the Work.
- F. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- G. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.

1.6 QUALITY ASSURANCE

- A. The demolition contractor shall have a minimum of three years of experience removing multi-story structures of similar size and scope. The demolition contractor shall provide a list of at least five similar projects at the time the project bid is submitted.
- B. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.
- E. Pre-demolition Conference: Conduct conference at the project site.
1. Inspect and discuss condition of construction to be demolished.
 2. Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 3. Review and finalize protection requirements.

4. Review procedures for noise control and dust control.
5. Review procedures for protection of adjacent buildings.
6. Review Hazardous Materials Abatement Plan, as prepared by Contractor.

1.7 PROJECT CONDITIONS

- A. Buildings to be demolished have already been vacated.
- B. Buildings immediately adjacent to demolition area will be occupied. Conduct building demolition so operations of occupied buildings will not be disrupted.
 1. Provide not less than 72 hours notice of activities that will affect operations of adjacent occupied buildings.
 2. Maintain access to existing walkways, exits, and other facilities used by occupants of adjacent buildings.
 - a. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent buildings without written permission from authorities having jurisdiction.
- C. Owner assumes no responsibility for buildings and structures to be demolished.
 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- D. Hazardous Materials: Hazardous materials are present in buildings and structures to be demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
 1. General Contractor is responsible for design and execution of abatement of hazardous materials present in the building, to be performed by individuals licensed to design and implement removal and abatement of ACM (Asbestos Containing Material). General Contractor is further responsible for the hiring of third party testing agency for air quality monitoring.
 2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures outlined in submitted and approved Abatement Plan.
- E. On-site storage or sale of removed items or materials is not permitted.

1.8 COORDINATION

- A. Arrange demolition schedule so as not to interfere with operations of adjacent occupied buildings.

PART 2 - PRODUCTS**2.1 SOIL MATERIALS**

- A. Satisfactory Soils: Comply with requirements in Division 31 Section "Earth Moving."

PART 3 - EXECUTION**3.1 EXAMINATION**

- A. Verify that utilities have been disconnected and capped before starting demolition operations.
- B. Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.
 - 1. Steel Tendons: Locate tensioned steel tendons and include recommendations for de-tensioning.
- C. Verify that hazardous materials have been remediated before proceeding with building demolition operations.

3.2 PREPARATION

- A. Refrigerant and Hydraulic fluids Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting demolition. Hydraulic fluids and all other fluid filled operating systems to be drained and removed in accordance with current regulations of authorities having jurisdiction, by qualified personnel.
- B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.
 - 1. Verify that all utilities have been shut off. Arrange to shut off any utilities not already shut off with the utility companies.
 - 2. If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
 - 3. Cut off pipe or conduit a minimum of 24 inches below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing according to requirements of authorities having jurisdiction.
- C. Temporary and Permanent Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports where indicated or when required during progress of demolition.

3.3 PROTECTION

- A. Existing Facilities: Protect adjacent walkways, loading docks, building entries, and other building facilities during demolition operations. Maintain exits from existing buildings.
- B. Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations.
 - 1. Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction.
 - 2. Provide temporary services during interruptions to existing utilities, as acceptable to Owner and authorities having jurisdiction.
 - a. Provide at least 72 hours' notice to occupants of affected buildings if shutdown of service is required during changeover.
- C. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated. Comply with requirements in Division 01 Section "Temporary Facilities And Controls."
 - 1. Protect adjacent buildings and facilities from damage due to demolition activities.
 - 2. Protect existing site improvements, appurtenances, and landscaping to remain.
 - 3. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 4. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.
 - 5. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
- D. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

3.4 DEMOLITION, GENERAL

- A. General: Demolish indicated buildings completely. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
 - 2. Maintain fire watch during and for at least 2 hours after flame cutting operations.
 - 3. Maintain adequate ventilation when using cutting torches.
 - 4. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- B. Engineering Surveys: During demolition, perform surveys to detect hazards that may result from building demolition activities.

- C. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
 2. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Do not use water when it may damage adjacent construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- D. Explosives: Use of explosives is NOT permitted.
- E. Hazardous Material Abatement
1. All Asbestos Containing Materials are to be abated from the structure prior to, or in conjunction with, demolition activities. All removal or abatement of ACM should be performed by a licensed contractor who will provide all necessary labor, equipment, licenses, insurance, third party monitoring, and any required regulatory notifications needed to remove, transport, and legally dispose of ACM.
 2. The project has not been tested for lead based paint, should the contractor encounter such, during the demolition, the contractor should bring it to the attention of the owner and/or architect.
 3. A plan of hazardous material abatement is to be submitted prior to any demolition work occurring on site.
 4. The report enclosed with the project manual, outlines methods, procedures, locations, and results of testing performed on the structure. In the event, that any additional materials, not previously described herein (i.e.; sub-floors, hidden walls and/or spaces or ceilings, etc.) are encountered during demolition activities; such materials shall be sampled and tested to determine if asbestos is present.
 5. Should the contractor encounter more than 10% of hazardous material (ACM) than quantities listed in report, unit pricing shall be applied to those excess quantities above the 10% limit. See Division 1, Section 012200 Unit Prices.

3.5 DEMOLITION BY MECHANICAL MEANS

- A. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.
- B. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
1. Remove structural framing members and lower to ground by method suitable to minimize ground impact and dust generation.
- C. Salvage or Recycling: Items to be removed and salvaged are indicated below:

-
- a. Concrete and steel reinforcing.
 - b. Doors and frames.
 - c. Door hardware.
 - d. Carpet.
 - e. Cabinets.
 - f. Plumbing fixtures.
 - g. Copper wiring.
 - h. Brick.
 - i. Lighting Fixtures.
 - j. Miscellaneous metals or structural steel.
 - k. Aluminum curtain wall and window framing material.
- D. Below-Grade Construction: Abandon foundation walls and other below-grade construction as indicated on the contract drawings. Cut below-grade construction flush with grade. Permanently brace existing basement walls to remain as indicated.
- E. Existing Utilities: Abandon existing below grade utilities and below-grade utility structures. Cut utilities flush with grade.
- 3.6 SITE RESTORATION
- A. Below-Grade Areas: Fill below-grade areas and voids resulting from building demolition operations as indicated on the contract drawings with recycled pulverized concrete or recycled pulverized masonry according to backfill requirements in Division 31 Section "Earth Moving."
- 3.7 REPAIRS
- A. Promptly repair damage to adjacent buildings caused by demolition operations.
- 3.8 DISPOSAL OF DEMOLISHED MATERIALS
- A. Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction. See Division 01 Section "Construction Waste Management and Disposal" for recycling and disposal of demolition waste.
- 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Provide appropriate documentation that certifies ACM has been hauled and deposited into approved hazardous materials site.
- B. Do not burn demolished materials.

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3.9 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.
 - 1. Clean roadways of debris caused by debris transport.

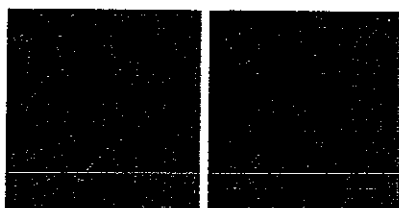
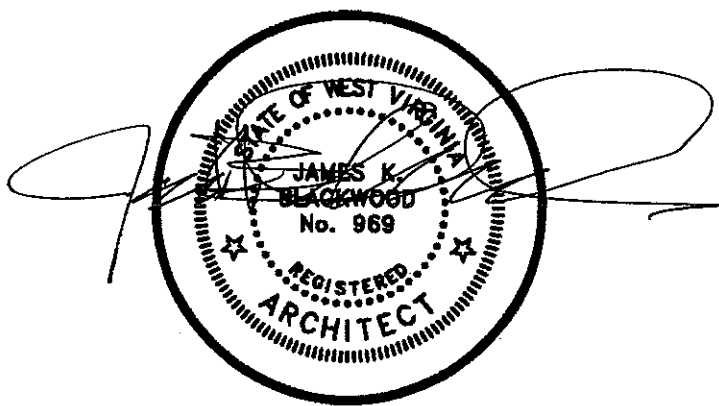
END OF SECTION 024116

Project Manual

Demolition of West Virginia State Office Building #21

Fairmont, West Virginia

February 25, 2011



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architects . planners . visualization

MSES consultants, inc. 304-624-9700
engineers

SECTION 024116 - STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of buildings and site improvements.
2. Abandoning in-place below-grade construction.
3. Disconnecting, capping or sealing, and abandoning in-place site utilities.

1.2 MATERIALS OWNERSHIP

A. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. There are no known salvageable materials of interest in the building.

1.3 INFORMATIONAL SUBMITTALS

A. Proposed Protection Measures: Submit informational report, including Drawings, that indicates the measures proposed for protecting the safety of individuals and adjoining property, for environmental protection, for dust control, and for noise control. Indicate proposed locations and construction of barriers.

1. Adjacent Buildings: Detail special measures proposed to protect adjacent buildings to remain including means of egress from those buildings.

B. Schedule of building demolition with starting and ending dates for each activity.

C. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician.

1.4 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

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- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.
- D. Predemolition Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

- A. Building to be demolished will be vacated and their use discontinued before start of the Work.
- B. Building immediately adjacent to demolition area will be occupied. Conduct building demolition so operations of occupied buildings will not be disrupted.
 - 1. Provide not less than 72 hours' notice of activities that will affect operations of adjacent occupied buildings.
 - 2. Maintain access to existing walkways, exits, and other facilities used by occupants of adjacent buildings.
 - a. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent buildings without written permission from authorities having jurisdiction.
- C. Owner assumes no responsibility for buildings and structures to be demolished.
 - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
 - 2. Before building demolition, Owner will remove the following items:
 - a. Furniture, electric equipment, portable partitions, and stored files.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. Hazardous materials have been removed by Owner under renovations through the years except for limited asbestos containing floor tile which is discussed in the the Technical Specifications.
 - 2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.
- E. On-site storage or sale of removed items or materials is not permitted.

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- F. Arrange demolition schedule so as not to interfere with local vehicular or pedestrian traffic or operations of adjacent occupied buildings.

PART 2 - PRODUCTS (Not Used)

2.1 SOIL MATERIALS

- A. Satisfactory Soils: Comply with requirements in Section 312000 "Earth Moving."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting demolition operations.
- B. Engage a professional engineer to perform an engineering survey of condition of building as needed to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.

3.2 PREPARATION

- A. Refrigerant: Remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction before starting demolition.
- B. Existing Utilities: Locate, identify, disconnect, and seal or cap off indicated utilities serving buildings and structures to be demolished.
 1. Contractor will make arrangements to shut off indicated utilities prior to any building or site demolition.
 2. Provide copy of notifications to Owner.
 3. If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.
 4. Cut off pipe or conduit a minimum of 24 inches below grade and 5 feet from the building. Cap, valve, or plug and seal remaining portion of pipe

or conduit after bypassing according to requirements of authorities having jurisdiction.

5. Do not start demolition work until utility disconnecting and sealing have been completed.
- C. Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished.

3.3 PROTECTION

- A. Existing Facilities: Protect adjacent walkways, loading docks, building entries, and other building facilities during demolition operations. Maintain exits from existing buildings.
- B. Existing Utilities: Maintain utility services to remain and protect from damage during demolition operations. Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by Owner and authorities having jurisdiction.
- C. Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
1. Protect adjacent buildings and facilities from damage due to demolition activities.
 2. Protect existing site improvements, appurtenances, and landscaping to remain.
 3. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 4. Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures. Also provide 6' high chain link fence around the property demolition area or provide a guard service to prevent by-standers from wandering onto the work site once the building demolition activity would allow unauthorized entrance into the building.
 5. Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
 6. Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to occupied portions of adjacent buildings.

- D. Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave sturdy and secure temporary barriers and protections in place.

3.4 DEMOLITION

- A. General: Demolish indicated buildings and site improvements completely. Use methods required to complete the Work within limitations of governing regulations.
 - 1. Do not use cutting torches until work area is cleared of flammable materials. Maintain portable fire-suppression devices during flame-cutting operations.
 - 2. Maintain fire watch during and for at least two (2) hours after flame cutting operations.
 - 3. Maintain adequate ventilation when using cutting torches.
 - 4. Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 5. Due to the building's basement extents void areas beneath the sidewalk and pavement along Adams Street in front and Meredith Street behind, reconstruct per attached Figures 1 and 2 and barricade until work is complete.
- B. Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
 - 2. Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Contact the City of Fairmont for a temporary water service off of a local fire hydrant.
- C. Explosives: Use of explosives is not permitted.
- D. Proceed with demolition of structural framing members systematically, from higher to lower level. Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.
- E. Remove debris from elevated portions of the building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

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- F. Demolish at grade slabs and/or Abandon foundation walls and other below-grade construction to at least two (2) feet below the lowest area elevation of the foundation.
1. Remove below-grade construction, including basements, foundation walls, and footings, to at least 24 inches below grade. Cobble all floor slab of the basement to pieces no larger than 2 foot square.
- G. Existing Utilities: Demolish existing utilities and below-grade utility structures within 5 feet outside footprint of the building. Securely cap or plug the severed utility in cooperation with the utility provider prior to any physical demolition.
- H. Below-Grade Areas: Completely fill all below-grade areas and voids resulting from building demolition operations with satisfactory soil materials, recycled clean, segregated and pulverized concrete and/or masonry. This includes basement areas which extend beneath the walkway on Adams Street and the alley on Meredith Street. All fill materials must be approved by the Engineer, place in no greater than 12-inch loose lifts, and compact. The contractor may be permitted to use clean brick or other clean masonry materials as fill resulting from the demolition of the structure provided the following conditions are met:
1. Contractor must segregate the brick and masonry materials from the demolition debris. (eg. wood, structural steel, glass, reinforcing steel, etc.)
 2. Brick and masonry materials are to be broken/cobbled with no material being larger than 8 inches across the largest dimension.
 3. Clean broken/cobbles brick and masonry material(s) are to be placed in 24-inch (maximum) layers and compacted. Each layer/lift is to be choked with clean off-site soil and/or granular material such as number 67 stone, and 12 inches of tamped or rolled until locked tightly together.
 4. Under no circumstances shall wood, roofing, or other demolition materials that could decompose over time be used for fill.
 5. The Engineer must approve any demolition materials to be used as fill material prior to their use. Contractor is required to give a 48 hour notice before using demolition materials as fill.

No fill can be placed on unacceptable demolition debris. Before any filling occurs, the fill area(s) must be clean and contain no unacceptable demolition debris. The Engineer must inspect the area before any filling is undertaken.

The site can be filled by using off-site soils or granular materials, or clean and segregated brick and masonry materials as fill as long as conditions outlined above are met. Drawings provided are for reference and contractor must satisfy himself of the fill quantity needed.

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- I. Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Provide a smooth transition between adjacent existing grades and new grades. Finish surface of building area with an 8-inch compacted layer of 2-inch crusher run stone. Compact stone to 95% standard proctor. Any offsite materials used for filling must be certified by laboratory analysis not to contain hazardous contaminants. All off-site soil shall be approved by the Engineer.
- J. Promptly repair damage to adjacent buildings caused by demolition operations.
- K. On Adams Street, the sidewalk shall be replaced per the attached detail which can be found in Figure 2. Sidewalk to match current width of walks and be jointed identically to that which exists.
- L. On Meredith Street the 8" of 2" crusher run must be left 6" below the current road surface. When fully compacted to 95% of standard proctor, place asphaltic pavement over the remaining 6" depression. Saw cut all existing pavement to square edges, install and compact 4" of WVDOT Base I asphaltic concrete and 2" of WVDOT Wearing I to match existing surface contour. Do not allow slope to run water toward remaining structures. Use WVDOT "roller pass" method for maximum compaction of the asphaltic pavement. See typical detail in Figure 1.

3.5 CLEANING

- A. Remove demolition waste materials from Project site and legally dispose of them in a WVDEP-approved landfill acceptable to authorities having jurisdiction. All trucks conveying construction debris must be fully tarped to prevent spillage.
- B. Do not burn demolished materials.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations by pressure washing and vacuuming as needed. Return adjacent areas to condition existing before building demolition operations began.

END OF SECTION 024116

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Section 329200 - Turf and Grasses

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Seeding.

1.2 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- C. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- D. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of grass seed.
 1. Certification of each seed mixture for turf grass sod.
- C. Product certificates.

1.4 QUALITY ASSURANCE

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.

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1.5 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.

1.6 MAINTENANCE SERVICE

- A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable turf is established but for not less than the following periods:
 - 1. Seeded Turf: 7 days from date of seed bed and preferable May-June or Mid September-October.
 - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

PART 2 - PRODUCTS

2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species: State-certified seed of grass species as follows:
 - 1. Full Sun: Proportioned by weight as follows:
 - a. 90 percent KY31.
 - b. 10 percent perennial rye grass.

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2.2 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural liming material containing a minimum of 80 percent calcium carbonate equivalent and as follows:
1. Class: T, with a minimum of 99 percent passing through No. 8 sieve and a minimum of 75 percent passing through No. 60 sieve.
 2. Class: O, with a minimum of 95 percent passing through No. 8 sieve and a minimum of 55 percent passing through No. 60 sieve.

2.3 FERTILIZERS

- A. Bonemeal: Commercial, raw or steamed, finely ground; a minimum of 10 percent nitrogen and 10 percent phosphoric acid.
- B. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
1. Composition: 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
- C. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:
1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.

2.4 PLANTING SOILS

- A. Planting Soil Existing, in-place surface soil. Verify suitability of soil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth. Mix soil with the following soil amendments and fertilizers in the following quantities to produce planting soil:
1. Weight of Lime per 1000 Sq. Ft.: 80 lbs.
 2. Weight of Commercial Fertilizer per 1000 Sq. Ft.: 20 lbs.
 3. Weight of Slow-Release Fertilizer per 1000 Sq. Ft.: 20 lbs.

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2.5 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley. 100 lbs per 1,000 sq. ft.
- B. Sphagnum Peat Mulch: Partially decomposed sphagnum peat moss, finely divided or of granular texture, and with a pH range of 3.4 to 4.8.

PART 3 - EXECUTION

3.1 TURF AREA PREPARATION

- A. Site Subgrades: Subgrade will be crusher run stone to choke off the large debris backfill of the original building area. Contractor must bring in 6 inches of a non-organic soil layer and compact to 85% standard proctor (ASTM D-698) over the entire site. When complete, install a final 6 inch layer of planting soil again compacted to 85% of standard proctor.
 - 1. Loosen surface soil to a depth of at least 4 inches. Apply soil amendments and fertilizers according to planting soil mix proportions and mix thoroughly into top 4 inches of soil. Till soil to a homogeneous mixture of fine texture.
 - a. Apply commercial slow release fertilizer directly to surface soil before loosening.
 - 2. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, trash, and other extraneous matter.
 - 3. Legally dispose of waste material off Owner's property.
- B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future. Silt fence will be required along the alley to capture any eroded soil sediment that occurs prior to vegetative growth on the site.
- C. Stormwater Interceptor/Drainage Berm: Since the natural grade of the property is a gentle slope to the west (toward the Huntington Bank building, it will be necessary to install an earthen berm in the soil to divert any stormwater drainage to the rear alley. This berm will be built to an elevation of between six

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(6) and ten (10) inches above the final grade and be located twenty (20) feet to the east of the Huntington Bank Building wall. The berm will be seeded and mulched in the same manner as the rest of the site.

- D. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- E. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.2 SEEDING

- A. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 4 lb/1000 sq. ft.
- C. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 100 lbs/1,000 sq. ft. to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
 - 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.
- E. Protect seeded areas from hot, dry weather or drying winds by applying compost mulch within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of 3/16 inch, and roll surface smooth.

3.3 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by Architect:
 - 1. Satisfactory Seeded Turf: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. and bare spots not exceeding 5 by 5 inches.

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- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

END OF SECTION 329200

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