June 10, 2010

ADDENDUM #1
FOR
City of Portsmouth
Portsmouth, New Hampshire
Bid #38-10
High Hanover Parking Facility Stairtower Project

This Addendum forms part of the original document marked: Bid #38-10 High Hanover Parking Facility Stairtower Project.

Under SECTION 01010 SUMMARY OF WORK

PART 1 - GENERAL

1.03 SCOPE

Change 2 to read as follows:

2. New work involves, cleaning, priming and painting existing steel including any painted CMUs damaged in the process, installation of new precast concrete treads, precast concrete risers, precast concrete landing slab segments, new steel support angles, water resistant expansion/contraction seals, cast-in-place concrete landings over metal decking, installation of new anodized aluminum entry door and the new 4th level door, frame, and hardware.

Eliminate the following paragraph #7:

7. Achieve substantial completion of the work no later than June 18, 2010, and final completion no later than July 2, 2010.

Eliminate the original **SECTION 05100 STRUCTURAL STEEL IN THE TECHNICAL SPECIFICATIONS**, and replace with the following **SECTION 05100 STRUCTURAL STEEL:**

SECTION 05100
STRUCTURAL STEEL

PART 1 GENERAL

1.01 Attention is directed to the printed form of Contract, Supplementary Conditions and the entire Division 1, General Requirements.

1.02 Equality of material, article, assembly or system, other than those named or described in this Section, will be determined in accordance with the provisions of Article VI of the contract form.

1.03 SCOPE OF WORK

A. Provide all labor, materials, equipment, services and transportation required to complete structural steel work shown on Drawings, as specified herein, or both, including but not limited to items noted below.

1. Furnishing of anchor bolts.

2. Furnishing and erection of angles, channels, stiffeners, plates, bolsters, clips, lintels or relieving angles affixed to structural steel, masonry and corresponding connections (bolted and welded).

3. Furnishing and application of field applied primer and paint, including finish coat(s), and field touch-up paint for structural steel items.

4. Design and shop drawings of welded structural connections.

5. Furnishing of structural steel items, required to be built into or form part of work specified under other Sections, to appropriate trade at proper time with complete instructions and templates to facilitate installation. Verify proper installation of same.

14. Unless specifically excluded, furnishing and installation of any other items of structural steel work indicated on Drawings, specified or obviously needed to make work of this Section complete.

B. Related Work Specified Elsewhere:

1. Cast-in-Place Concrete (03300)

2. Coordination & Phasing (01040)

3. Painting (excluding touch up of prefinished surfaces and shop coats as required) (09900)

1.04 STANDARDS

A. Except as otherwise specified herein, perform work in accordance with specifications noted below, including latest editions of applicable specifications, codes, and standards cited therein, and latest applicable addenda and supplements. Copies of these items shall be kept available in shop and field. Field copies shall be purchased by the General Contractor.

1. "The 2006 International Building Code".

2. "Specifications for Structural Steel Buildings", American Institute of Steel Construction.

3. "Code of Standard Practice for Steel Buildings and Bridges", American Institute for Steel Construction.

4. "Structural Welding Code (AWS D1.1)", American Welding Society, latest edition.

5. "Painting Manual, Vol. 1, Good Painting Practice" and "Painting Manual, Vol. 2, Systems and Specifications", Steel Structures Painting Council.

6. ASTM A-6 "General Requirements for Delivery of Rolled Steel Plates, Shapes, Sheet Piling and Bars for Structural Use". The latest issue date as listed in ASTM Index shall apply.

B. Any material or operation specified by reference to published specifications of manufacturer or published standard shall comply with said specification or standard. In case of conflict between referenced specifications, most stringent requirement shall govern. In case of conflict between referenced specifications and Project Specifications, Project Specifications shall govern.

1.05 SUBSTITUTIONS

A. Substitutions for member sizes, type(s) of steel, connection details or any other modifications proposed by Contractor will be considered by Engineer only under following conditions:

1. That request has been made and accepted prior to submission of Shop Drawings.

2. That there is a substantial cost advantage or time advantage to City; or that proposed revision is necessary to obtain required materials or methods at proper times to accomplish work in time scheduled.

3. That sufficient sketches, engineering calculations, and other data have been submitted to facilitate checking by Engineer, including cost reductions or savings in time to complete work.

4. That the cost of reviewing substitutions shall be paid for by Contractor.

1.06 SUBMITTALS

A. Job Standards: Submit to Engineer, connection details proposed prior to submitting detailed Shop Drawings.

B. Joint Welding Procedures: Submit to Engineer joint welding procedures and program of welding sequence (for each component and for welding components together) before any welding is done. After return of submittal, welding procedures and sequences shall be followed without deviation. Engineer may require requalification of these welding procedures by tests prescribed in AWS "Standard Qualification Procedure".

C. Joint Welding Testing: Submit to Engineer prior to start of fabrication, non-destructive testing method to be used for specific typical joints. Results of such tests during the course of work shall, upon request by Engineer, be made available for review by Engineer and/or Testing Agency.

D. Method of Erection: Submit to Engineer, in accordance with requirements of Contract Documents, prior to starting work, description of methods, sequence of erection, and type of equipment proposed for use in erecting structural steel work. This submission shall not relieve Contractor of his responsibility for providing proper methods, equipment, workmanship, and safety precautions.

E. Shop Drawings: Submit to Engineer detailed Shop Drawings, including erection drawings, schedules and index sheets showing: grades of steel; identification mark of members; dimensions; size, arrangement, and weight of members; orientation and relation of members to appropriate grid lines; and elevations; framing (if required) to support metal deck; location and size of openings, slots, and holes; requirements, such as punched or drilled holes, for attachment of other materials or parts of construction; type, size, and extent of welds; joint welding procedures; welding sequences (use welding symbols adopted by American Welding

Society); cleaning requirements prior to painting; type and dry thickness of paint. Members to be galvanized shall be so noted on shop drawings.

1. Except as otherwise noted, approval of Shop Drawings will be for size and arrangement of components. Errors in dimensions shown on Shop Drawings shall be responsibility of Contractor. Check and coordinate structural steel work with work of other trades before submitting Shop Drawings.

2. Do not proceed with fabrication of material or performance of work until corresponding item on Shop Drawing has been approved by Engineer.

F. Mill Test Certification: Submit to Engineer prior to delivery of structural steel to job site, triplicate copies of certified mill test reports of structural steel (including names and locations of mills and shops, and analyses of chemical and physical properties), properly correlated to structural steel to be used in this project.

G. Connection Material Certification: Submit to Engineer triplicate copies of manufacturer's certification of bolts, nuts, washers, and filler metal for welding.

H. Painting Certification: Submit to Engineer triplicate copies of certification stating that requirements pertaining to pre-paint cleaning and painting of steel have been performed in accordance with Contract Documents.

I. Samples: Submit to Engineer, on request by Engineer samples and/or descriptive literature of materials, products and methods.

1. Do not proceed with fabrication of material/product or performance of work until sample has been approved by Engineer.

J. Corrective Work: Submit to Engineer drawings showing details of proposed corrective work prior to performing corrective work.

K. Affidavit: Submit to Engineer, on request by Engineer, manufacturer's and/or fabricator's and/or erector's affidavit stating that material or product provided complies with Contract Documents.

L. Maintain records of shop and field welding procedures and records of welders employed, date of qualification and identification symbol or mark. Maintain records for each impact wrench used in shop and field, showing dates, sizes of bolts tested and the corresponding torque values. Certified copies of the records shall be made available to Contractor, Engineer and City's testing laboratory.

M. Provide setting drawings, templates, and directions for the installation of anchor bolts, or other items to be installed by others. Verify proper installation of same.

N. All dimensions indicated on the plans shall be verified as correct in the field by the Contractor before fabrication. Field dimensions shall be shown on the Shop Drawings and shall be noted as having been verified in the field.

1.07 INSPECTION, TESTING AND QUALITY CONTROL

A. Inspection and testing of structural steel fabrication and erection may be performed by an independent Testing Agency, under a separate contract with the City. Materials and workmanship shall be subjected to inspection and testing in mill, shop and/or field by Testing Agency. Such inspection and testing shall not relieve Contractor of his responsibility to provide his own inspection, testing, and quality control as necessary to furnish materials and workmanship in accordance with requirements of Contract Documents.

B. Contractor shall maintain his own inspection and quality control of shop and field work. Quality control and inspection of welding work shall consist of meticulous supervision by Contractor's own welding inspector using non-destructive spot testing, at rate of at least one test per 50 linear feet of weld by each welder, except that partial penetration and full penetration welds shall be tested 100 percent. Non-destructive testing shall be done by radiographic-, magnetic particle-, or ultrasonic method, whichever is most effective for joint to be tested. Results of such tests shall be provided to Engineer and/or Testing Agency when requested.

C. Notify Engineer and Testing Agency prior to start of any fabrication, erection, or other phases of work so as to afford them reasonable opportunity to observe the work.

D. Facilitate inspection and testing by Testing Agency. Contractor shall, at his own expense, furnish Testing Agency, upon request, with:

1. Complete sets of approved Shop Drawings and corrective work procedures at fabricating shop(s) and in field.

2. Cutting lists, order lists, material bills, and shipping lists.

3. Information as to time and place of all rollings and shipments of material to shops and field.

4. Representative sample pieces requested for testing.

5. Full and ample means and assistance for testing materials, and proper facilities for inspection of work, in mill, shop and field.

E. Testing Agency shall inspect and test welded and bolted work as required by Engineer. Each lot of bolts shall be checked in the Skidmore-Wilhelm device for conformity with standard requirements.

F. Do not remove any marks or tags applied by Testing Agency identifying rejected work.

G. Any work found deficient shall be corrected or replaced in accordance with these specifications. Deficient welds shall be cut out to sound material and rewelded. Deficient assemblies shall be taken apart, corrected and reassembled, using new materials as required.

H. Structural steel work which has been rejected by Engineer and/or Testing Agency in mill, shop, or field, shall be corrected without delay and at no additional expense to the City.

I. The fact that steel work has been accepted at the shop shall not prevent its final rejection at the job site, or even after it has been erected, if it is found to be defective.

J. Qualifications for Welding Work:

1. Qualify welding processes and welding operators in accordance with the latest edition AWS "Standard Qualification Procedure".

2. Provide certification that welders to be employed in the work have satisfactorily passed AWS qualification tests within the previous 12 months and have been welding regularly.

PART 2 PRODUCTS

2.01 GENERAL

A. Provide positive identification for each steel type and tensile strength classification, except A36 steel, by a uniform marking system on each piece. All steel shall be newly rolled steel.

2.02 STEEL MATERIALS

A. Carbon steel - shapes, plate, angles and bar shapes, ASTM A36.
B. Anchor Bolts: ASTM A307 (Galvanized).

C. High Strength Bolts: ASTM A325.

D. Filler Metal for Welding: E70XX low hydrogen as per Table J 2.5 of AISC "Specifications for Structural Steel Buildings".

E. Structural Steel Primer Paint: "Tnemec 99", "Rust Oleum 1069", or approved equivalent.

F. Coating for Finished Bearing Surfaces (e.g., columns): "Magnafilm 1043" by Magnus Chemical Co., Garwood, N.J.; "M-2658, Blue Lacquer" by U.S. Steel Corp., Pittsburgh, PA or approved equivalent.

PART 3 EXECUTION

3.01 INSPECTION

A. Examine all work prepared by others to receive work of this Section and report any defects affecting installation to Contractor for correction. Commencement of work will be construed as complete acceptance of preparatory work by others.

3.02 HANDLING AND STORAGE

A. Handle and stack materials carefully to prevent deformation or damage. Store structural steel carefully on substantial timbers and blocking, so arranged that steel will be free from earth and properly drained, preventing any splattering with dirt or accumulation of water in or about steel. Take care to prevent damage to any shop painted surfaces and to prevent accumulation of mud, dirt, or other foreign matter on steel. Any accumulation shall be completely removed prior to erection.

3.03 FABRICATION

A. Except as otherwise indicated on Drawings or specified herein, fabricate structural steel in accordance with "STANDARDS" in this Section.

B. Permissible tolerances for steel members shall conform to ASTM A6. The as-fabricated tolerances shall conform to the cited AISC Specifications, AISC Code and the AWS Code,

except where closer tolerances and straightness of members are required for fitting of the work in fabrication or erection.

C. Provision for attachment of other materials: Punch and drill steel for attachment of other materials indicated on Drawings or noted in Specifications to be attached to steel.

D. The Contractor shall design and detail all connections not specifically detailed on Drawings. Fabrication and erection details shall supplement and be consistent with details shown on the Drawings. Do not use one-sided or other eccentric connections, except where they are specifically detailed and in isolated cases where approval of Engineer is obtained.

E. Welding:

1. Provide quality control and qualification of welders and welding procedures and operations as specified under "Inspection, Testing, and Quality Control" in this Section.

2. Shop Welding Process: Use shielded metal-arc, submerged arc, gas metal-arc, and flux cored-arc, or other process approved by Engineer.

3. Groove Welds: Provide complete penetration of mitered support angle legs, unless otherwise noted on Drawings.

4. Base metal shall be checked by Contractor to insure absence of laminations or other defects. Welds shall be sound throughout and have no cracks or imperfections.

5. Where structural joints are required to be welded, details of joints, technique of welding employed, appearance and quality of welds made, and methods used in correcting defective work shall conform to applicable requirements noted under "STANDARDS" in this Section.

6. Prepare joint welding procedures and program of welding sequence (for each component and for welding joining components to each other) and submit to Engineer for approval before any welding is done. After approval, welding procedures and sequences shall be followed without deviation unless specific approval for change is obtained from Engineer. Engineer may require requalifications of these welding procedures by tests prescribed in AWS "Standard Qualification Procedure".

7. Each welder working on the project shall be assigned an identification symbol or mark. Each welder shall mark or stamp his identification symbol at each weldment completed, whether in shop or field.

F. Manual oxygen cutting shall be done only with a mechanically guided torch, except as permitted below.

1. Gas cut edges which are not welded and will be free of substantial stresses, as determined by the Engineer, may be cut manually with an unguided torch provided that specified AISC edge distances to holes are maintained.

2. Gas cut edges which will be subjected to substantial stress (over one-half the allowable stress), as determined by the Engineer, or which are to be welded may be cut manually with an unguided torch to a line not within 1/8 inch of the finished dimension, with final removal of material completed by chipping or grinding to produce a surface quality equivalent to that of the base metal edges.

G. Openings in Structural Steel.

1. Cutting of openings differing from or in addition to those shown on approved shop drawings will not be permitted without written approval of Engineer.

H. Corrective Work: Structural steel elements having fabrication errors and/or which do not satisfy tolerance limits shall not be incorporated in finished work. Such elements may be corrected if permitted by Engineer and/or Testing Agency. Submit to Engineer drawings showing details of proposed corrective work. These drawings shall be approved by Engineer prior to performing corrective work. Corrective work shall be performed in accordance with requirements of Contract Documents. Corrective work and any retesting which may be required shall be at Contractor's expense.

1. Identification: Structural steel members shall have an assigned position and identification mark or symbol, clearly indicated on each piece near one end. Marks shall correspond to that given on Shop Drawings and erection drawings related to specific members.

3.04 SHOP PAINTING

A. Unexposed Steel

1. Except as otherwise indicated on Drawings or specified herein, paint structural steel work in accordance with "STANDARDS" in this Section.

2. Steel to be painted:

a. Clean steel surfaces in accordance with SSPC-SP2, Hand Tool Cleaning.

b. Existing stair stringers to remain up to landing at level 3.

c. Unless specifically excluded or modified, apply one shop coat of structural steel primer paint to steel.

d. Apply paint to surfaces requiring paint only to within two inches of any field weld or high strength bolted friction-type connection. If for any reason surface to be field welded or bolted is painted, remove such paint completely to within limits before field welding or bolting.

3. Steel to be left unpainted:

a. Clean steel surfaces in accordance with SSPC-SP10.

b. Finishing Bearing Surfaces and Surfaces to be weld-spliced in field: Protect surfaces (e.g., bearing surfaces of columns and column base plates) against corrosion by use of rust-inhibiting coating that can be easily removed prior to erection or which has characteristics that make removal unnecessary prior to erection.

4. Shop coat application:

a. After steel has been properly prepared as specified above, apply structural steel primer paint to dry steel surfaces by brush, spray, or roller, assuring no running

or sagging in accordance with manufacturer's directions as approved by Engineer.

b. Apply 2.0 to 3.0 dry mil thickness of shop primer.

c. Inspection of shop painting - as specified under "Inspection, Testing, and Quality Control" in this Section.

B. Exposed Steel

1. It is intended that the protective coating system for all steel exposed to atmospheric conditions shall be primed and painted. Provisions shall be made for proper handling at all stages of the coating, shipping, storing at the job site and erection that will protect the finished surfaces from damage or soiling.

2. Care shall be exercised to maintain clean surfaces. Remove all dust and residue immediately prior to application of zinc coating.

C. Notification:

Notify Testing Agency five (5) days prior to shipment of any structural steel so paint inspection may be made. At these inspections dry mil thickness of paint film will be checked. Steel containing mill scale that can easily be removed with blade of pocket knife will be subject to recleaning and repainting at no expense to the City.

3.07 ERECTION

A. Except as otherwise indicated on Drawings or specified herein, erect structural steel in accordance with "STANDARDS" in this Section.

B. Methods of Erection: Prior to starting work submit to Engineer description of methods, sequence of erection, and type of equipment proposed for use in erecting structural steel work. This submission, and approval of same by Engineer, shall not relieve Contractor of his responsibility for providing proper methods, equipment, workmanship, or safety precautions.

C. Provide temporary flooring, planking, and scaffolding necessary in connection with erection of structural steel in accordance with applicable O.S.H.A. requirements.

D. Errors in shop fabrication or deformations resulting from handling and/or transportation that prevent proper assembly and fitting of parts shall be reported immediately to Engineer for approval of method of correction. Approved corrections shall be made at Contractor's expense.

E. Furnish instructions for setting of drilled in anchor bolts and other items to be embedded in cast-in-place concrete, in ample time so that this work will not be delayed.

F. Setting Plates: Set base plates level to correct elevations and support temporarily on steel wedges, shims, leveling devices, or as shown on Drawings, until corresponding supported member has been positioned, plumbed and anchor-bolted. Entire area under plates shall then be packed solidly with non-shrink grout. Leave protruding leveling devices in place until after grout has attained required strength, and then cut off flush with top or edges of base plates, or both, except as otherwise noted.

I. Align, level, and adjust members accurately prior to final fastening.

J. Field Welding: Execute in accordance with requirements under "FABRICATION" in this Section, excepting those requirements which manifestly apply to shop conditions only.

K. Field Oxygen Cutting: Not to be performed without written consent of Engineer. Once approval is obtained, execute in accordance with requirements under "FABRICATION" in this Section.

L. Openings in structural steel required in field:

1. Make no openings without the specific written approval of the Engineer. All re-entrant corners shall be shaped notch-free to a radius of at least 1/2 inch at blocks, copes, cuts and openings.

2. Openings in structural steel shall be cut and/or reinforced only by structural steel Contractor, and only with specific prior written approval of the Engineer.

3.08 FIELD PAINTING

A. Field Coat Application:

1. Use same type of paint as used for shop coat.

2. After erection, touch-up field welds and connections and other surfaces required to be painted. Do not paint connections until after inspection and approval of City and/or Testing Agency.

2. Do not paint when ambient temperature is below 40 degrees F. or when conditions differ from paint manufacturer's recommendations, as approved by City.

3. All existing structural and miscellaneous steel (incl handrails)to remain from level one up to the level three platform shall be properly prepared as specified in this specification. Primer and paint shall be applied to dry steel surfaces by brush, spray, or roller, assuring no running or sagging in accordance with manufacturer's directions as approved by Engineer.

4. New steel access door installed at forth floor level shall be primed and painted in accordance with the shop painting provisions described in Section 3.04.

END OF SECTION

Please acknowledge this addendum within your proposal. Failure to do so may cause a bidder to be disqualified.

End of addendum #1