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BID ADDENDUM NO. 2

This Bid Addendum modifies the City of Portsmouth bid package for the Replacement of NH Route 33 over Pan Am Railways and Roadway Approaches, State Project No. 10665, FHWA Project No. BRF-X-018-2(66), as follows. Part 1 addresses questions received from prospective bidders via fax and email. Part 2 amends the Contract Documents.

Part 1 – Questions from Prospective Bidders

1. Can you look at the possibility of using HDPE fused pipe for the 30" drain pipe. Also if the drain pipe needs to be 30" the casing will need to be upsized to 42". I can't see any way of installing 30" RCP inside a 36" casing. The bell on 30" RCP pipe is 39". 36" casing is not large enough for any 30" pipe.

Response: Pipe alternatives will be discussed with the Railroad following the award of the contract. The bid shall continue with the 30" RCP as shown. The pipe casing under the railroad shall be 42" diameter and the pipe shall be 30" diameter, as shown on sheet 19 of the roadway plans. Drainage note #76 on sheet 89 shall be revised accordingly. Please see Part 2 of this addendum for the modification of drainage note #76.

2. Is it possible to get digital data from the engineer (VHB) on the cross sections to analyze excavation movement?

Response: Digital CAD files will not be available during the bidding process. Electronic CAD files may be made available to the contractor that is awarded the project, as requested.

3. Is it acceptable to run post tension duct parallel to the bridge skew and post tension all 7 slabs in phase I and all 14 slabs in phase II. In the past it has been difficult to achieve the minimum tension due to strand length utilizing the stitching method. This will also eliminate schedule issues with cure time and tensioning. If the above is not acceptable a high strength rod instead of strand may eliminate some of the issues. Would this be acceptable?

Response: Voided slabs shall be stitched together as shown in the bridge plans. High strength rods are acceptable, see Part 2 of this addendum.

4. There are no summary tables included. Typically there are summaries for clearing, earthwork, drainage, curbing, etc.. Could such summaries be put out?

Response: No summaries are available as this is a municipally managed NHDOT project that didn't require them.

5. Addendum #1 says the pipe in the jacked sleeve is 36". The plans list it as 30". Also, there is no pay item for 36" RCP. Which is correct? Is the 42" sleeve called for in the plans sufficient for a 30" or 36" (whichever is required in above answer) carrier pipe?

Response: The correct pipe size is 30". Please see Part 2 of this addendum for clarification.

6. Is there any soil boring info available for the area where the sleeve will be jacked?

Response: There is no soil boring information available for the sleeve jacking location.

7. Clearing and grubbing is a Final Pay item. Does the bid quantity include the clearing required to install the drainage along the RR right-of-way?

Response: Yes.

8. There is a large quantity of stockpiled material that will have to be moved in order to install the drainage along the RR right-of-way. Will this be done by others, or will it be paid as structure excavation? It appears that some work may be intended in the area of CB76 since the grate elevation given is not up the existing surface elevation, but there is nothing shown on the plans. Is this correct?

Response: In accordance with the 2006 NHDOT Standard Specifications for Road and Bridge Construction, the first 9' of common excavation for pipes, manholes, catch basins, and drop inlets is subsidiary. Additional excavation required will be paid for as common structure excavation, or as otherwise necessary, as determined by the Engineer. The catch basin indicated in Drainage Note #76, shall be capped at the elevation as shown in the plans on sheet 89 of the roadway plans. See Part 2 in this addendum for clarification.

9. The drainage along the RR right-of-way will require some excavation with the RR property. Is this covered in the City's MOU with the RR?

Response: No, work outside of the bridge limits is not included with the City's MOU with the Railroad. Excavation for pipe installation shall be performed entirely on City property and shall not encroach on the Railroad Right-of-Way.

10. There is an item for a leaching chamber but there doesn't seem to be one in the job? If there is one, there are no details of it (i.e. structure height, holes, etc.).

Response: Please see sheet 87 of the roadway plans for location of leaching chamber and see Drainage Note #42 on sheet 89 of the roadway plans for description of work associated with the required leaching chamber. Also see "Item 604.196 – Leaching Chamber" detail on sheet 17 of the roadway plans for the structure detail.

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11. Item 508.54 (Detectable Warning Devices, Cast Iron) appears in the bid schedule, but the closest spec is for Item 608.4 and that spec calls for plastic DWP's. Which is required?

Response: The correct item is "608.54 – Detectable Warning Device, Armor Tile". Please see Part 2 of this addendum.

Part 2 – Amendments to Bid Documents

1. In Drainage Note #76 on sheet 89 of the roadway plans, modify the third line "CONST. 30LF X 36" STEEL SLEEVE..." to read:

"CONST. 30LF X 42" STEEL SLEEVE (CENTER UNDER RAILROAD TRACKS)"

- 2. Make the following modifications to Sheet 58 (Bridge Sheet 38 of 63) of the Contract Plans:
 - In the "Transverse Tie Pocket Detail" on the upper left-hand corner of sheet 58, modify the text in the Section view from "½" Dia. Transverse Tendon" to "Transverse Tie".
 - Under "Notes" located directly under the "Transverse Tie Pocket Detail", delete note #2 "Transverse ties shall be covered by....." in its entirety.
 - Under "Transverse Tie Tensioning Notes" located along the right-hand side of the sheet, modify note #3 "After the mortar has cured..." to read as follows:
 - "After the grout has cured (24 hours minimum), tension each transverse tie to 40 kips."
 - Under "Transverse Tie Tensioning Notes" located along the right-hand side of the sheet, delete note #6 "Post-tensioning strands shall be..." in its entirety and replace with the following:
 - "Transverse post-tensioning ties shall be Grade 75, 1" dia. DYWIDAG Threadbars or approved equal."
 - Add the following note #7 under "Transverse Tie Tensioning Notes" located along the right-hand side of the sheet:
 - "The fabricator shall submit post-tensioning anchorage and blockout details for review and approval along with the precast concrete superstructure shop drawings."

- 3. In Addendum No. 1, page 5 of 7, Part 2, #4, Response "As shown in the roadway plans..." should be modified as follows:
 - "As shown in the roadway plans, the pipe diameter is 30 inches (not including sleeve)."
- 4. In Addendum No. 1, replace page 3 of Special Attention "Fuel Adjustment" labeled "Table 1 FUEL FACTORS" with the attached page labeled "Table 1 FUEL FACTORS".
- 5. On sheet 19 of the roadway plans, under "Notes", #1, modify the first sentence, "Construct drainage for 74 and 75..." and third sentence, "Cap CB 75 at..." as follows:
 - "Construct drainage for Drainage Note 74, 75, and 76 within the City of Portsmouth ROW and the drainage easement provided for Drainage Note 76."
 - "Cap CB 75 at elevation 51.34 and CB 76 at elevation 52.00 with a 3' x 3' x ½" steel plate over the frame and grate."
- 6. On sheet 9 of the roadway plans, under "General Notes for Sidewalk Ramps" note #6, the first sentence that begins "Item 608.54, "Warning Surface"...." shall be replaced with:
 - "Item 608.54, "Detectable Warning Device, Armor Tile", shall be used on concrete ramps with crosswalk markings, unless otherwise directed by the Contract Administrator or Engineer."
- 7. Replace Special Provision Section 608 Sidewalks, Item 608.4 ADA Compliant Handicap Ramp, with the attached Special Provision Section 608 Sidewalks, Item 608.54 Detectable Warning Device, Armor Tile.
- 8. Replace Special Provision Section 608 Sidewalks, Item 608.24 & 608.26 Concrete Sidewalks & Ramps with the attached Special Provision 608 Sidewalks, Item 608.24 & 608.26 Concrete Sidewalks & Ramps.
- 9. Replace Bid Form sheet 17 of 32 in the Proposal Form Schedule of Prices section of the Contract Documents with the attached sheet.
- 10. Replace Bid Form sheet 21 of 32 in the Proposal Form Schedule of Prices section of the Contract Documents with the attached sheet.
- 11. On sheet 87 of the roadway plans, under note "Construct new water service..." modify the fifth sentence "Construct meter pit w/meter..." to read:
 - "Construct meter box above ground w/meter and backflow preventer."

- 12. In Special Provision Section 611 Water Main Installation, under Pay Items and Units (ENGLISH), on page 20, modify "611.952 Meter Pit w/Water Meter and Backflow Preventer EA" to read:
 - "611.952 Meter Box w/Water Meter and Backflow Preventer EA"
- 13. In Special Provision 616 Traffic Signals, Item 616.102 Traffic Signals, add to Section 2.1.4 "List of Major Materials":
 - "1,000 LF IMSA 60-2, 3 Pair 19AWG Solid in accordance with 2.6"
- 14. In Special Provision 616 Traffic Signals, Item 616.102 Traffic Signals, add the following text after section 2.5.2.20:

"Add to 2.6:

2.6.2 (Added to this section)

Service	A.W.G.#			
(h) Closed Loop Interconnect Cable	IMSA 60-2, 3 Pair 19 AWG Solid			
	(60-4 Shall be used for aerial installation)			

- **2.6.4** All interconnect cables shall be terminated on a terminal block and protected with EDCO PC642-008D surge suppressors. All unused interconnect conductors shall terminate and interface with 66 BLOCK utilized to punch out wires.
- **2.6.5** Interconnection cable between the master On Street Arterial System controller and the local controller shall be twisted pairs of voice-grade telephone cable."

ITEM NOS.	APPROXIMATE QUANTITIES	ITEMS AND UNIT PRICES BID		UNIT PRICES Dollars Cents		AMOUNT Dollars Cents	
606.84		Anchor For Curved Guard- Rail W/ CRT Posts					
	1	AT					
	UNIT	DOLLARS PER	UNIT				
606.9522		Temporary Impact Attenuation Device, (Non-Redir Test Level 2)	rective				
	3	AT					
	EA	DOLLARS	ER EA				
607.79		54" Wood Rail Fence					
	550	AT					
	LF	DOLLARS	PER LF				
608.24		4" Concrete Sidewalk (F)					
	3150	AT					
	SY	DOLLARS	PER SY				
608.26		6" Concrete Sidewalk (F)					
	130	AT					
	SY	DOLLARS	PER SY				
608.54		Detectable Warning Devices, Armor Tile					
	16	AT					
	EA	DOLLARS	ER EA				

ITEM NOS.	APPROXIMATE QUANTITIES	ITEMS AND UNIT PRICES BID	UNIT PRICES Dollars Cents		AMOUNT Dollars Cents		
611.952		Meter Box W/ Water Meter And Backflow Preve	entor				
	1	AT	_				
	EA	DOLLARS	PER EA				
614.331		3" Steel Conduit					
	50	AT	_				
	LF	DOLLARS	PER LF				
614.511		Concrete Pull Box 14"					
	23	AT	_				
	EA	DOLLARS	PER EA				
614.522		Molded Pull Box 13"x24"					
	12	AT	_				
	EA	DOLLARS	PER EA				
614.7228		2" 2-Duct PVC Plastic Conduit, Schedule 80					
	155	AT	_				
	LF	DOLLARS	PER LF				
614.7314		3" PVC Plastic Conduit, Schedule 40					
	1550	AT	_				
	LF	DOLLARS	PER LF				

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SPECIAL PROVISION

SECTION 608 – SIDEWALKS

Item 608.54 – Detectable Warning Device, Armor Tile

The special provision provides for the installation of handicap accessible ramp surfaces (Detectable Warning Pavers) to be n compliance with the Americans with Disabilities Act (ADA). This Special Provisions provides for Item 608.4 and neither modifies nor amends any other provisions of this section unless specifically noted.

Description

1.1 This work shall consist of furnishing and installing a detectable warning surface and accessories on sidewalk ramps at locations shown on the plans, as specified herein, or as ordered including any and all required surface preparation. Detectable warnings shall be installed at sidewalk ramps where a sidewalk crosses a vehicular way, excluding unsignalized driveway crossings. The edge nearest the curbline shall be located 150 to 200 mm (6 to 8 in) from the face of curbline. The paver shall be centered on the ramp.

Materials

2.1 Detectable Warning Device:

- 2.1.1 <u>Material.</u> The detectable warning surface shall consist of Engineered Plastic units or approved equal. The units will be pressed into Portland cement or other Owner approved material. The paver units shall be Armor Tile as manufactured and supplied by Engineered Plastic, Inc., 300 International Dr Suite 100, Williamsville, NY 14221, 1-800-769-4463, www.armor-tile.com
- **2.1.2** Color. The color of the tile used shall be **brick red** (#22144), all would be installed in a concrete ramp as described above (608.26).
- **2.1.3** Paver Dimensions. Nominal paver dimensions shall be 2' deep x 3' wide.
- **2.1.4** Detectable Warning Truncated Dome Geometry:
- **2.1.4.1** Detectable warnings shall be in full compliance with ADAAG guidelines (Title 49 DFR Transportation, Part 37.9 Standard for Accessible Transportation Facilities, Appendix A, Section 4.29.2- Detectable Warning on Walking Surfaces).
- **2.1.4.2** Size and spacing for truncated domes shall be as follows: base diameter of nominal 0.9 inch, top diameter of nominal 0.4 inch, height of nominal 0.2 inch, with a center to center spacing of nominal 2.35 inches.
- **2.1.4.3** The truncated dome pattern shall align properly from paver to paver if more than 1 paver is required.

2.2 Setting Bed Material

2.2.1 <u>Material.</u> Pavers shall be set into fresh concrete before it sets. See ramp specification above (608.26). Also see manufacturer instructions.

Construction Requirements

- 3.1 The Contractor shall submit manufacturer's installation instructions and descriptive literature for materials specified herein.
- **3.2** Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.
- **3.2.1** All sealants/adhesives shall be protected from freezing conditions.
- **3.3** The air and surface temperatures during construction shall be in accordance with manufacturer's recommendations.
- **3.4** Concrete foundation shall be installed in accordance with the specifications included within Section 608 to depths indicated in the section shown on the plans.
- 3.5 Install detectable warning pavers in accordance with manufacturer's instructions directly in the setting bed and the allowing the top surface of the paver units to be at or just below the required finish grade.
- **3.6** Care shall be taken to ensure the safety of pedestrians when sidewalks must remain in service during construction.

Method of Measurement

4.1 These are measured by each panel installed under the truncated dome panel item.

Basis of Payment

Pay Item and Unit

Detectable Warning Device, Armor Tile

Each

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SPECIAL PROVISION

SECTION 608 – SIDEWALKS

Item 608.24 & 608.26 – Concrete Sidewalks & Ramps

Amend Section 608 to read:

1.01 <u>Scope of Work:</u> The work shall consist of construction of concrete sidewalks as shown on the plans or as directed in the field by the Engineer.

1.02 Methods of Construction:

- 1.02a All labor and materials shall conform to the State of New Hampshire Standard Specifications for Road and Bridge Construction, Section 608, 203 and 209 except as amended here.
- 1.02b All concrete shall be Class A, 4000-PSI after 28 days with 5 to 7 percent air entrained. The maximum concrete slump that will be allowed is 5, this may be tested by the engineer at any time. All concrete will have polyfiber reinforcing. Any concrete found not meeting this specification will be removed and repoured by the contractor with no additional expense to the owner. Expansion joints shall be 25' apart. Control joints shall be 5' apart and shall be ¼ of the depth of the sidewalk (Up to 1 1/2" deep).
- 1.02c Minimum thickness shall be a full 4" or 6 inches (for 608.26) unless approved by the engineer.
 - 1.02d The ends of all sidewalks at driveways shall be ramped at a maximum slope of 1:12.
- 1.02e All sidewalks shall have handicap ramps at street intersections or as located by the Engineer, built at a maximum slope of 1:12 and in accordance with the ADA Regulations (see plan details).
- 1.02f Excavation for new sidewalks shall be at a depth of 12 inches below finish grade. In areas not butting curbing or buildings the excavation shall be 6 inches wider on each side than the finished sidewalk width. At all drive crossings, the depth of excavation shall be increased accordingly. All unsuitable material shall be approved by the Engineer and removed and disposed of offsite at the Contractor's own expense. At no time will unsuitable material be left under sidewalk areas.

- $1.02 \mathrm{g}$ Handicapped ramps (at street intersections) shall be 6" deep, 4000 psi fiber mix reinforced with 6" x 6" x 10ga welded wire mesh with truncated dome panels (panels paid for under 608.54).
- 1.02h All exposed surfaces of sidewalks will be sealed with an approved Silane-Siloxane coating as specified under 534.3.4. Any sidewalks not meeting the test referenced in 534.3.4 will be recoated at no expense to the owner. Contractor will provide cut sheets on product before installation for engineers approval.
- 1.02I All sidewalk areas shall be thoroughly wetted and compacted prior to the pouring of any concrete. On days exceeding 80 degrees, all sidewalks will be kept damp using wet burlap tarps or any other approved method for 24 hours after set up. Tarps will be staked down to prevent being blown off by wind gusts. Curing compounds will be considered an approved equal.
- 1.02j All sidewalks will be finished with a soft broom with the finish being transverse to the typical pedestrian path. After brooming, all edges will be finish edged.
- 1.02k Any sidewalks poured that have excessive "popcorning" on top or on the sides as determined by the engineer will not be approved or paid for.
 - 1.021 All joints shall be straight, even and perpendicular to the sidewalk.

1.03 Methods of Measurement:

This work shall be measured by the square yard of concrete sidewalk successfully & completely installed and approved by the Engineer.

1.04 Basis of Payment:

This work shall be paid for at the Contract Unit Price as listed in Item #608.24 & 608.26 in the Bid Specification.

This price shall include all equipment, material and labor incidental hereto.

Table 1 - FUEL FACTORS

Item of Work	Item No.	Units	Fuel
Excavation:			
Earth	203.1	gal/c.y.	0.26
	203.4	(liters/m)	(1.29)
	203.5	(mers/m)	
	203.7		
	206.1		
	207.1_		
	504.1_		
Rock	203.2	gal/c v	0.34
NOCK	206.2_	gal/c.y.	(1.68)
		(liters/m)	(1.00)
	207.2		
	504.2_		
Other	203.3	gal/c.y.	0.31
	203.6	(liters/m ³)	(1.54)
	207.3_	,	
	504.3_		
Bases:			
Unprocessed	209.1,.3,.4_	gal/c.y.	0.46
•	304.1	(liters/m)	(2.28)
	304.2_	(mers/m)	
Processed	304.2_	gal/c.y.	0.82
110003500	308.2		(4.06)
		(liters/m)	(4.00)
	311.1_		
	312		
	313		
	314		
Bituminous Concrete	402	16	1.00
Pavement	403	gal/ton	1.90
	411	(liters/m ³)	(7.93)
	414.1_	(mers/mr)	
All Other Items:			
Out Items.		gal/\$1,000 of work	13.0
		(liters/\$1,000 of work)	(49.2)
3	201		, ,
Excluding:	201	550.2_	618
-	510.61_	560	619
	510.65_	561	624
	528	563.5_	692
	544	563.6	698
	546	563.7_	8
	549	563.91_	10
2	550.1	567.	
Item 403.6 shall be c	alculated using the "All Oth	ner Items'' category rate.	

Also excluded are all supplementary agreements, extra work and per specification items.