Pearl Place
Buildings 1 & 2

Developer
Avesta Plearl Street One L.P.

ADDENDUM 1

September 15, 2006

Pearl Place
Buildings 1 & 2
Portland, Maine

Client: Pearl Street One Associates, L.P.

ADDENDUM NO. 1

September 15, 2006

To:

Owner	
Avesta Pearl Street One, L.P.	Jay Waterman
State	
Office of the State Fire Marshall	Steve Dodge
MSHA	David Schoenherr
City of Portland	
Housing and Neighborhood Services	Aaron Shapiro

Design Team	
Architect	Winton Scott Architects
Landscape Architect	Carroll Associates
Civil Engineer	Gorrill – Palmer Cons. Engineers
Structural Engineer	Becker Structural Engineers
Mechanical Engineer	Mechanical Systems Engineers
Electrical Engineer	Bartlett Designs
Danuta Drozdowicz	Fore Solutions

TABLE OF CONTENTS

Addendum for Specifications

No. Location Description

SUPPLEMENTAL GENERAL CONDITIONS

ARTICLE 3 - CONTRACTOR

Between sections B and C insert:
B1. Paragraph 3.7 Permits Fees and Notices:

At paragraph 3.7.1 line 2 delete building permit. This it will be obtained by the Owner.

SECTION 02350 STRUCTURAL SOILS

Add Structural Soil (Section 02350) specification to Set

SECTION 02850 SITE IMPROVEMENTS

1.02 A. 3 **Delete** in entirety
Replace with:
3. Steel Benches (Creative Pipe, Inc. Model #BHBLB-RB-E-P)
Color: TBD.

2.04 A. **Delete** in entirety
Replace with:
A. Steel benches to be Brahma Series Backless Bench Model BHBLB-RB-E-P, as manufactured by Creative Pipe, Inc; PO Box 2458; Rancho Mirage, CA 92270,800-644-8467. or approved equal.

SECTION 06100 ROUGH CARPENTRY

PART 1 - GENERAL

1.02 DESCRIPTION OF WORK:

B. 5. Underlayment: delete Division 7; add Section 06110
Add the following at the end of this section:

PART 4 – WASTE MANAGEMENT

A. Separate wood waste in accordance with the Waste Management Plan.

B. Separate the following categories for salvage or reuse on site:
1. Sheet materials larger than 2 square feet.
2. Framing members longer than 16 inches.
3. Multiple cutoffs of any size larger than 12 inches.

C. The following categories may be reused in the manufacture or particleboard or medium density fiberboard:
1. Composite Wood: Plywood, OSB, LVL, I-joist, parallel-strand, laminated-strand, MDF, or particleboard.
2. Clean dimensional lumber.

D. Set aside damaged wood for acceptable alternative uses; bracing, blocking, cripples or ties.

E. Collect off cuts and scrap and place in designated areas for recycling.

F. Do not burn scraps of treated wood. Do not mix treated wood scraps with untreated wood. Separate, store, and dispose of hazardous wood wastes according to local regulations.

G. Close and seal tightly all partly used adhesive containers and store protected in well-ventilated, fire-safe area at moderate temperatures.

H. Place used adhesive tubes and containers in areas designated area for hazardous materials.

SECTION 06110 MISCELLANEOUS CARPENTRY

Add complete section. See this Section under attachments

SECTION 08552 FIBERGLASS WINDOWS

PART 2 – PRODUCTS

2.1 MANUFACTURERS
change the first line of the paragraph to read:
A. Manufacturers: Subject to compliance with requirements, provide products by the followings or <u>equal to</u>:

SECTION 08800 GLAZING

Add complete section. See this Section under attachments

SECTION 10520 FIRE-PROTECTION SPECIALTIES

PART 1 – GENERAL

1.1 SUMMARY

A. add: 2. Fire extinguisher cabinet

PART 2 – PRODUCTS

2.3 ACCESSORIES

add the following at the end of the paragraph:

B. Fire extinguisher cabinet: Manufacturer's standards designed to fit and secure the fire extinguisher of sizes and capacities indicated. Product shall be as manufactured by Larsen's with Vertical Duo door style and Larsen-Loc, color anodized aluminum finish, or equal.

SECTION 10800 TOILET AND BATH ACCESSORIES

PART 3 – EXECUTION

3.4 TOILET BATH ACCESSORIES SCHEDULE FOR LIVING UNITS

under A. B. C. and E. a fter the model numbers add by Franklin Brass or equal

D. delete model number; add Model: BV392P-W 24x36, by Basco or equal

Add new paragraph:

F. Surface Mounted Medicine Cabinet: Where this designation is indicated, provide the following:

1. Products: No. SMBV392P-W, 24x36 by Basco or equal

SECTION 11451 RESIDENTIAL APPLIANCES

PART 2 – PRODUCTS

2.2 RESIDENTIAL APPLIANCES

Make the following changes

A. Electric Range (Living Units)

1. a. delete Hotpoint; add General Electric: Model: JBS07HWW

C. Top-Mount Refrigerator (Living Units)
1. a. delete Hotpoint; add General Electric: Model: GTH18KBRWW

D. Top-Mount Refrigerator (Community Building)
1. a. delete TAX 10SNX; add General Electric Model: GTH16BBSRWW

E. ADA-Compliant Dishwasher (Accessible Living Units)
1. a. Correct model # to: GLDA690MWW

F. Dishwasher (Living Units)
1. a. delete model #; add General Electric Model: GSD3900LWW

SECTION 15600 MECHANICAL

2.25 AUTOMATIC TEMPERATURE CONTROL

O. Description of Operation
2. Reset Water Control
change the third sentence of the paragraph to read as follows:
" As the outside temperature falls, the supply water temperature shall be increased."

SECTION 16130 BOXES

ADD the following paragraph 2.1.D:
"D Provide pre-manufactured gaskets for wiring device plates at devices located in all exterior walls and party wall."

SECTION 16470 PANELBOARDS

REVISE paragraph 3.1.B as follows:
"B Height: 54" to top circuit breaker (max)."

REVISE panelboard schedules for all living units to indicate that fire alarm wiring shall be connected to the house lighting circuit.

DELETE panelboard HP-1B.

ADD panelboards HP-1B Section 1 and HP-1B Section 2 per the attached schedules.

SECTION 16510 INTERIOR LUMINAIRES

ADD paragraph 2.1.B as follows:

"B All luminaires shall be Energy Star rated and shall include indication of compliance."

SECTION 16721 FIRE ALARM AND SMOKE DETECTION SYSTEM

REVISE title to paragraph 1.3 as follows:

"1.3 "HOUSE" SYSTEM FUCTIONAL OPERATION"

DELETE paragraph 1.4.B.1.

REVISE paragraph 1.4.B.2 as follows:

"2 Handicap Accessible Living Units (all units): actuation of any automatic fire alarm initiating device causes all audible and visual alarms to activate within the given unit.

DELETE paragraph 2.6.A.

SECTION 16742 TELEPHONE SYSTEM

ADD paragraph 2.3.C as follows:

"C All telephone outlet locations shall include a duplex jack configuration."

SECTION 16745 CABLE TELEVISION SYSTEM

ADD paragraph 2.3.B as follows

"B All cable TV outlet locations shall include a duplex jack configuration."

SECTION 16910 EMERGENCY GENERATOR

REVISE paragraph 2.1.C.4 to indicate the motor starting capability shall be a minimum of 231KVA.

VOLTS: 120/208 AMPS 225 MAIN: MLO **PANEL: HP-1B SECTION 1**

MOUNT: SURFACE PHASE: 3 WIRES: 4 LOCATION: MAINTENANCE STOR 1-B08

BREAKER A	BREAKER P	DESCRIPTION	CKT VA	TYPE	CKT NO.	LOAD A	LOAD B	LOAD C	CKT NO.	TYPE	CKT VA	DESCRIPTION	BREAKER P	BREAKER A
20	1	B-1 CONTROLS	500	M	1	1219			2	M	719	P-1	3	15
20	1	B-2	960	M	3		1679		4	M	719	P-1	3	15
15	1	P-6	864	M	5			1583	6	M	719	P-1	3	15
15	1	P-7	864	M	7	1583			8	M	719	P-2	3	15
15	1	P-8	864	M	9		1583		10	M	719	P-2	3	15
20	1	MOTOR OPER DAMPERS	300	M	11			1019	12	M	719	P-2	3	15
20	1	CUH-1, CUH-2, CUH-3	450	M	13	1771			14	M	1321	P-3	3	20
15	1	UV-1 (ALT #2)	528	M	15		1849		16	M	1321	P-3	3	20
20	3	P-5	1321	M	17			2642	18	M	1321	P-3	3	20
20	3	P-5	1321	M	19	2642			20	M	1321	P-4	3	20
20	3	P-5	1321	M	21		2642		22	M	1321	P-4	3	20
20	2	B-1	1144	M	23			2465	24	M	1321	P-4	3	20
20	2	B-1	1144	M	25	1378			26	M	234	EF-1, EF-2, EF-3	1	20
20	2	CC-1 (ALT #2)	1248	M	27		4251		28	M	3003	HRU-1	3	50
20	2	CC-1 (ALT #2)	1248	M	29			4251	30	M	3003	HRU-1	3	50
		PHASE TOTALS				8593	12004	11960						

CONNECTED VOLT-AMPERES= 32557

CONNECTED AMPERES= 90

DEMAND VOLT-AMPERES= 16279

DEMAND AMPERES= 45

	CIRCUIT TYPE CODES	DEMAND FACTOR
L	LIGHTS	1.0
M	MOTORS	0.5
R	RECEPTACLES	0.5
H	HEAT	1.0
O	OTHER	0.5
S	SPARE	0.5

PROJECT: **PEARL PLACE**

PROJ. NO: 05-0017b

DATE: 09/01/06

STATUS: FOR CONSTRUCTION

Bartlett Design

LIGHTING & ELECTRICAL ENGINEERING

942 WASHINGTON STREET BATH, MAINE 04530

TEL (207) 443-5447 FAX (207) 443-5560

VOLTS: 120/208 AMPS 225 MAIN: MLO **PANEL: HP-1B SECTION 2**

MOUNT: SURFACE PHASE: 3 WIRES: 4 LOCATION: MAINTENANCE STOR 1-B08

BREAKER A	BREAKER P	DESCRIPTION	CKT VA	TYPE	CKT NO.	LOAD A	LOAD B	LOAD C	CKT NO.	TYPE	CKT VA	DESCRIPTION	BREAKER P	BREAKER A
15	1	EF-4, SF-1	500	M	31	3503			32	M	3003	HRU-1	3	50
20	1	UH-1, UH-2, UH-3	450	M	33		637		34	M	187	BF-1, BF-2, BF-3	1	20
15	3	EF-8	498	M	35			1362	36	M	864	SP-1	1	15
15	3	EF-8	498	M	37	648			38	M	150	DCP-1	1	15
15	3	EF-8	498	M	39		898		40	R	400	ROOFTOP RECEPTACLES	1	20
20	1	SPARE	500	S	41			1000	42	S	500	SPARE	1	20
20	1	SPARE	500	S	43	1000			44	S	500	SPARE	1	20
20	1	SPARE	500	S	45		1000		46	S	500	SPARE	1	20
20	1	SPARE	500	S	47			1000	48	S	500	SPARE	1	20
20	1	SPARE	500	S	49	1000			50	S	500	SPARE	1	20
20	1	SPARE	500	S	51		1000		52	S	500	SPARE	1	20
20	1	SPARE	500	S	53			1000	54	S	500	SPARE	1	20
100	3	PANEL HP-1B SECTION 1	8593		55	9093			56	S	500	SPARE	1	20
100	3	PANEL HP-1B SECTION 1	12004		57		12504		58	S	500	SPARE	1	20
100	3	PANEL HP-1B SECTION 1	11960		59			12460	60	S	500	SPARE	1	20
		PHASE TOTALS				15244	16039	16822						

CONNECTED VOLT-AMPERES= 48105

CONNECTED AMPERES= 134

DEMAND VOLT-AMPERES= 24053

DEMAND AMPERES= 67

CIRCUIT TYPE CODES		DEMAND FACTOR
L	LIGHTS	1.0
M	MOTORS	0.5
R	RECEPTACLES	0.5
H	HEAT	1.0
O	OTHER	0.5
S	SPARE	0.5

PROJECT: **PEARL PLACE**

PROJ. NO: 05-0017b

DATE: 09/01/06

STATUS: FOR CONSTRUCTION

Bartlett Design

LIGHTING & ELECTRICAL ENGINEERING

942 WASHINGTON STREET BATH, MAINE 04530

TEL (207) 443-5447 FAX (207) 443-5560

VOLTS: 120/208 AMPS 225 MAIN: MLO **PANEL: HP-1B SECTION 1**

MOUNT: SURFACE PHASE: 3 WIRES: 4 LOCATION: MAINTENANCE STOR 1-B08

BREAKER A	BREAKER P	DESCRIPTION	CKT VA	TYPE	CKT NO.	LOAD A	LOAD B	LOAD C	CKT NO.	TYPE	CKT VA	DESCRIPTION	BREAKER P	BREAKER A
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20	1	B-2	960	M	3		1679		4	M	**719**	P-1	3	**15**
15	1	P-6	864	M	5			1583	6	M	**719**	P-1	3	**15**
15	1	P-7	864	M	7	1583			8	M	**719**	P-2	3	**15**
15	1	P-8	864	M	9		1583		10	M	**719**	P-2	3	**15**
20	1	MOTOR OPER DAMPERS	300	M	11			1019	12	M	**719**	P-2	3	**15**
20	1	CUH-1, CUH-2, CUH-3	450	M	13	1771			14	M	**1321**	P-3	3	**20**
15	1	**UV-1 (ALT #2)**	528	M	15		1849		16	M	**1321**	P-3	3	**20**
20	3	P-5	1321	M	17			2642	18	M	**1321**	P-3	3	**20**
20	3	P-5	1321	M	19	2642			20	M	**1321**	P-4	3	**20**
20	3	P-5	1321	M	21		2642		22	M	**1321**	P-4	3	**20**
20	2	B-1	1144	M	23			2465	24	M	**1321**	P-4	3	**20**
20	2	B-1	1144	M	25	1378			26	M	234	EF-1, EF-2, EF-3	1	20
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		PHASE TOTALS				8593	12004	11960						

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L	LIGHTS	1.0
M	MOTORS	0.5
R	RECEPTACLES	0.5
H	HEAT	1.0
O	OTHER	0.5
S	SPARE	0.5

PROJECT: **PEARL PLACE**

PROJ. NO: 05-0017b

DATE: 09/01/06

STATUS: FOR CONSTRUCTION

Bartlett Design

LIGHTING & ELECTRICAL ENGINEERING

942 WASHINGTON STREET BATH, MAINE 04530

TEL (207) 443-5447 FAX (207) 443-5560

ADDENDUM FOR DRAWINGS

SITE ADDENDUM #1

L-2.0/L-2.1 1. Revise Pavement Striping (at Center Parking Island) See L-SK-1 for new plan

ARCHITECTURAL ADDENDUM #1

A1.1 1. Add 1 fire extinguisher with cabinet in the Elevator Machine Room 1-B06

2. At General Notes where it notes FE- Fire Extinguisher, add "with cabinet"

3. At Mechanical Room add TOS EL. 23'-9" for mud slab elevation.

A1.5 1. Add 1 fire extinguisher with cabinet in the Elevator Machine Room 2-109
2. Delete note "STAIR 1-2". Replace with note "STAIR 2-2"

A4 Series

1. At F2 assembly add Vapor Barrier by Section 07265 under 1" rigid insulation.
2. At W1 assembly add Air Infiltration Barrier by Sect. 07270 under rigid insulation
3. At W2 and W3 assemblies add 15# Felt Paper by Sect. 07412 after Air Infiltration Barrier
4. At W4 assembly add Vapor Barrier by Section 07265 under 1" rigid insulation.
5. At W5 and W6 assemblies add 15# Felt Paper by Sect. 07412 under 2 3/8" Air Space

A5.1 1. Detail 5 add Vapor Barrier by Sect 07265 under 1" Rigid Insulation.

A7.1 1. Detail 5 Powder Room H add a recessed medicine cabinet 24x36 at vanity see 22/A7.2.
2. Detail 10 delete RMC, add mirror

A7.2 1. Detail 3 and 7 delete RMC, add SMC.

A7.3 1. Detail 15 delete RMC, add mirror.

A8.1 1. Revised Kitchen Plan 8 is shown on ASK 1.

A8.3 1. Revised Kitchen Elevation 5 is shown on ASK 1.

A10.1 1. At KEYED NOTES 1, 2, 3 add by section 08110.

A11.1 1. At all fire rated doors that have glazing, provide fire rated glazing per section 08200.

A12 1. At Finish Schedule apply the following revisions:

a. B1 COMMONS; BASEMENT add:

Mainten. Storage 1-B08 Floor: Concrete Base:4" rubber Walls: Ptd. OSB Clg: Ptd. GWB

b. B2 COMMONS: FIRST FLOOR add:

Tennant Storage 2-107 Floor: VCT Base:4” rubber Walls: Ptd. OSB Clg: Ptd. GWB
Change Corridor 2-111 to Corridor 2-212
Change Mechanical Room 2-107 to Mechanical Room 2-111

2. At Detail 3 title add “ and Showers”

PEARL PLACE BUILDING 1 & 2
STRUTURAL ADDENDUM #1:

Dwg. S1.0: General Notes:

1. Design Loads #4: Change wind exposure from "C" to "B".
2. Design Loads: Add the following: " For truss design, use Top Chord Dead Load = 15 psf and Bottom Chord Dead Load = 5 psf"
3. Concrete Notes #4 – Remove entire note and replace with: "Concrete Mix Design: See Specification 03300"
4. Timber Notes #6 – Replace first sentence with: " All built-up beams and columns, ***including all jambs***, shall be nailed as follows (fastening in each ply).

Dwg. S1.1: Building 1 – Basement / Foundation Plan:

1. At North Wall, change top of brick-shelf elevation from 21'-1" to 22'-1".
2. At Column Schedule, add following note at Mark C3A: "Extend column to underside of wall top plate. Provide ½"x5"x9" cap plate, attached to wall top late with (2) ½" x 3" long lag screws, typical.
3. Provide door opening in north CMU wall of Maintenance Storage Room 1-B08. (See also Dwg. A1.1)

Dwg. S1.2: Building 1 – First Floor Framing / Foundation Plan:

1. At North Wall, change top of brick-shelf elevation from 24'-1" to 24'-9".
2. At Concrete wall adjacent to parking on Line 7, add note: "Provide 42" x 30" penetration in wall for Mechanical Exhaust Louver. Provide (2)-#8 all around penetration, extending bars 3'-4" beyond opening, typical. Top of Opening = (+26'-7")."

Dwg. S1.3: Building 1 – Second & Third Floor Framing Plan:

1. Change Note 3 to read: " Floor Trusses to be designed using dead loads and floor live loads as specified on Dwg. S1.0, General Notes. Coordinate location of specific live loads with architectural drawings."
2. Add note in plan at jamb in building corner between a H6 header and a H1 header: " For jamb at building corner, between H6 and H1, follow header schedule for H6 only, with (1) 2x6 jack stud for H1 support, typical."
3. In Header Schedule, add note to Mark H1: "Jamb typical except at exterior building corners near balcony location, see plan"
4. In Header Schedule, add note at Mark H5: "At attachment of LVL to PSL post, bear LVL on PSL full depth. Provide PSL above and below LVL for continuous load transfer. Attach full height 2x6 on each side of PSL post."
5. In Header Schedule, change jamb at Mark H6 to "5 ¼" x 5 ¼" PSL/VSL post, typical all levels".

6. In Header Schedule, modify size at Mark H6 to "3 ½ x 9 ¼ LVL (3 ½ x 11 ¼ LVL at snow drift locations, see plan).
7. In Header Schedule, add note at Mark H6: " Provide Simpson HUCQ410-SDS (HUCQ412-SDS at 11 ¼" deep LVL) to 5 ¼" x 5 ¼" PSL. Follow manufacturer's nailing requirements, typical each end.
8. Remove "H1" header designation at both side walls of stair tower at Stair 1-1 & Stair 1-2.
9. Change header designation at front wall of stair towers at Stair 1-1 & Stair 1-2 from "H3" to "H2".

Dwg S1.4: Building 1 – Roof Framing Plan:

1. At Note 1: Change elevation of stair tower roof sheathing (high point) from "65'-8" to "62'-11 1/2".
2. At Note 2: Change thickness of roof sheathing from ¾" to 5/8".
3. Change Note 3 to read: " Roof Trusses to be designed using dead loads and roof live loads as specified on Dwg. S1.0, General Notes. Coordinate location of specific live loads with architectural drawings."
4. Add note in plan at jamb in building corner between a H6 header and a H1 header: " For jamb at building corner, between H6 and H1, follow header schedule for H6 only, with (1) 2x6 jack stud for H1 support, typical."
5. Change header designation of front wall of stair towers at Stair 1-1 & Stair 1-2 from "H3" to "H2".

Dwg. S1.6: Building 2 – Second Floor / Foundation Plan:

1. Change Note 3 to read: " Floor Trusses to be designed using dead loads and floor live loads as specified on Dwg. S1.0, General Notes. Coordinate location of specific live loads with architectural drawings."
2. In Header Schedule, add note to Mark H1: "Jamb typical except at exterior building corners near balcony location, see plan"
3. In Header Schedule, add note at Mark H5: "At attachment of LVL to PSL post, bear LVL on PSL full depth. Provide PSL above and below LVL for continuous load transfer. Attach full height 2x6 on each side of PSL post."
4. In Header Schedule, change jamb at Mark H6 to "5 ¼" x 5 ¼" PSL/VSL post, typical all levels".
5. In Header Schedule, modify size at Mark H6 to "3 ½ x 9 ¼ LVL (3 ½ x 11 ¼ LVL at snow drift locations, see plan).
6. In Header Schedule, change note at Mark H6: " Provide Simpson HUCQ410-SDS (HUCQ412-SDS at 11 ¼" deep LVL) to 5 ¼" x 5 ¼" PSL. Follow manufacturer's nailing requirements, typical each end.
7. Add note in plan at jamb in building corner between a H6 header and a H1 header: " For jamb at building corner, between H6 and H1, follow header schedule for H6 only, with (1) 2x6 jack stud for H1 support, typical."
8. Remove "H1" header designation at both side walls of stair tower at Stair 2-1 & Stair 2-2.

9. Change header designation at front wall of stair tower at Stair 2-2 from “H3” to “H2”.

Dwg. S1.7: Building 2 – Third & Fourth Floor Framing Plan:

1. Change Note 3 to read: “ Floor Trusses to be designed using dead loads and floor live loads as specified on Dwg. S1.0, General Notes. Coordinate location of specific live loads with architectural drawings.”
2. Add note in plan at jamb in building corner between a H6 header and a H1 header: “ For jamb at building corner, between H6 and H1, follow header schedule for H6 only, with (1) 2x6 jack stud for H1 support, typical.”
3. Remove “H1” header designation at the side walls of the stair tower at Stair 2-1.
4. Change header designation of front wall of stair tower at Stair 2-2 from “H3” to “H2”.

Dwg. S1.8: Building 2 – Fifth Floor Framing Plan:

1. Change Note 3 to read: “ Floor Trusses to be designed using dead loads and floor live loads as specified on Dwg. S1.0, General Notes. Coordinate location of specific live loads with architectural drawings.”
2. Add note in plan at jamb in building corner between a H6 header and a H1 header: “ For jamb at building corner, between H6 and H1, follow header schedule for H6 only, with (1) 2x6 jack stud for H1 support, typical.”
3. Remove “H1” and “H3” header designations at the side and front walls of the stair tower at Stair 2-2.
4. Remove “H3” header designation at the front wall of the stair tower for Stair 2-1.
5. Add “H1” header designation at the “east” side wall of the stair tower at Stair 2-1.

Dwg. S1.9: Building 2 – Roof Framing Plan:

1. At Note 1: Change elevation of stair tower roof sheathing (high point) from “75’-8” to “74’-11”.
2. Change Note 3 to read: “ Roof Trusses to be designed using dead loads and roof live loads as specified on Dwg. S1.0, General Notes. Coordinate location of specific live loads with architectural drawings.”
3. At Note 2: Change thickness of roof sheathing from ¾” to 5/8”.
4. Add note in plan at jamb in building corner between a H6 header and a H1 header: “ For jamb at building corner, between H6 and H1, follow header schedule for H6 only, with (1) 2x6 jack stud for H1 support, typical.”
5. Change header designation of front wall of stair towers at Stair 2-1 and Stair 2-2 from “H3” to “H2”.
6. Add 2x6 @24” oc stud wall at separation between common deck and private deck. Provide 3-2x6 post at end of wall.

Dwg. S2.2: Concrete Sections & Details

1. At Section 1, add following note pointing to sill plate anchors embedded in top of concrete foundation wall: "Provide 5/8" diameter x 8" embed ASTM A307 galvanized headed anchors at 4'-0" o.c. max (1'-0" o.c. max at all shear walls). Provide within 8" of all building corners (both sides) and at all wall termination locations."

Dwg. S2.3: Concrete Sections & Details

1. At Section 5, add following note pointing to exterior slabs: "Drop entrance slab 3 ½" below interior slab elevation at locations to receive concrete pavers, and 1" at patio slabs."
2. At Section 6, detail is modified to show exterior slab 1" below adjacent interior slab elevation.

Dwg. S3.1: Framing Sections & Details

1. At Section 2, change angle size against slab closure angle from L4x4x3/8 to L4x3x3/8 (LLV).
2.

Dwg. S3.2: Framing Sections & Details

1. At Section 8, add a note pointing to the cont. L6x6x3/8: "Provide3/8" stiffener at 4'-0" o.c. max."

Dwg. S3.3: Framing Sections & Details

2. 1. At Typical Partial Shearwall Elevation, add note pointing to sill plate: "Provide 5/8" diameter x 8" embed ASTM A307 galvanized headed anchors in foundation wall at 1'-0" o.c. max at all shear walls."

SKETCHES INCLUDED IN THIS ADDENDUM:

SSK-1
SSK-2
SSK-3
SSK-4
SSK-5
SSK-6

ELECTRICAL ADDENDUM #1

E0.1 – Electrical Site Plan

ADD lighting base detail for lighting poles Type L1a and L1b per sketch SK-E0.1a.

E1.1 – Building 1 Basement

ADD Note 2 to the electrical notes as follows:

"2. Wire size for the dryer circuits shall be 3 #10, 1 #12 gnd, in ¾" cdt."

DELETE reference to Note 2 on the motion detectors in the covered parking area.

MOVE the lighting switch in Vestibule 1-B05 so that it is located on the strike side of the door.

REVISE the notation at UV-1 located in Community Room 1-B01 to read (Alt #2).

REVISE the notation at CC-1 outside Vestibule 1-B05 to read (Alt #2).

ADD a manual motor starter and associated wiring for BF-1 (120v, 1ph, .52a) in Laundry 1-B03. Circuit the fan to Panel HP-1B #34. Refer to the Mechanical drawings for exact location.

ADD a manual motor starter and associated wiring for BF-2 (120v, 1ph, .52a) in Laundry 1-B03. Circuit the fan to Panel HP-1B #34. Refer to the Mechanical drawings for exact location.

ADD a manual motor starter and associated wiring for BF-3 (120v, 1ph, .52a) in Laundry 1-B03. Circuit the fan to Panel HP-1B #34. Refer to the Mechanical drawings for exact location.

REVISE the size and notation of Panel HP-1B located in Maintenance Storage 1-B08 to indicate that it is a two section panelboard.

ADD a weatherproof 30a/3p motor starter outside of Maintenance Storage 1-B08 and associated wiring for EF-8 (208v, 3ph, 1hp). Circuit the fan to a 15a/3p circuit in Panel HP-1B #35,37,39. Provide 2 duct mounted smoke detectors for EF-8. Refer to the Mechanical drawings for exact location.

ADD a manual motor starter and associated wiring for a motor operated damper located in Elevator Machine Room 1-B05. Circuit the pump to a 15a/1p circuit breaker in Panel HP-1B #36. Refer to the Mechanical drawings for exact location.

ADD a manual motor starter and associated wiring for SP-1 (115v, 1ph, 1/3hp) located in the elevator pit. Circuit the pump to Panel HP-1B #36. Refer to the Mechanical drawings for exact location.

REVISE the notation on P-1 located in Mechanical Room 1-B102 to read 208v, 3ph, 1-1/2hp. Revise the circuit breaker size to be a 15a/3p circuit breaker. Add a notation to the disconnect switch that indicates the size as 30a/3p.

REVISE the notation on P-2 located in Mechanical Room 1-B102 to read 208v, 3ph, 1-1/2hp. Revise the circuit breaker size to be a 15a/3p circuit breaker. Add a notation to the disconnect switch that indicates the size as 30a/3p.

REVISE the notation on P-3 located in Mechanical Room 1-B102 to read 208v, 3ph, 3hp. Revise the circuit breaker size to be a 20a/3p circuit breaker. Add a notation to the disconnect switch that indicates the size as 30a/3p.

REVISE the notation on P-4 located in Mechanical Room 1-B102 to read 208v, 3ph, 3hp. Revise the circuit breaker size to be a 20a/3p circuit breaker. Add a notation to the disconnect switch that indicates the size as 30a/3p.

ADD a smoke detector and a heat detector to Elevator Machine Room 1-B06.

ADD a manual motor starter and associated wiring for DCP-1 (115v, 1ph, 1/8hp). Circuit the pump to a 15a/1p circuit breaker in Panel HP-1B #38. Refer to the Mechanical drawings for exact location.

E1.4 – Building 1 Third Floor

ADD a notation to EF-4 to indicate that it is located on the roof.

ADD a weatherproof, GFI rated receptacle to the HRU-1 and a weatherproof, GFI rated receptacle to EF-4. Circuit the receptacles to Panel HP-1A #40.

ADD a duct mounted smoke detector to HRU-1.

E2.1 – Building 2 First Floor

ADD Note 3 to the electrical notes as follows:

"3. Wire size for the dryer circuits shall be 3 #10, 1 #12 gnd, in ¾" cdt."

ADD a smoke detector and a heat detector to Elevator Machine Room 1-B06.

ADD a smoke detector to the center of Corridor 2-111.

E2.5 – Building 2 Fifth Floor

ADD a notation to EF-7 to indicate that it is located on the roof.

ADD a duct mounted smoke detector to the supply side of HRU-2 and a duct mounted smoke detector to the exhaust side of HRU-2.

ADD a weatherproof, GFI rated receptacle to HRU-2 and a weatherproof, GFI rated receptacle to EF-7. Circuit the receptacles to Panel HP-2A #11.

E3.1 – Unit Plans A, B, C, H & J

MOVE the lighting switch at Unit H 's front door to the opposite side of the door frame (door swing has been mirrored).

ADD a visual only fire alarm indicating device in all living unit bathrooms.

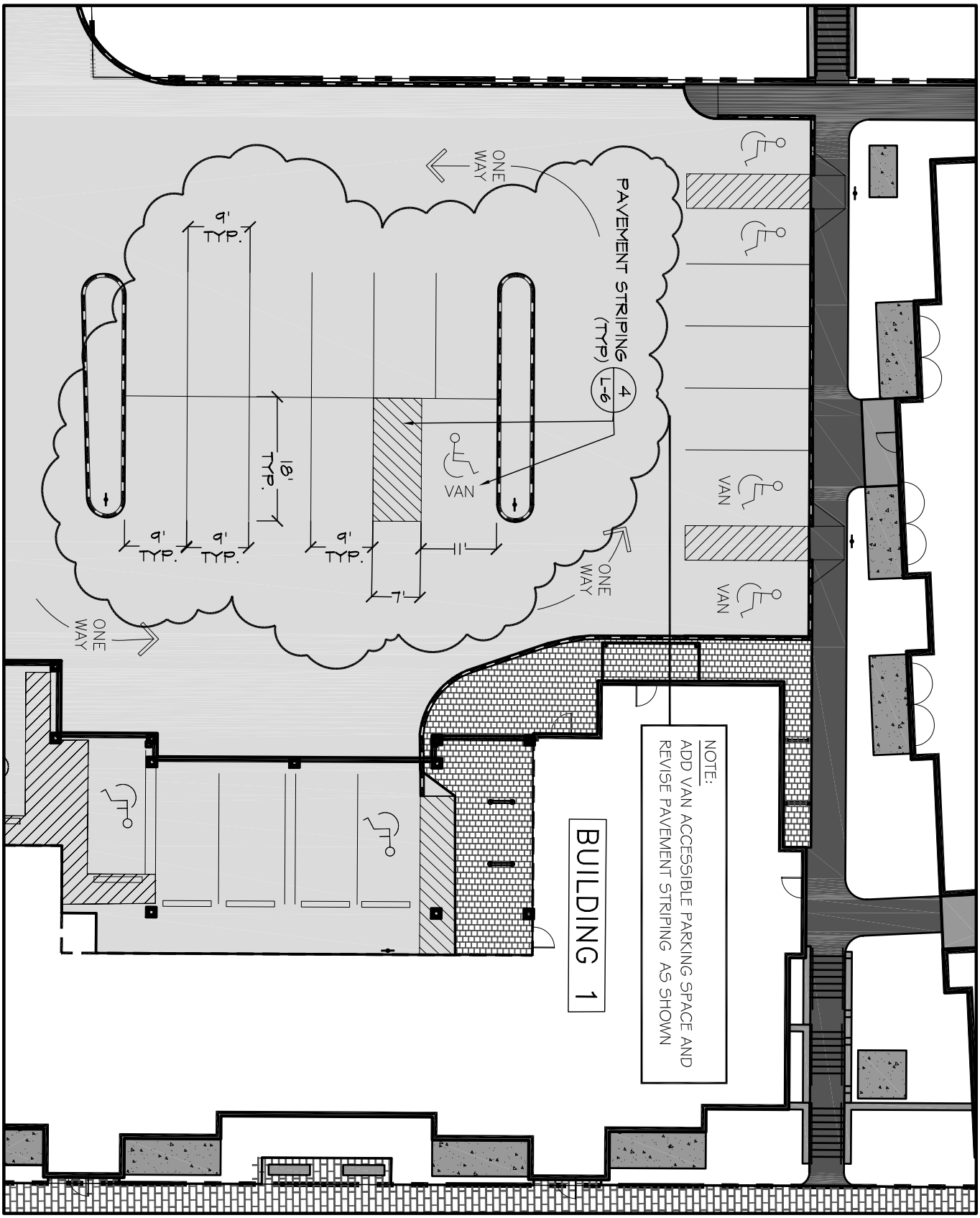
ADD an audio visual fire alarm indicating device in all living units. Locate above the door intercom.

E3.2 – Unit Plans D, D, E, F, G & K

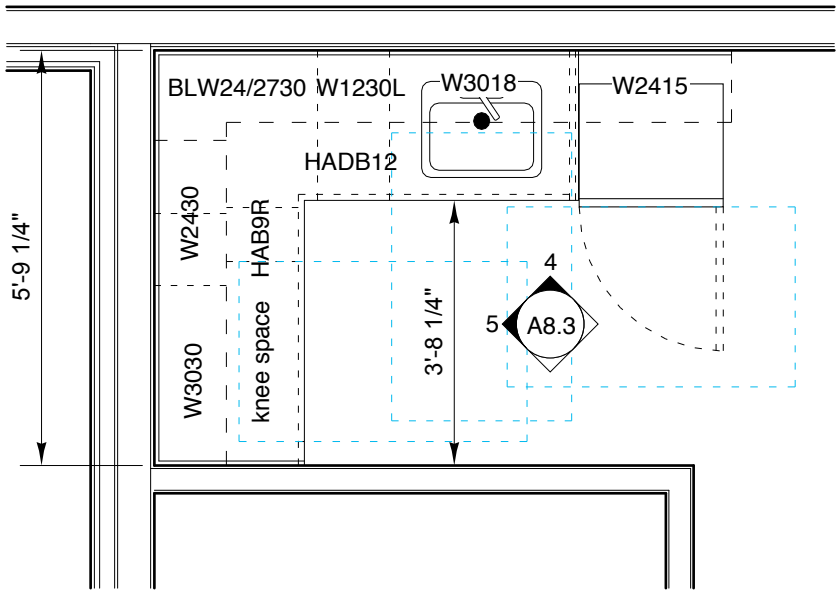
ADD a visual only fire alarm indicating device in all living unit bathrooms.

ADD an audio visual fire alarm indicating device in all living units. Locate above the door intercom.

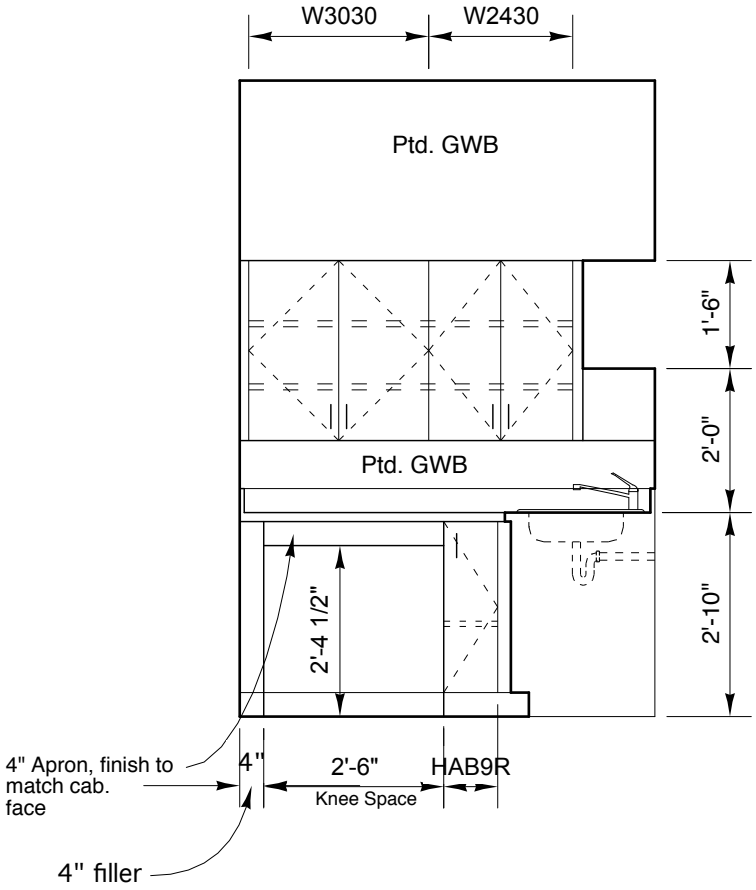
DRAWINGS



PROJECT: PEARL PLACE - BUILDING 1 & 2	DATE: SEPT. 15, 2006	CARROLL ASSOCIATES Landscape Architects	SHEET NO. L-SK-1
DRAWING TITLE: REVISED PAVEMENT STRIPING (ADDENDUM 1)	SCALE: 1"= 20'	75 Market Street Portland, ME PH: 207.772.1552 FAX: 207.772.0712	



8 KITCHEN PLAN



5 KITCHEN ELEVATION

Pearl Place
Buildings 1 & 2

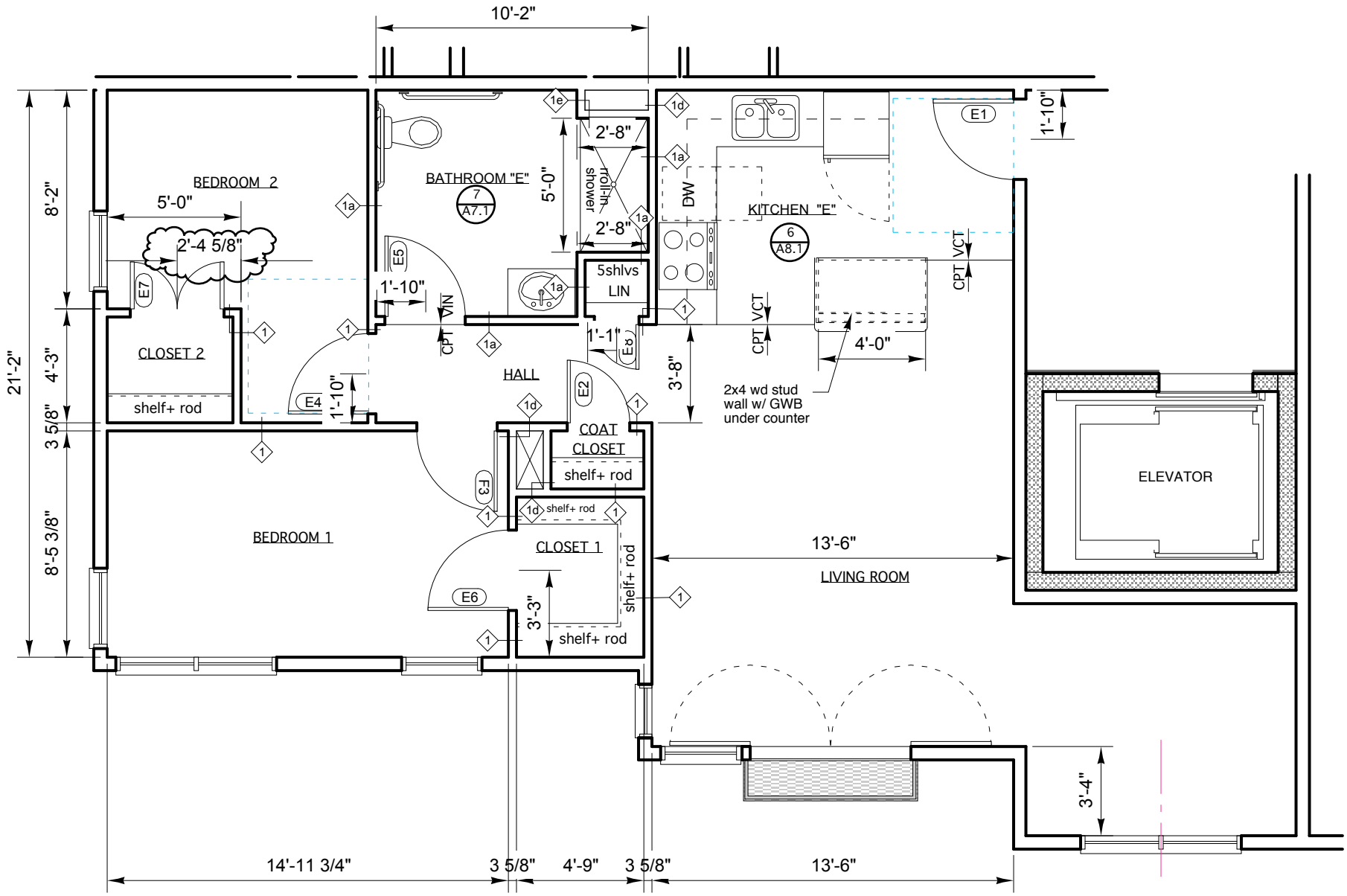
Portland, Maine

Public Kitchen, Accessible **Reference Detail 8/A8.1 & 5/A8.3** 3/8" = 1'-0"

WINTON SCOTT ARCHITECTS, PA
5 Milk Street
Portland, Maine 04101
207 774 4811

ASK-1

Addendum 1
September 15, 2006



UNIT E = 2 BEDROOM
ADA Accessible type A

UNIT E1 = 2 BEDROOM
ADA Accessible type A - See Building Plan A1.5 for this unit

Pearl Place
Buildings 1 & 2

Portland, Maine

Revised Dimension at Door Jamb **Reference Detail E; E1/A6.2** 3/16" = 1'-0"

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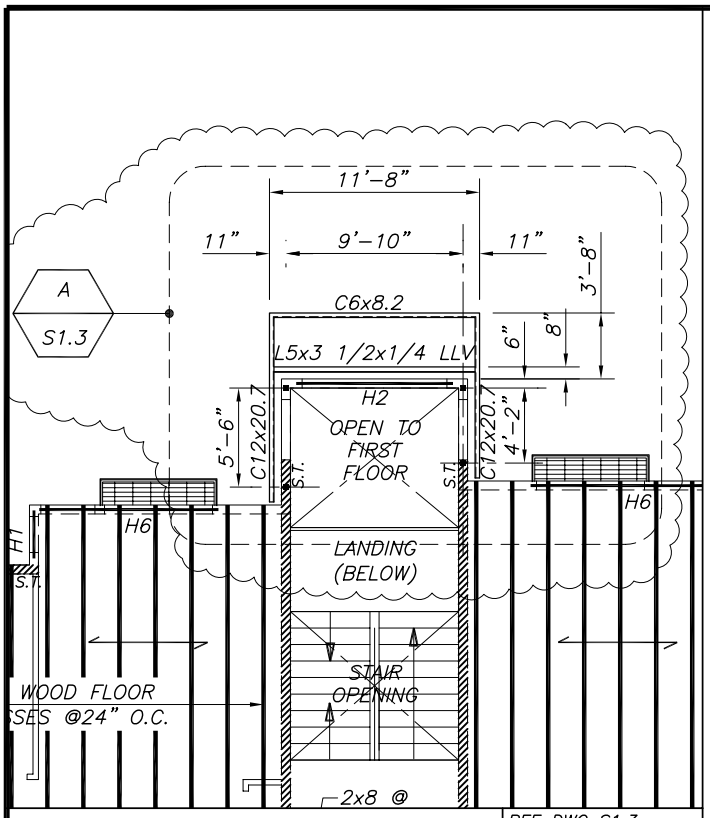
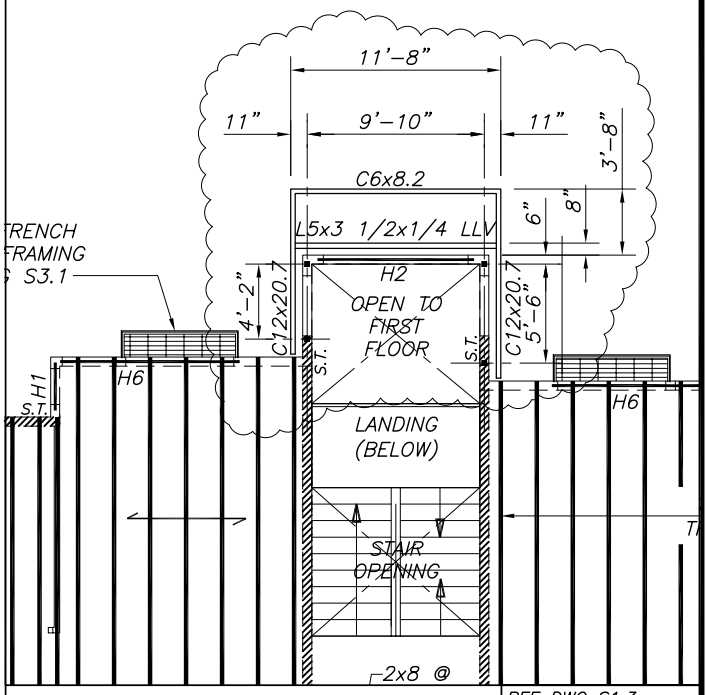
ASK-2

Addendum 1
September 15, 2006



REF DWG S1.3



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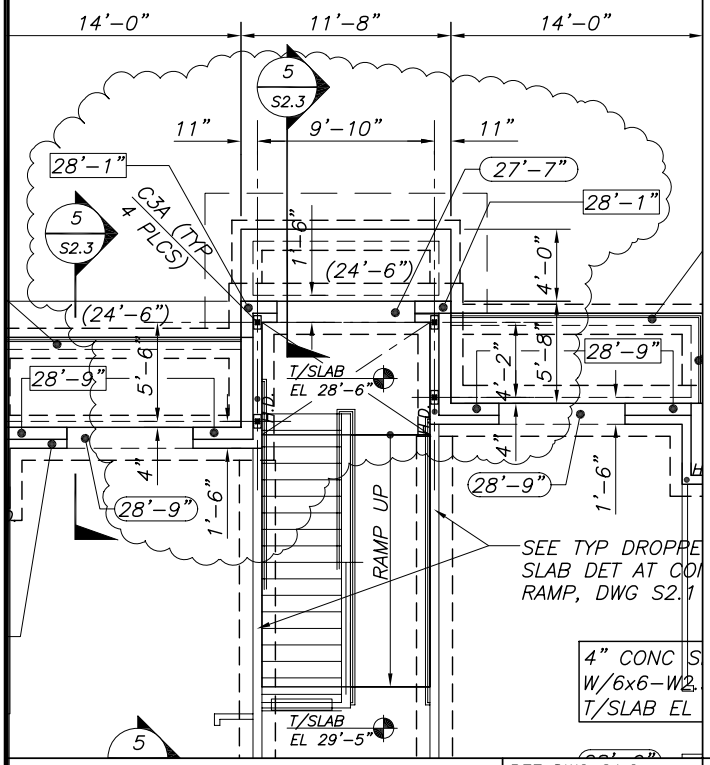

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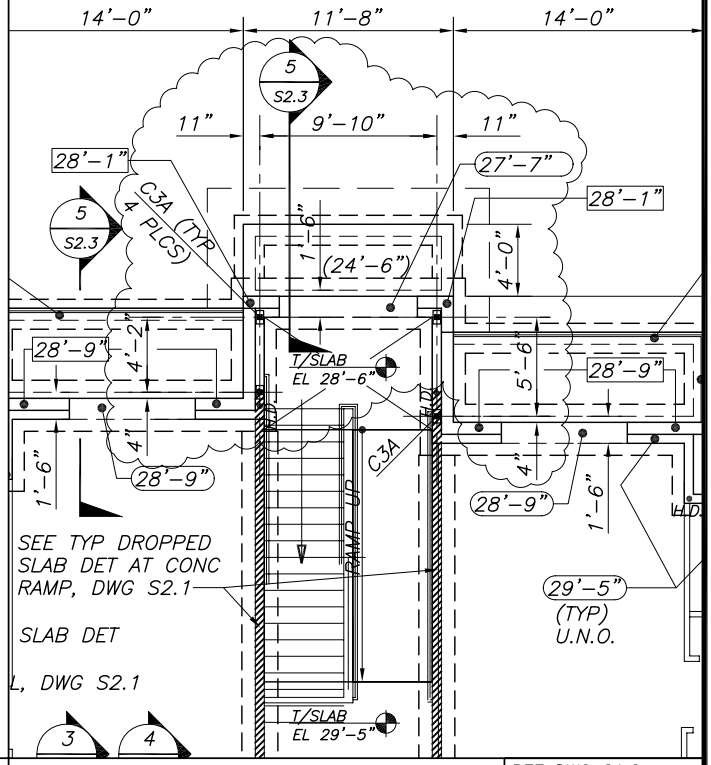

REF DWG S1.2

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structural engineers, inc.

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info@beckerstructural.com

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Fax 207-879-1822
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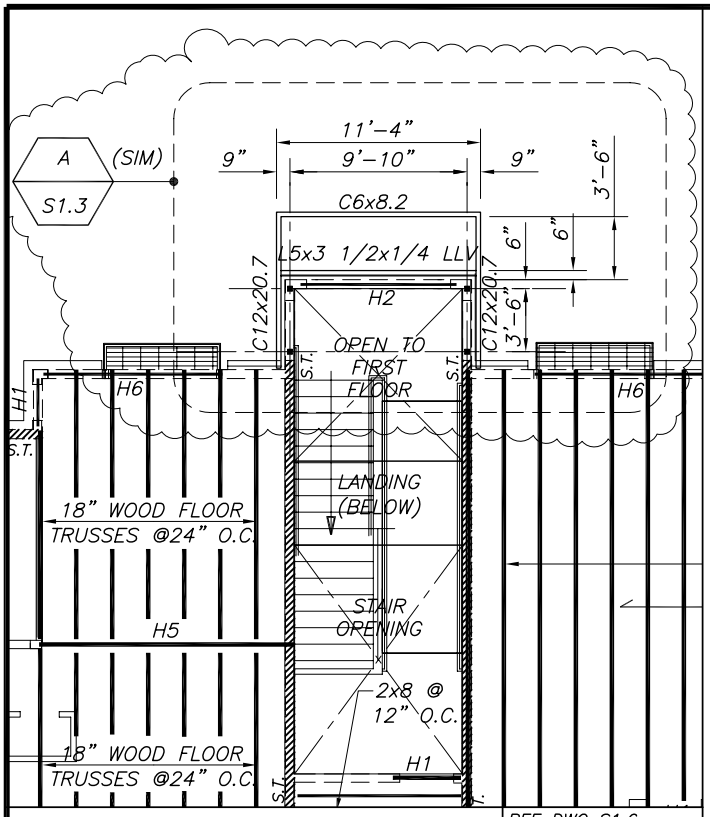
Designed	JCF
Drawn	APP
Checked	PBB
Scale	NOTED
Date	09/15/06

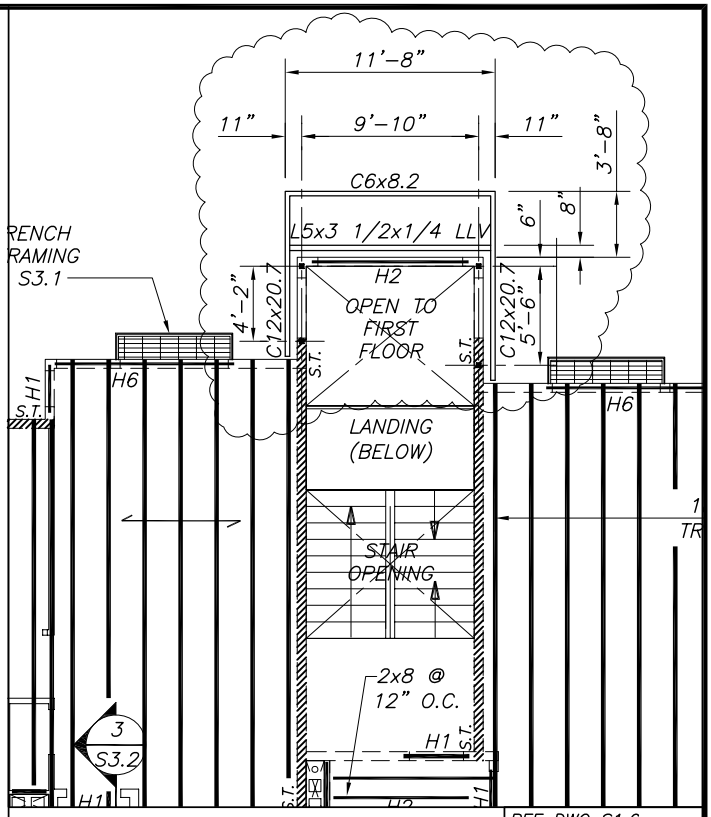
Pearl Place
Building 1&2
Portland, Maine

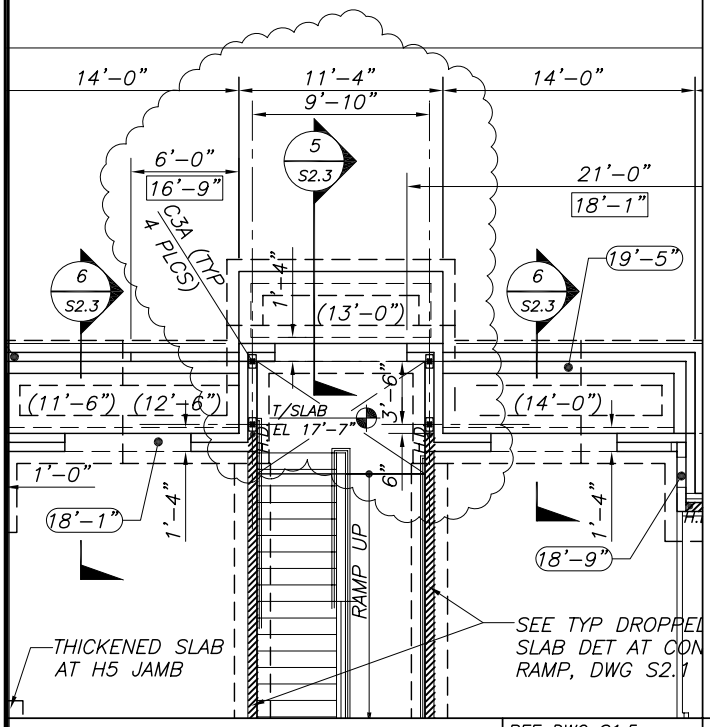
Becker Job Number
1481

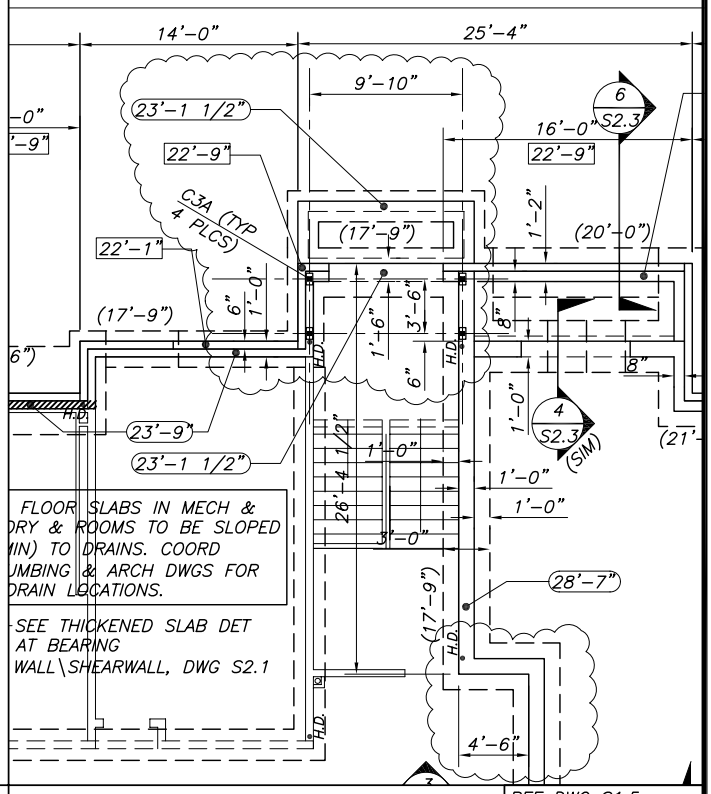
SSK-1

ADDENDUM NO. 1









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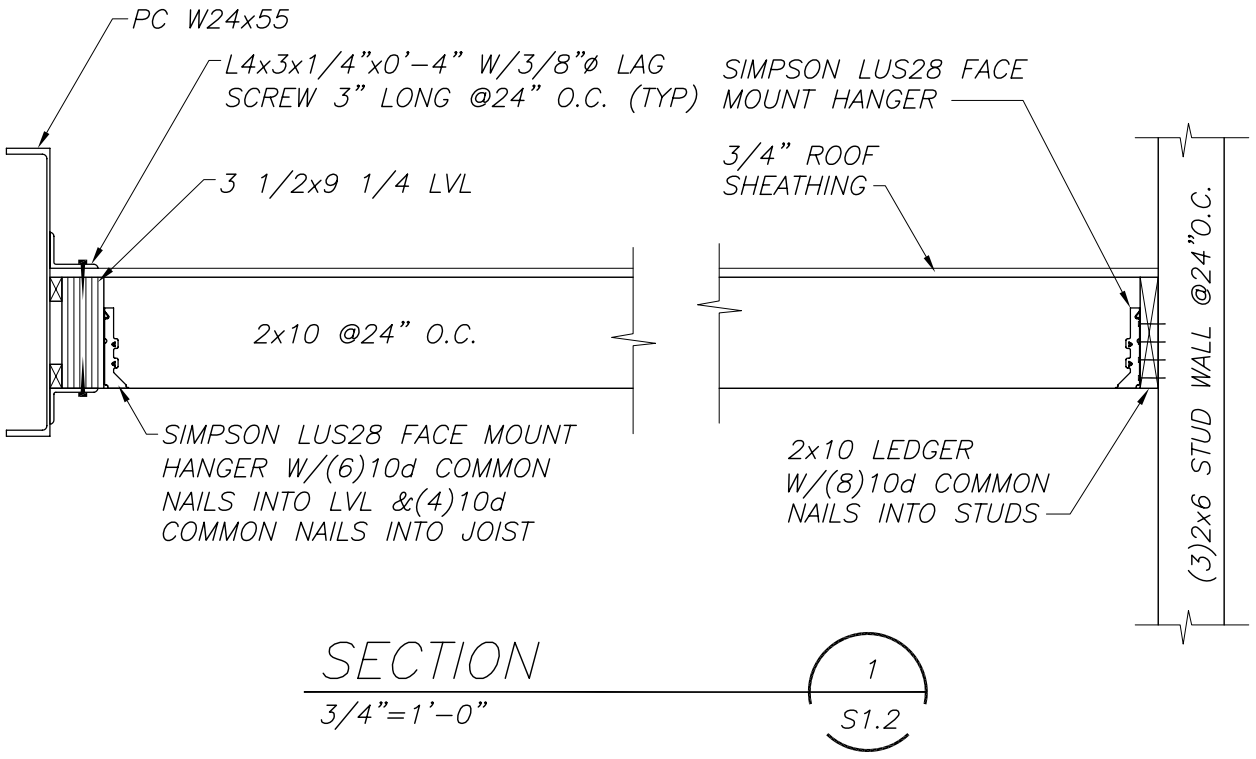
Pearl Place Building 1&2

Portland, Maine

Becker Job Number 1481

SSK-2

ADDENDUM NO. 1

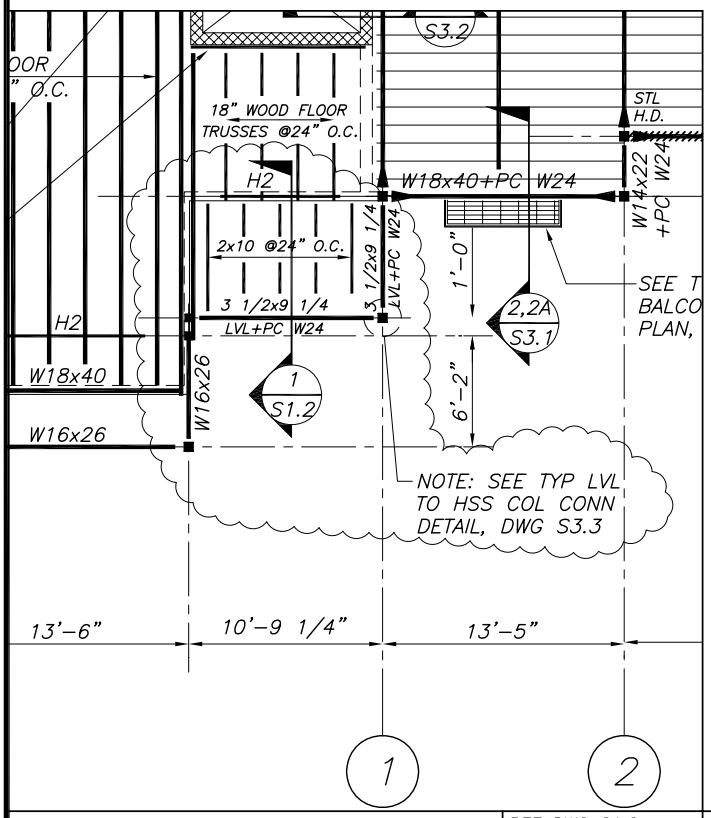


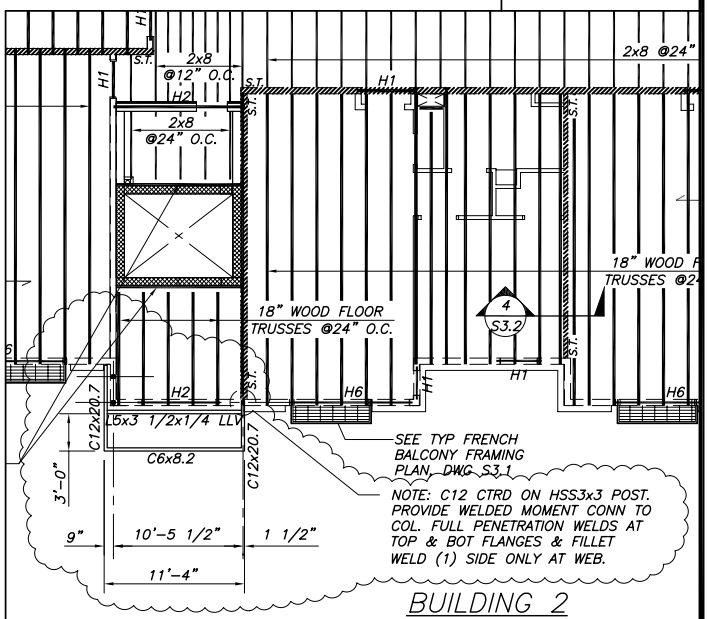
SECTION

3/4"=1'-0"

1 / S1.2

REF DWG S1.2





CHEDULE

B	LOCATION
& (3) JACK	1
& (2) JACK	2 & 3
& (1) JACK	4 & 5
& (3) JACK	1

BUILDING 2 SECOND FLOOR FRA

1/8"=1'-0"

NOTES:

1. TOP OF STRUCT SUBFLOOR EL 29'-2
2. ⟷ INDICATES DIRECTION OF 3/4 SHEATHING. STAGGER JOINTS OF SH SHEATHING TO TRUSSES W/8d NAILS
3. FLOOR TRUSSES TO BE DESIGNED US

REF DWG S1.2

REF DWG S1.6

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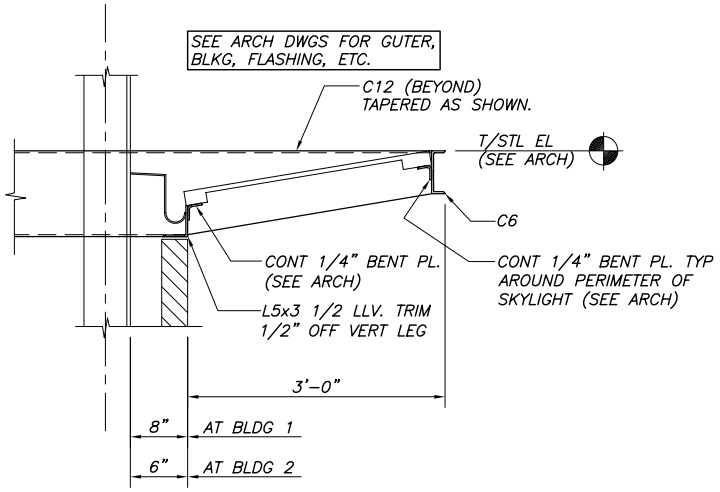
Pearl Place Building 1&2

Portland, Maine

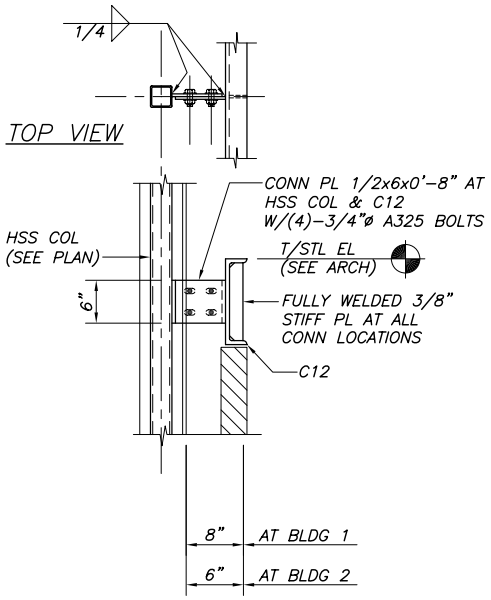
Becker Job Number 1481

SSK-3

ADDENDUM NO. 1

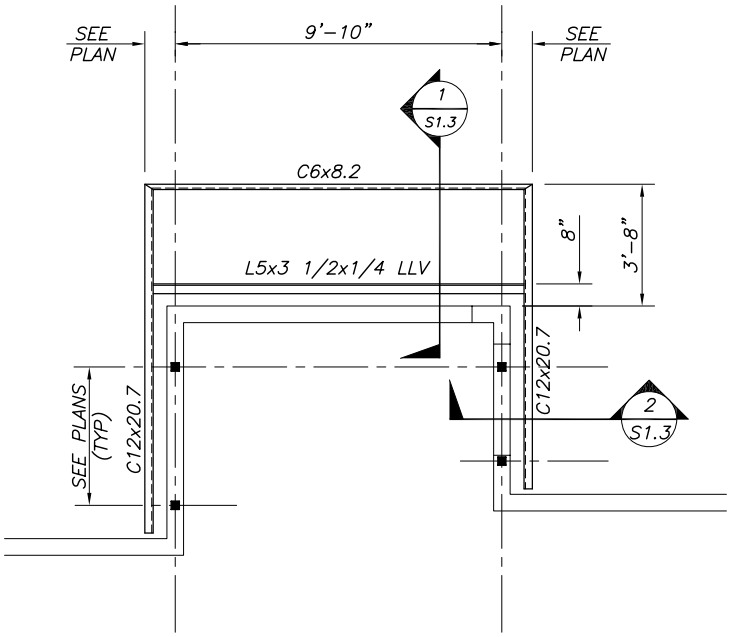


SECTION 1
3/4"=1'-0"
S1.3, S1.6



SECTION 2
3/4"=1'-0"
S1.3, S1.6

REF DWG S1.2



DETAIL A / A(SIM)
1/4"=1'-0"
S1.3 S1.6

REF DWG S1.2

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Pearl Place Building 1&2

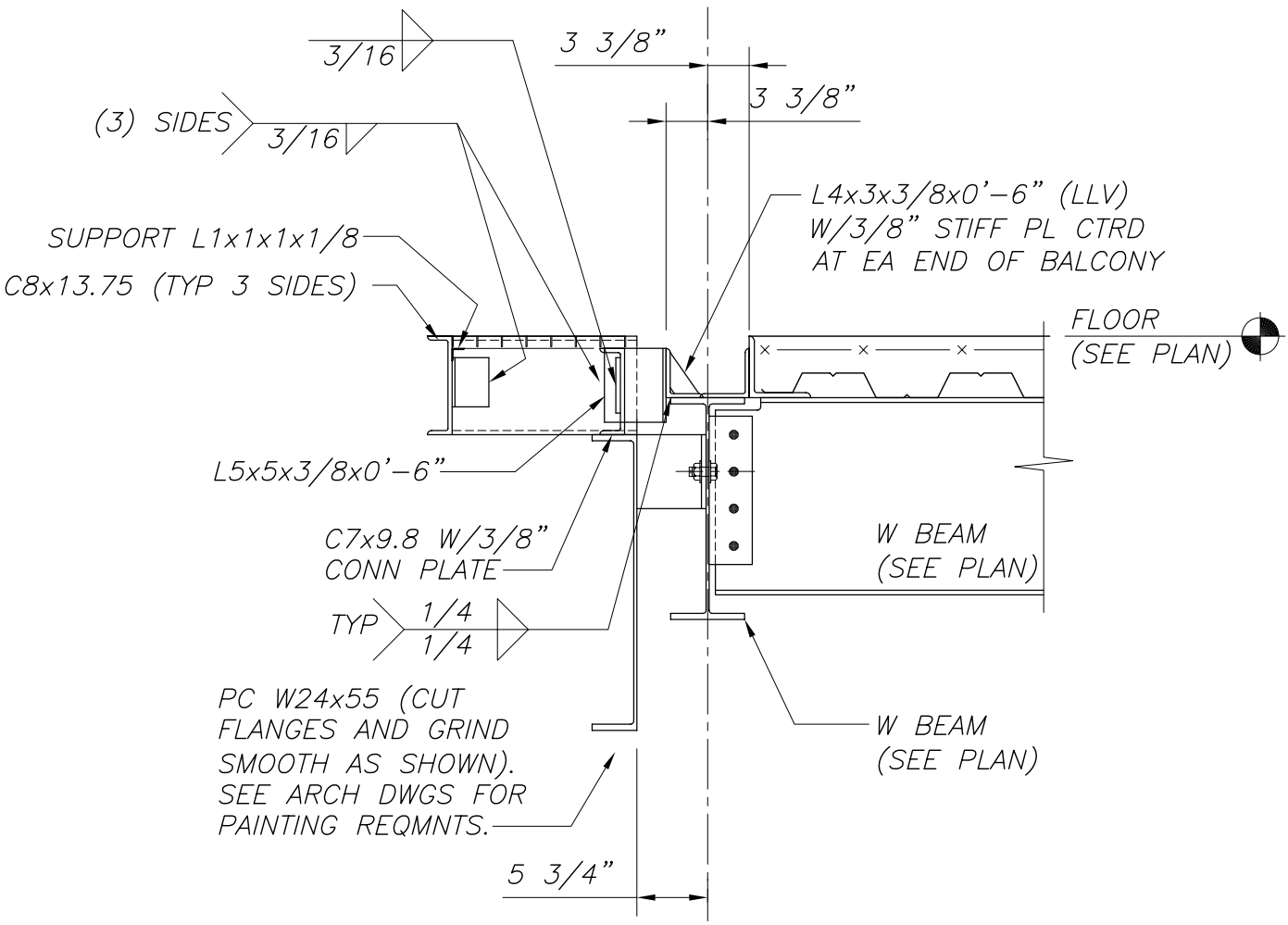
Portland, Maine

Becker Job Number 1481

SSK-4

ADDENDUM NO. 1

NOTE: FOR ADDL INFO, SEE SECT 1 & BALCONY PLAN, THIS DWG



SECTION

3/4"=1'-0"

2A / S1.2

REF DWG S3.1

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Portland, Maine

Becker Job Number
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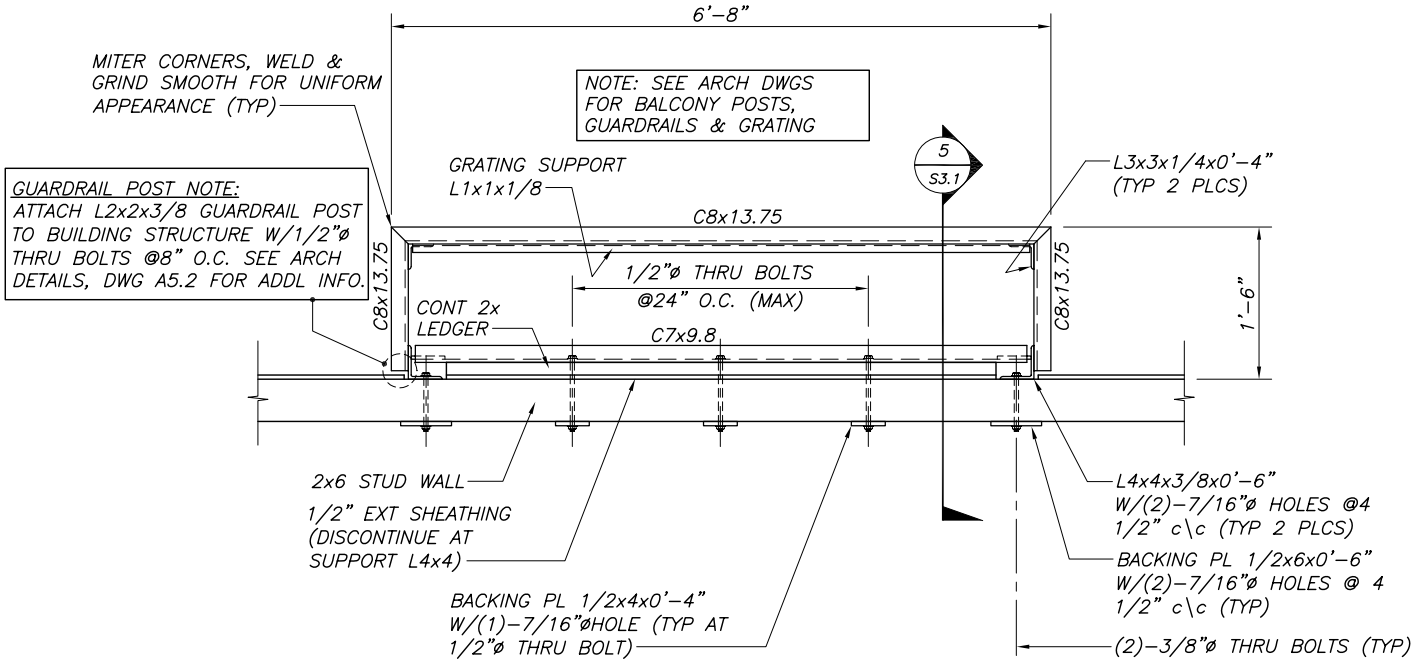
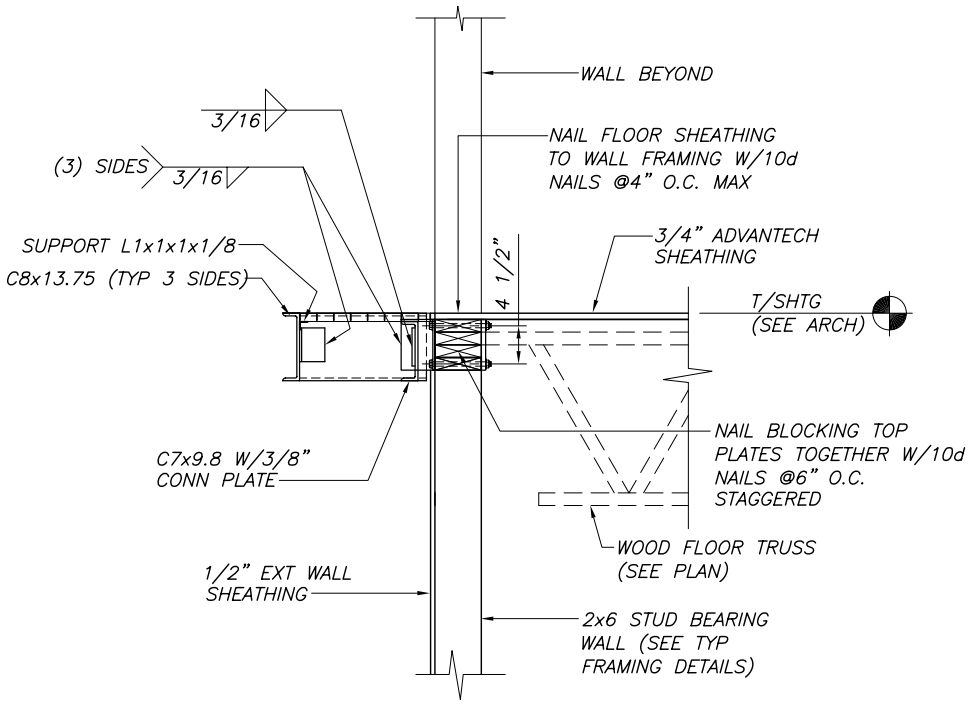
SSK-5

ADDENDUM NO. 1



TYP FRENCH BALCONY FRAMING PLAN

N.T.S.



SECTION

3/4"=1'-0"

5
S3.1

REF DWG S3.1

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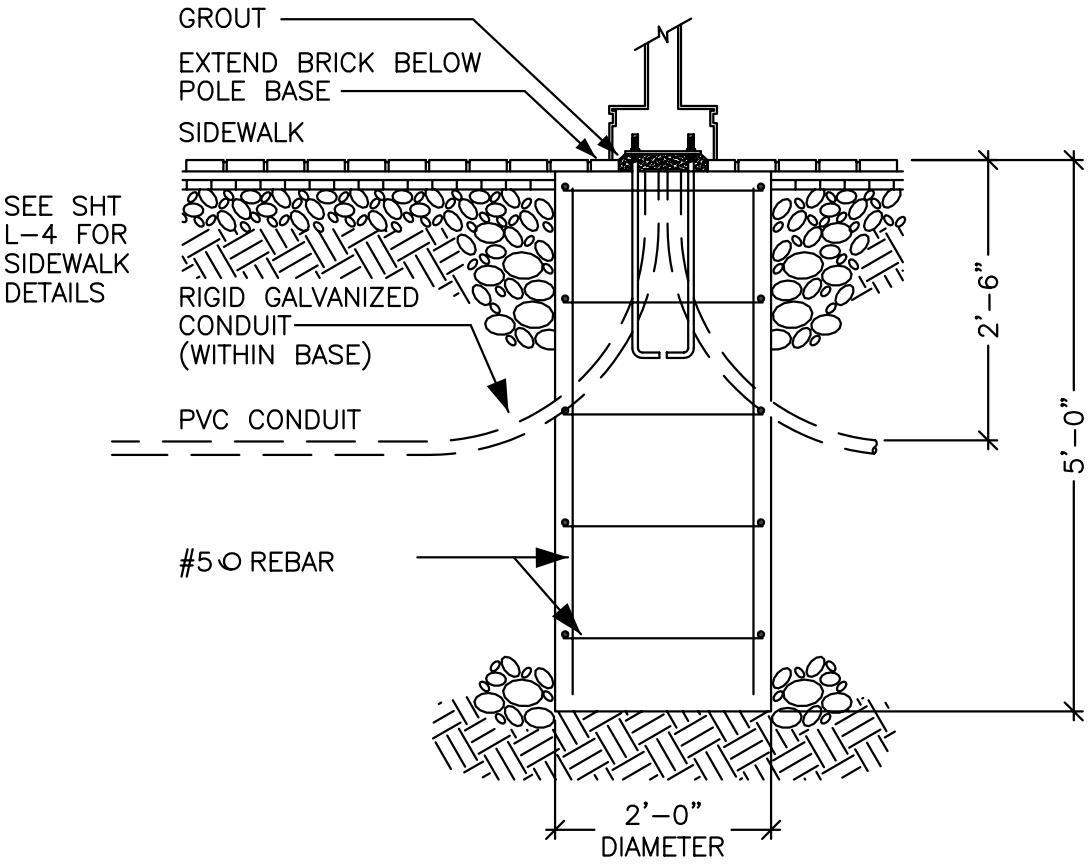
SSK-6

ADDENDUM NO. 1



BASE FOR TYPE L1a/L1b

Winton Scott Architects 5 Milk St, Portland, ME 04101	**PEARL PLACE** **Building 1 & 2** **Portland, Maine**	**SK-E1.0a**
Bartlett Design 972 Washington St, Bath, ME 04530		**September 15, 2006**

Questions and Answers:

Q: Is there any Bid Bond required? What is the form required for Performance Bond?
A There is no Bid Bond in the Project. Performance Bond is required on AIA form A312.

Q: Is the Project tax deductible?
A: No.

Q: Please clarify who supplies the generator.
A: Generator will be supplied and installed by Electrical Contractor under this contract. See Addendum for Specifications for further clarifications.

Q: Is the transfer switch manual or automatic? Please clarify the discrepancy in the specifications.
A: The transfer switch is automatic. See Addendum for Specifications for further clarifications.

Q: Please clarify which windows get window treatment.
A: All windows get curtain rods. See Addendum for Specifications for rod spec. Only windows marked with a star on the plan get window shades as specified on 12494.

Q: There is a discrepancy on concrete spec requirement between drawing S1.0 and specification. Please clarify.
A: The concrete mix information provided on Drawing S1.0 will be deleted. Mix design shall follow information provided in Spec. 03300.

Q: There is a discrepancy on the under slab vapor barrier between drawings and specifications. Pease clarify.
A: The under slab vapor barrier shall be no less than 10 mill. By section 07265.

Q: There are no base specified for street light fixtures L1a and L1b. Please clarify
A: See Addendum for Specifications for further clarifications.

Q: Specifications call for 24x36 mirror but plans show recessed medicine cabinet. Which is correct?
A: At public bathroom in community room only there is a 24x36 mirror. See Addendum for Drawings for further clarifications.

Q: On the unit plans A, B, J and K indicate surface mounted medicine cabinets. Is this correct?
A: Yes. See Addendum for Drawings for further clarifications.

Q: Are we to include one KNOX box for each building? Not shown.
A: Yes, location are shown on the Buildings Plans A1.2 and A1.5.

Q: Please clarify the 8” anodized letters on the building elevations.

A: Drawing A2.1 Southeast Elevation shows 8" numbers "159" on both stair entry doors. Northwest Elevation shows 10" letters "COMMUNITY" and "159 OXFORD". Drawing A2.3, Northeast Elevation shows 8" numbers " 180" on both stair entry doors. Southwest Elevation shows 8" letters "180 PEARL" on the elevator vestibule entry door only.

Q: Would BIB (Blown In Batt) insulation be acceptable as equal to cellulose insulation?
A: No, it does not meet green criteria.

Q: At the floor assembly F1 is the 3/8" underlayment at resilient flooring in addition to ½" overlay on top of ¾" T&G subfloor?
A: Yes. See Section 06110 attached to this addendum for underlayment specifications

Q: There is a 4 ½" nail board at the parking ceiling assembly in B1. Please specify the product.
A: See Section 07210-3 D. for nailboard specification

Q: Specification section 07270 contains specifications for the Air Barrier system, and lists products such as Tyvek. Specification section 07412 states that 15# felt paper is to be used as a backer for the metal siding. It does not seem right to use both; I presume you wish to use the Tyvek behind the brick veneer only, and felt behind the steel only. Is this correct?
A: Tyvek is to be used behind the rigid insulation at B1 wall assemblies. Felt paper is to be used behind the brick veneer and metal siding where there is no rigid insulation outboard of sheathing. See Addendum for Drawings for further information

Q: On drawing S1.2, the 2 x 10 floor joists and 18" wood floor trusses running parallel to and just to the left of column line 1, will require joist hangers. Please specifiy what is to be used.
A: The 2x10 joists frame at exterior canopy. Addendum #1 provides detail for attachment. The 18" deep trusses will bear on the exterior wall per the typical detail.

Q: Sheet S1.0, General Notes, "Timber Notes" item 4 indicates that sills are to be pressure treated southern yellow pine. On sheet S1.3, "Building 1 Typ Bearing Wall Studs Schematic…" shows that plates at basement and first floor are to be Doug Fir. Many of these bottom plates rest on concrete, which should be pressure treated, not Doug Fir. Please advise.
A: Pressure treated Southern Yellow Pine to be used for all sill plates against concrete.

Q: Please identify joist hangers to be used as shown on sections 2 and 3 of sheet S3.2.
A: 2x8 corridor framing to use Simpson LUS28 hangers, or approved equal.

<u> Clarification Note to all Contractors **</u>**

For now known reasons Wright- Ryan Construction (WRC) did not attend the mandatory pre-bid conference. As it is to the best interest of the owner and MSHA to have all four General Contractor's bid the project, the Owner requested if other participating GC's would waive the mandatory requirement and allow WRC to continue bid the project. All three GC's, Benchmark Construction, Consigli Construction and Ledgewood Construction agreed to waive the mandatory requirement. Therefore Wright-Ryan Construction will continue to be part of the bid process.

ATTACHMENTS

SECTION 02350- STRUCTURAL SOIL

PART 1 - DESCRIPTION AND SPECIFICATION

1.1 GENERAL

A. The work of this section consists of all Structural Soil work and related items as indicated on the drawings or as specified herein and includes, but is not limited to, the following:

1. CU Soil™ is a proprietary material patented by Cornell University (US Patent # 5,849,069). Only licensed producers are allowed to supply this material, meeting the specifications described in this text. For a list of licensed CU-Soil™ producers, call AMEREQ, INC. at 1-800-832-8788.

1.2 REFERENCES AND STANDARDS

A. The following references are used herein and shall mean:

1. ASTM: American Society of Testing Materials
2. USDA: United States Department of Agriculture
3. AASHTO: American Association of State Highway and Transportation Officials
4. Standard Specifications: Maine DOT, Latest Edition

1.3 SAMPLES AND SUBMITTALS

A. Submit soil test analysis reports for each sample of Clay Loam and Structural Soil from an approved soil-testing laboratory. The test results shall report the following:

1. The soil testing laboratory shall be approved by the Engineer. The testing laboratory for particle size and chemical analysis may be a public agricultural extension service agency or agricultural experiment station.
2. Submit a bulk density of the sample and particle size analysis including the following gradient of mineral content:

USDA Designation	Size in mm.
Gravel	+2 mm
Sand	0.05 – 2 mm
Silt	0.002-0.05 mm
Clay	minus 0.002 mm

Sieve analysis shall be performed and compared to USDA Soil Classification System. Sieve analysis shall be done by a combined hydrometer and wet sieving using sodium hexametaphosphate as a dispersant in compliance with ASTM D422 after destruction of organic matter by hydrogen peroxide.

3. Submit a chemical analysis, performed in accordance with current AOAC Standards, including the following:
   a. pH and Buffer pH.
   b. Percent organic matter as determined by the loss of ignition of oven dried samples. Test samples shall be oven dried to a constant weight at a temperature of 230 degrees F, plus or minus 9 degrees.

c. Analysis for nutrient levels by parts per million including nitrate nitrogen, ammonium nitrogen, phosphorus, potassium, magnesium, manganese, iron, zinc, calcium and extractable aluminum. Nutrient test shall include the testing laboratory recommendations for supplemental additions to the soil as calculated by the amount of material to be added per volume of soil for the type of plants to be grown in the soil.

d. Analysis for levels of toxic elements and compounds including arsenic, boron, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, zinc and PCB. Test results shall be cited in milligrams per kilogram.

1.4 DELIVERY, STORAGE AND HANDLING

A. Do not deliver or place soils in frozen, wet, or muddy conditions. Material shall be delivered at or near optimum compaction moisture content as determined by AASHTO T99 (ASTM D 698). Do not deliver or place materials in an excessively moist condition (Beyond two percent above optimum compaction moisture content as determined by AASHTO T 99 (ASTM D 698).

B. Protect soils and mixes from absorbing excess water and from erosion at all times. Do not store materials unprotected from large rainfall events. Do not allow excess water to enter site prior to compaction. If water is introduced into the material after grading, allow material to drain or aerate to optimum compaction moisture content.

1.5 EXAMINATION OF CONDITIONS

A. All areas to receive Structural Soil shall be inspected by the Contractor before starting work and all defects such as incorrect grading, compaction and inadequate drainage etc. shall be reported to the Engineer prior to beginning this work.

B. The Contractor shall be responsible for judging the full extent of work requirements involved, including but not limited to the potential need for temporary storage and staging of soils, including moving soil stock piles at the site to accommodate scheduling of other work and the need to protect installed soils from compaction, erosion and contamination.

1.6 QUALITY ASSURANCE

A. Qualifications of Landscape or Pavement material Contractor: The work of this section shall be performed by a firm which has a minimum of five years experience successfully installing planting mix of a similar quality, schedule requirement and construction detailing to this project. Proof of this experience shall be submitted as per paragraph, SAMPLES and SUBMITTALS, of this Section.

PART 2 - MATERIALS

2.1 CLAY LOAM

A. Clay Loam shall be a “loam” based on the “USDA classification system” as determined by mechanical analysis (ASTM D-422) and it shall be of uniform composition, without admixture of subsoil. It shall be free of stones greater than one-half inch, lumps, plants and their roots, debris and other extraneous matter over one inch in diameter or excess of smaller pieces of the same materials as determined by the Engineer. It shall not contain toxic substances harmful to plant growth. It shall be obtained from naturally well-drained areas,

which have never been stripped of topsoil before and have a history of satisfactory vegetative growth. Clay loam shall contain not less than 2% nor more than 5% organic matter as determined by the loss on ignition of over-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 230 degrees F., plus or minus 9 degrees.

B. Mechanical analysis for a Loam/Clay Loam shall be as follows:

Textural Class	% of Total Weight
Gravel	less than 5%
Sand	20-45%
Silt	20-50%
Clay	20-40%

C. Chemical analysis: Meet or be amended to meet the following criteria:

1. pH between 5.5 to 6.5.
2. Percent organic matter 2-5% by dry weight.
3. Nutrient levels as required by the testing laboratory recommendations for the type of plants to be grown in the soil.
4. Toxic elements and compounds below the United States Environmental Protection Agency Standards for Exceptional Quality sludge or local standard; whichever is more stringent.
5. Soluble salt less than 1.0 Millimho per cm.
6. Cation Exchange Capacity (CEC) greater than 10.
7. Carbon/Nitrogen Ratio less than 33:1.

D. Loam/Clay Loam shall be the product of a commercial processing facility specializing in production of stripped natural topsoil. No topsoil shall come from USDA - classified prime farmland.

2.2 FERTILIZER

A. Commercial fertilizer complying with State and United States fertilizer laws. Deliver fertilizer in original unopened containers, which shall bear the manufacturer's certificate of compliance covering analysis, which shall be furnished to the Engineer. Fertilizer shall be formulated for mixing into the soil and be certified by the manufacturer to provide controlled release of nitrogen continuously for a period of no less than nine months and no more than 12 months.

B. Fertilizer percentages of weight of ingredients and application rates shall be as recommended by the soil testing results.

2.3 LIME (if needed)

A. Agricultural limestone containing a minimum of 85% carbonates. Minimum gradation: 100% passing 10 mesh sieve; 98% passing 20 mesh sieve; 55% passing 60 mesh sieve and 40% passing 100 mesh sieve.

2.4 CRUSHED STONE

A. Crushed Stone shall be a DOT certified crushed stone. Granite and limestone have been successfully used in this application. 90-100% of the stone should pass the 1.5 inch sieve, 20-55% should pass the 1.0 inch sieve and 10% should pass the 0.75 inch sieve. A ratio of nominal maximum to nominal minimum particle size of 2 is required.

2.5 HYDROGEL

A. Hydrogel shall be a potassium propenoate-propenamide copolymer Hydrogel (Gelscape® Hydrogel Tackifier) as manufactured by Amereq Corp. (800) 832-8788.

2.6 STRUCTURAL SOIL

A. A uniformly blended mixture of crushed Stone, Clay Loam and Hydrogel, mixed to the following proportion:

Material	Unit of Weight
Crushed Stone	100 units dry weight
Loam	as determined by the test of the mix (approx. 20 units)
Hydrogel	0.03 units dry weight
Total moisture	AASHTO T-99 optimum moisture

B. The initial mix design for testing shall be determined by adjusting the ratio between the Crushed Stone and the clay loam. Adjust final mix dry weight mixing proportion to decrease soil in mixture if CBR test results fail to meet acceptance (CBR #50).

PART 3 - INSTALLATION

3.1 MIX DESIGN

A. Prepare sample Structural Soil mixes to determine the ratio of mix components. Submit for approval.

1. Submit samples and the test results of each mix component for approval. Based on samples and the analysis of the mix components, the Engineer and the Contractor will jointly determine a mix ratio to be tested for conformance with the requirements of the specifications. For Structural Soil quantities greater than 500 cubic yards, test the mix ratio for each Clay Loam or Crushed Stone where the testing indicates a significant difference in physical analysis of the Clay Loam or Crushed Stone as determined by the Engineer.
2. The Contractor shall prepare the samples of the proposed mix ratio options and obtain soil test as described in paragraph 1.3 C. Submit the samples of each of the mixes with the test results.
3. The Engineer may request additional Structural Soil mix ratio samples to be tested in the event that further refinement of the mix is necessary.
4. Submit to the Engineer proposed fertility amendment recommendations including amounts and types of fertilizers and pH adjustments for each mix ratio. Fertility adjustments shall be included as part of the mixing process.

3.2 UNDERGROUND UTILITIES AND SUBSURFACE CONDITIONS

A. Notify the Engineer of any subsurface conditions which will affect the Contractor’s ability to complete the work.

B. Locate and confirm the location of all underground utility lines and structures prior to the start of any excavation.

C. Repair any underground utilities or foundations damaged by the Contractor during the progress of this work. The cost of all repairs shall be at the Contractor’s expense.

3.3 INSTALLATION OF STRUCTURAL SOIL MATERIAL

A. Install Structural Soil in 6 inch lifts and compact each lift.

B. Compact all materials to peak dry density from a standard AASHTO compaction curve (AASHTO T 99). No compaction shall occur when moisture content exceeds maximum as listed herein. Delay compaction 24 hours if moisture content exceeds maximum allowable and protect Structural Soil during delays in compaction with plastic or plywood as directed by the Engineer.

C. Bring Structural Soils to finished grades as shown on the Drawings. Immediately protect the Structural Soil material from contamination by toxic materials, trash, debris, water containing cement, clay, silt or materials that will alter the particle size distribution of the mix with plastic or plywood as directed by the Engineer.

D. The Engineer may periodically check the material being delivered and installed at the site for color and texture consistency with the approved sample provided by the Contractor as part of the submittal for Structural Soil. In the event that the installed material varies significantly from the approved sample, the Engineer may request that the Contactor test the installed Structural Soil. Any soil which varies significantly from the approved testing results, as determined by the Engineer, shall be removed and new Structural Soil installed that meets these specifications.

END OF SECTION

SECTION 06110

MISCELLANEOUS CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Underlayment.
   2. Rough carpentry waste management.

1.2 UNDERLAYMENT

A. Plywood Underlayment for Resilient Flooring: DOC PS 1, Exterior A-C with fully sanded face.
   1. Thickness: As indicated on the drawings.

B. Particleboard Underlayment for Carpet: ANSI A208.1, Grade PBU.
   1. Thickness: As indicated on the drawings.

PART 2 - EXECUTION

2.1 WOOD STRUCTURAL PANEL INSTALLATION

A. General: Comply with applicable recommendations contained in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial," for types of structural-use panels and applications indicated.

B. Fastening Methods: Fasten panels as indicated below:
   1. Underlayment:
      a. Nail to subflooring.
      b. Space panels 1/32 inch apart at edges and ends.
      c. Fill and sand edge joints of underlayment receiving resilient flooring just before installing flooring.

2.2 PARTICLEBOARD UNDERLAYMENT INSTALLATION

A. Comply with the National Particleboard Association's recommendations for type of subfloor indicated. Fill and sand gouges, gaps, and chipped edges. Sand uneven joints flush.
   1. Fastening Method: Nail underlayment to subflooring.

2.3 WASTE MANAGEMENT

A. Separate wood waste in accordance with the Waste Management Plan.

B. Separate the following categories for salvage or reuse on site:
   1. Sheet materials larger than 2 square feet.
   2. Framing members longer than 16 inches.
   3. Multiple cutoffs of any size larger than 12 inches.

C. The following categories may be reused in the manufacture or particleboard or medium density fiberboard:
   1. Composite Wood: Plywood, OSB, LVL, I-joist, parallel-strand, laminated-strand, MDF, or particleboard.
   2. Clean dimensional lumber.

D. Set aside damaged wood for acceptable alternative uses; bracing, blocking, cripples or ties.

E. Collect offcuts and scrap and place in designated areas for recycling.

F. Do not burn scraps of treated wood. Do not mix treated wood scraps with untreated wood. Separate, store, and dispose of hazardous wood wastes according to local regulations.

G. Close and seal tightly all partly used adhesive containers and store protected in well-ventilated, fire-safe area at moderate temperatures.

H. Place used adhesive tubes and containers in areas designated area for hazardous materials.

END OF SECTION

SECTION 08800

GLAZING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes glazing for the following products and applications, including those specified in other Sections where glazing requirements are specified by reference to this Section:
   1. Windows (exterior rated borrowed lites).
   2. Windows (exterior non-rated borrowed lites).

1.2 PERFORMANCE REQUIREMENTS

A. General: Provide glazing systems capable of withstanding normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Glass Design: Glass thicknesses indicated are minimums and are for detailing only. Confirm glass thicknesses by analyzing Project loads and in-service conditions. Provide glass lites for various size openings in nominal thicknesses indicated, but not less than thicknesses and in strengths (annealed or heat treated) required to meet or exceed the following criteria:
   1. Glass Thicknesses: Select minimum glass thicknesses to comply with ASTM E 1300, according to the following requirements or as indicated in the glazing schedules:
      a. Specified Design Wind Loads: Determine design wind loads applicable to Project from basic wind speed indicated in miles per hour (meters per second) at 33 feet (10 m) above grade, according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 6.4.2, "Analytic Procedure," based on mean roof heights above grade indicated on Drawings.
      b. Probability of Breakage for Vertical Glazing: 8 lites per 1000 for lites set vertically or not more than 15 degrees off vertical and under wind action.
         1) Load Duration: 60 seconds or less.
      c. Maximum Lateral Deflection: For the following types of glass supported on all four edges, provide thickness required that limits center deflection at design wind pressure to 1/50 times the short side length or 1 inch (25 mm), whichever is less.
         1) For monolithic-glass lites heat treated to resist wind loads.
         2) For insulating glass.

C. Thermal Movements: Provide glazing that allows for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures acting on glass framing members and glazing components. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

1.3 SUBMITTALS

A. Product Data: For each glass product and glazing material indicated.

B. Samples: For the following products, in the form of 12-inch- (300-mm-) square Samples for glass.
   1. Fire-rated glass.
   2. Insulating glass for each designation indicated.

C. Glazing Schedule: Use same designations indicated in this section for glazed openings in preparing a schedule listing glass types and thicknesses for each size opening and location.

D. Product Certificates: Signed by manufacturers of glass and glazing products certifying that products furnished comply with requirements.

E. Warranties: Special warranties specified in this Section.

1.4 QUALITY ASSURANCE

A. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252.

B. Fire-Rated Window Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 257.

C. Safety Glass: Category II materials complying with testing requirements in 16 CFR 1201 and ANSI Z97.1.

D. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.
   1. GANA Publications: GANA'S "Glazing Manual" and "Laminated Glass Design Guide."

E. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of the following inspecting and testing agency:
   1. Insulating Glass Certification Council.

1.5 WARRANTY

A. General Warranty: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in

addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Manufacturer's Special Warranty on Laminated Glass: Written warranty, made out to Owner and signed by laminated-glass manufacturer agreeing to furnish replacements for laminated-glass units that deteriorate as defined in "Definitions" Article, f.o.b. the nearest shipping point to Project site, within specified warranty period indicated below.
   1. Warranty Period: Five years from date of Substantial Completion.

C. Manufacturer's Special Warranty on Insulating Glass: Written warranty, made out to Owner and signed by insulating-glass manufacturer agreeing to furnish replacements for insulating-glass units that deteriorate as defined in "Definitions" Article, f.o.b. the nearest shipping point to Project site, within specified warranty period indicated below.
   1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PRODUCTS AND MANUFACTURERS

2.2 PRIMARY FLOAT GLASS

A. Clear Float Glass: ASTM C 1036, Type I (transparent glass, flat), Quality q3 (glazing select); Class 1 (clear), 1/4 inch (6 mm) thick.

2.3 HEAT-TREATED FLOAT GLASS

A. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed, unless otherwise indicated.

B. Clear Tempered Float Glass: ASTM C 1048; Type I (transparent glass, flat); Quality q3 (glazing select); Class 1 (clear), Kind FT (fully tempered), 1/4 inch (6 mm) thick.

2.4 FIRE-RATED GLASS

A. Fire-Rated Glass: 3/16 inch (5 mm) thick fire-rated glazing material.
   1. Product: FireLite® by TGP.
   2. Application: Fire-rated borrowed lites.

2.5 INSULATING GLASS

A. Insulating-Glass Units: Preassembled units consisting of sealed lites of glass separated by a dehydrated interspace, and complying with ASTM E 774 for Class CBA units and with requirements specified in this Article.
   1. Provide Kind HS (heat-strengthened) float glass in place of annealed glass where needed to resist thermal stresses induced by differential shading of individual glass lites and to comply with glass design requirements specified in "Performance Requirements" Article.

2. Provide Kind FT (fully tempered) where safety glass or tinted glass is indicated.

B. Overall Unit Thickness and Thickness of Each Lite: Dimensions indicated in the this article are nominal and the overall thicknesses of units are measured perpendicularly from outer surfaces of glass lites at unit's edge.

C. Sealing System: Dual seal, with primary and secondary sealants as follows:
1. Polyisobutylene and silicone.

D. Spacer Specifications: Manufacturer's standard spacer material and construction.

E. Spacer Specifications: Manufacturer's standard spacer material and construction complying with the following requirements:
1. Aluminum with mill or clear-anodized finish.
2. Desiccant: Molecular sieve or silica gel, or blend of both.
3. Corner Construction: Manufacturer's standard corner construction.

F. Insulating Glass: Where glass of this designation is indicated, provide uncoated insulating-glass units complying with the following:
1. Overall Unit Thickness and Thickness of Each Lite: 16 and 3 mm
2. Interspace Content: Air.
3. Indoor Lite: Type I (transparent glass, flat), Class 1 (clear) float glass.
4. Outdoor Lite: Type I (transparent glass, flat) float glass.
a. Class 1 (clear).
5. Application: Exterior hollow metal doors.

G. Fire Rated Insulating Glass: Where glass of this designation is indicated, provide insulating-glass units complying with the following:
1. Overall Unit Thickness and Thickness of Each Lite: 25 and 6 mm.
2. Interspace Content: Air.
3. Outdoor Lite: Type I (transparent glass, flat), Class 1 (clear), Kind FT (fully tempered) glass.
4. Indoor Lite: Fire rated glass.
5. Application: Exterior fire rated borrowed lites.

H. Low-E Insulating Glass: Where glass of this designation is indicated, provide low-emissivity insulating-glass units complying with the following:
1. Overall Unit Thickness and Thickness of Each Lite: 25 and 6 mm.
2. Interspace Content: Air.
3. Indoor Lite: Type I (transparent glass, flat), Class 1 (clear) float glass.
4. Outdoor Lite: Type I (transparent glass, flat) Class 1 (clear) float glass.
5. Low-Emissivity Coating: Pyrolytic on third surface.
6. Application: Exterior non-fire rated borrowed lites.

2.6 ELASTOMERIC GLAZING SEALANTS

A. General: Provide products of type indicated, complying with the following requirements:
1. Compatibility: Select glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units,

and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.

2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
3. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range for this characteristic.

B. Elastomeric Glazing Sealant Standard: Comply with ASTM C 920 and other requirements indicated for each liquid-applied, chemically curing sealant, including those referencing ASTM C 920 classifications for type, grade, class, and uses.
1. Additional Movement Capability: Where additional movement capability is specified in the Glazing Sealant Schedule, provide products with the capability, when tested for adhesion and cohesion under maximum cyclic movement per ASTM C 719, to withstand the specified percentage change in the joint width existing at time of installation and remain in compliance with other requirements in ASTM C 920 for uses indicated.

C. Low-Modulus Nonacid-Curing Silicone Glazing Sealant: Where glazing sealants of this designation are indicated, provide products complying with the following:
1. Products: Available products include the following:
a. 790; Dow Corning.
b. Silpruf; GE Silicones.
c. 864; Pecora Corporation.
d. Omniseal; Sonneborn, Div of ChemRex, Inc.
e. Spectrem 1; Tremco.
2. Type and Grade: S (single component) and NS (nonsag).
3. Class: 25.
4. Additional Movement Capability: 50 percent movement in extension and 50 percent movement in compression for a total of 100 percent movement.
5. Applications: Wet sealant installations.

2.7 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tape: Preformed, butyl-based elastomeric tape with a solids content of 100 percent; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; packaged on rolls with a release paper backing; and complying with ASTM C 1281 and AAMA 800 for products indicated below:
1. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
2. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

2.8 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks: Elastomeric material with a Shore A durometer hardness of 85, plus or minus 5.

D. Spacers: Elastomeric blocks or continuous extrusions with a Shore A durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.

E. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

F. Cylindrical Glazing Sealant Backing: ASTM C 1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

2.9 FABRICATION OF GLASS AND OTHER GLAZING PRODUCTS

A. Fabricate glass and other glazing products in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing standard, to comply with system performance requirements.

PART 3 - EXECUTION

3.1 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

B. Glazing channel dimensions, as indicated on Drawings, provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by Project conditions during installation.

C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

D. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction sealant-substrate testing.

E. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

G. Provide spacers for glass lites where the length plus width is larger than 50 inches (1270 mm) as follows:
   1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
   2. Provide 1/8-inch (3-mm) minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.

H. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and according to requirements in referenced glazing publications.

I. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.

3.2 TAPE GLAZING

A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.

B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.

C. Where framing joints are vertical, cover these joints by applying tapes to heads and sills first and then to jambs. Where framing joints are horizontal, cover these joints by applying tapes to jambs and then to heads and sills.

D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.

E. Do not remove release paper from tape until just before each glazing unit is installed.

F. Apply heel bead of elastomeric sealant.

G. Center glass lites in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

H. Apply cap bead of elastomeric sealant over exposed edge of tape.

3.3 PROTECTION AND CLEANING

A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter. If, despite such protection, contaminating substances do

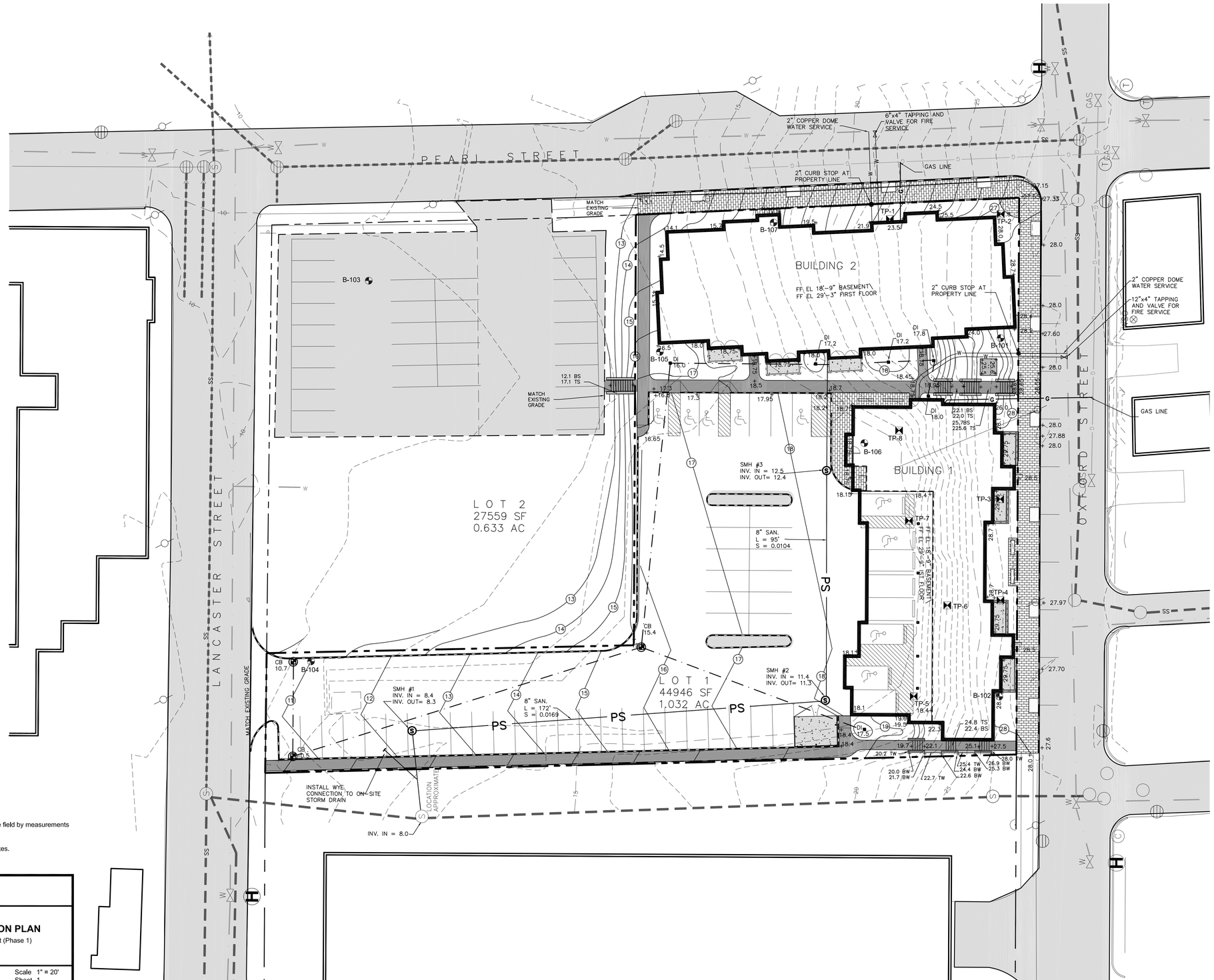
come into contact with glass, remove them immediately as recommended by glass manufacturer.

C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for build-up of dirt, scum, alkaline deposits, or stains; remove as recommended by glass manufacturer.

D. Remove and replace glass that is broken, chipped, cracked, abraded, or damaged in any way, including natural causes, accidents, and vandalism, during construction period.

E. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer.

END OF SECTION



LEGEND

- Approximate Test Boring Location
- Approximate Test Pit Location

NOTES :

1.) Exploration locations determined in the field by measurements from existing site features.

2.) Base plan provided by Carroll Associates.

S.W.COLE ENGINEERING, INC.

AVESTA HOUSING

EXPLORATION LOCATION PLAN

Proposed Pearl Place Development (Phase 1)
210 Pearl Street
Portland, Maine

Job No. 04-1212 S — Scale 1" = 20'
Date : 05/08/06 — Sheet 1

Owner:

Avesta Housing Development Corporation
307 Cumberland Avenue
Portland, Maine 04101
207-553-7777

Applicant:

Avesta Pearl Street One, LP
307 Cumberland Avenue
Portland, Maine 04101
207-553-7777

Consultants

Architect
Winton Scott Architects
5 Milk Street
Portland, ME 04101
207-774-4811

Landscape Architect
Carroll Associates
75 Market Street
Portland, ME 04101
207-772-1552(p)
207-772-0712(f)

Civil Engineer
Gorrill Palmer, Consulting Engineers, Inc.
P.O. Box 1237
Gray, Maine 04039
207-657-6910(p)
207-657-6912(f)

PEARL PLACE

BUILDINGS 1 & 2

GRADING & UTILITIES PLAN

OXFORD STREET
PORTLAND, MAINE

SCALE: 1"=20'
DATE: 4.11.06

C-1

Maine State Housing Authority

CONTRACTOR'S FINAL CERTIFICATE AND RELEASE

Any material supplier or subcontractor who supplied material or labor with a value greater than or equal to $2,000 must complete this form.

PROJECT:_____ Contract Date:_____

ADDRESS:_____ Contract Amount: $_____

_____ Contract For:_____

1. The undersigned certifies that there is due and payable under the above contract a final payment of $_____.

2. The undersigned certifies that all work required under this contract has been performed in accordance with the terms of the contract and was completed on _____, 200_.

3. The undersigned certifies that, except as set forth above, there are no unpaid claims for materials, supplies or equipment and no claims of laborers or mechanics for unpaid wages arising out of the performance of the contract.

4. The undersigned releases any and all claims, other than for the final payment set forth above, arising under or by virtue of the contract and agrees to indemnify the Maine State Housing Authority and the owner against any such claims.

5. The undersigned certifies that lead-based paints have not been used in the painting of any interior surfaces or those exterior surfaces that are readily accessible to children under six (6) years of age. Lead-based paints are defined as those paints containing more than 0.5% lead by weight in the non-volatile content of the paint.

6. The undersigned has attached to this certificate all manufacturers' and suppliers' written guarantees and warranties covering materials and equipment furnished under the contract.

Contractor:_____ Date:_____

Signature:_____

State of Maine

County of _____, ss. Date:_____

Personally appeared the above-named _____ and gave oath to the foregoing.

Before me,

_____

Name
Notary Public of Maine/Attorney-at-Law
My Commission Expires:_____

353 Water Street Augusta, Maine 04330-4633 207-626-4600 800-452-4668 (Rev. 4/01)
TTY 800-452-4603 Fax 207-626-4678 www.mainehousing.org

S.W.COLE ENGINEERING, INC. • Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

04-1212.3 E

November 2, 2005

Maine Department of Environmental Protection
Attention: Mr. Nicholas Hodgkins
17 State House Station
Augusta, ME 04330-0017

Subject: Voluntary Remedial Action Plan (VRAP)
Pearl Place Residential Development Site
210 Pearl Street
Portland, Maine

Dear Nick:

On behalf of the Avesta Housing, we have prepared this Voluntary Remedial Action Plan (VRAP) to address remediation of soil contamination at the Pearl Place residential development site on the northwest side of Pearl Street in Portland, Maine.

The VRAP applicant is Avesta Housing Development Corporation (Avesta Housing). Avesta Housing proposes to develop the site with six new multi-unit residential buildings and an underground parking garage, which will be built in three or more construction phases. We understand that Phase 1 will involve construction of two of the residential buildings. Avesta Housing retained S. W. COLE ENGINEERING, INC. to provide environmental site assessment services and geotechnical engineering services for the proposed construction project. We are submitting a VRAP Application for Assistance under the Maine Voluntary Remedial Action Program.

SITE DESCRIPTION AND HISTORY

The site is located at 210 Pearl Street in Portland, Maine. The site consists of one lot totaling approximately 1.66 acres that is designated on City of Portland Property Map 26 as Block E, Lot 1.

The site currently contains a commercial building that is not actively used. A paved parking lot on the northeast end of the site is used by facilities on adjacent properties for daytime automobile parking. The site terrain slopes downward from southeast to northwest.

The existing commercial building was constructed on the site in 1977 and used by F. W. Webb Company as a plumbing supply warehouse and office until 2004. Historically, the site was within the tidal zone of Back Bay until it was filled during the 1800s. Several residential buildings existed on the site from the late 1800s until approximately 1960.

SUMMARY OF FINDINGS

S. W. COLE ENGINEERING, INC. monitored four test boring explorations at the site in December 2004 and eight test pit explorations at the site in September 2005.

In general, the explorations at the southeast (top to mid slope) end of the site encountered fill (silt and sand with some gravel) overlying native silty clay, overlying clayey glacial till. The fill contained varying amounts of brick, cobbles, buried brick walls and granite foundations. An approximately 6 to 12 inch layer of gray ash was observed below the fill and above the silty clay during the test pit explorations.

The explorations at the northwest (bottom of slope) end of the site generally encountered native clayey glacial till soils over silty glacial till.

We collected soil samples at varying depths from each of the explorations. The samples were screened for evidence of petroleum and other ionizable organic vapors and gases with a photoionization detector (PID). The PID test results were non-detect for all the samples, suggesting that soils at the site are not contaminated with volatile organic compounds (VOCs).

It has been our experience us that buried ash encountered at sites in the City of Portland often has elevated concentrations of lead and arsenic. We submitted a composite sample of the ash layer collected from the test pits at the site to a laboratory for total RCRA 8 metals analyses.

The laboratory test result for the ash sample was 2470 mg/Kg (ppm). This lead concentration significantly exceeds the Residential Guideline lead concentration of 375

ppm listed in the MDEP Remedial Action Guidelines for Contaminated Soils (RAGs). The Residential Guideline applies to the site due to proposed residential development.

The concentration of arsenic reported for the ash sample was 11 ppm. The Residential Guideline for arsenic listed in the RAGs is 10 ppm. Although the arsenic concentration in the ash sample slightly exceeded the arsenic concentration listed in the guidelines, we do not consider arsenic as a contaminant of concern in the ash, because the arsenic concentration is within published ranges (1 to 50 ppm) typically reported for arsenic in soils. The laboratory test report indicated that the other RCRA metal concentrations did not exceed the Residential Guidelines listed in the RAGs.

S. W. COLE ENGINEERING, INC. conducted a drinking water well survey in order to identify potential drinking water wells within an approximate 0.5-mile radius of the site. We inspected the properties within the noted search radius by driving on the streets adjacent to the properties and looking for evidence (i.e., steel casings, hand pumps, concrete tiles, stone structures) of wells. We did not observe evidence of wells on the properties. We reviewed Portland Water District Water Service Line Inventory Summary reports and City of Portland property assessment records for the properties in the noted search distance. These records did not provide evidence of private drinking water wells in the site area.

The Marginal Way area of Portland east of Back Cove, which is in the site vicinity, has been designated by the MDEP as a "non-attainment zone". A non-attainment zone is an area from which groundwater will not be withdrawn for human use because of environmental or institutional factors, such as documented pollution or high potential for pollution due to past or current land uses. MDEP has also reported that groundwater in the area of Marginal Way is contaminated with varying concentrations of hydrocarbons.

PROPOSED SITE USES

Based on discussions with Avesta Housing and Winton Scott Architects (project architect), we understand that the Pearl Place residential development will consist of 6 multi-unit residential buildings and an underground parking garage that will be built over the course of several construction phases. Phase 1 will involve the construction of two new residential buildings at the southeast end of the site adjacent to Oxford Street. Subsequent construction phases will include two residential buildings at the northwest

end of the site, two residential at the northeast end of the site adjacent to Lancaster Street and the underground parking garage near the center of the site.

The construction project will include demolition and removal of the existing commercial building.

PLANS AND RECOMMENDATIONS FOR REMEDIAL ACTION

Earthwork for the proposed Pearl Place residential development will include excavation of the approximately 6 to12-inch thick layer of ash below the surficial fill layer. We recommend visual monitoring during site-work excavation in order to separate the ash layer from soils with little or no ash.

We recommend that the excavated ash layer be temporarily buried on-site beneath a landscape berm during the first phase (Phase I) of construction, and then be permanently placed below inert soils and/or impervious building materials on-site, such as paved areas or the concrete parking garage, during successive building phases in order to create a "cap" to prevent direct human contact with the ash. The temporary on-site encapsulation of the ash in a landscape berm will be necessary because the underground parking garage (a proposed permanent burial location of the ash) will not be built during the Phase I construction.

We recommend that ash in the temporary berm be covered with a "marker" horizon consisting of non-woven geotextile fabric and that the marker horizon then be covered with at least one foot of loam and seeded.

Prior to construction of the temporary landscape berm, the excavated ash materials should be temporarily stockpiled on a secure area of the site and covered with poly to reduce dispersal by wind and precipitation.

We recommend that if the ash will be capped below landscaped areas, that the ash be covered with a geotextile marker horizon and then at least 6 inches of inert fill.

S. W. COLE ENGINEERING, INC. will develop a letter report that documents site remediation and construction. The report will be submitted to MDEP for review prior to issuance of a Certificate of Completion.

CLOSING

If you have any questions regarding this VRAP or if you require further information, please do not hesitate to contact us.

Sincerely,

S. W. COLE ENGINEERING, INC.

Gary W. Bucklin, C. G.
Senior Geologist

c: Jay Waterman/Avesta Housing

GWB:gwb/pfb

F:\Projects\2005\04-1212.3_E_Avesta Housing_Portland_Pearl Place_Env. Services_GWB\VRAP Plan I.doc

ASH SAMPLING AND TESTING SERVICES
PEARL PLACE
PROPOSED PHASE I DEVELOPMENT
210 PEARL STREET
PORTLAND, MAINE

04-1212.3 E **OCTOBER 26, 2005**

RECEIVED
OCT 27 2005

S.W.COLE ENGINEERING, INC.
• Geotechnical Engineering • Field & Lab Testing • Scientific & Environmental Consulting

04-1212.3 E
October 26, 2005

Avesta Housing
Attention: Jay Waterman
307 Cumberland Avenue
Portland, ME 04101

Subject: Ash Sampling and Testing Services
Pearl Place
Proposed Phase I Development
210 Pearl Street
Portland, Maine

Dear Jay:

S. W. COLE ENGINEERING, INC. has completed Ash Sampling and Testing Services for the proposed Phase I Development of Pearl Place at 210 Pearl Street in Portland, Maine. S. W. COLE ENGINEERING, INC. observed a layer of ash between fill soils and native soils in test pits during a geotechnical evaluation of the site in September 2005. The ash layer will need to be excavated during the proposed development at the site.

As discussed, we collected ash samples from two of the test pits on September 29, 2005 and combined the samples into one composite sample. The composite sample (S-1) was transported to Katahdin Analytical Services in Westbrook, Maine using standard chain-of-custody procedures. Katahdin Analytical Services analyzed Sample S-1 for total RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).

The laboratory test report indicated that the concentration of lead in Sample S-1 was 2470 mg/Kg (ppm). This reported lead concentration for the ash at the site significantly exceeds the Residential Guideline for lead concentration of 375 ppm listed in the MDEP Remedial Action Guidelines (RAGs) for Contaminated Soils. The concentration of arsenic reported for Sample S-1 was 11 ppm. The Residential Guideline for arsenic listed in the RAGs is 10 ppm. Although the arsenic concentration in the ash sample

slightly exceeded the arsenic concentration listed in the guidelines, we do not consider arsenic as a contaminant of concern in the ash, because the arsenic concentration is within published ranges (1 to 50 ppm) typically reported for arsenic in soils. The laboratory test report indicates that the other RCRA metal concentrations did not exceed the Residential Guidelines listed in the RAGs. A copy of the Katahdin Analytical Services laboratory report is attached.

As requested by Avesta Housing, S. W. COLE ENGINEERING INC. is preparing a MDEP Voluntary Remedial Action Plan (VRAP) for the site, which will include recommendations for the on-site remediation of the ash considering the master plan for the proposed residential development.

If you have any questions or require further assistance, please do not hesitate to contact us.

Sincerely,

S. W. COLE ENGINEERING, INC.

Gary Bucklin, C.G.
Senior Geologist

GWB:gwb/pfb

F:\Projects\2004\04-1212.3_E_Avesta Housing_Portland_Pearl Place_VRAP Services_GWB\Ash Sample Report.doc

Katahdin
ANALYTICAL SERVICES

Cert. No. E87604

October 17, 2005

Mr. Gary Bucklin
S. W. Cole Engineering, Inc.
286 Portland Road
Gray,ME 04039

RE: Katahdin Lab Number: WV5152
Project ID: PEARL PLACE/04-1212
Project Manager: Ms. Shelly Brown
Sample Receipt Date(s): October 03, 2005

Dear Mr. Bucklin:

Please find enclosed the following information:

* Report of Analysis (Analytical and/or Field)
* Chain of Custody (COC)
* Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES

Jennifer Obrin
Authorized Signature

10-17-05
Date

DATA QUALIFIERS

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
*	Compound recovery outside of quality control limits.
D	Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
B	Organics- Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. Metals- Indicates the analyte was detected in the sample at a concentration greater than the instrument detection limit, but less than the laboratory's Practical Quantitation Level.
N	Presumptive evidence of a compound based on a mass spectral library search.
A	Indicates that a tentatively identified compound is a suspected aldol-condensation product.
P	Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns.
MCL	Maximum Contaminant Level
NL	No limit

Katahdin ANALYTICAL SERVICES

REPORT OF ANALYTICAL RESULTS

Client: Gary Bucklin
S. W. Cole Engineering, Inc.
286 Portland Road
Gray, ME 04039

Lab Sample ID: WV5152-001
Report Date: 10/10/2005
PO No.:
Project: PEARL PLACE/04-1212

Sample Description	Matrix	Percent Solids(%)	Date Sampled	Date Received
S-1	SL	81.2	09/29/2005	10/03/2005

Parameter	Result	Units	Adjusted PQL	Dilution Factor	PQL	Analytical Method	Analysis Date	By	Prep Method	Prepped Date	By	QC	Notes
ARSENIC	11.0	mg/Kg	0.8	1	0.8	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	
BARIUM	621.	mg/Kg	0.53	1	0.5	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	
CADMIUM	1.87	mg/Kg	1.06	1	1	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	
CHROMIUM	30.9	mg/Kg	1.6	1	1.5	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	
LEAD	2470.	mg/Kg	0.5	1	0.5	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	
MERCURY	1.68	ug/g	0.042	1	0.04	SW846 7471	10/10/05	MW	SW846 7471	10/7/05	MW	VJ07HGS0	
SELENIUM	1.3	mg/Kg	1.1	1	1	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	
SILVER	U 1.6	mg/Kg	1.6	1	1.5	SW846 6010	10/6/05	MRG	SW846 3050	10/4/05	JWM	VJ04ICS0	1

1 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects,sample volume, or quantity used for analysis.

Report of Analytical Results

Client: Gary Bucklin
S. W. Cole Engineering, Inc.
286 Portland Road
Gray,ME 04039

Lab Sample ID: WV5152-1
Report Date: 07-OCT-05
Client PO:
Project: PEARL PLACE/04-1212
SDG: WV5152

Sample Description	Matrix	Date Sampled	Date Received
S-1	SL	29-SEP-05	03-OCT-05

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	81. %	1	CLP SOW 788	WG21350	06-OCT-05 10:00:00	CLP SOW 788	05-OCT-05	JF	

KATAHDIN ANALYTICAL SERVICES, INC.
SAMPLE RECEIPT CONDITION REPORT

Tel. (207) 874-2400
Fax (207) 775-4029

LAB (WORK ORDER) #: WV5152

PAGE: 1 OF 1

COOLER: NA OF

CLIENT: SW Cole

COC#

PROJECT:

SDG#

DATE / TIME RECEIVED: 10/3/05 13:50

DELIVERED BY: Client

RECEIVED BY: AG / BW

LIMS ENTRY BY: AG

LIMS REVIEW BY / PM:

	YES	NO	EXCEPTIONS	COMMENTS	RESOLUTION
1. CUSTODY SEALS PRESENT / INTACT?	☒	☐	☐		
2. CHAIN OF CUSTODY PRESENT IN THIS COOLER?	☒	☐	☐		
3. CHAIN OF CUSTODY SIGNED BY CLIENT?	☒	☐	☐		
4. CHAIN OF CUSTODY MATCHES SAMPLES?	☒	☐	☐		
5. TEMPERATURE BLANKS PRESENT?	☐	☒	☐	TEMP BLANK TEMP (°C)=	
6. SAMPLES RECEIVED AT 4°C +/-2? ICE / ICE PACKS PRESENT Y or (N)?	☐	☐	☒	COOLER TEMP (°C)= NA (RECORD COOLER TEMP ONLY IF TEMP BLANK IS NOT PRESENT)	
7. VOLATILES FREE OF HEADSPACE?	☐	☐	☒		
8. TRIP BLANK PRESENT IN THIS COOLER	☐	☐	☒		
9. PROPER SAMPLE CONTAINERS AND VOLUME?	☒	☐	☐		
10. SAMPLES WITHIN HOLD TIME UPON RECEIPT?	☒	☐	☐		
11. SAMPLES PROPERLY PRESERVED[1]?	☒	☐	☐		
12. CORRECTIVE ACTION REPORT FILED?	☐	☐	(N/A)		

13. ANALYTICAL PROGRAMS (CIRCLE ONE) (COMMERCIAL) CLP HAZWRAP NFESC ACOE AFCEE OTHER (STATE OF ORIGIN):

LOG - IN NOTES[1]:

[1] Use this space (and additional sheets if necessary) to document samples that are received broken or compromised, C-O-C discrepancies, radiation checks, residual chlorine check, results of pH check if required. If samples required pH adjustment, record volume and type of preservative added.

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04092
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN

Client: S.W. COLE ENG. | Contact: GARY BUCKLIN | Phone #: (207) 657-2866 | Fax #: (207) 657-2840

Address: 286 PORTLAND ROAD | City: GRAY | State: ME | Zip Code: 04039

Purchase Order #: | Proj. Name / No.: PEARL PLACE / 04-1212 | Katahdin Quote #:

Bill (if different than above): | Address:

Sampler (Print / Sign): | Copies To:

LAB USE ONLY | WORK ORDER #: WV5152

KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE PRESERVATIVES

Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	RCRA 8 Metals (Filt. ☐Y ☒N)	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
S-1	9-29 / 10:00	SOIL	1	X									
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COMMENTS: S-1 IS A COMPOSITE OF 2 SUBSAMPLES
* SAMPLE MAY CONTAIN GLASS — CAUTION!

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
[signature]	10-3 08:00	[signature]			[signature]
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

Katahdin
ANALYTICAL SERVICES

Katahdin Analytical Services

Login Chain of Custody Report (lno1)

Oct. 05, 2005
08:43 AM

Login Number: WV5152

Account: SWCOLE001 NoWeb
S. W. Cole Engineering, Inc.

Project:

Primary Report Address:
Gary Bucklin
S. W. Cole Engineering, Inc.
286 Portland Road

Gray,ME 04039

Primary Invoice Address:
Accounts Payable
S. W. Cole Engineering, Inc.
286 Portland Road

Gray,ME 04039

Report CC Addresses:
Invoice CC Addresses:

Login Information

ANALYSIS INSTRUCTIONS	:	Sample may contain glass: Caution
CHECK NO.	:	
CLIENT PO#	:	
COOLER TEMPERATURE	:	NA
DELIVERY SERVICES	:	CLIENT
EDD FORMAT	:	
MAIL DATE	:	
PM	:	SMB
PROJECT NAME	:	PEARL PLACE/04-1212
QC LEVEL	:	I
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	
SDG ID	:	
SDG STATUS	:	

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
WV5152-1	S-1	29-SEP-05 10:00	03-OCT-05			16-OCT-05	sample may contain glass caution

Matrix		Product	Hold Date (shortest)	Bottle Type	Bottle Count
Solid	P	RCRA-METALS			1

SW3050-PREP, SW6010-ARSENIC, SW6010-BARIUM, SW6010-CADMIUM, SW6010-CHROMIUM, SW6010-LEAD, SW6010-SELENIUM, SW6010-SILVER, SW7471-MERCURY

Solid S TS 29-OCT-05

Total Samples: *1* ***Total Analyses:*** *2*

ADDENDUM
ORIGINAL CHAIN OF CUSTODY

Katahdin ANALYTICAL SERVICES
340 County Road No. 5
P.O. Box 720
Westbrook, ME 04092
Tel: (207) 874-2400
Fax: (207) 775-4029

CHAIN of CUSTODY

PLEASE BEAR DOWN AND PRINT LEGIBLY IN PEN.

Client: S.W. Cole Eng | Contact: GARY BUCKLIN | Phone #: (207) 657-2866 | Fax #: (207) 657-2846

Address: 286 PORTLAND Road | City: GRAY | State: ME | Zip Code: 04039

Purchase Order # | Proj. Name / No.: PEARL PLACE / 04-1212 | Katahdin Quote #

Bill (if different than above) | Address

Sampler (Print / Sign) | Copies To:

LAB USE ONLY | WORK ORDER #: WV5152 | KATAHDIN PROJECT NUMBER

REMARKS:

SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT

AIRBILL NO:

TEMP°C ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

*	Sample Description	Date / Time coll'd	Matrix	No. of Cntrs.	ANALYSIS AND CONTAINER TYPE / PRESERVATIVES: Filt. ☐Y ☒N RCRA 8 Metals	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N	Filt. ☐Y ☐N
	S-1	9-29 / 10:00	SOIL	1	X									
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COMMENTS: S-1 IS A COMPOSITE OF 2 SUB SAMPLES

* SAMPLE MAY CONTAIN GLASS — CAUTION!

Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)
Gary W. Buck	10-3 08:30	Dale Rudman			Stephen Gilman
Relinquished By: (Signature)	Date / Time	Received By: (Signature)	Relinquished By: (Signature)	Date / Time	Received By: (Signature)

04-1212.3. E

May 16, 2006

Maine Department of Environmental Protection
Bureau of Remediation and Waste Management
Attention: Laura Gay, Environmental Specialist
17 State House Station
Augusta, Me. 04333-0017

Subject: Amended Voluntary Remedial Action Plan (VRAP)
Pearl Place Residential Development Site
210 Pearl Street
Portland, Maine

Dear Laura:

The Pearl Place Residential Development Site (Pearl Place) at 210 Pearl Street in Portland, Maine is an applicant in the MDEP Voluntary Response Action Program. A Voluntary Remedial Action Plan (VRAP) dated November 2, 2005 for the site was prepared by S. W. COLE ENGINEERING, INC. on behalf of Avesta Housing Development Corporation (the VRAP applicant) and forwarded to MDEP. MDEP reviewed the VRAP and the attached environmental reports and issued a *Draft No Action Assurance Letter* that indicated MDEP agreed with the conclusions and recommendations for further actions at the property. The recommendations in the VRAP included temporarily placing excavated, stock-piled lead-contaminated ash in a landscape berm on-site during a first phase of construction, and later permanently "capping" the ash below inert soils and/or impervious materials (i.e., concrete slabs, bituminous pavement) during other construction phases.

The purpose of this letter is to inform you that Avesta Housing Development Corporation (Avesta) has changed the scope of construction for Pearl Place. Excavations and regrading of the Pearl Place site are now proposed to be completed during one phase of construction, which affects the timing of capping the ash. The excavated, stock-piled lead-contaminated ash will no longer be temporarily placed in a

landscape berm on-site, but will instead be directly capped below inert soil or impervious building materials.

Other recommendations for remedial action in the VRAP remain unchanged.

We are requesting that MDEP issue a revised *Draft No Action Assurance Letter* to Avesta Housing Development Corporation that reflects the amendments to the VRAP noted above.

Please contact us if you have any questions or require further information.

Sincerely,

S. W. COLE ENGINEERING, INC.

Gary W. Bucklin, C.G.
Senior Geologist

c: Avesta Housing / Jay Waterman

GWB:gwb/pfb

P:\2004\04-1212.3_E_Avesta Housing_Portland_Pearl Place_
VRAP Services_GWB\Ammended VRAP Plan.doc

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

June 1, 2006

Avesta Housing Development Corporation
307 Cumberland Avenue
Portland, Maine 04101
Attn: Jay Waterman

Re: Pearl Place Residential Development Site, Portland, Maine
Voluntary Response Action Program No Action Assurance Letter

Mr. Waterman:

The Maine Department of Environmental Protection ("Department") has received and reviewed your application to the Department's Voluntary Response Action Program ("VRAP"), along with the environmental site assessment reports and the geotechnical engineering reports authored by S. W. Cole Engineering, Inc. The application was submitted to the Department with the request that Avesta Housing Development Corporation, as an applicant to the VRAP, receive the protections provided by the VRAP Law.

Based on the information presented in the reports, the Department agrees with the conclusions and recommendations for further actions at the property. These actions include, but are not limited to, excavating and securing the lead-containing ash fill soils and capping them below the inert soil or impervious building materials.

The Department's concurrence with the proposed actions are conditioned on the prohibition of installation of groundwater extraction wells on the property, the prohibition of excavation in the capped areas without the prior permission of the Department, and the submittal of an Operations & Maintenance Plan for the cap system.

Provided that the remedial actions are completed to the satisfaction of the Department, Avesta Housing Development Corporation and their successors and/or assigns, including, without limitation, Avesta Pearl Street One, LP and its present and future partners (collectively the "Partnership"), will be granted the liability protection provided by 38 M.R.S.A. §343-E (1) for the property located at 210 Pearl Street, identified as Lot 1, Block E on City of Portland Tax Map 26, and described in a deed recorded in Book 21704 Page 121 of the Cumberland County Registry of Deeds. The Department will take no action against Avesta Housing Development, its successors and/or assigns, including, without limitation, the Partnership, and those persons identified in 38 M.R.S.A. § 343-E (6).

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

Once the recommended remedial measures to be implemented at the property are completed, a report demonstrating the successful implementation of the tasks should be forwarded to the VRAP. Upon determining successful conclusion of the remedial tasks, the Department will issue to Avesta Housing Development Corporation and the Partnership a Commissioner's Certificate of Completion.

If you have any questions regarding this letter, please feel free to call me at 207-287-7746.

Sincerely,

Laura L. Gay
Division of Remediation
Bureau of Remediation & Waste Management

Pc: Gary Bucklin, S.W. Cole
Cito Selinger, Curtis, Thaxter, Stevens, Broder & Micoleau

Statement of Special Inspections

Pearl Place Building 1 & 2
Portland, Maine
PRELIMINARY ISSUE – SEPTEMBER 12, 2006

Statement Prepared by
Structural Engineer of Record
Becker Structural Engineers, Inc.
75 York Street
Portland, ME 04101
207. 879. 1838

Owner:
Avesta Pearl Street One, L.P.

Architect of Record:
Winton Scott Architects
5 Milk Street
Portland, ME 04101
207. 774. 4811

Contractor:
T.B.D.

Statement of Special Inspections - Exhibit A

Project: *Pearl Place Building 1 &2*

Location: *Portland, Maine*

Owner: *Avesta Pearl Street One, L.P.*

This *Statement of Special Inspections* encompass the following discipline:

☒ Structural ☐ Mechanical/Electrical/Plumbing

☐ Architectural ☐ Other: _____

Design Professional in Responsible Charge: *James Fortin, P.E.*

Firm Name: *Becker Structural Engineers, Portland, ME*

(Note: *Statement of Special Inspections* for other disciplines may be included under a separate cover)

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

The Structural Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Code Official (BCO) and the Structural Registered Design Professional in Responsible Charge (SRDP). Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Structural Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Structural Registered Design Professional in Responsible Charge at an interval determined by the SSIC and the BCO.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted to the BCO prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: ☒ *Upon request of Building Official* _____ or ☐ per attached schedule.

Prepared by:

James Fortin, P.E.

(type or print name of the Structural Registered Design Professional in Responsible Charge)

Signature Date

Design Professional Seal

Owner's Authorization:

Signature Date

Building Code Official's Acceptance:

Signature Date

Statement of Special Inspections (Continued) - Exhibit A

List of Agents

Project: *Pearl Place Building 1 & 2*

Location: *Portland, Maine*

Owner: *Avesta Pearl Street One, L.P.*

This *Statement of Special Inspections* encompass the following discipline:

☒ Structural ☐ Mechanical/Electrical/Plumbing
☐ Architectural ☐ Other: _____

(Note: *Statement of Special Inspections* for other disciplines may be included under a separate cover)

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

☐ Soils and Foundations
☐ Cast-in-Place Concrete
☐ Precast Concrete System
☒ Masonry Systems
☐ Structural Steel
☐ Wood Construction
☐ Spray Fire Resistant Material
☐ Cold-Formed Steel Framing
☐ Exterior Insulation and Finish
☐ Mechanical & Electrical
☐ Architectural Systems
☐ Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Structural Special Inspection Coordinator (SSIC)	*Becker Structural Engineers (BSE)* *James Fortin, P.E.*	*75 York Street* *Portland, ME 04107* *phone: (207) 879-1838* *fax: (207) 879-182* *jim@beckerstructural.com*
2. Special Inspector (SI 1)	*Becker Structural Engineers (BSE)* *James Fortin, P.E.*	*75 York Street* *Portland, ME 04107* *phone: (207) 879-1838* *fax: 207-879-1822* *jim@beckerstructural.com*
3. Special Inspector (SI 2)	*S.W.Cole Engineering, Inc.* *Timothy Boyce, P.E*	*286 Portland Road* *Gray, ME 04039* *phone: (207) 657-2866* *fax: (207) 657-2840* *tboyce@swcole.com*
4. Testing Agency (TA 1)	*S.W.Cole Engineering, Inc.* *Timothy Boyce, P.E.*	*286 Portland Road* *Gray, ME 04039* *phone: (207) 657-2866* *fax: (207) 657-2840* *tboyce@swcole.com*
5. Testing Agency (TA 2)		
6. Other (O1)		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Statement of Special Inspections (Continued) - Exhibit A

Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project: *Pearl Place Building 1 & 2*
Location: *Portland, Maine*
Owner: *Avesta Pearl Street One, L.P.*
Owner's Address:

Architect of Record: *Winton Scott, R.A.* (name) *Winton Scott Architects* (firm)

Structural Registered Design Professional in Responsible Charge: *James Fortin, P.E.* (name) *Becker Structural Engineers* (firm)

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

(Attach continuation sheets if required to complete the description of corrections.)

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Structural Special Inspection Coordinator

(Type or print name)

(Firm Name)

Signature Date

Licensed Professional Seal

Statement of Special Inspections (Continued) - Exhibit A

Special Inspector's/Agent's Final Report

Project: *Pearl Place Building 1 & 2*

Special Inspector or Agent: _____

(name) *(firm)*

Designation:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Inspector/Agent in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved other than the following:

Comments:

(Attach continuation sheets if required to complete the description of corrections.)

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Special Inspector or Agent:

_____
(Type or print name)

_____
Signature Date

Licensed Professional Seal or
Certification Number

Schedule of Special Inspections - Exhibit B

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector

Other

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit B

SOILS & FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.7, 1704.8, 1704.9	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Verify existing soil conditions, fill placement and load bearing requirements							
a. Prior to placement of prepared fill, determine that the site has been prepared in accordance with the approved soils report.	Y	P	IBC 1704.7.1	SI2	PE/GE or EIT		
b. During placement and compaction of fill material, verify material being used and maximum lift thickness comply with the approved soils report.	Y	P	IBC 1704.7.2	SI2	PE/GE or EIT		
c. Test in-place dry density of compacted fill complies with the approved soils report.	Y	p	IBC 1704.7.2	TA1	NICET-ST or NICET-GET		
2. Pile foundations:							
a. Observe and record procedures for static load testing of piles.	N/A		IBC 1704.8				
b. Observe and record procedures for dynamic load testing of piles.	N/A						
c. Record installation of each pile and results of load test. Include cutoff and tip elevations of each pile relative to permanent reference.	N/A						
d. Test welded splices of steel piles	N/A		AWS D1.1				
3. Pier foundations: Verify installation of pier foundations for buildings assigned to Seismic Design Category C, D, E or F.	N/A		IBC 1704.9				
a. Verify pier diameter and length	N/A						
b. Verify pier embedment (socket) into bedrock	N/A						
c. Verify suitability of end bearing strata	N/A						

Soils and Foundations Construction has been reviewed in accordance with sections 1704.7, 8 & 9 of the IBC Code

Special Inspector_____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit B

CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.4	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Inspection of reinforcing steel, including prestressing tendons, and placement	Y	P	ACI 318: 3.5, 7.1-7.7	SI1	PE/SE or EIT		
2. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B	N		Welding of Reinf Not Allowed	TA1	AWS-CWI		
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased	Y	C	IBC 1912.5	SI1	PE/SE or EIT		
4. Verifying use of required design mix	Y	P	ACI 318: Ch 4, 5.2-5.4	SI1	PE/SE or EIT		
5. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature	Y	C	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	TA1	ACI-CFTT or ACI-STT		
6. Inspection of concrete and shotcrete placement for proper application techniques	Y	C	ACI 318: 5.9, 5.10	SI1	PE/SE or EIT		
7. Inspection for maintenance of specified curing temperature and techniques	Y	P	ACI 318: 5.11-5.13	SI1	PE/SE or EIT		
8. Inspection of Prestressed Concrete							
a. Application of prestressing force.	N/A		ACI 318: 18.20				
b. Grouting of bonded prestressing tendons in seismic force resisting system	N/A		ACI 318: 18.18.4				
9. Erection of precast concrete members	N/A		ACI 318: Ch 16				
10. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms beans and structural slabs	N/A		ACI 318: 6.2				

Concrete Construction has been reviewed in accordance with section 1704.4 of the IBC Code

Special Inspector_____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit B

MASONRY CONSTRUCTION – LEVEL 1 (NON-ESSENTIAL FACILITY)

VERIFICATION AND INSPECTION IBC Section 1704.5	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	INITIAL
1. As masonry construction begins, the following shall be verified to ensure compliance:							
a. Proportions of site-prepared mortar.	Y	P	ACI530.1, 2.6A	SI1	PE/SE or EIT		
b. Construction of mortar joints.	Y	P	ACI530.1, 3.3B	SI1	PE/SE or EIT		
c. Location of reinforcement and connectors.	Y	P	ACI530.1, 3.4, 3.6A	SI1	PE/SE or EIT		
d. Prestressing technique.	N/A		ACI530.1, 3.6B				
e. Grade and size of prestressing tendons and anchorages.	N/A		ACI530.1, 2.4B, 2.4H				
2. The inspection program shall verify:							
a. Size and location of structural elements.	Y	P	ACI530.1, 3.3G	SI1	PE/SE or EIT		
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	Y	P	ACI530, 1.2.2(e), 2.1.4, 3.1.6	SI1	PE/SE or EIT		
c. Specified size, grade and type of reinforcement.	Y	P	ACI530, 1.12, ACI530.1, 2.4, 3.4	SI1	PE/SE or EIT		
d. Welding of reinforcing bars.	N	Welding of Reinf. Not permitted	AC530, 2.1.10.6.2, 3.2..4 (b)	AWS-CWI	PE/SE or EIT		
e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).	Y	P	IBC 2104.3, 2104.4; ACI530.1, 1.8C, 1.8D	SI1	PE/SE or EIT		
f. Application and measurement of prestressing force.	N/A		ACI530.1, 3.6B				
3. Prior to grouting, the following shall be verified to ensure compliance:							
a. Grout space is clean.	Y	P	ACI530.1, 3.2D	SI1	PE/SE or EIT		
b. Placement of reinforcement and connectors and prestressing tendons and anchorages.	Y	P	ACI530, 1.12, ACI530.1, 3.4	SI1	PE/SE or EIT		

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

VERIFICATION AND INSPECTION IBC Section 1704.5	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	INITIAL
c. Proportions of site-prepared grout and prestressing grout for bonded tendons.	Y	P	ACI530.1, 2.6B	SI1	PE/SE or EIT		
d. Construction of mortar joints.	Y	P	ACI530.1, 3.3B	SI1	PE/SE or EIT		
4. Grout placement shall be verified to ensure compliance with code and construction document provisions.	Y	C	ACI530.1, 3.5	SI1	PE/SE or EIT		
a. Grouting of prestressing bonded tendons.	N/A		ACI530.1, 3.6C				
5. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.	Y	C	IBC 2105.2.2, 2105.3; ACI530.1, l.4	SI1	PE/SE or EIT		
6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	Y	P	ACI530.1, 1.5	SI1	PE/SE or EIT		

Masonry Construction has been reviewed in accordance with section 1704.5 of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit B

MASONRY CONSTRUCTION – LEVEL 2 (ESSENTIAL FACILITY) – NOT APPLICABLE

VERIFICATION AND INSPECTION IBC Section 1704.5	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	INITIAL
1. From the beginning of masonry construction, the following shall be verified to ensure compliance:							
a. Proportions of site-mixed mortar, grout and prestressing grout for bonded tendons.	N/A		ACI530.1, 2.6A				
b. Placement of masonry units and construction of mortar joints.	N/A		ACI530.1, 3.3B				
c. Placement of reinforcement, connectors and prestressing tendons and anchorges.	N/A		ACI530, 1.12; ACI530.1, 3.4, 3.6 A				
d. Grout space prior to grouting.	N/A		ACI530.1, 3.2D				
e. Placement of grout.	N/A		ACI530.1, 3.5				
f. Placement of prestressing grout.	N/A		ACI530.1, 3.6C				
2. The inspection program shall verify:							
a. Size and location of structural elements.	N/A		ACI530.1, 3.3G				
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	N/A		ACI530, 1.2.2(e), 2.1.4, 3.1.6				
c. Specified size, grade and type of reinforcement.	N/A		ACI530, 1.12; ACI530.1, 2.4, 3.4				
d. Welding of reinforcement.	N/A		ACI530, 2.1.10.6.2, 3.2.3.4(b);				
e. Protection of masonry during cold weather and (temperature below 40°F) or hot weather (temperature above 90°F).	N/A		IBC 2104.3, 2104.4; ACI530.1, 1.8C, 1.8D				
f. Application and measurement of prestressing force.	N/A		ACI530.1, 3.6B				
3. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.	N/A		IBC 2105.2.2, 2105.3; ACI 530.1, 1.4				
4. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	N/A		ACI530.1, 1.5				

Masonry Construction has been reviewed in accordance with section 1704.5 of the IBC Code
Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit B

STEEL CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.3	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Material verification of high-strength bolts, nuts and washers:							
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	Applicable ASTM material specifications; AISC 335, Section A3.4; AISC LRFD, Section A3.3	SI1	PE/SE or EIT		
b. Manufacturer's certificate of compliance required.		S		SI1	PE/SE or EIT		
2. Inspection of high-strength bolting							
a. Bearing-type connections.	Y	P	AISC LRFD Section M2.5 IBC Sect 1704.3.3	TL	AWS/AISC-SSI		
b. Slip-critical connections.	N/A	C or P (method dependent)		TL	AWS/AISC-SSI		
3. Material verification of structural steel (IBC Sect 1708.4):							
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4	SI1	PE/SE or EIT		
b. Manufacturers' certified mill test reports.	Y	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4	SI1	PE/SE or EIT		
4. Material verification of weld filler materials:							
a. Identification markings to conform to AWS specification in the approved construction documents.	Y	S	AISC, ASD, Section A3.6; AISC LRFD, Section A3.5	SI1	PE/SE or EIT		
b. Manufacturer's certificate of compliance required.	Y	S		SI1	PE/SE or EIT		

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

VERIFICATION AND INSPECTION IBC Section 1704.3	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
5. Submit current AWS D1.1 welder certificate for all field welders who will be welding on this project.	Y	S	AWS D1.1	SI1	PE/SE or EIT		
6. Inspection of welding (IBC 1704.3.1): a. Structural steel:							
1) Complete and partial penetration groove welds.	Y	C	AWS D1.1	TA1	AWS-CWI		
2) Multipass fillet welds.	Y	C		TA1	AWS-CWI		
3) Single-pass fillet welds> 5/16”	Y	C		TA1	AWS-CWI		
4) Single-pass fillet welds< 5/16”	Y	P		TA1	AWS-CWI		
5) Floor and deck welds.	Y	P	AWS D1.3	TA1	AWS-CWI		
b. Reinforcing steel (IBC Sect 1903.5.2):							
1) Verification of weldability of reinforcing steel other than ASTM A706.	N		Welding of Reinforcement not permitted	N/A			
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.	N/A		AWS D1.4 ACI 318: 3.5.2				
3) Shear reinforcement.	N/A						
4) Other reinforcing steel.	Y	P		TA1	AWS-CWI		
7. Inspection of steel frame joint details for compliance (IBC Sect 1704.3.2) with approved construction documents:							
a. Details such as bracing and stiffening.	Y	P		SI1	PE/SE or EIT		
b. Member locations.	Y	P		SI1	PE/SE or EIT		
c. Application of joint details at each connection.	Y	P		SI1	PE/SE or EIT		

Steel Construction has been reviewed in accordance with section 1704.3 of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspection Services – Exhibit B

FABRICATION AND IMPLEMENTATION PROCEDURES – STRUCTURAL STEEL

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. -OR- 2. AISC or SSFNE Certification	Y	S	Fabricator shall submit one of the two qualifications	SI1	PE/SE or EIT		
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents.	Y	S	IBC 1704.2.2	SI1	PE/SE or EIT		

Fabricator Qualifications have been reviewed in accordance with section 1704.2 of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit B

SPRAYED FIRE-RESISTANT MATERIALS

VERIFICATION AND INSPECTION IBC Section 1704.11	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	INITIAL
1. Surface Conditions: Verify surfaces are prepared in accordance with the approved fire-resistance design and the approved manufacturer's written instructions prior to application of the sprayed fir-resistant material			IBC 1704.11.1				
2. Application: Verify the substrate shall have a minimum ambient temperature before and after application as specified in the approved manufacturer's written instruction. The area for application shall be ventilate during and after application as required by the approved manufacturer's written instructions.			IBC 1704.11.2				
3. Thickness: Verify average thickness of the sprayed fire-resistant materials applied to structural elements shall not be less than the thickness required by the approved fire-resistance design.							
a. Floor, Roofs & Walls: The thickness of the sprayed tire-resistant material applied to floor, roof and wall assemblies shall be determined in accordance with ASTM E 605, taking the average of not less than four measurements for each 1,000 square feet (93 m2) of the sprayed area on each floor or part thereof.			IBC1704.3.1; ASTM E605				
b. Structural Framing: The thickness of the sprayed fire-resistant material applied to structural members shall be determined in accordance with ASTM E 605. Thickness testing shall be performed on not less than 25 percent of the structural members on each floor.			IBC1704.3.2; ASTM E605				
4. Density: Verify density of the sprayed fire-resistant material not be less than the density specified in the approved fire-resistant design.			IBC1704.4; ASTM E605				
5. Bond: Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material applied to structural elements shall not be less than 150 pounds per square foot (psf) (7.18 kN/m2). The cohesive/adhesive bond strength shall be determined in accordance with the field test specified in ASTM E 736 by testing in-place samples.							

a. The test samples for determining the cohesive/adhesive bond strength of the sprayed fire-resistant materials shall be selected from each floor, roof and wall assembly at the rate of not less than one sample for every 10,000 square feet (929 m2) or part thereof of the sprayed area in each story.			IBC 1704.11.5.1; ASTM E 736				
b. The test samples for determining the cohesive/adhesive bond strength of the sprayed fire-resistant materials shall be selected from beams, girders, joists, trusses and columns at the rate of not less than one sample for each type of structural framing member for each 5,000 square feet (464 m2) of floor area or part thereof in each story.			IBC 1704.11.5.2; ASTM E 736				

Sprayed Fire-Resistant Materials Section to be completed by the Registered Architect of Record.

Sprayed Fire-Resistant Materials have been reviewed in accordance with section 1704.11 of the IBC Code Special Inspector_____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspection Services – Exhibit B

FABRICATION AND IMPLEMENTATION PROCEDURES – WOOD TRUSSES

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. -OR- 2. TPI Inspection Program: Fabricator shall participate in the TPI Quality Assurance Inspection Program, and maintain a copy of the Quality Assurance Procedures Manual, QAP-90. Submit copy of certificate. All trusses shall bear the TPI Registered Mark.	Y	S	Fabricator shall submit one of the two qualifications	SI1	PE/SE or EIT		
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents	Y	S	IBC 1704.2.2	SI1	PE/SE or EIT		

Fabricator Qualifications have been reviewed in accordance with section 1704.2 of the IBC Code

Special Inspector_____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit B

WOOD CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.6	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Fabrication of high-load diaphragms							
a. Verify wood structural panel sheathing for grade and thickness	Y	P	IBC 1704.6	SI1	PE/SE or EIT		
b. Verify the nominal size of framing members at adjoining panel edges	Y	P	IBC 1704.6	SI1	PE/SE or EIT		
b. Verify the nail or staple diameter and length	Y	P	IBC 1704.6	SI1	PE/SE or EIT		
b. Verify the number of fastener lines	Y	P	IBC 1704.6	SI1	PE/SE or EIT		
b. Verify the spacing between fasteners in each line and at edge margins	Y	P	IBC 1704.6	SI1	PE/SE or EIT		
2. Load Tests for Joist Hangers: Provide evidence of manufacturer's load test in accordance with ASTM D1761 including the vertical load bearing capacity, torsional moment capacity, and deflection characteristics when there is no calculated procedure recognized by the code.	Y	S	IBC 1715 [submit ICBO reports]	SI1	PE/SE or EIT		

Wood Construction has been reviewed in accordance with section 1704.6 of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit B

SMOKE CONTROL

VERIFICATION AND INSPECTION IBC Section 1704.14	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Smoke control systems shall be tested by An agency for smoke control who shall have expertise in fire-protection engineering, mechanical engineering and certification as air balancers. The test scope shall be as follows:							
a. During erection of ductwork and prior to concealment for the purposes of leakage testing and recording of device location.	Y	C	IBC 1704.14	TA2			
b. Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements, and detection and control verification.	Y	C	IBC 1704.14	TA2			

Smoke Control Section to be completed by the Professional Mechanical Engineer of Record.

Smoke Control Systems have been tested in accordance with section 1704.14 of the IBC Code

Special Inspector_____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit B

WALL PANEL & VENEER CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.10	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Verify exterior and interior architectural wall panels and the anchoring of veneers for building assigned to Seismic Design Category E or F.	N	N/A	Seismic Design Category: C				

Wall panels and Veneers have been reviewed in accordance with section 1704.10 of the IBC Code

Special Inspector _____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit B

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

VERIFICATION AND INSPECTION IBC Section 1704.12	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Visual observation of the installation of EIFS systems without water-resistive barrier.	N/A		IBC Section 1704.12				
2. Visual observation of the installation of EIFS systems without a means of draining moisture to the exterior.	N/A		IBC Section 1704.12				
3. Visual observation of the installation of EIFS systems not installed over masonry or concrete walls.	N/A		IBC Section 1704.12				

Exterior Insulation and Finish Systems (EIFS) have been reviewed in accordance with section 1704.12 of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit C

SEISMIC RESISTANCE - ARCHITECTURAL

VERIFICATION AND INSPECTION IBC Section 1707	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Special inspections for seismic resistance. Special inspection as specified in this section is required for Architectural components. assigned to Seismic Design Category D, E or F			Seismic Design Category: C				
a. Periodic special inspection during the erection and fastening of exterior cladding, interior and exterior nonbearing walls and interior and exterior veneer in structures			IBC 1707.6				
b. Suspended ceiling systems and their anchorage							
c. Access floors: Periodic special inspection during the anchorage of access floors			IBC 1707.5				
d. Storage racks: Periodic special inspection during the anchorage of storage racks 8 feet (2438 mm) or greater in height.							
1. Retail Storage Racks							
2. High Density Files							
3. Other:							
3. Life-safety components required to function after an earthquake:							
1. Egress Stairs							
2. Fire Protection Sprinkler System							
3. Other:							
4. Other:							

Statement of Special Inspections for Architectural Seismic Resistance to be completed by the Registered Architect of Record.

Structural Seismic Resistance has been reviewed in accordance with section 1707of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit C

SEISMIC RESISTANCE - ELECTRICAL

VERIFICATION AND INSPECTION IBC Section 1707	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Electrical components			Seismic Design Category: C				
a. Periodic special inspection during the anchorage of electrical equipment for emergency or standby power systems in structures assigned to Seismic Design Category C, D, E or F			IBC 1707.7				
b. Periodic special inspection during the installation of anchorage of other electrical equipment in structures assigned to Seismic Design Category E or F			IBC 1707.7				
2. Component inspection. Special inspection is required for the installation of the following components:							
a. Electrical motors, transformers, switchgear unit substations and motor control centers.			IBC 1707.7.1.2				
b. Reciprocating and rotating-type machinery			IBC 1707 .7.1.3				
3. Component and attachment testing. The component manufacturer shall test or analyze the component and the component mounting system or anchorage for the design forces in Chapter 16 for those components having a Component Importance Factor of 1.0 or 1.5 in accordance with Chapter 16. The manufacturer shall submit a certificate of compliance for review and acceptance by the registered design professional responsible for the design, and for approval by the building official.			IBC 1707.7.2				
4. Component manufacturer certification. Each manufacturer of equipment to be placed in a building assigned to Seismic Design Categories E and F, in accordance with Chapter 16, where the equipment has a Component Importance Factor of 1.0 or 1.5 in accordance with Chapter 16, shall maintain an approved quality control program. Evidence of the quality control program shall be permanently identified on each piece of equipment by a label			IBC 1707.7.3				

Statement of Special Inspections for Electrical Seismic Resistance to be completed by the Electrical Engineer of Record.

Electrical Seismic Resistance has been reviewed in accordance with section 1707of the IBC Code

Special Inspector_____ Date_____

Schedule of Special Inspections – Exhibit C

SEISMIC RESISTANCE - MECHANICAL

VERIFICATION AND INSPECTION IBC Section 1707	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Mechanical components			Seismic Design Category: C				
a. Periodic special inspection during the installation of HVAC ductwork that will contain hazardous materials in structures assigned to Seismic Design Category C, D, E or F			IBC 1707.7				
b. Periodic special inspection during installation of piping systems intended to carry flammable, combustible, or highly toxic contents and their associated mechanical units in structures assigned to Seismic Design Category C, D, E or F			IBC 1707.7				
2. Component inspection. Special inspection is required for the installation of the following components:							
a. Equipment using combustible energy sources			IBC 1707.7.1.1				
b. Reciprocating and rotating-type machinery			IBC 1707 .7.1.3				
c. Piping distribution systems 3 inches (76 mm) and larger			IBC 1701.7.1.4				
d. Tanks, heat exchangers and pressure vessels			IBC 1701.7.1.5				
3. Component and attachment testing. The component manufacturer shall test or analyze the component and the component mounting system or anchorage for the design forces in Chapter 16 for those components having a Component Importance Factor of 1.0 or 1.5 in accordance with Chapter 16. The manufacturer shall submit a certificate of compliance for review and acceptance by the registered design professional responsible for the design, and for approval by the building official.			IBC 1707.7.2				
4. Component manufacturer certification. Each manufacturer of equipment to be placed in a building assigned to Seismic Design Categories E and F, in accordance with Chapter 16, where the equipment has a Component Importance Factor of 1.0 or 1.5 in accordance with Chapter 16, shall maintain an approved quality control program. Evidence of the quality control program shall be permanently identified on each piece of equipment by a label			IBC 1707.7.3				

Statement of Special Inspections for Mechanical Seismic Resistance to be completed by the Mechanical Engineer of Record.

Mechanical Seismic Resistance has been reviewed in accordance with section 1707of the IBC Code

Special Inspector_____ Date_____

Project: Pearl Place Building 1 & 2
Date Prepared: PRELIMINARY ISSUE – SEPTEMBER 12,2006

Schedule of Special Inspections – Exhibit C

SEISMIC RESISTANCE - STRUCTURAL

VERIFICATION AND INSPECTION IBC Section 1707	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	DATE	REV
1. Special inspections for seismic resistance. Special inspection as specified in this section is required for the following:			Seismic Design Category: C				
a. The seismic-force-resisting systems in structures assigned to Seismic Design Category C, D, E or F	Y	P	IBC 1707.1	SI1	PE/SE or EIT		
2. Structural steel: Continuous special inspection for structural welding in accordance with AISC 341.	Y	P	IBC 1702.2	TA1	AWS-CWI		
3. Structural wood:							
a. Continuous special inspection during field gluing operations of elements of the seismic-force-resisting system.	Y	C	IBC 1702.3	SI1	PE/SE or EIT		
b. Periodic special inspections for nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including drag struts, braces and hold-downs	Y	P	IBC 1702.3	SI1	PE/SE or EIT		
4. Cold-formed steel framing: Periodic special inspections during welding operations of elements of the seismic-force-resisting system. Periodic special inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including struts, braces, and hold-downs	N/A	N	CFSF for this project not part of the primary seismic-force resisting system				
4. Seismic isolation system. Provide periodic special inspection during the fabrication and installation of isolator units and energy dissipation devices if used as part of the seismic isolation system	N/A	N	IBC 1707.8 Seismic isolators not used				

Structural Seismic Resistance has been reviewed in accordance with section 1707of the IBC Code

Special Inspector_____ Date_____

Quality Assurance Plan – Exhibit C

QUALITY ASSURANCE FOR SEISMIC RESISTANCE CHECK LIST [IBC 1705]

SEISMIC DESIGN CATEGORY: C	
QUALITY ASSURANCE PLAN REQUIREMENTS (A Quality Assurance Plan, enacted through the Special Inspections requirements for this project, are in place for the following systems)	
☐ **FOR SEISMIC DESIGN CATEGORY C OR HIGHER:**	
Structural: ☒ The seismic-force-resisting systems ☐ Steel Braced Frames and associated connections/anchorage ☒ Steel Moment Frames and associated connections ☐ Shear walls: ☐ CMU ☒ Wood ☐ Concrete ☒ Diaphragms: ☐ Floor ☒ Roof ☐ Other:	SER
Mechanical/Piping: ☐ Heating, ventilating and air-conditioning (HVAC) ductwork containing hazardous materials and anchorage of such ductwork ☐ Hazardous Material: ☐ Hazardous Material: ☐ Piping systems and mechanical units containing flammable, combustible or highly toxic materials ☐ Material: ☐ Material:	MER
Electrical: ☐ Anchorage of electrical equipment used for emergency or standby power systems ☐Equipment: ☐Equipment: ☐Equipment:	EER
☐ **ADDITIONAL SYSTEMS FOR SEISMIC DESIGN CATEGORY D OR HIGHER:**	
Architectural: ☐ Exterior wall panels and their anchorage ☐Precast Concrete ☐Brick ☐Stone: ☐Other: ☐ Suspended ceiling systems and their anchorage ☐ Access floors and their anchorage ☐ Steel storage racks and their anchorage ☐ Retail Storage Racks ☐ High Density Files ☐ Other: ☐ Life-safety component required to function after an earthquake: ☐Engineered Egress Stairs ☐Fire Protection Sprinkler System ☐Other: ☐Other: ☐Other:	RAR
☐ **ADDITIONAL SYSTEMS FOR SEISMIC DESIGN CATEGORY D OR HIGHER:**	
Electrical: ☐ Electrical equipment	EER

Structural Engineer of Record (SER):

Signature Date

Registered Architect of Record (RAR):

Signature Date

Mechanical Engineer of Record (MER):

Signature Date

Electrical Engineer of Record (EER):

Signature Date

Building Code Official's Acceptance:

Signature Date

Quality Assurance Plan – Exhibit C
Wind Exposure

Wind Exposure Category

REQUIRED	NOT REQUIRED	NOT APPLICABLE	QUALITY ASSURANCE PLAN REQUIREMENTS (A Quality Assurance Plan is required where indicated below)
☐	☒	☐	In wind exposure Categories A and B, where the 3-second-gust basic wind speed is 120 miles per hour (mph) (52.8 *m/sec)* or greater.
☐	☐	☒	In wind exposure Categories C and D, where the 3-second-gust basic wind speed is 110 mph (49 *m/sec)* or greater.

Prepared by:

Signature Date

Building Code Official's Acceptance:

Signature Date

Contractor's Statement of Responsibility –Exhibit D

Each contractor responsible for the construction or fabrication of a system or component designated in the Quality Assurance Plan must submit a Statement of Responsibility. The Statement of Responsibility is required for Seismic Design Category C or higher. Make additional copies of this form as required.

Project: ***Pearl Place Building 1 & 2***

Contractor's Name:

Address:

License No.:

Description of designated building systems and components included in the Statement of Responsibility:

Contractor's Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Quality Assurance Plan and Special Inspection program.

I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.

_____ _____
Signature Date

Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement.

Attendees in Pre- Bid Conference
September 12, 2006

Name	Company	Phone#
Jay Waterman	Avesta Housing	553-7780 x. 211
Pandika Pleqi	Winton Scott Architects	774-4811 x. 4#
David Schoenherr	MSHA	624-5724
Ronald Norton	CMCS / Avesta Housing	841-6184
Stephen D. Buyer	EEC	772-6762
Alan Greenacre	Benchmark	591-7600
Gary Guerette	Benchmark	591-7600
Larry Morin	Decorators Network, Inc.	784-1424
Bob Clunie	Seal-It Insulation	725-2468
Chad Merritt	Consigli Construction	232-6483
Jim Lamson	L+B Electric	353-5521
Joe LaRose	Ledgewood Construction	767-1866
Steven Labbe	Electrical Contractors of Maine	268-2412