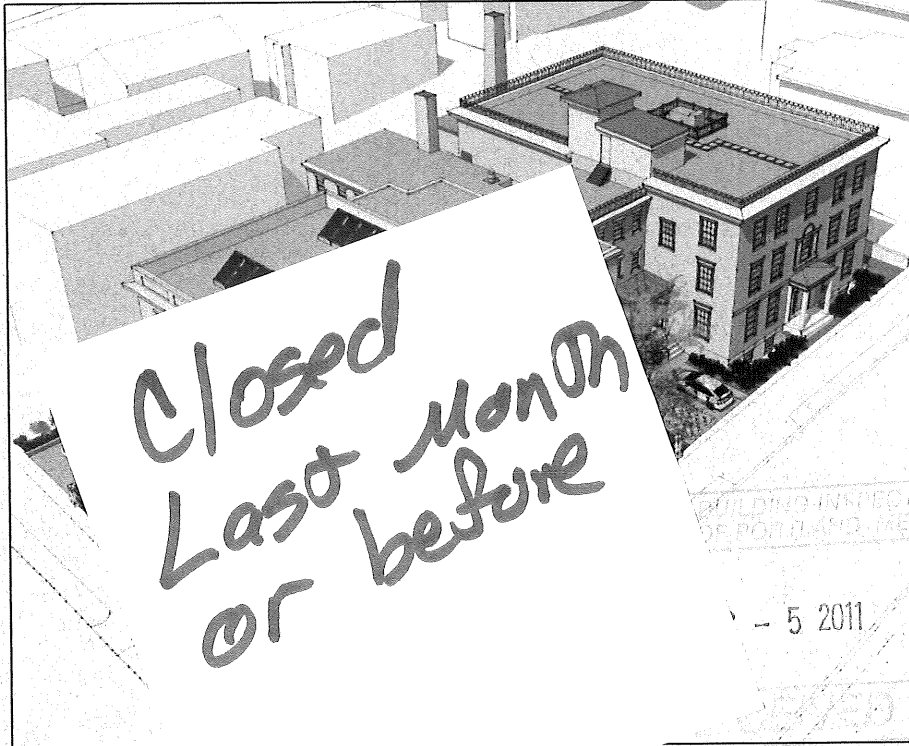


38 DU - Revised Specs
Project Manual

(WAS 35)
ELM TERRACE
Extra addition
each floor

Apartment Renovation and Addition to 68 High Street in Portland, Maine

Issued: November 09, 2011
BOOK 3 – ADDENDA MANUAL



Development Team

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Augusta ME 04330-4633

CWS Architects
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Landscape Architect

Structural Engineer

Mechanical and Electrical Engineer

Wright Ryan Construction
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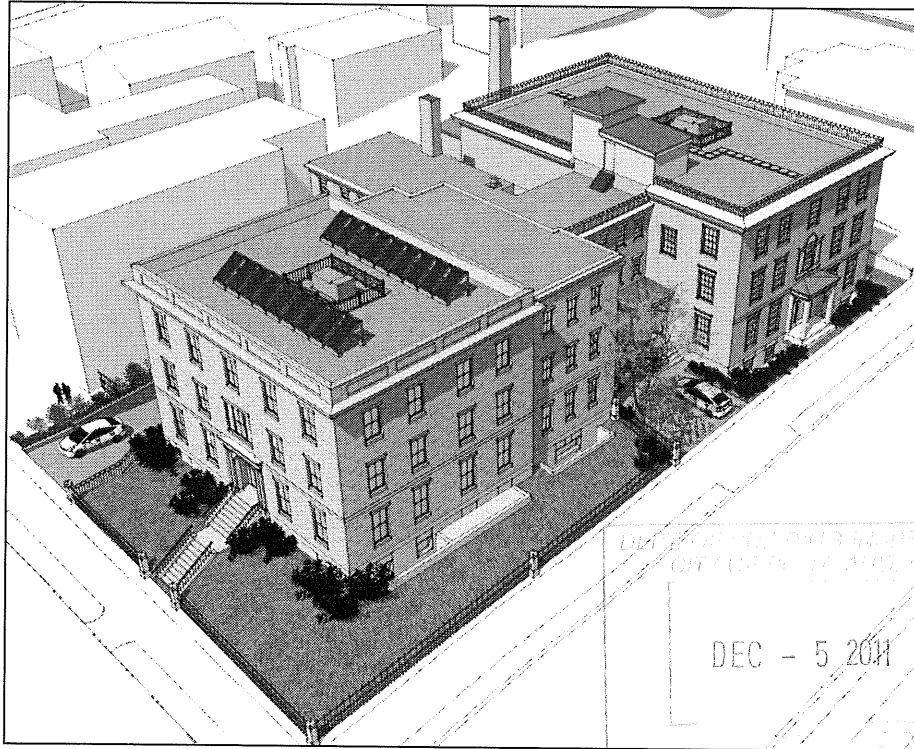
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P r o j e c t M a n u a l

ELM TERRACE

Apartment Renovation and Addition to 68 High Street in Portland, Maine

Issued: November 09, 2011
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00 11 00 Instructions to Construction Manager (CM) and Bidding Subcontractors
Attachments: 1. Instructions to Bidding Subcontractors – Elm Terrace, by Wright-Ryan Construction, Inc.
2. Updated Schedule, dated August 31, 2011, by Wright Ryan Construction.

00 12 00 Bidding Subcontractor Request for Information Form
Attachments: 1. Request for Information (RFI) – Elm Terrace, by Wright-Ryan Construction, Inc.

00 31 00 Available Project Information

1.1 Requisition Documents

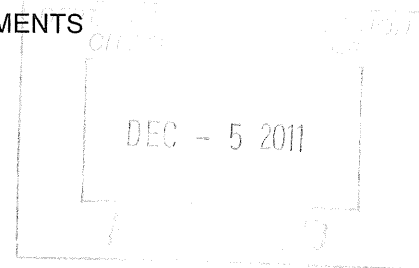
- A. AIA Document G701 – 2001 Change Order Form
- B. AIA Document G702 - 1992 Application and Certificate for Payment
- C. AIA Document G703 - 1992 Continuation Sheet

1.2 MaineHousing Documents

- B. MaineHousing Owner/Agency Certificate of Completion
- C. MaineHousing Final Certificate and Lien Release for Contractor/Subcontractor/Vendors
- D. MaineHousing Construction Services Final Completion Checklist

1.3 Miscellaneous Documents

- A. Exhibit A of three Construction Easements, by Mitchell & Associates, date February 21, 2011, as follows:
 - a. Construction Easement Judith Kelly Gideon;
 - b. Construction Easement Oliver B. Dorrance Condominium;
 - c. Construction Easement Town Farm Townhouse Condominium.
- B. Geotechnical Report – Children’s Hospital Apartments. 66 to 68 High Street, Portland, Maine, Prepared by Summit Geoengineering Services, Project #10171, February 2011
- C. Update to the Phase I Environment Site Assessment Completed for the Building Identified as Children’s Hospital Located at 66-69 High Street in Portland, Maine on July 21, 2009 – prepared by Summit Environmental Consultants, Inc. September 27, 2010, 7 pages.



To include Addenda 01 through 05, Letter of Issuance for Construction

- D. Statement of Special Inspections – Prepared by Becker Structural Engineers
- E. Asbestos Identification Survey, Hazardous Materials Survey and Lead-Based Paint Assessment. 68 High Street, Portland, Maine - Prepared by Summit Environmental Consultants, inc., dated 4/21/2010
- F. Supplemental Asbestos Survey – Prepared by Summit Environmental Consultants, Inc., dated 4/20/2011
- G. Introduction to the Phase II Intensive Archaeological Survey Mussey Mansion (ME 357-132) Portland, Maine – Prepared by Independent Archaeological Consulting, LLC dated 11/4/2010
- H. Sample Construction Sign
- I. NFPA and IBC Code Studies
 - a. Code Analysis – IBC 2009 and NFPA 101 2006, 4+3 pages.
- J. ALTA Survey, by Owen Haskell Inc. dated April 8, 2010. Published under separate cover with Drawings Set.
- K. Project Manual for Environmental Remediation, Elm Terrace, Portland, Maine– Prepared for CHOM Children’s Hospital Housing Partners, LP by SUMMIT ENVIRONMENTAL CONSULTANTS, INC., Project Number 11-3043, dated September 2011. (attached)
- L. Portland Water District Water and Sewer Construction Specification and Procedures, Dated February 1, 2009
- M. Envelope Repair Scope for Elm Terrace, by Building Envelope Consultants of South Portland, Maine (Project No. 028-11), drawings ER-1, ER-2 and ER-3 dated 9-8-2011. Published under separate cover with Drawings Set. Refer to specification Sections 04 01 00 Maintenance of Masonry and 04 05 03 Masonry Mortar and Grouting for Scoping

1.4 By reference, available upon request:

- A. MaineHousing – Construction Services Manuals
- B. MaineHousing – Green Building Standards
- C. Phase I Environment Site Assessment – Prepared by Summit Environmental Consultants, Inc. dated 7/19/2010
- D. Phase II Intensive Archaeological Survey Mussey Mansion (ME 357-132) Portland, Maine – Prepared by Independent Archaeological Consulting, LLC dated 11/4/2010

CONTRACTING REQUIREMENTS

- 00 52 24 Agreement Form - AIA Construction Management (Single-Prime Contract)
 - A. AIA A133 CMc 2009
- 00 72 24 General Conditions - AIA Construction Management (Single-Prime Contract)
 - A. AIA A201 – 2007
- 00 73 15 Supplementary Conditions - AIA (Construction Management)
 - A. Supplemental General Conditions to the AIA 201 2007, attached.
 - B. MaineHousing Addendum to AIA Document A133 CMc 2009

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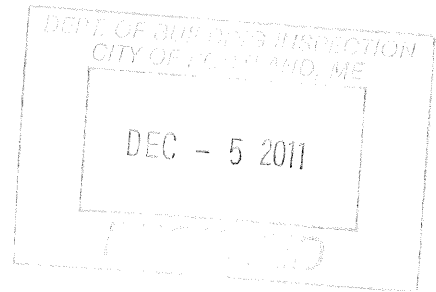
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- 1.1 ADDENDUM 01 SEPTEMBER 8, 2011, PAGES 1-3**
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WRIGHT-RYAN SITE & BUILDING SHORING EXTENTS PLAN
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DATED: SEPTEMBER 08, 2011

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DATED: APRIL 08, 2010

ALTA/ACSM Land Title Survey

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DATED: SEPTEMBER 08, 2011

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DATED: SEPTEMBER 08, 2011

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DATED: SEPTEMBER 08, 2011

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DATED: SEPTEMBER 08, 2011

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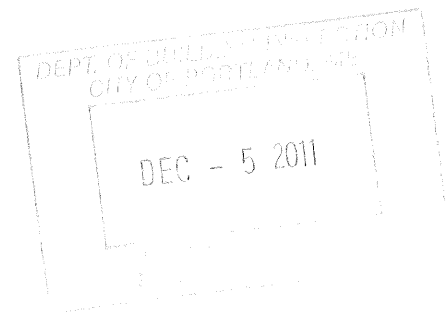
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- A7.12 MISC DETAILS
- ~~A7.13 MISC DETAILS (REPLACED IN ADDENDUM 03)~~
- A7.14 TYPICAL AIR SEALING SECTIONS AND DETAILS
- A7.15 DANFORTH ENTRY DETAILS
- A7.16 DIMENSIONAL DETAILS @ BREAK METAL CORNICES

- A8.10 DOOR & FRAME ELEVATIONS & DETAILS
- A8.11 DOOR & FRAME ELEVATIONS & DETAILS

- ~~A8.20 WINDOW SCHEDULE AND NOTES (REPLACED IN ADDENDUM 05)~~
- A8.21 WINDOW ELEVATIONS – EXISTING BUILDING
- A8.22 WINDOW ELEVATIONS – EXISTING BUILDING
- ~~A8.23 WINDOW ELEVATIONS, SECTIONS – NEW ADDITION (REPLACED IN ADDENDUM 05)~~
- ~~A8.24 WINDOW ELEV, SECTIONS AND DETAILS – NEW ADDITION (REPLACED IN ADDENDUM 05)~~
- A8.25 WINDOW DETAILS
- ~~A8.26 WINDOW DETAILS (REPLACED IN ADDENDUM 05)~~
- ~~A8.27 WINDOW DETAILS (REPLACED IN ADDENDUM 05)~~

- A9.01 FLOOR PATTERN PLANS
- A9.21 INTERIOR ELEVATIONS
- A9.22 INTERIOR ELEVATIONS
- A9.23 INTERIOR ELEVATIONS
- A9.24 INTERIOR ELEVATIONS
- A9.31 MOULDING PROFILES & DETAILS
- A9.32 TRANSITION DETAILS
- A9.33 INTERIOR DETAILS

MECHANICAL: PREPARED BY BENNETT ENGINEERING

DATED: SEPTEMBER 08, 2011

- M1.0 BASEMENT MECHANICAL PLAN
- ~~M1.1 FIRST FLOOR MECHANICAL PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M1.2 SECOND FLOOR MECHANICAL PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M1.3 THIRD FLOOR MECHANICAL PLAN (REPLACED IN ADDENDUM 05)~~
- M1.4 ROOF MECHANICAL PLAN
- M2.0 BASEMENT SUPPLY PLUMBING PLAN
- ~~M2.1 FIRST FLOOR SUPPLY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M2.2 SECOND FLOOR SUPPLY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M2.3 THIRD FLOOR SUPPLY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M3.0 BASEMENT SANITARY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M3.1 FIRST FLOOR SANITARY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M3.2 SECOND FLOOR SANITARY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- ~~M3.3 THIRD FLOOR SANITARY PLUMBING PLAN (REPLACED IN ADDENDUM 05)~~
- M4.1 MECHANICAL LEGEND AND SCHEDULES
- M4.2 MECHANICAL SCHEDULES AND DETAILS
- M4.3 MECHANICAL DETAILS
- M4.4 MECHANICAL DETAILS
- M4.5 MECHANICAL DETAILS

ELECTRICAL: PREPARED BY BENNETT ENGINEERING

DATED: SEPTEMBER 08, 2011

- ~~E1.0 SITE ELECTRICAL PLAN (REPLACED IN ADDENDUM 05)~~
- E2.0 BASEMENT LIGHTING PLAN
- ~~E2.1 FIRST FLOOR LIGHTING PLAN (REPLACED IN ADDENDUM 05)~~

To include Addenda 01 through 05, Letter of Issuance for Construction

~~E2.2 SECOND FLOOR LIGHTING PLAN (REPLACED IN ADDENDUM 05)~~
~~E2.3 THIRD FLOOR LIGHTING PLAN (REPLACED IN ADDENDUM 05)~~
~~E3.0 BASEMENT POWER PLAN (REPLACED IN ADDENDUM 05)~~
~~E3.1 FIRST FLOOR POWER PLAN (REPLACED IN ADDENDUM 05)~~
~~E3.2 SECOND FLOOR POWER PLAN (REPLACED IN ADDENDUM 05)~~
~~E3.3 THIRD FLOOR POWER PLAN (REPLACED IN ADDENDUM 05)~~
E3.4 ROOF ELECTRICAL PLAN
E3.5 UNIT POWER AND LIGHTING PLAN
E3.6 UNIT POWER AND LIGHTING PLAN
~~E3.7 UNIT POWER AND LIGHTING PLAN (REPLACED IN ADDENDUM 05)~~
~~E3.8 UNIT POWER AND LIGHTING PLAN (REPLACED IN ADDENDUM 05)~~
~~E4.0 SCHEDULE, ONE LINE AND SYMBOLS (REPLACED IN ADDENDUM 05)~~
E4.1 NOTES, LEGEND AND ABBREVIATIONS
E4.2 ELECTRICAL PANELS
~~E4.3 TENANT ELECTRICAL PANELS (REPLACED IN ADDENDUM 05)~~

END OF DRAWING INDEX

CWS Architects

Architecture • Planning • Construction Services

434 Cumberland Avenue Portland, Maine 04101
www.CWSarch.com

Phone: (207) 774-4441
Fax: (207) 774-4016

November 9, 2011

Erin Cooperrider
Children's Hospital Housing Partners, LP
c/o Community Housing of Maine
309 Cumberland Avenue, #203
Portland, ME 04101-4920

Re: Elm Terrace, Portland, Maine
Project Number: 09428
LETTER OF ISSUANCE FOR CONSTRUCTION

Dear Erin,

By execution of this letter, CWS Architects issues:

- 1) the Plans and Project Manual - Book 1 and Book 2, Issued: September 8, 2011; and
- 2) the Project Manual Book 3 (Addenda 01 to 05) dated November 9, 2011;

for construction.

Please include this letter with any permitting and financing applications.

Very truly yours,

CWS ARCHITECTS



Benedict B. Walter, AIA
President
Maine Licensed Architect
Lic. No. 1947

cc: Lou Turmelle, MaineHousing
Cordelia Pitman, Wright-Ryan Construction

Addendum 01

Date: September 23, 2011

To: Wright Ryan Construction (Construction Manager)
From: Ben Walter, CWS Architects
Regarding: Elm Terrace – Portland, Maine
Subject: Addendum 01

Modify the previously issued documents dated September 8, 2011 and any previously issued addenda, if applicable, as follows:

1. Attached are meeting minutes and an attendance sheet provided by CWS Architects from the Pre-Bid Meeting held on site on 9/16/2011.
2. Attached are meeting minutes and an attendance sheet provided by Wright-Ryan Construction from the Pre-Bid Meeting held on site on 9/16/2011.
3. Attached are meeting minutes and an attendance sheet provided by Summit Environmental Consultants, Inc. from the Pre-Bid Meeting held on site on 9/16/2011 regarding the Environmental Remediation scope being bid under separate contract by the Owner.
4. Add 00 31 00 Available Project Information, item 1.3.N WRIGHT RYAN TEMPORARY SHORING PLAN to DOCUMENT 00 01 10 TABLE OF CONTENTS.
5. Add 062010 FIBERGLASS CAST COLUMNS to DOCUMENT 00 01 10 TABLE OF CONTENTS.
6. Add 08 41 13 ALUMINUM-FRAMED STOREFRONT WINDOW SYSTEM to DOCUMENT 00 01 10 TABLE OF CONTENTS.
7. Add 14 42 50 VERTICAL WHEELCHAIR LIFTS to DOCUMENT 00 01 10 TABLE OF CONTENTS.
8. Add 32 31 10 CHAIN LINK FENCE to DOCUMENT 00 01 10 TABLE OF CONTENTS.

Book 1 -Bidding and Contract Documents Manual:

9. Modify item 1.3.I NFPA and IBC Code Review as published in 00 31 00 Available Project Information as follows:
 - a. Change Type of Constriction, Number of Levels for Residential R-2 to read "3".
 - b. Change Section 504.4.1 Area determination, item B. Number of Applicable Levels for Residential R-2 to read "3".
10. Add the following to specification Section 00 31 00 Available Project Information:
 - 1.3.N WRIGHT RYAN TEMPORARY SHORING PLAN
 - a. Wright Ryan Construction – Instructions to Shoring Contractors, dated 9-23-2011.
 - b. WRC – SH – 1.0 Site & Building Shoring Extent Plan - Elm Terrace, dated 9-21-2011.
 - c. SH1.0 Shoring Details, prepared for Wright Ryan Construction by Becker Structural Engineers, dated 9-23-2011.

Book 2 -Specifications Manual:

11. Delete the following words from item 1.7.G in specification Section 08 14 00 WOOD DOORS: "City of Bangor and".

12. Delete item 2.4.C.2 from specification Section 08 80 00 Glass and Glazing.
13. Add specification Section 06 20 10 FIBERGLASS CAST COLUMNS, attached.
14. Add specification Section 08 41 13 ALUMINUM-FRAMED STOREFRONT WINDOW SYSTEM, attached.
15. Replace specification Section 08 54 13 FIBERGLASS WINDOWS, with the attached specification of the same name Revised: Addendum 01, 9-23-2011.
16. Add specification Section 14 42 50 VERTICAL WHEELCHAIR LIFTS, attached.
17. Add specification Section 32 31 10 CHAIN LINK FENCE, attached. This specification is in reference to the interior storage compartment separations in storage areas.

Drawings:

Title Page

N/A

Civil and Site:

N/A

Structural:

18. RFI #4: **Question from Contractor:** Sheet S3.4, the Shearwall Schedule list holdown type HDU80SDS2.5 at locations to receive holdowns – the schedule does not provide for smaller devices at the upper floors. Detail C of sheet S3.4 shows HDU40SDS2.5 at 2nd floor and HDU20SDS2.5 at 3rd floor. Which is correct? **Answer from Structural Engineer:** The schedule refers to the holdowns at the base of the wall. All holdowns at 1st floor shall be Simpson HDU8s. Holdowns at 2nd and 3rd floors shall be Simpson HDU4 and HDU2, respectively. **Directive:** Make changes to Shearwall Schedule and Detail C of Sheet S3.4 as indicated in Answer from Structural Engineer.

Architectural:

19. In addition to providing spray foam insulation beneath the plumbing waste traps as indicated in Floor/Ceiling Assembly C2 on Drawing A0.03, provide 1" Spray Foam under plumbing waste laterals that are installed less than 5" above subfloor slab.
20. Replace Drawing A8.26 with Drawing A8.26, revised per Addendum 01 dated 9-23-2011. This change replaces the new construction window Details 8 – Fiberglass Window Assembly @ Masonry Wall Condition to reflect a change from the Marvin Integrity window system to the Marvin Infinity window system.

Mechanical:

21. Replace Drawing M3.0 with Drawing M3.0 Revised, Addendum 01, 9-23-2011

Electrical:

22. Modify Drawing E1.0 as follows:
 - a) Clarification: 4"C – Tel, 4"C –CATV, 4"C spare – Underground conduits from utility pole shall terminate in the Telco/Data Closet 010 telephone backboard. See drawing E3.0.
 - b) Exterior Lighting Fixture Schedule: Change the following lighting fixture types to those listed:
 - c) Change Type AA fixture to read: Kim LLF-50/PMH/70PMH120/BL
 - d) Change Type Q fixture to read: Prescolite#RHD60250EB-120-

23. Modify Drawing E3.0 – Basement Power Plan as follows:
 - a) ADD: Fire Alarm horn/strobe in stair 020
24. Modify Drawing E3.1 – First Floor Power Plan as follows:
 - a) ADD: Fire Alarm horn/strobe in Stair 2 121
25. Modify Drawing E3.2 – Second Floor Power Plan as follows:
 - a) ADD: Fire Alarm horn/strobe in Stair 2 221
26. Modify Drawing E3.3 – Third Floor Power Plan as follows:
 - a) ADD: Fire Alarm horn/strobe in Stair 2 321
27. Drawing E4.0 – Schedules, One line and Symbols - CHANGE Lighting Fixture Schedule
Lighting Fixture Schedule: Change the following lighting fixture types to those listed:
 - a) Change Type C to read: Seagull #79661BLE-782 with lamps
 - b) Change Type F to read: Seagull #79435BLE-782 with lamps
 - c) Change Type G to read: Seagull #44062-782 with lamps
 - d) Change Type J to read: Seagull #69459BLE-782 with lamps
28. Review and incorporate the following RFI responses into the Scope of Work as indicated:
 - a) QUESTION: Please verify I-Line breaker size that feeds panel HP in existing panel XP on drawing E4.0. One note shows 225A and another note shows 135A? ANSWER: **Clarification: Need to install qty (2) breakers: (1) 135A, 3P breaker as noted for DTT1 which feeds panel HP and (1) 225A, 3P to feed panel HP2.**
 - b) QUESTION: Specification 26000 2.16 B shows a new 4"pvc from the roof to telephone backboard. Please verify if this is needed as we have a new 4" pvc conduit underground shown on the site plan E1.0 for Phone. ANSWER: **Delete 26000 2.16.B.**
 - c) QUESTION: Please verify individual homeruns from each telephone jack in the apartments back to TBB? ANSWER: **Yes.** QUESTION: Are there any interface boxes at each apartment as none are shown? ANSWER: **No.**
 - d) QUESTION: Specification 26000 2.17 B shows a new 2"pvc from the roof to telephone backboard. Please verify if this is needed as we have a new 4"pvc conduit underground se shown on the site plan E1.0 for CATV. ANSWER: **Delete 2.17.B.**
 - e) QUESTION: Please verify individual homeruns from each television jack in the apartments back to TBB? ANSWER: **Yes.** QUESTION: Are there any interface boxes at each apartment as none are shown? ANSWER: **No.**
 - f) QUESTION: Please verify that all smoke and carbon monoxide detectors in the apartments are 120v single station and NOT system connected. Specification 26000-1.1 B 10 says provide system connected Co2 detection in all apartments near sleeping areas. ANSWER: **Yes smokes and CO detectors in the units shall be Singel Station as requested by PFD.**

End of Addendum 01

Attachments: (See attached specifications, sketches, drawings and attachments listed above, if applicable)

CWS Architects

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Elm Terrace
Portland, Maine

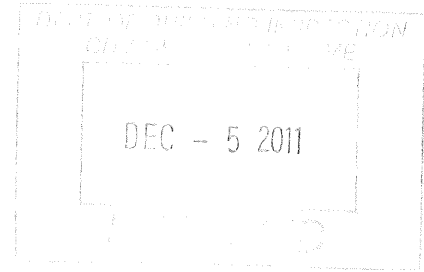
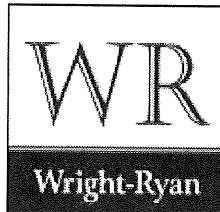
Pre-Bid Meeting, on site 9/16/2011

Note: These meeting notes are distributed as written on the date indicated, should not be considered to change the scope of work in any way, and are distributed solely as a record of the discussions only. The items below may have been changes in subsequently issued addenda.

MEETING NOTES AS RECORDED BY WRIGHT-RYAN CONSTRUCTION

1. Currently Building Bid due date 9/29/11, Remediation bid due date 9/29/11.
2. Subcontractors are being asked to hold their bids for 90 days after the date the bids are due.
3. Anticipated start date mid-November, with a 366 day duration.
4. Wright-Ryan has issued a preliminary construction schedule. This preliminary schedule shows both the Remediation/Abatement and the Building scopes of work.
5. Abatement/Remediation will be directly contracted to Children's Hospital Housing Partners, LP c/o Community Housing of Maine. Building subcontractors will be contracted to Wright-Ryan Construction, Inc.
6. The project is funded through MaineHousing and State and Federal Historic Preservation tax Credits. Neither Davis Bacon or State of Maine wage rate apply. Due to the different agencies involved in the project there are very specific requirements for sub proposals, submittals, etc. Please review the Project Manual carefully. These requirements will not be waived.
7. All Questions from Building subs should go to:
Mike Barton
Wright-Ryan Construction, Inc.
10 Danforth Street
Portland, Maine 04101
T 207 773 3625
F 207 773 5173
mbarton@wright-ryan.com
8. All questions regarding Abatement/Remediation should be addressed to :
Dennis B. Kingman, Jr. CHMM
Manager, Environmental Services
Summit Environmental Consultants, Inc.
8 Harlow Street, Suite 4A
Bangor, Maine 04401
(207) 262-9040 (telephone)
(207) 262-9080 (fax)
dkingman@summitenv.com

End of Meeting Minutes



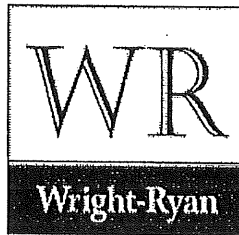
September 16, 2011

Elm Terrace Subcontractor Walk- Through Summary

- Sign-In sheet distributed
- General Remarks and Project Overview Communicated
 - 35 units of housing being created. 15 will be in the new addition. 20 will be in the existing structure
 - Project is targeting LEED for Homes Mid-Rise, Platinum Certification
 - Project is Maine Housing Project
 - Project is partially funded through State & Federal Historic Tax Credits. Will need to satisfy requirements of the Secretary of the Interior's Standards for Rehabilitation.
 - Subcontractors are to hold proposals for 90 Days from bid due date
 - Davis Bacon and State of Maine Prevailing wage rates do not apply to this project.
 - Subcontractors were advised to review spec section 012000 Price & Payment Procedures for information regarding Allowances, Alternates, and Unit Prices
 - Subcontractors were advised to review BOTH book 1 and book 2 of the specifications
- Coordination of Environmental Remediation and demolition
 - Dennis Kingman of Summit Environmental Consultants reviewed the coordination of hazardous removals. He will issue an addendum and meeting minutes specific to these items.
 - A smaller breakout group of the subs interested in this work walked the building following adjournment of the general meeting
 - Reminder that environmental remediation proposals will be sent to the owner directly and that general demolition proposals will be sent to Wright-Ryan Construction.
 - Questions about environmental remediation will be sent to Dennis Kingman at Summit Environmental Consultants, and questions about general demolition will be sent to Mike Barton at Wright-Ryan Construction
- Masonry Restoration
 - Scott Whittaker with Building Envelope Consultants reviewed the masonry restoration scope of work and the documents his firm generated.
 - A smaller breakout group of the subs interested in this work walked the building following adjournment of the general meeting
- Upcoming additional information to bidders
 - Addendum 1 will be issued during the week of 9/19/2011 and will likely include the following:
 - Summary of responses issued to date
 - Building shoring and retaining wall shoring designs
 - Spec and drawing clarifications
- Subcontractors were advised to submit all questions in writing to Mike Barton at mbarton@wright-ryan.com
- Additional access to the building during the bid period should be coordinated with Mike Barton at Wright-Ryan Construction.
- Bids are due on 9/29/2011 at 1:00 PM

Building Maine's Great Spaces

Wright-Ryan Construction, Inc. • 10 Danforth Street • Portland, Maine 04101
Phone (207)773-3625 • Fax (207)773-5173 • www.wright-ryan.com



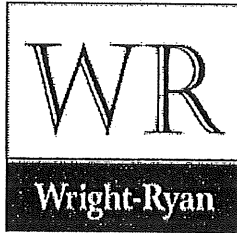
Elm Terrace

Pre-bid Meeting/Site Visit Sign-in Sheet
September 16, 2011 at 9:00 AM

Company Name	Contact Name	Email Address or phone #
NORTH & SOUTH	ED CONROY	ed@marshsouth.com 603-670-1784
JACOBS GLASS	Bob Jacobs	bob.jacobs@jacobsglass.net
OTIS Elevator	Todd Peterson	Todd.Peterson@otis.com 856-6136
BAGALA WINDOWWORKS	MARC BAGALA	Marc@BAGALAWINDOWWORKS.COM
Hamilton Builders	Tedd Hamilton	Tedd@Fairpoint.net
MAINE HERITAGE Ironworks	Jordan Fields	maineheritageiron@hotmail.com (207) 291-2351
Electrical Systems of ME	David Tassinari	David@electricalsystemsomaine.com
L+B ELECTRIC	Renée Plouffe	rplouffe@lbelectric.net
Atlantic Construction Serv.	Frank Perry	fperry@ACSMENET.net
J.D. HESELTINE CONST	JEFF HESELTINE	jeff_heseltine@yahoo.com
Northeast Painting & Coatings	John Plegu	NEPC@nepainting.net
BIOSABEE ENV.	MARK GRIFFITH	markg@BIOSABEEENV.COM/854-5262
ENVIRONMENTAL ADVANTAGE	VINCE MARCISSO JR	info@ENVIRONMENTALADVANTAGE.COM 207-744-9393
SO. MAINE Pkg & Htg	CEN DRAVEAU	CSOMERPG@AOL.COM
Summit Env.	Sue Chase	schase@summitenv.com
BAY ELECTRIC	GARY STOLTSEN	BayElec@MAINE.COM 799-0350
Abatement Proforsion/	Kyle Rickett	Krickett@abatementprofsion.com
Abatement Procs	Bob Rickett	BRickett@abatementprofsion.com
Wright-Ryan	Cordelia Pitman	cpitman@wright-ryan.com
Wright-Ryan	Mike Barton	mbarton@wright-ryan.com
Children's Hospital Housing Partners	Erin Cooper-Rider	erin@chomhousing.org
Summit Env. Const	DENNIS KINGMAN	DKINGMAN@SUMMITENV.COM
CUS ARCHITECTS.	MARIE DOUGLASS AIA	addouglass@cusarch.com
BUILDING ENV. CON.	SCOTT R. WHITAKER	SCOTTWHITAKER@BECOLUTIONS.NET
Brew WINTER	CUS ARCHITECTS	BWINTER@CUSARCH.COM
TRICHER Knowles	TIM RICHER	TRICHERKNOWLESINDUSTRIAL.COM
Porter Drywall	Jim Roy	jim@porterdrywall.com
Stone Age Masonry	Hollis Curtis	StoneAgeMasonry@roadrunner.com
Gnome Landscapes & Masonry	TODD MARLA	todd@gnomelandscapes.com

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Phone (207)773-3625 • Fax (207)773-5173 • www.wright-ryan.com



Elm Terrace

Pre-bid Meeting/Site Visit Sign-in Sheet
September 16, 2011 at 9:00 AM

Company Name	Contact Name	Email Address or phone #
Auburn Concrete	Waring Cutler	Waring@AuburnConcrete.com
PET Plumbing HEATING	JEFF YANKOWSKY	jyankowsky@ppplumbingheating.com
Tito Masonry + Const.	April McDonagh	titomasonry@yahoo.com
JACOBS GLASS	Brad Marin	bradley.marin@jacobsglass.net
B.H. MILLIKEN	WESLEY MILLIKEN	WM@BHMILLIKEN.COM
HIGH TECH FIRE	RYAN ST. HILAIRE	RSTHILAIRE@FIREPOINT.NET
AMERICAN DREAM BUILDERS LLC	ERIC MCGILSHAW	AMERICANDREAMBUILDERS@COMCAST.NET
Bob Hannigan		
Johnson/Ford	Bob Hannigan	bhannigan@johnsonandford.com
AIRTEMP	DEAN GRANT	dgrant@COMFORTSYSTEMSUSA.COM
BOURNE LANDSCAPE	MATT BOURNE	bournelandscape@hotmail.com
M.C. Hall	Mark Hall	mcHallrepairs@yahoo.com
Hascall + Hall	Glen O'Donnell	glen@hascallhall.com/415-1484


Building Maine's Great Spaces



MEETING MINUTES MEMORANDUM

To: Attendees **File:** 11-3043

Date: September 19, 2011

From: Dennis B. Kingman, Jr. CHMM 
Summit Environmental Consultants, Inc

RE: Elm Terrace Environmental Remediation Project
Pre-Bid Meeting Minutes

The Pre-Bid meeting for Environmental Remediation at Elm Terrace located at 68 High Street in Portland, Maine, was conducted on Friday, September 16, 2011 at 9:00 A.M. Attendees included representatives from the Children's Hospital Housing Partner's LP (Owner), Summit Environmental Consultants, Inc. (Summit), Wright-Ryan (WR), CWS Architects (CWS) and prospective remediation contractors. A list of remediation contractors attending this meeting is included (Attachment A).

Meeting minutes are provided below:

A. Project Components

1. *Project Manual for Environmental Remediation Elm Terrace Portland, Maine* - was made available to prospective bidders electronically on Summit's web site prior to the scheduled Pre-Bid meeting. A room reference guide was distributed by Summit during the meeting (Attachment B).
2. The Project Manual is presented to solicit bids and provide overall project guidance.
3. Prospective bidders may access the General Contractor project manual and specifications and these bid documents through the WR FTP site using the following username and password:
ftp://ftp.wright-ryan.com
username: chomhighst
password: wrcbid1

4. The project objective is:
 - The removal and proper disposal of Asbestos-Containing Materials (ACM) present at the building;
 - The removal and proper disposal of Universal Wastes and Hazardous Materials present at the building;
 - The remediation of Lead-Based Paint (LBP) present at the building.

B. Project Schedule

1. Bids are due to the Owner on September 29, 2011 at 2:00 P.M.
2. Tentative project schedule: November 9, 2011 through January 27, 2012. Work is anticipated to commence in the Basement and proceed to successive upper floors. Commencement of exterior LBP remediation work is anticipated for April of 2012; however, the actual date for this work is to be determined.
3. The Environmental Remediation Contractor (ERC) will coordinate all work activities with the WR and the Owner.

C. Construction Comments/Site Issues

1. Designated building areas will be unoccupied during the course of the specified work. Other project related work will be occurring concurrently on other floors and on the exterior of the building.
2. Approximate locations of ACM and LBP to be abated are included in the Work Plan. The ERC is responsible for confirming all locations and quantities.
3. The ERC is responsible for the security of their designated work area(s). Water, electricity and sanitary facilities will be available for use by the ERC for the duration of this project, but use must be coordinated with WR.
4. The ERC will be responsible for removal and disposal of the existing boilers, breeching, water tank and piping associated with the heating system, throughout the basement.
5. The boiler pedestals shall be removed to floor level.
6. Piping associated with the heating system present on the Floors 1 through 3 shall remain in place after ACM removal.
7. Non-ACM materials attached to ACM, or impacted by ACM removal, shall be removed by the ERC.
8. Wood trim and millwork attached to ACM plaster walls and ceilings and designated for salvage and re-use will be identified and marked by WR prior to commencement of remediation work. The ERC will be responsible for removal and cleaning of these items. WR will provide a designated storage area for these items. For the purposes of bidding, the ERC shall assume trim and millwork identified in the WR project documents as

scheduled for salvage and restoration will be removed by the ERC.

9. Remediation of exterior wall paint is not included as part of the ERC work. Exterior painted trim, as identified in the Project Manual, is included within the ERC scope of work.
10. Removal of floor tile adhesive (ACM and Non-ACM) present within the building shall be performed by the ERC as part of the environmental remediation project scope of work.
11. Decorative plaster trim present on the ceilings is to remain in place. The ERC shall cut ACM ceiling plaster along the edges of the moldings, taking care to avoid damage to the molding.
12. The cleaning of localized mold present on wall surfaces throughout the basement is included in the Environmental Remediation scope of work. Should, during the course of remediation and demolition work, significant mold contamination be identified, work in this area will cease and the condition assessed to determine if this is a "significant condition", potentially requiring "out of scope" actions by the ERC.

D. Administration

1. The Project Owner is Children's Hospital Housing Partners LP. The Contractor will contract directly with the Owner in accordance with the terms and conditions included within the Project Manual.
2. The Owner's representative is Ms. Erin Cooperrider.
3. All questions related to this project shall be directed to Ms. Cooperrider. Questions shall be submitted in writing or email no later than September 23, 2011.
4. The contract award will be based upon the Base Bid lump sum cost.
5. The Contractor's Bid shall be submitted on the Bid Form provided in the Project Manual to the attention of:

Ms. Erin Cooperrider
Children's Hospital Partners LP
309 Cumberland Avenue, Suite 203
Portland, Maine 04101

Please include all required submittals as listed

6. Fax bids will not be accepted.
7. A five percent bid security and 100 percent Performance and Payment Bonds are required for this project.
8. Insurance requirements for this project are detailed in the Project Manual.
9. The ERC shall assume that all work on this project will be performed in accordance with applicable State of Maine Wage rates. Clarification of

this requirement will be provided in an addendum to be issued.

E. Site Inspection

1. The bidders were provided an opportunity to inspect the site to assist in preparing bids at the time of the Pre-Bid meeting. The site will be accessible to all bidders throughout the bidding period. Access to the site shall be through Mr. Mike Barton at WR (207-773-3625).

The meeting adjourned at 11:30 AM.

In the event of a discrepancy in these minutes or if additional clarification is required, please contact Ms. Erin Cooperrider no later than 2:00 P.M. on September 23, 2011.

Attachments

**ELM TERRACE ENVIRONMENTAL REMEDIATION
ROOM REFERENCE**

Room numbers presented within the ACM/LBP Assessment report differ from those presented on the Contract drawings D0.01, D1.0B, D1.01 – D1.03, and D1.0R. The following table provides clarification:

ACM/LBP ROOM NUMBER REFERENCE	CWS ROOM NUMBER REFERENCE
BASEMENT	
Addition	D001 – D004
Room 053	D005/D007
Room 058	D006
Room 020 Lobby	Rooms D008-D010
Elevator	Room D011
Room 005A	Room D012
Room 005	Room D013
Room 007 Storage	Room D014
Room033	Room D015
Room 031 Boiler Room	Room D016
Room 032 Coal Bin	Room D017
Room 011	Room D018
Room 010	Room D019
Room 005 Janitor	Room D020
Room 002/002A	Room D021
Room 004	Room D022
Room 008	Room D023
Room 003	Room D024
Room 007 Classroom	Rooms D025/D026
Room 008	Rooms D027/D030
FIRST FLOOR	
Rooms 150/150A	Rooms D101-D103
Rooms 155/157	Rooms D104/105
Room 158	Room D106
Room 153	Room D107
Room 156	Room D108
Room 154	Room D109
Room 151	Room D110
Room 152	Room D111
Room 121	Room D112
Rooms 105A,B,C	Rooms D114-D116
Room 105	Rooms D117/D119
Room 107	Room D118
Room 118	Rooms D120/D121
Room 110	Room D123
Room 108	Room D124
Rooms 106/106A	Rooms D125-D127
Rooms 102/119 Lobby	Room D128
Room 101	Room D130
Room 103	Room D131

**ELM TERRACE ENVIRONMENTAL REMEDIATION
ROOM REFERENCE**

SECOND FLOOR	
Rooms 260A,B,C	Rooms D201-D203
Room 255	Rooms D204/205
Room 258	Rooms D208/D209
Room 254	Room D210
Room 252	Room D211
Room 250	Room D212
Stairwell	Room D214
Room 220	Rooms D215/D220
Room 205	Room D217
Room 207	Rooms D218
Room 218	Rooms D219
Room 216	Rooms D221/D225
Room 200	Rooms D226,D233-D235
Room 208	Rooms D227-D229
Room 206	Rooms D230, D231
Room 204	Room D232
Room 203	Room D236
Room 201	Room D237
THIRD FLOOR	
Room 360	Room D304
Room 361	Room D301
Room 362	Room D302
Room 363	Room D303
Room 364	Room D305
Room 355	Rooms D306/D307
Room 350	Room D308
Rooms 358/358A	Rooms D309-D311
Room 356	Room D312
Room 359	Room D313
Room 352	Room D314
Room 305	Room D318
Rest Room	Room D324
Room 324	Room D327
Room 318	Room D328
Room 325	Rooms D319, D321-D323, D326
Room 315	Room D320
Rooms 317/319	Rooms D329, D330
Room 322	Room D331
Room 320A	Room D332
Room 316	Room D333
Room 315	Room D334
Room 314	Room D335
Room 311	Room D336
Room 309	Room D337
Room 314	Room D339
Room 312	Room D340
Room 310	Room D341

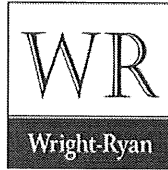
**ELM TERRACE ENVIRONMENTAL REMEDIATION
ROOM REFERENCE**

THIRD FLOOR cont.	
Room 302	Room D342
Room 308	Room D343
Room 306	Room D345
Room 304	Room D346
Room 305	Room D347
Room 301	Rooms D348-D350
Room 320	Room D351
ROOF	
Room 591 Elevator Penthouse	Room D401
Stairwell 4 th Level	Room D420

**COMMUNITY HOUSING OF MAINE
ELM TERRACE
PRE-BID MEETING**

SEPTEMBER 16, 2011

NAME (print)	SIGNATURE	COMPANY/PHONE & FAX	E-MAIL ADDRESS
Dennis Kingman		Summit 262-9040/262-9080	dkingman@summitenv.com
MARK GOFFEN	<i>[Signature]</i>	Biosite-854-5260	markgo@biosenv.com
Kyle Rickett	<i>[Signature]</i>	Abatement Pros 773-1276	Krickett@abatementpros.com
Frank Perry	<i>[Signature]</i>	Atlantic Coast. Serv. 740-7270 Summit Env 795-6007	fperry@ACSME.net
Sue Chase	<i>[Signature]</i>		Schase@summitenv.com
Bob Rickett	<i>[Signature]</i>	Abatement Pros 773-1276	BRickett@Abatementpros.com
Frank Walker	<i>[Signature]</i>	Maine Heritage Ironworks 890-1594	Shires20@netrail.com
Kris Rickett	<i>[Signature]</i>	Abatement Pros	Krisrickett@abatementpros.com
VINCE MARCISSA	<i>[Signature]</i>	ENVIRONMENTAL ADVANTAGE	mjo@environmentaladv.com



Wright-Ryan Construction, Inc
10 Danforth Street
Portland, Maine 04101
P 207 773 3635
F 207 773 5173

Instructions to Shoring Subcontractors – Elm Terrace

Project: Elm Terrace
66-68 High Street
Portland, Maine 04101

Bid Date: September 29, 2011
Time: 1:00 PM
Start Date: TBD End Date: TBD
Project Duration: 12 months 366 calendar days

Project Contact: Michael Barton – Preconstruction Manager
mbarton@wright-ryan.com

Description:

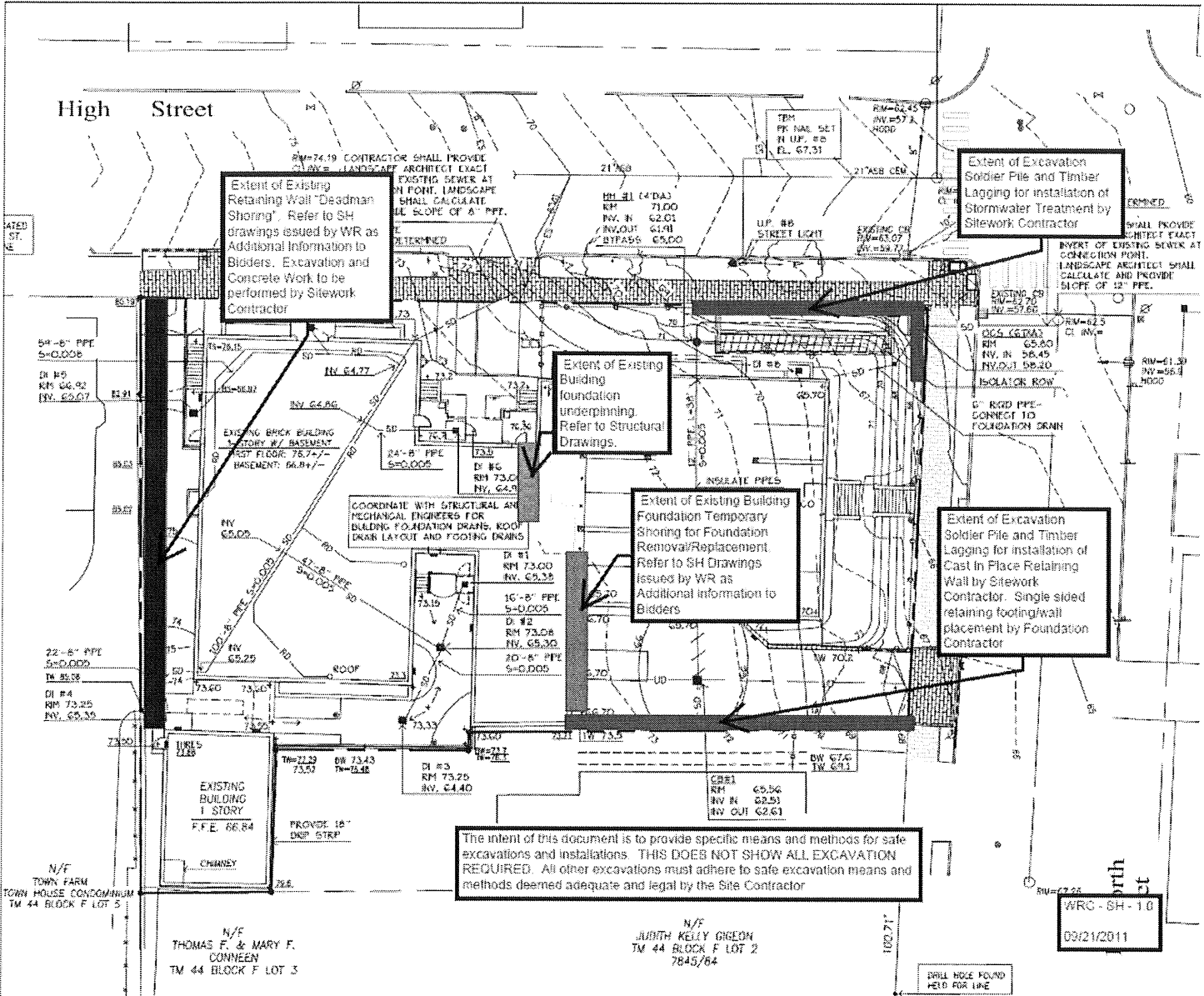
This document serves as additional instructions to potential subcontractors as it pertains to Site and Building Shoring.

- Shoring of existing building
 - Work is to be priced in accordance with documents included in Addendum 1 as additional information available to bidders
 - Substitute approaches will be entertained post bid
- Shoring of existing retaining wall
 - Work is to be priced in accordance with documents included in Addendum 1 as additional information available to bidders
 - Substitute approaches will be entertained post bid
- Excavation Shoring
 - Work is to be priced in accordance with documents included in Addendum 1 as additional information available to bidders
 - The design intent assumes the use of Soldier Pile with Timber Lagging
 - Vibratory Sheet Pile is not permissible.
 - Substitute approaches will be entertained post bid
- All other excavation support measures not indicated on the documents shall be the responsibility of the sitework contractor.

Wright Ryan – Site & Building Shoring Extents Plan

9-21-2011

Elm Terrace, Portland, Maine



Extent of Existing Retaining Wall "Deadman Shoring". Refer to SH drawings issued by WR as Additional Information to Bidders. Excavation and Concrete Work to be performed by Sitework Contractor

Extent of Excavation Soldier Pile and Timber Lagging for installation of Stormwater Treatment by Sitework Contractor

Extent of Existing Building foundation underpinning. Refer to Structural Drawings.

Extent of Existing Building Foundation Temporary Shoring for Foundation Removal/Replacement. Refer to SH Drawings issued by WR as Additional Information to Bidders

Extent of Excavation Soldier Pile and Timber Lagging for installation of Cast in Place Retaining Wall by Sitework Contractor. Single sided retaining footing/wall placement by Foundation Contractor

The intent of this document is to provide specific means and methods for safe excavations and installations. THIS DOES NOT SHOW ALL EXCAVATION REQUIRED. All other excavations must adhere to safe excavation means and methods deemed adequate and legal by the Site Contractor

WRG - SH - 1.0
09/21/2011

N/F
THOMAS F. & MARY F.
CONNEN
TM 44 BLOCK F LOT 3

N/F
JUDITH KELLY GREON
TM 44 BLOCK F LOT 2
7845/64

DRILL HOLE FOUND
HOLD FOR LINE

SECTION 06 20 10
FIBERGLASS CAST COLUMNS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Columns shall be Round WorthingtonCast™ columns manufactured by Worthington Millwork, LLC based on design Modern Composite full round and half round as indicated. 10 foot height, 12" diameter, cut to fit, painted.
- B. Column design shall have the correct proportions based on Orders of Architecture, except when cut to a specific overall length.
- C. WorthingtonCast™ columns are manufactured from highly advanced fiberglass reinforced polymers (FRP)
- D. All WorthingtonCast™ and shafts shall be 100% sanded.
- E. All WorthingtonCast™ shafts shall be classified as NFPA Class A UBC Class 1, with a smoke density rating below 450 according to ASTM E84-01 testing criteria.
- F. Caps shall be Polyurethane, Fiberglass, or Synthetic
- G. Bases shall be Polyurethane, Fiberglass, or Synthetic
- H. Plinths shall be Polyurethane, Fiberglass, or Synthetic

1.2 SUBMITTALS

- A. Submit Worthington product data and shop drawings clearly marked to show column requirements.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURER:

- A. Worthington Millwork, LLC.
P.O. Box 600399
Jacksonville, FL 32260-0399
P. 800.872.1608/ F. 904.281.1488
www.WorthingtonMillwork.com

2.2 MATERIALS

- A. All fiberglass columns shall be manufactured from advanced fiberglass reinforced polymers (FRP)

PART 3 EXECUTION

3.1 INSTALLTION

- A. Follow manufacturer's detailed installation procedures.

1. Determine the position of the plinth by dropping a plumb line from the center of the soffit beam to the floor. Mark this point on the floor with a center of the soffit beam to the floor. Mark this point on the floor with a "X". This is where you will center the plinth so that the top of the shaft will align with the soffit.
2. Measure the overall height. Raise the soffit or porch slightly with brace for easy installation of the columns.
3. Trim column shaft on bottom end only. Trim with an abrasive saw. Finish both top and bottom of shaft with a rasp to ensure an even load distribution around the entire circumference.
4. Slide cap over top of column shaft. Let cap slide down to rest on neck mold temporarily until shaft is correctly positioned. (If installing a square column, slide neck mold over top of shaft to desired location. Fasten neck mold to shaft. Caulk between neck mold and shaft.)
5. Slide base/plinth onto column shaft from bottom.
6. Place column in a vertical position with load centered over column shaft with even distribution around bearing surfaces.
7. If installation requires that column be secured in place prior to bearing load, use small L brackets. Be careful to ensure L brackets do not interfere with seating of cap and base. Note: To secure bracket to column, drill hole in shaft and use through bolts. Do not use screws.
8. Remove brace to allow load to bear on column shaft.
9. Slide cap up to soffit and attach to soffit using corrosion resistant type screws. Attach base/plinth to floor using appropriate fasteners.
10. Caulk between the cap and soffit, the cap and shaft, and the base and shaft for a finished appearance.

3.2 PAINTING/FINISHING

- A. Make sure all surfaces are clean prior to painting. Use mineral spirits if oil or alkyd products are used. Warm soapy water should be used if latex products are utilized.
- B. It is necessary to sand the column, caps and bases prior to priming and painting. Some filling may be required. Note: The surface on polyurethane caps and base/plinths must thoroughly scuff sanded with 120 grit sand paper and wiped clean prior to priming and painting.
- C. Alkyd or oil based primer and paint are recommended. Latex products can be used, but additional sanding is required.
- D. Use a good, high quality exterior paint. At least one coat of primer and two coats of paint should be applied.
- E. Follow paint manufacturer's instructions concerning use within temperature ranges for best results.
- F. Do not use paint or solvents containing acetone.

3.3 WARRANTY

- A. All fiberglass columns and polyurethane, fiberglass components, and decorative capitals have a Limited Lifetime Warranty.

END OF SECTION

SECTION 08 41 13

ALUMINUM-FRAMED STOREFRONT WINDOW SYSTEM

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes aluminum-framed storefronts including, frames, glass, and infill panels.
- B. Related Sections:
 - 1. Drawings and general provisions of Contract including General and Supplementary Conditions and all Division 1 specification sections.
 - 2. Provision of waste management: Section 01 74 19, Construction Waste Management and Disposal.
 - 3. Provision of general LEED requirements and forms: Section 01 81 13, Sustainable Design and LEED Requirements.”

1.2 SYSTEM DESCRIPTION

- A. Aluminum-Framed Storefront System: Painted tubular aluminum sections with supplementary internal support framing, factory fabricated, factory finished, glass and insulated metal panel infill, related flashings, anchorage and attachment devices.
- B. System Assembly: Site assembled.
- C. System Design: Provide for expansion and contraction within system components caused by temperature cycling. Design and size members to withstand loads caused by pressure and suction of wind.
- D. Air Infiltration: Limit air leakage through assembly to 0.06 cfm/min/sq ft (0.003 cu m/s/sq m) of wall area, measured at reference differential pressure across assembly of 1.57 psf (75 Pa) as measured in accordance with ASTM E283.
- E. Water Leakage: None when measured in accordance with ASTM E331.
- F. System Internal Drainage: Drain water entering framing system to exterior.

1.3 SUBMITTALS

- A. LEED Submittals - Product data as per Section 01 81 13, Sustainable Design and LEED Requirements.
- B. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- C. Product Data: Submit data on product characteristics, performance criteria and limitations.
- D. Manufacturer's Installation Instructions: Submit procedure for preparation and installation.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.4 SUSTAINABLE DESIGN REQUIREMENTS AND SUBMITTALS

- A. Conform to Section 01 81 13 - Sustainable Design Requirements and provide LEED Submittals, Manufacturer's Certificates and Product Cost Data, where applicable, for targeted LEED Credits targeted.
 - 1. Refer to Sustainable Design Requirements, Attachment 1: LEED for Homes – Mid-Rise Simplified Project Checklist for a description of each Credit.
- B. Targeted LEED Credits
 - 1. The Scope of Work outlined in this specification is targeted for one or more Credits in order to achieve the specified Certification level of LEED for Homes – Mid-Rise program.
 - 2. Refer to Drawing L-1 LEED for Homes – Mid-Rise Scope Matrix for specific Credits that are applicable to Work included in this specification Section.
 - 3. Refer to Section 01 81 13 - Sustainable Design Requirements for required Contractor requirements of each listed LEED Credit.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with AAMA SFM-1 and AAMA MCWM-1 - Metal Curtain Wall, Window, Store Front and Entrance - Guide Specifications Manual.
- B. Surface Burning Characteristics:
 - 1. Foam Insulation: Maximum 75/450 flame spread/smoke developed index when tested in accordance with ASTM E84.
- C. Apply label from agency approved by authority having jurisdiction to identify each foam plastic insulation board.
- D. Maintain one copy of each document on site.
- E. Manufacturer: Company specializing in manufacturing products specified in this section with minimum ten years documented experience.
- F. Installer: Company specializing in performing Work of this section with minimum three years documented experience approved by manufacturer.
- G. Design wind loading under direct supervision of Professional Engineer experienced in design of this Work and licensed at Project location.

1.6 WARRANTY

- A. Furnish five year manufacturer warranty for insulated glass and factory finishes.

PART 2 PRODUCTS

2.1 ALUMINUM-FRAMED STOREFRONTS

- A. Manufacturers:
 - 1. Vistawall Architectural Products.
 - 2. EFCO Corp.
 - 3. Kawneer Co., Inc.
 - 4. Traco.
 - 5. Tubelite.
 - 6. US Aluminum.

7. Substitutions: Permitted subject to compliance with requirements.

B. Product Description: Aluminum-framed storefronts, extruded aluminum, with glazing, and hardware.

2.2 COMPONENTS

A. Frames: Thermally broken extruded aluminum; flush glazing stops. Frames for interior glazing need not to be thermally broken. Glazing profiles as indicated on drawings.

B. Reinforced Mullion: Profile of extruded aluminum with internal reinforcement of shaped structural steel section.

C. Doors: Wide Stile 1-3/4 inches thick, nominal 4 1/2 inch wide top rail, 5" wide vertical stiles, and 10 1/2 inch wide bottom rail; square glazing stops.

D. Glass and Glazing: Specified in Section 08 80 00.

E. Glass and Glazing Materials:

1. Glass in Exterior Lights: Clear LoE³-366 (Cardinal Glass, or equal) insulating glass with argon gas. LoE³-366
2. Glazing Materials: Storefront manufacturer's standard types to suit application and to achieve weather, moisture, and air infiltration requirements.

F. Flashings: Minimum 0.040 inch (1.0 mm) thick aluminum, to match mullion sections where exposed.

G. Steel Sections: ASTM A36/A36M, Structural shapes to suit mullion sections; galvanized.

H. Fasteners: Stainless steel.

I. Perimeter Sealant and Backing Materials: Specified in Section 07 90 00.

J. Provide Deflection Control Slip Track at all storefront head details.

2.3 FABRICATION

A. Fabricate doors and frames allowing for minimum clearances and shim spacing around perimeter of assembly.

B. Accurately and rigidly fit and secure joints and corners, flush, hairline, and weatherproof.

C. Arrange fasteners, attachments, and jointing to ensure concealment from view.

D. Prepare components with internal reinforcement for door hardware and door operator hinge hardware.

2.4 SHOP FINISHING

A. Painted Aluminum Surfaces: AA-M12C12R1x non-specular as fabricated mechanical finish, chemically cleaned, and prepared for applied coating; with organic coating.

1. High Performance Organic Coating: Fluoropolymer coating system complying with AAMA 2604 or 2605 minimum two-coat, with minimum 70 percent polyvinylidene fluoride resin.
2. Color: to be selected by Architect from manufacture's standard colors.

- B. Concealed Steel Items: Galvanized to ASTM A123/A123M; minimum 2.0 oz/sq ft coating thickness; galvanize after fabrication.
- C. Apply bituminous paint to concealed aluminum and steel surfaces in contact with cementitious or dissimilar metals.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify wall openings and adjoining air and vapor seal materials are ready to receive work of this section.

3.2 INSTALLATION

- A. Install frames, glazing and flashings in accordance with AAMA MCWM-1 - Metal Curtain Wall, Window, Store Front and Entrance - Guide Specifications Manual.
- B. Use anchorage devices to securely attach frame assembly to structure.
- C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- D. Coordinate attachment and seal of air and vapor retarder materials. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- F. Install infill panels using method required to achieve performance criteria.
- G. Install glass in accordance with Section 08 80 00; separate glass from metal surfaces.
- H. Install perimeter sealants in accordance with Section 07 90 00.
- I. Tolerances:
 - 3. Variation from Plane: 1/8 inch per foot (3 mm/m) maximum, or 1/4 inch per 30 feet (6 mm/m); whichever is less.

END OF SECTION

SECTION 08 54 13
FIBERGLASS WINDOWS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. All Fiberglass double hung and picture window complete with hardware, glazing, weather strip, insect screen, sheet rock return, j-channel, and standard or specified anchors, trim and attachments.

1.2 RELATED SECTIONS

- A. Related Sections:
 - 1. Drawings and general provisions of Contract including General and Supplementary Conditions and all Division 1 specification sections.
 - 2. Provision of waste management: Section 01 74 19, Construction Waste Management and Disposal.
 - 3. Provision of general LEED requirements and forms: Section 01 81 13, Sustainable Design and LEED Requirements."
 - 4. Section 01 33 00—Submittal Procedures: Shop Drawings, Product Data, and Samples.
 - 5. Section 07 90 00—Joint Sealants: Sill sealant and perimeter caulking.

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. E 283: Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
 - 2. E 330: Standard Test Method for Structural Performance of Exterior Windows, Curtains Walls, and Doors by Uniform Static Air Pressure Difference.
 - 3. E 547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
 - 4. E 774: Specification for Sealed Insulated Glass Units.
 - 5. C 1036: Standard Specification for Flat Glass.
- B. Sealed Insulating Glass Manufacturers Association / Insulating Glass Certification Council (SIGMA / IGCC).
- C. American Architectural Manufacturers Association / Window and Door Manufacturers Association (AAMA / WDMA):
 - 1. ANSI/AAMA/NWWDA 101 / I.S.2-97: Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
 - 2. 101/I.S. 2/NAFS-02: Voluntary Performance Specification for Windows, Skylights and Glass Doors/
- D. Window and Door Manufacturers Association (WDMA): Hallmark Certification Program.
- E. American Architectural Manufacturers Association (AAMA): 613: Voluntary Performance Requirements and Test Procedures for Organic Coatings on Plastic Profiles.

- F. National Fenestration Rating Council (NFRC): 101: Procedure for Determining Fenestration Product Thermal Properties.

1.4 SYSTEM DESCRIPTION

- A. Design and Performance Requirements:
 - 1. Window units shall be designed to comply with ANSI / AAMA / NWWDA 101 / I.S.2-97 and 101 / I.S. 2/ NAFS-02
 - a. Double Hung: (H-LC30)
 - 2. Air leakage shall not exceed the following when tested at H-LC30: 1.57 according to ASTM E 283.0.3 cfm per square foot of frame.
 - 3. No water penetration shall occur when units are tested at the following pressure according to ASTM E 547:
 - a. Double Hung: (H-LC30 – 4.5 psf)
 - 4. Units shall be designed to comply with ASTM E330 for structural performance when tested at the following pressures:
 - a. Double Hung: (H-LC-30 - 45 psf)

1.5 SUBMITTALS

- A. LEED Submittals - Product data as per Section 01 81 13, Sustainable Design and LEED Requirements.
- B. Section 01 33 00 - Submittal Procedures: Submittal procedures.
- C. Product Data: Submit data on product characteristics, performance criteria and limitations.
- D. Manufacturer's Installation Instructions: Submit procedure for preparation and installation.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.6 SUSTAINABLE DESIGN REQUIREMENTS AND SUBMITTALS

- A. Conform to Section 01 81 13 - Sustainable Design Requirements and provide LEED Submittals, Manufacturer's Certificates and Product Cost Data, where applicable, for targeted LEED Credits targeted.
 - 1. Refer to Sustainable Design Requirements, Attachment 1: LEED for Homes – Mid-Rise Simplified Project Checklist for a description of each Credit.
- B. Targeted LEED Credits
 - 1. The Scope of Work outlined in this specification is targeted for one or more Credits in order to achieve the specified Certification level of LEED for Homes – Mid-Rise program.
 - 2. Refer to Drawing L-1 LEED for Homes – Mid-Rise Scope Matrix for specific Credits that are applicable to Work included in this specification Section.
 - 3. Refer to Section 01 81 13 - Sustainable Design Requirements for required Contractor requirements of each listed LEED Credit.

1.7 QUALITY ASSURANCE

- A. N/A.

1.8 DELIVERY

- A. Comply with provisions of Section 01 60 00.
- B. Deliver in original packaging and protect from weather.

1.9 STORAGE AND HANDLING

- A. Prime or seal wood surfaces, including surface to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation.
- B. Store window units in an upright position in a clean and dry storage area above ground and protect from weather under provisions of Section 01 66 00.

1.10 WARRANTY

- A. Windows shall be warranted to be free from defects in manufacturing, materials, and workmanship for a period of ten (10) years from purchase date.
- B. Window glass shall be warranted to be free from defects in manufacturing, materials and workmanship for period of twenty (20) years from the purchase date.

PART 2 PRODUCTS

2.1 MANUFACTURED UNITS

- A. Description: All Ultrex® Infinity Double Hung type units as manufactured by Infinity Windows and Doors, Fargo, North Dakota, or equal. Operating sash tilt to interior for cleaning or removal.

2.2 FRAME DESCRIPTION

- A. Pultruded reinforced fiberglass Exterior and Interior 0.075 inch (2 mm) thick. Frame thickness: 31/32 inch (25 mm) head jamb, 31/32 inch (25 mm) composite side jamb, 25/32 inches (20 mm) sill, flat bottom sill with 8 degree bevel. Frame width: 2 7/8 inches (73mm).

2.3 SASH DESCRIPTION

- A. Pultruded reinforced fiberglass, Interior 0.075 inch (2mm) thick. Composite sash thickness: 1-3/8 inches (35 mm) overall. Sash exterior Ultrex[□], an advanced glass fiber reinforced material, 0.075 inch (2 mm) thick. Operable sash tilt to interior for cleaning or removal.

2.4 GLAZING

- A. Select quality complying with ASTM C 1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E 774.
- B. Glazing method: 11/16 inch (19 mm) Insulated glass.

- C. Glass type: Clear LoE³-366 (Cardinal Glass, or equal) insulating glass with argon gas, or equal - glass performance shall have the following characteristics: Visible Light Transmittance = 65%; solar head gain coefficient = 0.27; U Factor = 0.24.; Tempered as indicated or required by code.
- D. Glazing seal: Silicone bedding at exterior and a glazing boot to interior.

2.5 Simulated Divided Lites (SDL)

- A. 7/8 inch (22mm) wide with internal aluminum spacer bars. Exterior bar: Ultrex□, finish to match exterior Bahama Brown. Interior bar: ABS (Acrylonitrile Butadiene Styrene) Stone White. Pattern: as indicated.

2.6 FINISH

- A. Factory baked on acrylic urethane.
- B. Sash Color: Bahama Brown exterior with Stone White interior, to be selected by architect.
- C. Frame Color: Bahama Brown exterior with Stone White interior, to be selected by architect.

2.7 HARDWARE

- A. Balance System: Coil spring block and tackle with nylon cord and glass filled nylon shoe and steel locking shoe.
- B. Jamb Track: Pultrusion.
- C. Sash Lock: High pressure zinc die-cast cam lock and keeper.
 - 1. Finish: Phosphate coated and electrostatically painted. Color: White.
 - 2. Two locks on units that are over 3-0 in width.
- D. Sash Lift: Zinc die cast contoured sash lift, two per unit. Color: White.

2.8 WEATHER STRIP

- A. Weather Strip: Weather strip at jambs with a foam type material for added long-term performance to seal against both the bottom sash and top sash stiles. The bottom sash has a weather strip to seal against the sill, the top check rail has a weather strip interlock to seal against the bottom check rail, and the top rail seals against a weather strip on the head jamb parting stop. Color: White.

2.9 JAMB EXTENSION

- A. N/A

2.10 INSECT SCREEN

- A. Insect Screens: Factory installed (removable) full screen. Screen cloth, 20 x 20 mesh: Charcoal High Transparency Fiberglass. Frame color: Bahama Brown.

2.11 ACCESSORIES AND TRIM

- A. Installation Accessories:
 - 1. Factory installed vinyl folding nailing fin at head, sill and side jambs.
 - 2. Sheetrock return head and jambs, stool receiver sill. Confirm size and dimensions with drawings.
 - 3. Complete operator package of hardware required for installation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verification of Conditions: Before Installation, verify openings are plumb, square, and of proper dimension as required in Section 01 70 00. Report frame defects or unsuitable conditions to the General Contractor before proceeding.
- B. Acceptance of Conditions: Beginning of installation confirms acceptance of existing conditions.

3.2 INSTALLATION

- A. Comply with Section 01 70 00.
- B. Assemble and install window unit according to manufacturer's instructions and reviewed shop drawings.
- C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 90 00 Joint Sealants. Do not use expansive foam sealant.
- D. Install accessory items as required.
- E. Use finish nails to apply wood trim and moldings.

3.3 CLEANING

- A. Remove visible labels and adhesive residue according to manufacturer's instructions.
- B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 70 00.

3.4 PROTECTING INSTALLED CONSTRUCTION

- A. Comply with Section 01 70 00.
- B. Protect windows from damage by chemicals, solvents, paint, or other construction operations that may cause damage.

END OF SECTION

SECTION 14 42 50

VERTICAL WHEELCHAIR LIFTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Enclosed, self-contained vertical platform wheelchair lift.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete: Concrete shaftway and anchor placement.
- B. Section 04800 - Masonry Assemblies: Masonry shaftway and anchor placement.
- C. Section 06100 - Rough Carpentry: Blocking in framed construction for lift attachment.
- D. Section 09260 - Gypsum Board Assemblies: Gypsum board shaftway.
- E. Division 16 - Electrical: Dedicated telephone service and wiring connections.
- F. Division 16 - Electrical: Lighting and wiring connections at top of shaft.
- G. Division 16 - Electrical: Electrical power service and wiring connections.

1.3 REFERENCES

- A. ASME A17.1 - Safety Code for Elevators and Escalators.
- B. ASME A17.5 - Elevator and Escalator Electrical Equipment.
- C. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
- D. ICC/ANS1A117.1 - Accessible and Usable Buildings and Facilities.
- E. NFPA 70 - National Electric Code.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturers data sheets on each product to be used including:
 - 1. Submit manufacturer's installation instructions, including preparation, storage and handling requirements.
 - 2. Include complete description of performance and operating characteristics.
 - 3. Show maximum and average power demands.
- C. Shop Drawings:

1. Show typical details of assembly, erection and anchorage.
 2. Include wiring diagrams for power, control, and signal systems.
 3. Show complete layout and location of equipment, including required clearances and coordination with shaftway.
- D. Selection Samples: For each finished product specified, provide two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finished product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Firm with minimum 10 years experience in manufacturing of vertical platform lifts, with evidence of experience with similar installations of type specified.
- B. Installer Qualifications: Licensed to install equipment of this scope, with evidence of experience with specified equipment. Installer shall maintain an adequate stock of replacement parts, have qualified people available to ensure fulfillment of maintenance and callback service without unreasonable loss of time in reaching project site.

1.6 REGULATORY REQUIREMENTS

- A. Provide platform lifts in compliance with:
1. ASME A18.1 - Safety Standard for Platform Lifts and Stairway Chairlifts.
 2. ASME A17.1 - Safety Code for Elevators and Escalators.
 3. ASME A17.5 - Elevator and Escalator Electrical Equipment.
 4. NFPA 70 - National Electric Code.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store components off the ground in a dry covered area, protected from adverse weather conditions.

1.8 PROJECT CONDITIONS

- A. Do not use wheelchair lift for hoisting materials or personnel during construction period.

1.9 WARRANTY

- A. Warranty: Manufacturer shall warrant the wheelchair lift materials and workmanship for two years following completion of installation

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Garaventa Lift; United States - P.O. Box 1769, Blaine, WA 98231-1769. Canada - 7505 134A St., Surrey, BC V3W 7B3. ASD. Toll Free: 800-663-6556. Tel: (604) 594-0422. Fax: (604) 594-9915. Email: bramsav(asiaraventalift.com) Web: wwwvs garaventalift.com.
- B. Requests for substitutions will be considered in accordance with provisions of Section

2.2 ENCLOSED VERTICAL WHEELCHAIR LIFT

- A. Capacity: 750 lbs (340 kg) rated capacity.
- B. Mast Height:
 - 1. Model GVL-EN-42; 45 inches (1143 mm) maximum lifting height.
- C. Nominal Clear Platform Dimensions:
 - 1. Standard: 37-1/4 inches (947 mm) by 54 inches (1370 mm).
- D. Platform Configuration:
 - 1. Straight Through Entry/Exit: Front and rear openings.
- E. Landing Openings:
 - 1. Upper Landing: Gate.
- F. Doors and Gates: Doors and gates shall be self closing type.
 - 1. Door Construction: Aluminum frame with:
 - a. Panels of 1/4 inch (6 mm) laminated safety glass with 16 gauge (1.5 mm) galvanized steel kick plate.
 - 2. Power Door/Gate Operator: Automatically opens the door/gate when platform arrives at a landing. Will also open at landing by pressing call button or gently the pulling door.
 - a. ADA Compliant and obstruction sensitive.
 - b. Low voltage, 24 VDC with all wiring concealed.
 - c. Location:
 - 1) Lower Landing: Door.
- G. Lift Components:
 - 1. Machine Tower: Custom aluminum extrusion.
 - 2. Base Frame: Structural steel.
 - 3. Platform Side Wall Panels: 42-1/8 (1070 mm) inches high. 16 gauge (1.5 mm) galvanized steel sheet. Custom aluminum extrusion tubing frame.
 - 4. Enclosure Panels:
 - a. 1/4 inch (6 mm) laminated safety glass.
- H. Enclosure Height Above Upper landing:
 - 1. Enclosure shall extend 42-1/8 inches (1070 mm) above the upper landing level
- I. Infill Panel Kit: Provide 16 gauge (1.5 mm) galvanized panels and mounting hardware to cover void between side of enclosure, drive mast and adjacent wall at the following locations:
 - 1. Upper landing.
- J. Base Mounting and Access to Lift at Lower Landing:

1. Pit Mount: Lift to be mounted in pit with dimensions to meet manufacturers requirements for the platform size specified. Pit construction shall be in accordance to Section
- K. Options:
1. Outdoor Protection: Lift shall include modifications recommended by manufacturer for reliable performance in outdoor climate of project site.
- L. Leadscrew Drive:
1. Drive Type: Self-lubricating acme screw drive.
 2. Emergency Operation: Manual handwheel device to raise or lower platform.
 3. Battery Powered Emergency Lowering: Battery powered platform lowering device that automatically activates in the event of power failure. Allows passenger to drive platform downward to lower landing. Does not operate lift in up direction.
 4. Safety Devices:
 - a. Integral safety nut assembly with safety switch.
 5. Travel Speed: 10 fpm (3.0 m/minute).
 6. Motor: 2.0 hp (560 W).
 7. Power Supply:
 - a. 120 VAC single phase; 60 Hz on a dedicated 20 amp circuit.
- M. Platform Controls: 24 VDC control circuit with the following features.
1. Direction Control: Illuminated tactile and constant pressure push buttons with dual platform courtesy lights and safety light.
 2. Illuminated and audible emergency stop switch shuts off power to lift and activates audio alarm equipped with battery backup.
 3. Keyed operation.
 4. Emergency Telephone: Platform shall be equipped with ADA compliant autodialer telephone with a stainless steel faceplate. Telephone shall operate in the event of power failure. A telephone line shall be supplied to the lift site as specified under Division 16.
- N. Call Station Controls: 24 VDC control circuit with the following features.
1. Direction Control: Illuminated tactile and constant pressure push buttons with illuminated "In Use" indicator.
 2. Keyed operation.
 3. Call Station Mounting:
 - a. Lower:
 - 1) Wall mounted surface.
 - b. Upper:
 - 1) Frame mounted.
- O. Finishes
1. Aluminum Extrusions: Champagne anodized finish.
 2. Lift Finish: Baked powder coat finish, color as selected by the Architect from manufacturers optional RAL color chart.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify shaft and machine space are of correct size and within tolerances.
- C. Verify required landings and openings are of correct size and within tolerances.
- D. Verify electrical rough-in is at correct location.
- E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install platform lifts in accordance with applicable regulatory requirements including ASME A 17.1, ASME A 18.1 and the manufacturer's instructions.
- B. Install system components and connect to building utilities.
- C. Accommodate equipment in space indicated.
- D. Startup equipment in accordance with manufacturer's instructions.
- E. Adjust for smooth operation.

3.4 FIELD QUALITY CONTROL

- A. Perform tests in compliance with ASME A 17.1 or A18.1 and as required by authorities having jurisdiction.
- B. Schedule tests with agencies and Architect, Owner, and Contractor present.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 32 31 10

CHAIN LINK FENCE

1 PART 1 GENERAL

1.1 DESCRIPTION

- A. Bidding requirements, conditions of the contract and pertinent portions of sections in Division One of these specifications, apply to the section as fully as though repeated herein.
- B. Work under this section includes furnishing and installing:
 - 1. Chainlink fence

1.2 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
 - 1. Changes in specification may not be made after the bid date.
 - 2. Shop Drawings: Layout of fence with dimensions, details, and finishes of component accessories and post foundations.
 - 3. Product Data: Manufacturer's catalogue cuts indicating material compliance and specified options.
 - 4. Samples: If requested, samples of materials are available (e.g. finials, post caps, and accessories).

1.3 DELIVERY

- A. Package, handle, deliver and store fencing at the project site in a manner that will avoid damage.

1.4 REFERENCES

- A. ANSI/ASTM A123 - Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products.
- B. ANSI/ASTM F567 - Installation of Chain-Link Fence.
- C. ASTM A116 - Zinc-Coated (Galvanized) Steel Woven Wire Fence Fabric.
- D. ASTM A120 – Pipe, Steel, Black and Hot-Dipped Zinc Coated (Galvanized) Welded and Seamless, for Ordinary Uses.
- E. ASTM A153 – Zinc Coating (Hot Dip) on Iron and Steel Hardware.
- F. ASTM A392 – Zinc-Coated Steel Chain-Link Fence Fabric.
- G. ASTM A428 – Weight of Coating on Aluminum-Coated Iron or Steel Articles.

- H. ASTM A491 – Aluminum-Coated Steel Chain Link Fence Fabric.
- I. ASTM C569 – Steel, Carbon (0.15) Maximum Percent), Hot-rolled Sheet and Strip Commercial Quality.
- J. ASTM C94 – Ready Mixed Concrete.
- K. ASTM F573 – Residential Zinc-Coated Steel Chain Link Fence Fabric.
- L. ASTM F668 – Poly (Vinyl Chloride) (PVC) Coated Steel Chain Link Fence Fabric.
- M. Chain Link Fence Manufacturers Institute (CLFMI) – Product Manual.
- N. FS FF-F-191 – Fencing Wire and Post Metal (and Chain Link Fence Fabric and Accessories).

2 PART 2 PRODUCTS

2.1 MANUFACTURER:

- A. Chainlink Fence: Acceptable manufacturers subject to compliance with requirements, provide products of one of the following:
 - 1. Allied Tube and Conduit Corporation
 - 2. Anchor Fence, Inc.
 - 3. United States Steel
 - 4. Acme Fence Company

Product of other manufacturers may be considered subject to compliance with the requirements as judged by the Architect and or Owner's Representative.

2.2 MATERIALS:

- A. Chainlink Fence:
 - 1. Fabric
 - a. No. 9 ga. (0.148"± 0.005") finished size galvanized steel wires, vinyl coated 2" mesh, with both top and bottom salvages twisted.
 - b. Furnish one-piece fabric widths for fencing.
 - 2. End, Corner and Pull Posts: Galvanized steel, minimum sizes and weights as follows:
 - a. 4'-0" Fabric Height: 2.875" OD pipe, 5.79 lbs./lin. ft.
 - 3. Line Posts: Galvanized steel, with exposed portions finished, minimum sizes and weights as follows:

- a. 4'-0" Fabric Height: 2.375" OD steel pipe, 3.65 lbs./lin. ft.
4. Top Rail: Rails: 1.66" OD pipe, 2.27 lbs./ft. or 1.625" x 1.25" roll-formed sections, 1.35 lbs./ft.; galvanized steel, manufacturer's longest lengths.
5. Couplings: Expansion type, approximately 6" long, for each joint.
6. Attaching Devices: Provide means for attaching top rail securely to each corner, pull and end post.
7. Sleeves: Galvanized steel pipe not less than 6" long and with inside diameter not less than 1/2" greater than outside diameter of pipe. Provide steel plate closure welded to bottom of sleeve of width and length not less than 1" greater than outside diameter of sleeve.
8. Tension Wire: 7 gauge galvanized steel, coated coil spring wire, located at bottom of fabric.
9. Wire Ties: 11 gauge galvanized steel.
10. Post Brace Assembly: Manufacturer's standard adjustable brace at end and at both sides of corner and pull posts, with horizontal brace located at mid-height of fabric. Use same material as top rail for brace, and truss to line posts with 0.375" diameter rod and adjustable tightener.
11. Post Tops: Galvanized steel, weather tight closure cap for each tubular post. Furnish caps with openings to permit passage of top rail.
12. Stretcher Bars: Galvanized steel, one piece lengths equal to full height of fabric, with minimum cross-section of 3/16" x 3/4". Provide one stretch bar for each end post, and two for each corner and pull post.
13. Gate, Hinge and Latch Assemblies: Capable of being locked by owner supplied pad locks.
14. Stretch Bar Bands: Manufacturer's standard.
15. Portland Cement: ASTM C150.
16. Aggregates: ASTM C33.
17. Water: Clean
18. Non-shrink, Non-metallic Grout: Premixed, factory-packaged, non-corrosive, non-staining, non-gaseous, exterior grout complying with CE CRD-C621.
19. Finish
 - a. Framing: Galvanized steel, ASTM A120 or A123, with not less than 1.8 oz. Zinc/sq. ft. of surface.
 - b. Hardware and Accessories: Galvanized, ASTM A153 with zinc weights in accordance with Table I.

3 PART 3 EXECUTION

3.1 EXAMINATION:

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Ensure property lines and legal boundaries of work are clearly established.

1.2 INSTALLATION:

A. Chainlink Fence:

1. Comply with recommended procedures and instructions of fencing manufacturer. Provide secure, aligned installation with line posts spaced at 10'-0" o.c. maximum.
2. Grade Set Posts: Drill, air drive, or hand excavate using post hole digger in firm undisturbed or compacted soil.
3. Excavate hole for each post to minimum diameter recommended by fence manufacturer but not less than four times largest cross-section of post. Excavate hole depths approximately 3" lower than post bottom with bottom of posts set not less than 36" below finish grade surface.
4. Center and align posts in holes 3" above bottom of excavation.
5. Concrete Mixing: Mix materials to obtain concrete with minimum 28-day comprehensive strength of 2,500 psi; 1" maximum size aggregate, maximum 3" slump, and 2-4% entrained air.
6. Place concrete around end posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment, and hold in position during placement and finishing operations. Extend concrete footing 2" above grade and trowel to crown to shed water.
7. Sleeve Set Posts: Anchor posts by means of pipe sleeves preset and anchored into concrete. After posts have been inserted into sleeves, fill annular space between post and sleeve solid with non-shrink, non-metallic grout, mixed and placed to comply with grout manufacturer's directions.
8. Top Rails: Run rail continuously, bending to form radius for curved runs. Provide expansion couplings as recommended by manufacturer.
9. Center Rails: Provide center rails where indicated. Install in one piece between posts and flush with post on fabric side, using special offset fittings where necessary.
10. Brace Assemblies: Install braces so posts are plumb when diagonal rod is under proper tension.
11. Tension Wire: Install tension wires through post cap loops before stretching fabric and tie to each post cap with not less than 6 ga. galvanized wire. Fasten fabric to tension wire using 11 ga. galvanized steel hog rings spaced 24" o.c.
12. Fabric: Leave approximately 2" between finish grade and bottom salvage. Pull fabric taut and tie to posts, rails and tension wires. Install fabric on security side

of fence, and anchor to framework so that fabric remains in tension after pulling force is released.

13. Stretcher Bars: Secure at end, corner, pull, and gate posts by threading through or clamping to fabric at 4" o.c., and secure to posts with metal bands spaced at 15" o.c.
14. Tie Wires:
 - a. Use U-shaped wire, conforming with diameter of pipe to which attached, clasping pipe and fabric firmly when ends twisted at least two full turns. Bend ends of wire to minimize hazard to persons or clothing.
 - b. Tie fabric to line posts with wire ties spaced 12" o.c. Tie fabric to rails and braces with wire ties spaced 24" o.c. Tie fabric to tension wires with hog rings spaced 24" o.c.
 - c. Manufacturer's standard procedure will be accepted if of equal strength and durability.
15. Fasteners: Install nuts for tension bands and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.3 CLEANING:

- A. Clean up debris and unused material, and remove from site.

...END OF SECTION 32 31 10

Addendum 02

Date: September 26, 2011

To: Wright Ryan Construction (Construction Manager)
From: Ben Walter, CWS Architects
Regarding: Elm Terrace – Portland, Maine
Subject: Addendum 02

Modify the previously issued documents dated September 8, 2011 and any previously issued addenda, if applicable, as follows:

Book 1 -Bidding and Contract Documents Manual:

1. In 00 31 00 Available Project Information, item 1.3.I, change all references to IBC 2066 to read “IBC 2009” in the listed code studies.
2. Add 00 31 00 Available Project Information, item 1.3.O ADDENDUM No. 1 to the Project Manual for Environmental Remediation Elm Terrace Portland, Maine, dated September 26, 2011. This addendum modifies the Project Manual listed in 00 31 00 Available Project Information, item 1.3.K.

Book 2 -Specifications Manual:

3. Add item 2.2.C.3 to specification Section 09 21 00 Plaster Gypsum Board Assemblies as follows:
“Moisture and Mold Resistant Gypsum Sheathing Board: 5/8” thick, treated paper face meeting ASTM D 3273, behind and adjacent to tub and shower surrounds, Type X where integral in a fire rated assembly, G-P ToughRock Mold-Guard Gypsum Board, or equal.”
4. Change the name of specification Section 07 53 05 to read “Elastomeric Membrane Roofing – Mechanically Fastened”.
5. In specification Section 07 53 05 Elastomeric Membrane Roofing – Mechanically Fastened, change 2.2.D.1 to read “Insulation Thickness: Provide a minimum of R-24 of insulation at roof drains tapered over 24 inches to an insulation system based on insulation thickness indicated on the remainder of the entire roof surface with a minimum of R-49. Provide tapered insulation system as indicated on the drawings. In areas of tapered insulation, the minimum insulation thickness shall be R=49 as indicated above. (Note: At roof locations where the roofing insulation system above the roof sheathing does not achieve R-49 (such as roof drains) the delinquent R value will be achieved by applying 07 21 19 Foamed-in-Place Insulation to the underside of the roof deck.)”
6. In specification Section 11 30 00 Residential Equipment, change 2.5 MICROWAVE to read “2.5 MICROWAVE (NIC, by Owner).

Drawings:

Title Page
N/A

Civil and Site:

7. Replace Sheet No.: 3 with Sheet No.: 3, revised September 25, 2011. This change coordinates with revisions made in item 21 of Addendum 01 to Drawing M3.0.

Structural:

N/A

Architectural:

8. GENERAL NOTE: On all architectural drawings (Roof Plans, specifically), change all notes reading "Minimum 7" Isocyanurate" to read "Minimum R-49 Polyisocyanurate". This applies at all Elastomeric Membrane Roofing locations.
9. On Drawing 3.06, exterior insulation that appears to be "board insulation" is in fact Exterior Envelope Foamed-in-Place Insulation as specified in Section 07 21- 19 Foamed-In-Place Insulation.
10. On Floor/Ceiling Assembly C2 on Drawing A0.03, fill exterior wall cavity up to the top of the floor sheathing line with Blown Insulation per specification Section 07 21 26 Blown Insulation. Above the floor sheathing line continue filling the exterior wall cavity with the specified fiberglass insulation.
11. On Drawing 7.01 and 7.02, change all references to "1/2" Den sglass Sheathing" to read "1/2" Plywood Sheathing".
12. On Details 1, 2 and 3 on Drawing A7.07, provide Foamed in Place insulation in the cavities of all parapet and knee framed walls supporting railing fence supports.

Mechanical:

N/A

Electrical:

13. Modify 2.9.B in specification Section 26 00 00 – Electrical to read "Junction Boxes in all interior walls separating any Unit from another Unit or other adjoining interior space shall be provided with air vapor barrier boxes as manufactured by LESSCO, or equal. If putty type fire separation material is required by code to separate Junction Boxes service opposite sides of demising walls, provide the putty fire separation material inside the LESSCO boxes. Do not provide LESSCO boxes at exterior wall locations. Conductors passing through pull boxes shall be identified to indicate their origin and termination."

End of Addendum 02

Attachments: (See attached specifications, sketches, drawings and attachments listed above, if applicable)



ADDENDUM No. 1

TO

**PROJECT MANUAL
FOR
ENVIRONMENTAL REMEDIATION
ELM TERRACE
PORTLAND, MAINE**

Dated: September 26, 2011

Issued by:

Summit Environmental Consultants, Inc.
640 Main Street
Lewiston, Maine 04240

Addendum 1 modifies the original *Project Manual for Environmental Remediation Elm Terrace, Portland, Maine* dated September, 2011 (and posted for distribution on the Summit Environmental Consultants, Inc. website (www.Summitenv.com) on September 9, 2011) as follows. This Addendum consists of three (3) pages.

1. SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (EJCDC C-520);

CONTRACT TERMS – Page 1 of 8, Paragraph 4.02 A – Days to Achieve Substantial Completion:

DELETE Paragraph 4.02 A in its entirety and REPLACE with:

The work will be substantially completed within 79 days after the date when the Contract Times commence to run provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 79 days after the date when the Contract Times commence to run.

2. WAGE DETERMINATION – Page WD-1;

DELETE Page WD-1 in its entirety.

Davis-Bacon and/or State of Maine Wage Rates will not apply to this project.

3. SECTION 01010 – SUMMARY OF WORK Paragraph 1.03 Scope and Sequence of Work;

INSERT Paragraph 1.03 D Item 9:

Cleaning of incidental mold growth present on surfaces throughout the building shall be included in the ERC scope of Work. The extent of mold observed within the building is limited and associated with current building conditions (e.g., lack of heat/ventilation). Building surfaces with visible mold shall be evaluated by the OWNER and ERC prior to commencement of cleaning, and should be cleaned in accordance with the recommendations presented in Appendix D.

4. SECTION 02079 – LEAD-BASED PAINT ABATEMENT Paragraph 2.01 Scope of Work;

DELETE Paragraph 2.10 B 2 in its entirety and REPLACE with:

Prior to work assigned, specific areas requiring paint removal or selected demolition will be delineated by the Owner. For perimeter exterior walls requiring selective cutting/demolition, the LEAD ABATEMENT CONTRACTOR will be responsible for removal of identified LBP from the corresponding interior surface as delineated by the Owner. The LEAD ABATEMENT CONTRACTOR will not be responsible for associated selective cutting/demolition of these areas.

5. SECTION 02079 – LEAD-BASED PAINT ABATEMENT Paragraph 2.01 Scope of Work;

INSERT Paragraph 2.10 B 3 as follows:

Remediation of LBP identified on exterior metal cornice trim (located on the roof parapet along the roof perimeter) is not included in the Environmental Remediation Scope of Work and will be addressed by others.

6. Appendix D – **SURFACE CLEANING RECOMMENDATION FOR MOLD;**

INSERT attached Appendix D – SURFACE CLEANING RECOMMENDATIONS FOR MOLD.

APPENDIX D

SURFACE CLEANING RECOMMENDATION FOR MOLD

Building surfaces with visible mold remaining following completion of the environmental remediation and demolition scope of work should be cleaned in accordance with the following recommendations:

1. Isolate the affected area(s) using polyethylene (poly) sheeting critical barriers;
2. Remove all affected non-porous materials (i.e.; sheetrock, ceiling tile, carpet, etc.) and place within poly bags or wrap in poly sheeting. These materials will be removed from the work area after wrapping or containerizing and may be disposed of as demolition debris;
3. Clean non-porous surfaces, and those materials which cannot be removed (e.g.; non-painted brick walls, wood) using a vacuum equipped with a High Efficiency Particulate Air (HEPA) filter to remove loose debris;
4. Clean surfaces using wet methods. A detergent or bleach solution (10% concentration of bleach to water) is recommended to wash the surfaces using rags or other cleaning media.
5. Once visibly clean, the surfaces should be rinsed with fresh cleaning solution followed by at least one rinse with clean water;
6. Vacuum cleaned surfaces using a "wet" vacuum to remove any excess water;
7. Upon completion of the cleaning process, the surfaces should be visually assessed for the presence of residual mold. Re-clean surfaces if residual mold is observed;
8. Allow surfaces to completely air dry. Dehumidifiers, fans or other ventilation equipment may be used to expedite this process;
9. Encapsulate, as practicable, cleaned porous surfaces remaining within the area.

During the cleaning process, personnel performing this work should wear Personal Protective Equipment (PPE) including but not limited to: respiratory protection, eye protection, appropriate gloves, and coveralls.

It is recommended that affected areas be assessed prior to commencement of cleaning activities so that appropriate control, cleaning and PPE procedures are used.

END OF ADDENDUM

Addendum 03

Date: September 28, 2011

To: Wright Ryan Construction (Construction Manager)
From: Ben Walter, CWS Architects
Regarding: Elm Terrace – Portland, Maine
Subject: Addendum 03

Modify the previously issued documents dated September 8, 2011 and any previously issued addenda, if applicable, as follows:

1. Delete 08 90 00 Window Schedule from Document 00 01 10 TABLE OF CONTENTS.

Book 1 -Bidding and Contract Documents Manual:

N/A

Book 2 -Specifications Manual:

2. Delete 08 90 00 Window Schedule from Book 2 – Specification Manual. This schedule was published in error. Refer to Window Schedule on Drawing A8.20 WINDOW SCHEDULE AND NOTES.
3. In Document 08 10 00 DOOR AND FRAME SCHEDULE, change the DOOR TYPE for Door No. 123 to read “V”.
4. Clarification: Provide a Rolling Security Grille as specified in Section 08 33 00 Rolling Security Grilles to fill the opening 20 feet wide and 7 feet tall (field verify) that provides access to the Parking Garage 001.
5. Add the following to specification Section 11 30 00 Residential Equipment:
 - 2.6 DISHWASHER
 - A. Apartment Units Indicated to have a Dishwasher: Energy Star rated, 24” width, stainless steel tub, adjustable racks, NSF sanitizing cycle, electronic controls, integral food disposer, white color; GE Model GLDA690PWW, or equal.
6. Change 3.2.A in specification Section 12 35 30 Residential Casework to read “Set and secure casework in place rigid, plumb, and level ensuring the maximum counter height indicated on the Drawings is achieved over the full length of the counter top by scribing or other means of securely modifying, if necessary and as required, the casework’s toe kick, end panels and back panel to ensure specified countertop height even at un-level floor surfaces.

Drawings:

Title Page

N/A

Civil and Site:

N/A

Structural:

7. Replace detail 2 on Drawing S3.2 with the attached SKS-1-1.
8. Replace detail 3 on Drawing S3.2 with the attached SKS-1-2.
9. Provide square concrete column wraps (not round as indicated on Drawing S1.1) at all six (6) steel columns in the enclosed parking garage area [PARKING GARAGE - 001] per attached SKS-1-3.
10. At all continuous bearing floor trusses to be installed directly over the first floor concrete slab subfloor structure of the building addition wing, a) MSR lumber ratings are not required; and b) the bottom plate of the trusses shall be pressure treated.

Architectural:

11. Replace Drawing A7.13 with the attached Drawing A7.13, revised Addendum 03, September 28, 2011. The revisions on this sheet address modifications to the overhead rolling door opening to PARKING GARAGE - 001 and includes modifications to the precast steel lintel and structural systems.

Mechanical:

12. **RFI Question:** Do lined ducts require exterior insulation? **FRI Response:** Yes.
13. **RFI Question:** HWS/R and DHW indicate 1 1/2" insulation with (R4) noted next to it. 1" insulation provides R4 at 75 degrees F. Is 1" acceptable? **FRI Response:** The State Energy Code requires a minimum pipe insulation thickness based on water temperature while LEED requires a minimum R-Value for pipe insulation. Revise Specifications Section 230700-3.6 to identify both thickness and R-value minimums as indicated below. The insulation product must meet both requirements as a minimum.

3.6 INSULATION APPLICATION SCHEDULE

<u>SERVICE</u>	<u>THICKNESS</u>	<u>MATERIAL/JACKET</u>
PIPING (including PEX tubing):		
Domestic Cold Water Piping		
1-1/4" and smaller	1/2" & R4	Fiberglass w/ASJ or Flexible Unicellular
1-1/2" and larger	1" & R4	Fiberglass w/ASJ or Flexible Unicellular
Domestic Hot Water Piping and Domestic Hot Water Recirculation Piping		
1-1/4" and smaller	1/2" & R4	Fiberglass w/ASJ or Flexible Unicellular
1-1/2" and larger	1" & R4	Fiberglass w/ASJ or Flexible Unicellular

Water and Drain Piping Under Handicap Accessible Fixtures		Insulation Kit
Hot Water Heating Supply and Return Piping		
3" and smaller	1" & R4	Fiberglass w/ASJ
4" and larger	1-1/2" & R4	Fiberglass w/ASJ
Solar Heating Supply and Return Piping (interior)	1-1/2" & R4	Fiberglass w/ASJ or Flexible Unicellular
Solar Heating Supply and Return Piping (exterior)	1-1/2" & R4	Fiberglass w/ASJ or Flexible Unicellular w/ PVC jacket

14. **RFI Question:** Is there an insulation requirement for the underground HWS/R noted on M1.0 **FRI Response:** Piping shall be pre-insulated as noted below:

Add to Plumbing Specifications Section 220000-2.1:

Underground Domestic Water Piping (between buildings): Uponor Ecoflex Thermal (or equal) pre-insulated piping suitable for potable water, available in Thermal Single and Thermal Twin. Provide Thermal Twin when possible consisting of two Wirsbo AQUAPEX plus service pipes surrounded by PEX-foam insulation and covered by an HDPE jacket, sizes per drawings.

Add to HVAC Systems Specifications Section 230000-2.1:

Underground Hot Water Heating Piping (between buildings): Uponor Ecoflex Thermal (or equal) pre-insulated piping suitable for heating water, available in Thermal Single and Thermal Twin. Provide Thermal Twin when possible consisting of two Wirsbo hePEX plus service pipes surrounded by PEX-foam insulation and covered by an HDPE jacket, sizes per drawings.

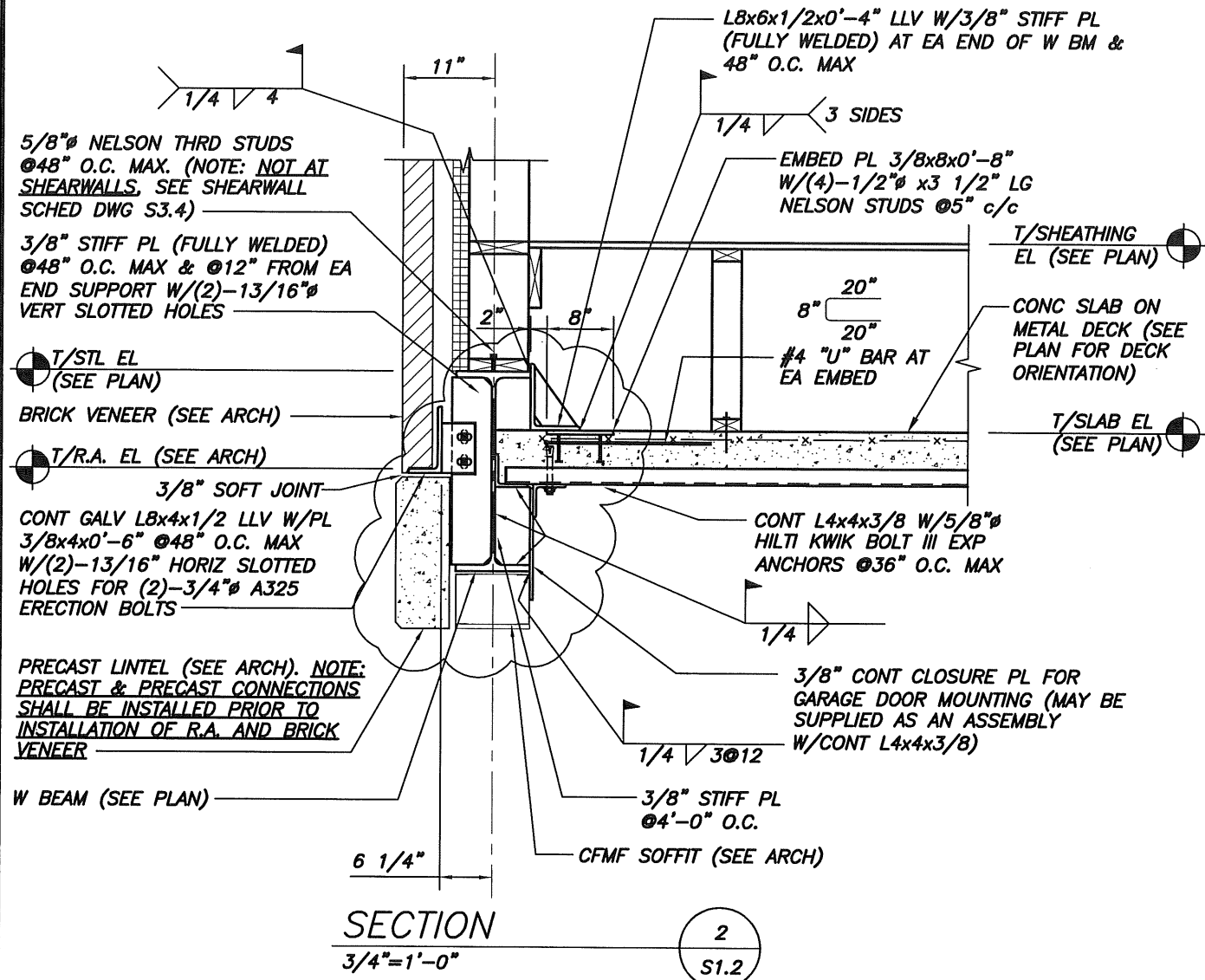
Electrical:

15. Provide wiring for the future installation of a security camera system (NIC, by Owner) at locations indicated with homeruns to OFFICE 132 per the following schedule:
- a) EXTERIOR LOCATIONS – Provide CAT-5 communication cable with cable jack termination in recessed device box plus 120v power with recessed junction box for headed enclosure:
 - i) NE corner of PARKING GARAGE 001 covering garage vehicle entrance and building entrance door.
 - ii) NE inside corner between existing and new building of vehicle access drive covering exterior entrance to PARKING GARAGE 001 and exterior entrance door to CORRIDOR 002, 12' AFF.
 - iii) NW corner of existing building wing (above MECHANICAL ROOM 003) covering exterior OUTDOOR GARDEN and entrance door to CORRIDOR 126, 12' AFF.
 - iv) NW corner of existing main building (above TENANT STORAGE ROOM 031) covering exterior ACCESS WAY and entrance door to CORRIDOR 026, 12' AFF.

- b) ELEVATOR CAB – Provide two (2) pairs of shielded CAT-5 communication cable whips not bundled with high voltage cables. Secure whip ends to overhead of elevator cab.
- c) INTERIOR LOCATIONS – Provide CAT-5 communication cable with cable jack termination in recessed device box:
 - i) SE inside corner of CORRIDOR 007 facing toward CORRIDOR 008.
 - ii) SE inside corner of CORRIDOR 021 facing toward CORRIDOR 002.
 - iii) SE inside corner of ELEVATOR LOBBY 007 facing toward CORRIDOR 026.
 - iv) NE inside corner of CORRIDOR 123 facing toward VESTIBULE 122.
 - v) SE inside corner of LOBBY 129 facing toward the entrance to OFFICE 132 and ENTRY 030.
 - vi) Three (3) Intermediate Landings of STAIR 1.
 - vii) Three (3) Intermediate Landings of STAIR 2.

End of Addendum 03

Attachments: (See attached specifications, sketches, drawings and attachments listed above, if applicable)



REF DWG S3.2

BECKER
structural engineers, inc.

75 York Street
Portland, ME 04101-4701
info@beckerstructural.com

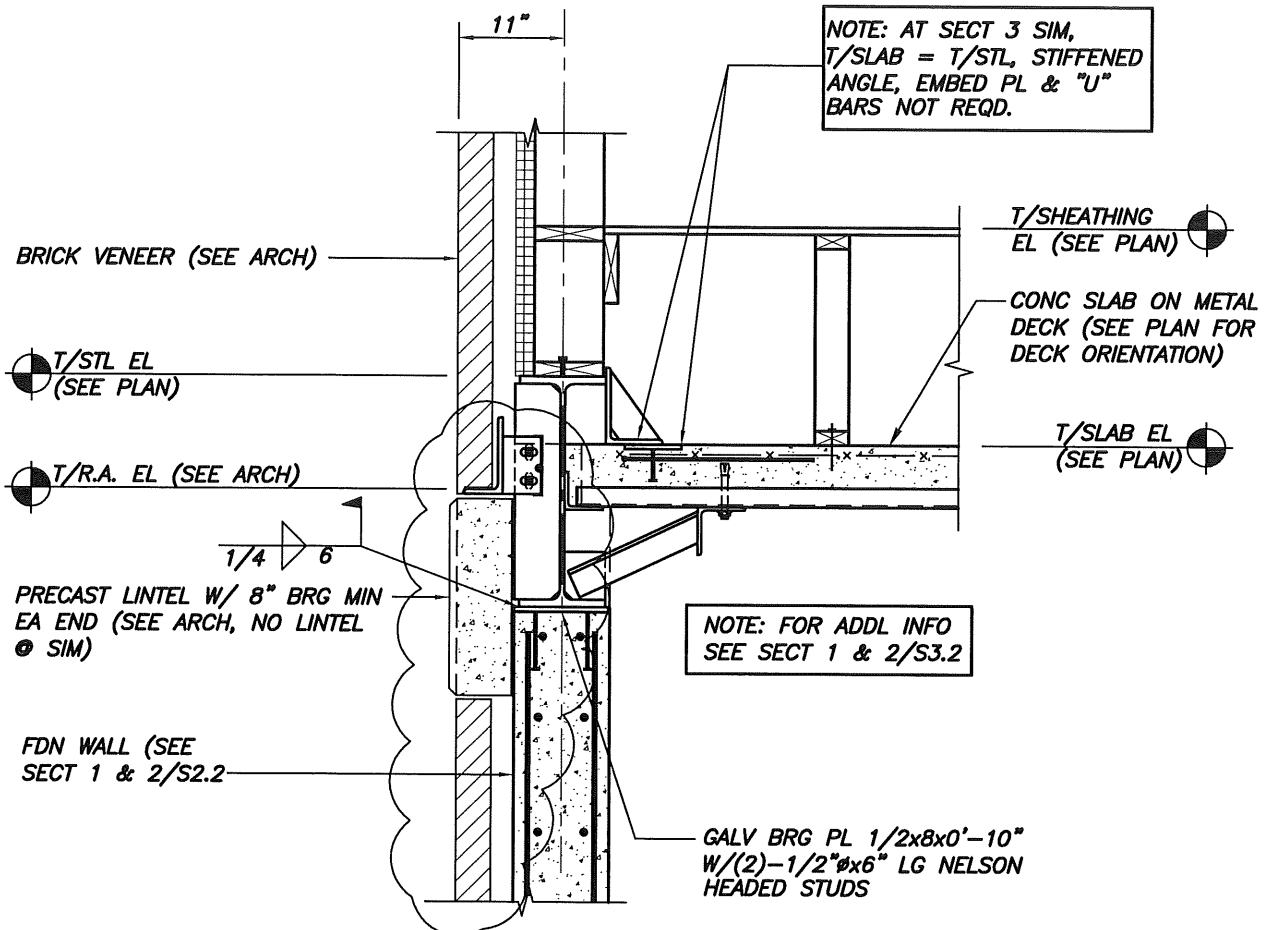
Tel 207-879-1838
Fax 207-879-1822
www.beckerstructural.com

Designed **CGW**
 Drawn **APP**
 Checked **DSB**
 Scale **NOTED**
 Date **09/27/11**

ELM TERRACE
68 HIGH STREET
PORTLAND, MAINE

Becker Job Number
2364

SKS-1-1



NOTE: AT SECT 3 SIM,
T/SLAB = T/STL, STIFFENED
ANGLE, EMBED PL & "U"
BARS NOT REQD.

NOTE: FOR ADDL INFO
SEE SECT 1 & 2/S3.2

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

REF DWG S3.2

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structural engineers, inc.

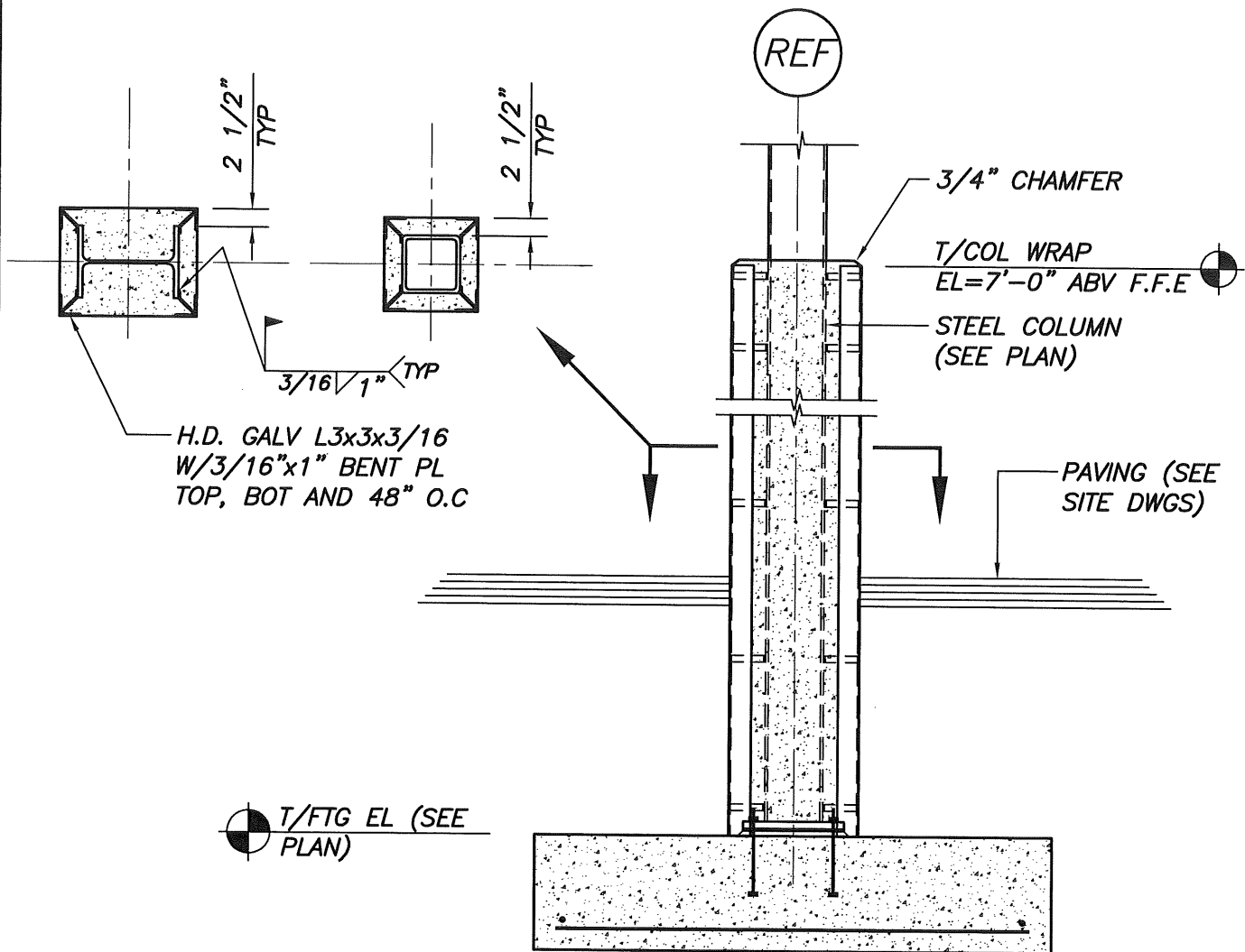
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68 HIGH STREET
PORTLAND, MAINE

Becker Job Number
2364

SKS-1-2



H.D. GALV L3x3x3/16
 W/3/16"x1" BENT PL
 TOP, BOT AND 48" O.C

T/FTG EL (SEE
 PLAN)

TYP COL WRAP DETAIL
 N.T.S.

BECKER
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Date	09/27/11

ELM TERRACE
 68 HIGH STREET
 PORTLAND, MAINE

Becker Job Number
 2364

SKS-1-3

Addendum 04

Date: September 28, 2011

To: Wright Ryan Construction (Construction Manager)
From: Ben Walter, CWS Architects
Regarding: Elm Terrace – Portland, Maine
Subject: Addendum 04

Modify the previously issued documents dated September 8, 2011 and any previously issued addenda, if applicable, as follows:

1. Add 07 61 00 Sheet Metal Roofing and Siding to Document 00 01 10 TABLE OF CONTENTS.

Book 1 -Bidding and Contract Documents Manual:

N/A

Book 2 -Specifications Manual:

2. Add the following line to the end of paragraph 1.2.F: "Note that while the funding sources require LEED Silver, the owner is striving for LEED Platinum."
3. Add specification Section 07 61 00 SHEET METAL ROOFING AND SIDING (attached) to BOOK 2 – SPECIFICATIONS MANUAL.
4. Modify the first line of item 2.1.B.2 to read "Exposed extruded aluminum cove profile perimeter trim and 2" transition trim, prefinished, low sheen, satin white".

Drawings:

Title Page

N/A

Civil and Site:

N/A

Structural:

N/A

Architectural:

5. Delete Detail 2 on Drawing A2.10. The detail does not apply.

Mechanical:

N/A

Electrical:

CWS Architects

Architecture • Planning • Construction Services

434 Cumberland Avenue Portland, Maine 04101
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Fax: (207) 774-4016

N/A

End of Addendum 04

Attachments: (See attached specifications, sketches, drawings and attachments listed above, if applicable)

SECTION 07 61 00

SHEET METAL ROOFING AND SIDING

1 PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. All of the Contract Documents, including General and Supplementary Conditions and Division 1 Specification Sections, apply to the work of this Section.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 DESCRIPTION OF WORK

- A. The Work of this Section shall include, but not be limited to, the following:
 - 1. Custom fabricated, mechanically attached, color paint coated Galvalume double lock standing seam roof panels as indicated on the Drawings, with all required accessories for a weatherproof installation. Color as selected from manufacturer's full color range.
 - 2. Galvalume gutters and downspouts as indicated on the Drawings (at locations draining of metal roof only).
- B. Related Sections:
 - 1. Section 05 40 00 – Lightgauge Metal Framing
 - 2. Section 06 10 00 – Rough Carpentry
 - 3. Section 07 21 00 – Building Insulation
 - 4. Section 07 53 00 – Elastomeric Sheet Roofing
 - 5. Section 07 62 00 – Sheet Metal Flashing and Trim
 - 6. Section 07 90 00 – Joint Sealants

1.3 REFERENCES

- A. SMACNA – Architectural Sheet Metal Manual; 5th Edition; Chapter 6 as a minimum standard or these specification and details where they exceed.
- B. IBC 2003, Town of Scarborough ordinances.

1.4 SUBMITTALS

- A. Provide product data for metal roofing including manufacturer's product specifications, standard details, installation instructions, and general recommendations,
- B. Verification Samples: submit representative plywood-mounted samples of each material that is to be exposed in the finished work, showing horizontal and vertical seams at abutting panels, attachment methods, colors, and finish variations. Provide samples having minimum size of 24" square.
- C. Shop Drawings: show layouts of panels on all wall elevations and roof plans, details of edge conditions, joints, corners, panel profiles, supports, anchorages, trim, flashings, closures, and special details. Distinguish between factory and field assembly work. Details shall be drawn full scale.
 - 1. Details for forming sheet metal components, including seams and dimensions.
 - 2. Details for joining and securing sheet metal components, including layout, number of required fasteners, clips and other attachments. Include pattern of seams and spacing of clips.
 - 3. Details of termination points and assemblies, including fixed points.
 - 4. Details of expansion joints, including showing direction of expansion and contraction.
 - 5. Details of roof penetrations.
 - 6. Details of wall penetrations such as doors, windows, and louvers.
 - 7. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets and counter flashings.
 - 8. Details of special conditions, integrating mechanical, electrical and plumbing conditions.
 - 9. Details of connections to adjoining work
 - 10. Details of the following accessory items, at a scale of not less than 1 ½ inches per 12 inches:
 - a. Flashing and Trim
 - b. Gutters
 - c. Snow Guards
 - d. Roof Access Steps
 - e. Safety Line Attachments
- D. Calculations: Provide positive and negative wind load pressure calculations and certification of the performance of this work prepared and sealed by a locally licensed Professional Structural Engineer Registered. Show how design load requirements and other performance criteria have been satisfied.
- E. Certification from the fabricator and installer, certifying that the installed systems meet the specified performance requirements and those of authorities having jurisdiction.

1.5 QUALITY ASSURANCE

- A. Fabricator/Installer Qualifications: The fabricator and installer of the material or equipment described in this Section must, within the last five consecutive years, have successfully completed in a timely fashion at least ten projects similar in scope and type to the required work for this Section.
- B. Source: Provide panels which are the product of one manufacturer. Provide secondary materials which are acceptable to the roofing manufacturer. Award installation of roof panels, including underlayment and membrane to a single firm for undivided responsibility.
- C. Industry Standard: Except as otherwise shown or specified, comply with applicable SMACNA standards. Conform to dimensions and profiles shown.
- D. Field Measurements: Prior to fabrication of panel systems, take field measurements of structure or substrates to receive panel systems.
- E. Pre-Installation Conference: Prior to commencement of work, convene an installation conference to include the Architect, General Contractor and panel Installer in order to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.
 - 1. Review methods and procedures for installation including, but not limited to: substrates, drains, curbs, penetrations and other preparatory work
 - 2. Review drawings, specifications and other contract documents
 - 3. Review submittals
 - 4. Review construction schedule verifying availability of all materials, personnel and equipment needed to proceed and avoid delays
 - 5. Review weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including temporary roofing.
- F. Mock-Up: Mock-up of exterior standing seam metal panels as required by architect. Incorporate materials and methods of fabrication and installation identical with project requirements. Install mock-up at roof or façade area location directed by Architect. Retain accepted mock-up as quality standard for acceptance of completed metal roofing. If accepted, mock-up may be incorporated as part of metal roofing or wall work.
 - 1. Provide mock-up of sufficient size and scope to show typical pattern of standing seams, panel width, edge construction, a sample of soldering (where required) and finish texture and color.
 - 2. Provide mock-up of gutter and eave assembly
 - 3. Extent of mock-ups is indicated on the Drawings
 - 4. Obtain Architect's written approval of mock-ups prior to proceeding with installation of mock-up.
- G. Soldering: In accordance with manufacturer's instructions.
- H. Corrosion Control: Avoid direct contact of incompatible materials.

1.6 PERFORMANCE REQUIREMENTS

- A. Design roof assembly to conform to the requirements of the IBC 2003 Building Code.
- B. Install sheet metal roofing capable of withstanding exposure to weather without failure or infiltration of water into the building interior.
- C. Wind Load: Design and engineer sheet metal roof and wall assemblies, including size and spacing of attachment devices, meeting requirements of local building codes.
- D. Thermal Movement: Provide systems and connections which allow for thermal movement resulting from ambient temperature range of 120 ° F.
- E. Structural Performance: Provide metal panels, anchors and attachments which resist loads required by code and loads as indicated on the Structural Drawings without permanent deflection or permanent deformation. Information on Drawings referring to specific design of attachment, panel stiffening, and structural systems is intended for information only. System performance, based on project conditions and compliance with all applicable codes and loading requirements, shall be the responsibility of the panel fabricator and installer.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials and products in unopened factory labeled packages. Protect from all possible damage. All roofing materials to be transported according to manufacturer's recommendations.
- B. Store and handle in strict compliance with manufacturer's instructions and recommendations.
 - 1. Stack materials on platforms or pallets, covered with tarpaulins or other suitable weather tight ventilated covering. Slope cover to shed moisture. Allow for free air flow around covered material to exchange outside air.
 - 2. Require all personnel to wear clean white cotton gloves when handling and installing zinc panels and accessories.
 - 3. Do not store panels in contact with other materials that might cause staining, denting, or other surface damage.
 - 4. Store metal wall and roof panels so that they will not accumulate water.
- C. Exercise care in unloading, storing, and erecting panels to prevent bending, warping, or surface damage.
- D. Sequence deliveries to avoid delays, but minimize on-site storage.
- E. Do not permit unnecessary walking on finished roof. Require all personnel to wear uncontaminated, clean, rubber-soled shoes when installing or walking on finished roof.

1.8 WARRANTY

- A. Submit 2-part, 15-year, written, signed and sealed warranty:
 - 1. By the roofing manufacturer for roofing material defects

2. By the manufacturers of other components of the wall or roof assembly for their material defects.
3. By the installer agreeing to repair or replace systems or components as a result of workmanship defects.

2 PART 2 PRODUCTS

2.1 FRAMING

- A. Design, engineer, and provide complete assembly of framing components, studs, girts and the like. All framing members and components shall be fabricated from ASTM A525 G90 galvanized sheet steel. Provide all primary and secondary framing members not indicated on the structural drawings.
- B. Coordinate panel support with cold-formed metal framing, plywood sheathing, exterior gypsum sheathing and furring, for complete structural support for performances indicated. Refer to Section for related requirements.

2.2 ACCESSORIES

- A. Provide all components necessary for a complete, functional, weatherproof assembly including, but not limited to, trims, copings, fascias, sills, flashings, counter flashings, door frame trim, corner units, clips, wall caps, copings, sealants, closures and fillers. Metal materials shall match panels and be compatible.
- B. Clips & Fasteners: Provide stainless steel, corrosion free; supplied in accordance with manufacturer's recommendations and to meet the load requirements as specified by Engineer and maintain a weather-tight installation. For slopes less than 2:12 and when backside coated materials is specified, use only stainless steel clips and fasteners. Attachment clips shall permit expansion and contraction of the panel system throughout the specified temperature range. Provide fasteners with watertight washer gaskets.
- C. Solder: Compatible with roofing system provided.
- D. Non-Permeable Underlayment and Ice Dam Protection: self-adhering, high-temperature composite, butyl rubber-based, polyethylene-backed membrane such as Vycor Ultra as manufactured by WR Grace Construction Products.
- E. Sealants:
 1. Seam Sealing Tape: pressure-sensitive 100 per cent solids polyisobutylene compound sealing tape with release paper backing. Provide permanently elastic, non-sag, non-toxic non-staining tape.
 2. Joint Sealant: DOW 795; backer rod shall be extruded polyethylene foam as DOW ETHAFOAM SB or equal.

2.3 PANEL FABRICATION

- A. General: Custom fabricated sheet metal roofing panels to comply with details shown and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions (pan width and seam height), geometry, metal thickness, and other

characteristics of installation indicated. Shop fabricate sheet metal roofing panels and accessories to greatest extent possible.

1. Standing-Seam Roofing and Wall Panels: Form standing-seam pans from continuous metal sheets, with double locked standing seam pans with a finished seam height of 1 inch unless otherwise noted.
 2. Apply bituminous coating or other permanent separation materials on concealed panel surfaces where panels would otherwise be indirect contact with substrate materials that are noncompatible or could result in corrosion or deterioration of either material or finishes.
- B. Fabricate sheet metal roofing panels to allow for expansion in running work sufficient to prevent leakage, damage, and deterioration of the Work. Form exposed sheet metal work to fit substrates without excessive oil canning, buckling, and tool marks, true to line and levels indicated, and with exposed edges folded back to form hems.
1. Lay out sheet metal roofing or wall panels so cross seams, when required, are made in direction of flow with higher pans overlapping lower pans. Stagger cross seams.
 2. Form and fabricate sheets, seams, strips, cleats, edge treatments, integral flashing, and other components of metal roofing to profiles, patterns, and drainage arrangements shown and as required for leak proof construction.
- C. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with non-acidic sealant (concealed within joints).
- D. Sealant Joints: Where movable, nonexpansion-type joints are indicated or required to produce weather tight seams, form metal to provide for proper installation of elastomeric sealant in compliance with SMACNA standards.

3 PART 3 EXECUTION

3.1 INSPECTION

- A. Inspect all surfaces, areas and other contingent construction in or to which the work is to be installed and insure that they are in proper condition to receive the work to be performed under this Section.
- B. Verify that sheathing surfaces are sound, dry, properly secured and that provision has been made for flashings, anchorage, and all other interface items attaching to or penetrating through the Work of this Section.
- C. The Contractor shall notify the Architect in writing, before any work is installed, of any condition requiring correction. Failure to make such a report shall be construed as acceptance of the existing conditions and the responsibility to provide an acceptable installation.

3.2 PREPARATION

- A. Verify field dimensions before fabrication. Notify Architect of any discrepancies between field measurements and dimensions indicated in Construction Documents.

- B. Place membrane on substrate surfaces to receive metal panels; comply with manufacturer's instructions.
 - 1. Coordinate metal roofing and cladding with rain drainage work, flashing, trim and construction of parapets, walls, and other adjoining work to provide a weatherproof, secure and non-corrosive installation.
 - 2. For end and side laps, see recommendations from W.R. Grace or equivalent manufacturer.
- C. Where breather-type permeable membrane is specified, adhere to manufacturer's instructions and apply sealant to backside of clips to exclude water at fastener locations.

3.3 INSTALLATION

- A. Manufacturer's Recommendations: Except as otherwise shown or specified, comply with recommendations and instructions of manufacturer of sheet metal being fabricated and installed.
 - 1. Do not install in inclement weather
 - 2. Do not install over a damp substrate
 - 3. Do not install when inclement weather is threatening.
 - 4. If covering of roofing panels is required, provide free air flow around the roofing material to manufacturer's requirement to prevent discoloration.
- B. Install work to be truly straight and square or conform to curvilinear geometry indicated on drawings.
 - 1. Fabricate and install work with lines and corners of exposed units true and accurate.
 - 2. Form exposed faces free of buckles, excessive waves, and avoidable tool marks considering temper and reflectivity of metal.
 - 3. Shim and align panel units within installed tolerance of $\frac{1}{4}$ inch in 20' -0"
 - 4. All seams shall be of uniform appearance and dimensions, straight and level with minimum exposure of solder and sealant.
 - 5. Except as otherwise shown, fold back sheet metal to form a hem on concealed side of exposed edges.
 - 6. Form all seams to be weatherproof, leaving room for expansion and contraction with specified and required tolerances. Provide sealing tape to seams in areas prone to ice dams and continuously on roof slopes less than 10 degrees (2:12).
- C. Conceal fasteners and expansion provision where possible in exposed work, and locate so as to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.
- D. Provide work as indicated on approved shop drawings

1. Form and fabricate sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings, and other components of metal roofing to profiles, patterns, and drainage arrangements shown and as required for rainproof construction.
- E. Separate non-compatible materials with a rubberized asphalt underlayment.
- F. Install work to meet specified performance requirements.

3.4 CLEANING AND PROTECTION

- A. Remove protective film (if any) from exposed surfaces of metal roofing promptly upon installation and in accordance with manufacturer's recommendations and with care to avoid damage to finish.
- B. Clean exposed metal surfaces of substances that would interfere with uniform oxidation and weathering and as recommended by panel manufacturer and maintain in a clean condition during construction.
- C. Ensure that cleaning by other trades working in proximity to roofing installation is in accordance with the recommendations of the roofing manufacturer.
- D. Damaged units: Replace panels and other components of the work that have been damaged or have deteriorated beyond successful repair by means of finish touch-up or similar minor repair.

3.5 CLEAN-UP

- A. During the progress of the work, keep premises clear of debris resulting from this operations and remove surplus and waste materials from the site as soon as possible.
- B. Upon completion of the work, Contractor shall remove from the site all equipment and materials used on the work as well as any debris resulting from the operations.

...END OF SECTION 07 61 00

Addendum 05 – Post Bid

Date: November 09, 2011

To: Wright Ryan Construction (Construction Manager)
From: Ben Walter, CWS Architects
Regarding: Elm Terrace – Portland, Maine
Subject: Addendum 05

Modify the previously issued documents dated September 8, 2011 and any previously issued addenda, if applicable, as follows:

Book 1 -Bidding and Contract Documents Manual:

1. Add the following to item 1.3.I in specification Section 00 31 00 AVAILABLE PROJECT INFORMATION:
 - b. Elm Terrace – Unit Type Matrix, attached.
 - c. Elm Terrace – Maine Multi-Family/Elderly Accessibility Calculator, attached.

Book 2 -Specifications Manual:

2. Add the following Allowances to 1.3.F Allowance Schedule in specification Section 01 20 00 Price And Payment Procedures:
 7. Allowance No. 7 - Concrete Winter Conditions \$30,000
 8. Allowance No. 8 - Existing Precast Repair/Replacement \$5,000
 9. Allowance No. 10 - Refinish Slate Stair Treads \$5,000
 10. Allowance No. 11 - High Street Entrance Stair Replacement \$4,500
3. The Owner accepts the following Alternates as delineated in specification Section 0120 00 Price And Payment Procedures to be included by the Construction Manager into the GMP:
 - Alternate No. 1 – Delete dehumidification component of ERV System, DEDUCT (\$26,500)
 - Alternate No. 2 - Delete split A/C system servicing basement community rooms, DEDUCT (\$4,800)
 - Alternate No. 3 – Delete direct digital control system, DEDUCT (\$7,875)
 - Alternate No. 7 – Delete Solar Hot Water Pre-Heat System, DEDUCT (\$55,000)
 - Alternate No. 10 – Provide Post-Formed Tops in lieu of Corian, DEDUCT (\$138,000)
4. Add the following to subsection 2.03 CONCRETE MATERIALS to specification Section 03 33 00 Cast-in-place Concrete:
 - N. CONCRETE MOISTURE VAPOR REDUCTION ADMIXTURE: Barrier-1 High Performance Admixture manufactured by Barrier 1 Inc. added to the mix at the batch plant or job site at all interior slabs-on-grade and above-grade slabs. Refer to manufacturer's published specifications and data sheet for application, curing, quality control and repair recommendations. Comply with manufacturer's criterion to meet and provide manufacturer's full published warrantee.
5. Add the following item to subsection 2.05 –C.2 Interior Slabs on Grade and Elevated Slabs in specification 03 33 00 Cast-in-place Concrete:

- f. Barrier 1 additive, manufactured by Barrier 1, Inc. Additive to be incorporated into mix per manufacturer's recommendations.
6. Clarification: The Norwood "PermaGlass" fiberglass double hung series F-745 window with options most closely matching the requirements of specification Section 08 54 13 Fiberglass Windows incorporating the Simulated Divided Light with .875" Internal Spacer and matching the details on Drawings A8.20, A8.23, A8.24 A8.26 and A8.27, all revised per ADDENDUM 05, 10-13-2011 is an acceptable "equal" to the specified fiberglass windows. Provide Guardian Glass "Climaguard" high-performance Low-E 36/31 with 62-64% visible light transmission, 0.31 SHGC, and 0.24 (argon) U-Factor, exterior color: "Oil Shale" and interior color: "China White".
 7. Delete unit Type 3A-HC-1, Type 3B-1 and Type 3B-2 from specification Section 08 10 00 DOOR AND FRAME SCHEDULE.
 8. Add unit Types 0B-2, Type 0B-3, Type 0B-4, Type 1B-9, Type 1B-10 and Type 1B-11 to specification Section 08 10 00 DOOR AND FRAME SCHEDULE as per the attached ADDENDUM TO DOOR AND FRAME SCHEDULE, attached.
 9. Modify specification Section 09 00 00 ROOM FINISH SCHEDULE, all Dining Room, Living Room, Bedroom and Bedroom Closets within the 1 Bedroom and 2 Bedroom units in the building ADDITION ONLY so that the flooring material is C2 UNIT CARPET. Provide vinyl transition strips between carpet and adjacent flooring materials as selected by Architect at locations as selected by architect.
 10. Modify specification Section 09 10 00 ROOM FINISH LEGEND to add: C2 UNIT CARPET, Bigelow Group 2 – Overland Collection McCormick II, 100% solution dyed nylon, 24oz per SY pile weight, 1/10 gauge, located in residential unit rooms as indicated in the ROOM FINISH SCHEDULE.
 11. Modify specification Section 09 10 00 ROOM FINISH LEGEND to change: R1 Resilient Flooring, Centiva High Performance LVT, 6" x 36" plank Heterogeneous PVC, ASTM 1700 Class III Solid Vinyl Tile.100 inch thickness, located in residential unit kitchens as indicated in the ROOM FINISH SCHEDULE.
 12. Clarification: At the contractor's choice, the use of a CLASS A FRP product (matching the same color and finish as the specified product) in conjunction with 5/8" Type X glass faced gypsum panels is an acceptable equal to the specified Kemply FireX Glasbord FM product specified in item 2.1.B in Section 09 77 00 Fiberglass Reinforced Plastic Panels.
 13. Change the Manufacturer and Model No. of the Surface Mounted Medicine Cabinet indicated in 3.3. SCHEDULE of specification Section 10 28 00 Toilet, Bath and Laundry Accessories to read "Ketcham 190PE-SM".
 14. Replace the language in item 2.01.B.1 in specification Section 32 14 13 Interlocking Concrete Pavers to read: "Concrete paver types and colors. Location: Along High Street at pedestrian gate, Type: 2'x2' Concrete Pavers (Terrace Pad), Provider: Gagne & Sons. All other concrete pavers shall be: Type: Holland Stone, Color: as noted on Sheet 9."
 15. Replace the language in item 2.01.B.1.b in specification Section 32 14 13.19 Permeable Interlocking Concrete Pavers to read: "Location: Driveway off of Danforth Street: Type: Genest Stormwater Brick, Color: Granite Blend".
 16. Modify specification Section 230000, 2.1.A to read as follows:
 - A. Hot Water Heating Piping: Type L hard copper tubing and cast bronze or wrought copper solder fittings or Schedule 40 carbon steel pipe conforming with ASTM A53 or ASTM A106 with grooved or threaded joints and malleable iron fittings (2-1/2" pipe size and under). Pipe sizes 3" and over shall be grooved end or butt-welded with flanged connections. All 90 degree elbows shall be long radius type. Branch piping downstream of Unit shutoffs (1" and smaller) may be PEX tubing as specified below.

17. Non Metallic Sheathed cable installed in compliance with NEC 2011 and as approved by the authority having jurisdiction shall be permitted in lieu of type "MC" cable listed in item 2.6.A in specification Section 26 00 00 – Electrical.

Drawings:

Title Page

18. On Drawing CP – Cover Page, change the Unit Summary to read as follows:

BUILDING TOTAL: 38 UNITS

5 UNITS MEET IBC REQUIREMENTS FOR ACCESSIBLE UNITS
8 UNITS MEET IBC REQUIREMENTS FOR ADAPTABLE TYPE "A" UNITS
1 UNIT MEETS IBC REQUIREMENTS FOR TYPE "B" UNITS AND IS DESIGNED
TO PROVIDE ACCOMMODATIONS FOR THE HEARING IMPAIRED
24 UNITS MEET IBC REQUIREMENTS FOR TYPE "B" UNITS

3 TYPE "A" UNITS SHALL BE EQUIPPED WITH 60" ROLL-IN SHOWERS

6 UNITS SHALL BE 0 BEDROOM
19 UNITS SHALL BE 1 BEDROOM
10 UNITS SHALL BE 2 BEDROOM

19. On drawing TP1, revise sheet titles in the index to read as follows:

A1.26 TYPE 1B-2 AND 1A-3 FLOOR PLANS, RCP, INT. ELEVS
[DELETE THE TEXT "THREE BEDROOM APARTMENTS"]
A1.41 TYPE 1B-10 TYPE 0B-2 FLOOR PLANS, RCP, INT. ELEVS
A1.42 TYPE 1B-11 TYPE 0B-3 FLOOR PLANS, RCP, INT. ELEVS
A1.43 TYPE 1B-12 TYPE 0B-4 FLOOR PLANS, RCP, INT. ELEVS

Civil and Site:

20. Replace Sheet 2 with Sheet 2, Revised Nov. 4, 2011 attached. The revisions indicated are the result of the unit modifications delineated elsewhere in this addendum.

Structural:

21. Change the "FOUNDATION DRAIN" indicated behind the proposed site retaining wall in Details 5 and 6 on Drawing S2.2 to provide Carlisle "Chimney Drain" system (Carlisle detail MD-2) utilizing vertical CCW MIRADRAIN core strips to collector panels located at discharge outlets where indicated. Install per manufacturer's recommendation and approval of structural engineer.

Architectural:

22. Change the window designation in the intermediate landing between the 2nd and 3rd Floor within STAIR 1 to be type EA1 at per attached **SKA-1**. Type EA1 window is the same as type EA window except for the addition of the "PYROSTOP" glazing system specified below.
23. At windows EA1 and ET (two windows total) provide 60-minute rated metal frame and glazing assemblies to interior side of existing window to be restored in addition to exterior storm window.

- Frame shall be: Technical Glass Products "Designer Series" frame system with 1-Hour rated "PYROSTOP" glazing system. See **attached SKA-2a, SKA-2b and SKA-2c**.
24. Replace **A8.20, A8.23, A8.24, A8.26 and A8.27**, all revised per ADDENDUM 05 10-13-2011 which indicate the incorporation of Norwood "PermaGlass" fiberglass double hung series F-745 windows in the building addition.
 25. Clarification: The use of a framed hung suspended steel stud support system is an acceptable equal to the indicated suspended drywall system for ceilings provided the stud system provides adequate clearances for indicated mechanical/plumbing/sprinklers systems and is adequately integrated with all specified ceiling systems.
 26. Change the four (4) window Type ND windows indicated on the WEST ELEVATION on Drawing A3.02 that open into the [014] COMMUNITY ROOM 1 to window Type RJ and eliminate a) the modifications to the foundation to accommodate the Type ND windows; and b) the new window well w/metal grate top and gravel drain-thru bottom in its entirety. This change also affects note 112 on Drawing D0.01, Drawings D1.0B, D3.02, A1.0b, A1.01, A1.11, A8.20 (Window Schedule), A8.22 (Window Elevations).
 27. Delete in its entirety the NEW ornamental Painted Steel Railings located on the ROOF of the existing building and indicated on Drawings A3.0, A3.02 and A3.03 and Details 1, 2 and 3 on Drawing A7.07 and described on note Q on Drawing A3.01. This change does not pertain to any NEW railings not located on the roof of the existing building or any EXISTING railings to be resorted on the roof of any building or anywhere on the site.
 28. Add the following to 2.1.E Wood Doors in specification section 08 14 16 FLUSH WOOD DOORS: E. Wood Frames and Jambs at Hollow Core Door Locations (all other wood doors to use solid wood jambs):
 - a. Interior split wood jamb: Split jamb wood frames suitable for paint finish with BROSCO 8627 casings both sides. Refer to Door Schedule.
 - b. Jamb Width: varies
 - c. Jamb Type: split wood
 29. Add the following to 2.2 COMPONENTS in specification section 08 14 16 FLUSH WOOD DOORS: F. Hollow Core, non-rated: NWWDA, mesh or cellular core including lock blocks, vertical edge bands, and top and bottom rails. Provide pre-hung with split wood jambs as indicated above.
 30. Relative to a change in the unit mix that eliminated three (3) three-bedroom units and created three (3) zero-bedroom units plus three (3) one-bedroom units, replace the following drawings with the attached drawings, revised November 8, 2011: **D1.02, D1.03, A1.01, A1.02, A1.03, A1.11, A1.13, A1.15, A1.17, A1.26, A1.41, A1.42, A1.43, A2.01, A2.03, A8.20, A8.23, A8.24, A8.26, A8.27**.

Mechanical:

31. Relative to a change in the unit mix that eliminated three (3) three-bedroom units and created three (3) zero-bedroom units plus three (3) one-bedroom units, replace the following drawings with the attached drawings, revised November 8, 2011: **M1.1, M1.2, M1.3, M2.1, M2.2, M2.3, M3.0, M3.1, M3.2 and M3.3**.

Electrical:

32. Relative to a change in the unit mix that eliminated three (3) three-bedroom units and created three (3) zero-bedroom units plus three (3) one-bedroom units, replace the following drawings with the attached drawings, revised November 8, 2011: **E1.0, E2.1, E2.2, E2.3, E3.0, E3.1, E3.2, E3.3, E3.7, E3.8, E4.0, E4.3**.
33. Provide system connected Fire Alarm notification devices in Units 101 1B-1, 102 2A-HC-1, and 208 2B-3. See attached sketches **SKE-1, SKE-2 and SKE-3**.

34. Modify all Electrical Drawings and Specifications to incorporate the following modifications:
 - a) Delete all the system connected smokes indicated on the plans within the living.
 - b) Provide single-station interconnected smoke detectors in bedrooms at units 106, 206 and 306 (Type 2B-1). Refer to attached SKE-5.
 - c) In all living units, replace the deleted system connected smoke detectors indicated on the plans and as modified herein with single station smoke detectors with integral strobe interconnected within each unit. At the request of the Portland Fire Department these devices shall not be system connected. All single station smoke detectors within units shall have a strobe and be connected to 120V power circuit within each separate apartment.
35. In the hearing impaired Unit 212 provide "strobe only" device in each bathroom to be connected to the single station smoke detectors. All the remaining system connected audio visual devices indicated on the plans shall remain.
36. Modify ALL Unit Plans on Drawings E3.5, E3.6, E3.7 and E3.8 to REPLACE all ceiling mounted light fixtures and related circuits located in any bedroom with a new circuit served by the same wall switch to the top half of the duplex receptacle of all switched outlets located in the subject bedroom. This item supersedes any reissued unit plan included in this addendum.

End of Addendum 05 – Post Bid

Attachments: (See attached specifications, sketches, drawings and attachments listed above, if applicable)

Unit Type Matrix								
Type	# BRs	IBC	Access	Plan	Qty.	Designation	Description	Unit No(s).
Type	0	A	HC	1	1	Type OA-HC-1	0 Bedroom, Type A, HC Accessible Unit, Plan 1	307
Type	0	B		1	2	Type 0B-1	0 Bedroom, Type B Unit, Plan 1	107, 207
Type	0	B		2	1	Type 0B-2	0 Bedroom, Type B Unit, Plan 1	109B
Type	0	B		3	1	Type 0B-3	0 Bedroom, Type B Unit, Plan 2	309A
Type	0	B		4	1	Type 0B-4	0 Bedroom, Type B Unit, Plan 3	209B
Type	1	A	HC	1	3	Type 1A-HC-1	1 Bedroom, Type A, HC Accessible Unit, Plan 1	104, 204, 304
Type	1	A		1	3	Type 1A-1	1 Bedroom, Type A Unit, Plan 1	103, 203, 303
Type	1	A		2	1	Type 1A-2	1 Bedroom, Type A Unit, Plan 2	211
Type	1	A	HC	3	2	Type 1A-3	1 Bedroom, Type A Unit, Plan 3	105, 205
Type	1	B		1	1	Type 1B-1	1 Bedroom, Type B Unit, Plan 1	101
Type	1	B		2	1	Type 1B-2	1 Bedroom, Type B Unit, Plan 2	305
Type	1	B		3	1	Type 1B-3	1 Bedroom, Type B Unit, Plan 3	110
Type	1	B		4	1	Type 1B-4	1 Bedroom, Type B Unit, Plan 4	111
Type	1	B		5	2	Type 1B-5	1 Bedroom, Type B Unit, Plan 5	201,301
Type	1	B		6	1	Type 1B-6	1 Bedroom, Type B Unit, Plan 6	210
Type	1	B		7	1	Type 1B-7	1 Bedroom, Type B Unit, Plan 7	310
Type	1	B		8	1	Type 1B-8	1 Bedroom, Type B Unit, Plan 8	311
Type	1	B		9	1	Type 1B-9	1 Bedroom, Type B Unit, Plan 9	312
Type	1	B		10	1	Type 1B-10	1 Bedroom, Type B Unit, Plan 10	109A
Type	1	B		11	1	Type 1B-11	1 Bedroom, Type B Unit, Plan 11	209A
Type	1	B		12	1	Type 1B-12	1 Bedroom, Type B Unit, Plan 12	309B
Type	2	A	HC	1	1	Type 2A-HC-1	2 Bedroom, Type A HC Accessible Unit, Plan 1	102
Type	2	A		1	2	Type 2A-1	2 Bedroom, Type A Unit, Plan 1	202,302
Type	2	B	HI	1	1	Type 2B-HI-1	3 Bedroom, Type B Hearing Impared Unit, Plan 1	212
Type	2	B		1	3	Type 2B-1	2 Bedroom, Type B Unit, Plan 1	106, 206, 306
Type	2	B		2	1	Type 2B-2	2 Bedroom, Type B Unit, Plan 2	108
Type	2	B		3	1	Type 2B-3	2 Bedroom, Type B Unit, Plan 3	208
Type	2	B		4	1	Type 2B-4	2 Bedroom, Type B Unit, Plan 4	308
Type	3	A	HC	1	0	Type 3A-HC-1	3 Bedroom, Type A HC Accessible Unit, Plan 1	109
Type	3	B		1	0	Type 3B-1	3 Bedroom, Type B Unit, Plan 1	209
Type	3	B		2	0	Type 3B-2	3 Bedroom, Type B Unit, Plan 2	309

6 Zero Bedrooms

22 One Bedrooms

10 Two Bedrooms

0 Three Bedrooms

Accessible/Type A Units: 13

Type B Units: 25

Total Units: 38

38 Units

Maine Multi-family / Elderly Accessibility Calculator

November 9, 2011

Elm Terrace
Portland, Maine

Project No. 09428
Spreadsheet Unprotect Password: CWS

PROJECT INFORMATION

INSTRUCTIONS: FILL IN RED BOXES IN ALL TABLES.

Proposed Unit Mix	Floor 0	Floor 1	Floor 2	Floor 3	Floor 4	Floor 5	Total
0 Bedroom (Efficiency)	0	2	2	2	0	0	6
1 Bedroom	0	7	7	8	0	0	22
2 Bedroom	0	3	4	3	0	0	10
3 Bedroom	0	0	0	0	0	0	0
Total	0	12	13	13	0	0	38

SECTION 504 TEST

Are Federal Funds Used for this project? **Yes** No. of 504 Accessible Units Required **2** (rounded up)
No. of 504 Hearing/Vision Units Required **1** (rounded up)

ADA 2010 TEST

Will construction start after 3/15/2012? **No** No. of Units with Mobility Features **0** (rounded up)
(rounded up) No. of Units with Communication Features **0** (rounded up)

MAINE HUMAN RIGHTS ACT TEST

Does the project include any Public Funding? **Yes** Pub. Funding Source:
Does the Project include at least 20 units built after 1988? **Yes** Date Constructed:
Number of Ground Floor Units **12** 10% of Ground Floor Units **2** (rounded up)
Number of Upper Floor Units **26** 10% of Upper Floor Units **3** (rounded up)
5

MAINE HOUSING PLEDGED UNITS

Number of Additional Owner Pledged Additional Type A Accessible Units

CALCULATED REQUIRED ACCESSIBLE UNIT MIX

No. of Units with Mobility Features **5** Ground Floor
No. of Units with Mobility Features **8** Upper Floors
No. of Units with Communication Features **1** Any Floor

PROPOSED UNIT MIX DISPERSION TO MEET ADA 2010 (By Unit Type)

	Calculated Unit Distribution			
	0 BR	1 BR	2 BR	3 BR
Ground Floor Accessible	0.474	1.737	0.789	0.000
Upper Floor Accessible	1.579	5.789	2.632	0.000
Any Floor Communication	0.158	0.579	0.263	0.000
Adaptable	3.789	13.895	6.316	0.000
Non-accessible (i.e. Townhouse)	0.000	0.000	0.000	0.000
	6	22	10	0
	0.158	0.579	0.263	0.000

INSTRUCTIONS: FILL IN TABLE UNTIL TOTAL UNITS MATCH CALCULATED UNIT DISTRIBUTION TABLE.

	Proposed Accessible Unit Distribution			
	0 BR	1 BR	2 BR	3 BR
	0	2	1	0
	1	7	2	0
	0	0	1	0
	5	13	6	0
	0	0	0	0
	6	22	10	0
	0.158	0.579	0.263	0.000
	0.077	0.692	0.231	0.000
	6	33	30	0

3 Per MHRA Accessible Units, Lower Floors
10 Per MHRA Accessible Units, Upper Floors
1 Per ADA 2010 or 504/UFAS
24 Per MHRA Accessible Route & Adaptable Design
0 Exempt
38 Total Units
100% Percent of Total Units
100% Percent of HC Accessible Units
69 Occupants (at 1.5 per bedroom/1 per efficiency)

FEDERAL FAIR HOUSING AMENDMENTS ACT (FFHAA) TEST

Does the Project include at least 4 units built after 1991? **Yes**

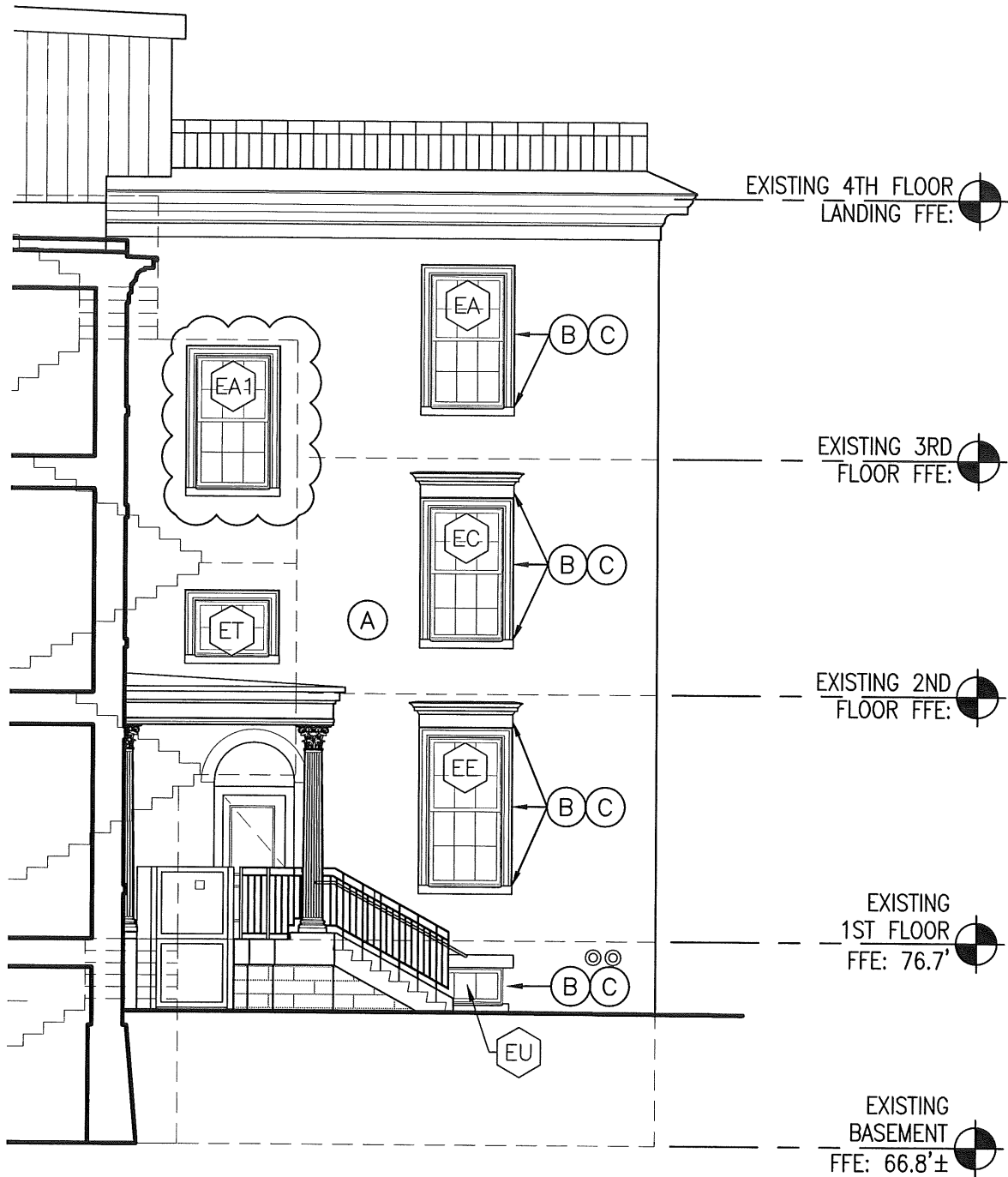
If Yes, Ground and Elevator Floor Units (Townhouses Exempt) must have Accessible Route Components 1-4: **Yes**

08 10 00

ADDENDUM TO DOOR AND FRAME SCHEDULE

- Notes:
1. Provide concave wall mounted door stops at all doors opening against an adjacent wall or door. Ives No. 406 1/2 or equal.
 2. Provide a door mounted roller bumper at all doors opening against an opposite hand door (1 per pair). Ives No. 471 or equal.
 3. Provide floor stops at all doors where wall stops or roller stops are not appropriate. Ives No. 436 or 438.
 4. All steel doors as per specification or equal.
 6. Molded ProCore Doors Based on Jeld-Wen or Equal.
 8. Provide solid wood blocking at all locations of wall mounted door stops.
 9. See Floor Plans for total number of doors.
 10. Provide (2) viewers at "Accessible" and Type "A" units at 48 and 60 inches A.F.F., typical
 11. Provide (1) viewer at Type "B" units at 60 inches A.F.F., typical
 12. See door elevations on A8.10 drawings for "Door Type"
 13. Remove, refinish and reinstall salvaged doors as scheduled. Remove door handles and latches where indicated.
 14. Salvage existing door, frame, casing and transom if applicable. Refinish and reinstall as scheduled. Refer to Demolition for salvaged doors.
 15. Provide positive gasket air sealing at head, jamb and sill of all apartment entrance doors.
 16. Provide air and fire sealing at all fire rated doors as required by applicable codes.
 17. Provide shatter resistant film on all existing glass panes. Provide on both sides where possible.
 18. Contractor to verify door thickness, coordinate hardware schedule and modify door as necessary to ensure new hardware compatibility.
 19. Hardware to be installed such that stair side is locked and roof side is unlocked.

		Inches										
No.	Location	W	H	T	Door Material	Door Type ¹²	Frame Type	Lock Function	Hardware	Label	Notes	
Apartment Unit Doors												
Unit Type 0B-2												
01	Apartment Entrance	36	80	1 3/4	Stile and Rail	J	Steel/WD Casings	Apartment Entrance Lock	Spring Hinges, (1) One Way Viewer, Threshold 2	20 Min.	Note: 11	
02	Coats	30	80	1 3/8	Solid Core Door	R	Solid Wood	Passage 2				
03	Bathroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
04	Closet	(2) 30	80	1 3/8	Solid Core Door	R	Solid Wood	Dummy Trim	Provide Roller Door Latches			
Unit Type 0B-3												
01	Apartment Entrance	36	80	1 3/4	Stile and Rail	J	Steel/WD Casings	Apartment Entrance Lock	Spring Hinges, (1) One Way Viewer, Threshold 2	20 Min.	Note: 11	
02	Coats	36	80	1 3/8	Solid Core Door	R	Solid Wood	Passage 2				
03	Bathroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
04	Closet	(2) 24	80	1 3/8	Solid Core Door	R	Solid Wood	Dummy Trim	Provide Roller Door Latches			
Unit Type 0B-4												
01	Apartment Entrance	36	80	1 3/4	Stile and Rail	J	Steel/WD Casings	Apartment Entrance Lock	Spring Hinges, (1) One Way Viewer, Threshold 2	20 Min.	Note: 11	
02	Coats	34	80	1 3/8	Solid Core Door	R	Solid Wood	Passage 2				
03	Bathroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
04	Closet	(2) 24	80	1 3/8	Solid Core Door	R	Solid Wood	Dummy Trim	Provide Roller Door Latches			
Unit Type 1B-10												
01	Apartment Entrance	36	80	1 3/4	Stile and Rail	J	Steel/WD Casings	Apartment Entrance Lock	Spring Hinges, (1) One Way Viewer, Threshold 2	20 Min.	Note: 11	
02	Coats	30	80	1 3/8	Solid Core Door	R	Solid Wood	Passage 2				
03	Bathroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
04	Bedroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
05	Closet	(2) 36	80	1 3/8	Solid Core Door	R	Solid Wood	Dummy Trim	Provide Roller Door Latches			
Unit Type 1B-11												
01	Apartment Entrance	36	80	1 3/4	Stile and Rail	J	Steel/WD Casings	Apartment Entrance Lock	Spring Hinges, (1) One Way Viewer, Threshold 2	20 Min.	Note: 11	
02	Coats	36	80	1 3/8	Solid Core Door	R	Solid Wood	Passage 2				
03	Bathroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
04	Bedroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
05	Closet	(2) 30	80	1 3/8	Solid Core Door	R	Solid Wood	Dummy Trim	Provide Roller Door Latches			
Unit Type 1B-12												
01	Apartment Entrance	36	80	1 3/4	Stile and Rail	J	Steel/WD Casings	Apartment Entrance Lock	Spring Hinges, (1) One Way Viewer, Threshold 2	20 Min.	Note: 11	
02	Coats	34	80	1 3/8	Solid Core Door	R	Solid Wood	Passage 2				
03	Bathroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
04	Bedroom	36	80	1 3/8	Solid Core Door	R	Solid Wood	Privacy 2				
05	Closet	(2) 36	80	1 3/8	Solid Core Door	R	Solid Wood	Dummy Trim	Provide Roller Door Latches			

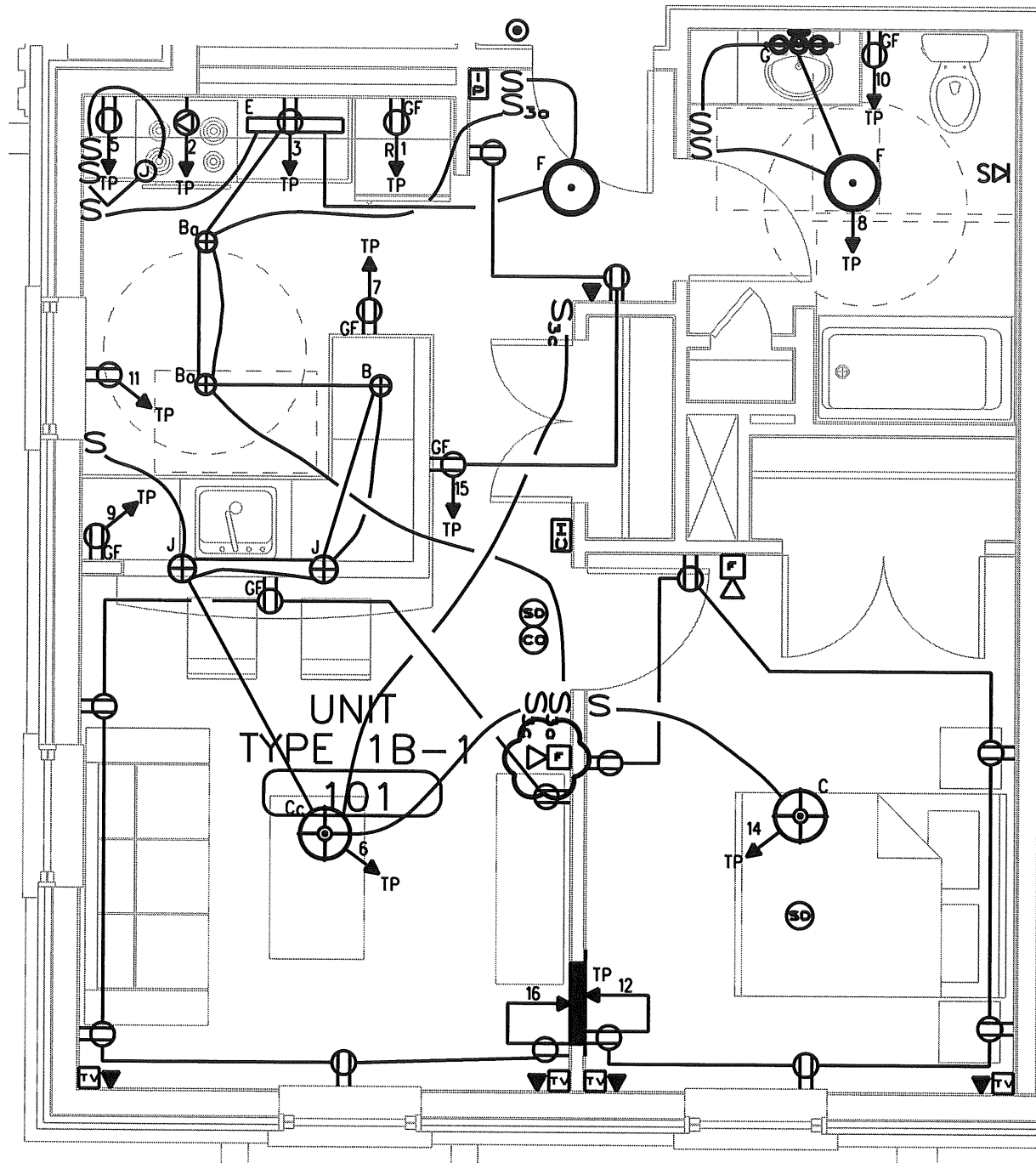


434 Cumberland Avenue
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Project
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65 HIGH STREET
PORTLAND, ME
PROJECT # 09-428

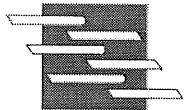
Drawing Title:
**REVISION TO 1 / A3.03
CHANGE WINDOW TYPE AT STAIR 1
THIRD FLOOR**
Scale: 1/8" = 1'-0"
Date: 10-5-11

Drawing Number:
SKA-1



UNIT 101 1B-1

SCALE: 1/4"=1'-0"



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CHOM ELM TERRACE

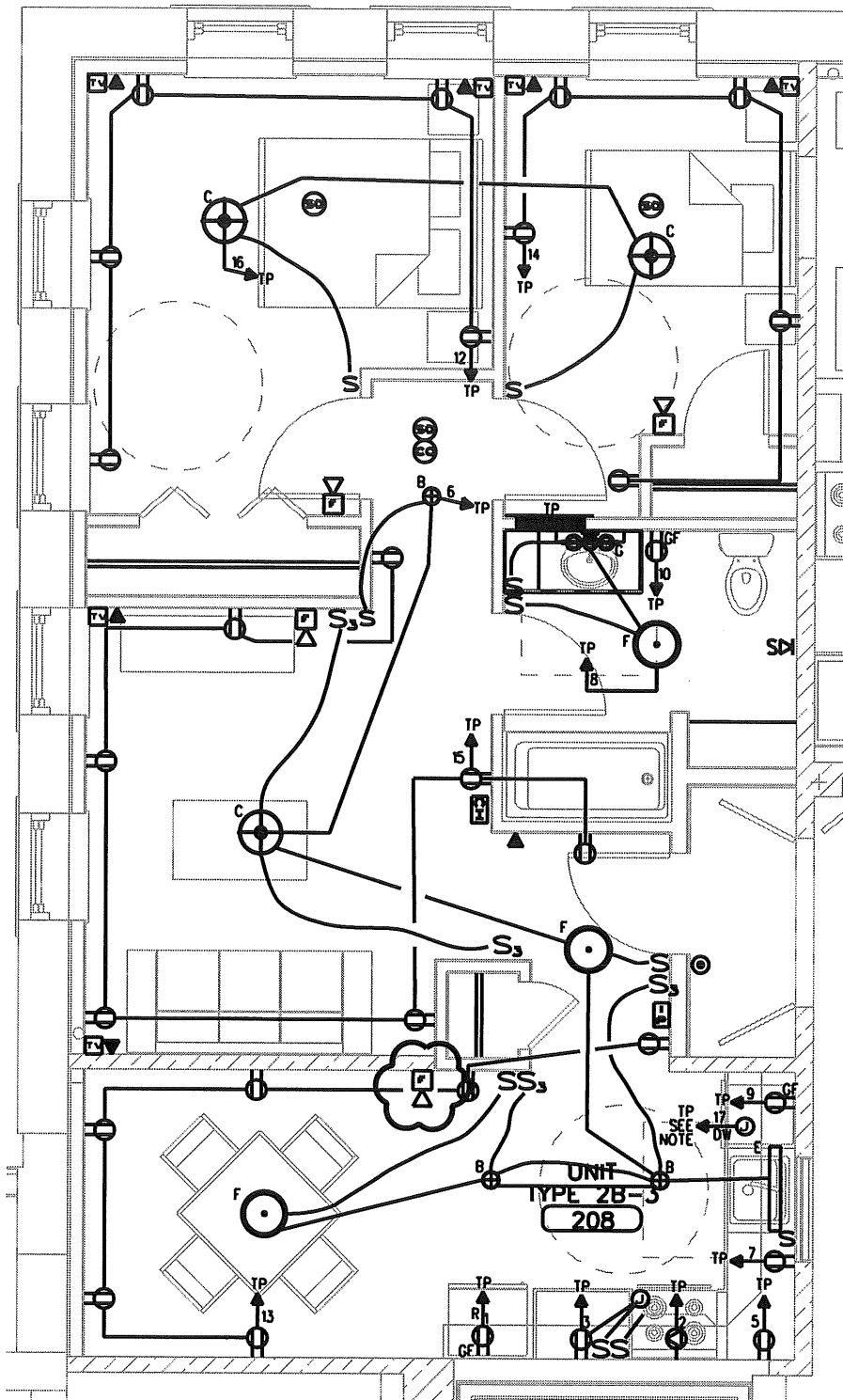
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DESIGNED/CHECKED BY - SMR / WBJR

DATE - 10/03/11

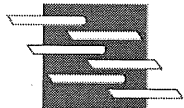
SCALE - 1/4"=1'-0"

SK E - 1



UNIT 208 2B-3
SCALE: 1/4"=1'-0"

NOTE: VERIFY LOCATION OF DISHWASHER WITH ARCHITECT PRIOR TO ROUGH-IN.



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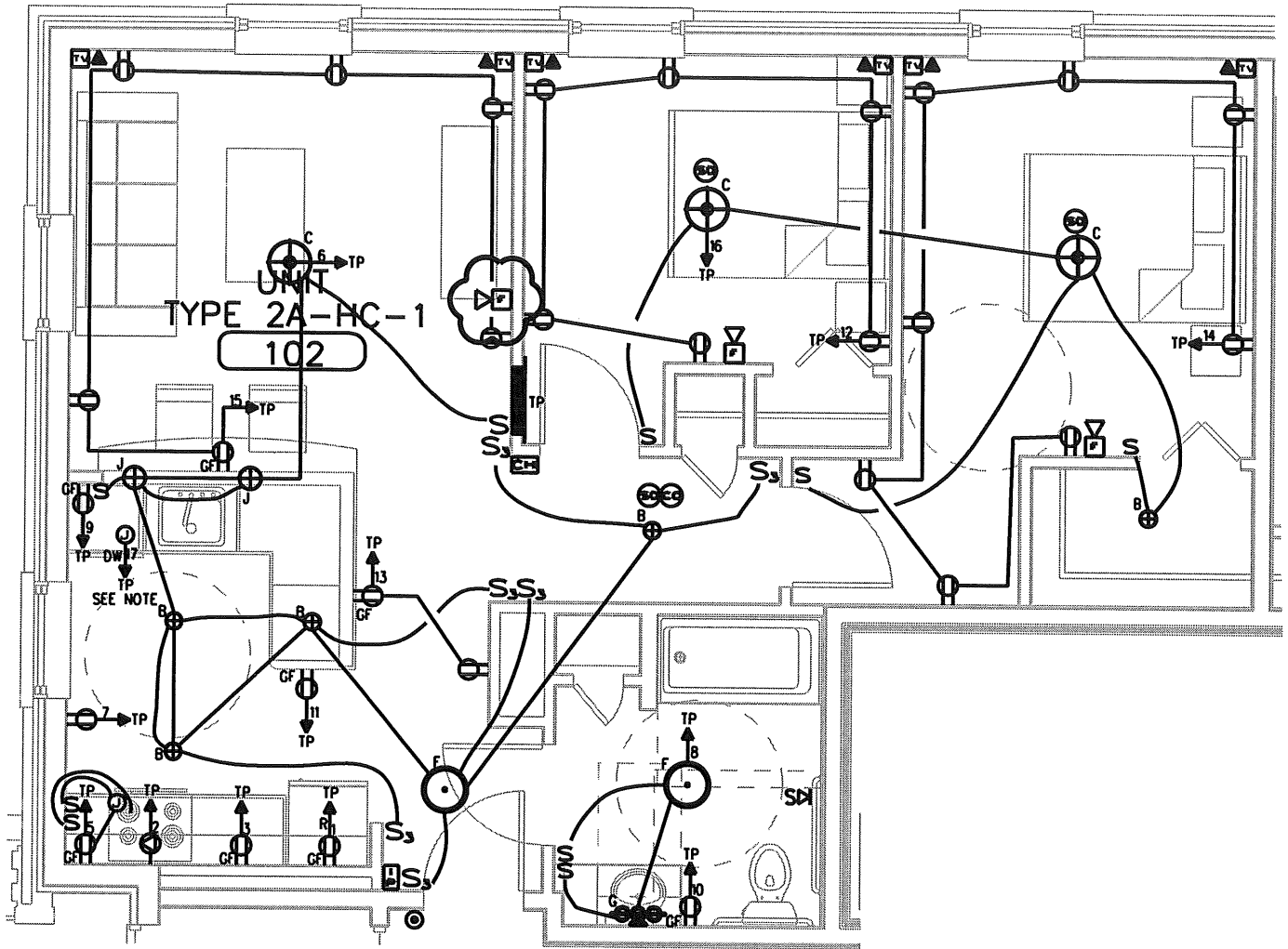
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DESIGNED/CHECKED BY - SMR / WBJR

DATE - 10/03/11

SCALE - 3/16" = 1'-0"

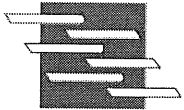
SKE-2



NOTE: VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGHIN.

UNIT 102 2A-HC-1

SCALE: 1/4"=1'-0"



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CHOM ELM TERRACE

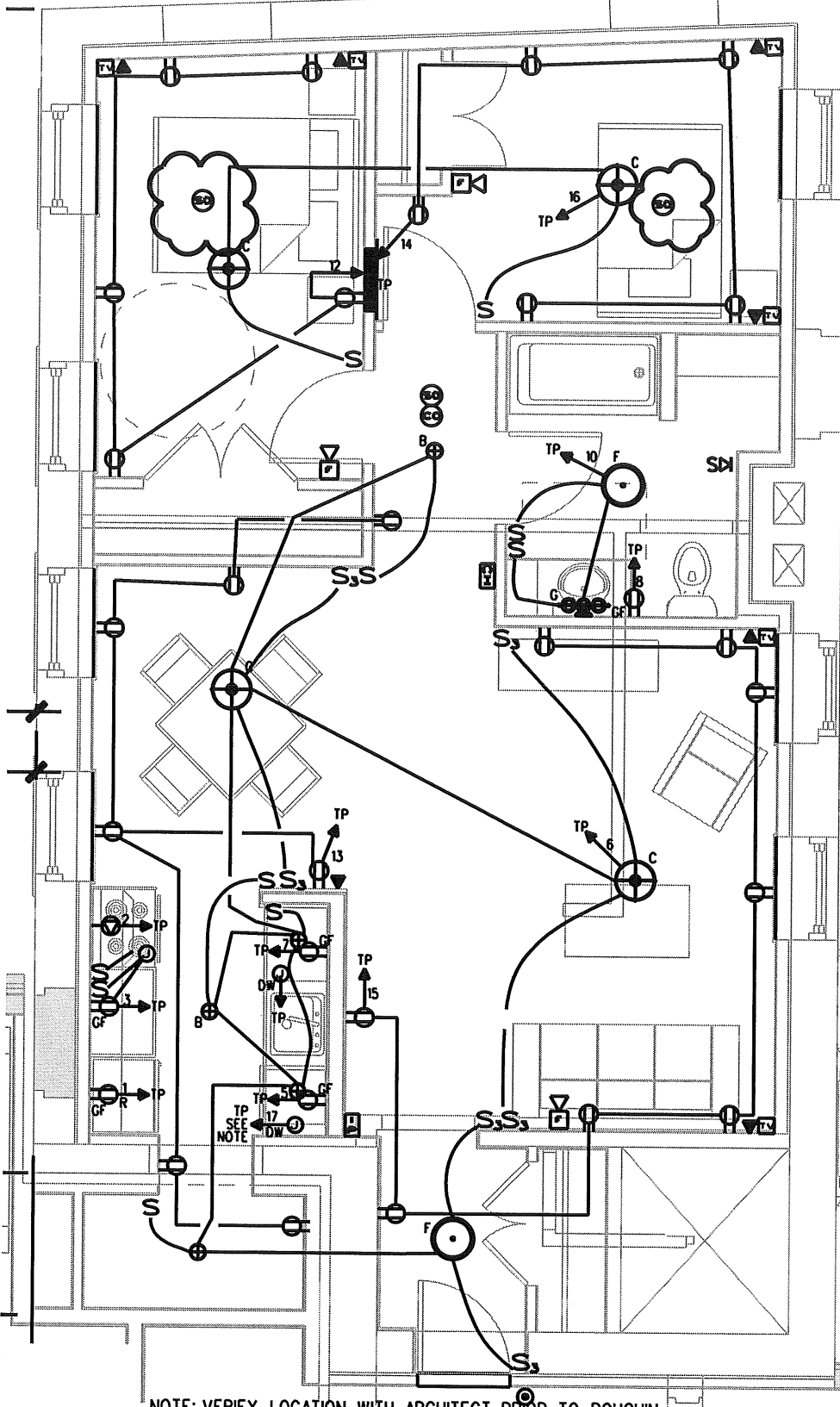
DRAWING TITLE - UNIT 102 2A-HC-1 ELECT PLAN

DESIGNED/CHECKED BY - SMR / WSBJR

DATE - 10/03/11

SCALE - 3/16" = 1'-0"

SKE-3



UNIT 106 2B-1

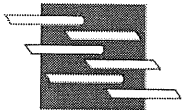
SCALE: 1/4"=1'-0"
UNITS 206 AND 306 SIMILAR

NOTE: VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGHIN.

CHOM ELM TERRACE

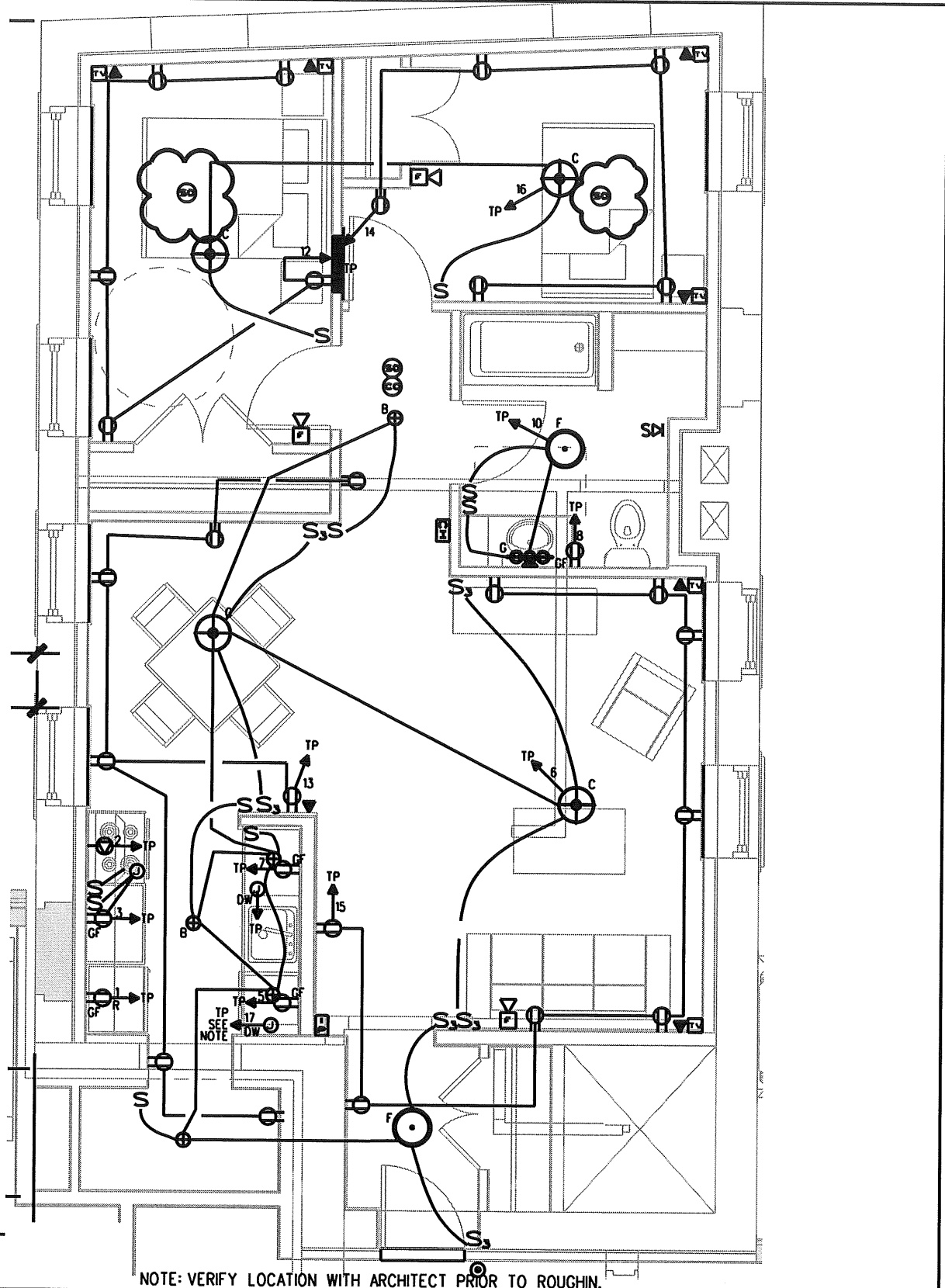
DRAWING TITLE -	UNIT 106 BEDROOM SMOKE DETECTORS
DESIGNED/CHECKED BY -	twg / WGBJR
DATE -	10/13/11
SCALE -	3/16"=1'-0"

SKE-5



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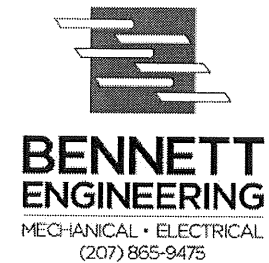
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UNIT 106 2B-1

SCALE: 1/4"=1'-0"
UNITS 206 AND 306 SIMILAR

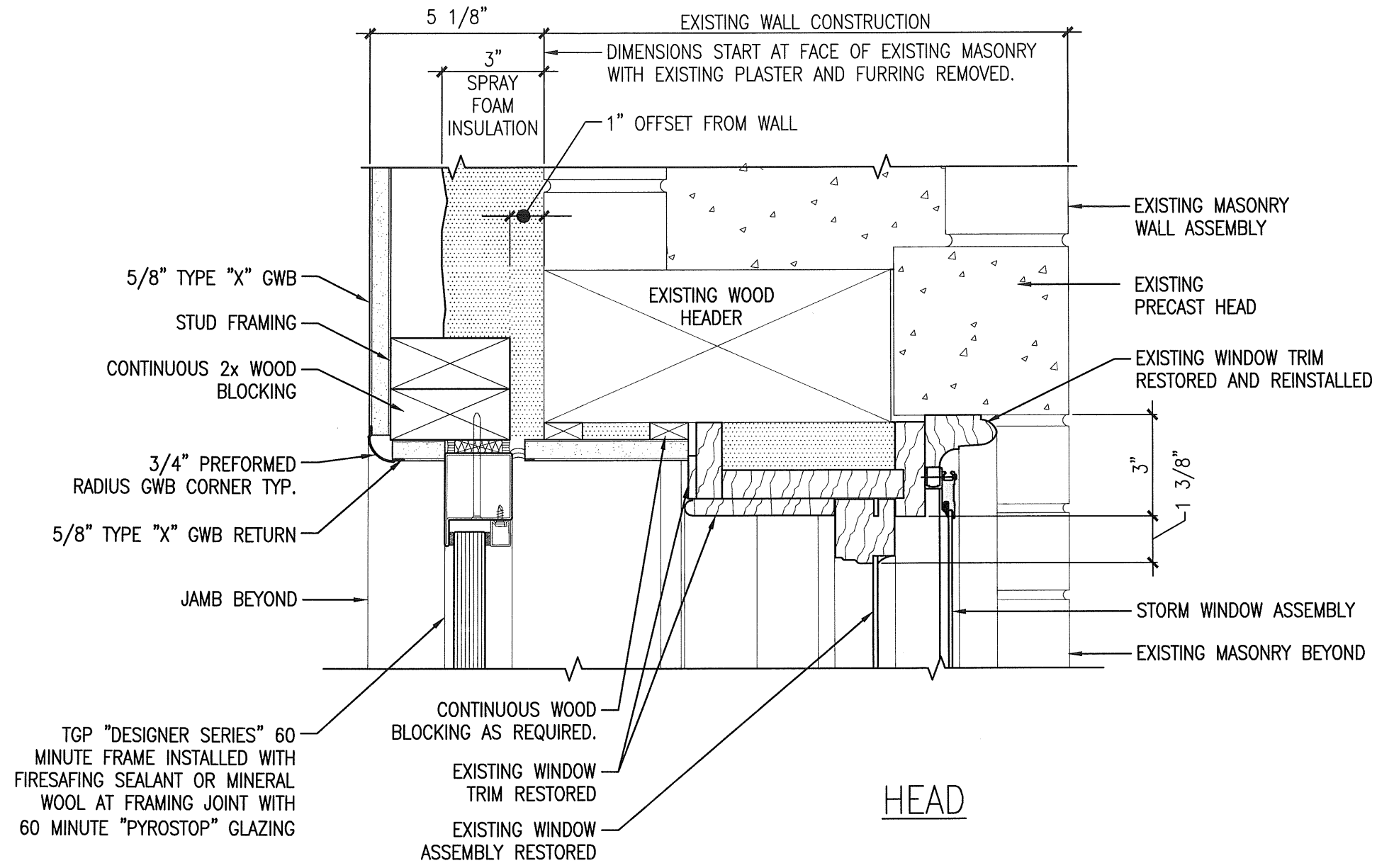
NOTE: VERIFY LOCATION WITH ARCHITECT PRIOR TO ROUGHIN.



CHOM ELM TERRACE

DRAWING TITLE -	UNIT 106 BEDROOM SMOKE DETECTORS
DESIGNED/CHECKED BY -	twg / W5BJR
DATE -	10/13/11
SCALE -	3/16"=1'-0"

SKE-5



Drawing Number:
SKA-2a

Project Title:
 EXISTING WINDOW FIRE PROTECTION HEAD DETAIL

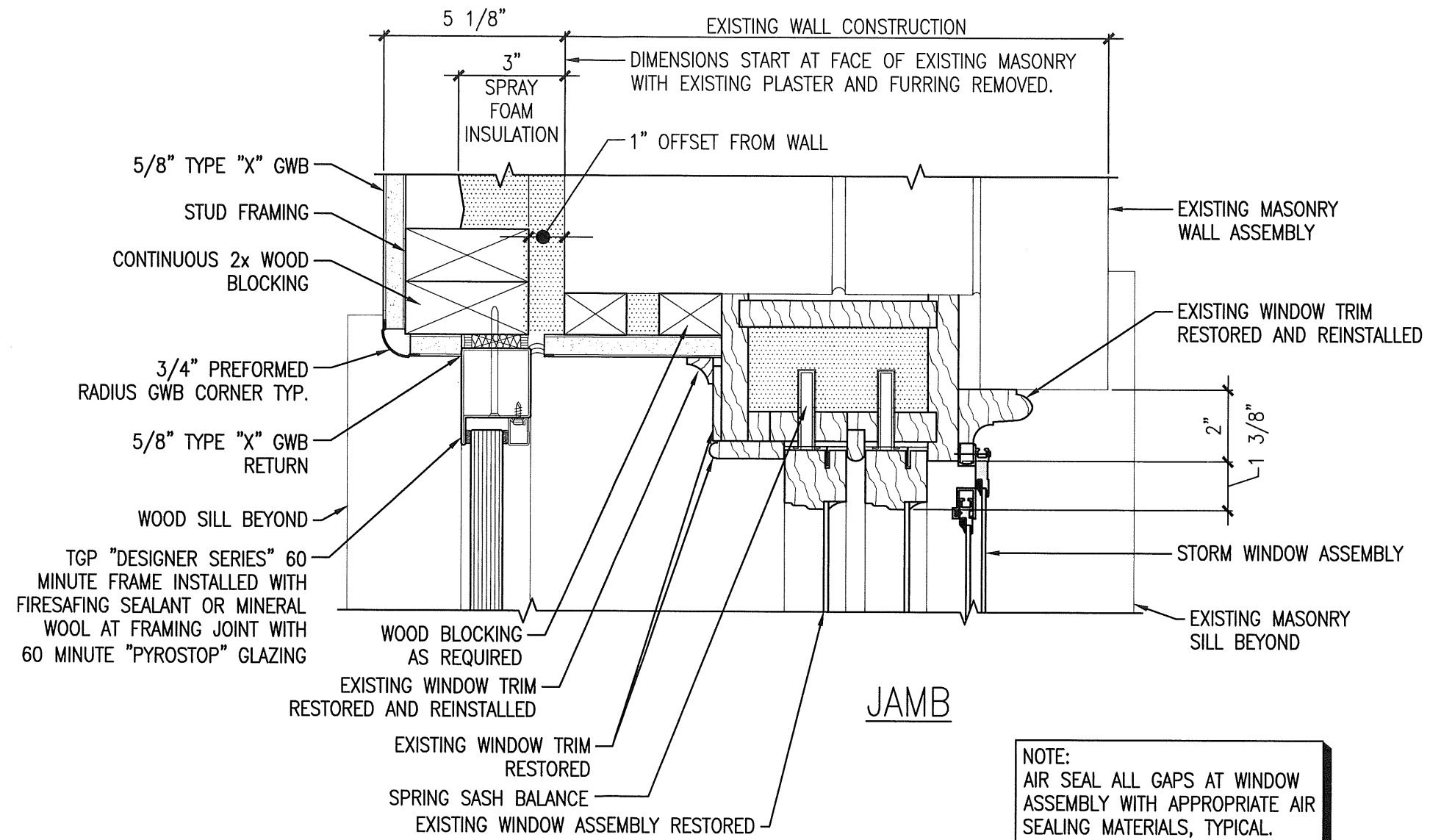
Project:
 ELM TERRACE
 68 HIGH STREET
 PORTLAND, ME

Owner:
 CHILDREN'S HOSPITAL HOUSING PARTNERS, LP
 509 CLIMBERLAND AVENUE
 PORTLAND, ME 04101

154 Cumberland Avenue
 Portland, ME 04101
 Phone: (207) 774-4441
 Fax: (207) 774-1016



Scale: 5/8" = 1'-0"
 Date: 10-6-11
 Revised: -



Drawing Number:

SKA-2b

Project Title:
EXISTING WINDOW FIRE PROTECTION JAMB DETAIL

Project:
ELM TERRACE
68 HIGH STREET
PORTLAND, ME

Owner:
CHILDREN'S HOSPITAL HOUSING PARTNERS, LP
309 CUMBERLAND AVENUE
PORTLAND, ME 04101

454 Cumberland Avenue
Portland, ME 04101
Phone: (207) 774-4441
Fax: (207) 774-4016



Scale: 3/4" = 1'-0"
Date: 10-6-11

Revised:

PROJECT #: