

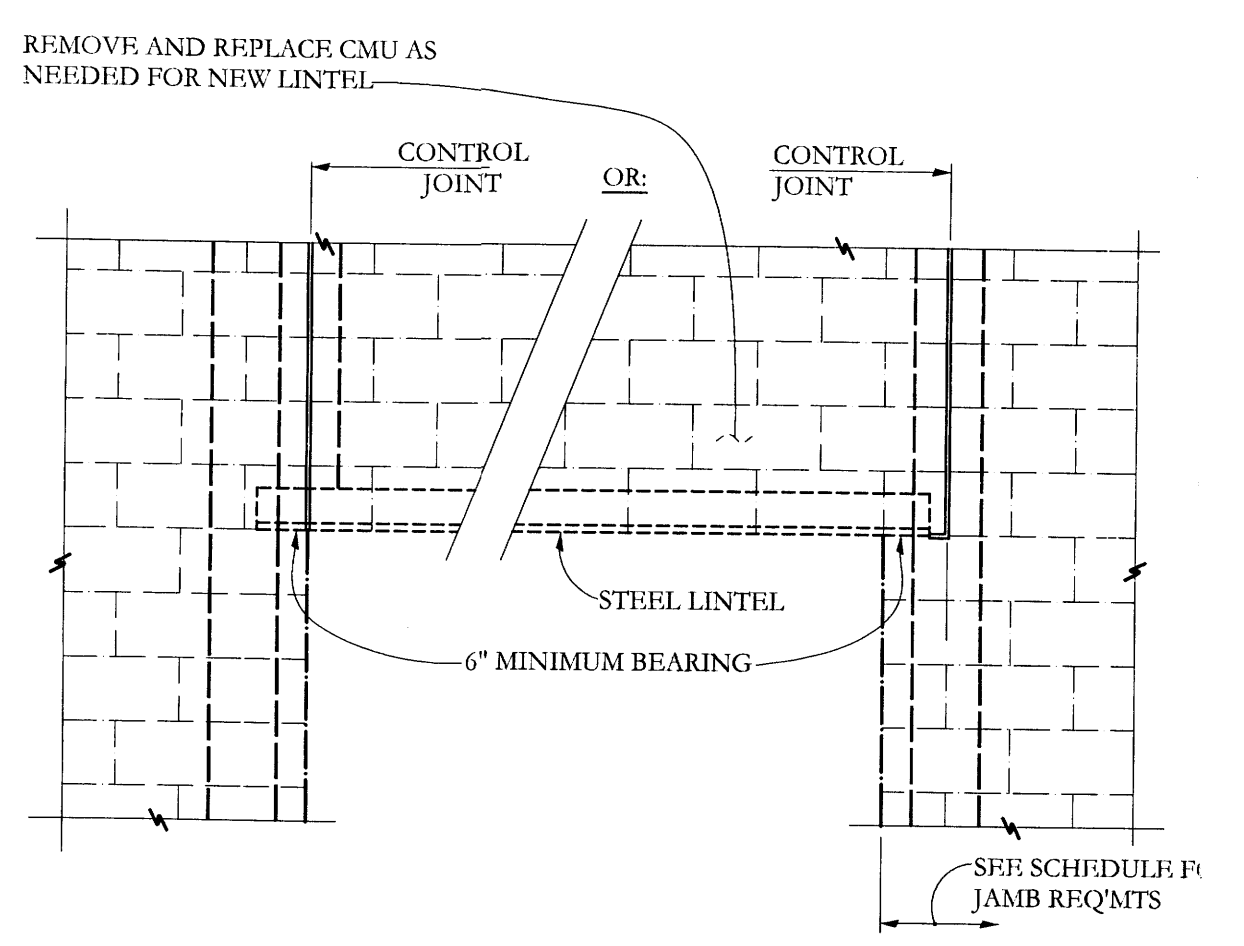
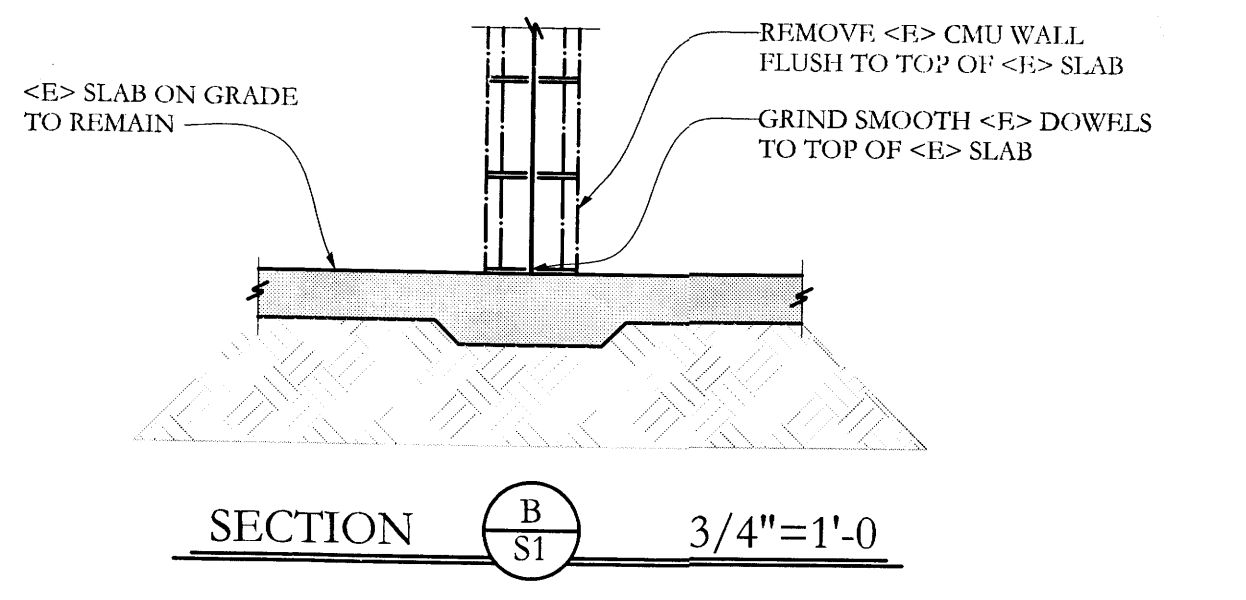
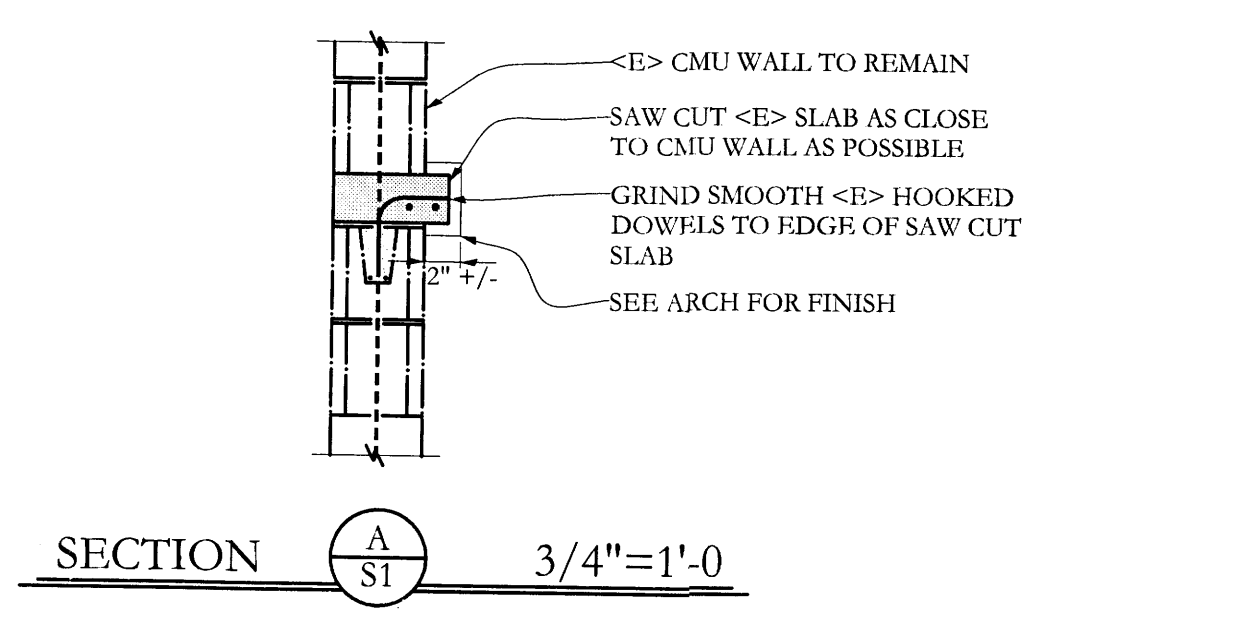
### FOUNDATION RENOVATION PLAN

SCALE 1/4"=1'-0"

- NOTES:
1. REMOVE <E> CMU PARTITION WALLS WHERE NECESSARY PER ARCH
  2. WHERE <E> CMU WALLS ARE REMOVED GRIND <E> DOWELS FLUSH WITH <E> SLAB
  3. SAW CUT <E> SLAB ABOVE CELLS AS CLOSE AS POSSIBLE TO <E> WALL
  4. DOWEL NEW CMU WALLS INTO <E> SLAB AND <E> WALLS WITH #4 DOWELS @ 24" - SEE PLAN
  5. ALL OPENINGS IN MASONRY WALLS SHALL HAVE STEEL ANGLE LINTELS WITH 4" MINIMUM BEARING AT EACH END. PROVIDE ONE ANGLE FOR EACH 4" OF WALL THICKNESS. (SEE ELEVATION C/S1)

FRAMING PLAN SYMBOLS KEY

	NEW PARTITION WALL BY ARCH
	NEW CMU WALL
	EXIST TO REMAIN
	EXIST TO REMOVE



OPENING SIZE	LINTEL SIZE	GROUTED JAMB WIDTH
LESS THAN 4'-0"	3 1/2 x 3 1/2 x 1/4	4" MIN

### STRUCTURAL GENERAL NOTES

DESIGN LOADS: International Building Code, IBC 2003 Edition, except as noted  
Occupancy Category, Table 1604.5

		III	Substantial Hazard	
Lateral	Wind	IBC 1603.1.4, ASCE 7-02	Analytic Method	
		3 Second Gust Velocity	100 mph	
		Importance Factor	1.15	
		Building Category and Internal Pressure Coefficient	Enclosed	
Seismic	Use Group		1	
	Importance Factor		1.25	
	Spectral Response	Acceleration	Coefficient	
		Short Period	S <sub>s</sub> 0.35 g	S <sub>DS</sub> 0.35 g
		One Second	S <sub>1</sub> 0.08 g	S <sub>D1</sub> 0.08 g
		Soils Site Class	Table 1615.1.1	B
	Design Category	Table 1616.3	C	
	Basic Force Resisting System	Table 1617.6.2	Ordinary Plain Masonry Shear Walls	
	Seismic Response Coefficient	C <sub>s</sub>	0.024	
	Response Modification Coefficient	R	5.5	

### STRUCTURAL MASONRY:

Design is based on Unit Strength Method  
MSJC 2002, Section SC-1.4 B.2.

Compressive strength of masonry assembly used for design is 3,000 psi, based on net-bedded area.  
Hollow load-bearing concrete masonry (CMU) shall be lightweight units conforming to ASTM C90, Grade N1, minimum compressive strength 3,000 psi based on average net area.  
Mortar shall be Type S conforming to ASTM C270.  
Masonry cement shall not be used.  
Provide full shovled mortar in all head and bed joints.  
Admixtures shall not be added for any reason unless approved by the Architect.  
Except for lintels, bond beam units shall be produced from standard vertically voided units with pre-cut knockout cross walls.  
Grout used in masonry walls and block cells shall be:  
coarse grout, as defined by ASTM C476, with a minimum cube strength = 2,000 psi.  
3000 psi concrete using 3/8" diameter aggregate, placed by vibrating unless an approved self consolidating mix is used.  
Lifts shall not exceed five feet in height.  
If grout pour height exceeds 5 feet, clean-out holes shall be provided.  
Space continuous horizontal joint reinforcing at 16" maximum in all CMU walls.  
Joint reinforcing shall be welded type with 9 gage side-wires and 9 gage trussed or ladder cross wires.  
Reinforcing bars shall be as for reinforced concrete except as noted.  
At splices, lap bars 48 diameters.  
Provide reinforced grouted vertical cells  
at corners, ends of walls, jamps of openings, each side of vertical control joints, and  
at spacing shown on drawings. Grout all cells solid.  
Reinforcement shall be secured against displacement prior to grouting  
by wire bar locators or other suitable displacement at intervals not exceeding 200 bar diameters or 10 feet.  
Where noted on the drawings,  
provide clearance between masonry and structural elements, or  
wrap steel with polyethylene film.  
Provide vertical control joints in all masonry walls  
as located on architectural drawings or  
at 25'-0" maximum spacing  
at both jamps of openings wider than six feet.  
Submit for review  
Certificates for materials used in masonry construction indicating compliance with the contract documents  
**Quality Assurance Level**  
MSJC Level 1 Quality Assurance, MSJC Table 1.14.2  
Test specimens shall be made by the masons, at the direction of the owner's representative,  
with materials and techniques currently being used in the wall.  
Specimens shall be protected and field cured for 48 hours before being transported to a testing agency.  
The testing agent will be hired by the owner and shall be responsible for laboratory care and curing of specimens, testing, and reporting results to the owner, contractor, architect, and engineer in accordance with ASTM E447-92

### LOOSE LINTELS:

Unless noted otherwise, provide loose lintels as follows: (One angle for each 4" of wall thickness to bear 6" minimum each end).  
Openings to 4'-0": Angle 3-1/2 x 3-1/2 x 1/4  
Openings 4'-1 to 5'-4": Angle 5 x 3-1/2 x 1/4  
Openings 5'-5 to 6'-6": Angle 6 x 3-1/2 x 5/16

### FIELD VERIFICATION OF EXISTING CONDITIONS:

Contractor shall thoroughly inspect and survey existing structure to verify conditions that affect the work shown on the drawings.  
Contractor shall report any variations or discrepancies to the Architect before proceeding.

### STRUCTURAL ERECTION AND BRACING REQUIREMENTS:

The structural drawings illustrate the completed structure with elements in their final positions, properly supported and braced.  
These construction documents contain typical and representative details to assist the contractor.  
Details shown apply at all similar conditions unless otherwise indicated.  
Although due diligence has been applied to make the drawings as complete as possible, not every detail is illustrated, nor is every exceptional condition addressed.  
All work shall be accomplished in a workmanlike manner and in accordance with the manufacturer's recommendations.  
Such work shall include, but not be limited to, bracing, shoring for construction equipment, shoring for excavation, formwork, scaffolding, safety devices and programs of all kinds, support and bracing for cranes and other erection equipment.  
Do not back fill against basement or retaining walls until supporting slabs and floor framing are in place and securely anchored, unless adequate bracing is provided.  
Temporary bracing shall remain in place until all floors, walls, roofs and any other supporting elements are in place.  
The architect and engineer bear no responsibility for the above items, and observation visits to the site do not in any way include inspection of them.

Michael Charek  
Architects  
25 Hartley Street  
Portland, Maine 04103  
(207) 761-0556

STATE OF MAINE  
AARON C. JONES  
No. 10968  
LICENSED PROFESSIONAL ENGINEER  
10/27/08

Windham Public Safety  
Dispatch Area Renovations  
47 Falmouth Road  
Windham, ME 04092

Title  
**Foundation Repairs Plan**

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

Date: 10/27/08

Revisions

Sheet  
**S1**

SI JOB #: 08-0060

**Structural Integrity**  
ENGINEERING & CONSTRUCTION, LLC  
77 Oak Street  
Portland, ME 04103  
P: 207-774-8434  
F: 866-793-7033  
www.structuralintegrity.com  
BUILD WITH CONFIDENCE  
CIBT-ICC-1000-1000-1000-1000