235 STATE STREET ENTRYWAY STRUCTURAL REHABABILITATION AND SITE REPAIRS

13 NOVEMBER, 2013

DRAWING LIST

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STRUCTURAL DESIGN CRITERIA

1. MAINE UNIFORM BUILDING AND ENERGY CODE, 2009 EDITION, INCLUDING CONSIDERATION OF ASCE 7-05, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".

WIND LOAD: PER IBC SECTION 1609.0/ASCE 7-02 CHAPTER 6

BASIC WIND SPEED, (3 SEC GUST	100 mph
IMPORTANCE FACTOR Iw	1.10
EXPOSURE CATEGORY	C
BUILDING CLASSIFICATION	III
VELOCITY PRESSURE COEF. Kz	0.91
TOPOGRAPHIC PRESSURE COEF Kzt	1.0
DIRECTIONALITY FACTOR, Kd	0.85
VELOCITY PRESSURE qh	26.79 psf

SEE TRUSS DIAGRAMS ON SHEET S3.001 FOR RESULTANT UPLIFT PRESSURES ON TRUSSES

SNOW LOAD: PER ASCE 7-05, CHAPTER 7:

GROUND SNOW LOAD Pg	60 PSF (FIGURE 7-1)
EXPOSURE FACTOR Ce	1.0 (TABLE 7-2)
THERMAL FACTOR Ct	1.2 (UNHEATED, TABLE 7-3)
IMPORTANCE FACTOR Is	1.1 (CATEGORY III, TABLE 7-4)
FLAT ROOF SNOW LOAD	55.4 PSF

DRIFTED SNOW LOADS AND DRIFT PER SECTION 7.6 OF ASCE 7-05

STRUCTURAL DESIGN CRITERIA (CONTINUED)

SEISMIC LOAD: IBC SECTION 1615.0; EARTHQUAKE DATA PER SECTION 1616.3:

SEISMIC USE GROUP	III
OCCUPANCY IMPORTANCE FACTOR, Ie	1.1
SHORT-PERIOD ACCELERATION Ss	0.32g
1.0 SECOND ACCELERATION S1	0.10g
SITE CLASSIFICATION SOIL TYPE	D
MAXIMUM CONSIDERED EQ. ACCEL. PARAMETER Fa	1.53
MAXIMUM CONSIDERED EQ ACCEL. PARAMETER Fv	2.40
SHORT PERIOD ACCELERATION (ASCE 9.4.1.2.4-1, Sms)	0.49g
1.0 SECOND ACCELERATION (ASCE 9.4.1.2.4-2, Sm1)	0.192g
SHORT PERIOD DESIGN SPECTRAL RESPONSE ACC.	0.326g, SDC B
1.0 SECOND DESIGN SPECTRAL RESPONSE ACC.	0.128g, SDC B

GENERAL NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERMIT SAFE PASSAGE OF STAFF AND THE PUBLIC ADJACENT TO THE AREAS OF WORK IF REQUIRED.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND LOCAL SAFETY REQUIREMENTS. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE SAFETY OF ADJACENT PORTIONS OF THE BUILDING, ADJACENT PROPERTY, AND THE PUBLIC. THIS INCLUDES, BUT IS NOT LIMITED TO, PROVIDING AND MAINTAINING BOTH SIGNAGE AND FENCING THROUGHOUT THE DURATION OF THE PROJECT.
3. THE STRUCTURAL DESIGN OF THESE REPAIRS IS BASED ON THE FULL INTERACTION OF ALL CONNECTED COMPONENTS. NO PROVISIONS HAVE BEEN MADE FOR ANY TEMPORARY CONDITIONS THAT MAY ARISE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS, SHORING, AND TEMPORARY BRACING DURING THE PROGRESS OF THE PROJECT.
4. THE CONTRACTOR MUST HAVE A FULL-TIME SUPERINTENDENT ON SITE DURING CONSTRUCTION.
5. WORK NOT INDICATED ON A PART OF THE DRAWINGS BUT REASONABLY IMPLIED TO BE SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES SHALL BE INCLUDED.
6. THE CONTRACTOR SHALL, PRIOR TO WORK, REVIEW WITH DESIGN TEAM AND OWNER ALL ASPECTS OF SITE ACCESS, WORK SCHEDULE, AND COORDINATION WITH OTHERS TO ENSURE SMOOTH PROJECT FLOW.
7. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING CONDITIONS THAT MAY AFFECT THE WORK.
8. THE INSTALLATION AND OR REMOVAL OF PROPOSED MATERIALS SHALL NOT DAMAGE EXISTING COMPONENTS.
9. ANY MODIFICATION OR ALTERATION OF THESE CONSTRUCTION DOCUMENTS OR CHANGES IN CONSTRUCTION FROM THE INTENT OF THESE DRAWINGS BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL OF THE ARCHITECT AND/OR ENGINEER SHALL REMOVE ALL PROFESSIONAL AND LIABILITY RESPONSIBILITY OF THE ARCHITECT AND/OR ENGINEER.
10. ALL CONTRACTORS ARE REQUIRED TO EXAMINE THE DRAWINGS AND SPECIFICATIONS CAREFULLY, VISIT THE SITE, AND FULLY INFORM THEMSELVES AS TO ALL EXISTING CONDITIONS AND LIMITATIONS PRIOR TO SUBMITTING THEIR BID. FAILURE TO VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE SUCCESSFUL BIDDER FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS. INCORRECT WORK SHALL BE RECTIFIED BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11. THE SUCCESSFUL CONTRACTOR OR SUBCONTRACTORS WILL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION CONFERENCE, HELD AT A DATE AND TIME DETERMINED BY THE OWNER.
12. DO NOT SCALE FROM THE DRAWINGS.
13. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

GENERAL REQUIREMENTS

1. COORDINATE CONSTRUCTION TO ENSURE EFFICIENT AND ORDERLY INSTALLATION OF EACH PART OF THE WORK.
2. CONDUCT PROGRESS MEETINGS AT SITE AT WEEKLY INTERVALS OR AS NECESSARY. REQUIRE SUBCONTRACTOR ATTENDANCE AS REQUIRED FOR COORDINATION OF SITE ACTIVITIES.
3. COORDINATE EACH SHOP DRAWING SUBMITTAL WITH FABRICATION, PURCHASING, DELIVERY, AND RELATED ACTIVITIES. SUBMIT THREE COPIES OF EACH SUBMITTAL. PROVIDE SPACE TO RECORD REVIEW AND APPROVAL MARKINGS BY ENGINEER.
4. IDENTIFY DEVIATIONS FROM CONTRACT DOCUMENTS ON SUBMITTALS. REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. MARK WITH APPROVAL STAMP BEFORE SUBMITTING TO ARCHITECT/ENGINEER.
5. SUBMIT SAMPLES FINISHED AS SPECIFIED AND PHYSICALLY IDENTICAL WITH PROPOSED MATERIAL OR PRODUCT. INCLUDE NAME OF MANUFACTURER AND PRODUCT NAME ON LABEL.
6. GENERAL CONTRACTOR WILL SUBMIT WEEKLY UPDATED GANTT CHART SCHEDULE TO SUBCONTRACTORS AND NEED-TO-KNOW PARTIES FOR COORDINATION PURPOSES.
7. DELIVER, STORE, AND HANDLE PRODUCTS USING MEANS AND METHODS THAT WILL PREVENT DAMAGE, DETERIORATION, AND LOSS, INCLUDING THEFT. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
8. SCHEDULE DELIVERY TO MINIMIZE LONG-TERM STORAGE AT PROJECT SITE AND TO PREVENT OVERCROWDING OF CONSTRUCTION SPACES. DELIVER PRODUCT IN MANUFACTURER'S ORIGINAL SEALED CONTAINER OR PACKAGING, COMPLETE WITH LABELS AND INSTRUCTIONS FOR HANDLING, STORING, UNPACKING, PROTECTING, AND INSTALLING.
9. STORE PRODUCTS THAT ARE SUBJECT TO DAMAGE BY THE ELEMENTS UNDER COVER IN A WEATHERTIGHT ENCLOSURE ABOVE GROUND, WITH VENTILATION ADEQUATE TO PREVENT CONDENSATION.
10. WHERE DRAWINGS SPECIFY A SINGLE PRODUCT OR MANUFACTURER, PROVIDE THE ITEM INDICATED THAT COMPLIES WITH REQUIREMENTS.

RESURGENCE
ENGINEERING & PRESERVATION, INC.
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235 STATE STREET
PORTLAND, MAINE
STRUCTURAL STABILIZATION

Date: 11/13/13
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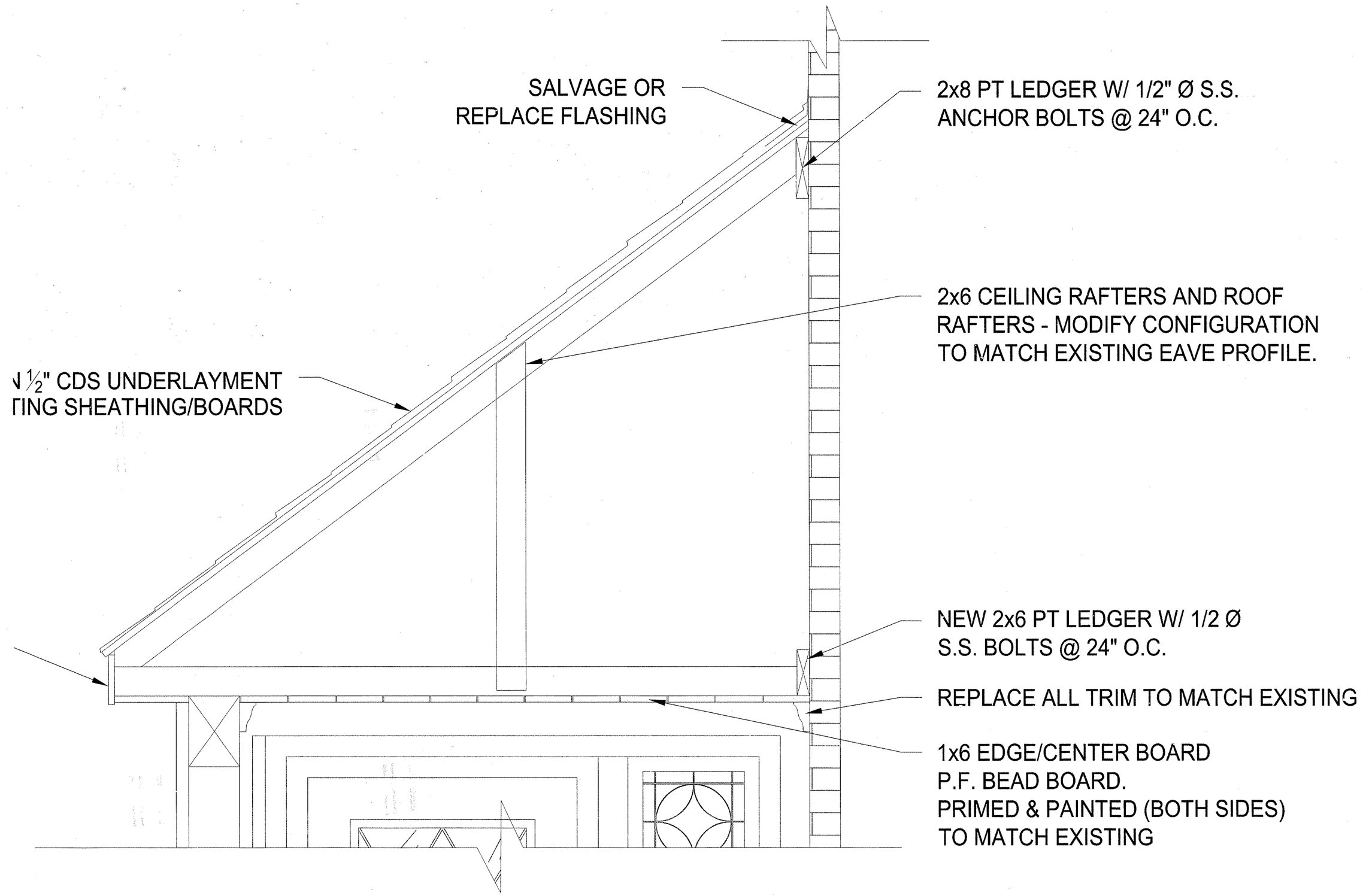
G1.001



1 PORCH ROOF SECTION
SCALE 1 1/2" = 1' 0"

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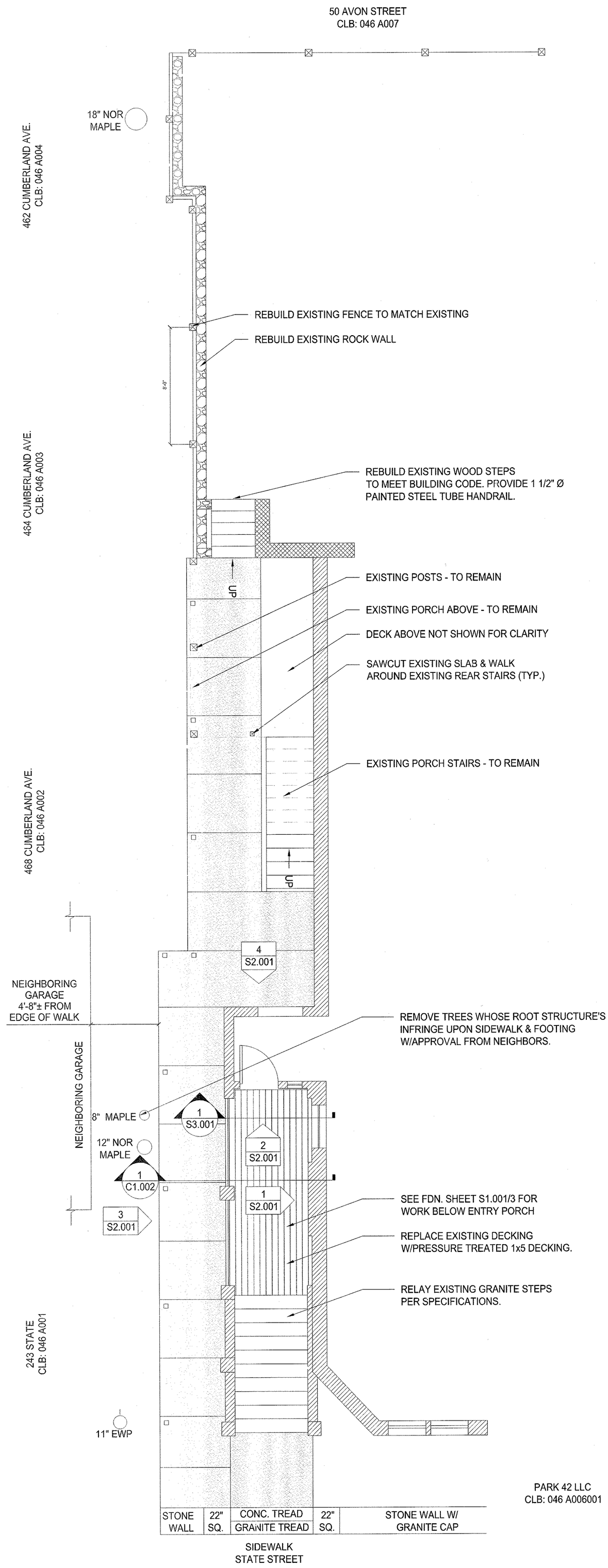

1 SITE PLAN
SCALE 1/4" = 1' 0"

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SITE REPAIRS

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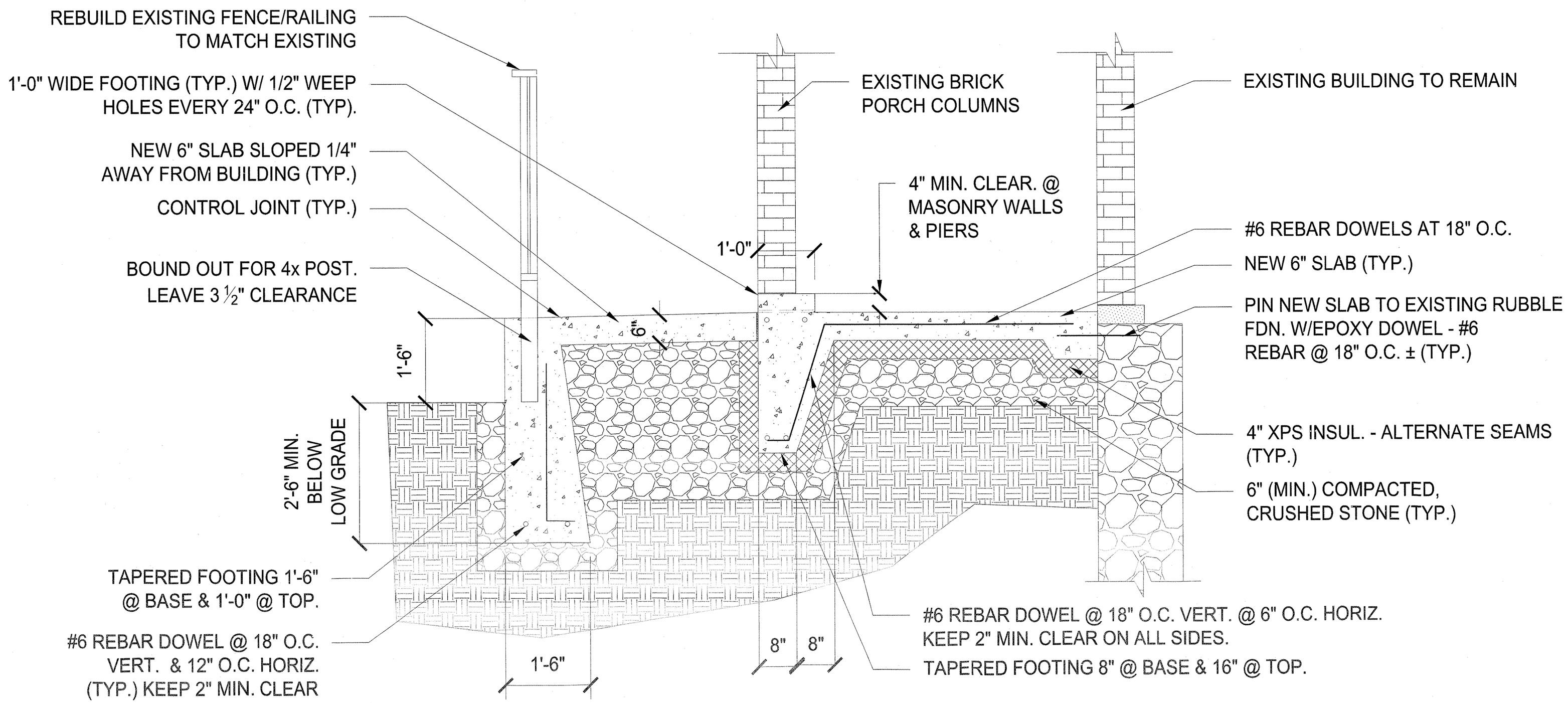

1 SECTION DETAIL – FOUNDATION PLAN
SCALE 1" = 1' 0"

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SITE REPAIRS

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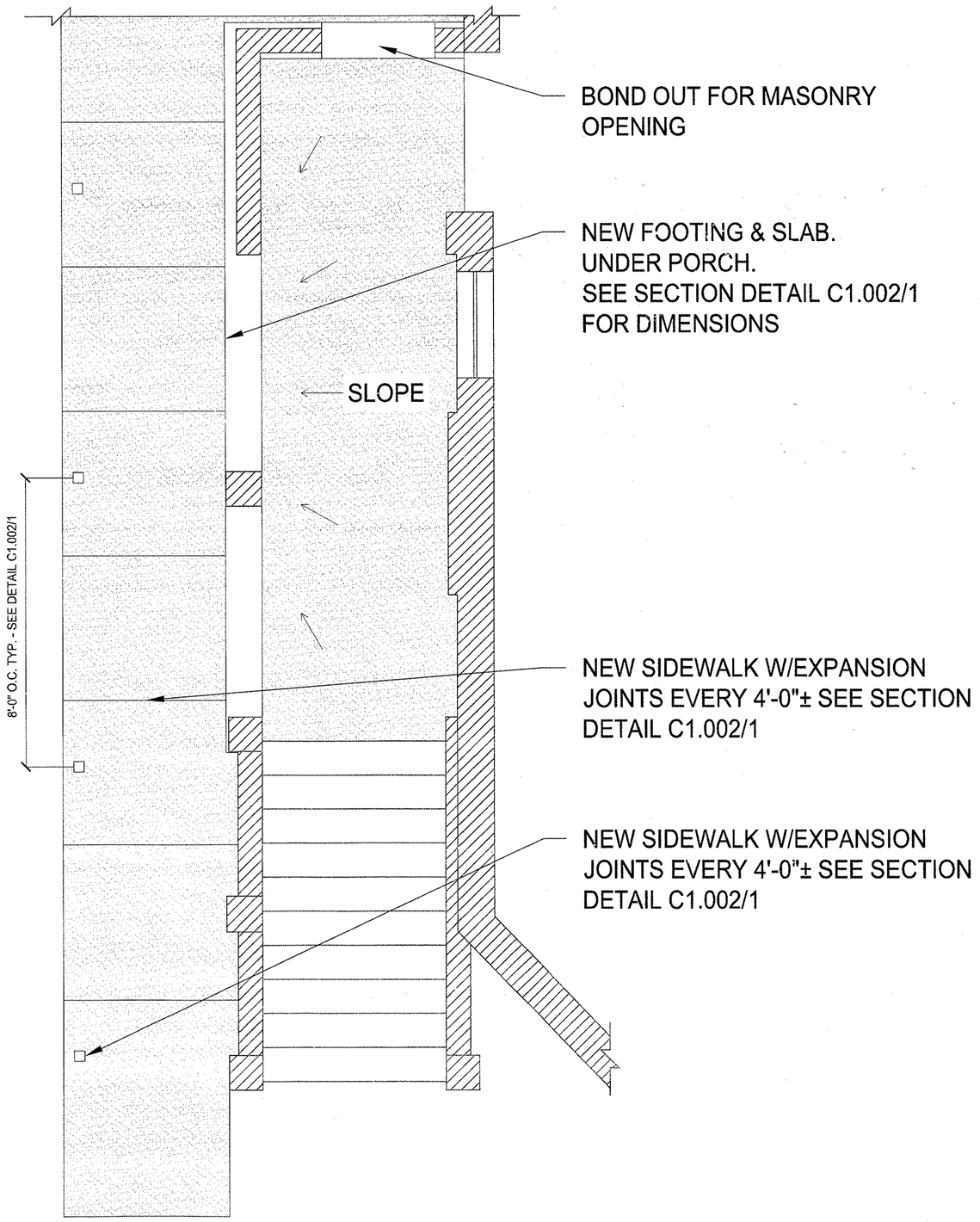
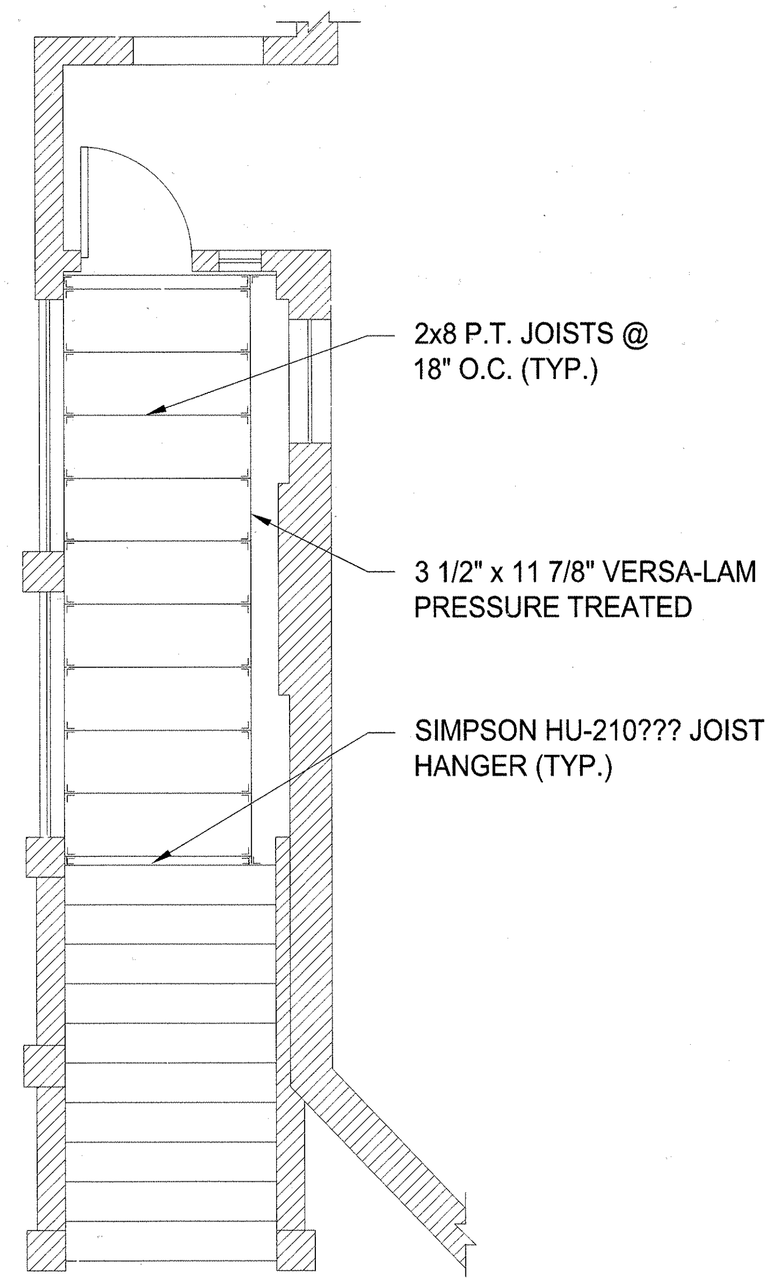
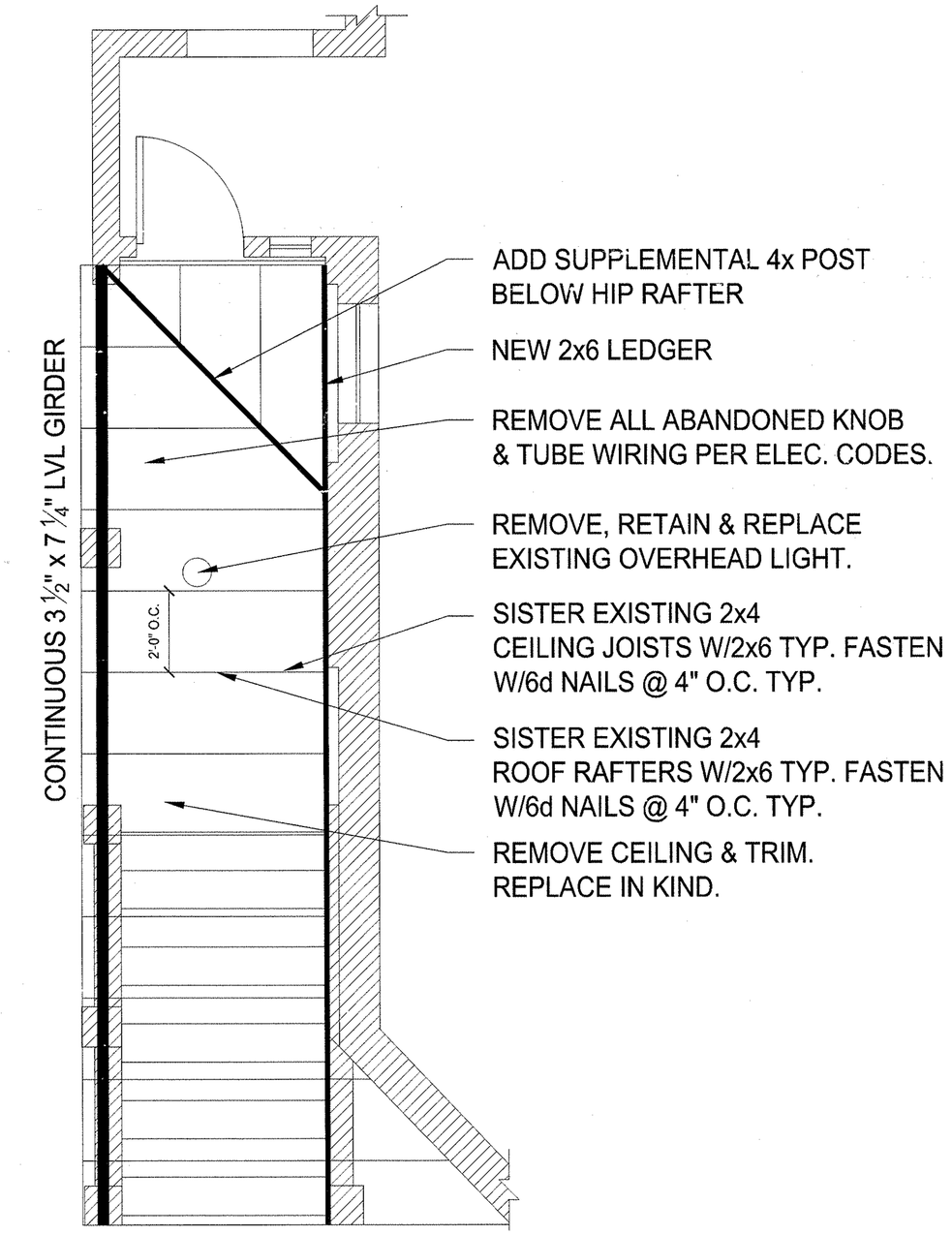


3 PORCH FOUNDATION PLAN
SCALE 3/8" = 1' 0"



2 PORCH FRAMING PLAN
SCALE 3/8" = 1' 0"



1 PORCH ROOF FRAMING PLAN
SCALE 3/8" = 1' 0"

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK AND REINFORCING BAR DETAILS SHALL CONFORM TO THE LATEST ACI STANDARDS, ACI 301 AND 318.
2. FOUNDATION CONCRETE SHALL BE AIR-ENTRAINED, (5 TO 7%), AND HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3,000 psi.
3. PLACE NO CONCRETE WITHOUT REVIEW AND APPROVAL OF THE REINFORCING AND EMBEDDED ITEMS BY THE TOWN OR BY THE ENGINEER.
4. ALL CONCRETE MATERIALS, REINFORCEMENT, AND FORMS SHALL BE FREE OF FROST OR DEBRIS.
5. CONSOLIDATE ALL CONCRETE WITH A VIBRATOR OR OTHER MEANS RECOMMENDED BY ACI 301.
6. PROVIDE DIAGONAL REINFORCING BARS AROUND INSIDE CORNERS OF ALL OPENINGS IN CONCRETE.
7. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
   - CONCRETE CAST AGAINST EARTH — 3 INCHES
   - FORMED CONCRETE EXPOSED TO EARTH OR WEATHER — 1 1 / 2 INCHES <#6 BARS; 2 INCHES #6 OR GREATER
8. BACKFILL BOTH SIDES OF EXCAVATED SUPPLEMENTAL FOOTINGS SIMULTANEOUSLY TO PREVENT UNEVEN LATERAL LOADING.

ROUGH CARPENTRY MATERIALS

1. DIFFERING TIMBER MATERIALS ARE SPECIFIED AT VARIOUS LOCATIONS. MATERIAL GRADES SHALL CONFORM TO THE FOLLOWING SPECIES AND GRADES:

WALLS:	S-P-F S STUD
PRESSURE-TREATED TIMBER:	SOUTHERN YELLOW PINE NO. 2 GRADING
COMPOSITE LUMBER:	VERSA-LAM BY BOISE-CASCADE, Fb=3,100 psi, E=2000ksi.
LUMBER SHEATHING:	ADVANTEK SHEATHING

ALL LUMBER AND TIMBER FRAMING MATERIAL SHALL BE STORED IN A PROTECTED, DRY AREA OFF OF THE GROUND AND GROUND FLOOR SURFACES. STORE MATERIAL OUT OF DIRECT SUNLIGHT TO PREVENT DIFFERENTIAL DRYING AND WARPING.

2. TIMBER FRAMING SCREWS SHALL BE MANUFACTURED BY FASTENMASTER, (413) 789 0252 TIMBER FRAMING SCREWS INCLUDE THE FOLLOWING TYPES AS INDICATED ON DRAWINGS:
   - TIMBERLOK
   - HEADLOK
   - TRUSSLOK

   INSTALL ALL FASTENMASTER FASTENERS IN PRE-DRILLED HOLES, USING 1 / 8" PILOT BIT. AS AN ALTERNATE, PROPERLY COATED GRK RUGGED STRUCTURAL SCREWS, PROPERLY COATED, MAY BE USED.
3. JOIST HANGERS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE, INC. ALL HANGERS SHALL BE Zmax PROTECTED, ATTACHED WITH Zmax 10d x 1 1 /2" HANGER NAILS INSTALLED IN PREDRILLED HOLES AS REQUIRED OR DIRECTED BY ENGINEER.

STRUCTURAL DESIGN CRITERIA

1. MAINE UNIFORM BUILDING AND ENERGY CODE, 2009 EDITION, INCLUDING CONSIDERATION OF ASCE 7-05, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".

FLOOR LIVE LOADS: 100 psf STRENGTHENED FIRST FLOOR AREAS

WIND LOAD: PER IBC SECTION 1609.0/ASCE 7-02 CHAPTER 6

BASIC WIND SPEED, (3 SEC GUST)	1090 mph
IMPORTANCE FACTOR Iw	1.10
EXPOSURE CATEGORY	C
BUILDING CLASSIFICATION	II
VELOCITY PRESSURE COEF. Kz	0.70
TOPOGRAPHIC PRESSURE COEF Kzt	1.03
DIRECTIONALITY FACTOR, Kd	0.85
VELOCITY PRESSURE qz	25.32 psf
C/C PRESSURE	-58 psf

SNOW LOAD: PER ASCE 7-05, CHAPTER 7:

GROUND SNOW LOAD Pg	60 PSF (FIGURE 7-1)
EXPOSURE FACTOR Ce	1.0 (TABLE 7-2)
THERMAL FACTOR Ct	1.2 (UNHEATED, TABLE 7-3)
IMPORTANCE FACTOR Is	1.0 (CATEGORY II, TABLE 7-4)
FLAT ROOF SNOW LOAD	50.4 PSF

DRIFTED SNOW LOADS AND DRIFT PER SECTION 7.6 OF ASCE 7-05

STRUCTURAL DESIGN CRITERIA (CONTINUED)

SEISMIC LOAD: IBC SECTION 1615.0; EARTHQUAKE DATA PER SECTION 1616.3:

SEISMIC USE GROUP	II
OCCUPANCY IMPORTANCE FACTOR, Ie	1.0
SHORT-PERIOD ACCELERATION Ss	0.32g
1.0 SECOND ACCELERATION S1	0.10g
SITE CLASSIFICATION SOIL TYPE	D
MAXIMUM CONSIDERED EQ. ACCEL. PARAMETER Fa	1.53
MAXIMUM CONSIDERED EQ ACCEL. PARAMETER Fv	2.40
SHORT PERIOD ACCELERATION (ASCE 9.4.1.2.4-1, Sms)	0.49g
1.0 SECOND ACCELERATION (ASCE 9.4.1.2.4-2, Sm1)	0.192g
SHORT PERIOD DESIGN SPECTRAL RESPONSE ACC.	0.326g, SDC E
1.0 SECOND DESIGN SPECTRAL RESPONSE ACC.	0.128g, SDC B

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FRAMING PLAN

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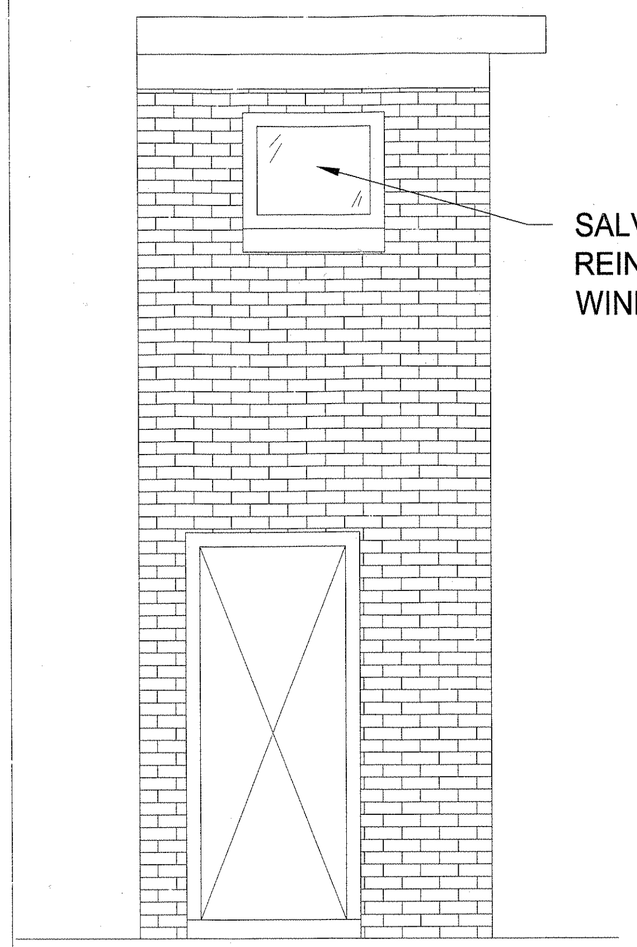
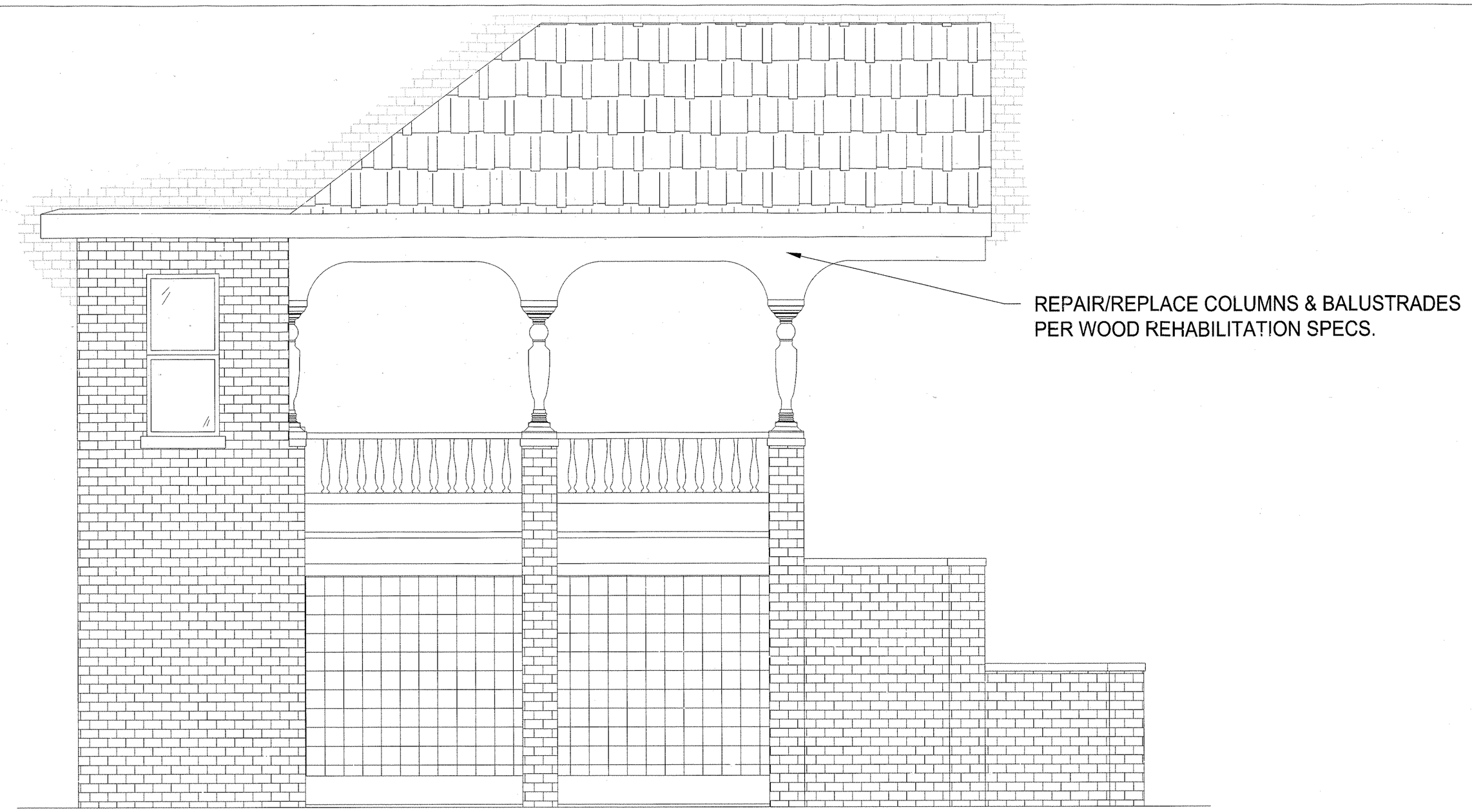
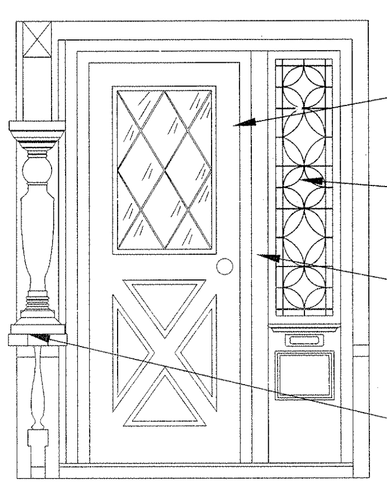


4 EXTERIOR ELEVATION
SCALE 1/2" = 1' 0"



3 EXTERIOR ELEVATION
SCALE 1/2" = 1' 0"



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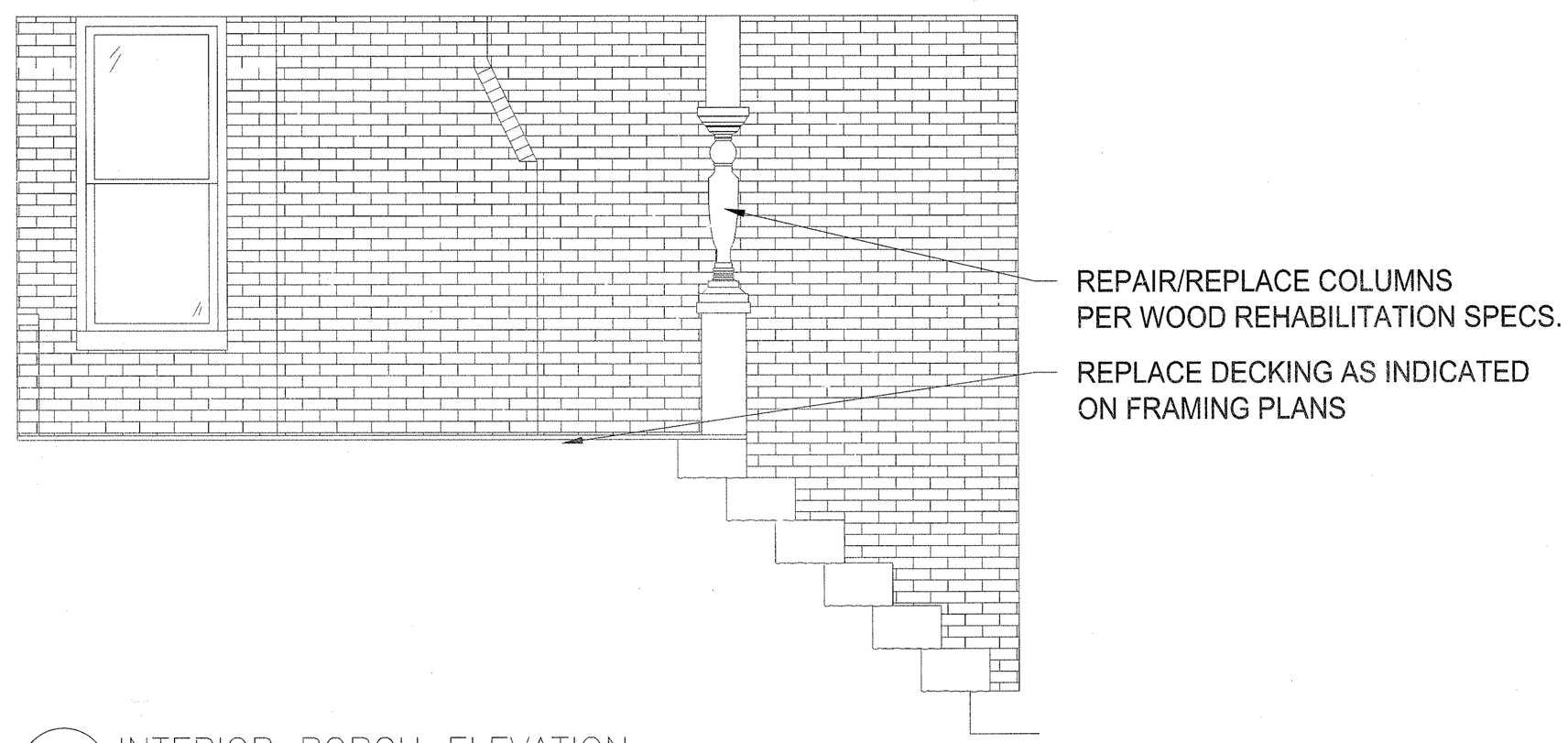
SCALE 1/2" = 1' 0"



1 INTERIOR PORCH ELEVATION
SCALE 1/2" = 1' 0"

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EXISTING
ELEVATIONS

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