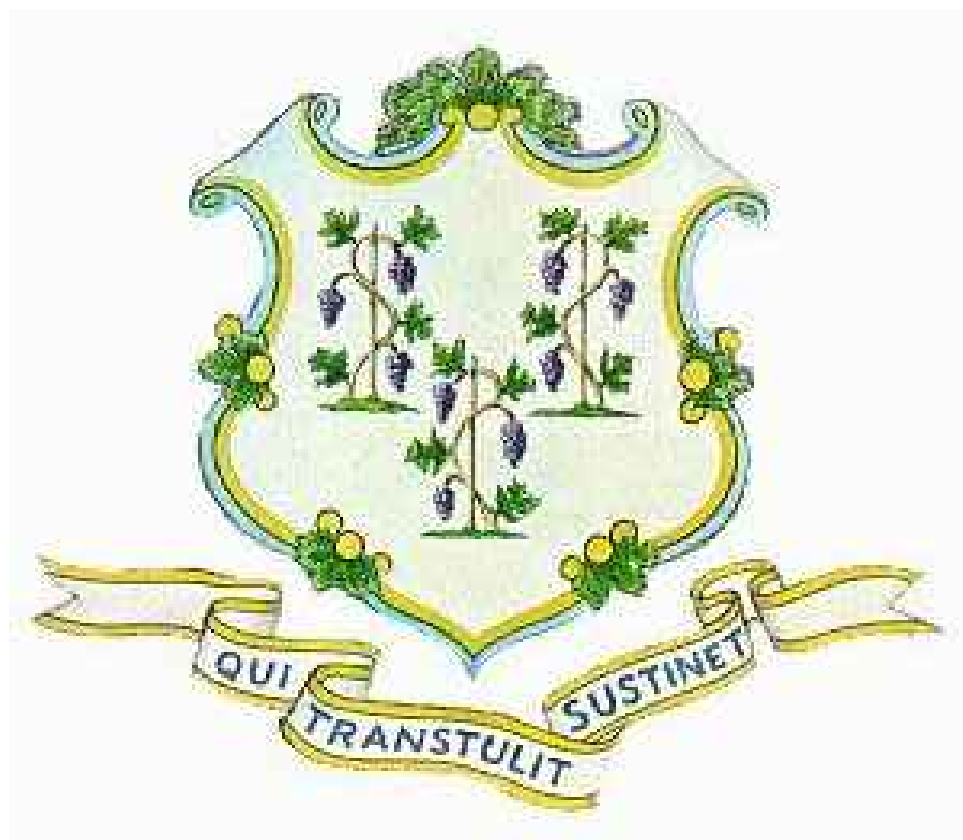


IN THE AFTERMATH OF  
**Superstorm Sandy**

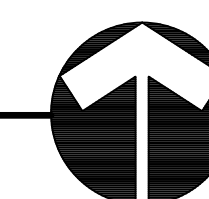
Department of Housing  
**CDBG-DR**  
*Team Sandy*

*Rebuilding Together*

Issued for:  
Bidding and Construction



not to scale



## Title Sheet

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S-2.0	STRUCTURAL FRAMING PLANS
A-0.0	GENERAL INFORMATION
A-1.0	FLOOR PLANS
A-2.0	NORTH and WEST ELEVATIONS
A-2.1	SOUTH and EAST ELEVATIONS
A-3.0	SCHEDULES, SECTIONS and DETAILS
A-4.0	STAIR and DECK DETAILS
A-4.1	STAIR and DECK DETAILS
MEP-1.0	MEP DEMO FLOOR PLANS
P-1.0	PLUMBING NEW WORK FLOOR PLANS
P-5.0	PLUMBING SCHEDULES, DETAILS, & SPEC.'S
M-1.0	MECHANICAL NEW WORK FLOOR PLANS
M-5.0	MECHANICAL SCHEDULES, DETAILS, & SPEC.'S
E-1.0	ELECTRICAL NEW WORK FLOOR PLANS
E-5.0	ELECTRICAL SCHEDULES & DETAILS
E-5.1	ELECTRICAL SPECIFICATIONS



1379 Main Street  
East Hartford, Connecticut 06108  
tel: 860.289.3262 fax: 860.289.3163

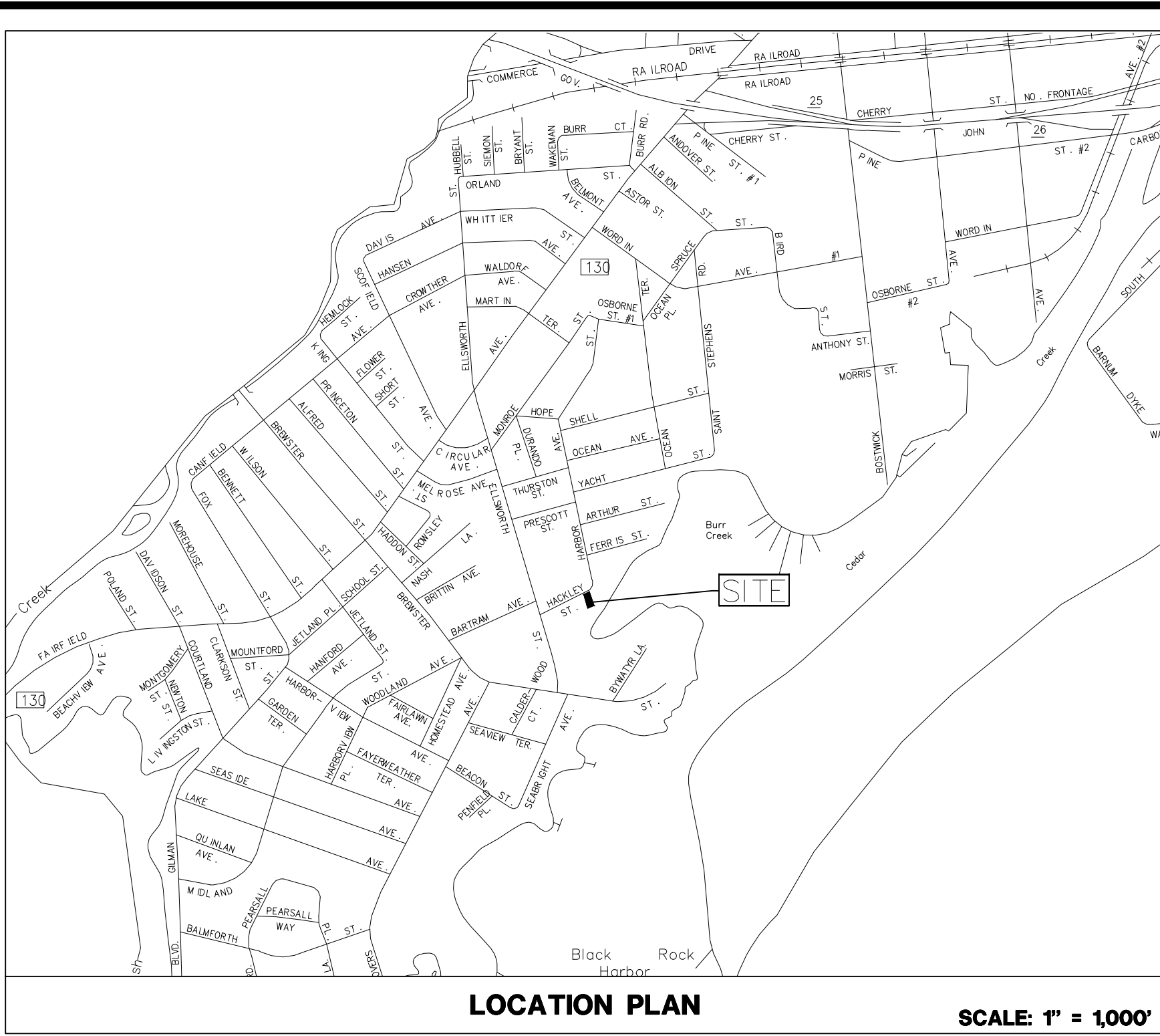
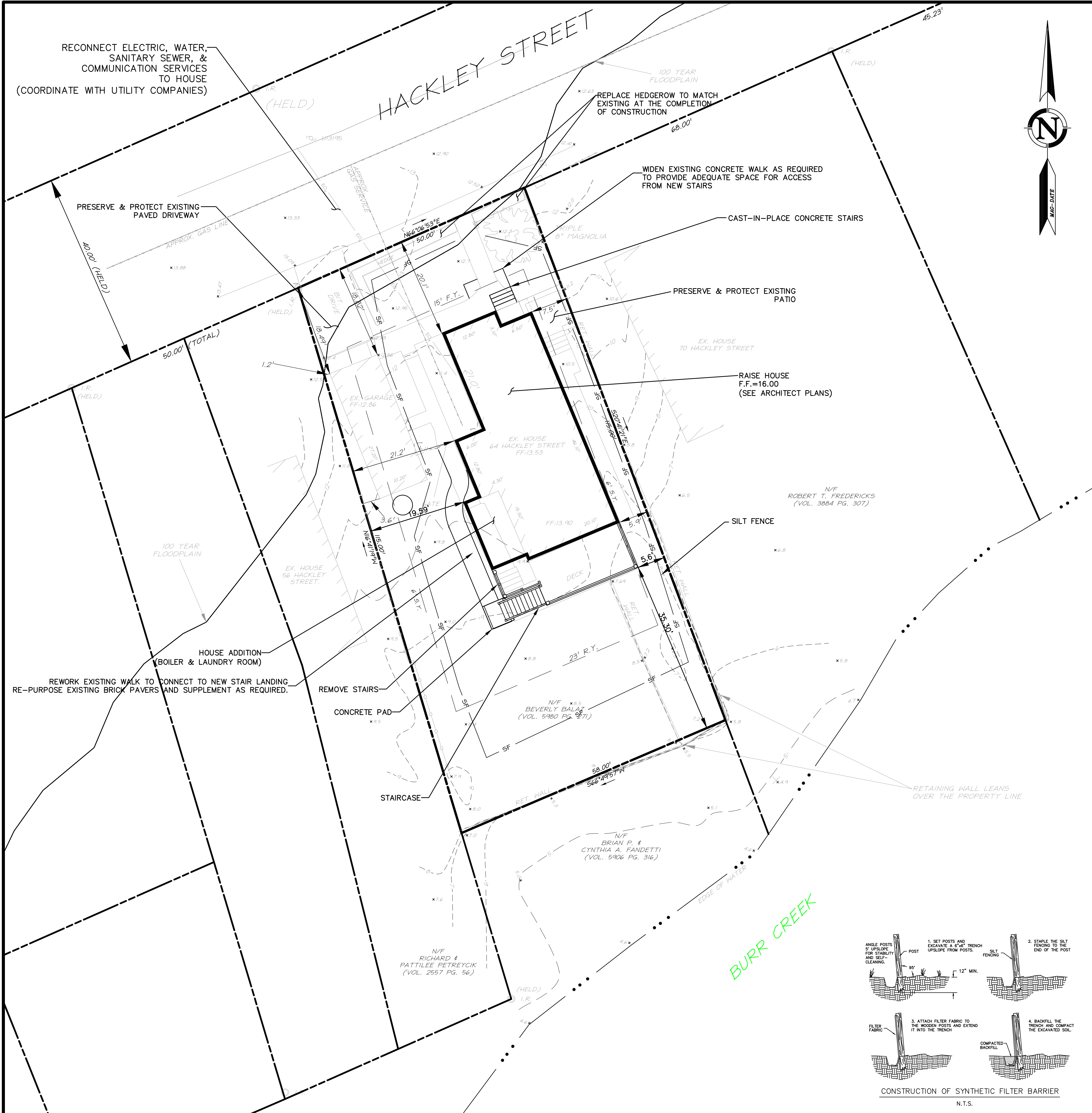
PO Box 1167  
425 Sullivan Avenue  
South Windsor, CT 06074  
tel: 860.291.8755 fax: 860.291.8757

8 South Main Street, Suite 3  
Terryville, Connecticut 06786  
tel: 860.589.8257 fax: 860.585.7034

1379 Main Street  
East Hartford, CT 06108  
tel: 860.622.0840

811 Middle Street  
Middletown, CT 06457  
tel: 860.632.1682 fax: 860.632.1768





Zoning Information			
ZONE: R-B			
ITEM	REQUIRED	EXISTING CONDITIONS	PROPOSED CONDITIONS
Minimum Lot Area	9,000 s.f.	6,184 s.f.*	6,184 s.f.*
Minimum Lot Frontage	60 feet	50 feet*	50 feet*
Minimum Front Setback (principal building)	15 feet	20.1 feet	20.1 feet
Minimum Side Setback (principal building)	6 feet	0***	1 foot****
Minimum Side Setback (principal building)	Sum of both sides, 20% of lot width (10.8 feet)	21.2 feet	20.9 feet
Minimum Rear Setback (principal building)	20 feet	35.51 feet	35.51 feet (deck)
Minimum Rear Setback (principal building)	20% of lot depth (23 feet)	35.51 feet	35.51 feet (deck)
Minimum Front Setback (accessory structure)	Lesser of 50% of lot depth or 75 feet (57.5 feet)	18.49 feet*	18.49 feet* (garage)
Minimum Side Setback (accessory structure)	3 feet	1.2 feet*	1.2 feet* (garage)
Minimum Rear Setback (accessory structure)	3 feet	68.36 feet	68.36 feet (garage)
Maximum Floor Area (accessory structure)	50% first floor of principal structure	28.3%	28.3% (garage)
Maximum Building Coverage	45%	20.7%	22.1%
Maximum Building Coverage	3,375 s.f.	1,264 s.f.	1,369 s.f.
Maximum Site Coverage	65%	40.0%	40.8%
Minimum Landscaped Area	35%	60%	59.2%
Maximum Height (principal building)	28 feet**	23.9 feet**	26.4 feet**
Maximum Height (principal building-ridge)	35 feet	28.4 feet	30.9 feet
Maximum Height (accessory structure-ridge)	15 feet	<15 feet	<15 feet

\* Existing non-conformity  
\*\* To midpoint of highest roof.  
\*\*\* Existing patio (northeast corner of house) encroaches upon adjacent property  
\*\*\*\* Requesting variance from Table 3 of the City of Bridgeport Zoning regulations.  
(6' principal setback requirement in R-B zone)

**NOTES:**  
1. PROPERTY IS IN THE R-B ZONE.  
2. PARCEL CONTAINS 6,184 SQUARE FEET OR 0.142 ACRES.  
3. EXISTING GARAGE AND HOUSE ARE NON-CONFORMING TO CURRENT ZONING REGULATIONS WITH RESPECT TO CURRENT SIDE YARD REQUIREMENTS.  
4. RETAINING WALLS ALONG THE EASTERLY AND SOUTHERLY PROPERTY LINE LEAN OVER THE PROPERTY LINE.  
5. PATIO AT NORTHEAST CORNER OF HOUSE ENCLOSED ON ADJUTING PROPERTY.  
6. PROPERTY FALLS WITHIN THE LIMITS OF A FLOOD HAZARD ZONE AS SHOWN ON THE 100-YEAR FLOOD INSURANCE RATE MAP FAIRFIELD COUNTY, CONNECTICUT (ALL JURISDICTIONS) PANEL 49B OF 62B MAP NUMBER PRODC08B MAP REVISED JULY 8, 2013 FEDERAL EMERGENCY MANAGEMENT AGENCY.  
7. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DERIVED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PARCELS TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO DESIGN PROFESSIONALS, INC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION.  
8. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" FOR UNDERGROUND UTILITY MARKING AT LEAST TWO FULL WORKING DAYS PRIOR TO START OF CONSTRUCTION. 1-800-922-4465 OR WWW.CBYD.COM.

**MAP REFERENCES:**  
1. MAP CHECKED JAN. 1916 H.L.R. SCALE 60FT TO 1 INC. MAP #224. (PROVIDED BY THE CITY OF BRIDGEPORT ENGINEERING DEPT.)  
2. PARTITION MAP, PARCEL #41 MAP OF MEADOW WOOD HOMES, INC., BRIDGEPORT, CT, PREPARED FOR LORANAR CONSTRUCTION CO., DATED SEPTEMBER 10, 1986 PREPARED BY FULLER & CO., INC.  
3. LAND TRANSFER MAP OF PROPERTY LOCATED ON HACKLEY STREET BRIDGEPORT, CONNECTICUT FOR JEFFREY H. AND CONNIE C. ROBINSON SCALE 1"=20' DATED JULY 10, 1981 PREPARED BY KASPER ASSOCIATES, INC.

**SURVEY NOTES:**  
1. THIS SURVEY AND MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300-1 THRU 20-300-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.  
• TYPE OF SURVEY IS A PROPERTY AND TOPOGRAPHIC SURVEY AND IS INTENDED TO DEPICT THE LOCATION OF IMPROVEMENTS RELATIVE TO PROPERTY LINES.  
• THIS IS A RESURVEY BASED ON MAP REFERENCE #1.  
• HORIZONTAL ACCURACY MEETS CLASS A-2 STANDARDS AND VERTICAL ACCURACY MEETS CLASS T-2 STANDARDS.  
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

LAWRENCE R. GEISSLER, JR., L.S. 12327 LIC. NO.

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21 JEFFREY DRIVE  
P.O. BOX 1167  
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**Design Professionals**  
CIVIL & TRAFFIC ENGINEERS / PLANNERS / SURVEYORS  
GIS ANALYSTS / LANDSCAPE ARCHITECTS

PREPARED FOR:

Beverly Balaz  
64 Hackley Street  
Bridgeport, CT

PROJECT NO. 3400.1326  
DATE 12-12-14  
DESIGN BY AK  
DRAWN BY  
CHECKED BY AK

**BEVERLY A BALAZ**  
64 HACKLEY STREET  
BRIDGEPORT, CONNECTICUT  
(203) 470-7908

REVISIONS

NO.	DATE	BY	REVISIONS
1	6/7/2015	RM	CAPITAL STUDIO COMMENTS

**PLOT PLAN**

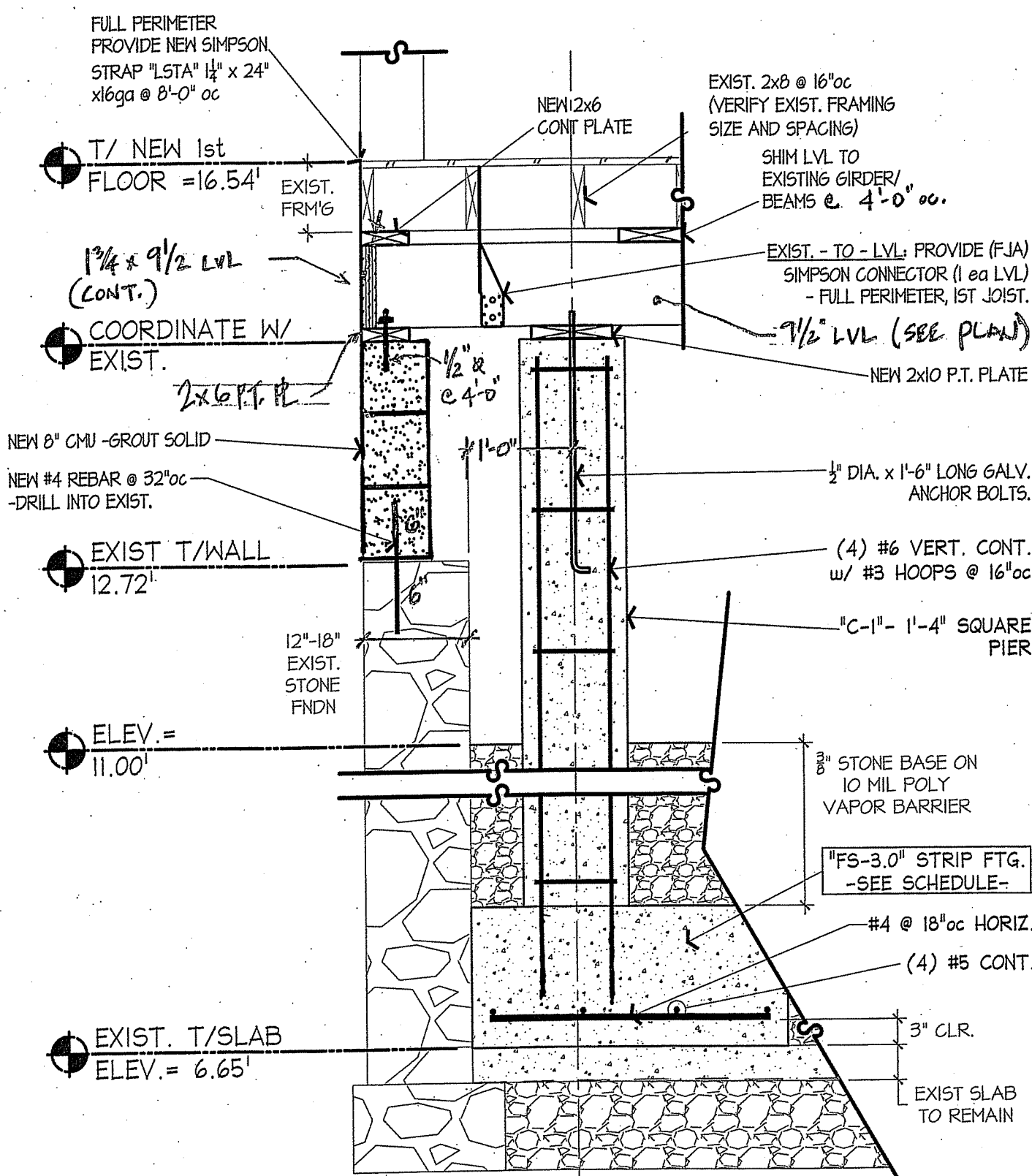
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1" = 20'

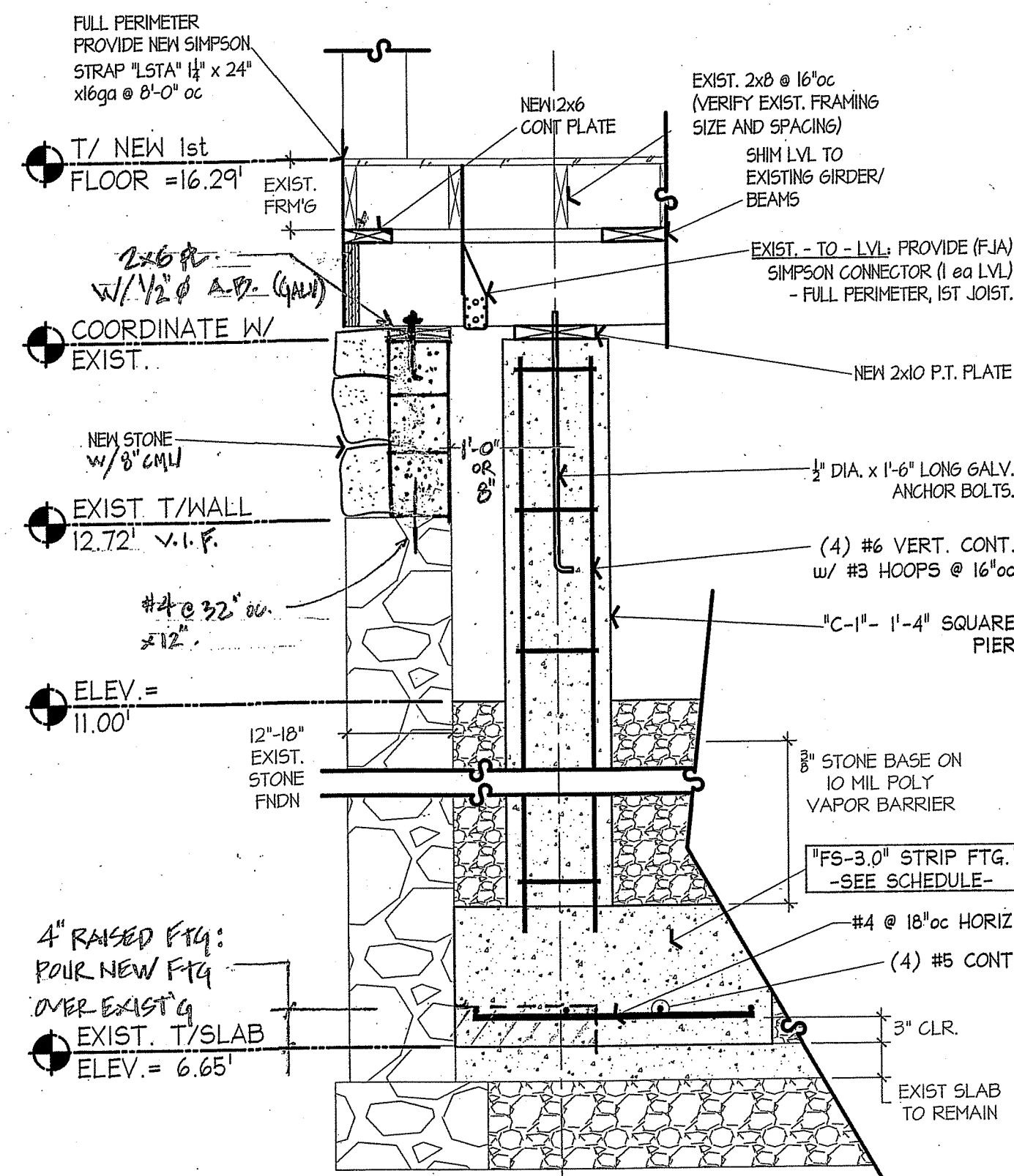
SHEET

**1**

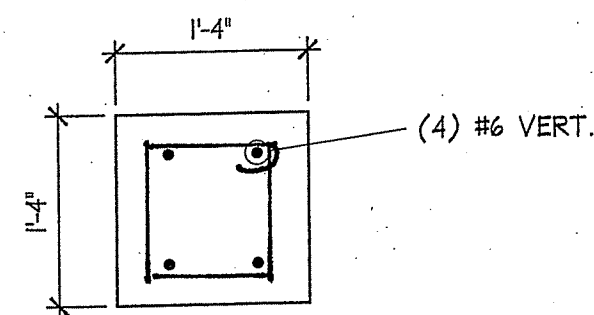




3 TYPICAL SECTION @ C-1  
SCALE: 3/4\"=1'-0\" (NON-EXIST. STONE) w/ 8\" CMU



2 TYPICAL SECTION @ C-1  
SCALE: 3/4\"=1'-0\" (EXIST. STONE) w/ STONE/CMU



4 CONC. PIER DETAIL "C-1"  
SCALE: 3/4\"=1'-0\"

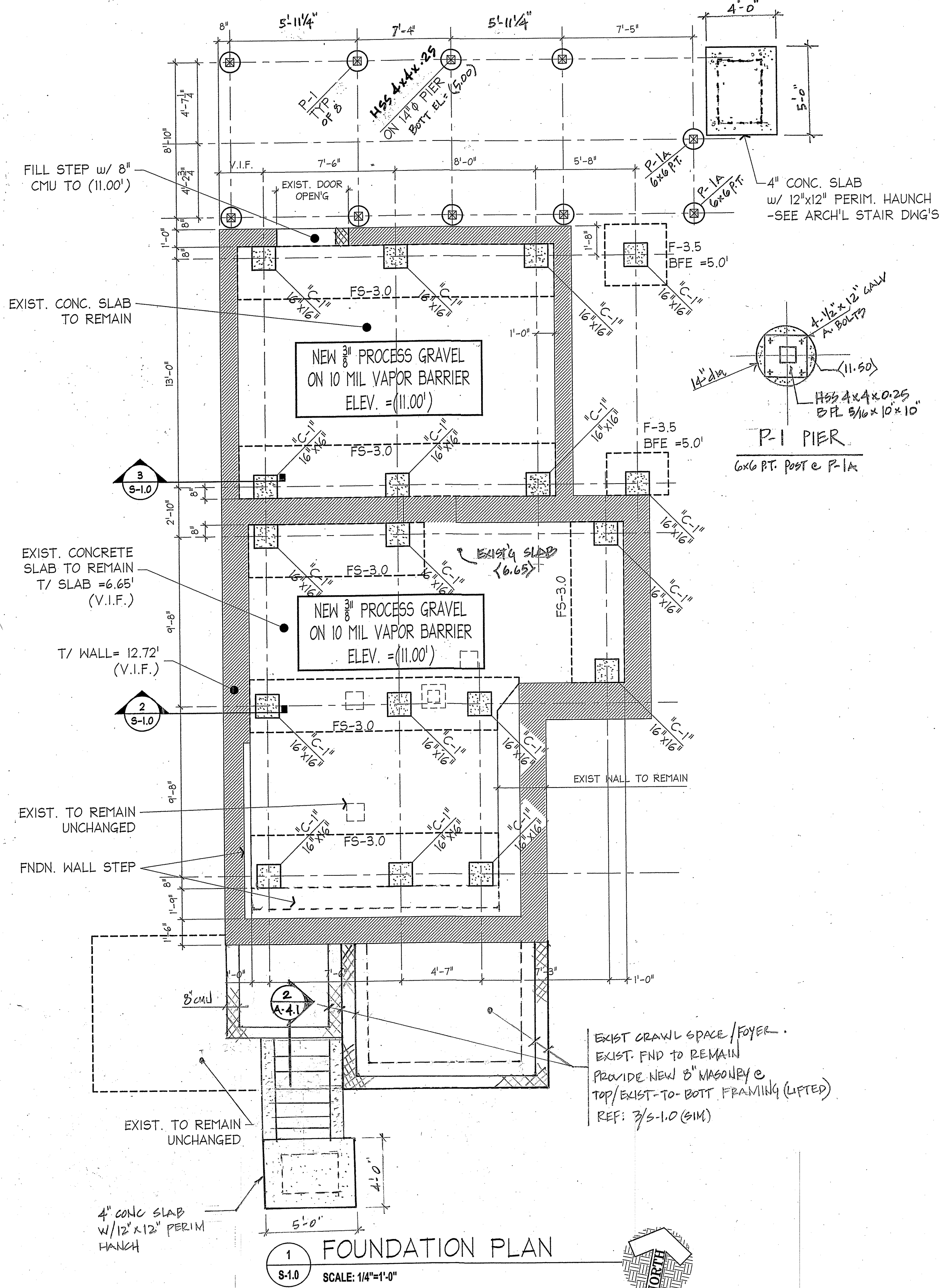
FOOTING			PIER/TUBE SCHEDULE		
NO:	SIZE:	REINF.	NO:	SIZE:	REINF.
FS-3.0	3'-0\" x 1'-4\" CONT.	(4) #5 L.W. / #4 @18\"oc S.W.	P-1 P-1A	14\" $\phi$ TUBE + 14\" $\phi$ 4x4 @ 0.29	(2) #5 DOWEL INTO FOOTING
F-3.5	3'-6\" x 3'-6\" x 1'-0\"	(4) #5 HORIZ. EA. WAY (BOT.)	C-1	16\" x 16\"	(4) #6 DOWELS (EXTEND TO "FS") w/ #3 HOOPS @ 16\"oc

#### NOTES:

- TOP/ NEW CRAWL SPACE FILL ELEV. = 0'-0\" (LOCAL ELEV. 11.00') UNLESS NOTED THUS ( $\pm$ ). ALL ELEVATIONS (+ OR -)
- CRAWL SPACE MATERIAL: 4\" OF PROCESS GRAVEL OVER 10 MIL POLY VAPOR BARRIER
- BFE INDICATES "BOTTOM OF FOOTING ELEVATION", ALL FOOTINGS TO BEAR ON 12\" STRUCTURAL FILL OR EXIST. SLAB ON GRADE
- CRAWL SPACE: EXIST. BRICK PIERS TO REMAIN. ALL NEW STEEL: PRIME & RUST PROOF PAINTED
- VERIFY ALL EXISTING 1st FLOOR FRAMING (SIZE & LOCATION) BEFORE START OF "HOUSE RELOCATION" OPERATIONS
- EXTEND CHIMNEY w/ 8\" CMU BLOCK -GROUT SOLID
- SEE "2/A-1.0" FOR ADD'L INFO.

#### VERIFY IN FIELD

- EXISTING FOUNDATION DIMENSIONS
- DEPTH OF EXISTING FRAMING TO DETERMINE TOP/FND WALLS



1 FOUNDATION PLAN  
SCALE: 1/4\"=1'-0\"

THE STATE OF CONNECTICUT  
DEPARTMENT OF HOUSING (DOH)  
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)  
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OOR)

BALAZ RESIDENCE REHABILITATION and MITIGATION  
APPLICATION No. 1326  
64 HACKLEY ST.  
BRIDGEPORT, CT 06606

**WML**  
WILLIAM M. LARSON, P.E.

1379 Main Street  
East Hartford, CT 06108  
Phone: 860.289.3262  
www.wml.com

date	description	no.
12/20/2015	FOR 3.0.2. 010-22-15	

**FOUNDATION PLAN**

**S-1.0**

date **22 JUN** 2015  
drawn JB  
scale AS SHOWN  
checked WML  
project no.  
application no. 1326



# **STRUCTURAL NOTES:** A. GENERAL

1. ALL WORK SHALL CONFORM TO THE CT BUILDING CODES: IRC 2009, & 2007, 2009 & 2013 CONNECTICUT SUPPLEMENT, ALL FEMA Requirements and the Town of Bridgeport.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING REQUIRED TO MAINTAIN STRUCTURAL STABILITY DURING CONSTRUCTION.
3. IF REQ'D, ALL FIELD TESTING SHALL PERFORMED BY AN ACCREDITED TESTING LABORATORY.

## **B. FOUNDATION**

4. ALL FOUNDATIONS SHALL BEAR ON COMPACTED STRUCTURAL FILL/EXISTING SLAB. ANY UNSUITABLE SOIL CONDITION UNDER SLAB SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/ARCHITECT/ENGINEER.
5. SUB-GRADE SHALL BE COMPACTED USING A VIBRATORY TAMPER OR JUMPING SOIL RAMMER AFTER THE STRUCTURAL BACKFILL HAS BEEN APPROVED.
6. PROVIDE BACKFILL MATERIAL (Submit for Approval) BELOW CRAWL SPACE & SHALL BE PLACED IN LAYERS NOT TO EXCEED 12". REF: BACKFILL SPECIFICATIONS.
7. WHERE FOOTINGS ARE BELOW THE GROUNDWATER ELEVATION, PLACE FILTER FABRIC & 8" OF 3/8" CRUSHED STONE.

## **C. CONCRETE (All materials to be submitted for Review before start of work)**

8. CONCRETE MATERIALS ARE AS FOLLOWS: 3000 psi at WALLS, PIERS, FOOTINGS, and EXTERIOR SLABS.
9. REINFORCEMENT: ASTM A615, Fy = 60 ksi.
10. CONCRETE WORK SHALL CONFORM TO ACI 301-03 & ACI 318-03.
11. MINIMUM COVER FOR REBAR:
  1. CONCRETE AGAINST EARTH.....3"
  2. CONCRETE EXPOSED TO WEATHER.....2"
  3. CONCRETE AT INTERIOR SLABS.....1"
12. INTERIOR FLOOR (If Required):  
BASEMENT SLAB SHALL HAVE A STEEL TROWEL FINISH. PITCH TO EXTERIOR.  
EXTERIOR SLABS SHALL RECEIVE A COURSE BROOM FINISH. VERIFY WITH OWNER ON SLAB TREATMENT BEFORE PRECEDING.
13. APPLY CURING COMPOUND TO SLABS IMMEDIATELY FOLLOWING TROWELING, Kure-N-Seal #830 or EQUAL.
14. GROUT & RUB ALL EXPOSED SURFACES OF FOUNDATION WALLS WITHIN 48 HOURS OF POUR.
15. SAW CUT SLAB-ON-GRADE CONTROL JOINTS AT A MAX. (10' x 10') MAX. JOINTS SHALL BE CUT 1/4" min. and WITHIN 24 HOURS OF POUR. FILL JOINTS WITH NON SHRINK GROUT.

## **D. STEEL (All materials to be submitted for Review before start of work)**

16. MATERIALS: (All exposed steel shall be galvanized)  
W or HP Sections.....ASTM A992, Fy = 50 ksi.  
HSS Sections.....ASTM A500, Fy = 46 ksi.  
PLATES, ANGLES, ETC.....ASTM A36, Fy = 36 ksi.  
ANCHOR BOLTS (galv).....ASTM A307.  
EXTERIOR PIPE COLS.....ASTM A501, Fy = 36 ksi.

## **E. WOOD (All materials to be submitted for Review before start of work)**

17. MATERIALS: USE HEM OR DOUG FIR-LARCH, NO. 1 OR BETTER FOR ALL CONVENTIONAL FRAMING. USE LUMBER WITH LESS THAN 19 PERCENT MOISTURE CONTENT.  
Design Data - Fb = 1000 psi, E = 1500 ksi
18. MATERIALS: USE LVL OR EQUAL (REBUILT micro-lam) BEAMS AS INDICATED ON DRAWINGS. FOLLOW MANUF. REQUIREMENTS FOR INSTALLATION AT EXTERIOR DECK. MIN BEARING = 3 1/4"  
Design Data - Fb = 2800 psi, E = 2000 ksi
19. USE TJI (RedBuilt or Approved Equal) FLOOR TRUSSES AS INDICATED ON DRAWINGS. USE WEB STIFFENERS AND SOLID BLOCKING AT ALL BEARING POINTS AND AS REQUIRED PER MANUFACTURE. RedBuilt/TJI'S ARE UNSTABLE UNTIL BRACED LATERALLY, PROVIDE TEMPORARY BRACING AND SHORING BEFORE ALL FLOORING IS IN PLACE. MIN. BEARING FOR Joists = 3 1/4"
20. USE SIMPSON (or Approved Equal) STRONG TIE JOIST HANGERS AND FRAMING CONNECTORS. SUBMIT TO ENGINEER FOR REVIEW.
21. TIE RAFTERS TO WALL PLATES WITH SIMPSON HURRICANE CONNECTORS. SEE DETAILS.
22. DOUBLE UP FLOOR JOISTS NEXT TO ALL FLOOR PENETRATIONS GREATER THAN 24".
23. DO NOT CUT HOLES IN FLOOR JOISTS WITHOUT APPROVAL FROM ENGINEER OR MANUF.
24. ANY LUMBER TOUCHING CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.
25. IT IS CRITICAL THAT ALL ROOF RAFTERS, RIDGE BEAMS, HEADERS AND BEARING WALLS CARRY THEIR LOADS DOWN TO THE FOUNDATION. WHENEVER A BEAM OR HEADER BEARS ON A FRAMED WALL, INSTALL A 3-2X6 COL (OR AS NOTED) IN THE FRAMED WALL VERTICALLY UNDER THE BEARING POINT LOAD. USE SOLID BLOCKING BETWEEN FLOORS.
26. CONTRACTOR SHALL CONFORM TO THE AWC, "WOOD FRAME CONSTRUCTION MANUAL", 110 mph, EXPOSURE C (WFCM), FOR ALL NAILING PATTERNS, FASTENING & CONNECTIONS. SEE DWGS FOR ADDITIONAL SHEAR WALL CONNECTIONS.

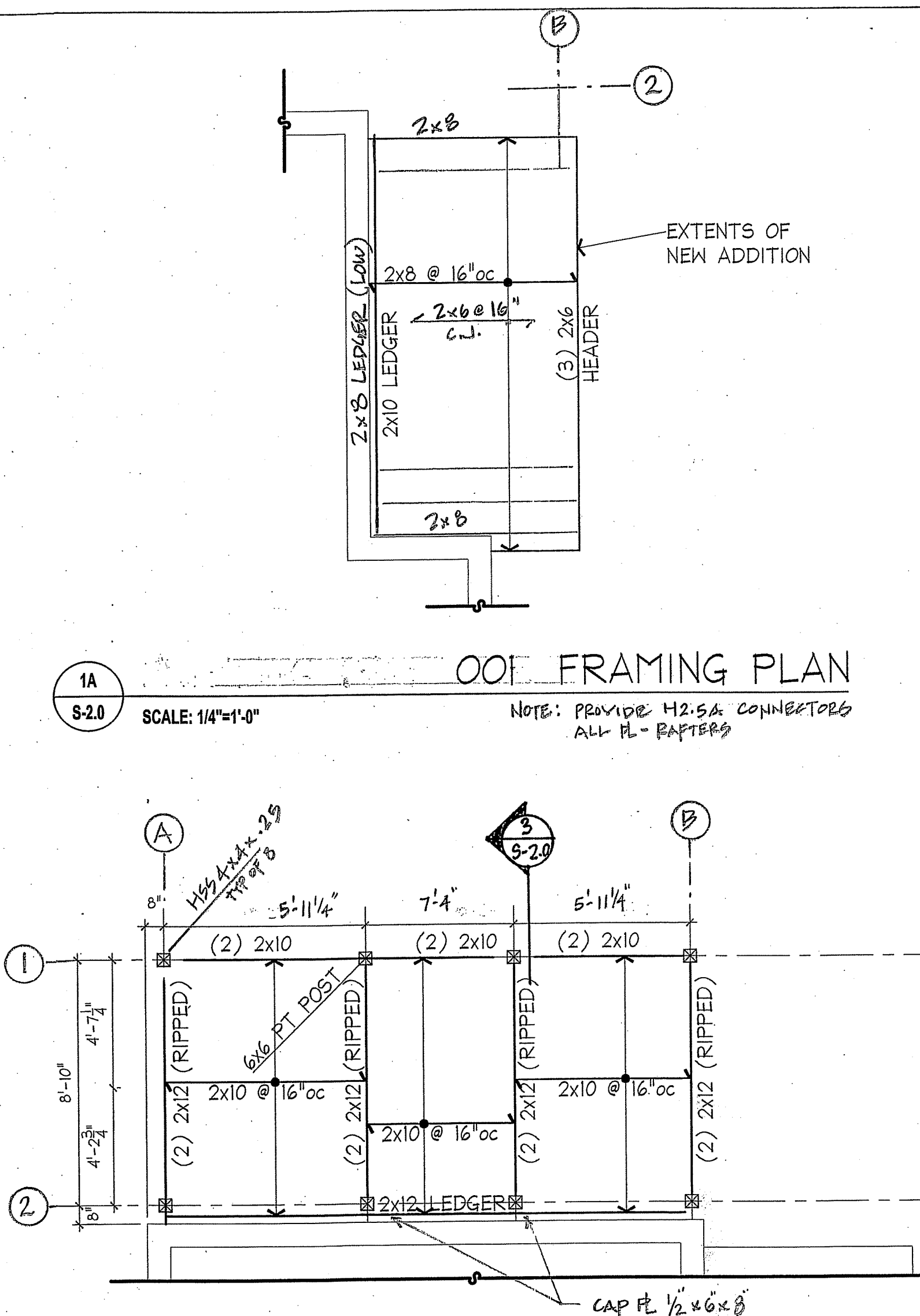
## **F. CONCRETE MASONRY**

27. CMU (8" x 16" UNITS): HOLLOW LOAD BEARING ASTM C-90
28. MORTAR and GROUT: ASTM C-150 TYPE I or III  
TYPE M or S, 5000 psi
29. ALL CMU CELLS SHALL BE GROUTED SOLID.

## **G. DESIGN CRITERIA (Bridgeport, CT)**

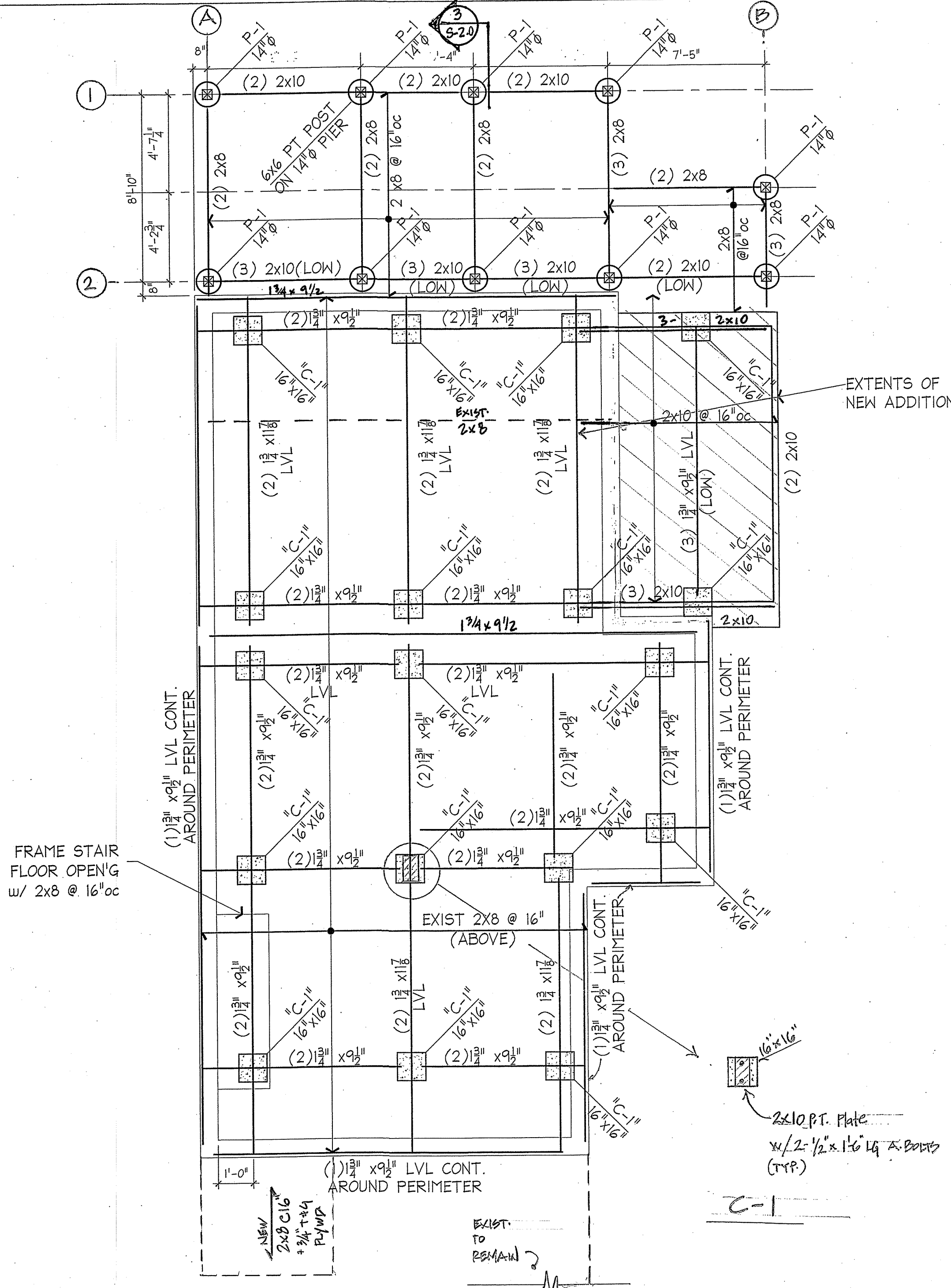
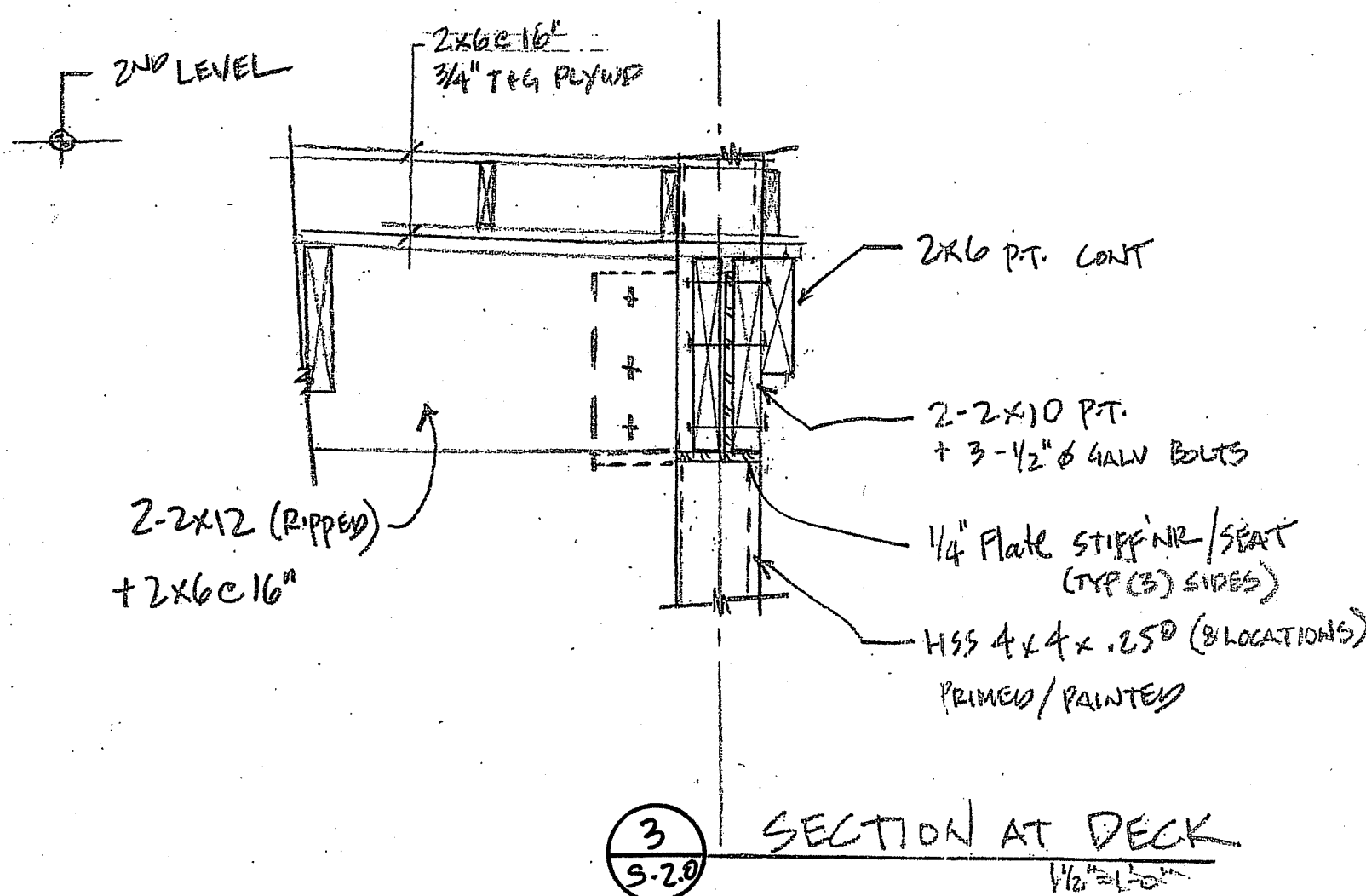
FIRST FLOOR LIVE LOAD = 40 psf  
SECOND FLOOR (Bedrooms) LIVE LOAD = 30 psf  
EXTERIOR DECK LIVE LOAD = 60 psf  
ROOF LIVE LOAD = 30 psf  
WIND LOAD (App K).....110 mph (3 sec)  
PRESUMPTIVE SOIL BEARING PRESSURE.....1.0 ton/sq ft

**NOTE:**The structural design was performed only for general conformance at this Site in Bridgeport, CT, using the assumed local site conditions and general compliance with the CT State Code and based on information provided by the Architect/Owner. The Building Contractor is responsible for existing framing sizes & dimensions, and shall be confirmed and coordinated at the job site with the Architect & Owner, information that pertains to the fabrication process, or to the means, methods, techniques, sequences, and procedures of construction. The Contractor is responsible for all work in a safe and satisfactory manner. Any discrepancies shall be brought to the attention of the Architect/Engineer/ Owner before the start of Work.



## **DECK NOTES:**

1. ALL FASTENERS TO BE GALV. OR S.S.
2. POST CONNECTIONS:  
CAP = PC2/EPC2 - SIMPSON STRONG-TIE  
BASE = CB066 - SIMPSON STRONG-TIE
3. REFER TO SHT. A-4.0 FOR DECK DETAILS



## **EXISTING 1st FLOOR FRAMING PLAN** SCALE: 1/4"=1'-0" w/ NEW SUB- FRAMING

## **NOTES:**

1. EXIST BRICK COLS TO BE REMOVED AFTER HOUSE IS LIFTED  
OPTION#1: TO REMAIN
2. C-1: 16" x 16" CONK COL. w/ 2x10 PT. w/ 2-1/2\"/>

THE STATE OF CONNECTICUT  
DEPARTMENT OF HOUSING (DOH)  
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)  
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

BALAZ RESIDENCE  
REHABILITATION and MITIGATION  
APPLICATION No. 1326  
64 HACKLEY ST.  
BRIDGEPORT, CT 06606

**WM**  
WILLIAM W. LARSON, P.E.

1175 Wood Street  
East Hartford, CT 06108  
Phone: 860.522.0840  
www.williamwlarson.com

date	description	no.
1/22/10	FOR S&D	01-22-10

**STRUCTURAL FRAMING PLANS**

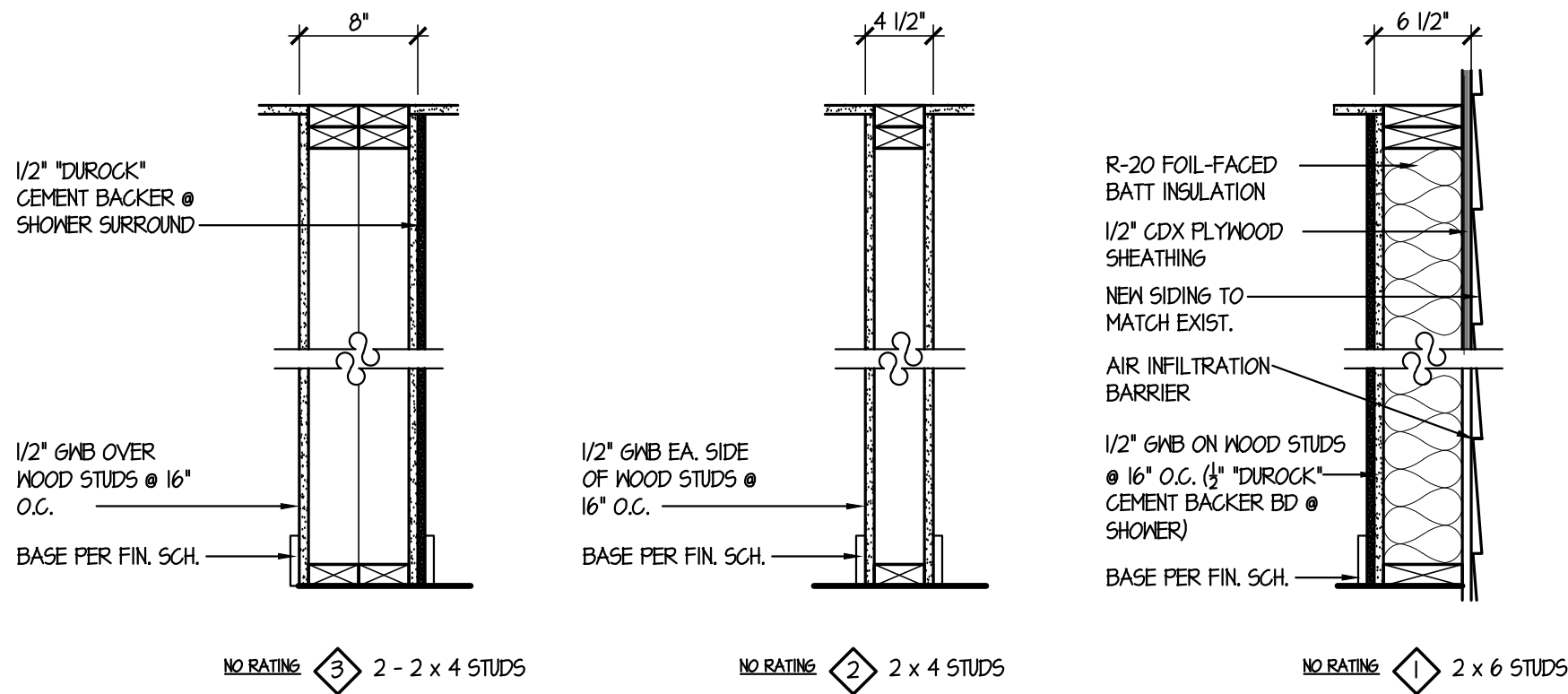
**S-2.0**

date **22 JUN** 2015  
drawn JB  
scale AS SHOWN  
checked WML  
project no.  
application no. 1326



THE STATE OF  
CONNECTICUT  
DEPARTMENT OF  
HOUSING (DOH)  
COMMUNITY  
DEVELOPMENT BLOCK  
GRANT - DISASTER  
RECOVERY (CDBG-DR)  
OWNER OCCUPIED  
REHABILITATION and  
REBUILDING PROGRAM  
(OORR)

BALAZ RESIDENCE  
APPLICATION No. 1326  
64 Hackley Street  
Bridgeport, CT 06605



5  
A-0.0  
NO SCALE

PARTITION TYPES

FINISH NOTES

- PRIME AND PAINT ROOM WITH 2 COATS OF BENJAMIN MOORE WHITE-EGGSHELL.
- PRIME AND PAINT ALL WOOD MOLDINGS AND TRIM-COLOR TO BE SELECTED BY OWNER.
- DO NOT PROCEED WITH CHANGE IN SCOPE OF WORK WITHOUT WRITTEN APPROVAL FROM OWNER OR ARCHITECT.
- REFER TO DIVISION 04 SPECIFICATION SECTIONS FOR FINISHES.
- CERAMIC TILES NOTES
  - AT ALL CERAMIC TILE FLOOR AREAS, PROVIDE 1/4" THICK APA RATED A-C PLYWOOD UNDERLAYMENT WITH EXTERIOR GLUE. AT BATHROOM FLOOR, ALSO PROVIDE WATERPROOF MEMBRANE COMPLYING WITH ANSI A108.10. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
  - AT SHOWER STALL WALLS IN LIEU OF GNB, FURNISH and INSTALL DUROCK CEMENT BACKER BOARD, FULL EXTENT OF SHOWER SURROUND WALLS, FROM SHOWER BASE UNIT TO CEILING HEIGHT, INSTALL OWNER SELECTED CERAMIC WALL TILE IN ACCORDANCE WITH TCNA WALL SYSTEM B-430, USING LATEX-PORTLAND CEMENT MORTAR and GROUT IN ACCORDANCE WITH ANSI A108.12 and A108.10, RESPECTFULLY. .
  - AT BATHROOM FLOOR, INSTALL SELECTED CERAMIC FLOOR TILE IN ACCORDANCE WITH TCNA FLOOR SYSTEM F-143 USING EPOXY MORTAR and EPOXY GROUT IN ACCORDANCE WITH ANSI A108.6.
  - GROUT COLOR AS SELECTED BY OWNER.
  - ALL CERAMIC TILE MATERIALS SHALL BE AS SELECTED BY OWNER, FURNISHED UNDER THE ALLOWANCE SPECIFIED IN SECTION 01210. ALL CERAMIC TILE LABOR and MORTAR / GROUT MATERIALS SHALL BE INCLUDED IN THE BASE BID.





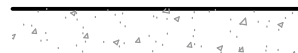




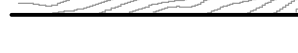
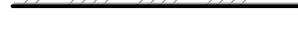

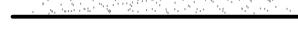

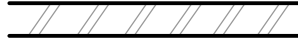



6  
A-0.0  
NO SCALE

GENERAL CONSTRUCTION and DEMOLITION NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH APPLICABLE STATE OF CONNECTICUT BUILDING AND FIRE CODES AND SAFETY CODES. BEFORE WORK BEGINS CONTRACTOR IS TO CONTACT CALL BEFORE YOU DIG AT 1-800-922-4455 TO LOCATE ALL UNDERGROUND UTILITIES.
- WORK PERMITS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL SECURE ALL REQUIRED LOCAL AND STATE OF CONNECTICUT PERMITS PRIOR TO COMMENCING WORK. ALL COSTS OF SECURING PERMITS SHALL BE PAID BY THE OWNER.
- ALL MATERIALS AND EQUIPMENT THAT WILL BE USED IN THE CONSTRUCTION OF THIS PROJECT ARE SUBJECT TO THE APPROVAL OF THE OWNER. ALL MATERIALS AND EQUIPMENT REQUIRED BY NOTES OR SPECIFICATIONS SHALL BE SUBMITTED IN THE FORM OF SAMPLES AND SHOP DRAWINGS FOR APPROVAL BY ARCHITECT. WHERE COLOR SELECTIONS ARE MADE, COMPLETE SAMPLES SHALL BE FURNISHED TO THE ARCHITECT.
- ALL EXISTING OR NEW CONSTRUCTION DISTURBED OR DAMAGED DURING THE COURSE OF THIS WORK SHALL BE RESTORED TO MATCH EXISTING ADJACENT SURFACES OR ORIGINAL CONSTRUCTION.
- PRECAUTION MUST BE EXERCISED AT ALL TIMES FOR THE PROTECTION OF PERSONS AND PROPERTY. THE SAFETY PROVISIONS OF APPLICABLE LAWS AND CONSTRUCTION CODES MUST BE OBSERVED. CONTRACTOR SHALL TAKE OR CAUSE TO BE TAKEN SUCH ADDITIONAL SAFETY AND HEALTH MEASURES AS ARE REASONABLY NECESSARY. MACHINERY, EQUIPMENT AND OTHER HAZARDS GUARDED IN ACCORDANCE WITH SAFETY PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, TO THE EXTENT THAT SUCH PROVISIONS ARE NOT IN CONTRADICTION OF APPLICABLE LAWS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND PRESERVE IN OPERATIONAL CONDITION ALL UTILITIES TRAVERSING THE WORK AREA. DAMAGE TO ANY UTILITY DUE TO WORK UNDER THIS CONTRACT SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT NO ADDITION COST TO THE OWNER. UTILITY SHUT DOWNS MUST BE COORDINATED WITH THE OWNER.
- EACH BIDDER WILL BE HELD TO HAVE EXAMINED THE PREMISES AND SATISFIED HIMSELF WITH THE CONDITIONS WHICH WOULD IN ANY MANNER AFFECT THE WORK UNDER THE CONTRACT AND NO LATER CLAIMS FOR EXTRA COMPENSATION FOR LABOR, MATERIALS AND EQUIPMENT WHICH COULD HAVE BEEN FORSEEN BY SUCH EXAMINATION WILL BE RECOGNIZED.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASUREMENTS FOR HIS WORK AT THE SITE AND SHALL VERIFY ALL MEASUREMENTS AND DIMENSION GIVEN ON THE DRAWINGS. DO NOT SCALE DRAWINGS.
- DO NOT PROCEED WITH CHANGE IN SCOPE OF WORK WITHOUT WRITTEN APPROVAL FROM OWNER OR ARCHITECT.
- ALL DEMOLITION SHOWN ON THESE DRAWINGS IS DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND RELOCATION WORK NECESSARY TO PROPERLY COMPLETE THE PROJECT, REGARDLESS IF DEMOLITION WORK IS SHOWN OR NOT ON DRAWINGS.
- THE CONTRACTOR IS RESPONSIBLE FOR LEGAL DISPOSAL OF ALL CONSTRUCTION WASTE AND REMOVED ELEMENTS, UNLESS NOTED OTHERWISE ON DRAWINGS. DEBRIS SHALL BE DISPOSED OF ON A DAILY BASIS.
- THE CONTRACTOR SHALL PROVIDE ALL STRUCTURAL SHORINGS, BRACING AND SHEATHING AS REQUIRED FOR SAFETY AND FOR PROPER EXECUTION OF WORK AND HAVE SAME REMOVED WHEN WORK IS COMPLETED.
- THE OWNER RETAINS THE RIGHT TO SALVAGE ANY DEMOLISHED OR CONTRACTOR REMOVED MATERIAL(S). CONTACT OWNER BEFORE REMOVAL FROM SITE

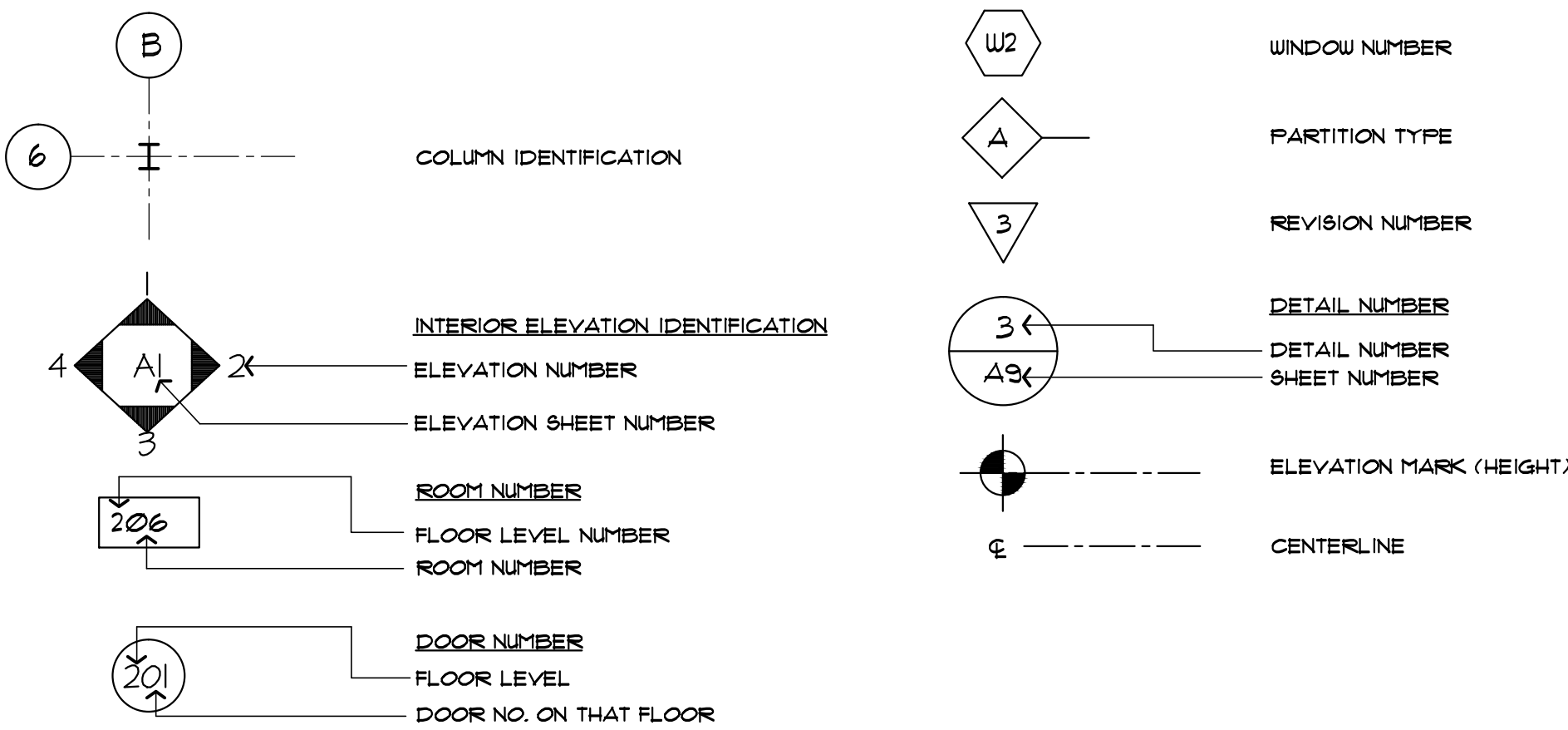
1  
A-0.0  
NO SCALE

GENERAL CONSTRUCTION and DEMOLITION NOTES

	BRICK		RIGID INSULATION
	STONE		BATT INSULATION
	CONCRETE		FINISH WOOD (ELEVATION)
	MASONRY BLOCK		FINISH WOOD (SECTION)
	PLYWOOD		WOOD BLOCKING (CONT.)
	GYPSUM BOARD		WOOD BLOCKING (NOT CONT.)
	STEEL (SECTION)		STEEL ANGLE
	CERAMIC TILE		STEEL BEAM
	EARTH		GRAVEL

4  
A-0.0  
NO SCALE

MATERIALS LEGEND



3  
A-0.0  
NO SCALE

SYMBOLS LEGEND

A.C.T. ACOUST. ALT. ALUM. ARCH. ASB. A.T. @	ACOUSTICAL CEILING TILE ACOUSTIC ALTERNATE ALUMINUM ARCHITECTURAL ASBESTOS ASPHALT TILE AT	I.D. INSUL.  JAN. JT.  LAM. L.P. L.CKR.	INSIDE DIAMETER INSULATION  JANITOR JOINT  LAMINATED LOW POINT LOCKER
B.G. BD. B.F. BLDG.	BRICK COURSE BOARD BOTTOM OF FOOTING BUILDING	MAS. MAT. MAX. M.C. MECH. MEM. MFR. MIN. MIR. MISC. M.O.	MASONRY MATERIAL MAXIMUM MASONRY COURSE MECHANICAL MEMBRANE MANUFACTURER MINIMUM MIRROR MISCELLANEOUS MASONRY OPENING
CAB. C/C C.T. C.J. C.L. CL.G. C.O. COL. COMP. CONC. CONN. CONT. CORR. CSK.	CABINET CENTER TO CENTER CERAMIC TILE CONTROL JOINT CENTER LINE CEILING CASED OPENING COLUMN COMPACTED CONCRETE CONNECTION CONTINUOUS CORRIDOR COUNTERSINK	N.I.G. NO. N.T.S.  O/C O.D. OPNG. OPP.	NOT IN CONTRACT NUMBER NOT TO SCALE  ON CENTER OUTSIDE DIAMETER OPENING OPPOSITE
D.F. DET. DN. DN. DP.	DRINKING FOUNTAIN DETAIL DRAINING DOWN DAMP-PROOFING	PERF. P.T.  R. R.B. REF. REINF. R.L. RM.	PERFORATED PRESSURE TREATED  RISER (RADIUS) RUBBER BASE REFERENCE REINFORCING RAIN LEADER ROOM
ELECT. E.J. ELEV. E.P. EQUIP. E.W.C. EXP.	ELECTRICAL EXPANSION JOINT ELEVATION (ELEVATOR) ELECTRICAL PANEL EQUIPMENT ELECTRIC WATER COOLER EXPANSION	SIM. SPEC. STL. STRUCT. STOR. SUSP.	SIMILAR SPECIFICATION STEEL STRUCTURAL STORAGE SUSPENDED
F.A.P. F.D. F.E. F.H.G. FIN. FL. F/M F/F FDN F.R. FTG.	FIRE ALARM PANEL FLOOR DRAIN FIRE EXTINGUISHER FIREHOSE CABINET FINISH FLOOR FACE OF MASONRY FACE OF FRAMING FOUNDATION FIRE RATED FOOTING	TERR. T & G. THRESH. T. T/S T/STL T/M TYP.	TERRAZZO (TERRACE) TONGUE AND GROOVE THRESHOLD TREAD TOP OF SLAB TOP OF STEEL TOP OF WALL TYPICAL
G.M.U. GNB GAL.V. GL. GLZ. GYP. BD.	GLAZED MASONRY UNIT GYPSUM WALLBOARD GALVANIZED GLASS GLAZING GYPSUM WALL BOARD	V.C.T. V.B. VERT. VEST. V.I.F. V.W.C.	VINYL COMPOSITE TILE VINYL BASE VERTICAL VESTIBULE VERIFY IN FIELD VINYL WALL COVERING
HGT. H.M. H.P. HDWD. HDWR.	HEIGHT HOLLOW METAL HIGH POINT HARDWOOD HARDWARE	W/ W.C. WD. WIND. W.P.	WITH WATER CLOSET WOOD WINDOW WATERPROOFING

2  
A-0.0  
NO SCALE

ABBREVIATIONS

date	description	no.
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revisions

GENERAL  
INFORMATION

A-0.0

date	22 JUNE 2015
drawn	JH/TM
scale	AS SHOWN
checked	PM/JRP/KG
project no.	1347-18
application no.	1326

**THE STATE OF  
CONNECTICUT  
DEPARTMENT OF  
HOUSING (DOH)  
COMMUNITY  
DEVELOPMENT BLOCK  
GRANT - DISASTER  
RECOVERY (CDBG-DR)  
OWNER OCCUPIED  
REHABILITATION and  
REBUILDING PROGRAM  
(OORR)**

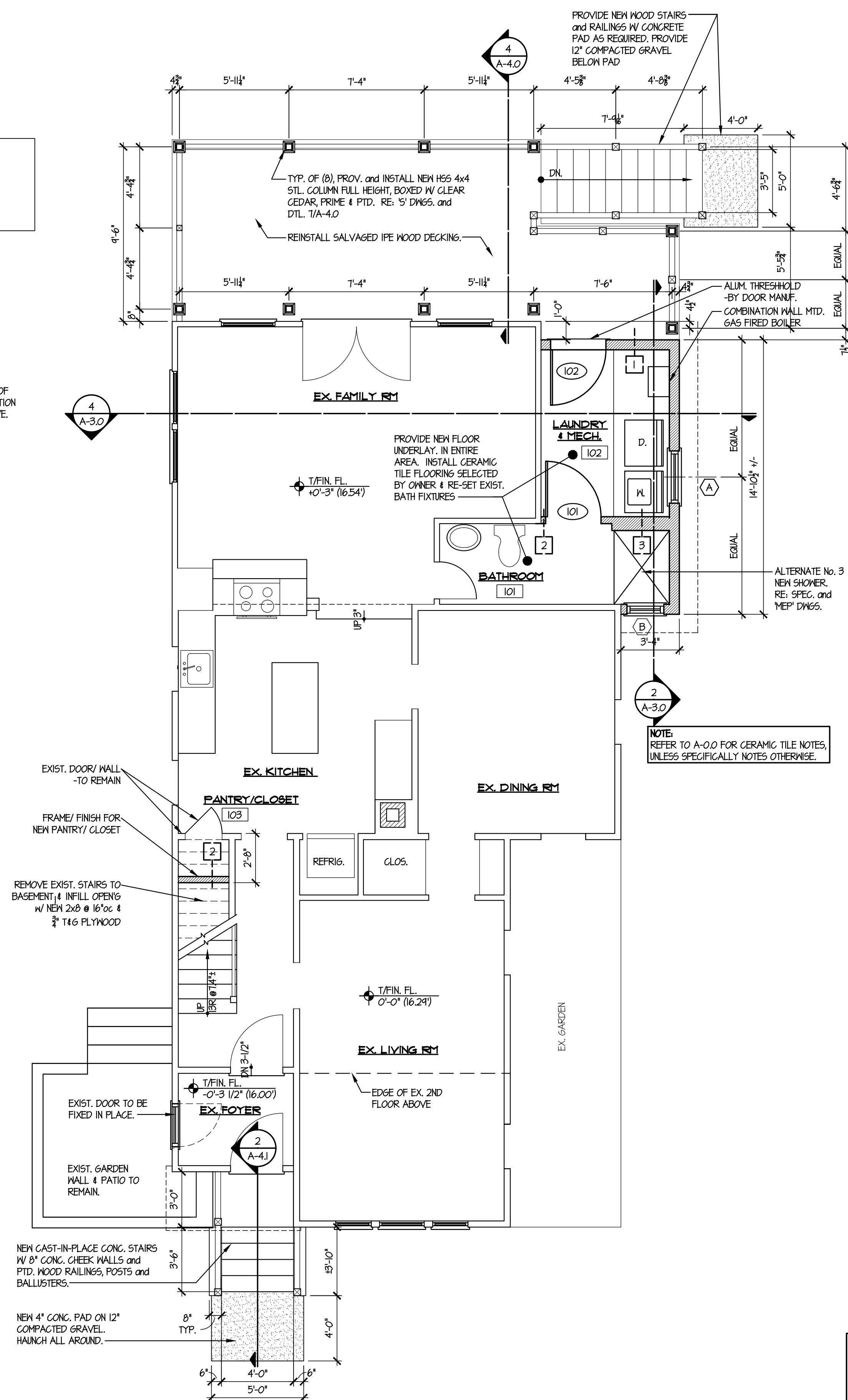
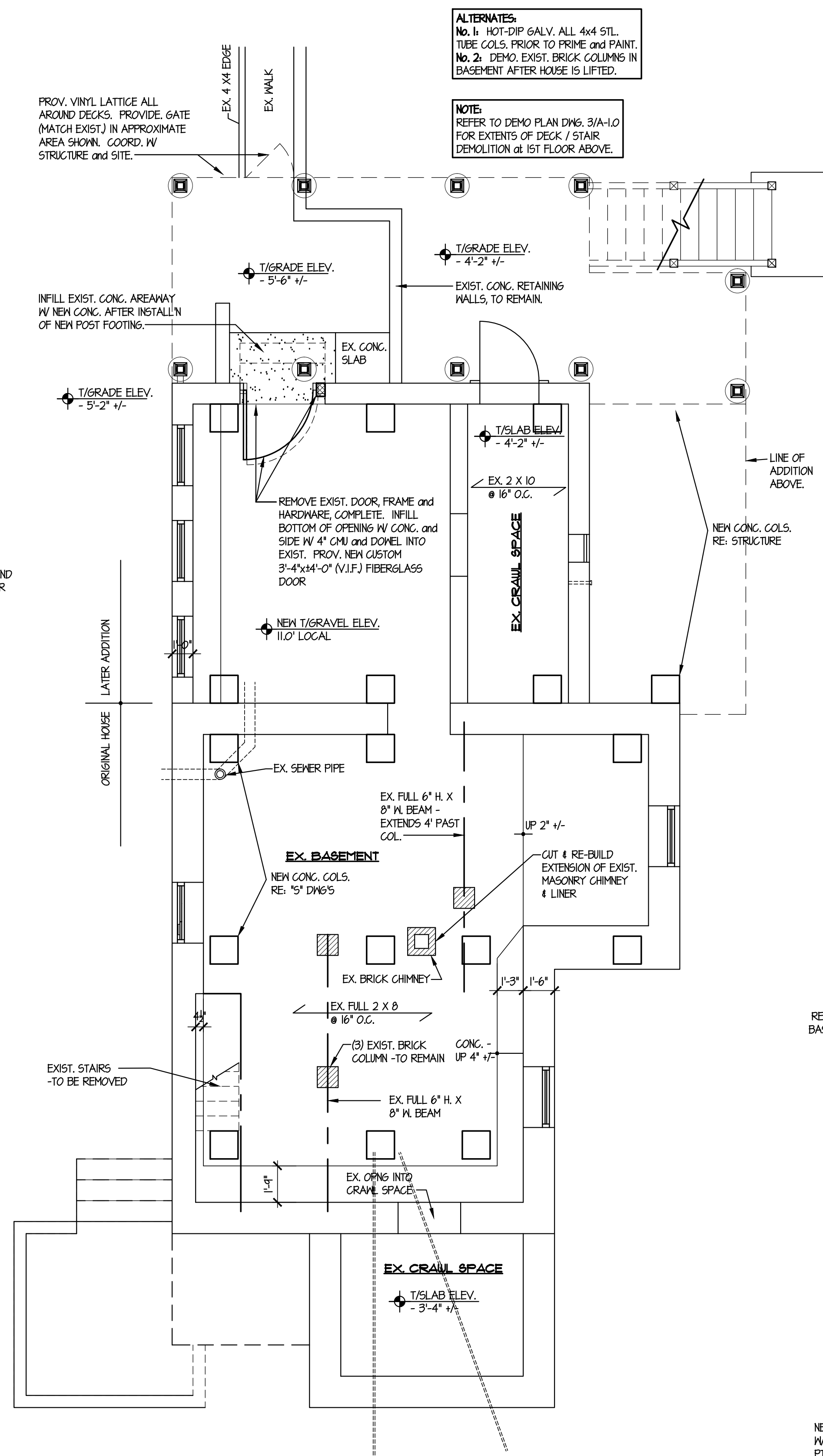
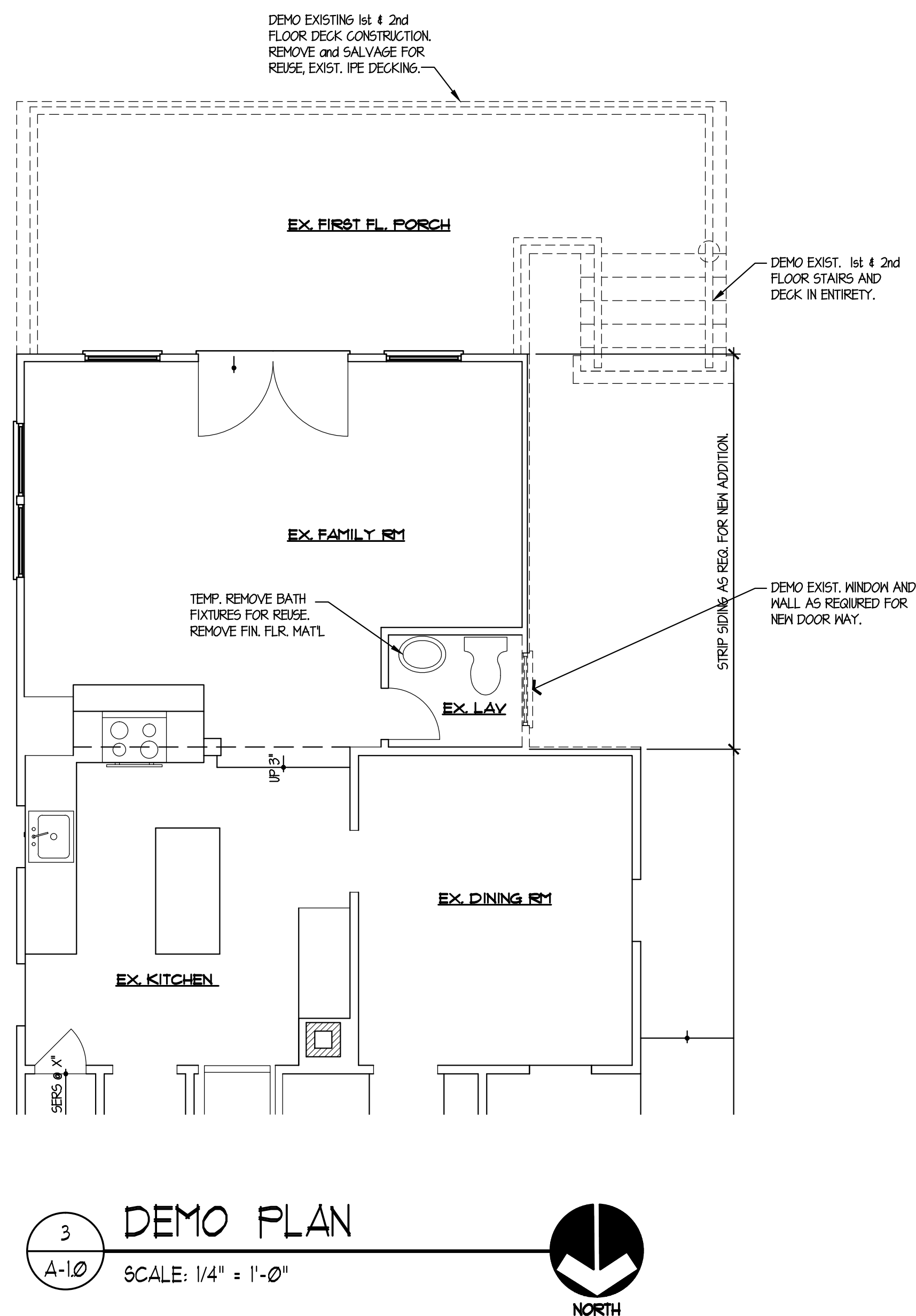
**BALAZ RESIDENCE**  
**APPLICATION No. 1326**  
**64 Hackley Street**  
**Bridgeport, CT 06605**

date	description	no.
revisions		

## FLOOR PLANS

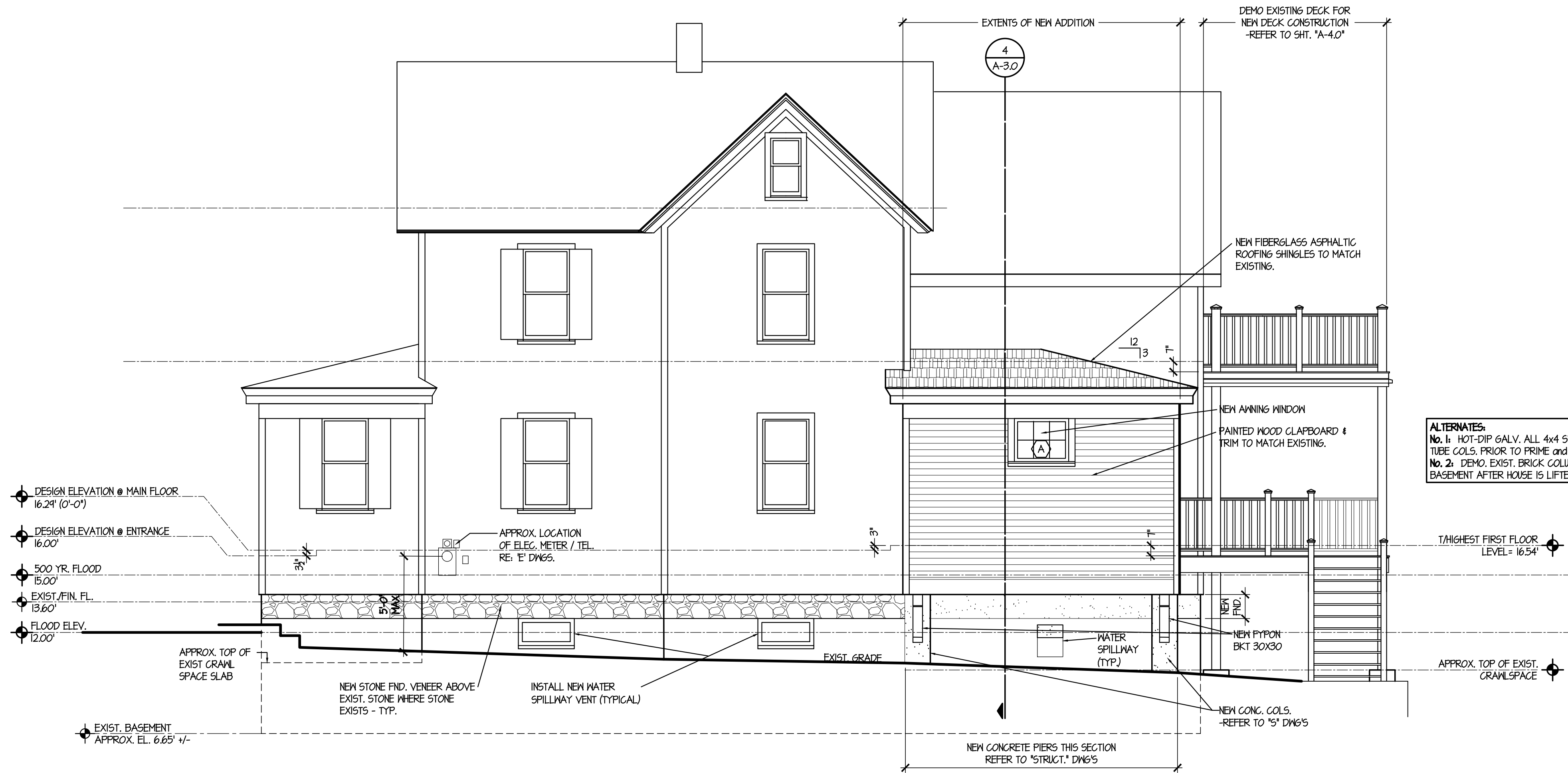
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date	22 JUNE 2015
drawn	JH/TM
scale	AS SHOWN
checked	PM/JRP/KG
project no.	1347-18
application no.	1326

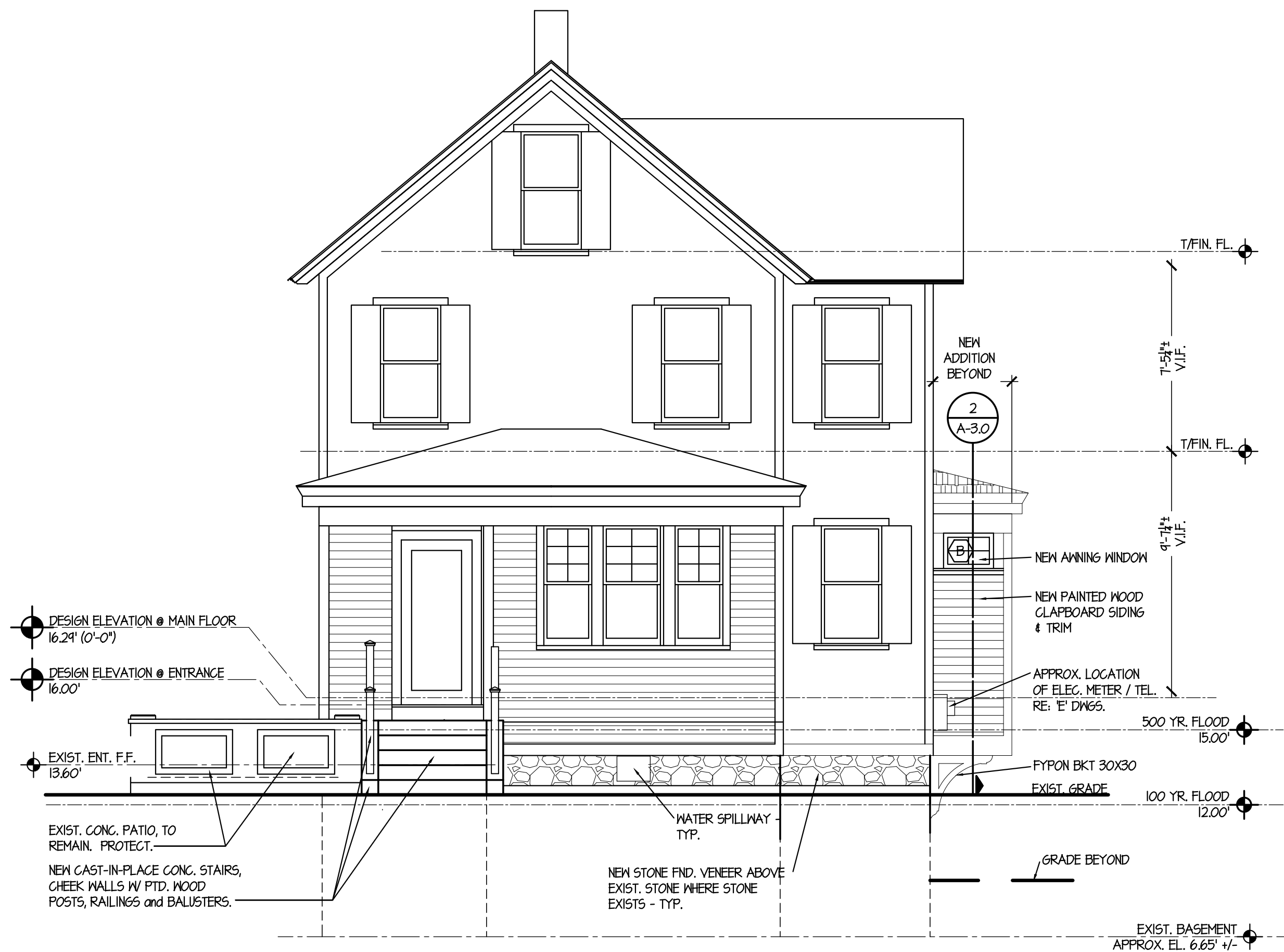


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2 WEST ELEVATION  
SCALE: 1/4" = 1'-0"



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

**NOTE:** FOR REPLACEMENT DH WINDOWS  
LOCATIONS, REFER TO LEAD PAINT  
ABATEMENT SPEC ; SECTION 02090

date	description	no.
revisions		

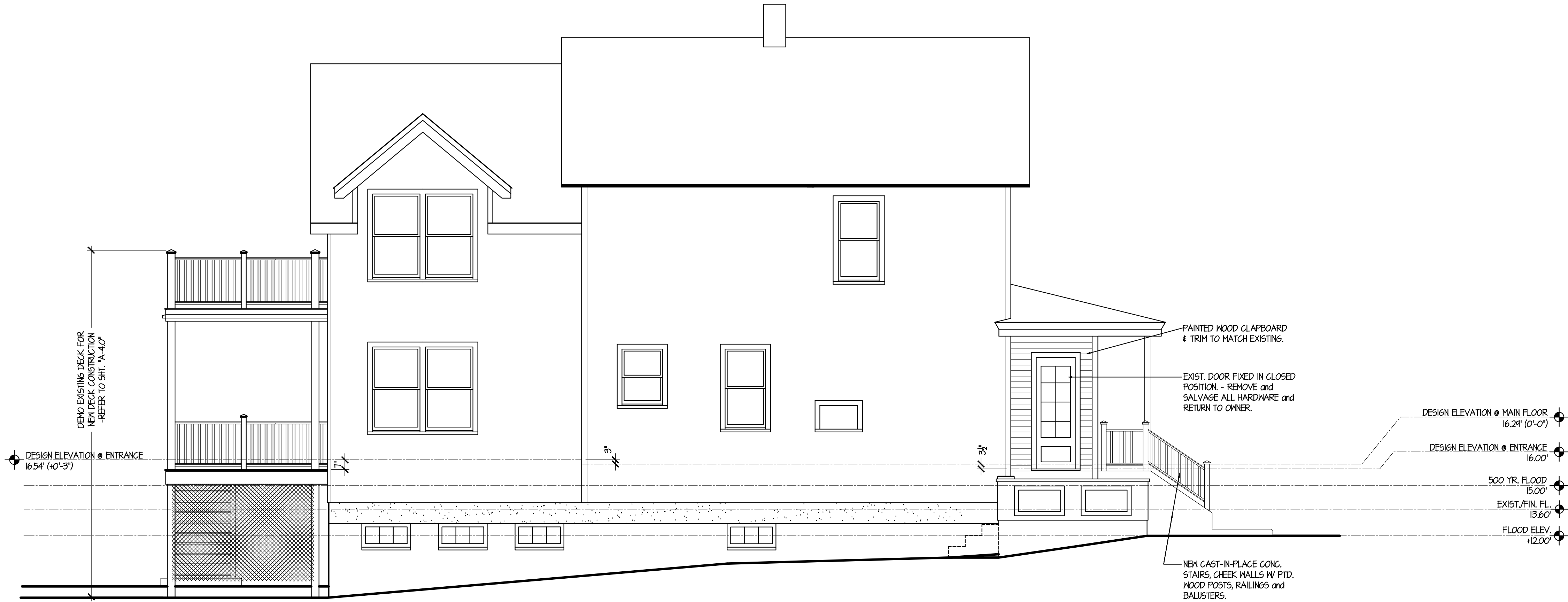
NORTH and  
WEST  
ELEVATIONS

A-2.0

date	22 JUNE 2015
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checked	PM/JRP/KG
project no.	1347-18
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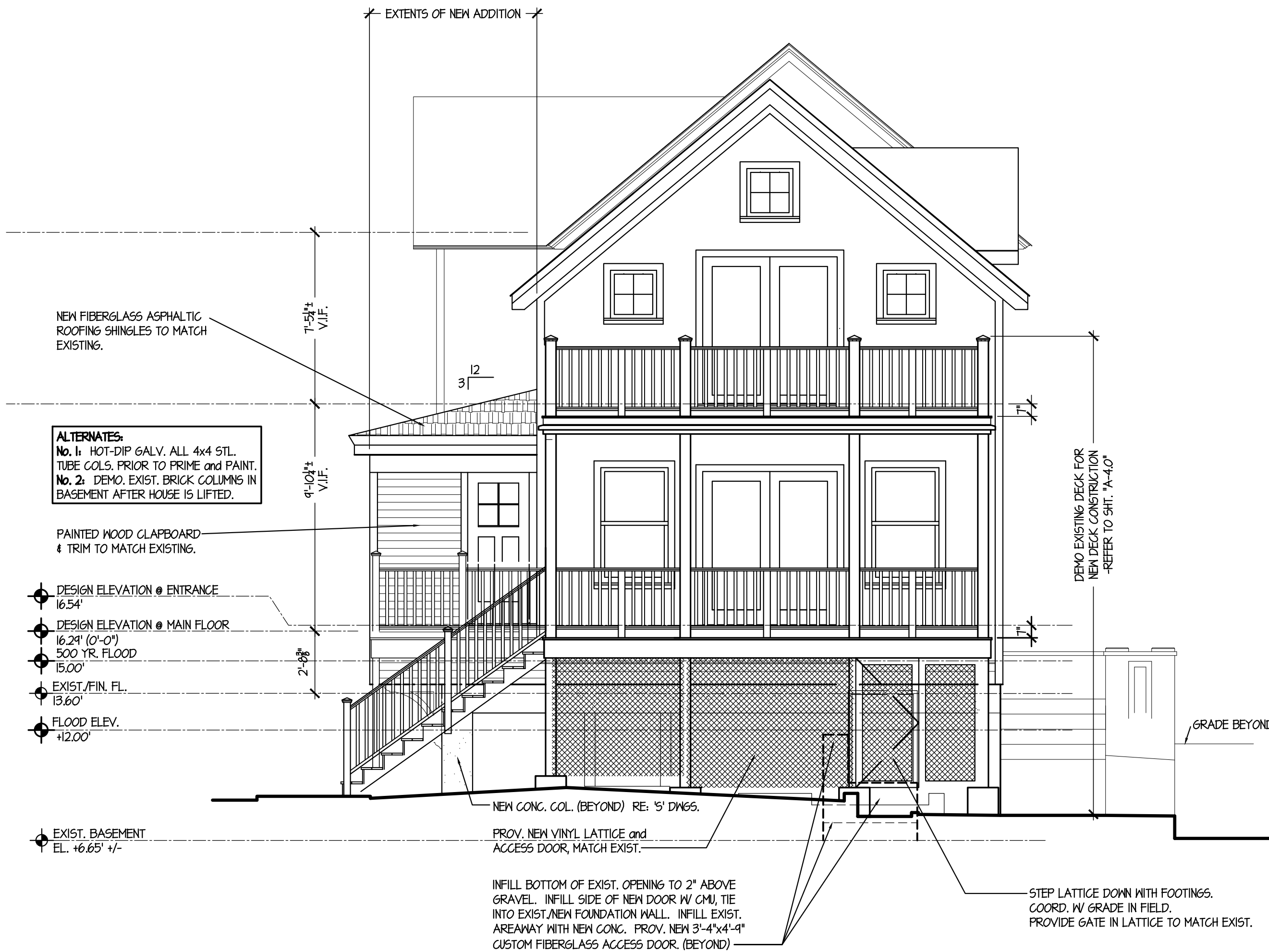
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2. EAST ELEVATION  
SCALE: 1/4" = 1'-0"

**NOTE:** FOR REPLACEMENT DH WINDOWS LOCATIONS, REFER TO LEAD PAINT ABATEMENT SPEC ; SECTION 02090



1. SOUTH ELEVATION WITH PORCHES  
SCALE: 1/4" = 1'-0"

date	description	no.
revisions		

SOUTH and  
EAST  
ELEVATIONS

A-2.1

date	22 JUNE 2015
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DOOR SCHEDULE

LABEL	TYPE	STYLE	SIZE (W x H)	NOTES
101	INTERIOR DOOR	A	2'-8" x 8'-0"	**MATCH HEAD HEIGHT OF EXIST. OPENINGS TRIM TO MATCH EXIST.
102	EXTERIOR DOOR	A	2'-4" x 8'-0"	**MATCH HEAD HEIGHT OF EXIST. OPENINGS TRIM TO MATCH EXIST.

FINISH SCHEDULE

ROOM NAME	No.	FLOOR		WALLS	CEILING	CLG. HT.	REMARKS
		FLOORING	BASE				
BATHROOM	101	CERAMIC TILE	WOOD (MATCH EXIST.)	PAINT	6MB-PTD.	(MATCH EXIST.)	MATCH EXIST. MATERIALS & FINISHES
LAUNDRY/MECH.	102	CERAMIC TILE	WOOD (MATCH EXIST.)	PAINT	6MB-PTD.	(MATCH EXIST.)	MATCH EXIST. MATERIALS & FINISHES
PANTRY/CLOSET	103	VINYL	WOOD (MATCH EXIST.)	PAINT	6MB-PTD.	EXIST.	MATCH EXIST. MATERIALS & FINISHES

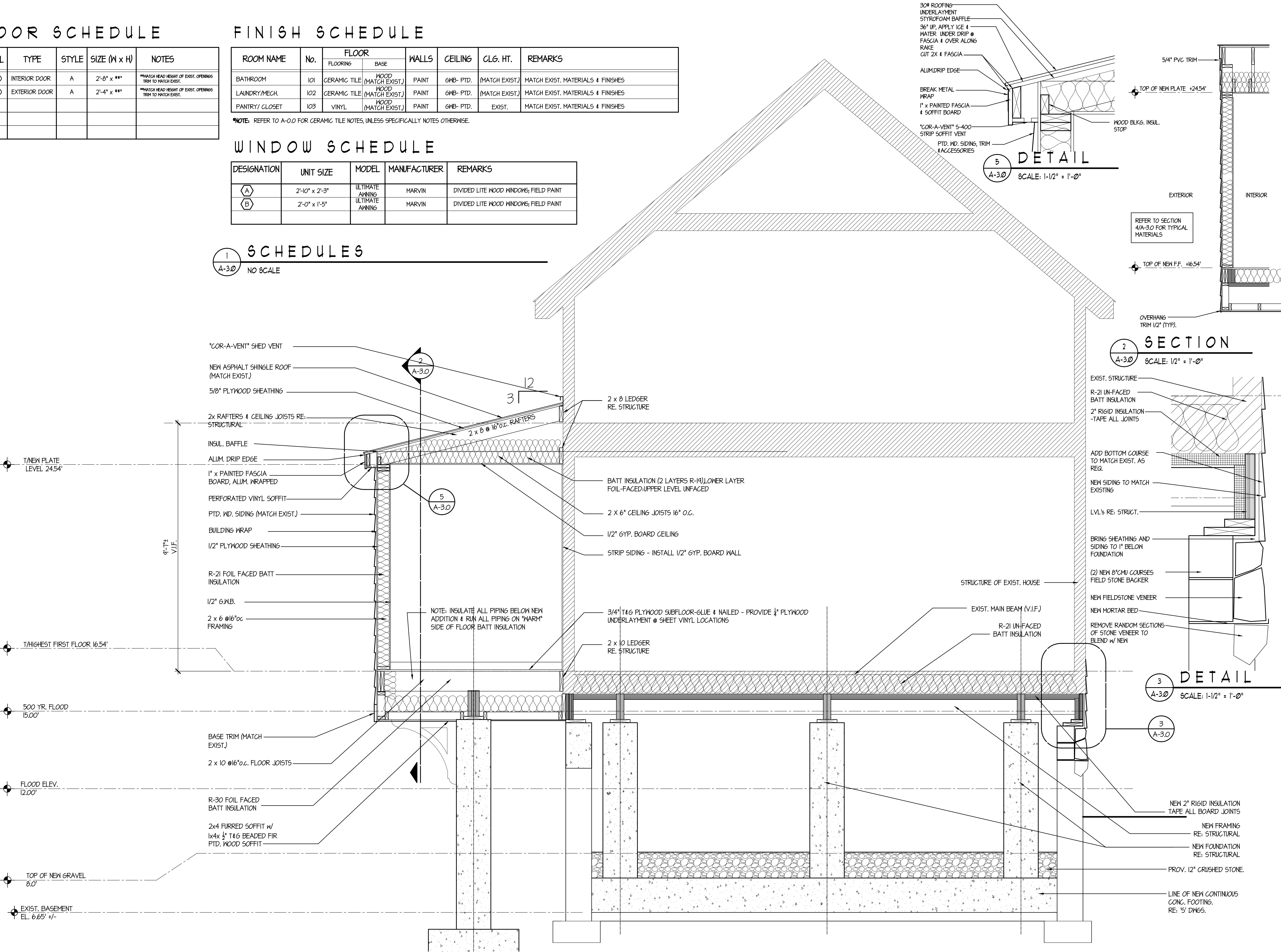
NOTE: REFER TO A-0.0 FOR CERAMIC TILE NOTES, UNLESS SPECIFICALLY NOTES OTHERWISE.

WINDOW SCHEDULE

DESIGNATION	UNIT SIZE	MODEL	MANUFACTURER	REMARKS
A	2'-10" x 2'-3"	ULTIMATE ANNING	MARVIN	DIVIDED LITE WOOD WINDOWS; FIELD PAINT
B	2'-0" x 1'-5"	ULTIMATE ANNING	MARVIN	DIVIDED LITE WOOD WINDOWS; FIELD PAINT

1 SCHEDULES

A-3.0 NO SCALE

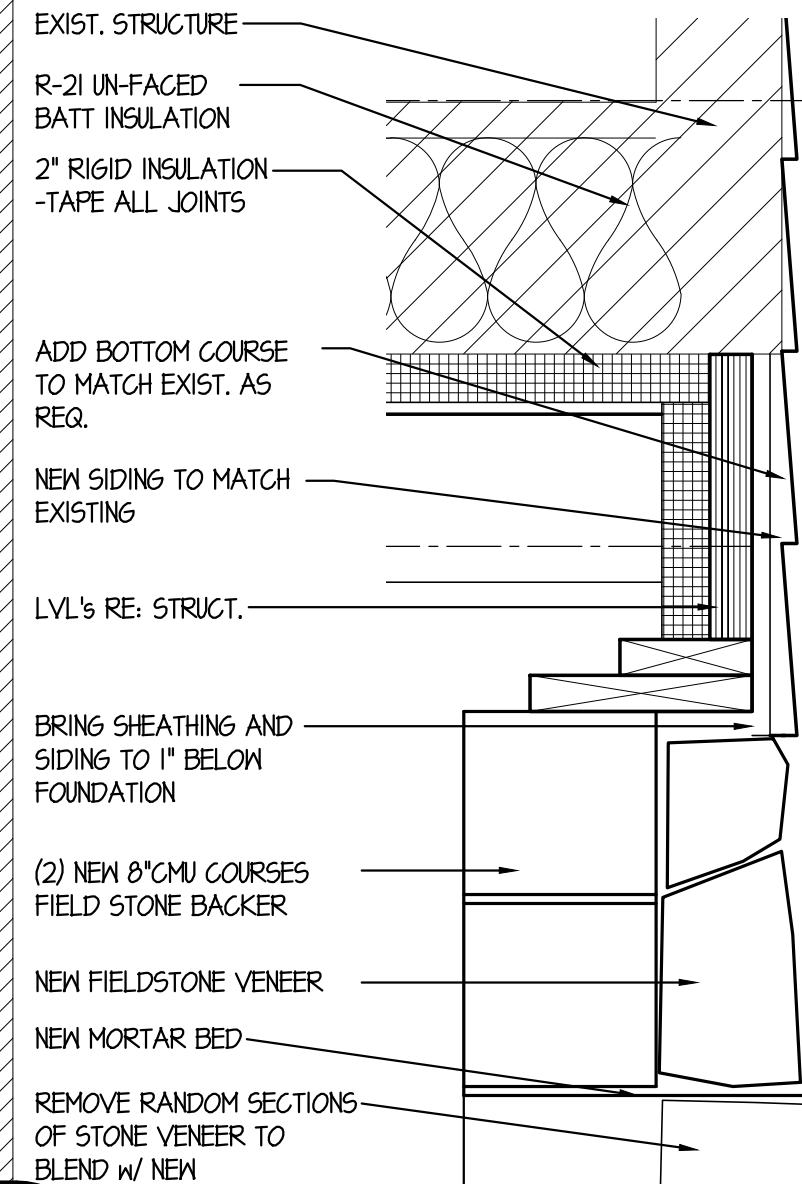


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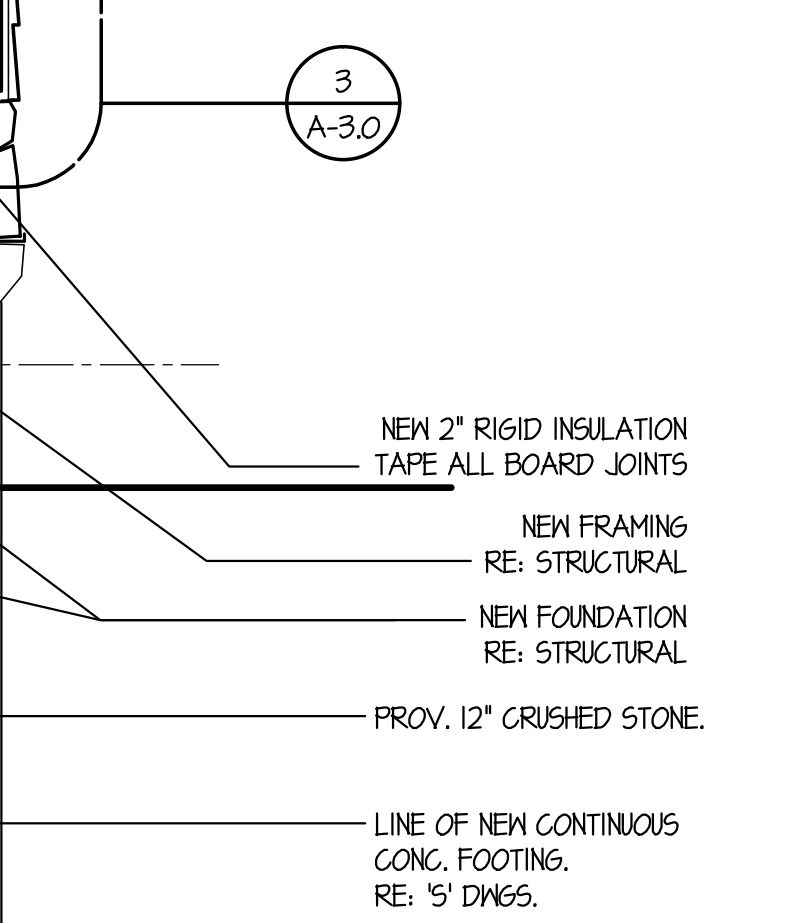
2 SECTION

A-3.0 SCALE: 1/2" = 1'-0"



3 DETAIL

A-3.0 SCALE: 1-1/2" = 1'-0"



4 SECTION Thru EXISTING HOUSE & NEW ADDITION

A-3.0 SCALE: 1/2" = 1'-0"

SCHEDULES,  
SECTIONS  
and  
DETAILS

A-3.0

date 22 JUNE 2015  
drawn JH/TM  
scale AS SHOWN  
checked PM/JRP/KG  
project no. 1347-18  
application no. 1326



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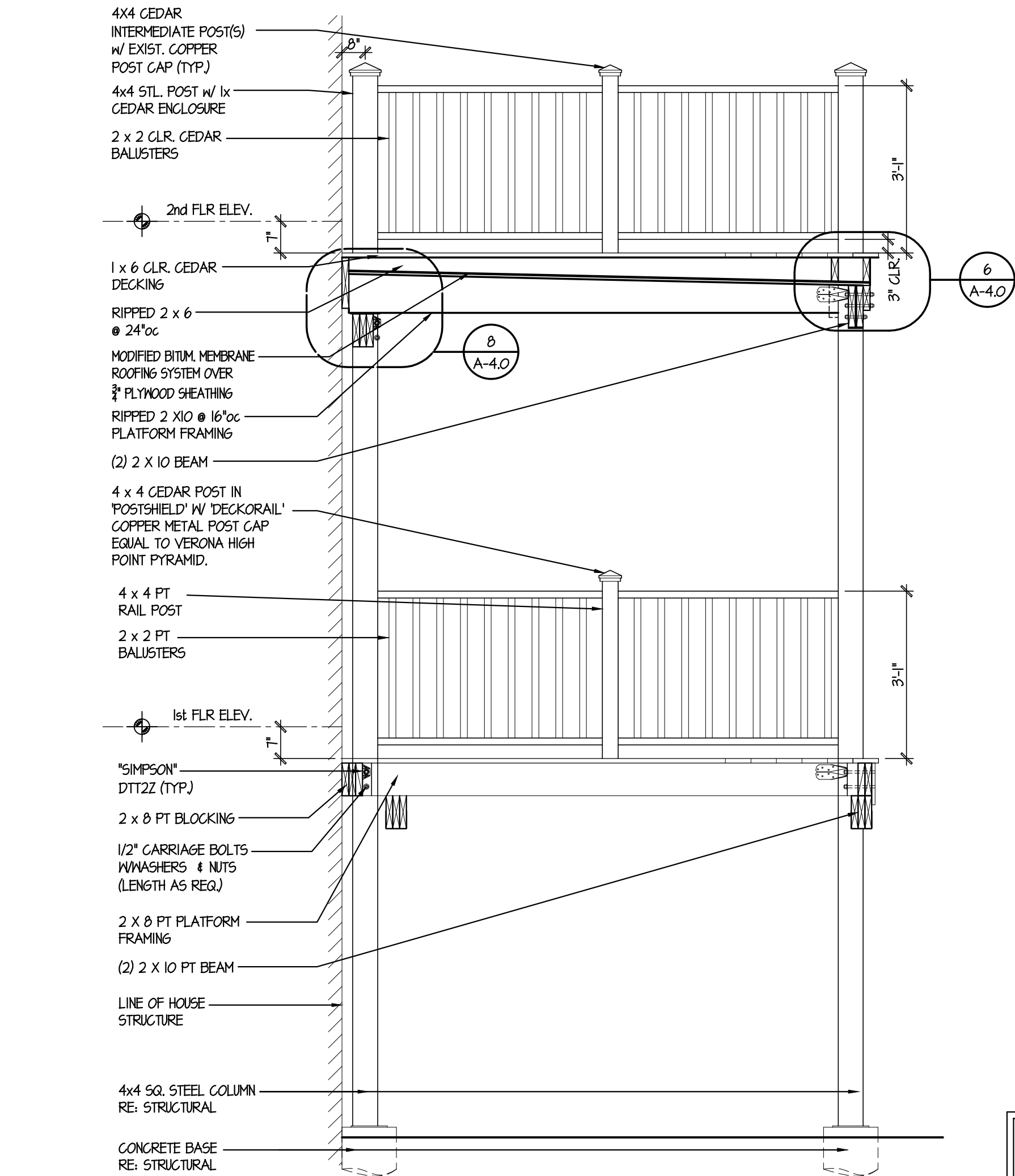
BALAZ RESIDENCE  
APPLICATION No. 1326  
64 Hackley Street  
Bridgeport, CT 06605

date	description	no.
	revisions	

STAIR and  
DECK  
DETAILS

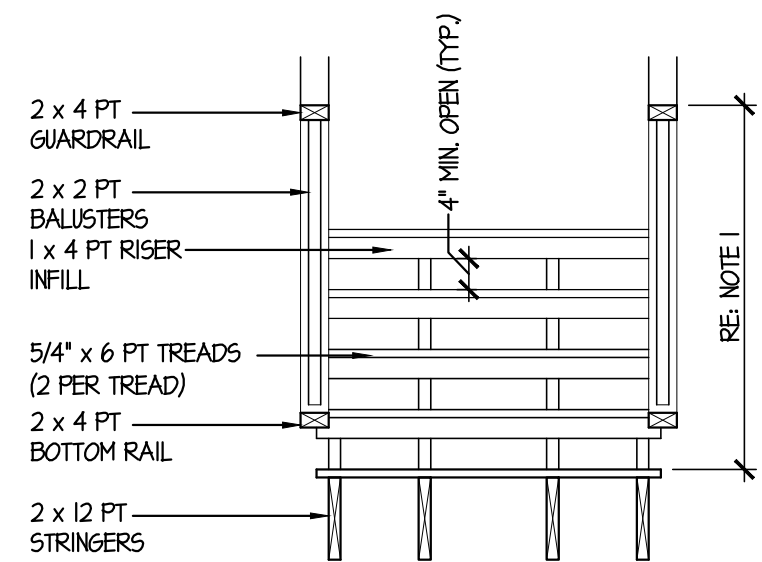
A-4.0

date	22 JUNE 2015
drawn	JH/TM
scale	AS SHOWN
checked	PM/JRP/KG
project no.	1347-18
application no.	1326

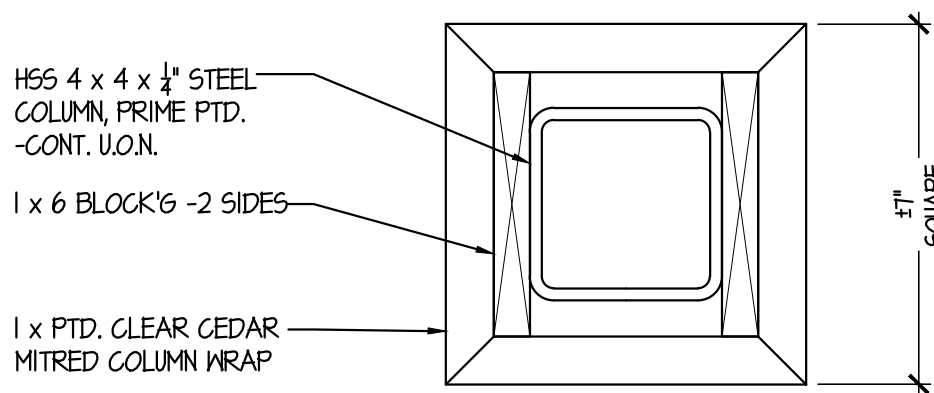


4 DECK & STAIR SECTION  
SCALE: 1/2" = 1'-0"

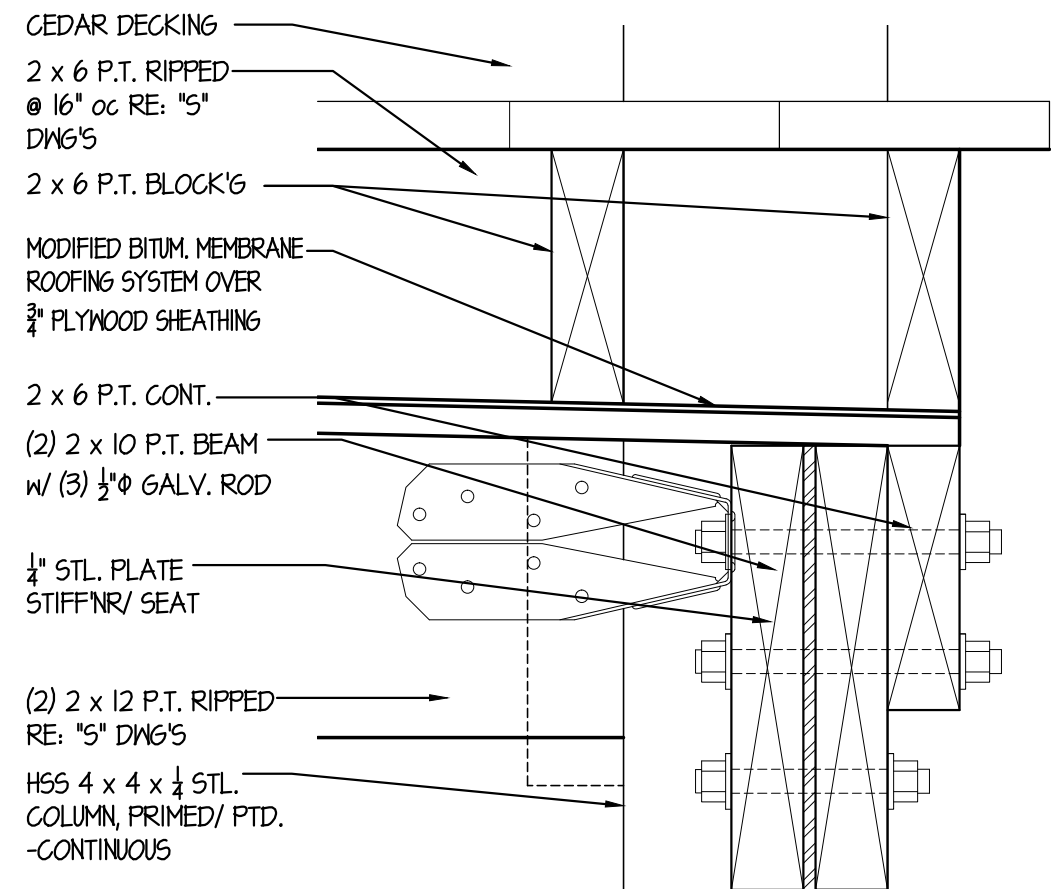
ALL DECKING TO BE  
5/4" x 6" CEDAR, RIP  
WHERE REQUIRED.



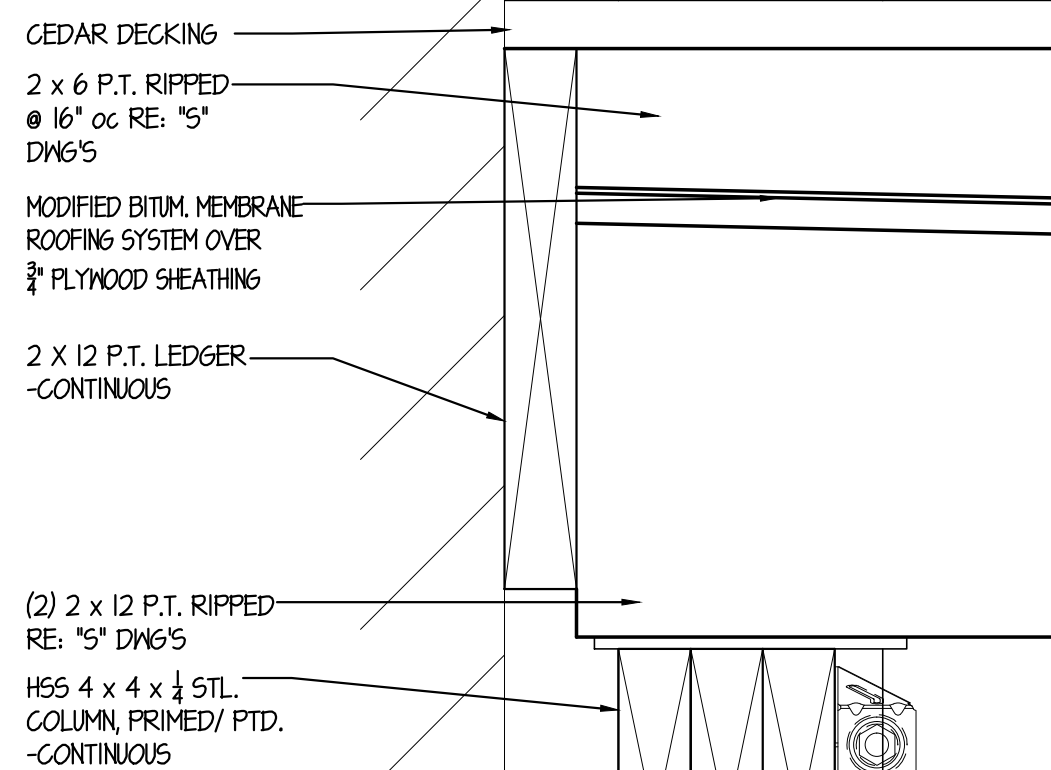
5 STAIR SECTION  
SCALE: 1/2" = 1'-0"



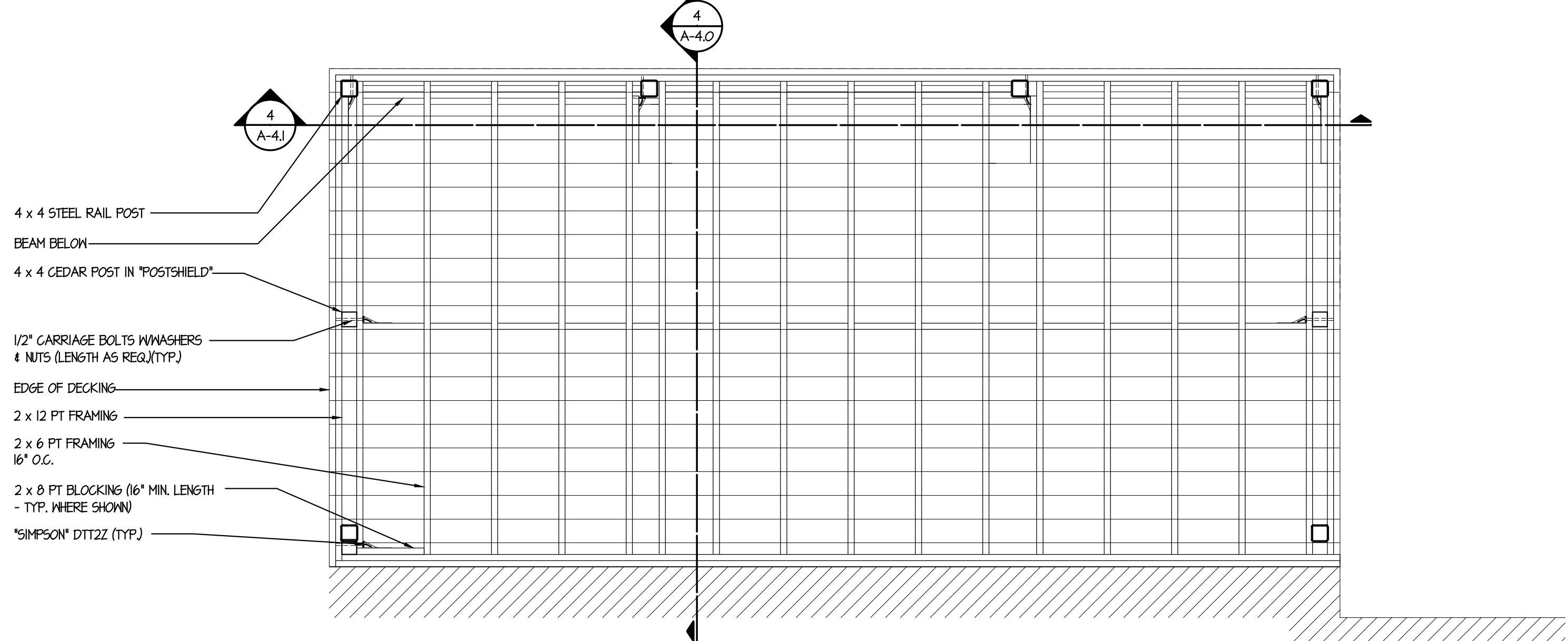
7 DETAIL  
SCALE: 1/2" = 1'-0"



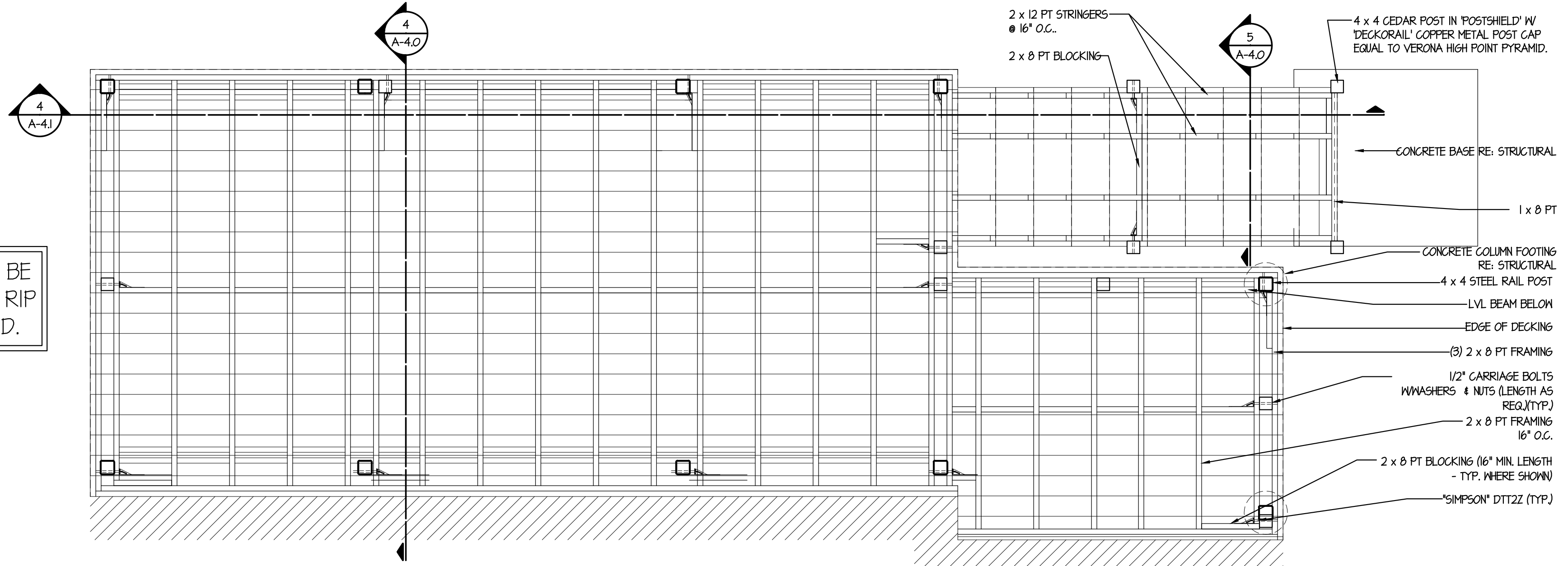
6 DETAIL  
SCALE: 1/2" = 1'-0"



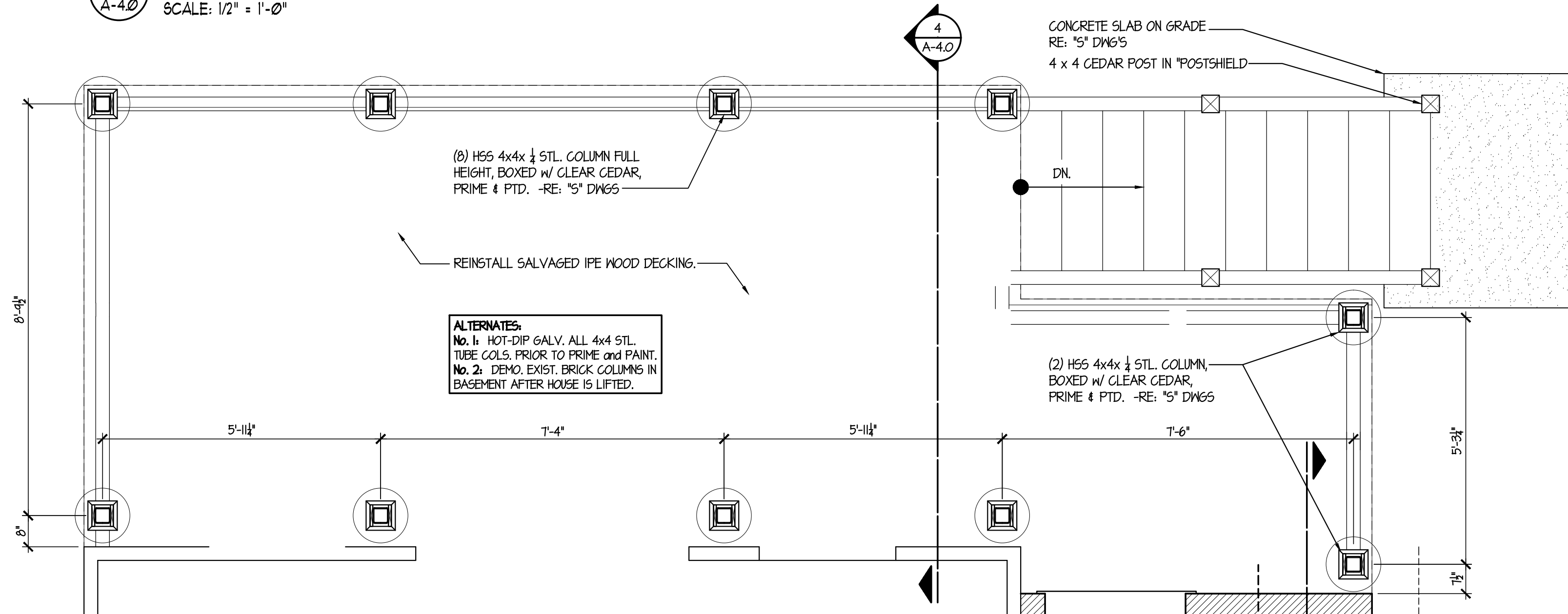
8 DETAIL  
SCALE: 1/2" = 1'-0"



3 2nd FLOOR UPPER DECK FRAMING PLAN  
SCALE: 1/2" = 1'-0"



2 1st FLOOR DECK & STAIR FRAMING PLAN  
SCALE: 1/2" = 1'-0"



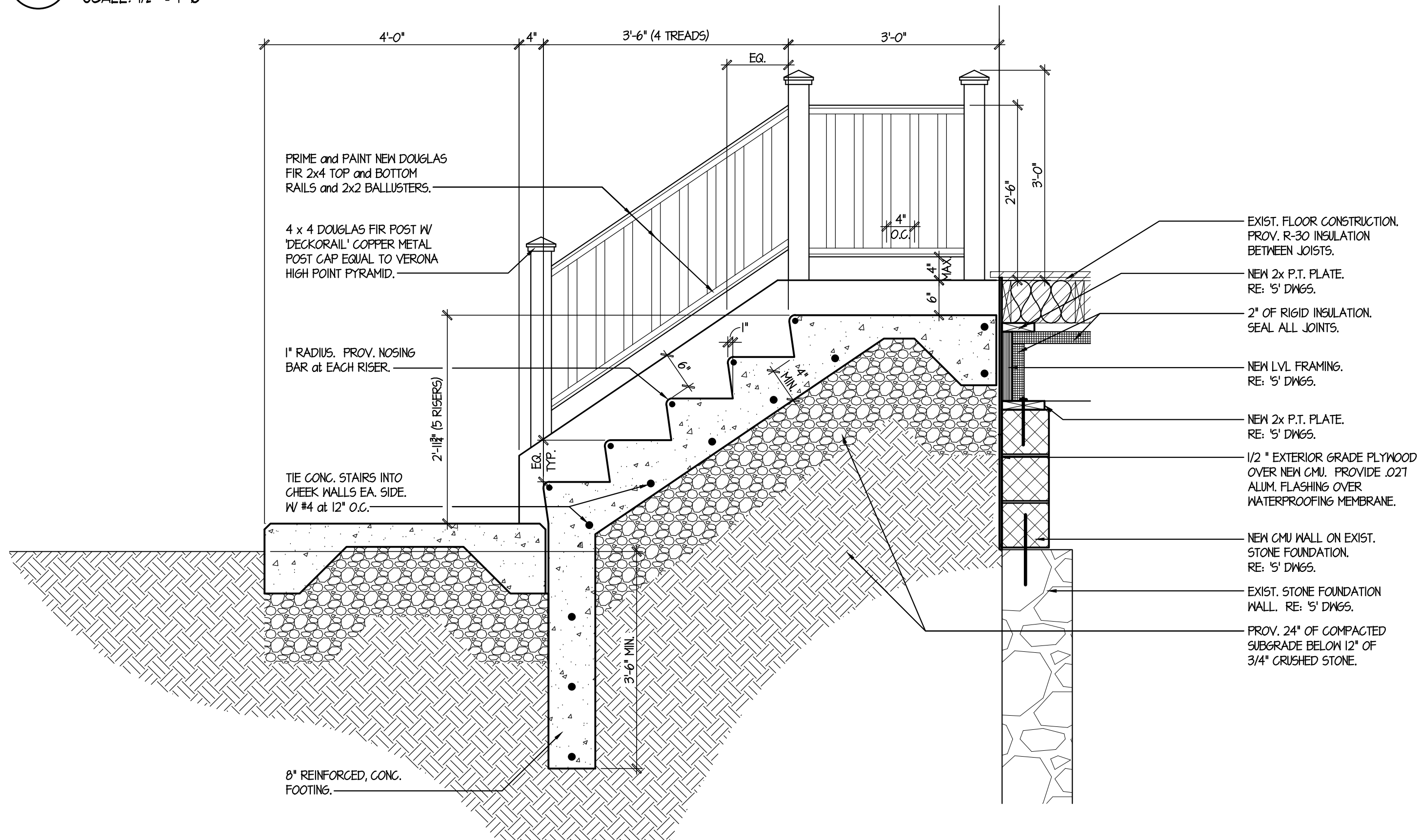
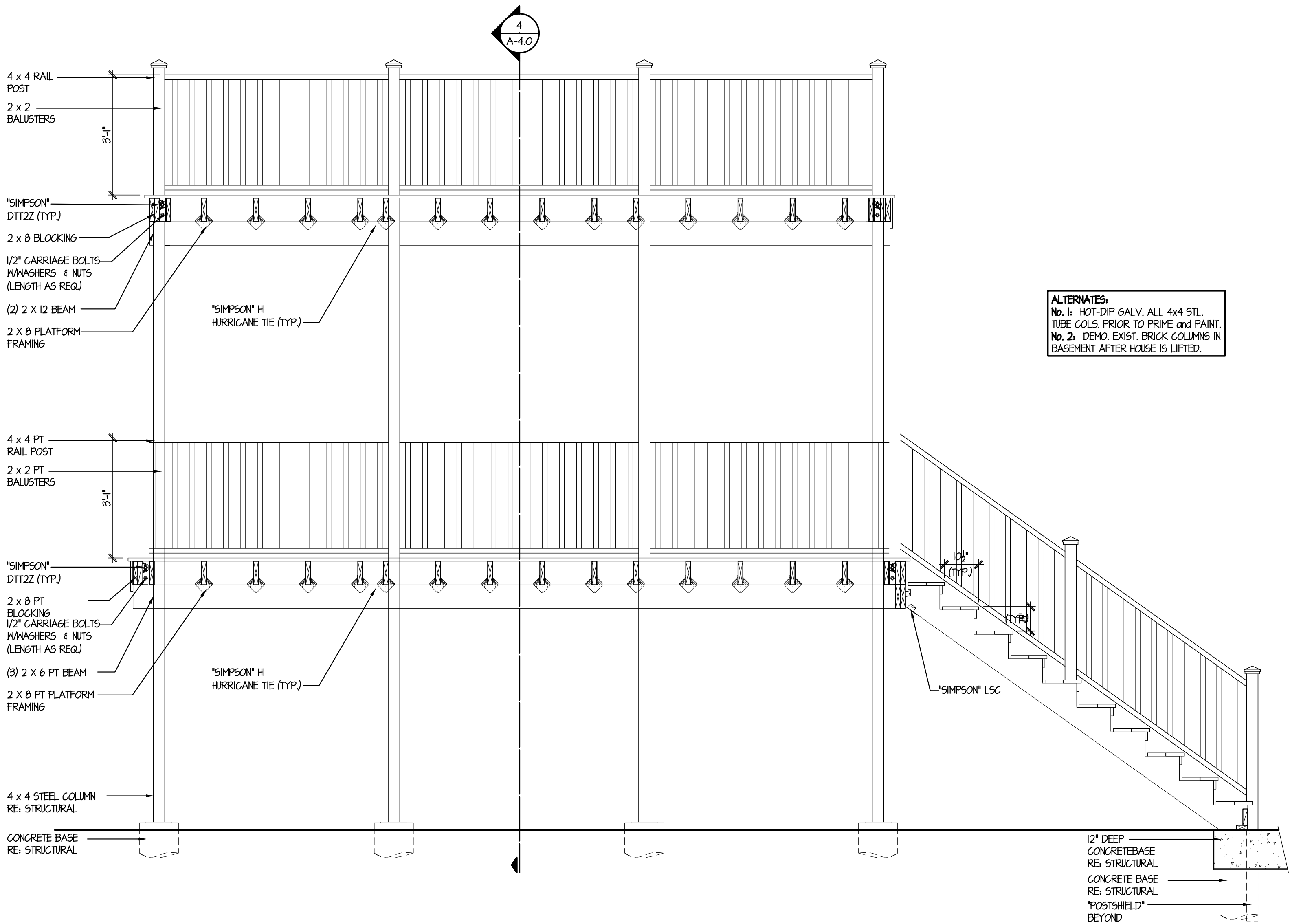
1 BASEMENT LEVEL DECK & STAIR PLAN  
SCALE: 1/2" = 1'-0"

ALTERNATES:  
No. 1: HOT-DIP GALV. ALL 4x4 STL.  
TUBE COLS. PRIOR TO PRIME and PAINT.  
No. 2: DEMO EXIST. BRICK COLUMNS IN  
BASEMENT AFTER HOUSE IS LIFTED.



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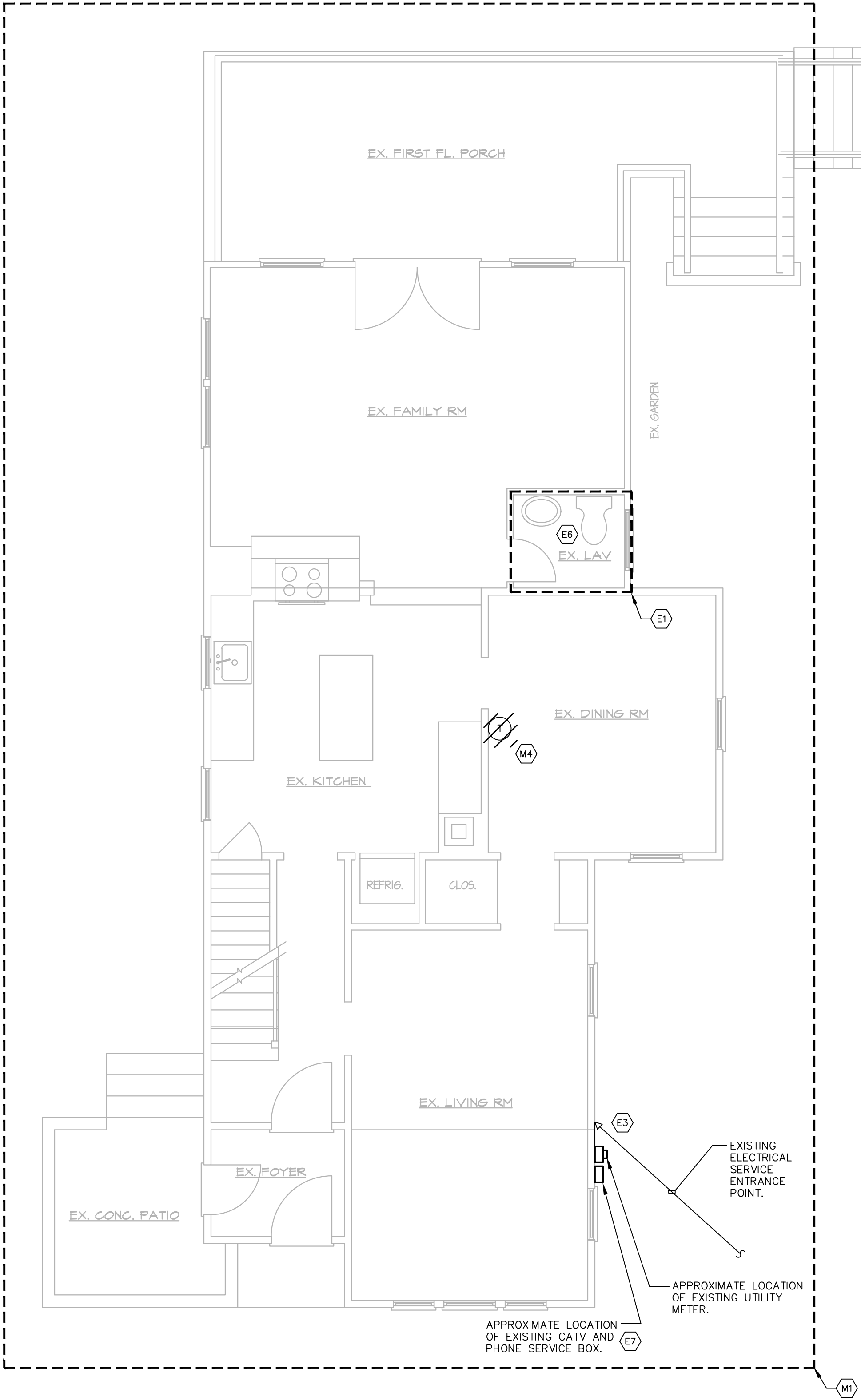
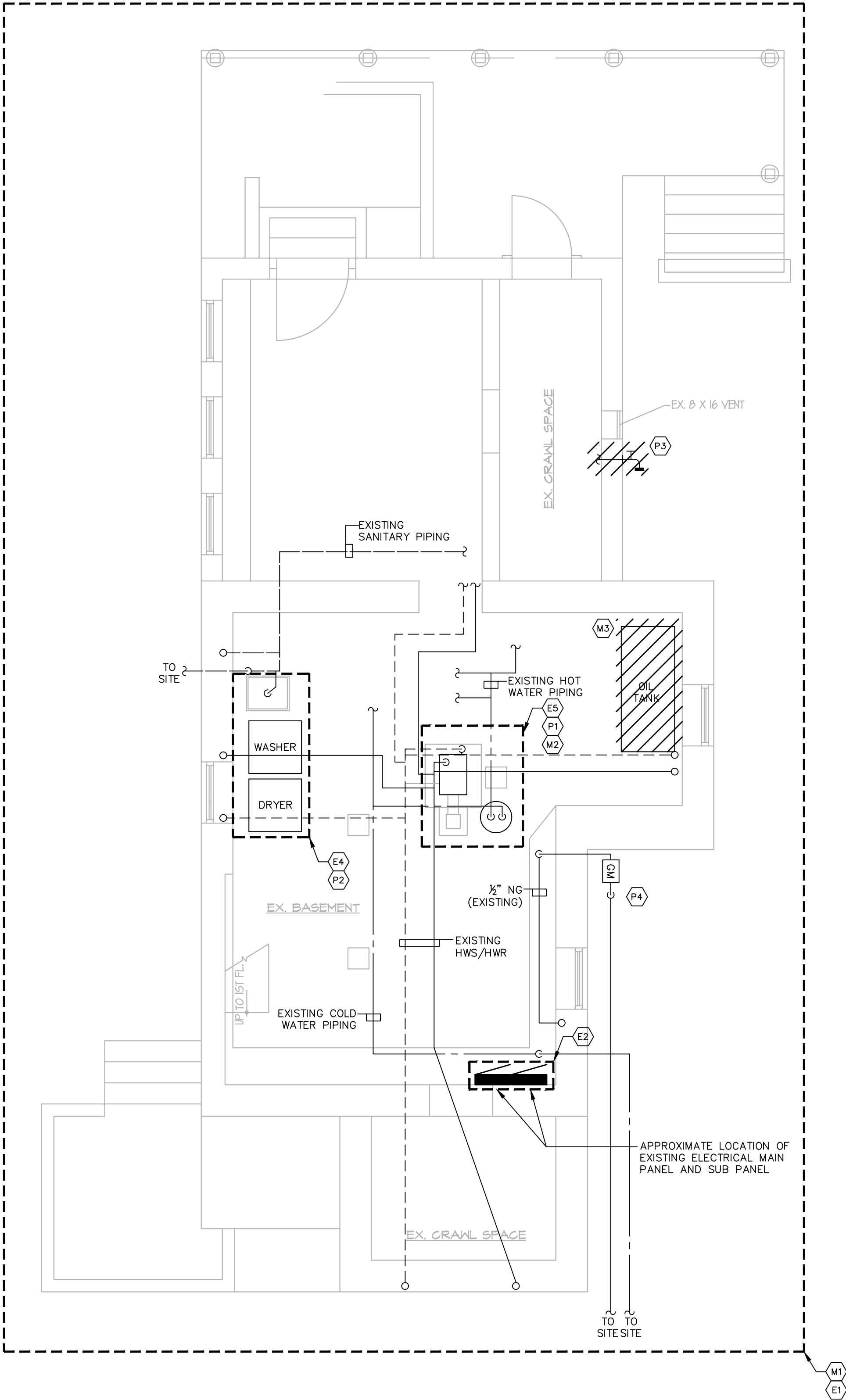
date	description	no.
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STAIR and  
DECK  
DETAILS

A-4.1

date	22 JUNE 2015
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#### PLUMBING DEMOLITION KEY NOTES

- P1 REMOVE EXISTING WATER HEATER, ASSOCIATED PIPING AND SPECIALTIES. REMOVE HOT AND COLD WATER PIPING TO NEAREST MAIN.
- P2 REMOVE ALL SUPPLY AND DRAINAGE PIPING SERVING WASHING MACHINE AND SINK. REMOVE DRYER VENT.
- P3 REMOVE EXISTING HOSE BIBB AND ALL ASSOCIATED PIPING BACK TO NEAREST ACTIVE MAIN.
- P4 REMOVE GAS METER AND ALL ASSOCIATED PIPING BACK TO STREET. REMOVE PIPING AFTER METER.

#### MECHANICAL DEMOLITION KEY NOTES

- M1 REMOVE ALL HYDRONIC HEATING PIPING, INCLUDING RISERS, FEEDING FIRST AND SECOND FLOOR. RADIATORS TO REMAIN FOR REUSE.
- M2 REMOVE EXISTING BOILER AND ALL ASSOCIATED PIPING, SPECIALTIES, AND CONTROLS.
- M3 REMOVE EXISTING FUEL OIL TANK AND ALL ASSOCIATED PIPING.
- M4 REMOVE EXISTING THERMOSTAT AND ALL ASSOCIATED CONTROL WIRING.

#### ELECTRICAL DEMOLITION KEY NOTES

- E1 REMOVE ALL ELECTRICAL LIGHTS, LIGHTING SWITCHES, AND ALL ASSOCIATED WIRING BACK TO PANEL OF ORIGIN.
- E2 REMOVE EXISTING MAIN ELECTRICAL PANEL AND SUB PANEL. REMOVE ALL ASSOCIATED WIRING OUT TO UTILITY METER. REFER TO KEYNOTE 3 FOR MORE INFORMATION.
- E3 REMOVE EXISTING ELECTRIC SERVICE TO THE RESIDENCE, INCLUDING WEATHER HEAD AND ALL ASSOCIATED WIRING FROM WEATHER HEAD TO METER, METER, METER SOCKET, FEEDER AND CONNECTION TO MAIN PANEL IN THE RESIDENCE.
- E4 REMOVE EXISTING WASHER AND DRYER 120V AND 240V RECEPTACLES AND ALL ASSOCIATED WIRING BACK TO THE PANEL OF ORIGIN.
- E5 REMOVE EXISTING CONNECTION TO BOILER AND WATER HEATER. REMOVE ALL ASSOCIATED WIRING BACK TO THE PANEL OF ORIGIN.
- E6 REMOVE EXISTING BASEBOARD ELECTRIC HEATING UNIT IN THIS ROOM. PROTECT AND STORE FOR FUTURE REUSE. REMOVE ALL ASSOCIATED WIRING BACK TO PANEL OF ORIGIN.
- E7 REMOVE EXISTING CATV AND PHONE SERVICE TO RESIDENCE, INCLUDING SERVICE BOXES AND ALL ASSOCIATED WIRING BACK TO POINT OF ENTRY.



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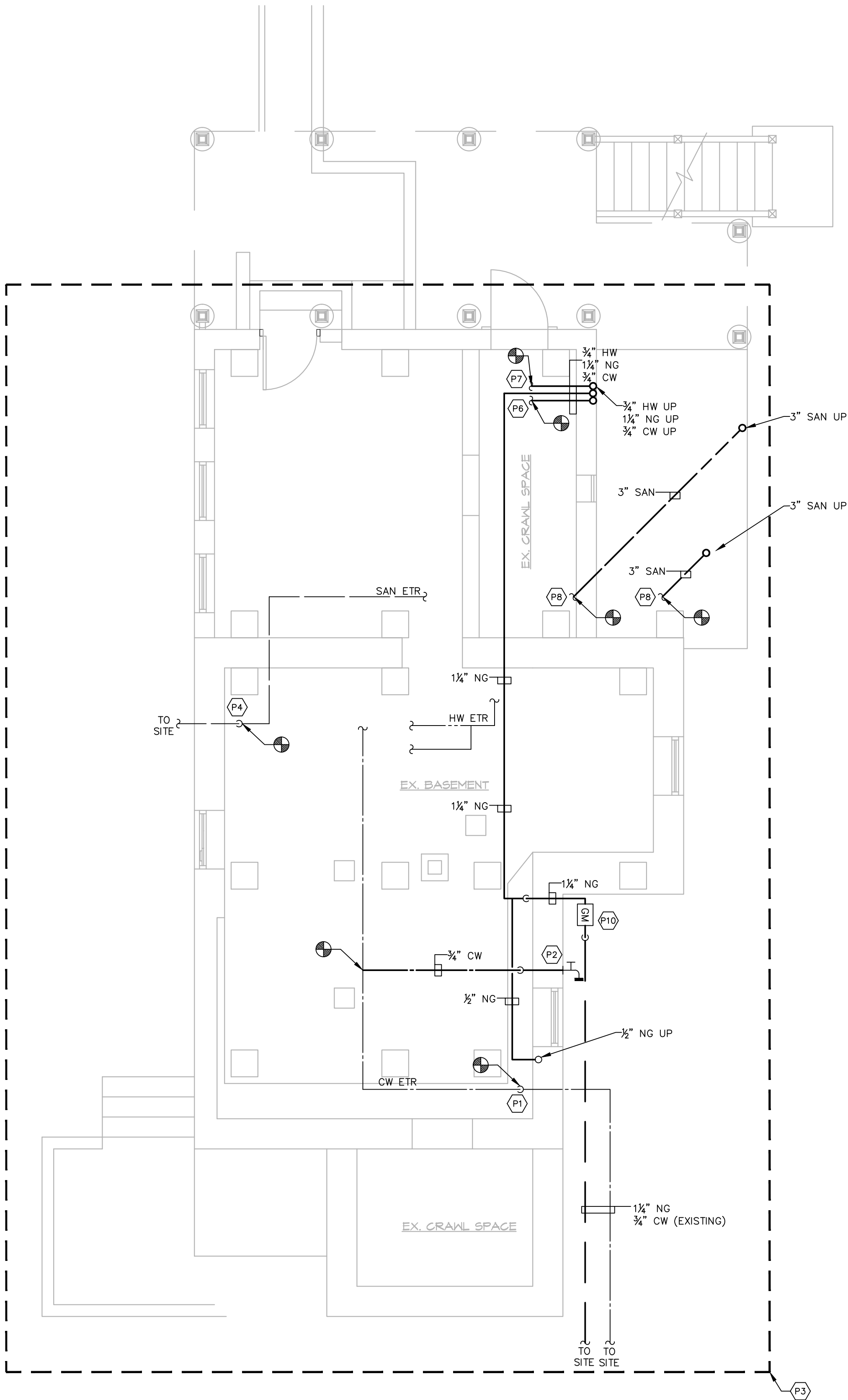
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MEP  
DEMOLITION  
FLOOR PLANS

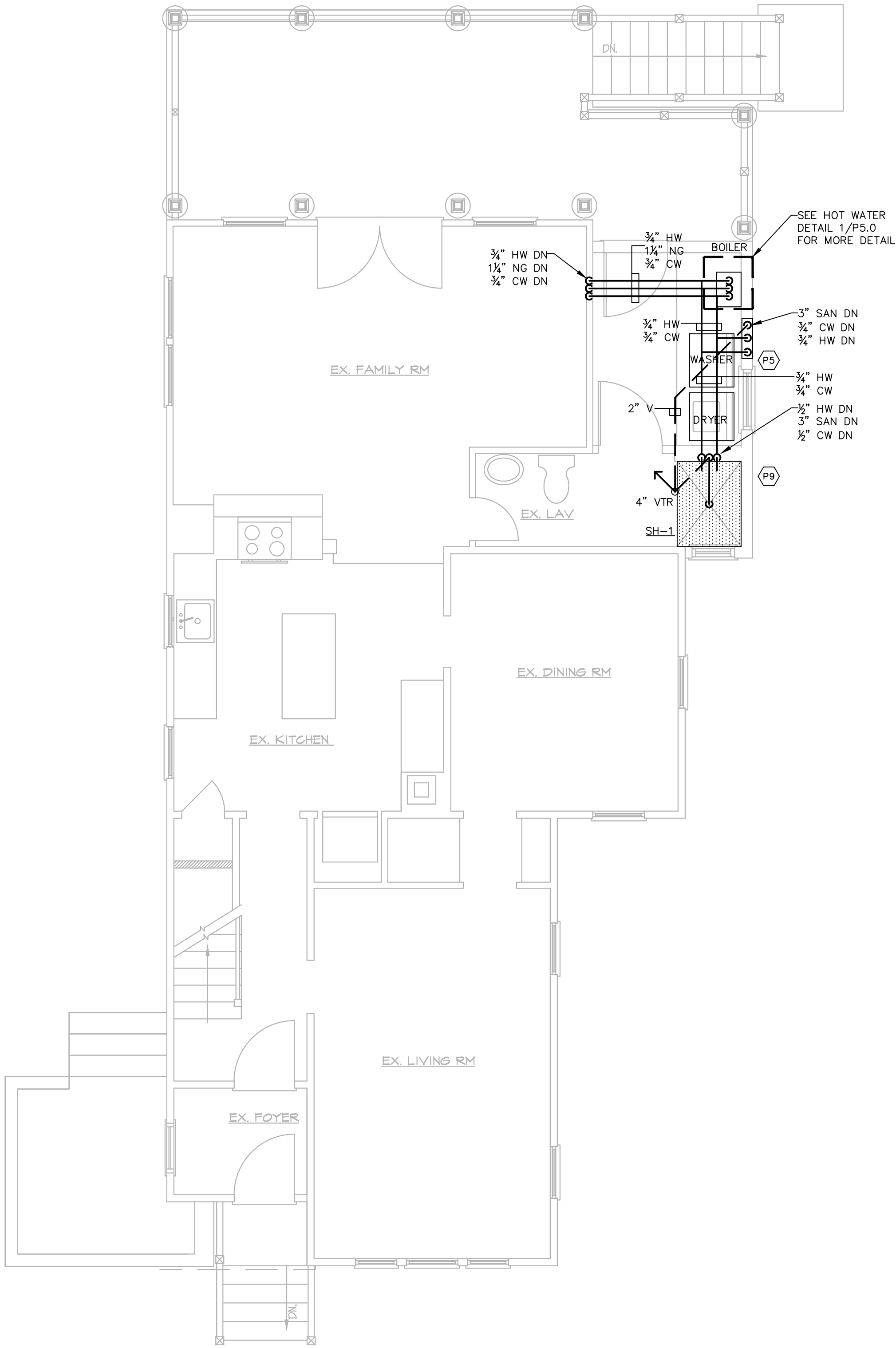
MEP-1.0

date	JUNE 22, 2015
drawn	VCM/ANK
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1743





1  
P-1.0  
NEW WORK BASEMENT PLAN  
SCALE: 1/4" = 1'-0"  
NORTH



2  
P-1.0  
NEW WORK FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"  
NORTH

#### GENERAL NOTES

1. PLUMBING ITEMS INCLUDING BUT NOT LIMITED TO PIPING, EQUIPMENT, ETC SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS DETERMINED BY THE ARCHITECTURAL PLANS.
2. WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS INCLUDING ACCESS PANELS FOR VALVES AND EQUIPMENT, ETC.

#### PLUMBING KEY NOTES

- (P1) PROVIDE PRESSURE RELIEF VALVE AND ISOLATION VALVE ON RISE. PROVIDE NEW CW PIPING EXTENSION AS NECESSARY FOR RAISING OF HOUSE.
- (P2) PROVIDE NEW EXTERIOR WALL HYDRANT 3' ABOVE FINAL FINISHED GRADE. PROVIDE LOW POINT DRAIN ON PIPING DROP FROM HOUSE. SEE DETAIL 1/MEP5.0 FOR MORE DETAILS.
- (P3) ALL NEW AND EXISTING DOMESTIC COLD WATER SUPPLY PIPING EXPOSED BELOW THE PROPERTY SHALL BE INSULATED WITH 1/2" FIBERGLASS INSULATION WITH CONTINUOUS PVC JACKETING. ALL HOT AND COLD WATER PIPING EXPOSED BELOW THE PROPERTY SHALL BE HEAT TRACED WITH SELF REGULATION HEAT TRACE CABLE MODEL H612 AS MANUFACTURED BY PENTAIR. CABLE SHALL BE 120V INPUT AND HAVE AN OUTPUT OF 6W PER FOOT. PROVIDE ONE HEAT TAPE FOR HOT WATER PIPING AND ONE HEAT TAPE FOR COLD WATER PIPING. PROVIDE ALL NECESSARY ACCESSORIES NEEDED FOR COMPLETE AND OPERATIONAL SYSTEM. PROVIDE ONE 20A/120V DEDICATED POWER CIRCUIT FOR EVERY 150 FEET OF HEAT TRACE CABLE.
- (P4) PROVIDE SANITARY WASTE PIPING EXTENSION AS REQUIRED FOR RAISING OF HOUSE. CONTRACTOR TO FIELD VERIFY PIPING LOCATION AND SIZE PRIOR TO BIDDING AND INSTALLATION.
- (P5) PROVIDE WATER-TITE MODEL #W2700 HA WASHING MACHINE OUTLET BOX.
- (P6) CONNECT NEW CW PIPING TO NEAREST ACTIVE MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION.
- (P7) CONNECT NEW HW PIPING TO NEAREST ACTIVE MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION AND ENSURE RECONNECTION TO ALL EXISTING HOT WATER PIPING.
- (P8) CONNECT NEW SANITARY PIPING TO NEAREST ACTIVE MAIN OR STACK. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION.
- (P9) SH-1 IS ALTERNATE. REFER TO ARCHITECTURAL SPECIFICATIONS SECTION 01230.
- (P10) PROVIDE NEW GAS METER. COORDINATE EXACT LOCATION WITH UTILITY PRIOR TO BIDDING AND INSTALLATION. CONNECT NEW PIPING TO EXISTING PIPING AS INDICATED ON FLOOR PLANS.



THE STATE OF  
CONNECTICUT  
DEPARTMENT OF  
HOUSING (DOH)  
COMMUNITY  
DEVELOPMENT BLOCK  
GRANT - DISASTER  
RECOVERY (CDBG-DR)  
OWNER OCCUPIED  
REHABILITATION and  
REBUILDING PROGRAM  
(OOR)

BALAZ RESIDENCE  
APPLICATION No. 1326  
64 Hackley Street  
Bridgeport, CT 06605



date	description	no.
	revisions	

PLUMBING  
NEW WORK  
FLOOR PLANS

P-1.0

date	JUNE 22, 2015
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1743

PLUMBING FIXTURE SCHEDULE				
SYMBOL	MANUFACTURER/ MODEL NUMBER	DESCRIPTION OF FIXTURE	TRIM AND ACCESSORIES	REMARKS
SH-1	AQUIRUS MODEL#AB 3448	SHOWER PAN, 48"x34"x5.25" ONE PIECE ACRYLIC WITH CHROME GRID DRAIN.	AMERICAN STANDARD "COPELAND" MODEL T005.501 SHOWER ONLY TRIM KIT.	#1,2
REMARKS:				
1. COLOR SHALL BE WHITE.				
2. PROVIDE ISOLATION VALVES AT THE PIPE CONNECTIONS.				

PLUMBING FIXTURE CONNECTION SCHEDULE				
FIXTURE TYPE	WASTE CONNECTION	VENT CONNECTION	COLD WATER CONNECTION	HOT WATER CONNECTION
HOSE BIB	-	-	3/4"	3/4"
LAVATORY	1 1/2"	1 1/2"	1/2"	1/2"
SHOWER	3"	1 1/2"	1/2"	1/2"
SINK	1 1/2"	1 1/2"	1/2"	1/2"
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	-
NOTES:				
1. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURE MOUNTING HEIGHTS.				
2. ALL PIPE TRAPS AT SINKS AND LAVATORIES SHALL BE CHROME PLATED BRASS.				

PLUMBING PIPING LEGEND	
SYMBOL	DESCRIPTION
-----	NEW CW BURRIED
-----	NEW CW
-----	EXISTING CW
-----	NEW SAN BURRIED
-----	NEW SAN
-----	EXISTING SAN
-----	NEW HW
-----	EXISTING HW
-----	NEW NG BURRIED
-----	NEW NG
-----	EXISTING NG
-----	NEW V
-----	EXISTING V
-----	DETAIL LINE
-----	90° ELBOW DOWN
-----	90° ELBOW UP
-----	TEE UP
-----	TEE DOWN
-----	DROP AND RUN
-----	TEE OFF TOP OF PIPE
-----	TEE OFF BOTTOM OF PIPE
-----	CLEANOUT
-----	FLOOR CLEANOUT
-----	HOSE BIBB

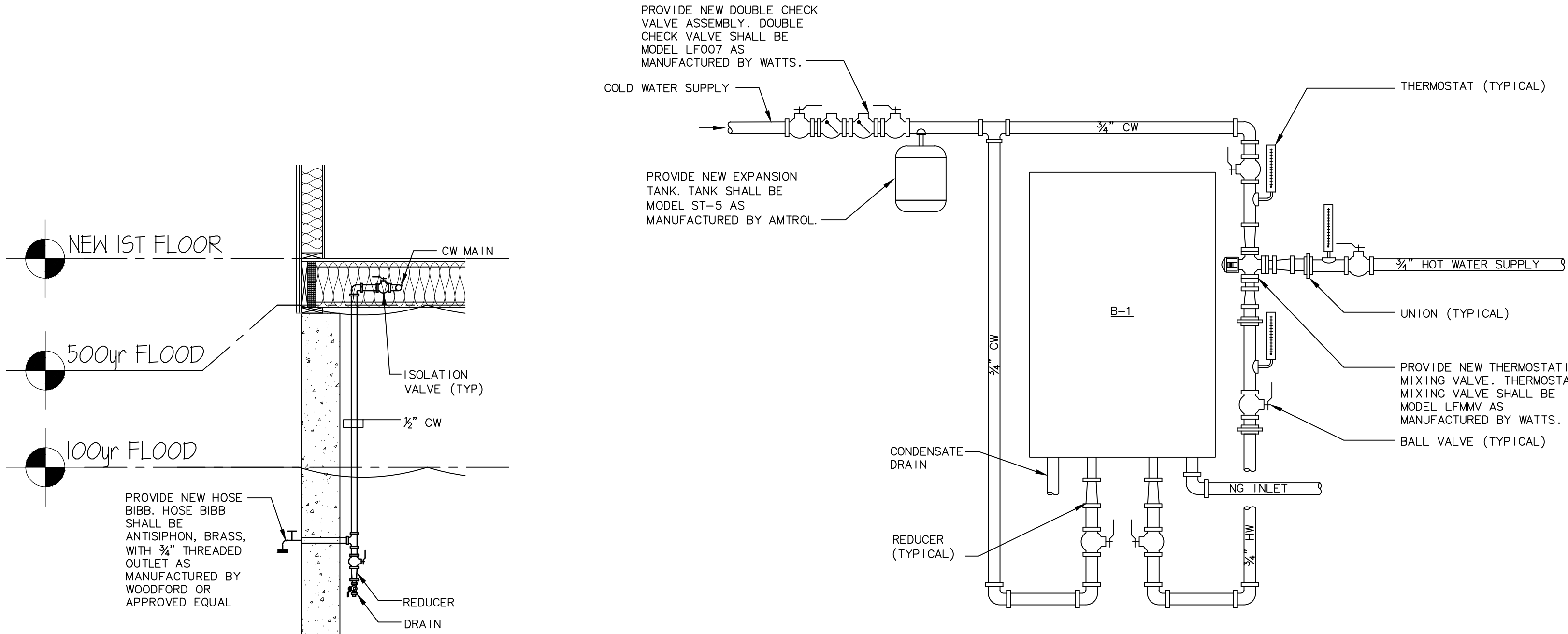
PLUMBING SYMBOL LEGEND	
SYMBOL	DESCRIPTION
(M)	WATER METER
-----	THERMOMETER
-----	PRESSURE REGULATOR
-----	CONNECT NEW TO EXISTING
-----	VENT THRU ROOF
GM	GAS METER

PLUMBING ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CO	CLEANOUT
CW	COLD WATER
DN	DOWN
ET	EXPANSION TANK
HB	HOSE BIBB
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
NG	NATURAL GAS
TYP	TYPICAL
V	VENT
VTR	VENT THRU ROOF

- GENERAL PROCEDURES ALL TRADES
1. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE.
2. DESCRIPTION
- A. THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.
- B. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT, HOISTING, PLANT, TRANSPORTATION, RIGGING, STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED HEREIN.
3. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT
- A. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."
- B. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."
- C. PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."
- D. REMOVE: THE TERM REMOVE MEANS TO DISCONNECTFROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER.
- E. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.
4. DRAWINGS
- A. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE NOTED THAT THESE DOCUMENTS ARE DIAGRAMMATIC ONLY AND THAT FINAL PLACEMENT OF EQUIPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. IF A CONFLICT IN POSITIONING OCCURS THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL.
- E. SURVEY AND MEASUREMENTS:
- A. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLY OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS. INCLUDE IN THE BID ALL DEMOLITION WORK REQUIRED.
- B. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.
- C. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO INSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NECESSARY TO ALLOW FOR PROPER RIGGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT IN PLACE.
- D. ARRANGE INSTALLATION TO PROVIDE ACCESS TO EQUIPMENT FOR EASY MAINTENANCE AND REPAIR.
6. CODES AND STANDARDS: ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STATE OF CONNECTICUT ACCEPTED VERSION OF THE FOLLOWING
- A. INTERNATIONAL RESIDENTIAL CODE
- B. INTERNATIONAL BUILDING CODE
- C. INTERNATIONAL PLUMBING CODE
- D. INTERNATIONAL MECHANICAL CODE
- E. NATIONAL ELECTRIC CODE (NFPA 70)
- F. THE LIFE SAFETY CODE (NFPA 101)
7. PERMITS AND FEES: THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS; AND PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS HAVING JURISDICTION, OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
8. SHOP DRAWINGS:
- A. SUBMIT NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE OF 1/4"=1'-0". HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.
- B. SHOP DRAWINGS INCLUDE EQUIPMENT SUBMITTALS, FABRICATION AND INSTALLATION DRAWINGS, SETTING DIAGRAMS, SCHEDULES, PATTERNS, TEMPLATES AND SIMILAR DRAWINGS. INCLUDE THE FOLLOWING INFORMATION:
- a. DIMENSIONS.
- b. IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDED.
- c. COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.
- d. NOTATION OF COORDINATION REQUIREMENTS.
- e. NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.
- f. SUBMIT 3 BLACK-LINE PRINTS AND 2 ADDITIONAL PRINTS WHERE REQUIRED FOR MAINTENANCE MANUALS, PLUS THE NUMBER OF PRINTS NEEDED BY THE ENGINEER FOR DISTRIBUTION. ONE PRINT WILL BE RETAINED; THE REMAINDER RETURNED. ONE OF THE PRINTS RETURNED SHALL BE MARKED-UP AND MAINTAINED AS A "RECORD DOCUMENT".
- g. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.
- h. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.
- i. PROVIDE SUBMITTALS AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.
9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.
11. OPERATION AND MAINTENANCE
- A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
- B. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 4-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
- C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:
- a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.
- b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.
- c. COPIES OF WARRANTIES.
- d. APPROVED SHOP DRAWINGS AND PRODUCT DATA.
- e. BALANCE REPORTS.
- f. INCLUDE IN THE MANUAL, A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. SCHEDULE SHALL INCLUDE PERTINENT DATA SUCH AS: MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC. SCHEDULE SHALL INCLUDE MAINTENANCE TO BE DONE AND FREQUENCY.
- g. MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.
12. AS-BUILT DRAWINGS
- A. PREPARE AS-BUILT DRAWINGS TO A SCALE OF 1/4"=1'-0" OR LARGER; DETAILING THE ACTUAL INSTALLATION OF ALL MAJOR ELEMENTS, AND SYSTEMS OF MECHANICAL EQUIPMENT AND MATERIALS. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE AS-BUILT DRAWINGS, ATIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE.
- B. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS.
- C. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE.
- D. ORGANIZE AS-BUILT DRAWINGS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.
13. OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED

- IN MANUFACTURER'S PUBLISHED PRODUCT DATA WITHOUT EXCLUSION OR LIMITATION.
14. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE.
15. SUBMIT TO THE OWNER AN OFFICIAL CERTIFICATE OF INSURANCE FOR THEIR RECORDS.
- MEANS AND METHODS ALL TRADES
1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.
3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED.
4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION.
5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.
6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS
7. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERPROOF.
8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814.
9. ACCESS DOORS SHALL BE PROVIDED IN CEILINGS, WALLS AND FLOORS AT ALL DAMPERS, VALVES, CONTROL DEVICES, AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.
10. SEISMIC RESTRAINTS SHALL BE INSTALLED AS REQUIRED PER BUILDING CODE AND FIRE SAFETY CODE. RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND SMACNA STANDARDS. SUBMIT SHOP DRAWINGS INCLUDING SEISMIC CALCULATIONS WITH PROFESSIONAL ENGINEER'S SEAL FOR REVIEW BY ENGINEER.

- PLUMBING
1. PIPING:
- A. DOMESTIC WATER PIPING SHALL BE COPPER TUBING TYPE L. SOLDER FILLER METALS SHALL BE 95-5 TIN-ANTIMONY SOLDER JOINTS.
- B. WASTE AND VENT [STORM] PIPING SHALL BE PVC, TYPE DWV PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS.
- C. WASTE AND VENT [STORM] PIPING SHALL BE HUBLESS, SERVICE WEIGHT, CAST-IRON SOIL PIPE AND FITTINGS, WITH NEOPRENE GASKETS. BURIED PIPING SHALL BE HUB AND SPIGOT FITTINGS.
- D. NATURAL GAS [OR LP] PIPING SHALL BE SCHEDULE 40, CARBON STEEL PIPE, WITH THREADED JOINTS AND FITTINGS OR TYPE L COPPER TUBING.
2. INSULATION:
- A. INSULATION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE IECC EXCEPT THAT PIPE INSULATION SHALL NOT BE LESS THAN 1" THICK. ALL INSULATION MATERIALS, ADHESIVES, COATINGS, AND OTHER ACCESSORIES SHALL HAVE FLAME SPREAD RATINGS OF 25 OR LESS, AND SMOKE DEVELOPED RATINGS OF 50 OR LESS AS TESTED BY ASTM E 84 (NFPA 255) METHOD. ALL INSULATION MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA AND ASHRAE STANDARDS.
- B. PIPE INSULATION SHALL BE FIBERGLASS WITH VAPOR BARRIER JACKET. PROVIDE INSULATION FOR THE FOLLOWING PIPING SYSTEMS:
- a. DOMESTIC COLD WATER PIPING
- b. DOMESTIC HOT WATER PIPING
- C. ALL EXPOSED DOMESTIC WATER PIPE SHALL BE WRAPPED WITH A PVC VAPOR BARRIER JACKET AS MANUFACTURED BY ZESTON OR APPROVED EQUAL. PVC JACKETING SHALL BE FINISHED TO BE WATER TIGHT.
3. PIPING INSTALLATION:
- A. INSTALL PIPING IN ACCORDANCE WITH ALL APPLICABLE CODES AND GOOD PRACTICES.
- B. INSTALL UNIONS OR FLANGES IN PIPES ADJACENT TO EACH VALVE, CONTROL DEVICE AND AT FINAL CONNECTIONS EACH PIECE OF EQUIPMENT.
- C. INSTALL DIELECTRIC UNIONS TO JOIN DISSIMILAR METALS.
- D. INSTALL AND ANCHOR PIPING TO ENSURE PROPER EXPANSION AND CONTRACTION.
- E. ANCHOR PIPING TO ENSURE PROPER DIRECTION OF EXPANSION AND CONTRACTION.
- F. SUPPORT PIPING TO PREVENT VIBRATION OR SAGGING. PROVIDE HANGER SPACING ACCORDING TO DISTANCES LISTED IN APPLICABLE CODES AND REGULATIONS.
4. PLUMBING IDENTIFICATION
- A. PLUMBING IDENTIFICATION WORK SHALL COMPLY WITH ANSI A13.1. NAMES, ABBREVIATIONS AND OTHER DESIGNATIONS USED IN MECHANICAL IDENTIFICATION WORK, SHALL CORRESPOND WITH DESIGNATIONS SHOWN, SPECIFIED OR SCHEDULED.
- B. VALVE TAGS SHALL BE 1-1/2" DIAMETER, 19-GAGE POLISHED BRASS WITH STAMP-ENGRAVED LETTERING. ATTACH VALVES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- C. PROVIDE VALVE TAG ON EVERY VALVE, EXCLUDING DRAIN VALVES.
- D. PIPE IDENTIFICATION, PLASTIC PIPE MARKERS, FACTORY FABRICATED, FLEXIBLE, SEMI-RIGID PLASTIC, PERFORMED TO FIT AROUND PIPE OR PIPE COVERING, MINIMUM INFORMATION INDICATING FLOW DIRECTION ARROW AND IDENTIFICATION OF FLUID BEING CONVEYED.
5. TESTING AND ADJUSTING
- A. ALL WATER PIPING SHALL BE TESTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE. THE SYSTEM SHALL BE PROVED TIGHT UNDER WATER PRESSURE OF 100 PSIG. THE PRESSURE SHALL BE APPLIED GRADUALLY AND THEN HELD FOR A MINIMUM OF TWO HOURS.
- B. ALL WASTE PIPING SHALL BE TESTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE. THE SYSTEM SHALL BE FILLED WITH WATER TO A HEAD OF NOT LESS THAN 10 FEET. THE WATER LEVEL AT THE TOP OF THE TEST HEAD OF WATER SHALL NOT DROP FOR AT LEAST 15 MINUTES.
- C. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR ALL TESTING.



1 WATER HEATER PIPING DIAGRAM  
N.T.S.

NOTE: COMBINATION BOILER/HOT WATER HEATER  
PROVIDED BY MECHANICAL CONTRACTOR

2 HOSE BIBB CW SUPPLY DETAIL  
N.T.S.



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CES #2014064.00

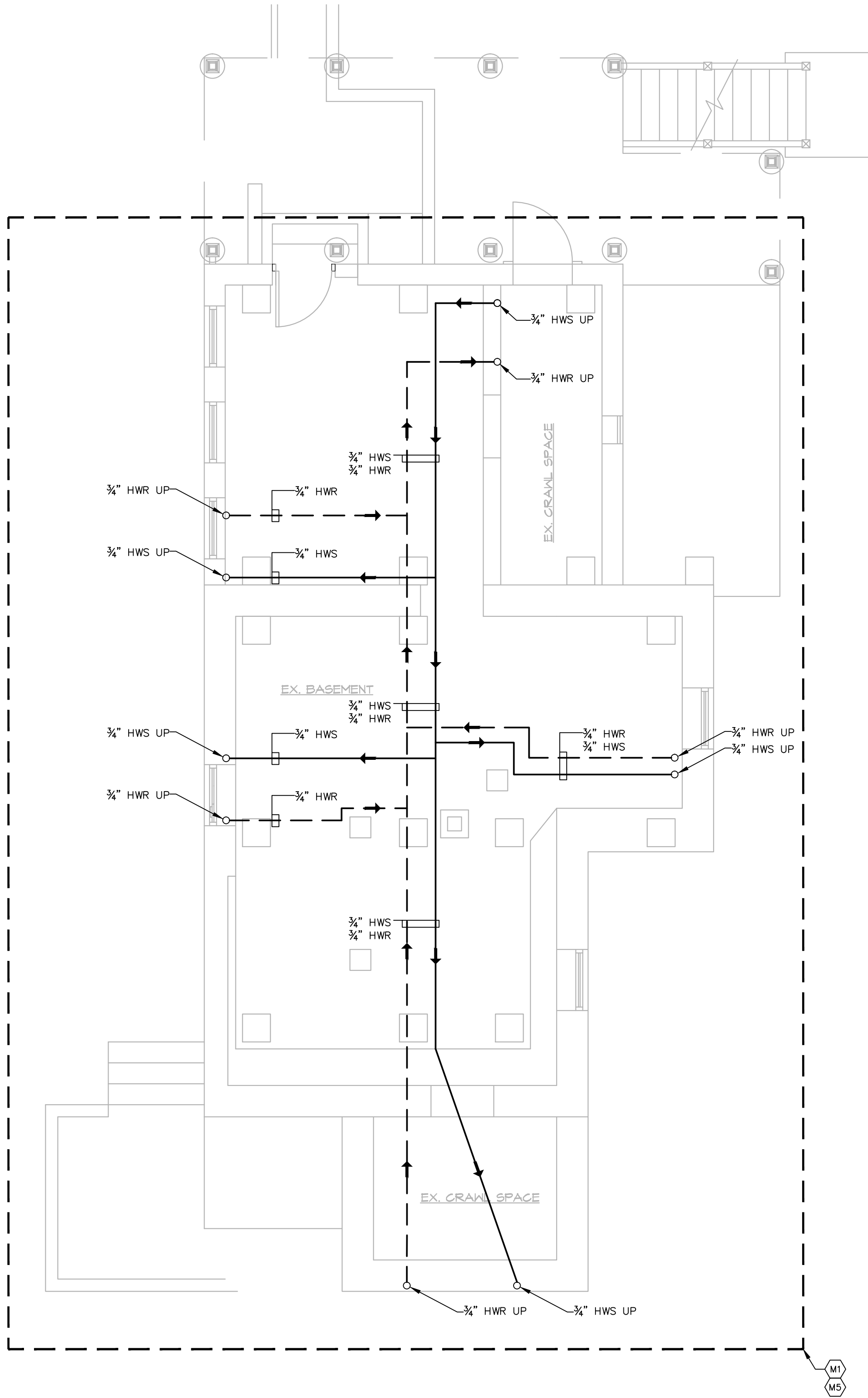
date description no.  
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PLUMBING  
SCHEDULES  
DETAILS AND  
SPECIFICATIONS

P-5.0

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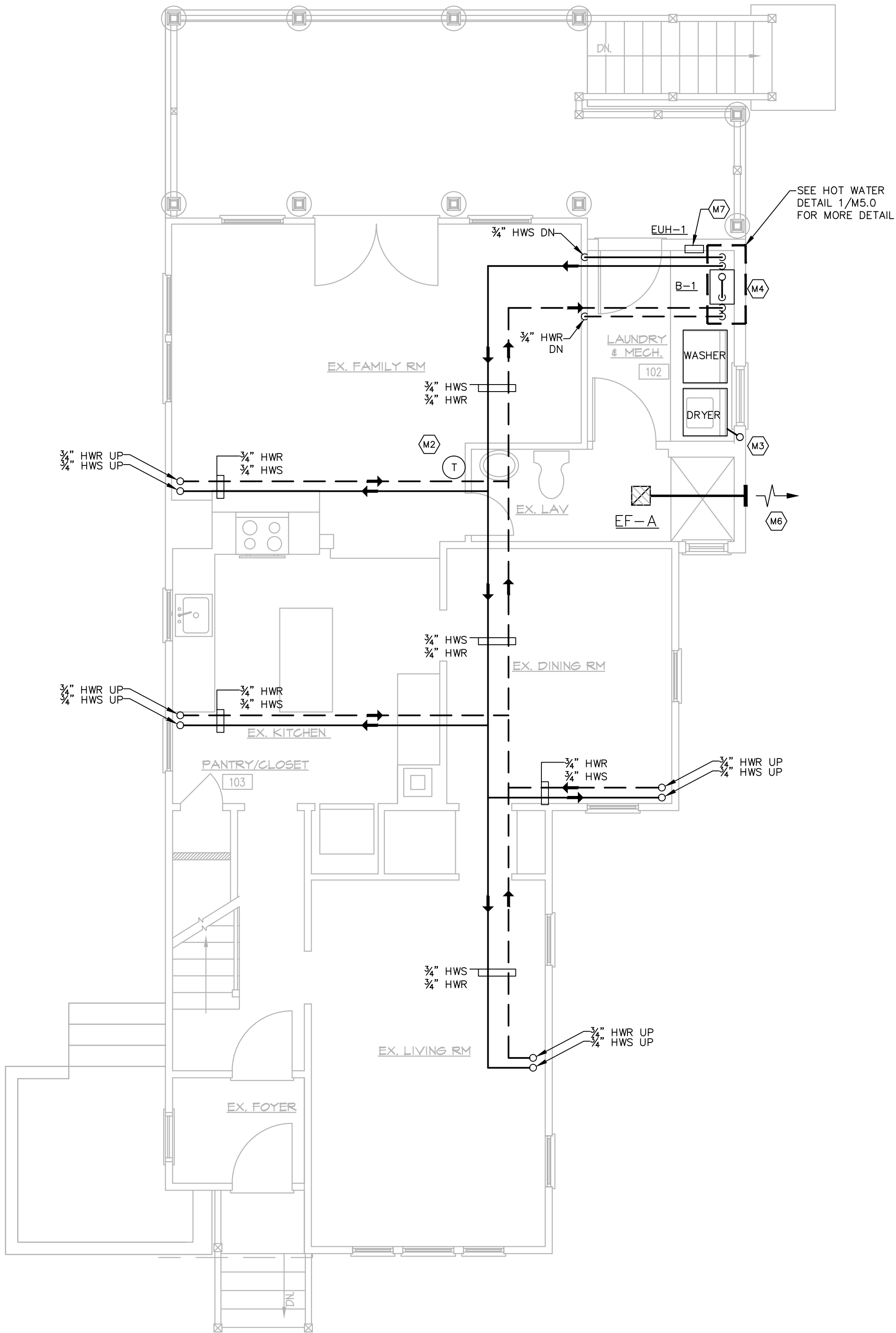
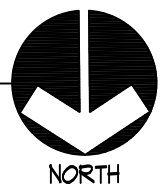




1  
M-1.0

NEW WORK BASEMENT PLAN

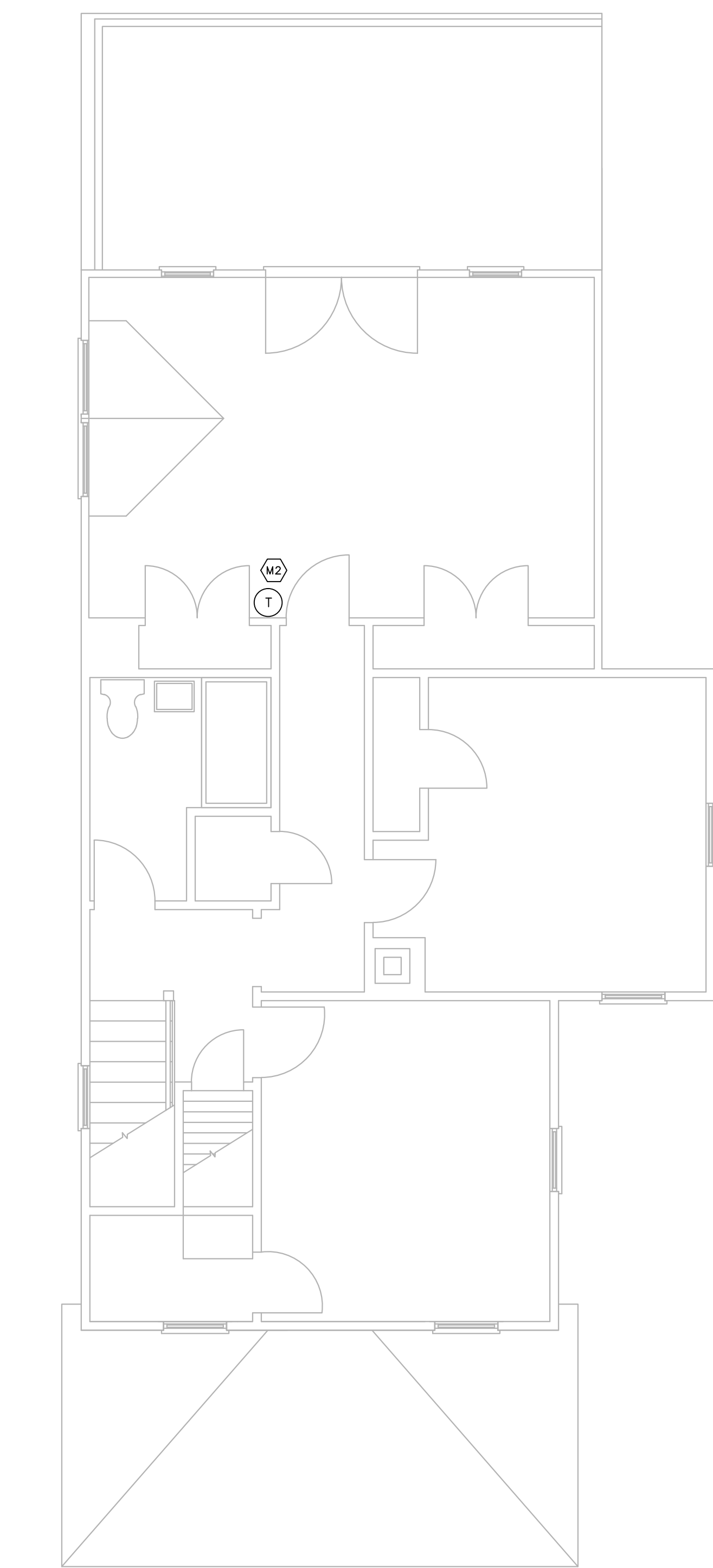
SCALE: 1/4" = 1'-0"



2  
M-1.0

NEW WORK FIRST FLOOR PLAN

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



3  
M-1.0

NEW WORK SECOND FLOOR PLAN

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



GENERAL NOTES

1. ALL MECHANICAL ITEMS SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS INDICATED ON THE ARCHITECTURAL PLANS.
2. WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS INCLUDING ACCESS PANELS FOR VALVES AND EQUIPMENT, DIFFUSER LOCATIONS, THERMOSTAT AND SENSOR LOCATIONS, ETC.
3. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS PRIOR TO PROVIDING ALL EQUIPMENT AND PIPING.

MECHANICAL KEY NOTES

- M1 ROUTE HOT WATER SUPPLY AND RETURN PIPING THROUGH JOISTS AND ABOVE INSULATION.
- M2 PROVIDE NEW 7 DAY FULLY PROGRAMMABLE THERMOSTAT.
- M3 PROVIDE 4" DRYER EXHAUST DUCT. DUCT SHALL BE ALUMINUM RIDGED FLEXIBLE DUCTWORK. TERMINATE THROUGH ROOF.
- M4 PROVIDE 2" PVC INTAKE AND VENT. TERMINATE THROUGH ROOF MANUFACTURERS CONCENTRIC VENT.
- M5 CONTRACTOR SHALL FIELD VERIFY EXISTING HYDRONIC SUPPLY SYSTEM. PROVIDE RADIATOR CONTROL VALVES TO EVERY UNIT.
- M6 PROVIDE EXHAUST FAN WALL CAP. WALL CAP SHALL BE METAL WITH BACKDRAFT DAMPER MODEL WC-6 AS MANUFACTURED BY BUCKELY ASSOCIATES.
- M7 PROVIDE SMALL FAN-FORCED WALL HEATER, WALL HEATER SHALL BE 120V, 1500/750 WATT WITH A CAPACITY OF 5120/2560 BTU/HR. WALL HEATER SHALL BE MODEL NUMBER FFH1612 AS MANUFACTURED BY FAHRENHEAT OR APPROVED EQUAL.



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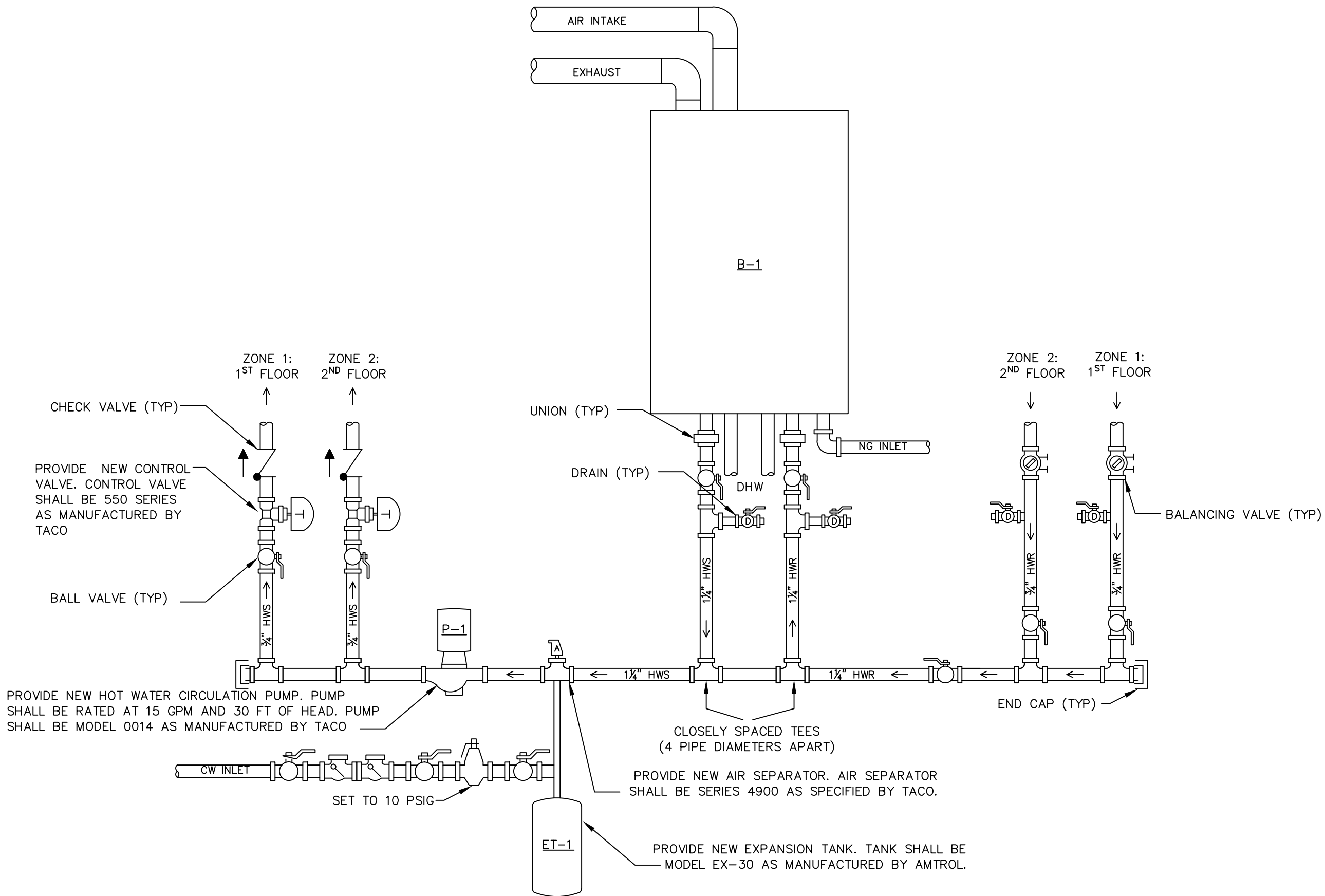
MECHANICAL  
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application no.	1743

BOILER SCHEDULE																
SYMBOL	MANUFACTURER/ MODEL NUMBER	MEDIA	GROSS OUTPUT (MBH)	GROSS INPUT (MBH)	EWT/LWT (°F)	FUEL DATA		DOMESTIC HOT WATER DATA			BURNER DATA			FLOW (GPM)	PRESSURE DROP (FT H2O)	REMARKS
						TYPE	RATE (MBH)	GPM	EWT (°F)	LWT (°F)	AMPS	VOLTS	PHASE			
B-1	LAARS/MASCOT LX 150	HW	142.5	150	160/180	NATURAL GAS	150	5	45	105	1.5	120	1	–	–	ALL
REMARKS: 1. BURNER FIRING SHALL BE MODULATING WITH A 5:1 TURN DOWN RATIO. 2. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT. 3. PROVIDE WITH MANUFACTURER OA SENSOR. 4. PROVIDE WITH MANUFACTURER SUPPLY WATER TEMPERATURE SENSOR. <div>HW = HOT WATER</div>																

FAN SCHEDULE																	
GENERAL					PHYS.	PERFORMANCE					ELECTRICAL			REMARKS			
SYMBOL	MANUFACTURER	MODEL	LOCATION	SERVICE	WEIGHT (LBS)	CFM	SP (IN WG)	RPM	SONES	MOTOR (HP)	AMPS--WATTS	VOLTS	PHASE	TYPE	RATINGS	FEATURES	INSTALL
EF-A	PANASONIC	FV-08VKME3	BATHROOM	SHOWER/BATHROOM	—	86	0.25	1200	0.7	—	0.11~13.3	120	1	1	1	1	1
REMARKS--TYPE			REMARKS--RATINGS			REMARKS--FEATURES						REMARKS--INSTALL					
1. CEILING MOUNTED COMBINATION EXHAUST FAN W/INTEGRAL LED LIGHT.			1. AIR PERFORMANCE CERTIFIED IN ACCORDANCE TO AMCA			1. CEILING MOUNTED EXHAUST FAN WITH INTEGRAL LED LIGHT SMART ACTION MOTION SENSOR . UNIT SHALL HAVE DC BRUSHLESS MOTOR. LIGHT SHALL BE 12 WATT AND NOT LESS THAN 912 LUMENS.						1. PROVIDE BACKDRAFT DAMPER ON FAN OUTLET.					



NOTE: ALL PIPING ACCESSORIES SUCH AS VALVES, AIR SEPERATOR, ETC SHALL BE FULL PIPE SIZE.

### 1 BOILER PIPING DETAIL

N.T.S.

SYMBOL	DESCRIPTION
-----	NEW V
-----	NEW HWS
-----	EXISTING HWS
-----	NEW HWR
-----	EXISTING HWR
-----	DETAIL LINE
-----	NEW HW
-----	BALL VALVE
-----	CHECK VALVE
-----	DIRECTION OF FLOW
-----	END CAP
-----	90° ELBOW DOWN
-----	90° ELBOW UP
-----	TEE UP
-----	TEE DOWN
-----	DROP AND RUN
-----	TEE OFF TOP OF PIPE
-----	TEE OFF BOTTOM OF PIPE

SYMBOL	DESCRIPTION
⊕	THERMOSTAT
↺	RETURN/EXHAUST/OUTSIDE AIR ARROW
→	SUPPLY ARROW
⊥	EXHAUST VENT
⊙	CONNECTION TO EXISTING
ETR	EXISTING TO REMAIN

ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CAP	CAPACITY
ET-#	EXPANSION TANK
HD	ENTERING WATER TEMPERATURE
HP	HEAD
LWT	LEAVING WATER TEMPERATURE
MIN	MINIMUM
N.T.S.	NOT TO SCALE
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
OA	OUTSIDE AIR
P-#	PUMP
SPEC	SPECIFICATION
TEMP	TEMPERATURE
TYP	TYPICAL

- GENERAL PROCEDURES ALL TRADES
- THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE.
  - DESCRIPTION
    - THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.
    - SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT, HOISTING, PLANT, TRANSPORTATION, RIGGING, STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED HEREIN.
  - DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT
    - FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."
    - INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."
    - PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."
    - REMOVE: THE TERM REMOVE MEANS TO DISCONNECTFROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER.
    - SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.
  - DRAWINGS
    - PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO NOTE THAT THESE DOCUMENTS ARE DIAGRAMMATIC ONLY AND THAT FINAL PLACEMENT OF EQUIPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. IF A CONFLICT IN POSITIONING OCCURS THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL.
  - SURVEY AND MEASUREMENTS:
    - PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL EFFECT WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS. INCLUDE IN THE BID ALL DEMOLITION WORK REQUIRED.
    - DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.
    - PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO INSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NECESSARY TO ALLOW FOR PROPER RIGGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT IN PLACE.
    - ARRANGE INSTALLATION TO PROVIDE ACCESS TO EQUIPMENT FOR EASY MAINTENANCE AND REPAIR.
  - CODES AND STANDARDS: ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STATE OF CONNECTICUT ACCEPTED VERSION OF THE FOLLOWING
    - INTERNATIONAL RESIDENTIAL CODE
    - INTERNATIONAL BUILDING CODE
    - INTERNATIONAL PLUMBING CODE
    - INTERNATIONAL MECHANICAL CODE
    - NATIONAL ELECTRIC CODE (NFPA 70)
    - THE LIFE SAFETY CODE (NFPA 101)
  - PERMITS AND FEES: THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS; AND PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS HAVING JURISDICTION. OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.
  - SHOP DRAWINGS:
    - SUBMIT NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE OF 1/4"=1'-0". HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.
    - SHOP DRAWINGS INCLUDE EQUIPMENT SUBMITTALS, FABRICATION AND INSTALLATION DRAWINGS, SETTING DIAGRAMS, SCHEDULES, PATTERNS, TEMPLATES AND SIMILAR DRAWINGS. INCLUDE THE FOLLOWING INFORMATION:
      - DIMENSIONS.
      - IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDED.
      - COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.
      - NOTATION OF COORDINATION REQUIREMENTS.
      - NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.
    - SUBMIT 3 BLACK-LINE PRINTS AND 2 ADDITIONAL PRINTS WHERE REQUIRED FOR MAINTENANCE MANUALS, PLUS THE NUMBER OF PRINTS NEEDED BY THE ENGINEER FOR DISTRIBUTION. ONE PRINT WILL BE RETAINED; THE REMAINDER RETURNED. ONE OF THE PRINTS RETURNED SHALL BE MARKED-UP AND MAINTAINED AS A "RECORD DOCUMENT".
    - DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.
    - DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.
    - PROVIDE SUBMITTALS AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.
  - USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
  - THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.
  - OPERATION AND MAINTENANCE
    - UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
    - THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM, ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
    - OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:
      - MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.
      - MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.
      - COPIES OF WARRANTIES.
      - APPROVED SHOP DRAWINGS AND PRODUCT DATA.
      - BALANCE REPORTS.
    - INCLUDE IN THE MANUAL, A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. SCHEDULE SHALL INCLUDE PERTINENT DATA SUCH AS: MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC. SCHEDULE SHALL INCLUDE MAINTENANCE TO BE DONE AND FREQUENCY.
    - MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.
  - AS-BUILT DRAWINGS
    - PREPARE AS-BUILT DRAWINGS TO A SCALE OF 1/4"=1'-0" OR LARGER; DETAILING THE ACTUAL INSTALLATION OF MAJOR ELEMENTS, COMPONENTS, AND SYSTEMS OF MECHANICAL EQUIPMENT AND MATERIALS WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE AS-BUILT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE.
    - MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS.
    - NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE.
    - ORGANIZE AS-BUILT DRAWINGS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.
  - OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED

- IN MANUFACTURER'S PUBLISHED PRODUCT DATA WITHOUT EXCLUSION OR LIMITATION.
- GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE.
  - SUBMIT TO THE OWNER AN OFFICIAL CERTIFICATE OF INSURANCE FOR THEIR RECORDS.
- MEANS AND METHODS ALL TRADES
- INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
  - DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIALS, ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.
  - MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED.
  - CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION.
  - SCAFFOLDING, RIGGING, HOISTING, THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING, AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.
  - EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS
  - WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WEI AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERIGHT.
  - PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814.
  - ACCESS DOORS SHALL BE PROVIDED IN CEILINGS, WALLS AND FLOORS AT ALL DAMPERS, VALVES, CONTROL DEVICES, AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.
  - SEISMIC RESTRAINTS SHALL BE INSTALLED AS REQUIRED PER BUILDING CODE AND FIRE SAFETY CODE. RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND SMACNA STANDARDS. SUBMIT SHOP DRAWINGS INCLUDING SEISMIC CALCULATIONS WITH PROFESSIONAL ENGINEER'S SEAL FOR REVIEW BY ENGINEER.

- HVAC SPECIFICATIONS
- PIPING AND FITTINGS
    - HVAC HYDRONIC PIPING: FOR PIPE SIZES 2" DIAMETER AND LESS, PIPING SHALL BE TYPE L COPPER TUBING WITH 95-5 TIN-ANTIMONY SOLDER JOINTS. FOR PIPE SIZES LARGER THAN 2" DIAMETER, PIPING SHALL BE SCHEDULE 40 CARBON STEEL WITH THREADED, WELDED OR FLANGED JOINTS.
    - CONDENSATE DRAIN [AND PUMPED CONDENSATE]: SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELD FITTINGS OR TYPE L COPPER TUBING WITH 95-5 TIN-ANTIMONY SOLDER FILLER METALS.
  - FLUE AND COMBUSTION AIR PIPING
    - ALL NATURAL GAS FIRED EQUIPMENT COMBUSTION AIR PIPING, FLUE AND JOINTS SHALL BE SCHEDULE 40 POLYVINYL CHLORIDE (PVC). JOINTS SHALL BE SOLVENT WELD.
  - INSULATION:
    - INSULATION THICKNESS SHALL BE IN ACCORDANCE WITH LATEST EDITION OF ATHE IECC EXCEPT THAT PIPE INSULATION SHALL NOT BE LESS THAN 1" THICK AND, FLEXIBLE DUCTWORK INSULATION SHALL NOT BE LESS THAN 1-1/2" THICK. ALL INSULATION MATERIALS, ADHESIVES, COATINGS, AND OTHER ACCESSORIES SHALL HAVE FLAME SPREAD RATINGS OF 25 OR LESS, AND SMOKE DEVELOPED RATINGS OF 50 OR LESS AS TESTED BY ASTM E-84 (NFPA 255) METHOD. ALL INSULATION MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA AND ASHRAE STANDARDS.
    - PIPE INSULATION SHALL BE FIBERGLASS WITH VAPOR BARRIER JACKET. PROVIDE INSULATION FOR THE FOLLOWING PIPING SYSTEMS:
      - HVAC HYDRONIC SUPPLY AND RETURN PIPING
  - PIPING INSTALLATIONS
    - INSTALL PIPING IN ACCORDANCE WITH ALL APPLICABLE CODES AND GOOD PRACTICES.
    - INSTALL UNIONS OR FLANGES IN PIPES ADJACENT TO EACH VALVE, CONTROL DEVICE AND AT FINAL CONNECTIONS EACH PIECE OF EQUIPMENT.
    - INSTALL DIELECTRIC UNIONS TO JOIN DISSIMILAR METALS.
    - INSTALL AND ANCHOR PIPING TO ENSURE PROPER EXPANSION AND CONTRACTION.
    - PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS AND DRAIN VALVES AT ALL LOW POINTS.
    - ANCHOR PIPING TO ENSURE PROPER DIRECTION OF EXPANSION AND CONTRACTION.
    - SUPPORT PIPING TO PREVENT VIBRATION OR SAGGING. PROVIDE HANGER SPACING ACCORDING TO DISTANCES LISTED IN APPLICABLE CODES AND REGULATIONS.
  - TESTING , ADJUSTING AND BALANCING
    - THE MECHANICAL CONTRACTOR SHALL PROVIDE THE SERVICES OF AN INDEPENDENT TESTING, ADJUSTING, AND BALANCING (TAB) AGENCY TO PROVIDE TAB SERVICES FOR THE MECHANICAL SYSTEMS. THE TAB AGENCY SHALL BE CERTIFIED BY NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OR THE ASSOCIATED AIR BALANCE COUNCIL (AABC) IN THOSE TESTING AND BALANCING DISCIPLINES REQUIRED FOR THIS PROJECT. THE TAB AGENCY SHALL HAVE AT LEAST ONE PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE SERVICES ARE TO BE PERFORMED AND CERTIFIED BY NEBB OR AABC AS A TEST AND BALANCE ENGINEER.
    - PRIOR TO TESTING, ADJUSTING, AND BALANCING, THE MECHANICAL CONTRACTOR SHALL VERIFY THAT THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING AS SPECIFIED. APPROVED SHOP DRAWINGS, AS BUILT DRAWINGS, AND ALL OTHER DATA REQUIRED FOR EACH SYSTEM AND/OR COMPONENT TO BE TESTED SHALL BE MADE AVAILABLE AT THE JOB SITE DURING THE ENTIRE TAB EFFORT. THE OWNER SHALL BE NOTIFIED IN WRITING OF ALL EQUIPMENT, COMPONENTS, OR BALANCING DEVICES, THAT ARE DAMAGED, INCORRECTLY INSTALLED, OR MISSING, AS WELL AS ANY DESIGN DEFICIENCIES THAT WILL PREVENT PROPER TESTING, ADJUSTING, AND BALANCING. TESTING, ADJUSTING, AND BALANCING SHALL NOT COMMENCE UNTIL APPROVED BY THE OWNER.
    - PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM IDENTIFIED, IN ACCORDANCE WITH THE DETAILED PROCEDURES OUTLINED IN EITHER NEBB: "PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS" OR AABC: "NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE." THE TAB AGENCY SHALL TEST, ADJUST, AND BALANCE THE FOLLOWING MECHANICAL SYSTEMS:
      - ALL AIR HANDLING EQUIPMENT
      - ALL PUMPING SYSTEMS
      - ALL SUPPLY AIR SYSTEMS
      - ALL RETURN AIR SYSTEMS
      - ALL HYDRONIC SYSTEMS
      - VERIFY OPERATION OF ALL TEMPERATURE CONTROL SYSTEMS
      - TEST SYSTEMS FOR PROPER SOUND AND VIBRATION LEVELS
    - SUBMIT TESTING, ADJUSTING, AND BALANCING REPORTS BEARING THE SEAL AND SIGNATURE OF THE TAB PROFESSIONAL ENGINEER. PREPARE A REPORT OF RECOMMENDATIONS FOR CORRECTING UNSATISFACTORY MECHANICAL PERFORMANCES WHEN A SYSTEM CANNOT BE SUCCESSFULLY BALANCED.
  - PROVIDE ALL NECESSARY CONTROL DEVICES, EQUIPMENT, MATERIALS, LABOR, WIRE AND CONDUIT TO PERFORM THE SEQUENCES OF OPERATION AS INDICATED. WIRING AND CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH DIVISION 16. ALL CONTROL WIRING INSTALLED WITHIN AIR PLENUM SPACES TO BE TEFLON COATED RATED FOR PLENUM CEILINGS.



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## THE STATE OF CONNECTICUT DEPARTMENT OF HOUSING (DOH) COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR) OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

BALAZ RESIDENCE  
APPLICATION No. 1326  
64 Hackley Street  
Bridgeport, CT 06605



**CLS**  
Consulting Engineering Services, Inc.

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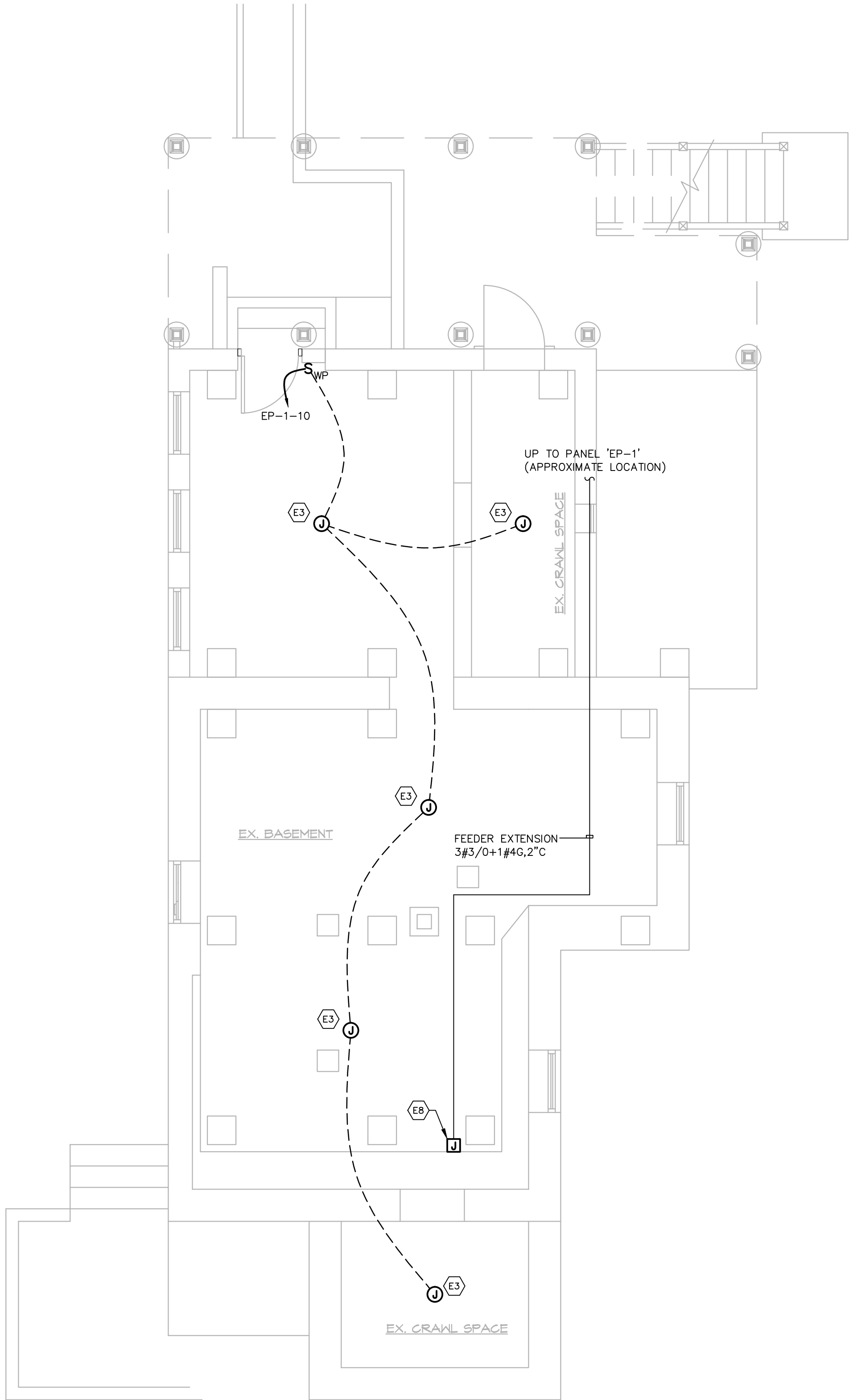
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revisions		

## MECHANICAL SCHEDULES, DETAILS AND SPECIFICATIONS

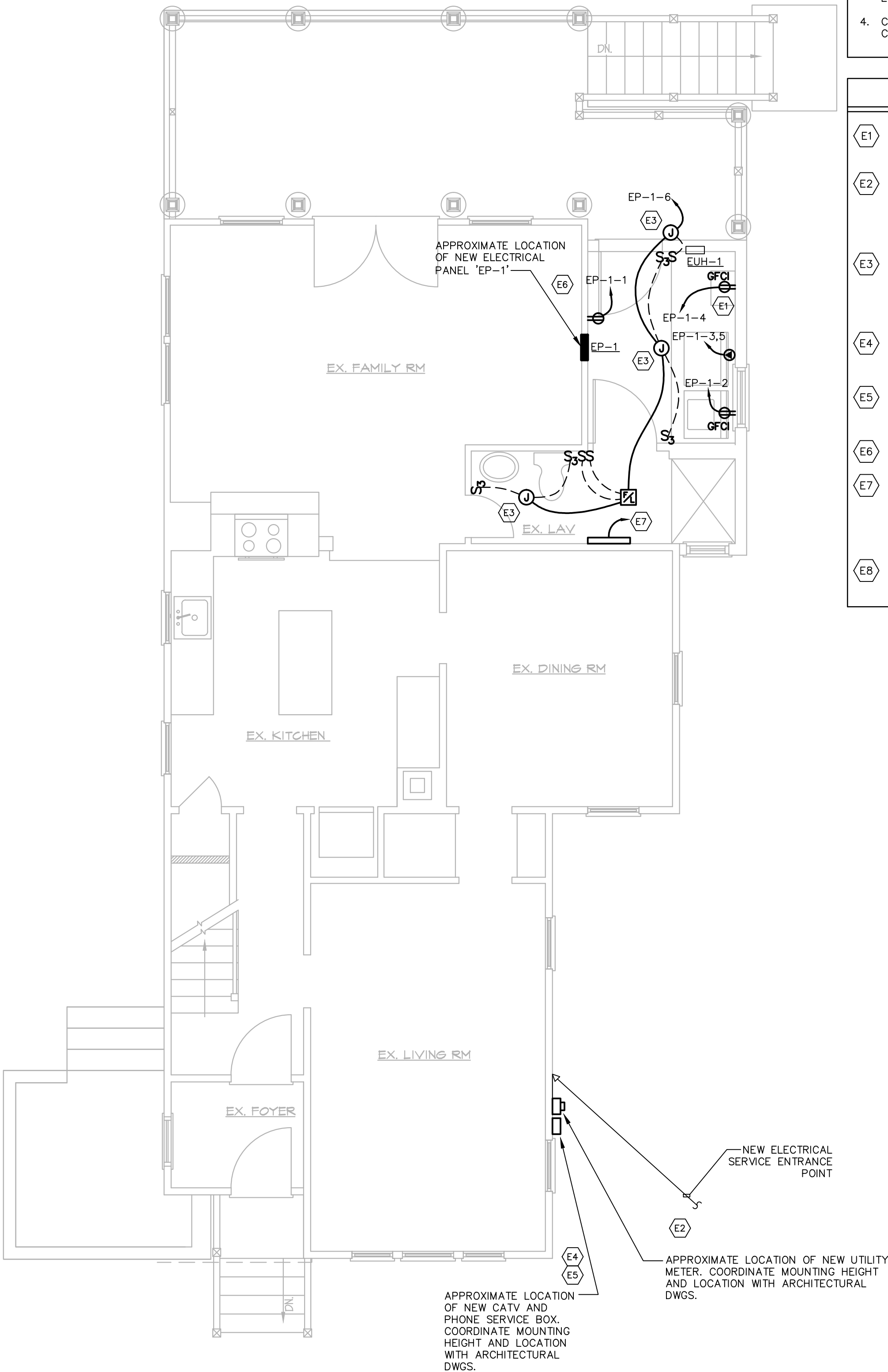
# M-5.0

date	JUNE 22, 2015
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1743





1  
E-1.0  
NEW WORK BASEMENT PLAN  
SCALE: 1/4" = 1'-0"  
NORTH



2  
E-1.0  
NEW WORK FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"  
NORTH

GENERAL NOTES ALL TRADES

1. ELECTRICAL ITEMS INCLUDING BUT NOT LIMITED TO WIRING, EQUIPMENT, SWITCHES, OUTLETS, ETC SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS DETERMINED BY THE ARCHITECTURAL PLANS.
2. WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS.
3. CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS PRIOR TO PROVIDING ALL EQUIPMENT AND PIPING.
4. CIRCUITS SHALL BE #12 FOR 20A-1P CIRCUIT BREAKERS AND #14 FOR 15A-1P CIRCUIT BREAKERS IN PANEL INDICATED UNLESS NOTED OTHERWISE.

ELECTRICAL KEY NOTES

- E1 PROVIDE 120VAC/20AMP GFCI RECEPTACLE FOR COMBINATION WATER HEATER/BOILER. 12-2 FEED TO NEW 20A/1-POLE BREAKER IN PANEL 'EP-1'
- E2 PROVIDE NEW ELECTRIC SERVICE TO THE RESIDENCE. PROVIDE NEW WEATHER HEAD, WIRING (FROM WEATHER HEAD TO METER), METER, METER SOCKET, NEW FEEDER TO PANEL 'EP-1' AND CONNECTION TO PANEL 'EP-1'. REFER TO DISTRIBUTION RISER DIAGRAM FOR MORE INFORMATION. COORDINATE WITH THE UTILITY COMPANY ALL WORK, MATERIALS, AND PARTS ASSOCIATED WITH PROVIDING A NEW SERVICE.
- E3 PROVIDE 12-2 WIRING AND JUNCTION BOX TO THIS LOCATION. WIRING AND JUNCTION BOX SHALL BE PROTECTED FOR FUTURE USE AND INSTALLATION OF LIGHTING FIXTURE. OWNER SHALL PROVIDE LIGHTING FIXTURE AND COORDINATE INSTALLATION BASED ON ALLOWANCE PROVIDED UNDER THIS PROJECT. REFER TO PANELBOARD SCHEDULE FOR CKT INFORMATION. REFER TO DWGS FOR WIRING INFORMATION.
- E4 NEW TELEPHONE SERVICE SHALL BE PROVIDED. CONNECT TO EXISTING TELEPHONE DISTRIBUTION EQUIPMENT AND CABLING. COORDINATE WITH THE TELEPHONE COMPANY ALL WORK, MATERIAL, AND PARTS ASSOCIATED WITH PROVIDING A NEW SERVICE.
- E5 NEW CATV SERVICE SHALL BE PROVIDED. CONNECT TO EXISTING CATV DISTRIBUTION EQUIPMENT AND CABLING. COORDINATE WITH THE CATV COMPANY ALL WORK, MATERIAL, AND PARTS ASSOCIATED WITH PROVIDING A NEW SERVICE.
- E6 PROVIDE NEW PANEL 'EP-1' 200A/MCB, 2P, 120/240V, 30-POLE, 3-WIRE.
- E7 EC SHALL RECONNECT BASEBOARD HEATING UNIT PREVIOUSLY REMOVED DURING DEMOLITION PHASE. EC SHALL COORDINATE RECONNECTION TO THE SAME CIRCUIT IN WHICH THE UNIT WAS PREVIOUSLY ALLOCATED. EC SHALL PROVIDE NEW APPROPRIATELY SIZED WIRING AND CIRCUIT BREAKER OF AFCI TYPE TO CKT BASED ON VERIFICATION ON SITE. EC SHALL UPDATE INFORMATION ON PANELBOARD SCHEDULE DIRECTORY.
- E8 PROVIDE NEW SPLICE/JUNCTION BOX FOR EXTENSION OF EXISTING BRANCH CIRCUITS TO LOCATION OF NEW PANEL 'EP-1'. REFER TO FLOORPLAN FOR APPROXIMATE LOCATION.



THE STATE OF  
CONNECTICUT  
DEPARTMENT OF  
HOUSING (DOH)  
COMMUNITY  
DEVELOPMENT BLOCK  
GRANT - DISASTER  
RECOVERY (CDBG-DR)  
OWNER OCCUPIED  
REHABILITATION and  
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64 Hackley Street  
Bridgeport, CT 06605

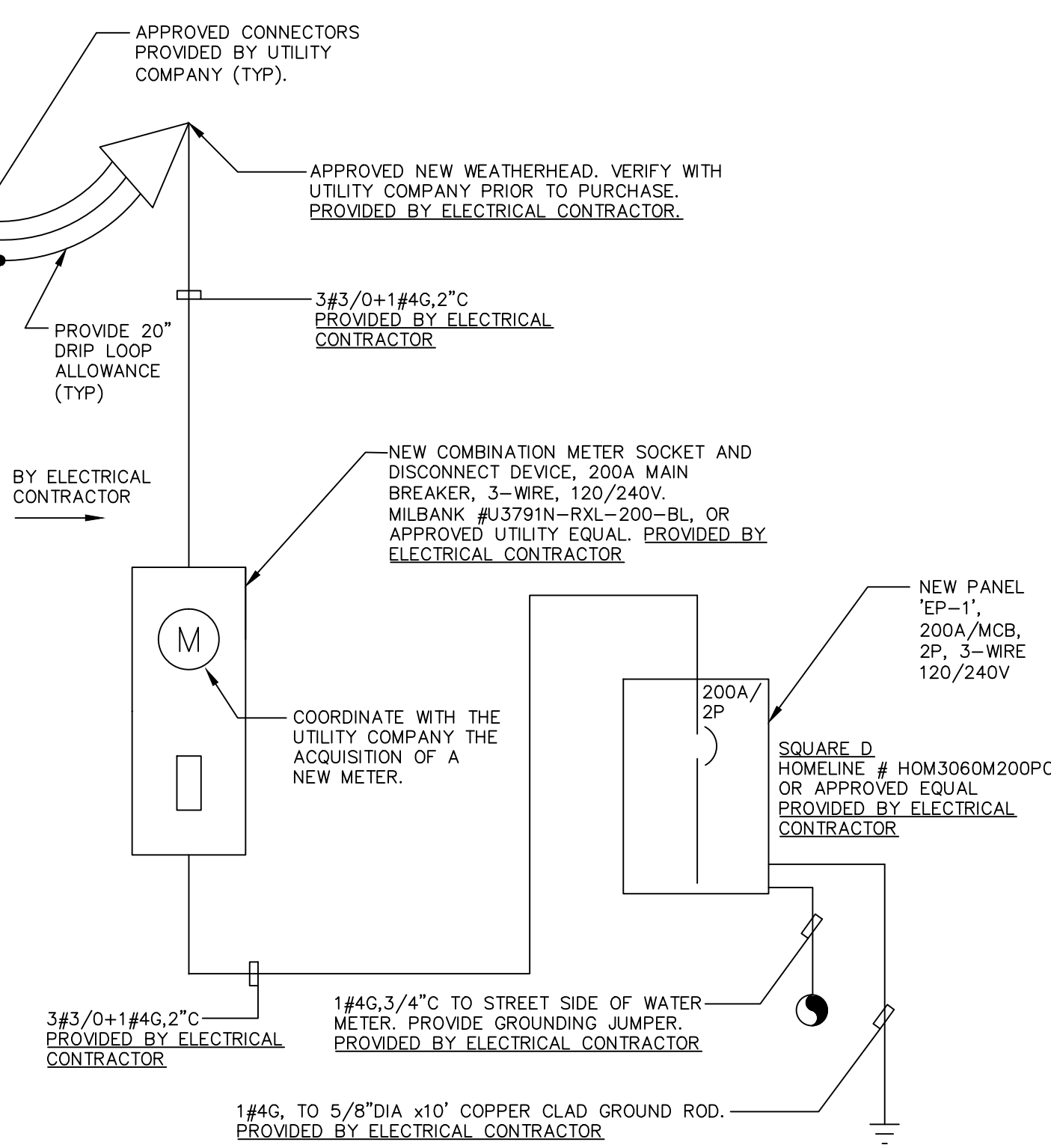
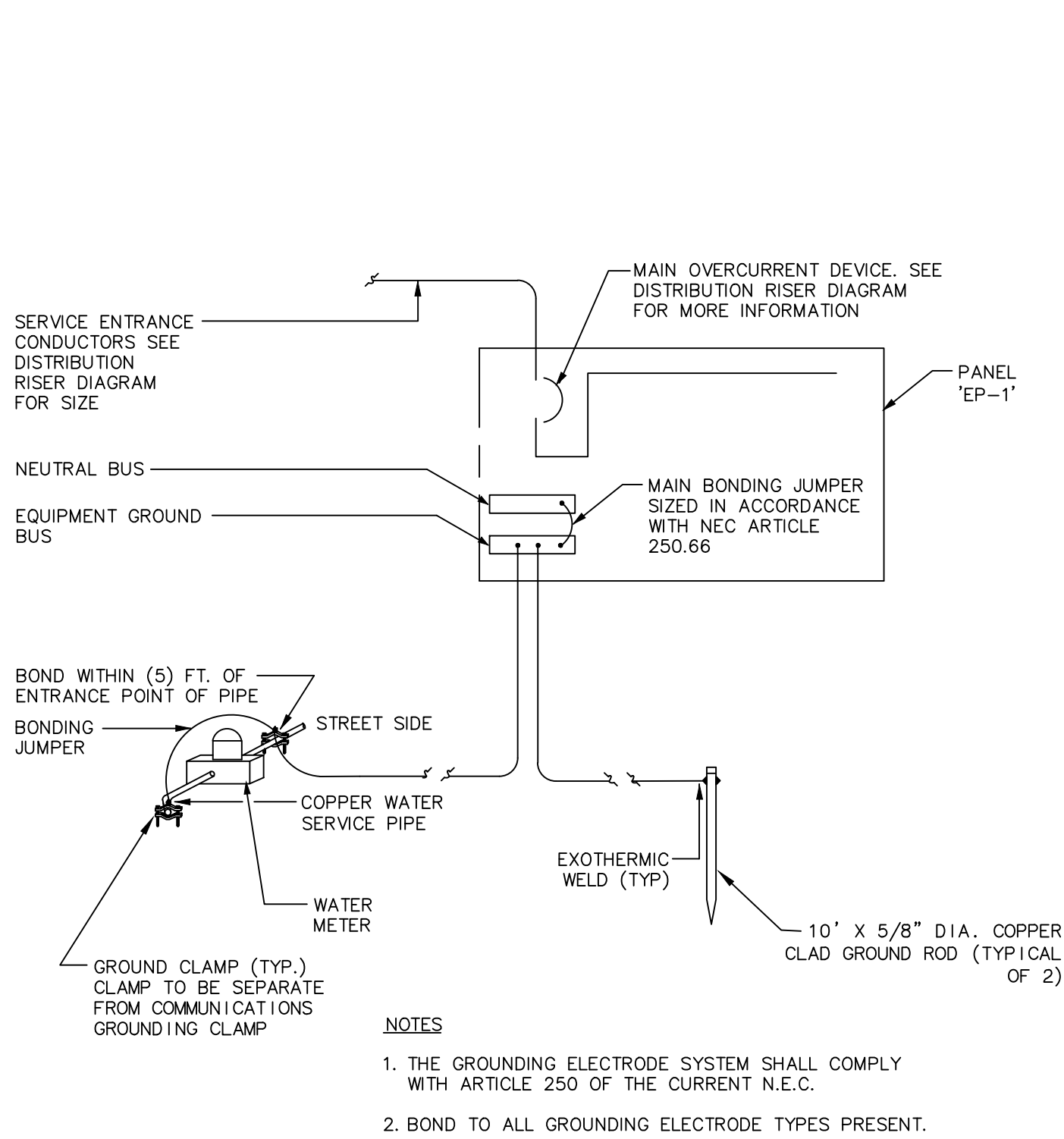


date	description	no.
revisions		

ELECTRICAL  
NEW WORK  
FLOOR PLANS

E-1.0

date	JUNE 22, 2015
drawn	VCM
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1743



ELECTRICAL ABBREVIATIONS			
A/AMP	AMPERE	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	NIC	NOT IN CONTRACT
ACU	AIR CONDITIONING UNIT	NL	NEW LOCATION OF EXISTING RELOCATED
AFF	ABOVE FINISHED FLOOR	NR	NEW TO REPLACE EXISTING
AFG	ABOVE FINISHED GRADE	NTS	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	P	POLE
BSMT	BASEMENT	PE	PRIMARY ELECTRICAL SERVICE
C	CONDUIT	PF	POWER FACTOR
CATV	CABLE TELEVISION	PH/ø	PHASE
C/B	CIRCUIT BREAKER	PNL	PANEL
CKT	CIRCUIT	PVC	POLYVINYL CHLORIDE CONDUIT
°	DEGREE	RE	REMOVE EXISTING
DIA/ø	DIAMETER	RGS	RIGID GALVANIZED STEEL CONDUIT
DN	DOWN	RL	RELOCATE EXISTING
DWG	DRAWING	RM	ROOM
ETR	EXISTING TO REMAIN	RR	REMOVE AND REPLACE ON NEW SURFACE
ELEC	ELECTRICAL	SPEC	SPECIFICATION
EWB	ELECTRIC WATER HEATER	SWBD	SWITCHBOARD
GFCI	GROUND FAULT INTERRUPTER	TELE	TELECOMMUNICATIONS/TELEPHONE
JB	JUNCTION BOX	TV	TELEVISION
KVA	KILOVOLT AMPERE	T/TX	TRANSFORMER
KW	KILOWATT	TYP	TYPICAL
MAX	MAXIMUM	V	VOLTS
MCCB	MOLDED CASE CIRCUIT BREAKER	VA	VOLT AMPERE
MIN	MINIMUM	VAC	VOLTS ALTERNATING CURRENT
MLO	MAIN LUGS ONLY	W	WATT, WIRE
NA	NOT APPLICABLE	WP	WEATHERPROOF

ELECTRICAL SYMBOL LIST	
SYMBOL	DESCRIPTION
	RECESSED PANELBOARD
	ELECTRICAL METER
	BRANCH CIRCUIT WIRING, CONCEALED IN WALLS OR CEILINGS
	HOMERUN TO PANELBOARD, UNLESS INDICATED OTHERWISE, SHALL BE CONNECTED TO A 1 POLE, 20 AMP CIRCUIT BREAKER
	BRANCH CIRCUIT WIRING, SWITCHED
	JUNCTION BOX
	SPECIAL PURPOSE RECEPTACLE, NEMA CONFIGURATION AS INDICATED
	THREE POLE SWITCH
	SINGLE POLE SWITCH
	GFCI DUPLEX RECEPTACLE

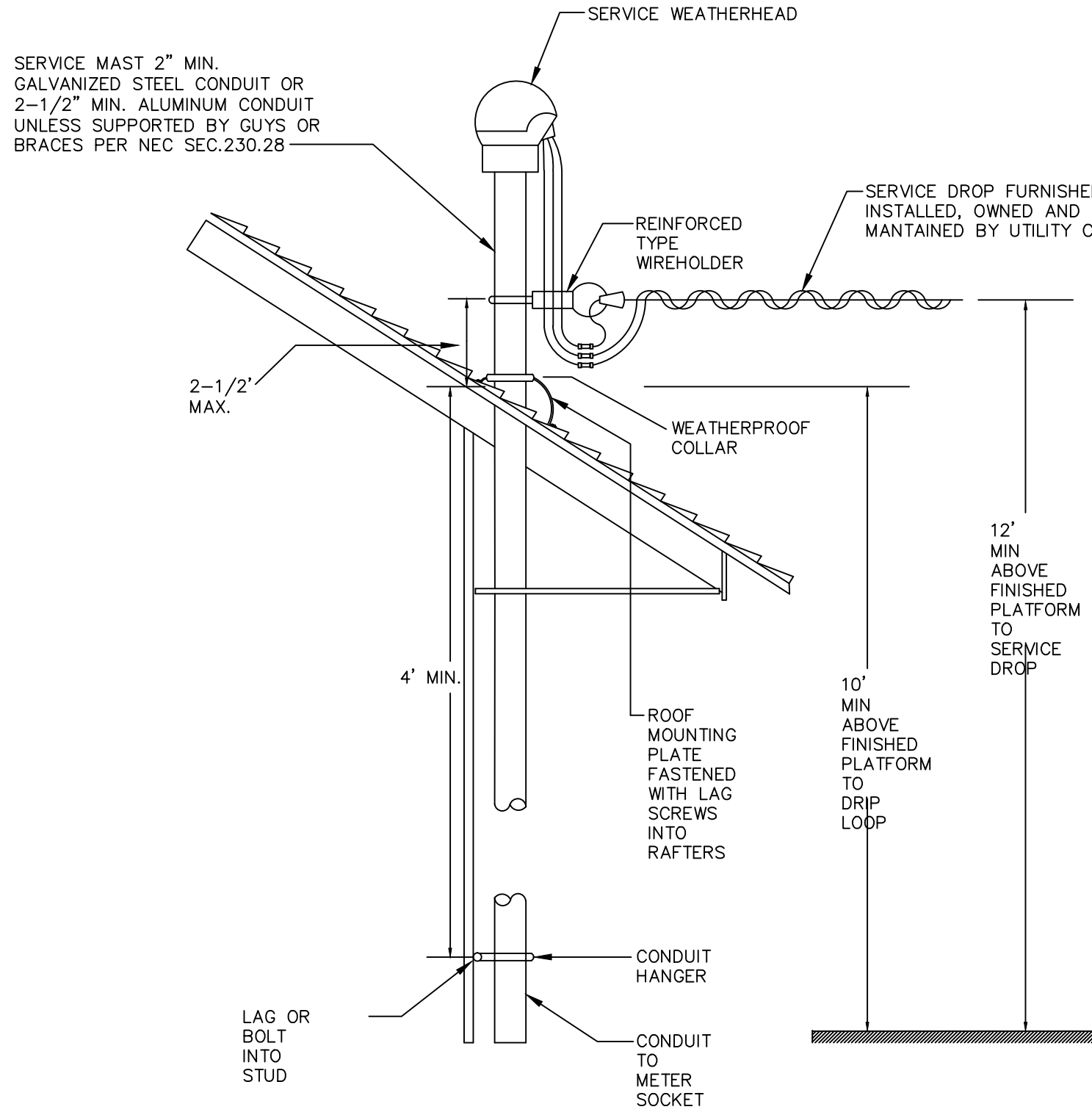
PANELBOARD SCHEDULE															
PANELBOARD	LOCATION	MAIN			VOLTAGE	PHASE	WIRE	FEEDER			SE RATED	MOUNTING			REMARKS
EP-1	BASEMENT	200A/2P	MCB		120/240	1	3	3#3/0+1#4G,2"C		N/A		RECESSED		10,000	
CKT	DESCRIPTION	P	AT	AF	CIRCUITRY		KVA	CKT	DESCRIPTION	P	AT	AF	CIRCUITRY		KVA
1	RCPT - LAUNDRY/FAN	1	20	20	12-2		0.21	2	WASHER	1	20	20	12-2		1.0
3	DRYER	2	30	30	10-3		5.0	4	BOILER/WATER HEATER	1	20	20	12-2		0.60
5	-	-	-	-	-		-	6	LTG - LAUNDRY/BATH	1	15	15	14-2		0.36
7	SEE NOTE 9	2	20	20	12-2		1.8	8	EUH-1	1	20	20	12-2		1.5
9	-	-	-	-	-		-	10	LTG - CRAWLSPACE	1	15	15	14-2		0.36
11	SEE NOTE 9**	1	20	20	12-2		0.36	12	SEE NOTE 9	2	50	50	8-3		8.0
13	SEE NOTE 9**	1	20	20	12-2		0.36	14	-	-	-	-	-		-
15	SEE NOTE 9**	1	20	20	12-2		0.36	16	SEE NOTE 9**	1	15	15	14-2		0.36
17	SEE NOTE 9**	1	20	20	12-2		0.36	18	SEE NOTE 9**	1	15	15	14-2		0.36
19	SEE NOTE 9**	1	15	15	14-2		0.36	20	SEE NOTE 9**	1	15	15	14-2		0.36
21	SEE NOTE 9**	1	20	20	12-2		0.36	22	SEE NOTE 9**	1	20	20	12-2		0.36
23	SEE NOTE 9**	1	20	20	12-2		0.36	24	SEE NOTE 9**	1	20	20	12-2		0.36
25	SEE NOTE 9**	1	20	20	12-2		0.36	26	SEE NOTE 9**	1	20	20	12-2		0.36
27	SPARE	-	20	20	-		-	28	SPARE**	1	20	20	-		-
29	SPARE	-	20	20	-		-	30	SPARE**	1	20	20	-		-
					SUBTOTAL KVA		9.89							SUBTOTAL KVA	13.62
														TOTAL KVA	23.01

\* CONTRACTOR SHALL FIELD VERIFY THE WIRING SIZE OF EXISTING CIRCUITS AND PROVIDE APPROPRIATELY SIZED AFCI CIRCUIT BREAKERS.

\*\* CIRCUIT SHALL BE PROVIDED WITH CIRCUIT BREAKER OF AFCI TYPE.

**PANELBOARD REMARKS:**

1. PROVIDE WITH EQUIPMENT GROUND BUS.
2. PROVIDE WITH 100% RATED NEUTRAL BUS.
3. BRANCH CIRCUIT BREAKERS SHALL BE PLUG-ON TYPE.
4. PROVIDE WITH HINGED DOOR WITH IN DOOR TRIM.
5. PROVIDE A TYPED WRITTEN PANELBOARD DIRECTORY AND A DIRECTORY HOLDER ON THE INSIDE COVER OF DOOR.
6. PROVIDE WITH COPPER BUS.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TYPES AND QUANTITIES OF CIRCUIT BREAKERS INDICATED ON THE DRAWINGS.
8. CIRCUITRY SPECIFIED IS FOR WIRING FROM PANEL TO FIRST DEVICE. CONTRACTOR TO PROVIDE CALL MULTI-CONDUCTOR CABLES AS REQUIRED FOR 3 & 4 WAY SWITCHES.
9. CIRCUITS UNDER THIS NOTE ARE EXISTING AND SHALL BE EXTENDED AND RECONNECTED TO THE NEW LOCATION OF PANEL "EP-1". EC SHALL FIELD VERIFY CIRCUIT QUANTITIES AND CIRCUIT BREAKERS REQUIRED TAKING INTO ACCOUNT THE REMOVAL OF PREVIOUSLY EXISTING CIRCUITS IN THE DEMOLITION PHASE. CIRCUITS SHOWN UNDER THIS NOTE REFLECT EXISTING CONDITIONS. CIRCUITS SHOWN ON PANELBOARD FOR DEVICES AND FIXTURES NO LONGER EXISTING SHALL BE REMOVED AND BE DESIGNATED AS SPACES IN PANEL. EC SHALL PROVIDE SPACE COVER IF NECESSARY.
10. CIRCUIT BREAKERS UNDER THIS PROJECT THAT ARE 120V/1P AND ASSOCIATED WITH NEW, OR EXISTING TO-BE-EXTENDED AND RECONNECTED CIRCUITS SHALL BE OF AFCI TYPE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY QUANTITIES AND CIRCUIT LOCATIONS, AND PROVIDE AFCI CIRCUIT BREAKERS AS NECESSARY.



**THE STATE OF CONNECTICUT DEPARTMENT OF HOUSING (DOH) COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR) OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)**

**BALAZ RESIDENCE APPLICATION No. 1326**  
**64 Hackley Street**  
**Bridgeport, CT 06605**



date	description	no.
revisions		

**ELECTRICAL SCHEDULES AND DETAILS**

**E-5.0**

date	JUNE 22, 2015
drawn	VCM
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1743



- GENERAL PROCEDURES ALL TRADES
1. THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS UNLESS NOTED OTHERWISE.

2. DESCRIPTION

A. THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.

B. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT, HOISTING, PLANT, TRANSPORTATION, RIGGING, TAGGING, SUPPLIANCEANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED HEREIN.

3. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT

A. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."

B. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."

C. PROVIDE: THE TERM "PROVIDE" MEANS "TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE."

D. REMOVE: THE TERM REMOVE MEANS TO DISCONNECTFROM ITS PRESENT POSITION, REMOVE FROM THE PREMISES AND TO DISPOSE OF IN A LEGAL MANNER."

E. SUBSTITUTIONS: "SUBSTITUTIONS" ARE REQUESTS FOR CHANGES IN PRODUCTS, MATERIALS AND METHODS OF CONSTRUCTION AS PROPOSED BY THE CONTRACTOR AFTER AWARD OF THE CONTRACT.

4. DRAWINGS

A. PROVIDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK OUTLINED ON THESE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO NOTE THAT THESE DOCUMENTS ARE DIAGRAMMATIC ONLY AND THAT FINAL PLACEMENT OF EQUIPMENT OR DEVICES IN THE FIELD MAY NOT DIRECTLY CORRESPOND TO THAT WHICH IS SHOWN ON THE DRAWINGS. IF CONFLICT IN POSITIONING OCCURS THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY TO ASCERTAIN WHAT THE INTENT WAS BY THE DESIGN PROFESSIONAL.

5. SURVEY AND MEASUREMENTS:

A. PRIOR TO SUBMITTING BID, VISIT SITE AND IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT WORK TO BE PERFORMED. NO COMPENSATION WILL BE GRANTED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY IDENTIFIED BY EXPERIENCED OBSERVERS. INCLUDE IN THE BID ALL DEMOLITION WORK REQUIRED.

B. DO NOT SCALE DRAWINGS. SCALE INDICATED ON DRAWINGS IS FOR ESTABLISHING REFERENCE POINTS ONLY. ACTUAL FIELD CONDITIONS SHALL GOVERN ALL DIMENSIONS.

C. PRIOR TO ORDERING ANY MATERIALS AND EQUIPMENT, THOROUGHLY REVIEW THE SITE CONDITIONS TO DETERMINE IF ADEQUATE CLEARANCES AND ACCESS IS ALLOWED TO INSTALL THE COMPONENTS. ORDER EQUIPMENT BROKEN DOWN AS NECESSARY TO ALLOW FOR PROPER RIGING THROUGH THE PROJECT AREA. PROVIDE ALL NECESSARY ALTERATIONS TO THE STRUCTURE OF THE BUILDING AS NECESSARY TO RIG THE EQUIPMENT IN PLACE.

D. ARRANGE INSTALLATION TO PROVIDE ACCESS TO EQUIPMENT FOR EASY MAINTENANCE AND REPAIR

6. CODES AND STANDARDS: ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STATE OF CONNECTICUT ACCEPTED VERSION OF THE FOLLOWING

A. INTERNATIONAL RESIDENTIAL CODE

B. INTERNATIONAL BUILDING CODE

C. INTERNATIONAL PLUMBING CODE

D. INTERNATIONAL MECHANICAL CODE

E. NATIONAL ELECTRIC CODE (NFPA 70)

F. THE LIFE SAFETY CODE (NFPA 101)

7. PERMITS AND FEES: THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS; AND PAY ALL GOVERNMENT AND STATE SALES TAXES AND FEES WHERE APPLICABLE, AND OTHER COSTS, INCLUDING UTILITY CONNECTIONS OR EXTENSIONS IN CONNECTION WITH THE WORK, FILE ALL NECESSARY DRAWINGS, PREPARE ALL DOCUMENTS AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL AND STATE DEPARTMENTS HAVING JURISDICTION. OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR HIS WORK, AND DELIVER A COPY TO THE OWNER AND ENGINEER BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK.

8. SHOP DRAWINGS:

A. SUBMIT NEWLY PREPARED INFORMATION, DRAWN TO ACCURATE SCALE OF 1/4"=1'-0". HIGHLIGHT, ENCIRCLE, OR OTHERWISE INDICATE DEVIATIONS FROM THE CONTRACT DOCUMENTS. DO NOT REPRODUCE CONTRACT DOCUMENTS OR COPY STANDARD INFORMATION AS THE BASIS OF SHOP DRAWINGS. STANDARD INFORMATION PREPARED WITHOUT SPECIFIC REFERENCE TO THE PROJECT IS NOT CONSIDERED SHOP DRAWINGS.

B. SHOP DRAWINGS INCLUDE EQUIPMENT SUBMITTALS, FABRICATION AND INSTALLATION DRAWINGS, SETTING DIAGRAMS, SCHEDULES, PATTERNS, TEMPLATES AND SIMILAR DRAWINGS. INCLUDE THE FOLLOWING INFORMATION:

a. DIMENSIONS.

b. IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDED.

c. COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.

d. NOTATION OF COORDINATION REQUIREMENTS.

e. NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.

f. SUBMIT 3 BLACK-LINE PRINTS AND 2 ADDITIONAL PRINTS WHERE REQUIRED FOR MAINTENANCE MANUALS, PLUS THE NUMBER OF PRINTS NEEDED BY THE ENGINEER FOR DISTRIBUTION. ONE PRINT WILL BE RETAINED; THE REMAINDER RETURNED. ONE OF THE PRINTS RETURNED SHALL BE MARKED-UP AND MAINTAINED AS A "RECORD DOCUMENT".

g. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.

h. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.

i. PROVIDE SUBMITTALS AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.

9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.

10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.

11. OPERATION AND MAINTENANCE

A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.

B. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.

C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:

a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.

b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.

c. COPIES OF WARRANTIES.

d. APPROVED SHOP DRAWINGS AND PRODUCT DATA.

e. BALANCE REPORTS.

f. INCLUDE IN THE MANUAL A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. SCHEDULES SHALL INCLUDE PERTINENT DATA SUCH AS MAKE, MODEL NUMBER, SERIAL NUMBER, VOLTAGE, NORMAL OPERATING CURRENT, BELT SIZE, FILTER QUANTITIES AND SIZES, BEARING NUMBER, ETC. SCHEDULE SHALL INCLUDE MAINTENANCE TO BE DONE AND FREQUENCY.

g. MAINTENANCE AND INSTRUCTION MANUALS SHALL BE SUBMITTED TO THE OWNER AT THE SAME TIME AS THE SEVEN (7) DAY NOTICE IS GIVEN PRIOR TO THE INSTRUCTION PERIOD.

12. AS-BUILT DRAWINGS

A. PREPARE AS-BUILT DRAWINGS TO A SCALE OF 1/4"=1'-0" OR LARGER; DETAILING THE ACTUAL INSTALLATION OF MAJOR ELEMENTS, COMPONENTS, AND SYSTEMS OF MECHANICAL EQUIPMENT AND MATERIALS. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE AS-BUILT DRAWINGS GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE.

B. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS.

C. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE.

D. ORGANIZE AS-BUILT DRAWINGS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.

13. OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED

IN MANUFACTURER'S PUBLISHED PRODUCT DATA WITHOUT EXCLUSION OR LIMITATION.

14. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE.

15. SUBMIT TO THE OWNER AN OFFICIAL CERTIFICATE OF INSURANCE FOR THEIR RECORDS.

MEANS AND METHODS ALL TRADES

1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

2. DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.

3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED.

4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION.

5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.

6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS

7. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.

8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814.

9. ACCESS DOORS SHALL BE PROVIDED IN CEILINGS, WALLS AND FLOORS AT ALL DAMPERS, VALVES, CONTROL DEVICES, AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.

10. SEISMIC RESTRAINTS SHALL BE INSTALLED AS REQUIRED PER BUILDING CODE AND FIRE SAFETY CODE. RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND SMACNA STANDARDS. SUBMIT SHOP DRAWINGS INCLUDING SEISMIC CALCULATIONS WITH PROFESSIONAL ENGINEER'S SEAL FOR REVIEW BY ENGINEER.

ELECTRICAL SPECIFICATIONS

1. CONTACT THE POWER COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL NECESSARY EQUIPMENT, GROUNDING, CONDUITS, WIRE, TRENCHING, SAND AND BACKFILL ETC., FOR THE POWER COMPANY SERVICE CONNECTIONS AND ACTIVATION OF SERVICE FOR THE PROJECT. ALL EQUIPMENT SHALL MEET THE POWER COMPANIES REQUIREMENTS AND SHALL BE SUBMITTED TO THE POWER COMPANY PRIOR TO ORDERING OR INSTALLATION.

2. CONTACT THE TELEPHONE COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL BOXES, TERMINATIONS, CONDUITS AND WIRING PER DRAWINGS.

3. CONTACT THE CABLE TELEVISION COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL BOXES, TERMINATION, CONDUITS AND WIRING PER DRAWINGS.

4. SERVICE-DISCONNECTING MEANS SHALL BE OF THE TYPE AS INDICATED WITH EXTERNAL HANDLE FOR MANUAL OPERATION. WHEN SERVICE DISCONNECTING MEANS IS A PART OF AN ASSEMBLY, THE ASSEMBLY SHALL BE LISTED AS SUITABLE FOR SERVICE ENTRANCE EQUIPMENT. ENCLOSURES SHALL BE SHEET METAL WITH HINGED COVER FOR SURFACE MOUNTING UNLESS OTHERWISE INDICATED.

5. PANELBOARD/LOAD CENTER:

A. PROVIDE CIRCUIT BREAKER TYPE PANELBOARD/LOAD CENTER WITH BUS RATING AS INDICATED ON DRAWINGS.

B. MINIMUM INTEGRATED SHORT CIRCUIT RATING: 10,000A RMS SYMMETRICAL.

C. MOLDED CASE CIRCUIT BREAKER: NEMA AB, PLUG ON TYPE THERMAL MAGNETIC TRIP CIRCUIT BREAKERS, WITH COMMON TRIP HANDLES PER POLES, LISTED AS TYPE SWD FOR LIGHTING CIRCUITS, CLASS A GROUND FAULT INTERRUPTER CIRCUIT BREAKER AS INDICATED ON DRAWINGS, ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS AS INDICATED ON DRAWINGS.

D. ENCLOSURE: GENERAL PURPOSE.

E. BOX: FLUSH TYPE WITH DOOR AND PULL RING LATCH, FINISH IN MANUFACTURER STANDARD GRAY ENAMEL.

6. MOUNT PANELBOARDS, CIRCUIT BREAKERS, AND DISCONNECTING SWITCHES SO HEIGHT OF OPERATING HANDLE AT ITS HIGHEST POSITION IS MAXIMUM 78 INCHES ABOVE FLOOR.

7. ALL BACKBOARDS SHALL UTILIZE FIRE RETARDANT 3/4 INCH PLYWOOD, SIZED AS INDICATED ON THE DRAWINGS.

8. GROUNDING SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 70.

A. GROUND EXPOSED, NON-CURRENT-CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, GROUNDING CONDUCTOR IN NONMETALLIC RACEWAYS, GROUNDING CONDUCTOR OF NONMETALLIC SHEATHED CABLES, AND NEUTRAL CONDUCTOR OF WIRING SYSTEMS.

B. MAKE GROUND CONNECTION AT MAIN SERVICE EQUIPMENT, AND EXTEND GROUNDING CONDUCTOR TO POINT OF ENTRANCE OF METALLIC WATER SERVICE. MAKE CONNECTION TO WATER PIPE BY SUITABLE GROUND CLAMP WITH WETER JUMPER OR LUG CONNECTION TO PLUGGED TEE. IF FLANGED PIPES ARE ENCOUNTERED, MAKE CONNECTION WITH LUG BOLTED TO STREET SIDE OF FLANGED CONNECTION. SUPPLEMENT METALLIC WATER SERVICE GROUNDING SYSTEM WITH ADDITIONAL MADE ELECTRODE IN COMPLIANCE WITH NFPA 70. MAKE GROUND CONNECTION TO DRIVEN GROUND RODS ON EXTERIOR OF BUILDING. GROUND RODS SHALL BE OF COPPER-CLAD STEEL CONFORMING TO UL 467 NOT LESS THAN 19.1 MM (3/4 INCH) IN DIAMETER BY 2.4 METER (8 FEET) IN LENGTH OF THE SECTIONAL TYPE DRIVEN FULL LENGTH INTO THE EARTH WHERE GROUND FAULT PROTECTION IS EMPLOYED, ENSURE THAT CONNECTION OF GROUND AND NEUTRAL DOES NOT INTERFERE WITH CORRECT OPERATION OF FAULT PROTECTION.

9. WIRING SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 70.

A. CONDUCTORS NO. 8 AWG AND LARGER DIAMETER SHALL BE STRANDED ANNEALED COPPER. CONDUCTORS NO. 10 AWG AND SMALLER DIAMETER SHALL BE SOLID ANNEALED COPPER. CONDUCTOR SIZES AND AMPACITIES SHOWN ARE BASED ON COPPER UNLESS INDICATED OTHERWISE. UNLESS SPECIFIED OR INDICATED OTHERWISE OR REQUIRED BY NFPA 70, UNLESS OTHERWISE INDICTED WIRING METHODS SHALL BE:

a. SERVICE ENTRANCE WIRING AND WIRING TO DISTRIBUTION PANELS. WIRES SHALL BE IN PVC CONDUIT AND SHALL BE 600-VOLT, TYPE THWN/THHN ANNEALED COPPER.

b. BRANCH CIRCUITING INSIDE THE BUILDING IN DRY AREAS SHALL BE 600 VOLT, TYPE NM-B.

c. BRANCH CIRCUITING OUTSIDE THE BUILDING AND IN WET/DAMP AREAS SHALL BE 600 VOLT, TYPE UF-B.

d. WIRES SUBJECT TO DAMAGE SHALL BE IN PVC CONDUIT.

B. MAKE ALL SPLICES IN ACCESSIBLE LOCATIONS. MAKE SPLICES IN CONDUCTORS NO. 10 AWG AND SMALLER DAMETER WITH INSULATED, PRESSURE-TYPE CONNECTOR. MAKE SPLICES IN CONDUCTORS NO. 8 AWG AND LARGER DIAMETER WITH SOLDERLESS CONNECTOR, AND COVER WITH INSULATION MATERIAL EQUIVALENT TO CONDUCTOR INSULATION.

C. PHASE CONDUCTORS SHALL BE IDENTIFIED BY COLOR CODING. THE COLOR OF THE INSULATION ON PHASES A AND B RESPECTIVELY (FOR SINGLE PHASE) OF DIFFERENT VOLTAGE SYSTEMS SHALL BE AS FOLLOWS: 120/240 VOLT, SINGLE/PHASE: BLACK AND RED.

9. BOXES:

A. ALL OUTLETS, SWITCH AND JUNCTION BOXES SHALL BE NONMETALLIC BOXES.

B. BOXES SHALL BE SIZED IN ACCORDANCE WITH NFPA 70.

C. EXTERIOR BOXES SHALL BE GASKETED AND WATERTIGHT.

10. OUTLETS AND SWITCHES:

A. ALL OUTLETS AND SWITCHES SHALL BE WHITE.

B. MOUNT LIGHTING SWITCHES 48 INCHES ABOVE FINISHED FLOOR, RECEPTACLES 18 INCHES ABOVE FINISHED FLOOR, AND OTHER DEVICES AS INDICATED. MEASURE MOUNTING HEIGHTS OF WIRING DEVICES AND OUTLETS TO TOP OF DEVICE OR OUTLET.

C. SINGLE AND DUPLEX RECEPTACLES SHALL BE RATED 15 AMPERES, 125 VOLTS, TWO-POLE, THREE-WIRE, GROUNDING TYPE WITH POLARIZED PARALLEL SLOTS. RECEPTACLE SHALL BE SIDE OR BACK WIRED WITH TWO SCREWS PER TERMINAL. THE THIRD GROUNDING POLE SHALL BE CONNECTED TO THE METAL MOUNTING YOKE.

a. SWITCHED RECEPTACLES SHALL BE THE SAME AS OTHER RECEPTACLES SPECIFIED EXCEPT THAT THE UNGROUNDED POLE OF EACH SUITABLE RECEPTACLE SHALL BE PROVIDED WITH A SEPARATE TERMINAL. ONLY THE TOP RECEPTACLE OF A DUPLEX RECEPTACLE SHALL BE WIRED FOR SWITCHING APPLICATION.

C. RECEPTACLES WITH GROUND FAULT CIRCUIT INTERRUPTERS SHALL HAVE THE CURRENT RATING AS INDICATED, AND SHALL BE UL CLASS A TYPE UNLESS OTHERWISE SHOWN. GROUND FAULT CIRCUIT PROTECTION SHALL BE PROVIDED AS REQUIRED BY NFPA 70 AND AS INDICATED ON THE DRAWINGS.

D. WEATHERPROOF RECEPTACLES SHOWN SHALL BE MOUNTED IN A BOX WITH A

GASKETED, WEATHERPROOF, WATERPROOF COVER PLATE AND GASKETED CAP OVER EACH RECEPTACLE OPENING.

E. WALL SWITCHES SHALL BE OF THE TOTALLY ENCLOSED TUMBLER TYPE. WIRING TERMINALS SHALL BE OF THE SCREW TYPE OR OF SOLDERLESS PRESSURE TYPE HAVING SUITABLE CONDUCTOR-RELEASE ARRANGEMENT. SWITCHES SHALL BE RATED 15 AMPERE 120/277-VOLT FOR USE ON ALTERNATING CURRENT ONLY.

F. DEVICE PLATES SHALL BE ONE-PIECE TYPE AND BE PROVIDED FOR ALL RECEPTACLES, OUTLETS, SWITCHES AND FITTINGS. PLATES ON UNFINISHED WALLS AND ON FITTINGS SHALL BE OF IMPACT RESISTANT PLASTIC HAVING ROUNDED OR BEVELED EDGES. PLATES ON FINISHED WALLS SHALL BE IMPACT-RESISTANT PLASTIC. PLATES SHALL BE INSTALLED WITH ALL FOUR EDGES IN CONTINUOUS CONTACT WITH FINISHED WALL SURFACES WITHOUT THE USE OF MATS OR SIMILAR DEVICES. PLATES SHALL BE INSTALLED WITH AN ALIGNMENT TOLERANCE OF 1/16 INCH. THE USE OF SECTIONAL-TYPE DEVICE PLATES WILL NOT BE PERMITTED. PLATES INSTALLED IN WET LOCATIONS SHALL BE GASKETED AND PROVIDED WITH A HINGED, GASKETED COVER, UNLESS OTHERWISE SPECIFIED.

11. PROVIDE ALL NECESSARY JUNCTION BOXES, PULL BOXES, PULL WIRES, COVER PLATES AND OTHER MISCELLANEOUS EQUIPMENT WHICH IS NOT SHOWN ON THE CONTRACT DOCUMENTS BUT NECESSARY TO COMPLETE THE WORK.

12. PROVIDE ALL NECESSARY WIRE, CONDUIT AND EQUIPMENT TO SUPPLY POWER TO THE HEATING, VENTILATION AND AIR CONDITIONING EQUIPMENT, PLUMBING EQUIPMENT AND FIRE PROTECTION EQUIPMENT. CONTROL WIRING AND CONDUIT SHALL BE PROVIDED UNDER DIVISION 15.

13. COORDINATE ALL WORK WITH OTHER TRADES AND ARRANGE INSTALLATION TO AVOID CLASHES BETWEEN EQUIPMENT, WORK OF OTHER TRADES AND BUILDING STRUCTURE.

THE STATE OF CONNECTICUT  
DEPARTMENT OF HOUSING (DOH)  
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)  
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

BALAZ RESIDENCE  
APPLICATION No. 1326  
64 Hackley Street  
Bridgeport, CT 06605

date	description	no.
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revisions

ELECTRICAL SPECIFICATIONS

E-5.1

date	JUNE 22, 2015
drawn	VM
scale	AS SHOWN
checked	DTB
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