

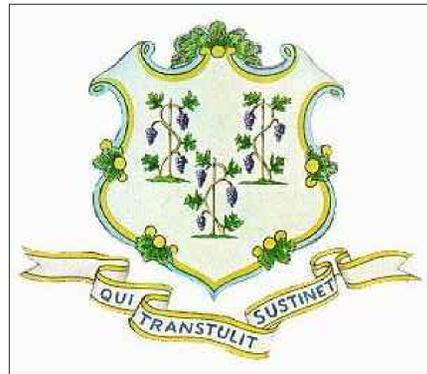
**THE STATE OF CONNECTICUT
DEPARTMENT OF HOUSING (DOH)
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)**



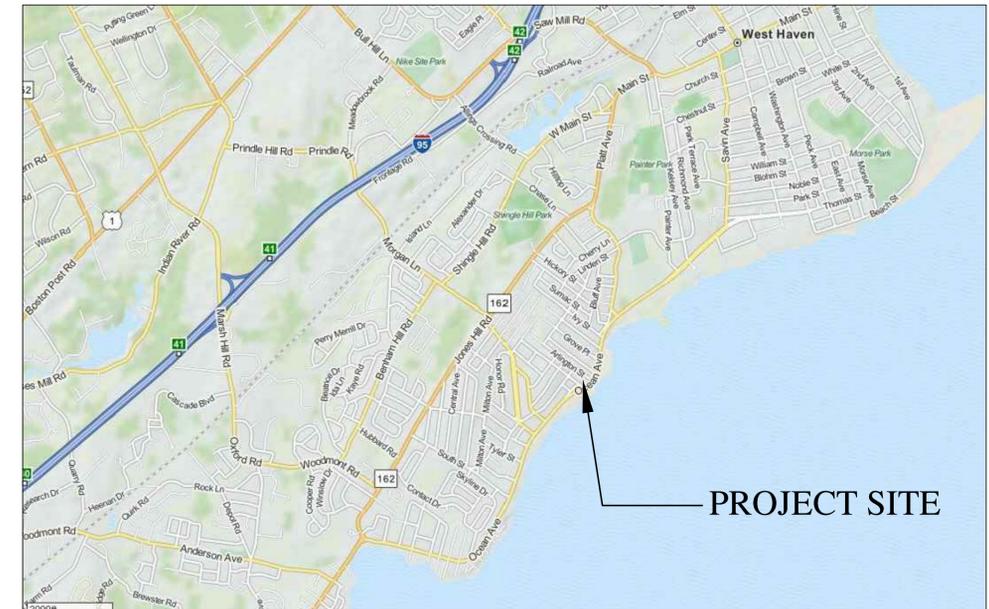
January 08, 2016

csa project 1347-43

Issued for: Bidding and Construction



**Hill Residence Rehabilitation,
Rebuilding and Mitigation
Application No. 1739
888 Ocean Avenue
West Haven, CT 06516**



LOCATION PLAN

not to scale



Architect

Capital Studio Architects, LLC
1379 Main Street
East Hartford, Connecticut 06108
tel: 860.289.3262 fax: 860.289.3163

Civil / Site Engineer

Design Professionals, Inc.
PO Box 1167
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South Windsor, CT 06074
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Environmental Consultant

Eagle Environmental, Inc.
8 South Main Street, Suite 3
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tel: 860.589.8257 fax: 860.585.7034

Structural Engineer

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1379 Main Street
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MEP Engineer

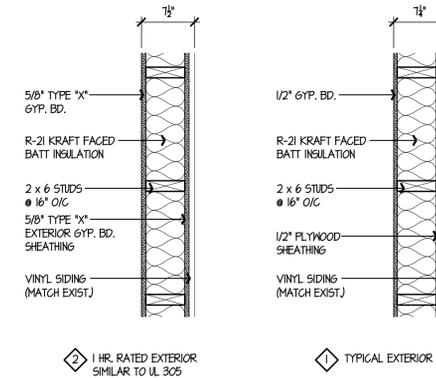
Consulting Engineering Services
811 Middle Street
Middletown, CT 06457
tel: 860.632.1682

Drawing List

Title Sheet			
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S-1.0	FOUNDATION PLAN	P-1.0	PLUMBING FLOOR PLANS
S-2.0	FRAMING PLAN	P-5.0	PLUMBING SCHEDULES, DETAILS AND SPECIFICATIONS
D-1.0	DEMOLITION PLANS & ELEVATIONS		
A-1.0	FLOOR PLANS	M-1.0	MECHANICAL FLOOR PLANS
A-2.0	ELEVATIONS	M-5.0	MECHANICAL SCHEDULES, DETAILS AND SPECIFICATIONS
A-3.0	BUILDING SECTION & SCHEDULES		
A-3.1	ADDITION SECTIONS	E-1.0	ELECTRICAL FLOOR PLANS
A-4.0	FRONT PORCH & STAIRS	E-5.0	ELECTRICAL SCHEDULES, DETAILS AND SPECIFICATIONS
A-4.1	REAR STAIRS		
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A-4.3	ALTERNATE #1 ELEVATE ABOVE 500 YR. FLOOD ONLY	E-5.1	ELECTRICAL SPECIFICATIONS

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

**REHABILITATION, REBUILDING and
MITIGATION for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516**



5 PARTITION TYPES
NO SCALE

- 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 1-800-422-4455 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

date	description	no.
revisions		

GENERAL INFORMATION

A-0.0

date	08 JAN 2016
drawn	NMF
scale	AS SHOWN
checked	JP/DH
project no.	1347-43
application no.	1739

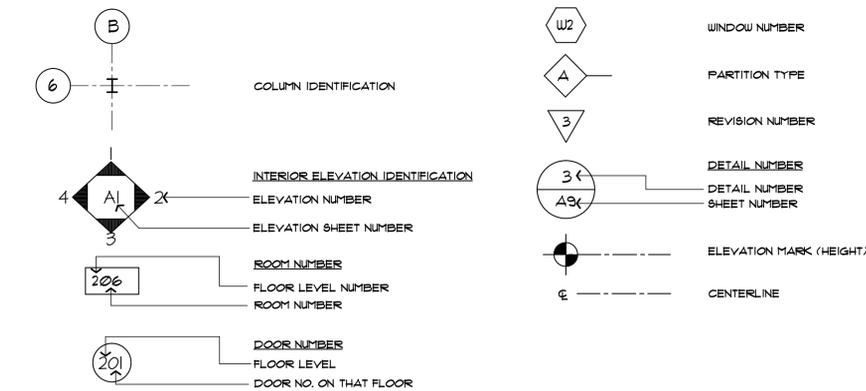
1 GENERAL CONSTRUCTION and DEMOLITION NOTES
NO SCALE

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

2 ABBREVIATIONS
NO SCALE

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

4 MATERIALS LEGEND
NO SCALE



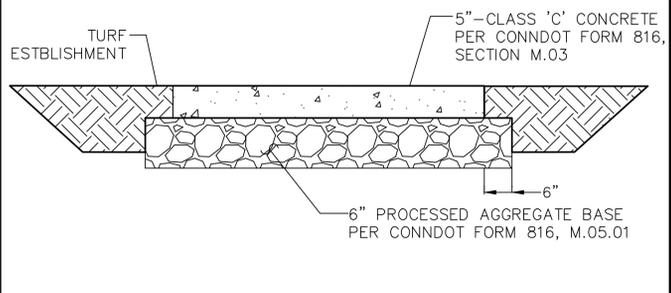
3 SYMBOLS LEGEND
NO SCALE

1 GENERAL CONSTRUCTION and DEMOLITION NOTES
NO SCALE

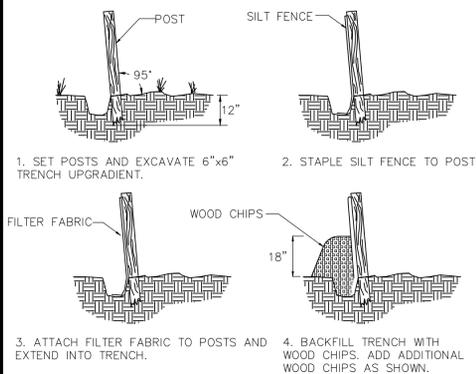
Zoning Information

ZONE: NB ZONE			
ITEM	REQUIRED	EXISTING CONDITIONS	PROPOSED CONDITIONS
Minimum Lot Area	6,000 s.f.	3,326 s.f.*	3,326 s.f.*
Minimum Lot Size per Unit	2,000 s.f.	3,326 s.f.	3,326 s.f.
Minimum Front Yard	25 feet	12.2 feet*	12.2 feet*
Minimum Side Yard	15 feet	1.9 feet*	1.9 feet*
Minimum Rear Yard	20 feet	55.5 feet	32.2 feet
Minimum Street Frontage	50 feet	36.81 feet*	36.81 feet*
Maximum Bldg Coverage	50%	18.5%	21.0%
Maximum Lot Coverage	75%	41.3%	53.7%
Maximum Building Height	2.5 stories	2 stories	2 stories
Maximum Open Space	35 feet	15.4 feet	22.0 feet
	25%	58.7%	46.3%

*Existing Non-conforming



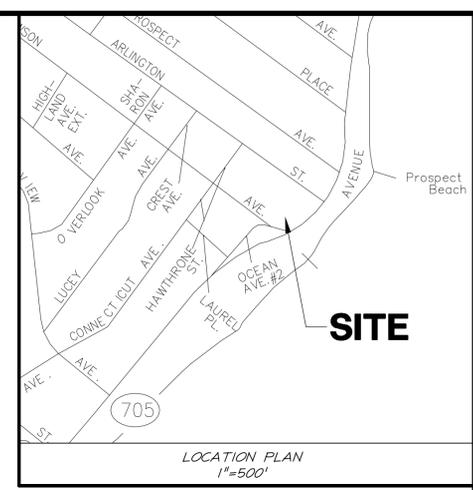
CONCRETE LANDING / WALK
N.T.S.



SILT FENCE
N.T.S.

LEGEND

EXISTING	DESCRIPTION
C _x	OVERHEAD COMM. LINES (CABLE, TEL, ETC.)
W _k	WATER MAIN
W _s	WATER SERVICE
W _v	WATER VALVE
Δ	FIRE HYDRANT
☆	POLE MOUNTED LIGHT
G _x	GAS MAIN
EO _x	ELECTRICAL LINES, OVERHEAD
EU _x	ELECTRICAL LINES, UNDERGROUND
U _x	UTILITY POLE
PROPERTY	
○	PROPERTY LINE
□	IRON PIN
□	MONUMENT
ROADS	
—	GUARD RAIL
SITE FEATURES	
X	BARBED WIRE FENCE
⊙	CHAIN LINK FENCE
—	RAIL FENCE
—	STOCKADE FENCE
+	WIRE FENCE
⊙	TREE
—	TREE LINE
SANITARY SEWER	
S _x	SANITARY SEWER MAIN
⊙	SANITARY SEWER MANHOLE
STORM SEWER	
D _x	STORM DRAIN PIPE
⊙	STORM DRAIN MANHOLE
⊙	CURB INLET
⊙	CATCH BASIN
TOPOGRAPHY	
—	CONTOUR
X 61.95	SPOT ELEVATION
▲▲▲	WETLANDS LINE



LOCATION PLAN
1"=500'

- NOTES:**
- PROPERTY IS IN ZONE NB.
 - PARCEL CONTAINS 3,326 SQUARE FEET OR 0.076 ACRES.
 - THE EXISTING HOUSE IS NON-CONFORMING TO CURRENT ZONING REGULATIONS WITH RESPECT TO FRONT AND SIDE YARD REQUIREMENTS. CURRENT ZONING REQUIREMENTS FOR THE NB ZONE REQUIRE A 25 FOOT FRONT YARD, 15 FOOT SIDE YARD AND 30 FOOT REAR YARD.
 - PROPERTY FALLS WITHIN THE LIMITS OF FLOOD HAZARD ZONE "AE" (ELEVATION 11 NAVD 88) AS DEPICTED ON "FIRM FLOOD INSURANCE RATE MAP TOWN OF WEST HAVEN CONNECTICUT NEW HAVEN COUNTY PANEL 552 OF 635 COMMUNITY PANEL NUMBER 09090552J EFFECTIVE DATE JULY 8, 2013 FEDERAL EMERGENCY MANAGEMENT AGENCY FEDERAL INSURANCE ADMINISTRATION.
 - PROPERTY DOES NOT FALL WITHIN THE LIMITS OF THE COASTAL JURISDICTION LINE (ELEVATION 4.6 NAVD 88) AS DEFINED IN: "THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS RESOURCES FOR TIDAL AND NAVIGABLE WATERS IN CONNECTICUT BY JOHN J. DOODY, P.S. & PE CHAIR, CALS TIDE COMMITTEE FIRST PRINTING OCTOBER 15, 2012."
 - HORIZONTAL DATUM IS BASED ON THE NORTH AMERICAN DATUM OF 1983/2012 (NAD 83/2012) AND THE VERTICAL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
 - A PORTION OF THE DRIVEWAY FOR PROPERTY AT 898 OCEAN AVENUE ENCLOSES ONTO THE PROPERTY AT 888 OCEAN AVENUE.
 - A PORTION OF THE DRIVEWAY FOR 888 OCEAN AVENUE ENCLOSES ONTO THE PROPERTY AT 884 OCEAN AVENUE.
 - A PORTION OF THE PORCH AND DECK FOR 17 DANSON AVENUE ENCLOSES ONTO THE PROPERTY AT 888 OCEAN AVENUE.
 - PROPERTY IS TOGETHER WITH ALL THE RIGHT, TITLE AND INTEREST OF WALTER PL. KUZIEL AND LOTTIE KUZIEL IN AND TO CERTAIN PREMISES SITUATED ON THE SHORE IN FRONT OF THE PROPERTY, WHICH HAVE BEEN HERETOFORE DEDICATED AND SET APART BY EVELINE ROBERT JONES, THE OWNER THEREOF, THE MUTUAL BENEFIT OF THE OWNERS OF LOTS ON SAID MAPS OF PROSPECT TERRACE.
 - UNDERGROUND UTILITY STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL 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.
 - CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" FOR UNDERGROUND UTILITY MARKING AT LEAST TWO FULL WORKING DAYS PRIOR TO START OF CONSTRUCTION. 1-800-422-4455 OR WWW.CBYD.COM.

SEDIMENTATION AND EROSION CONTROL:

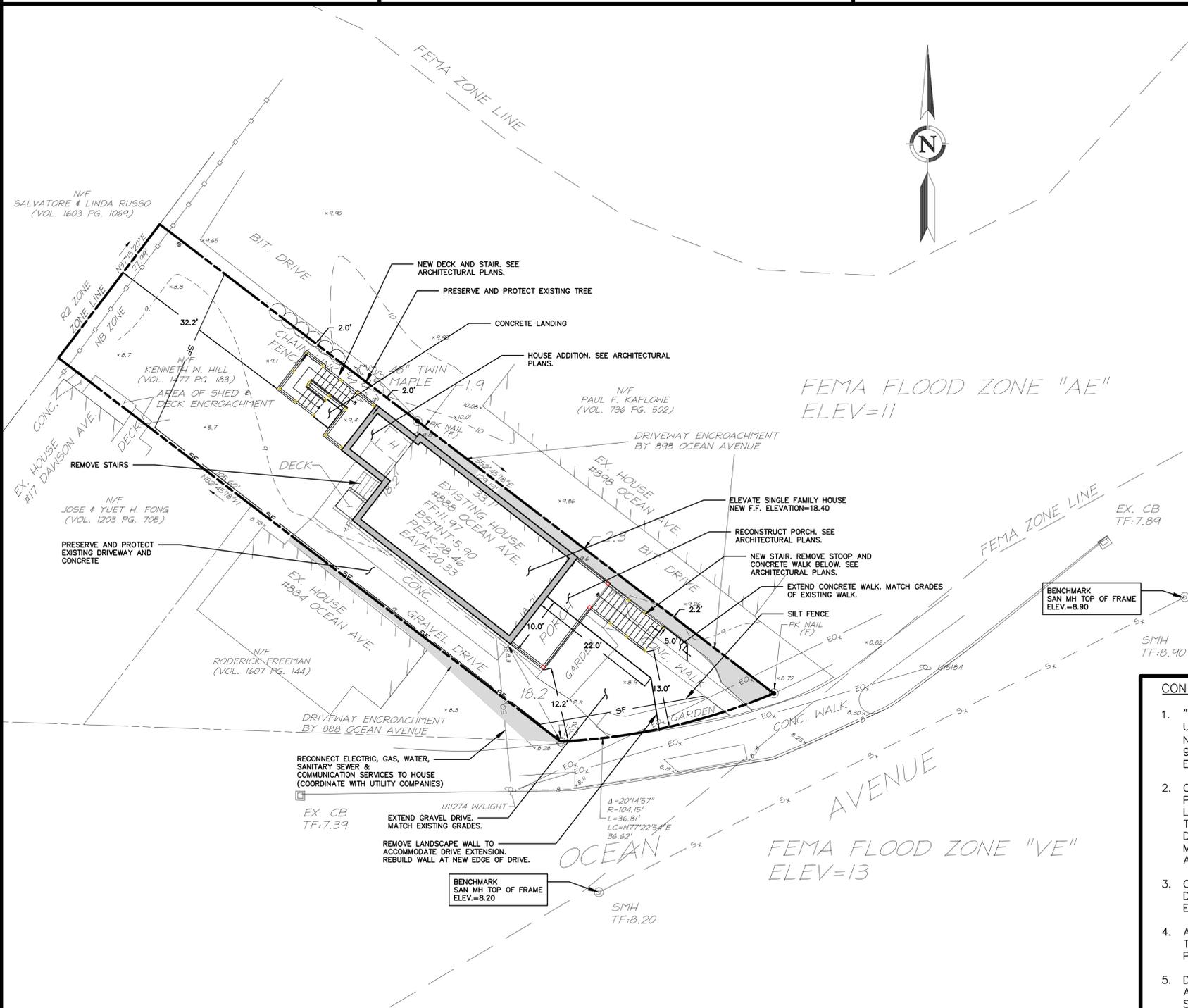
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE CONNECTICUT COUNCIL FOR SOIL AND WATER CONSERVATION.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION, AND SHALL BE MAINTAINED OR REPLACED AS NECESSARY.
- CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHOWN ON THESE PLANS. ANY PROPOSED CHANGES TO THIS PLAN MUST BE APPROVED BY THE ENGINEER AND/OR THE TOWN OF NORWALK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SWEEPING EXISTING ROADS & DRIVEWAYS AS DEEMED NECESSARY.
- AREAS TO BE LEFT BARE FOR MORE THAN 15 DAYS SHALL BE TREATED WITH AIR DRIED WOOD CHIP MULCH OR SEEDED WITH PERENNIAL RYE-GRASS, UNTIL FINAL GRADING AND STABILIZATION EFFORTS TAKE PLACE.

MAP REFERENCES:

- PLOT PLAN MAP 10, LOT 292 888 OCEAN AVENUE WEST HAVEN, CONNECTICUT DRAWING NO. C-1 SCALE: 1"=10' DATE: 7-20-13 PREPARED BY JOHN PAUL GARCIA & ASSOC., P.C.
- MAP OF PROSPECT TERRACE ORANGE, CONN. SCALE 1"=60' OWNED BY EVELINE R. JONES CONTROLLED BY THE NEW ENGLAND LAND CO. SEPTEMBER 1907 SURVEYED BY W. H. FULTON, NEW HAVEN, CT.

CONSTRUCTION NOTES:

- "CALL BEFORE YOU DIG" - CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF PENDING EXCAVATION AT OR NEAR PUBLIC UTILITIES. CONTRACTOR SHALL CALL (800) 922-4455 AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION AND PROTECTION OF ALL UTILITIES, LANDSCAPING, SIDEWALK, PAVEMENT, ETC. DESIGNATED TO REMAIN. SHOULD ANY FEATURES BE DAMAGED DURING THE CONSTRUCTION EFFORT, CONTRACTOR SHALL MAKE ARRANGEMENTS FOR REPLACEMENT AT NO ADDITIONAL COST.
- CONTRACTOR SHALL VERIFY LAYOUT DIMENSIONS. DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION.
- ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE REQUIREMENTS OF ALL FEDERAL, STATE, AND LOCAL PERMITS ISSUED FOR THIS PROJECT.
- DEWATERING, IF REQUIRED, SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, AS REVISED.



File: C:\jpa\3400V739-HA-SubCAD\3400V739 Site Planning Layout1.dwg
 Plotted: 12/3/2015 4:00 PM
 Last Saved: 12/2/2015 3:59 PM
 Last Saved By: B.Wheeler

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CIVIL & TRAFFIC ENGINEERS / PLANNERS / SURVEYORS
GIS ANALYSTS / LANDSCAPE ARCHITECTS

PREPARED FOR:
KENNETH W. HILL
888 OCEAN AVENUE
WEST HAVEN, CT 06516

PROJECT NO:
3400V739

DATE:
12/3/15

BY:
B.W.

CHECKED BY:
B.W.

SCALE:
AS SHOWN

NO. DATE

REVISIONS

BY

DATE

NO.

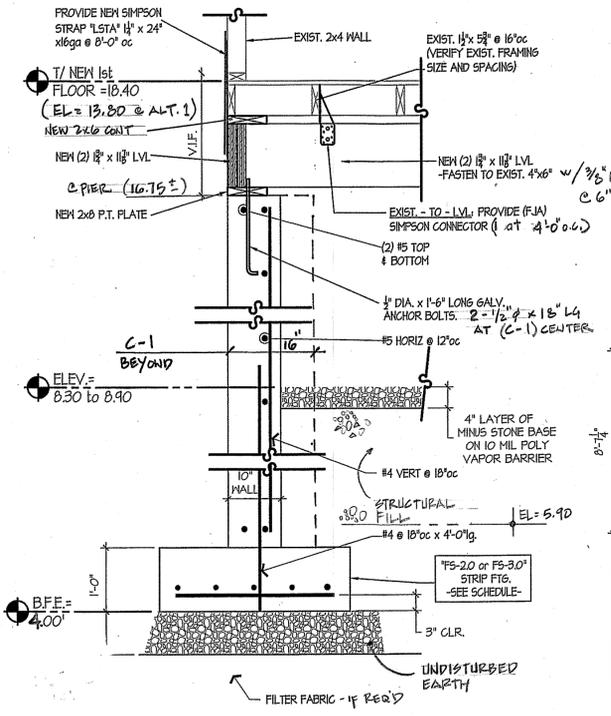
CLARENCE WELTI ASSOC., INC.				CLIENT				PROJECT NAME			
P.O. BOX 397 GLASTONBURY, CONN 06033				CAPITOL STUDIO ARCHITECTS				HILL RESIDENCE			
LOCATION 888 OCEAN AVENUE, WEST HAVEN, CT				SURFACE RELY				HOLE NO. B-1			
TYPE	HSA	CASING	SAMPLER	CORE BAR	OFFSET	LINE & STA.	GROUND-WATER OBSERVATIONS	START DATE	1/4/16		
SIZE I.D.	3.75"		1.375"			N. COORDINATE	AT 7.0 FT. AFTER 0 HOURS				
HAMMER WT.			140lbs			E. COORDINATE	FT. AFTER 0 HOURS				
HAMMER FALL			30"				FINISH DATE	1/4/16			
DEPTH	NO.	BLOWS*	SAMPLE	DEPTH	A	STRATUM DESCRIPTION	REMARKS	ELEV.			
0	1	2-3-7	0.0'-2.0'			TOPSOIL		0.25			
						OR FINE-MED. SAND, LITTLE SILT, TRACE ASPHALT - FILL		1.0			
2	7-9-16-60	2.0'-4.0'				GREY/BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES & BOULDERS					
3	15-60	5.0'-6.0'									
10	4	10-15-38	10.0'-11.5'								
15	5	30-60	15.0'-15.8'								
20	6	24-30-60	20.0'-21.3'			GREY SILT, TRACE FINE SAND & FINE GRAVEL		20.0			
25	7	46-50-60	25.0'-28.5'								
30	8	60	30.0'-30.4'			BOTTOM OF BORINGS AT 30.5'		30.5			
35											

LEGEND: COL. A: SAMPLE TYPE: D-DRY A-AUGER C-CORE U-UNDISTURBED PISTON S-SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

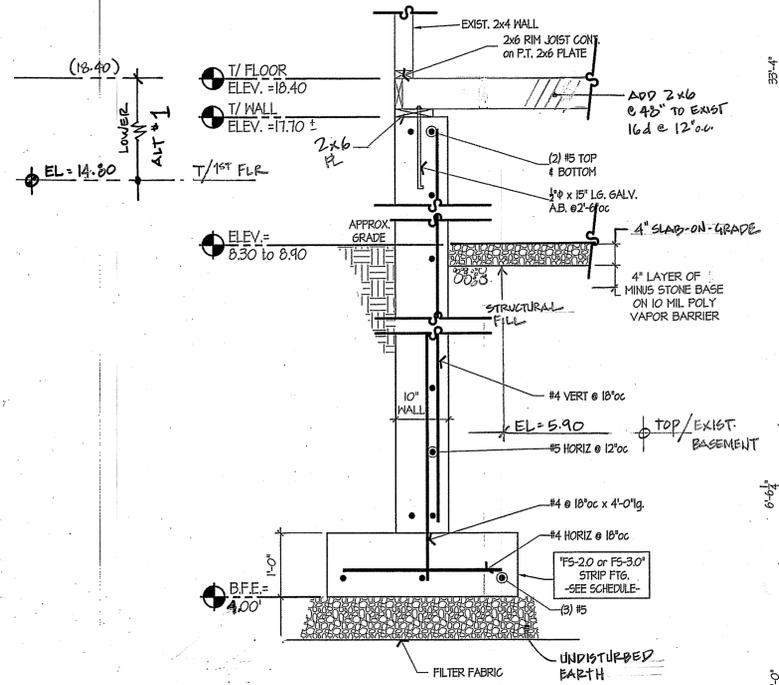
DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. B-1

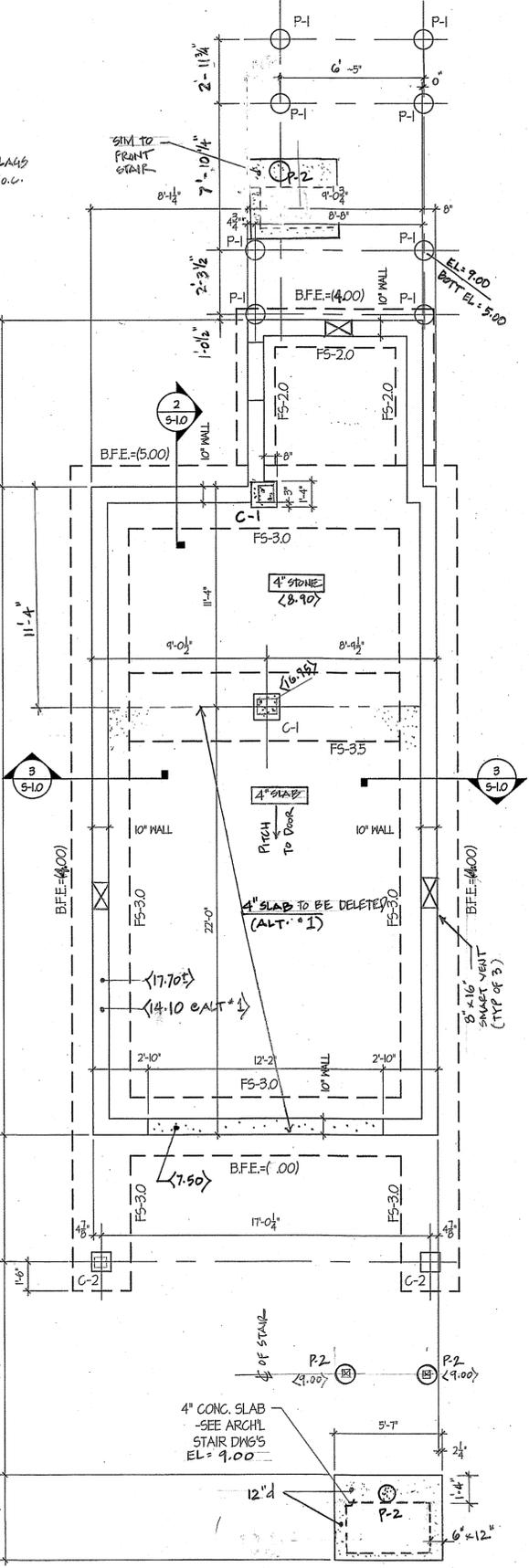
SOIL BORING LOGS



2 TYPICAL SECTION @ EXT. WALL
SCALE: 3/4"=1'-0"



3 SECTION @ EXT. WALL
SCALE: 3/4"=1'-0"



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

NOTES:

- TOP/ BASEMENT SPACE ELEV. = 0'-0" (LOCAL ELEV. 8.30) UNLESS NOTED THIS (1). ALL ELEVATIONS (+ OR -)
- BASEMENT SPACE MATERIAL: 4" OF STONE BASE. OVER 10 MIL POLY VAPOR BARRIER
- BFE INDICATES "BOTTOM OF FOOTING ELEVATION", ALL FOOTINGS TO BEAR ON 8" LIFTS OF STRUCTURAL FILL FROM (5.90) TO BASEMENT LEVEL.
- CRANK SPACE:
4" SCHED. 40 PIPE C.R.S., Fy = 36 k.s.i. (ALT. TO 6x6 PT POST)
CAP PLATE: 3/8" x 8"
BASE PLATE: 1/2" x 14 x 14 w/ (4) #5 A.B. (GALV.)
ALL STEEL PRIME & RUST PROOF PAINTED
- VERIFY ALL EXISTING 1st FLOOR FRAMING (SIZE & LOCATION) BEFORE START OF "HOUSE RELOCATION" OPERATIONS

- P-2: 12" dia BFE (5.00) w/ 4x4 P.T. POST
- C-1: PROVIDE 2x12 P.T. PLATE w/ 2-1/2" x 15" L4 GALV. ANCHOR RODS
- C-2: PROVIDE 2x10 P.T. PLATE w/ 2-1/2" x 15" L4 GALV. A. RODS.

VERIFY IN FIELD

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

FOOTING SCHEDULE		
TYPE:	SIZE:	REINF.
F-2.0	2'-0" x 1'-0" dp	(3) #5 E.M.
F-3.0	3'-0" wide x 1'-0" deep	(2) #5 cont (bott) #4 @ 18" ties
F-3.5	3'-6" wide x 1'-4" deep	(4) #5 cont (bott) #4 @ 18" ties

PIER SCHEDULE		
TYPE:	SIZE:	REINF.
P-1	18" φ	2-#5 VERT
C-1	16" x 16"	(4) #6 VERT + #3 TIES @ 18" oc
C-2	12" x 12"	(4) #5 VERT.



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REHABILITATION, REBUILDING and MITIGATION for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516



date	description	no.
12-11-15	REVIEW	
12-18-15	REVIEW	
12-23-15	S.D.	

FOUNDATION PLAN

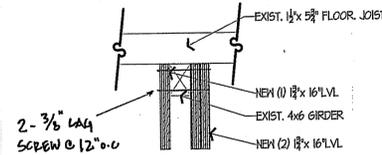
S-1.0

date 23 DECEMBER 2015
drawn JB
scale AS SHOWN
checked WML
project no.
application no. 1739

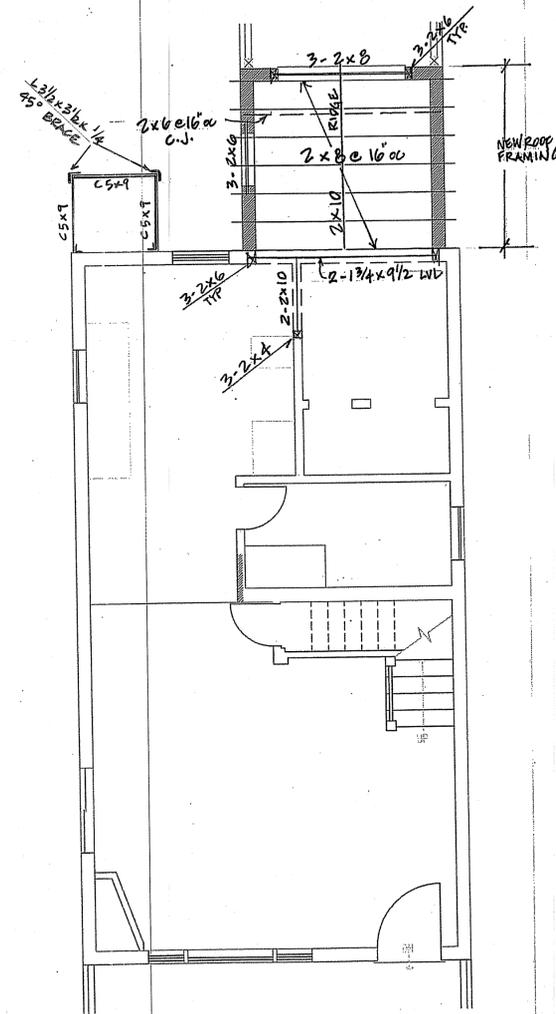
STRUCTURAL NOTES:

- 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 West Haven.
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 8" COMPACTED STRUCTURAL FILL. 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 EXCAVATED AREAS SHALL BE PLACED IN LAYERS NOT TO EXCEED 12". REF: BACKFILL SPECIFICATIONS.
7. WHERE BOT/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, FOOTINGS, COLUMNS/PIERS and INTERIOR/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
 - 1 BASEMENT SLAB (IF NOTED) SHALL HAVE A STEEL TROWEL FINISH. PITCH TO EXTERIOR.
 - 2 EXTERIOR STAIR 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)
 - 1 W or HP Sections.....ASTM A992, Fy = 50 ksi.
 - 2 PLATES, ANGLES, ETC.....ASTM A36, Fy = 36 ksi.
 - 3 ANCHOR BOLTS (galv).....ASTM A307.
 - 4 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.
 - 1 Design Data - Fb = 1000 psi, E = 1500 ksi
18. MATERIALS: USE LVL OR EQUAL (REDBUILT micro-lam) BEAMS AS INDICATED ON DRAWINGS. FOLLOW MANUF. REQUIREMENTS FOR INSTALLATION AT EXTERIOR DECK. MIN BEARING = 3 1/2".
 - 1 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 Joist's = 3 1/2".
20. USE SIMPSON (or Approved Equal) STRONG TIE JOIST HANGERS AND FRAMING CONNECTORS. SUBMIT TO ENGINEER FOR REVIEW.
21. AT NEW ROOFS, THE 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", 100 mph, EXPOSURE C (WFCM), FOR ALL NAILING PATTERNS, FASTENING & CONNECTIONS. SEE DWGS FOR ADDITIONAL SHEAR WALL CONNECTIONS.
- F. DESIGN CRITERIA (West Haven, CT)**
- 1 FIRST FLOOR LIVE LOAD = 40 psf
- 2 SECOND FLOOR (Bedrooms) LIVE LOAD = 30 psf
- 3 ATTIC FLOOR LIVE LOAD = 10 psf
- 4 EXTERIOR DECK LIVE LOAD = 60 psf
- 5 ROOF LIVE LOAD = 30 psf
- 6 WIND LOAD (App. K).....100 mph (3 sec)
- 7 PRESUMPTIVE SOIL BEARING PRESSURE.....1.0 ton/sq ft

NOTE: The structural design was performed only for general conformance at this Site in West Haven, 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.



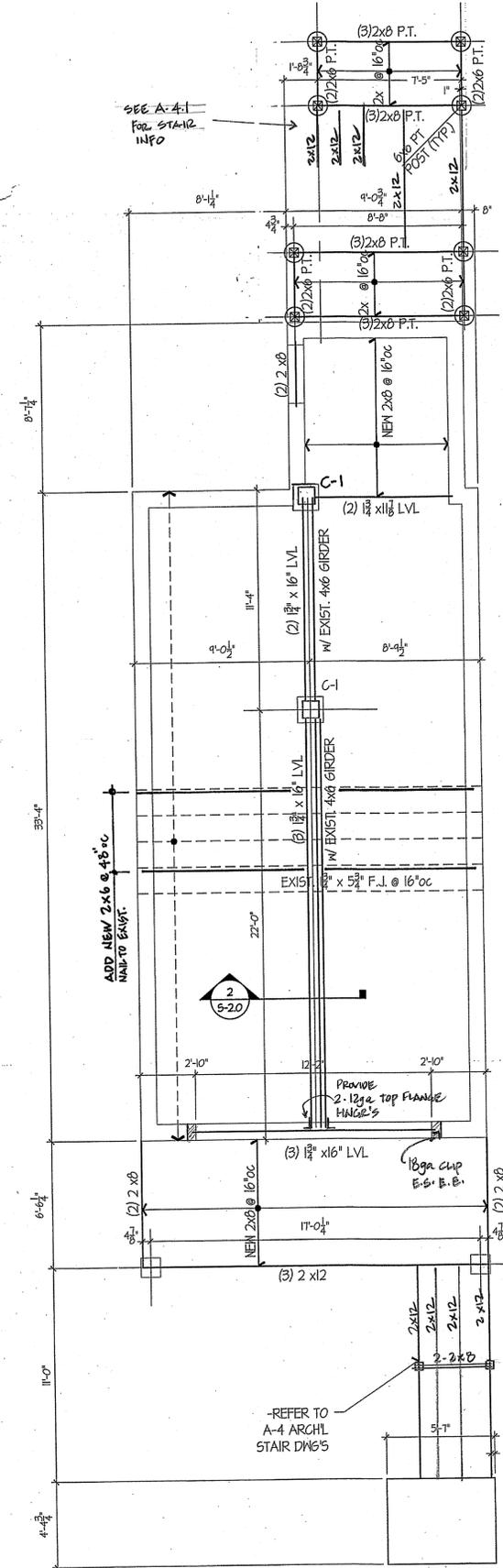
2 SECTION @ GIRDER
SCALE: 3/4"=1'-0"



3 1st FLOOR PLAN with NEW 2nd FLR and ROOF FRAMING
SCALE: 1/4"=1'-0"



- NOTES:**
1. STEEL - GALV A36 USE GALV BOLTS TO CONCL
 2. SUBMIT FOR REVIEW



1 FIRST FLOOR FRAMING PLAN
SCALE: 1/4"=1'-0"



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12-11-15	REVIEW	
12-18-15	REVIEW	
12-23-15	REV	

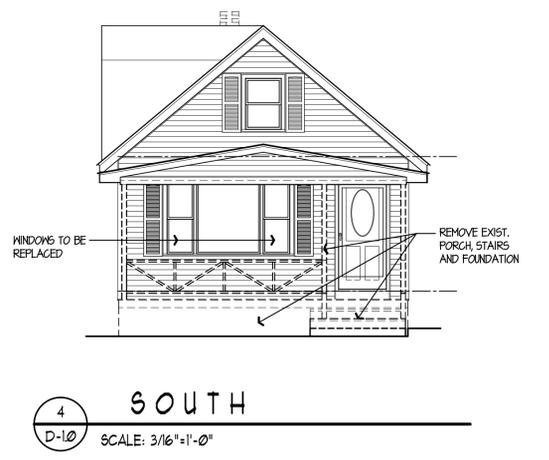
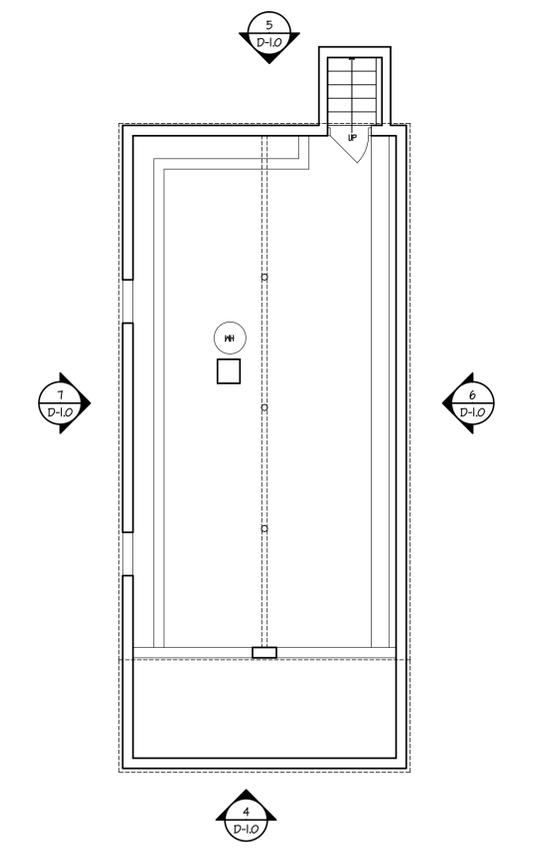
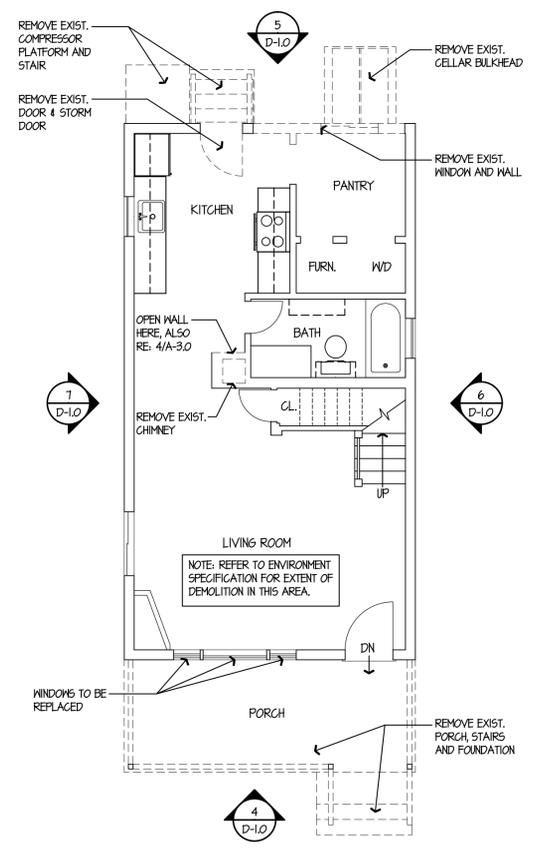
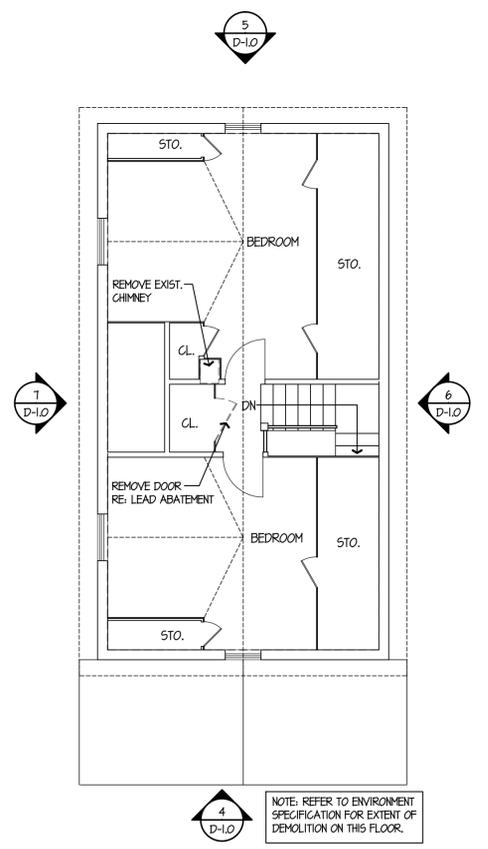
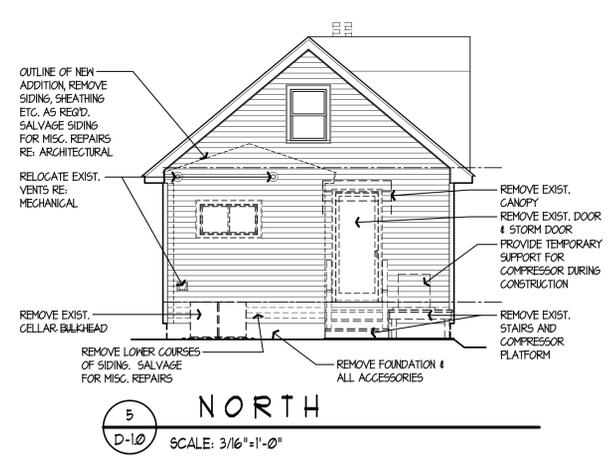
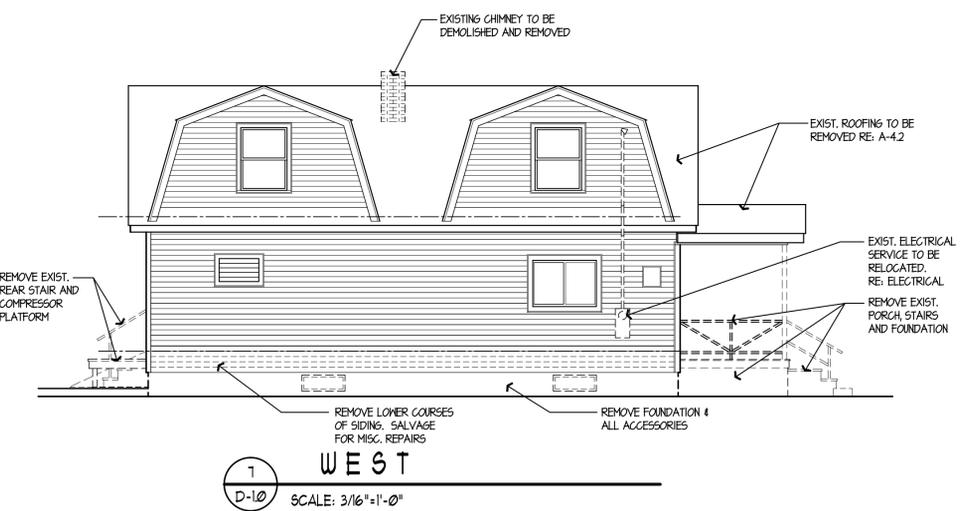
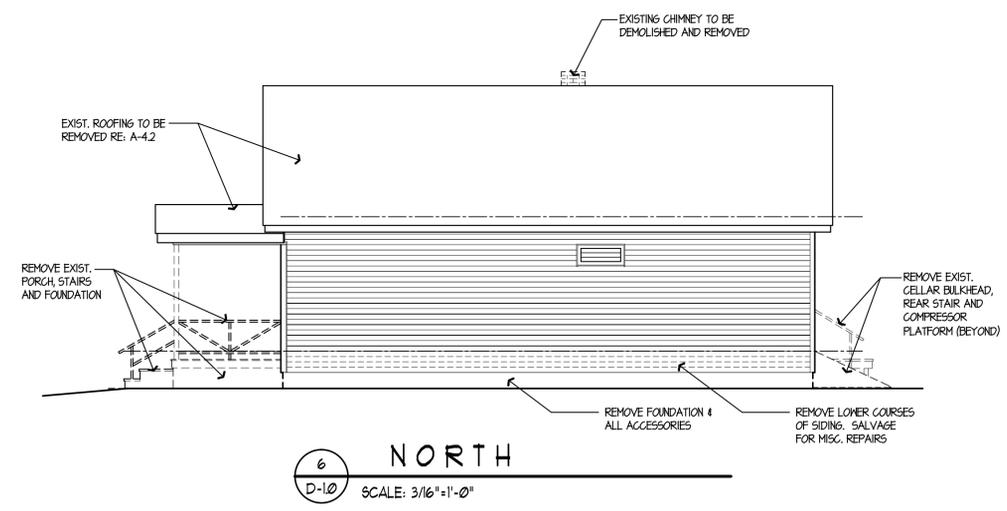
FRAMING PLAN

S-2.0

date 23 DECEMBER 2015
drawn JB
scale AS SHOWN
checked WML
project no.
application no. 1739

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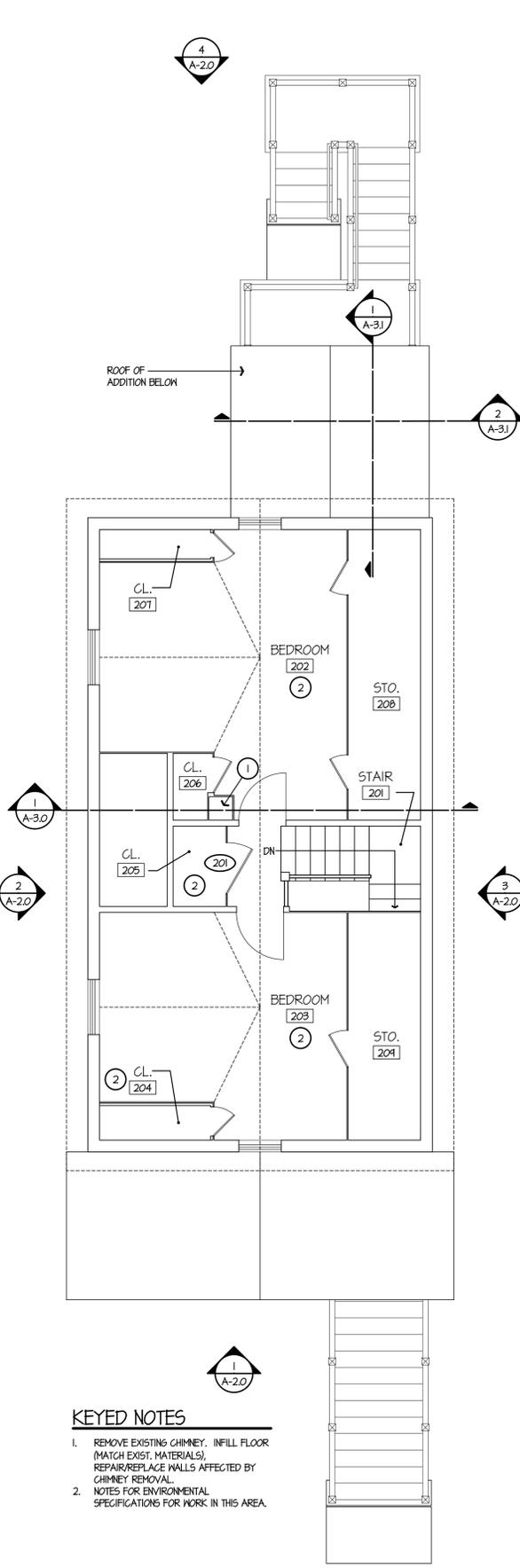
- GENERAL NOTES**
1. ALL EXISTING FOUNDATION WALLS, FOOTINGS AND SLABS TO BE DEMOLISHED AFTER HOUSE STRUCTURE IS RAISED.
 2. REFER TO SECTION 020400 OF SPECIFICATIONS FOR EXTENT OF WINDOW & DOOR COMPONENTS TO BE REMOVED DURING LEAD PAINT REMEDIATION.
 3. ALSO REFER TO PLANS AND ELEVATIONS FOR SCOPE OF WORK.

date	description	no.
revisions		

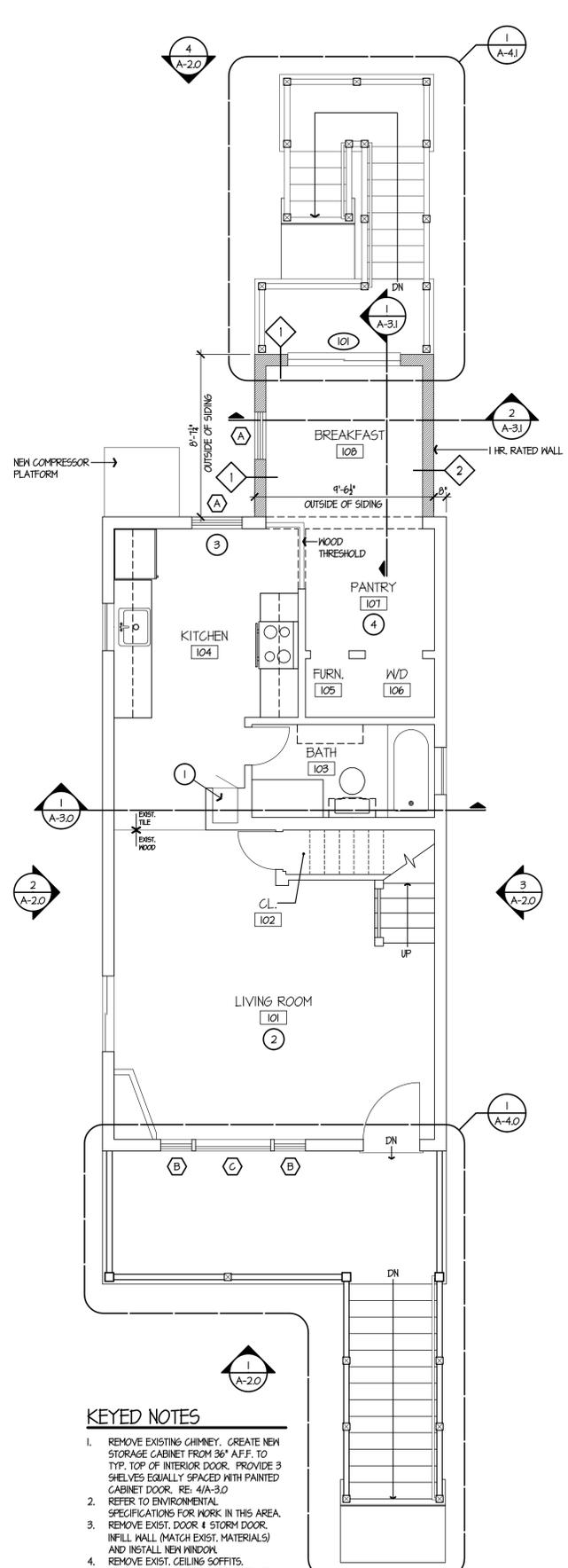
DEMOLITION PLANS & ELEVATIONS

D-1.0

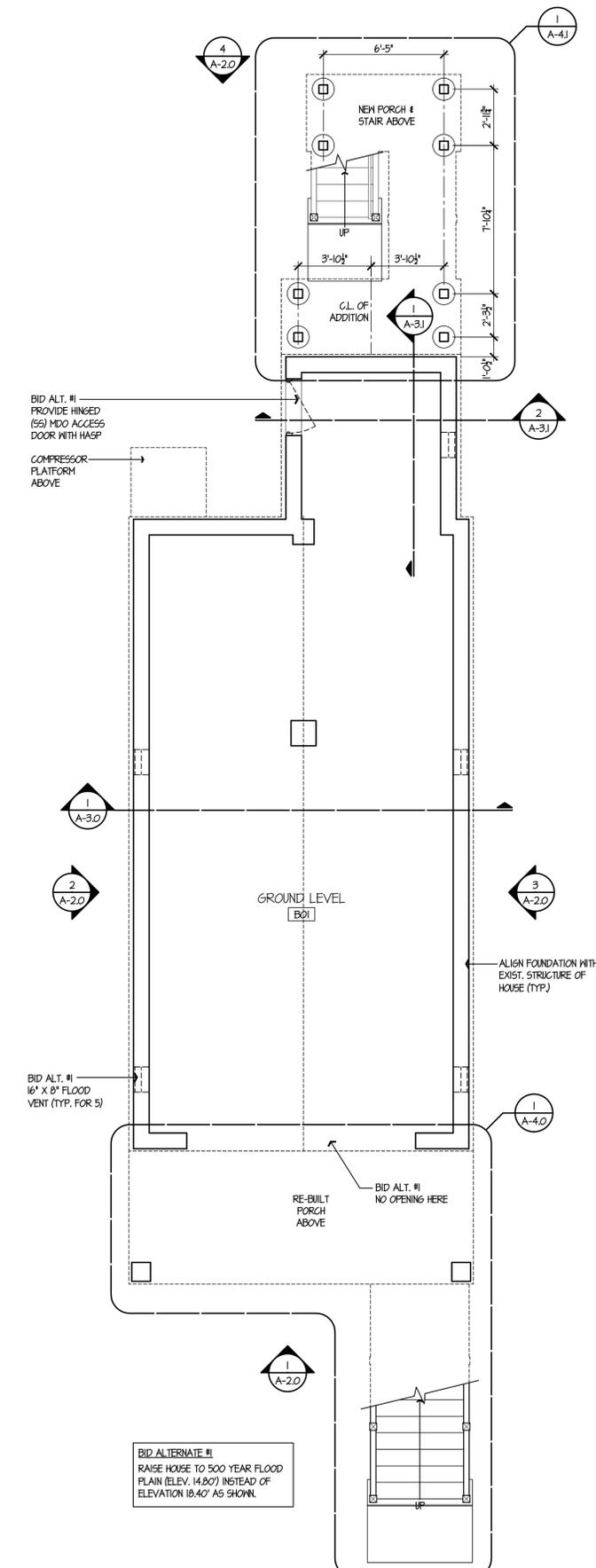
date	08 JAN 2016
drawn	NMF
scale	AS SHOWN
checked	JP/DH
project no.	1347-43
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3 2nd FLOOR PLAN
A-1.0 SCALE: 1/4" = 1'-0"



2 1st FLOOR PLAN
A-1.0 SCALE: 1/4" = 1'-0"



1 GROUND FLOOR PLAN
A-1.0 SCALE: 1/4" = 1'-0"



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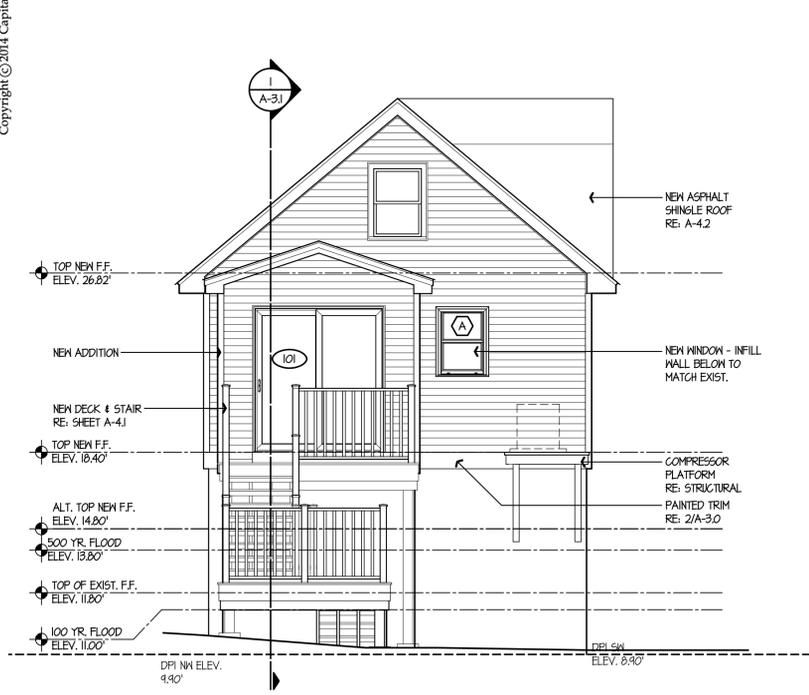
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FLOOR PLANS

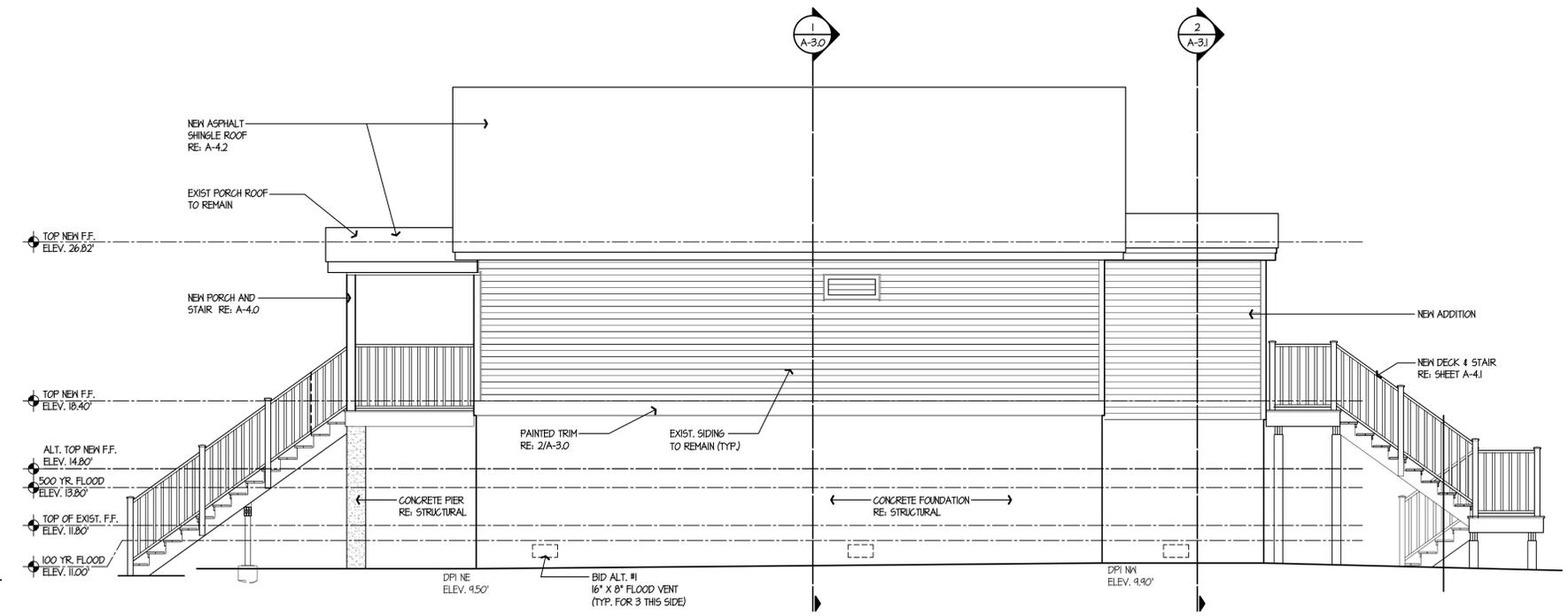
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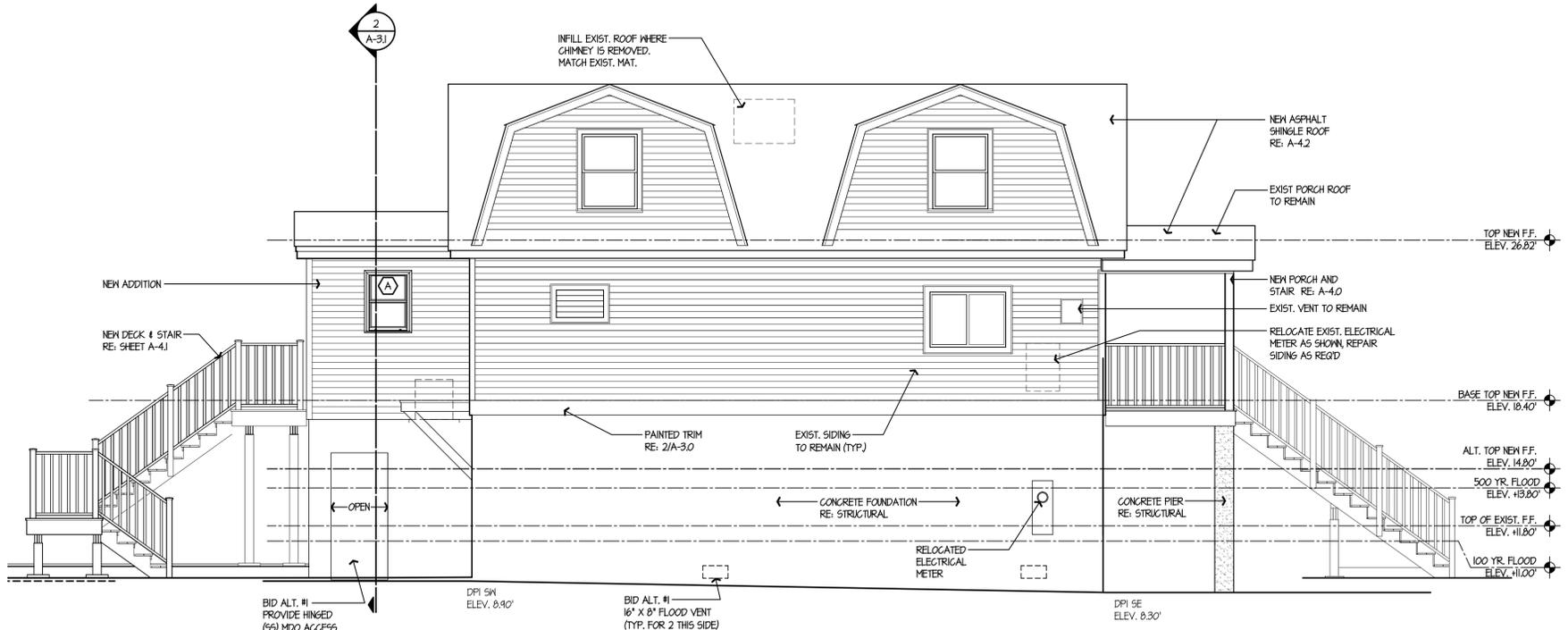


4 NORTH ELEVATION
A-10 SCALE: 1/4" = 1'-0"

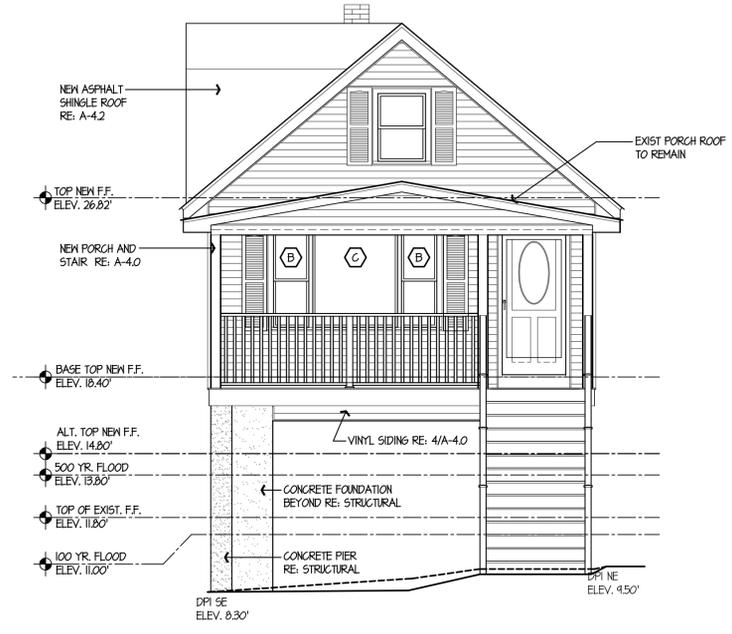


3 EAST ELEVATION
A-10 SCALE: 1/4" = 1'-0"

BID ALTERNATE #1
RAISE HOUSE TO 500 YEAR FLOOD PLAIN (ELEV. 14.80') INSTEAD OF ELEVATION 18.40' AS SHOWN.



2 WEST ELEVATION
A-10 SCALE: 1/4" = 1'-0"



1 SOUTH ELEVATION
A-10 SCALE: 1/4" = 1'-0"

date	description	no.
	revisions	

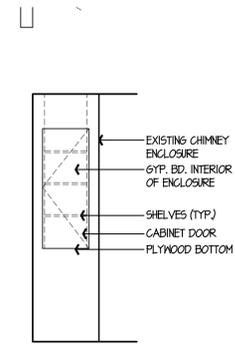
ELEVATIONS

A-2.0

date	08 JAN 2016
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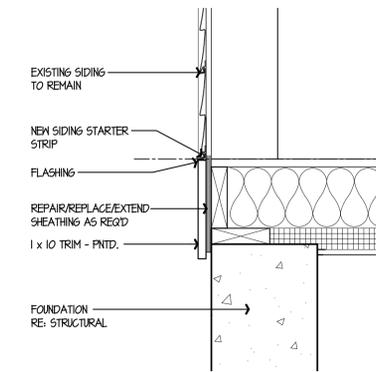
**THE STATE OF CONNECTICUT
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GRANT - DISASTER RECOVERY (CDBG-DR)
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NOTE: DOOR, SHELVING AND INTERIOR OF CABINET TO BE PAINTED

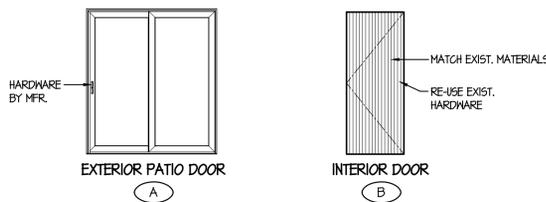
4 ELEVATION
A-3.0 SCALE: 3/8"=1'-0"



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

DOOR SCHEDULE					
LABEL	TYPE	STYLE	SIZE (W x H)	HARDWARE	NOTES
101	SLIDING PATIO	A	6'-0" x 6'-8"	BY MFR.	
201	3/4" BEADBOARD	B	MATCH EXIST.	RE-USE EXIST. HARDWARE*	FABRICATE DOOR OF LIKE MATERIALS

* - REFER TO ENVIRONMENTAL SPECIFICATION REGARDING REMOVAL OF EXISTING PAINT FROM EXISTING HARDWARE.



WINDOW SCHEDULE			
LABEL	TYPE	NOMINAL SIZE (W x H)	COMMENT
A	DOUBLE HUNG	2' 6" x 3' 4"	
B	DOUBLE HUNG	1' 8" x 4' 8"	MATCH EXISTING
C	FIXED	4' 0" x 4' 8"	MATCH EXISTING

WINDOW NOTES:

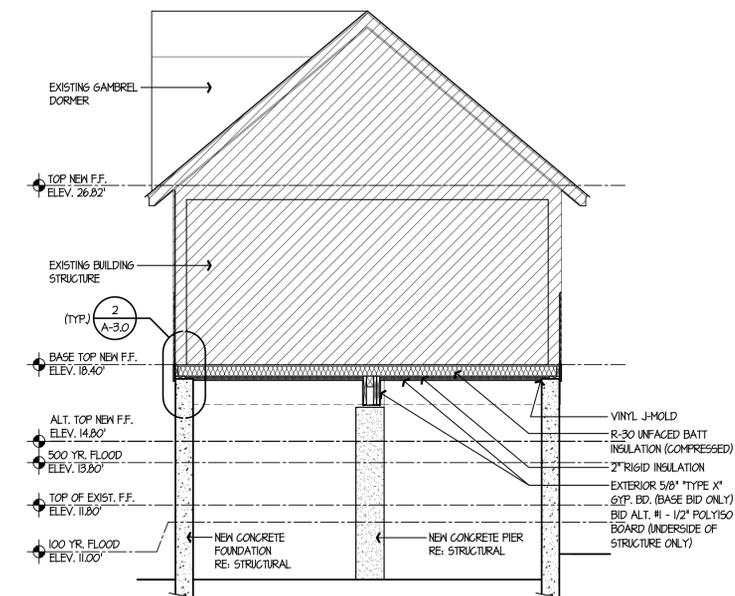
- ALL WINDOW UNITS ARE HARVEY INDUSTRIES "VIGILANCE" IMPACT RESISTANT WINDOWS UNLESS NOTED OTHERWISE.
- VERIFY ALL ROUGH OPENING REQUIREMENTS WITH MANUFACTURER.
- SIZES BASED ON USING EXISTING HORIZONTAL OPENINGS. NOTIFY ARCHITECT IF FIELD CONDITIONS REQUIRE CHANGES TO THE SIZES INDICATED ABOVE.
- REFER TO LEAD ABATEMENT SPECIFICATIONS REGARDING WORK ON EXISTING WINDOWS.
- PROVIDE NEW TRIM (MATCH EXISTING) AT ALL WINDOWS.

LEVEL	ROOM NAME and NUMBER	FLOOR				WALL				BASE			CEILING			REMARKS		
		CARPET	RESILIENT FLOORING	CONCRETE	EXISTING MATERIAL TO REMAIN	CRUSHED STONE	6"PSM BOARD (PAINTED)	EXTERIOR TYPE X" 6"PSM BOARD (PAINTED)	EXISTING 4" NEW WOOD BEADBOARD (MATCH EXIST) (PAINTED)	CONCRETE	EXISTING 4" NEW BASEBOARD (MATCH EXIST) (PAINTED)	WOOD BASE (MATCH EXIST) (PAINTED)	NONE	6"YP. BD. (PAINTED)	EXTERIOR TYPE X" 6"PSM BOARD (PAINTED)		EXISTING 4" NEW WOOD BEADBOARD (MATCH EXIST) (PAINTED)	NONE
GROUND	801 GROUND LEVEL																	ALT. BID #1 - CEILING 1/2" POLYISO BOARD
1st FLOOR	101 LIVING ROOM																	REFER TO ENVIRONMENTAL SPECIFICATION FOR DESCRIPTION OF WORK IN THIS ROOM
	102 CLOSET																	NO FINISH WORK SCHEDULED IN THIS ROOM
	103 BATH																	NO FINISH WORK SCHEDULED IN THIS ROOM
	104 KITCHEN																	
	105 FURNACE																	NO FINISH WORK SCHEDULED IN THIS ROOM
	106 WASHER/DRYER																	NO FINISH WORK SCHEDULED IN THIS ROOM
	107 PANTRY																	
	108 BREAKFAST																	
2nd FLOOR	201 STAIR																	NO FINISH WORK SCHEDULED IN THIS ROOM
	202 BEDROOM																	REFER TO ENVIRONMENTAL SPECIFICATION FOR DESCRIPTION OF WORK IN THIS ROOM
	203 BEDROOM																	REFER TO ENVIRONMENTAL SPECIFICATION FOR DESCRIPTION OF WORK IN THIS ROOM
	204 CLOSET																	REFER TO ENVIRONMENTAL SPECIFICATION FOR DESCRIPTION OF WORK IN THIS ROOM
	205 CLOSET																	REFER TO ENVIRONMENTAL SPECIFICATION FOR DESCRIPTION OF WORK IN THIS ROOM
	206 CLOSET																	PAINT AS REQ'D DUE TO REMOVAL OF CHIMNEY
	207 CLOSET																	NO FINISH WORK SCHEDULED IN THIS ROOM
208 STORAGE																	NO FINISH WORK SCHEDULED IN THIS ROOM	
209 STORAGE																	NO FINISH WORK SCHEDULED IN THIS ROOM	

NOTE:

- ALL FINISHES SUBJECT TO THE APPROVAL OF THE OWNER, INCLUDING MATERIALS, PATTERNS, COLORS, ETC.
- EXCESS MATERIALS TO BE TURNED OVER TO HOME OWNER.
- PROVIDE (1) COAT PRIMER, (2) FINISH COATS.

3 FINISH SCHEDULE
A-2.0 NO SCALE



1 BUILDING SECTION
A-3.0 SCALE: 1/4"=1'-0"

date	description	no.

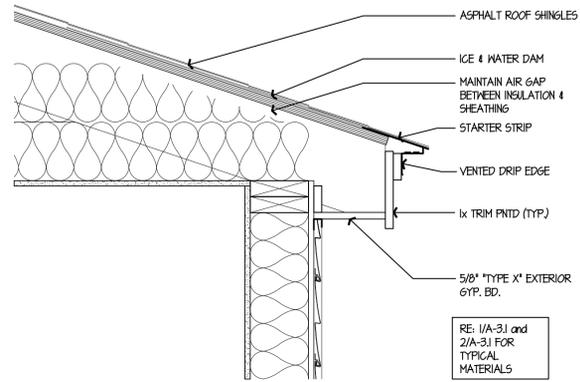
**BUILDING
SECTION
SCHEDULES**

A-3.0

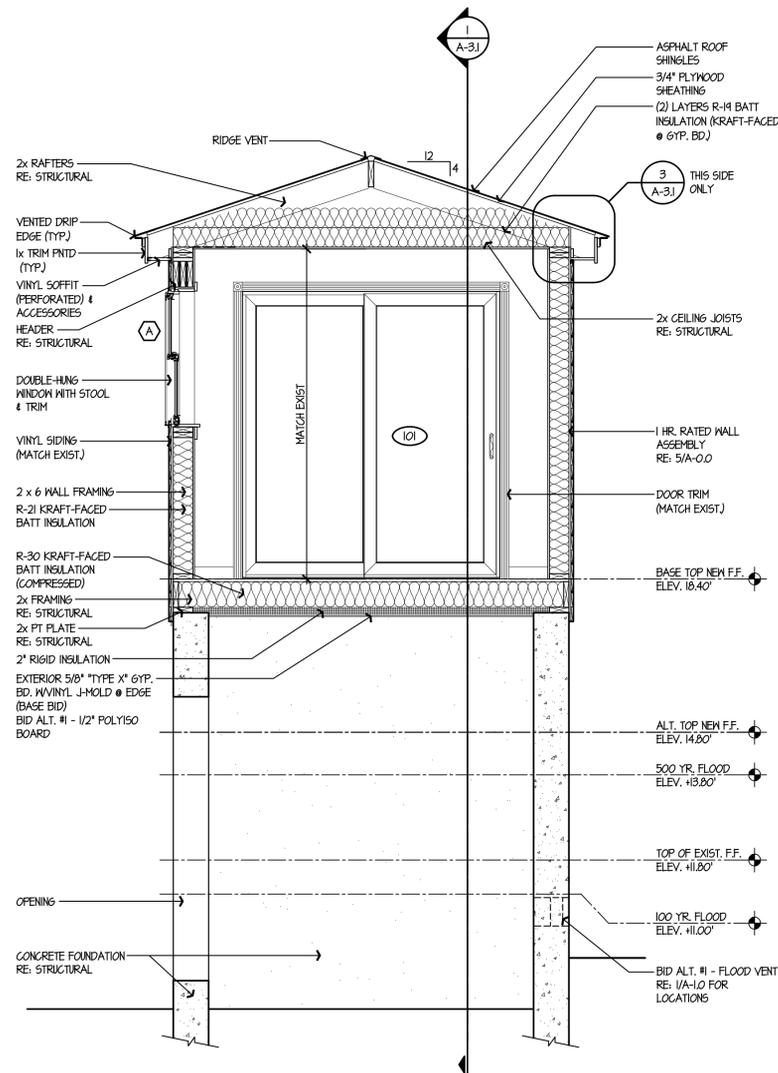
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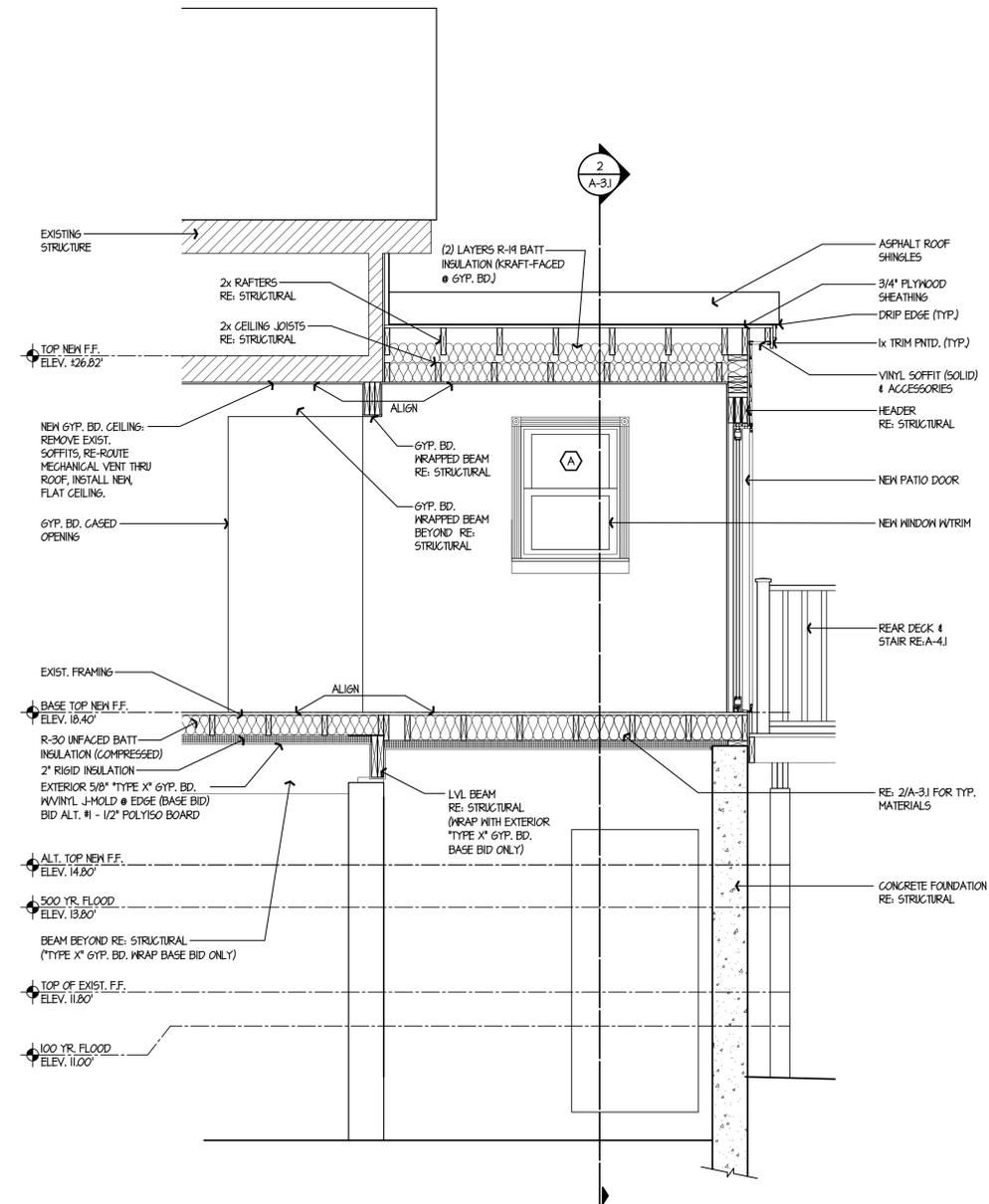
**REHABILITATION, REBUILDING and MITIGATION for the HILL RESIDENCE
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3 DETAIL
A-31 SCALE: 1/2"=1'-0"



2 SECTION Thru ADDITION
A-31 SCALE: 1/2"=1'-0"



1 SECTION Thru ADDITION
A-31 SCALE: 1/2"=1'-0"

date	description	no.
revisions		

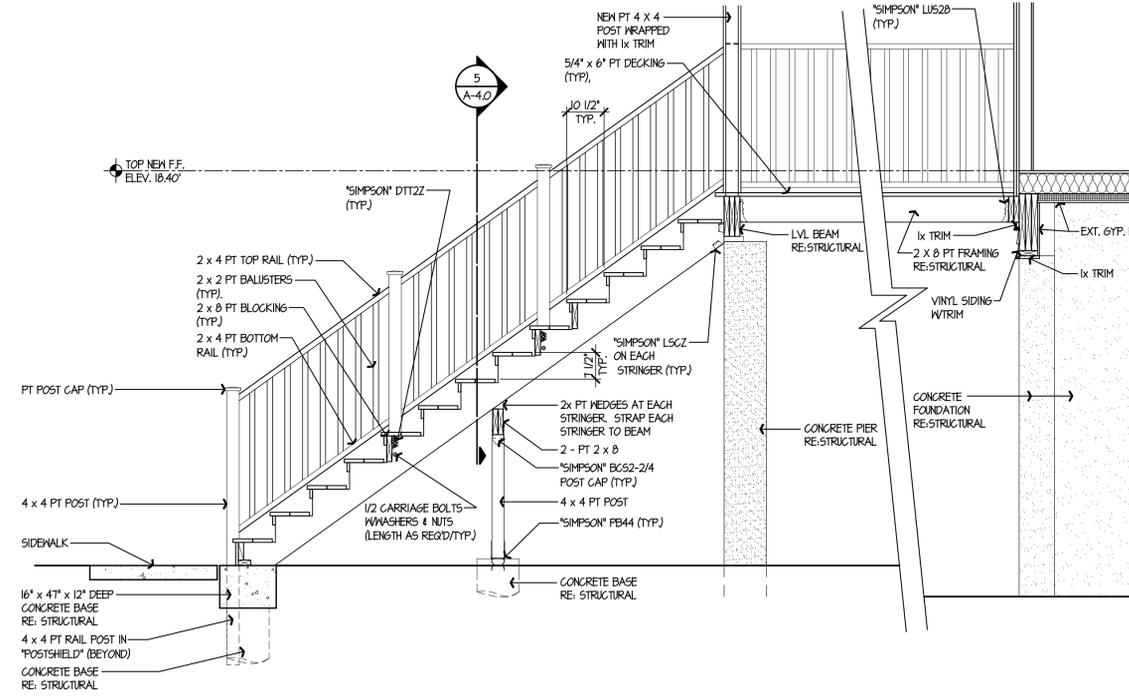
ADDITION SECTIONS

A-3.1

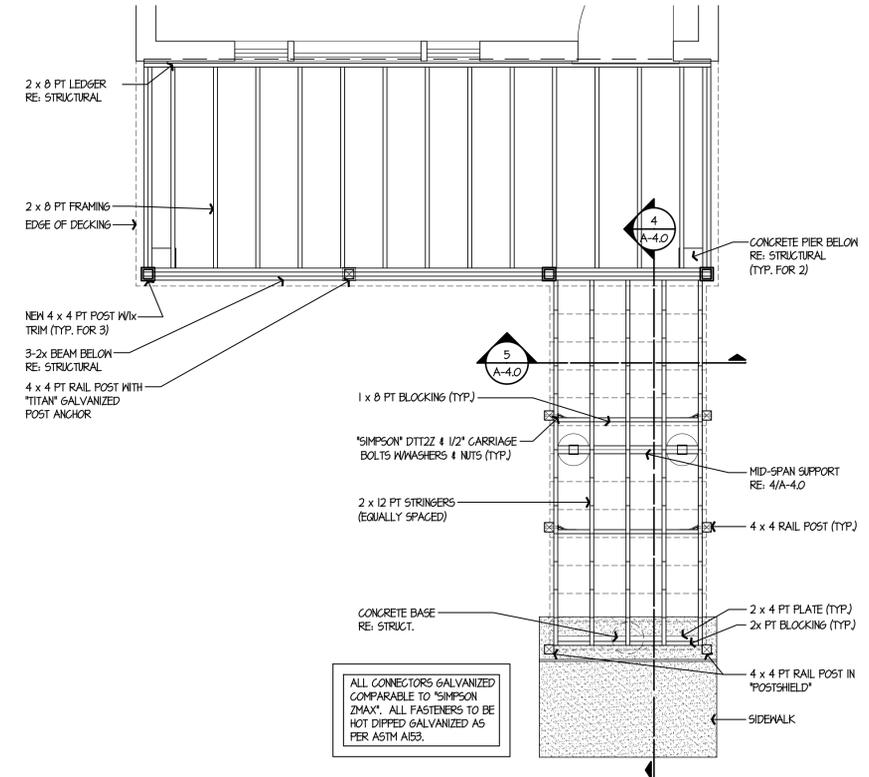
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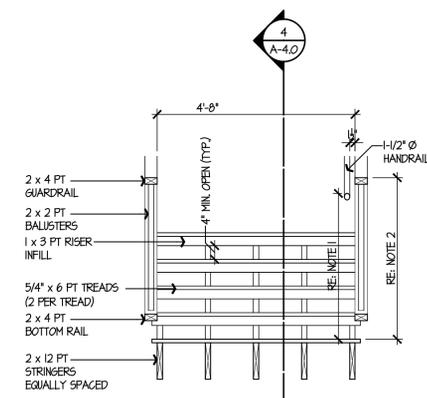
REHABILITATION, REBUILDING and MITIGATION for the HILL RESIDENCE
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4 STAIR SECTION
SCALE: 1/2"=1'-0"

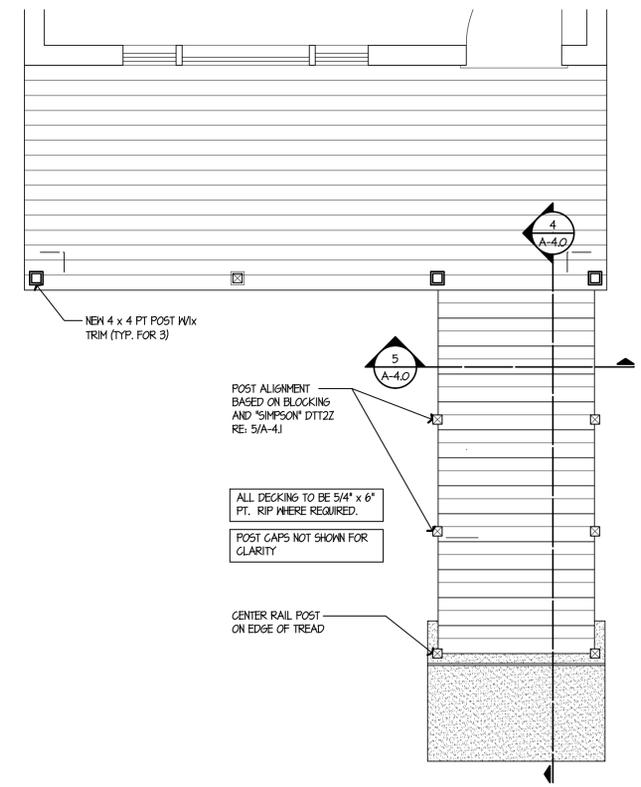


2 FRONT FRAMING PLAN
SCALE: 3/8"=1'-0"

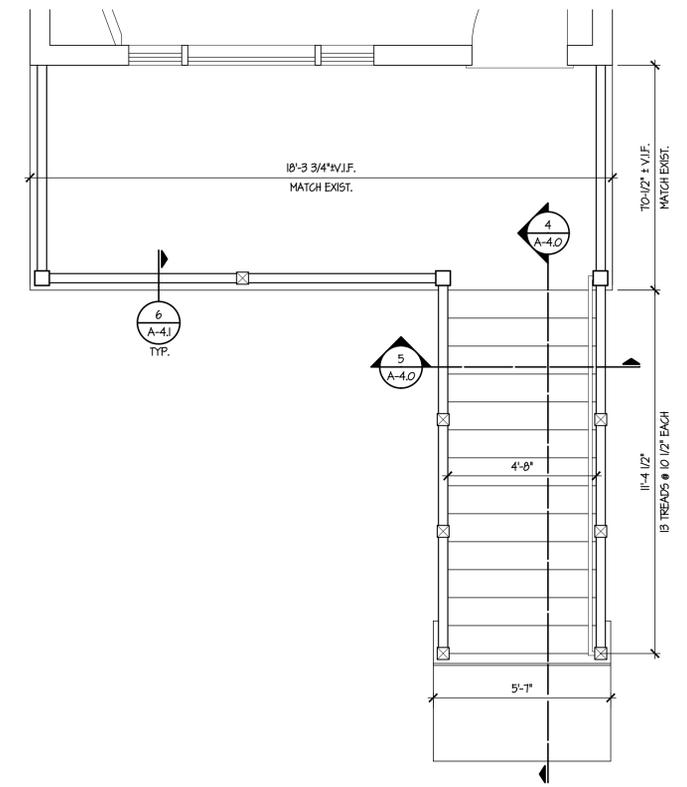


NOTE 1 - HANDRAIL MIN. HEIGHT 34" - MAX HEIGHT 38"
NOTE 2 - GUARDRAIL MIN. HEIGHT 36"
HANDRAIL TO BE LOCATED MIN. 1/2" BELOW GUARDRAIL

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



3 FRONT DECKING PLAN
SCALE: 3/8"=1'-0"



1 FRONT PORCH & STAIR
SCALE: 3/8"=1'-0"

date	description	no.
	revisions	

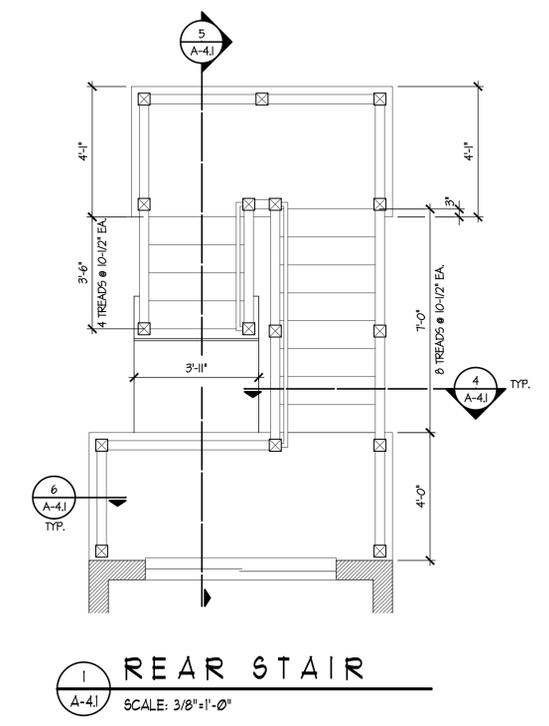
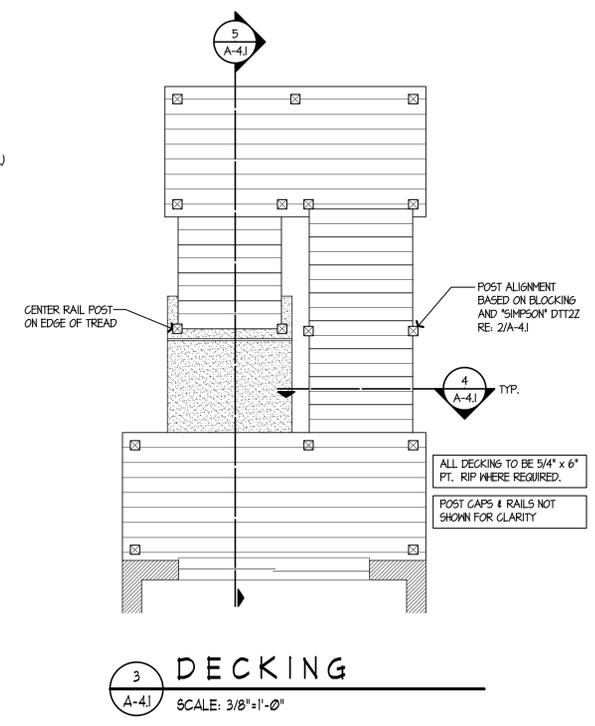
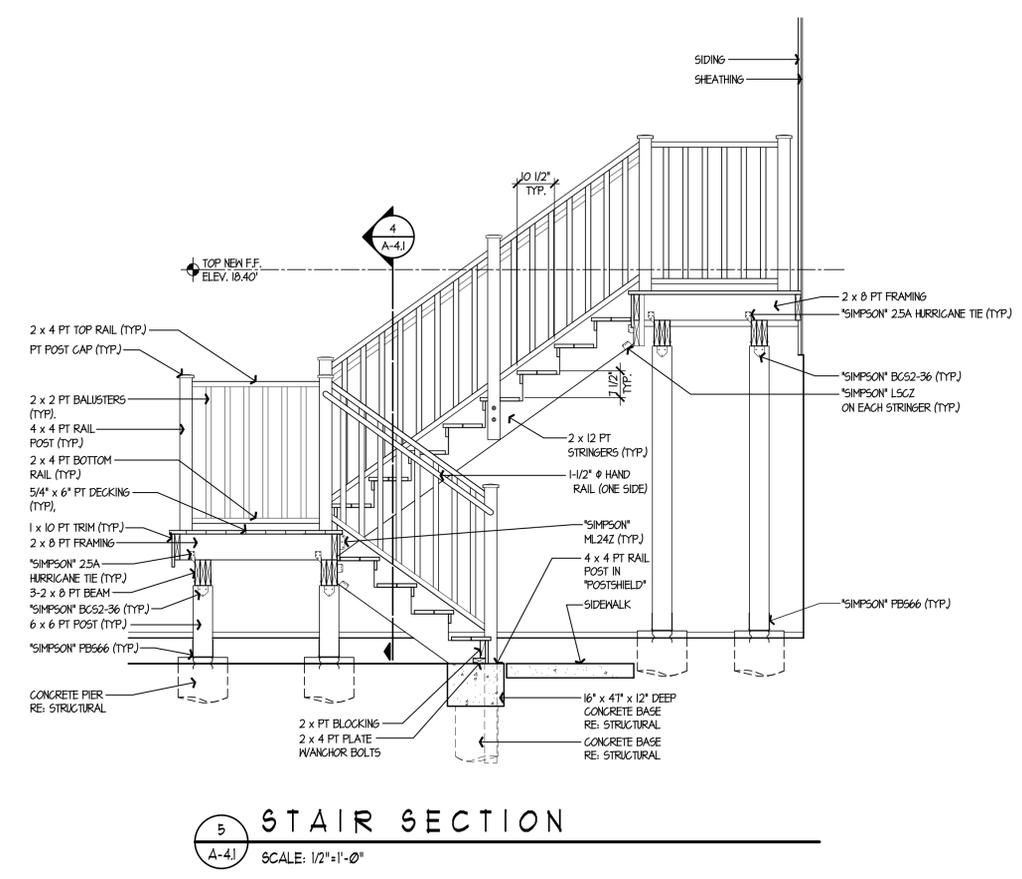
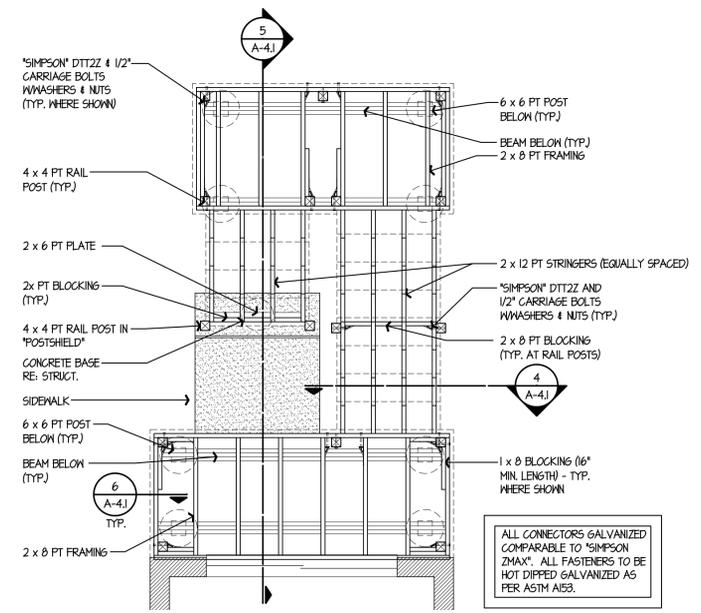
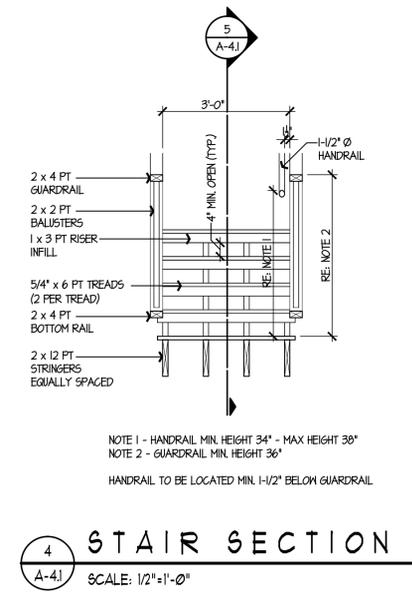
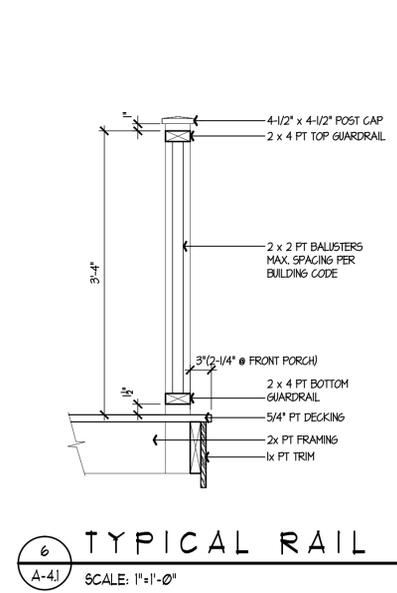
FRONT PORCH & STAIRS

A-4.0

date	08 JAN 2016
drawn	NMF
scale	AS SHOWN
checked	JP/DH
project no.	1347-43
application no.	1739

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

REHABILITATION, REBUILDING and MITIGATION for the HILL RESIDENCE APPLICATION No. 1739 888 Ocean Avenue West Haven, CT 06516



date	description	no.
	revisions	

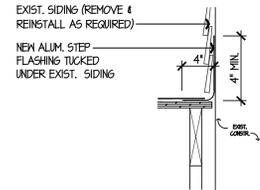
REAR STAIRS

A-4.1

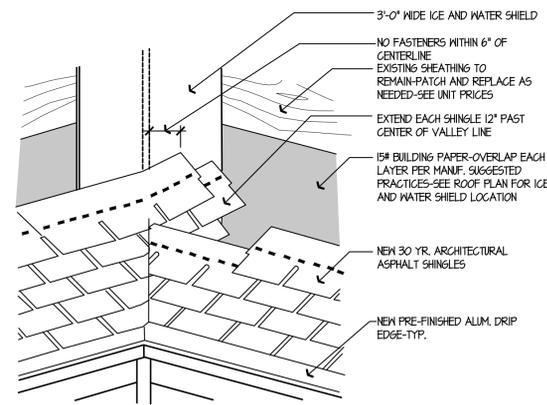
date	08 JAN 2016
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scale	AS SHOWN
checked	JP/DH
project no.	1347-43
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THE STATE OF CONNECTICUT
DEPARTMENT OF HOUSING (DOH)
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

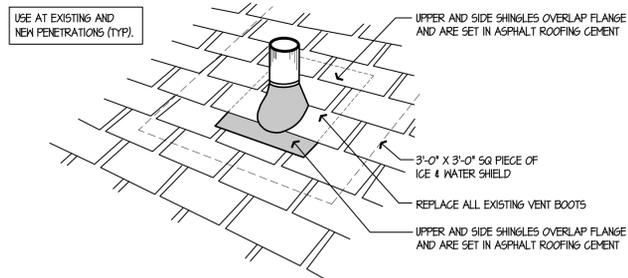
REHABILITATION, REBUILDING and MITIGATION for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516



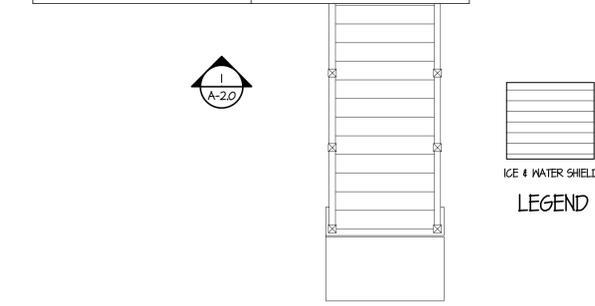
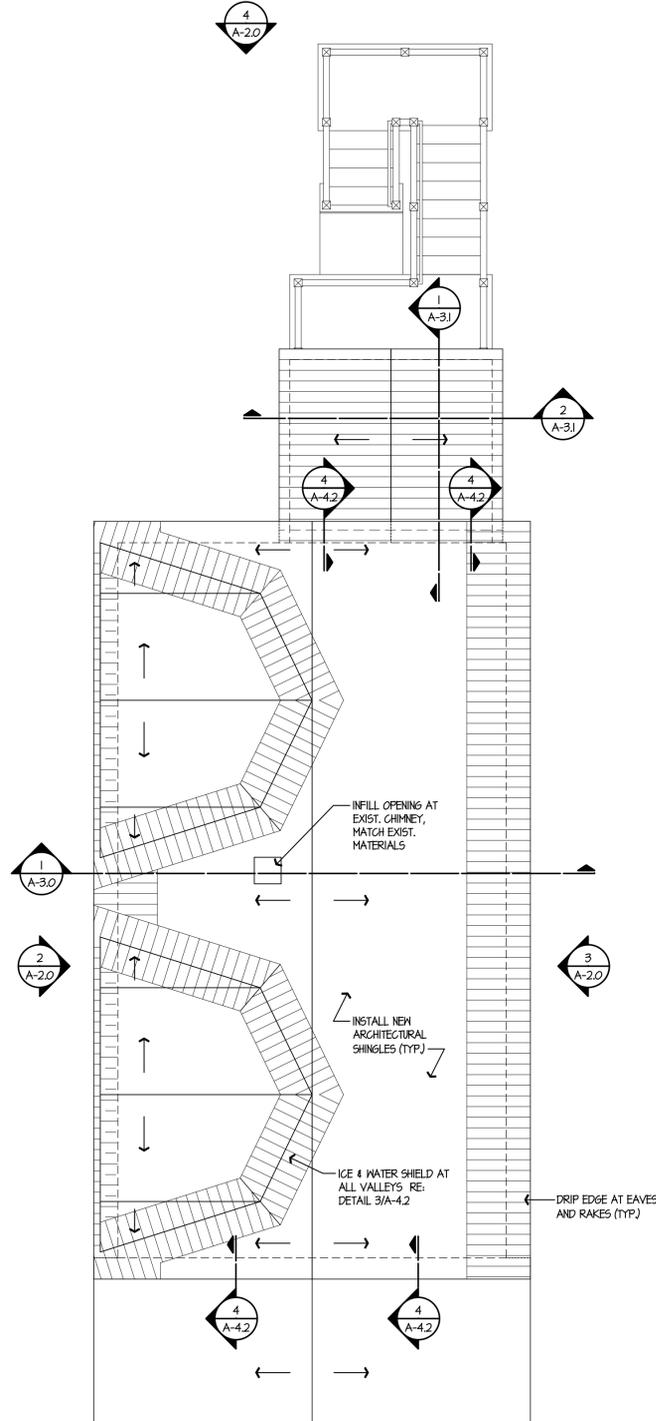
4 FLASHING @ WALL
SCALE: 1-1/2"=1'-0"



3 CLOSED VALLEY DETAIL
SCALE: 3/4"=1'-0"



2 ROOF PIPE PENT. DETAIL
SCALE: 3/4"=1'-0"



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



date	description	no.
	revisions	

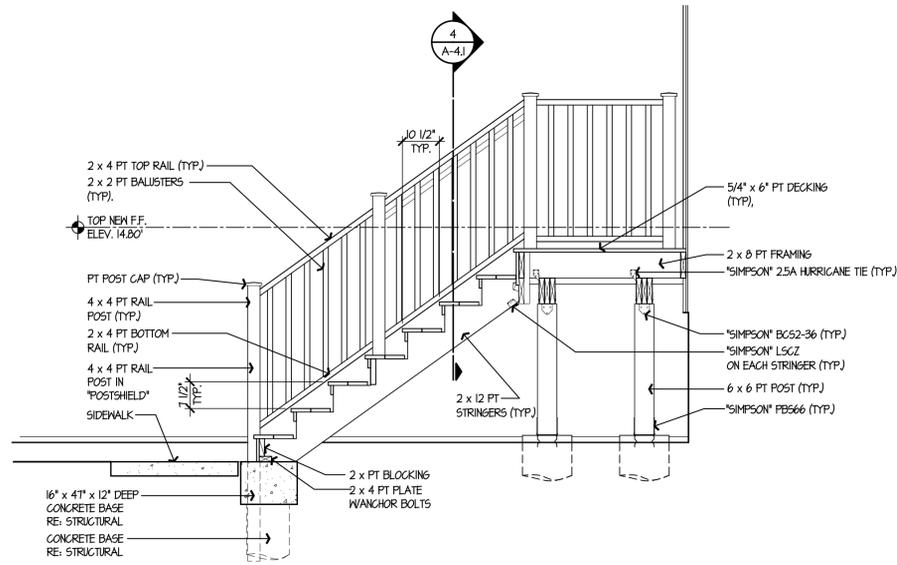
ROOF PLANS

A-4.2

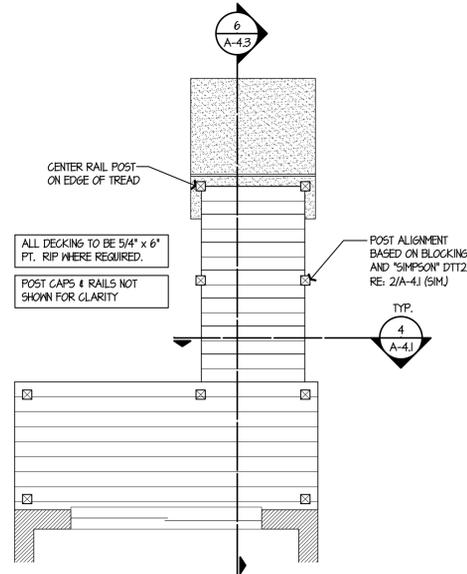
date	08 JAN 2016
drawn	NMF
scale	AS SHOWN
checked	JP/DH
project no.	1347-43
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THE STATE OF CONNECTICUT
DEPARTMENT OF HOUSING (DOH)
COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR)
OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

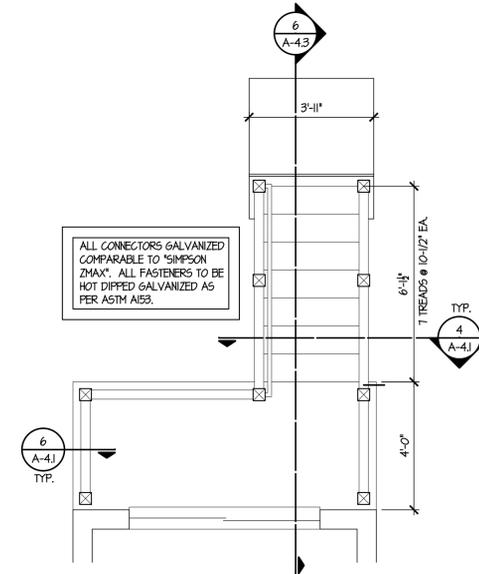
REHABILITATION, REBUILDING and MITIGATION for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516



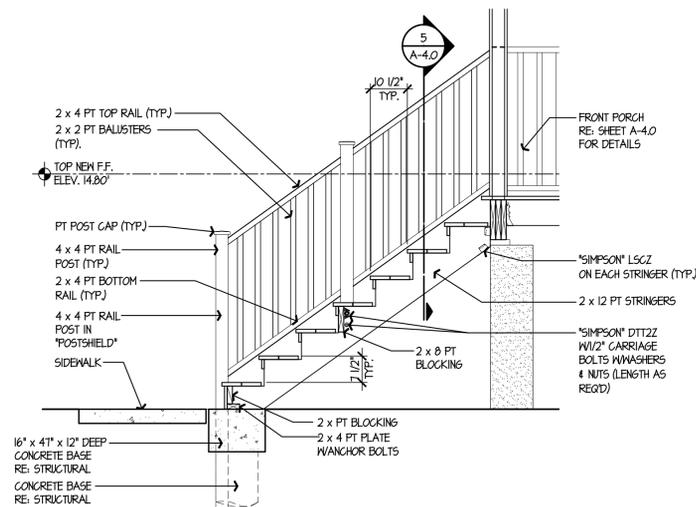
6 STAIR SECTION
SCALE: 1/2"=1'-0"



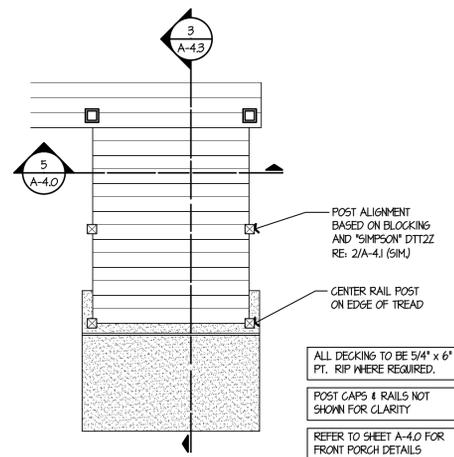
5 DECKING
SCALE: 3/8"=1'-0"



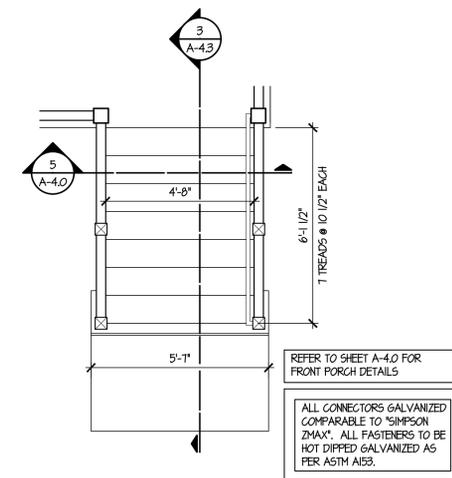
4 ALT. REAR STAIR
SCALE: 3/8"=1'-0"



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



2 DECKING
SCALE: 3/8"=1'-0"



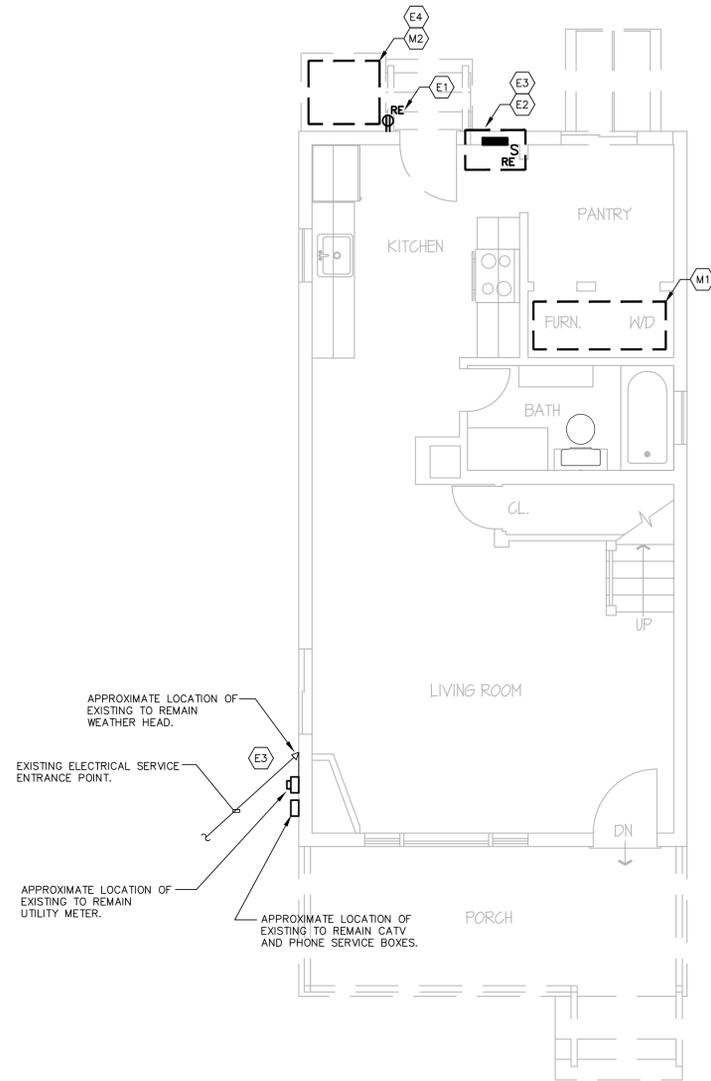
1 ALT. FRONT STAIR
SCALE: 3/8"=1'-0"

date	description	no.
	revisions	

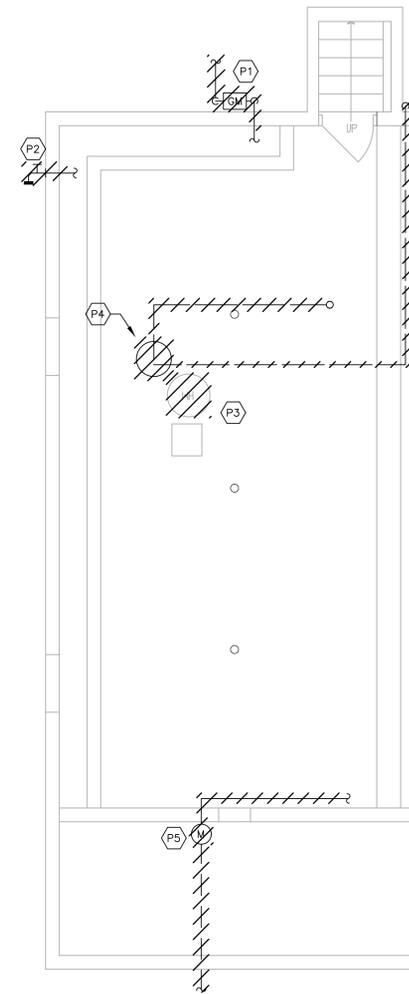
ALTERNATE#1
ELEVATE ABOVE 500 YR.
FLOOD ONLY

A-4.3

date	08 JAN 2016
drawn	NMF
scale	AS SHOWN
checked	JP/DH
project no.	1347-43
application no.	1739



2 1st FLOOR PLAN
MEP-1.0 SCALE: 1/4" = 1'-0" NORTH



3 BASEMENT SCHEMATIC
MEP-1.0 SCALE: 1/4" = 1'-0" NORTH

PLUMBING DEMOLITION KEY NOTES

- (P1) REMOVE GAS METER AND ALL ASSOCIATED PIPING BACK TO STREET. REMOVE PIPING AFTER METER AS INDICATED.
- (P2) REMOVE EXISTING HOSE BIBB AND ALL ASSOCIATED PIPING BACK TO NEAREST ACTIVE MAIN.
- (P3) REMOVE ABANDONED WATER HEATER, ASSOCIATED PIPING AND SPECIALTIES. REMOVE HOT AND COLD WATER PIPING TO NEAREST MAIN.
- (P4) REMOVE SUMP PUMP AND ALL ASSOCIATED PIPING AND SPECIALTIES. REMOVE PVC PIPING DIRECTED TO SUMP PUMP AS SHOWN TO PIPE RISE.
- (P5) REMOVE WATER METER AND ALL CW PIPING BACK TO STREET. REMOVE PIPING AFTER WATER METER AS INDICATED.

MECHANICAL DEMOLITION KEY NOTES

- (M1) REMOVE ALL EXHAUST PIPING/DUCTWORK FOR FURNACE, DRYER, AND WATER HEATER.
- (M2) REMOVE CONDENSING UNIT AND CAP ASSOCIATED PIPING. STORE AND PROTECT FOR FUTURE USE. SEE M1.0 FOR NEW LOCATION OF EXISTING CONDENSING UNIT.

ELECTRICAL DEMOLITION KEY NOTES

- (E1) REMOVE EXISTING OUTDOOR RECEPTACLE AND IN-USE COVER. STORE AND PROTECT FOR FUTURE RE-USE. REMOVE EXISTING WIRING FROM RECEPTACLE LOCATION BACK TO PANEL OF ORIGIN.
- (E2) REMOVE EXISTING MAIN ELECTRICAL PANEL. EXISTING BRANCH CIRCUITS WIRING SHALL BE DISCONNECTED AND PROTECTED FOR FUTURE EXTENSION AND RECONNECTION.
- (E3) REMOVE TOGGLE SWITCHES AT THIS APPROXIMATE LOCATION. WIRING ASSOCIATED WITH SWITCHES SHALL BE DISCONNECTED AND PROTECTED FOR FUTURE RECONNECTION.
- (E4) REMOVE WALL MOUNTED DISCONNECT SWITCH ASSOCIATED WITH CONDENSING UNIT LOCATED AT THIS APPROXIMATE LOCATION. DISCONNECT AND PROTECT WIRING FOR FUTURE RE-USE AND RECONNECTION.
- (E4) REMOVE ELECTRICAL SERVICE FEEDER BETWEEN METER ENCLOSURE AND MAIN ELECTRICAL PANEL IN THE RESIDENCE.



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GENERAL RENOVATIONS for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516



date	description	no.
revisions		

MEP DEMOLITION FLOOR PLAN

MEP-1.0

date	10 OCT 2014
drawn	ANK/VOM
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1739

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

**GENERAL RENOVATIONS for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516**

CES
Consulting Engineering Services, Inc.
1811 Middle Street
Middletown, CT 06457
Tel: (860) 632-1682
Fax: (860) 632-1768
CES #2014064.00

date	description	no.
revisions		

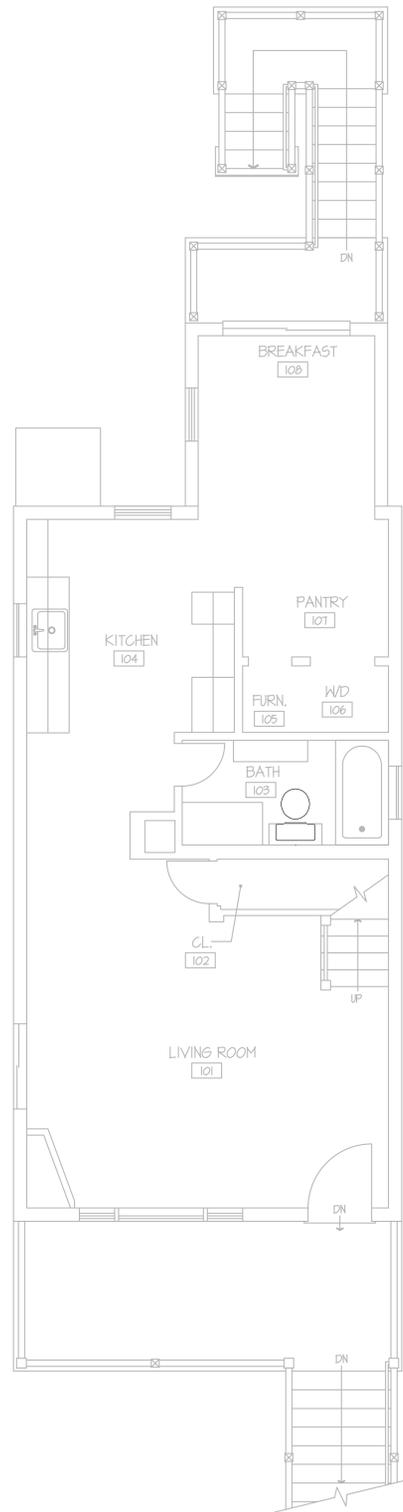
PLUMBING FLOOR PLANS

P-1.0

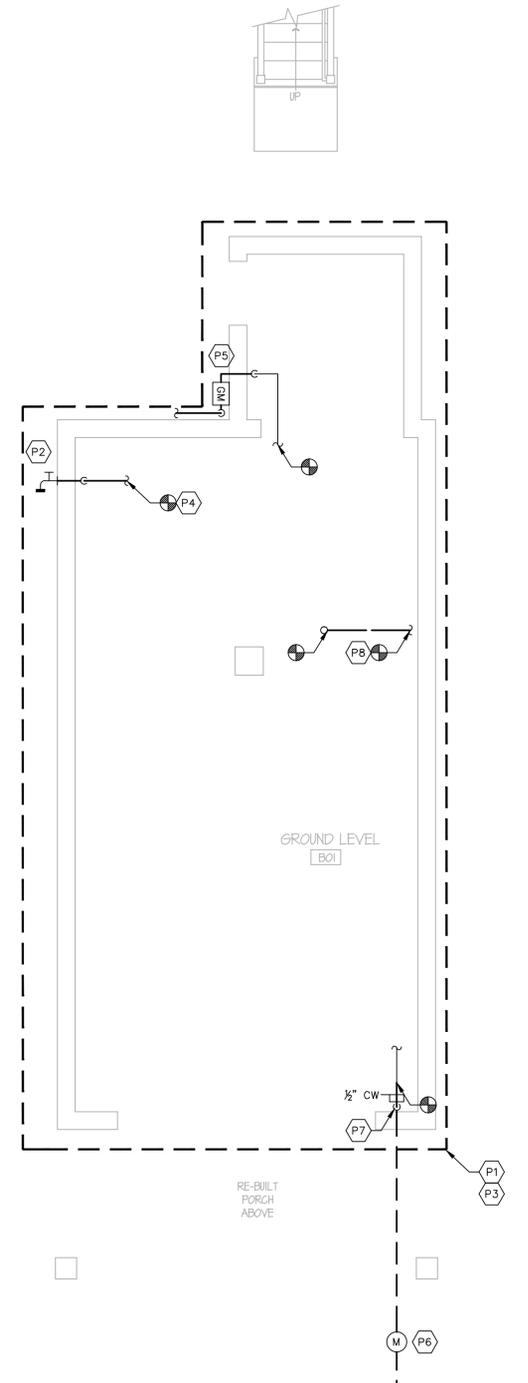
date	10 OCT 2014
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1739

- 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.

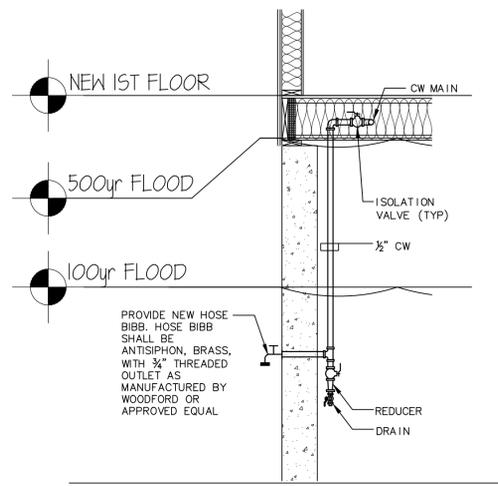
- PLUMBING KEY NOTES**
- (P1) PROVIDE NEW CW, SANITARY, VENT PIPING EXTENSION AS NECESSARY FOR RAISING OF HOUSE.
 - (P2) PROVIDE NEW EXTERIOR WALL HYDRANT 3' ABOVE FINAL FINISHED GRADE. PROVIDE LOW POINT DRAIN ON PIPING DROP FROM HOUSE. SEE DETAIL 1/MEP5.0 FOR MORE DETAILS. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION.
 - (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) CONNECT NEW CW PIPING TO NEAREST ACTIVE MAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION PRIOR TO FABRICATION AND INSTALLATION.
 - (P5) PROVIDE NEW GAS METER. COORDINATE EXACT LOCATION WITH UTILITY PRIOR TO BIDDING AND INSTALLATION. PROVIDE NG PIPING EXTENSION AS NECESSARY FOR RAISING OF HOUSE. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF PIPING RECONNECTION PRIOR TO FABRICATION AND INSTALLATION.
 - (P6) PROVIDE NEW WATER METER NEAR PROPERTY LINE ON STREET. METER SHALL BE INSTALLED IN METER PIT. VERIFY ALL INSTALLATION LOCATIONS AND PIT REQUIREMENTS WITH UTILITY COMPANY PRIOR TO BIDDING AND INSTALLATION.
 - (P7) PROVIDE PRESSURE RELIEF VALVE AND ISOLATION VALVE ON RISE.
 - (P8) CONNECT SANITARY PIPING TO NEAREST SANITARY MAIN OR STACK.



2 1st FLOOR PLAN
SCALE: 1/4" = 1'-0"



1 GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"



HOSE BIBB CW SUPPLY DETAIL
N.T.S.

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
(T)	THERMOMETER
(R)	PRESSURE REGULATOR
(C)	CONNECT NEW TO EXISTING
(V)	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

- 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 DISCONNECT/FROM 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 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.
 - 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, ENIRCLE, 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 MATERIAL, SKIDS, 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 CEILING. 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 UNDER THESE SPECIFICATIONS.
 - 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.
 - 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 FURNISHED UNDER THIS DIVISION. 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.
- PLUMBING
 - PIPING:
 - DOMESTIC WATER PIPING SHALL BE COPPER TUBING TYPE L. SOLDER FILLER METALS SHALL BE 95-5 TIN-ANTIMONY SOLDER JOINTS.
 - WASTE AND VENT [STORM] PIPING SHALL BE PVC, TYPE DWV PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS.
 - 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 SPOOT FITTINGS.
 - NATURAL GAS FOR LP PIPING SHALL BE SCHEDULE 40, CARBON STEEL PIPE, WITH THREADED JOINTS AND FITTINGS OR TYPE L COPPER TUBING.
 - INSULATION:
 - 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 MANUFACTURER'S 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:
 - DOMESTIC COLD WATER PIPING
 - DOMESTIC HOT WATER PIPING
 - 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.
 - PIPING INSTALLATION:
 - 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.
 - 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.
 - PLUMBING IDENTIFICATION
 - 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.
 - VALVE TAGS SHALL BE 1-1/2" DIAMETER, 19-GAGE POLISHED BRASS WITH STAMP-ENGRAVED LETTERING, ATTACH VALVES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE VALVE TAG ON EVERY VALVE, EXCLUDING DRAIN VALVES.
 - 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.
- TESTING AND ADJUSTING
 - 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.
 - 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.
 - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR ALL TESTING.



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

GENERAL RENOVATIONS for the HILL RESIDENCE APPLICATION No. 1739 888 Ocean Avenue West Haven, CT 06516



date	description	no.
	revisions	

PLUMBING SCHEDULES, DETAILS, AND SPECIFICATIONS

P-5.0

date	10 OCT 2014
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	2014064.00
application no.	1739

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

**GENERAL RENOVATIONS for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
West Haven, CT 06516**

CES
Consulting Engineering Services, Inc.
1811 Middle Street
Middletown, CT 06457
Tel: (860) 632-1682
Fax: (860) 632-1768
CES #2014064.00

date	description	no.
revisions		

MECHANICAL FLOOR PLANS

M-1.0

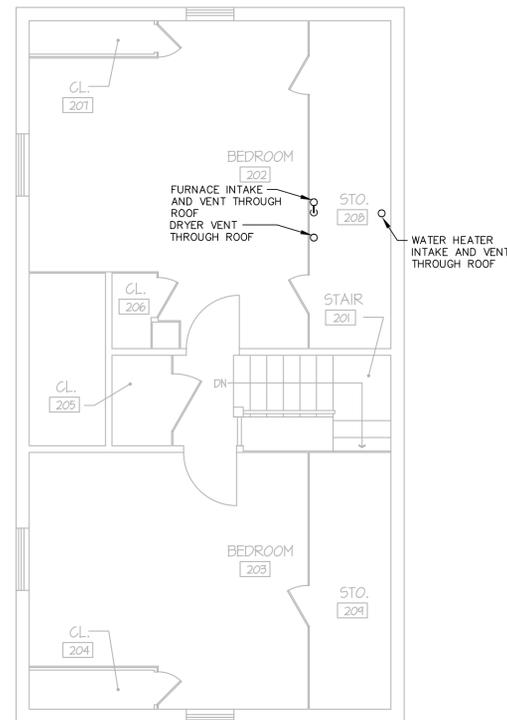
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GENERAL NOTES ALL TRADES

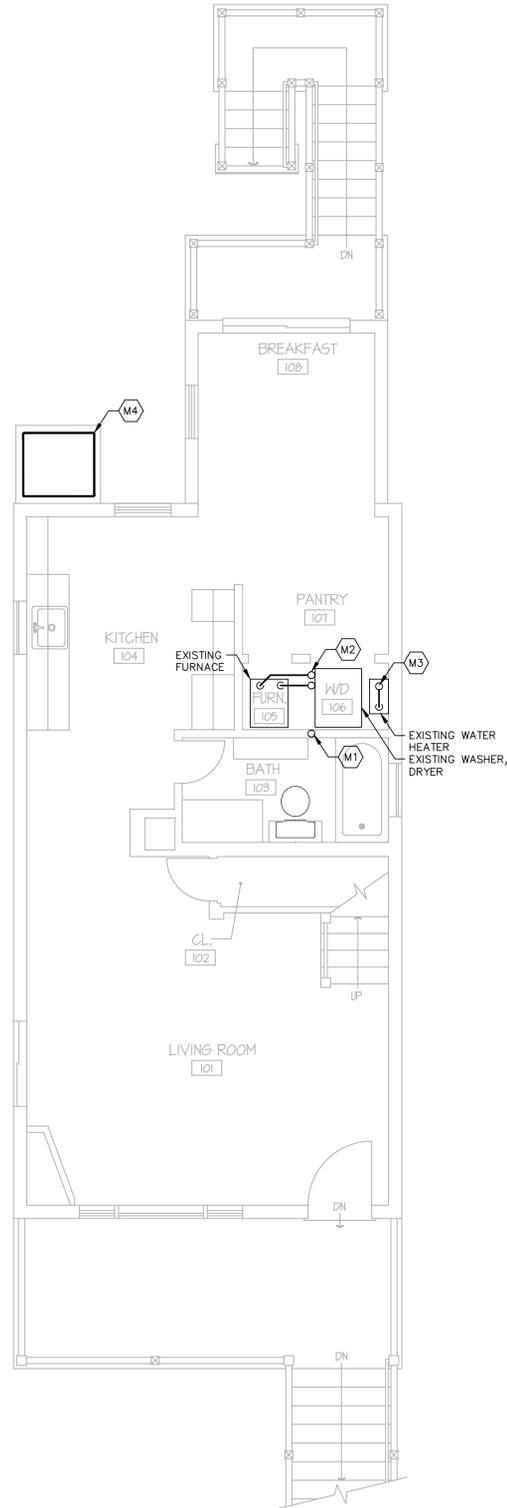
- MECHANICAL ITEMS INCLUDING BUT NOT LIMITED TO PIPING, EQUIPMENT, ETC SHALL BE INSTALLED ABOVE THE FLOOD PLANE AS DETERMINED BY THE ARCHITECTURAL PLANS.
- WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS INCLUDING ACCESS PANELS FOR VALVES AND EQUIPMENT, THERMOSTAT AND SENSOR LOCATIONS, ETC.

MECHANICAL KEY NOTES

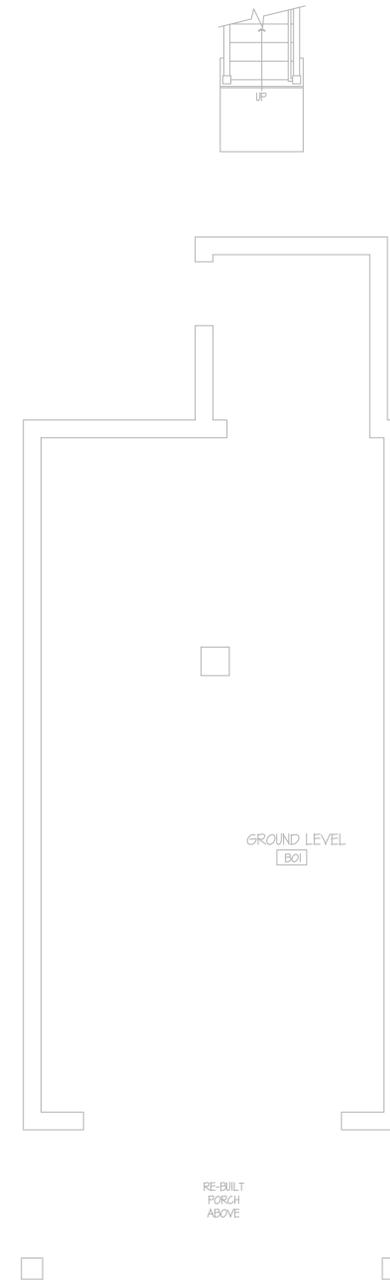
- M1 PROVIDE IN-O-VATE TECHNOLOGIES, INC MODEL #425 22 GAUGE ALUMINIZED STEEL DRYERBOX. PROVIDE 4" DRYER EXHAUST DUCT. DUCT SHALL BE ALUMINUM RIDGED FLEXIBLE DUCTWORK. TERMINATE THROUGH ROOF WITH DRYER EXHAUST CAP VIA STORAGE SPACE ON SECOND FLOOR.
- M2 PROVIDE 3" PVC INTAKE AND VENT FOR FURNACE. TERMINATE THROUGH ROOF MANUFACTURER'S CONCENTRIC VENT VIA STORAGE SPACE ON SECOND FLOOR. SEE DETAIL 1/M5.0.
- M3 PROVIDE 3" PVC INTAKE AND VENT FOR WATER HEATER. TERMINATE THROUGH ROOF MANUFACTURER'S CONCENTRIC VENT VIA STORAGE SPACE ON SECOND FLOOR. SEE DETAIL 1/M5.0.
- M4 NEW LOCATION OF EXISTING CONDENSING UNIT. PROVIDE PIPING EXTENSION TO RECONNECT TO EXISTING PIPING.



3 2nd FLOOR PLAN
SCALE: 1/4" = 1'-0"



2 1st FLOOR PLAN
SCALE: 1/4" = 1'-0"



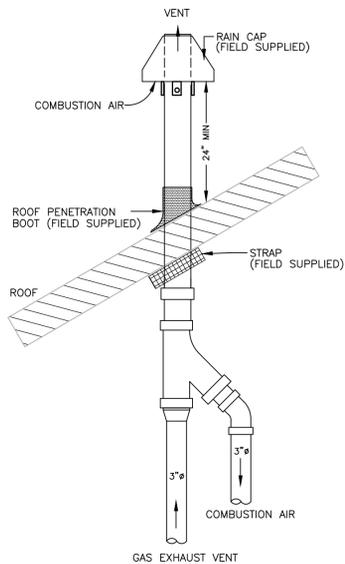
1 GROUND FLOOR PLAN
SCALE: 1/4" = 1'-0"



MECHANICAL ABBREVIATION LIST	
ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CAP	CAPACITY
ET-#	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
HD	HEAD
HP	HORSE POWER
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM CONDENSATE SUPPLY
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
PD	PRESSURE DROP (FEET OF WATER OR INCHES OF WATER)
SPEC	SPECIFICATION
TEMP	TEMPERATURE
TYP	TYPICAL

HVAC SYMBOLS LEGEND	
SYMBOLS	DESCRIPTION
	THERMOSTAT
	RETURN/EXHAUST/OUTSIDE AIR ARROW
	SUPPLY ARROW
	EXHAUST VENT
	CONNECTION TO EXISTING
	EXISTING TO REMAIN

MECHANICAL PIPING LEGEND	
SYMBOL	DESCRIPTION
	NEW V
	NEW HWS
	EXISTING HWS
	NEW HWR
	EXISTING HWR
	DETAIL LINE
	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



1 CONCENTRIC VENT TERMINAL DETAIL THROUGH ROOF
SCALE: NONE

- GENERAL PROCEDURES ALL TRADES
- THESE SPECIFICATIONS ARE APPLICABLE TO ALL MECHANICAL 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 DISCONNECT FROM 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 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.
 - 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

- 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 MATERIAL, SKIDS 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 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.
 - 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 MANUFACTURER'S 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 CEILING.

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

GENERAL RENOVATIONS for the HILL RESIDENCE APPLICATION No. 1739 888 Ocean Avenue West Haven, CT 06516

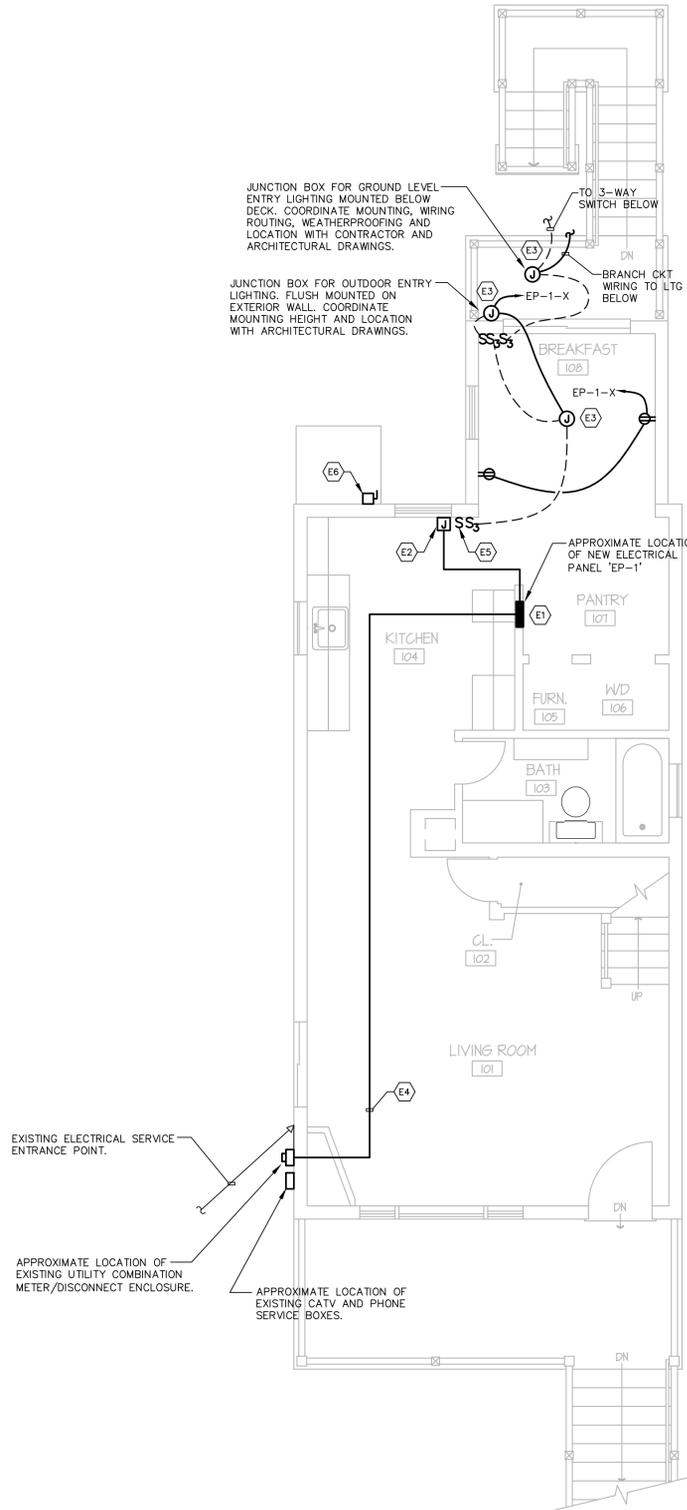
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MECHANICAL SCHEDULES, DETAILS, AND SPECIFICATIONS

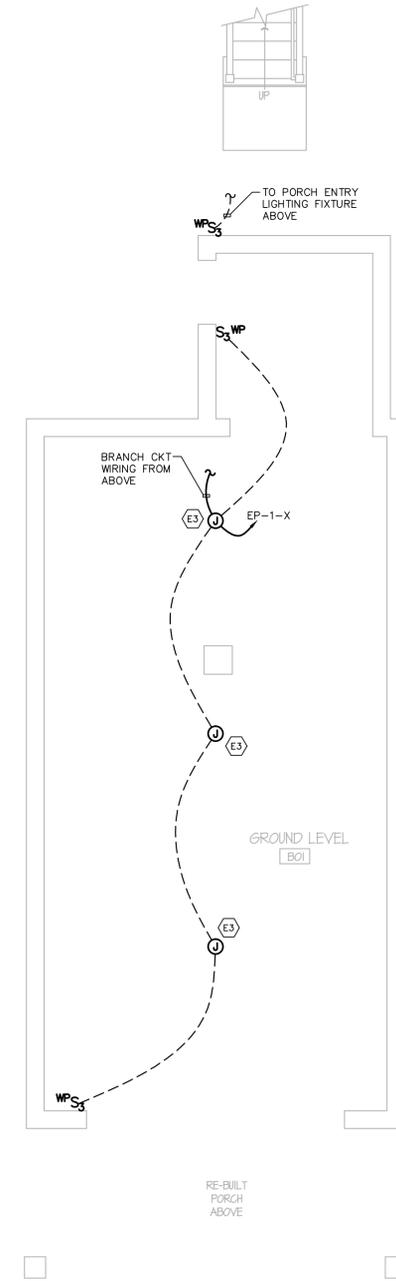
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drawn	ANK /VOM
scale	AS SHOWN
checked	DTB
project no.	2014064.00
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- GENERAL NOTES ALL TRADES**
1. ELECTRICAL ITEMS INCLUDING BUT NOT LIMITED TO WIRING, EQUIPMENT, SWITCHES, OUTLETS, ETC SHALL BE INSTALLED 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 NEW PANEL 'EP-1' 100A/MCB, 2P, 120/240V, 30-POLE, 3-WIRE. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
 - E2 PROVIDE NEW SPLICE/JUNCTION BOX FOR EXTENSION OF EXISTING BRANCH CIRCUITS FROM PREVIOUS PANEL LOCATION TO NEW ELECTRICAL PANEL 'EP-1'. REFER TO PLANS FOR APPROXIMATE LOCATION. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL EXTENSION AND RECONNECTION.
 - 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 SELECT LIGHTING FIXTURE AND COORDINATE INSTALLATION BASED ON ALLOWANCE PROVIDED UNDER THIS PROJECT. REFER TO PANELBOARD SCHEDULE FOR CIRCUIT INFORMATION. REFER TO DRAWINGS FOR WIRING INFORMATION.
 - E4 PROVIDE FEEDER FROM EXISTING METER ENCLOSURE TO NEW ELECTRICAL PANEL 'EP-1'. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL RECONNECTION. ROUTING AND INSTALLATION TO COMPLY WITH NEC AND COORDINATED ON SITE. REFER TO RISER DIAGRAM FOR WIRING AND ADDITIONAL INFORMATION.
 - E5 PROVIDE SWITCHES TO MATCH PREVIOUSLY REMOVED DURING THE DEMOLITION PHASE. SWITCHES SHALL BE RECONNECTED TO WIRING AS PER PREVIOUS ELECTRICAL CONFIGURATION. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
 - E6 RE-INSTALL AND RECONNECT WALL MOUNTED DISCONNECT SWITCH PREVIOUSLY REMOVED DURING DEMOLITION PHASE. PROVIDE CONNECTION TO CONDENSING UNIT AT THIS APPROXIMATE LOCATION. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL REINSTALLATION.



2 1st FLOOR PLAN
E-1.0 SCALE: 1/4" = 1'-0"



1 GROUND FLOOR PLAN
E-1.0 SCALE: 1/4" = 1'-0"



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

GENERAL RENOVATIONS for the HILL RESIDENCE
APPLICATION No. 1739
888 Ocean Avenue
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CES
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ELECTRICAL FLOOR PLAN

E-1.0

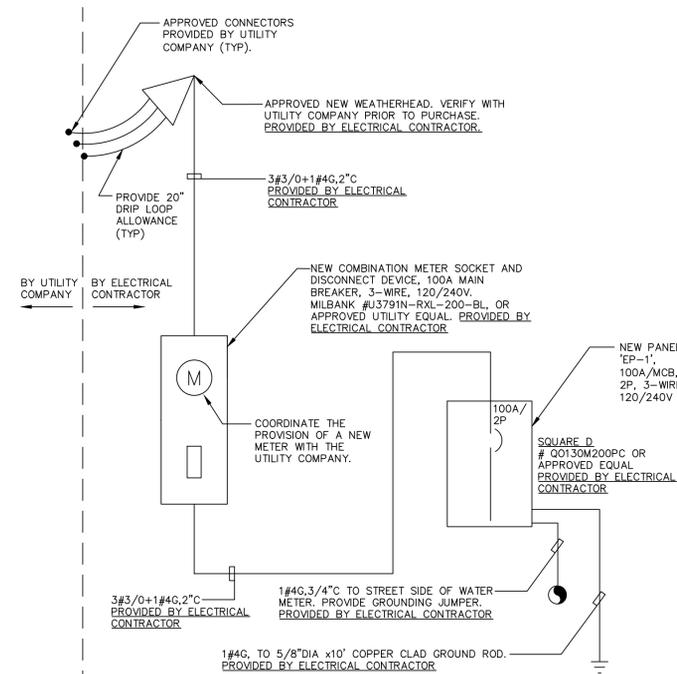
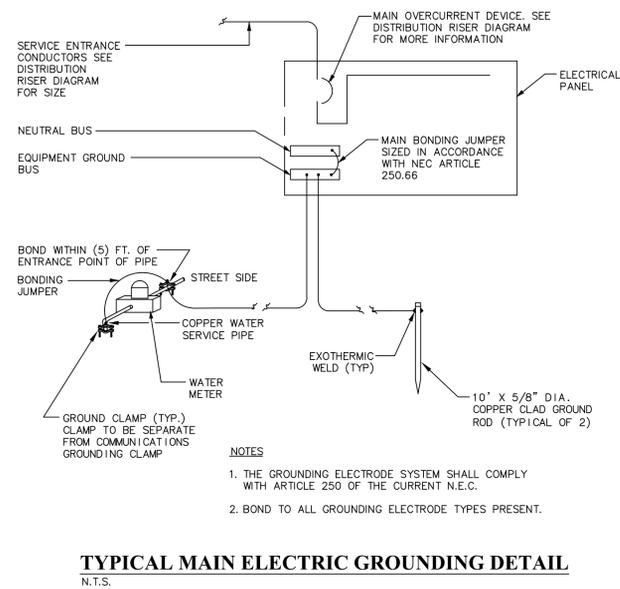
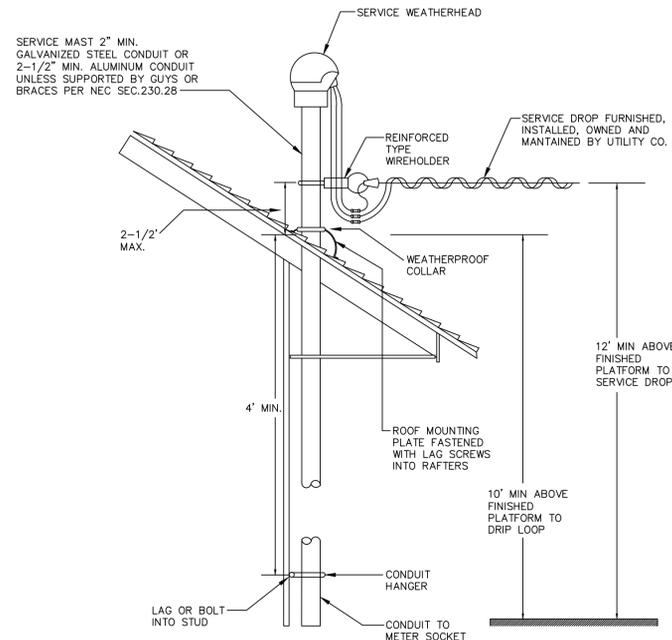
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ELECTRICAL ABBREVIATIONS			
A/AMP	AMPERE	NEC	NATIONAL ELECTRIC CODE
AC	ALTERNATING CURRENT	NIC	NOT IN CONTRACT
ACU	AIR CONDITIONING UNIT	NL	NEW LOCATION OF EXISTING RELOCATED
AFF	ABOVE FINISHED FLOOR	NR	NEW TO REPLACE EXISTING
AFG	ABOVE FINISHED GRADE	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
EW	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
	SINGLE POLE SWITCH
	THREE-WAY LIGHTING SWITCH
	GFCI DUPLEX RECEPTACLE
	GFCI DUPLEX RECEPTACLE, WEATHER PROOF
	DISCONNECT DEVICE

PANELBOARD SCHEDULE													
PANELBOARD	LOCATION	MAIN			VOLTAGE	PHASE	WIRE	FEEDER	SE RATED	MOUNTING	MIN SCR	REMARKS	
EP-1	MECH ROOM	100A/2P	MCB		120/240	1	3	3#3+1#ØG,2°C	N/A	RECESSED	14,000		
CKT	DESCRIPTION	P	AT	AF	CIRCUITRY	KVA	CKT	DESCRIPTION	P	AT	AF	CIRCUITRY	KVA
1	EXISTING**	1	20	20	12-2*	1.20	2	EXISTING**	1	20	20	12-2*	0.36
3	EXISTING**	1	20	20	12-2*	0.36	4	EXISTING**	1	20	20	12-2*	0.36
5	EXISTING**	1	20	20	12-2*	0.36	6	EXISTING**	1	15	15	14-2*	0.20
7	EXISTING**	1	20	20	12-2*	0.36	8	EXISTING**	1	15	15	14-2*	0.20
9	EXISTING**	1	15	15	14-2*	0.20	10	EXISTING**	1	15	15	14-2*	0.20
11	EXISTING**	1	15	15	14-2*	0.20	12	EXISTING**	1	15	15	14-2*	0.20
13	EXISTING**	1	20	20	12-2*	0.36	14	EXISTING**	2	30	30	10-3	5.0
15	EXISTING**	1	20	20	12-2*	0.36	16	EXISTING**	1	15	15	14-2*	0.20
17	EXISTING**	1	15	15	14-2*	0.20	18	EXISTING**	1	20	20	12-2*	0.36
19	EXISTING**	1	15	15	14-2*	0.50	20	EXISTING**	1	20	20	12-2*	0.36
21	EXISTING	2	30	30	10-3	5.0	22	SPARE	1	20	20	-	-
23	EXISTING	1	20	20	12-2*	0.36	24	SPARE	1	20	20	-	-
25	SPACE	-	-	-	-	-	26	SPACE	1	20	20	-	-
27	SPACE	-	-	-	-	-	28	SPACE	-	-	-	-	-
29	SPACE	-	-	-	-	-	30	SPACE	-	-	-	-	-
						9.1							7.24
													16.34

- * 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 IF APPLICABLE.
 9. EXISTING CIRCUITS SHALL BE EXTENDED AND RECONNECTED TO THE NEW LOCATION OF PANEL 'EP-2'. EC SHALL FIELD VERIFY CIRCUIT QUANTITIES AND CIRCUIT BREAKERS REQUIRED TAKING INTO ACCOUNT THE REMOVAL OF PREVIOUSLY EXISTING CIRCUITS IN THE DEMOLITION PHASE IF APPLICABLE. CIRCUITS SHOWN 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.



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ELECTRICAL SCHEDULES, DETAILS AND SYMBOLS

E-5.0

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scale	AS SHOWN
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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, APERTENANCES, 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 DISCONNECT/FROM 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 A 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 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, ENIRCLE, 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 REQUIRED 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. 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 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 AND OTHER SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIALS, 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 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 SMD 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 INDICATED 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 THW/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 DIAMETER 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 WIRES 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) DOH OCCUPIED REHABILITATION and REBUILDING PROGRAM (OOR)

GENERAL RENOVATIONS for the HILL RESIDENCE APPLICATION No. 1739 888 Ocean Avenue West Haven, CT 06516



date	description	no.
	revisions	

ELECTRICAL SPECIFICATIONS

E-5.1

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