

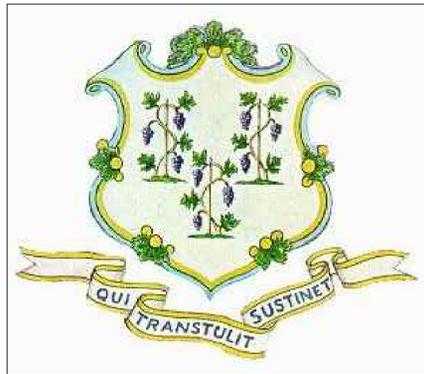
THE STATE OF CONNECTICUT DEPARTMENT OF HOUSING (DOH) COMMUNITY DEVELOPMENT BLOCK GRANT - DISASTER RECOVERY (CDBG-DR) OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)



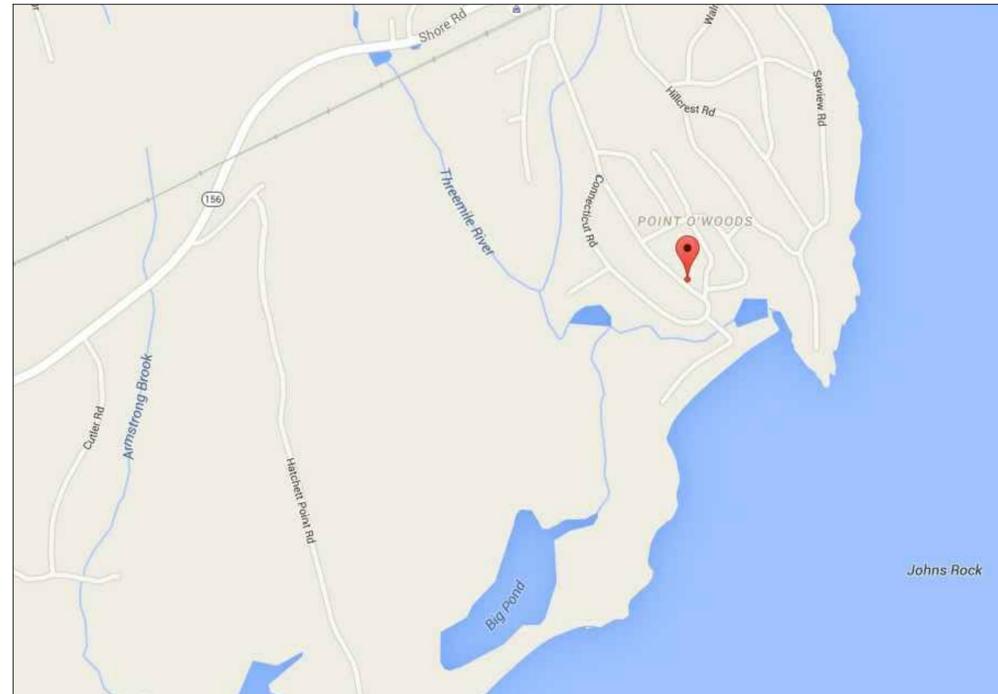
MAY 5, 2016

csa project 1347-51

Issued for:
Bidding and Construction



Frascarelli Residence Rehabilitation and Mitigation Application No. 2440 32 Massachusetts Rd South Lyme, CT 06376



LOCATION PLAN

not to scale



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MEP Engineer

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

Civil / Site Engineer

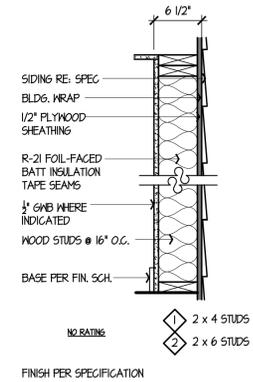
Design Professionals, Inc.
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**THE STATE OF CONNECTICUT
DEPARTMENT OF HOUSING OF
COMMUNITY DEVELOPMENT BLOCK
GRANT - DISASTER RECOVERY (CDBG-DR)
OWNER OCCUPIED REHABILITATION and
REBUILDING PROGRAM (OORR)**

**GENERAL RENOVATIONS for the FRASCARELI RESID.
APPLICATION No. 2440
32 Massachusetts Road
South Lyme, CT 06376**



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 SHORING, 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	5 MAY 2016
drawn	PSR
scale	AS SHOWN
checked	JP/DH
project no.	1347-51
application no.	2440

1 GENERAL CONSTRUCTION and DEMOLITION NOTES
NO SCALE

2 ABBREVIATIONS
NO SCALE

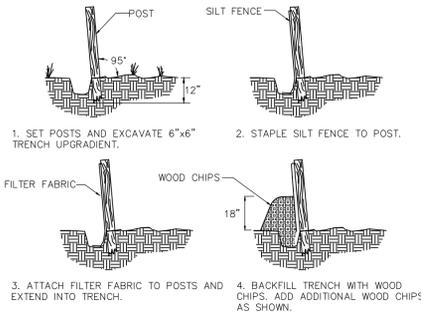
A.C.T.	ACOUSTICAL CEILING TILE	I.D.	INSIDE DIAMETER INSULATION
ALT.	ALTERNATE	JAN.	JANITOR JOINT
ALUM. ARCH.	ALUMINUM ARCHITECTURAL	LAM. L.P.	LAMINATED LOW POINT LOCKER
ASB.	ASBESTOS	MAS. MAT.	MASONRY MATERIAL MAXIMUM
A.T.	ASPHALT TILE	M.C.	MASONRY COURSE MECHANICAL MEMBRANE MANUFACTURER
@	AT	MIN.	MINIMUM MIRROR
B.C.	BRICK COURSE	MISC.	MISCELLANEOUS MASONRY OPENING
BD.	BOARD	N.I.C.	NOT IN CONTRACT NUMBER
B.F.	BOTTOM OF FOOTING BUILDING	N.T.S.	NOT TO SCALE
BLDGS.	BUILDING	O/C	ON CENTER OUTSIDE DIAMETER
CAB.	CABINET	O.D.	OPENING OPPOSITE
C/C	CENTER TO CENTER	OPP.	OPPOSITE
C.T.	CERAMIC TILE	PERF.	PERFORATED PRESSURE TREATED
C.J.	CONTROL JOINT	P.T.	
C.L.	CENTER LINE	R.	RISER (RADIUS)
CLG.	CEILING	R.B.	RUBBER BASE
C.O.	CASED OPENING	REF.	REFERENCE
COL.	COLUMN	REINF.	REINFORCING
COMP.	COMPACTED	R.L.	RAIN LEADER
CONC.	CONCRETE	R.M.	ROOM
CONN.	CONNECTION	SIM.	SIMILAR SPECIFICATION
CONT.	CONTINUOUS	STL.	STEEL STRUCTURAL
CORR.	CORRIDOR	STOR.	STORAGE
CSK.	COUNTERSINK	SUSP.	SUSPENDED
D.F.	DRINKING FOUNTAIN DETAIL	TERR.	TERRAZZO (TERRACE)
DET.	DEMOLITION DETAIL	T & G.	TONGUE AND GROOVE
DEMO.	DEMOLITION	THRESH.	THRESHOLD
DWG.	DRAINING	T	TREAD
DN.	DOWN	T/S	TOP OF SLAB
DP.	DAMP-PROOFING	T/STL	TOP OF STEEL
ELECT.	ELECTRICAL	T/M	TOP OF MASONRY
E.J.	EXPANSION JOINT	TYP.	TYPICAL
ELEV.	ELEVATION (ELEVATOR)	V.C.T.	VINYL COMPOSITE TILE
E.P.	ELECTRICAL PANEL	V.B.	VINYL BASE
EQUIP.	EQUIPMENT	VERT.	VERTICAL
ETR.	EXISTING TO REMAIN	VEST.	VESTIBULE
E.W.C.	ELECTRIC WATER COOLER	V.I.F.	VERIFY IN FIELD
EXP.	EXPANSION	V.W.C.	VINYL WALL COVERING
F.A.P.	FIRE ALARM PANEL	W	WITH
F.D.	FLOOR DRAIN	W.C.	WATER CLOSET
F.E.	FIRE EXTINGUISHER	WD.	WOOD
F.H.C.	FIREHOSE CABINET	WIND.	WINDOW
FIN.	FINISH	WP.	WATERPROOFING
FL.	FLOOR	WH.	WATER HEATER
F.M.	FACE OF MASONRY		
F/F	FACE OF FRAMING		
FDN	FOUNDATION		
F.R.	FIRE RATED		
FTG.	FOOTING		
FUR.	FURNACE		
G.M.U.	GLAZED MASONRY UNIT		
GMB	GYPSUM WALLBOARD		
GALV.	GALVANIZED		
GL.	GLASS		
GLZ.	GLAZING		
GYP. BD.	GYPSUM WALL BOARD		
HGT.	HEIGHT		
H.M.	HOLLOW METAL		
H.P.	HIGH POINT		
HDWD.	HARDWOOD		
HDWR.	HARDWARE		

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

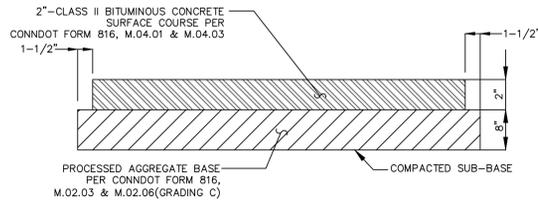
4 MATERIALS LEGEND
NO SCALE

	SECTION IDENTIFICATION		WINDOW NUMBER
	SECTION NUMBER		PARTITION TYPE
	SECTION VIEW DIRECTION AND EXTENTS		REVISION NUMBER
	SECTION SHEET NUMBER		DETAIL NUMBER
	EXTERIOR ELEVATION IDENTIFICATION		DETAIL NUMBER SHEET NUMBER
	ELEVATION NUMBER		ELEVATION MARK (HEIGHT)
	ELEVATION SHEET NUMBER		CENTERLINE
	INTERIOR ELEVATION IDENTIFICATION		COLUMN IDENTIFICATION
	ELEVATION NUMBER		
	ELEVATION SHEET NUMBER		
	ROOM NUMBER		
	FLOOR LEVEL NUMBER		
	ROOM NUMBER		
	DOOR NUMBER		
	FLOOR LEVEL		
	DOOR NO. ON THAT FLOOR		

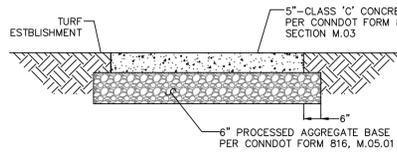
3 SYMBOLS LEGEND
NO SCALE



SILT FENCE
N.T.S.



DRIVEWAY REPLACEMENT SECTION
N.T.S.



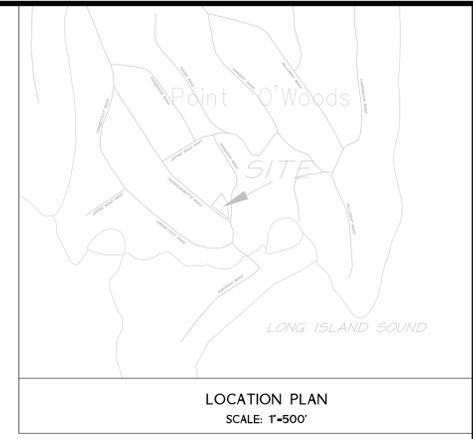
CONCRETE PAD/LANDING
N.T.S.

Zoning Information

ZONE: R-10 Residential

ITEM	REQUIRED	EXISTING CONDITIONS	PROPOSED CONDITIONS
Minimum Lot Area	10,000 s.f.	7,233 s.f.*	7,233 s.f.*
Minimum Lot Area per Dwelling	10,000 s.f.	7,233 s.f.*	7,233 s.f.*
Minimum Dimension of Square	75 feet	63 feet*	63 feet*
Maximum Stories	1.5 stories	1.5 stories	1.5 stories
Maximum Building Height	24 feet	22.7 feet	34.66 feet
Minimum Street Line Setback	25 feet	15.1 feet*	15.1 feet*
Minimum Rear Yard Setback	30 feet	28.3 feet*	28.3 feet*
Minimum Setback Other	12 feet	17.1 feet	17.1 feet
Maximum Floor Area	25%	23.2%	23.2%
Maximum Lot Coverage	25%	21.0%	22.6%
Maximum Ground Coverage	30%	35.2%*	34.9%

* Existing non-conformity



LOCATION PLAN
SCALE: 1"=500'

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.

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 GROTON.
- 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.

LEGEND

EXISTING	DESCRIPTION
COMMUNICATION	
C _x	OVERHEAD COMM. LINES (CABLE, TEL, ETC.)
DOMESTIC WATER	
W _x	WATER MAIN
WS _x	WATER SERVICE
WV	WATER VALVE
FD	FIRE HYDRANT
LIGHTING	
PL	POLE MOUNTED LIGHT
NATURAL GAS	
G _x	GAS MAIN
POWER	
EO _x	ELECTRICAL LINES, OVERHEAD
EU _x	ELECTRICAL LINES, UNDERGROUND
U _x	UTILITY POLE
PROPERTY	
PL	PROPERTY LINE
IP	IRON PIN
MON	MONUMENT
ROADS	
GR	GUARD RAIL
SITE FEATURES	
X	BARBED WIRE FENCE
○	CHAIN LINK FENCE
—	RAIL FENCE
□	STOCKADE FENCE
+	WIRE FENCE
OR	TREE
TL	TREE LINE
SANITARY SEWER	
S _x	SANITARY SEWER MAIN
SM	SANITARY SEWER MANHOLE
STORM SEWER	
D _x	STORM DRAIN PIPE
DM	STORM DRAIN MANHOLE
CI	CURB INLET
CB	CATCH BASIN
TOPOGRAPHY	
95	CONTOUR
X61.95	SPOT ELEVATION
WETLANDS	
W	WETLANDS LINE

- NOTES:**
- PROPERTY IS IN THE R-10 ZONE.
 - PARCEL CONTAINS 7,233 SQUARE FEET OR 0.166 ACRES.
 - HORIZONTAL DATUM IS BASED ON NAVD83. VERTICAL DATUM IS BASED ON NAVD88.
 - PROPERTY FALLS WITHIN THE LIMITS OF FLOOD HAZARD ZONE VE AS DEPICTED ON "FIRM FLOOD INSURANCE RATE MAP TOWN OF OLD LYME CONNECTICUT NEW LONDON COUNTY PANEL 467 OF 554 COMMUNITY PANEL NUMBER 090100047J EFFECTIVE DATE AUGUST 5, 2013 FEDERAL EMERGENCY MANAGEMENT AGENCY FEDERAL INSURANCE ADMINISTRATION.
 - EXISTING HOUSE IS NON-CONFORMING TO CURRENT ZONING REGULATIONS WITH RESPECT TO FRONT YARD REQUIREMENTS. THE EXISTING GARAGE IS NON-CONFORMING TO CURRENT ZONING REGULATIONS WITH RESPECT TO SIDE YARD REQUIREMENTS.
 - 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 PARCEL 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. 1-800-922-4455 OR WWW.CBYD.COM.

MAP REFERENCES:

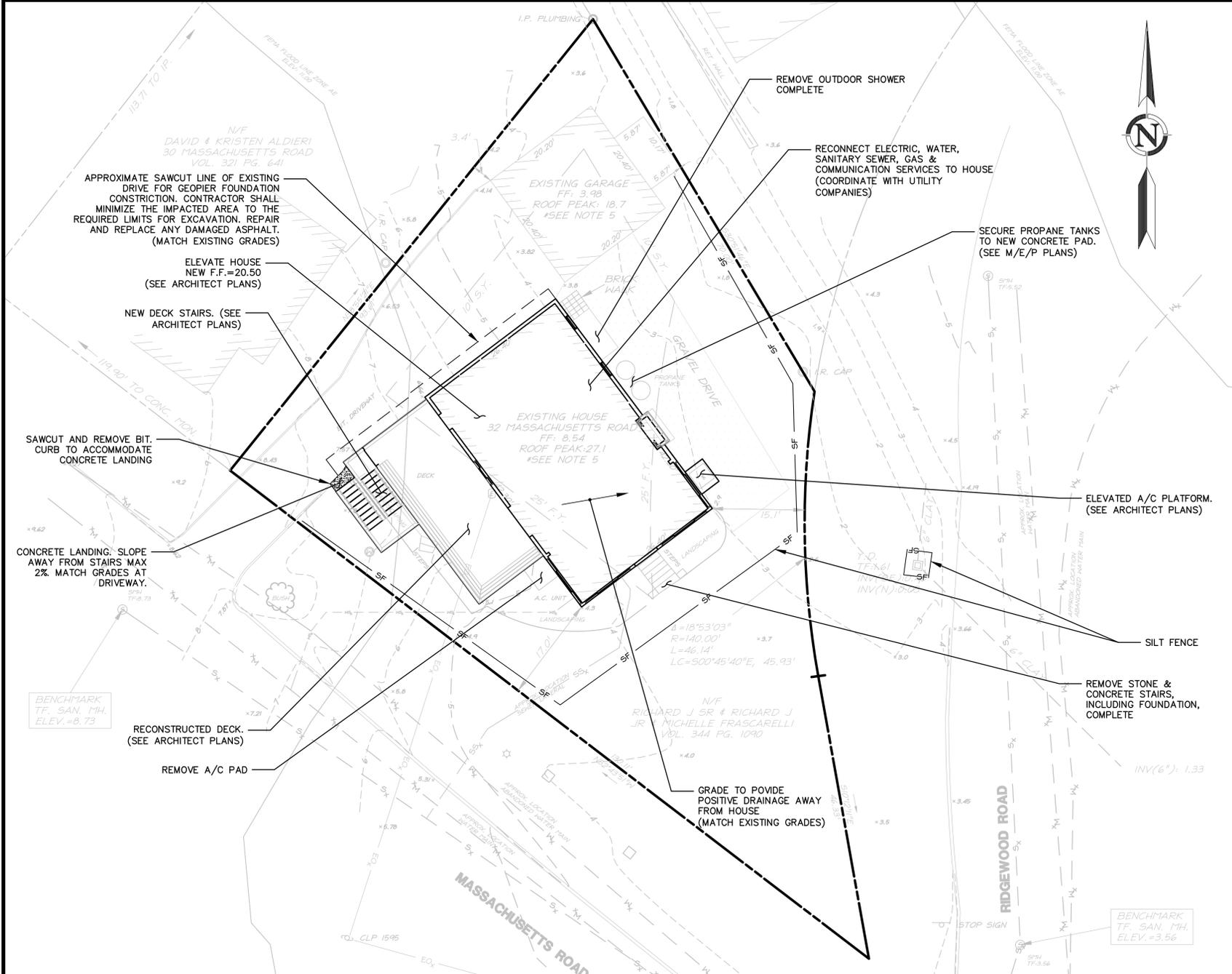
- PLAN NO. 2, POINT O'WOODS BEACH PROPERTY AT SOUTH LYME, CONN., BELONGING TO JAS. JAY SMITH, NOV. 1917.
- POINT O'WOODS ASSOCIATION, INC. OLD LYME, CT PROPOSED WATER AND SEWER SYSTEMS PLAN & PROFILES SHEET NO. 22 OF 59 DRAWING NO. PP-18 SCALE 1"=40' DATE: 2/17/08 BY RFP ENGINEERING, LLC.
- PLAN OF PROPERTY OF ROY & LOUISE HENNERBERG 22 MASSACHUSETTS ROAD POINT O'WOODS OLD LYME CONNECTICUT SCALE 1"=20' KING & MULLEN LAND SURVEYORS 12 MARCH 1986.
- SITE DEVELOPMENT PLAN PROPERTY OF JOSEPH PIECUCH & MICHELE POTVIN-PIECUCH & THE IRMGARD J. ZIEMBA TRUST 26 MASSACHUSETTS ROAD OLD LYME, CONNECTICUT DATE: SEPTEMBER 9, 2015 SCALE: 1"=10' BY ANGUS McDONALD GARY SHARPE & ASSOCIATES, INC.
- PLAN OF PROPERTY AT POINT O'WOODS, SOUTH LYME, CONN., CONVEYED BY MARY F. TRYON TO JESSE AND EDNA GEORGE NOV. 1929 SCALE 1"=20' BY ERNEST C. DABOLL, C.E.
- EXISTING CONDITIONS PLAN PREPARED FOR MARGARET O. HURLEY IRREVOCABLE TRUST #20 MASSACHUSETTS ROAD POINT O'WOODS - OLD LYME, CONNECTICUT DATE: 09-25-09 SCALE 1"=20' BY TARBELL, HEINTZ & ASSOC., INC.

SURVEY NOTES:

- THIS SURVEY AND MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THRU 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.
- TYPE OF SURVEY IS A PROPERTY & TOPOGRAPHIC SURVEY AND IS INTENDED TO DEPICT THE LOCATION OF IMPROVEMENTS RELATIVE TO PROPERTY LINES.
- THIS IS A RESURVEY BASED ON MAPS & DEEDS REFERENCED HEREON.
- HORIZONTAL ACCURACY MEETS CLASS A-2 STANDARDS AND VERTICAL ACCURACY MEETS CLASS T-2 STANDARDS.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

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



File: C:\jsh\3400\2440-Frascarelli\AutoCAD\3400-2440 Site Planning.dwg
 Layout: SP-1
 Plotted: 6/15/2016 8:31 AM
 Last Saved: 6/15/2016 8:30 AM
 Last Saved By: djannson

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Design Professionals
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 GIS ANALYSTS / LANDSCAPE ARCHITECTS
 PREPARED FOR:
 Richard J. Sr. & Richard J. Jr. & Michelle Frascarelli
 P.O. Box 64
 South Lyme, CT 06376
 PROJECT NO.: 3400-2440
 DATE: 6/29/16
 DRAWN BY: BW
 CHECKED BY: BW
FRASCARELLI
 32 MASSACHUSETTS ROAD
 OLD LYME, CONNECTICUT
 REVISIONS

NO.	DATE	SUBMITTED FOR ZONING COMPLIANCE PERMIT	ADDED EXISTING BITUMINOUS DRIVE SAWCUT LINE	DH
1	5/19/16			
2	6/14/16			

SITE PLAN
 SHEET
SP-1
 SCALE: 0' 5' 10' 20'
 T = 10'

GENERAL STRUCTURAL NOTES:

BUILDING DESIGN LOADS
LIVE LOADS

RESIDENTIAL DWELLING HABITABLE AREAS
FIRST FLOOR AND DECKS 40 PSF

SNOW LOADS

GROUND SNOW LOAD, P_g = 30 PSF
FLAT/SLOPED ROOF SNOW LOAD, P_f/P_s = 30 PSF

WIND LOADS

IMPORTANCE FACTOR, I = 1.0
WIND EXPOSURE CATEGORY: C
BASIC WIND SPEED = 105 MPH (3 SEC. GUST) (OLD LYME, CT)

FLOOD HAZARDS

- VE FLOOD ZONE WITH 100 YEAR BASE FLOOD ELEVATION 14.0 PLUS 1 FT. FREEBOARD, NAVD 1988 DATUM PER FEMA FIRM MAP DATED AUG. 5, 2013.
- ALL FRAMING BELOW FLOOD ELEVATION 15.0 SHALL BE PRESSURE TREATED OR OTHERWISE FLOOD DAMAGE RESISTANT MATERIAL PER FEMA TECHNICAL BULLETIN 2.
- PER STATE OF CONNECTICUT DEPT. OF HOUSING COMMUNITY DEVELOPMENT BLOCK GRANT RECOVERY REQUIREMENTS, THE TOP OF FINISH FLOOR SHALL BE ELEVATED TO THE 500-YEAR DESIGN FLOOD ELEVATION OF 20'-6".

GENERAL

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2009 INTERNATIONAL RESIDENTIAL CODE PORTION OF THE 2005 STATE BUILDING CODE, STATE OF CT 2013 AMENDMENT TO THE STATE BUILDING CODE. STRUCTURAL ELEMENTS EXCEEDING THE LIMITS, OR NOT CONFORMING TO THE CODE SHALL BE DESIGNED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE.
- DIMENSIONS AND DETAILS SHALL BE CHECKED AGAINST ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS.
- THE CONTRACTOR SHALL VERIFY AND COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES AND ANCHOR BOLTS AS REQUIRED BY ALL TRADES. OPENINGS NOT SPECIFICALLY SHOWN SHALL BE APPROVED BY THE ENGINEER.
- THE STRUCTURE IS DESIGNED TO BE STABLE AND SELF-SUPPORTING AFTER CONSTRUCTION IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY FOR THE BUILDING DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO, METHOD AND SEQUENCING OF ERECTION, AND TEMPORARY SHORING AND BRACING.

FOUNDATIONS

- THE EXISTING HOUSE TO BE ELEVATED ON A NEW CONCRETE PIER FOUNDATION.
- FOUNDATION SHALL BE TEMPORARILY BRACED AGAINST EARTH PRESSURE, WIND AND OTHER LATERAL FORCES.
- SEE GNCB CONSULTING ENGINEER'S GEOTECHNICAL REPORT DATED MARCH 3, 2016 FOR RECOMMENDATIONS.
- REFER TO SPECIFICATIONS FOR EXCAVATION AND BACKFILL REQUIREMENTS.

REINFORCED CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTES SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
- ALL CONCRETE IS DESIGNED BY ULTIMATE STRENGTH METHODS AND SHALL BE NORMAL WEIGHT, AIR ENTRAINED (5% TO 6%) WITH A 28-DAY COMPRESSIVE STRENGTH AS FOLLOWS:

FOUNDATION	3,000 PSI
SLAB ON GRADE INTERIOR	3,500 PSI
SLAB ON GRADE EXTERIOR	4,500 PSI

- ALL REINFORCING SHALL BE HIGH STRENGTH DEFORMED BARS, ASTM A 615 GRADE 60.
- DETAIL ALL BARS IN ACCORDANCE WITH 'ACI DETAILING MANUAL' ON THE PLACING DRAWINGS, SHOW THE NUMBER AND LOCATION OF ALL BAR SUPPORTS AND ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT IN POSITIONS INDICATED.
- MINIMUM CONCRETE PROTECTION FOR REINFORCEMENT WHEN NOT OTHERWISE INDICATED SHALL BE:

CONCRETE POURED AGAINST EARTH	3"
CONCRETE POURED IN FORMS, BUT EXPOSED TO EARTH OR WEATHER:	
a. BARS #5 AND SMALLER	1-1/2"
b. BARS LARGER THAN #5	2"

- CONCRETE MEMBERS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE.

WOOD

- ALL FRAMING LUMBER SHALL BE DRY (19% MAXIMUM MOISTURE CONTENT) DOUGLAS-FIR #2 OR BETTER, WITH THE FOLLOWING ALLOWABLE UNIT STRESSES:
BENDING, REPETITIVE USE F_b = 1,035 psi
BENDING, SINGLE USE F_b = 900
TENSION PARALLEL TO GRAIN F_t = 575
COMPRESSION PARALLEL TO GRAIN F_c (Par.) = 1,350
SHEAR PARALLEL TO GRAIN F_v = 180
COMPRESSION PERPENDICULAR TO GRAIN F_c (Per.) = 625
MODULUS OF ELASTICITY E = 1,700,000
- WHERE FRAMING CLIPS OR JOIST HANGERS ARE USED, FASTENERS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
- FOR PLYWOOD NAILED TO FRAMING, 10d NAILS SHALL BE SPACED AT 4" OC, UNLESS NOTED OTHERWISE AT EDGES, 10" OC AT INTERMEDIATE SUPPORTS, UNLESS SHOWN OTHERWISE.
- ALL OPENINGS SHALL BE FRAMED WITH DOUBLE MEMBERS UNLESS OTHERWISE NOTED ON PLANS.
- ALL ENGINEERED LUMBER SHALL CONFORM WITH THE FOLLOWING ALLOWABLE UNIT STRESSES UNLESS OTHERWISE NOTED:
TRUS JOIST WEYERHAEUSER
LAMINATED VENEER LUMBER (LVL)
MODULUS OF ELASTICITY, MIN. E = 1,900,000 psi
BENDING, SINGLE USE F_b = 2,500
COMPRESSION PARALLEL TO GRAIN F_c (Par.) = 2,510
HORIZONTAL SHEAR F_v = 285
COMPRESSION PERPENDICULAR TO GRAIN F_c (Per.) = 750
- BUILT-UP LVL'S TO BE CONSTRUCTED PER MANUFACTURER'S SPECIFICATIONS.
- ALL PENETRATIONS THROUGH ENGINEERED LUMBER SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING.
- ALL EXPOSED LANDING/STAIR FRAMING TO BE PRESSURE TREATED WOOD.
- ALL EXPOSED FRAMING CONNECTORS AND NAILS TO BE STAINLESS STEEL, OR OTHER FINISH APPROVED BY ENGINEER.
- INSTALL BLOCKING BETWEEN JOISTS AT ALL SUPPORTS.

NAILING SCHEDULE

CONNECTION	NAILING
JOIST TO SILL OR GIRDER, TOE NAIL	3-8d
BRIDGING TO JOIST, TOE NAIL EACH END	2-8d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" OC
TOP PLATE TO STUD, END NAIL	2-16d
STUD TO SOLE PLATE, TOE NAIL	4-8d
DOUBLED STUDS, FACE NAIL	16d AT 24" OC
DOUBLED TOP PLATES, FACE NAIL	16d AT 16" OC
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
CONTINUOUS HEADER, TWO PIECES	16d AT 16" OC
	ALONG EACH EDGE
CEILING JOISTS TO PLATE, TOE NAIL	3-8d
CONTINUOUS HEADER TO STUD, TOE NAIL	4-8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
RAFTER TO PLATE, TOE NAIL	3-8d
BUILT-UP CORNER STUDS	16d AT 24" OC
BUILT-UP GIRDER AND BEAMS (U.O.N.)	20d AT 32" OC AT TOP AND BOTTOM AND STAGGERED
	2-20d AT ENDS AND AT EACH SPLICE
PLYWOOD: UNLESS OTHERWISE NOTED	
STURD-I-FLOOR	
PLYWOOD SHEATHING	
3/4" TONGUE AND GROOVE	8d
WALL SHEATHING	
1/2"	8d

NOTES:
SCHEDULE BASED UPON COMMON WIRE NAILS.
LARGER NAIL SIZES REQUIRED FOR BOX OR PNEUMATIC DRIVEN FASTENERS.
SUBSTITUTING PNEUMATIC NAILS OF EQUAL DIAMETER OR LARGER IS ACCEPTABLE.
SUBMIT PRODUCT DATA AND ALL PERTINENT EVALUATION REPORTS FOR ALL PROPOSED FASTENERS IF DIFFERENT THAN INDICATED ON THE STRUCTURAL DRAWINGS.

COMMON WIRE NAIL DIAMETERS

6d	0.113"
8d	0.131"
10d	0.148"
12d	0.148"
16d	0.162"
20d	0.192"

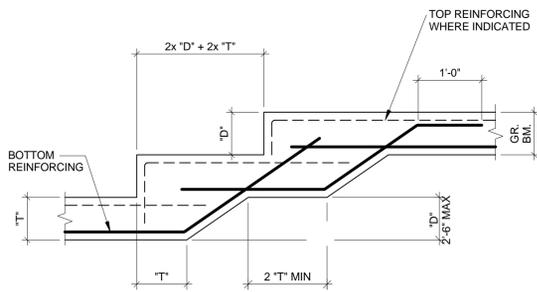
NOTE:

REFER TO GNCB CONSULTING ENGINEER'S MARCH 3, 2016 GEOTECHNICAL REPORT FOR A DESCRIPTION OF SOIL CONDITIONS.

IN THE EVENT THAT UNSUITABLE SOILS SUCH AS MAN PLACED FILL OR ORGANIC SOILS ARE ENCOUNTERED AT THE FOOTING LEVEL, UNSUITABLE SOILS SHOULD BE REMOVED AND REPLACED BY AN OFF-SITE COMPACTED STRUCTURAL FILL.

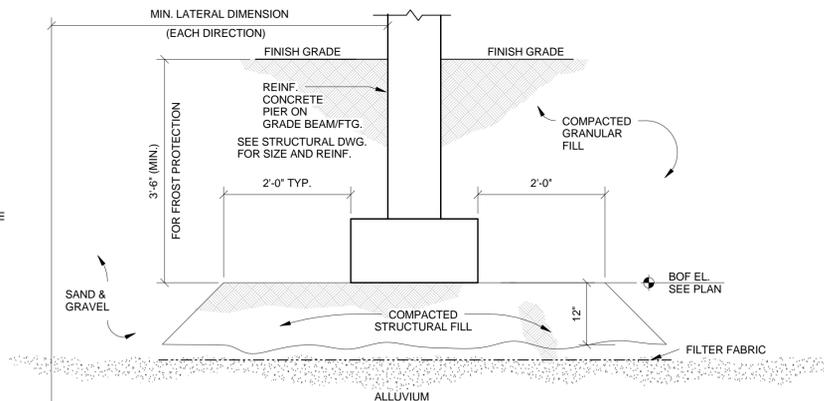
DEWATER AS REQUIRED TO COMPLETE WORK IN-THE-DRY.

LIMITS OF COMPACTED STRUCTURAL FILL BELOW GRADE BEAM/FOOTINGS



TYPICAL STEPPED GRADE BEAM/FOOTING DETAIL

TYPICAL STEPPED GRADE BEAM/ FOOTING DETAIL



APPLY AT ALL TYPICAL AND SIMILAR CONDITIONS

FRAMING CONDITION	CONNECTOR	COMMENTS	GRAPHIC
JOISTS FRAMING TO LEDGER ON FLOOR RIM	LEDGERLOKS AT STAGGERED TOP AND BOTTOM 8" OC		
BEAM AT TOP OF POST			
STAIR LANDING/STAIR POST BASE			
TYPICAL EXTERIOR STAIR FRAMING			

REFERENCE IS MADE TO THE FOLLOWING INFORMATION:

ARCHITECTURAL DRAWINGS:

PREPARED BY: CAPITAL STUDIO ARCHITECTS LLC
EAST HARTFORD, CT

TITLE: GENERAL RENOVATIONS FRASCARELLI RESIDENCE
32 MASSACHUSETTS ROAD
SOUTH LYME, CT 06376

DATED: MAY 2, 2016

PROPERTY SURVEY:

PREPARED BY: DESIGN PROFESSIONALS, INC.
SOUTH WINDSOR, CT

TITLE: PROPERTY & TOPOGRAPHIC SURVEY
FRASCARELLI
32 MASSACHUSETTS ROAD
OLD LYME, CONNECTICUT

PREPARED FOR: RICHARD J. SR. & RICHARD J. JR.
& MICHELLE FRASCARELLI
P.O. BOX 64
SOUTH LYME, CONNECTICUT 06376

DATED: 12/7/2015



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

GENERAL RENOVATIONS for the FRASCARELLI RESIDENCE APPLICATION No. 2440 32 MASSACHUSETTS ROAD SOUTH LYME, CT 06376

Consultants:

GNCB CONSULTING ENGINEERS, P.C.
130 ELMA STREET
POST OFFICE BOX 802
OLD SAYBROOK
CONNECTICUT 06475
PHONE: 860.388.1224
FAX: 860.388.4613
GNCBENGINEERS.COM

date	description	no.
	revisions	

FLOOD ZONE
ELEVATED FOUNDATION

CONSTRUCTION PHASE

GENERAL NOTE & TYPICAL DETAILS

S1.0

date	05 MAY 2016
drawn	RLB
scale	As indicated
checked	CCB
project no.	1347-51 GNCB#
application no.	2440 Project
	Number 15013

**THE STATE OF CONNECTICUT
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GENERAL RENOVATIONS for the FRASCARELLI RESIDENCE
APPLICATION No. 2440
32 MASSACHUSETTS ROAD
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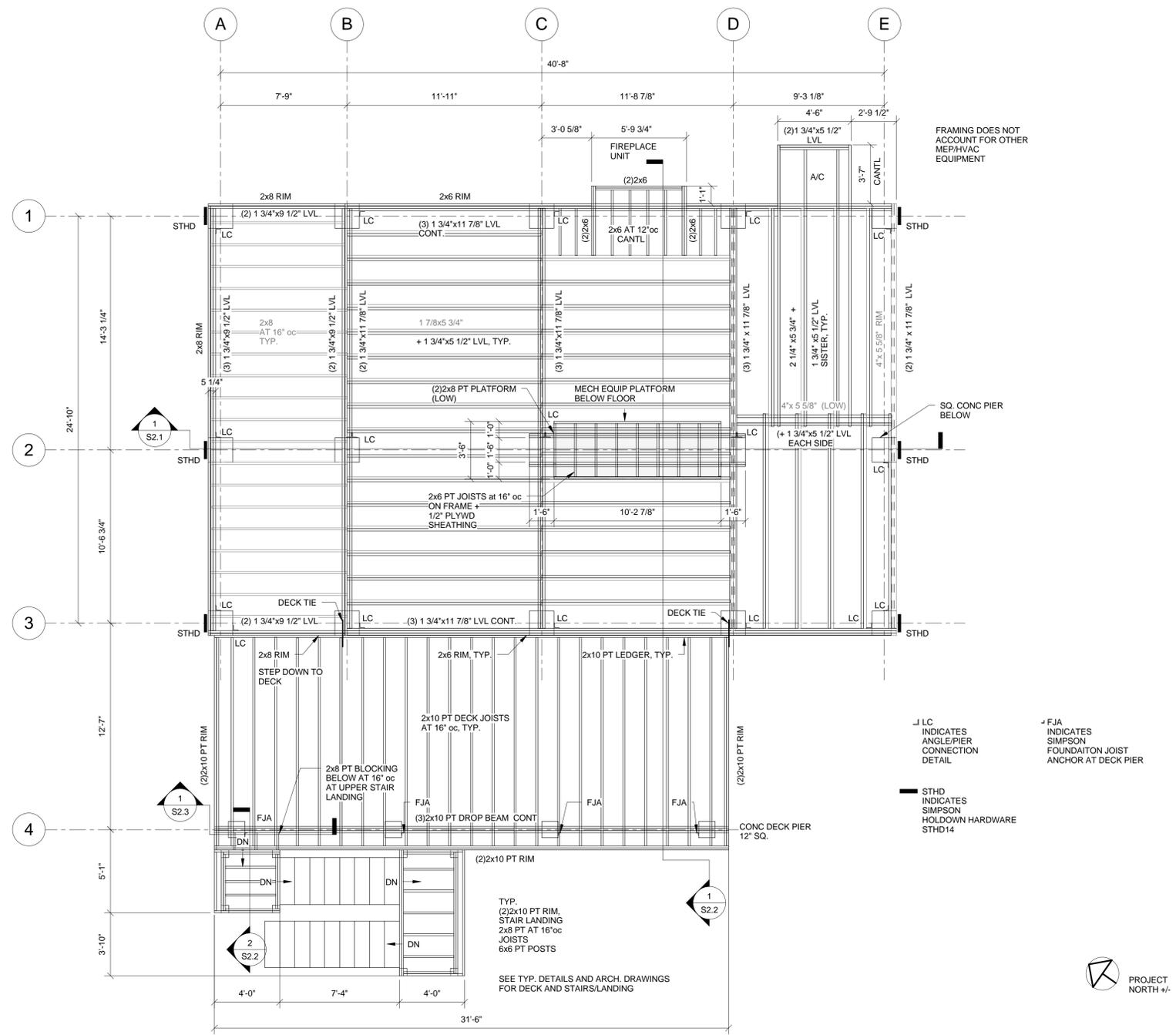
Consultants:
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CONSTRUCTION PHASE
FIRST FLOOR FRAMING PLAN

S1.2

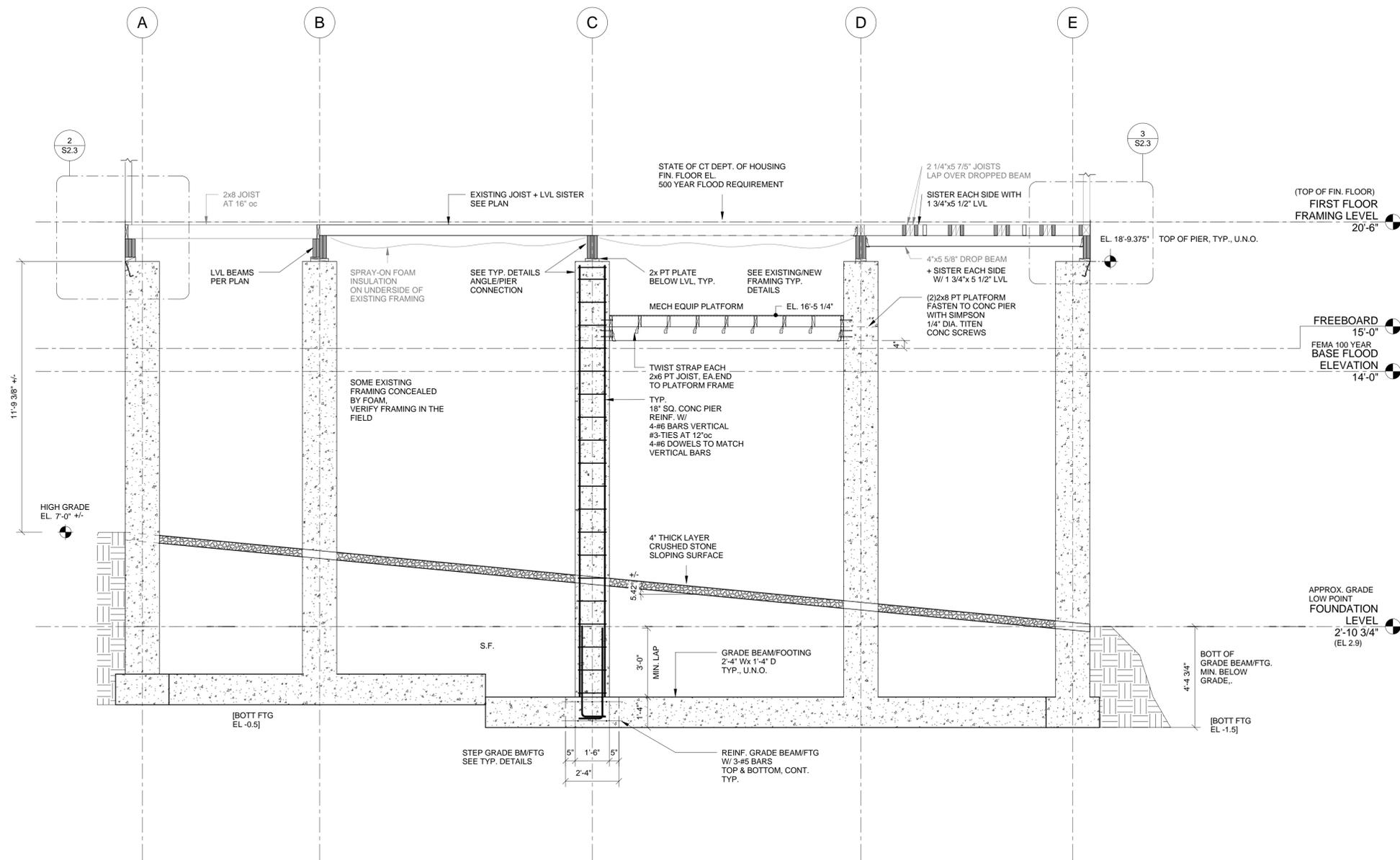
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application no.	2440 Project Number 15013



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

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

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1 SECTION 1/S2.1
3/8" = 1'-0"

Consultants:

GNCB 130 ELM STREET
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FAX: 860.388.4613
GNCBENGINEERS.COM

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CONSTRUCTION PHASE

SECTION

S2.1

date	05 MAY 2016
drawn	RLB
scale	As indicated
checked	CCB
project no.	1347-51 GNCB#
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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)

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Consultants:
GNCB CONSULTING ENGINEERS, P.C.
130 ELMA STREET POST OFFICE BOX 802 OLD SAYBROOK CONNECTICUT 06475
PHONE: 860.388.1224 FAX: 860.388.4613 GNCBENGINEERS.COM

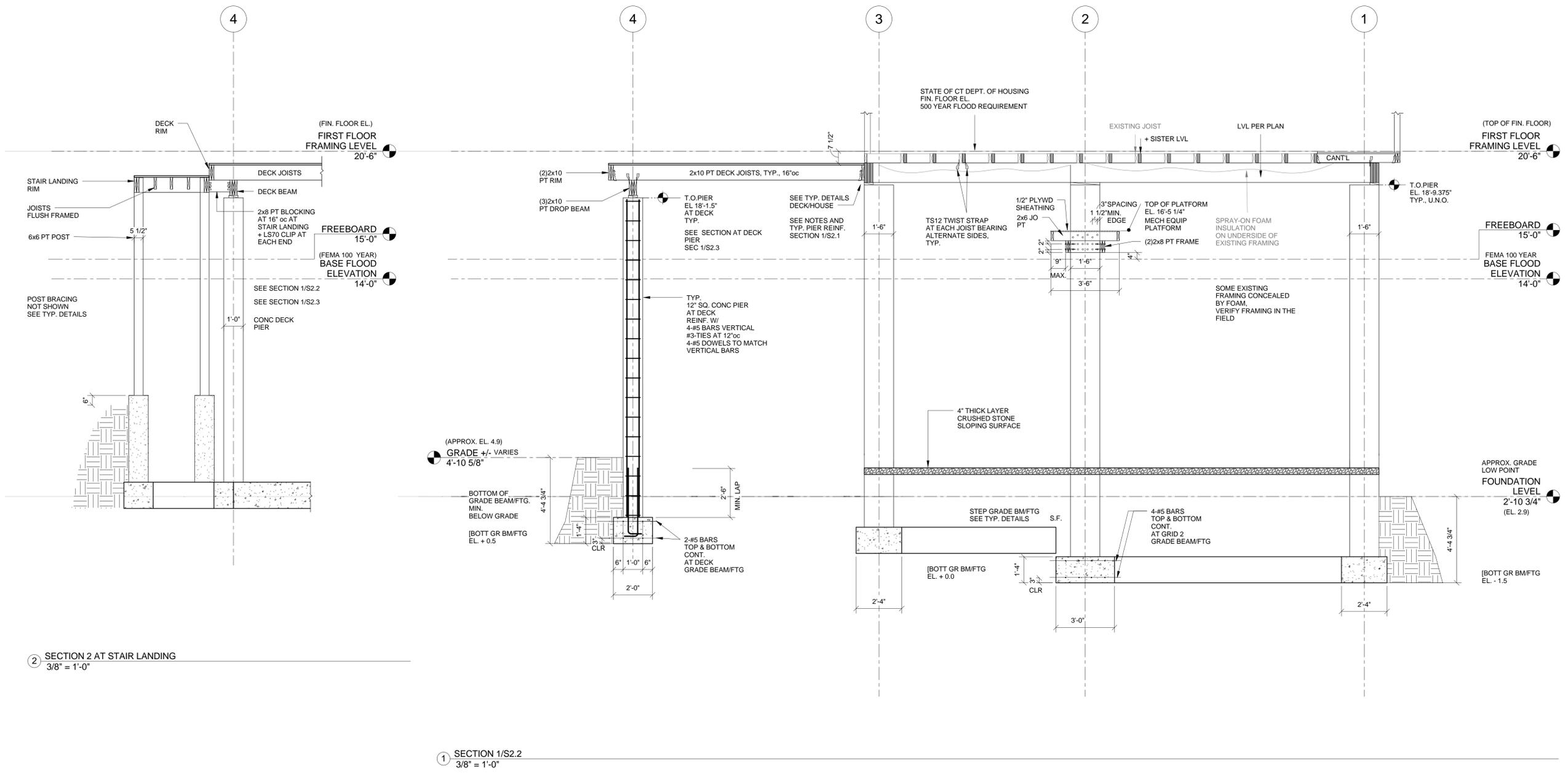
date	description	no.
revisions		

CONSTRUCTION PHASE

SECTION

S2.2

date	05 MAY 2016
drawn	RLB
scale	As indicated
checked	CCB
project no.	1347-51 GNCB#
application no.	2440 Project Number 15013



SECTION 2 AT STAIR LANDING
3/8" = 1'-0"

SECTION 1/S2.2
3/8" = 1'-0"

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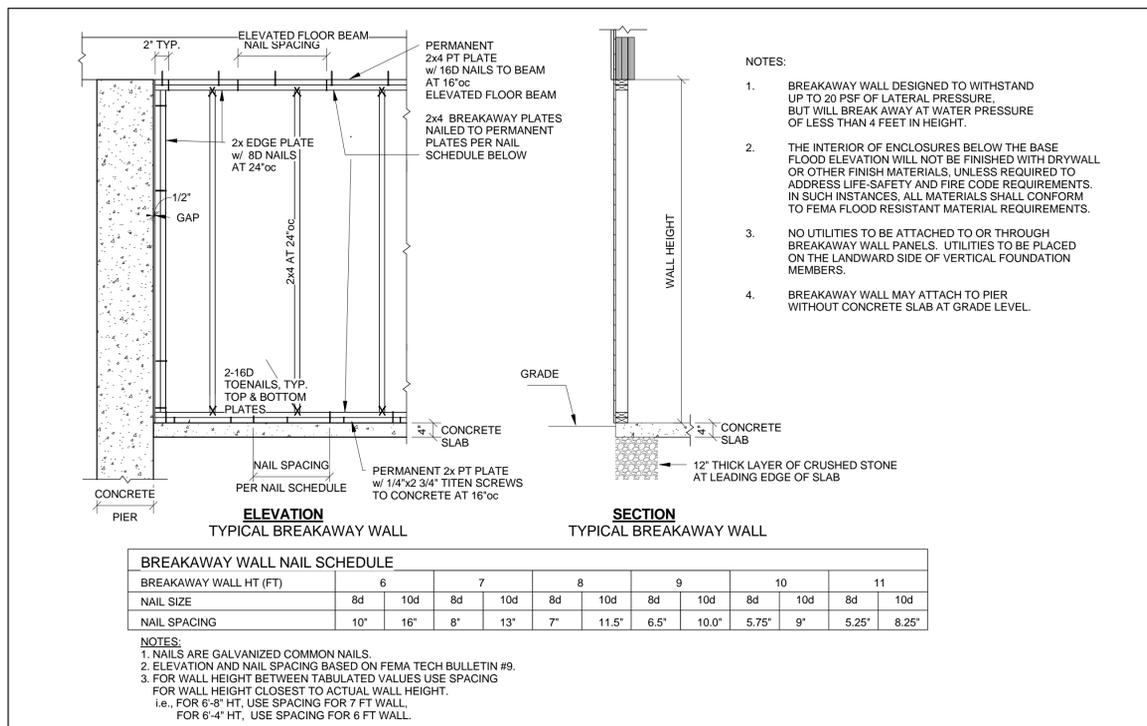
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CONSTRUCTION PHASE

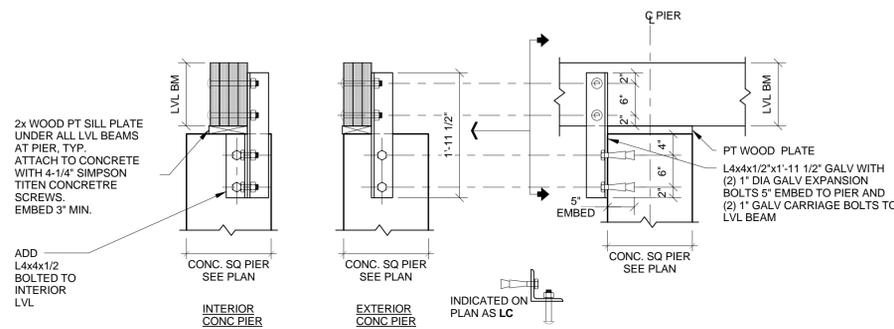
TYPICAL DETAILS

S2.3

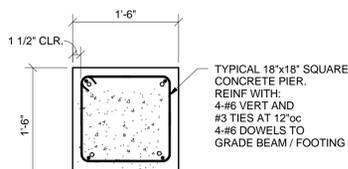
date	05 MAY 2016
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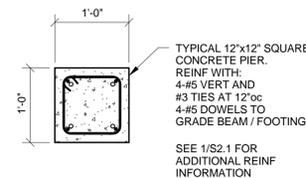
BREAKAWAY WALL



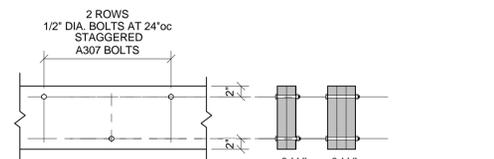
BEAM TO CONCRETE PIER CONNECTION (ANGLE)



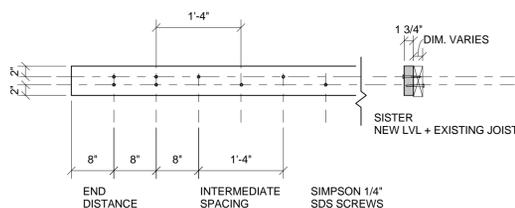
18"x18" CONCRETE PIER PLAN VIEW



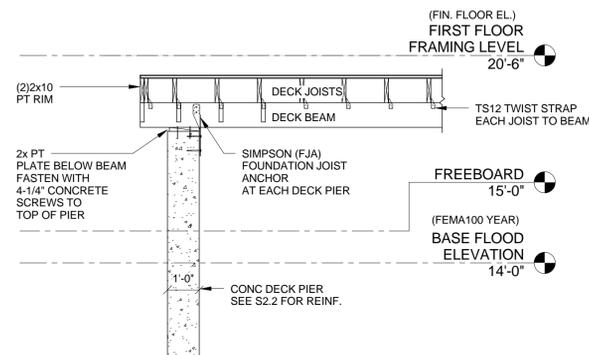
12"x12" CONCRETE PIER PLAN VIEW



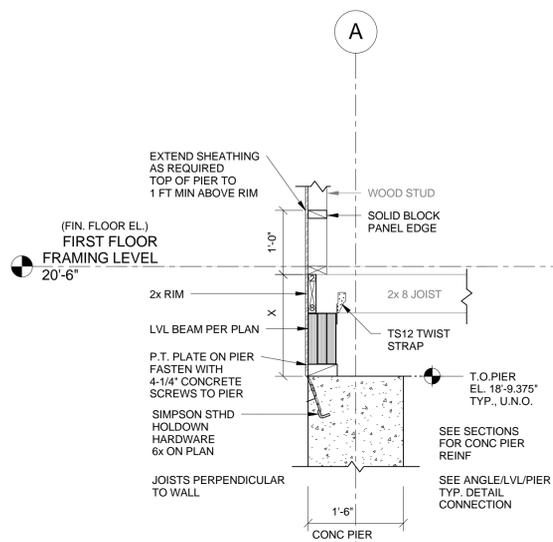
LVL MULTI MEMBER CONNECTION



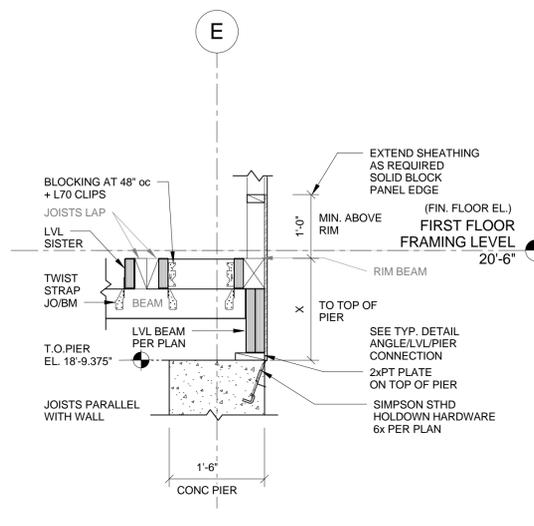
SISTER JOIST DETAIL



① SECTION AT DECK PIER 3/8" = 1'-0"



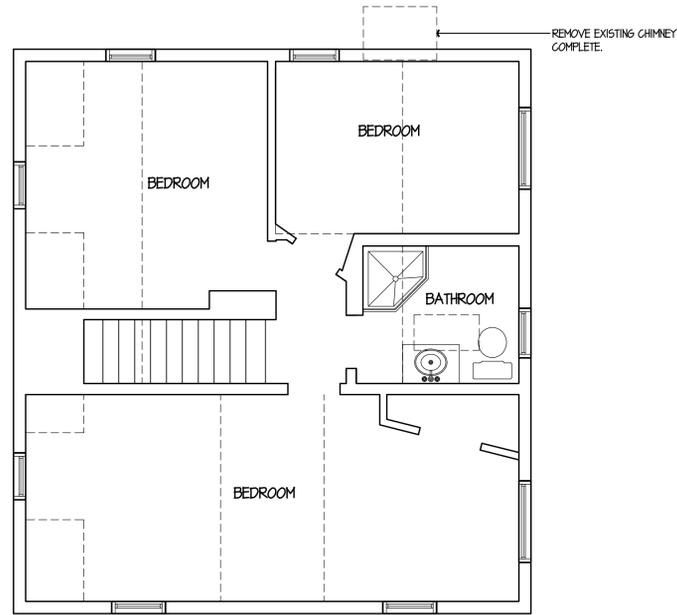
② TYP. EXISTING FLOOR TO NEW BEAM CONNECTION - PERPENDICULAR 3/4" = 1'-0"



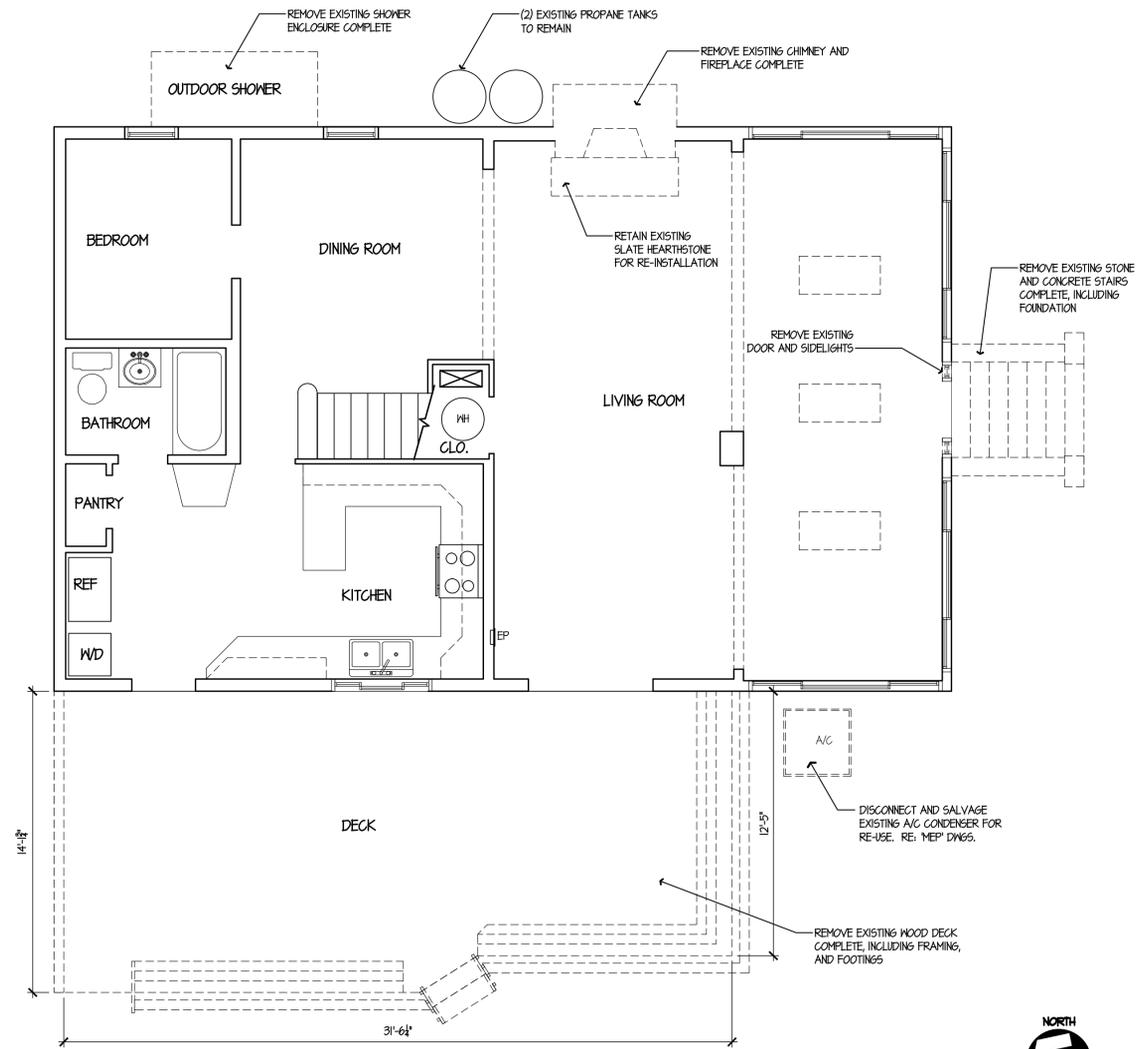
③ TYP. EXISTING FLOOR TO NEW BEAM CONNECTION - PARALLEL 3/4" = 1'-0"

THE STATE OF CONNECTICUT
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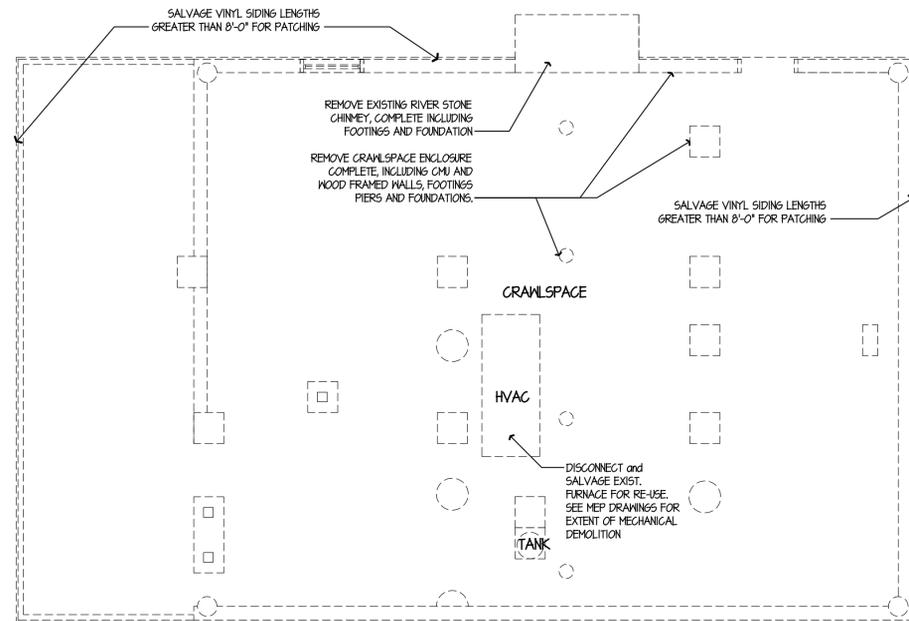
GENERAL RENOVATIONS for the FRASCARELI RESID.
APPLICATION No. 2440
32 Massachusetts Road
South Lyme, CT 06376



2 SECOND FLOOR DEMO PLAN
AD-1.0 1/4" = 1'-0"



1 FIRST FLOOR DEMO PLAN
AD-1.0 1/4" = 1'-0"



3 CRAWLSPACE DEMO PLAN
D-1.0 1/4" = 1'-0"



1. REMOVE WOOD DECK COMPLETE, INCLUDING POSTS, FOOTINGS, UNDER-DECK FEATURES.
2. REMOVE STONE STAIRS COMPLETE INCLUDING FOOTINGS AND FOUNDATIONS.
3. REMOVE CRAWLSPACE COMPLETE, INCLUDING PIERS, FOOTINGS, FOUNDATIONS, DOORS, WINDOWS, WALLS, ETC.
4. REMOVE STONE CHIMNEY AND FIREPLACE, COMPLETE.
5. REMOVE OUTDOOR SHOWER COMPLETE.
6. REFER TO S/MEP DRAWINGS FOR ADDITIONAL DEMOLITION AND EQUIPMENT TO RETAIN.

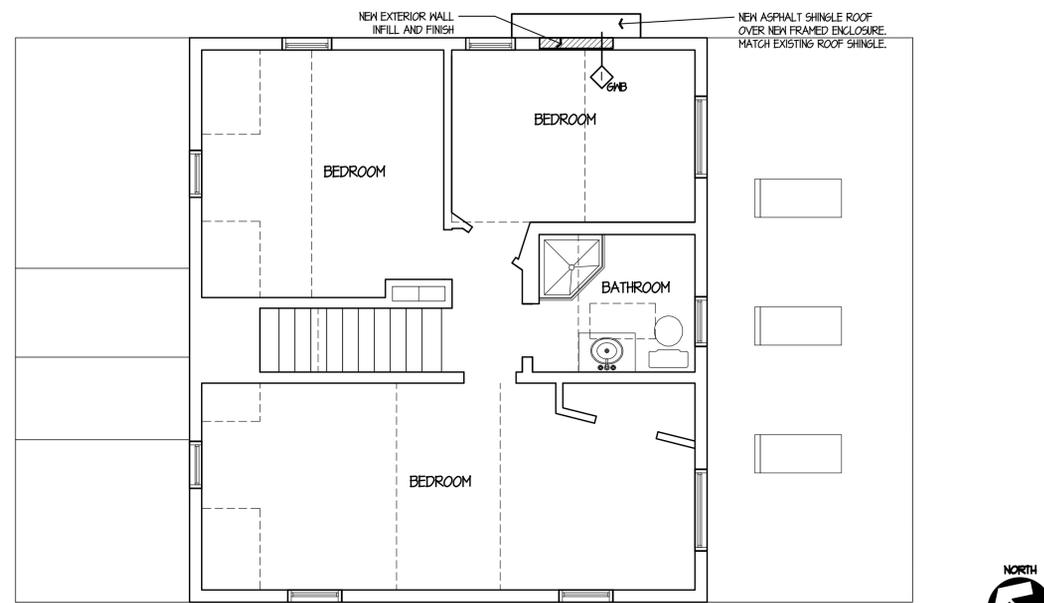
4 SCOPE OF DEMO WORK
AD-1.0 NO SCALE

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	revisions	

ARCHITECTURAL DEMO PLANS

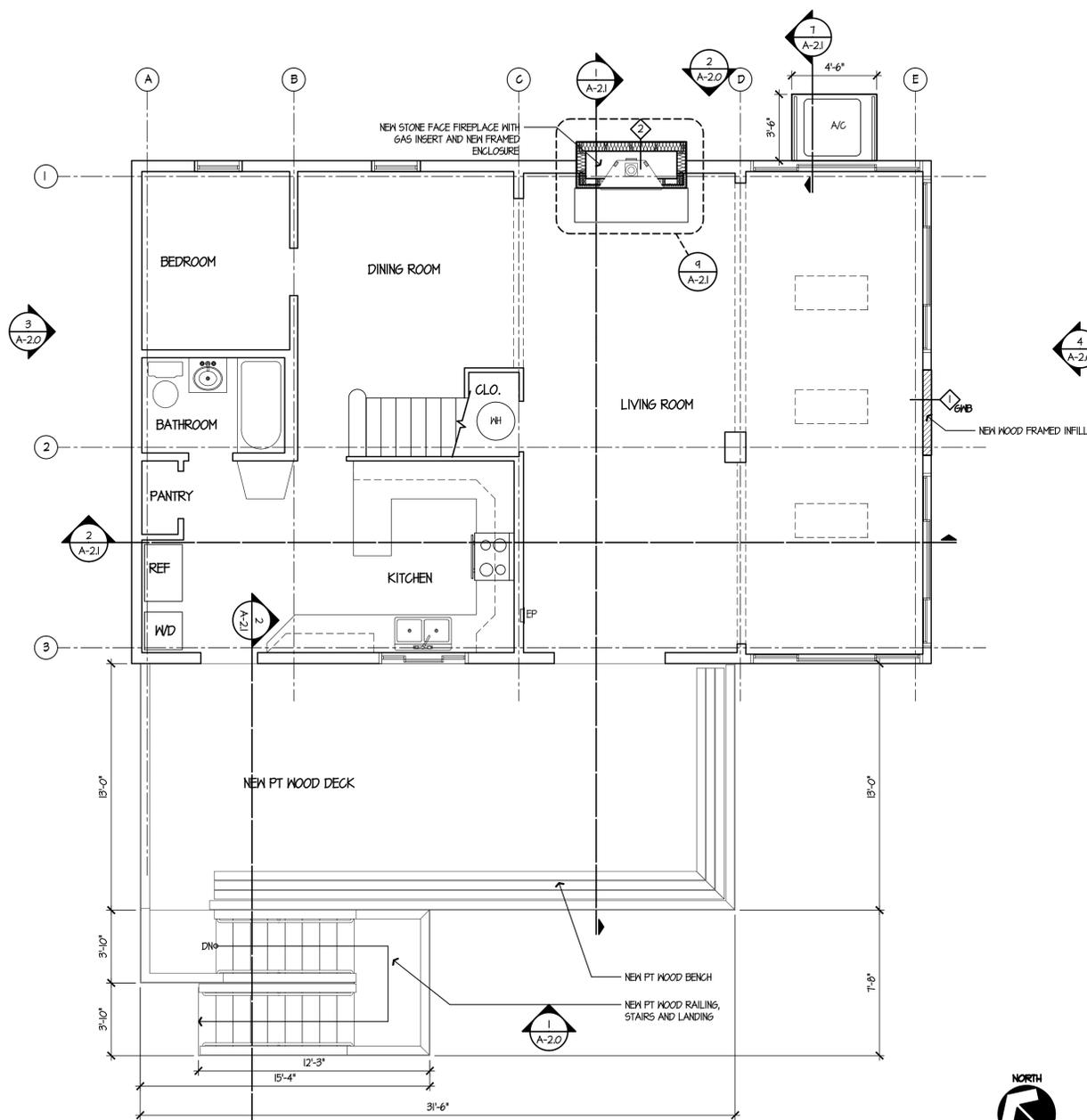
AD-1.0

date	5 MAY 2016
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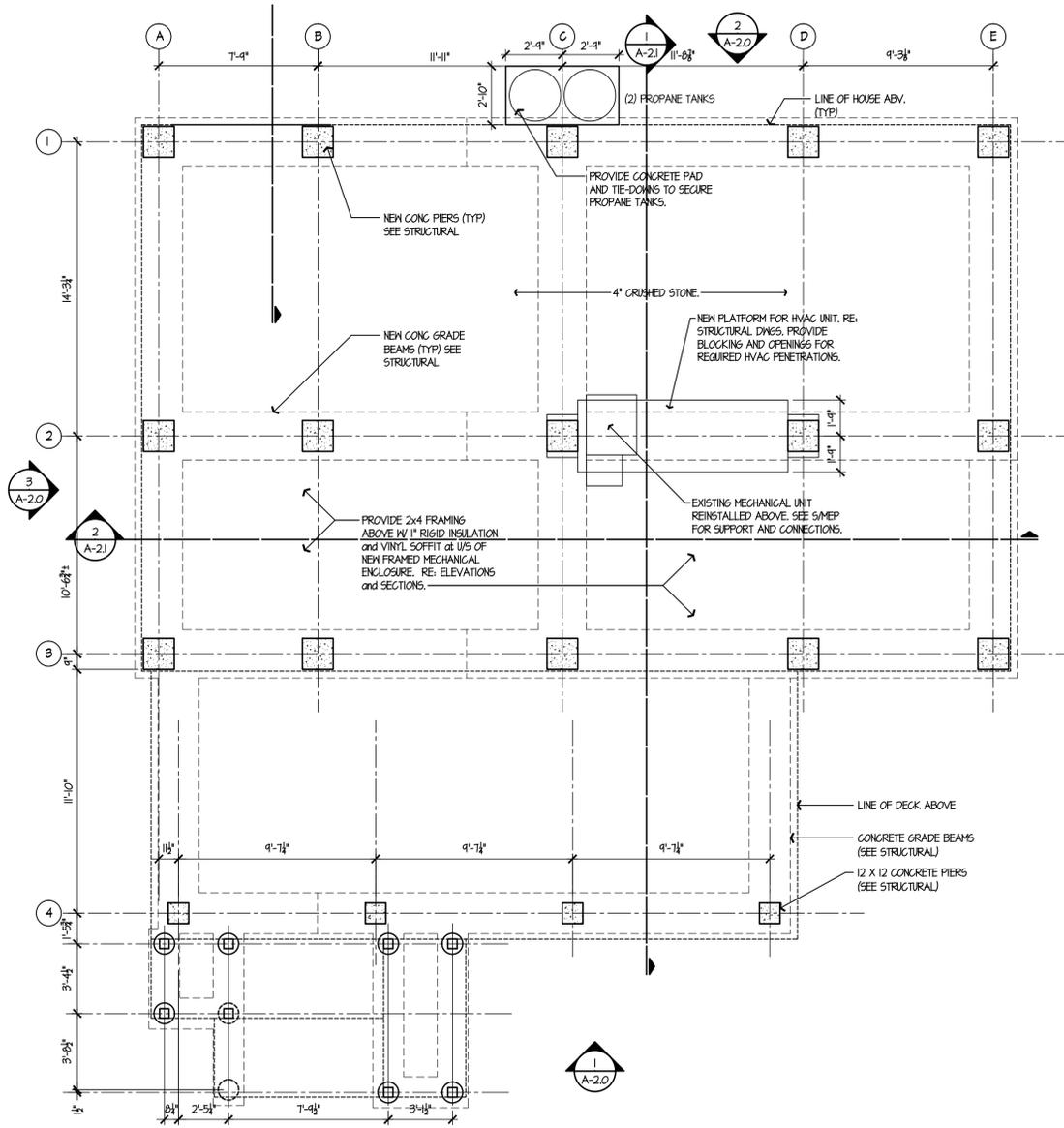
2 SECOND FLOOR PLAN

A-1.0 1/4" = 1'-0"



1 FIRST FLOOR PLAN

A-1.0 1/4" = 1'-0"



3 FOUNDATION PLAN

A-1.0 1/4" = 1'-0"



CAPITAL STUDIO
architects LLC
1379 MAIN STREET EAST HARTFORD CT. 06108
860.289.3262 fax 860.289.3163

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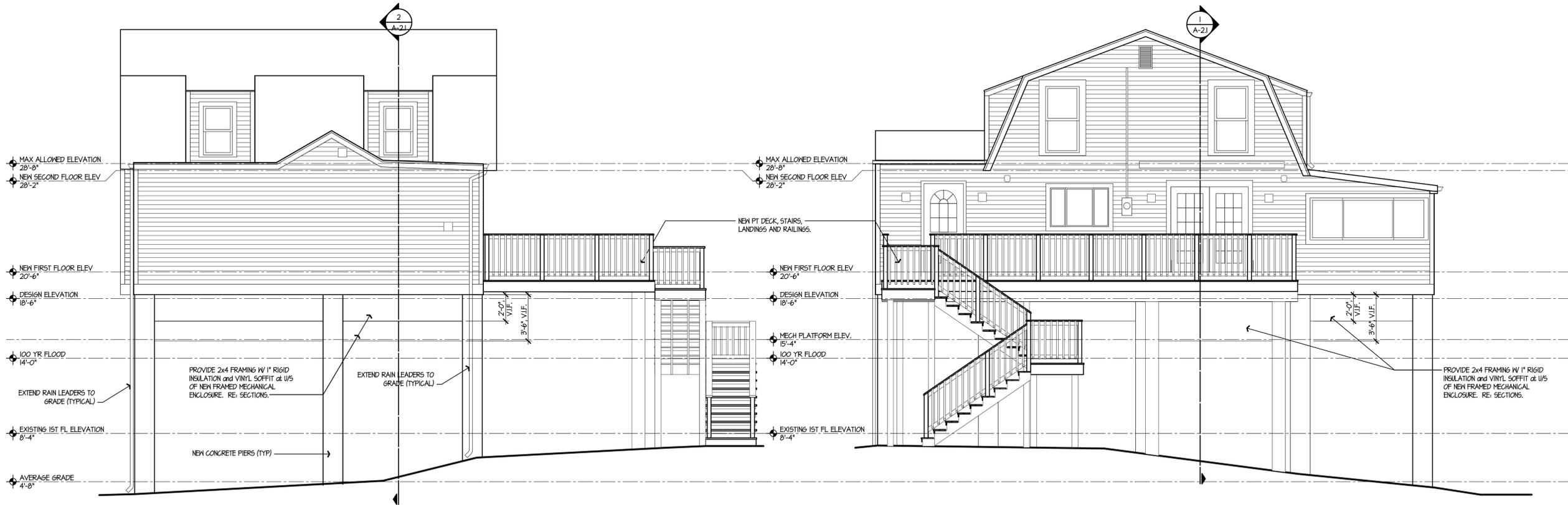
FLOOR PLANS

A-1.0

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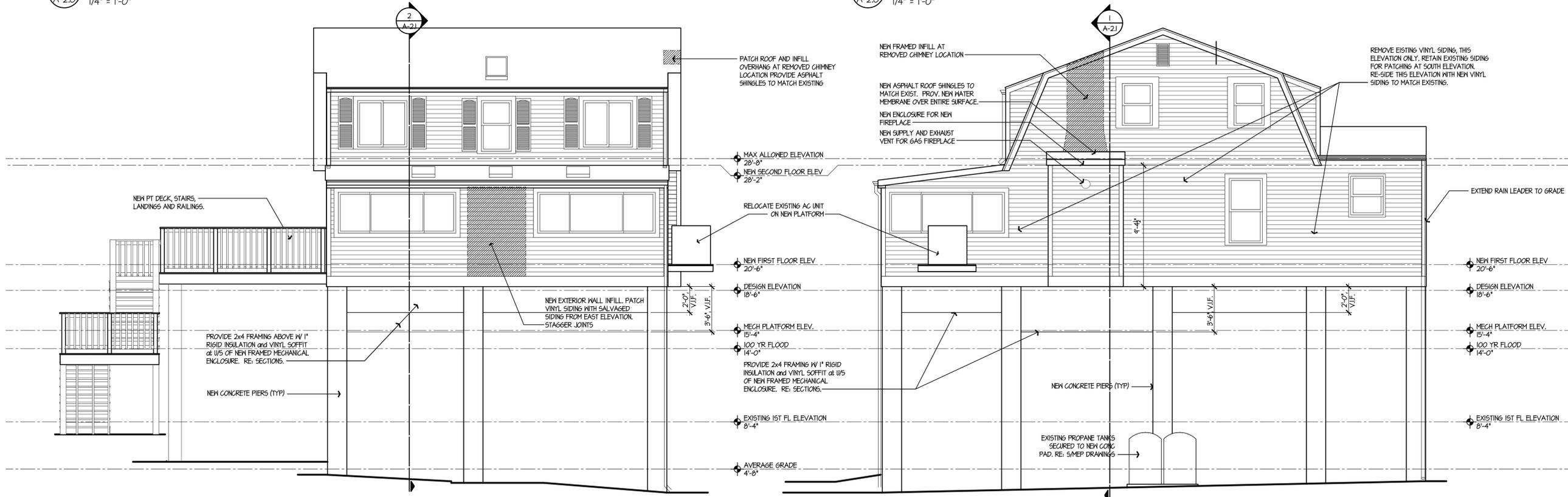
THE STATE OF CONNECTICUT
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3 NORTH ELEVATION
A-2.0 1/4" = 1'-0"

1 WEST ELEVATION
A-2.0 1/4" = 1'-0"



4 SOUTH ELEVATION
A-2.0 1/4" = 1'-0"

2 EAST ELEVATION
A-2.0 1/4" = 1'-0"

date	description	no.
revisions		

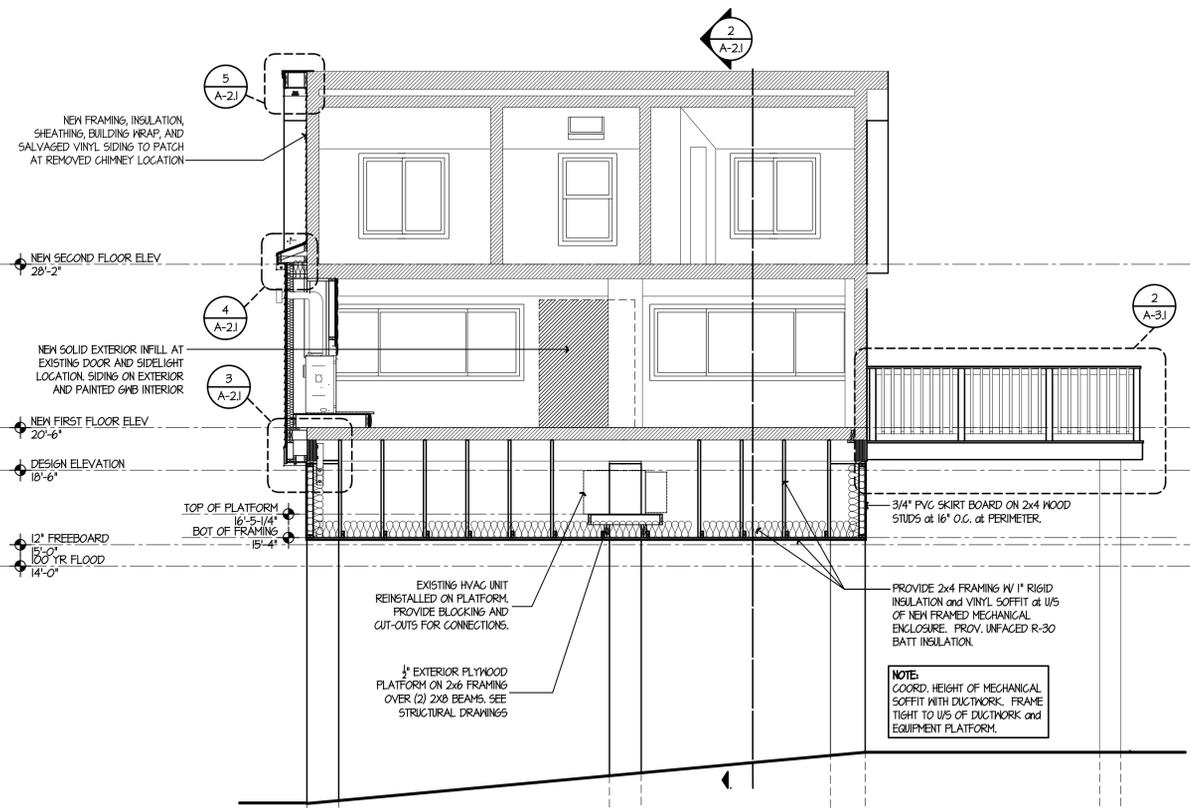
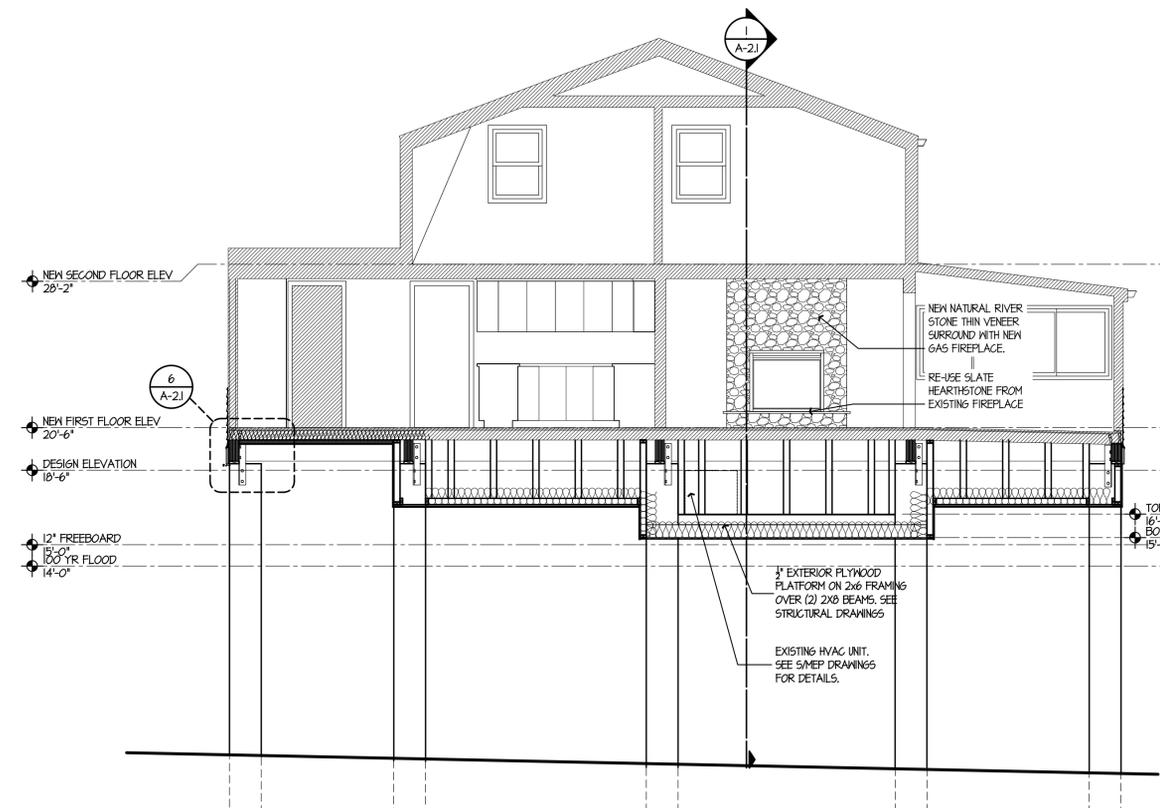
ELEVATIONS

A-2.0

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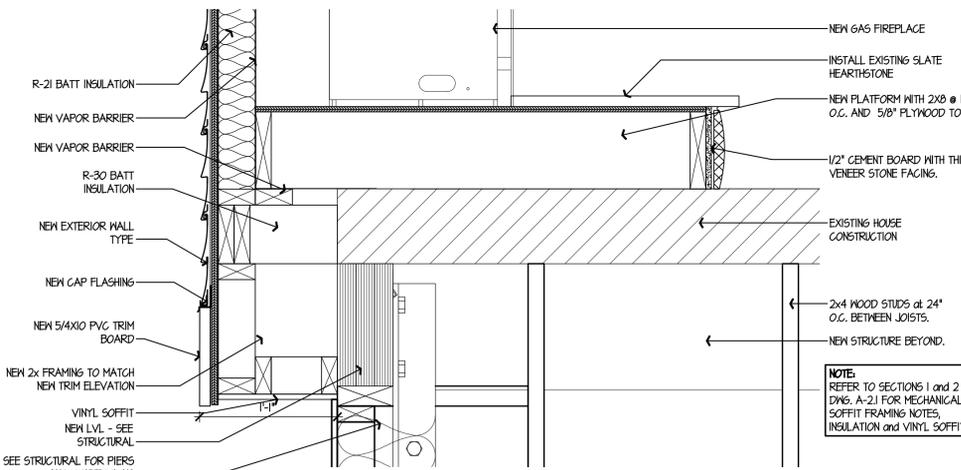
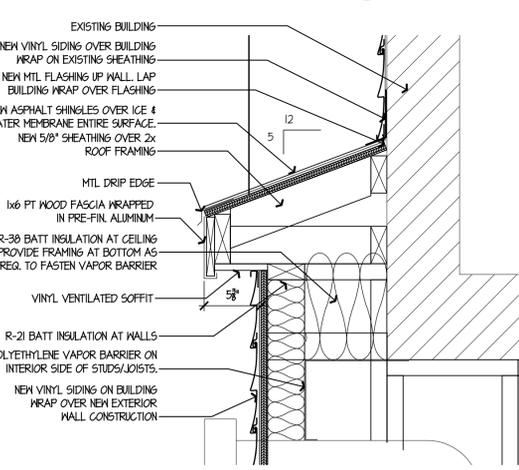
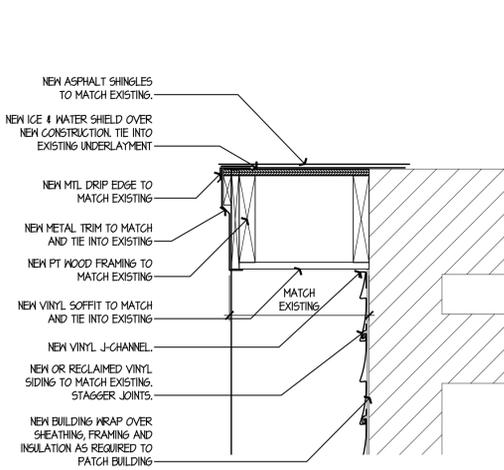
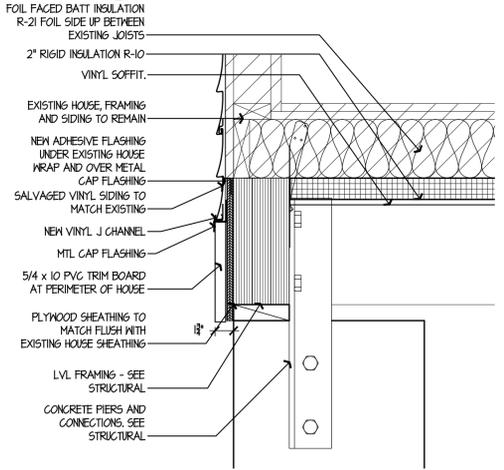
THE STATE OF CONNECTICUT
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GRANT - DISASTER RECOVERY (CDBG-DR)
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2 BUILDING SECTION
A-2.1 1/4" = 1'-0"

1 BUILDING SECTION
A-2.1 1/4" = 1'-0"



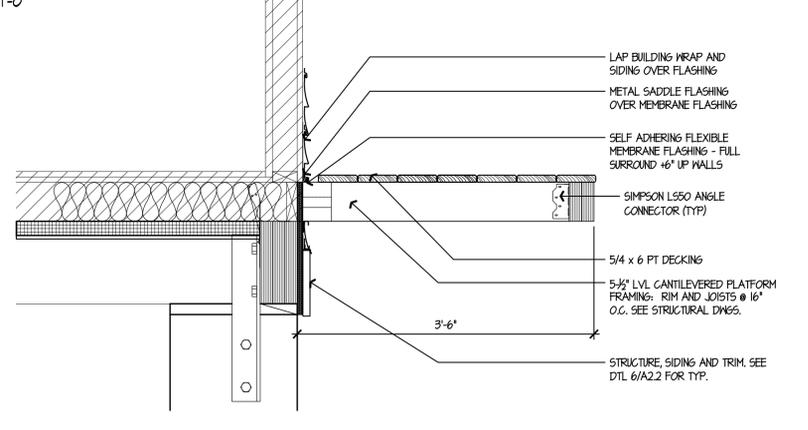
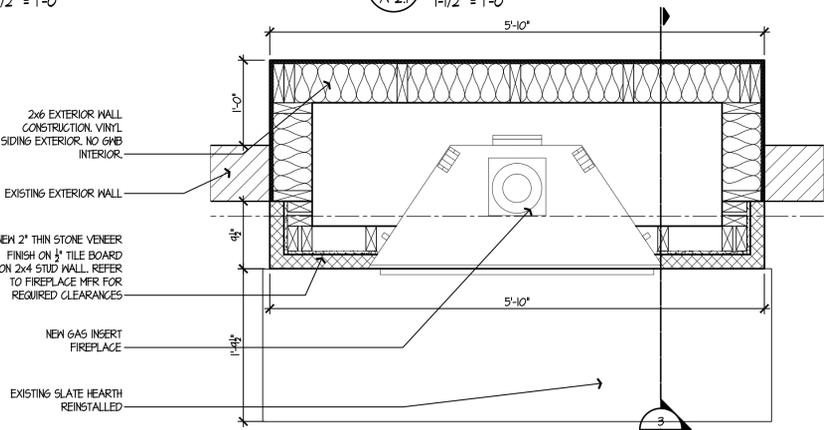
6 TRIM DETAIL
A-2.1 1-1/2" = 1'-0"

5 RAKE DETAIL
A-2.1 1-1/2" = 1'-0"

4 DETAIL
A-2.1 1-1/2" = 1'-0"

3 DETAIL
A-2.1 1-1/2" = 1'-0"

date	description	no.
	revisions	



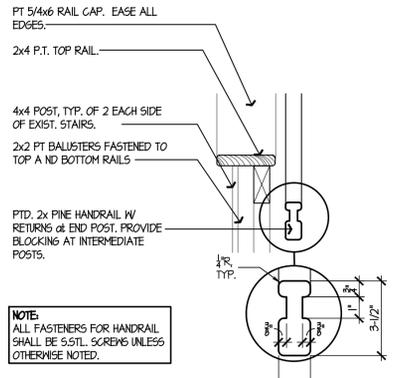
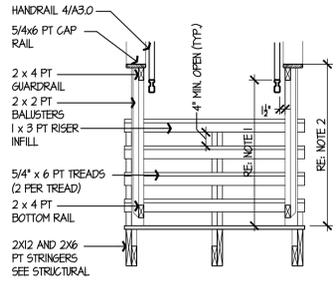
9 FIREPLACE PLAN DETAIL
A-2.1 1" = 1'-0"

7 A/C PLATFORM DETAIL
A-2.1 1" = 1'-0"

SECTIONS and DETAILS

A-2.1

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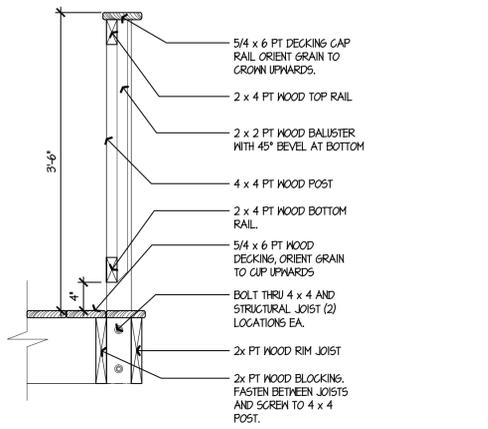


NOTE 1 - HANDRAIL MIN. HEIGHT 34" - MAX HEIGHT 38"
NOTE 2 - GUARDRAIL MIN. HEIGHT 36"
HANDRAIL TO BE LOCATED MIN. 1-1/2" BELOW GUARDRAIL

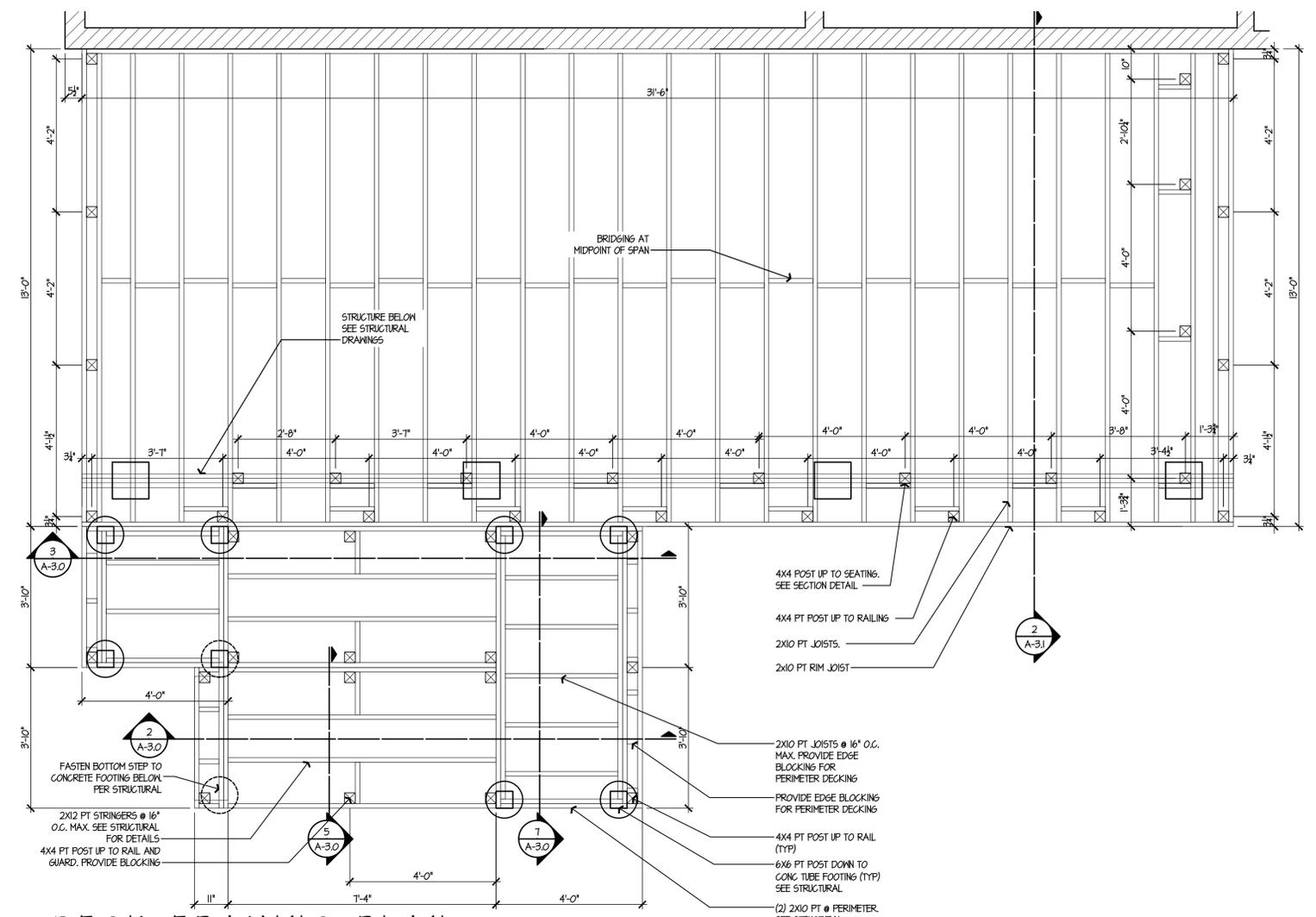
NOTE: ALL FASTENERS FOR HANDRAIL SHALL BE 5/16" SCREWS UNLESS OTHERWISE NOTED.

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

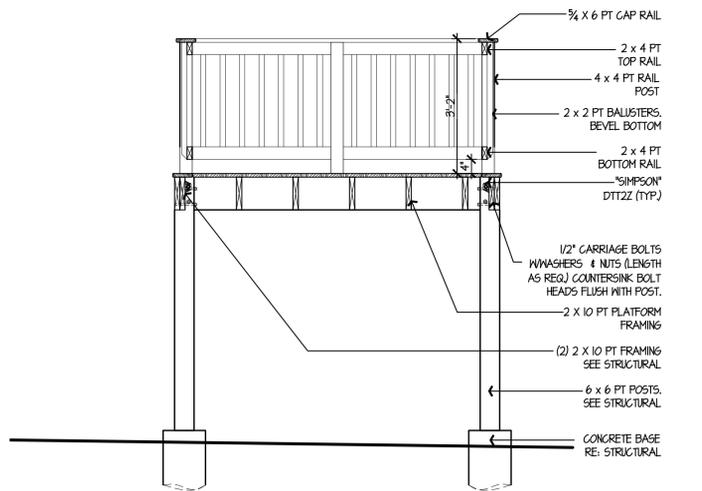
4 HANDRAIL DETAIL
A-3.0 1-1/2" = 1'-0"



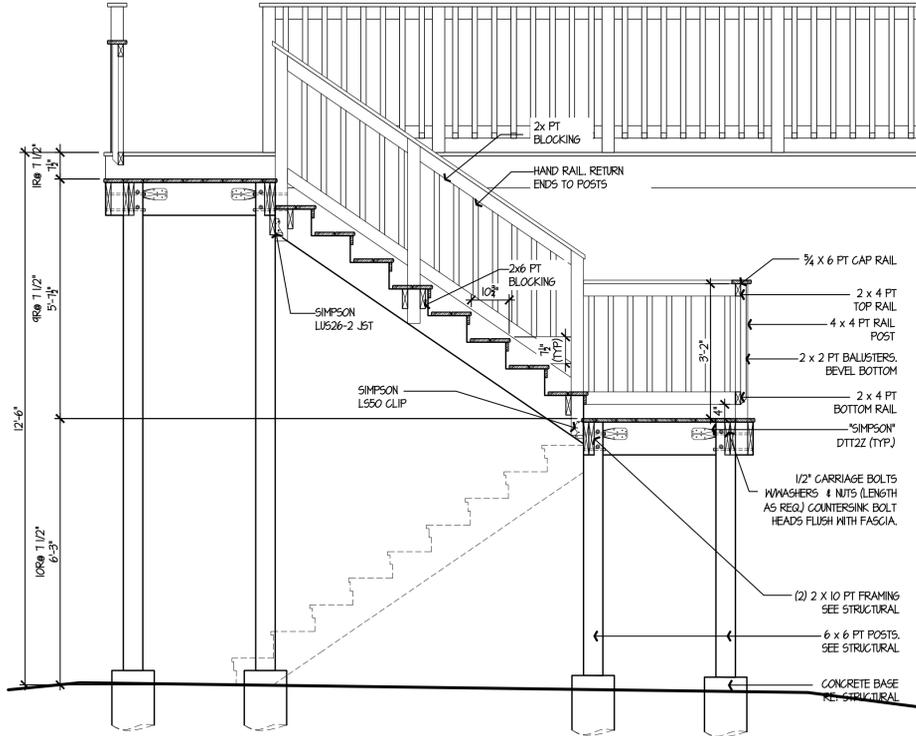
6 GUARD RAIL DETAIL
A-3.0 1" = 1'-0"



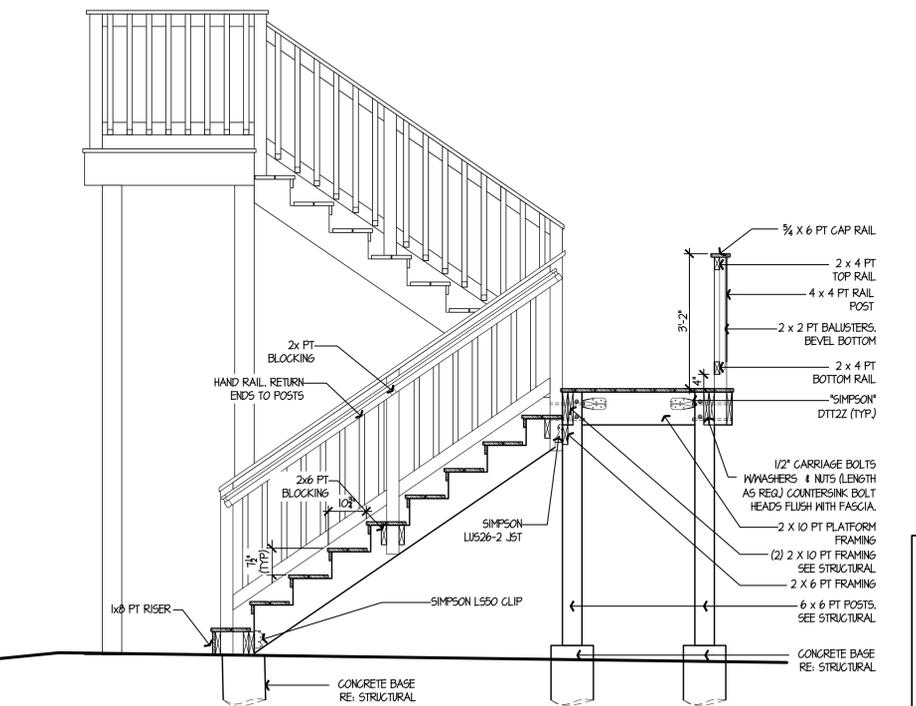
1 DECK FRAMING PLAN
A-3.0 1/2" = 1'-0"



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



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



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

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

GENERAL RENOVATIONS for the
FRASCARELI RESID.
APPLICATION No. 2440
32 Massachusetts Road
South Lyme, CT 06376

date	description	no.
revisions		

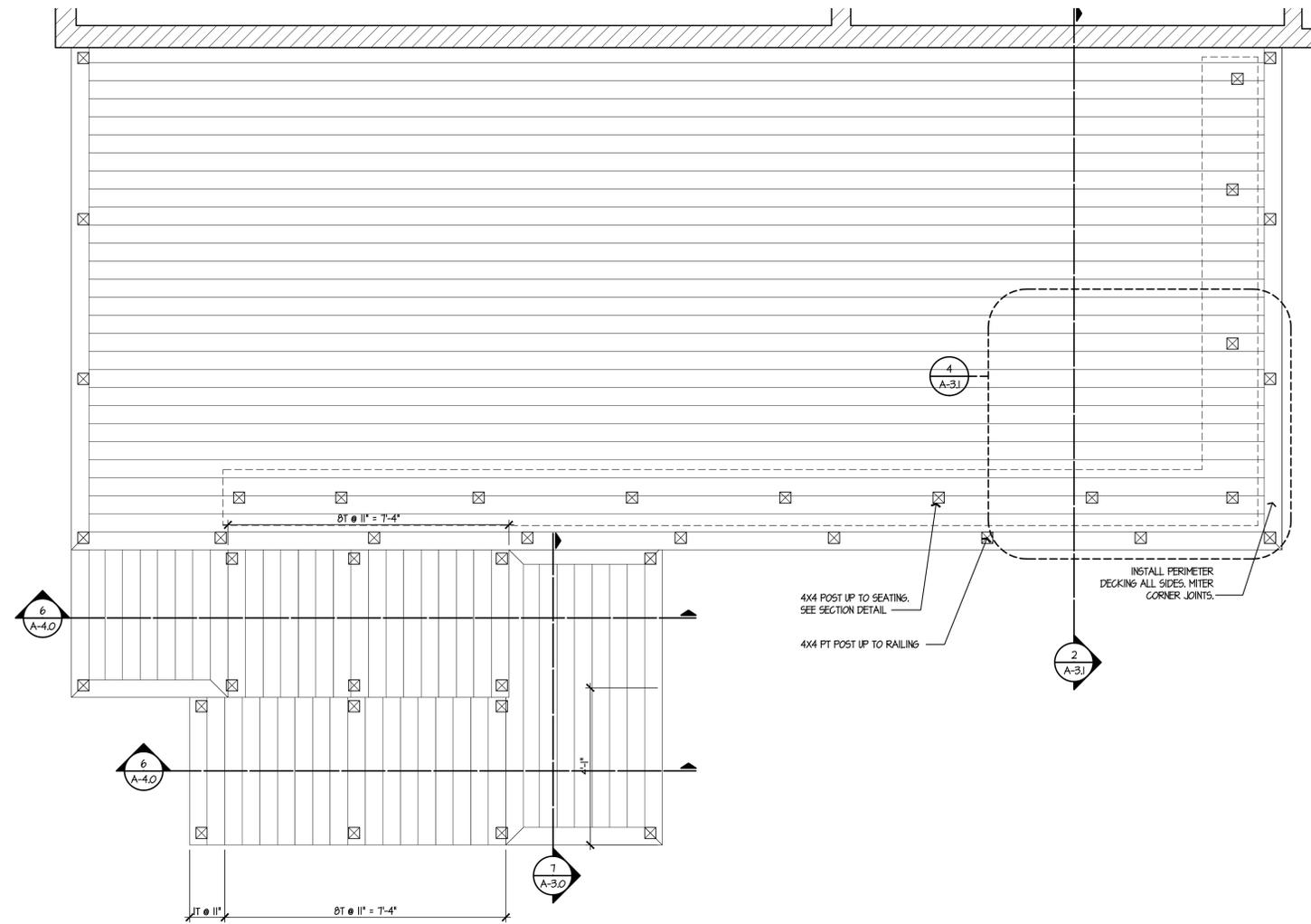
DECK AND STAIR DETAILS

A-3.0

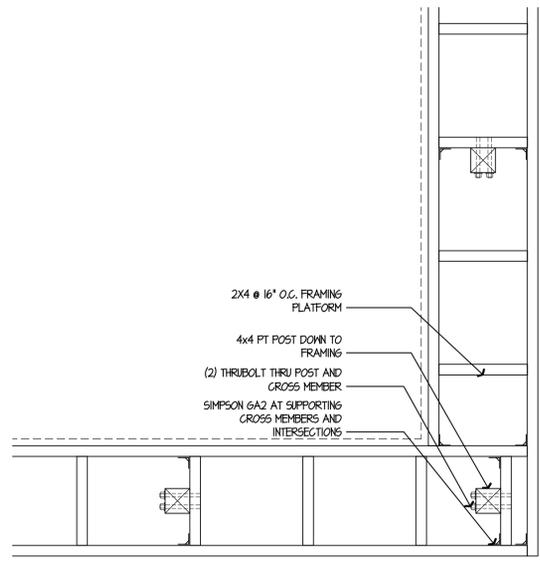
date	5 MAY 2016
drawn	PSR
scale	AS SHOWN
checked	JP/DH
project no.	1347-51
application no.	2440

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

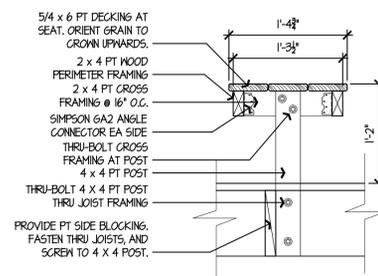
GENERAL RENOVATIONS for the FRASCARELI RESID.
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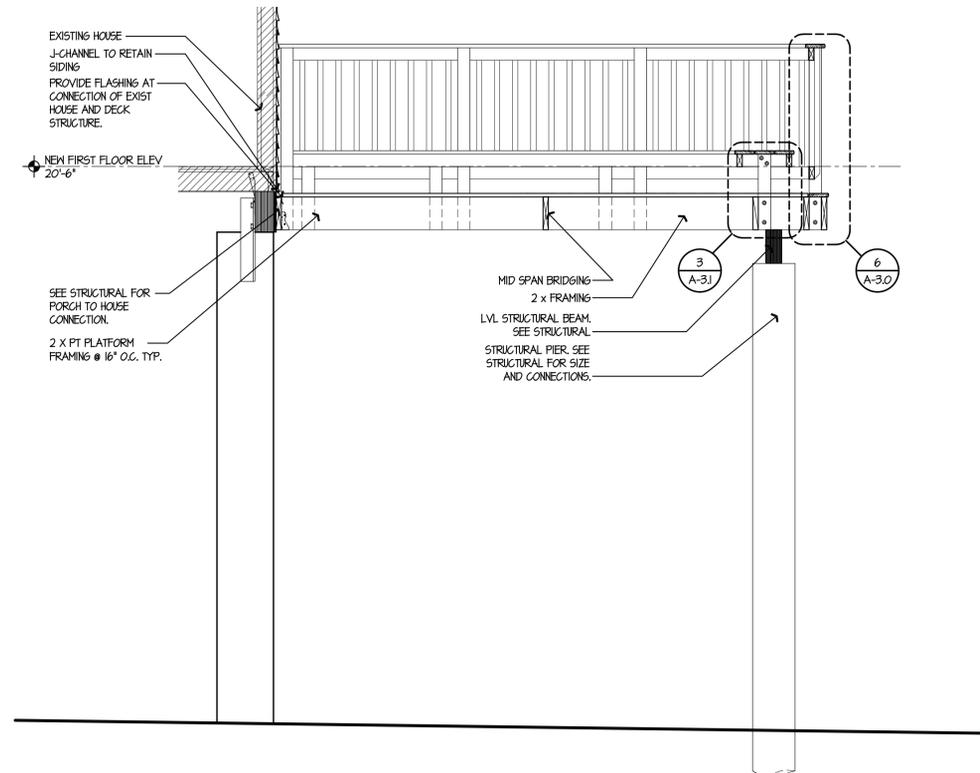
1 DECKING PLAN
A-3.1 1/2" = 1'-0"



4 DECK SEATING FRAMING
A-3.1 1" = 1'-0"



3 DECK SEATING DETAIL
A-3.1 1" = 1'-0"



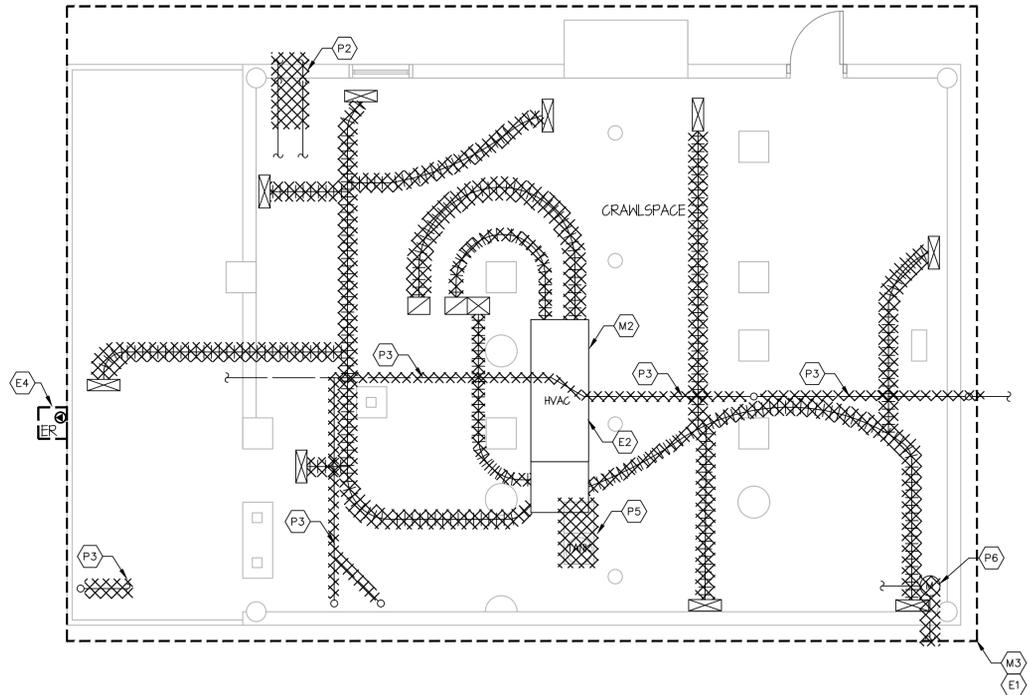
2 DECK SECTION
A-3.1 SCALE: 1/2" = 1'-0"

date	description	no.
revisions		

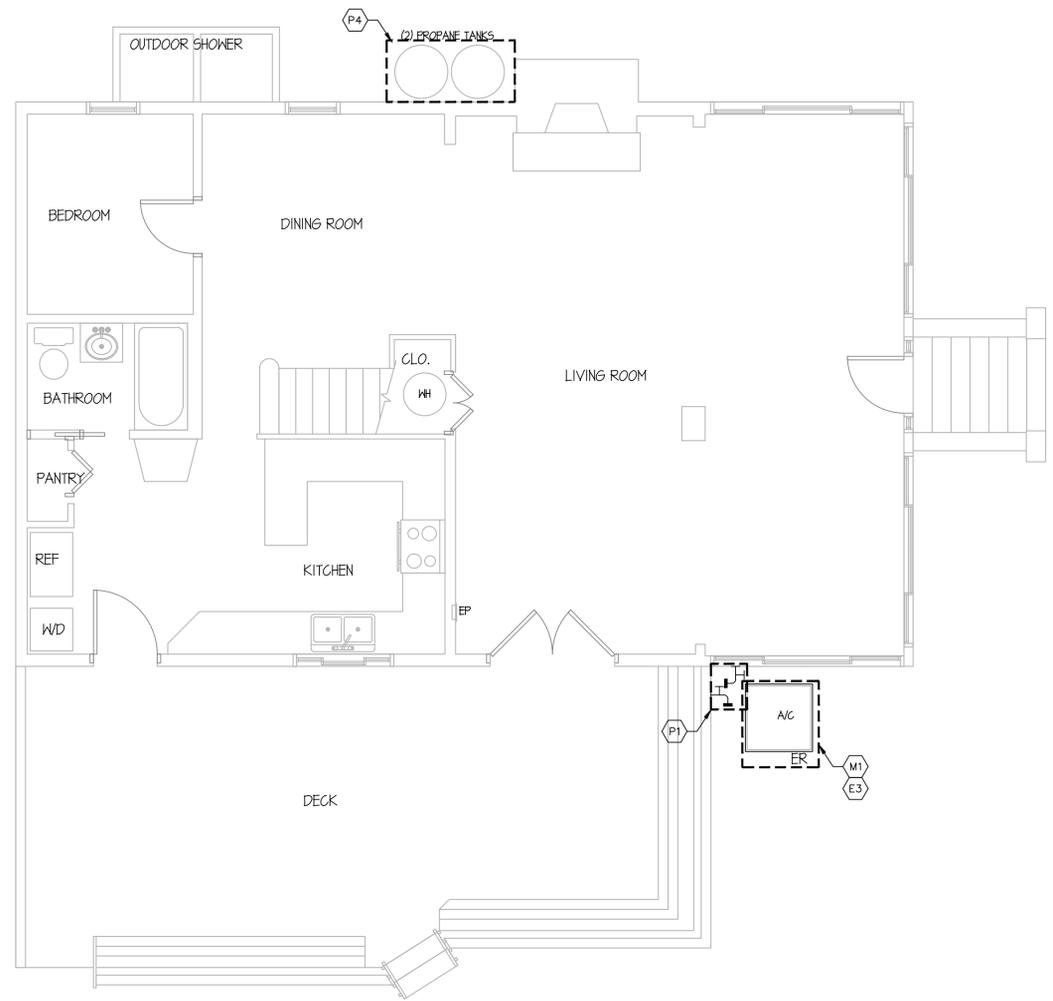
DECK AND MISC. DETAILS

A-3.1

date	5 MAY 2016
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application no.	2440



1 CRAWLSPACE PLAN
MEP-1.0 SCALE: 1/4" = 1'-0"



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

PLUMBING DEMOLITION KEY NOTES

- (P1) REMOVE EXISTING HOSE BIBB AND ALL ASSOCIATED PIPING BACK TO NEAREST ACTIVE MAIN. CAP PIPING AT MAIN.
- (P2) REMOVE EXISTING CW PIPING, HW PIPING, AND ACCESSORIES SERVING SHOWER AS SHOWN ON PLAN. CAP CW/HW PIPING FOR FUTURE CONNECTION BY OWNER.
- (P3) REMOVE ALL HORIZONTAL SANITARY PIPING IN CRAWLSPACE AS SHOWN. CAP PIPING AS REQUIRED. RISERS TO FIXTURES SHALL BE ETR FOR RECONNECTION. SANITARY WASTE STACK FROM SECOND FLOOR SHALL BE ETR FOR RECONNECTION.
- (P4) REMOVE PROPANE TANKS. STORE AND PROTECT FOR FUTURE USE.
- (P5) REMOVE TANK AND PUMP FOR WELL SYSTEM AND RELEASE TO OWNER.
- (P6) REMOVE WATER METER AND ALL ASSOCIATED PIPING BACK TO STREET. CW PIPING AFTER METER TO REMAIN.

MECHANICAL DEMOLITION KEY NOTES

- (M1) REMOVE EXISTING OUTDOOR A/C UNIT. STORE AND PROTECT FOR FUTURE USE.
- (M2) REMOVE FURNACE AND STORE FOR FUTURE USE. SEE M-1.0 FOR NEW LOCATION. REMOVE HORIZONTAL DUCTWORK BELOW HOME FROM FURNACE TO RISE.
- (M3) REMOVE DUCTWORK AS INDICATED. RISERS TO DIFFUSERS AND TO SECOND FLOOR SUPPLY SHALL REMAIN.

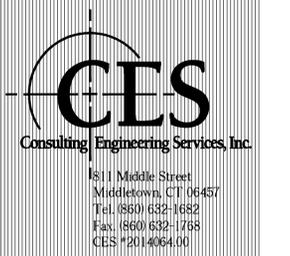
ELECTRICAL DEMOLITION KEY NOTES

- (E1) REMOVE EXISTING LIGHTING FIXTURES, LIGHTING SWITCHES, POWER RECEPTACLES, AND ALL ASSOCIATED PARTS AND WIRING BACK TO PANEL OF ORIGIN. ASSOCIATED CIRCUIT BREAKERS TO REMAIN IN PLACE FOR FUTURE RECONNECTION.
- (E2) REMOVE ELECTRICAL CONNECTION TO EXISTING FURNACE. REMOVE ASSOCIATED WIRING BACK TO PANEL OF ORIGIN. ASSOCIATED CIRCUIT BREAKER TO REMAIN IN PLACE FOR FUTURE RECONNECTION.
- (E3) REMOVE ELECTRICAL CONNECTION TO A/C CONDENSER UNIT AND DISCONNECT DEVICE. REMOVE ASSOCIATED WIRING BACK TO PANEL OF ORIGIN. ASSOCIATED CIRCUIT BREAKER TO REMAIN IN PLACE FOR FUTURE RECONNECTION.
- (E4) REMOVE EXISTING GENERATOR 240V RECEPTACLE AND ENCLOSURE. PROTECT AND STORE FOR FUTURE USE. REMOVE ASSOCIATED WIRING BACK TO PANEL OF ORIGIN. ASSOCIATED CIRCUIT BREAKER AND GENERATOR INTERLOCK TO REMAIN IN PLACE FOR FUTURE RECONNECTION.



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GENERAL RENOVATIONS for the FRASCARELI RESID.
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32 Massachusetts Road
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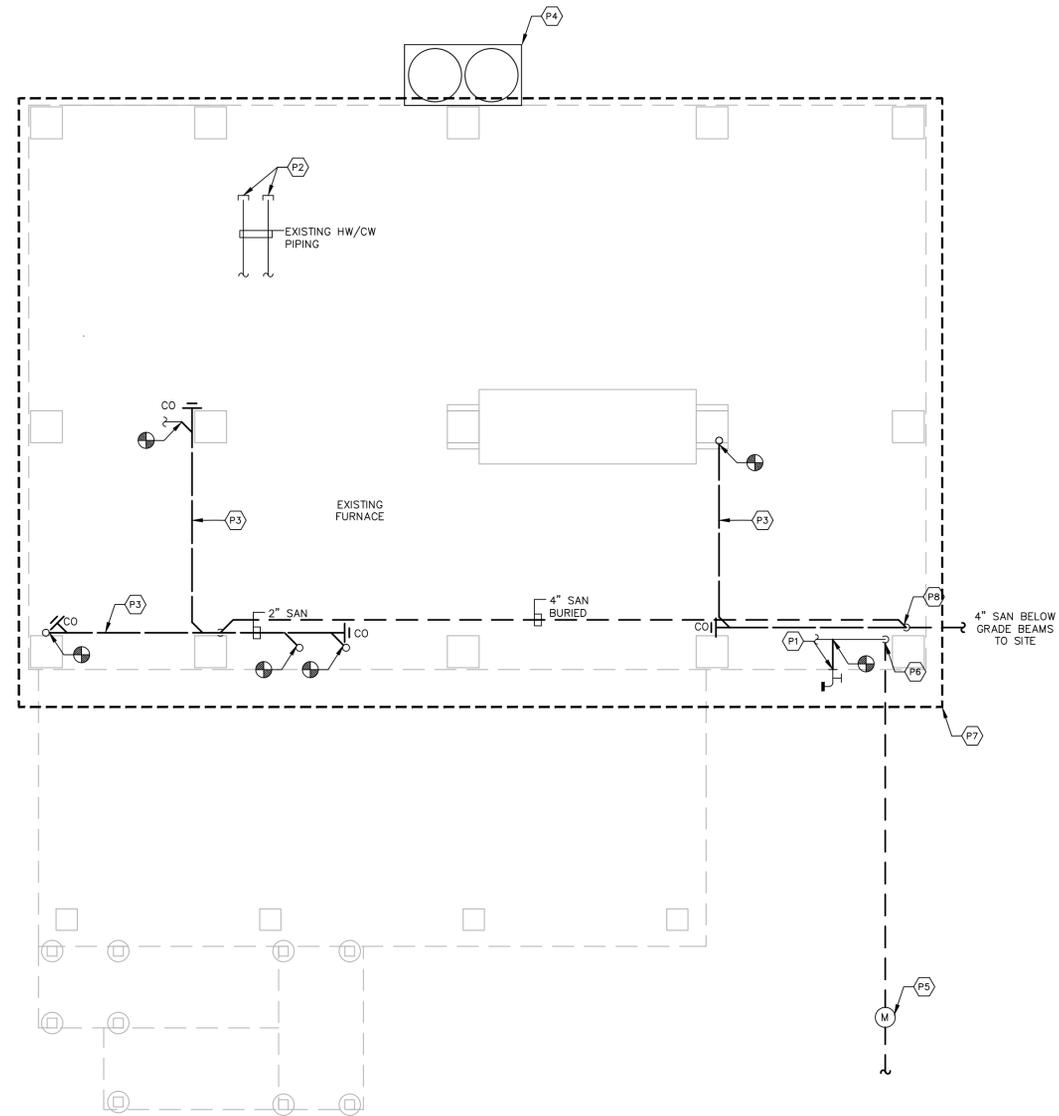
MEP DEMOLITION FLOOR PLAN

MEP-1.0

date	5 MAY 2016
drawn	ANK/VOM
scale	AS SHOWN
checked	DTB
project no.	1341-51
application no.	2440

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

GENERAL RENOVATIONS for the FRASCARELI RESID.
APPLICATION No. 2440
32 Massachusetts Road
South Lyme, CT 06376



1 FOUNDATION PLAN
P-1.0 SCALE: 1/4"= 1'-0"

GENERAL NOTES ALL TRADES

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 DEMOLITION KEY NOTES

- P1 PROVIDE NEW EXTERIOR WALL HYDRANT 3' ABOVE FINAL FINISHED GRADE. HOSE BIBB SHALL BE FREEZELESS, ANTISIPHON, WITH 1/2" THREADED OUTLET MODEL 17 AS MANUFACTURED BY WOODFORD OR APPROVED EQUAL. PROVIDE LOW POINT DRAIN ON PIPING DROP FROM HOUSE. SEE DETAIL 1/P5.0 FOR MORE DETAILS. CONNECT CW PIPING SERVING HOSE BIBB TO NEAREST ACTIVE MAIN.
- P2 EXISTING CW/HW PIPING PREVIOUSLY SERVING SHOWER CAPPED FOR OWNER FUTURE USE.
- P3 PROVIDE 4" SANITARY PIPING AND CONNECT TO EXISTING SANITARY PIPING AND SANITARY RISERS AS SHOWN ON PLAN.
- P4 LOCATE EXISTING PROPANE TANKS IN PREVIOUS LOCATION. EXISTING ABOVE GROUND PROPANE TANK SHALL BE ANCHORED TO CONCRETE PAD PER FEMA, ARCHITECTURAL DETAILS AND STRUCTURAL DETAILS. PROVIDE FULL SIZE LPG PIPING EXTENSION TO EXISTING LPG RISERS SERVING FURNACE AND FIREPLACE. PROVIDE ACCESSIBLE SHUT-OFF VALVES ON PIPING TO FIXTURES.
- P5 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. NEW CW PIPING TO MATCH EXISTING SIZE. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO FABRICATION AND INSTALLATION.
- P6 PROVIDE PRESSURE RELIEF VALVE AND ISOLATION VALVE ON RISE. PROVIDE NEW CW PIPING EXTENSION AS NECESSARY FOR RAISING OF HOUSE.
- P7 ALL NEW AND EXISTING DOMESTIC COLD WATER SUPPLY PIPING BELOW THE PROPERTY SHALL BE INSULATED WITH 1" FIBERGLASS INSULATION WITH CONTINUOUS PVC JACKETING. ALL HOT AND COLD WATER PIPING 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.
- P8 NEW UNDERGROUND SANITARY PIPING SHOWN OFFSET FOR CLARITY. CONNECT UNDERGROUND PIPING AT BASE OF RISER PRIOR TO EXITING THE STRUCTURE.

CES
Consulting Engineering Services, Inc.
1811 Middle Street
Middletown, CT 06457
Tel: (860) 632-1682
Fax: (860) 632-1768
CES #20140664.00

date	description	no.
	revisions	

**PLUMBING
NEW WORK
FLOOR PLAN**

P-1.0

date	5 MAY 2016
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	1341-51
application no.	2440

PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	WATER METER
	THERMOMETER
	PRESSURE REGULATOR
	CONNECT NEW TO EXISTING
	VENT THRU ROOF
	CLEANOUT

PLUMBING ABBREVIATIONS

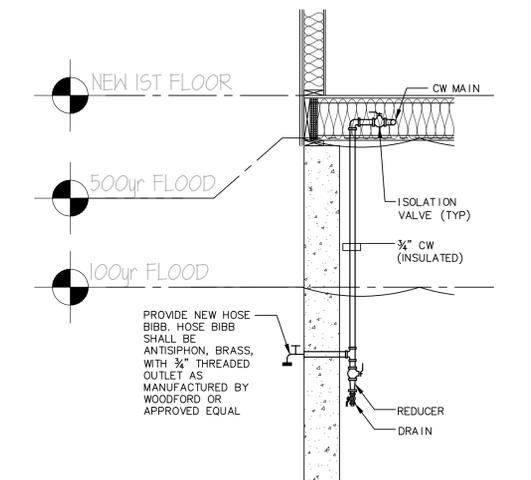
ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CO	CLEANOUT
CW	COLD WATER
COND	CONDENSATE
DN	DOWN
ET	EXPANSION TANK
HB	HOSE BIBB
HW	HOT WATER
LPG	LIQUIFIED PETROLEUM GAS
TYP	TYPICAL
V	VENT
VTR	VENT THRU ROOF

PLUMBING PIPING LEGEND

SYMBOL	DESCRIPTION
	NEW CW BURRIED
	NEW CW
	EXISTING CW
	NEW SAN BURRIED
	NEW SAN
	EXISTING SAN
	NEW HW
	EXISTING HW
	NEW LPG BURRIED
	NEW LPG
	EXISTING LPG
	NEW V
	EXISTING V
	NEW COND
	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
	HOSE BIBB

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE TYPE	WASTE CONNECTION	VENT CONNECTION	COLD WATER CONNECTION	HOT WATER CONNECTION
HOSE BIB	-	-	3/4"	-



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

- GENERAL PROCEDURES ALL TRADES**
- THESE SPECIFICATIONS ARE APPLICABLE TO ALL PLUMBING 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 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 AND READILY OBSERVED BY THE 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.

- 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 PREPARE SUIABLE 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 BY 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 PIECES 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.

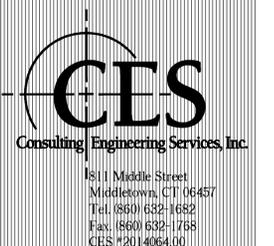
PLUMBING

- PIPING:
 - DOMESTIC WATER PIPING SHALL BE COPPER TUBING TYPE L. SOLDER FILLER METALS SHALL BE 95-5 TIN-ANTIMONY SOLDER JOINTS.
 - WASTE AND VENT PIPING SHALL BE PVC, TYPE DWV PIPE AND FITTINGS WITH SOLVENT CEMENTED JOINTS.
 - WASTE AND VENT PIPING SHALL BE HUBLESS, SERVICE WEIGHT, CAST-IRON SOIL PIPE AND FITTINGS, WITH NEOPRENE GASKETS. BURIED PIPING SHALL BE HUB AND SPIGOT FITTINGS.
 - LIQUID PROPANE 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 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) OWNER OCCUPIED REHABILITATION and REBUILDING PROGRAM (OORR)

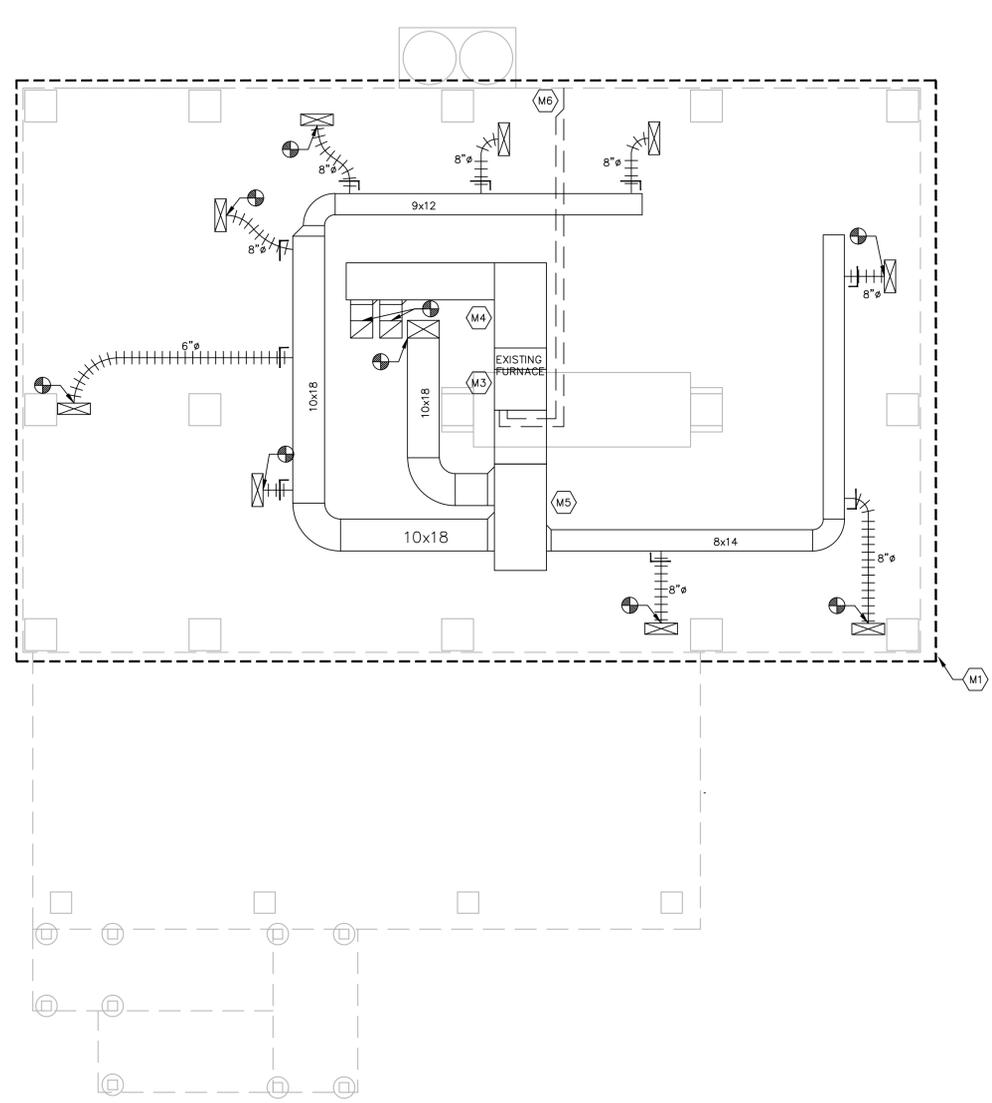
GENERAL RENOVATIONS for the FRASCARELI RESID. APPLICATION No. 2440 32 Massachusetts Road South Lyme, CT 06376



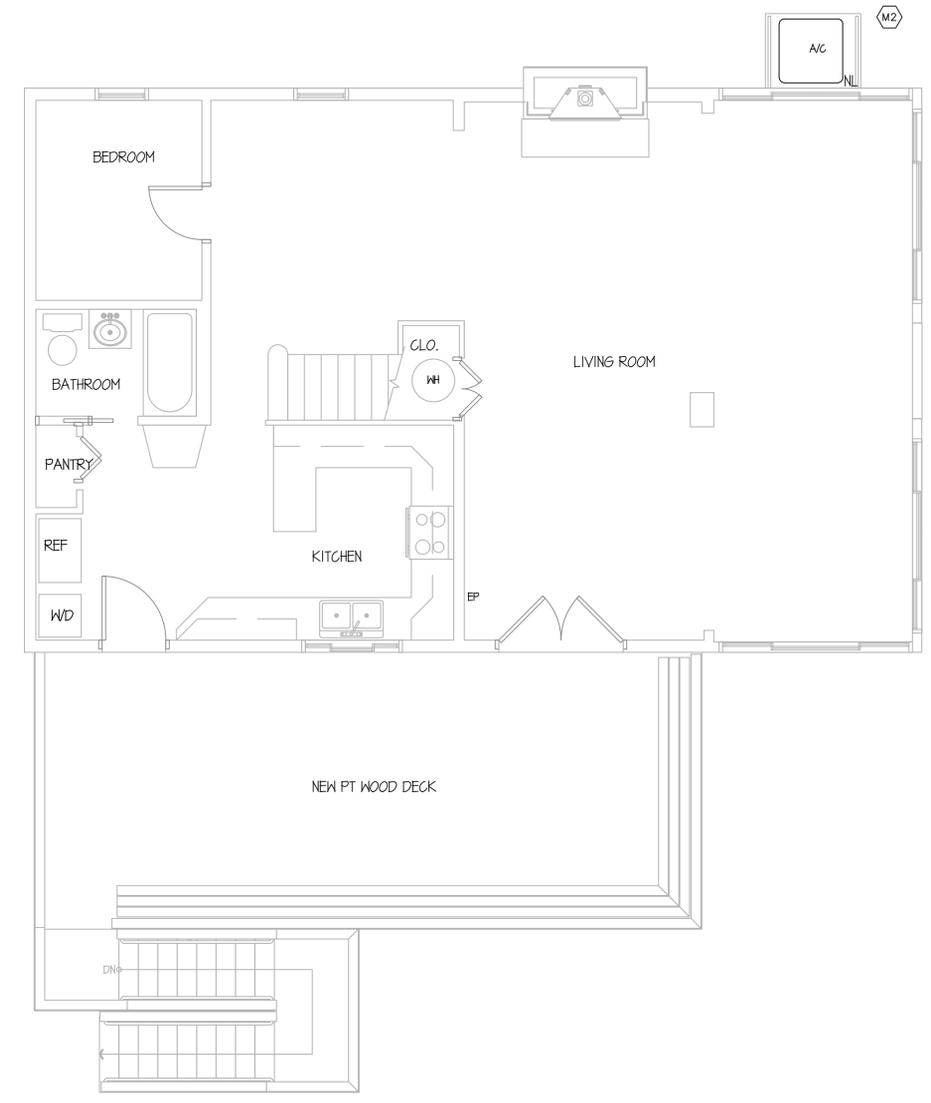
date	description	no.
revisions		

PLUMBING DETAILS, SCHEDULES, AND SPECIFICATIONS

P-5.0	
date	5 MAY 2016
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	1347-51
application no.	2440



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



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

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

- MECHANICAL KEY NOTES**
- M1** FURNACE AND ALL ASSOCIATED ACCESSORIES SHALL BE STRAPPED TO STRUCTURE ABOVE THE 100 YR FLOOD PLAIN AS INDICATED ON THE ARCHITECTURAL PLANS. NEW DUCTWORK SHALL BE TIGHT TO NEW LVL BEAMS AND ABOVE THE 100 YR FLOOD PLAIN AS INDICATED ON THE ARCHITECTURAL PLANS.
 - M2** NEW LOCATION OF EXISTING A/C UNIT ON PLATFORM. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR MORE DETAIL. PROVIDE CONNECTIONS FROM A/C UNIT TO FURNACE.
 - M3** LOCATE EXISTING FURNACE AND COIL IN PREVIOUS LOCATION. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR MORE DETAIL. PROVIDE CONTROLS WIRING TO EXISTING THERMOSTAT. RUN CONDENSATE PIPING TO NEAREST ACCESSIBLE COLUMN AND DOWN TO GRADE. SEE DETAIL 1/M-5.0 FOR MORE INFORMATION ON MOUNTING.
 - M4** PROVIDE 4' LENGTH FULL SIZED RETURN PLENUM ON BACK OF UNIT. DUCT SHALL BE FULL SIZE OF UNIT RETURN.
 - M5** PROVIDE FULL SIZED SUPPLY PLENUM AFTER COIL UNIT. DUCT SHALL BE FULL SIZE OF UNIT SUPPLY.
 - M6** PROVIDE 3" PVC INTAKE AND VENT. TERMINATE THROUGH WALL WITH MANUFACTURER'S CONCENTRIC VENT.

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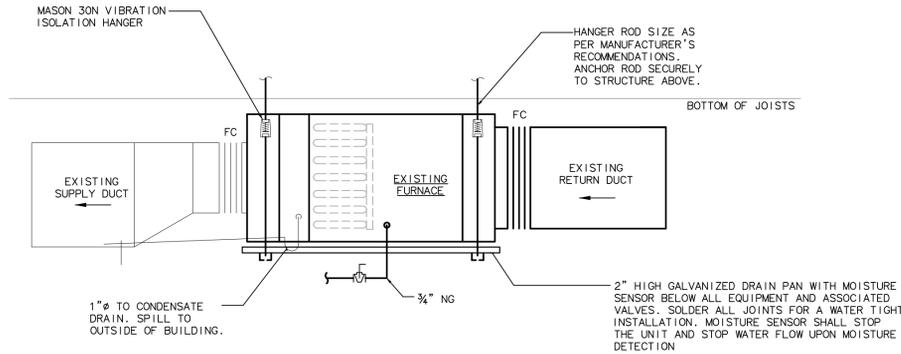
MECHANICAL NEW WORK FLOOR PLAN

M-1.0

date	5 MAY 2016
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scale	AS SHOWN
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MECHANICAL LEGEND	
SYMBOL	DESCRIPTION
	EXISTING FLEXIBLE DUCTWORK
	EXISTING FLEXIBLE DUCTWORK
→	RETURN DUCT RISE (SINGLE LINE)
→	SUPPLY DUCT RISE (SINGLE LINE)
→	RETURN/EXHAUST/OUTSIDE AIR ARROW
→	SUPPLY ARROW
⊕	CONNECTION TO EXISTING
⊕	THERMOSTAT

MECHANICAL ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
BTU	BRITISH THERMAL UNIT
CAP	CAPACITY
ET-#	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
HD	HEAD
HP	HORSE POWER
LWT	LEAVING WATER TEMPERATURE
MIN	MINIMUM
N.T.S.	NOT TO SCALE
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NO	NUMBER
NIC	NOT IN CONTRACT
NOM	NOMINAL
OA	OUTSIDE AIR
P-#	PUMP
SPEC	SPECIFICATION
TEMP	TEMPERATURE
ETR	EXISTING TO REMAIN
R	EXISTING TO BE RELOCATED
NL	NEW LOCATION



HORIZONTAL MOUNTED UNIT DETAIL
SCALE: N.T.S.

- GENERAL PROCEDURES ALL TRADES**
1. THESE SPECIFICATIONS ARE APPLICABLE TO ALL MECHANICAL DRAWINGS UNLESS NOTED OTHERWISE.
2. DESCRIPTION
- A. THIS PROJECT COMPRISES ALTERATIONS AND RENOVATIONS TO THE EXISTING BUILDING. THE EXISTING BUILDING IS CURRENTLY OCCUPIED AND THE PROJECT WILL PROCEED IN A MANNER WHICH WILL MINIMIZE ANY INCONVENIENCE TO THE BUILDING OCCUPANTS.
- B. SCOPE OF WORK CONSISTS OF INSTALLATION OF MATERIALS TO BE FURNISHED UNDER THE CONTRACT DOCUMENTS AND WITHOUT LIMITING GENERALITY THEREOF CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT, HOISTING, PLANT, TRANSPORTATION, RIGGING, STAGING, APPURTENANCES, AND SERVICES NECESSARY AND/OR INCIDENTAL TO PROPERLY COMPLETE ALL WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED HEREIN.
3. DEFINITIONS: THE FOLLOWING DEFINITIONS APPLY TO THIS CONTRACT
- A. FURNISH: THE TERM "FURNISH" MEANS TO "SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION, AND SIMILAR OPERATIONS."
- B. INSTALL: THE TERM "INSTALL" IS USED TO DESCRIBE OPERATIONS AT PROJECT SITE INCLUDING THE ACTUAL "UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS."
- C. PROVIDE: THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.
- D. REMOVE: THE TERM REMOVE MEANS TO 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 PERCEIVED 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:
- DIMENSIONS.
 - IDENTIFICATION OF PRODUCTS AND MATERIALS INCLUDING.
 - COMPLIANCE WITH SPECIFIED STANDARDS AND PERFORMANCE DATA AS INDICATED.
 - NOTATION OF COORDINATION REQUIREMENTS.
 - NOTATION OF DIMENSIONS ESTABLISHED BY FIELD MEASUREMENT.
9. 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.
9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.
11. OPERATION AND MAINTENANCE
- A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
- B. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
- C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:
- 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.
1. 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, DATAS AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.
13. OBTAIN IN OWNER'S NAME WRITTEN EQUIPMENT AND MATERIAL WARRANTIES OFFERED

- IN MANUFACTURER'S PUBLISHED PRODUCT DATA WITHOUT EXCLUSION OR LIMITATION.
14. GUARANTEE WORK OF THESE CONTRACT DOCUMENTS IN WRITING FOR NOT LESS THAN ONE (1) YEAR FROM DATE OF FINAL NOTICE OF ACCEPTANCE. REPAIR OR REPLACE DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN THIS PERIOD, PROMPT AND TO OWNER'S SATISFACTION AND CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE WITHIN CONTRACT PRICE.
15. SUBMIT TO THE OWNER AN OFFICIAL CERTIFICATE OF INSURANCE FOR THEIR RECORDS.
- MEANS AND METHODS ALL TRADES**
1. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
2. DO NOT BURN WASTE MATERIALS. DO NOT BURY DEBRIS OR EXCESS MATERIALS ON THE OWNER'S PROPERTY. DO NOT DISCHARGE VOLATILE, HARMFUL OR DANGEROUS MATERIALS INTO DRAINAGE SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.
3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED.
4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION.
5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.
6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS
7. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.
8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814.
9. ACCESS DOORS SHALL BE PROVIDED IN CEILINGS, WALLS AND FLOORS AT ALL DAMPERS, VALVES, CONTROL DEVICES, AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.
10. SEISMIC RESTRAINTS SHALL BE INSTALLED AS REQUIRED PER BUILDING CODE AND FIRE SAFETY CODE. RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND SMACNA STANDARDS. SUBMIT SHOP DRAWINGS INCLUDING SEISMIC CALCULATIONS WITH PROFESSIONAL ENGINEER'S SEAL FOR REVIEW BY ENGINEER.
- HVAC SPECIFICATIONS**
1. DUCTWORK AND ACCESSORIES
- ALL DUCTWORK AND ACCESSORIES AS ITEMIZED HERE-IN SHALL BE GALVANIZED STEEL CONSTRUCTION, INCLUDING ALL FITTINGS AND FASTENERS AND SHALL COMPLY WITH THE LATEST EDITION OF SMACNA STANDARDS FOR 1" PRESSURE CLASS. ALL DUCTWORK DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. ALL SQUARE DUCT ELBOWS ARE TO BE INSTALLED WITH TURNING VANES. ALL RADIUS DUCT ELBOWS SHALL HAVE MINIMUM CENTER LINE RADIUS EQUAL TO 1-1/2 TIMES THE DUCT WIDTH.
 - FLEXIBLE DUCT RUNOUTS SHALL NOT EXCEED 10 FEET IN LENGTH, SHALL BE PREINSULATED WITH VAPOR BARRIER, ONE INNER LAYER, FACTORY FABRICATED AND SHALL COMPLY WITH NFPA 90A AND UL 181. THE INSULATION MATERIAL SURFACE SHALL NOT BE EXPOSED TO THE AIR STREAM. FLEXIBLE DUCT RUNOUTS SHALL BE INSTALLED FULLY EXTENDED AND SUPPORTED TO MINIMIZE BENDS. FLEXIBLE DUCT SHALL BE AS MANUFACTURED BY THERMAFLEX, TUTTLE AND BAILEY OR APPROVED EQUAL. FLEXIBLE DUCT CONNECTORS APPROXIMATELY 6 INCHES IN LENGTH SHALL BE PROVIDED WHERE SHEET METAL CONNECTIONS ARE MADE TO AIR HANDLING EQUIPMENT.
2. DUCT ACCESS DOORS SHALL BE PROVIDED IN DUCTWORK AT ALL:
- AUTOMATIC DAMPERS, COILS, CONTROL DEVICES, AND OTHER APPARATUS REQUIRING SERVICE AND INSPECTION.
 - MANUAL BALANCING DAMPERS SHALL BE PROVIDED FOR EACH DIFFUSER, GRILLE AND REGISTER. EACH BRANCH OF THE MAIN TRUNK DUCT AND AS INDICATED ON THE DRAWINGS.
 - INSTALLATION OF DIFFUSERS GRILLES AND REGISTERS SHALL BE COORDINATED WITH AND SUITABLE FOR INSTALLATION IN, ON, OR FROM CEILINGS, WALL OR FLOORS SPECIFIED ON THE ARCHITECTURAL PLANS. THE CONTRACTOR MUST VERIFY THE CEILING OR WALL TYPES PRIOR TO ORDERING.
3. PIPING AND FITTINGS
- A. CONDENSATE DRAIN : SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELD FITTINGS OR TYPE L COPPER TUBING WITH 95-5 TIN-ANTIMONY SOLDER FILLER METALS.
4. FLUE AND COMBUSTION AIR PIPING
- ALL PROPANE FIRED EQUIPMENT COMBUSTION AIR PIPING, FLUE AND JOINTS SHALL BE SCHEDULE 40 POLYVINYL CHLORIDE (PVC). JOINTS SHALL BE SOLVENT WELD.
5. INSULATION:
- INSULATION THICKNESS SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE IECC EXCEPT THAT PIPE INSULATION SHALL NOT BE LESS THAN 1" THICK AND, FLEXIBLE DUCTWORK INSULATION SHALL NOT BE LESS THAN 1-1/2" THICK. ALL INSULATION MATERIALS, ADHESIVES, COATINGS, AND OTHER ACCESSORIES SHALL HAVE FLAME SPREAD RATINGS OF 25 OR LESS, AND SMOKE DEVELOPED RATINGS OF 50 OR LESS AS TESTED BY ASTM E-84 (NFPA 255) METHOD. ALL INSULATION MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA AND ASHRAE STANDARDS.
 - PIPE INSULATION SHALL BE FIBERGLASS WITH VAPOR BARRIER JACKET. PROVIDE INSULATION FOR THE FOLLOWING PIPING SYSTEMS:
 - SUPPLY AIR DUCTWORK
 - RETURN AIR DUCTWORK IN UNCONDITIONED SPACES (WHERE SPACE TEMPERATURE IS MORE THAN 10 DEGREES F DIFFERENT FROM DUCT TEMPERATURE)
 - OUTSIDE AIR INTAKE DUCTWORK
 - OUTSIDE AIR AND EXHAUST PLENUMS AT LOUVER CONNECTIONS
 - COMBUSTION AIR DUCTWORK
 - EXTERIOR DUCTWORK INSULATION MATERIALS SHALL BE 2" RIGID POLYSTYRENE (R-8 MINIMUM) WITH PVC JACKETING SEALED WATER TIGHT. DUCTWORK INSULATION SHALL BE WATER TIGHT.
 - SUPPLY AIR DUCTWORK
 - RETURN AIR DUCTWORK
 - OUTSIDE AIR INTAKE DUCTWORK
 - OUTSIDE AIR AND EXHAUST PLENUMS AT LOUVER CONNECTIONS
 - COMBUSTION AIR DUCTWORK
5. 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.
6. TESTING, ADJUSTING AND BALANCING
- A. 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.
- B. 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.
- C. 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 SUPPLY AIR SYSTEMS
 - ALL RETURN AIR SYSTEMS
 - VERIFY OPERATION OF ALL TEMPERATURE CONTROL SYSTEMS
 - TEST SYSTEMS FOR PROPER SOUND AND VIBRATION LEVELS
- D. 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.
- E. 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.

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GENERAL RENOVATIONS for the FRASCARELI RESID. APPLICATION No. 2440
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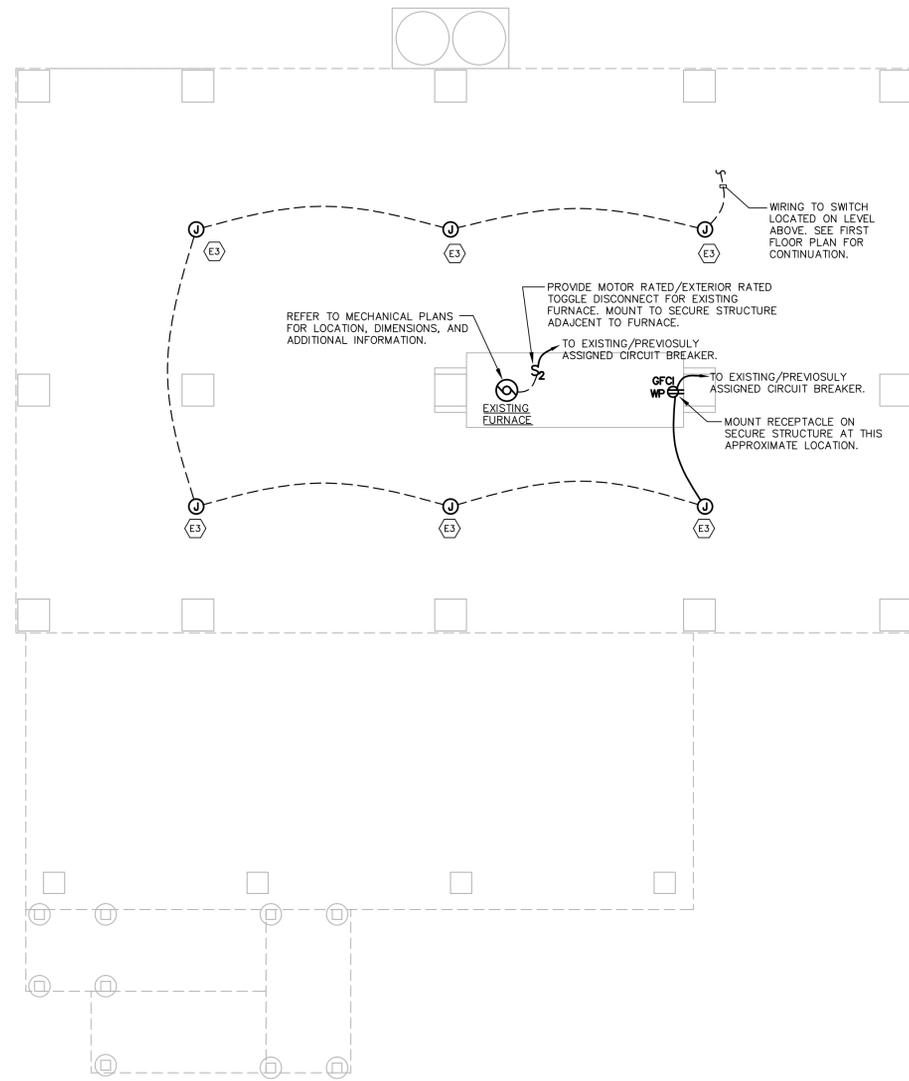
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date	description	no.
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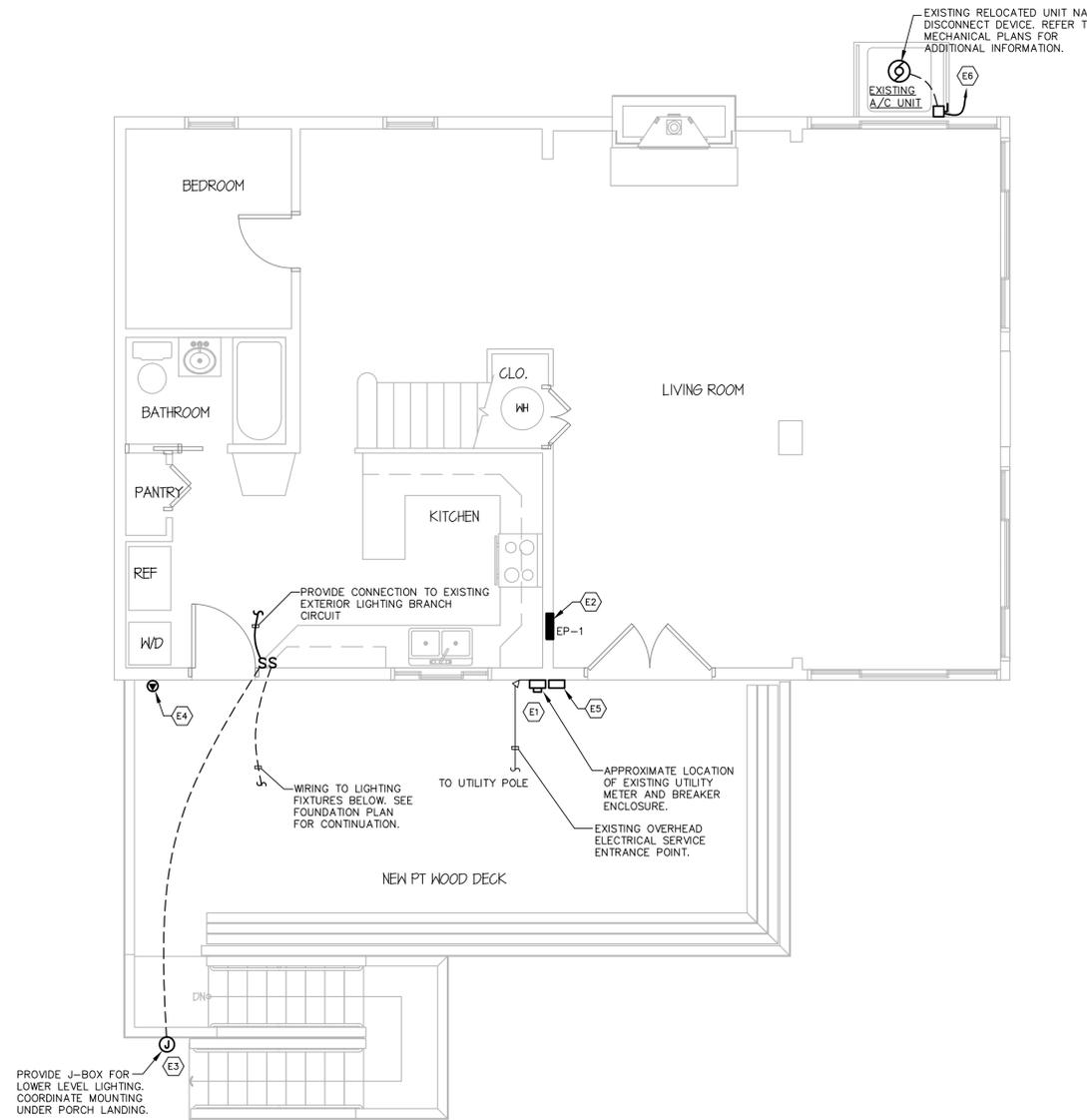
MECHANICAL DETAILS, SCHEDULES, AND SPECIFICATIONS

M-5.0

date	5 MAY 2016
drawn	ANK
scale	AS SHOWN
checked	DTB
application no.	1347-51
project no.	2440



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



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

GENERAL NOTES ALL TRADES

- 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.
- WORK SHALL BE COORDINATED WITH ARCHITECTURAL PLANS.
- CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS PRIOR TO PROVIDING ALL EQUIPMENT AND PIPING.
- CIRCUITS SHALL BE #12 FOR 20A-1P CIRCUIT BREAKERS AND #14 FOR 15A-1P CIRCUIT BREAKERS IN PANEL INDICATED UNLESS NOTED OTHERWISE.
- ALL WIRING UNDER THE SCOPE OF THIS PROJECT SHALL BE PROVIDED NEW. EC SHALL PROVIDE WIRING IN CONDUIT WHERE SPECIFIED.

ELECTRICAL KEY NOTES

- E1 EXISTING ELECTRIC SERVICE TO REMAIN AT SAME LOCATION. EC SHALL PROVIDE SERVICE MAST EXTENSION AS REQUIRED TO MEET ELECTRIC COMPANY OVERHEAD SERVICE CONDUCTOR RUN CLEARANCE. EC SHALL PROVIDE ALL PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL EXTENSION.
- E2 EXISTING ELECTRICAL PANEL, "EP-1". EC SHALL PROVIDE CONNECTION TO EXISTING CIRCUIT BREAKERS AND NEW WIRING SUITABLE FOR CIRCUIT BREAKER SIZE FOR RELOCATED EQUIPMENT TO INCLUDE DISCONNECTS, GENERATOR RECEPTACLE AND ENCLOSURE, FOUNDATION LEVEL LIGHTING AND RECEPTACLES. CIRCUITS SHALL BE LABELED, AND AN UPDATED DIRECTORY SHALL BE PROVIDED AT THE PANEL LOCATION. EC SHALL INSPECT EXISTING CONDITIONS OF WIRING UNDER THE RESIDENCE AND REPLACE AS NECESSARY PRIOR TO SPACES BECOMING INACCESSIBLE.
- 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 CKT INFORMATION. REFER TO DWGS FOR WIRING INFORMATION.
- E4 RELOCATE EXISTING GENERATOR 240V RECEPTACLE AND ENCLOSURE TO THIS APPROXIMATE LOCATION. COORDINATE THE MOUNTING TO A SECURE AND ACCESSIBLE STRUCTURE. PROVIDE 10-3 WIRING BACK TO MAIN ELECTRICAL PANEL "EP-1" AND CONNECT TO EXISTING PREVIOUSLY ASSIGNED CIRCUIT BREAKER AND GENERATOR INTERLOCK. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL RECONNECTION AND OPERATION.
- E5 EXISTING TELECOM SERVICE TO THE RESIDENCE TO BE EXTENDED AND RECONNECTED AS REQUIRED. COORDINATE WITH TELECOM COMPANY ALL REQUIREMENTS FOR A COMPLETE AND FUNCTIONAL RELOCATION AND RECONNECTION IS EQUIPMENT. PROVIDE ALL PARTS AND MATERIALS AS REQUIRED.
- E6 EXISTING RELOCATED A/C CONDENSER UNIT AND DISCONNECT DEVICE. PROVIDE 10-3 WIRING IN 3/4" C BACK TO ELECTRICAL PANEL LOCATION. COORDINATE FEEDER RUN UNDER MAIN STRUCTURE AND UP TO ELECTRICAL PANEL. PROVIDE CONNECTION TO PREVIOUSLY ASSIGNED CIRCUIT BREAKER. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL INSTALLATION. LABEL AND ADD TO PANELBOARD DIRECTORY.
- E6 EXISTING FURNACE. PROVIDE 12-2 WIRING IN 3/4" C BACK TO ELECTRICAL PANEL LOCATION. COORDINATE FEEDER RUN UNDER MAIN STRUCTURE AND UP TO ELECTRICAL PANEL. PROVIDE CONNECTION TO PREVIOUSLY ASSIGNED CIRCUIT BREAKER. PROVIDE ALL ASSOCIATED PARTS AND MATERIALS FOR A COMPLETE AND FUNCTIONAL INSTALLATION. LABEL AND ADD TO PANELBOARD DIRECTORY.

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

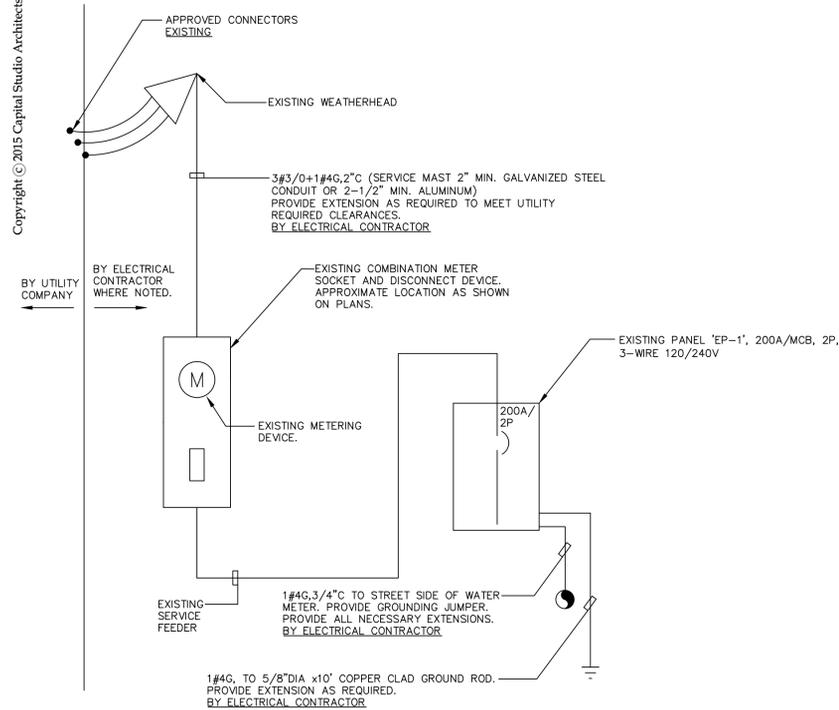
GENERAL RENOVATIONS for the FRASCARELI RESID.
APPLICATION No. 2440
32 Massachusetts Road
South Lyme, CT 06376

date	description	no.
	revisions	

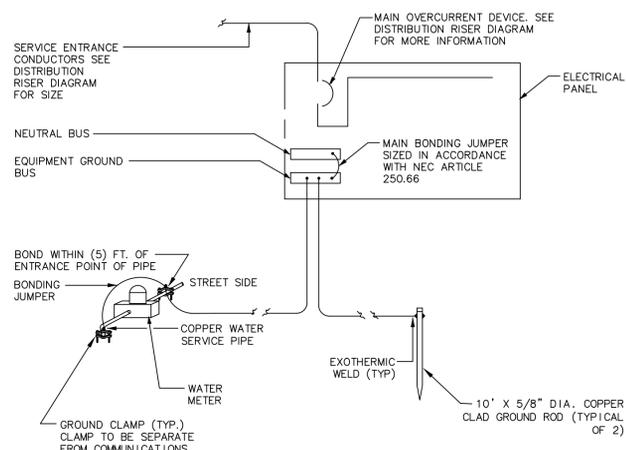
ELECTRICAL NEW WORK FLOOR PLAN

E-1.0

date	5 MAY 2016
drawn	VCM
scale	AS SHOWN
checked	DTB
project no.	1347-51
application no.	2440



SERVICE ENTRANCE / DISTRIBUTION RISER DIAGRAM
N.T.S.



- NOTES**
1. THE GROUNDING ELECTRODE SYSTEM SHALL COMPLY WITH ARTICLE 250 OF THE CURRENT N.E.C.
 2. BOND TO ALL GROUNDING ELECTRODE TYPES PRESENT.

TYPICAL MAIN ELECTRIC GROUNDING DETAIL
N.T.S.

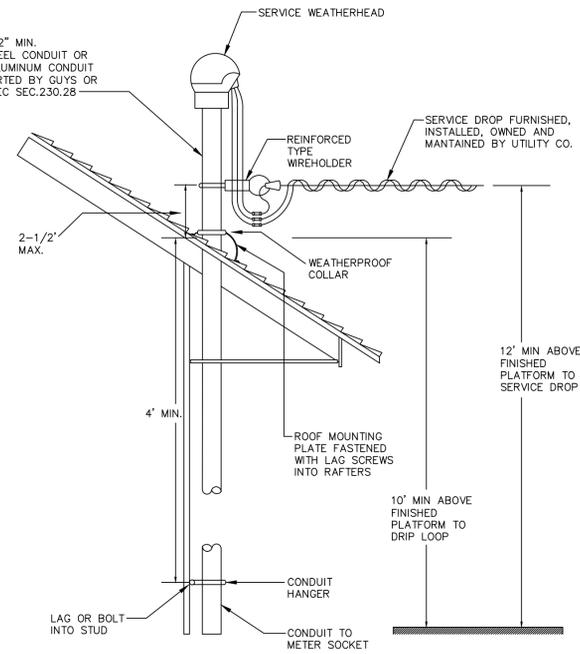
PANELBOARD SCHEDULE

PANELBOARD	LOCATION	MAIN	VOLTAGE	PHASE	WIRE	FEEDER	SE RATED	MOUNTING	MIN SCR	REMARKS					
EP-1	LIVING RM	200A/2P MCB	120/240	1	3	3#3/0+1#4G,2"C	N/A	RECESSED	10,000	-					
CKT	DESCRIPTION	P	AT	AF	CIRCUITRY	KVA	CKT	DESCRIPTION	P	AT	AF	CIRCUITRY	KVA		
1	EXISTING**	1	20	20	14-2*	0.4	2	GENERATOR (PROVIDE INTERLOCK) SEE NOTE 11	2	50	50	10-3	5.7		
3	EXISTING**	1	20	20	14-2*	0.4	4								
5	EXISTING**	1	15	15	14-2*	0.4	6	EXISTING**	1	15	15	12-2*	0.72		
7	EXISTING**	1	20	20	14-2*	0.4	8	EXISTING**	1	15	15	12-2*	0.72		
9	EXISTING**	1	20	20	14-2*	0.4	12	EXISTING**	1	15	15	14-2*	0.40		
11	EXISTING	2	20	20	12-3	1.0	14	A/C	2	40	40	10-3	5.7		
13							16								
15	EXISTING	2	40	40	12-3	1.0	18	EXISTING	2	20	20	12-3	5.7		
17							20								
19	EXISTING	2	15	15	12-3	1.0	22	EXISTING**	1	20	20	12-2*	0.72		
21							24	EXISTING**	1	20	20	12-2*	1.2		
23	EXISTING	2	15	15	12-3	1.0	26	EXISTING**	1	20	20	12-2*	0.54		
25							28								
27	EXISTING**	1	15	15	14-2*	0.4	30	EXISTING	2	30	30	12-3	5.7		
29	EXISTING**	1	15	15	14-2*	0.4	32								
31	EXISTING**	1	15	15	14-2*	0.4	34	EXISTING	2	30	30	12-3	5.7		
33	EXISTING**	1	15	15	14-2*	0.4	36	EXISTING**	1	15	15	12-2*	1.5		
35	EXISTING**	1	20	20	14-2*	0.4	38	EXISTING**	1	20	20	-	-		
37	EXISTING**	1	15	15	14-2*	0.2	40	EXISTING**	1	20	20	-	-		
39	EXISTING**	1	15	15	12-2*	0.54									
						SUBTOTAL KVA	16.44							SUBTOTAL KVA	25.36
														TOTAL KVA	41.8

- * 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 MULTI-CONDUCTOR CABLES AS REQUIRED FOR 3 & 4 WAY SWITCHES.
 9. CIRCUITS LABELED AS EXISTING SHALL BE EXTENDED AND RECONNECTED TO THE NEW LOCATION OF PANEL 'EP-1'. EC SHALL FIELD VERIFY CIRCUIT QUANTITIES AND CIRCUIT BREAKERS REQUIRED TAKING INTO ACCOUNT THE REMOVAL OF PREVIOUSLY EXISTING CIRCUITS IN THE DEMOLITION PHASE. CIRCUITS SHOWN UNDER THIS NOTE REFLECT EXISTING CONDITIONS. CIRCUITS SHOWN ON PANELBOARD FOR DEVICES AND FIXTURES NO LONGER EXISTING SHALL BE REMOVED AND BE DESIGNATED AS SPARES IN PANEL.
 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.
 11. 30A/2P CIRCUIT BREAKER SHALL BE PROVIDED WITH A GENERATOR INTERLOCK KIT TO MATCH PANEL MANUFACTURER, SQUARE-D #Q0CGK2, OR APPROVED EQUAL. INSTALL AS PER MANUFACTURER RECOMMENDATIONS.

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
⊙	MECHANICAL EQUIPMENT / MOTOR SYMBOL
S ₂	MOTOR RATED EQUIPMENT DISCONNECT SWITCH
S	SINGLE POLE SWITCH
GFCI WP	GFCI DUPLEX RECEPTACLE, WEATHERPROOF
⊕	240V SPECIALTY RECEPTACLE AND ENCLOSURE
⊠	DISCONNECT DEVICE

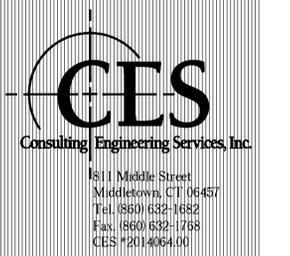


TYPICAL ELECTRICAL SERVICE MAST DETAIL
N.T.S.



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

GENERAL RENOVATIONS for the FRASCARELI RESID. APPLICATION No. 2440 32 Massachusetts Road South Lyme, CT 06376



date	description	no.
	revisions	

ELECTRICAL DETAILS AND SCHEDULES

E-5.0

date	5 MAY 2016
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	1341-51
application no.	2440

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, UTILITIES, 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, ENCLOSE, 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 REQUESTED BY THE ENGINEER FOR DISTRIBUTION. ONE PRINT WILL BE RETAINED; THE REMAINDER RETURNED. ONE OF THE PRINTS RETURNED SHALL BE MARKED-UP AND MAINTAINED AS A "RECORD DOCUMENT".
 - g. DO NOT USE SHOP DRAWINGS WITHOUT AN APPROPRIATE FINAL STAMP INDICATING ACTION TAKEN IN CONNECTION WITH CONSTRUCTION.
 - h. DO NOT ORDER ANY MATERIALS OR EQUIPMENT PRIOR TO RECEIVING FINAL APPROVED SHOP DRAWINGS.
 - i. PROVIDE SUBMITTALS AS INDICATED IN SPECIFIC SPECIFICATION SECTIONS.
9. USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
10. THE CONTRACTOR SHALL COORDINATE ALL INTERRUPTIONS OF SERVICES AND LIMITATIONS OF ACCESS WITH THE OWNER NO LESS THAN 5 DAYS PRIOR TO THE INTERRUPTION.
11. OPERATION AND MAINTENANCE
 - A. UPON COMPLETION OF ALL WORK AND TESTS, THE CONTRACTOR SHALL INSTRUCT THE OWNER OR THE OWNER'S REPRESENTATIVE IN THE OPERATION, ADJUSTMENT AND MAINTENANCE OF ALL EQUIPMENT FURNISHED. THE CONTRACTOR SHALL GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE OWNER AND THE ENGINEER IN ADVANCE OF THIS PERIOD.
 - B. THE CONTRACTOR SHALL PREPARE THREE (3) COPIES OF A COMPLETE OPERATION AND MAINTENANCE MANUAL, BOUND IN BOOKLET FORM. ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL, HEAVY-DUTY 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION AND DESIGNATION PARTITIONS WITH IDENTIFICATION TABS. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER.
 - C. OPERATION AND MAINTENANCE MANUAL SHALL INCLUDE THE FOLLOWING:
 - a. MANUFACTURER'S PRINTED OPERATING AND MAINTENANCE PROCEDURES.
 - b. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING.
 - c. COPIES OF WARRANTIES.
 - d. APPROVED SHOP DRAWINGS AND PRODUCT DATA.
 - e. BALANCE REPORTS.
 - f. INCLUDE IN THE MANUAL, A TABULATED EQUIPMENT SCHEDULE FOR ALL EQUIPMENT. 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 SYSTEMS. REMOVE AND DISPOSE OF ALL WASTE MATERIALS, PACKAGING MATERIAL, SKIDS ETC. FROM THE SITE AND DISPOSE OF IN A LAWFUL MANNER IN ACCORDANCE WITH MUNICIPAL, STATE AND FEDERAL REGULATIONS.
3. MATERIALS AND EQUIPMENT SHALL BE UL LISTED WHERE STANDARD HAS BEEN ESTABLISHED.
4. CAREFULLY INSPECT ALL BUILDING ELEMENTS PRIOR TO CUTTING OR DRILLING INTO WALL, FLOORS OR CEILINGS. PATCH AND PAINT SURFACES DISTURBED BY WORK UNDER THIS CONTRACT AS REQUIRED TO RESTORE THEM TO THEIR ORIGINAL CONDITION.
5. SCAFFOLDING, RIGGING, HOISTING: THE CONTRACTOR SHALL FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AND SERVICES NECESSARY FOR ERECTION AND DELIVERY INTO THE PREMISES ANY EQUIPMENT AND APPARATUS FURNISHED UNDER THIS DIVISION. REMOVE SAME FROM PREMISES WHEN NO LONGER REQUIRED.
6. EXCAVATION AND BACKFILLING: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE SIZES, DEPTHS, FILL AND BEDDING REQUIREMENTS AND ANY OTHER EXCAVATION WORK REQUIRED UNDER THESE SPECIFICATIONS.
7. WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE, ROOFS, EXTERIOR WALL AND FLOORS IN WET AREAS, THE METHOD OF INSTALLATION SHALL BE REVIEWED BY THE ENGINEER BEFORE WORK IS DONE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY SLEEVES, CAULKING AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.
8. PROVIDE FIRESTOPPING AROUND ALL FIRE PROTECTION, PLUMBING, MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED PARTITIONS. PROVIDE ASBESTOS FREE FIRESTOPPING SYSTEM CAPABLE OF MAINTAINING AN EFFECTIVE BARRIER AGAINST FLAME AND GASES. SYSTEM SHALL BE UL LISTED AND COMPLY WITH ASTM E 814.
9. ACCESS DOORS SHALL BE PROVIDED IN CEILINGS, WALLS AND FLOORS AT ALL DAMPERS, VALVES, CONTROL DEVICES, AND OTHER APPARATUS AND EQUIPMENT REQUIRING PERIODIC SERVICE AND INSPECTION. COORDINATE TYPE AND LOCATION WITH ARCHITECTURAL PLANS.
10. SEISMIC RESTRAINTS SHALL BE INSTALLED AS REQUIRED PER BUILDING CODE AND FIRE SAFETY CODE. RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND SMACNA STANDARDS. SUBMIT SHOP DRAWINGS INCLUDING SEISMIC CALCULATIONS WITH PROFESSIONAL ENGINEER'S SEAL FOR REVIEW BY ENGINEER.

ELECTRICAL SPECIFICATIONS

1. CONTACT THE POWER COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL NECESSARY EQUIPMENT, GROUNDING, CONDUITS, WIRE, TRENCHING, SAND AND BACKFILL ETC., FOR THE POWER COMPANY SERVICE CONNECTIONS AND ACTIVATION OF SERVICE FOR THE PROJECT. ALL EQUIPMENT SHALL MEET THE POWER COMPANIES REQUIREMENTS AND SHALL BE SUBMITTED TO THE POWER COMPANY PRIOR TO ORDERING OR INSTALLATION.
2. CONTACT THE TELEPHONE COMPANY FOR NECESSARY COORDINATION OF SERVICE REQUIREMENTS AND PAY FOR ALL RELATED CHARGES FOR THE SERVICE INSTALLATION. PROVIDE ALL BOXES, TERMINATIONS, CONDUITS AND WIRING PER DRAWINGS OR TO MATCH TELEPHONE COMPANY APPROVED.
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 OR TO MATCH CATV COMPANY APPROVED.
4. SERVICE-DISCONNECTING MEANS SHALL BE OF THE TYPE AS INDICATED WITH EXTERNAL HANDLE FOR MANUAL OPERATION WHEN SERVICE DISCONNECTING MEANS IS A PART OF AN ASSEMBLY, THE ASSEMBLY SHALL BE LISTED AS SUITABLE FOR SERVICE ENTRANCE EQUIPMENT. ENCLOSURES SHALL BE SHEET METAL WITH HINGED COVER FOR SURFACE MOUNTING UNLESS OTHERWISE INDICATED.
5. PANELBOARD/LOAD CENTER:
 - A. PROVIDE CIRCUIT BREAKER TYPE PANELBOARD/LOAD CENTER WITH BUS RATING AS INDICATED ON DRAWINGS.
 - B. MINIMUM INTEGRATED SHORT CIRCUIT RATING: 10,000A RMS SYMMETRICAL.
 - C. MOLDED CASE CIRCUIT BREAKER: NEMA AB, PLUG ON TYPE THERMAL MAGNETIC TRIP CIRCUIT BREAKERS, WITH COMMON TRIP HANDLES PER POLES, LISTED AS TYPE SWD FOR LIGHTING CIRCUITS, CLASS A GROUND FAULT INTERRUPTER CIRCUIT BREAKERS AS INDICATED ON DRAWINGS, ARC-FULT 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 METEER 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 THWN/THHN ANNEALED COPPER.
 - b. BRANCH CIRCUITING INSIDE THE BUILDING IN DRY AREAS SHALL BE 600 VOLT, TYPE NM-B.
 - c. BRANCH CIRCUITING OUTSIDE THE BUILDING AND IN WET/DAMP AREAS SHALL BE 600 VOLT, TYPE UF-B.
 - d. WIRES SUBJECT TO DAMAGE SHALL BE IN PVC CONDUIT.
 - B. MAKE ALL SPLICES IN ACCESSIBLE LOCATIONS. MAKE SPLICES IN CONDUCTORS NO. 10 AWG AND SMALLER 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 SCREWS PER TERMINAL. THE THIRD GROUNDING POLE SHALL BE CONNECTED TO THE METAL MOUNTING YOKE.
 - a. SWITCHED RECEPTACLES SHALL BE THE SAME AS OTHER RECEPTACLES SPECIFIED EXCEPT THAT THE UNGROUNDED POLE OF EACH SUITABLE RECEPTACLE SHALL BE PROVIDED WITH A SEPARATE TERMINAL. ONLY THE TOP RECEPTACLE OF 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. DIMMING SWITCHES SHALL BE SLIDE TYPE, SOLID-STATE, FLUSH MOUNTED, AND SIZED FOR THE LOADS.
- G. DEVICE PLATES SHALL BE ONE-PIECE TYPE AND BE PROVIDED FOR ALL RECEPTACLES, OUTLETS, SWITCHES AND FITTINGS. PLATES ON UNFINISHED WALLS AND ON FITTINGS SHALL BE OF IMPACT RESISTANT PLASTIC HAVING ROUNDED OR BEVELED EDGES. PLATES ON FINISHED WALLS SHALL BE IMPACT-RESISTANT PLASTIC. PLATES SHALL BE INSTALLED WITH ALL FOUR EDGES IN CONTINUOUS CONTACT WITH FINISHED WALL SURFACES WITHOUT THE USE OF MATS OR SIMILAR DEVICES. PLATES SHALL BE INSTALLED WITH AN ALIGNMENT TOLERANCE OF 1/16 INCH. THE USE OF SECTIONAL-TYPE DEVICE PLATES WILL NOT BE PERMITTED. PLATES INSTALLED IN WET LOCATIONS SHALL BE GASKETED AND PROVIDED WITH A HINGED, GASKETED COVER, UNLESS OTHERWISE SPECIFIED.
11. PROVIDE ALL NECESSARY JUNCTION BOXES, PULL BOXES, PULL WIRES, COVER PLATES AND OTHER MISCELLANEOUS EQUIPMENT WHICH IS NOT SHOWN ON THE CONTRACT DOCUMENTS BUT NECESSARY TO COMPLETE THE WORK.
12. PROVIDE ALL NECESSARY WIRE, CONDUIT AND EQUIPMENT TO SUPPLY POWER TO THE HEATING, VENTILATION AND AIR CONDITIONING EQUIPMENT, PLUMBING EQUIPMENT AND FIRE PROTECTION EQUIPMENT. CONTROL WIRING AND CONDUIT SHALL BE PROVIDED UNDER DIVISION 15.
13. COORDINATE ALL WORK WITH OTHER TRADES AND ARRANGE INSTALLATION TO AVOID CLASHES BETWEEN EQUIPMENT, WORK OF OTHER TRADES AND BUILDING STRUCTURE.



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

GENERAL RENOVATIONS for the FRASCARELI RESID. APPLICATION No. 2440 32 Massachusetts Road South Lyme, CT 06376



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date	description	no.
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revisions

ELECTRICAL SPECIFICATIONS

E-5.1

date	5 MAY 2016
drawn	ANK
scale	AS SHOWN
checked	DTB
project no.	1347-51
application no.	2440