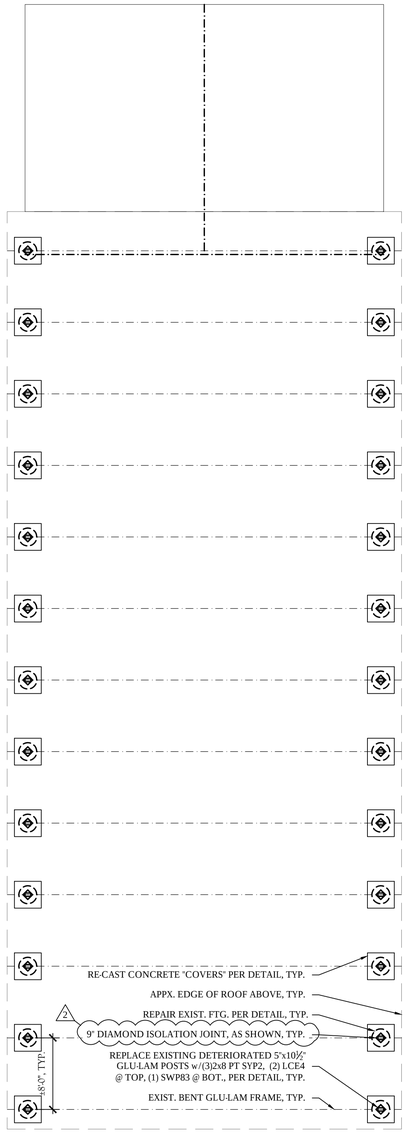


FOUNDATION PLAN

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

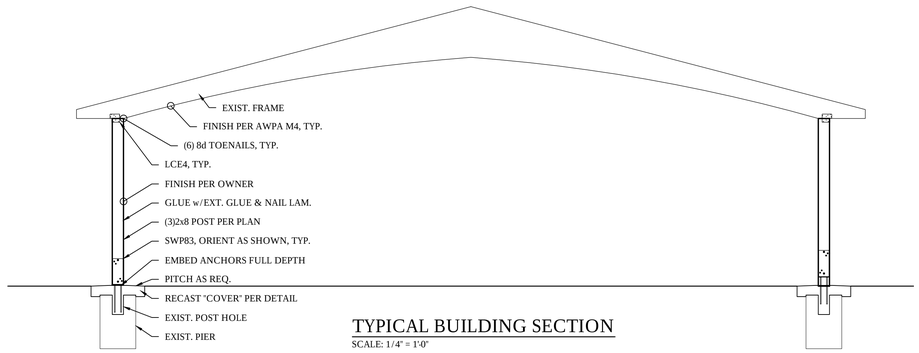
DESIGN LOADS TABLE

SNOW LOADS	
GROUND SNOW LOAD (Pg)	30 PSF
FLAT ROOF SNOW LOAD (Pf)	30 PSF
SNOW EXPOSURE FACTOR (Ce)	1.0
IMPORTANCE FACTOR (Is)	1.0
THERMAL FACTOR (Ct)	1.0

WIND LOADS	
BASIC WIND SPEED (3-SEC)	125 MPH
RISK CATEGORY	II
WIND EXPOSURE	B
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	PER ASCE 7-10 (CHAPTER 30)

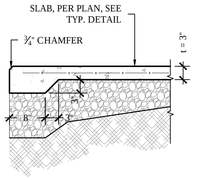
DEFLECTION TOLERANCES	
PER IBC TABLE 16.4.3 U.N.O.	
ELEMENT	LIVE | DEAD+LIVE
FLOORS	L/360 | L/240
ROOFS	L/240 | L/180
WALLS	L/240 | L/180

SEISMIC (EARTHQUAKE) LOADS	
IMPORTANCE FACTOR (Ie)	1.0
MAPPED SPECTRAL RESPONSE ACCELERATION Ss S1	0.165 0.059
SITE CLASSIFICATION	D
SEISMIC DESIGN CATEGORY	B



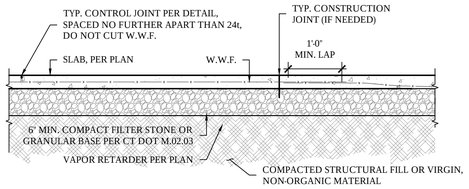
TYPICAL BUILDING SECTION

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



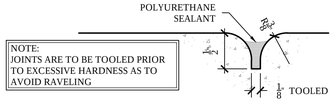
EDGE OF SLAB

SCALE: 3/4"= 1'-0"



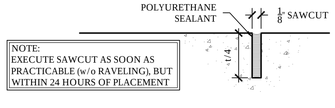
TYPICAL SLAB ON GRADE DETAIL

SCALE: 3/4" = 1'-0"



TYPICAL TOOLED CONTROL JOINT DETAIL

NOT TO SCALE



TYPICAL CUT CONTROL JOINT DETAIL

NOT TO SCALE

GENERAL STRUCTURAL NOTES

G1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2015 INTERNATIONAL BUILDING CODE, AS AMENDED FOR THE 2018 CONNECTICUT BUILDING CODE.

G2. THE GENERAL CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR MEANS AND METHODS OF CONSTRUCTION AND SAFETY ON THE JOB SITE.

G3. THE GENERAL CONTRACTOR SHALL FURNISH COMPLETE SETS OF DRAWINGS TO ALL SUBCONTRACTORS.

G4. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 811 AT LEAST 2 FULL WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

CONCRETE / REINFORCED CONCRETE

C1. GENERAL: ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTES 'SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS' (ACI 301-95).

C2. CONCRETE MIXES SHALL INCLUDE MID-RANGE WATER REDUCING ADMIXTURE OR PLASTICIZER AND SHALL HAVE A DESIGN SLUMP OF 5" WITH A MAXIMUM PLACEMENT SLUMP OF 6.5". HIGHER SLUMPS ARE ALLOWABLE IF HIGH RANGE PLASTICIZERS ARE USED.

EXPANSIVE GROUT:
QUIKRETE ANCHORING CEMENT, KWIXSET EXPANDING CEMENT, OR APPROVED EQUAL.

CONCRETE FOR EXTERIOR SLABS:
f'c = 3500 PSI AT 28 DAYS
w/c RATIO = 0.50 (MAX)
AIR ENTRAINMENT = 6%

C3. REINFORCING STEEL: ASTM A615 - GRADE 60.

C4. BAR DETAILING: IN ACCORDANCE WITH THE "ACI DETAILING MANUAL - 1988". PLACING DRAWINGS SHALL SHOW THE NUMBER AND LOCATION OF ALL BAR SUPPORTS AND ACCESSORIES.

C5. MINIMUM DEVELOPMENT LENGTH AND LAP SPLICE LENGTH OF REINFORCING BARS SHALL BE AS FOLLOWS (IF f'c=3000 PSI, 24" O.C. OR CLOSER):

BAR SIZE	DEVELOPMENT LENGTH*	LAP SPLICE LENGTH
#4	22"	29"
#5	28"	36"

*NO EPOXY COATED REBAR.

C6. CONCRETE COVER:
SHALL BE AS FOLLOWS: CONCRETE POURED AGAINST EARTH..... 3"
CONCRETE POURED IN FORMS BUT EXPOSED TO EARTH OR WEATHER:
5 BARS AND SMALLER..... 1-1/2"
LARGER THAN #5 BARS..... 2"

C7. WHERE WELDED WIRE FABRIC IS USED, SHEETS SHALL BE SUPPORTED ON CLASS 3 SUPPORTS WITH SAND PLATES IN SUFFICIENT QUANTITY TO MAINTAIN THE FABRIC'S LOCATION IN THE SLAB. PRECAST CONCRETE BLOCK/BRICK SHALL NOT BE USED.

C14. U.N.O., SLABS ON GRADE SHALL BE CAST IN ALTERNATE PATTERNS OR SAW CUT INTO AREAS NOT EXCEEDING 900 S.F. OR AS INDICATED ON PLAN.

C15. U.N.O., SLABS ON GRADE SHALL BE EITHER FULLY WET CURED OR CONTAIN CONTROL JOINTS AT A MAXIMUM SPACING OF 24*THICKNESS (72" FOR A 3" SLAB) IN EACH ORTHOGONAL DIRECTION.

STRUCTURAL STEEL

S1. MATERIALS:

CHANNELS.....ASTM A36
BOLTS.....ASTM A307 STD NUT/WASHER, 1 ⅜" O.D. WASHER AT WOOD
WELDING ELECTRODES.....ASTM A233 E 70 SERIES

S2. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE 'SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS' OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 14TH EDITION AND THE 'AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES'.

S3. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ALL STRUCTURAL STEEL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. SUBMIT TWO PRINTS. DO NOT PROCEED WITH FABRICATION WITHOUT SHOP DRAWING REVIEWED BY THE ENGINEER OF RECORD.

S4. STORE MATERIALS TO PERMIT EASY ACCESS FOR INSPECTION AND IDENTIFICATION. KEEP STEEL MEMBERS OFF GROUND AND SPACED BY USING PALLETS, DUNNAGE, OR OTHER SUPPORTS AND SPACERS. PROTECT STEEL MEMBERS AND PACKAGED MATERIALS FROM CORROSION AND DETERIORATION. DO NOT STORE MATERIALS ON STRUCTURE IN A MANNER THAT MIGHT CAUSE DISTORTION, DAMAGE, OR OVERLOAD TO MEMBERS OR SUPPORTING STRUCTURES. REPAIR OR REPLACE DAMAGED MATERIALS OR STRUCTURES AS DIRECTED. STORE FASTENERS IN A PROTECTED PLACE IN SEALED CONTAINERS WITH MANUFACTURER'S LABELS INTACT. CLEAN AND RELUBRICATE BOLTS AND NUTS THAT BECOME DRY OR RUSTY BEFOR USE.

S5. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE STEEL D1.1, LATEST EDITION, BY CERTIFIED WELDERS AND QUALIFIED WELDING PROCEDURES. SHIELDED METAL ARC METHOD OF WELDING SHALL BE USED FOR ALL WORK. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AISC, AND AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGED BY WELDING IS TO BE REPLACED OR REINFORCED AS ACCEPTABLE TO THE STRUCTURAL ENGINEER.

S6. ALL INTERIOR/FULLY PROTECTED STEEL SHALL BE SHOP PRIMED AT A MINIMUM. SHOP PRIMER PAINT SHALL BE TNEMEC 88-555 METAL PRIMER, RUSTOLEUM 678, DUPONT 771, (MINIMUM 1.5 DFT), OR SSPC-PAINT 25 (SUCH AS INTREPID 2000Z6). ANY COATING APPLIED OVER PRIMER MUST BE OF A STRONGLY CONTRASTING COLOR. ALL AREAS PRIMER DAMAGED DURING INSTALLATION MUST BE MECHANICALLY CLEANED TO AN SP3 SURFACE AND TOUCHED UP PER THE MANUFACTURERS RECOMMENDATIONS. AREAS AROUND WELD DAMAGED MUST BE STRIPPED SUFFICIENTLY PAST THE WELD TO REMOVE ANY PAINT COMPROMISED BY THE HEATING.

ALL STEEL EXPOSED TO WEATHER (PER IBC 'WEATHER-EXPOSED SURFACE') MUST BE HOT DIPPED GALVANIZED (HDG) PER ASTM A123. ALL AREAS OF HDG DAMAGED BY OPERATIONS, ESPECIALLY WELDING, ARE TO BE REPAIRED PER ASTM A780 SOLDER METHODOLOGY UPON COMPLETION OF THE OPERATION TO THE WRITTEN SATISFACTION OF THE ENGINEER.

S7. VERIFY AND COORDINATE REQUIREMENTS, DIMENSIONS AND LOCATIONS OF MECHANICAL EQUIPMENT PRIOR TO START OF FABRICATION.

S8. MINIMUM FILLET WELD SIZE SHALL BE 1/4" UNLESS OTHERWISE SHOWN ON THE DRAWINGS. RECORDS OF WELDER QUALIFICATIONS SHALL BE MAINTAINED AND AVAILABLE FOR OWNERS REVIEW.

S9. ALL STEEL AT AND BELOW FINISHED GRADE OR FLOOR SLAB SHALL RECEIVE TWO (2) COATS OF BITUMINOUS PAINT - OR 3 MINIMUM CONCRETE COVER.

FOUNDATION / SOILS

F1. FOUNDATION ELEMENTS SHALL BE DESIGNED FOR THE FOLLOWING ALLOWABLE BEARING CAPACITY: ALLOWABLE SOIL BEARING PRESSURE = 3000PSF

F2. THE FOOTINGS MAY FALL IN BEDROCK. WHERE BLASTING IS NECESSARY, THE BEDROCK SHOULD BE BLASTED TO A DEPTH OF AT LEAST 2 FEET BELOW THE FOOTINGS AND SLABS ON GRADE. PREPARATION OF THE BLASTED ROCK SURFACE FOR FOOTINGS WILL INCLUDE EXCAVATING THE ROCK SUFFICIENTLY TO PERMIT PLACEMENT OF A MINIMUM 8" LAYER OF CRUSHED STONE, SUCH AS FILTER STONE, BENEATH THE FOOTINGS AND SLABS ON GRADE. THE STONE LAYER SHALL BE COMPACTED WITH A VIBRATORY ROLLER TO FILL THE FRACTURES IN THE ROCK AND TO PROVIDE A UNIFORMLY STIFF SURFACE TO RECEIVE FOOTINGS AND SLABS. LOOSE BLASTED ROCK (OVER-BLAST) SHOULD BE REMOVED AND REPLACED WITH ACCEPTABLE STRUCTURAL FILL AND PROOF ROLLED. A PRECONDITION BLAST SURVEY SHALL BE MADE FOR ANY PROPERTIES THAT MAY BE AFFECTED BY BLASTING.

F3. CONCRETE SLABS ON GRADE:
A 6" LAYER OF SOUND, DURABLE CLEAN (LESS THAN 5% PASSING THE #200 SIEVE) CRUSHED STONE WITH 100% PASSING THE 1 ½" SIEVE, SHALL BE PLACED IMMEDIATELY BENEATH THE SLAB ON GRADE. BENEATH THE CRUSHED STONE LAYER, STRUCTURAL FILL SHALL BE PLACED AS REQUIRED AFTER REMOVAL OF ANY EXISTING FILL AND ORGANIC MATERIALS. FILTER STONE MAY BE USED IN LIEU OF THIS NOTE PER THE STRUCTURAL EARTHWORK NOTES.

F4. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING REQUIREMENTS.

F5. WHERE THE GROUNDWATER TABLE IS ENCOUNTERED, A MINIMUM OF 6' OF ½" WASHED CRUSHED STONE SHALL BE PLACED UNDER FOOTINGS; ALTERNATELY FILTER STONE MAY BE USED PER THE STRUCTURAL EARTHWORK NOTES.

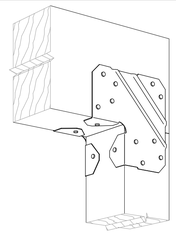
F6. ALL FOOTINGS SHALL BE BELOW UNSUITABLE EXISTING FILLS AND ORGANIC MATERIALS.

F7. ALL EXCAVATION WORK SHALL CONFORM TO OSHA 29CFR 1926 SUBPART P:EXCAVATIONS.

F8. ESTIMATED ELEVATIONS OF BOTTOM OF FOOTINGS ARE AS SHOWN ON FOUNDATION PLANS AND ARE APPROXIMATE. THESE ELEVATIONS SHALL BE ADJUSTED TO ACTUAL LEVELS OF APPROVED BEARING STRATA FOUND UPON EXCAVATION. ANY UNUSUAL CONDITIONS SHALL BE CALLED TO THE ATTENTION OF THE STRUCTURAL ENGINEER.

F9. DO NOT BACKFILL FOUNDATION UNTIL FIRST FLOOR DECK IS INSTALLED OR UNTIL ADEQUATE TEMPORARY SHORES ARE INSTALLED.

F10. VAPOR BARRIER SHALL BE POLYOLEFIN HAVING A MINIMUM THICKNESS OF 10 MILS (.010), FREE OF PINHOLES AND OTHER BLEMISHES, AND ALL JOINTS SHALL BE LAPPED 12" AND TAPED.

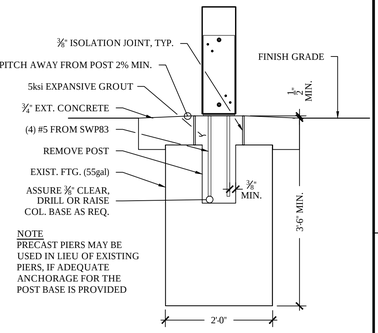


LCE4 ISOMETRIC DETAIL

NOT TO SCALE

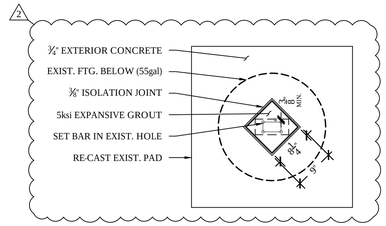
SWP83 ISOMETRIC DETAIL

NOT TO SCALE



1 S-2 TYP. PIER DETAIL

SCALE: 3/4" = 1'-0"



1a S-2 TYP. PIER PLAN VIEW DETAIL

SCALE: 3/4" = 1'-0"

WOOD NOTES

W1. ALL FRAMING EXPOSED TO THE WEATHER OR GROUND CONTACT SHALL BE PRESSURE TREATED (PT) AS REQUIRED, AND SHALL BE SOUTHERN YELLOW PINE #2 (SYP2) OR SUPERIOR. ALL NON-EXPOSED FRAMING LUMBER SHALL BE HEM-FIR NORTH #2, DOUGLAS FIR #2, OR BETTER UNLESS OTHERWISE NOTED. ALL PRESSURE TREATED LUMBER (ACQ) LEVEL OF TREATMENT SHALL BE IN ACCORDANCE W/AWPA STANDARDS FOR RETENTION BASED ON END USE APPLICATION (ABOVE GROUND USE, GROUND CONTACT, DECKING, ETC.).

W2. ALL CUT ENDS, NOTCHES, AND DRILLED HOLES IN PT LUMBER MUST BE FIELD TREATED PER AWPA M4 STANDARDS, SUCH AS WITH COPPER NAPHTHENATE. OUR OFFICE RECOMMENDS THAT ALL NEW PT LUMBER OPEN TO WEATHER BE TREATED WITH A PENETRATING WATER REDUCER (SUCH AS BOILED LINSEED OIL) IN ORDER TO INCREASE THE LIFE OF THE STRUCTURE.

W3. ALL METAL FRAMING CONNECTIONS SHALL BE SIMPSON STRONG TIE (SST) OR APPROVED EQUAL.

W4. ALL METAL HANGERS TO BE GALVANIZED AS FOLLOWS:
PRESSURE TREATED WOOD: G-185
ALL OTHER WOOD: G-60

SEE PLAN FOR SKEW / SLOPE REQUIREMENTS. ALL HANGERS TO BE FULLY NAILED PER MANUFACTURER'S NAILING SCHEDULE.

W5. ALL BOLTS, NAILS AND ASSOCIATED FASTENERS EXPOSED TO THE WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM WEIGHT OF ZINC COATING = 1.00 OZ./FT.

W6. ALL WOOD FRAMING CONNECTIONS SHALL BE FASTENED IN ACCORDANCE WITH "FASTENING SCHEDULE" OF 2009 IRC, UNLESS OTHERWISE INDICATED.

W7. TREATING THE CUT ENDS OF LUMBER WITH WATER REPELLENT SUCH AS LINSEED OIL OR MOST COMMON PAINTS WILL INCREASE THE RESILIENCY OF ANY FRAMING IN THE EVENT OF FUTURE LEAKING/MOISTURE.

W8. ALL PROPRIETARY HARDWARE SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER's REQUIREMENTS.

W9. UNLESS NOTED OTHERWISE, ALL NAILS ARE TO BE COMMON WIRE NAILS, WITH CORROSION RESIDENCE APPROPRIATE TO THE USE. SELECT FASTENERS OF SIZE THAT WILL NOT FULLY PENETRATE MEMBERS WHERE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR WILL RECEIVE FINISH MATERIALS. MAKE TIGHT CONNECTIONS BETWEEN MEMBERS. INSTALL FASTENERS WITHOUT SPLITTING WOOD. DRIVE NAILS SNUG BUT DO NOT COUNTERSINK NAIL HEADS UNLESS OTHERWISE INDICATED. IF POST-FRAME NAILS (RING SHANK OR SPIRAL) ARE SPECIFIED, THE DIAMETER WILL BE BASED ON THE CALL OUT ON PLAN, INTERPRETED AS DESCRIBED BELOW. DIAMETERS MUST MEET OR EXCEED THE FOLLOWING BASED ON THE CALL-OUTS IN THE PLANS:
16d=0.162" ø (0.177" POST-FRAME) 10d=0.148" ø 8d=0.131" ø (0.135" POST-FRAME)

W10. BOLTS SHALL BE ASTM A 307-GRADE A STEEL, WITH ASTM A 563 HEX NUTS AND, WHERE INDICATED, FLAT WASHERS.

W11. COMPLY WITH AF&PA'S WCD 1, "DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION," UNLESS OTHERWISE INDICATED.

W12. DO NOT SPLICE STRUCTURAL MEMBERS BETWEEN SUPPORTS UNLESS OTHERWISE INDICATED.

W13. STACK LUMBER FLAT WITH SPACERS BENEATH AND BETWEEN EACH BUNDLE TO PROVIDE AIR CIRCULATION. PROTECT LUMBER FROM WEATHER BY COVERING WITH WATERPROOF SHEETING, SECURELY ANCHORED. PROVIDE FOR AIR CIRCULATION AROUND STACKS AND UNDER COVERINGS.

STRUCTURAL EARTHWORK

E1. IN ABSENCE OF A SUB-SURFACE EXPLORATION AND GEOTECHNICAL REVIEW, THESE DESIGNS REQUIRE THAT IT BE FIELD VERIFIED THAT NO MATERIALS CONTAINING ORGANICS, VOIDS, DEBRIS, RUBBLE, PLASTICS, FATTY CLAYS, ASH, OR SOLUBLE MATERIAL BE PRESENT WITHIN THE BEARING AREA, WHICH IS TO BE TAKEN AS 10' BEYOND THE OUTER FOOTING EDGE. THIS MAY BE VERIFIED VIA TEST PITS OR BORINGS, AS NECESSARY.

E2. FROM BOTTOM OF FOOTING TO UNDERSIDE OF SLAB, FILL SHALL BE PLACED IN 8" LOOSE LAYERS AND COMPACTED TO 95% MAXIMUM DENSITY PER ASTM D-1557 (3-POINT CURVE ACCEPTABLE).

E3. FROM STRIPLINE TO BOTTOM OF FOOTING, FILL SHALL BE PLACED IN 8" LOOSE LAYERS AND COMPACTED TO 95% MAXIMUM DENSITY AS PER NOTE E2.

E4. FOUNDATIONS ARE DESIGNED FOR A SOIL BEARING VALUE OF 3000 P.S.F..

E5. ALL STRUCTURAL FILL IS TO BE SOUND/DURABLE MATERIAL FREE OF DEBRIS, ORGANICS, ASPHALT AND VOIDS, COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D-1557 (3-POINT CURVE ACCEPTABLE), AND IS TO CONFORM TO THE FOLLOWING GRADATION:

Sieve Size	% Passing
3½"	100
1½"	85 - 100
½"	50 - 85
¼"	35 - 80
#10	30 - 75
#40	10 - 40
#200	0 - 10*

a. *0.5% IF REPROCESSED ASPHALT IS USED*

E6. TOPSOIL PLACED OVER STRUCTURAL FILL IS TO HAVE NO MORE THAN 85% PASSING THE 140 SIEVE (D ⌀ ≥0.1mm), AND MUST BE SEPARATED FROM FILTER STONE WITH EITHER FILTER FABRIC OR NO LESS THAN 4' OF STRUCTURAL FILL.

ABBREVIATIONS LEGEND

A.O.D. =	AT OWNER'S DISCRETION
BTWN. =	BETWEEN
CLR. =	CLEAR
COORD.=	COORDINATE
CONC. =	CONCRETE
CONN. =	CONNECT
CONT. =	CONTINUOUS
DBL. = (2) =	DOUBLE
DEG. = ° =	DEGREES
DIA. = ø =	DIAMETER
DNS =	DO NOT SCALE
DWL. =	DOWEL
EA. =	EACH
EoR =	ENGINEER OF RECORD
ELEV. =	ELEVATION
EMBED. =	EMBEDMENT
EQ. =	EQUAL
EXIST. =	EXISTING
EXT. =	EXTERIOR
f'c =	CONC. COMPRESSIVE STRENGTH
FIN. =	FINISH
FT. =	FOOT OR FEET
FTG. =	FOOTING
GA. = ga. =	GAUGE (THICKNESS)
H.D.G. =	HOT DIPPED GALVANIZED
HORIZ. =	HORIZONTAL
IBC =	INTERNATIONAL BLDG. CODE
IRC =	INTERNATIONAL RES. CODE
I.D. =	INNER DIAMETER
IN. =	INCH
INT. =	INTERIOR
LAT. =	LATERAL
LONG. =	LONGITUDINAL
ld =	DEVELOPMENT LENGTH
MAX. =	MAXIMUM
MIN. =	MINIMUM
MFR. =	MANUFACTURER
NTS =	NOT TO SCALE
O.C. =	ON CENTER
O.D. =	OUTER DIAMETER
O.H. =	OPPOSITE HAND
PROJ. =	PROJECTION
PSF =	POUNDS PER SQ. FT.
PSI =	POUNDS PER SQ. IN.
PT =	PRESSURE TREATED
REINF. =	REINFORCEMENT
R.O. =	ROUGH OPENING
REQ. =	REQUIRED
SIM. =	SIMILAR
SQ. =	SQUARE
STD. =	STANDARD
T.B.D. =	TO BE DETERMINED
T.B.R. =	TO BE REMOVED
THR. =	THREADED
TYP. =	TYPICAL
SQ. FT. =	SQUARE FEET
U.N.O.= U.O.N. =	UNLESS NOTED OTHERWISE
VERT. =	VERTICAL
V.I.F. =	VERIFY IN FIELD
w/ =	WITH
W.W.F. =	WELDED WIRE FABRIC

NUMBER	DATE	REVISION
2	2023/03/09	FROST SUSCEPTIBILITY- KEY REVISIONS CLOUDED
1	2022/12/20	REPAIR FOOTINGS RATHER THAN REPLACE

PAVILION FOUNDATION REPAIR
Existing 125'x40' Pavilion Structure
Camp Oakdale 866 CT-163, Montville, CT

FRAME REPAIR

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING
317 Main Street Norwich, Connecticut
(860) 886-1966 Fax (860) 886-9165
www.claengineers.com

CLA PROJECT NO. 7169

PROJ. ENGINEER ADB

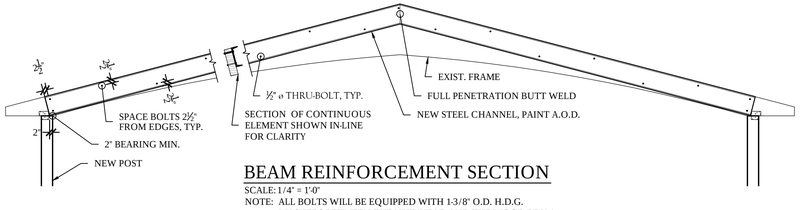
DATE: 2022-08-09

SHEET NO. (OF 2 SHEETS)

S-1.0

FOUNDATION PLAN

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



BEAM REINFORCEMENT SECTION

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

NOTE: ALL BOLTS WILL BE EQUIPPED WITH 1-3/8" O.D. H.D.G. WASHERS BETWEEN THE NUT/HEAD AND THE WOOD BEAM.

GENERAL STRUCTURAL NOTES

G1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2021 INTERNATIONAL BUILDING CODE, AS AMENDED FOR THE 2022 CONNECTICUT BUILDING CODE.

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G4. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 811 AT LEAST 2 FULL WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

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THERMAL FACTOR (Ct)	1.0

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WIND EXPOSURE	B
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COMPONENTS & CLADDING	PER ASCE 7.10 (CHAPTER 30)

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IMPORTANCE FACTOR (Ie)	1.0
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SITE CLASSIFICATION	D
SEISMIC DESIGN CATEGORY	B

STRUCTURAL STEEL

S1. MATERIALS:

CHANNELS.....ASTM A36
BOLTS.....ASTM A307 STD NUT/WASHER, 1⅜" O.D. WASHER AT WOOD
WELDING ELECTRODES.....ASTM A233 E 70 SERIES

S2. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, 14TH EDITION AND THE 'AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

S3. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ALL STRUCTURAL STEEL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. SUBMIT TWO PRINTS. DO NOT PROCEED WITH FABRICATION WITHOUT SHOP DRAWING REVIEWED BY THE ENGINEER OF RECORD.

S4. STORE MATERIALS TO PERMIT EASY ACCESS FOR INSPECTION AND IDENTIFICATION. KEEP STEEL MEMBERS OFF GROUND AND SPACED BY USING PALLETS, DUNNAGE, OR OTHER SUPPORTS AND SPACERS. PROTECT STEEL MEMBERS AND PACKAGED MATERIALS FROM CORROSION AND DETERIORATION. DO NOT STORE MATERIALS ON STRUCTURE IN A MANNER THAT MIGHT CAUSE DISTORTION, DAMAGE, OR OVERLOAD TO MEMBERS OR SUPPORTING STRUCTURES. REPAIR OR REPLACE DAMAGED MATERIALS OR STRUCTURES AS DIRECTED. STORE FASTENERS IN A PROTECTED PLACE IN SEALED CONTAINERS WITH MANUFACTURER'S LABELS INTACT. CLEAN AND RELUBRICATE BOLTS AND NUTS THAT BECOME DRY OR RUSTY BEFORE USE.

S5. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE STEEL D1.1, LATEST EDITION, BY CERTIFIED WELDERS AND QUALIFIED WELDING PROCEDURES. SHIELDED METAL ARC METHOD OF WELDING SHALL BE USED FOR ALL WORK. WELDING ELECTRODES, WELDING PROCESS, MINIMUM PREHEAT AND INTERPASS TEMPERATURES SHALL BE IN ACCORDANCE WITH THE AISC AND AWS SPECIFICATIONS. ANY STRUCTURAL STEEL DAMAGED BY WELDING IS TO BE REPLACED OR REINFORCED AS ACCEPTABLE TO THE STRUCTURAL ENGINEER.

S6. ALL INTERIOR/FULLY PROTECTED STEEL SHALL BE SHOP PRIMED AT A MINIMUM. SHOP PRIMER PAINT SHALL BE TNEMEC 88-555 METAL PRIMER, RUSTOLEUM 678, DUPONT 771. (MINIMUM 1.5 DFT), OR SSPC-PAINT 25 (SUCH AS INTREPID 200R26). ANY COATING APPLIED OVER PRIMER MUST BE OF A STRONGLY CONTRASTING COLOR. ALL AREAS PRIMER DAMAGED DURING INSTALLATION MUST BE MECHANICALLY CLEANED TO AN SP3 SURFACE AND TOUCHED UP PER THE MANUFACTURERS RECOMMENDATIONS. AREAS AROUND WELD DAMAGED MUST BE STRIPPED SUFFICIENTLY PAST THE WELD TO REMOVE ANY PAINT COMPROMISED BY THE HEATING.

ALL STEEL EXPOSED TO WEATHER (PER IBC "WEATHER-EXPOSED SURFACE") MUST BE HOT DIPPED GALVANIZED (HDG) PER ASTM A123. ALL AREAS OF HDG DAMAGED BY OPERATIONS, ESPECIALLY WELDING, ARE TO BE REPAIRED PER ASTM A780 SOLDER METHODOLOGY UPON COMPLETION OF THE OPERATION TO THE WRITTEN SATISFACTION OF THE ENGINEER.

S7. VERIFY AND COORDINATE REQUIREMENTS, DIMENSIONS AND LOCATIONS OF MECHANICAL EQUIPMENT PRIOR TO START OF FABRICATION.

S8. MINIMUM FILLET WELD SIZE SHALL BE 1/4" UNLESS OTHERWISE SHOWN ON THE DRAWINGS. RECORDS OF WELDER QUALIFICATIONS SHALL BE MAINTAINED AND AVAILABLE FOR OWNERS REVIEW.

S9. ALL STEEL AT AND BELOW FINISHED GRADE OR FLOOR SLAB SHALL RECEIVE TWO (2) COATS OF BITUMINOUS PAINT - OR 3 MINIMUM CONCRETE COVER.

WOOD NOTES

W1. ALL FRAMING EXPOSED TO THE WEATHER OR GROUND CONTACT SHALL BE PRESSURE TREATED (PT) AS REQUIRED, AND SHALL BE SOUTHERN YELLOW PINE #2 (SYP2) OR SUPERIOR. ALL NON-EXPOSED FRAMING LUMBER SHALL BE HEM-FIR NORTH #2, DOUGLAS FIR #2, OR BETTER UNLESS OTHERWISE NOTED. ALL PRESSURE TREATED LUMBER (ACQ) LEVEL OF TREATMENT SHALL BE IN ACCORDANCE W/AWPA STANDARDS FOR RETENTION BASED ON END USE APPLICATION (ABOVE GROUND USE, GROUND CONTACT, DECKING, ETC.).

W2. ALL CUT ENDS, NOTCHES, AND DRILLED HOLES IN PT LUMBER MUST BE FIELD TREATED PER AWPA M4 STANDARDS, SUCH AS WITH COPPER NAPHTHENATE. OUR OFFICE RECOMMENDS THAT ALL NEW PT LUMBER OPEN TO WEATHER BE TREATED WITH A PENETRATING WATER REDUCER (SUCH AS BOILED LINSEED OIL) IN ORDER TO INCREASE THE LIFE OF THE STRUCTURE.

W3. ALL METAL FRAMING CONNECTIONS SHALL BE SIMPSON STRONG TIE (SST) OR APPROVED EQUAL.

W4. ALL METAL HANGERS TO BE GALVANIZED AS FOLLOWS:
PRESSURE TREATED WOOD: G-185
ALL OTHER WOOD: G-60

SEE PLAN FOR SKEW / SLOPE REQUIREMENTS. ALL HANGERS TO BE FULLY NAILED PER MANUFACTURER'S NAILING SCHEDULE.

W5. ALL BOLTS, NAILS AND ASSOCIATED FASTENERS EXPOSED TO THE WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM WEIGHT OF ZINC COATING = 1.00 OZ./FT.

W6. ALL WOOD FRAMING CONNECTIONS SHALL BE FASTENED IN ACCORDANCE WITH "FASTENING SCHEDULE" OF 2009 IRC, UNLESS OTHERWISE INDICATED.

W7. TREATING THE CUT ENDS OF LUMBER WITH WATER REPELLENT SUCH AS LINSEED OIL OR MOST COMMON PAINTS WILL INCREASE THE RESILIENCY OF ANY FRAMING IN THE EVENT OF FUTURE LEAKING/MOISTURE.

W8. ALL PROPRIETARY HARDWARE SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER's REQUIREMENTS.

W9. UNLESS NOTED OTHERWISE, ALL NAILS ARE TO BE COMMON WIRE NAILS, WITH CORROSION RESIDENCE APPROPRIATE TO THE USE. SELECT FASTENERS OF SIZE THAT WILL NOT FULLY PENETRATE MEMBERS WHERE OPPOSITE SIDE WILL BE EXPOSED TO VIEW OR WILL RECEIVE FINISH MATERIALS. MAKE TIGHT CONNECTIONS BETWEEN MEMBERS. INSTALL FASTENERS WITHOUT SPLITTING WOOD. DRIVE NAILS SNUG BUT DO NOT COUNTERSINK NAIL HEADS UNLESS OTHERWISE INDICATED. IF POST-FRAME NAILS (RING SHANK OR SPIRAL) ARE SPECIFIED, THE DIAMETER WILL BE BASED ON THE CALL OUT ON PLAN, INTERPRETED AS DESCRIBED BELOW. DIAMETERS MUST MEET OR EXCEED THE FOLLOWING BASED ON THE CALL-OUTS IN THE PLANS:
16d=0.162" ø (0.177" POST-FRAME) 10d=0.148" ø 8d=0.131" ø (0.135" POST-FRAME)

W10. BOLTS SHALL BE ASTM A 307-GRADE A STEEL, WITH ASTM A 563 HEX NUTS AND, WHERE INDICATED, FLAT WASHERS.

W11. COMPLY WITH AF&PA'S WCD 1, "DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION," UNLESS OTHERWISE INDICATED.

W12. DO NOT SPLICE STRUCTURAL MEMBERS BETWEEN SUPPORTS UNLESS OTHERWISE INDICATED.

W13. STACK LUMBER FLAT WITH SPACERS BENEATH AND BETWEEN EACH BUNDLE TO PROVIDE AIR CIRCULATION. PROTECT LUMBER FROM WEATHER BY COVERING WITH WATERPROOF SHEETING, SECURELY ANCHORED. PROVIDE FOR AIR CIRCULATION AROUND STACKS AND UNDER COVERINGS.

STRUCTURAL EARTHWORK

E1. IN ABSENCE OF A SUB-SURFACE EXPLORATION AND GEOTECHNICAL REVIEW, THESE DESIGNS REQUIRE THAT IT BE FIELD VERIFIED THAT NO MATERIALS CONTAINING ORGANICS, VOIDS, DEBRIS, RUBBLE, PLASTICS, FATTY CLAYS, ASH, OR SOLUBLE MATERIAL BE PRESENT WITHIN THE BEARING AREA, WHICH IS TO BE TAKEN AS 10' BEYOND THE OUTER FOOTING EDGE. THIS MAY BE VERIFIED VIA TEST PITS OR BORINGS, AS NECESSARY.

E2. FROM BOTTOM OF FOOTING TO UNDERSIDE OF SLAB, FILL SHALL BE PLACED IN 8" LOOSE LAYERS AND COMPACTED TO 95% MAXIMUM DENSITY PER ASTM D-1557 (3-POINT CURVE ACCEPTABLE).

E3. FROM STRIPLINE TO BOTTOM OF FOOTING, FILL SHALL BE PLACED IN 8" LOOSE LAYERS AND COMPACTED TO 95% MAXIMUM DENSITY AS PER NOTE E2.

E4. FOUNDATIONS ARE DESIGNED FOR A SOIL BEARING VALUE OF 3000 P.S.F..

E5. ALL STRUCTURAL FILL IS TO BE SOUND/DURABLE MATERIAL FREE OF DEBRIS, ORGANICS, ASPHALT AND VOIDS, COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D-1557 (3-POINT CURVE ACCEPTABLE), AND IS TO CONFORM TO THE FOLLOWING GRADATION:

Sieve Size	% Passing
3½"	100
1½"	85 - 100
¾"	50 - 85
¼"	35 - 80
#10	30 - 75
#40	10 - 40
#200	0 - 10[a]

a. 05% IF REPROCESSED ASPHALT IS USED

E6. TOPSOIL PLACED OVER STRUCTURAL FILL IS TO HAVE NO MORE THAN 85% PASSING THE 140 SIEVE ($D_{85} \geq 0.1mm$), AND MUST BE SEPARATED FROM FILTER STONE WITH EITHER FILTER FABRIC OR NO LESS THAN 4" OF STRUCTURAL FILL.

ABBREVIATIONS LEGEND

A.O.D. =	AT OWNER's DISCRETION	FT. =	FOOT OR FEET	PSF =	POUNDS PER SQ. FT.
BTWN. =	BETWEEN	FTG. =	FOOTING	PSI =	POUNDS PER SQ. IN.
CLR. =	CLEAR	GA. = ga. =	GAUGE (THICKNESS)	PT =	PRESSURE TREATED
COORD.=	COORDINATE	H.D.G. =	HOT DIPPED GALVANIZED	REINF. =	REINFORCEMENT
CONC. =	CONCRETE	HORIZ. =	HORIZONTAL	R.O. =	ROUGH OPENING
CONN. =	CONNECT	IBC =	INTERNATIONAL BLDG. CODE	REQ. =	REQUIRED
CONT. =	CONTINUOUS	IRC =	INTERNATIONAL RES. CODE	SIM. =	SIMILAR
DBL. = (2) =	DOUBLE	I.D. =	INNER DIAMETER	SQ. =	SQUARE
DEG. = ° =	DEGREES	IN. =	INCH	STD. =	STANDARD
DIA. = ø =	DIAMETER	INT. =	INTERIOR	T.B.D. =	TO BE DETERMINED
DNS =	DO NOT SCALE	LAT. =	LATERAL	T.B.R. =	TO BE REMOVED
DWL. =	DOWEL	LONG. =	LONGITUDINAL	THR. =	THREADED
EA. =	EACH	ld =	DEVELOPMENT LENGTH	TYP. =	TYPICAL
EoR =	ENGINEER OF RECORD	MAX. =	MAXIMUM	SQ. FT. =	SQUARE FEET
ELEV. =	ELEVATION	MIN. =	MINIMUM	U.N.O.= U.O.N. =	UNLESS NOTED OTHERWISE
EMBED. =	EMBEDMENT	MFR. =	MANUFACTURER	VERT. =	VERTICAL
EQ. =	EQUAL	NTS =	NOT TO SCALE	V.I.F. =	VERIFY IN FIELD
EXIST. =	EXISTING	O.C. =	ON CENTER	w/ =	WITH
EXT. =	EXTERIOR	O.D. =	OUTER DIAMETER	W.W.F. =	WELDED WIRE FABRIC
f'c =	CONC. COMPRESSIVE STRENGTH	O.H. =	OPPOSITE HAND		
FIN. =	FINISH	PROJ. =	PROJECTION		

NUMBER	DATE	REVISION
2	2023/03/09	FROST SUSCEPTIBILITY- KEY REVISIONS CLOUDED
1	2022/12/20	REPAIR FOOTINGS RATHER THAN REPLACE

PAVILION FOUNDATION REPAIR
Existing 125'x40' Pavilion Structure
Camp Oakdale 866 CT-163, Montville, CT

ROOF REPAIR AT STAGE

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CLA PROJECT NO. 7169
PROJ. ENGINEER ADB
DATE: 2022-08-09
SHEET NO. (OF 2 SHEETS)
S-2.0