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 OWNER/CONTRACTOR SHALL SUBMIT 2 COPIES MINIMUM OF SHOP DRAWINGS FOR ALL COMPONENTS OF THE PRIMARY STRUCTURAL SYSTEM FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. THE OWNER/CONTRACTOR SHALL ALLOW A MINIMUM OF TWO (2) WEEKS FOR THE REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.

G3. THE GENERAL CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR MEANS AND METHODS OF CONSTRUCTION AND SAFETY ON THE JOB SITE.

G4. ALL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE SHOWN FOR REFERENCE ONLY CONTRACTOR IS TO VERIFY ALL DIMENSIONS, ANGLES, ELEVATIONS, etc. PRIOR TO THE START OF CONSTRUCTION OR THE FABRICATION OF BUILDING COMPONENTS.

G5. THE GENERAL CONTRACTOR SHALL FURNISH COMPLETE SETS OF DRAWINGS TO ALL SUBCONTRACTORS FOR USE IN SHOP DRAWING PREPARATION.

G6. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND ANY OTHER RELEVANT DRAWINGS.

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.

CONCRETE FOR FOUNDATIONS WALLS AND FOOTINGS:
fc = 3OOO PSI AT 28 DAYS
w/c RATIO = O.47 (MAX)
AIR ENTRAINMENT = 6%

CONCRETE FOR EXTERIOR SLABS:
fc = 35OO 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):

BAR SIZE	DEVELOPMENT LENGTH*	LAP SPLICE LENGTH
#4	22"	29"
#5	28"	36"
#6	33"	43"
#7	48"	63"
#8	55"	72"
#9	62"	81"

*INCREASE BAR DEVELOPMENT LENGTH BY 50% FOR 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"

DESIGN LOADS TABLE

LIVE LOADS	
NEW OFFICE FLOOR	100 PSF
ABOVE NEW CEILING (BASED ON JOISTS, COLUMNS/RAMS CAPABLE OF 100 PSF)	40 PSF
CRAWLSPACE FLOOR	250 PSF
EXISTING BARN FLOORS	NO RATED CAPACITY
IMPORTANCE FACTOR (Is) IMPACT FACTOR @ BREAKER	1.0 1.5

WIND LOADS	
BASIC WIND SPEED (3-SEC)	130 MPH
RISK CATEGORY	III
WIND EXPOSURE	B
INTERNAL PRESSURE COEFF.	+/- 0.18
COMPONENTS & CLADDING	PER ASCE 7-10 (CHAPTER 30)

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

SEISMIC (EARTHQUAKE) LOADS	
IMPORTANCE FACTOR (Ie)	1.0
MAPPED SPECTRAL RESPONSE ACCELERATION Ss S1	0.171 0.061
SITE CLASSIFICATION	D
SEISMIC DESIGN CATEGORY	B

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 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. LARGE PIECES OF LOOSE BLASTED ROCK SHOULD BE REMOVED AND REPLACED WITH |" CRUSHED STONE AND PROOF ROLLED. A PRECONDITION BLAST SURVEY SHALL BE MADE FOR ANY PROPERTIES THAT MAY BE AFFECTED BY BLASTING.

F3. WHERE THE GROUNDWATER TABLE IS ENCOUNTERED, A MINIMUM OF 6" OF ¾" CRUSHED STONE SHALL BE PLACED UNDER FOOTINGS.

F4. ALL FOOTINGS SHALL BE BELOW UNSUITABLE EXISTING FILLS AND ORGANIC MATERIALS.

F5. ALL EXCAVATION WORK SHALL CONFORM TO OSHA 29CFR 1926 SUBPART P-EXCAVATIONS.

F6. 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.

SUBGRADE / 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 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
3 ½"	100
1 ½"	85 - 100
¼"	50 - 85
⅜"	40 - 80
#10	30 - 75
#40	10 - 40
#200	0 - 10

E6. WASHED CRUSHED STONE WHERE USED AS DRAINAGE STONE SUCH AS LEVELING PADS, BELOW SLABS/FOOTINGS AND DRAINAGE STONE BEHIND FOUNDATION/RETAINING WALLS TO BE FILTER STONE, WHICH SHALL BE WASHED, CRUSHED STONE (FREE OF DEBRIS, ORGANICS, ASPHALT AND VOIDS) WITH NO MORE THAN 10% PASSING A #100 SIEVE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

Sieve Size	% Passing
6"	100
3½"	80 - 100
1 ½"	30 - 100
¾"	20 - 70
¼"	15 - 60
#10	15 - 45
#40	10 - 25
#100	0 - 10
#200	0 - 5

NOTE: MATERIAL MEETING CT-DOT M.02.05 WILL BE LIKELY BE ACCEPTED

E7. RECLAIMED ASPHALT, IS TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS PER ASTM D-1557 (3-POINT CURVE ACCEPTABLE), AND SHALL BE 100% RECLAIMED ASPHALTIC CONCRETE, WITH NO MORE THAN 7% ASPHALT BINDER, MEETING THE FOLLOWING GRADATION:

Sieve Size	% Passing
1 ½"	100
¾"	50 - 100
3/8"	40 - 95
#10	20 - 65
#30	10 - 40
#40	0 - 5

E8. TOPSOIL PLACED OVER STRUCTURAL FILL IS TO HAVE NO MORE THAN 85% PASSING THE 140 SIEVE (D ≥0.1mm)

STRUCTURAL STEEL

S1. MATERIALS:

STRUCTURAL STEEL, WIDE FLANGE .....ASTM A572-gr50 OR A992
STEEL PLATES CHANNELS, & ANGLES.....ASTM A36
BOLTS.....ASTM A325-3/4" DIA. STD NUT/WASHER
WELDING ELECTRODES.....ASTM A233 E 70 SERIES
ANCHOR BOLTS.....ASTM A325
ANCHOR RODS.....ASTM F1554-gr105ksi
RECTANGULAR TUBE COLUMNS.....ASTM A500-grB-46ksi

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. BOLTING: COMPLY WITH REQUIREMENTS OF AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325. BOLTS

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 RED METAL PRIMER, RUSTOLEUM 678, OR DUPONT 771. (MINIMUM 1.5 DFT). 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.

S8. VERIFY AND COORDINATE REQUIREMENTS, DIMENSIONS AND LOCATIONS OF MECHANICAL EQUIPMENT PRIOR TO START OF FABRICATION.

S9. 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.

S10. PROVIDE WASHER AND HEX-NUT FOR EACH ANCHOR BOLT.

S11. ALL STEEL AT AND BELOW FINISHED GRADE OR FLOOR SLAB SHALL RECEIVE TWO (2) COATS OF BITUMINOUS PAINT · OR 3 MINIMUM CONCRETE COVER.

S12. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR MINIMUM ONE HOUR FIRE PROOFING TREATMENT AT STRUCTURAL STEEL. CONCEALED MEMBERS RECEIVE SPRAY ON FIREPROOFING. EXPOSED MEMBERS RECEIVE INTUMESCENT PAINT.

S13 ALL BEAM TO BEAM CONNECTIONS SHALL BE FIELD BOLTED SHEAR CONNECTIONS. UNLESS NOTED OTHERWISE, ALL SHEAR CONNECTIONS SHALL BE CAPABLE OF CARRYING 1/2 THE TOTAL LOAD CAPACITY DETERMINED BY MULTIPLYING APPLICABLE SPAN LENGTH BY THE MAXIMUM UNIFORM LOAD DESIGNATED BY AISC 360 TABLES 3-6 TO 3-9.

ABBREVIATIONS LEGEND

AISC =	Am. Inst. of Steel Construction	LONG. =	LONGITUDINAL
A.O.D. =	AT OWNER's DISCRETION	ld =	DEVELOPMENT LENGTH
AoR =	ARCHITECT OF RECORD	MAX. =	MAXIMUM
ARCH. =	ARCHITECTURAL	MECH. =	MECHANICAL
BLDG. =	BUILDING	MIN. =	MINIMUM
BTWN. =	BETWEEN	MFR. =	MANUFACTURER
℄ =	CENTER LINE	NTS =	NOT TO SCALE
CF = CFMF =	COLD FORM (METAL FRAMING)	O.C. =	ON CENTER
CLR. =	CLEAR	O.H. =	OPPOSITE HAND
COORD.=	COORDINATE	PROJ. =	PROJECTION
CONC. =	CONCRETE	PSF =	POUNDS PER SQ. FT.
CONN. =	CONNECT	PSI =	POUNDS PER SQ. IN.
CONT. =	CONTINUOUS	PT =	PRESSURE TREATED
DBL. = (2) =	DOUBLE	₹ =	PLATE
DEG. = ° =	DEGREES	REINF. =	REINFORCEMENT
DIA. = ø =	DIAMETER	R.O. =	ROUGH OPENING
DNS =	DO NOT SCALE	REQ. =	REQUIRED
DWG. =	DRAWING	SIM. =	SIMILAR
DWL. =	DOWEL	SQ. =	SQUARE
EA. =	EACH	STD. =	STANDARD
EoR =	ENGINEER OF RECORD	STL. =	STEEL
ELEV. =	ELEVATION	STR. =	STRUCTURAL
EMBED. =	EMBEDMENT	T.B.D =	TO BE DEMOLISHED
EPS =	EXPAND. POLYSTYRENE	T.B.R =	TO BE REMOVED
EQ. =	EQUAL	T.o.C. =	TOP OF CONCRETE ELEV.
EXIST. =	EXISTING	T.o.₹ =	TOP OF PLATE ELEV.
EXT. =	EXTERIOR	T.o.S. =	TOP OF STEEL ELEV.
f'c =	CONC. COMPRESSIVE STRENGTH	T.o.t.N. =	TURN OF THE NUT METHOD
FIN. =	FINISH	T/ WALL =	TOP OF WALL ELEV.
FT. =	FOOT OR FEET	T/ SHELF =	TOP OF SHELF ELEV.
FTG. =	FOOTING	T/ FTG. =	TOP OF FOOTING ELEV.
GA. = ga. =	GAUGE (THICKNESS)	THR. =	THREADED
GWB =	GYPSUM WALLBOARD	TYP. =	TYPICAL
H.D.G. =	HOT DIPPED GALVANIZED	SQ. FT. =	SQUARE FEET
HORIZ. =	HORIZONTAL	U.N.O.= U.O.N. =	UNLESS NOTED OTHERWISE
IN. =	INCH	VERT. =	VERTICAL
INT. =	INTERIOR	V.I.F. =	VERIFY IN FIELD
K = KIP =	1,000 POUNDS	w/ =	WITH
L.L.H. =	LONG LEG HORIZONTAL	WF =	WIDE FLANGE
L.L.V. =	LONG LEG VERTICAL	W.W.F. =	WELDED WIRE FABRIC
LAT. =	LATERAL	XPS =	EXTRUD. POLYSTYRENE

WOOD NOTES

W1. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONED LAYOUT OF INTERIOR PARTITIONS AND DOOR/WINDOW OPENING LOCATIONS.

W2. 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 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.).

W3. 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. THIS RECOMMENDATION APPLIES IN PARTICULAR TO CUT ENDS.

W4. ALL PLYWOOD PRODUCT AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN PLYWOOD ASSOC. LEAVE GAPS AT EDGES AS RECOMMENDED. UNLESS NOTED OTHERWISE ALL PLYWOOD IS TO BE DF#2 OR SUPERIOR.

W5. APA RATED FLOOR SHEATHING TO BE 3/4" T&G PLYWOOD SUBFLOOR GLUED WITH PL400 ADHESIVE AND SCREWED WITH 2" SCREWS AT 12" O.C. TO INTERMEDIATE (FIELD) FRAMING MEMBERS AND 6" O.C. AROUND PERIMETER.

W6. ALL METAL FRAMING CONNECTIONS SHALL BE SIMPSON STRONG TIE (SST) OR APPROVED EQUAL.

W7. METAL FRAMING HANGER SCHEDULE UNLESS NOTED OTHERWISE:
2X JOIST / RAFTER..... LUS SERIES
MICROLLAM..... HHUS SERIES
TJI JOISTS..... MIU SERIES
POSTS..... BC CAP / AC BASE
TRUSS ENDS - RAFTERS..... H SERIES "HURRICANE" CLIPS
SHEARWALL HOLDOWNS..... HDU SERIES

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.

W8. ALL BOLTS, NAILS AND ASSOCIATED FASTENERS EXPOSED TO THE WEATHER OR INSTALLED IN PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM WEIGHT OF ZINC COATING = 1.00 OZ./FT.

W9. WALL SILL PLATES SHALL BE ANCHORED TO FOUNDATION WALL AT A MAXIMUM SPACING OF 8'-0" ON CENTER. ANCHORS ARE TO BE 3/8" DIA. F1554-36 HOT-DIP GALVANIZED EPOXY SET ANCHOR RODS. ANCHOR MUST BE EQUIPPED WITH 3.5x3.5x1/4" PLATE WASHERS. THERE SHALL BE A MINIMUM OF 2 ANCHOR BOLTS PER SECTION OF SILL PLATE. ANCHOR BOLTS SHALL HAVE MINIMUM 6" EMBEDMENT INTO STONE WALL, UNLESS OTHERWISE NOTED.

W10. DOUBLE JOISTS SHALL BE PLACED UNDER ALL PARTITION WALLS RUNNING PARALLEL WITH JOIST SPAN.

W11. FOR OPENINGS 6'-0" IN WIDTH OR UNDER, INSTALL 1 JACKSTUD + 1 FULL HEIGHT STUD. FOR OPENINGS OVER 6'-0", INSTALL 2 JACKSTUDS + 2 FULL HEIGHT KING STUDS, UNLESS OTHERWISE NOTED.

W12. ALL DIAPHRAGM OPENINGS SHALL BE FRAMED WITH DOUBLE MEMBERS UNLESS OTHERWISE NOTED ON THE PLANS.

W13. ALL WALL OPENINGS SHALL BE FRAMED WITH DOUBLE MEMBERS UNLESS OTHERWISE NOTED.

W14. LALLY COLUMNS SHALL NOT BE USED. AT A MINIMUM, STEEL COLUMNS SHALL BE 4" DIAMETER STD. THICKNESS STEEL PIPE COLUMNS WITH SHOP WELDED TOP AND BOTTOM PLATES. ALL TOP AND BOTTOM PLATES SHALL BE FULLY CONNECTED WITH A MINIMUM OF (4) CONNECTORS PER PLANS OR APPROVED EQUAL.

W15. 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.

W16. ALL PROPRIETARY HARDWARE SHALL BE INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

W17. UNLESS NOTED OTHERWISE, ALL NAILS ARE TO BE COMMON WIRE NAILS, WITH CORROSION RESISTANCE APPROPRIATE TO THE USE. FOR REFERENCE: 16d=0.162" ø WHILE 10d=0.148" ø

PERMIT SET
- NOT FOR CONSTRUCTION -

NUMBER	DATE	REVISION

OFFICE EXPANSION
UNITED SERVICES: BARN STRUCTURE
Danielson, CT 06239

STRUCTURAL NOTES

CLA Engineers, Inc.
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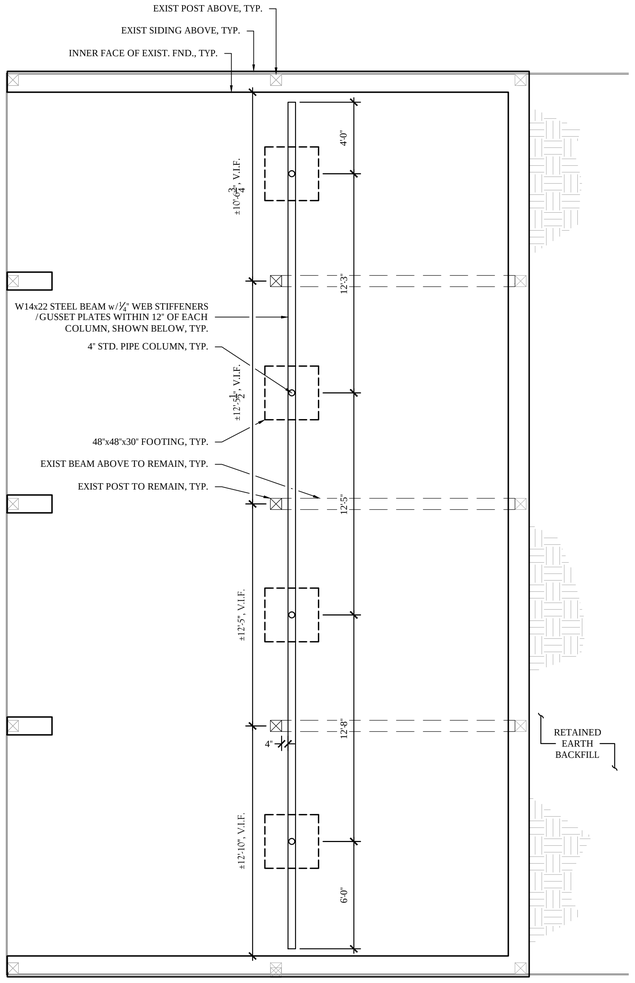
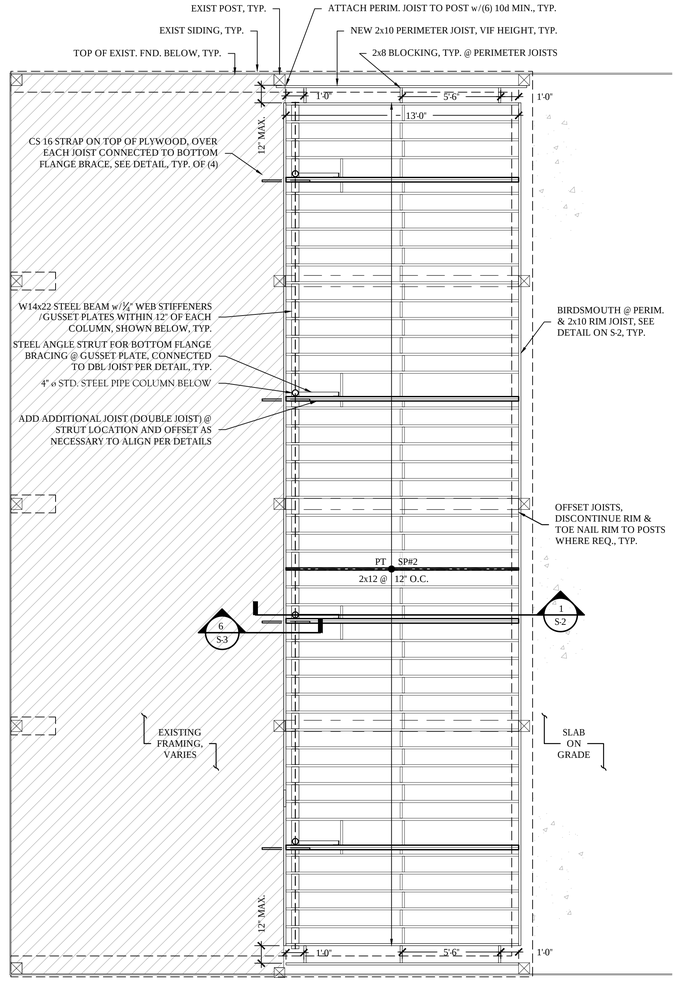
CLA PROJECT NO. 6366
PROJ. ENGINEER ADB
DATE: 2019-10-18
SHEET NO. (OF 4 SHEETS) S-0

CLA



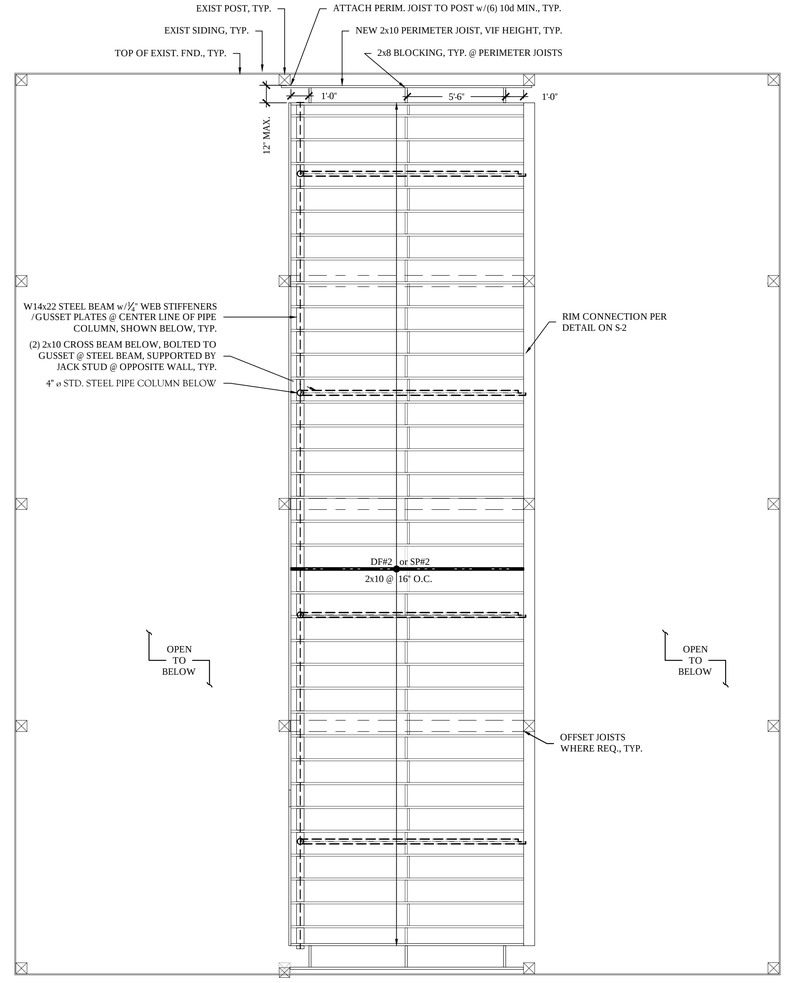
1 S-1 CRAWLSPACE & FOUNDATION LAYOUT

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



2 S-1 1ST STOREY FLOOR PLATFORM FRAMING PLAN

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



2 S-1 2ND STOREY CEILING PLATFORM FRAMING PLAN

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

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LAYOUT PLANS

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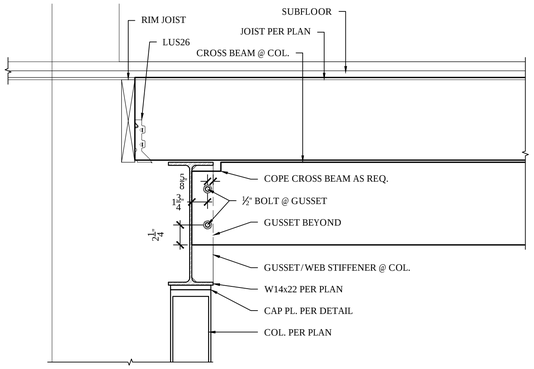
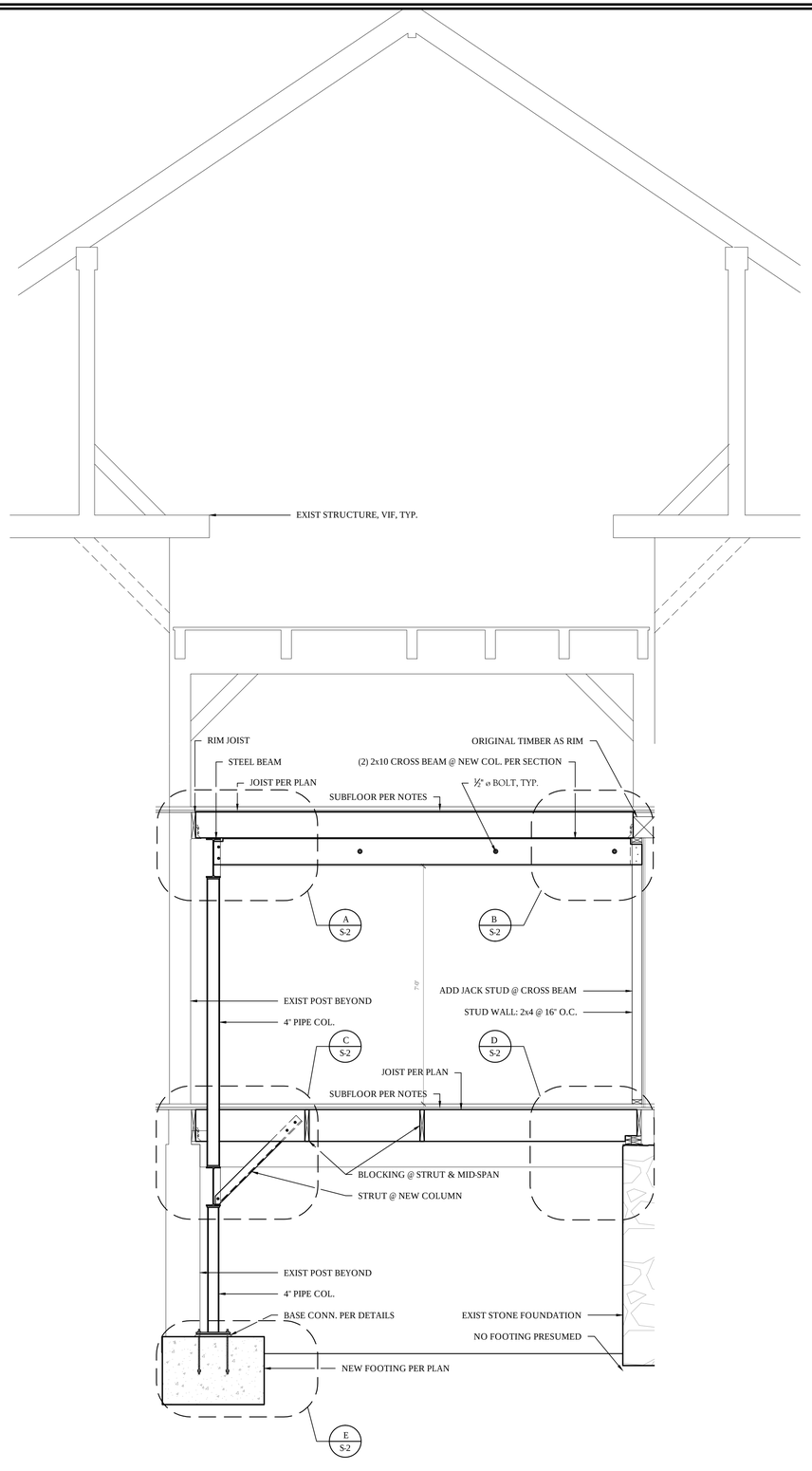
CLA PROJECT NO.	6366
PROJ. ENGINEER	ADB
DATE:	2019-10-18
SHEET NO.	(OF 4 SHEETS)

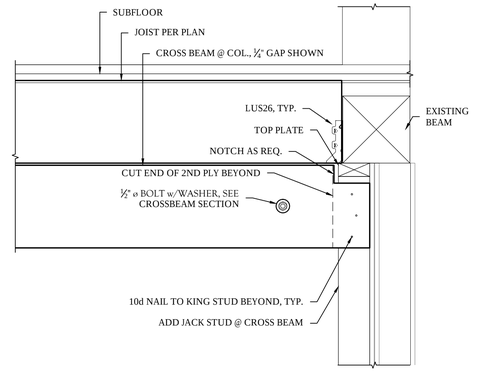
S-1



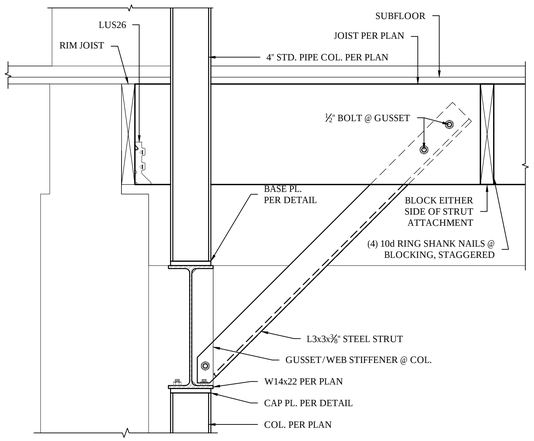
A S-2 **2ND FL STEEL BEAM CONN. DETAIL**
SCALE: 1 1/2" = 1'-0"



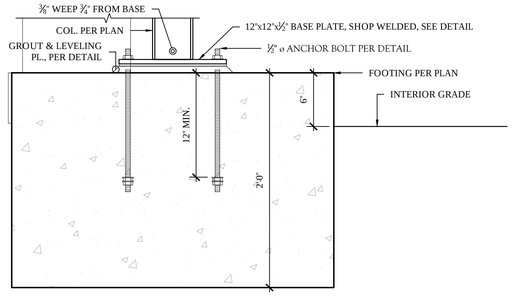
1 S-2 **NEW WORK SECTION LOOKING WEST**
SCALE: 1/2" = 1'-0"



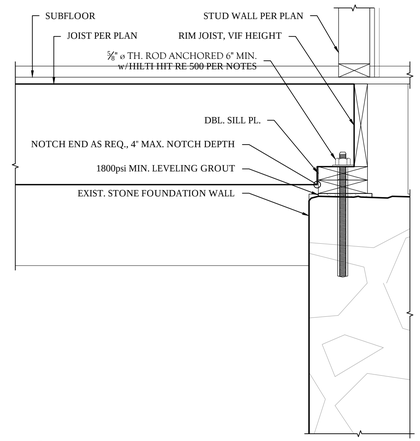
B S-2 **2ND FL CROSS BEAM CONN. DETAIL**
SCALE: 1 1/2" = 1'-0"



C S-2 **1ST FL STEEL BEAM CONN. DETAIL**
SCALE: 1 1/2" = 1'-0"



E S-2 **FOOTING CONN. DETAIL**
SCALE: 1 1/2" = 1'-0"



D S-2 **1ST EXIST FND. WALL CONN. DETAIL**
SCALE: 1 1/2" = 1'-0"

PERMIT SET
- NOT FOR CONSTRUCTION -

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UNITED SERVICES: BARN STRUCTURE
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SECTION AT NEW WORK

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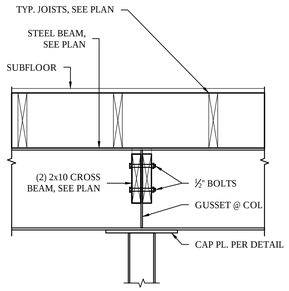
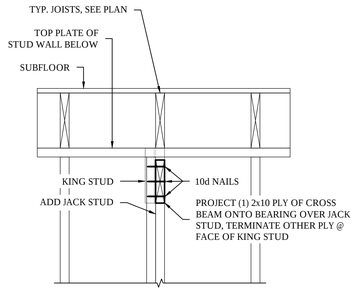
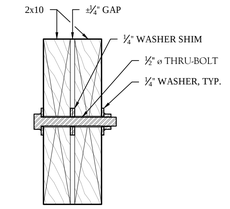
PROJ. ENGINEER ADB
DATE: 2019-10-18
SHEET NO. (OF 4 SHEETS) **S-2**



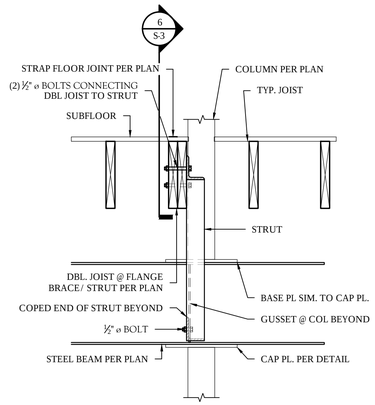
1 S-3 **2ND FL. CROSS-BEAM TO STEEL BEAM CONN.**
SCALE: 1" = 1'-0"



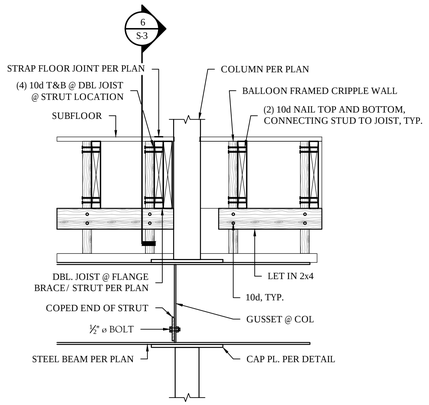
2 S-3 **2ND FL. CROSS-BEAM TO WALL CONN.**
SCALE: 1" = 1'-0"



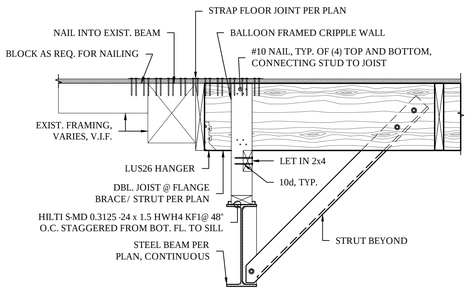
3 S-3 **TYP. CROSS-BEAM SECTION DETAIL**
SCALE: 3" = 1'-0"



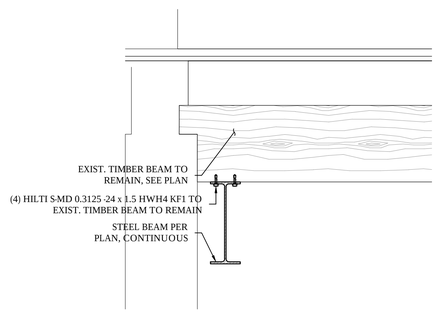
4 S-3 **1ST FL STRUT TO JOIST CONN. DETAIL**
SCALE: 1" = 1'-0"



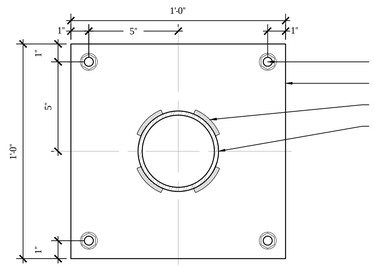
5 S-3 **1ST FL STRUT TO BEAM CONN. DETAIL**
SCALE: 1" = 1'-0"



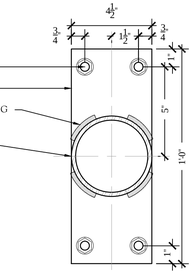
6 S-3 **1ST FL STRUT CONN. DETAIL ELEV.**
SCALE: 1" = 1'-0"



7 S-3 **TYP. STEEL BEAM TO EXIST BEAM CONN. DETAIL**
SCALE: 1" = 1'-0"



8 S-3 **TYP. BASE PL. DETAIL**
SCALE: 3" = 1'-0"



9 S-3 **TYP. CAP PL. DETAIL**
SCALE: 3" = 1'-0"

PERMIT SET
- NOT FOR CONSTRUCTION -

NUMBER	DATE	REVISION

OFFICE EXPANSION
UNITED SERVICES: BARN STRUCTURE
Danielson, CT 06239

STRUCTURAL DETAILS

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

CLA PROJECT NO.	6366
PROJ. ENGINEER	ADB
DATE:	2019-10-18
SHEET NO.	(OF 4 SHEETS)

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