



City of Norwich

Department of Finance – Purchasing Agent
100 Broadway, Room No. 105
Norwich, CT 06360

Phone: (860)823-3706
Fax: (860)823-3812
E-mail: whathaway@cityofnorwich.org

ADDENDUM

Bid No.: 7602

Addendum No.: 1

Issued: October 3, 2018

Opening Date and Time: October 17, 2018 at 2:00 P.M.

Title: Fire code Abatement Modifications/Renovations to the Yantic Fire Department, 151 Yantic Road, Norwich, CT

Bidders Note: This addendum is issued to provide all bidders with the following:

1. The Pre-Bid Meeting Attendance Form
2. The structural drawings
3. A revised Table of Contents
4. A copy of Section 05500 – Metal Fabrications
5. Notes from the Pre-Bid Meeting
6. Responses to the Requests for Information
7. A revised Bid Form that is to be used by all bidders

All other terms and conditions remain the same.



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PRE-BID MEETING ATTENDANCE FORM

Bid No.: 7602

Pre-Bid Meeting Date and Time: September 24, 2018 at 10:00 A.M.

Commodity/Project: Fire Code Abatement Modifications/Renovations to the Yantic Fire Department, 151
Yantic Road, Norwich, CT

(Please print legibly)

Name: Ross Tine	Name: Tom Worth
Company: General Builders, LLC	Company: AMS Environmental
Address:	Address:
Telephone: (860)214-9521	Telephone: (860)798-7651
Fax:	Fax:
E-mail: generalbuildersllc@snet.net	E-mail: tworth@amsenviro.com
Name: Bill Hayes	Name: Tom Lovless
Company: Prime Electric	Company: Kronenberger and Sons
Address:	Address:
Telephone: (860)213-1427	Telephone: (860)347-4600
Fax:	Fax:
E-mail: frank@primeelectricllc.com	E-mail: estimating@kronenbergersons.com
Name: Eric Mattern	Name: Ray Galvin
Company: Mattern Construction	Company: Sarazin General Contractors
Address:	Address:
Telephone: (860)822-8457	Telephone: (860)456-4576
Fax:	Fax:
E-mail: ericm@matternconstruction.com	E-mail: rgalvin@sarazin.com

GENERAL STRUCTURAL NOTES

- G1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE 2012 INTERNATIONAL BUILDING CODE, AS AMENDED FOR THE 2016 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:
 f'c = 4000 PSI AT 28 DAYS
 w/c RATIO = 0.41 (MAX)
 AIR ENTRAINMENT = 6%

CONCRETE FOR INTERIOR SLABS:
 f'c = 3500 PSI AT 28 DAYS
 w/c RATIO = 0.50 (MAX)
 AIR ENTRAINMENT = 3%

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):

BAR SIZE	DEVELOPMENT LENGTH	LAP SPLICE LENGTH
#4	22"	28"
#5	28"	36"
#6	33"	43"
#7	40"	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"
- C7. U.N.O., PROVIDE CORNER BARS FOR ALL REINFORCING AT WALL INTERSECTIONS.

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 3/8" CRUSHED STONE BENEATH THE FOOTINGS AND SLABS ON GRADE. THE 3/8" 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 3/8" CRUSHED STONE 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 3/4" CLEAN CRUSHED STONE 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.
- F4. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING REQUIREMENTS.
- F5. WHERE THE GROUNDWATER TABLE IS ENCOUNTERED, A MINIMUM OF 6" OF 3/8" CRUSHED STONE SHALL BE PLACED UNDER FOOTINGS.
- F6. ALL FOOTINGS SHALL BE BELOW UNSUITABLE EXISTING FILLS AND ORGANIC MATERIALS.
- F7. ALL EXCAVATION WORK SHALL CONFORM TO OSHA 29CFR 1926 SUBPART F-EXCAVATIONS.

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 1.
- 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
6"	100
1 1/2"	85 - 100
3/4"	50 - 85
3/8"	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 AND VOIDS) WITH NO MORE THAN 5% PASSING A #40 SIEVE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

Sieve Size	% Passing
6"	100
3"	85 - 100
1 1/2"	60 - 100
3/4"	30 - 80
3/8"	15 - 55
#10	10 - 35
#40	0 - 5

- 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 1% ASPHALT BINDER MEETING THE FOLLOWING GRADATION:

Sieve Size	% Passing
6"	100
1 1/2"	50 - 100
3/4"	40 - 85
#10	20 - 65
#30	10 - 40
#40	0 - 5

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 D11, 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. SHOP PRIMER PAINT SHALL BE NEMEC 88-555 RED METAL PRIMER, RUSTOLEUM 618 OR DUPONT T11 (MINIMUM 15 DFT). ALL STEEL EXPOSED TO WEATHER (PER IBC "WEATHER-EXPOSED SURFACE") MUST BE HOT DIPPED GALVANIZED (HDG) PER ASTM A123. **ALL BALCONY STRUCTURAL STEEL IS EXPOSED TO WEATHER AND MUST BE HDG.**
- 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 OWNER'S 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. TURN-OF-THE-NUT METHOD IS TO BE USED AT ANY TENSION CRITICAL BOLTS, INCLUDING THE ANCHOR BOLTS AT THE BASE PLATE CONNECTION AND THE BOLTS AT THE CAP PLATE CONNECTION OF THE W6x25 COLUMNS.

ABBREVIATIONS LEGEND

AR = ARCHITECT OF RECORD	MECH. = MECHANICAL
ARCH. = ARCHITECTURAL	MIN. = MINIMUM
BLDG. = BUILDING	MFR. = MANUFACTURER
BTWN. = BETWEEN	O.C. = ON CENTER
CL = CENTER LINE	O.H. = OPPOSITE HAND
COL. = COLUMN	P&F = POUNDS PER SQ. FT.
CONC. = CONCRETE	P&I = POUNDS PER SQ. IN.
CONT. = CONTINUOUS	PERIM. = PERIMETER
COORD. = COORDINATE	PT = PRESSURE TREATED
DEG. = DEGREES	PL = PLATE
DIA. = DIAMETER	REINF. = REINFORCEMENT
DWG. = DRAWING	R.O. = ROUGH OPENING
EA. = EACH	REQ. = REQUIRED
EOR = ENGINEER OF RECORD	SIM. = SIMILAR
ELEV. = ELEVATION	SQ. = SQUARE
EMBED. = EMBEDMENT	STD. = STANDARD
EPS = EXPAND. POLYSTYRENE	STL. = STEEL
EQ. = EQUAL	T.B.D. = TO BE DEMOLISHED
EXIST. = EXISTING	T.B.R. = TO BE REMOVED
EXT. = EXTERIOR	T.O.C. = TOP OF CONCRETE ELEV.
F.C. = CONC. COMPRESSIVE STRENGTH	T.O.P. = TOP OF PLATE ELEV.
FT. = FOOT OR FEET	T.O.S. = TOP OF STEEL ELEV.
FTG. = FOOTING	T/WALL = TOP OF WALL ELEV.
GA. = GA. = GAUGE (THICKNESS)	T/SHELF = TOP OF SHELF ELEV.
H.D.G. = HOT DIPPED GALVANIZED	T/FTG. = TOP OF FOOTING ELEV.
HORIZ. = HORIZONTAL	TYP. = TYPICAL
IN. = INCH	SQ. FT. = SQUARE FEET
INT. = INTERIOR	UN.O. = U.O.N. = UNLESS NOTED OTHERWISE
K = KIP = 1000 POUNDS	VERT. = VERTICAL
L.L.H. = LONG LEG HORIZONTAL	V.I.F. = VERIFY IN FIELD
L.L.V. = LONG LEG VERTICAL	W/ = WITH
LD = DEVELOPMENT LENGTH	WWF. = WELDED WIRE FABRIC
MAX. = MAXIMUM	XPS = EXTRUD. POLYSTYRENE

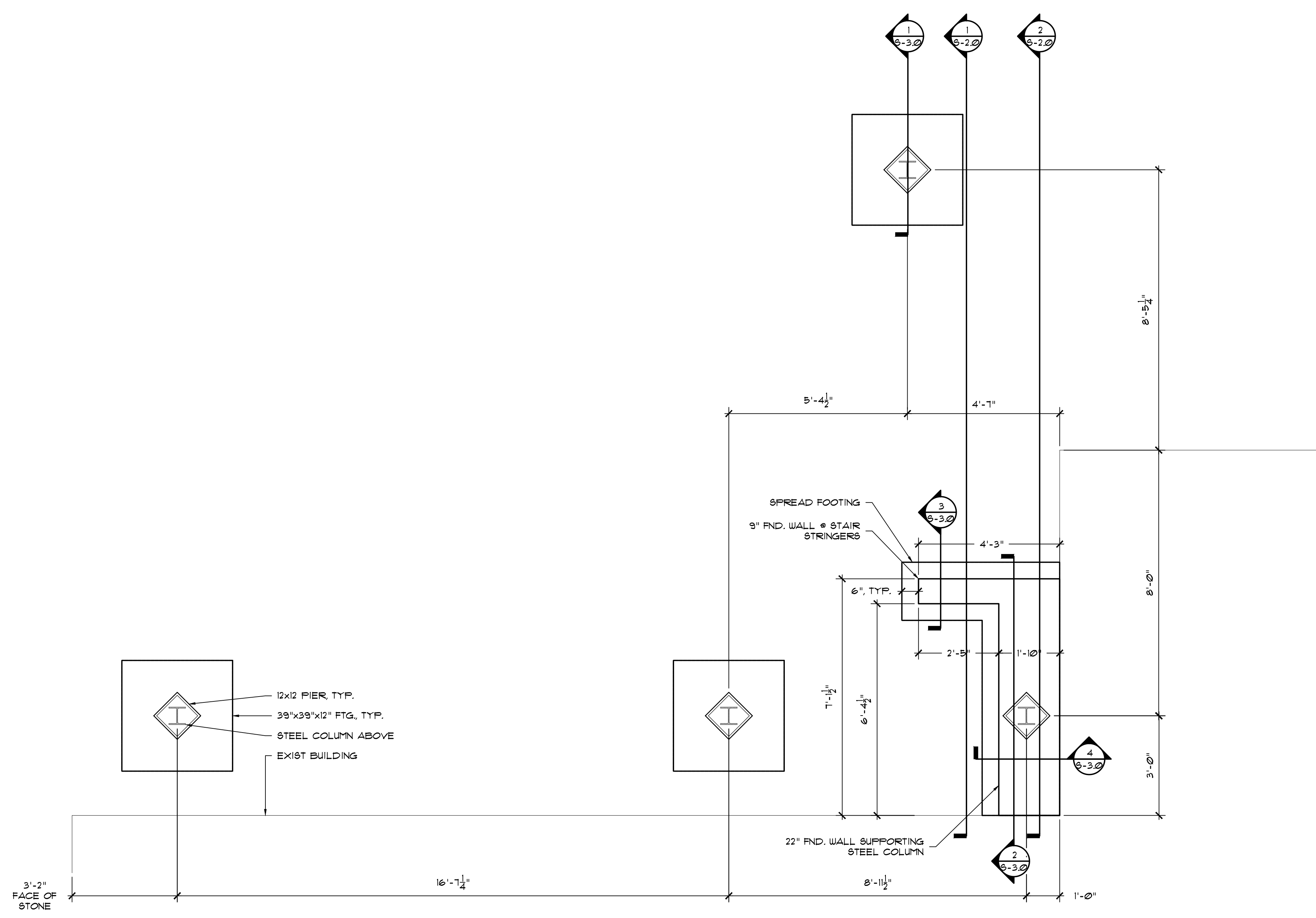
REVISION	DATE	NUMBER

YANTIC FIRE
 151 Yantic Road
 Yantic, CT 06389
STRUCTURAL CONCEPT SHEET

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

CLA PROJECT NO. **CLA-18-5868**
 PROJ. ENGINEER **ADB**
 DATE: **04/16/18**
 SHEET NO.

S-0.0



FOUNDATION LAYOUT

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

NOTES:

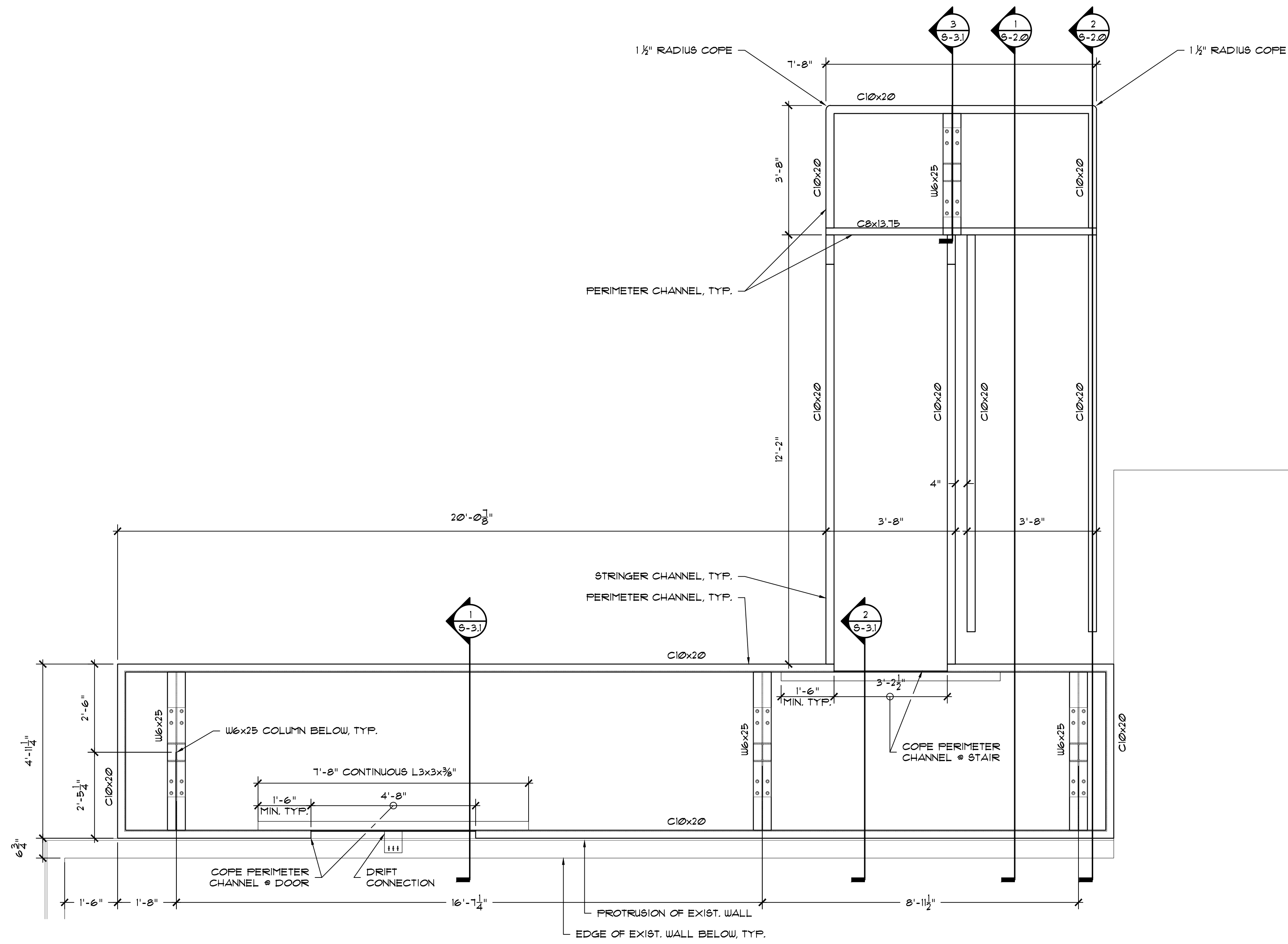
1. DESIGN ASSUMES HIDDEN GEOMETRIES OF ADJACENT EXISTING FOUNDATION ELEMENTS, VERIFY ALL RELEVANT INFORMATION IN FIELD.
2. SEE ARCHITECTURAL DRAWINGS FOR ALL LAYOUT DIMENSIONS AND ELEVATIONS.
3. BOTTOM OF EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 3'-6" BELOW FINISH GRADE.
4. FOUNDATION DESIGN ASSUMES 3000 PBF SOIL BEARING CAPACITY. ORGANICS AND POOR FILL MATERIALS MAY BE PRESENT. INSTALL ALL FOOTINGS ON CRUSHED STONE OR COMPACTED STRUCTURAL FILL ON SUITABLE, INORGANIC, VIRGIN MATERIAL. PROOF COMPACT ANY VIRGIN MATERIAL DISTURBED BY EXCAVATION EFFORTS, SUCH AS BY THE BUCKET TEETH AT THE BOTTOM OF THE EXCAVATION.
5. EXCAVATION AGAINST OR IN CLOSE PROXIMITY TO THE EXISTING FOUNDATION IS TO BE EITHER HAND EXCAVATION OR VACUUM EXCAVATION.

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

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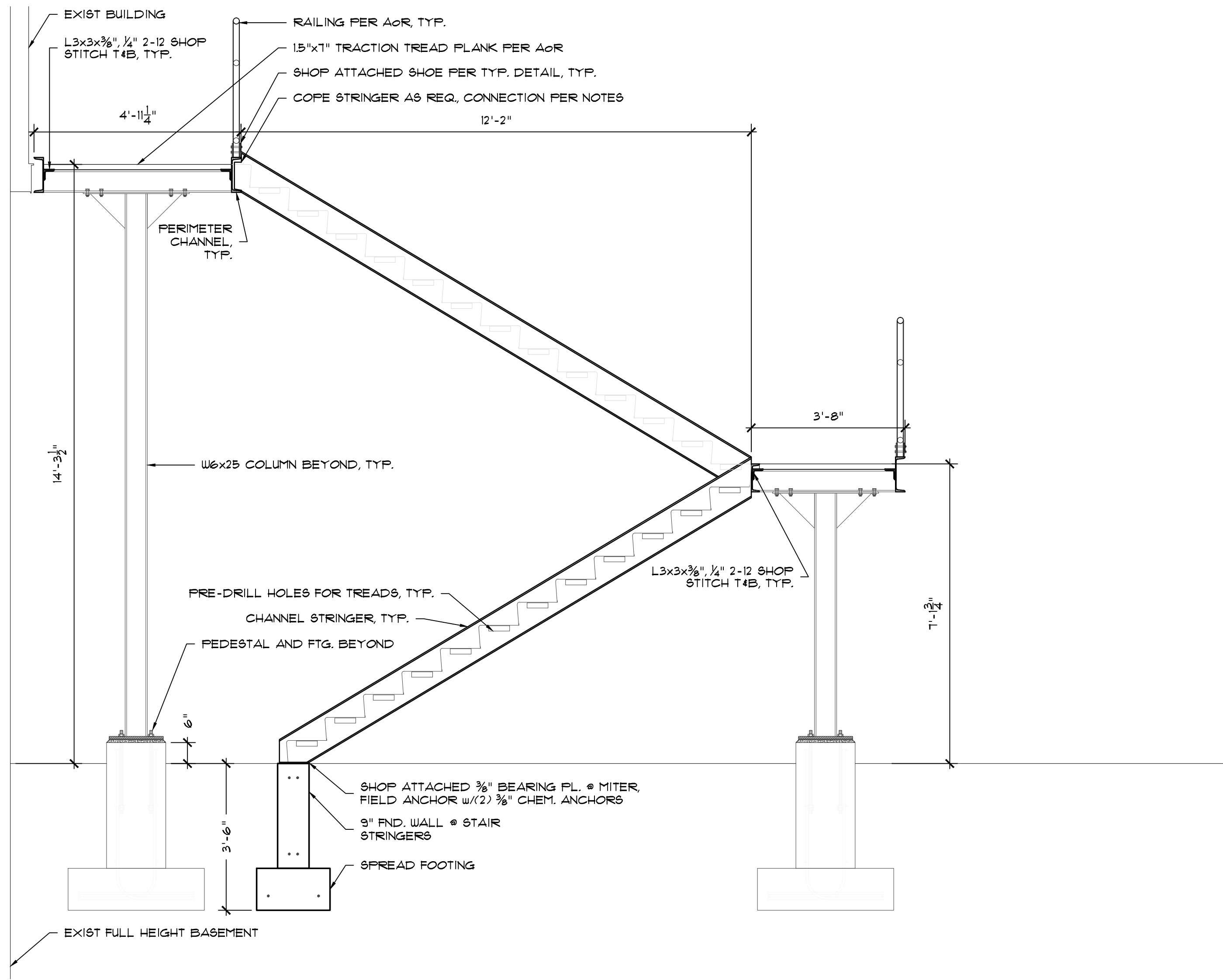
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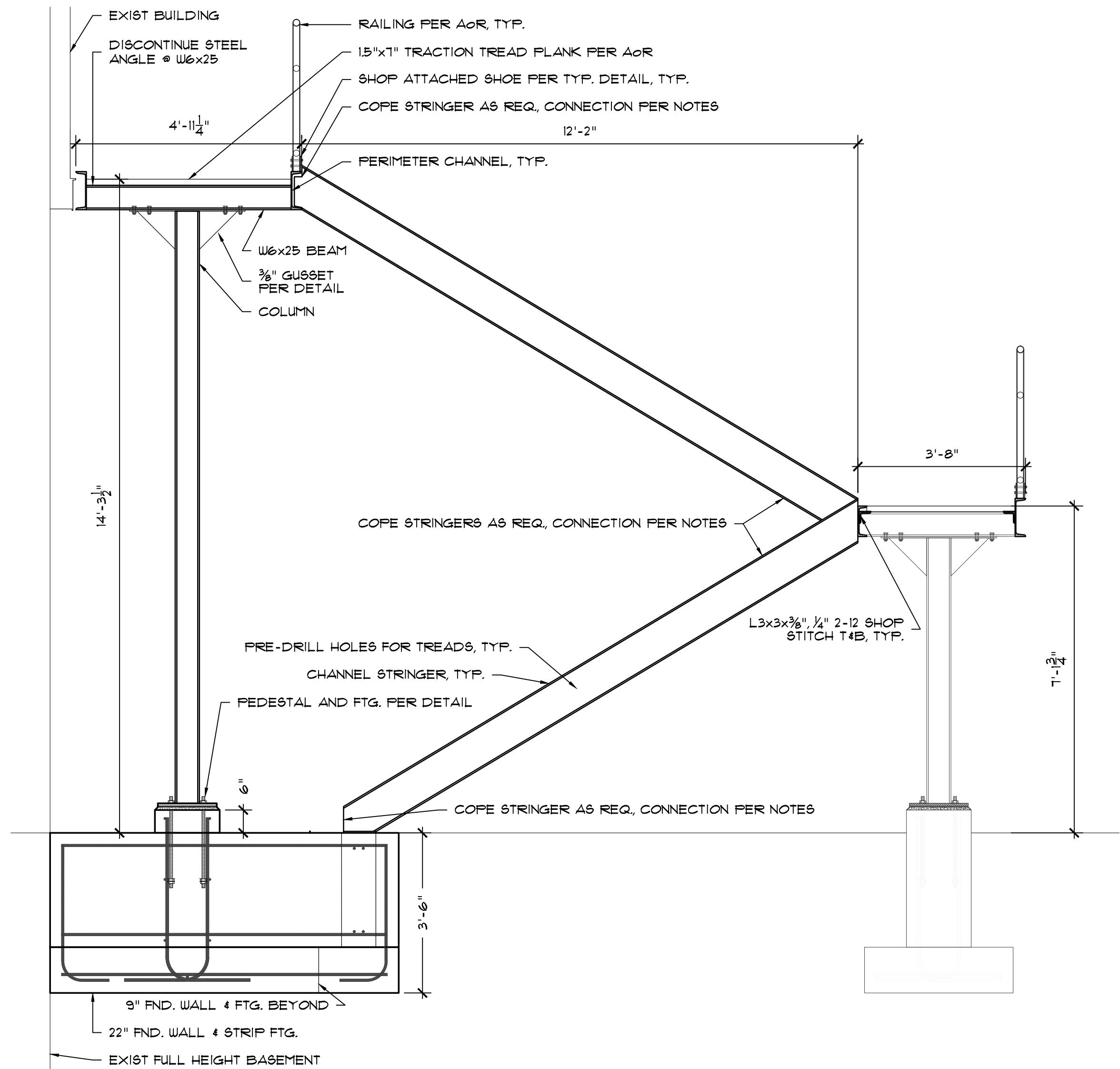
CLA PROJECT NO. CLA-18-5060
PROJ. ENGINEER ADB
DATE: 04/16/18
SHEET NO.

S-11

NUMBER	DATE	REVISION



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



2 SECTION @ SOUTH ☿
SCALE: 1/2" = 1'-0"

REVISION	DATE	NUMBER

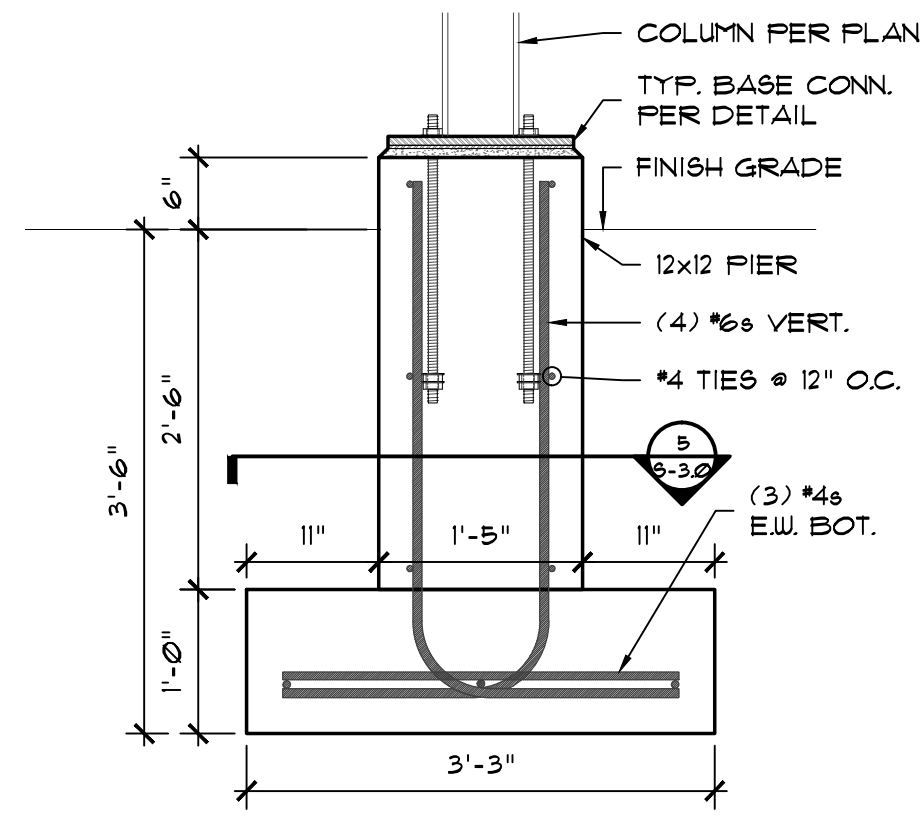
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Yantic, CT 06389

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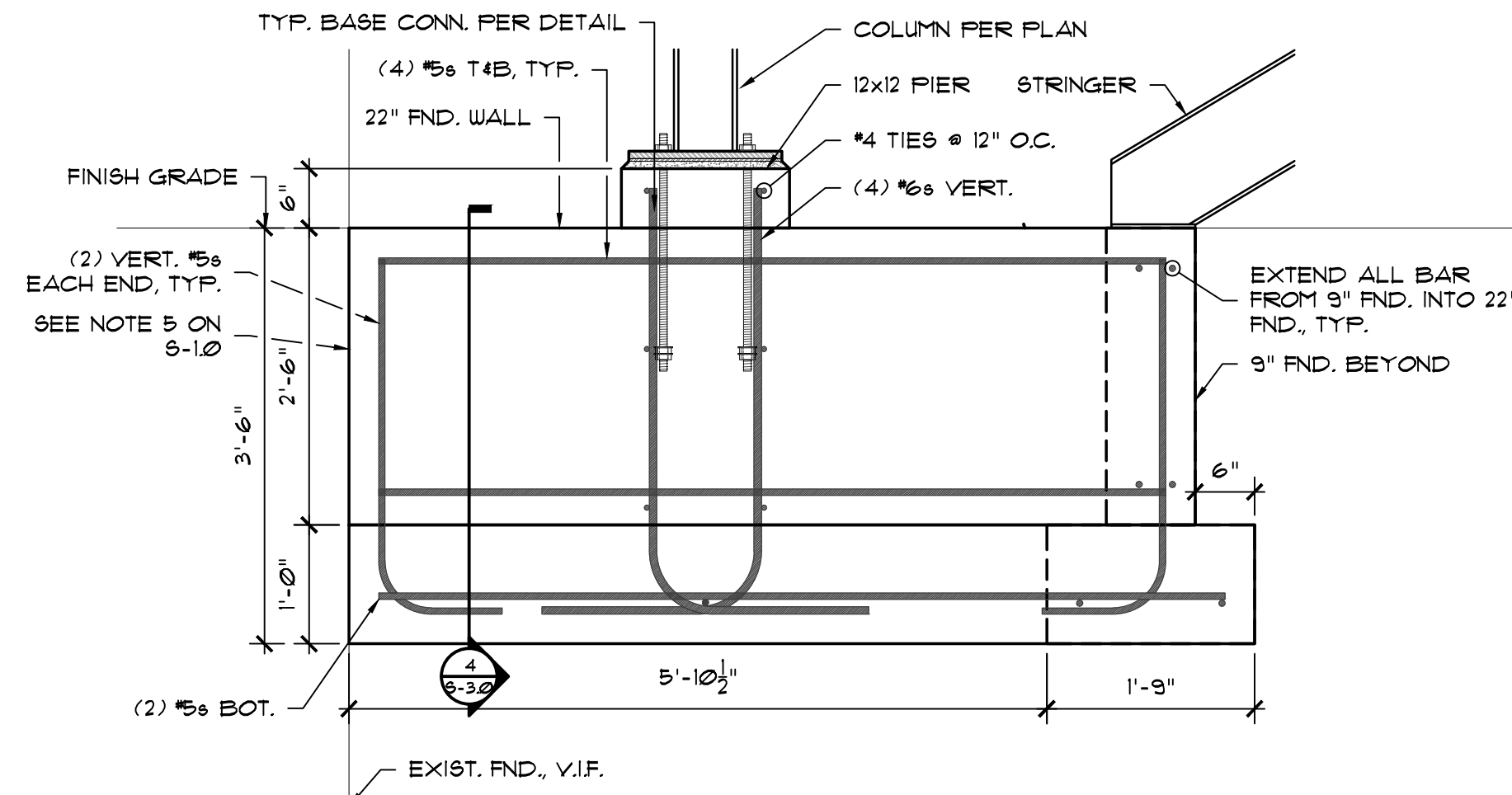
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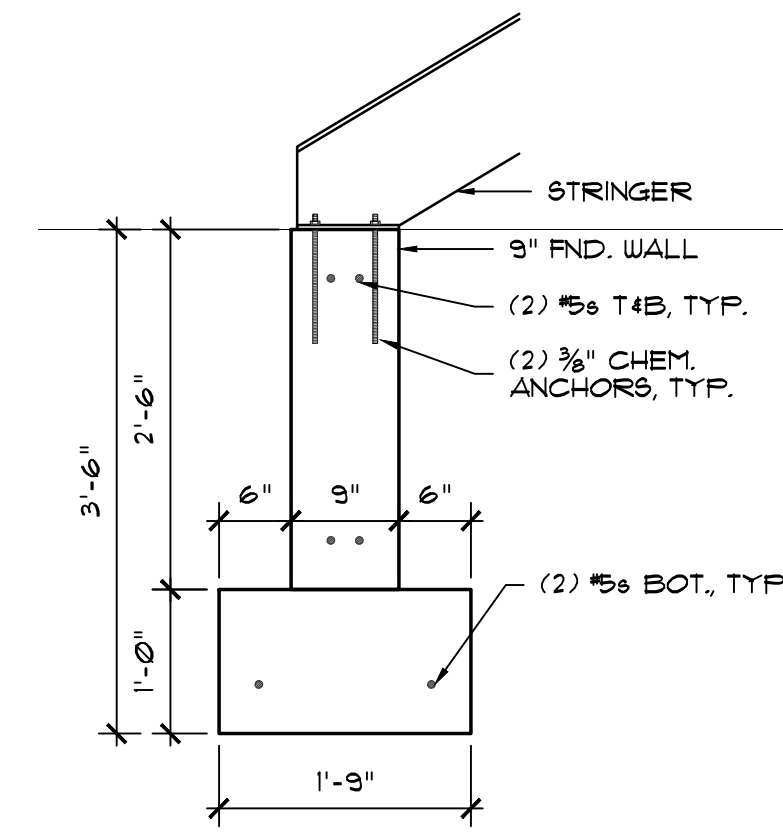
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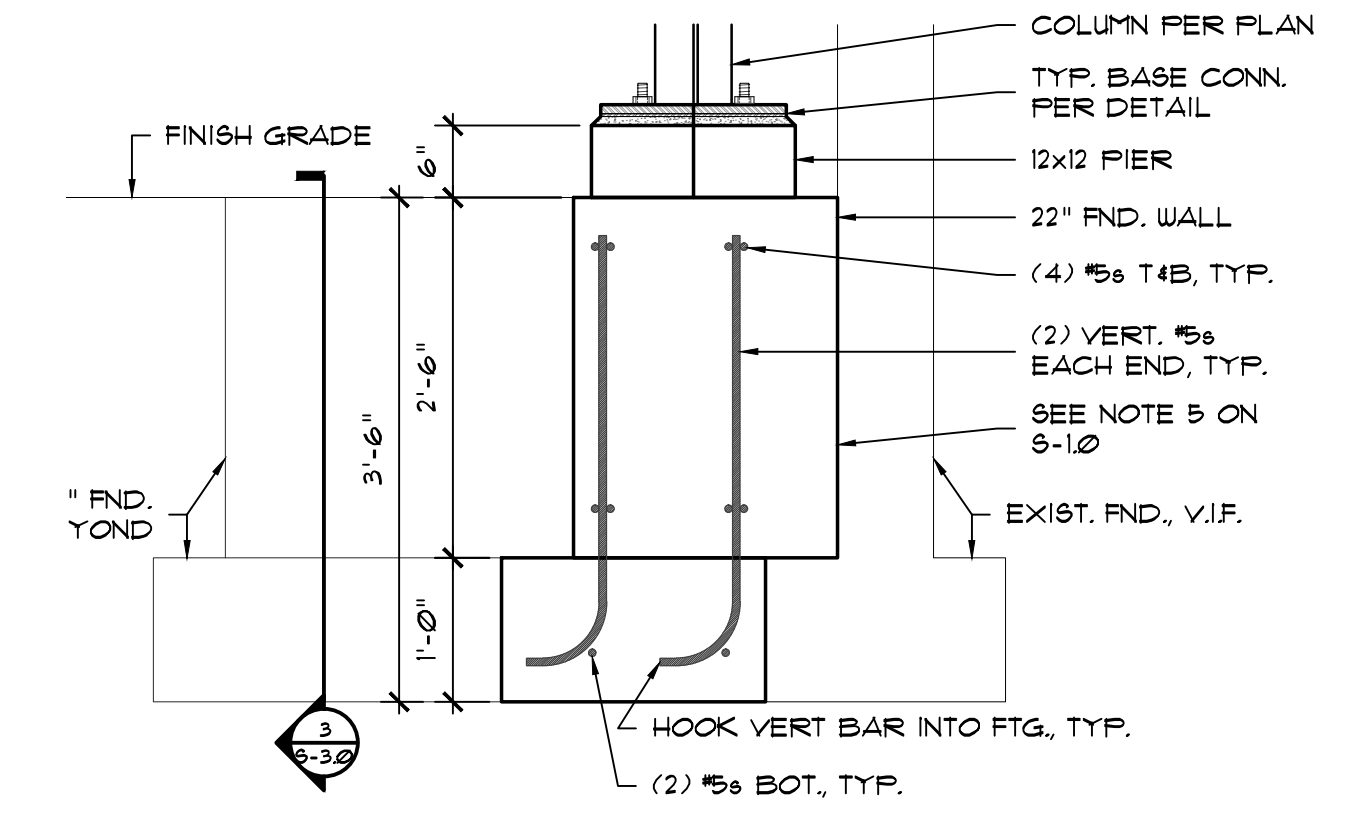
1 TYP. PIER & FTG. SECTION
SCALE: 3/4" = 1'-0"



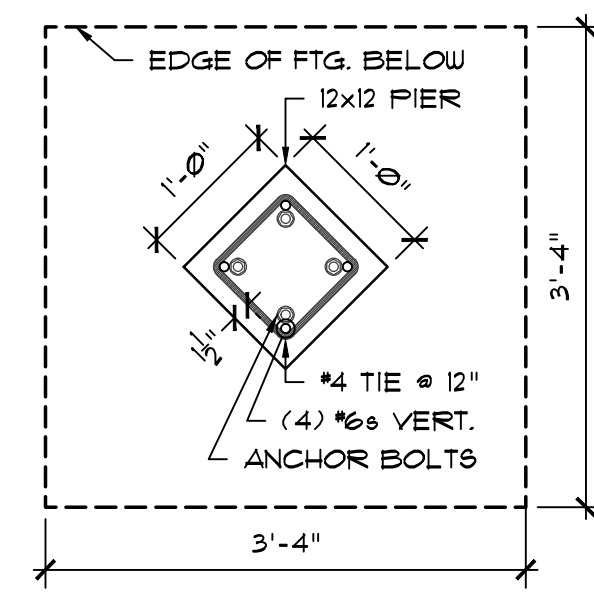
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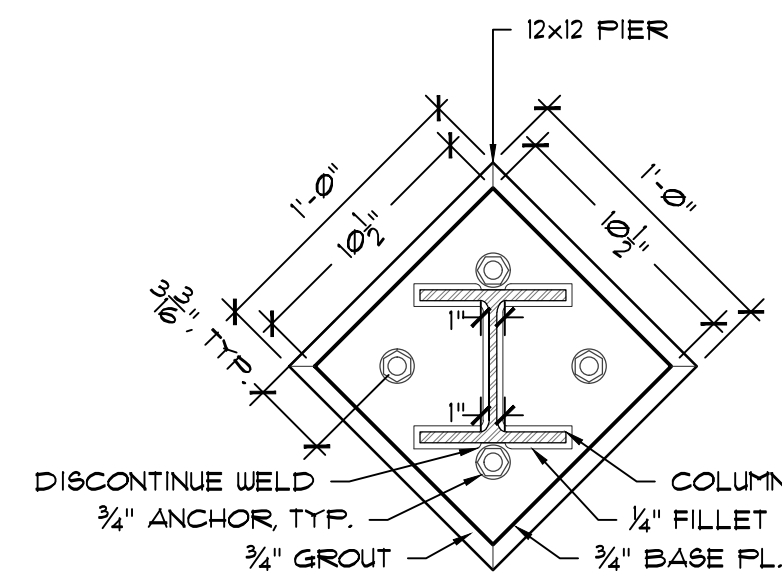
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SCALE: 3/4" = 1'-0"



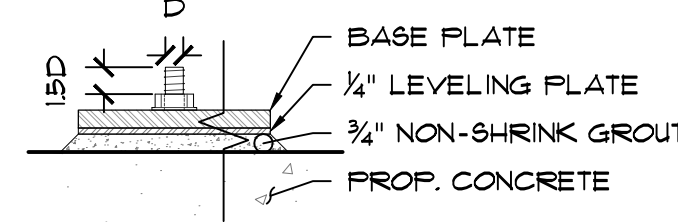
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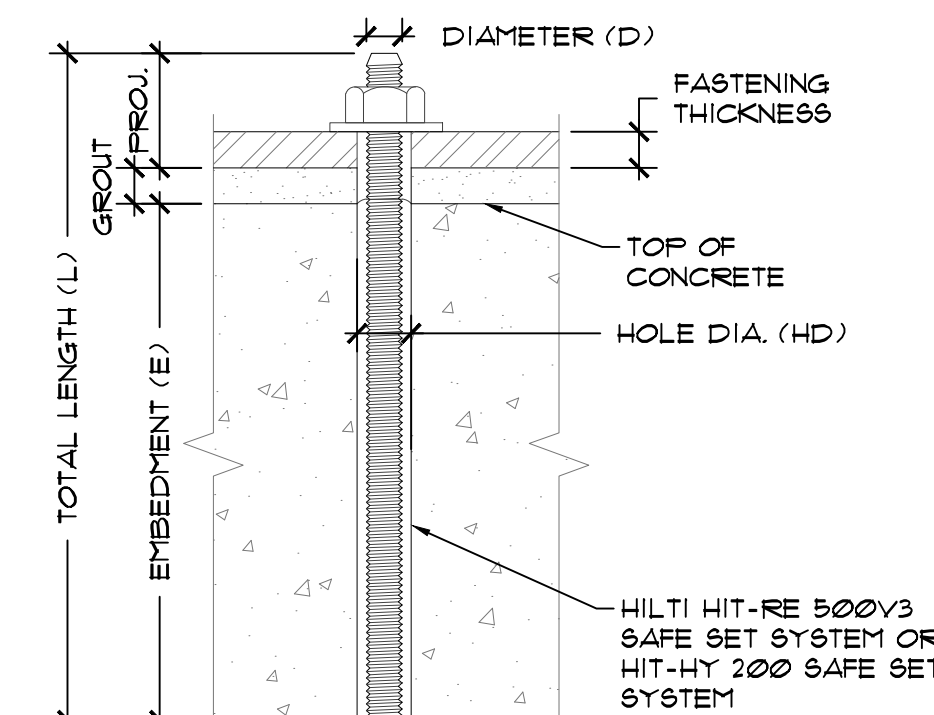
5 TYP. PIER
SCALE: 3/4" = 1'-0"



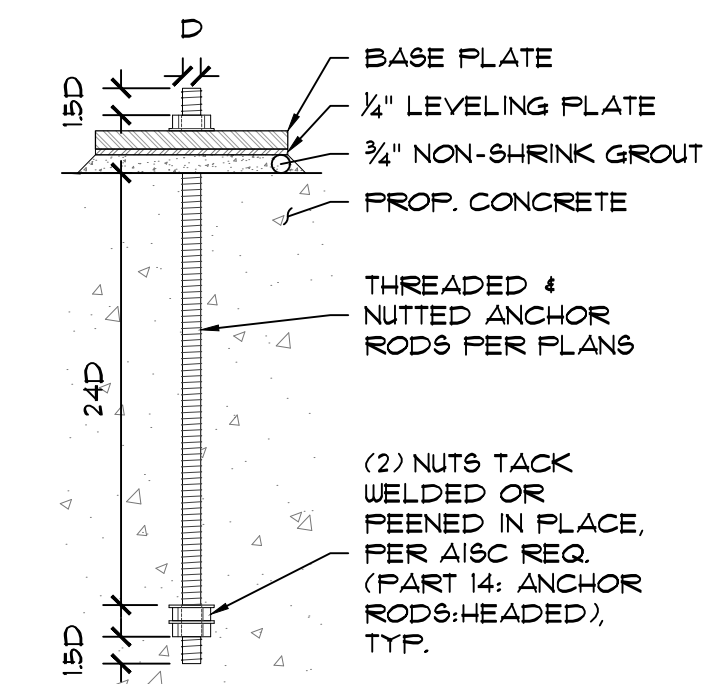
6 TYP. BASE PL.
SCALE: 1 1/2" = 1'-0"



7 TYP. BASE CONN.
SCALE: 1 1/2" = 1'-0"

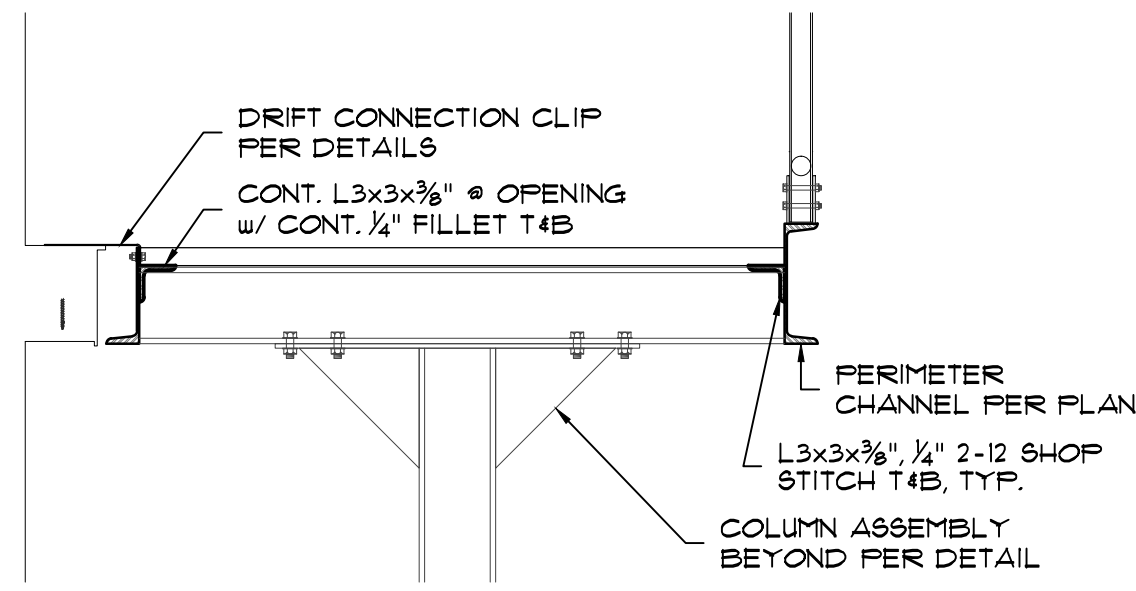


8 TYP. CHEM. ANCHOR
SCALE: 1 1/2" = 1'-0"

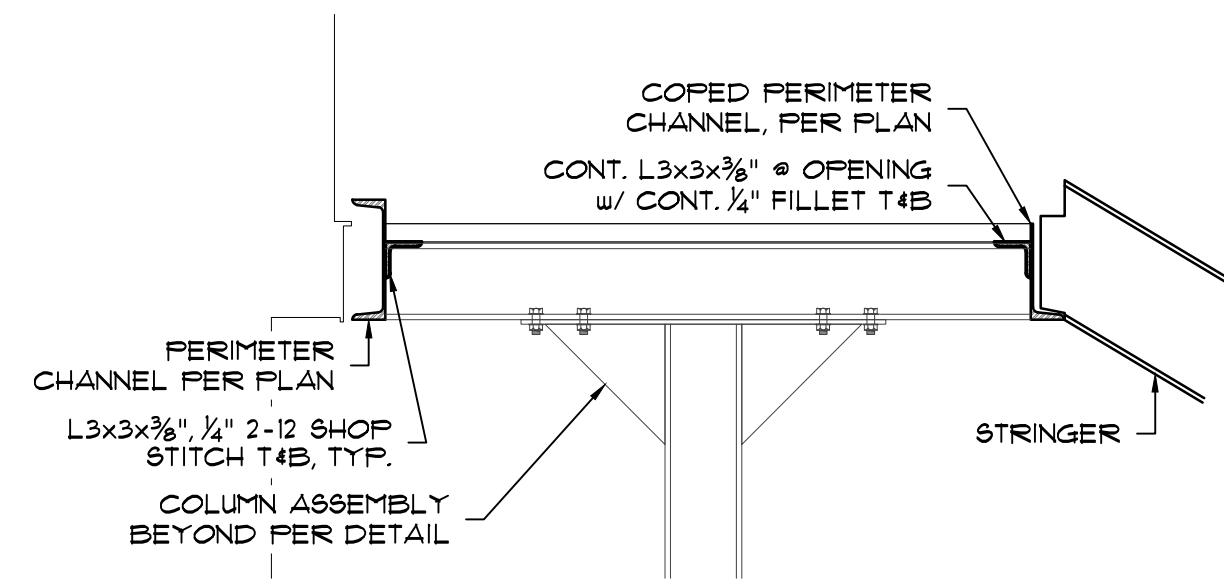


9 TYP. WET ANCHOR
SCALE: 1 1/2" = 1'-0"

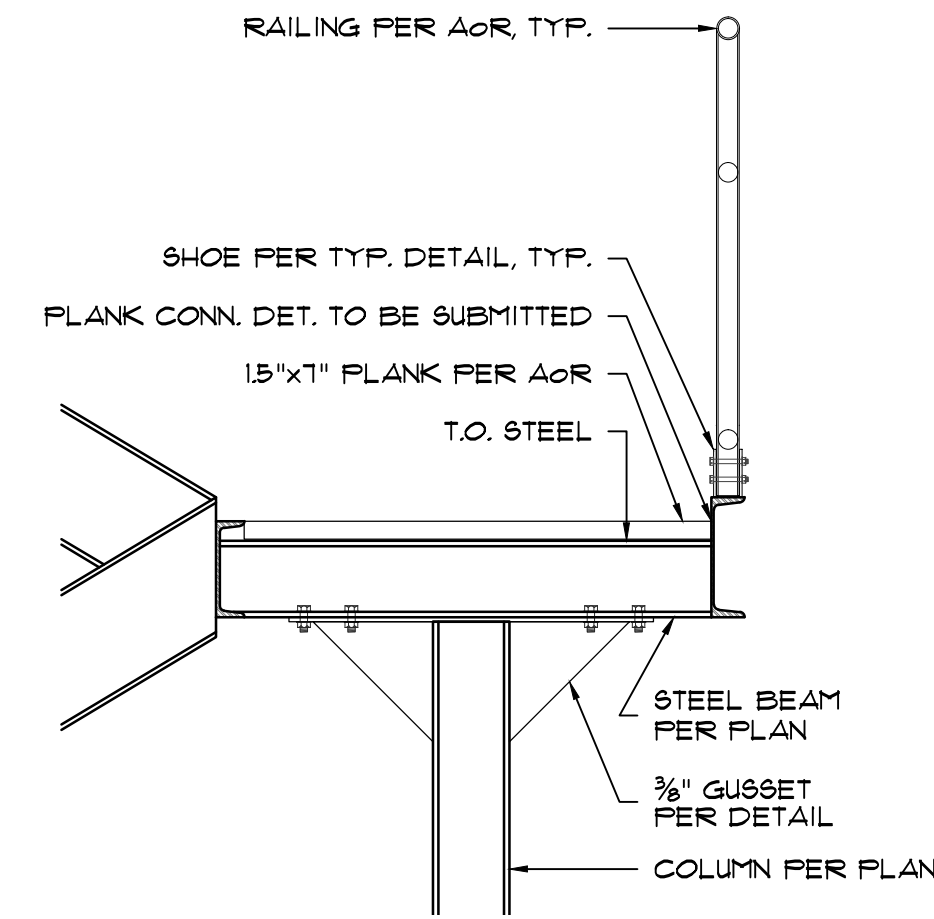
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1 BALCONY SECTION @ DOOR
 S-31 SCALE: 3/4" = 1'-0"

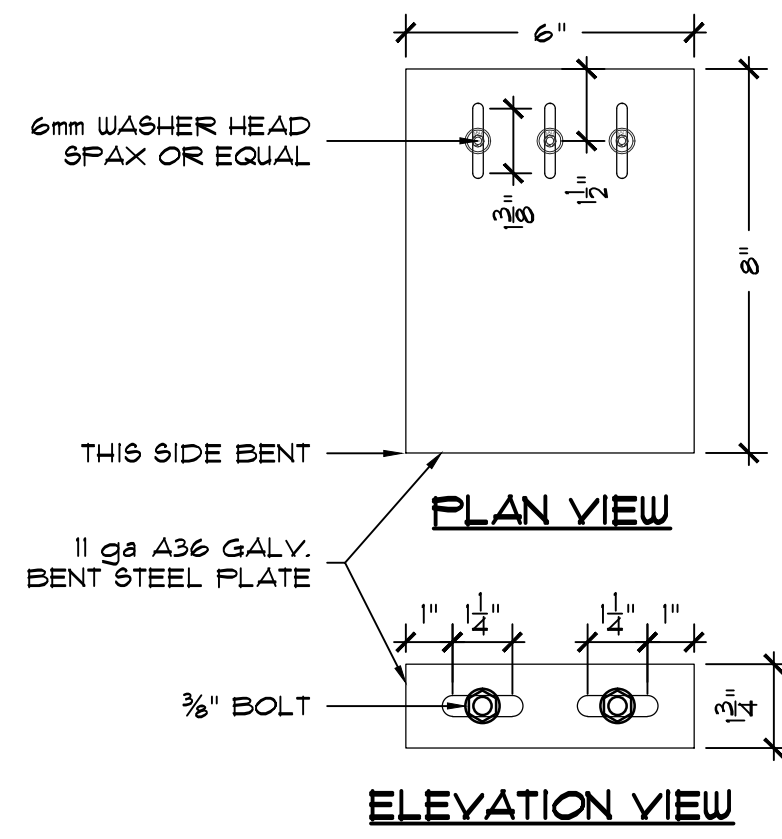


2 BALCONY SECTION @ STAIR
 S-31 SCALE: 3/4" = 1'-0"



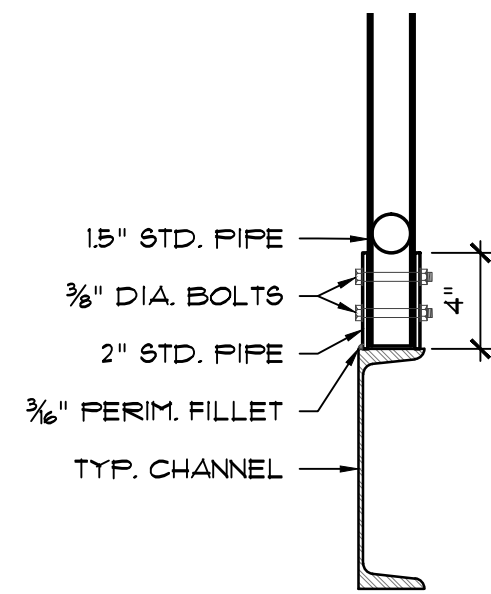
3 LANDING SECTION @ COLUMN
 S-31 SCALE: 3/4" = 1'-0"

NOTE: UNLESS NOTED OTHERWISE ALL STRUCTURAL STEEL CONNECTIONS ARE TO BE DETAILED AS SHEAR CONNECTIONS CAPABLE OF SAFELY SUPPORTING HALF OF THE MAXIMUM TOTAL UNIFORM LOAD TABULATED FOR THE SPAN IN AISC 360 - 14th ed. CONNECTIONS ARE TO BE SHOP DETAILED AND SUBMITTED FOR REVIEW.

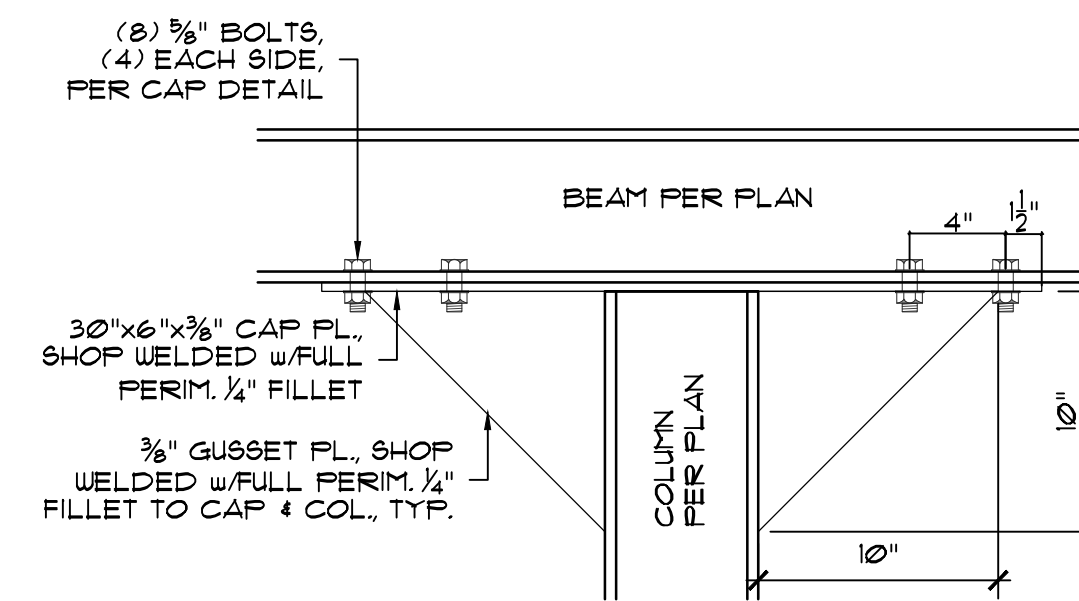


4 DRIFT CONNECTOR BRACKET DETAIL
 S-31 SCALE: 3" = 1'-0"

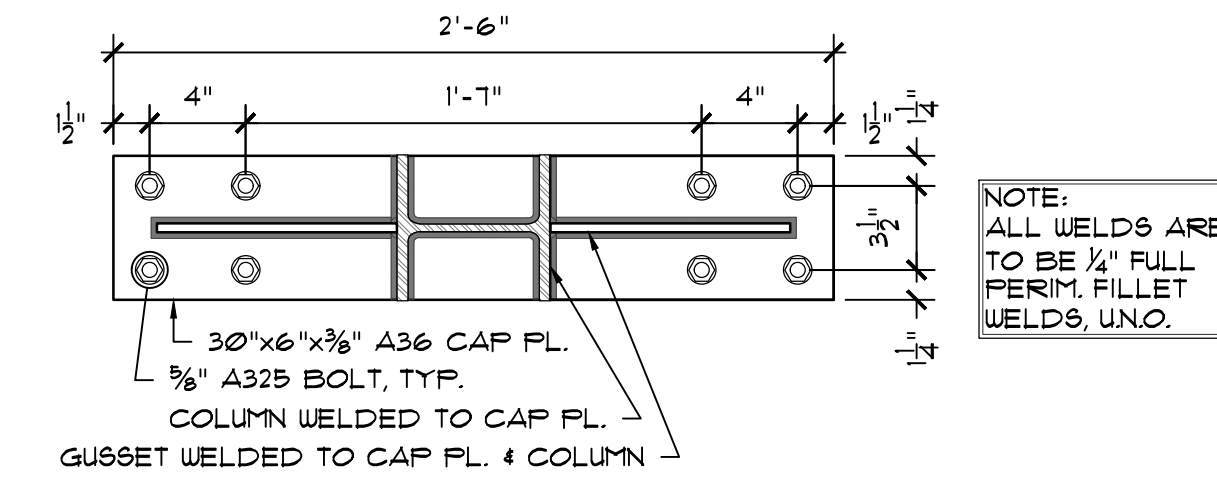
NOTE: ANCHORAGE SUBSTRATE TO BE VERIFIED & APPROVED PRIOR TO FABRICATION



5 TYPICAL RAIL POST CONN.
 S-31 SCALE: 1 1/2" = 1'-0"



6 TYPICAL COLUMN TO BE CONN. DET.
 S-31 SCALE: 1 1/2" = 1'-0"



7 TYPICAL COLUMN CAP PL. CONN. DET.
 S-31 SCALE: 1 1/2" = 1'-0"

NOTE: ALL WELDS ARE TO BE 1/4" FULL PERIM. FILLET WELDS UNO.

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**Yantic Fire Station
Fire Code Abatement
Modifications / Renovations
151 Yantic Road
Norwich, CT.**

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Addendum #1:

SECTION 05500 - METAL FABRICATIONS

PART 1 GENERAL

RELATED DOCUMENTS:

Drawings and general provision of Contract, including General and Supplementary Conditions and Division -1 Specification section, apply to work of this section.

DESCRIPTION OF WORK:

Definition: Metal fabrication include items made from iron and other indicated metals; steel shapes, plates, bars, strips, tubes, pipes and castings which are not a part of structural steel or other metal systems specified elsewhere.

Extent of metal fabrications is indicated on drawings or specified here-in.

Types of work in this section include metal fabrication for:

- Loose bearing and leveling plates
- Loose steel lintels
- Miscellaneous framing and supports
- Steel pipe railings and guard railing
- Aluminum pipe railing and guard rails
- Painted Steel Bollards

QUALITY ASSURANCE:

Shop Assembly: Pre-assemble items in the shop to the greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinate installation.

SYSTEM PERFORMANCE:

Structural Performance: Provide assemblies which, when installed comply with the following minimum requirements for structural performance, unless otherwise indicated.

Handrails and Guardrails: (per Sections 4.4 of ASCE 7-95)

Toprails: Capable of withstanding the following loads applied as indicated when tested per ASTM E-935

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Concentrated loads of 200 lbs. pf. applied at any point in any directions.
Uniform loads of 50 lbs. per lineal ft. applied in both vertical and horizontal directions.
Concentrated and uniform loads above need not be assumed to act concurrently.

Guards: Intermediate rail, balusters, and panel fillers capable of withstanding a uniform load of 50 lbs. on an area not to exceed 1 SF over the gross area of the guard, including any open areas, or which they are a part.

SUBMITTALS

Shop drawings: Submit shop drawings for fabrication and erection of miscellaneous metal fabrications. Include data on material, strength thickness, manufacturer's model number. Provide plans, elevations and details of sections and connections. Show anchorage and accessory items.

Note: Where material / fabrication is indicated to comply with certain requirements for design loading, include Structural Computations showing requirements for meeting stresses required at anchorage, post supports, railing etc. as needed for structural review. Provide a Professional Engineers Signature and Seal showing that design parameters are met.

PART 2 - PRODUCTS

MATERIALS:

Aluminum: Provide alloy and temper recommended by aluminum producer of finishes for type and use and finish indicated, and without less than the strength and durability properties of the ally and temper designated below for each type of aluminum.

Extruded Pipe & Tube: ASTM B-429, 6063-T6

Ferrous Metals

Metal Surfaces, General: For fabrication of miscellaneous metal work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness.

Steel Plates, Shapes and Bars: ASTM A 36

Steel Pipe Rails: ASTM A 53 - Type 'B' grade (if applicable) as selected by fabricator and as required for design loading, black finish unless galvanizing is indicated.

Note all Exterior railings and handrails are to be galvanized.

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Structural Steel Sheet: Hot-rolled, ASTM A 570; or cold-rolled ASTM A 611, Class 1; of grade required for design loading.

Brackets, Flanges and Anchors: Cast or formed metal of the same type material and finish as supported rails, unless otherwise indicated.

Concrete Inserts: Threaded or wedge type; galvanized ferrous casting, either malleable iron, ASTM A 47, or cast steel, ASTM A 27. Provide bolts, washers and shims are required, hot-dip galvanized, ASTM A 153.

Fasteners:

General: Provide zinc-coated fasteners for exterior use or where built into exterior walls. Select fasteners for the type, grade and class required.

Bolt and Nuts: Regular hexagon head type, ASTM A 307, Grade A

Lag Bolts: Square head type, FS FF-B-561

Machine Screws: Cadmium plated steel, FS FF-S-92

Wood Screws: flat head carbon steel, FS FF-S-111

Plain Washers: round, carbon steel; FS FF-W-92

Masonry Anchorage Devices: Expansion shields, FS FF-S-325

Toggle Bolts: Tumble-wing type, FS FF-B-588, type, class and style as required.

Lock Washers: Helical spring type carbon steel, FS FF-W-84

Paint:

Shop Primer for Ferrous Metal: Manufacturer's or Fabricator's standard, fast-curing, lead-free, "universal" primer, selected for good resistance to normal atmospheric corrosion, for compatibility with finish paint systems indicated and for capability to provide a sound foundation for field-applied topcoats despite prolonged exposure.

FABRICATION - GENERAL:

Workmanship: Use materials of size and thickness indicated, or if not indicated, as required to produce strength and durability in finished product for use intended. Work to dimensions indicated or accepted on shop drawings, using proven details of fabrication and support. Use type of materials indicated or specified for various components of work.

Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to radius of approximately 1/32" unless otherwise indicate. Form bent-metal corners to smallest radius possible without causing grain

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separation or otherwise impairing work.

Weld corners and seams continuously, complying with AWS recommendations. At exposed connections, grind exposed welds smooth and flush to match and blend with adjoining surfaces.

Form exposed connections with hairline joints, flush and smooth, using concealed fasteners, wherever possible. Use exposed fasteners of type indicated or, if not indicated, Philips flat-head (countersunk) screws or bolts.

Provide for anchorage of type indicated, coordinate with supporting structure. Fabricate and space anchoring devices to provide adequate support for intended use.

Cut, reinforce, drill and tap miscellaneous metal work as indicated to receive finish hardware and similar items.

Fabricate joints which will be exposed to weather in a manner to exclude water or provide weep holes where water may accumulate.

Shop Painting:

Apply shop primer to surfaces of metal fabrications except those which are galvanized or as indicated to be embedded in concrete or masonry, unless otherwise indicated.

Surface Preparation: Prepare ferrous metal surfaces to comply with minimum requirements indicated below for SSPC surface preparation specifications and environmental exposure conditions of installed met fabrications:

Exteriors (SSPC Zone 1B): SSPC-SP6 "Commercial Blast Cleaning"

Interiors (SSPC Zone 1A): SSPPC-SP3 "Power Tool Cleaning"

Fabricate items to size, shapes and dimensions required. Furnish malleable-iron washers for heads and nuts which bear on wood structural connections; elsewhere, furnish steel washers.

Pipe Bollards: Provide and install 8" dia. pipe bollards constructed of scheduled 40 galvanized steel pipes, approximately 42" above finished grade and 42" below grade, with 2 #5 reinforcement rods and concrete filled (Fc= 3000#). Concrete fill to extend full length of bollards with a concrete cap extending approximately 1" over the top of the pipe

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line. Concrete cap to be rounded off and troweled smooth producing a smooth sealed surface. Base of bollard to be encased in a concrete footing measuring 16" in dia. and at least 30" in height, beginning 8" below the bottom of the bollard. Bollard to be painted Hazard yellow. Paint finish to be fully compatible with galvanized coating.

PART 3 - EXECUTION

PREPARATION:

Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible. Do not delay job progress; allow for trimming and fitting where taking field measurements before fabrication might delay work.

Coordinate and furnish anchorage, setting drawings, diagrams, templates, instructions, and directions for installation of anchorage, such as concrete inserts, sleeves, anchor bolts and miscellaneous items have integral anchors, which are to be embedded in concrete or masonry construction. Coordinate delivery of such items to project sit.

INSTALLATION

General

Fastening to In-Place Construction: provide anchorage devices and fasteners where necessary for securing miscellaneous metal fabrications to in-place construction; including, threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws and other connectors as required.

Cutting, Fitting and Placement: Perform cutting, drilling and fitting required for installation of miscellaneous metal fabrications. Set work accurately in location, alignment and elevation, plus, level, true and free of rack, measured from established lines and levels. Provide temporary bracing or anchors in foot work for items which are to be built into concrete masonry or similar construction.

Fit exposed connections accurately together to form tight hairline joints. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind exposed joints smooth and touch-up shop paint coat. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.

Field Welding: Comply with AWS Code for procedures of manual shielded metal-arc welding, appearance and quality of welds made, and methods used in correcting welding work.

ADJUST AND CLEAN:

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Touch-Up Painting: Immediately after erection, clean filed welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with same materials as used for shop painting.

Apply by brush or spray to provide a minimum dry film thickness of 2.0 mils.

END OF SECTION 05500



City of Norwich

Department of Finance – Purchasing Agent
100 Broadway, Room No. 105
Norwich, CT 06360

Phone: (860)823-3706
Fax: (860)823-3812
E-mail: whathaway@cityofnorwich.org

Bid No.: 7602
Project: Fire Code Abatement Modifications/Renovations to the Yantic Fire Department, 151 Yantic Road, Norwich, CT

Pre-Bid Meeting Notes

1. The base bid price is to include the following:
 - a. Metal finish for the fire escape is to be powder coated galvanized steel painted black.
 - b. Relocation of two (2) security cameras in and around the fire escape.
 - c. Relocation of the rescue bay electrical panel approximately 40' away from what is shown on the drawing.
 - d. New custom metal doors and frames.
 - e. Floor refinishing as specified. The fire company will be responsible for removal of all non-fixed items from the bay floors. The contractor will be responsible for removing all fixed items, such as radiators and anything else attached to the floors.
2. The 0-10 v dimmer location is to be inside the rear door of the engine bay for the exterior fire escape light fixtures. The exact location to be determined by the owner prior to installation. The light fixture control shall remain the same – dusk to dawn.
3. The fire company has approximately 200 board feet of wall board to be used by the contractor if needed.



City of Norwich

Department of Finance – Purchasing Agent
100 Broadway, Room No. 105
Norwich, CT 06360

Phone: (860)823-3706
Fax: (860)823-3812
E-mail: whathaway@cityofnorwich.org

Bid No. : 7602
Project: Fire Code Abatement Modifications/Renovations to the Yantic Fire Department, 151 Yantic Road, Norwich, CT

Responses to Requests for Information

- Question 1:** Is it the intent that the balcony is free standing and not connected to building?
Response 1: Yes, the balcony is free standing, and connected only with a two way deflection clip per 4/S-3.1. Please see Structural Drawings.
- Question 2:** What size plate and support steel is required on top of W6 columns to support the balcony and landing?
Response 2: Support per 6 & 7/S-3.1; column to beam and cap plate connection details.
- Question 3:** What thickness base plate is required for the support columns?
Response 3: Please see Structural Drawings, particularly details 5, 6 & 7 on S-3.0: the Pier and Base Pl. details.
- Question 4:** Do the balcony and landing require kick plates as per OSHA?
Response 4: Review the Structural Drawings.
- Question 5:** Can you provide a spec for the epoxy flooring product that is to be used?
Response 5: Review the Structural Drawings.
- Question 6:** What is the species of wood for the Maiman/True Stile doors?
Response 6: A3/ E-1 in the Door Specification indicates a Paint Grade Veneer: For Bidding, provide clear birch applied for paint application.
- Question 7:** Please provide detailed sketches calling out the reinforcing size, quantity, and location for all footings/piers required for the construction of the exterior stair tower.
Response 7: Please see Structural Drawings, particularly page S-3.0.
- Question 8:** Will you be releasing the Engineer's structural drawings for this project?
Response 8: Please see Structural Drawings.
- Question 9:** The plans do not mention demolition of the office/work station cabinetry, but at the pre-bid meeting it was mentioned that the contractor is to remove the cabinets. Please clarify
Response 9: Cabinets removed by the General contractor of Record and wall / floor surfaces prepared for new cabinets by the Fire Department through separate contract. Coordinate with electrician on changes for wiring to ensure no interference with scheduled cabinet replacement.
- Question 10:** Alternate #1 in section 01030 States “(add/deduct) Base Bid indicates an alternate for the purchase and installation of metal door bucks and associated wood trims. Review the Project Drawings for the extent and application of indicated Alternate assemblies.”
Please provide a precise listing of the “indicated Alternate assemblies” that you want to include in the alternate.

Response 10: Cabinets removed by the General contractor of Record and wall / floor surfaces prepared for new cabinets by the Fire Department through separate contract. Coordinate with electrician on changes for wiring to ensure no interference with scheduled cabinet replacement.

Question 11: The table of contents in the spec says there is no scheduled work for Division 5 Metals, plans show new metal stairs, railings, and balcony, please confirm and provide necessary specs.

Response 11: Attached find a Revised Table of Contents and Section 05500 Miscellaneous Metals for insertion into the project manual.

Question 12: What is the size and spacing of the steel joists below the traction tread plank shown on the section through balcony and section through landing on drawing A2?

Response 12: The plank spans between the main steel. Please see structural drawings; sections on S-2.0 provide clarity.

Question 13: The new stairs appear to be metal pan stairs filled with concrete, is this correct? Do the stair treads need any kind of traction surface applied?

Response 13: Review the Structural Drawings. Refer to the Architectural drawings A2.

**CITY OF NORWICH
NORWICH, CONNECTICUT**

**BID FORM
Bid No. 7602**

To: City of Norwich
City Hall
100 Broadway
Norwich, CT 06360

From: _____

The undersigned, having familiarized (herself, himself, themselves) with the existing conditions on the project site affecting the cost of the work, and with the contract documents for the in Norwich, CT and hereby proposes to furnish all supervision, technical personnel, labor, materials, equipment, tools, appurtenances, services and anything else necessary to perform and complete this project, all in accordance with the contract documents at and for the unit prices for the following work items:

ITEM DESCRIPTION

BASE BID

Fire Code Abatement Modifications/Renovations to the Yantic Fire Department, 151 Yantic Road, Norwich, CT as specified in the Contract Documents

\$ _____

Base Bid (in words)

The following allowance(s) identified in Section 01020 is/are included in the Base Bid:

Allowance No. 1 for unforeseen conditions and issues \$15,000.00

Bid Alternates

Add +/Deduct-

Metal finish for the fire escape is hot dipped galvanized steel painted black.

The Bidder acknowledges receipt of the following Addenda:

Addendum No. _____, dated _____

Addendum No. _____, dated _____

Addendum No. _____, dated _____

Enclosed is the Bidder's Bond, Bank Check, Cashier's Check or Certified Check No _____ in the amount of five percent (5%) of the Bid.

The undersigned accepts the terms, conditions and requirements stated in the Owner's Invitation to Bid

and contract documents. The undersigned proposes to all labor, supervision, equipment, tools and incidentals in accordance with the specifications.

The undersigned has carefully checked all the figures on the **Base Bid Items** form and understands that the Owner will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

Bidder understands that the City of Norwich reserves the right to reject any or all bids, in whole or in part, and to waive any informality in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) days after the scheduled closing time for the receipt of Bids.

Respectfully submitted:

Name and Title (in cursive)

Name and Title (printed)

(Seal – if bid is by a corporation)

Business Address
