

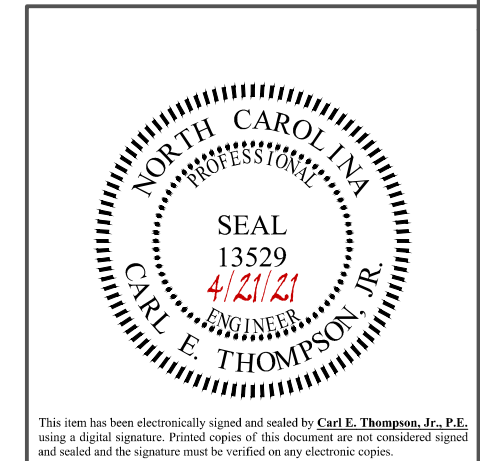
GENERAL NOTES:

- All design, detailing, fabricating and construction shall conform to the following codes and specifications:
 - The 2018 North Carolina Building Code.
 - The 2015 International Building Code.
 - American Society of Testing and Materials (ASTM) specifications.
 - Building Code Requirements for Reinforced concrete (ACI 318-(Current Edition)).
 - Code for Welding in Building Construction of the American Welding Society.
 - Specification for the Design, Fabrication and Erection of Structural Steel for Buildings by The American Institute of Steel Construction (AISC) (Current Edition).
 - Aluminum Association Aluminum Design Manual (2010 Edition).
- Concrete shall be $f'_c = 2,500$ P.S.I. (min.) @ 28 days Compressive Strength, STD WT (150 P.C.F.)
- Reinforcing Steel shall be ASTM A-615 Grade 60, (if required).
 - All reinforcing steel shall be free from mud, oil, rust or coatings that would reduce or destroy bond.
 - All reinforcing bars shall lap 30 diameters minimum, except as noted.
 - Minimum concrete cover on ties, stirrups and main bars shall be 3/4 inch for slab, wall and surfaces not exposed to weather or in contact with ground; 3 inches for unformed surfaces deposited against the ground except as noted.
- Structural Material Specifications:
 - Aluminum shapes shall be extruded from 6061-T6 alloy. Welding filler alloy shall be 5356.
 - Structural Steel and Plates shall be ASTM A-36 ($F_y=36$ ksi)
 - W-Shape beams shall be ASTM A-992 ($F_y=50$ ksi) Minimum
 - Structural tubing shall be ASTM A-500, Grade B, ($F_y=46$ ksi)
 - Structural piping shall be ASTM A-53, Grade B, Type E or S, ($F_y=35$ ksi), ASTM A572 Grade 42 ($F_y=42$ ksi) or ASTM A572 Grade 50 ($F_y=50$ ksi), (see drawing for individual member specifications).
- High strength bolts for connections shall be ASTM A-325, unless otherwise noted.
- Welding electrodes shall comply with AWS D1.1-(Current Edition), E70XX. (All welding to be done by welder certified for specified weld type.)
- Design Wind Speed, $V_{ULT}=120$ MPH (ASCE 7-10)
Equivalent Wind Load, $P_{ASD}=29.50$ PSF @ 40'-0" above the ground (3 Sec Wind Gusts.)
Exposure "C" Risk Category II $I_p=1.0$ $G=0.85$
- Soil Bearing Capacity Requirements:
 - Minimum Allowable Vertical Bearing Capacity shall be N/A P.S.F.
 - Minimum Lateral Bearing Capacity shall be $(200 \frac{lb}{ft^2} * 2) = 400$ P.S.F. per foot of depth. (Times two increase per IBC Section 1806.3.4)
- Contractor shall verify all dimensions and conditions in the field before erection and notify the Engineer of any discrepancies.

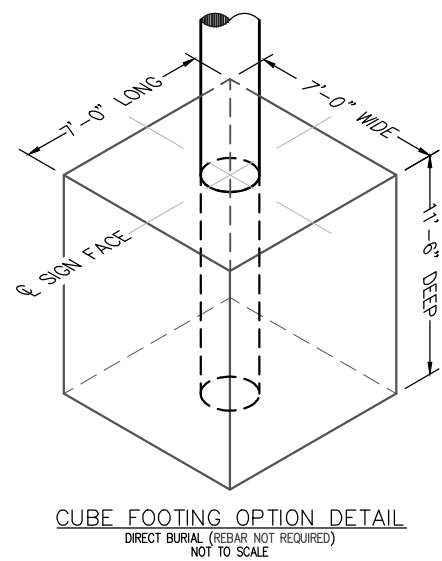
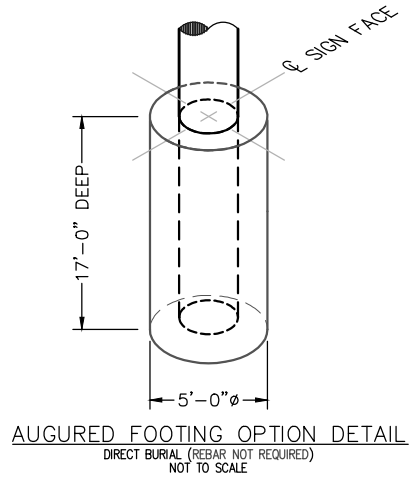
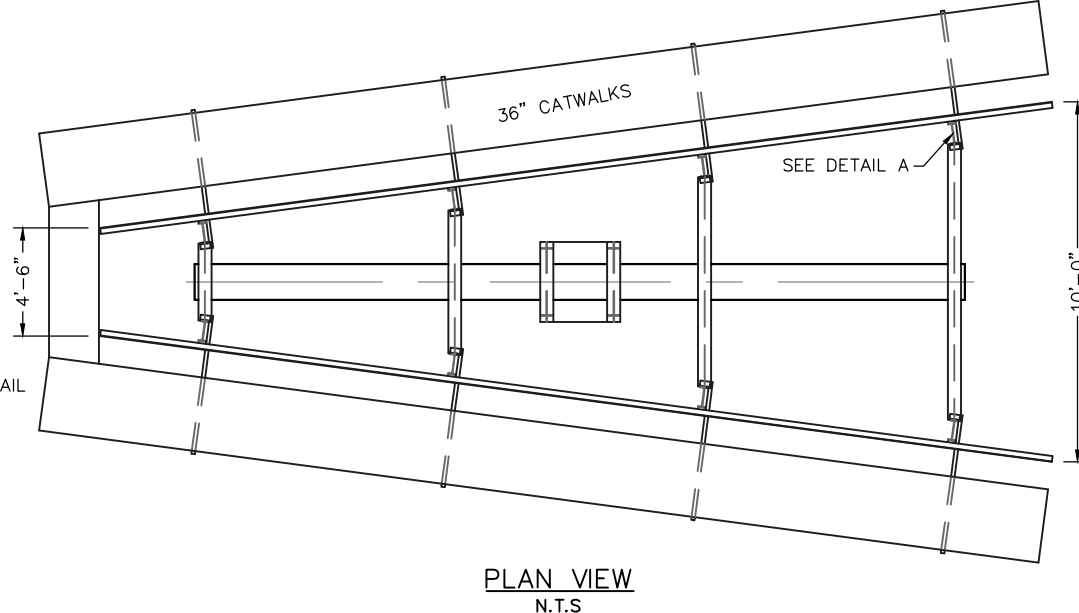
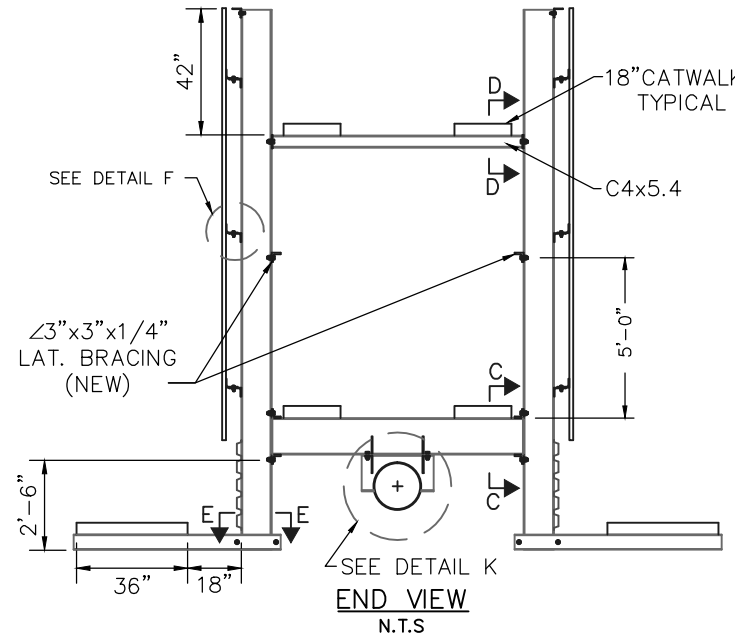
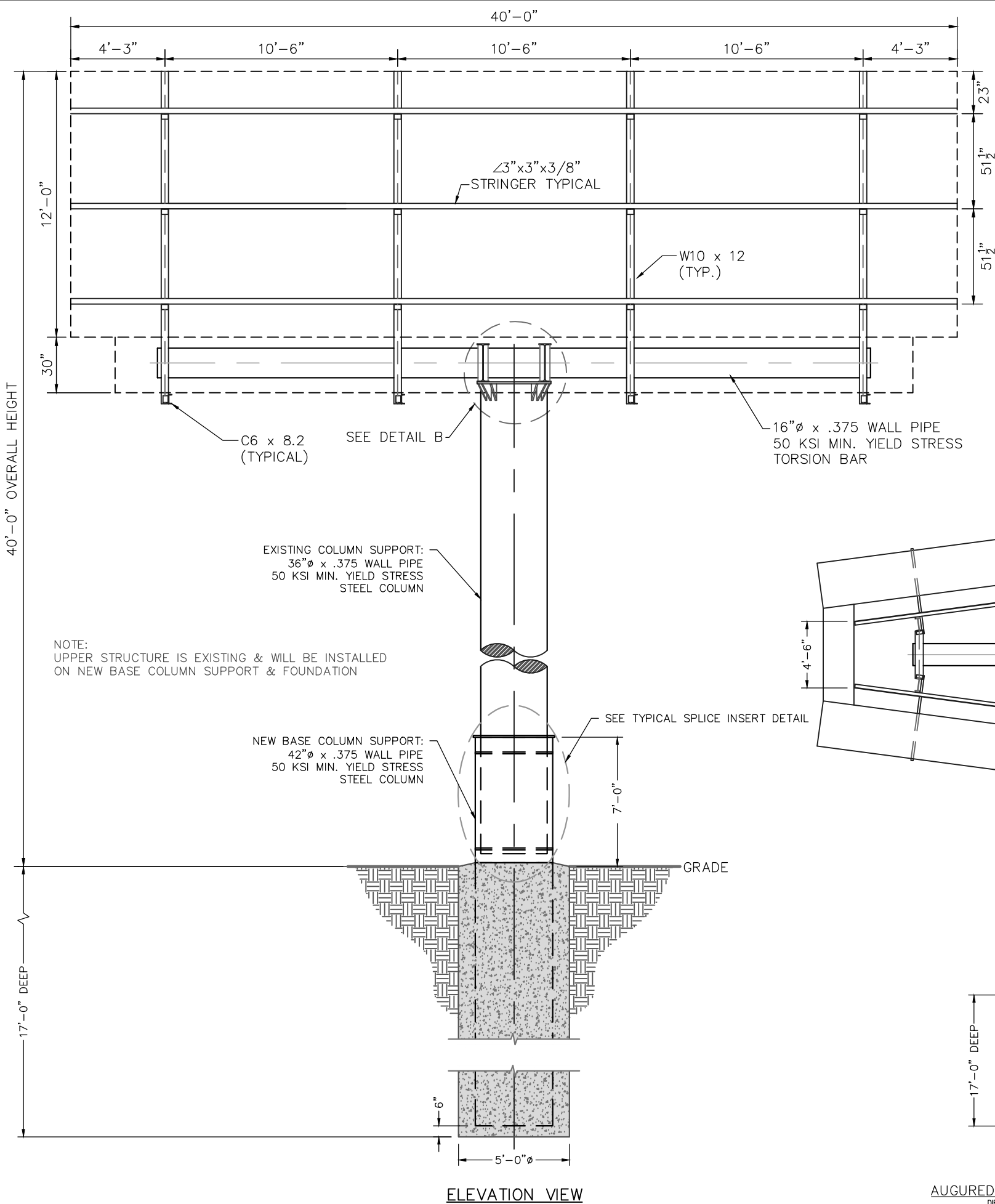
DRAWING INDEX

- Sheet 1: Structural Layout Views
Sheet 2: Detail Sheet

NOTICE: T.E.S. is responsible for uprights, torsion beam, head plate connection, column supports, column splice connection & foundation design only, all other items shown are for informational purposes only. This drawing is for permitting purposes only & is for the sole use of T.E.S. and it's designers. Unauthorized use is strictly prohibited.



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40'-0" OVERALL HEIGHT

17'-0" DEEP

ELEVATION VIEW

PLAN VIEW
N.T.S.

AUGURED FOOTING OPTION DETAIL
DIRECT BURIAL (REBAR NOT REQUIRED)
NOT TO SCALE

CUBE FOOTING OPTION DETAIL
DIRECT BURIAL (REBAR NOT REQUIRED)
NOT TO SCALE

NOTE:
UPPER STRUCTURE IS EXISTING & WILL BE INSTALLED
ON NEW BASE COLUMN SUPPORT & FOUNDATION

EXISTING COLUMN SUPPORT:
36" ϕ x .375 WALL PIPE
50 KSI MIN. YIELD STRESS
STEEL COLUMN

NEW BASE COLUMN SUPPORT:
42" ϕ x .375 WALL PIPE
50 KSI MIN. YIELD STRESS
STEEL COLUMN

C6 x 8.2
(TYPICAL)

$\angle 3" \times 3" \times 3/8"$
STRINGER TYPICAL

W10 x 12
(TYP.)

16" ϕ x .375 WALL PIPE
50 KSI MIN. YIELD STRESS
TORSION BAR

$\angle 3" \times 3" \times 1/4"$
LAT. BRACING
(NEW)

SEE DETAIL K
END VIEW
N.T.S.

SEE DETAIL A

SEE TYPICAL SPLICE INSERT DETAIL

GRADE

6"

5'-0" ϕ

7'-0"

17'-0" DEEP

5'-0" ϕ

7'-0" LONG

7'-0" WIDE

11'-6" DEEP

2'-6"

36"

18"

42"

5'-0"

51 1/2"

51 1/2"

23"

40'-0"

4'-3"

10'-6"

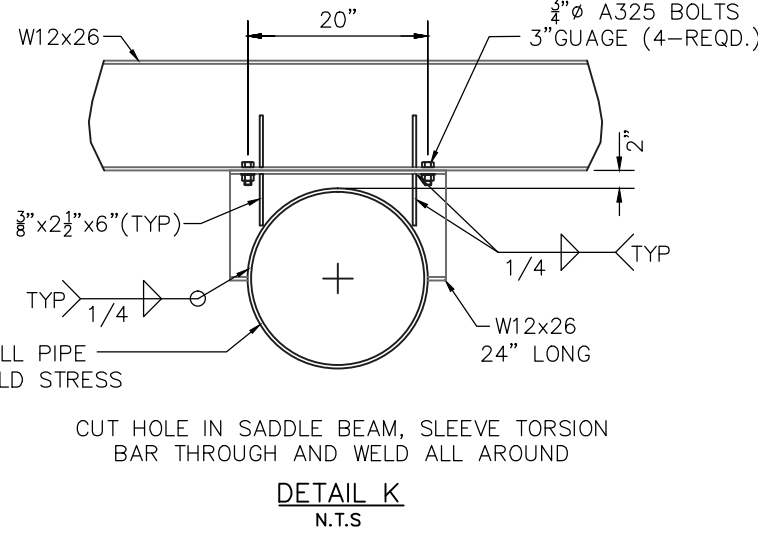
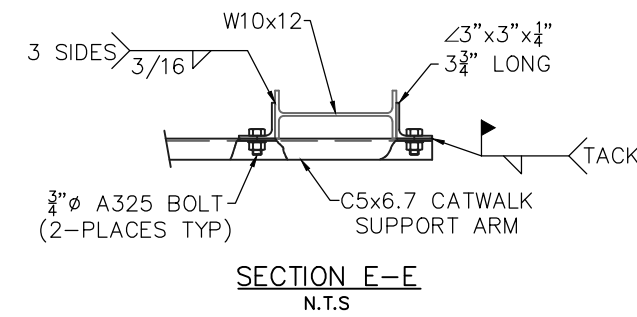
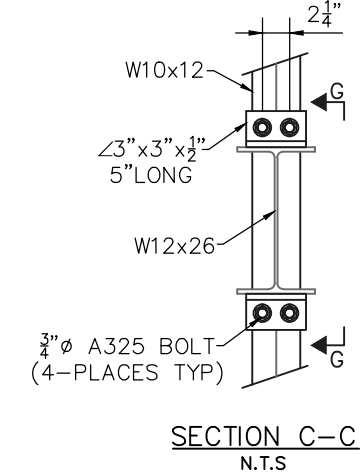
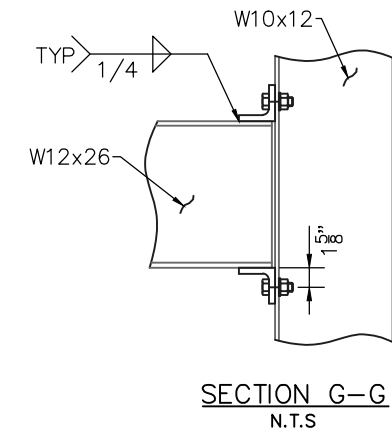
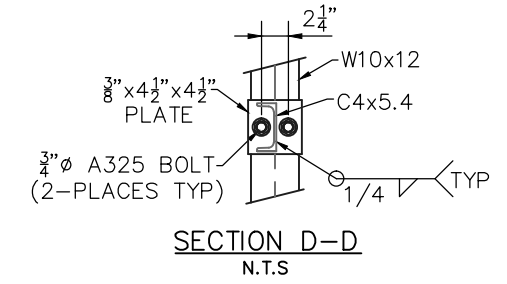
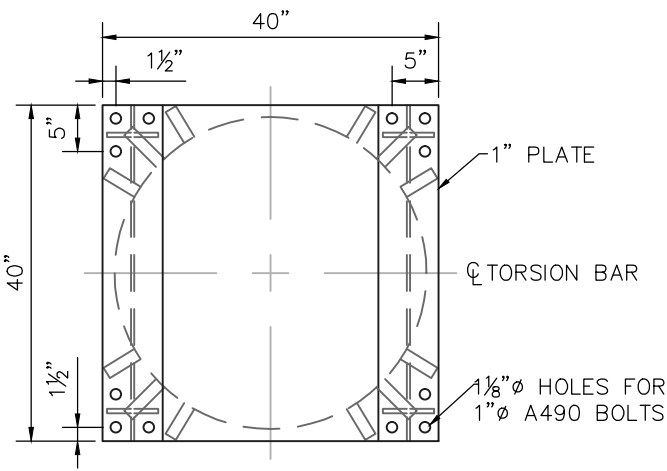
10'-6"

10'-6"

4'-3"

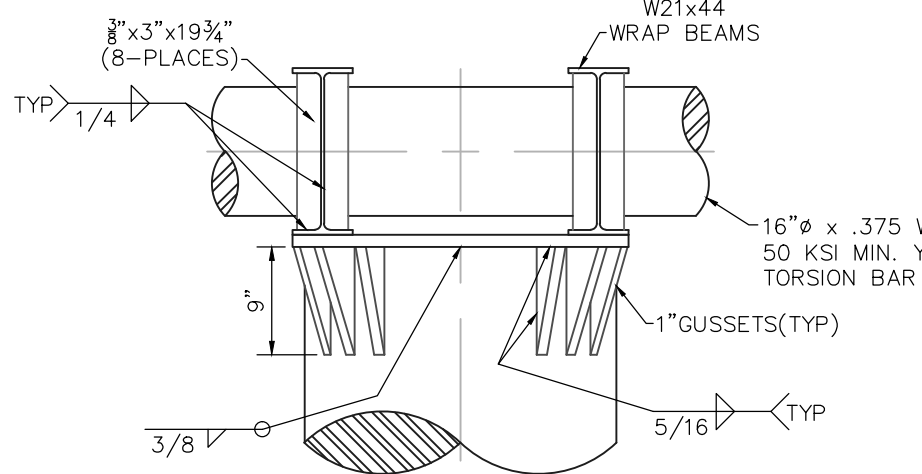
12'-0"

30"



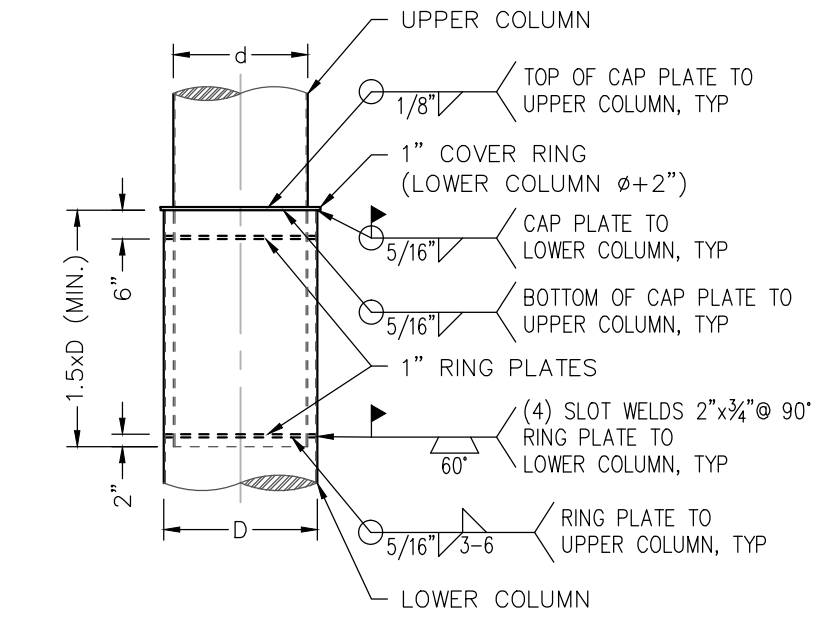
CUT HOLE IN SADDLE BEAM, SLEEVE TORSION BAR THROUGH AND WELD ALL AROUND

DETAIL K
N.T.S

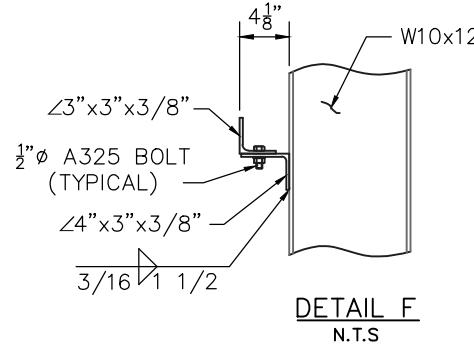


CUT HOLE IN WRAP BEAM, SLEEVE TORSION BAR THROUGH AND WELD 1/4 FILLET ALL AROUND

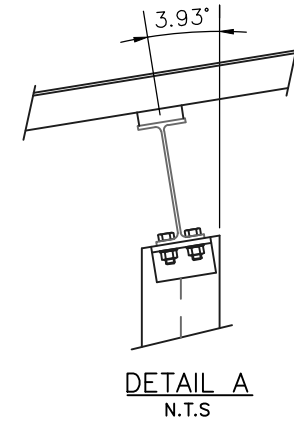
DETAIL B
N.T.S



TYPICAL SPLICE INSERT DETAIL
NOT TO SCALE



DETAIL F
N.T.S



DETAIL A
N.T.S

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