

LAP SPLICE LENGTHS FOR REINFORCED CONCRETE

(TYPICAL UNLESS OTHERWISE NOTED)

LAP SPLICES FOR GRADE 60 BARS

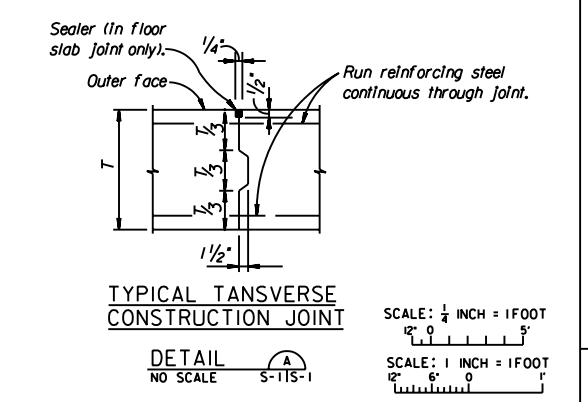
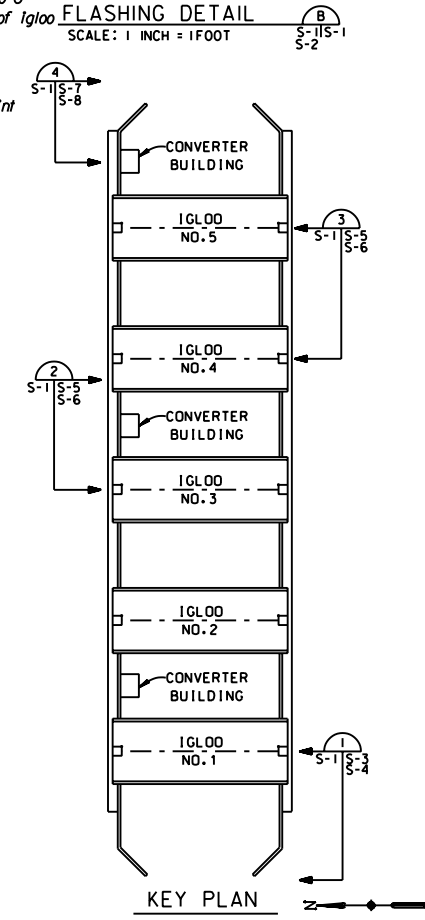
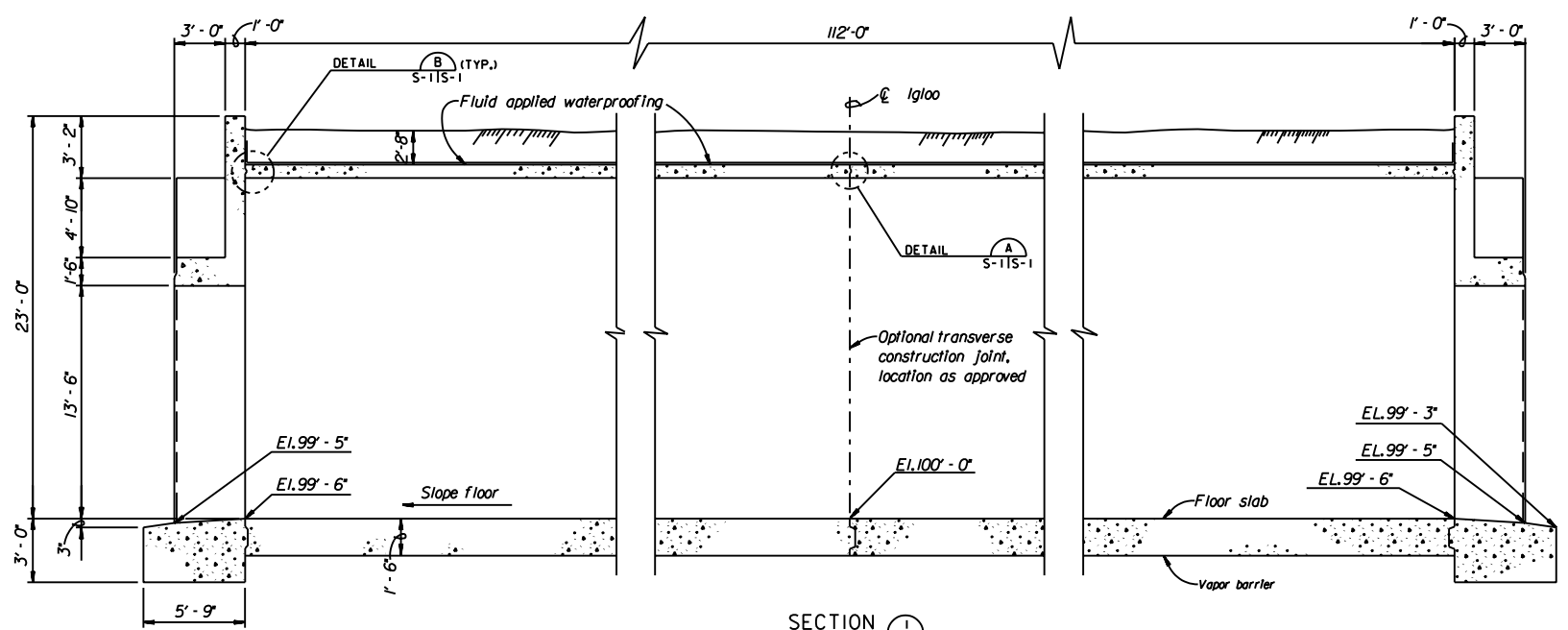
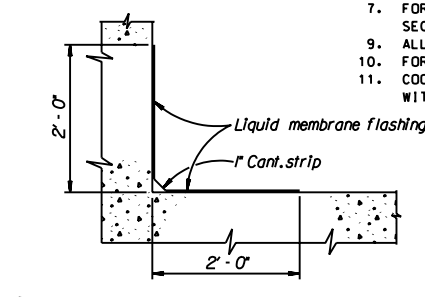
LAP SPLICE LENGTHS (INCHES)	
BAR SIZE NO.	F'c = 4,000 PSI
#3	15
#4	20
#5	26
#6	31
#7	39
#8	51
#9	65
#10	82
#11	101

NOTE: Not all bar sizes listed may be required.

- DESIGNER'S NOTES:**
- FOUNDATIONS - ALLOWABLE EXCESS SOIL BEARING PRESSURE = 4,000 psf.
- MODULUS OF SUBGRADE REACTION = 300 psi/in.
 - BACKFILL - RETAINING WALLS ARE DESIGNED FOR GRANULAR BACKFILL
- WITH 110 pcf UNIT WEIGHT AND 45 pcf EQUIVALENT FLUID PRESSURE
- IGLoo ARCH WALL AND CROWN ARE DESIGNED FOR ANY SUITABLE BACKFILL MATERIAL.
 - IGLOO STRUCTURES HAVE BEEN SITED IN ACCORDANCE WITH AFR 127-100 REQUIREMENTS FOR INTERMAGAZINE DISTANCES WITH A NET EXPLOSIVE WEIGHT OF 30,000 LBS.
 - DESIGN STRESS -
a) CONCRETE f'c = 4,000 psi MINIMUM @ 28 days
b) REINFORCING fy = 60,000 psi
c) STRUCTURAL STEEL fy = 36 ksi
 - HOODS HAVE BEEN DESIGNED FOR A WIND VELOCITY OF 80mph. RESULTING WIND PRESURES HAVE BEEN DETERMINED AND APPLIED IN ACCORDANCE WITH ANSI A58.1-1982.
 - HOODS HAVE BEEN DESIGNED FOR A LIVE LOAD OF 60 psf.

- GENERAL NOTES:**
- MUNITIONS STORAGE IGLooS, CONVERTED BUILDINGS AND RETAINING WALLS SHALL BE CONSTRUCTED USING CONCRETE WITH A MINIMUM SPECIFIED 28-day COMPRESSIVE STRENGTH OF 4,000 psi.
 - LIGHTING PROTECTION SHALL BE PROVIDED AS INDICATED ON SHEET E-2. CONCRETE REINFORCING SHALL BE BONDED, AND ALL EMBEDDED METAL SHALL BE PART OF A CONTINUOUS ELECTRICALLY-GROUNDED SYSTEM.
 - CONDUIT EMBEDDED IN CONCRETE IS SHOWN ON SHEET E-1.
 - SUPPORTING FORMS AND/OR SHORING FOR THE IGLoo ARCH AND CONVERTER BUILDING ROOF SHALL NOT BE REMOVED UNTIL THE JOB-CURED CONTROLLED TEST SPECIMENS HAVE ATTAINED A STRENGTH VALUE OF 2,000 psi.
 - PREFINISHED METAL ROOFING FOR HOODS AND CONNECTIONS TO THE HOOD FRAMES SHALL BE DESIGNED FOR 30 psf. ACTING AWAY FROM THE FRAMES, AND 50 psf ACTING DOWNWARD ON TOP OF THE HOODS. SEE CIVIL DRAWINGS FOR EXTENT OF SOIL OVER-EXCAVATION AND RECOMPACTION.
 - FOR ALLOWABLE CONSTRUCTION EQUIPMENT LOADS, REFER TO SPECIFICATION SECTION: EXCAVATION AND BACKFILLING FOR BUILDINGS.
 - ALLOWABLE FLOOR LOADING: LOADED MHU 196 TRAILER.
 - FOR REINFORCING BAR SPLICE TABLE, SEE THIS SHEET
 - COORDINATE INDIVIDUAL IGLoo AND CONVERTER BUILDING FLOOR ELEVATIONS WITH ELEVATIONS SHOWN ON CIVIL SHEETS.

- SITE ADAPT NOTES: (EDIT-OUT UPON DESIGN)**
- IGLOO FOUNDATION AND STRUCTURAL PROPERTIES ARE MANDATORY. CHANGES REQUIRE RE-ANALYSIS AND SUBMITTAL TO THE DEPARTMENT OF DEFENCE EXPLOSIVE SAFETY BOARD (DDESB) FOR APPROVAL.
 - RETAINING WALLS AND CONVERTER BUILDINGS MAY BE RE-DESIGNED FOR DIFFERENT SOIL CONDITIONS AT THE OPTION OF THE SITE ADAPTER.
 - EDIT THE KEY PLAN FOR YOUR PROJECT.

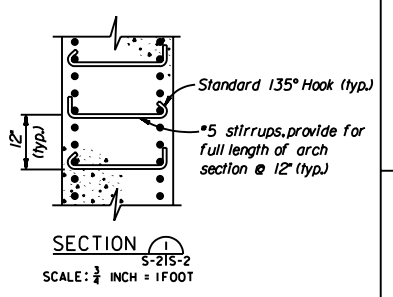
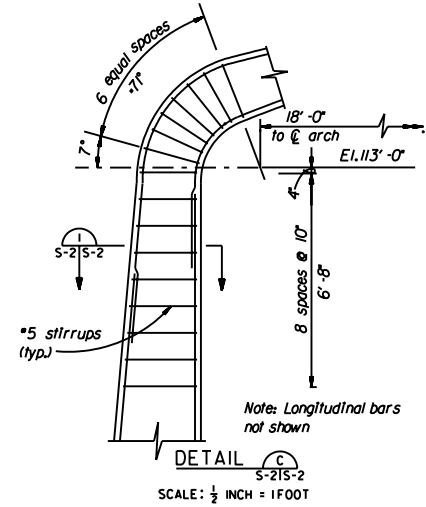
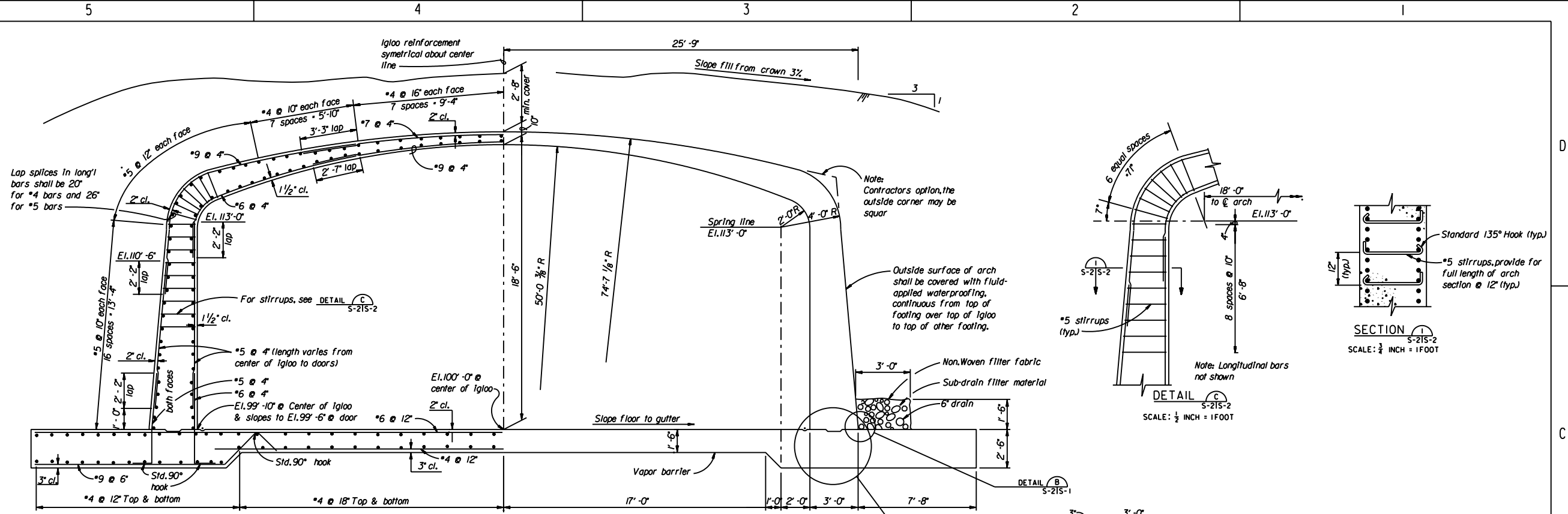


- DESIGNER'S NOTES:**
- Igloo configuration and section cuts will have to be adjusted on the Key Plan.
 - North arrow will need to be oriented.

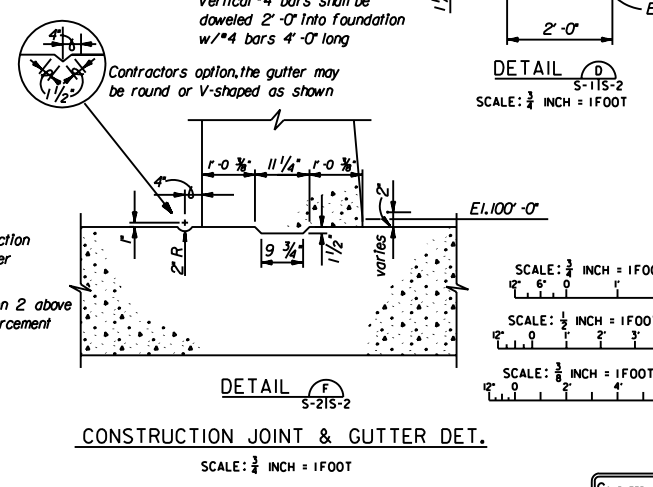
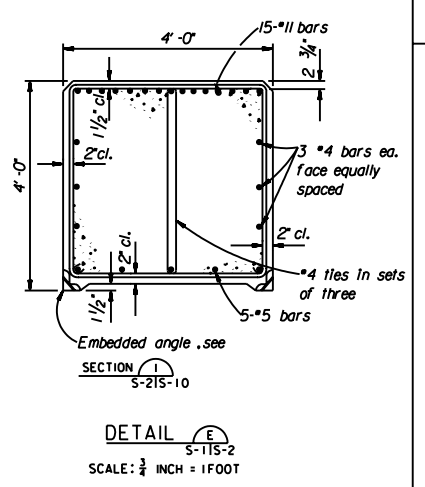
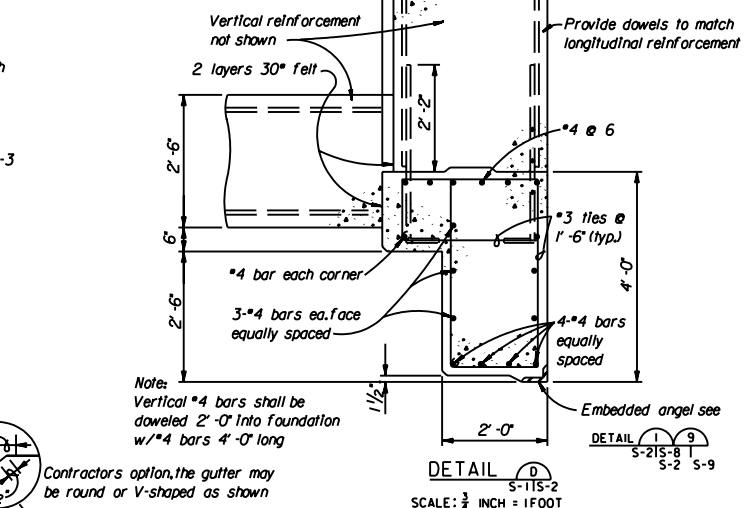
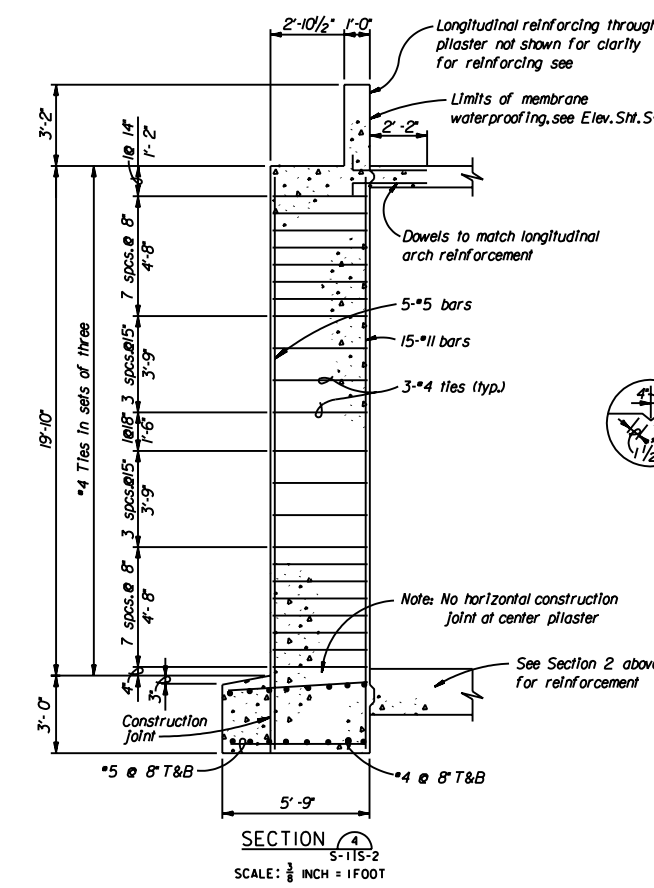
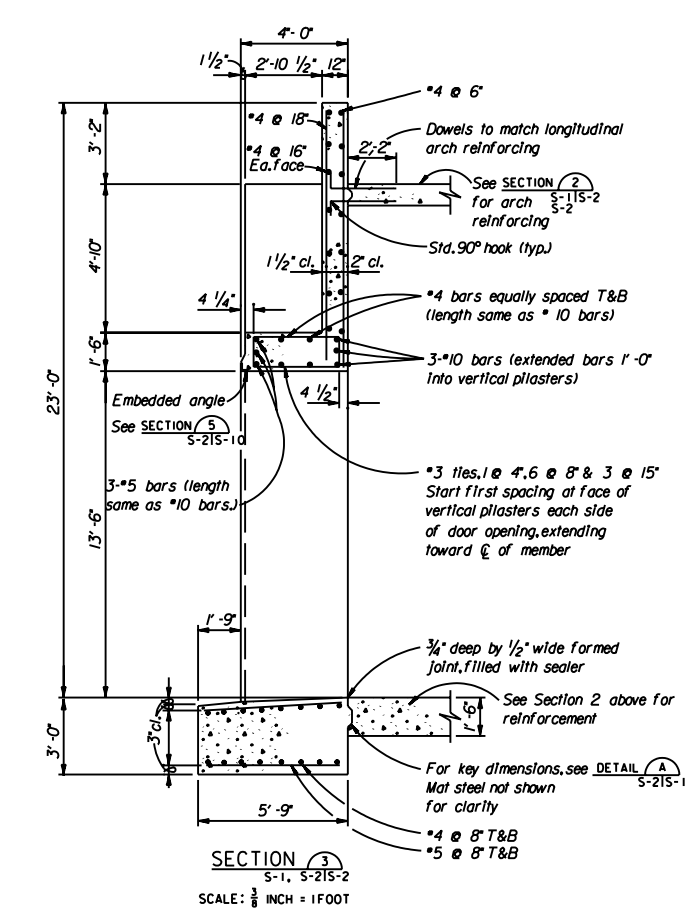
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Revisions			
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Designed by:	W.H.G.		
Drawn by:	X		
Checked by:	X		
Reviewed by:	T.C.K.		
Submitted by:			
Chief: HARD. STRUC. Section			

**MUNITIONS STORAGE IGLooS
PLANS, SECTIONS AND NOTES**

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As Shown Design File: STD:IGLOO.DGN
Spec.No.: Drawing Code:
Contract No.: S-1 X

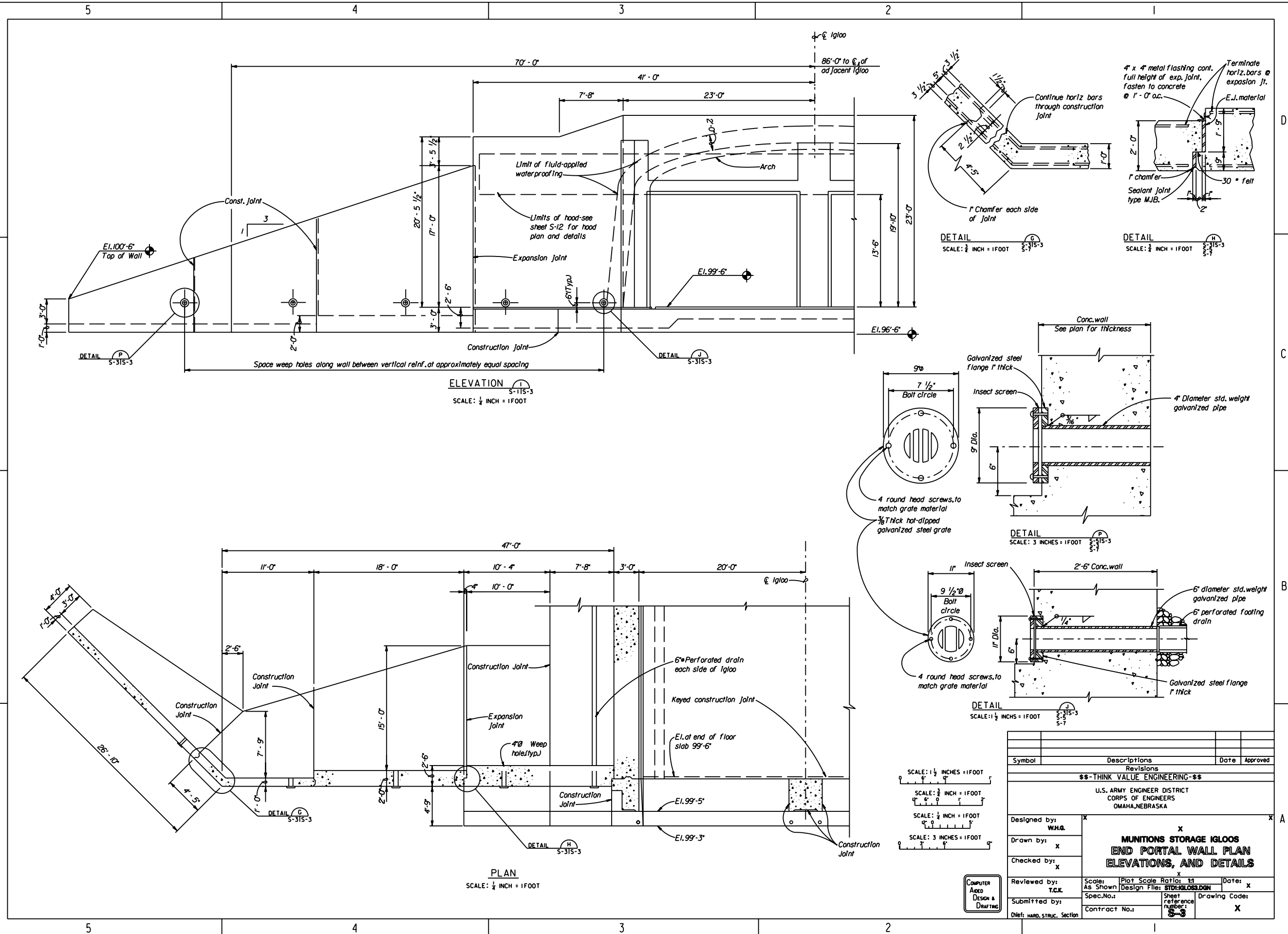


SECTION 2
S-1, S-215-2
SCALE: 3/8 INCH = 1 FOOT



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Revisions			
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Designed by:	W.M.G.		
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Checked by:	X		
Reviewed by:	T.C.K.		
Submitted by:			
Chief: HARD. STRUC. Section			

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As Shown	Design File:	STR-IGLOOS.DGN		
Spec. No.:	Sheet reference number:	3-2	Drawing Code:	X
Contract No.:				



ELEVATION
SCALE: 1/4 INCH = 1 FOOT

PLAN
SCALE: 1/4 INCH = 1 FOOT

DETAIL G
SCALE: 1/2 INCH = 1 FOOT

DETAIL H
SCALE: 1/2 INCH = 1 FOOT

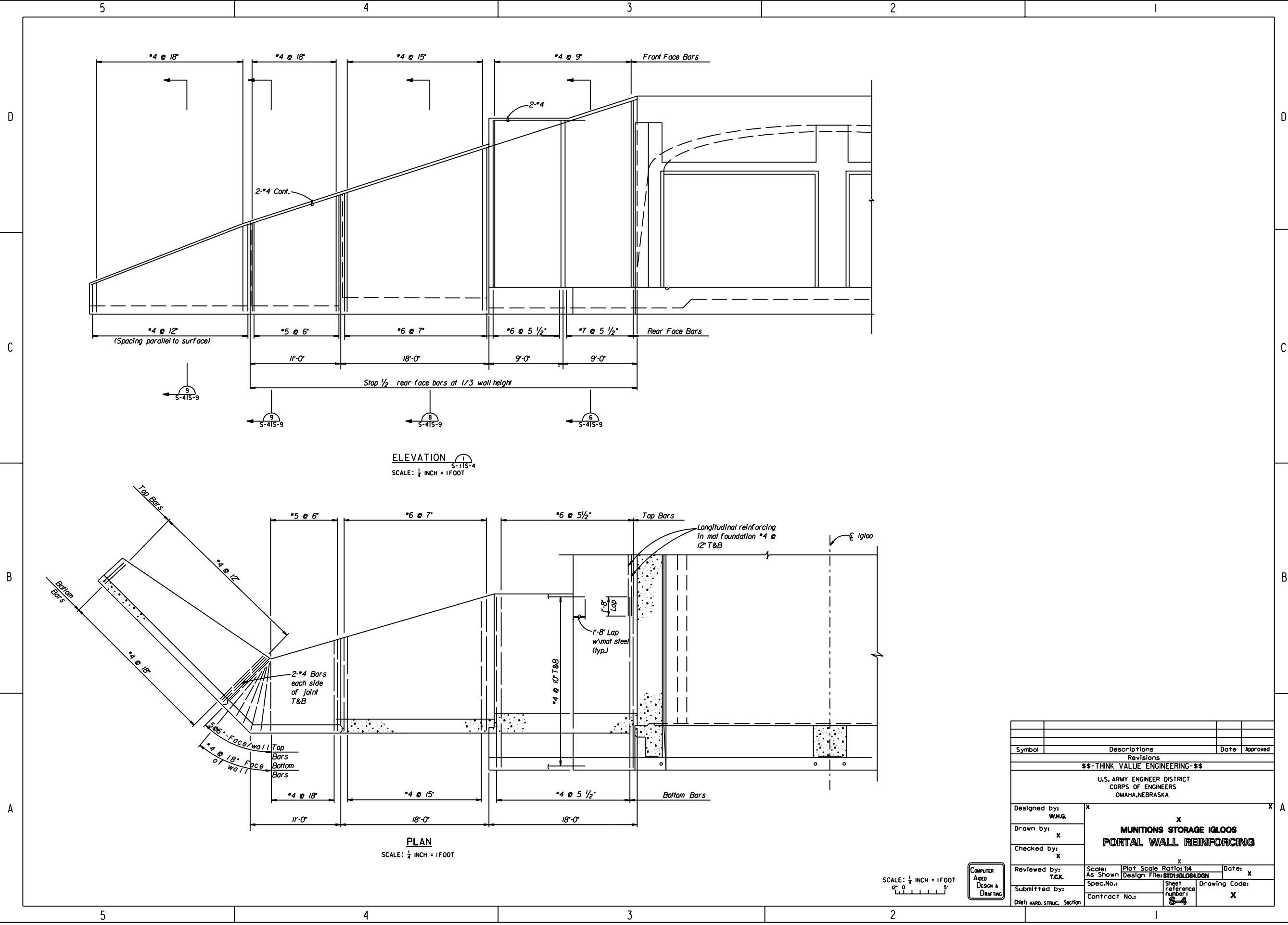
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DETAIL J
SCALE: 1 1/2 INCHES = 1 FOOT

- SCALE: 1 1/2 INCHES = 1 FOOT
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- SCALE: 1/2 INCH = 1 FOOT
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Symbol	Descriptions	Date	Approved
Revisions			
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Reviewed by:	T.C.K.		
Submitted by:			
Chief: HARD. STRUC. Section	Contract No.:	Sheet reference number: 8-3	Drawing Code: X





ELEVATION
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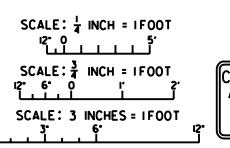
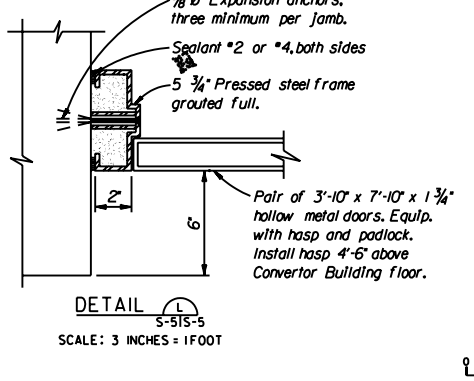
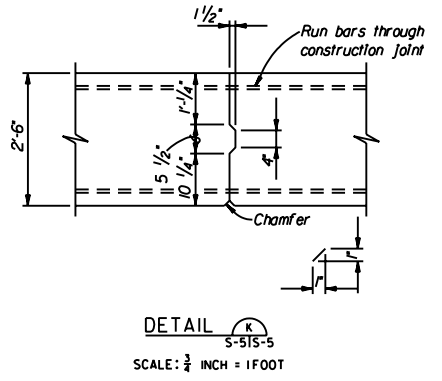
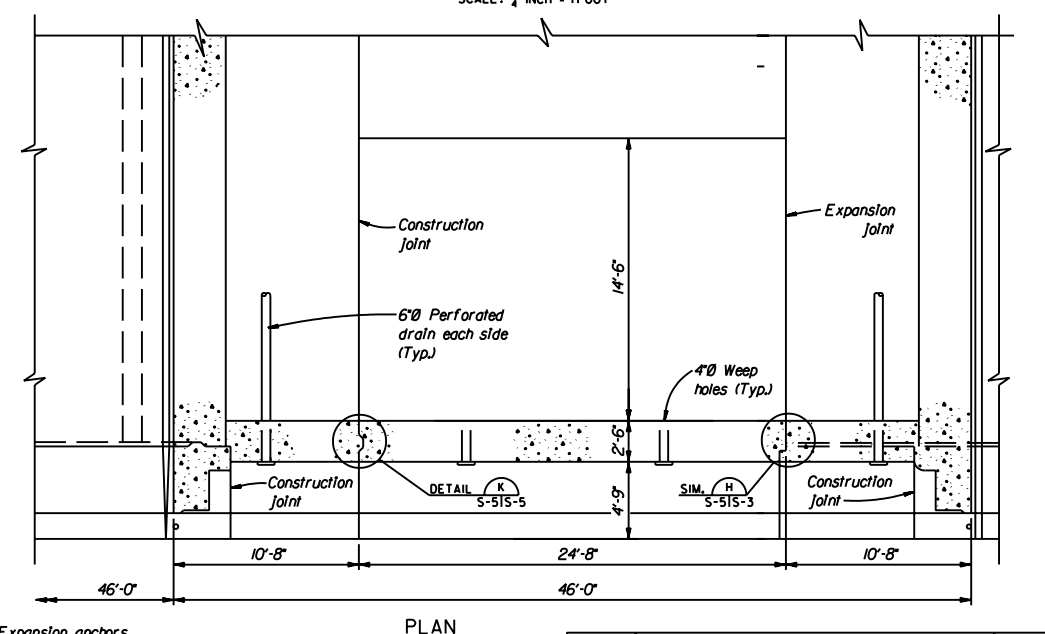
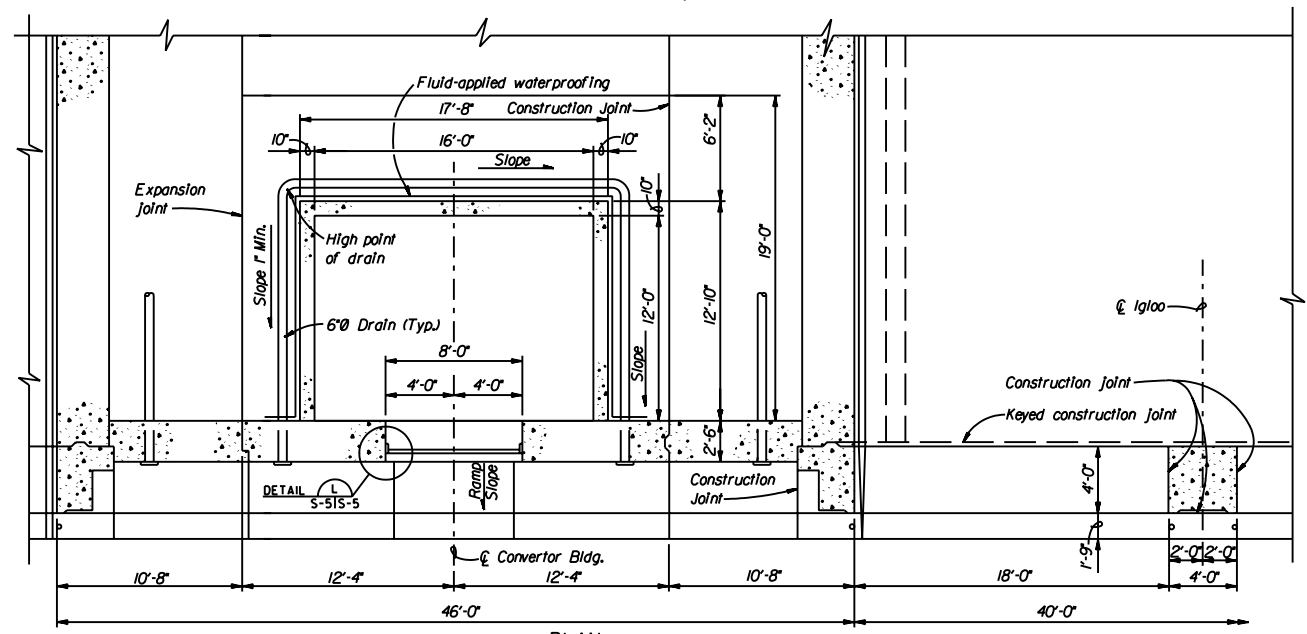
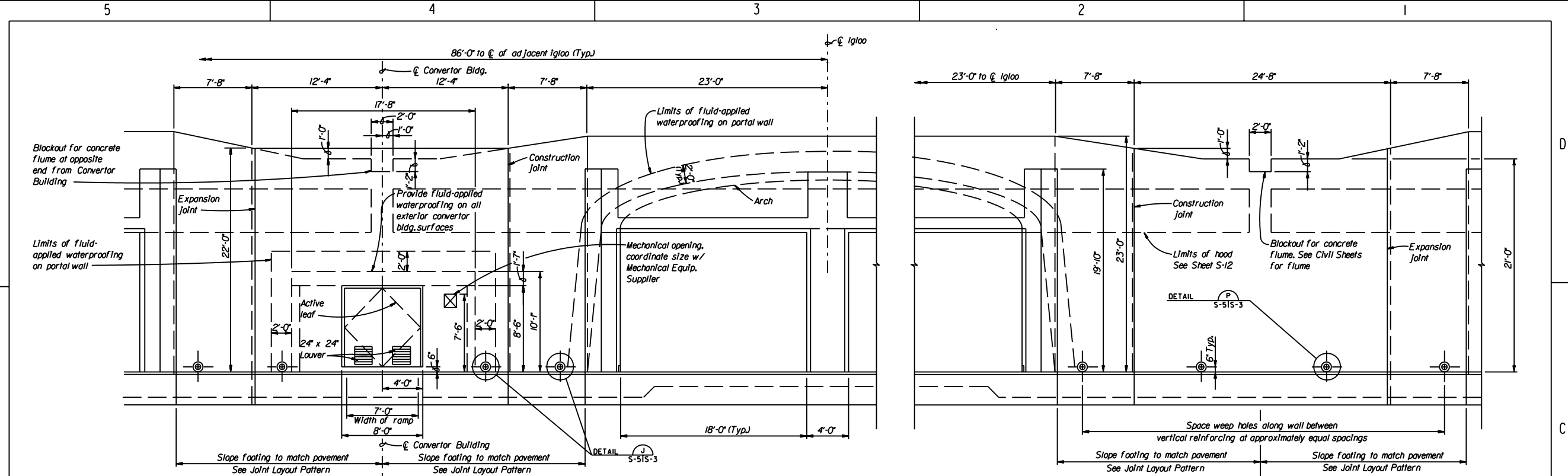
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SCALE: 1/4 INCH = 1 FOOT

SCALE: 1/4 INCH = 1 FOOT



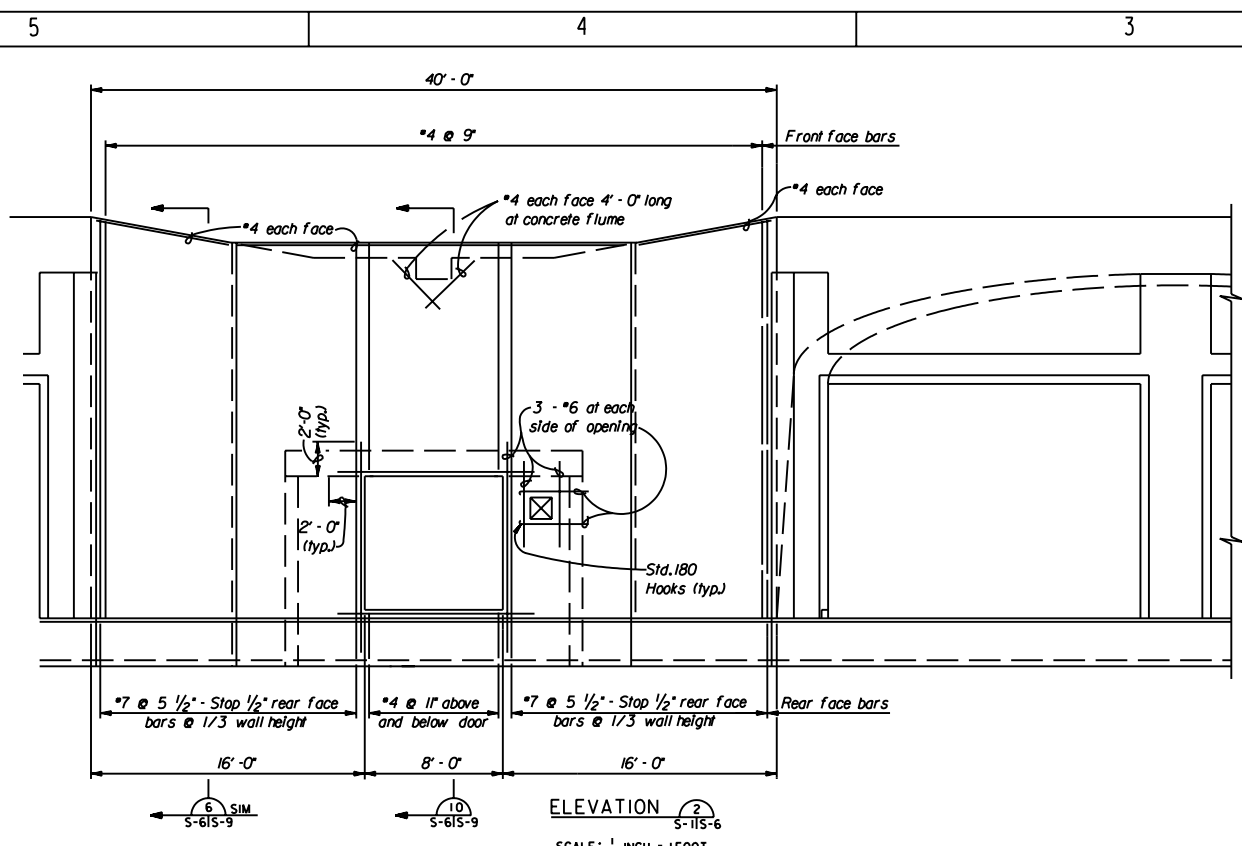
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Drawn by:	X		
Checked by:	X		
Reviewed by:	T.C.K.		
Submitted by:			
Chief, HARD. STRUC. Section			

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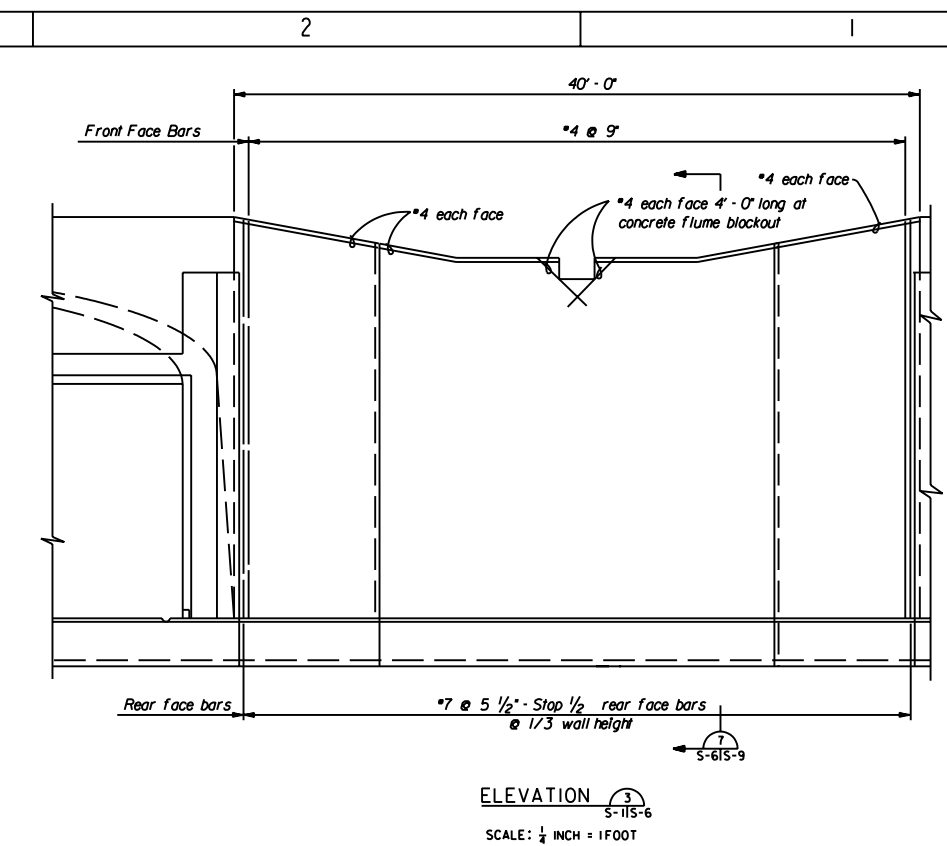


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Submitted by:			
Chief, HARD. STRUC. Section			

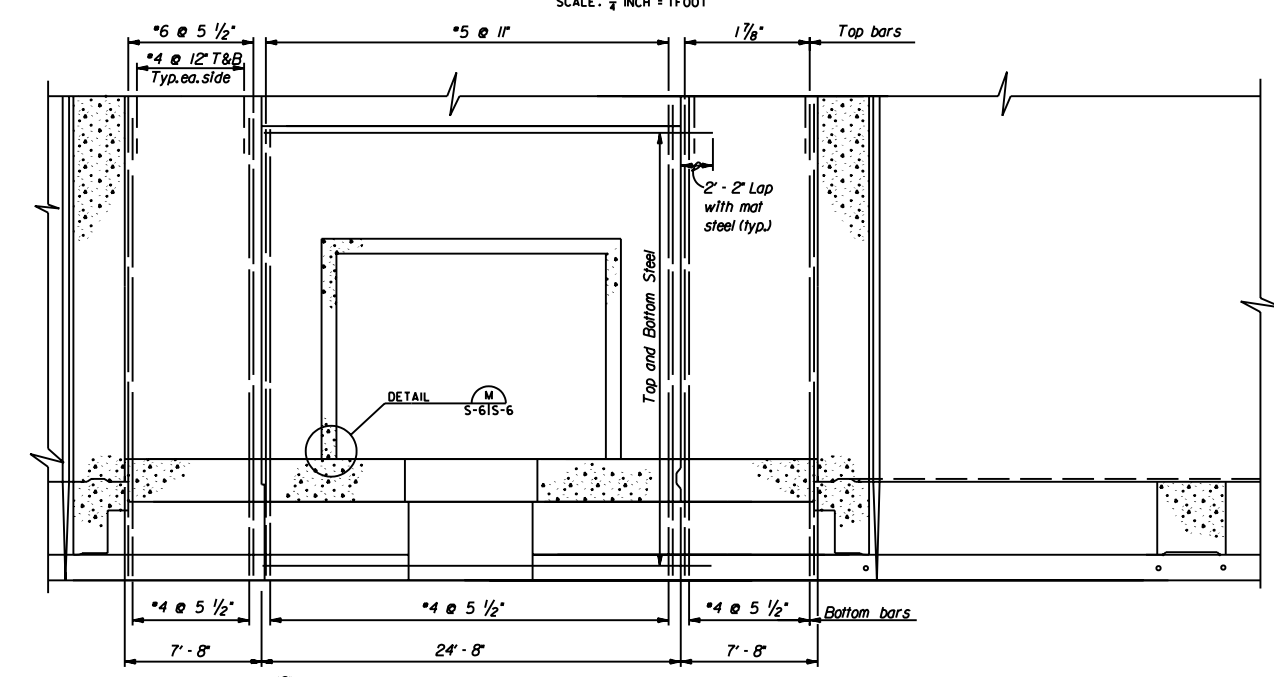
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TYPICAL - INTERIOR PORTAL			
WALL & CONCRETE DIMENSIONS			
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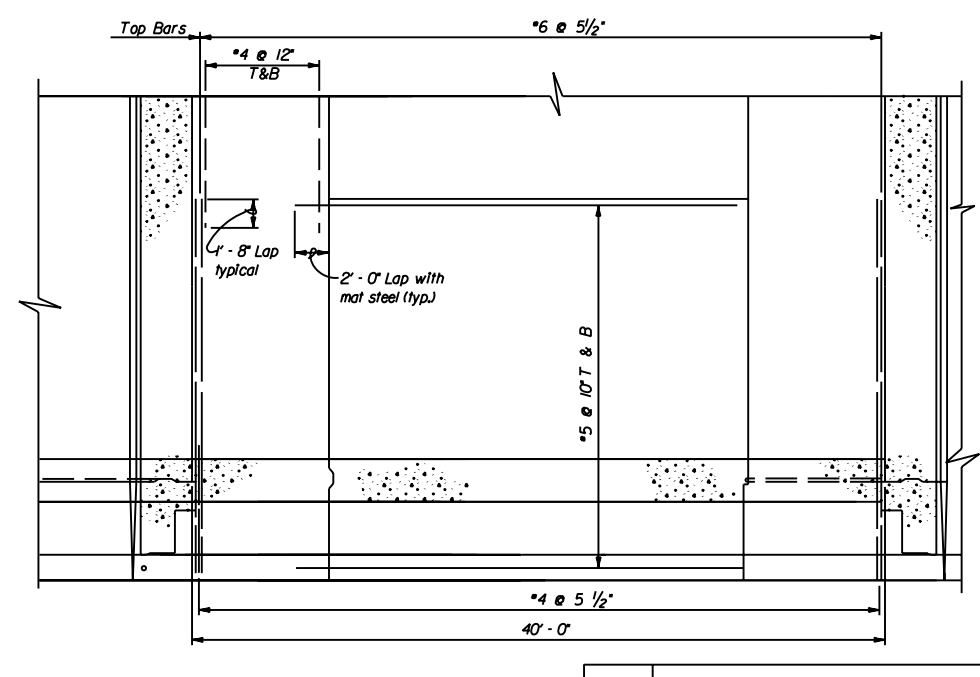
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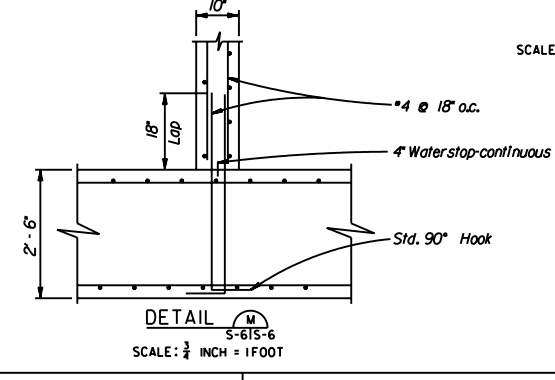
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SCALE: 1/4 INCH = 1 FOOT



PLAN
SCALE: 1/4 INCH = 1 FOOT



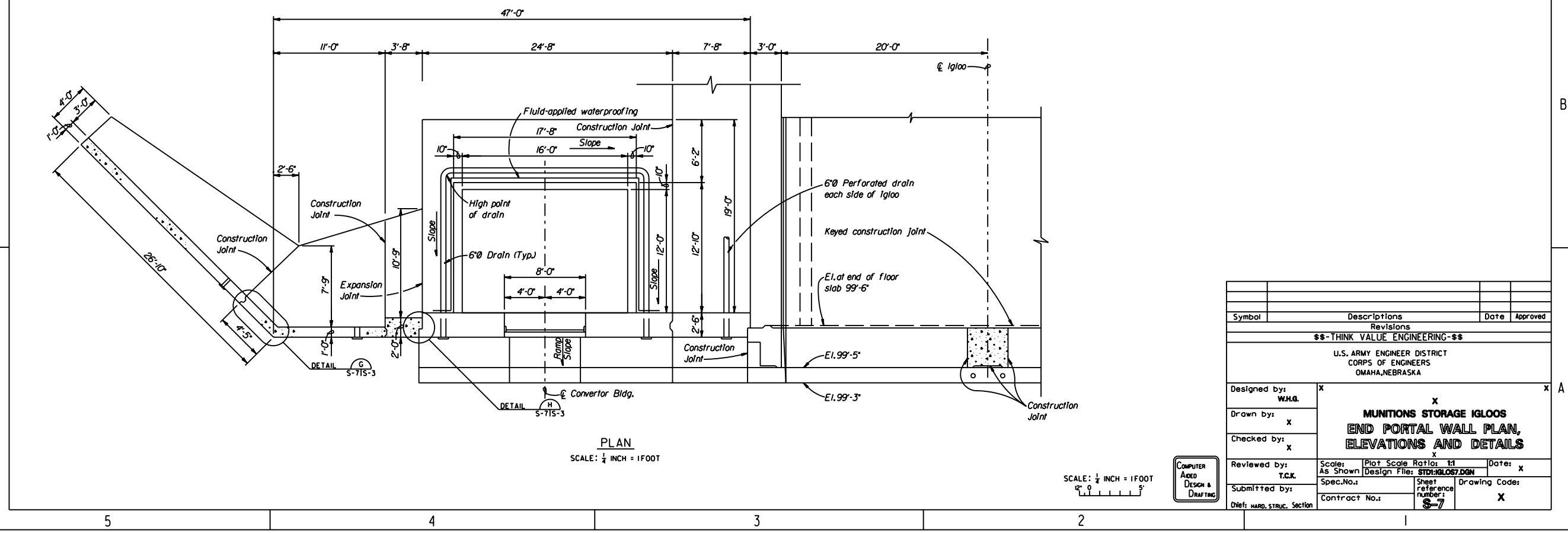
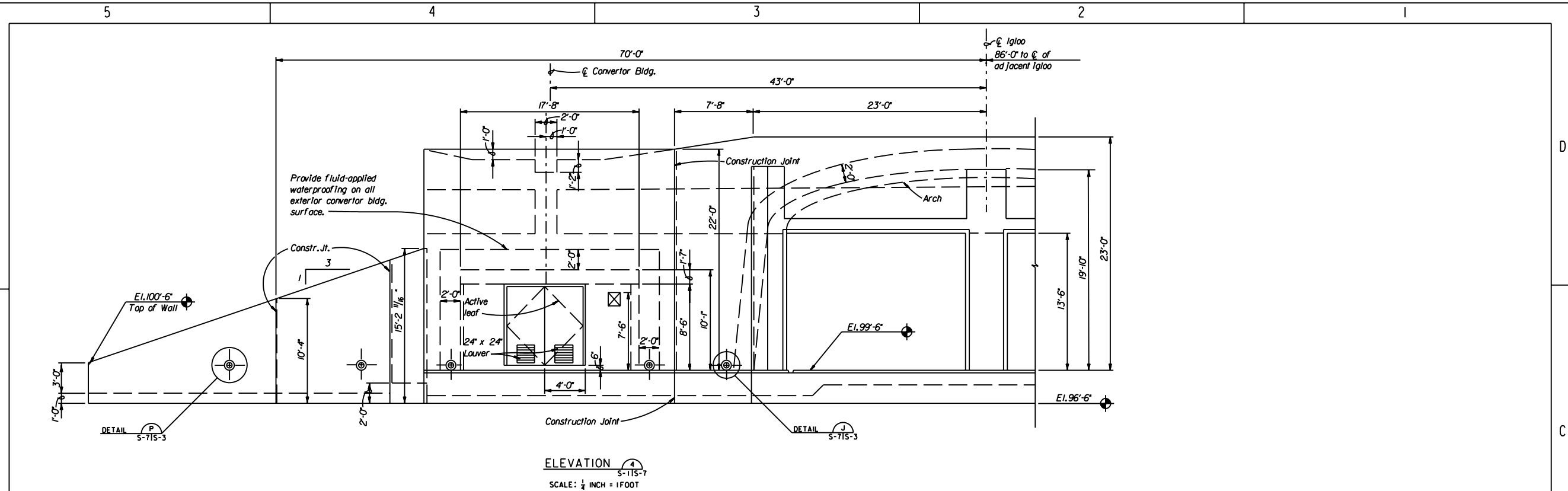
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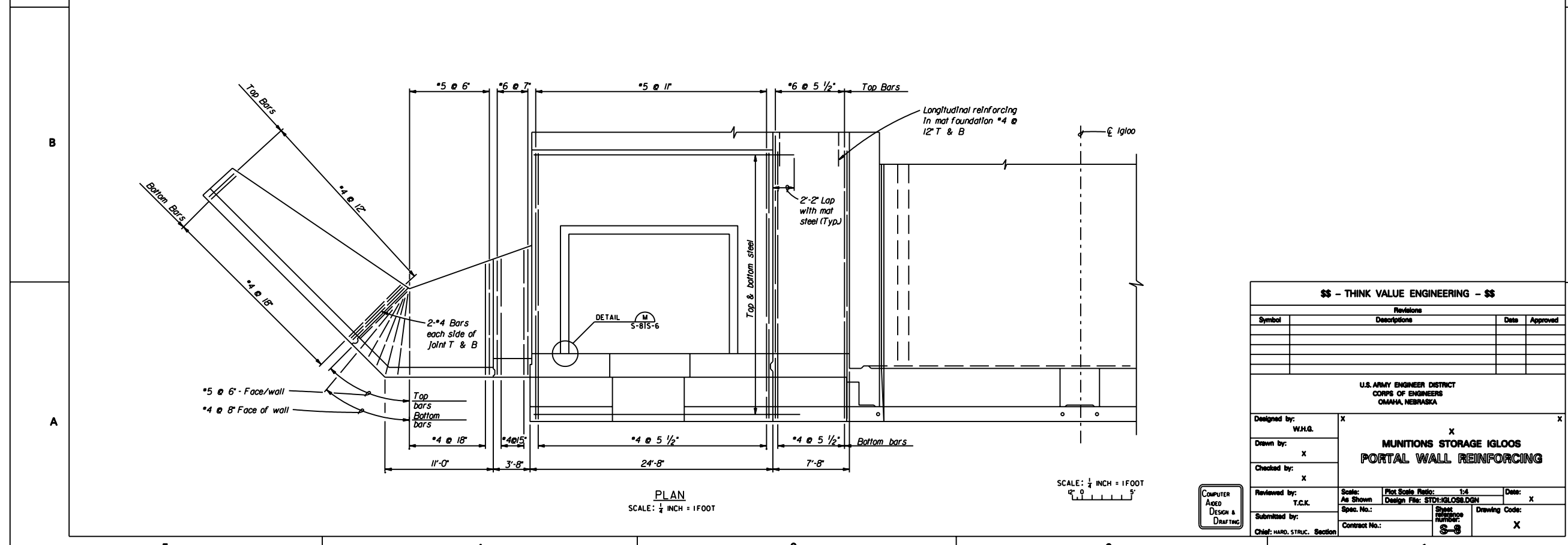
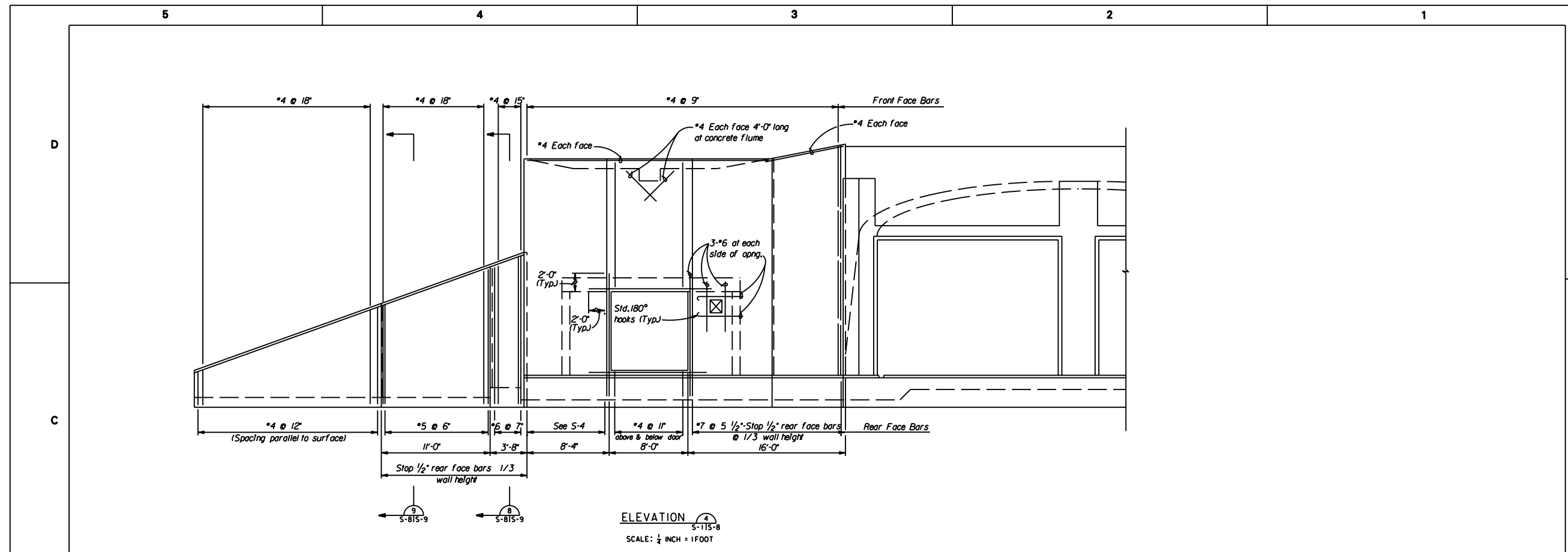
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Revisions			
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Designed by:	W.H.G.		X
Drawn by:	X		
Checked by:	X		
Reviewed by:	T.C.K.		X
Submitted by:			
Chief: HARD. STRUC. Section			

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Contract No.:				



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Revisions			
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Checked by:	X		
Reviewed by:	T.C.K.		
Submitted by:			
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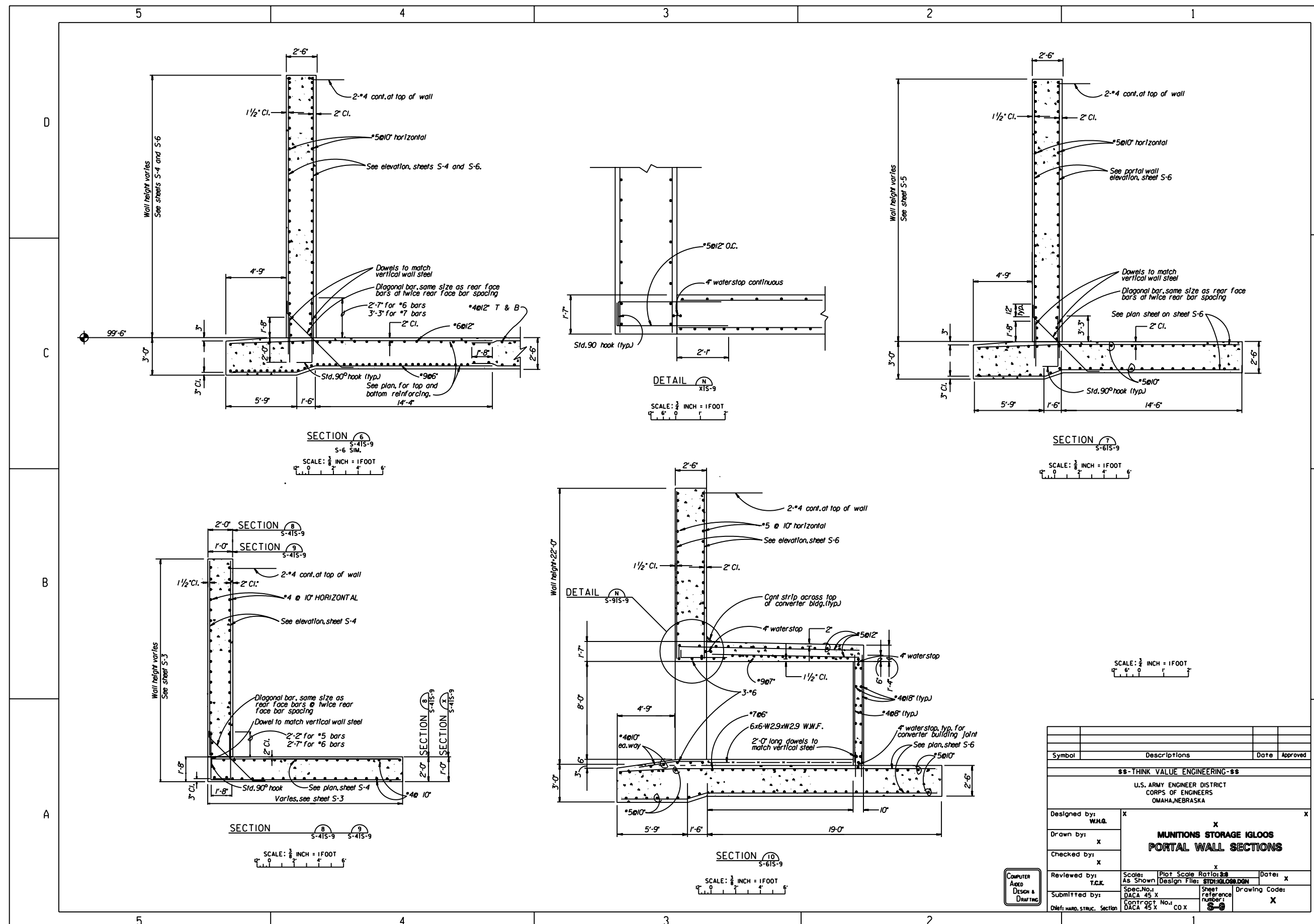
Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 OMAHA, NEBRASKA

Designed by: W.H.G.	X	MUNITIONS STORAGE IGLOOS PORTAL WALL REINFORCING	X
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Checked by: X			
Reviewed by: T.C.K.		Scale: As Shown Spec. No.:	Plot Scale Ratio: 1:4 Design File: STD:IGLOS.DGN Drawing Code: X
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Chief: HARD. STRUC. Section			

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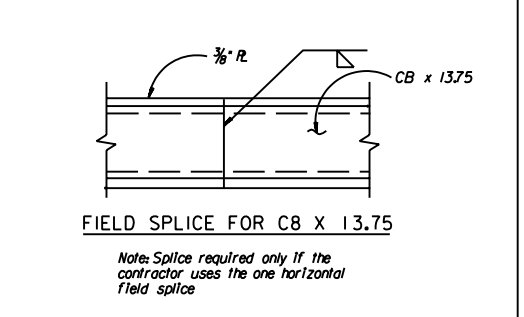
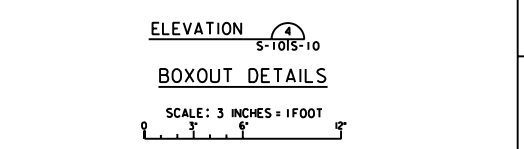
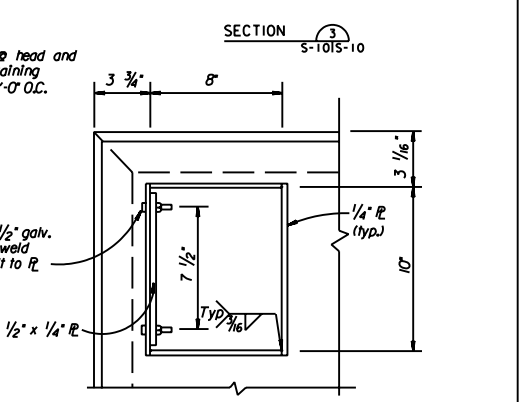
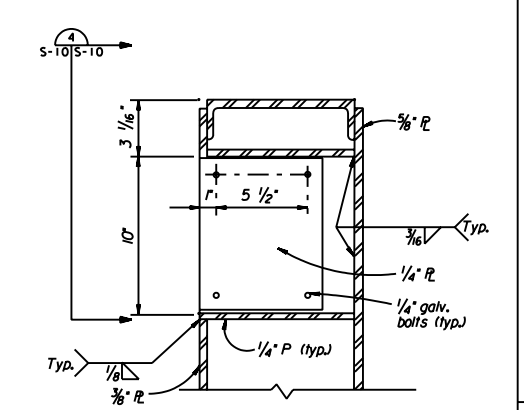
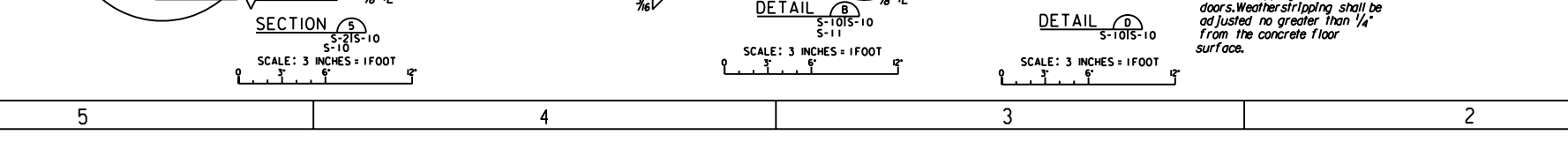
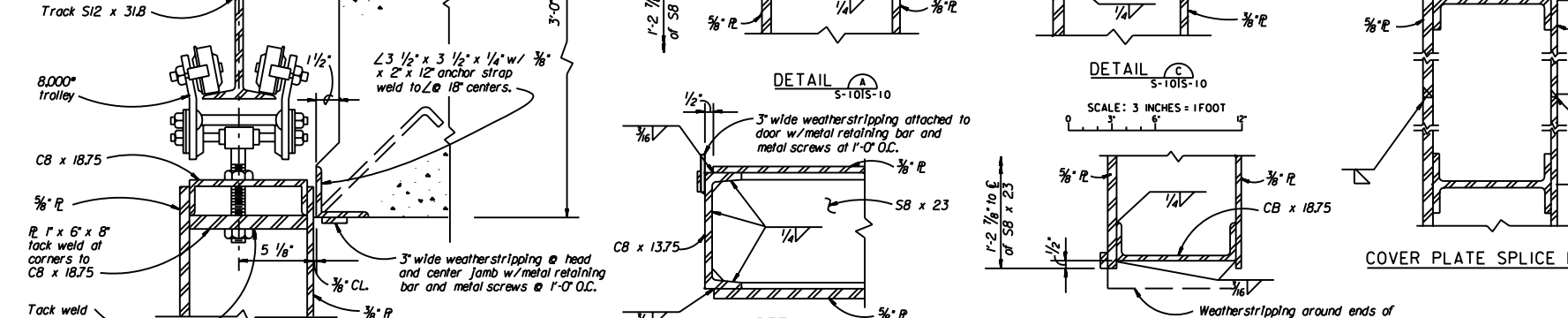
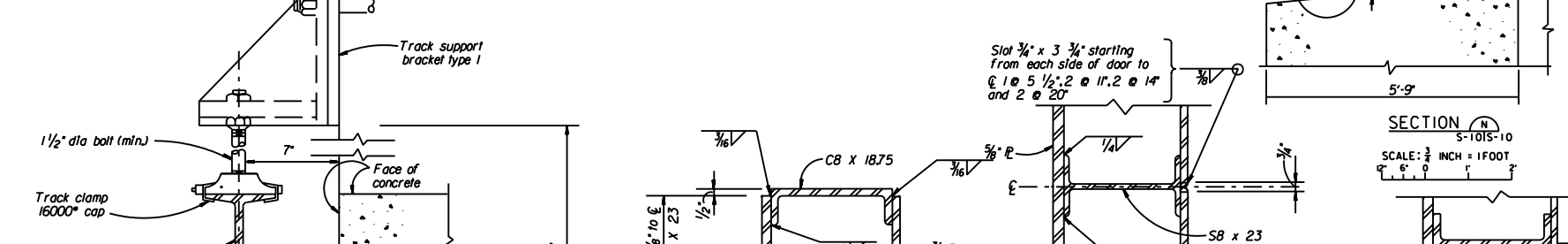
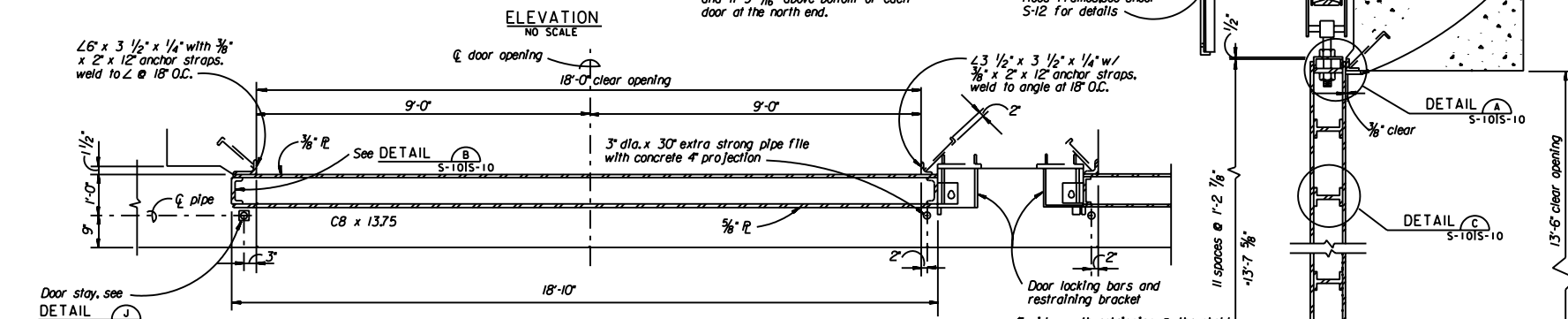
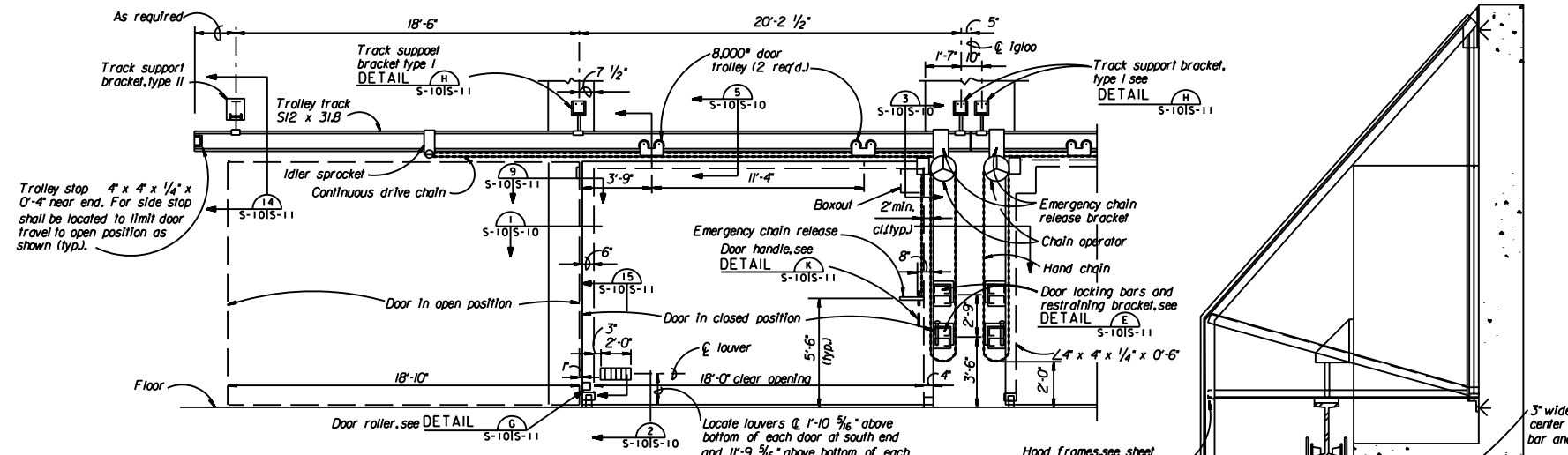
CORPS TEXT STANDARDS
 90---RARELY USED
 175---SUB TITLES
 200---MAIN TITLES
 Freehand ARCH. FREEHAND
 NO. 1 ARE BRICQ EQUIVALENTS
 FOR DRAFTING'S REFERENCE



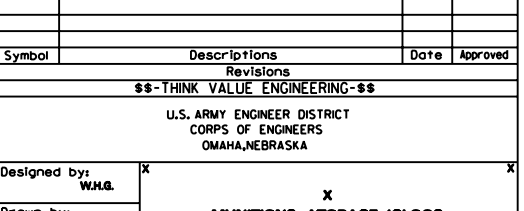
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Designed by:	W.H.A.		X
Drawn by:	X		X
Checked by:	X		X
Reviewed by:	T.C.K.		X
Submitted by:			
Diag: HARD, STRUC. Section			

Scale:	Plot Scale Ratio:	Date:
As Shown	Design File:	
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Contract No.:	No.:	
DACA 45 X	CO X	

CORPS TEXT STANDARDS
 90---RARELY USED
 120 140
 175---SUB TITLES
 200---MAIN TITLES
 Freshhand ARCH, FREEHAND
 NO. 5 ARE BRICQ EQUIVALENTS
 FOR DRAFTING'S REFERENCE



Note: Splice required only if the contractor uses the one horizontal field splice

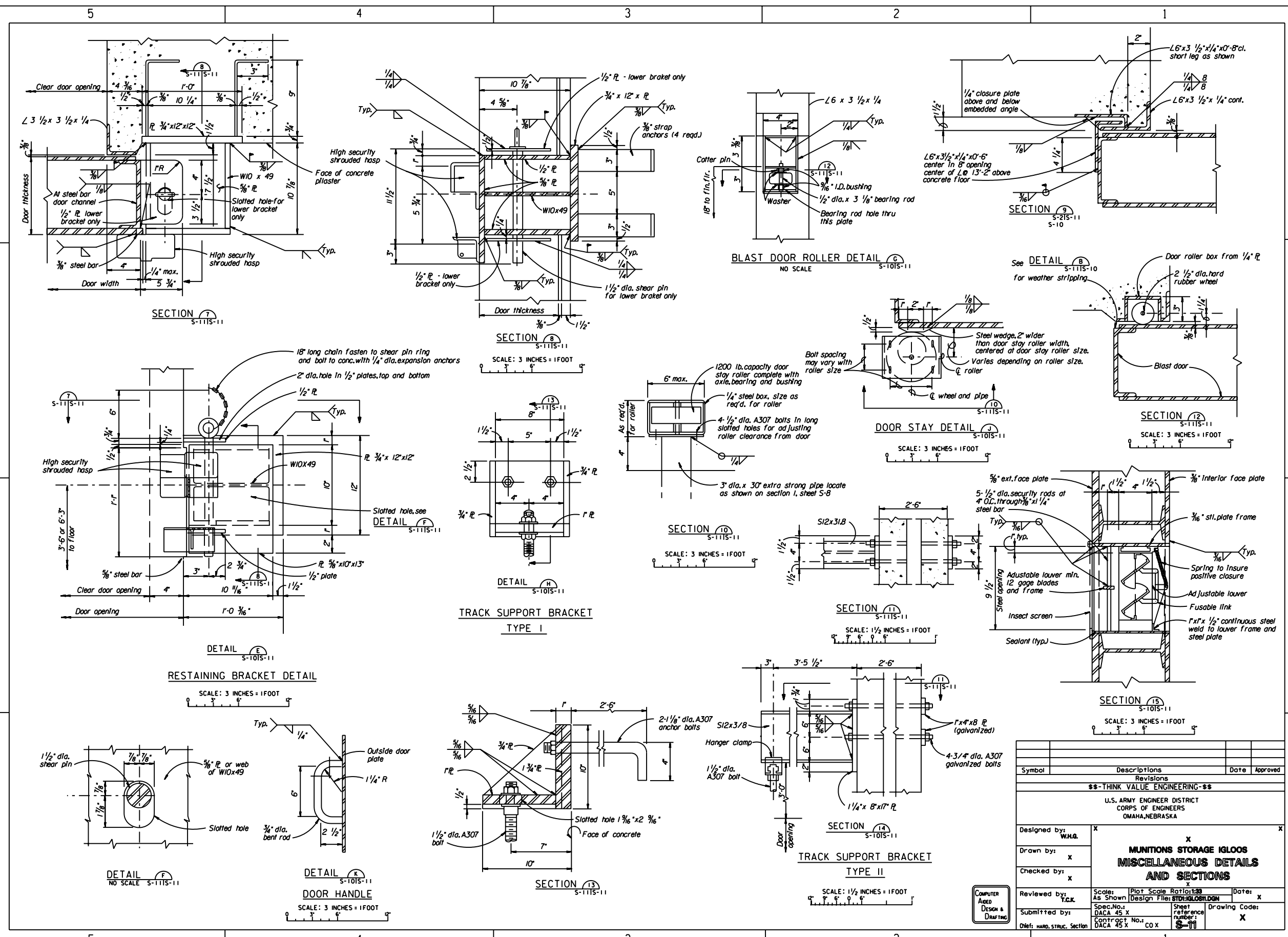


Note: Cover plates shall be spliced only as required by the size of plates available at the permitted horizontal field splice. Location of splice(s) shall be determined by the contractor and the splice shall conform to this detail

Symbol	Descriptions	Date	Approved
Revisions			
\$\$-THINK VALUE ENGINEERING-\$\$			
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS OMAHA, NEBRASKA			
Designed by:	W.H.A.		X
Drawn by:	X		X
Checked by:	X		X
Reviewed by:	T.C.K.		X
Submitted by:	DACA 45 X		X
Diag: HANO, STRUC. Section	Contract No.: DACA 45 X	Sheet reference number: S-10	Drawing Code: X

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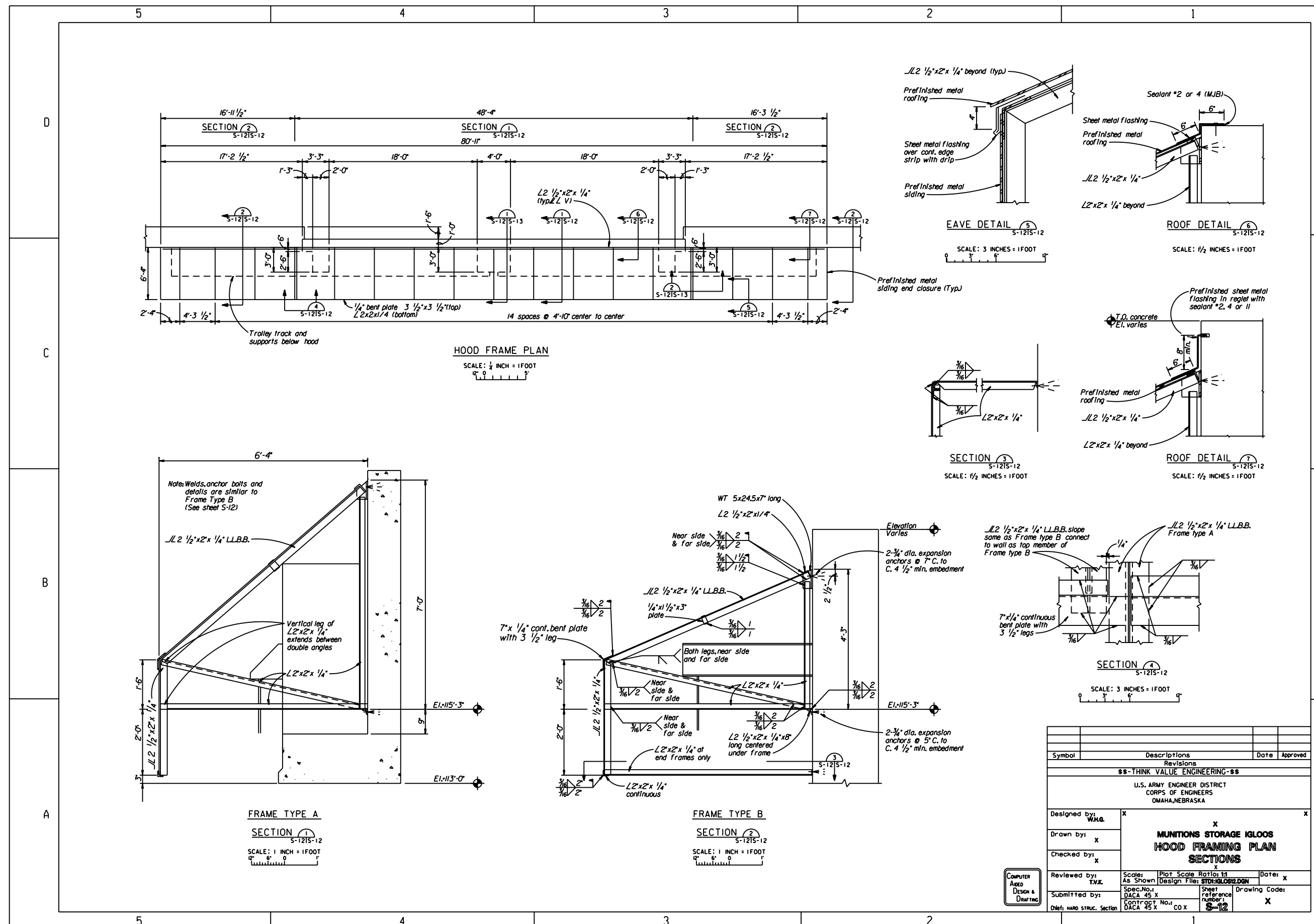
CORPS TEXT STANDARDS
90---RARELY USED
120 140
175---SUB TITLES
200---MAIN TITLES
Freshhand ARCH. FREEHAND
NO. 5 ARE BRICQ EQUIVALENTS
FOR DRAFTING'S REFERENCE



Symbol	Descriptions	Date	Approved
Revisions			
\$\$-THINK VALUE ENGINEERING-\$\$			
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS OMAHA, NEBRASKA			
Designed by:	W.H.A.		
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Checked by:	X		
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Submitted by:			
Diag: HARD. STRUC. Section			

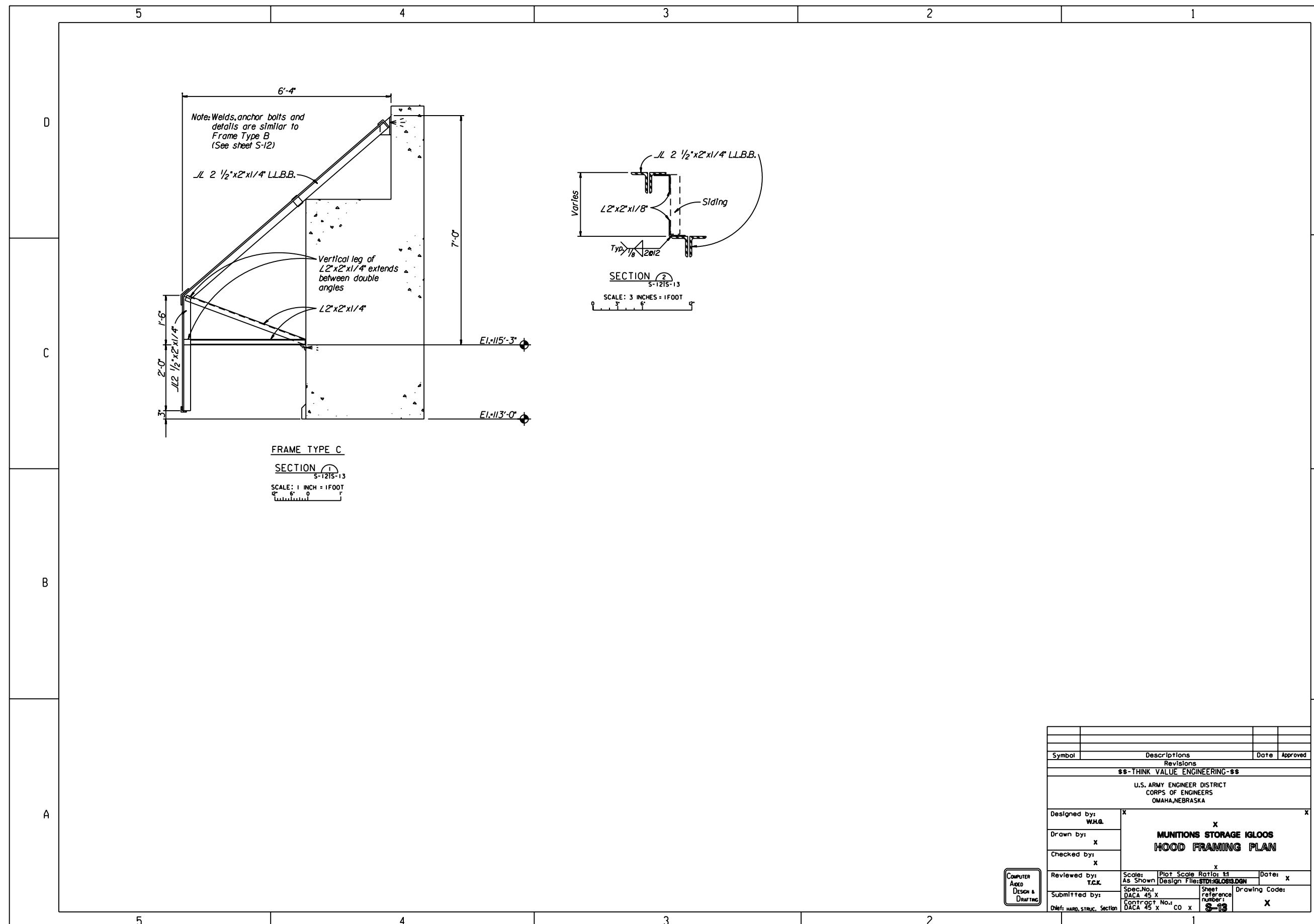
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 175---SUB TITLES
 200---MAIN TITLES
 Freshhand ARCH. FREEHAND
 NO. 5 ARE WHICH EQUIVALENTS
 FOR DRAFTING'S REFERENCE



Symbol	Descriptions	Date	Approved
Revisions			
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U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS OMAHA, NEBRASKA			
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Reviewed by:	T.V.K.		X
Submitted by:	DACA 45 X		X
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CORPS TEXT STANDARDS
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 120 140
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 Freshhand ARCH. FREEHAND
 NO. 5 ARE BRICK EQUIVALENTS
 FOR DRAFTING'S REFERENCE



Symbol	Descriptions	Date	Approved
Revisions			
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U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS OMAHA, NEBRASKA			
Designed by:	W.H.G.		X
Drawn by:	X		
Checked by:	X		
Reviewed by:	T.C.K.		X
Submitted by:			
Chief: HARD. STRUC. Section			

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COMPUTER AIDED DESIGN & DRAFTING

CORPS TEXT STANDARDS
 90---RARELY USED
 120 140
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 200---MAIN TITLES
 Freshhand ARCH. FREEHAND
 NO. 5 ARE BRICQ EQUIVALENTS
 FOR DRAFTING'S REFERENCE