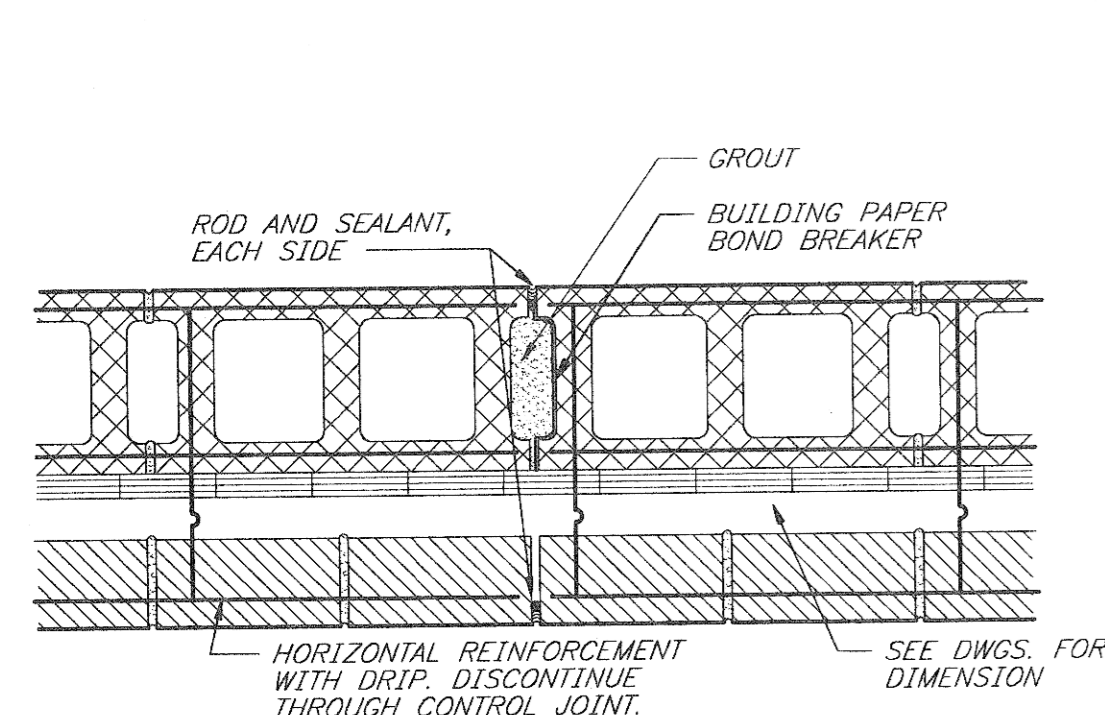
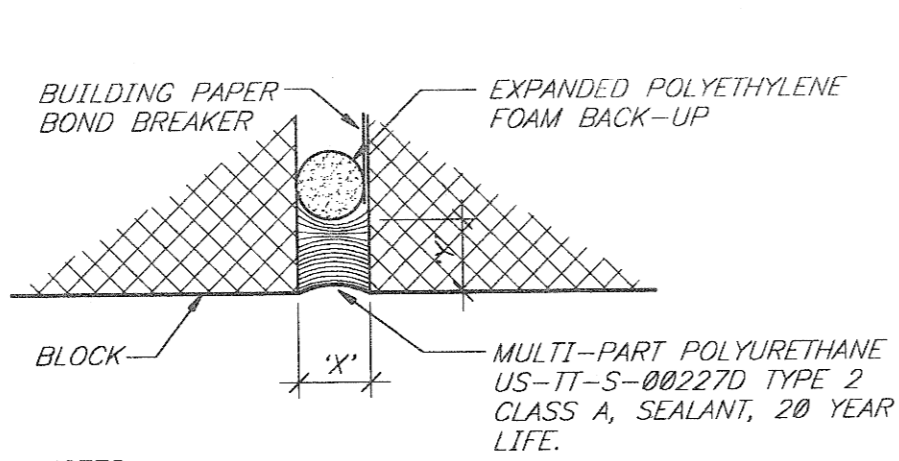


| REV | DESCRIPTION      | BY | DATE   | CHECKED |
|-----|------------------|----|--------|---------|
| 1   | ISSUED FOR REBID |    | 1/9/85 |         |
| 2   |                  |    |        |         |
| 3   |                  |    |        |         |
| 4   |                  |    |        |         |
| 5   |                  |    |        |         |

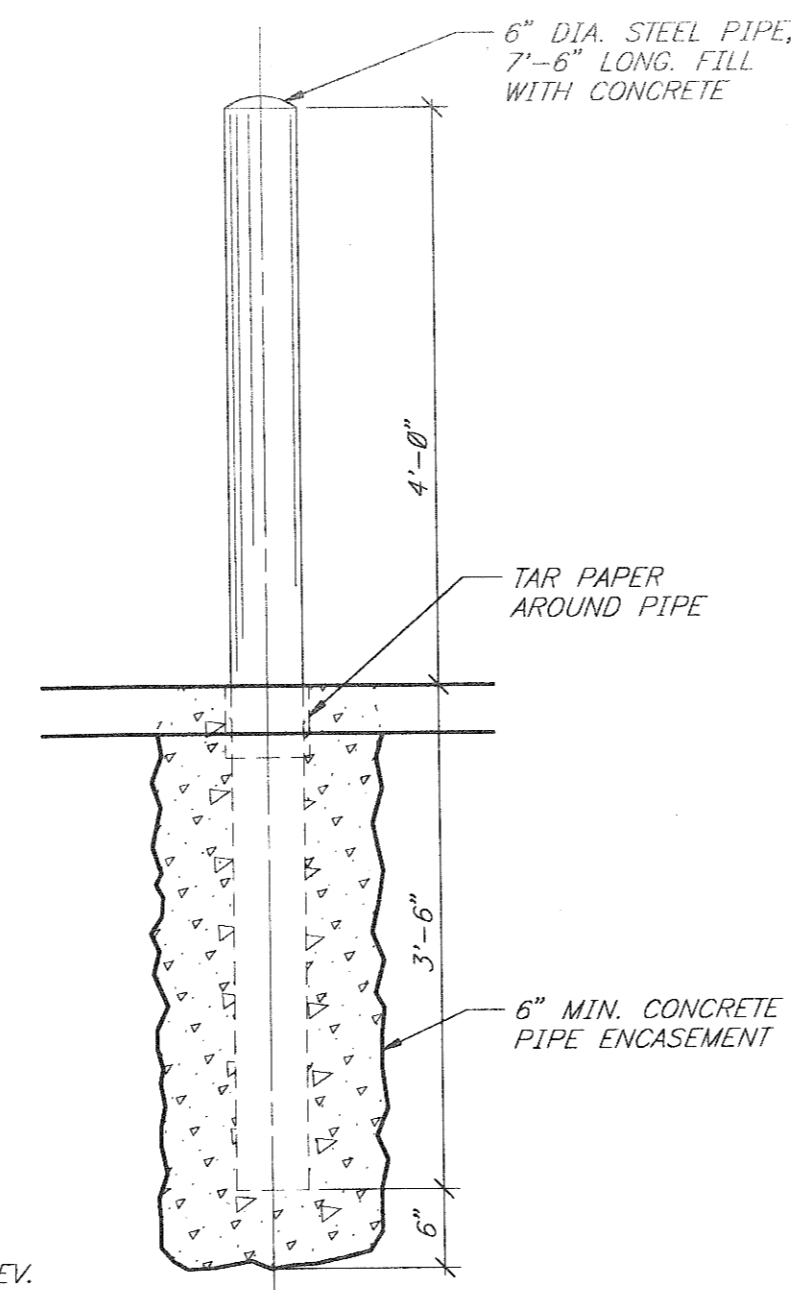


**CAVITY WALL**



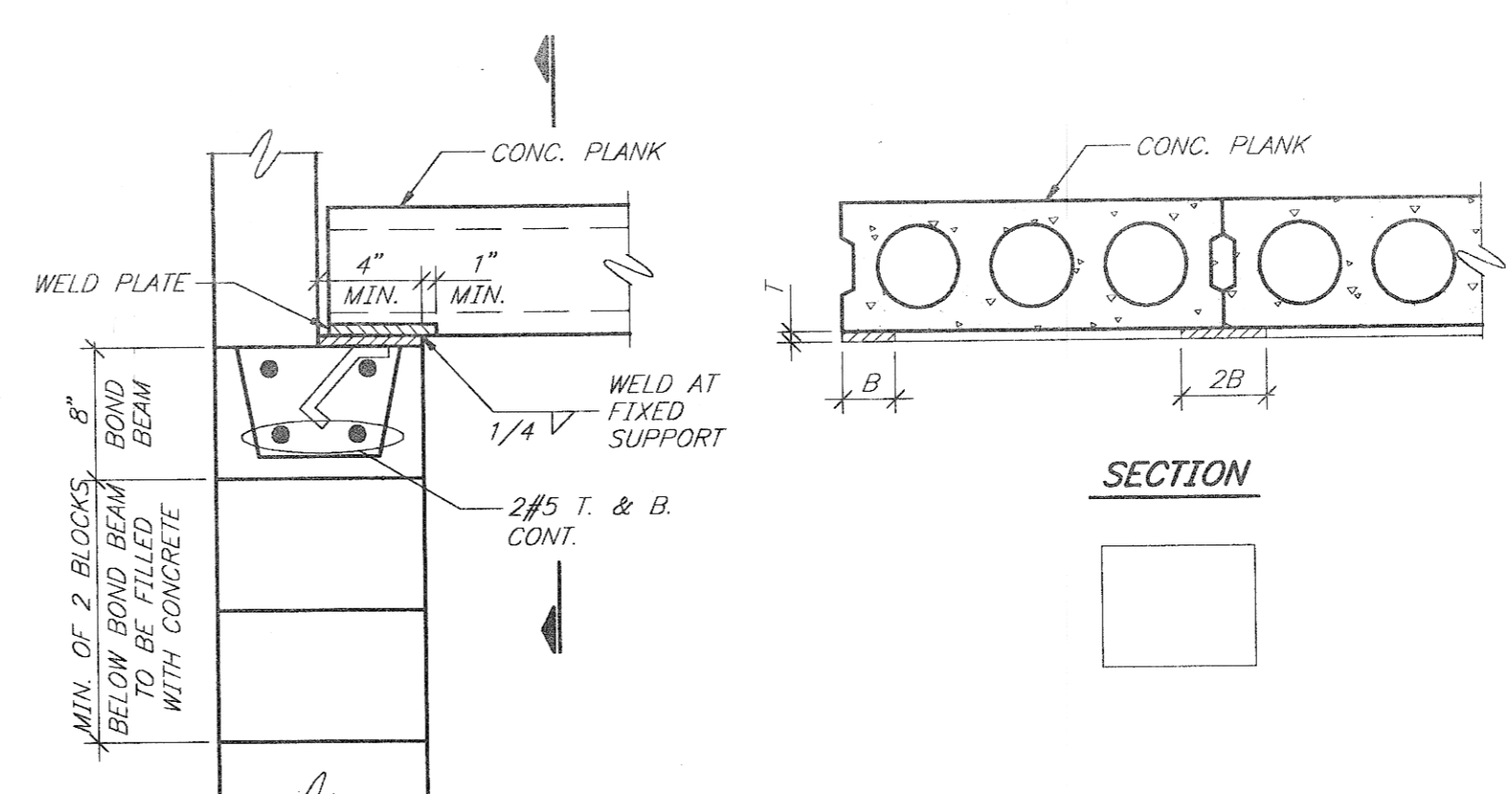
**EXTERIOR CONTROL JOINT**

SCALE: 1" = 1"



**STEEL GUARD POST DETAIL**

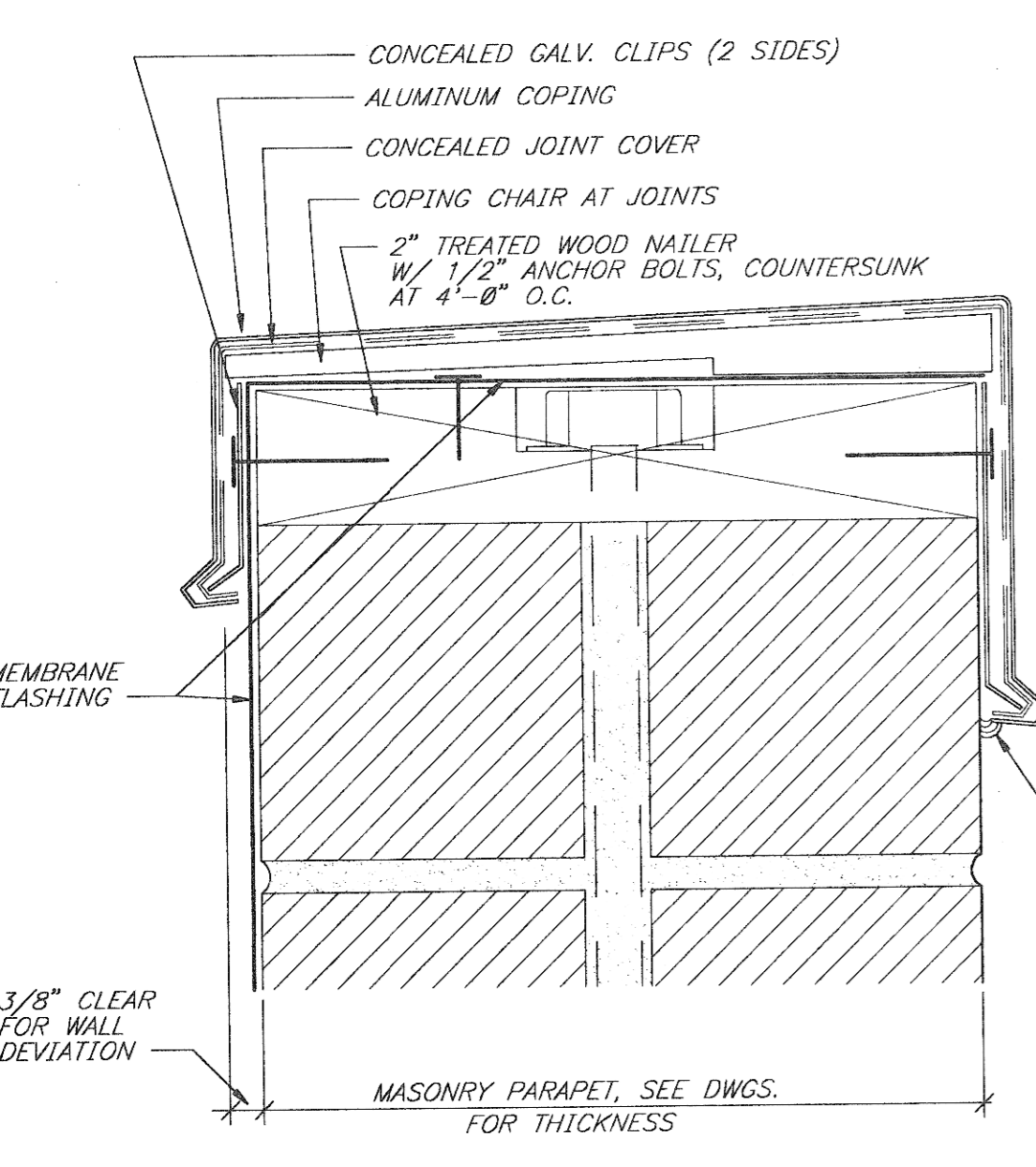
SCALE: 3/4" = 1'-0"



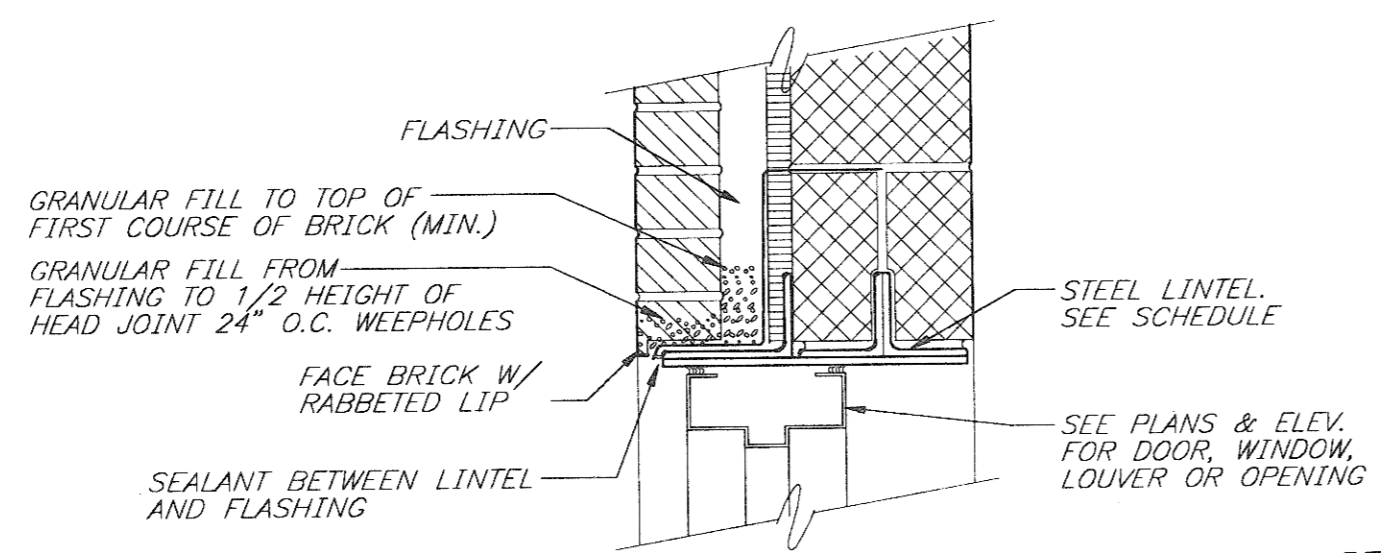
**PRECAST CONC. PLANK BEARING DETAIL**

| REINFORCING TENSION SPLICE TABLE |                    |            |
|----------------------------------|--------------------|------------|
| BAR SIZE                         | TENSION LAP LENGTH | * TOP BARS |
| #3                               | 16"                | 18"        |
| #4                               | 20"                | 24"        |
| #5                               | 24"                | 30"        |
| #6                               | 28"                | 36"        |
| #7                               | 34"                | 42"        |
| #8                               | 38"                | 48"        |
| #9                               | 42"                | 56"        |
| #10                              | 50"                | 66"        |
| #11                              | 62"                | 80"        |

1. ALL SPLICES SHALL BE CONSIDERED TENSION SPLICES USING LAP LENGTHS IN TABLE ABOVE UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS.  
2. LENGTHS ARE BASED ON LAP CLASS B SPLICES WITH CENTER TO CENTER SPACING OF BARS GREATER THAN 6 DIAMETERS.  
\* 3. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST UNDER THEM.  
4. USE TENSION LAP LENGTHS FOR WALL BARS.

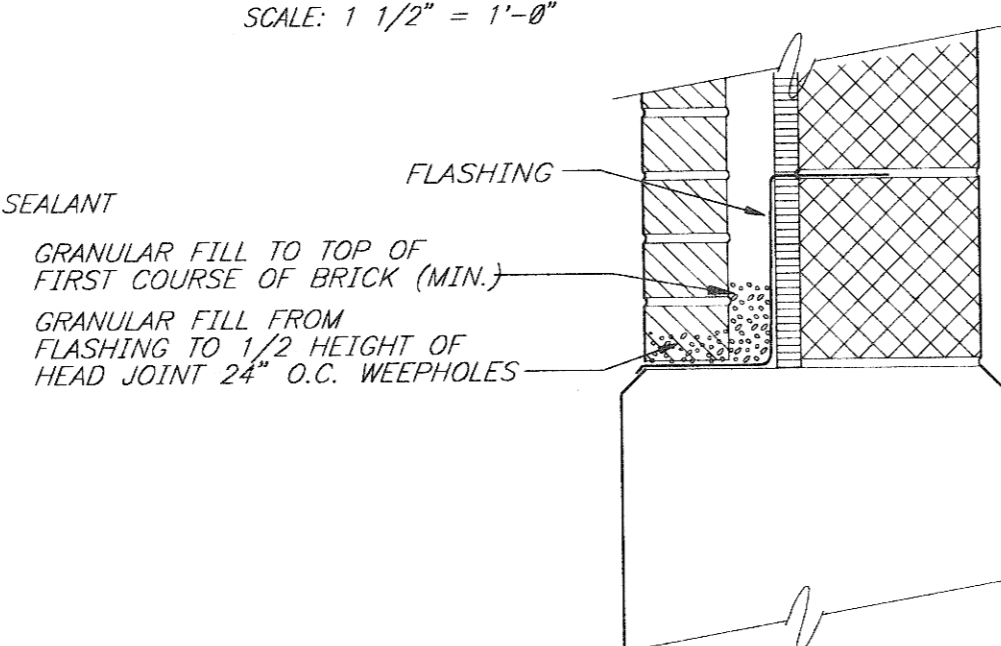


**ALUMINUM COPPING DETAIL**



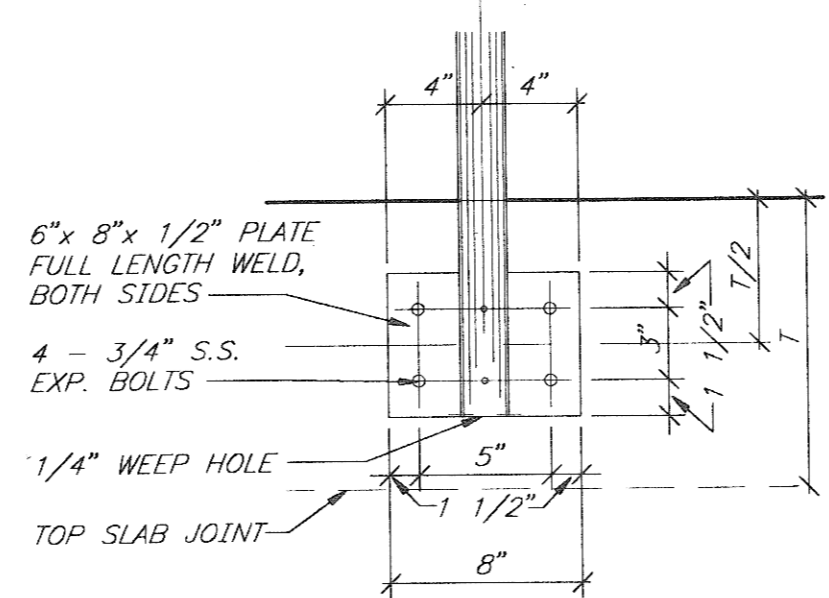
**TYP. LINTEL FLASHING DETAIL**

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



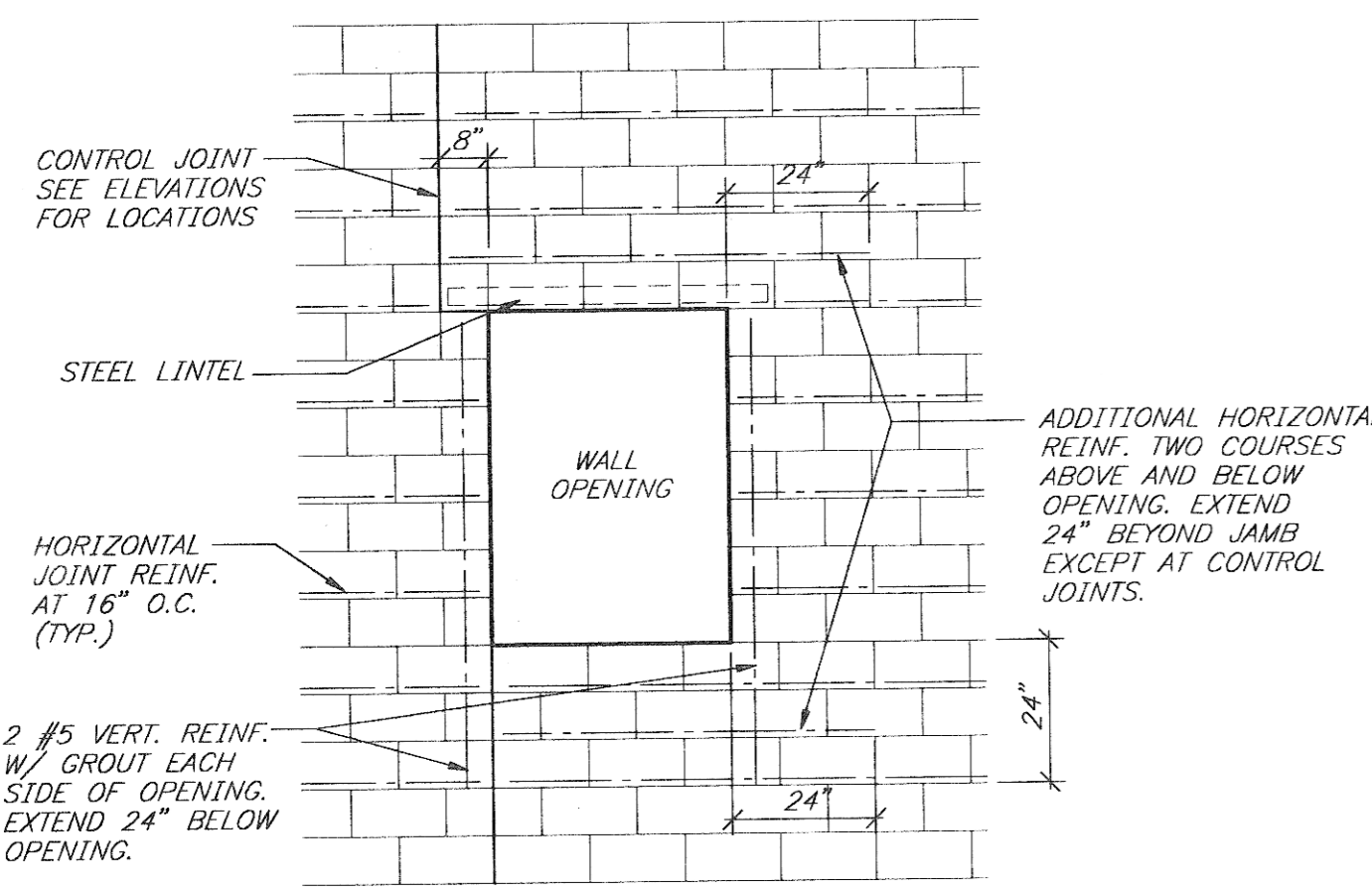
**TYP. BASE FLASHING DETAIL**

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



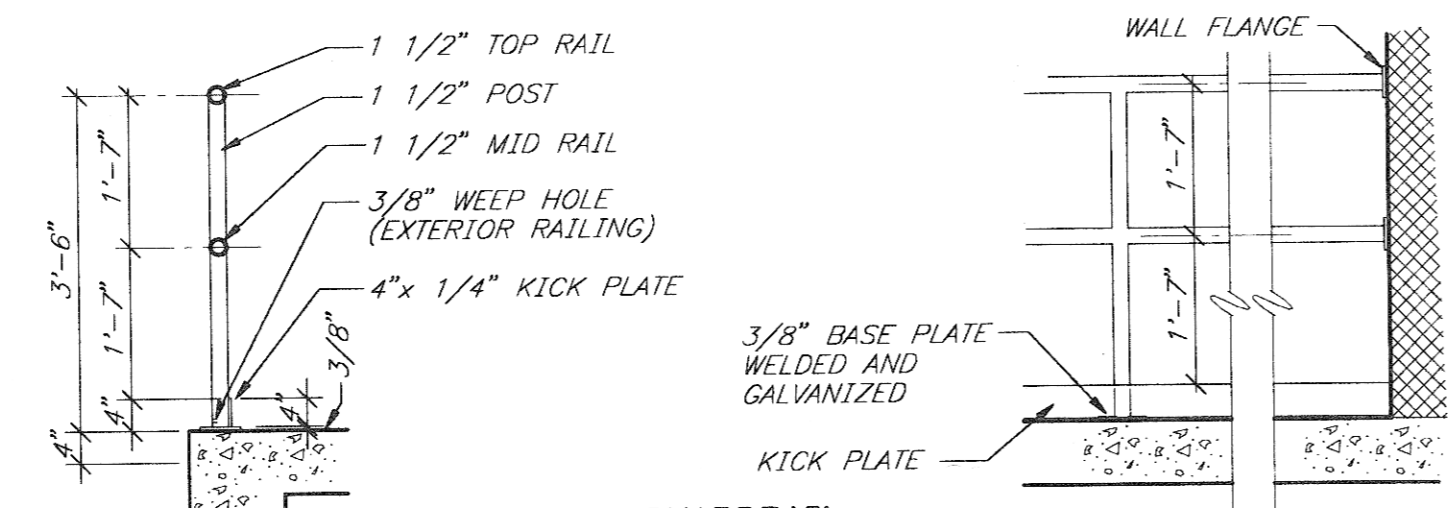
**WALL MOUNTED GUARDRAIL DETAIL**

SCALE: 1" = 1'-0"



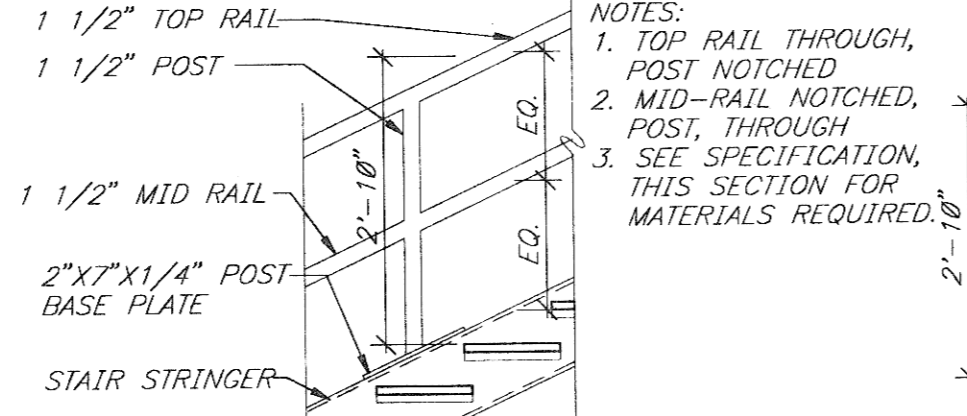
**TYP. REINFORCING AT WALL OPENING**

SCALE: 3/8" = 1'-0"



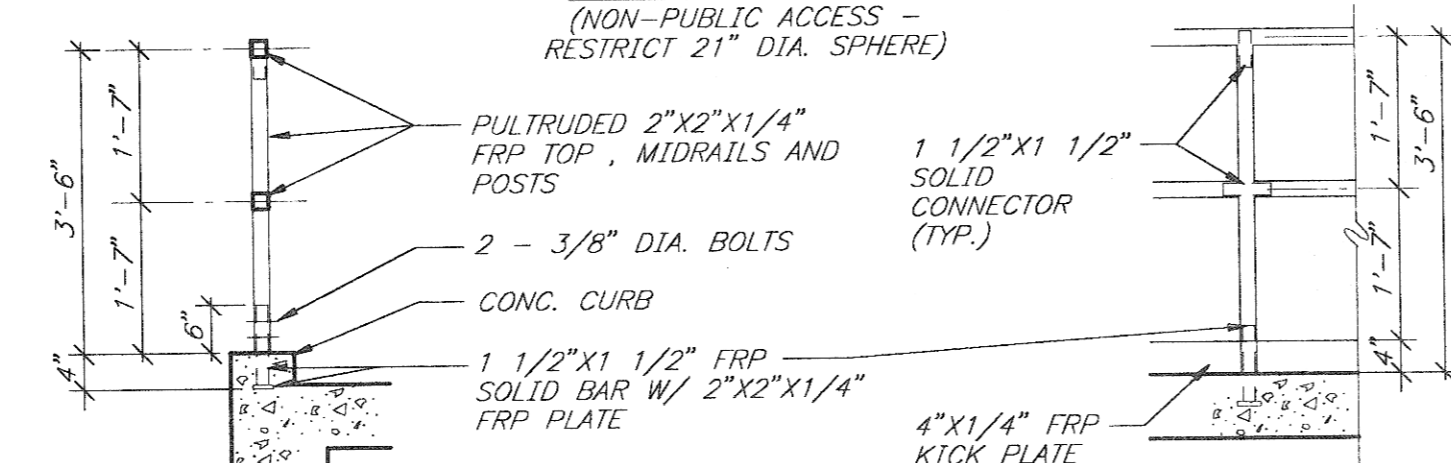
**GUARDRAIL**

(RESTRICT 21" DIA. SPHERE)



**STAIRWAY RAILING**

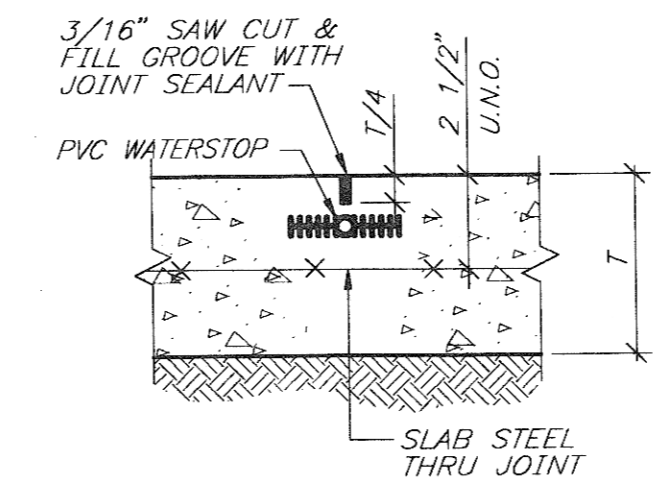
(NON-PUBLIC ACCESS - RESTRICT 21" DIA. SPHERE)



**GLASS FIBER REINFORCED PLASTIC GUARDRAIL**

**STANDARD**  
EITHER SHOWN ON SECTION OR NOTED AS C.J. ON PLAN

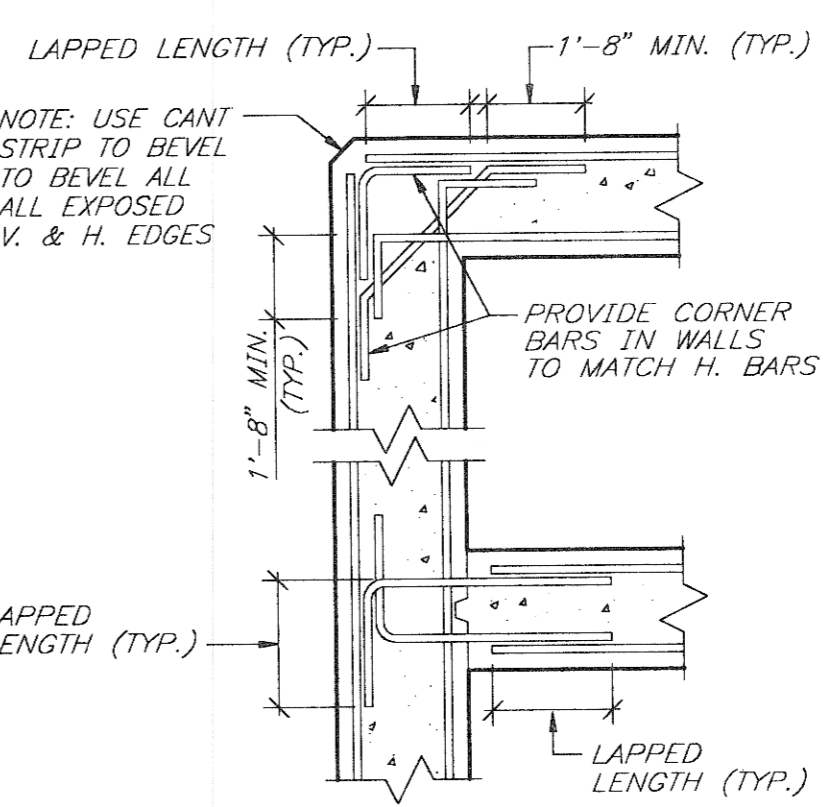
- NOTES:  
1. SAW CUT TO BE MADE FROM 4 TO 20 HOURS AFTER EACH POUR.  
2. FOR SLAB ON GRADE ONLY.



**TYPE "S"**

INDICATED BY SYMBOL (S)

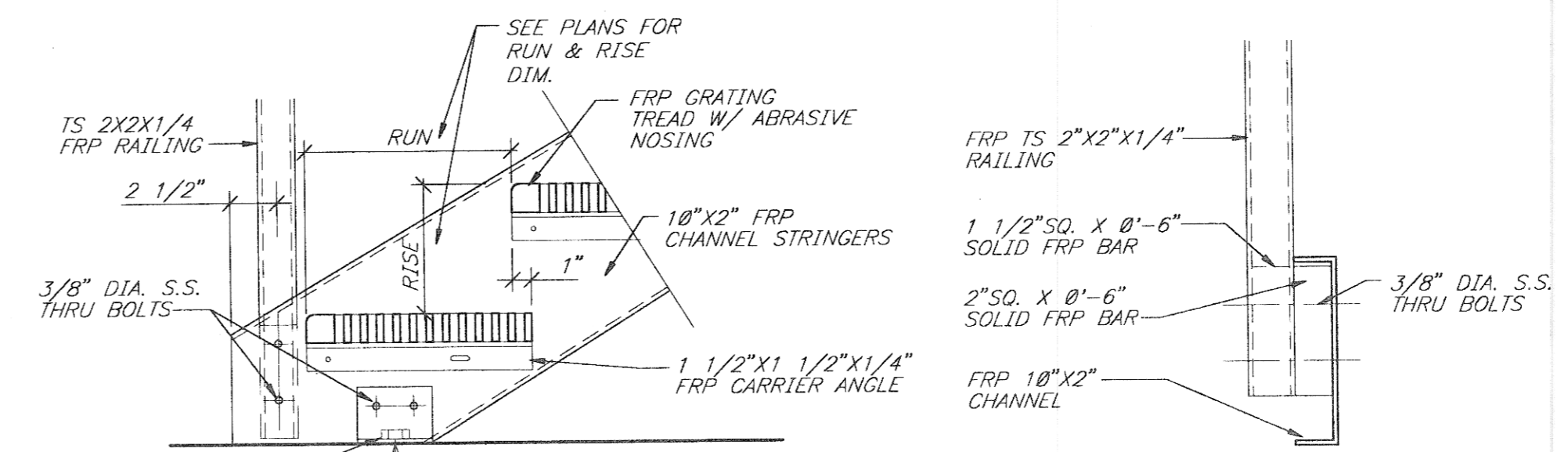
**WATERTIGHT TYPE "N"**  
INDICATED BY SYMBOL (N)



**SECTIONAL PLAN OF WALLS DETAIL**

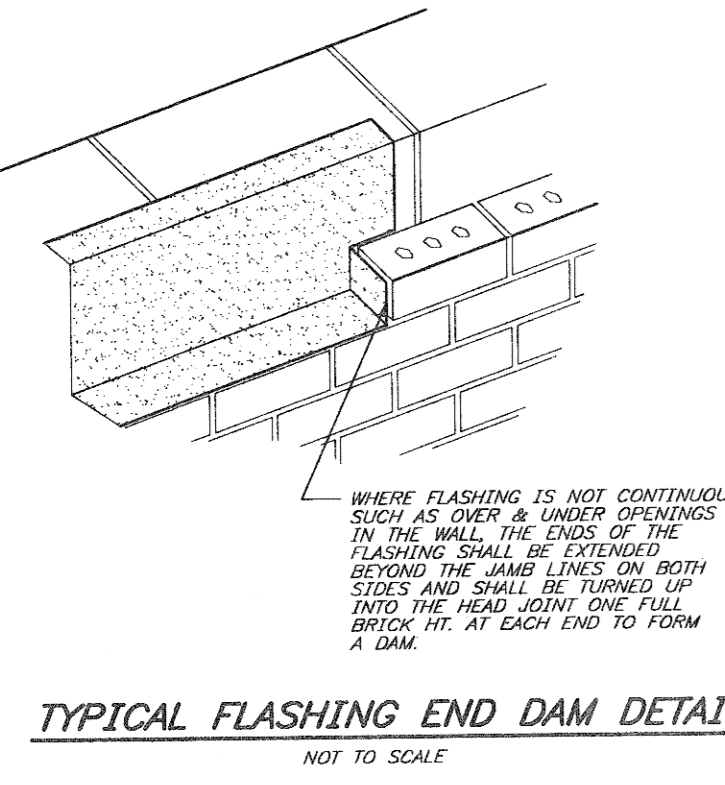
**GENERAL NOTES**

- CONCRETE & STEEL  
CONCRETE DESIGN CONFORMS TO THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI318-89), INCLUDING APPENDIX A.
- MINIMUM CONCRETE STRENGTH AT 28 DAYS SHALL BE 4,000 PSI.
- ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
- ADD SYNTHETIC FIBROUS REINFORCEMENT TO ALL CONCRETE USED IN HORIZONTAL EXPOSED FLAT SLAB SURFACES. THE FIBERS ARE NOT TO REPLACE ANY STEEL REINFORCING SHOWN.
- STRUCTURAL STEEL AND MISCELLANEOUS METALS  
STEEL DESIGN CONFORMS TO THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN, NINTH EDITION, JUNE 1989.
- ALL STEEL SHALL BE ASTM DESIGNATION A-36.
- WELDING SHALL BE DONE WITH E-70XX ELECTRODES.
- HIGH STRENGTH BOLTS SHALL BE A MINIMUM 3/4" DIAMETER, ASTM A325N, UNLESS NOTED OTHERWISE.
- MASONRY BLOCK  
f'm = 3000 PSI
- SOILS  
THERE WILL BE NO BACKFILLING OPERATIONS UNTIL THE CONCRETE WALLS REACH 28 DAY DESIGN STRENGTH, UNLESS NOTED OTHERWISE OR APPROVED BY THE ENGINEER.
- MISCELLANEOUS  
THE DESIGN LIVE LOADING ON ELEVATED SLABS IS 100 POUNDS PER SQUARE FOOT (PSF), UNLESS NOTED OTHERWISE.
- ALL EXISTING DIMENSIONS SHOWN WITH THE ± SYMBOL, ARE APPROXIMATE AND SHALL BE VERIFIED IN FIELD BY THE CONTRACTOR BEFORE FABRICATION AND CONSTRUCTION.
- BEFORE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT FOUNDATION, PAD, AND CURB DIMENSIONS; AND THE SIZES AND LOCATIONS OF ANCHOR BOLTS FROM MANUFACTURER'S CERTIFIED SHOP DRAWINGS.
- DIMENSIONS MARKED WITH A "X" SHALL BE DETERMINED BY EQUIP. MFR.
- ANY COLD JOINTS FORMED BY CONTRACTOR IN THE STRUCTURE WHERE WATER STOPS ARE USED, SHALL ALSO BE PROTECTED BY THE WATER STOP UNLESS NOTED OTHERWISE.



**FRP STAIR DETAIL**

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



**TYPICAL FLASHING END DAM DETAIL**

NOT TO SCALE

Ann Arbor, Michigan  
Detroit, Michigan  
Escanaba, Michigan  
Grand Rapids, Michigan  
Lansing, Michigan

**McNAMEE, PORTER & SEELEY, INC.**  
ENGINEERING CHALLENGE SINCE 1911

DESIGNED MKG, SJM CHECKED A. BAJR  
SCALE AS NOTED CADD DATE 01-85-85 SEE 3  
PART MPS/0225/01430/1/STD-DET AC

CITY OF TRAVERSE CITY, MICHIGAN  
WATER TREATMENT PLANT IMPROVEMENTS  
SODIUM HYPOCHLORITE SYSTEM ADDITION

**ARCHITECTURAL / STRUCTURAL**  
**STANDARD DETAILS**

DIVISION CONTRACT 225.14-W-2(R) SHEET A-3 OF 3