

GENERAL NOTES

MATERIALS AND CONSTRUCTION

- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF $f'c = 4,000$ PSI AT 28 DAYS.
- ALL REINFORCING BARS SHALL CONFORM TO THE SPECIFICATION FOR DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, ASTM DESIGNATION A615, GRADE 60.
- CONCRETE AGGREGATE SHALL HAVE A MAXIMUM SIZE OF 1 INCH.
- ALL REINFORCING BARS SHALL BE CONTINUOUS IN ANY ONE DIRECTION EXCEPT WHERE OTHERWISE SHOWN ON THE DRAWINGS.
- EXCEPT AS NOTED, ALL CONCRETE CONSTRUCTION AND DETAILING SHALL CONFORM TO THE LATEST STANDARDS OF THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315), AND BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318).
- EXCEPT FOR WELDED WIRE FABRIC, NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS INDICATED ON DRAWINGS.
- ALL STRUCTURAL STEEL, METAL DOORS, EQUIPMENT, ETC. SHALL BE CONNECTED TO GROUND BUSES WITH #2 COPPER GROUND CABLE.
- STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL CARBON STEEL, ASTM DESIGNATION A36.
- ALL STRUCTURAL STEEL PLATES SHALL CONFORM TO THE SPECIFICATION FOR HOT-ROLLED, CARBON STEEL SHEET AND STRIP, STRUCTURAL QUALITY, ASTM DESIGNATION A570.
- METAL ROOFING, SIDING, AND FLASHINGS SHALL CONFORM TO THE SPECIFICATION FOR THE DESIGN OF LIGHT GAUGE COLD-FORMED STRUCTURAL STEEL MEMBERS, LATEST EDITION.
- FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION.
- WELDING FOR STRUCTURAL STEEL SHALL CONFORM TO THE STRUCTURAL WELDING CODE, AWS D1.1, LATEST EDITION.
- BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE SPECIFICATION FOR LOW CARBON STEEL THREADED STANDARD FASTENERS, ASTM DESIGNATION A307, GRADE A, AND HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS, ASTM DESIGNATION A325. ALL BOLTS SHALL HAVE THREADS EXCLUDED FROM THE SHEAR PLANE.
- ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH THE PROCEDURES GIVEN IN NOTES ON SHEET S-9.
- TOP 12 INCHES OF SUBGRADE SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM STANDARD D1557.
- UNLESS NOTED ON DRAWINGS, SPlice LENGTH OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 (LATEST EDITION) FOR CLASS C SPLICES.
- FOR FILLET WELD SIZES NOT SHOWN ON DRAWINGS, PROVIDE MINIMUM SIZE FILLET WELDS IN ACCORDANCE WITH WELDING CODE AWS D1.1, LATEST EDITION.
- UNLESS SHOWN OTHERWISE, ALL REINFORCING BAR HOOKS SHALL BE STANDARD HOOKS IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 313, LATEST EDITION.

SOIL DATA

- A. ASSUMED SOIL BEARING PRESSURE - 4,000 PSF
- B. ASSUMED DYNAMIC RESPONSE FACTOR (SOIL BEARING) - 2.5
- C. ASSUMED LATERAL SOIL PRESSURE COEFF.:
 - MAGAZINE WALLS - 0.5
 - WING WALLS - 0.3
 - ASSUMED COEF. OF FRICTION (CONC. ON SOIL) - 0.50

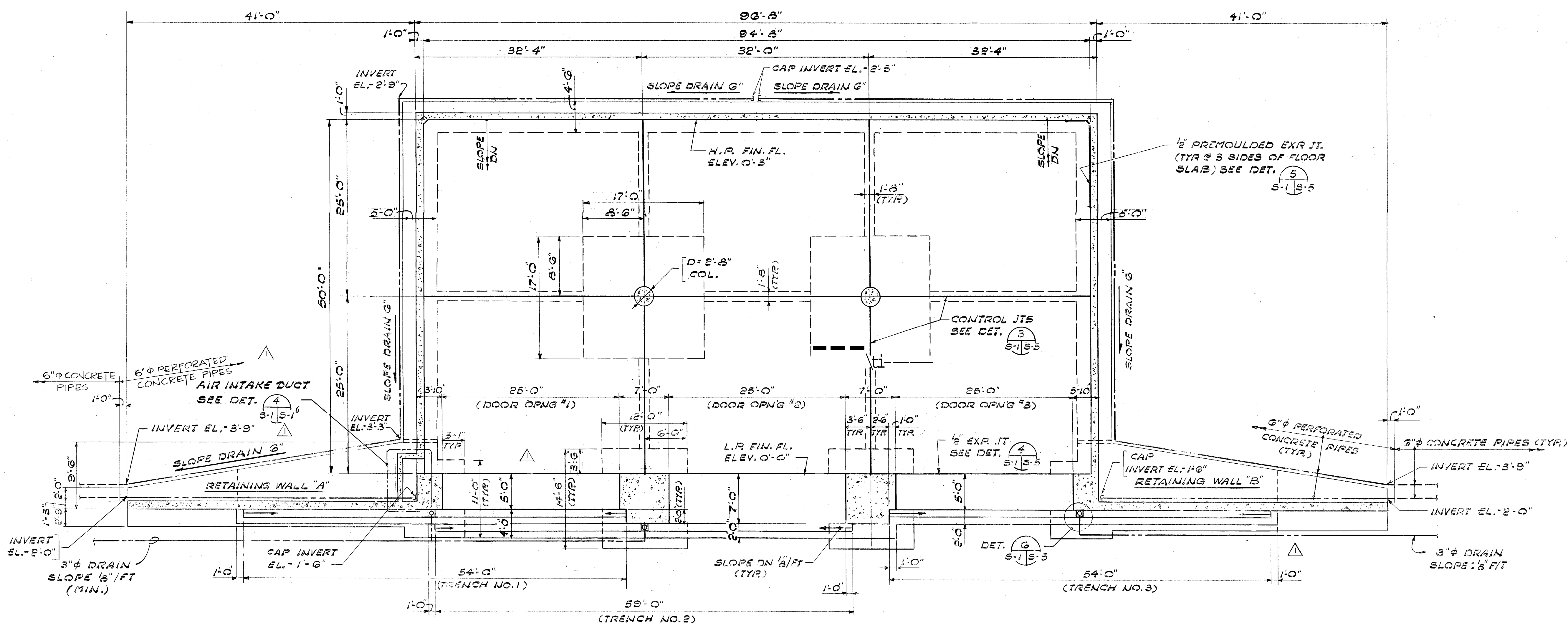
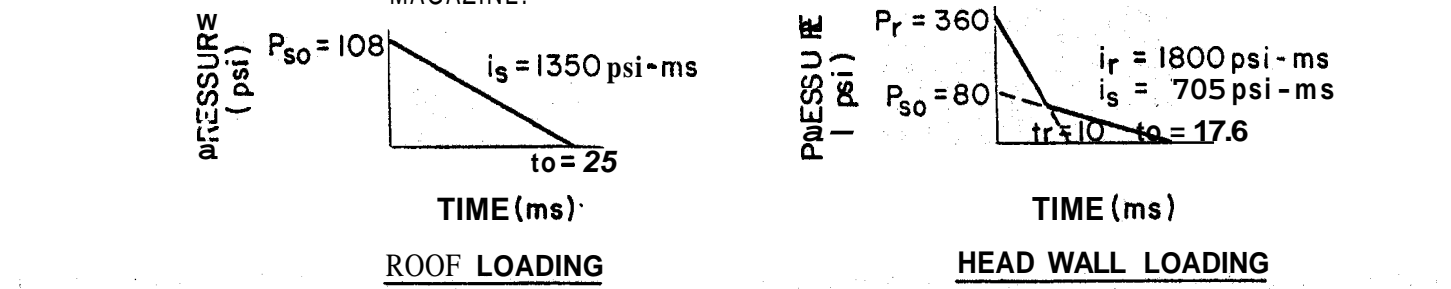
DESIGN LOADS

- STATIC LOADS:
- A. ROOF DEAD LOAD (1/2 FT. EARTH FILL + 6" GRAVEL) - 200 PSF
 - B. FLOOR LIVE LOAD - 2,000 PSF
 - C. PLATFORM AND RAMP LIVE LOAD - 1,000 PSF
 - D. ROOF LIVE LOAD - 100 PSF
- SEISMIC LOAD:
- ADEQUATE FOR SEISMIC LOADS INDUCED BY EARTHQUAKE MOTIONS UP TO ZONE 4.

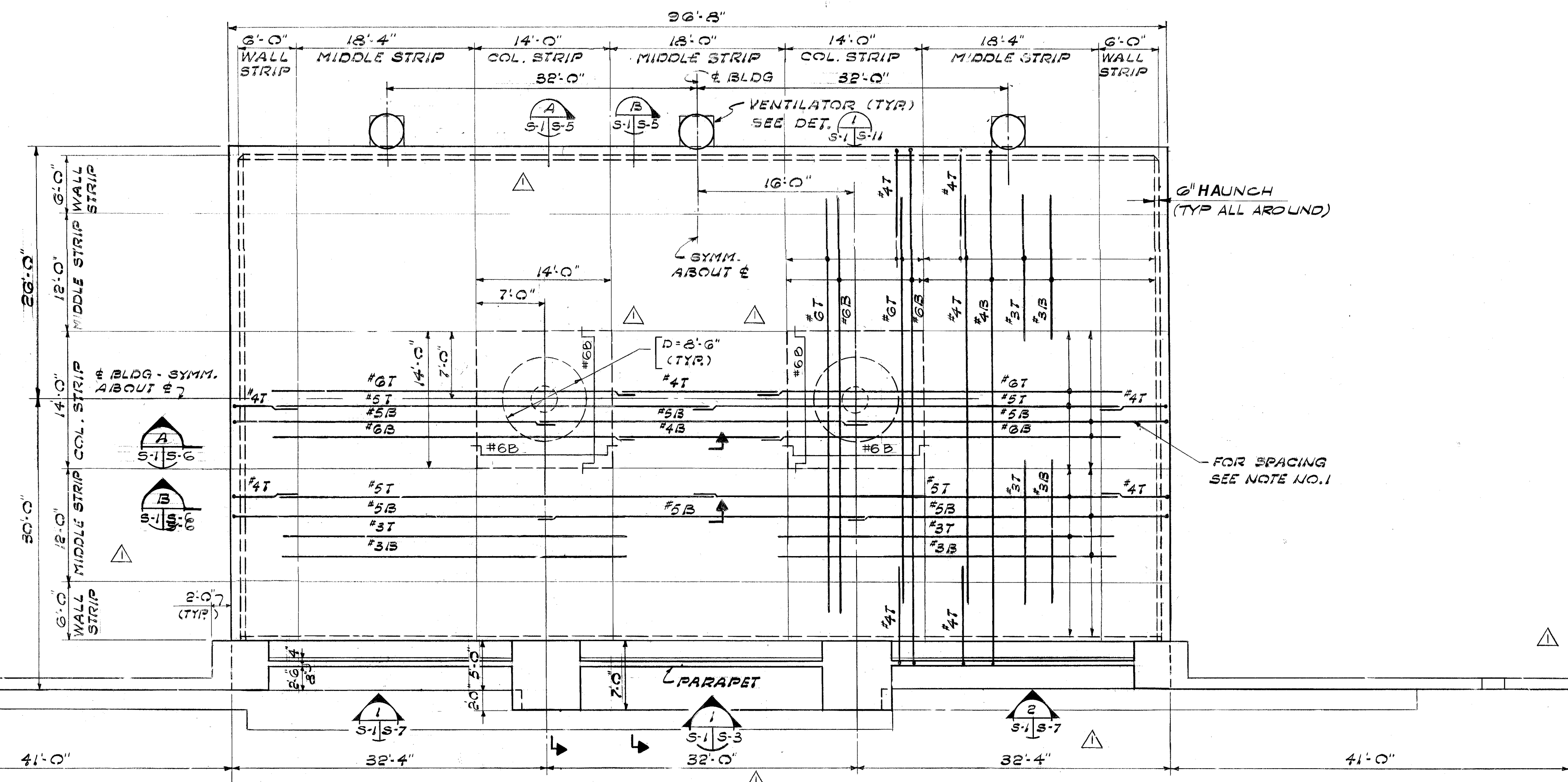
BLAST LOAD:

BASED ON INTERMAGAZINE SEPARATION DISTANCES FOR A QUANTITY (W) OF H.E. EQUAL TO 350,000 LBS AS FOLLOWS:

- A. ROOF: DONOR MAGAZINE LOCATED AT $2W^{1/3}$ TO THE REAR OF THE ACCEPTOR MAGAZINE.
- B. HEADWALL: DONOR MAGAZINE LOCATED AT $2W^{1/3}$ TO THE FRONT OF THE ACCEPTOR MAGAZINE.



FLOOR PLAN
SCALE: 1/8" = 1'-0"



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

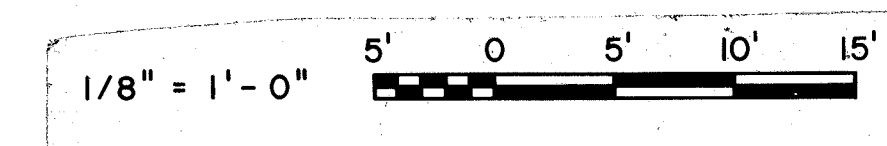
- NOTES:
- ALL REINF. BARS SHALL BE SPACED @ 10" o.c. UNLESS NOTED OTHERWISE.
 - THE FOLLOWING ELEVATION, SECTIONS AND DETAILS SHALL BE USED FOR MAGAZINE WITH LOADING PLATFORM ONLY.
- ELEVATIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

- THE FOLLOWING ELEVATION & SECTIONS SHALL BE USED FOR MAGAZINE WITHOUT LOADING PLATFORM ONLY.
- ALL OTHER ELEVATIONS, PLANS, SECTIONS AND DETAILS SHALL BE USED FOR MAGAZINE WITH OR WITHOUT LOADING PLATFORM UNLESS NOTED OTHERWISE.

SPUR SLAB IN CHECKERBOARD PATTERN. GROUND COVER SHALL BE DETERMINED BY GENERAL SITE FILL MATERIAL AND CLIMATIC CONDITIONS. (GROUND COVER MUST BE MAINTAINED AT MAXIMUM 6" HEIGHT)

IF THE DEPTH OF FOOTINGS (SIDEWALLS, BACKWALL, COLUMNS, PLASTERS & GRADE BEAMS) HAVE TO BE INCREASED EITHER BECAUSE OF THE DEPTH OF FROST OR TO OBTAIN SUITABLE SOIL BEARING CAPACITY AS SPECIFIED, THE VOLUME OF SOIL BETWEEN THE DEPTH OF THE FOOTING SHOWN ON THE DRAWINGS AND THE DEPTH REQUIRED SHALL BE REPLACED WITH CONCRETE. RETAINING WALLS WHOSE FOOTING DEPTHS MUST BE INCREASED FOR FROST SHALL BE REDESIGNED IF THE SOIL BEARING CAPACITY IS LESS THAN THAT SPECIFIED THEN THE RETAINING WALL FOOTINGS MUST BE REDESIGNED.

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED



SECT. MARKS, REINF. DIMENS.	R.A.	11-2-68	N.D.
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED

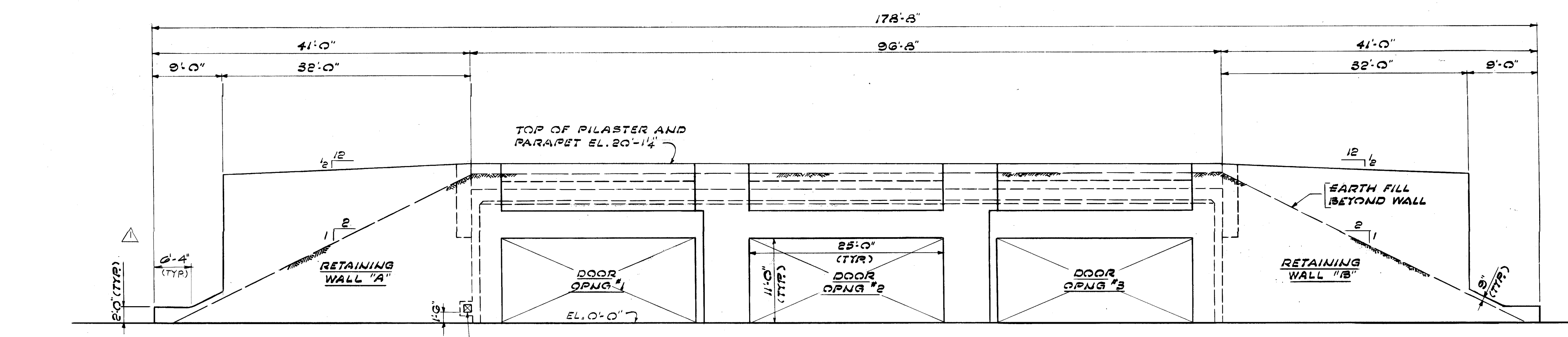
AMMANN & WHITNEY CONSULTING ENGINEERS
TWO WORLD TRADE CENTER, N.Y.

NAVAL FACILITIES ENGINEERING COMMAND
DEPARTMENT OF THE NAVY
WASHINGTON, D.C.

STANDARD DRAWING
BOX MAGAZINE TYPE C

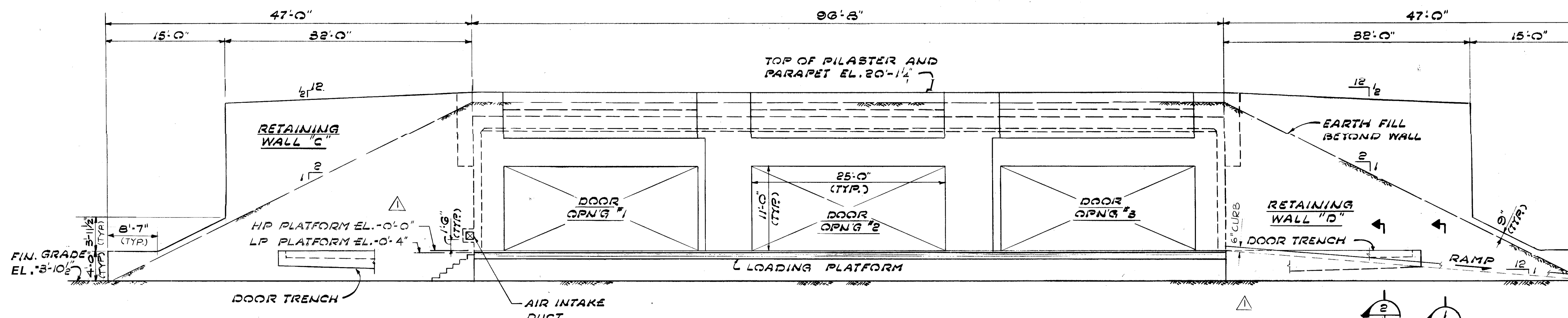
FLOOR PLAN & ROOF PLAN
(WITHOUT EXTERIOR PLATFORM)

SIZE: F
CODE IDENT. NO.: 80091
NAVFAC DRAWING NO.: 1404430
SCALE: 1/8" = 1'-0"
SPEC: NFSS-M43
SHEET 1 OF 15

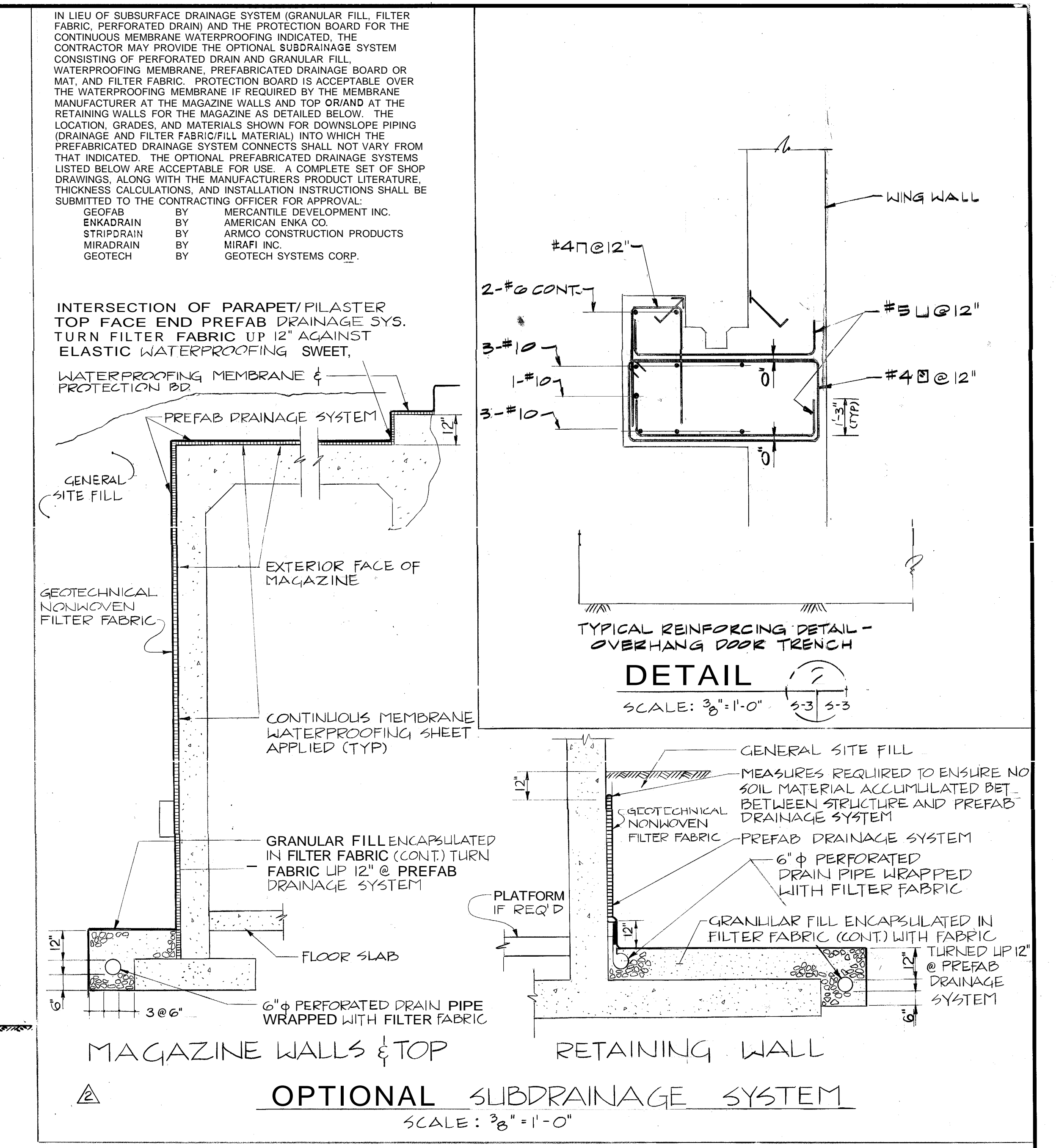


ELEVATION 1
SCALE: 3/8" = 1'-0"

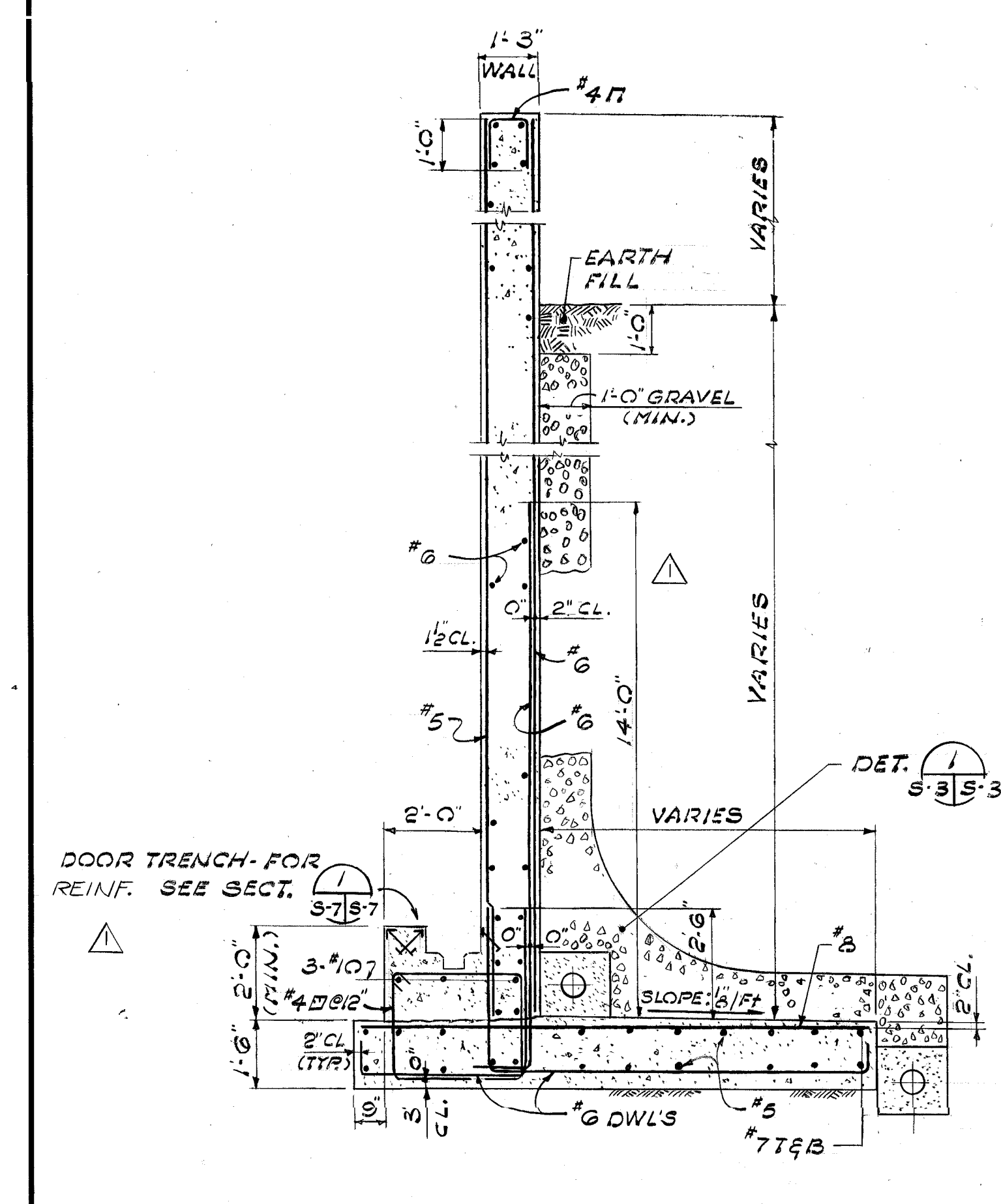
NOTE:
FOR 'RETAINING WALL DETAILS'
SEE DWG. S-4.



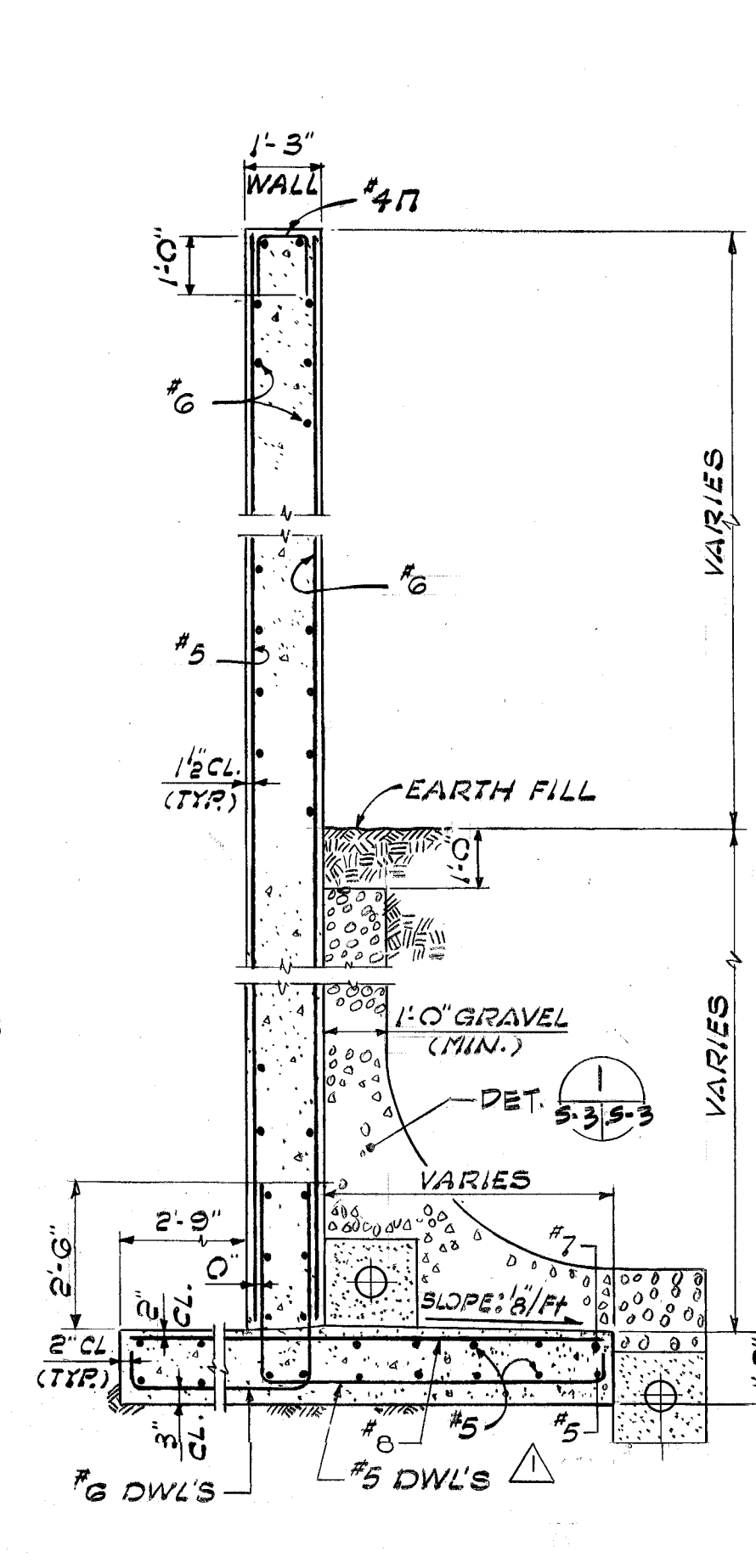
ELEVATION 2
LOADING PLATFORM
SCALE: 3/8" = 1'-0"



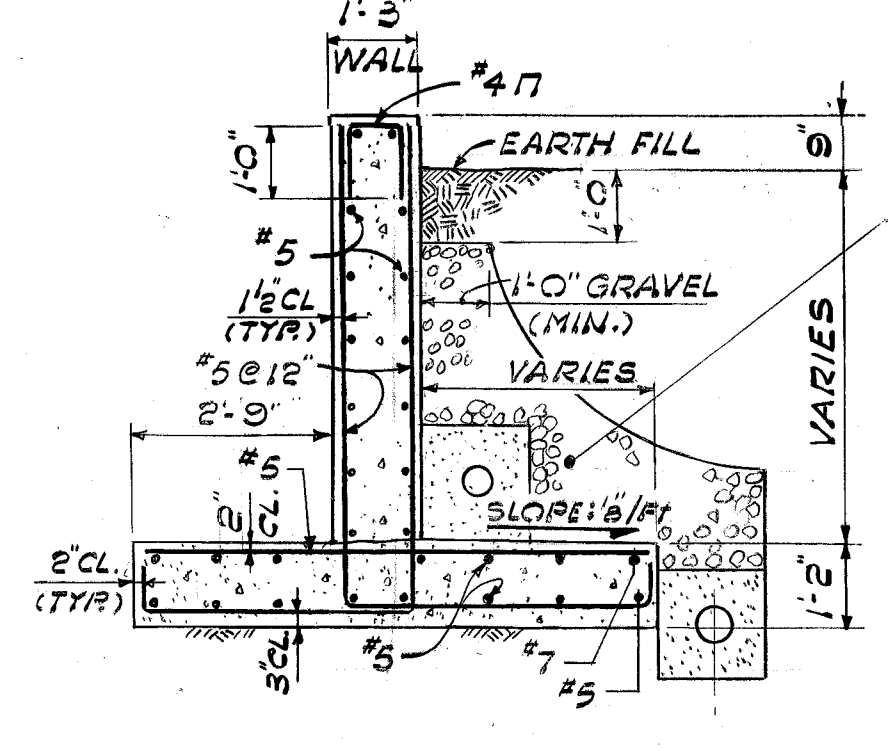
MAGAZINE WALLS & TOP
RETAINING WALL
OPTIONAL SUBDRAINAGE SYSTEM
SCALE: 3/8" = 1'-0"



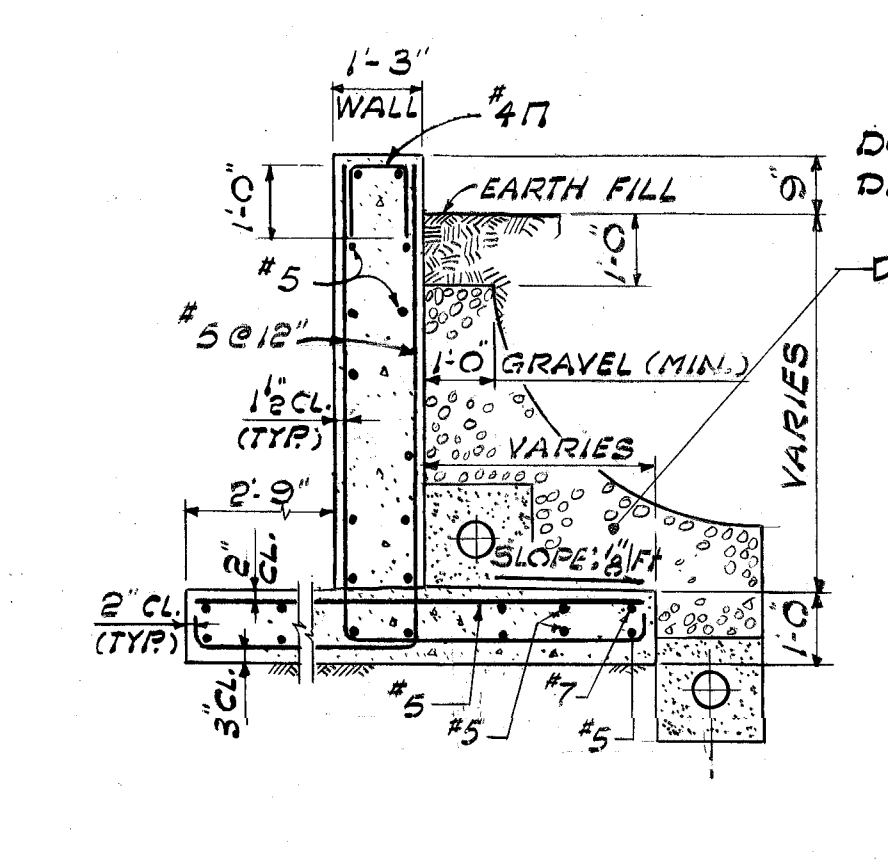
SECTION 1
SCALE: 3/8" = 1'-0" S-4 S-3



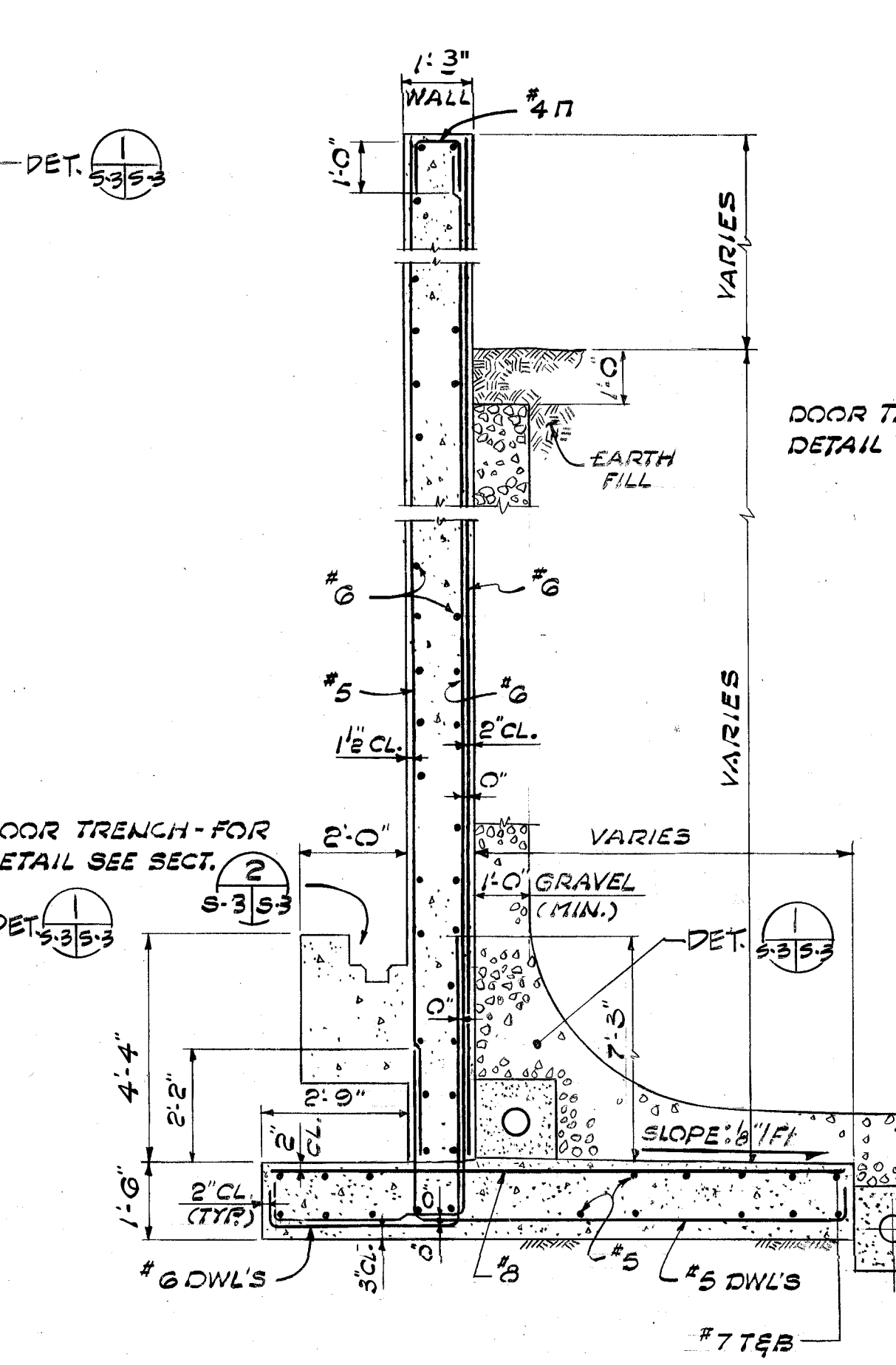
SECTION 2
SCALE: 3/8" = 1'-0" S-4 S-3



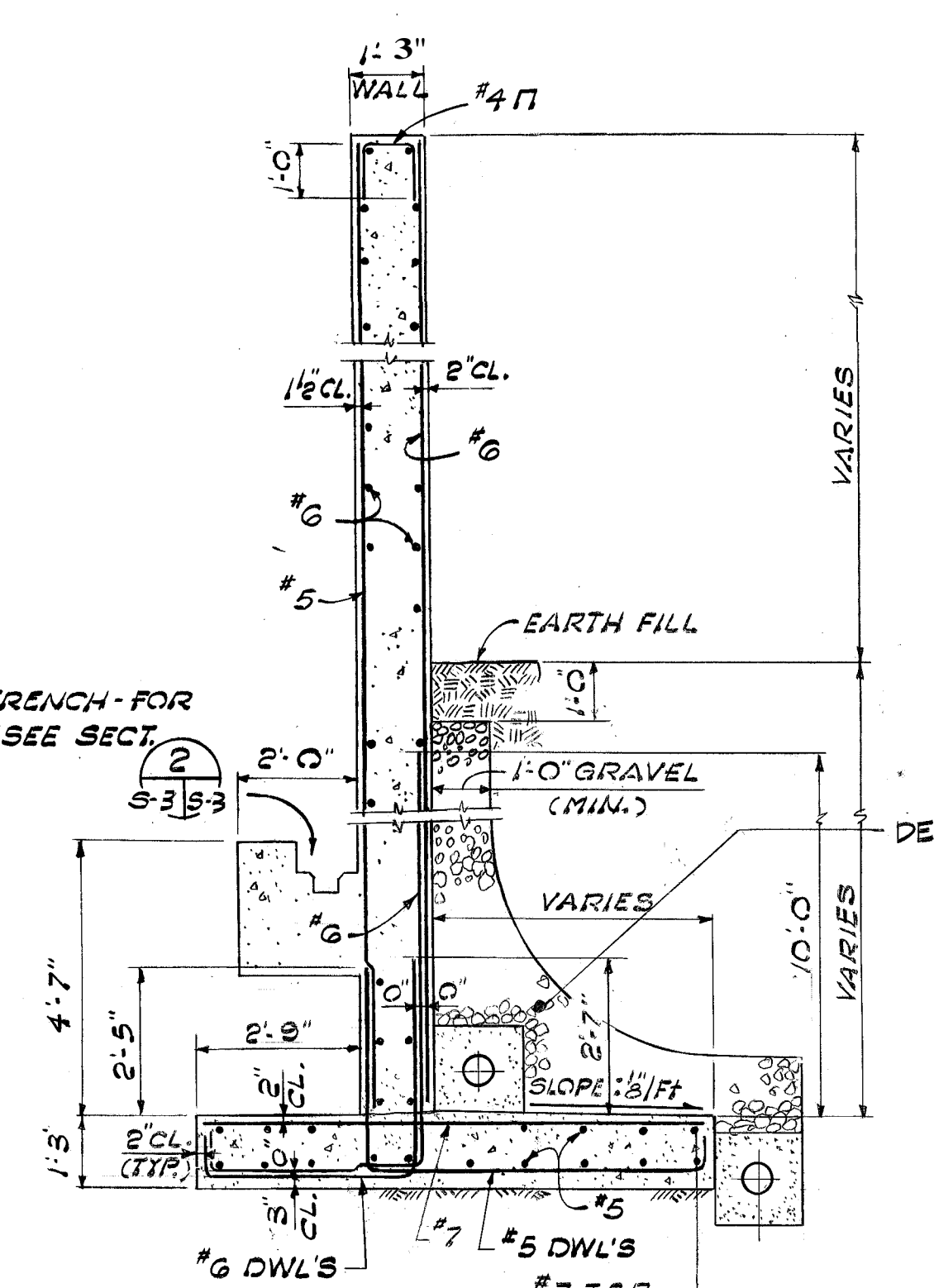
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SCALE: 3/8" = 1'-0" S-4 S-3



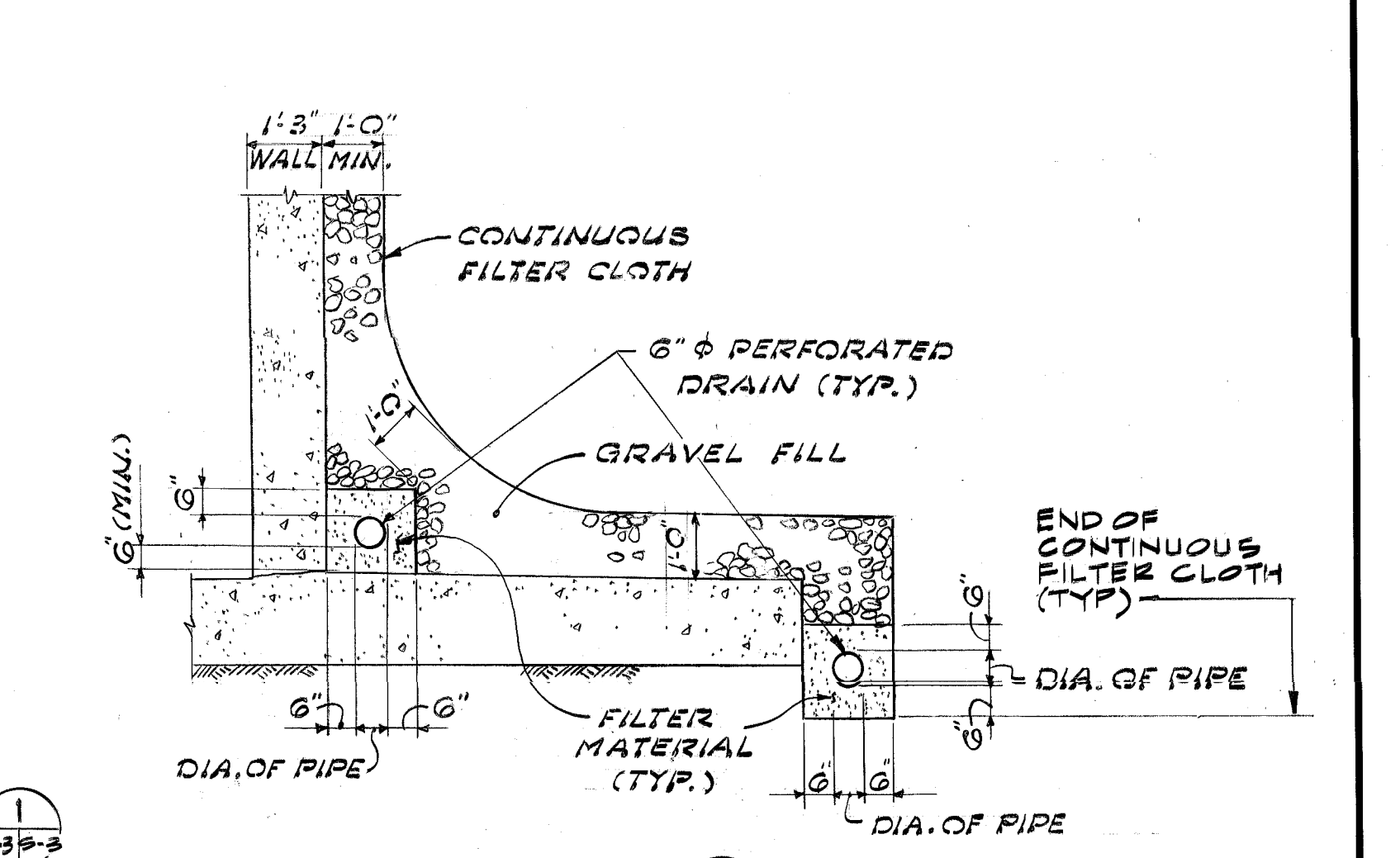
SECTION 4
SCALE: 3/8" = 1'-0" S-4 S-3



SECTION 5
SCALE: 3/8" = 1'-0" S-4 S-3



SECTION 6
SCALE: 3/8" = 1'-0" S-4 S-3



DETAIL 1
SCALE: 3/8" = 1'-0" S-3 S-3
(TYPICAL 6" PERFORATED DRAIN)

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

IF THE DRAWING IS A REDUCTION,
GRAPHIC SCALE MUST BE USED



AMMANN & WHITNEY
CONSULTING ENGINEERS
TWO WORLD TRADE CENTER, N.Y., N.Y.
DATE: 11/2/88
BY: [Signature]
FOR COMMANDER, NAVFACENCOM

REVISIONS		
NO.	DESCRIPTION	DATE
1	OPTIONAL SUBDRAINAGE SYS.	2-14-91
2	PLATFORM ELEV., CURB, REINF.	11-2-88

REVISIONS		APPROVED	
PREP'D BY	DATE	DATE	
DGC	2-14-91		
R.A.	11-2-88		N.D.

REVISIONS			
AMMANN & WHITNEY CONSULTING ENGINEERS		NAVAL FACILITIES ENGINEERING COMMAND	
DEPARTMENT OF THE NAVY		WASHINGTON, D.C.	
STANDARD DRAWING		BOX MAGAZINE TYPE C	
FRONT ELEVATION AND RETAINING WALL DETAILS			
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F	80091	1404432	
SCALE: AS NOTED		SPEC. NFSS - M43	

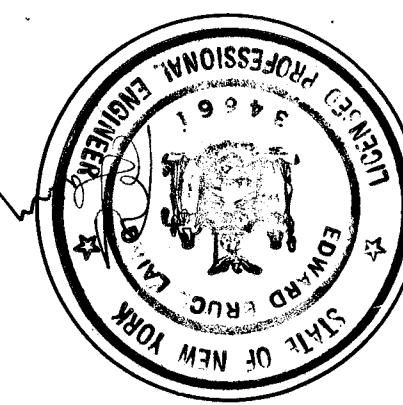
SHEET 5 OF 15
 SPEC. NFFS-M43
 80091
 140434
 S-5

AMANN & WHITNEY
 NAVAL FACILITIES ENGINEERING COMMAND
 DEPARTMENT OF THE NAVY
 WASHINGTON, D.C.

STANDARD DRAWING
 80X MAGAZINE TYPE E
 SECTIONS & DETAILS

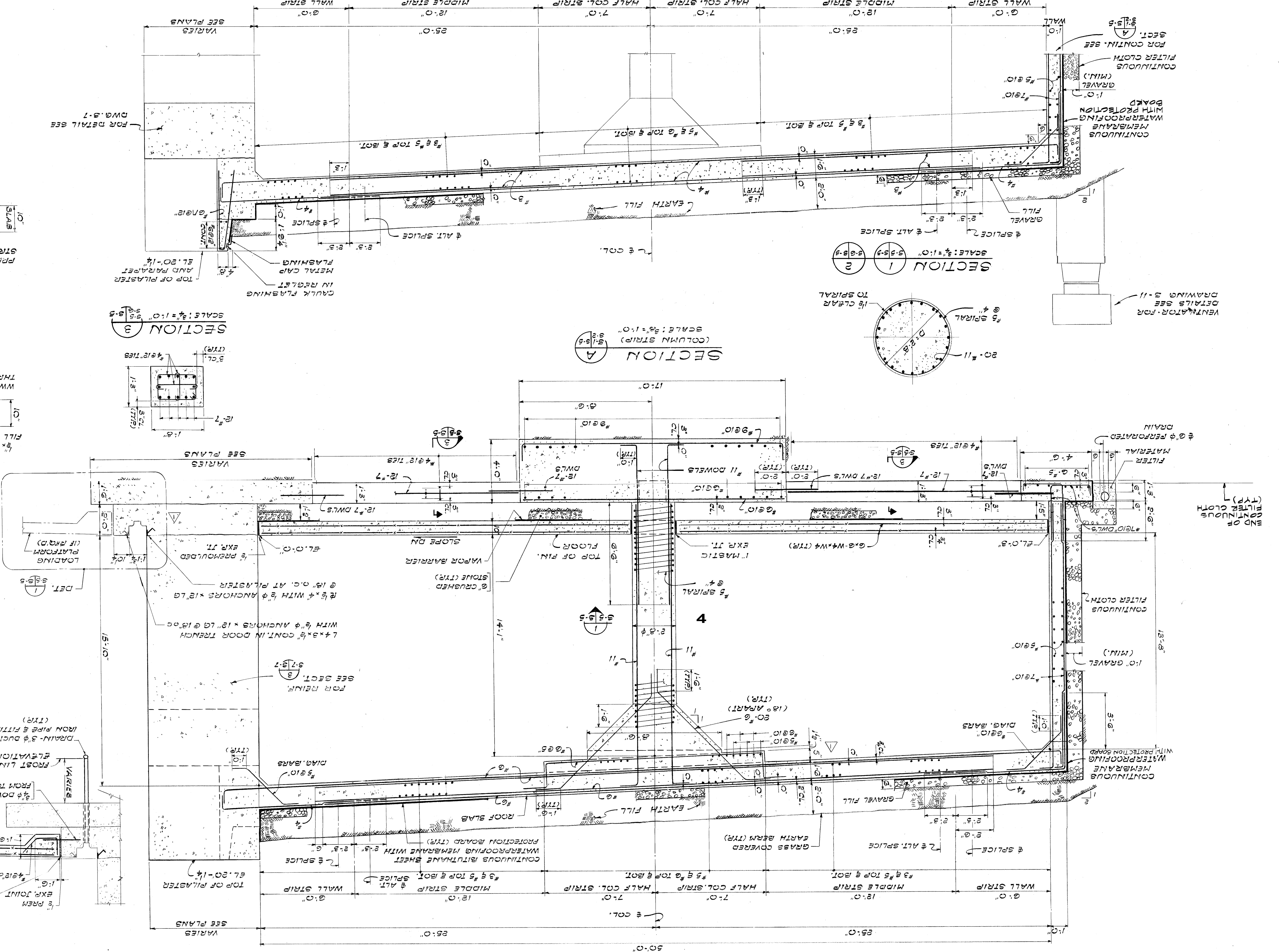
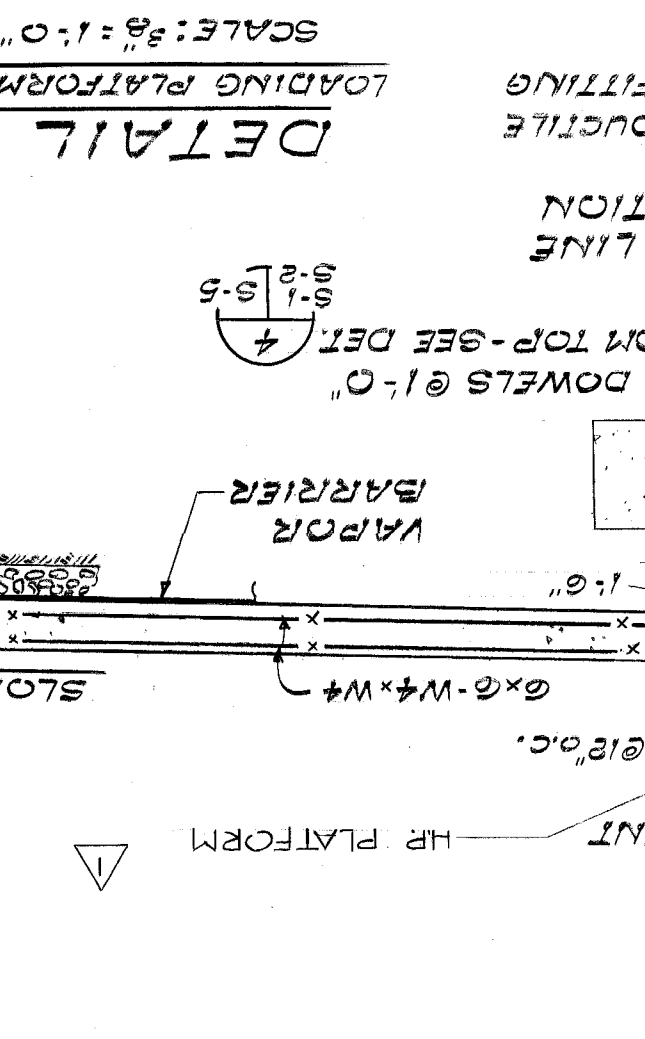
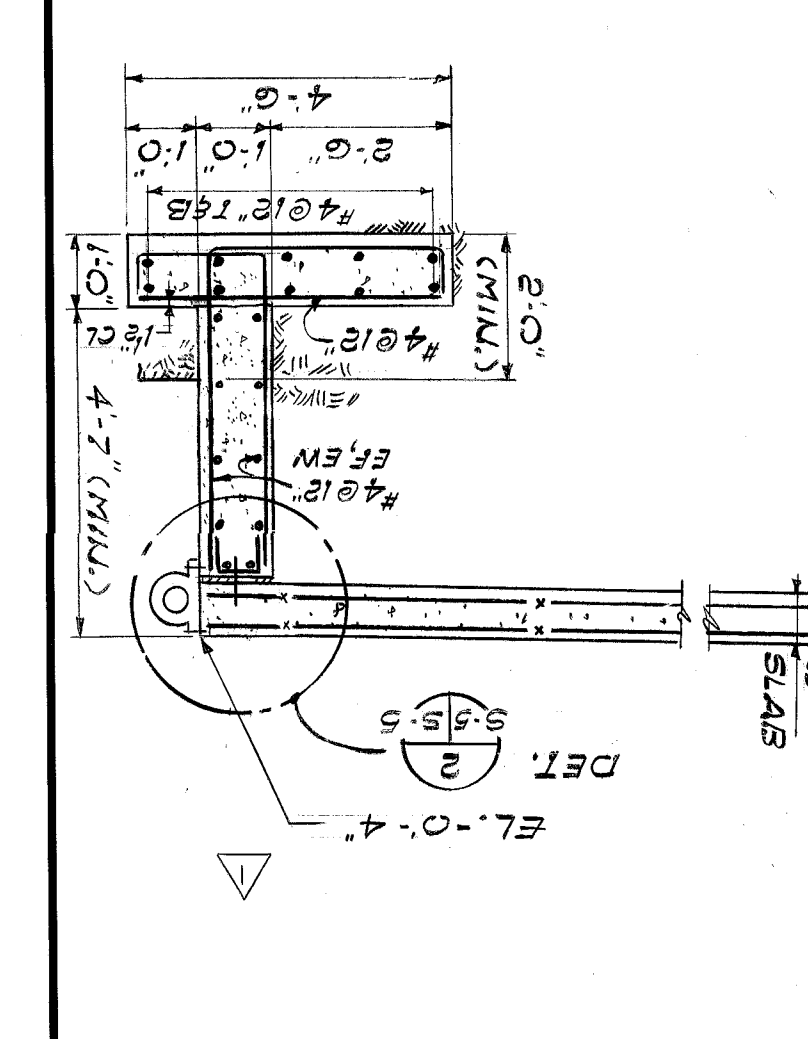
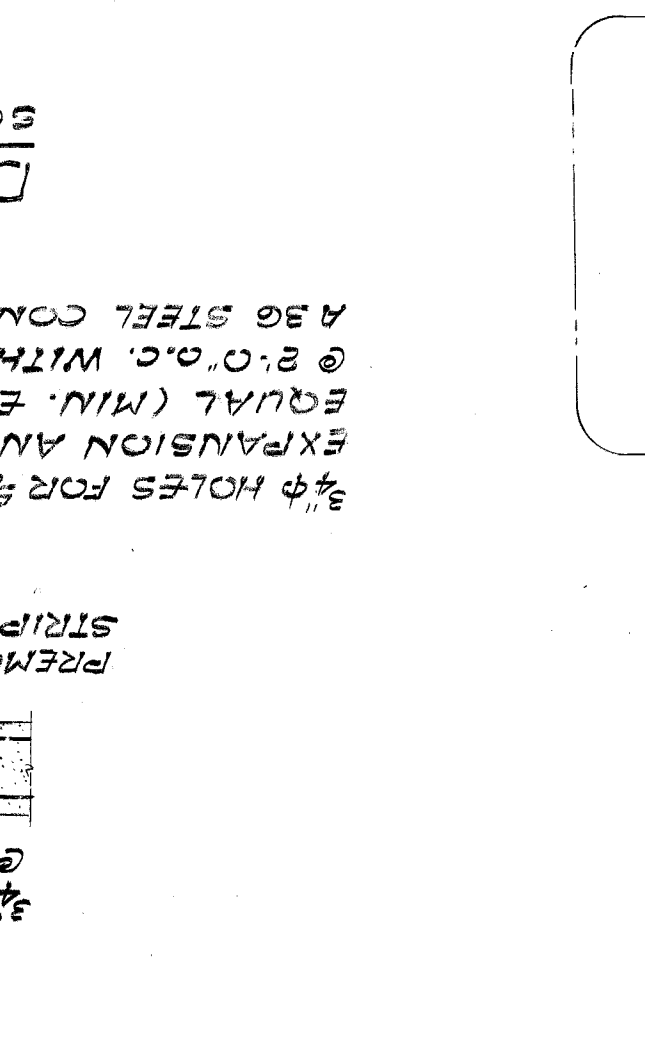
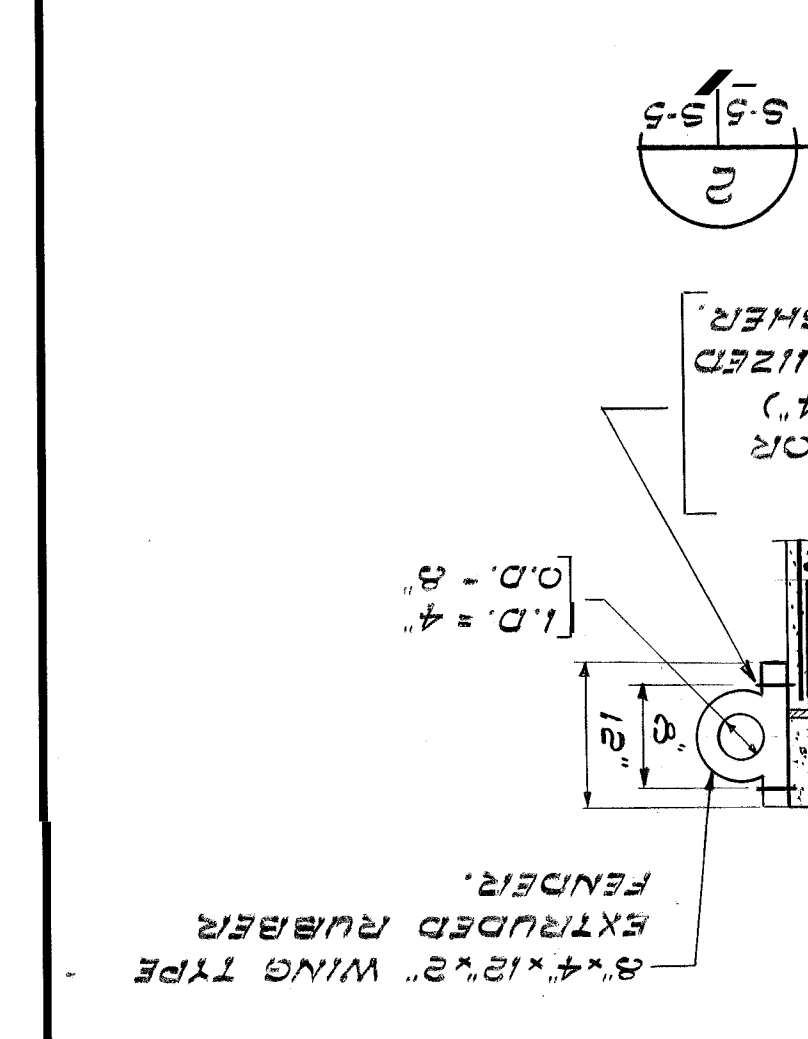
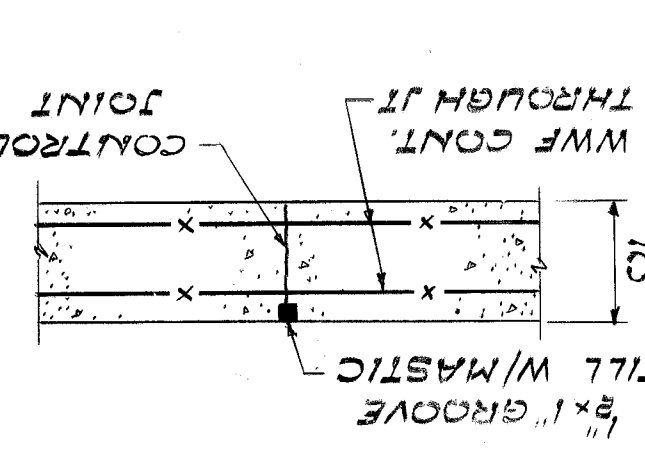
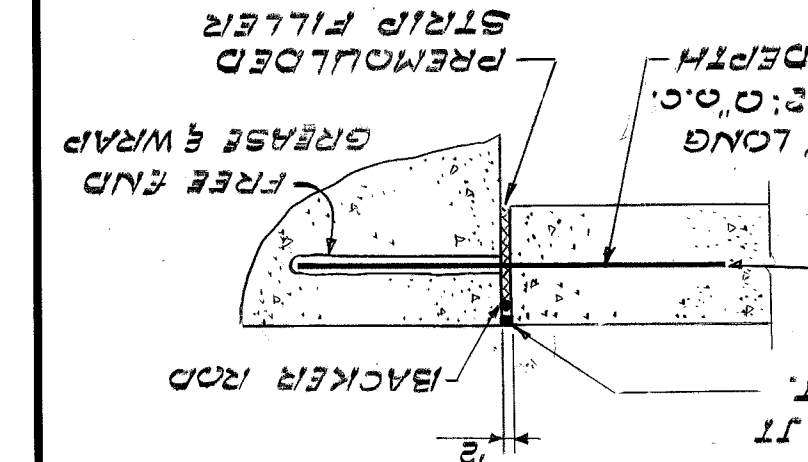
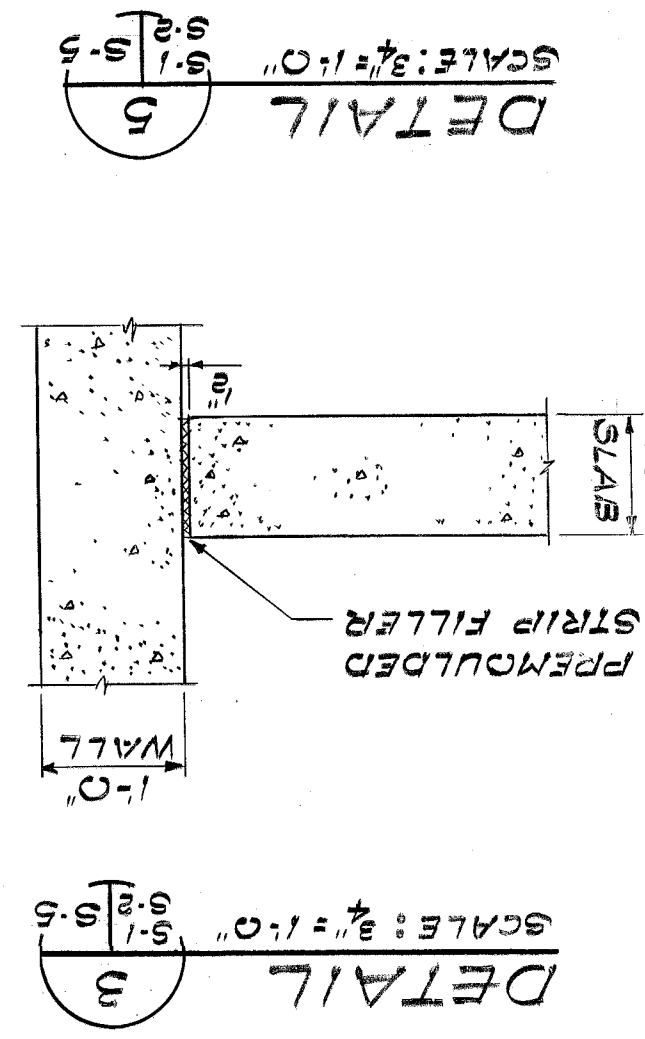
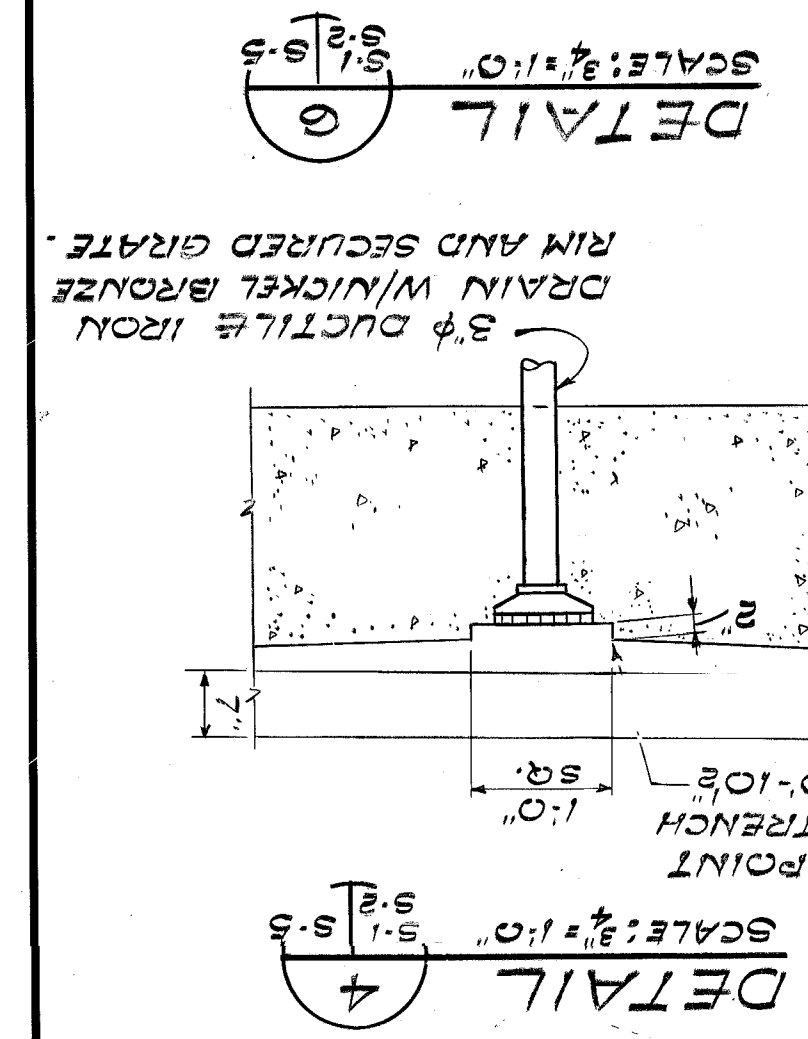
APPROVED: [Signature]
 DATE: 1/11/55
 DRAWN: [Signature]
 CHECKED: [Signature]

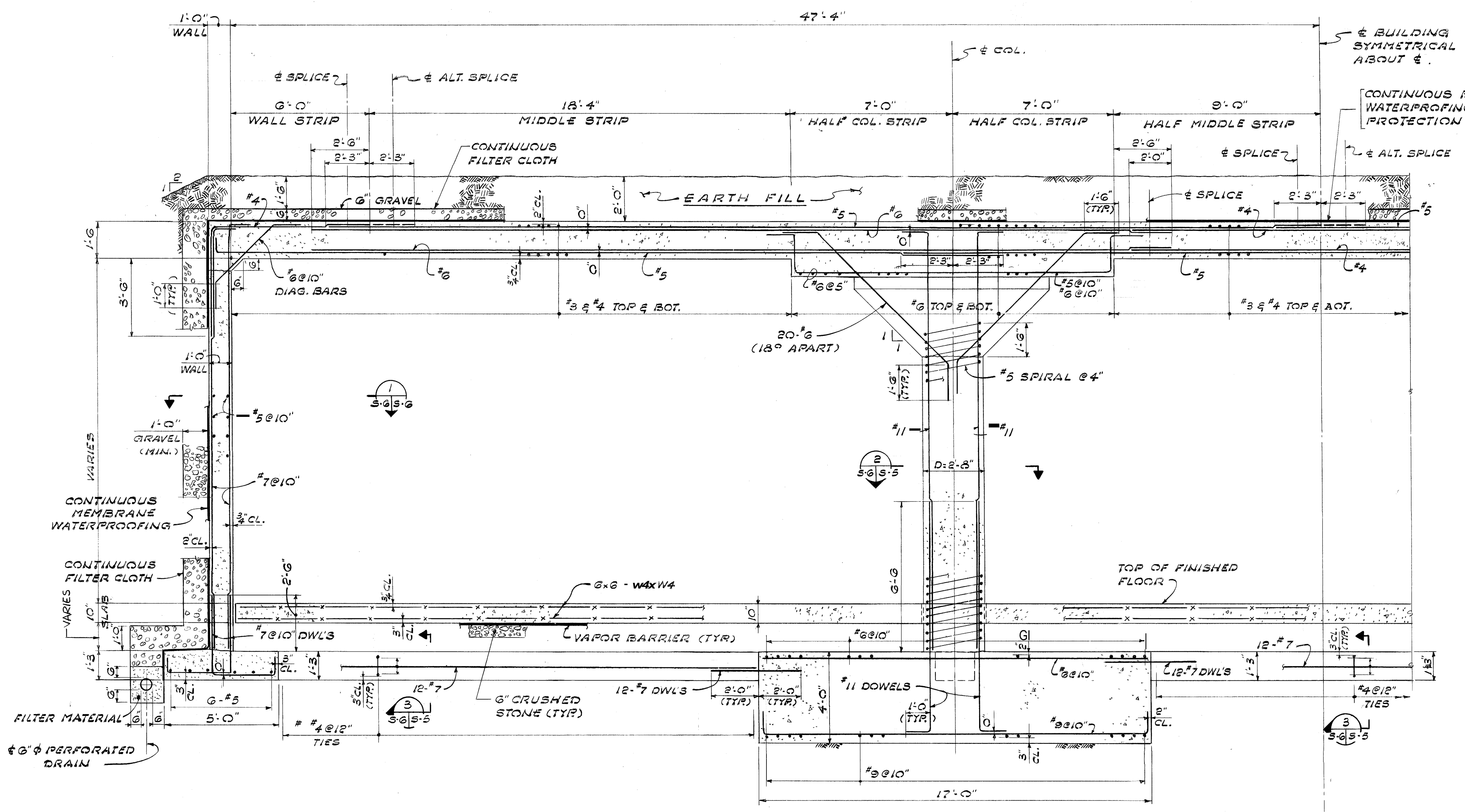
TITLE: SECTIONS & DETAILS



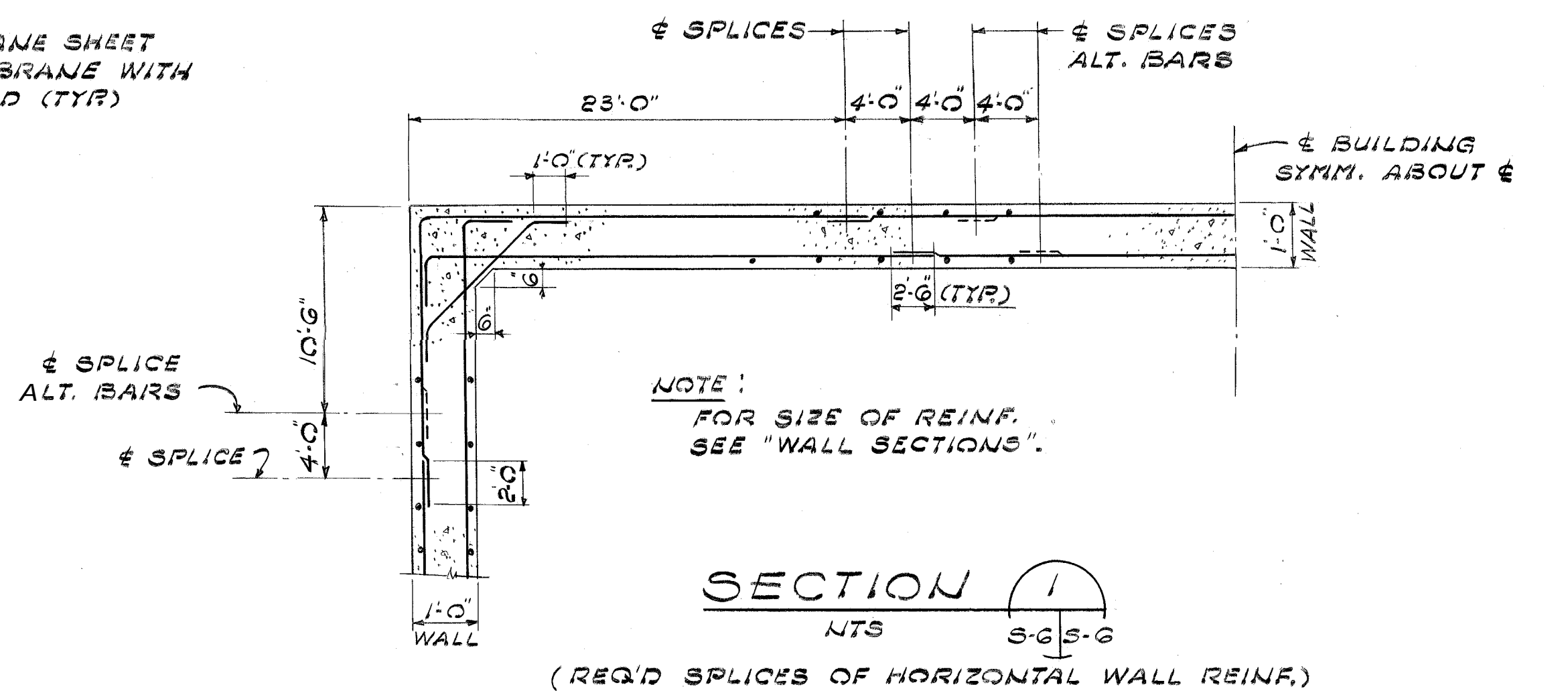
REVISIONS	DATE	BY	DESCRIPTION
1	11-2-55	R.A.	DIMENS., TRENCH DETAIL
2	N.D.	N.D.	APPROVED

3/1" = 1'-0"
 1" = 1'-0"
 IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED.

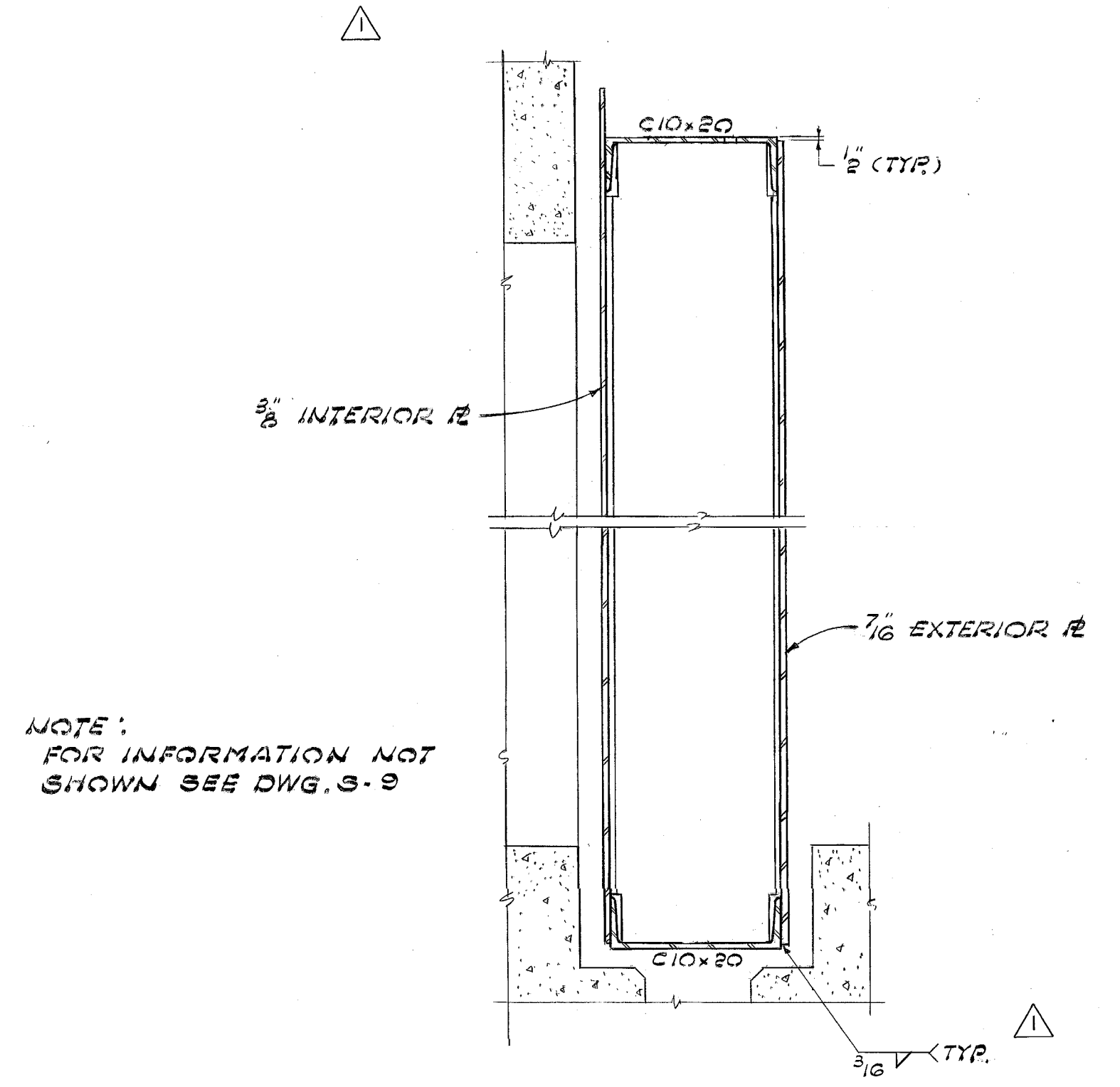




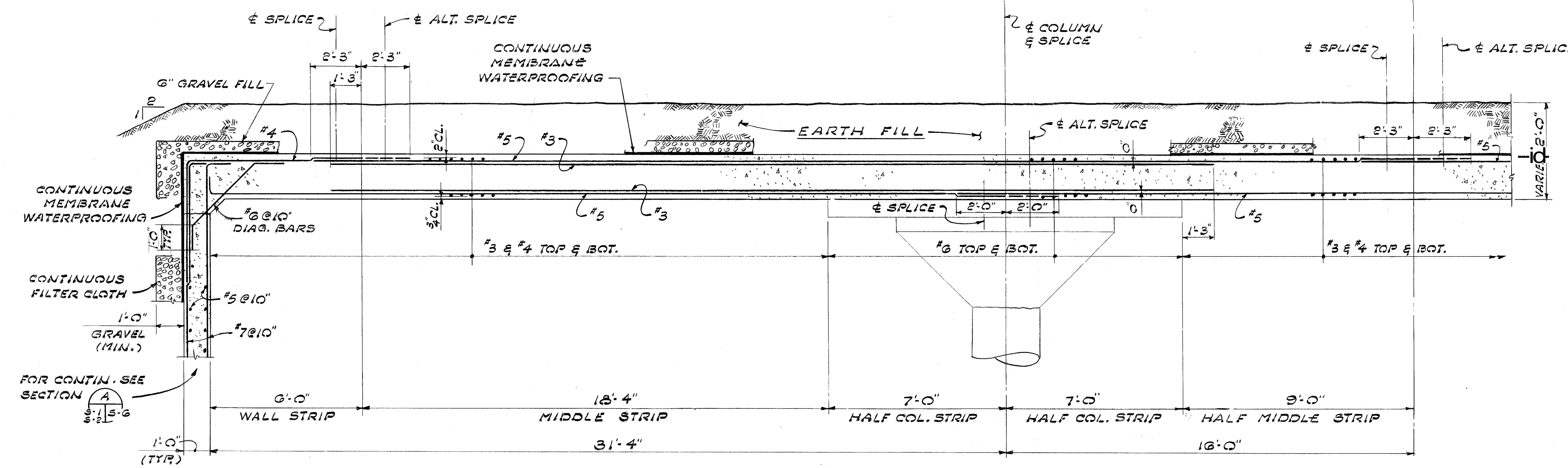
SECTION A
(COLUMN STRIP)
Scale: 3/8" = 1'-0"



SECTION 1
NTS
(REQ'D SPLICES OF HORIZONTAL WALL REINF.)

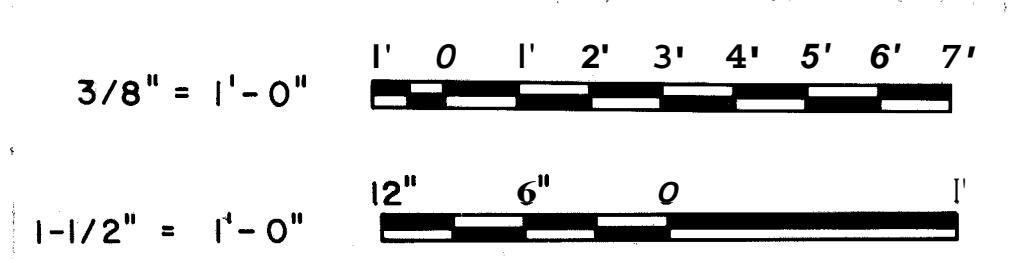


DETAIL 1
SCALE: 1/2" = 1'-0"



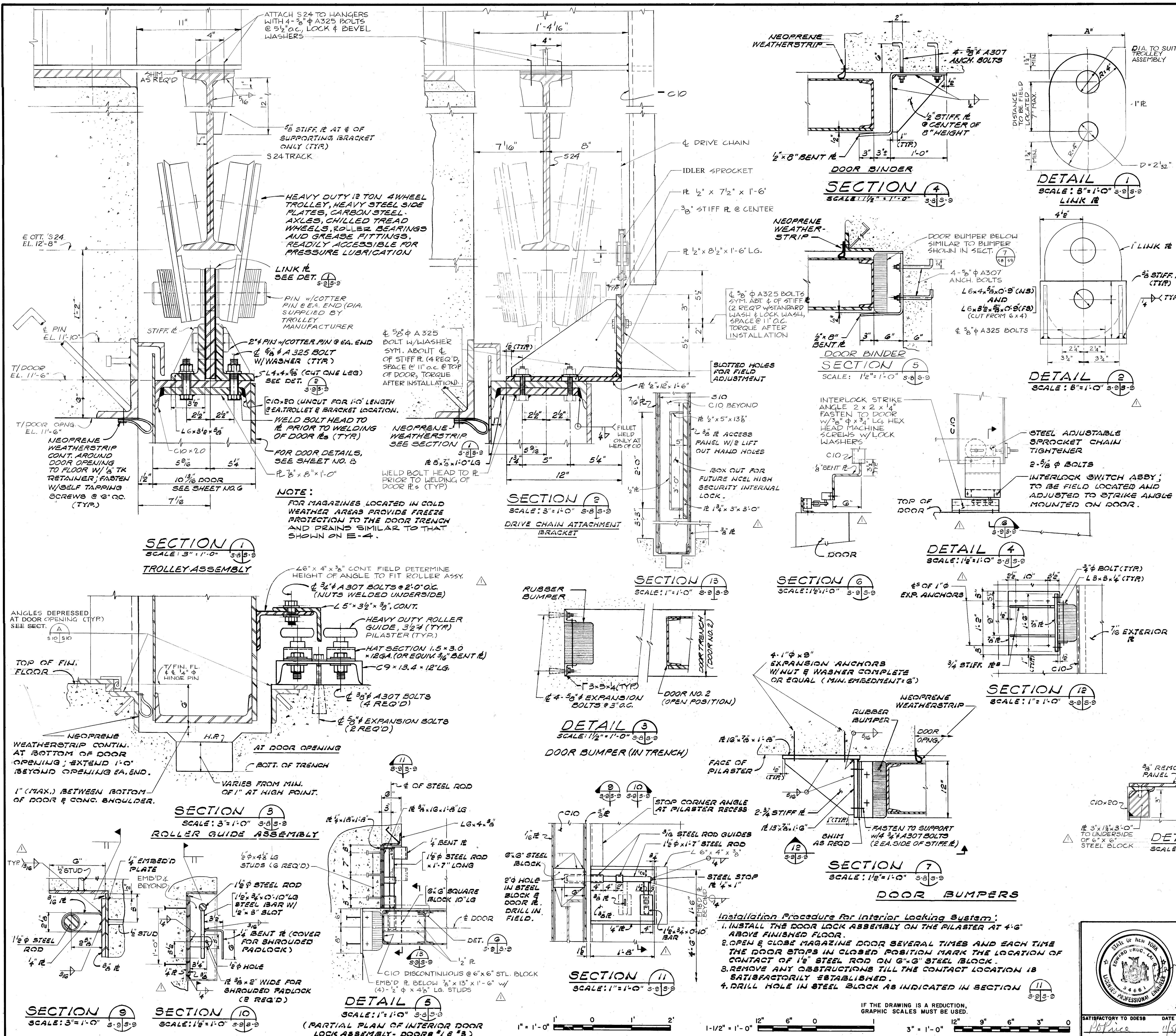
SECTION B
(TYP. FOR WALL & MIDDLE STRIPS)
Scale: 3/8" = 1'-0"

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED



REVISIONS	DESCRIPTION	PREP'D BY	DATE	APPROVED
1	REMOVE FLASHING	R.A.	11-2-68	N.D
LTR				

	AMMANN & WHITNEY CONSULTING ENGINEERS TWO WORLD TRADE CENTER, N.Y., N.Y. DEPARTMENT OF THE NAVY WASHINGTON, D.C.	NAVAL FACILITIES ENGINEERING COMMAND STANDARD DRAWING BOX MAGAZINE TYPE C SECTIONS & DETAILS
	DSIGN: T6 DR: AM CHK: N SUPV: J2 CH ENGR: 10/16/68 FIRM NUMBER (TITLE): NAVFAC: NORTHERN DIVISION NAVFAC RVD: [Signature] DIR: [Signature] FPE: [Signature] OIC: [Signature]	SIZE: F CODE IDENT. NO.: 80091 NAVFAC DRAWING NO.: 1404435 SCALE: 3/8" = 1'-0" SPEC. NFSS-M43



- NOTES:**
- DOOR REQUIREMENTS**
1. ALL DUST, DIRT, OIL, GREASE, WELD FLUX RESIDUE, SALTS, RUST SCALE, LOOSE RUST & OTHER FOREIGN MATTER THAT MAY INHIBIT PAINT BOND TO STRUCTURAL STEEL SHALL BE REMOVED IN THE SHOP IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL (SSPC), SP6.
 2. EXCEPT FOR CONTACT SURFACES OF MOVING PARTS ALL EXPOSED SURFACES OF STRUCTURAL STEEL SHALL RECEIVE ONE 1.5 MIL (DRY) COAT OF ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-643. UNEXPOSED SURFACES SHALL RECEIVE 10 MIL (DRY) COAT OF ARSULT VARIJSH CONFORMING TO FEDERAL SPECIFICATION TT-V-51. ALL PRIMER COATING SHALL BE PERFORMED IN THE SHOP.
 3. ALL EXPOSED SURFACES OF STRUCTURAL STEEL SHALL RECEIVE TWO FIELD COATS OF PAINT WITH A MINIMUM THICKNESS OF 4.0 MIL (DRY) CONFORMING TO FEDERAL SPECIFICATION TT-P-102 OR TT-P-37.
 4. DOOR & HARDWARE SHALL BE SHOP ASSEMBLED TO INSURE PROPER CONTACT, CLEARANCES, ALIGNMENT & ENGAGEMENT OF THE DOORS & SMOOTH OPERATION OF LOCKING & DRIVE MECHANISMS. THIS ASSEMBLY WILL BE AT NO ADDITIONAL COST TO THE GOVERNMENT.
 5. ALL WEATHER STRIPPING SHALL BE CLOTH INSERTED AND PROFILES: ONE EIGHTH (1/8") THICK & CONFORMING TO THE FEDERAL SPECIFICATION HH-P-151.
 6. ALL PINS, BEARINGS, GEARS, SPROCKETS, SHAFTS AND SHEAVES SHALL BE DESIGNED FOR A DOOR LIFE OF 5,000 HOURS OF OPERATION.

- ELECTRICAL REQUIREMENTS**
1. ALL EQUIPMENT GROUNDING CONDUCTORS & STRAPS SHALL BE SIZED IN COMPLIANCE WITH THE NEC.
 2. GROUNDING CONDUCTORS SHALL BE PROVIDED WITH GREEN INSULATION EQUIVALENT TO THE INSULATION ON THE ASSOCIATED PHASE CONDUCTORS.
 3. FEEDER & BRANCH CIRCUIT GROUNDING CONDUCTORS SHALL BE BRAZED TO THE GROUNDING BAR OR CONNECTED WITH APPROVED PRESSURE CONNECTORS.
 4. WIRING SHALL BE INSTALLED IN A RIGID CONDUIT.

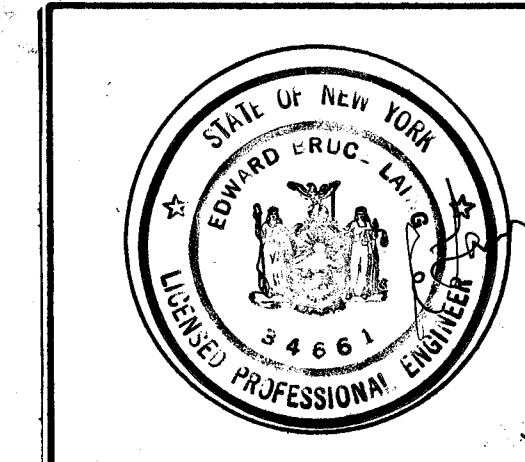
- DOOR OPERATOR REQUIREMENTS**
1. DESIGN REQUIREMENTS - (a) OUTDOOR OPERATION (b) 80 PSF WIND LOAD, (c) 15 FPM VELOCITY FOR OPENING AND CLOSING DOORS.
 2. GEARS, SHAFTS AND SPROCKETS - ALL GEARS IN SPEED REDUCTION UNIT SHALL BE THE MACHINED TYPE. GEARS AND SHAFTS SHALL BE MOUNTED WITH LONG-LIFE BEARINGS, ENCLOSED IN OIL TIGHT HOUSING AND OPERATED AT ALL TIMES IN AN OIL BATH. ALL SPROCKETS SHALL BE FROM STEEL PLATES.
 3. CASTINGS - SHEAVES & OTHER CASTINGS SHALL BE CLOSE GRAINED ALLOYED GRAY CAST IRON.
 4. ROLLER CHAINS - ALL ROLLER CHAINS SHALL BE HEAVY DUTY, HIGH STRENGTH, PRECISION ASSEMBLED AND DESIGNED FOR A SAFETY FACTOR OF 5.
 5. MOTOR - THE MOTOR SHALL OPERATE NORMALLY AT NO MORE THAN 75 PERCENT OF RATED CAPACITY.
 6. LIMIT SWITCHES - TYPE: MECHANICALLY ACTUATED. LIMIT SWITCH SHALL STOP THE DOOR AT END OF TRAVEL (OPEN AND CLOSED POSITIONS).
 7. PUSH BUTTON STATION - PUSH BUTTON UNIT SHALL BE A CONSTANT PRESSURE, HEAVY DUTY WEATHER PROOF CONTROL STATION.
 8. EMERGENCY OPERATION - PROVIDE A CHAIN-GEAR MECHANISM FOR MANUAL OPERATION OF THE DOOR IN THE EVENT OF AN ELECTRICAL FAILURE. A MOTOR DISCONNECT, USING A MECHANICAL DEVICE, SHALL BE PROVIDED FOR EMERGENCY OPERATION.

DIMENS., WELDS, ANCHORS, NOTES		R.A.		11-2-85		N.D.	
DESCRIPTION		PREP'D BY		DATE		APPROVED	
REVISIONS.							
AMMANN & WHITNEY CONSULTING ENGINEERS				NAVAL FACILITIES ENGINEERING COMMAND			
TWO WORLD TRADE CENTER NY, NY				DEPARTMENT OF THE NAVY WASHINGTON, D.C.			
STANDARD DRAWING				BOX MAGAZINE TYPE C			
SLIDING DOOR DETAILS							
SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.	S-9				
F	80091	1404438					
SCALE: AS NOTED		SPEC. NFSS-M43		SHEET 9 OF 15			

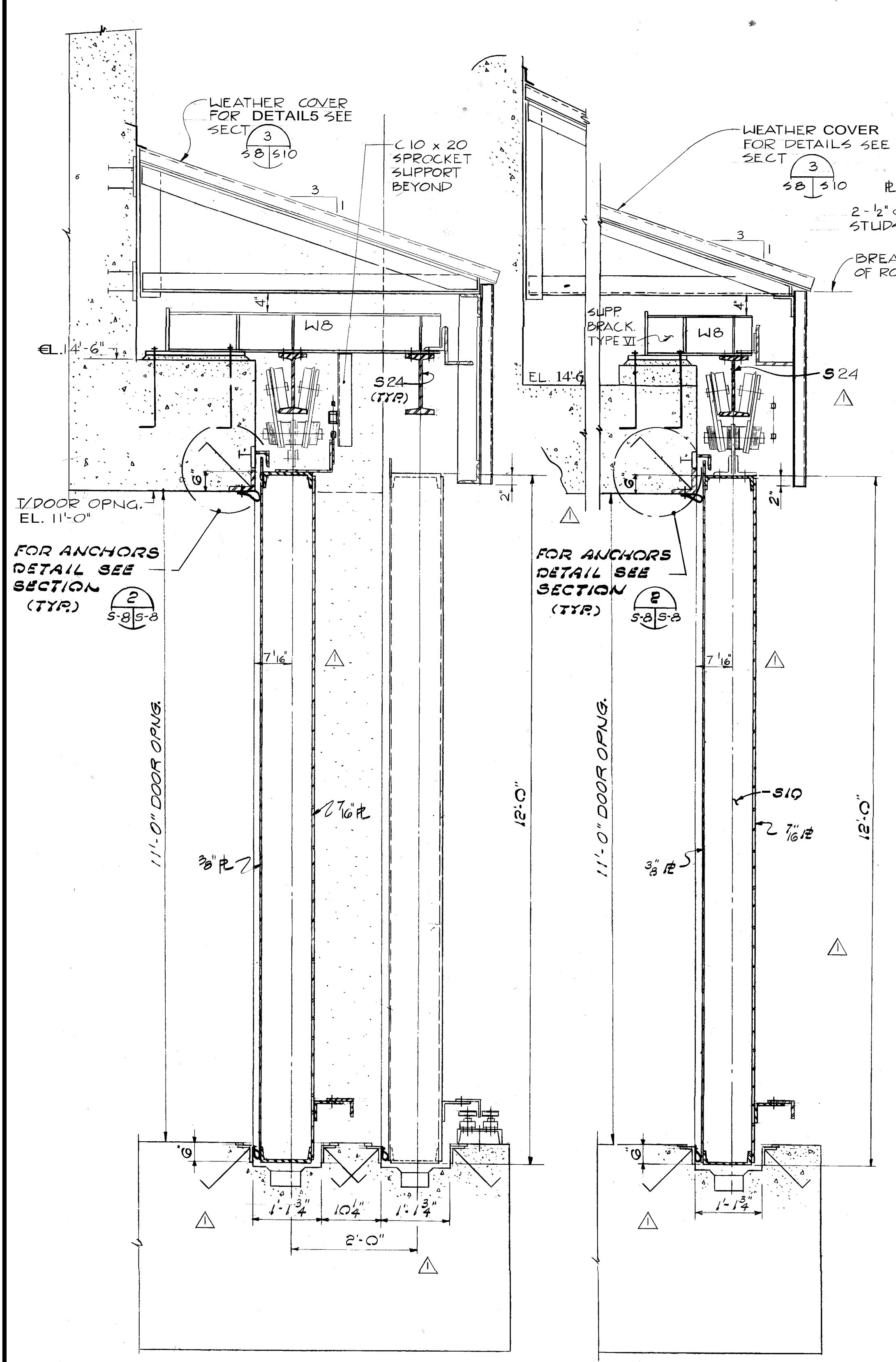
Installation Procedure for Interior Locking System:

1. INSTALL THE DOOR LOCK ASSEMBLY ON THE PILASTER AT 4'-6" ABOVE FINISHED FLOOR.
2. OPEN & CLOSE MAGAZINE DOOR SEVERAL TIMES AND EACH TIME THE DOOR STOPS IN CLOSED POSITION MARK THE LOCATION OF CONTACT OF 1/2" STEEL ROD ON 6"x6" STEEL BLOCK.
3. REMOVE ANY OBSTRUCTIONS TILL THE CONTACT LOCATION IS SATISFACTORILY ESTABLISHED.
4. DRILL HOLE IN STEEL BLOCK AS INDICATED IN SECTION 11.

IF THE DRAWING IS A REDUCTION, GRAPHIC SCALES MUST BE USED.

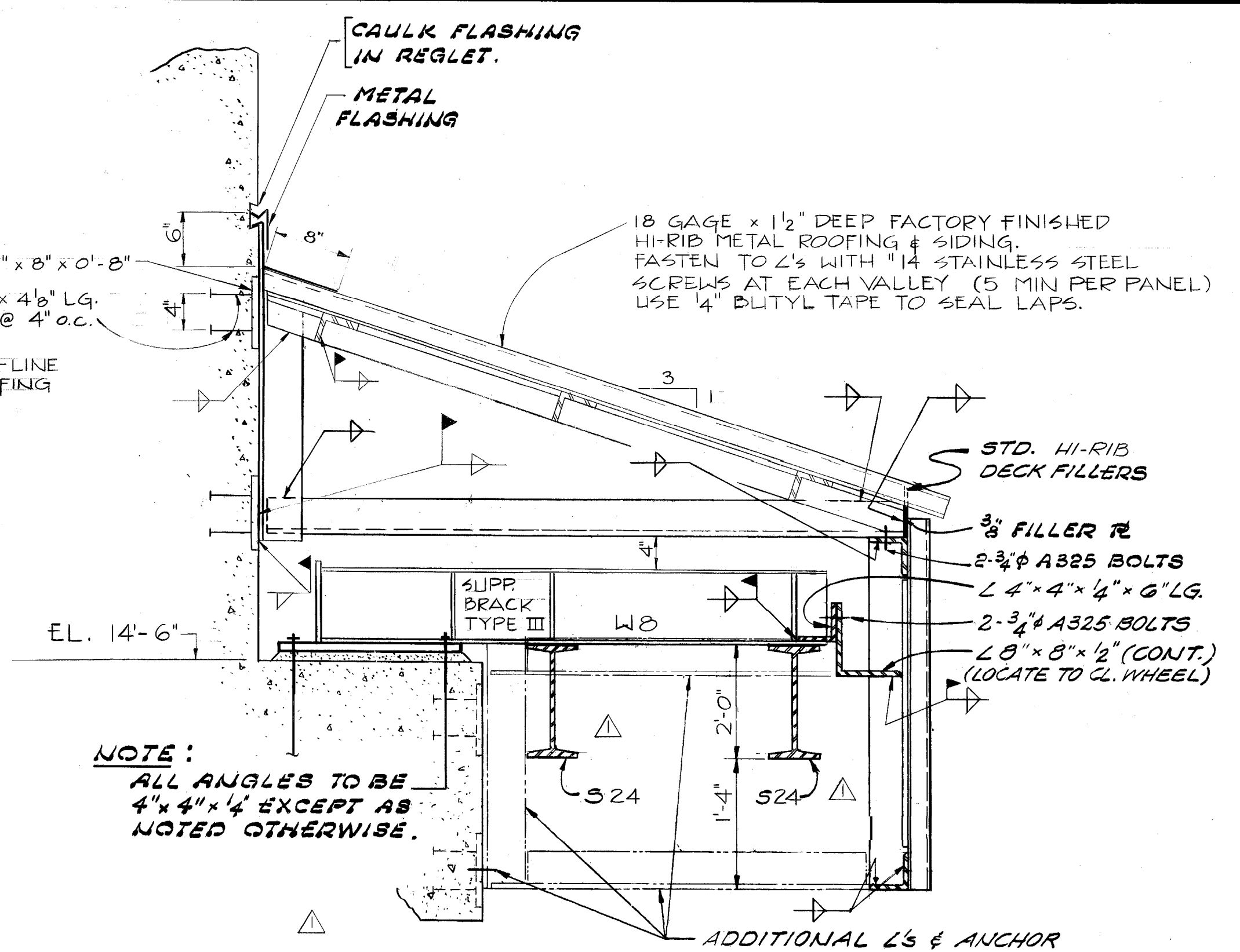


REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED



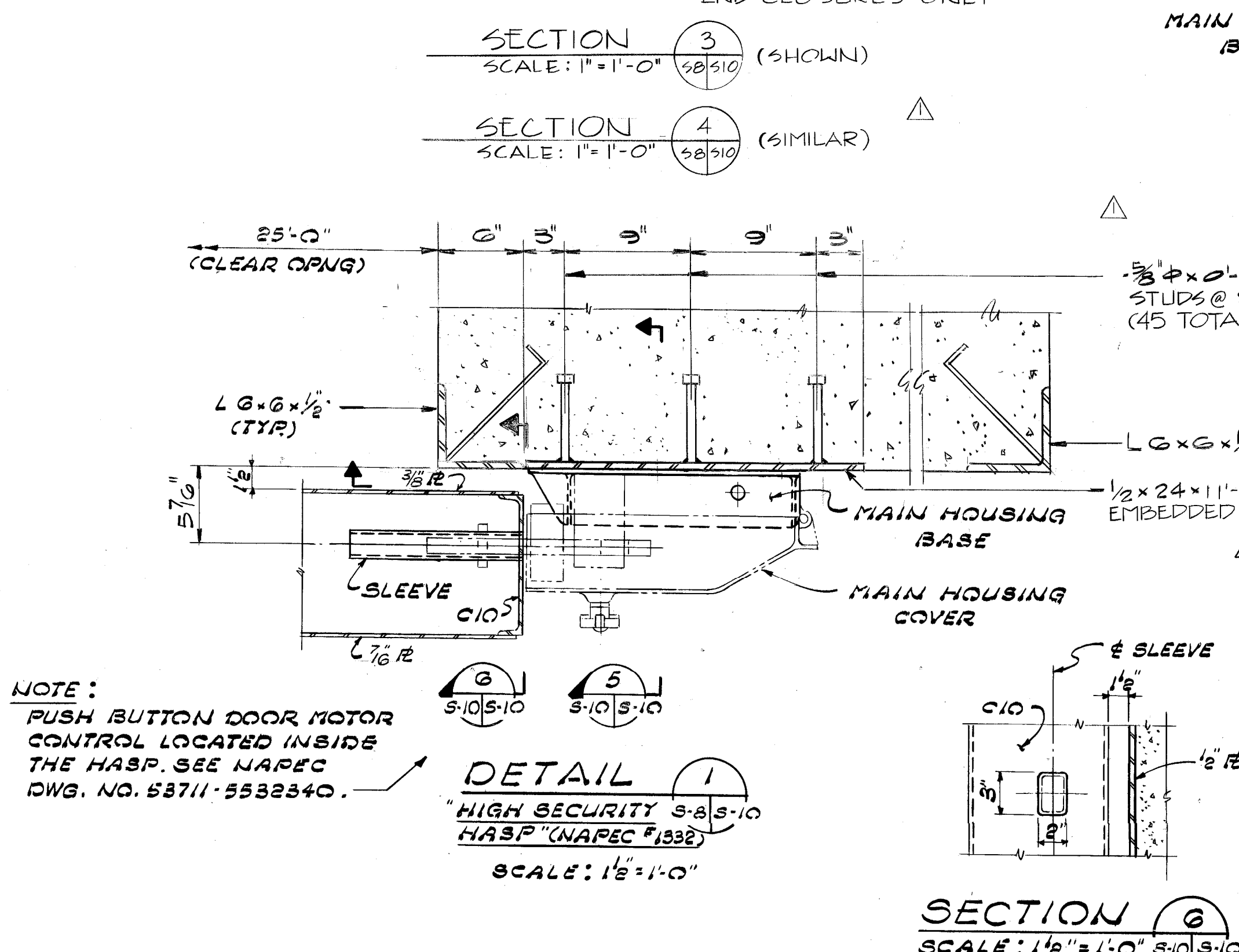
SECTION 1
SCALE: 3/4" = 1'-0" S-8 S-10

SECTION 2
SCALE: 3/4" = 1'-0" S-8 S-10



SECTION 3
SCALE: 1" = 1'-0" (SHOWN) S-10 S-10

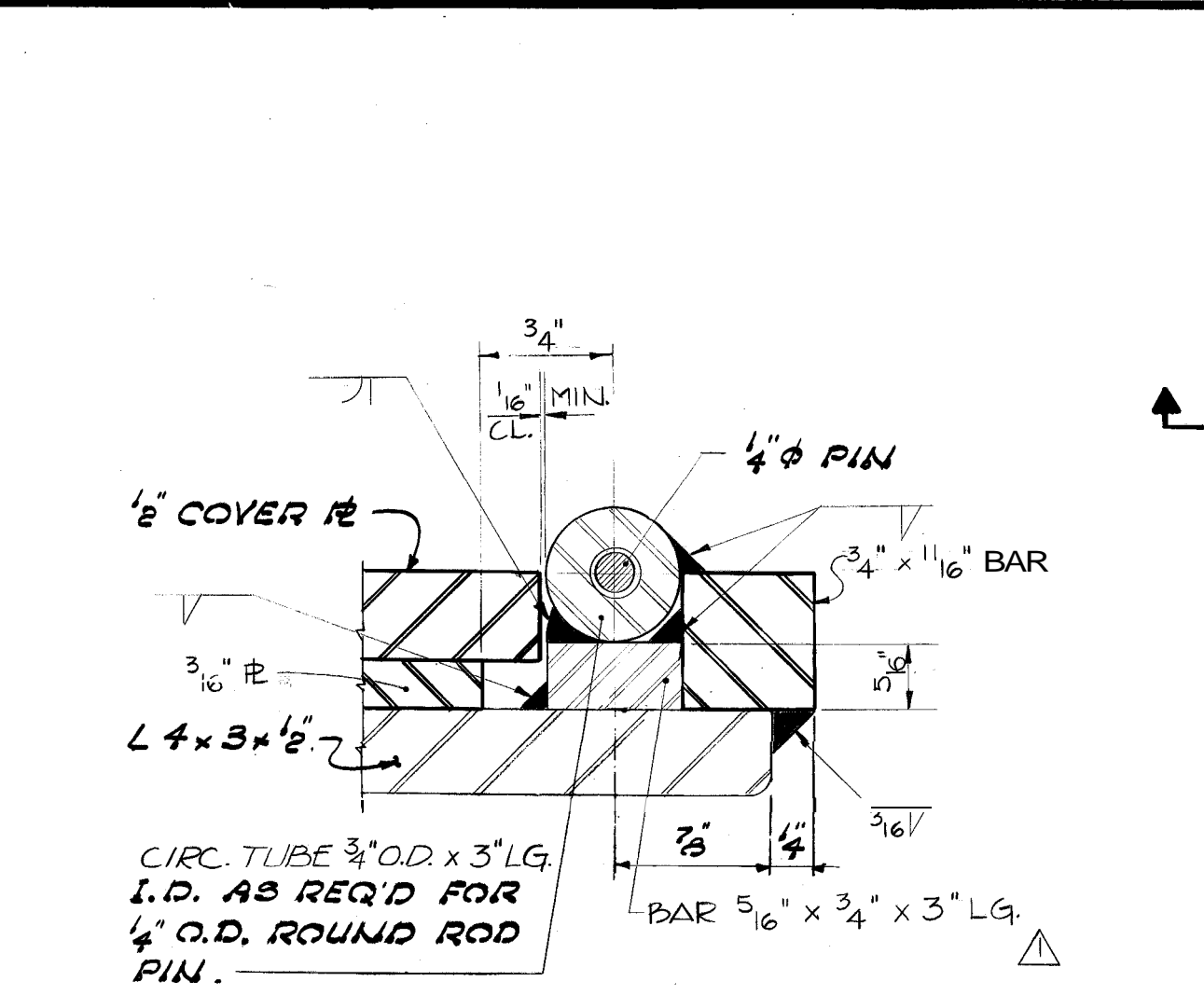
SECTION 4
SCALE: 1" = 1'-0" (SIMILAR) S-10 S-10



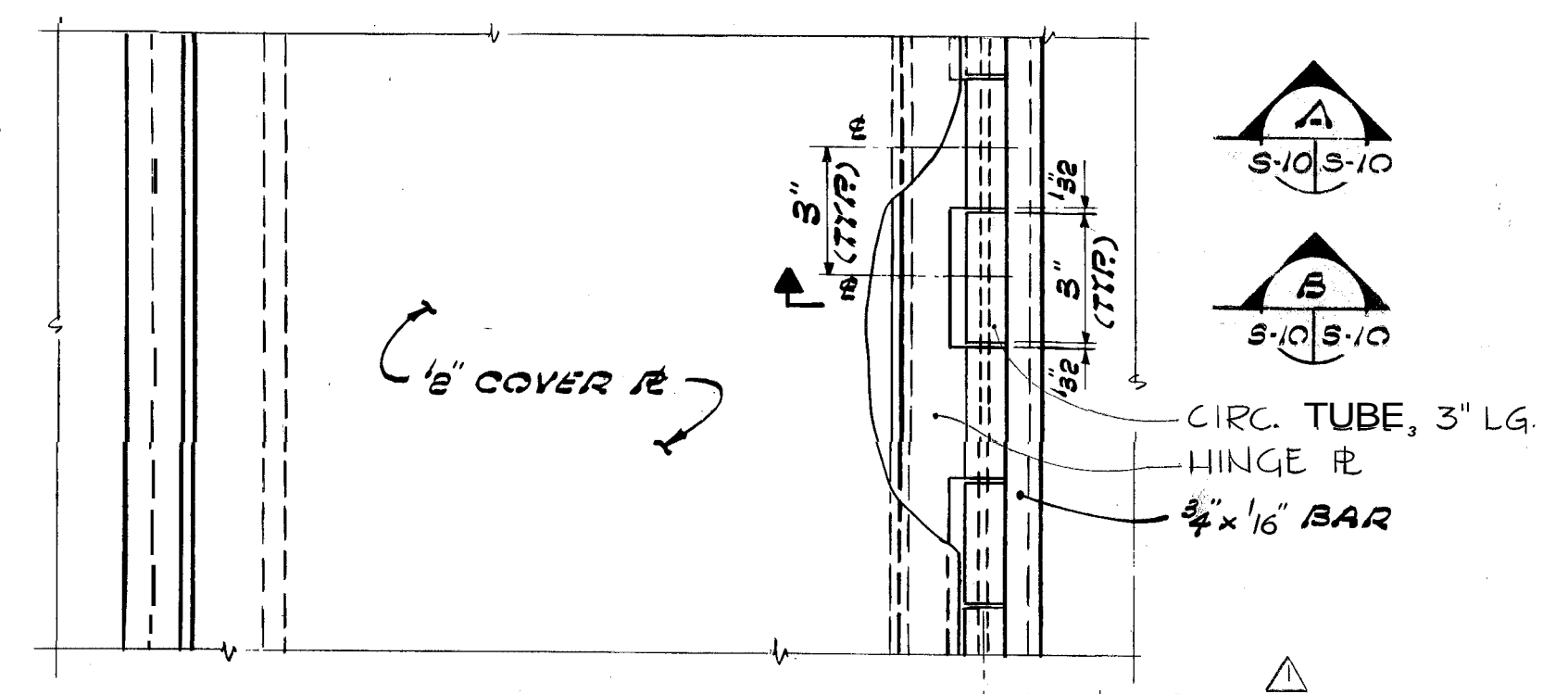
SECTION 5
SCALE: 1 1/2" = 1'-0" S-10 S-10

SECTION 6
SCALE: 1 1/2" = 1'-0" S-10 S-10

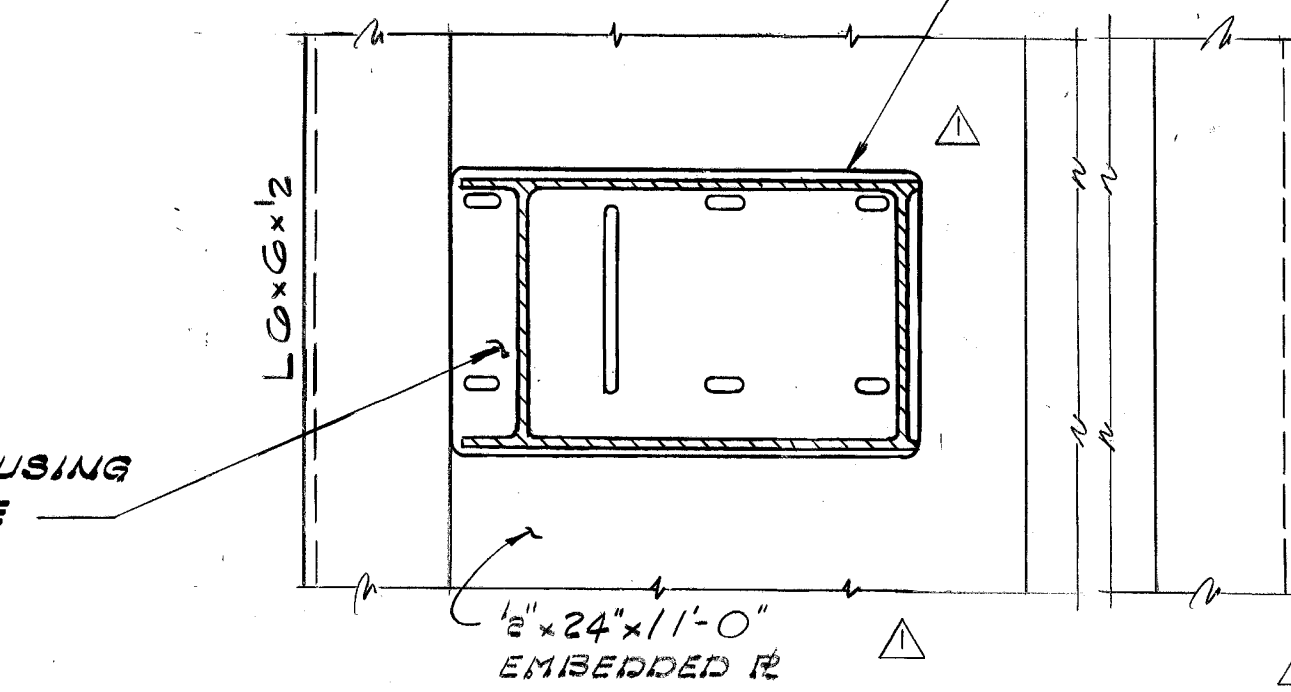
DETAIL 1
HIGH SECURITY HASP (NAPEC #1332)
SCALE: 1 1/2" = 1'-0"



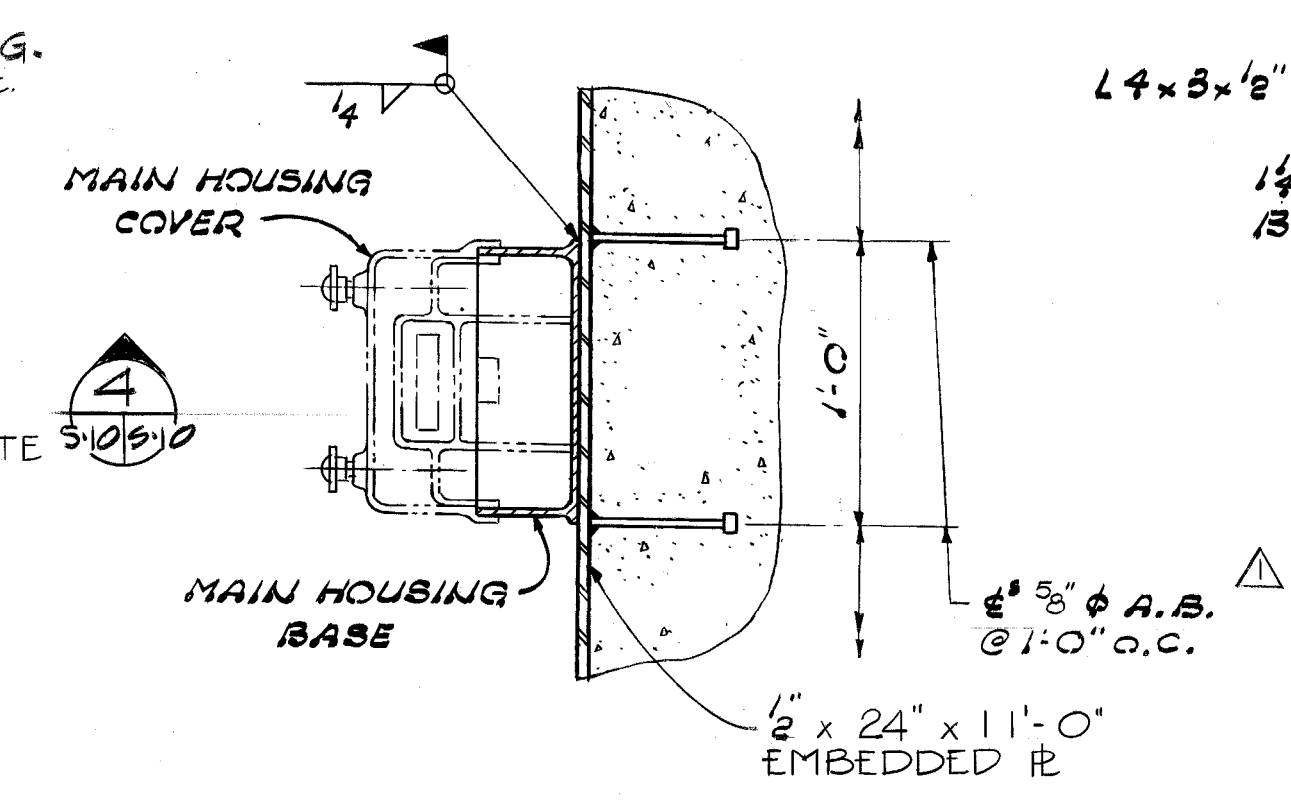
DETAIL 2
NTS S-10 S-10



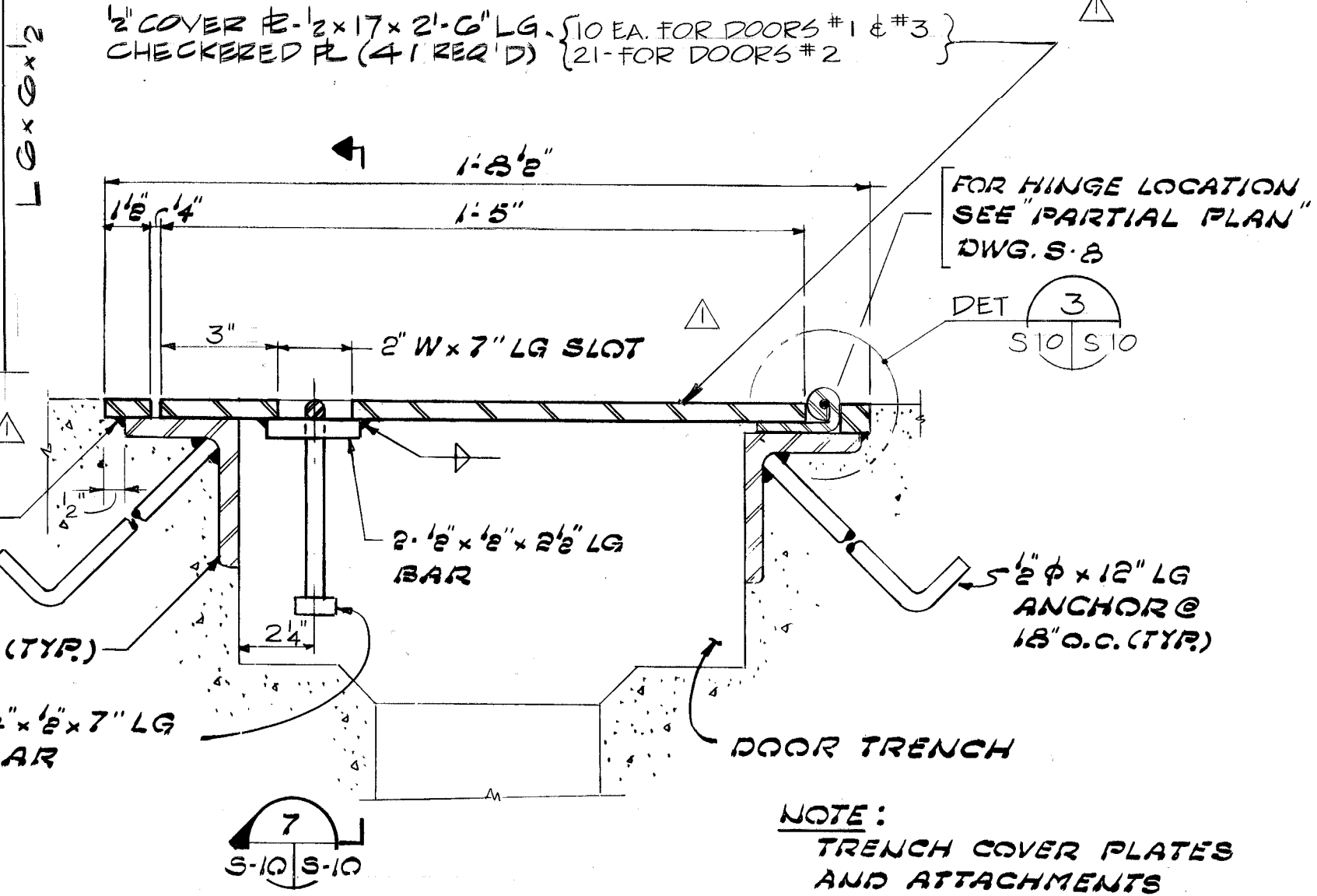
PARTIAL PLAN
(DOOR TRENCH COVER PLATES)
SCALE: 3" = 1'-0"



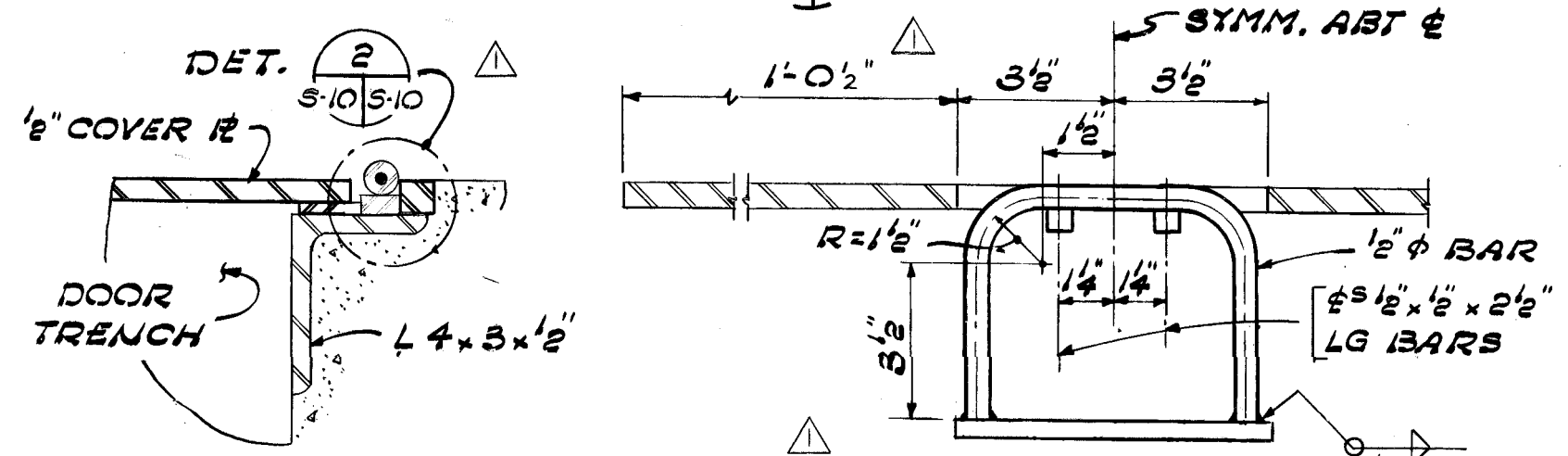
SECTION 4
SCALE: 1 1/2" = 1'-0" S-10 S-10



SECTION 5
SCALE: 1 1/2" = 1'-0" S-10 S-10

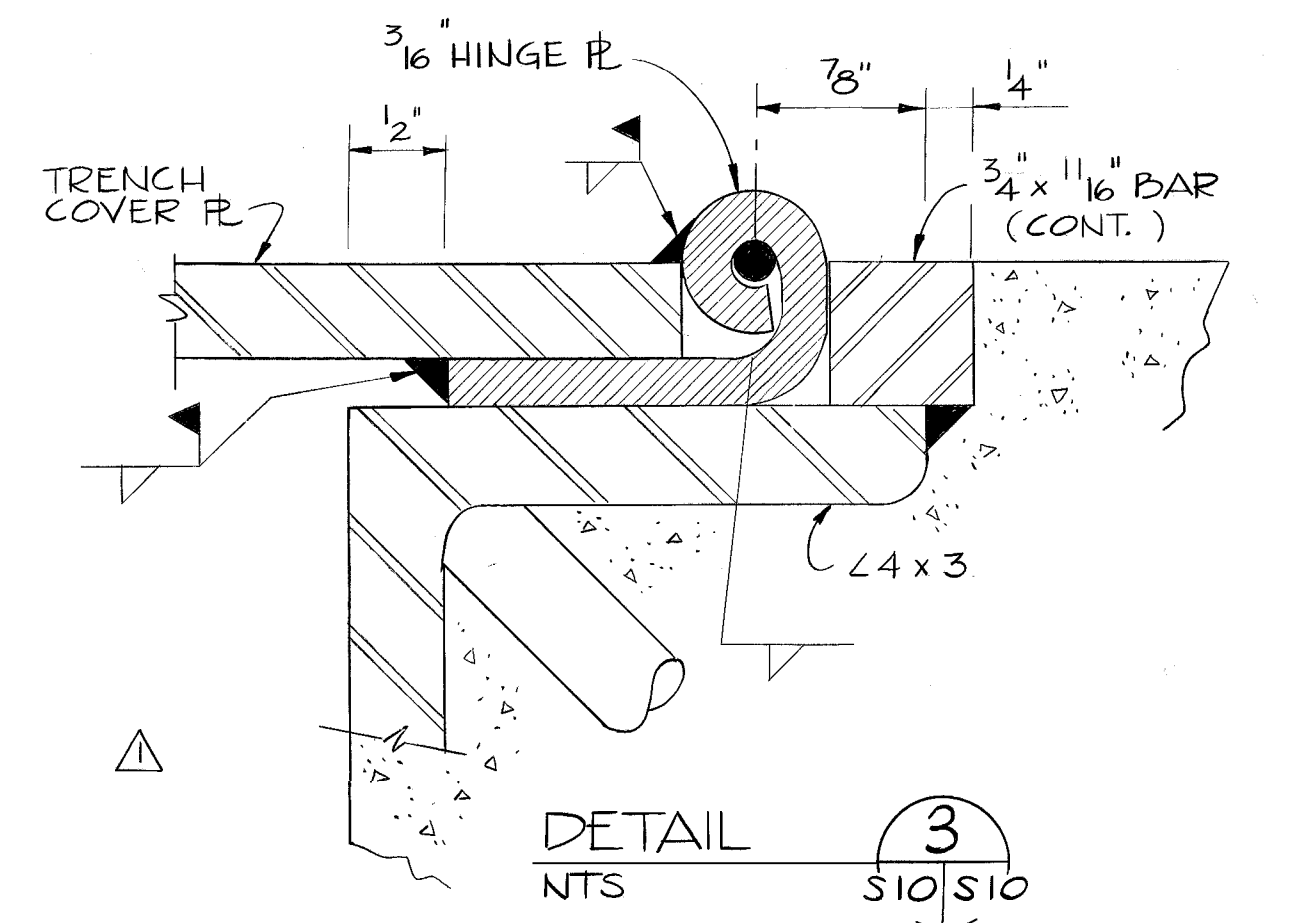


SECTION A
SCALE: 3" = 1'-0" S-10 S-10



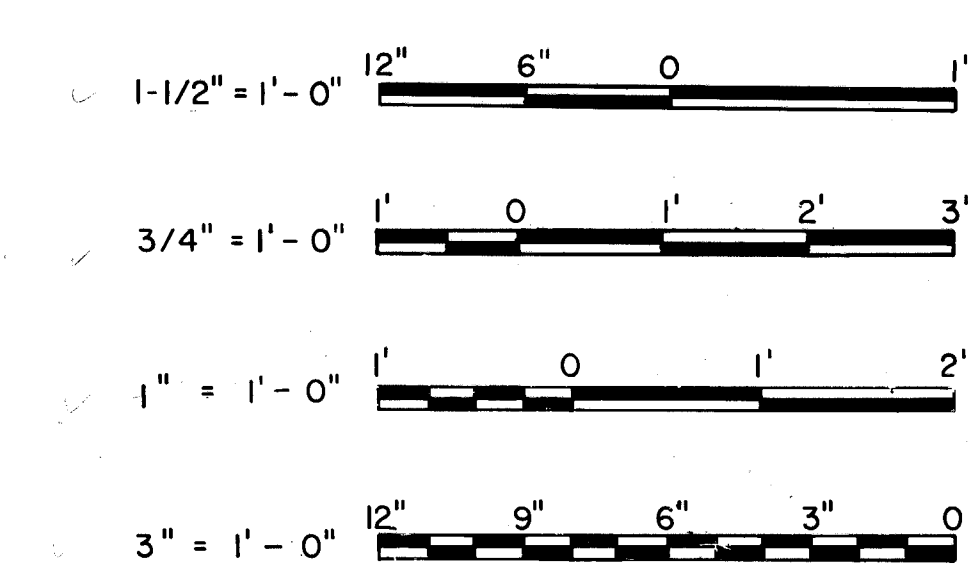
SECTION B
SCALE: 3" = 1'-0" S-10 S-10

SECTION 7
SCALE: 3" = 1'-0" S-10 S-10



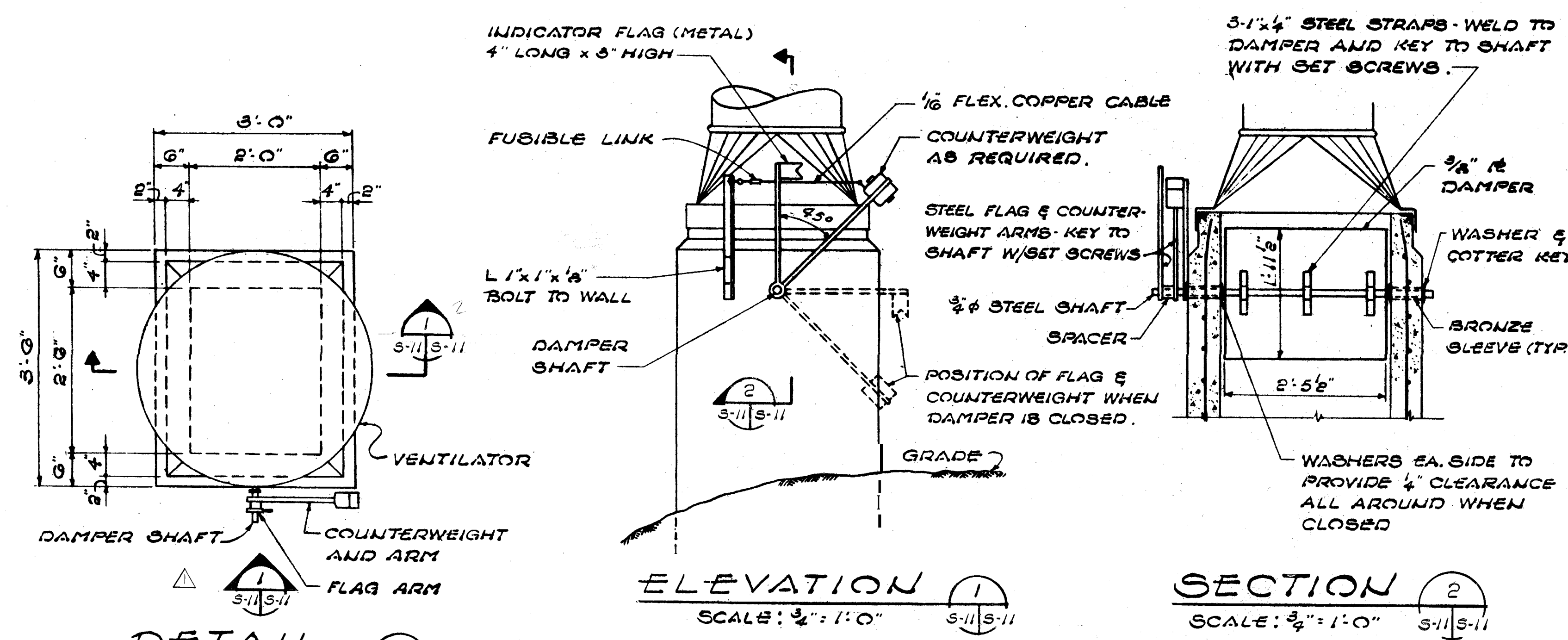
DETAIL 3
NTS S-10 S-10

NOTE:
HIGH SECURITY HASP ON DOOR #2 SHALL BE NAPEC 1332 UNIVERSAL HASP, GOVT FURNISHED & SHALL BE INSTALLED IN ACCORDANCE WITH NAVAMPROENGCEN PUBLICATION "STANDARD PLANS FOR HIGH SECURITY HASPS AND INTRUDER DETECTION SYSTEMS ASHORE" INSTALLATION PROCEDURE FOR THE HASP SHALL FOLLOW STEPS 1 THRU 3 LISTED ON NAPEC STANDARD DWG. 1446.



REVISIONS			
LTR	DESCRIPTION	PREP'D BY	DATE APPROVED

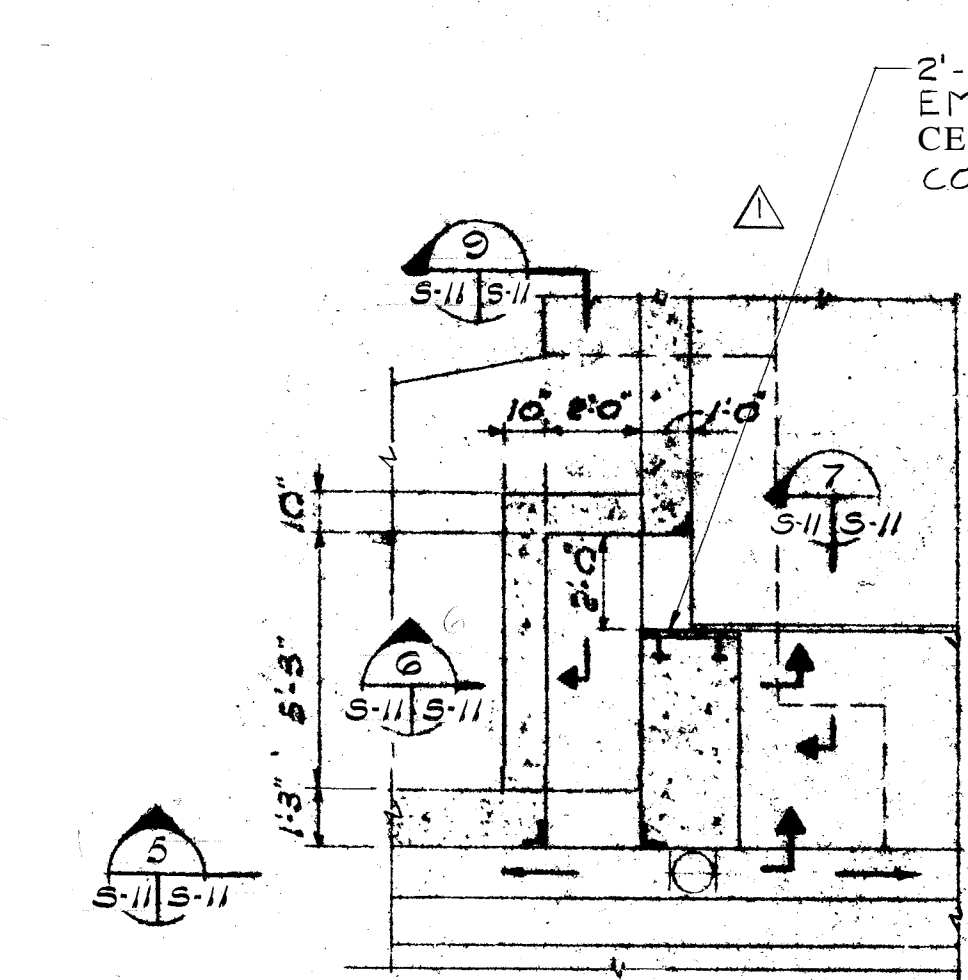
	AMMANN & BWHITNEY CONSULTING ENGINEERS TWO WORLD TRADE CENTER N.Y., N.Y. DESIGNED BY: [Signature] SUPPLEMENTED BY: [Signature] FIRM MEMBER (TITLE): [Signature] DATE: 8/16/88	NAVAL FACILITIES ENGINEERING COMMAND DEPARTMENT OF THE NAVY WASHINGTON, D.C.	
	STANDARD DRAWING BOX MAGAZINE TYPE C SLIDING DOOR DETAILS	SIZE: F CODE IDENT. NO.: 80091 NAVFAC DRAWING NO.: 1404439 SCALE: AS NOTED SPEC. NFSS-M43	DATE: 11/2/88 APPROVED BY: [Signature] DATE: 11/2/88



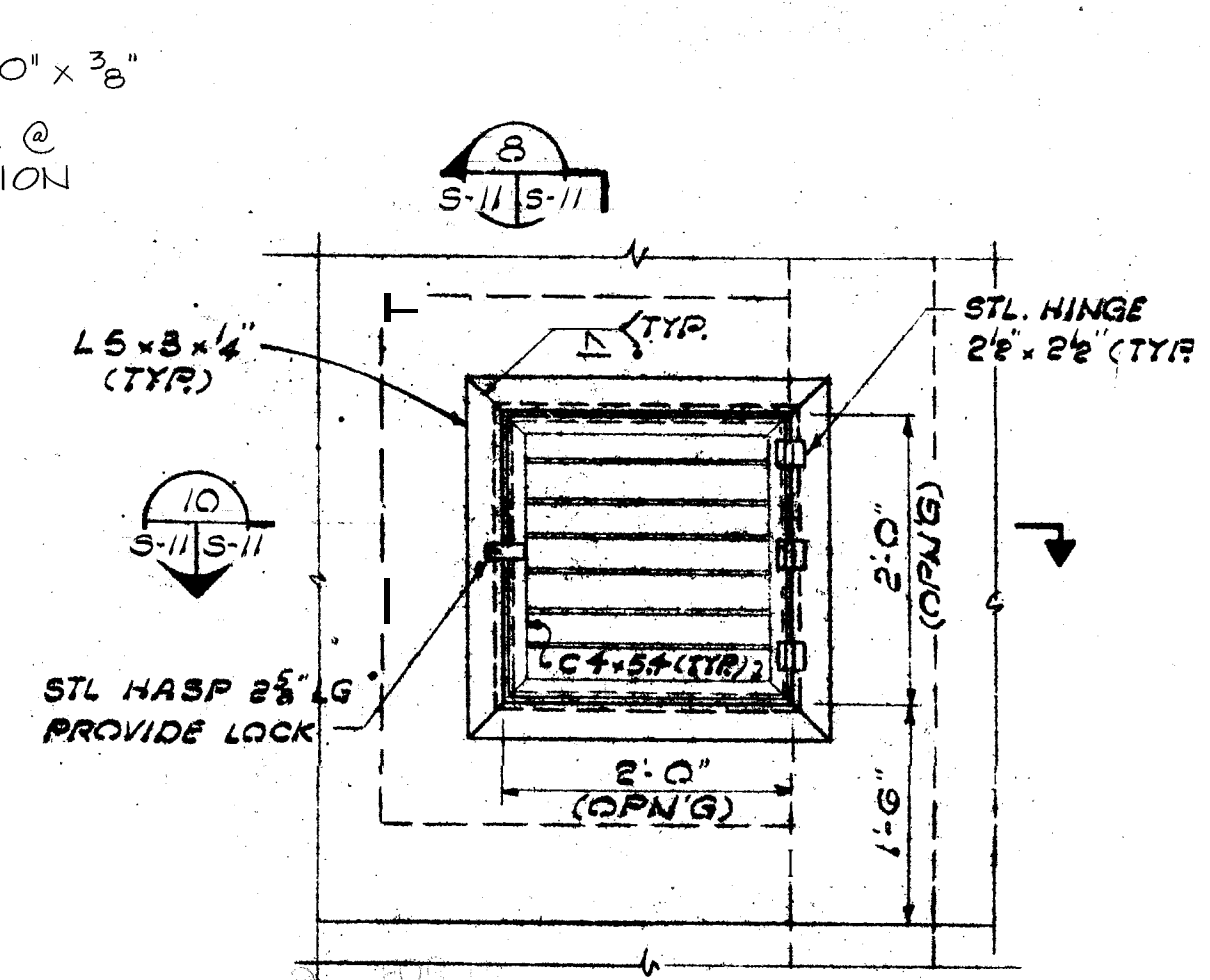
DETAIL 1
SCALE: 3/4" = 1'-0" S-11 S-11

ELEVATION
SCALE: 3/4" = 1'-0" S-11 S-11

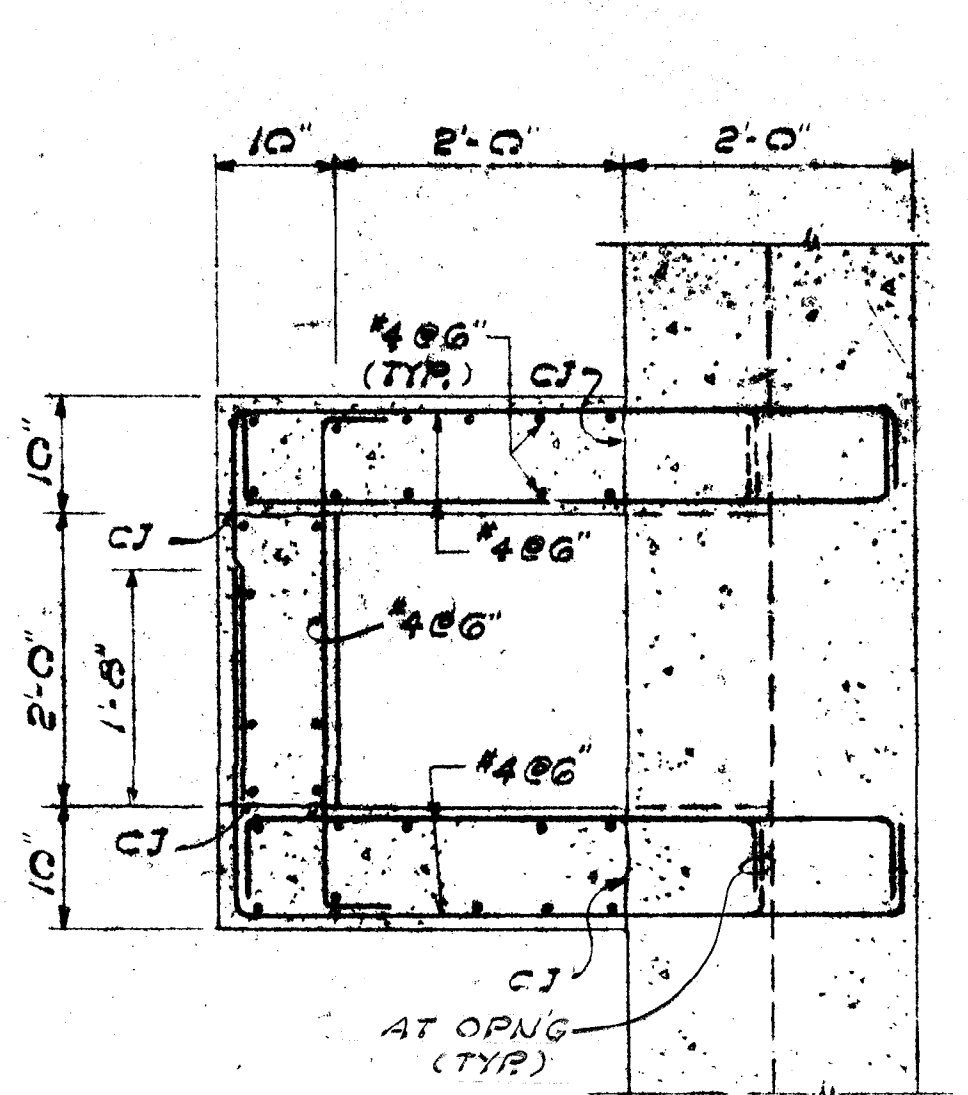
SECTION 1
SCALE: 3/4" = 1'-0" S-11 S-11



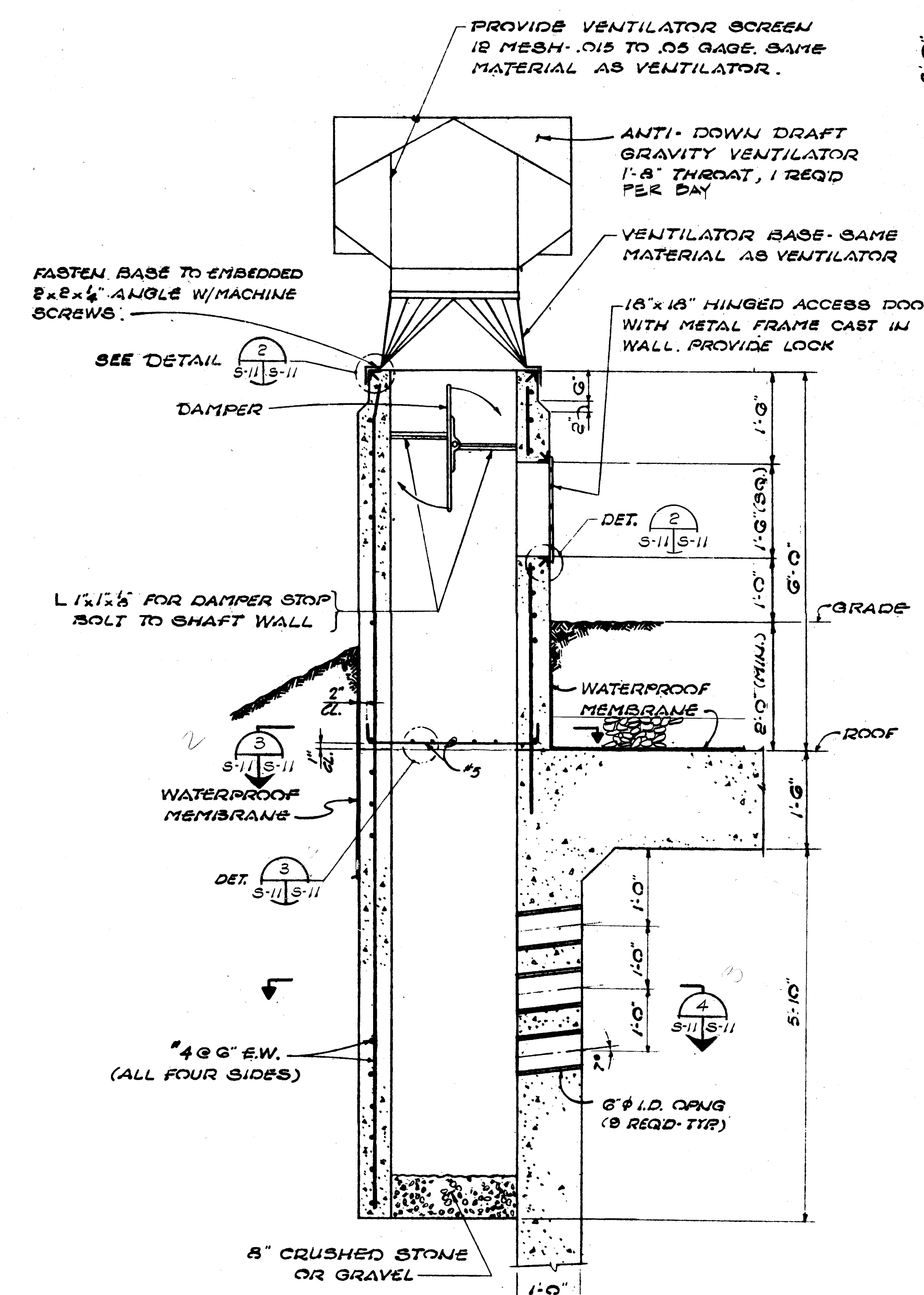
DETAIL 4
SCALE: 3/4" = 1'-0" S-11 S-11
DETAIL OF AIR INTAKE DUCT



SECTION 5
SCALE: 3/4" = 1'-0" S-11 S-11

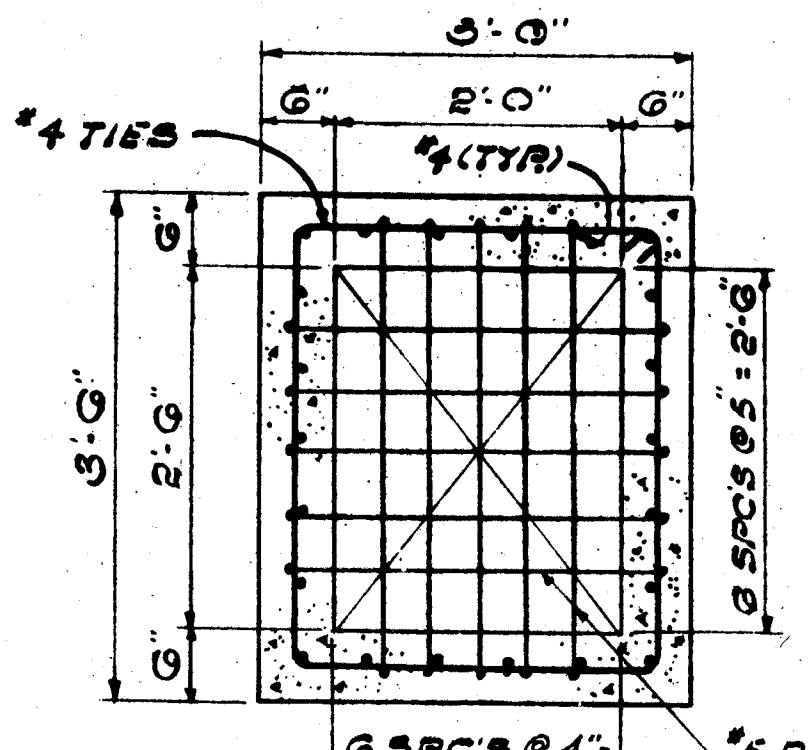


SECTION 6
SCALE: 3/4" = 1'-0" S-11 S-11

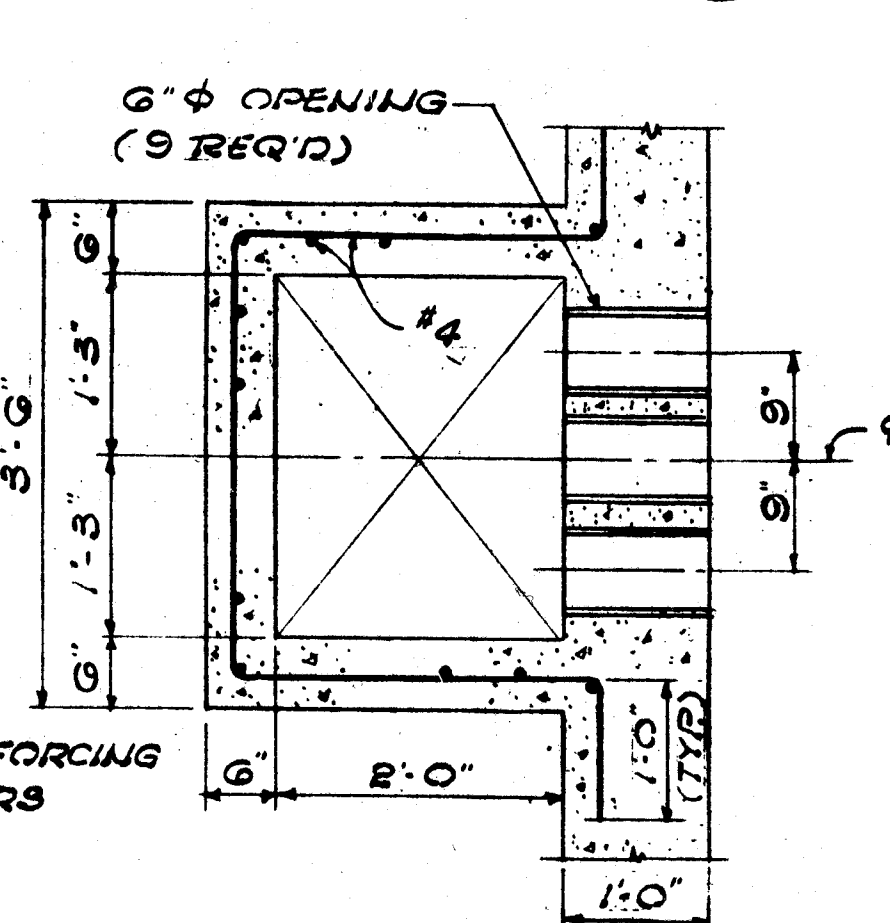


SECTION 1
SCALE: 3/4" = 1'-0" S-11 S-11

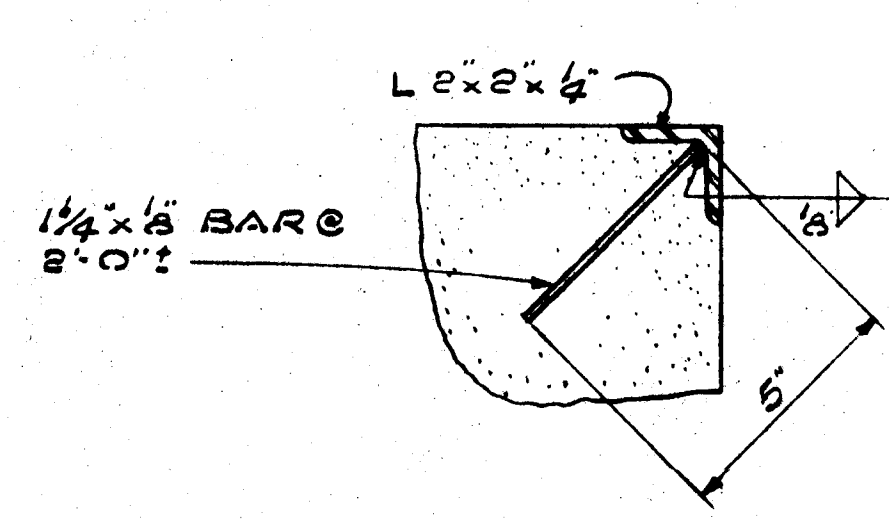
DETAILS OF VENTILATOR SHAFT



SECTION 3
SCALE: 3/4" = 1'-0" S-11 S-11



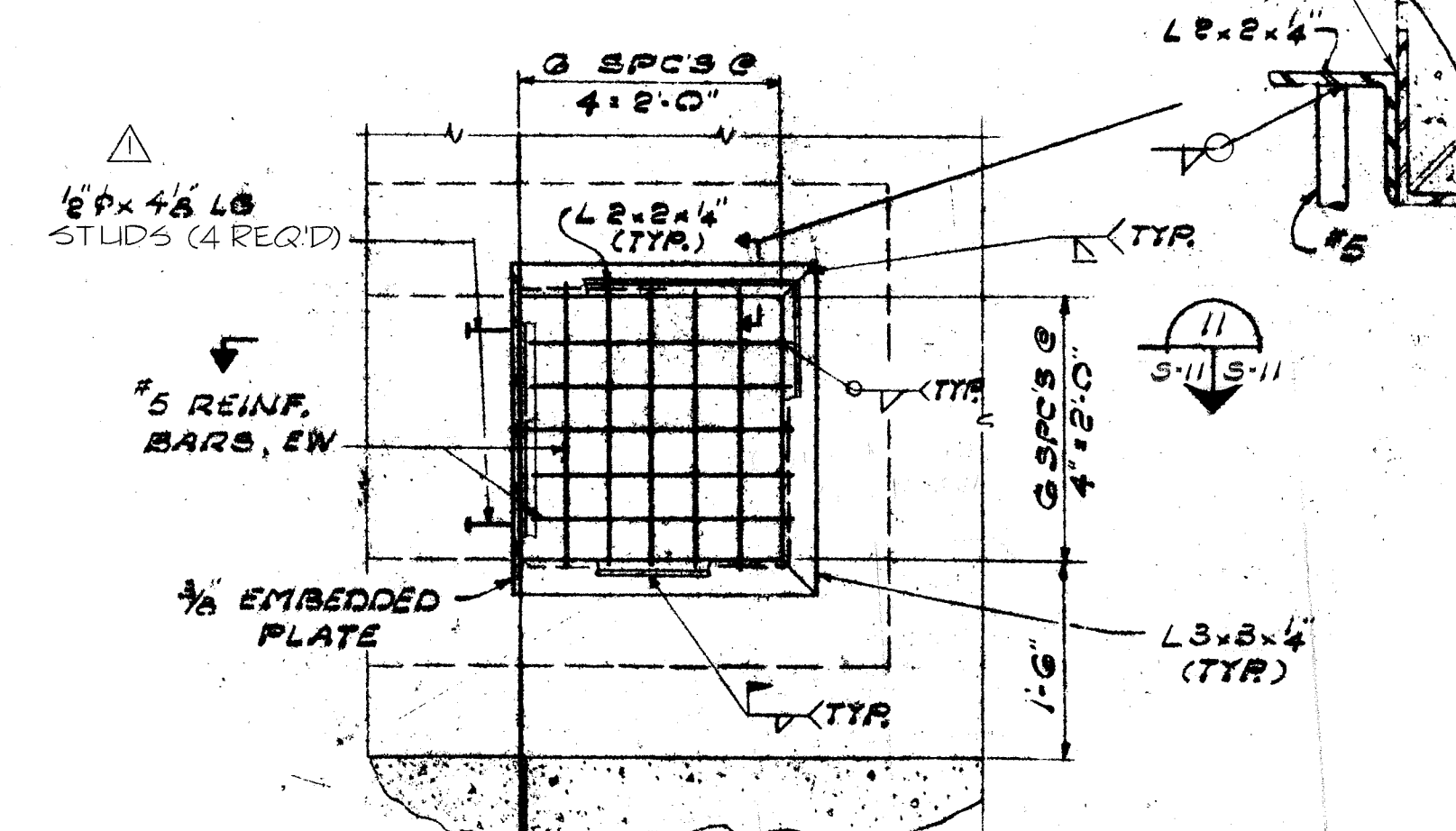
SECTION 4
SCALE: 3/4" = 1'-0" S-11 S-11



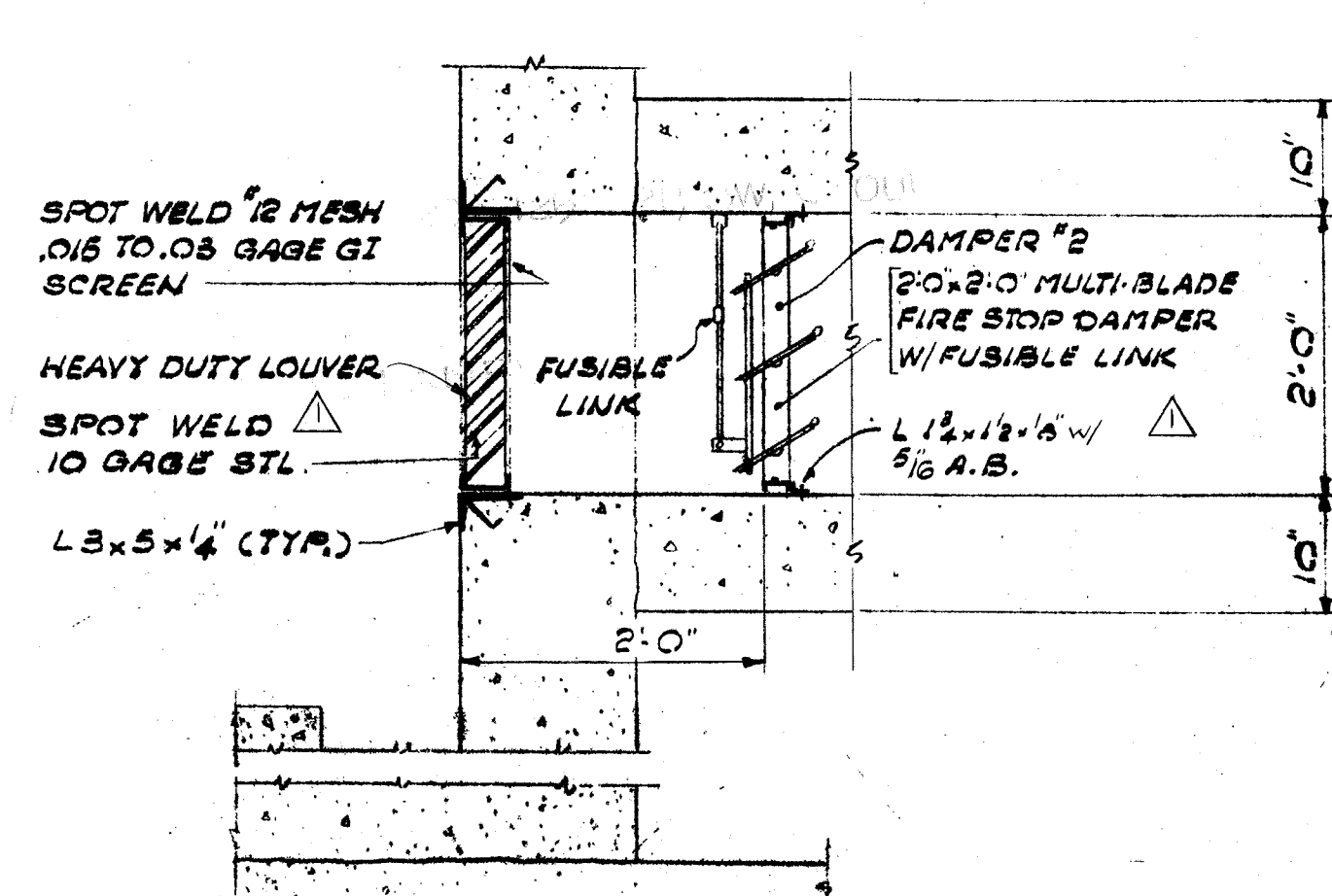
DETAIL 2
SCALE: 3" = 1'-0" S-11 S-11

DETAIL 3
SCALE: 3" = 1'-0" S-11 S-11

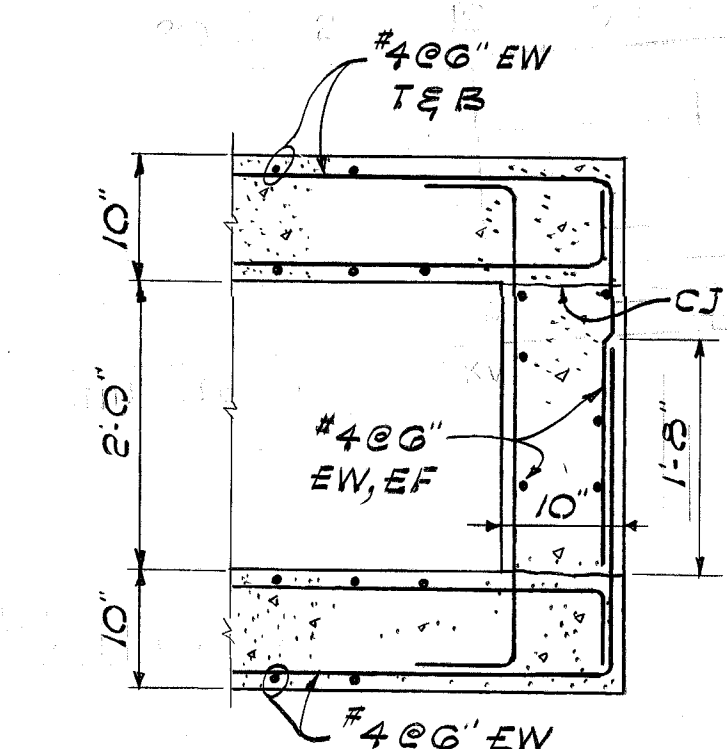
- NOTES:**
1. ALL DAMPER AND SHAFT ASSEMBLIES SHALL OPERATE FREELY AND POSITIVELY.
 2. FUSIBLE LINKS SHALL HAVE MELTING POINT OF 160° TO 165° F. BREAKING STRENGTH SHALL BE SUITABLE FOR LOADS IMPOSED BY COUNTERWEIGHTS.
 3. ALL SET SCREWS & MACHINE SCREWS SHALL BE BRASS.
 4. DESIGN FOR VENTILATOR IS BASED ON A STEADY WIND SPEED OF 85 MPH.
 5. REFER TO DRAWING E-2 FOR LIGHTNING ROD LOCATION ON VENTILATOR.



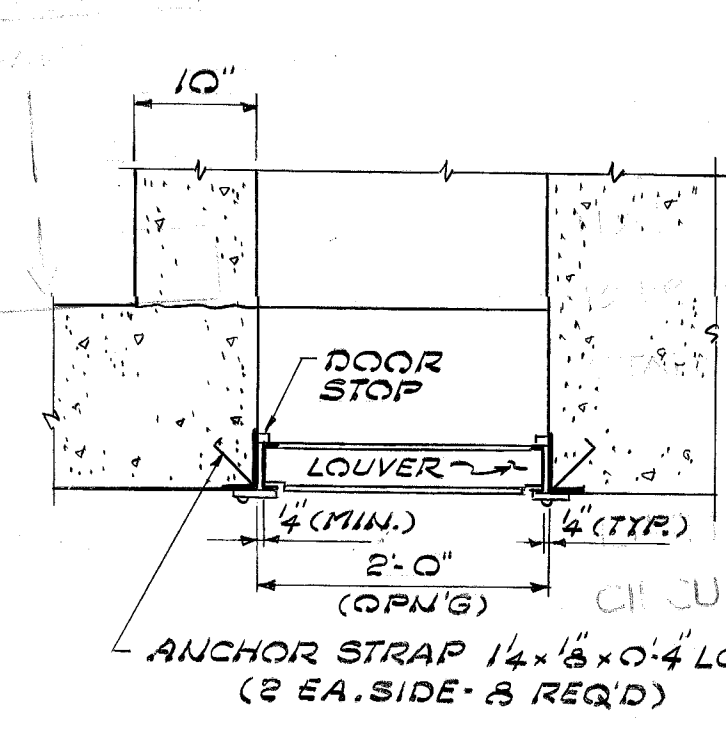
SECTION 7
SCALE: 3/4" = 1'-0" S-11 S-11



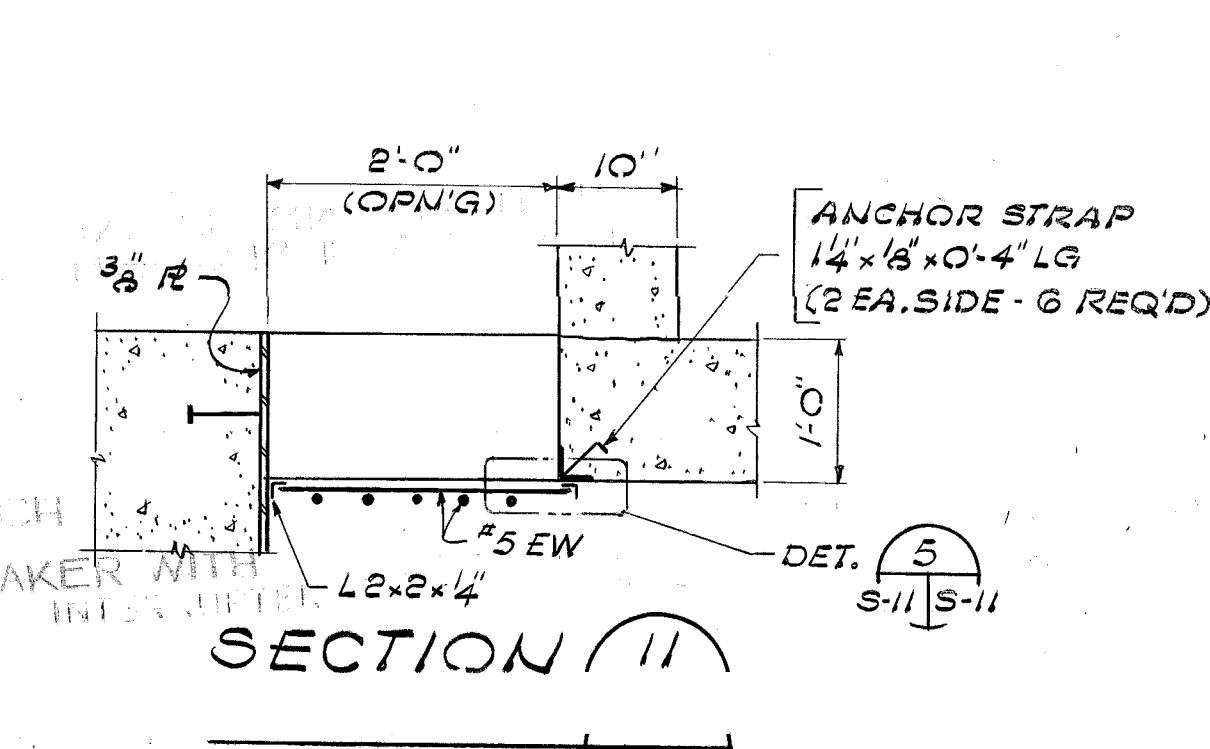
SECTION 8
SCALE: 3/4" = 1'-0" S-11 S-11



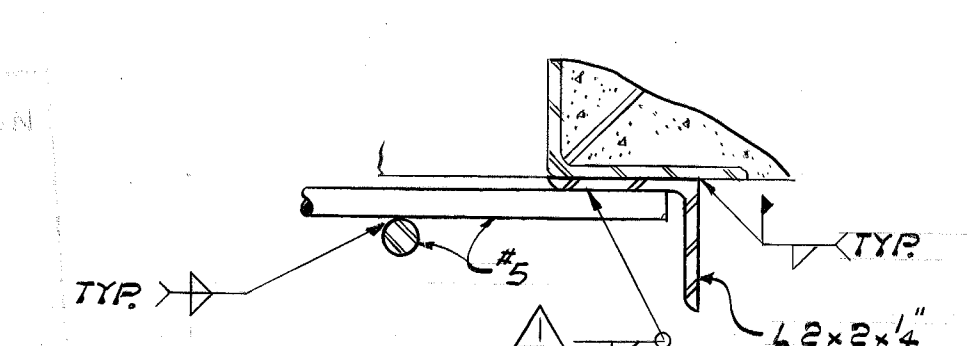
SECTION 9
SCALE: 3/4" = 1'-0" S-11 S-11



SECTION 10
SCALE: 3/4" = 1'-0" S-11 S-11

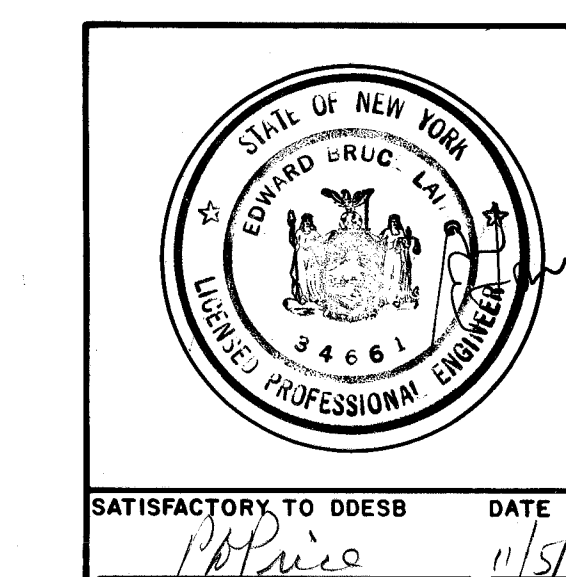
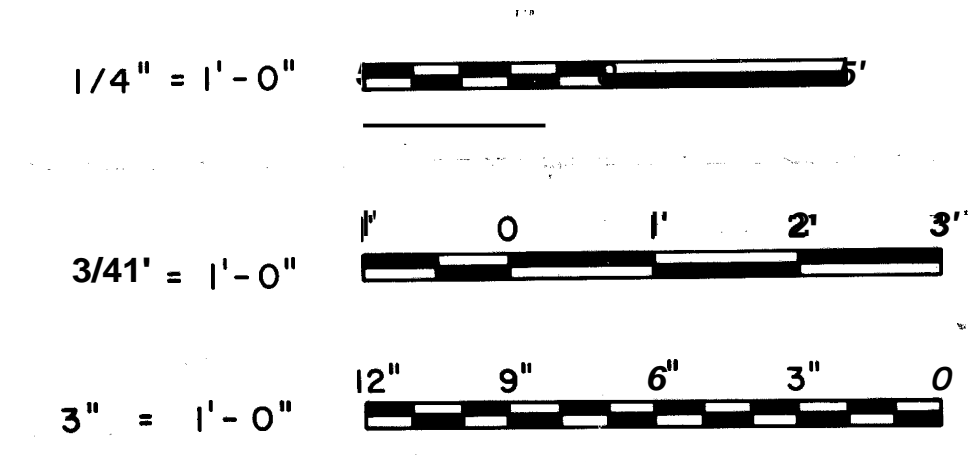


SECTION 11
SCALE: 3/4" = 1'-0" S-11 S-11

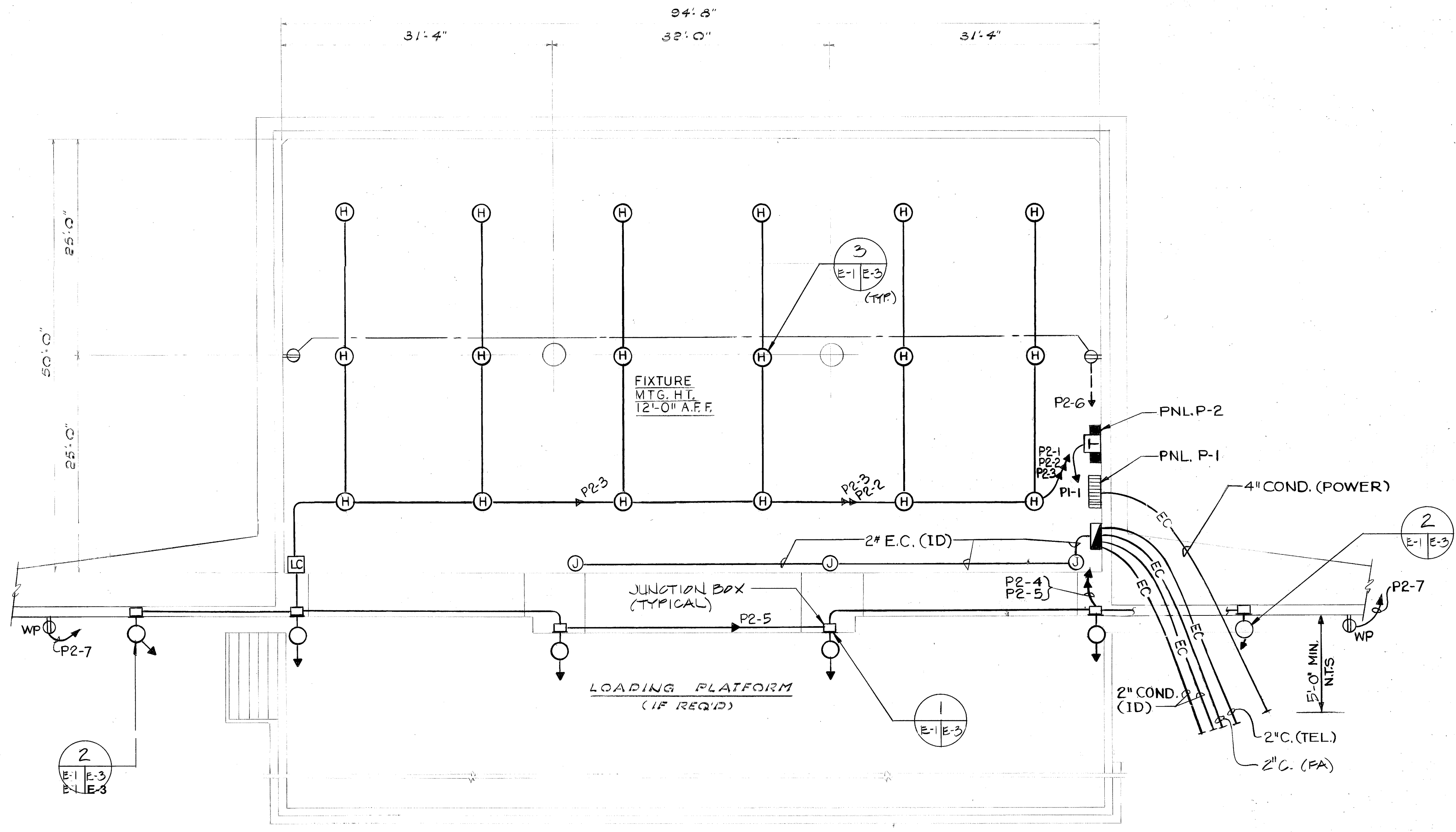


DETAIL 5
SCALE: 3" = 1'-0" S-11 S-11

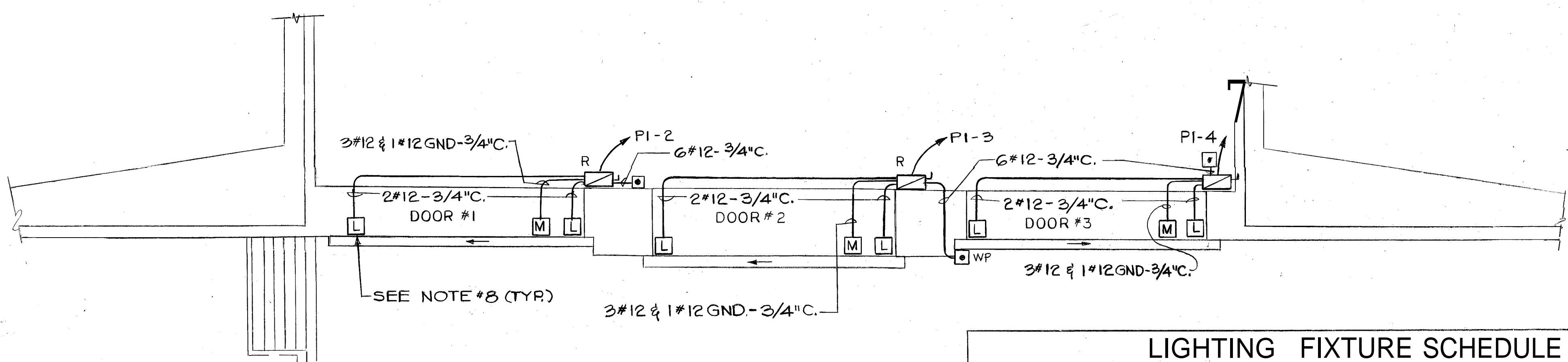
IF THE DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED



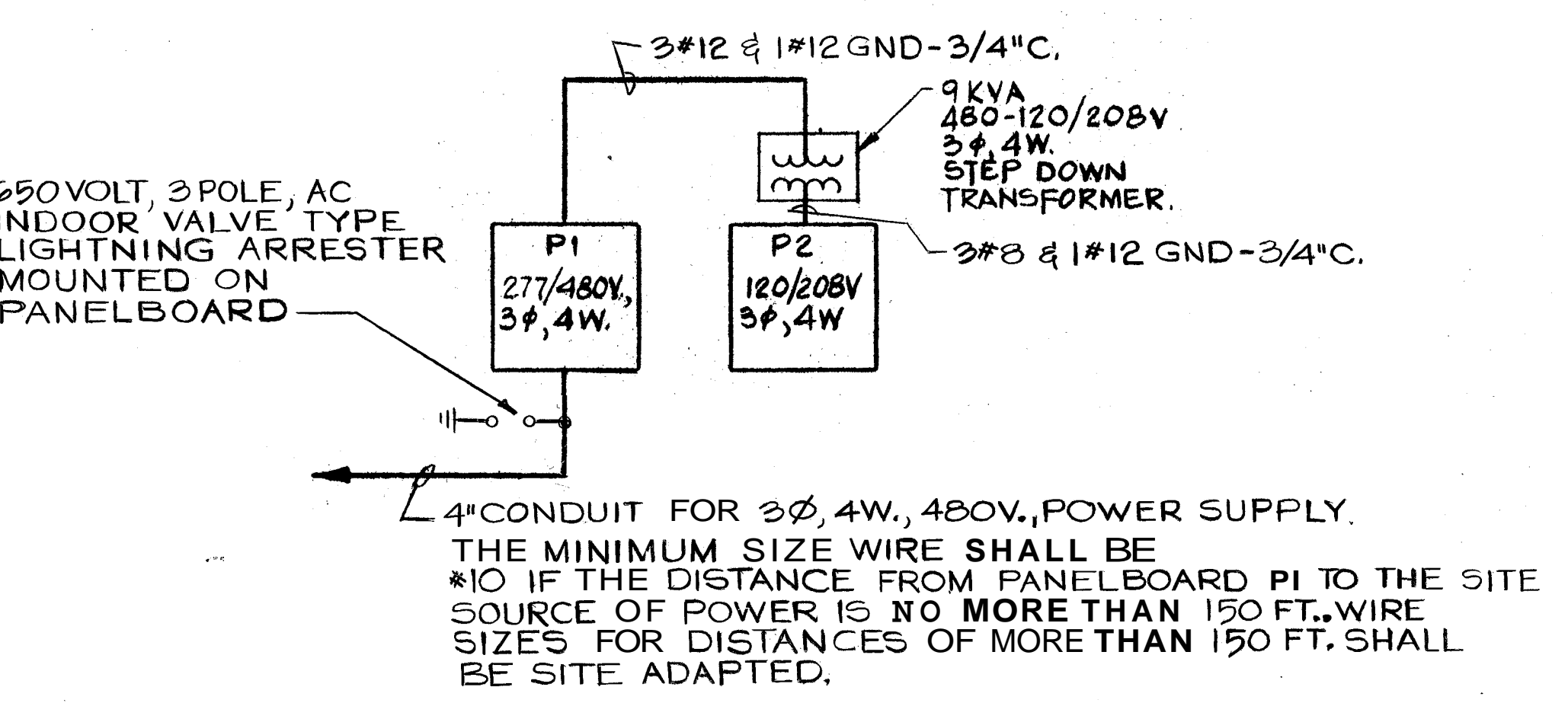
h	NOTES, SECT. MARK, WELD SYMBOL	R.A.	11-2-88	NW
LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED
REVISIONS				
AMMANN & WHITNEY CONSULTING ENGINEERS TWO WORLD TRADE CENTER NY, NY		NAVAL FACILITIES ENGINEERING COMMAND DEPARTMENT OF THE NAVY WASHINGTON, D.C.		
STANDARD DRAWING BOX MAGAZINE TYPE C		VENTILATOR DETAILS		
SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.	S-11	
F	80091	1404440		
SCALE: AS NOTED		SPEC. NFSS-M43		
SHEET 11 OF 15				



FLOOR PLAN
SCALE: 1/8" = 1'-0"



PART PLAN
SCALE: 1/8" = 1'-0"



POWER SUPPLY DIAGRAM

PANEL SCHEDULE							
PANEL	CKT. NO.	BREAKER		WIRE		LOAD IN KVA	EQUIPMENT
		POLES	AMPS	NO.	AWG.		
P1 277/480V. 3φ, 4W.	—	3	50	—	—	13.0	MAIN BREAKER
	1	3	20	3	12 3/4"	9.0	TRANSFORMER
	2	3	20	3	12 3/4"	1.0	DOOR #1
	3	3	20	3	12 3/4"	1.0	DOOR #2
	4	3	20	3	12 3/4"	1.0	DOOR #3
	5	3	20	—	—	—	SPARE
6	3	20	—	—	—	↓	

TOTAL CONNECTED LOAD 13.0 KVA.

PANEL SCHEDULE							
PANEL	CKT. NO.	BREAKER		WIRE		LOAD IN KVA	EQUIPMENT
		POLES	AMPS	NO.	AWG.		
P2 120/208V. 3φ, 4W.	—	3	30	—	—	7.0	MAIN BREAKER
	1	1	20	2	12 3/4"	1.2	MAGAZINE LTG.
	2	1	20	2	12 3/4"	1.2	↓
	3	1	20	2	12 3/4"	1.2	↓
	4	1	20	2	12 3/4"	.9	EXTERIOR LTG.
	5	1	20	2	12 3/4"	.9	↓
	6	1	20	2	12 3/4"	.4	RECEPTACLES
	7	1	20	2	12 3/4"	.4	RECEPTACLES
	8	1	20	2	12 3/4"	.1	HEAT TRACING CONTROL
	9	1	—	—	—	—	SPARE
	10	1	—	—	—	—	↓
	11	1	—	—	—	—	↓
12	1	—	—	—	—	↓	

TOTAL CONNECTED LOAD 7KVA.

LIGHTING FIXTURE SCHEDULE							
DESIGNATION BY SYMBOL	LAMP DATA			TOTAL		FIXTURE INFORMATION	MTG.
	TYPE	QTY.	WATTS	VOLTAGE	WATTS		
(H)	HIGH PRESS SODIUM	1	150	120	200	EXPLOSION PROOF HIGH PRESSURE SODIUM FIXTURE WITH INTEGRAL BALLAST, PRISMATIC GLASS GLOBE WITH GUARD, AND FIBERGLASS REINFORCED STANDARD DOME REFLECTOR. GLASS GLOBE SHALL BE OF THE HEAT AND IMPACT RESISTANT TYPE, FIXTURE SHALL BE CORROSION-RESISTANT	PENDANT W/ FLEXIBLE CUSHION HANGER
(←○)	HIGH PRESS SODIUM	1	250	120	300	MARINE FLOODLIGHT IN ACCORDANCE WITH UL 595 SHALL BE CORROSION RESISTANT AND HAVE AN INTEGRAL BALLAST. THE LENS DOOR SHALL CONTAIN A HEAT AND IMPACT RESISTANT GLASS AND BE WEATHERPROOF SEALED. THE LAMP HOLDER SHALL BE SHOCK RESISTANT. FIXTURE SHALL HAVE INTEGRALLY MOUNTED PHOTO ELECTRIC CONTROL. FIXTURE SHALL BE CAPABLE OF BEING AIMED 90° IN BOTH DIRECTIONS FROM THE VERTICAL AND/OR HORIZONTAL PLANES. FIXTURE SHALL HAVE A QUARTZ AUXILIARY LAMP *	TRUNNION TYPE

* INCLUDES BALLAST WATTAGE

* THE INCLUSION OF A QUARTZ AUXILIARY LAMP AND/OR PHOTO ELECTRIC CONTROL SHALL BE DETERMINED BY THE JURISDICTION AT EACH SITE.

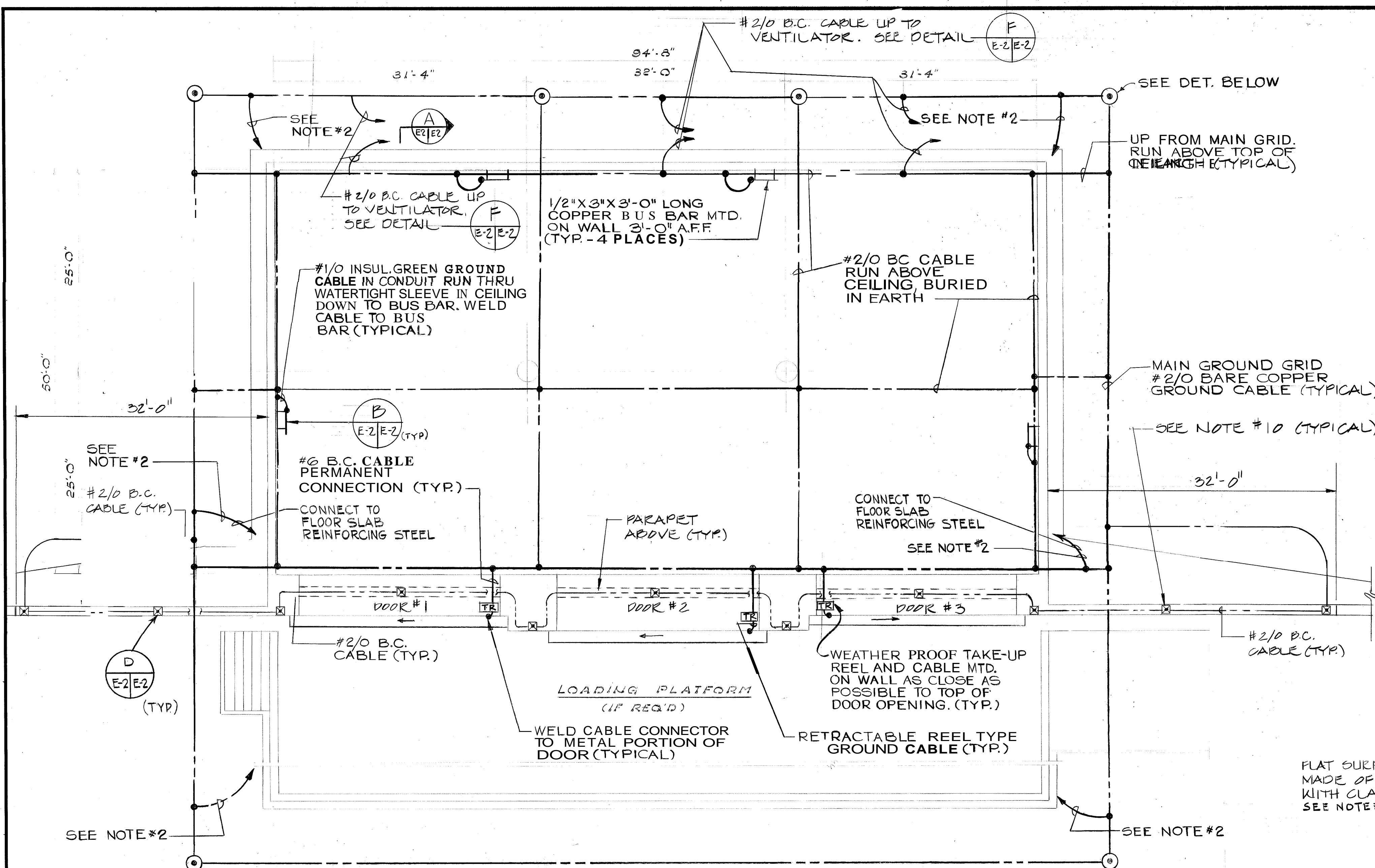
GENERAL NOTES:

- FOR INFORMATION NOT INDICATED ON DRAWINGS SEE SPECIFICATION
- MINIMUM SIZE WIRE SHALL BE #12 AWG. 90°C. RATED TYPE THHN MINIMUM SIZE CONDUIT SHALL BE 3/4" RIGID GALVANIZED STEEL.
- ALL ELECTRICAL EQUIPMENT AND INSTALLATION INSIDE THE MAGAZINE SHALL BE IN ACCORDANCE WITH THE N.E.C. NFPA 70 REQUIREMENTS FOR HAZARDOUS LOCATIONS CLASS I, DIVISION II GROUP D, AND CLASS II, DIVISION II, GROUP G.
- ALL EXPLOSIONPROOF RECEPTACLES SHALL BE PROVIDED WITH A MATING EXPLOSIONPROOF PLUG.
- LIGHTING CONTROL CABINET SHALL CONTAIN THE REQUIRED AMOUNT OF SINGLE POLE 20A, 125V. SWITCHES TO CONTROL THE MAGAZINE INTERIOR LIGHTS AND THE OUTSIDE FLOODLIGHTS. THE LIGHTING CONTROL CABINET SHALL HAVE A NEMA 9 TYPE ENCLOSURE.
- FOR DOOR WIRING DIAGRAMS SEE SCHEMATIC DIAGRAMS ON DRAWING E-3.
- DOOR CONTROL PUSHBUTTON STATION SHALL BE MOUNTED 4'-0" ABOVE PLATFORM.
- THE EXACT LOCATION OF DOOR OPERATOR AND LIMIT SWITCHES SHALL BE IN ACCORDANCE WITH DOOR MANUFACTURERS REQUIREMENTS.
- FOR HEAT TRACING SEE DWG. E-4. CIRCUIT P2-8 IS REQUIRED ONLY WHEN HEAT TRACING IS PROVIDED AT SITE. IF HEAT TRACING IS NOT INSTALLED THEN CKT. P2-8 SHALL REMAIN A SPARE.
- ALL ARCHITECT/ENGINEERS USING THESE DRAWINGS AS STANDARDS SHALL INCLUDE THE INTERCEPTING CURRENTS OF ALL ELECTRICAL ITEMS ON THEIR DRAWINGS.
- ALL LIGHTING FIXTURES, RECEPTACLES, DEVICES, MOTORS, AND ENCLOSURES SHALL BE GROUNDED WITH A SEPARATE GROUND WIRE PROVIDED IN EACH CONDUIT.

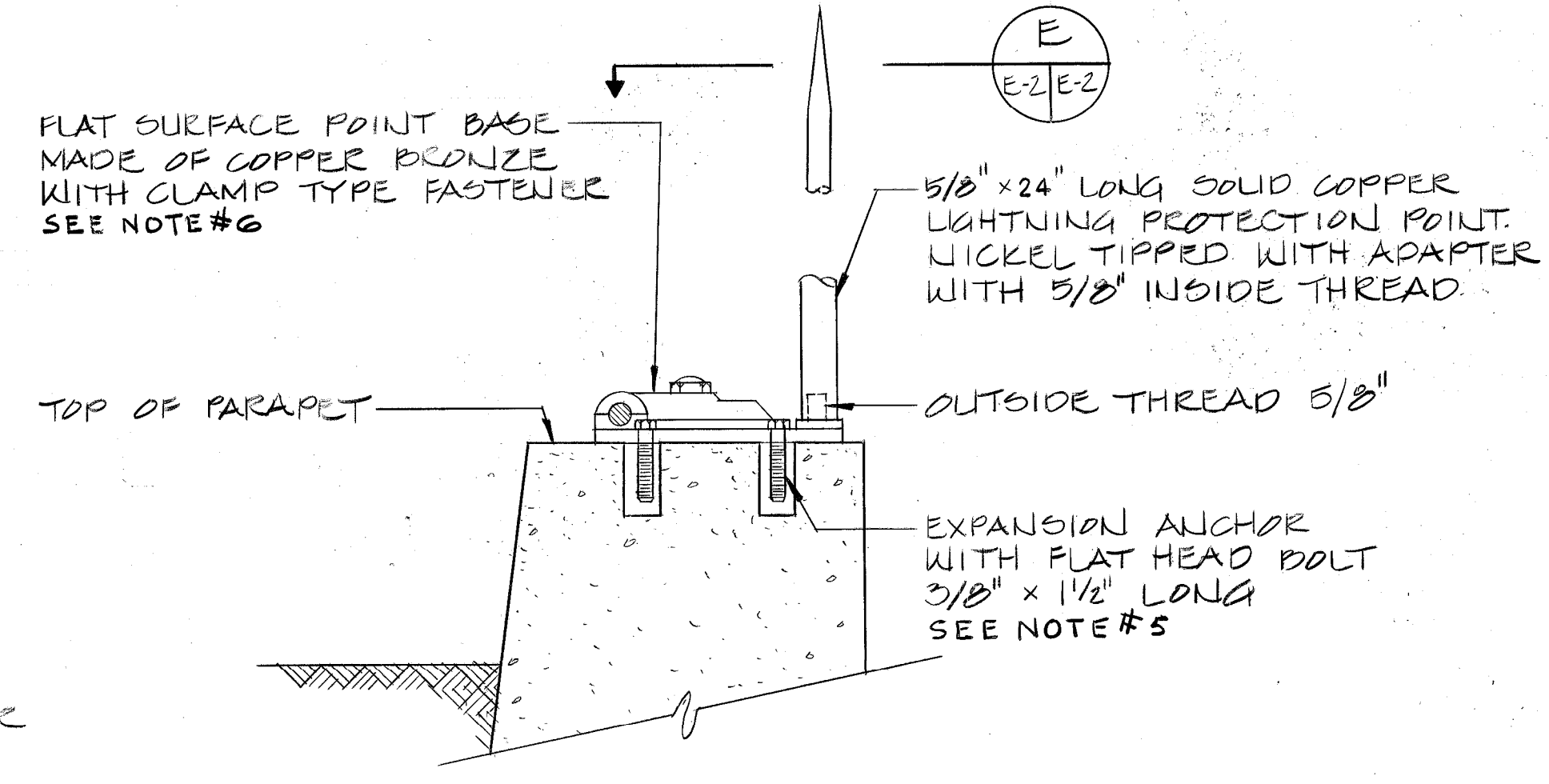
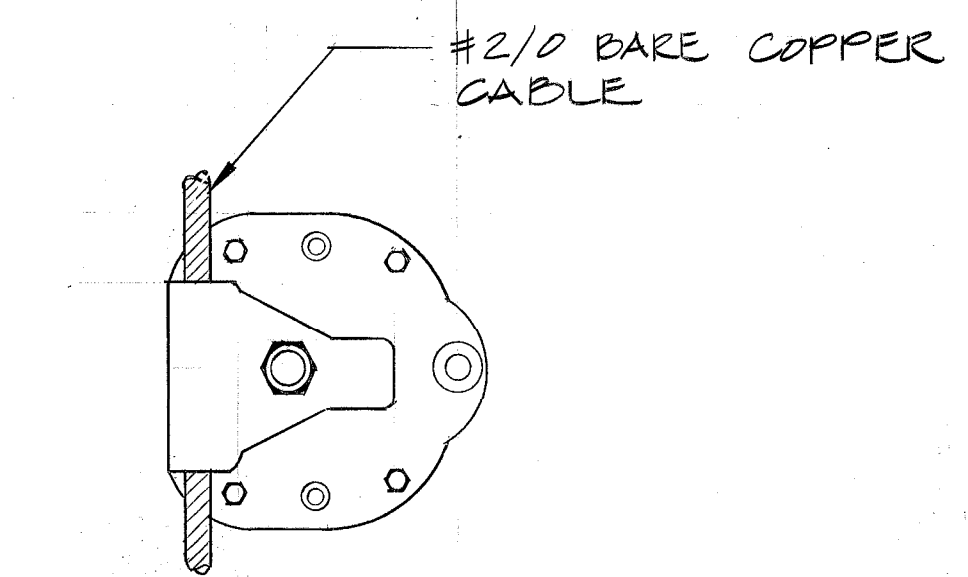
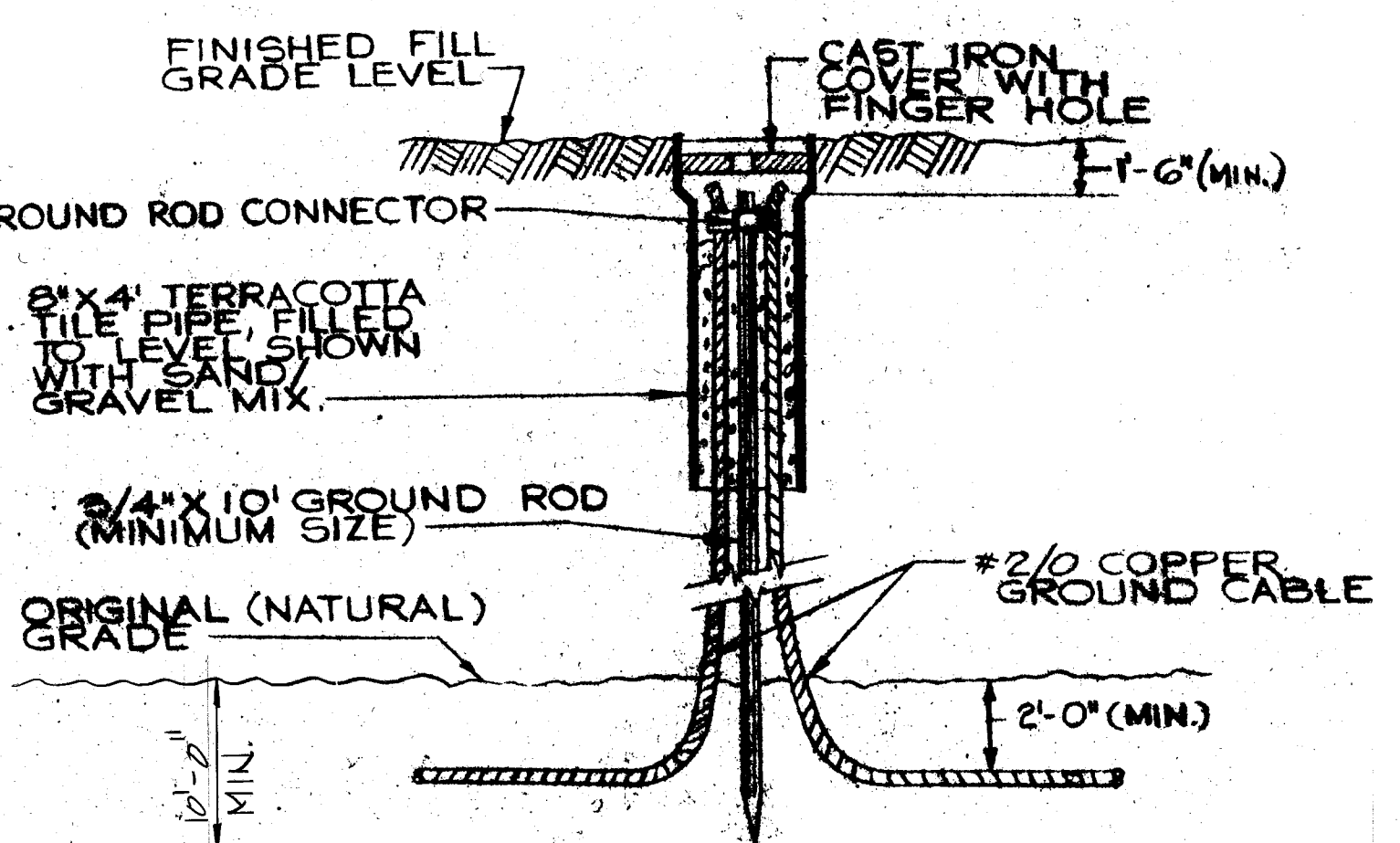
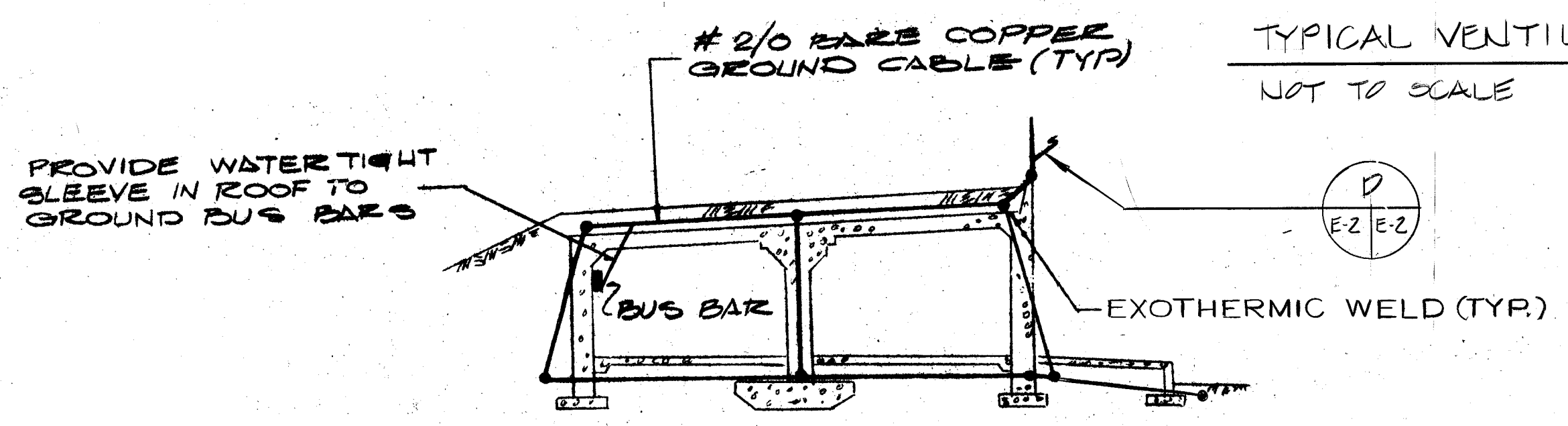
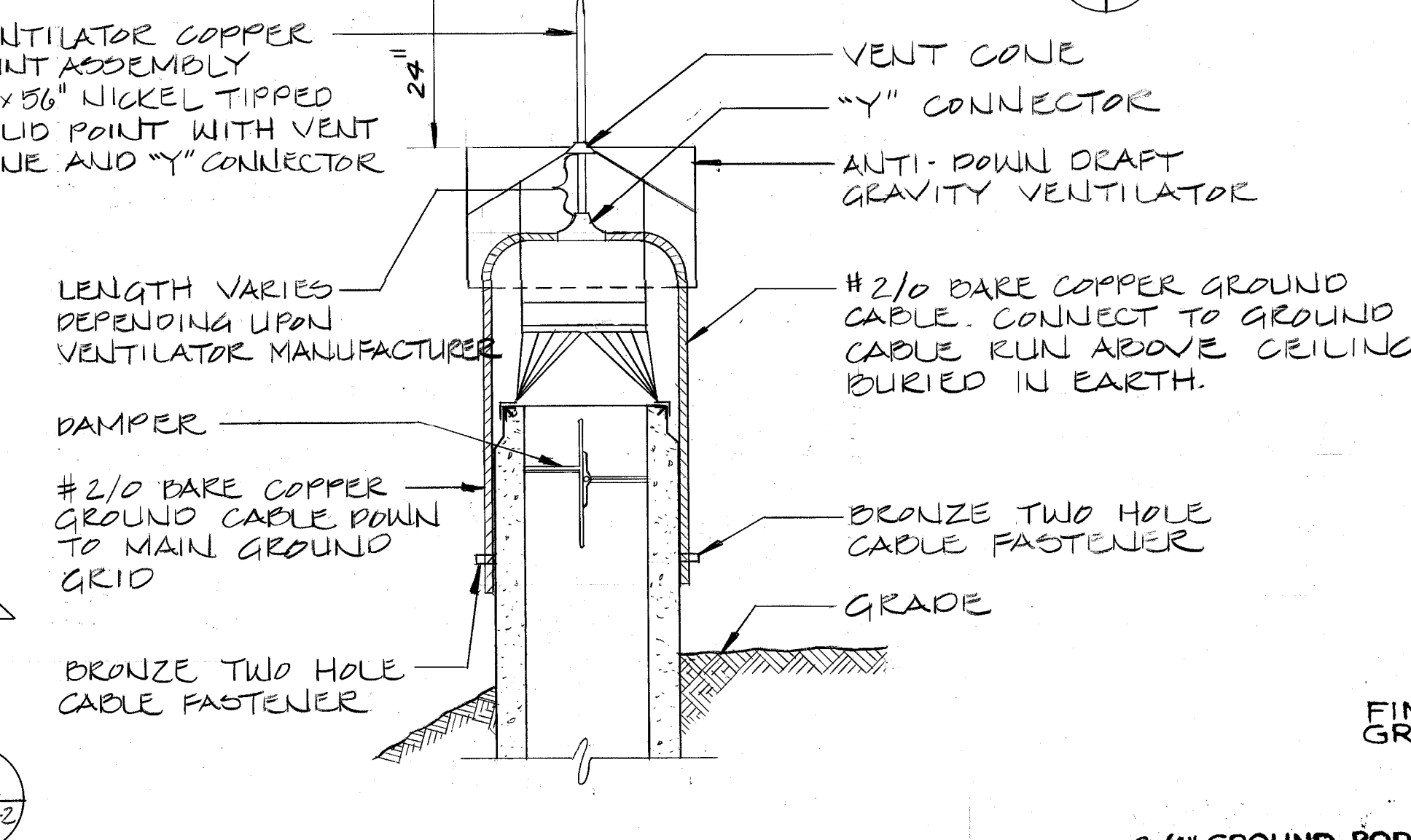
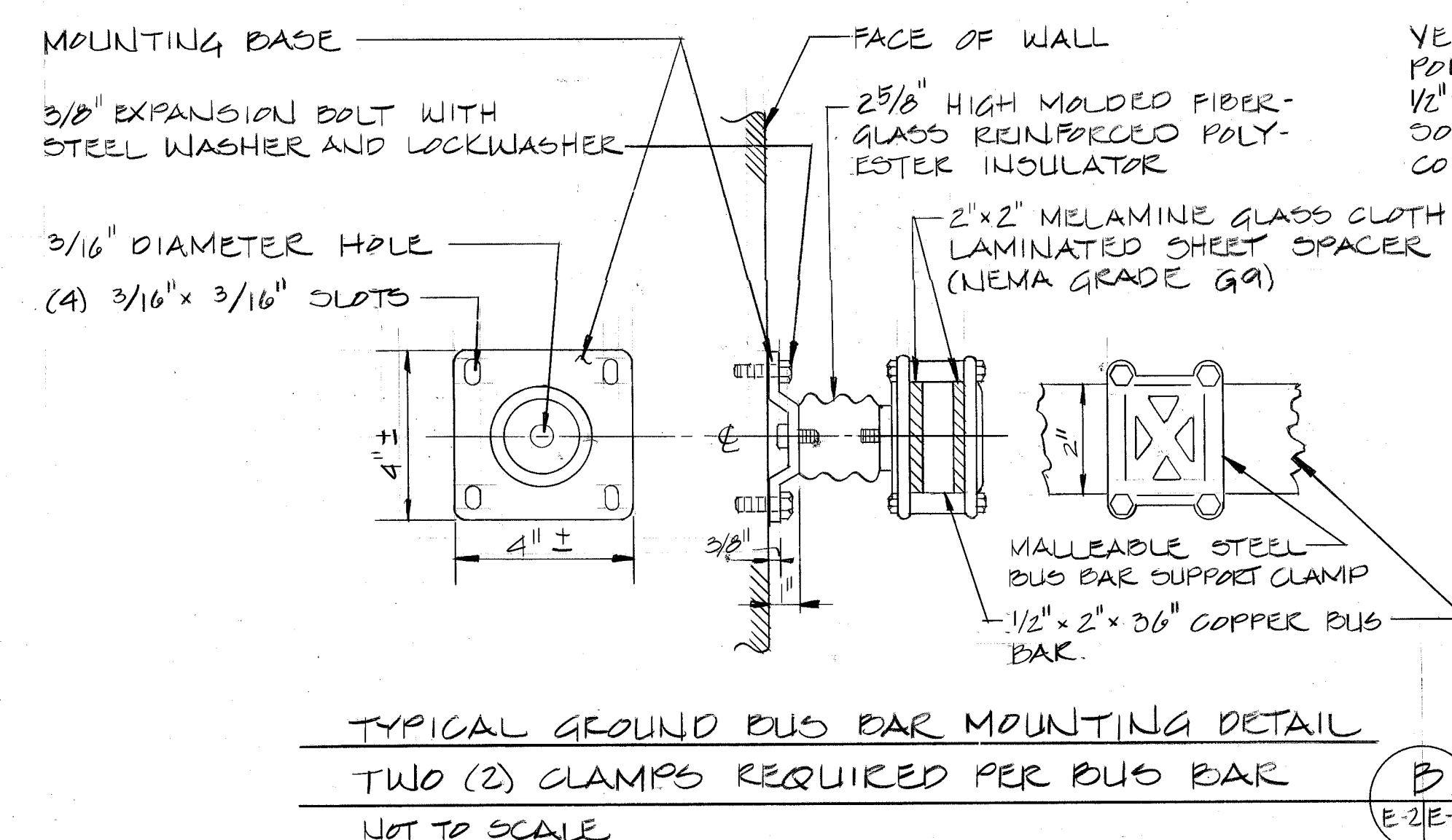
SYMBOLS (THIS DRAWING ONLY)

- (H) CEILING MOUNTED 150W. H.P.S. LTG. FIXTURE WITH STANDARD DOME REFLECTOR.
- (←○) WALL MOUNTED 250W HIGH PRESSURE SODIUM MARINE TYPE FLOODLIGHT.
- (⊕) DUPLEX RECEPTACLE, 20A, 125V, 2P, 3W, GROUNDING TYPE
- (⊖) TEL/FA/ID TERMINAL CABINET.
- (□) 277/480V, 3φ, 4W. PANEL P-1.
- (T) 480V-120/208V, 3φ, 4W. STEP-DOWN TRANSFORMER
- (■) 120/208V, 3φ, 4W. LIGHTING PANEL.
- WIRES IN RIGID STEEL CONDUIT CONCEALED IN CEILING OR WALL
- WIRES IN RIGID STEEL CONDUIT CONCEALED IN FLOOR.
- WIRES IN RIGID STEEL CONDUIT EXPOSED.
- EC EMPTY RIGID STEEL CONDUIT RUN UNDERGROUND ENCASED IN CONCRETE ENVELOPE WITH MINIMUM 3" COVER CONDUIT
- COND. CONDUIT
- WP WEATHERPROOF
- P2-1 CKT. TO PNL (CKT. #1 TO PNL P2)
- (E-3) LIGHTING CONTROL CABINET
- (M) DOOR OPERATOR INCLUDING MOTOR & BRAKE
- (R) 480V, 3P, COMBINATION REVERSING STARTER WITH 1/2" FUSED DISCONNECT SWITCH AND 120V. CONTROL TRANSFORMER. STARTER SHALL BE NEMA SIZE 1, RATED AT 10 HP WITH 300A. FUSE CLIP IN A NEMA 9 ENCLOSURE.
- (□) DOOR CONTROL PUSHBUTTON STATION WITH KEY OPERATOR SWITCH AND "OPEN", "CLOSE", "STOP" MOMENTARY PUSHBUTTONS. PUSHBUTTONS SHALL BE OILTIGHT.
- (□) LIMIT SWITCH
- GF I CIRCUIT BREAKER WITH GROUND FAULT INTERRUPTER
- TEL TELEPHONE
- FA FIRE ALARM
- ID INTRUSION DETECTION
- (J) JUNCTION BOX
- N.T.S. NOT TO SCALE
- (←○) LIGHTNING ARRESTER

LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED
REVISIONS				
AMMANN & WHITNEY CONSULTING ENGINEERS TWO WORLD TRADE CENTER, NY, NY		NAVAL FACILITIES ENGINEERING COMMAND DEPARTMENT OF THE NAVY WASHINGTON, D.C.		
STANDARD DRAWING				
BOX MAGAZINE TYPE C				
LIGHTING AND POWER PLAN				
DATE	APPROVED	DATE	DATE	DATE
11/15/85	[Signature]	11/15/85	11/15/85	11/15/85
SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.	E-1	
F	80091	1404441		
SCALE: AS SHOWN		SPEC. NFSS-M43		SHEET 12 OF 15



FLOOR PLAN
SCALE: 1/8" = 1'-0"



- NOTES:
- GROUND RODS SHALL BE COPPER-CLAD STEEL 3/4" X 10' LONG MIN..
 - ALL REINFORCING STEEL IN BUILDING AND PLATFORM IN FRONT OF BUILDING SHALL BE BONDED TO BUILDING GROUND BUS.
 - ALL METAL EQUIPMENT AND PARTS IN THE BUILDING SHALL BE BONDED TO GROUND BUS.
 - ALL BONDING CONNECTIONS SHALL BE MADE WITH #6 AWG BARE COPPER GROUND CABLE MINIMUM.
 - SETTING SHOWN IS SUGGESTED ANCHOR BOLT MOUNTING FOR LIGHTNING PROTECTION POINTS.
 - GROUND CONNECTIONS SHOWN ARE TYPICAL FOR ALL LIGHTNING PROTECTION POINTS.
 - FOR GENERAL GROUNDING & LIGHTNING PROTECTION REQUIREMENTS REFER TO NAVFAC STANDARD SPECIFICATION M-43, SECTION 16001 AND DM 4.G.
 - LIGHTNING PROTECTION SHOWN IS FOR ONE (1) THREE BAY STRUCTURE ONLY. LIGHTNING PROTECTION FOR MULTIPLE OR CLUSTERED STRUCTURES MUST BE SITE ADAPTED.
 - FOR GENERAL NOTES SEE DWG. E-1.
 - LIGHTNING PROTECTION POINTS SHALL BE LOCATED AS SHOWN ON THE PLAN. THE MAXIMUM SPACING SHALL BE 16'-0".

- SYMBOLS (THIS DRAWING ONLY)
- BARE COPPER GROUND CABLE.
 - ⊙ GROUND ROD 3/4" X 10' LG.
 - COPPER GROUND BUS BAR 1/2" X 2" X 3' LG.
 - ⊠ GROUND CABLE TAKE UP REEL.
 - ⊙ EXOTHERMIC WELD.
 - B.C. BARE COPPER
 - ⊠ LIGHTNING PROTECTION POINT 5/8" BY 24" LONG SOLID COPPER, NICKEL TIPPED WITH ADAPTER WITH 5/8" INSIDE THREAD.

LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED
REVISIONS				

AMMANN & WHITNEY CONSULTING ENGINEERS
TWO WORLD TRADE CENTER, N.Y., N.Y.
DEPARTMENT OF THE NAVY WASHINGTON, D.C.

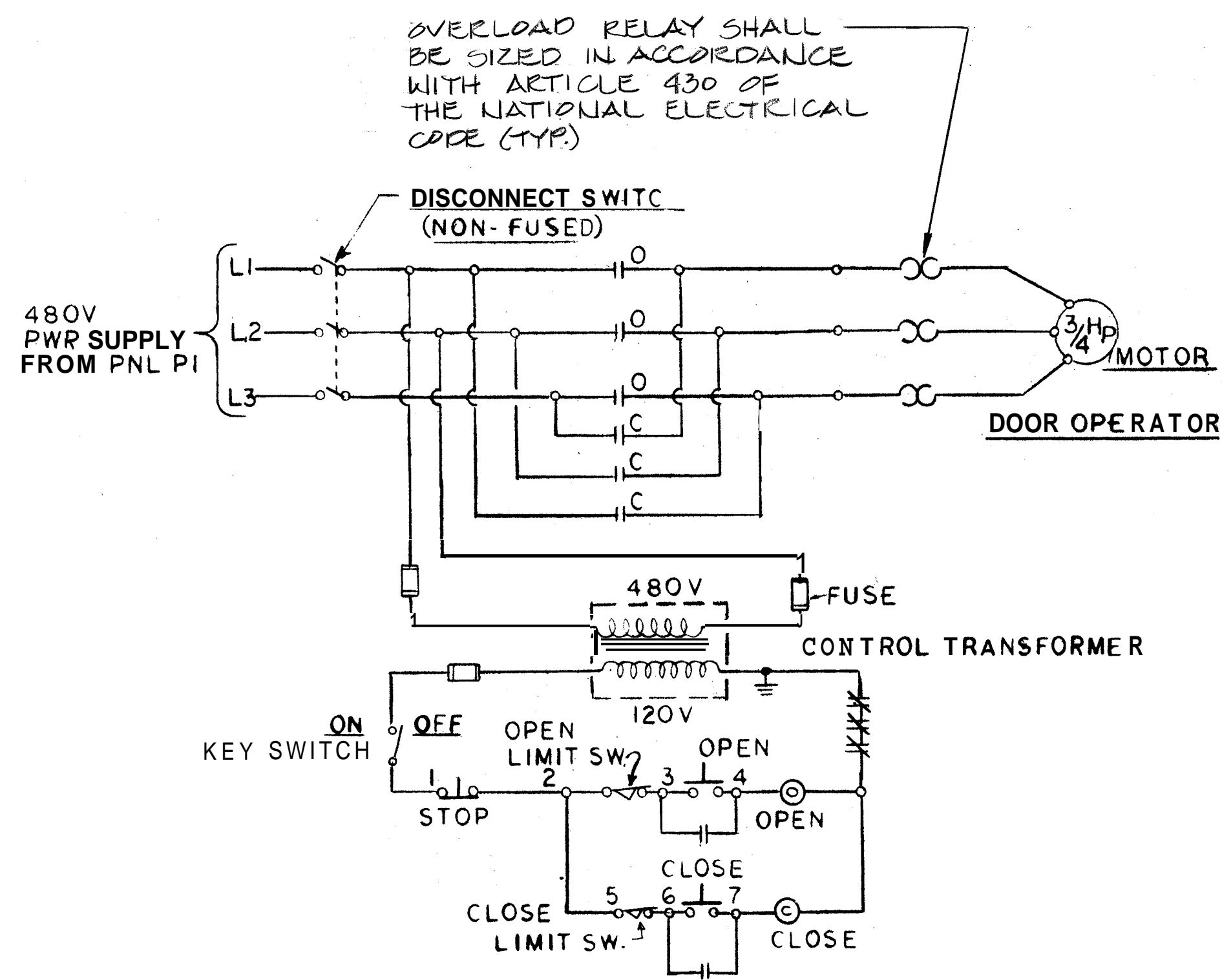
NAVAL FACILITIES ENGINEERING COMMAND
STANDARD DRAWING
BOX MAGAZINE TYPE C
GROUNDING PLAN AND DETAILS

DATE: 8/16/53
BY: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]

NAVY FACILITIES ENGINEERING COMMAND
NORTH DIVISION NAVFAC
RD: [Signature] DIR: [Signature]
MO: [Signature] OIC: [Signature]
NAVFAC: [Signature]
FPE: [Signature]

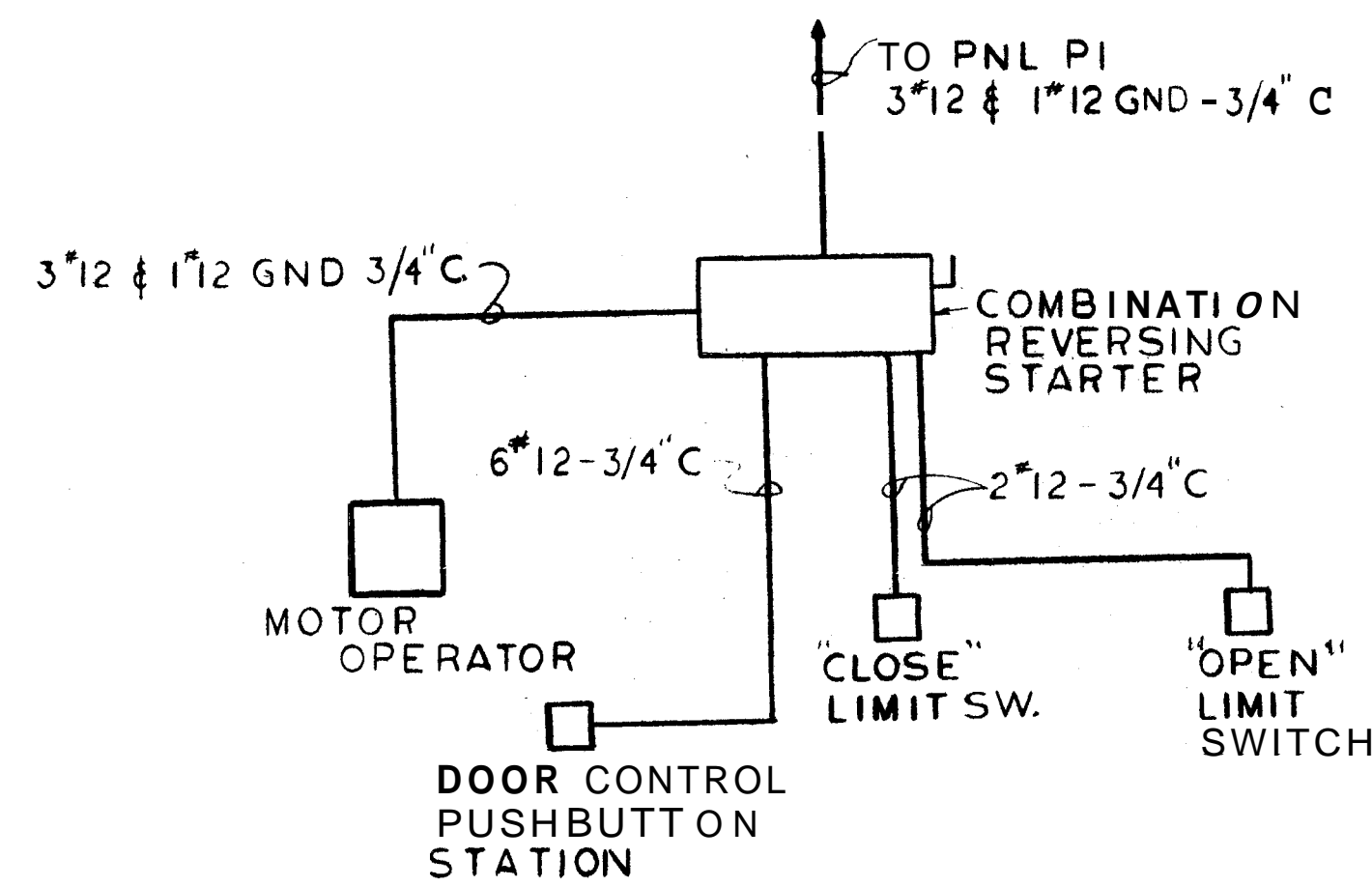
SATISFACTORY TO DESIG DATE: 1/15/54
APPROVED: [Signature] DATE: 1/15/54

SIZE: F	CODE IDENT. NO.: 80091	NAVFAC DRAWING NO.: 1404442	E-2
SCALE: AS NOTED SPEC. NFSS-M43			SHEET 13 OF 15



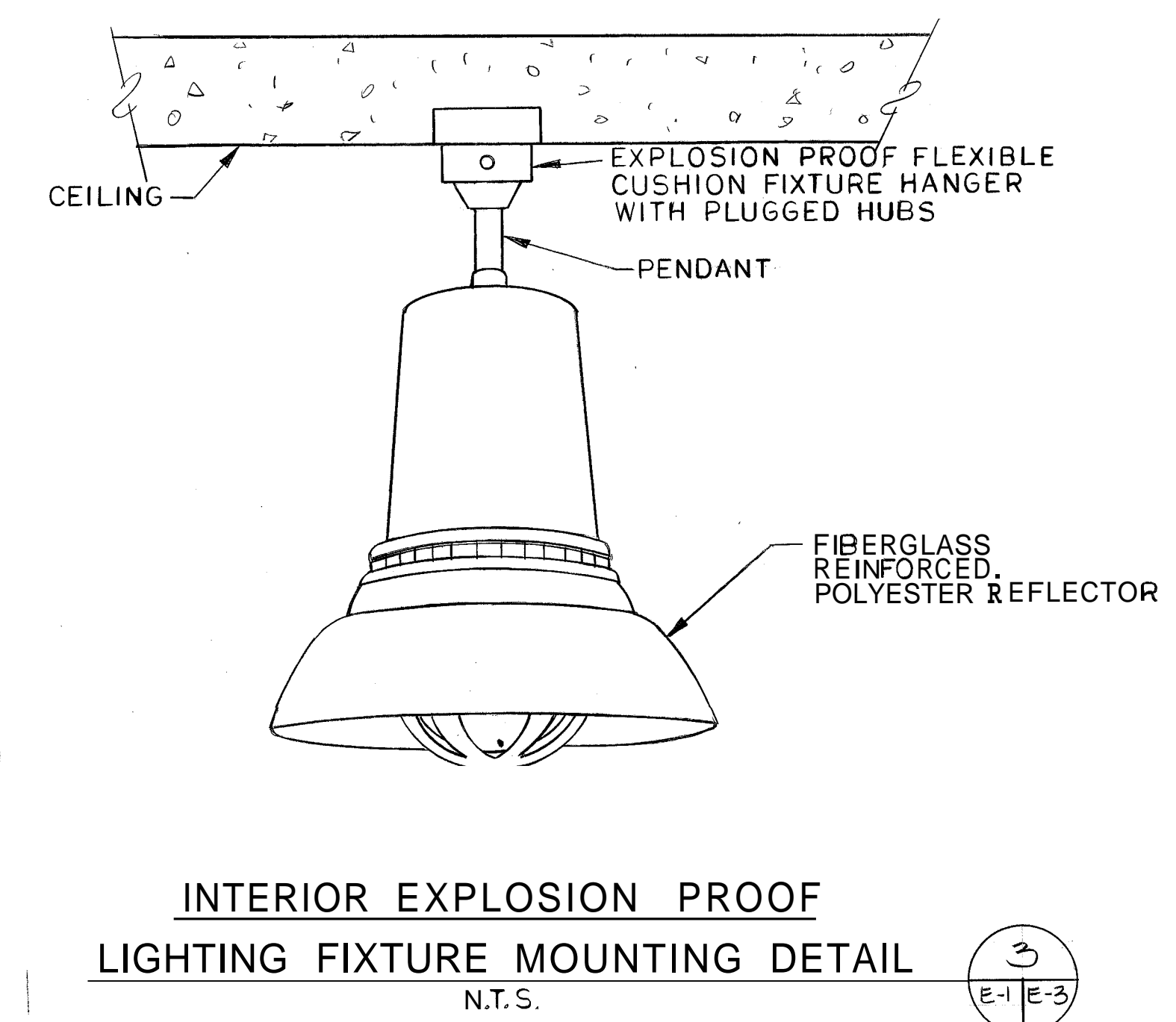
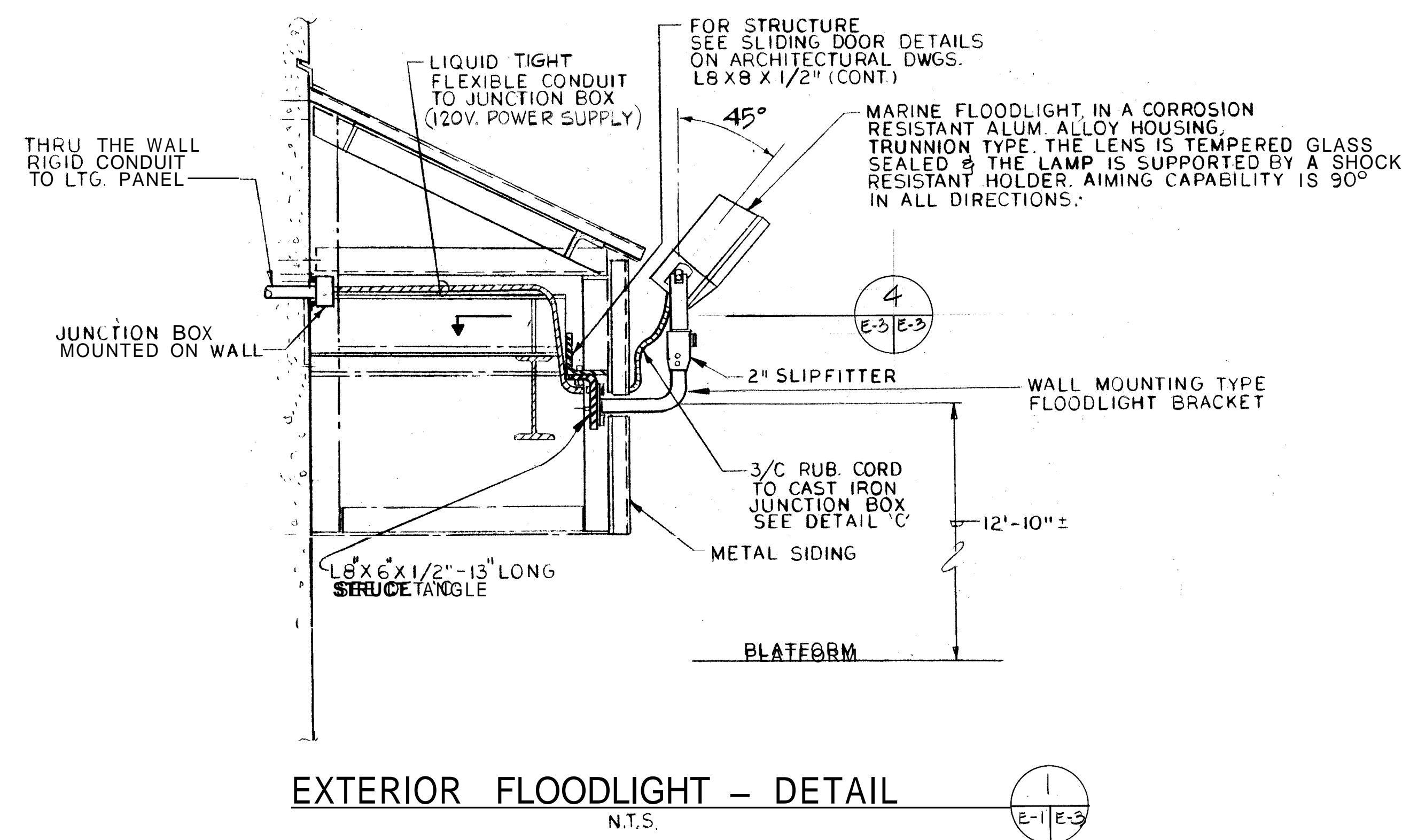
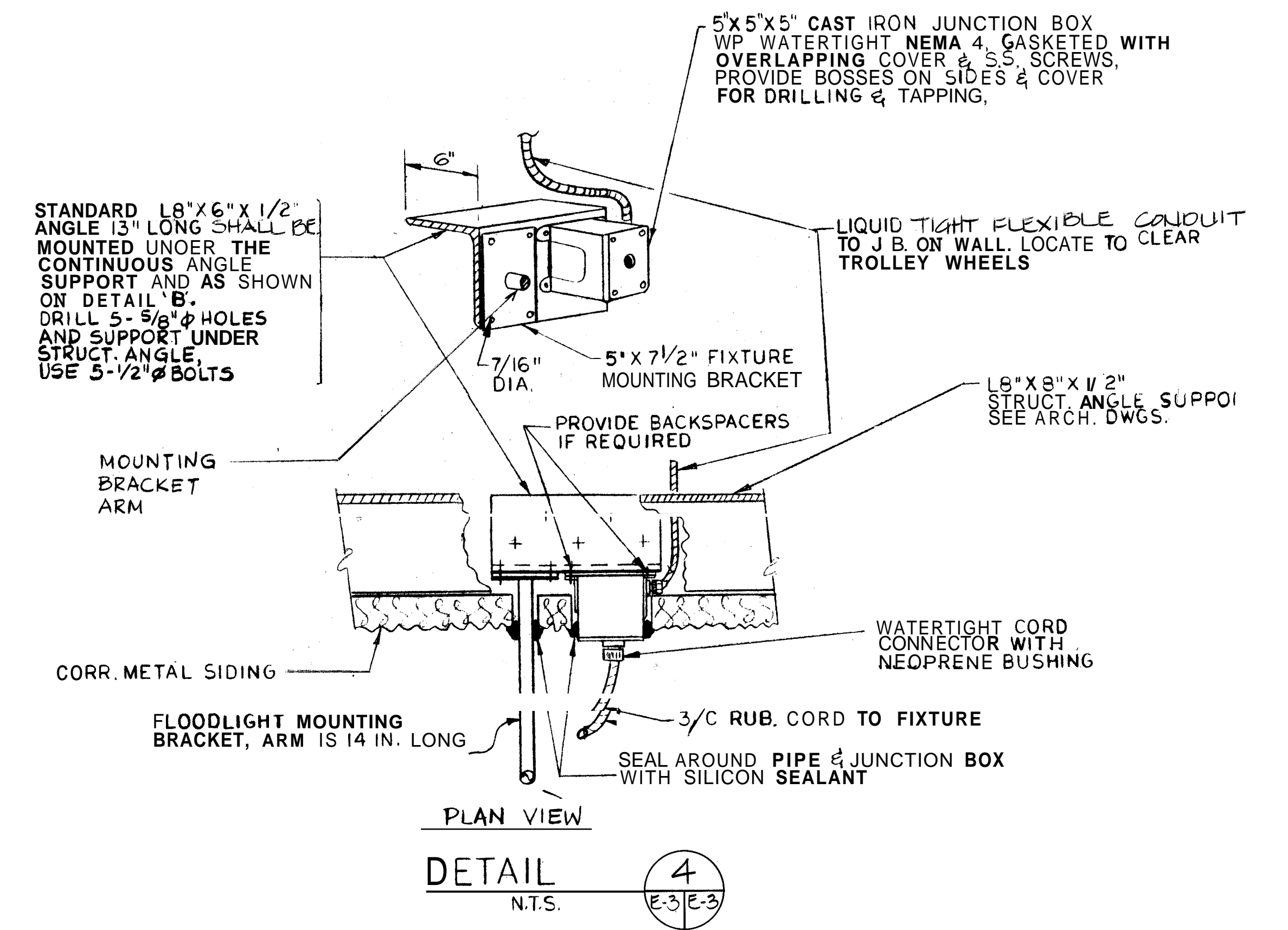
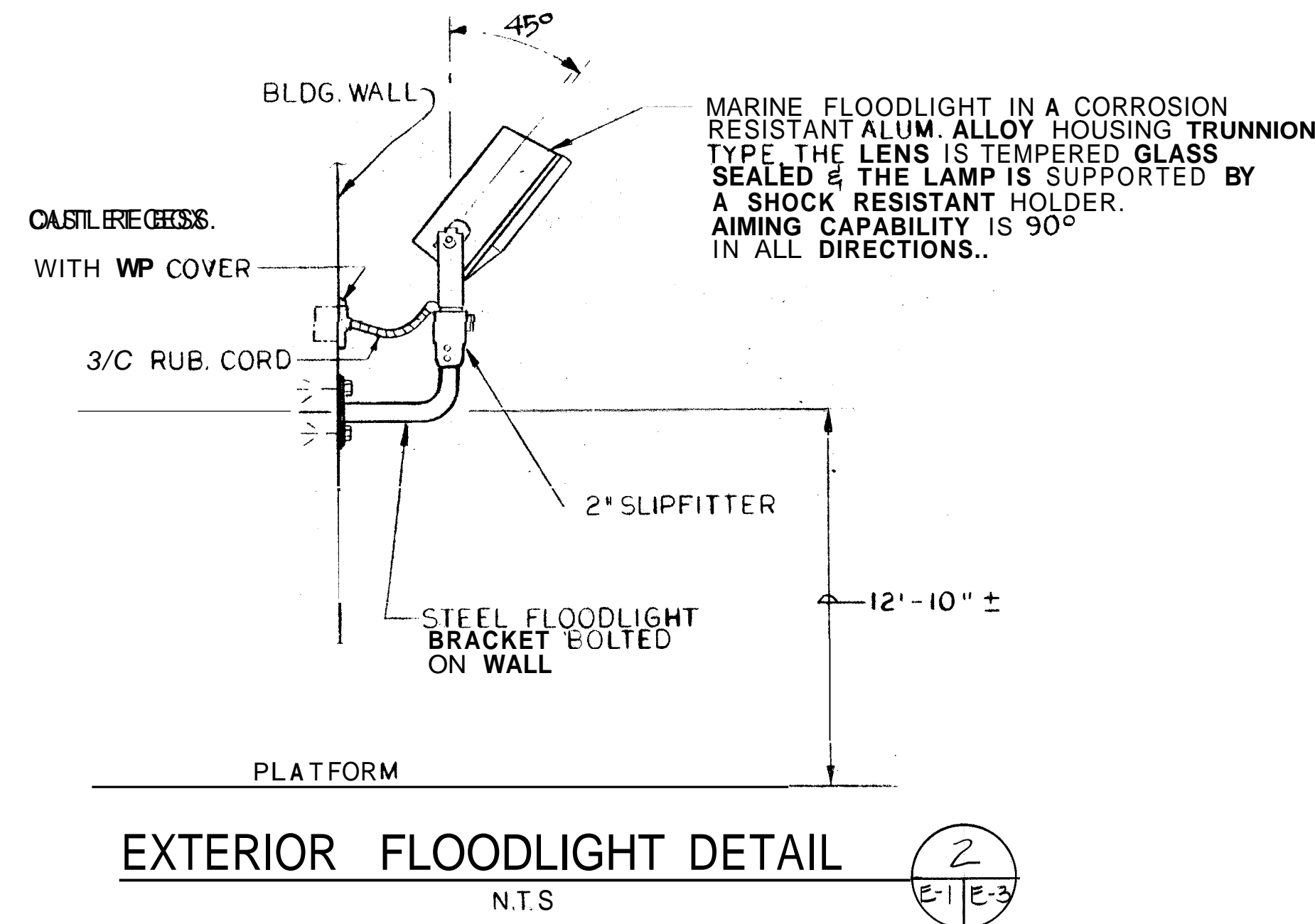
SLIDING DOOR SCHEMATIC DIAGRAM

TYPICAL FOR DOOR #1, DOOR #2 AND DOOR #3

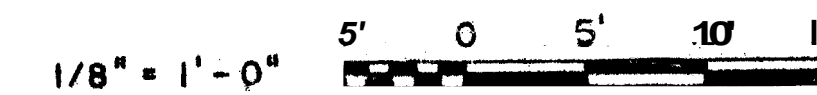


SLIDING DOOR

WIRING INSTALLATION DIAGRAM
TYPICAL FOR DOOR #1, DOOR #2 AND DOOR #3



IF THIS DRAWING IS A REDUCTION GRAPHIC SCALES MUST BE USED



LTR	DESCRIPTION	PREP'D BY	DATE	APPROVED

	AMMANN & WHITNEY CONSULTING ENGINEERS TWO WORLD TRADE CENTER NY, NY	NAVAL FACILITIES ENGINEERING COMMAND DEPARTMENT OF THE NAVY WASHINGTON, D.
	DESGN <u>EJS</u> DR <u>JS</u> CHK <u>PP</u> SUPV <u>EL</u> CH ENGR <u>EL</u> PARTNER DATE <u>8/16/85</u> FIRM MEMBER (TITLE)	STANDARD DRAWING BOX MAGAZINE TYPE C SCHEMATIC DIAGRAMS AND DETAILS
NORTHERN DIVISION NAVFAC RVD <u>W. T. ...</u> DIR <u>...</u> HD <u>...</u> OIC <u>...</u> NAVFAC RVD <u>...</u> DIR <u>...</u> PPE <u>...</u>	APPROVED DATE <u>...</u> FOR COMMANDER, NAVFACENCOM	SIZE <u>F</u> CODE IDENT NO. <u>80091</u> NAVFAC DRAWING NO. <u>1404443</u> E-3 SCALE: <u>AS NOTED</u> SPEC. <u>NFSS-M43</u> SHEET <u>14</u> OF <u>15</u>

