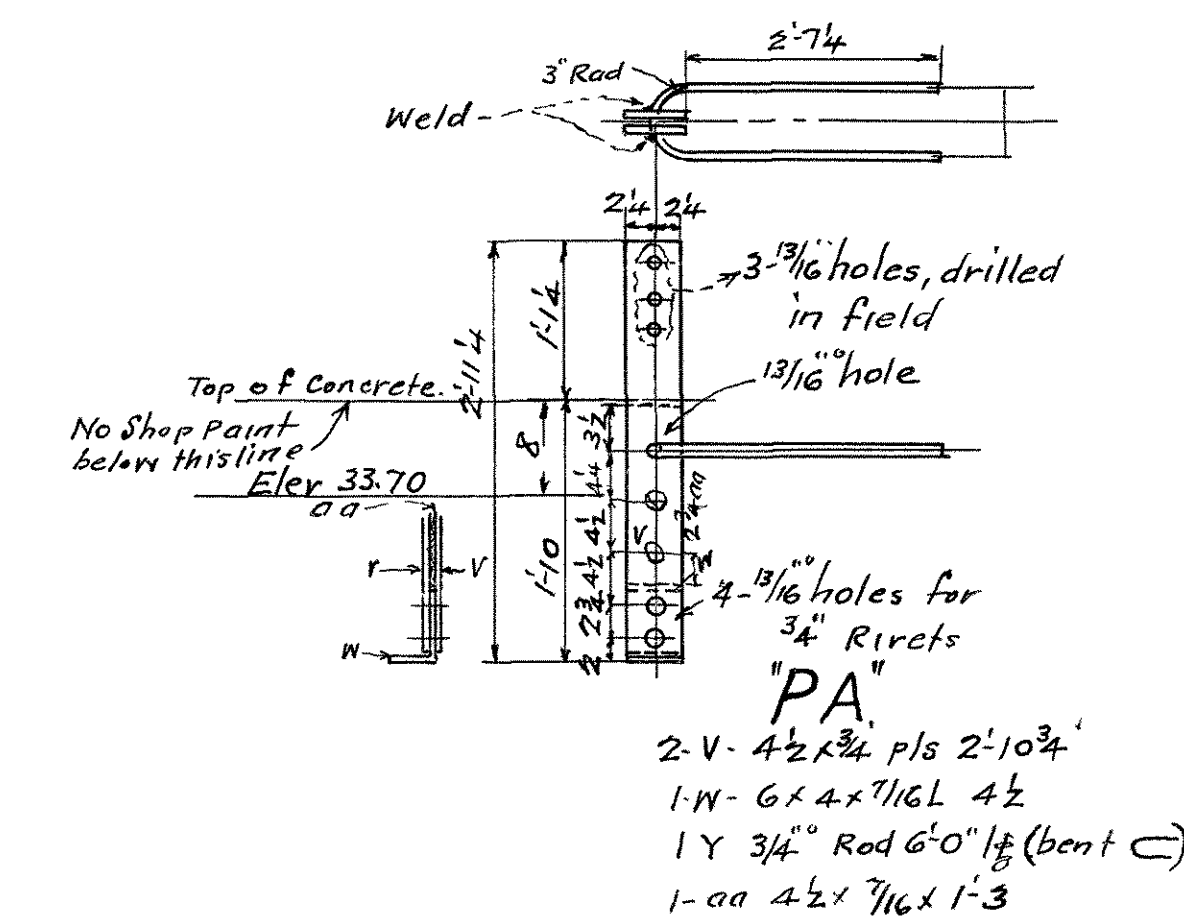
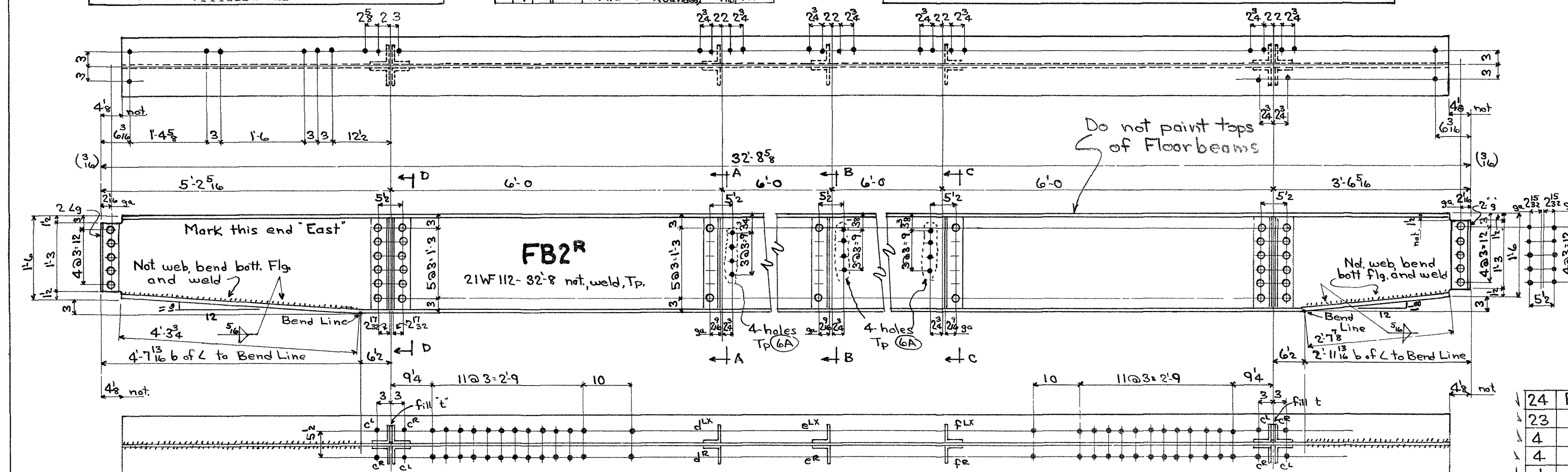




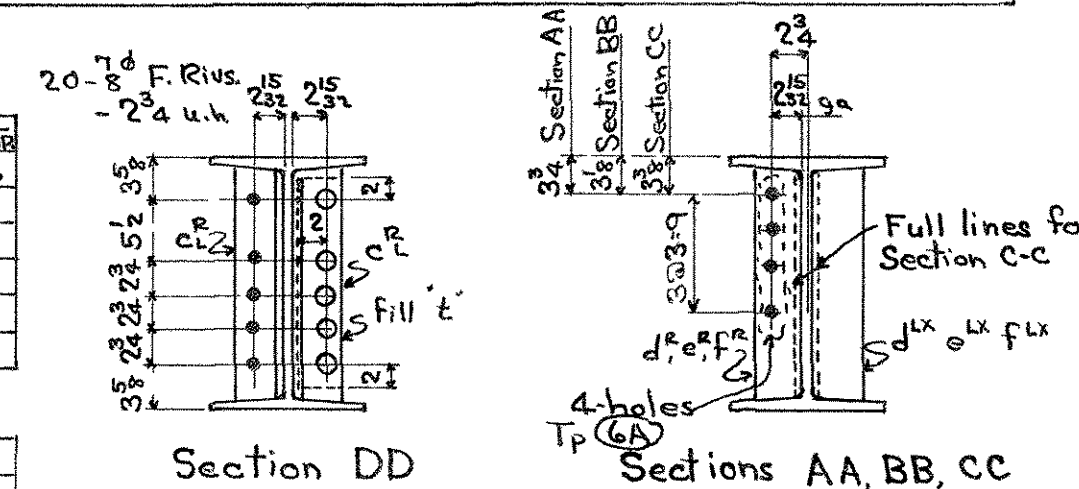
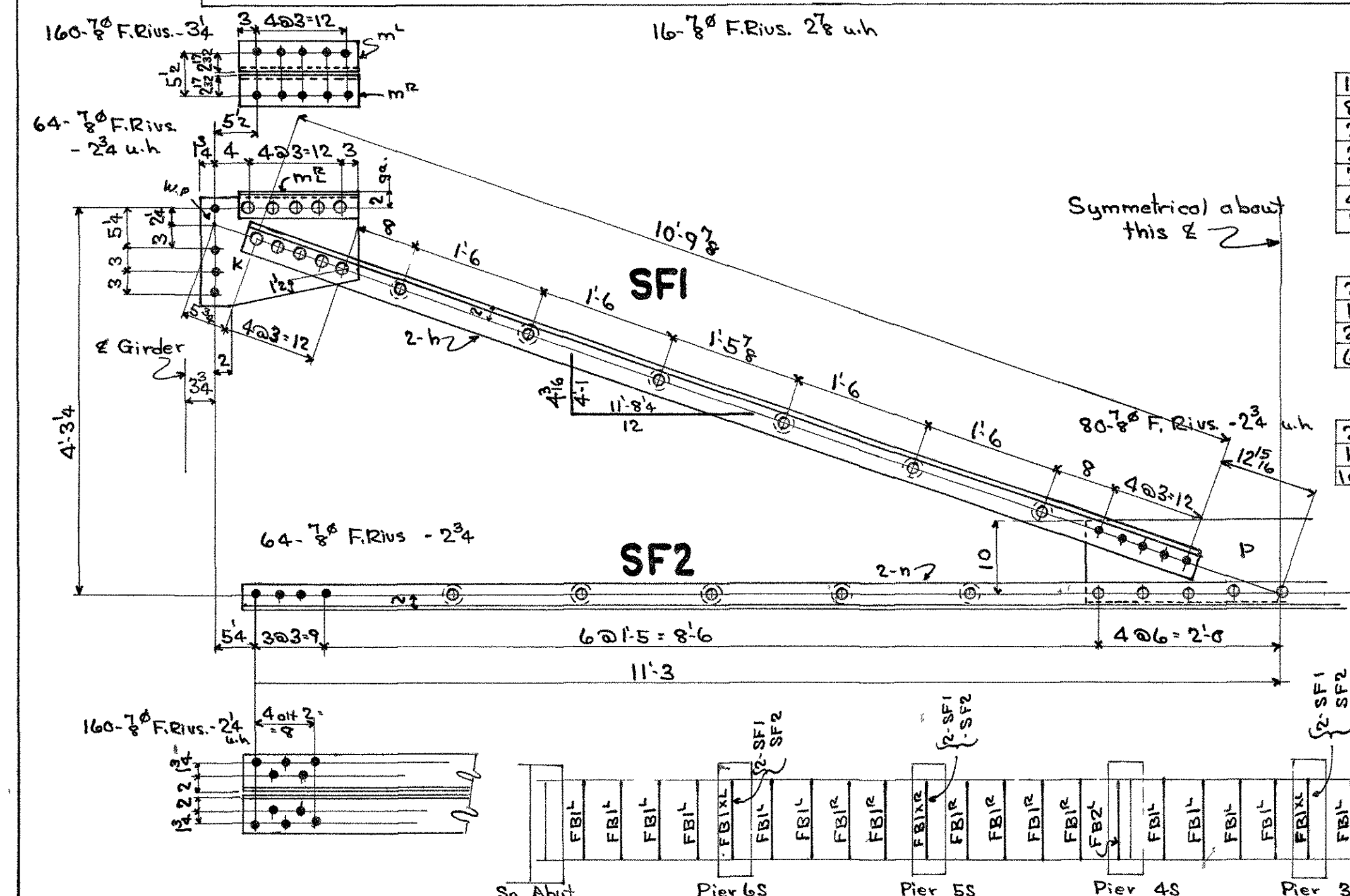
File #	File #	Material		
1		FB# 27 W 102	23.9	no
1		FB# do	23.9	
	1	FB4 do	23.9	
4	4	a 14 x 2 Pl. (1-edge rounded)	-8.6	F.I.E
4	2	b 14 x 8 Pl.	-6	
4	4	1/2 Ship Bolt	-34	
	2	u 4 x 32 x 8 L	1.3	
		v 14 x 2 Pl.	-6	
4		w 14 x 2 Pl. (1-edge rounded)	7.8	F.I.E



Material for FB2 ^R			
1	FB2 ^R	21 WF 112	328 not welded
8	CF	4x4 x 3/8 L	1'7 1/2 F2.E, TP
2	d _{ex}	do	1'7 1/2 " "
2	e _{ex}	do	1'7 1/2 " "
2	f _{ex}	do	1'7 1/2 " "
4	g	4 x 3 1/2 x 3/8 L	1'-3
2	t	3x2 x 1/4 fill	1'-5 1/2

Material for SFI			
2	h	4x3x3 ⁸	11'0 ⁸
1	K	1'4x1'16 F1	1'8 ³
2	mE	4x3'2x3 ⁸ L	1'4 ²
6		3'x1'6 washer	150 hole

Material for SF2			
2	n	$5 \times 3^1 \times 2^3 \times 8 \angle$	22-9
1	P	$11^2 \times 7^6 \text{ Pl.}$	4-3
10		$3^8 \times 7^6 \text{ washers}^{15}$	Wife



Wanted				
1	24	Floor beams v4-v4	FB1R	v-3-v-4
1	23	do 3-3-1-1-3-v-1	FB1L	-10
1	4	do 1-1-1	FB1XR	
1	4	do 1-1-1	FB1XL	
1	1	do	FB2R	
1	1	do	FB2L	
1	1	do	FB4	
1	16	Sway Frame A-4-4	SF1	
1	8	do v-v-v	SF2	
1	3	Post Anchors	PA	

Length u.h	2 ⁴	2 ³	2 ²	3 ⁴	4	4 ³
Number	160	496	16	208	960	16

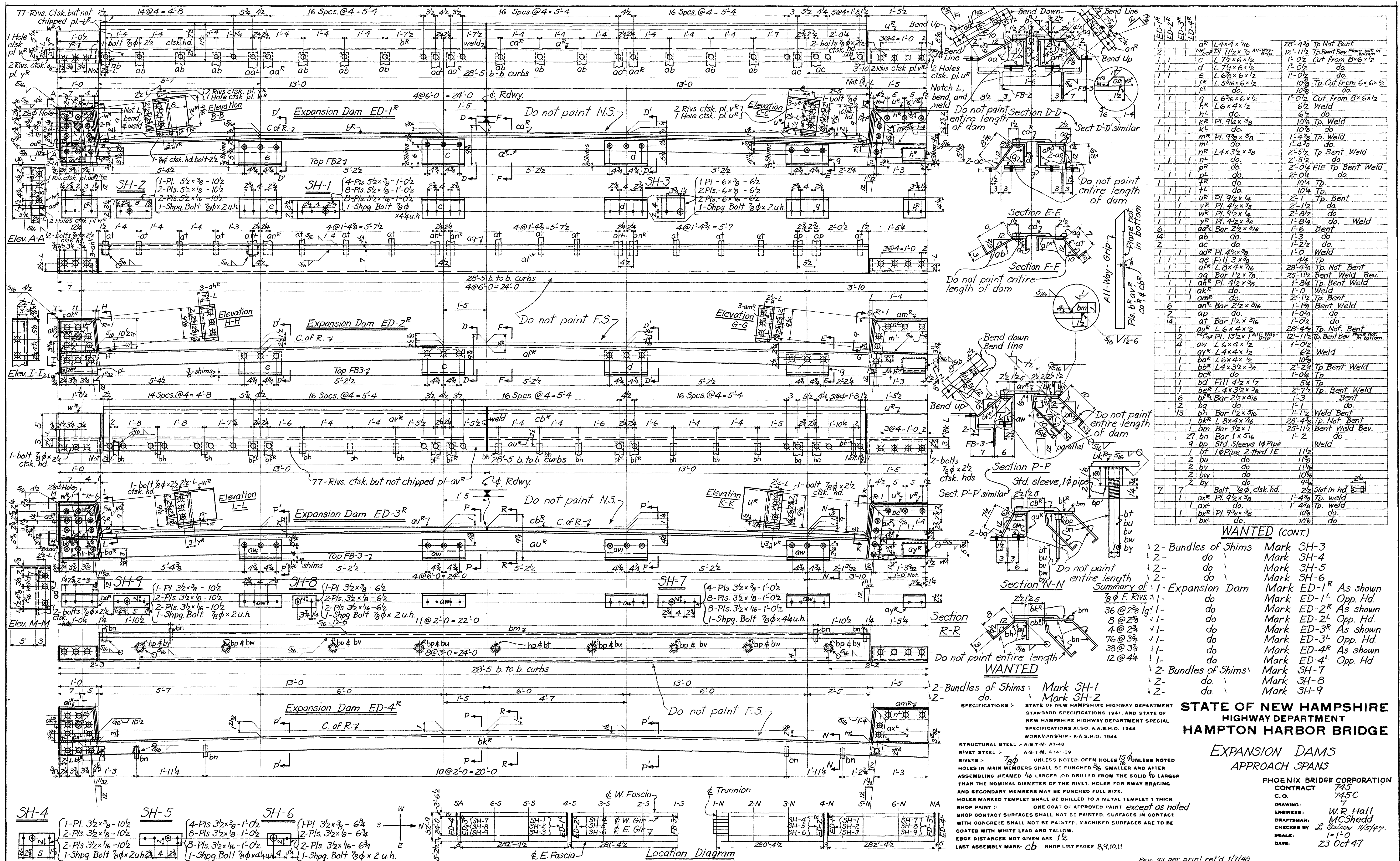
SPECIFICATIONS - STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
STANDARD SPECIFICATIONS 1941, AND STATE OF
NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
SPECIFICATIONS ALSO, A A S H O 1944
WORKMANSHIP - A A S H O. 1944

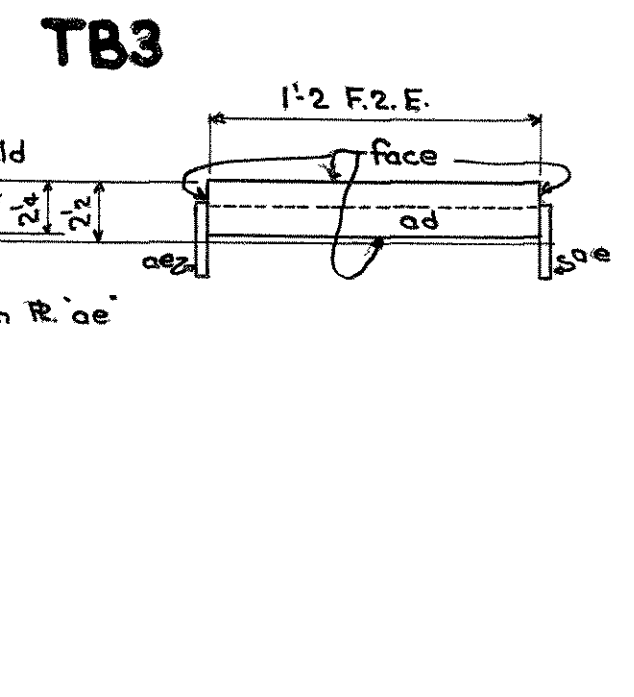
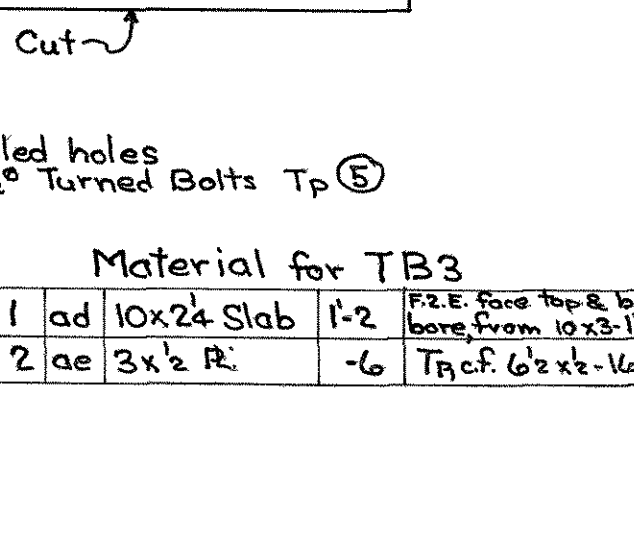
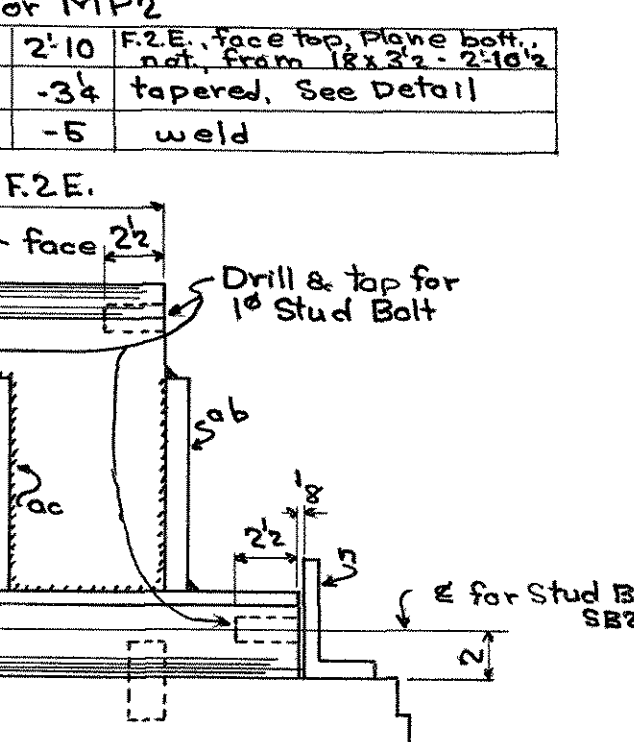
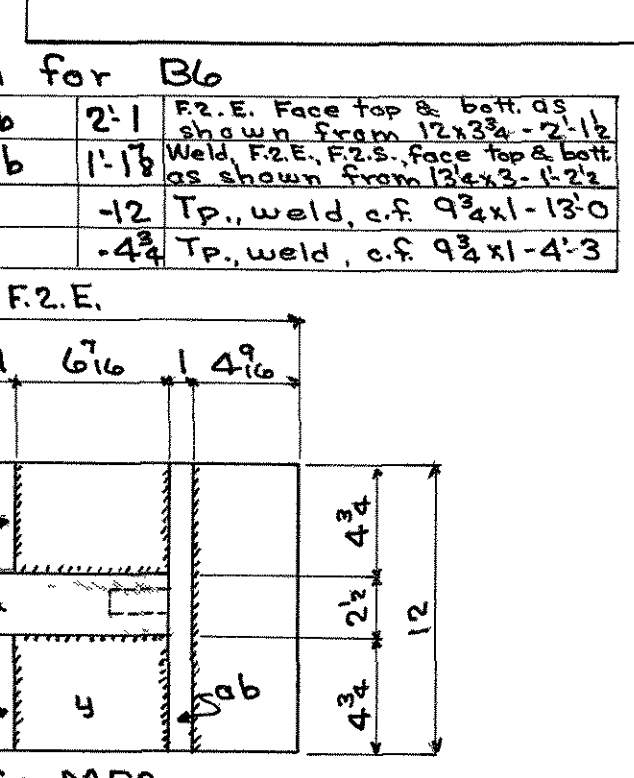
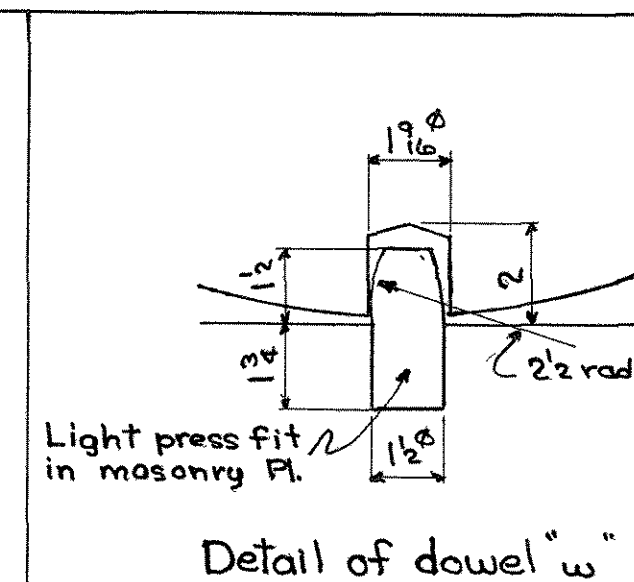
STRUCTURAL STEEL - A-S-T-M. A7-48
RIVET STEEL - A-S-T-M. A141-39
RIVETS - ¹⁵/₁₆ UNLESS NOTED OPEN HOLES ¹⁵/₁₆ UNLESS NOTED
HOLS IN MAIN MEMBERS SHALL BE PUNCHED ³/₄ SMALLER AND AFTER
ASSEMBLING REAMED ¹/₁₆ LARGER, OR DRILLED FROM THE SOLID ¹/₁₆ LARGER
THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.
HOLS MARKED TEMPLT SHALL BE DRILLED TO A METAL TEMPLT 1 THICK
SHOP PAINT - ONE COAT OF APPROVED PAINT
SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE
COATED WITH WHITE LEAD AND TALLOW.
EDGE DISTANCES NOT GIVEN ARE ¹/₂
LAST ASSEMBLY MARK- 09 SHOP LIST PAGES 1

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE

Floorbeams and Sway Frames

PHOENIX BRIDGE CORPORATION
CONTRACT 745
C. O. 745C
DRAWING: Z
ENGINEER: W.R. Hall
DRAFTSMAN: D.G. Hinkle
CHECKED BY: J.D.S 7/17/47
SCALE: 3/4" = 1'-0"
DATE: June 19, 1947





Specifications:- State of New Hampshire Highway Department Standard Specifications 1941 and State of New Hampshire Highway Department Special Specifications. Also A.A.S.H.O. 1944. Workmanship - A.A.S.H.O. 1944

Structural Steel:- A.S.T.M. A7-46

Cast Steel:- Standard Specifications for Carbon Steel Castings A.S.T.M. A27-44, Grade B, full annealed.

Steel Forgings:- Standard Specifications for Carbon Steel Forgings A.S.T.M. A235-42, Class C-1, carbon steel thoroughly annealed. All welds 1/2"

Shop Paint:- One coat approved paint.

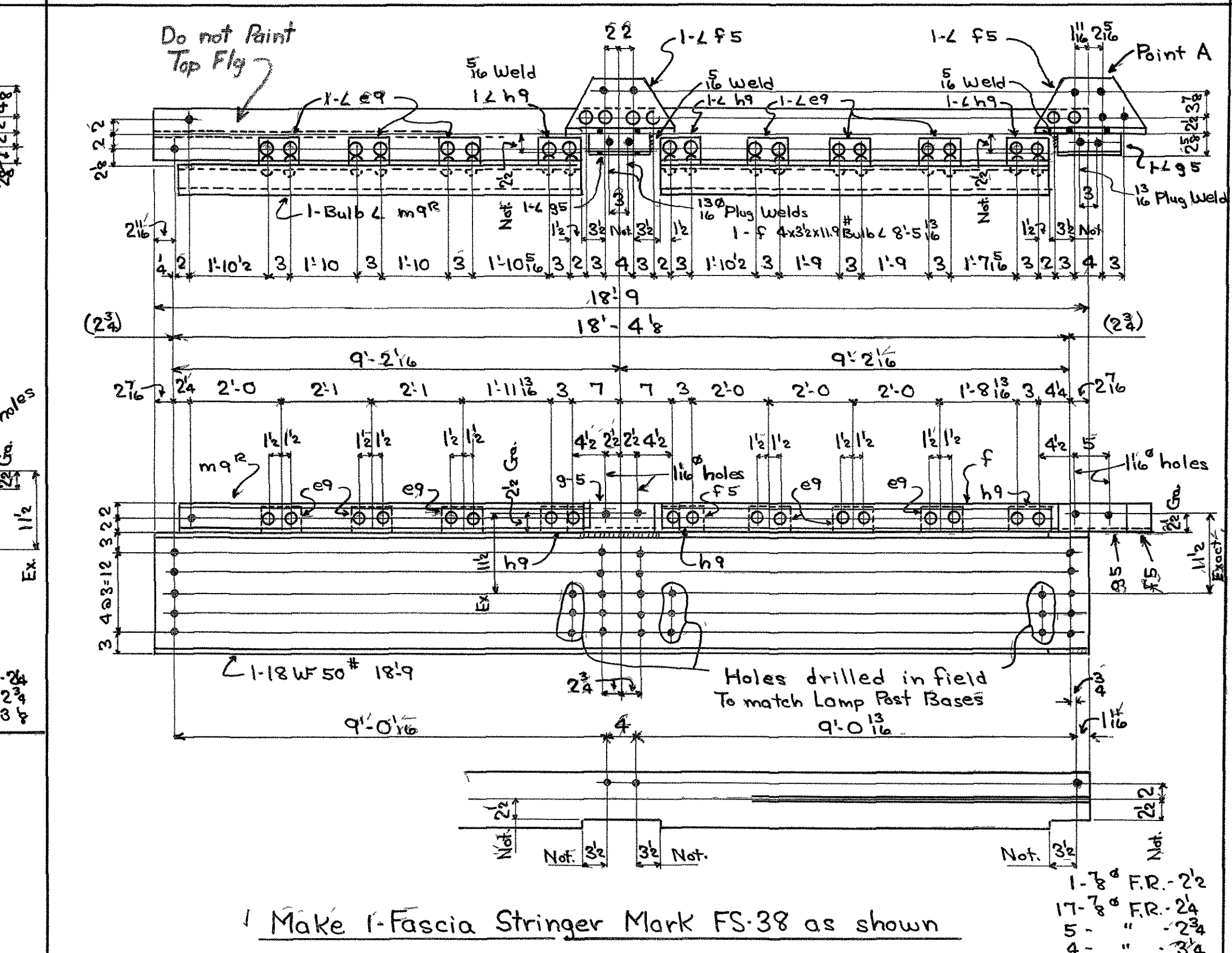
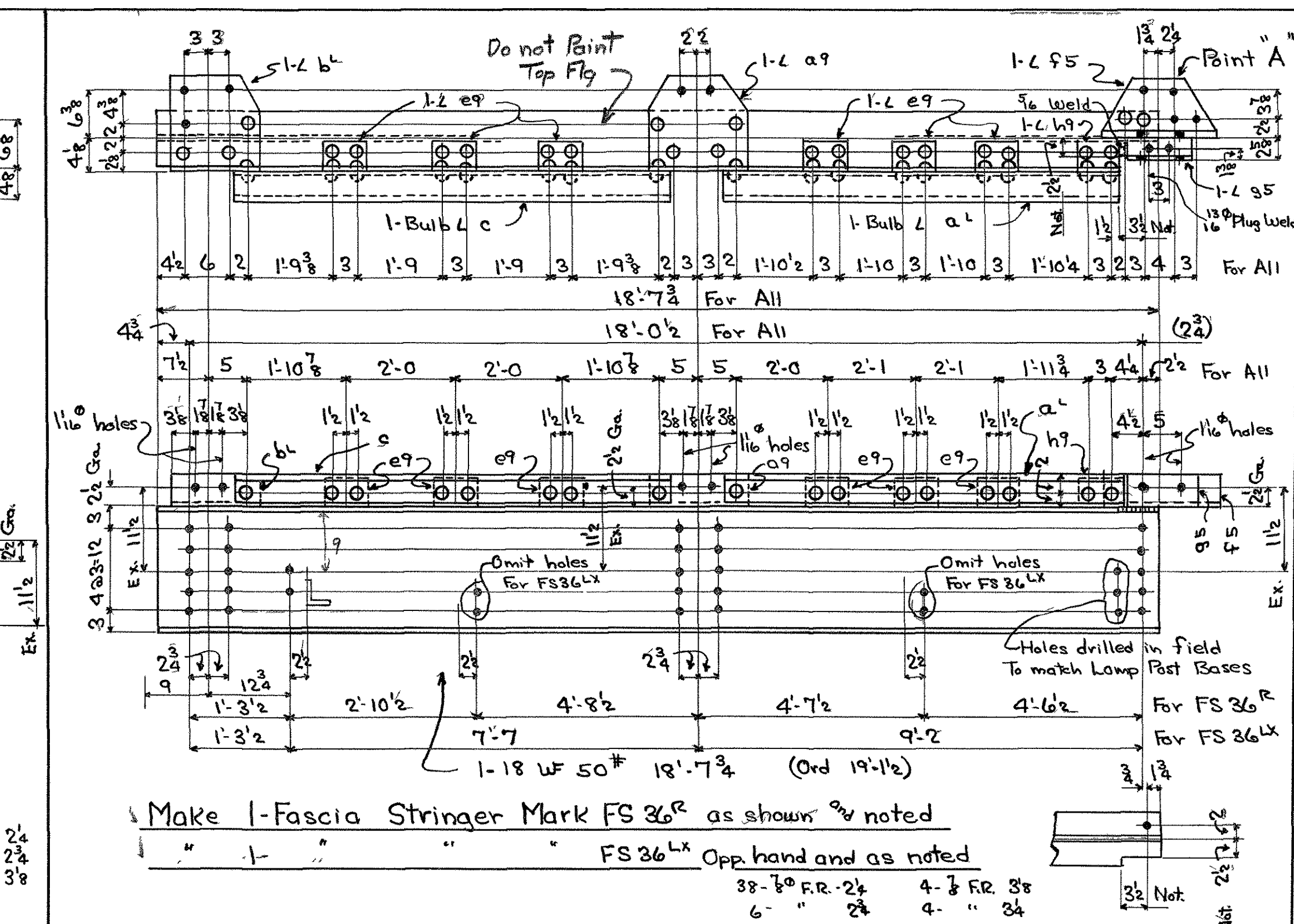
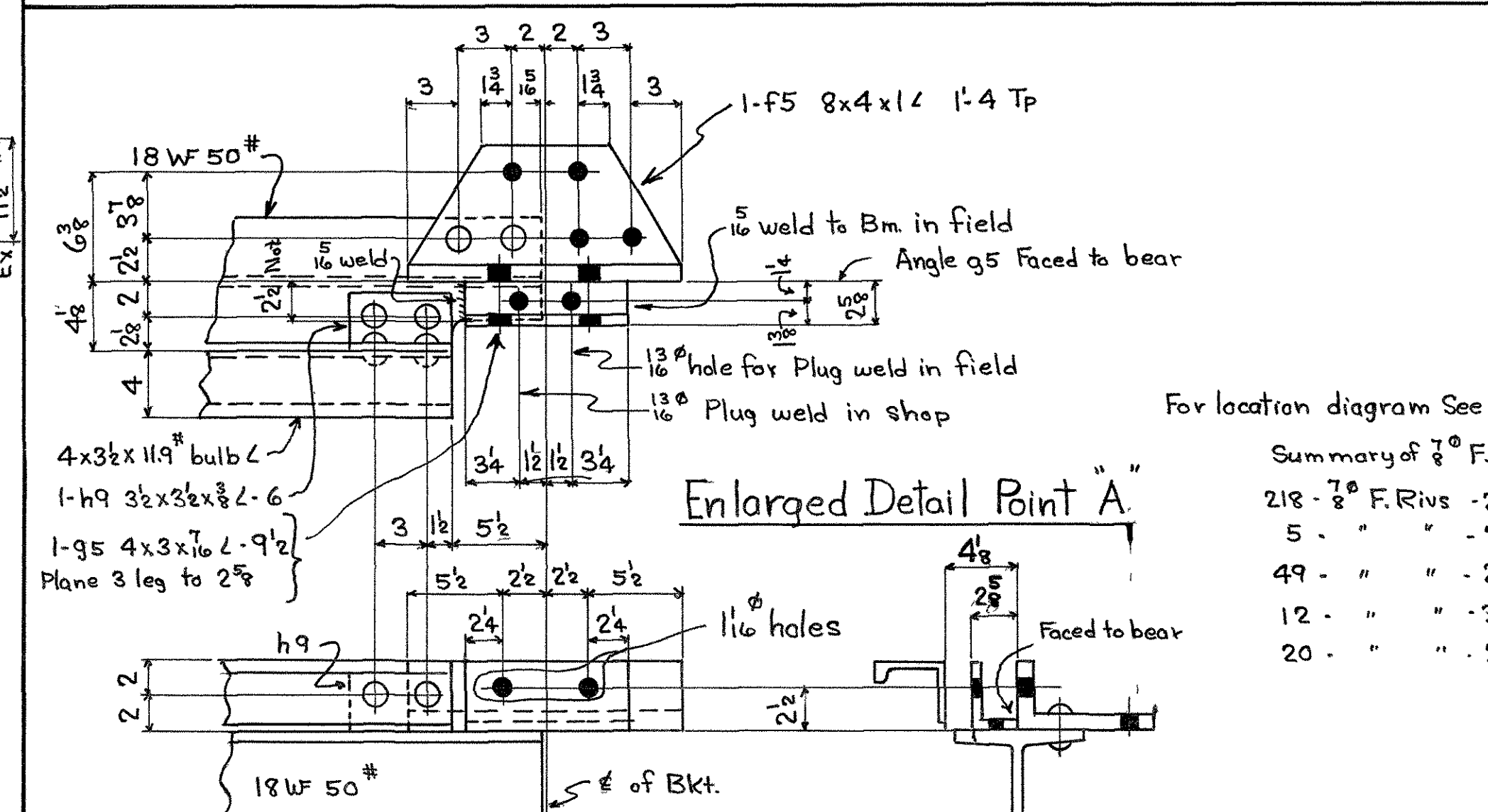
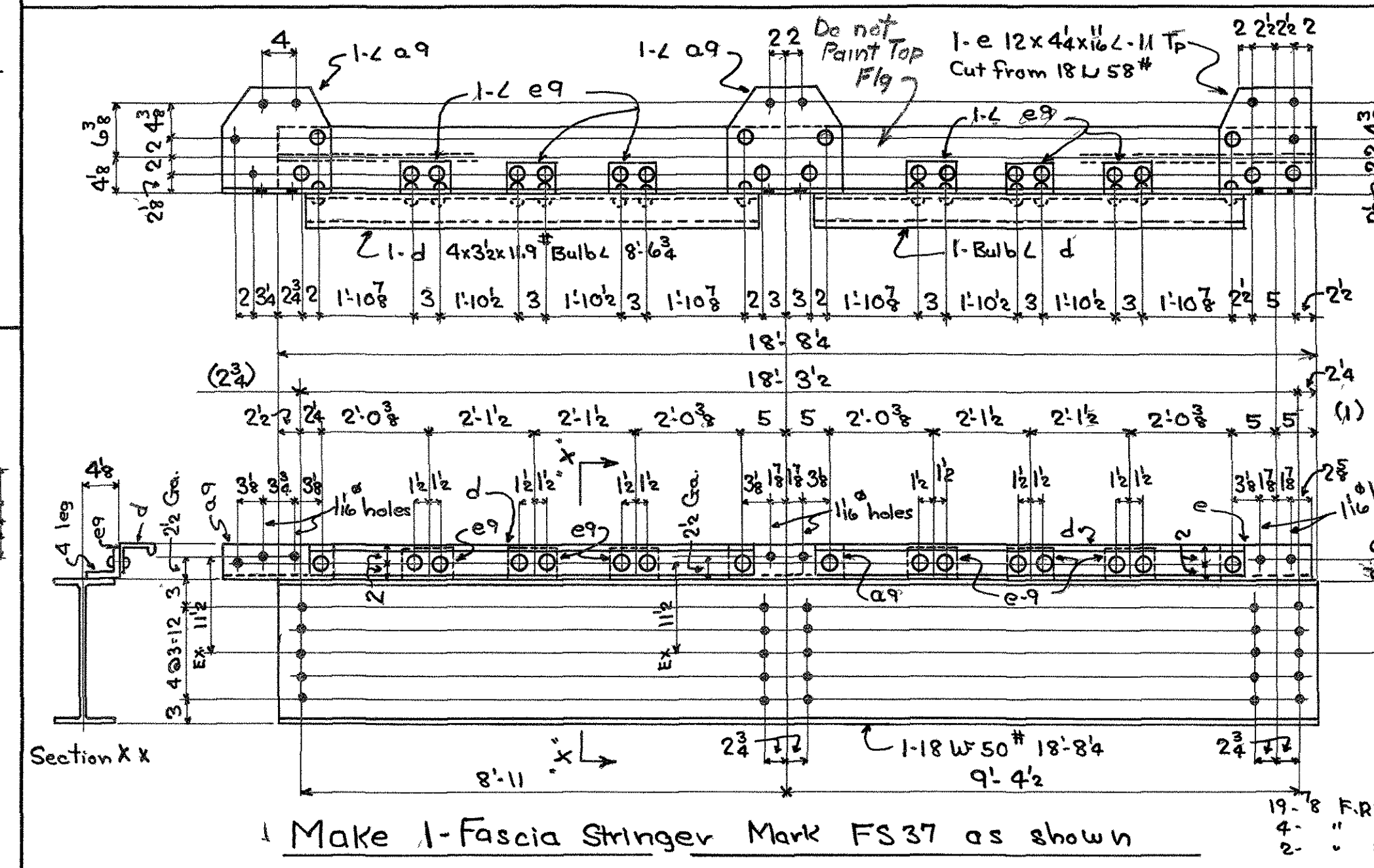
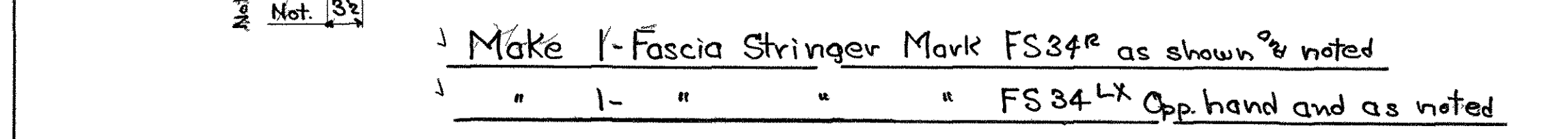
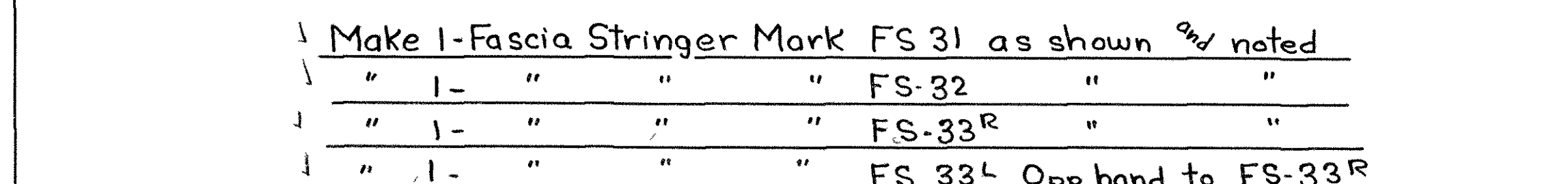
Machine Surfaces are to be coated with white lead & tallow. Last shop mark "g."

Shop list pages. { C.O. 745b 1-2
C.O. 745g 1-2

STATE OF NEWHAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE

Bearings

PHOENIX BRIDGE CORPORATION
CONTRACT 745
C.O. 745 D & G
DRAWING: 8
ENGINEER: W. R. Hall
DRAFTSMAN: D. G. Hinkle
CHECKED BY: W. R. H. 6/12/47
SCALE: 1/2" = 1'-0"
DATE: June 9 1947



SPECIFICATIONS :

Dwg # -

Riv

STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
STANDARD SPECIFICATIONS 1941, AND STATE OF
NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
SPECIFICATIONS ALSO, A.A.S.H.O 1944
WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL : A.S.T.M. A7-46

RIVET STEEL : A.S.T.M. A141-39

RIVETS : T_c Ø UNLESS NOTED. OPEN HOLES 1½ Ø UNLESS NOTED
HOLES IN MAIN MEMBERS SHALL BE PUNCHED ¼ SMALLER AND AFTER
ASSEMBLING REAMED ⅛ LARGER OR DRILLED FROM THE SOLID ⅛ LARGER
THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLET SHALL BE DRILLED TO A METAL TEMPLET 1 THICK
SHOP PAINT : ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
WITH CONCRETE SHALL NOT BE PAINTED NACHINED SURFACES ARE TO BE
COATED WITH WHITE LEAD AND TALLOW

EDGE DISTANCES NOT GIVEN ARE 1½

LAST ASSEMBLY MARK- F SHOP LIST PAGES 15,16

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE

Fascia Stringers Approach Span

THE PHOENIX BRIDGE CO.
CONTRACT 745
C.O. 745 C

DRAWING: IO

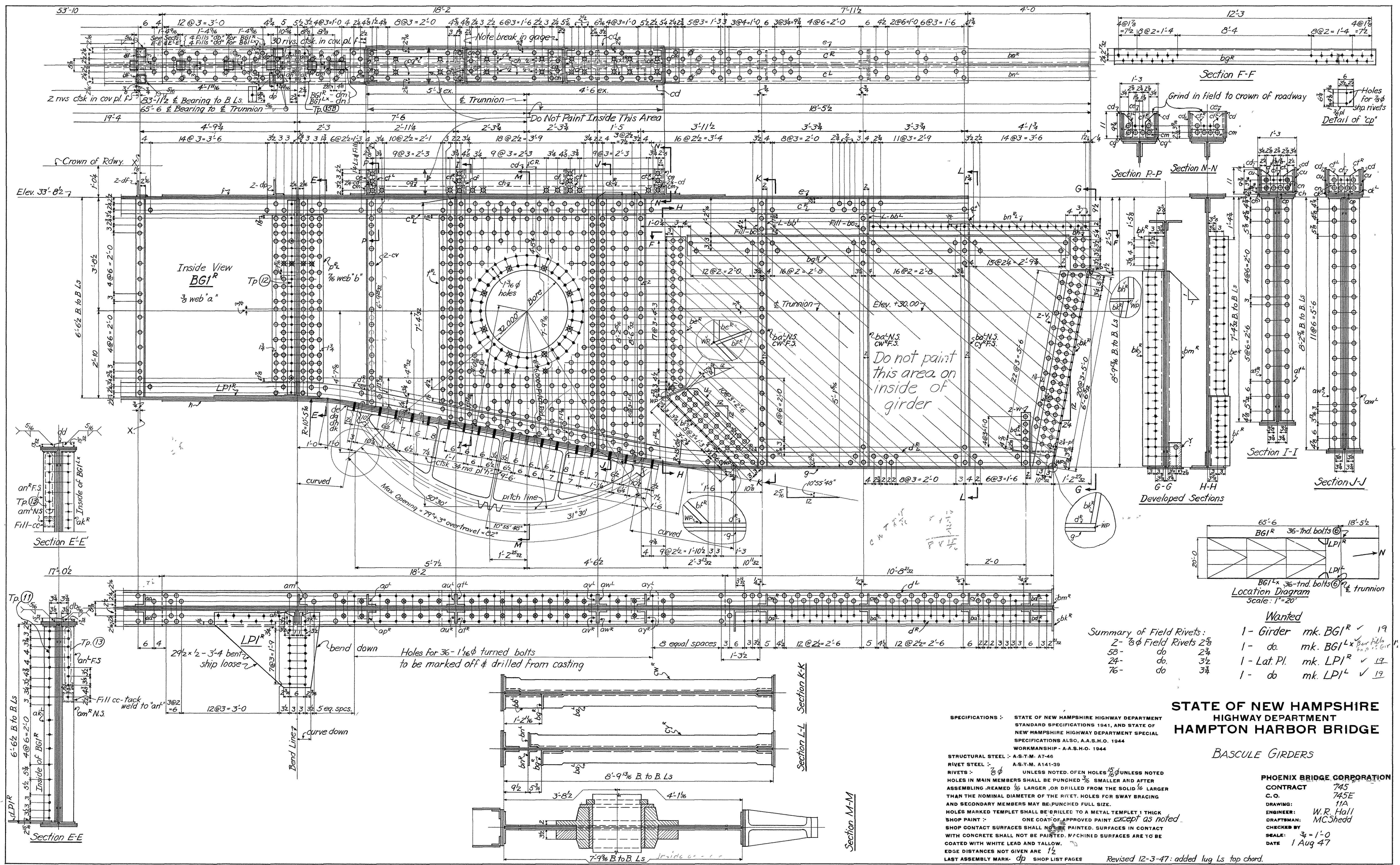
ENGINEER: W.R. Hall

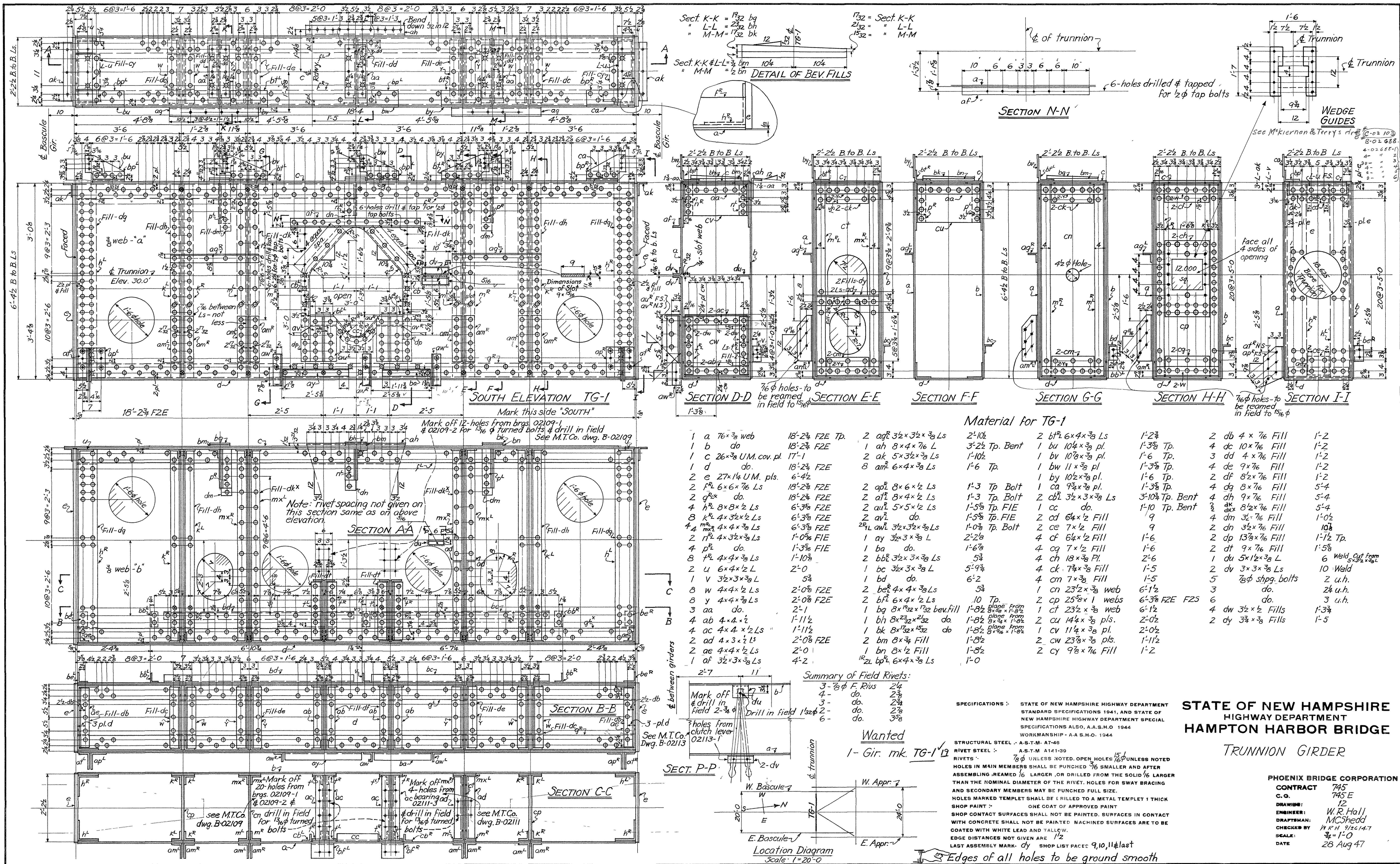
DRAFTSMAN: Leon Geiser

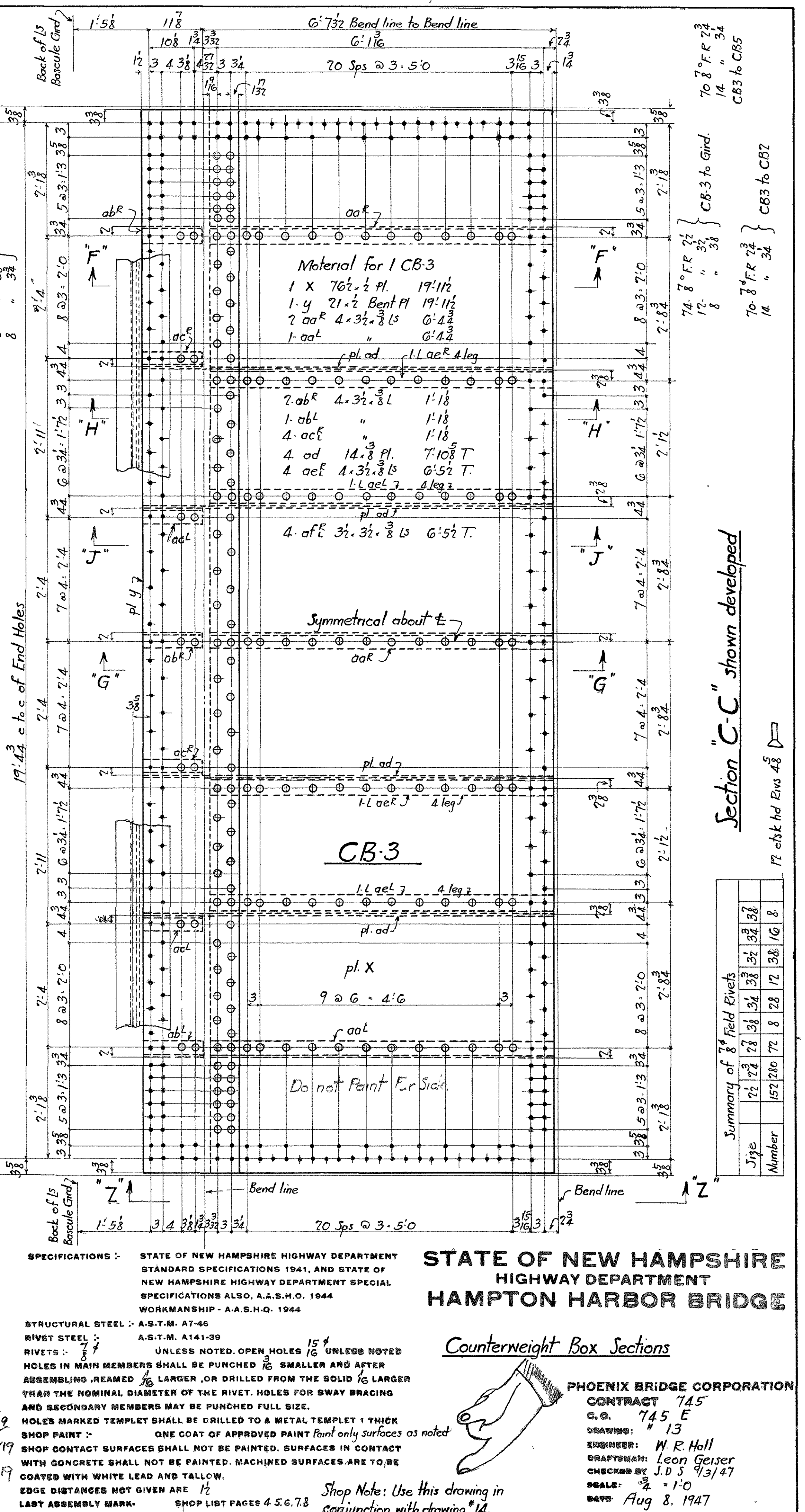
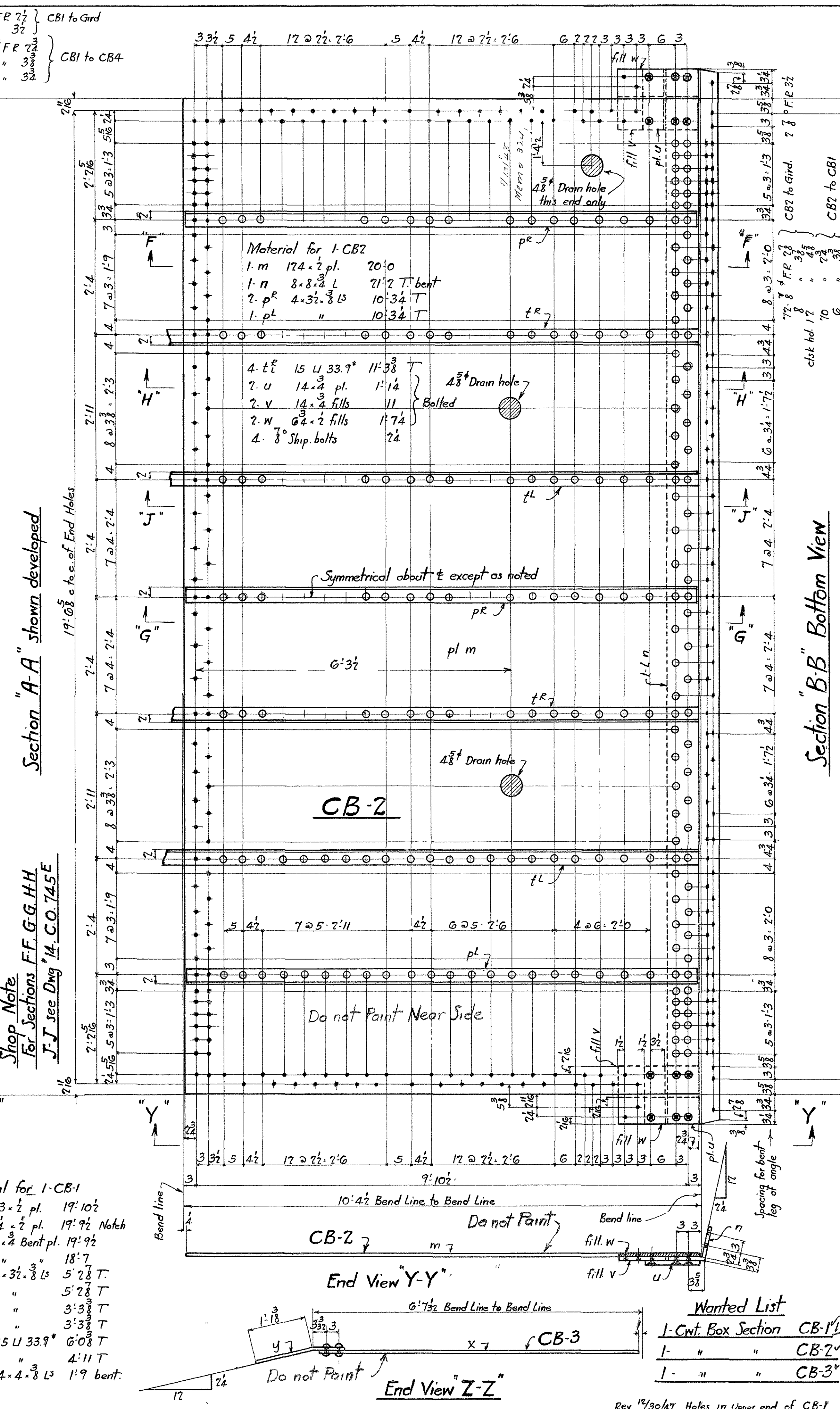
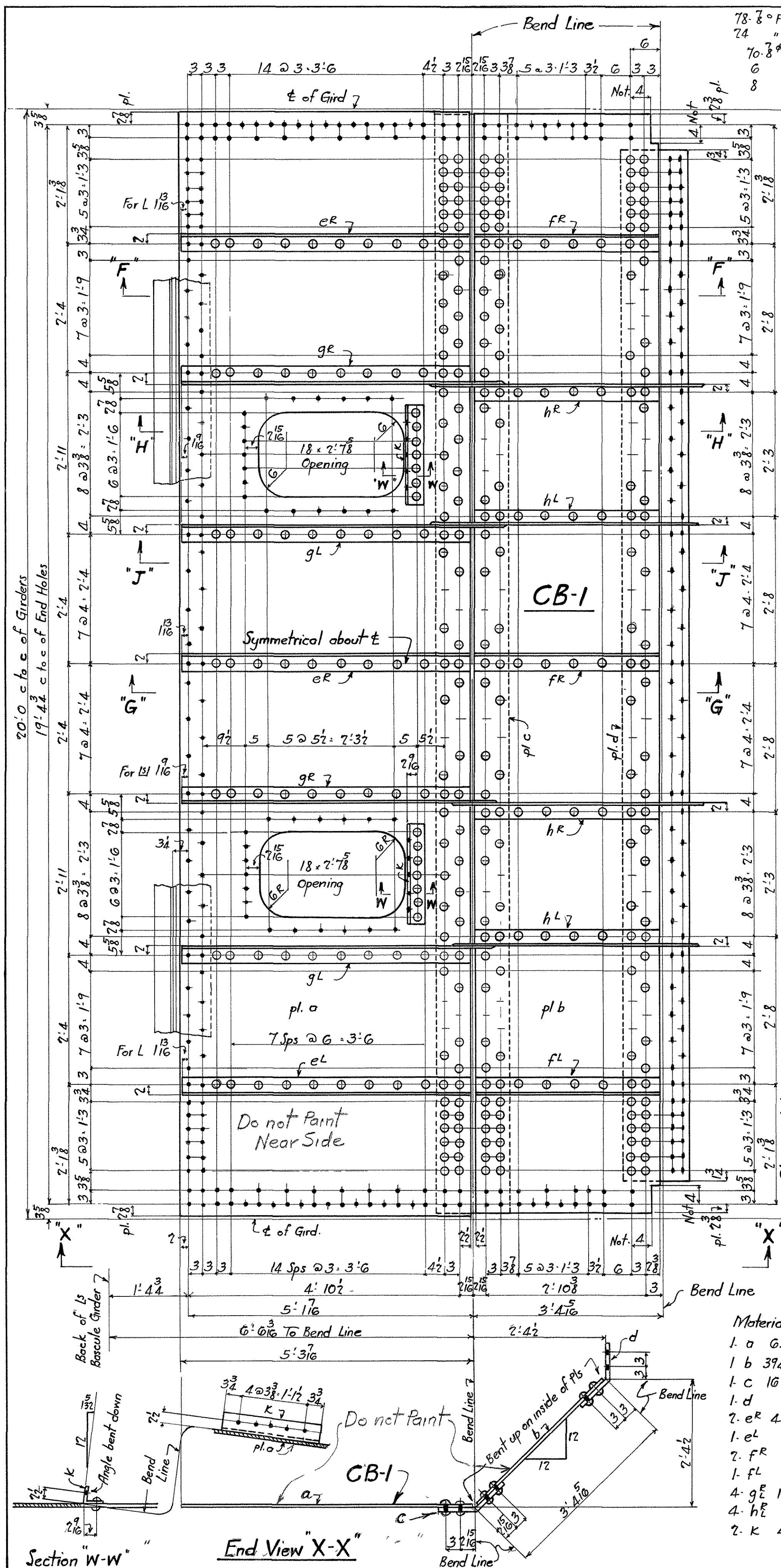
CHECKED BY: Z.G. 11/12/47

SCALE ¾ and 1½ = 12

DATE Oct 30th, 1947







STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT

HAMPTON HARBOR BRIDGE

Counterweight Box Sections

PHOENIX BRIDGE CORPORATION

CONTRACT 745

C.O. 745 E

DRAWING: 13

ENGINEER: W.R. Hall

DRAFTSMAN: Leon Geiser

CHECKED BY: J.D.S. 9/3/47

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

DATE: Aug 8, 1947

Shop Note: Use this drawing in conjunction with drawing #14.

STRUCTURAL STEEL: A.S.T.M. A7-46

RIVET STEEL: A.S.T.M. A141-39

UNLESS NOTED, OPEN HOLES 1/16" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16" SMALLER AND AFTER ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK

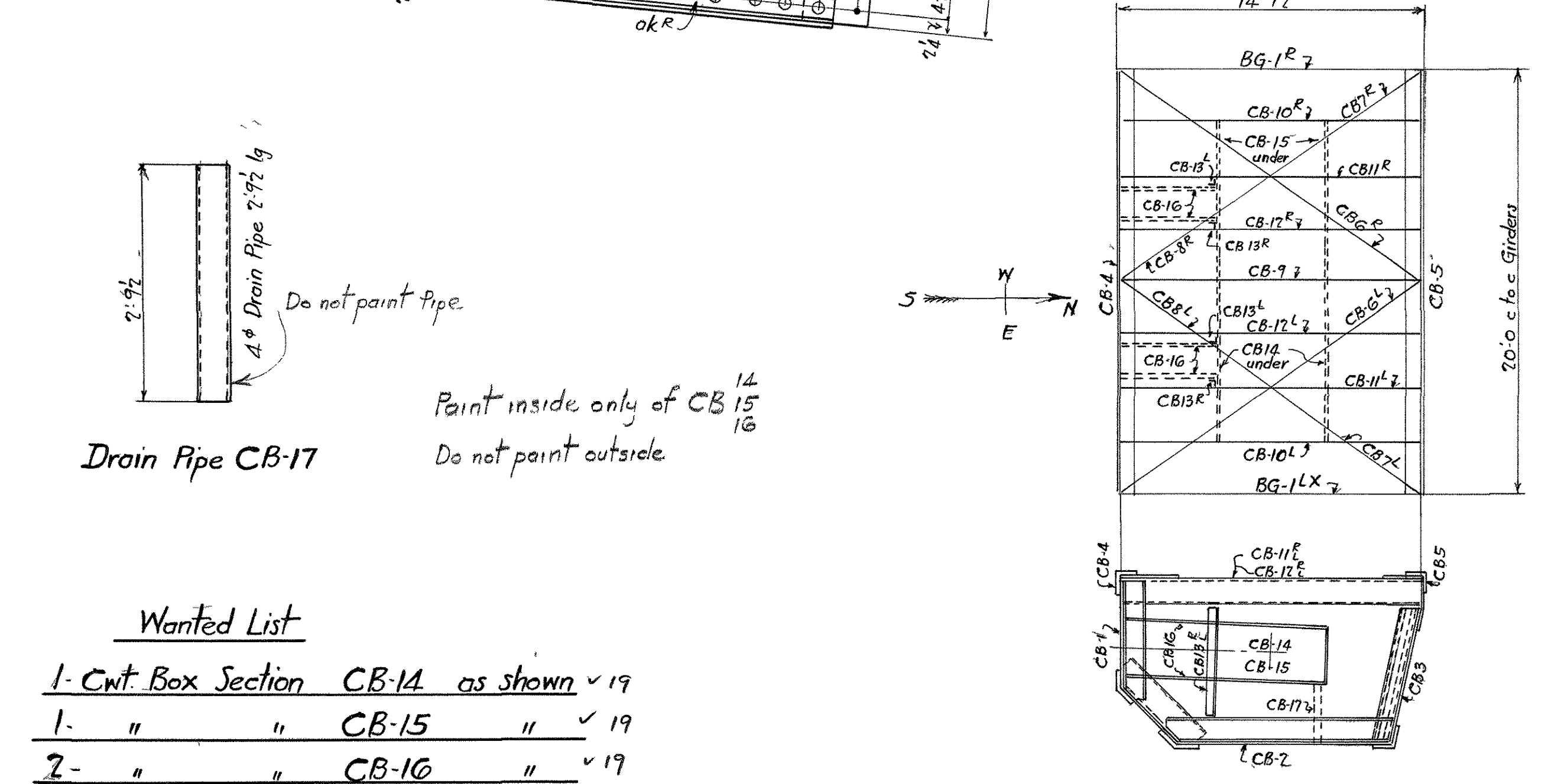
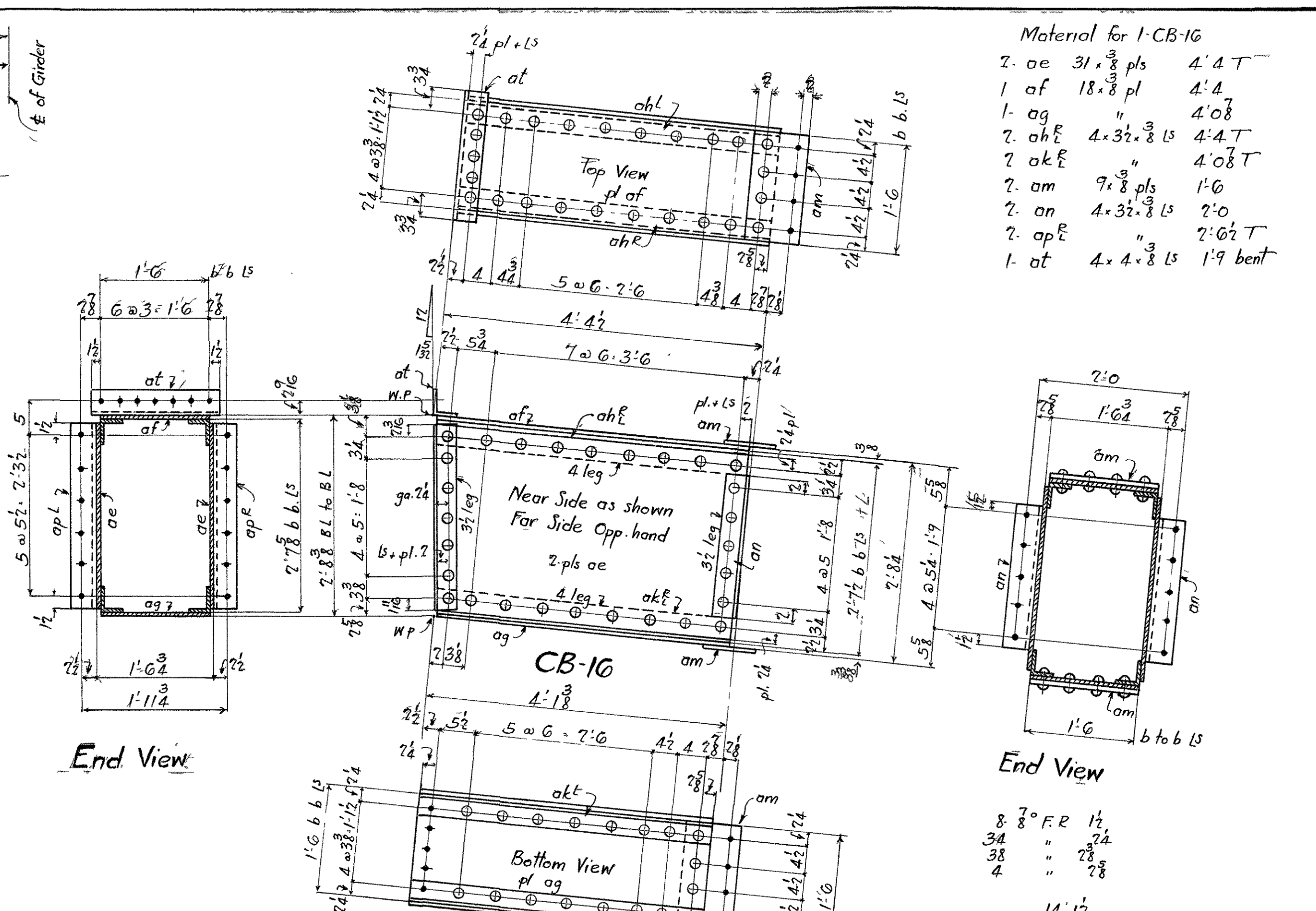
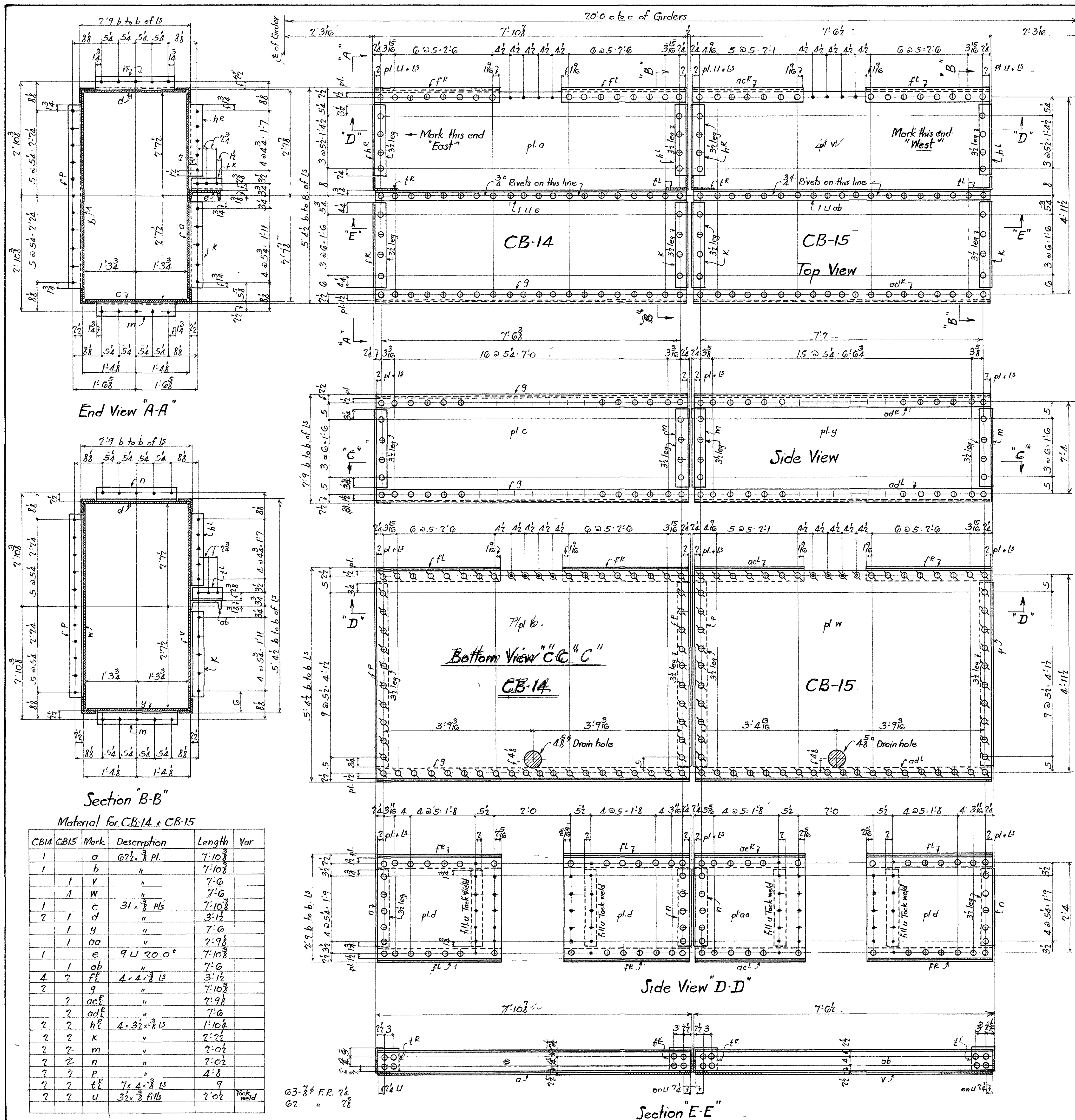
SHOP PAINT: ONE COAT OF APPROVED PAINT ONLY SURFACES AS NOTED

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE 1/2"

LAST ASSEMBLY MARK.

SHOP LIST PAGES 4, 5, 6, 7, 8



Specifications:
 STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
 STANDARD SPECIFICATIONS 1941, AND STATE OF
 NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
 SPECIFICATIONS ALSO, A.A.S.H.O. 1944
 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL: A.S.T.M. A7-45
RIVET STEEL: A.S.T.M. A141-30
RIVETS: 8" UNLESS NOTED OPEN HOLES 15% UNLESS NOTED
 HOLES IN MAIN MEMBERS SHALL BE PUNCHED 1/16" SMALLER AND AFTER
 ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER
 THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
 AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.
 HOLES MARKED TEMPLAT SHALL BE DRILLED TO A METAL TEMPLAT 1 THICK
 SHOP PAINT: ONE COAT OF APPROVED PAINT (Paint only surfaces as noted)
 SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
 WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE
 COATED WITH WHITE LEAD AND TALLOW
 EDGE DISTANCES NOT GIVEN ARE 1/2"
 LAST ASSEMBLY MARK: at SHOP LIST FACES 4.5.6.7.8

Summary of 8" F.R. Rivs

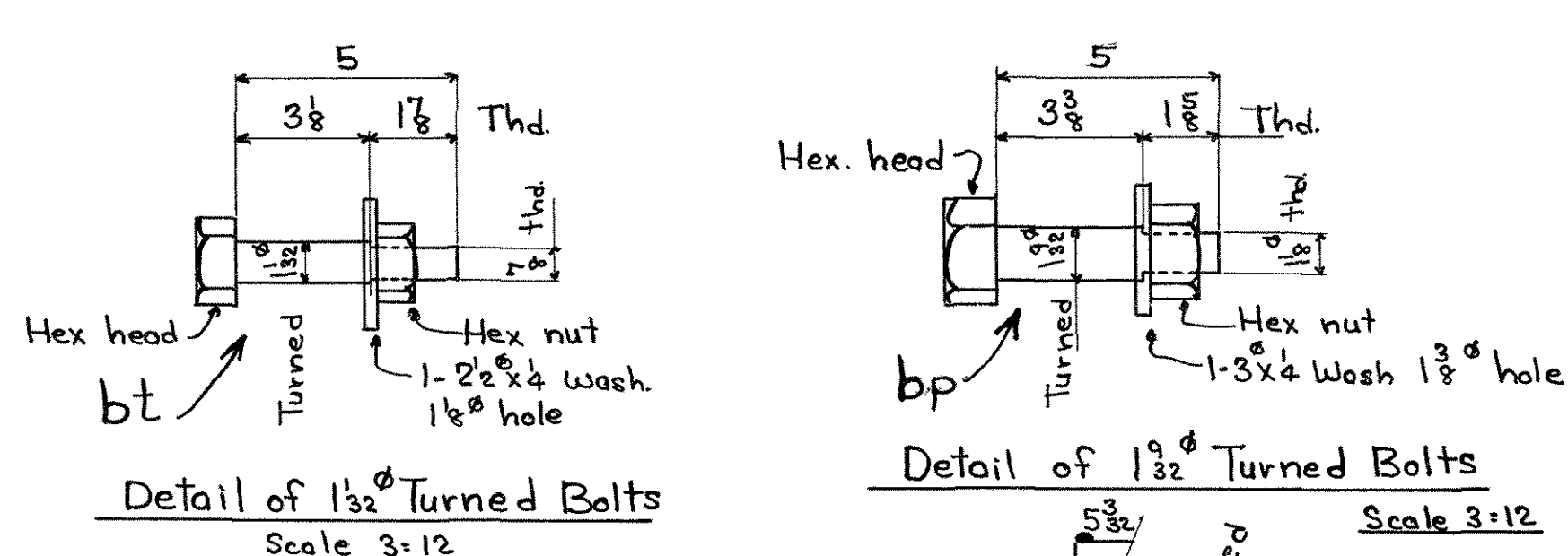
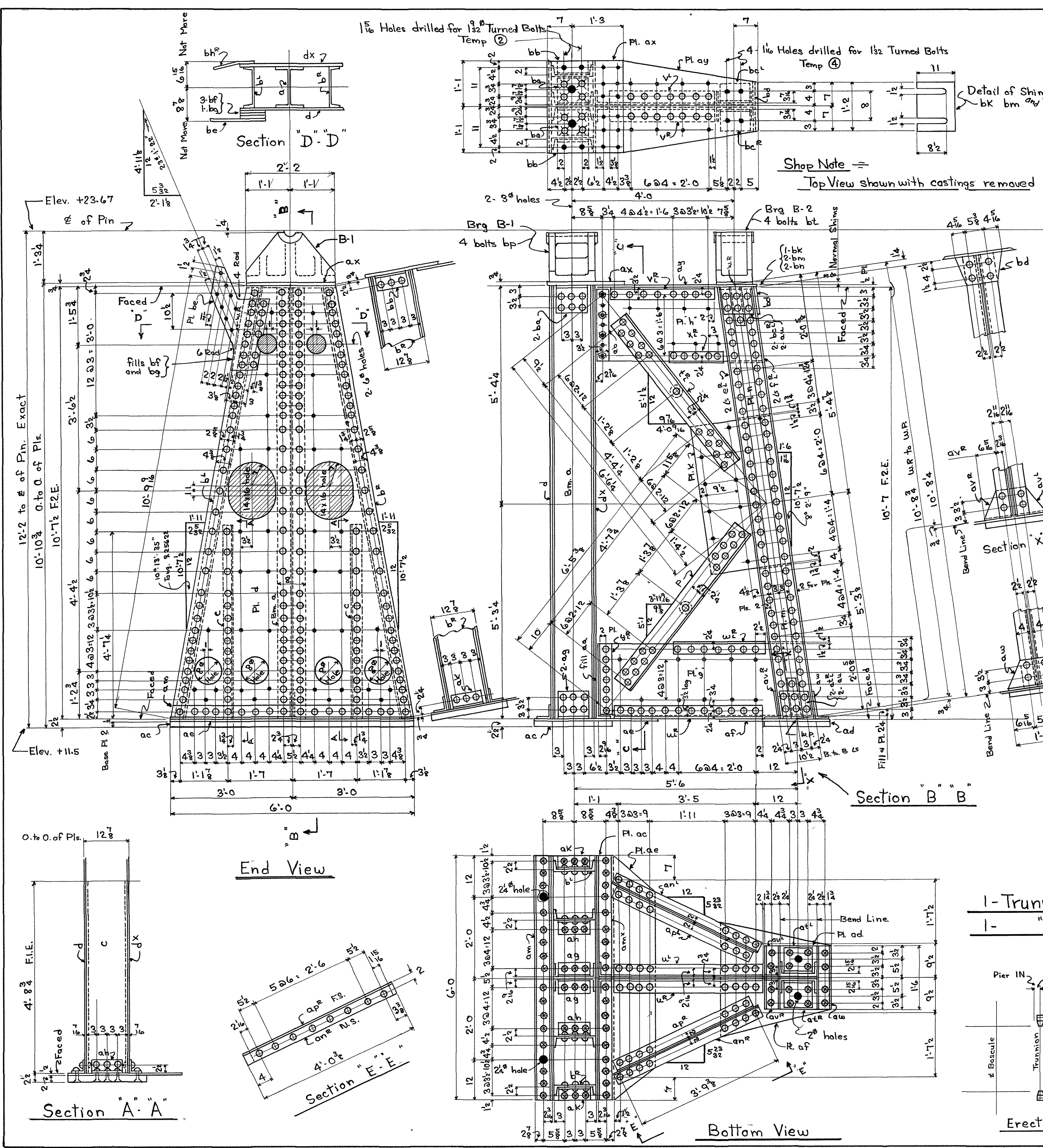
8	8"	F. Rivs	1/2"
107	"	"	3/4"
38	"	"	7/8"
66	"	"	1"

**STATE OF NEW HAMPSHIRE
 HIGHWAY DEPARTMENT
 HAMPTON HARBOR BRIDGE**

Counterweight Box Sections

PHOENIX BRIDGE CORPORATION
 CONTRACT 745
 C.O. 745 E
 DRAWING: # 15
 ENGINEER: W. R. Hall
 DRAFTSMAN: Leon Geiser
 CHECKED BY: J. D. S. 9/19/47
 SCALE: 3/4" = 1'-0"
 DATE: Aug. 27, 1947

Rev 1/10/48 Pcs mkt. E memo #180



List of Material Reg'd 1-TS-R

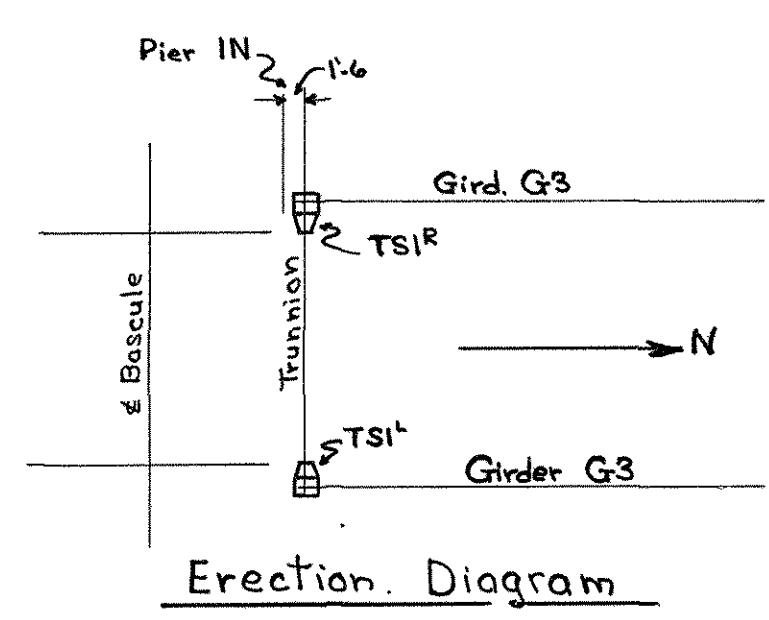
1	a	12 W 45#	10'-7 1/2"	F2.E
2	b	12 L 25#	10'-10 1/8"	T, F2.E
2	c	"	4'-9 3/4"	F2.E
1	d	72 x 16 R	10'-7 1/2"	T, F2.E
1	dx	"	10'-7 1/2"	"
2	ef	4 x 3 1/2 x 3/8 Ls	10'-8 3/4"	"
2	ff	"	10'-8 3/4"	"
1	g	2 1/2 x 3/8 Pl.	5'-3 1/2"	T
1	h	2 1 x 3/8 Pl.	4'-1"	T
1	k	24 x 3/8 Pl.	3'-7 1/2"	"
1	m	10 x 3/8 Pl.	1'-11 1/8"	T
1	n	"	1'-5 8/8"	T
2	p	6 x 4 x 3/8 Ls	4'-10 1/2"	"
2	tr	"	4'-7 1/4"	"
2	u	2 1/2 x 3/8 Wash	10'-15 1/2" holes	"
2	ur	4 x 3 1/2 x 3/8 Ls	3'-8 1/2"	"
2	vr	"	2'-8"	"
2	w	3 1/2 x 3 1/2 x 3/8 Ls	2'-4"	"
2	x	4 x 4 x 3/8 Ls	1'-4 1/2"	"
2	y	4 x 4 x 3/8 Ls	1'-9 1/2"	"
1	aa	8 x 2 x 3/8 Fill	1'-6"	"
2	ab	4 x 3 1/2 x 3/8 Ls	1'-9"	"
4	ac	3/4 Shift Bolts	-2 1/4"	"
1	ad	23 x 2 Pl.	6'-0"	"
1	ae	18 x 2 Pl.	1'-7"	"
1	af	35 x 2 Pl.	6'-0"	T
1	ag	32 x 1/2 Pl.	2'-8 1/2"	T
2	ah	8 x 4 x 1/2 Ls	-9"	"
2	ai	4 x 4 x 1/2 Ls	-9"	"
2	aj	"	-9"	bent
1	am	"	6'-0"	T
1	an	"	6'-0"	T
2	ao	3 1/2 x 3 1/2 x 3/8 Ls	4'-0 3/8"	"
2	ap	"	3'-9"	"
2	aq	8 x 8 x 1/2 Ls	-10 1/8"	T
4	au	3 x 3 x 3/8 Fills	-11 1/4"	T
2	av	8 x 4 x 1/2 Ls	-8 1/2"	bent
1	aw	"	1'-6"	"
1	ax	26 x 3/4 Pl.	1'-10"	"
1	ay	26 x 1/2 Pl.	3'-11 1/2"	Top
2	ba	8 x 8 x 1/2 Ls	-9"	"
2	bb	4 x 4 x 1/2 Ls	-9"	"
2	bc	8 x 6 x 1/2 Ls	-10 1/8"	T
1	bd	8 x 1/2 Shift Pl.	1'-2"	T, F2.E
1	be	16 x 1/2 Pl.	2'-4 1/2"	T
3	bf	7 x 1/2 Fills	1'-11"	T
1	bg	7 x 1/6 Fills	1'-11"	T
1	bh	18 x 1/2 bent Pl.	1'-8"	T
1	bk	11 x 3/8 Shim	1'-2"	"
2	bm	11 x 1/8 Shim	1'-2"	"
2	bn	11 x 1/8 Shim	1'-2"	"
1	bl	C.S. Bearing		Detail on Dwg #8
1	B2	"		
4	bp	1 1/2" Turned Bolts	-5"	"
4		3/4 x 4 Wash	1 1/8" hole	"
4		Hex nut for 1 1/8" Thread		"
4	bt	1 1/2" Turned Bolts	-5"	"
4		2 1/2 x 1/4 Wash	1 1/8" hole	"
4		Hex nut for 1 1/8" Thread		"

Wanted List

1-Trunnion Support Mark TS-1^R as shown

1- " " TS-1^L opp hand

Each with 1-B1, 1-B2, 1-bk, 2-bm, 2-bn, 4-bp 4-bt fast for shipment.



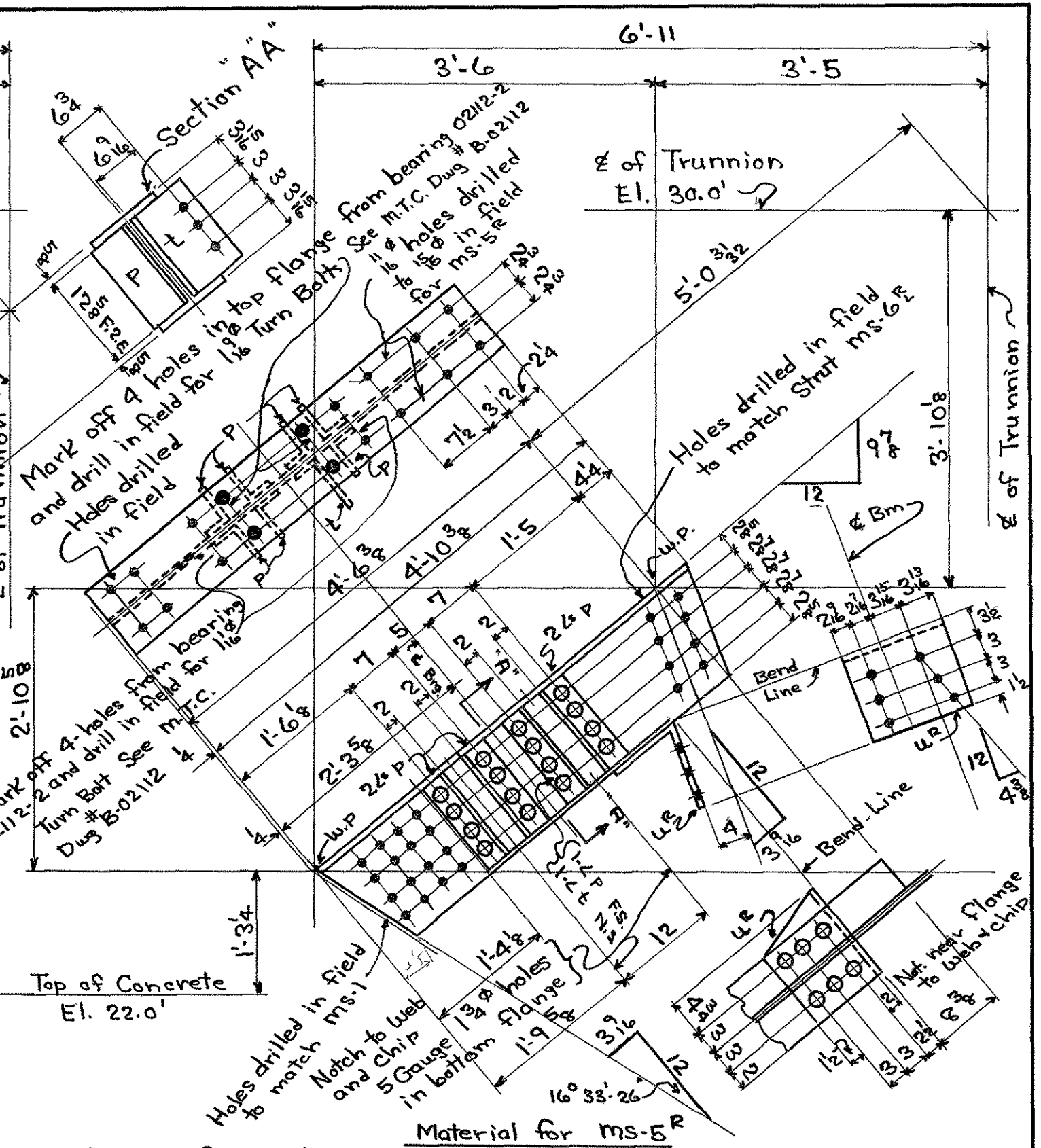
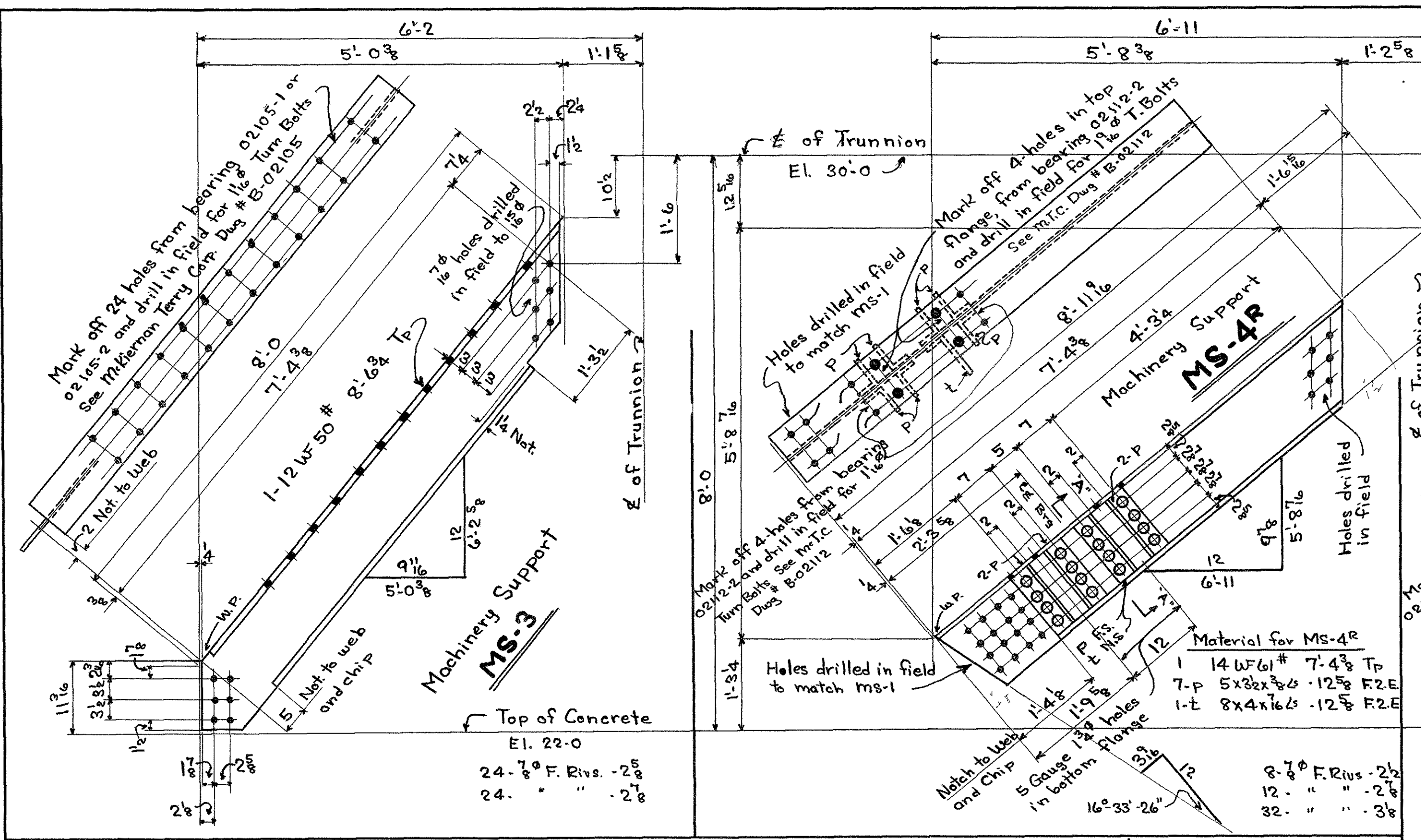
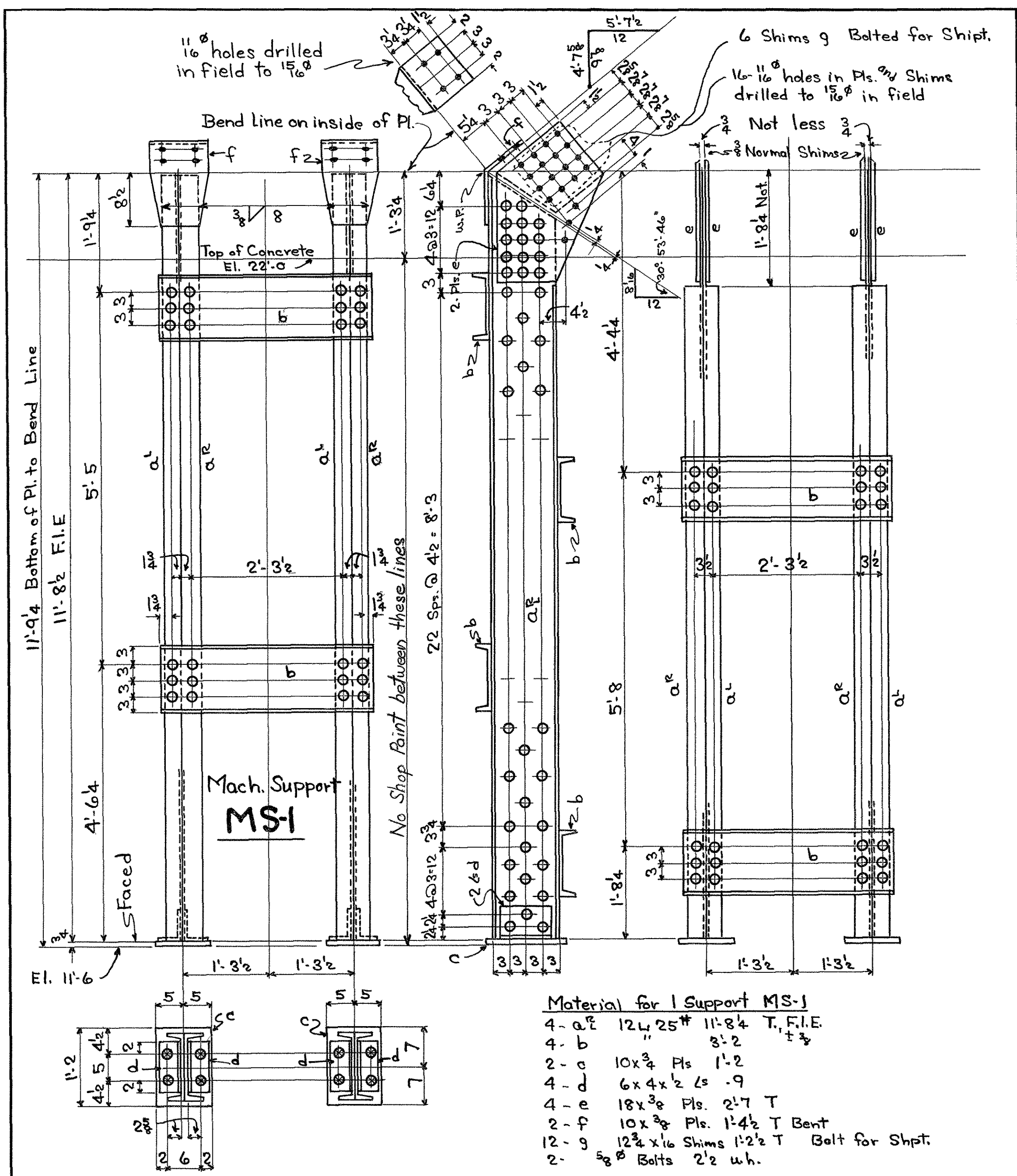
SPECIFICATIONS: STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
STANDARD SPECIFICATIONS 1941, AND STATE OF
NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
SPECIFICATIONS ALSO, A.A.S.H.O. 1944
WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL: A.S.T.M. A7-58
RIVET STEEL: A.S.T.M. A141-59
RIVETS: 7/8" UNLESS NOTED OTHERWISE 15/16" UNLESS NOTED
HOLES IN MAIN MEMBERS: 3/16" PUNCH 3/16" ALLER AND AFTER
ASSEMBLING, REAMED 1/64" OVER OR DRILLED FROM THE SOLID 1/64" LARGER
THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.
HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK
SHOP PAINT: No Shop Paint.
SHOP CONTACT SURFACES SHALL NOT BE PAINTED SURFACES IN CONTACT
WITH CONCRETE SHALL NOT BE PAINTED. FINISHED SURFACES ARE TO BE
COATED WITH WHITE LEAD AND TALLOW
EDGE DISTANCES NOT GIVEN ARE 1/2"
LAST ASSEMBLY MARK: bt SHOP LIST PAGES 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

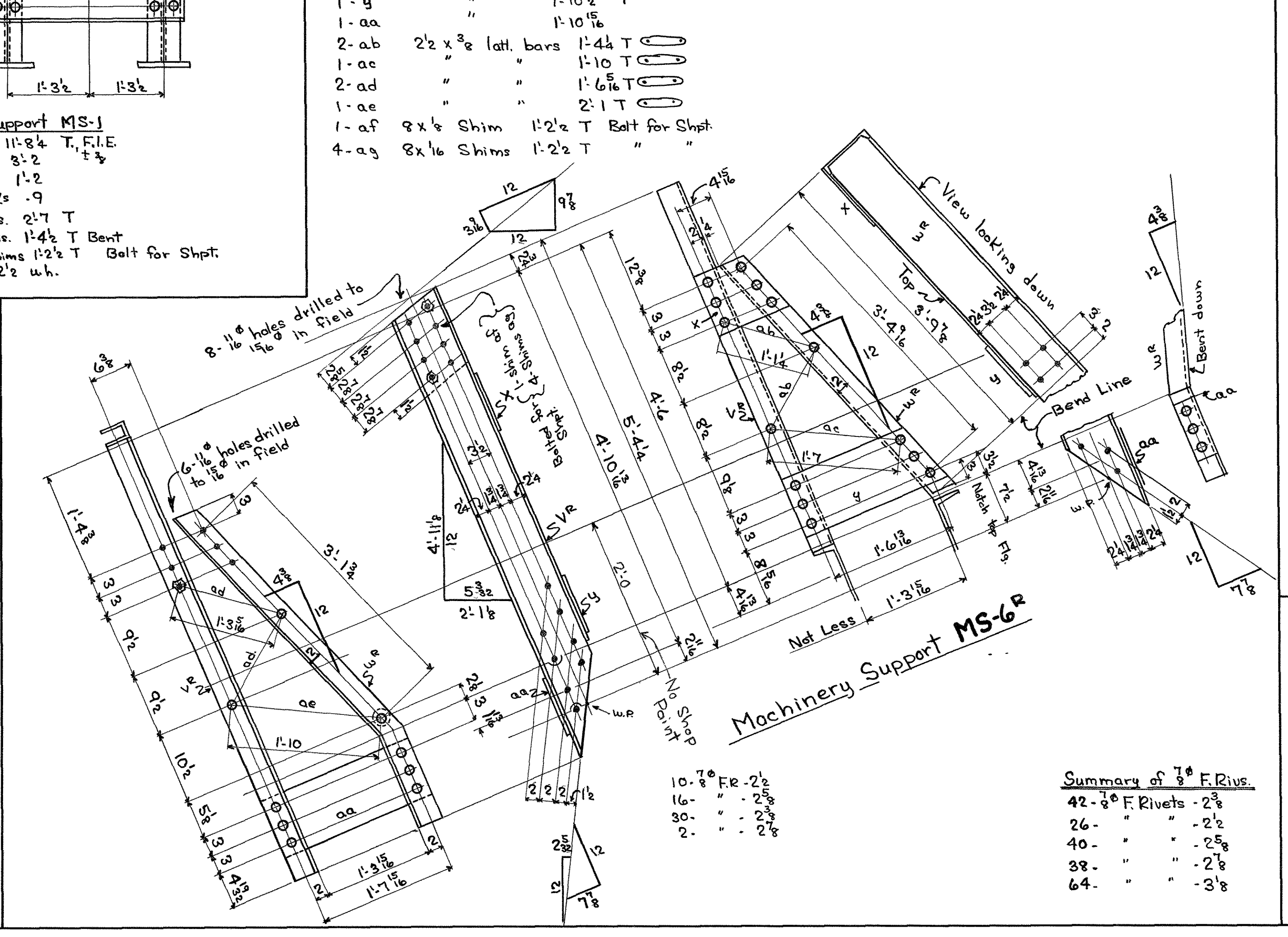
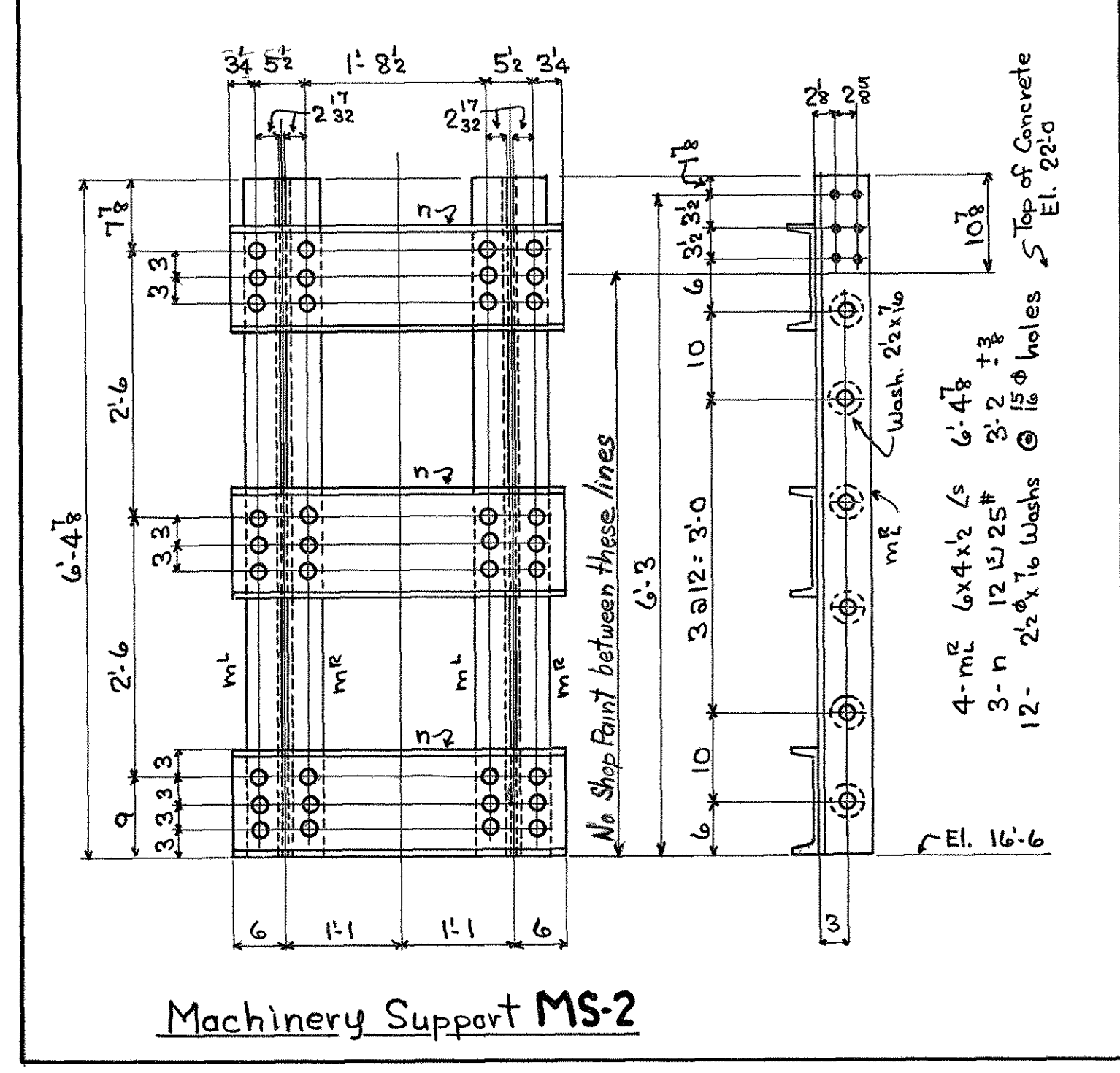
STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE

Trunnion Supports

PHOENIX BRIDGE CORPORATION
CONTRACT 745
C.O. 745F
DRAWING: 16
ENGINEER: W.R. Hall
DRAFTSMAN: L. Geiser
CHECKED BY: J.D.S. 7/29/47
SCALE: 3/4" = 1'-0"
DATE: July 11th 1947



- Material for 1- MS-6R**
- 1-V 8 S L 21.4# 5'-10 1/2 Tp
 - 1-W 4\"/>



Wanted List

- 2-Machinery Supports MS-1 as shown 19
- 2- " " MS-2 " 19
- 4- " " MS-3 " 19
- 1- " " MS-4R " 19
- 1- " " MS-4L Opp hand 19
- 1- " " MS-5R As shown 19
- 1- " " MS-5L Opp hand 19
- 1- " " MS-6R As shown 19
- 1- " " MS-6L Opp hand 19
- 2- Channel Braces MS-7 as shown 19

Brace MS-7

12-7/8 F.Rivs.-2 3/8

Erection Diagram

SPECIFICATIONS - STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1941, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL - A.S.T.M. A7-46

RIVET STEEL - A.S.T.M. A141-39

RIVETS - 7/8" UNLESS NOTED. OPEN HOLES 1/8" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16" SMALLER AND AFTER ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK

SHOP PAINT - ONE COAT OF APPROVED PAINT, Paint only surfaces as noted

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE - 1/2"

LAST ASSEMBLY MARK - 0.9 SHOP LIST PAGES 3-4 Rev. 1/8/48 Changed length of MS-7 members #175

Rev. 11/2/47 As per print Reld 11/2/47 Rev 12/23/47 Spacing for Stiff 2- MS-4R, MS-5R

STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT HAMPTON HARBOR BRIDGE Machinery Supports

PHOENIX BRIDGE CORPORATION CONTRACT 745

C.O. 745F

DRAWING: 17

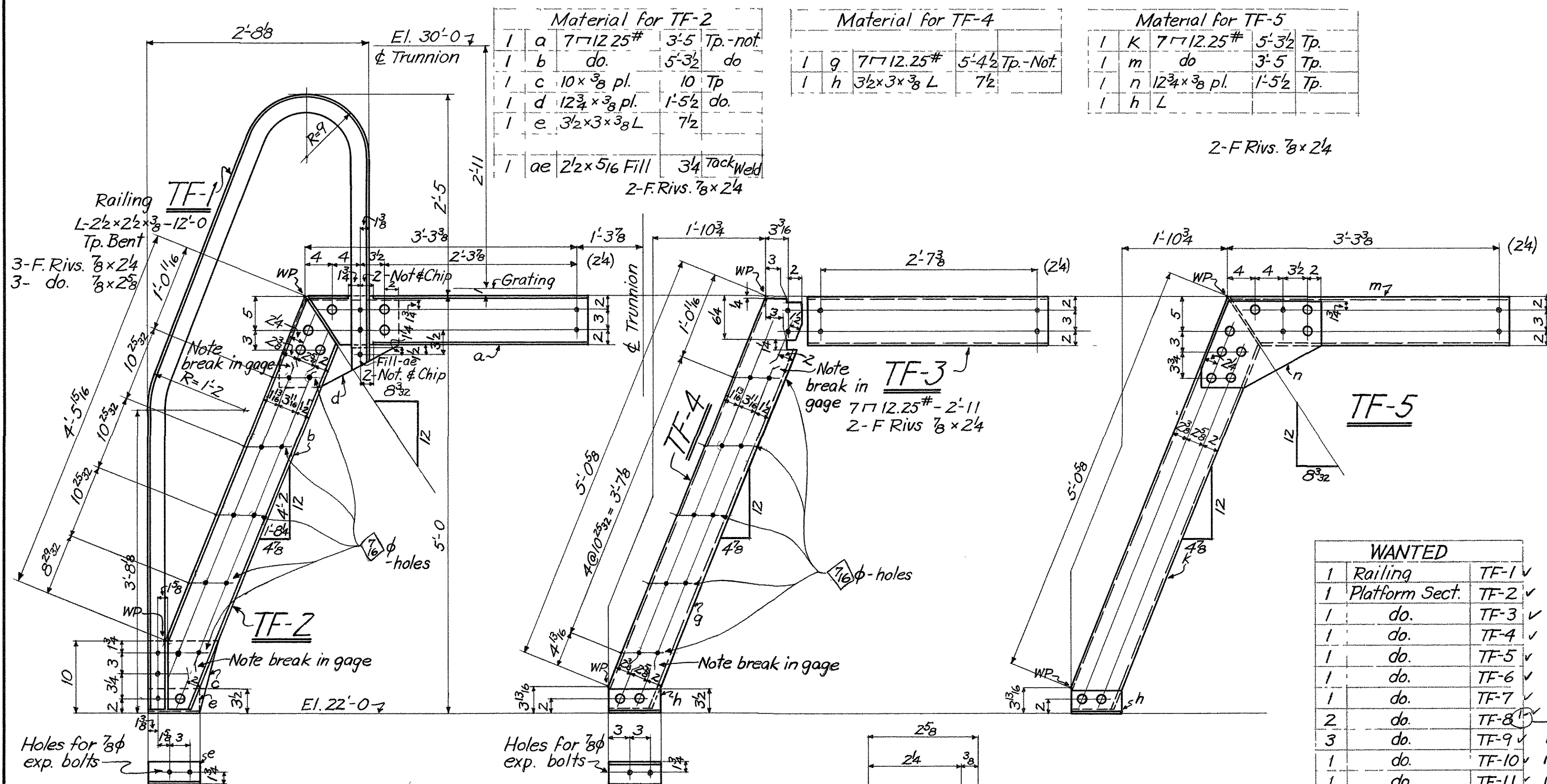
ENGINEER: W.R. Hall

DRAFTSMAN: L. Geiser

CHECKED BY: J.D.S. 7/28/47

SCALE: 3/4" = 1'

DATE: July 18th 1947



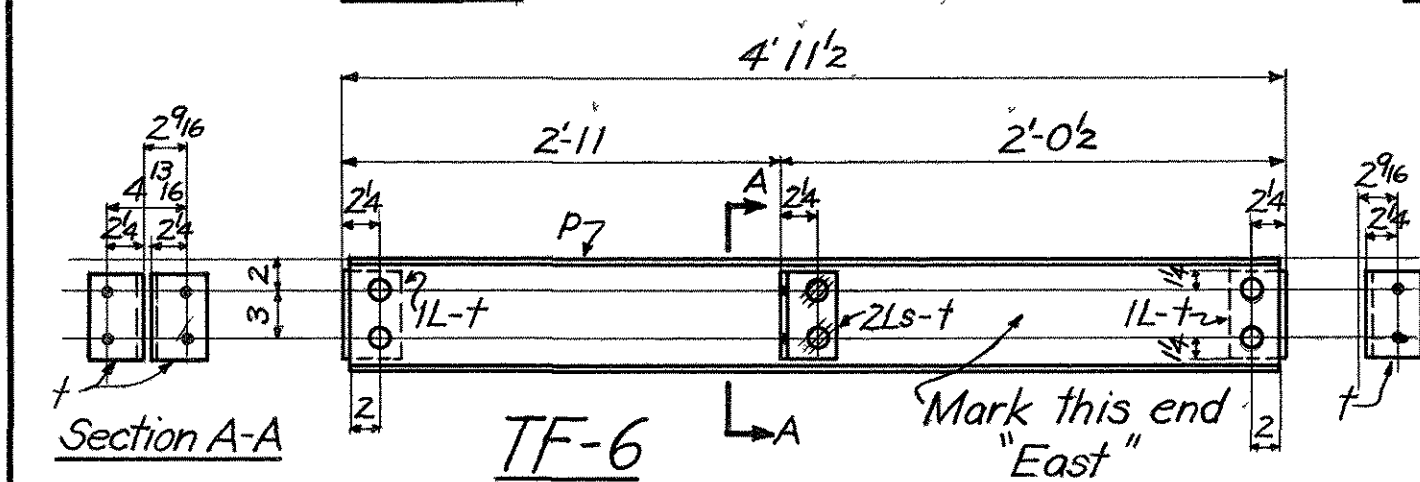
WANTED		
1	Railing	TF-1 ✓ 19
1	Platform Sect.	TF-2 ✓ 19
1	do.	TF-3 ✓ 19
1	do.	TF-4 ✓ 19
1	do.	TF-5 ✓ 19
1	do.	TF-6 ✓ 19
1	do.	TF-7 ✓ 17
2	do.	TF-8 ✓ 19
3	do.	TF-9 ✓ 17
1	do.	TF-10 ✓ 19
1	do.	TF-11 ✓ 19
1	do.	TF-12 ✓ 19
6	Cinch Ancr. Bolts	AB-2 ✓ 19

Summary of Field Rivets:

31- F. Rivs. 7/8 x 24

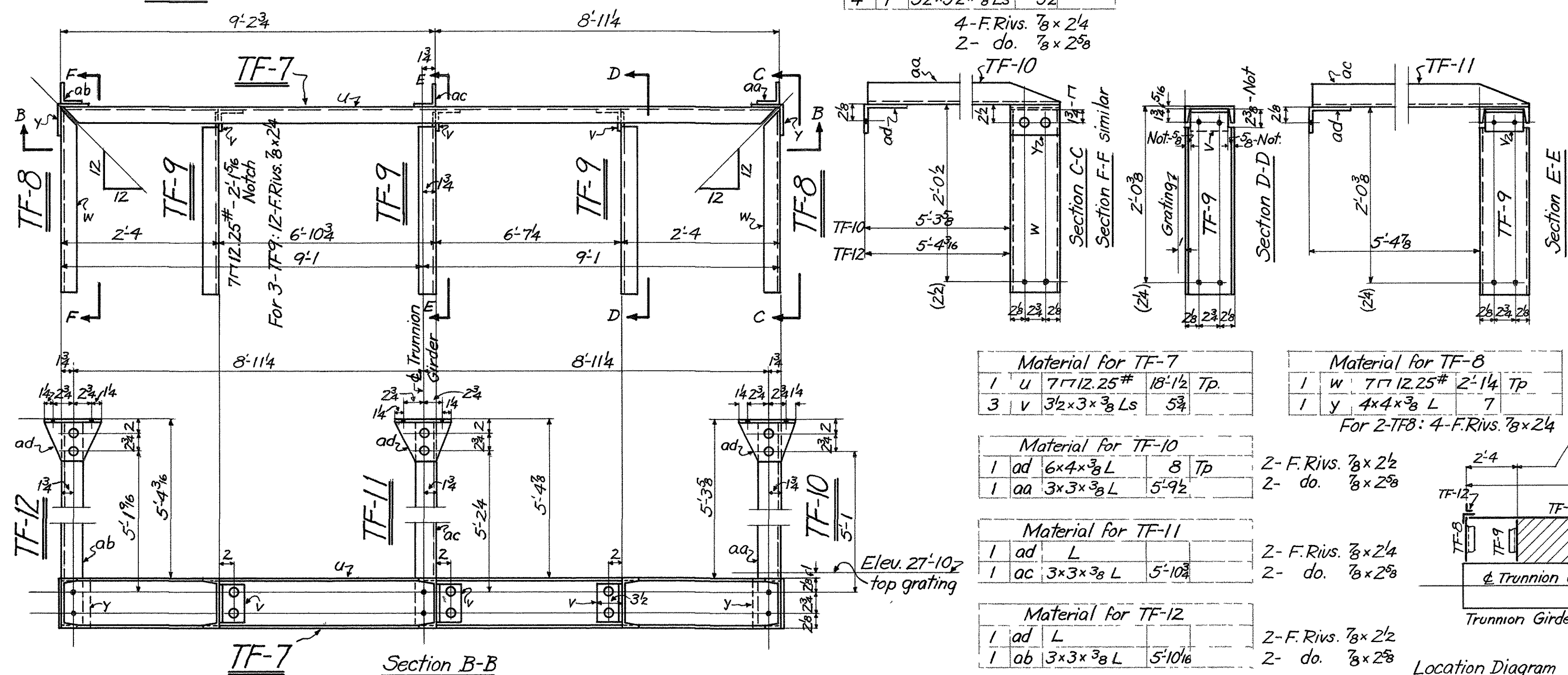
4- do 7/8 x 22

11- do 7/8 x 25



6- 7/8 Two-Unit Threaded
Cinch Anchor Bolts - 2 1/2 Long Mk. AB-2

Material for TF-6				
1	p	7" x 12.25"	4'-11"	
4	t	3/2 x 3/2 x 3/8 Ls	5 1/2	



SPECIFICATIONS: STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
STANDARD SPECIFICATIONS 1941, AND STATE OF
NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
SPECIFICATIONS ALSO, A.A.S.H.O. 1944
WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL: A.S.T.M. A7-46

RIVET STEEL: A.S.T.M. A141-39

RIVETS: 7/8 φ UNLESS NOTED. OPEN HOLES 1/5 φ UNLESS NOTED
HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16 SMALLER AND AFTER
ASSEMBLING, REAMED 1/16 LARGER, OR DRILLED FROM THE SOLID 1/16 LARGER
THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.
HOLES MARKED TEMPLSET SHALL BE DRILLED TO A METAL TEMPLSET 1 THICK
SHOP PAINT: ONE COAT OF APPROVED PAINT
SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE
COATED WITH WHITE LEAD AND TALLOW.
EDGE DISTANCES NOT GIVEN ARE 1/2
LAST ASSEMBLY MARK: QE SHOP LIST PAGES 5+6

**STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
TRUNNION PLATFORMS**

PHOENIX BRIDGE CORPORATION

CONTRACT 745

C.O. 745F

DRAWING: 18

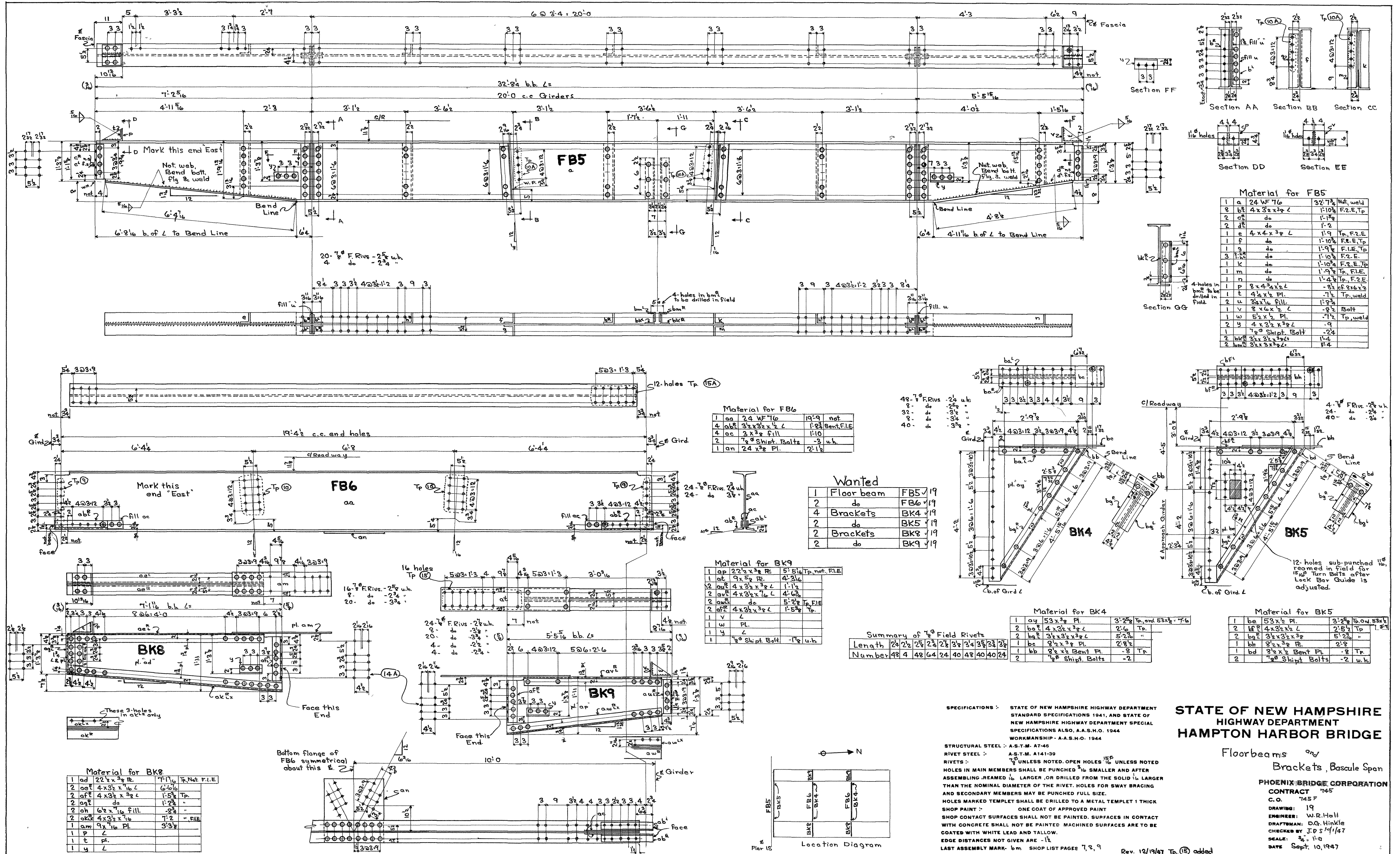
ENGINEER: W.R. Hall

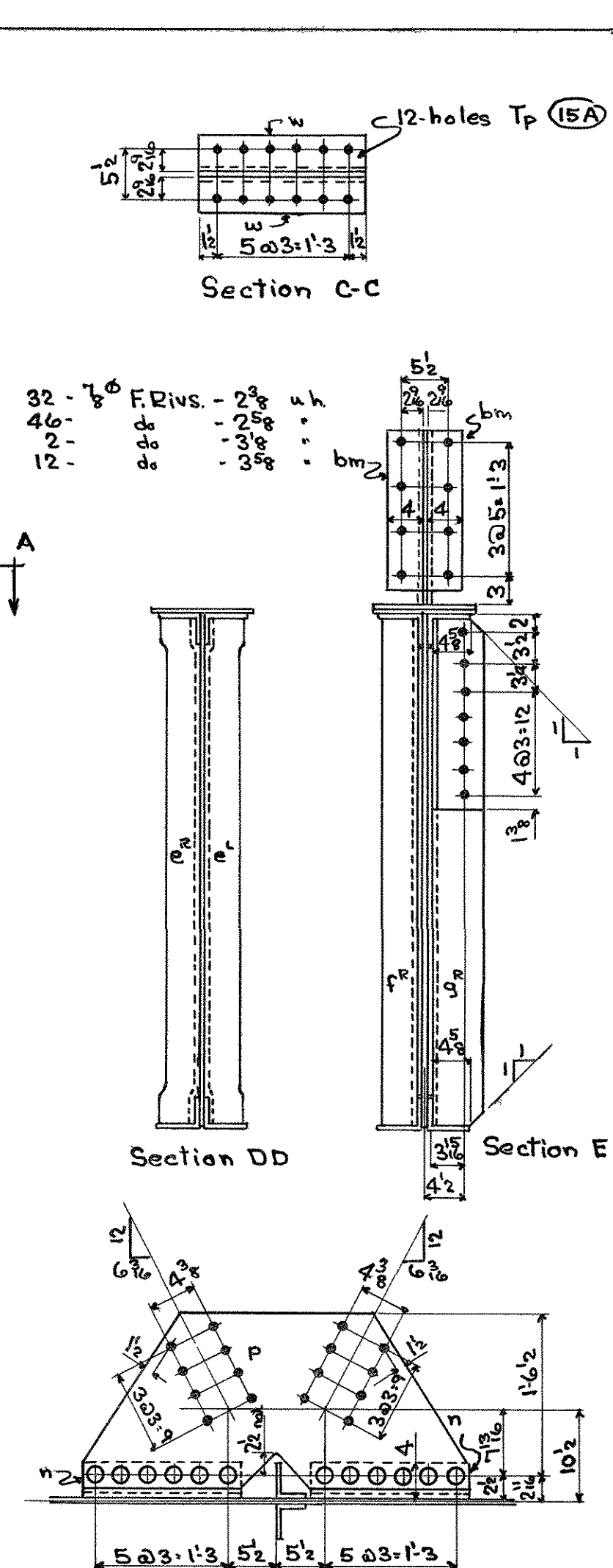
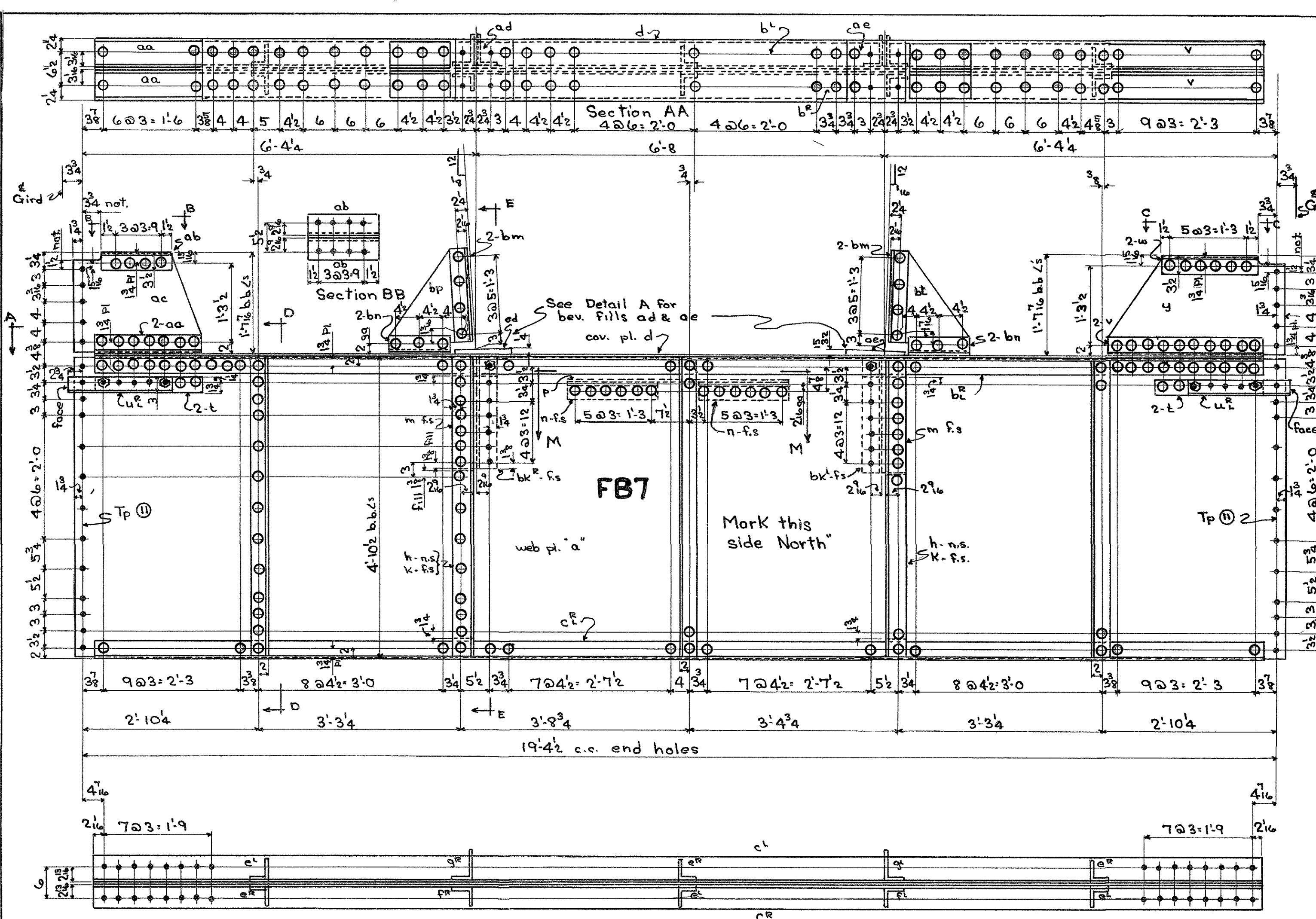
DRAFTSMAN: M.C. Shedd

CHECKED BY: W.R.H. 9/26/47

SCALE: 1" = 1'-0"

DATE: 26 Sep 47





Material for FB7

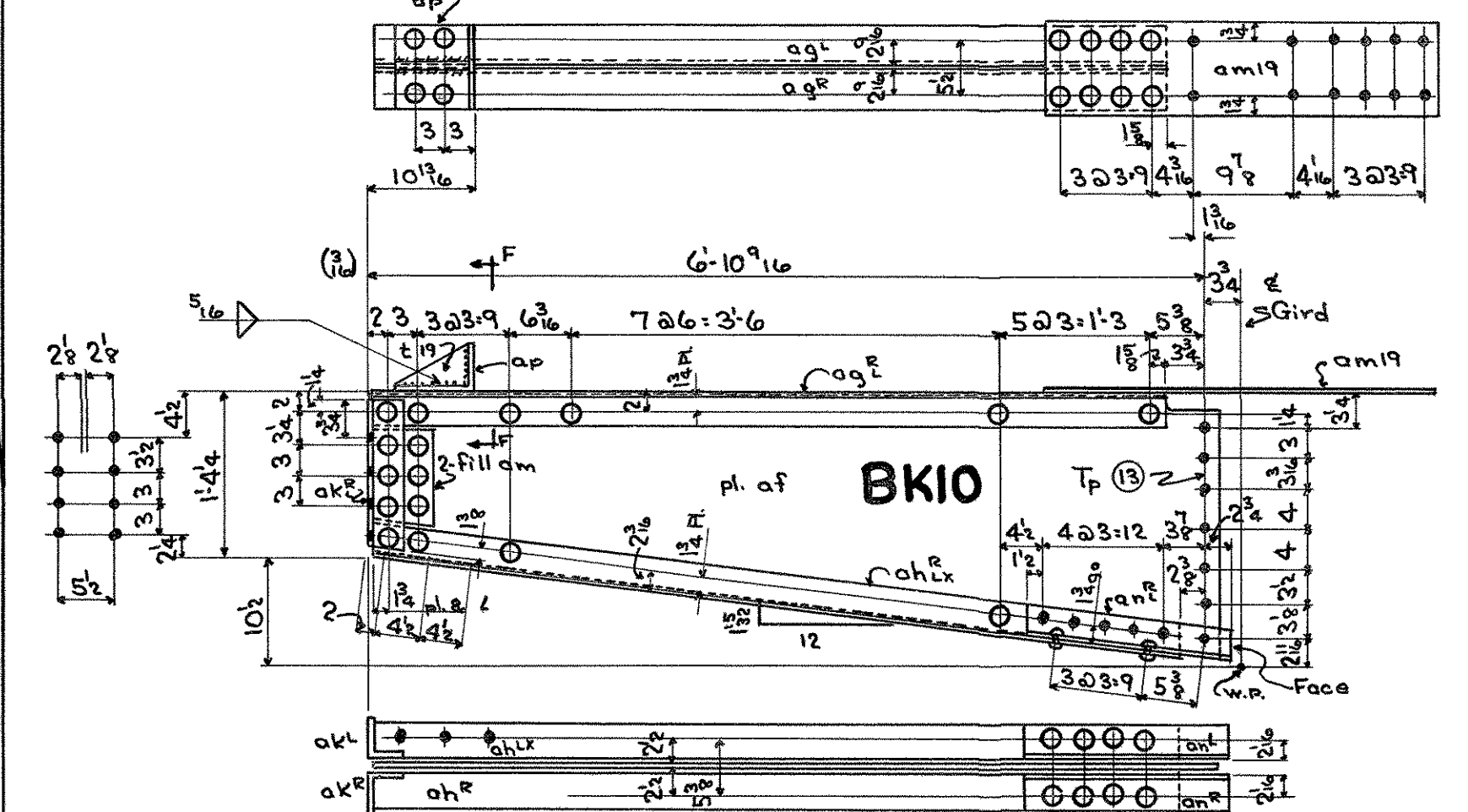
1	a	58 x 3/8 Pl.	19'8"
2	b	5 x 3/2 x 3/8 L	18'11 1/2"
2	c	do	18'11 1/2"
1	d	11 x 3/8 Cov. Pl.	18'11 1/2"
6	e	4 x 3/2 x 3/8 L	4'9 3/4" F.I.E.
2	f	4 x 4 x 3/8 L	4'9 3/4" F.I.E.
2	g	6 x 4 x 3/8 L	4'9 3/4" F.I.E.
2	h	4 x 3/8 Pl.	4'3"
2	k	do	2'8 1/2"
2	m	9 x 3/8 Fill	1'6 3/8"
2	n	4 x 3/2 x 3/8 L	1'6"
1	p	20 x 3/8 Pl.	3'8" Tp
4	t	3 x 3/8 Fill	1'9"
4	u	3 x 3/8 x 3/8 L	1'8 1/2" F.I.E.
2	v	5 x 3/2 x 3/8	2'6"
2	w	4 x 3/2 x 3/8	1'6"
1	y	19 x 3/8 Pl.	2'10 1/2" not Tp
2	aa	5 x 3/2 x 3/8 L	1'9"
2	ab	4 x 3/2 x 3/8 L	1'2"
1	ac	19 x 3/8 Pl.	2'1 1/2" not Tp
1	ad	1 1/2 x (3/8 x 3/8) bev. Pl.	-11"
1	ae	1 1/2 x (3/8 x 3/8) "	-11"
2	bf	6 x 4 x 3/8	1'9 3/4" Bot F.I.E. Tp
2	bm	7/8 Shipt. Bolts	-2 1/2"
4	bn	4 x 3/2 x 3/8 L	1'6"
4	bo	5 x 3/2 x 3/8 L	-12"
1	bp	16 x 3/8 Pl. notch	1'7 3/4" Tp
1	bt	do	1'7 1/4" "
4		7/8 Shipt. Bolts	-3 u.h.

Material for D3

1	ba	16 W 45	6'11 3/4" Not Tp
2	bb	4 x 3/2 x 3/8 L	-12 3/4"
1	bc	8 x 4 x 3/8 L	-7' 5' 8' 1/2 x 5'
1	bd	3'2 x 2 Pl.	-7' 1/2" Tp, weld

Material for D4

1	ba	16 W 45	5'3 1/2" Not Tp
2	bb	3'2 x 3/2 x 3/8 L	-9"
2	bc	4 x 3/2 x 3/8 L	1'1 1/2"
1	bd	8 x 6 x 3/8 L	-7 1/2"
1	be	Pl.	
1		7/8 Shipt Bolt	-2

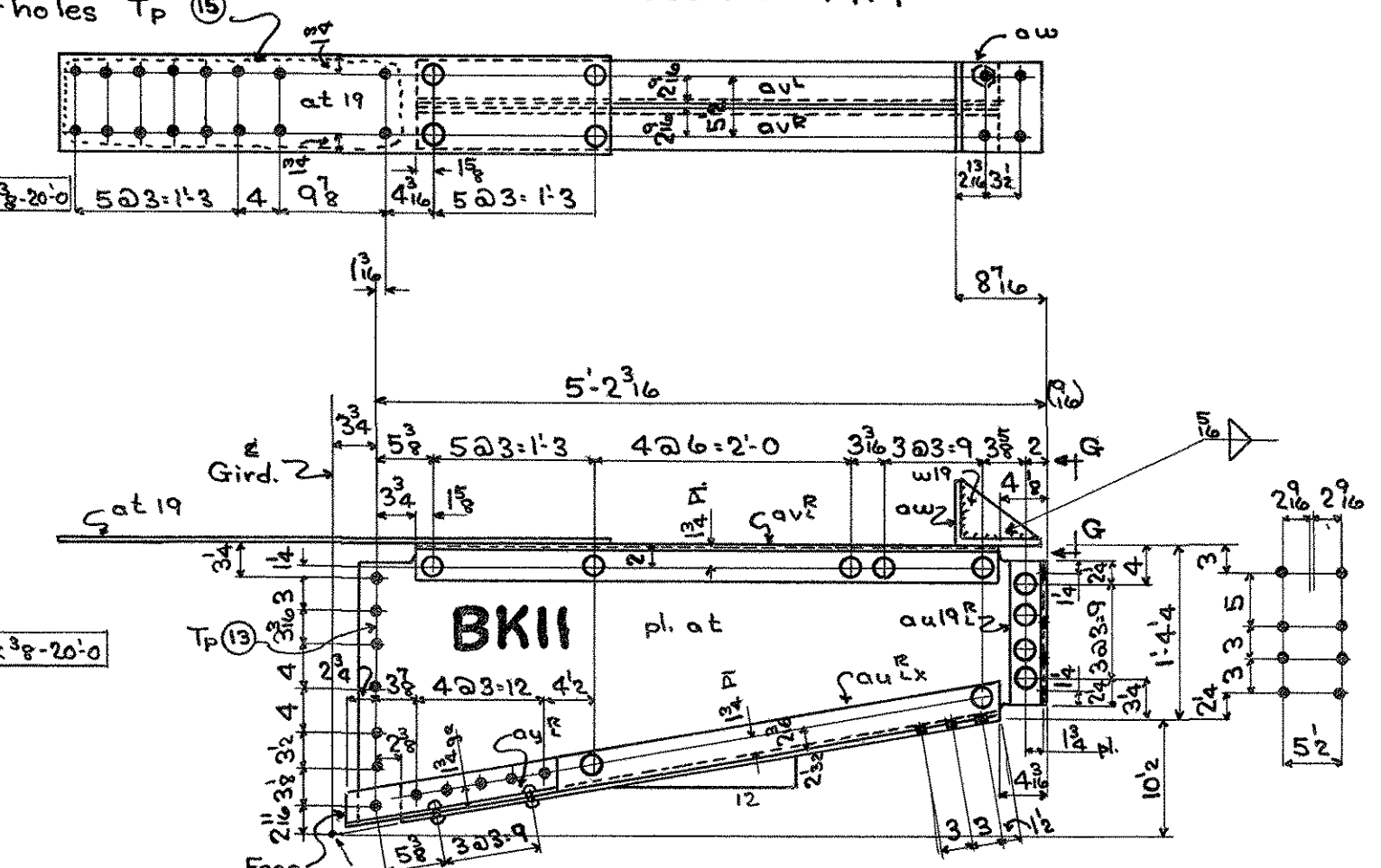


Material for BK10

1	af	25'8 x 3/8 Pl.	6'11 1/2" Not Tp, Ord 60x3'8-20'0"
2	ag	4 x 3/2 x 3/8 L	6'10 1/2"
2	ah	do	6'9"
2	ai	4 x 3/2 x 3/8 L	1'3 1/4"
2	aj	6 x 4 x 3/8 Pl.	9'9 1/2"
2	ak	3'2 x 3'8 x 1/8 L	1'8 3/4" F.I.E. Tp
1	al	8 x 4 x 3/8 L	2'2" 5' 8' 1/2 x 5'
1	am	4 x 1/2 Pl.	-7 1/2" Tp, weld
1	an	9 x 1/8 Pl.	3'3 3/8"

Material for BK11

1	at	25'8 x 3/8 Pl.	5'3 1/6" Not Tp, Ord. 60x3'8-20'0"
2	au	4 x 3/2 x 3/8 L	4'9" Tp
2	av	do	4'6 3/4"
1	aw	8 x 6 x 3/8 L	-8 1/2"
2	ax	3'2 x 3'8 x 1/8 L	1'9" Tp, F.I.E.
2	ay	4 x 3/2 x 3/8 L	1'1 1/2"
1	az	5 x 3/2 Pl.	-7 1/2" Tp, weld
1	ba	9 x 3/8 Pl.	4'3 1/6"
1		7/8 Shipt Bolt	-2



Wanted

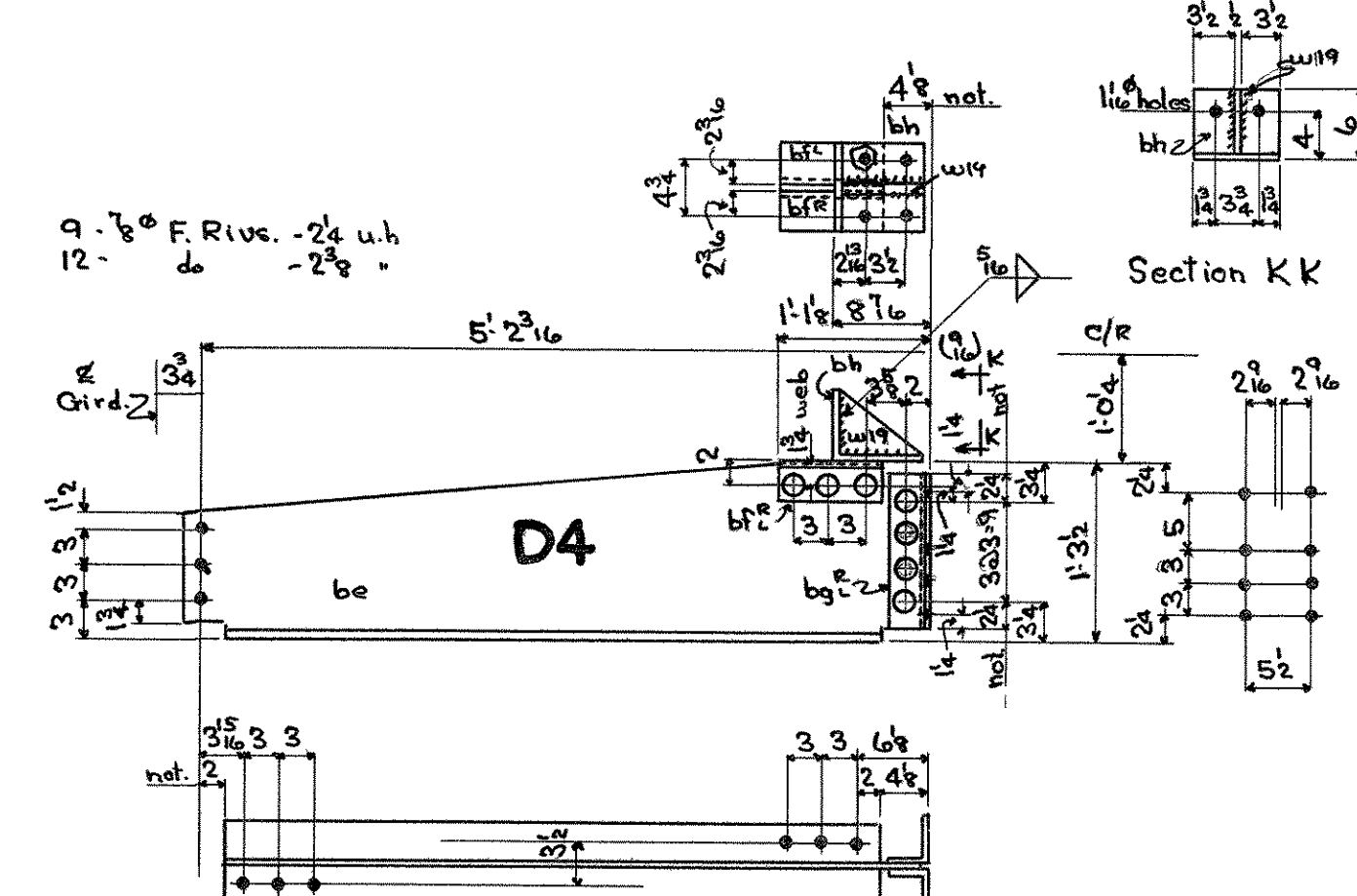
1	Floorbeam	FB7	✓ 19
1	Bracket	BK10	✓ 19
1	do	BK11	✓ 19
3	Diaphragms	D3	✓ 19
3	do	D4	✓ 19

Summary of 7/8" Field Rvs.

Length	24	2 3/8	2 1/2	2 3/8	3 1/4	3 5/8	3 3/4	3 3/8
Number	18	56	12	58	2	4	6	2

Material for D4

1	ba	16 W 45	5'3 1/2" Not Tp
2	bb	3'2 x 3/2 x 3/8 L	-9"
2	bc	4 x 3/2 x 3/8 L	1'1 1/2"
1	bd	8 x 6 x 3/8 L	-7 1/2"
1	be	Pl.	
1		7/8 Shipt Bolt	-2



SPECIFICATIONS :- STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1941, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O 1944 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL :- A.S.T.M. A7-45

RIVET STEEL :- A.S.T.M. A141-39

RIVETS :- 7/8" UNLESS NOTED OPEN HOLES 1 1/8" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 1/16" SMALLER AND AFTER ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK

SHOP PAINT :- ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE - 1 1/2"

LAST ASSEMBLY MARK - bt SHOP LIST PAGES 10, 11, 12

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE

Floorbeam and Brackets

PHOENIX BRIDGE CORPORATION

CONTRACT 745

C.O. 745 F

DRAWING: 20

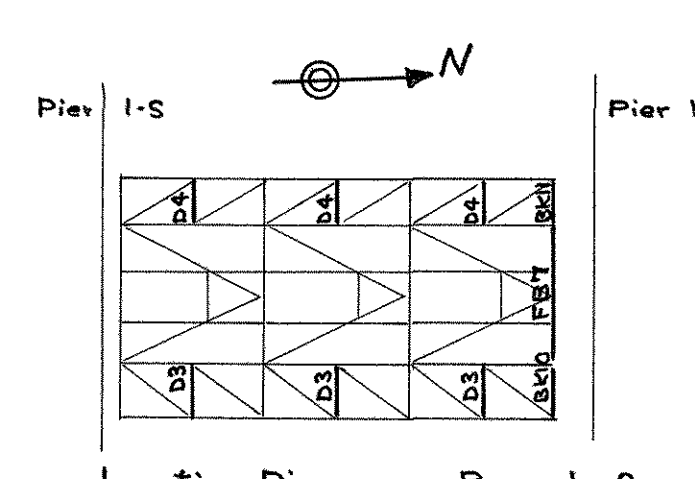
ENGINEER: W.R. Hall

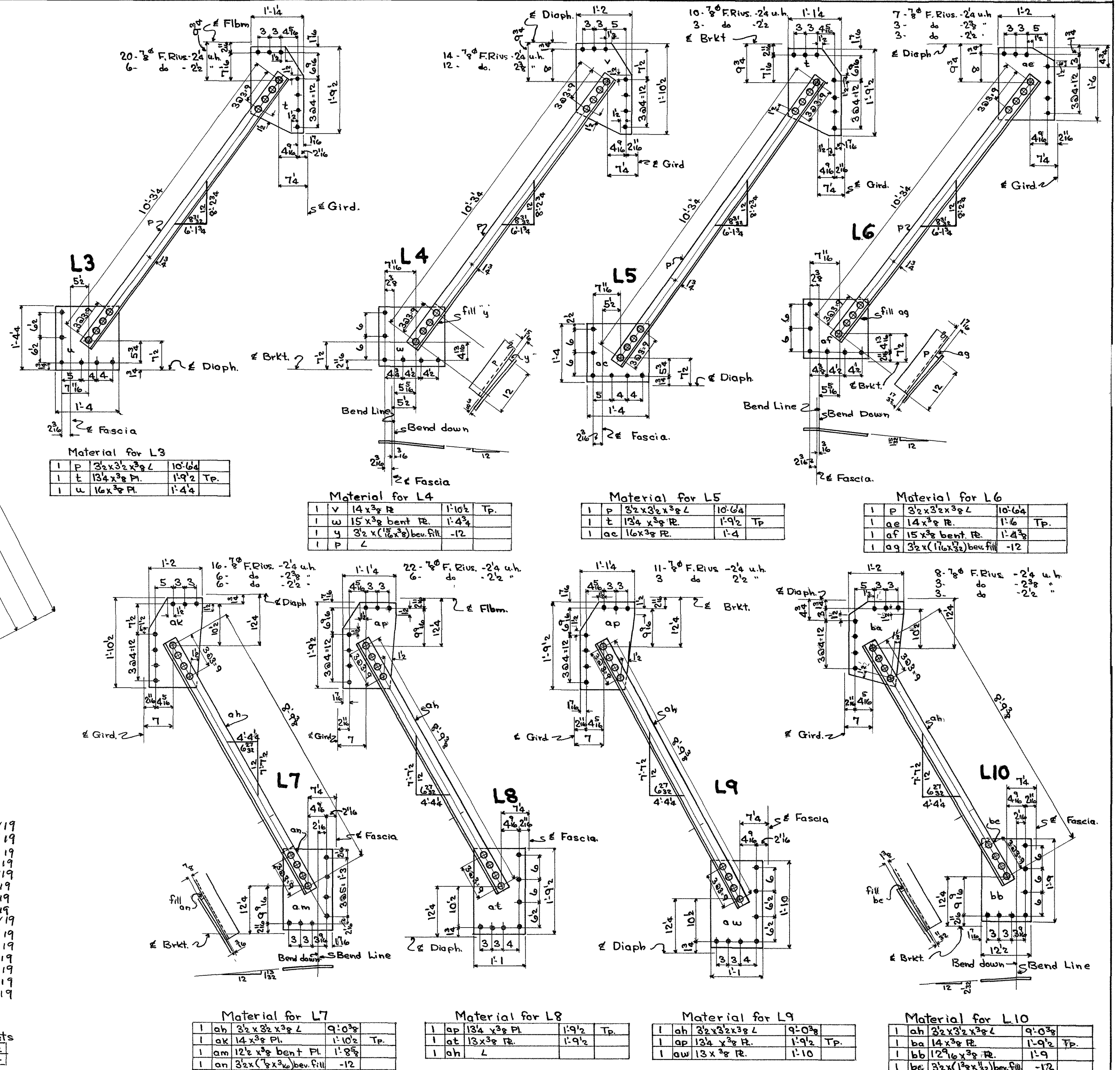
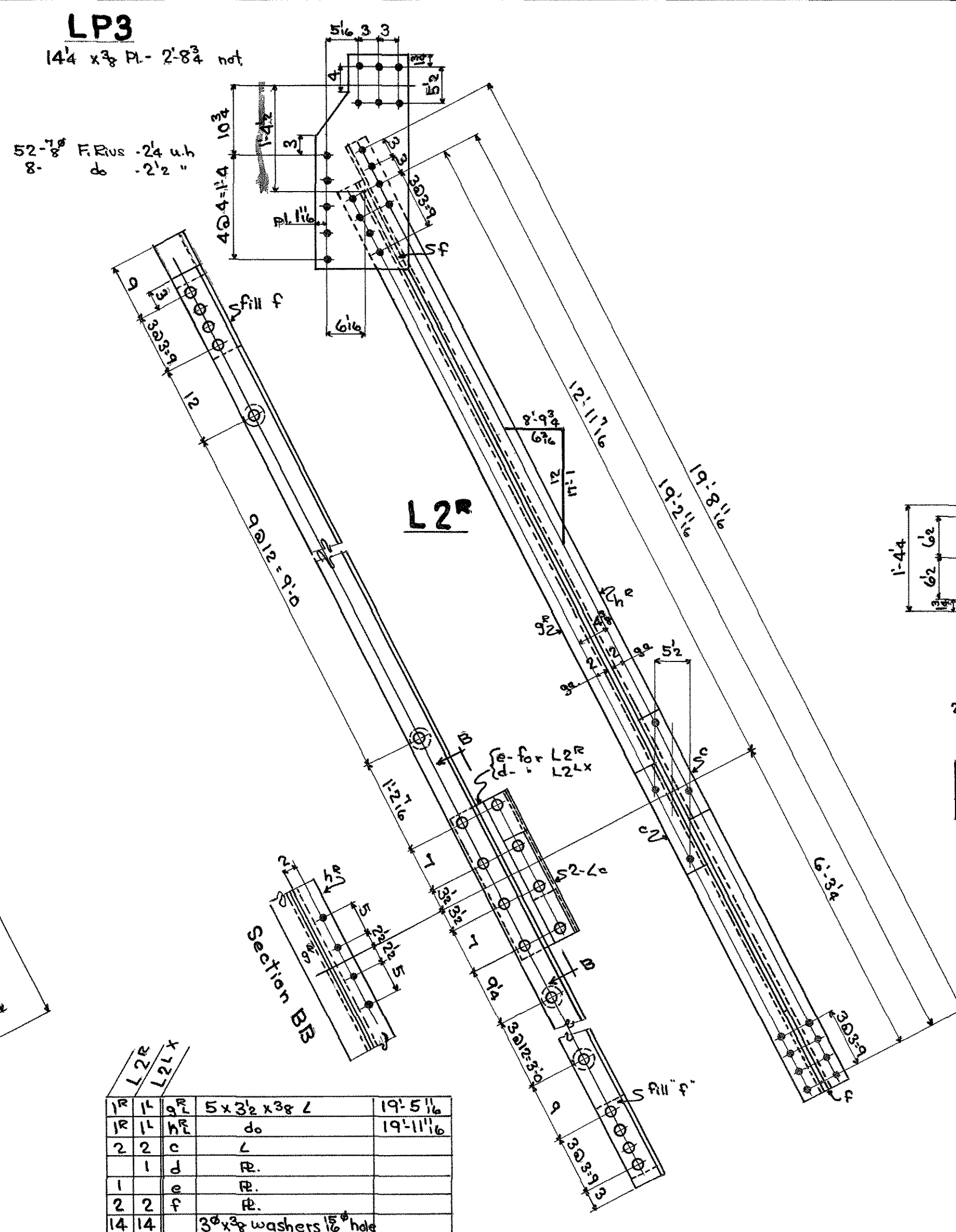
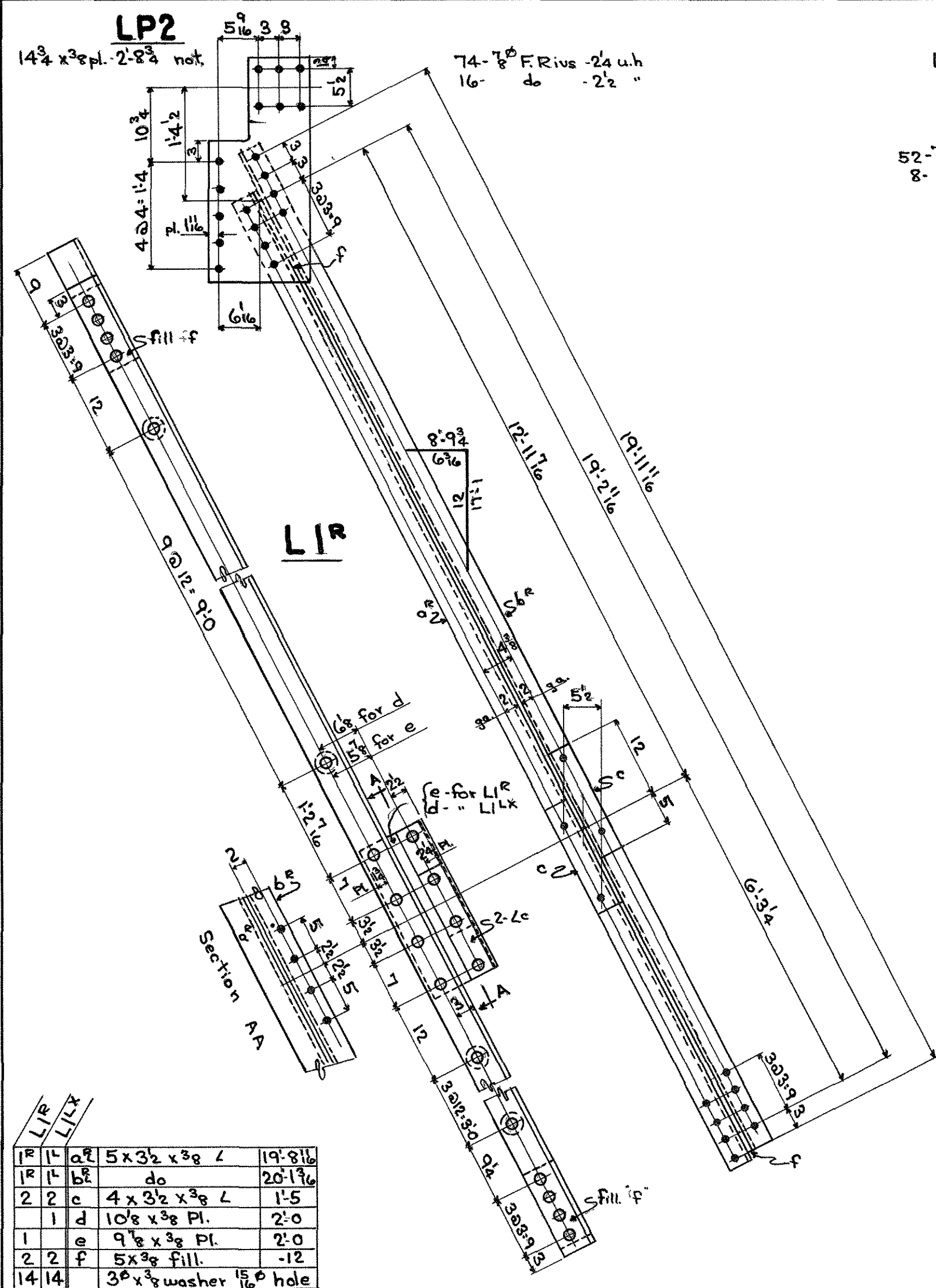
DRAFTSMAN: D.G. Hinkle

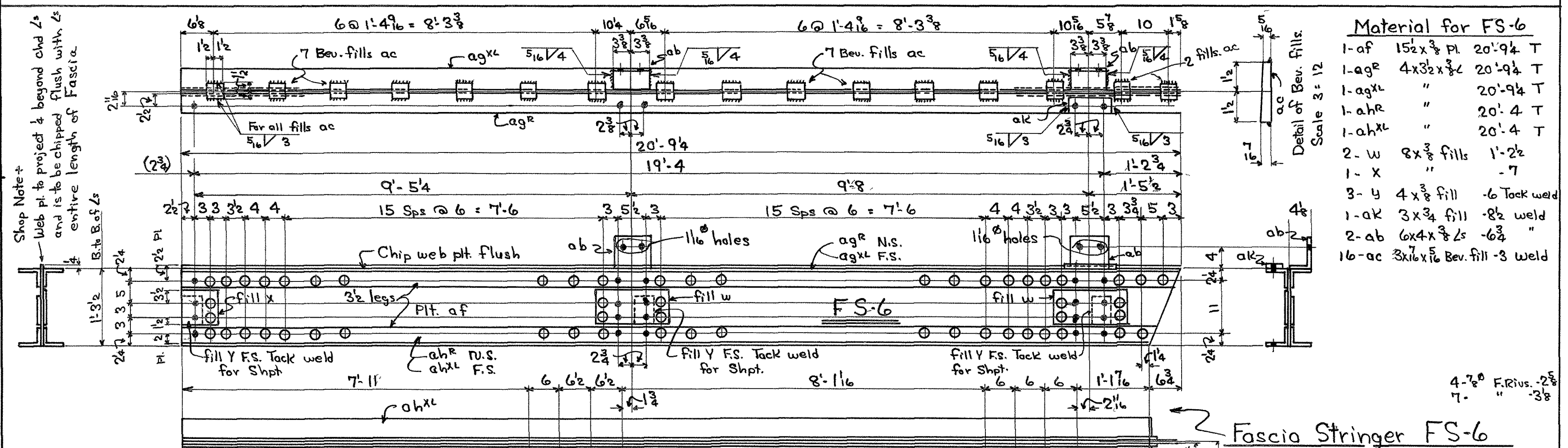
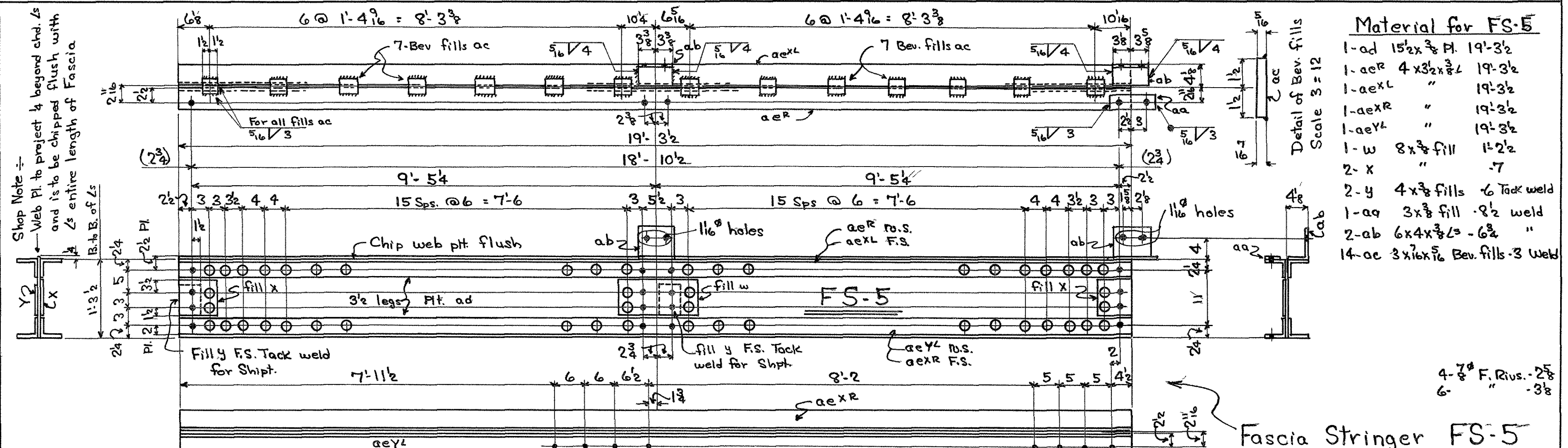
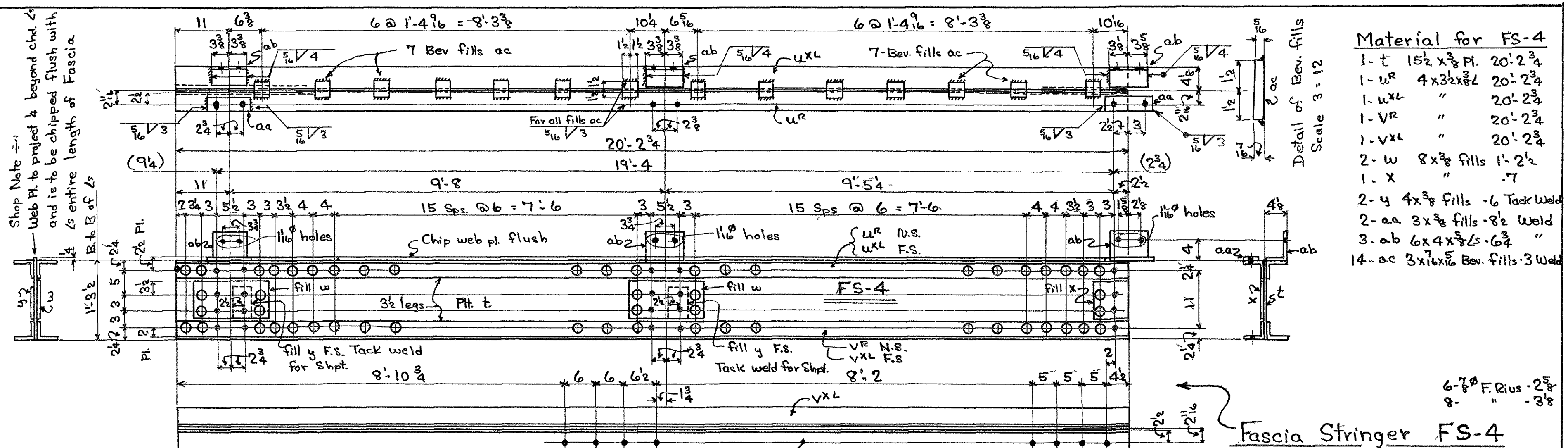
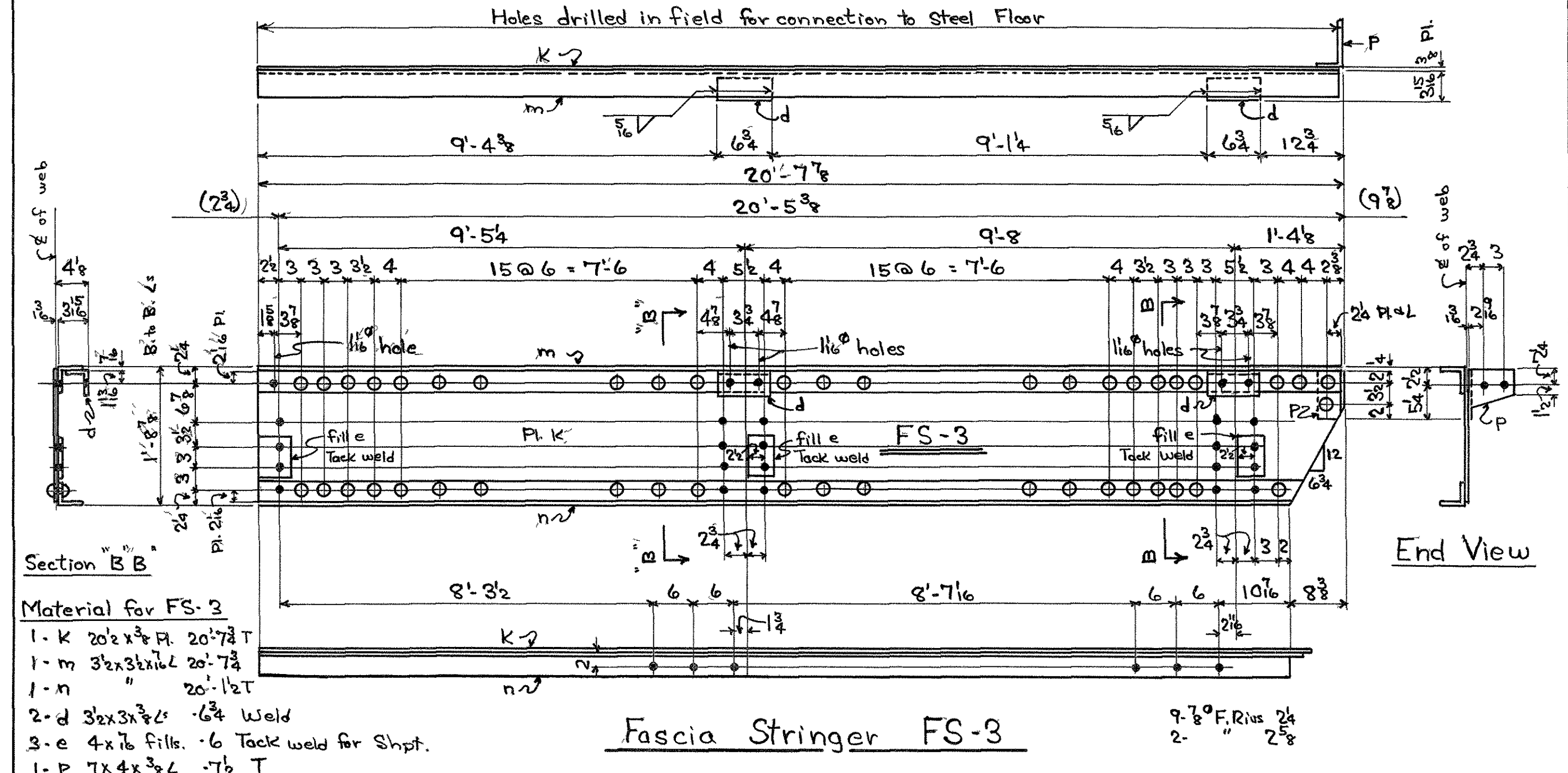
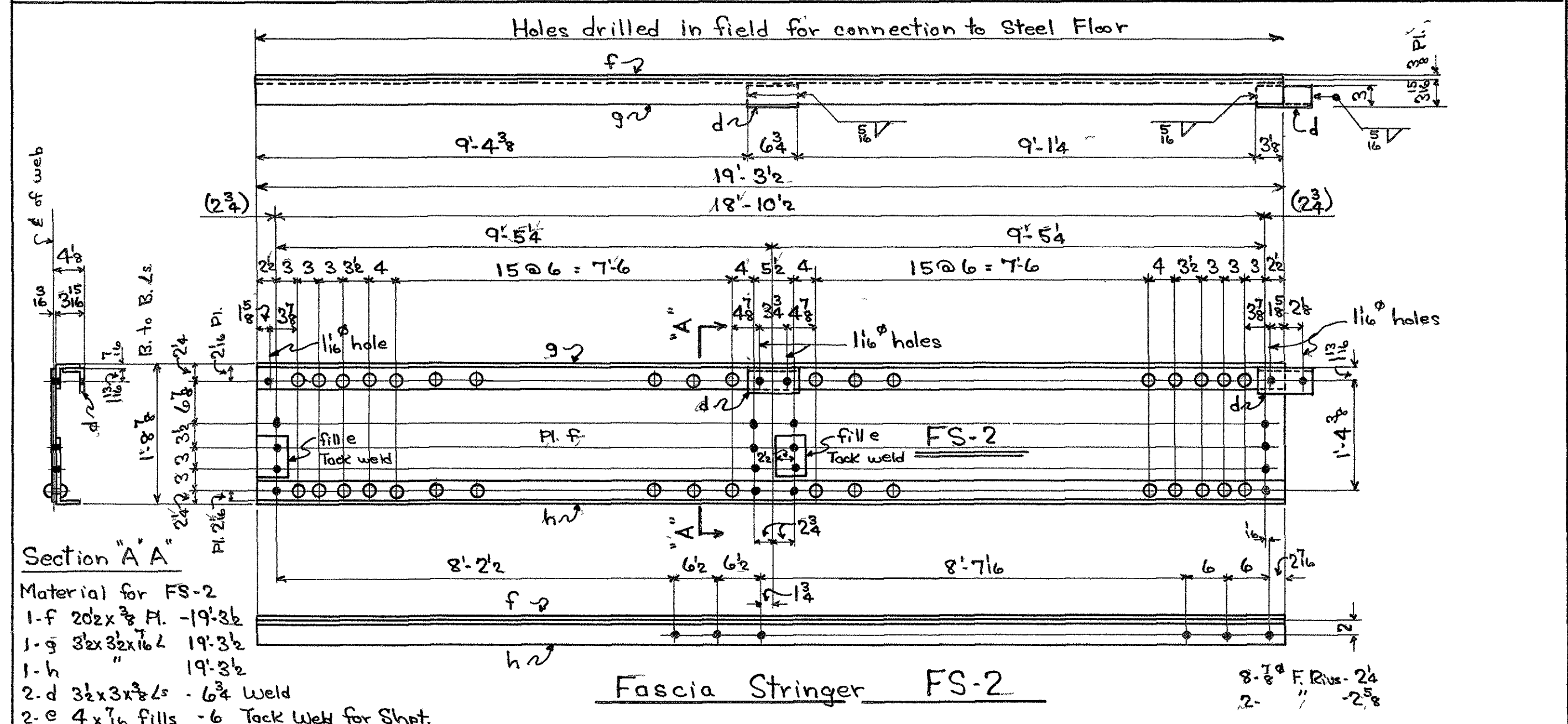
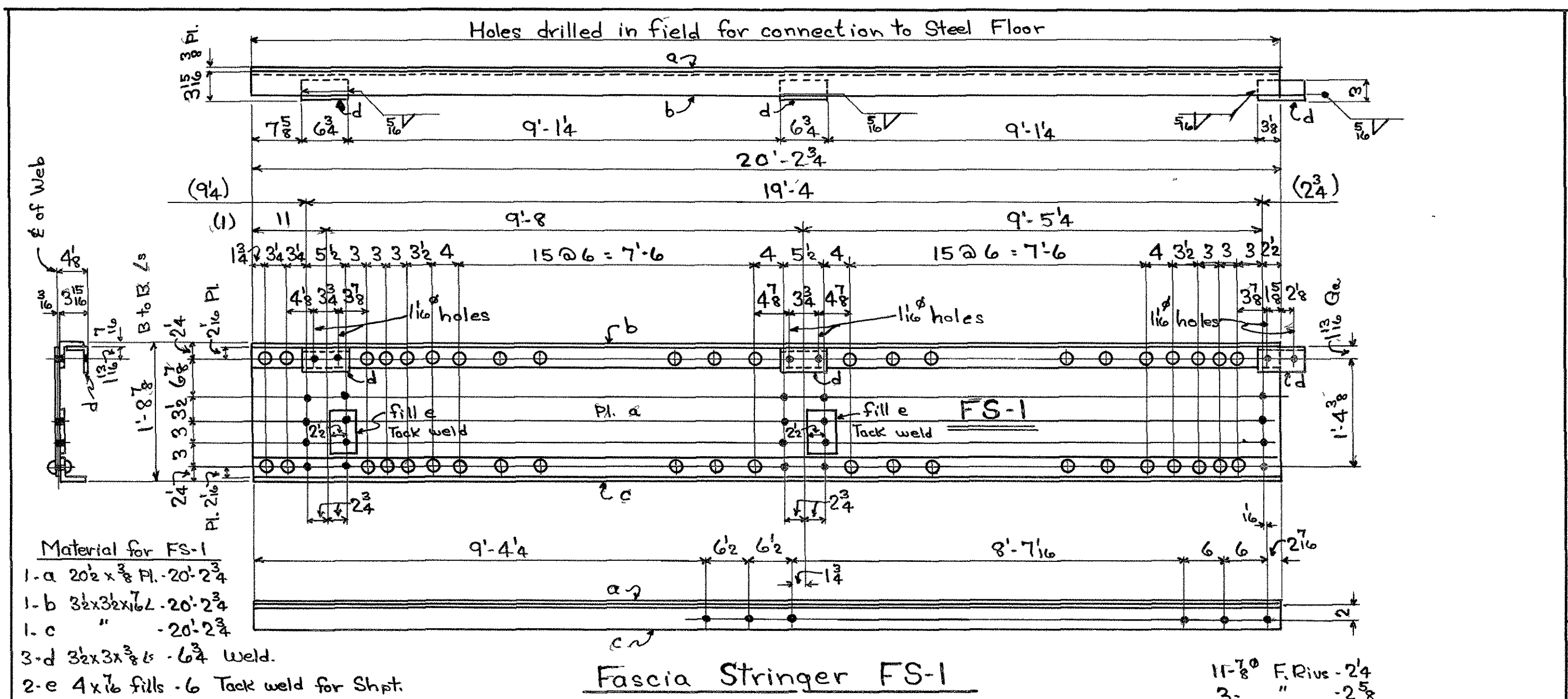
CHECKED BY: J.O.S. 1/23/47

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

DATE: Sept 17, 1947



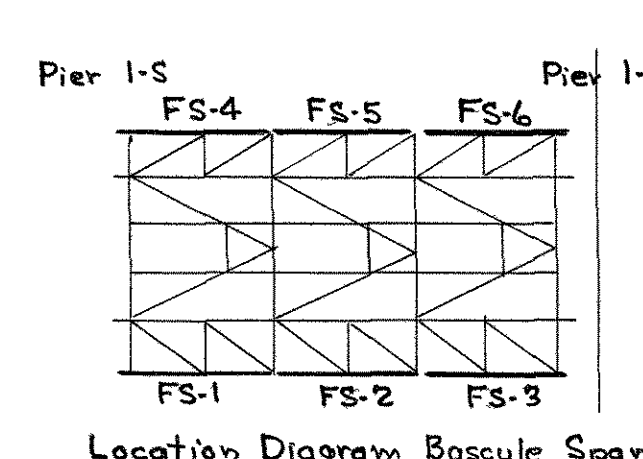




Wanted List

1- Fascia Stringer FS-1 as shown	✓
1- " FS-2 "	✓
1- " FS-3 "	✓
1- " FS-4 "	✓
1- " FS-5 "	✓
1- " FS-6 "	✓

19.

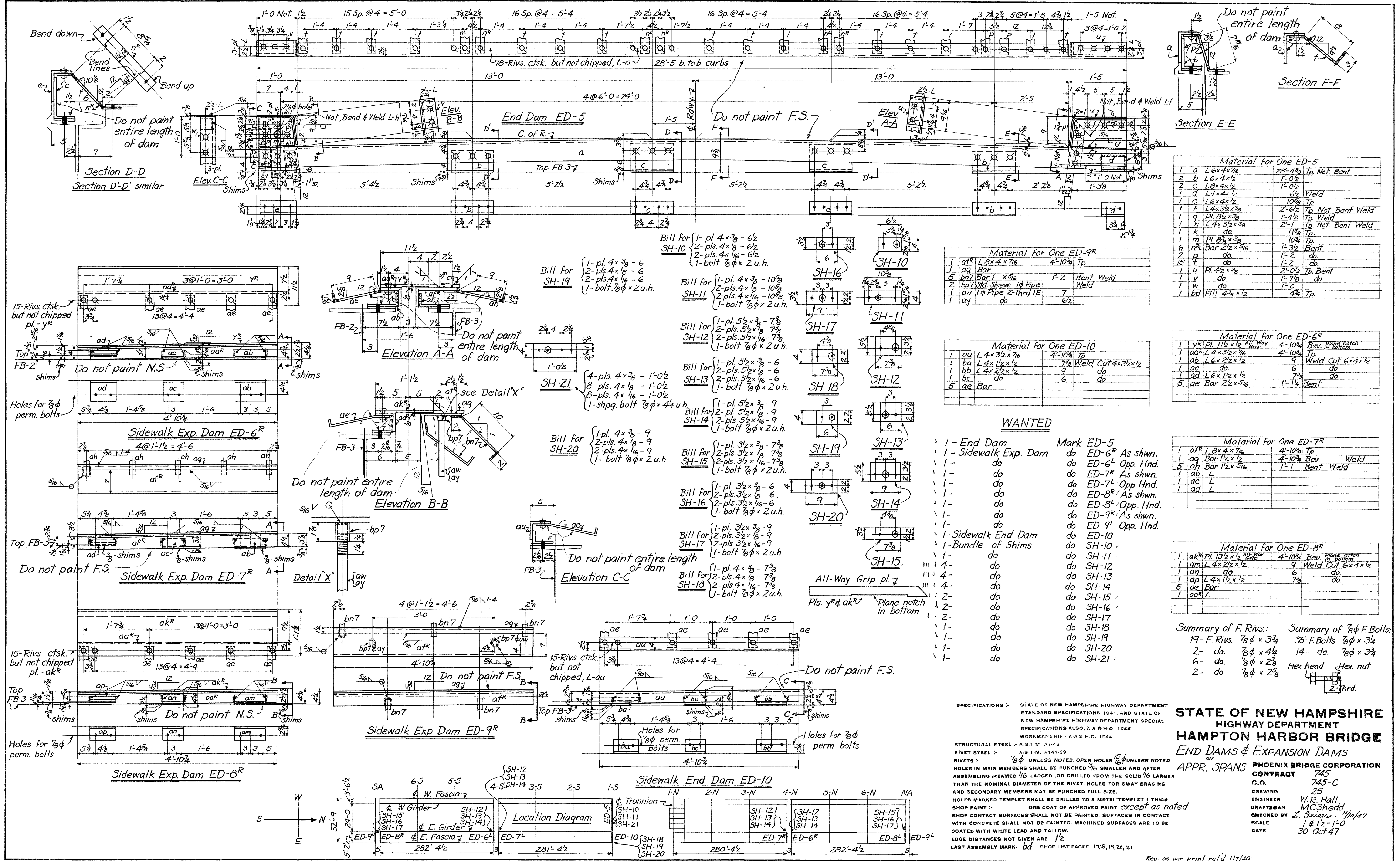


STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
 Fascia Stringers, Bascule Span

PHOENIX BRIDGE CORPORATION
 CONTRACT 745
 C.O. 745-F
 DRAWING: 23
 ENGINEER: W.R. Hall
 DRAFTSMAN: L. Geiser
 CHECKED BY: J.D.S. 10/2/47
 SCALE: 3/4" = 1'-0"
 DATE: Sept. 11th 1947

Specifications:
 STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
 STANDARD SPECIFICATIONS 1941, AND STATE OF
 NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
 SPECIFICATIONS ALSO, A.A.S.H.O. 1944
 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL: A.S.T.M. A7-46
RIVET STEEL: A.S.T.M. A161-39
RIVETS: 7/8" UNLESS NOTED OPEN HOLES 15" UNLESS NOTED
 HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16" SMALLER AND AFTER
 ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER
 THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
 AND SECONDARY MEMBERS MAY BE FURNISHED FULL SIZE.
 HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK
SHOP PAINT: ONE COAT OF APPROVED PAINT
SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
 WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE
 COATED WITH WHITE LEAD AND TALLOW
 EDGE DISTANCES NOT GIVEN ARE 1/2"
 LAST ASSEMBLY MARK - Q.M. SHOP LIST FACES 17, 18, 19
 Rev 11/24/47 Fascia FS-3



Material for One ED-5

1	a	L 6x4x7/16	28'-4 3/8	Top Not Bent
2	b	L 6x4x1/2	1'-0 1/2	
2	c	L 8x4x1/2	1'-0 1/2	
1	d	L 4x4x1/2	6 1/2	Weld
1	e	L 6x4x1/2	10 3/8	Top
1	f	L 4x3 1/2x3/8	2'-6 1/2	Top Not Bent Weld
1	g	PL 8 1/2x3/8	1'-4 1/2	Top Weld
1	h	L 4x3 1/2x3/8	2'-1	Top Not Bent Weld
1	k	do	11 3/8	Top
1	m	PL 8 1/2x3/8	10 3/8	Top
6	n	Bar 2 1/2x5/16	1'-3 1/2	Bent
2	p	do	1'-2	do
15	t	do	1'-2	do
1	u	PL 4 1/2x3/8	2'-0 1/2	Top Bent
1	v	do	1'-7 1/8	do
1	w	do	1'-0	do
1	bd	Fill 4 3/8x12	4 3/8	Top

Material for One ED-9R

1	at	L 8x4x7/16	4'-10 3/4	Top
1	ag	Bar		
5	bn	7 Bar 1 x 5/16	1'-2	Bent Weld
2	bp	7 Std. Sleeve 1 1/2 Pipe		Weld
1	aw	1 1/2 Pipe 2-Thrd IE	7	
1	ay	do	6 1/2	

Material for One ED-10

1	au	L 4x3 1/2x7/16	4'-10 3/4	Top
1	ba	L 4x1 1/2x1/2	7 3/8	Weld Cut 4x3 1/2x1/2
1	bb	L 4x2x1/2	9	do
1	bc	do	6	do
5	ae	Bar		

Material for One ED-6R

1	y	PL 1 1/2x1/2 All-Way Grip	4'-10 3/4	Bev. Plane, notch in bottom
1	aa	L 4x3 1/2x7/16	4'-10 3/4	Top
1	ab	L 6x2x1/2	9	Weld Cut 6x4x1/2
1	ac	do	6	do
1	ad	L 6x1 1/2x1/2	7 3/8	do
5	ae	Bar 2 1/2x5/16	1'-1 1/4	Bent

Material for One ED-7R

1	ap	L 8x4x7/16	4'-10 3/4	Top
1	aq	Bar 1 1/2x1/2	4'-10 3/4	Bev. Weld
5	ah	Bar 1 1/2x5/16	1'-1	Bent Weld
1	ab	L		
1	ac	L		
1	ad	L		

Material for One ED-8R

1	ak	PL 1 3/2x1/2 All-Way Grip	4'-10 3/4	Bev. Plane, notch in bottom
1	am	L 4x2 1/2x1/2	9	Weld Cut 6x4x1/2
1	an	do	6	do
1	ap	L 4x1 1/2x1/2	7 3/8	do
5	ae	Bar		
1	aa	L		

WANTED

1	End Dam	do	ED-6R As shwn.
1	Sidewalk Exp. Dam	do	ED-6L Opp. Hnd.
1	do	do	ED-7R As shwn.
1	do	do	ED-7L Opp. Hnd.
1	do	do	ED-8R As shwn.
1	do	do	ED-8L Opp. Hnd.
1	do	do	ED-9R As shwn.
1	do	do	ED-9L Opp. Hnd.
1	Sidewalk End Dam	do	ED-10
1	Bundle of Shims	do	SH-10
1	do	do	SH-11
1	do	do	SH-12
1	do	do	SH-13
1	do	do	SH-14
1	do	do	SH-15
1	do	do	SH-16
1	do	do	SH-17
1	do	do	SH-18
1	do	do	SH-19
1	do	do	SH-20
1	do	do	SH-21

Summary of F. Rivs.:

19	F. Rivs.	7/8 φ x 3 3/4
2	do	7/8 φ x 4 1/4
6	do	7/8 φ x 2 3/8
2	do	7/8 φ x 2 3/8

Summary of 7/8 φ F. Bolts:

35	F. Bolts	7/8 φ x 3 1/4
14	do	7/8 φ x 3 3/4
1	do	Hex head Hex. nut
1	do	2-Thrd.

SPECIFICATIONS: STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1941, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL - A.S.T.M. A7-48

RIVET STEEL - A.S.T.M. A141-30

RIVETS: 7/8 φ UNLESS NOTED. OPEN HOLES 1/16" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16" SMALLER AND AFTER ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK

SHOP PAINT: ONE COAT OF APPROVED PAINT EXCEPT AS NOTED

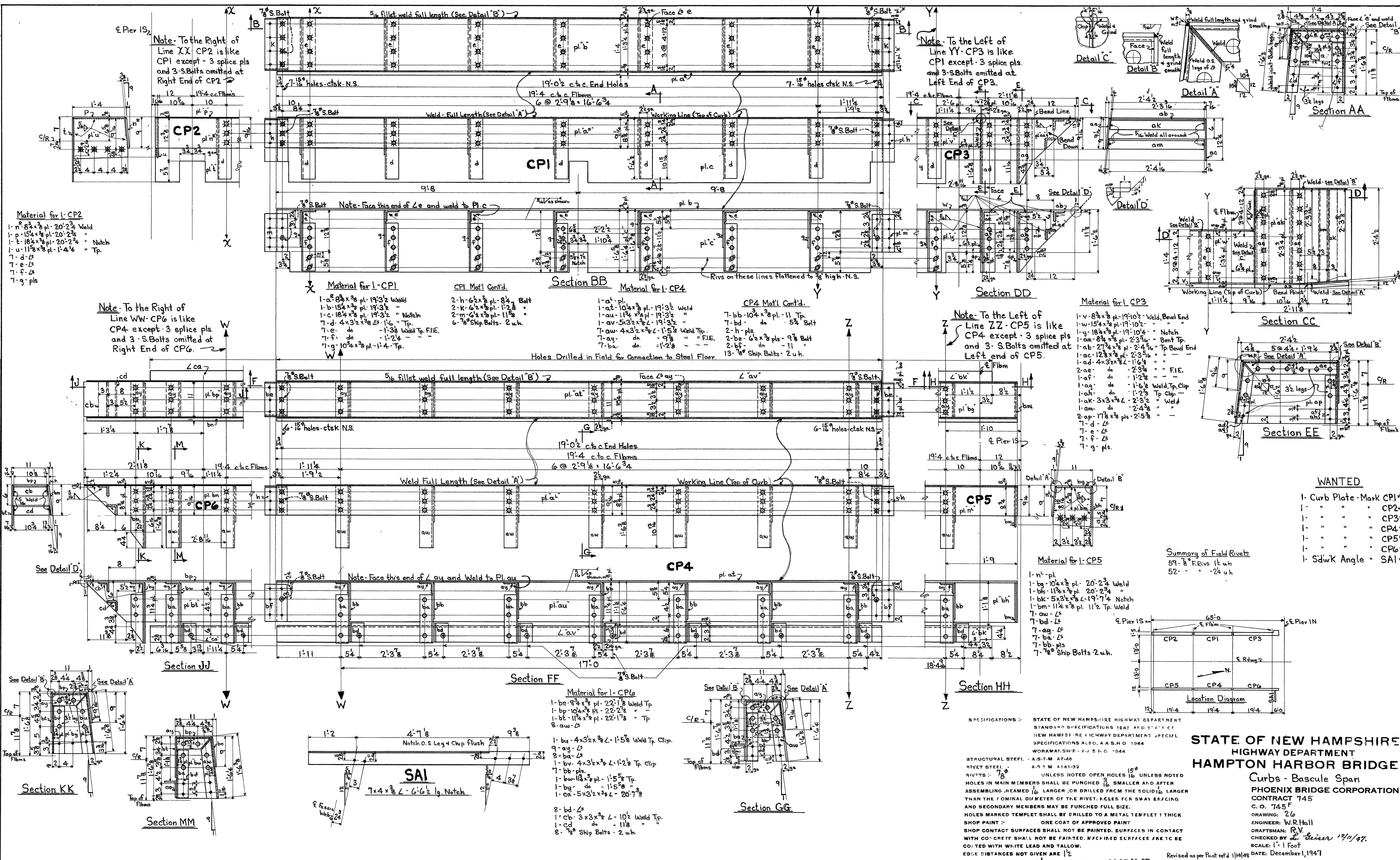
SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE 1/2"

LAST ASSEMBLY MARK - bd SHOP LIST PAGES 17,18,19,20,21

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
END DAMS & EXPANSION DAMS
APPR. SPANS PHOENIX BRIDGE CORPORATION
CONTRACT 745
C.O. 745-C
DRAWING 25
ENGINEER W.R. Hall
DRAFTSMAN MCShedd
CHECKED BY L. J. J. 11/10/47
SCALE 1" = 1'-0"
DATE 30 Oct 47

Rev. as per print ref'd 11/1/48

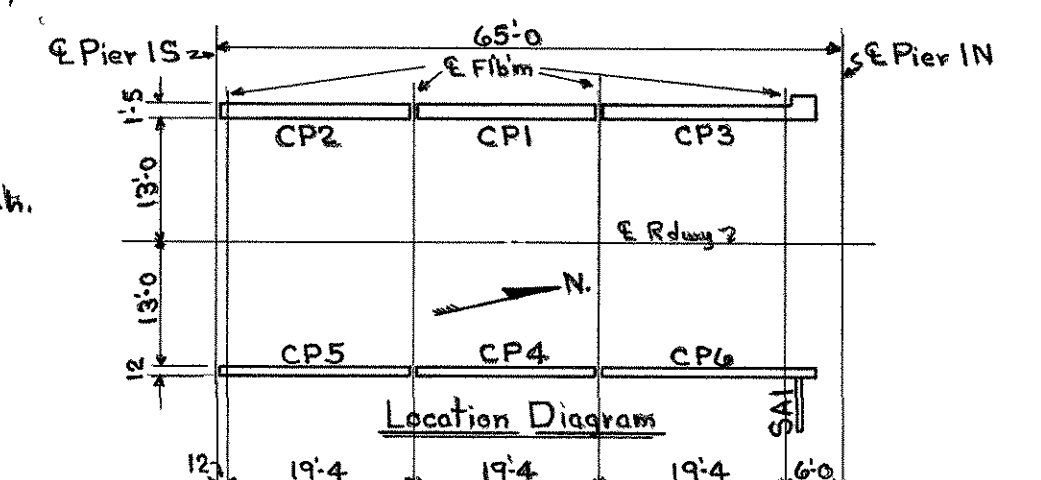


- WANTED**
- 1- Curb Plate - Mark CP1/19
 - 1- " " " CP2/19
 - 1- " " " CP3/19
 - 1- " " " CP4/19
 - 1- " " " CP5/19
 - 1- " " " CP6/19
 - 1- Sdwk Angle - SA1/19

Summary of Field Rivets

59-8 F.Rivets 12 u.h.

52- " " -24 u.h.



STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT

STANDARD SPECIFICATIONS 1941 AND 1944

NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944

WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL - A.S.T.M. A7-48

RIVET STEEL - A.S.T.M. A141-39

RIVETS - 7/8" UNLESS NOTED OPEN HOLES 1/8" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 1/8" SMALLER AND AFTER ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPORARY SHALL BE DRILLED TO A METAL TEMPLAT 1 THICK

SHOP PAINT - ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE 1/2"

LAST ASSEMBLY MARK - CD

SHOP LIST PAGES 24, 25, 26, 27

Revised as per Print ref'd 11/14/48 DATE: December 1, 1947

STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT

HAMPTON HARBOR BRIDGE

Curbs - Bascule Span

PHOENIX BRIDGE CORPORATION

CONTRACT 745

C.O. 745F

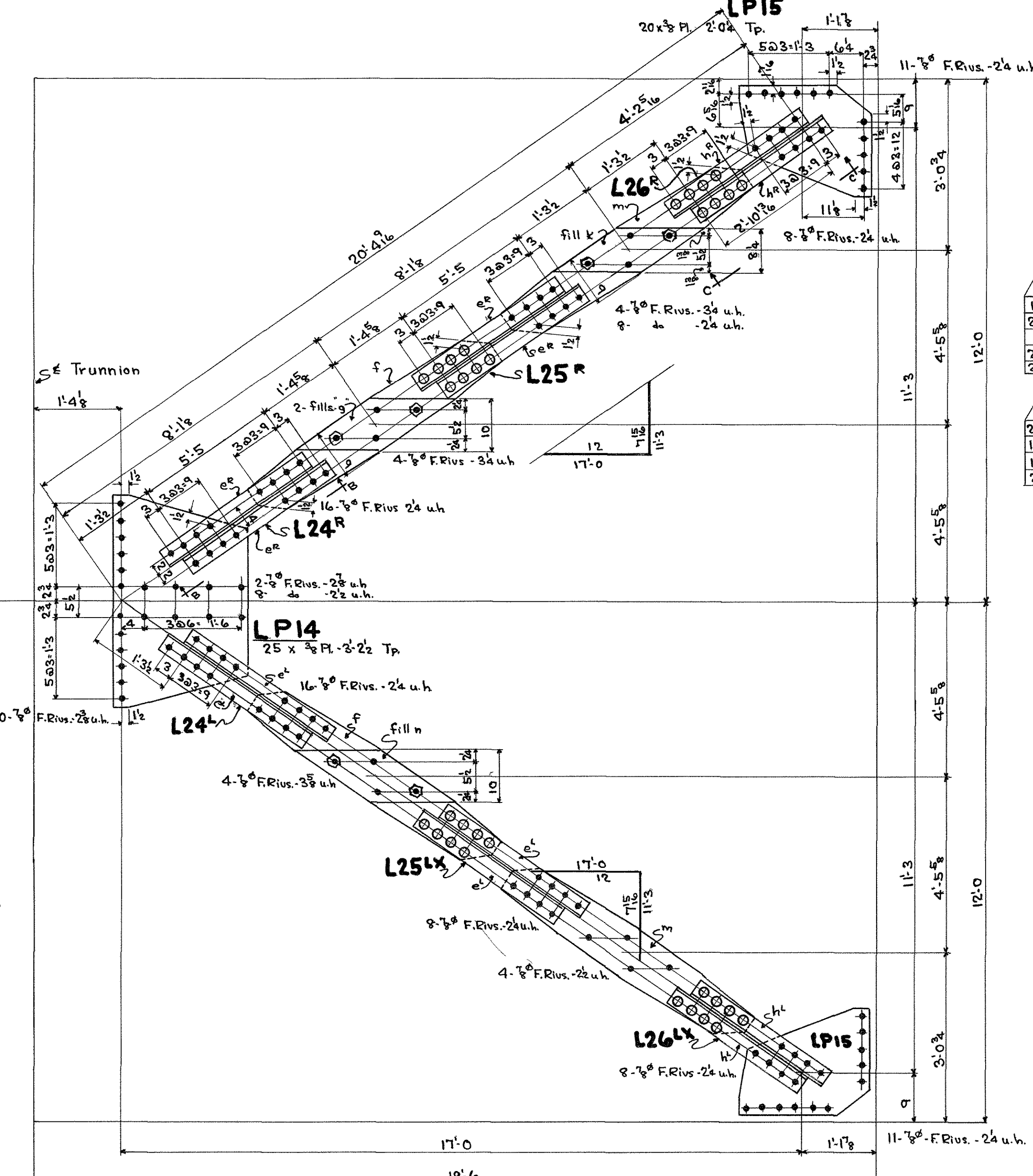
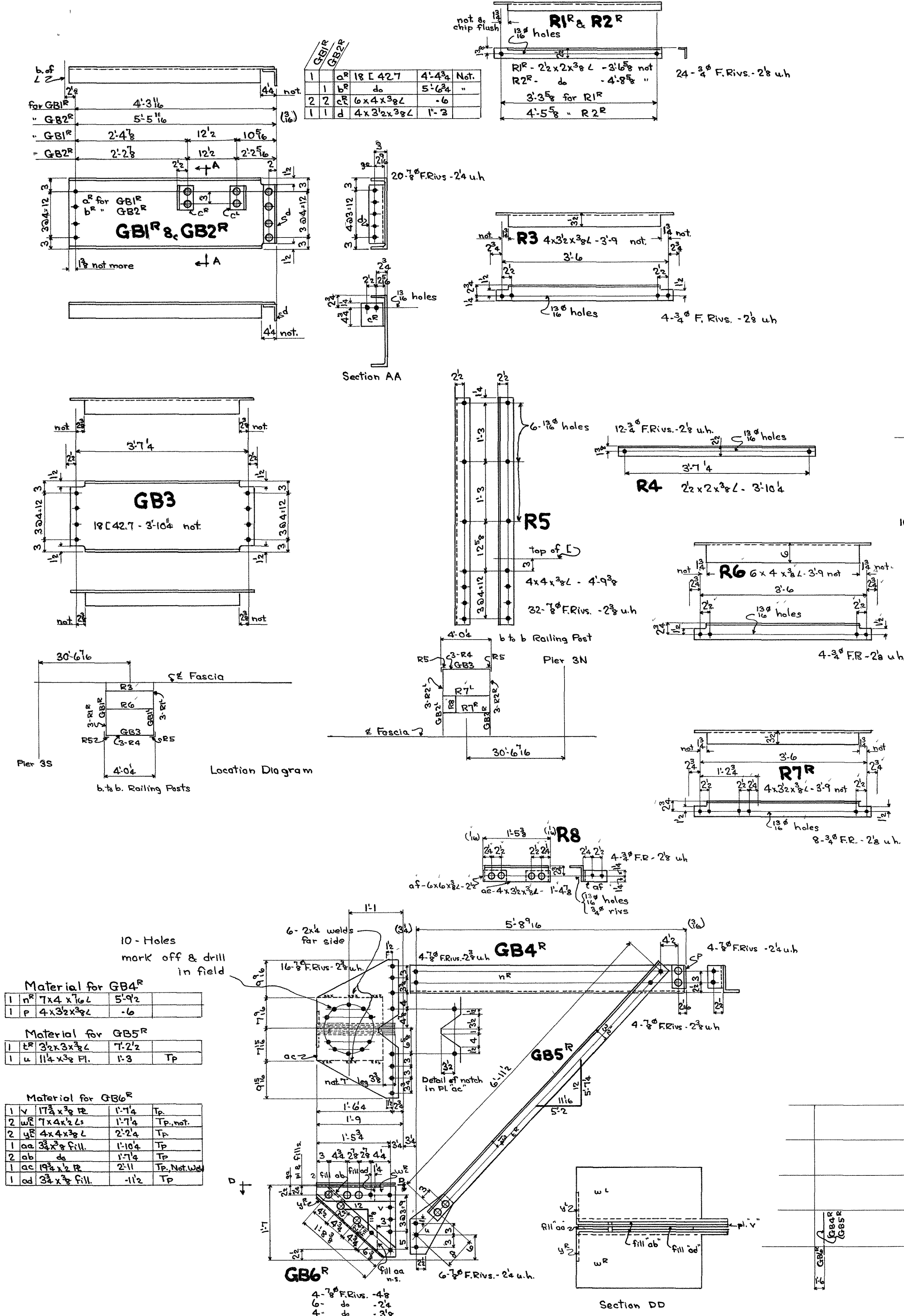
DRAWING: 26

ENGINEER: W.R. Hall

DRAFTSMAN: R.V.

CHECKED BY: J. Seiser 12/1/47

SCALE: 1" = 1 Foot



Section BB

Section C-C

Material for L24R

1	f	9 x 3/4 Pl.	4'-6 1/4	TP
2	g	10 x 1/2 Fill	2'-7 1/2	TP, Bolt
1	n	10 x 1/2 "	2'-7 1/2	TP, Bolt
2	h	da	-2	

Material for L25R

1	f	9 x 3/4 Pl.	4'-6 1/4	TP
2	g	10 x 1/2 Fill	2'-7 1/2	TP, Bolt
1	n	10 x 1/2 "	2'-7 1/2	TP, Bolt
2	h	da	-2	

Material for L26R

1	f	9 x 3/4 Pl.	4'-6 1/4	TP
2	g	10 x 1/2 Fill	2'-7 1/2	TP, Bolt
1	n	10 x 1/2 "	2'-7 1/2	TP, Bolt
2	h	da	-2	

Summary of 1/2" Field Rivets

Length u.h.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Number	122	66	12	2	4	8	4	4																

Summary of 3/8" F.Riv.

Length u.h.	28
Number	56

Wanted

1	Gate Bracket	GB1R	✓
1	da	GB1L	✓
1	da	GB2R	✓
1	da	GB2L	✓
1	da	GB3	✓
1	Railing	R1R	✓
1	da	R1L	✓
1	da	R2R	✓
1	da	R2L	✓
1	da	R3	✓
1	da	R4	✓
1	da	R5	✓
1	Lateral Pl.	LP14	✓
1	da	LP15	✓
1	Lateral	L24R	✓
1	da	L24L	✓
1	da	L25R	✓
1	da	L25L	✓
1	da	L26R	✓
1	da	L26L	✓
1	Gate Bracket	GB4R	✓
1	da	GB4L	✓
1	da	GB5R	✓
1	da	GB5L	✓
1	da	GB6R	✓
1	da	GB6L	✓
1	Railing	R6R	✓
1	da	R6L	✓
1	da	R7R	✓
1	da	R7L	✓
1	da	R8	✓

SPECIFICATIONS : STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1941, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944

STRUCTURAL STEEL : A.S.T.M. A7-48

RIVET STEEL : A.S.T.M. A141-39

RIVETS : UNLESS NOTED OPEN HOLES 1/8" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 1/8" SMALLER AND AFTER ASSEMBLING, REAMED 1/8" LARGER, OR DRILLED FROM THE SOLID 1/8" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLAT SHALL BE DRILLED TO A METAL TEMPLAT 1 THICK

SHOP PAINT : ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

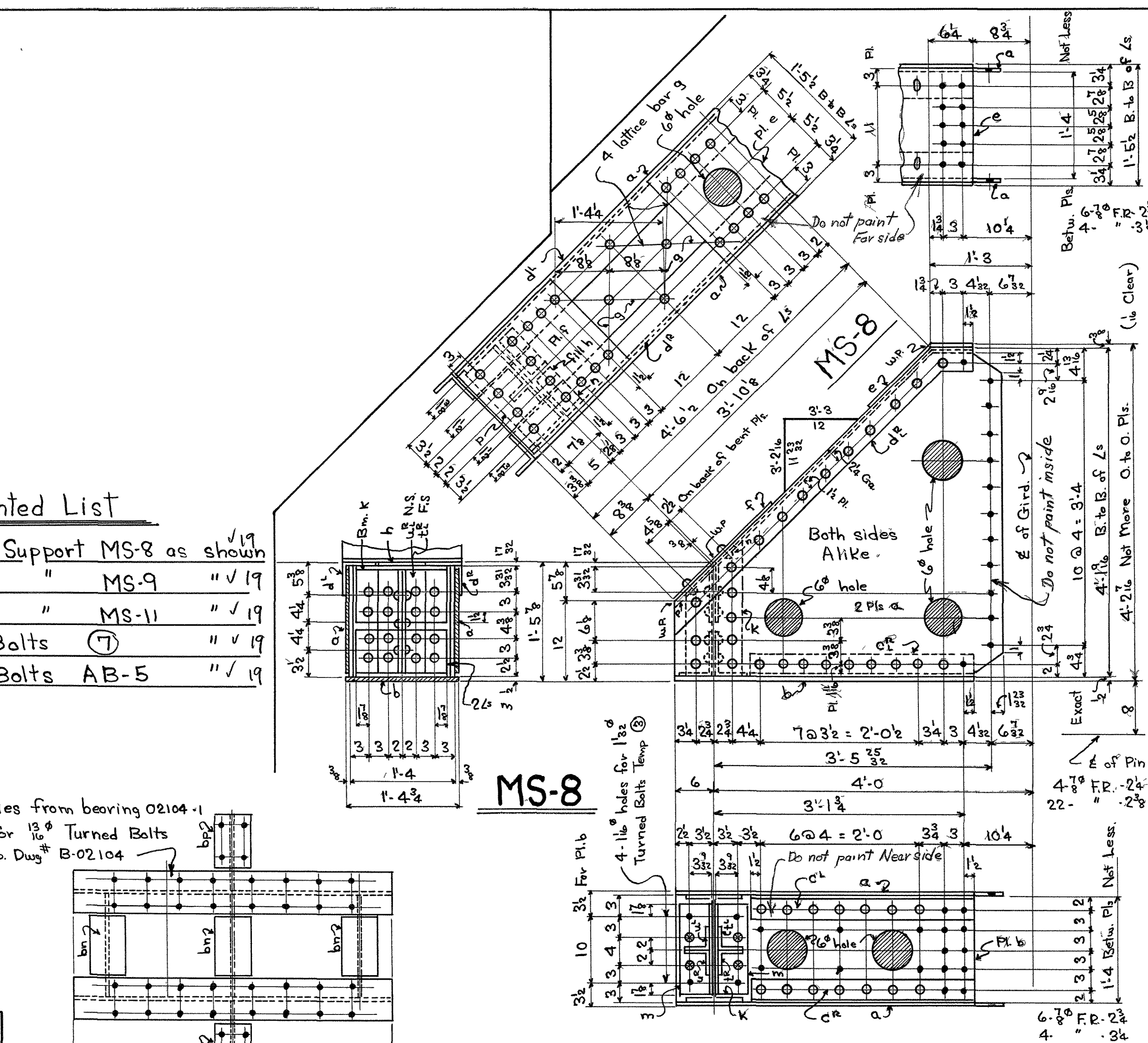
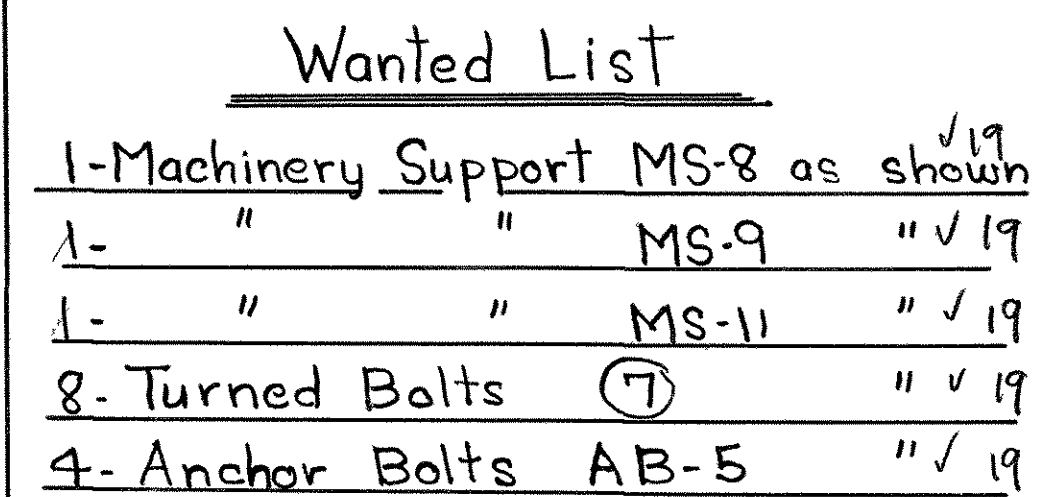
EDGE DISTANCES NOT GIVEN ARE 1 1/2"

LAST ASSEMBLY MARK : af

SHOP LIST PAGES 28, 2942 Rev 1/22/40 added pgs R6 R7, R8, cancelled 3-R3

**STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
Laterals & Barrier
Gate Brackets**

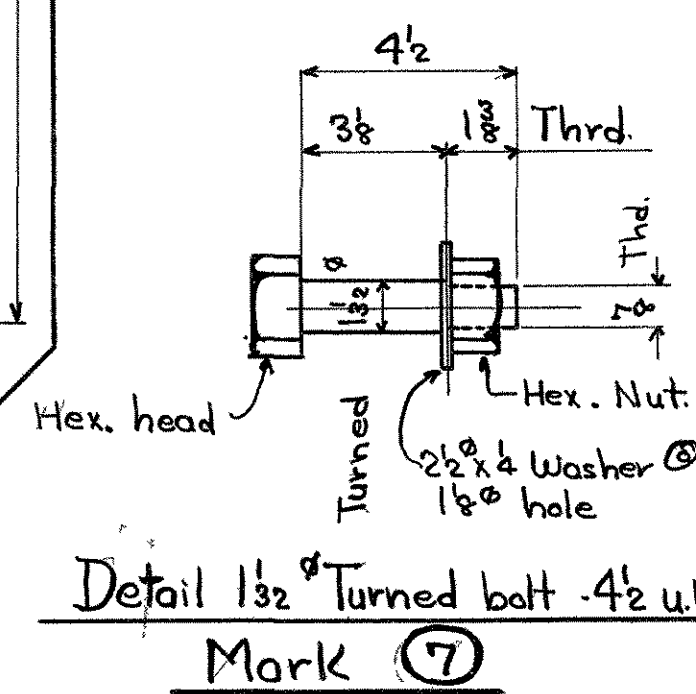
**PHOENIX BRIDGE CORPORATION
CONTRACT 745
C.O. 745 F
DRAWING 28
ENGINEER W.R. Hall
DRAFTSMAN D.G. Hinkle
CHECKED BY J.D.S. 11/17/47
SCALE 3/4" = 1 foot
DATE Nov. 11, 1947**



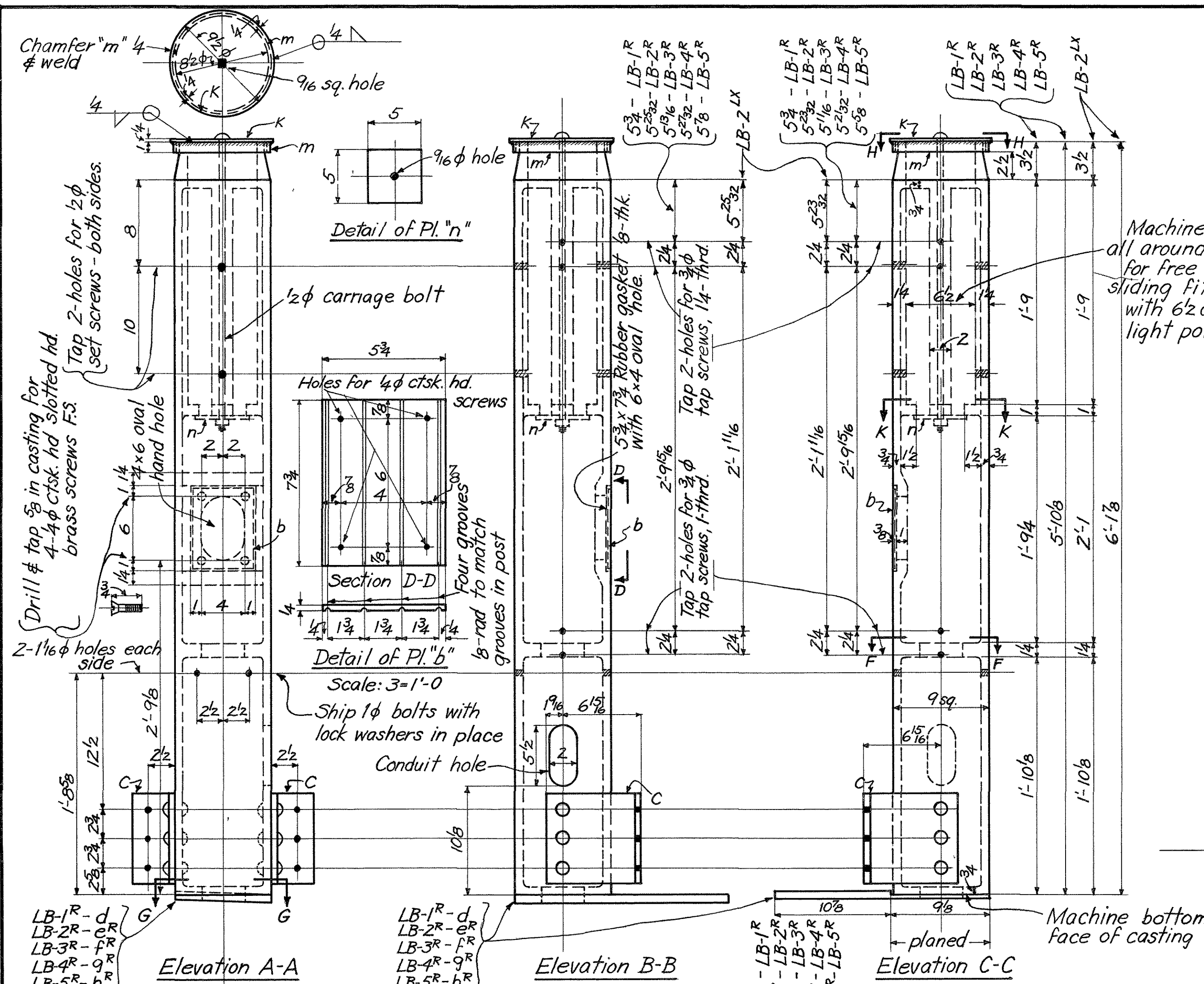
Material for I-Machinery Support			Mark MS-8
2	a	48 $\frac{1}{2}$ x $\frac{3}{8}$ Pl.	4-1'2" T.
1	b	17 X 2 Pl.	3'-9"
2	c ²	3 $\frac{1}{2}$ x $\frac{3}{8}$ Ls	2'-9"
2	d ²	5 x $3\frac{1}{2}$ x $\frac{3}{8}$ Ls	5'-4" T, bent
1	e	17 x $\frac{3}{8}$ Pl.	1'-6" bent
1	f	"	1'-8"
4	g	2 $\frac{1}{2}$ x $\frac{3}{8}$ latf. bars	1'-7" 
1	h	7 x $\frac{3}{8}$ fill	- 10"
1	k	16 W 64 #	1'-9" T, F2.E.
2	m	7 x 5 x $\frac{1}{2}$ Ls	1'-1 $\frac{3}{4}$ "
1	n	13 $\frac{1}{2}$ x $\frac{1}{2}$ Pl.	-12" bent
1	p	"	-12" "
2	t ²	3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x $\frac{3}{8}$ Ls	1'-8" T., F2.E.
2	u ²	"	1'-2'2" " "

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
Machinery Supports, etc

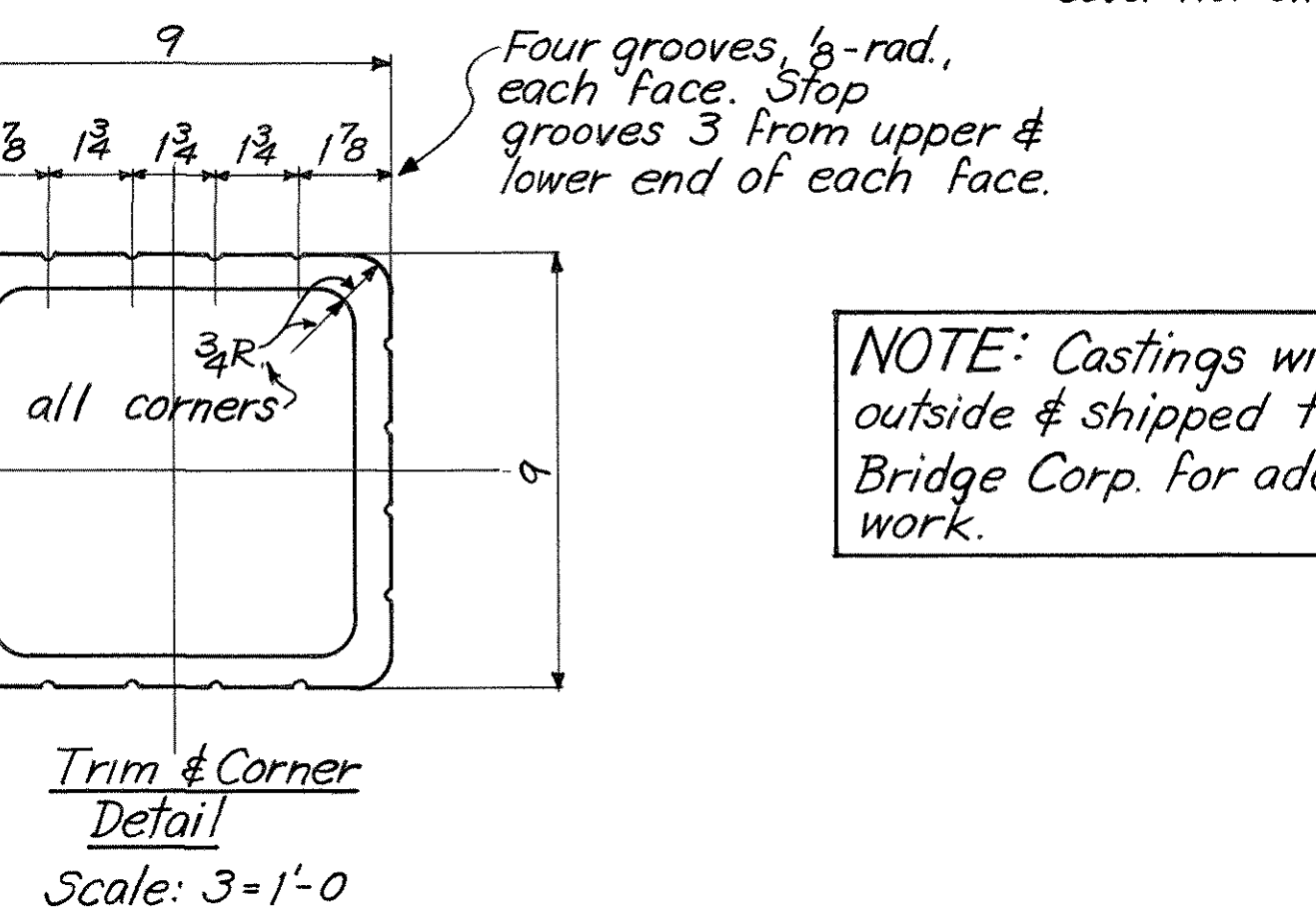
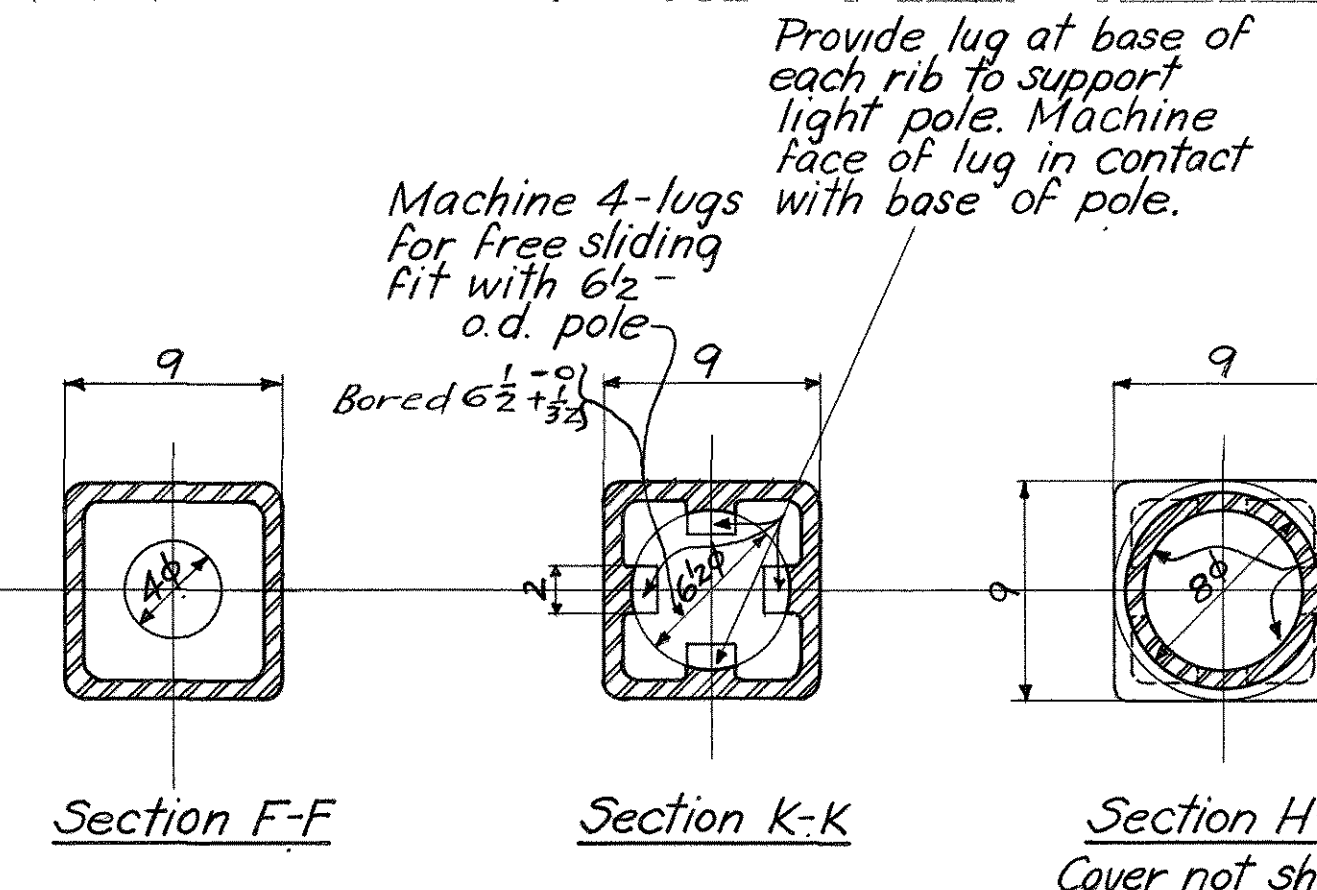
PHOENIX BRIDGE CORPORATION
CONTRACT 745
C. O. 745-F
DRAWING: 30
ENGINEER: W. R. Hall
DRAFTSMAN: Leon Greiser
CHECKED BY J.D.S. 12/16/47
SCALE: 1" = 12'
DATE: Dec. 3rd. 1947



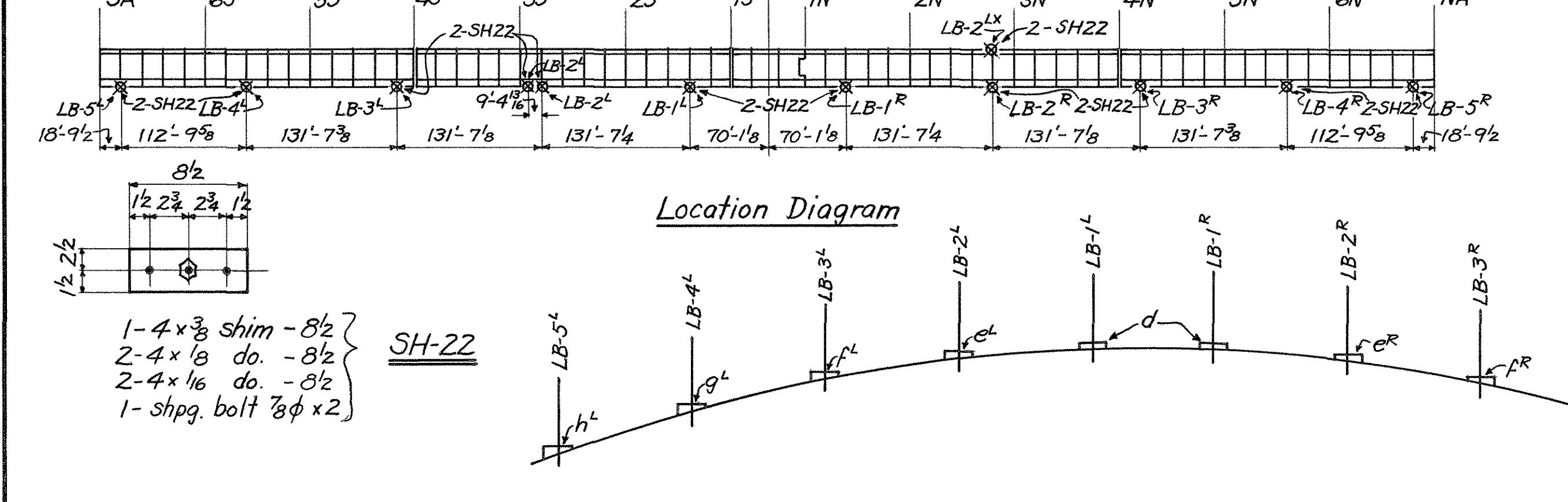
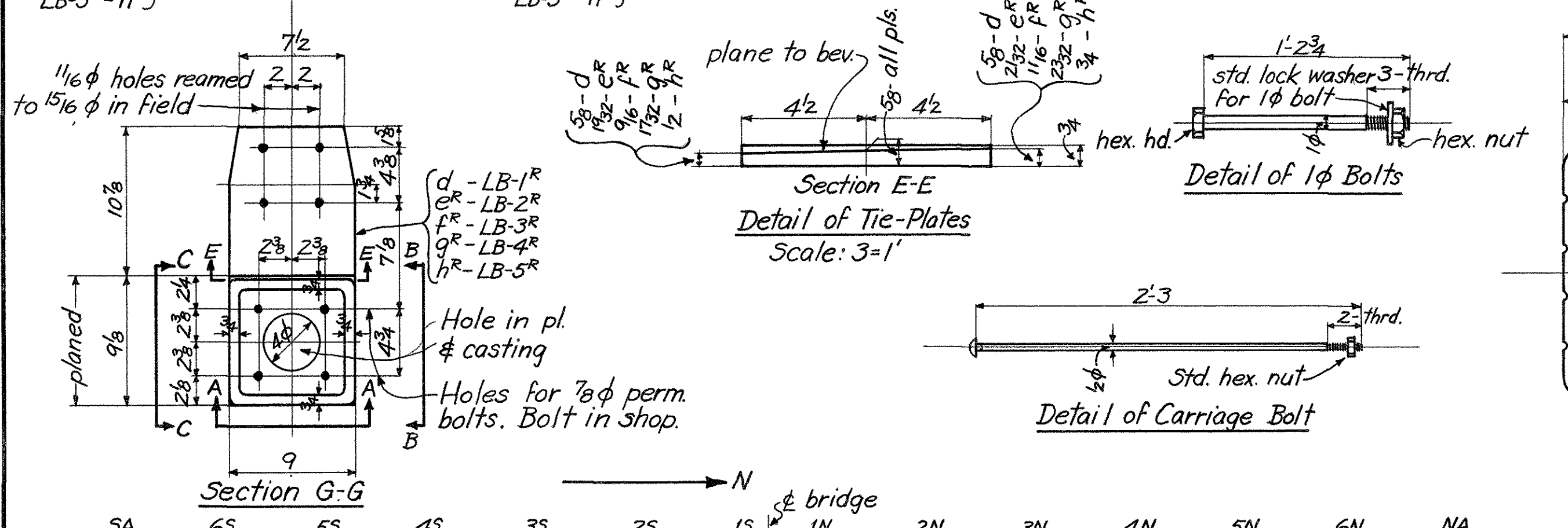
STRUCTURAL STEEL :- A.S.T.M. A7-48
RIVET STEEL :- A.S.T.M. A141-37
RIVETS :- $\frac{7}{8}$ " UNLESS NOTED. OPEN HOLES $\frac{15}{16}$ " UNLESS NOTED
HOLES IN MAIN MEMBERS SHALL BE PUNCHED $\frac{3}{16}$ " SMALLER AND AFTER
ASSEMBLING, REAMED $\frac{1}{16}$ " LARGER, OR DRILLED FROM THE SOLID $\frac{1}{16}$ " LARG-
ER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING
AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.
HOLES MARKED TEMPLAT SHALL BE DRILLED TO A METAL TEMPLAT 1 THICK
SHOP PAINT :- ONE COAT OF APPROVED PAINT
SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE
COATED WITH WHITE LEAD AND TALLOW.
EDGE DISTANCES NOT GIVEN ARE :- $\frac{1}{2}$ "
LAST ASSEMBLY MARK- b.u. SHOP LIST PAGES 30, 31, 32



MATERIAL	
LB1 ^R	9 sq. casting
LB2 ^R	5 3/4 x 4 pl.
LB3 ^R	8 1/2 x 4 x 7/16 L
LB4 ^R	9 x 3/4 pl.
LB5 ^R	do.
LB1 ^L	do.
LB2 ^L	do.
LB3 ^L	do.
LB4 ^L	do.
LB5 ^L	do.
LB1 ^R	9 1/2 x 1/4 pl.
LB2 ^R	1 x 1/4 pl.
LB3 ^R	5 x 3/8 pl.
LB4 ^R	1/2 carriage bolt
LB5 ^R	5 3/4 x 7/8 rubber gask.
LB1 ^L	4 phi ctsk. hd brass screws
LB2 ^L	1 phi bolts
LB3 ^L	std. lock washer for 1 phi bolt
LB4 ^L	9 sq. casting
LB5 ^L	9 x 3/4 pl.
LB1 ^R	6 phi perm. bolts
LB2 ^R	2 3/4 u.h.



NOTE: Castings will be made outside & shipped to Phoenix Bridge Corp. for additional work.



WANTED	
24- Bundles of Shims Mark SH-22	
1- Lamp Post Base Mark LB1 ^R	As shown
1- do do LB1 ^L	Opp. Hnd.
1- do do LB2 ^R	As shown
2- do do LB2 ^L	Opp. Hnd.
1- do do LB3 ^R	As shown
1- do do LB3 ^L	Opp. Hnd.
1- do do LB4 ^R	As shown
1- do do LB4 ^L	Opp. Hnd.
1- do do LB5 ^R	As shown
1- do do LB5 ^L	Opp. Hnd.
1- do do LB2 ^{LX}	Opp. hnd. to LB2 ^R
Summary of Field Rivets	
72- F.Rivs 7/8 phi x 3 1/2	except as noted.
48- do 7/8 phi x 2 3/8	

Steel castings shall conform to the Standard Specifications for Carbon-Steel Castings for Miscellaneous Industrial Uses (Designation A-27-44) of the A.S.T.M. and shall be Grade B-1, full annealed. Tests to be in laboratory designated by the State of New Hampshire Highway Department.

SPECIFICATIONS: STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1941, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL: A.S.T.M. A7-48

RIVET STEEL: A.S.T.M. A141-39

RIVETS: 7/8 phi UNLESS NOTED. OPEN HOLES 1/16 phi UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16 SMALLER AND AFTER ASSEMBLING, REAMED 1/16 LARGER, OR DRILLED FROM THE SOLID 1/16 LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK

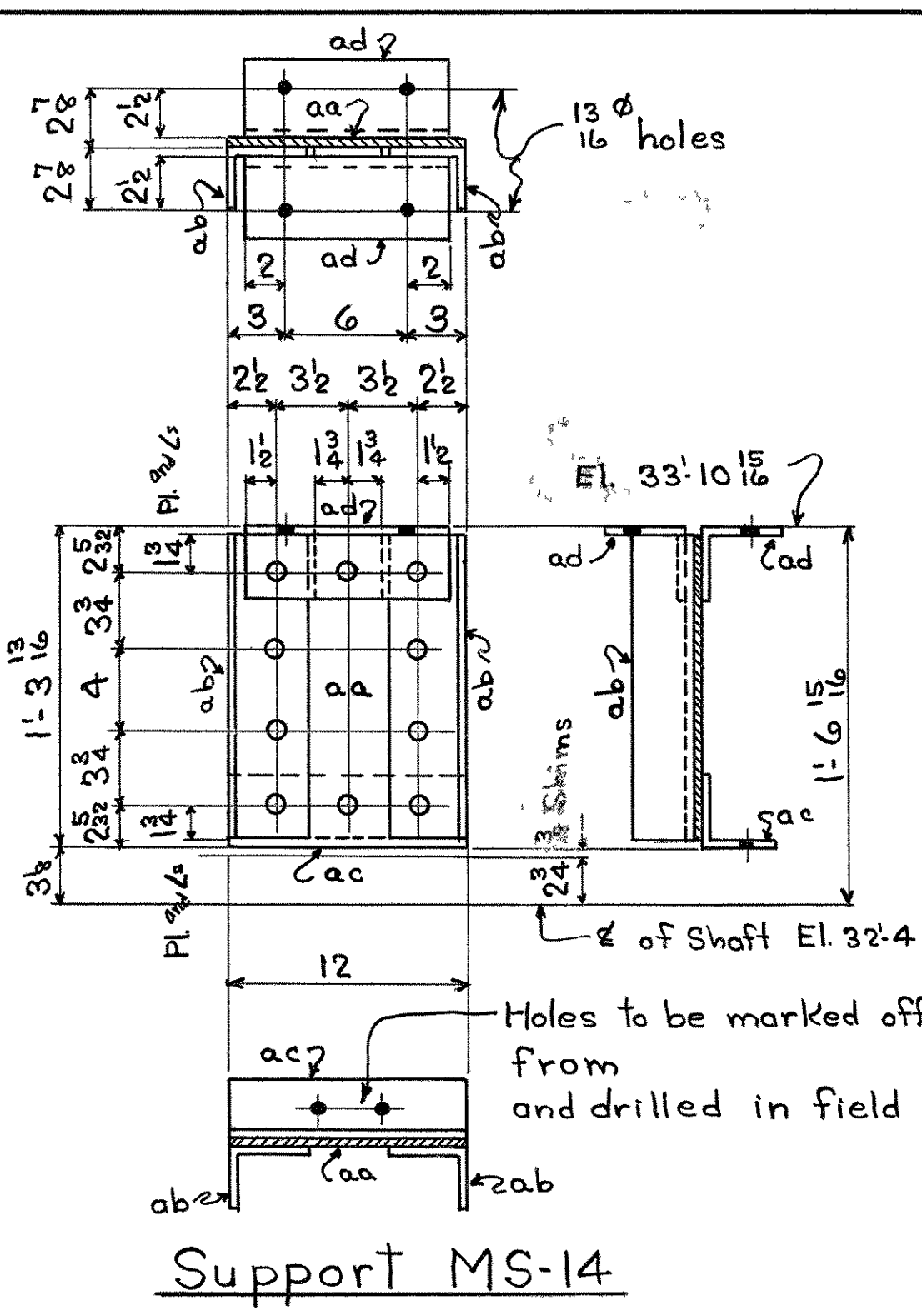
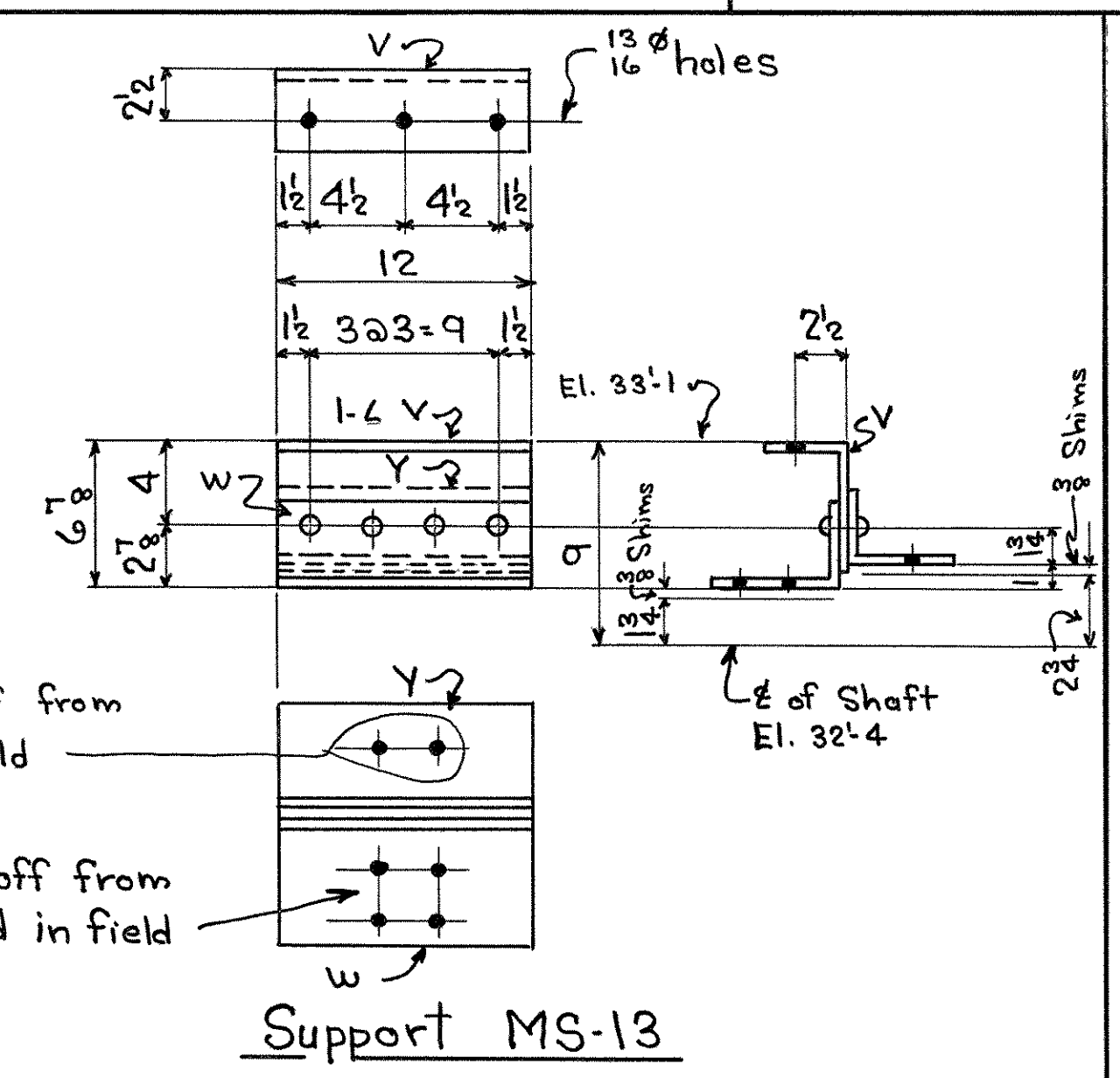
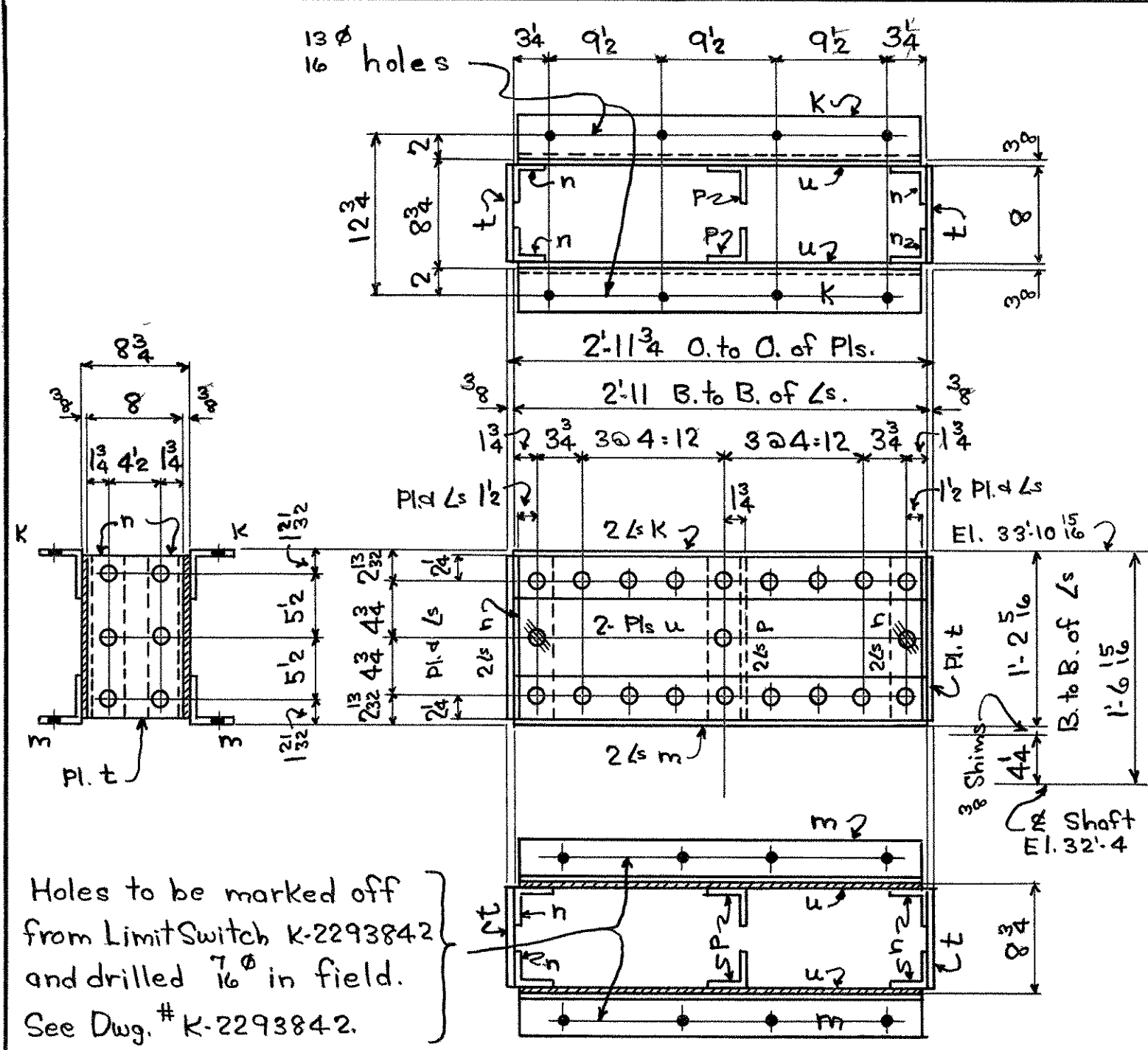
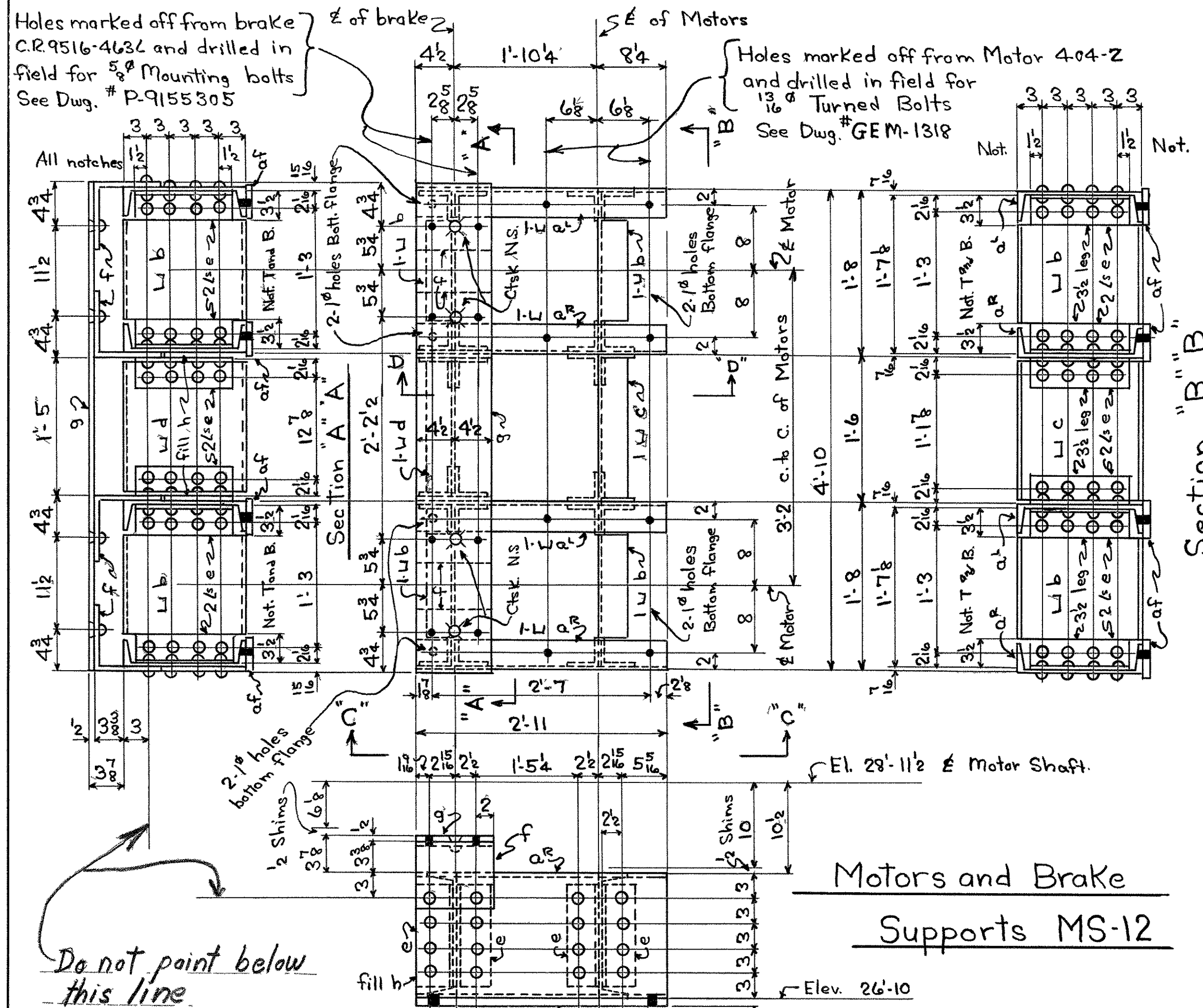
SHOP PAINT: ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

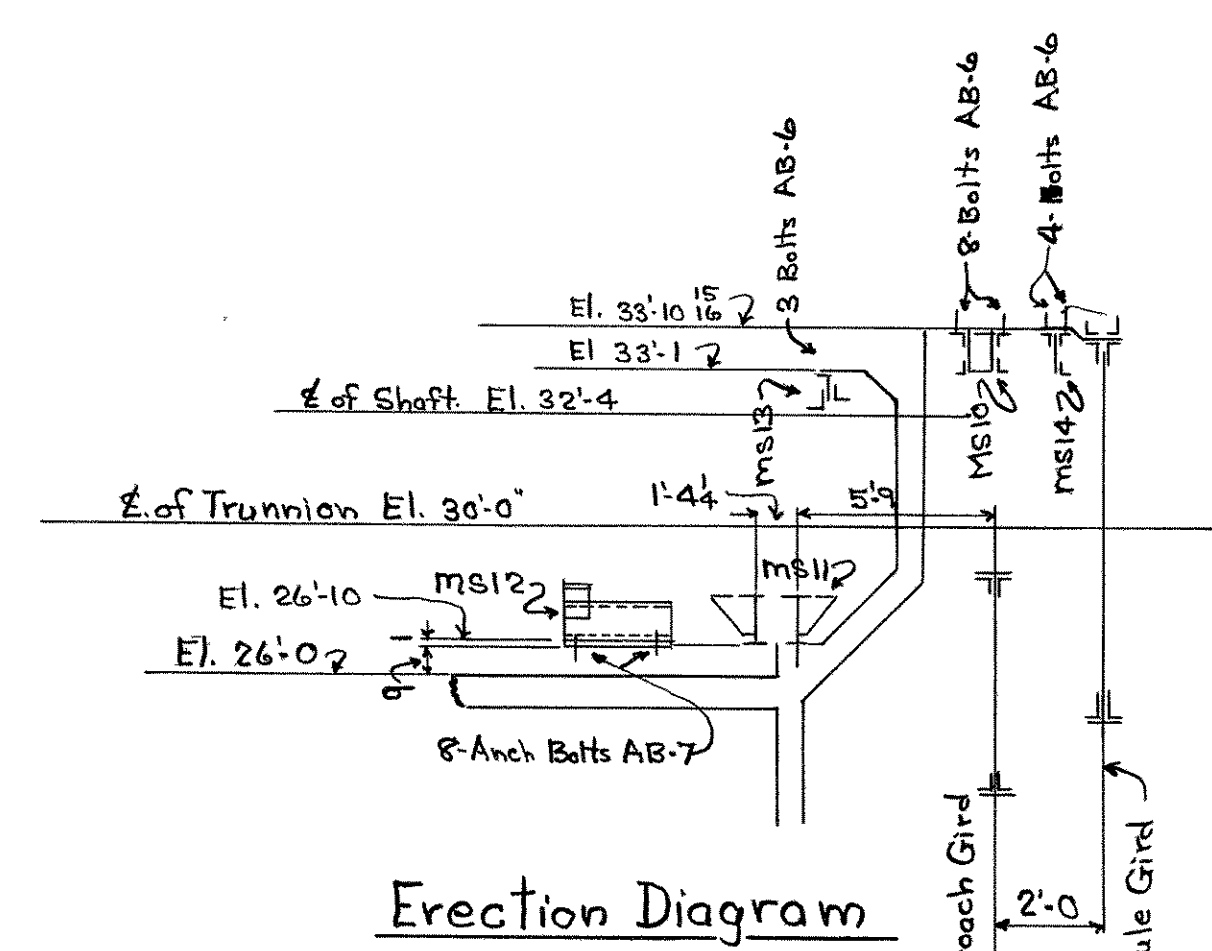
EDGE DISTANCES NOT GIVEN ARE 1/2

LAST ASSEMBLY MARK: 71 SHOP LIST PAGE 1 of last

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
LAMP POST BASES
PHOENIX BRIDGE CORPORATION
CONTRACT 745
C. O. 745 H
DRAWING: 31
ENGINEER: W.R. Hall
DRAFTSMAN: MCShedd
CHECKED BY: J. Seiser 12/15/47.
SCALE: 1/2" = 1'-0" unless noted
DATE: 10 Dec 47



- Wanted List
- | | |
|--------------------------------|------|
| 1- Support Mark MS-10 | ✓ 19 |
| 1- " " MS-12 | ✓ 19 |
| 1- " " MS-13 | ✓ 19 |
| 1- " " MS-14 | ✓ 19 |
| 15- Cinch Anchor Bolts AB-6 | ✓ 19 |
| 8- Anchor Bolts AB-7 for ms-12 | ✓ 19 |



SPECIFICATIONS :- STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1947, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944 WORKMANSHIP - A.A.E.H.O. 1944

STRUCTURAL STEEL :- A.S.T.M. A7-45

RIVET STEEL :- A.S.T.M. A141-39

RIVETS :- 7/8" UNLESS NOTED. OPEN HOLES 1 1/8" UNLESS NOTED

HOLES IN MAIN MEMBERS SHALL BE PUNCHED - SMALLER AND AFTER ASSEMBLING - REAMED - LARGER, OR DRILLED FROM THE SOLID - LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE.

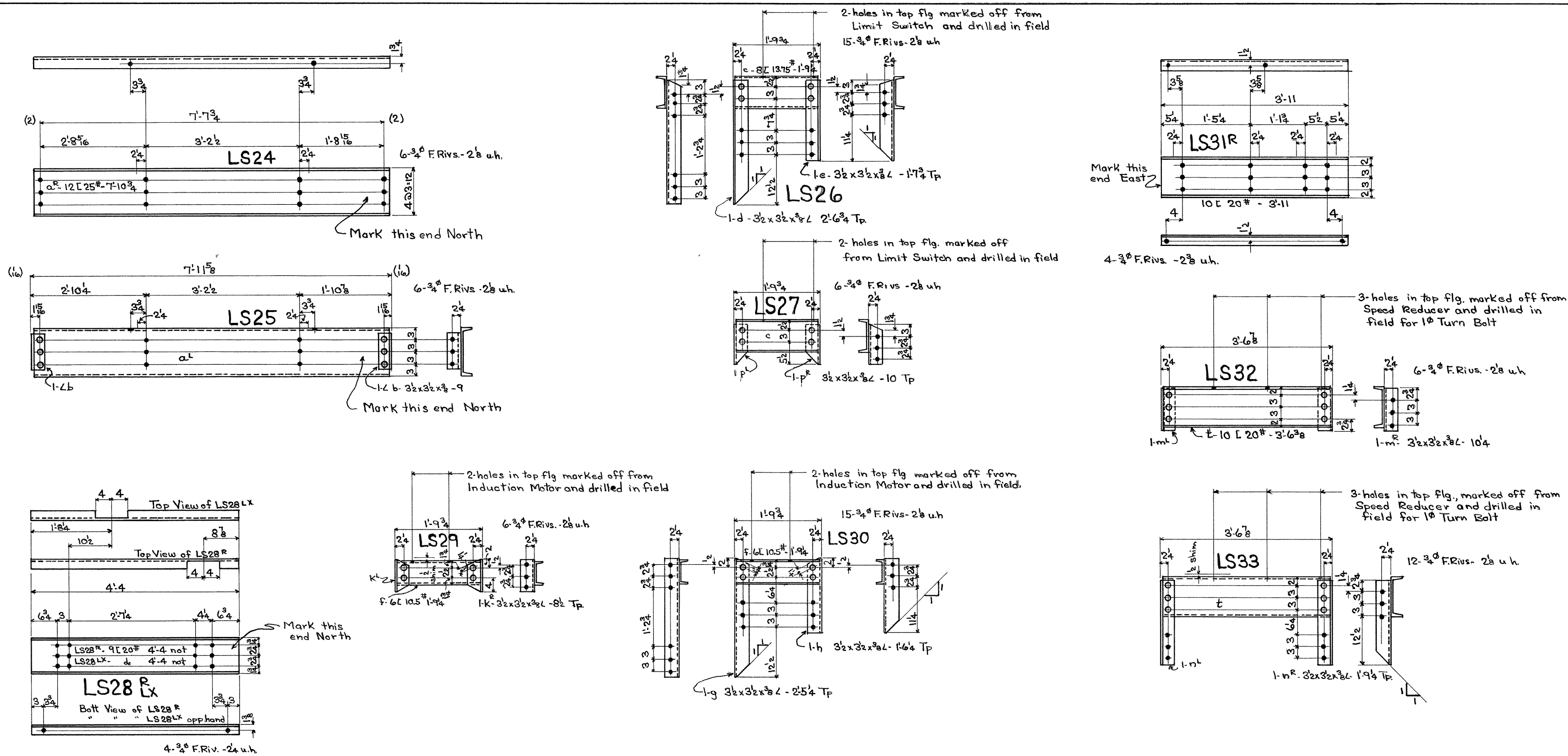
HOLES MARKED TEMPLATE SHALL BE DRILLED TO A METAL TEMPLATE 1 THICK SHOP PAINT :- ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE - 1 1/2

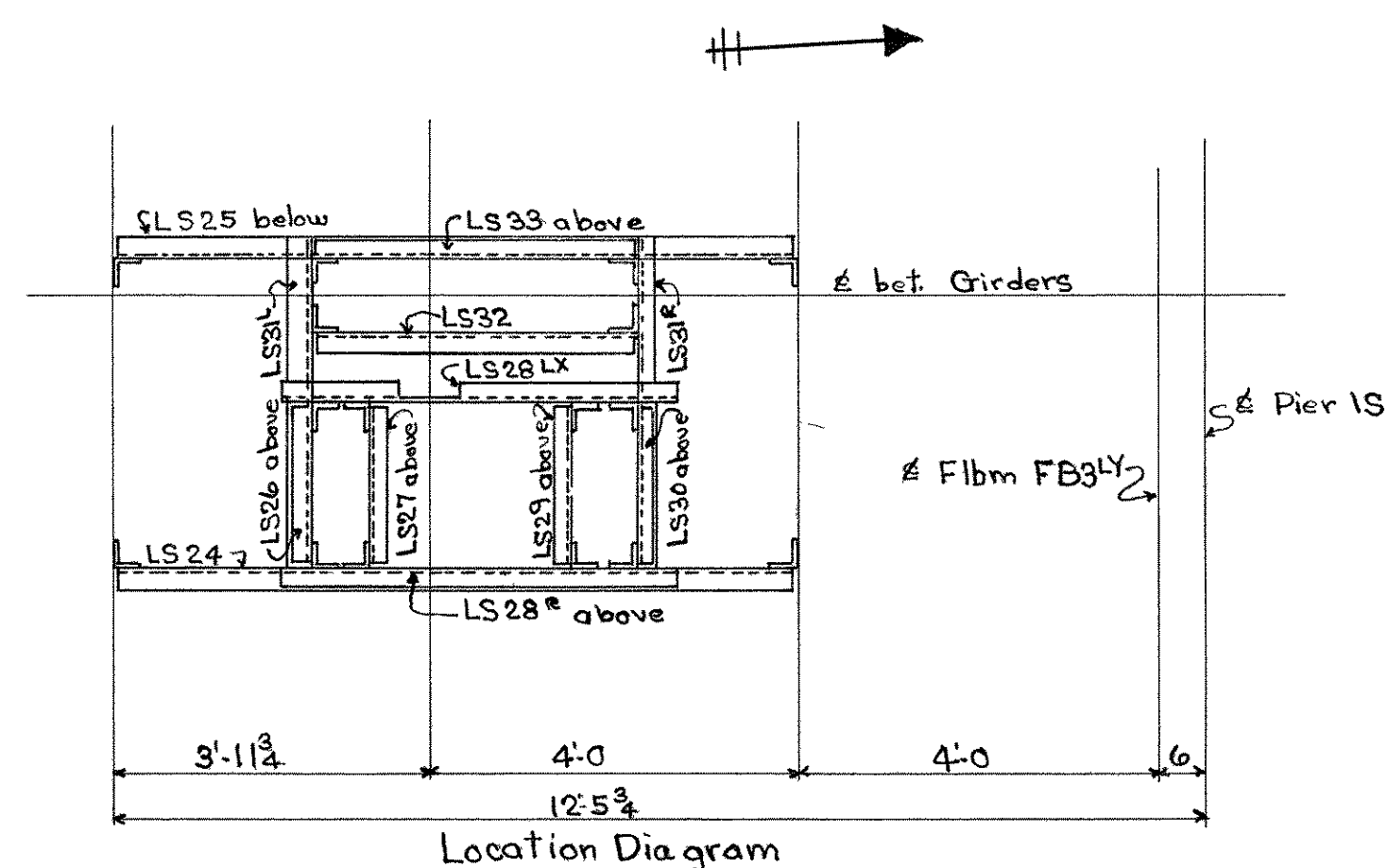
LAST ASSEMBLY MARK - Q.C. SHOP LIST PAGES 38-39

STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE
Motors, Brake & Limit Switch Supports
PHOENIX BRIDGE CORPORATION
CONTRACT 745
C.O. 745 F
DRAWING: # 32
ENGINEER: W.R. Hall
PARTSMAN: L. Geiser
CHECKED BY: W.R.H. 1/6/48
SCALE: 1 and 1/2" = 12'
DATE: Jan 2nd 1948



Wanted	Item #
1 Locking Support	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18
1 do	18

Summary of $\frac{3}{4}$ " Field Rivets			
Length u.h.	2'8"	2'4"	2'8"
Number	72	4	4



SPECIFICATIONS :- STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS 1941, AND STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL SPECIFICATIONS ALSO, A.A.S.H.O. 1944 WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL :- A.S.T.M. A7-46

RIVET STEEL :- A.S.T.M. A151-39

RIVETS :- 3/8" UNLESS NOTED OPEN HOLES 1/8" UNLESS NOTED HOLES IN MAIN MEMBERS SHALL BE PUNCHED 3/16" SMALLER AND AFTER ASSEMBLING, REAMED 1/16" LARGER, OR DRILLED FROM THE SOLID 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE RIVET. HOLES FOR SWAY BRACING AND SECONDARY MEMBERS MAY BE PUNCHED FULL SIZE. HOLES MARKED TEMPLAT SHALL BE DRILLED TO A METAL TEMPLAT 1 THICK SHOP PAINT :- ONE COAT OF APPROVED PAINT

SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE COATED WITH WHITE LEAD AND TALLOW.

EDGE DISTANCES NOT GIVEN ARE - 1 1/2

LAST ASSEMBLY MARK - ± SHOP LIST PAGE# 37

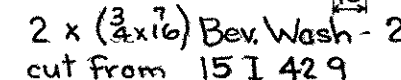
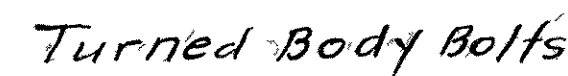
Rev LS24 & LS25 7/6/48
Rev LS24 & LS25 2/27/48

**STATE OF NEW HAMPSHIRE
HIGHWAY DEPARTMENT
HAMPTON HARBOR BRIDGE**

Locking Machinery Support

PHOENIX BRIDGE CORPORATION

CONTRACT 745
C. O. 745 F
DRAWING: 33
ENGINEER: W.R. Hall
DRAFTSMAN: D.G. Hinkle
CHECKED BY: J.D.S. 1/12/48
SCALE: 3/8" = 1'-0"
DATE: Jan 12, 1948



Bolted together making
4- Bundles of Shims
Each consists of $1\frac{1}{2}$, $1\frac{1}{4}$,
 $1\frac{1}{8}$, $1\frac{1}{16}$, $1\frac{1}{32}$, $2\frac{1}{64}$ & $1\frac{1}{2}$ Bolt

4-SH-28 ✓19
(For Bearing
02105-1 & 2
dwg B-02105)


 3/16 hole

Bolted together to make
1 - Bundle of Shimms

1-SH-34 19
(For Lock Bar
Bearing)

19

{ Welded to Support MS.
field after machinery
been adjusted.

Bolted together making
2-Bundles of Shims

Each consists of $1\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{1}{8}$, $1\frac{1}{16}$, $1\frac{1}{32}$, $2\frac{1}{64}$ & $1\frac{1}{2}$ [

Bolted together making
2-Bundles of Shims

Each consists of $1\frac{1}{2}$, $1\frac{1}{4}$,
 $1\frac{1}{8}$, $1\frac{1}{16}$, $1\frac{1}{32}$, $2\frac{1}{64}$ & $1\frac{1}{2}$ bolt

2-SH-24 ✓ 19
(For Bearings)
02109-1 & 2
dwg B-02109

Diagram showing a hole in a plate. The hole is labeled "9φ hole". The distance from the center of the hole to the edge of the plate is labeled "Z".

Bolted together making
2-Bundles of Shims

Each consists of $1-\frac{1}{2}, 1-\frac{1}{4}$
 $1-\frac{1}{8}, 1-\frac{1}{16}, 1-\frac{1}{32}, 2-\frac{1}{64}$ & $1-\frac{1}{2}$ B

Bolted together making
2-Bundles of Shims.

Each consists of $1\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{1}{8}$, $1\frac{1}{16}$, $1\frac{1}{32}$, $2\frac{1}{64}$ & $1\frac{1}{2}$ Bol

2 SH-25 ✓ 19
(For Bearings)
02109-1 & 2
dwg. B-02109

Bolted together making
2- Bundles of Shims

Each consists of 1-6'x2', 1/8", 16, 32 & 2-6'x2', 1/8", 16, 32 & 2-6'. Bolted with 1-2" Bolt.

A diagram showing a 90-degree hole. A vertical line and a horizontal line intersect at a central point, forming a cross. An arrow points from the text "3/8" to the horizontal line. Another arrow points from the text "90 hole" to the vertical line.

Bolted together making
4-Bundles of Shims

Each consists of 1-2, 1-4, 1-8,
1-16, 1-32, 2-64 & 1-2⁶ Bolt.

4-SH-26 '19
(For Bearings)
02112-2
dwg B-02112)

Diagram of a beam section showing dimensions and a hole. The total width is 2'-6 1/2". The distance from the left edge to the center of the hole is 12". The distance from the center of the hole to the right edge is 1'-6 1/2". The hole is 9" in diameter. The beam has a top flange and a bottom flange, both labeled "max".

Bolted together making
2-Bundles of Shims

Each consists of $1-\frac{1}{2}$, $1-\frac{1}{4}$, $1-\frac{1}{8}$, $1-\frac{1}{16}$, $1-\frac{1}{32}$, $2-\frac{1}{64}$ & $1-\frac{1}{2}$ Bol

Bolted together making
1-Bundle of Shims

1-SH-27 / 19
(For Bearing
02111-3
dwg. B-02111)

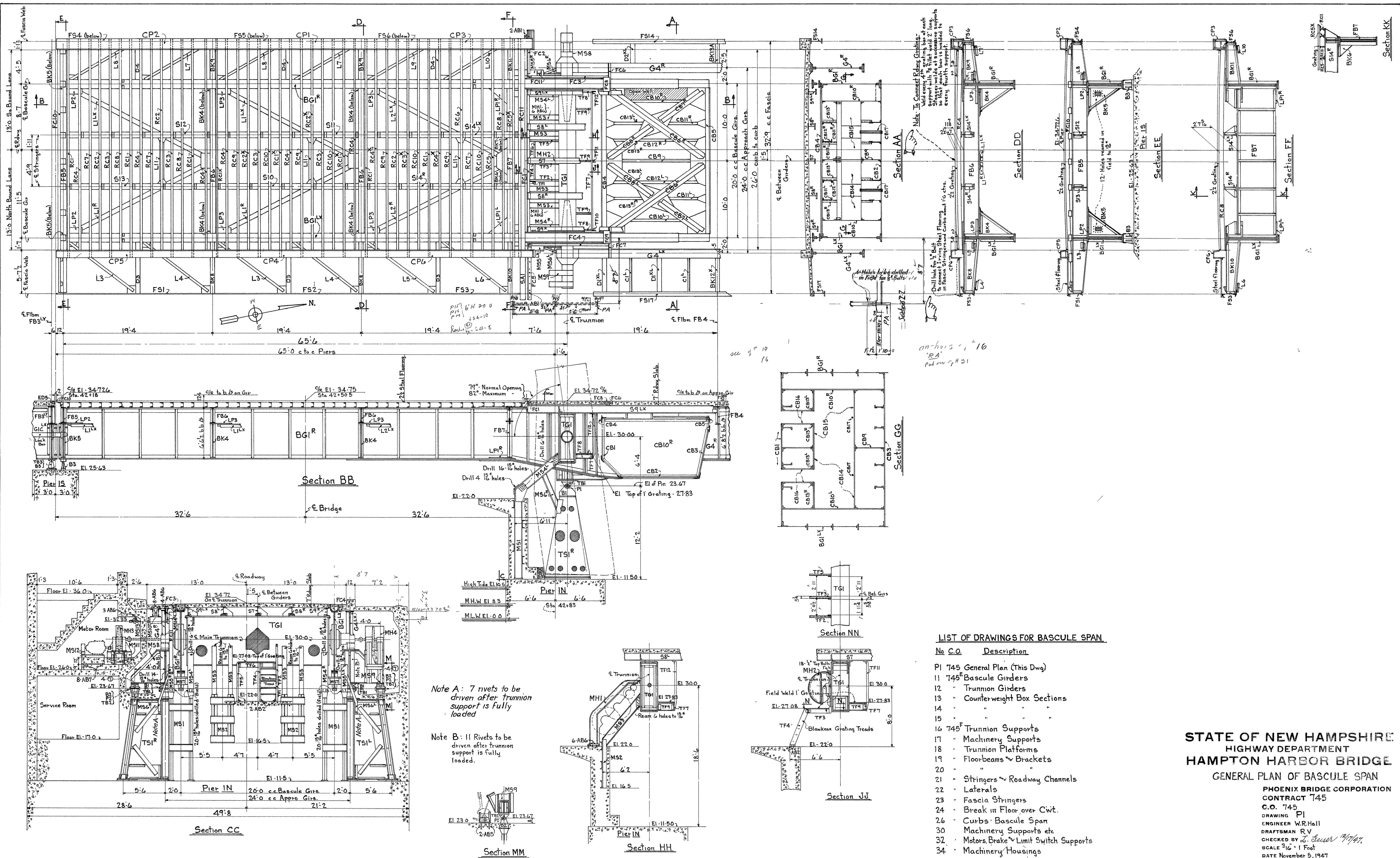
Specifications For Bolts- A.S.T.M. & S.A.E. Material Specification of latest issue are applicable.

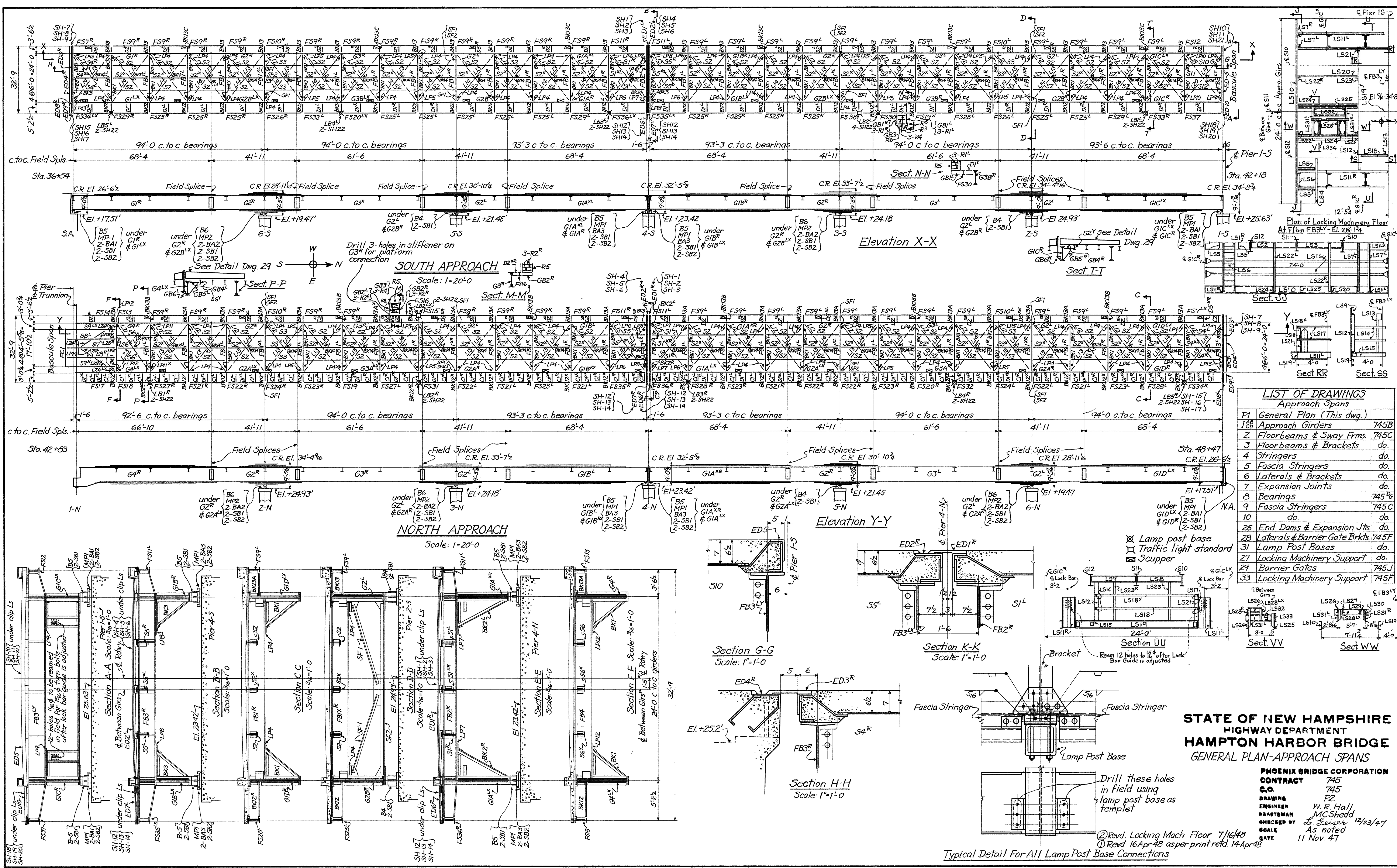
SPECIFICATIONS :-

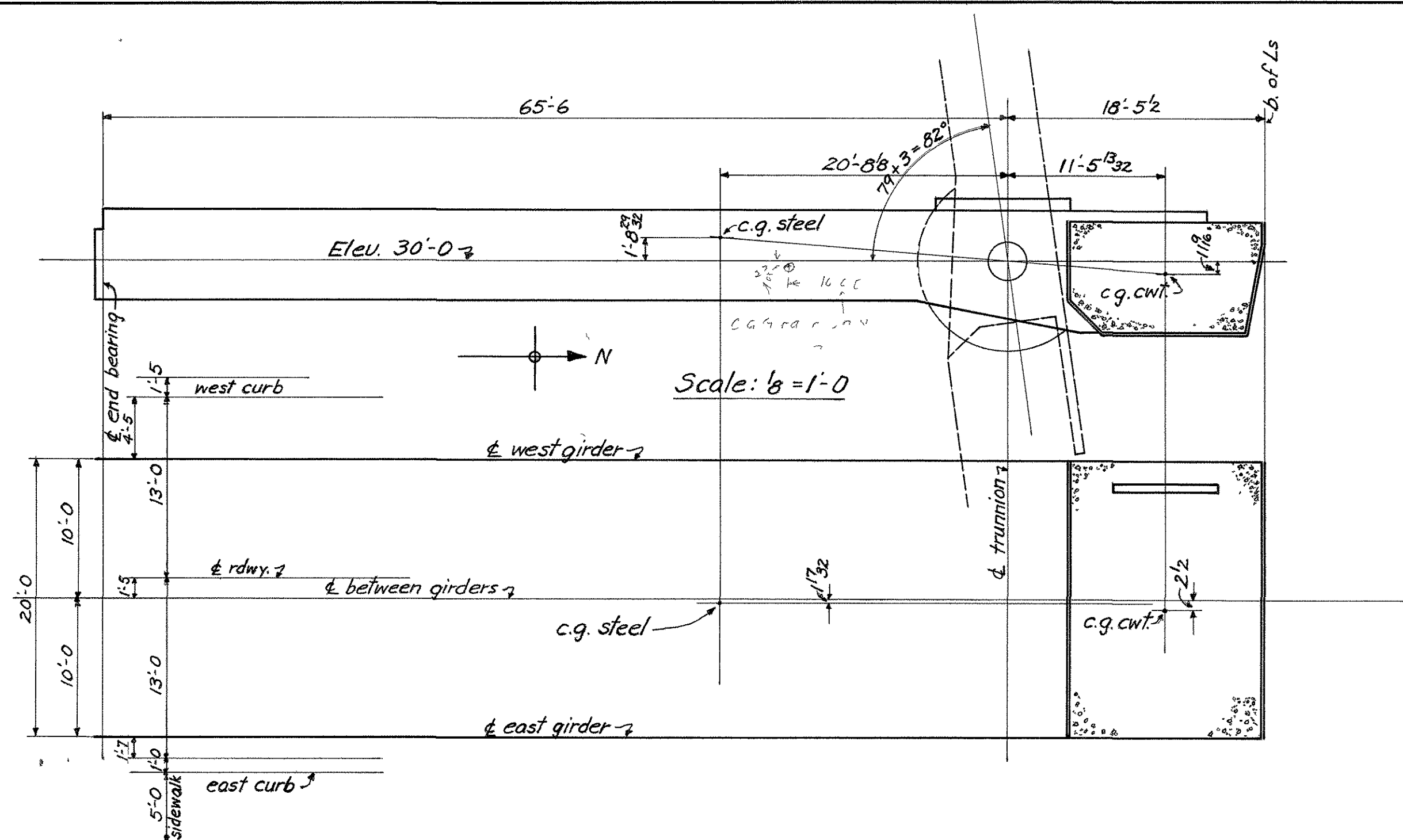
STATE OF NEW HAMPSHIRE HIGHWAY DEPARTMENT
STANDARD SPECIFICATIONS 1941, AND STATE OF
NEW HAMPSHIRE HIGHWAY DEPARTMENT SPECIAL
SPECIFICATIONS ALSO, A.A.S.H.O. 1944
WORKMANSHIP - A.A.S.H.O. 1944

STRUCTURAL STEEL - A.S.T.M. A7-48
RIVET STEEL - A.S.T.M. A141-39
RIVETS - UNLESS NOTED, OPEN HOLES - UNLESS NOTED
HOLES IN MAIN MEMBERS SHALL BE PUNCHED - SMALLER AND AFTER
ASSEMBLY - LARGER, OR DRILLED FROM THE SOLID LARGER
THAN THE NOMINAL DIAMETER OF THE RIVET, HOLES FOR SHAY BRACING
AND SECONDARY MEMBERS MAY BE USED FULL SIZE.
HOLES MARKED TEMPLET SHALL BE DRILLED TO A METAL TEMPLET 1 THICK
SHOP PAINT - ONE COAT OF APPROVED PAINT No Shop Paint for Shims
SHOP CONTACT SURFACES SHALL NOT BE PAINTED. SURFACES IN CONTACT
WITH CONCRETE SHALL NOT BE PAINTED. MACHINED SURFACES ARE TO BE
COATED WITH WHITE LEAD AND TALLOW.
EDGE DISTANCES NOT GIVEN ARE -
LAST ASSEMBLY MARK - SHOP LIST PAGES -

TURN BOLTS *and* SHIMS
for Machinery Supports
PHOENIX BRIDGE CORPORATION
CONTRACT 745
C. O. 745^E
DRAWING: 35
ENGINEER: W. R. Hall
DRAFTSMAN: D. G. Hinkle
CHECKED BY: W. R. H. 5/28/48
SCALE: —
DATE: May 28, 1948

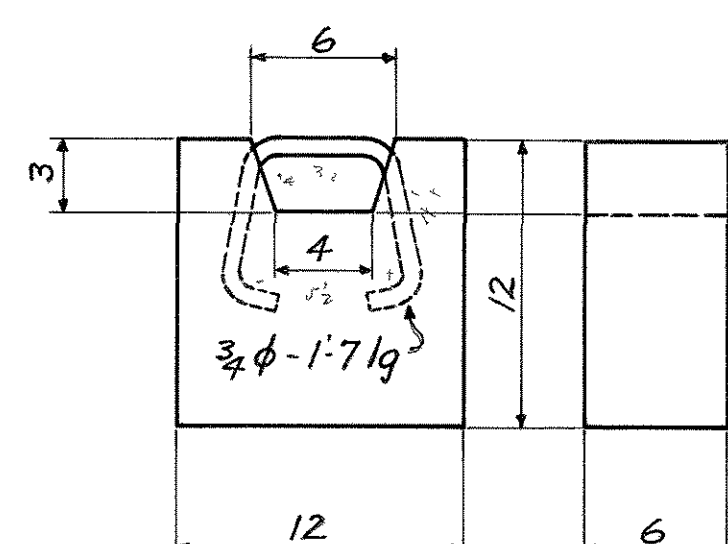






WEIGHT OF PUNCHING CONCRETE IN COUNTERWGT.	
1 Weight required to balance steel	369,803*
2 Effect of 1000* at toe end of span	5,721*
3 1-2	364,082*
4 Wt. of concrete required (96.5% of 3)	351,339*
5 Volume of concrete in cwt. (Steel = 44 ft. ³)	1751 ft. ³
6 Wt. of punching concrete reqd. (4 ÷ 5)	200.6* ft. ³

72.00 ft.³ punchings
69.99 stone
35.08 sand
18.53 cement
5.00 water
200.60 ft.³

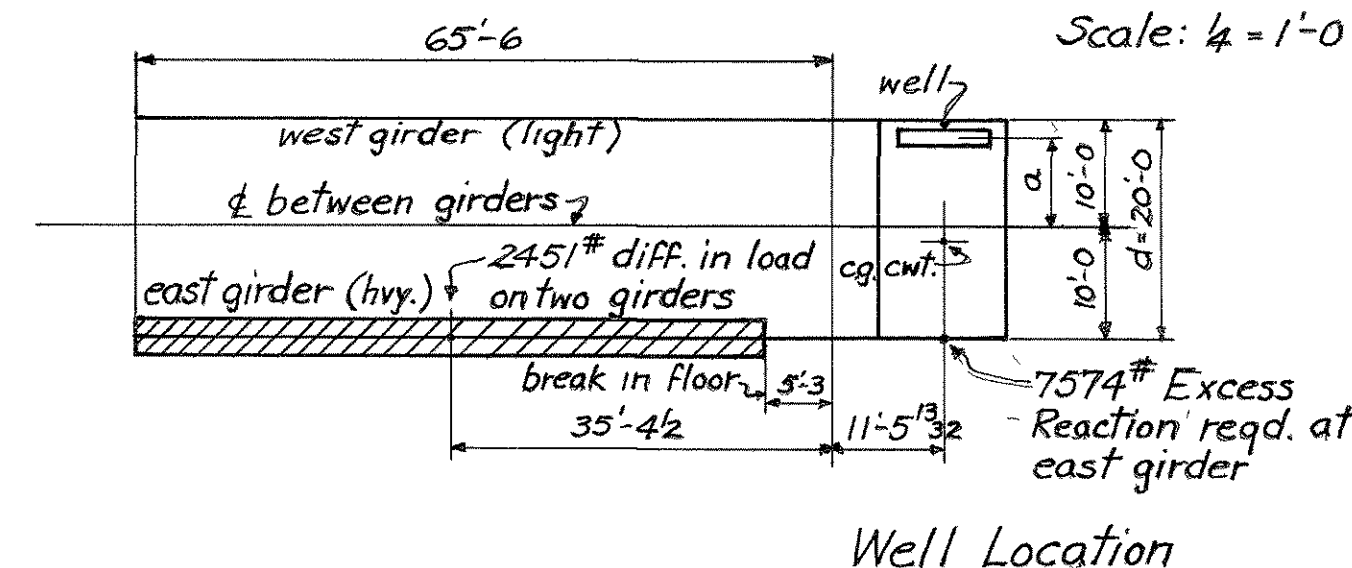


Detail of Concrete Balance Block
Scale: 1/2" = 1'-0"
Note: Blocks weigh 63.6* ea. # will be cast from 140* ft.³ concrete.
200 blocks required to balance span.

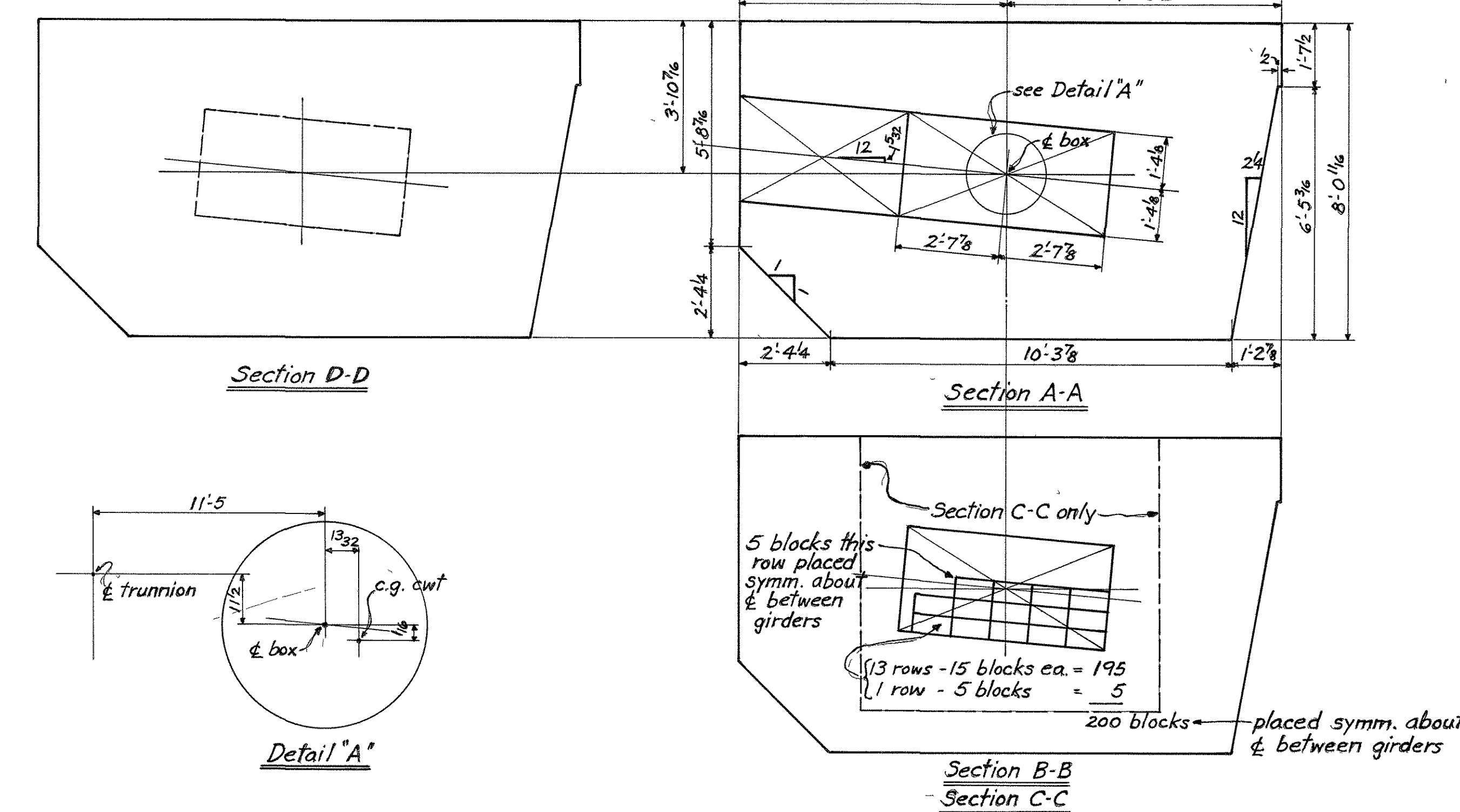
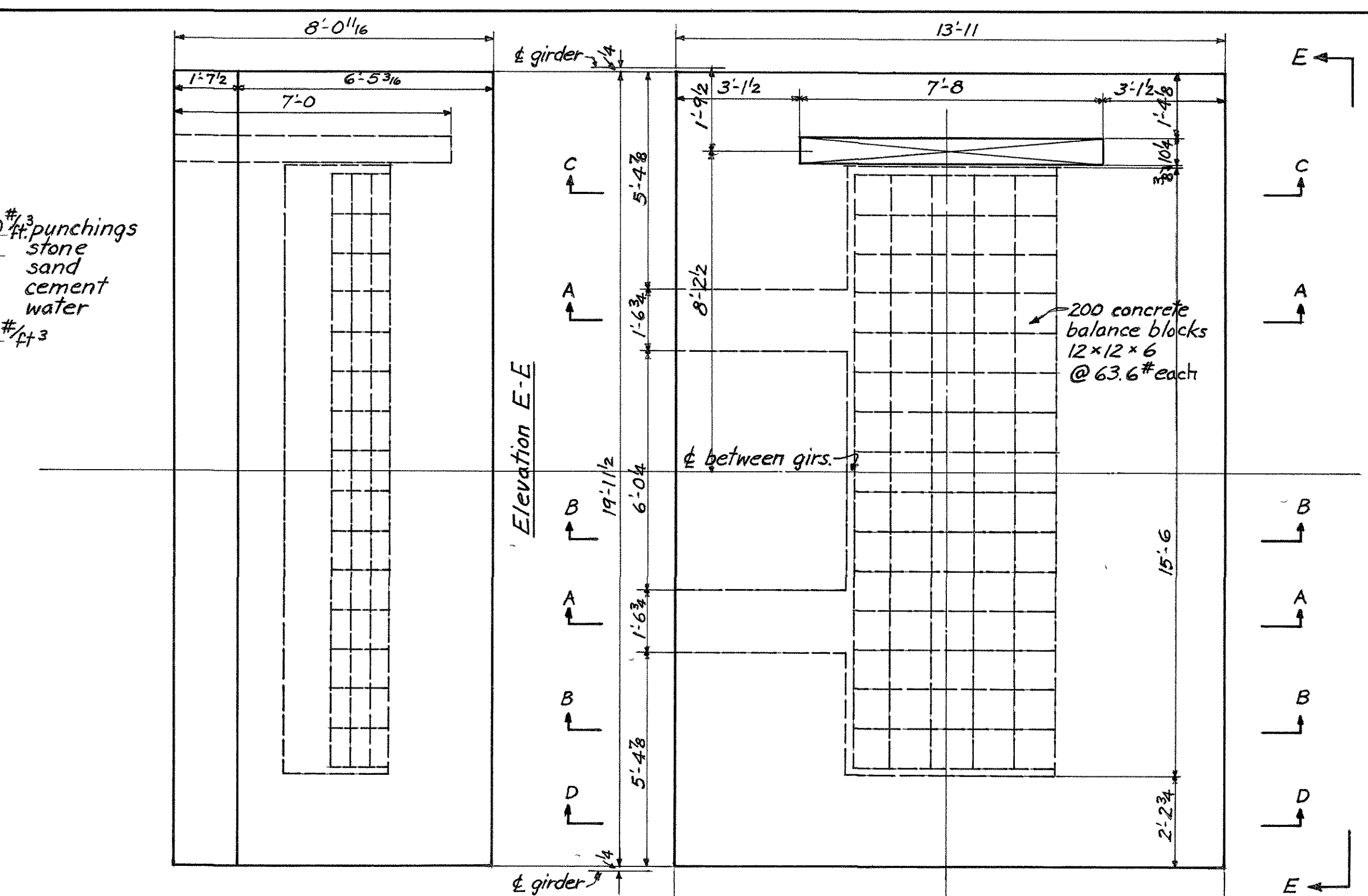
CENTER OF GRAVITY OF STEEL							
Center of Moments: 20' below & 20' back of & trunnion - 20' east of & between girders.							
Dwg.	Description	Wt.	Hor. Arm	Hor. Moment	Ver. Arm	Ver. Moment	Tr. Arm
11	Girders	60,004	16'-0 7/8"	2,164,435.32	2'-7 1/2" below	1,185,759.47	1,200,080.00
13	Cwt. Box	18,521		162,612.61		317,366.30	374,420.00
14	do.	12,516		125,015.89		270,259.86	250,340.00
15	do.	6,816		66,397.43		130,541.53	136,340.00
19	Fibers. & Bkts.	10,461		697,944.17		233,760.47	203,109.72
20	do.	6,449		218,295.21		137,908.59	124,919.92
21	Stringers, etc.	24,823		1,325,334.06		591,312.64	527,416.33
22	Laterals	5,574		314,112.22		122,051.91	110,550.10
23	Fascias	6,576		370,310.94		152,436.43	139,144.14
24	End Dam FCIO	1,140		97,903.62		27,462.14	23,279.22
26	Curbs	9,402		514,362.72		233,304.48	208,750.05
	Railing	7,589		428,752.86		198,965.61	141,448.45
	Grating	30,820		1,722,221.60		754,895.40	548,074.80
	Conc. on Girs.	2,619		53,794.26		64,505.97	52,380.00
	Span Lock	188		16,116.01		3,967.08	3,809.60
	Paint	813		33,110.44		17,697.99	16,176.25
	Totals	204,311	40.677'	8,310,719.36	21.742'	4,442,195.87	19,872' 4,060,238.58

TRANSVERSE LOCATION OF CWT. C. of G.					
Sect.	Area ft. ²	Width ft.	Vol. ft. ³	Arm ft.	Mom. ft. ⁴
1	105.15	1.34	140.90	19.31	2720.78
2	51.46	0.85	43.75	18.21	796.69
3	105.15	0.03	3.15	17.74	55.88
4	90.87	3.18	288.97	16.14	4663.98
5	79.44	1.56	123.93	13.77	1706.52
6	90.87	6.02	547.04	9.98	5459.46
7	79.44	1.56	123.93	6.19	767.13
8	90.87	3.18	288.97	3.82	1103.87
9	105.15	2.23	234.48	1.11	260.27
		Σ	1795.12	9.77	17534.58

HORIZONTAL LOCATION OF CWT. C. of GR.				
Sect.		Vol. ft. ³	Arm ft.	Mom. ft. ⁴
1		140.90	6.83	962.35
2		43.75	6.06	265.12
3		3.15	6.83	21.51
4		288.97	6.83	1973.67
5		123.93	7.50	929.48
6		547.04	6.83	3736.28
7		123.93	7.50	929.48
8		288.97	6.83	1973.67
9		234.48	6.83	1601.50
	Σ	1795.12	6.91'	12393.06



$v = \text{vol. of well (ft.³)}$
 $w = \text{wt. of punching conc. (#ft.³)}$
 $a = \text{dist. of well to & between girders (ft.)}$
 $R = \text{excess reaction (#)}$
 $d = \text{c. to c. girders (ft.)}$
 $a = \frac{Rd}{2vw} = \frac{7574 \times 20}{2 \times 459 \times 200.6}$
 $a = 8.21' (8'-2 1/2')$



STATE OF NEW HAMPSHIRE
 HIGHWAY DEPARTMENT
 HAMPTON HARBOR BRIDGE
 COUNTERWEIGHT
 PHOENIX BRIDGE CORPORATION
 CONTRACT 745
 C. O. 745
 DRAWING: P3
 ENGINEER: W.R. Hall
 DRAFTSMAN: MCSHed
 CHECKED BY:
 SCALE: 4, 3/8" # 1'-0"
 DATE: 27 Jan 48

② Rev'd 30 Apr 48 as per print ret'd 28 Apr 48
 ① Rev'd 15 Apr 48 as per print ret'd 14 Apr 48