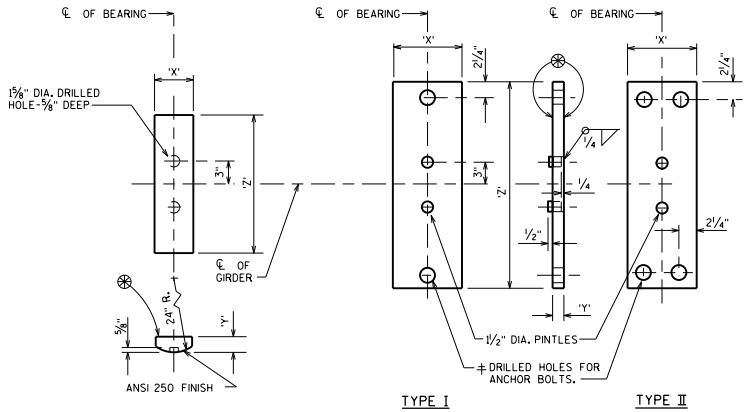
LENGTH OF PLATE "C"	TOTAL LOAD KIPS	PLATE C			PLATE D			HEIGHT FEET
		X	Y	Z	X	Y	Z	
10"	215	5"	2 3/8"	10"	8"	1 3/4"	1'-7"	0.354
12"	260	5"	2 3/8"	1'-0"	9"	1 3/4"	1'-9"	0.354
	280	5"	2 3/8"	1'-0"	10"	2 3/8"	1'-9"	0.406
14"	280	5"	1 15/16"	1'-2"	9"	1 3/4"	1'-11"	0.318
	335	5"	2 3/8"	1'-2"	11"	2 3/8"	1'-11"	0.406
	385	5"	2 3/8"	1'-2"	1'-1"	2 7/8"	1'-11"	0.448
	410	5"	2 3/8"	1'-2"	1'-3"	2 7/8"	2'-0"	0.448
16"	275	5"	1 15/16"	1'-4"	8"	1 3/4"	2'-1"	0.318
	330	5"	1 15/16"	1'-4"	10"	2 3/8"	2'-1"	0.370
	390	5"	2 3/8"	1'-4"	1'-0"	2 3/8"	2'-1"	0.406
	465	5"	2 3/8"	1'-4"	1'-2"	2 7/8"	2'-2"	0.448
	490	5"	2 3/8"	1'-4"	1'-4"	3 3/8"	2'-2"	0.490
18"	325	5"	1 15/16"	1'-6"	9"	1 3/4"	2'-3"	0.318
	390	5"	1 15/16"	1'-6"	11"	2 3/8"	2'-3"	0.370
	465	5"	2 3/8"	1'-6"	1'-1"	2 7/8"	2'-4"	0.448
	495	5"	2 3/8"	1'-6"	1'-2"	2 7/8"	2'-4"	0.448
	560	5"	2 3/8"	1'-6"	1'-4"	3 3/8"	2'-4"	0.490
20"	350	5"	1 15/16"	1'-8"	9"	1 3/4"	2'-5"	0.318
	380	5"	1 15/16"	1'-8"	10"	2 3/8"	2'-5"	0.370
	460	5"	2 3/8"	1'-8"	1'-0"	2 3/8"	2'-6"	0.406
	530	5"	2 3/8"	1'-8"	1'-2"	2 7/8"	2'-6"	0.448
	600	5"	2 3/8"	1'-8"	1'-4"	3 3/8"	2'-6"	0.490
	640	5"	2 3/8"	1'-8"	1'-6"	3 7/8"	2'-6"	0.531
22"	405	5"	1 15/16"	1'-10"	10"	2 3/8"	2'-7"	0.370
	490	5"	1 15/16"	1'-10"	1'-0"	2 3/8"	2'-8"	0.370
	565	5"	2 3/8"	1'-10"	1'-2"	2 7/8"	2'-8"	0.448
	635	5"	2 3/8"	1'-10"	1'-4"	3 3/8"	2'-8"	0.490
	705	5"	2 3/8"	1'-10"	1'-6"	3 7/8"	2'-8"	0.531
	720	5"	2 3/8"	1'-10"	1'-8"	3 7/8"	2'-8"	0.531



ROCKER PLATE "C"

MASONRY PLATE "D"

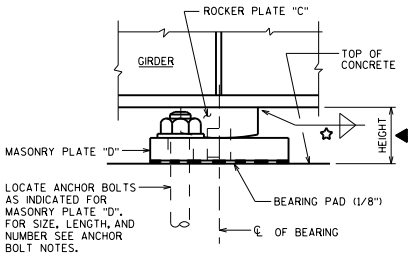
ANCHOR BOLT NOTES

FOR SPAN LENGTHS UP TO 100'-0":
USE A TYPE I MASONRY PLATE "D" WITH
(2) - 1 1/4" DIA. x 1'-5" LONG ANCHOR BOLTS.

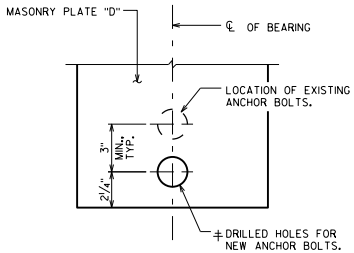
FOR SPAN LENGTHS FROM 100'-0" UP TO 150'-0":
USE A TYPE I MASONRY PLATE "D" WITH
(2) - 1 1/2" DIA. x 1'-10" LONG ANCHOR BOLTS.

FOR SPAN LENGTHS GREATER THAN 150'-0":
USE A TYPE II MASONRY PLATE "D" WITH
(4) - 1 1/2" DIA. x 1'-10" LONG ANCHOR BOLTS.

CHECK THAT ANCHOR BOLTS PROVIDE ADEQUATE HORIZONTAL CAPACITY.



FIXED BEARING ASSEMBLY
(SEE "DESIGNER NOTES" FOR BEARING REPLACEMENTS)



MASONRY PLATE "D"
BEARING REPLACEMENTS

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

IN LIEU OF USING SHIM PLATES, FABRICATOR MAY INCREASE THICKNESS OF MASONRY PLATE "D" BY THE SHIM PLATE THICKNESS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR ASTM A572 GRADE 50.

ALL MATERIAL IN TYPE "A" BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES FIXED B-_-_", EACH.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM F1554 GRADE 55, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ROCKER PLATE "C" SHALL BE SHOP PAINTED WITH A WELDABLE PRIMER.

MASONRY PLATE "D" SHALL BE GALVANIZED.

PLACE SHIM PLATES BETWEEN BEARING PAD AND MASONRY PLATE "D". PLATES SHALL HAVE 'X' AND 'Z' DIMENSIONS THAT MATCH MASONRY PLATE "D".

‡ DRILLED HOLES FOR ANCHOR BOLTS IN MASONRY PLATE "D" SHALL HAVE A DIAMETER 3/8" LARGER THAN ANCHOR BOLT.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

DESIGNER NOTES

HEIGHT OF BEARINGS GIVEN IN TABLE INCLUDES 1/8" BEARING PAD.

DETAIL SHIM PLATES AS DESCRIBED IN NOTES ON STANDARD 24.02.

REFER TO THE DETAILS BELOW FOR THE USE OF BEVELED ROCKER PLATE "C" ON GRADES GREATER THAN 3% AND ALSO CLEARANCE REQUIREMENTS.

✩ FOR WELD SIZE, REFER TO STANDARD 24.02

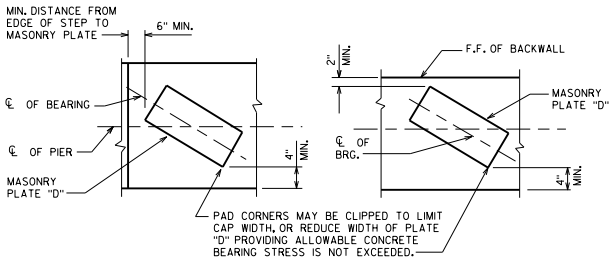
▲ ADJUST HEIGHT IF BEVELED ROCKER PLATE "C" IS USED.

FOR BEARING REPLACEMENTS, DESIGNER SHALL UTILIZE A WIDER BEARING THAN THE EXISTING GIRDER BOTTOM FLANGE WIDTH TO ALLOW FOR FIELD WELDING OF THE EDGE OF THE BOTTOM FLANGE TO THE TOP OF PLATE "C". SEE STANDARD 40.08 FOR DETAILS.

CALCULATE THE REACTION AT THE BEARINGS DUE TO "TOTAL LOADS". USE THE AASHTO LRFD SERVICE I LOAD COMBINATION. CONSIDER ONLY DEAD LOAD (DC + DW) AND HL-93 LIVE LOADS (LL), INCLUDING A 33% DYNAMIC LOAD ALLOWANCE (IM).

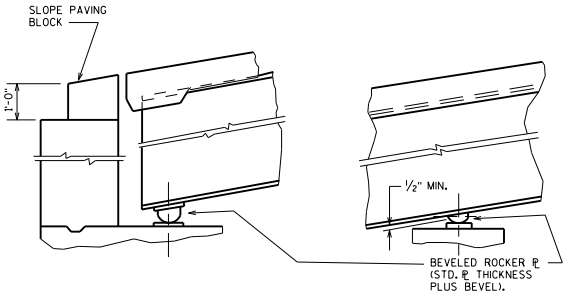
THE VALUES IN THE TABLES ARE THE BEARING CAPACITIES FOR "TOTAL LOAD" (DC + DW + (LL + IM)).

SELECT A BEARING THAT HAS A CAPACITY GREATER THAN OR EQUAL TO THE CALCULATED REACTION FOR "TOTAL LOADS".



AT SKEWED PIER AT SKEWED ABUTMENTS

CLEARANCE DIAGRAM



AT EXPANSION BRG. AT FIXED BRG.

BEVELED ROCKERS WITH GRADES GREATER THAN 3%

FIXED BEARING DETAILS
TYPE 'A' - STEEL GIRDERS

BUREAU OF STRUCTURES

APPROVED: Laura Shadewald

DATE: 7-23

STANDARD 27.02