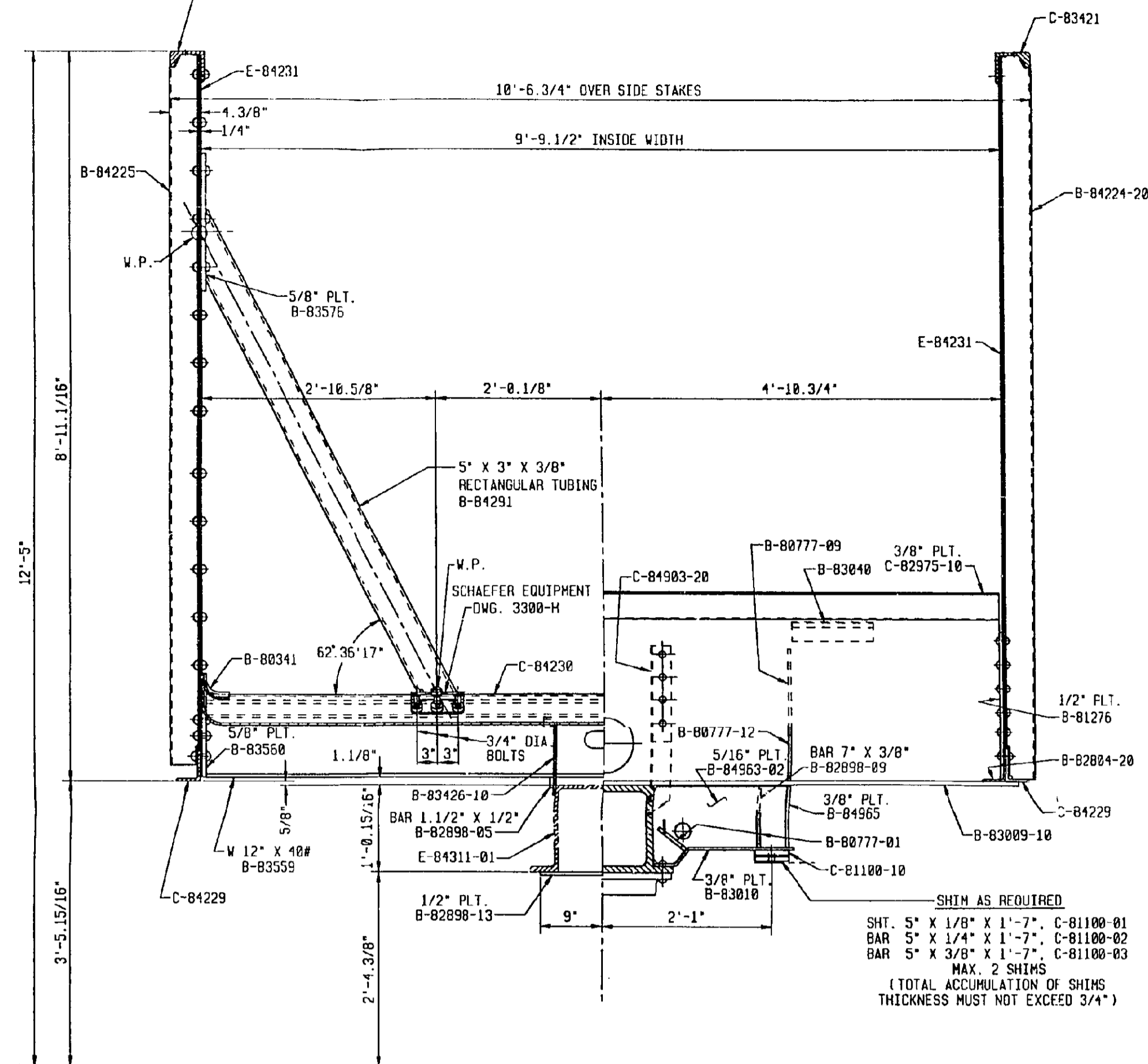
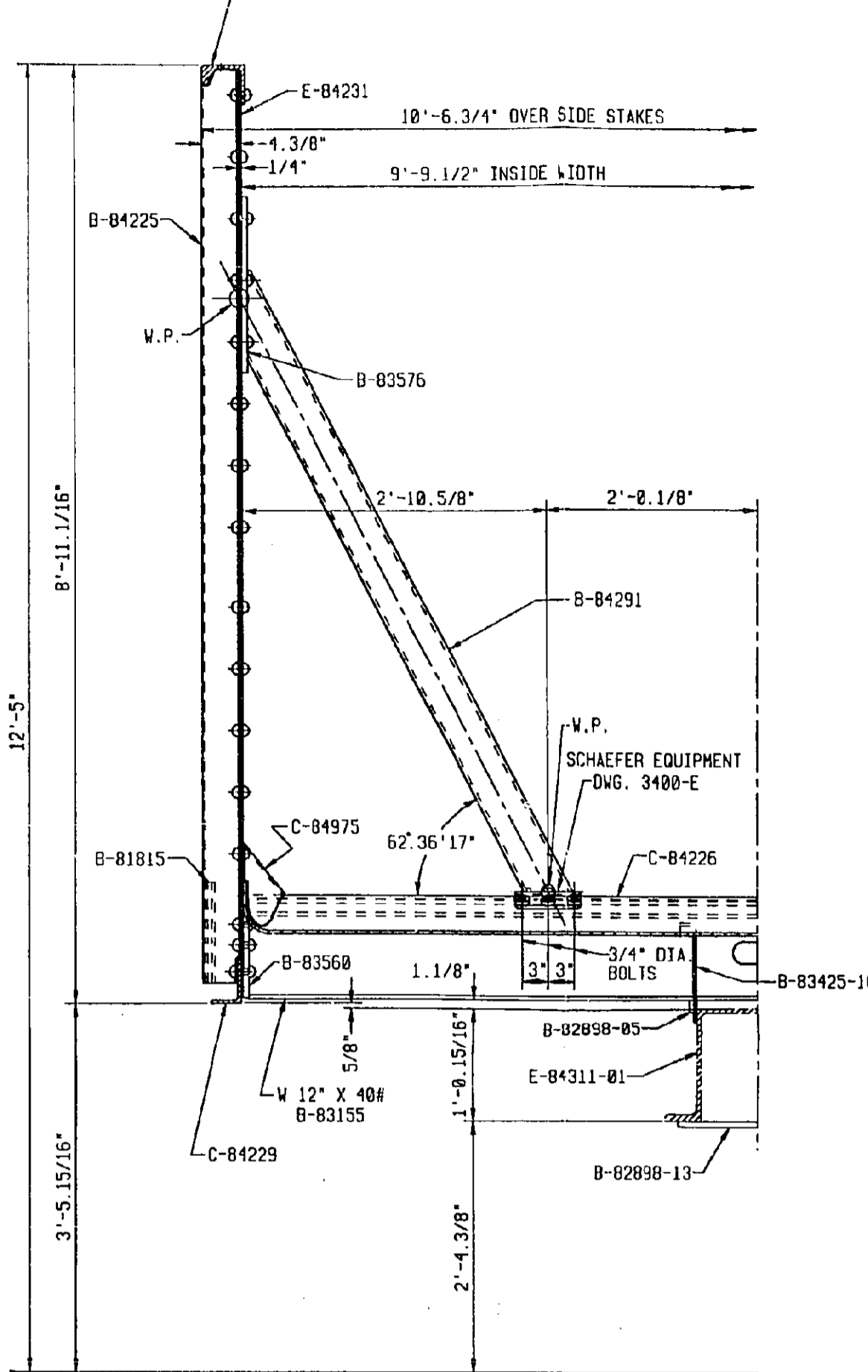
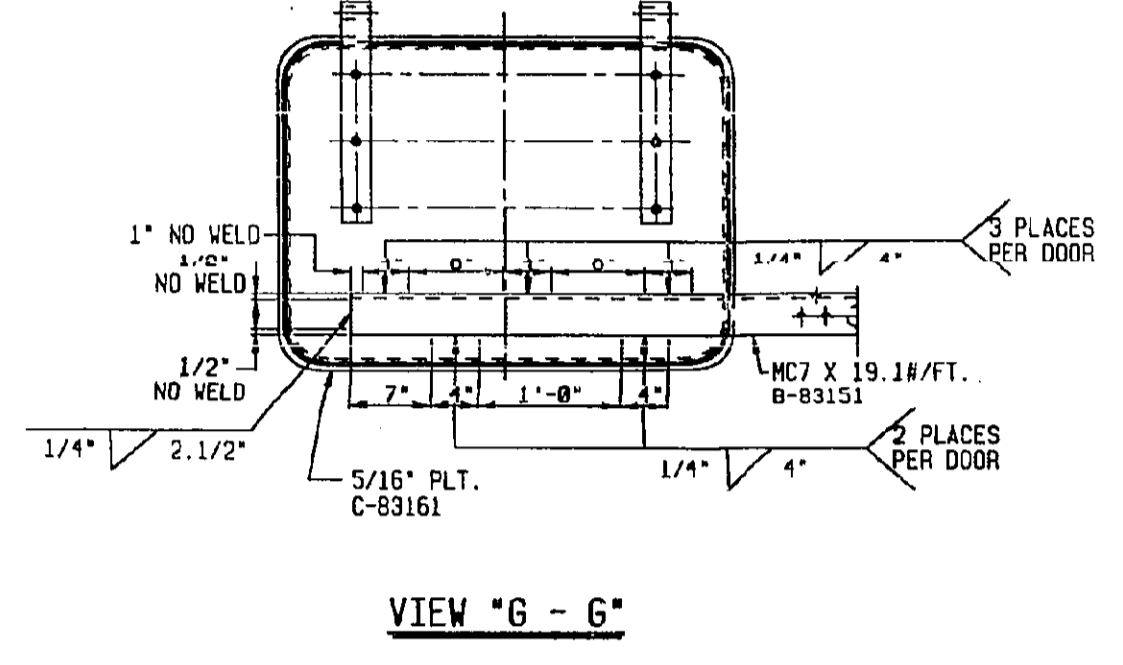
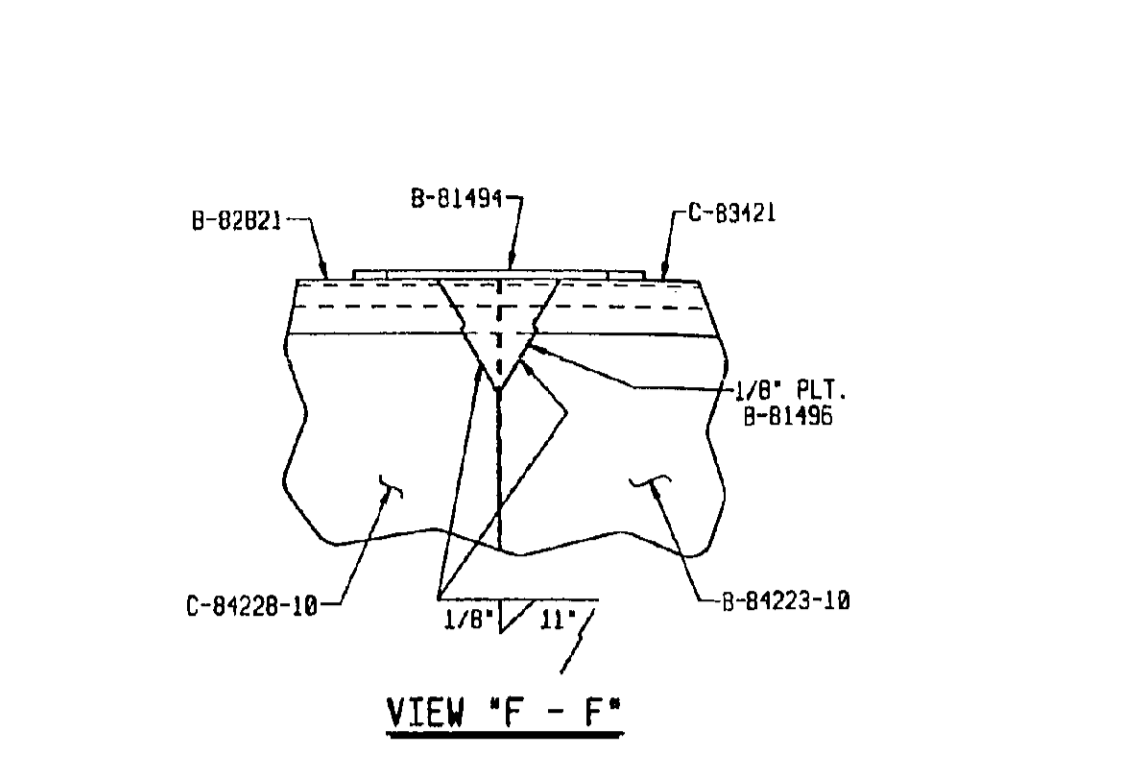
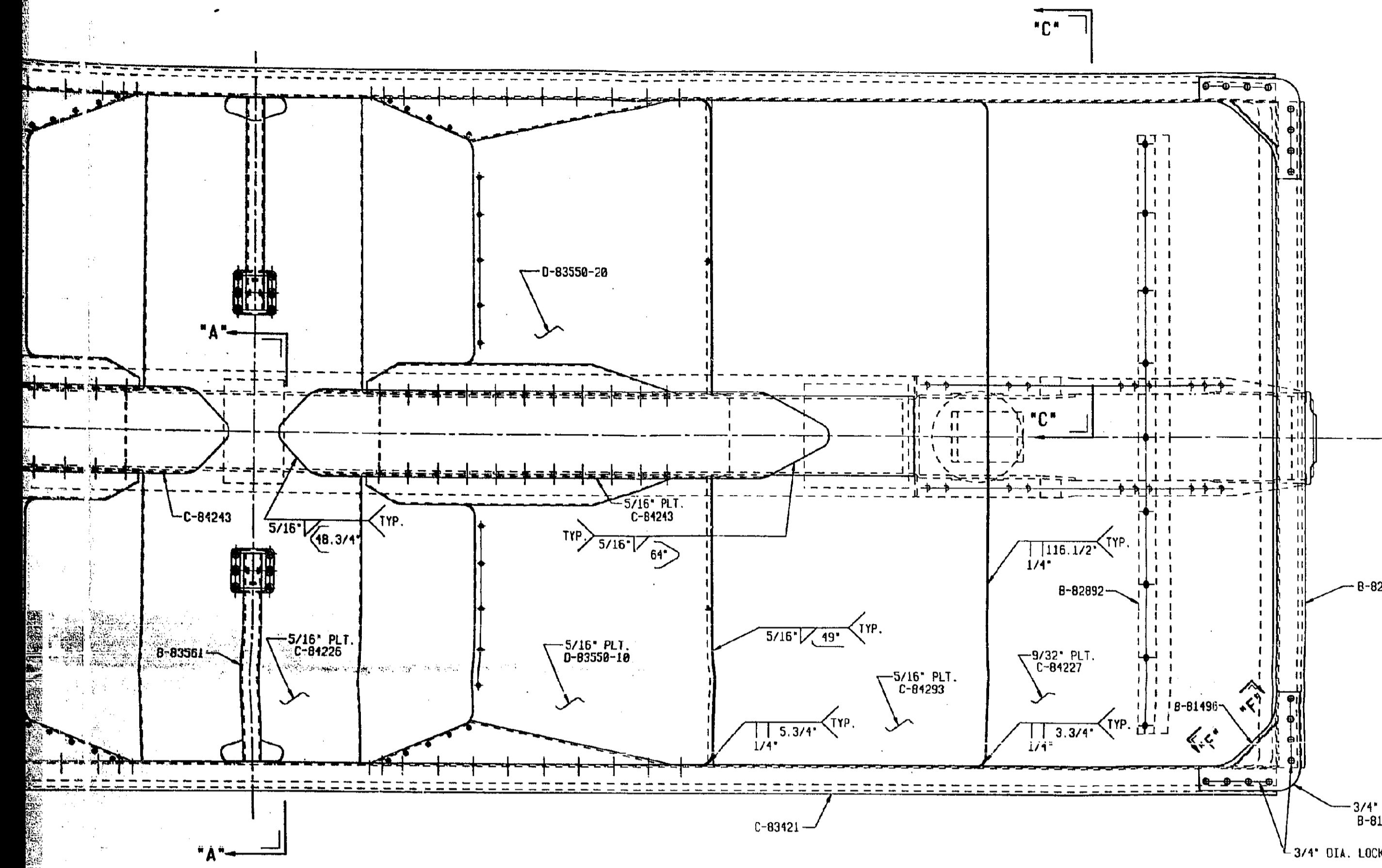
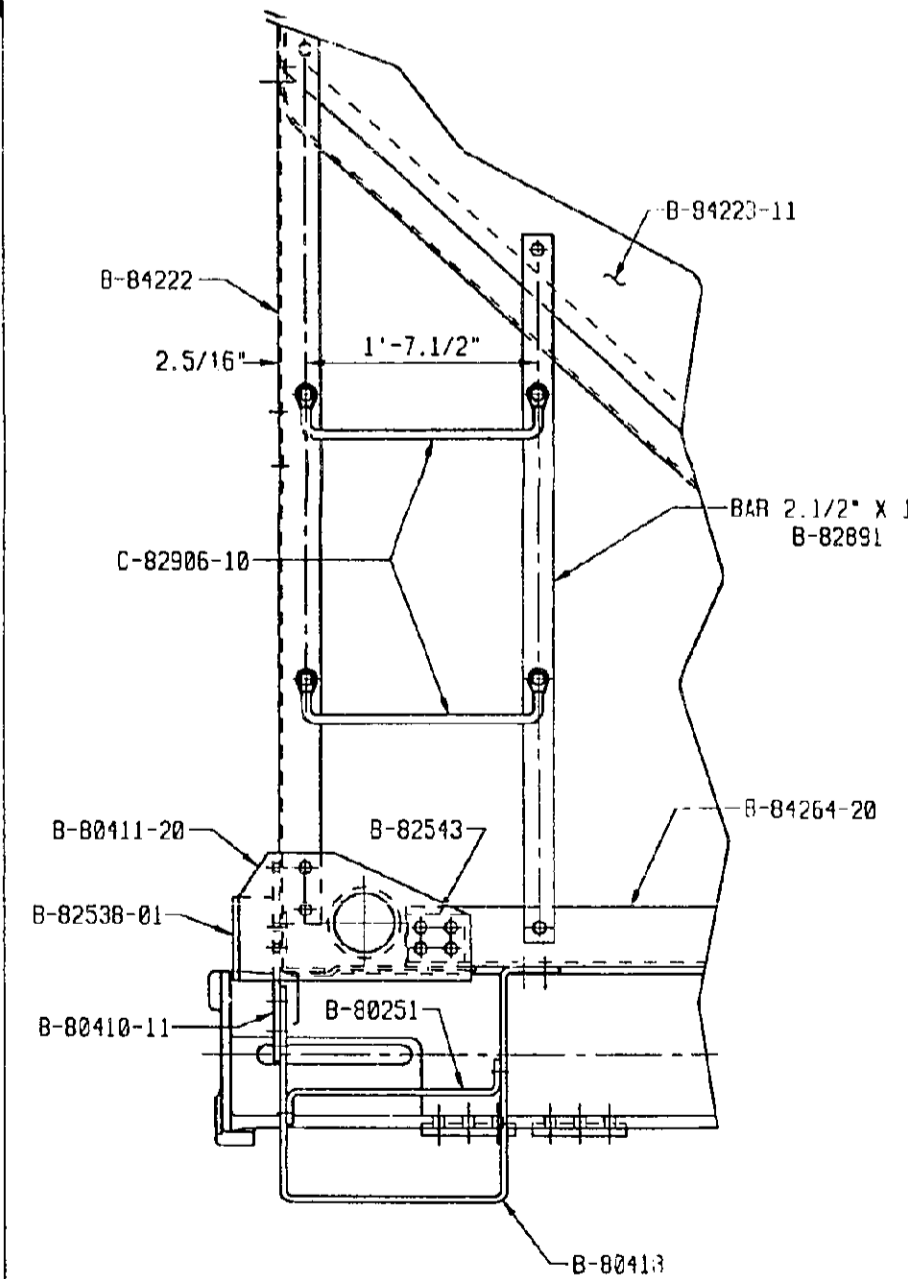
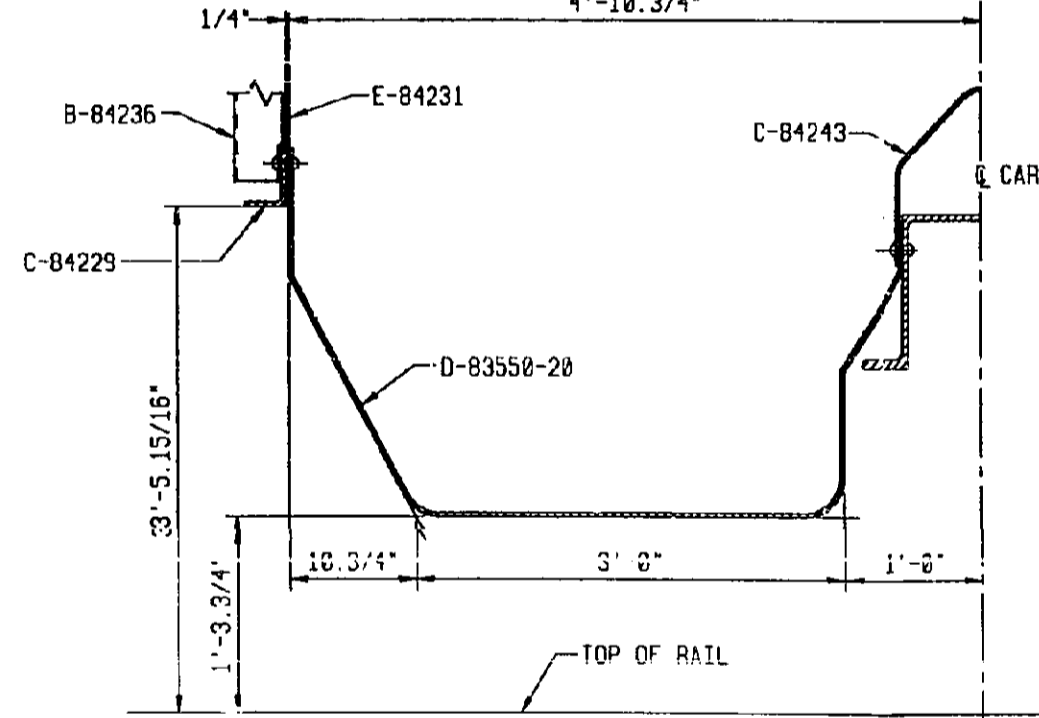
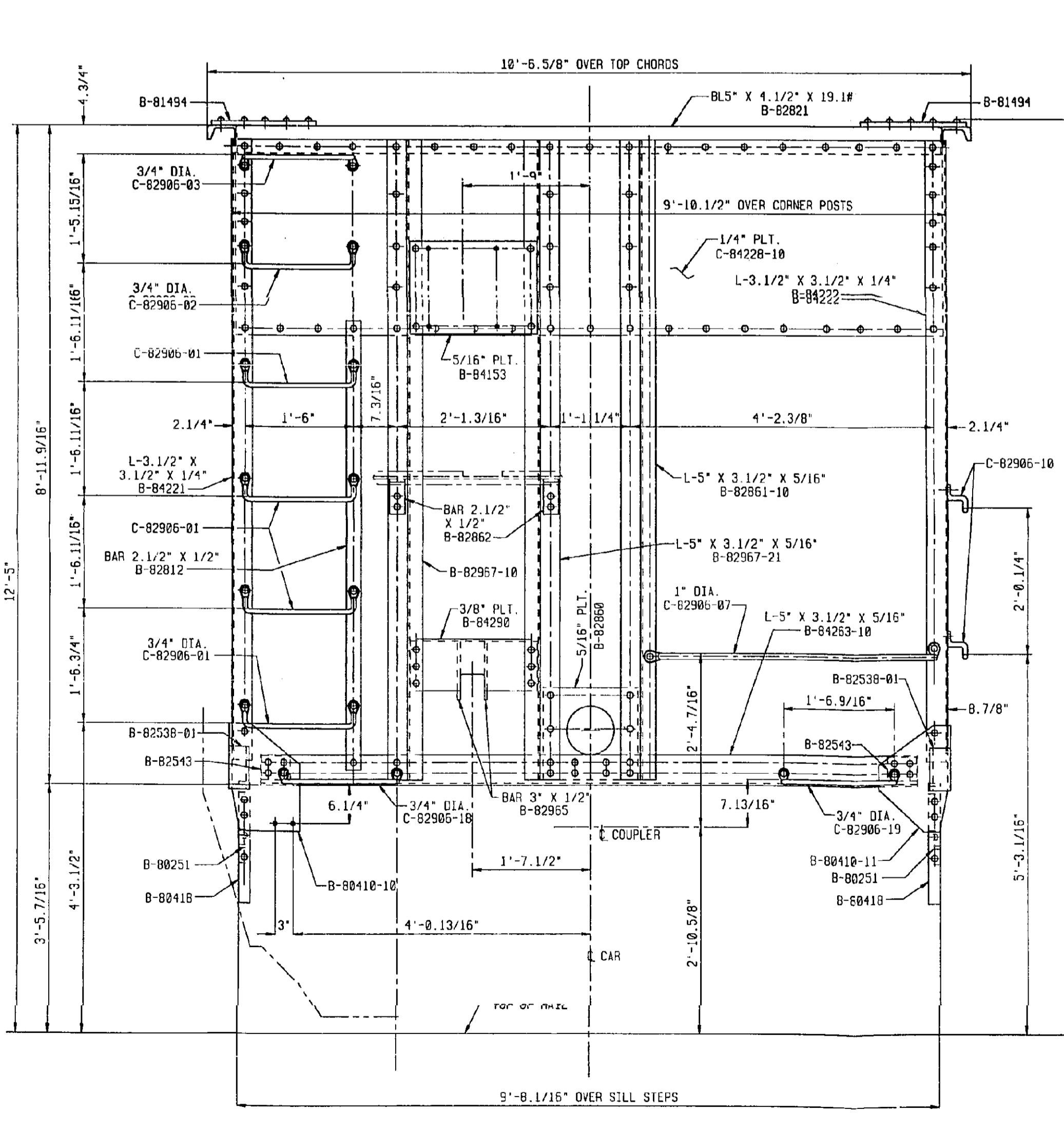
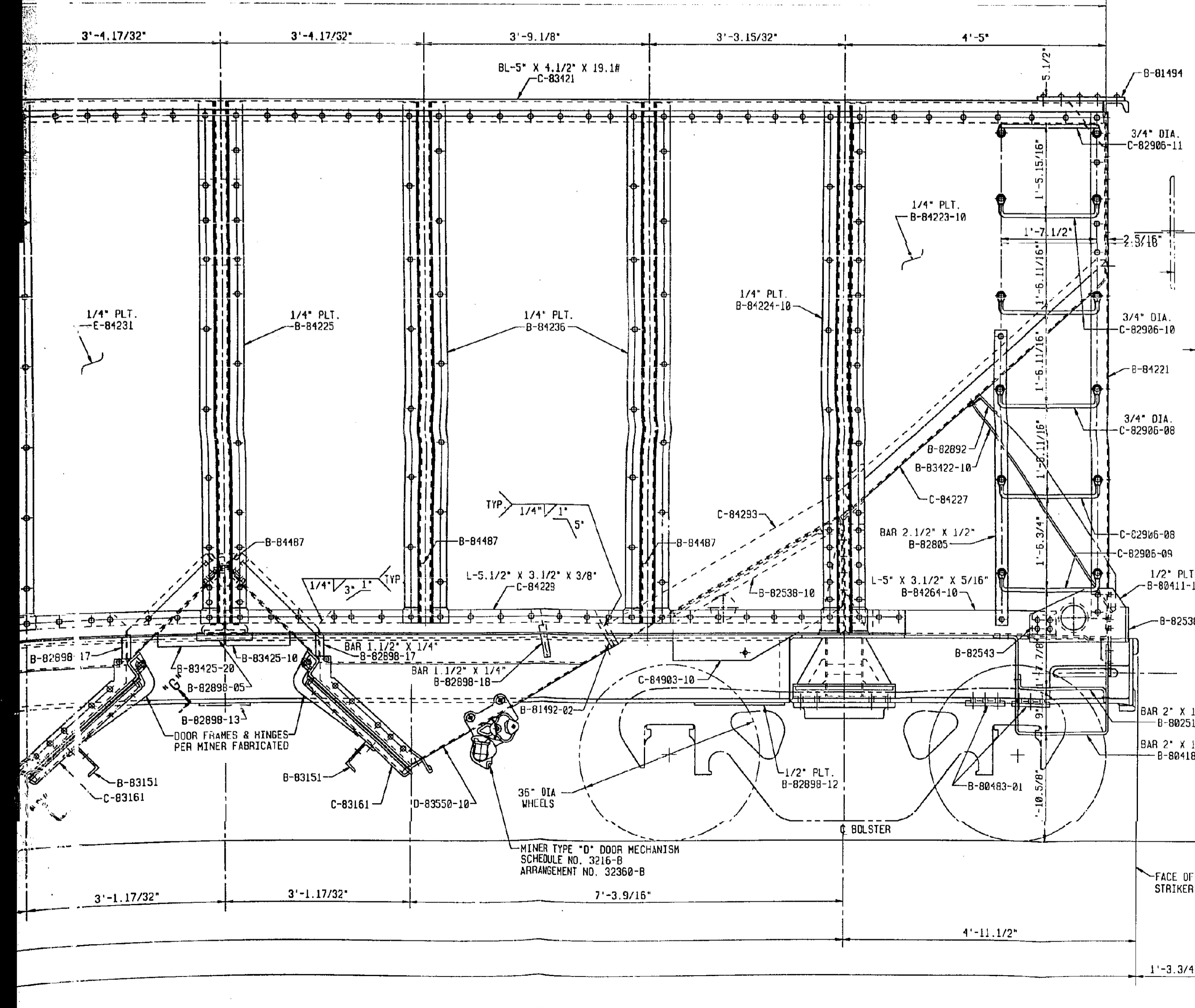


Level	Date	Approved	Description
A	01-30-95	C.V.	MARK NO. B-84291 IN SECTION "E-E"
B	02-15-95	C.V.	ADDED VIEW "G-G" SHOWS WELDING OF SPREADER TO HOPPER DOOR
C	05-20-95	C.V.	5/16" WELD REMOVED FROM END FLOOR PLATE TO END SHEET



SHIMS AS REQUIRED
 SHIM 5" X 1/8" X 1'-7" C-81100-01
 BAR 5" X 3/4" X 1'-7" C-81100-02
 BAR 5" X 3/8" X 1'-7" C-81100-03
 MAX. 2 SHIMS
 (TOTAL ACCUMULATION OF SHIMS THICKNESS MUST NOT EXCEED 3/4")



REFERENCE DRAWINGS:
 C-80412---CORNER CONNECTION ASSEMBLY
 D-84230---SIDE CONSTRUCTION
 D-84274---CROSSRIDGE ARRANGEMENT @ CENTER
 D-84273---CROSSRIDGE ARRANGEMENT @ A & B ENDS
 E-85000---BOLSTER ARRANGEMENT
 F-85011---DRAWER ARRANGEMENT
 C-85001---SIDE BEARING ASSEMBLY
 B-83872---TIE PLATE ASSEMBLY

CUBIC CAPACITY:
 LEVEL FULL-----3900 CU. FT.
 10" AVG. HEAP-----4283 CU. FT.
 LIGHT WEIGHT-----64,300 LB'S

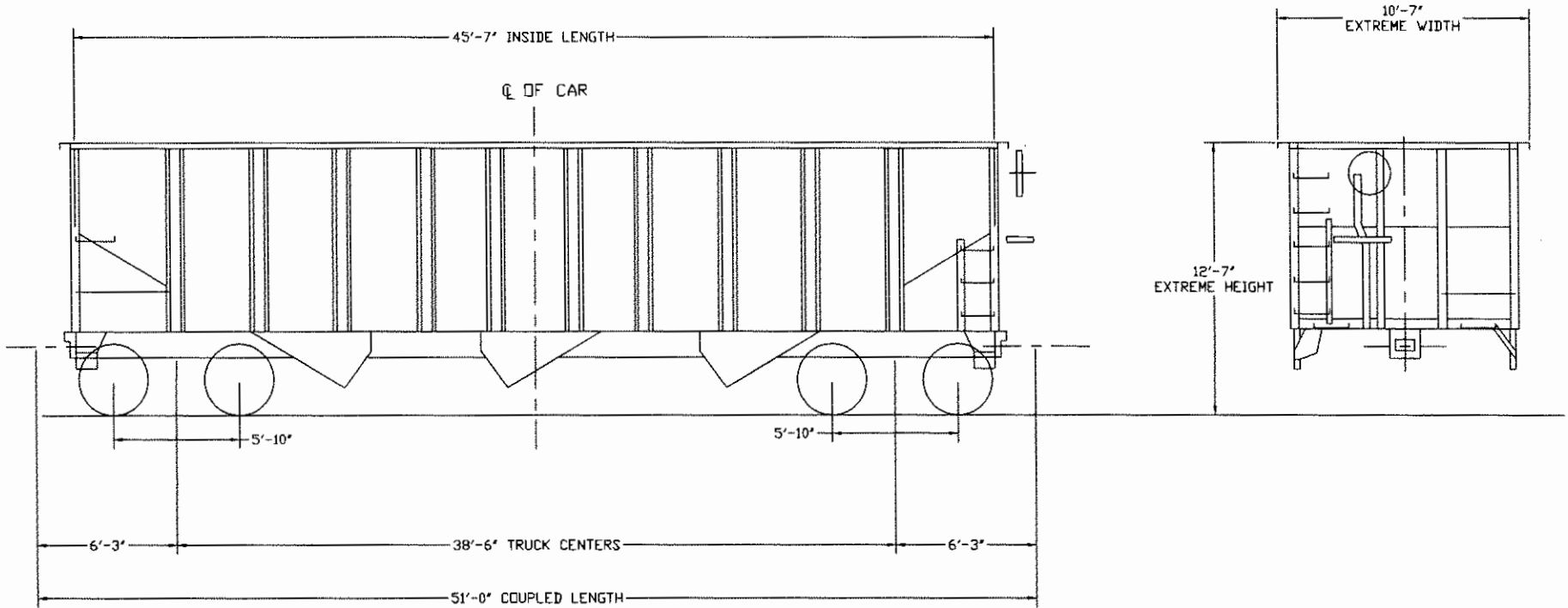
1402-830	500	
1402-820	500	
1402-824	500	
Order No.	Car. Series No.	No. of Cars
Johnstown American Corporation FREIGHT CAR DIVISION		
Stock Size:		
Material Spec:		
Estimated Weight:		
GENERAL ARRANGEMENT		
Made By: T. A. M.	Approved: C. Wirtich	
Date: 10-24-94		
Scale: 1" = 1'-0"	F-85010 C	

1402-830
 1402-820

REVISION DATES			
ACAD7-2-03			


NORFOLK SOUTHERN
 MECHANICAL DEPARTMENT

RR	SERIES	CLASS
CR	497427-498423 498295-498424	HP29



TYPE 77 STANDARD, E/F DOUBLE SHELF COUPLERS

GENERAL DATA		GENERAL DATA		CAR BODY DATA		TRUCK DATA	
BUILT BY - ALTOONA		MIN. CURVE COUPLED -		LINING -		CLASS -	
YEAR BUILT - 1995-1996		MIN. CURVE UNCOUPLED -		BODY CENTER PLATE -		TYPE - TYPE E	
CUBIC CAPACITY - 3900 CU. FT.		MIN. CURVE CPLD. TO STD 40' -		DOORS -		TRUCK ARRGT. DWG. -	
AVG. LD. LMT. - 221000 LBS.		CAR BODY DATA		BULKHEADS -		JOURNAL -	
AVG. LT. WT. - 64500 LBS.		BRAKES -		COL. LOAD DIV. -		WHEELS - 36"	
BUILDER'S LDT/SPEC. -		EMPTY LOAD BRAKES -		BELT RAILS -		BRAKE SHOES - COMPOSITION BRAKE SHOES	
NS SPEC. -		SPECIAL BRAKE EQUIP -		RUB RAILS -		BRAKE BEAMS -	
AFE/PA -		CENTER SILL -		LADING STRAP ANCHORS -		SIDE BEARING -	
CAR REQUEST/PROGRAM -		DRAFT GEAR - SEE NOTE 1		MISCELLANEOUS			
GENERAL ARRGT. DWG. -		CUSHION UNIT -					
BRAKE ARRGT. DWG. -		COUPLER - SBE60DE					
CLEARANCE PLATE - PLATE B		END -					
EMPTY CENTER OF GRAVITY -		FLOOR -					
LOADED CENTER OF GRAVITY -							
							SHEET NO. HP29