

NOTE A
N.T.S.
THE LENGTH OF THE ANCHOR PINS SHALL BE SUCH THAT THE FOLLOWING MINIMUM EMBEDMENT LENGTHS ARE OBTAINED:
(a) INTO PORTLAND CEMENT CONCRETE PAVEMENTS 8'-5".
(b) INTO FLEXIBLE PAVEMENT 1'-6".
(c) INTO UNPAVED AREA 2'-6".
WHEN ANCHOR PINS ARE IN PLACE, THEY SHALL NOT PROJECT ABOVE THE PLANE OF THE CONCRETE SURFACE OF THE BARRIER.
HOLES IN BRIDGE DECK SHALL BE 1/4" Ø MAXIMUM AND MADE WITH A CORE DRILL OR ANY OTHER APPROVED ROTARY DRILLING DEVICE THAT DOES NOT IMPART AN IMPACT FORCE.

NOTE B
IN UNITS THAT ARE TO BE ANCHORED, PINS SHALL BE REQUIRED IN EVERY ANCHOR PIN RECESS.

NOTE C
FOR INSTALLATION ON BRIDGE DECKS REFER TO BRIDGE PLANS FOR NECESSARY MODIFICATIONS AS REQUIRED AND GENERAL NOTES 16 & 17.

TABLE OF JOINT AND ANCHORAGE TREATMENTS FOR TYPE 4 APPLICATIONS ONLY

JOINT CLASS	JOINT TREATMENT	MAXIMUM BARRIER DEFLECTION
A	CONNECTION KEY ONLY	42"
B	CONNECTION KEY & GROUT IN EVERY JOINT	16"
C	CONNECTION KEY & GROUT IN EVERY JOINT & PIN EVERY OTHER UNIT. IN UNITS THAT ARE TO BE ANCHORED, PINS SHALL BE REQUIRED IN EVERY ANCHOR PIN RECESS.	11"
D	CONNECTION KEY AND GROUT EVERY JOINT, BOLT EVERY ANCHOR POCKET HOLE IN EVERY UNIT.	SEE NOTE 17 & 18

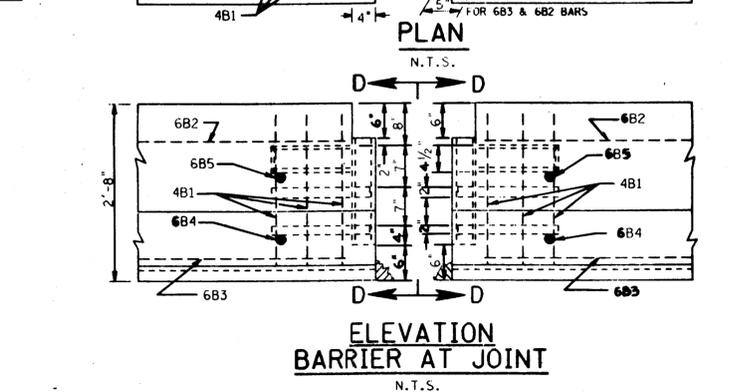
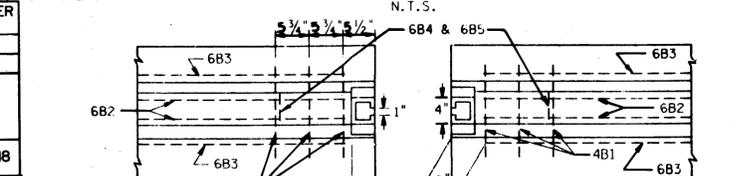
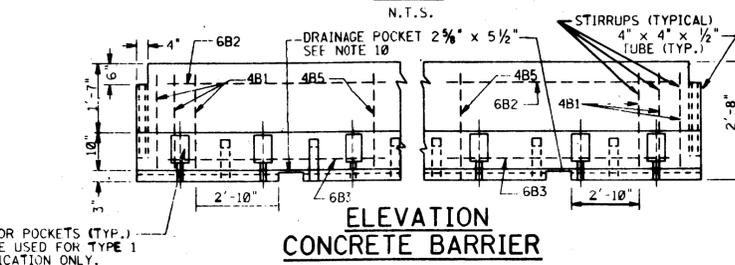
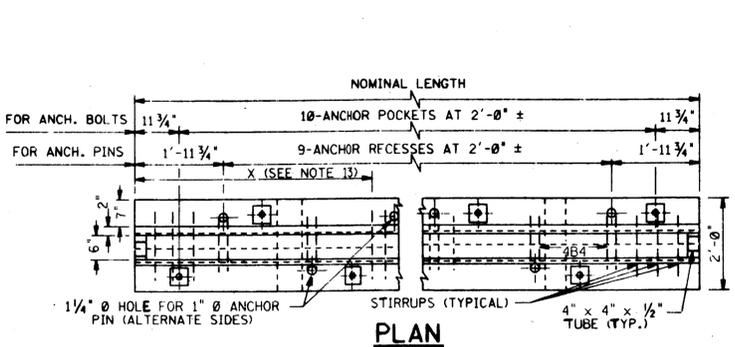
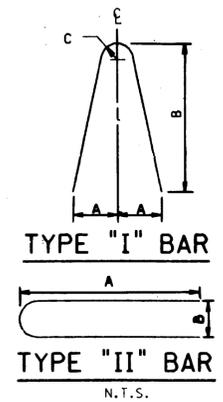


TABLE OF VARIABLE BARS

NOMINAL LENGTH OF BARRIER UNIT	MARK	"X"	NO. EACH SECTION
20'	4B4	N.A.	9
20'	4B5	6'-11"	2
18'	4B4	N.A.	8
18'	4B5	6'-5"	2
16'	4B4	N.A.	7
16'	4B5	5'-11"	2
14'	4B4	N.A.	6
14'	4B5	7'-0"	1
12'	4B4	N.A.	5
12'	4B5	6'-0"	1
10'	4B4	N.A.	4
10'	4B5	5'-0"	1
8'	4B4	N.A.	3
8'	4B5	N.A.	0

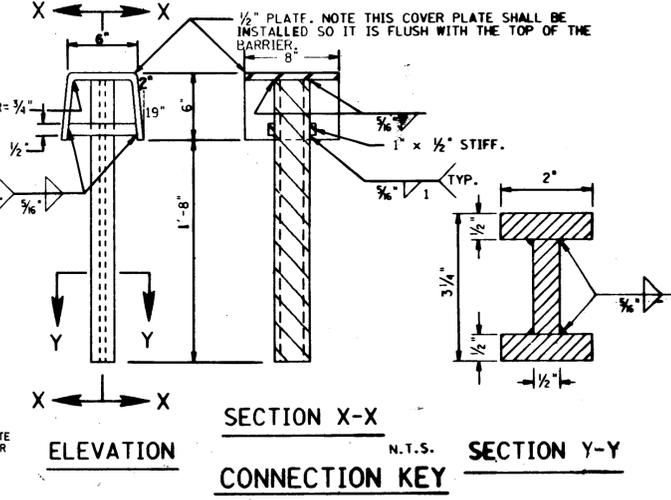
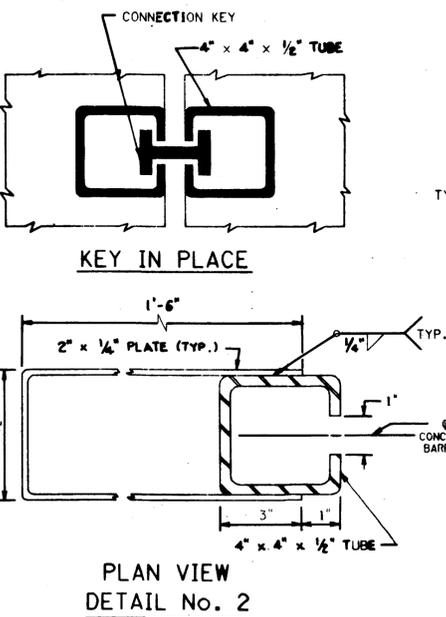
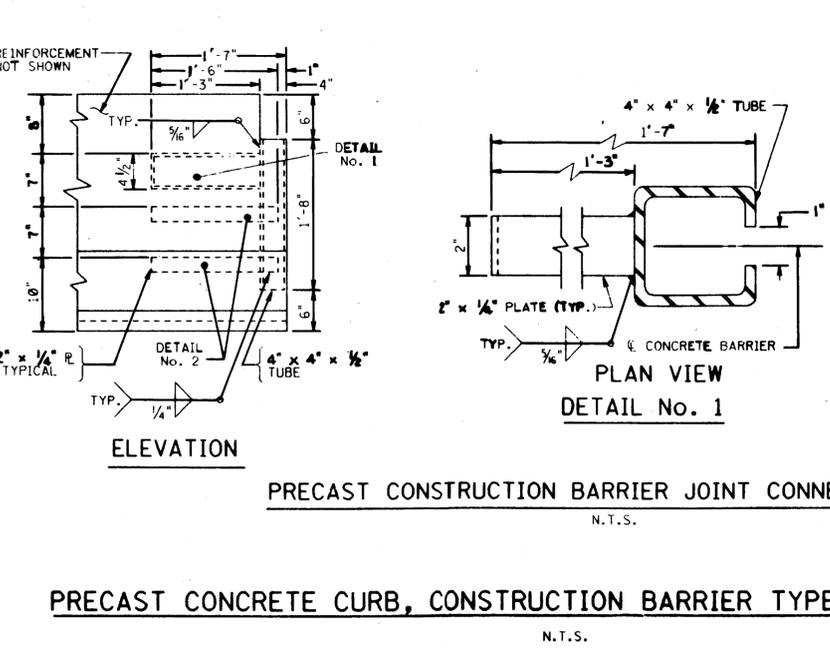
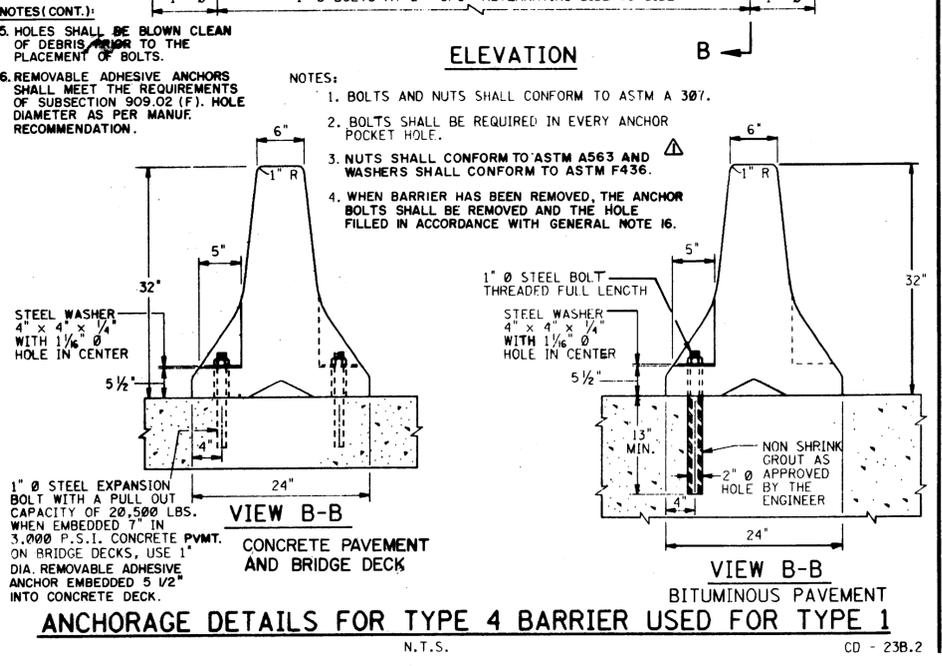
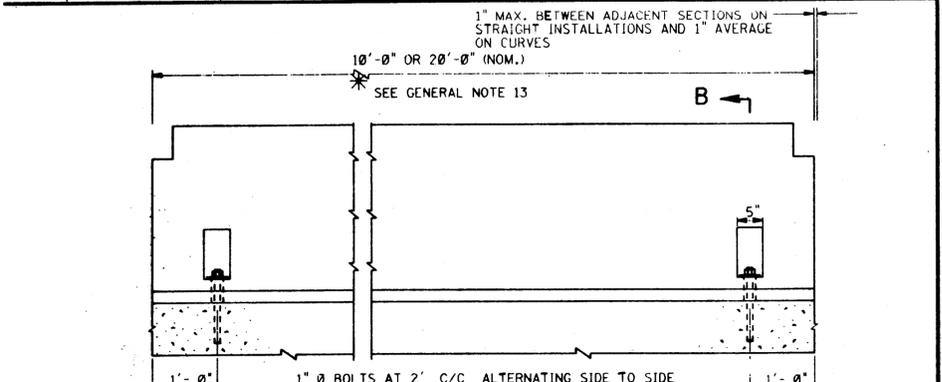
"X" DISTANCE FROM END OF BARRIER TO 4B5 BAR

- GENERAL NOTES:**
- STEEL PLATE SHALL BE ASTM A709, GRADE 50 OR GRADE 50W.
 - REINFORCING BARS SHALL BE ASTM A615, GRADE 60.
 - CONCRETE SHALL BE WHITE OR GREY CLASS A (4,500 P.S.I. MIN. COMP. STR. AT 28 DAYS)
 - CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1 1/2" (MIN.).
 - A MINIMUM OF (2) TWO RECESSED LIFTING DEVICES SHALL BE USED ON EACH SECTION. EACH LIFTING DEVICE SHALL HAVE A MINIMUM CAPACITY OF 4 TONS.
 - TUBE STEEL SHALL BE ASTM A500, GRADE B OR C.
 - ANCHOR PINS SHALL BE 1" Ø ASTM A36.
 - ANCHOR PINS ARE NOT REQUIRED IN EVERY UNIT. SEE TABLE OF JOINT TREATMENTS.
 - ALL END SECTIONS SHALL BE PINNED UNLESS OTHERWISE NOTED.
 - 2 1/2" x 5 1/2" DRAINAGE POCKETS TWO REQUIRED IN SECTIONS 12' & GREATER, 1 REQUIRED IN 8' & 10' SECTIONS.
 - AFTER A BARRIER UNIT HAS BEEN PLACED AND THE CONNECTION KEY INSERTED, REMOVE ANY SLACK IN THE JOINT BY PULLING THE UNIT IN A DIRECTION PARALLEL TO ITS LONGITUDINAL AXIS.
 - THE PRECAST CONCRETE CURB, CONSTRUCTION BARRIER SHALL BE CAST IN STEEL FORMS.
 - THE PRECAST CONCRETE CURB SHALL BE UNITS OF 10' OR 20', HOWEVER, OTHER LENGTHS MAY BE USED TO MEET FIELD CONDITIONS, THE NUMBER AND PLACEMENT OF THE 4B4 AND 4B5 BARS WILL VARY WITH THE LENGTH OF THE BARRIER UNIT AS SHOWN ON THE TABLE OF VARIABLE BARS, THE 6B2 AND 6B3 BARS SHALL BE 10" SHORTER THAN THE NOMINAL LENGTH OF THE BARRIER UNITS.
 - REINFORCING SHOWN IS THE MINIMUM REQUIRED. ADDITIONAL REINFORCING NECESSARY FOR HANDLING SHALL BE THE OPTION AND RESPONSIBILITY OF THE CONTRACTOR.
 - WELDING AND FABRICATION OF STEEL STRUCTURES SHALL BE IN ACCORDANCE WITH SECTIONS 1 THRU 6 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE AND SECTION 10 OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. SURFACES TO BE WELDED SHALL BE FREE OF SCALE, RUST, MOISTURE, GREASE, OR ANY OTHER MATERIAL THAT WILL PREVENT PROPER WELDING OR PRODUCE OBJECTIONAL FUMES. WELDING SHALL BE SHIELDED METAL ARC WELDING USING PROPERLY DRIED 1/2" Ø E7018 ELECTRODES.
 - AFTER REMOVAL OF THE BARRIER, THE HOLES IN THE SURFACE ON WHICH THE BARRIER WAS USED TO ANCHOR THE SYSTEM, SHALL BE FILLED. THE ONLY EXCEPTION IS WHEN THE HOLES ARE IN AN AREA WHICH IS TO BE REMOVED. HOLES IN FLEXIBLE PAVEMENT, OR UNPAVED AREAS SHALL BE FILLED AS DIRECTED. HOLES IN PORTLAND CEMENT CONCRETE PAVEMENTS OR STRUCTURAL DECKS SHALL BE FILLED WITH NON-SHRINK GROUT MEETING THE REQUIREMENTS OF SECTION 905.12, EXCEPT THAT IN LATEX MODIFIED CONCRETE BRIDGE DECK, A COMPATIBLE NON-SHRINK GROUT MATERIAL SHALL BE USED.
 - ALTERNATE DESIGN A (TP-13) OR B (TP-14) MAY BE USED INTERCHANGEABLY IN ANY LOCATION WHERE TYPE 4 HAS BEEN SPECIFIED, EXCEPT THAT ALTERNATE DESIGN B (TP-14), JOINT CLASS D, MUST BE USED WHERE NO DEFLECTION OF THE BARRIER CAN BE TOLERATED.
 - CONSTRUCTION BARRIER TYPE 4, ALT. B, JOINT CLASS D, MAY BE USED IN ANY LOCATION WHERE TYPE 1 HAS BEEN SPECIFIED, THERE SHALL BE NO INTERMIXING OF TYPE 1 & 4 IN ANY ONE CONSTRUCTION RUN.
 - SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.



BARS LIST (EACH BARRIER SECTION)

MARK	SIZE	NUMBER IN EACH SECTION	LENGTH	TYPE	A	B	C	LOCATION
4B1	4	6	4'-11"	I	5"	26"	2"	STIRRUPS
4B4	4	SEE NOTE 13	3'-1"	II	15 1/2"	4"		STIRRUPS
4B5	4	SEE NOTE 13	4'-11"	I	5"	26"	2"	STIRRUPS
6B2	6	2	SEE NOTE 13	STR.				LONGITUDINAL (TOP) NORMAL SECTION
6B3	6	2	SEE NOTE 13	STR.				LONGITUDINAL (BOTTOM) NORMAL SECTION
6B4	6	2	1'-2"	STR.				TRANSVERSE (BOTTOM) NORMAL SECTION
6B5	6	2	0'-6"	STR.				TRANSVERSE (TOP) NORMAL SECTION



NEW JERSEY TURNPIKE AUTHORITY
NEW JERSEY TURNPIKE

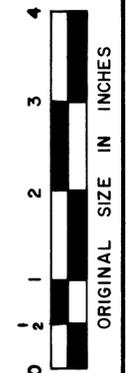
PRECAST CONCRETE CONSTRUCTION BARRIER
TYPE 4 - ALT. B

OFFICE OF THE CHIEF ENGINEER
NEW BRUNSWICK, NEW JERSEY

1994 STANDARD DRAWING TP-14

REVISIONS

NO.	DATE	REVISION
1	9/05	REVISED NOTE NO. 3
2	12/96	REVISED ASTM DESIGNATION & MINOR REVISIONS
3	1/94	ORIGINAL DRAWING



PRECAST CONCRETE CURB, CONSTRUCTION BARRIER TYPE 4

N.T.S.