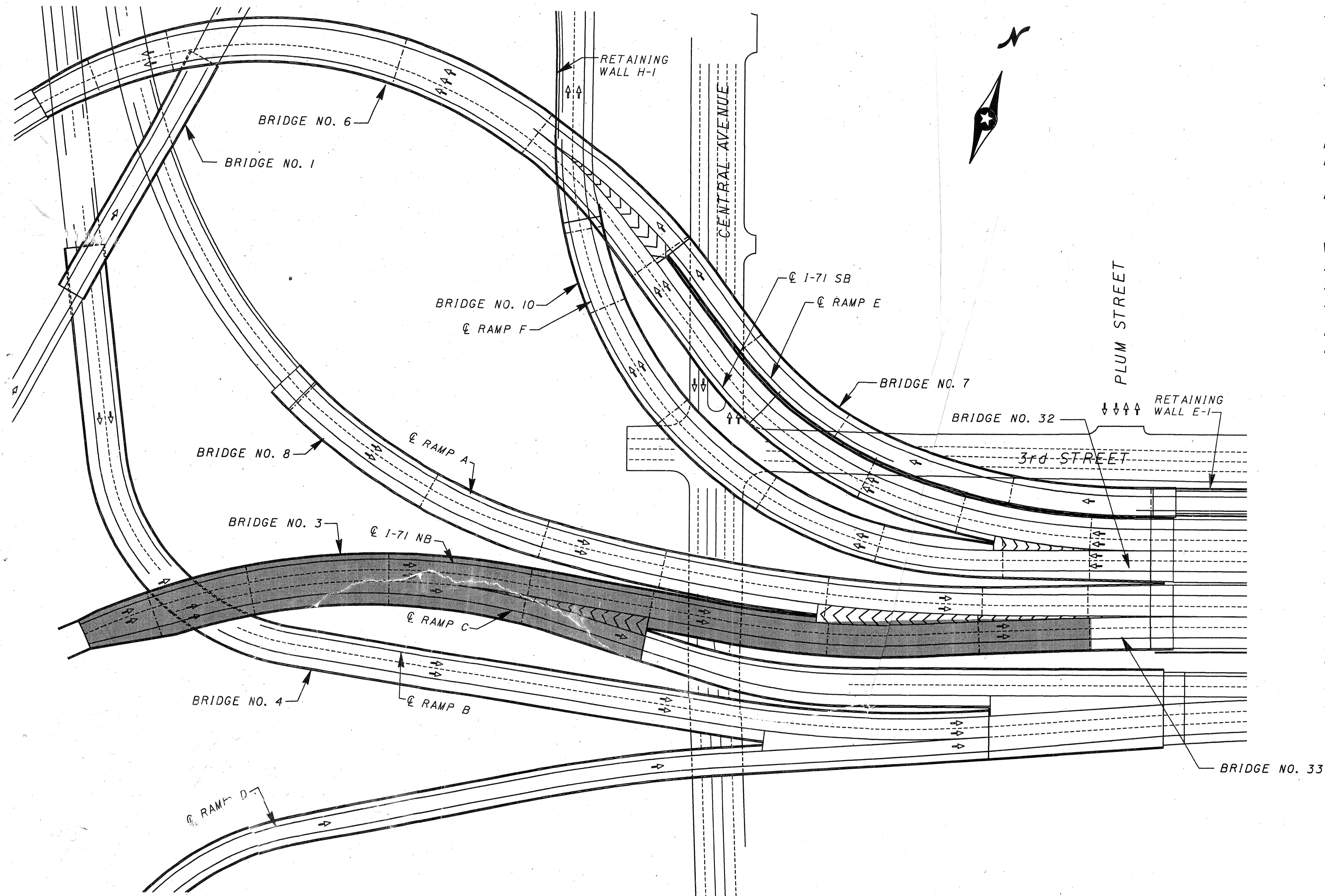


AS-BUILTS



PROPOSED STRUCTURE

TYPE: Continuous Steel Plate Girders (A572M GR345) with Reinforced Concrete Deck and Substructure

SPAN: 24.600, 34.100, 48.115, 48.119, 42.957, 56.812, 53.687 & 36.077 measured along ϕ 1-71 NB, ϕ to ϕ Bearings

ROADWAY: Varies
 LIVE LOADING: MS 18 Case 1 and Alternate Military
 DEAD LOAD: Includes 2.88 KN/sq m allowance for future wearing course

WEARING COURSE: Monolithic Concrete
 APPROACH SLABS: None
 ALIGNMENT: Curved
 SUPERELEVATION: See Superelevation Plan
 LATITUDE: 39° 05' 50"
 LONGITUDE: 84° 31' 13"

EXISTING STRUCTURE

STRUCTURE FILE NO.: HAM-25-0.04
 HAM-50-20.81

TYPE: Continuous Plate Girders with a Reinforced Concrete Deck and Substructure Supported on C.I.P. Reinforced Concrete Piles.

SPAN: Varies
 ROADWAY: Varies
 LIVE LOADING: MS 18 Case 1 and Alternate Military
 LOADING: CF 2000 (57) Adequate for AASHTO Alternate Loading
 SKEW: Varies
 WEARING COURSE: 114 SPD Concrete
 APPROACH SLABS: None
 DATE OF CONSTRUCTION: 1961

FINAL FOR CONSTRUCTION


BRW HAZELET & ERDAL
 A BRW COMPANY

TITLE SHEET
 BRIDGE NO. 3

DRAWN	CHECKED	REVIEWED	DATED	CHECKED
LHC	MKM		07-07-98	MK.

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

BR-1M DATED 12-15-94
EXJ-4-87M DATED 02-18-97
PCB-91M DATED 03-20-95

AND TO SUPPLEMENTAL SPECIFICATIONS:

816 DATED 04-21-97
846 DATED 09-09-97
911 DATED 07-10-97
954 DATED 09-09-97

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 SIXTEENTH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL.

AASHTO "GUIDE SPECIFICATION FOR HORIZONTALLY CURVED HIGHWAY BRIDGES", 1993, 1992 AND 1993 INTERIM EDITIONS.

CITY OF CINCINNATI "FORT WASHINGTON WAY PROJECT MANUAL"

SUBSURFACE INVESTIGATION REPORT PREPARED BY THE H.C. NUTTING COMPANY.

DESIGN LOADING:

MS18, CASE I AND THE ALTERNATE MILITARY LOADING

FUTURE WEARING SURFACE: 1.43 kN/sq. m

DESIGN STRESSES:

CONCRETE CLASS S - COMPRESSIVE STRENGTH 31.0 MPa (SUPERSTRUCTURE)

CONCRETE CLASS C - COMPRESSIVE STRENGTH 28.0 MPa (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615M, A616M OR A617M. GRADE 400 MINIMUM YIELD STRENGTH 400 MPa. SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A615M OR A82M.

STRUCTURAL STEEL - ASTM A-572M GR. 345 Mpa

DECK PROTECTION METHODS:

EPOXY COATED REINFORCING STEEL
65 mm CONCRETE COVER
SEALING OF CONCRETE SURFACES

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 25 mm THICK.

REMOVAL OF EXISTING STRUCTURES:

WHEN NO LONGER NEEDED TO MAINTAIN TRAFFIC, THE EXISTING STRUCTURES SHALL BE REMOVED UPON RECEIVING PERMISSION FROM THE ENGINEER. THE SUBSTRUCTURE UNITS SHALL BE REMOVED TO 300 mm BELOW THE FINAL GROUND LINE EXCEPT WHERE SPECIFIED IN THE PLANS.

PROTECTION OF TRAFFIC:

PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN ETC.) ADJACENT TO AND/OR UNDER THE STRUCTURE TO THE ENGINEER FOR APPROVAL. THESE PLANS SHALL INCLUDE PROVISIONS FOR ANY DEVICES AND STRUCTURES THAT MAY BE NECESSARY TO ENSURE SUCH PROTECTION.

LOADING LIMITATIONS:

NO PART OF THE STRUCTURE SHALL BE SUBJECTED TO UNIT STRESSES THAT EXCEED 136.5% OF THE ALLOWABLE UNIT STRESSES GIVEN IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DUE EITHER TO DEMOLITION, ERECTION, OR CONSTRUCTION METHODS, OR TO THE USE OR MOVEMENT OF DEMOLITION OR ERECTION EQUIPMENT ON OR ACROSS THE STRUCTURE. STRUCTURAL ANALYSIS COMPUTATIONS, BY A REGISTERED PROFESSIONAL ENGINEER SHOWING THE ALLOWABLE STRESSES AND THE MAXIMUM STRESSES PRODUCED BY THE CONTRACTOR'S METHODS OR EQUIPMENT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL AT LEAST TWO WEEKS PRIOR TO THE START OF THE WORK.

FOUNDATIONS:

PILE DESIGN LOADS (SAFE BEARING CAPACITY): THE DESIGN LOAD FOR PIER PILES ARE GIVEN IN THE FOOTING DETAIL SHEETS.

PILES SHALL BE CAST IN PLACE REINFORCED CONCRETE PILES. THE MINIMUM PILE WALL THICKNESS FOR PLAIN CYLINDRICAL CASINGS SHALL BE DETERMINED IN ACCORDANCE WITH SECTION 507.06 OF THE CMS.

UTILITY LINES:

ALL EXPENSE INVOLVED IN RELOCATION OF THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE UTILITIES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS 102.05 & 105.02.

STRUCTURE EXCAVATION:

STRUCTURE EXCAVATION SHALL BE IN ACCORDANCE WITH SECTION 503 OF THE CMS. IN ADDITION, ALL AREAS DISTURBED BY STRUCTURE EXCAVATION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. THIS SHALL INCLUDE REPLACEMENT OF PAVEMENT, CURBS & SIDEWALKS ETC.

PRIOR TO DRIVING PILES AT PIER 6 THE CONTRACTOR SHALL EXCAVATE AND REMOVE ANY EXISTING CONCRETE AND LIMESTONE SLABS APPROXIMATELY 1.5 m IN TOTAL THICKNESS LOCATED AT AN APPROXIMATE DEPTH OF 3 m BELOW EXISTING GRADE. ANY RESULTING EXCAVATION SHOULD BE BACK-FILLED WITH ON-SITE SOILS AND COMPACTED IN ACCORDANCE WITH 203.12 OF THE CMS. THE MOISTURE OF THE BACKFILL SHOULD BE CONTROLLED PER 203.11 OF THE CMS. SEE GEOTECHNICAL REPORT FOR DETAILS.

DECK POURING SEQUENCE:

POURS, INCLUDING CLOSURE POURS SHALL BE MADE IN THE FOLLOWING SEQUENCE.

- 1. END SPANS
- 2. INTERIOR SPANS
- 3. INTERIOR SUPPORTS

END SPAN POURS SHALL PROCEED IN A DIRECTION FROM THE CONSTRUCTION

JOINT TOWARDS THE EXPANSION JOINT. POURS WITH THE SAME NUMERICAL DESIGNATION MAY BE MADE SIMULTANEOUSLY. BARRIER WALL POURS SHALL OCCUR IN THE SAME CONSTRUCTION STAGE AS THE DECK. NO PORTION OF THE BARRIER WALL MAY BE POURED UNTIL THE ENTIRE DECK HAS BEEN PLACED FOR THAT CONSTRUCTION STAGE.

POURS OVER INTERIOR SUPPORTS SHALL BE MADE LAST AFTER ALL INTERIOR SPANS ARE POURED. IF STRUCTURAL STEEL IS ERECTED OVER AN INTERIOR SUPPORT BUT ADJACENT POURS ARE MADE IN DIFFERENT CONSTRUCTION STAGES, THE POUR OVER THE SUPPORT SHALL BE MADE IN THE PROPER SEQUENCE DURING THE LATER CONSTRUCTION STAGE.

OVERHANG FALSEWORK:

THE NEED FOR FALSEWORK TO SUPPORT OVERHANGS ON THE EXISTING BRIDGE DECKS AND OVER HANGS EXCEEDING 1370 mm ON NEW DECKS CARRYING STAGED CONSTRUCTION TRAFFIC SHALL BE INVESTIGATED. THE FALSEWORK DESIGN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER, AND IN ACCORDANCE WITH 501.05 & 501.06 OF THE CMS. EXISTING REINFORCING STEEL AND DECK SLAB DEPTH SHALL BE OBTAINED FROM ORIGINAL DESIGN PLANS.

PAINT SYSTEM:

PAINT SYSTEM FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 816 AS MODIFIED BY THE PROJECT SPECIAL PROVISIONS.

BEARING DEVICES:

BEARING DEVICES SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS.

CONCRETE PARAPETS:

AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, 25 mm CONTROL JOINTS SHALL BE SAWED INTO THE PERIMETER OF THE CONCRETE PARAPET. THE SAW CUT SHALL BE MADE IN THE COMPLETE CIRCUMFERENCE OF THE PARAPET, BEGINNING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK. THE SAW CUTS SHALL BE PLACED AT A MINIMUM OF 2000 mm AND A MAXIMUM OF 3000 mm CENTERS. THE USE OF AN EDGE GUIDE, FENCE, OR JIG IS REQUIRED TO INSURE THE CUT JOINT IS STRAIGHT, TRUE, AND ALIGNED ON ALL FACES OF THE PARAPET. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 6 mm. THE PERIMETER OF THE DEFLECTION CONTROL JOINT SHALL BE SEALED TO A MINIMUM DEPTH OF 25 mm WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E.

MECHANICAL CONNECTORS:

AN APPROVED TYPE OF MECHANICAL CONNECTOR FOR REINFORCING BARS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS. INSTALLATION OF THE CONNECTORS SHALL CONFORM WITH MANUFACTURER'S RECOMMENDED PROCEDURES. CONNECTORS SHALL BE EPOXY COATED. COATING FOR CONNECTORS SHALL BE IN ACCORDANCE WITH 709.00 OF THE CMS. COATING WHICH HAS BEEN DAMAGED OR OTHERWISE DOES NOT MEET THE SPECIFICATIONS MAY BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER. CONNECTORS SHALL BE IN ACCORDANCE WITH SECTION 509 OF THE CMS.

* PILE CAPACITY REQUIREMENTS

RESPONSE: Item #1 -
BRIDGE #3 SAFE BEARING CAPACITY = ULTIMATE BEARING CAPACITY
BRIDGES #6, 8 AND 10 MAXIMUM PIER DESIGN LOAD OR MAXIMUM DESIGN LOAD = ULTIMATE BEARING CAPACITY
BRIDGES #32 & 33 THE VALUE OF THE ULTIMATE BEARING CAPACITY IS IN ERROR ON THE PLANS. THE CORRECT ULTIMATE BEARING CAPACITY FOR THESE BRIDGES SHOULD BE 1246 kN
ITEM #2 - LIGHTER WELT THICKNESS IS NOT ACCEPTABLE, SINCE R RATES 1246 kN. TRANSFORM T (PILE WALL THICKNESS) = 1246 x 1000 / 187376 = 6.65 mm < 7mm
Signature: [Signature] Date: 9-22-98
COPY: _____ ATTACHMENTS: _____

FINAL FOR CONSTRUCTION

BRW HAZELET & ERDAL
DATE: 07/16/98
REVIEWED: JRC
DRAWN: DLW
DESIGNED: DLW
CHECKED: CWF
STRUCTURE FILE NUMBER:
GENERAL NOTES
1-71 N.B.
BRIDGE 3
2/64
412
588

AUG 18 1998

THIS SHEET NOT USED

**FINAL FOR
CONSTRUCTION**

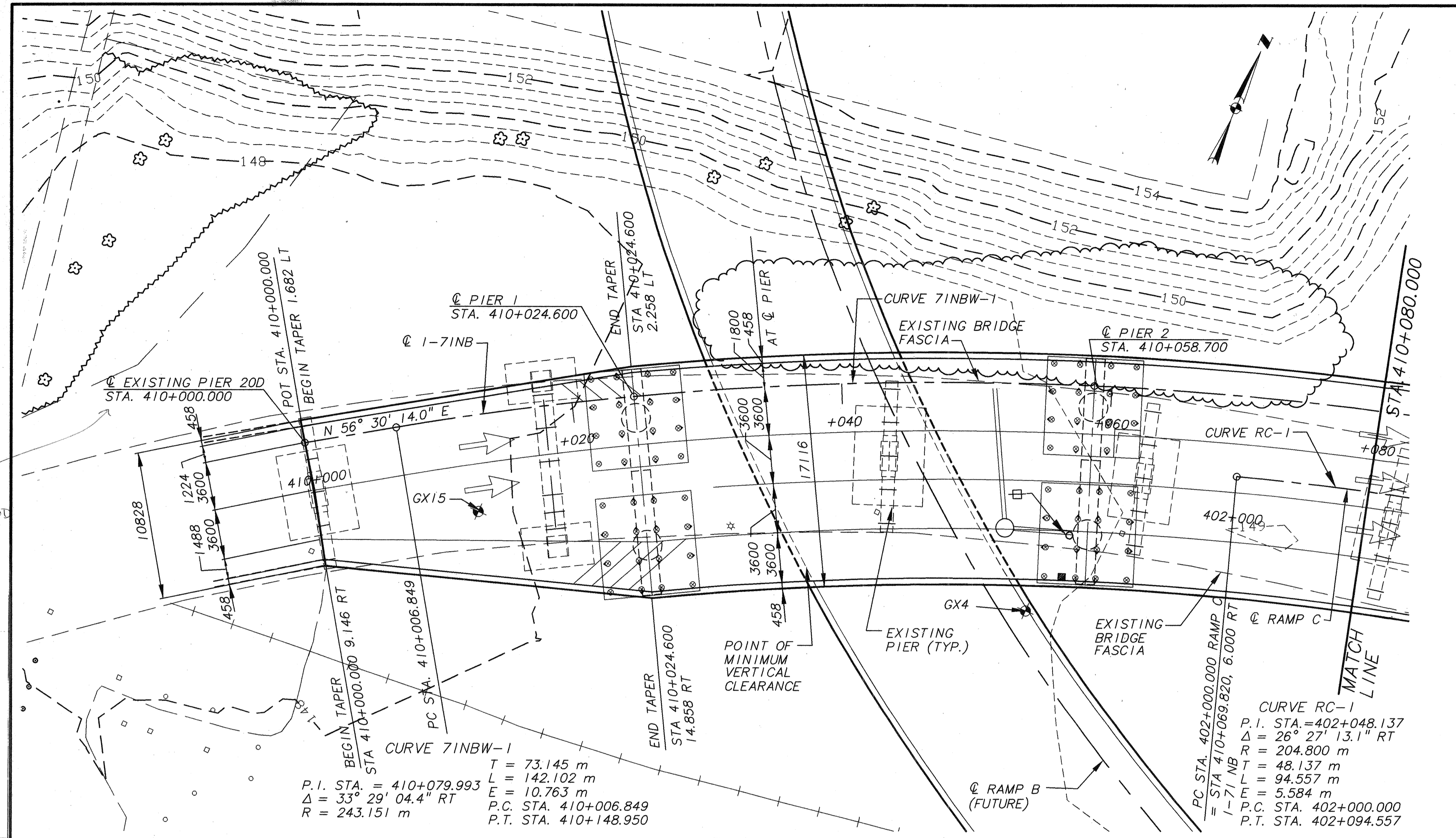
DESIGNED XXX		DRAWN XXX	REVIEWED XXX	DATE XX/XX/XX
CHECKED XXX		REVISED XXX	STRUCTURE FILE NUMBER XXX	
BRIDGE 3		I-71 N.B.		BRW HAZELET & ERDAL A BRW COMPANY
3/64				
413 588				

BENCH MARK 4300
E: 426108.061, N: 123772.053, ELEV. 161.508.
LOCATED ON THE PLAZA LEVEL AT CINERGY FIELD
IN THE NORTHWEST CORNER, A BRASS DISC 0.77m
EAST OF THE WEST PARAPET WALL AND 5.0m SOUTH
OF THE NORTH PARAPET WALL.

BENCH MARK 4301
E: 426411.439, N: 123827.864, ELEV. 161.536.
LOCATED ON THE PLAZA LEVEL AT CINERGY FIELD
IN THE NORTHEAST CORNER, A BRASS DISC 0.81m
SOUTH OF THE NORTH PARAPET WALL AND 3.1m
WEST OF THE EAST PARAPET WALL.

CURRENT ADT=23420
ADT (2020)=28105
CURRENT ADTT=1874
ADTT (2020)=2248

ADT (2020)
CARS: 25857
TRUCKS: 2248



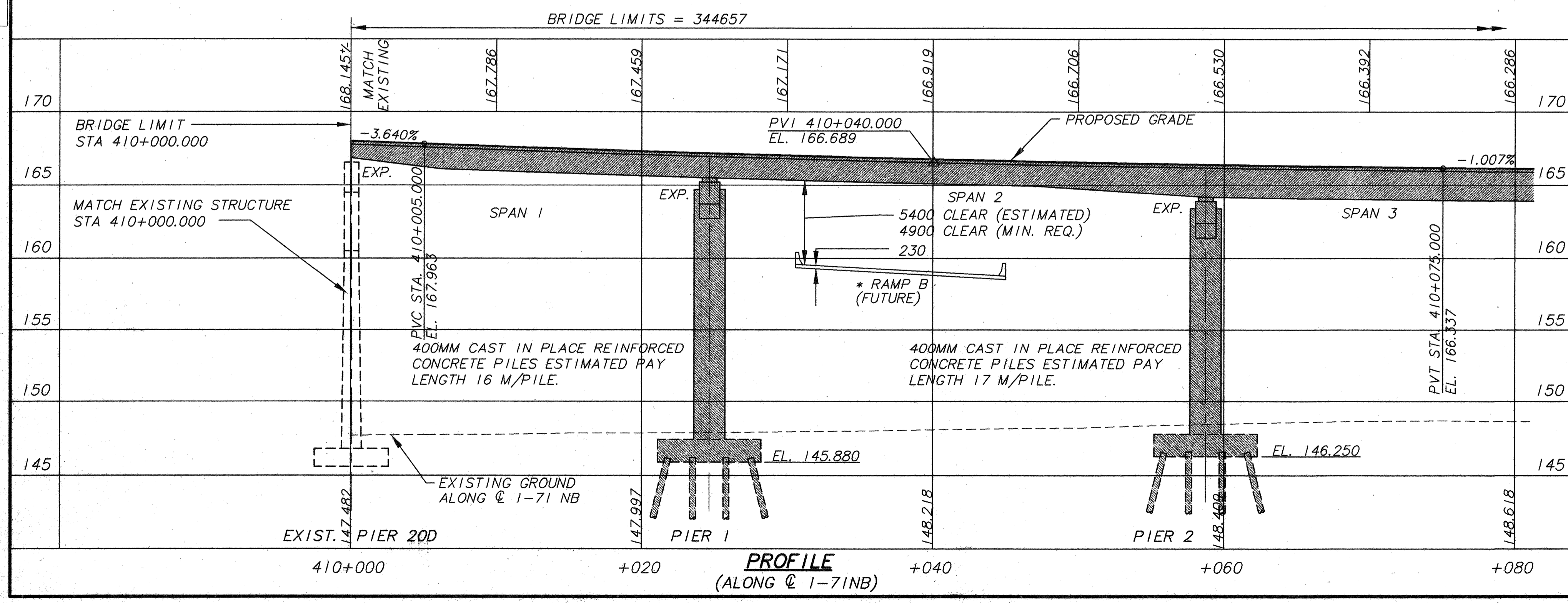
PLAN

LEGEND

- ◆ BORING LOCATION
- ⊕ DOWNSPOUT
- SCUPPER

NOTES:

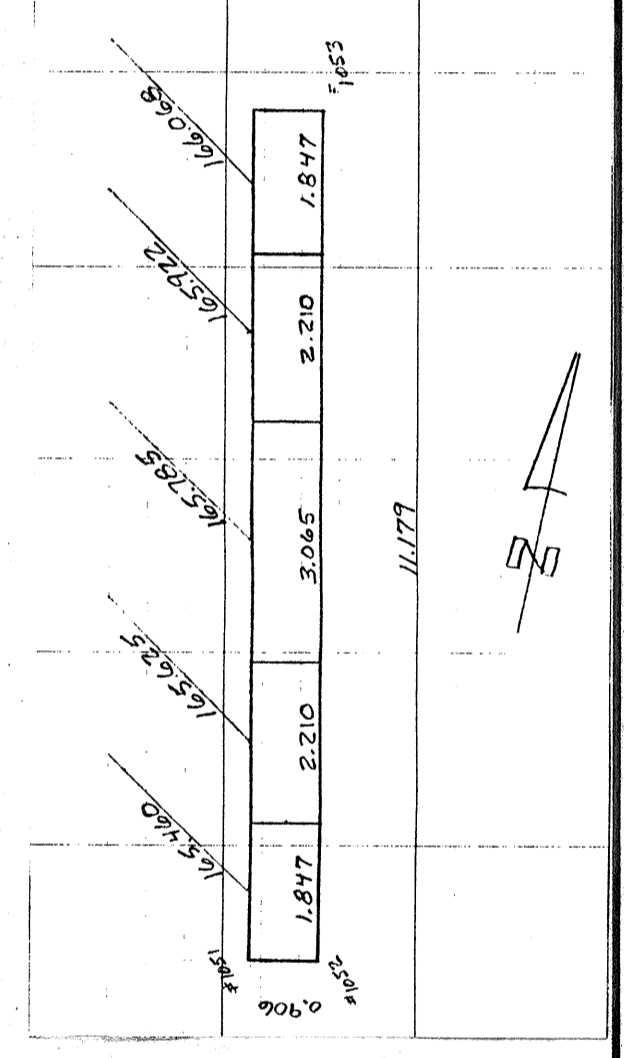
1. FOR SUPERELEVATIONS, SEE ROADWAY PLANS.
 2. PILE DESIGN LOADS (SAFE BEARING CAPACITY):
SEE SHEETS 23 THRU 26 OF 64.
 3. FOR UTILITY INFORMATION, SEE ROADWAY PLANS.
 4. SITE PLAN INFORMATION SHOWN FOR BRIDGE 3 IS BASED
UPON PRELIMINARY ROADWAY ALIGNMENT & PROFILE
DESIGN INFORMATION FOR FUTURE RAMP B & C
AVAILABLE AT THE TIME OF PLAN PREPARATION. THIS
INFORMATION FOR RAMP B & C SHALL BE CONFIRMED FOR
CONFLICTS WITH BRIDGE 3 BY THE CONTRACTOR PRIOR TO
COMMENCEMENT OF WORK.
 5. TOPOGRAPHIC AND UTILITY INFORMATION SHOWN ON THE
PLANS IS BASED UPON EXISTING CONDITIONS AT THE TIME
OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY
PRIOR TO COMMENCEMENT OF WORK.
 6. SEE BRIDGE 8 & 33 SHEETS FOR ADDITIONAL INFORMATION.
 7. SEE SHEET 51 OF 64 FOR SCUPPER STATION LOCATIONS.
 8. EXISTING PIERS ARE LOCATED APPROXIMATELY
ACTUAL LOCATIONS MAY VARY ± HORIZONTALLY
AND VERTICALLY. CONTRACTOR SHALL FIELD VERIFY
PRIOR TO COMMENCEMENT OF WORK.
 9. FOR DRAINAGE STRUCTURE DETAILS, REFERENCE
DRAINAGE PLANS.
 10. ALL PIERS ON THIS SHEET ARE PERPENDICULAR OR RADIAL
TO @ 1-71 NB.
 11. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS EXCEPT
AS NOTED OTHERWISE. ALL ELEVATIONS, OFFSETS, AND
STATIONS ARE IN METERS.
 12. ESTIMATED PAY LENGTH OF PILES IS BASED ON VERTICAL
PILES FROM TIP ELEVATION TO CUT OFF ELEVATION. NO
PRE-BORING IS CONSIDERED.
- * SUPER ELEVATION OF RAMP B (FUTURE) WAS
ASSUMED TO BE 5% FOR CLEARANCE CALCULATION



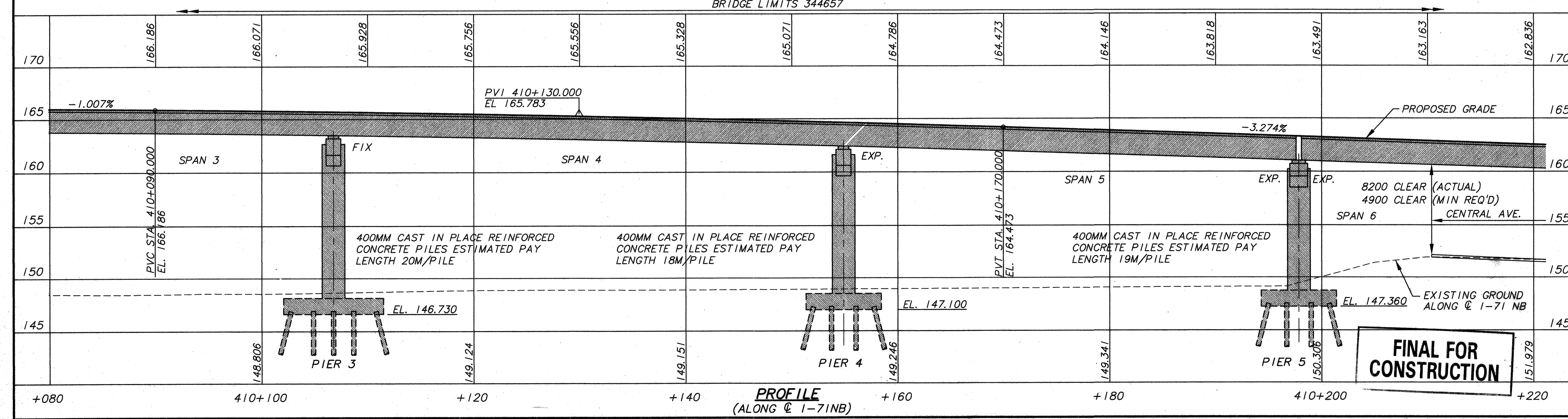
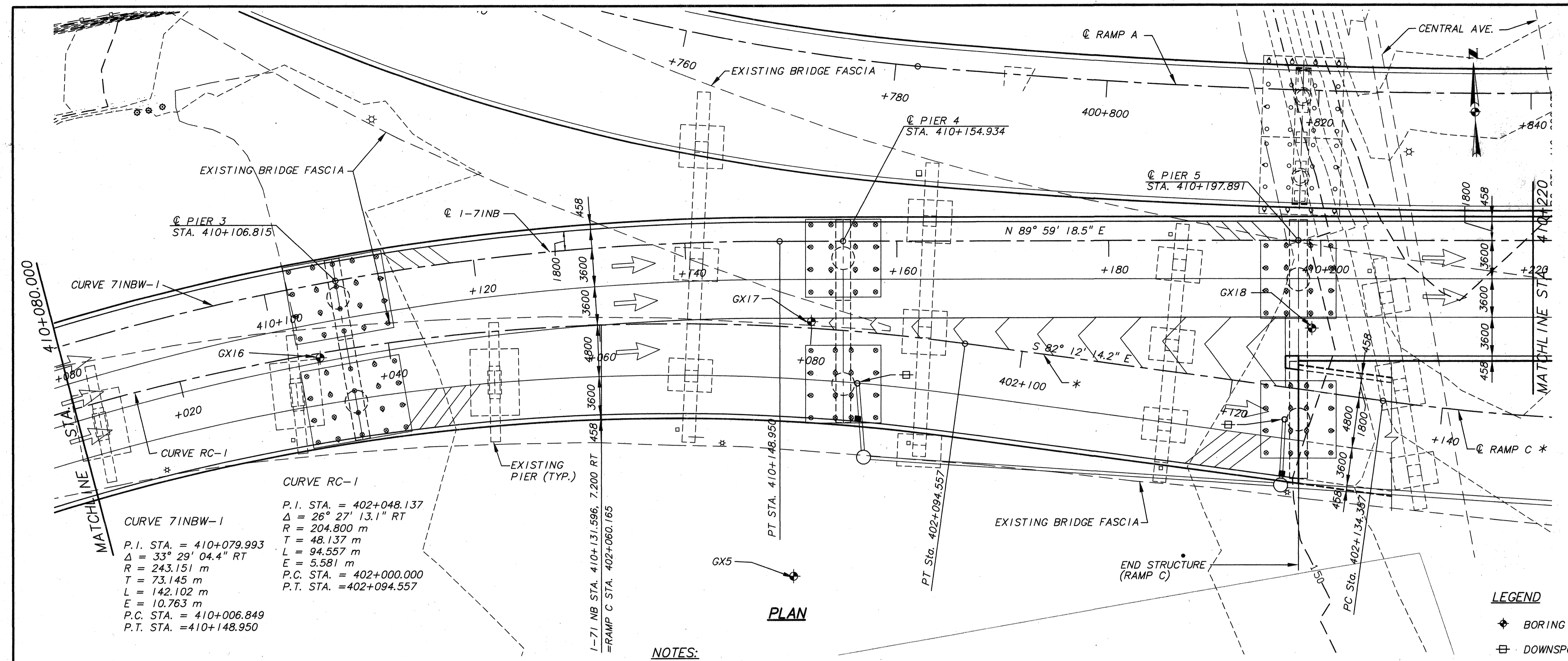
PROFILE
(ALONG @ 1-71NB)

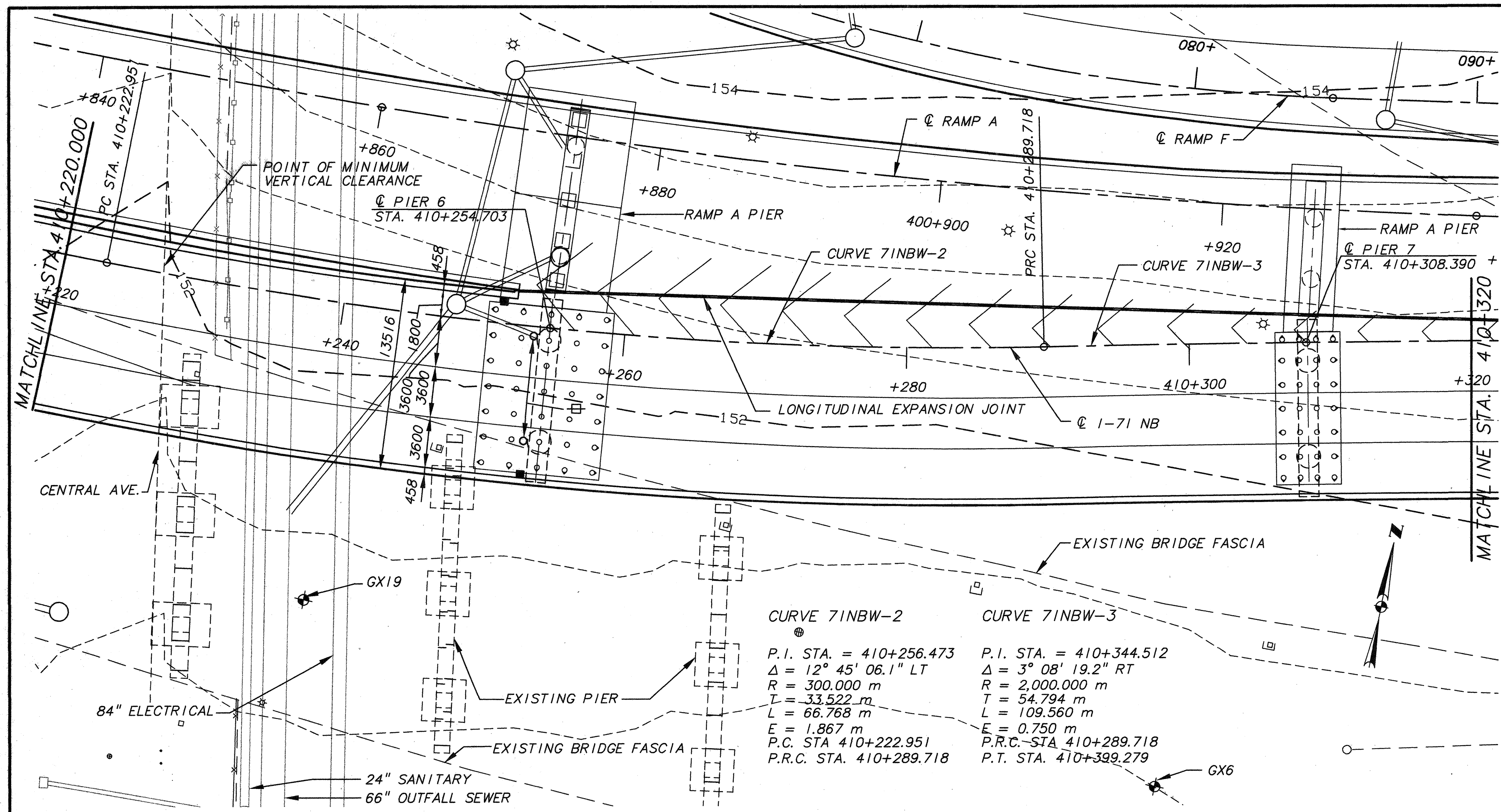
**FINAL FOR
CONSTRUCTION**

* PIER CAP ELEV. S
FOR EXISTING PIER 20D



BRW/STP
6/16/98
AUG 18 1998

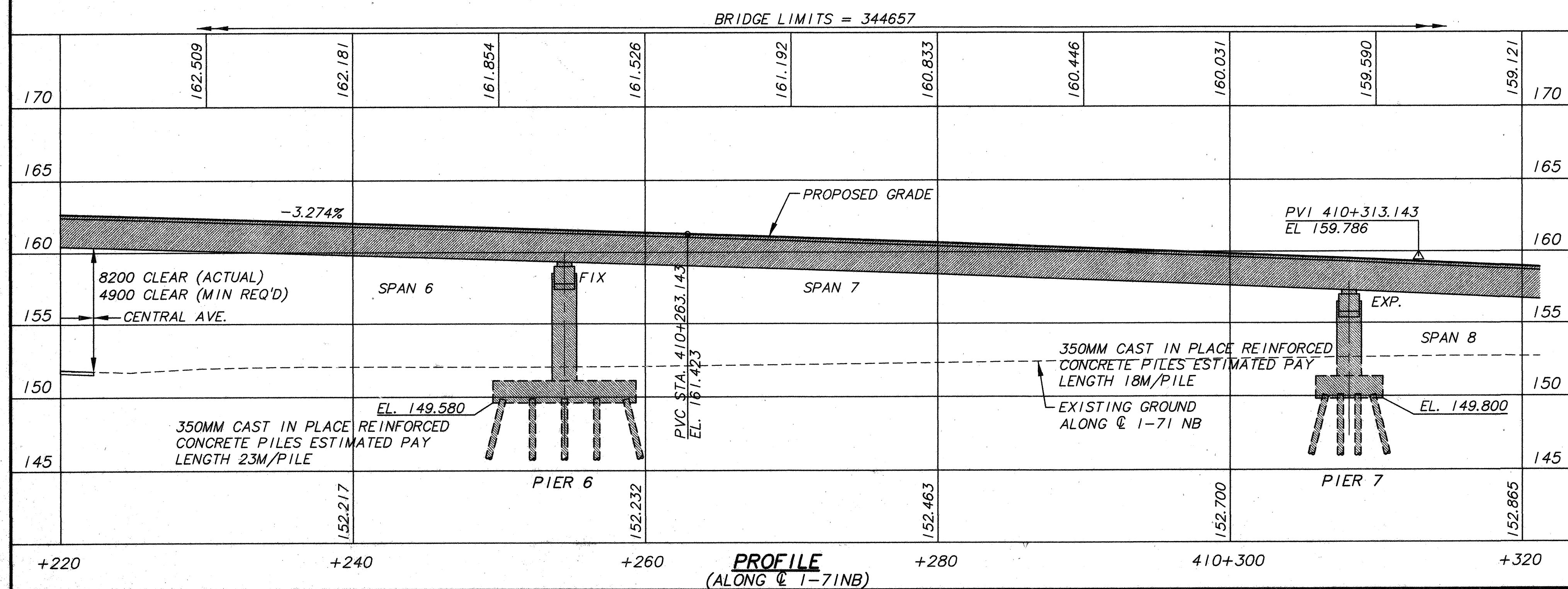




PLAN

- LEGEND**
- ⊕ BORING LOCATION
 - ⊞ DOWNSPOUT
 - SCUPPER

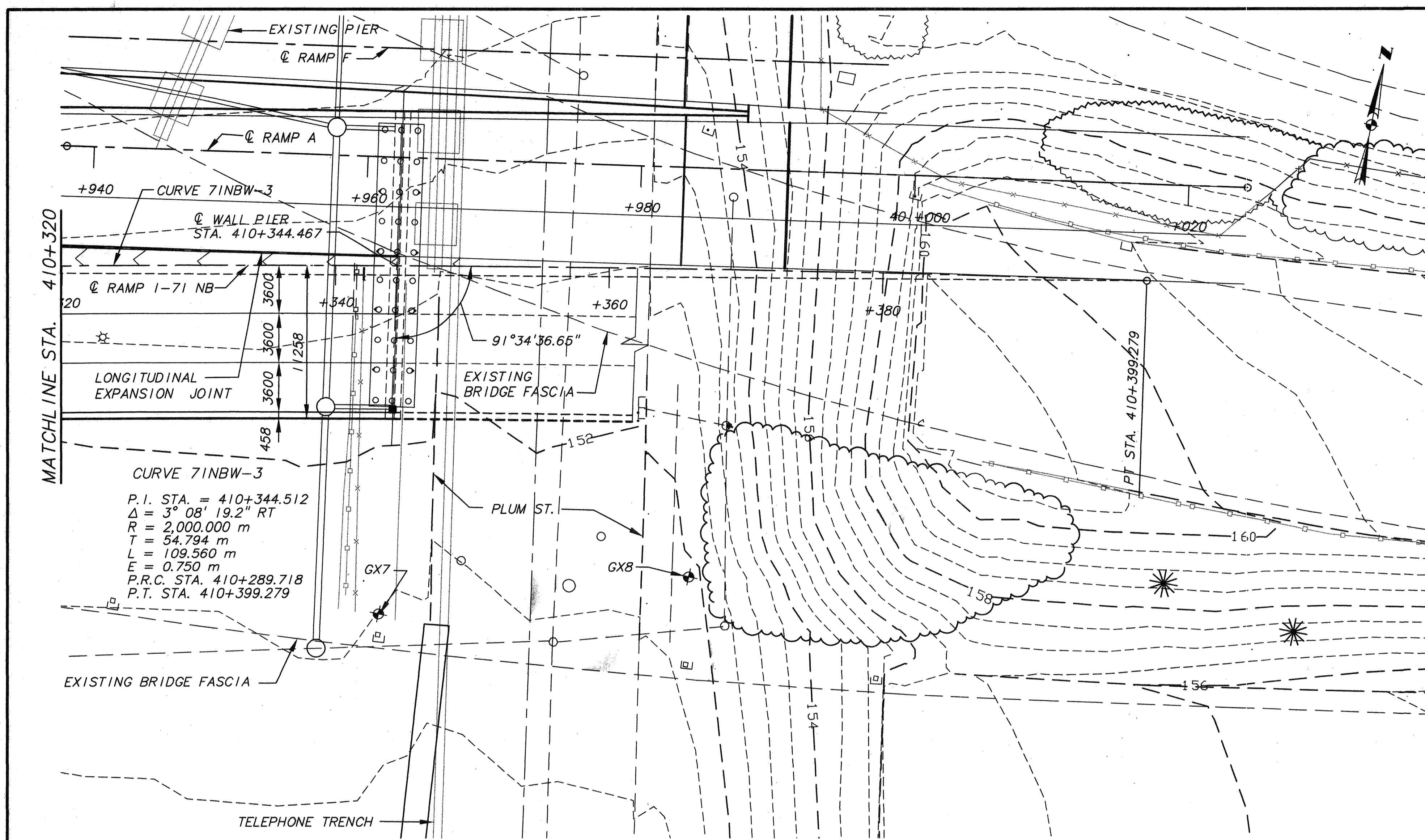
- NOTES:**
1. SEE NOTES 1 THRU 9 ON SHEET 4 OF 64.
 2. ALL PIERS ON THIS SHEET ARE PERPENDICULAR OR RADIAL TO C 1-71 NB.
 3. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS EXCEPT AS NOTED OTHERWISE. ALL ELEVATIONS, OFFSETS, AND STATIONS ARE IN METERS.



PROFILE
(ALONG C 1-71 NB)

FINAL FOR CONSTRUCTION

BRW HAZLET & ERDAL
 A BRW COMPANY
 BR3SITE3
 BRIDGE 3
 6/64
 416
 588



PLAN

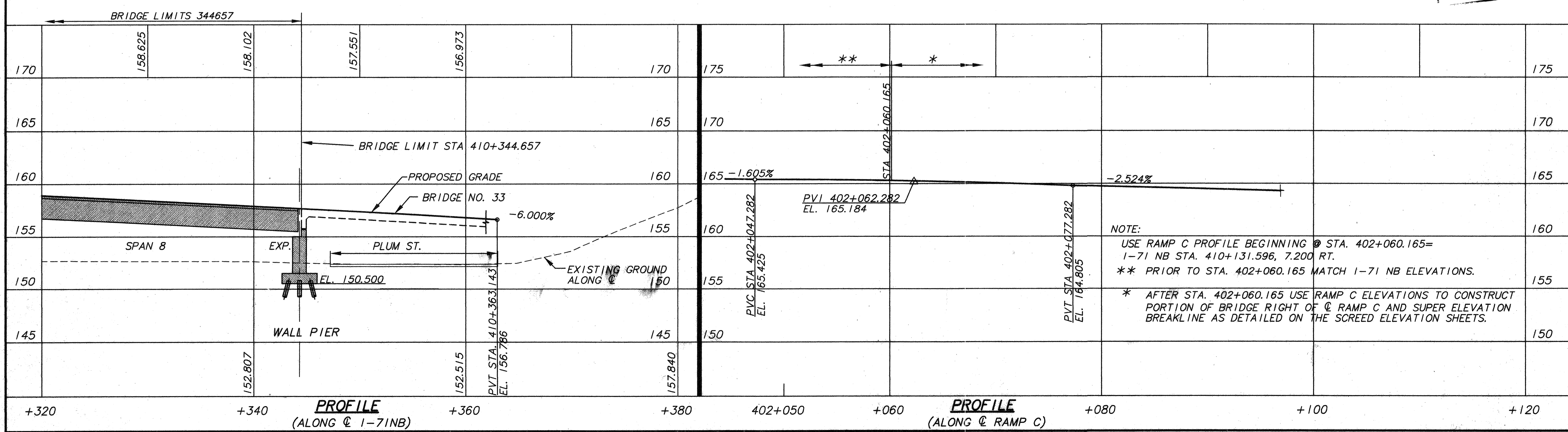
LEGEND

- ◆ BORING LOCATION
- SCUPPER

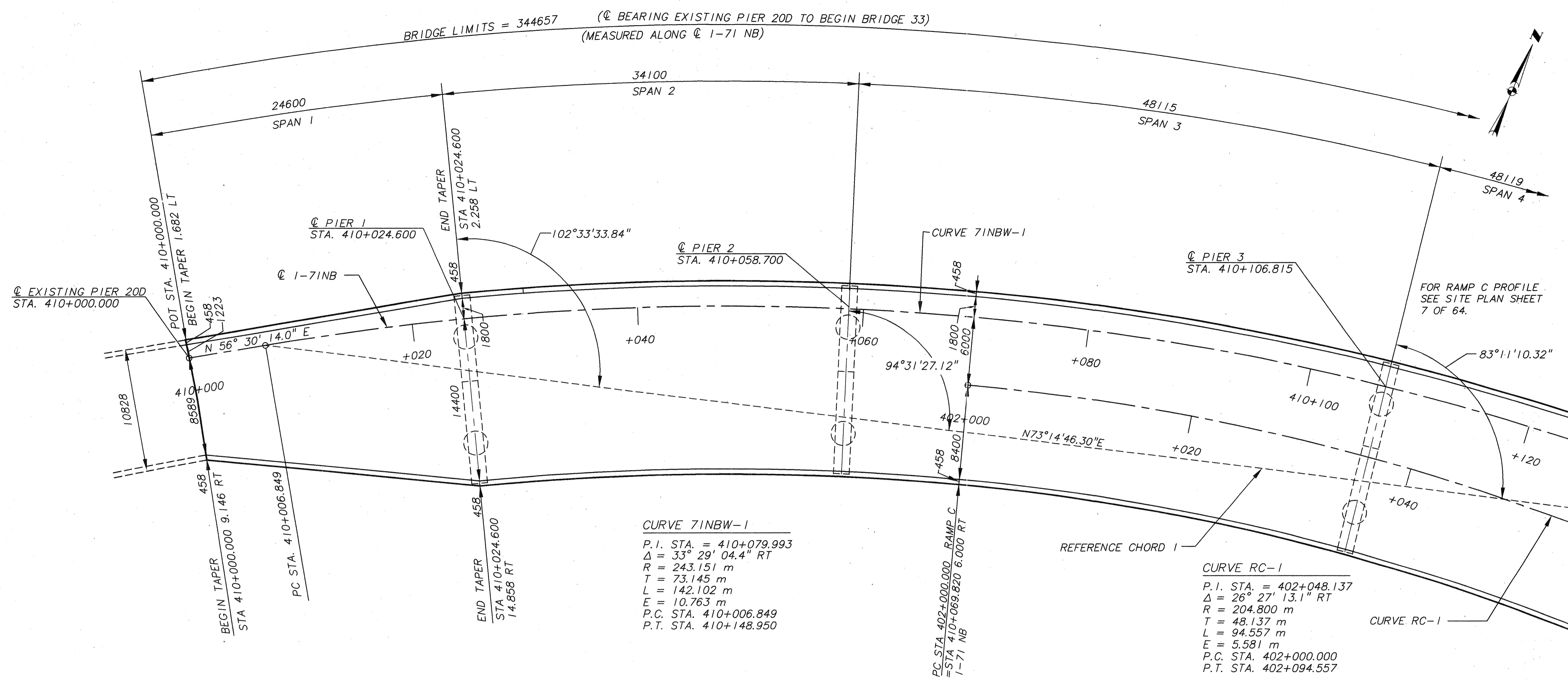
NOTES:

1. SEE NOTES 1 THRU 9 ON SHEET 4 OF 64.
2. WALL PIER IS SKEWED AS SHOWN. SEE BRIDGE 8 SHEET 15 & 29 FOR WALL PIER DETAILS.
3. ALL DIMENSIONS SHOWN ARE IN MILLIMETERS EXCEPT AS NOTED OTHERWISE. ALL ELEVATIONS, OFFSETS AND STATIONS ARE IN METERS.

FINAL FOR CONSTRUCTION

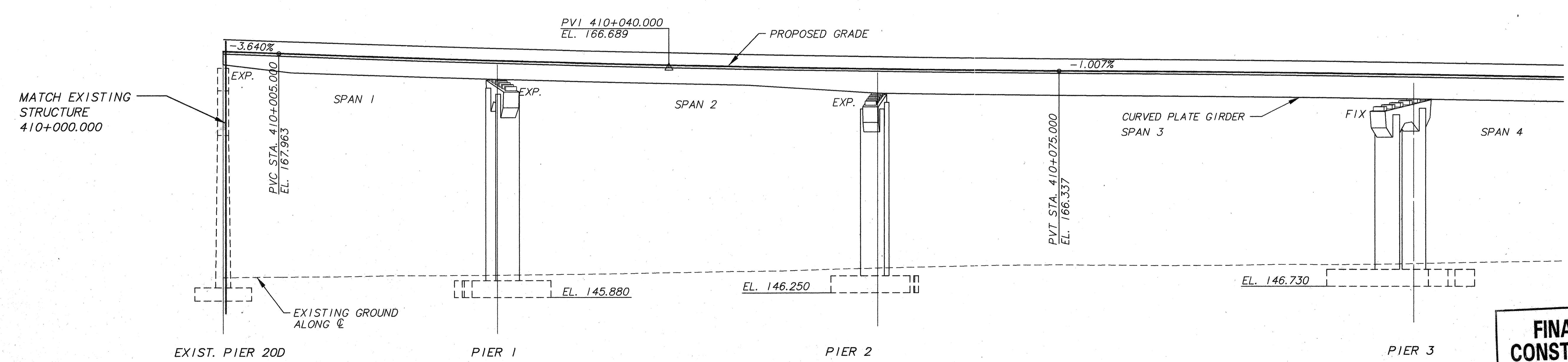


NOTE:
 USE RAMP C PROFILE BEGINNING @ STA. 402+060.165= 1-71 NB STA. 410+131.596, 7.200 RT.
 ** PRIOR TO STA. 402+060.165 MATCH 1-71 NB ELEVATIONS.
 * AFTER STA. 402+060.165 USE RAMP C ELEVATIONS TO CONSTRUCT PORTION OF BRIDGE RIGHT OF C RAMP C AND SUPER ELEVATION BREAKLINE AS DETAILED ON THE SCREED ELEVATION SHEETS.



GENERAL PLAN

NOTE:
WORK GENERAL PLAN SHEETS 8 THROUGH 10 WITH
GEOMETRIC LAYOUT SHEETS 11 THROUGH 13.



ELEVATION

FINAL FOR CONSTRUCTION

AUG 18 1998

BR3-GP1 8/18/98

DESIGN AGENCY
BRW HAZELT & ERDAL
A BRW COMPANY

DATE
REVIEWED
DRAWN
CHECKED

STRUCTURE FILE NUMBER
BR3-GP1

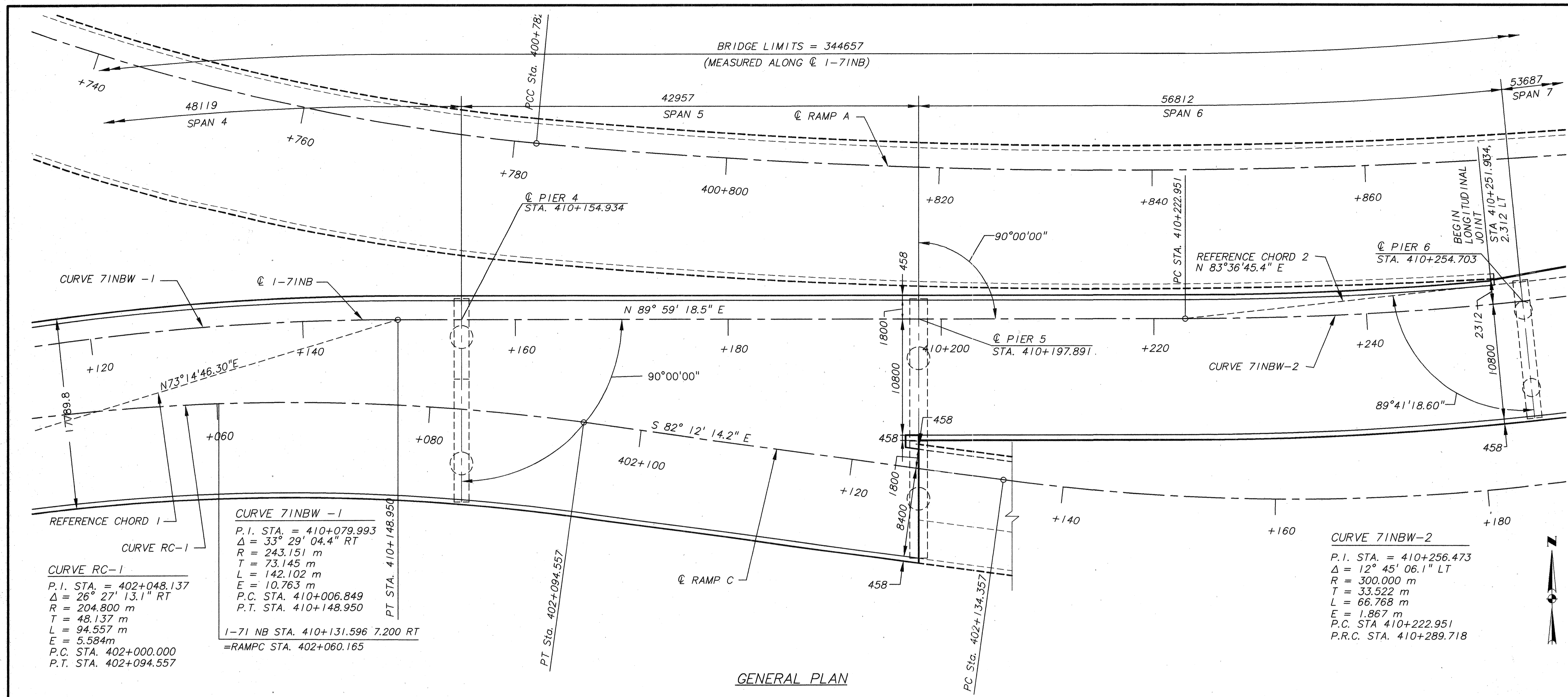
DESIGNED
S.W.F.
J.A.P./R.A.J.

GENERAL PLAN
1-71 NB

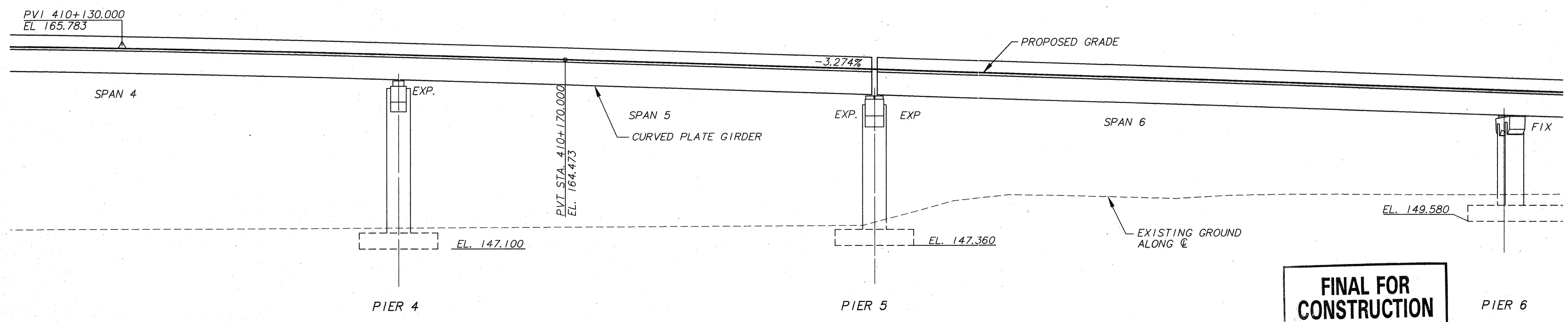
BRIDGE 3

8/64

418
588



GENERAL PLAN



ELEVATION

FINAL FOR CONSTRUCTION

DESIGN AGENCY: BRW HAZELLET & ERDAL
 A BRW COMPANY

DATE: _____
 STRUCTURE FILE NUMBER: BR3-GP2

DESIGNED: SWF
 CHECKED: JAP/RAJ

DRAWN: BKH
 REVISED: _____

GENERAL PLAN
 1-71 NB

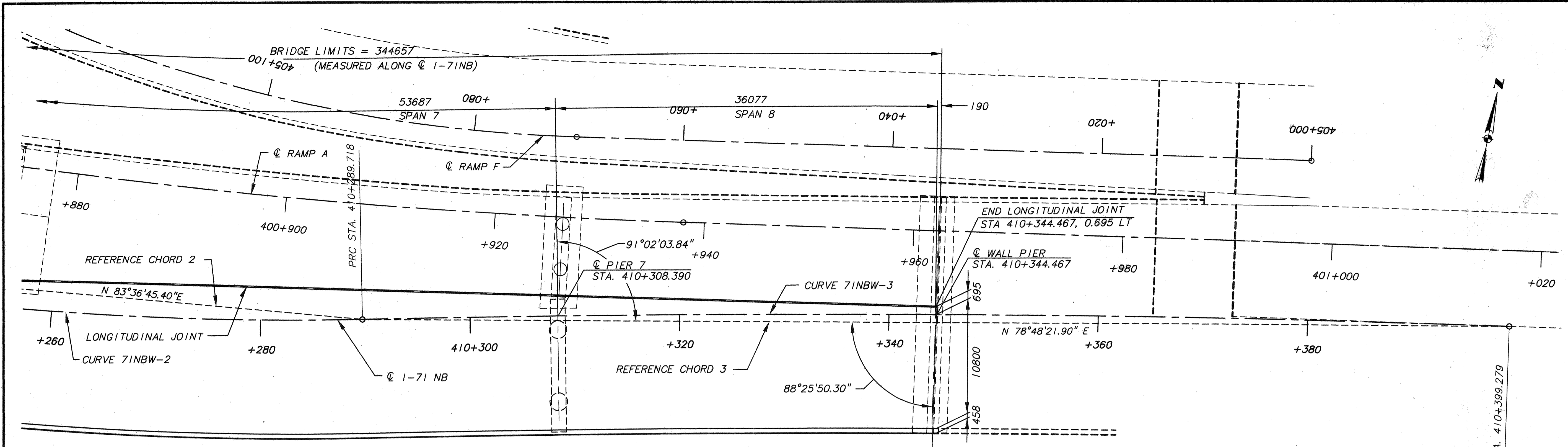
BRIDGE 3

9/64

419
588

AUG 18 1998

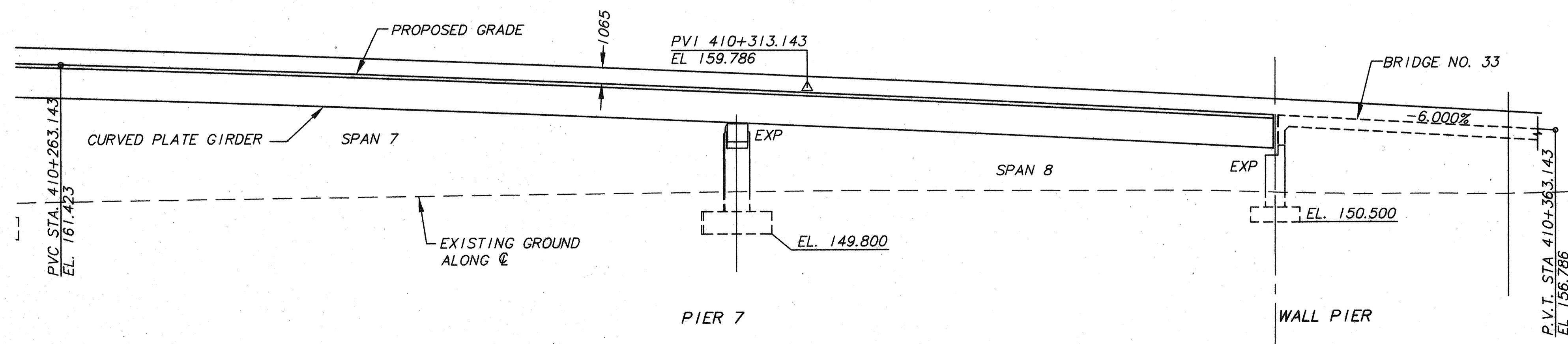
BR3-GP2 8/18/98



CURVE 71NBW-2
 P.I. STA. = 410+256.473
 $\Delta = 12^\circ 45' 06.1''$ LT
 R = 300.000 m
 T = 33.522 m
 L = 66.768 m
 E = 1.867 m
 P.C. STA 410+222.951
 P.R.C. STA. 410+289.718

CURVE 71NBW-3
 P.I. STA. = 410+344.512
 $\Delta = 3^\circ 08' 19.2''$ RT
 R = 2,000.000 m
 T = 54.794 m
 L = 109.560 m
 E = 0.750 m
 P.R.C. STA 410+289.718
 P.T. STA. 410+399.279

GENERAL PLAN



ELEVATION

FINAL FOR CONSTRUCTION

DESIGN AGENCY
BRW HAZLET & ERDAL
 A BRW COMPANY

DATE
 REVIEWED
 DRAWN
 DESIGNED

STRUCTURE FILE NUMBER
 BR3-GP3

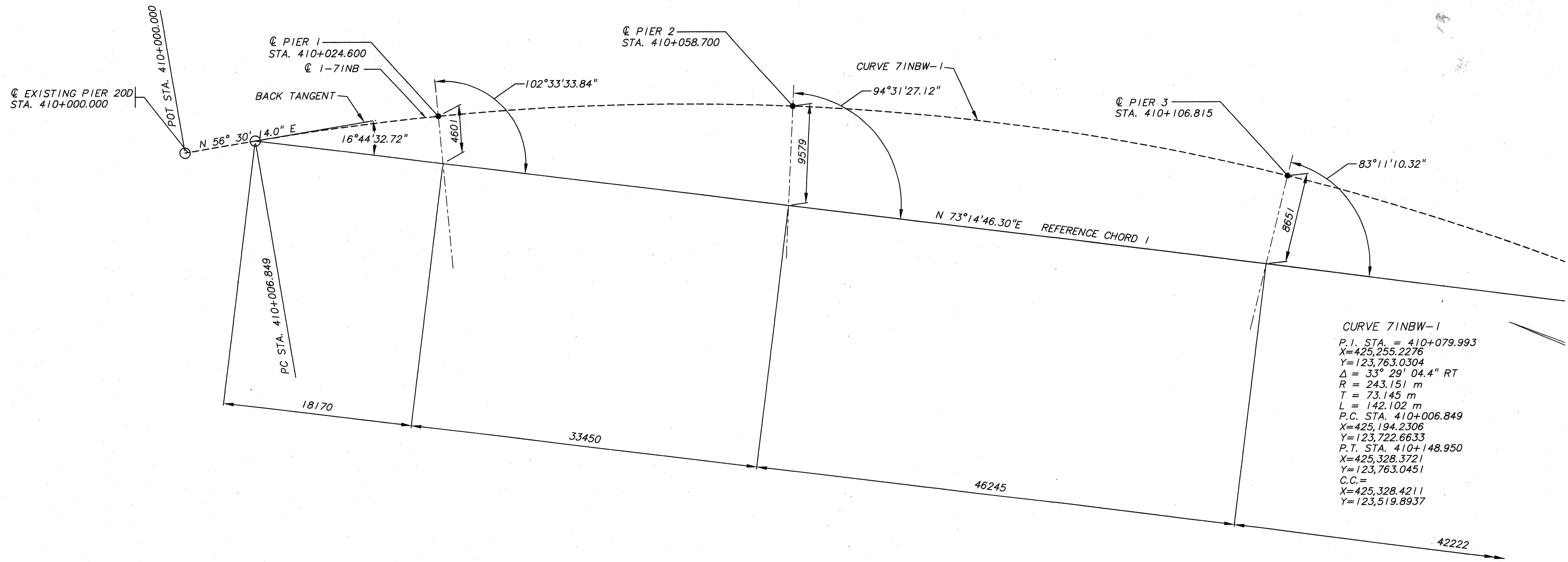
GENERAL PLAN
 1-71 NB

BRIDGE 3

10/64

420
588

BR3-GP3 7/8/86



CURVE 71NBW-1
 P.I. STA. = 410+079.993
 X=425,255.2276
 Y=123,763.0304
 $\Delta = 33^\circ 29' 04.4''$ RT
 R = 243.151 m
 T = 73.145 m
 L = 142.102 m
 P.C. STA. 410+006.849
 X=425,194.2306
 Y=123,722.6633
 P.T. STA. 410+148.950
 X=425,328.3721
 Y=123,763.0451
 C.C. =
 X=425,328.4211
 Y=123,519.8937

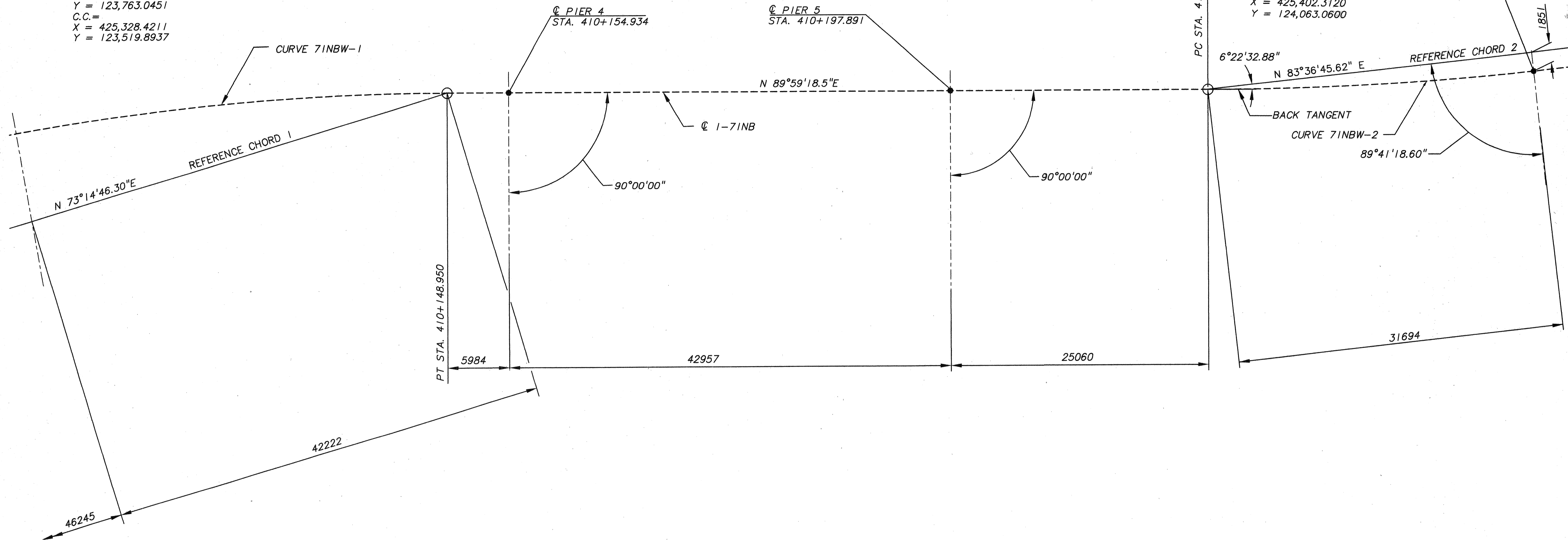
FINAL FOR CONSTRUCTION

BR3-601 7/14/64

DESIGNED	SWF	CHECKED	RAJ/JAP
	REVISED	REVISED	
DRAWN	BKH	STRUCTURE FILE NUMBER	BR3-GEO1
REVIEWED	DATE	DESIGN AGENCY	BRW HAZELET & ERDAL A BRW COMPANY
GEOMETRIC LAYOUT			
BRIDGE 3			
11/64			
421 588			

CURVE 71NBW-1
 P.I. STA. = 410+079.993
 X = 425,255.2276
 Y = 123,763.0304
 $\Delta = 33^\circ 29' 04.4''$ RT
 R = 243.151 m
 T = 73.145 m
 L = 142.102 m
 P.C. STA. 410+006.849
 X = 425,194.2306
 Y = 123,722.6633
 P.T. STA. 410+148.950
 X = 425,328.3721
 Y = 123,763.0451
 C.C. =
 X = 425,328.4211
 Y = 123,519.8937

CURVE 71NBW-2
 P.I. STA. = 410+256.473
 X = 425,435.8948
 Y = 123,763.0667
 $\Delta = 12^\circ 45' 06.1''$ LT
 R = 300.000 m
 T = 33.522 m
 L = 66.768 m
 P.C. STA. 410+222.951
 X = 425,402.3724
 Y = 123,763.0600
 P.R.C. STA. 410+289.718
 X = 425,468.5889
 Y = 123,770.4726
 C.C. =
 X = 425,402.3120
 Y = 124,063.0600

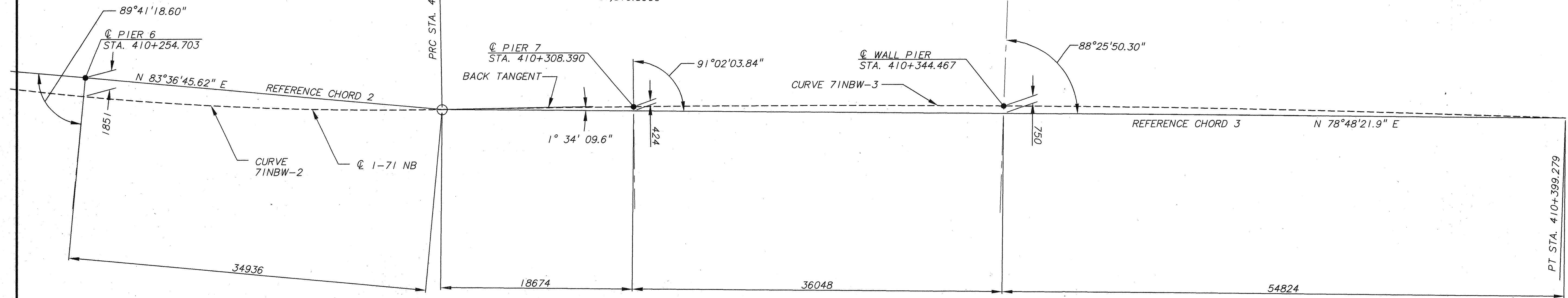


FINAL FOR CONSTRUCTION

DESIGN AGENCY	BRW HAZELET & ERDAL A BRW COMPANY
DATE	
REVIEWED	STRUCTURE FILE NUMBER BR3-GE02
DRAWN	BKH
DESIGNED	SWF
REVISION	REVISED
CREATED	RAJ/JAP
GEOMETRIC LAYOUT I-71 NB	
BRIDGE 3	
12/64	
422 588	

CURVE 71NBW-2
 P.I. STA. = 410+256.473
 X = 425,435.8948
 Y = 123,763.0667
 $\Delta = 12^\circ 45' 06.1''$ LT
 R = 300.000 m
 T = 33.522 m
 L = 66.768 m
 P.C. STA 410+222.951
 X = 425,402.3724
 Y = 123,763.0600
 P.R.C. STA. 410+289.718
 X = 425,468.5889
 Y = 123,770.4726
 C.C. =
 X = 425,402.3120
 Y = 124,063.0600

CURVE 71NBW-3
 P.I. STA. = 410+344.512
 X = 425,522.0287
 Y = 123,782.5778
 $\Delta = 3^\circ 08' 19.2''$ RT
 R = 2,000.000 m
 T = 54.794 m
 L = 109.560 m
 P.R.C. STA 410+289.718
 X = 425,468.5889
 Y = 123,770.4726
 P.T. STA. 410+399.279
 X = 425,576.0512
 Y = 123,791.7388
 C.C. =
 X = 425,910.4346
 Y = 121,819.8900



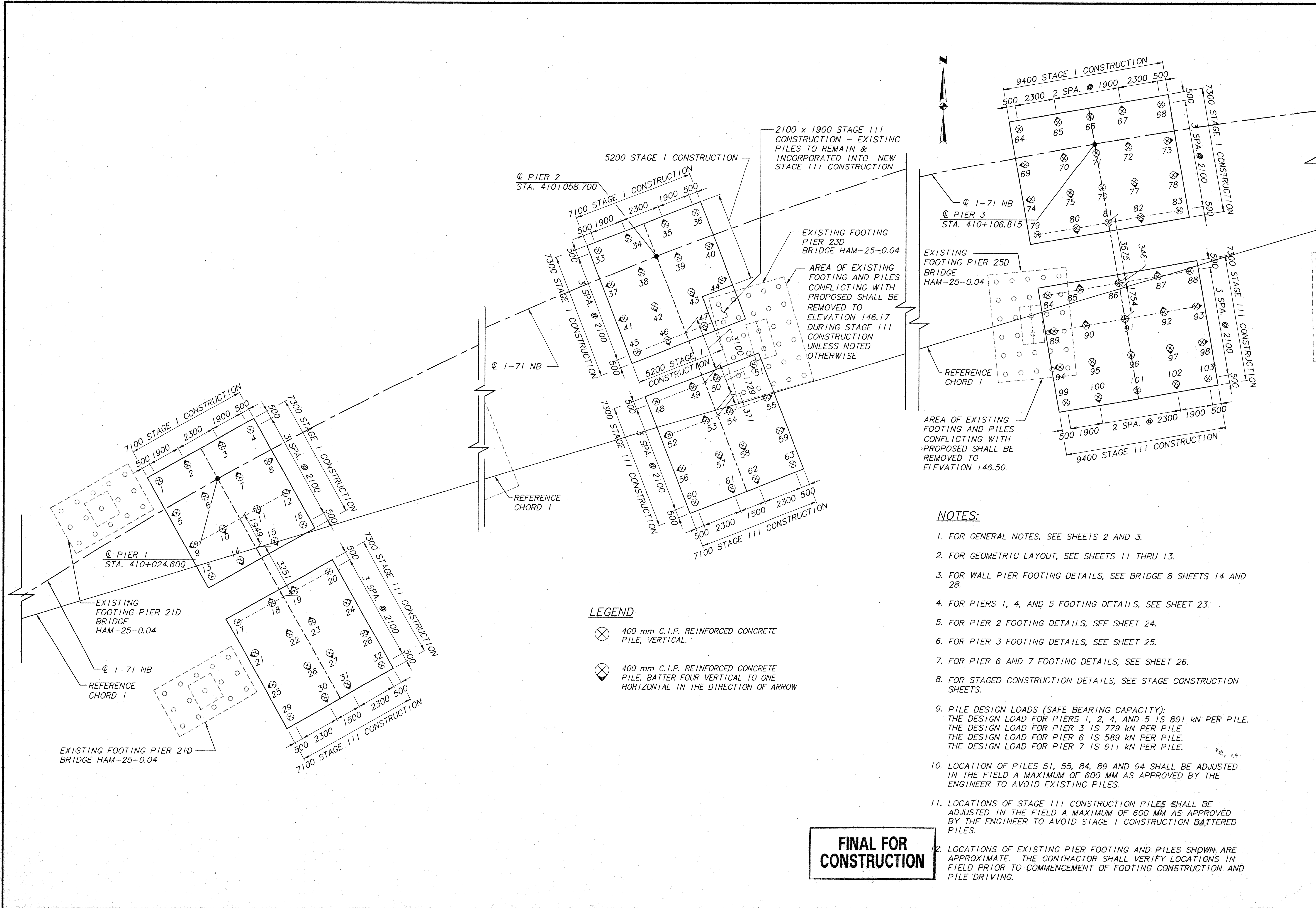
NOTE: WALL PIER SKEWED AS SHOWN.

FINAL FOR CONSTRUCTION

DESIGN AGENCY BRW HAZELT & ERDAL A BRW COMPANY	
DESIGNED S.W.F.	DATE
DRAWN B.K.H.	REVIEWED
CHECKED J.A.P./R.A.J.	STRUCTURE FILE NUMBER BR3-GEO3
GEOMETRIC LAYOUT 1-71 NB	
BRIDGE 3	
13/64	
423 588	

BR3-GEO3
 6/18/98
 AUG 18 1998

DESIGNED	DATE
DRAWN	REVISED
BKH	STRUCTURE FILE NUMBER
SWF	BR-37ND1
CHECKED	
RAJ	



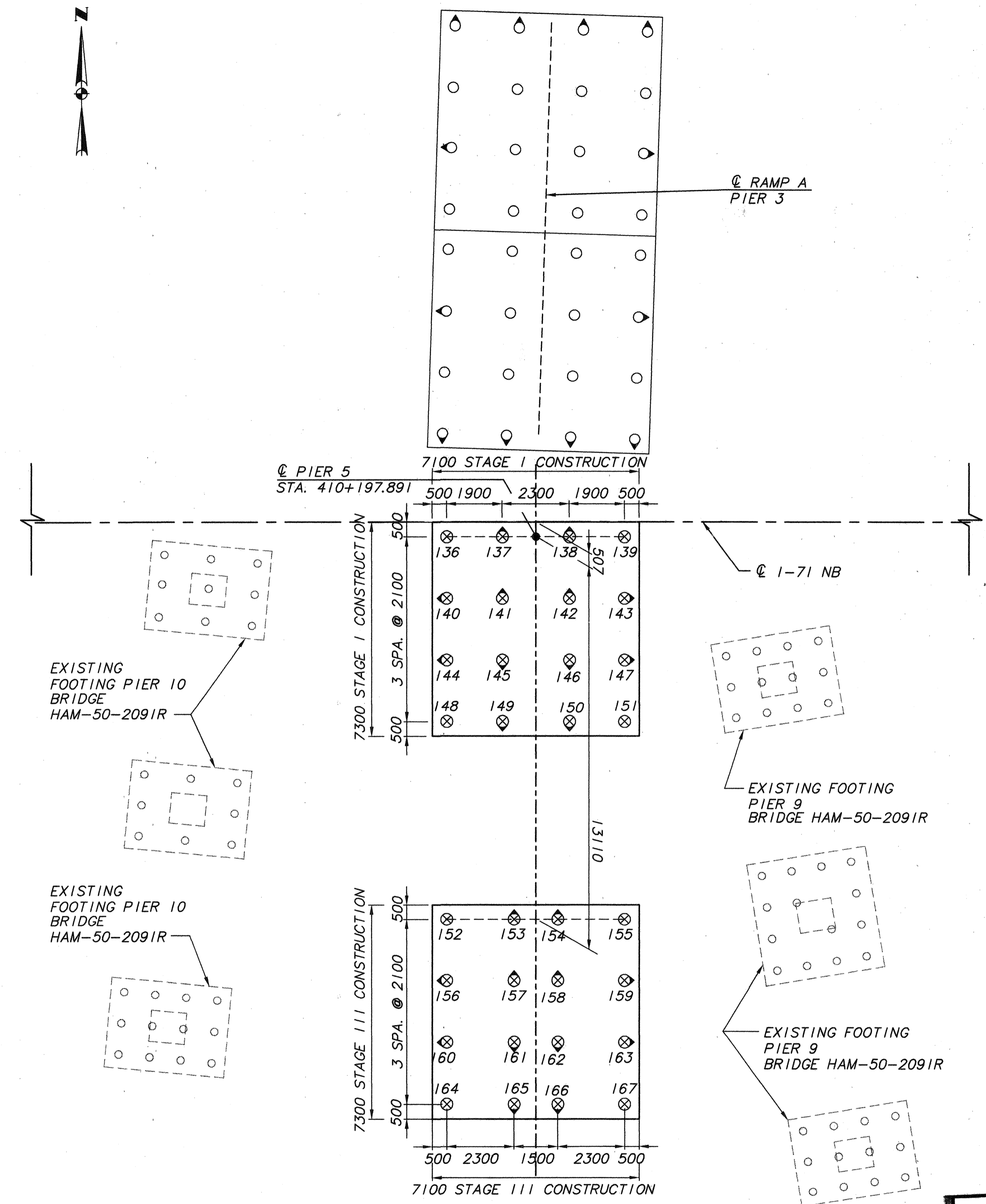
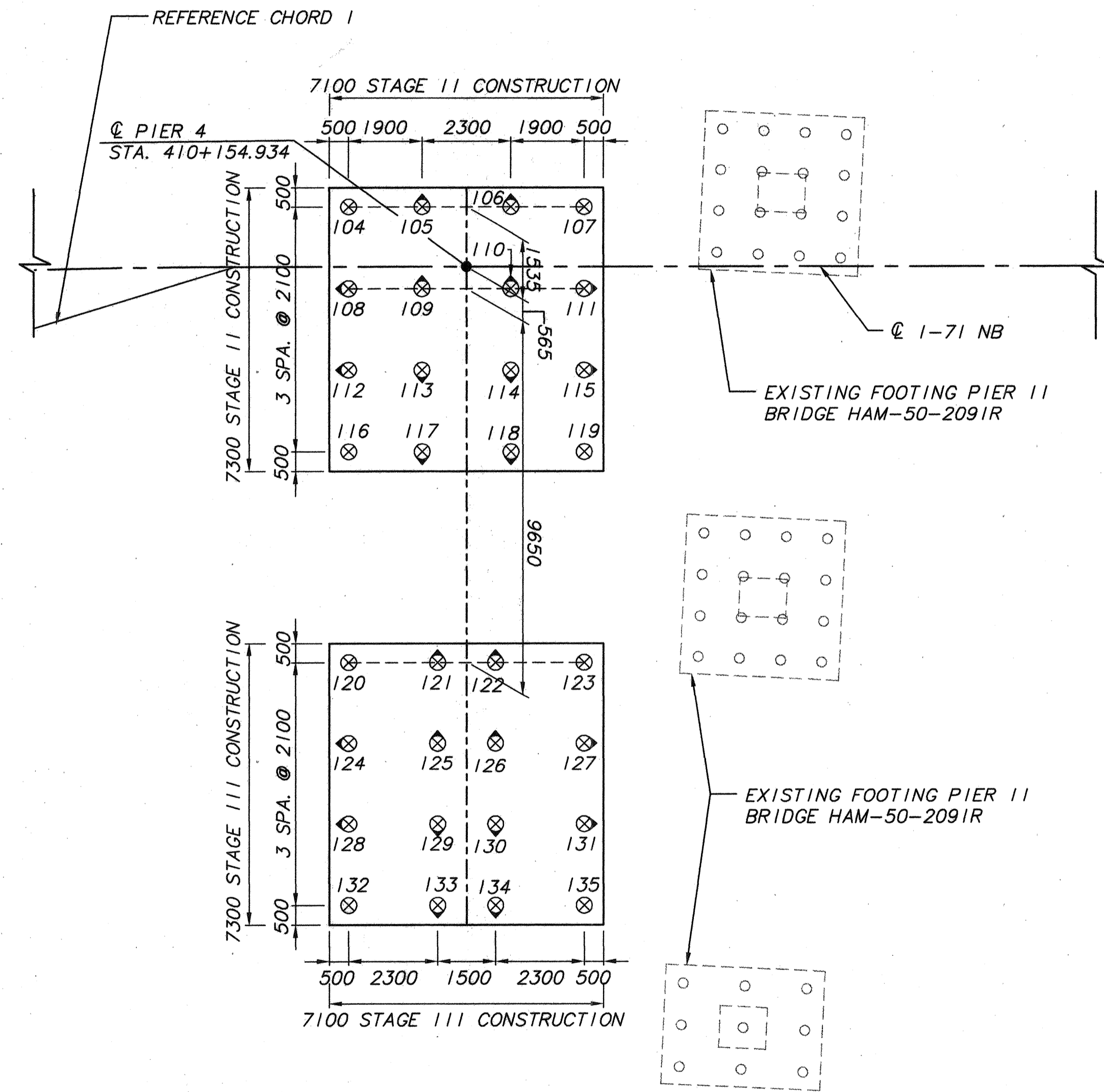
NOTES:

- FOR GENERAL NOTES, SEE SHEETS 2 AND 3.
- FOR GEOMETRIC LAYOUT, SEE SHEETS 11 THRU 13.
- FOR WALL PIER FOOTING DETAILS, SEE BRIDGE 8 SHEETS 14 AND 28.
- FOR PIERS 1, 4, AND 5 FOOTING DETAILS, SEE SHEET 23.
- FOR PIER 2 FOOTING DETAILS, SEE SHEET 24.
- FOR PIER 3 FOOTING DETAILS, SEE SHEET 25.
- FOR PIER 6 AND 7 FOOTING DETAILS, SEE SHEET 26.
- FOR STAGED CONSTRUCTION DETAILS, SEE STAGE CONSTRUCTION SHEETS.
- PILE DESIGN LOADS (SAFE BEARING CAPACITY):
 THE DESIGN LOAD FOR PIERS 1, 2, 4, AND 5 IS 801 kN PER PILE.
 THE DESIGN LOAD FOR PIER 3 IS 779 kN PER PILE.
 THE DESIGN LOAD FOR PIER 6 IS 589 kN PER PILE.
 THE DESIGN LOAD FOR PIER 7 IS 611 kN PER PILE.
- LOCATION OF PILES 51, 55, 84, 89 AND 94 SHALL BE ADJUSTED IN THE FIELD A MAXIMUM OF 600 MM AS APPROVED BY THE ENGINEER TO AVOID EXISTING PILES.
- LOCATIONS OF STAGE III CONSTRUCTION PILES SHALL BE ADJUSTED IN THE FIELD A MAXIMUM OF 600 MM AS APPROVED BY THE ENGINEER TO AVOID STAGE I CONSTRUCTION BATTERED PILES.
- LOCATIONS OF EXISTING PIER FOOTING AND PILES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD PRIOR TO COMMENCEMENT OF FOOTING CONSTRUCTION AND PILE DRIVING.

FINAL FOR CONSTRUCTION

AUG 18 1998

BR-37ND1



NOTES:

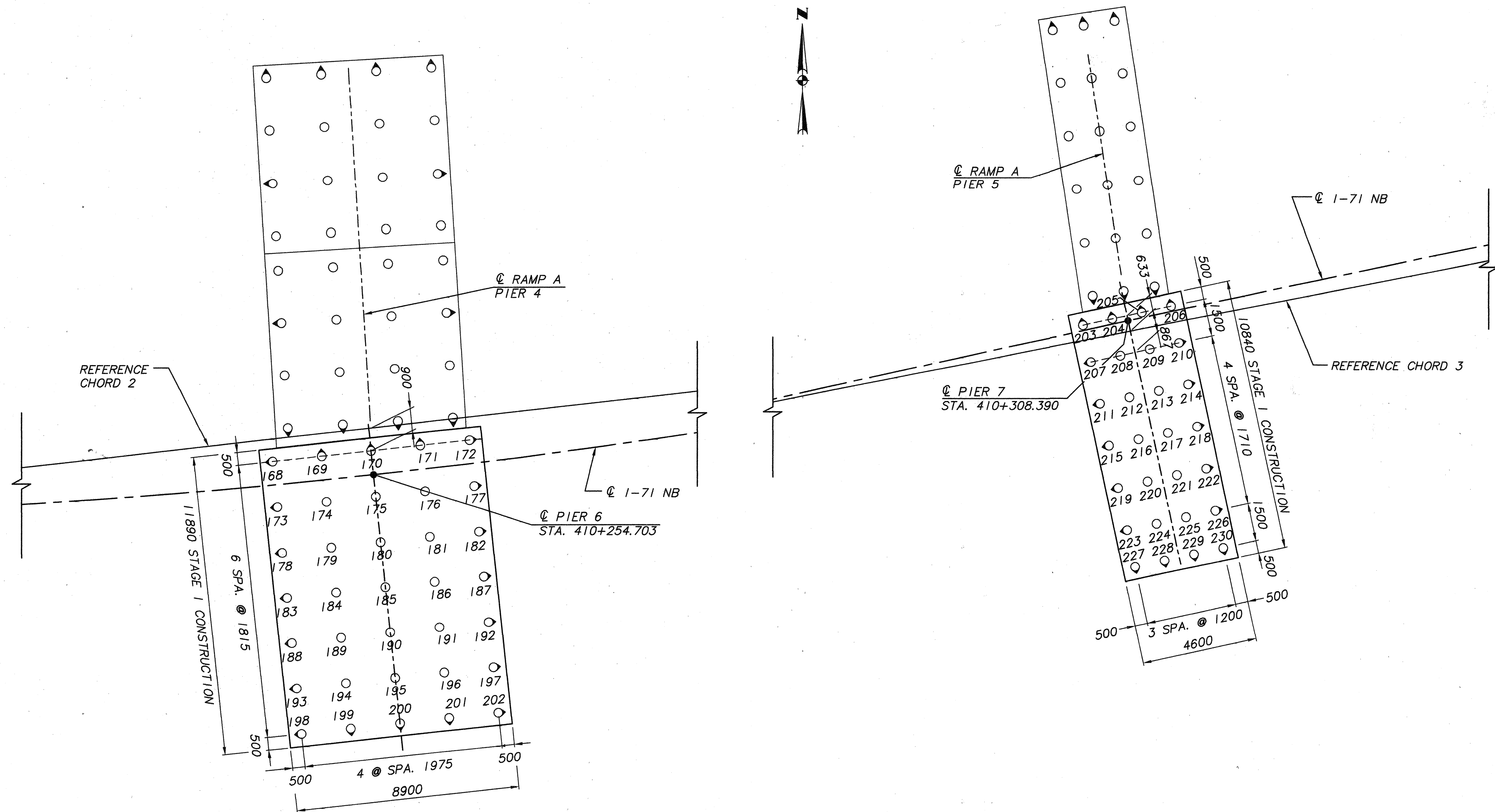
1. SEE NOTES 1 THRU 9 ON SHEET 14.
2. LOCATIONS OF STAGE III CONSTRUCTION PILES SHALL BE ADJUSTED IN THE FIELD A MAXIMUM OF 600 MM AS APPROVED BY THE ENGINEER TO AVOID STAGE I OR STAGE II CONSTRUCTION BATTERED PILES.
3. LOCATIONS OF PILES SHALL BE ADJUSTED IN THE FIELD A MAXIMUM OF 600 MM AS APPROVED BY THE ENGINEER TO AVOID RAMP A BATTERD PILES.
4. LOCATIONS OF EXISTING PIER FOOTING AND PILES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD PRIOR TO COMMENCEMENT OF FOOTING CONSTRUCTION AND PILE DRIVING.

LEGEND

- ⊗ 400 mm C.I.P. REINFORCED CONCRETE PILE, VERTICAL.
- ⊗ 400 mm C.I.P. REINFORCED CONCRETE PILE, BATTER FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF ARROW

FINAL FOR CONSTRUCTION

BR-1002 7/16/98



LEGEND

- 350 mm C.I.P. REINFORCED CONCRETE PILE, VERTICAL.
- ◐ 350 mm C.I.P. REINFORCED CONCRETE PILE, BATTER FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF ARROW

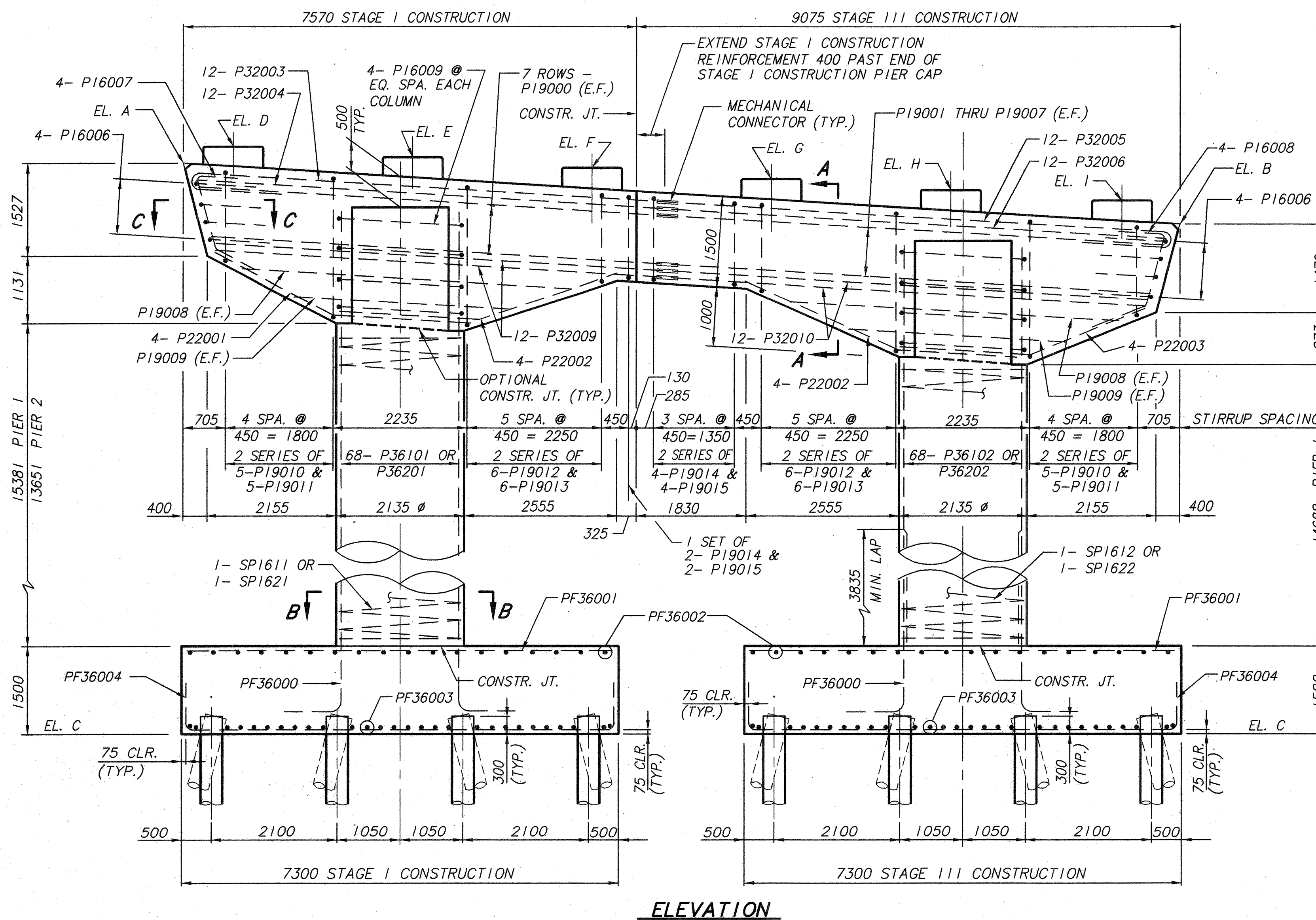
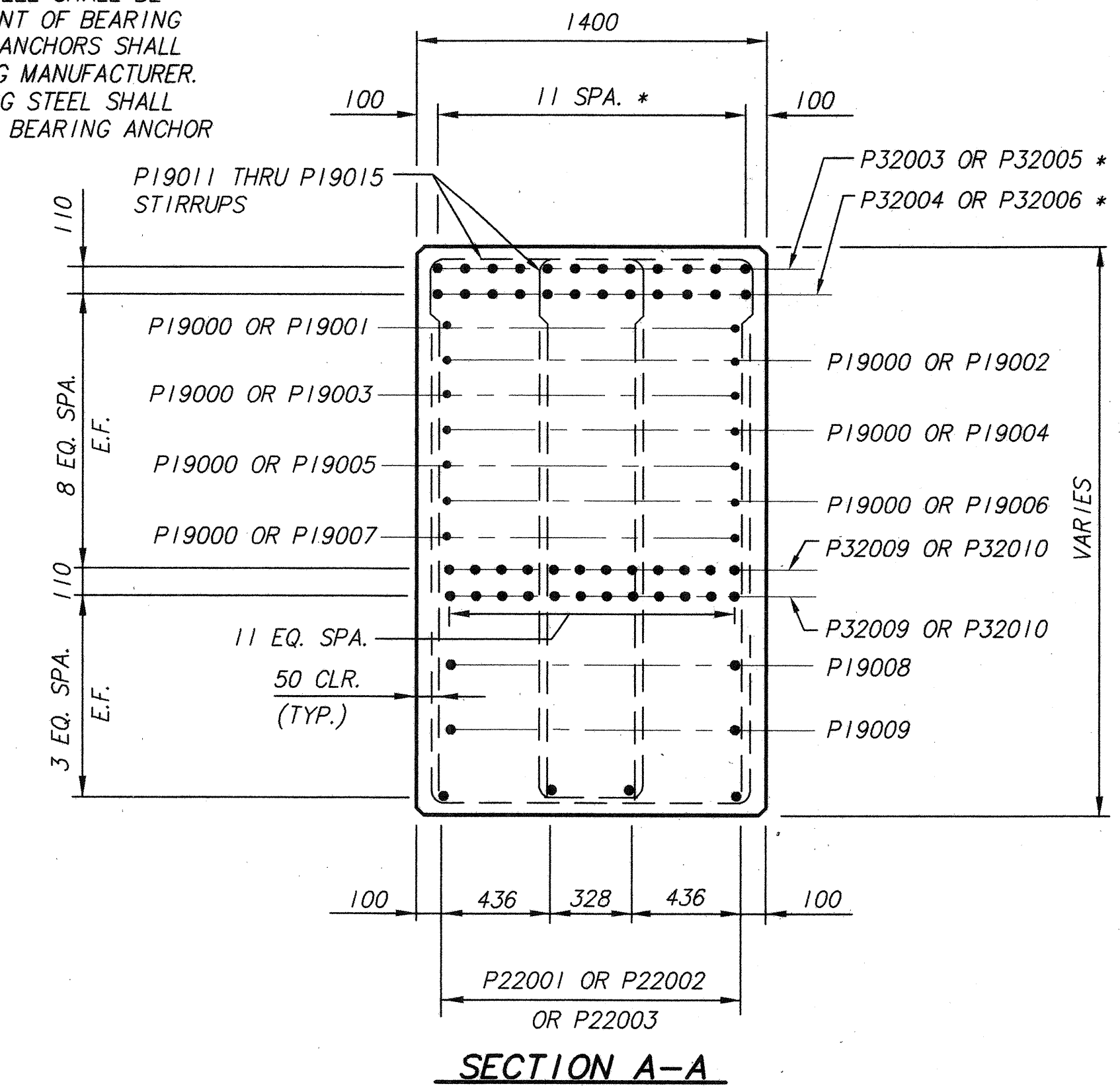
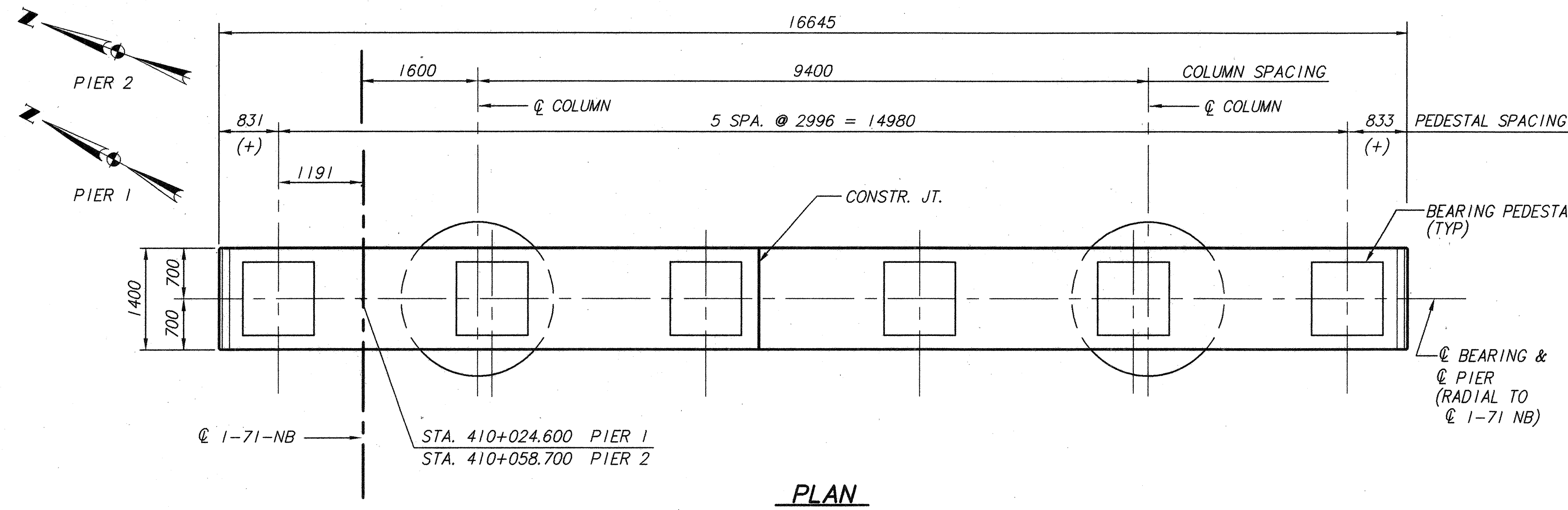
NOTES:

1. SEE NOTES 1 THROUGH 9 ON SHEET 14.
2. LOCATIONS OF PILES SHALL BE ADJUSTED IN THE FIELD A MAXIMUM OF 600mm AS APPROVED BY THE ENGINEER TO AVOID RAMP A BATTERED PILES.
3. LOCATIONS OF EXISTING PIER FOOTING AND PILES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD PRIOR TO COMMENCEMENT OF FOOTING CONSTRUCTION AND PILE DRIVING.
4. IT IS ANTICIPATED THAT CONCRETE, RUBBLE FILL AND/OR LIMESTONE SLABS MAY BE ENCOUNTERED DURING PILE DRIVING FOR PIER 6. TO AVOID THIS CONFLICT, PIER 6 FOOTING SHALL BE EXCAVATED PRIOR TO DRIVING PILES TO A DEPTH OF APPROXIMATELY 3 m BELOW EXISTING GRADE OR AS DIRECTED BY THE ENGINEER. ALL CONCRETE, RUBBLE FILL, AND LIMESTONE SLABS ENCOUNTERED SHALL BE REMOVED AND BE CONSIDERED INCIDENTAL TO THE STRUCTURAL EXCAVATION. THE EXCAVATED AREA SHALL BE BACKFILLED WITH ON-SITE SOILS AND COMPACTED IN ACCORDANCE WITH 203.12 OF THE C.M.S. THE MOISTURE OF THE BACKFILL SHALL BE CONTROLLED PER 203.11 OF THE C.M.S.

FINAL FOR CONSTRUCTION

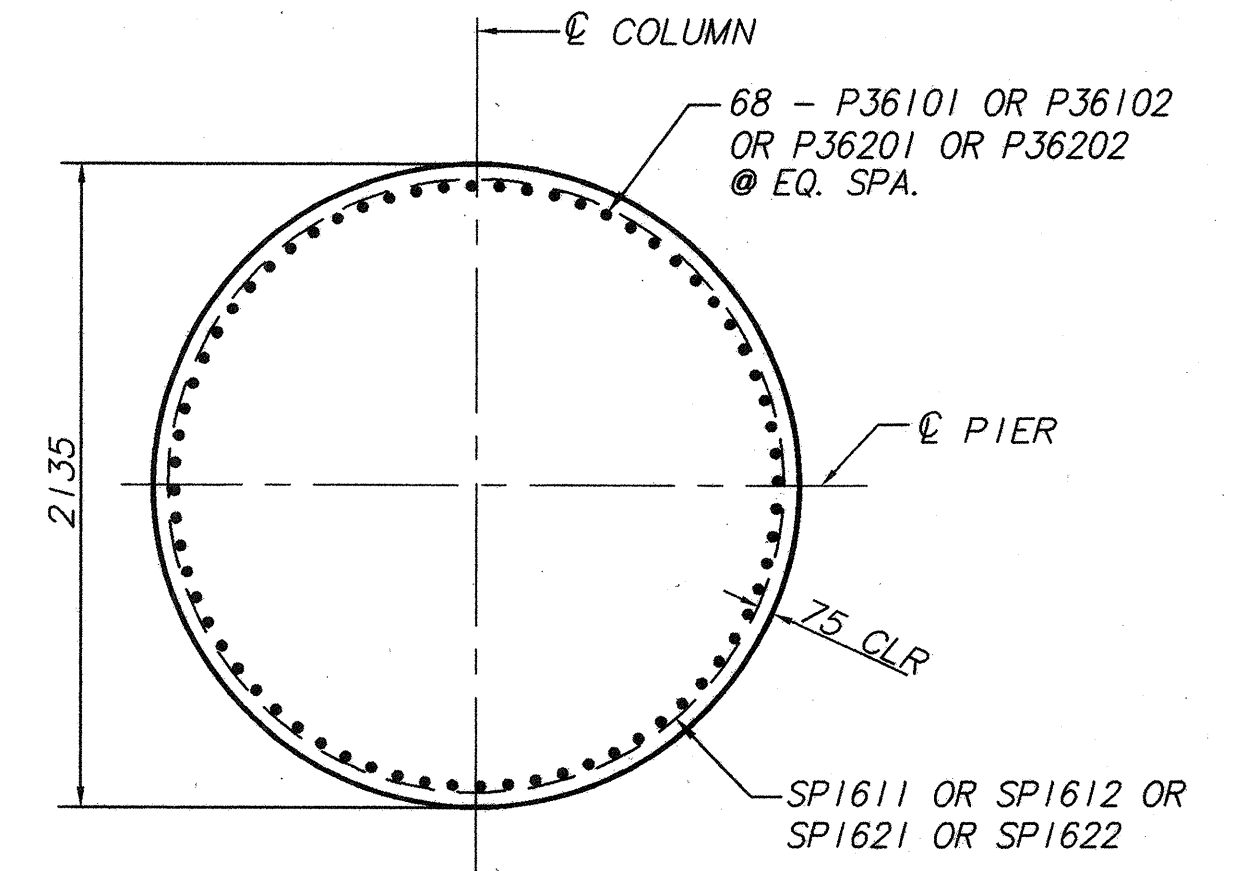
PIER ELEVATIONS									
ELEVATION	A	B	C	D	E	F	G	H	I
PIER 1	165.419	164.420	145.880	165.594	165.414	165.234	165.054	164.874	164.694
PIER 2	164.059	163.060	146.250	164.234	164.054	163.874	163.694	163.514	163.334

* THE SPACING FOR THE TWO TOP ROWS OF LONGITUDINAL CAP REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE FOR PLACEMENT OF BEARING ANCHORS. LOCATIONS OF BEARING ANCHORS SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. TOP LONGITUDINAL CAP REINFORCING STEEL SHALL BE LOCATED PRIOR TO DRILLING OF BEARING ANCHOR HOLES TO AVOID CUTTING OF BARS.

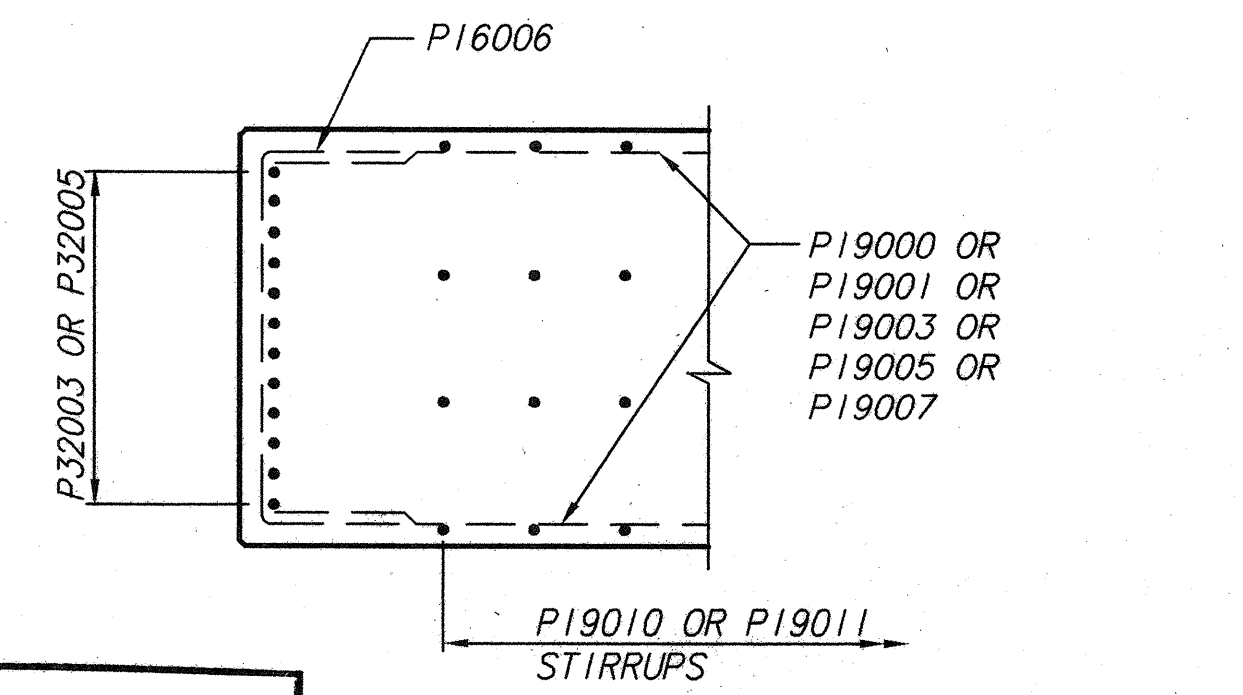


NOTES:

- FOR FOOTING, PILE LAYOUT AND END VIEW, SEE SHEETS 14, 23, AND 24.
- FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
- FOR BEARING DETAILS, SEE SHEETS 48 AND 49.
- ALL REINFORCING SHALL HAVE A 50 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE.
- BEARING SURFACE OF PEDESTALS SHALL BE LEVEL.
- BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BEARING PEDESTAL SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- FOR PEDESTAL AND CHAMFER DETAILS, SEE SHEET 27.
- PIERS 1 AND 2 SHALL BE BUILT UNDER STAGE I AND STAGE III CONSTRUCTION.
- E.F. DENOTES EACH FACE.
- FOR SEALING OF CONCRETE SURFACES, SEE SHEET 27.
- FOR DOWNSPOUT DETAILS AT PIER 2, SEE DECK DRAINAGE SYSTEM DETAIL SHEETS.
- PF36000 SHALL BE SUPPORTED ON BOTTOM REINFORCING MAT OF FOOTING EXCEPT WHERE IN CONFLICT WITH PILES.



SECTION B-B



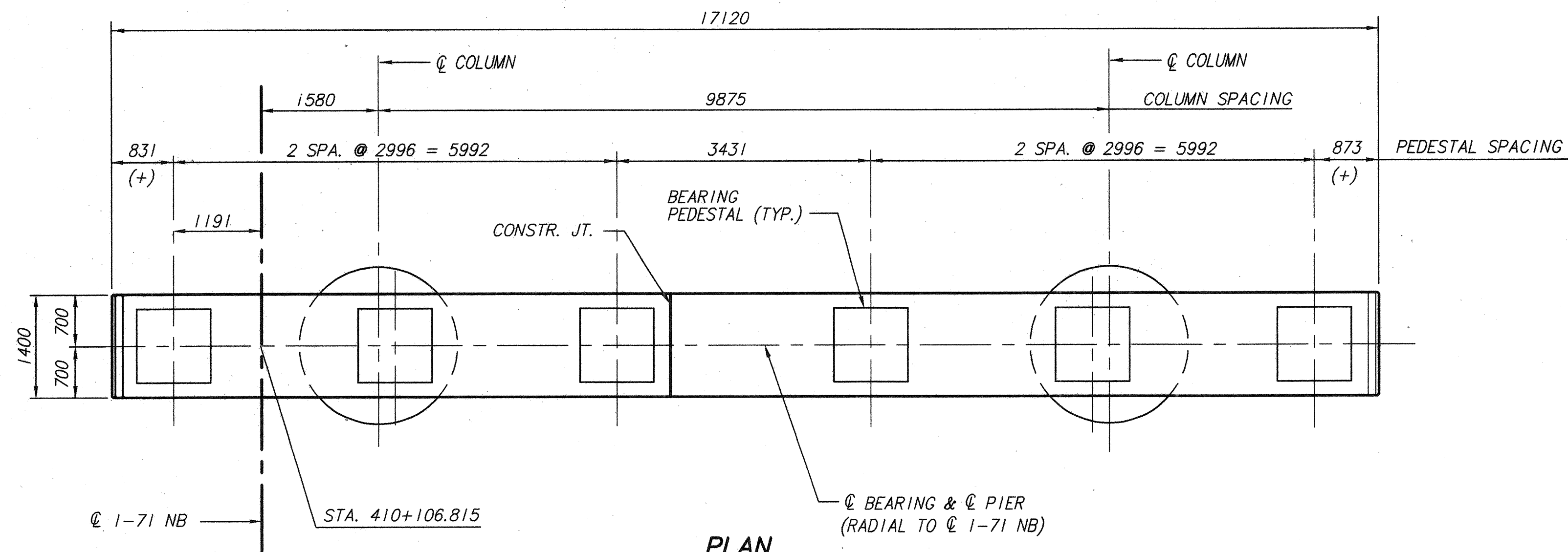
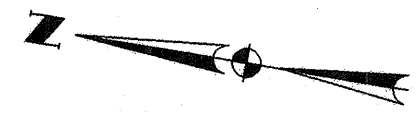
SECTION C-C

FINAL FOR CONSTRUCTION

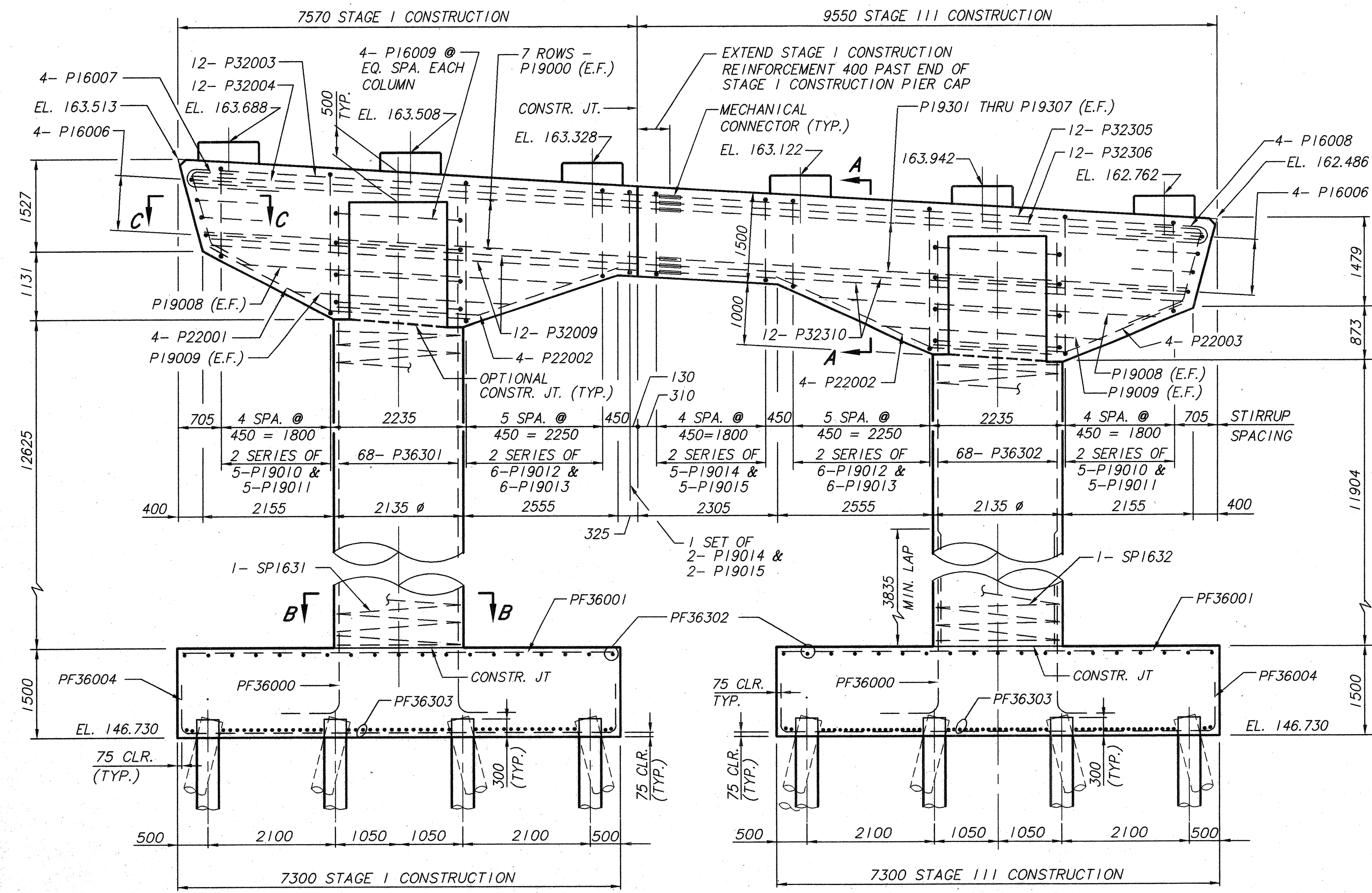
AUG 18 1998

8/18/98

BR3PD11

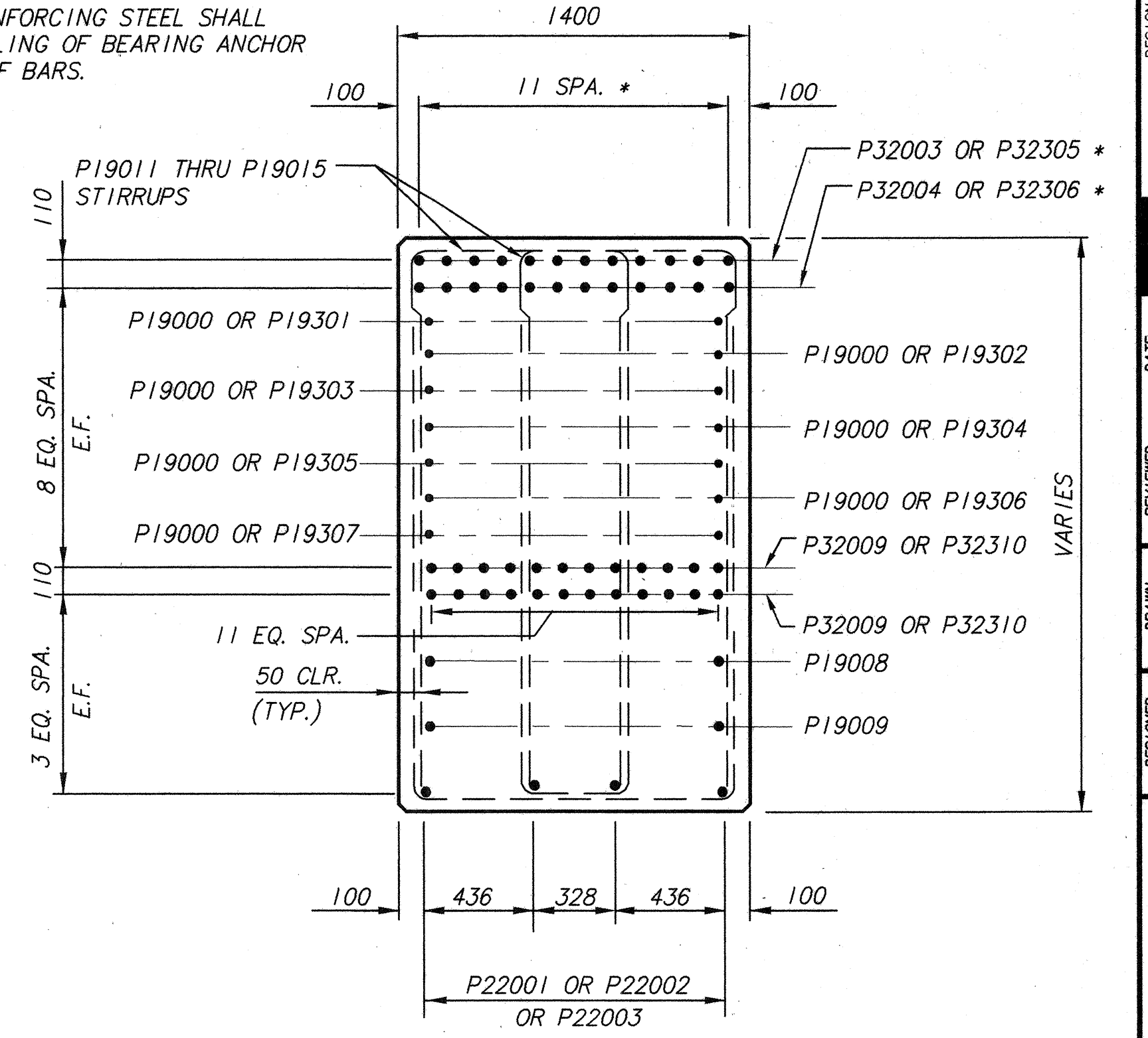


PLAN

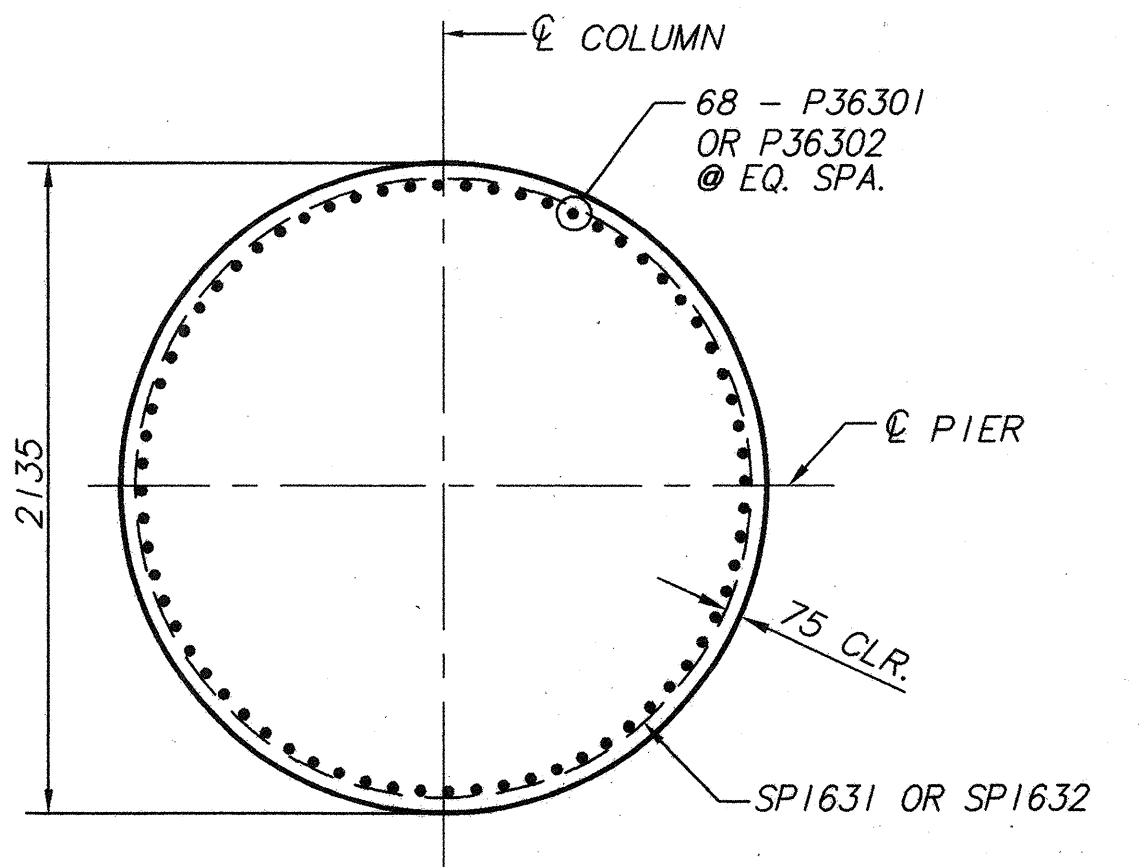


ELEVATION

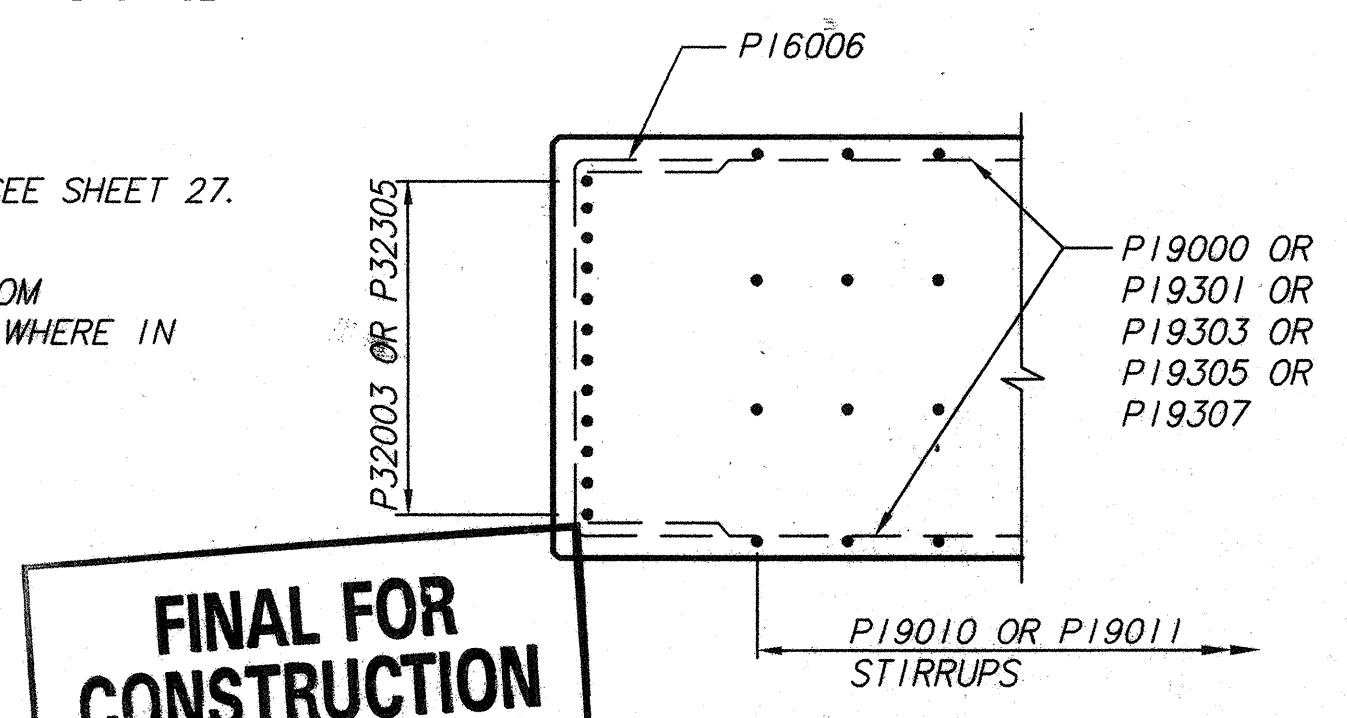
* THE SPACING FOR THE TWO TOP ROWS OF LONGITUDINAL CAP REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE FOR PLACEMENT OF BEARING ANCHORS. LOCATIONS OF BEARING ANCHORS SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. TOP LONGITUDINAL CAP REINFORCING STEEL SHALL BE LOCATED PRIOR TO DRILLING OF BEARING ANCHOR HOLES TO AVOID CUTTING OF BARS.



SECTION A-A



SECTION B-B



SECTION C-C

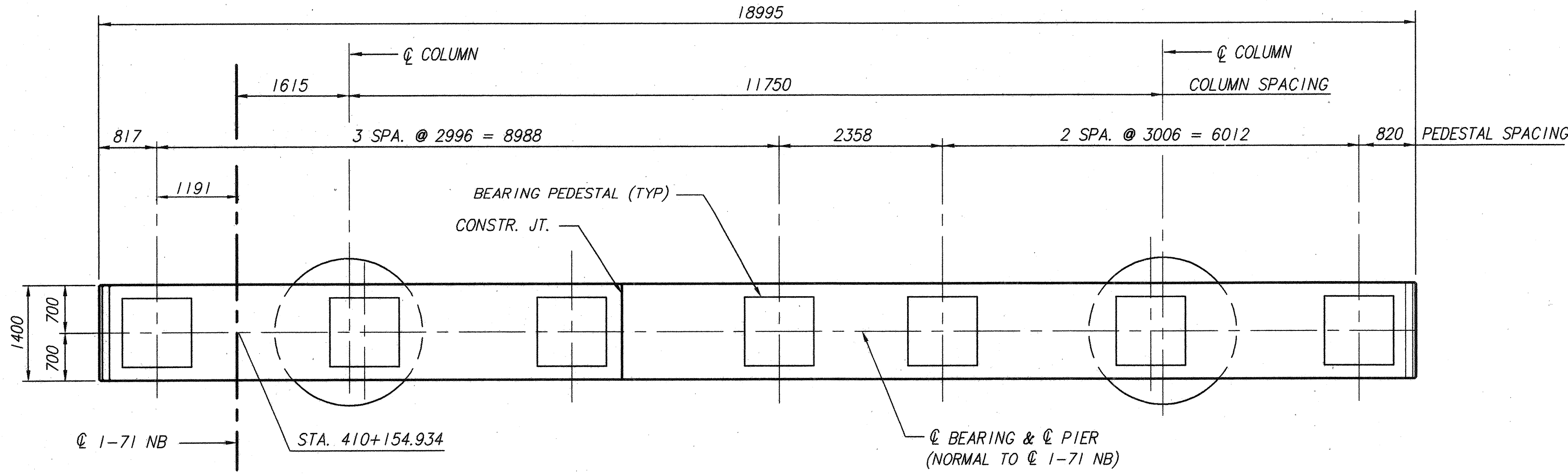
NOTES:

1. FOR FOOTING, PILE LAYOUT AND END VIEW, SEE SHEETS 14 AND 25.
2. FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
3. FOR BEARING DETAILS, SEE SHEETS 48 AND 49.
4. ALL REINFORCING SHALL HAVE A 50 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE.
5. BEARING SURFACE OF PEDESTALS SHALL BE LEVEL.
6. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BEARING PEDESTAL SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
7. FOR PEDESTAL AND CHAMFER DETAILS, SEE SHEET 27.
8. PIER 3 SHALL BE BUILT UNDER STAGE I AND STAGE III CONSTRUCTION.
9. E.F. DENOTES EACH FACE.
10. FOR SEALING OF CONCRETE SURFACES, SEE SHEET 27.
11. PF36000 SHALL BE SUPPORTED ON BOTTOM REINFORCING MAT OF FOOTING EXCEPT WHERE IN CONFLICT WITH PILES.

FINAL FOR CONSTRUCTION

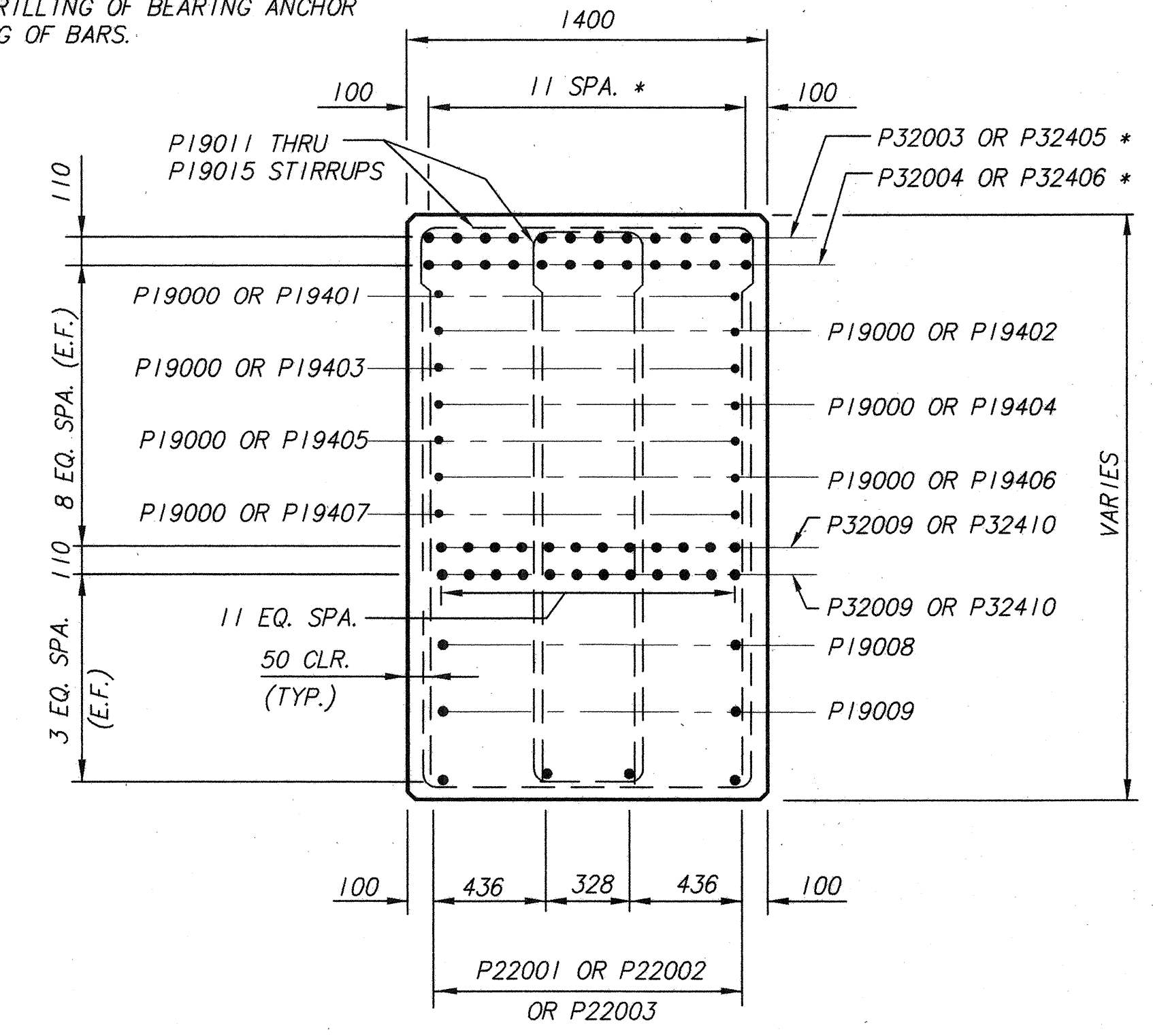
DESIGN AGENCY: **BRW HAZELT & ERDAL**
 GROUP: **ABRW COMPANY**
 DATE: **DCM**
 STRUCTURE FILE NUMBER: **BR3PD72**
 DRAWN: **RCS**
 CHECKED: **RAU**
 REVISIONS: **BR3PD72**
 PIER 3 STEM AND CAP
 1-71 NB
 BRIDGE 3
 18/64
 428
 588

BR3PD72
 8/16/98
 AUG 18 1998

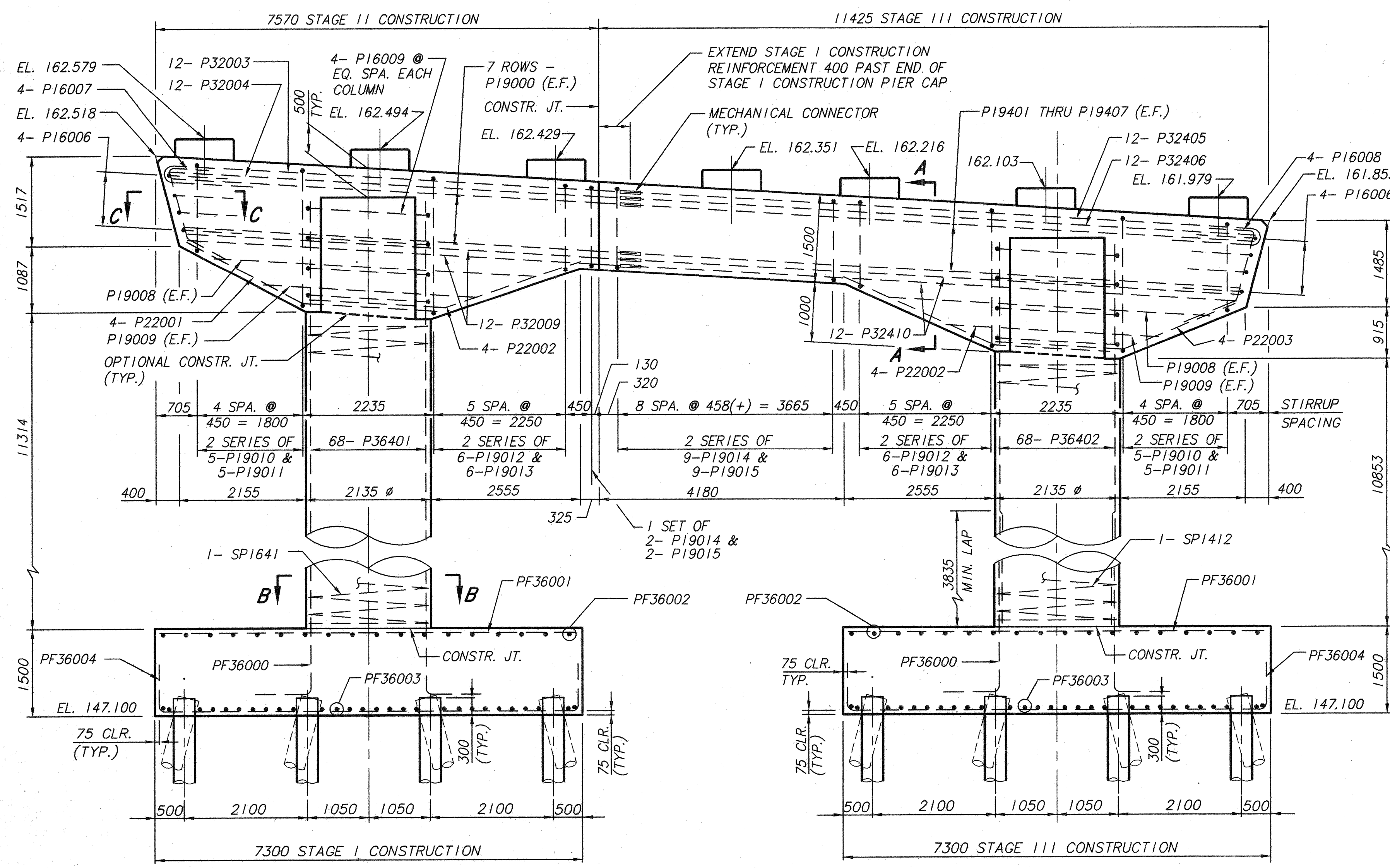


PLAN

* THE SPACING FOR THE TWO TOP ROWS OF LONGITUDINAL CAP REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE FOR PLACEMENT OF BEARING ANCHORS. LOCATIONS OF BEARING ANCHORS SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. TOP LONGITUDINAL CAP REINFORCING STEEL SHALL BE LOCATED PRIOR TO DRILLING OF BEARING ANCHOR HOLES TO AVOID CUTTING OF BARS.



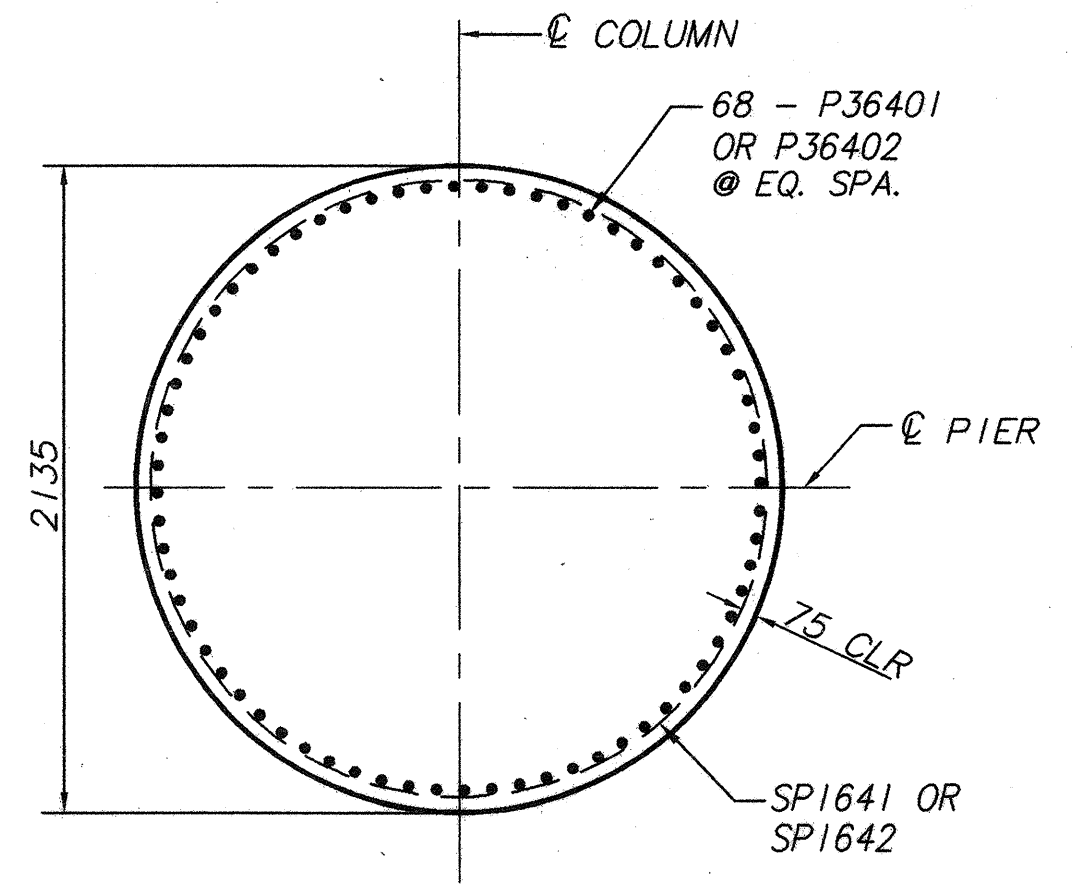
SECTION A-A



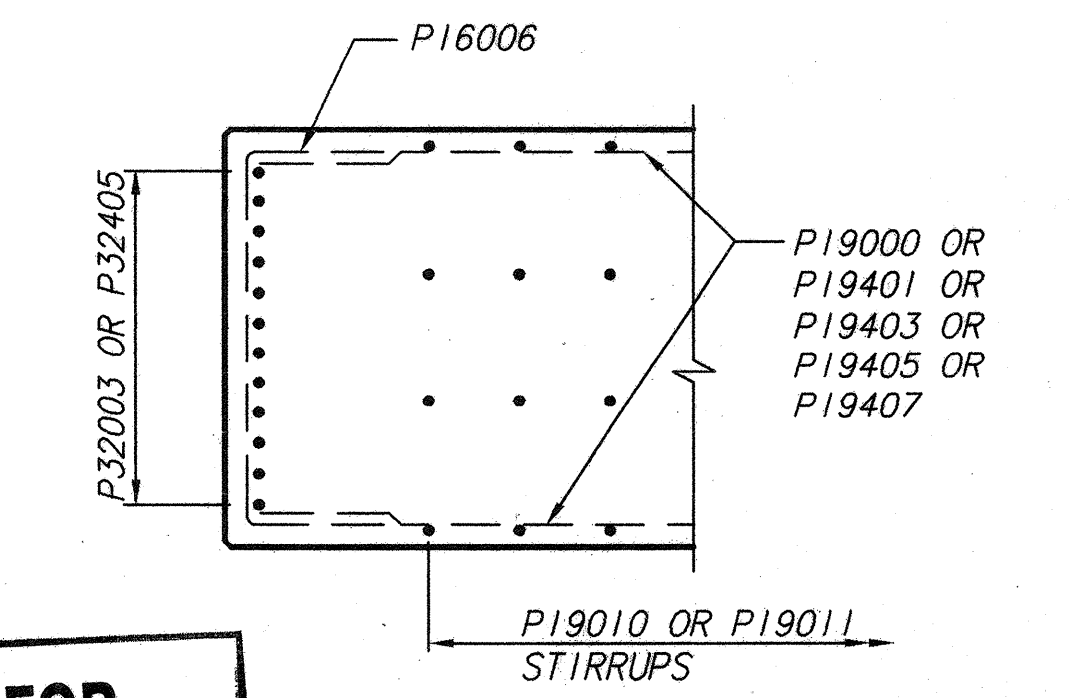
ELEVATION

NOTES:

1. FOR FOOTING, PILE LAYOUT AND END VIEW, SEE SHEETS 15 AND 23.
2. FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
3. FOR BEARING DETAILS, SEE SHEETS 48 AND 49.
4. ALL REINFORCING SHALL HAVE A 50 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE.
5. BEARING SURFACE OF PEDESTALS SHALL BE LEVEL.
6. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BEARING PEDESTAL SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
7. FOR PEDESTAL AND CHAMFER DETAILS, SEE SHEET 27.
8. PIER 4 SHALL BE BUILT UNDER STAGE II AND STAGE III CONSTRUCTION.
9. E.F. DENOTES EACH FACE.
10. FOR SEALING OF CONCRETE SURFACES, SEE SHEET 27.
11. FOR DOWNSPOUT DETAILS, SEE DECK DRAINAGE SYSTEM DETAIL SHEETS.
12. PF36000 SHALL BE SUPPORTED ON BOTTOM REINFORCING MAT OF FOOTING EXCEPT WHERE IN CONFLICT WITH PILES.



SECTION B-B



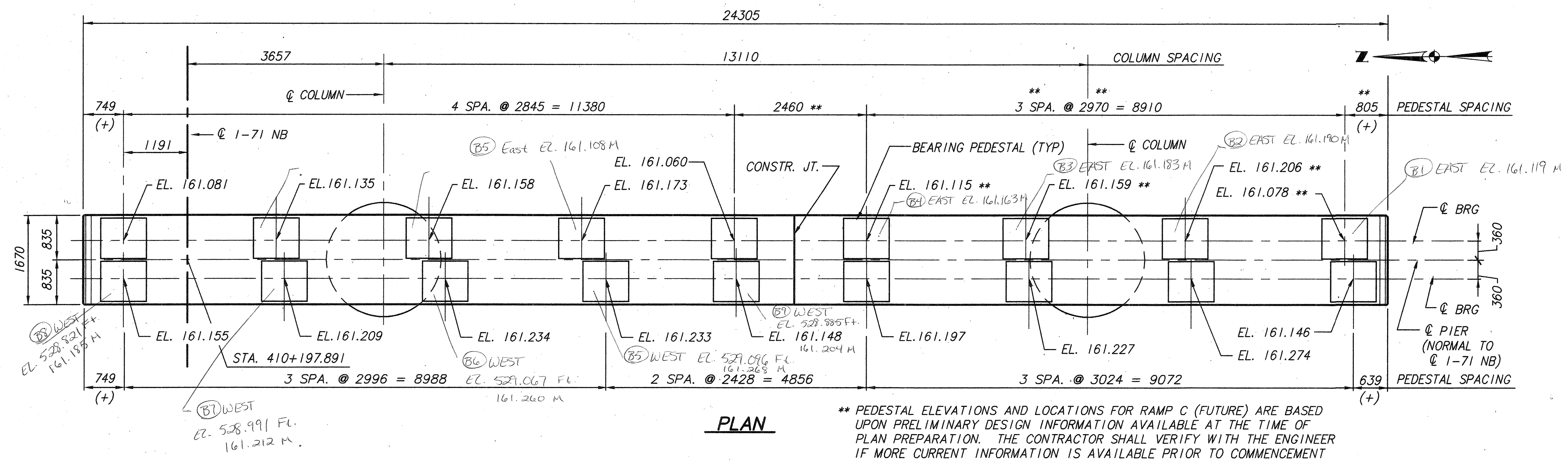
SECTION C-C

FINAL FOR CONSTRUCTION

DESIGN AGENCY: **BRW HAZELLET & ERDAL**
 A BRW COMPANY
 DATE: _____
 REVIEWED: _____
 DRAWN: _____
 DESIGNED: _____
 STRUCTURE FILE NUMBER: **BR-3PD13**
 GROUP: _____
 PIER 4 STEM AND CAP
 I-71 NB
 BRIDGE 3
 19/64
 429
 588

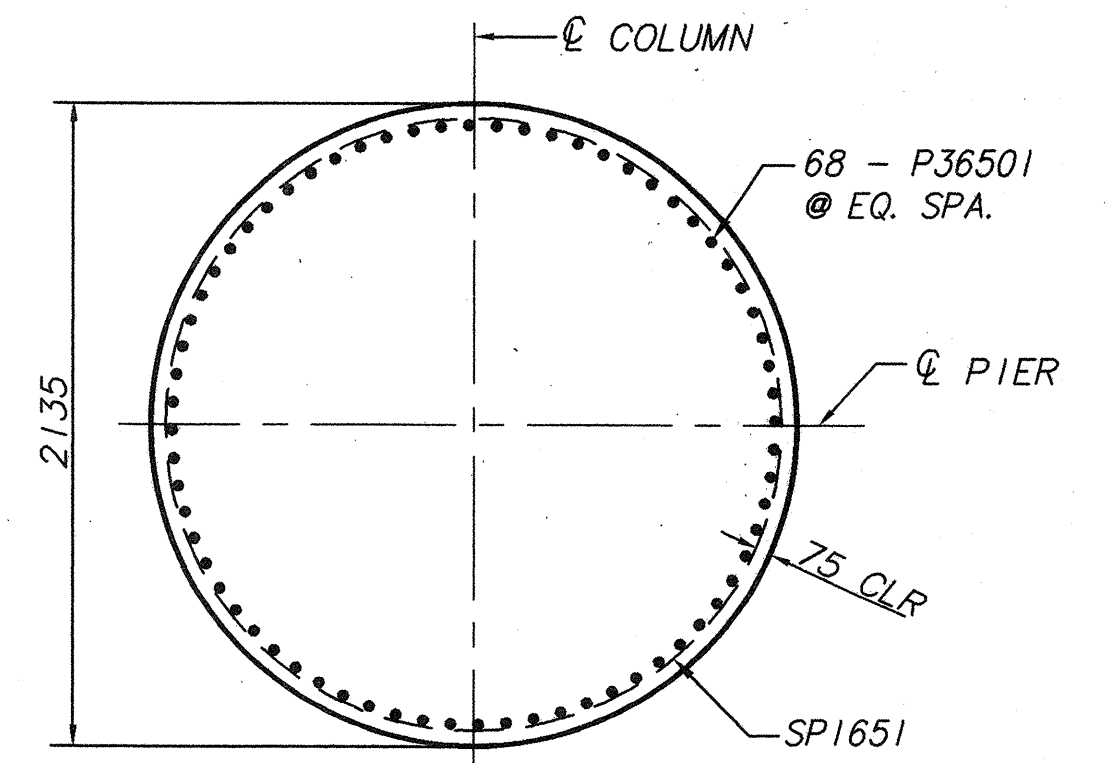
AUG 18 1998

6/16/98 BR-3PD13

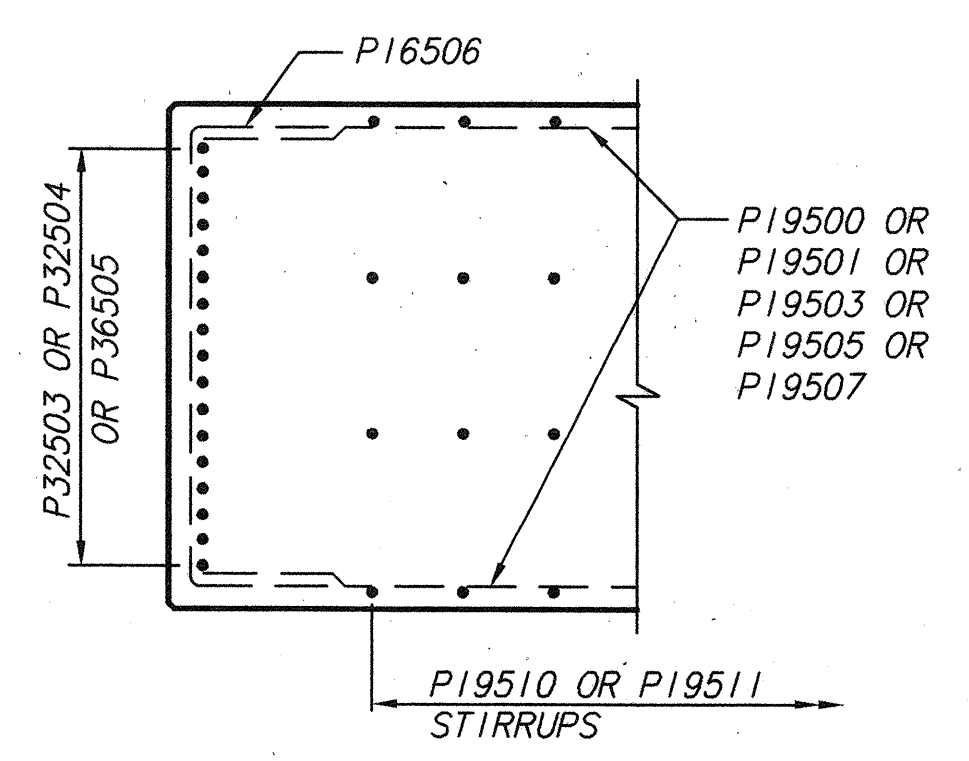


PLAN

** PEDESTAL ELEVATIONS AND LOCATIONS FOR RAMP C (FUTURE) ARE BASED UPON PRELIMINARY DESIGN INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER IF MORE CURRENT INFORMATION IS AVAILABLE PRIOR TO COMMENCEMENT OF WORK ON THE AFFECTED PEDESTALS.

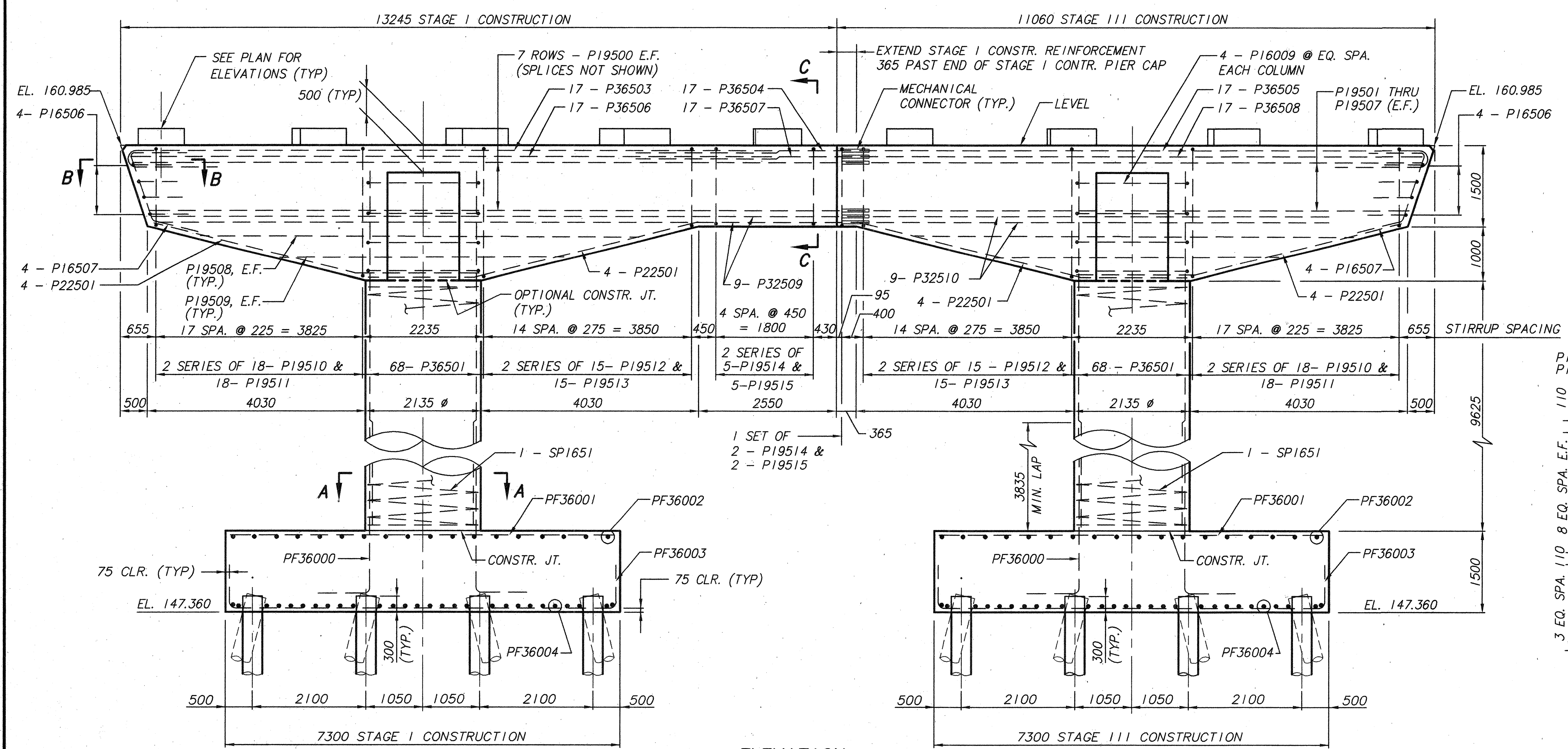


SECTION A-A

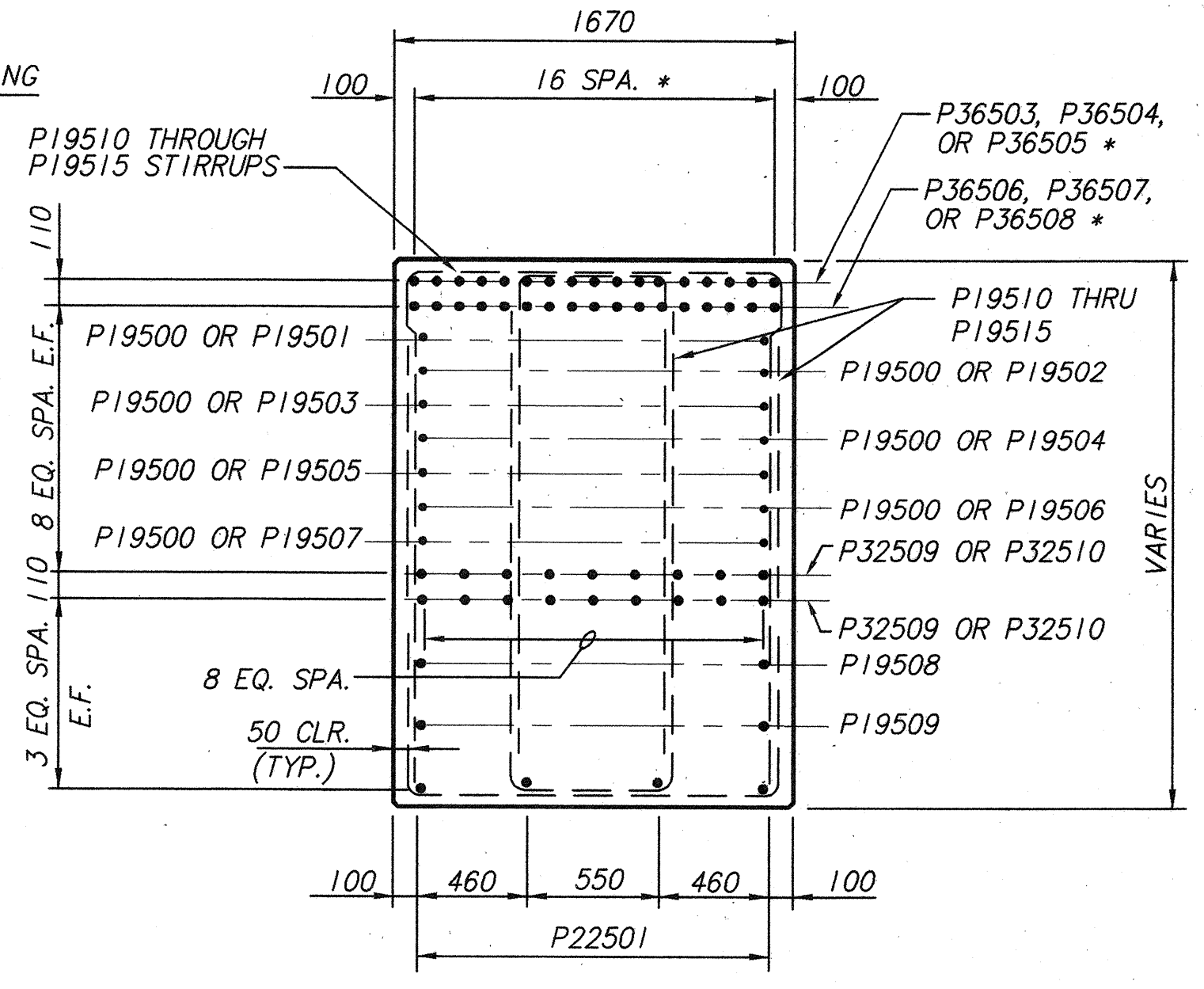


SECTION B-B

* THE SPACING FOR THE TWO TOP ROWS OF LONGITUDINAL CAP REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE FOR PLACEMENT OF BEARING ANCHORS. LOCATIONS OF BEARING ANCHORS SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. TOP LONGITUDINAL CAP REINFORCING STEEL SHALL BE LOCATED PRIOR TO DRILLING OF BEARING ANCHOR HOLES TO AVOID CUTTING OF BARS.



ELEVATION



SECTION C-C

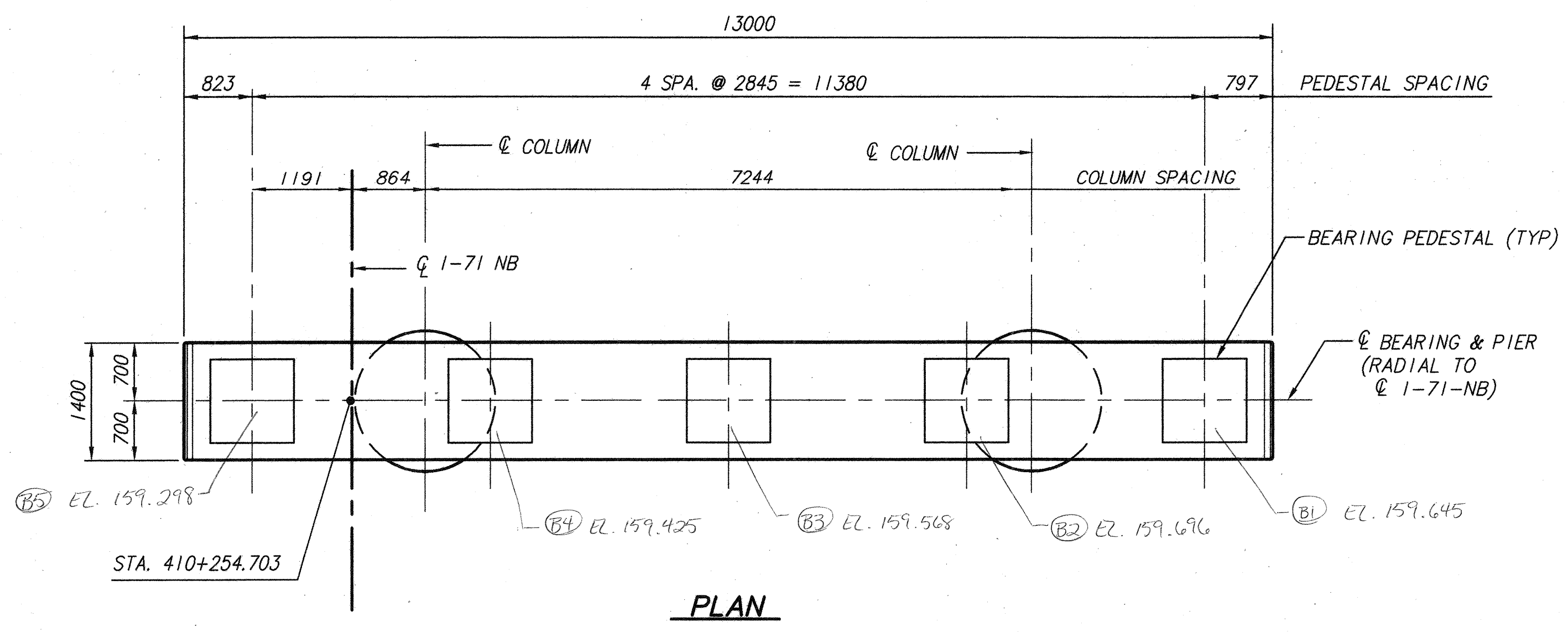
NOTES:

- FOR FOOTING, PILE LAYOUT AND END VIEW, SEE SHEETS 15 AND 23.
- FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
- FOR BEARING DETAILS, SEE SHEETS 48 AND 49.
- ALL REINFORCING SHALL HAVE A 50 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE.
- BEARING SURFACE OF PEDESTALS SHALL BE LEVEL.
- BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BEARING PEDESTAL SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- FOR PEDESTAL AND CHAMFER DETAILS, SEE SHEET 27.
- PIER NO. 5 SHALL BE BUILT UNDER STAGE I AND STAGE III CONSTRUCTION.
- E.F. DENOTES EACH FACE.
- FOR SEALING OF CONCRETE SURFACES, SEE SHEET 27.
- FOR DOWNSPOUT DETAILS, SEE DECK DRAINAGE SYSTEM DETAIL SHEETS.
- PF36000 SHALL BE SUPPORTED ON BOTTOM REINFORCING MAT OF FOOTING EXCEPT WHERE IN CONFLICT WITH PILES.

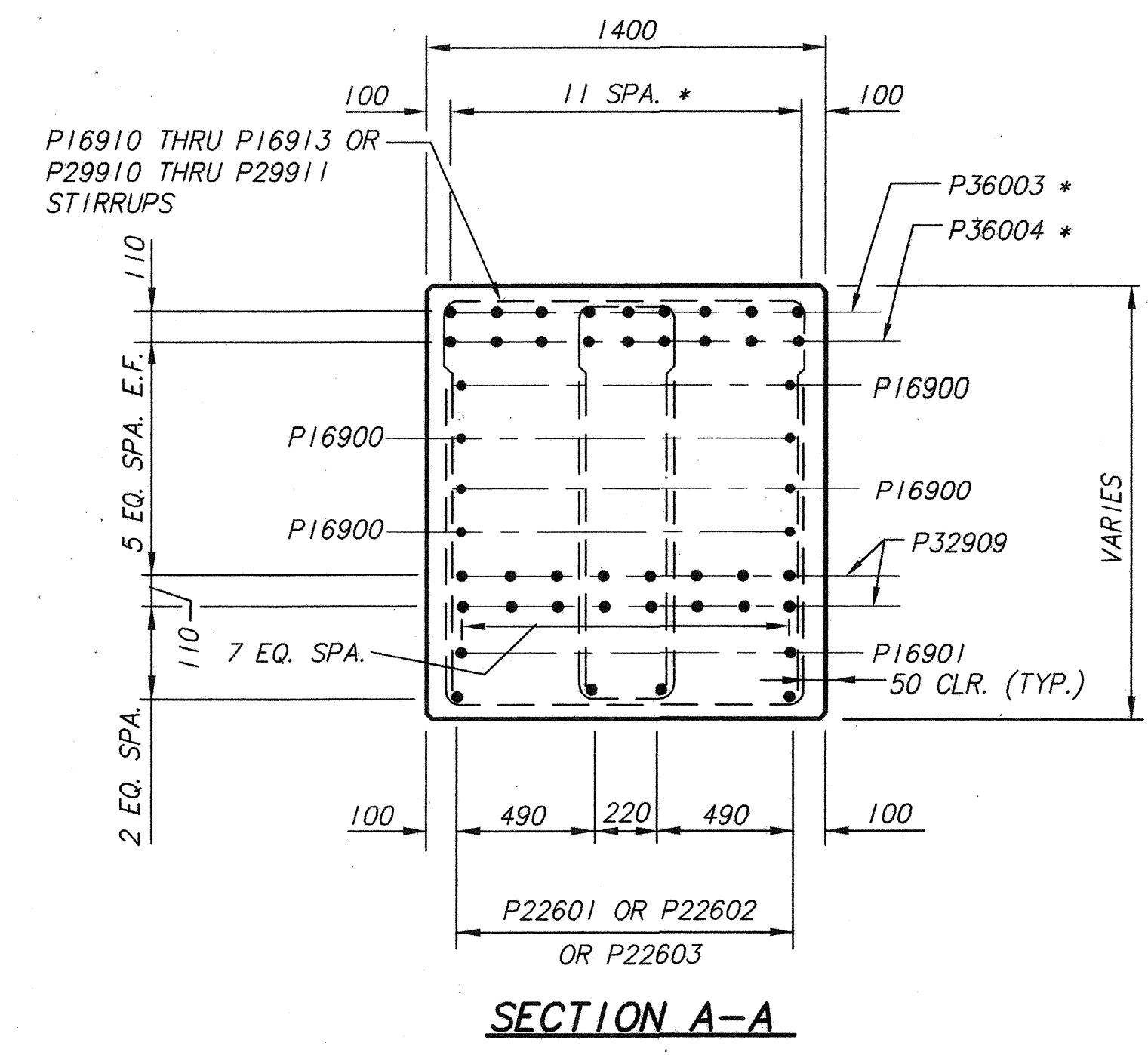
FINAL FOR CONSTRUCTION

AUG 18 1998

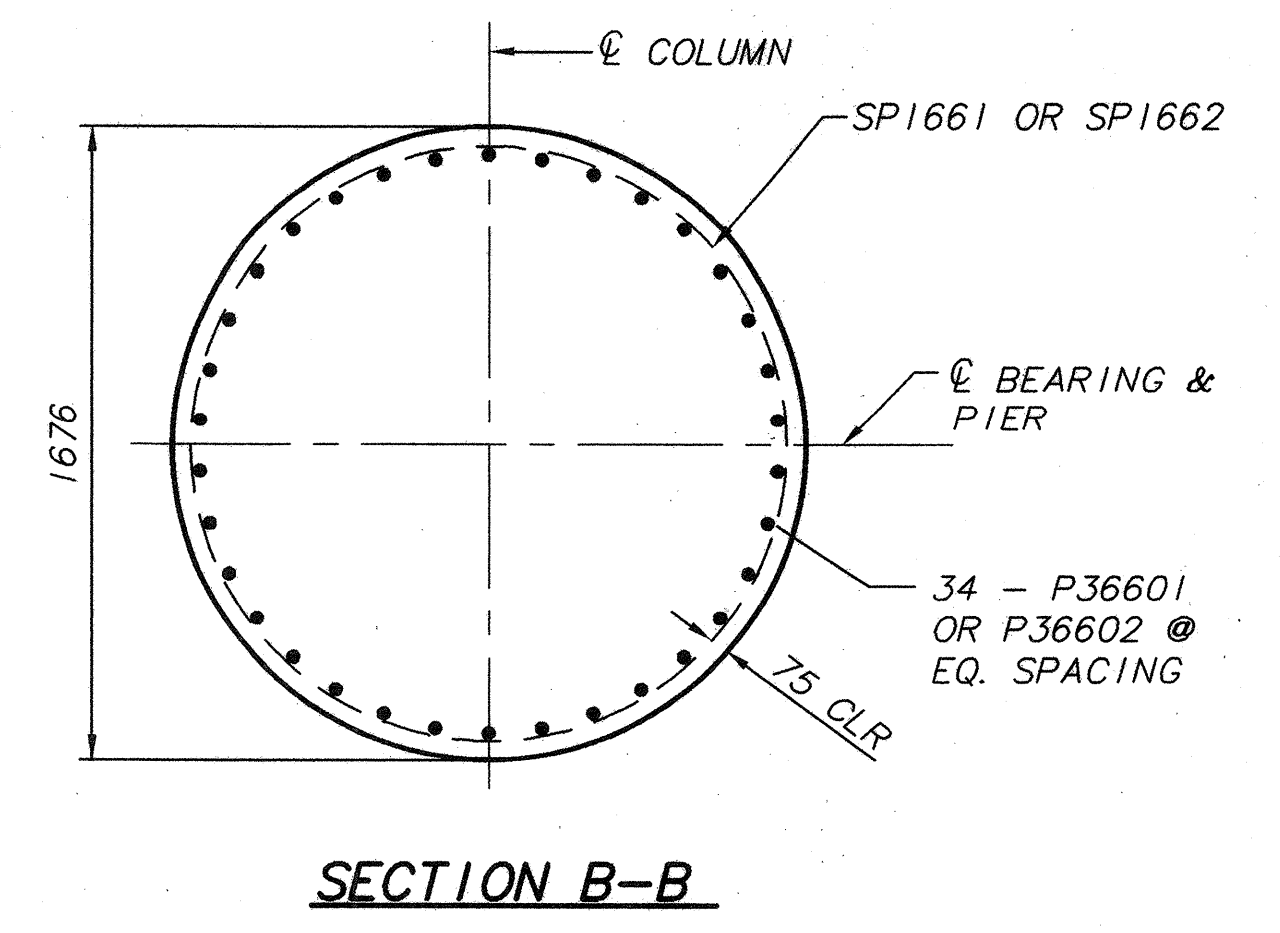
BRW3PD74



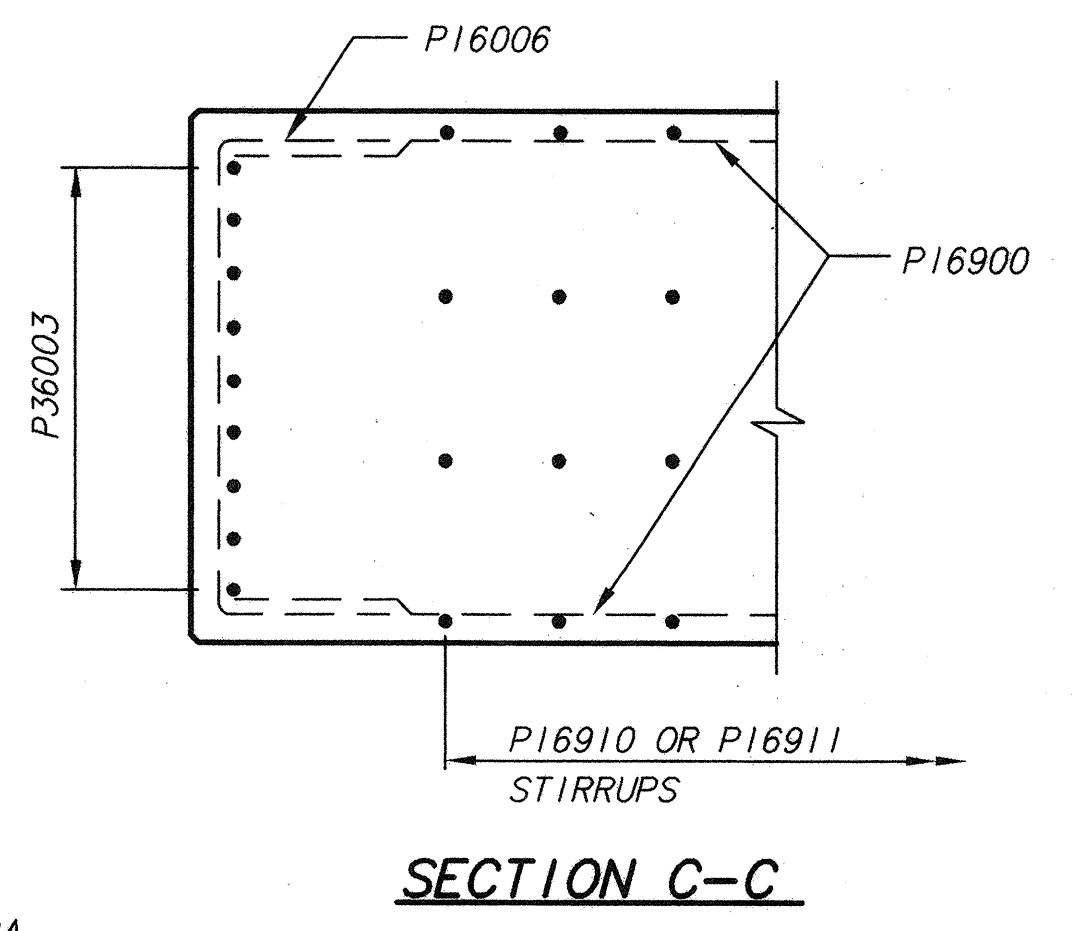
PLAN



SECTION A-A

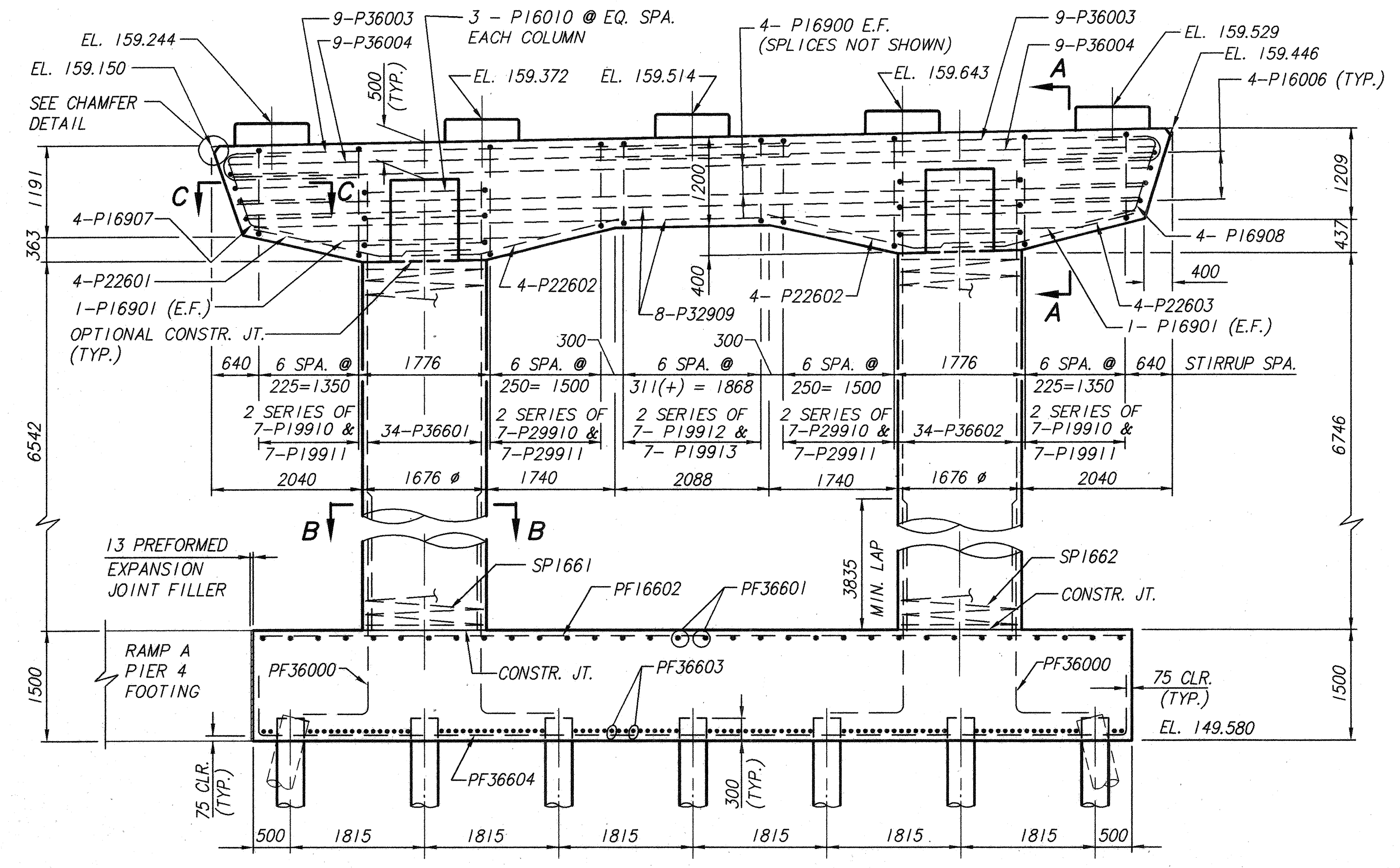


SECTION B-B

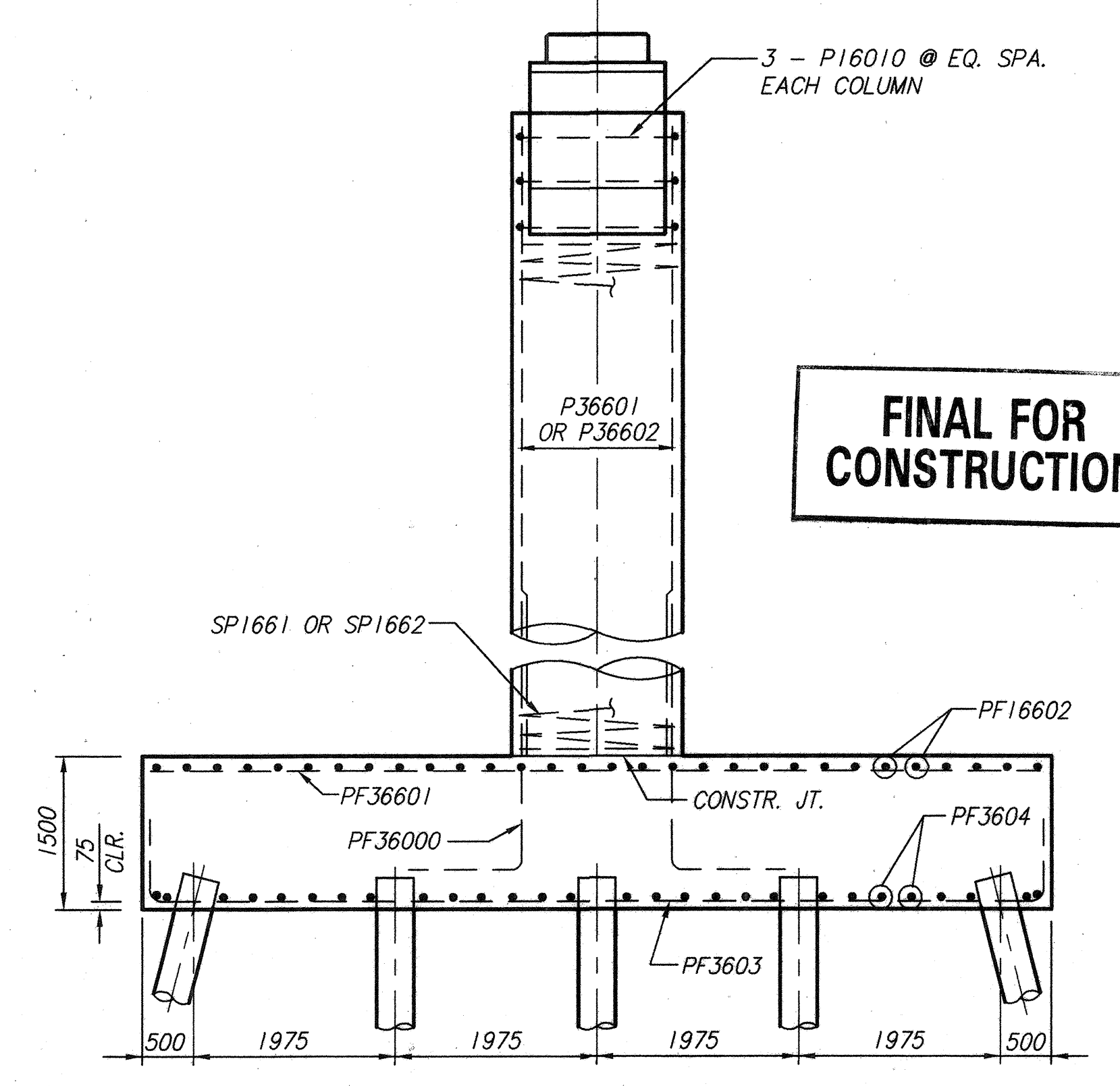


SECTION C-C

* THE SPACING FOR THE TWO TOP ROWS OF LONGITUDINAL CAP REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE FOR PLACEMENT OF BEARING ANCHORS. LOCATIONS OF BEARING ANCHORS SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. TOP LONGITUDINAL CAP REINFORCING STEEL SHALL BE LOCATED PRIOR TO DRILLING OF BEARING ANCHOR HOLES TO AVOID CUTTING OF BARS.



ELEVATION



END VIEW

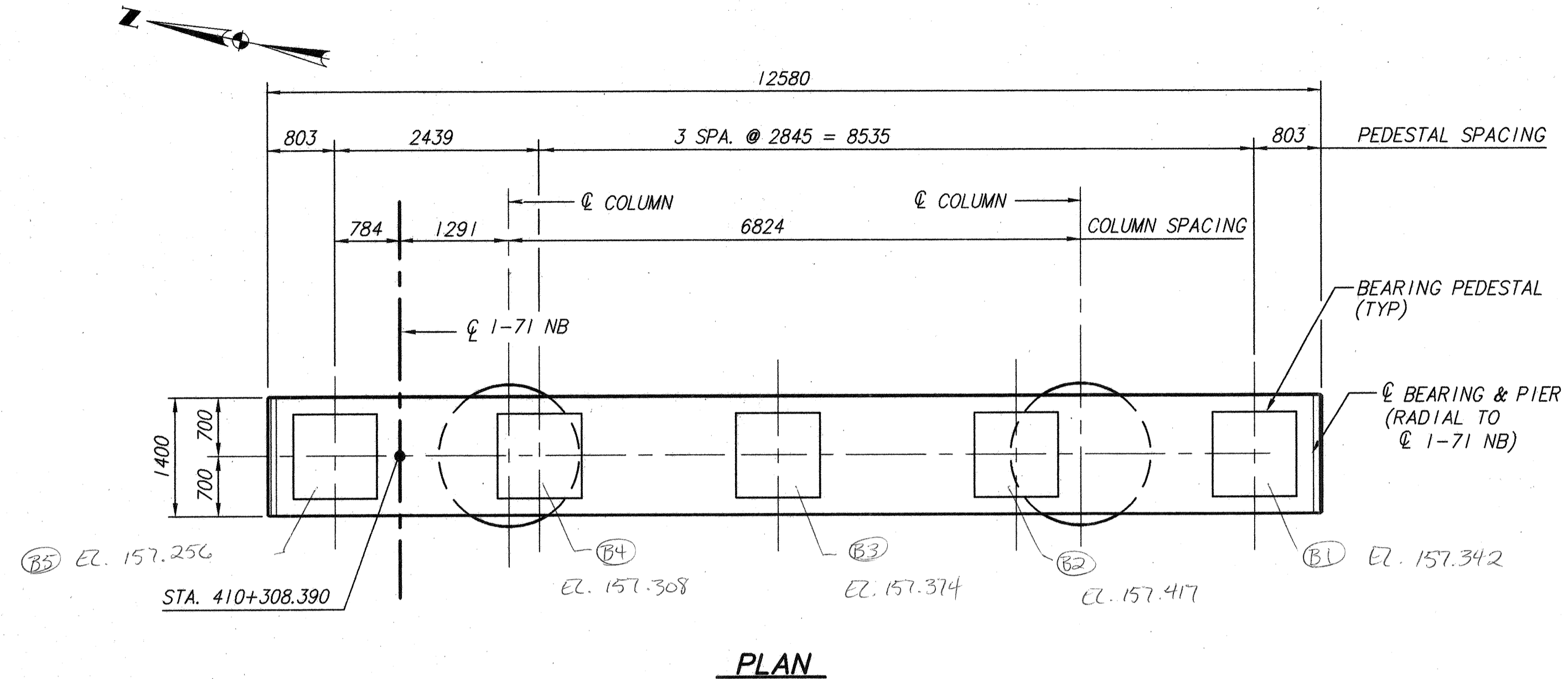
FINAL FOR CONSTRUCTION

NOTES:

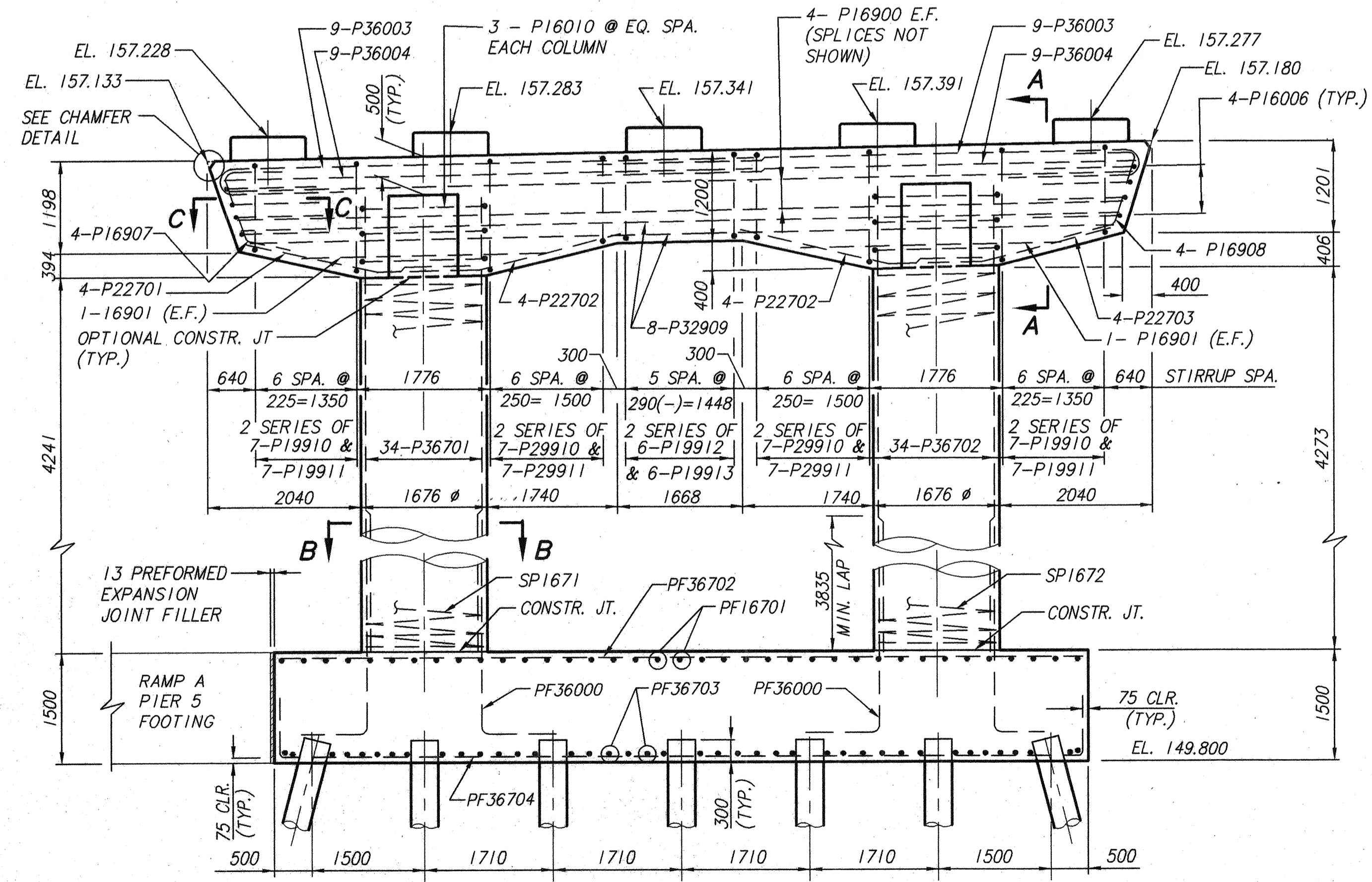
1. FOR FOOTING AND PILE LAYOUT, SEE SHEETS 16 AND 26.
2. FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
3. FOR BEARING DETAILS, SEE SHEETS 48 AND 49.
4. ALL REINFORCING SHALL HAVE A 50 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE.
5. BEARING PEDESTALS ARE TO BE LEVEL.
6. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BEARING PEDESTAL SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
7. FOR PEDESTAL AND CHAMFER DETAILS, SEE SHEET 27.
8. PIER NO. 6 SHALL BE BUILT UNDER STAGE 1 CONSTRUCTION.
9. E.F. DENOTES EACH FACE.
10. FOR SEALING OF CONCRETE SURFACES, SEE SHEET 27.
11. FOR DOWNSPOUT DETAILS, SEE DECK DRAINAGE SYSTEM DETAIL SHEETS.
12. PF36000 SHALL BE SUPPORTED ON BOTTOM REINFORCING MAT OF FOOTING EXCEPT WHERE IN CONFLICT WITH PILES.

AUG 18 1998

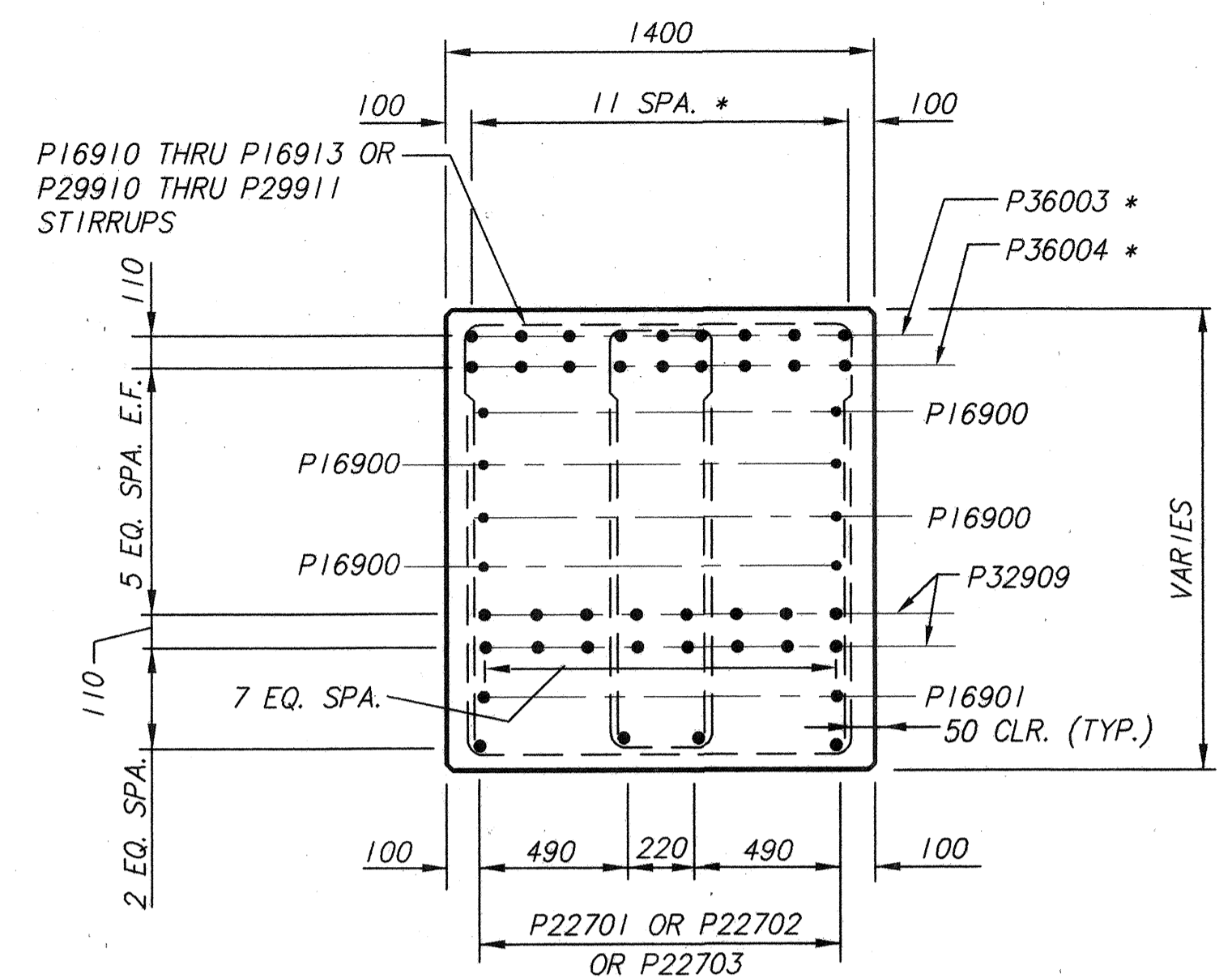
BR/3075



PLAN

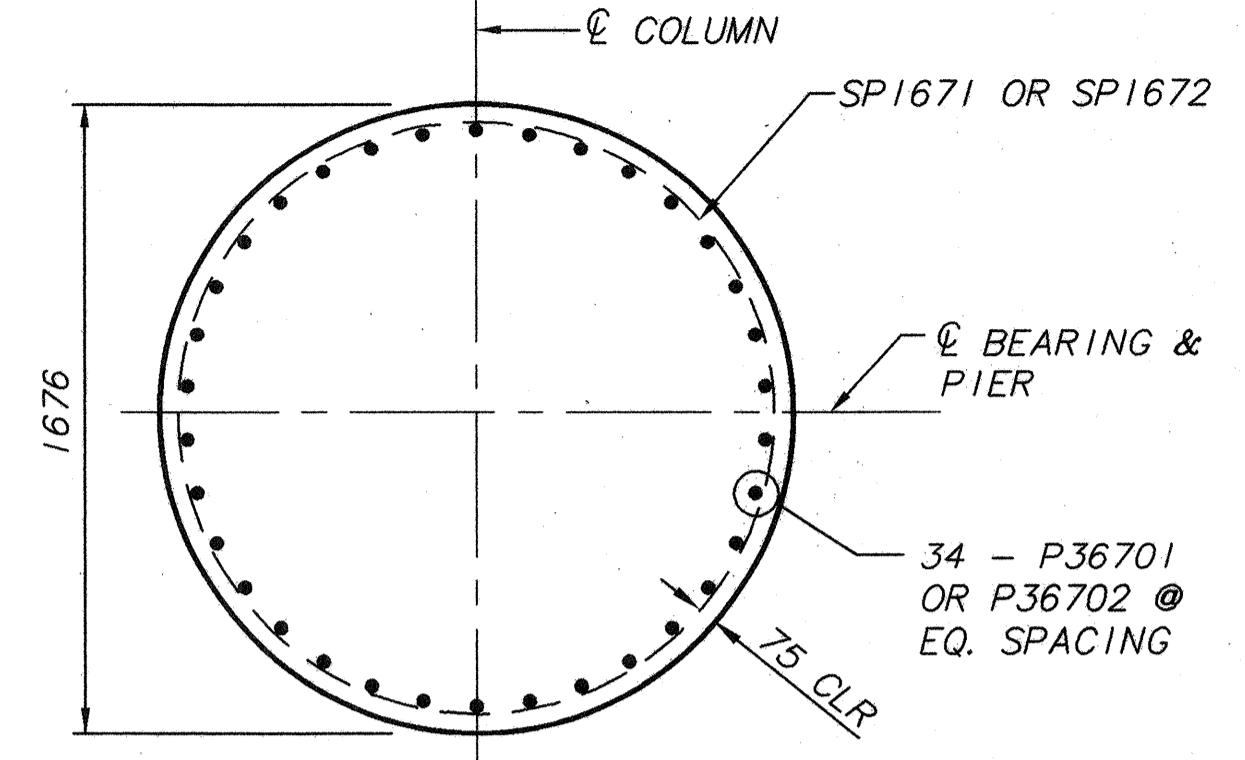


ELEVATION

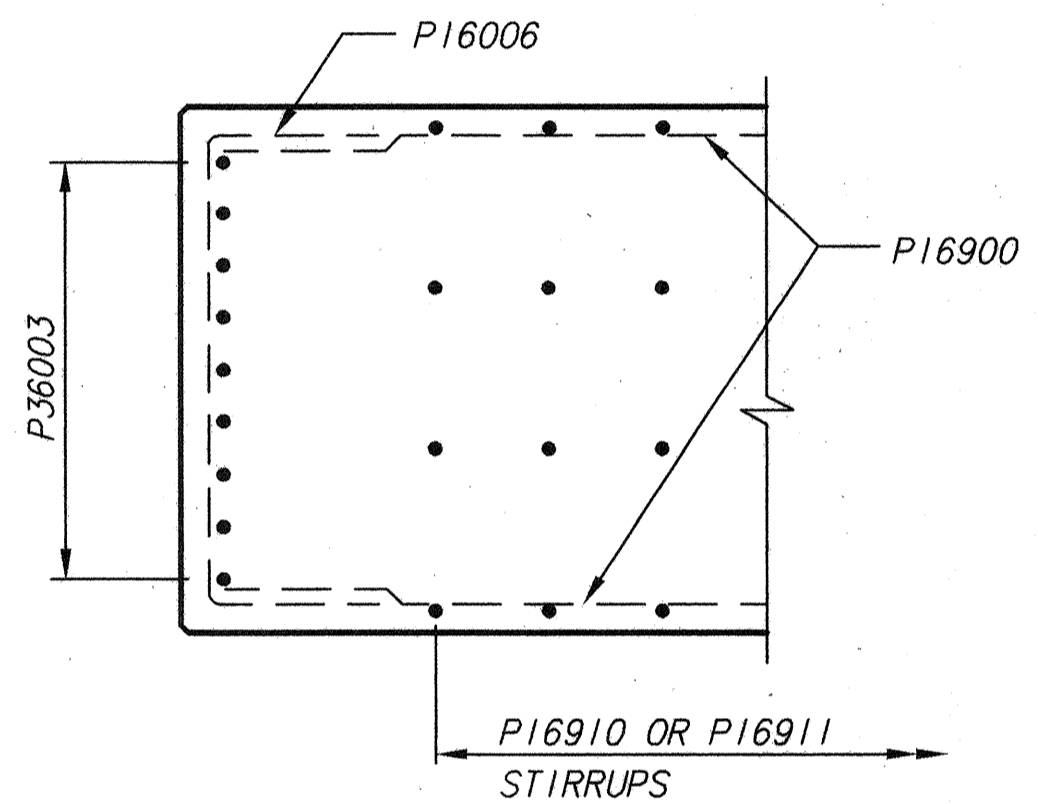


SECTION A-A

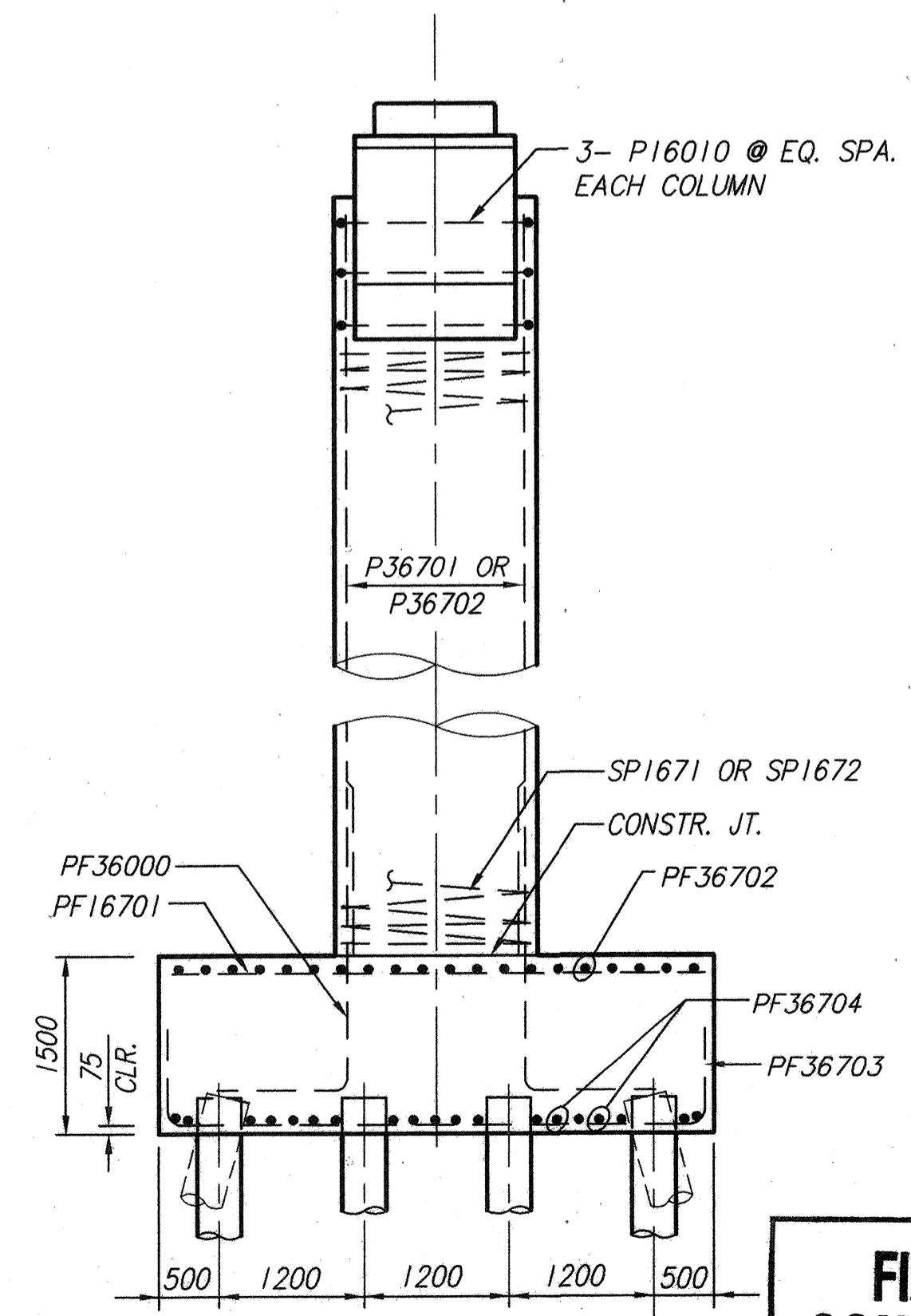
* THE SPACING FOR THE TWO TOP ROWS OF LONGITUDINAL CAP REINFORCING STEEL SHALL BE ADJUSTED TO PROVIDE FOR PLACEMENT OF BEARING ANCHORS. LOCATIONS OF BEARING ANCHORS SHALL BE COORDINATED WITH THE BEARING MANUFACTURER. TOP LONGITUDINAL CAP REINFORCING STEEL SHALL BE LOCATED PRIOR TO DRILLING OF BEARING ANCHOR HOLES TO AVOID CUTTING OF BARS.



SECTION B-B



SECTION C-C



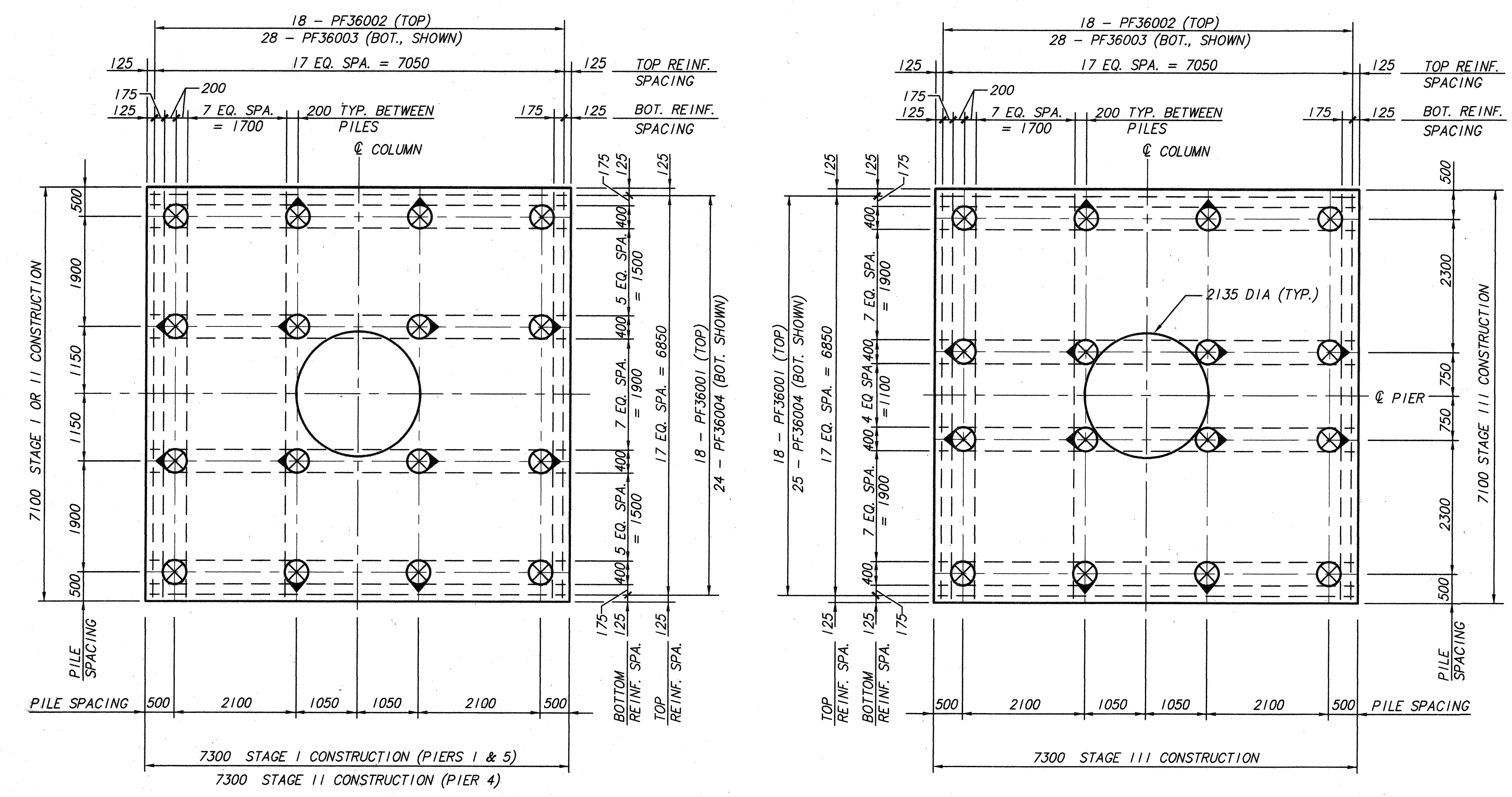
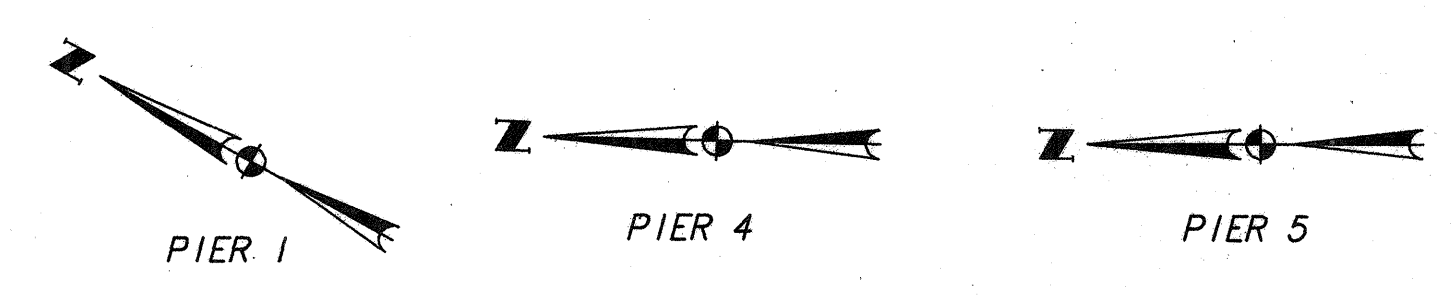
END VIEW

FINAL FOR CONSTRUCTION

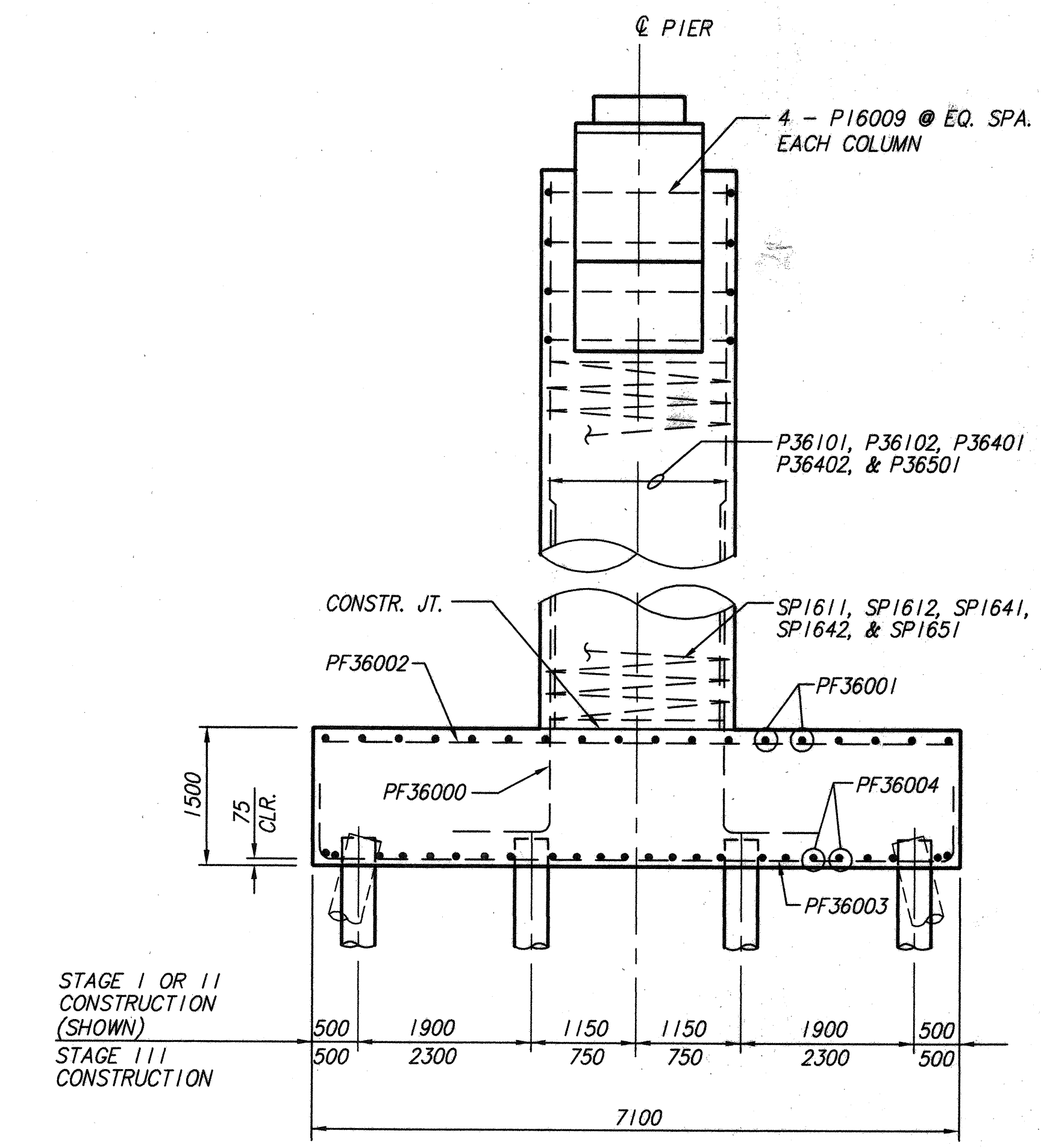
- NOTES:**
1. FOR FOOTING AND PILE LAYOUT, SEE SHEETS 16 AND 26.
 2. FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
 3. FOR BEARING DETAILS, SEE SHEETS 48 AND 49.
 4. ALL REINFORCING SHALL HAVE A 50 MINIMUM CLEAR COVER, UNLESS NOTED OTHERWISE.
 5. BEARING PEDESTALS ARE TO BE LEVEL.
 6. BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BEARING PEDESTALS SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
 7. FOR PEDESTAL AND CHAMFER DETAILS, SEE SHEET 27.
 8. PIER NO. 7 SHALL BE BUILT UNDER STAGE 1 CONSTRUCTION.
 9. E.F. DENOTES EACH FACE.
 10. FOR SEALING OF CONCRETE SURFACES, SEE SHEET 27.
 11. PF36000 SHALL BE SUPPORTED ON BOTTOM REINFORCING MAT OF FOOTING EXCEPT WHERE IN CONFLICT WITH PILES.

AUG 18 1998

BRW HAZELET & ERDAL



FOOTING PLAN - PIERS 1, 4, & 5



END VIEW

NOTES:

1. WORK THIS SHEET WITH SHEETS 14,15,17,19, & 20.
2. FOR REINFORCING STEEL BAR LIST SEE SHEETS 28 THROUGH 31.
3. PILE DESIGN LOADS (SAFE BEARING CAPACITY):
THE PILE DESIGN LOAD FOR PIERS 1, 4, & 5 IS 801 kN PER PILE.

LEGEND

- ⊗ 400 mm (801 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, VERTICAL.
- ⊗ 400 mm (801 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, BATTER FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF ARROW

FINAL FOR CONSTRUCTION

BRSPDTA 7/16/98

DESIGN AGENCY: **BRW HAZLET & ERDAL**
 GROUP: **BRW COMPANY**

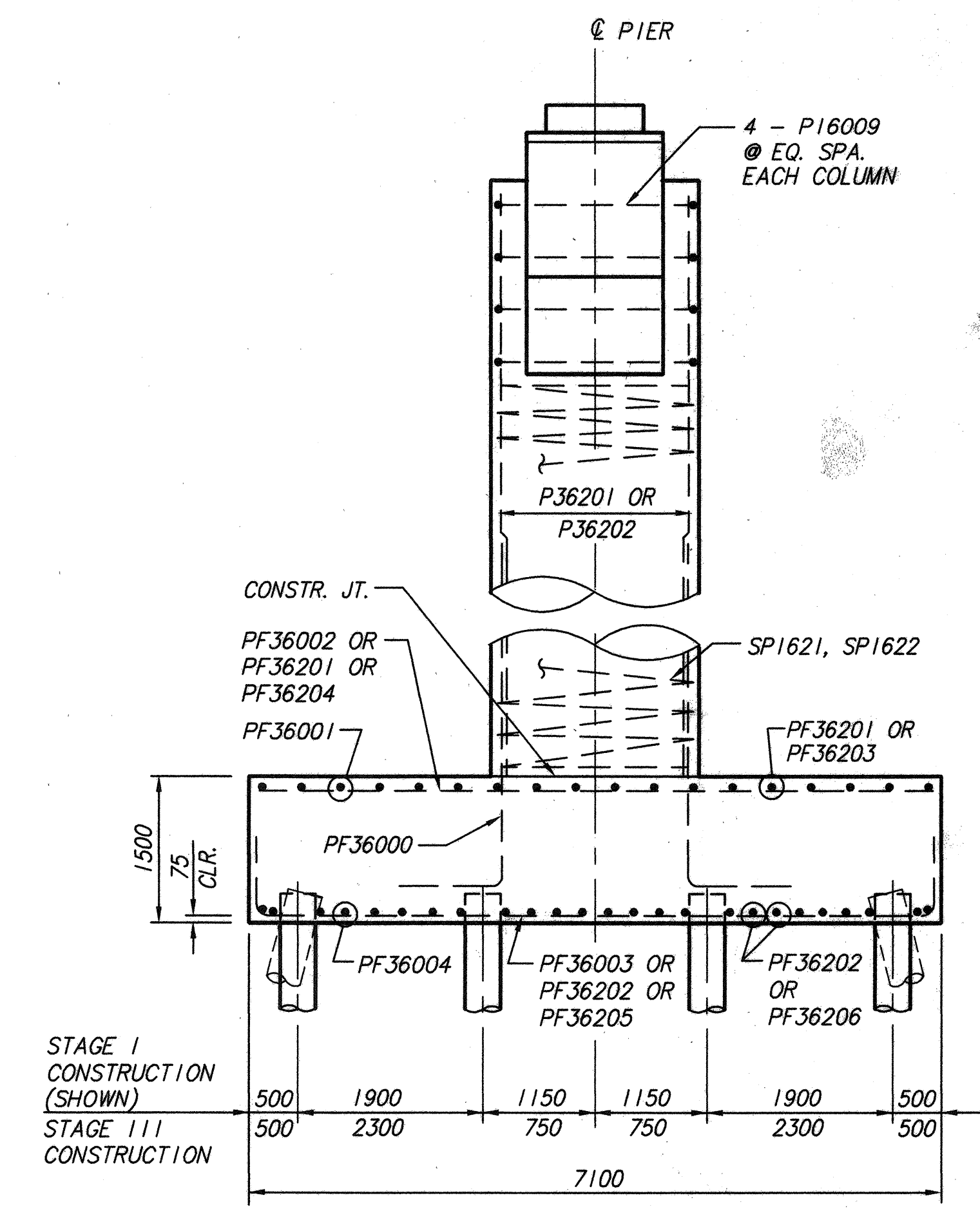
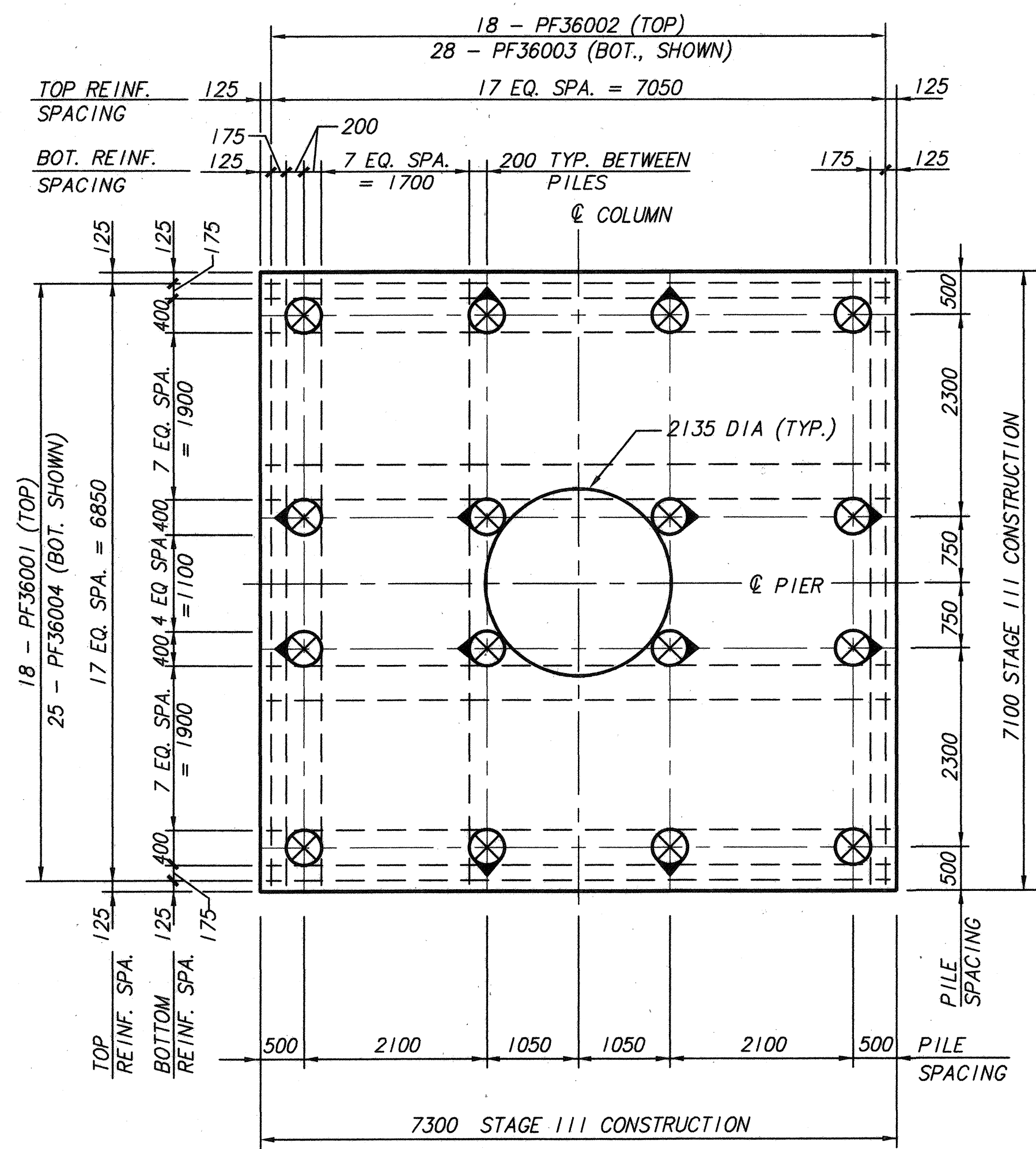
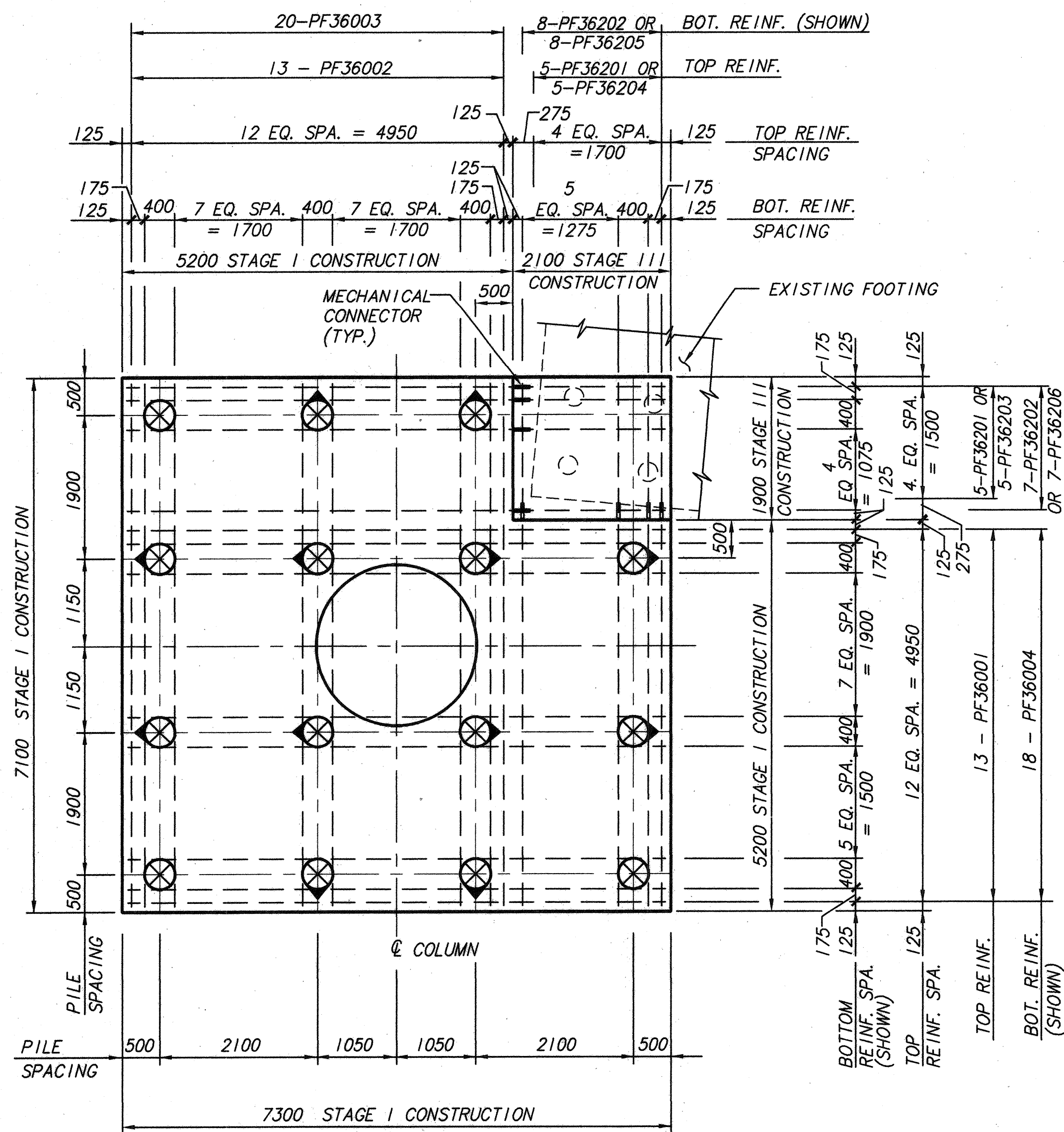
DATE	REVIEWED	DRAWN	DESIGNED
STRUCTURE FILE NUMBER	RCS	SMF	CHECKED
BR-3PDTA	RAJ		

PIERS 1, 4, & 5 FOOTING
1-71 NB

BRIDGE 3

23/64

433
588



FOOTING PLAN - PIER 2

END VIEW
(FACING NORTHWEST)

NOTES:

1. WORK THIS SHEET WITH SHEETS 14 AND 17.
2. FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
3. LOCATION OF EXISTING PIER FOOTING AND PILES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS IN FIELD PRIOR TO COMMENCEMENT OF FOOTING CONSTRUCTION AND FABRICATION OF REINFORCING STEEL.
4. EXISTING FOOTING TO BE REMOVED DURING STAGE III CONSTRUCTION. FOUR EXISTING PILES TO REMAIN AND INCORPORATED INTO STAGE III CONSTRUCTION FOOTING.
5. PILE DESIGN LOADS (SAFE BEARING CAPACITY): THE PILE DESIGN LOAD FOR PIER 2 IS 801 KN PER PILE.

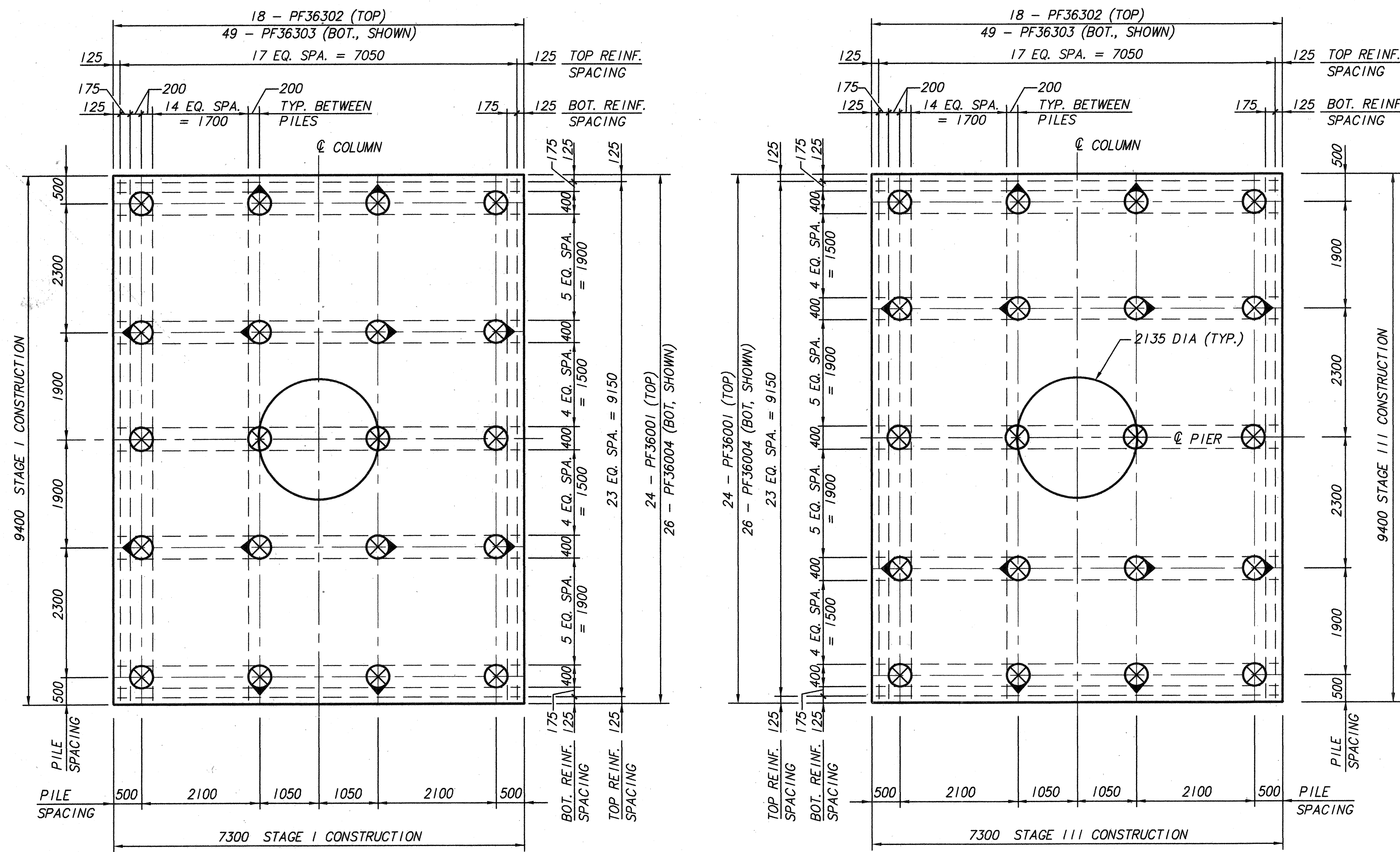
LEGEND

- 400 mm (801 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, VERTICAL.
- 400 mm (801 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, BATTER FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF ARROW

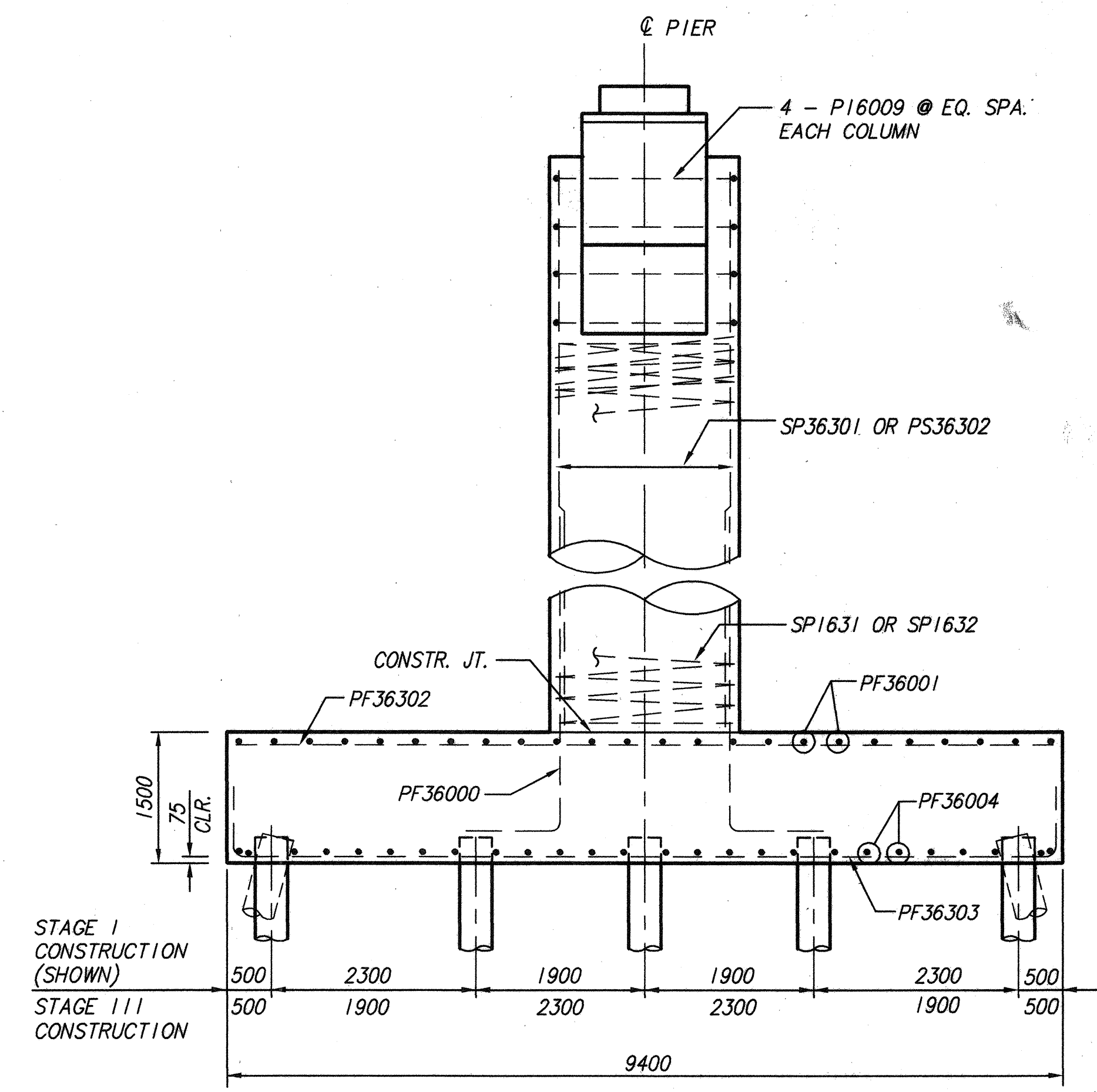
FINAL FOR CONSTRUCTION

DESIGN AGENCY: **BRW HAZELET & ERDAL**
 GROUP: **BRW COMPANY**
 DATE: _____
 STRUCTURE FILE NUMBER: **BR3PDT2A**
 DRAWN: _____
 RCS: _____
 REVISED: _____
 DESIGNED: _____
 SWF: _____
 CHECKED: **RAJ**
 PIER 2 FOOTING
 1-71 NB
 BRIDGE 3
 24/64
 434
 588

BR3PDT2A 7/16/98



FOOTING PLAN - PIER 3



END VIEW

NOTES:

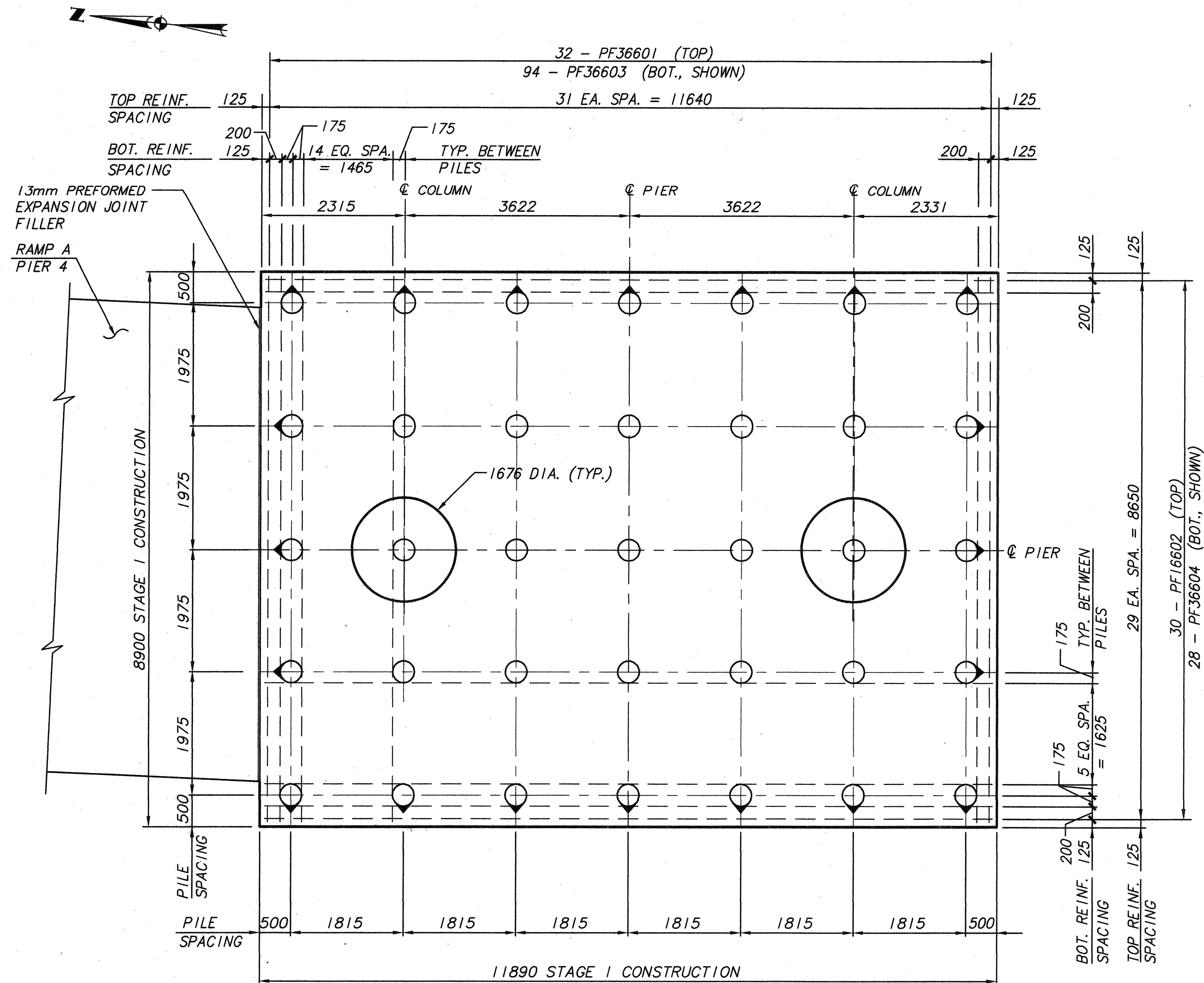
1. WORK THIS SHEET WITH SHEETS 14 & 18.
2. FOR REINFORCING STEEL BAR LIST SEE SHEETS 28 THROUGH 31.
3. PILE DESIGN LOADS (SAFE BEARING CAPACITY): THE PILE DESIGN LOAD FOR PIER 3 IS 779 kN PER PILE.

LEGEND

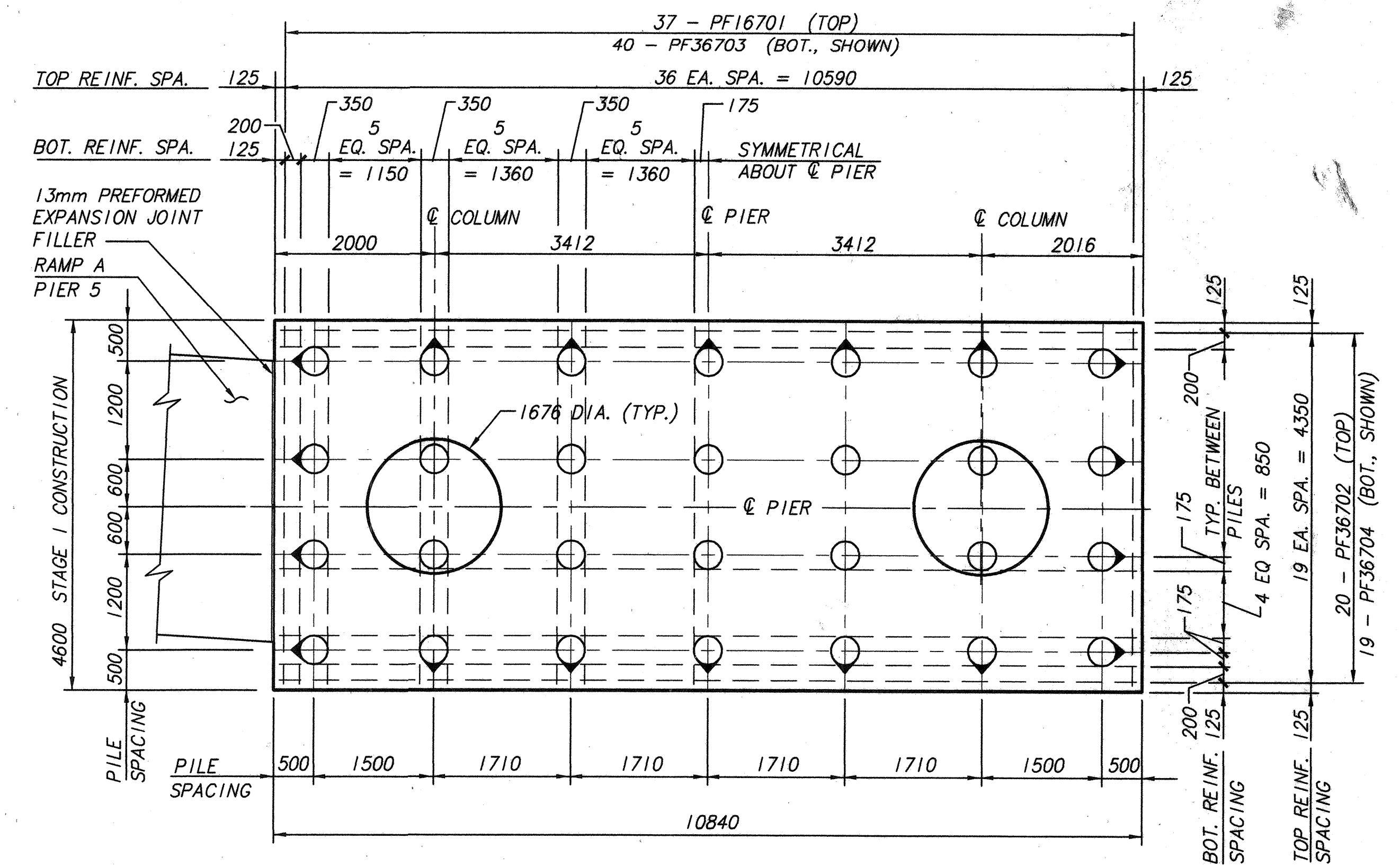
- 400 mm (801 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, VERTICAL.
- 400 mm (801 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, BATTER FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF ARROW

FINAL FOR CONSTRUCTION

	BRW HAZLET & ERDAL A BRW COMPANY
DRAWN: RCS CHECKED: RAJ DESIGNED: SWF	REVIEWED: [] DATE: [] STRUCTURE FILE NUMBER: BR3PD13A
PIER 3 FOOTING 1-71 NB	
BRIDGE 3	
25/64	
435 588	



FOOTING PLAN - PIER 6



FOOTING PLAN - PIER 7

FINAL FOR CONSTRUCTION

LEGEND

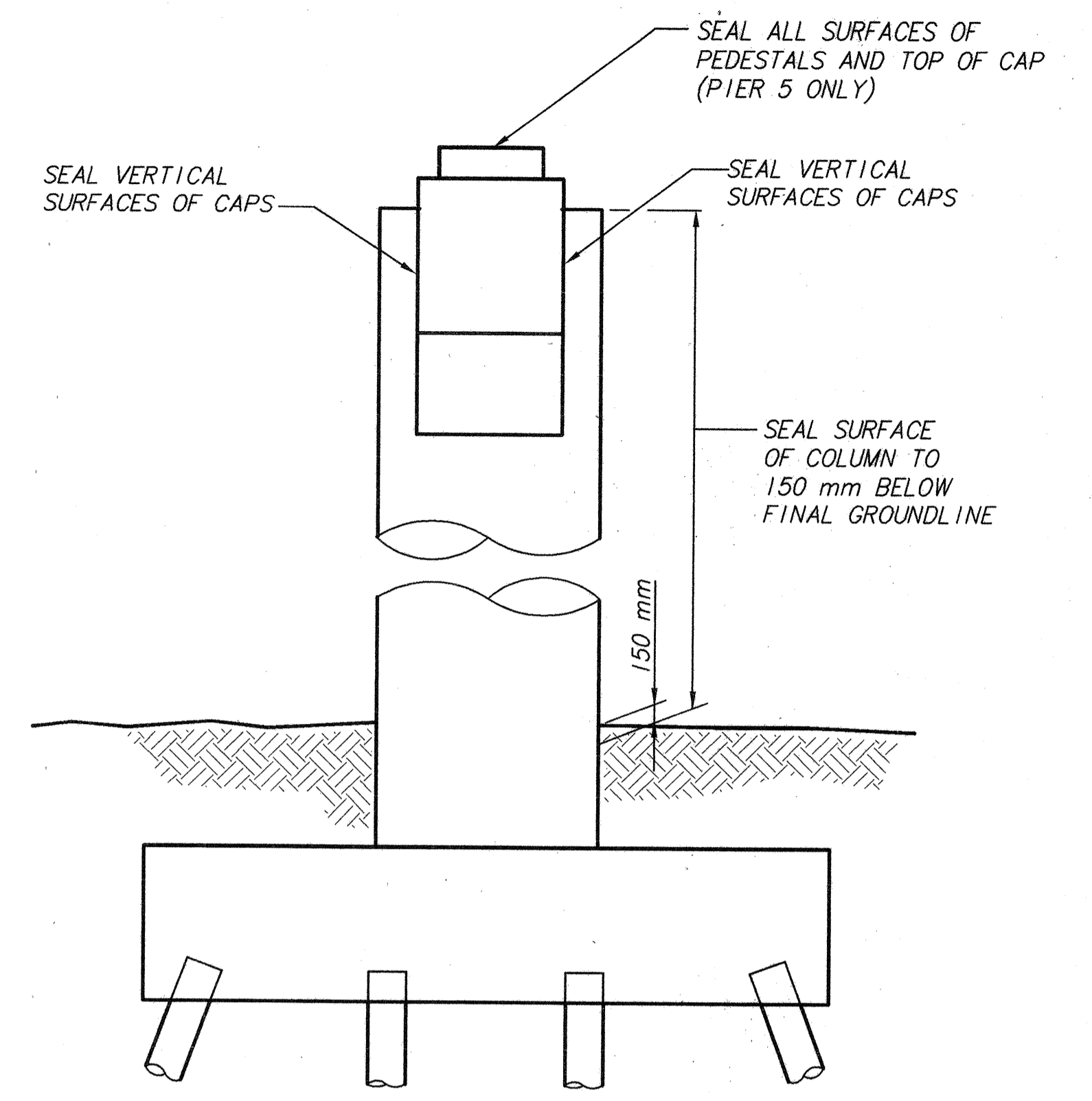
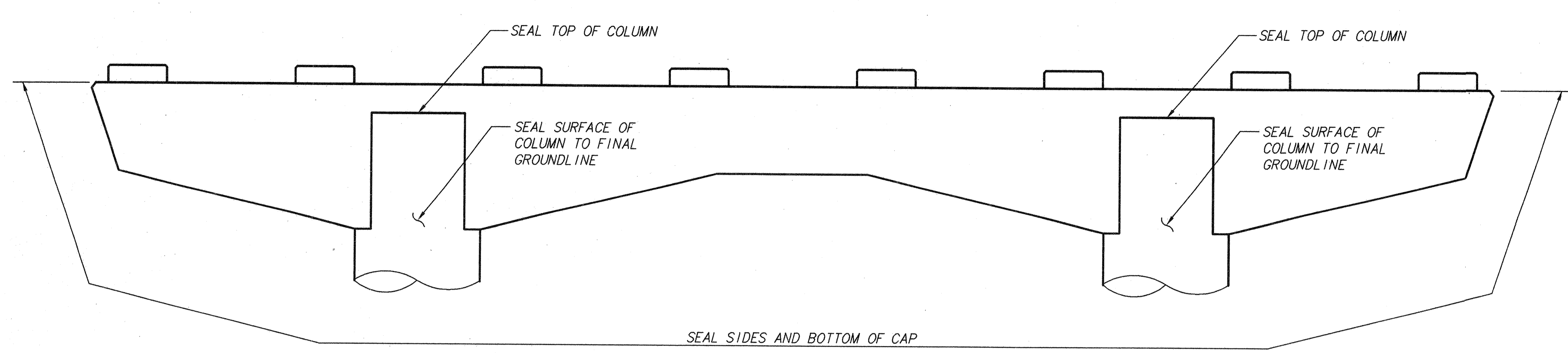
- 350 mm (623 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, VERTICAL.
- ◐ 350 mm (623 kN CAPACITY) C.I.P. REINFORCED CONCRETE PILE, BATTER FOUR VERTICAL TO ONE HORIZONTAL IN THE DIRECTION OF ARROW

NOTES:

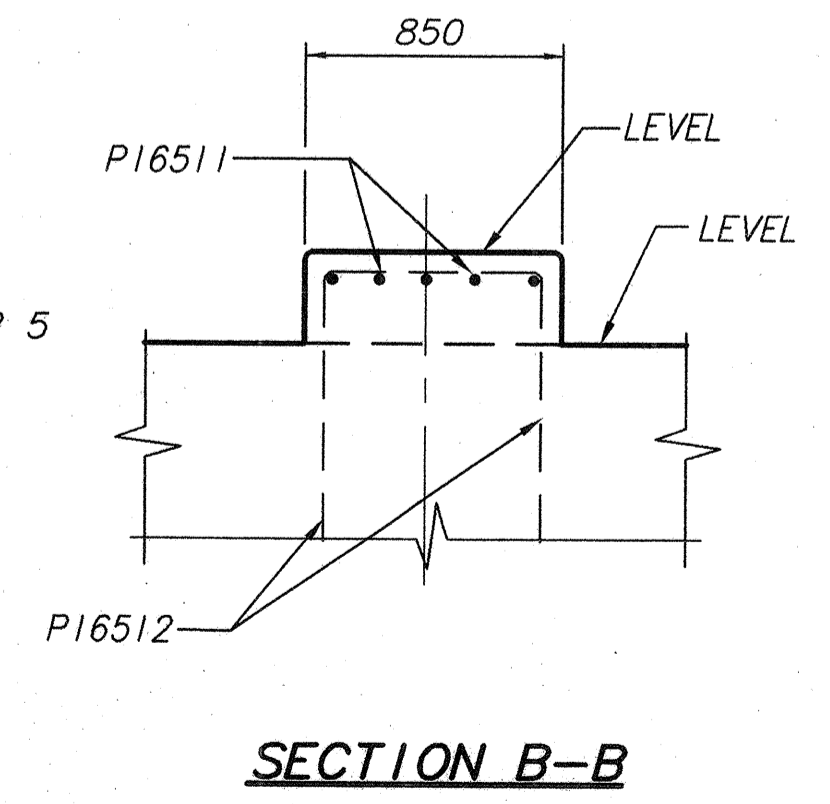
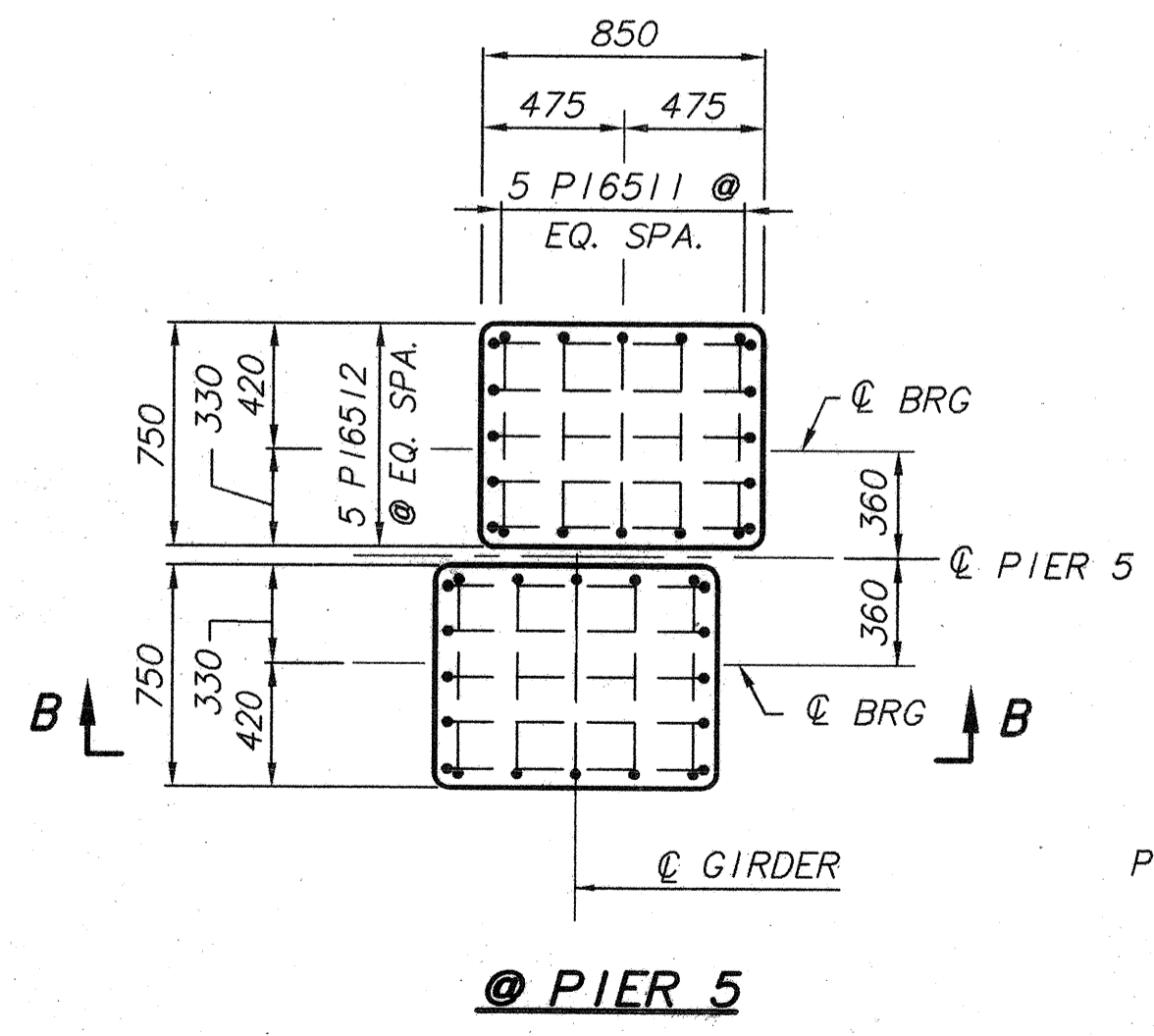
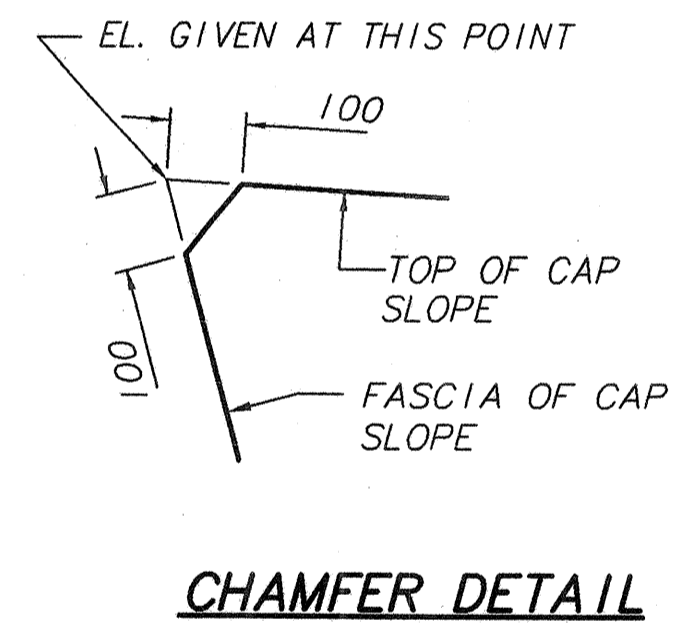
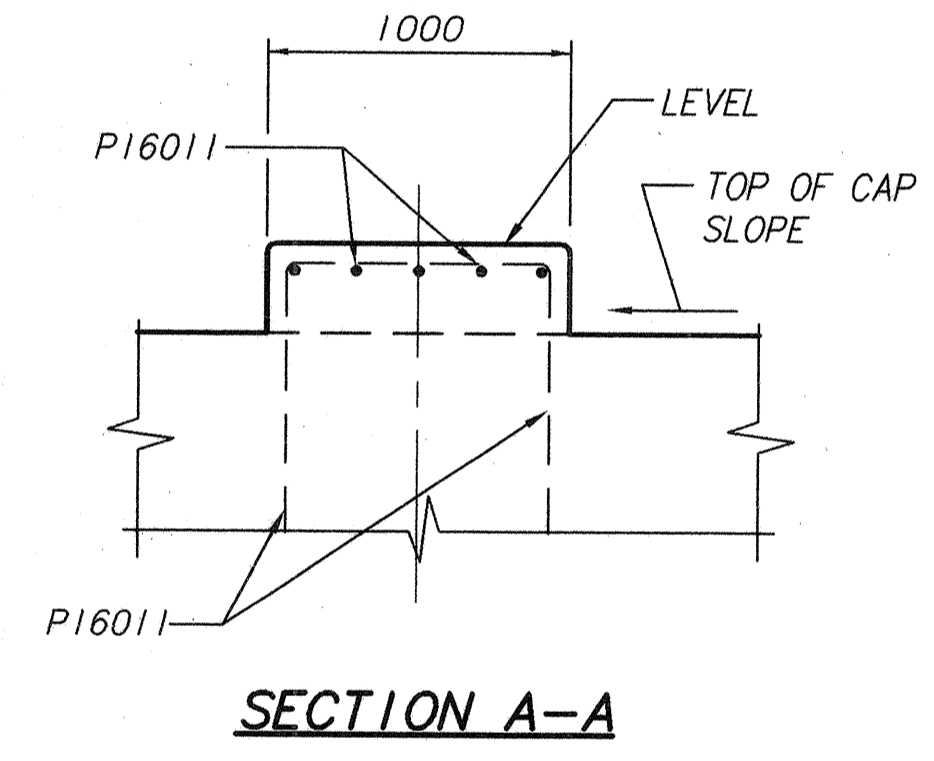
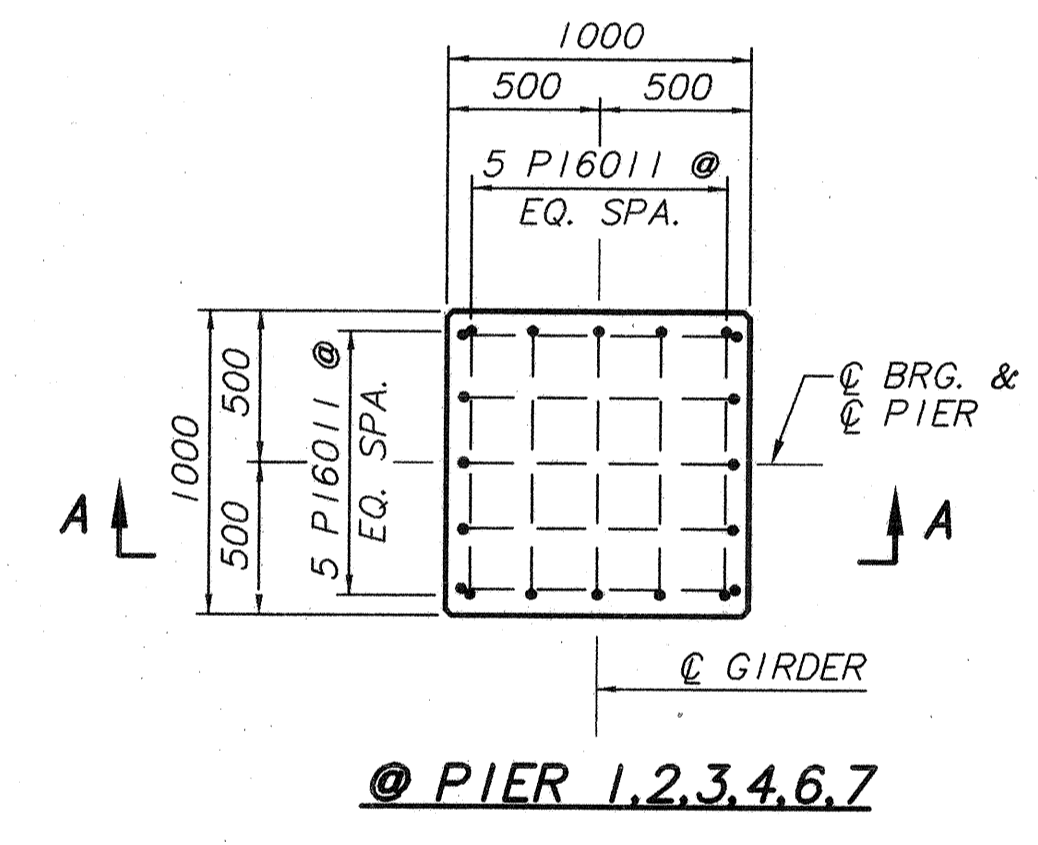
1. WORK THIS SHEET WITH SHEETS 16, 21 AND 22.
2. FOR REINFORCING STEEL BAR LIST, SEE SHEETS 28 THROUGH 31.
3. SEE BRIDGE 8 SHEET 27 FOR RAMP A FOOTING DETAILS.
4. CONSTRUCT PIER 6 & 7 FOOTINGS TO THE DIMENSIONS SHOWN UNLESS ABUTTING FOOTINGS OF RAMP A ARE CONSTRUCTED FIRST. IN THE LATTER CASE, CAST PIER 6 & 7 FOOTINGS AGAINST RAMP A FOOTING WITH A 13 mm PREFORMED EXPANSION JOINT FILLER SEPARATION. FIELD ADJUST REINFORCING STEEL AS NECESSARY.
5. PILE DESIGN LOADS (SAFE BEARING CAPACITY):
THE PILE DESIGN LOAD FOR PIER 6 IS 589 kN PER PILE.
THE PILE DESIGN LOAD FOR PIER 7 IS 611 kN PER PILE.

7/16/86

	DESIGN AGENCY BRW HAZELLET & ERDAL ABR COMPANY	DATE REVIEWED DRAWN DESIGNED	STRUCTURE FILE NUMBER BR3PD16A RCS SWF CHECKED RAJ	PIERS 6 & 7 FOOTING 1-71 NB
BRIDGE 3				26 / 64
436 588				



DETAIL - SEALING CONCRETE SURFACES



PEDESTAL PLAN

NOTES:

1. ALL PIERS SHALL BE SEALED AS SHOWN.
2. SEALANT SHALL BE IN ACCORDANCE WITH THE PROPOSAL NOTE 516 "SEALING CONCRETE SURFACES"

FINAL FOR CONSTRUCTION

DESIGN AGENCY: **BRW HAZELET & ERDAL**
 GROUP: **ABRW COMPANY**

DCM

DESIGNED	SWF	CHECKED	RAJ
DRAWN	RCS	REVISED	RAJ
REVIEWED	DATE	STRUCTURE FILE NUMBER	BR-3PD17

PIER DETAILS
1-71 NB

BRIDGE 3

27/64

437
588

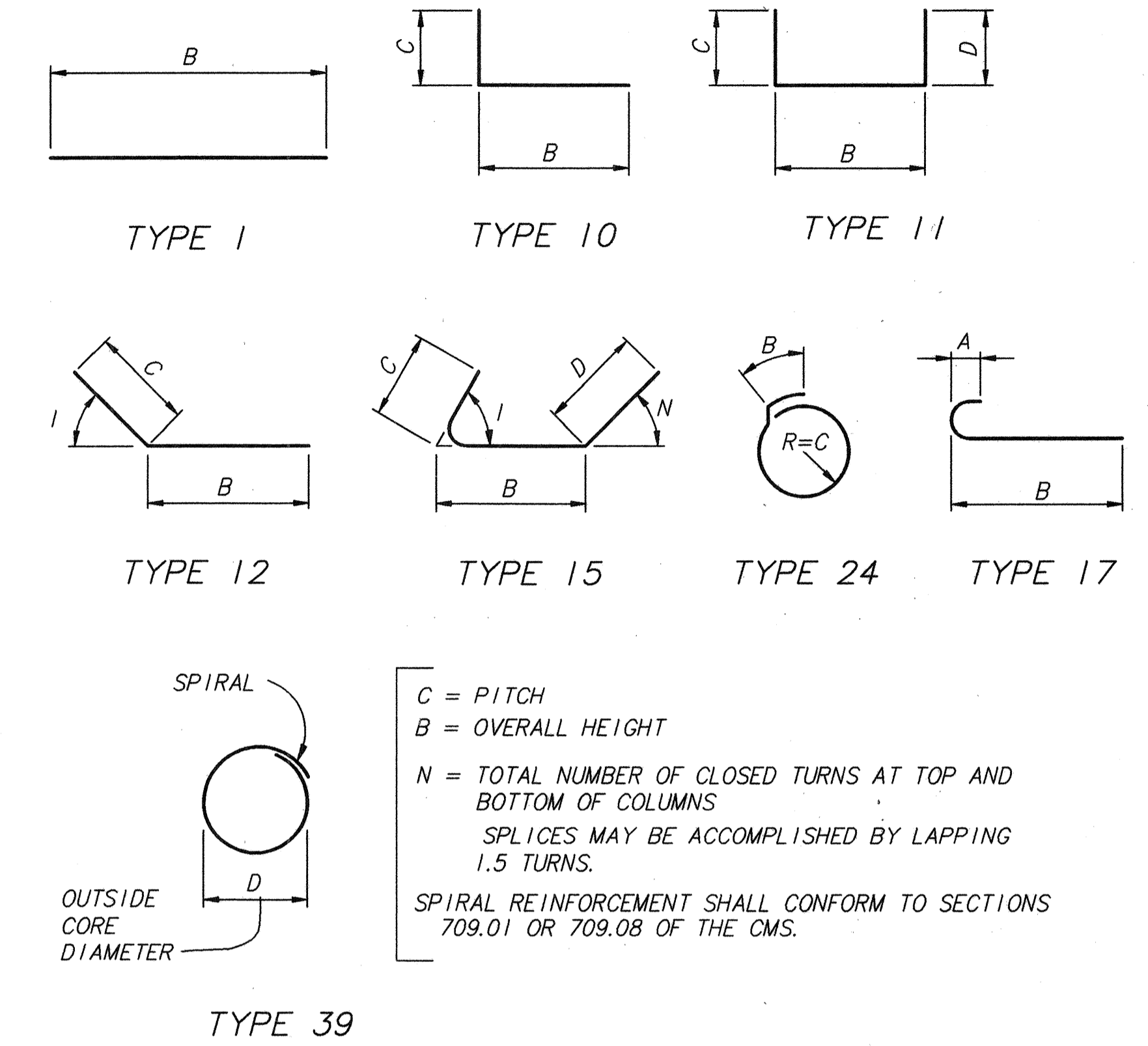
AUG 18 1998

BR-3PD17 8/18/98

AUG 18 1998

1-71 NB REINFORCING STEEL LIST

MARK	TOTAL NO.	LENGTH	TYPE	DIMENSIONS (mm)						NUMBER							INCREMENT	
				A	B	C	D	G	I	N	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6		PIER 7
SP1611	1	850 002	39		15 330	115	1 985				1.5	1	0	0	0	0	0	0
SP1612	1	812 586	39		14 640	115	1 985				1.5	1	0	0	0	0	0	0
SP1621	1	756 190	39		13 600	115	1 985				1.5	0	1	0	0	0	0	0
SP1622	1	718 774	39		12 910	115	1 985				1.5	0	1	0	0	0	0	0
SP1631	1	700 608	39		12 575	115	1 985				1.5	0	0	1	0	0	0	0
SP1632	1	661 565	39		11 855	115	1 985				1.5	0	0	1	0	0	0	0
SP1641	1	629 571	39		11 265	115	1 985				1.5	0	0	0	1	0	0	0
SP1642	1	604 627	39		10 805	115	1 985				1.5	0	0	0	1	0	0	0
SP1651	2	537 928	39		9 575	115	1 985				1.5	0	0	0	0	2	0	0
SP1661	1	284 935	39		6 490	115	1 526				1.5	0	0	0	0	0	1	0
SP1662	1	293 480	39		6 695	115	1 526				1.5	0	0	0	0	0	1	0
SP1671	1	189 053	39		4 190	115	1 526				1.5	0	0	0	0	0	0	1
SP1672	1	191 346	39		4 245	115	1 526				1.5	0	0	0	0	0	0	1
P16009	40	6 681	24		750	944						8	8	8	8	8	0	0
P16010	12	5 230	24		750	713						0	0	0	0	0	6	6
P36101	136	10 840	1		10 840							136	0	0	0	0	0	0
P36102	136	10 555	1		10 555							136	0	0	0	0	0	0
P36201	136	9 975	1		9 975							0	136	0	0	0	0	0
P36202	136	9 690	1		9 690							0	136	0	0	0	0	0
P36301	136	9 460	1		9 460							0	0	136	0	0	0	0
P36302	136	9 165	1		9 165							0	0	136	0	0	0	0
P36401	136	8 815	1		8 815							0	0	0	136	0	0	0
P36402	136	8 625	1		8 625							0	0	0	136	0	0	0
P36501	136	11 575	1		11 575							0	0	0	0	136	0	0
P36601	34	7 610	1		7 610							0	0	0	0	0	34	0
P36602	34	7 775	1		7 775							0	0	0	0	0	34	0
P36701	34	5 295	1		5 295							0	0	0	0	0	0	34
P36702	34	5 320	1		5 320							0	0	0	0	0	0	34
PF36000	816	5 700	10		5 190	610						136	136	136	136	136	68	68
P32003	48	8 763	17	290	7 915							12	12	12	12	0	0	0
P32004	48	7 885	1		7 885							12	12	12	12	0	0	0
P32005	24	9 044	17	290	8 620							12	12	0	0	0	0	0
P32006	24	8 590	1		8 590							12	12	0	0	0	0	0
P32305	12	9 519	17	290	9 095							0	0	12	0	0	0	0
P32306	12	9 030	1		9 030							0	0	12	0	0	0	0
P32405	12	11 379	17	290	10 955							0	0	0	12	0	0	0
P32406	12	10 925	1		10 925							0	0	0	12	0	0	0
P36503	17	12 470	17	325	12 000							0	0	0	0	17	0	0
P36504	17	5 930	1		5 930							0	0	0	0	17	0	0
P36505	17	11 090	17	325	10 620							0	0	0	0	17	0	0
P36506	17	12 000	1		12 000							0	0	0	0	17	0	0
P36507	17	5 895	1		5 895							0	0	0	0	17	0	0
P36508	17	10 580	1		10 580							0	0	0	0	17	0	0
P36003	36	9 090	17	325	8 620							0	0	0	0	0	18	18
P36004	36	8 585	1		8 585							0	0	0	0	0	18	18

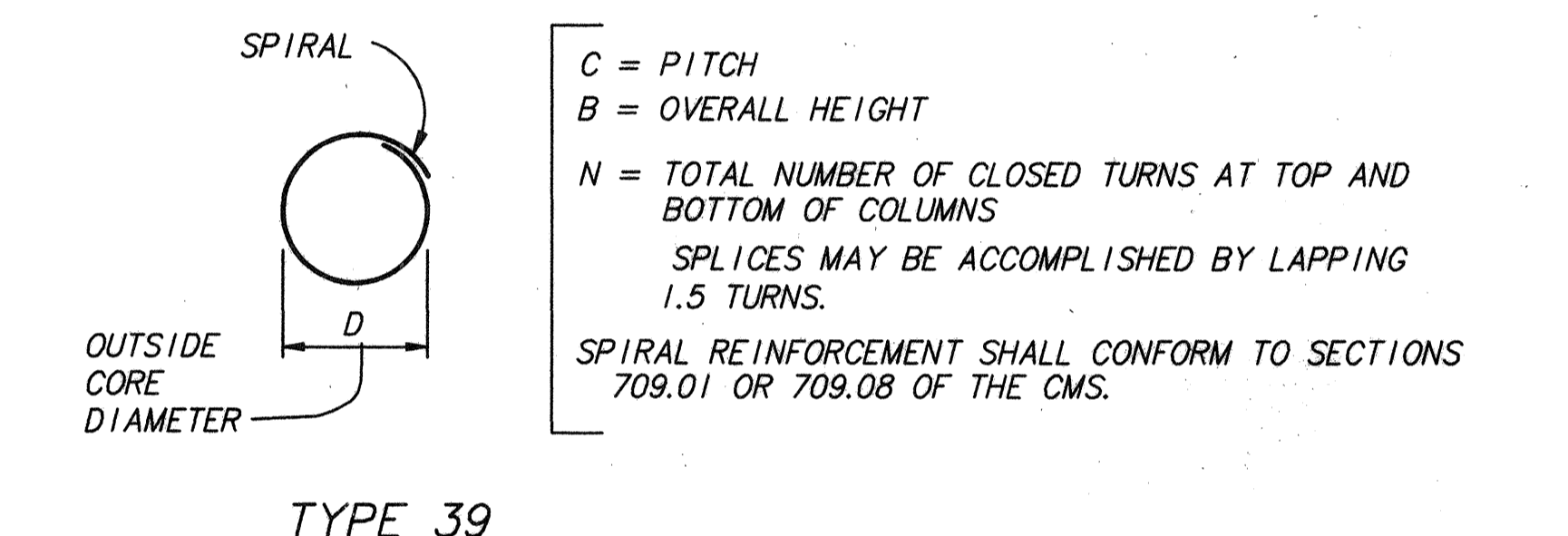
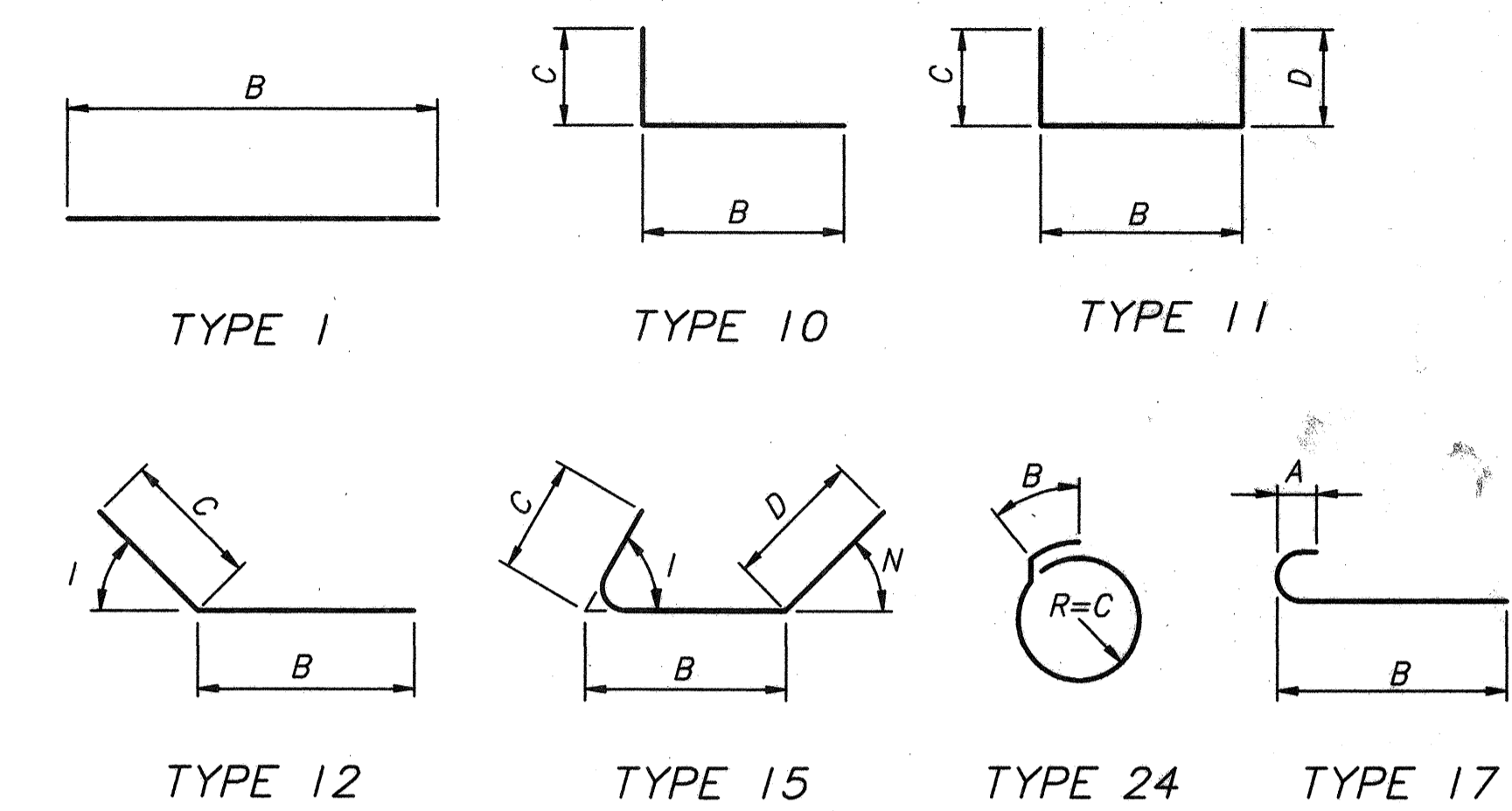


NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 1601 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.
2. ALL REINFORCING STEEL TO BE EPOXY COATED.
3. SPACERS:
CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO ENSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE COLUMN. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORT) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

FINAL FOR CONSTRUCTION

1-71 NB REINFORCING STEEL LIST																			
MARK	TOTAL NO.	LENGTH	TYPE	DIMENSIONS (mm)						NUMBER							INCREMENT		
				A	B	C	D	G	I	N	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6		PIER 7	
P16900	32	6 820	I		6 820							0	0	0	0	0	16	16	
P16901	8	3 690	I		3 690							0	0	0	0	0	4	4	
P16006	48	1 730	II		1 300	255	255					8	8	8	8	0	8	8	
P16506	8	2 000	II		1 570	255	255					0	0	0	0	8	0	0	
P16007	16	2 845	15		1 470	750	750		72	48		4	4	4	4	0	0	0	
P16008	16	2 810	15		1 430	750	750		71	52		4	4	4	4	0	0	0	
P16507	8	2 865	15		1 480	750	750		71	57		0	0	0	0	8	0	0	
P16907	8	2 545	15		1 160	750	750		70	58		0	0	0	0	0	4	4	
P16908	8	2 555	15		1 165	750	750		70	57		0	0	0	0	0	4	4	
P19010	16	4 142				1 445	1 445					4	4	4	4	0	0	0	
	SERIES	TO	II		1 300	TO	TO					SERIES	SERIES	SERIES	SERIES	0	0	0	223
	OF 5	5 922				2 335	2 335					OF 5	OF 5	OF 5	OF 5	0	0	0	
P19011	16	3 222				1 445	1 445					4	4	4	4	0	0	0	
	SERIES	TO	II		380	TO	TO					SERIES	SERIES	SERIES	SERIES	0	0	0	223
	OF 5	5 002				2 335	2 335					OF 5	OF 5	OF 5	OF 5	0	0	0	
P19012	16	4 052				1 400	1 400					4	4	4	4	0	0	0	
	SERIES	TO	II		1 300	TO	TO					SERIES	SERIES	SERIES	SERIES	0	0	0	177
	OF 6	5 822				2 285	2 285					OF 6	OF 6	OF 6	OF 6	0	0	0	
P19013	16	3 132				1 400	1 400					4	4	4	4	0	0	0	
	SERIES	TO	II		380	TO	TO					SERIES	SERIES	SERIES	SERIES	0	0	0	177
	OF 6	4 902				2 285	2 285					OF 6	OF 6	OF 6	OF 6	0	0	0	
P19014	52	3 805	II		1 300	1 300	1 300					10	10	12	20	0	0	0	
P19015	52	2 885	II		380	1 300	1 300					10	10	12	20	0	0	0	
P19510	4	4 192				1 335	1 335					0	0	0	0	4	0	0	
	SERIES	TO	II		1 570	TO	TO					0	0	0	0	SERIES	0	0	56
	OF 18	6 092				2 285	2 285					0	0	0	0	OF 18	0	0	
P19511	4	3 227				1 335	1 335					0	0	0	0	4	0	0	
	SERIES	TO	II		605	TO	TO					0	0	0	0	SERIES	0	0	56
	OF 18	5 127				2 285	2 285					0	0	0	0	OF 18	0	0	
P19512	4	4 182				1 330	1 330					0	0	0	0	4	0	0	
	SERIES	TO	II		1 570	TO	TO					0	0	0	0	SERIES	0	0	68
	OF 15	6 092				2 285	2 285					0	0	0	0	OF 15	0	0	
P19513	4	3 217				1 330	1 330					0	0	0	0	4	0	0	
	SERIES	TO	II		605	TO	TO					0	0	0	0	SERIES	0	0	68
	OF 15	5 127				2 285	2 285					0	0	0	0	OF 15	0	0	
P19514	12	4 075	II		1 570	1 300	1 300					0	0	0	0	12	0	0	
P19515	12	3 110	II		605	1 300	1 300					0	0	0	0	12	0	0	



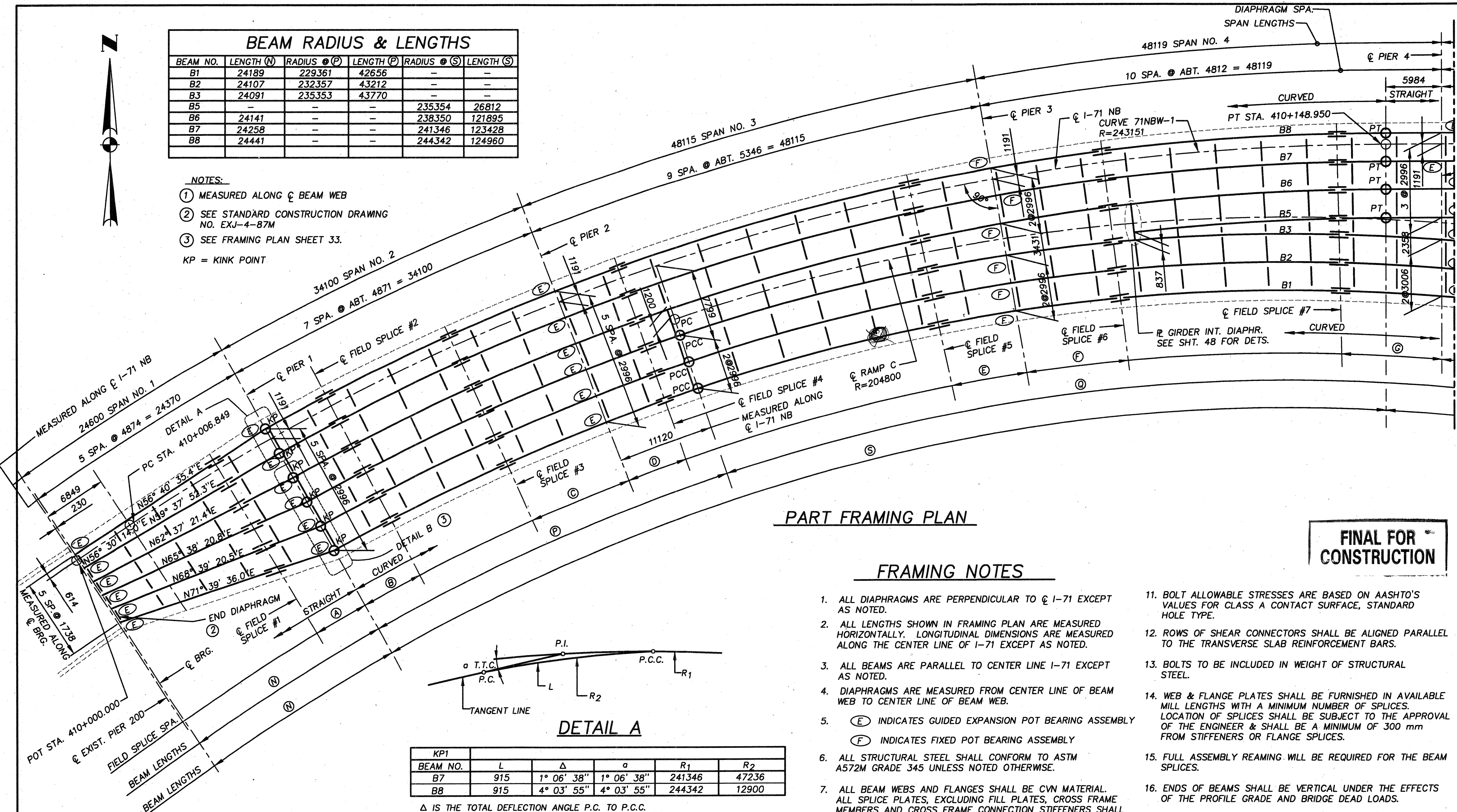
NOTES:

- THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A 1601 IS A 16M BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED.
- ALL REINFORCING STEEL TO BE EPOXY COATED.
- SPACERS:
CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO ENSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE COLUMN. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORT) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

FINAL FOR CONSTRUCTION

BEAM RADIUS & LENGTHS					
BEAM NO.	LENGTH (N)	RADIUS @ (P)	LENGTH (P)	RADIUS @ (S)	LENGTH (S)
B1	24189	229361	42656	-	-
B2	24107	232357	43212	-	-
B3	24091	235353	43770	-	-
B5	-	-	-	235354	26812
B6	24141	-	-	238350	121895
B7	24258	-	-	241346	123428
B8	24441	-	-	244342	124960

NOTES:
 ① MEASURED ALONG ϕ BEAM WEB
 ② SEE STANDARD CONSTRUCTION DRAWING NO. EXJ-4-87M
 ③ SEE FRAMING PLAN SHEET 33.
 KP = KINK POINT

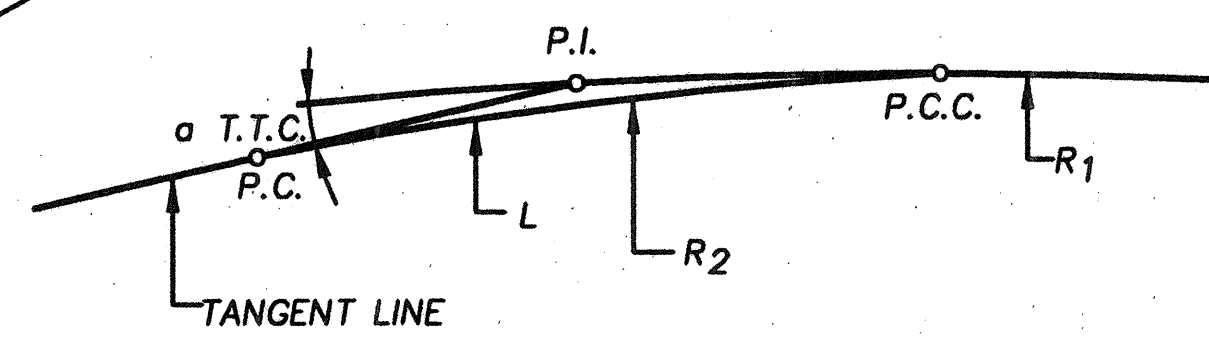


PART FRAMING PLAN

FINAL FOR CONSTRUCTION

FRAMING NOTES

- ALL DIAPHRAGMS ARE PERPENDICULAR TO ϕ I-71 EXCEPT AS NOTED.
- ALL LENGTHS SHOWN IN FRAMING PLAN ARE MEASURED HORIZONTALLY. LONGITUDINAL DIMENSIONS ARE MEASURED ALONG THE CENTER LINE OF I-71 EXCEPT AS NOTED.
- ALL BEAMS ARE PARALLEL TO CENTER LINE I-71 EXCEPT AS NOTED.
- DIAPHRAGMS ARE MEASURED FROM CENTER LINE OF BEAM WEB TO CENTER LINE OF BEAM WEB.
- (E) INDICATES GUIDED EXPANSION POT BEARING ASSEMBLY
(F) INDICATES FIXED POT BEARING ASSEMBLY
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A572M GRADE 345 UNLESS NOTED OTHERWISE.
- ALL BEAM WEBS AND FLANGES SHALL BE CVN MATERIAL. ALL SPLICE PLATES, EXCLUDING FILL PLATES, CROSS FRAME MEMBERS AND CROSS FRAME CONNECTION STIFFENERS SHALL BE CVN MATERIAL. CVN MATERIAL SHALL MEET THE SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- BEARING STIFFENERS SHALL BE VERTICAL.
- FIELD CONNECTIONS SHALL BE MADE WITH 22 mm ASTM A-325M HIGH STRENGTH BOLTS.
- ERECTION BOLTS: THE HOLE DIAMETER IN CROSS FRAMES AND BEAM STIFFENERS SHALL BE 4 mm LARGER THAN THE DIAMETER OF THE ERECTION BOLTS. UNLESS REPLACED BY PERMANENT HIGH STRENGTH BOLTS, ERECTION BOLTS SHALL REMAIN IN PLACE. LOCK WASHERS SHALL BE FURNISHED FOR OTHER THAN FULLY TORQUED HIGH STRENGTH ERECTION BOLTS. BOLTS SHALL BE FURNISHED AS PART OF ITEM 513.
- BOLT ALLOWABLE STRESSES ARE BASED ON AASHTO'S VALUES FOR CLASS A CONTACT SURFACE, STANDARD HOLE TYPE.
- ROWS OF SHEAR CONNECTORS SHALL BE ALIGNED PARALLEL TO THE TRANSVERSE SLAB REINFORCEMENT BARS.
- BOLTS TO BE INCLUDED IN WEIGHT OF STRUCTURAL STEEL.
- WEB & FLANGE PLATES SHALL BE FURNISHED IN AVAILABLE MILL LENGTHS WITH A MINIMUM NUMBER OF SPLICES. LOCATION OF SPLICES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER & SHALL BE A MINIMUM OF 300 mm FROM STIFFENERS OR FLANGE SPLICES.
- FULL ASSEMBLY REAMING WILL BE REQUIRED FOR THE BEAM SPLICES.
- ENDS OF BEAMS SHALL BE VERTICAL UNDER THE EFFECTS OF THE PROFILE GRADE AND BRIDGE DEAD LOADS.
- FLANGE PLATES FOR BEAMS SHALL BE CUT TO PROPER CURVATURE.
- ALL STRUCTURAL STEEL SHALL BE PAINTED USING THE IZEU PAINT SYSTEM. PRIME COAT SHALL BE APPLIED IN THE FABRICATION SHOP. SPECIAL 3 COAT SYSTEM, REFER TO SUPPLEMENTAL SPECIFICATIONS.
- ALL BOLTS SHALL BE GALVANIZED WHEN USED IN CONJUNCTION WITH THE IZEU PAINT SYSTEM.
- KINK POINT TRANSITION CURVES (DETAILS A THRU C) ARE AT CONTRACTOR'S OPTION AND BEAM LENGTHS GIVEN IN "BEAM RADIUS & LENGTHS" TABLES ARE GIVEN TO THE UNTRANSITIONED KINK POINTS SHOWN ON THE PLAN VIEWS.



DETAIL A

KP1	BEAM NO.	L	Δ	α	R ₁	R ₂
	B7	915	1° 06' 38"	1° 06' 38"	241346	47236
	B8	915	4° 03' 55"	4° 03' 55"	244342	12900

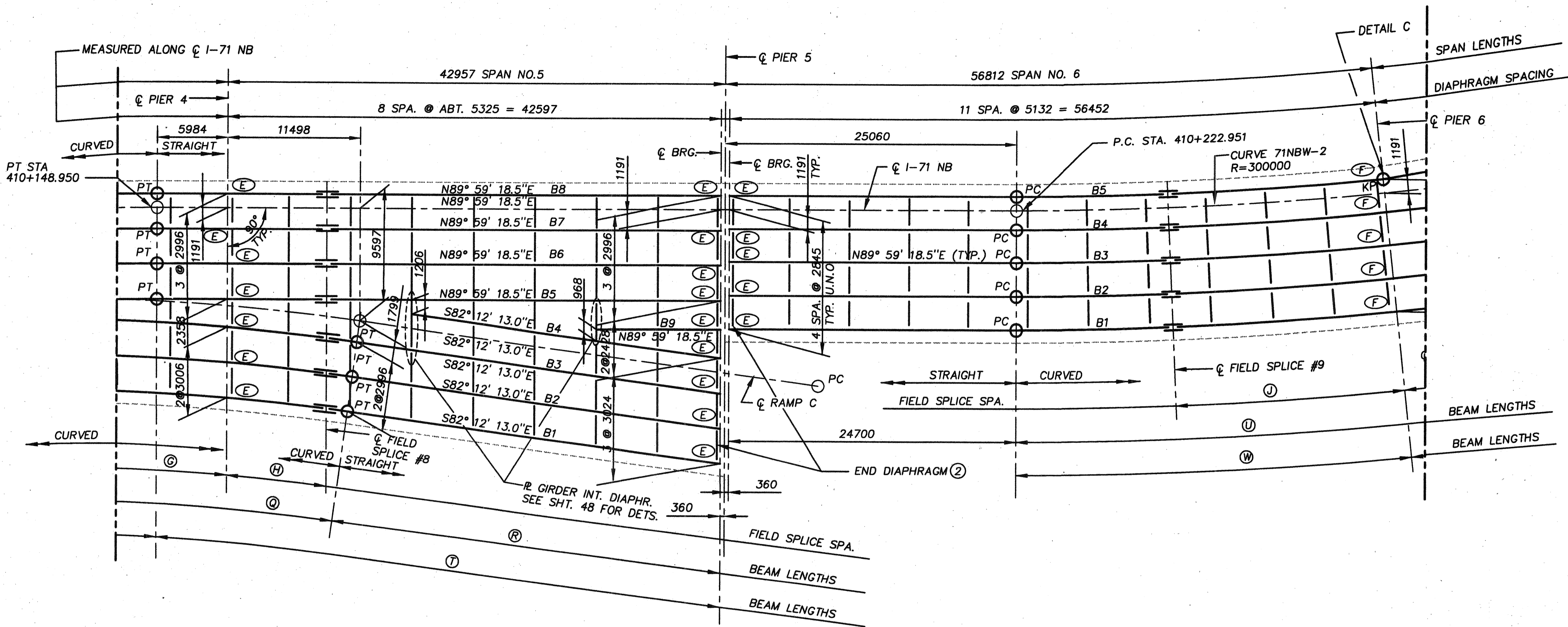
Δ IS THE TOTAL DEFLECTION ANGLE P.C. TO P.C.C.

FIELD SPLICE DISTANCES ①

BEAM NO.	LENGTH (A)	LENGTH (B)	LENGTH (C)	LENGTH (D)	LENGTH (E)	LENGTH (F)	LENGTH (G)
B1	6287	6892	11487	6724	8394	11323	10911
B2	6305	6982	11637	6811	8504	11471	10975
B3	6339	7072	11787	6899	8614	11620	11039
B5	-	-	-	-	-	-	11060
B6	6390	7162	11937	6987	8734	11792	11125
B7	6459	7252	12087	7075	8844	11941	11189
B8	6545	7342	12237	7163	8954	12089	11254

BRW
 A DAMES & MOORE GROUP COMPANY
 DATE
 REVISION
 STRUCTURE FILE NUMBER
 DRAWN M.F.
 CHECKED M.M.
 DESIGNED S.A.
 FRAMING PLAN
 171 N.B.
 BRIDGE 3
 31 / 64
 441
 588

AUG 18 1998
 5-FRAME.DWG
 9-18-98



PART FRAMING PLAN

FIELD SPLICE DISTANCES ①

BEAM NO.	LENGTH (H)	LENGTH (J)
B1	8648	19287
B2	8647	19110
B3	8645	18933
B4	-	18756
B5	8600	18579
B6	8600	-
B7	8600	-
B8	8600	-

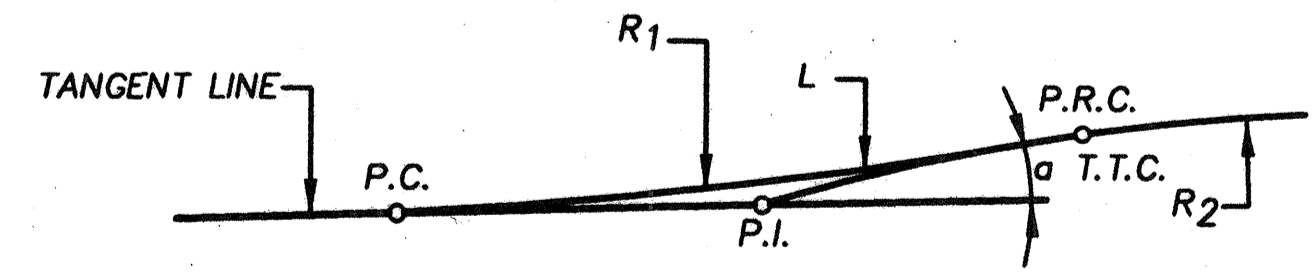
BEAM RADIUS & LENGTHS

BEAM NO.	RADIUS @ (Q)	LENGTH (Q)	LENGTH (T)	LENGTH (R)
B1	197009	90960	-	32462
B2	200005	92344	-	32051
B3	203001	93727	-	31640
B4	-	-	-	26871
B5	-	-	48581	-
B6	-	-	48581	-
B7	-	-	48581	-
B8	-	-	48581	-
B9	-	-	-	10649

- NOTES:**
- ① MEASURED ALONG ϕ BEAM WEB
 - ② SEE STANDARD CONSTRUCTION DRAWING NO. EXJ-4-87M
- KP = KINK POINT

WELD CHART

MAT. THICKNESS OF THICKER PART JOINED	MIN. SIZE OF FILLET WELD
TO 19 mm THICK INCLUSIVE	6 mm
OVER 19 mm THICK TO 38 mm INCL.	8 mm
OVER 38 mm THICK TO 57 mm INCL.	10 mm
OVER 57 mm THICK TO 152 mm INCL.	13 mm



DETAIL B

FINAL FOR CONSTRUCTION

BEAM NO.	L	Δ	a	R ₁	R ₂
B1	915	10° 54' 57"	10° 54' 57"	4803	229361
B2	915	7° 54' 45"	7° 54' 45"	6626	232357
B3	915	4° 53' 46"	4° 53' 46"	10706	235353
B6	915	1° 52' 46"	1° 52' 46"	27873	238350

Δ IS THE TOTAL DEFLECTION ANGLE P.C. TO P.R.C.

AUG 18 1998

BRW
A DAVIES & MOORE GROUP COMPANY

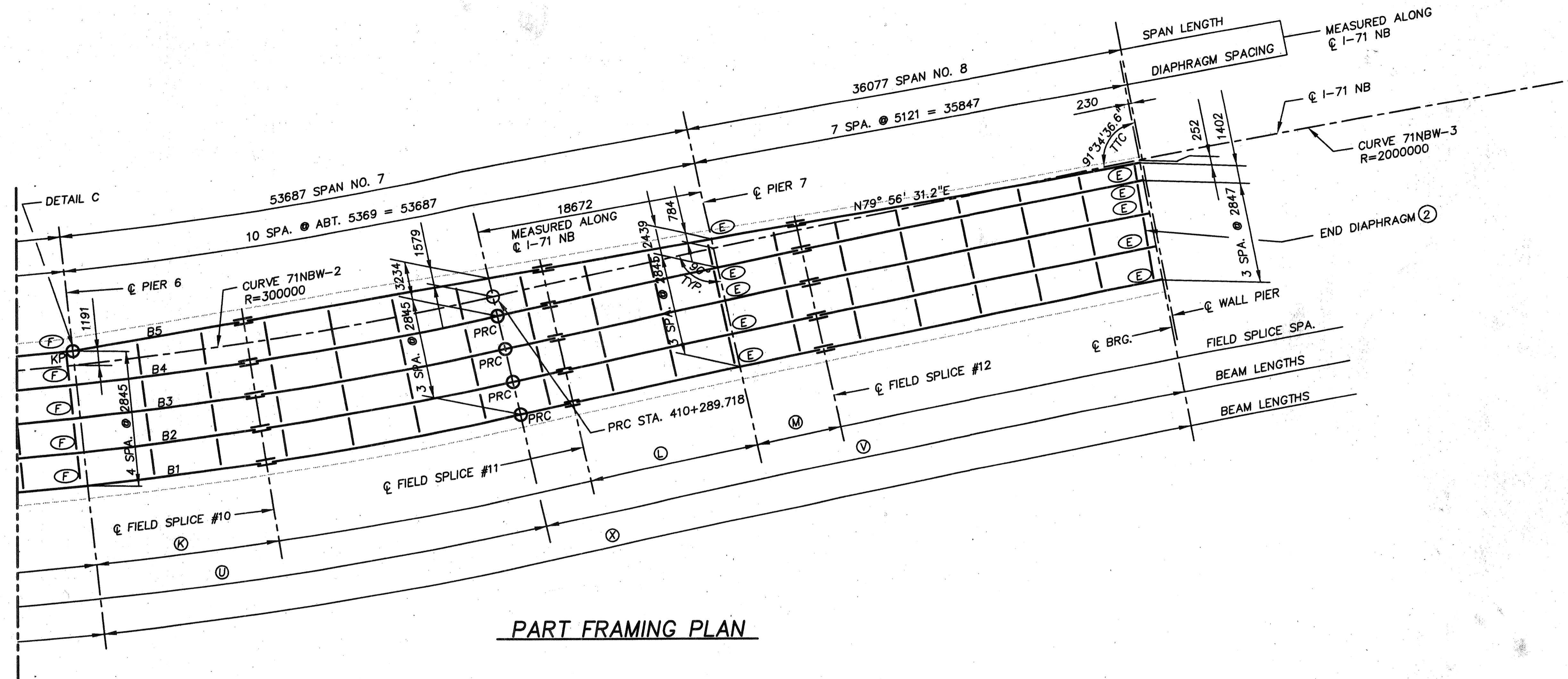
DESIGNED	CHECKED	DRAWN	REVISED	DATE
SA	MM	M.F.		
STRUCTURE FILE NUMBER				

FRAMING PLAN
171 N.B.

BRIDGE 3

32 / 64

442
588



PART FRAMING PLAN

FINAL FOR CONSTRUCTION

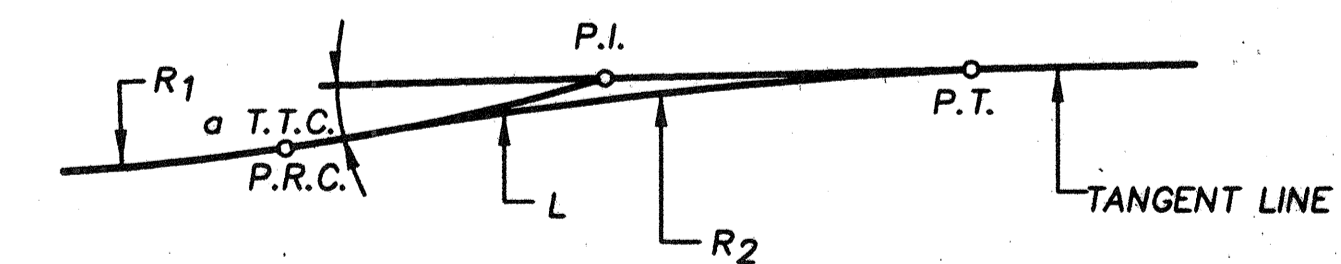
FIELD SPLICE DISTANCES ①

BEAM NO.	LENGTH (K)	LENGTH (L)	LENGTH (M)
B1	14892	14129	7024
B2	14755	14149	7034
B3	14619	14169	7044
B4	14482	14190	7054
B5	14344	14220	7067

BEAM RADIUS & LENGTHS

BEAM NO.	RADIUS ● (U)	LENGTH (U)	RADIUS ● (V)	LENGTH (V)	RADIUS ● (W)	LENGTH (W)	LENGTH (X)
B1	310191	69035	1989809	53965	-	-	-
B2	307345	68402	1992655	54120	-	-	-
B3	304500	67770	1995500	54274	-	-	-
B4	301654	67136	1998346	54428	-	-	-
B5	-	-	-	-	298809	31626	89395

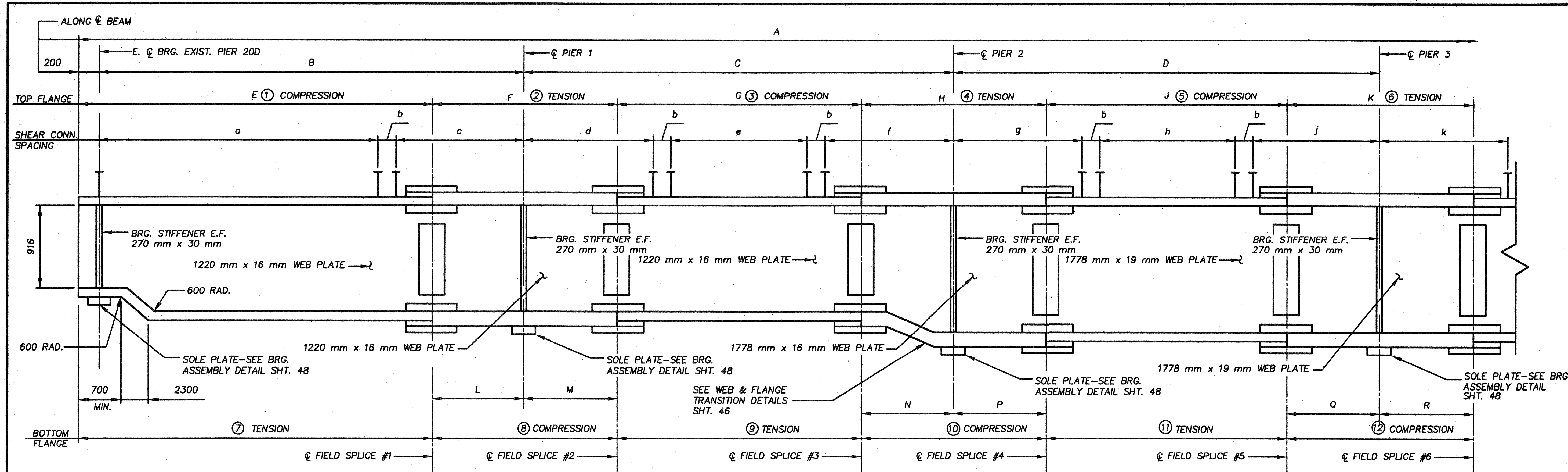
- NOTES:**
- ① MEASURED ALONG C BEAM WEB
 - ② SEE STANDARD CONSTRUCTION DRAWING NO. EXJ-4-87M
- KP = KINK POINT



DETAIL C

BEAM NO.	L	Δ	α	R ₁	R ₂
B5	915	4° 04' 12"	4° 04' 12"	298809	13021

Δ IS THE TOTAL DEFLECTION ANGLE P.R.C. TO P.T.



NOTE:
BEAM DISTANCES ARE MEASURED HORIZONTALLY
ALONG CENTERLINE OF BEAM WEB.

SEE FRAMING PLAN FOR BEAM CURVATURE
INFORMATION.

WELDED ATTACHMENT OF SUPPORTS FOR CONC. DECK
FINISHING MACHINE MAY BE MADE TO AREAS OF THE
FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION".
ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED
"TENSION". FILLET WELDS TO COMPRESSION FLANGES
SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF
FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT
SMALLER THAN THE MINIMUM SIZE REQ'D. BY AASHTO.

HALF BEAM ELEVATION
(BEAMS 1 THRU 3 & 6 THRU 8)

**FINAL FOR
CONSTRUCTION**

BEAM LENGTHS

BEAM	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
B1	180395	24189	32166	45367	18102	13179	13787	18211	30249	19717	6287	6892	11487	6724	8394	11323
B2	191817	24107	32586	45960	18002	13287	13967	18448	30645	19975	6305	6982	11637	6811	8504	11471
B3	193627	24091	33006	46554	17952	13411	14147	18686	31041	20234	6339	7072	11787	6899	8614	11620
B6	195017	24141	33426	47165	17951	13552	14327	18924	31444	20526	6390	7162	11937	6987	8734	11792
B7	196667	24258	33847	47758	17999	13711	14508	19162	31839	20785	6459	7252	12087	7075	8844	11941
B8	198382	24441	34267	48351	18096	13887	14688	19400	32234	21043	6545	7342	12237	7163	8954	12089

SHEAR CONNECTOR SPACING

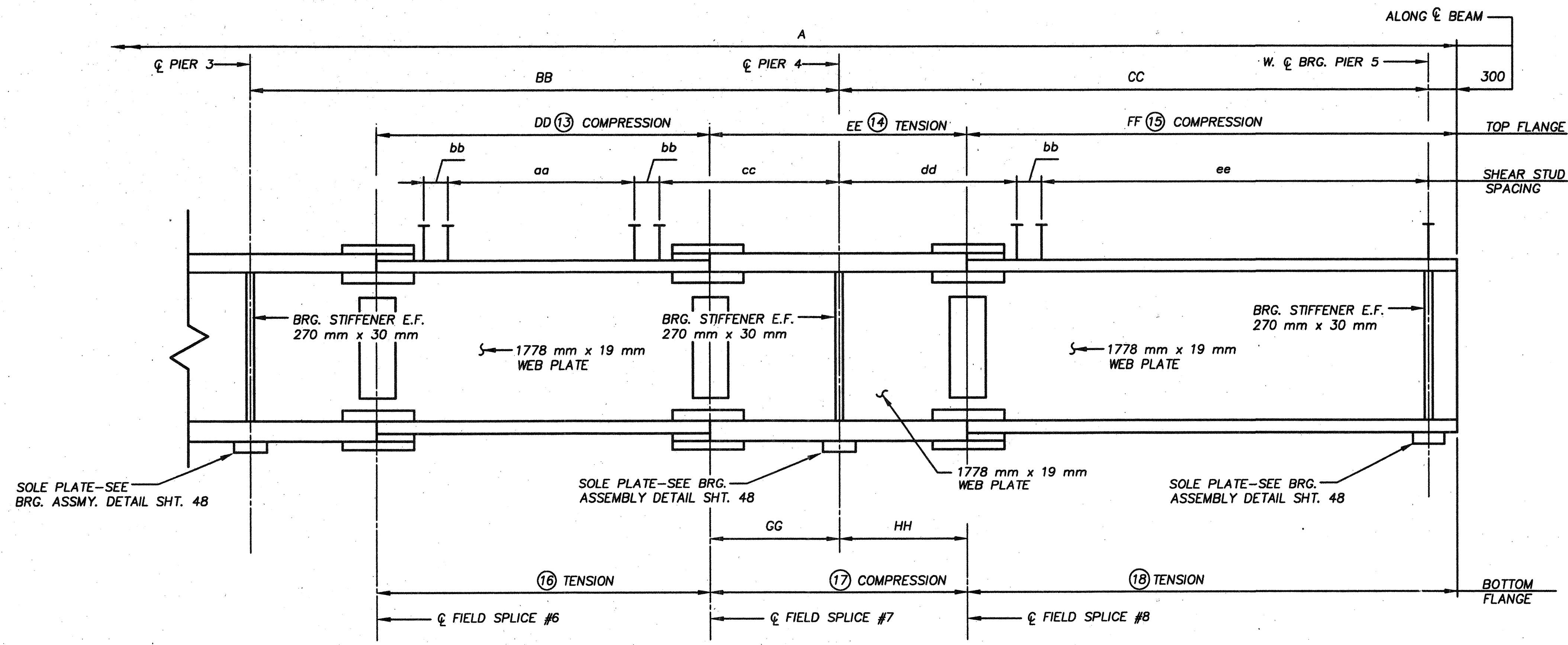
BEAM	a	b	c	d	e	f	g	h	j	k
B1	53 SPA. @ 310 = 16430	5 SPS @ 150 = 750	7009	7635	36 SPA. @ 300 = 10800	12231	7468	58 SPA. @ 470 = 27260	9139	12047
B2	58 SPA. @ 280 = 16240	5 SPS @ 150 = 750	7117	7755	39 SPA. @ 280 = 10920	12411	7583	69 SPA. @ 400 = 27600	9277	12228
B3	33 SPA. @ 490 = 16170	5 SPS @ 150 = 750	7171	7875	23 SPA. @ 480 = 11040	12591	7704	49 SPA. @ 570 = 27930	9420	12350
B6	42 SPA. @ 380 = 15960	5 SPS @ 150 = 750	7431	7875	30 SPA. @ 380 = 11400	12651	7914	53 SPA. @ 530 = 28090	9661	12788
B7	57 SPA. @ 280 = 15960	5 SPS @ 150 = 750	7548	8016	41 SPA. @ 280 = 11480	12851	7840	67 SPA. @ 430 = 28810	9608	12780
B8	42 SPA. @ 390 = 16380	5 SPS @ 150 = 750	7311	8086	30 SPA. @ 390 = 11700	12981	7890	61 SPA. @ 480 = 29280	9681	12831

BEAM FLANGE TABLE

BEAM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
B1	610 x 26	610 x 32	610 x 26	610 x 52	610 x 52	610 x 48	610 x 26	610 x 32	610 x 32	610 x 52	610 x 58	610 x 48
B2	610 x 26	610 x 32	610 x 26	610 x 52	610 x 52	610 x 48	610 x 26	610 x 32	610 x 32	610 x 52	610 x 58	610 x 48
B3	610 x 26	610 x 32	610 x 26	610 x 52	610 x 52	610 x 48	610 x 26	610 x 32	610 x 32	610 x 52	610 x 58	610 x 48
B6	610 x 26	610 x 32	610 x 32	610 x 52	610 x 52	610 x 48	610 x 26	610 x 32	610 x 38	610 x 52	610 x 70	610 x 48
B7	610 x 26	610 x 32	610 x 32	610 x 52	610 x 52	610 x 48	610 x 26	610 x 32	610 x 38	610 x 52	610 x 70	610 x 48
B8	610 x 26	610 x 32	610 x 32	610 x 52	610 x 52	610 x 48	610 x 26	610 x 32	610 x 38	610 x 52	610 x 70	610 x 48

BRW
 A DAVIES & MOORE GROUP COMPANY
 BRIDGE 3
 BEAM ELEVATION
 171 N.B.
 34/64
 444
 588

AUG 18 1998
 5-10-98



NOTE:
 BEAM DISTANCES ARE MEASURED HORIZONTALLY
 ALONG CENTERLINE OF BEAM WEB.
 SEE FRAMING PLAN FOR BEAM CURVATURE
 INFORMATION.

WELDED ATTACHMENT OF SUPPORTS FOR CONC. DECK
 FINISHING MACHINE MAY BE MADE TO AREAS OF THE
 FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION".
 ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED
 "TENSION". FILLET WELDS TO COMPRESSION FLANGES
 SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF
 FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT
 SMALLER THAN THE MINIMUM SIZE REQ'D. BY AASHTO.

HALF BEAM ELEVATION
 (BEAMS 1 THRU 3 & 6 THRU 8)

**FINAL FOR
 CONSTRUCTION**

BEAM LENGTHS

BEAM	A	BB	CC	DD	EE	FF	GG	HH										
B1	180495	45582	42962	23348	19559	34614	10911	8648										
B2	191917	46100	42960	23654	19622	34613	10975	8647										
B3	193727	46619	42957	23960	19684	34612	11039	8645										
B6	195117	47288	42597	24371	19725	34297	11125	8600										
B7	196767	47807	42597	24677	19789	34297	11189	8600										
B8	198482	48326	42597	24983	19854	34297	11254	8600										

SHEAR CONNECTOR SPACING

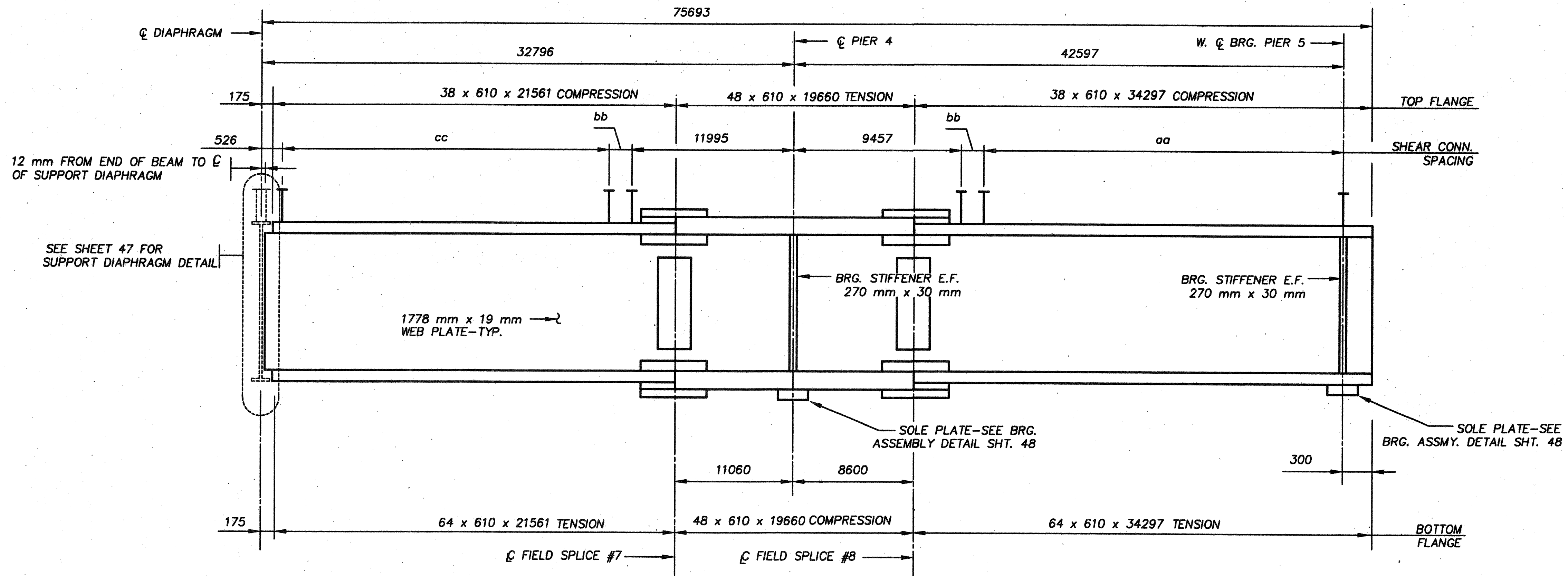
BEAM	aa	bb	cc	dd	ee													
B1	40 SPA. @ 510 = 20400	5 SPS @ 150 = 750	11635	9712	65 SPA. @ 500 = 32500													
B2	48 SPA. @ 430 = 20640	5 SPS @ 150 = 750	11732	9810	81 SPA. @ 400 = 32400													
B3	50 SPA. @ 420 = 21000	5 SPS @ 150 = 750	11769	9447	91 SPA. @ 360 = 32760													
B6	36 SPA. @ 580 = 20880	5 SPS @ 150 = 750	12120	9547	85 SPA. @ 380 = 32300													
B7	50 SPA. @ 430 = 21500	5 SPS @ 150 = 750	12027	9447	81 SPA. @ 400 = 32400													
B8	40 SPA. @ 550 = 22000	5 SPS @ 150 = 750	11995	9447	81 SPA. @ 400 = 32400													

BEAM FLANGE TABLE

BEAM	(13)	(14)	(15)	(16)	(17)	(18)												
B1	610 x 38	610 x 48	610 x 38	610 x 64	610 x 48	610 x 64												
B2	610 x 38	610 x 48	610 x 38	610 x 64	610 x 48	610 x 64												
B3	610 x 38	610 x 48	610 x 38	610 x 64	610 x 48	610 x 64												
B6	610 x 38	610 x 48	610 x 38	610 x 64	610 x 48	610 x 64												
B7	610 x 38	610 x 48	610 x 38	610 x 64	610 x 48	610 x 64												
B8	610 x 38	610 x 48	610 x 38	610 x 64	610 x 48	610 x 64												

BRW
 A DAMES & MOORE GROUP COMPANY
 DATE
 REVIEWED
 STRUCTURE FILE NUMBER
 DRAWN
 M.F.
 REVISION
 DESIGNED
 SA
 CHECKED
 MKM
 BEAM ELEVATION
 171 N.B.
 BRIDGE 3
 35 / 64
 445
 588

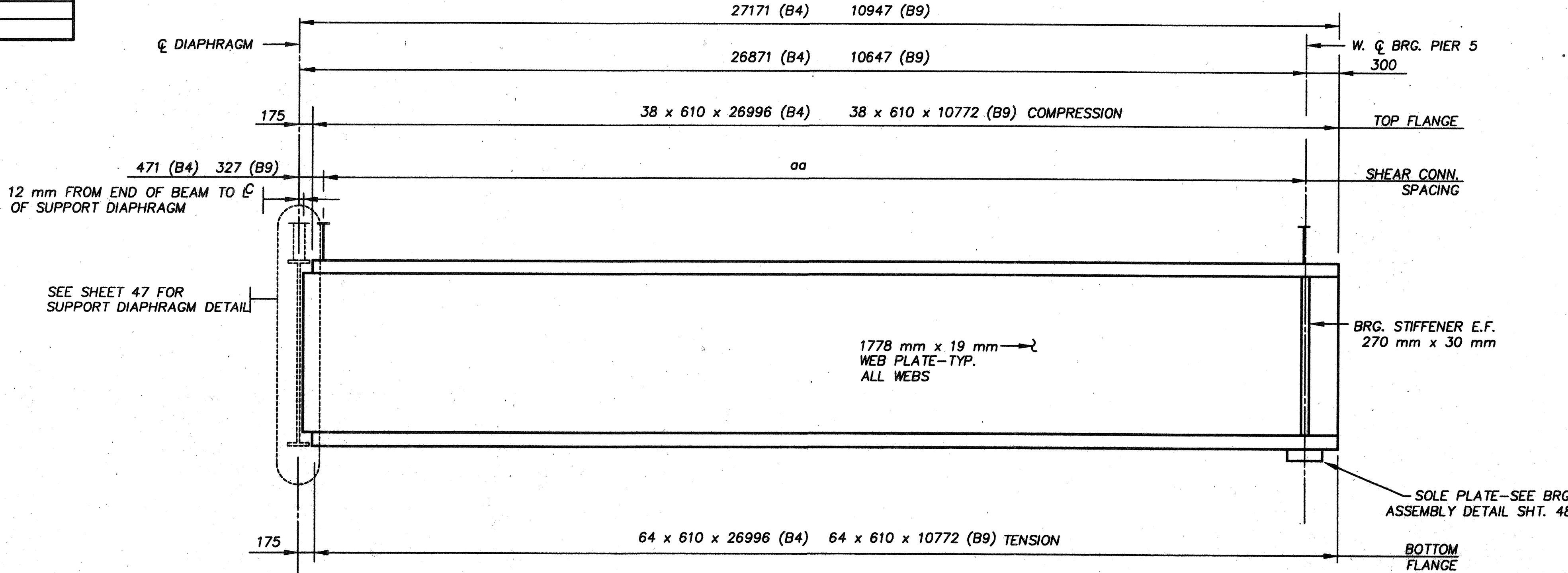
NOV 10 1998
 3-10-98



BEAM ELEVATION
(BEAM 5 - SPANS 4 & 5)

SHEAR CONNECTOR SPACING			
BEAM	aa	bb	cc
B4	60 SPA. @ 440 = 26400	-	-
B5	79 SPA. @ 410 = 32390	5 SPA. @ 150 = 750	45 SPA. @ 430 = 19350
B9	24 SPA. @ 430 = 10320	-	-

NOTE:
BEAM DISTANCES ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF BEAM WEB.
SEE FRAMING PLAN FOR BEAM CURVATURE INFORMATION.
WELDED ATTACHMENT OF SUPPORTS FOR CONG. DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQ'D. BY AASHTO.



BEAM ELEVATION
(BEAMS 4 & 9)

FINAL FOR CONSTRUCTION

BRW
A DAMES & MOORE GROUP COMPANY

DESIGNED	SA	CHECKED	MM	DATE	REVISION	STRUCTURE FILE NUMBER

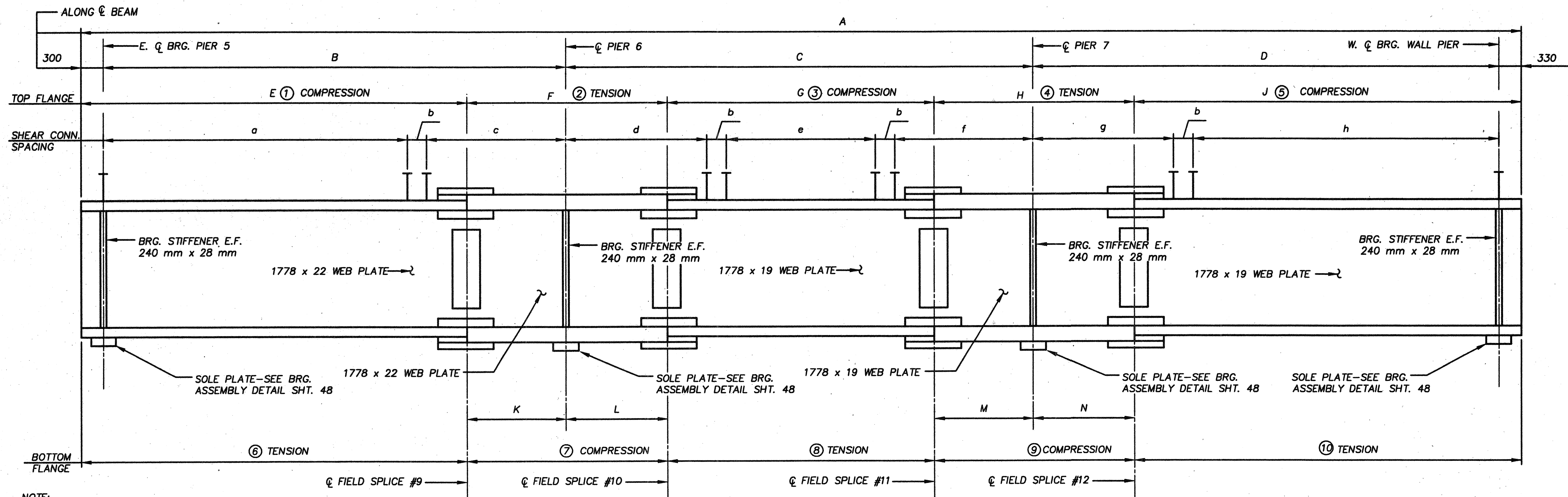
BEAM ELEVATION
171 N.B.

BRIDGE 3

36 / 64

446
588

AUG 18 1998
3-REL-1016 6-18-98



NOTE:
BEAM DISTANCES ARE MEASURED HORIZONTALLY
ALONG CENTERLINE OF BEAM WEB.

SEE FRAMING PLAN FOR BEAM CURVATURE
INFORMATION.

WELDED ATTACHMENT OF SUPPORTS FOR CONC. DECK
FINISHING MACHINE MAY BE MADE TO AREAS OF THE
FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION".
ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED
"TENSION". FILLET WELDS TO COMPRESSION FLANGES
SHALL BE NOT CLOSER THAN 25 mm FROM EDGE OF
FLANGE, BE NOT MORE THAN 50 mm LONG, AND BE NOT
SMALLER THAN THE MINIMUM SIZE REQ'D. BY AASHTO.

BEAM ELEVATION
(BEAMS 1 THRU 5)

**FINAL FOR
CONSTRUCTION**

BEAM LENGTHS

BEAM	A	B	C	D	E	F	G	H	J	K	L	M	N					
B1	148312	57531	54781	35383	38544	34179	25760	21153	28689	19287	14892	14129	7024					
B2	147838	57230	54475	35512	38420	33865	25571	21183	28808	19110	14755	14149	7034					
B3	147364	56928	54170	35642	38295	33552	25382	21213	28928	18933	14619	14169	7044					
B4	146830	56627	53865	35771	38171	33238	25193	21244	29047	18756	14482	14190	7054					
B5	146351	56326	53536	35859	38047	32923	24972	21287	29122	18579	14344	14220	7067					

SHEAR CONNECTOR SPACING

BEAM	a	b	c	d	e	f	g	h
B1	92 SPA. @ 400 = 36800	5 SPA. @ 150 = 750	19981	15628	60 SPA. @ 380 = 22800	14853	7753	64 SPA. @ 420 = 26880
B2	99 SPA. @ 370 = 36630	5 SPA. @ 150 = 750	19850	15510	61 SPA. @ 370 = 22570	14895	7752	73 SPA. @ 370 = 27010
B3	96 SPA. @ 380 = 36480	5 SPA. @ 150 = 750	19698	15403	62 SPA. @ 360 = 22320	14947	7882	73 SPA. @ 370 = 27010
B4	91 SPA. @ 400 = 36400	5 SPA. @ 150 = 750	19477	15290	54 SPA. @ 410 = 22140	14935	7721	70 SPA. @ 390 = 27300
B5	79 SPA. @ 460 = 36340	5 SPA. @ 150 = 750	19236	15080	50 SPA. @ 440 = 22000	14956	7809	65 SPA. @ 420 = 27300

BEAM FLANGE TABLE

BEAM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
B1	558 x 38	558 x 76	558 x 26	558 x 58	558 x 26	558 x 90	558 x 76	558 x 52	558 x 58	558 x 52
B2	558 x 38	558 x 76	558 x 26	558 x 58	558 x 26	558 x 90	558 x 76	558 x 52	558 x 58	558 x 52
B3	558 x 38	558 x 76	558 x 26	558 x 58	558 x 26	558 x 90	558 x 76	558 x 52	558 x 58	558 x 52
B4	558 x 38	558 x 76	558 x 26	558 x 58	558 x 26	558 x 90	558 x 76	558 x 52	558 x 58	558 x 52
B5	558 x 38	558 x 76	558 x 26	558 x 58	558 x 26	558 x 90	558 x 76	558 x 52	558 x 58	558 x 52

AUG 18 1998

8-18-98

DESIGNED	DATE	REVIEWED	DATE
SA		M.F.	
CHKD		REVISED	
INCM			

BRIDGE 3

BRIDGE 3

37 / 64

447
588

BRW
A DAVIES & MOORE GROUP COMPANY

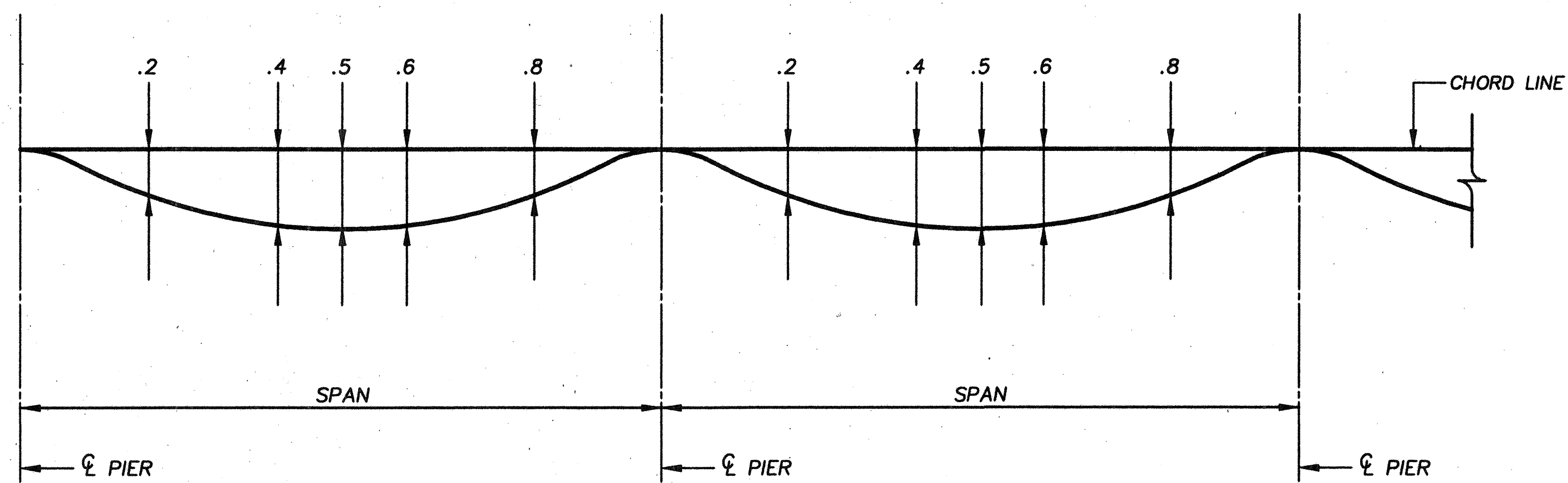
DEFLECTION TABLE						
SPAN 1						
		.2	.4	.5	.6	.8
BEAM B1	C	7	10	9	8	3
	S	2	3	3	2	1
	T	9	13	12	10	4
BEAM B2	C	7	10	9	8	3
	S	2	3	3	3	1
	T	9	13	12	11	4
BEAM B3	C	6	9	9	8	3
	S	2	3	3	3	1
	T	8	12	12	11	4
BEAM B6	C	8	11	11	9	4
	S	2	3	3	3	2
	T	10	14	14	12	6
BEAM B7	C	9	13	13	11	4
	S	2	4	4	3	2
	T	11	17	17	14	6
BEAM B8	C	10	15	14	12	5
	S	3	4	4	3	2
	T	13	19	18	15	7

DEFLECTION TABLE						
SPAN 2						
		.2	.4	.5	.6	.8
BEAM B1	C	5	9	9	7	1
	S	1	1	1	-1	-2
	T	6	10	10	6	-1
BEAM B2	C	5	9	8	6	1
	S	-1	-1	-1	-2	-3
	T	4	8	7	4	-2
BEAM B3	C	3	7	6	5	-1
	S	0	-1	-1	-3	-3
	T	3	6	5	2	-4
BEAM B6	C	3	7	7	5	0
	S	0	-1	-1	-2	-3
	T	3	6	6	3	-3
BEAM B7	C	4	8	8	5	-1
	S	0	-1	-2	-2	-3
	T	4	7	6	3	-4
BEAM B8	C	4	9	8	5	-1
	S	0	-1	-2	-3	-4
	T	4	8	6	2	-5

DEFLECTION TABLE						
SPAN 3						
		.2	.4	.5	.6	.8
BEAM B1	C	10	18	19	18	9
	S	6	11	11	10	5
	T	16	29	30	28	14
BEAM B2	C	11	21	22	20	10
	S	8	13	14	12	6
	T	19	34	36	32	16
BEAM B3	C	12	23	24	22	11
	S	9	16	17	15	7
	T	21	39	41	37	18
BEAM B6	C	12	22	23	21	10
	S	9	15	15	14	7
	T	21	37	38	35	17
BEAM B7	C	15	27	28	26	13
	S	10	17	18	16	8
	T	25	44	46	42	21
BEAM B8	C	17	32	33	30	15
	S	11	19	20	18	9
	T	28	51	53	48	24

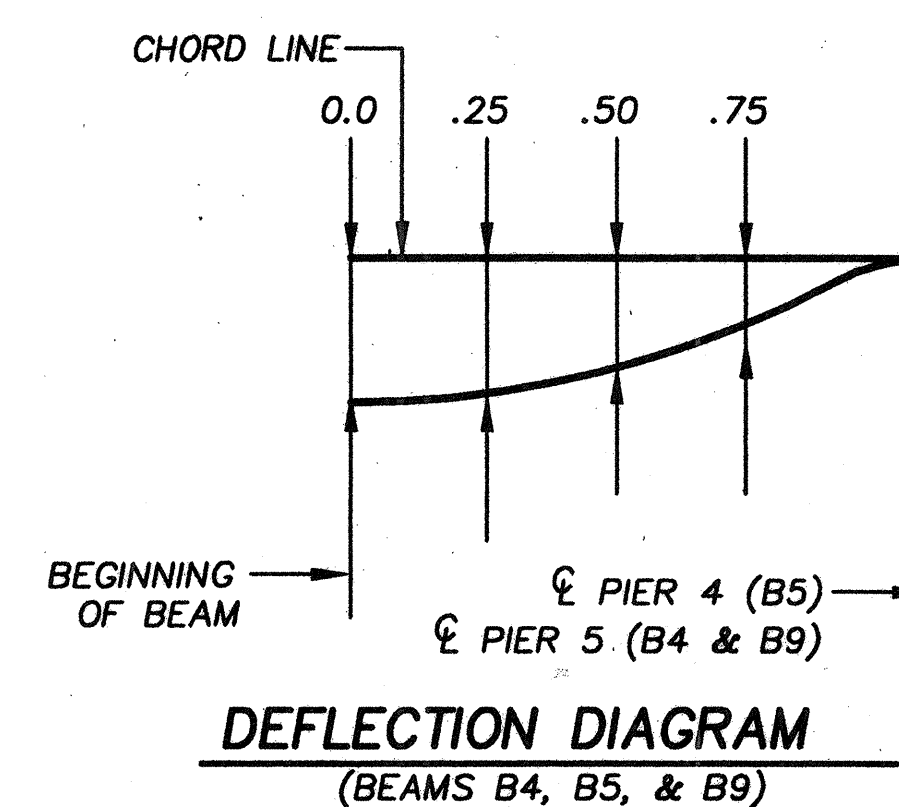
DEFLECTION TABLE						
SPAN 4						
		.2	.4	.5	.6	.8
BEAM B1	C	5	12	13	11	3
	S	2	5	6	5	1
	T	7	17	19	16	4
BEAM B2	C	5	11	12	11	3
	S	2	5	5	5	1
	T	7	16	17	16	4
BEAM B3	C	4	9	10	9	3
	S	1	4	5	4	1
	T	5	13	15	13	4
BEAM B6	C	5	11	12	11	3
	S	1	5	5	5	2
	T	6	16	17	16	5
BEAM B7	C	6	15	16	15	6
	S	2	6	7	6	2
	T	8	21	23	21	8
BEAM B8	C	7	18	20	18	8
	S	2	7	8	8	3
	T	9	25	28	26	11

DEFLECTION TABLE						
SPAN 5						
		.2	.4	.5	.6	.8
BEAM B1	C	15	30	34	34	23
	S	7	14	16	16	11
	T	22	44	50	50	34
BEAM B2	C	13	28	32	32	21
	S	6	12	14	14	10
	T	19	40	46	46	31
BEAM B3	C	12	25	28	28	19
	S	5	11	12	12	8
	T	17	36	40	40	27
BEAM B5	C	11	20	22	22	14
	S	4	9	9	9	6
	T	15	29	31	31	20
BEAM B6	C	10	22	25	25	17
	S	4	9	11	12	7
	T	14	31	36	37	24
BEAM B7	C	11	24	28	28	19
	S	5	11	12	12	8
	T	16	35	40	40	27
BEAM B8	C	12	26	30	31	21
	S	5	12	14	14	10
	T	17	38	34	35	31



DEFLECTION DIAGRAM TYPICAL
(mm)

DEFLECTION TABLE					
		0.0	.25	.50	.75
BEAM B4	C	20	23	20	11
	S	9	9	8	5
	T	29	32	28	16
BEAM B5	C	8	10	8	2
	S	3	4	3	1
	T	11	14	11	3
BEAM B9	C	8	-	4	-
	S	3	-	2	-
	T	11	-	6	-



NOTE:
 C DENOTES DEFLECTION IN mm DUE TO WEIGHT OF SLAB, WEARING COURSE AND RAILINGS.
 S DENOTES DEFLECTION IN mm DUE TO WEIGHT OF STRUCTURAL STEEL.
 T DENOTES TOTAL DEFLECTION IN mm DUE TO CONCRETE AND STEEL.
 NEGATIVE SIGN INDICATES UPLIFT.
 CHORD LINE IS A STRAIGHT LINE FROM C BRG. TO C BRG. AT TOP OF WEB.

FINAL FOR CONSTRUCTION

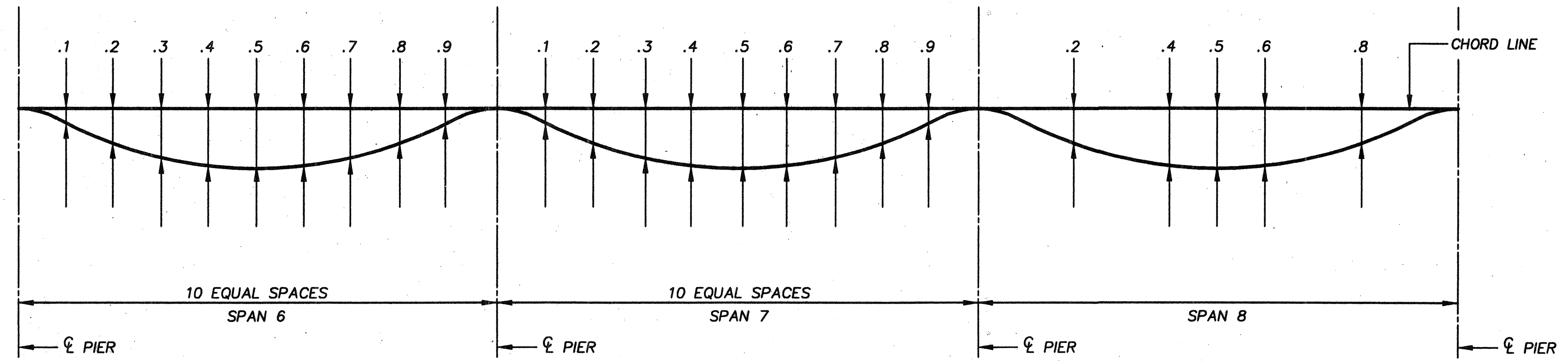
AUG. 1 & 1998

3-96/LDW 8-18-88

DEFLECTION TABLE										
SPAN 6										
		.1	.2	.3	.4	.5	.6	.7	.8	.9
BEAM B1	C	45	84	113	129	129	116	91	59	26
	S	23	43	58	66	67	60	48	31	14
	T	68	127	171	195	196	176	139	90	40
BEAM B2	C	43	81	108	121	120	107	82	52	23
	S	22	41	54	62	62	55	43	28	12
	T	65	122	162	183	182	162	125	80	35
BEAM B3	C	41	76	101	113	113	100	77	50	22
	S	21	38	51	58	57	51	40	26	12
	T	62	114	152	171	170	151	117	76	34
BEAM B4	C	38	71	94	105	105	93	72	46	20
	S	19	35	47	54	53	48	37	24	11
	T	57	106	141	159	158	141	109	70	31
BEAM B5	C	35	65	87	97	97	86	66	42	18
	S	18	33	43	49	48	44	34	22	10
	T	53	98	130	146	145	130	100	64	28

DEFLECTION TABLE										
SPAN 7										
		.1	.2	.3	.4	.5	.6	.7	.8	.9
BEAM B1	C	-12	-16	-15	-10	-6	-4	-3	-4	-4
	S	-8	-12	-13	-12	-11	-8	-7	-5	-3
	T	-20	-28	-28	-22	-17	-12	-10	-9	-7
BEAM B2	C	-10	-13	-11	-7	-4	-2	-2	-3	-4
	S	-6	-11	-12	-10	-9	-7	-6	-4	-3
	T	-16	-24	-23	-17	-13	-9	-8	-7	-7
BEAM B3	C	-9	-11	-9	-5	-2	0	-1	-3	-3
	S	-6	-9	-10	-9	-7	-6	-5	-4	-2
	T	-15	-20	-19	-14	-9	-6	-6	-7	-5
BEAM B4	C	-8	-9	-7	-3	-1	-1	0	-1	-2
	S	-5	-8	-8	-7	-6	-4	-4	-3	-3
	T	-13	-17	-15	-10	-7	-5	-4	-4	-5
BEAM B5	C	-7	-8	-5	-2	0	1	0	-2	-3
	S	-5	-7	-7	-6	-4	-3	-3	-2	-2
	T	-12	-15	-12	-8	-4	-2	-3	-4	-5

DEFLECTION TABLE						
SPAN 8						
		.2	.4	.5	.6	.8
BEAM B1	C	19	38	44	45	31
	S	8	16	18	18	12
	T	27	54	62	63	43
BEAM B2	C	20	39	44	44	29
	S	8	16	17	17	11
	T	28	55	61	61	40
BEAM B3	C	18	38	44	44	30
	S	8	15	17	17	11
	T	26	53	61	61	41
BEAM B6	C	18	38	43	43	29
	S	8	15	17	17	11
	T	26	53	60	60	40
BEAM B5	C	18	37	42	43	29
	S	7	14	16	16	11
	T	25	51	58	59	40



DEFLECTION DIAGRAM
(mm)

NOTE:
 C DENOTES DEFLECTION IN mm DUE TO WEIGHT OF SLAB, WEARING COURSE AND RAILINGS.
 S DENOTES DEFLECTION IN mm DUE TO WEIGHT OF STRUCTURAL STEEL.
 T DENOTES TOTAL DEFLECTION IN mm DUE TO CONCRETE AND STEEL.
 NEGATIVE SIGN INDICATES UPLIFT.
 CHORD LINE IS A STRAIGHT LINE FROM C BRG. TO C BRG. AT TOP OF WEB.

FINAL FOR CONSTRUCTION

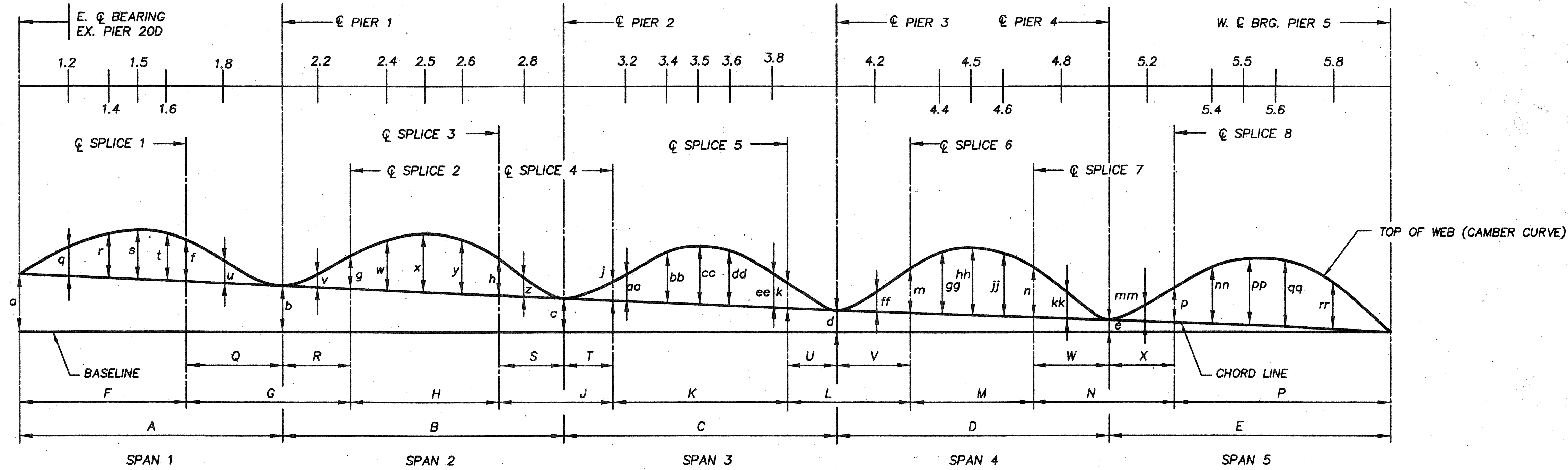
3-SEP-2006 8:16:48
 AUG 18 1998

BRW
 A DAMES & MOORE GROUP COMPANY
 BRIDGE 3
 BEAM DEFLECTION SCHEDULES
 171SB
 DESIGNED: MCM
 DRAWN: M.F.
 CHECKED: SA
 REVIEWED: DATE
 STRUCTURE FILE NUMBER
 39 / 64
 449
 588

CAMBER TABLE																				
BEAM	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V
B1	24189	32166	45367	45582	42962	17902	13179	13787	18211	30249	19717	23348	19559	34314	6287	6892	11487	6724	8394	11323
B2	24107	32586	45960	46100	42960	17802	13287	13967	18448	30645	19975	23654	19622	34313	6305	6982	11637	6811	8504	11471
B3	24091	33006	46554	46619	42957	17752	13411	14147	18686	31041	20234	23960	19684	34312	6339	7072	11787	6899	8614	11620
B6	24141	33426	47165	47288	42597	17751	13552	14327	18924	31444	20526	24371	19725	33997	6390	7162	11937	6987	8734	11792
B7	24258	33847	47758	47807	42597	17799	13711	14508	19162	31839	20785	24677	19789	33997	6459	7252	12087	7075	8844	11941
B8	24441	34267	48351	48326	42597	17896	13887	14688	19400	32234	21043	24983	19854	33997	6545	7342	12237	7163	8954	12089

CAMBER TABLE																				
BEAM	W	X	a	b	c	d	e	f	g	h	j	k	m	n	p	q	r	s	t	u
B1	10911	8648	4120	2987	2216	1614	933	-13	-33	-45	-4	27	51	-18	41	-6	-12	-13	-15	-13
B2	10975	8647	4104	3042	2271	1669	928	-13	-34	-47	0	31	51	2	39	-6	-12	-14	-15	-13
B3	11039	8645	4264	3271	2500	1898	1099	-13	-34	-49	0	32	50	22	38	-6	-12	-14	-15	-13
B6	11125	8600	4394	3426	2655	2080	1206	-13	-34	-49	0	31	54	64	38	-5	-10	-12	-13	-12
B7	11189	8600	4482	3628	2857	2282	1304	-11	-34	-48	0	33	61	68	38	-4	-8	-10	-11	-11
B8	11254	8600	4608	3825	3054	2479	1396	-10	-34	-49	0	36	75	77	40	-2	-6	-8	-10	-10

CAMBER TABLE																				
BEAM	v	w	x	y	z	aa	bb	cc	dd	ee	ff	gg	hh	jj	kk	mm	nn	pp	qq	rr
B1	-30	-43	-45	-47	-36	-2	20	30	35	30	50	47	31	6	-12	40	63	66	63	40
B2	-30	-44	-48	-49	-38	1	25	35	40	32	45	54	45	26	5	39	60	62	59	37
B3	-30	-47	-50	-51	-40	4	30	39	44	35	41	61	57	45	21	37	55	56	53	34
B6	-32	-47	-50	-50	-38	-3	23	33	39	32	51	88	93	89	55	34	50	51	49	31
B7	-31	-46	-49	-50	-39	3	30	40	46	35	57	97	102	98	60	35	54	56	53	34
B8	-31	-45	-49	-50	-41	5	37	48	53	39	64	106	112	107	64	36	57	60	57	37



CAMBER DIAGRAM
BEAMS B1-B3, B6-B8

CAMBER NOTES

CAMBER DIAGRAM SHOWN IS FOR BEAMS IN UNLOADED POSITION AND PROVIDES FOR ALL DEAD LOAD DEFLECTIONS AND VERTICAL CURVE CAMBER. CHORD LINES ARE STRAIGHT LINES FROM Q BEARING TO Q BEARING AT TOP OF WEB. BASELINE IS A LEVEL LINE FOR FULL LENGTH OF BEAM.

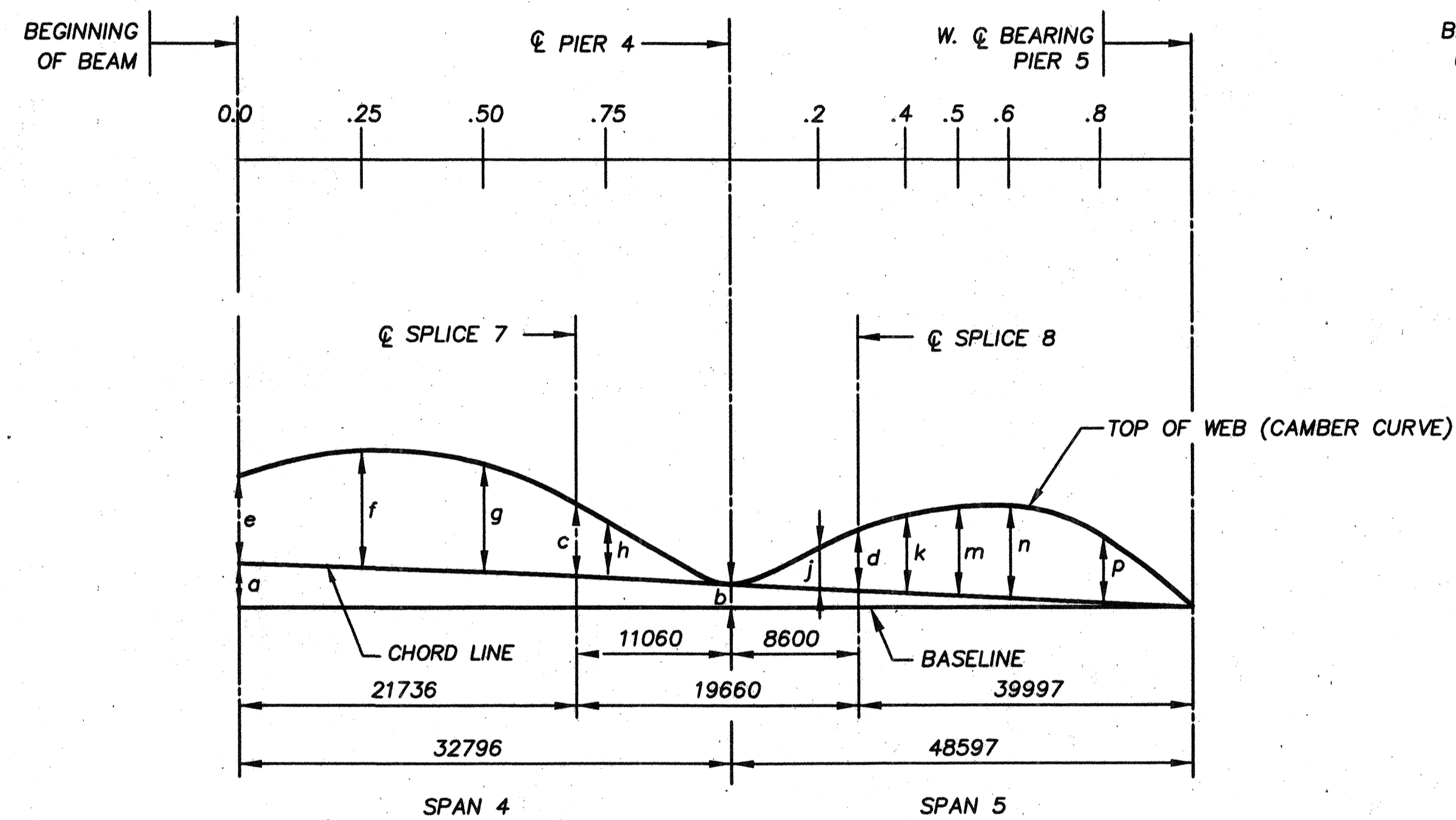
FINAL FOR CONSTRUCTION

BRW
 A DAMES & MOORE GROUP COMPANY
 DATE _____
 REVIEWED _____
 STRUCTURE FILE NUMBER _____
 DRAWN M.F.
 REVISION _____
 DESIGNED SA
 CHECKED M.M.
 BEAM CAMBER SCHEDULE
 171NB
 BRIDGE 3
 40/64
 450
 588

3-CAMBERLONG 6-13-88

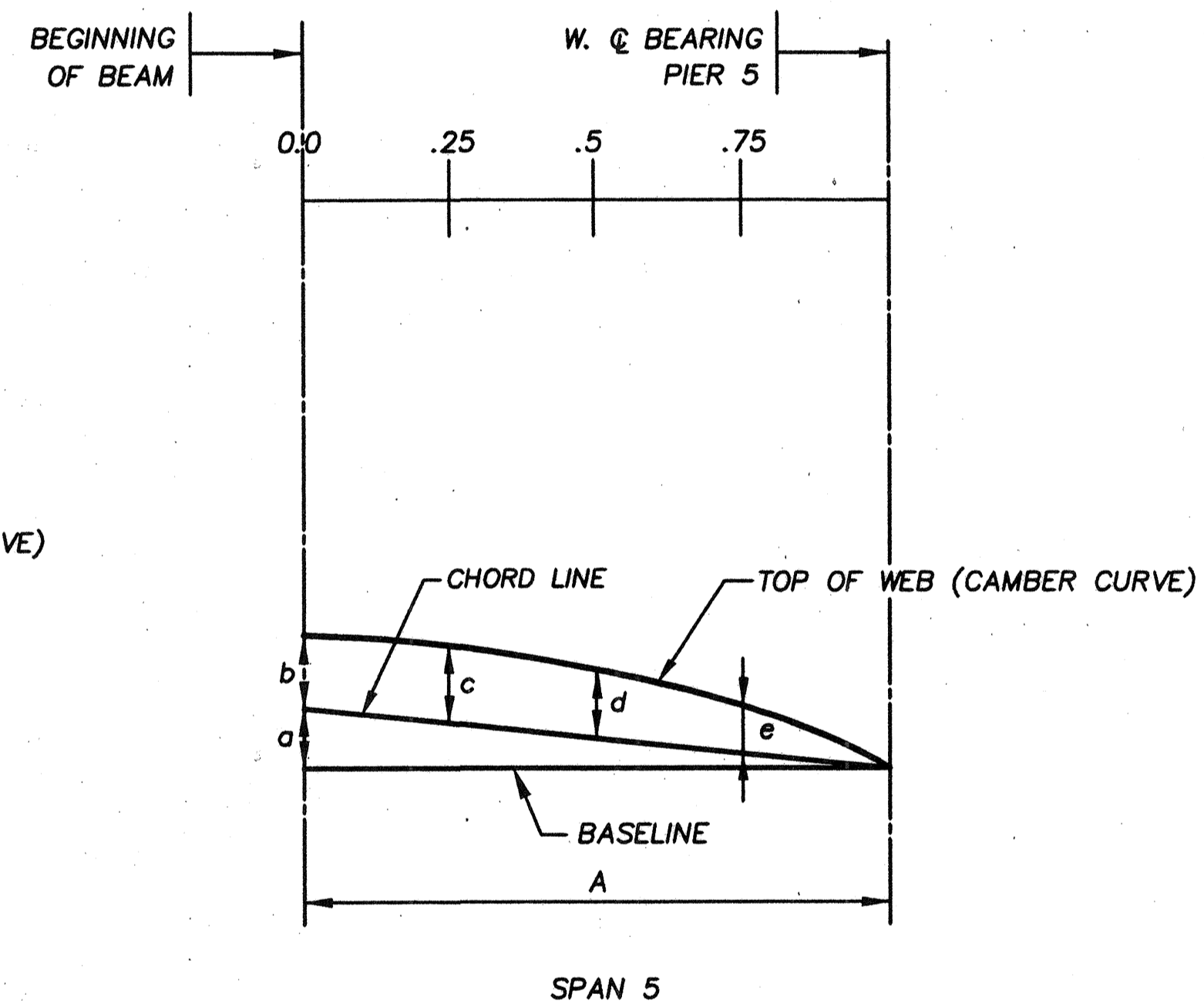
CAMBER TABLE

BEAM	A	a	b	c	d	e	f	g	h	j	k	m	n	p
B4	26871	848	29	32	27	15	-	-	-	-	-	-	-	-
B5	-	1703	1153	35	35	11	39	43	32	35	48	48	44	27
B9	10647	419	24	16	11	7	-	-	-	-	-	-	-	-



BEAM B5

CHORD LINE IS A STRAIGHT LINE FROM BEGINNING OF BEAM TO Q BEARING PIER 4 TO Q BRG. PIER 5 AT THE TOP OF THE WEB.



BEAM B4 & B9

CHORD LINE IS A STRAIGHT LINE FROM BEGINNING OF BEAM TO Q BEARING PIER 5 AT THE TOP OF THE WEB.

CAMBER NOTES

CAMBER DIAGRAM SHOWN IS FOR BEAMS IN UNLOADED POSITION AND PROVIDES FOR ALL DEAD LOAD DEFLECTIONS AND VERTICAL CURVE CAMBER. BASELINE IS A LEVEL LINE FOR FULL LENGTH OF BEAM.

FINAL FOR CONSTRUCTION

BRW
A DANKER & MOORE GROUP COMPANY

DATE: _____
STRUCTURE FILE NUMBER: _____

DRAWN: M.F. _____
REVISED: _____

SA: _____
CHECKED: M.M. _____

BEAM CAMBER SCHEDULE
171NB

BRIDGE 3

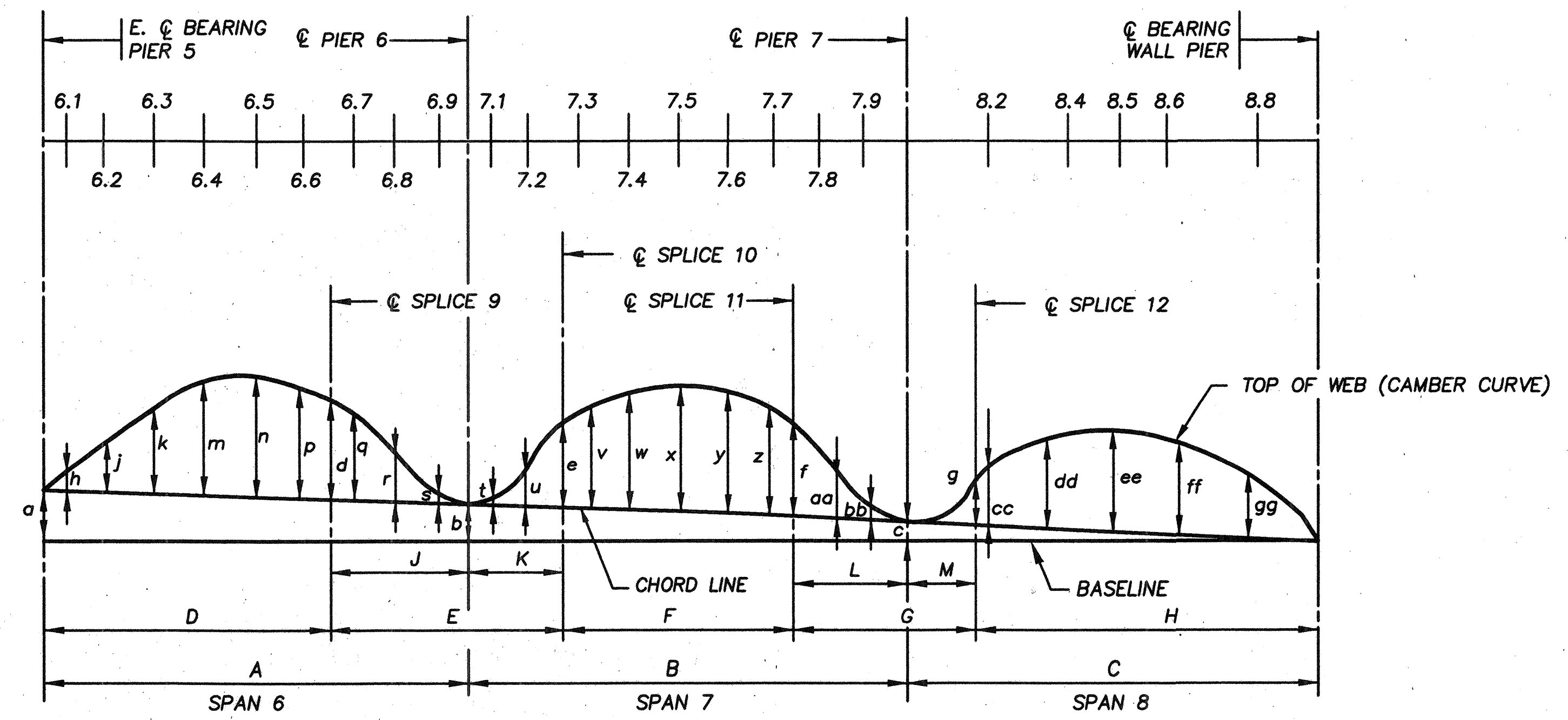
41 / 64

451
588

CAMBER TABLE																				
BEAM	A	B	C	D	E	F	G	H	J	K	L	M	a	b	c	d	e	f	g	h
B1	57531	54781	35383	38244	34179	25760	21153	28359	19287	14892	14129	7024	5778	4227	1979	158	96	79	54	70
B2	57230	54475	35512	38120	33865	25571	21183	28478	19110	14755	14149	7034	5782	4236	1984	145	102	86	56	67
B3	56928	54170	35642	37995	33552	25382	21213	28598	18933	14619	14169	7044	5744	4082	1914	132	85	81	55	62
B4	56627	53865	35771	37871	33238	25193	21244	28717	18756	14482	14190	7054	5705	3925	1840	121	66	74	54	57
B5	56326	53536	35859	37747	32923	24972	21287	28792	18579	14344	14220	7067	5636	3816	1792	100	53	73	54	50

CAMBER TABLE																				
BEAM	j	k	m	n	p	q	r	s	t	u	v	w	x	y	z	aa	bb	cc	dd	ee
B1	130	175	200	203	185	148	101	53	30	70	108	118	120	113	96	70	37	54	96	105
B2	125	166	185	189	170	135	91	48	33	75	115	123	124	115	97	70	36	56	97	105
B3	116	154	174	175	157	124	82	41	27	62	95	107	111	106	90	66	34	55	96	104
B4	107	142	160	160	143	112	73	34	20	49	76	92	99	97	84	62	32	55	95	104
B5	92	121	135	131	112	80	51	24	17	39	62	81	92	93	80	60	32	54	94	103

CAMBER TABLE		
BEAM	ff	gg
B1	104	70
B2	103	68
B3	103	69
B4	103	69
B5	102	69



CAMBER DIAGRAM
BEAMS B1-B5

CAMBER NOTES

CAMBER DIAGRAM SHOWN IS FOR BEAMS IN UNLOADED POSITION AND PROVIDES FOR ALL DEAD LOAD DEFLECTIONS AND VERTICAL CURVE CAMBER. CHORD LINES ARE STRAIGHT LINES FROM ϕ BEARING TO ϕ BEARING AT TOP OF WEB. BASELINE IS A LEVEL LINE FOR FULL LENGTH OF BEAM.

FINAL FOR CONSTRUCTION

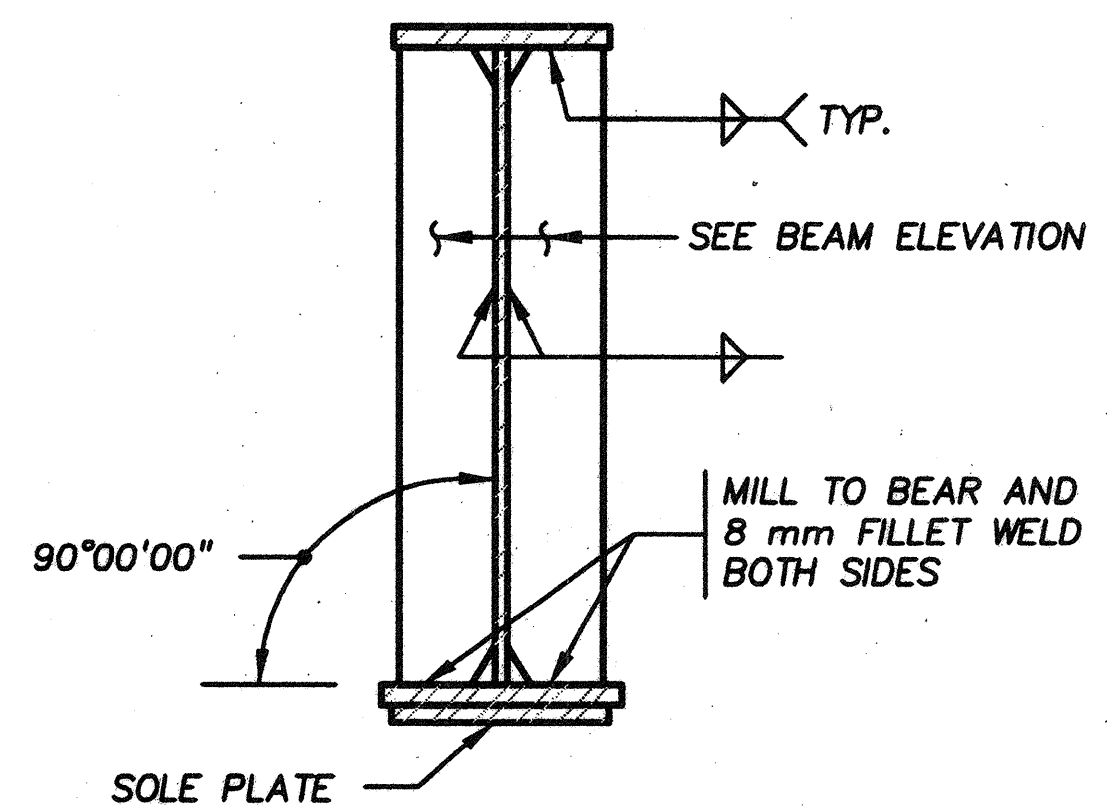
BRW
 A DAMBER & MOORE GROUP COMPANY
 DATE _____
 STRUCTURE FILE NUMBER _____
 REVIEWED _____
 DRAWN M.F. _____
 CHECKED DDL _____
 BEAM CAMBER SCHEDULE
 171NB
 BRIDGE 3
 42 / 64
 452
 588

SPLICE INFORMATION

	SPLICE NO. 1				SPLICE NO. 2				SPLICE NO. 3				SPLICE NO. 4				SPLICE NO. 5				SPLICE NO. 6				SPLICE NO. 7				SPLICE NO. 8			
	TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES		
BEAM B1	1	T1	F1	-	2	T17	-	-	3	T10	F2	-	4	-	F3	G1	5	T3	F4	-	4	T4	F5	-	4	T4	F5	-	6	T5	F5	-
BEAM B2	7	T6	F1	-	2	T17	-	-	2	T7	F2	-	4	-	F3	G1	4	T8	F4	-	4	T4	F5	-	4	T4	F5	-	4	T4	F5	-
BEAM B3	8	T9	F1	-	3	T18	-	-	3	T10	F2	-	9	-	F6	G1	6	T11	F4	-	4	T4	F5	-	4	T4	F5	-	6	T5	F5	-
BEAM B4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BEAM B5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BEAM B6	10	T13	F7	-	11	-	F8	-	12	T2	F9	-	9	-	F11	G1	4	T15	F12	-	5	T12	F5	-	5	T12	F5	-	4	T4	F5	-
BEAM B7	10	T13	F7	-	11	-	F8	-	12	T2	F9	-	9	-	F11	G1	6	T11	F12	-	4	T4	F5	-	4	T4	F5	-	6	T5	F5	-
BEAM B8	10	T13	F7	-	11	-	F8	-	13	T16	F9	-	9	-	F11	G1	14	T14	F10	-	6	T5	F5	-	6	T5	F5	-	6	T5	F5	-

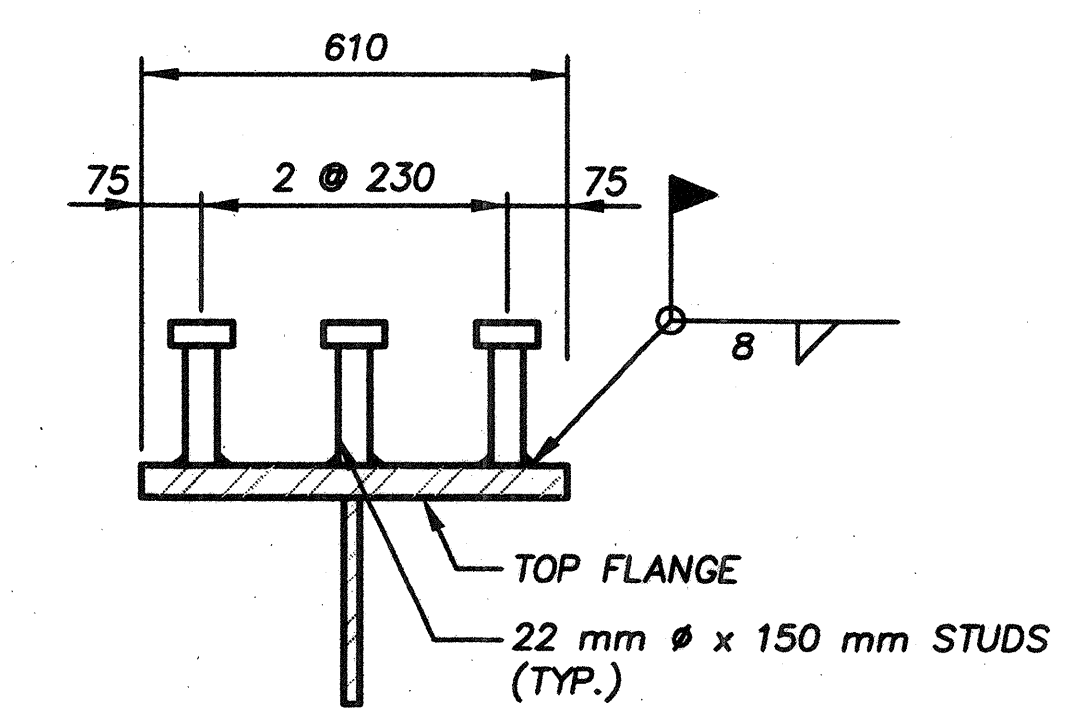
FLANGE SPLICES

	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	TYPE 7	TYPE 8	TYPE 9	TYPE 10	TYPE 11	TYPE 12	TYPE 13	TYPE 14
PLATE A	610 x 788 x 10	610 x 636 x 11	610 x 788 x 11	610 x 788 x 22	610 x 636 x 21	610 x 940 x 21	610 x 636 x 10	610 x 484 x 10	610 x 940 x 22	610 x 940 x 10	610 x 788 x 12	610 x 788 x 12	610 x 940 x 12	610 x 1092 x 21
PLATE B	280 x 788 x 12	280 x 636 x 12	280 x 788 x 12	280 x 788 x 26	280 x 636 x 26	280 x 940 x 24	280 x 636 x 12	280 x 484 x 12	280 x 940 x 26	280 x 940 x 12	280 x 788 x 16	280 x 788 x 16	280 x 940 x 16	280 x 1092 x 24
PLATE C	280 x 788 x 12	280 x 1092 x 16	280 x 1092 x 16	280 x 1548 x 26	280 x 1548 x 24	280 x 1548 x 24	280 x 788 x 12	280 x 788 x 12	280 x 1548 x 26	280 x 940 x 12	280 x 1092 x 16	280 x 1244 x 19	280 x 1244 x 19	280 x 1548 x 24
PLATE D	610 x 788 x 10	610 x 1092 x 12	610 x 1092 x 12	610 x 1548 x 22	610 x 1548 x 21	610 x 1548 x 21	610 x 788 x 10	610 x 788 x 10	610 x 1548 x 22	610 x 940 x 10	610 x 1092 x 12	610 x 1244 x 16	610 x 1244 x 16	610 x 1548 x 21
WEB PLATE	330 x 1144 x 10	484 x 1144 x 12	484 x 1144 x 12	484 x 1676 x 12	484 x 1676 x 12	484 x 1676 x 12	330 x 1144 x 10	330 x 1144 x 10	484 x 1676 x 12	330 x 1144 x 10	330 x 1144 x 10	330 x 1144 x 11	330 x 1144 x 11	484 x 1676 x 12
①	4 SPA. ⌀ 76=304	3 SPA. ⌀ 76=228	4 SPA. ⌀ 76=304	4 SPA. ⌀ 76=304	3 SPA. ⌀ 76=228	5 SPA. ⌀ 76=380	3 SPA. ⌀ 76=228	2 SPA. ⌀ 76=152	5 SPA. ⌀ 76=380	5 SPA. ⌀ 76=380	4 SPA. ⌀ 76=304	4 SPA. ⌀ 76=304	5 SPA. ⌀ 76=380	6 SPA. ⌀ 76=456
②	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175
③	4 SPA. ⌀ 76=304	6 SPA. ⌀ 76=456	6 SPA. ⌀ 76=456	9 SPA. ⌀ 76=684	9 SPA. ⌀ 76=684	9 SPA. ⌀ 76=684	4 SPA. ⌀ 76=304	4 SPA. ⌀ 76=304	9 SPA. ⌀ 76=684	5 SPA. ⌀ 76=380	6 SPA. ⌀ 76=456	7 SPA. ⌀ 76=532	7 SPA. ⌀ 76=532	9 SPA. ⌀ 76=684
④	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175	1 SPA. ⌀ 175
⑤	1 SPA. ⌀ 75	2 SPA. ⌀ 76=152	2 SPA. ⌀ 76=152	2 SPA. ⌀ 76=152	2 SPA. ⌀ 76=152	2 SPA. ⌀ 76=152	1 SPA. ⌀ 75	1 SPA. ⌀ 75	2 SPA. ⌀ 76=152	1 SPA. ⌀ 75	1 SPA. ⌀ 75	1 SPA. ⌀ 75	1 SPA. ⌀ 75	2 SPA. ⌀ 76=152
⑥	1 SPA. ⌀ 78	1 SPA. ⌀ 78	1 SPA. ⌀ 78	1 SPA. ⌀ 91	1 SPA. ⌀ 91	1 SPA. ⌀ 91	1 SPA. ⌀ 78	1 SPA. ⌀ 78	1 SPA. ⌀ 91	1 SPA. ⌀ 78	1 SPA. ⌀ 78	1 SPA. ⌀ 78	1 SPA. ⌀ 78	1 SPA. ⌀ 91
⑦	14 SPA. ⌀ 76=1064	14 SPA. ⌀ 76=1064	14 SPA. ⌀ 76=1064	21 SPA. ⌀ 76=1596	21 SPA. ⌀ 76=1596	21 SPA. ⌀ 76=1596	14 SPA. ⌀ 76=1064	14 SPA. ⌀ 76=1064	21 SPA. ⌀ 76=1596	14 SPA. ⌀ 76=1064	14 SPA. ⌀ 76=1064	14 SPA. ⌀ 76=1064	14 SPA. ⌀ 76=1064	21 SPA. ⌀ 76=1596



BEARING STIFFENER

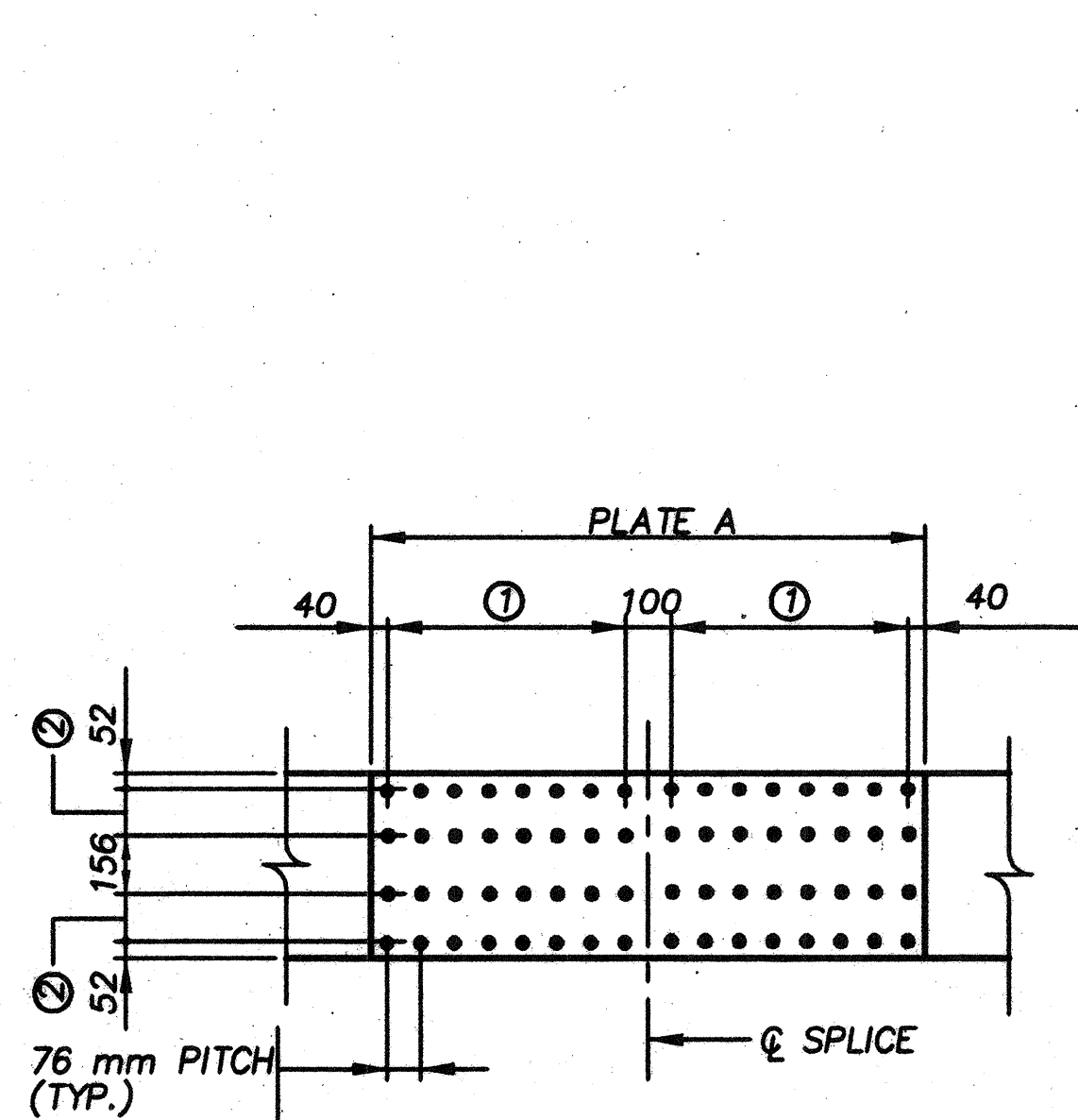
FOR MINIMUM WELD SIZE, SEE WELD CHART ON SHEET 33.



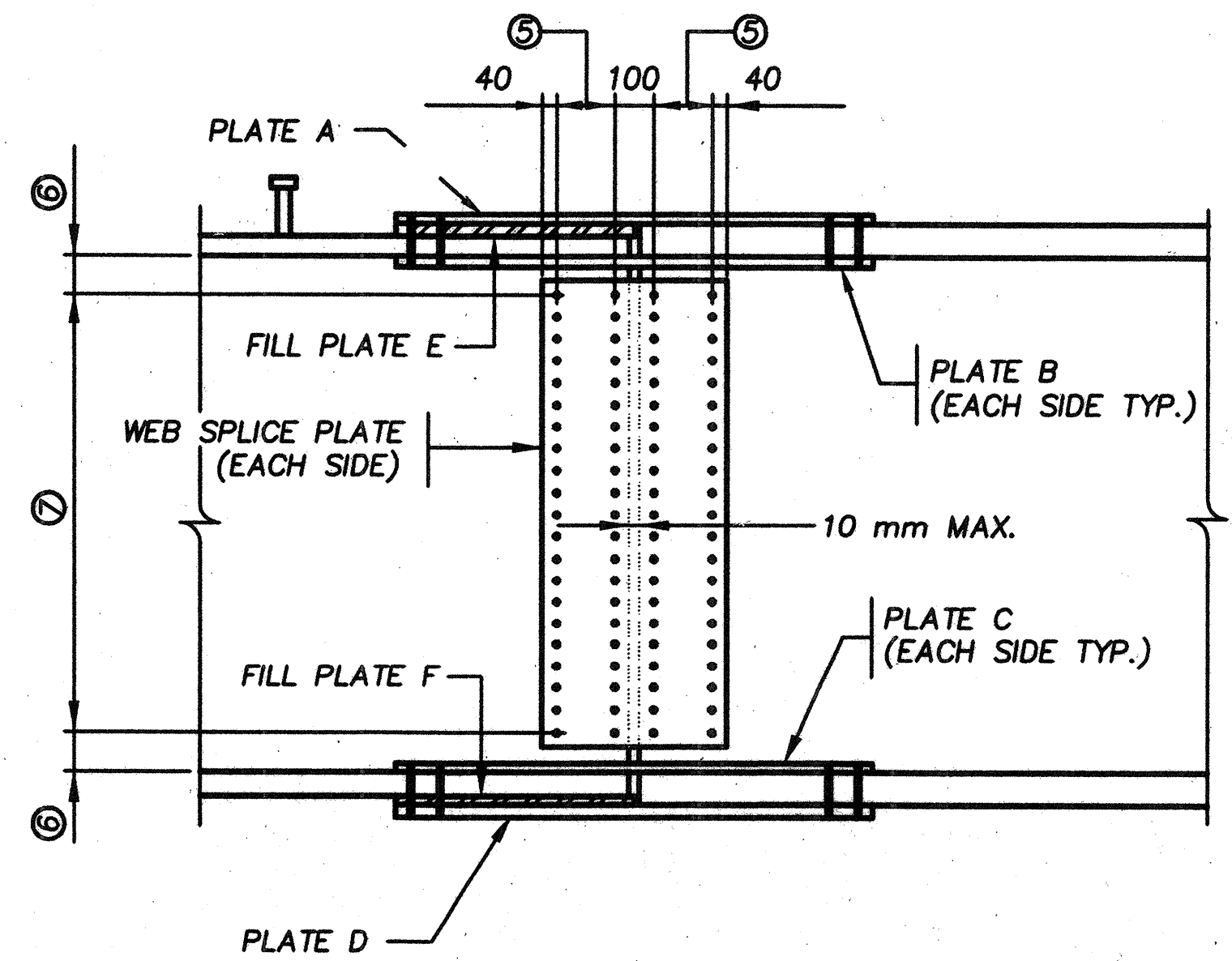
SHEAR STUD DETAIL
(610 mm FLANGE)

FILL PLATES

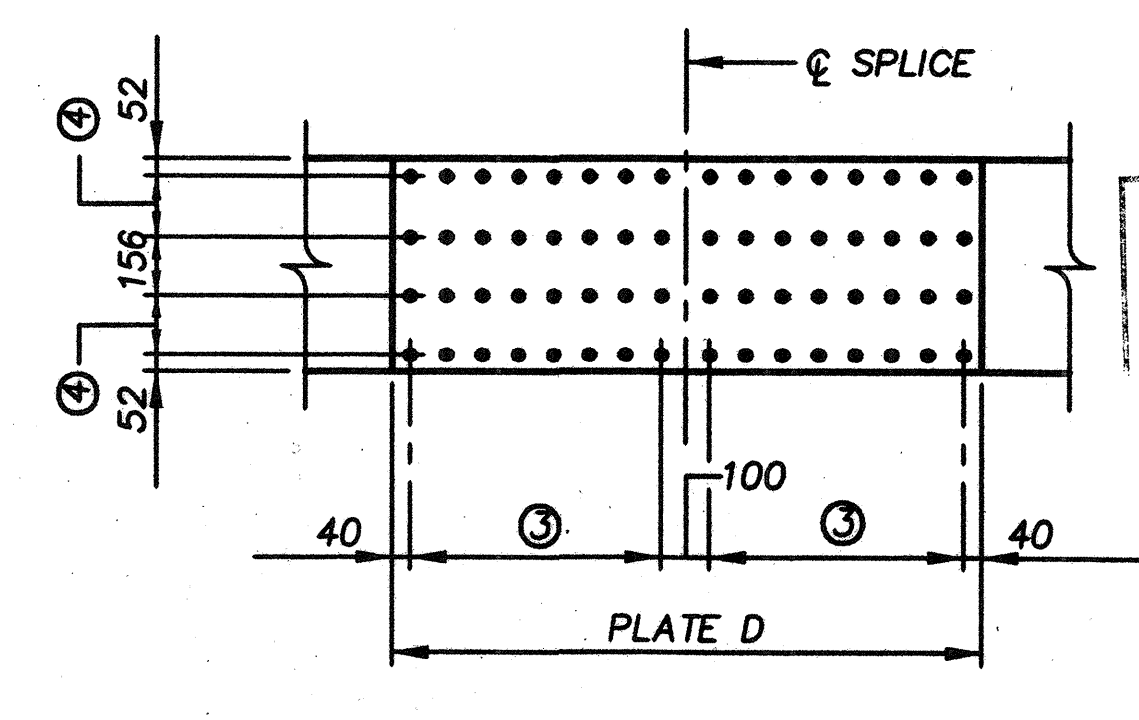
TOP	PLATE E	BOTTOM	PLATE F	WEB	PLATE G
T1	610 x 394 x 6	F1	610 x 394 x 6	G1	242 X 1676 X 2
T2	610 x 394 x 20	F2	610 x 546 x 20		
T3	610 x 318 x 2	F3	610 x 774 x 6		
T4	610 x 394 x 10	F4	610 x 774 x 10		
T5	610 x 470 x 10	F5	610 x 774 x 16		
T6	610 x 318 x 6	F6	610 x 470 x 6		
T7	610 x 318 x 26	F7	610 x 470 x 6		
T8	610 x 394 x 4	F8	610 x 546 x 6		
T9	610 x 242 x 6	F9	610 x 622 x 14		
T10	610 x 394 x 26	F10	610 x 774 x 22		
T11	610 x 470 x 4	F11	610 x 774 x 18		
T12	610 x 318 x 10	F12	610 x 774 x 22		
T13	610 x 470 x 6				
T14	610 x 546 x 4				
T15	610 x 394 x 4				
T16	610 x 470 x 20				
T17	610 x 318 x 6				
T18	610 x 394 x 6				



TOP FLANGE SPLICE

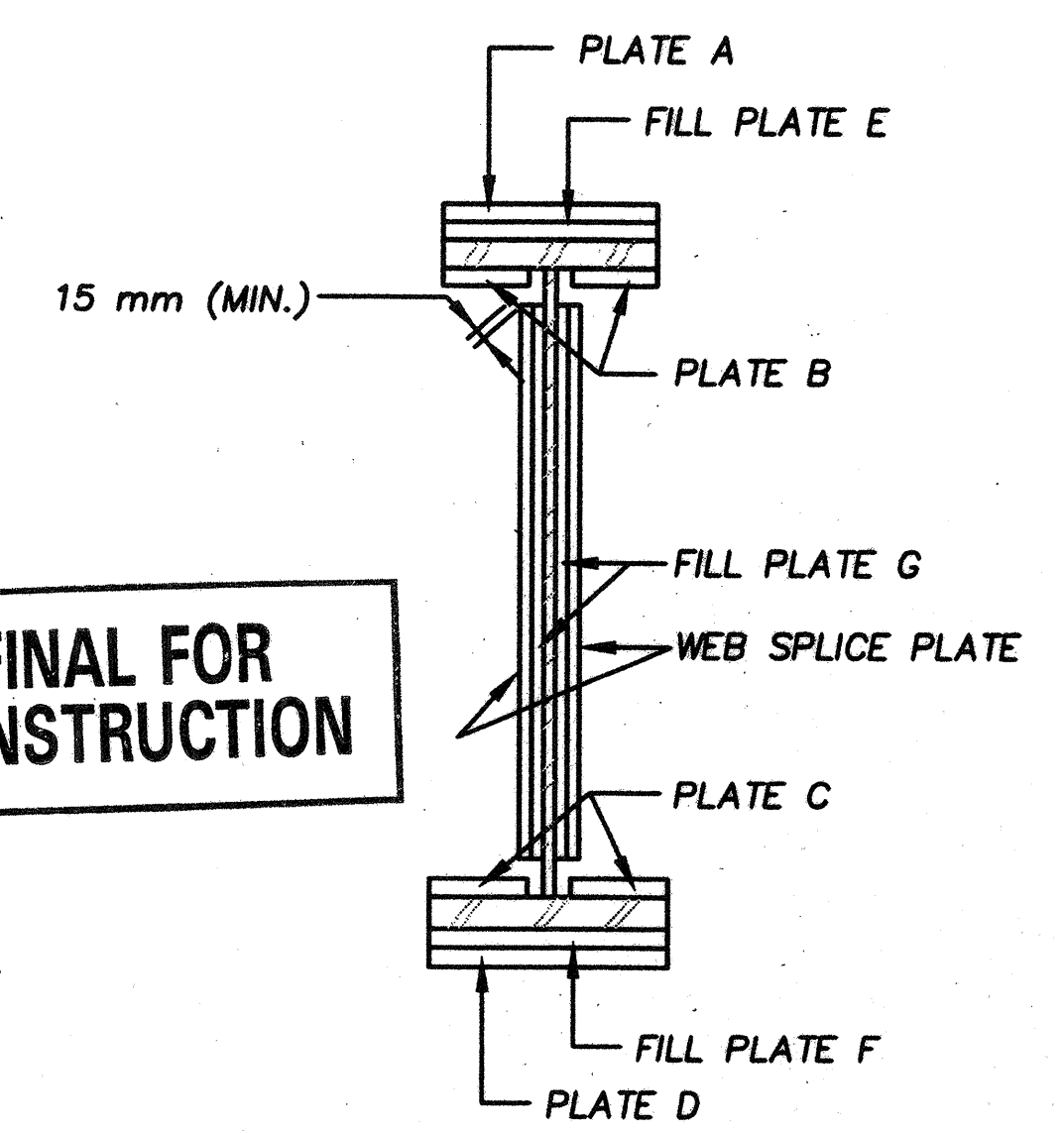


WEB SPLICE



BOTTOM FLANGE SPLICE

FINAL FOR CONSTRUCTION



SECTION THRU BEAM @ SPLICE

BRW
A DANIEL MANN GROUP COMPANY

DATE	REVISION	STRUCTURE FILE NUMBER
DRAWN	REVISED	
DESIGNED	CHECKED	

BEAM SPLICE DETAILS - SPANS 1 TO 5
171 N.B.

BRIDGE 3

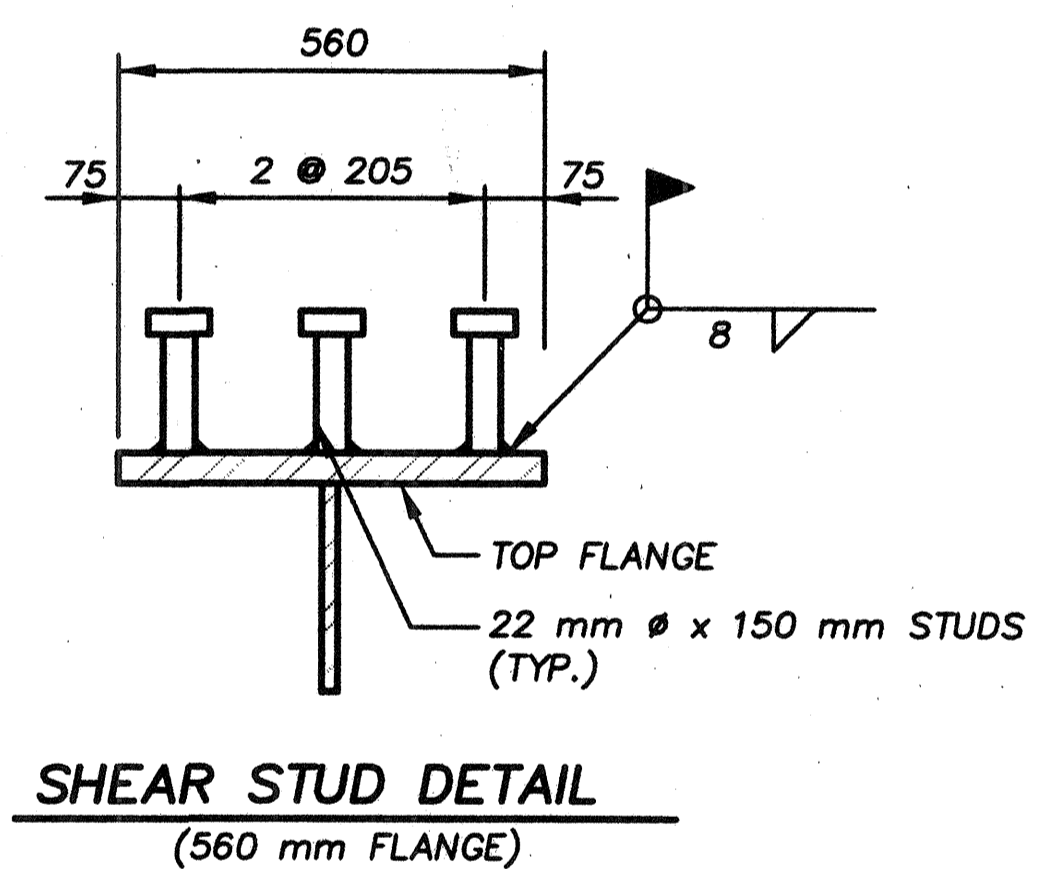
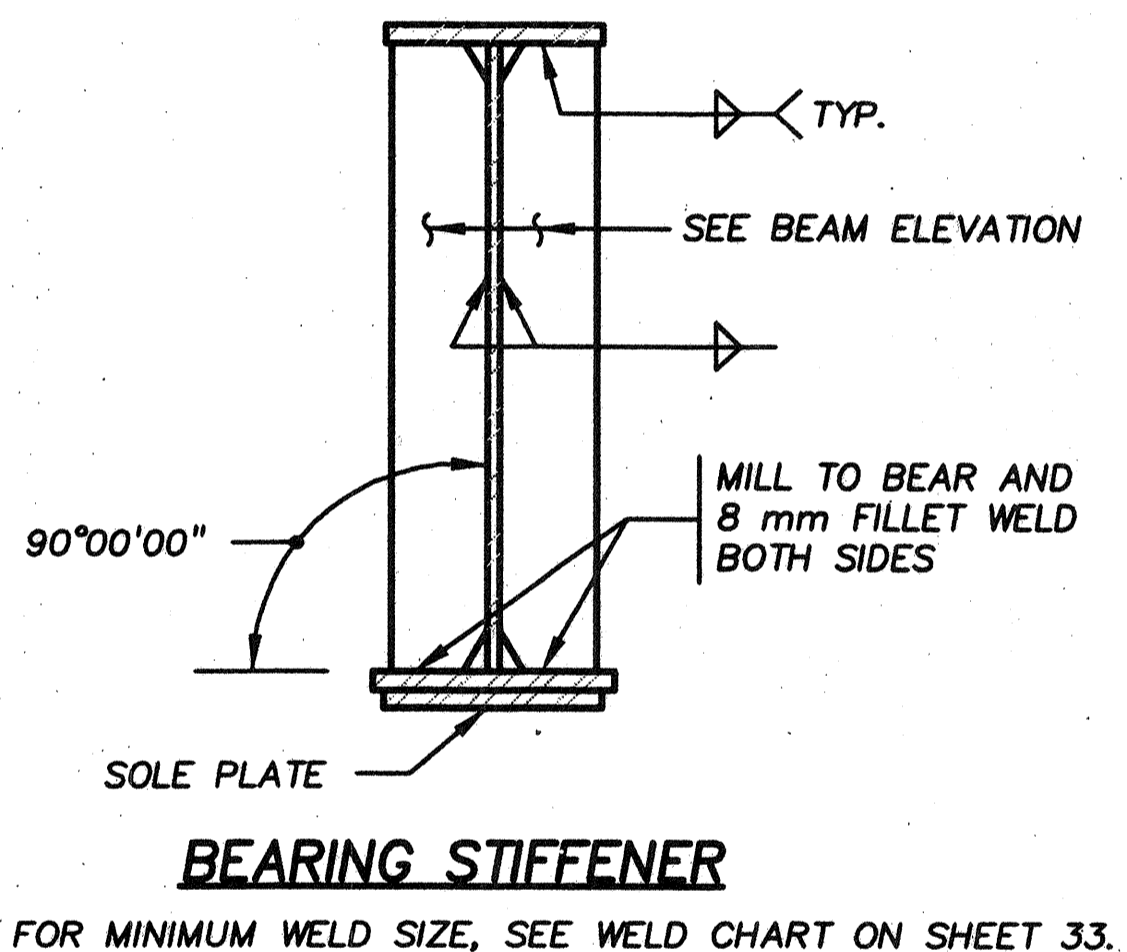
43 / 64

453
588

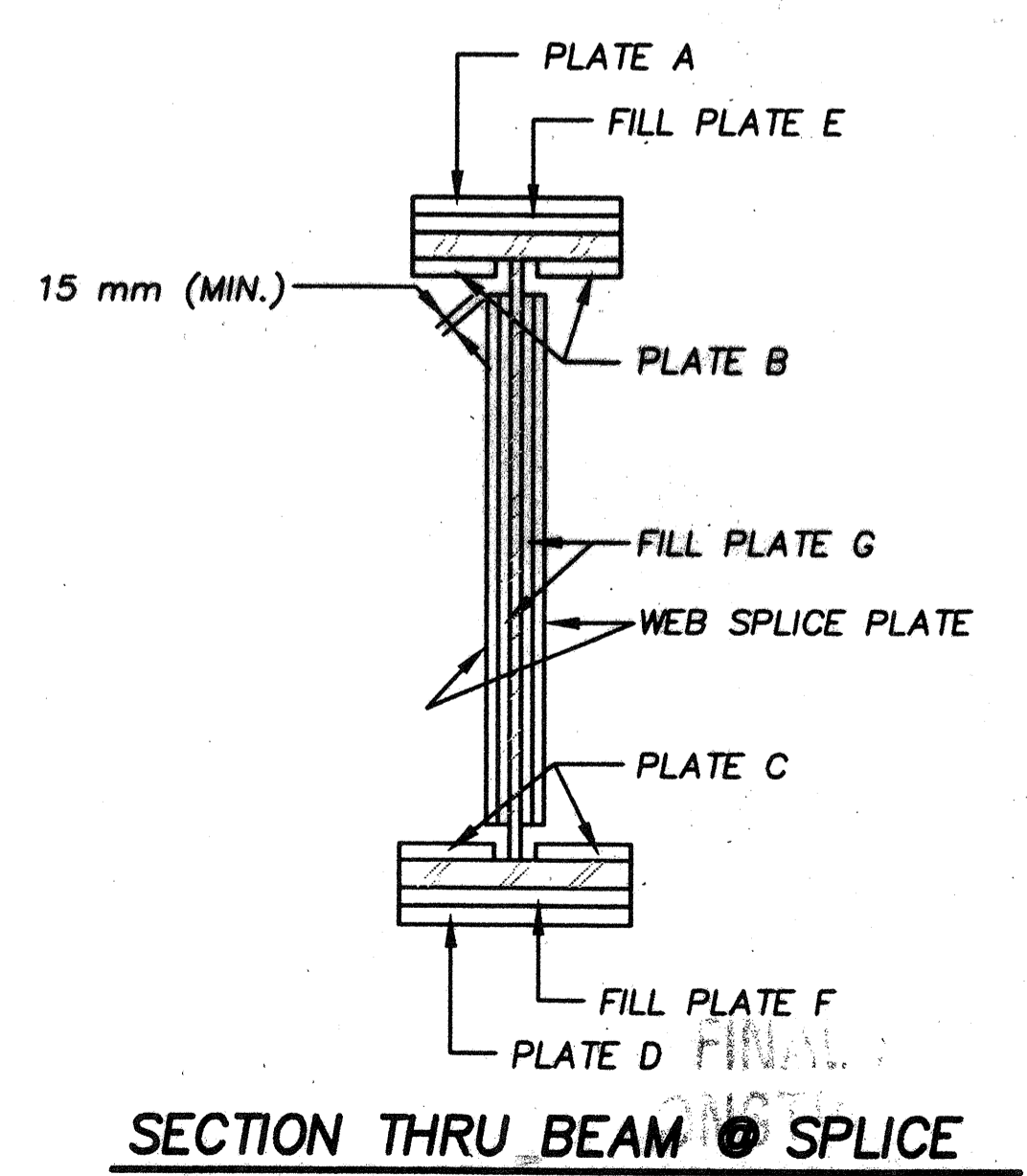
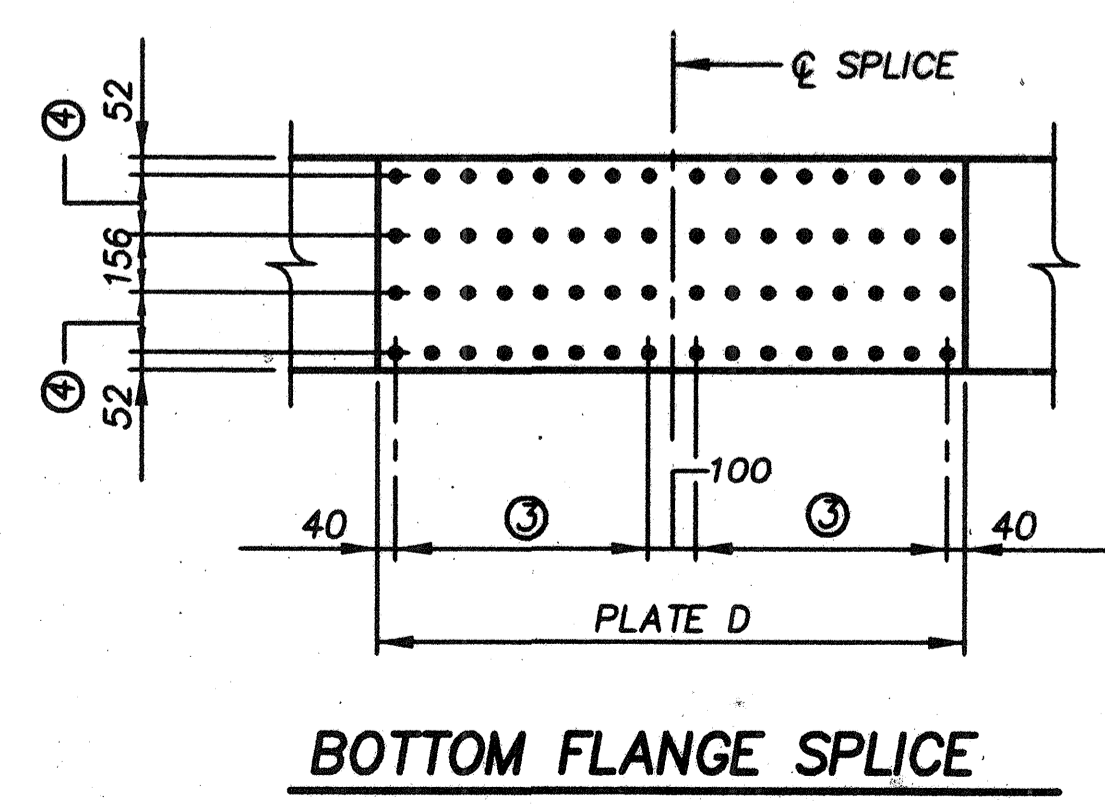
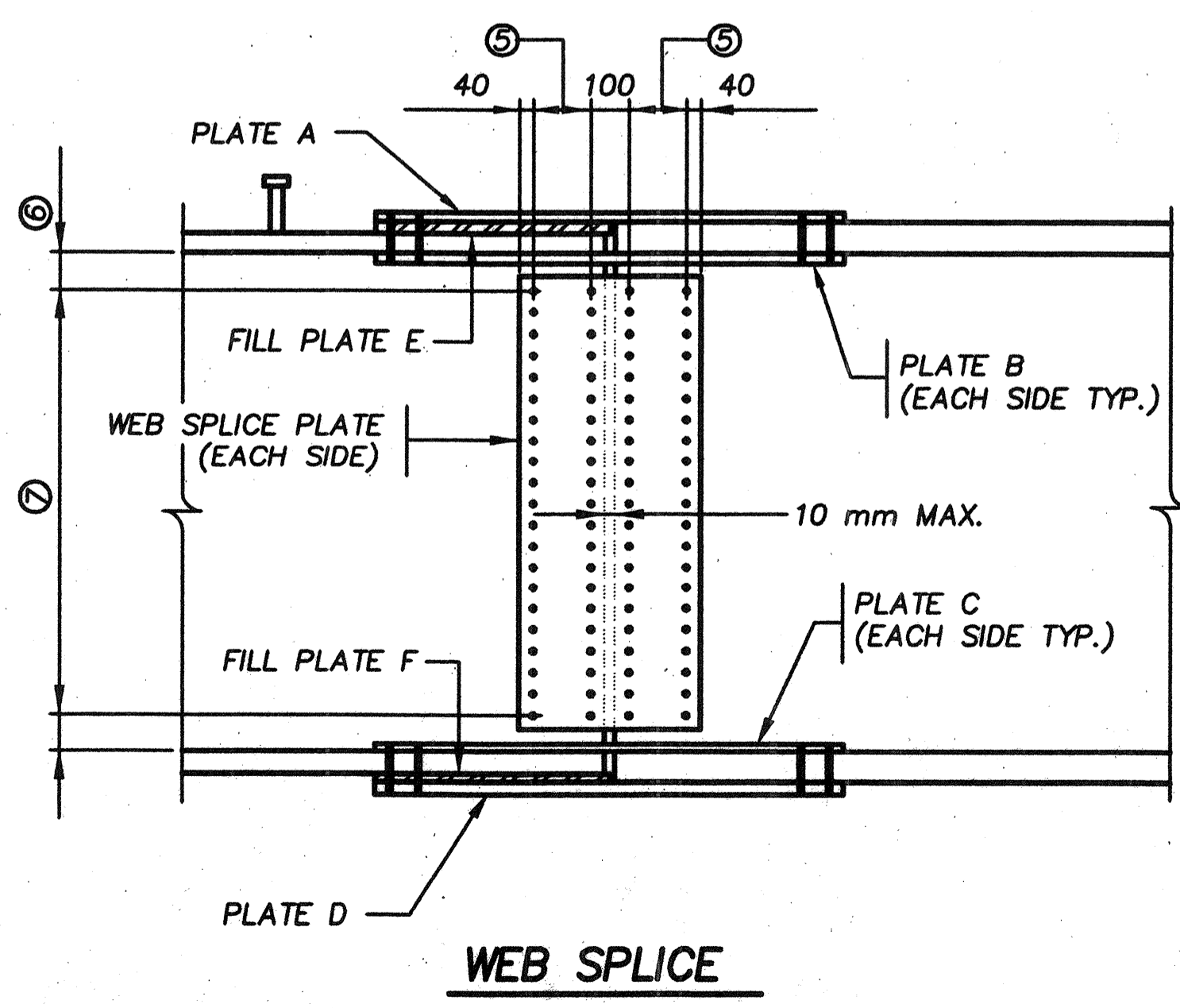
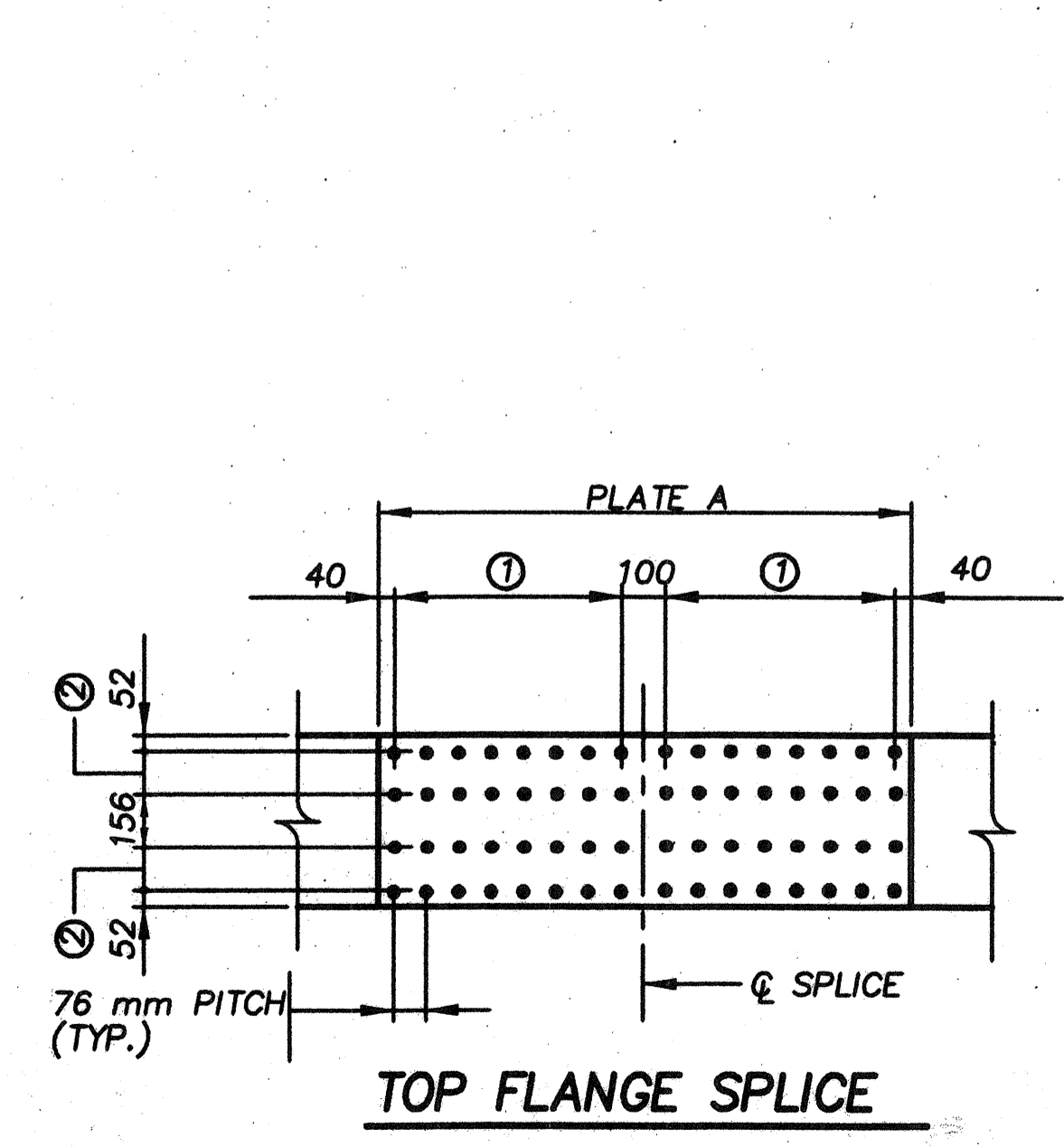
SPlice INFORMATION																
	SPlice NO. 9				SPlice NO. 10				SPlice NO. 11				SPlice NO. 12			
	TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES			TYPE	FILL PLATES		
BEAM B1	1	T1	F1	-	2	T2	F2	G1	3	T3	F3	-	3	T3	F3	-
BEAM B2	4	T4	F1	-	5	T5	F4	G1	3	T3	F3	-	3	T3	F3	-
BEAM B3	6	T6	F5	-	5	T5	F4	G1	3	T3	F3	-	7	T3	F3	-
BEAM B4	6	T6	F5	-	7	T7	F4	G1	3	T3	F3	-	7	T3	F3	-
BEAM B5	8	T8	F5	-	7	T7	F4	G1	3	T3	F3	-	7	T3	F3	-

FLANGE SPLICES									
	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	TYPE 7	TYPE 8	
PLATE A	560 x 2004 x 24	560 x 1092 x 12	560 x 788 x 12	560 x 1700 x 22	560 x 940 x 12	560 x 1548 x 22	560 x 788 x 12	560 x 1396 x 21	
PLATE B	254 x 2004 x 27	254 x 1092 x 16	254 x 788 x 16	254 x 1700 x 26	254 x 940 x 16	254 x 1548 x 24	254 x 788 x 16	254 x 1396 x 24	
PLATE C	254 x 2308 x 38	254 x 1548 x 26	254 x 1396 x 26	254 x 2308 x 38	254 x 1396 x 26	254 x 2156 x 38	254 x 1396 x 26	254 x 2156 x 38	
PLATE D	560 x 2308 x 35	560 x 1548 x 22	560 x 1396 x 22	560 x 2308 x 35	560 x 1396 x 22	560 x 2156 x 35	560 x 1396 x 22	560 x 2156 x 35	
WEB PLATE	636 x 1676 x 21	636 x 1676 x 19	636 x 1676 x 17	636 x 1676 x 19	636 x 1676 x 17	636 x 1676 x 19	636 x 1676 x 17	636 x 1676 x 17	
①	12 SPA. @ 76=912	6 SPA. @ 76=456	4 SPA. @ 76=304	10 SPA. @ 76=760	5 SPA. @ 76=380	9 SPA. @ 76=684	4 SPA. @ 76=304	8 SPA. @ 76=608	
②	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	
③	14 SPA. @ 76=1064	9 SPA. @ 76=684	8 SPA. @ 76=608	14 SPA. @ 76=1064	8 SPA. @ 76=608	13 SPA. @ 76=988	8 SPA. @ 76=608	13 SPA. @ 76=988	
④	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	1 SPA. @ 150	
⑤	3 SPA. @ 76=228	3 SPA. @ 76=228	3 SPA. @ 76=228	3 SPA. @ 76=228	3 SPA. @ 76=228	3 SPA. @ 76=228	3 SPA. @ 76=228	3 SPA. @ 76=228	
⑥	1 SPA. @ 91	1 SPA. @ 91	1 SPA. @ 91	1 SPA. @ 91	1 SPA. @ 91	1 SPA. @ 91	1 SPA. @ 91	1 SPA. @ 91	
⑦	21 SPA. @ 76=1596	21 SPA. @ 76=1596	21 SPA. @ 76=1596	21 SPA. @ 76=1596	21 SPA. @ 76=1596	21 SPA. @ 76=1596	21 SPA. @ 76=1596	21 SPA. @ 76=1596	

FILL PLATES					
TOP	PLATE E	BOTTOM	PLATE F	WEB	PLATE G
T1	560 X 1002 X 38	F1	560 X 1154 X 14	G1	318 X 1676 X 2
T2	560 X 546 X 50	F2	560 X 774 X 24		
T3	560 X 394 X 32	F3	560 X 698 X 6		
T4	560 X 850 X 38	F4	560 X 698 X 24		
T5	560 X 470 X 50	F5	560 X 1078 X 14		
T6	560 X 774 X 38				
T7	560 X 394 X 50				
T8	560 X 698 X 38				



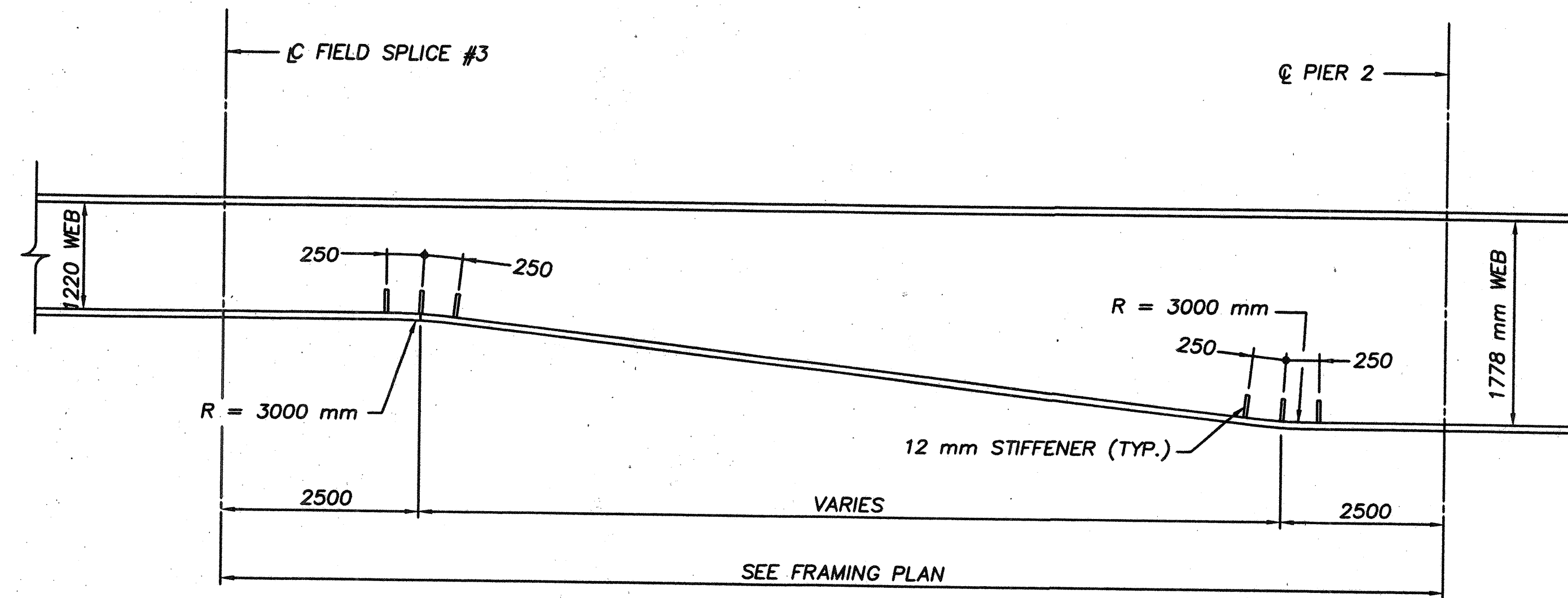
FINAL FOR CONSTRUCTION



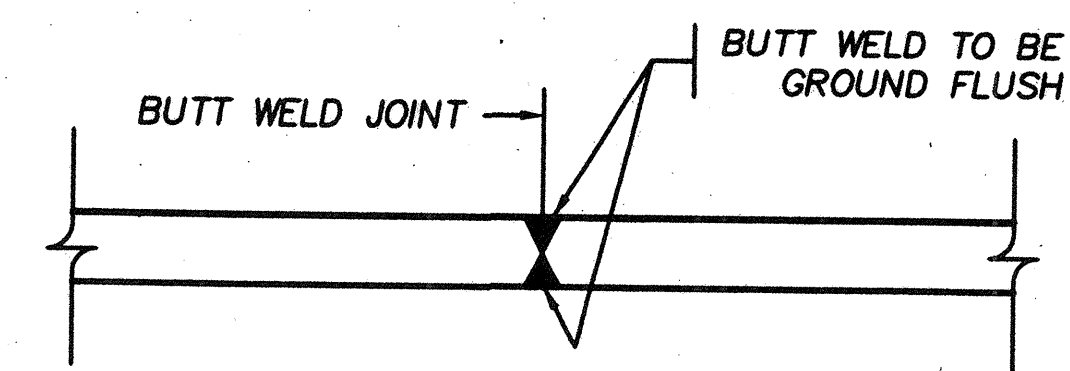
6-22-88

STRUCTURAL STEEL NOTES

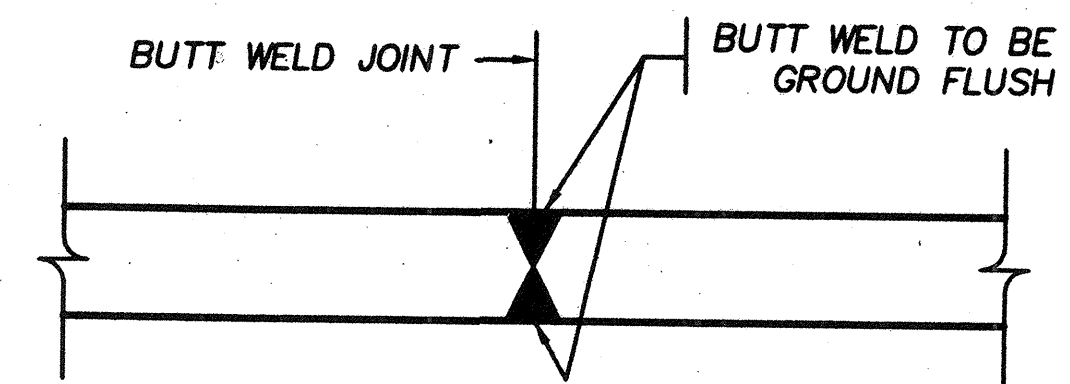
ALL BUTT SPLICES SHALL BE FULL BUTT WELDS USING LOW HYDROGEN PROCESS AND SHALL BE GROUND FLUSH (IN THE DIRECTION OF STRESS).



ELEVATION AT WEB TRANSITION



WELDED WEB SPLICES



WELDED FLANGE SPLICES

FINAL FOR CONSTRUCTION

FINAL FOR CONSTRUCTION

BRW
A DANKS & MOORE GROUP COMPANY

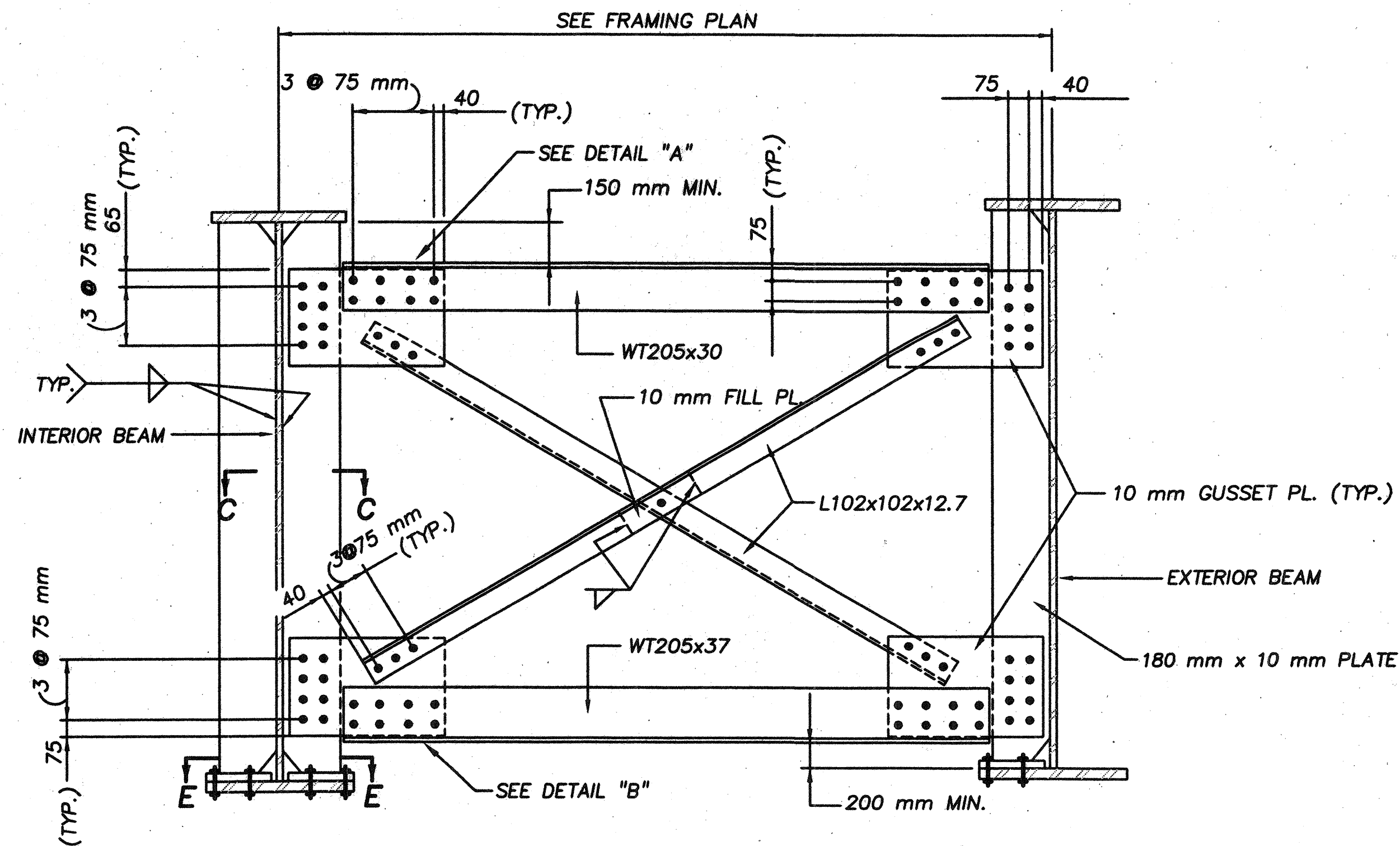
DESIGNED	DATE
DRAWN	REVIEWED
CHECKED	STRUCTURE FILE NUMBER
DATE	

STRUCTURAL STEEL DETAILS
171 N.B.

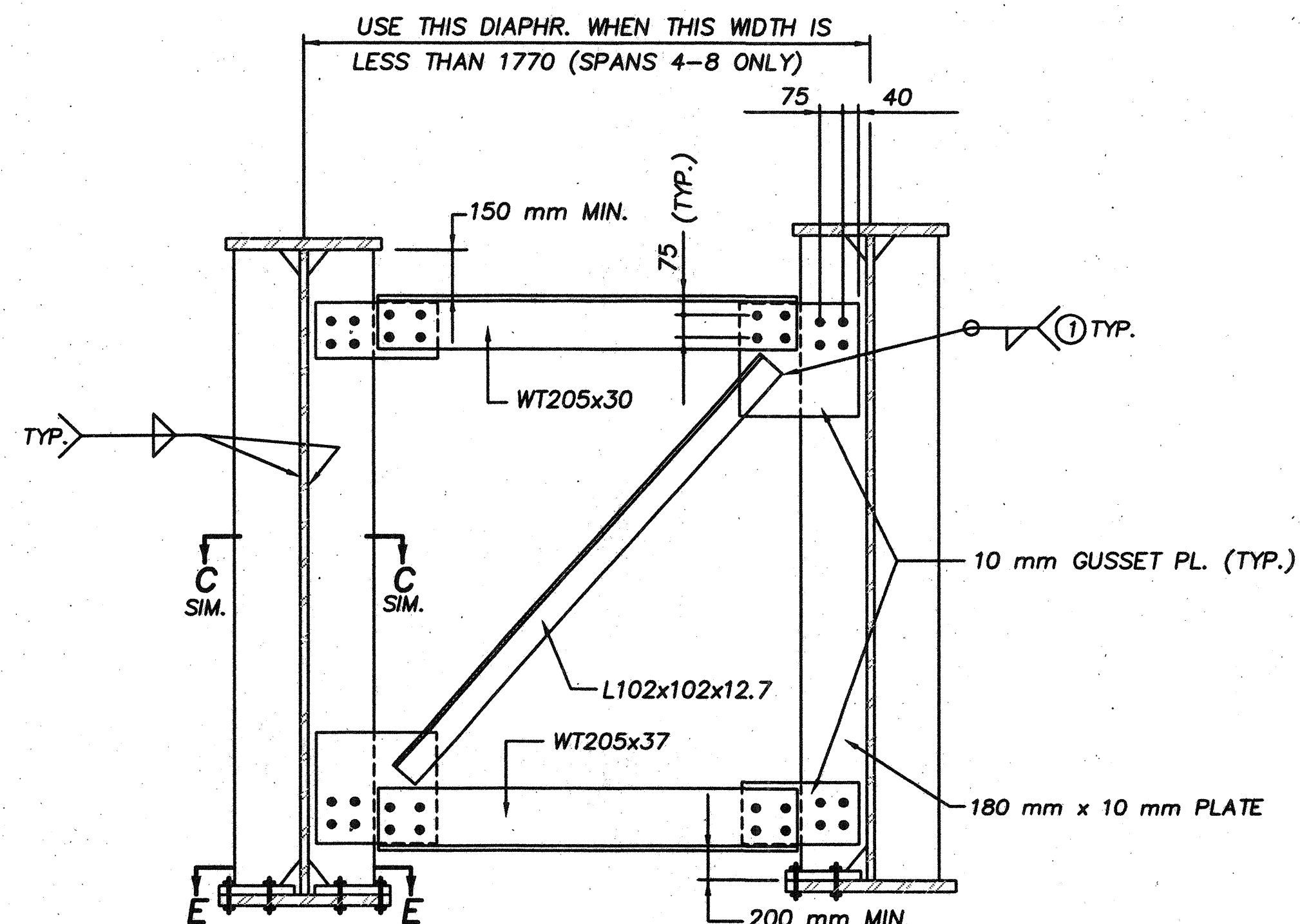
BRIDGE 3

45/64

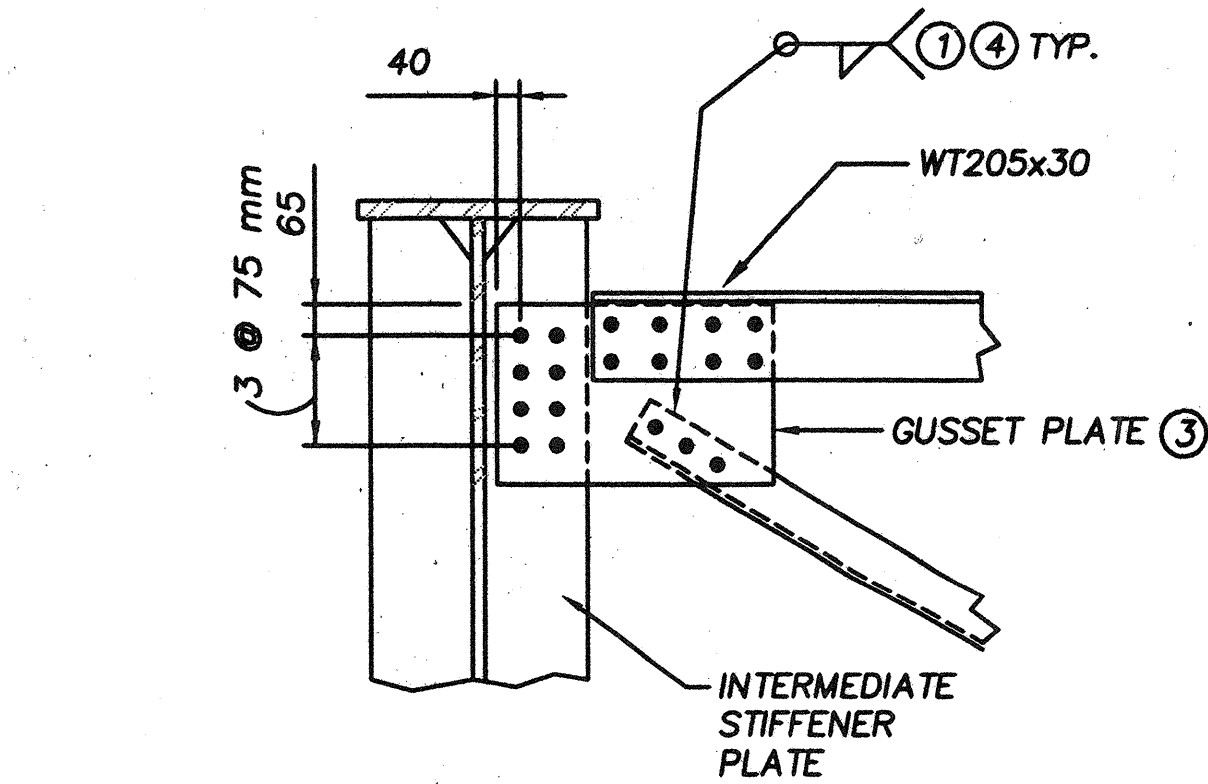
455
588



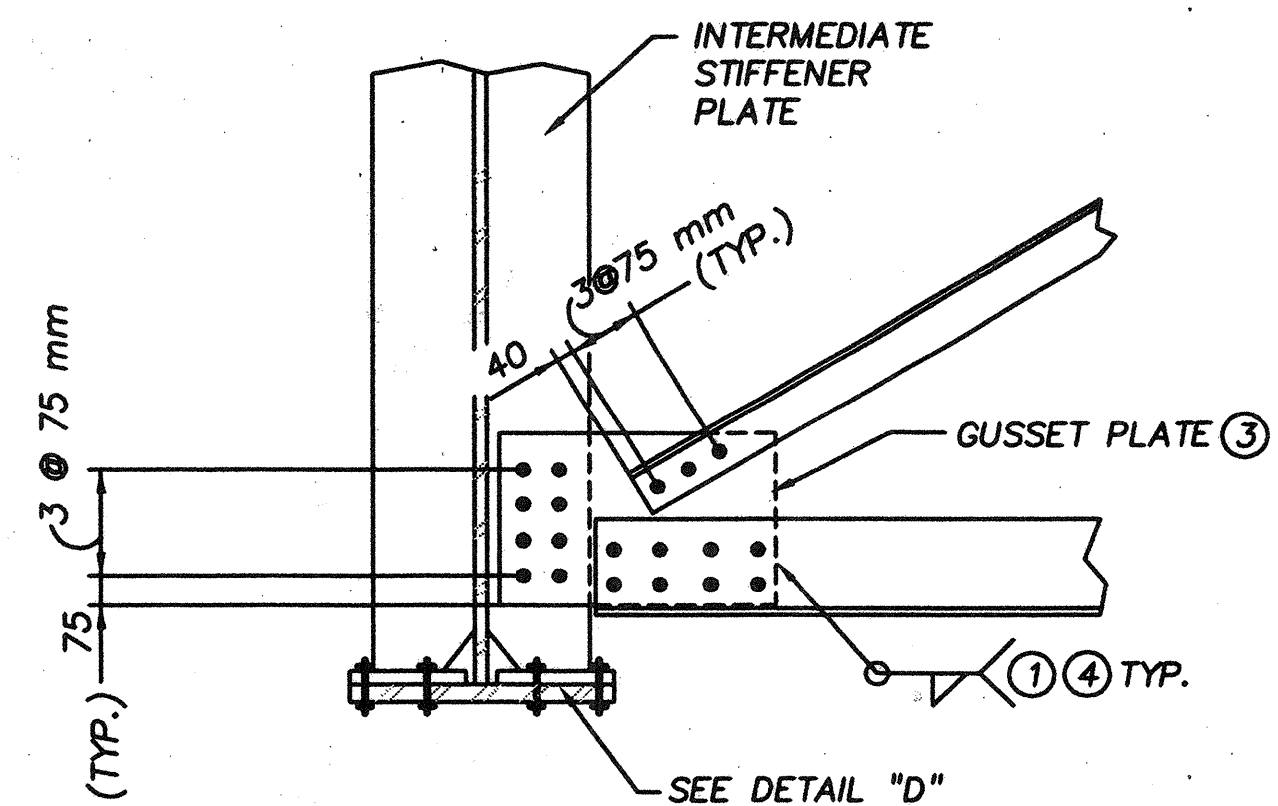
TYPE 1 CROSS FRAME DIAPHRAGM ②



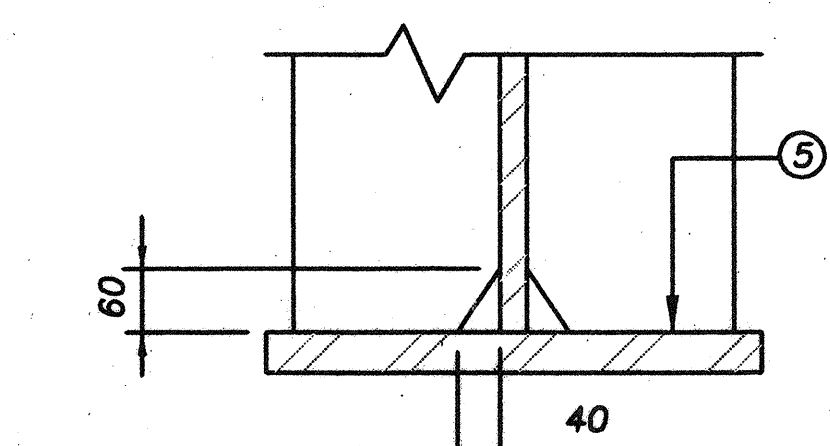
TYPE 2 CROSS FRAME DIAPHRAGM ②



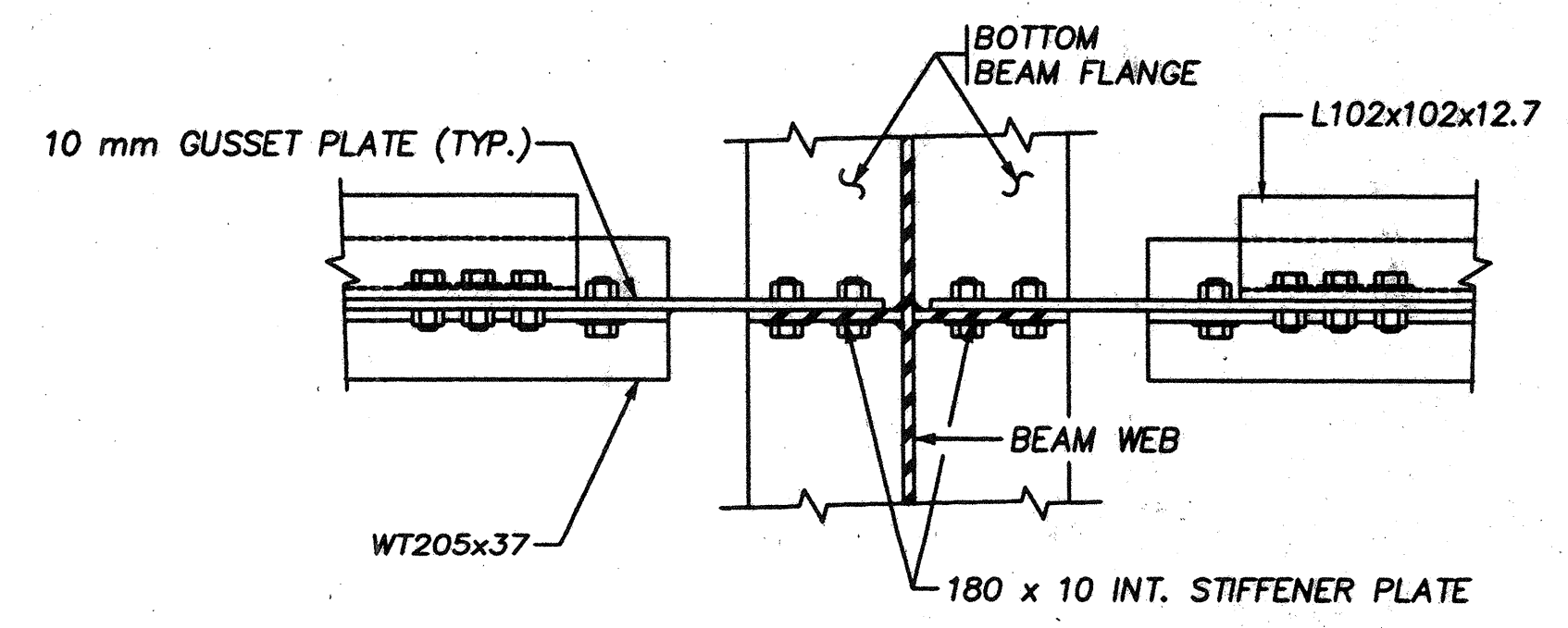
DETAIL "A"



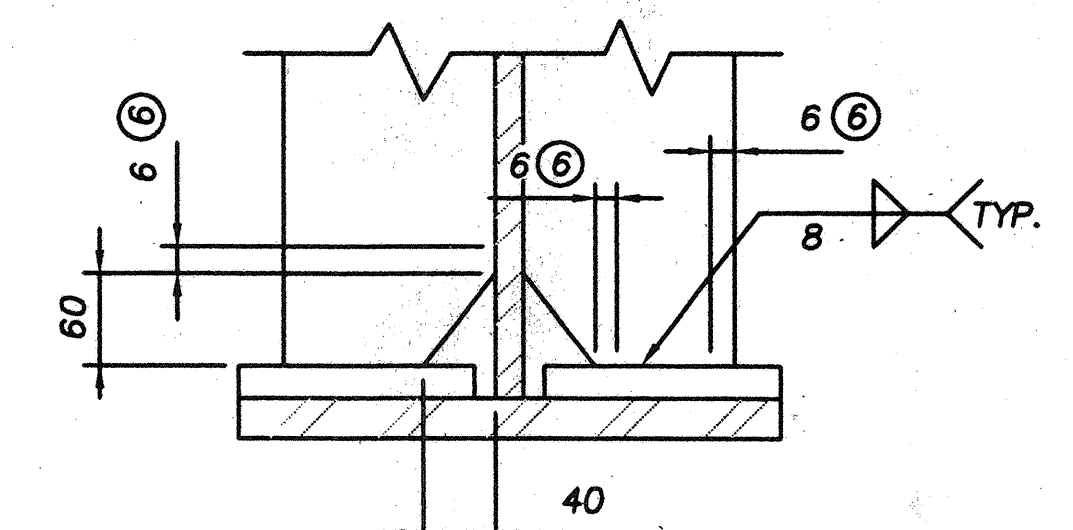
DETAIL "B"



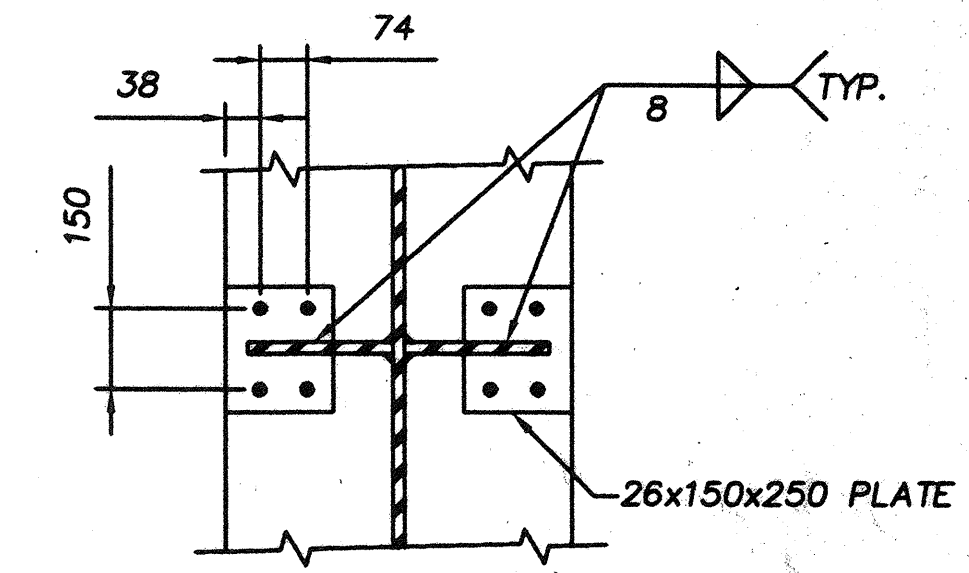
DETAIL "F"
(BEARING STIFFENER)



SECTION C-C



DETAIL "D"



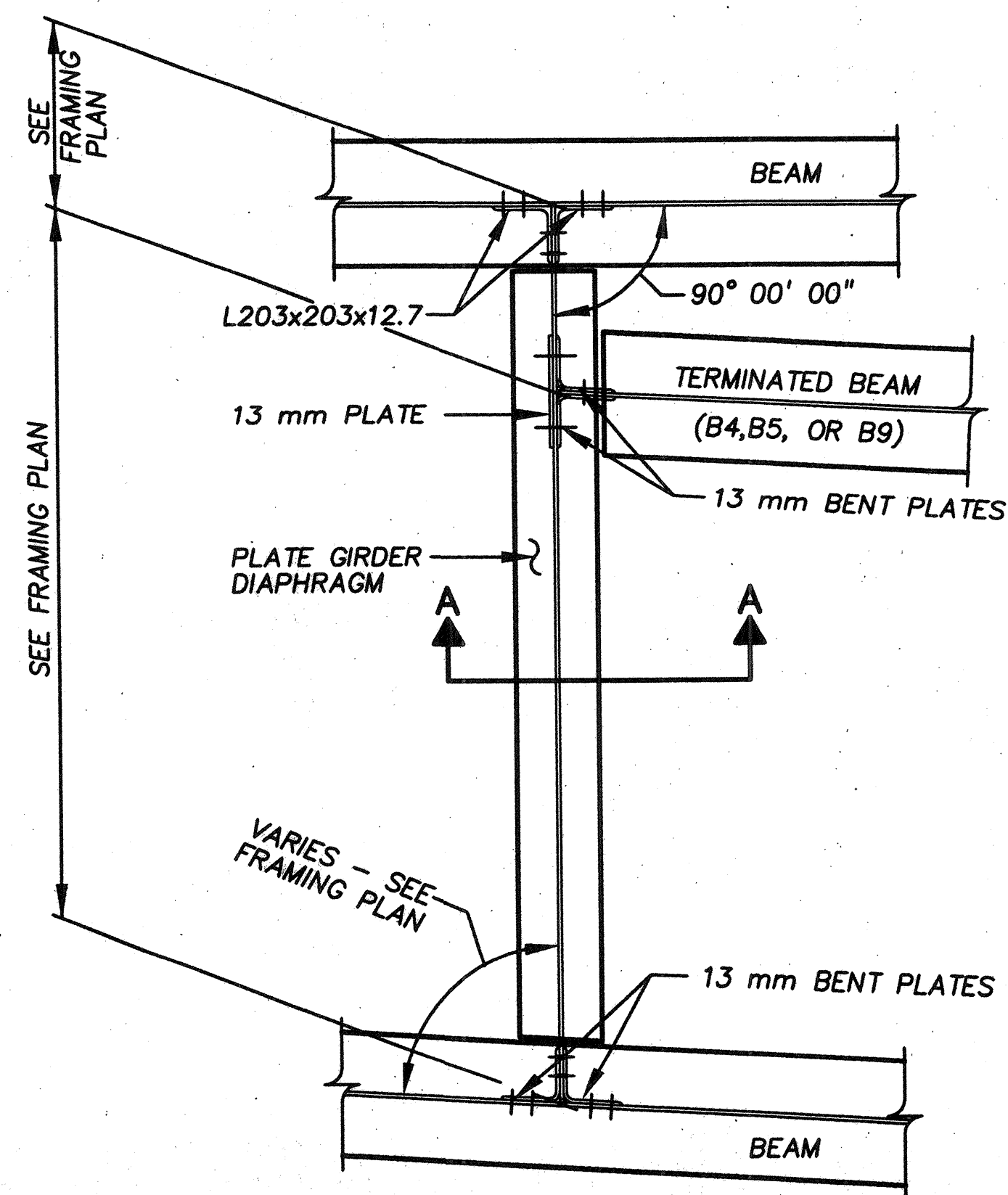
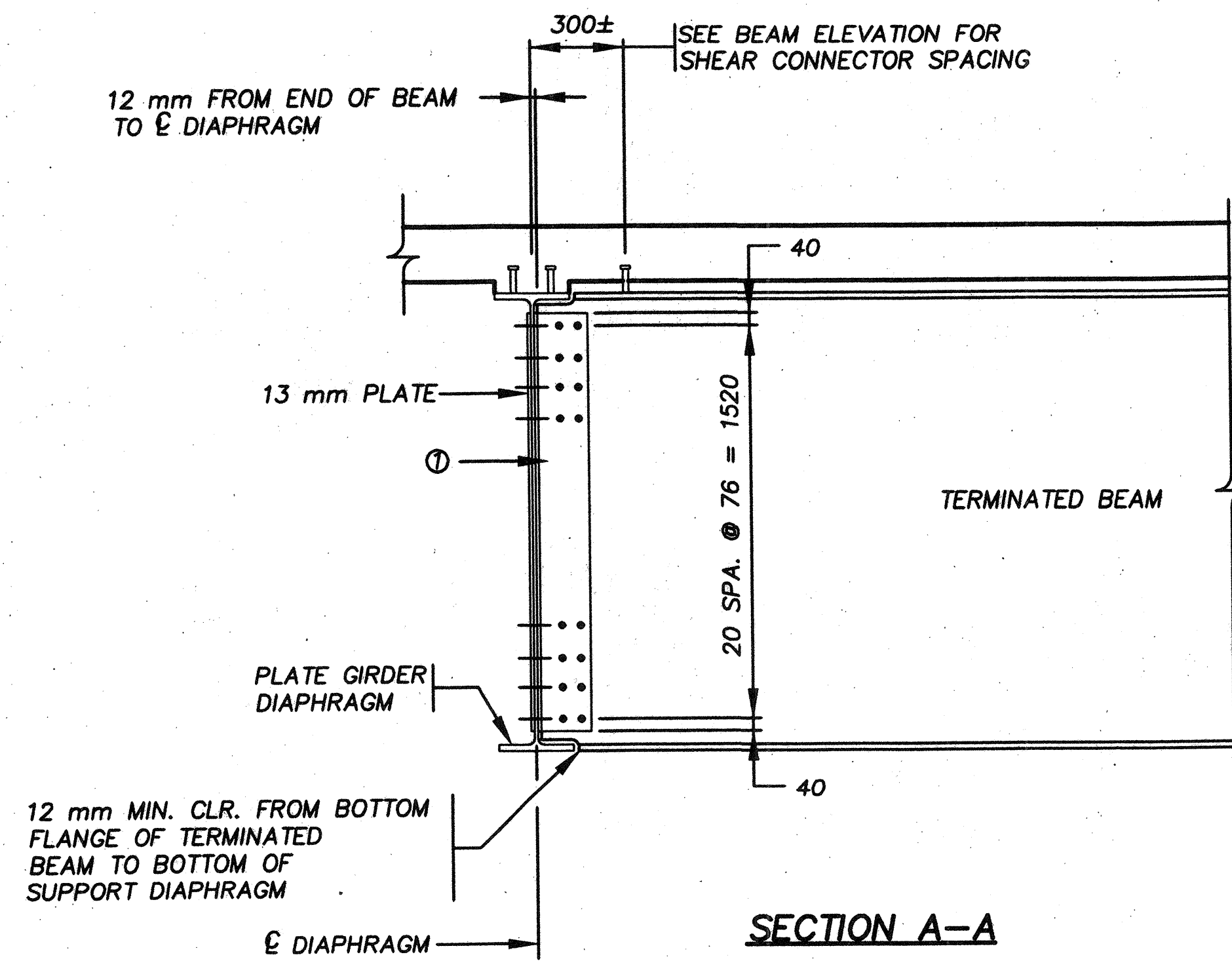
SECTION E-E

FINAL FOR CONSTRUCTION

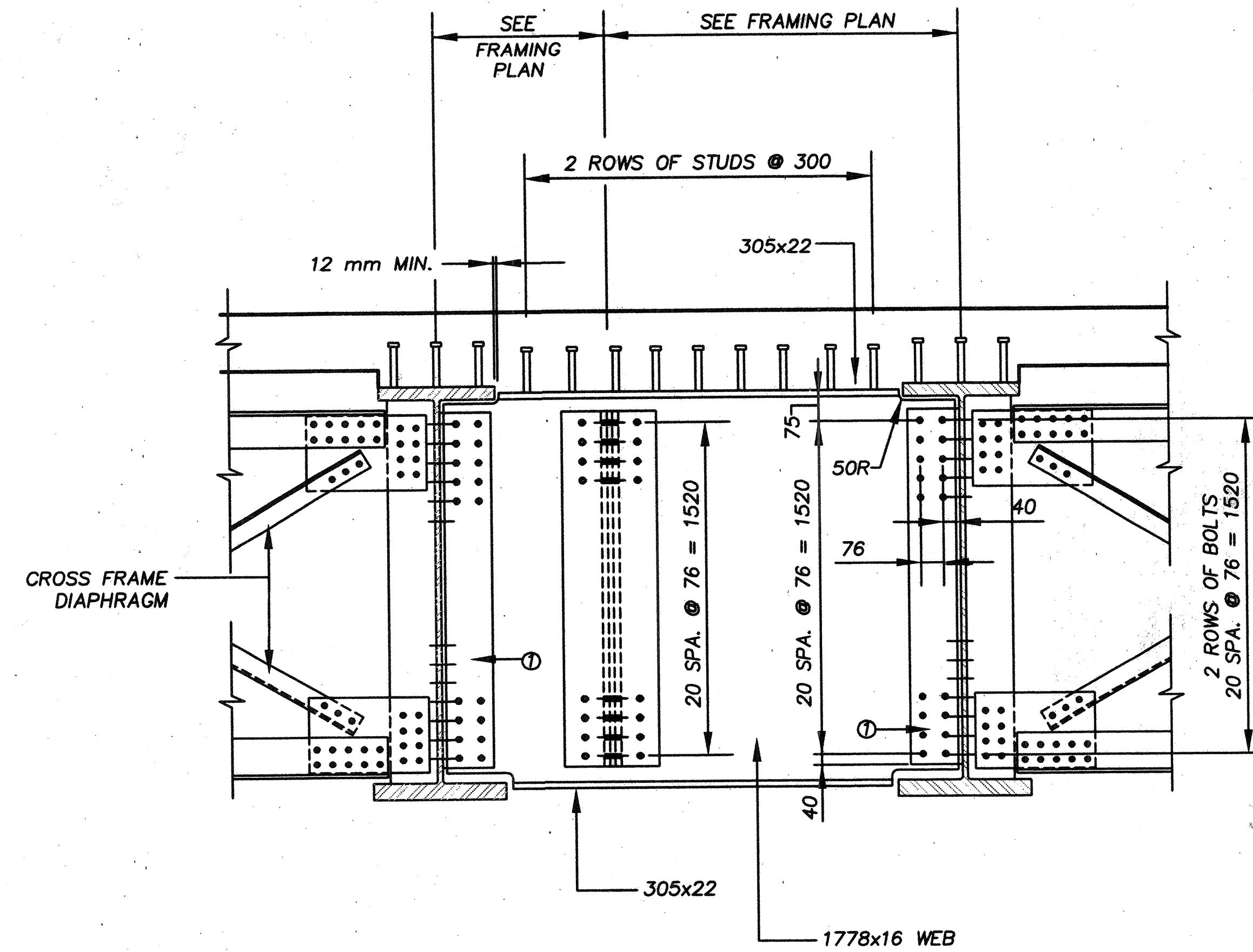
NOTES:

- ① WELD SIZE NEED NOT EXCEED 8 mm FOR INTERMEDIATE DIAPHRAGM STIFFENERS.
- ② SEE BRIDGE SUPERELEVATION SHEETS FOR ADDITIONAL INFORMATION.
- ③ BOLT HOLES IN GUSSET PLATE MAY BE FIELD DRILLED.
- ④ SHOP WELDING MAY BE USED IN LIEU OF BOLTING BETWEEN CROSS FRAMES AND GUSSET PLATES.
- ⑤ MILL TO BEAR AT BEARING STIFFENERS.
- ⑥ DO NOT WELD IN THIS AREA.

FINAL FOR CONSTRUCTION



SUPPORT DIAPHRAGM @ BEAM B4, B5, & B9



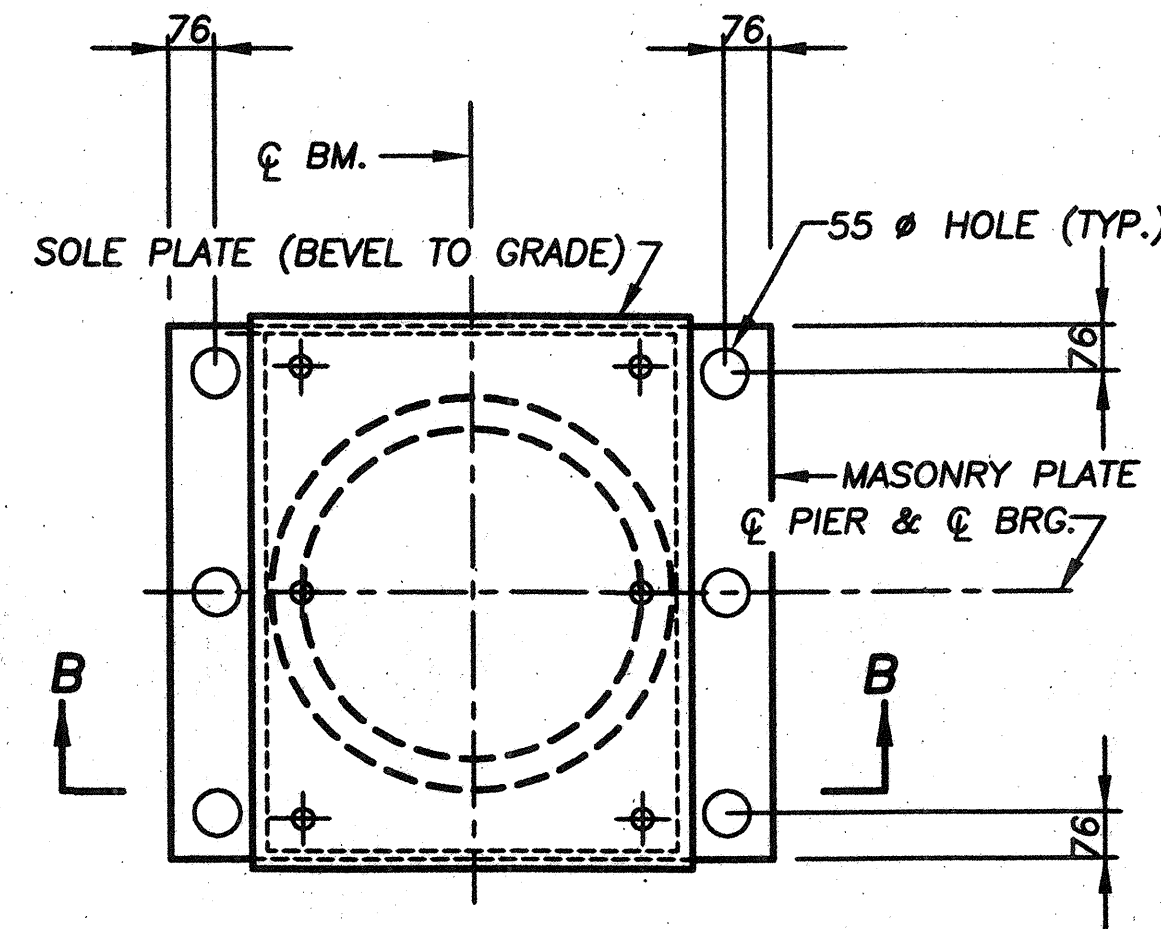
SUPPORT DIAPHRAGM DETAIL

⊙ 13 mm BENT PLATES AT BEAMS THAT ARE NOT PERPENDICULAR TO DIAPHRAGM
 L203x203x12.7 ANGLES AT BEAMS THAT ARE PERPENDICULAR TO DIAPHRAGM

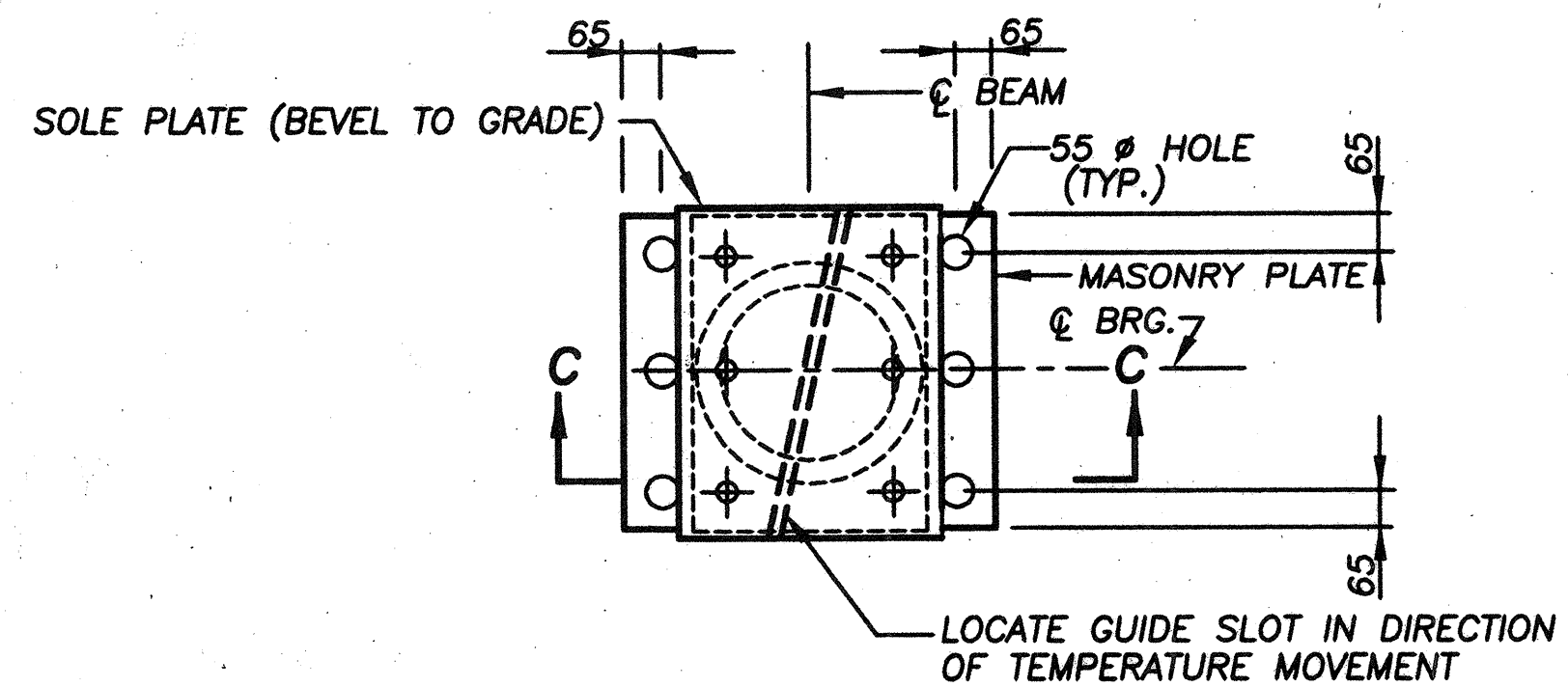
FINAL FOR CONSTRUCTION

BRW		DATE	REVIEWED	STRUCTURE FILE NUMBER
DESIGNED	SA	CHECKED	MM	
STRUCTURAL STEEL DETAILS		BRIDGE 3		
171 N.B.		47/64		
		457		
		588		

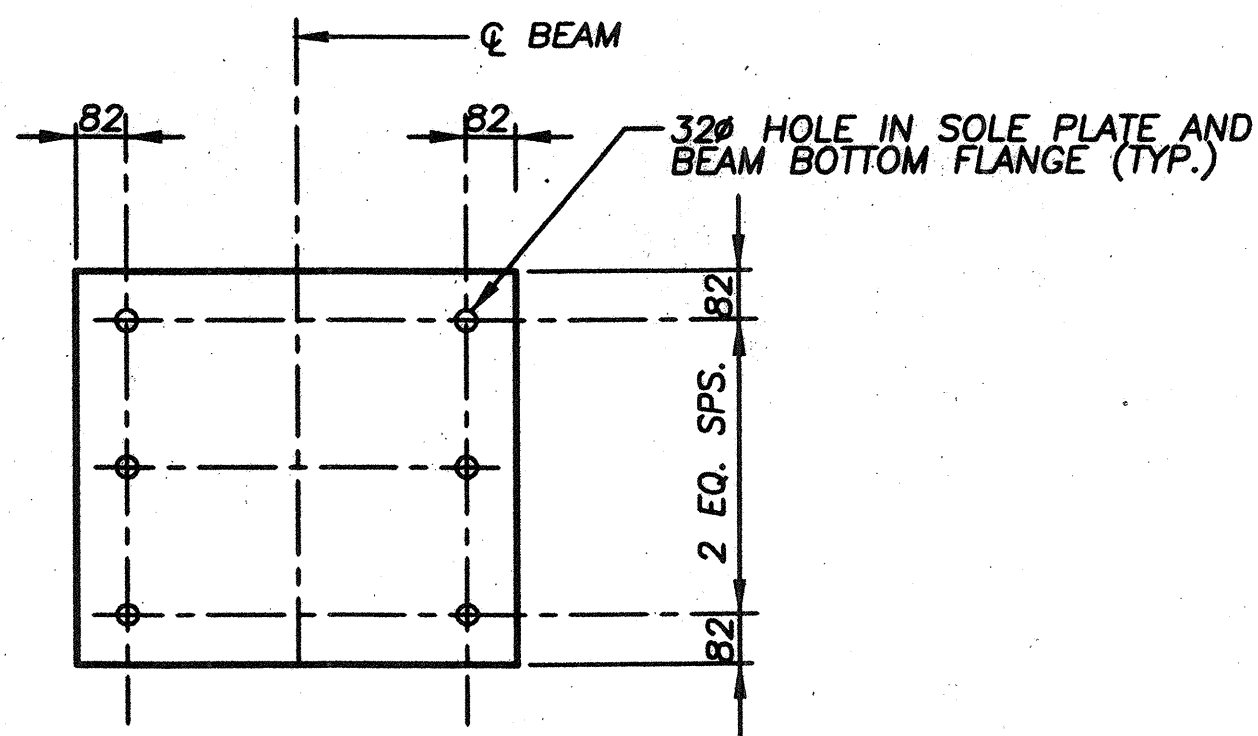
7-10-88



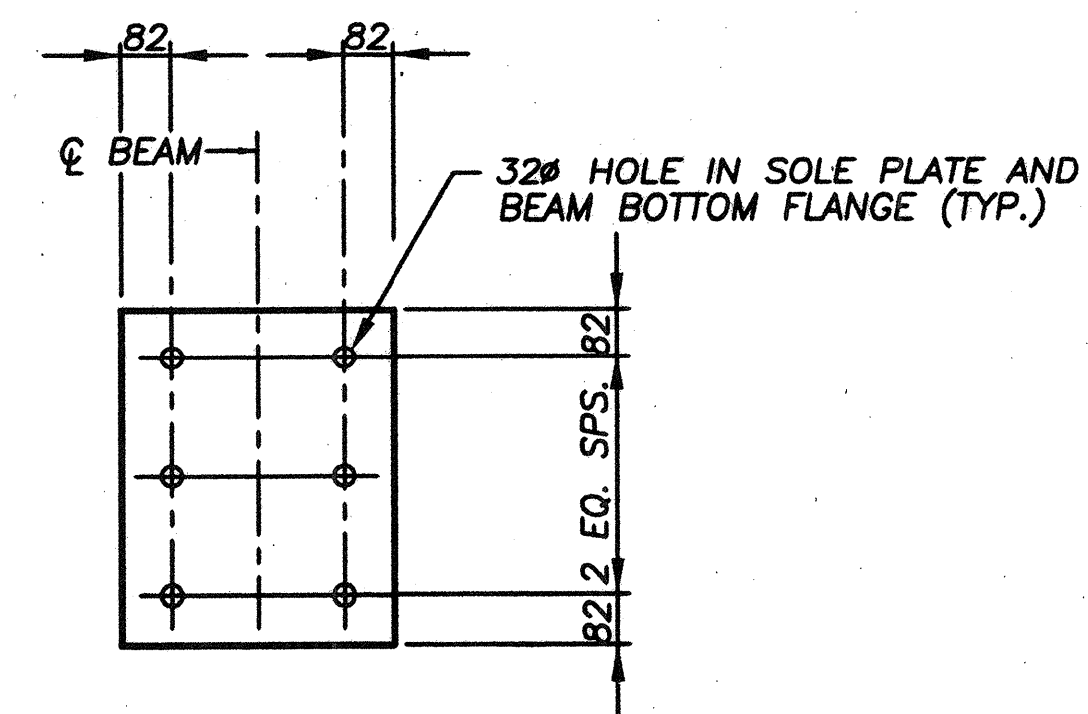
FIXED BEARINGS



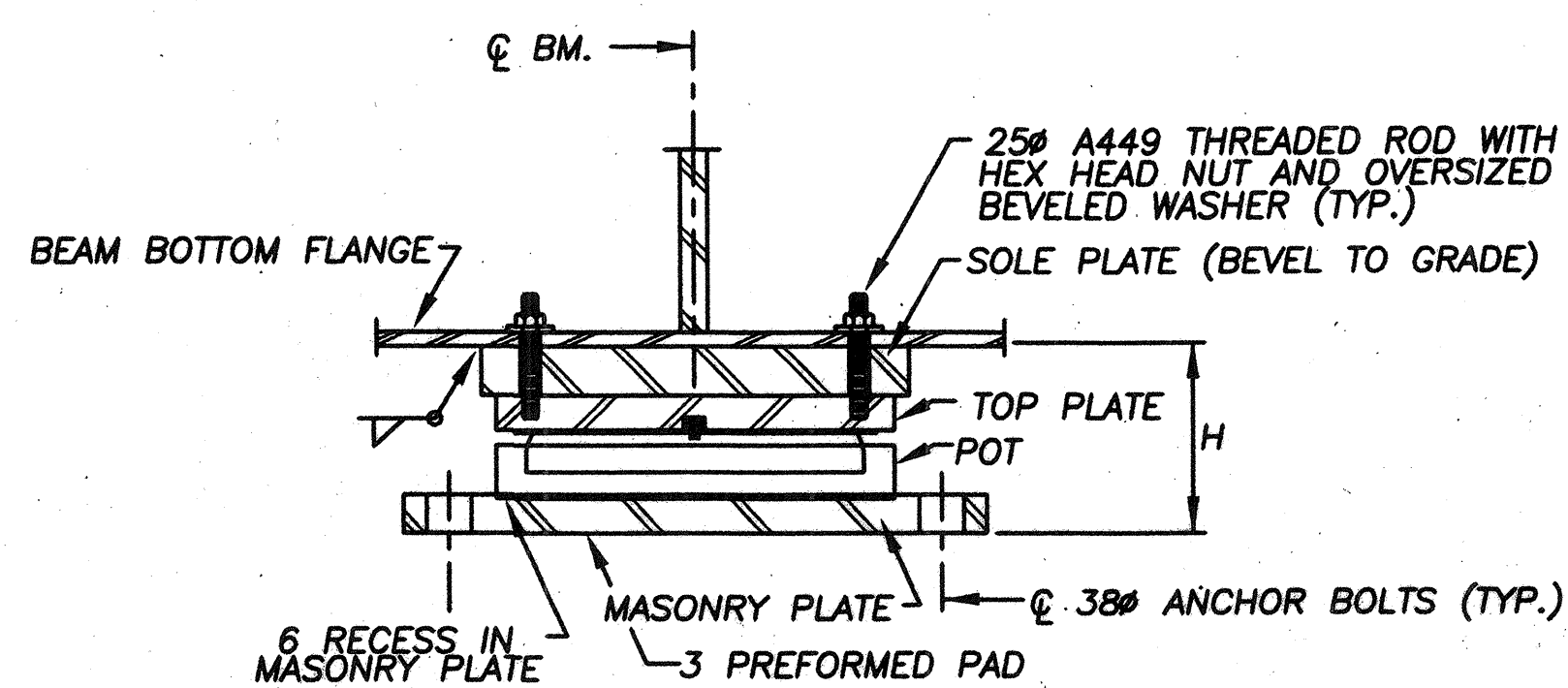
EXPANSION BEARINGS



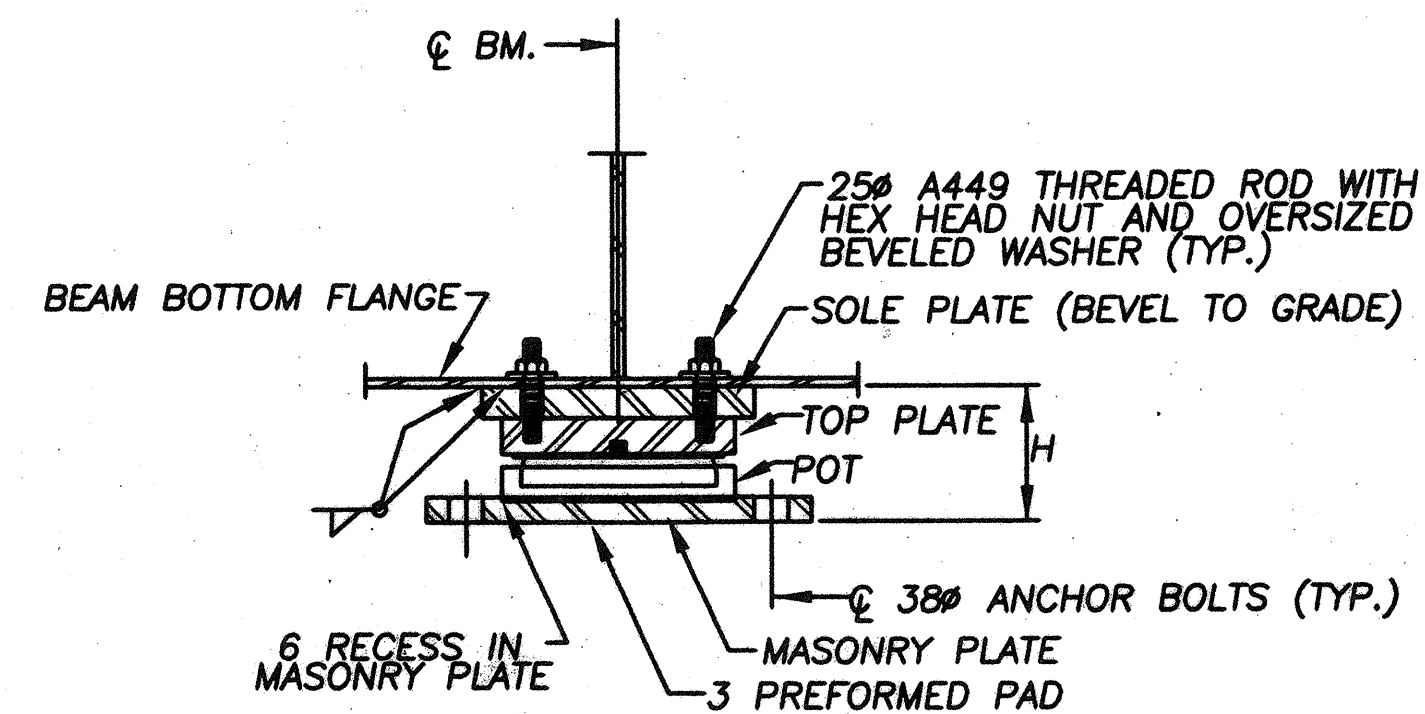
SOLE PLATE AT FIXED BEARINGS



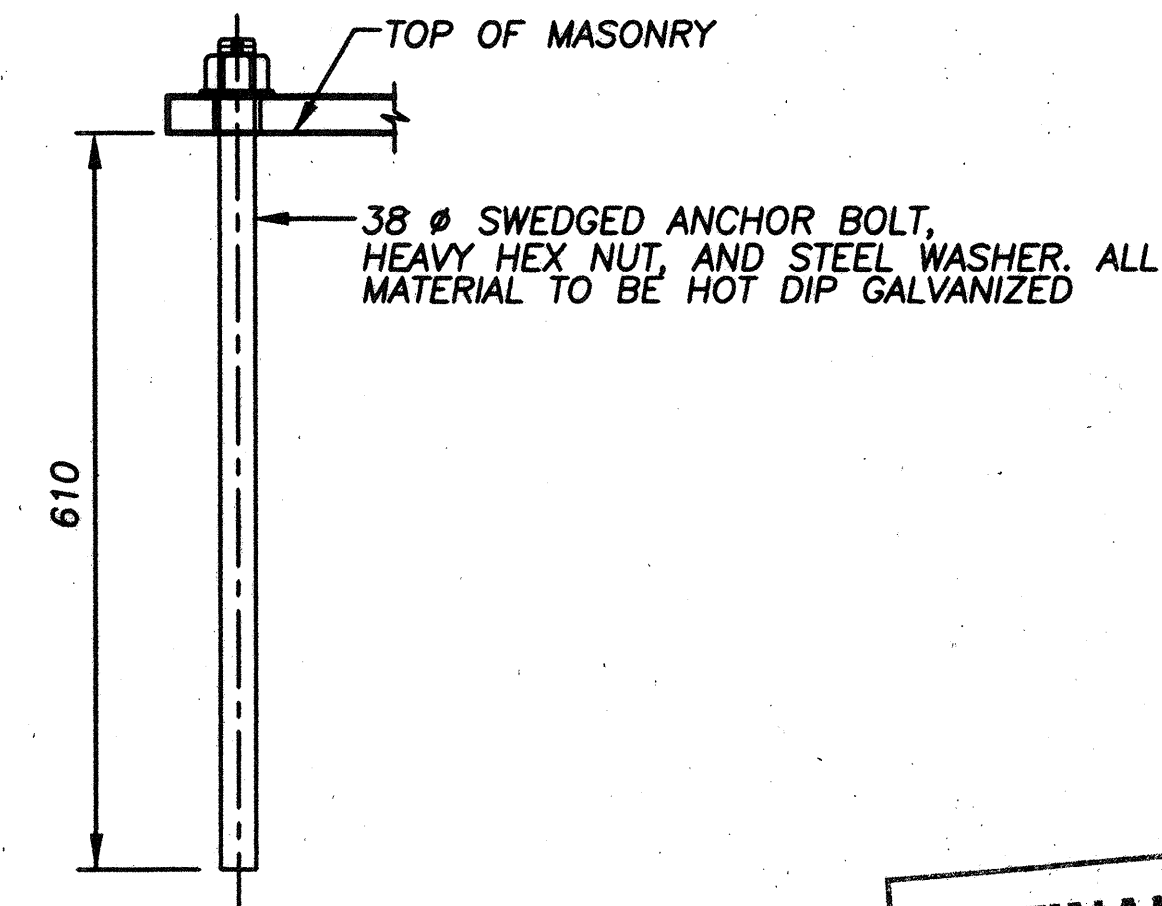
SOLE PLATE AT EXPANSION BEARINGS



SECTION B-B



SECTION C-C



ANCHOR BOLT DETAIL

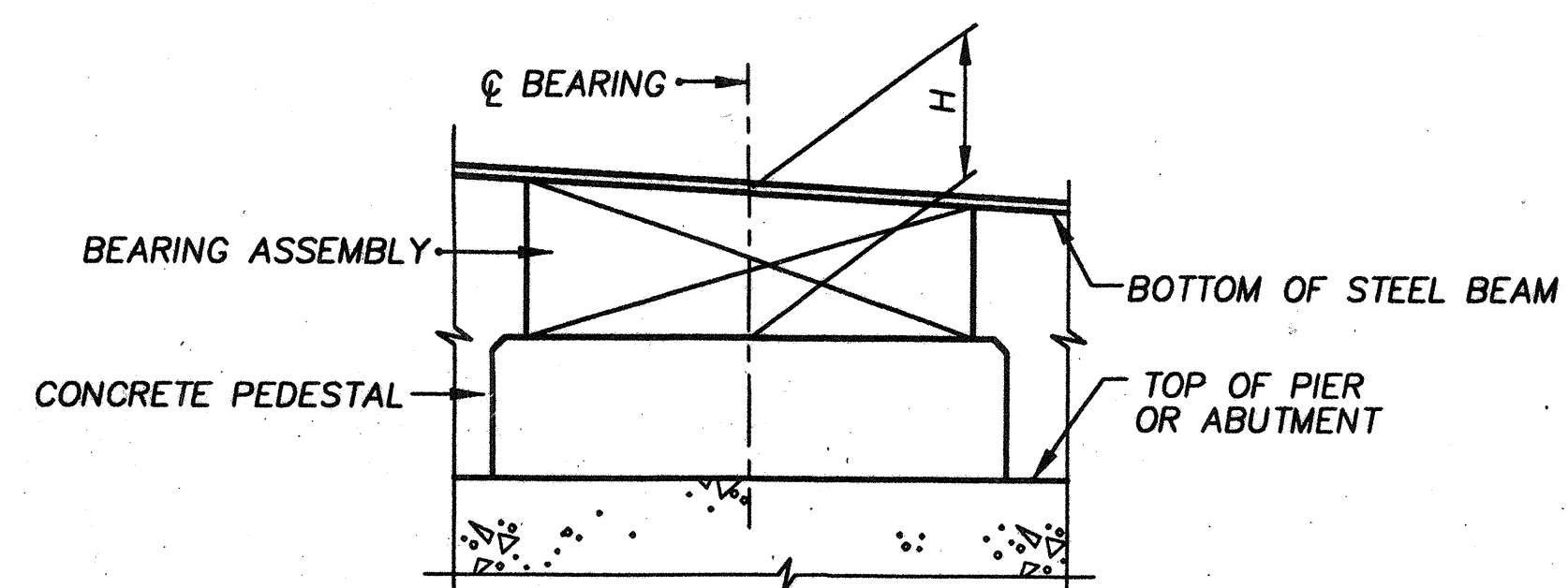
FINAL FOR CONSTRUCTION

DATE	REVIEWED	DESIGNED
STRUCTURE FILE NUMBER	DRAWN U/C	SA
	REVISED	CHECKED
		MCM

BEARING REQUIREMENTS

BEARING LOCATION	PIER 20D	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5 W.	PIER 5 E.	PIER 6	PIER 7	WALL PIER		
BEARING TYPE	GUIDED* EXPANSION	GUIDED* EXPANSION	GUIDED* EXPANSION	FIXED	GUIDED* EXPANSION	GUIDED* EXPANSION	GUIDED* EXPANSION	FIXED	GUIDED* EXPANSION	GUIDED* EXPANSION		
MAX. VERT. REACTION PER BEARING (kN)	634	1330	2013	2433	2232	929	719	2232	1607	558		
MAX. TRANSV. FORCE PER BEARING (kN)	127	266	403	487	446	186	144	446	321	112		
MAX. LONGIT. MOVEMENT (mm)	58	44	26	0	26	48	31	0	29	49		
BEAM ROTATION AT SUPPORT (RADIAN)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02		
H (mm)	178	191	202	177	202	178	178	176	197	178		
NO. OF BEARINGS.	6	6	6	6	7	9	5	5	5	5		

* BEARING MANUFACTURER IS TO DETERMINE DIRECTION OF MOVEMENT AND PROVIDE THE GUIDED SLOT ACCORDINGLY. THE DIRECTION OF MOVEMENT FOR EACH BEAM SHALL BE DEFINED BY A CHORD LINE PASSING THROUGH A POINT AT THE CENTERLINE OF THE FIXED BEARING AND A POINT AT THE CENTERLINE OF THE OF THE GUIDED EXPANSION BEARING.



BEARING NOTES

1. BEARINGS SHALL BE STEEL POT BEARINGS, REFER TO SUPPLEMENTAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE PROPOSED BEARING DEVICE TO THE ENGINEER FOR REVIEW AND APPROVAL.
3. ANCHOR BOLTS SHALL BE A.S.T.M. A449, AND SHALL BE HOT DIP GALVANIZED. ANCHOR BOLTS SHALL BE PLACED AND GROUTED WITH NON-SHRINK GROUT.
4. THE MINIMUM DIMENSION (H) FROM THE TOP OF THE PEDESTAL AT PIER OR ABUTMENT TO THE BOTTOM OF THE BEAM BOTTOM FLANGE ARE SHOWN IN ABOVE TABLE. AFTER APPROVAL OF THE PROPOSED BEARING DEVICE BY THE ENGINEER, THE BEARING MANUFACTURER SHALL SET THE CONCRETE PEDESTAL ELEVATIONS AND FURNISH THESE ELEVATIONS TO THE CONTRACTOR. THE CONCRETE PEDESTALS SHALL HAVE A MINIMUM HEIGHT OF 100 AT ANY BASE.

FINAL FOR CONSTRUCTION

AUG 18 1998

THIS SHEET NOT USED


**FINAL FOR
CONSTRUCTION**

50/64
460
588

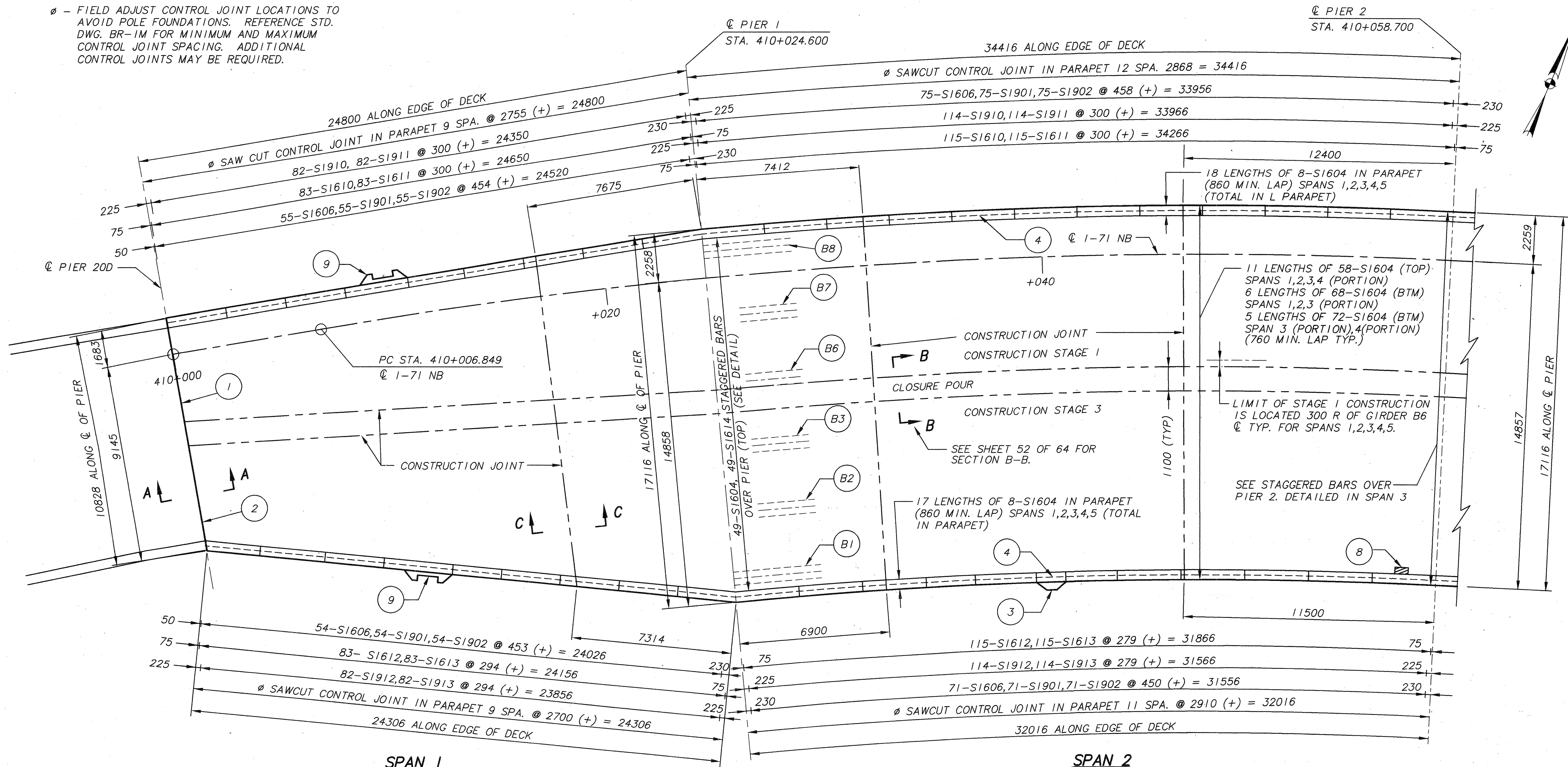
BRIDGE 3

1-71 N.B.

DESIGNED XXX	DRAWN XXX	REVIEWED XXX	DATE XX/XX/XX
CHECKED XXX	REVISED XXX	STRUCTURE FILE NUMBER XXX	XXX

**BRW HAZELET & ERDAL**
A BRW COMPANY

Ø - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.



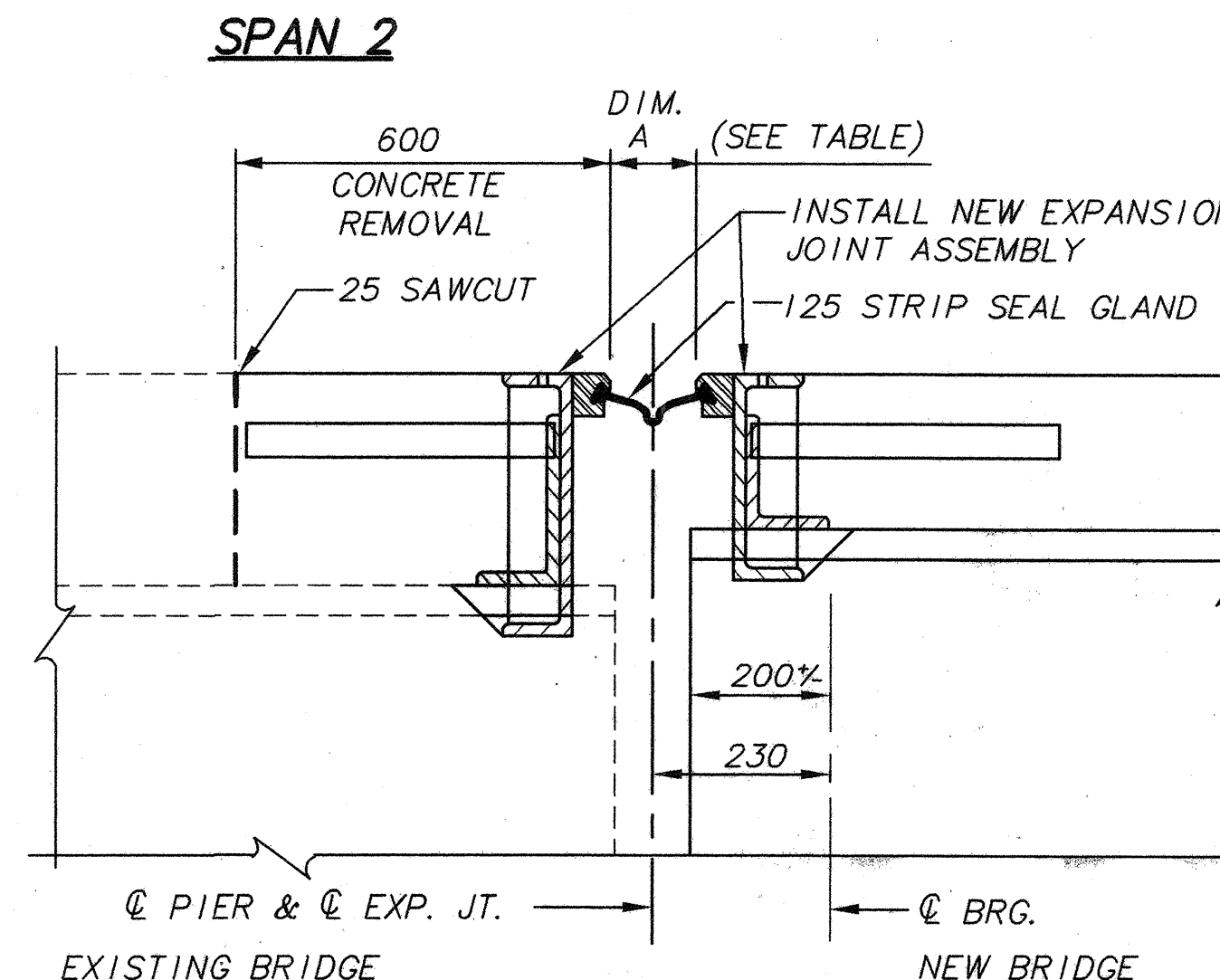
REFERENCE NOTES:

1. REMOVE PORTION OF EXISTING DECK AND EXISTING EXPANSION JOINT ASSEMBLY AT PIER 200, SPAN 200. SALVAGE AND CLEAN EXISTING LONGITUDINAL REINFORCING STEEL AND REPLACE TRANSVERSE REINFORCING STEEL AS NECESSARY TO RESTORE DECK TO ORIGINAL CAPACITY.
2. STRIP SEAL EXPANSION JOINT. SEE SLAB PLAN SHEETS AND ODOT STD. BR. DWGS. EXJ-4-87M AND EXJ-5-93M.
3. LIGHT POLE BASE ON BACKSIDE OF RAIL. SEE SHEET 60 OF 64 FOR DETAILS. JUNCTION BOX AT EACH POLE BASE.
4. 51MM CONDUIT IN RAIL. STUBOUT CONDUIT 150MM BELOW UNDERSIDE OF DECK OVERHANG AT PIER 200 AND 1-71NB/RAMP A GORE, END OF RAIL. CAP END OF CONDUIT.
5. 125MM STRIP SEAL EXPANSION JOINT ASSEMBLY ON WEST SIDE OF JOINT, ONLY. SEE SHEET 54 OF 64 AND STD. BR. DWGS. EXJ-4-87M.
6. LONGITUDINAL JOINT WITH STRIP SEAL EXPANSION JOINT. SEE BRIDGE 8, RAMP A, SLAB PLAN FOR DETAILS. APPROVED CONNECTION TO TRANSVERSE EXPANSION JOINT ASSEMBLY AT WALL PIER IS REQUIRED. THE Ø OF THE LONGITUDINAL JOINT IS A STRAIGHT LINE. USE OFFSETS FROM 1-71 NB AT Ø OF PIERS AS SHOWN ON THE SLAB PLANS TO DETERMINE LOCATION OF Ø LONGITUDINAL JOINT.
7. TRANSITION JUNCTION BOX IN RAIL AT EXPANSION JOINTS. SEE ODOT STD. DWG. HL-30.33M.
8. DECK DRAIN SCUPPERS. SEE DECK DRAINAGE SYSTEM DETAILS AND SHEET 60 OF 64.
9. SIGN STRUCTURE BASE ON BACKSIDE OF RAIL. SEE OVERHEAD SIGN DETAILS. JUNCTION BOX AT EACH BASE.

PLAN - SPAN 1 & 2

LEGEND:
 B_ GIRDER DESIGNATION

NOTE:
 SEE SHEET 53 OF 64 FOR TYPICAL TRANSVERSE CONSTRUCTION JOINT, SECTION C-C.



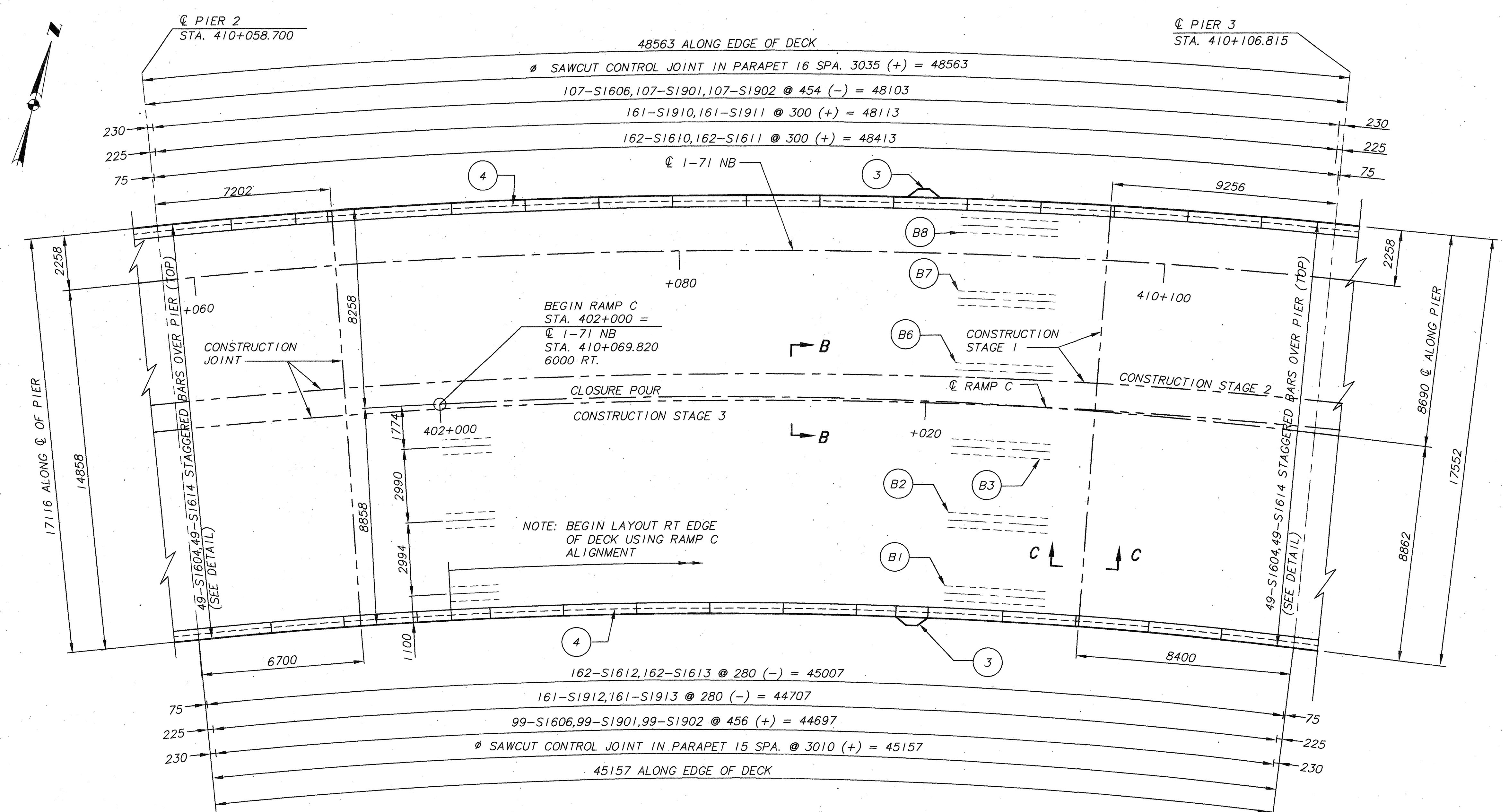
SECTION A-A

NOTE: SEE STD. BR. DWG. EXJ-4-87M FOR DETAILS NOT SHOWN.

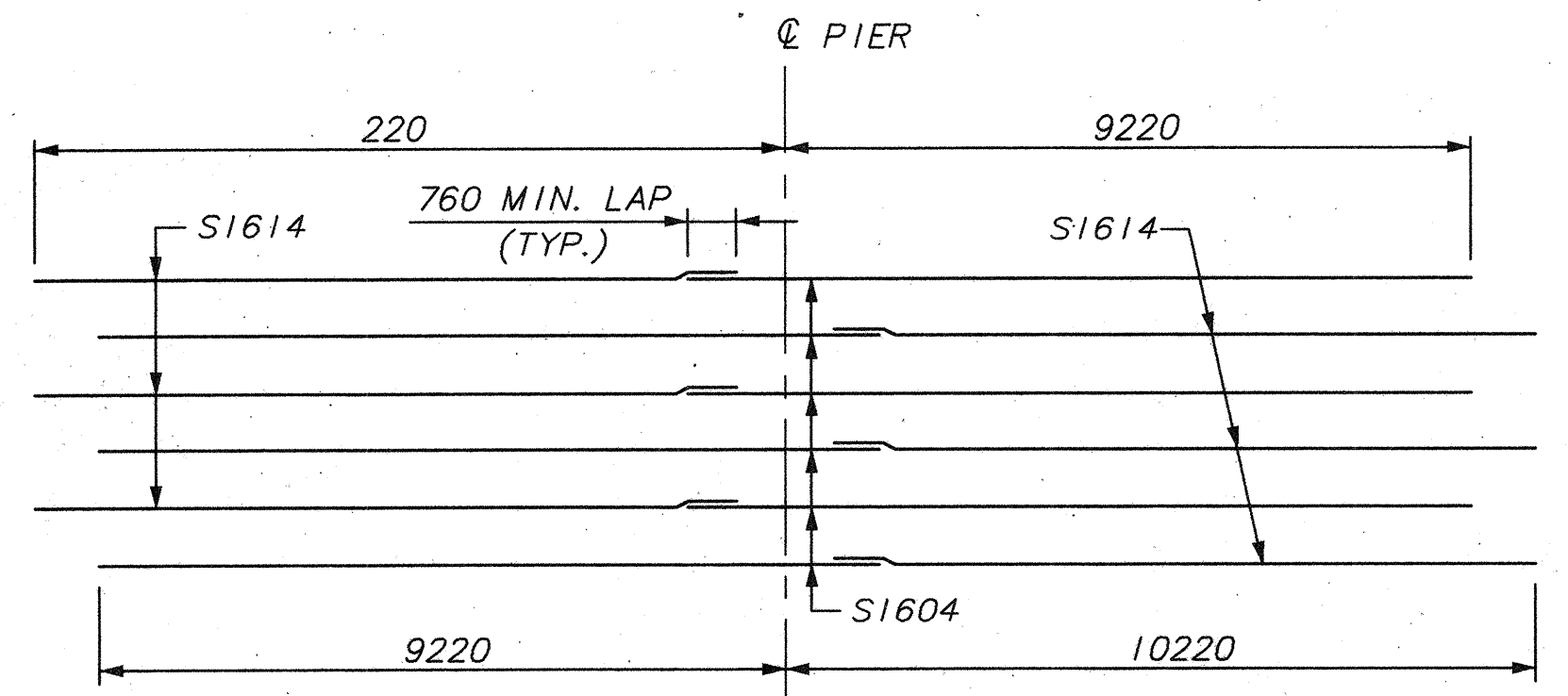
FINAL FOR CONSTRUCTION

TEMP. (°C)	DIM. A
35	27
30	36
25	46
20	55
15	65
10	74
5	83
0	93

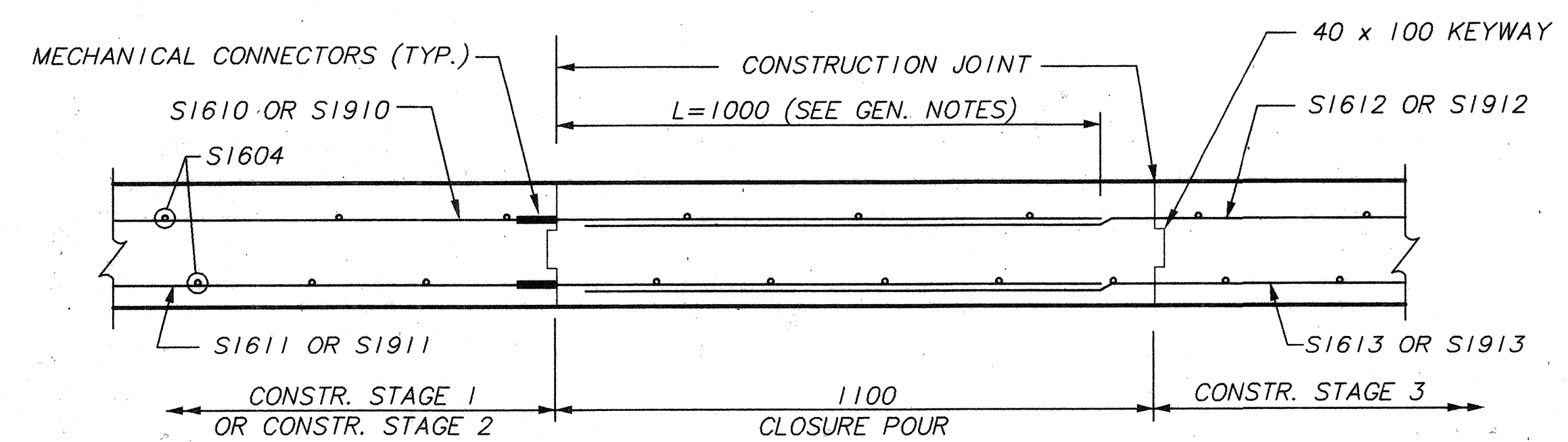
AUG 18 1998
 BR3SLAB2



PLAN - SPAN 3



STAGGERED BARS OVER PIER 1, 2, 3, & 4



SECTION B-B

LEGEND:
 (B-) GIRDER DESIGNATION

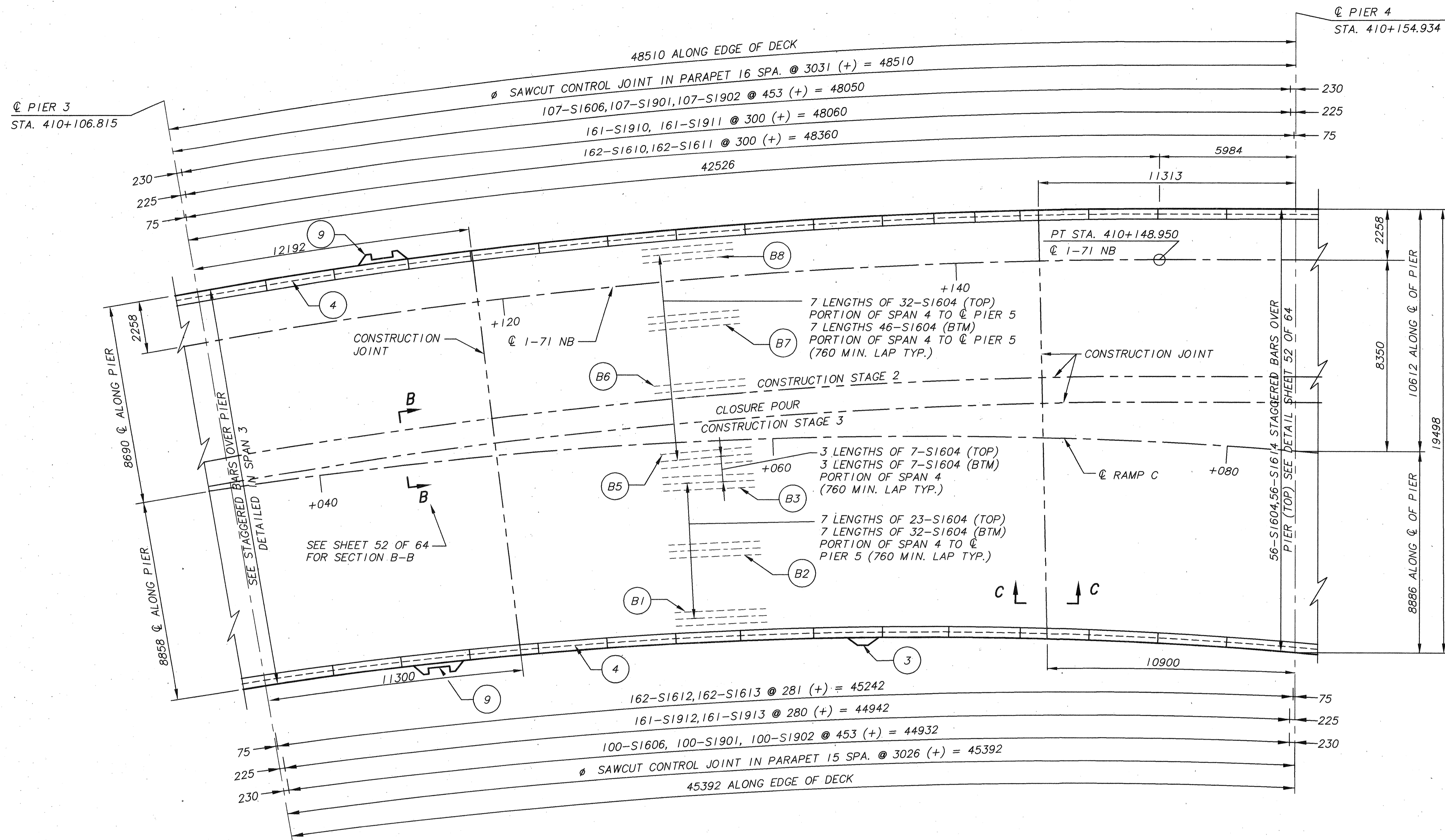
NOTES:
 SEE SHEET 51 OF 64 FOR REFERENCE NOTES.
 SEE SHEET 53 OF 64 FOR TYPICAL TRANSVERSE CONSTRUCTION JOINT, SECTION C-C.

\emptyset - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.

FINAL FOR CONSTRUCTION

AUG 18 1998

BR3SLAB3



PLAN - SPAN 4

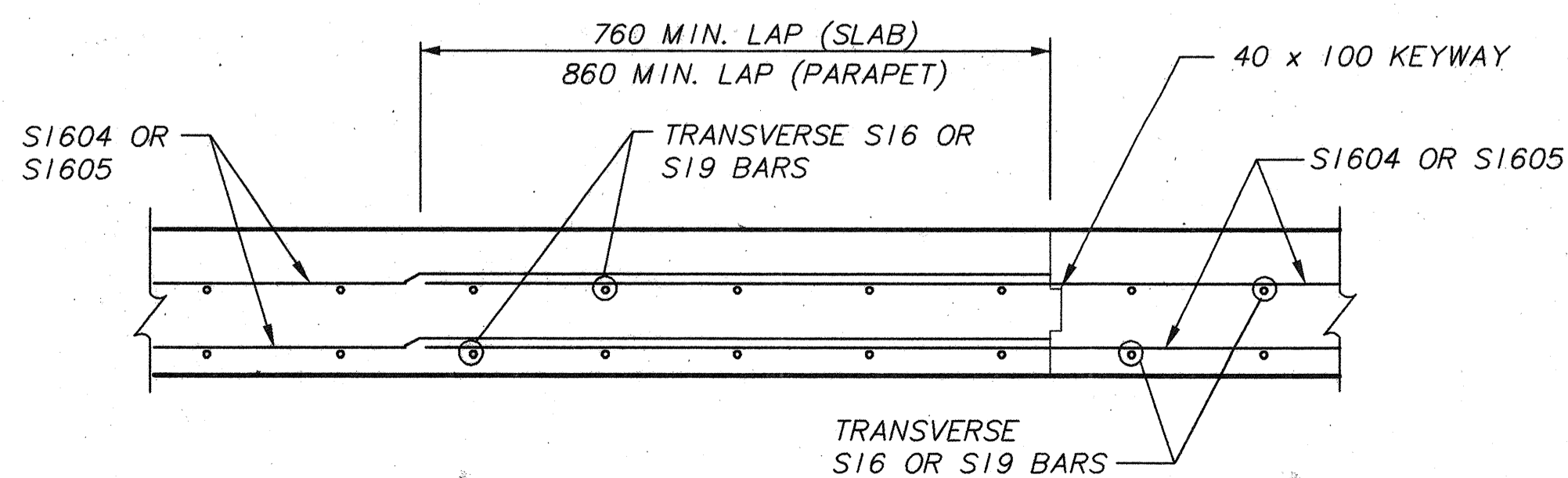
LEGEND:

(B_) GIRDER DESIGNATION

NOTE:

SEE SHEET 51 OF 64 FOR REFERENCE NOTES.
 SEE SHEET 52 OF 64 FOR SECTION B-B.

Ø - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.



SECTION C-C
 (TYP. TRANSVERSE CONSTRUCTION JOINT)

FINAL FOR CONSTRUCTION

AUG 18 1998

BR3SLAB4

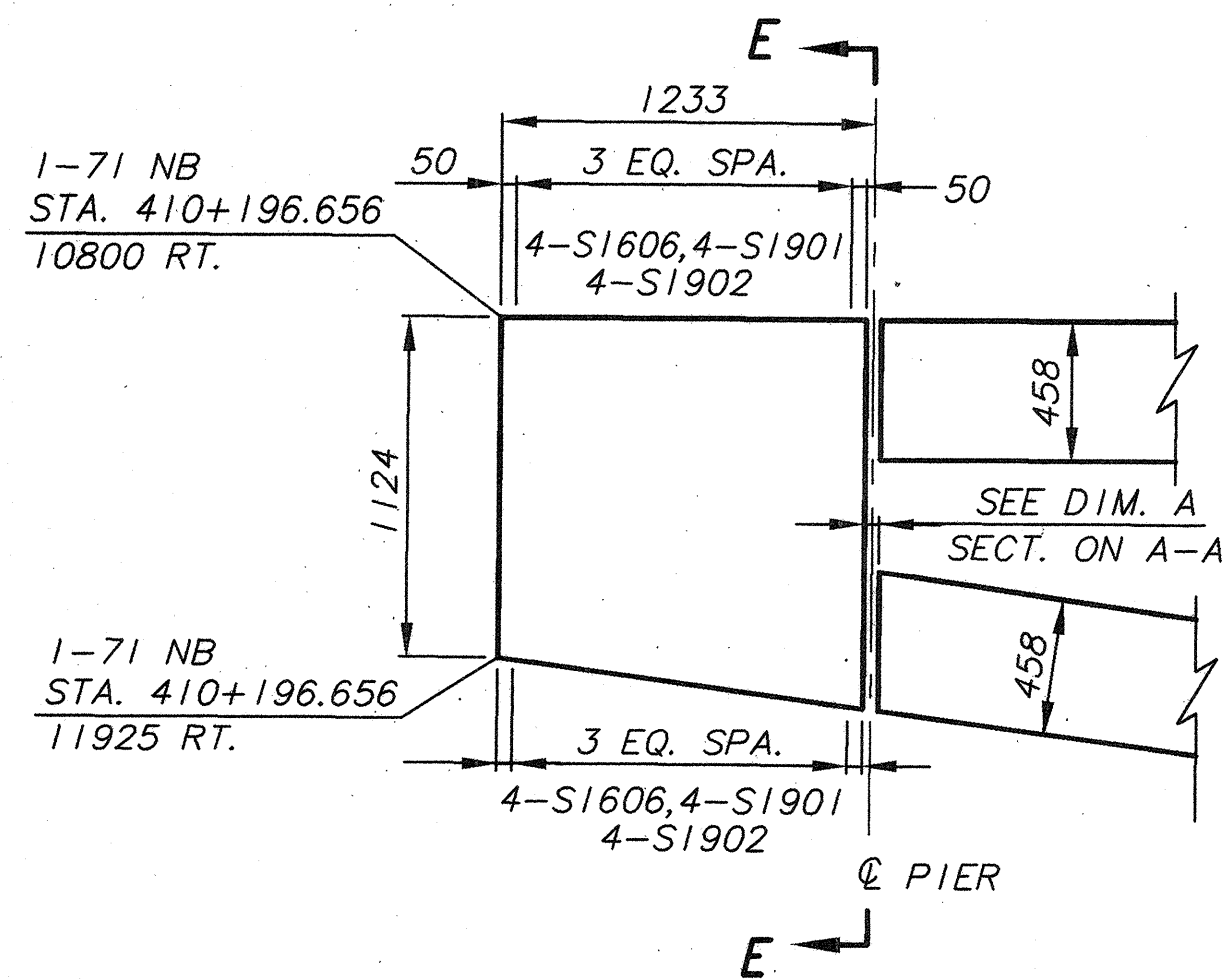
LEGEND:

(B_) GIRDER DESIGNATION

NOTE:

SEE SHEET 51 OF 64 FOR REFERENCE NOTES.

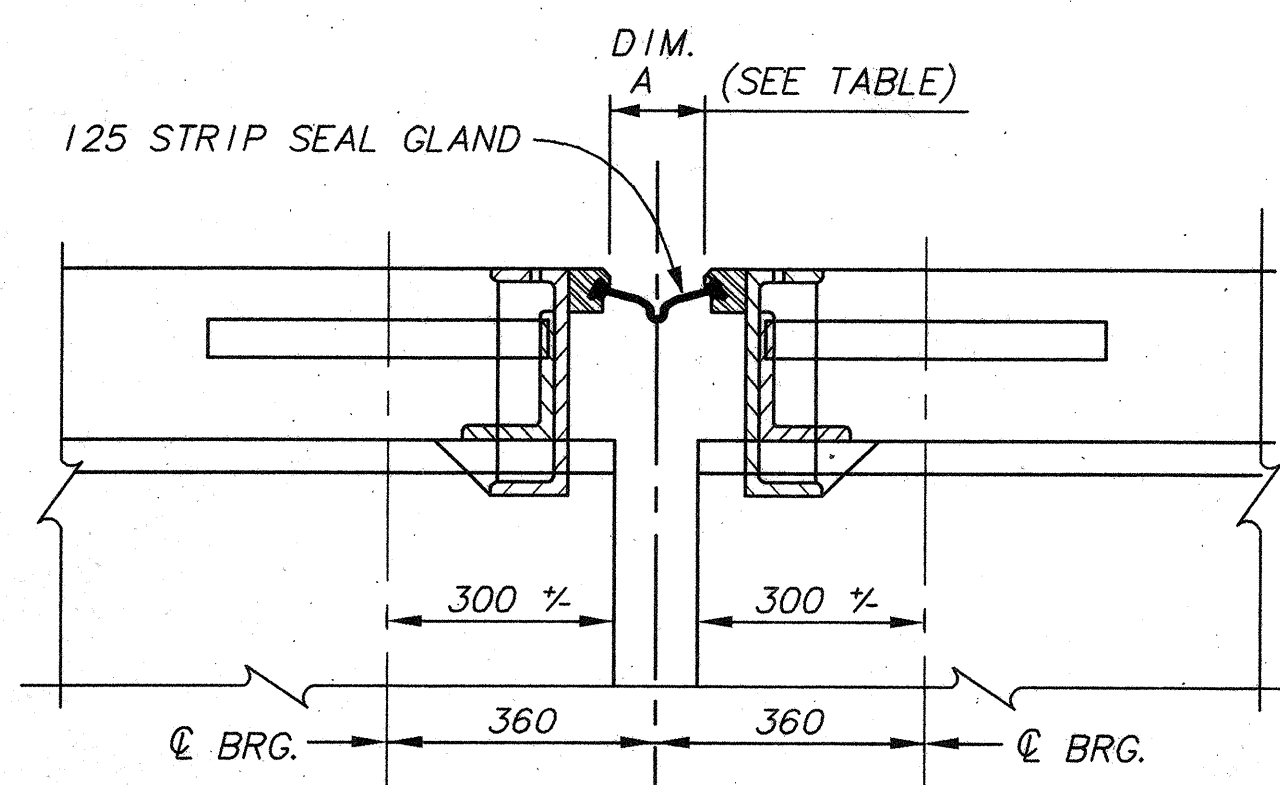
Ø - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.



DETAIL A

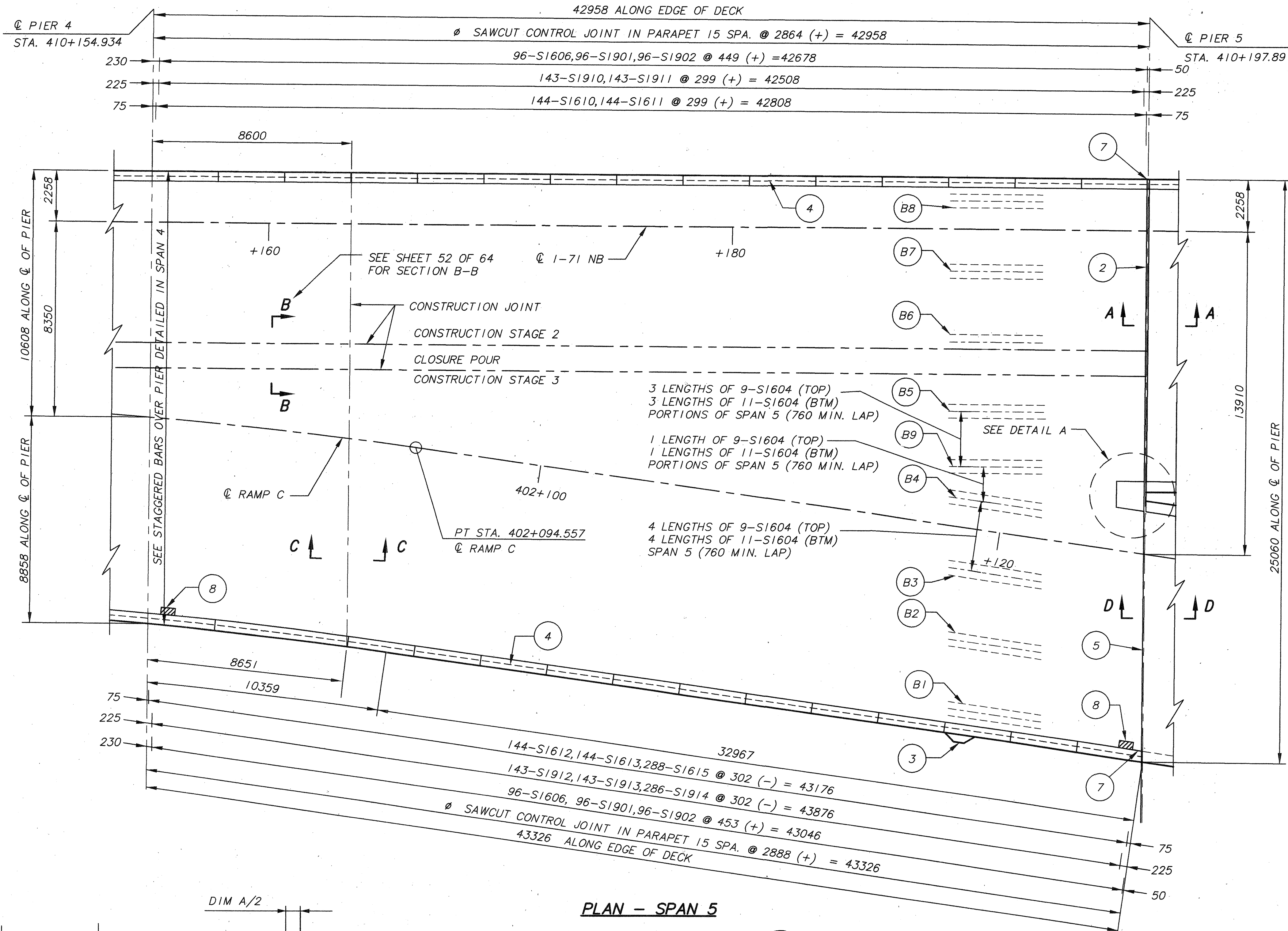
NOTE: DETAILS FOR ATTENUATOR BACKWALL SHALL BE COORDINATED WITH THE ATTENUATOR DETAILS, PER MANUFACTURER'S RECOMMENDATIONS.

TEMP. (°C)	DIM. A
35	27
30	36
25	46
20	55
15	65
10	74
5	83
0	93

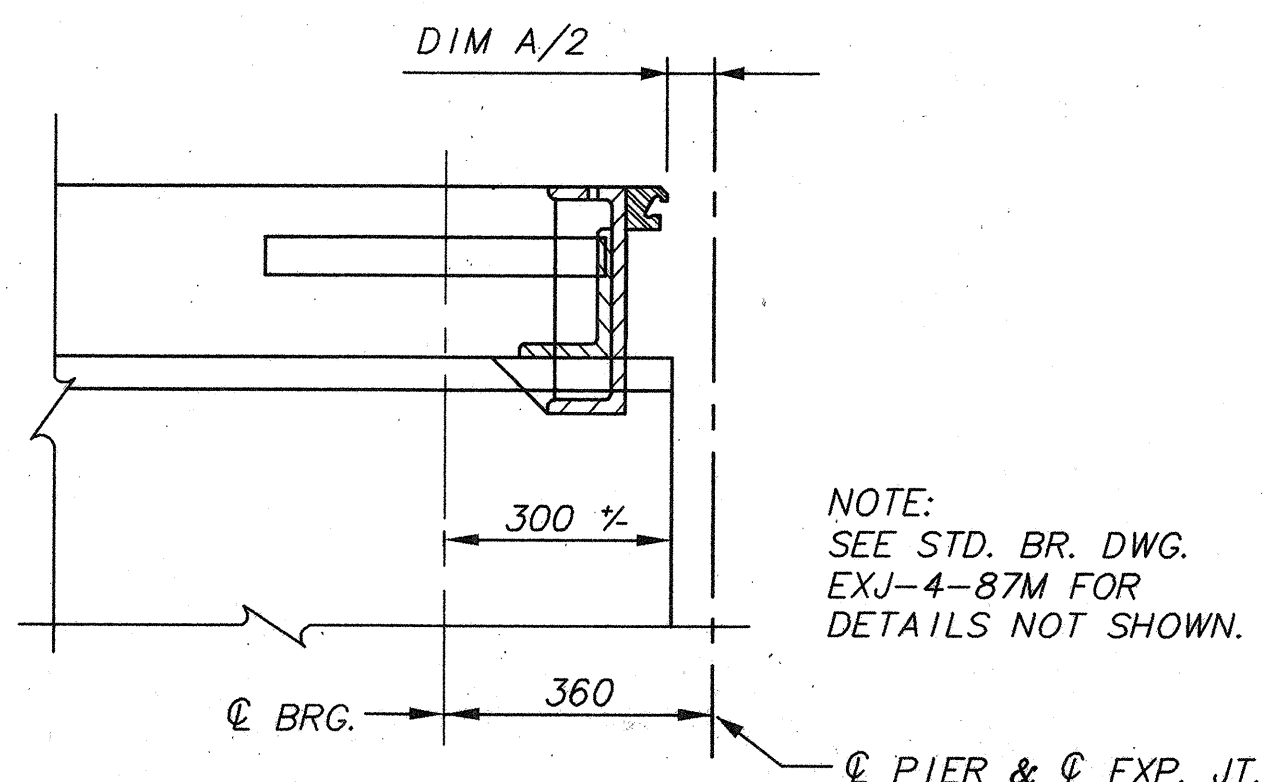


SECTION A-A

NOTE: SEE STD. BR. DWG. EXJ-4-87M FOR DETAILS NOT SHOWN.

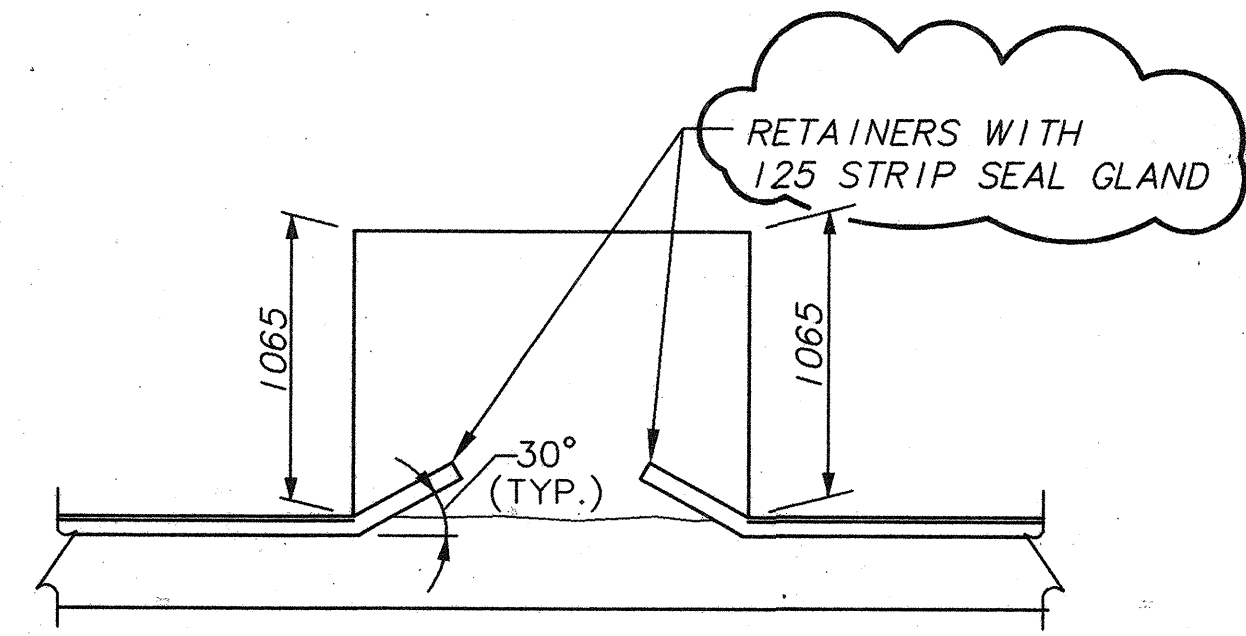


PLAN - SPAN 5



SECTION D-D

NOTE: SEE STD. BR. DWG. EXJ-4-87M FOR DETAILS NOT SHOWN.



SECTION E-E

NOTE: SEE SHEET 53 OF 64 FOR TYPICAL TRANSVERSE CONSTRUCTION JOINT, SECTION C-C.

FINAL FOR CONSTRUCTION

BRW HAZLET & ERDAL
A BRW COMPANY

DESIGN AGENCY

DATE

REVIEWED

DESIGNED

SLAB PLAN
1-71 NB

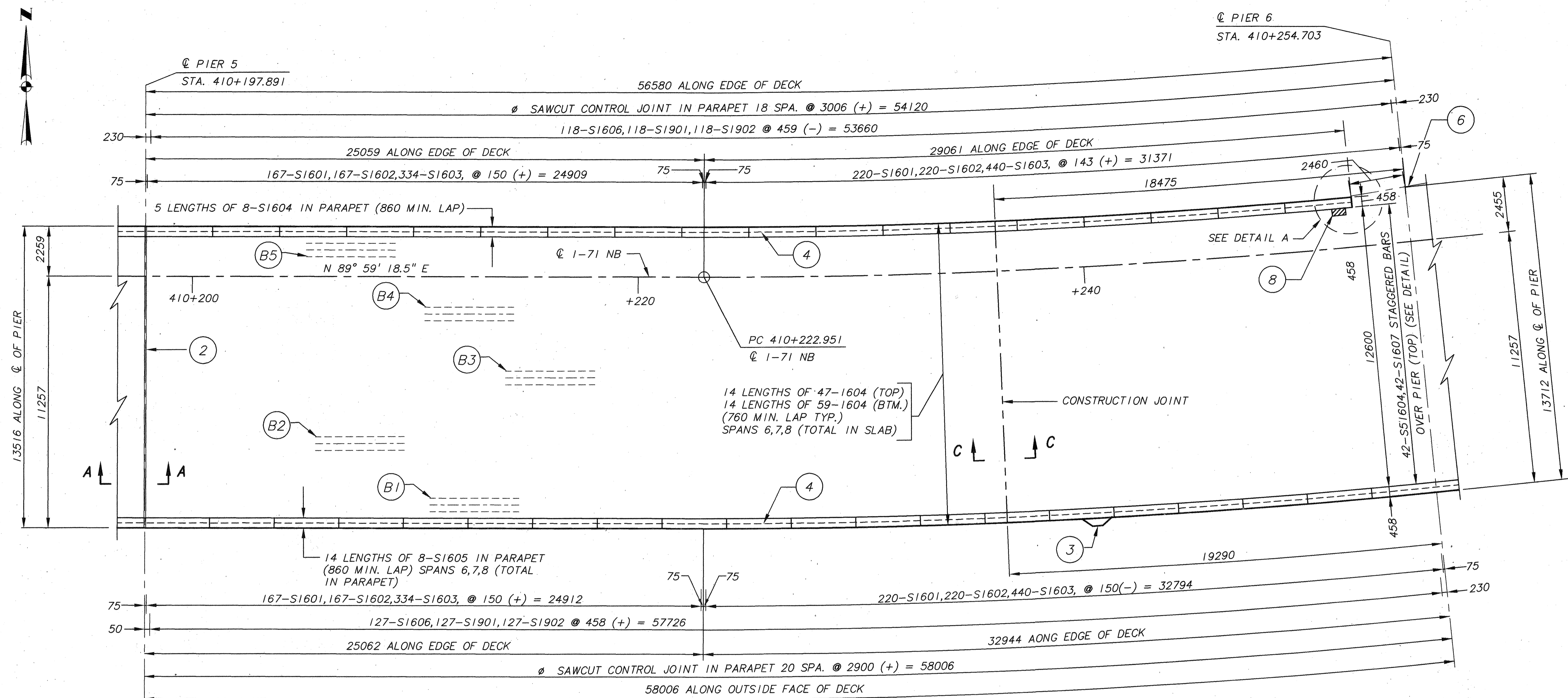
BRIDGE 3

54/64

464
588

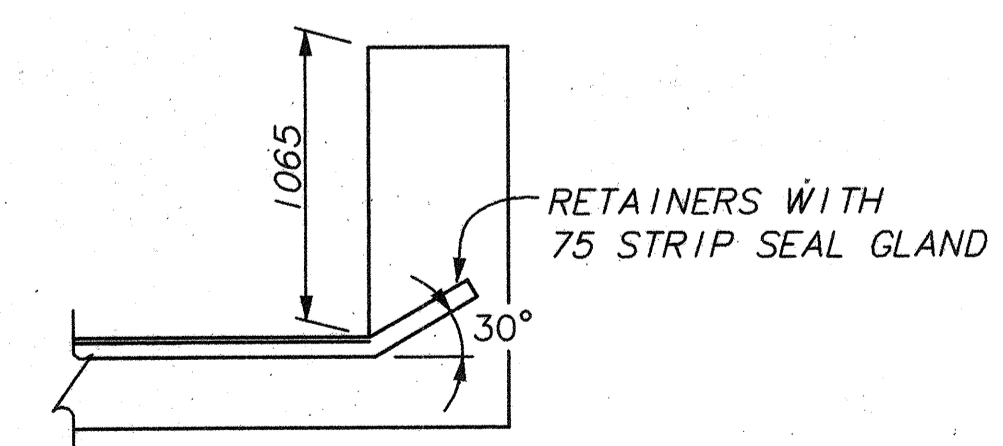
AUG 18 1998

BR33LAB5

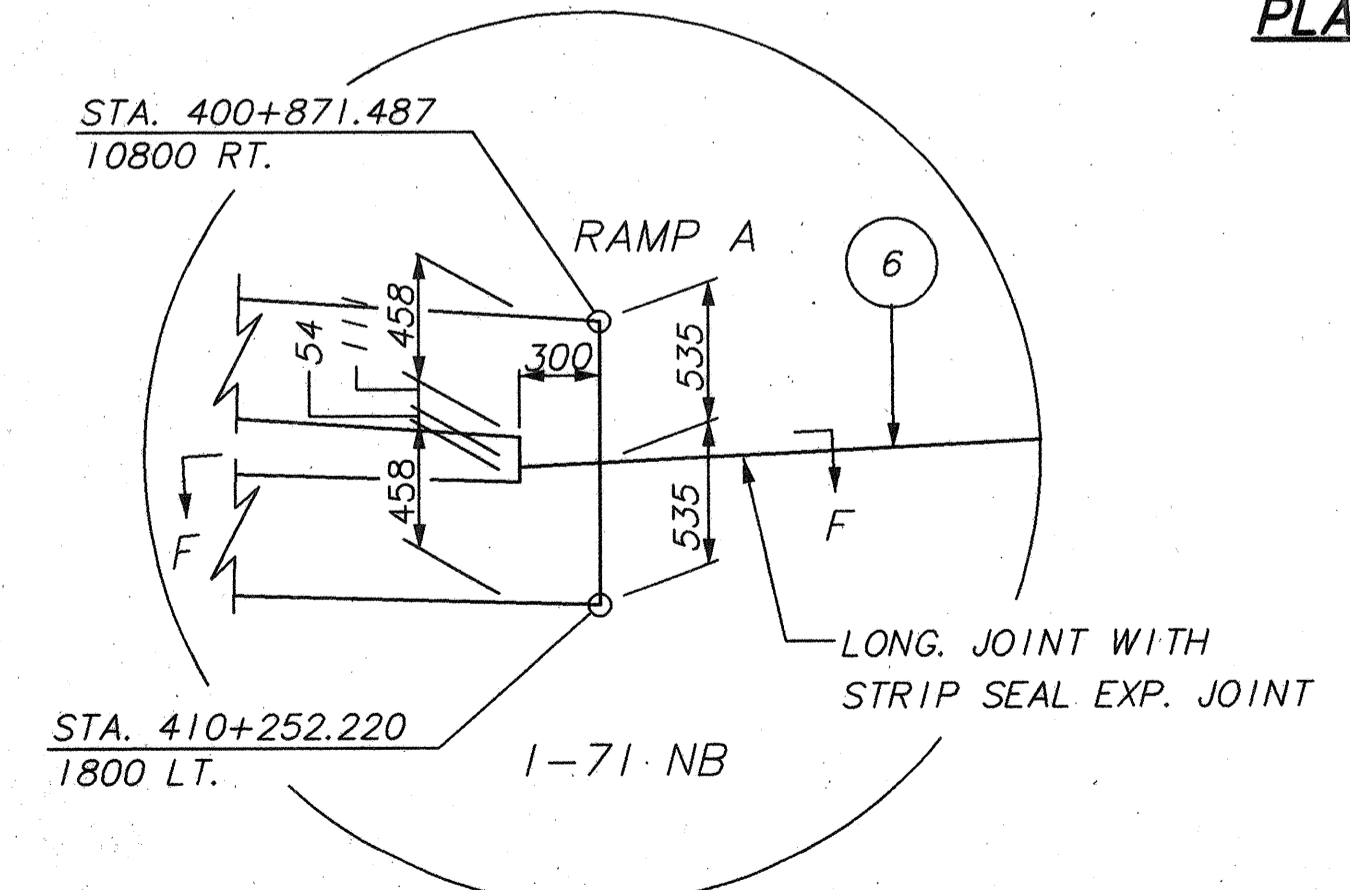


FINAL FOR CONSTRUCTION

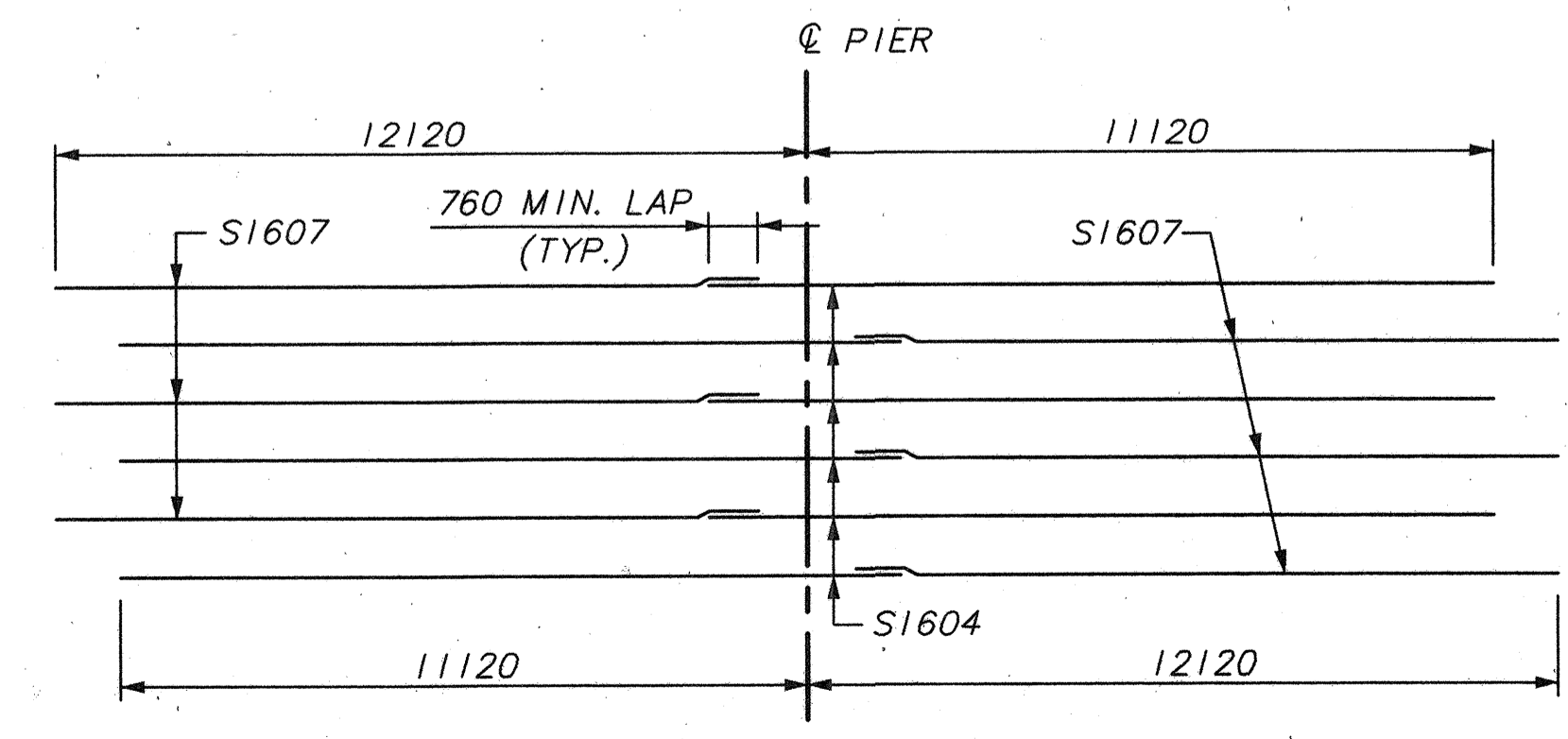
PLAN - SPAN 6



SECTION F-F



DETAIL A



STAGGERED BARS OVER PIER 6 & 7

LEGEND:

(B_) GIRDER DESIGNATION

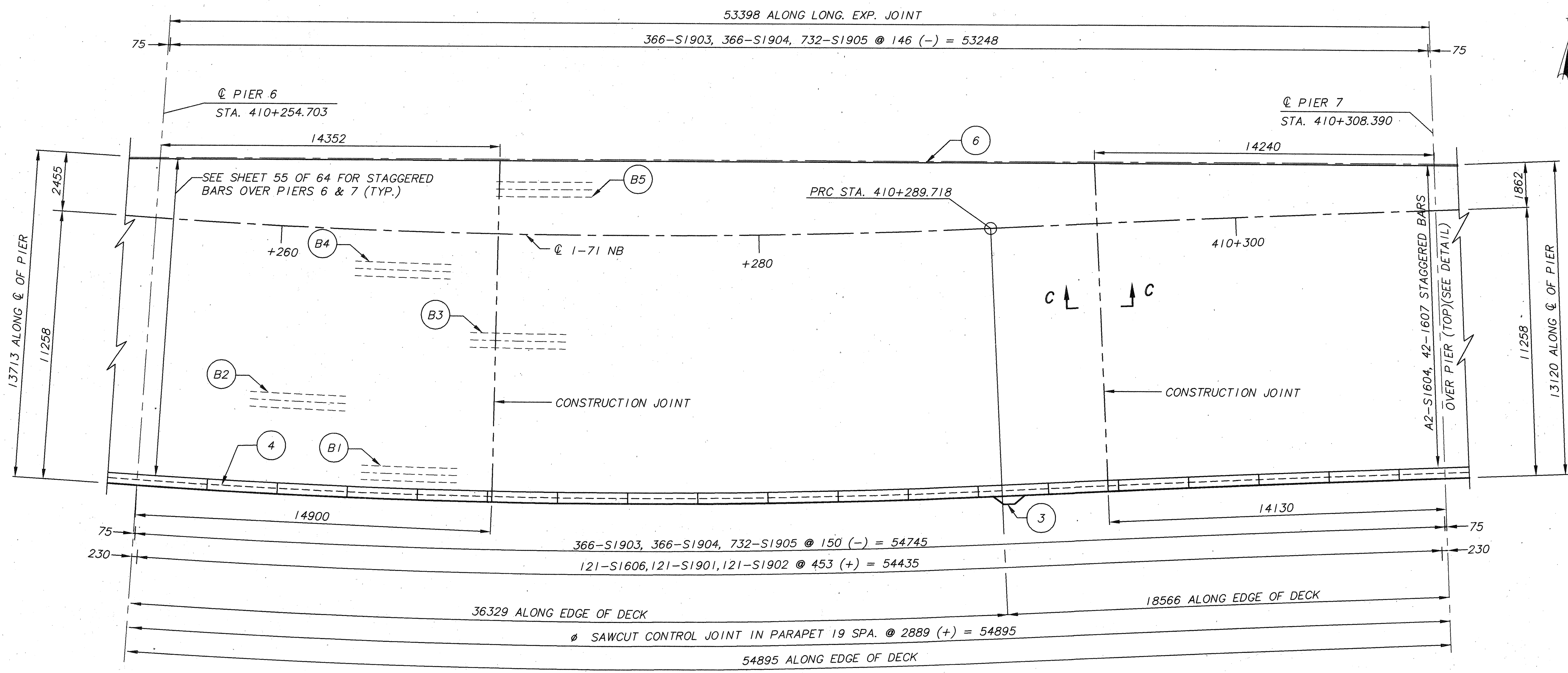
NOTE:

SEE SHEET 51 OF 64 FOR REFERENCE NOTES.
SEE SHEET 54 OF 64 FOR SECTION A-A.
SEE SHEET 53 OF 64 FOR TYPICAL TRANSVERSE CONSTRUCTION JOINT, SECTION C-C.

Ø - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.

AUG 18 1998

BR3SLAB6 8/18/98



PLAN - SPAN 7

LEGEND:

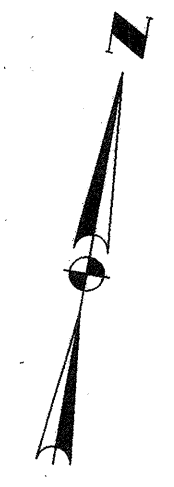
(B_) GIRDER DESIGNATION

NOTE:

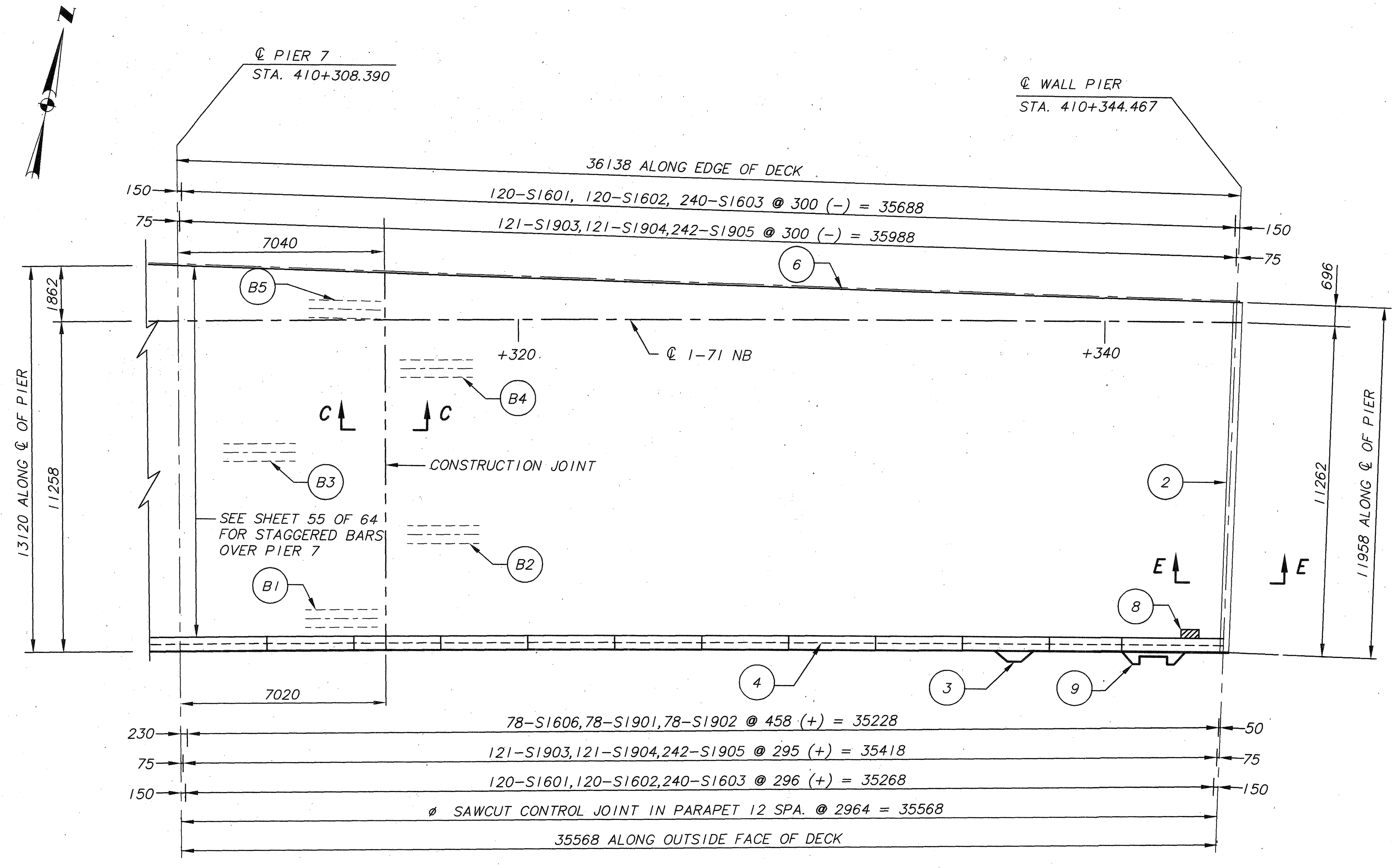
SEE SHEET 51 OF 64 FOR REFERENCE NOTES.
 SEE SHEET 53 OF 64 FOR TYPICAL TRANSVERSE CONSTRUCTION JOINT, SECTION C-C.

∅ - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.

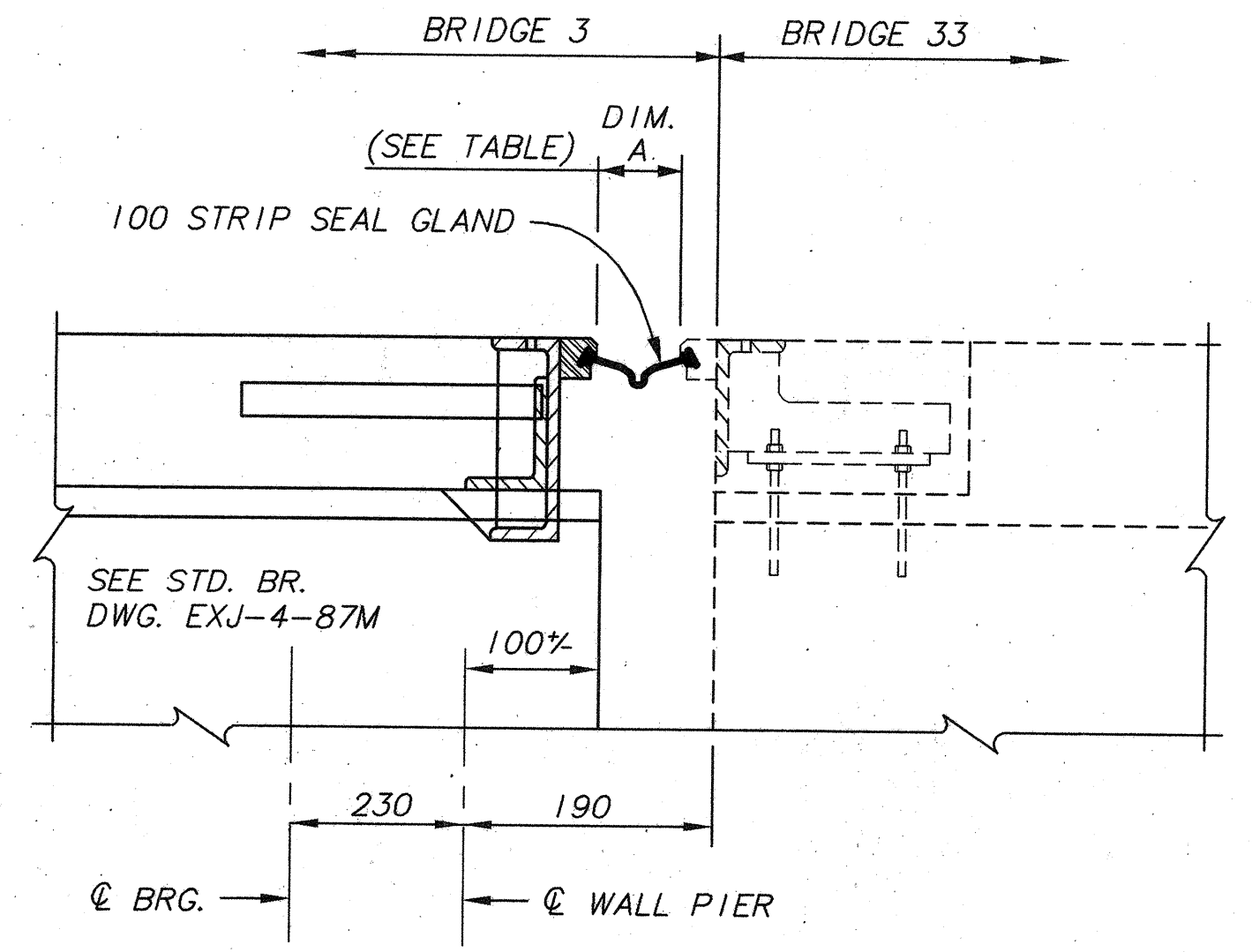
FINAL FOR CONSTRUCTION



AUG 18 1998
 BR3SLAB7
 6/19/98



PLAN - SPAN 8



SECTION E-E

TEMP. (°C)	DIM. A
35	18
30	24
25	31
20	38
15	44
10	50
5	57
0	76

LEGEND:

(B_) GIRDER DESIGNATION

NOTE:

SEE SHEET 51 OF 64 FOR REFERENCE NOTES.
 SEE SHEET 53 OF 64 FOR TYPICAL TRANSVERSE CONSTRUCTION JOINT, SECTION C-C.

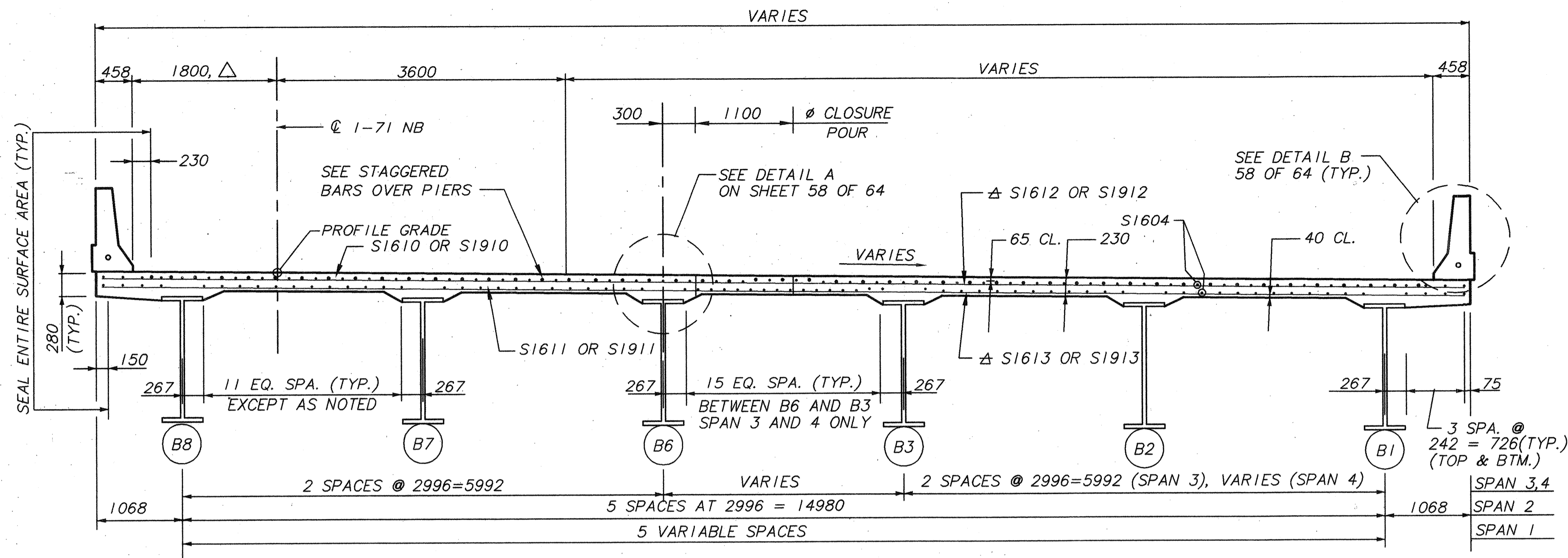
∅ - FIELD ADJUST CONTROL JOINT LOCATIONS TO AVOID POLE FOUNDATIONS. REFERENCE STD. DWG. BR-1M FOR MINIMUM AND MAXIMUM CONTROL JOINT SPACING. ADDITIONAL CONTROL JOINTS MAY BE REQUIRED.

FINAL FOR CONSTRUCTION

AUG 18 1998

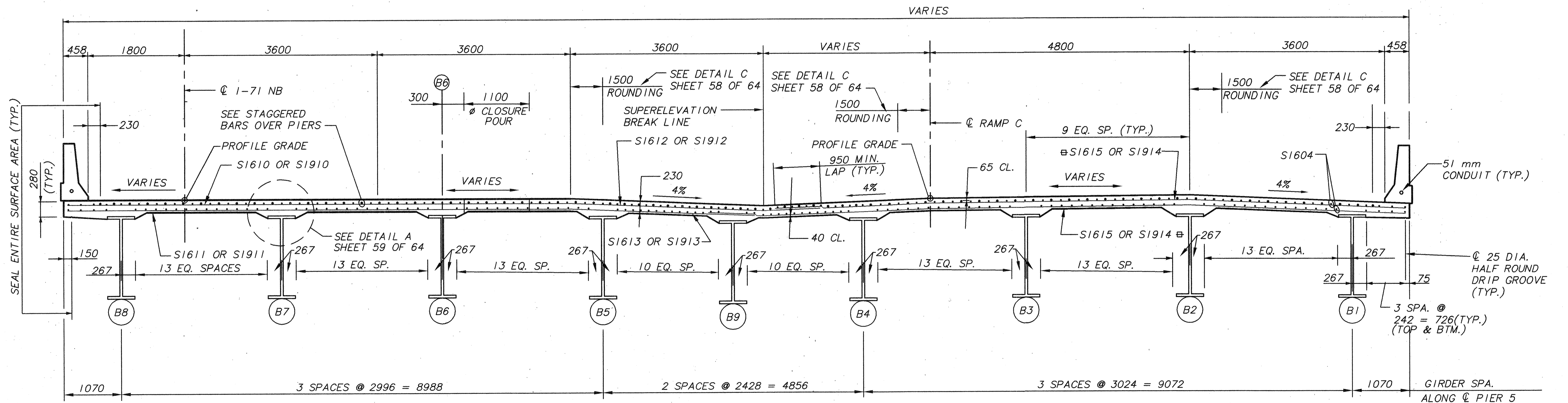
BR33/ABB 8/10/98

△ VARIES 1223 - 1800 IN SPAN 1



TYPICAL SECTION
(STA. 410+000.000 TO STA. 410+121.500)
(SPANS 1,2,3, PORTION OF 4)

SUPERSTRUCTURE (SPANS 1,2,3,4,5) REINFORCING STEEL LIST			
MARK	TOTAL NO.	LENGTH	TYPE
S1604	3030	12000	STR
S1606	868	2130	I
S1610	666	7310	STR
S1611	666	7310	STR
S1612	666	12000	STR
S1613	666	12000	STR
S1614	203	8200	STR
S1615	288	3800	STR
S1901	868	765	J
S1902	868	855	J
S1910	661	7310	STR
S1911	661	7310	STR
S1912	661	12000	STR
S1913	661	12000	STR
S1914	286	3800	STR



TYPICAL SECTION
(STA. 410+121.5 TO STA. 410+197.891)
(PORTION SPAN 4, 5)

- △ CUT S1612, S1613, S1912, S1913 TO FIT.
- ∅ SEE SECTION B-B SHEET 52 OF 64
- ⊞ CUT S1615 OR S1914 TO FIT. MULTIPLE LAPS ARE ALLOWED PER BAR LINE. LAP TOP BARS MIDWAY BETWEEN GIRDERS AND BTM. BARS OVER GIRDERS.

NOTES:

1. TRANSVERSE BARS TO BE PLACED RADIAL TO 1-71 NB ALIGNMENT.
2. FOR SUPERELEVATION RATES, REFERENCE SUPERELEVATION PLANS.

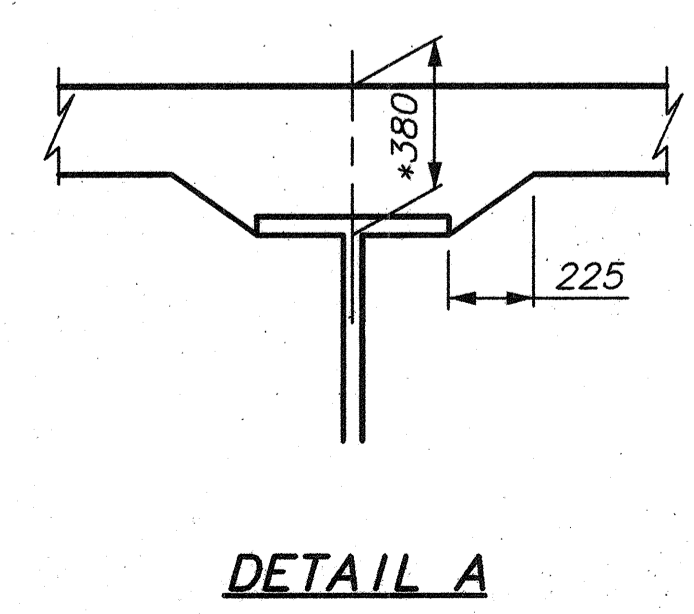
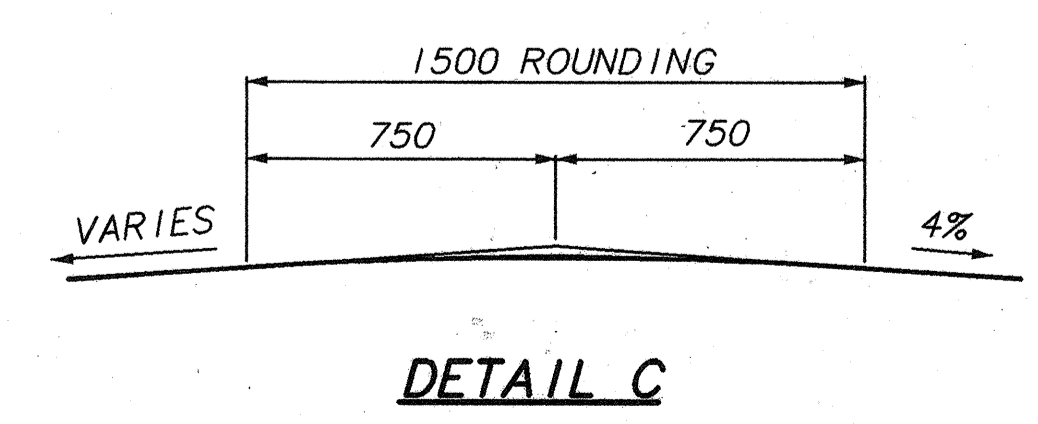
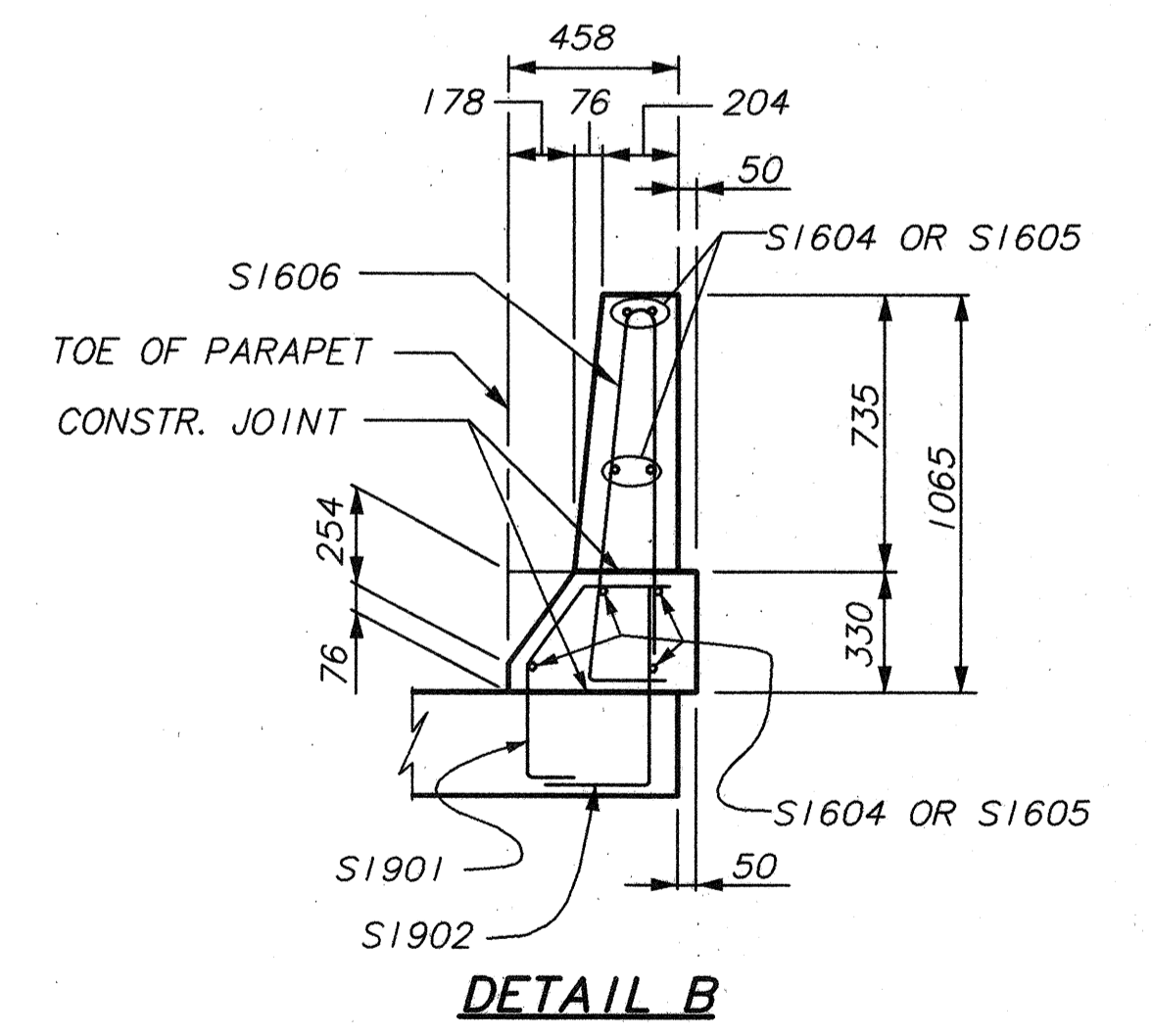
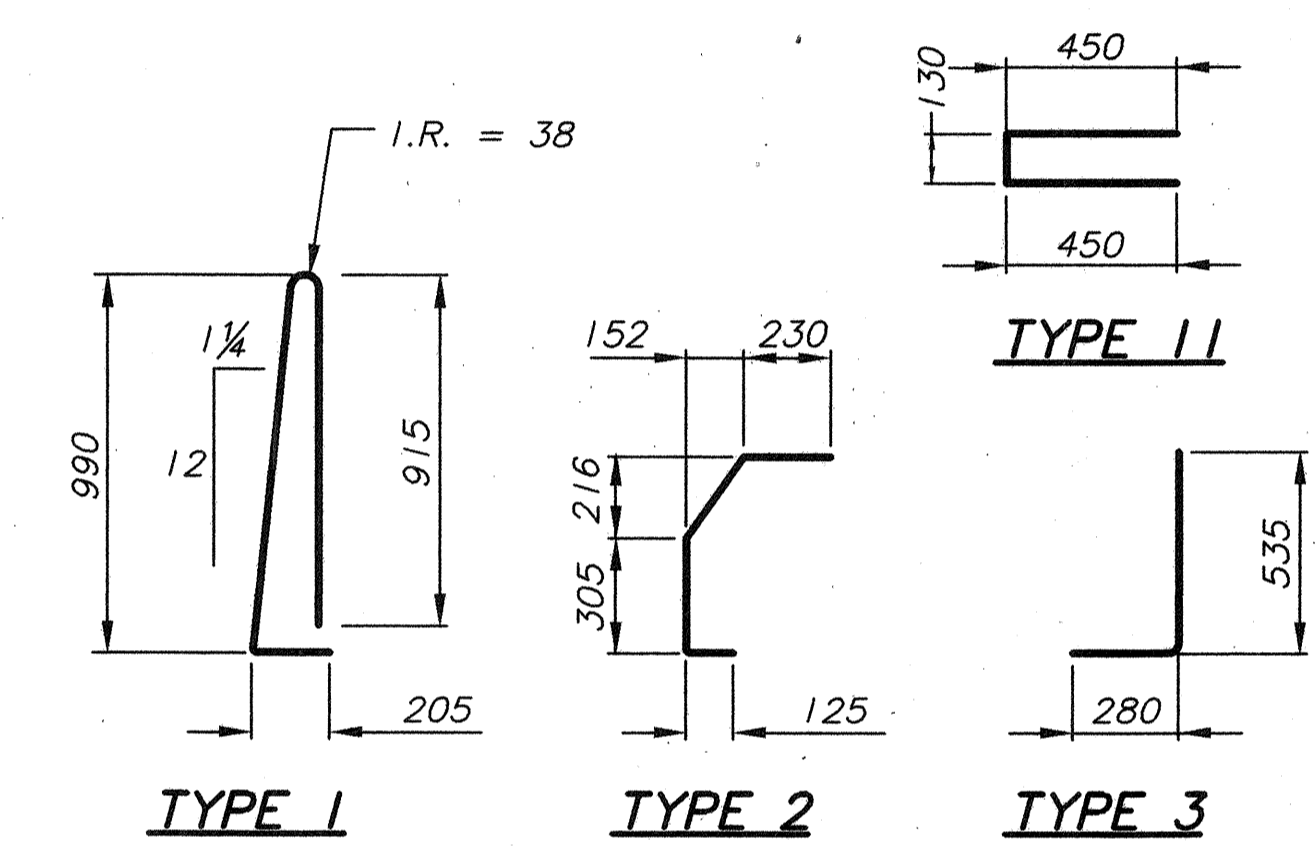
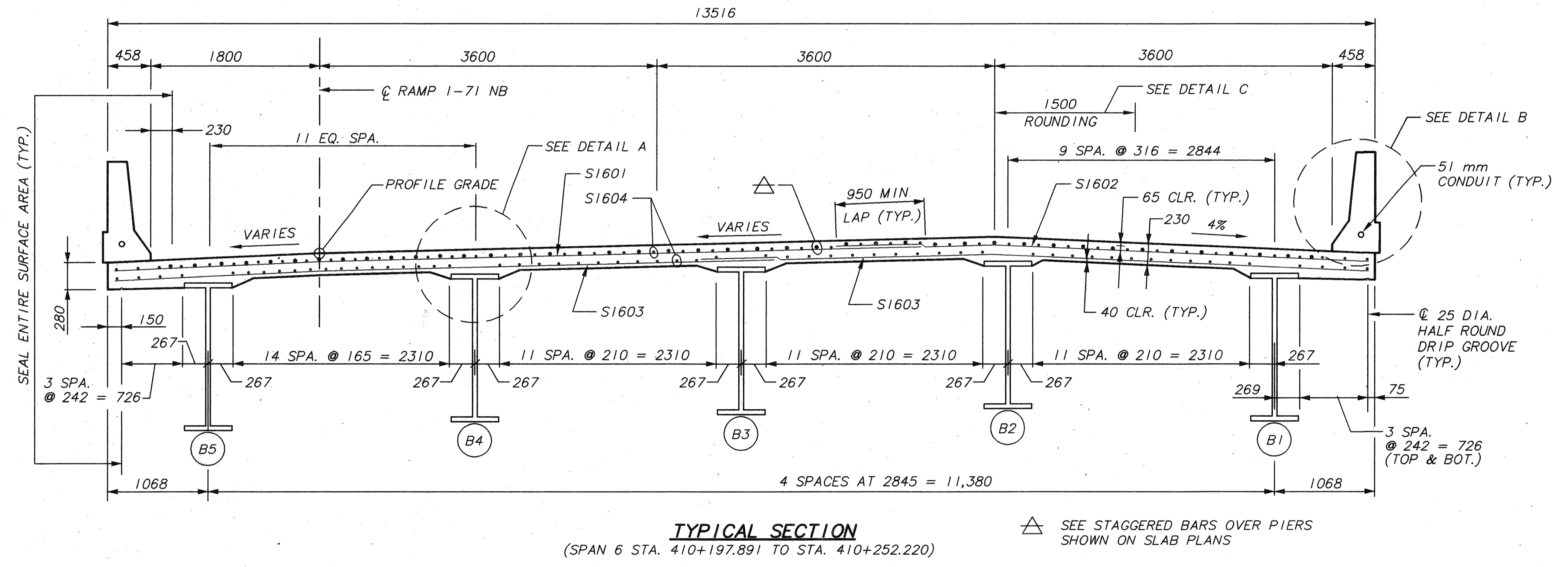
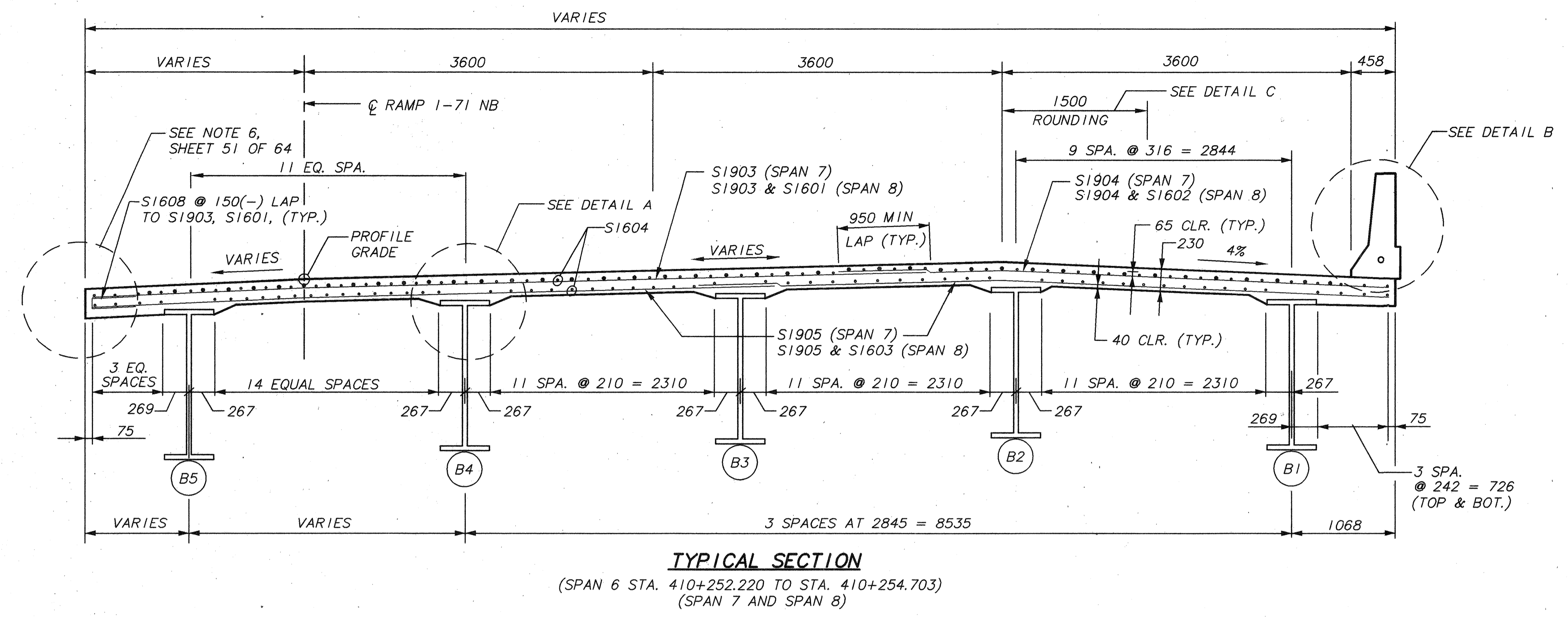
FINAL FOR CONSTRUCTION

AUG 18 1988

BR3-TTY2

SUPERSTRUCTURE (SPANS 6,7,8) REINFORCING STEEL LIST

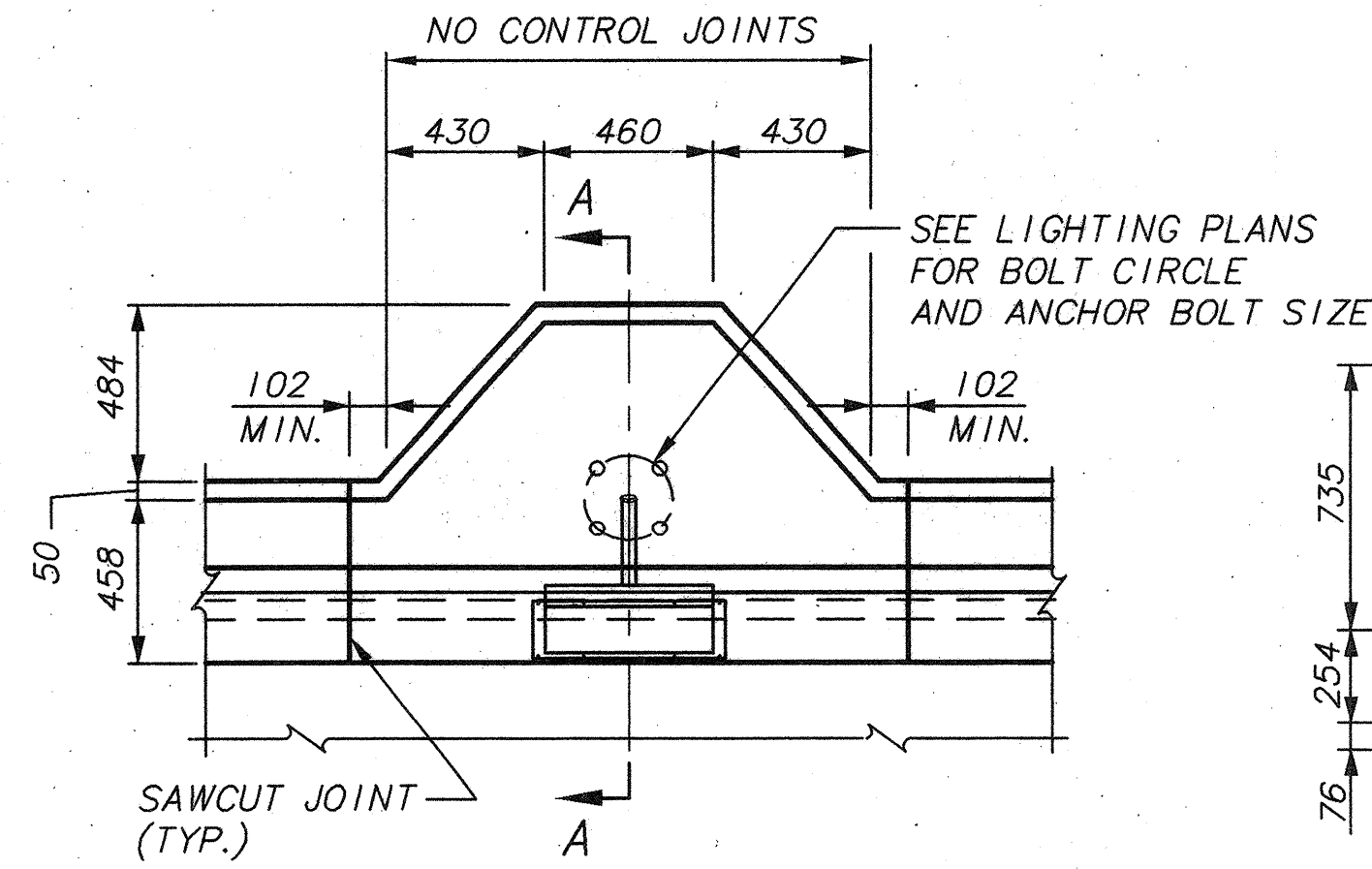
MARK	TOTAL NO.	LENGTH	TYPE
S1601	507	8700	STR.
S1602	507	5800	STR.
S1603	1014	7300	STR.
S1604	1608	12000	STR.
S1605	112	11400	STR.
S1606	444	2130	I
S1607	84	12000	STR.
S1608	615	1030	II
S1901	444	765	3
S1902	444	855	2
S1903	487	9400	STR.
S1904	487	5700	STR.
S1905	974	7600	STR.



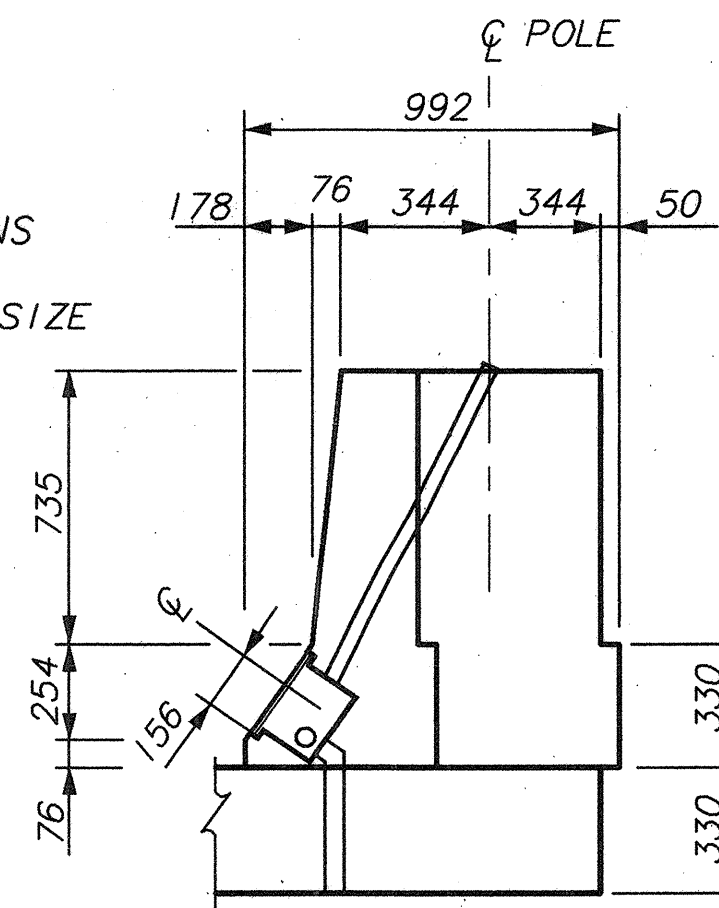
* DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL GIRDER WEB IS THE DESIGN DIMENSION. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.

- NOTES:**
1. TRANSVERSE BARS TO BE PLACED RADIAL TO 1-71 NB ALIGNMENT.
 2. FOR SUPERELEVATION RATES, REFERENCE SUPERELEVATION PLANS.

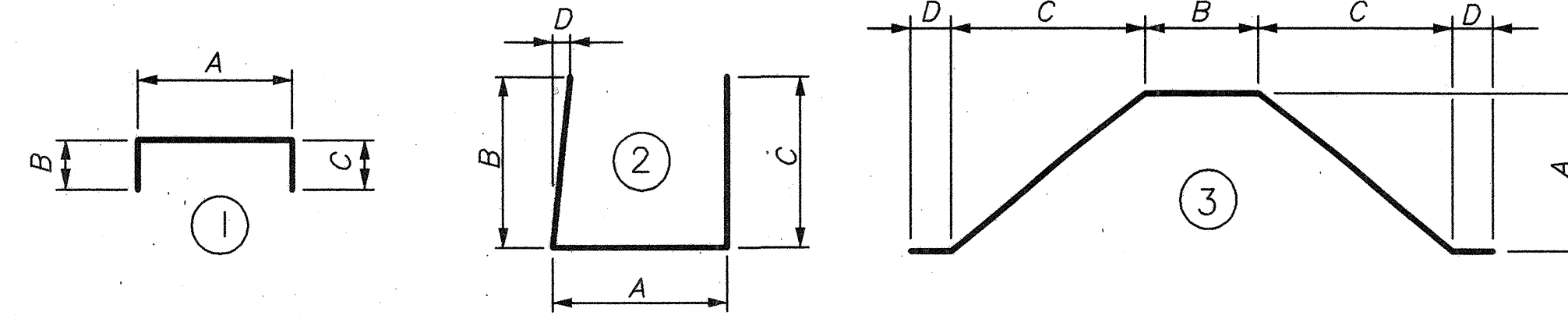
FINAL FOR CONSTRUCTION



PLAN
LIGHT POLE PILASTER
SEE STD. DWG. HL-20.14M FOR DETAILS
NOT SHOWN.

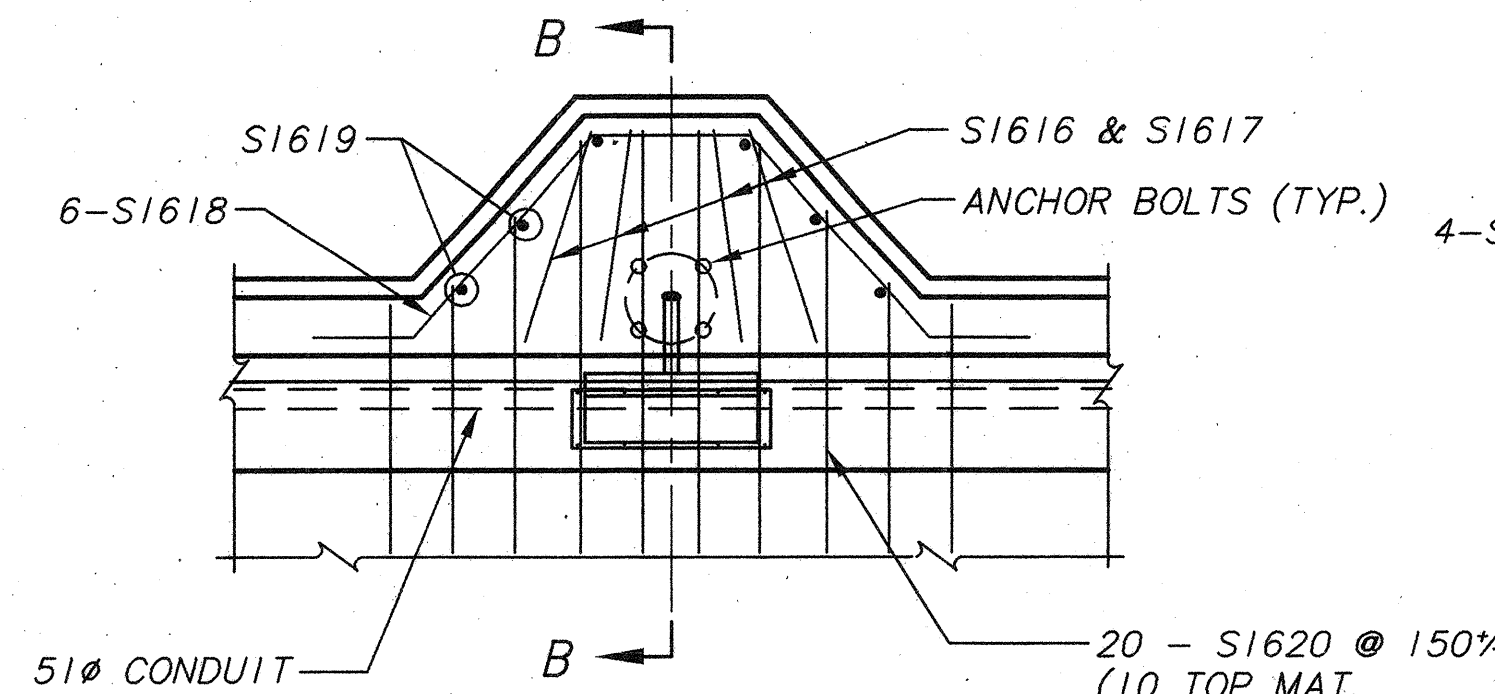


SECTION A-A

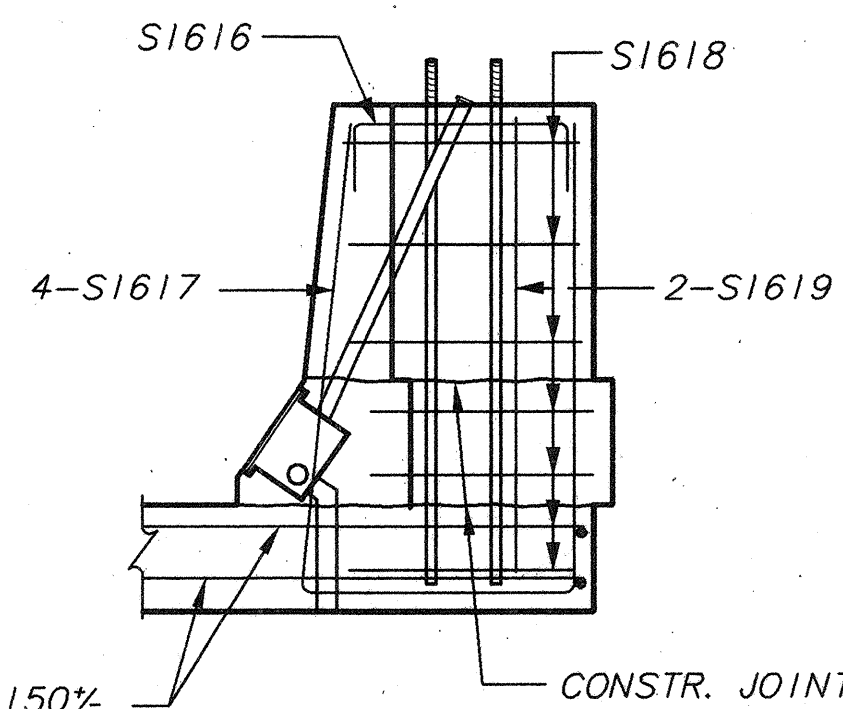


SCUPPER STATIONS	
1-71 NB	410+057.820 R
1-71 NB	410+155.814 R
1-71 NB	410+196.876 (RT. OF C. RAMP C)
1-71 NB	410+251.613 L
1-71 NB	410+343.637 R

SCUPPER LOCATIONS



PLAN
PILASTER REINF. STEEL



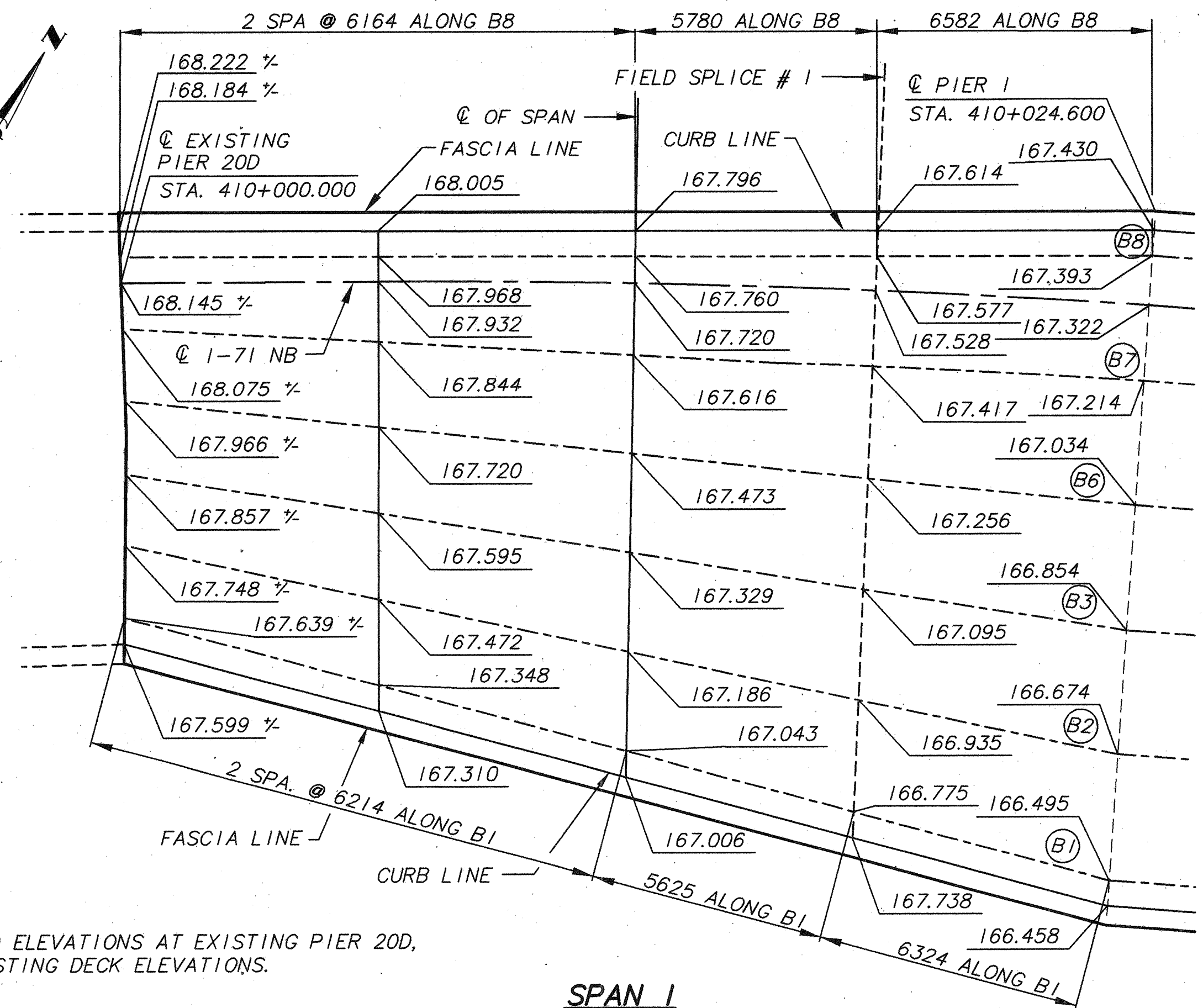
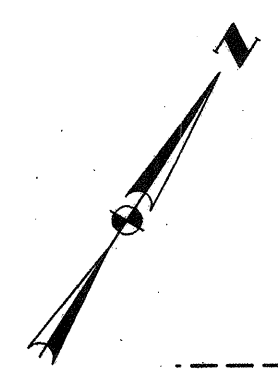
SECTION B-B

REINFORCING STEEL LIST - ONE PILASTER							
MARK	NO.	LENGTH	TYPE	A	B	C	D
S1616	4	945	①	585	180	180	
S1617	4	3001	②	705	1145	1145	120
S1618	6	2280	③	550	410	645	150
S1619	6	1145	STR	---	---	---	---
S1620	6	1600	STR	---	---	---	---

POLE STATION	FASCIA
410+040	RIGHT
410+090	"
410+135	"
410+190	"
410+240	"
410+290	"
410+337	RIGHT

LIGHT POLE PILASTER

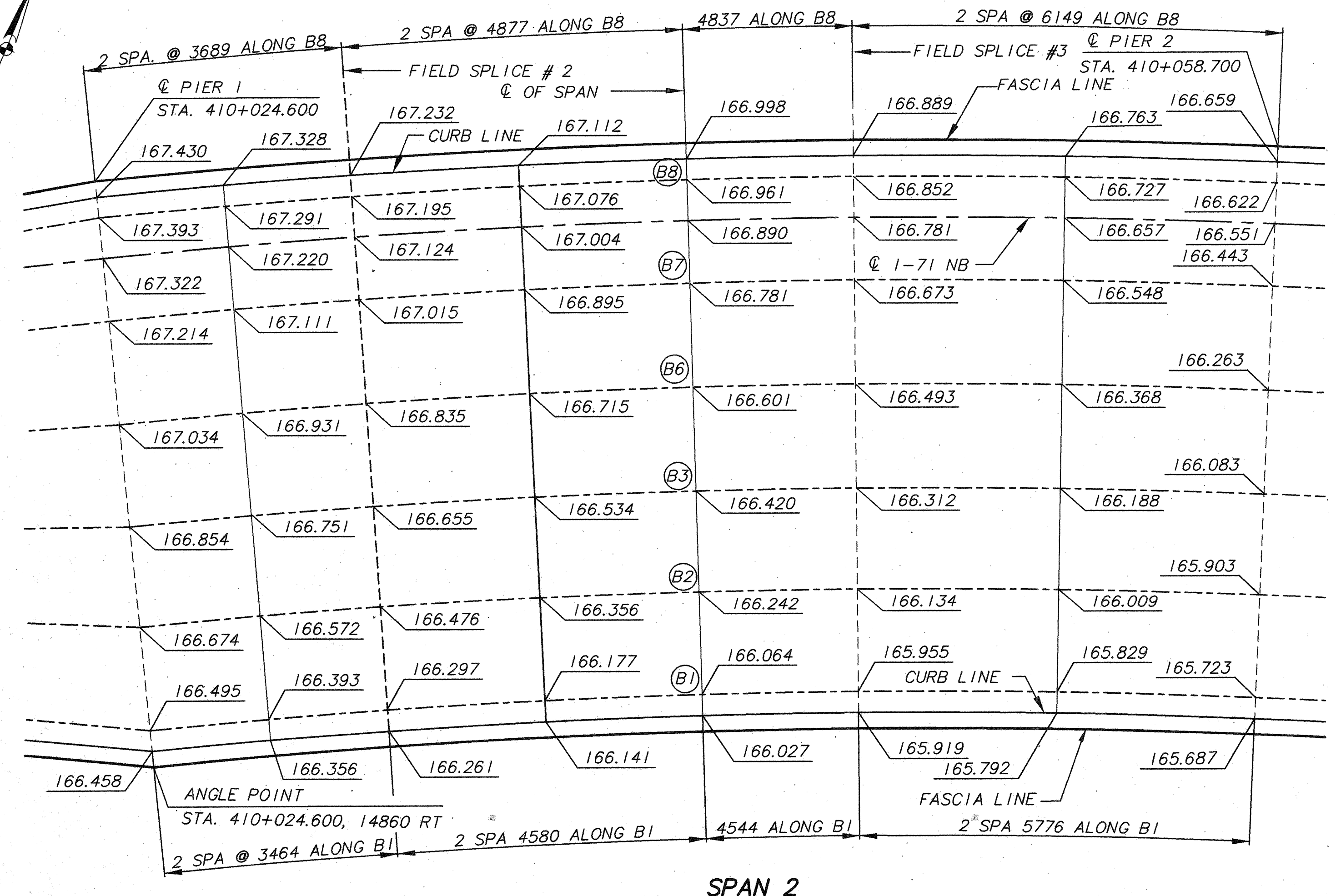
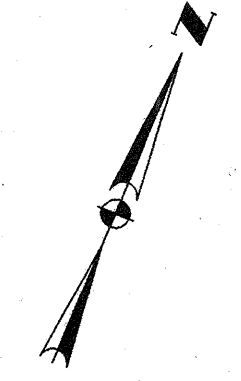
FINAL FOR CONSTRUCTION



NOTE:
FOR SCREED ELEVATIONS AT EXISTING PIER 20D,
MATCH EXISTING DECK ELEVATIONS.

SPAN 1

STATION	LEFT CURB	B8	℄ 1-71 NB	B7	B6	B5	B9	B4	℄ RAMP C	B3	B2	B1	RIGHT CURB
410+003.900	168.119	168.082	168.011	167.902	167.721	-----	-----	-----	-----	167.540	167.361	167.181	167.144
410+109.600	166.043	166.006	165.935	165.826	165.647	-----	-----	-----	-----	165.454	165.437	165.077	165.041
410+116.080	165.933	165.899	165.833	165.733	165.567	-----	-----	-----	-----	165.364	165.200	165.036	165.003
402+068.440	-----	-----	-----	-----	-----	165.013	-----	-----	165.026	164.927	164.764	164.600	164.566
402+080.320	-----	-----	-----	-----	-----	-----	-----	-----	164.737	164.665	164.545	164.425	164.401
410+187.400	163.927	163.927	163.926	163.925	163.922	163.902	163.791	-----	-----	-----	-----	-----	-----
402+112.000	-----	-----	-----	-----	-----	-----	-----	-----	163.949	163.955	163.958	163.827	163.803
402+124.730	-----	-----	-----	-----	-----	-----	-----	163.562	163.611	163.640	163.689	163.532	163.508
410+200.000	163.432	-----	163.505	-----	-----	163.456	-----	163.521	-----	163.550	163.565	163.460	163.436
410+239.260	162.192	-----	162.267	-----	-----	162.217	-----	162.335	-----	162.452	162.557	162.445	162.421
410+252.220	161.760	-----	161.789	-----	-----	161.770	-----	161.872	-----	162.015	162.145	162.027	162.003
410+270.278	161.127	-----	161.176	-----	-----	161.147	-----	161.258	-----	161.399	161.526	161.403	161.379
410+289.718	160.414	-----	160.458	-----	-----	160.433	-----	160.515	-----	160.614	160.698	160.576	160.552
410+334.940	158.389	-----	158.405	-----	-----	158.405	-----	158.405	-----	158.406	158.400	158.281	158.257



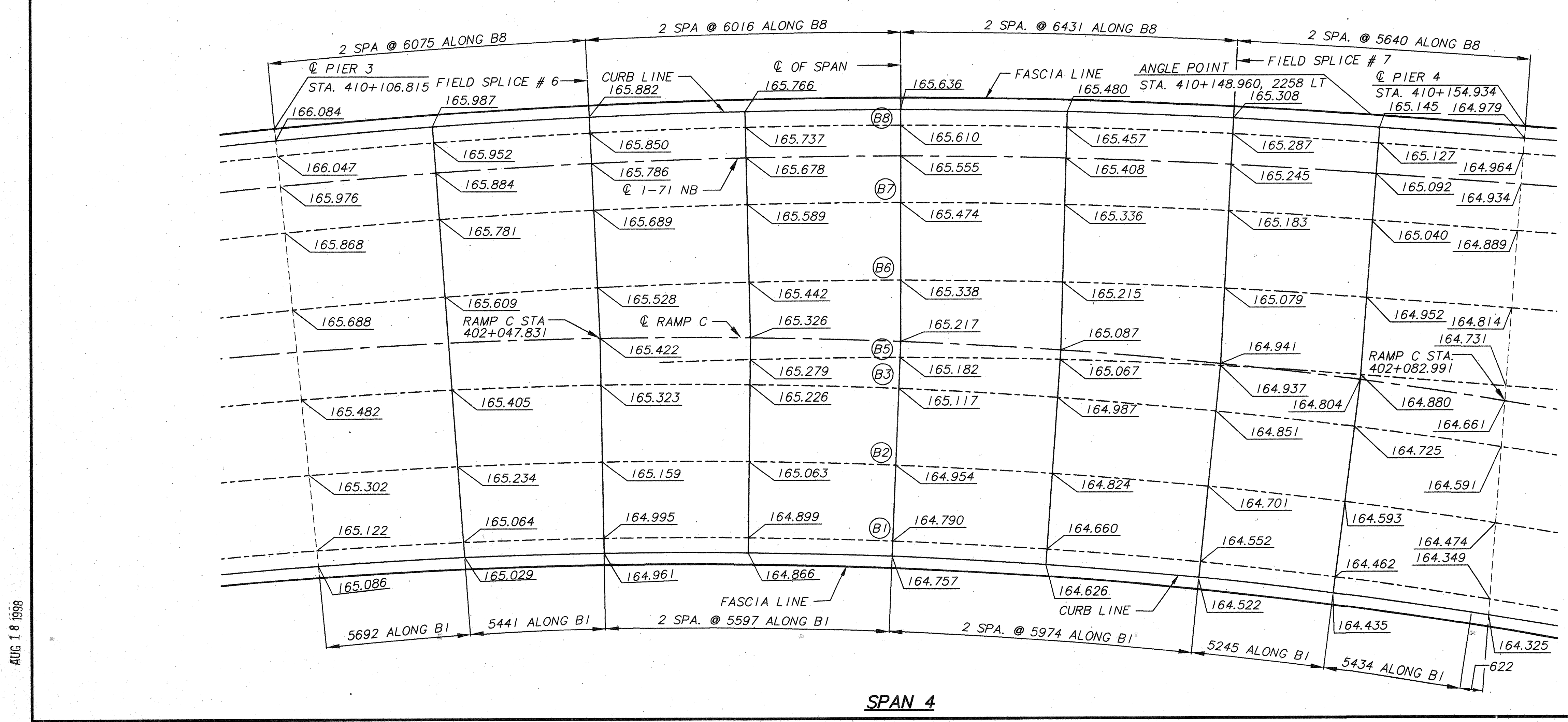
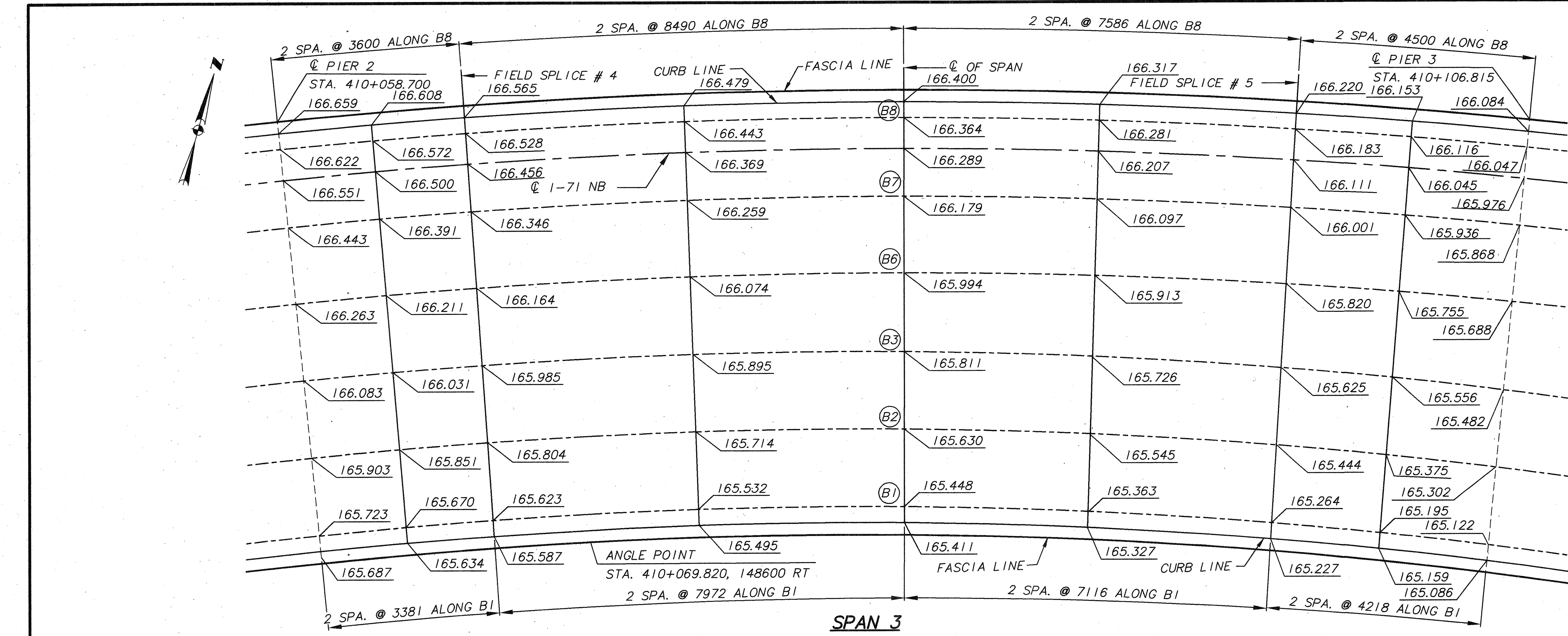
LEGEND
ⓑ = GIRDER DESIGNATION

NOTE:
SCREED ELEVATIONS SHOWN ARE FOR THE TOP OF THE
DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT.
ALLOWANCE HAS BEEN MADE FOR ANTICIPATED
CALCULATED DEFLECTION DUE TO THE WEIGHT OF THE
WEARING COURSE, SLAB, AND RAILINGS.

FINAL FOR CONSTRUCTION

AUG 18 1998
BR33CD1

DESIGN AGENCY: **BRW HAZLET & ERDAL**
 GROUP: **ARRW COMPANY**
 DATE: **8/18/98**
 REVIEWED: **BR33CD1**
 STRUCTURE FILE NUMBER: **BR33CD1**
 DRAWN: **JAP**
 CHECKED: **SWF**
 SCREED ELEVATIONS
 1-71 NB
 BRIDGE 3
 61/64
 471/588



FINAL FOR CONSTRUCTION

LEGEND
 (B?) = GIRDER DESIGNATION

NOTE:
 SCREED ELEVATIONS SHOWN ARE FOR THE TOP OF THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEFLECTION DUE TO THE WEIGHT OF THE WEARING COURSE, SLAB, AND RAILINGS.

6/16/98
 AUG 18 1998
 BR35CRD2

DESIGN AGENCY
BRW HAZLET & ERDAL
 A BRW COMPANY

DATE
 REVIEWED
 DRAWN
 DESIGNED

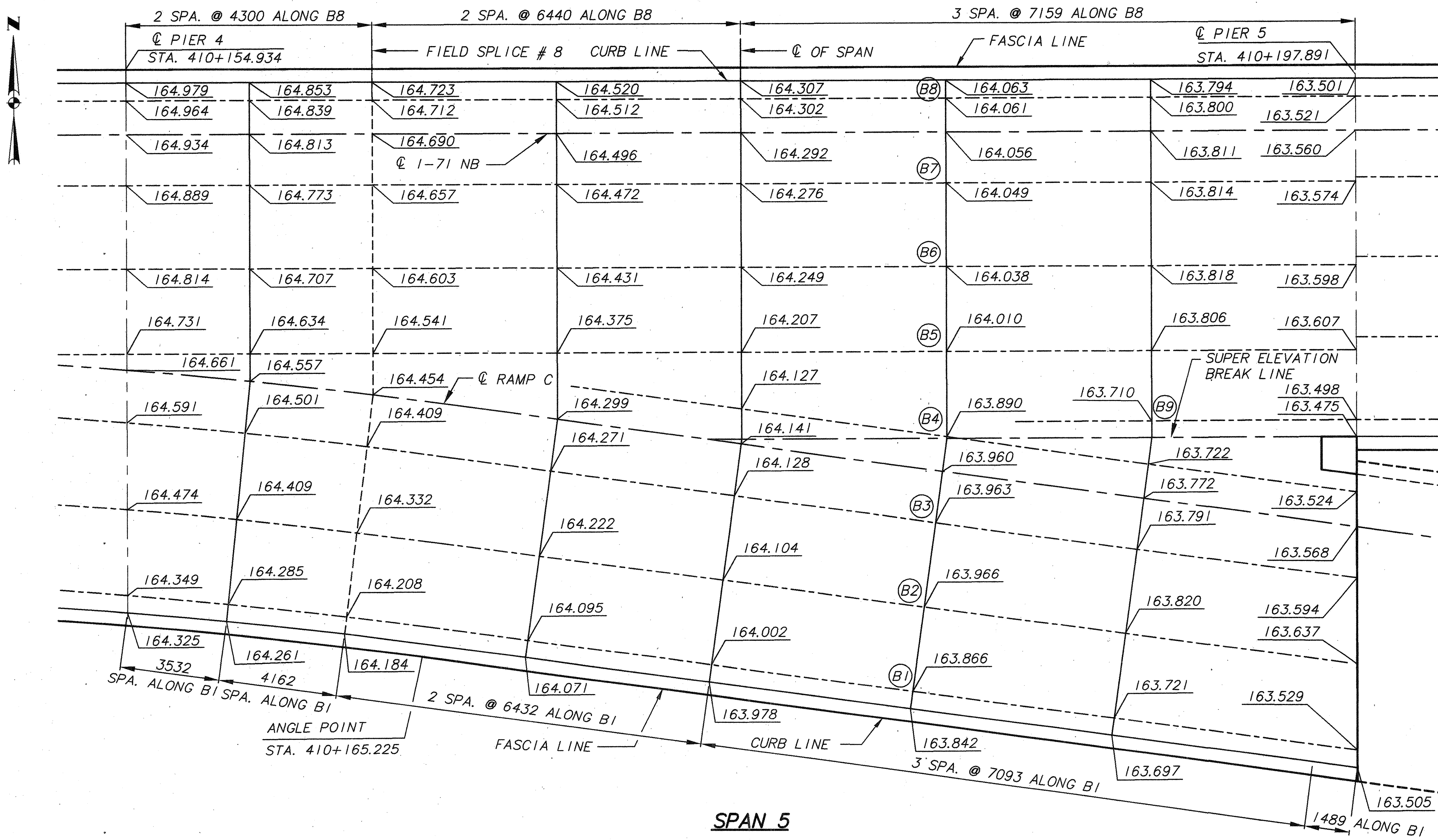
STRUCTURE FILE NUMBER
 BR35CRD2

GROUP

SCREED ELEVATIONS
 1-71 NB

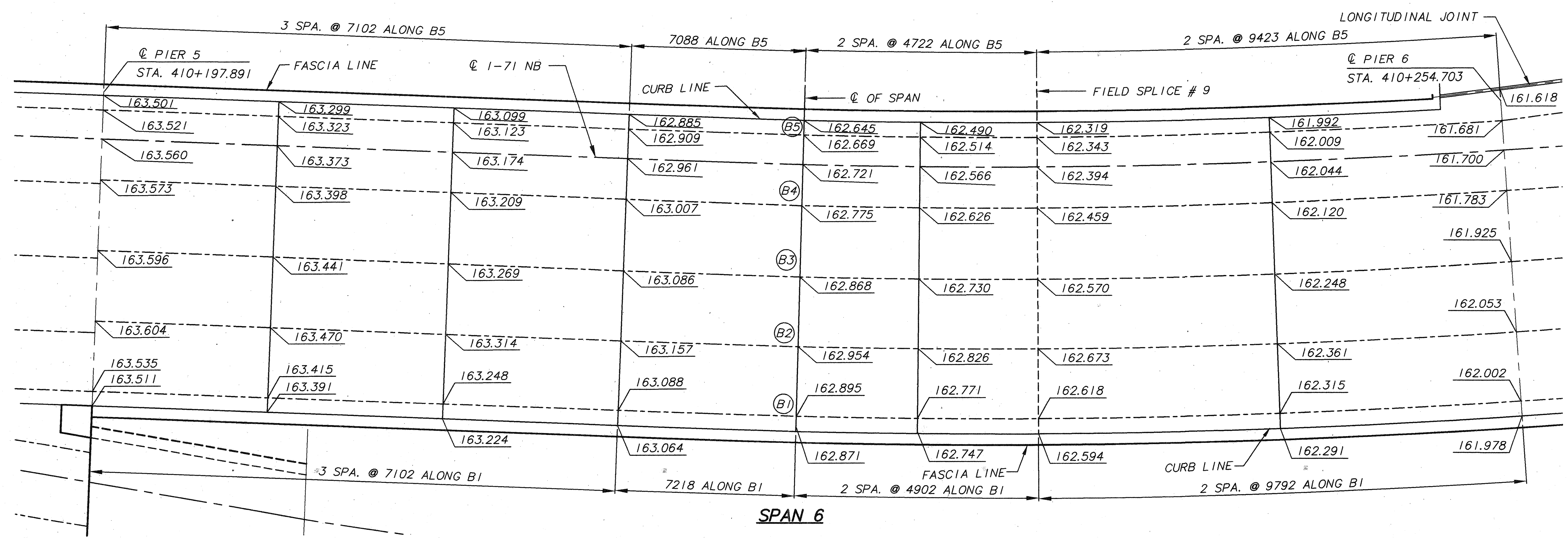
BRIDGE 3

62/64
 472
 588



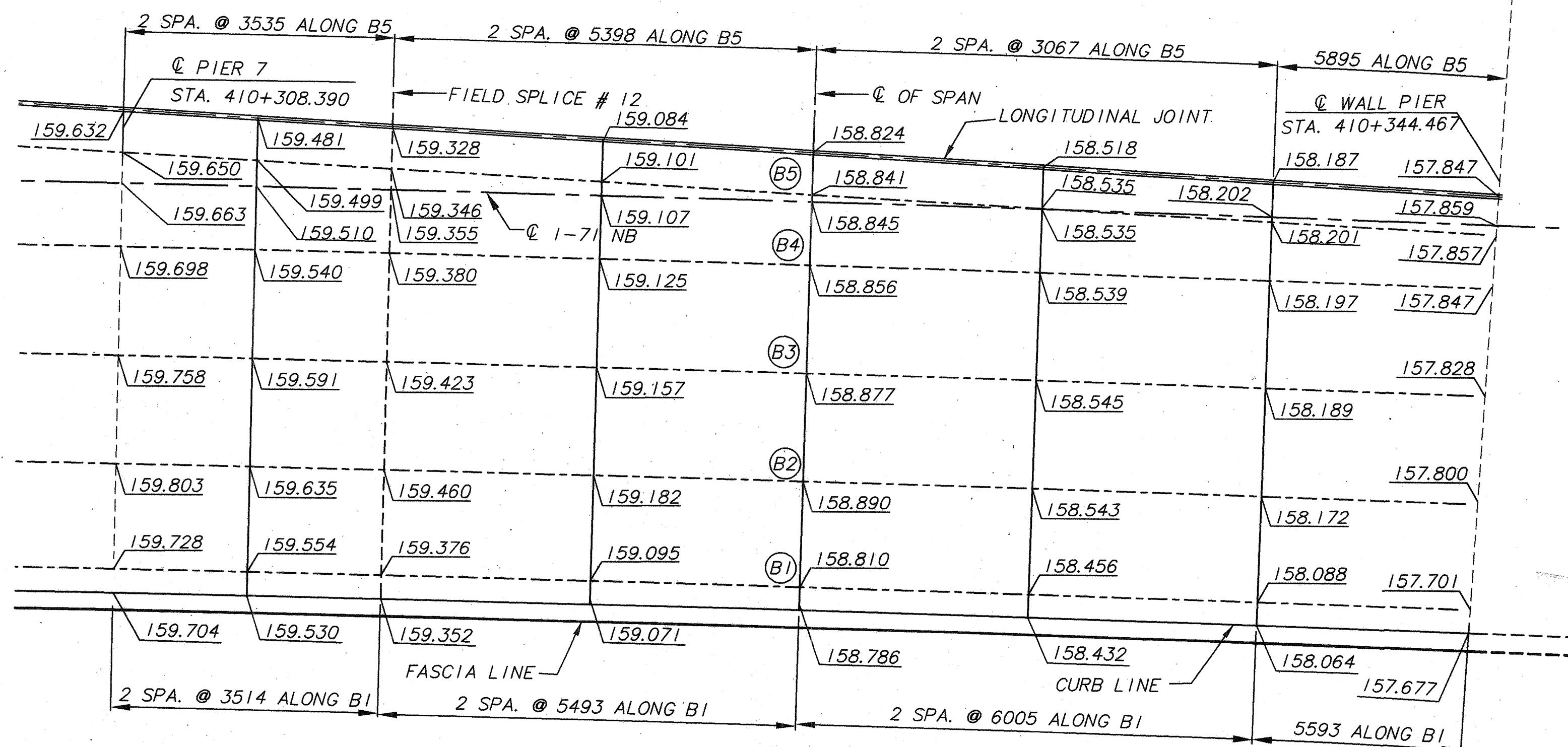
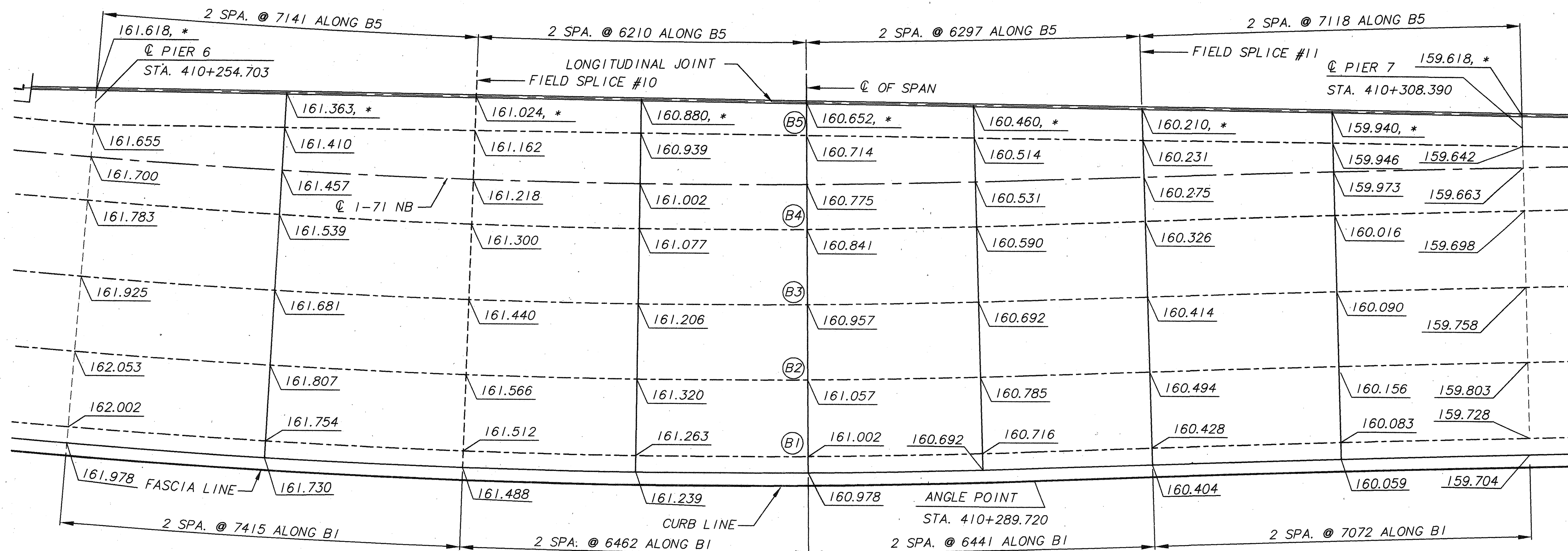
LEGEND
 (B?) = GIRDER DESIGNATION

NOTE:
 SCREED ELEVATIONS SHOWN ARE FOR THE TOP OF THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEFLECTION DUE TO THE WEIGHT OF THE WEARING COURSE, SLAB, AND RAILINGS.



* USE SCREED ELEVATIONS AS SHOWN FOR SPAN 5, & ADJUST THE BEAM HAUNCH THICKNESS AS NEEDED.

FINAL FOR CONSTRUCTION



FINAL FOR CONSTRUCTION

LEGEND
 (B?) = GIRDER DESIGNATION

NOTE:
 SCREED ELEVATIONS SHOWN ARE FOR THE TOP OF THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEFLECTION DUE TO THE WEIGHT OF THE WEARING COURSE, SLAB, AND RAILINGS.
 * MATCH RAMP A IF CONSTRUCTED PREVIOUSLY TO 1-71 NB.

BR33C004
 8/19/98
 AUG 16 1998

DESIGN AGENCY: BRW HAZLET & ERDAL ABRW COMPANY
 DATE: []
 STRUCTURE FILE NUMBER: BR33C004
 DRAWN BY: BKH
 CHECKED BY: SWF
 DESIGNED BY: JAP
 REVIEWED BY: []
 SCREED ELEVATIONS: 1-71 NB
 BRIDGE 3
 64/64
 474
 588