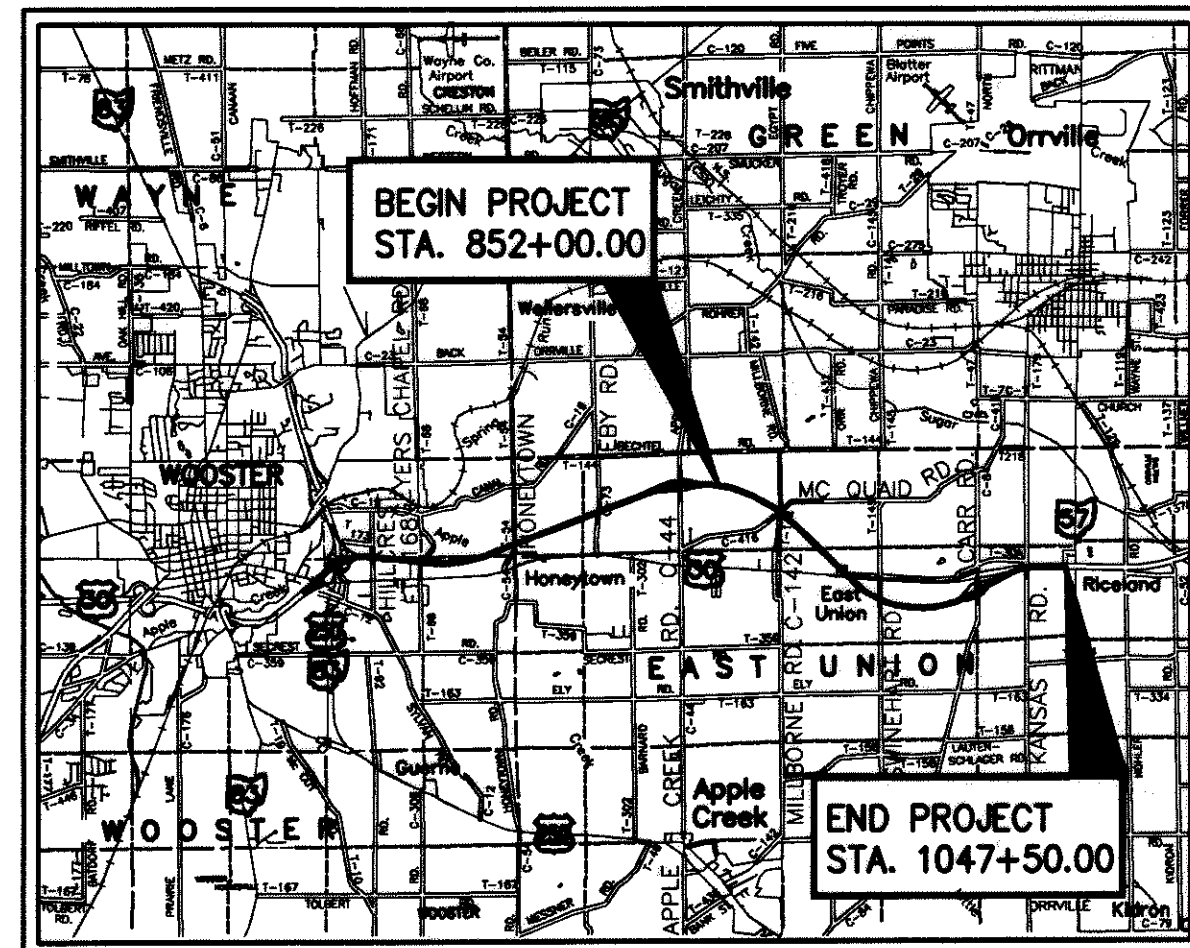
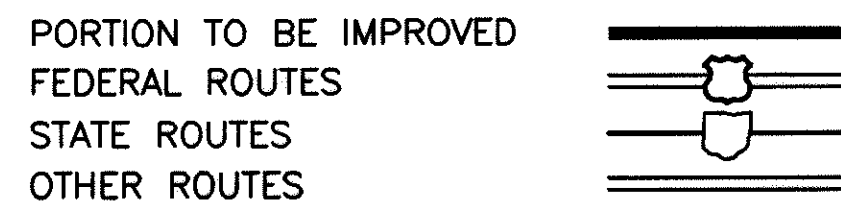


STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

WAY 30-16.14  
EAST UNION TOWNSHIP  
WAYNE COUNTY



LOCATION MAP  
LATITUDE: 40° 47' 40" N LONGITUDE: 81° 48' 30" W



DESIGN DESIGNATION

|                             |               |
|-----------------------------|---------------|
| CURRENT ADT (2006)          | 17810         |
| DESIGN YEAR ADT (2026)      | 23320         |
| DESIGN HOURLY VOLUME (2026) | 2099          |
| DIRECTIONAL DISTRIBUTION    | 55%           |
| TRUCKS (24 HOUR B&C)        | 21%           |
| DESIGN SPEED                | 70 MPH        |
| LEGAL SPEED                 | 65 MPH        |
| FUNCTIONAL CLASSIFICATION   | RURAL FREEWAY |
| NHS PROJECT                 | YES           |

DESIGN EXCEPTIONS

|                           |                |
|---------------------------|----------------|
| MILLBORNE ROAD (SOUTH):   |                |
| DESIGN FEATURE            | APPROVAL DATES |
| HORIZONTAL ALIGNMENT      | 2-13-03        |
| SUPERELEVATION RATE       | SHEET NUMBERS  |
| (MILLBORNE ROAD C.R. 142) | 2, 248, 249    |

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PROJECT DESCRIPTION

CONSTRUCTION OF 3.71 MILES OF FOUR LANE DIVIDED FREEWAY BEGINNING APPROXIMATELY 3350' EAST OF APPLE CREEK ROAD AT THE WEST END OF THE PROJECT AND CONNECTING BACK INTO EXISTING U.S. 30 APPROXIMATELY 1,350 FEET EAST OF T.R. 179 (KANSAS ROAD) AT THE EAST END. THE PROJECT INCLUDES THE CONSTRUCTION OF STRUCTURES C.R. 416 (MCQUAID ROAD) OVER U.S. 30, U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY), U.S. 30 OVER T.R. 145 (SWINEHART ROAD), C.R. 94A (CARR ROAD) OVER U.S. 30 AND TWO INTERCHANGE RAMP AND U.S. 30 OVER LITTLE SUGAR CREEK.

EARTH DISTURBED AREAS

|   |           |
|---|-----------|
| PROJECT EARTH DISTURBED AREA              | 177 ACRES |
| ESTIMATED CONTRACTOR EARTH DISTURBED AREA | 3 ACRES   |
| NOTICE OF INTENT EARTH DISTURBED AREA     | 180 ACRES |

2002 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY, AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON THE MAINTENANCE OF TRAFFIC PLANS.

WHEREVER WAY-30-15.96 APPEARS ON THESE PLANS IT SHALL BE UNDERSTOOD AS WAY-30-16.14.

UNDERGROUND UTILITIES  
TWO WORKING DAYS  
BEFORE YOU DIG  
CALL...1-800-362-2764 (Toll Free)  
OHIO UTILITIES  
PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

SPECIAL PROVISIONS

DATE: \_\_\_\_\_

STANDARD CONSTRUCTION DRAWINGS

| STANDARD CONSTRUCTION DRAWINGS |          |        |          |          |          |           |          |           |          |          |          | SUPPLEMENTAL SPECIFICATIONS |          |
|--------------------------------|----------|--------|----------|----------|----------|-----------|----------|-----------|----------|----------|----------|-----------------------------|----------|
| BP-2.1                         | 07-28-00 | GR-3.2 | 04-18-03 | DM-1.1   | 07-18-03 | SBR-1-99  | 07-19-02 | MT-102.20 | 10-18-02 | TC-61.10 | 01-19-01 |                             |          |
| BP-2.2                         | 07-28-00 | GR-4.2 | 04-18-03 | DM-1.2   | 07-19-02 |           |          | MT-105.10 | 10-18-02 | TC-65.10 | 10-19-01 | 802                         | 07-19-02 |
| BP-2.3                         | 07-28-00 | GR-5.3 | 04-18-03 | DM-1.4   | 07-19-02 | ICD-1-82  | 07-19-02 | MT-105.11 | 10-18-02 | TC-65.11 | 10-19-01 | 832                         | 02-12-03 |
| BP-3.1                         | 07-28-00 | GR-6.1 | 04-18-03 | DM-2.1   | 07-20-01 |           |          | TC-7.65   | 07-18-03 | TC-65.12 | 10-19-01 | 833                         | 02-12-03 |
| BP-4.1                         | 07-28-00 | GR-6.2 | 04-18-03 | DM-3.1   | 07-19-02 | SICD-1-96 | 07-19-02 | TC-12.30  | 01-19-01 | TC-71.10 | 04-19-02 | 836                         | 12-06-01 |
| BP-5.1                         | 07-28-00 |        |          | DM-4.1   | 07-19-02 |           |          | TC-18.24  | 01-18-02 | TC-72.20 | 01-19-01 | 846                         | 04-19-02 |
| BP-6.1                         | 07-28-00 | RM-1.1 | 04-18-03 | DM-4.3   | 07-19-02 | HL-30.11  | 04-19-02 | TC-21.10  | 01-19-01 |          |          | 856                         | 10-18-02 |
| BP-9.1                         | 07-28-00 | RM-4.2 | 04-18-03 | DM-4.4   | 07-19-02 |           |          | TC-21.20  | 01-19-01 |          |          | 864                         | 07-11-00 |
|                                |          | RM-4.4 | 04-18-03 | DM-5.1   | 07-19-02 | MT-35.10  | 04-20-01 | TC-21.40  | 01-18-02 |          |          | 894                         | 10-18-02 |
| F-2.1                          | 07-28-00 | RM-4.5 | 04-18-03 |          |          | MT-95.30  | 04-19-02 | TC-22.20  | 01-19-01 |          |          | 908                         | 04-18-03 |
| F-3.1                          | 07-28-00 |        |          | HW-1.1   | 07-20-01 | MT-95.31  | 04-19-02 | TC-41.10  | 01-19-01 |          |          | 954                         | 09-09-97 |
| F-3.3                          | 07-28-00 | CB-1.1 | 07-19-02 | HW-2.1   | 07-19-02 | MT-95.40  | 07-18-03 | TC-41.20  | 01-19-01 |          |          | 1027                        | 04-11-02 |
| F-3.4                          | 07-28-00 | CB-1.2 | 07-19-02 | HW-2.2   | 07-19-02 | MT-95.70  | 04-19-02 | TC-41.40  | 01-18-02 |          |          |                             |          |
|                                |          | CB-2.2 | 07-19-02 |          |          | MT-97.10  | 04-19-02 | TC-41.50  | 07-18-03 |          |          |                             |          |
| GR-1.1                         | 04-18-03 | CB-3.1 | 07-19-02 | MH-1.2   | 07-19-02 | MT-98.17  | 10-18-02 | TC-42.10  | 01-19-01 |          |          |                             |          |
| GR-2.1                         | 04-18-03 | CB-3.3 | 07-19-02 |          |          | MT-100.00 | 04-19-02 | TC-42.20  | 04-20-01 |          |          |                             |          |
| GR-2.3                         | 04-18-03 | CB-3.4 | 07-19-02 | AS-1-81  | 07-19-02 | MT-101.60 | 10-18-02 | TC-51.11  | 04-20-01 |          |          |                             |          |
| GR-3.1                         | 04-18-03 |        |          |          |          | MT-101.70 | 10-18-02 | TC-52.10  | 04-20-01 |          |          |                             |          |
|                                |          |        |          | GSD-1-96 | 07-19-02 | MT-102.10 | 10-18-02 | TC-52.20  | 04-20-01 |          |          |                             |          |

040043 PART B

WAY - USR30 - 11.86 - CONTRACT C  
040044  
PID #28880  
02-04-04

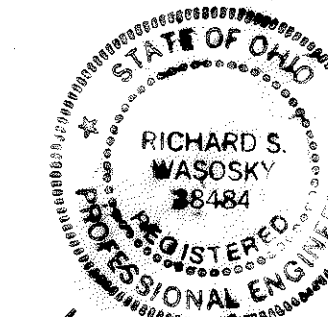
PLOT 1:1

APP 8/21/03

LOOSE/270/HIGHWAY/ISS/2701102.DWG



*Frederick Selung Jr* 8/22/03  
ROADWAY DATE



*Richard S. Wasosky* 08/21/03  
STRUCTURES DATE



*Sam R. Deetz* 8/21/03  
DATE

PLAN PREPARED BY:  
**EUTHENICS INC.**  
CONSULTING ENGINEERS  
925 Keynote Circle, Cleveland, Ohio

FEDERAL PROJECT NO.  
G020(071)

PID NO.  
16287

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
NONE

WAY-30-16.14

1  
656

APPROVED Thomas M. O'Leary <sup>ACS</sup>  
DATE 8/22/03 DISTRICT DEPUTY DIRECTOR  
APPROVED Jordan Proctor  
DATE 9.8.03 DIRECTOR, DEPARTMENT OF TRANSPORTATION

# GENERAL NOTES - STRUCTURES

**REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS:**

AS-1-81 REVISED 7-19-02 ICD-1-82 REVISED 7-19-02  
 GSD-1-96 REVISED 7-19-02 SIDC-1-96 REVISED 7-19-02  
 SBR-1-99 REVISED 7-19-02

**AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:**

864 DATED 07-11-00 954 DATED 09-09-97  
 894 DATED 10-18-02 1027 DATED 04-11-02

**DESIGN SPECIFICATIONS:**

THESE STRUCTURES CONFORM TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996 INCLUDING THE INTERIM SPECIFICATIONS THRU 2000 AND THE O.D.O.T BRIDGE DESIGN MANUAL.

**DESIGN LOADING:**

HS25, CASE II AND THE ALTERNATE MILITARY LOADING.  
 FUTURE WEARING SURFACE (FWS) OF 60 PSF.

**DESIGN STRESSES:**

CONCRETE HIGH PERFORMANCE CONCRETE HPC SS 844 - COMPRESSIVE STRENGTH 4500 P.S.I. (SUPERSTRUCTURE)  
 CONCRETE CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I. (SUBSTRUCTURE)  
 REINFORCING STEEL - ASTM A615, A616 OR A617  
 GRADE 60 MINIMUM YIELD STRENGTH 60,000 P.S.I.  
 SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82 OR A615  
 STRUCTURAL STEEL - ASTM A572/A709 GRADE 50 - YIELD STRENGTH 50,000 P.S.I.

**DECK PROTECTION METHOD:**

EPOXY COATED REINFORCING STEEL  
 2-1/2" CONCRETE COVER  
 SEALING OF CONCRETE SURFACES

**MONOLITHIC WEARING SURFACE:**

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

**ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:**

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 MATERIAL PLACED IN 6" LIFTS.

**FOUNDATION BEARING PRESSURE:**

— C.R. 416 (McQUAID ROAD) —

THE ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.41 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.0 TONS PER SQUARE FOOT. THE PIER FOOTINGS, AS AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.89 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.0 TONS PER SQUARE FOOT.

— C.R. 94A (CARR ROAD) —

THE ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.65 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.0 TONS PER SQUARE FOOT. THE PIER FOOTINGS, AS AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 5.3 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 10.0 TONS PER SQUARE FOOT.

— WAY-30-1803 L/R U.S. 30 OVER SWINEHART ROAD —

PILES TO BEDROCK: PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL INCHES WITH A MINIMUM RESISTANCE OF 20 BLOWS PER INCH OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS. THE CONTRACTOR IS RESPONSIBLE FOR SELECTING THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 72 TONS PER PILE FOR THE HP 10 X 42 ABUTMENT PILES. THE ULTIMATE BEARING VALUE IS 102 TONS PER PILE FOR THE HP 10 X 42 PIER PILES.

**WESTBOUND PILES**

|   |  |
|---|--|
| REAR ABUTMENT<br>10 PILES 39 FEET LONG, ESTIMATED LENGTH<br>10 PILES OF ORDER LENGTH 39 FEET LONG | FORWARD ABUTMENT<br>10 PILES 33 FEET LONG, ESTIMATED LENGTH<br>10 PILES OF ORDER LENGTH 33 FEET LONG |
| PIER 1<br>13 PILES 21 FEET LONG, ESTIMATED LENGTH<br>13 PILES OF ORDER LENGTH 21 FEET LONG        | PIER 2<br>13 PILES 18 FEET LONG, ESTIMATED LENGTH<br>13 PILES OF ORDER LENGTH 18 FEET LONG           |

**EASTBOUND PILES**

|   |  |
|---|--|
| REAR ABUTMENT<br>10 PILES 41 FEET LONG, ESTIMATED LENGTH<br>10 PILES OF ORDER LENGTH 41 FEET LONG | FORWARD ABUTMENT<br>10 PILES 31 FEET LONG, ESTIMATED LENGTH<br>10 PILES OF ORDER LENGTH 31 FEET LONG |
| PIER 1<br>13 PILES 23 FEET LONG, ESTIMATED LENGTH<br>13 PILES OF ORDER LENGTH 23 FEET LONG        | PIER 2<br>13 PILES 19 FEET LONG, ESTIMATED LENGTH<br>13 PILES OF ORDER LENGTH 19 FEET LONG           |

— WAY-30-1752 L/R U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY) —

THE ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 1.84 TONS PER SQUARE FOOT. THE ALLOWABLE BEARING PRESSURE IS 2.0 TONS PER SQUARE FOOT.

**DRILLED SHAFTS:**

WAY-30-1752 L/R U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY)

THE DESIGN LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 392.0 TONS AT THE PIERS. THIS LOAD IS RESISTED BY SHAFT END BEARING. THE ALLOWABLE END BEARING PRESSURE IS 20 TONS PER SQUARE FOOT.

**PILE DRIVING CONSTRAINTS:**

PRIOR TO DRIVING PILES, THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT PILES SHALL NOT BEGIN UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

**FOOTINGS:**

C.R. 94A (CARR ROAD)

FOOTINGS SHALL EXTEND A MINIMUM OF 3 INCHES INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

**MECHANICALLY STABILIZED EARTH WALLS:**

THE ALLOWABLE BEARING CAPACITIES OF THE MSE WALLS ARE AS FOLLOWS:

|   | REAR     | FORWARD  |
|---|----------|----------|
| C.R. 416 (McQUAID ROAD)                     | 5.0 KSF  | 5.0 KSF  |
| U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY) |          |          |
| WAY-30-1751 L                               | 6.5 KSF  | 6.5 KSF  |
| WAY-30-1752 R                               | 6.0 KSF  | 6.5 KSF  |
| C.R. 94A (CARR ROAD)                        | 15.0 KSF | 20.0 KSF |

**ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT:**

ALL STRUCTURAL STEEL, SCUPPERS AND OTHER AREAS AS INDICATED IN THE PLANS SHALL BE PAINTED LIGHT NEUTRAL FEDERAL COLOR NO. 17778.

**ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:**

**ITEM 516 INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN:**

INSTALL A 3 FOOT WIDE STRIP, 3/32 INCH THICK, GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT AT LOCATIONS SHOWN IN THE PLANS. SECURE THE 3 FOOT WIDE NEOPRENE SHEETING TO THE CONCRETE WITH 1 1/4" X #10 GAGE (LENGTH X SHANK DIA.) GALVANIZED BUTTON HEAD SPIKES THROUGH A 1 INCH OUTSIDE DIAMETER, #10 GAGE GALVANIZED WASHER. MAXIMUM FASTENER SPACING IS 9 INCHES. OTHER SIMILAR GALVANIZED DEVICES WHICH WILL NOT DAMAGE EITHER THE NEOPRENE OR THE CONCRETE MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.

CENTER THE NEOPRENE STRIPS ON ALL JOINTS. FOR HORIZONTAL JOINTS, SECURE THE HORIZONTAL NEOPRENE STRIP BY USING A SINGLE LINE OF FASTENERS, STARTING AT 6 INCHES (+/-) FROM THE TOP OF THE NEOPRENE STRIP. FOR THE VERTICAL JOINTS SECURE THE VERTICAL NEOPRENE STRIP BY USING A SINGLE VERTICAL LINE OF FASTENERS, STARTING AT 6 INCHES (+/-) FROM THE VERTICAL EDGE OF THE NEOPRENE STRIP NEAREST TO THE CENTERLINE OF ROADWAY. FOR VERTICAL JOINTS, INSTALL 2 ADDITIONAL FASTENERS, AT 6 INCHES CENTER-TO-CENTER, ACROSS THE TOP OF THE NEOPRENE STRIP ON THE SAME SIDE OF THE VERTICAL JOINT AS WHERE THE SINGLE VERTICAL ROW OF FASTENERS IS LOCATED.

THE VERTICAL NEOPRENE STRIPS SHOULD COMPLETELY OVERLAP THE HORIZONTAL STRIPS. LAPS IN THE LENGTH OF THE HORIZONTAL STRIPS DUE TO MATERIAL MANUFACTURING SHALL BE AT LEAST ONE FOOT IN LENGTH, IF NOT VULCANIZED OR ADHESIVE BONDED, OR 6 INCHES IN LENGTH IF THE LAP IS VULCANIZED OR ADHESIVE BONDED. NO LAPS ARE ACCEPTABLE IN VERTICALLY INSTALLED NEOPRENE STRIPS.

THE NEOPRENE SHEETING SHALL BE 3/32 INCH THICK GENERAL PURPOSE, HEAVY DUTY NEOPRENE SHEET WITH NYLON FABRIC REINFORCEMENT. THE SHEETING SHALL BE "FAIRPRENE NUMBER NN-0003", BY E.I. DUPONT DE NEMOURS AND COMPANY, INC., "WINGPRENE" BY THE GOODYEAR TIRE AND RUBBER COMPANY, OR AN APPROVED ALTERNATE. THE NEOPRENE SHEETING SHALL CONFORM TO THE FOLLOWING:

| DESCRIPTION OF TEST  | ASTM METHOD | REQUIREMENT            |
|--|-------------|------------------------|
| THICKNESS, INCHES  | D 751       | 0.94 +/- .01           |
| BREAKING STRENGTH, GRAB WXF, LBS, MINIMUM                                  | D 751       | 700 X 700              |
| ADHESIVE 1" STRIP, 2" MINIMUM, LBS, MINIMUM                                | D 751       | 9                      |
| BURST STRENGTH (MULLEN) PSI, MINIMUM                                       | D 751       | 1400                   |
| HEAT AGING 70 HOURS T 212' F, 180 BEND WITHOUT CRACKING                    | D 2136      | NO CRACKING OF COATING |
| LOW TEMPERATURE BRITTLINESS 1 HOUR AT -40' F, BEND AROUND 1/4 INCH MANDREL | D 2136      | NO CRACKING OF COATING |

IN LIEU OF THE NEOPRENE SHEETING THE CONTRACTOR MAY CHOOSE TO SUPPLY TYPE 3 MEMBRANE, 711.29.

PAYMENT FOR LABOR, MATERIALS AND INSTALLATION OF THESE ITEMS SHALL BE INCLUDED IN ITEM 516 SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN OR ITEM 516 INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN.

# GENERAL NOTES - STRUCTURES

**ITEM 518 POROUS BACKFILL WITH FILTER FABRIC, AS PER PLAN:**

FOR BRIDGE NUMBERS WAY-30-1803 L/R THE MATERIAL SHALL BE NO. 57 GRAVEL.

**ITEM 511 - CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN:**

**ITEM 511 - CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN:**

**ITEM 511 - CLASS C CONCRETE, FOOTING, AS PER PLAN:**

THE AGGREGATE SHALL CONSIST OF NO. 8 LIMESTONE. THESE ITEMS SHALL INCLUDE THE COSTS OF THE REINFORCING STEEL.

C.R. 416 (McQUAID ROAD), C.R.94A (CARR ROAD), AND WAY-30-1752 L/R U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY):

IN ADDITION TO THE REQUIREMENTS OF ITEM 511, REFERENCE MONUMENTS SHALL BE INSTALLED IN EACH PIER AND ABUTMENT SPREAD FOOTING. EACH SPREAD FOOTING SHALL HAVE TWO REFERENCE MONUMENTS INSTALLED, ONE AT EACH END OF THE FOOTING. THE REFERENCE MONUMENT FOR THE ABUTMENTS SHALL CONSIST OF A SURVEY DISK. THE REFERENCE MONUMENT FOR THE PIER SHALL CONSIST OF A #8, OR LARGER, EPOXY COATED REBAR. IT SHALL BE EMBEDDED INTO THE FOOTING AT LEAST 6" AND EXTEND VERTICALLY 4 TO 6 INCHES ABOVE THE TOP OF THE FOOTING. A SIX INCH DIAMETER, SCHEDULE 40, PLASTIC PIPE SHALL BE INSTALLED AROUND THE REFERENCE MONUMENT; SHALL BE VERTICAL; AND THE TOP OF THE PIPE SHALL BE AT THE FINISHED GRADE. THE PIPE SHALL HAVE A REMOVABLE, SCHEDULE 40, PLASTIC CAP. THE PIPE SHALL BE CENTERED ON THE REFERENCE MONUMENT. THE BOTTOM OF THE PIPE SHALL BE PERMANENTLY ATTACHED TO THE TOP OF THE FOOTING.

THE TABLES BELOW SHALL BE COMPLETED FOR EACH INSTALLED MONUMENT.

C.R. 416 (McQUAID ROAD)

| PROJECT NUMBER                             | 16287       | MAX. BEARING PRESSURE | 1.41 TONS/FT <sup>2</sup> |
|--|-------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1662 | STRUCTURE FILE NUMBER | 8502153                   |
| REAR ABUTMENT                              |             | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |             |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |             |                       |                           |
| BEFORE DECK PLACEMENT                      |             |                       |                           |
| AFTER DECK PLACEMENT                       |             |                       |                           |
| PROJECT COMPLETED                          |             |                       |                           |
| BENCHMARK LOCATION                         |             |                       |                           |

| PROJECT NUMBER                             | 16287       | MAX. BEARING PRESSURE | 1.89 TONS/FT <sup>2</sup> |
|--|-------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1662 | STRUCTURE FILE NUMBER | 8502153                   |
| PIER                                       |             | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |             |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |             |                       |                           |
| BEFORE DECK PLACEMENT                      |             |                       |                           |
| AFTER DECK PLACEMENT                       |             |                       |                           |
| PROJECT COMPLETED                          |             |                       |                           |
| BENCHMARK LOCATION                         |             |                       |                           |

| PROJECT NUMBER                             | 16287       | MAX. BEARING PRESSURE | 1.41 TONS/FT <sup>2</sup> |
|--|-------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1662 | STRUCTURE FILE NUMBER | 8502153                   |
| FORWARD ABUTMENT                           |             | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |             |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |             |                       |                           |
| BEFORE DECK PLACEMENT                      |             |                       |                           |
| AFTER DECK PLACEMENT                       |             |                       |                           |
| PROJECT COMPLETED                          |             |                       |                           |
| BENCHMARK LOCATION                         |             |                       |                           |

C.R. 94A (CARR ROAD)

| PROJECT NUMBER                             | 16287       | MAX. BEARING PRESSURE | 1.65 TONS/FT <sup>2</sup> |
|--|-------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1907 | STRUCTURE FILE NUMBER | 8502315                   |
| REAR ABUTMENT                              |             | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |             |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |             |                       |                           |
| BEFORE DECK PLACEMENT                      |             |                       |                           |
| AFTER DECK PLACEMENT                       |             |                       |                           |
| PROJECT COMPLETED                          |             |                       |                           |
| BENCHMARK LOCATION                         |             |                       |                           |

| PROJECT NUMBER                             | 16287       | MAX. BEARING PRESSURE | 1.65 TONS/FT <sup>2</sup> |
|--|-------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1907 | STRUCTURE FILE NUMBER | 8502315                   |
| FORWARD ABUTMENT                           |             | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |             |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |             |                       |                           |
| BEFORE DECK PLACEMENT                      |             |                       |                           |
| AFTER DECK PLACEMENT                       |             |                       |                           |
| PROJECT COMPLETED                          |             |                       |                           |
| BENCHMARK LOCATION                         |             |                       |                           |

WAY-30-1752 L/R U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY)

WESTBOUND LANES

| PROJECT NUMBER                             | 16287         | MAX. BEARING PRESSURE | 1.26 TONS/FT <sup>2</sup> |
|--|---------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1752 L | STRUCTURE FILE NUMBER | 8502269                   |
| REAR ABUTMENT                              |               | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |               |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |               |                       |                           |
| BEFORE DECK PLACEMENT                      |               |                       |                           |
| AFTER DECK PLACEMENT                       |               |                       |                           |
| PROJECT COMPLETED                          |               |                       |                           |
| BENCHMARK LOCATION                         |               |                       |                           |

| PROJECT NUMBER                             | 16287         | MAX. BEARING PRESSURE | 1.84 TONS/FT <sup>2</sup> |
|--|---------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1752 L | STRUCTURE FILE NUMBER | 8502269                   |
| FORWARD ABUTMENT                           |               | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |               |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |               |                       |                           |
| BEFORE DECK PLACEMENT                      |               |                       |                           |
| AFTER DECK PLACEMENT                       |               |                       |                           |
| PROJECT COMPLETED                          |               |                       |                           |
| BENCHMARK LOCATION                         |               |                       |                           |

EASTBOUND LANES

| PROJECT NUMBER                             | 16287         | MAX. BEARING PRESSURE | 1.26 TONS/FT <sup>2</sup> |
|--|---------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1752 R | STRUCTURE FILE NUMBER | 8502277                   |
| REAR ABUTMENT                              |               | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |               |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |               |                       |                           |
| BEFORE DECK PLACEMENT                      |               |                       |                           |
| AFTER DECK PLACEMENT                       |               |                       |                           |
| PROJECT COMPLETED                          |               |                       |                           |
| BENCHMARK LOCATION                         |               |                       |                           |

| PROJECT NUMBER                             | 16287         | MAX. BEARING PRESSURE | 1.84 TONS/FT <sup>2</sup> |
|--|---------------|-----------------------|---------------------------|
| BRIDGE NUMBER                              | WAY-30-1752 R | STRUCTURE FILE NUMBER | 8502277                   |
| FORWARD ABUTMENT                           |               | LEFT MONUMENT         | RIGHT MONUMENT            |
| AFTER FOOTING CONCRETE IS PLACED           |               |                       |                           |
| BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS |               |                       |                           |
| BEFORE DECK PLACEMENT                      |               |                       |                           |
| AFTER DECK PLACEMENT                       |               |                       |                           |
| PROJECT COMPLETED                          |               |                       |                           |
| BENCHMARK LOCATION                         |               |                       |                           |

THE CONTRACTOR SHALL ESTABLISH A BENCHMARK FOR DETERMINING ELEVATIONS FOR THE ABOVE TABLES. THE BENCHMARK SHALL BE THE SAME THROUGHOUT THE PROJECT AND SHALL BE INDEPENDENT OF ALL STRUCTURES.

COMPLETED TABLES SHALL BECOME PART OF THE DISTRICT'S PROJECT PLAN RECORDS AND A COPY SHALL BE SENT TO THE OFFICE OF STRUCTURAL ENGINEERING.

**ITEM 511 - CONCRETE, MISC.: ARCHITECTURAL TREATMENT:**

ALL CONCRETE SURFACES DESIGNATED IN THE PLANS AS RECEIVING "ARCHITECTURAL TREATMENT" SHALL BE FORMED USING FITZGERALD FORMLINERS, PATTERN NO. 16986, ASHLAR STONE, AS MANUFACTURED BY PRIME FORMING & CONSTRUCTION SUPPLY, INC., 1341 EAST POMONA STREET, SANTA ANA, CA 92705 OR AN APPROVED EQUAL. THE THICKNESS OF THE ARCHITECTURAL TREATMENT MAY VARY DEPENDING ON THE FORMLINER MANUFACTURER.

**ITEM 511 AND 894 - CLASS HP CONCRETE:**

ALL BRIDGE DECK AND PARAPET CONCRETE SHALL BE CLASS HP4 WITH A LIMESTONE COARSE AGGREGATE. THE OPTION OF SLIPFORM CONSTRUCTION OF THE BRIDGE RAILING IS NOT PERMITTED.

**ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 3, A572, AS PER PLAN:**

**ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 4, A572, AS PER PLAN:**

IN ADDITION TO THE REQUIREMENTS OF ITEM 513, THIS ITEM SHALL CONSIST OF FURNISHING ALL NECESSARY LABOR, MATERIALS AND EQUIPMENT TO CLEAN AND TO HAVE A SHOP APPLIED METALIZED COATING ON THE STRUCTURAL STEEL MEMBERS.

**ITEM 526 REINFORCED CONCRETE APPROACH SLABS (T=15"):**

SEE ROADWAY DRAWINGS FOR THE TYPICAL SECTIONS THROUGH THE APPROACH SLABS.

**ITEM 864 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):**

THE CONCRETE SEALING MATERIAL SHALL BE THE "NEUTRAL" COLOR MEETING FEDERAL COLOR STANDARD NO. 27778 AS PER THE DETAILS IN THE PLANS. SEE SUPPLEMENTAL SPECIFICATION 864.

**SURVEY DISK ON STRUCTURE:**

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ON (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENT. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISC FOR EACH STRUCTURE (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISC SHALL BE ON THE ABUTMENT, AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL OR PARAPET. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEY'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK IS CONSIDERED INCIDENTAL TO THE CONCRETE BID ITEM.

**THE FOLLOWING ABBREVIATIONS ARE USED:**

- B. = BOTTOM
- B.F. = BACK FACE
- C.B. = CATCH BASIN
- C.J. = CONSTRUCTION JOINT
- CLEAR. = CLEARANCE
- EB. = EASTBOUND
- E.F. = EACH FACE
- ELEV. = ELEVATION
- EX. = EXISTING
- EXP. JT. = EXPANSION JOINT
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- F.S. = FIELD SPLICE
- L. = SPAN LENGTH
- L.F. = LEFT FORWARD
- L.R. = LEFT REAR
- M. = MIDDLE
- MAX. = MAXIMUM
- MIN. = MINIMUM
- M.S.E. = MECHANICALLY STABILIZED EARTH
- N.F. = NEAR FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- R.A. = REAR ABUTMENT
- R.F. = RIGHT FORWARD
- R.R. = RIGHT REAR
- SP = SPACES
- T. = TOP
- TYP. = TYPICAL
- WB = WESTBOUND

**TEMPORARY BENCHMARKS**

|   |
|---|
| REFERENCE MONUMENT<br>STA. 917+69.31, 128.63' RT., @ SURVEY & CONSTRUCTION U.S. 30<br>ELEV. 1091.94 |
| REFERENCE MONUMENT<br>STA. 933+38.14, 144.45' RT., @ SURVEY & CONSTRUCTION U.S. 30<br>ELEV. 1087.92 |

**TRAFFIC DATA**

|                      |
|----------------------|
| 2006 - 17,810 A.D.T. |
| 3,740 A.D.T.T.       |
| 2026 - 23,320 A.D.T. |
| 4,900 A.D.T.T.       |

**U.S. 30 CURVE DATA**

PI STA. 973+53.03  
 $\Delta = 75^{\circ}-55'-11''$   
 $D_c = 01^{\circ}-00'-00''$  L.T.  
 $R = 5729.58'$   
 $T = 4469.99'$   
 $L = 7591.98'$   
 $E = 1537.39'$   
 $e_{max} = 0.036$

**APPROXIMATE TOP OF ROCK**

| BORING | ELEVATION |
|--------|-----------|
| S-21   | 1062.5    |
| S-22   | 1060.2    |
| S-23   | 1063.1    |
| S-24   | 1058.3    |
| S-25   | 1062.5    |

**APPROXIMATE TOP OF ROCK**

| BORING | ELEVATION |
|--------|-----------|
| S-26   | 1061.3    |
| S-27   | 1060.0    |
| S-28   | 1062.0    |
| S-29   | 1060.7    |
| S-30   | 1063.8    |

**EARTHWORK**

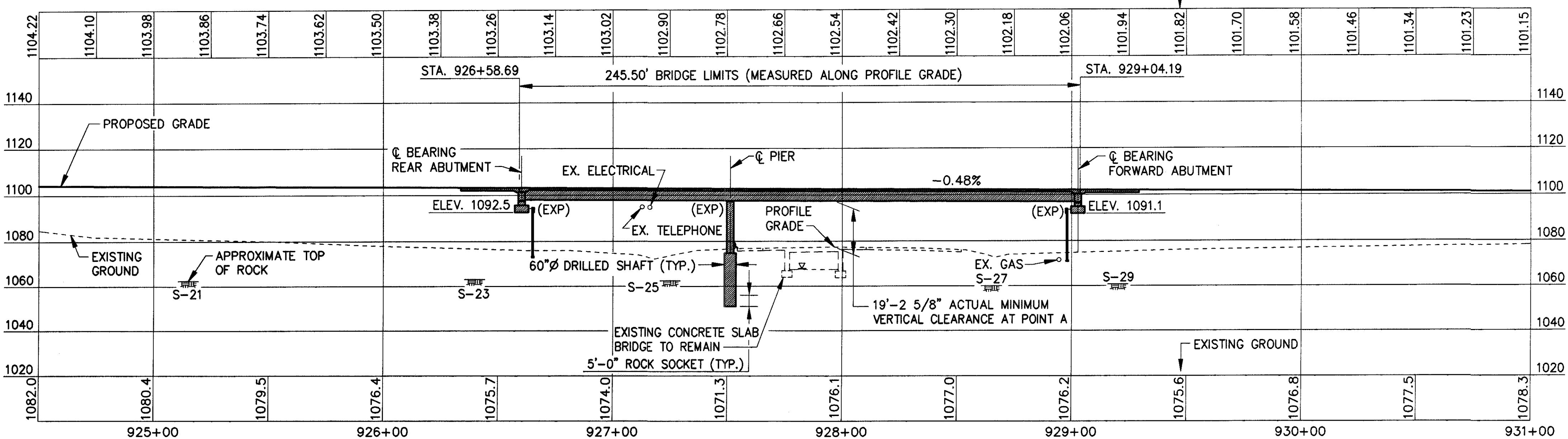
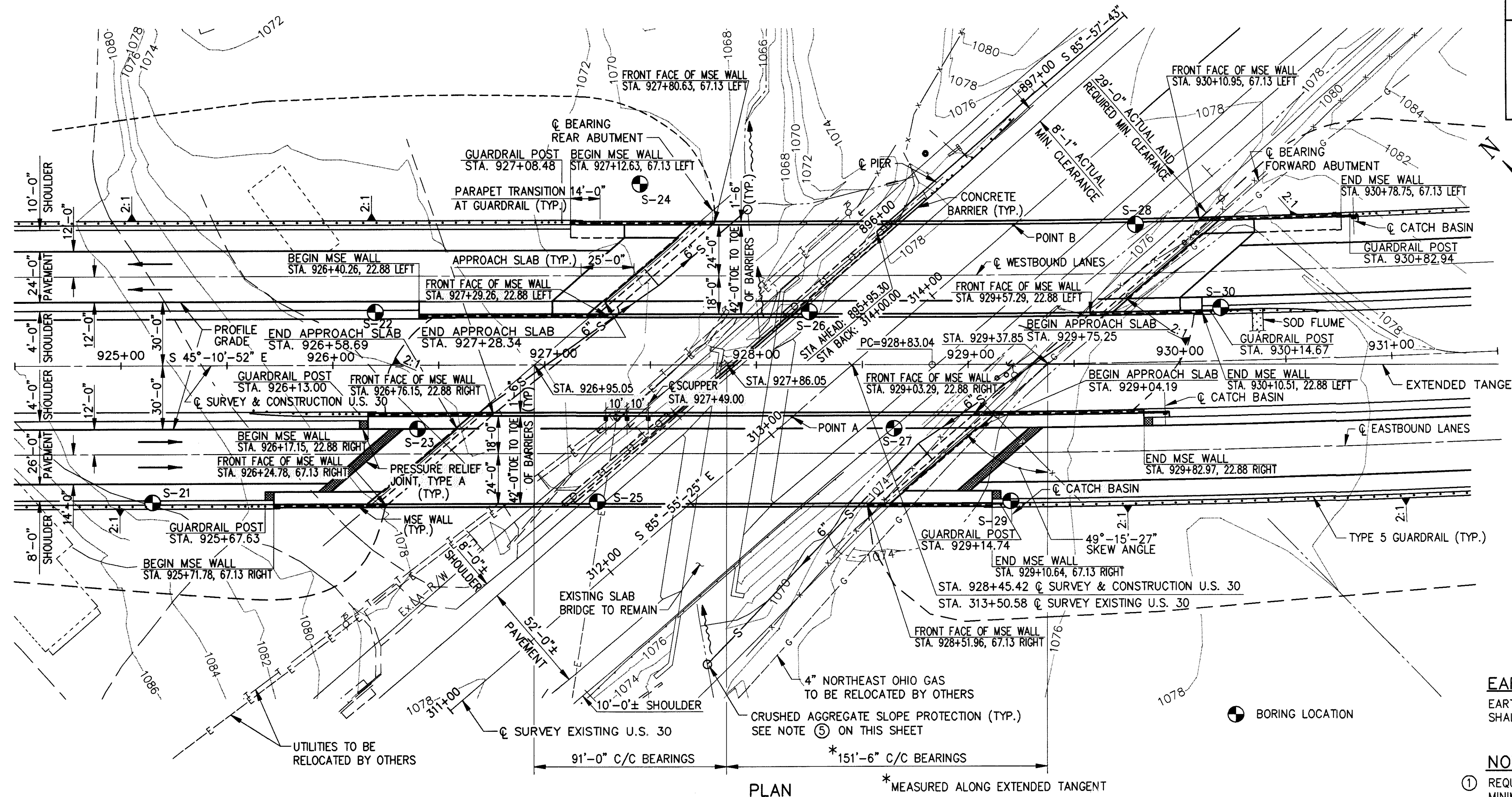
EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

**NOTES**

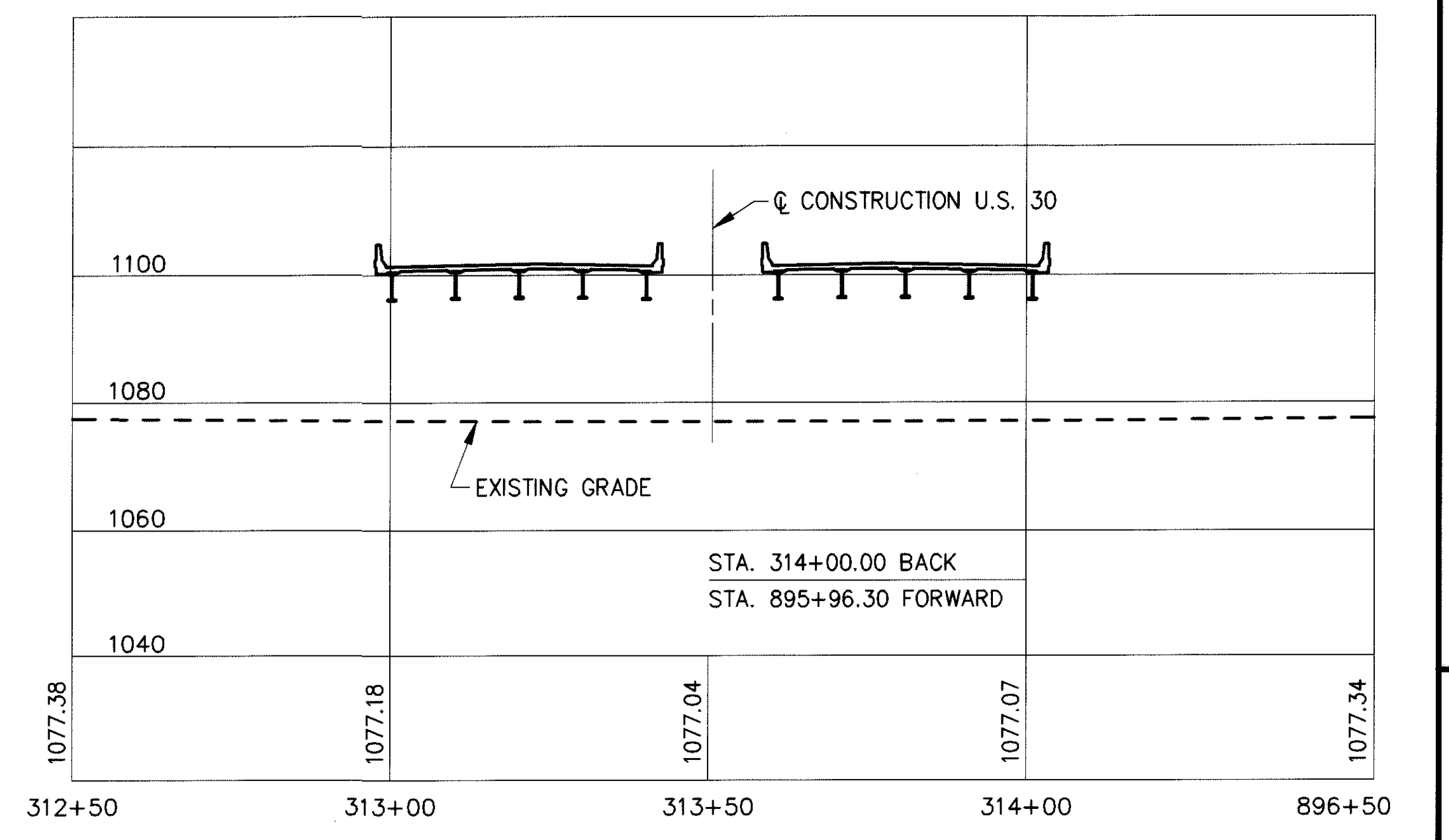
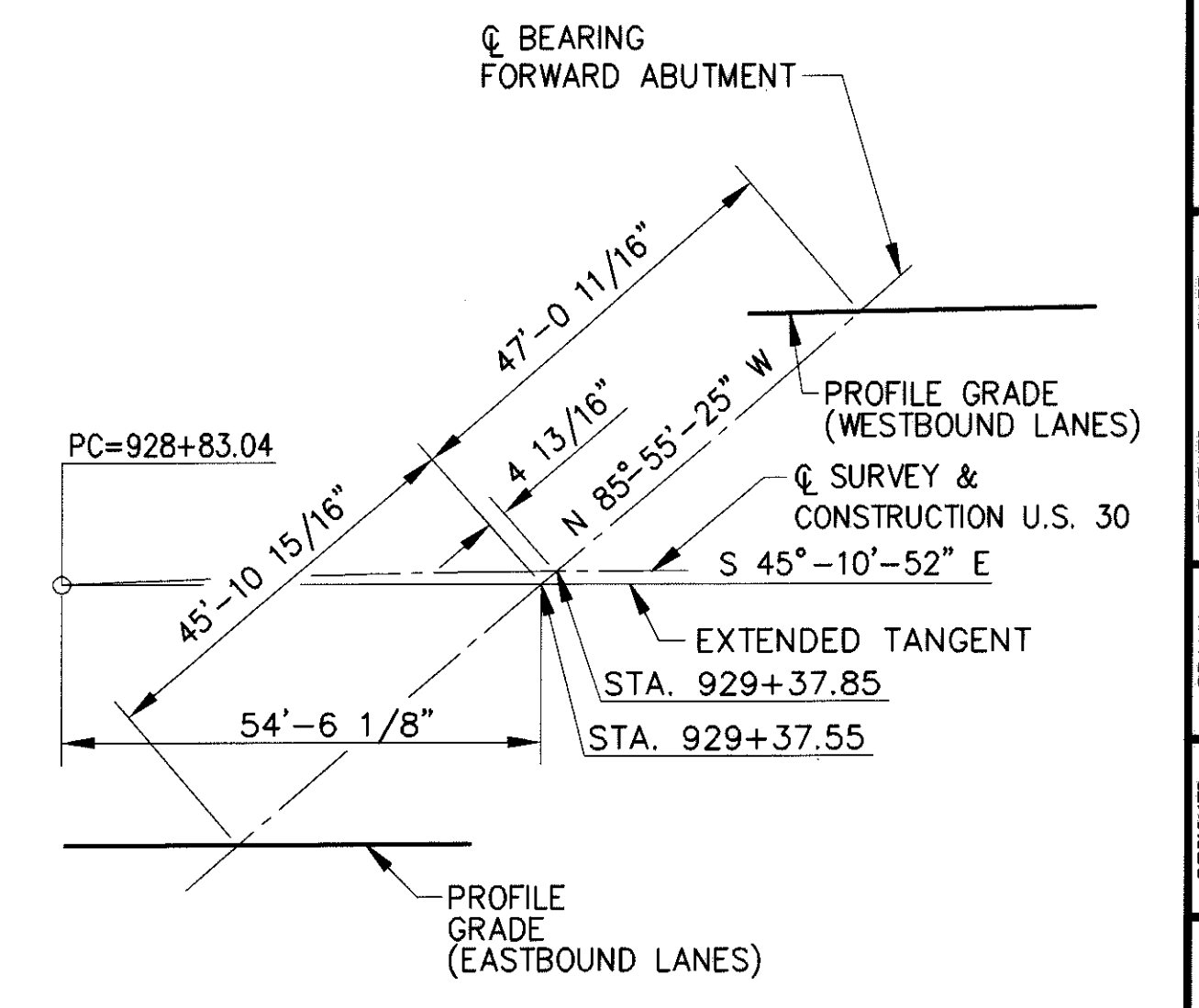
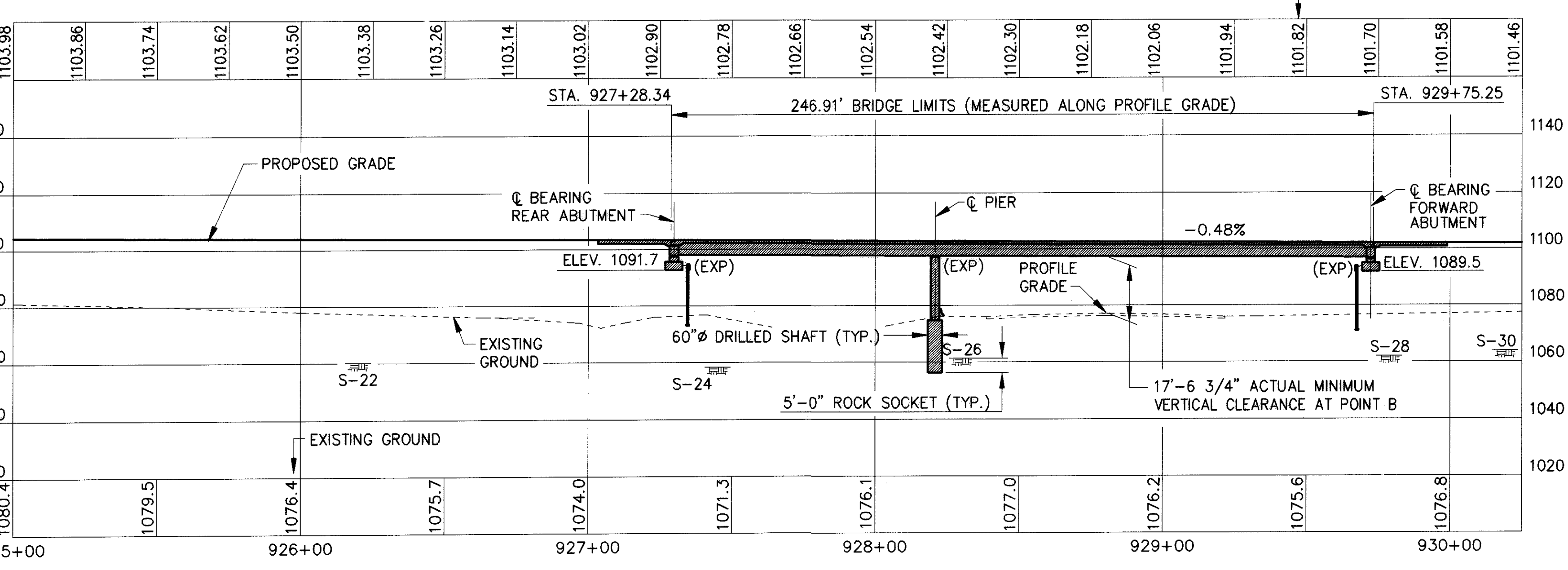
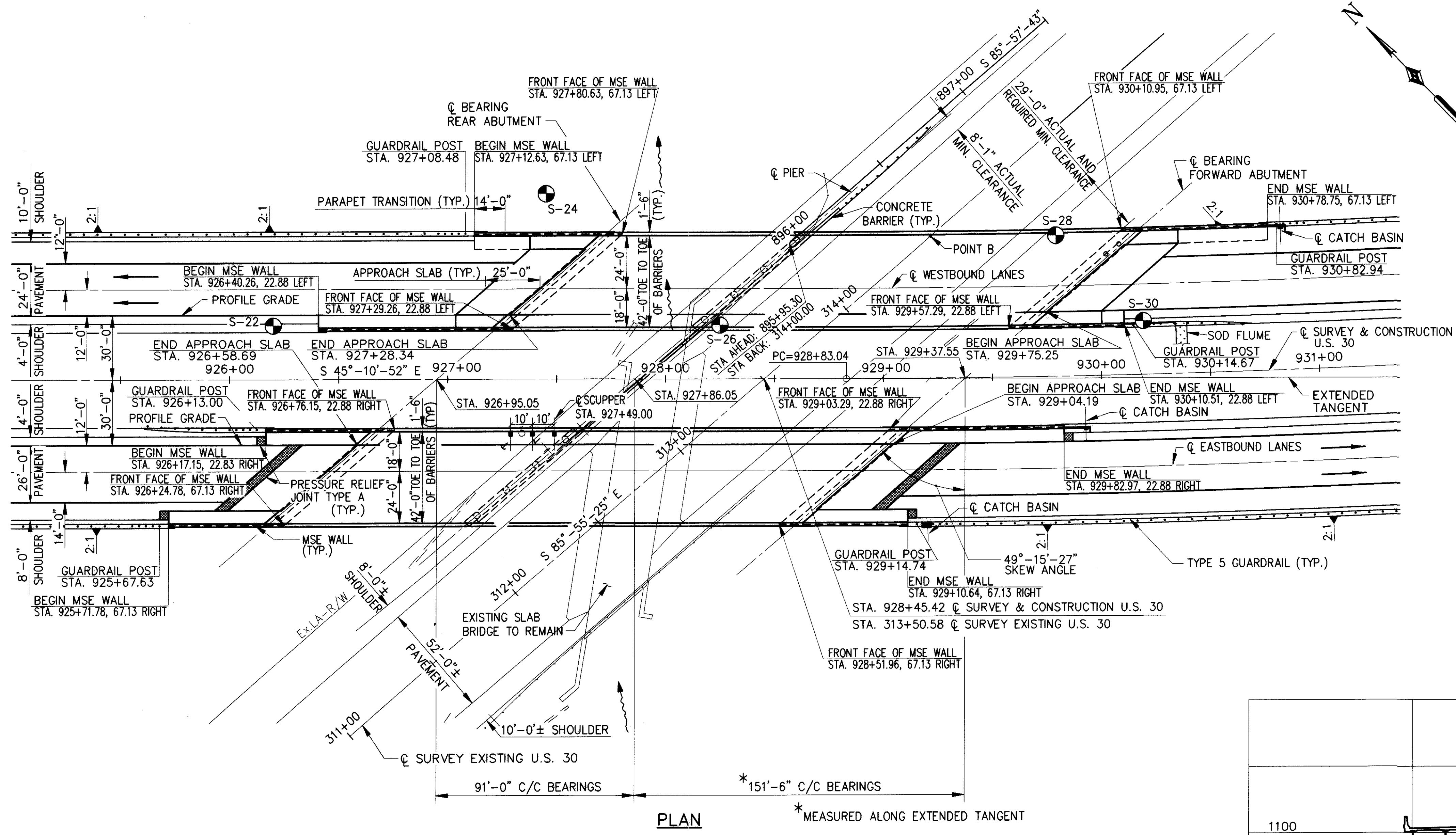
- REQUIRED MINIMUM VERTICAL CLEARANCE IS 16'-6". ACTUAL MINIMUM VERTICAL CLEARANCE AT POINT A AND POINT B OCCURS AT THE INTERSECTION OF THE LEFT EXTERIOR GIRDER AND THE CENTERLINE OF EXISTING U.S. 30 (LINCOLN WAY).
- FOR SECTION ON PROFILE GRADE WESTBOUND LANES SEE SHEET [2721].
- FOR PARAPET TRANSITION DETAILS SEE MSE WALL DRAWINGS.
- FOR PRESSURE RELIEF JOINT DETAILS SEE ROADWAY DRAWINGS.
- TERMINATE PIPE AS SHOWN ON OHIO STANDARD DRAWING A-1-69, SHEET 1 OF 5. PAYMENT FOR CRUSHED AGGRATE INCLUDED UNDER ITEM 518, 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS.

**PROPOSED STRUCTURE**

|                  |   |
|------------------|---|
| TYPE:            | CONTINUOUS COMPOSITE WELDED STEEL GIRDER (ASTM A572, METALIZED WITH TOP COAT PAINTED) WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE WITH SEMI-INTEGRAL ABUTMENTS |
| SPANS:           | 91'-0" AND 151'-6" C/C BEARINGS   |
| ROADWAY:         | 42'-0" TOE TO TOE OF BARRIERS   |
| LOADING:         | HS25-44, CASE II AND THE ALTERNATE MILITARY LOADING   |
| SKREW:           | 49'-15'-27" LEFT FORWARD TO TANGENT   |
| WEARING SURFACE: | MONOLITHIC CONCRETE   |
| APPROACH SLABS:  | AS-1-81 (25'-0")  |
| ALIGNMENT:       | TANGENT, 1°-00'-00" LEFT  |
| SUPERELEVATION:  | 0.016 FT. PER FT. TO 0.036 FT. PER FT.  |
| LATITUDE:        | 40°-47'-46" N (EB) 40°-47'-46" N (WB)   |
| LONGITUDE:       | 81°-48'-41" W (EB) 81°-48'-39" W (WB)   |



[F:\JOBS\170\BRIDGE\08\SPINX\170SP08.DWG] JUN 18/03 PLOT 1:30



**NOTE:**  
① FOR ADDITIONAL NOTES AND DETAILS SEE SHEET 17/21.

[F:\MOBS\470\BRIDGE\08\DWG\470GPOB.DWG] RSY 6/18/01 PLOT 1:30

| CALC. BY: RSY DATE: 6-02 |           |         |         | ESTIMATED QUANTITIES - WAY-30-1752L (WESTBOUND)   |          |       |        | CHK'D. BY: YRY DATE: 6-02 |         |                           |  |
|--------------------------|-----------|---------|---------|---|----------|-------|--------|---------------------------|---------|---------------------------|--|
| ITEM                     | ITEM EXT. | TOTAL   | UNIT    | DESCRIPTION   | ABUTMENT |       | PIER   | SUPER-STRUCTURE           | GENERAL | AS PER PLAN SHEET NUMBERS |  |
|                          |           |         |         |   | REAR     | FWD   |        |                           |         |                           |  |
| 503                      | 21301     | LUMP    |         | UNCLASSIFIED EXCAVATION, AS PER PLAN  |          |       | LUMP   |                           |         | GN 1                      |  |
| 509                      | 10000     | 145,242 | POUND   | EPOXY COATED REINFORCING STEEL  | 3,282    | 3,369 | 12,259 | 126,332                   |         |                           |  |
| 511                      | 41001     | 59      | CU. YD. | CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN  |          |       | 59     |                           |         | GN 2                      |  |
| 511                      | 44101     | 31      | CU. YD. | CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN   | 14       | 17    |        |                           |         | GN 2                      |  |
| 511                      | 46501     | 89      | CU. YD. | CLASS C CONCRETE, FOOTING, AS PER PLAN  | 44       | 45    |        |                           |         | GN 2                      |  |
| 511                      | 50100     | 79      | CU. YD. | CLASS HP CONCRETE, BRIDGE DECK (PARAPET)  |          |       |        | 79                        |         |                           |  |
| 513                      | 10081     | LUMP    |         | STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN, A572  |          |       |        | LUMP                      |         | GN 2                      |  |
| 513                      | 20000     | 4,095   | EACH    | WELDED STUD SHEAR CONNECTORS  |          |       |        | 4,095                     |         |                           |  |
| 514                      | 00400     | LUMP    |         | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT  |          |       |        | LUMP                      |         |                           |  |
| 516                      | 13900     | 242     | SQ. FT. | 2" PREFORMED EXPANSION JOINT FILLER   | 117      | 125   |        |                           |         |                           |  |
| 516                      | 14021     | 163     | FT.     | SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN  | 81       | 82    |        |                           |         | GN 1                      |  |
| 516                      | 44101     | 5       | EACH    | ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2.80" x 10 1/2" x 17", WITH 1 1/2" x 11 1/2" x 18" LOAD PLATE (SEE PROPOSAL NOTE) | 5        |       |        |                           |         | 18/21                     |  |
| 516                      | 44101     | 5       | EACH    | ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2.94" x 13 1/2" x 21", WITH 2" x 14 1/2" x 22" LOAD PLATE (SEE PROPOSAL NOTE)     |          | 5     |        |                           |         | 18/21                     |  |
| 516                      | 44101     | 5       | EACH    | ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2.63" x 18" x 29", WITH 2" x 19" x 30" LOAD PLATE (SEE PROPOSAL NOTE)             |          |       | 5      |                           |         | 18/21                     |  |
| 524                      | 94914     | 72      | FT.     | DRILLED SHAFTS, 60" DIAMETER, ABOVE BEDROCK   |          |       | 72     |                           |         |                           |  |
| 524                      | 94918     | 20      | FT.     | DRILLED SHAFTS, 60" DIAMETER, INTO BEDROCK  |          |       | 20     |                           |         |                           |  |
| 526                      | 25000     | 166     | SQ. YD. | REINFORCED CONCRETE APPROACH SLABS (T=15")  |          |       |        |                           | 166     |                           |  |
| 864                      | 10100     | 952     | SQ. YD. | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)   | 49       | 55    | 189    | 659                       |         |                           |  |
| 894                      | 10000     | 392     | CU. YD. | HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY  |          |       |        | 392                       |         |                           |  |

| CALC. BY: RSY DATE: 6-02 |           |         |         | ESTIMATED QUANTITIES - WAY-30-1752R (EASTBOUND)   |          |       |        | CHK'D. BY: YRY DATE: 6-02 |         |                           |  |
|--------------------------|-----------|---------|---------|---|----------|-------|--------|---------------------------|---------|---------------------------|--|
| ITEM                     | ITEM EXT. | TOTAL   | UNIT    | DESCRIPTION   | ABUTMENT |       | PIER   | SUPER-STRUCTURE           | GENERAL | AS PER PLAN SHEET NUMBERS |  |
|                          |           |         |         |   | REAR     | FWD   |        |                           |         |                           |  |
| 503                      | 21301     | LUMP    |         | UNCLASSIFIED EXCAVATION, AS PER PLAN  |          |       | LUMP   |                           |         | GN 1                      |  |
| 509                      | 10000     | 144,458 | POUND   | EPOXY COATED REINFORCING STEEL  | 3,211    | 3,249 | 12,259 | 125,739                   |         |                           |  |
| 511                      | 41001     | 58      | CU. YD. | CLASS C CONCRETE, PIER ABOVE FOOTINGS, AS PER PLAN  |          |       | 58     |                           |         | GN 2                      |  |
| 511                      | 44101     | 26      | CU. YD. | CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN   | 12       | 14    |        |                           |         | GN 2                      |  |
| 511                      | 46501     | 88      | CU. YD. | CLASS C CONCRETE, FOOTING, AS PER PLAN  | 44       | 44    |        |                           |         | GN 2                      |  |
| 511                      | 50100     | 78      | CU. YD. | CLASS HP CONCRETE, BRIDGE DECK (PARAPET)  |          |       |        | 78                        |         |                           |  |
| 513                      | 10081     | LUMP    |         | STRUCTURAL STEEL MEMBERS, LEVEL 4, AS PER PLAN, A572  |          |       |        | LUMP                      |         | GN 2                      |  |
| 513                      | 20000     | 4,095   | EACH    | WELDED STUD SHEAR CONNECTORS  |          |       |        | 4,095                     |         |                           |  |
| 514                      | 00400     | LUMP    |         | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT  |          |       |        | LUMP                      |         |                           |  |
| 516                      | 13900     | 233     | SQ. FT. | 2" PREFORMED EXPANSION JOINT FILLER   | 115      | 118   |        |                           |         |                           |  |
| 516                      | 14021     | 162     | FT.     | SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL, AS PER PLAN  | 81       | 81    |        |                           |         | GN 1                      |  |
| 516                      | 44101     | 5       | EACH    | ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2.80" x 10 1/2" x 17", WITH 1 1/2" x 11 1/2" x 18" LOAD PLATE (SEE PROPOSAL NOTE) | 5        |       |        |                           |         | 18/21                     |  |
| 516                      | 44101     | 5       | EACH    | ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2.94" x 13 1/2" x 21", WITH 2" x 14 1/2" x 22" LOAD PLATE (SEE PROPOSAL NOTE)     |          | 5     |        |                           |         | 18/21                     |  |
| 516                      | 44101     | 5       | EACH    | ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 2.63" x 18" x 29", WITH 2" x 19" x 30" LOAD PLATE (SEE PROPOSAL NOTE)             |          |       | 5      |                           |         | 18/21                     |  |
| 524                      | 94914     | 72      | FT.     | DRILLED SHAFTS, 60" DIAMETER, ABOVE BEDROCK   |          |       | 72     |                           |         |                           |  |
| 524                      | 94918     | 20      | FT.     | DRILLED SHAFTS, 60" DIAMETER, INTO BEDROCK  |          |       | 20     |                           |         |                           |  |
| 526                      | 25000     | 166     | SQ. YD. | REINFORCED CONCRETE APPROACH SLABS (T=15")  |          |       |        |                           | 166     |                           |  |
| 864                      | 10100     | 943     | SQ. YD. | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)   | 47       | 50    | 190    | 656                       |         |                           |  |
| 894                      | 10000     | 390     | CU. YD. | HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY  |          |       |        | 390                       |         |                           |  |

GFH 3/11/03 PLOT14  
 F:\JDS\470\BRIDGE\08\DWG\470E08.DWG

DESIGN AGENCY  
**EUTENEWS INC.**  
 CONSULTING ENGINEERS  
 CLEVELAND, OHIO

DATE  
 9-02  
 REVIEWED  
 RAB  
 STRUCTURE FILE NUMBER  
 8502269/8502277

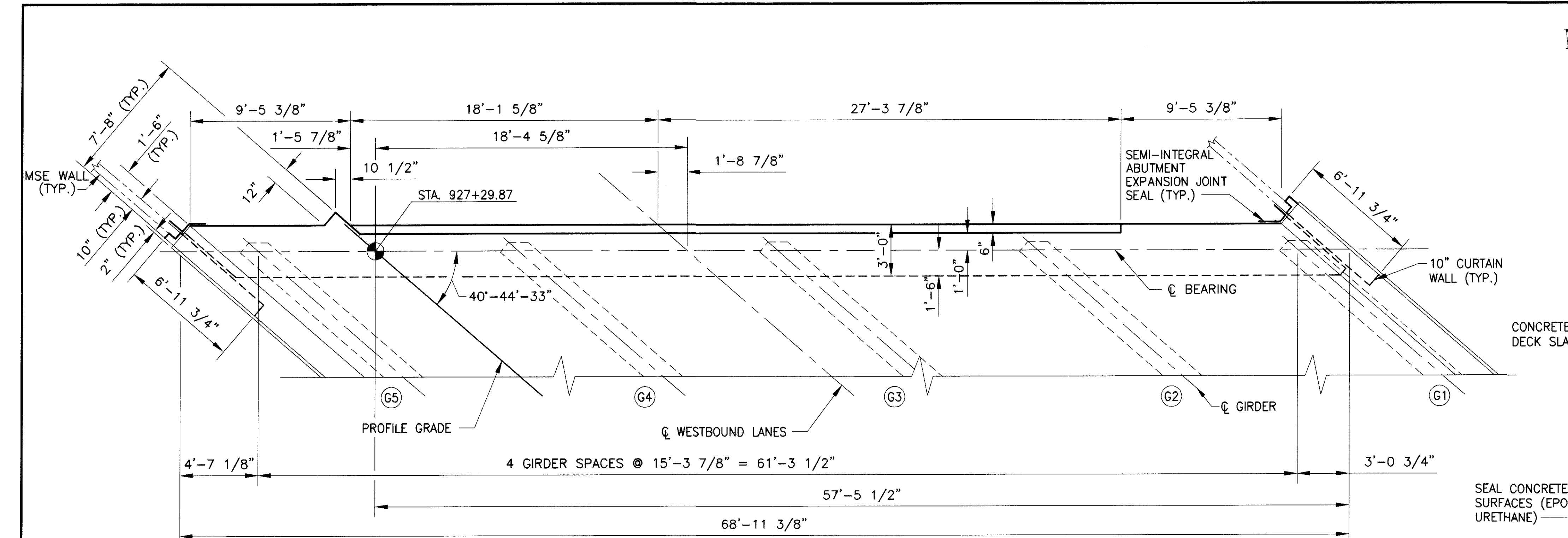
DRAWN  
 RSY  
 CHECKED  
 YRY

**ESTIMATED QUANTITIES**  
 BRIDGE NO. WAY-30-1752 L&R  
 U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY)

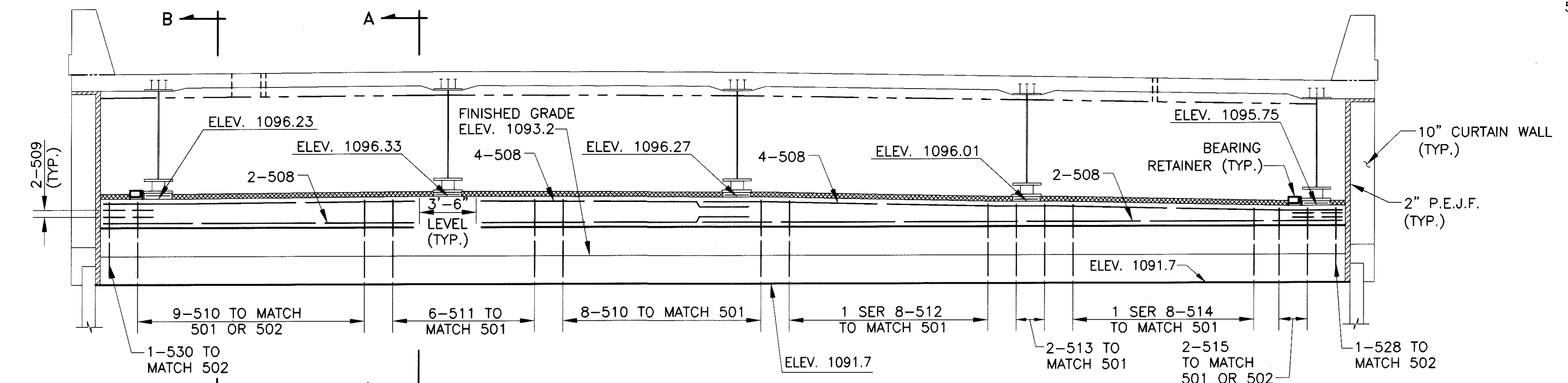
**WAY-30-15.96**

3 / 21

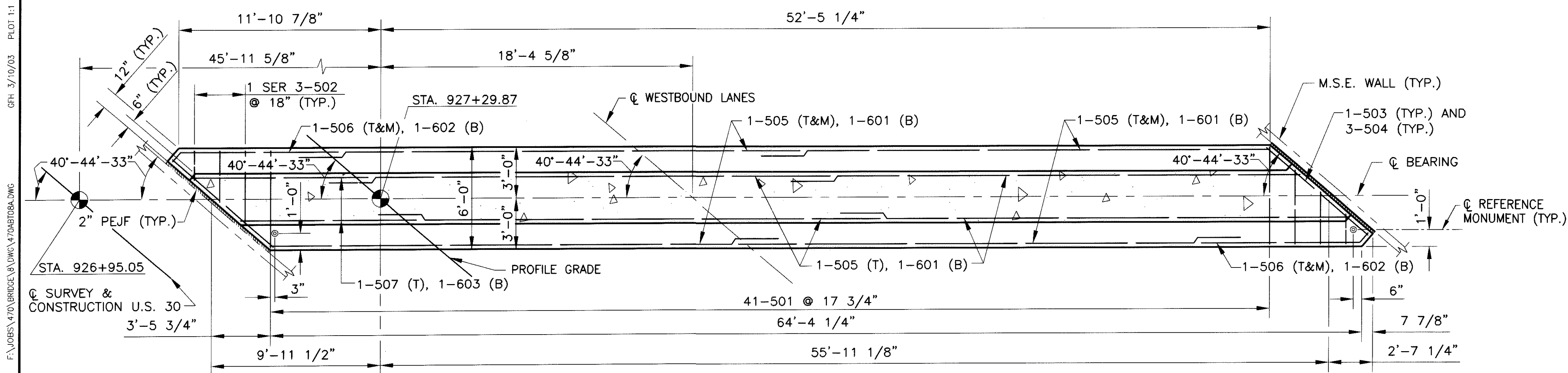
547  
 656



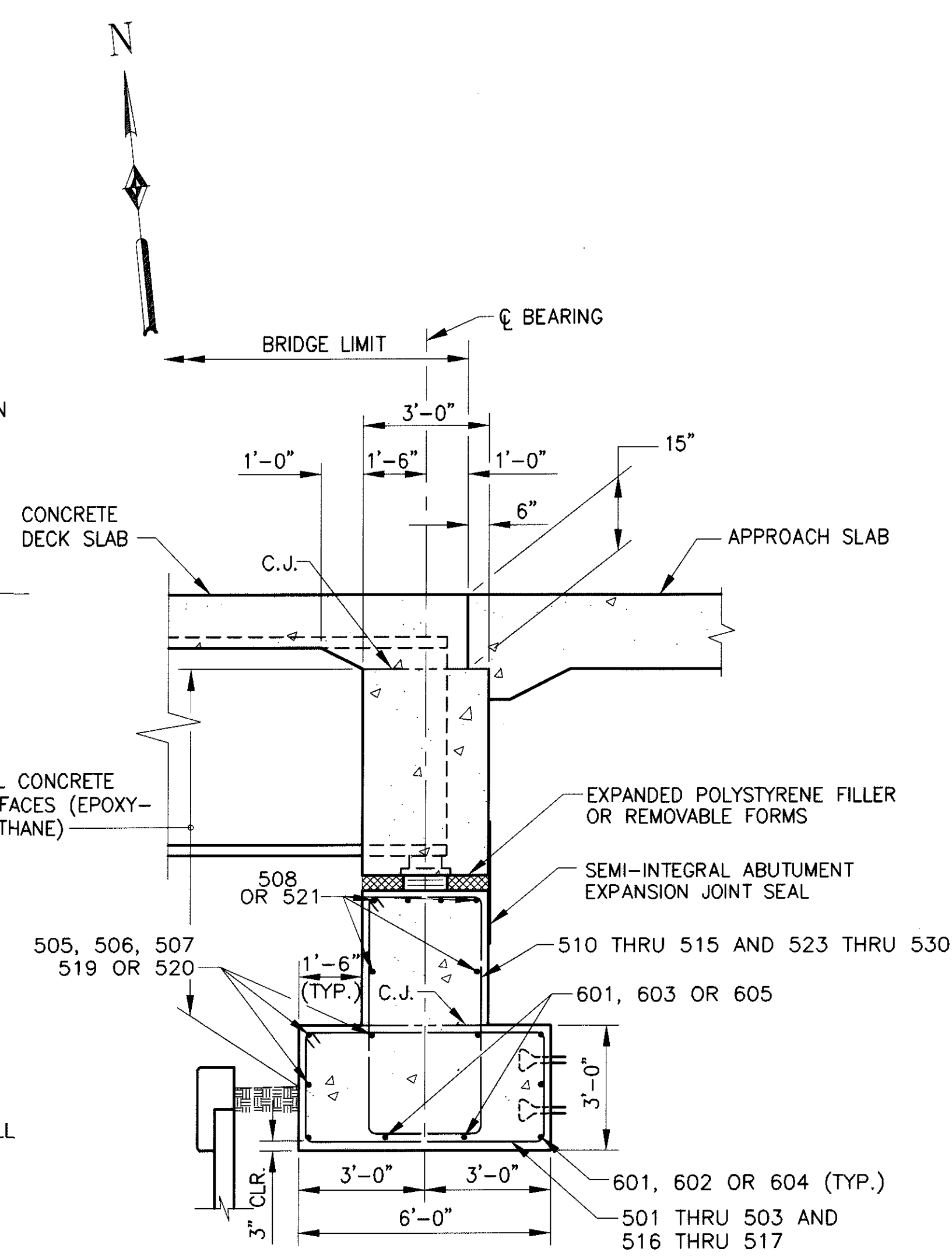
PLAN



ELEVATION



FOOTING PLAN



SECTION A-A

| MINIMUM LAP LENGTHS |         |
|---------------------|---------|
| NO. 5 BAR           | = 2'-9" |
| NO. 6 BAR           | = 2'-4" |

NOTES:

- FOR SECTION B-B SEE SHEET [5/21].
- CONCRETE ABOVE THE BRIDGE SEAT SHALL BE INCLUDED WITH ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY. FOR SUPERSTRUCTURE REINFORCING SEE SHEET [17/21].
- EXPANDED POLYSTYRENE FILLER IS TO BE INCLUDED FOR PAYMENT WITH ITEM 894, HIGH PERFORMANCE CONCRETE, FOR BRIDGE DECK WITH WARRANTY.
- FOR ADDITIONAL SEMI-INTEGRAL ABUTMENT NOTES AND DETAILS SEE ODOT STANDARD DRAWING SICD-1-96.
- FOR ADDITIONAL NOTES SEE SHEET [5/21].

W:\030RA1.DWG  
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 GPH 3/10/03 PLOT 1:1

**EUTHEMUS, INC.**  
 CONSULTING ENGINEERS  
 CLEVELAND, OHIO

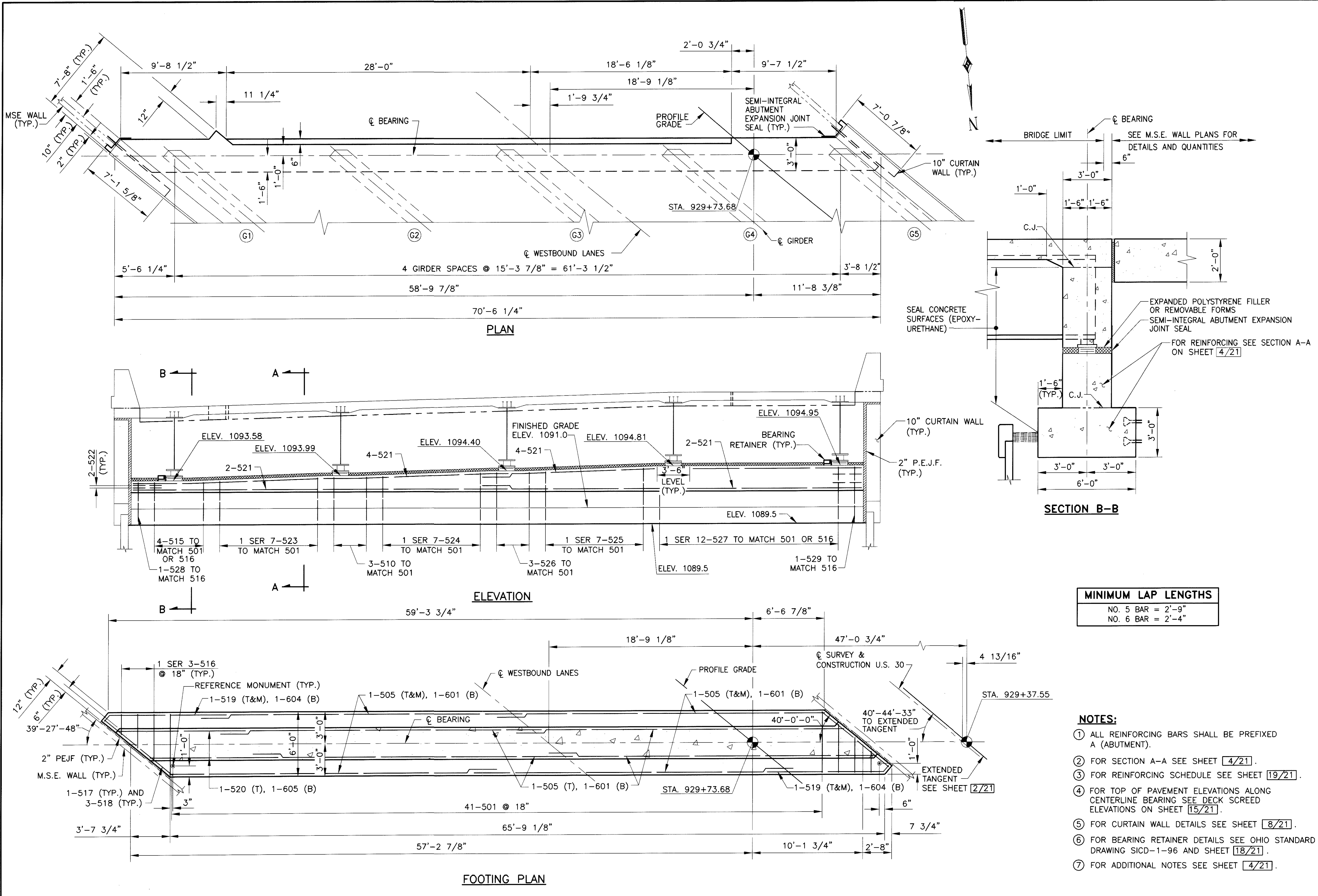
|          |        |                       |         |
|----------|--------|-----------------------|---------|
| DESIGNED | K.J.W. | CHECKED               | Y.R.Y.  |
| DRAWN    | K.J.W. | REVIEWED              | R.A.B.  |
| DATE     | 9-02   | STRUCTURE FILE NUMBER | 8502269 |

**WESTBOUND REAR ABUTMENT**  
 BRIDGE NO. WAY-30-1752  
 U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY)

**WAY-30-15.96**

4 / 21

548  
 656



|                       |         |
|-----------------------|---------|
| DATE                  | 9-02    |
| REVIEWED              | RAB     |
| STRUCTURE FILE NUMBER | 8502269 |
| DRAWN                 | KJW     |
| DESIGNED              | KJW     |
| CHECKED               | YRY     |

**WESTBOUND FORWARD ABUTMENT**  
 BRIDGE NO. WAY-30-1752  
 U.S. 30 OVER EXISTING U.S. 30 (LINCOLN WAY)

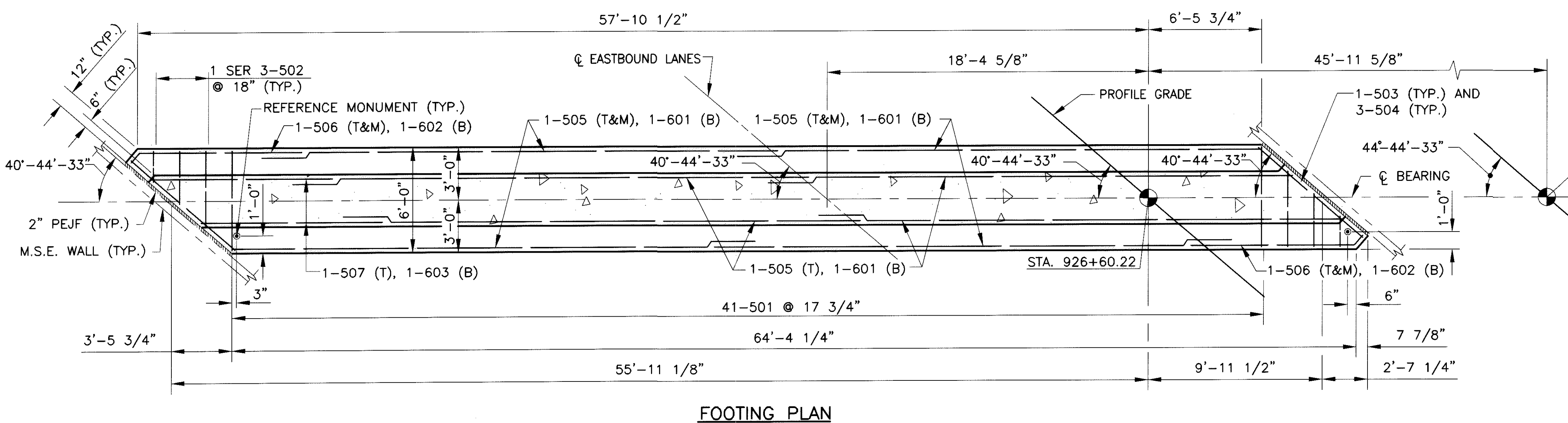
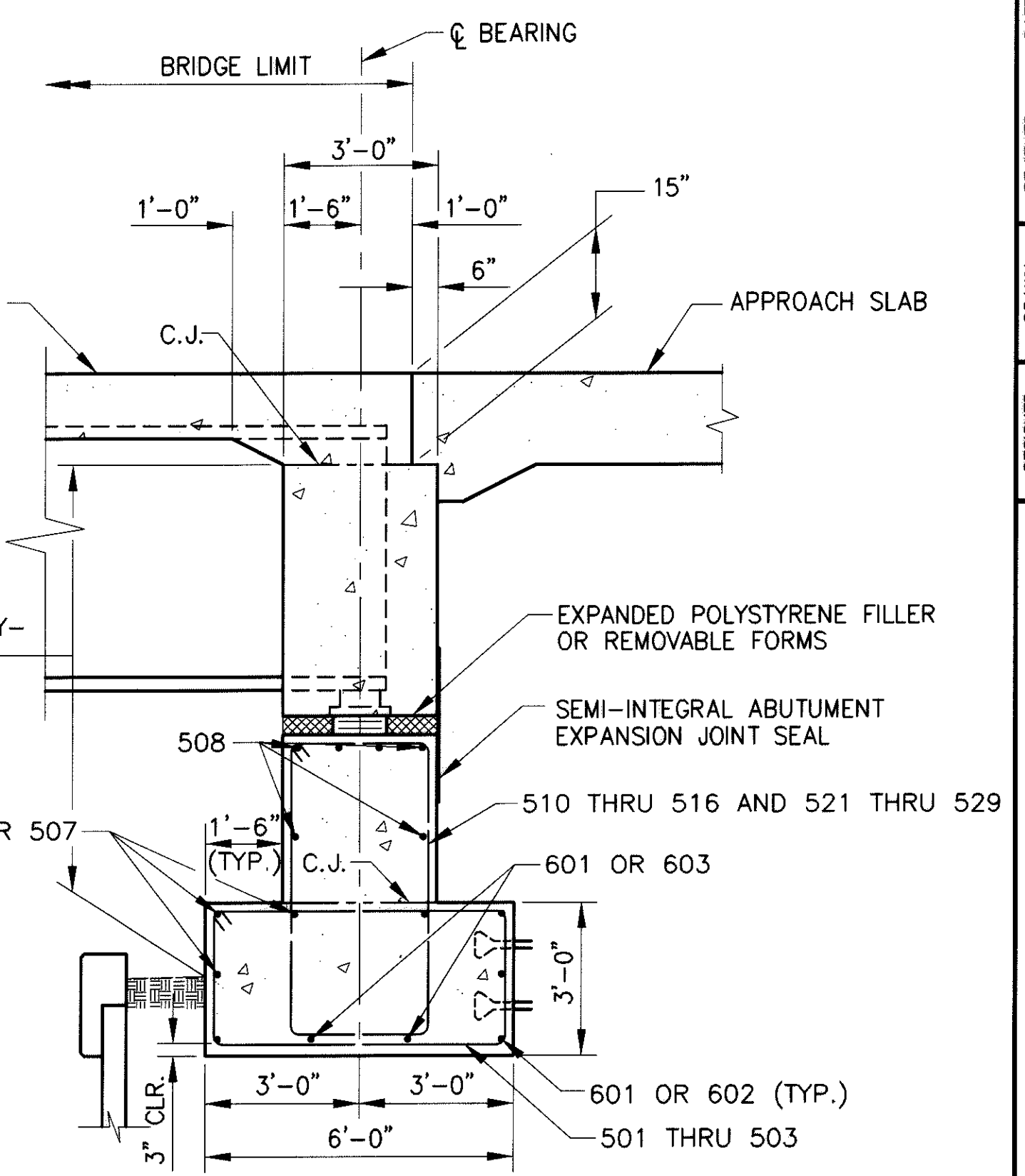
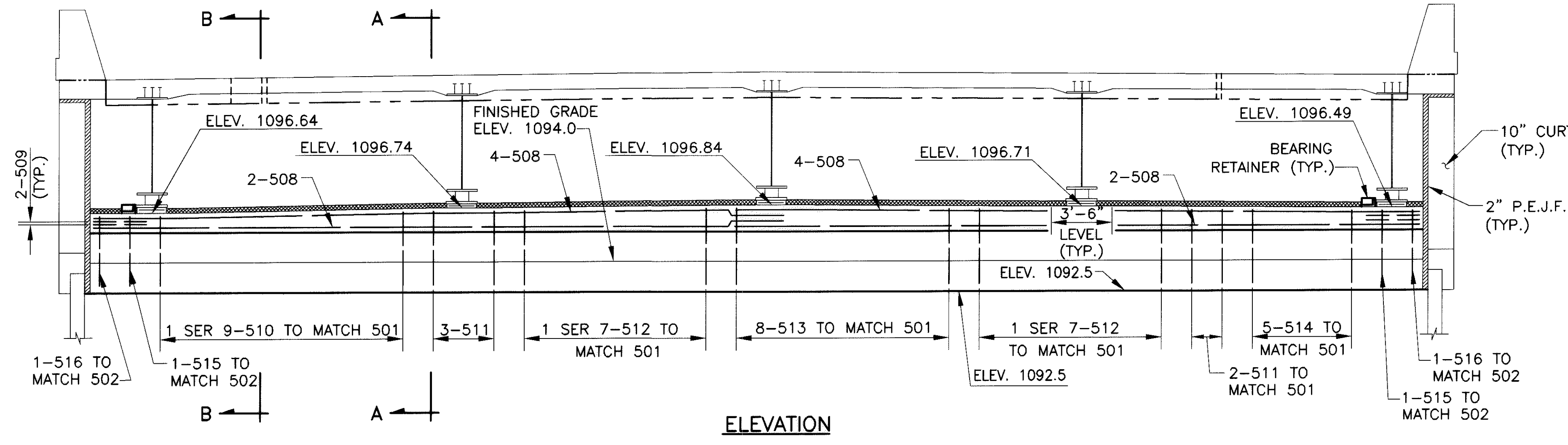
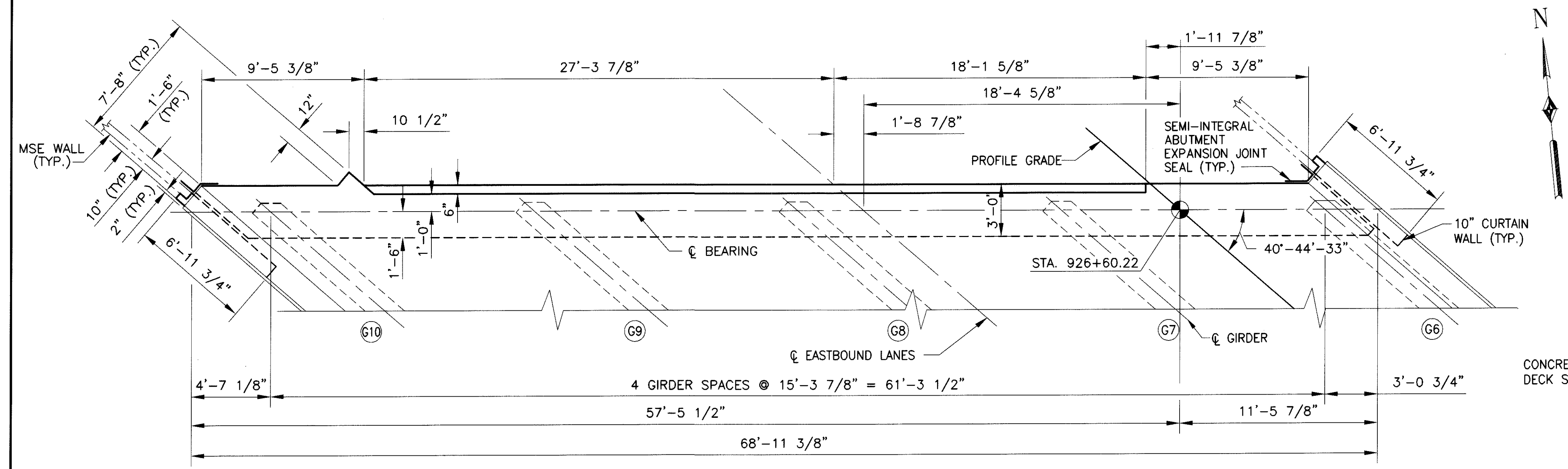
**WAY-30-15.96**

5 / 21

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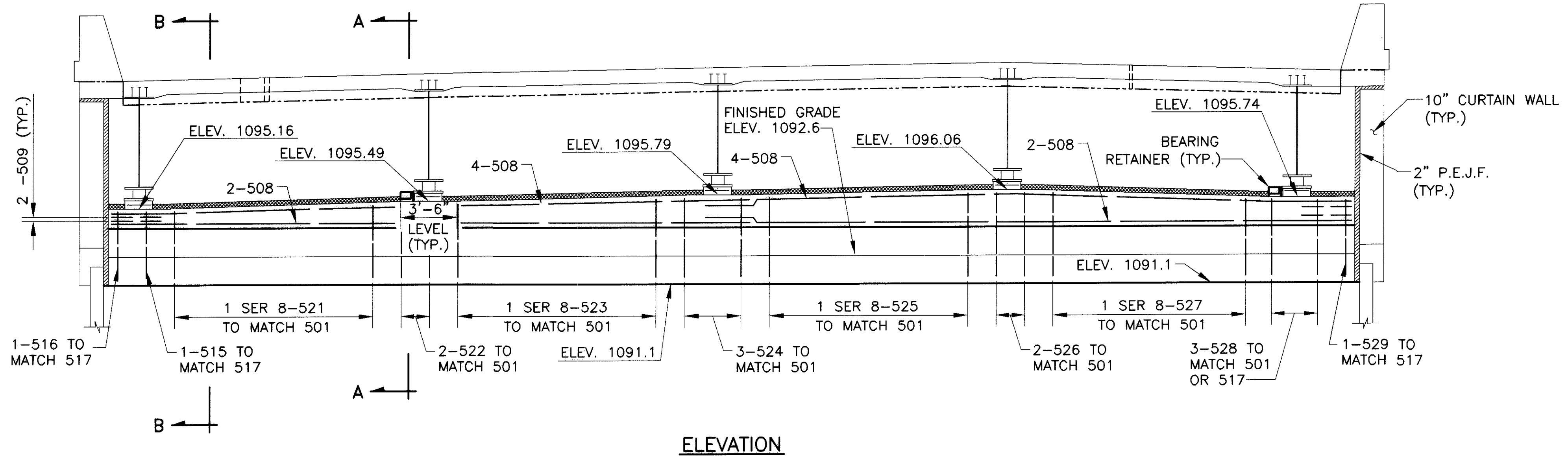
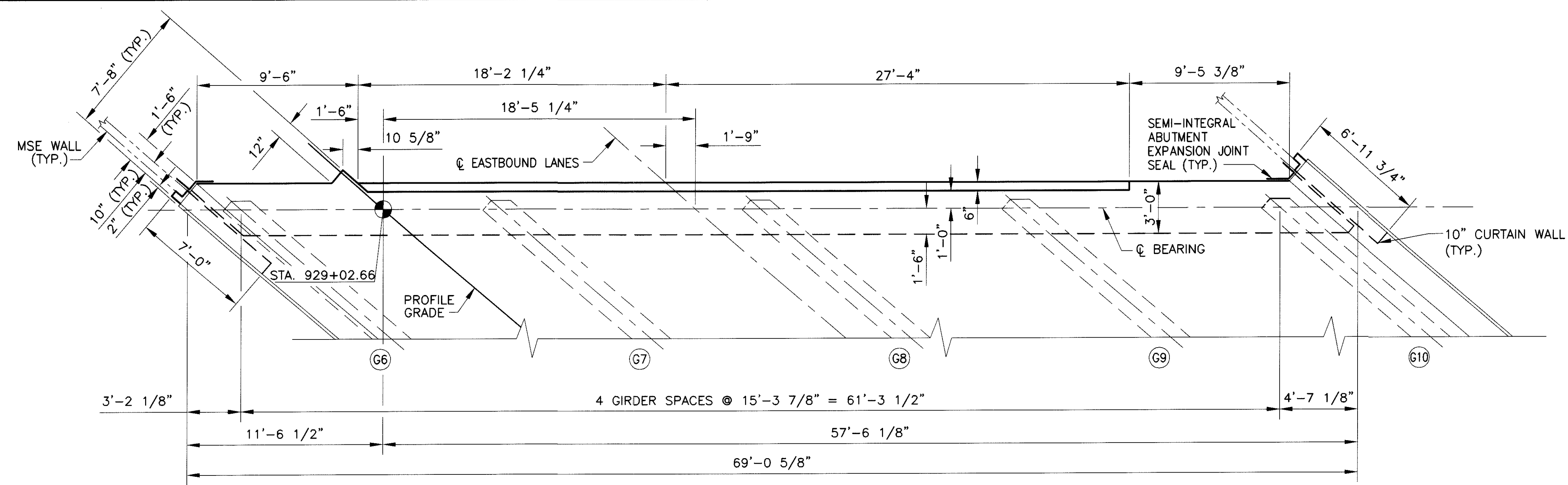




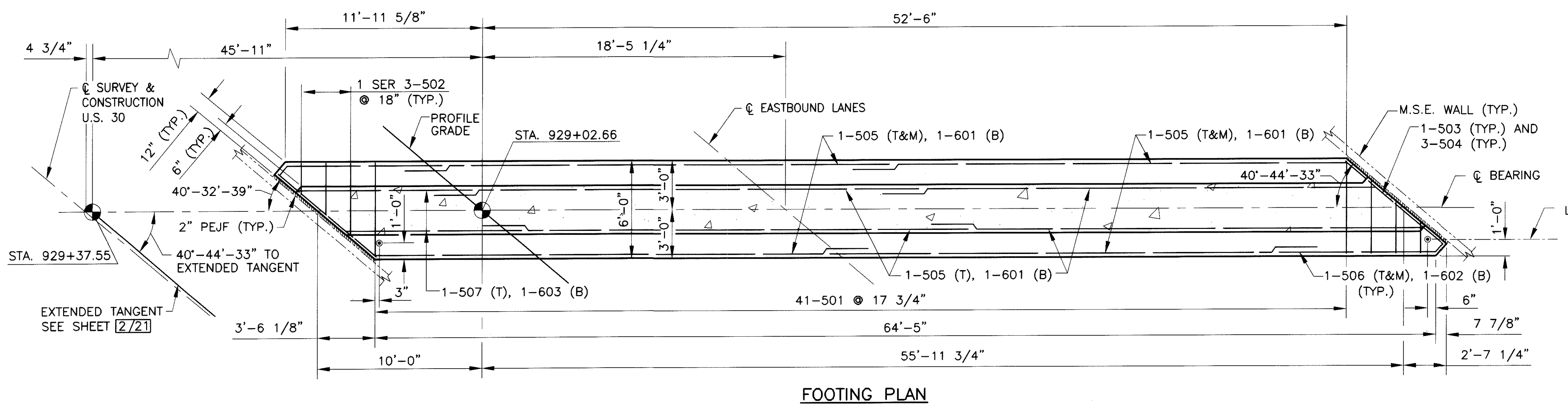
| MINIMUM LAP LENGTHS |         |
|---------------------|---------|
| NO. 5 BAR           | = 2'-9" |
| NO. 6 BAR           | = 2'-4" |

- NOTES:**
- FOR SECTION B-B SEE SHEET [5/21].
  - FOR TOP OF PAVEMENT ELEVATIONS ALONG CENTERLINE BEARING SEE DECK SCREED ELEVATIONS ON SHEET [16/21].
  - FOR CURTAIN WALL DETAILS SEE SHEET [9/21].
  - FOR ADDITIONAL NOTES SEE SHEETS [4/21] AND [5/21].

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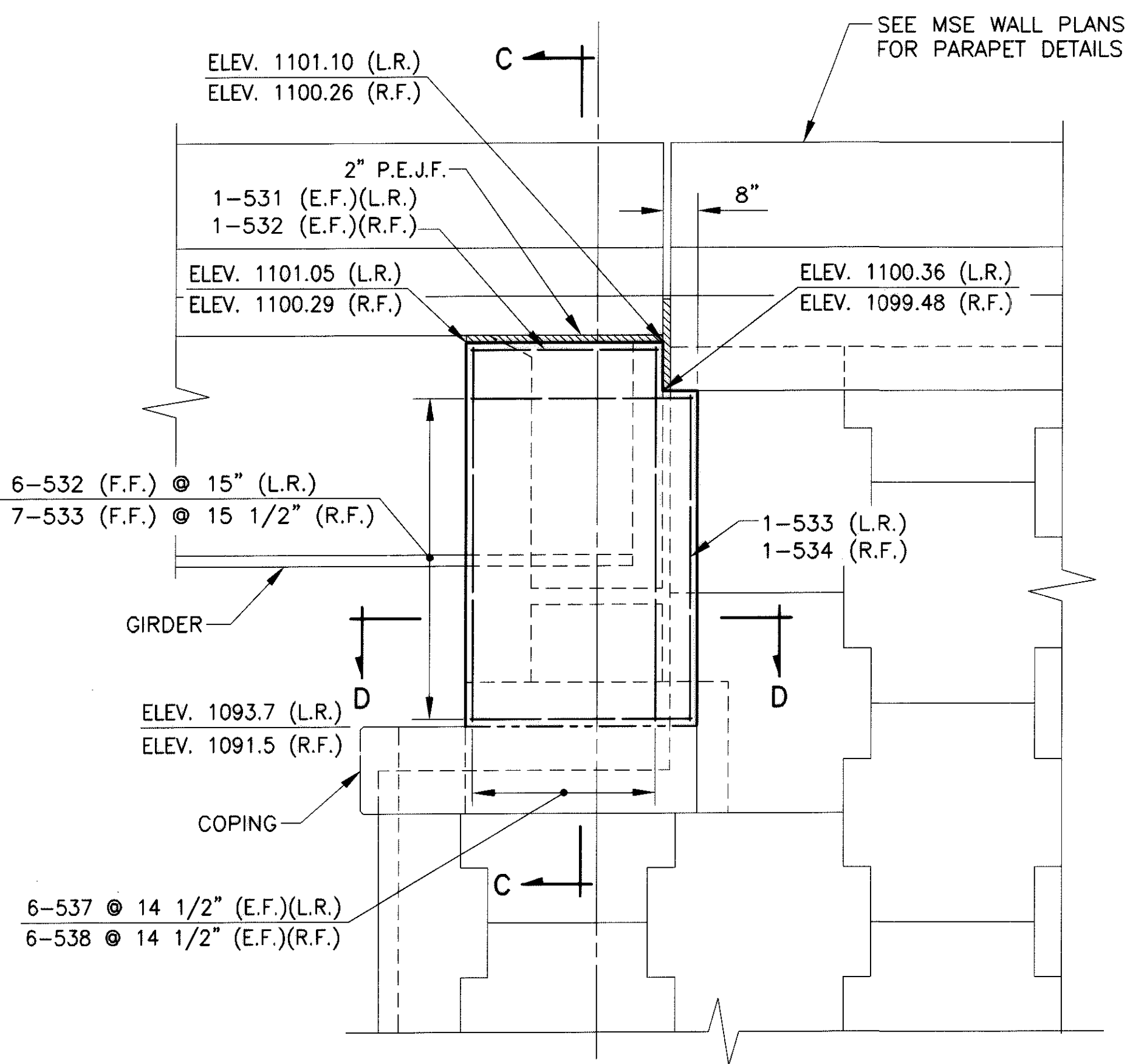


| MINIMUM LAP LENGTHS |         |
|---------------------|---------|
| NO. 5 BAR           | = 2'-9" |
| NO. 6 BAR           | = 2'-4" |

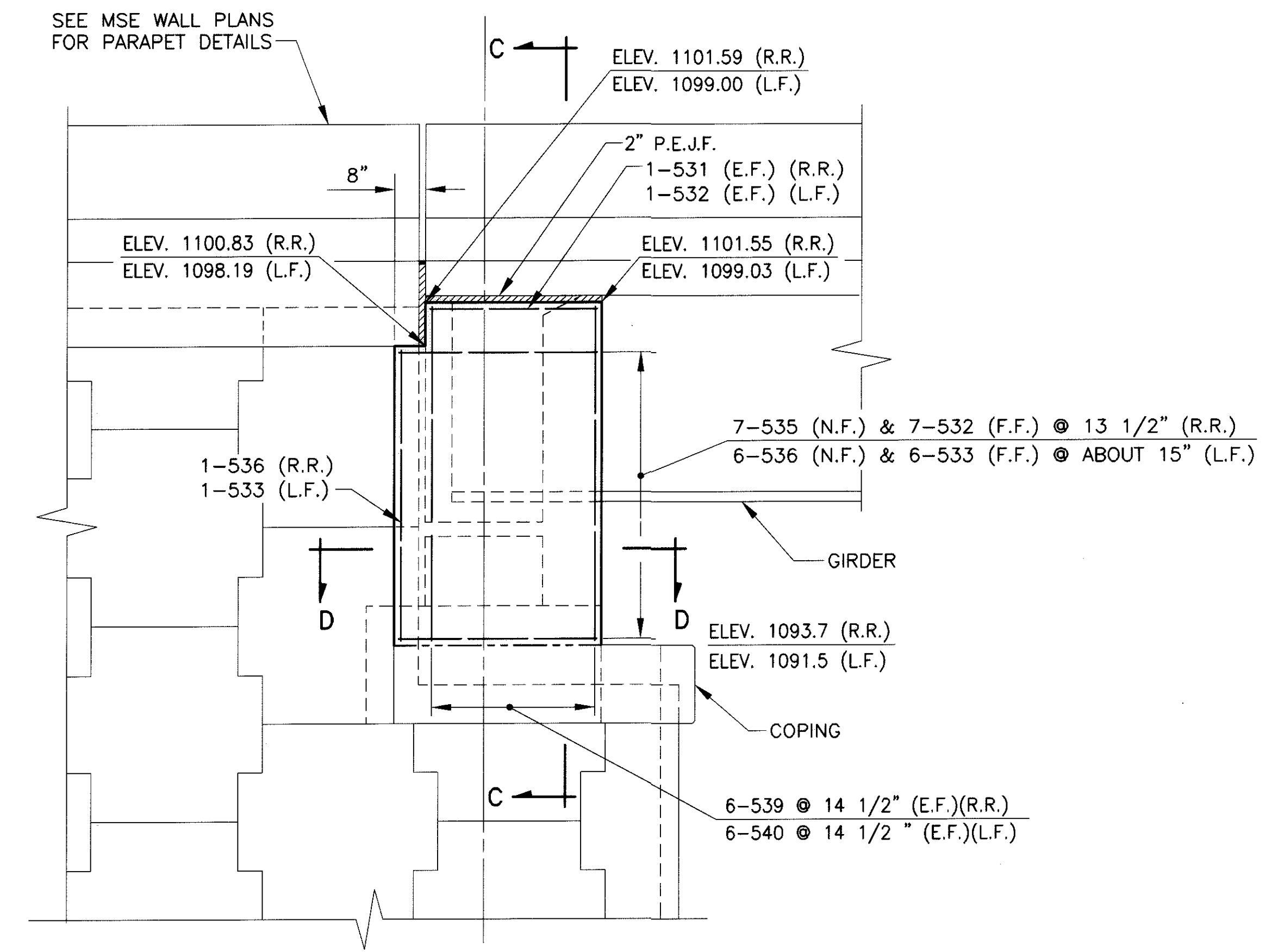


- NOTES:**
- ① FOR SECTION A-A SEE SHEET [6/21].
  - ② FOR SECTION B-B SEE SHEET [5/21].
  - ③ FOR ADDITIONAL NOTES SEE SHEET [6/21].

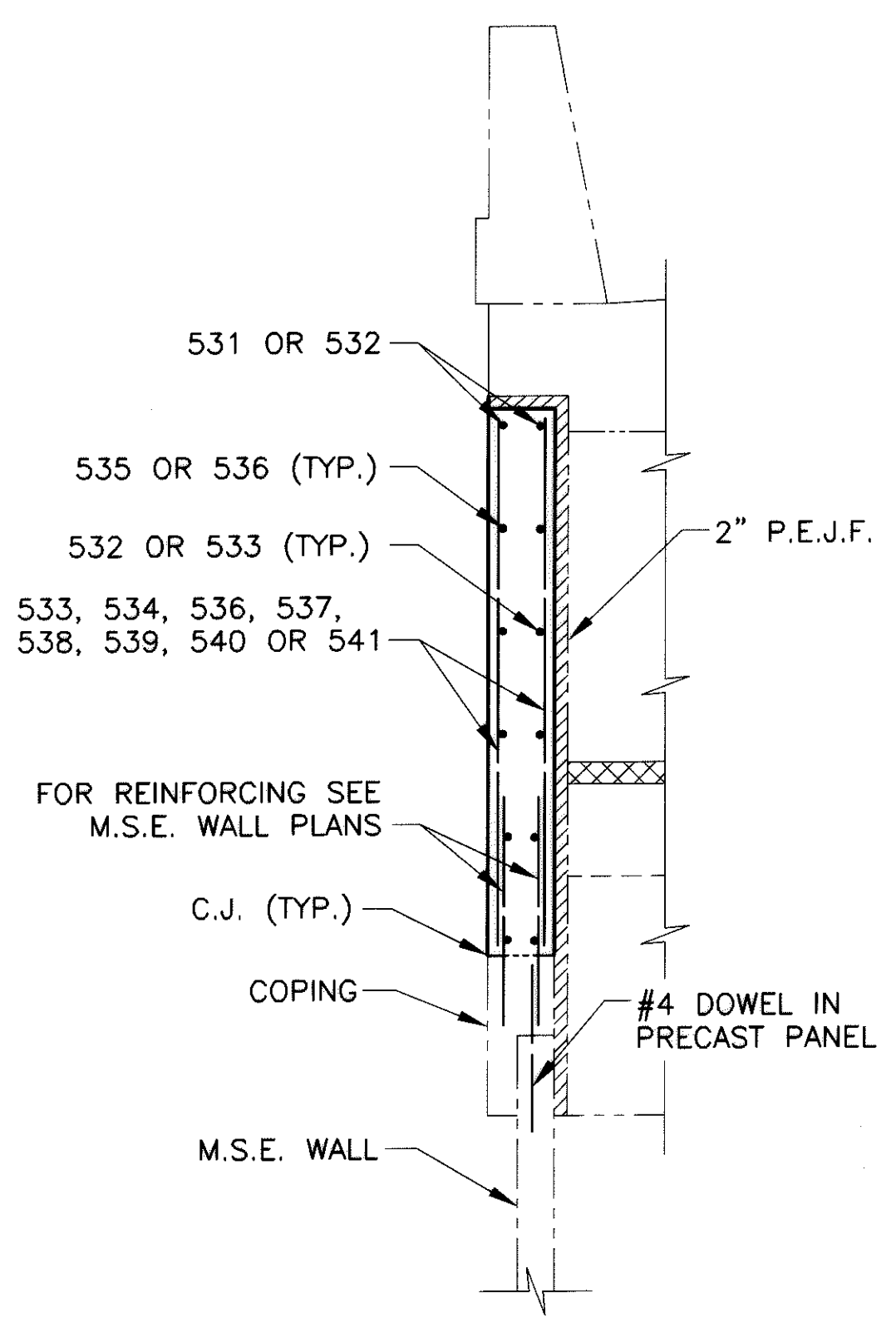
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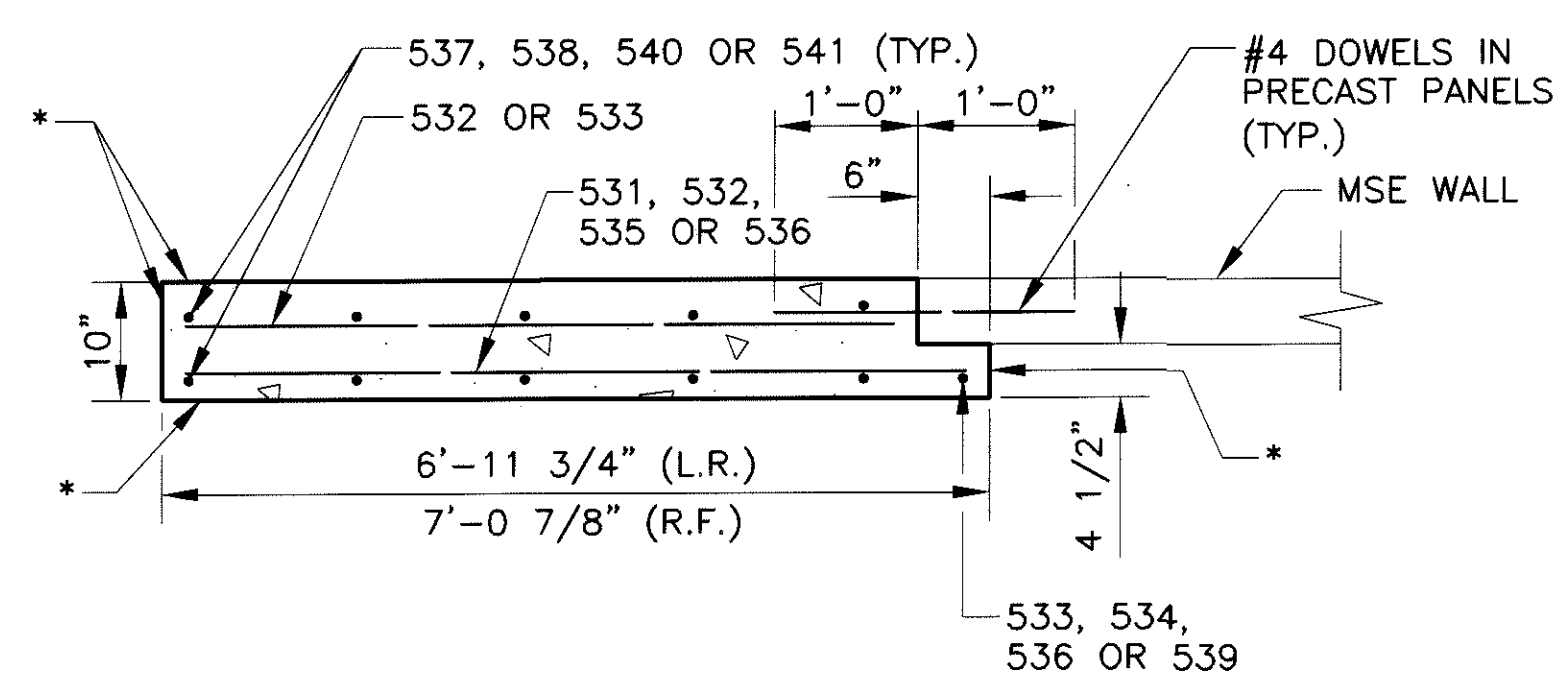
**LEFT REAR AND RIGHT FORWARD CURTAIN WALL ELEVATION**



**RIGHT REAR AND LEFT FORWARD CURTAIN WALL ELEVATION**



**SECTION C-C**



**SECTION D-D**

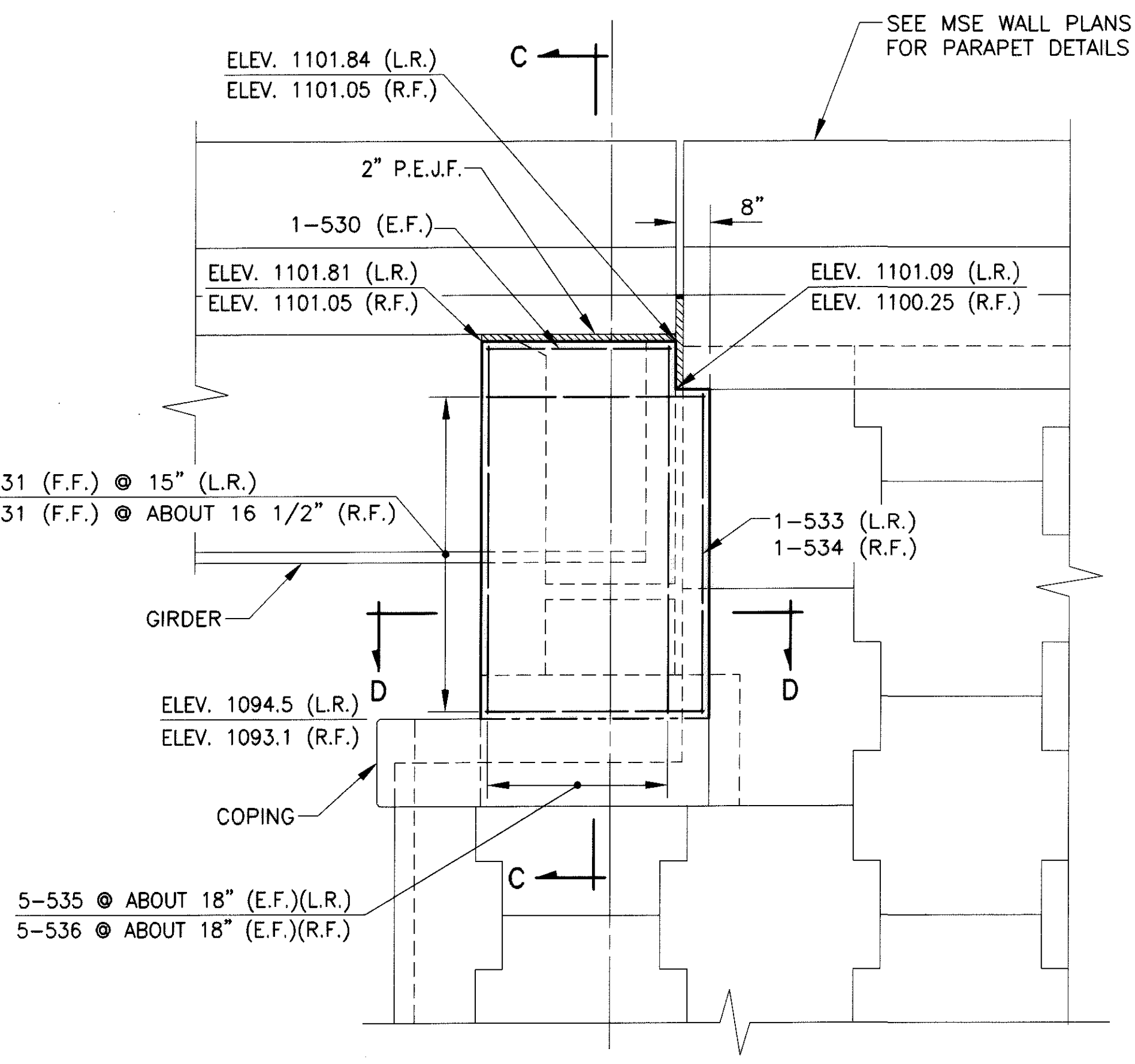
(LEFT REAR AND RIGHT FORWARD SHOWN,  
 RIGHT REAR AND LEFT FORWARD OPPOSITE HAND)

\* SEAL CONCRETE SURFACES (EPOXY-URETHANE)

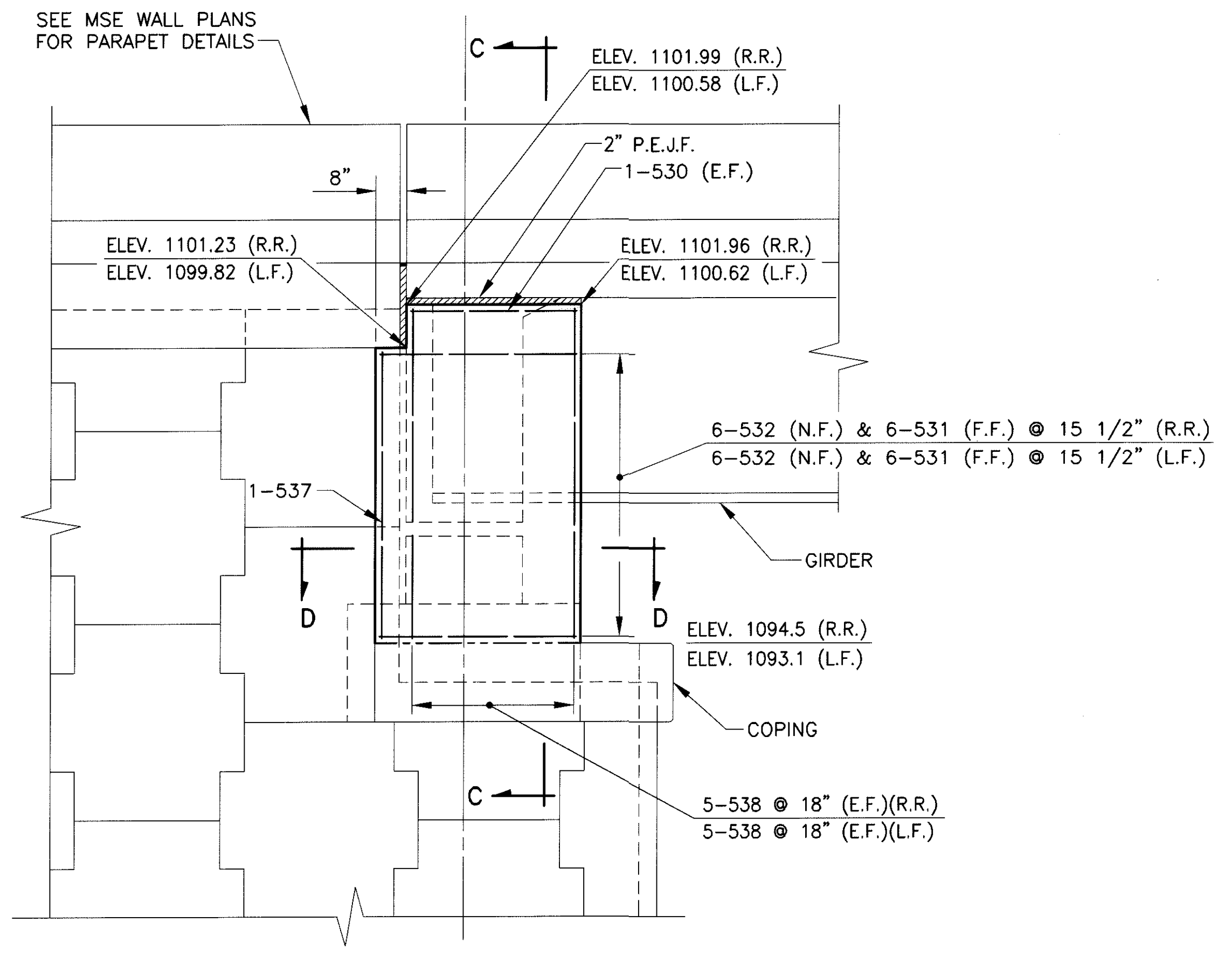
**NOTES:**

- ① ALL REINFORCING BARS SHALL BE PREFIXED A (ABUTMENT).
- ② FOR REINFORCING SCHEDULE SEE SHEET 19/21.

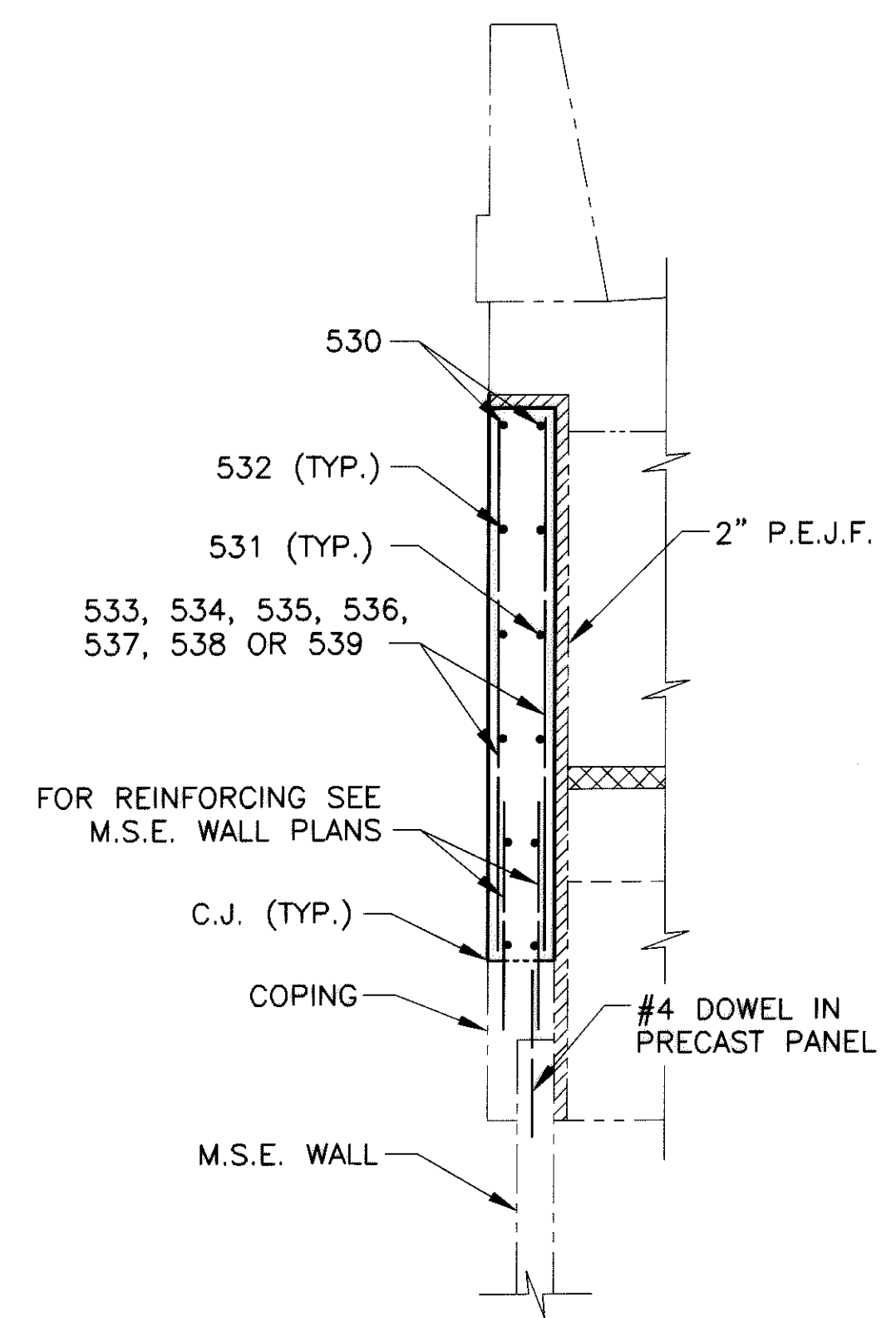
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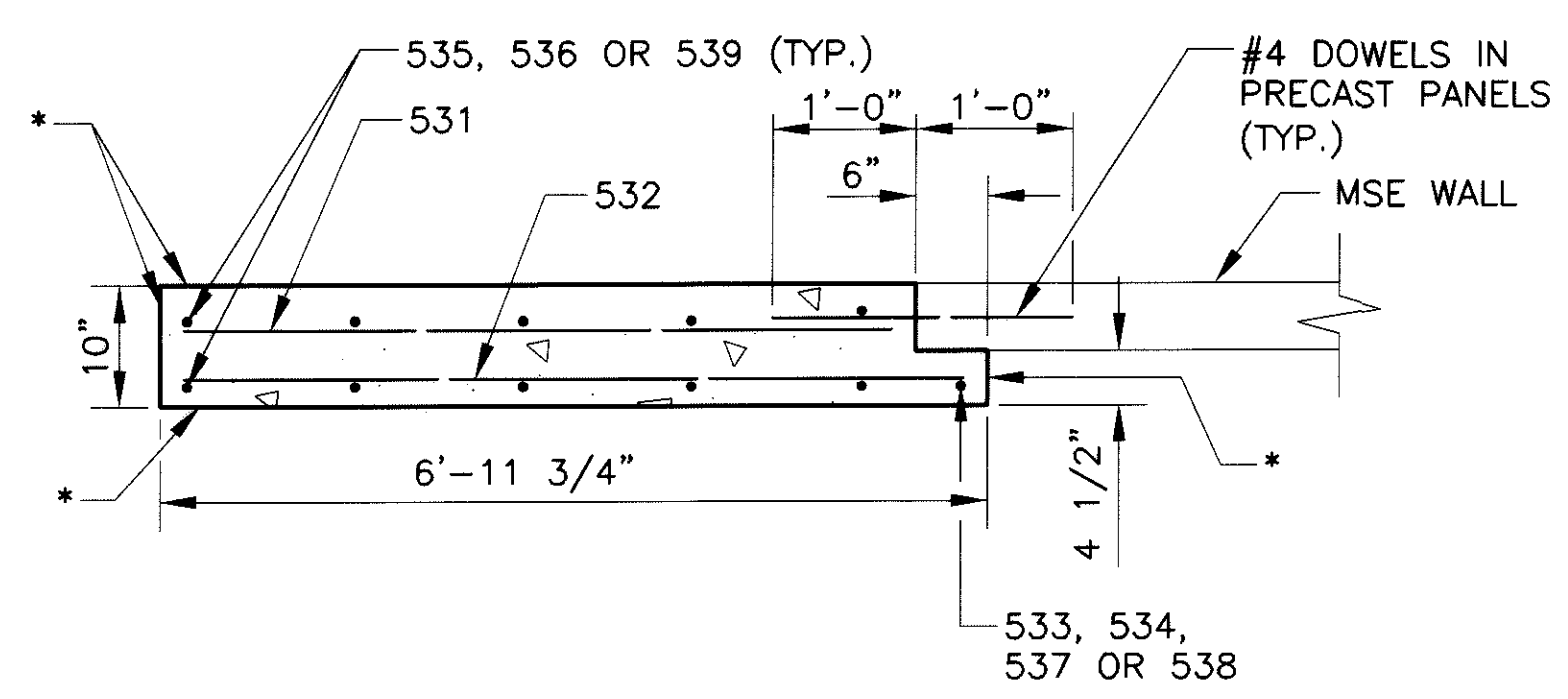
**LEFT REAR AND RIGHT FORWARD CURTAIN WALL ELEVATION**



**RIGHT REAR AND LEFT FORWARD CURTAIN WALL ELEVATION**



**SECTION C-C**



**SECTION D-D**

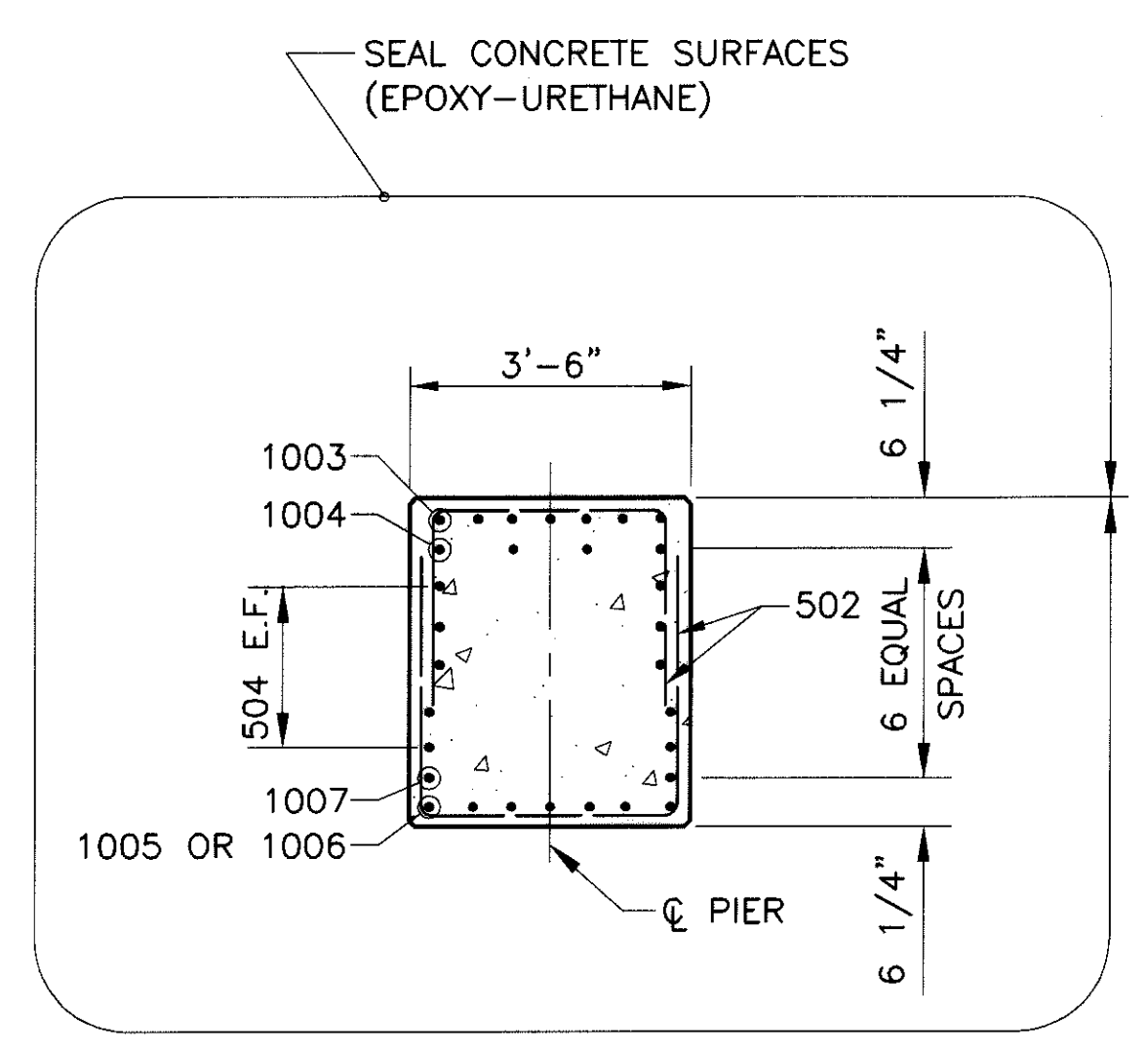
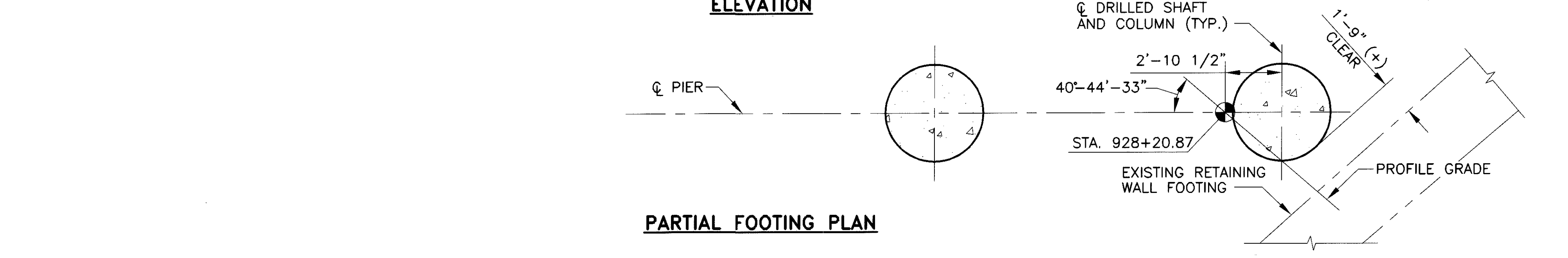
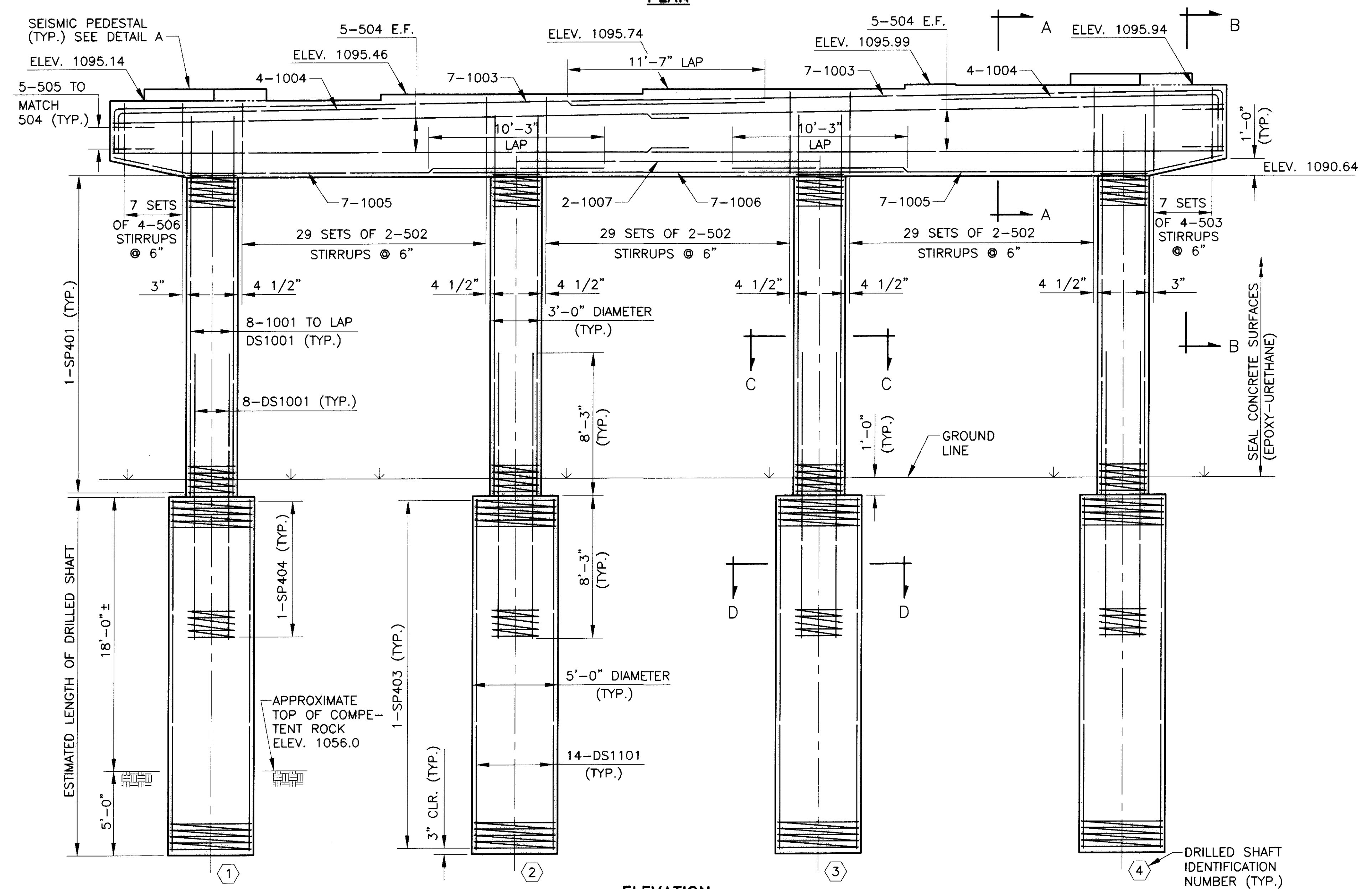
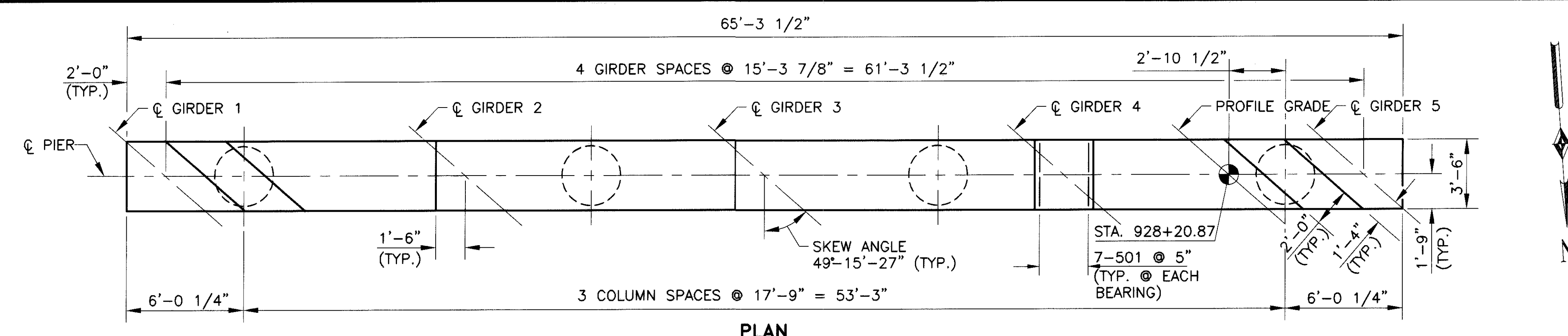
(LEFT REAR AND RIGHT FORWARD SHOWN,  
 RIGHT REAR AND LEFT FORWARD OPPOSITE HAND)

\* SEAL CONCRETE SURFACES (EPOXY-URETHANE)

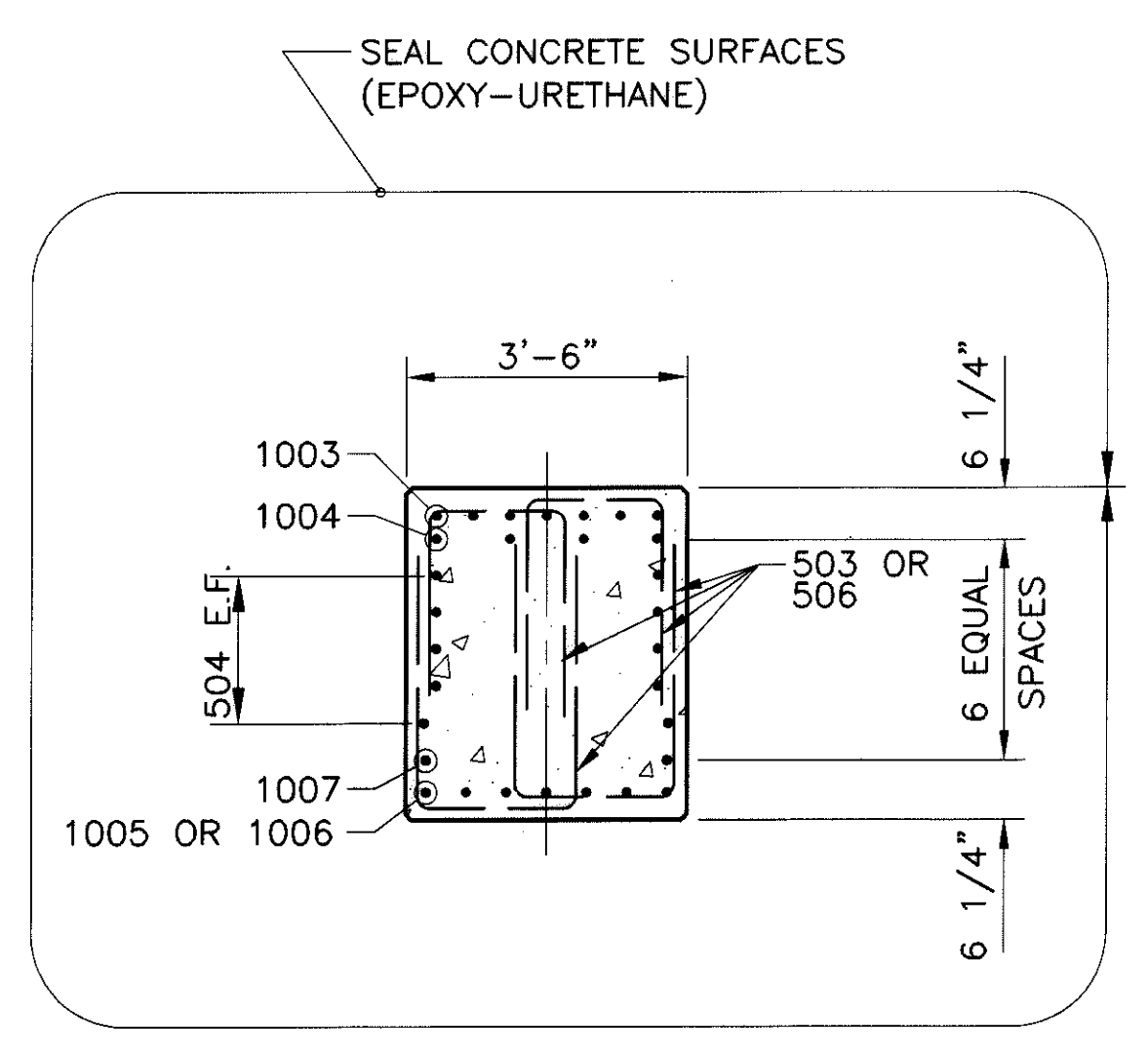
**NOTES:**

① FOR NOTES SEE SHEET 8/21.

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**SECTION A-A**



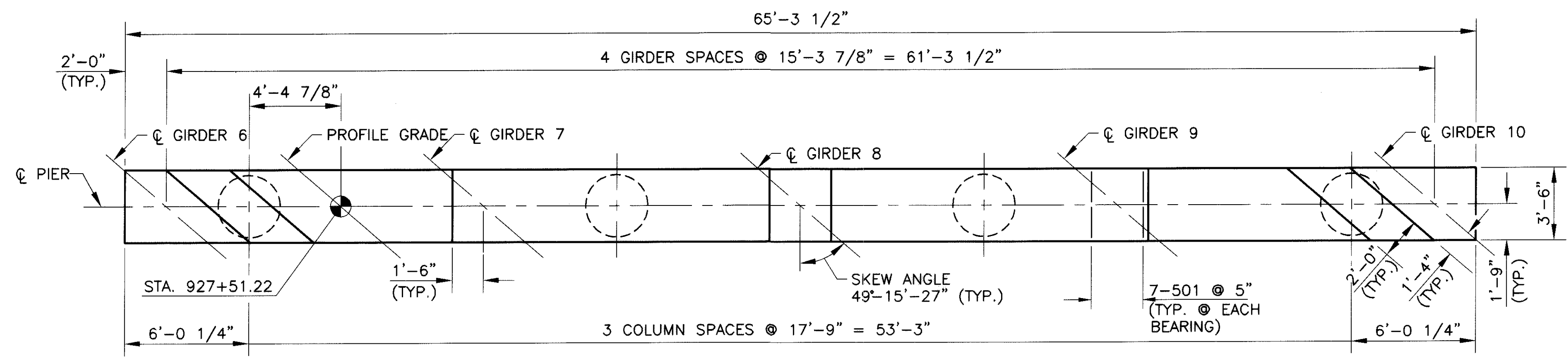
**SECTION B-B**

**MINIMUM LAP LENGTH**  
NO. 5 BAR = 2'-9"

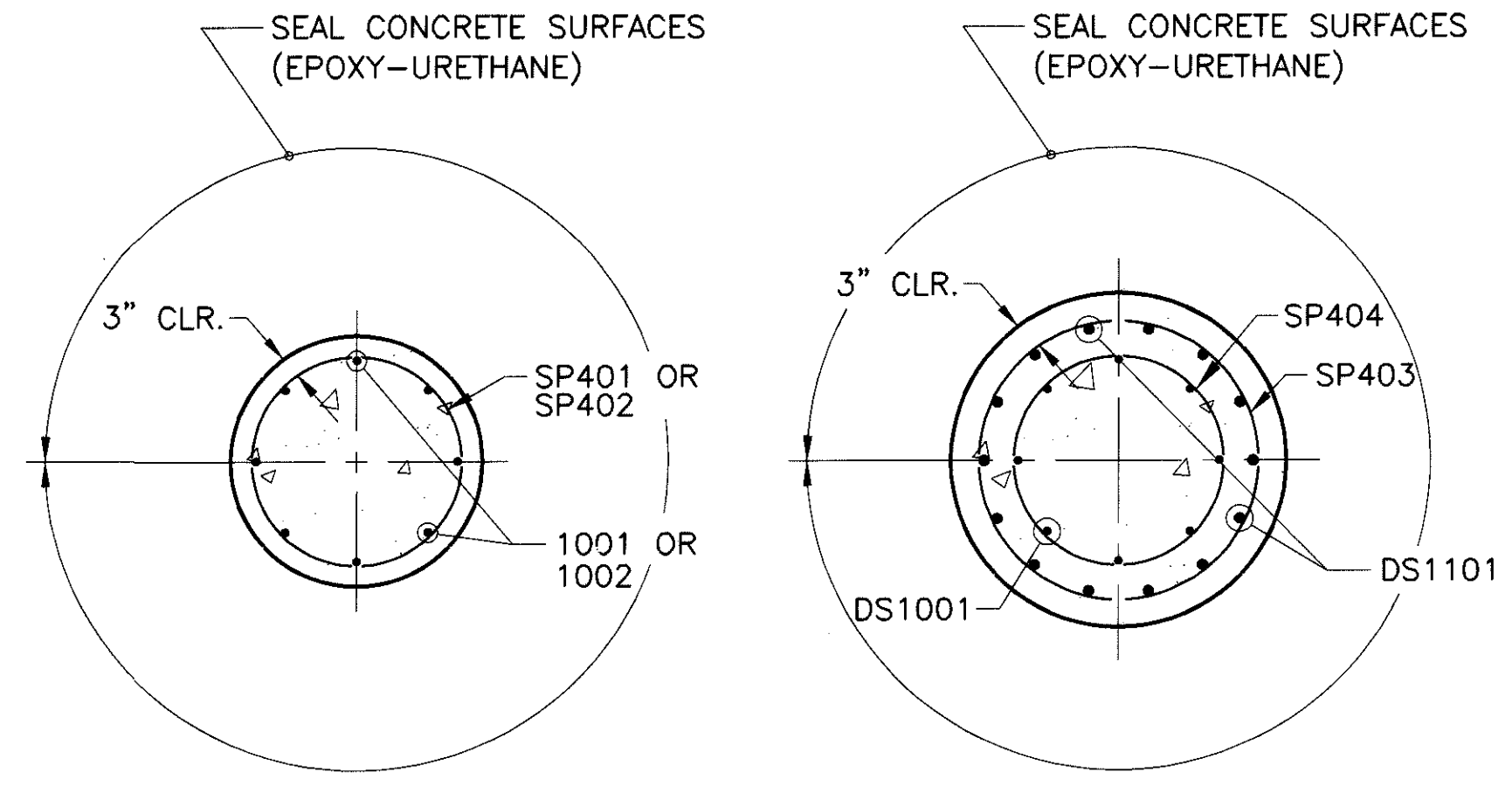
**NOTES:**

- ① FOR SECTIONS C-C, D-D AND DETAIL A SEE SHEET 11/21.
- ② ALL REINFORCING BARS SHALL BE PREFIXED P (PIER), UNLESS OTHERWISE NOTED.
- ③ FOR ELASTOMERIC BEARING DETAILS SEE SHEET 18/21.
- ④ FOR REINFORCING SCHEDULE SEE SHEET 20/21.
- ⑤ COLUMN SPIRAL REINFORCEMENT SHALL BE EMBEDDED A MINIMUM OF 2" INTO PIER CAP CONCRETE.
- ⑥ SURFACE UNDER BEARINGS: SPECIAL CARE SHALL BE TAKEN TO FINISH THE CONCRETE UNDER THE BEARINGS TO A FLAT, LEVEL SURFACE. THE CONCRETE SURFACE SHALL BE STEEL TROWEL FINISHED WITHOUT BRUSHING AND THE FLATNESS OF THE FINISHED SURFACE SHALL NOT VARY FROM A STRAIGHT EDGE LAID ON THE SURFACE IN ANY DIRECTION WITHIN THE LIMITS OF THE BEARING FOOTPRINT BY MORE THAN 1/16 INCH. SURFACES WHICH FAIL TO CONFORM TO THE REQUIRED FLATNESS SHALL BE GROUND UNTIL ACCEPTABLE.
- ⑦ SEE PARTIAL FOOTING PLAN THIS SHEET FOR LOCATION OF EXISTING RETAINING WALL FOOTING.

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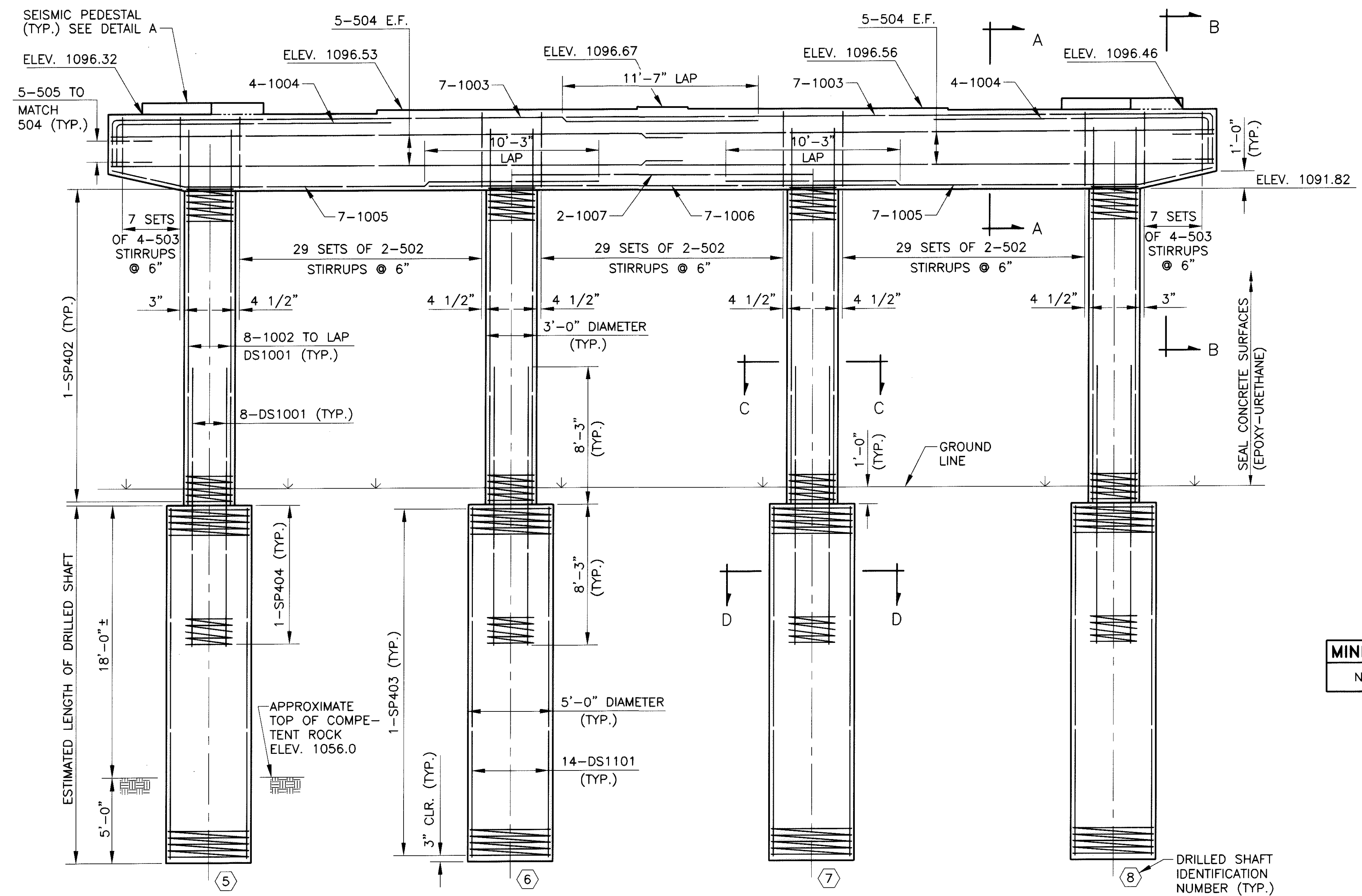


**PLAN**

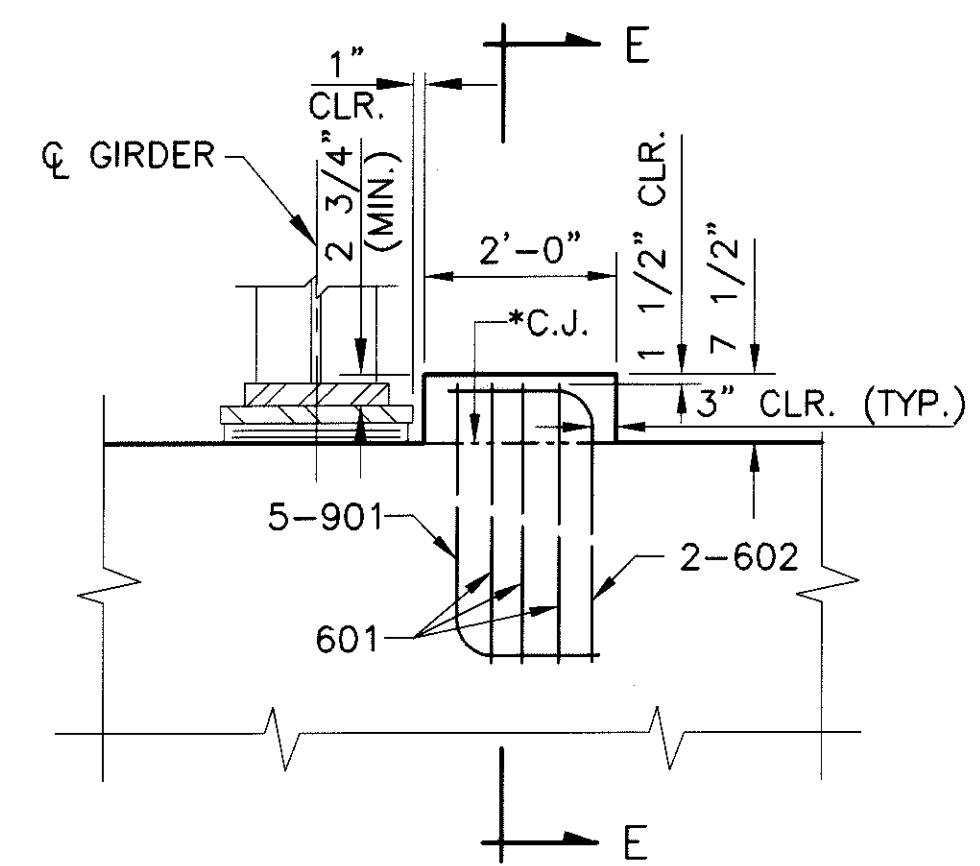


**SECTION C-C**

**SECTION D-D**

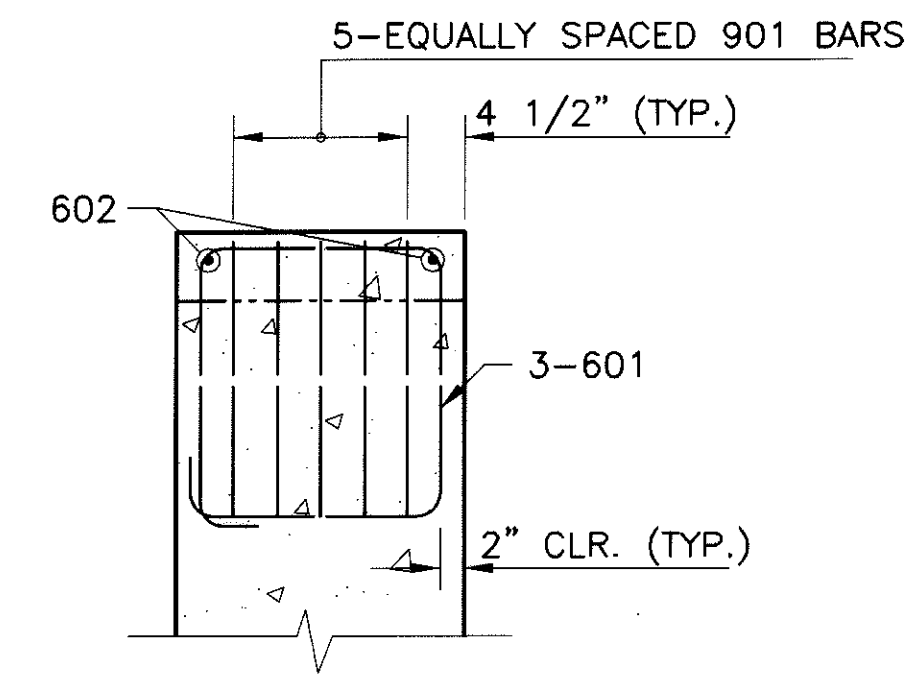


**ELEVATION**



**DETAIL A**

THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE 901 BARS.  
\* THE TOP OF THE PIER IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



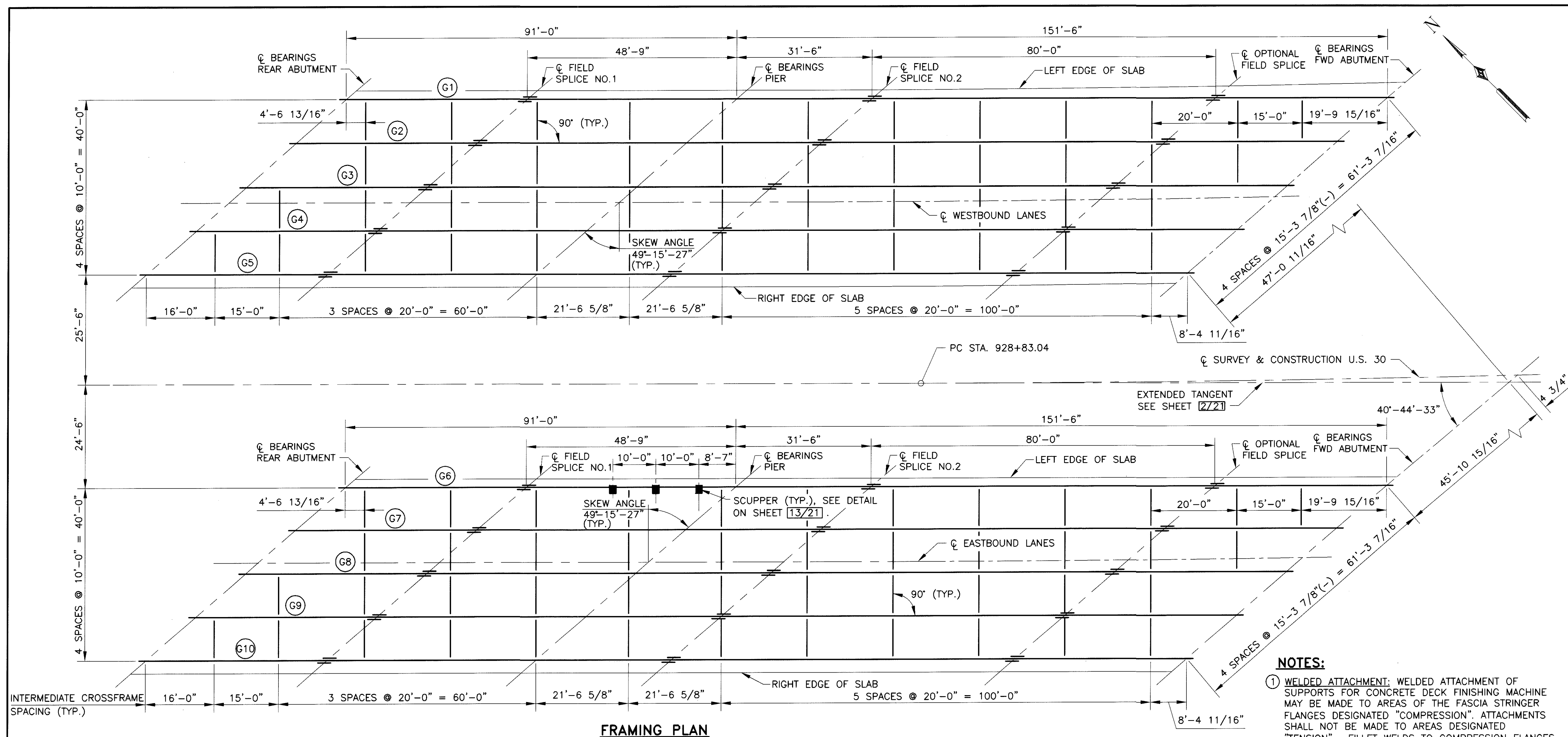
**SECTION E-E**

**MINIMUM LAP LENGTH**  
NO. 5 BAR = 2'-9"

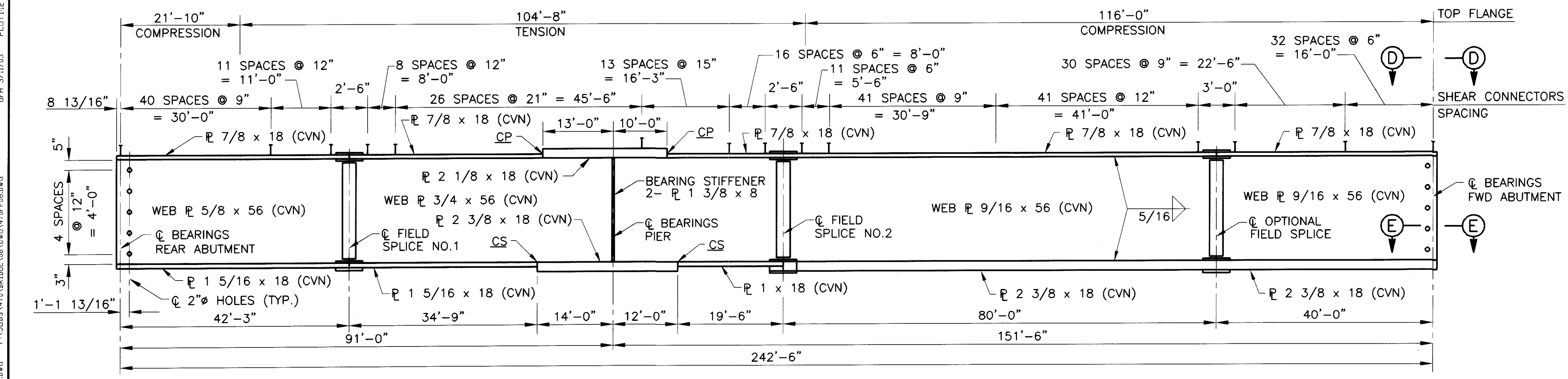
**NOTES:**

- ① FOR SECTIONS A-A AND B-B SEE SHEET [10/21].
- ② FOR ADDITIONAL NOTES SEE SHEET [10/21].

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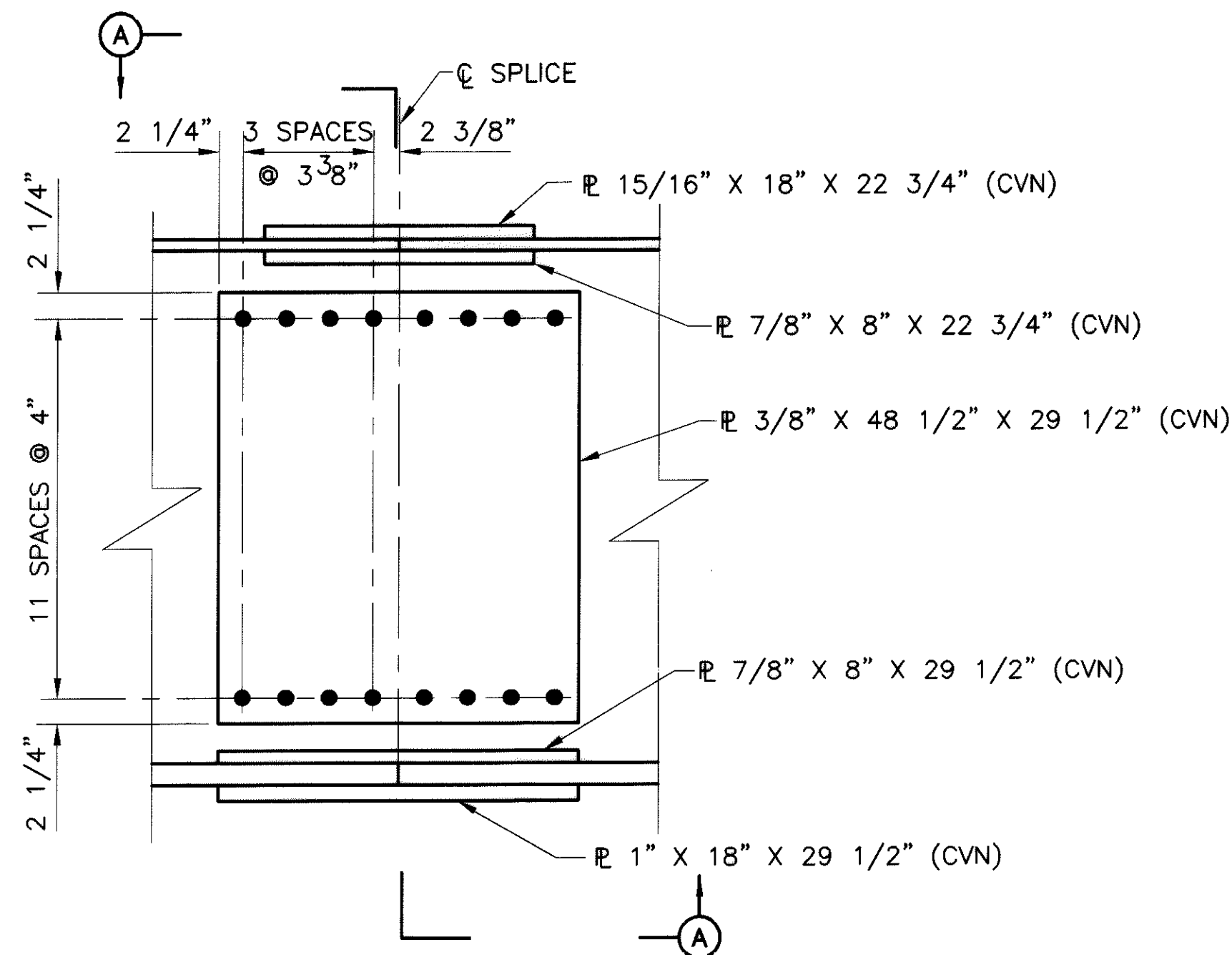
**FRAMING PLAN**



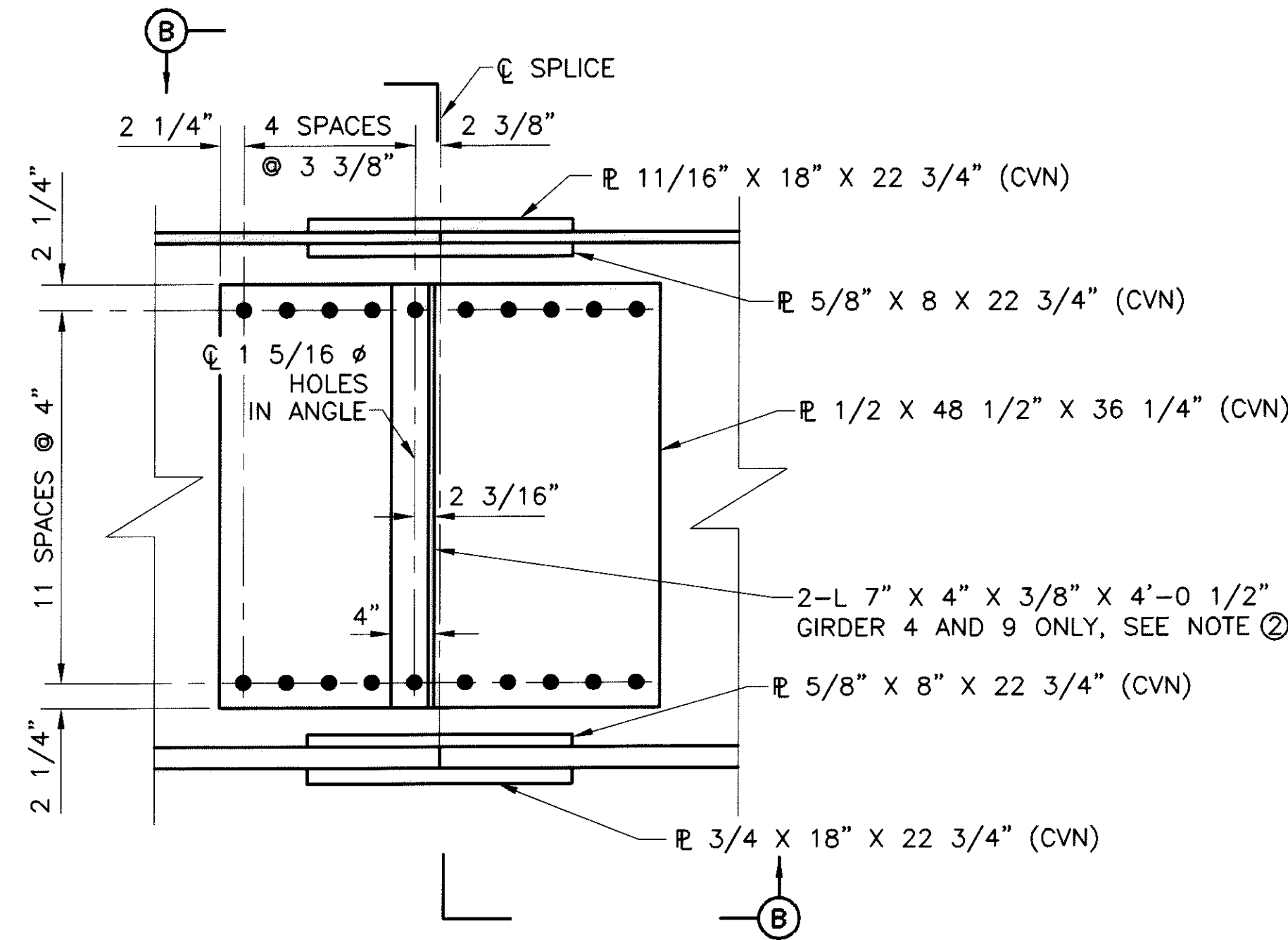
**TYPICAL GIRDER ELEVATION**

- NOTES:**
- WELDED ATTACHMENT:** WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE 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 NOT BE CLOSER THAN 1" FROM EDGE OF FLANGE, BE NOT MORE THAN 2" LONG, AND BE NOT SMALLER THAN 1/4" FOR THICKNESSES UP TO 3/4" AND 5/16" FOR GREATER THAN 3/4" THICK.
  - CHARPY V-NOTCH TOUGHNESS:** WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
  - INTERMEDIATE CROSSFRAMES** SHALL BE TYPE 4 WITH L4x4x3/8 ANGLES. SEE OHIO STANDARD DRAWING GSD-1-96 FOR ADDITIONAL NOTES AND DETAILS.
  - WELD REINFORCEMENT** FOR FULL PENETRATION JOINT WELDS SHALL BE REMOVED BY GRINDING IN THE DIRECTION OF THE MAIN STRESSES.
  - FOR BEARING STIFFENER DETAILS** SEE ODOT STANDARD DRAWING GSD-1-96 SHEET 2 OF 3.
  - CS** = INDICATES BUTT WELD SUBJECT TO COMPRESSIVE STRESSES ONLY.  
**CP** = COMPLETE JOINT PENETRATION WELD.
  - FOR BEARING DETAILS** SEE SHEET [18/21].
  - FOR SPLICE DETAILS,** SECTION D-D, E-E AND ADDITIONAL NOTES SEE SHEET [13/21].

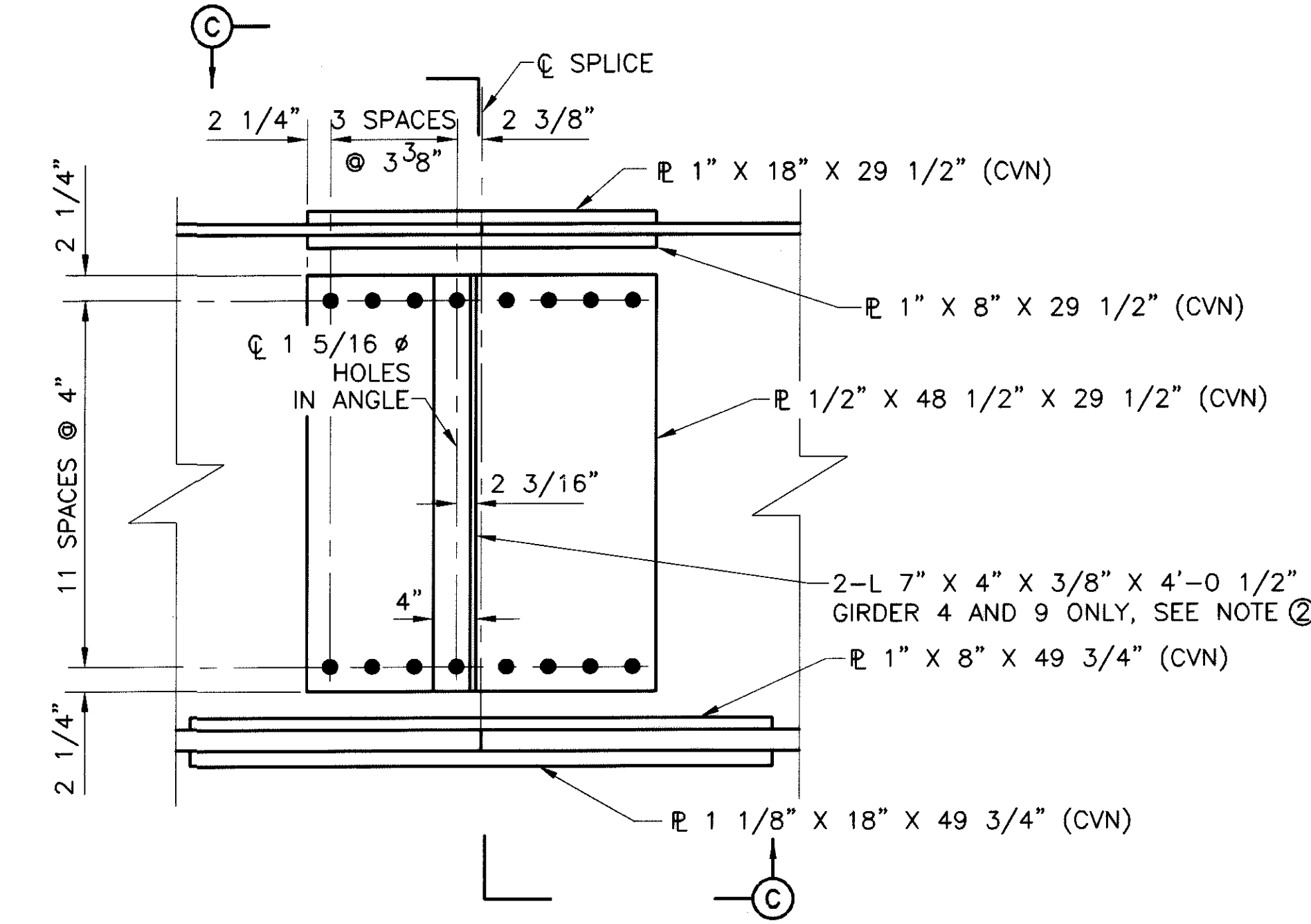
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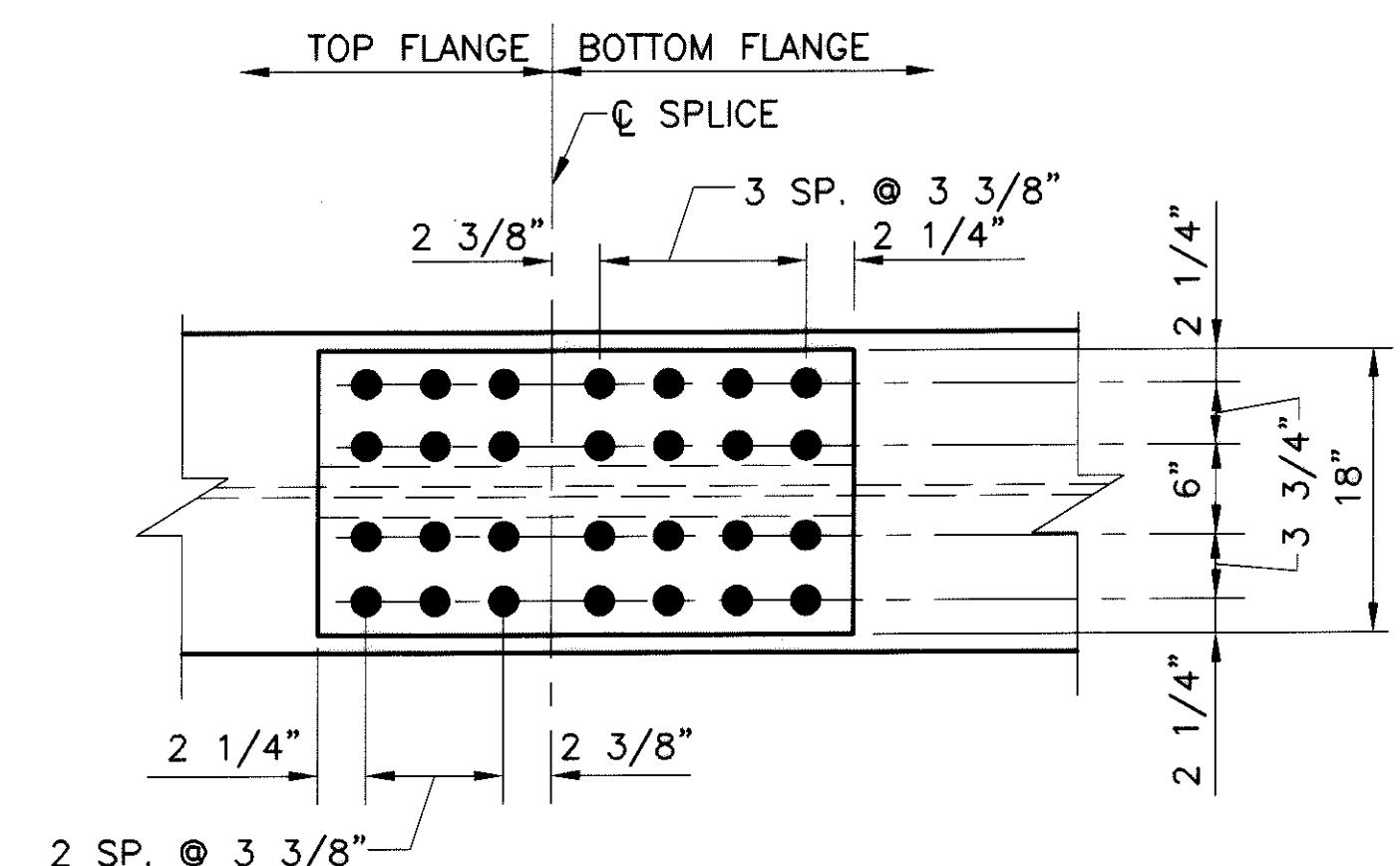
**GIRDER FIELD SPLICE DETAIL NO. 1**



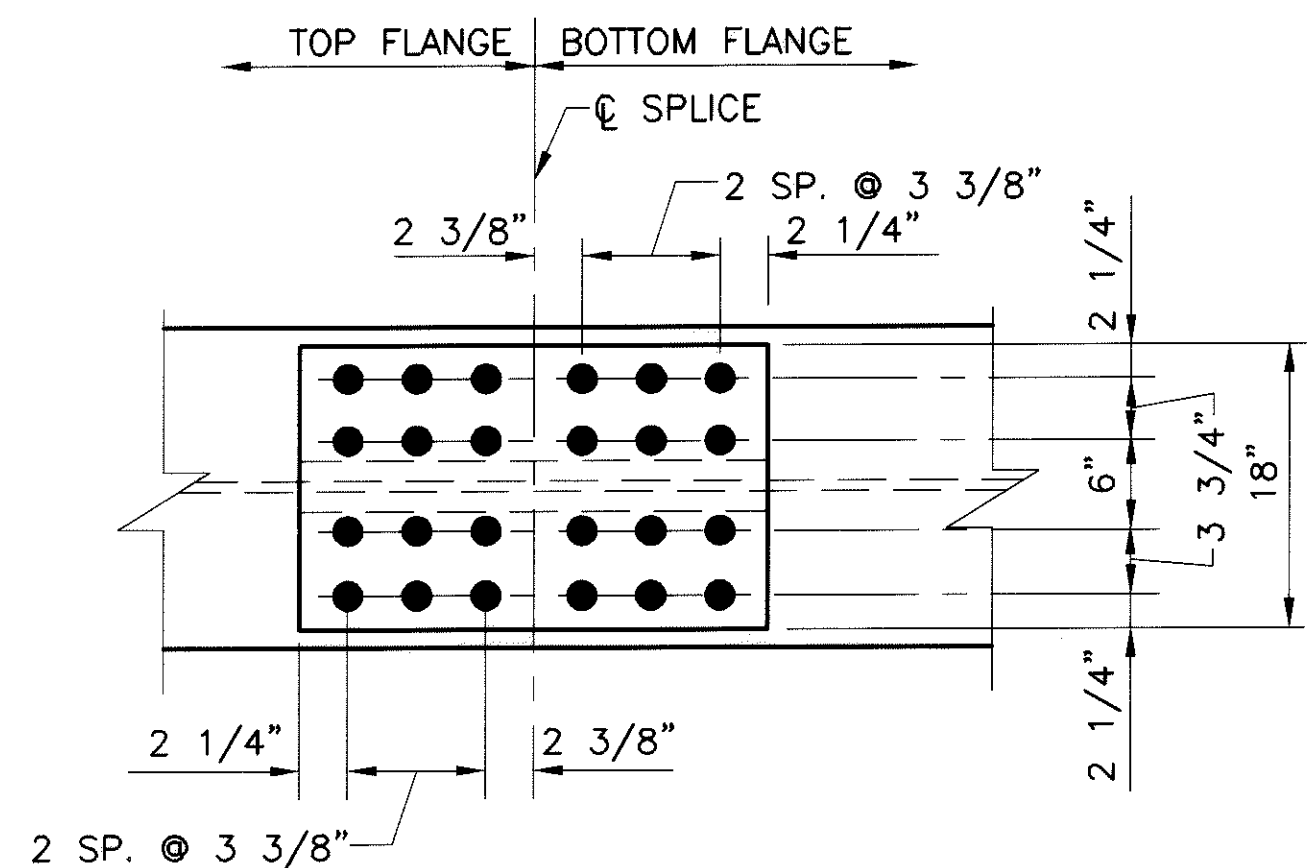
**GIRDER FIELD SPLICE DETAIL NO. 2**



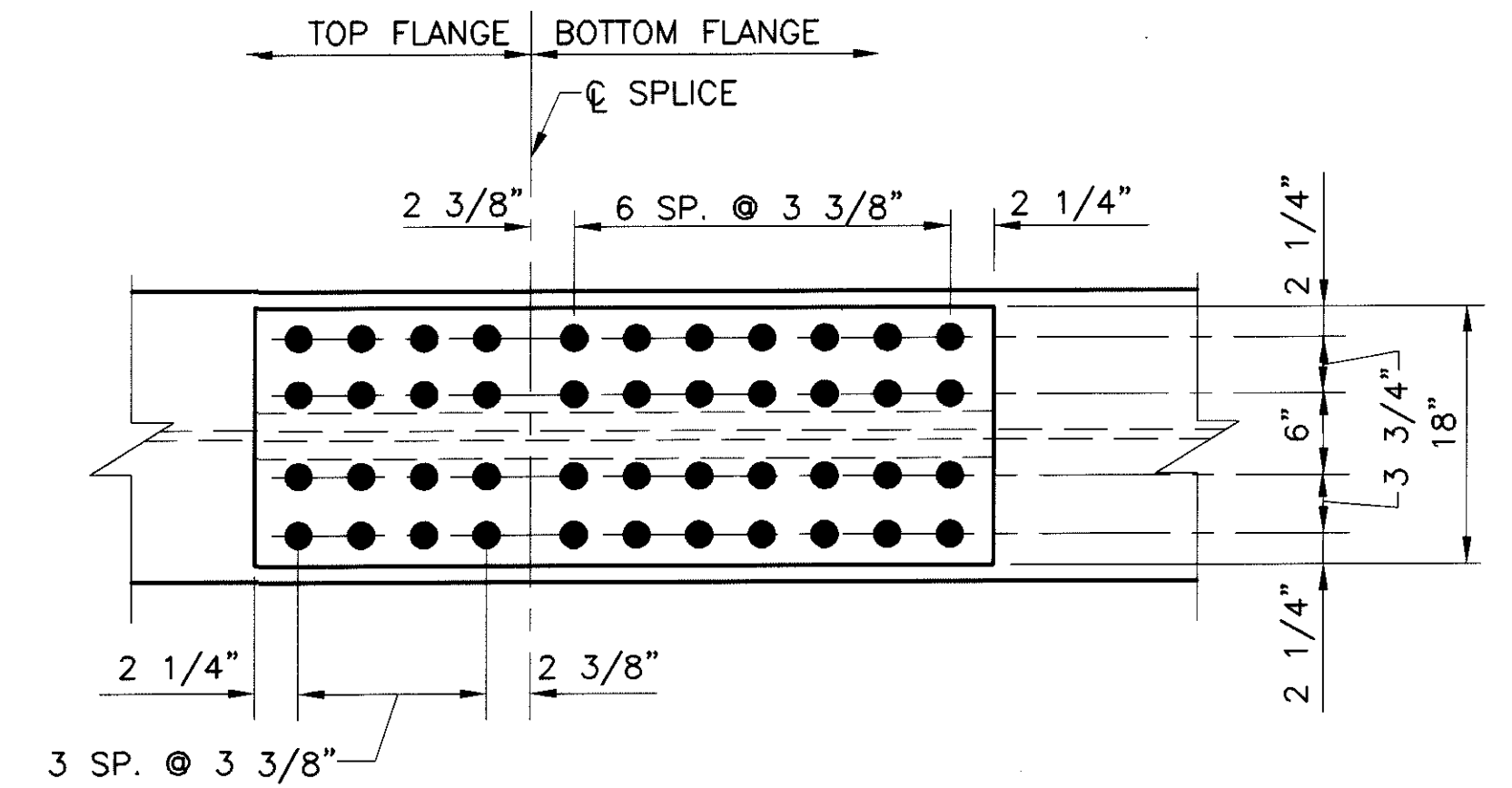
**OPTIONAL GIRDER FIELD SPLICE DETAIL**



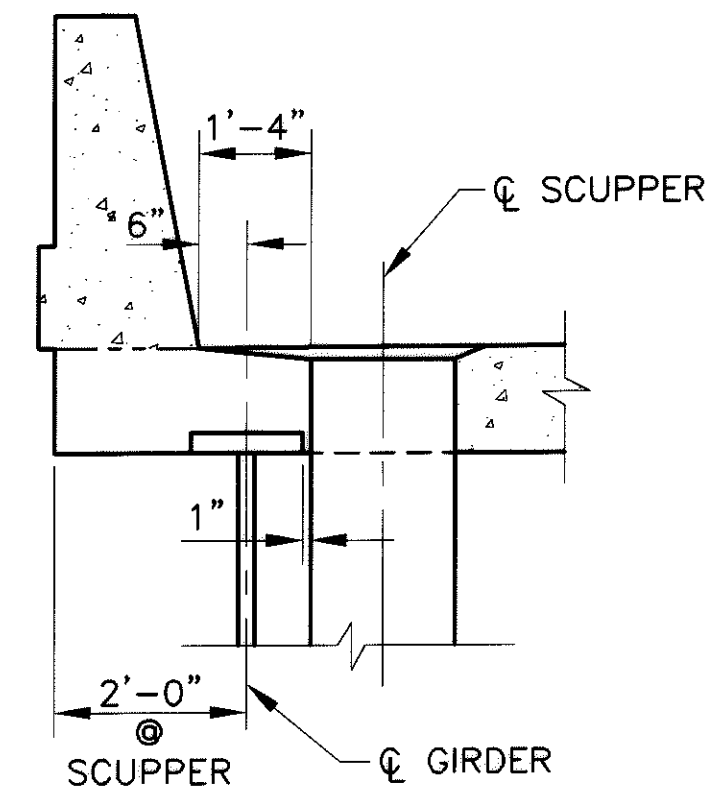
**SECTION A-A**



**SECTION B-B**

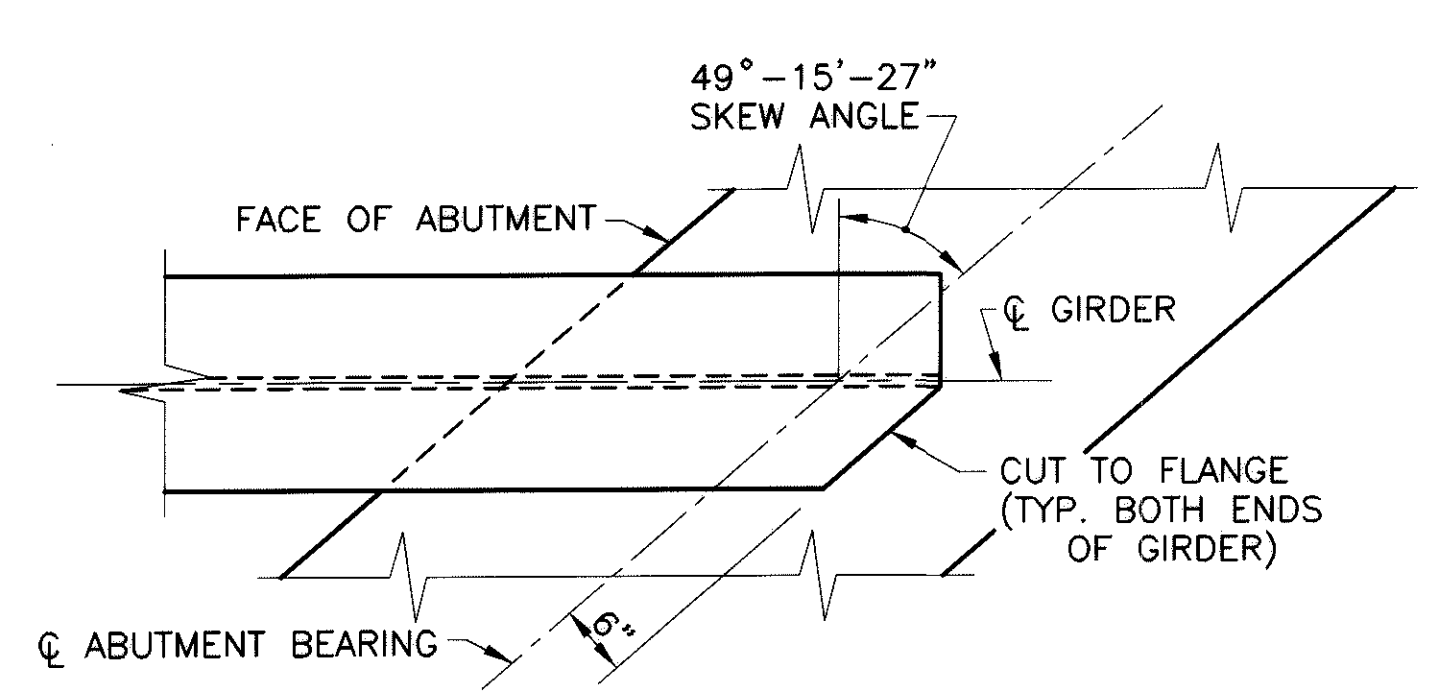


**SECTION C-C**

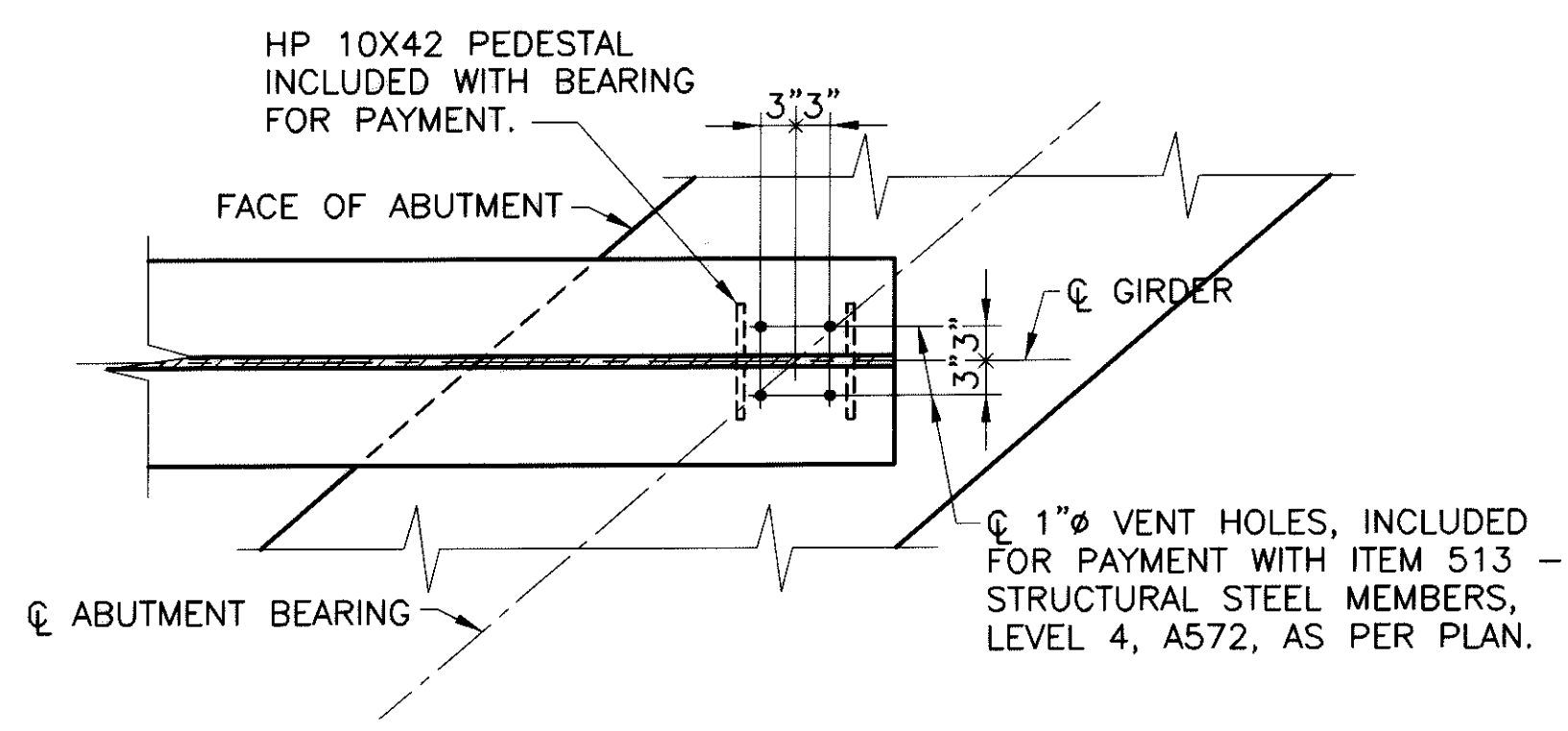


**SCUPPER DETAIL**

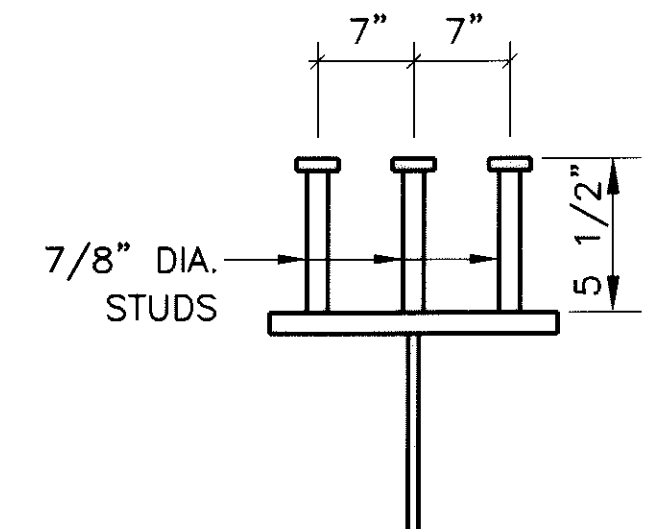
FOR ADDITIONAL NOTES AND DETAILS SEE ODOT STANDARD DRAWING GSD-1-96 SHEET 3/3



**SECTION D-D**  
(STUDS NOT SHOWN)



**SECTION E-E**



**SHEAR CONNECTOR DETAIL**

**NOTES:**

- HIGH STRENGTH BOLTS, TYPE 1, SHALL BE 1 1/8" DIAMETER A325, GALVANIZED, UNLESS OTHERWISE NOTED.
- SEE DETAIL "F" ODOT STANDARD DRAWING GSD-1-96 SHEET 1 OF 3 FOR ADDITIONAL DETAILS.
- FOR ADDITIONAL NOTES SEE SHEET 12/21.
- PAYMENT FOR DRILLING HOLES IN GIRDER WEBS INCLUDED WITH ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL 4, A572, AS PER PLAN.

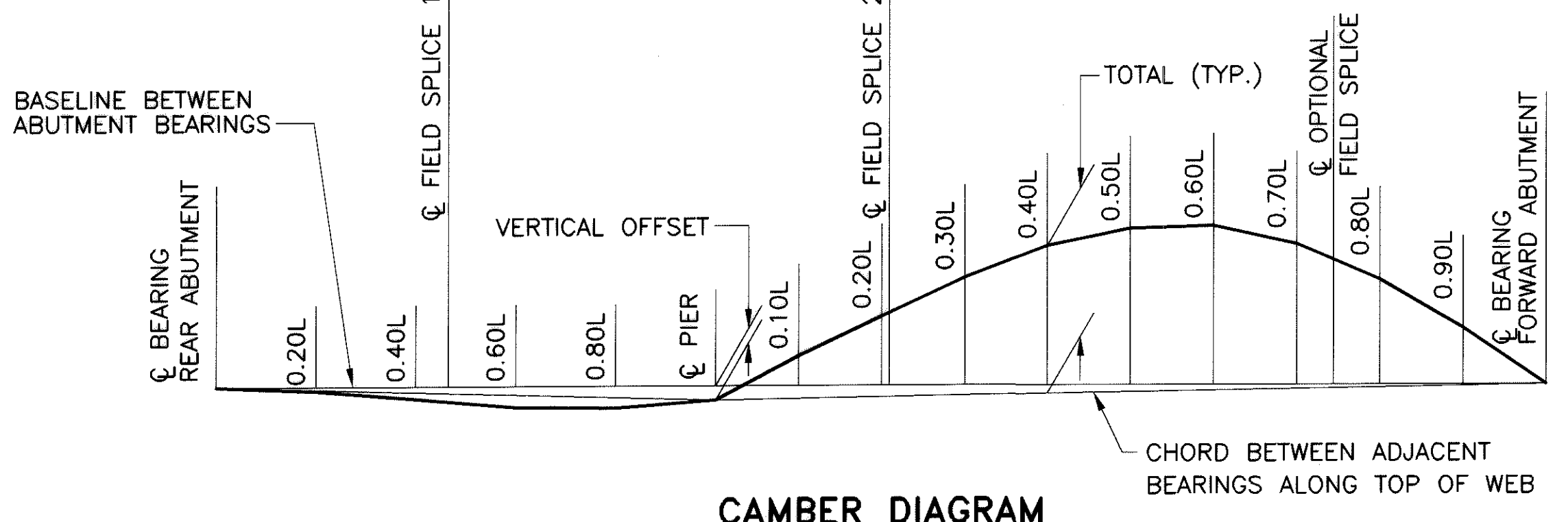
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 GFH 3/11/03 PLOT18



| DEFLECTION AND CAMBER (WESTBOUND)           |        |        |        |        |        |      |       |           |           |           |           |          |            |           |          |          |    |
|---|--------|--------|--------|--------|--------|------|-------|-----------|-----------|-----------|-----------|----------|------------|-----------|----------|----------|----|
| GIRDER 1                                    | SPAN 1 |        |        |        |        |      |       | SPAN 2    |           |           |           |          |            |           |          |          |    |
|   | RA     | 0.25L  | F.S. 1 | 0.50L  | 0.75L  | PIER | 0.10L | 0.20L     | F.S. 2    | 0.30L     | 0.40L     | 0.50L    | 0.60L      | 0.70L     | 0.80L    | 0.90L    | FA |
| DEFLECTION DUE TO WEIGHT OF STEEL           | 0"     | -1/16" | -1/8"  | -1/8"  | -3/16" | 0"   | 1/4"  | 9/16"     | 5/8"      | 7/8"      | 1 3/16"   | 1 5/16"  | 1 5/16"    | 1 3/16"   | 7/8"     | 1/2"     | 0" |
| DEFLECTION DUE TO REMAINING DEAD LOAD       | 0"     | -1/8"  | -3/8"  | -7/16" | -9/16" | 0"   | 7/8"  | 2 1/8"    | 2 1/4"    | 3 1/4"    | 4 3/16"   | 4 3/4"   | 4 3/4"     | 4 1/4"    | 3 3/16"  | 1 11/16" | 0" |
| ADJUSTMENT DUE TO SUPERELEVATION TRANSITION | 0"     | 3/16"  | 5/16"  | 3/8"   | 5/16"  | 0"   | -1/2" | -1 1/16"* | -1 1/16"* | -1 9/16"* | -2 1/16"* | -2 1/2"* | -2 11/16"* | -2 1/16"* | -1 3/8"* | -11/16"* | 0" |
| TOTAL CAMBER                                | 0"     | 0"     | -3/16" | -3/16" | -7/16" | 0"   | 5/8"  | 1 5/8"    | 1 13/16"  | 2 9/16"   | 3 5/16"   | 3 9/16"  | 3 3/8"     | 3 3/8"    | 2 11/16" | 1 1/2"   | 0" |

| DEFLECTION AND CAMBER (EASTBOUND)           |        |        |        |        |        |      |         |        |         |        |          |         |         |          |         |          |    |
|---|--------|--------|--------|--------|--------|------|---------|--------|---------|--------|----------|---------|---------|----------|---------|----------|----|
| GIRDER 6                                    | SPAN 1 |        |        |        |        |      |         | SPAN 2 |         |        |          |         |         |          |         |          |    |
|   | RA     | 0.25L  | F.S. 1 | 0.50L  | 0.75L  | PIER | 0.10L   | 0.20L  | F.S. 2  | 0.30L  | 0.40L    | 0.50L   | 0.60L   | 0.70L    | 0.80L   | 0.90L    | FA |
| DEFLECTION DUE TO WEIGHT OF STEEL           | 0"     | -1/16" | -1/8"  | -1/8"  | -3/16" | 0"   | 1/4"    | 9/16"  | 5/8"    | 7/8"   | 1 3/16"  | 1 5/16" | 1 5/16" | 1 3/16"  | 7/8"    | 1/2"     | 0" |
| DEFLECTION DUE TO REMAINING DEAD LOAD       | 0"     | -1/8"  | -3/8"  | -7/16" | -9/16" | 0"   | 7/8"    | 2 1/8" | 2 1/4"  | 3 1/4" | 4 3/16"  | 4 3/4"  | 4 3/4"  | 4 1/4"   | 3 3/16" | 1 11/16" | 0" |
| ADJUSTMENT DUE TO SUPERELEVATION TRANSITION | 0"     | 0"     | 0"     | 0"     | 0"     | 0"   | 1/16"   | 3/16"  | 3/16"   | 1/4"   | 5/16"    | 3/8"    | 5/16"   | 1/4"     | 1/8"    | 1/16"    | 0" |
| TOTAL CAMBER                                | 0"     | -3/16" | -1/2"  | -9/16" | -3/4"  | 0"   | 1 3/16" | 2 7/8" | 3 1/16" | 4 3/8" | 5 11/16" | 6 7/16" | 6 3/8"  | 5 11/16" | 4 3/16" | 2 1/4"   | 0" |

L = SPAN LENGTH



| VERTICAL OFFSET |          |
|-----------------|----------|
| GIRDER NO.      | PIER     |
| WESTBOUND       |          |
| G1              | -1 1/8"  |
| G2              | -1 1/16" |
| G3              | -1 1/2"  |
| G4              | -7/8"    |
| G5              | -3/4"    |
| EASTBOUND       |          |
| G6              | 5/16"    |
| G7              | -1/4"    |
| G8              | -15/16"  |
| G9              | -2 7/16" |
| G10             | -1 1/16" |

**NOTES:**  
 NOTE: NEGATIVE VALUES INDICATE DIMENSIONS BELOW THE BASELINE BETWEEN ABUTMENT BEARINGS.  
 ① DEFLECTION ADJUSTMENTS ARE GIVEN TO THE NEAREST 1/16 INCH. NEGATIVE VALUES INDICATE DIMENSIONS BELOW THE CHORD LINES.

|  |               |
|--|---------------|
| <b>EUTHENALS INC.</b><br>CONSULTING ENGINEERS<br>CLEVELAND, OHIO | DESIGN AGENCY |
| DATE<br>9-02   | REVIEWED      |
| STRUCTURE FILE NUMBER<br>8502269/8502277                         | RAB           |
| DRAWN YRY  | REVISD        |
| DESIGNED YRY   | CHECKED RSY   |
| <b>SUPERSTRUCTURE DETAILS</b>                                    |               |
| BRIDGE NO. WAY-30-1752 L&R                                       |               |
| U.S. 30 OVER EXISTING 30 (LINCOLN WAY)                           |               |
| <b>WAY-30-15.96</b>  |               |
| 14 / 21  | 558<br>656    |

V:\PROJECTS\1752 BRIDGE\1752-15.96\1752-15.96.DWG  
 PLOT: 18  
 YRY 6/20/02

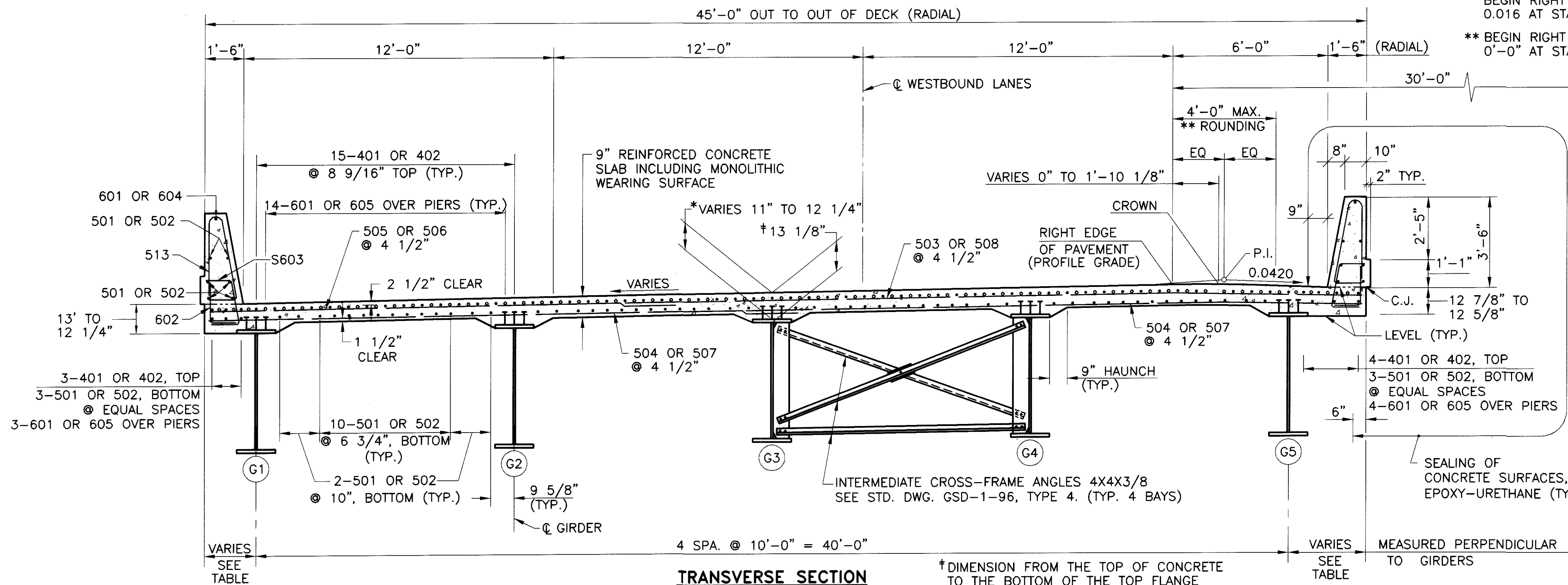
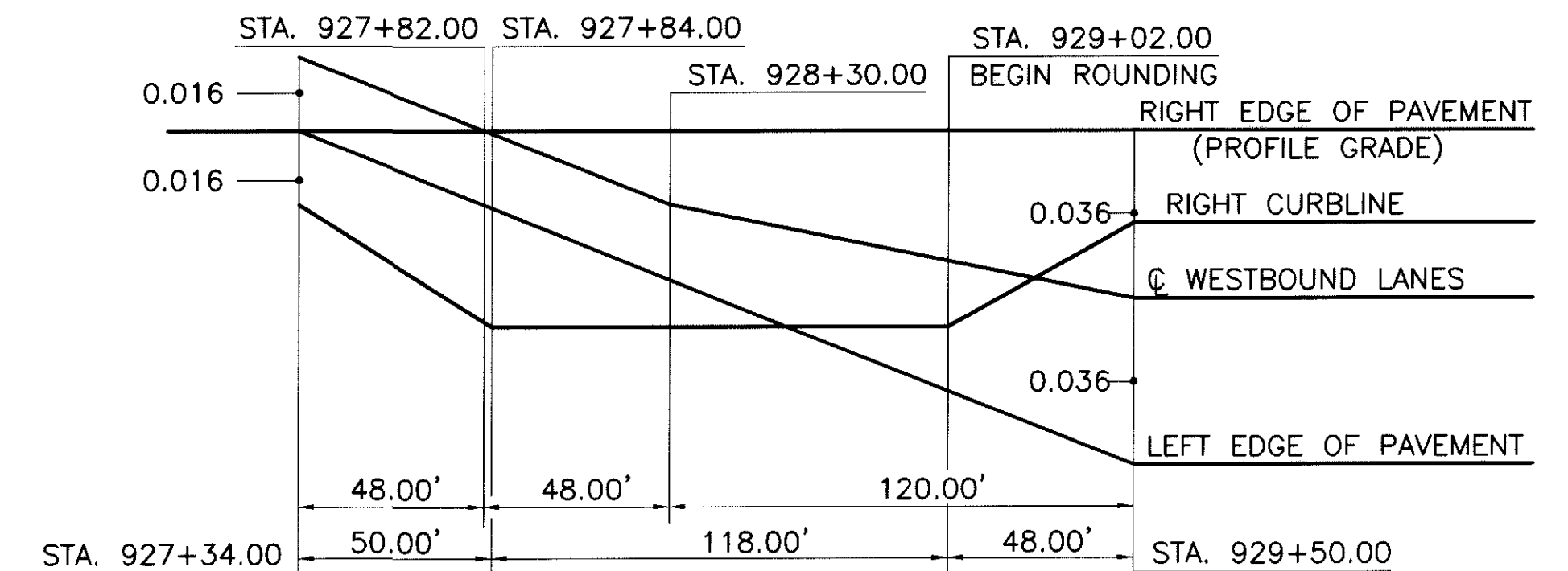
**SCREED TABLE**

| SPAN NO.  | LOCATION   | LEFT CURBLINE |                  | G1        |                  | G2        |                  | G3        |                  | CENTERLINE W.B. LANES |                  | G4        |                  | RIGHT EDGE OF PAVEMENT |                  | CROWN      |                  | G5        |                  | RIGHT CURBLINE |                  |         |
|-----------|------------|---------------|------------------|-----------|------------------|-----------|------------------|-----------|------------------|-----------------------|------------------|-----------|------------------|------------------------|------------------|------------|------------------|-----------|------------------|----------------|------------------|---------|
|           |            | STATION       | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION               | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION                | SCREED ELEVATION | STATION    | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION        | SCREED ELEVATION | STATION |
| SPAN 1    | REAR ABUT. | 927+71.66     | 1102.33          | 927+71.08 | 1102.35          | 927+59.47 | 1102.61          | 927+47.86 | 1102.87          | 927+43.80             | 1102.96          | 927+36.26 | 1102.93          | 927+29.87              | 1102.88          | -          | -                | 927+24.65 | 1102.83          | 927+22.91      | 1102.81          |         |
|           | 0.25 L     | 927+94.41     | 1102.12          | 927+93.83 | 1102.13          | 927+82.22 | 1102.39          | 927+70.61 | 1102.66          | 927+66.55             | 1102.75          | 927+59.01 | 1102.77          | 927+52.62              | 1102.75          | -          | -                | 927+47.40 | 1102.68          | 927+45.66      | 1102.66          |         |
|           | F.S. 1     | 928+13.91     | 1101.93          | 928+13.33 | 1101.94          | 928+01.72 | 1102.20          | 927+90.11 | 1102.46          | 927+86.05             | 1102.55          | 927+78.51 | 1102.61          | 927+72.12              | 1102.64          | -          | -                | 927+66.90 | 1102.52          | 927+65.16      | 1102.48          |         |
|           | 0.05       | 928+17.16     | 1101.90          | 928+16.58 | 1101.91          | 928+04.97 | 1102.17          | 927+93.36 | 1102.43          | 927+89.30             | 1102.52          | 927+81.76 | 1102.59          | 927+75.37              | 1102.62          | -          | -                | 927+70.15 | 1102.49          | 927+68.41      | 1102.45          |         |
|           | 0.75 L     | 928+39.91     | 1101.66          | 928+39.33 | 1101.68          | 928+27.72 | 1101.95          | 928+16.11 | 1102.21          | 928+12.05             | 1102.31          | 928+04.51 | 1102.42          | 927+98.12              | 1102.50          | -          | -                | 927+92.90 | 1102.34          | 927+91.16      | 1102.28          |         |
| SPAN 2    | PIER       | 928+62.66     | 1101.47          | 928+62.08 | 1101.48          | 928+50.47 | 1101.80          | 928+38.86 | 1102.08          | 928+34.80             | 1102.17          | 928+27.26 | 1102.33          | 928+20.87              | 1102.44          | -          | -                | 928+15.65 | 1102.28          | 928+13.91      | 1102.22          |         |
|           | 0.10 L     | 928+77.81     | 1101.38          | 928+77.23 | 1101.39          | 928+65.62 | 1101.75          | 928+54.01 | 1102.06          | 928+49.95             | 1102.15          | 928+42.41 | 1102.32          | 928+36.02              | 1102.45          | -          | -                | 928+30.80 | 1102.28          | 928+29.06      | 1102.22          |         |
|           | 0.20 L     | 928+93.09     | 1101.32          | 928+92.49 | 1101.34          | 928+80.77 | 1101.74          | 928+69.16 | 1102.07          | 928+65.10             | 1102.17          | 928+57.56 | 1102.36          | 928+51.17              | 1102.49          | -          | -                | 928+45.95 | 1102.31          | 928+44.21      | 1102.25          |         |
|           | F.S. 2     | 928+94.30     | 1101.31          | 928+93.70 | 1101.33          | 928+81.97 | 1101.73          | 928+70.36 | 1102.07          | 928+66.30             | 1102.17          | 928+58.76 | 1102.36          | 928+52.37              | 1102.49          | -          | -                | 928+47.15 | 1102.31          | 928+45.41      | 1102.26          |         |
|           | 0.30 L     | 929+08.47     | 1101.24          | 929+07.82 | 1101.26          | 928+96.05 | 1101.71          | 928+84.32 | 1102.06          | 928+80.25             | 1102.18          | 928+72.71 | 1102.38          | 928+66.32              | 1102.51          | -          | -                | 928+61.10 | 1102.33          | 928+59.36      | 1102.27          |         |
|           | 0.40 L     | 929+23.90     | 1101.16          | 929+23.14 | 1101.18          | 929+11.35 | 1101.66          | 928+99.60 | 1102.05          | 928+95.51             | 1102.17          | 928+87.89 | 1102.39          | 928+81.47              | 1102.53          | -          | -                | 928+76.25 | 1102.33          | 928+74.51      | 1102.28          |         |
|           | 0.50 L     | 929+39.38     | 1101.03          | 929+38.46 | 1101.07          | 929+26.64 | 1101.58          | 929+14.87 | 1101.99          | 929+10.83             | 1102.12          | 929+03.13 | 1102.36          | 928+96.71              | 1102.50          | -          | -                | 928+91.43 | 1102.31          | 928+89.69      | 1102.25          |         |
|           | 0.60 L     | 929+54.91     | 1100.90          | 929+53.79 | 1100.94          | 929+41.94 | 1101.45          | 929+30.14 | 1101.88          | 929+26.21             | 1102.02          | 929+18.37 | 1102.27          | -                      | -                | 929+11.63  | 0'-3 7/8"        | 1102.44   | 929+06.65        | 1102.25        | 929+04.95        | 1102.19 |
|           | 0.70 L     | 929+70.49     | 1100.78          | 929+69.11 | 1100.83          | 929+57.24 | 1101.30          | 929+45.41 | 1101.72          | 929+41.63             | 1101.86          | 929+33.62 | 1102.14          | -                      | -                | 929+26.34  | 0'-10 1/4"       | 1102.32   | 929+21.87        | 1102.17        | 929+20.25        | 1102.12 |
|           | 0.80 L     | 929+86.12     | 1100.61          | 929+84.43 | 1100.67          | 929+72.53 | 1101.13          | 929+60.68 | 1101.54          | 929+57.10             | 1101.66          | 929+48.86 | 1101.95          | -                      | -                | 929+41.01  | 1'-5 3/8"        | 1102.17   | 929+37.09        | 1102.06        | 929+35.61        | 1102.01 |
|           | 0.90 L     | 930+01.80     | 1100.42          | 929+99.75 | 1100.49          | 929+87.83 | 1100.92          | 929+75.94 | 1101.33          | 929+72.62             | 1101.44          | 929+64.10 | 1101.74          | -                      | -                | 929+55.97  | 1'-10 1/8"       | 1101.97   | 929+52.30        | 1101.90        | 929+51.01        | 1101.86 |
| FWD ABUT. | 930+17.54  | 1100.20       | 930+15.07        | 1100.28   | 930+03.12        | 1100.69   | 929+91.21        | 1101.10   | 929+88.19        | 1101.20               | 929+79.34        | 1101.51   | -                | -                      | 929+71.45        | 1'-10 1/8" | 1101.75          | 929+67.52 | 1101.68          | 929+66.46      | 1101.64          |         |

SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

**HORIZONTAL OFFSETS TO EDGE OF SLAB (PERPENDICULAR TO BEAMS)**

| LOCATION           | SPAN 1                    |       |       |       |               | SPAN 2     |              |           |                          |  |
|--------------------|---------------------------|-------|-------|-------|---------------|------------|--------------|-----------|--------------------------|--|
|                    | REAR ABUT. $\phi$ BEARING | 1/4   | 1/2   | 3/4   | $\phi$ PIER 1 | 1/4        | 1/2          | 3/4       | FWD ABUT. $\phi$ BEARING |  |
| LEFT EDGE OF SLAB  | 2'-0"                     | 2'-0" | 2'-0" | 2'-0" | 2'-0"         | 2'-0 5/16" | 2'-3 3/16"   | 2'-9 1/8" | 3'-6 1/16"               |  |
| RIGHT EDGE OF SLAB | 3'-0"                     | 3'-0" | 3'-0" | 3'-0" | 3'-0"         | 3'-0"      | 2'-11 15/16" | 2'-9 3/4" | 2'-4 9/16"               |  |

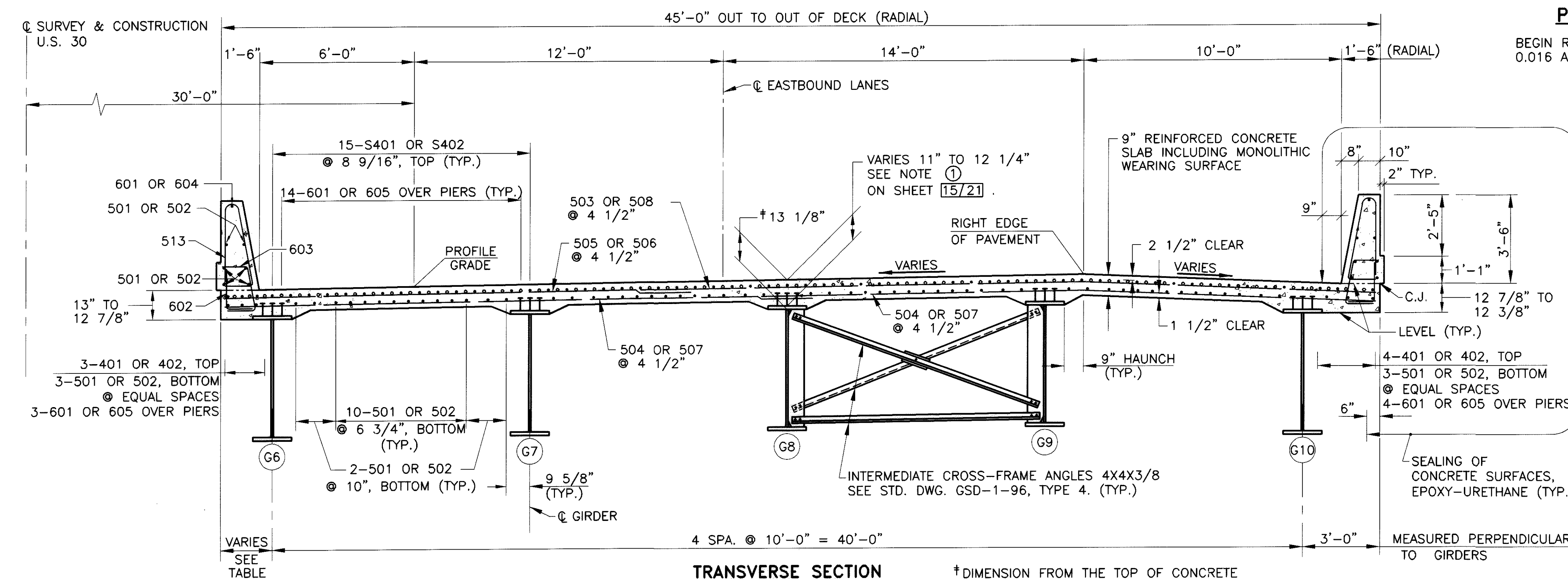
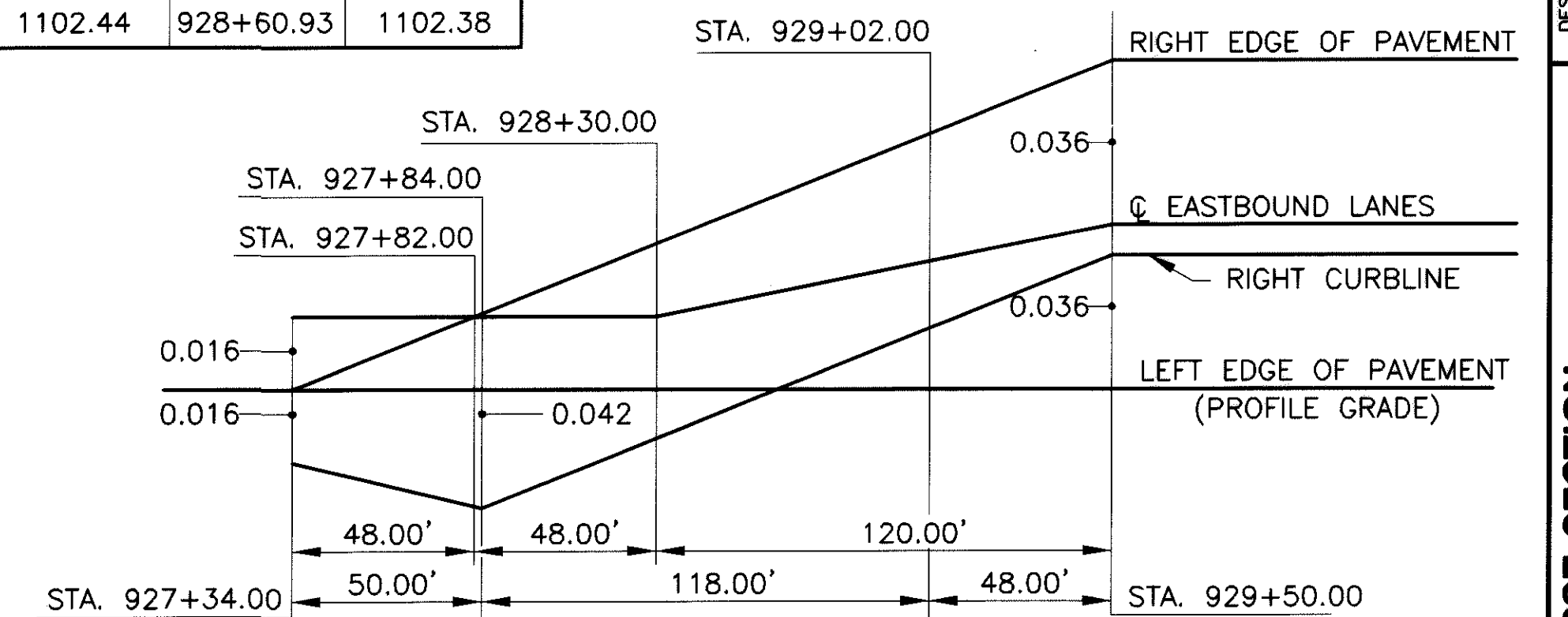


- NOTES:**
- \*DECK SLAB DEPTH FOR CONCRETE QUANTITY: THE MINIMUM DIMENSION SHOWN FROM THE TOP OF THE CONCRETE DECK TO THE TOP OF THE FLANGE, MINUS THE DESIGN HAUNCH THICKNESS OF 2 INCHES, HAS BEEN USED FOR COMPUTING THE DECK CONCRETE QUANTITIES. CONCRETE REQUIRED TO FILL THE HAUNCHES, INCLUDING ADDITIONAL OR LESS MATERIAL REQUIRED DUE TO HAUNCH CONSTRUCTION TOLERANCES, SHALL BE CONSIDERED AS INCIDENTAL AND WILL NOT BE INCLUDED IN THE QUANTITY CALCULATIONS FOR PAYMENT.
  - CONCRETE DECK HAUNCH WIDTH: A HAUNCH WIDTH OF 9" SHALL BE USED. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 1'-0".
  - FOR PARAPET REINFORCING SEE SHEET [17/21].
  - FOR ADDITIONAL REINFORCING OVER PIERS SEE DETAIL ON SHEET [17/21].
  - FOR SLAB PLAN AND ADDITIONAL NOTES SEE SHEET [17/21].

| SCREED TABLE |            |               |                  |           |                  |           |                  |                       |                  |           |                  |           |                  |                        |                  |           |                  |                |                  |
|--------------|------------|---------------|------------------|-----------|------------------|-----------|------------------|-----------------------|------------------|-----------|------------------|-----------|------------------|------------------------|------------------|-----------|------------------|----------------|------------------|
| SPAN NO.     | LOCATION   | LEFT CURBLINE |                  | G6        |                  | G7        |                  | CENTERLINE E.B. LANES |                  | G8        |                  | G9        |                  | RIGHT EDGE OF PAVEMENT |                  | G10       |                  | RIGHT CURBLINE |                  |
|              |            | STATION       | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION               | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION                | SCREED ELEVATION | STATION   | SCREED ELEVATION | STATION        | SCREED ELEVATION |
| SPAN 1       | REAR ABUT. | 926+67.18     | 1103.08          | 926+66.60 | 1103.09          | 926+55.00 | 1103.31          | 926+46.29             | 1103.47          | 926+43.39 | 1103.44          | 926+31.78 | 1103.34          | 926+30.04              | 1103.32          | 926+20.17 | 1103.24          | 926+18.43      | 1103.22          |
|              | 0.25 L     | 926+89.93     | 1102.96          | 926+89.35 | 1102.97          | 926+77.75 | 1103.19          | 926+69.04             | 1103.35          | 926+66.14 | 1103.32          | 926+54.53 | 1103.22          | 926+52.79              | 1103.20          | 926+42.92 | 1103.11          | 926+41.18      | 1103.10          |
|              | F.S. 1     | 927+09.43     | 1102.85          | 927+08.85 | 1102.86          | 926+97.25 | 1103.07          | 926+88.54             | 1103.23          | 926+85.64 | 1103.21          | 926+74.03 | 1103.10          | 926+72.29              | 1103.09          | 926+62.42 | 1103.00          | 926+60.68      | 1102.99          |
|              | 0.05 L     | 927+12.68     | 1102.83          | 927+12.10 | 1102.84          | 927+00.50 | 1103.05          | 926+91.79             | 1103.21          | 926+88.89 | 1103.18          | 926+77.28 | 1103.08          | 926+75.54              | 1103.06          | 926+65.67 | 1102.98          | 926+63.93      | 1102.97          |
| SPAN 2       | 0.75 L     | 927+35.43     | 1102.71          | 927+34.85 | 1102.72          | 927+23.25 | 1102.92          | 927+14.54             | 1103.09          | 927+11.64 | 1103.06          | 927+00.03 | 1102.96          | 926+98.29              | 1102.94          | 926+88.42 | 1102.86          | 926+86.68      | 1102.84          |
|              | PIER       | 927+58.18     | 1102.64          | 927+57.60 | 1102.66          | 927+46.00 | 1102.87          | 927+37.29             | 1103.03          | 927+34.39 | 1103.01          | 927+22.78 | 1102.90          | 927+21.04              | 1102.89          | 927+11.17 | 1102.80          | 927+09.43      | 1102.78          |
|              | 0.10 L     | 927+73.33     | 1102.65          | 927+72.75 | 1102.66          | 927+61.15 | 1102.89          | 927+52.44             | 1103.05          | 927+49.54 | 1103.03          | 927+37.93 | 1102.93          | 927+36.19              | 1102.91          | 927+26.32 | 1102.80          | 927+24.58      | 1102.78          |
|              | 0.20 L     | 927+88.48     | 1102.68          | 927+87.90 | 1102.69          | 927+76.30 | 1102.93          | 927+67.59             | 1103.10          | 927+64.69 | 1103.10          | 927+53.08 | 1103.05          | 927+51.34              | 1103.03          | 927+41.47 | 1102.83          | 927+39.73      | 1102.81          |
|              | F.S. 2     | 927+89.68     | 1102.68          | 927+89.10 | 1102.69          | 927+77.50 | 1102.94          | 927+68.79             | 1103.10          | 927+65.89 | 1103.10          | 927+54.28 | 1103.05          | 927+52.54              | 1103.04          | 927+42.67 | 1102.84          | 927+40.93      | 1102.81          |
|              | 0.30 L     | 928+03.63     | 1102.70          | 928+03.05 | 1102.71          | 927+91.45 | 1102.97          | 927+82.74             | 1103.13          | 927+79.84 | 1103.14          | 927+68.23 | 1103.14          | 927+66.49              | 1103.14          | 927+56.62 | 1102.86          | 927+54.88      | 1102.82          |
|              | 0.40 L     | 928+18.78     | 1102.70          | 928+18.20 | 1102.71          | 928+06.60 | 1102.99          | 927+97.89             | 1103.15          | 927+94.99 | 1103.18          | 927+83.38 | 1103.23          | 927+81.64              | 1103.23          | 927+71.77 | 1102.87          | 927+70.03      | 1102.82          |
|              | 0.50 L     | 928+33.93     | 1102.67          | 928+33.35 | 1102.68          | 928+21.75 | 1102.97          | 928+13.04             | 1103.13          | 928+10.14 | 1103.17          | 927+98.53 | 1103.27          | 927+96.79              | 1103.28          | 927+86.92 | 1102.86          | 927+85.18      | 1102.79          |
|              | 0.60 L     | 928+49.08     | 1102.59          | 928+48.50 | 1102.60          | 928+36.90 | 1102.91          | 928+28.19             | 1103.06          | 928+25.29 | 1103.11          | 928+13.68 | 1103.27          | 928+11.94              | 1103.28          | 928+02.07 | 1102.86          | 928+00.33      | 1102.79          |
|              | 0.70 L     | 928+64.23     | 1102.45          | 928+63.65 | 1102.47          | 928+52.05 | 1102.79          | 928+43.34             | 1102.97          | 928+40.44 | 1103.02          | 928+28.83 | 1103.20          | 928+27.09              | 1103.23          | 928+17.22 | 1102.81          | 928+15.48      | 1102.75          |
| 0.80 L       | 928+79.38  | 1102.28       | 928+78.80        | 1102.29   | 928+67.20        | 1102.63   | 928+58.49        | 1102.82               | 928+55.59        | 1102.88   | 928+43.98        | 1103.09   | 928+42.24        | 1103.12                | 928+32.37        | 1102.72   | 928+30.63        | 1102.66        |                  |
| 0.90 L       | 928+94.50  | 1102.07       | 928+93.91        | 1102.08   | 928+82.35        | 1102.42   | 928+73.64        | 1102.63               | 928+70.74        | 1102.70   | 928+59.13        | 1102.93   | 928+57.39        | 1102.97                | 928+47.52        | 1102.59   | 928+45.78        | 1102.53        |                  |
| FWD ABUT.    | 929+09.65  | 1101.84       | 929+08.99        | 1101.86   | 928+97.41        | 1102.19   | 928+88.75        | 1102.42               | 928+85.86        | 1102.49   | 928+74.28        | 1102.76   | 928+72.54        | 1102.79                | 928+62.67        | 1102.44   | 928+60.93        | 1102.38        |                  |

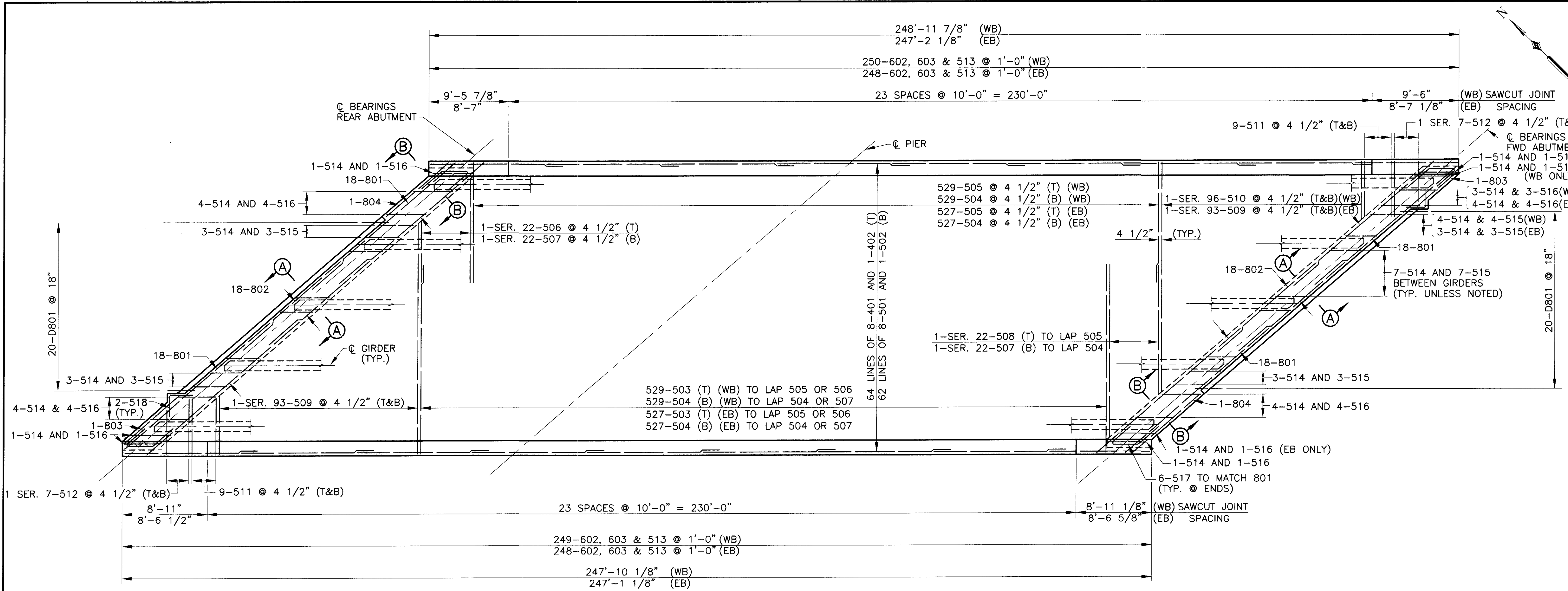
SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

| HORIZONTAL OFFSETS TO EDGE OF SLAB (PERPENDICULAR TO BEAMS) |                           |       |       |       |               |        |       |       |                           |
|---|---------------------------|-------|-------|-------|---------------|--------|-------|-------|---------------------------|
| LOCATION  | SPAN 1                    |       |       |       |               | SPAN 2 |       |       |                           |
|   | REAR ABUT. $\phi$ BEARING | 1/4   | 1/2   | 3/4   | $\phi$ PIER 1 | 1/4    | 1/2   | 3/4   | FWD. ABUT. $\phi$ BEARING |
| LEFT EDGE OF SLAB   | 2'-0"                     | 2'-0" | 2'-0" | 2'-0" | 2'-0"         | 2'-0"  | 2'-0" | 2'-0" | 2'-0 11/16"               |

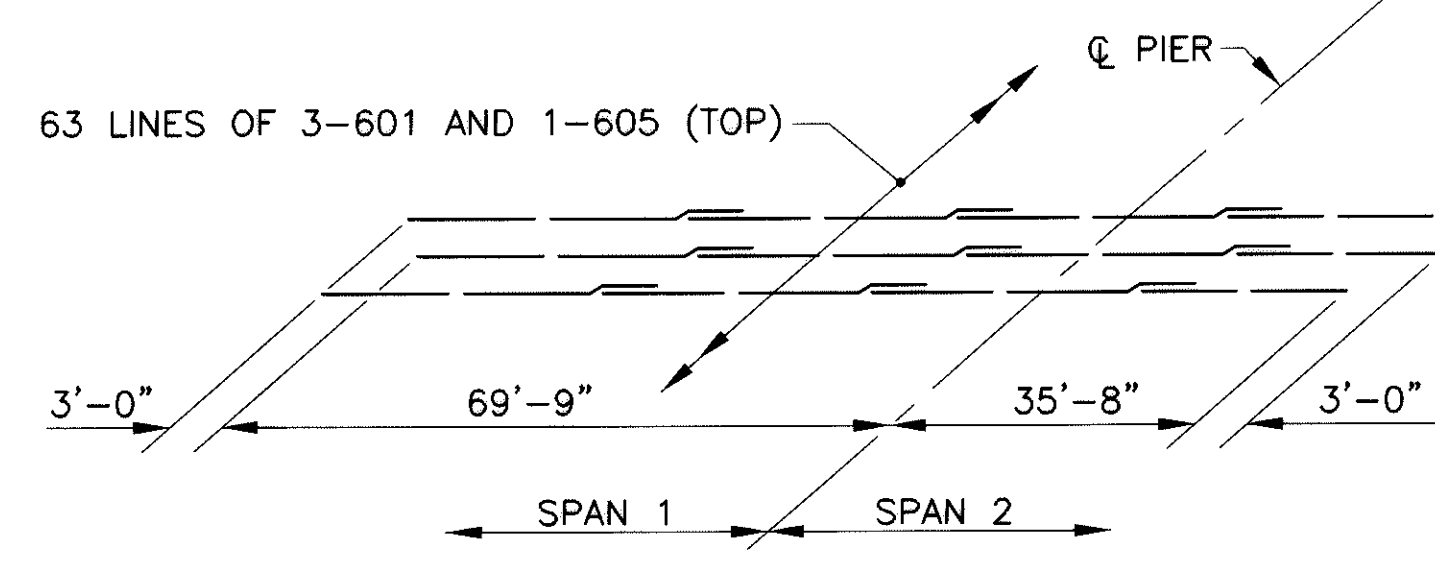


- NOTES:**  
 ① FOR NOTES SEE SHEET 15/21.

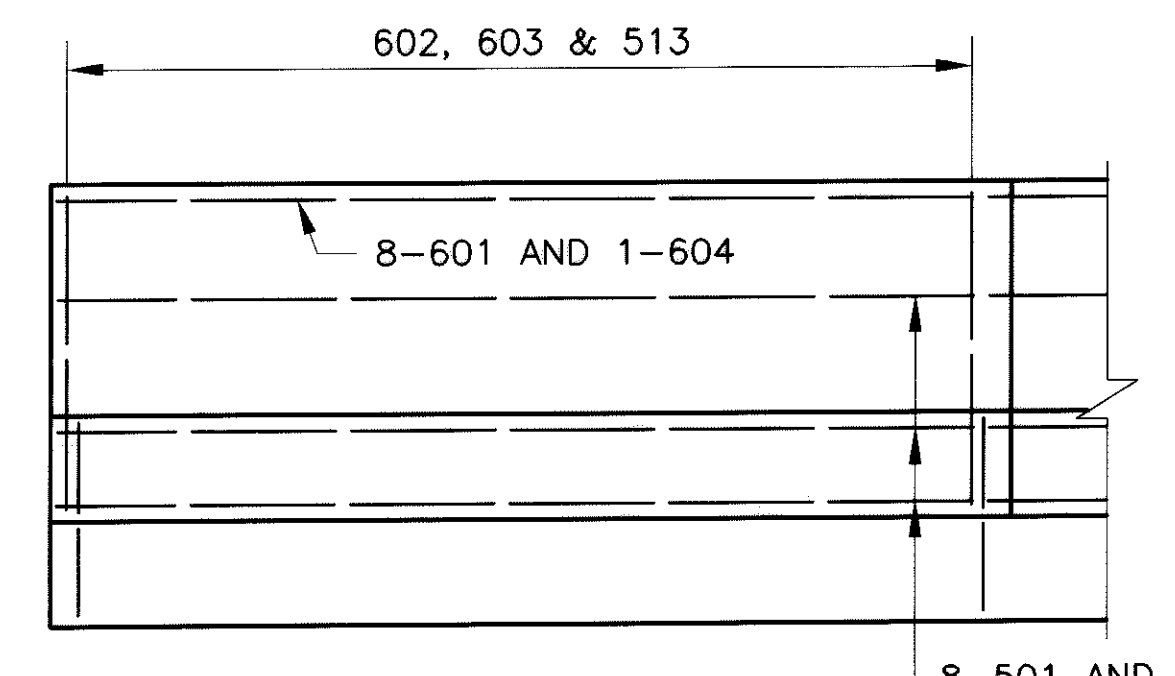
DESIGN AGENCY: EUTHENAS INC. CONSULTING ENGINEERS CLEVELAND, OHIO  
 DATE: 9-02  
 REVIEWED: RAB  
 DRAWN: CFH  
 DESIGNED: RSY  
 STRUCTURE FILE NUMBER: 8502277  
 EASTBOUND TRANSVERSE SECTION  
 BRIDGE NO. WAY-30-1752 R  
 U.S. 30 OVER EXISTING 30 (LINCOLN WAY)  
 WAY-30-15.96  
 16 / 21  
 560  
 656



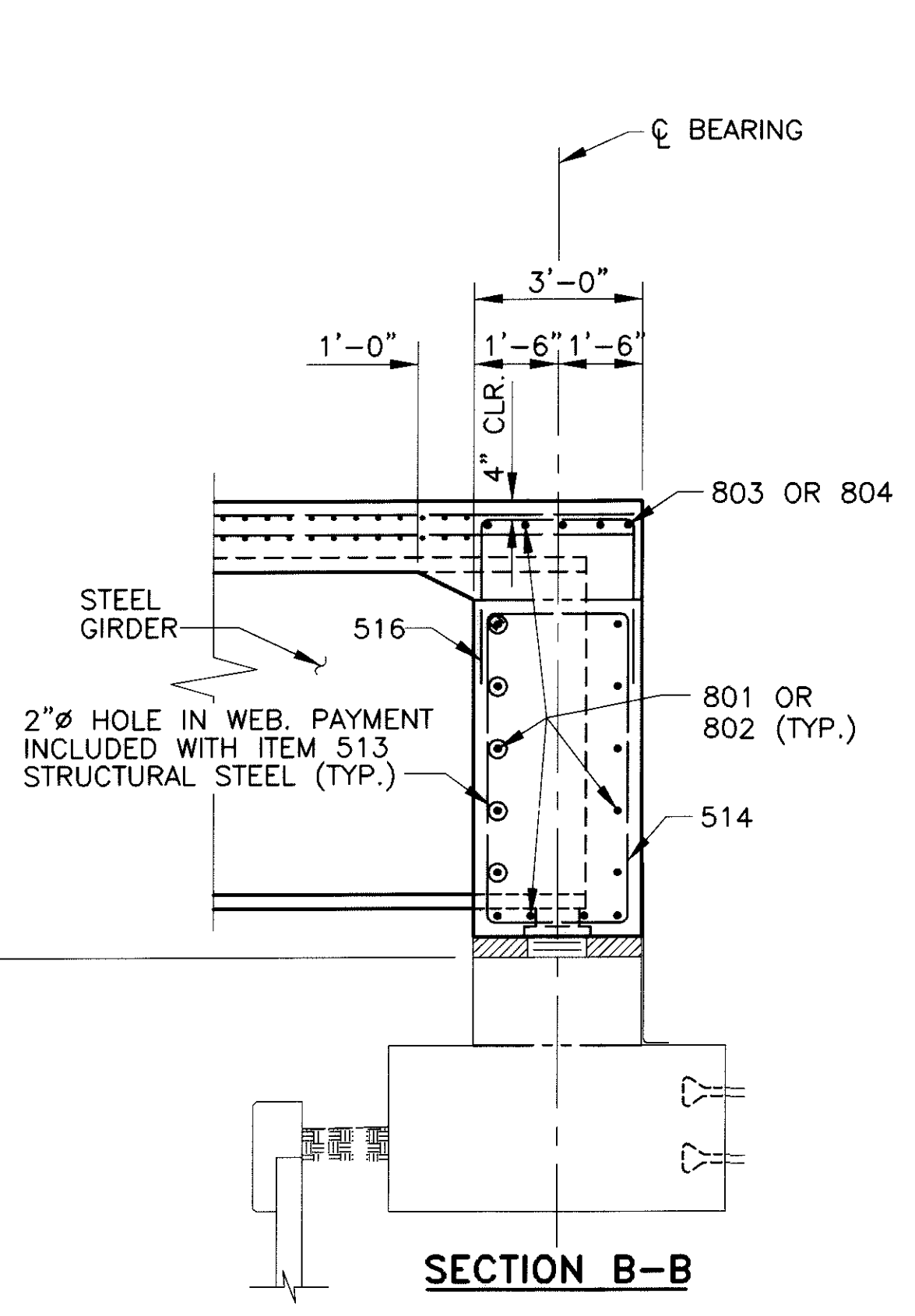
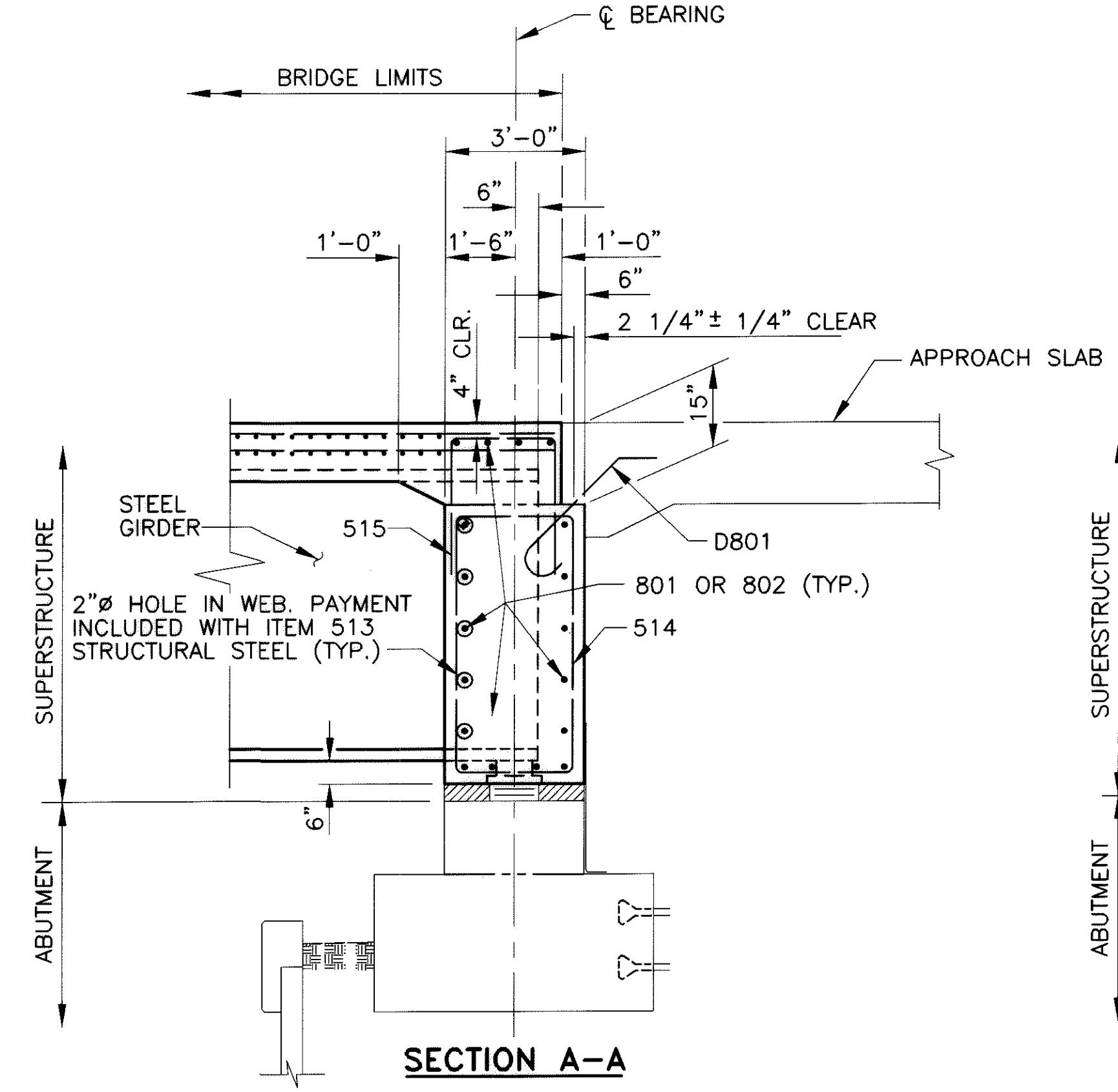
**SLAB PLAN**



**ADDITIONAL REINFORCING OVER PIER**



**PARTIAL PARAPET ELEVATION**



| MINIMUM LAP LENGTHS |          |
|---------------------|----------|
| NO. 4 BAR           | = 1'-7"  |
| NO. 5 BAR           | = 2'-5"  |
| NO. 6 BAR           | = 2'-4"  |
| NO. 8 BAR           | = 5'-10" |

**NOTES:**

- FOR SPACING OF LONGITUDINAL REINFORCING STEEL IN THE SLAB SEE SHEETS [15/21] AND [16/21].
- ALL REINFORCING STEEL BAR MARKS SHALL BE PREFIXED "S" (SUPERSTRUCTURE) UNLESS OTHERWISE NOTED.
- REINFORCING STEEL CALL-OUTS NOT DESIGNATED EASTBOUND (EB) OR WESTBOUND (WB) ARE TO BE CONSIDERED APPLICABLE TO BOTH EASTBOUND AND WESTBOUND.
- FOR REINFORCING STEEL LIST SEE SHEET [21/21].
- DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER SECTIONS SUPPORTED IN THE SEMI-INTEGRAL ABUTMENTS SHALL BE PLACED AT LEAST 48 HOURS BEFORE THE ACTUAL DECK CONCRETE IS PLACED.

**EUTHENICS INC.**  
 CONSULTING ENGINEERS  
 CLEVELAND, OHIO

|          |      |                       |                 |
|----------|------|-----------------------|-----------------|
| DESIGNED | GPH  | CHECKED               | YRY             |
| DRAWN    | GPH  | REVISED               |                 |
| REVIEWED | RAB  | STRUCTURE FILE NUMBER | 8502269/8502277 |
| DATE     | 9-02 |                       |                 |

**SLAB PLAN**

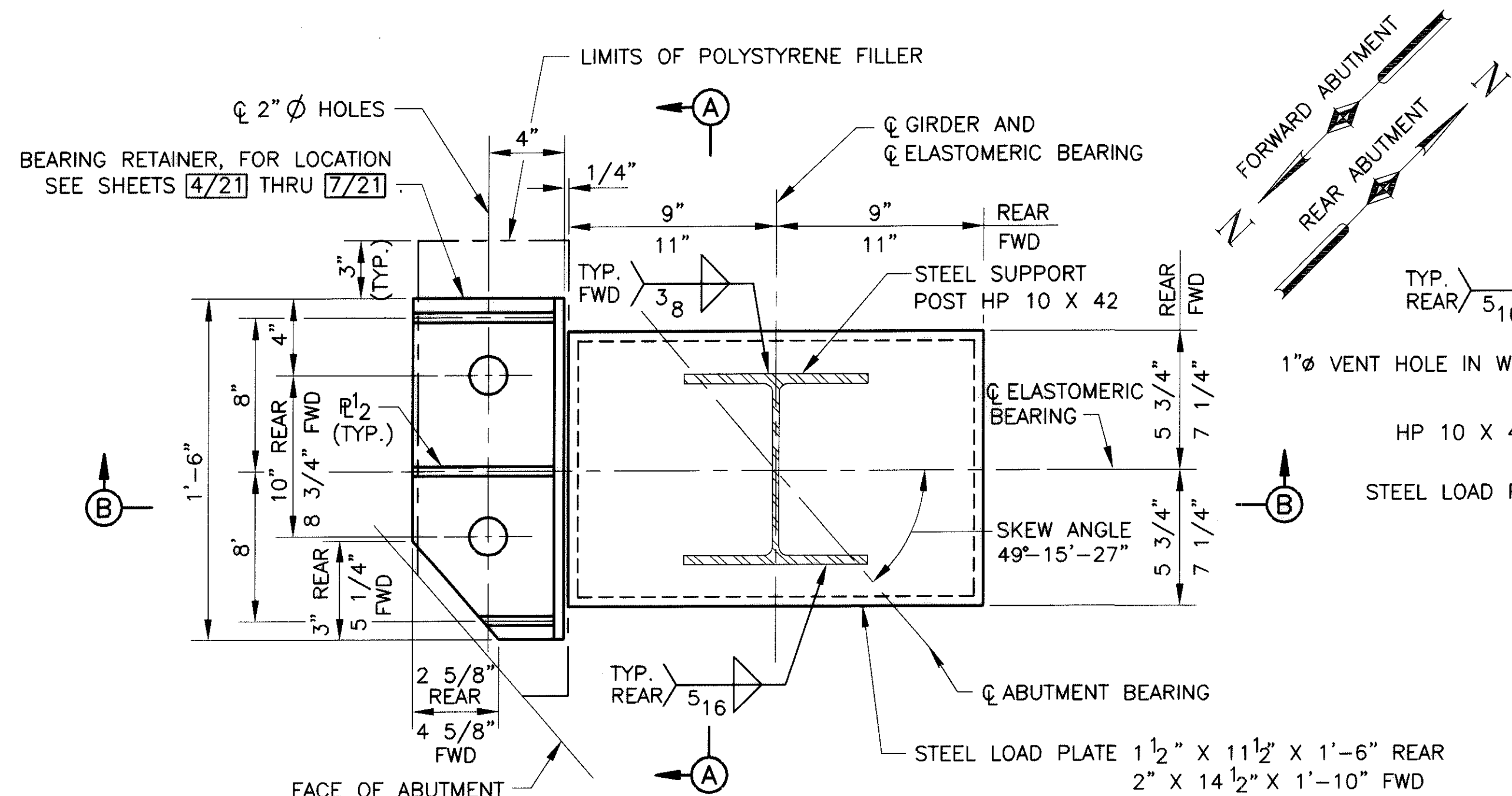
BRIDGE NO. WAY-30-1752 L&R  
U.S. 30 OVER EXISTING 30 (LINCOLN WAY)

**WAY-30-15.96**

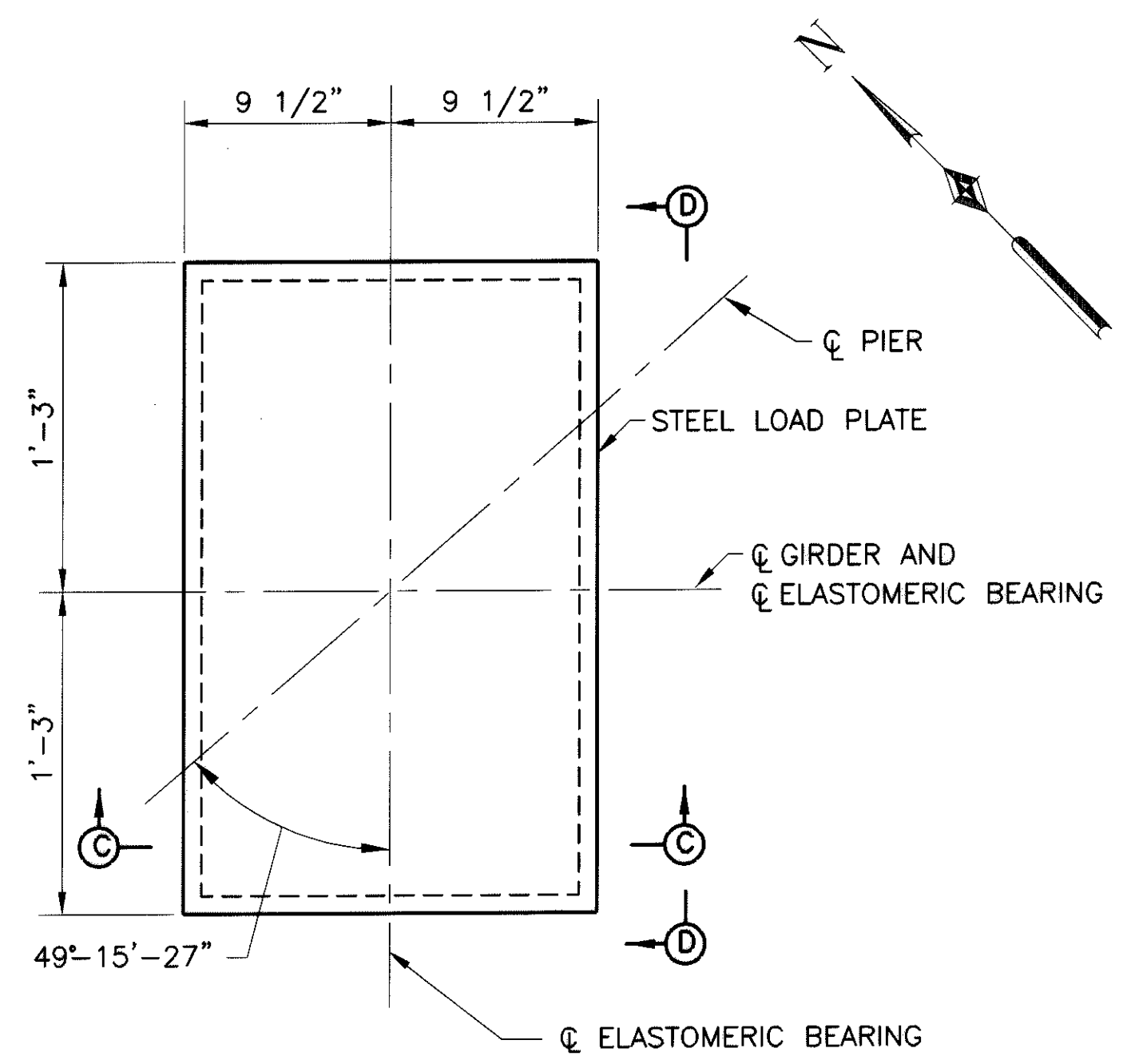
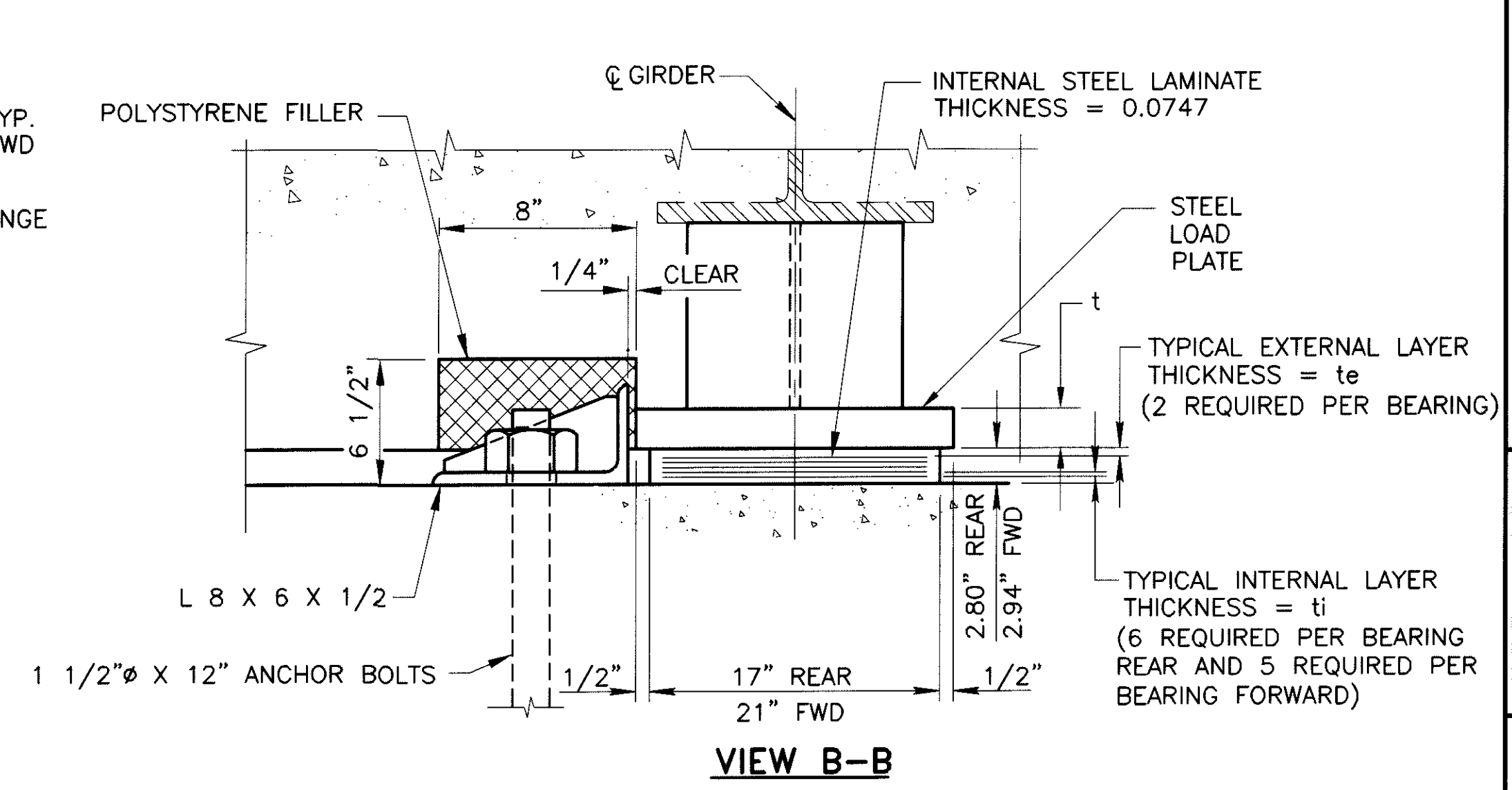
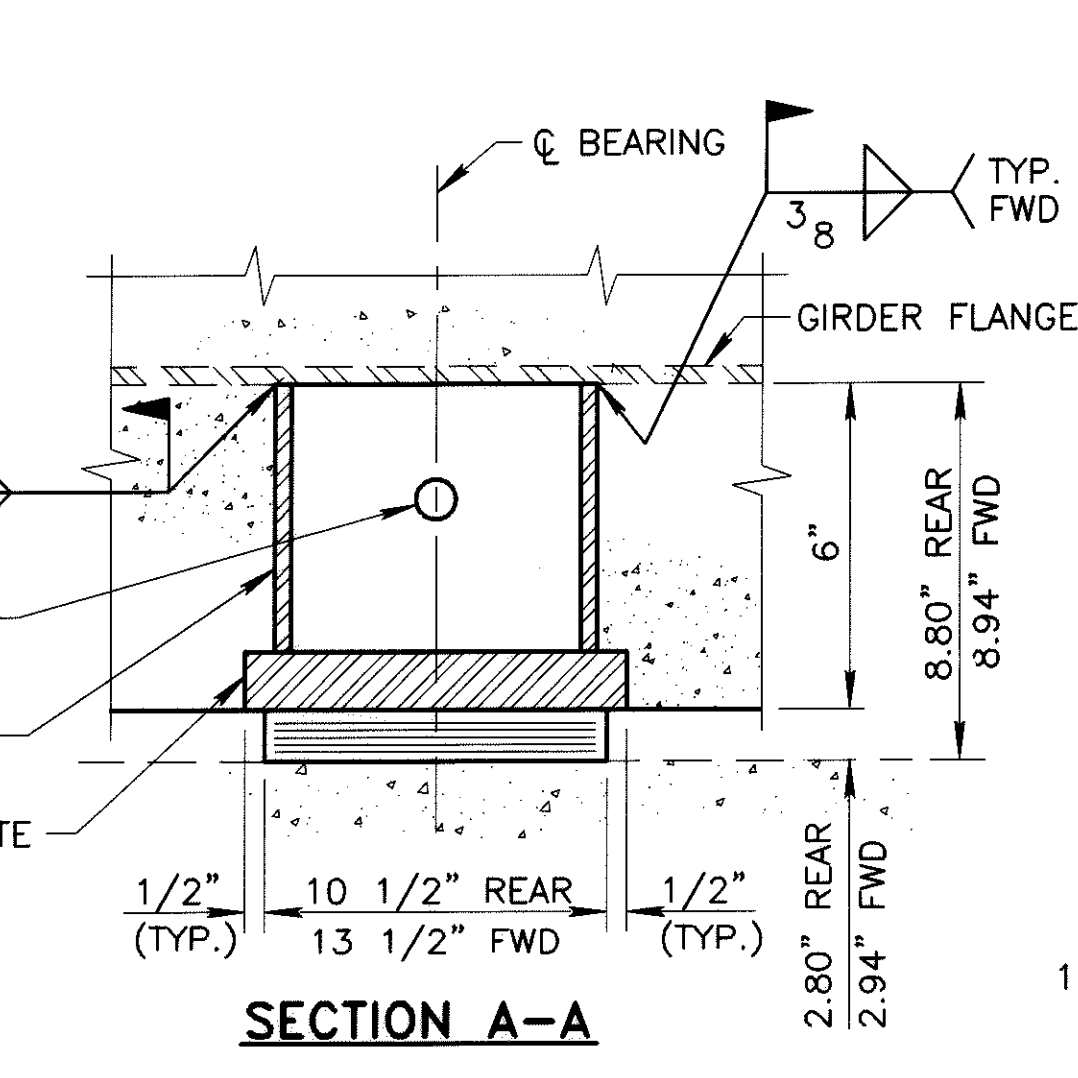
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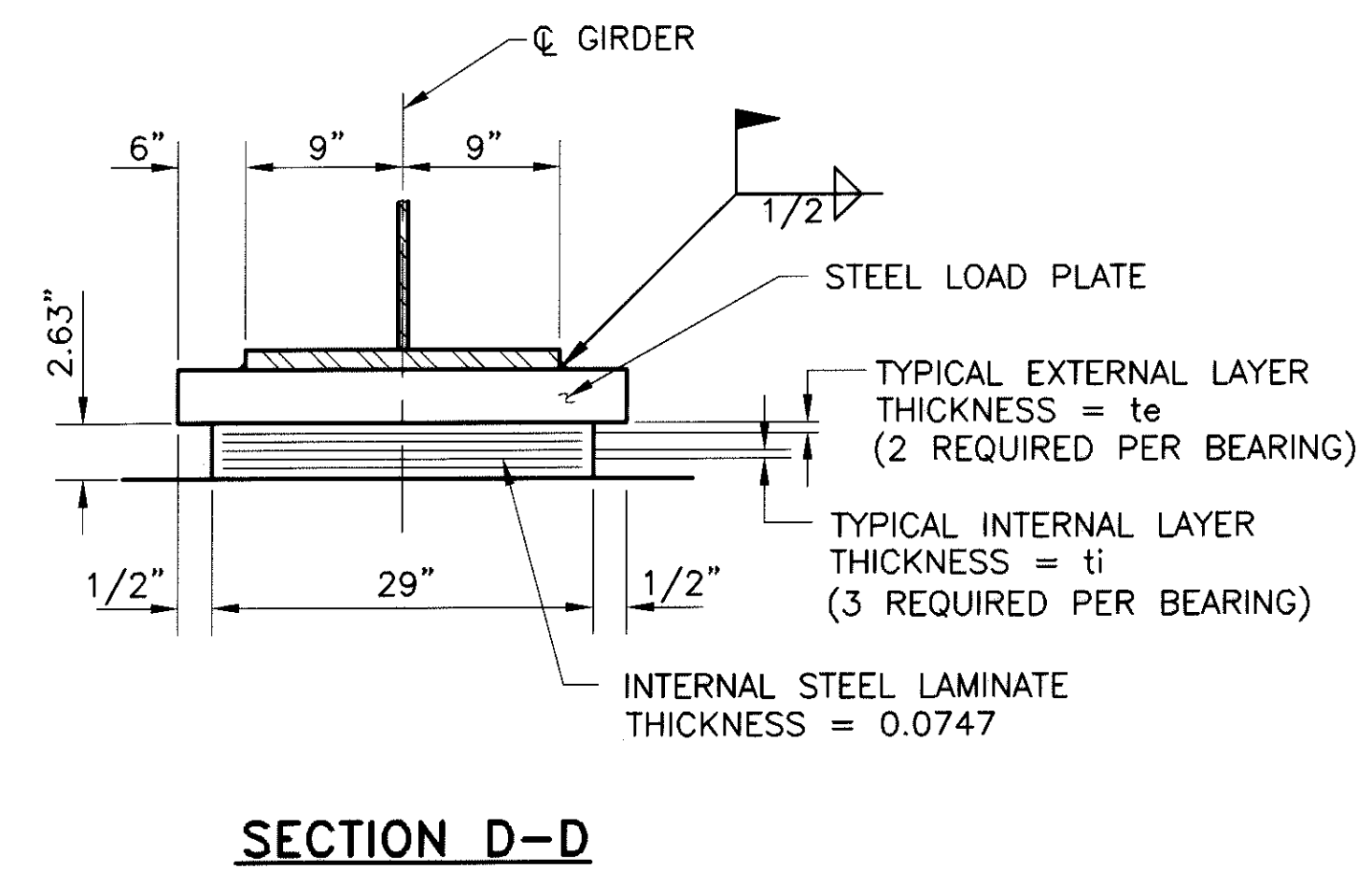
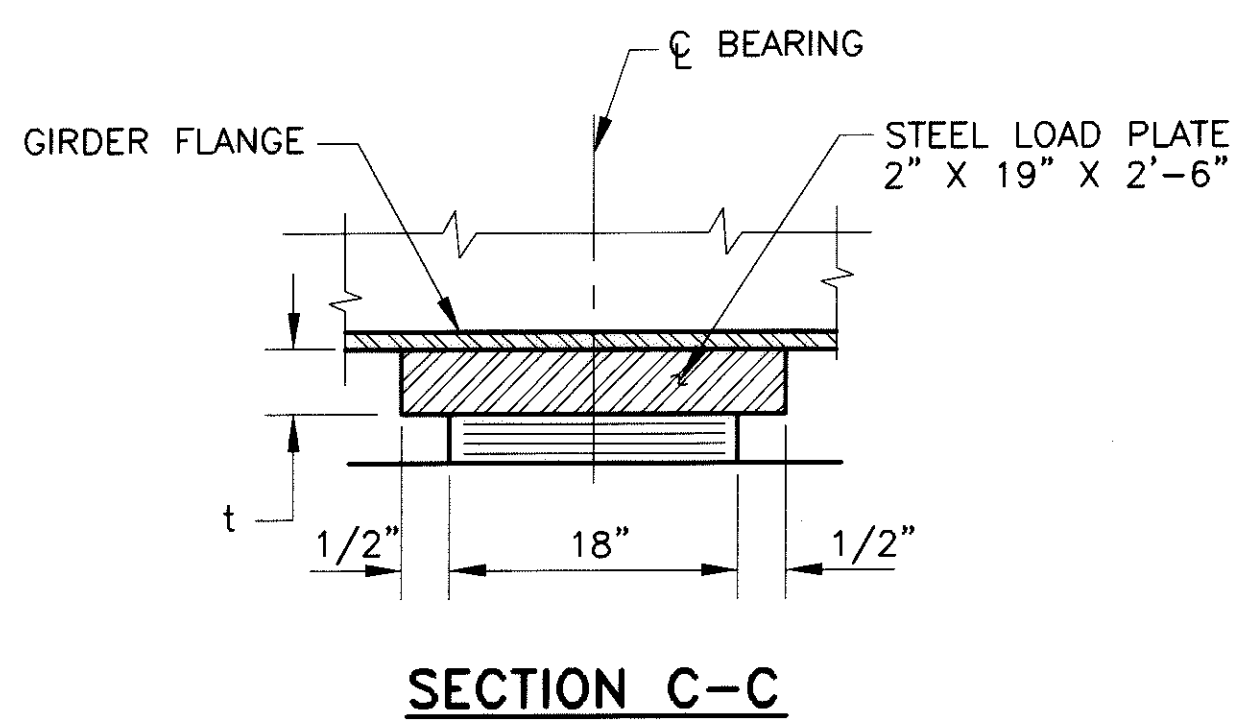
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**EXPANSION BEARING AT ABUTMENTS**



**EXPANSION BEARING AT PIER**



**NOTES:**

- ELASTOMERIC BEARINGS:** ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION, ARTICLES 18.4.5.1 AND 18.5.6.2. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.6 OF SECTION 14, BEARINGS, DIVISION I, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.
- LOAD PLATE:** THE STEEL LOAD PLATE (A572) SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING OF THE LOAD PLATE TO THE SUPERSTRUCTURE OR SUPPORT POSTS (A572) SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.
- BASIS OF PAYMENT:** THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, TESTING, PAINTING, STEEL SUPPORT POST AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR THE APPROPRIATE ITEM 516, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

| LAMINATED ELASTOMERIC BEARINGS |                    |     |                |                |                  |   |                            |        |           |                          |         |
|--------------------------------|--------------------|-----|----------------|----------------|------------------|---|----------------------------|--------|-----------|--------------------------|---------|
| LOCATION                       | BEARING DIMENSIONS |     |                |                | STEEL LOAD PLATE |   |                            |        | DEAD LOAD | LIVE LOAD WITHOUT IMPACT | TOTAL   |
|                                | L                  | W   | t <sub>i</sub> | t <sub>e</sub> | T                | N | THICKNESS X LENGTH X WIDTH | t      |           |                          |         |
| REAR ABUTMENT                  | 10 1/2"            | 17" | 0.31"          | 0.21"          | 2.80"            | 7 | 1 1/2" X 11 1/2" X 1'-6"   | 1 1/2" | 86.2 k    | 77.7 k                   | 163.9 k |
| PIER                           | 18"                | 29" | 0.53"          | 0.37"          | 2.63"            | 4 | 2" X 19" X 2'-6"           | 2"     | 361.9 k   | 145.6 k                  | 507.5 k |
| FWD ABUTMENT                   | 13 1/2"            | 21" | 0.39"          | 0.27"          | 2.94"            | 6 | 2" X 14 1/2" X 1'-10"      | 2"     | 178.9 k   | 84.4 k                   | 263.3 k |

N = NO. OF STEEL LAMINATES  
T = TOTAL THICKNESS OF ELASTOMERIC BEARING

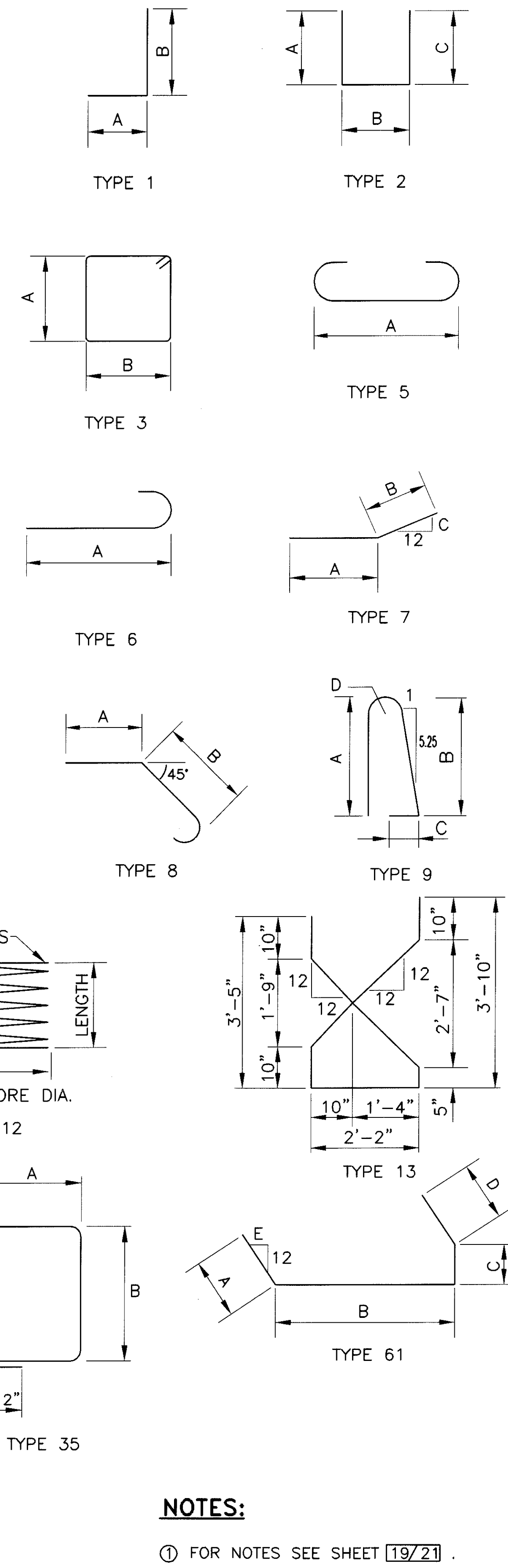
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| MARK                      | NUMBER |     |          | LENGTH      | WEIGHT | TYPE | A      | B      | C     | D | INCR. |
|---------------------------|--------|-----|----------|-------------|--------|------|--------|--------|-------|---|-------|
|                           | REAR   | FWD | TOTAL    |             |        |      |        |        |       |   |       |
| PIER (WESTBOUND)          |        |     |          |             |        |      |        |        |       |   |       |
| SP401                     |        |     | 4        | 16'-8"      | 1,184  | 12   | 2'-6"  | 4 1/2" |       |   |       |
| P501                      |        |     | 35       | 4'-11"      | 179    | 2    | 1'-0"  | 3'-2"  | 1'-0" |   |       |
| P502                      |        |     | 174      | 9'-11"      | 1,800  | 2    | 3'-6"  | 3'-2"  | 3'-6" |   |       |
| P503                      |        |     | 28       | 8'-9"       | 256    | 2    | 3'-6"  | 2'-0"  | 3'-6" |   |       |
| P504                      |        |     | 20       | 33'-9"      | 704    | STR. |        |        |       |   |       |
| P505                      |        |     | 10       | 7'-7"       | 79     | 2    | 2'-5"  | 3'-0"  | 2'-5" |   |       |
| P506                      |        |     | 28       | 7'-11"      | 231    | 2    | 3'-1"  | 2'-0"  | 3'-1" |   |       |
| P601                      |        |     | 6        | 16'-6"      | 149    | 35   | 4'-10" | 2'-10" |       |   |       |
| P602                      |        |     | 4        | 4'-2"       | 25     | 1    | 1'-7"  | 2'-9"  |       |   |       |
| P901                      |        |     | 10       | 4'-1"       | 139    | 1    | 1'-7"  | 2'-9"  |       |   |       |
| P1001                     |        |     | 32       | 20'-8"      | 2,846  | STR. |        |        |       |   |       |
| P1002                     |        |     | NOT USED |             |        |      |        |        |       |   |       |
| P1003                     |        |     | 14       | 40'-0"      | 2,410  | 1    | 38'-3" | 2'-1"  |       |   |       |
| P1004                     |        |     | 8        | 16'-6"      | 568    | 1    | 15'-0" | 1'-10" |       |   |       |
| P1005                     |        |     | 14       | 28'-8"      | 1,727  | 7    | 24'-5" | 4'-4"  | 2 5/8 |   |       |
| P1006                     |        |     | 7        | 28'-0"      | 843    | STR. |        |        |       |   |       |
| P1007                     |        |     | 2        | 17'-9"      | 153    | STR. |        |        |       |   |       |
| TOTAL                     |        |     |          | 13,293 lbs. |        |      |        |        |       |   |       |
| DRILLED SHAFT (WESTBOUND) |        |     |          |             |        |      |        |        |       |   |       |
| SP403                     |        |     | 4        | 22'-7"      | 2,648  | 12   | 4'-6"  | 4 1/2" |       |   |       |
| SP404                     |        |     | 4        | 8'-1"       | 620    | 12   | 2'-6"  | 4 1/2" |       |   |       |
| DS1001                    |        |     | 32       | 16'-6"      | 2,272  | STR. |        |        |       |   |       |
| DS1101                    |        |     | 56       | 22'-7"      | 6,719  | STR. |        |        |       |   |       |
| TOTAL                     |        |     |          | 12,259 lbs. |        |      |        |        |       |   |       |

| MARK                      | NUMBER |     |          | LENGTH      | WEIGHT | TYPE | A      | B      | C     | D | INCR. |
|---------------------------|--------|-----|----------|-------------|--------|------|--------|--------|-------|---|-------|
|                           | REAR   | FWD | TOTAL    |             |        |      |        |        |       |   |       |
| PIER (EASTBOUND)          |        |     |          |             |        |      |        |        |       |   |       |
| SP401                     |        |     | NOT USED |             |        |      |        |        |       |   |       |
| SP402                     |        |     | 4        | 17'-10"     | 1,282  | 12   | 2'-6"  | 4 1/2" |       |   |       |
| P501                      |        |     | 35       | 4'-11"      | 179    | 2    | 1'-0"  | 3'-2"  | 1'-0" |   |       |
| P502                      |        |     | 174      | 9'-3"       | 1,679  | 2    | 3'-2"  | 3'-2"  | 3'-2" |   |       |
| P503                      |        |     | 56       | 8'-1"       | 472    | 2    | 3'-2"  | 2'-0"  | 3'-2" |   |       |
| P504                      |        |     | 20       | 33'-9"      | 704    | STR. |        |        |       |   |       |
| P505                      |        |     | 10       | 7'-7"       | 79     | 2    | 2'-5"  | 3'-0"  | 2'-5" |   |       |
| P601                      |        |     | 6        | 16'-6"      | 149    | 35   | 4'-10" | 2'-10" |       |   |       |
| P602                      |        |     | 4        | 4'-2"       | 25     | 1    | 1'-7"  | 2'-9"  |       |   |       |
| P901                      |        |     | 10       | 4'-1"       | 139    | 1    | 1'-7"  | 2'-9"  |       |   |       |
| P1001                     |        |     | NOT USED |             |        |      |        |        |       |   |       |
| P1002                     |        |     | 32       | 21'-10"     | 3,006  | STR. |        |        |       |   |       |
| P1003                     |        |     | 14       | 40'-0"      | 2,410  | 1    | 38'-3" | 2'-1"  |       |   |       |
| P1004                     |        |     | 8        | 16'-6"      | 568    | 1    | 15'-0" | 1'-10" |       |   |       |
| P1005                     |        |     | 14       | 28'-8"      | 1,727  | 7    | 24'-5" | 4'-4"  | 2 5/8 |   |       |
| P1006                     |        |     | 7        | 28'-0"      | 843    | STR. |        |        |       |   |       |
| P1007                     |        |     | 2        | 17'-9"      | 153    | STR. |        |        |       |   |       |
| TOTAL                     |        |     |          | 13,415 lbs. |        |      |        |        |       |   |       |
| DRILLED SHAFT (EASTBOUND) |        |     |          |             |        |      |        |        |       |   |       |
| SP403                     |        |     | 4        | 22'-7"      | 2,648  | 12   | 4'-6"  | 4 1/2" |       |   |       |
| SP404                     |        |     | 4        | 8'-1"       | 620    | 12   | 2'-6"  | 4 1/2" |       |   |       |
| DS1001                    |        |     | 32       | 16'-6"      | 2,272  | STR. |        |        |       |   |       |
| DS1101                    |        |     | 56       | 22'-7"      | 6,719  | STR. |        |        |       |   |       |
| TOTAL                     |        |     |          | 12,259 lbs. |        |      |        |        |       |   |       |

**BENDING DIAGRAMS**



**NOTES:**

① FOR NOTES SEE SHEET 19/21

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| MARK                       | NUMBER |     |       | LENGTH  | WEIGHT  | TYPE | A      | B      | C     | D      | INCR.    |
|----------------------------|--------|-----|-------|---------|---------|------|--------|--------|-------|--------|----------|
|                            | REAR   | FWD | TOTAL |         |         |      |        |        |       |        |          |
| SUPERSTRUCTURE (WESTBOUND) |        |     |       |         |         |      |        |        |       |        |          |
| S401                       |        |     | 512   | 30'-0"  | 10,260  | STR  |        |        |       |        |          |
| S402                       |        |     | 64    | 21'-4"  | 912     | STR  |        |        |       |        |          |
| S501                       |        |     | 592   | 30'-0"  | 18,524  | STR  |        |        |       |        |          |
| S502                       |        |     | 74    | 28'-0"  | 2,161   | STR  |        |        |       |        |          |
| S503                       |        |     | 529   | 29'-5"  | 16,231  | STR  |        |        |       |        |          |
| S504                       |        |     | 1,058 | 23'-11" | 26,392  | STR  |        |        |       |        |          |
| S505                       |        |     | 529   | 18'-5"  | 10,161  | STR  |        |        |       |        |          |
| S506                       |        |     | 1     | 10'-0"  |         |      |        |        |       |        |          |
|                            |        |     | SER   | TO      | 310     | STR  |        |        |       |        | 4"       |
|                            |        |     | 22    | 17'-0"  |         |      |        |        |       |        |          |
|                            |        |     | 2     | 15'-7"  |         |      |        |        |       |        |          |
| S507                       |        |     | SER   | TO      | 876     | STR  |        |        |       |        | 4"       |
|                            |        |     | 22    | 22'-7"  |         |      |        |        |       |        |          |
|                            |        |     | 1     | 21'-3"  |         |      |        |        |       |        |          |
| S508                       |        |     | SER   | TO      | 568     | STR  |        |        |       |        | 4"       |
|                            |        |     | 22    | 28'-3"  |         |      |        |        |       |        |          |
|                            |        |     | 2     | 6'-3"   |         |      |        |        |       |        |          |
| S509                       |        |     | SER   | TO      | 4,098   | STR  |        |        |       |        | 3 7/8"   |
|                            |        |     | 93    | 36'-0"  |         |      |        |        |       |        |          |
|                            |        |     | 2     | 6'-0"   |         |      |        |        |       |        |          |
| S510                       |        |     | SER   | TO      | 4,222   | STR  |        |        |       |        | 3 13/16" |
|                            |        |     | 96    | 36'-2"  |         |      |        |        |       |        |          |
| S511                       |        |     | 36    | 6'-0"   | 225     | STR  |        |        |       |        |          |
|                            |        |     | 4     | 4'-6"   |         |      |        |        |       |        |          |
| S512                       |        |     | SER   | TO      | 153     | STR  |        |        |       |        | 3"       |
|                            |        |     | 7     | 6'-0"   |         |      |        |        |       |        |          |
| S513                       |        |     | 499   | 7'-5"   | 3,860   | 9    | 3'-0"  | 3'-2"  | 1'-1" | 2 3/4" |          |
| S514                       |        |     | 62    | 18'-2"  | 1,175   | 3    | 4'-9"  | 4'-1"  |       |        |          |
| S515                       |        |     | 41    | 9'-4"   | 399     | 2    | 3'-2"  | 3'-3"  | 3'-2" |        |          |
| S516                       |        |     | 21    | 10'-2"  | 223     | 2    | 3'-2"  | 4'-1"  | 3'-2" |        |          |
| S517                       |        |     | 24    | 6'-3"   | 156     | 10   | 2'-6"  | 2'-0"  | 2'-0" | 0.86   |          |
| S518                       |        |     | 4     | 4'-10"  | 20      | 1    | 2'-6"  | 2'-6"  |       |        |          |
| S601                       |        |     | 205   | 30'-0"  | 9,237   | STR  |        |        |       |        |          |
| S602                       |        |     | 499   | 2'-10"  | 2,124   | 1    | 1'-1"  | 1'-11" |       |        |          |
| S603                       |        |     | 499   | 3'-11"  | 2,936   | 10   | 1'-11" | 1'-1"  | 1'-1" | 5.25   |          |
| S604                       |        |     | 2     | 27'-4"  | 82      | STR  |        |        |       |        |          |
| S605                       |        |     | 63    | 25'-5"  | 2,405   | STR  |        |        |       |        |          |
| S801                       |        |     | 72    | 30'-0"  | 5,767   | STR  |        |        |       |        |          |
| S802                       |        |     | 36    | 21'-7"  | 2,075   | STR  |        |        |       |        |          |
| S803                       |        |     | 2     | 9'-5"   | 50      | STR  |        |        |       |        |          |
| S804                       |        |     | 2     | 11'-7"  | 62      | STR  |        |        |       |        |          |
| D801                       |        |     | 40    | 6'-3"   | 668     | 8    | 1'-5"  | 3'-11" |       |        |          |
|                            |        |     |       | TOTAL   | 126,509 | lbs. |        |        |       |        |          |

| MARK                       | NUMBER   |     |       | LENGTH  | WEIGHT  | TYPE | A      | B      | C     | D      | INCR.  |
|----------------------------|----------|-----|-------|---------|---------|------|--------|--------|-------|--------|--------|
|                            | REAR     | FWD | TOTAL |         |         |      |        |        |       |        |        |
| SUPERSTRUCTURE (EASTBOUND) |          |     |       |         |         |      |        |        |       |        |        |
| S401                       |          |     | 512   | 30'-0"  | 10,260  | STR  |        |        |       |        |        |
| S402                       |          |     | 64    | 19'-7"  | 837     | STR  |        |        |       |        |        |
| S501                       |          |     | 592   | 30'-0"  | 18,524  | STR  |        |        |       |        |        |
| S502                       |          |     | 74    | 26'-3"  | 2,026   | STR  |        |        |       |        |        |
| S503                       |          |     | 527   | 29'-5"  | 16,169  | STR  |        |        |       |        |        |
| S504                       |          |     | 1,054 | 23'-11" | 26,292  | STR  |        |        |       |        |        |
| S505                       |          |     | 527   | 18'-5"  | 10,123  | STR  |        |        |       |        |        |
| S506                       |          |     | 1     | 10'-0"  |         |      |        |        |       |        |        |
|                            |          |     | SER   | TO      | 310     | STR  |        |        |       |        | 4"     |
|                            |          |     | 22    | 17'-0"  |         |      |        |        |       |        |        |
|                            |          |     | 2     | 15'-7"  |         |      |        |        |       |        |        |
| S507                       |          |     | SER   | TO      | 876     | STR  |        |        |       |        | 4"     |
|                            |          |     | 22    | 22'-7"  |         |      |        |        |       |        |        |
|                            |          |     | 1     | 21'-3"  |         |      |        |        |       |        |        |
| S508                       |          |     | SER   | TO      | 568     | STR  |        |        |       |        | 4"     |
|                            |          |     | 22    | 28'-3"  |         |      |        |        |       |        |        |
|                            |          |     | 4     | 6'-3"   |         |      |        |        |       |        |        |
| S509                       |          |     | SER   | TO      | 8,196   | STR  |        |        |       |        | 3 7/8" |
|                            |          |     | 93    | 36'-0"  |         |      |        |        |       |        |        |
| S510                       | NOT USED |     |       |         |         |      |        |        |       |        |        |
| S511                       |          |     | 36    | 6'-0"   | 225     | STR  |        |        |       |        |        |
|                            |          |     | 4     | 4'-6"   |         |      |        |        |       |        |        |
| S512                       |          |     | SER   | TO      | 153     | STR  |        |        |       |        | 3"     |
|                            |          |     | 7     | 6'-0"   |         |      |        |        |       |        |        |
| S513                       |          |     | 496   | 7'-5"   | 3,837   | 9    | 3'-0"  | 3'-2"  | 1'-1" | 2 3/4" |        |
| S514                       |          |     | 62    | 18'-2"  | 1,175   | 3    | 4'-9"  | 4'-1"  |       |        |        |
| S515                       |          |     | 40    | 9'-4"   | 389     | 2    | 3'-2"  | 3'-3"  | 3'-2" |        |        |
| S516                       |          |     | 22    | 10'-2"  | 233     | 2    | 3'-2"  | 4'-1"  | 3'-2" |        |        |
| S517                       |          |     | 24    | 6'-3"   | 156     | 10   | 2'-6"  | 2'-0"  | 2'-0" | 0.86   |        |
| S518                       |          |     | 4     | 4'-10"  | 20      | 1    | 2'-6"  | 2'-6"  |       |        |        |
| S601                       |          |     | 205   | 30'-0"  | 9,237   | STR  |        |        |       |        |        |
| S602                       |          |     | 496   | 2'-10"  | 2,111   | 1    | 1'-1"  | 1'-11" |       |        |        |
| S603                       |          |     | 496   | 3'-11"  | 2,918   | 10   | 1'-11" | 1'-1"  | 1'-1" | 5.25   |        |
| S604                       |          |     | 2     | 25'-7"  | 77      | STR  |        |        |       |        |        |
| S605                       |          |     | 63    | 25'-5"  | 2,405   | STR  |        |        |       |        |        |
| S801                       |          |     | 72    | 30'-0"  | 5,767   | STR  |        |        |       |        |        |
| S802                       |          |     | 36    | 21'-7"  | 2,075   | STR  |        |        |       |        |        |
| S803                       |          |     | 2     | 9'-5"   | 50      | STR  |        |        |       |        |        |
| S804                       |          |     | 2     | 11'-7"  | 62      | STR  |        |        |       |        |        |
| D801                       |          |     | 40    | 6'-3"   | 668     | 8    | 1'-5"  | 3'-11" |       |        |        |
|                            |          |     |       | TOTAL   | 125,739 | lbs. |        |        |       |        |        |

**NOTES:**

- ① FOR NOTES SEE SHEET 19/21 .
- ② FOR BENDING DIAGRAMS SEE SHEET 20/21 .